

Request for Proposal (RFP) to Supply and Deliver
Mid Size Medium Duty Transit Vehicle

CRFQ 0805 PTR1700000007

Prepared Exclusively For
West Virginia Division of Public Transit



Bid Closing: Thursday, May 18, 2017 at 1:30 p.m.

Submitted by Sonny Merryman Inc.

Chad Seals
5120 Wards Road
Evington, Virginia 24550
ChadSeals@sonnymerryman.com
(800) 533-1006 ext. 352

05/18/17 09:41:32
@ Purchasing Division



May 18, 2017

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

Dear Mrs. Pettrey:

Thanks you for the opportunity to submit this bid in response to your Request for Quotation # PTR1700000007. We are offering the Startrans President.

Should we receive an award for this solicitation, we will provide the material as outlined. The Startrans President will be constructed in Goshen, Indiana.

Also addressed and included in the proposal are curb weights and warranty locations to be used to maintain vehicles.

We meet the warranty requirements specified within PTR1700000007.

We are in full understanding of training and will provide personnel to conduct training if we are the successful bidder. We have included "as-built" wiring schematics in our bid price. Also, as requested, we are offering schemes to match your existing fleets. The prices for the paint and graphics are included in our pricing.

Thank you again for this opportunity. Please call if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Seals', is written over a light blue horizontal line.

Chad Seals
Account Manager
West Virginia Public Transit Providers
800-533-1006 x352
434-821-4456
chad@sonnymerryman.com



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 36 – Vehicles

Proc Folder: 291915

Doc Description: Mid Size Medium duty Transit Vehicle

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2017-04-28	2017-05-18 13:30:00	CRFQ 0805 PTR1700000007	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

Sonny Merryman Inc.
 5120 Wards Road
 Evington, VA. 24550
 1-800-533-1006

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey
 (304) 558-0094
 melissa.k.pettrey@wv.gov

Signature X

FEIN # 54-0806176

DATE 5/17/17

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Request For Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Department of Transportation, Division of Public Transit, to establish an open-end contract for Mid-Sized Medium Duty Transit Vehicles per the Specifications, Terms & Conditions and the Pricing information as attached.

INVOICE TO		SHIP TO	
ACCOUNTS PAYABLE		AUTHORIZED RECEIVER	
PUBLIC TRANSIT DIVISION OF		PUBLIC TRANSIT DIVISION OF	
BLDG 5 RM 650		BLDG 5 RM 650	
1900 KANAWHA BLVD E		1900 KANAWHA BLVD E	
CHARLESTON	WV25305-0432	CHARLESTON	WV 25305-0432
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Mid Size Medium duty Transit Vehicle	0.00000	EA		\$6,439,930.00

Comm Code	Manufacturer	Specification	Model #
25101502	Startrans		Freightliner/President

Extended Description :
Mid Size Medium duty Transit Vehicle

PTR170000007	Document Phase Draft	Document Description Mid Size Medium duty Transit Vehicle	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Exhibit A PRICING PAGE**Mid-Sized Medium Duty Transit Vehicles- Diesel**VENDOR NAME: SONNY MERRYMAN, INC.FREIGHTLINER / STARTRANSModel % Number: PS/2

Class	Item Description	Unit Price Per Vehicle	Estimated Quantity	Extended Price
A	Bus; Rear Air Suspension	\$125,211.00	10	\$1,252,110.00
B	Bus; Rear Air Suspension; Extended length +4	\$126,651.00	10	\$1,266,510.00
C	Bus; Rear Air Suspension; Extended length +8	\$128,771.00	10	\$1,287,710.00
D	Bus, Automatic Tire Chain Devices; full bus paint	\$130,179.00	5	\$ 650,895.00
E	Bus, Automatic Tire Chain Device; Extended length +4, full bus paint	\$131,821.00	5	\$ 659,105.00
F	Bus, Automatic Tire Chains Device; Extended length +8, full bus paint	\$134,541.00	5	\$ 672,705.00
G	Bus; Automatic Tire Chain Device: full bus paint;	\$130,179.00	5	\$ 650,895.00
			TOTAL	\$6,439,930.00

Pricing Page: Complete the form provided. Please note that these are only estimated quantities and do not reflect any guarantee of purchase. The Agency may purchase more or less as needed.

Vendor should type or clearly print the information into the Pricing Page to prevent errors in the evaluation. If Vendor is submitting bid on line, Vendor must submit Pricing Page as an attachment. TOTAL BID AMOUNT is the amount vendor is to enter into wvOASIS commodity line when submitting. Notwithstanding the foregoing, the Purchasing Division may correct errors at its discretion.



Purchasing Divison
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 36 – Vehicles

Proc Folder: 291915
 Doc Description: Addendum No. 1 Mid Size Medium duty Transit Vehicle
 Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2017-05-10	2017-05-18 13:30:00	CRFQ 0805 PTR1700000007	2

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US


VENDOR

Vendor Name, Address and Telephone Number:

Sonny Merryman Inc
 5120 Wards Road
 Evington, VA. 24550
 1-800-533-1006

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey
 (304) 558-0094
 melissa.k.pettrey@wv.gov

Signature X  FEIN # 540806-176 DATE 5/18/17

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum No. 1 is issued to publish and distribute the attached information to the vendor community.

Request For Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Department of Transportation, Division of Public Transit, to establish an open-end contract for Mid-Sized Medium Duty Transit Vehicles per the Specifications, Terms & Conditions and the Pricing information as attached.

INVOICE TO		SHIP TO	
ACCOUNTS PAYABLE		AUTHORIZED RECEIVER	
PUBLIC TRANSIT DIVISION OF		PUBLIC TRANSIT DIVISION OF	
BLDG 5 RM 650		BLDG 5 RM 650	
1900 KANAWHA BLVD E		1900 KANAWHA BLVD E	
CHARLESTON	WV25305-0432	CHARLESTON	WV 25305-0432
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Mid Size Medium duty Transit Vehicle	0.00000	EA		

Comm Code	Manufacturer	Specification	Model #
25101502			

Extended Description :

Mid Size Medium duty Transit Vehicle

SOLICITATION NUMBER: PTR1700000007

Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as PTR1700000007 ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation:

1. To publish vendor questions and Agency responses.
2. Bid opening remains 05/18/2017 @ 1:30 PM EST

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

Attachment A

DIVISION OF PUBLIC TRANSIT RESPONSES TO SPECIFICATION QUESTIONS

CRFQ PTR 17*7

Request: Would the Division allow for a delay in the bid opening till June 1, 2017?

Response: The Division will not allow a delay in the bid opening.

Request: Section 15 Preference; Vendor Preference may on be granted upon written request and only in accordance with the WV Code and Code of State Rules. Is the preference allowed with Federal Transit Administration funding's?

Response: Vendor preference is NOT allowed with Federal Transit Administration funding.

Request: Section 3.3 Motor Vehicle Standards Including Provisions Pertaining to Safety And Pollution: Vendor will provide certification at the time of delivery that vehicle comply with all relevant federal and State of West Virginia Standards. There is discussion on the Federal level that changes in emissions standards could occur. If these changes occur will the Division allow for a price increase for emissions compliance?

Response: The Division will not allow a price increase for emissions compliance.

Request: The Division requires as build wiring diagrams be submitted on two 11" X 17" laminated printed copies. Will the Division allow the diagrams to be submitted on a USB drive only.

Response: The Division will not allow this request. There needs to be two sets of wirings diagrams printed on 11"x17" paper and laminated.

Request: Section 3.12.39 calls for flooring to be 1/8" inch marine grade plywood. Normally Marine grad flooring utilized in these units is either 3/4" or 5/8". Please confirm the plywood thickness.

Response: Section 3.12.39 needs to state 3/4" marine grade plywood.

Request: Section 3.12.24 calls for overall clear width of no less than 30" and Section 3.12.34 calls for an overall door width of 40", which is correct?

Response: The Division requires that the overall door width be 40" to be wide enough for a lift.

Request: Section 3.12.24 Flooring, will the Division accept Gerfloor as an approved equal?

Response: The Division will accept Gerfloor as an approved equal.

Request: Section 3.15.1 calls for sets to be equipped with ABS Knee Saver Backs, does the rear row seats require these?

Response: The Division does not require ABS Knee Saver Backs to be installed on the rear row of seating.

Request: Section 3.18.2 requires a translucent barrier between the rearmost seat and the wheel chair lift, should this be revised to require the translucent barrier to be installed between the lift and the front most seat or should the requirement be deleted.

Response: This barrier is not needed and can be deleted.

Request: Section 4.4 – 4.7 Classes D through G require Automatic Tire chains and to meet the requirements of Class A. Class A requires Air Suspension. The automatic tire chains and air suspension are mutually exclusive options. Would the Division allow the air suspension requirement for classes D through G be removed?

Response: The Division will allow for this deletion. If automatic tire chains are an option, Air suspension must not be installed.

Request: Section 4.1.2 calls for manual drain valves on rear air suspension. It is recommended that adding a heated automatic moisture ejectors on air tanks drain valves to ensure moisture doesn't build up when operators fail to manually drain air tanks.

Response: The Division will allow this recommendation.

Request: Section 3.5.11 requests a 90-gallon fuel tank, the Freightliner chassis is 60 gallons, will the Division accept 60-gallon tank?

Response: The Division will accept the 60-gallon tank as equal.

Request: Section 3.8.4 states battery tray shall be stainless steel tray, will the Division accept the standard Freightliner OEM supplied battery tray?

Response: The Division will accept the Freightliner OEM battery tray.

Request: Section 3.12.24 requires the distance to ground maximum of 12 inches, will the Division approve the maximum distance to ground of 14 inches?

Response: The Division will accept the 14 inches' maximum distance to ground.

Request: Section 3.12.24 requires riser height of a maximum of 9 inches, will the Division accept riser height maximum of 9.25 inches?

Response: The Division will accept he riser height maximum of 9.25 inches.

Request: Section 3.12.31 requires doorway be an integrally welded steel structure with a surround and header of minimum 10-gauge steel, will the Division accept 11-gauge steel?

Response: The Division will accept the 11-gauge steel on the surround and header.

Request: Section 4.1.1 requires overall height maximum of 27 inches, will the Division accept overall height maximum to be 127 inches?

Response: Correction to Section 4.1.1 Overall height maximum 127 inches.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: PTR170000007

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Sonny Merryman Inc.

Company



Authorized Signature

5/18/17

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles

NOTE: Product literature provided within 48 hours of request as stated in bid.

Documentation – to be submitted with bid:

Referenced

- X 3.5 Engine: An ISB-10 Engine (6.7 liter) with EGR and Diesel Particulate Filter exhaust system – provide product description, warranty information and product literature.
- X 3.5.13 High Idle System: provide product description, warranty information and product literature.
- X 3.6 Transmission (separate cooling system): provide product description, warranty information and product literature.
- X 3.8.38 Back Up Camera System: provide product description, warranty information and product literature.
- X 3.7.15 Tires: provide product description, warranty information and product literature.
- X 3.8.3 Alternator: provide product description, warranty information and product literature.
- X 3.12.9 Water Testing: provide details of water testing procedures.
- X 3.15.4.1 Exterior Vinyl Colors: provide samples/chart of available colors.
- X 9.9.7 Undercoating and Rustproofing: provide product description, warranty information and literature.
- X 3.12.23 Ambulatory Passenger Entrance/Exit: provide location, size, door operating details.
- X 3.12.30 Stepwell Heater: provide product description, warranty information and product literature.
- X 3.12.42 Floor Covering: provide samples of floor covering and colors to be provided.
- X 3.15 Seating: provide product description, warranty information, product literature and color charts for all of the seating products to be utilized. **Proposed floor plans.**
- X 3.1510 Driver’s Seat: provide description of product.
- X 3.20.1 Exterior Mirrors: provide product description, warranty information and product literature.
- X 3.10 Roof Hatch: provide product description, warranty information and product literature.
- X 3.16 Mobility and Securement System: provide product description, warranty information and product literature.

REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles

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- X 3.24 Strap/Buckle Storage: provide description and location of product.
- X 3.14 Wheelchair Lift: provide Make, Model #, product description, warranty information and product literature.
- X 3.23 AM/FM Radio/CD: provide product description, warranty information and product literature.
- X 9.39 Training: submit letter of understanding to the terms in this Section.
- X 3.26.3 Fare box Provisions: provide description of proposed location.
- X 3.26.1 Destination Signs: provide product description, warranty information and product literature.
- X 3.26.4 PA System: provide product description and product literature.
- X 3.8.19 Strobe Light: provide product description and product literature.
- X 3.26.6 Security Cameras: provide product description, warranty information and product literature.
- X 5.12.1 Warranty on complete vehicle.
- X 5.12.2 Warranty on Basic Vehicle Structure.
- X 5.12.4 Warranty: warranties to be provided on subsystems and components.
- X 6.1.2 Complete two (2) bids in binder form – one (1) marked for DPT.
- X 9.3.1 Complete mechanical description of vehicle, its construction and equipment including manufacturer's model name and /or number. Include description of front and rear air conditioning and heat systems.
- X 14 Proposed interior floor plans, showing detailed dimensions including the location of the wheelchair securement system and stanchions.
- X 9.3.3 Curb weight (empty weight) and gross vehicle weight rating (GVWR) of vehicle.
- X 3.28.1 Samples or paint charts of available exterior paint colors and vinyl.
- X 9.3.8 Identification of the conversion location of the van.
- X 9.3.9 A list of five (5) users names, addresses, emails and telephone numbers who have been provided similar equipment by the Vendor.
- X No Debt Affidavit
- X Addendum Acknowledgement

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Chad Seals Commercial Sales
 (Name, Title)
 Chad Seals, Commercial Sales
 (Printed Name and Title)
 5120 Wards Road Evington VA 24550
 (Address)
 434-821-1000 / 434-821-8203
 (Phone Number) / (Fax Number)
 chadseals@sonnymerryman.com
 (email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Sonny Merryman Inc
(Company)

Chad Seals Commercial Sales
(Authorized Signature) (Representative Name, Title)

Chad Seals, Commercial Sales
(Printed Name and Title of Authorized Representative)

5/17/17
(Date)

434-821-1000 / 434-821-8203
(Phone Number) (Fax Number)

determined by multiplying the number of actual man-hours' straight wage rate plus 53 percent fringe benefits, plus the cost of towing in the vehicle if such action was necessary. These wage and fringe benefit rates shall not exceed the rates in effect in the Recipient Agency's service garage at the time the defect correction is made.

12.10.6 Reimbursement For Parts. The Recipient Agency shall be reimbursed by the Vendor for defective parts that must be replaced to correct the defect. The reimbursement shall include taxes where applicable and 10 percent handling cost.

12.11 **Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's designated location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery.

13.0 MISCELLANEOUS:

13.1 **No Substitutions:** Vendor shall supply only Contract Items submitted in response to the RFQ unless a contract modification is approved in accordance with the provisions contained in this Contract.

13.2 **Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Chad Seals
Telephone Number: 434-821-1000
Fax Number: 434-821-8203
Email Address: chadseals@sonnymerryman.com

13.3 **Federal funding for this project is being provided by the Federal Transit Administration through CFDA 20.500 for Sec 5309, CFDA 20.509 for Sec 5311 and CFDA 20.506 for Sec 5339 to cover 80% of the project cost.**

REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles

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REQUIRED BID DOCUMENTATION CHECKLIST

Model Year: 2017 Model: STARTRANS PRESIDENT

Mandatory Bid Forms – must be submitted with bid:

- X Bid Form #1: Locations of Technical Service Representatives and Parts Distribution Centers
- X Bid Form #2: Certification for Air & Water Pollution
- X Bid Form #3: Disadvantaged Business Enterprise Vendors/Manufacturers Certification
- X Bid Form #4: Buy America Certification Rolling Stock
- X Bid Form #5: Federal Motor Vehicle Safety Standards Certification
- X Bid Form #6: U.S. Comptroller's Debarment List Certification
- X Bid Form #7: Certification of Primary Participant Regarding Debarment, Suspension, and Other Responsibility Matters
- X Bid Form #8: Vendor's Certification of Understanding and Acceptance
- X Bid Form #9: Certification of Restrictions on Lobbying
- X Bid Form #10: Certification of Compliance with FTA's Bus Testing Requirements
- X Exhibit A Pricing Page (8.2)

**REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles**

BID FORM #1

MANDATORY BID FORM – MUST BE SUBMITTED WITH BID

Location(s) of the Technical Service Representative(s) and parts distribution center(s) closest or in the State of West Virginia.

Location(s) of the technical service representative(s).

Name: Brady Childress

Address: 5120 Wards Road
Evington VA 24550

Telephone: 434-821-1000

Name: _____

Address: _____

Telephone: _____

Location(s) of parts distribution center(s).

Name: Gerald Layne

Address: 5120 Wards Road
Evington VA 24550

Telephone: 434-821-1000

Name: _____

Address: _____

Telephone: _____

**REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles**

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BID FORM #2

**CERTIFICATION FOR AIR & WATER POLLUTION
MANDATORY BID FORM – MUST BE SUBMITTED WITH BID**

The Vendor certifies that the vehicles proposed:

ARE X in compliance with the regulations in 40 CFR Part 85, 40 CFR Part 86, 40 CFR Part 600, Clean Water Act and the air/water pollution criteria established by the Environmental Protection Agency of the United States Government.

ARE NOT _____ in compliance with the regulations in 40 CFR Part 85, 40 CFR Part 86, 40 CFR Part 600, Clean Water Act and the air/water pollution criteria established by the Environmental Protection Agency of the United States Government.

5/17/17

Date



Authorized Signature

Commercial Sales

Title

Sonny Merryman Inc

Company Name

REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles

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BID FORM #3

DISADVANTAGED BUSINESS ENTERPRISE
VENDORS/ MANUFACTURERS CERTIFICATION

MANDATORY BID FORM – MUST BE SUBMITTED WITH BID


(Check appropriate statement)

The Vendor, if a transit vehicle manufacturer, hereby certifies that it has complied with the requirements of 49 CFR Section 26.49 by submitting an annual DBE goal to the Federal Transit Administration (FTA). The goal has either been approved or not disapproved by FTA.

The Vendor, if a non-manufacturing supplier, hereby certifies that the manufacturer of the transit vehicle to be supplied has complied with the above-referenced requirement of 49 CFR Section 26.49.

5/17/17

Date


Authorized Signature

Commercial Sales

Title

Sonny Merryman Inc
Company Name

REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles

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BID FORM #4

BUY AMERICA CERTIFICATION
ROLLING STOCK
MANDATORY BID FORM – MUST BE SUBMITTED WITH BID

Certificate of Compliance

The bidder or offeror hereby certifies that it will comply with the requirements of section 165(b) (3), of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations of 49 CFR 661.11:

5/17/17

Date


Authorized Signature

Sonny Merryman Inc
Company Name

Chad Seals
Name

Commercial Sales
Title

Certificate for Non-Compliance

The bidder or offeror hereby certifies that it cannot comply with the requirements of section 165(b) (3) of the Surface Transportation Assistance Act of 1982, as amended, but may qualify for an exception to the requirement consistent with section 165(b) (2) or (b) (4) of the Surface Transportation Assistance Act, as amended, and the applicable regulations in 49 CFR 661.7.

Date

Authorized Signature

Company Name

Name

Title

StarTrans Bus

BUY AMERICA CERTIFICATION

This certifies compliance with FTA Buy America Regulations set forth in 49 C.F.R. § 661.11 for each component that more than 60% of the subcomponents, by cost, are of U.S. origin/manufacture and is manufactured in the U.S. Manufacturer attests that the U.S. content of subcomponents, by cost is as indicated below.

COMPONENT NAME	END USER: WVA CLASS A	MANUFACTURER NAME, PRODUCT TYPE	MFG LOCATION	% U.S. CONTENT	% OF TOTAL COST
FREIGHTLIN 199" 6.7L DIESEL		StarTrans Bus PRESIDENT PS/2	Goshen, IN	81.49%	
SUBCOMPONENT NAME		MANUFACTURER NAME	MFG LOCATION	\$\$ U.S. CONTENT	
CHASSIS		FREIGHTLINER CUSTOM	US	\$64,400	63.34%
AIR CONDITIONING		ACC - SPHEROS	US	\$7,056	6.94%
PASSENGER SEATS		FREEDMAN	US	\$6,534	6.43%
WHEEL CHAIR LIFT		BRAUN INC.	US	\$2,679	2.63%
WC & REAR DOORS		CHALLENGER DOOR	US	\$552	0.54%
WHEEL CHAIR TIE DOWNS		Q'STRAIT	US	\$744	0.73%
AUXILIARY HEATER		PRO AIR	US	\$414	0.41%
WHEELCHAIR INTERLOCK		INTERMOTIVE	US	\$474	0.47%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%

TOTAL CONVERSION MATERIAL COST

\$101,674

MAJOR ACTIVITIES UNDERTAKEN AT THE FINAL ASSEMBLY LOCATION:

All purchasing of raw and assembled materials including the chassis, fabrication and welding of the frame, prime paint, installation of all wood, fabric, FRP, aluminum and/or other body panel and/or trim materials, installation of doors and windows, HVAC components and systems, electrical systems, installation of any required options such as wheel chair lifts, tie down kits, seats, radios and optional electronic items, if any, complete undercoat, exterior paint and/or graphics if ordered, full road test, rain booth test and all other final quality functions as needed to ensure compliance with the contract.

BODY V.I.N. OF UNITS DELIVERED UNDER POST DELIVERY BUY AMERICA:

LABOR AS A % OF TOTAL COST NOT INCLUDED IN THE MATERIAL COSTS ABOVE:

5.48%

LABOR AS \$\$ OF TOTAL COST NOT INCLUDED IN THE MATERIAL COSTS ABOVE:

\$2,160.00

Mark Barczak
AUTHORIZED SIGNATURE

Government Bid Admin
TITLE

5/16/2017
DATE

MARK BARCZAK
PRINT NAME

StarTrans Bus

BUY AMERICA CERTIFICATION

This certifies compliance with FTA Buy America Regulations set forth in 49 C.F.R. § 661.11 for each component that more than 60% of the subcomponents, by cost, are of U.S. origin/manufacture and is manufactured in the U.S. Manufacturer attests that the U.S. content of subcomponents, by cost is as indicated below.

COMPONENT NAME	END USER: WVA CLASS B	MANUFACTURER NAME, PRODUCT TYPE	MFG LOCATION	% U.S. CONTENT	% OF TOTAL COST
FREIGHTLIN 238" 6.7L DIESEL		StarTrans Bus PRESIDENT PS/2	Goshen, IN	81.58%	
SUBCOMPONENT NAME		MANUFACTURER NAME	MFG LOCATION	\$\$ U.S. CONTENT	
CHASSIS		FREIGHTLINER CUSTOM	US	\$64,600	62.76%
AIR CONDITIONING		ACC - SPHEROS	US	\$7,056	6.85%
PASSENGER SEATS		FREEDMAN	US	\$7,458	7.25%
WHEEL CHAIR LIFT		BRAUN INC.	US	\$2,679	2.60%
WC & REAR DOORS		CHALLENGER DOOR	US	\$552	0.54%
WHEEL CHAIR TIE DOWNS		Q'STRAIT	US	\$744	0.72%
AUXILIARY HEATER		PRO AIR	US	\$414	0.40%
WHEELCHAIR INTERLOCK		INTERMOTIVE	US	\$474	0.46%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%

TOTAL CONVERSION MATERIAL COST

\$102,934

MAJOR ACTIVITIES UNDERTAKEN AT THE FINAL ASSEMBLY LOCATION:

All purchasing of raw and assembled materials including the chassis, fabrication and welding of the frame, prime paint, installation of all wood, fabric, FRP, aluminum and/or other body panel and/or trim materials, installation of doors and windows, HVAC components and systems, electrical systems, installation of any required options such as wheel chair lifts, tie down kits, seats, radios and optional electronic items, if any, complete undercoat, exterior paint and/or graphics if ordered, full road test, rain booth test and all other final quality functions as needed to ensure compliance with the contract.

BODY V.I.N. OF UNITS DELIVERED UNDER POST DELIVERY BUY AMERICA:

LABOR AS A % OF TOTAL COST NOT INCLUDED IN THE MATERIAL COSTS ABOVE:

5.33%

LABOR AS \$\$ OF TOTAL COST NOT INCLUDED IN THE MATERIAL COSTS ABOVE:

\$2,160.00

Mark Barczak
AUTHORIZED SIGNATURE

Government Bid Admin
TITLE

5/16/2017
DATE

MARK BARCZAK
PRINT NAME

StarTrans Bus

BUY AMERICA CERTIFICATION

This certifies compliance with FTA Buy America Regulations set forth in 49 C.F.R. § 661.11 for each component that more than 60% of the subcomponents, by cost, are of U.S. origin/manufacture and is manufactured in the U.S. Manufacturer attests that the U.S. content of subcomponents, by cost is as indicated below.

COMPONENT NAME	END USER: WWA CLASS C	MANUFACTURER NAME, PRODUCT TYPE	MFG LOCATION	% U.S. CONTENT	% OF TOTAL COST
FREIGHTLIN 279" 6.7L DIESEL		StarTrans Bus PRESIDENT PS/2	Goshen, IN	81.18%	
SUBCOMPONENT NAME		MANUFACTURER NAME	MFG LOCATION	\$\$ U.S. CONTENT	
CHASSIS		FREIGHTLINER CUSTOM	US	\$64,700	61.79%
AIR CONDITIONING		ACC - SPHEROS	US	\$7,056	6.74%
PASSENGER SEATS		FREEDMAN	US	\$8,382	8.01%
WHEEL CHAIR LIFT		BRAUN INC.	US	\$2,679	2.56%
WC & REAR DOORS		CHALLENGER DOOR	US	\$552	0.53%
WHEEL CHAIR TIE DOWNS		Q'STRAIT	US	\$744	0.71%
AUXILIARY HEATER		PRO AIR	US	\$414	0.40%
WHEELCHAIR INTERLOCK		INTERMOTIVE	US	\$474	0.45%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%
-		-	US	\$0	0.00%

TOTAL CONVERSION MATERIAL COST

\$104,709

MAJOR ACTIVITIES UNDERTAKEN AT THE FINAL ASSEMBLY LOCATION:

All purchasing of raw and assembled materials including the chassis, fabrication and welding of the frame, prime paint, installation of all wood, fabric, FRP, aluminum and/or other body panel and/or trim materials, installation of doors and windows, HVAC components and systems, electrical systems, installation of any required options such as wheel chair lifts, tie down kits, seats, radios and optional electronic items, if any, complete undercoat, exterior paint and/or graphics if ordered, full road test, rain booth test and all other final quality functions as needed to ensure compliance with the contract.

BODY V.I.N. OF UNITS DELIVERED UNDER POST DELIVERY BUY AMERICA:

LABOR AS A % OF TOTAL COST NOT INCLUDED IN THE MATERIAL COSTS ABOVE:

5.12%

LABOR AS \$\$ OF TOTAL COST NOT INCLUDED IN THE MATERIAL COSTS ABOVE:

\$2,160.00

Mark Barczak
AUTHORIZED SIGNATURE

Government Bid Admin
TITLE

5/16/2017
DATE

MARK BARCZAK
PRINT NAME



COMPONENT SUPPLIER "BUY AMERICA" CERTIFICATION

The undersigned acknowledges an understanding that the information provided by Freightliner Custom Chassis, in this certification to StarTrans Bus will be used in connection with certification requirements under the "Buy America" regulations, 49 c.f.r. §661.1 *et seq.*

As noted below, >60% of the subcomponents and components, by cost, were manufactured at our Freightliner Custom Chassis Plant in Gaffney, South Carolina, calculated as follows:

Vender Name	Description	Mfr in US? (Y/N)	% of US Content
Freightliner Custom Chassis Corporation	VIN # HY0169	Y	>60%

The undersigned, on behalf of the Freightliner Custom Chassis Corporation, represents and warrants that he/she has carefully read and understands the foregoing information, and the requirements of the "Buy America" regulations, 49 c.f.r. §661.1 *et seq.*; that she has authority to execute this Certification on behalf of Daimler Trucks North America; and that the information set forth in this Certification is true and correct to the best of her knowledge, information, and belief.

Freightliner Custom Chassis

(Manufacturer)

By:

Name:

Roberta Major

Title:

Sr. Manager – International Trade

Date:

January 25, 2016

Freedman Seating Buy America Confirmation Statement

to Starcraft Bus & Startrans Bus

The cost of Freedman Seating's **subcomponents manufactured in the United States** and sold to Starcraft Bus & Startrans Bus equals **more than 70% of** the Freedman Seating's **total subcomponent** costs in accordance with 49 CFR Part 661.11 (g)

The Component sold by Freedman Seating to Starcraft Bus & Startrans Bus is manufactured* in the United States in accordance with 49 CFR Part 661.11 (e) and 49 CFR Part 661.3 Definitions

Freedman Seating's Component work scope description:

Shield Driver Seat with Level 3 fabric	85%
Mid Hi Double Featherweight with level 3 fabric	96%
AM Benchback Foldaway seat, double	96%

Freedman Seating's manufacturing location:

4545 W. Augusta Blvd
Chicago, IL 60651
United States of America

Freedman Seating's Contact Person's Name: Dan Cohen

Freedman Seating's Contact Person's Title: President

Freedman Seating's Contact Person's Phone #: (773) 524-2440 Fax #: (773) 252-7450

Freedman Seating's Contact Person's E-mail address: Dan.Cohen@freedmanseating.com

Date: 2/13/2017

Freedman Seating Contact Person's signature



* Please see listed below USDOT's definition of "Manufacturing" from Buy America Rule 49 CFR Part 661:

49 CFR Part 661.3 Definitions. Manufacturing process means the application of processes to alter the form or function of materials or of elements of the product in a manner adding value and transforming those materials or elements so that they represent a new end product functionally different from that which would result from mere assembly of the elements or materials.

49 CFR Part 661.11 (e) Rolling stock procurements. A component is considered to be manufactured if there are sufficient activities taking place to advance the value or improve the condition of the subcomponents of that component; that is, if the subcomponents have been substantially transformed or merged into a new and functionally different article.

49 CFR Part 661 http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=05b2e11ee01c6d5016c00e6833287d08&rgn=div5&view=text&node=49:7.1.2.1.18&idno=49#se49.7.661_111



Supplying the world with safety

Certificate Buy America Provisions

Q'Straint hereby certifies that it will comply with the requirements of section 165 (b) (3) of the Surface Transportation Assistance Act of 1982, as amended and regulations contained in 49 CFR Part 661.11.

Product Name/Number, Description	Country of Origin	% Domestic
Q-8100-A1-L	USA	>60%
Q5-7583-A	USA	>60%

The final assembly point location is: 5553 Ravenswood Rd., Bldg.110, Ft. Lauderdale FL,33312.

Signed: 

Date: August 18, 2016

Title: Customer Satisfaction Manager

If you have any additional questions, please do not hesitate to contact us at 1-800-987-9987.

5553 Ravenswood - Building 110
Ft. Lauderdale, Florida 33312
Tel: 954-986-6665 Fax 954-986-0021
E-mail: qstraint@qstraint.com

ISO 9002 Registered Quality System

For Federal Transit Administration
Funded Rolling Stock Procurements

ANNUAL BUY AMERICA CERTIFICATION

Certification Year	2017
Company Name	Q-Straint, Inc.
Address	5553 Ravenswood Building 110
City, State, Zip	Ft. Lauderdale, FL 33312
Telephone	954-986-6665
E-mail Contact Person	Craig Gerold

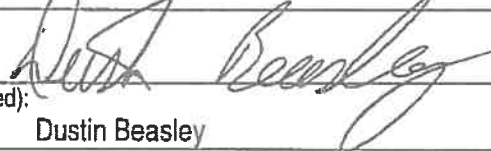
The supplier named above hereby releases the following information on **ALL component parts supplied in support of the manufacture of FTA funded buses**. This certification is provided to determine the rolling stock manufacturer's Buy America Compliance to the Buy America Requirement Final Rule for rolling stock contained in 49 CFR Part 661.11 and accessible on the Federal Transit Administration website at <http://www.transit.dot.gov>.

Buy America requirements for rolling stock components: For a component to be of domestic origin, (1) more than 60 percent of the subcomponents of that component, by cost, must be of domestic origin, and (2) the manufacture of the component must take place in the United States. (49 C.F.R. 661.11(g))

Component Model/ Part Number	Component (s) Description	(1) % of Cost of U.S. Origin Subcomponents i.e., manufactured within U.S.	(2) Manufacturing location of component (s) City, State, Country
Q-8100-AT-L	QTR Deluxe PLI Combo Kit	>65%	Ft. Lauderdale, FL USA

Authorization:

The authorizing agent for the company acknowledges that this certification is valid for the annual period stated and will be re-issued if any event occurs during the annual period that rescinds the component(s) designation as being of U.S. domestic origin as defined Buy America Provisions under 49 U.S.C. 5323 (j), 49 U.S.C. 5323(j)(2)(C), and the applicable regulations of 49 CFR 661.11 – Rolling Stock Procurements.

Signature: 	Date: 4/21/2017
Name (Printed): Dustin Beasley	Title: CS Manager
Prepared by: (Printed) Dustin Beasley	Telephone: 954-986-6665

For Federal Transit Administration
Funded Rolling Stock Procurements

ANNUAL BUY AMERICA CERTIFICATION

Certification Year	2017
Company Name	Challenger Door
Address	1205 E. Lincoln St
City, State, Zip	Nappanee, IN 46550
Telephone	574-773-0470
E-mail Contact Person	Floyd E. Miller

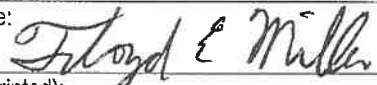
The supplier named above hereby releases the following information on **ALL component parts listed below in support of the manufacture of FTA funded buses**. This certification is provided to determine the rolling stock manufacturer's Buy America Compliance to the Buy America Requirement Final Rule for rolling stock contained in 49 CFR Part 661.11 and accessible on the Federal Transit Administration website at <http://www.transit.dot.gov>.

Buy America requirements for rolling stock components: For a component to be of domestic origin, (1) more than 60 percent of the subcomponents of that component, by cost, must be of domestic origin, and (2) the manufacture of the component must take place in the United States. (49 C.F.R. 661.11(g))

Component Model/ Part Number	Component (s) Description	(1) % of Cost of U.S. Origin Subcomponents i.e., manufactured within U.S.	(2) Manufacturing location of component (s) City, State, Country
2-100003	Rear Door	90	Elkhart, IN USA
2-010784	Lift Door	90	Elkhart, IN USA

Authorization:

The authorizing agent for the company acknowledges that this certification is valid for the annual period stated and will be re-issued if any event occurs during the annual period that rescinds the component(s) designation as being of U.S. domestic origin as defined Buy America Provisions under 49 U.S.C. 5323 (j), 49 U.S.C. 5323(j)(2)(C), and the applicable regulations of 49 CFR 661.11 – Rolling Stock Procurements.

Signature: 	Date: 4/21/2017
Name (Printed): Floyd E. Miller	Title: Sales Rep
Prepared by: (Printed) Floyd E. Miller	Telephone: 574-773-0470



28731 COUNTY ROAD 6 ELKHART, IN 46514
(574) 264-5494 FAX (574) 264-2194

BUY AMERICA CERTIFICATION STATEMENT

CERTIFICATE OF COMPLIANCE WITH SECTION 165 (b) (3)

The Surface Transportation Assistance Act of 1982 , as amended
and the regulations of 49 C.F.R. 661.11

PROAIRLLC. hereby certifies that it complies with the requirements of section 165(b)(3), of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 CFR 661.11. to provide a minimum 60% US content on our A/C and Heating products

Product Name/Number, Description	Country of Origin	% Domestic
A/C and HEAT PRODUCTS SUPPLIED BY PROAIR LLC.	U S A	60%

The final assembly point location is: ProAir, LLC
28731 County Road 6
Elkhart, Ind.46514

Authorized Signature

Date:1/1/2017



Company Name: ACC Climate Control; A Spheros Company

Address: 22150 Challenger Drive

Elkhart, IN 46514

Phone #: 574-264-2190

Fax # 574-266-6744

The above named supplier does hereby certify that **at least 60 percent** of the cost of the components supplied to STARCRAFT BUS in support of the manufacture of its transit buses is of domestic (U.S.) origin.

As defined under the Buy America Requirement: Final Rule, 49 CFR Part 661.11, the cost includes the cost of labor, material, allowance for profit, and the administrative and overhead cost attributable to those components under normal accounting principles.

I. COMPONENTS

Subcomponent

Subcomponent /Percent

A/C Components

AIR CONDITIONING AND HEATER COMPONENTS

<u>R2263T</u>	<u>FW446216</u>
<u>R2255T</u>	<u>RW445516</u>
<u>R2365T</u>	<u>RW456516</u>
<u>R2355T</u>	<u>RW455516</u>
<u>FW4463T</u>	<u>RW237316</u>
<u>RW4455T</u>	
<u>RW4562T</u>	
<u>RW4555T</u>	
<u>R226216</u>	
<u>R225516</u>	
<u>R236516</u>	
<u>R235516</u>	
<u>R3665T16</u>	
<u>R476021</u>	
<u>R365521</u>	
<u>R366563T16</u>	
<u>TC8021</u>	



II. TOTAL /PERCENT: GREATER THAN 60%

III. LOCATION OF FINAL ASSEMBLY: Elkhart, Indiana

IV. AUTHORIZING
SIGNATURE: Darryl Washington DATE: 1/26/17

PRINTED NAME: DARRYL WASHINGTON TITLE: INSIDE SALES MGR.



631 W. 11th Street
 P.O. Box 310
 Winamac, IN 46996
 1-800-THE-LIFT
 (574) 946-6153
 Fax (574) 946-4670

www.braunability.com

**BUY AMERICA CERTIFICATION STATEMENT
 CERTIFICATE OF COMPLIANCE WITH SECTION 165 (b) (3)**
 The Surface Transportation Assistance Act of 1982 , as amended
 and the regulations of 49 C.F.R. 661.11

Braun Corporation hereby certifies that it complies with the requirements of section 165(b)(3), of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 CFR 661.11.

Wheelchair Lift	Country of Origin	% Cost
NL-2, NCL-2, NVL-2 (All Dual Parallel Arm Lift Models)	USA	Exceeds 65%

The final assembly point location is 631 W. 11th Street, Winamac, IN

Major activities undertaken at final assembly location include: purchasing of all raw materials, components & subassemblies, final assembly of wheelchair lifts, with testing as needed, etc.

Component Breakdown

Wheelchair Lift – major component groups	Country of Origin	% Cost
Hydraulics	USA	18%
Fabricated steel	USA	17%
Electrical & wiring	USA	7%
Steel	USA	7%
Plastics	USA	6%
Consumables	USA	6%
Hardware	USA	2%
Actuators	USA	2%
Aluminum Ext.	USA	1%
Printed Material & Packaging	USA	1%
Bearings & Springs	USA	1%
TOTAL WEIGHTED COST CONTENT		68%



 Authorized Signature

January 2, 2017

 Date

**REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles**

121

BID FORM #5

**FEDERAL MOTOR VEHICLE
SAFETY STANDARDS CERTIFICATION**

MANDATORY BID FORM – MUST BE SUBMITTED WITH BID

The vendor hereby certifies that it shall submit, as required by Title 49 of the CFR, Part 663 - Subpart D, it's self-certification information stating that the vehicle(s) will comply with the relevant Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in Title 49 of the Code of Federal Regulations, Part 571.

5/17/17

Date



Authorized Signature

Commercial Sales

Title

Sonny Merryman Inc

Company Name

REQUEST FOR QUOTATION
Mid-Size Medium Duty Transit Vehicles

122

BID FORM #6
U.S. Comptroller's Debarment List Certification
MANDATORY BID FORM – MUST BE SUBMITTED WITH BID


Sonny Merryman Inc. _____ hereby certifies that it

_____ **IS or**

XX **IS NOT** (specify one) included on the U.S. GSA's debarment and suspension information available at <https://www.sam.gov>.

5/17/17

Date



Authorized Signature

Commercial Sales

Title

Sonny Merryman Inc

Company Name

BID FORM #7

MANDATORY BID FORM – MUST BE SUBMITTED WITH BID

CERTIFICATION OF PRIMARY PARTICIPANT REGARDING
DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

The Primary Participant (applicant for an FTA grant or cooperative agreement, or potential contractor for a major third party contract),
SONNY MERRYMAN INC (COMPANY NAME) certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If the primary participant (applicant for an FTA grant, or cooperative agreement, or potential third party contractor) is unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.)

THE PRIMARY PARTICIPANT (APPLICANT FOR AN FTA GRANT OR COOPERATIVE AGREEMENT, OR POTENTIAL CONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT),
SONNY MERRYMAN INC, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 ET SEQ. ARE APPLICABLE THERETO.

 Commercial Sales
Signature and Title of Authorized Official

BID FORM #8
MANDATORY BID FORM – MUST BE SUBMITTED WITH BID

***VENDOR'S CERTIFICATION OF
UNDERSTANDING AND ACCEPTANCE***

The Vendor hereby certifies that all Technical Specifications and Contract Terms and Conditions have been carefully reviewed, are fully understood and shall be adhered to in performance and completion of any contract resulting from this bid.

5/17/17
Date


Authorized Signature

Commercial Sales
Title

Sonny Merryman Inc
Company Name

SPECIFICATION COMPLIANCE

NOTE: Please check if what is offered is in exact compliance with specifications. Any discrepancies must be listed as an attachment to the bid proposal. Exact dimensions and/or descriptions must be provided as a part of the Vendor's bid proposal when submitted.

XXX Bid proposal submitted meets and/or exceeds all specification requirements.

 Bid proposal submitted contains deviations from specification requirements. Detailed descriptions of these deviations have been provided with this bid proposal.

BID FORM #9
MANDATORY BID FORM – MUST BE SUBMITTED WITH BID
CERTIFICATION OF RESTRICTIONS ON LOBBYING


The undersigned (Vendor, Contractor) certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influence or attempt to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress regarding the award of a Federal grant, loan (including a line of credit), cooperative agreement, loan guarantee, or loan insurance, or the extension, continuation, renewal, amendment, or modification of any Federal grant, loan (including a line of credit), cooperative agreement, loan guarantee, or loan insurance.
2. If any funds other than Federal appropriated funds have been or will be paid to any person to influence or attempt to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or any employee of a Member of Congress in connection with any application for a Federal grant, loan (including a line of credit), cooperative agreement, loan guarantee, or loan insurance, the undersigned assures that it will complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," Rev. 7-97; and
3. The undersigned understands that the language of this certification shall be included in the award documents for all sub awards at all tiers (including subcontracts, sub grants, sub agreements, and contracts under grants, loans (including a line of credit), cooperative agreements, loan guarantees, and loan insurance.

Undersigned understands that this certification is a material representation of fact upon which reliance is placed by the Federal government and that submission of this certification is a prerequisite for providing a Federal grant, loan (including a line of credit), cooperative agreement, loan guarantee, or loan insurance for a transaction covered by 31 U.S.C. 1352. The undersigned also understands that any person who fails to file a required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The (Vendor, Contractor) SONNY MERRYMAN INC, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the (Vendor, Contractor) understands and agrees that the provisions of 31 U.S.C. §§ 3801, et seq., apply to this certification and disclosure.

5/17/17
Date


Authorized Signature

Commercial Sales
Title

BID FORM #10

MANDATORY BID FORM – MUST BE SUBMITTED WITH BID

**CERTIFICATION OF COMPLIANCE WITH FTA'S
BUS TESTING REQUIREMENTS**

The undersigned (Vendor/Manufacturer) certifies that the vehicle offered in this procurement complies with 49 U.S.C. 5318, as amended by MAP-21, and FTA regulations, "Bus Testing," 49 CFR Part 665.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with Federal financial Assistance may subject the undersigned to civil penalties as outlined in the Department of Transportation's regulation on Program Fraud Civil Remedies, 49 CFR Part 31. In addition, the undersigned understands that FTA may suspend or debar a manufacturer under the procedures in 49 CFR Part 29.

5/17/17

Date



Authorized Signature

Commercial Sales

Title

Sonny Merryman Inc

Company Name

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Sonny Merryman Inc

Authorized Signature: 

Date: 5/17/17

State of VIRGINIA

County of CAMPBELL, to-wit:

Taken, subscribed, and sworn to before me this 17 day of MAY, 2017.

My Commission expires MARCH 31, 2018.

AFFIX SEAL HERE



NOTARY PUBLIC 

Purchasing Affidavit (Revised 08/01/2015)

IMPORTANT CONTACT INFORMATION

Mailing Address: P.O. Box 495, Rustburg, VA 24588

Shipping: 5120 Wards Road, Evington, VA 24550

• **MAIN OFFICE:**

TOLL FREE: (800) 533-1006

(434) 821-1000

FAX: (434) 821-8203

WEB: www.sonnymerryman.com

• **SERVICE DEPARTMENT:**

TOLL FREE (800) 533-1006

FAX: (434) 821-2131

Brady Childress, Director Customer Support

Ext. 332, brady@sonnymerryman.com

Pam Lawhorn, Service Administrator

Ext. 341, pam@sonnymerryman.com

Tim George, Service Team Leader

Ext. 353, tim@sonnymerryman.com

• **WARRANTY:**

Patty Webb, Warranty Administrator

Ext. 323, patty@sonnymerryman.com

• **PARTS:**

TOLL FREE: (800) 386-7278

FAX: (434) 821-2621

Gerald Layne, Parts Team Leader

Ext. 318, gerald@sonnymerryman.com

• **BUSINESS:**

June Wooten, Accounts Payable

Ext. 327, june@sonnymerryman.com

Hampton Roads Sales & Service Center

1221 Fleetway Drive

Chesapeake, VA 23320

TOLL FREE: (866) 481-7211

(757) 361-9070, FAX (757) 361-9072

Reggie Lewis, Customer Support Manager

reggie@sonnymerryman.com

Northern Virginia Sales & Service Center

10149 Piper Lane

Bristow, VA 20136

TOLL FREE: (866) 470-0305

(703) 331-5516 – (703) 331-5517

FAX (703) 331-5518

Ken Lewis, Customer Support Manager

Kenlewis@sonnymerryman.com

Service Locations

- **Allied Freightliner LLC**
1375 Route 52
Kenova, WV 25530
(304)453-6154
- **Matheny Motor Truck Company**
4125 1st Ave.
Nitro, WV 25143
(304)769-5860
- **Matheny Motor Truck Company**
50 Matheny Lane
Mineral Wells, WV 26150
(304)485-4418
- **Sonny Merryman Inc.**
10149 Piper Lane
Bristow, VA 20136
(703)331-5516
- **Sonny Merryman Inc.**
5120 Wards Road
Lynchburg, VA 24550
1-800-533-1006



STARTRANS BUS WARRANTY

NOTICE

Please return the warranty registration card to register the warranty with STARTRANS BUS so that Startrans Bus may record your rights under this limited warranty and to assure prompt assistance. Your dealer will provide the warranty card for you to sign. If you do not remember signing a STARTRANS BUS warranty card at the time of delivery, please contact your dealer.

1. Who Warrants the product

The product, as described and limited here, is warranted by the manufacturer and installer of the body: STARTRANS BUS, Division of Forest River, Inc., hereinafter referred to as STARTRANS BUS, 2408 Century Drive, Goshen, IN; an Indiana Corporation; and is administered by the STARTRANS BUS Customer Service Dept., Goshen, Indiana 46528.

2. Who Is Covered

STARTRANS BUS, the warrantor, extends this limited warranty to the original owner of the vehicle during the WARRANTY PERIOD.

3. What Is Covered

STARTRANS BUS, your warrantor, extends the following limited warranty to you, which limited warranty covers your conversion only as to material defects in all materials and workmanship supplied by or performed by STARTRANS BUS.

4. Warranty Period

The STARTRANS BUS limited warranty is for a period of one (1) year from the date of first delivery or 12,000 miles, whichever occurs first, except for other coverages listed under "Other Warranties that may Apply" and items listed under "Exclusions and Limitations" and "Limits of the Warranty."

5. Extended Warranty on Structural Items

Warrantor warrants to the original purchaser for a period of five (5) years from the date of first delivery or 75,000 miles, whichever comes first, that this produce shall be free of SUBSTANTIAL DEFECTS arising out of or relating to the structural portion of the product. THIS STRUCTURAL WARRANTY IS INTENDED TO COVER ONLY THE PERFORMANCE OF THE STEEL CAGE STRUCTURE OF THE BUS BODY.

Custom paint and/or tape application, if performed by STARTRANS BUS, is warranted to be free of substantial defects in workmanship and materials provided by STARTRANS BUS for one (1) year (12 months) from date of original purchase.

6. Other Warranties That May Apply

STARTRANS BUS does not warrant the base vehicle itself. The vehicle engine, chassis, drive train, suspension system, battery, and other chassis components are covered by a separate warranty offered by the manufacturer of the vehicle and administered by the manufacturer's authorized dealers. The tire manufacturer separately warrants tires. Examples of other manufacturer warranties, which may include the following, but not limited to:

- Electrical Components
- Air Conditioning and Heater(s)
- Wheelchair Restraints and Wheelchair Lifts

For a complete list of items and their respective warrantor, please contact Startrans Bus Customer Service Department.

7. Owner's Responsibility

Proper maintenance and cleaning of the exterior and interior of the vehicle is the responsibility of the owner. See the owner's manual for proper care instructions. Defects or damage as a result of improper care or maintenance are not covered by the warranty.

8. Exclusions and Limitations

Damage caused by abuse, misuse, neglect, failure to observe reasonable and required maintenance practices, acid rain, accidents, natural disasters, acts of war and normal wear and tear and facing of fabrics, carpeting and/or fiberglass are not covered. Light bulbs and fuses are not covered.

Damage or deterioration to the physical appearance of the unit if such damage is the result of normal use, wear and tear, or exposure to the elements.

Damages that may occur to the chassis, frame, other parts or components that occur due to overloading will not be covered and may invalidate portions of the STARTRANS BUS warranty.

Cosmetic or surface corrosion resulting from stone chips or scratches in paint are not covered.

STARTRANS BUS does not cover accessories covered by their own manufacturer's warranties. Those items listed in paragraph 6 above are not covered or warranted by STARTRANS BUS.

Replacement parts provided under terms of the warranty will whenever possible, match original equipment. When necessary, STARTRANS BUS will substitute parts of comparable function and value. Defective items may be replaced with new, remanufactured, reconditioned or repaired components.

Modifications, alterations or repairs performed by unauthorized personnel may invalidate portions of the STARTRANS BUS warranty. In addition, USING THIS VEHICLE TO TOW ANOTHER VEHICLE IS PROHIBITED AND MAY VOID WARRANTY. Contact STARTRANS BUS Customer Service before you make any changes.

9. Recovery Limitations

NO PERSON SHALL BE ENTITLED TO RECOVER FROM WARRANTOR FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING OUT OF OR RELATING TO ANY DEFECT IN THE PRODUCT. These limitations include, but are not limited to, loss of time; loss of use; loss of revenues, salaries or commissions; towing charges; bus fares; car rentals; gasoline expenses; telephone charges; inconvenience or other incidental damages.

10. How to get warranty service

To obtain warranty service, contact or visit the dealership where you originally purchased your vehicle or another warranty service facility designated by STARTRANS BUS. Have the dealership contact Startrans bus Customer Service Department for authorization to have a warranty claim submitted. If you or your dealer has moved, or if your dealer is no longer in business, contact STARTRANS BUS Customer Service Department (see address and telephone numbers below) for the name of a STARTRANS BUS dealer nearest you. Your claim must be made within 30 days of the discovery of the defect. Based on the determination of STARTRANS BUS, and subject to the terms of the warranty, the warranty repair work will be authorized by STARTRANS BUS.

All warranty claims must be reported within the warranty period. Warranty personnel must authorize all warranty service prior to performance. Warranty service may be reported directly to the warrantor or to one of their authorized dealers. If warranty personnel approve warranty service, you must leave the unit at the appropriate warranty service location for a sufficient time to perform service.

11. Who Performs Warranty Service

The best place to obtain warranty service is at the dealership where you originally purchased your bus. If the dealership cannot perform the service work, they should call STARTRANS BUS Customer Service Department for assistance (see number below). If you are unable to visit your original dealer, contact STARTRANS BUS Customer Service Department (address below) for the name and location of a STARTRANS BUS dealer near you.

12. Dispute Resolution

Should you be unable to resolve a disagreement with your dealer regarding your right to pursue warranty coverage for a needed repair, contact the STARTRANS BUS Customer Service Department (see address below). If a dispute about warranty service arises between STARTRANS BUS and you, the owner, the disagreement will be resolved in accordance with the customary procedures of the American Arbitration Association relating to commercial transactions, or the dispute will be submitted to a panel of three (3) arbitrators for decision. The panel will be made up of one member appointed by STARTRANS BUS, one member appointed by the complainant/owner, and one member from the arbitrators group mentioned above. Any and all legal remedies shall be available to the owner after pursuing this informal dispute resolution if a ruling is entered against STARTRANS BUS and STARTRANS BUS fails to abide by the ruling. The expenses of arbitration will be paid by the party against whom the arbitrator(s) rule.

13. Limits Of Warranty

This written statement of limited warranty represents the entire warranty authorized and offered by STARTRANS BUS. There are no warranties or representations beyond those expressed in this written document. Any dealership, salesperson or agent cannot amend it. It expressly limits all warranties, including, but not limited to, by way of specification, both express and implied warranties, including warranties or merchantability and fitness for a particular purpose along with all other liabilities or obligations of STARTRANS BUS.

FEDERAL COMPLIANCE

THE TERMS OF THE WARRANTOR'S UNDERTAKING EXPRESSED IN THIS LIMITED WARRANTY ARE DRAFTED TO COMPLY WITH THE MAGNUSSEN MOSS WARRANTY LEGISLATION, P.L. 93-637 OF 1974, AND OTHER APPLICABLE LAW. ANY WARRANTY PROVISIONS PROMULGATED BY THE FEDERAL TRADE COMMISSION PURSUANT TO RULES OR ANY OTHER LAW RELATIVE THERETO ARE EXPRESSLY INCORPORATED HEREIN. TO THE EXTENT ANY PROVISIONS OF THIS LIMITED WARRANTY ARE INCONSISTENT WITH STATE LAWS, ONLY THOSE PARTS INCONSISTENT ARE VOID.

STARTRANS BUS
Division of Forest River, Inc.
CUSTOMER SERVICE DEPT.
2408 Century Drive
Goshen, IN 46528
Phone: 800.348.7440

Freightliner Customer Chassis Corporation (FCCC)



Bus Cab and Chassis — Commercial

Coverage ¹		
Description	Time ²	Distance ²
Basic Vehicle	3 Years	50,000 mi/80 500 km
Battery	1 Year	100,000 mi/161 000 km
Brightwork	6 Months	Unlimited
Corrosion	6 Months	Unlimited
Cab Corrosion/Perforation	3 Years	50,000 mi/80 500 km
Cab Structure	3 Years	50,000 mi/80 500 km
Crossmembers	5 Years	100,000 mi/161 000 km
Diesel Emission 2010 ³	5 Years	100,000 mi/161 000 km
Frame Rails	5 Years	100,000 mi/161 000 km
GHG14 ⁴ (Light Heavy Duty Trucks)	5 Years	50,000 mi/80 500 km
GHG14 ⁴ (Medium Heavy Duty to Heavy Heavy Duty Trucks)	5 Years	100,000 mi/161 000 km
GHG14 ⁴ Tire	2 Years	24,000 mi/38 400 km
Paint	1 Year	100,000 mi/161 000 km
Paint, Chassis	6 Months	Unlimited
Towing/Roadside Assistance ⁵	1 Year	Unlimited
Front Axle	3 Years	36,000 mi/58 000 km
Rear Axle	3 Years	36,000 mi/58 000 km
Transfer Case	3 Years	36,000 mi/58 000 km
Transmission	3 Years	36,000 mi/58 000 km
Detroit Front Axle (File Direct)		
Pre-Model Year 2011 ⁶	3 Years	36,000 mi/58 000 km
Post-Model Year 2011 ⁷	3 Years	Unlimited
Detroit Rear Axle (File Direct)		
Pre-Model Year 2011 ⁶	3 Years	36,000 mi/58 000 km
Post-Model Year 2011 ⁷	3 Years	Unlimited

¹Coverage may vary; check vehicle's actual warranty coverage online via OWL's Coverage Info/Check Coverage screen.

²Time or distance, whichever comes first

³Applies to vehicles equipped with EPA 2010 compliant diesel engines.

⁴Applies to models 2013 and later domiciled in the United States, check actual warranty online via OWL's Coverage Info/Check Coverage screen for coverage listed as "GHG14...".

⁵Up to a maximum of \$450 per occurrence

⁶Pre-Model Year 2011 Detroit Axle: Warranty coverage is determined by Gross Combination Weight Rating, road surface, and vocation. Please see www.ddcsn.com for specific coverage details.

⁷Bus & Chassis – Custom Chassis: Warranty coverage is determined by Gross Combination Weight Rating, road surface, and vocation. Please see www.ddcsn.com for specific coverage details.

Warranty Statement & Warranty Coverage Descriptions follow on page two of this document.

The information provided in this document is for general information only and is not offered as customer's warranty.

This coverage may be superseded without notification.

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Warranty Statement

1.1 New Vehicle Coverage

The following section outlines Company standard warranty coverages for all Company vehicles, apparatus or chassis or cabs sold by Daimler Trucks North America and domiciled in the USA (50 states and Washington, D.C.) and Canada. This information is also included in the Owner's Warranty Information Booklet.

See Warranty Coverage Descriptions for standard warranty coverages by make and model. Additional coverage may apply, verify actual coverages with your local dealership for specific vehicle warranty.

1.2 New Vehicle Limited Warranty

Under this New Vehicle Limited Warranty ("Warranty"), Company warrants that each new vehicle will be free from defects in material and workmanship that occur under normal use within the applicable warranty period, subject to certain limitations and exclusions as specified in this document.

This limited warranty applies only to new vehicles sold by an authorized Daimler Trucks North America (DTNA) dealer or ordered directly from DTNA; vehicles sold at auction or as a result of repossession retain the warranty coverage from the original in-service date or factory invoice date if the vehicle has not been warranty registered.

Daimler Trucks North America LLC reserves the right to reduce or remove coverage on vehicles in salvage condition.

This Warranty covers all components and parts unless specifically covered by other warranties or otherwise excluded by this document.

1.3 Limitations

This Warranty does not apply to vehicles that are sold or domiciled outside of the United States (50 states and Washington, D.C.) or Canada.

This Warranty does not apply to engines, Allison transmissions, tires, or other components or parts that are not manufactured by Company and that are warranted directly by their respective manufacturers. Progressive damage caused by these manufacturers' components to any other parts including, but not limited to, parts installed by Company is excluded from Company warranty coverage. With respect to the foregoing, Company makes no warranty whether express, implied, statutory or otherwise including, but not limited to, any warranty of merchantability or fitness for a particular purpose.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND WHETHER WRITTEN, ORAL, OR IMPLIED INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY SPECIFICALLY EXCLUDES ANY OTHER

WARRANTIES OR CONDITIONS PROVIDED FOR BY LAW, WHETHER STATUTORY OR OTHERWISE.

COMPANY'S SOLE OBLIGATION UNDER THIS WARRANTY SHALL BE TO REPAIR OR REPLACE, IN COMPANY'S SOLE DISCRETION, ANY DEFECTIVE COMPONENT OR PART. SUCH REPAIR OR REPLACEMENT SHALL BE WITHOUT COST TO PURCHASER WHEN PERFORMED WITHIN THE APPLICABLE WARRANTY PERIOD (TIME, DISTANCE, OR HOUR LIMIT, WHICHEVER OCCURS FIRST).

Purchaser must notify Company within the applicable warranty period, of any failure of the vehicle to comply with this Warranty and Purchaser must, at Purchaser's expense, promptly return the vehicle to an Authorized Service Facility for inspection and repair or replacement of any defect in material or workmanship occurring within the applicable warranty period. During New Vehicle coverage, warranty reimbursement will not be paid on repairs performed by customers on their own vehicles without a current Customer Performed Warranty Agreement (CPWA).

The vehicle must be maintained and serviced according to the prescribed schedules outlined in the Driver's/Operator's and Maintenance Manuals. Receipted bills and other evidence that required maintenance and service have been performed are required by Company as a condition of this Warranty.

After the Company's obligations under this Warranty expire, all liabilities of Company to Purchaser under this Warranty shall terminate. Repairs made under this Warranty do not constitute an extension of the original Warranty period for the vehicle or for any specific component or part.

To the extent that any provision of this Warranty contravenes the law of any jurisdiction, such provision shall be inapplicable in such jurisdiction, and the remainder of the warranty shall not be affected.

1.4 Purchaser's Exclusive Remedy

THIS WARRANTY SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AGAINST COMPANY, WHETHER IN CONTRACT, UNDER STATUTE (INCLUDING STATUTORY PROVISIONS AS TO CONDITIONS AS TO QUALITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF GOODS SUPPLIED PURSUANT TO THE CONTRACT OF SALE), WARRANTY, TORT, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY.

1.5 Limitation of Liability

COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE COST TO REPAIR OR REPLACE, IN COMPANY'S SOLE DISCRETION, THE DEFECTIVE COMPONENT OR PART THAT IN NO EVENT SHALL EXCEED THE FAIR MARKET VALUE OF THE VEHICLE AT THE TIME THE DEFECT IS DISCOVERED.

IN NO EVENT SHALL COMPANY BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, INJURIES TO PERSONS OR DAMAGE

TO PROPERTY, LOSS OF PROFITS OR ANTICIPATED PROFITS, OR LOSS OF VEHICLE USE.

1.6 Exclusions

The following components, parts, or conditions are specifically excluded from coverage under this Warranty.

AERODYNAMIC WHEEL COVERS

Aerodynamic wheel covers are excluded from coverage under this Warranty

AIR SPRINGS

Tolerance buildup can occur during the assembly process of the rear suspension and rear cab air springs, and can cause the springs to have the appearance of being crooked, misaligned or improperly installed. This tolerance buildup is not detrimental to the operation of the vehicle and will not have an effect on either the quality of the ride or the durability of the components or vehicle. Straightening of these springs is not covered under this Warranty.

ALIGNMENT OF AXLES/WHEELS/STEERING

Each DTNA vehicle manufacturing plant uses an integrated alignment system to align axles and wheels and to center the steering wheel to Daimler Trucks North America LLC specifications. Realignment or readjustment of these items, including steering stops and steering poppets, is not covered under warranty.

Any special alignment settings at the request of the Owner must be handled between the Dealer and Owner after delivery from factory. These special adjustments are not covered under Warranty.

AXLE BREATHER VENTS

During the vehicle manufacturing process, an oil run or drip stain may appear at the breather vent. Removing the vent, applying pipe sealant to the threaded vent fitting and re-installing the vent is unnecessary. Removing the axle breather vent and re-sealing the threaded fitting is not covered under this Warranty.

CAB INTERIOR COMPONENTS

The repair or replacement of cab interior components that are rendered unserviceable due to normal wear or abuse are not covered under this Warranty.

These components include, but are not limited to:

- Curtains
- Floor coverings (including floor mats)
- Painted trim components
- Steering wheel
- Steering wheel wrap
- Upholstery
- Window shades

CHROME SURFACES, ALUMINUM AND STAINLESS STEEL COMPONENTS

The following items ARE covered under this Warranty:

- Chrome peeling off in sheets
- Chrome cut at mounting bolts due to over-torque at the factory
- Bubbles in the chrome that are not caused by rock chips and/or general rust conditions
- Isolated rust along seams or welds

The following items are NOT covered under this Warranty:

- General rust, for example, rust on the unfinished backside of a bumper
- Dimpling at the mounting bolts
- Staining, bluing, and/or yellowing that can be cleaned with a quality cleaning-product
- Rust, pits, and/or nicks caused by road wash or road debris breaking the chrome surface
- Streaks/stains/corrosion caused by severe wash solutions or corrosive road salts/chemicals

Claims pertaining to failures of chrome surfaces, aluminum, and stainless steel components will not be processed unless a clear digital picture is provided that adequately shows the defect.

CLUTCH ADJUSTMENT

Clutch adjustments are normally required due to clutch wear and are considered normal maintenance. However, if the clutch adjustment is found to be outside of Company specifications during, or prior to, in-service of the vehicle, a warranty claim will be accepted on a one-time basis.

Claims for clutch adjustments will not be accepted unless the adjustment is found to be outside of Company specifications using the special clutch adjustment measuring tools provided by Company (e.g., adjusting the clutch to satisfy feel will not be accepted as warranty).

COMPETITION

Warranty will become void on any vehicle that is used in competition, including but not limited to:

- Racing
- Tractor pulls
- Other motor sports

CONSUMABLE PARTS

Parts that are subject to consumption during their normal service life and are routinely replaced during normal maintenance services are covered up to 15,000 miles (24 000km) for all Daimler Trucks North America LLC vehicles except for Thomas Built Bus (TBB) bodies and chassis. TBB consumable parts are covered up to 30 days from date of in-service.

These items are:

- Antennas
- Ashtrays
- Belts
- Brake Linings
- Cigarette lighter assembly
- Clutch brake
- Clutch linings
- Data logger batteries
- Desiccant cartridges
- Fire extinguishers
- Fluorescent ballast and tubes
- Fuses
- Gladhand
- Hosetennas
- Light bulbs
- Mattresses
- Mud flaps
- Mud flap mounting brackets
- Caps (including, but not limited to, DEF, fuel, radiator, surge tank)
- Receiver-dryer filter
- Trailer air hoses
- Trailer electrical cables

- Windshield washer nozzles
- Wiper arms and blades (TBB makes – wiper blades only)

Consumable parts NOT covered under this Warranty include, but are not limited to, the following:

- Antifreeze
- Filters (fuel, air, oil, water)
- Fluids (unless low due to a warrantable failure)
- Lubricant

CORROSION

A detailed list of exclusions for CORROSION is listed under Warranty Coverage Descriptions.

DAMAGE

The following are not covered under this Warranty:

- Damage caused by use of the vehicle in any application that is not approved or is inconsistent with build specifications
- Damage resulting from improper use or misuse or abuse, negligence, improper operation, improper or insufficient maintenance (including, but not limited to failure to maintain vehicle as outlined in the driver's/operator's and maintenance manuals), overloading, unauthorized modifications, accidents, or operation at excessive speeds
- Environmental damage, including airborne fallout (including chemicals, tree sap, etc.), or other atmospheric conditions, hailstones, or other acts of nature
- Damage caused by road salts/chemicals or cleaning solvents, detergents or compounds
- Storage deterioration including damage caused by improper or insufficient storage or maintenance
- Damage caused by road hazards or road conditions
- Damage caused during shipping/transport after initial delivery of vehicle
- Damages (including peeling or flaking) caused by high-pressure washing or steam-cleaning
- Damages occurring after in-service (e.g., from rock chips)
- Damages caused by customer-installed sealer in air conditioning systems
- Damages caused by engine horsepower/torque upgrades
- Damage due to vibration associated with misapplication or improper operation of drivetrain components
- Damage due to terrorist activities
- Damage due to acts of war

ENGINE

The engine, including all of its components as supplied by the engine manufacturer, is not covered under this Warranty, but is warranted separately by the manufacturer of the engine. For engine warranty or service, contact the engine manufacturer's authorized sales and service facility.

ENGINE BRAKES, AIR COMPRESSORS, AND OTHER PROPRIETARY ENGINE COMPONENTS

The engine manufacturer installs most air compressors and engine brakes. Any failure of a proprietary engine component or Jacob[®] Brake component must be filed directly to the engine manufacturer. Failures on non-proprietary engine components can be filed through DTNA.

EXHAUST SYSTEM CLAMPS

During the early life of the vehicle or when the engine is cold, many exhaust clamps exhibit a soot trace. This condition is self-correcting and does not require adjustment, tightening, or replacement of the clamp. Claims for adjusting or tightening will not be paid under warranty.

FIFTH WHEELS

Adjustment of the locking mechanism, bushings, slide locking plungers, and the repair or replacement of lock guards are considered routine maintenance and are not covered under this Warranty.

GLASS, MIRRORS, LENS

Glass, mirror, or lens breakage or chips or scratches of glass, mirrors, or lenses are not covered by this Warranty.

MISAPPLICATION OF VEHICLE

The warranty on any vehicle used inconsistent with its specified vocation/application will be downgraded to the warranty that is consistent with the vehicle use. Any and all claims associated with the misapplication of the vehicle will be subject to chargeback.

MISCELLANEOUS EXPENSES

Premium charges and work not directly related to the repair or replacement of a warranted part are not covered under this Warranty. Examples include, but are not limited to:

- Federal, state, provincial, and local taxes
- Travel expenses
- Loss of revenue
- Customer labor, including overtime labor
- Downtime
- Driver's expenses
- Cost of rental equipment
- Loss of cargo, including perishable cargo
- General housekeeping supplies (i.e., rags, solvents, sweeping compounds, coveralls, etc.)
- Communication charges
- Towing/road call assistance (unless coverage is specifically stated in the applicable warranty coverage table)
- Repair or replacement of optional items not sold or installed by company
- Removal or replacement of dealer, body builder, or customer installed equipment
- Environmental fees, cleanup, or other charges
- Cost of emergency services

MODIFICATIONS TO ORIGINAL EQUIPMENT

Company does not warrant vehicle component or chassis modifications, or equipment installations arranged by Dealers or Customers. In addition, the extra time necessary to remove body builder installed items and/or equipment to work on a warranted repair is not covered under this Warranty unless Company sells the complete chassis/body/equipment as a package.

If Dealers or Customers perform any vehicle modifications or equipment installations, to the extent these modifications or equipment installations adversely affect other vehicle components or vehicle performance, Company shall not accept any product liability or claims under the terms of the vehicle warranty. These claims become the sole responsibility of the person performing the modifications or equipment installations.

PAINT

The following exclusions to paint warranty include, but are not limited to:

- Complete chassis re-painting to repair paint damages
- Damages occurring after in-service (e.g., from rock chips)
- Peeling/flaking caused by high-pressure washing or steam cleaning
- Rusting of painted bumpers
- Removal and/or replacement of decals, striping, and/or lettering not applied by Company
- Specific areas of the vehicle are deliberately not painted or are not painted to any standard; paint repairs are not warrantable to such areas. These areas include:
- Underside of the hood, including the inside of the wheel wells
- Underside of the roof-mounted air fairings
- Underside of the exterior sun visor
- Inside of the side-mounted air fairings
- Inside of the bumper
- Aftertreatment devices

Gloss

Gloss Warranty claims pertaining to gloss issues on vehicles painted with low-gloss colors (identified in the Data Books) will not be covered under this Warranty.

SHIP LOOSE ITEMS AND COMPONENTS

During the manufacturing process, certain vehicle components are normally placed in the cab of the vehicle or strapped down to the chassis for security reasons. It is the Dealer's responsibility to mount these "ship loose" items in the correct location on the vehicle. Mounting of "ship loose" items will not be covered under warranty.

These items include, but may not be limited to, the following:

- Aerodynamic wheel covers
- Antennas
- Fire extinguishers
- Trailer air hoses
- Trailer electrical cables
- Winter fronts
- Tire inflation hoses
- Spare wheels/tires
- Chrome lug nut covers
- Driver's pouch
- Jacks

Daimler Trucks North America has established a Roof Fairing Removal program in order to reduce transport related damage. The Transporter will remove the fairing during the decking process and secure the fairing on the frame rail of the unit. Benefits for this program include fewer units towed in reverse and an overall improved delivery process.

Some units will continue to be received with the fairing collapsed. It is the Dealer's responsibility to mount these fairings correctly. Claims for mounting of these collapsed fairings will not be covered under warranty.

Those units received with the fairing removed, DTNA warranty will reimburse for the re-installation of the roof fairing prior to delivery to the end customer.

If vehicle is drop shipped directly to customer:

Transporter notifies customer that roof fairing has been removed for transport and arranges for re-installation prior to or at delivery.

- If customer has facilities for re-installation of roof fairings, then fairings will be re-installed at final delivery location.
- If customer does not have facilities to re-install fairings, transporter will arrange with nearest authorized DTNA dealership to have fairings re-installed and shuttle units to customer location at no additional cost to our customer.

TRANSMISSIONS

Allison transmissions and components are not covered under this Warranty, but are warranted separately by Allison. Information regarding Allison's warranty is provided for informational purposes only and is subject to change. For warranty or service information, contact Allison's authorized sales and service facility.

The Detroit DT-12 Transmission is not covered under this Warranty. Please see www.ddcsn.com for coverage details.

ROUTINE MAINTENANCE

Routing maintenance, servicing, and adjustment, as defined in the applicable Vehicle Maintenance Manual and Driver's Manual, are excluded from Warranty.

Periodic adjustment or re-torque of wheel bearings, wheel lug nuts, and suspension U-bolts are considered maintenance adjustments and are not covered under warranty.

Vibrations, squeaks, rattles, loose fittings/clamps, hose fitting leaks, loose nuts/bolts/screws, and loose electrical connections may develop during the initial trip(s) of the vehicle and these types of repairs/adjustments are covered under warranty one time during the following applicable initial operating periods unless excluded in the paragraphs below.

Reminder: After the following initial operating periods, these developments are the result of use and their repair/adjustment activities are considered routine maintenance and thus excluded from warranty.

INITIAL OPERATING PERIOD

The Initial Operating Period (IOP) for Daimler Trucks North America LLC vehicles is as follows:

Make	Initial Operating Period
Freightliner, Sterling, Western Star	Up to 15,000 miles/ 24 000 km
Freightliner Custom Chassis Corporation (FCCC)	Up to 25,000 miles/ 40 000 km
Thomas Built Bus (TBB) bodies and TBB chassis ^a	Up to 6 months from date of in-service

^a TBB applications utilizing FCCC chassis retain the FCCC IOP separate from the TBB body.

See CONSUMABLE PARTS elsewhere in this section.

Exclusions from warranty during the IOP are:

- Cab, hood, and fender-mounted mirrors are adjusted at the factory but may be retracted by the transporter to prevent damage during transport. Subsequent adjustments and tightening of mirror

mounting hardware are considered part of the routine preparation of the vehicle before Customer delivery. Claims for adjusting the mirrors or tightening of the attaching hardware will not be paid under warranty during or after the initial operating period.

- Claims for re-routing of electrical wiring, hoses, or lines which meet Daimler Trucks North America's routing standards will not be paid under warranty during or after the initial operating period.
- Final preparation of the vehicle for Customer delivery to include cleaning/vacuuming interior of cab, washing windows, washing the exterior of the vehicle, polishing exterior chromed or painted surfaces are considered as ordering-Dealer responsibilities. Claims for these activities will not be paid under warranty during or after the initial operating period.

TEST VEHICLES

Any vehicles being used in testing or used to test specific components must be identified to the Warranty Department and accommodations must be made for claims that relate to the test item(s).

Any vehicles used in endurance testing, such as the Altoona Test, are void of all warranty, new or used.

TIRES AND TIRE BALANCING

The tires are not covered under this Warranty, but are warranted separately by the tire manufacturer. Tire balancing is not covered under warranty.

1.7 Transfer of Warranty

This Warranty is transferable to a subsequent Owner if it has not expired. To ensure the Owner receives proper warranty recognition, the ownership information should be updated in the Company system.

1.8 Change of Owner Address Information

To ensure Company's ability to reach the current Owner with Recall and Field Service campaign information, the Owner's information must be updated whenever there is a change to the Owner's name or address.

1.9 Product Improvement

Company reserves the right to make improvements or changes to the product at any time without incurring any obligation to make such changes or improvements to any other vehicle.

1.10 Owner's Responsibilities

It is the Owner's responsibility to ensure the vehicle is maintained as outlined in the Driver's/Operator's and Maintenance Manuals. It is important that the new Owner becomes familiar with the contents of the warranty information. When the Owner first receives the vehicle, Dealer should review the Owner's Warranty Information booklet with the Owner.

To initiate warranty, customer must complete and sign the Warranty Start Form (WAR275). Dealer must attach the Warranty Start Form to the Product Registration screen in OWL.

Coverage Descriptions

Axles

Coverage includes all factory-installed front axles; rear axles; steer axles; drive axles; tag axles; and pusher axles. Detroit axles are warranted directly through Detroit. *Excludes any axle installed by a dealer or body builder.*

Detroit Axle(s)

All warranty inquiries and claims are filed directly to Detroit Axles. Please see www.ddcsn.com for specific coverage details.

Drive Axle(s)

Coverage includes axle housing, carrier assembly, differential assembly, power divider, axle shafts, and gaskets and seals. *Excludes suspension and torque rod brackets, tie rod ends, wheel end equipment, wiring, yokes, and attaching hardware.*

Front Axle(s)

Coverage is for non-Detroit front axle(s) only. Coverage includes I-beam, steering knuckles, differential on drive steer axle, spindles, kingpin bearings, and steering arms. *Excludes tag axle(s), pusher axle(s), wheel end equipment, steering linkage components, driveline(s), U-joints, and kingpin bushings/kingpin seals.*

Pusher Axle

A pusher axle is a non-driven, weight-bearing axle that can be raised when not required to bear a portion of the load. Since the pusher axle can be of many different configurations, warranty coverage includes all components included in the individual build specification of each individual application.

Rear Axle(s)

Coverage is for non-Detroit rear axle(s) only. Coverage includes axle housing, carrier assembly, differential assembly, power divider, axle shafts, and gaskets and seals. *Excludes tag axle(s), pusher axle(s), suspension and torque rod brackets, wheel end equipment, wiring yokes, driveline(s), U-joints, and attaching hardware.*

Steer Axle(s)

Coverage includes I-beam, steering knuckles, differential on drive steer axle, spindles, kingpins, kingpin bearings and steering arms. *Excludes wheel end equipment, tie rod ends, steering linkage components, kingpin bushings, and king pin seals.*

Tag Axle

A tag axle is a non-driven, continuous weight-bearing axle. Since the tag axle can be of many different configurations, warranty coverage includes all components included in the individual build specification of each individual application.

Battery

Coverage includes Alliance Brand Batteries only; claims for all other brands must be submitted directly to the supplier. Includes starting battery assemblies and factory-installed APU battery assemblies. *Excludes non-*

Alliance Brand batteries, battery cables, battery mounting box and hardware.

Basic Chassis

Coverage includes all factory-installed components of the vehicle/chassis that are not excluded elsewhere in the warranty or by special agreement or described as having a different time, or distance or hours, or listed separately on each new vehicle warranty coverage chart.

Basic Vehicle

Coverage includes all factory-installed components of the vehicle/chassis that are not excluded elsewhere in the warranty, or by special agreement or described as having a different time or distance, or listed separately on each new vehicle warranty coverage chart.

Brightwork

Coverage includes all factory-installed components with chrome, polished aluminum, or polished stainless steel surfaces. *Excludes any damage backside of bumpers, and concealed or inner surfaces.*

Cab Corrosion/Perforation

Coverage is limited to rust-through or perforation of the cab and integral sleeper structure and sleeper box (if applicable) due to corrosion from within. *Excludes all conditions of rust or corrosion that has not resulted in rust-through or perforation as well as surface rust or corrosion caused by non-adhesion. Excludes any damage to the paint such as chips or scratches.*

Cab Structure

Coverage includes cab and integral sleeper structural components, structural components of factory-installed sleeper boxes (if applicable), sheet metal panels, doors, and hoods. *Excludes all bolt-on components including door and hood hinges, latches, guides, and other mounting hardware.*

Corrosion

Coverage provides warranty against corrosion to any metal or metal alloy part of the vehicle. Rust or corrosion to specific components and/or caused by certain conditions are excluded from all Company warranty coverage and will not be paid under Basic Vehicle, Cab Structure, Cab Corrosion, or Aftermarket Parts Warranty.

Exclusions to corrosion warranty include, but are not limited to, the following:

- *Corrosion caused by general rust (for example, rust on the unfinished backside of a bumper)*
- *Surface rust caused by chips or scratches in the paint or chrome surfaces*
- *Corrosion caused by high-pressure washing, severe wash solutions, cleaning solvents, detergents, compounds*
- *Corrosion caused by salinity in the environment or corrosive salts and/or chemicals used on the road surface.*

- *Corrosion caused by acid rain or other industrial fallout*
- *Corrosion due to improper prevention measures during storage or use*
- *Corrosion or rust on tone rings, rotors or drums (rotor exclusion does not apply to hydraulic discs with Magna-Coat Rotors)*
- *Corrosion due to environmental damage (including ocean spray); airborne fallout (includes chemicals, tree sap, etc.), or other atmospheric conditions or other acts of nature*
- *Corrosion due to improper use, misuse or abuse, negligence, including improper or insufficient maintenance*

Cowl Corrosion/Perforation

Coverage is limited to rust-through or perforation of the cowl due to corrosion from within. *Excludes all conditions of rust or corrosion that have not resulted in rust-through or perforation as well as surface rust or corrosion caused by non-adhesion. Excludes any damage to the paint such as chips or scratches.*

Cowl Structure

Coverage includes cowl structural components, sheet metal panels, and hood. *Excludes all bolt-on components including hood hinges, latches, guides, or other mounting hardware.*

Crossmembers

Coverage includes crossmembers, gussets, and huck-mounting bolts that attach gussets to crossmembers and gussets/crossmembers to frame rails. *Excludes any bolt-on item attached with either conventional or huck bolts.*

Driveline

Coverage includes driveshaft tubing, U-joints, yokes, support bearings, and splines.

Frame Rails

Coverage is limited to breaking or cracking of factory-installed frame rails, frame rail liners, frame rail extensions, and any item(s) factory welded to them. *Excludes all bolt-on items regardless if attached with conventional or huck bolts.*

GHG14*

Daimler Trucks North America LLC (DTNA) warrants that its vehicles are (1) designed, built and equipped so as to conform, at the time of sale, with requirements of vehicle manufacturers whose vehicles are designed to meet applicable 2014 and later U.S. Environmental Protection Agency and National Highway Traffic and Safety Administration Standards greenhouse gas and fuel efficiency standards, and (2) free from defects in material and workmanship which cause the vehicle to fail to conform with the vehicle manufacturer's requirements for all vehicle emission control items listed below.

*Coverage name/description may vary, check actual warranty online via OWL's *Coverage Info/Check Coverage* screen for coverage listed as "GHG14..."

GHG14 Tire*

Daimler Trucks North America LLC (DTNA) warrants that its vehicles are (1) designed, built and equipped with tires that conform, at the time of sale, with requirements of vehicle manufacturers whose vehicles are designed to meet applicable 2014 and later U.S. Environmental Protection Agency and National Highway Traffic and Safety Administration greenhouse gas and fuel efficiency standards, and (2) those tires are free from defects in material and workmanship which cause the vehicle to fail to conform with the vehicle manufacturer's requirements for a period of 2 years or 24,000 miles, whichever occurs first. Claims for failures under this coverage are filed directly to the tire manufacturer.

*Coverage name/description may vary, check actual warranty online via OWL's *Coverage Info/Check Coverage* screen for coverage listed as "GHG14..."

Glider

An incomplete vehicle which may be ordered with or without engine and/or major drivetrain components; warranty coverage includes all components as specified in the specific build specification.

Hybrid Transmission - Eaton

Eaton requires that only hybrid-authorized dealerships work on units equipped with Eaton hybrid parts. Pre-authorization is required prior for repair of these vehicles in order to obtain technical assistance and a pre-authorization number for replacement parts. Eaton hybrid parts will be shipped directly from Eaton and will not be stocked in the PDCs due to the short shelf life and low volume. The following hybrid parts are covered under this Warranty: power electronics carrier (PEC), motor generator, inverter, DC/DC converter, hybrid control module (HCM), transmission control module (TCM), clutch, and electronic clutch actuator (ECA). Coverage does NOT include oil cooler or cooling systems. Please reference Roadranger Warranty Guide TCWY0900 for more information on complete listing of limits and exclusions, as well as terms and conditions.

Off Road On-Site Assistance

Coverage is exclusively available for off road vehicles that are prohibited from use on public streets. If this coverage is provided, it will be specifically included in the coverage table as a separate category. Coverage includes on-site assistance and/or equipment transportation to the nearest authorized repairing location for a Daimler Trucks North America LLC warrantable repair.

Paint (Body, Cab, & Cowl)

Paint coverage *excludes lack-of gloss issues on vehicles painted with low gloss colors; the underside of hoods and roof and side mounted air fairings; and any damages to the paint or painted surface such as chips and scratches.*

Body Paint

Coverage includes all factory-painted exterior body surfaces. Warranted against orange peel; peeling/delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

Cab Paint

Coverage includes all factory-painted surfaces (except those included in chassis paint coverage). Warranted against orange peel; peeling or delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

Cowl Paint

Coverage includes all factory-painted exterior surfaces of cowl structure (except those included in chassis paint). Warranted against orange peel; peeling or delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

Paint, Chassis (Chassis Paint)

Coverage includes all factory painted surfaces on frame rails, crossmembers/gussets, front and rear bumpers, suspension components, power train components, drivelines, fuel tanks, air tanks, wheel end equipment, tool boxes, battery boxes, access steps, and attaching brackets and hardware. Warranted against peeling or non-adhesion. *Excludes U-joints and any damages to the paint or painted surface such as chips and scratches.*

Towing/Roadside Assistance

Coverage includes roadside assistance or towing (to the nearest authorized repair location) for a Daimler Trucks North America LLC warrantable repair in a vehicle-down situation that prevents the safe and lawful operation of the vehicle. If this coverage is provided, it will be specifically included in the coverage table as a separate category.

Transfer Case

Coverage includes housing and all internally lubricated parts. *Excludes broken synchronizer pins, PTOs, airlines, gauge, clutch assemblies, driveline(s), and U-joints.*

Transmission

Coverage does not include Allison transmissions, Detroit transmissions, or Eaton Hybrid transmissions. Coverage includes housing and all internally lubricated parts, electric/air shift/control units, valves, gaskets, and seals. *Excludes broken synchronizer pins, PTOs, airlines, gauge, gauge senders, yoke(s), clutch assemblies, clutch and clutch control components including clutch brake, driveline(s), and U-joints.*

Wheel End Equipment

Coverage includes brake components, wheels, hubs, drums, rotors, wheel seals/ bearings, slack adjusters, and attaching hardware.

Bus Chassis—Shuttle, Demand/Response, Charter/Tour Coverage

Description	Coverage	
	Time*	Distance*
Basic Chassis	2 years	24,000 mi/ 39 000 km
Battery	1 year	100,000 mi/ 161 000 km
Brightwork	6 months	Unlimited
Corrosion	6 months	Unlimited
Cowl Corrosion	5 years	Unlimited
Cowl Structure	5 years	Unlimited
Crossmembers	5 years	100,000 mi/ 161 000 km
Diesel Emission 2010†	5 years	100,000 mi/ 161 000 km
Drivetrain	3 years	36,000 mi/ 58 000 km
Frame Rails	5 years	100,000 mi/ 161 000 km
Paint, Chassis	6 months	Unlimited
Towing/Roadside Assistance‡	1 Year	Unlimited

* Time or distance, whichever occurs first.

† Applies to vehicles equipped with EPA 2010 compliant diesel engines

‡ Up to maximum of US \$450 per occurrence.

Warranty Coverage Descriptions¹

Axles

Coverage includes all factory-installed steer axles; drive axles; tag axles; and pusher axles. *Excludes any axle installed by a dealer or body builder.*

Drive Axle(s)

Coverage includes axle housing, carrier assembly, differential assembly, power divider, axle shafts, and gaskets and seals. *Excludes suspension and torque rod brackets, wheel end equipment, wiring, yokes, and attaching hardware.*

Pusher Axle

A pusher axle is a non-driven, weight-bearing axle that can be raised when not required to bear a portion of the load. Since the pusher axle can be of many different configurations, warranty coverage includes all components included in the individual build specification of each individual application.

Steer Axle

Coverage includes I-beam, steering knuckles, differential on drive steer axle, spindles, kingpins, kingpin bearings and steering arms. *Excludes wheel end*

equipment, tie rod ends, steering linkage components, and kingpin bushings, and king pin seals.

Tag Axle

A tag axle is a non-driven, continuous weight-bearing axle. Since the tag axle can be of many different configurations, warranty coverage includes all components included in the individual build specification of each individual application.

Battery

Only Daimler Truck North America LLC's private brand-label (Alliance Brand Parts), Mopar (Sterling Bullet only), and Furukawa (STL360 Model only) batteries will be warranted. Any other brand of battery is excluded from Company coverage. Claims for all other brands must be submitted directly to the supplier. Warranty coverage includes the battery assembly only.

Basic Chassis

Coverage includes all factory-installed components of the vehicle/chassis that are not excluded elsewhere in this warranty or by special agreement or de-

¹ Some definitions may not apply to your coverage table.

scribed as having a different time, or distance, or listed separately on each new vehicle warranty coverage chart.

Brightwork

Warranty coverage includes all factory-installed components with chrome, polished aluminum, or polished stainless steel surfaces. *Excludes any damage to bumper, backside of bumpers, and concealed or inner surfaces.*

Corrosion

Coverage provides warranty against corrosion to any metal or metal alloy part of the vehicle. Rust or corrosion to specific components and/or caused by certain conditions are excluded from all Company warranty coverage and will not be paid under Basic Vehicle, Cowl Structure, Cowl Corrosion, or Aftermarket Parts Warranty.

Exclusions to corrosion warranty include, but are not limited to, the following:

- Corrosion caused by general rust (for example, rust on the unfinished backside of a bumper)
- Surface rust caused by chips or scratches in the paint or chrome surfaces

- Corrosion caused by high-pressure washing, severe wash solutions, cleaning solvents, detergents, compounds
- Corrosion caused by salinity in the environment or corrosive salts and/or chemicals used on the road surface.
- Corrosion caused by acid rain or other industrial fallout
- Corrosion due to improper prevention measures during storage or use
- Corrosion or rust on tone rings, rotors or drums (rotor exclusion does not apply to hydraulic discs with Magna-Coat Rotors)
- Corrosion due to environmental damage (including ocean spray); airborne fallout (includes chemicals, tree sap, etc.), or other atmospheric conditions or other acts of nature
- Corrosion due to improper use, misuse or abuse, negligence, including improper or insufficient maintenance

Cowl Corrosion/Perforation

Coverage is limited to rust-through or perforation of the cowl due to corrosion from within. *Excludes all conditions of rust or corrosion that have not resulted*

in rust-through or perforation as well as surface rust or corrosion caused by non-adhesion. Excludes any damage to the paint such as chips or scratches.

Cowl Structure

Coverage includes cowl structural components, sheet metal panels, and hood. *Excludes all bolt-on components including hood hinges, latches, guides, or other mounting hardware.* Cab underfloor assembly warranty coverage includes defects in workmanship and materials only. Damage caused by incorrect body loading is not covered under this warranty.

Crossmembers

Coverage includes crossmembers, gussets, and huck-mounting bolts that attach gussets to crossmembers and gussets/crossmembers to frame rails. *Excludes any bolt-on item attached with either conventional or huck bolts.*

Driveline

Coverage includes driveshaft tubing, U-joints, yokes, support bearings, and splines.

Drivetrain

Coverage includes steer axle(s), drive axle(s), and transfer case, and transmission, (except Allison

transmissions and Eaton Hybrid transmissions). *Excludes tag axle(s), pusher axle(s), PTOs, clutch assemblies, driveline(s), and U-joints.*

Diesel Emission 2010

Daimler Trucks North America LLC (DTNA) warrants that its vehicles built with standard exhaust emissions control components are (1) designed, built and equipped so as to conform, at the time of sale, with requirements of engine manufacturers whose engines are designed to meet applicable 2010 U.S. Environmental Protection Agency, Canada Motor Vehicle Safety Act, and California Air Resources Board Emission Regulations, and (2) free from defects in material and workmanship which cause the vehicle to fail to conform with engine manufacturer's requirements for a period of 100,000 miles/161 000 kilometers or five years, whichever occurs first.

Emission related defects in the components listed below are included in this coverage.

This coverage does not apply to engines or emissions components supplied and warranted directly by the engine manufacturer.

WHAT IS COVERED:

DTNA installed components:
Aftertreatment DEF Coolant Supply Valve and DEF Coolant lines
Aftertreatment DEF System Air Pressure Regulator and associated Air lines
Aftertreatment DEF System Chassis Interface Harness
Aftertreatment Diesel Exhaust Fluid (DEF) Tank
Aftertreatment Diesel Exhaust Fluid (DEF) Tank DEF Level Gauge
Aftertreatment Diesel Exhaust Fluid (DEF) Tank DEF Temperature Sensor
Aftertreatment Diesel Exhaust Fluid (DEF) Tank Heater Tubing
Aftertreatment Electrically-Heated DEF Lines
Charge Air Cooler
Data Link Connector
Exhaust Gas Piping from the Turbocharger out to the last Aftertreatment Device
Malfunction Indicator Lamp (MIL)
Vehicle Speed Sensor (Transmission main shaft)

DTNA installed components:
<p>Note: The following items are excluded under Emissions coverage, but are covered under Basic Vehicle coverage:</p> <ul style="list-style-type: none"> • Aftertreatment Control Module (ACM) Mounting Bracket and Protective Cover • Diesel Exhaust Fluid (DEF) Tank Mounting Brackets/Hardware • DEF Pump Mounting and Protective Cover

For information regarding emissions components directly warranted by the engine manufacturer, refer to the engine manufacturer's guide.

GHG14*

Daimler Trucks North America LLC (DTNA) warrants that its vehicles are (1) designed, built and equipped so as to conform, at the time of sale, with requirements of vehicle manufacturers whose vehicles are designed to meet applicable 2014 and later U.S. Environmental Protection Agency and National Highway Traffic and Safety Administration Standards greenhouse gas and fuel efficiency standards, and (2) free from defects in material and workmanship which cause the vehicle to fail to conform with the vehicle manufacturer's requirements for all vehicle emission control items listed below.

*Coverage name/description may vary, check actual coverage on-line for coverage listed as "GHG14..."

Coverage Duration:

Vehicle Type	Time*	Distance*
Spark-ignition vehicles and light heavy-duty vehicles	5 years	50,000 mi/ 80 500 km
Medium and heavy-duty vehicles	5 years	100,000 mi/ 161 000 km

Note: EPA and NHTSA standards for tires are included in a separate coverage.

Diesel Emission 2010 components and emission related defects in the components listed below are included in this coverage.

This coverage does not apply to engines or emissions components supplied and warranted directly by the engine manufacturer.

DTNA Installed Components - Items Covered:

DTNA installed components:
Air Conditioning Component Leakage- Applies To Tractors Only
Ambient Air Temperature (AAT) Sensor
Automatic Engine Shutdown Timer
Data Link Connector
Fuel Tank Fairings

DTNA installed components:
Malfunction Indicator Lamp (MIL)
Side Extenders
Aerodynamic Roof Fairings
Adjustable Height Aerodynamic Roof Fairings
Aerodynamic Side Fairings
Gap Reducing Fairings
Temperature-Barometric Air Pressure Sensor
Vehicle Speed Limiter
Vehicle Speed Sensor (Transmission Main Shaft)
Wait To Start Indicator Lamp

GHG14 Tire*

Daimler Trucks North America LLC (DTNA) warrants that its vehicles are (1) designed, built and equipped with tires that conform, at the time of sale, with requirements of vehicle manufacturers whose vehicles are designed to meet applicable 2014 and later U.S. Environmental Protection Agency and National Highway Traffic and Safety Administration greenhouse gas and fuel efficiency standards, and (2) those tires are free from defects in material and workmanship which cause the vehicle to fail to conform with the vehicle manufacturer's requirements for a period of 2 years or 24,000 miles, whichever occurs first. Claims

for failures under this coverage are filed directly to the tire manufacturer.

**Coverage name/description may vary, check actual coverage on-line for coverage listed as "GHG14..."*

FCCC GM Gas Engine

INCLUDES: THE ENTIRE ENGINE AS SUPPLIED BY THE ENGINE MANUFACTURER FOR FAILURES RESULTING FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND SERVICE. THE ENGINE MUST BE MAINTAINED AND SERVICED ACCORDING TO THE APPLICABLE ENGINE MAINTENANCE SCHEDULE FROM FREIGHTLINER CUSTOM CHASSIS OPERATOR'S AND MAINTENANCE MANUAL.

EXCLUDES: ATTACHMENTS NOT SUPPLIED BY THE ENGINE MANUFACTURER, REPAIRS DUE TO ACCIDENT, MISUSE OR ABUSE, MISAPPLICATION, DAMAGE, NEGLIGENCE, MODIFICATION, NORMAL WEAR AND TEAR, AND NORMAL MAINTENANCE AND OPERATING EXPENSES.

Frame Rails

Coverage is limited to breaking or cracking of factory installed frame rails, frame rail liners, frame rail extensions, and any item(s) factory welded to them. *Excludes all bolt-on items regardless if attached with conventional or huck bolts.*

Gas Emission 2011

Daimler Trucks North America LLC (DTNA) warrants that its vehicles built with standard exhaust emissions control components are (1) designed, built and equipped so as to conform, at the time of sale, with requirements of engine manufacturers whose engines are designed to meet applicable 2011 U.S. Environmental Protection Agency, Canada Motor Vehicle Safety Act, and California Air Resources Board Emission Regulations, and (2) free from defects in material and workmanship which cause the vehicle to fail to conform with engine manufacturer's requirements for a period of 50,000 miles/80 500 kilometers or five years, whichever occurs first.

Emission related defects in the components listed below are included in this coverage.

This coverage does not apply to engines or emissions components supplied and warranted directly by the engine manufacturer.

WHAT IS COVERED:

Components:
Air Cleaner (excludes filter element)
Air Intake Resonator
Air Intake Pipes
Cam Sensor
Catalytic Converter
Coolant Sensor
Crank Sensor
Data Link Connector
Engine Coolant Temp Sensor
Engine ECM
Evap Canister & Evap Canister Vent Solenoid
Exhaust Manifold & Exhaust Manifold Gaskets
Exhaust Pipes (between exhaust manifold and catalyst)
Fuel Injectors
Fuel Lines
Fuel Rail
Fuel Tank
Fuel Tank Pressure Sensor
Gas Cap
Ignition Coils
Knock Sensors
Malfunction Indicator Lamp (MIL)
Manifold Absolute Pressure (MAP) Sensor

Components:
Mass Air Flow (MAF) Sensor
Oxygen (O ₂) Sensors
Oil Fill Cap
PCV Hose (engine to air intake pipe)
Purge Control Valve
Spark Plugs*
Spark Plug Wires
Throttle Body
Throttle Pedal
Transmission Control Module
Transmission Speed Sensor
Vapor Lines

* Spark Plugs are warranted under Basic Chassis coverage or until the first required maintenance, whichever comes first.

Paint, Cowl

Paint coverage *excludes* lack-of gloss issues on vehicles painted with low gloss colors; the underside of hoods and roof and side mounted air fairings; and any damages to the paint or painted surface such as chips and scratches.

Coverage includes all factory-painted exterior surfaces of cowl structure (except those included in chassis paint). Warranted against orange peel; peeling or delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

Paint, Chassis

Coverage includes all factory painted surfaces on frame rails, crossmembers/gussets, front and rear bumpers, suspension components, power train components, drivelines, fuel tanks, air tanks, wheel end equipment, tool boxes, battery boxes, access steps, and attaching brackets and hardware. Warranted against peeling or non-adhesion. *Excludes U-joints and any damages to the paint or painted surface such as chips and scratches.*

Towing/Roadside Assistance

Coverage includes roadside assistance or towing (to the nearest authorized repair location) for a Daimler Trucks North America LLC warrantable repair in a vehicle-down situation that prevents the safe and lawful operation of the vehicle. If this coverage is provided, it will be specifically included in the coverage table as a separate category.

Transfer Case Assembly

Coverage includes housing and all internally lubricated parts.

Transmission

Coverage includes housing and all internally lubricated parts, electric/air shift/control units, valves, gaskets, and seals. *Excludes broken synchronizer pins, PTOs, transfer case(s), airlines, gauge senders, yoke(s), clutch and clutch control components including clutch brake. Excludes Allison automatic transmissions.*

Wheel End Equipment

Coverage includes brake components, wheels, hubs, drums, rotors, wheel seals/ bearings, slack adjustors, and attaching hardware.

2010 CALIFORNIA EMISSION CONTROL SYSTEMS WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Daimler Trucks North America (DTNA) are pleased to explain the emission control system warranty on emissions components warranted by DTNA on your vehicle. In California, new motor vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. DTNA must warrant the emission control system components as listed in the table of DTNA covered components on your engine or evaporative system for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine, emissions related, or evaporative components.

Your emission control system includes parts supplied and warranted by DTNA or the engine manufacturer. Where a DTNA warrantable condition exists, DTNA will repair or replace DTNA supplied defective components at no cost to you including diagnosis, parts and labor. Refer to your vehicle's coverage for a list of DTNA warranted components.

MANUFACTURER'S WARRANTY COVERAGE:		
Coverage	Time*	Distance*
Diesel Emission 2010	5 Years	100,000 mi/ 161 000 km
Gasoline Evaporative Emission 2011	5 Years	50,000 mi/ 80 500 km

* Time or Distance, whichever occurs first.

If an emission-related part on your vehicle is defective, the part will be repaired or replaced by DTNA. This is your Emissions coverage.

OWNER'S WARRANTY RESPONSIBILITIES:

- As the vehicle owner, you are responsible for performing the required maintenance listed in your owner's manual. DTNA recommends that you retain all receipts covering maintenance on your engine, but DTNA cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

- You are responsible for presenting your vehicle to a DTNA Authorized Repair Facility as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

- As the vehicle owner, you should also be aware that DTNA may deny you warranty coverage if your engine or a emissions component has failed due to

abuse, neglect, improper maintenance or unauthorized modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact Manager Service Operations at (313) 592-5000 or the California Air Resources Board P.O. Box 8001, El Monte, CA 91731-2990.

New Vehicle Limited Warranty

Under this New Vehicle Limited Warranty (“Warranty”), Daimler Trucks North America LLC (“Company”) warrants that each new vehicle will be free from defects in material and workmanship that occur under normal use within the applicable warranty period, subject to certain limitations and exclusions as specified in this document.

This limited warranty applies only to new vehicles sold by an authorized Daimler Trucks North America (DTNA) dealer or ordered directly from DTNA; vehicles sold at auction or as a result of repossession retain the warranty coverage from the original in-service date or factory invoice date if the vehicle has not been warranty registered.

Daimler Trucks North America LLC reserves the right to reduce or remove coverage on vehicles in salvage condition.

This Warranty covers all components and parts unless specifically covered by other warranties or otherwise excluded by this document.

Limitations

This warranty does not apply to vehicles that are sold or domiciled outside of the United States (50 states and Washington, D.C.), or Canada.

This Warranty does not apply to engines (except gasoline engines in FCCC applications), Allison transmissions, tires, or other components or parts that are not manufactured by Company and that are warranted directly by their respective manufacturers. Progressive damage caused by these manufacturers' components to any other parts including, but not limited to, parts installed by Company is excluded from Company warranty coverage. With respect to the foregoing, Company makes no warranty whether express, implied, statutory or otherwise including, but not limited to, any warranty of merchantability or fitness for a particular purpose.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND WHETHER WRITTEN, ORAL, OR IMPLIED INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY SPECIFICALLY EXCLUDES ANY OTHER WARRANTIES OR CONDITIONS PROVIDED FOR BY LAW, WHETHER STATUTORY OR OTHERWISE.

COMPANY'S SOLE OBLIGATION UNDER THIS WARRANTY SHALL BE TO REPAIR OR REPLACE, IN COMPANY'S SOLE DISCRETION, ANY DEFECTIVE COMPONENT OR PART. SUCH REPAIR OR REPLACEMENT SHALL BE WITHOUT COST TO PURCHASER WHEN PERFORMED WITHIN THE APPLICABLE WARRANTY PERIOD (TIME, DISTANCE, OR HOUR LIMIT, WHICHEVER OCCURS FIRST).

Purchaser must notify Company within the applicable warranty period, of any failure of the vehicle to comply with this Warranty and Purchaser must, at Purchaser's expense, promptly return the vehicle to an authorized repair location for inspection and repair or replacement of any defect in material or workmanship occurring within the applicable warranty period.

The vehicle must be maintained and serviced according to the prescribed schedules outlined in the Driver's/Operator's and Maintenance Manuals. Receipted bills and other evidence showing that required maintenance and service have been performed are required by Company as a condition of this Warranty.

After the Company's obligations under this Warranty expire, all liabilities of Company to Purchaser under

this Warranty shall terminate. Repairs made under this Warranty do not constitute an extension of the original Warranty period for the vehicle or for any specific component or part.

To the extent that any provision of this Warranty contravenes the law of any jurisdiction, such provision shall be inapplicable in such jurisdiction, and the remainder of the warranty shall not be affected.

Purchaser's Exclusive Remedy

THIS WARRANTY SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AGAINST COMPANY, WHETHER IN CONTRACT, UNDER STATUTE (INCLUDING STATUTORY PROVISIONS AS TO CONDITIONS AS TO QUALITY OR FITNESS

FOR ANY PARTICULAR PURPOSE OF GOODS SUPPLIED PURSUANT TO THE CONTRACT OF SALE), WARRANTY, TORT, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY.

Limitation of Liability

COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE COST TO REPAIR OR REPLACE, IN COMPANY'S SOLE DISCRETION, THE DEFECTIVE COMPONENT OR PART THAT IN NO EVENT SHALL EXCEED THE FAIR MARKET VALUE OF THE VEHICLE AT THE TIME THE DEFECT IS DISCOVERED.

IN NO EVENT SHALL COMPANY BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, INJURIES TO PERSONS OR DAMAGE TO PROPERTY, LOSS OF PROFITS OR ANTICIPATED PROFITS, OR LOSS OF VEHICLE USE.

Exclusions

The following components, parts, or conditions, are specifically excluded from coverage under this Warranty.

Air Compressors, Engine Brakes, and Other Proprietary Engine Components

The engine manufacturer installs most air compressors and engine brakes. Any failure of a proprietary engine component or Jacob® Brake component must be filed directly to the engine manufacturer. Failures on non-proprietary components can be filed through Daimler Trucks North America LLC Dealers.

Air Springs

Tolerance buildup can occur during the assembly process of the rear suspension and rear cab air springs, and can cause the springs to have the appearance of being crooked, misaligned or improperly installed. This tolerance buildup is not detrimental to the operation of the vehicle and will not have an affect on either the quality of the ride or the durability of the components or vehicle. Straightening of these springs is not covered under this Warranty.

Alignment of Axles/ Wheels/ Steering Wheel

Each Daimler Trucks North America vehicle manufacturing plant uses an integrated alignment system to align axles and wheels and to center the steering wheel to Daimler Trucks North America LLC specifications. Realignment or readjustment of these items,

including steering stops and steering poppets, is not covered under warranty.

Any special alignment settings at the request of the Owner must be handled between the Dealer and Owner after delivery from factory. These special adjustments are not covered under Warranty.

Axle Breather Vents

During the vehicle manufacturing process, an oil run or drip stain may appear at the breather vent. Removing the vent, applying pipe sealant to the threaded vent fitting and re-installing the vent is unnecessary. Removing the axle breather vent and re-sealing the threaded fitting is not covered under this Warranty.

Cab Interior Components

The repair or replacement of cab interior components that are rendered unserviceable due to normal wear or abuse are not covered under this Warranty.

These components include, but are not limited to:

- Steering wheel
- Steering wheel wrap
- Painted trim components

Chrome Surfaces, Aluminum and Stainless Steel Components

The following items ARE covered under this Warranty:

- Chrome peeling off in sheets
- Chrome cut at mounting bolts due to over-torque at the factory
- Bubbles in the chrome that are not caused by rock chips and/or general rust conditions
- Isolated rust along seams or welds

The following items are NOT covered under this Warranty:

- General rust, for example, rust on the unfinished backside of a bumper
- Dimpling at the mounting bolts
- Staining, bluing, and/or yellowing that can be cleaned with a quality cleaning-product
- Rust, pits, and/or nicks caused by road wash or road debris breaking the chrome surface

- Streaks/stains/corrosion caused by severe wash solutions or corrosive road salts/chemicals

Claims pertaining to failures of chrome surfaces, aluminum, and stainless steel components will not be processed unless a clear digital picture is provided that adequately shows the defect.

Clutch Adjustment

Clutch adjustments are normally required due to clutch wear and are considered normal maintenance. However, if the clutch adjustment is found to be outside of Company specifications during, or prior to, in-service of the vehicle, a warranty claim will be accepted on a one-time basis.

Claims for clutch adjustments will not be accepted unless the adjustment is found to be outside of Company specifications using the special clutch adjustment measuring tools provided by Company (e.g., adjusting the clutch to satisfy feel will not be accepted as warranty).

Competition

Warranty will become void on any vehicle that is used in competition, including but not limited to:

- Racing
- Tractor pulls
- Other motor sports

Consumable Parts

Parts shipped with chassis that are subject to consumption during their normal service life and are routinely replaced during normal maintenance services are covered up to 15,000 miles (24 000km) for FCCC chassis. These items are:

- Belts
- Brake linings
- Clutch brake
- Clutch linings
- Desiccant cartridges
- Fluorescent ballast and tubes
- Fuses
- Light bulbs

- Mud flaps
- Mud flap mounting brackets
- Caps (radiator, surge, fuel tank)
- Receiver-dryer filter
- Windshield washer nozzles
- Wiper arms and blades

Consumable parts NOT covered under this Warranty include, but are not limited to, the following:

- Antifreeze
- Filters (fuel, air, oil, water)
- Fluids (unless low due to a warrantable failure)
- Lubricants

Corrosion

A detailed list of exclusions for CORROSION is listed under WARRANTY COVERAGE DESCRIPTIONS.

Damage

The following are not covered under this Warranty:

- Damage caused by use of the vehicle in any application that is not approved or is inconsistent with build specifications
- Damage resulting from improper use or misuse or abuse, negligence, improper operation, improper or insufficient maintenance (including, but not limited to failure to maintain vehicle as outlined in the driver's/operator's and maintenance manuals), overloading, unauthorized modifications, accidents, or operation at excessive speeds
- Environmental damage, including airborne fallout (including chemicals, tree sap, etc.), or other atmospheric conditions, hailstones, or other acts of nature
- Damage caused by road salts/chemicals or cleaning solvents, detergents or compounds
- Storage deterioration including damage caused by improper or insufficient storage or maintenance
- Damage caused by road hazards or road conditions
- Damage caused during shipping/transport after initial delivery of vehicle
- Damages (including peeling or flaking) caused by high-pressure washing or steam-cleaning
- Damages occurring after in-service (e.g., from rock chips)
- Damages caused by customer-installed sealer in air conditioning systems
- Damages caused by engine horsepower/torque upgrades.
- Damage due to vibration associated with misapplication or improper operation of drivetrain components
- Damage due to terrorist activities
- Damage due to acts of war

Engine

The engine (except gasoline engines in FCCC applications), including all of its components as supplied by the manufacturer, is not covered under this Warranty, but is warranted separately by the manufacturer of the engine. For engine warranty or service, contact the engine manufacturer's authorized sales and service facility.

Exhaust System Clamps

During the early life of the vehicle or when the engine is cold, many exhaust clamps exhibit a soot trace. This condition is self-correcting and does not require adjustment, tightening, or replacement of the clamp. Claims for adjusting or tightening will not be paid under warranty.

Glass, Mirrors, Lens

Glass, mirror or lens breakage or chips or scratches of glass, mirrors, or lenses are not covered by this Warranty.

Misapplication of Vehicle

The warranty on any vehicle used inconsistent with its specified vocation/application will be downgraded to the warranty that is consistent with the vehicle use. Any and all claims associated with the misapplication of the vehicle will be subject to chargeback.

Miscellaneous Expenses

Premium charges and work not directly related to the repair or replacement of a warranted part are not covered under this Warranty. Examples include, but are not limited to:

- Federal, state, provincial, and local taxes

- Travel expenses
- Loss of revenue
- Customer labor including overtime labor
- Downtime
- Driver's expenses
- Cost of rental equipment
- Loss of cargo, including perishable cargo
- General housekeeping supplies (i.e. rags, solvents, sweeping compounds, coveralls, etc.)
- Communication charges
- Towing/road call assistance (unless coverage is specifically stated in the applicable warranty table)
- Repair or replacement of optional items not sold or installed by company
- Removal or replacement of dealer, body builder, or customer installed equipment
- Environmental fees, cleanup, or other charges
- Cost of emergency services

Modifications to Original Equipment

Company does not warrant vehicle component or chassis modifications, or equipment installations arranged by Dealers or Customers. In addition, the extra time necessary to remove body builder installed items and/or equipment to work on a warranted repair is not covered under this Warranty unless Company

sells the complete chassis/body/equipment as a package.

If Dealers or Customers perform any vehicle modifications or equipment installations, to the extent these modifications or equipment installations adversely affect other vehicle components or vehicle performance, Company shall not accept any product liability or claims under the terms of the vehicle warranty. These claims become the sole responsibility of the person performing the modifications or equipment installations.

Paint

The following exclusions to paint warranty include, but are not limited to:

- Complete chassis re-painting to repair paint damages
- Damages occurring after in-service (e.g., from rock chips)
- Peeling/flaking caused by high-pressure washing or steam cleaning
- Rusting of painted bumpers
- Removal and/or replacement of decals, striping, and/or lettering not applied by Company

Specific areas of the vehicle are deliberately not painted or are not painted to any standard; paint repairs are not warrantable to such areas. These areas include:

- Underside of the hood, including the inside of the wheel wells
- Inside of the bumper
- Aftertreatment devices

Gloss: Gloss Warranty claims pertaining to gloss issues on vehicles painted with low-gloss colors (as identified in the Data Books) are the Dealer's responsibility and will not be honored by warranty.

Ship Loose Items and Components

During the manufacturing process, certain vehicle components are normally placed in the cab of the vehicle or strapped down to the chassis for security reasons. It is the Dealer's responsibility to mount these "ship loose" items in the correct location on the vehicle. Mounting of "ship loose" items will not be covered under warranty.

These items include, but may not be limited to, the following:

- Fire extinguishers

- Winter fronts
- Spare wheels/tires
- Chrome lug nut covers
- Driver's pouch

Transmissions

Allison transmissions and components are not covered under this Warranty, but are warranted separately by Allison. Information regarding Allison's warranty is provided for informational purposes only and is subject to change. For warranty or service information, contact Allison's authorized sales and service facility.

Routine Maintenance

Routine maintenance, servicing, and adjustment, as defined in the applicable Vehicle Maintenance Manual and Driver's Manual, are excluded from Warranty.

Periodic adjustment or re-torque of wheel bearings, wheel lug nuts, and suspension U-bolts are considered maintenance adjustments and are not covered under warranty.

Vibrations, squeaks, rattles, loose fittings/clamps, hose fitting leaks, loose nuts/bolts/screws, and loose electrical connections may develop during the initial trip(s) of the vehicle and these types of repairs/ad-

justments are covered under warranty one time during the following applicable initial operating periods unless excluded in the paragraphs below.

Reminder: After the following initial operating periods, these developments are the result of use and their repair/adjustment activities are considered routine maintenance and thus excluded from warranty.

Initial Operating Period

The Initial Operating Period (IOP) is 25,000mi (40 200km).

Exclusions from warranty during the Initial Operating Period are:

- Cowl, hood, and fender-mounted mirrors are adjusted at the factory but may be retracted by the transporter to prevent damage during transport. Subsequent adjustments and tightening of mirror mounting hardware are considered part of the routine preparation of the vehicle before Customer delivery. Claims for adjusting the mirrors or tightening of the attaching hardware will not be paid under warranty during or after the initial operating period.
- Claims for re-routing of electrical wiring, hoses, or lines which meet Daimler Trucks North

America's routing standards will not be paid under warranty during or after the initial operating period.

- Final preparation of the vehicle for Customer delivery to include cleaning/vacuuming interior of cab, washing windows, washing the exterior of the vehicle, polishing exterior chromed or painted surfaces are considered as delivering-Dealer responsibilities. Claims for these activities will not be paid under warranty during or after the initial operating periods.

Test Vehicles

Any vehicles being used in testing or used to test specific components must be identified to the Warranty Department and accommodations must be made for claims that relate to the test item(s).

Any vehicles used in endurance testing, such as the Altoona Test, are void of all warranty, new or used.

Tires and Tire Balancing

The tires are not covered under this Warranty, but are warranted separately by the tire manufacturer. Tire balancing is not covered under warranty.

Transfer of Warranty

This Warranty is transferable to a subsequent Owner if it has not expired. To ensure the Owner receives proper warranty recognition, the ownership informa-

tion should be updated in Company mainframe. Please contact FCCC or authorized Daimler Trucks North America LLC Dealer to transfer warranty.

Change of Owner Address Information

To ensure Company's ability to reach the current Owner with Recall and Field Service campaign information, the Owner's account must be updated whenever there is a change to the Owner's name or address.

Please contact FCCC or authorized Daimler Trucks North America LLC Dealer to transfer warranty.

Product Improvement

Company reserves the right to make improvements or changes to the product at any time without incur-

ring any obligation to make such changes or improvements to any other vehicle.

Owner's Responsibilities

It is the Owner's responsibility to ensure the vehicle is maintained as outlined in the Driver's/Operator's and Maintenance Manuals. It is important that the new Owner becomes familiar with the contents of the warranty information. When the Owner first receives the vehicle, Dealer should thoroughly review the Owner's Warranty Information Book with the Owner.

To initiate warranty, customer must complete and sign the "Warranty Start Form." Dealer should mail "Warranty Start Form" form to Daimler Trucks North America LLC.



The following information is submitted for all Startrans Bus products proposed on PTR 170000007 as supporting documentation of the structural soundness and impact resistance of the bodies manufactured. All vehicles are built using virtually the same materials with some minor differences in the height and width of cross members due to entry floor heights and/or body width variations.

A representative set of construction prints provided by engineering supplements this verbal accounting of our materials and assembly specifications.

If, in the reviewing of these written technical specifications and engineering frame prints submitted any questions arise, please contact us immediately for any clarification or help in interpretation and understanding.

1.0 Body Construction – General Frame Construction

1. Manufactured from all aluminized steel products, the floor, roof, side walls, rear wall, driver halo assembly and entry door assembly are all wire welded (MIG) together to form an integral aluminized steel frame that is thoroughly coated in our primer paint shop, then mounted with specified hardware to the rubber body mount points (pucks) supplied by the chassis manufacturer. Once joined to the chassis, the bus finishing process begins.

1.0.1 Floor frame construction and assembly –

- 1.0.1.1** Cross Members -- The floor cross members form the base structural support for the rest of the frame components. Our cross members are constructed of 14 gauge aluminized steel, formed to a capital “C” shape. Cross members over the fuel tank are made to provide the clearance needed to conform with FMVSS301, and include formed internal reinforcements welded in place for additional strength. All additional longitudinal and latitudinal structure is flush welded in place to form a one piece floor upon completion.
- 1.0.1.2** Aluminized steel “Hat Posts” – 1”x1”x4” run the length of the floor between cross members and are welded into place. This extremely strong form is used to weld our HSLA steel seat track in place.
- 1.0.1.3** Aluminized steel C Channel – 1”x1.5” C channel is welded in between cross members the full length of the floor in 5 places. Coupled with the Hat Posts this provides a one-piece strong “ladder” type frame for the flooring.
- 1.0.1.4** Seat Track – 12 gauge roll formed high strength/low alloy steel is wire welded in place for seat mounting down each side of the bus, with lengths predicated on the floor plan chosen. This is yet another stiffener in our extensive construction process.



- 1.0.1.5** Wheel Wells -- Constructed of 14 gauge aluminized steel, wheel wells are also welded in during the floor construction process. All seams in the wheel well are welded to create a one piece water resistant wheel housing structure. The wheel wells also provide additional strength to the body assembly, when welded in place.
- 1.0.1.6** Structural Aluminized steel Angle – 1/8” thick 1.5” x 2.5” structural aluminized steel angle is used the full perimeter length of each floor assembly, welded to the ends of all floor cross members. This provides not only a flat plane for joining the sidewall assembly, but also ties all cross members together and provides additional side impact resistance.
- 1.0.1.7** Additional structure – When adding vertical stanchions, wheel chair lifts and/or tie down options, additional structure is welded into the floor at locations specified by our engineering department on CAD drawings.

3.0.2 Sidewall Construction –

- 1.0.1.8** Sidewall vertical member – The heart of our sidewall is the vertical structure, a roll formed 18 gauge aluminized steel capital “C” channel with 8 bends that create extreme strength and rigidity. The vertical member is installed in full lengths and in shorter sections below window frames. Additional vertical structure is used at both ends of the sidewall enabling the structure to withstand the forces applied by the vehicle when in motion. Using the open C member also enables a thorough primer application.
- 1.0.1.9** Aluminized steel Tubing – 1”x1” lower and 1”x3” upper 16 gauge aluminized steel tubing is welded in horizontally between vertical members to frame in window openings. This adds front to rear reinforcement as well.
- 1.0.1.10** Seat Track – 11 gauge high strength low alloy roll formed aluminized steel track is welded down each sidewall below the window frame. While serving as a seat attaching device, it adds excellent structure to the sidewall and also adds excellent side impact resistance.
- 1.0.1.11** Wheelchair Options – Add another layer of metal. Depending on track locations, another structure of 11 gauge thick aluminized steel is welded in place between each vertical member for attaching a shoulder belt mount. Also, additional structure is added to accommodate wheelchair door frames – either 1”x1” or 1”x2” 16 gauge wall aluminized steel tubing..
- 1.0.1.12** Full length aluminized steel tubing – 1”x1” 16 gauge aluminized steel tubing is stitch welded to the sidewall bottom and top at each vertical member for attaching to the floor and roof sections, respectively.

3.0.3 Rear Wall Construction –

- 1.0.1.13** Rear wall vertical member – The vertical sidewall capital “C” channel with 8 bends is also used in the rear wall assembly. Full length structure is used at varying places, depending on choice of rear window, or rear door. Shorter cut pieces are used above windows and doors. Additional side windows used with the rear door also change the configuration.



- 1.0.1.14 Aluminized steel Tubing – 1”x1” 16 gauge aluminized steel tubing is welded horizontally between vertical members to provide a window frame in the standard product, and used as an upper door frame in the optional rear assembly.
- 1.0.1.15 Full length aluminized steel tubing – 1”x1” 16 gauge aluminized steel tubing is stitch welded to the rear wall top and bottom as in the sidewall assembly.

3.0.4 Roof Construction –

- 1.0.1.16 Roof Bows – Radius formed one-piece 16 gauge aluminized steel roof bows formed as a modified hat post design with eight bends for exceptional strength and located on 16” centers (the closest in the industry), including 4 bends in the web similar to our vertical sidewall aluminized steel provide a roof structure capable of taking severe loads. They are then capped with top flat pieces from flange to flange to provide abundant surface area for securing the exterior roof material.
- 1.0.1.17 Aluminized steel Tubing – 1”x1” 16 gauge aluminized steel tubing is welded in horizontally to frame all lower window openings and 1” x 3” 16 gauge aluminized steel tubing to all upper window openings as required. A full perimeter is also welded on to mate the roof to the
- 1.0.2 sidewall and rear wall, with short vertical pieces providing support on the front and rear ends. The 3” wide aluminized steel tube supplies a structural mounting surface for shoulder belt attachment and has been pull tested to federal standards.

1.0.3 Driver Compartment Overhead Halo –

- 1.0.3.1 Aluminized steel Tubing – 1”x1” 16 gauge aluminized steel tubing is cut and jig welded into an integrated one piece structure spanning from the front roof bow of the body to the newly cut roof line of the cab. Also created during the structure manufacture is the housing for mounting the electronic circuit board.
- 1.0.3.2 11 Gauge Aluminized steel – formed to make brackets used to mount to the chassis roof.

1.0.4 False Floor (Cab to body transition) –

- 1.0.4.1 Aluminized steel Tubing – 2” x2” 16 gauge aluminized steel tubing is welded together forming a flat body floor transition from the step area back to the actual body area. An overhang on the curbside provides a secure attach point frontally for the entry door frame added later.
- 1.0.4.2 Structural aluminized steel angle – 11 gauge 1.5”x1.5” structural angle is added in short lengths five places to provide attachment points to the chassis floor.

3.0.7 Interior Vertical Transition Frames –

- 1.0.4.3 Aluminized steel Tubing – 1”x1” 16 gauge aluminized steel tubing is used vertically and a ladder type assembly is made welding the 1x 1 tube to .75”x.75” 11 gauge aluminized steel



tube that is used horizontally in the assemblies. These pieces transition from the body fronts on each side to the driver halo side assembly and the entry door frame assembly on the curbside.

1.0.5 Entry Door & Step Assembly Frame –

1.0.5.1 Aluminized steel Tubing – 1”x1” 16 gauge and .75”x.75” 11 gauge aluminized steel tube is cut to length and welded together in a ladder type construction forming a rigid frame for attaching the entry door/step assembly.

1.0.6 Entry Door/Step Assembly –

1.0.6.1 11 Gauge Aluminized steel – The step riser/tread piece is manufactured from one-piece 11 gauge aluminized steel and uses 90° bends at all risers and treads. The bottom tread also adds an additional 90° bend for additional strength and safety. Upper and lower side pieces are then attached and an 11 gauge flat plate with holes is used to bridge the lower and upper side pieces, then is stitch welded and plug welded to form a strong one piece assembly prior to inserting and welding to the entry step framing.

APPLICATION OF EXTERIOR SIDEWALL MATERIAL

GALVANIZED STEEL SIDEWALLS OR OPTIONAL FIBERGLASS/FRP/COMPOSITE SIDEWALLS

The exterior is .024” galvanized steel pre-painted white with an underlayment of 5/32” luan.

The interior is 5/32” luan covered with a light gray frp or padded vinyl.

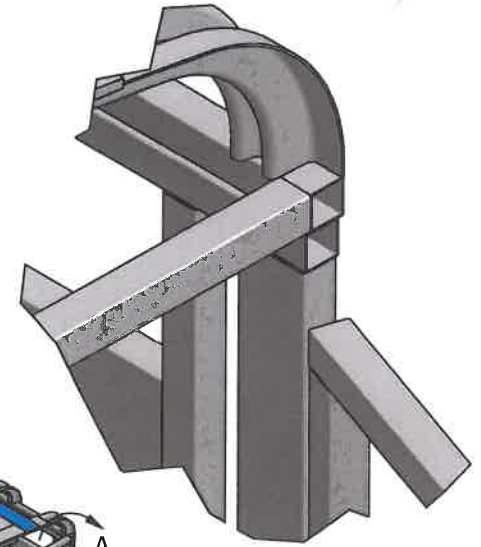
The foam filled aluminized steel cage is placed in the center and all layers are adhered using polyurethane hot melt adhesive. The entire assembly is sent through a pressure application roller system to assure adhesion.

Composite FRP exterior sidewall panels are installed using the same method.

Should any further questions arise, please contact your Startrans Bus representative.

REAR WALL
31-28-0003-05

ROOF FRAME
32-13-0017-10

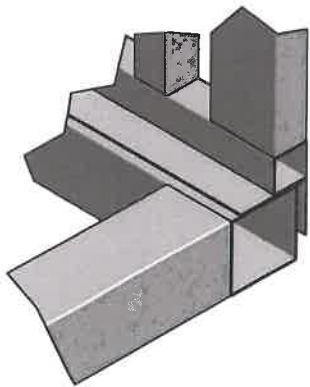


DETAIL A
SCALE 1 / 2

DRIVER SIDEWALL
32-13-0001-10

PASSENGER SIDEWALL
32-13-0009-10

FALSE FLOOR FRAME
31-28-0534-10



FLOOR FRAME
31-08-0016-12

ENTRYWAY
31-28-0019-05 &
31-28-0564-10

ISOMETRIC VIEW

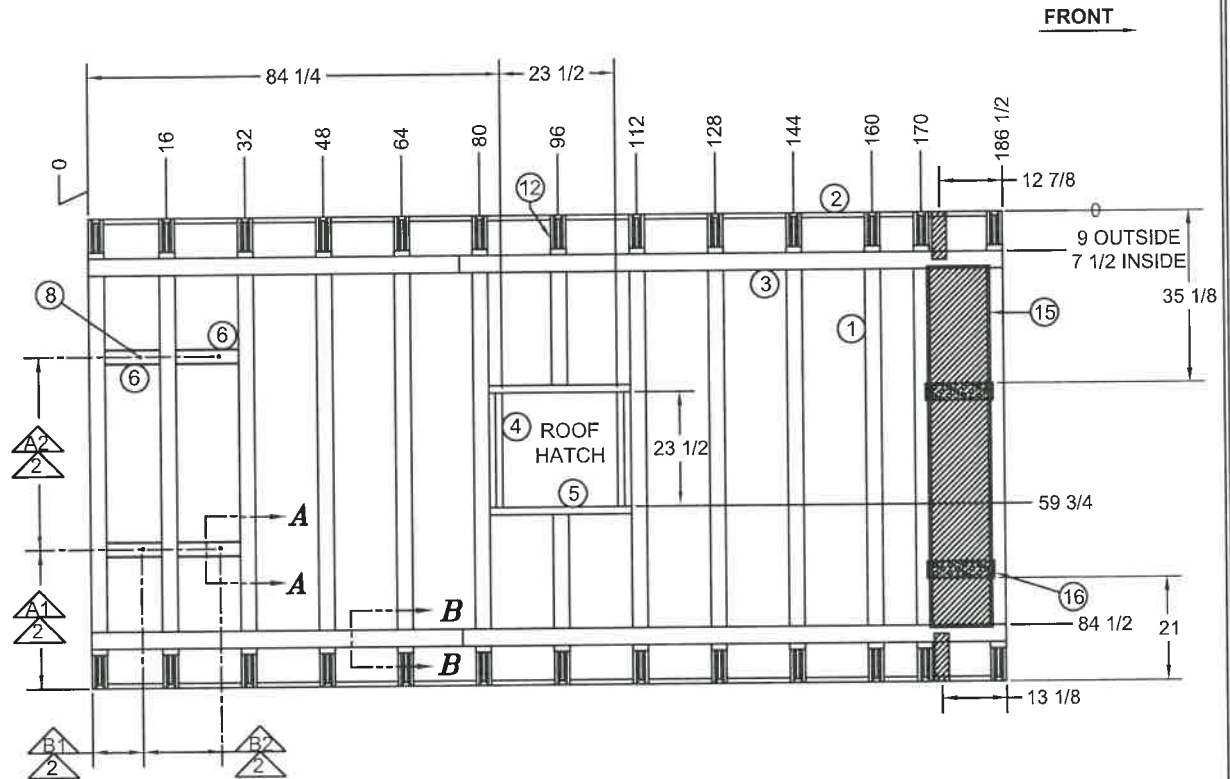
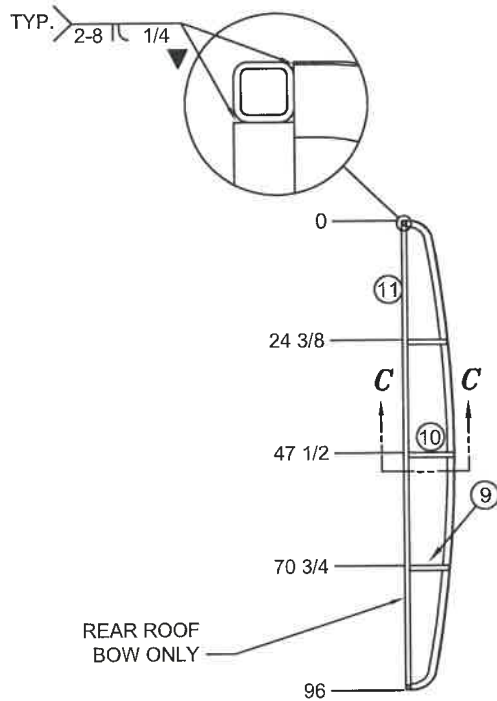
DETAIL B
SCALE 1 / 2

REVISION HISTORY			
ZONE	REV	DATE	APPROVED

DFTSN: TAS	TITLE Ford Senator 2 - 158 WB - 175 BOX CAGE W/C REAR LIFT, CUT N BUTT STYLE
DATE: 12/5/14	FLOOR DWG NO 40016-2
SHEET 1 OF 1	

▼ CRITICAL CONTROL ITEM

USAGE: 2011 ALLSTAR, FORD, 158" WB - MODEL 24



****** WHEN ADDING REAR LUGGAGE ADD THE SIZE OF THE REAR LUGGAGE TO DIM. B1

NOTES:

- 1- DRAWING VIEWED FROM EXTERIOR SIDE OF UNIT.
- 2- A/C BOLT PATTREN MAY VERY SEE SALES ORDER.
- 3- BEFORE CUT ROOF HATCH SEE SALES ORDER.
- 4- SCREW LOCATION AT SEAMS AND EDGES 8" ON CENTER ALL OTHER LOCATION 16" ON CENTER.
- 5- SEALANT USAGE: 1/4" MIMUM 3/8" MAXIMUM BEAD ON ALL ROOF FRAME TO LUAN SURFACES.
- 6- ADD STRAP FOR CHEVY ONLY

16	2		STRAP: 11ga. x 3-1/2" x 13-3/4"Lg.
15	1		PLATE: 16ga. x 12-3/4" x 75"Lg.
14	1		SHEET STEEL: 16ga. x 2" x 103"Lg.
13	2		SHEET STEEL: 16ga. x 3-1/2" x 38-1/2"Lg.
12	2	02062357	ROOF BOW W/CAP 16ga. x 3-3/16 x 35-1/4"Lg.
11	1		TUBE: 11ga. x 1" x 1" x 94"Lg. A-513
10	1		TUBE: 11ga. x 1" x 1" x 8-1/2"Lg. A-513
9	2		TUBE: 11ga. x 1" x 1" x 8"Lg. A-513
8	4		BOLT: 3/8-16 x 3"Lg. HEX HEAD
7	2		SHEET STEEL: 16ga. x 3-1/2" x 36-1/2"Lg.
6	4	70009046	"C" CHANNEL: 16ga. x 1" x 3-1/2" x 14-1/2"Lg.
5	2	70009047	"C" CHANNEL: 16ga. x 1-3/8" x 1-3/8" x 30-1/2"Lg.
4	2	70009047	"C" CHANNEL: 16ga. x 1-3/8" x 1-3/8" x 24-1/4"Lg.
3	4		SHEET STEEL: 16ga. x 3-1/2" x 120"Lg.
2	2		TUBE: 16ga. x 1" x 1" x 186-1/2"Lg. A-513
1	10	02062357	ROOF BOW W/CAP 16ga. x 3-3/16 x 96"Lg.
REF. No.	QTY.	PART No.	MATERIAL DESCRIPTION

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REV. LET.	DESCRIPTION OF CHANGE	CHK	DATE	ECN No.
A	2011 STYLE UPDATES	MK	10/29/13	

STARTRANS

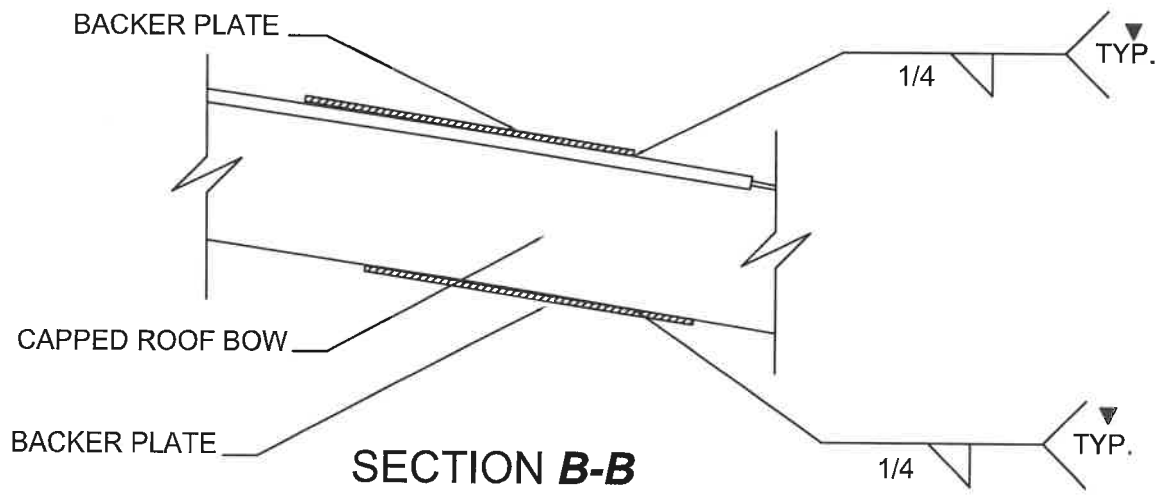
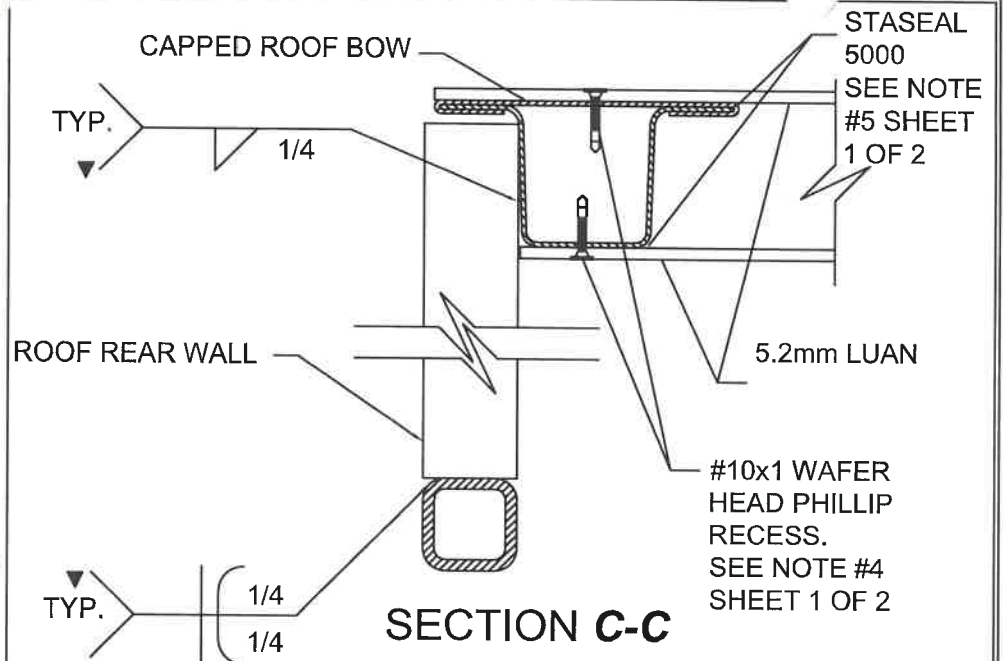
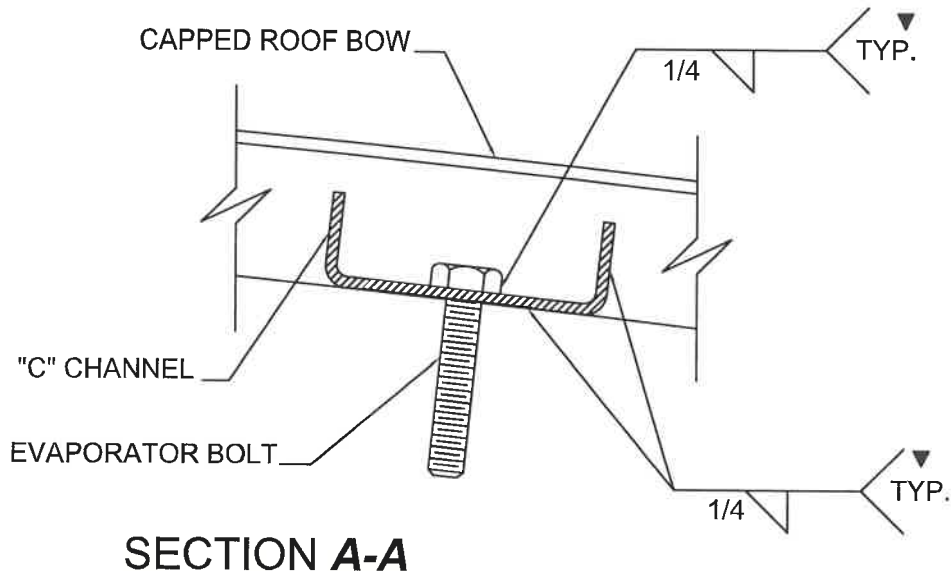
**Frame, Roof Ford & Chevy
SENATOR 2**

DATE: 10/13/10
DFTSN: MDK
CHKR:
APRVD:

TITLE: Frame, Roof Ford & Chevy
SENATOR 2
DWG. No. 32-13-0017-10
SCALE
DISK No. SHEET 1 of 2

TOLERANCE UNLESS OTHERWISE SPECIFIED
±.00 ±.030
±.000 ±.015
±.0000 ±.005

▼ CRITICAL CONTROL ITEM



T/A-71 NEW STYLE	33-5/8	30	10	12-1/4
ACC 23022 SERIES	38	20	10	14-3/4
ACC 23023 SERIES	33-5/8	28-3/4	10	14-3/4
T/A-77	18-1/4	59-1/2	10	10-3/8
T/A-73	28-1/4	39-1/2	10	9-1/2
T/A-71 OLD STYLE	33-5/8	28-3/4	10	12-1/4
T/A-70	36-3/4	22-1/2	10	11-5/8
T/A-30	31	34	10	9-1/2
EM-14 & RE-29	30-3/4	34-1/2	10	9-1/2
EM-6 & RE-10	36	24	10	9-1/2
EM-3 & RE-30	28-1/4	39-1/2	10	16
RE-15 & RE-20	28-1/4	39-1/2	10	9-1/2
EM-1 & EM-2	28-1/4	39-1/2	10	9-1/2
EM-7 GEN 5	36-1/8	23-3/4	10	9-1/2
EM-2 GEN 5	32-3/8	31-1/16	10	9-1/2
EM-1 GEN 5	28-3/16	39-5/8	10	9-1/2
EVAPORATOR MODEL	A-1	A-2	B-1	B-2

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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

STARTRANS

DATE: 10/08/10 TITLE: **Frame, Details Roof, 2011 SENATOR 2**

DFTSN: MDK

CHKR: DWG. No. 32-13-0017-10

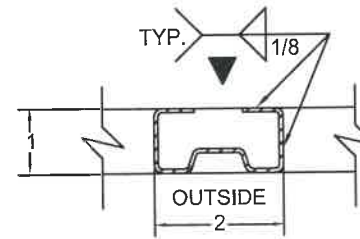
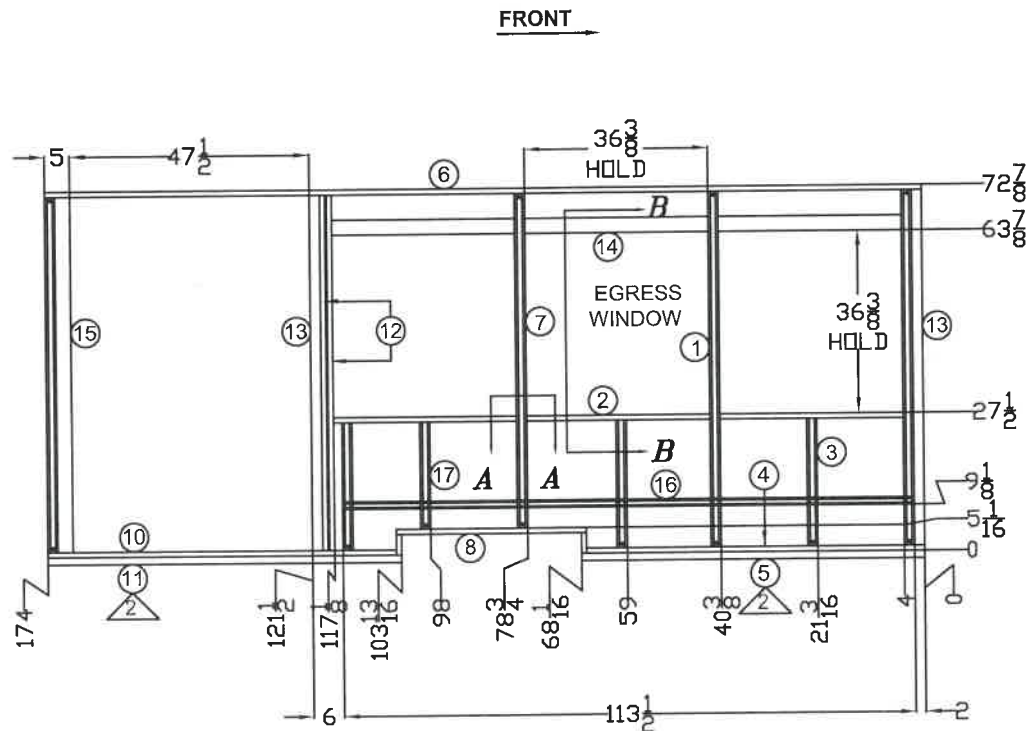
APRVD: SCALE

DISK No. SHEET 2 OF 2

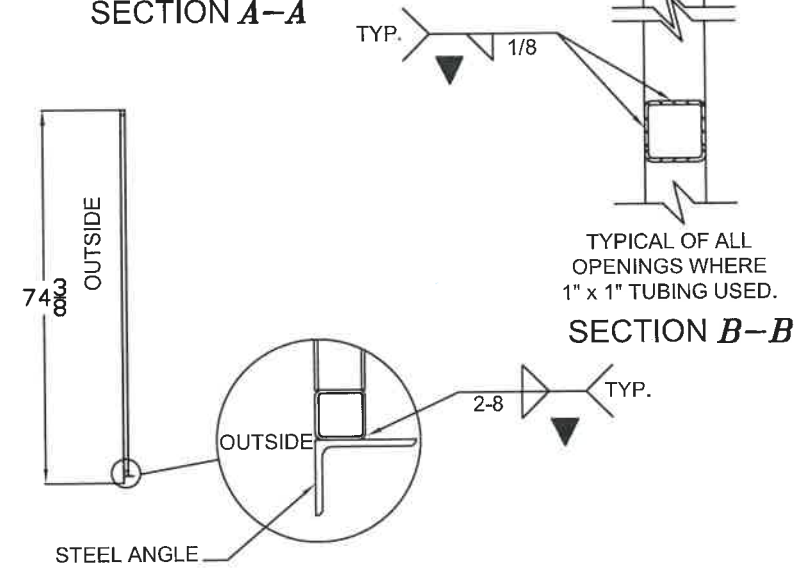
TOLERANCE UNLESS OTHERWISE SPECIFIED:
 ±.00 ±.030
 ±.000 ±.015
 ±.0000 ±.005

▼ CRITICAL CONTROL ITEM

USAGE: FORD 158"WB/MODEL 24



SECTION A-A



TYPICAL OF ALL OPENINGS WHERE 1" x 1" TUBING USED.
SECTION B-B

NOTES:

1- DRAWING VIEWED FROM EXTERIOR SIDE OF UNIT.

2- ANGLE TO BE WELDED FLUSH WITH OUTSIDE EDGE OF WALL.

REF. No.	QTY.	PART No.	MATERIAL DESCRIPTION
9	0		TUBE: 16ga. x 1" x 1" x 24-3/8"Lg. A-513
8	1		FRAME, SIDEWALL WHEEL WELL FORD
7	1	02062351	WALL BOW: 18ga. x 1" x 2" x 66-13/16"Lg. A-513
6	1	02071055	TUBE: 16ga. x 1" x 1" x 174"Lg. A-513
5	1	02071056	ANGLE: 11ga. x 1-1/2" x 2" x 68-1/16"Lg. A-513
4	1	02071055	TUBE: 16ga. x 1" x 1" x 67-1/16"Lg. A-513
3	3	02062351	WALL BOW: 18ga. x 1" x 2" x 25-1/2"Lg. A-513
2	3		TUBE: 16ga. x 1" x 1" x 36-3/8"Lg. A-513
1	4	02062351	WALL BOW: 18ga. x 1" x 2" x 70-7/8"Lg. A-513

17	1		WALL BOW: 18ga. x 1" x 2" x 21-7/16"Lg. A-513
16	1		SEAT TRACK: 113-1/2"Lg.
15	1		TUBE: 16ga. x 1" x 3" x 70-7/8"Lg. A-513
14	3		TUBE: 16ga. x 1" x 3" x 36-3/8"Lg. A-513
13	2		TUBE: 18ga. x 1" x 2" x 70-7/8"Lg. A-513
12	2	02071055	TUBE: 16ga. x 1" x 1" x 70-7/8"Lg. A-513
11	1	02071056	ANGLE: 11ga. x 1-1/2" x 2" x 70-3/16"Lg. A-513
10	1	02071055	TUBE: 16ga. x 1" x 1" x 69-3/16"Lg. A-513

REF. No.	QTY.	PART No.	MATERIAL DESCRIPTION
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REV. LET.	DESCRIPTION OF CHANGE	CHK	DATE	ECN No.

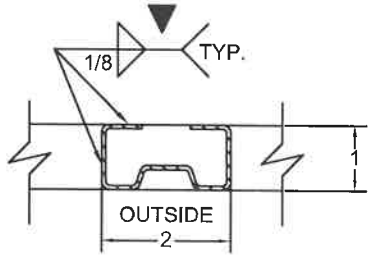
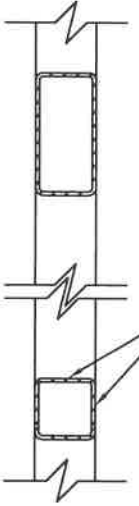
DATE: 10/08/10	TITLE: 158" WB MODEL 24, PASSENGER SIDEWALL, REAR LIFT, STANDARD FLOOR
DFTSN: MKLINE	DWG. No. 32-13-0009-10
CHKR:	SCALE
APRVD:	DISK No.
TOLERANCE UNLESS OTHERWISE SPECIFIED: ±.00 ±.030 ±.000 ±.015 ±.0000 ±.005	SHEET 1 OF

▼ CRITICAL CONTROL ITEM

USAGE: FORD 158"WB/MODEL 24

NOTES:

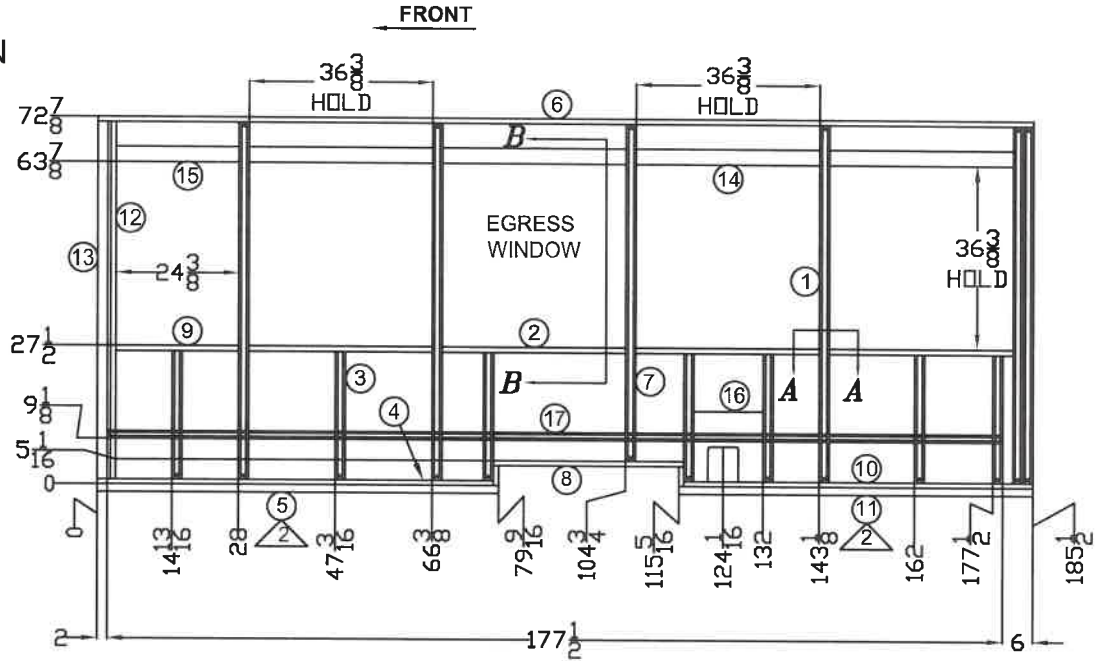
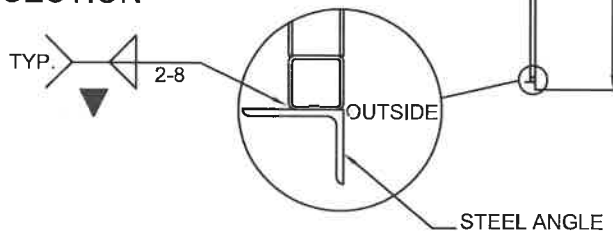
- 1- DRAWING VIEWED FROM EXTERIOR SIDE OF UNIT.
- 2- ANGLE TO BE WELDED FLUSH WITH OUTSIDE EDGE OF WALL.



A-A SECTION

TYPICAL OF ALL OPENINGS WHERE 1" x 1" TUBING USED.

B-B SECTION



REF. No.	QTY.	PART No.	MATERIAL DESCRIPTION
9	1		TUBE: 16ga. x 1" x 1" x 24-3/8"Lg. A-513
8	1		FRAME, SIDEWALL WHEEL WELL FORD
7	1	02062351	WALL BOW: 18ga. x 1" x 2" x 66-13/16"Lg. A-513
6	1	02071055	TUBE: 16ga. x 1" x 1" x 185-1/2"Lg. A-513
5	1	02071056	ANGLE: 11ga. x 1-1/2" x 2" x 79-9/16"Lg. A-513
4	1	02071055	TUBE: 16ga. x 1" x 1" x 78-9/16"Lg. A-513
3	7	02062351	WALL BOW: 18ga. x 1" x 2" x 25-1/2"Lg. A-513
2	4		TUBE: 16ga. x 1" x 1" x 36-3/8"Lg. A-513
1	5	02062351	WALL BOW: 18ga. x 1" x 2" x 70-7/8"Lg. A-513

17	1		SEAT TRACK: 177-1/2"Lg.
16	1		FUEL FILL BACKER BOARD
15	1		TUBE: 16ga. x 1" x 3" x 24-3/8"Lg. A-513
14	4		TUBE: 16ga. x 1" x 3" x 36-3/8"Lg. A-513
13	1		TUBE: 18ga. x 1" x 2" x 70-7/8"Lg. A-513
12	1		TUBE: 18ga. x 1" x 1" x 70-7/8"Lg. A-513
11	1	02071056	ANGLE: 11ga. x 1-1/2" x 2" x 70-3/16"Lg. A-513
10	1	02071055	TUBE: 16ga. x 1" x 1" x 69-3/16"Lg. A-513

REF. No.	QTY.	PART No.	MATERIAL DESCRIPTION
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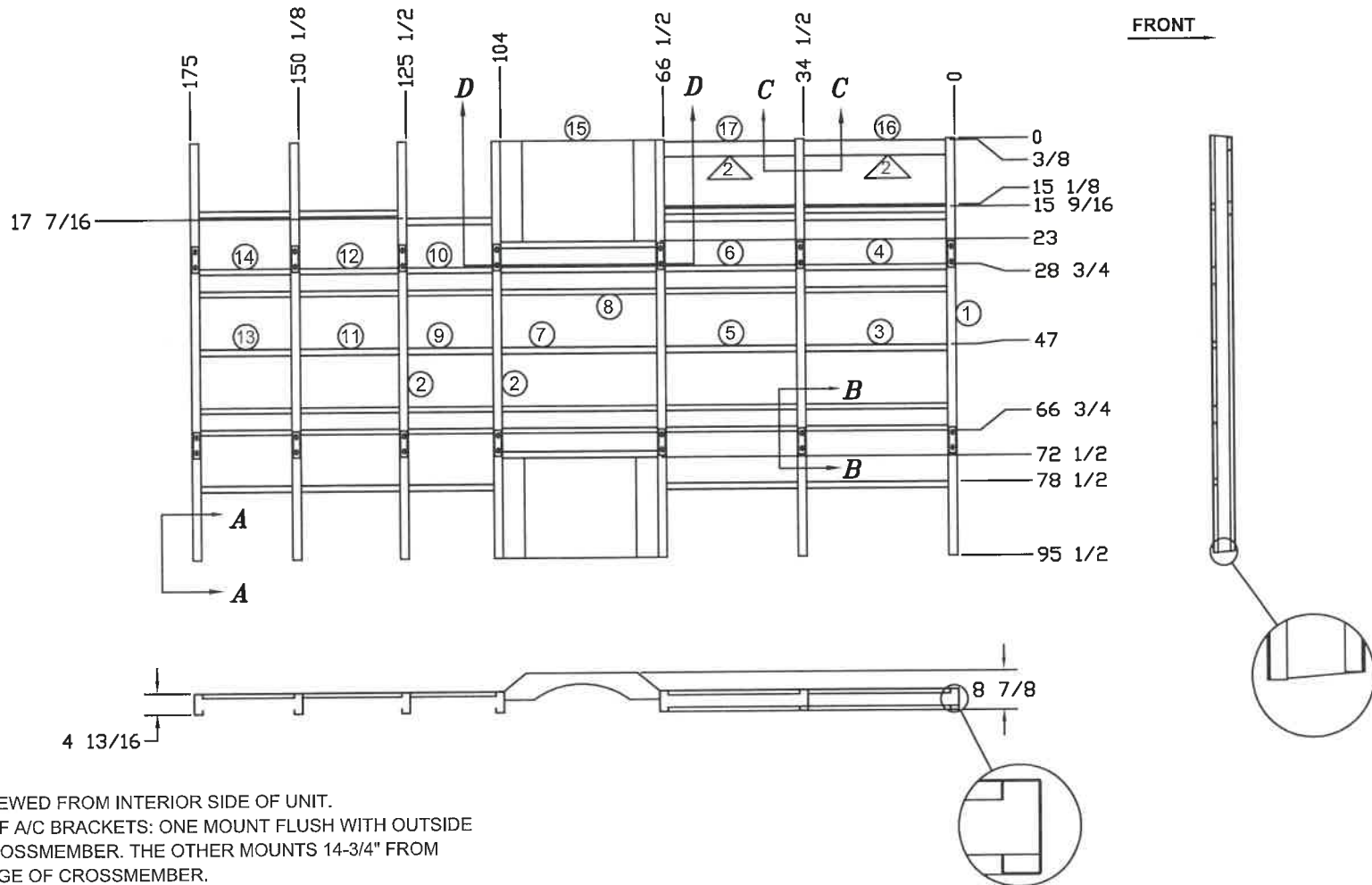
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REV.	LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

TOLERANCE UNLESS OTHERWISE SPECIFIED	DATE: 10/08/10	TITLE	DWG. No.
±.00 ±.030	DFTSN: MKLINE	158" WB MODEL 24, DRIVERS SIDEWALL, ALL PASSENGER	32-13-0001-10
±.000 ±.015	CHKR:	SCALE	SHEET 1 OF 1
±.0000 ±.005	APRVD:	DISK No.	

▼ CRITICAL CONTROL ITEM

USAGE: 2012 FORD 158" WHEEL BASE, 175" BODY



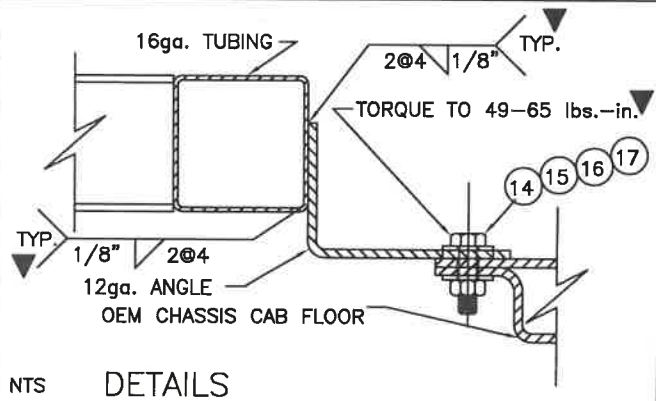
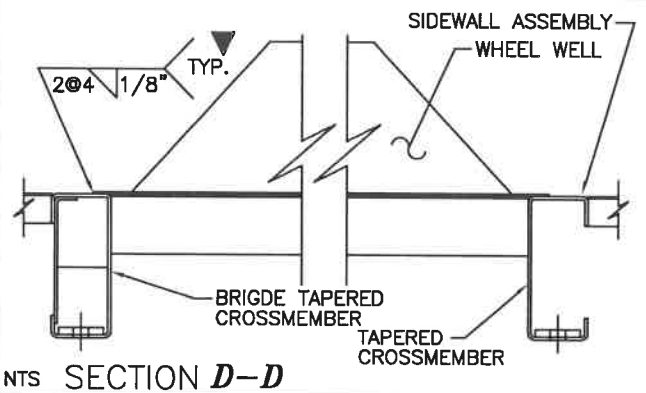
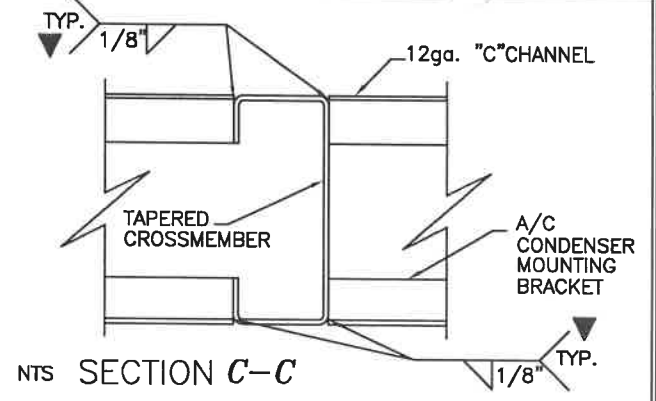
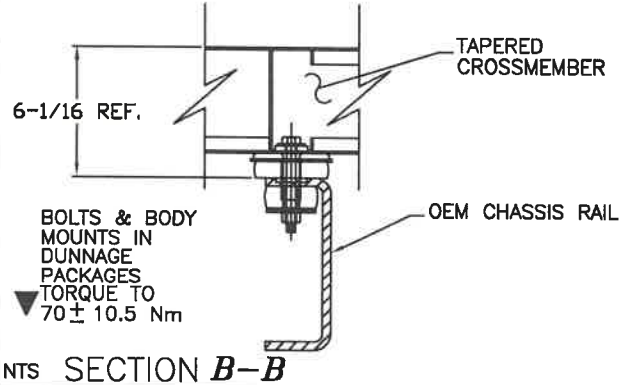
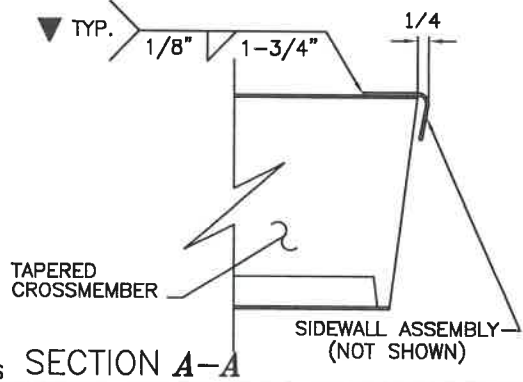
NOTES:

- 1- DRAWING VIEWED FROM INTERIOR SIDE OF UNIT.
- 2- LOCATION OF A/C BRACKETS: ONE MOUNT FLUSH WITH OUTSIDE EDGE OF CROSSMEMBER. THE OTHER MOUNTS 14-3/4" FROM OUTSIDE EDGE OF CROSSMEMBER.
- 3- SEE SHEET 2 OF 2 FOR DETAILS, TORQUE SPECIFICATIONS, SECTION VIEWS AND CUT LIST.

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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.	TOLERANCE UNLESS OTHERWISE SPECIFIED	WOOD ± 1/8" ± 1" OTHER ± 1/16" ± 1/2"	TITLE STARTRANS Frame, Floor Ford 158" Wheel Base 175" Body	DATE: 08/02/12	SCALE:	SHEET 1 OF 2
A	RELEASED TO PRODUCTION	EF		1/17/06					DFTSN: MDK	CHKR:	DWG. No. 31-08-0016-12

▼ CRITICAL COMPONENT ITEM

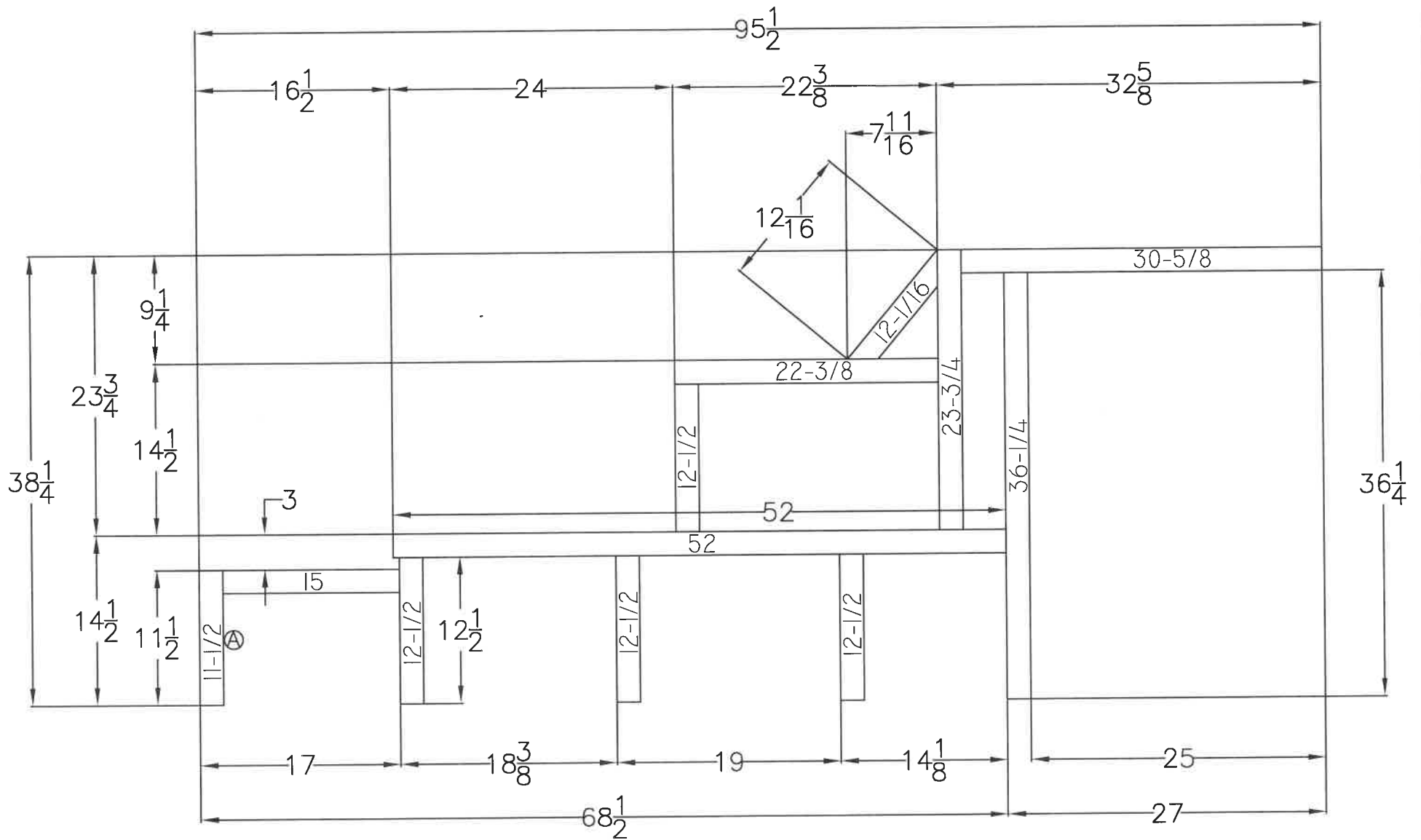


USAGE: 2012 FORD 158" WHEEL BASE, 175" BODY

17	7	"C" CHANNEL: 16ga. x 1" x 3-1/2" x 30"Lg.
16	7	"C" CHANNEL: 16ga. x 1" x 3-1/2" x 32-1/2"Lg.
15	2	WHEEL WELL WIDE BODY
14	2	HAT CHANNEL: 16ga. x 1" x 6-5/16" x 20-7/8"Lg.
13	3	"C" CHANNEL: 16ga. x 1" x 1-1/2" x 20-7/8"Lg.
12	2	HAT CHANNEL: 16ga. x 1" x 6-5/16" x 22-5/8"Lg.
11	3	"C" CHANNEL: 16ga. x 1" x 1-1/2" x 22-5/8"Lg.
10	2	HAT CHANNEL: 16ga. x 1" x 6-5/16" x 19-1/2"Lg.
9	3	"C" CHANNEL: 16ga. x 1" x 1-1/2" x 19-1/2"Lg.
8	2	HAT CHANNEL: 16ga. x 1" x 6-5/16" x 35-1/2"Lg.
7	3	"C" CHANNEL: 16ga. x 1" x 1-1/2" x 35-1/2"Lg.
6	2	HAT CHANNEL: 16ga. x 1" x 6-5/16" x 30"Lg.
5	3	"C" CHANNEL: 16ga. x 1" x 1-1/2" x 30"Lg.
4	2	HAT CHANNEL: 16ga. x 1" x 6-5/16" x 32-1/2"Lg.
3	3	"C" CHANNEL: 16ga. x 1" x 1-1/2" x 32-1/2"Lg.
2	2	Bridged Crossmember: 14ga. x 2 x 4-13/16 x 95-1/2
1	5	Crossmember: 14ga. x 2 x 4-13/16 x 95-1/2

This drawing and the information thereon are the exclusive property of Starcraft Bus & Mobility. It shall not be copied or duplicated in any manner, nor shall it be submitted to outside parties for examination without our written consent. It is loaned for use with reference to work under contract with, or proposals submitted to the Starcraft Bus & Mobility

REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.	TOLERANCE UNLESS OTHERWISE SPECIFIED	WOOD	TITLE
A	RELEASED TO PRODUCTION	MK		8/1/12		± 1/8"	STARTRANS	Frame, Details Floor Ford 158" Wheel Base 175" Body
						± 1"		DATE: 8/02/12 SCALE: SHEET 2 OF 2
						± 1/16"		DFTSN: MDK CHKR: DWG. No. 31-08-0016-12
						± 1/2"		



MAT'L-16GA. 2" x 2" TUBE


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A	SHORTENED TUBE 5/16"	MDK
REV. LET.	DESCRIPTION OF CHANGE	~

CHK	DATE	ECN No.
	6/14/10	

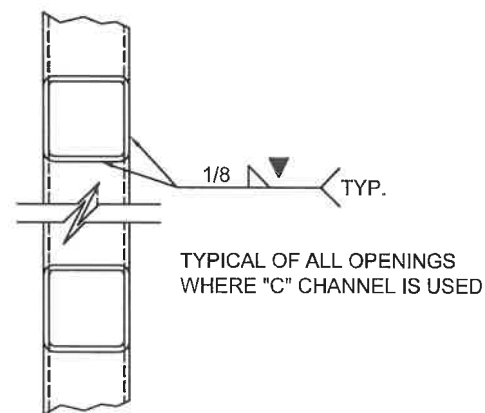
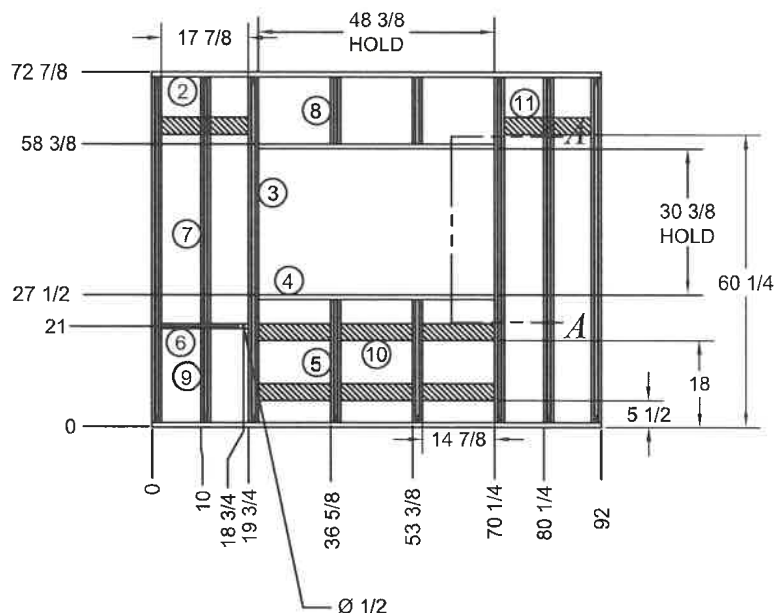
TOLERANCE UNLESS OTHERWISE SPECIFIED	±.00 ±.030
	±.000 ±.015
	±.0000 ±.005

DATE:	06/10/10
DFTSN:	MKLINE
CHKR:	
APRVD:	

	
TITLE	2011 ALLSTAR NEW STYLE FALSE FLOOR
DWG. No.	31-28-0534-10
SCALE	
DISK No.	SHEET 1 OF 1

CRITICAL CONTROL ITEM

**USAGE: ALLSTAR W/ REAR
EGRESS WINDOW**



SECTION A-A

NOTES:

1- DRAWING VIEWED FROM EXTERIOR SIDE OF UNIT.

11	2		STEEL PLATE: 11ga. x 3 1/2" x 17-7/8"Lg. A-513
10	6		STEEL PLATE: 11ga. x 3 1/2" x 14-3/4"Lg. A-513
9	1	02062351	WALL BOW: 18ga. x 1" x 2" x 19"Lg. A-513
8	2	02062351	WALL BOW: 18ga. x 1" x 2" x 12-7/8"Lg. A-513
7	1	02062351	WALL BOW: 18ga. x 1" x 2" x 50-7/8"Lg. A-513
6	1	02071055	TUBE: 16ga. x 1" x 1" x 17-3/4"Lg. A-513
5	2	02062351	WALL BOW: 18ga. x 1" x 2" x 25-1/2"Lg. A-513
4	2	02071055	TUBE: 16ga. x 1" x 1" x 48-3/8"Lg. A-513
3	5	02062351	WALL BOW: 18ga. x 1" x 2" x 70-7/8"Lg. A-513
2	2	02071055	TUBE: 16ga. x 1" x 1" x 92"Lg. A-513
1			

REF. No.	QTY.	PART No.	MATERIAL DESCRIPTION
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DATE: 09/20/10	TITLE	Frame, Rear Wall With 30" x 48" Window
DFTSN: MDK	DWG. No.	31-28-0003-05
CHKR:	SCALE	
APRVD:	DISK No.	SHEET 1 OF 1

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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.
A	ADDED 11ga. STRAP STEEL REINFORCEMENT FOR BAGS AND RESTRAINTS			10/29/13	

TOLERANCE UNLESS OTHERWISE SPECIFIED
 ± .00 ± .030
 ± .000 ± .015
 ± .0000 ± .005



FMVSS/CMVSS Compliance Summary 2016

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

C/FMVSS No.	Standard Description	Compliance Action
101	Control Location, Identification and Illumination	Startrans does not alter the OEM controls or displays. Any aftermarket seats and/or controls or displays subject to the standard meet this standard.
102	Transmission Shift Lever Sequence, Starter Interlock & Transmission Braking Effect	Compliance is deferred to the chassis manufacturer.
103	Windshield Defrosting & Defogging Systems	Compliance is deferred to the chassis manufacturer.
104	Windshield Wiping & Washing Systems	Compliance is deferred to the chassis manufacturer.
105	Hydraulic Brake Systems	Test data kept on file for vehicles that have had the wheelbase extended, or have had other system modifications. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
106	Brake Hoses	Vehicles with wheelbase modifications have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
108	Lamps, Reflective Devices & Associated Equipment	Startrans does not alter OEM lighting. Additional lighting to include brake, turn, clearance, auxiliary and reverse lamps meet standard. Data on file.
108.1	Alternative Requirements for Headlamps	Startrans does not alter OEM lighting. Compliance is deferred to the chassis manufacturer.
110	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
111	Rear View Mirrors	All aftermarket mirrors installed by Startrans meet this standard and DOT regulations.
112	Headlamp Concealment Devices	Startrans does not manufacture vehicles with headlamp concealment devices.
113	Hood latch systems	Compliance is deferred to the chassis manufacturer.
114	Theft Protection	Compliance is deferred to the chassis manufacturer.
115	Vehicle Identification Number	Compliance is deferred to the chassis manufacturer.
116	Hydraulic Brake Fluids	Startrans does not alter brake systems. Vehicles with modified wheelbases have additional fluid added by chassis modifiers using OEM instruction and materials. All other system modifications utilize only OEM-approved fluid. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
118	Power Operated Window, Partition, and Roof Panel Systems	Compliance is deferred to the chassis manufacturer.
120	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or More	Compliance is deferred to the chassis manufacturer.
121	Air Brake Systems	Vehicles with wheelbase modifications have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
124	Accelerator Control Systems	Startrans does not alter the OEM accelerator system, with the exception of the addition of aftermarket fast idle systems on some vehicles. These systems meet this standard when installed in accordance with instructions.
125	Warning Devices	All vehicles manufactured by Startrans that are equipped with aftermarket (3) triangle kit meet this standard.
131	School Bus Pedestrian Safety Devices	All vehicles manufactured by Startrans are not completed to be used as school buses.
135	Light Vehicle Brake System with a GVWR of 3,500kg (7,716lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 3,500kg (7,716 lbs.) or Less.
201	Occupant Protection in Interior Impact	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
202	Head Restraints	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.



FMVSS/CMVSS Compliance Summary 2016

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

203	Impact Protection for the Driver from the Steering Control System	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
204	Steering Control Rearward Displacement	Compliance is deferred to the chassis manufacturer.
205	Glazing Materials	No modifications are made to the OEM Glazing materials. Additional glazing materials meet the standard. Data on file.
206	Door Locks and Door Retention Devices	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
207	Seating System	All seating installed by Startrans meets this standard. Test data on file.
208	Occupant Crash Protection	No alterations are made to the OEM seat belts, air bag systems or associated hardware. Any seat belt systems added meet the standard. Test data on file.
209	Seat Belt Assemblies	No alterations are made to the OEM seat belts or associated hardware. Any seat belt systems added meet the standard. Test data on file.
210	Seat Belt Assembly Anchorage	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Test data on file.
210.1	User-ready Tether Anchorages for Restraint System	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
210.2	Lower Universal Anchorage Systems for Restraint Systems and Booster Cushions	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
212	Windshield Mounting	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
213	Child Restraint Systems	Vehicles manufactured by Startrans, that are subject to this standard, have seating installed that meets this standard. Test data on file.
213.4	Built-in Child Restraint Systems and Built-in Booster Cushions	Vehicles manufactured by Startrans, that are subject to this standard, have seating installed that meets this standard. Test data on file.
214	Side Impact Protection with a GVWR of 4,536kg (10,000 lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
216	Roof Crush Resistance	Startrans does not manufacture vehicles with a GVWR of 2,722kg (6,000 lbs.) or Less.
217	Bus Window Retention and Release	No modifications are made to the OEM windows. Additional windows meet the standard. Test data on file.
219	Windshield Zone Intrusion	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
220	School Bus Rollover Testing	All vehicles manufactured by Startrans meet this standard. Test data on file
221	School Bus Body Joint Strength	All MFSAB vehicles manufactured by Startrans meet this standard. Test data on file
222	School Bus Passenger Seating and Crash Protection	All MFSAB vehicles manufactured by Startrans meet this standard. Test data on file
225	Child Restraint Anchorage Systems	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
301	Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.1	LPG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.2	CNG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.

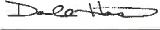


FMVSS/CMVSS Compliance Summary 2016

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

302	Flammability of Interior Materials	Materials installed in the interior of Startrans products meet the standard. Test data on file.
303	Fuel System Integrity of Compressed Natural Gas Systems	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
304	Compressed Natural Gas Fuel Container Integrity	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
305	Electrolyte Spillage and Electrical Shock Protection	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
403	Platform Lift System for Motor Vehicles	Startrans does not alter the platform lift system. Startrans install lift system in strict compliance with the manufacturers installation instructions. Startrans meets strength requirements. Test data on file.
404	Platform Lift Installation on Motor Vehicles	Compliance is deferred to the lift manufacturer.
1106	Noise Emissions	Startrans does not alter the OEM Chassis in the area which is stated in the incomplete vehicle documents. Data on file.

Signed: Date: 1/11/2016Title: Compliance Manger



FMVSS/CMVSS Compliance Summary 2017

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

C/FMVSS No.	Standard Description	Compliance Action
101	Control Location, Identification and Illumination	Startrans does not alter the OEM controls or displays. Any aftermarket seats and/or controls or displays subject to the standard meet this standard.
102	Transmission Shift Lever Sequence, Starter Interlock & Transmission Braking Effect	Compliance is deferred to the chassis manufacturer.
103	Windshield Defrosting & Defogging Systems	Compliance is deferred to the chassis manufacturer.
104	Windshield Wiping & Washing Systems	Compliance is deferred to the chassis manufacturer.
105	Hydraulic Brake Systems	Test data kept on file for vehicles that have had the wheelbase extended, or have had other system modifications. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
106	Brake Hoses	Vehicles with wheelbase modifications have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
108	Lamps, Reflective Devices & Associated Equipment	Startrans does not alter OEM lighting. Additional lighting to include brake, turn, clearance, auxiliary and reverse lamps meet standard. Data on file.
108.1	Alternative Requirements for Headlamps	Startrans does not alter OEM lighting. Compliance is deferred to the chassis manufacturer.
110	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
111	Rear View Mirrors	All aftermarket mirrors installed by Startrans meet this standard and DOT regulations.
112	Headlamp Concealment Devices	Startrans does not manufacture vehicles with headlamp concealment devices.
113	Hood latch systems	Compliance is deferred to the chassis manufacturer.
114	Theft Protection	Compliance is deferred to the chassis manufacturer.
115	Vehicle Identification Number	Compliance is deferred to the chassis manufacturer.
116	Hydraulic Brake Fluids	Startrans does not alter brake systems. Vehicles with modified wheelbases have additional fluid added by chassis modifiers using OEM instruction and materials. All other system modifications utilize only OEM-approved fluid. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
118	Power Operated Window, Partition, and Roof Panel Systems	Compliance is deferred to the chassis manufacturer.
120	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or More	Compliance is deferred to the chassis manufacturer.
121	Air Brake Systems	Vehicles with wheelbase modifications have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
124	Accelerator Control Systems	Startrans does not alter the OEM accelerator system, with the exception of the addition of aftermarket fast idle systems on some vehicles. These systems meet this standard when installed in accordance with instructions.
125	Warning Devices	All vehicles manufactured by Startrans that are equipped with aftermarket (3) triangle kit meet this standard.
131	School Bus Pedestrian Safety Devices	All vehicles manufactured by Startrans are not completed to be used as school buses.
135	Light Vehicle Brake System with a GVWR of 3,500kg (7,716lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 3,500kg (7,716 lbs.) or Less.
201	Occupant Protection in Interior Impact	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
202	Head Restraints	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.



FMVSS/CMVSS Compliance Summary 2017

Commercial and MFSAB

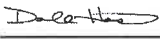
The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

203	Impact Protection for the Driver from the Steering Control System	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
204	Steering Control Rearward Displacement	Compliance is deferred to the chassis manufacturer.
205	Glazing Materials	No modifications are made to the OEM Glazing materials. Additional glazing materials meet the standard. Data on file.
206	Door Locks and Door Retention Devices	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
207	Seating System	All seating installed by Startrans meets this standard. Test data on file.
208	Occupant Crash Protection	No alterations are made to the OEM seat belts, air bag systems or associated hardware. Any seat belt systems added meet the standard. Test data on file.
209	Seat Belt Assemblies	No alterations are made to the OEM seat belts or associated hardware. Any seat belt systems added meet the standard. Test data on file.
210	Seat Belt Assembly Anchorage	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Test data on file.
210.1	User-ready Tether Anchorages for Restraint System	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
210.2	Lower Universal Anchorage Systems for Restraint Systems and Booster Cushions	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
212	Windshield Mounting	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
213	Child Restraint Systems	Vehicles manufactured by Startrans, that are subject to this standard, have seating installed that meets this standard. Test data on file.
213.4	Built-in Child Restraint Systems and Built-in Booster Cushions	Vehicles manufactured by Startrans, that are subject to this standard, have seating installed that meets this standard. Test data on file.
214	Side Impact Protection with a GVWR of 4,536kg (10,000 lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
216	Roof Crush Resistance	Startrans does not manufacture vehicles with a GVWR of 2,722kg (6,000 lbs.) or Less.
217	Bus Window Retention and Release	No modifications are made to the OEM windows. Additional windows meet the standard. Test data on file.
219	Windshield Zone Intrusion	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
220	School Bus Rollover Testing	All vehicles manufactured by Startrans meet this standard. Test data on file
221	School Bus Body Joint Strength	All vehicles manufactured by StarTrans are not completed to be used as school buses, however, StarTrans does test vehicles to meet standard.
222	School Bus Passenger Seating and Crash Protection	All MFSAB vehicles manufactured by Startrans meet this standard. Test data on file
225	Child Restraint Anchorage Systems	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
301	Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.1	LPG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.2	CNG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.

**FMVSS/CMVSS Compliance Summary 2017****Commercial and MFSAB**

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

302	Flammability of Interior Materials	Materials installed in the interior of Startrans products meet the standard. Test data on file.
303	Fuel System Integrity of Compressed Natural Gas Systems	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
304	Compressed Natural Gas Fuel Container Integrity	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
305	Electrolyte Spillage and Electrical Shock Protection	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
403	Platform Lift System for Motor Vehicles	Startrans does not alter the platform lift system. Startrans install lift system in strict compliance with the manufacturers installation instructions. Startrans meets strength requirements. Test data on file.
404	Platform Lift Installation on Motor Vehicles	Compliance is deferred to the lift manufacturer.
1106	Noise Emissions	Startrans does not alter the OEM Chassis in the area which is stated in the incomplete vehicle documents. Data on file.

Signed: Date: 1/10/2017Title: Compliance Manger

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*A proposal for
StarTrans Bus*

*Prepared by
Freightliner Custom Chassis
Ivan Roberts*

May 15, 2017

Freightliner Custom Chassis Corp S2C

WV 25,900 GVWR



Components shown may not reflect all spec'd options and are not to scale



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S P E C I F I C A T I O N P R O P O S A L

Data Code	Description	Weight Front	Weight Rear	Retail Price
Price Level				
PRL-8H1	FCCC SHUTTLE BUS 2018 DATABOOK (EFF: 03/06/17)			STD
Data Version				
DRL-012	SPECPRO21 DATA RELEASE VER 012			STD
Vehicle Configuration				
001-342	S2C 106 CONVENTIONAL CAB AND CHASSIS	5,300	4,100	
002-004	SET BACK AXLE - TRUCK			STD
003-001	LH PRIMARY STEERING LOCATION			STD
General Service				
A66-99D	EXPECTED FRONT AXLE(S) LOAD : 9000.0 lbs			
A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD : 17000.0 lbs			
ADJ-99D	GROSS VEHICLE WEIGHT ADJUSTMENT +/- : -100.0 lbs			
A63-99D	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 25900.0 lbs			
AA1-005	CHASSIS CONFIGURATION			STD
A85-045	CITY TRANSIT BUS			N/C
AA3-045	CHARTER/SHUTTLE/TRANSIT BUS/MOTOR COACH			STD
A84-1BU	BUS TRANSPORTATION BUSINESS SEGMENT			STD
AA4-014	PASSENGERS COMMODITY			STD
AA6-001	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)			STD
AA5-002	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS			STD
AB1-008	MAXIMUM 8% EXPECTED GRADE			STD
AB5-001	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE			STD
AF3-2GA	STARTRANS BUS			N/C



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Data Code	Description	Weight Front	Weight Rear	Retail Price
Engine				
101-21T	CUM B6.7 240 HP @ 2400 RPM, 2600 GOV, 560 LB/FT @ 1600 RPM			
Engine Controls & Parameters				
162-002	IGNITION SWITCH CONTROLLED ENGINE STOP			STD
99D-008	2008 CARB EMISSION CERTIFICATION WITH IDLE SHUTDOWN DISABLED - EXEMPTED			STD
79A-075	75 MPH ROAD SPEED LIMIT			N/C
79B-004	CRUISE CONTROL SPEED LIMIT 1 MPH LOWER THAN ROAD SPEED LIMIT			N/C
79G-998	NO IDLE SHUTDOWN CONFIGURATION			STD
79K-017	PTO MODE ENGINE RPM LIMIT - 2300 RPM			STD
79M-001	PTO MODE BRAKE OVERRIDE - SERVICE BRAKE ONLY ENABLED			STD
79P-009	PTO RPM W/CRUISE SET SW - 1200 RPM			STD
79Q-005	PTO RPM WITH CRUISE RESUME SWITCH - 1000 RPM			STD
79S-009	PTO MODE CANCEL VEHICLE SPEED - 0 MPH			STD
79U-006	PTO GOVERNOR RAMP RATE - 200 RPM PER SECOND			STD
79W-001	ONE REMOTE PTO SPEED			N/C
79X-009	REMOTE PTO SPEED 1 SETTING - 1200 RPM			N/C
80G-002	PTO MINIMUM RPM - 700			STD
80J-004	REGEN INHIBIT SPEED THRESHOLD - 1 MPH			N/C
80M-002	ALTERNATE SWITCH SPEED 950 RPM			STD
80N-002	MAXIMUM ENGINE RPM = 2500 ON VSS FAILURE			STD
Engine Equipment				
266-1AH	750 SQUARE INCH DOWNFLOW RADIATOR MOUNTED IN FRONT			STD
105-001	ENGINE MOUNTED OIL CHECK AND FILL			STD
111-001	15W-40 WT ENGINE OIL			STD
190-001	DONALDSON 1-STAGE AIR CLEANER			STD
188-050	AIR INTAKE THROUGH LH SIDE OF HOOD			STD
189-001	AIR INTAKE PIPING - CLNR TO ENGINE			STD
192-004	AIR CLEANER MOUNTED ON FIREWALL			STD
124-1B6	LN 12V 270 AMP 4944PA PAD MOUNT ALTERNATOR WITH AC TAPS			
292-1D7	(3) ALLIANCE MODEL 1131, GROUP 31, 12V MAINTENANCE FREE 2775 CCA THREADED STUD BATTERIES			
290-017	BATTERY BOX FRAME MOUNTED			STD



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Data Code	Description	Weight Front	Weight Rear	Retail Price
282-045	SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB 62" (1575MM) AFT OF STD			STD
291-001	FRAME GROUND RETURN FOR BATTERY CABLES			STD
289-006	PLASTIC BATTERY BOX COVER			STD
293-070	COLE HERSEE BATTERY SHUTOFF SWITCH, BATTERY BOX MOUNTED			
107-032	CUMMINS 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE			N/C
108-002	STD MECH AIR COMP GOV			N/C
131-012	STEEL AIR COMPRESSOR DISCHARGE LINE			N/C
152-041	ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM			N/C
128-076	CUMMINS EXHAUST BRAKE INTEGRAL WITH VARIABLE GEOMETRY TURBO WITH ON/OFF DASH SWITCH			
28F-002	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH			STD
234-025	HORIZONTAL DIESEL PARTICULATE FILTER AFTERTREATMENT DEVICE			STD
235-076	RH IB FRAME MTD HZ ATD			STD
23U-009	10 GALLON DEF TANK LH FRAME MTD			STD
35W-001	EXHAUST MITIGATION DEVICE FTL 4" ID SLIP-FIT			STD
237-072	HORIZONTAL TAILPIPE, EXIT LH REAR OF CHASSIS			STD
273-004	BORG WARNER VISCOUS FAN DRIVE			N/C
110-003	CUMMINS SPIN ON FUEL FILTER			STD
118-001	FULL FLOW OIL FILTER			STD
267-001	REMOTE MOUNTED SURGE TANK			STD
103-039	ANTIFREEZE TO -34F, OAT (NITRITE & SILICATE FREE) EXTENDED LIFE COOLANT			STD
171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT			STD
172-016	CONSTANT TORQUE BREEZE CLAMPS ON 1" IN DIA AND GREATER, SS CLAMPS LESS THAN 1"			STD
261-001	STANDARD CHARGE AIR COOLER PLUMBING			STD
270-998	NO OPTIONAL RADIATOR PLUMBING			STD
168-002	LOWER RADIATOR GUARD			STD
138-010	PHILLIPS-TEMRO 750 WATT/115 VOLT BLOCK HEATER			



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Data Code	Description	Weight Front	Weight Rear	Retail Price
166-002	PHILLIPS-TEMRO 150 WATT/115 VOLT OIL PREHEATER			
140-010	CHROME ENGINE HEATER RECEPTACLE TEMPORARILY MOUNTED TO ENGINE			N/C
134-001	ALUMINUM FLYWHEEL HOUSING			STD
155-023	NIPPON-DENSO 12V STARTER WITH COPPER CONTACTS			STD

Transmission

342-1MW	ALLISON B220 AUTOMATIC TRANSMISSION WITH PARK PAWL WITHOUT PTO PROVISION			
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Transmission Controls & Parameters

353-032	VEHICLE INTERFACE WIRING WITH ADA INTERLOCKS			
343-301	PKG 354 - 1K/2K RDS/EVS/HS/MH/PTS/SPS - 5TH GEN			STD
97F-002	ALLISON TRANS - SEM/LRTP REQ			STD
97G-001	TRANS PROG-ENABLED			STD
84C-003	5, 3, 2, 1 - D, 3, 2, L -1K/2K PRIMARY GEARS			STD
84L-017	DSS, ARM, FS; DSS-DISABLED, ARM-DISABLED, FS-DISABLED			STD
85B-011	RANGE INDICATION,PARK,NEUT			STD
84U-001	SECONDARY MODE INPUT - MODE SWITCH,FOR 1000/2000 PRODUCT FAMILIES ONLY			N/C
84W-002	AUX RNG INHIBIT,WIRED			N/C
345-036	T-HANDLE CABLE SHIFT CONTROL WITH PARK POSITION FOR INTERNAL PARK PAWL			N/C

Transmission Equipment

370-015	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK			STD
346-001	TRANSMISSION OIL CHECK AND FILL			STD
35T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)			STD

Front Axle & Equipment

400-1A5	DA-F-10.0-3 10,000# FF1 71.5 KPI/3.74DROP SINGLE FRONT AXLE			
403-002	NON-ASBESTOS FRONT BRAKE LINING			STD
402-054	BOSCH HYDRAULIC PIN-SLIDE DISC FRONT BRAKES			STD
419-004	FRONT DISC BRAKE ROTORS			STD
418-018	CONMET PRE-SET BEARING ALUMINUM FRONT HUBS			



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Data Code	Description	Weight Front	Weight Rear	Retail Price
409-021	SKF SCOTSEAL PLUS XL FRONT OIL SEALS			
408-001	VENTED FRONT HUB CAPS W/WINDOW, CENTER AND SIDE PLUGS - OIL			STD
40T-001	ORGANIC SAE 80/90 FRONT AXLE LUBE			STD
416-022	STANDARD SPINDLE NUTS FOR ALL AXLES			STD
618-002	STANDARD CUPS AND CONES (WHEEL BEARINGS) FRONT AND REAR			STD
536-050	TRW THP-60 POWER STEERING			N/C
539-003	POWER STEERING PUMP			STD
534-015	2 QUART SEE THROUGH POWER STEERING RESERVOIR			STD

Front Suspension

620-019	9,000# TAPERLEAF FRONT SUSPENSION			
619-005	MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION			STD
629-998	NO FRONT SWAYBAR			STD
410-017	SACHS FRONT SHOCK ABSORBERS			STD

Rear Axle & Equipment

420-279	DA-RS-17.0-4 17,000# L-SERIES SINGLE REAR AXLE			
421-430	4.30 REAR AXLE RATIO			N/C
424-001	IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING			STD
386-055	SPL100 DANA SPICER MAIN DRIVELINE WITH HALF ROUND YOKES			STD
41T-001	ORGANIC SAE 80/90 REAR AXLE LUBE			STD
393-001	DRIVELINE GUARD			STD
423-054	BOSCH HYDRAULIC PIN-SLIDE DISC REAR BRAKES			STD
433-002	NON-ASBESTOS REAR BRAKE LINING			STD
451-005	REAR DISC BRAKE ROTORS			STD
440-001	SKF SCOTSEAL CLASSIC REAR OIL SEALS			STD
435-009	REAR AXLE MOUNTED AIR OPERATED DRUM PARK BRAKE			N/C

Rear Suspension

622-216	23,000# AIRLINER REAR SUSPENSION WITH CHAIN CLEARANCE			
621-007	AIRLINER HIGH POSITION RIDE HEIGHT			N/C
910-004	DUAL AIR REAR SUSPENSION LEVELING VALVES			N/C
630-001	REAR SWAYBAR			STD



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Data Code	Description	Weight Front	Weight Rear	Retail Price
439-017	SACHS REAR SHOCK ABSORBERS			STD
Tag Axle & Equipment				
443-998	NO TAG AXLE			STD
Brake System				
018-003	HYDRAULIC BRAKE PACKAGE W/OPTIONAL AIR SUPPLY			
490-032	WABCO HYDRAULIC 4S/4M WITHOUT TRACTION CONTROL			STD
871-011	HYDRAULIC TUBING WITH NYLON AND FABRIC/WIRE BRAID CHASSIS AIR LINES			N/C
901-006	HYDRAULIC HOSE/LINE FRONT SERVICE BRAKES			STD
902-006	HYDRAULIC HOSE/LINE REAR SERVICE BRAKES			STD
46D-002	STANDARD AIR SYSTEM PRESSURE PROTECTION			N/C
46E-001	STANDARD AIR MANAGEMENT UNIT			N/C
480-083	WABCO SS-1200 PLUS AIR DRYER W/INTEGRAL AIR GOVERNOR AND HEATER			
479-003	AIR DRYER MOUNTED INBOARD ON LH RAIL			N/C
483-004	WABCO OIL COALESCING FILTER FOR AIR DRYER			N/C
460-077	ONE STEEL AIR BRAKE RESERVOIR MTD INSIDE RAIL			N/C
477-042	PETCOCK DRAIN VALVES ON ALL AIR TANKS CENTRALLY LOCATED TO FRAME MOUNTED BRACKETS			
485-002	EXTERNAL CHARGING SCHRADER VALVE			
Wheelbase & Frame				
545-707	7075MM (279 INCH) WHEELBASE			N/C
546-080	5/16X3.00X10-1/8 INCH STEEL FRAME (7.94MMX257.2MM/0.312X10.13 INCH) 80KSI			
552-141	3675MM (145 INCH) REAR FRAME OVERHANG			N/C
553-001	SQUARE END OF FRAME			STD
550-001	FRONT CLOSING CROSSMEMBER			STD
559-001	STANDARD WEIGHT ENGINE CROSSMEMBER			STD
562-001	STANDARD MIDSHIP #1 CROSSMEMBER(S)			STD
565-001	STANDARD SUSPENSION CROSSMEMBER			STD
Chassis Equipment				
556-1AR	THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS			



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Data Code	Description	Weight Front	Weight Rear	Retail Price
558-001	FRONT TOW HOOKS - FRAME MOUNTED			STD
574-001	BUMPER MOUNTING FOR SINGLE LICENSE PLATE			STD
586-024	FENDER & FRONT OF HOOD MOUNTED FRONT MUDFLAPS			STD
551-006	ZINC PLATED HEX HEADED FRAME FASTENERS			STD
54L-998	NO BODY BUILDER CLIP/CLAMPING AFT			N/C
Fuel Tanks				
230-001	60 GALLON/227 LITER RECTANGULAR STEEL FUEL TANK - BETWEEN RAILS			STD
5A3-003	PETROLEUM DIESEL FUEL			STD
205-009	LH SIDEFILL FUEL TANK CAP			N/C
122-1J1	DETROIT F/W SEP W/WIF SENSOR, HAND PRIMER & 12V PREHEATER			
Tires				
093-0E5	MICHELIN XZE 245/70R19.5 16 PLY RADIAL FRONT TIRES			
094-0E5	MICHELIN XZE 245/70R19.5 16 PLY RADIAL REAR TIRES			
510-0E5	MICHELIN XZE 245/70R19.5 16 PLY RADIAL SPARE TIRE			
Hubs				
450-002	GUNITE IRON REAR AXLE HUBS			STD
Wheels				
502-1EB	ACCURIDE 50180 19.5X6.75 8-HUB PILOT 5.12 INSET 4-HAND STEEL DISC FRONT WHEELS			STD
505-1EB	ACCURIDE 50180 19.5X6.75 8-HUB PILOT 4-HAND STEEL DISC REAR WHEELS			STD
511-1EB	ACCURIDE 50180 19.5X6.75 8-HUB PILOT 4-HAND STEEL DISC SPARE WHEEL			
498-049	FREIGHTLINER VALVE STEMS			STD
Cab Exterior				
829-071	106" BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB			STD
651-004	LH CAB DOOR(S) WITH 70 DEGREE DOOR STOP			STD
653-997	OMIT STANDARD RH DOOR ASSEMBLY			STD
655-025	LH CAB DOOR LATCHES WITH MANUAL DOOR LOCKS, NO RH DOOR LOCK			STD
682-085	OPENING IN BACK OF CAB W/TEMPORARY STRUCTURE			STD
650-009	RUBBER CAB MOUNTS			STD



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Data Code	Description	Weight Front	Weight Rear	Retail Price
664-001	PLAIN STEP FINISH			STD
644-053	FIBERGLASS HOOD WITH SOFT CLOSE MECHANISM			STD
690-007	HOOD LINER INSULATION WITH SINGLE FIREWALL INSULATION			
646-023	HOOD MOUNTED CHROMED PLASTIC GRILLE			
65X-003	CHROMED HOOD MOUNTED AIR INTAKE GRILLE			
726-002	DUAL ELECTRIC HORNS			STD
657-001	DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME			STD
312-038	INTEGRAL HEADLIGHT/MARKER ASSEMBLY WITH CHROME BEZEL			N/C
311-015	DAYTIME RUNNING LIGHTS ON FRONT TURN LAMPS WITH ENGINE RUNNING			STD
294-027	WIRING ONLY WITH SEPARATE STOP AND TURN LIGHT CIRCUITS TO END OF FRAME FOR CUSTOMER FURNISHED LAMPS			STD
300-015	STANDARD FRONT TURN SIGNAL LAMPS			STD
744-997	OMIT STANDARD PRIMARY MIRROR ASSEMBLY DOES NOT COMPLY W/ C/FMVSS 111 OR ADR14			STD
729-001	STANDARD SIDE/REAR REFLECTORS			STD
677-058	DUAL LEVEL ENTRY STEPS LH ONLY			STD
768-997	OMIT REAR WINDOW(S)			STD
661-020	TINTED DOOR GLASS LH WITH TINTED LH NON-OPERATING WING WINDOWS, NO RH WINDOW			STD
654-024	LH MANUAL WINDOW REGULATOR, NO RH REGULATOR			STD
663-019	1-PIECE TINTED ROPED-IN WINDSHIELD			STD
659-003	1 GALLON WINDSHIELD WASHER RESERVOIR			STD
335-004	UPGRADED CHASSIS MULTIPLEXING UNIT			STD
Cab Interior				
707-1AK	OPAL GRAY VINYL INTERIOR			STD
772-006	BLACK MATS WITH SINGLE INSULATION			STD
785-004	DASH MOUNTED ASH TRAY(S) WITHOUT LIGHTER			STD
691-997	OMIT STANDARD FORWARD OVERHEAD CONSOLE			STD
694-010	IN DASH STORAGE BIN			STD
742-007	(2) CUP HOLDERS LH AND RH DASH			STD
680-006	GRAY/CHARCOAL FLAT DASH			STD



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Data Code	Description	Weight Front	Weight Rear	Retail Price
130-003	SANDEN COMPACT AIR CONDITIONER COMPRESSOR			STD
700-002	HEATER, DEFROSTER AND AIR CONDITIONER			STD
703-005	MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH			STD
698-001	RADIATOR MOUNTED AIR CONDITIONER CONDENSER			STD
702-002	BINARY CONTROL, R-134A			STD
170-041	ADDITIONAL AUXILIARY LINES WITH MANIFOLD PLUMBING AND COMBINED SHUTOFF TO DASH AND AUXILIARY HEATER			STD
739-034	PREMIUM INSULATION			
285-020	SOLID-STATE CIRCUIT PROTECTION, PDMS W/FUSES & BRKRS, PDC W/FUSES & BRKR			STD
324-074	LH/RH DOOR ACTIVATED DOME LT W/3-WAY SW & COURTESY LIGHTS MOUNTED ON ALL DOORS			STD
32H-013	STEPWELL LAMP ON WITH DOOR(S) OPEN			STD
284-023	(1) 12 VOLT POWER SUPPLY IN DASH			
756-167	NATIONAL 2000 SRS EASY-AIRE HB AIR SUSP DRIVER SEAT			
760-997	OMIT STANDARD FRONT PASSENGER SEAT			STD
757-021	BLACK VINYL SUSPENSION COVER FOR AIR DRIVER SEAT			N/C
759-009	INBOARD DRIVER SEAT ARMREST, NO PASSENGER SEAT ARMREST			
711-006	LH INTEGRAL DOOR PANEL ARMREST, NO RH ARMREST			STD
758-022	BLACK MORDURA CLOTH DRIVER SEAT COVER			
763-031	3 POINT FIXED D-RING RETRACTOR DRIVER SEAT BELT; NO PASSENGER BELT			STD
706-013	MOLDED PLASTIC DOOR PANEL			STD
693-003	PLASTIC MANIFEST BOX - LH DOOR			
532-002	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN			
540-015	4-SPOKE 18 INCH (450MM) STEERING WHEEL			STD
765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS			STD

Instruments & Controls

732-004	GRAY DRIVER INSTRUMENT PANEL			STD
734-004	GRAY CENTER INSTRUMENT PANEL			STD
870-001	BLACK GAUGE BEZELS			STD



Prepared for:
 Sam Craig
 StarTrans Bus
 2367 Century Dr
 Goshen, IN 46528
 Phone: 574 642 0010 ext 110

Freightliner Custom Chassis Corporation

Prepared by:
 Ivan Roberts
 Freightliner Custom Chassis
 522 HYATT STREET
 GAFFNEY, SC 29341
 Phone: (864) 206-8616

Data Code	Description	Weight Front	Weight Rear	Retail Price
811-042	ICU3S, 132X48 DISPLAY W/DIAGNOSTICS, 28 LED WRNG LAMPS & DATA LINKED			STD
810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER			STD
812-001	ELECTRONIC 3000 RPM TACHOMETER			STD
840-007	SINGLE AIR PRESSURE GAUGE FOR HYDRAULIC BRAKES WITH AIR PROVISION			N/C
852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE			STD
856-001	ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE			STD
836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY			STD
844-001	2 INCH ELECTRIC FUEL GAUGE			STD
864-005	TRANSMISSION OIL TEMPERATURE INDICATOR LIGHT			STD
486-001	LOW AIR PRESSURE LIGHT AND BUZZER			N/C
830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY			STD
198-002	INTAKE MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS			STD
721-021	87 DB TO 112 DB SELF-ADJUSTING BACKUP ALARM			
149-013	ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL			STD
160-025	DIAGNOSTIC INTERFACE CONNECTOR, 9 PIN, SAE J1939, LOCATED BELOW DASH			STD
148-079	PROG RPM CTRL WITH A/C OR 12.75V LOW VOLTAGE AUTO HIGH IDLE			
746-019	CUSTOMER FURNISHED DIN RADIO PACKAGE			
747-001	DASH MOUNTED RADIO			N/C
750-055	2)RADIO SPEAKERS IN CAB & WRG ONLY FOR (2)BODYBUILDER INTERFACE SPKRS			
753-039	AM/FM ANTENNA PROVISION W/LHDASH EXIT, TEMP MTD			
329-102	PROV FOR TWELVE BODY BUILDER SUPPLIED SWITCHES			N/C
660-008	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY			STD
304-001	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH			STD
882-050	ONE VALVE PARKING BRAKE SYSTEM W/WARNING INDICATOR AND CUSTOMER CONTROLLED PARK BRAKE RELEASE SOLENOID			N/C



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Data Code	Description	Weight Front	Weight Rear	Retail Price
299-013	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE			STD
298-039	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS			STD
Design				
065-196	PAINT: ONE SOLID COLOR; BASE/CLEARCOAT			STD
Color				
980-5F7	CAB COLOR A: L0007EB WHITE ELITE BC			N/C
98A-998	NO GRILLE PAINT			N/C
986-019	CHASSIS PAINT: VENDOR BLACK			STD
962-972	POWDER WHITE (N0006EA) FRT WHEELS/RIMS(PKWHT21, TKWHT21, W, TW)			N/C
966-972	POWDER WHITE (N0006EA) REAR WHEELS/RIMS(PKWHT21, TKWHT21, W, TW)			N/C
96F-972	POWDER WHITE (N0006EA) SPARE WHEEL/RIM(PKWHT21, TKWHT21, W, TW)			N/C
Basic Chassis Warranty				
995-011	FREIGHTLINER CUSTOM CHASSIS CORPORATION BASIC CHASSIS WARRANTY			STD
Certification / Compliance				
996-001	U.S. FMVSS CERTIFICATION			STD

TOTAL VEHICLE SUMMARY

Adjusted List Price

Adjusted List Price **
 FRI CONCESSION

Weight Summary

	Weight Front	Weight Rear	Total Weight
Factory Weight ⁺	5300 lbs	4100 lbs	9400 lbs
Total Weight ⁺	5300 lbs	4100 lbs	9400 lbs



Prepared for:
Sam Craig
StarTrans Bus
2367 Century Dr
Goshen, IN 46528
Phone: 574 642 0010 ext 110

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(+) Weights shown are estimates only.

If weight is critical, contact Customer Application Engineering.

(**) Prices shown do not include taxes, fees, etc... "Net Equipment Selling Price" is located on the Quotation Details Proposal Report.

(***)QUOTE GOOD UNTIL 10/31/17. SHIPPING PRICE BASED ON A FULL LOAD OF 2 UNITS PER LOAD. LESS THAN FULL LOAD WILL INCREASE PER UNIT SHIPPING PRICE.



REFERENCES

Washington Metropolitan Area Transit Authority

Don Scruggs, Assistant Director MetroAccess (301) 562-5371

Washington Metropolitan Area Transit Authority

Department of Access Services

6505 Belcrest Road, Room 413

Hyattsville, MD 20782

DScruggs@WMATA.com

Business to date: Over \$40,000,000/ Over 1000 units

Virginia Department of Rail and Public Transportation

Neil Sherman, Specialized Transportation Program Manager (804) 786-1154

Virginia Department of Rail and Public Transportation

600 East Main Street, Suite 2102

Richmond, VA 23219

Neil.sherman@drpt.virginia.gov

Business to date: Over \$70,000,000/ Over 1,500 units

Greater Richmond Transit Authority

Gerald Brink, Director of Maintenance (804) 358-3871

Greater Richmond Transit

301 East Belt Boulevard

Richmond, VA 23224

gbrink@ridegrtc.com

Business to date: Over \$5,000,000/ Over 100 units



REFERENCES

U.S. General Services Administration (GSA)

Federal Acquisition Services, Office of Acquisition Services
Medium & Heavy Automotive Acquisition Support Division
Craig Yokum
1800 F St. NW HUB 3200
Washington, DC 20405
703-605-9291
craig.yokum@gsa.gov

RTD – Regional Transportation District

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830 MoDOT Drive
Jefferson City, MO 65102
(573) 522-4404



March 3, 2015

To Whom It May Concern:

RE: Starcraft Bus / StarTrans Bus FMVSS Compliance

All StarTrans Buses are built with the same high level of quality components as the Starcraft Bus products, which meet and/or exceed all applicable FMVSS compliances.

StarTrans Bus is built on the same production line using the same skill labor as the Starcraft Bus product, using the same high level of quality components in the same manner, but cosmetically "Body Line and Badging" will be the StarTrans Bus model style.

Enclosed with this letter is a copy of FTA's understanding in this matter.

Sincerely,



Larry Hall
Director of Engineering
Starcraft Bus, a division of Forest River, Inc.

FMVSS/CMVSS Compliance Summary 2017

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

C/FMVSS No.	Standard Description	Compliance Action
101	Control Location, Identification and Illumination	Startrans does not alter the OEM controls or displays. Any aftermarket seats and/or controls or displays subject to the standard meet this standard.
102	Transmission Shift Lever Sequence, Starter Interlock & Transmission Braking Effect	Compliance is deferred to the chassis manufacturer.
103	Windshield Defrosting & Defogging Systems	Compliance is deferred to the chassis manufacturer.
104	Windshield Wiping & Washing Systems	Compliance is deferred to the chassis manufacturer.
105	Hydraulic Brake Systems	Test data kept on file for vehicles that have had the wheelbase extended, or have had other system modifications. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
106	Brake Hoses	Vehicles with wheelbase modifications have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
108	Lamps, Reflective Devices & Associated Equipment	Startrans does not alter OEM lighting. Additional lighting to include brake, turn, clearance, auxiliary and reverse lamps meet standard. Data on file.
108.1	Alternative Requirements for Headlamps	Startrans does not alter OEM lighting. Compliance is deferred to the chassis manufacturer.
110	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
111	Rear View Mirrors	All aftermarket mirrors installed by Startrans meet this standard and DOT regulations.
112	Headlamp Concealment Devices	Startrans does not manufacture vehicles with headlamp concealment devices.
113	Hood latch systems	Compliance is deferred to the chassis manufacturer.
114	Theft Protection	Compliance is deferred to the chassis manufacturer.
115	Vehicle Identification Number	Compliance is deferred to the chassis manufacturer.
116	Hydraulic Brake Fluids	Startrans does not alter brake systems. Vehicles with modified wheelbases have additional fluid added by chassis modifiers using OEM instruction and materials. All other system modifications utilize only OEM-approved fluid. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
118	Power Operated Window, Partition, and Roof Panel Systems	Compliance is deferred to the chassis manufacturer.
120	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or More	Compliance is deferred to the chassis manufacturer.
121	Air Brake Systems	Vehicles with wheelbase modifications have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For unmodified vehicles, compliance is deferred to the chassis manufacturer.
124	Accelerator Control Systems	Startrans does not alter the OEM accelerator system, with the exception of the addition of aftermarket fast idle systems on some vehicles. These systems meet this standard when installed in accordance with instructions.
125	Warning Devices	All vehicles manufactured by Startrans that are equipped with aftermarket (3) triangle kit meet this standard.
131	School Bus Pedestrian Safety Devices	All vehicles manufactured by Startrans are not completed to be used as school buses.
135	Light Vehicle Brake System with a GVWR of 3,500kg (7,716lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 3,500kg (7,716 lbs.) or Less.
201	Occupant Protection in Interior Impact	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
202	Head Restraints	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.



FMVSS/CMVSS Compliance Summary 2017

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

203	Impact Protection for the Driver from the Steering Control System	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
204	Steering Control Rearward Displacement	Compliance is deferred to the chassis manufacturer.
205	Glazing Materials	No modifications are made to the OEM Glazing materials. Additional glazing materials meet the standard. Data on file.
206	Door Locks and Door Retention Devices	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
207	Seating System	All seating installed by Startrans meets this standard. Test data on file.
208	Occupant Crash Protection	No alterations are made to the OEM seat belts, air bag systems or associated hardware. Any seat belt systems added meet the standard. Test data on file.
209	Seat Belt Assemblies	No alterations are made to the OEM seat belts or associated hardware. Any seat belt systems added meet the standard. Test data on file.
210	Seat Belt Assembly Anchorage	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Test data on file.
210.1	User-ready Tether Anchorages for Restraint System	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
210.2	Lower Universal Anchorage Systems for Restraint Systems and Booster Cushions	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
212	Windshield Mounting	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
213	Child Restraint Systems	Vehicles manufactured by Startrans, that are subject to this standard, have seating installed that meets this standard. Test data on file.
213.4	Built-in Child Restraint Systems and Built-in Booster Cushions	Vehicles manufactured by Startrans, that are subject to this standard, have seating installed that meets this standard. Test data on file.
214	Side Impact Protection with a GVWR of 4,536kg (10,000 lbs.) or Less	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
216	Roof Crush Resistance	Startrans does not manufacture vehicles with a GVWR of 2,722kg (6,000 lbs.) or Less.
217	Bus Window Retention and Release	No modifications are made to the OEM windows. Additional windows meet the standard. Test data on file.
219	Windshield Zone Intrusion	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
220	School Bus Rollover Testing	All vehicles manufactured by Startrans meet this standard. Test data on file
221	School Bus Body Joint Strength	All vehicles manufactured by StarTrans are not completed to be used as school buses, however, StarTrans does test vehicles to meet standard.
222	School Bus Passenger Seating and Crash Protection	All MFSAB vehicles manufactured by Startrans meet this standard. Test data on file
225	Child Restraint Anchorage Systems	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
301	Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.1	LPG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.2	CNG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.

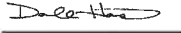


FMVSS/CMVSS Compliance Summary 2017

Commercial and MFSAB

The following information summarizes the C/FMVSS standards and the Compliance Action taken by Startrans Bus

302	Flammability of Interior Materials	Materials installed in the interior of Startrans products meet the standard. Test data on file.
303	Fuel System Integrity of Compressed Natural Gas Systems	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
304	Compressed Natural Gas Fuel Container Integrity	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
305	Electrolyte Spillage and Electrical Shock Protection	Startrans does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
403	Platform Lift System for Motor Vehicles	Startrans does not alter the platform lift system. Startrans install lift system in strict compliance with the manufacturers installation instructions. Startrans meets strength requirements. Test data on file.
404	Platform Lift Installation on Motor Vehicles	Compliance is deferred to the lift manufacturer.
1106	Noise Emissions	Startrans does not alter the OEM Chassis in the area which is stated in the incomplete vehicle documents. Data on file.

Signed: Date: 1/10/2017Title: Compliance Manger

VALIDITY OF FMVSS STANDARDS FOR COMMERCIAL BUS

CRASHWORTHINESS

Vehicle must be rear and side impact tested meeting all Federal and State vehicle safety standards.

§571.214 Standard No. 214; Side impact protection.

S1 Scope and purpose.

(a) *Scope.* This standard specifies performance requirements for protection of occupants in side impacts.

(b) *Purpose.* The purpose of this standard is to reduce the risk of serious and fatal injury to occupants of passenger cars, multipurpose passenger vehicles, trucks and buses in side impacts by specifying strength requirements for side doors, limiting the forces, deflections and accelerations measured on anthropomorphic dummies in test crashes, and by other means.

S2 Applicability. This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating (GVWR) of 4,536 kilograms (kg) (10,000 pounds (lb)) or less, except for walk-in vans, or otherwise specified.

As you can see, FMVSS 214 applies only to vehicles with a GVWR of 10,000 pounds or less. If this requirement applies to FTA funded rolling stock purchases, the purchaser is required to perform a sole source procurement, since we know of only one manufacturer that has performed this test.

We successfully meet all APPLICABLE FMVSS standards. An FMVSS self-certification sheet is always required for submission on FTA funded rolling stock purchases. A sample form is attached.

§571.220 Standard No. 220; School bus rollover protection.

S1. Scope. This standard establishes performance requirements for school bus rollover protection.

S2. Purpose. The purpose of this standard is to reduce the number of deaths and the severity of injuries that result from failure of the school bus body structure to withstand forces encountered in rollover crashes.

S3. Applicability. This standard applies to school buses.

Though FMVSS 220 is labeled as School Bus only, it has been accepted industry-wide that this test be successfully performed on Commercial Bus bodies as well. We have full test documentation on file.

§571.221 Standard No. 221; School bus body joint strength.

S1. *Scope.* This standard establishes requirements for the strength of the body panel joints in school bus bodies.

S2. *Purpose.* The purpose of this standard is to reduce deaths and injuries resulting from the structural collapse of school bus bodies during crashes.

S3. *Application.* This standard applies to school buses.

Note that this standard applies solely to school bus bodies. The origins of this requirement date back many years to a time when school bus structure required the rigid attachment of the skin for reinforcement.

This standard does not apply to Commercial Buses since the welded steel frame construction of the vehicles forms the safety barrier required and the body panels lend no significant strength to the overall structural integrity of the body construction. As evidence, we attach a letter we received from the FTA ruling that switching our exterior panels from metal to a composite material required no further testing at Altoona due to the strength of our welded steel frame.

Here is an FTA opinion on the requirement of FMVSS 221 for commercial vehicles from the website.

Q. Is the FMVSS221 regulation relevant to the commercial transit bus industry? Or is it only for school bus application?

A. FMVSS (Federal Motor Vehicle Safety Standard) No. 221, School Bus Body Joint Strength, applies only to school buses, and is not a basis for testing public transit vehicles under FTA's Bus Testing program (see <http://www.vss.psu.edu/btrc.htm>). (**Posted: May 2009**).

We have successfully tested FMVSS 221 on our vehicle where the sidewall and floor joints mate. This test is also attached.

§571.224 Standard No. 224; Rear impact protection.

S1. *Scope.* This standard establishes requirements for the installation of rear impact guards on trailers and semitrailers with a gross vehicle weight rating (GVWR) of 4,536 kg or more.

S2. *Purpose.* The purpose of this standard is to reduce the number of deaths and serious injuries occurring when light duty vehicles impact the rear of trailers and semitrailers with a GVWR of 4,536 kg or more.

S3. *Application.* This standard applies to trailers and semitrailers with a GVWR of 4,356 kg or more. The standard does not apply to pole trailers, pulpwood trailers, road construction controlled horizontal discharge trailers, special purpose vehicles, wheels back vehicles, or temporary living quarters as defined in 49 CFR 529.2.

If a cargo tank motor vehicle, as defined in 49 CFR 171.8, is certified to carry hazardous materials and has a rear bumper or rear end protection device conforming with 49 CFR part 178 located in the area of the horizontal member of the rear underride guard required by this standard, the guard need not comply with the energy absorption requirement (S5.2.2) of 49 CFR 571.223.

As you can see, this standard applies only to trailers and semitrailers.

§571.301 Standard No. 301; Fuel system integrity.

S1. *Scope.* This standard specifies requirements for the integrity of motor vehicle fuel systems.

S2. *Purpose.* The purpose of this standard is to reduce deaths and injuries occurring from fires that result from fuel spillage during and after motor vehicle crashes, and resulting from ingestion of fuels during siphoning.

S3. *Application.* This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks and buses that have a GVWR of 4,536 kg or less and use fuel with a boiling point above 0 °C, and to school buses that have a GVWR greater than 4,536 kg and use fuel with a boiling point above 0 °C.

S4. *Definition.* *Fuel spillage* means the fall, flow, or run of fuel from the vehicle but does not include wetness resulting from capillary action.

S5. General requirements.

S5.1 *Passenger cars, and multipurpose passenger vehicles, trucks, and buses with a GVWR of 10,000 pounds or less.* Each passenger car and each multipurpose passenger vehicle, truck, and bus with a GVWR of 10,000 pounds or less shall meet the requirements of S6.1 through S6.4. Each of these types of vehicles that is manufactured to use alcohol fuels shall also meet the requirements of S6.6.

S6.6 *Anti-siphoning test for alcohol fuel vehicles.* Each vehicle shall have means that prevent any hose made of vinyl plastic or rubber, with a length of not less than 1200 millimeters (mm) and an outside diameter of not less than 5.2 mm, from contacting the level surface of the liquid fuel in the vehicle's fuel tank or fuel system, when the hose is inserted into the filler neck attached to the fuel tank with the fuel tank filled to any level from 90 to 95 percent of capacity.

Though FMVSS 301 is not required on our vehicles, it is actually performed by the chassis manufacturer and, assuming we follow all guidelines for our body construction is passed through to us in the incomplete vehicle that we modify.

We are in good standing with several 100% ratings from Ford during our QVM inspections that are performed annually. An excel spreadsheet of our last inspection dated 6/28/2016.

Alternate fuel conversions have their own set of requirements that are met and certified by the alternate fuel converter.

STARCRAFT BUS

a division of Forest River, Inc.

FMVSS/CMVSS Compliance Summary 2016-2017

Commercial Only

The following information describes briefly the C/FMVSS standards and the Compliance Action that has been taken by either Starcraft Bus Commercial Division, the chassis manufacturer.

C/FMVSS No.	Standard Description	Compliance Action
101	Control Location, Identification and Illumination	Starcraft does not alter the OEM controls or displays. Any aftermarket seats and/or controls or displays subject to the standard meet this standard. Test data on file.
102	Transmission Shift Lever Sequence, Starter Interlock & Transmission Braking Effect	Compliance is deferred to the chassis manufacturer.
103	Windshield Defrosting & Defogging Systems	Compliance is deferred to the chassis manufacturer.
104	Windshield Wiping & Washing Systems	Compliance is deferred to the chassis manufacturer.
105	Hydraulic Brake Systems	Test data kept on file for vehicles that have had the frame stretched, or have had other system modifications. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
106	Brake Hoses	Vehicles with stretched frames have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
108	Lamps, Reflective Devices & Associated Equipment	Starcraft does not alter OEM lighting. Additional lighting to include brake, turn, clearance and reverse lamps meet standard. Data on file.
108.1	Alternative Requirements for Headlamps	Starcraft does not alter OEM lighting. Compliance is deferred to the chassis manufacturer.
110	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less	Starcraft does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less.
111	Rear View Mirrors	All aftermarket mirrors installed by Starcraft meet this standard and DOT regulations. Data on file.
112	Headlamp Concealment Devices	Starcraft does not manufacture vehicles with headlamp concealment devices.
113	Hood latch systems	Compliance is deferred to the chassis manufacturer.
114	Theft Protection	Compliance is deferred to the chassis manufacturer.
115	Vehicle Identification Number	Compliance is deferred to the chassis manufacturer.
116	Hydraulic Brake Fluids	Starcraft does not alter brake systems. Vehicles with stretched frames have additional fluid added by chassis modifiers using OEM instruction and materials. All other system modifications utilize only OEM-approved fluid. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
118	Power Operated Window, Partition, and Roof Panel Systems	Compliance is deferred to the chassis manufacturer.
120	Tire Selection and Rim for Motor Vehicles with a GVWR of 4,536kg (10,000 lbs.) or More	Compliance is deferred to the chassis manufacturer.
121	Air Brake Systems	Vehicles with stretched frames have additional lines installed by chassis modifiers using OEM components. Other vehicles that have had system modifications use OEM or OEM-approved components and are tested for compliance. For Non-stretched vehicles compliance is deferred to the chassis manufacturer.
124	Accelerator Control Systems	Starcraft does not alter the OEM accelerator system, with the exception of the addition of aftermarket fast idle systems on some vehicles. These systems meet this standard when installed in accordance with instructions.
125	Warning Devices	All vehicles manufactured by Starcraft that are equipped with aftermarket (3) triangle kit meet this standard.
131	School Bus Pedestrian Safety Devices	All vehicles manufactured by Starcraft are not completed to be used as school buses.
135	Light Vehicle Brake System with a GVWR of 3,500kg (7,716lbs.) or Less	Starcraft does not manufacture vehicles with a GVWR of 3,500kg (7,716 lbs.) or Less.
201	Occupant Protection in Interior Impact	All vehicles applicable to the standard (under 10,000 lbs.) do not have alterations made that affect the compliance to this standard. Compliance is deferred to the chassis manufacturer.
202	Head Restraints	All vehicles applicable to the standard (under 10,000 lbs.) have seating installed that meets this standard. Compliance is deferred to the chassis manufacturer.

STARCRAFT BUS

a division of Forest River, Inc.

FMVSS/CMVSS Compliance Summary 2016-2017

Commercial Only

The following information describes briefly the C/FMVSS standards and the Compliance Action that has been taken by either Starcraft Bus Commercial Division, the chassis manufacturer.

203	Impact Protection for the Driver from the Steering Control System	Compliance is deferred to the chassis manufacturer.
204	Steering Control Rearward Displacement	Compliance is deferred to the chassis manufacturer.
205	Glazing Materials	No modifications are made to the OEM Glazing materials. Additional glazing materials meet the standard. Data on file.
206	Door Locks and Door Retention Devices	All vehicles manufactured by Starcraft (non-buses) that are subject to this standard have no modifications made which affect compliance to the standard. Compliance is deferred to the chassis manufacturer.
207	Seating System	All seating installed by Starcraft meets this standard. Test data on file.
208	Occupant Crash Protection	No alterations are made to the OEM seat belts, air bag systems or associated hardware. Any seat belt systems added meet the standard. Test data on file.
209	Seat Belt Assemblies	No alterations are made to the OEM seat belts or associated hardware. Any seat belt systems added meet the standard. Test data on file.
210	Seat Belt Assembly Anchorage	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Test data on file.
210.1	User-ready Tether Anchorages for Restraint System	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
210.2	Lower Universal Anchorage Systems for Restraint Systems and Booster Cushions	No alterations are made to the OEM seat belts or associated hardware. Seat belt systems and their installation meet the standard. Data on file.
212	Windshield Mounting	Compliance is deferred to the chassis manufacturer.
213	Child Restraint Systems	Vehicles manufactured by Starcraft that are subject to this standard (under 10,000 lbs.) have seating installed that meets this standard. Test data on file.
213.4	Built-in Child Restraint Systems and Built-in Booster Cushions	Vehicles manufactured by Starcraft that are subject to this standard (under 10,000 lbs.) have seating installed that meets this standard. Test data on file.
214	Side Impact Protection with a GVWR of 4,536kg (10,000 lbs.) or Less	Starcraft does not manufacture vehicles with a GVWR of 4,536kg (10,000 lbs.) or Less
216	Roof Crush Resistance	Starcraft does not manufacture vehicles that are subject to this standard.
217	Bus Window Retention and Release	No modifications are made to the OEM windows. Additional windows meet the standard. Test data on file.
219	Windshield Zone Intrusion	Compliance is deferred to the chassis manufacturer.
220	School Bus Rollover Testing	All vehicles manufactured by Starcraft are not completed to be used as school buses, however, Starcraft does test vehicles to meet standard.
221	School Bus Body Joint Strength	All vehicles manufactured by Starcraft are not completed to be used as school buses, however, Starcraft does test vehicles to meet standard.
222	School Bus Passenger Seating and Crash Protection	All vehicles manufactured by Starcraft are not completed to be used as school buses.
225	Child Restraint Anchorage Systems	Vehicles manufactured by Starcraft that are subject to this standard (under 10,000 lbs.) have seating installed that meets this standard.
301	Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.1	LPG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.
301.2	CNG Fuel System Integrity	Compliance is deferred to the chassis manufacturer.

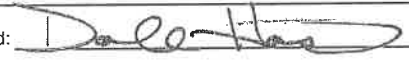


FMVSS/CMVSS Compliance Summary 2016-2017

Commercial Only

The following information describes briefly the C/FMVSS standards and the Compliance Action that has been taken by either Starcraft Bus Commercial Division, the chassis manufacturer.

302	Flammability of Interior Materials	Materials installed in the interior of Starcraft products meet the standard. Test data on file.
303	Fuel System Integrity of Compressed Natural Gas Systems	Starcraft does not typically produce vehicles with CNG systems. All vehicles equipped with CNG systems exceed the applicability (10,000 lbs. or less) of this standard.
304	Compressed Natural Gas Fuel Container Integrity	Starcraft does not typically produce vehicles with CNG systems. All vehicles equipped with CNG systems exceed the applicability (10,000 lbs. or less) of this standard.
305	Electrolyte Spillage and Electrical Shock Protection	Starcraft does not produce vehicles that use electricity as propulsion power.
403	Platform Lift System for Motor Vehicles	Starcraft does not alter the platform lift system. Starcraft install lift system in strict compliance with the manufacturers installation instructions. Starcraft meets strength requirements. Test data on file.
404	Platform Lift Installation on Motor Vehicles	Compliance is deferred to the lift manufacturer.
1106	Noise Emissions	Starcraft does not alter the OEM Chassis in the area which is stated in the incomplete vehicle documents. Data on file.

Signed: 
 Title: Compliance and Development Manager

Date: 1/11/2016



Progressive Engineering Inc.

StarCraft Bus and Mobility

FMVSS 221
Body Panel Joint Strength Test

12/23/2008

This test report contains eight (8) pages, including the cover sheet. Any additions to, alterations of, or unauthorized use of excerpts from this report are expressly forbidden.

2008-1885

58640 State Road 15 - Goshen, IN 46528
Phone: 574-533-0337 - Fax: 574-533-9736
www.p-e-i.com

1. TITLE

FMVSS 221 Body Panel Joint Strength Test

2. OBJECTIVE

To determine the body panel joint strength on several materials and configurations when tested in tension.

This test report pertains only to the specimen tested. It remains the sole responsibility of the manufacturer to provide a product consistent to that which was tested.

3. TESTED FOR

StarCraft Bus and Mobility
2367 Century Drive
Goshen, IN 46528

4. TESTING ORGANIZATION

Progressive Engineering Inc.
58640 State Road 15
Goshen, IN 46528
www.p-e-i.com

See IAS Evaluation Report TL-178 for ISO 17025 Accreditation

5. TESTING PERSONNEL

Laboratory Manager - Jason R. Holdeman
Technician - Todd Miller



6. REFERENCE STANDARDS

Body Joint Strength Test per the Federal Motor Vehicle Safety Standard (FMVSS) 221 Section 6.3 as stated in the Code of Federal Regulations Title 49, Volume 5, Section 571.221.

7. TESTING EQUIPMENT

Tinius Olsen Tension and Compression Hydraulic test machine (PEI No. 144).
Calibrated to ASTM E4.

8. TEST SPECIMEN

Test No. 1 - Specimen Labeled "A"

- Aluminum Side Wall Skin. Measured thickness is .063".
- Aluminum Skirt. Measured thickness is .040".
- 1-1/2" x 1-1/2" x 8" 11ga. Steel Angle. Measured thickness is .127".
- Double-Sided (V2520) PVC Tape (.031" x .250") between aluminum and steel angle.
- 1/2" x 8" Vinyl Side Trim
- 1-15/16" x 8" Aluminum Trim
- (2) #8 x 1" Self-Tapping Aluminum Pan Head Screws (set 4" o.c.).
- Additional framing included on Aluminum Side Wall Skin as depicted in attached drawing.

See attached StarCraft drawing entitled "Allstar Joint Test Assembly"

Test No. 2 - Specimen Labeled "B"

- Aluminum Side Wall Skin. Measured thickness is .063".
- Aluminum Skirt. Measured thickness is .040".
- 1-1/2" x 1-1/2" x 8" 11ga. Steel Angle. Measured thickness is .127".
- SikaFast-3131, 10:1 Acrylic adhesive between aluminum and steel angle, between skins.
- 1/2" x 8" Vinyl Side Trim
- 1-15/16" x 8" Aluminum Trim
- (5) 3/16" dia. Stainless Mandrel Rivets, Grade 51 Buttonhead (set 1-1/2" o.c.).
- Additional framing included on Aluminum Side Wall Skin as depicted in attached drawing.

9. TEST SPECIMEN CONSTRUCTION

The test specimens were provided to *PEI* assembled for testing by StarCraft Bus

The test specimen drawings were provided to *PEI* by StarCraft Bus and verified by *PEI* personnel.

The specimens were cut into the dog bone shape as required in Figure 1 of FMVSS 221.

Specimen designations were provided to PEI by StarCraft Bus.

10. TEST SET-UP

The ends of the test specimens were bolted to the tension grips such that the load direction was applied perpendicular to the joint as required by Section 6.3.2. of FMVSS 221.

See attached fixture drawing no. F1103 for details.

11. TEST PROCEDURE

The load was applied at an approximate rate of .321" per section 6.3.3 of FMVSS 221 until the specimen was separated.

12. TEST RESULTS

See attached data sheet for details.

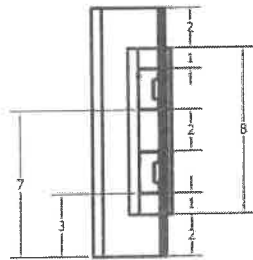
Progressive Engineering Inc.

FMVSS 221 Body Panel Joint Test

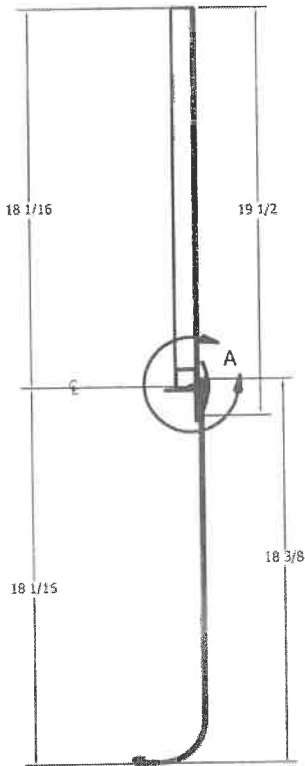
Date: 12/23/2008
Client: StarCraft Bus and Mobility

Project No.: 2008-1885
Test Condition: 64 °F and 43% R.H.
Load Rate: .321" per minute

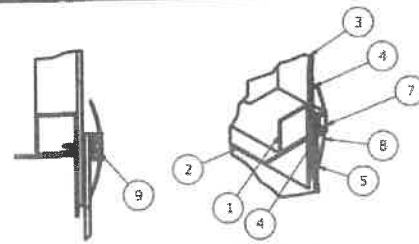
Sample No.	Specimen Description	Adhesive	Fasteners	Ultimate Load (lbf)	Specimen Width (in)	Pounds per Linear inch	Failure / Comments
A	Aluminum Side Wall Skin adhered & fastened at mid-point overlap to Aluminum Skirt	(V2520) Dbl. Sided PVC Tape	(2) - Self-Tapping Aluminum Screws	1,245	8.050	155 pli	Adhesive sheared cohesively and aluminum tore around fasteners.
B	Aluminum Side Wall Skin adhered & fastened at mid-point overlap to Aluminum Skirt	SikaFast-3131, 10:1 Acrylic	(5) - 3/16" dia. Stainless Mandrel Rivets, Grade 51 Buttonhead	9,000	8.090	1112 pli	Aluminum Skirt tore 1" from mid-point.



TOP VIEW

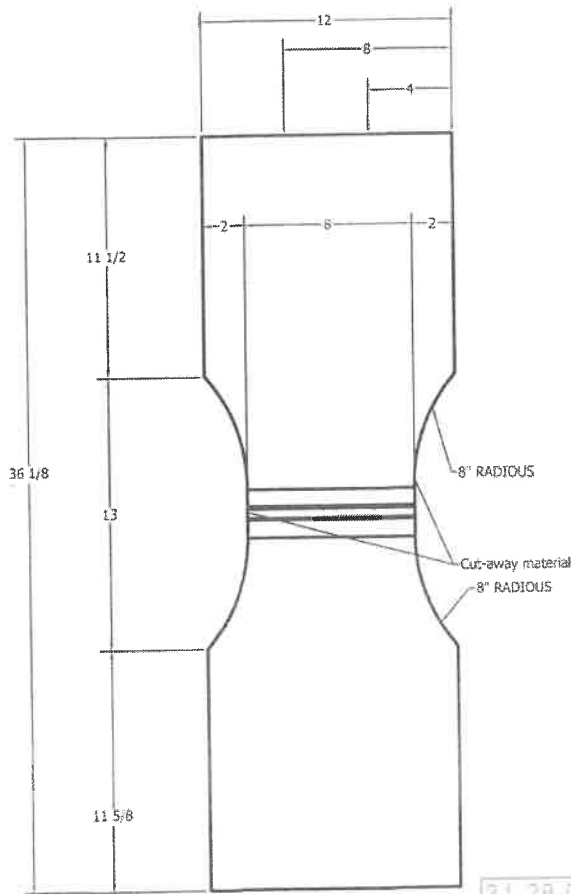


SIDE VIEW

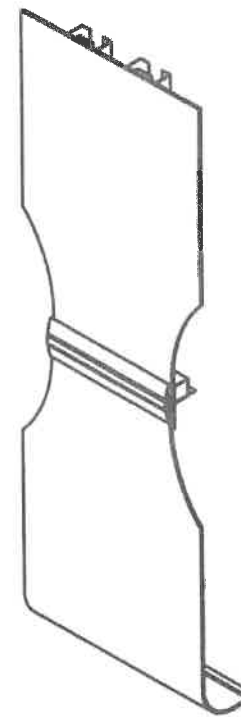


DETAIL A
SCALE 1/2

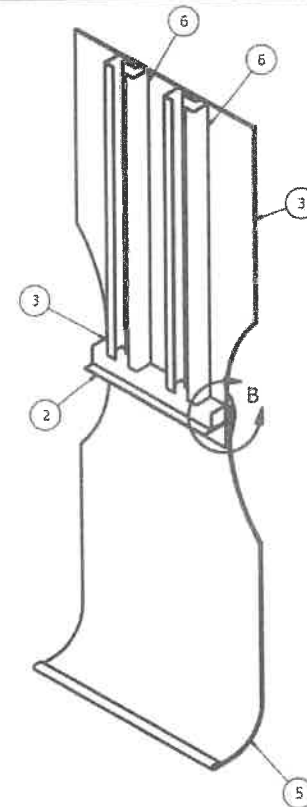
DETAIL B
SCALE 1/2



FRONT VIEW



FRONT SIDE ISOMETRIC



BACK SIDE ISOMETRIC

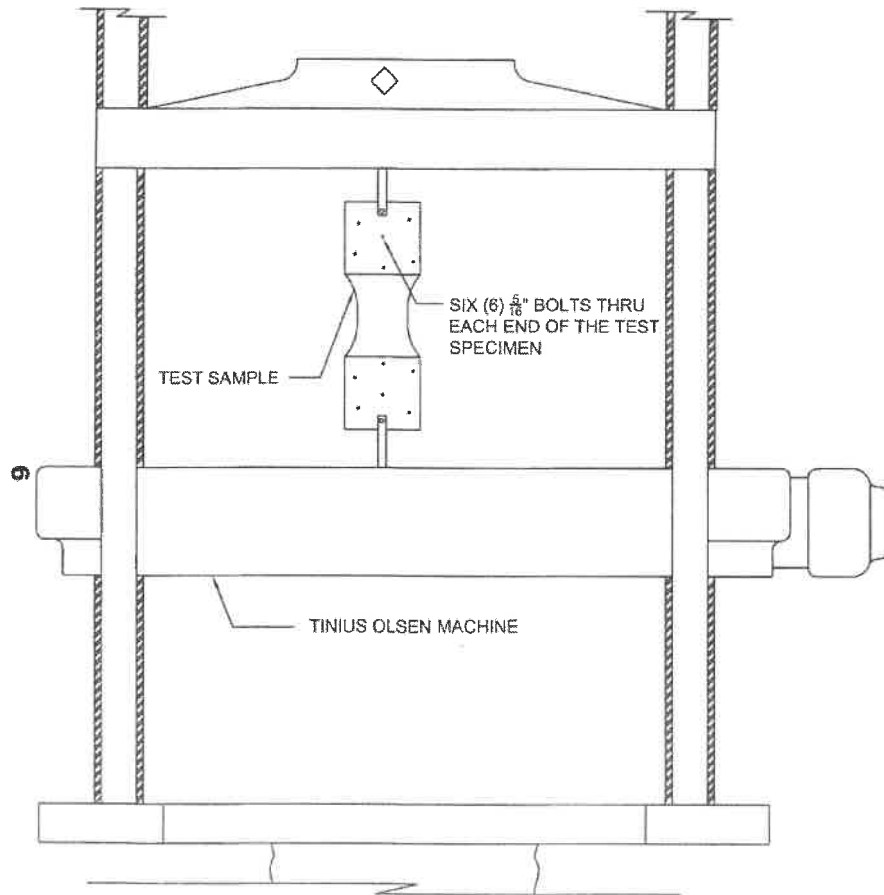
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1x1x12	Steel Tube 16ga. 1" x 1" x 36"
2	1	02071056-12	STEEL ANGLE 11ga. x 1-1/2" x 1-1/2" x 8" lg. A-513
3	1	Alum .060 x 12x18	Aluminum Side Wall Skin .060" x 12" x 19-1/2" Sample
4	1	Double sided Adhesive	(V2520) PVC Tape, #2520-.031" x .250" Foam Tape.
5	1	Alum skirt .060 x 12x18	Aluminum Skirt .060" x 12" x 18" Sample
6	2	02062351-17.25	Wall Bow 18ga. 1" x 2" x 17-1/4"
7	1	70008998-12	8" Vinyl Side Trim
8	1	70038999	6" Aluminum Trim
9	3	SELF TAPPING PAN HEAD SCREW 1	1" Self Tapping Aluminum Pan Head Screws

STARCRAFT BUS
a division of Forest River, Inc.

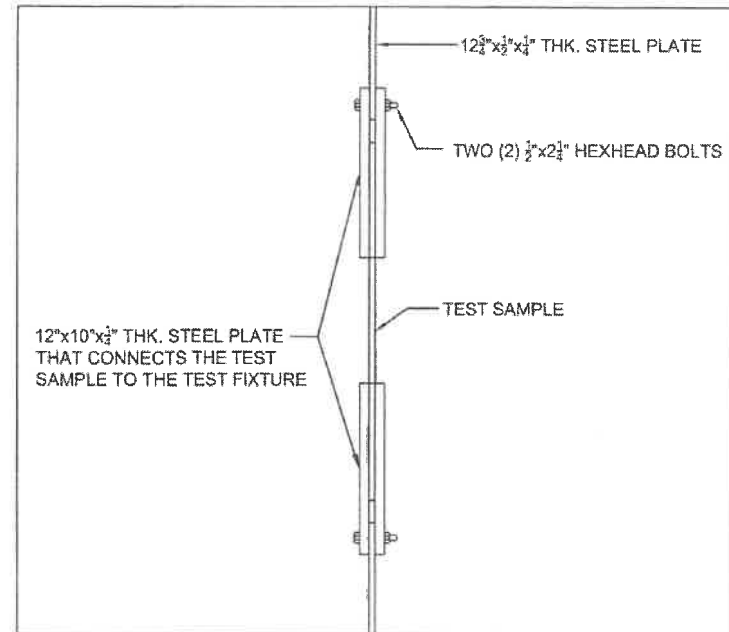
DFTSN:	TAS	TITLE:	Allstar Joint Test
DATE:	12/18/08	DWG NO:	ASSEMBLY 13-08
			SHEET: 1 OF 1


31-28-0413-08

FRONT VIEW



SIDE VIEW



DRAWN BY A.BENDER	This drawing and all information contained herein is the property of PROGRESSIVE ENGINEERING, INC. and is not to be reproduced without the written permission of Progressive Engineering, Inc. assumes no responsibility for unauthorized use of this drawing.	 progressive engineering inc 10000 Progress Road Houston, Texas 77036 Phone: 281.485.1111 Fax: 281.485.1111
DATE 6/1/04		
SCALE		
DRAWING NUMBER F1103		
TITLE TEST SET-UP		



Certificate of Registration

This is to certify the Quality Management System of:

Forest River Manufacturing, LLC
Division 5

Location Addresses:

Starcraft Bus: Commercial
2367 Century Drive
Goshen, IN 46528

Starcraft Bus: School Bus
2408 Century Drive
Goshen, IN 46528

StarTrans Bus
2367 Century Drive
Goshen, IN 46528

has been assessed and found to be in compliance with the requirements of

ISO 9001:2008

for the following scope:

Design, Manufacturing, Sales, and Administration of Commercial, Government and School Busses.

Certificate Number: **SARA-2006-CA-0031-A**

Originally Registered:
February 28, 2006

Latest Issue:
January 26, 2015

Expiry Date:
January 25, 2018

President, SARA Registrar



This registration is subject to the company maintaining its system to the required standard which will be monitored by SARA Registrar. This certificate remains the property of Standards American Registrations Authority (SARA Registrar) and shall be returned immediately upon request. An electronic certificate can be authenticated online www.sararegistrar.com – verify certificates.
SARA Registrar Headquarters: 1807D Santa Rita Road, #175, Pleasanton, CA 94566



Certificate of Registration

This is to certify the Quality Management System of:

FOREST RIVER MANUFACTURING, LLC
Division 5

Location Addresses:

Starcraft Bus: Commercial
2367 Century Drive
Goshen, IN 46528

Starcraft Bus: School Bus
2408 Century Drive
Goshen, IN 46528

StarTrans Bus
2367 Century Drive
Goshen, IN 46528

has been assessed and found to be in compliance with the requirements of

ISO 9001:2008

for the following scope:

Design, Manufacturing, Sales, and Administration of Commercial, Government and School Busses

Certificate Number: **SARA-2006-CA-0031-B**

Originally Registered:
February 28, 2006

Latest Issue:
October 14, 2016

Expiry Date:
January 25, 2018

President, SARA Registrar



This registration is subject to the company maintaining its system to the required standard which will be monitored by SARA Registrar. This certificate remains the property of Standards American Registrations Authority (SARA Registrar) and shall be returned immediately upon request.
SARA Registrar Headquarters: 1807D Santa Rita Road, #175, Pleasanton, CA 94566



U.S. Department
Of Transportation
**Federal Transit
Administration**

Headquarters

East Building, 5th Floor – TCR
1200 New Jersey Avenue, SE
Washington, DC 20590

November 9, 2016

Donall Hasty
Starcraft Bus/StarTrans Bus
DBE Liaison Officer
2367 Century Drive
Goshen, IN 46525

Re: TVM DBE Goal Concurrence/Certification Letter – Fiscal Year 2017

Dear Mr. Hasty:

This letter is to inform you that the Federal Transit Administration's (FTA) Office of Civil Rights has received Starcraft/StarTrans Bus' Disadvantaged Business Enterprise (DBE) goal and methodology for FY 2017 for the period of October 1, 2016–September 30, 2017. This goal submission is required by the U.S. Department of Transportation's DBE regulations at 49 CFR Part 26 and must be implemented in good faith.

We have reviewed your FY 2017 DBE goal and determined that it is compliant with DOT's DBE regulations. You are eligible to bid on FTA-funded transit contracts. This letter or a copy of the TVM listing on FTA's website may be used to demonstrate your compliance with DBE requirements when bidding on federally funded vehicle procurements.

FTA reserves the right to remove/suspend this concurrence if your DBE program or FY 2017 DBE goal is not implemented in good faith. In accordance with this good faith requirement, you must submit your DBE Uniform Report to FTA by December 1, 2016. This report should reflect all FTA-funded contracting activity for the second period of FY 2016 (i.e., from April 1 to September 30).

Please also be mindful that your FY 2018 DBE goal methodology must be submitted to FTA by August 1, 2017. Any updates to the program plan must be submitted to FTA as they occur. Thank you for your cooperation. If you have any questions regarding this approval, please contact the FTA DBE Team via e-mail at FTATVMSubmissions@dot.gov.

Sincerely,

John Day
Program Manager for Policy and Technical Assistance
Office of Civil Rights



The Chemical Company

January 14, 2011

BASF has tested the Degacoat 310 in respect to Salt Spray (Fog) resistance. Adhesion was determined primarily through Pull-Off Adhesion (ASTM D4541). In order to test corrosion resistance, panels are exposed in a Salt Fog Corrosion Chamber in accordance with ASTM B117. Panels are removed at 500 hour intervals for a total exposure of 1500 hours within the corrosion chamber. Resistance to corrosion is measured by loss of adhesion through Pull-Off (ASTM D4541) and Tape Test (ASTM D3359) methods as well as visual inspection.

OBJECTIVE:

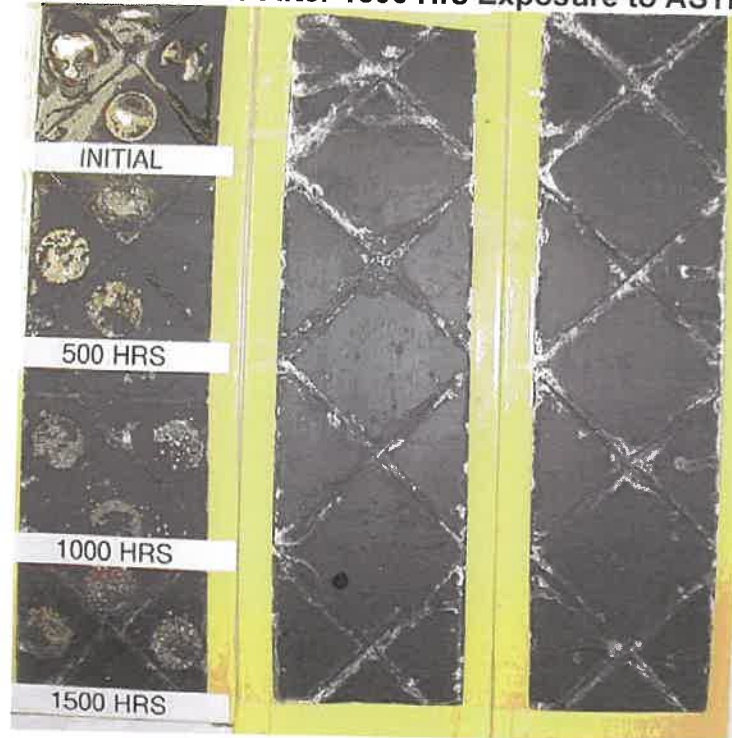
ASTM B117 Salt Fog testing on Degacoat 310 at 20 mils wet on the panels provided.

RESULTS:

Degacoat 310

Degacoat 310 showed good resistance to corrosion by ASTM B117 Salt Fog testing. After 1500 hours of salt fog exposure, there was minimal corrosion in the area around the scribed lines. Upon removal of the coating, there was minimal corrosion evident on the panel.

Degacoat 310 Panels After 1500 Hrs Exposure to ASTM B117



BASF Construction Chemicals, LLC
Building Systems
889 Valley Park Drive
Shakopee, MN 55379

www.buildingsystems.basf.com



The Chemical Company

Degacoat 310 Removed After 1500 hrs Exposure to ASTM B117



CONCLUSIONS:

Degacoat 310 fully complies with:
ASTM D 1187 Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal, Type 1

Degacoat 310 displays excellent adhesion to galvanized metal panels and provides excellent resistance to corrosion on metals, passing the appropriate ASTM Specification.

Bob Miller
OEM Technologies Specialist
OEM/Industrial Products Group
BASF Construction Chemicals - Building Systems
889 Valley Park Dr.
Shakopee, MN 55379



The Chemical Company

PRODUCT DATA

DEGACOAT™ 300, 310

General purpose underbody/protective coatings

Description

DegaCoat™ 300 and 310 are non-fibered asphalt emulsions specifically formulated for use as protective underbody coatings which provide excellent corrosion preventative barriers for transport applications.

DegaCoat™ 300 and 310 are fiber-free for application by brush or spray.

Packaging

DegaCoat™ 300:
53 gallon (200.6 L) drums
16 gallon (60.48 L) kegs

DegaCoat™ 310:
53 gallon (200.6 L) drums
16 gallon (60.48 L) kegs
330 gallon (1247 L) totes

Color

Applies dark brown and dries to a durable matte black finish

Shelf Life

1 year when properly stored

Storage

Store in unopened containers in a cool, clean, dry area. Do not allow these materials to freeze in the container; do not store below 35° F (2° C).

Features

- Anti-corrosion coating
- Nonflammable
- Water clean up
- Fast drying

Benefits

- Beautifies and protects
- Minimizes fire hazards during application; improves worker safety
- User friendly; enhances production/ process time
- Speeds production

Where to Use

LOCATION

- Truck and trailer
- Bus
- RV
- House/cargo trailers
- Rail cars

SUBSTRATE

- Metals
- Aluminum
- Plywood
- OSB
- Can be sprayed over oxidized metals

How to Apply

Surface Preparation

Surface should be free of oil, grease, dirt and loose material.

Application

Spray with the proper equipment. Consult the spray equipment manufacturer for more information.

UNDERBODY COATING

1. DegaCoat™ 300 and 310 are recommended to be used for corrosion protection on steel surfaces and other metal substrates.

2. DegaCoat™ 300 is designed for spray application using airless equipment. For best results under a wide variety of conditions, a 30:1 or higher ratio pump with a .027 orifice size is recommended. Under limited spray conditions, a 15:1 ratio can be substituted. A heavy film thickness (125 mils wet) can be achieved on vertical surfaces without sagging.
3. DegaCoat™ 310 is designed for spray application using airless equipment. A 15:1 or higher ratio pump with a minimum .023 orifice size is recommended.

Clean Up

Tools and hands should be cleaned with soap and water before emulsion sets. Dried material can be removed with the appropriate solvent.

For Best Performance

- Keep from freezing in the container.
- Do not apply at temperatures below 40° F (4° C) or when temperatures are expected to fall to 40° F (4° C) in the next 24 hours.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Technical Data

Composition

DegaCoat™ 300 and 310 are asphalt-based emulsions.

Compliances

- DegaCoat™ 300 and 310 comply with ASTM D 1187, Type 1, and ASTM D 1227, Type 3, Class I
- DegaCoat™ 300 and 310 comply with ASTM D 1227, Type 2, Class I and ASTM D 1187, Type 1

Test Data

PROPERTY	RESULTS	TEST METHODS
Density		
DegaCoat™ 300, lbs/gal	9.1 – 9.9	Industry Method
DegaCoat™ 310, lbs/gal	9.1 – 9.9	
Solid content		
DegaCoat™ 300, % by weight	55.1	Industry Method
DegaCoat™ 310, % by weight	50.0	
Clay content		
DegaCoat™ 300, % by weight	16.2	Industry Method
DegaCoat™ 310, % by weight	4	
Asphalt content		
DegaCoat™ 300, % by weight	38.9	Industry Method
DegaCoat™ 310, % by weight	46	
Median particle size		
DegaCoat™ 300, μ	15	Industry Method
DegaCoat™ 310, μ	15	
Specific gravity		
DegaCoat™ 300	1.1 – 1.2	Industry Method
DegaCoat™ 310	1.1 – 1.2	
Dry to the touch		
DegaCoat™ 300, hrs	1	Industry Method
DegaCoat™ 310, hrs	1	
Consistency		
DegaCoat™ 300	Semi-paste like	Industry Method
DegaCoat™ 310	Semi-paste like	
Color		
DegaCoat™ 300	Black	Industry Method
DegaCoat™ 310	Black	
Water resistance		
		ASTM 2939-94
Blistering		
DegaCoat™ 300	None	
DegaCoat™ 310	None	
Reemulsification		
DegaCoat™ 300	Nil	
DegaCoat™ 310	Nil	

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Health and Safety

DEGACOAT™ 300

Caution

DegaCoat™ 300 contains asphalt petroleum.

Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains materials listed by the state of California as known to cause cancer and birth defects or other reproductive harm.

VOC Content

24 g/L or 0.20 lbs/gal, less water and exempt solvents.

DEGACOAT™ 310

Caution

DegaCoat™ 310 contains asphalt petroleum and 2-butoxyethanol.

Risks

May cause skin, eye and respiratory irritation. Ingestion may cause irritation. May be absorbed through skin. Repeated or prolonged exposure increases the risk of absorption. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

Keep container closed. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

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Proposition 65

This product contains material listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

24 g/L or 0.20 lbs/gal, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

**BASF Construction Chemicals, LLC –
Building Systems**

889 Valley Park Drive
Shakopee, MN, 55379

www.BuildingSystems.BASF.com

Customer Service 800-433-9517
Technical Service 800-243-6739



LIMITED WARRANTY NOTICE: Every reasonable effort is made to apply BASF exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, **BASF MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS,** and BASF shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the BASF Technical Manager.

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Form No. 1031664 9/07

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NaCl and MgCl

UBC Salt Spray Comparison

Bob Miller

5/9/2011

 **BASF**

The Chemical Company

ASTM G 85 Standard Practice for Modified Salt Spray (Fog) Testing

Test Protocol Samples

- **Three samples ran for each time interval**
- **Two Panels are selected at random for evaluation**
- **One panel left intact (evaluated for visual appearance)**
- **One panel stripped (evaluated for metal protection)**
- **Panels stripped by gently scrapping and residual removed with solvent**
- **Stripped panels are coated with an oil in order to prevent further corrosion.**
- **All samples then photographed**

Test Protocol Time Interval

- 250 Hours
- 500 Hours
- 750 Hours
- 1000 Hours

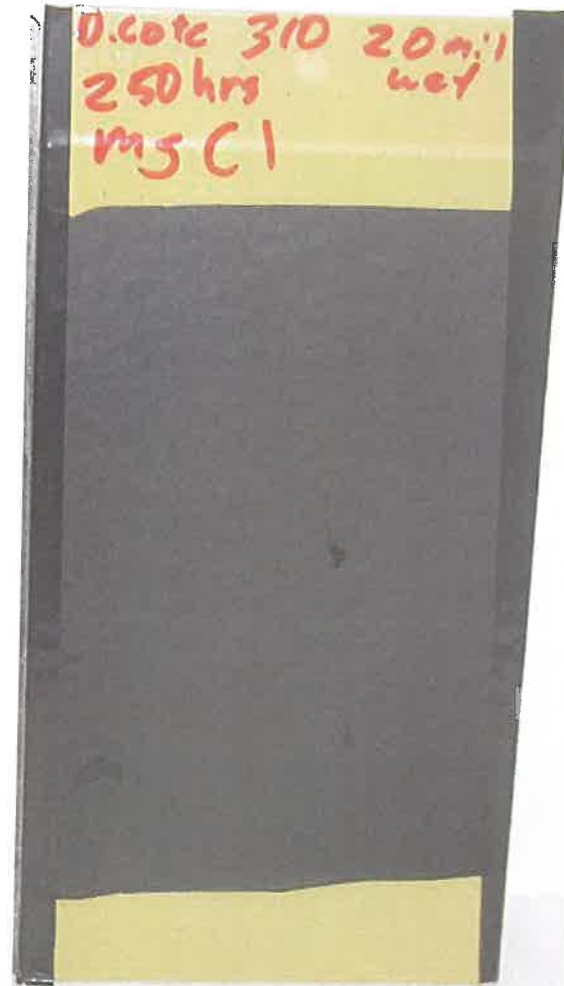


250 Hours



NaCl

- No bubbles
- No Adh. loss



MgCl

- No bubbles
- No Adh. Loss
- No Surface Corrosion

250 Hours Scrapped

NaCl

- Light surface staining
- No Pitting



MgCl

- Light surface staining
- No Pitting



500 Hours



NaCl

- No Bubbles
- No Adh. Loss
- Slight Surface Staining at Edge



MgCl

- No bubbles
- No Adh. Loss
- No Surface Corrosion

500 Hours Scrapped

 **BASF**
The Chemical Company

NaCl

- Light surface staining
- No Pitting



MgCl

- Light surface staining
- No Pitting



750 Hours



NaCl

- No bubbles
- No Adh. Loss
- Slight Surface Corrosion



MgCl

- No bubbles
- No Adh. Loss
- No Surface Corrosion

750 Hours Scrapped

NaCl

- Light surface staining
- No Pitting



MgCl

- Light surface staining
- No Pitting



1000 Hours



NaCl

- No bubbles
- No Adh. Loss
- Slight Surface Corrosion



MgCl

- No bubbles
- No Adh. Loss
- No Surface Corrosion

1000 Hours

NaCl

- Surface Rust
- Staining of Metal
- No Pitting



MgCl

- Light surface staining
- No Pitting



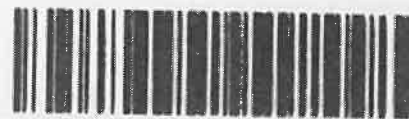
Summary

- Preliminary salt fog tests indicate MgCl may be less corrosive to steel than NaCl in these test environments.
- This test indicates that DegaCoat 310 does an excellent job in preventing oxidation and corrosion on coated steel.
- Recently published articles suggest an increased concern for electrical components and connections when exposed to MgCl deicing compounds.
- Our comparative test results indicate that MgCl is less corrosive to steel than standard deicing compounds.



DFE4FS5HDC41662

Weight: 10230 lbs



SAL003086

Dry Weight: 10230 lbs

MANUFACTURED BY / FABRIQUE PAR **FOREST RIVER, Inc.**

DATE **3/28/2017**

SAL003086

DFE4FS5HDC41662

ST69928C

WEIGHT: **6577KG (14500LB) TYPE/TYPE: BUS/AUTOBUS**

CAPACITY / NOMBRE D'ESIGNE DE PLACES ASSISES **15X68kg=1020 kg or 15X150lbs=2250 lbs**

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

W/PNEU	TIRES/PNEU	RIMS/JANTE	COLD INFL. PRESS/PRESS DE GONFL. A FROID
2268 KG 5000 LB)	LT225/75R16E	16 X 6.0K	517 KP SINGLE DUAL (75 PSI/LP <input checked="" type="checkbox"/> <input type="checkbox"/>
0 KG 0 LB)			0 KP SINGLE DUAL (0 PSI/LP <input checked="" type="checkbox"/> <input type="checkbox"/>
4355 KG 9600 LB)	LT225/75R16E	16 X 6.0K	552 KP SINGLE DUAL (80 PSI/LP <input type="checkbox"/> <input checked="" type="checkbox"/>

THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE.

CE VEHICULE EST CONFORME A TOUTES LES NORMES QUI UI SONT APPLICABLES EN VERTU DU REGLEMENT SUR LA SECURITE DES VEHICULES AUTOMOBILES DU CANADA EN VIGEUR A LA DATE DE SA FABRICATION.

INC. VEL. MFG BY: **Ford**

FSTL Final Test Report		<u>Test Facility:</u> FSTL
<u>Test Date:</u> 6/25/2012	<u>Test Procedure:</u> FMVSS-207/210	4546 W. Augusta Blvd. Chicago, IL 60651

Description of Item Tested

All test items are obtained according to FSTL procedure LAI-011 unless otherwise noted. All items are tested for compliance with applicable standards, previously reviewed and approved by the party requesting this test, unless otherwise specifically noted.
 FSTL installed a FSC, AM2 foldaway, forward facing, wall mounted seat [32298] in a Starcraft Test Buck, curbside. The seat was installed on a bracket with (5) 1/2"-20, grade 8 bolts, 1/2" washers, and 1/2" gra. 8 nuts to the floor bracket, and (2) 7/16" gr.8 bolts to the wall. The bracket attached to the floor with (6) 1/2" gr.8 bolts. Please see attached drawings.

Description of Results



Summary of FMVSS 571.207.S4.2a & Section 571.210.S5.1

A force of 5,000 lb shall be applied to each lap belt at 10° ± 5° above the horizontal plane. In addition, a force (1,350 lb) equal to 20 times the system mass was applied simultaneously through the CG of the seating system. The required forces must be reached within 30 seconds from the onset of the test then, when reached must be held for 10 seconds. The total of the forces applied during this test was 11,350 lb.

Note: Full compliance with FMVSS and its Regulations, as set forth under 49 USC 301, et. seq., can only be achieved through proper in-vehicle testing. Freedman Seating Company, its agents, employees, affiliates and subsidiaries ("Freedman Seating") is not liable for damages resulting from the installation of any seat in a vehicle that has not been FMVSS tested or any installation of a seat that deviates from a FMVSS tested installation method. Freedman Seating has no responsibility for the design of any vehicle in which the subject seat may be placed, or any resulting damages.

Test Opinions and Interpretations

Note: This Test Report is provided solely for the use of the party requesting the same identified below, and for no other person, entity or purpose. Reproduction of this document is strictly prohibited without the prior written permission of FSTL in each instance.

The seat system as tested reached and held FMVSS loads within the time requirements.

The test complied with the above Test Procedure: **Yes X No**

Test Report Reviewed by:

Miyala J

Digitally signed by Miyala J
DN: cn = Miyala J, o = FSTL, ou = Freedman Seating Co., c = US
Reason: I have approved this document
Using Acrobat Sign
Date: 2012.07.03 09:40:41 -0500

Test Requested By:

**Larry Hall, Forest River / Starcraft
2367 Century Drive, Goshen In**

Test Report Approved by:

David D. O'Malley

Digitally signed by David D O'Malley
DN: cn = David D O'Malley, c = US
o = FSTL, ou = FSTL
Reason: I am approving this document. Technical Manager
Date: 2012.07.03 09:52:47 -0500

Request Received D

5/21/2012

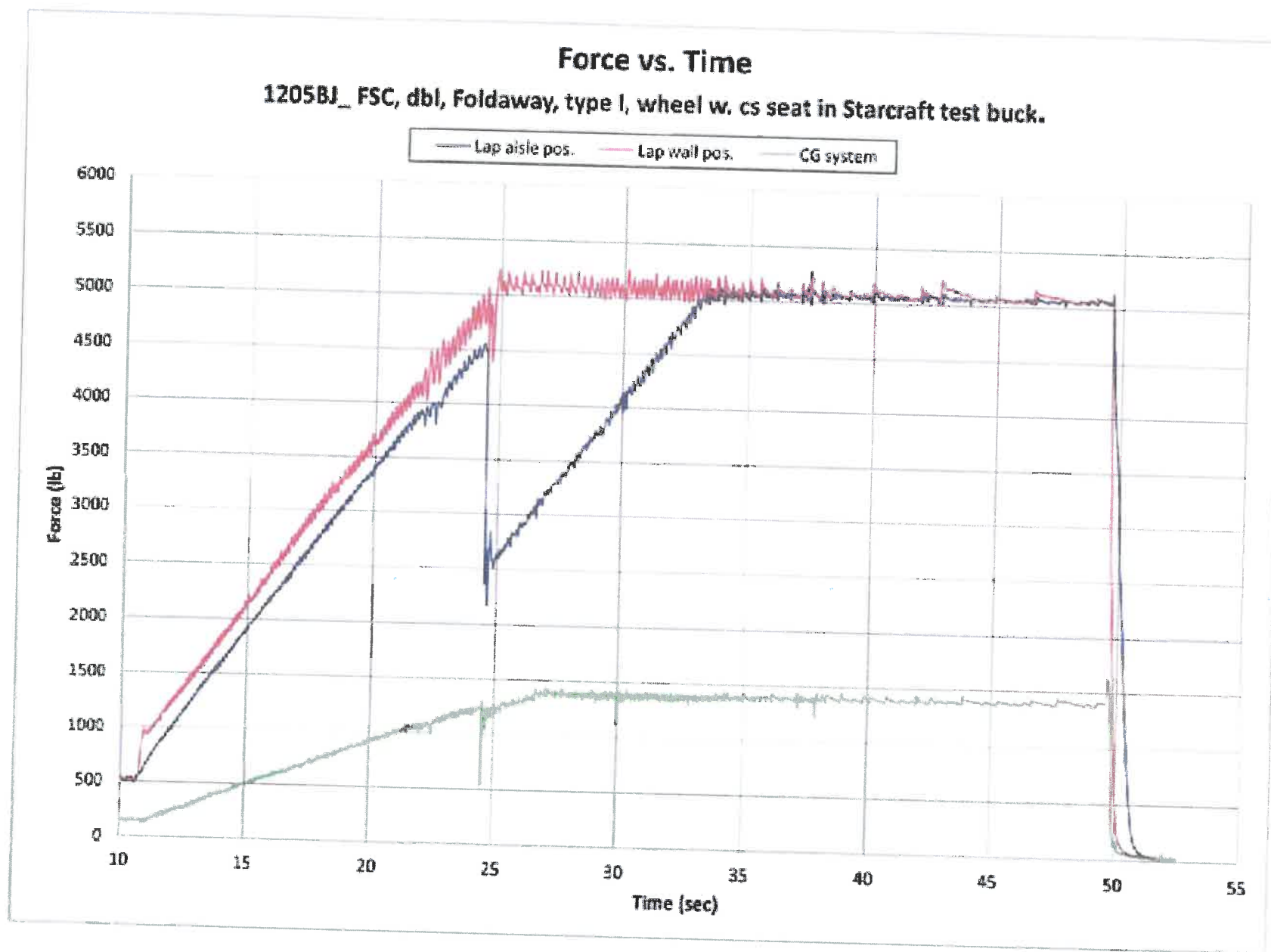
Equipment Documentation

Test Fixtures:

Fixture #	Description
PL-001	Pul Test Machine
PL-205	Body Block

Measurement Equipment:

Equipment #	Description	Last Calibration #
LC-001	Load Cell -15K S.N. Y35083	C1202
LC-002	Load Cell -15K S.N. Y51758	C1202
LC-003	Load Cell -15K S.N. Y68888	C1202



Pre Test Photo

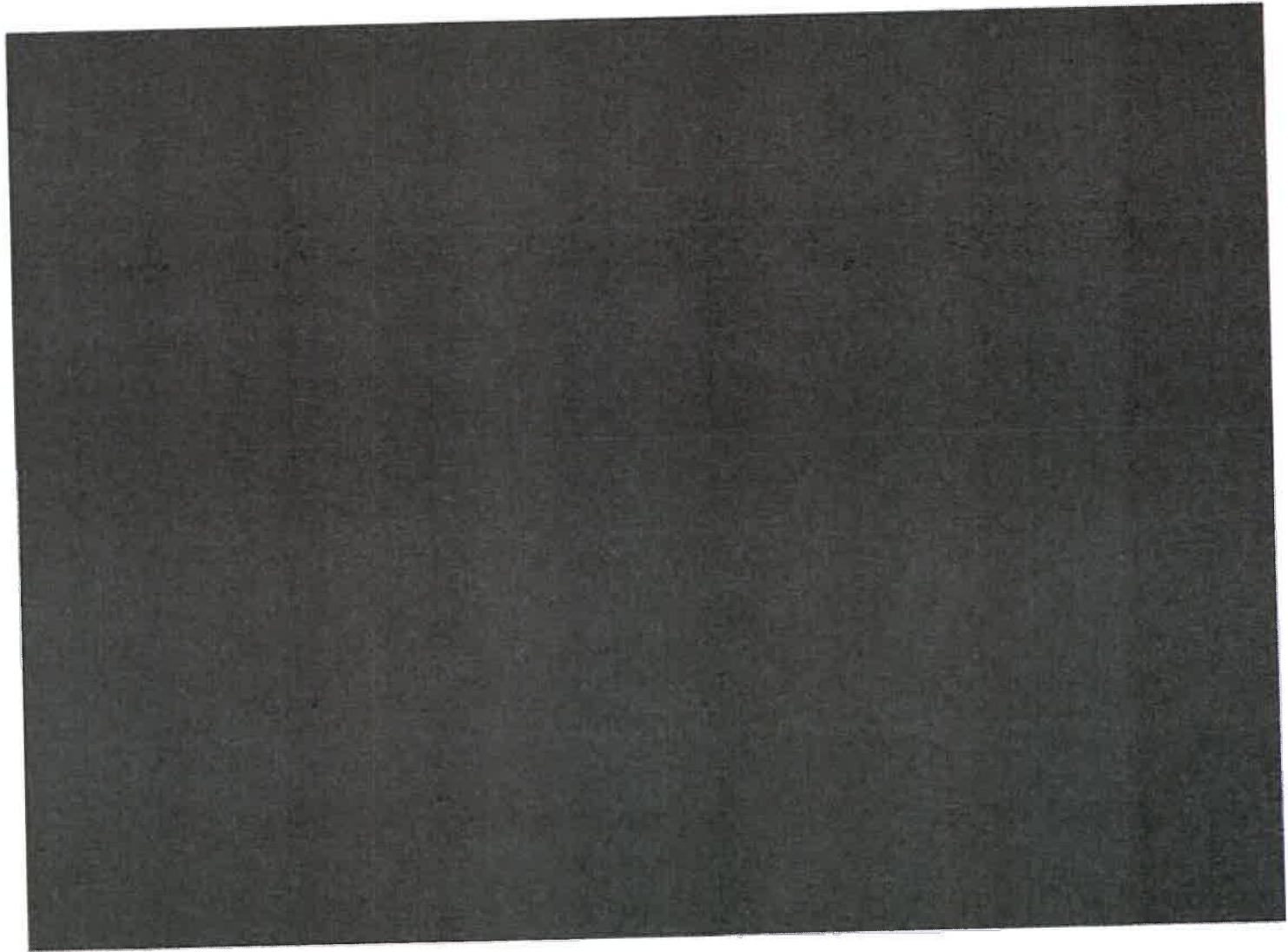


Post Test Photo



Video

Double Click on Video to Play WMV File



FSTL

4545 W. Augusta Blvd.
Chicago, IL 60651

In-Vehicle Seat Test Request Form

Customer: FOREST RIVER Date Generated: 5/21/12
 Contact Name: LOREY HALL FSC Engineer (optional): N/A
 Contact Phone Number: 1-800-248-7440 x252 FSC Sales person or representative: N/A
 Contact E-mail: lhall@forestriver.com FSTL Work Order Number: 1205BJ

What seat will be tested? 7400 DA 3P4 FORWARD (R) W/W FORWARD (L) DD X-ROADWAY
 Position of Seat in Vehicle? 3RD ROW W/2ND-3RD 2TD FRONT POS. D
 Specific Name of Vehicle (section)? SKIDGRAFT

What tests are requested?
 FMVSS 201 FMVSS 225
 FMVSS 210 CMVSS 210.1
 CMVSS 207 CMVSS 210.2
 CMVSS 210 FSTL Tension
 Other

What test completion date is needed? ASAP

Scheduled Completion Date (approximate): 6/29/12

Is the test body a complete vehicle? Yes No

If 'Yes' is checked above, is the vehicle drivable? Yes No N/A

Required Drawing: Due to size constraints of our laboratory facilities, we require that you provide a drawing to FSTL showing the overall dimensions of the test vehicle, all locations in the vehicle of the seats to be tested, the locations of any structural tie downs and lift points for the vehicle, and the turning radius, if the vehicle is drivable.

When will the test body be sent? MAY 29, 2012

When will the test body arrive? SAME DAY

What carrier will deliver the test body? LOGISTICS BY BOB FALGOUT 800-666-0076

Customer Please Note: You are responsible for all shipping and setup charges for the test vehicle. Test vehicles shall be ready to test before arriving at FSTL. If more than minor modifications are to be made to a test vehicle, FSTL shall perform said modifications at the prevailing hourly rate, plus materials, including but not limited to any assembly, welding, reinforcement, hardware, or supplies. Hardware used to attach the seats to the test platform:

Shall be provided by or As specified by the customer.

General Understanding of Tests: Tests are destructive and may damage the test vehicle structure, likely rendering the test vehicle unusable. Responsibility for seating systems is that of both the seat supplier and the vehicle OEM. The seat supplier's responsibility consists of meeting all of the established system performance requirements and obtaining and supplying the required test data to the vehicle OEM. The vehicle OEM has the ultimate system responsibility in ensuring that all requirements for safe seat applications have been met.

Customer Monitoring of Test: FSTL shall afford you or your designated representative reasonable access to relevant areas of the laboratory for the witnessing of this testing. However, FSTL may restrict the viewing of certain items in these areas in order to maintain the confidentiality of other customers. Was Monitor Testing? Yes No N/A

This section is to be filled out by FSTL personnel.

Date Request Received: 5/21/12 Received By: J. O'Reilly
 Date Request Reviewed: 5/21/12 Reviewed By: J. O'Reilly

Upon reviewing availability of resources and testing capabilities, FSTL is capable of performing this test as requested? Yes No N/A

This Test Request shall be performed by a competent subcontractor (ISO/IEC 17025 Accredited when Required)

Name of Subcontractor: ACME Chosen By: FSTL Customer N/A

If chosen by FSTL, the reason being: Unforeseen Reasons Continuing Business/Management

Upon receiving a copy of the Review the Customer has been notified in writing of the Testing being Subcontracted? Yes No N/A
 Date Reviewed Request was Submitted to Customer: 5/21/12 Customer review signature: [Signature]

FSTL Work Order Packet Cover Page

FSTL
4545 W. Augusta Blvd.
Chicago, IL 60651

Work Order Number: 1205BJ

Date Generated: 5/21/12

Name of Testing Agency Performing Work: FSTL
Testing Agency Address: 4545 W. AUGUSTA BLVD
Contact Person: DAVID O'MALLEY
Telephone: 773-524-2440 x256 FAX: _____
E-mail: _____

Name of Customer Requesting Test: FOREST RIVER
Customer Address: 2367 CENTURY DR.
Customer Contact: LARRY HALL
Telephone: 1-800-348-7440 x252 Fax: N/A
E-mail: L.HALL@FORESTRIVERINC.COM

Manufacturer of item to be Tested: EMS ATTACHED

Description of item to be Tested:
Attach an assembly drawing and include the assembly drawing number, if available. If no drawing exists, include a sketch describing the assembly. List the fastener types (bolts, washers, and nuts) and sizes, as well as specific amounts and locations to be used. Instructions for the specific mounting configuration to the test fixture must also be included (a drawing or sketch is preferred)

NOTE: Setup of artifacts (drilling holes, fixture fabrication, etc.) is conducted per artifact physical locations as received, not per drawing unless otherwise specifically agreed upon.

Production Model Seat: Yes No N/A Production Built Seat: Yes No N/A

If 'No' is checked above, describe the construction of the seat: N/A

Item to be tested is a:
 Finished Assembly - the artifact is a complete upholstered seat
 Unfinished Assembly - the artifact is a complete seat frame and base frame assembly without foam or cover
 Weldment - the artifact is a complete welded piece without other attachments
 Other (describe): _____

The test platform is a:
 Complete New Vehicle
 Complete Used Vehicle
 Full - Scale Vehicle Body Section
 Reduced - Scale Vehicle Body Section
 Static Pull Test Machine Base
 Other (describe): _____

Reason for Test: NEW FLOOR DESIGN

ECN Number (if applicable): N/A

Follow-up Test: Yes No N/A

If 'Yes' is checked above, list previous tests: N/A

David O'Malley

From: Larry Hall [lhall@forestriverinc.com]
Sent: Monday, June 25, 2012 12:52 PM
To: David O'Malley
Subject: RE: FSTL

Dave, before you pull the other wheel well seat can I have you change the seat base to frame mounting bolts to 3/8 fine grade 8

From: David O'Malley [mailto:davido@freedmanseat.com]
Sent: Monday, June 25, 2012 12:32 PM
To: Larry Hall
Cc: Miguel Flores
Subject: RE: FSTL

Please follow these FTP instructions

<http://www.freedmanseating.com/fstl/documents/ftpguide.pdf>

I have put all of the pictures, videos, and charts on our FTP site for you to download.

user :: FSTL_10

password :: XXXXXXXXXXXXXXXX

Dave O'Malley

<http://www.freedmanseating.com/fstl>

Please consider the environment before printing this email.

From: David O'Malley
Sent: Monday, June 25, 2012 11:25 AM
To: 'Larry Hall'
Cc: Miguel Flores
Subject: RE: FSTL

1205BG was compliant in position A

1205BI was non-compliant in pos C. a bolt failed in the rear, see attached picture

We will proceed to pos E after lunch.

I have asked our IT dept to setup a FTP user/password for you to download all the pictures, videos, and charts. This should happen shortly.

Dave O'Malley

<http://www.freedmanseating.com/fstl>

Please consider the environment before printing this email

From: Larry Hall [mailto:lhall@forestriverinc.com]
Sent: Friday, June 22, 2012 2:29 PM
To: David O'Malley
Subject: RE: FSTL

FMVSS 207/210 Pull Test Checklist

FSTL
4545 W. Augusta Blvd.
Chicago, IL 60651

- Position the Test Vehicle in the Test Area so that it is facing the direction of force application with its centerline parallel within $\pm 3^\circ$ of the line of force application.
- Raise and support the vehicle securely on rigid frame members and allow the suspension to hang so that all 4 wheels are approximately 1 inch off the floor surface and the vehicle floor is level.
- Bolt a tie down plate to each of the four embedded floor anchor sets.
- Connect a chain with ratcheting tensioner from each of the tie down plates to the nearest secure frame member of the vehicle.
- Tighten each chain so that a vibration induced in one chain is seen in the other chains. If possible, tighten opposite corners simultaneously to balance the forces.
- [207 specific] Locate the center of gravity of the seat.
- [207 specific] Install the seat in the vehicle.
- [207 specific] Measure the height of the center of gravity of the seat.
- [207 specific] Adjust the pull test machine beam height in order to apply forces to the seat assembly in the horizontal plane passing through its center of gravity.
- [207 specific] Select the hydraulic cylinder required to test the seating system
- [210 specific] Measure the height of the vehicle floor and calculate the force application angles.
- [210 specific] Adjust the pull test machine beam heights in order to apply forces to the seat assembly at the required angle.
- [210 specific] Install seat belts at each designated seating position to be tested. Double each webbing set or substitute wire rope as required.
- [210 specific] Place the body blocks in each designated seating position and connect the safety belts or wire rope restraints snugly around the body blocks.
- [210 specific] Pad any areas where webbing may contact the seat frame or body block to prevent abrasion or cutting of the seat belt webbing.
- [210 specific] Determine the number of hydraulic cylinders required to test the seating system.
- [210 specific] Using the calculated angles of force application, position the required cylinders on the test machine frame.
- Note the force application point of the cylinder used for the test and connect the hydraulic supply lines to it.
- Turn on the hydraulic pump power switch and press the start button.
- Turn on the power switch for the valve control box.
- Turn on the monitor, computer power supply backup, and amplifier power, then boot up the computer.
- Connect the signal input cable from the valve control box to the corresponding output on the computer cabinet.
- Use the program "6 Cylinder Manual Control (Setup)" to fully extend the hydraulic cylinders that will be used in the test.
- Attach a load cell to the cylinders and connect the signal output cable to the corresponding input on the computer cabinet.
- [207 specific] Connect the load cell to the seat at the CG. Remove as much slack from the connection as possible to maximize useful cylinder stroke.
- [210 specific] Connect a chain from each body block to its corresponding load cell. Remove as much slack from the connection as possible to maximize useful cylinder stroke.
- Open the program FMVSS 210 1 to 6 Cylinder Real-Time Logging.
- [207 specific] Enter the total seat weight to obtain target load values.
- Select the load cell and cylinder combinations; enter pre-load and target load values; type a description of the tested item and the load cell assignments in the comment section of the program.
- Type a description of the tested item and the load cell assignment in the comment section of the program.
- Select a file name according to FSTL conventions and type it over the XXYYZ in the File Path box
- Verify all connections, tie downs, and bolted joints.
- Ensure the area is safe and clear of onlookers.
- Run Test.

Test Setup Review Checklist

FSTL
4545 W. Augusta Blvd.
Chicago, IL 60651

- | OK | N/A | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The correct fasteners are used to connect the leg/pedestal to the floor |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | The correct fasteners are used to connect the leg/pedestal to the base frame |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The correct fasteners are used to connect the seat base frame/pedestal to the wall |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The correct fasteners are used to connect the seat frame to the base frame |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | All strut nuts are fully engaged in base frame, wall, and/or floor tracks |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | The leg is placed at the correct distance from the wall |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | The legs are placed the correct distance apart and from the end of the base frame |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | All required add-on braces, brackets, reinforcements, etc. have been added correctly |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | All fasteners have been tightened to the correct torque specification |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The seat back angle, pedestal height, slide track position, etc. are adjusted correctly |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The correct seat weight has been used to calculate the CG pull forces |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The seat system center of gravity location is correct |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The target loads for the test are correct |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The target load ramp rate is correct |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Angles of force application are correct |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The seat belts are routed correctly around the body blocks |

NOTE : Please provide test lab personnel with specific location[s] to include photographs.

MP

By my signature, I have reviewed the seat assembly to be tested and the test parameters, and find them to be correct. Correcting information gathered on FSTL Records requires the originator to correct the error by lining out the error, provide the correction, and then initial and date the correction.

Seat Designer/Project Engineer Matt M Date: 6/25/12

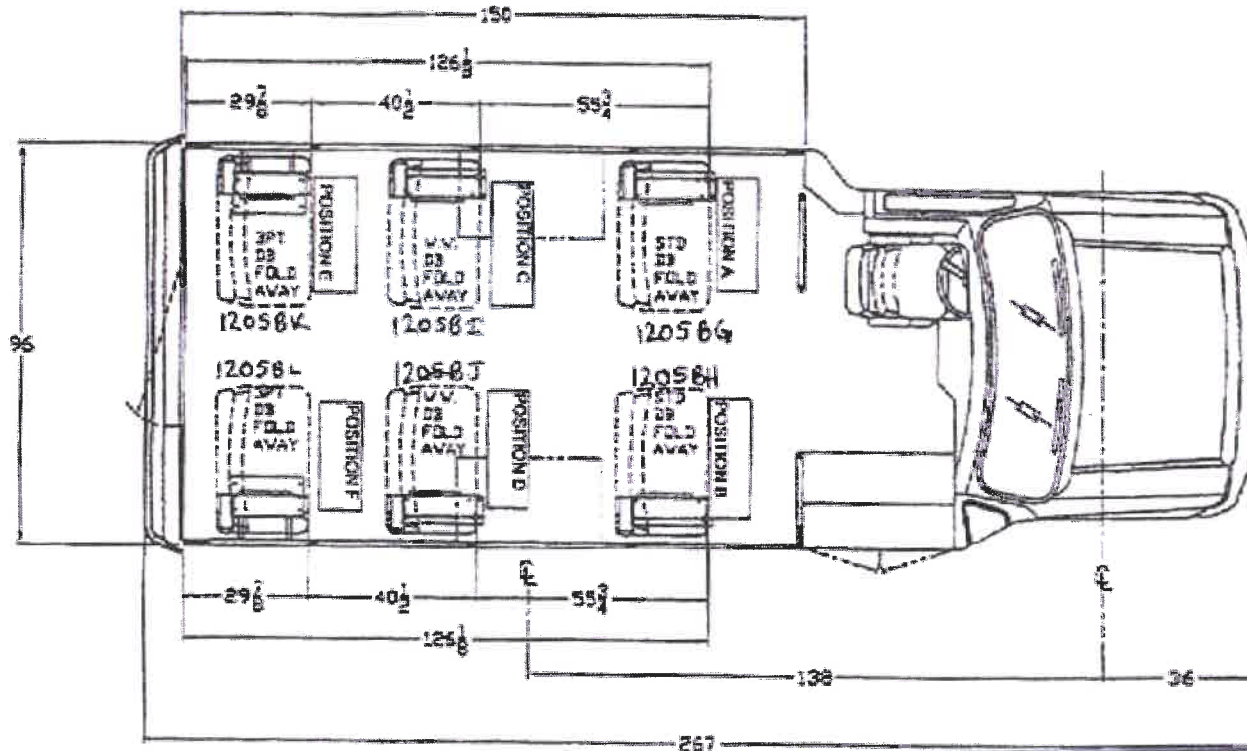
FSTL Personnel D. O'Malley Date: 6/25/12

Note: Tests will not be conducted without a copy of this form signed, dated, and completed by the seat designer or project engineer.

Test Performed By: M. Gale Date: 6/25/12

Test Witnessed By: N/A Date: N/A

Work Order No.: 1205BJ



RECEIVED
 By David I O'Malley at 2:07 pm, 5/22/12

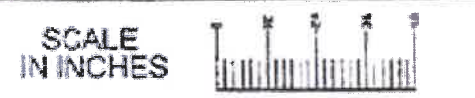
SEAT FRAMES
 FOR TESTING.

DEALER APPROVAL

APPROVED

CUSTOMER SIGNATURE

E-350 11,500 GVWR



THIS DRAWING AND THE INFORMATION THEREON ARE THE EXCLUSIVE PROPERTY OF STARCRAFT BUS, A DIVISION OF FORD MOTOR CREDIT. IT SHALL NOT BE COPIED OR REPRODUCED IN ANY MANNER, NOR SHALL IT BE SUBMITTED TO OUTSIDE PARTIES FOR EVALUATION WITHOUT OUR WRITTEN CONSENT. IT IS LOANED FOR USE WITH REFERENCE TO YOUR UNDER CONTRACT WITH OUR PROPOSALS SUBMITTED.

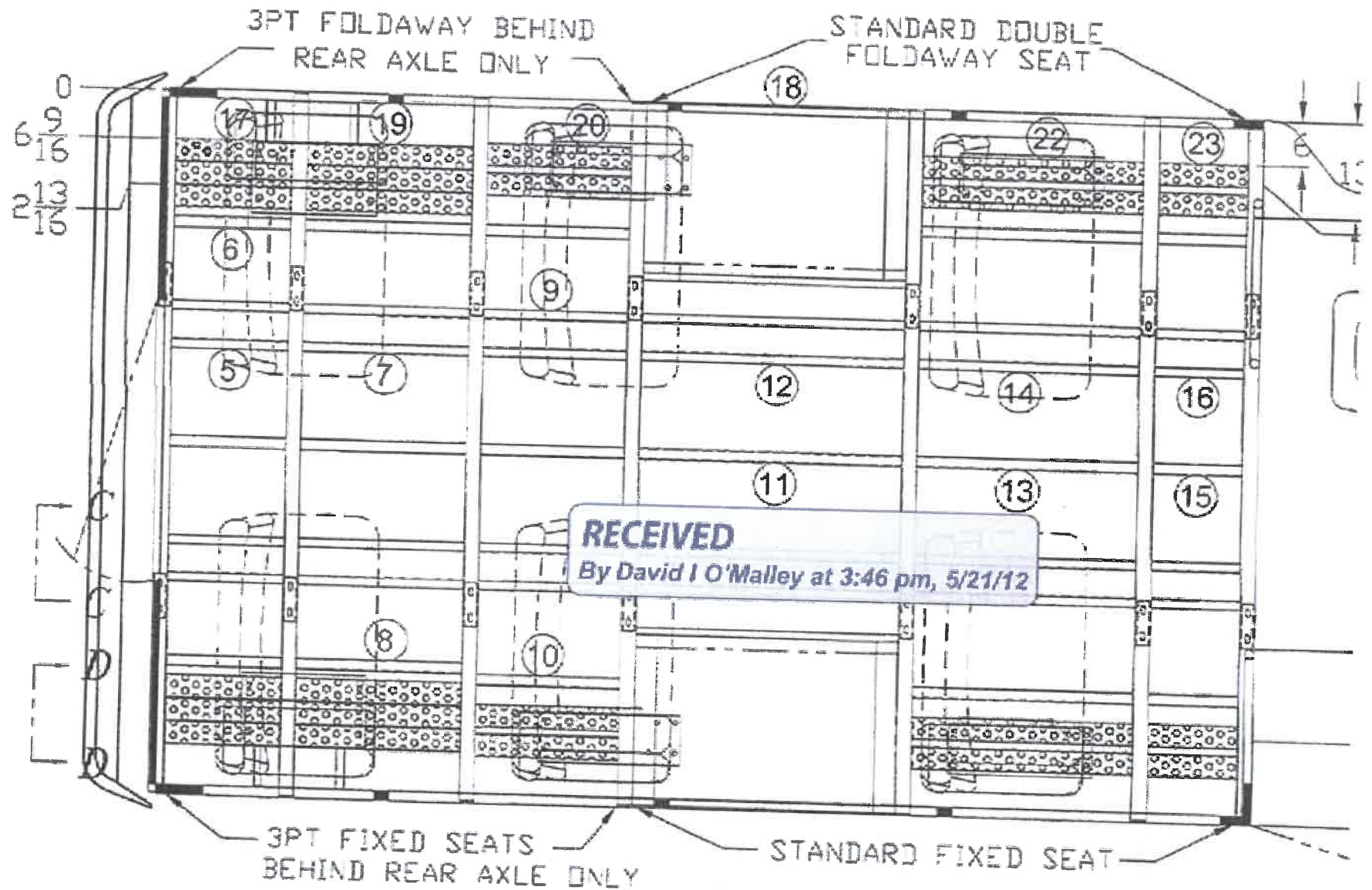
DESCRIPTION OF CHANGE	BY	CHK	DATE	EQN. NO.

STARCRRAFT BUS

ENGINE: 3011 ALLSTAR WITH NEW HAT CHANNELS 138 W8 20 FT JAN 2012

VEED: 2 1/8" ETCH: 2 1/16" DATE: 5/22/12

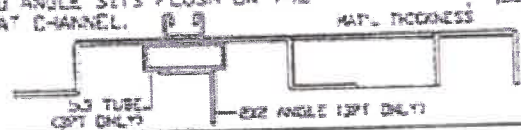
2 1/2" 2 1/2" WAVE NOB



Work Order No.: 1205BJ

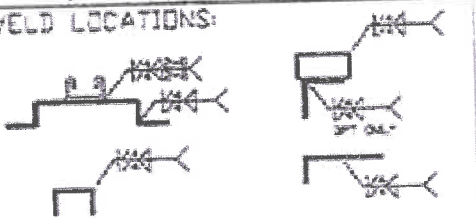
USAGE: 2010 FORD 138" WHEEL BASE 150" BODY, STANDARD FLOOR
 VEHICLE CONTROL ITEM: E DRIVE/MIKELINE/2010 ALLSTAR WITH NEW HAT CHANNELS 138 WB 20FT.DWG

SECTION C-C
 REMOVE MAT'L ON THE ANGLE
 SO ANGLE SITS FLUSH ON THE
 HAT CHANNEL.



- 1 H40A 6-1/4" HAT CHAN. OPTIONAL HAT CHAN ONLY
- 2 H40A 1" x 3" TUBE FOR FOLD-AWAYS
- 3 H40A 1" x 3" ANGLE FOR L-TRACK
- 4 H40A 1" x 1-1/2" C-CHAN. FOR CENTER & OUTER SUPPORT

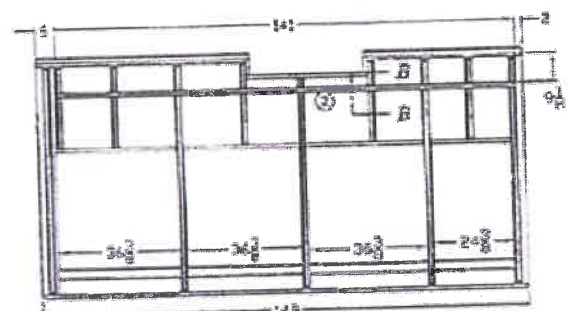
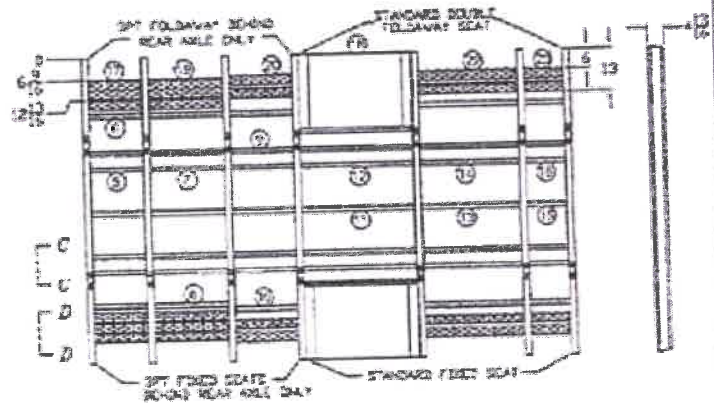
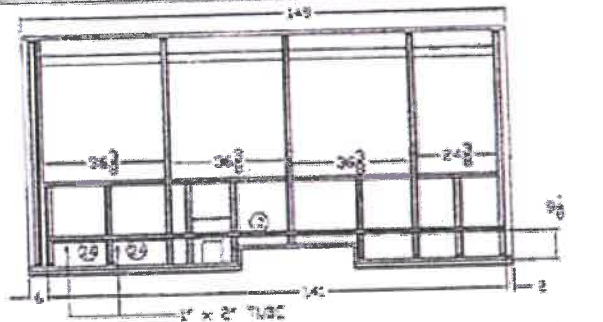
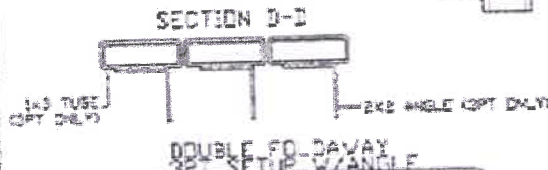
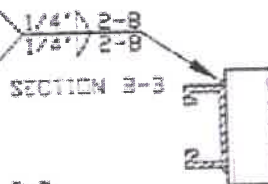
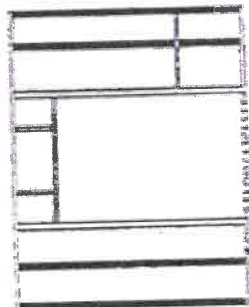
WELD LOCATIONS:



NOTES:

1- DRAWING VIEWED FROM INTERIOR SIDE OF UNIT

24	2	TUBE 1" X 3" X 15-15/16"LG
23	4	TUBE 1" X 3" X 12-1/8"LG
22	4	TUBE 1" X 3" X 37LG
21	0	
20	4	TUBE 1" X 3" X 2-1/4"LG
19	8	TUBE 1" X 3" X 22-3/8"LG
18	2	WHEEL WELL
17	8	TUBE 1" X 3" X 15-1/8"LG
16	2	HAT CHANNEL 12-1/8"LG
15	3	ANGLE 1" X 3" X 12-1/8"LG
14	2	HAT CHANNEL 37LG
13	3	ANGLE 1" X 3" X 37LG
12	2	HAT CHANNEL 22-3/8"LG
11	3	L-C-CHANNEL 1" X 3" X 22-3/8"LG
10	2	ANGLE 1" X 3" X 19-3/4"LG
9	2	HAT CHANNEL 19-3/4"LG
8	3	ANGLE 1" X 3" X 22-3/8"LG
7	2	HAT CHANNEL 22-3/8"LG
6	3	ANGLE 1" X 3" X 14-1/8"LG
5	2	HAT CHANNEL 16-1/8"LG
4	0	
3	0	
2	2	SEAT TRACK 141"LG
1	0	



REF # | QTY | MATERIAL DESCRIPTION

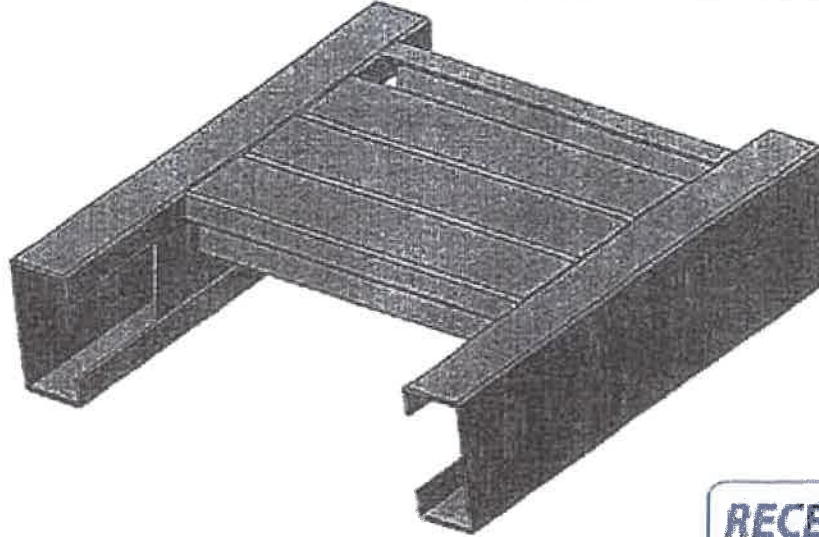
This drawing and the information thereon are property of Starcraft Bus & Mobility, it shall not be duplicated in any manner, nor shall it be submitted for examination without our written permission for use with reference to work under contract submitted to the Starcraft Bus & Mobility

RECEIVED
 By David I O'Malley at 3:46 pm, 5/21/12

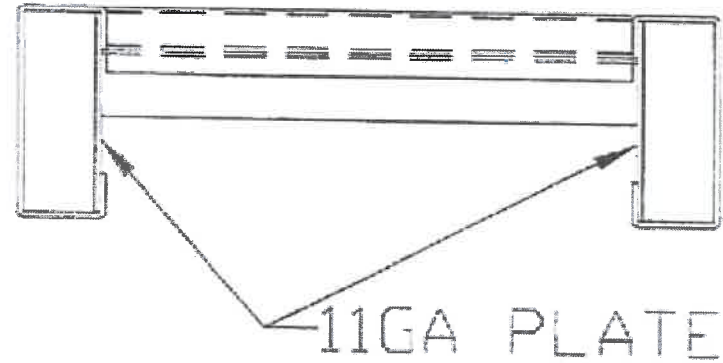
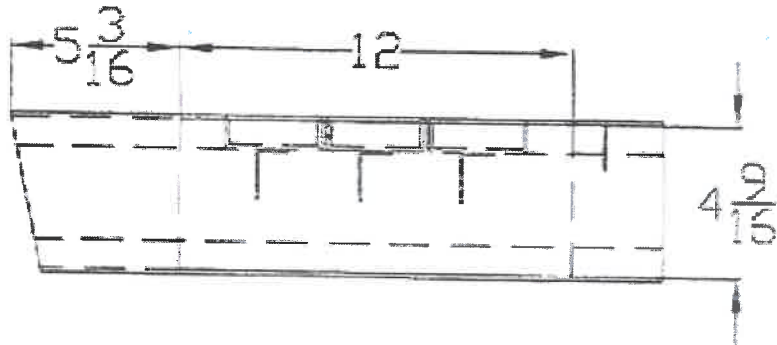
DESIGNED BY	DATE	CHK	DATE	EDN No	ISSUED DATE	ISSUED BY	ISSUED TO	ISSUED FOR
					04/13/12			

Starcraft Bus
 Division of Forest River, Inc.
 TITLE: Layout, Seat Track
 138" Wheel Base 150" Body

DATE: 04/13/12
 BY: [Signature]
 FOR: 2010 ALL STAR WITH NEW HAT CHANNELS 138 WB 20 FT. STD.



RECEIVED
By David I O'Malley at 3:46 pm, 5/21/12



THE DRAWING AND DIMENSIONS ARE THE PROPERTY OF THE DRAWER. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION OF THIS DRAWING IS STRICTLY PROHIBITED. THE DRAWER ASSUMES NO LIABILITY FOR ANY DAMAGE OR INJURY CAUSED BY THE USE OF THIS DRAWING.

STARCRAFT BUS
a division of Starliner, Inc.

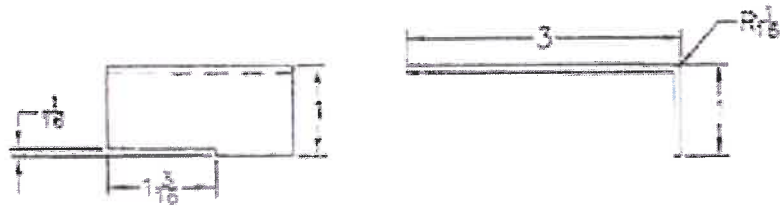
DATE: 04/25/12
OFFICE: MOBILE

TEST BUCK WITH ADDED ANGLE UNDER DOUBLE FOLD-DOWN TUBES

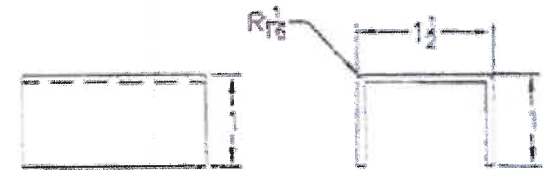
1 QTY 1.500
2 QTY 1.500
3 QTY 1.500

1 QTY 1.500
2 QTY 1.500
3 QTY 1.500

1 QTY 1.500
2 QTY 1.500
3 QTY 1.500



14-Ga. STEEL

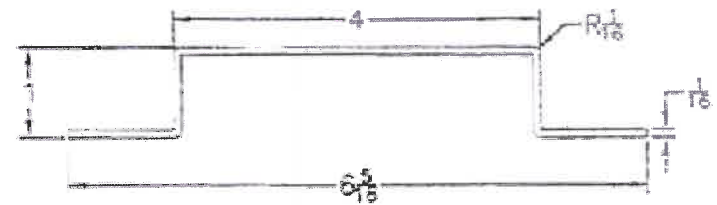


16-Ga. STEEL

RECEIVED
 By David I O'Malley at 3:46 pm, 5/21/12



All U-Channels and Angles are
 mated to fit over Hat Channel



16-Ga. STEEL

STARCRAFT BUS
 A Division of Federal Express Inc.

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DATE	05/20/11
BY	MMH
CHECKED BY	
APPROVED BY	
SCALE	
PROJECT NO.	
DRAWING NO.	
REV.	

U-CHANNEL, ANGLE AND HAT CHANNEL FOR TRUE FLAT FLOOR BUSES

2011 ALLSTATE TRUE FLAT FLOOR PART CALLOUTS

32298

Work Order No.: 1205B-1

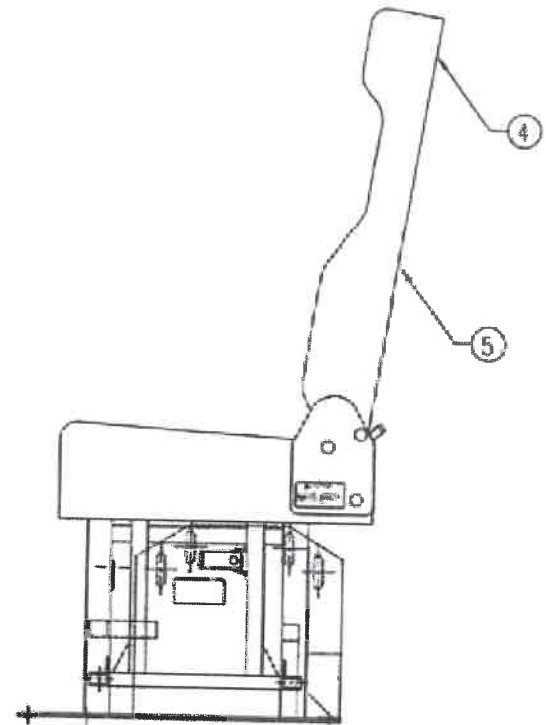
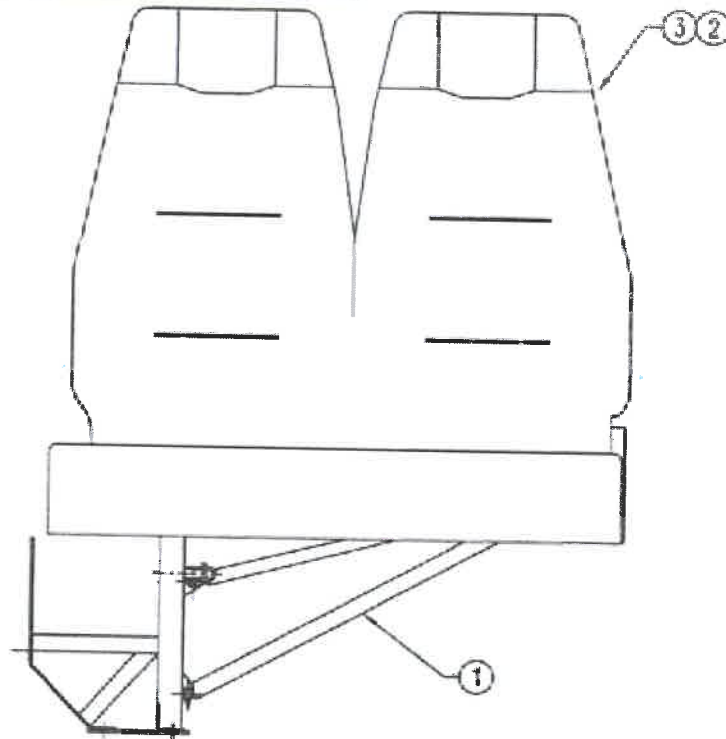
NOT TO BE DISCLOSED OR REPRODUCED WITHOUT PERMISSION
PROPERTY OF THE FREEDMAN SEATING COMPANY.

ITEM	QTY	PART #	DESCRIPTION
1	1	32186	ASSY, AM2 FOLDAWAY, 2PL, CS
2	1	31238	WELDMENT, FOLDAWAY, HI BACK, BV
3	1	31517	ASSY, FOAM, HI BACK, FRONT FACE, BV
4	1	31398	FOAM, HEADREST, REAR FACE, FOLDAWAY, HI BACK
5	1	31519	FOAM, NOTCH BACK, REAR FACE, BV

RECEIVED

By David I O'Malley at 3:48 pm, 6/28/12

- NOTE(S) 1) USE DWG. OF ASSY. 32186 AS REF. FOR ASSY 32298,
 2) REPLACE SEAT BACK WLDMNT (31313) ON ITEM 1, 32187,
 WITH ITEM #2.
 3) REPLACE SEAT BACK FOAM (31462) ON ITEM 7, 32187,
 WITH ITEM #3.
 4) REPLACE REAR FACE FOAM (31465) ON ITEM 8, 32187,
 WITH ITEM #4 AND #5.



				Tolerance Unless Otherwise Specified		Material:		Freedman Seating Co.		4545 N. Augusta Chicago, IL 60657	
				PINC 1/4 11/23		Specifications:		Part Name		SEAT, ASSY, 2PL, FLOWY, AM2, HI BACK, CS	
				DECAN 30 35.02		Drawn by: AS		Date: 11/30/05		DO NOT SCALE DRAWING	
				ANGULAR ±1°				Drawing No. 32298		Rev. A	
Rev. Level	Description of Change	By	Date	Rev. Level	Description of Change	By	Date	ECN #			
A	RELEASED TO PRODUCTION	JT	10/3/06	4584							

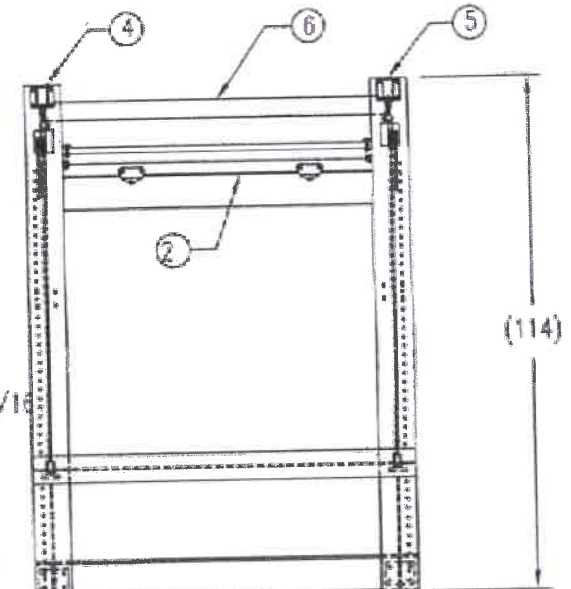
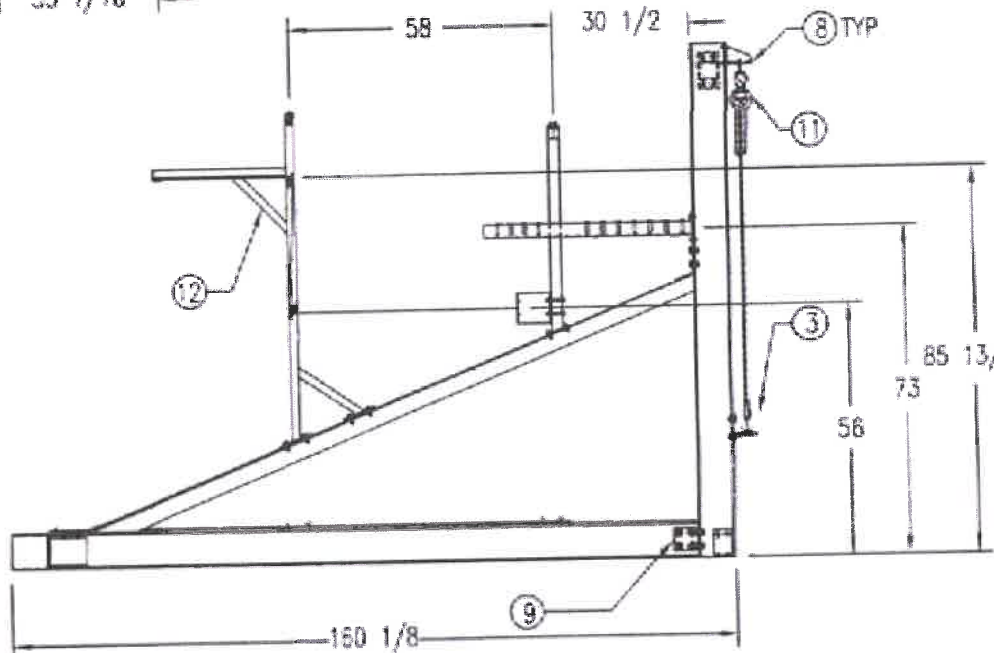
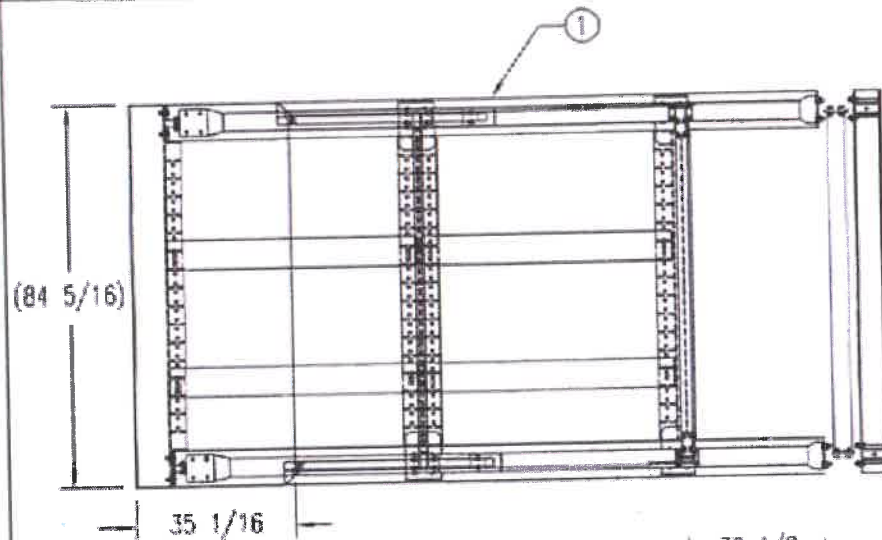
PL-001

Work Order No.: 12058

NOT TO BE DISCLOSED OR REPRODUCED WITHOUT PERMISSION
PROPERTY OF THE FREEDMAN SEATING COMPANY.

DES Page 18 of 23

ITEM	QTY	PART #	DESCRIPTION
1	1	PL-002	PULL TEST MACHINE BASE ASSEMBLY
2	1	PL-005	CYLINDER SUPPORT ASSEMBLY
3	3	PL-034	CYLINDER SUPPORT BEAM
4	1	PL-035	VERTICAL SUPPORT 1
5	1	PL-036	VERTICAL SUPPORT 2
6	1	PL-037	UPPER CROSS BAR
7	2	PL-038	BRACE SUPPORT BEAM
8	2	PL-039	HOIST OVERHANG SUPPORT
9	1	PL-033	BACK ANGLE BRACKET
10	1	PL-045	CHAIN HOLDER
11	1		HAND OPERATED CHAIN HOIST, CM SERIES 622, 1/2 TON.
12	1	PL-430	PULL KILL SWITCH ASSEMBLY



Tolerance Unless Otherwise Specified		Material:		Freedman Seating Co.		1545 W. Auguste Chicago, IL 60651	
FRACTIONAL 1/8 1/16 1/32		DECIMAL .0005 .001 .002		Specifications:		Part Name PULL TEST MACHINE	
ANGULAR ±.2°		Drawn by: JF		Date: 05/05/04		00 NOT SCALE DRAWING	
A RELEASE TO SYSTEM		AS 10/24/057		Drawing No. PL-001		Rev. A	
Rev. Level	Description of Change	By	Date	ECN #	Description of Change	By	Date



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

FSTL

Chicago, IL

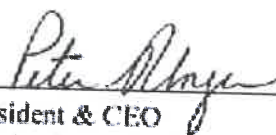
for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-LAF Communiqué dated 8 January 2009).

Presented this 19th day of May 2011.




President & CEO
For the Accreditation Council
Certificate Number 2324.01
Valid to June 30, 2013

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.



The American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

FSTL
 4545 W. Augusta Blvd.
 Chicago, IL 60625
 Dave Klopp (773) 524 2440

MECHANICAL

Valid To: June 30, 2013

Certificate Number: 2324.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on transportation seating products:

<u>Test</u>	<u>Test Methods</u>
Seating Systems: Tension (0 to 9000) pounds	FMVSS 571.207; CMVSS 207; FSTL Tension Test Procedures LP03, LP25
Seat Belt Assembly Anchorages: Tension (0 to 9000) pounds	FMVSS 571.210; CMVSS 210; FSTL Tension Test Procedures LP03, LP25
Child Restraint Anchorage Systems: Tension (0 to 9000) pounds Displacement (0 to 36) inches	FMVSS 571.225; CMVSS 210.1, 210.2; FSTL Tension Test Procedures LP03, LP25 FSTL Displacement Test Procedure LP01
Compression (0 to 5000) lbs	FSTL Compression Test Procedures LP04, LP23, LP25
Cyclic Fatigue: (100 ± 250) pounds (0 ± 12) inches (0 ± 10) hertz	FSTL Fatigue Test Procedures LP02, LP24

Also using similar test methods based on the parameters listed above.

(A2LA Cert. No. 2324.01) 05/19/2011

Page 1 of 1

Certificate Of Calibration

Equipment Calibration was performed at the address below for

FREEDMAN SEATING
4545 W. AUGUSTA BLVD.
CHICAGO, IL 60651-

Date of Calibration

Thursday, February 09, 2012

Calibration Performed By

Cal-Rite Corporation, Naperville, IL

Machine Profile

Manufacturer: RICE LAKE	Capacity: 2000	Next Calibration: 09-Aug-2012
Model: RL20001-T10-1XP	Serial #: Y68846-T-1	Temp/Humidity: 65.2/13.4

Force Calibration Result

Language: Lbs Accuracy 0.5 %

Range	Resolution	Resolution %	Maximum Error %
2000	200 - 2000	0.30	0.40

CAL-RITE CORPORATION HAS CALIBRATED THE TESTING EQUIPMENT DESCRIBED ABOVE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS (ISO-9001, ISO-9004 AND ISO 17025) AND METRIC (SI) AND (SI-UNIT) (SI) DATA. ALL MEASUREMENTS IN THIS CALIBRATION ARE IN ACCORDANCE WITH ASTM PRACTICES AND ARE TRACEABLE TO NIST. THIS CERTIFICATE RELATES ONLY TO THE ITEMS CALIBRATED.

THE UNCERTAINTY OF THE CALIBRATION PROCESS WAS ESTIMATED AT THE 95% CONFIDENCE LEVEL (K=2) THE EQUIPMENT LISTED ABOVE HAS MET ALL APPLICABLE CRITERIA OF THE CALIBRATION PERFORMED IN THIS REPORT.

- 10.1 Lower Limit below 200X Resolution
- 10.3 Less than 5 readings taken below 10% FS
- 10.5 Does not return to zero in 30 seconds
- 18.3 Does not meet +/- 1 % accuracy requirement.



Service Order #: 12378 - 27

Specification: ASTM E 4-10
 Calibration Procedure: CR100 Rev 13
 HATHAWAY, NATHAN 2/16/2012
 SERVICE ENGINEER DATE

As a mutual protection to the purchaser, the public, and ourselves, all Cal-Rite calibration reports are submitted as the confidential property of the purchaser, and any authorization for publication of statements, conclusions, or instructions free or regarding our reports is reserved pending our prior written approval.

LC-03-T-1012

Certificate Of Calibration

Equipment Calibration was performed at the address below for

FREEDMAN SEATING
 4545 W. AUGUSTA BLVD.
 CHICAGO, IL 60651

Date of Calibration
Thursday, February 09, 2012

Calibration Performed By
Cal-Rite Corporation, Naperville, IL

Machine Profile Customer #: **LC-002**

Manufacturer: **RICE LAKE** Capacity: **9000** Next Calibration: **09 Aug 2012**
 Model: **RL20001-T10-1EA** Serial #: **Y51758-7** Temp/Humidity: **64.6/12.8**

Force Calibration Result Language: **Lbs** Accuracy **0.5 %**

Mass	Weight Range	Uncertainty %	Maximum Error %
9000	2000 - 9000	0.30	0.33

CAL-RITE CORPORATION HAS CALIBRATED THE TESTING EQUIPMENT DESCRIBED ABOVE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS (MIL-STD-1312 AND ISO 10012-1 AND ISO 9001:2008). ALL VERIFICATION DEVICES CALIBRATED IN ACCORDANCE WITH ASTM E84 PRACTICES AND ARE TRACEABLE TO NIST. THIS CERTIFICATE RELATES ONLY TO THE ITEMS CALIBRATED.

THE UNCERTAINTY OF THE CALIBRATION PROCESS WAS ESTIMATED AT THE 95% CONFIDENCE LEVEL (K=2). THE EQUIPMENT LISTED ABOVE HAS MET ALL APPLICABLE CLAUSES OF THE GOVERNING SPECIFICATIONS UNLESS NOTED BELOW.

- 10.1 Lower Limit below 200X Resolution
- 10.3 Less than 5 readings taken below 10% FS
- 10.5 Does not return to zero in 30 seconds
- 18.3 Does not meet ±0.1 % accuracy requirement.

Specification: **ASTM E 4-10**

Calibration Procedure: **CR100 Rev 13**



Service Order #: 12378 - 24

NATHANWAY, NATHAN 2/16/2012

SERVICE ENGINEER DATE

As a result of access to the public, and internet, all Cal-Rite calibration reports are considered to be confidential property of the purchaser, and any authorization for publication of statements, conclusions, or corrections from or regarding our reports is reserved pending our prior written approval.

LC-02-1

Certificate Of Calibration

Equipment Calibration was performed at the address below for

FREEDMAN SEATING
4545 W. AUGUSTA BLVD.
CHICAGO, IL 60651

Date of Calibration
Thursday, February 09, 2012

Calibration Performed By
Cal-Rite Corporation, Naperville, IL

Machine Profile Customer #: LC-001

Manufacturer: RICE LAKE	Capacity: 9000	Next Calibration: 09-Aug-2012
Model: RL20001-710-15V	Serial #: Y15GR3-7	Temp/Humidity: 64.9/13.0

Force Calibration Result Language: Lbs Accuracy 0.5 %

Force	Resolution	Capacity	Accuracy Error %
9000	2000 - 9000	0.30	-0.47

LAL-RITE CORPORATION HAS CALIBRATED THE TESTING EQUIPMENT DESCRIBED ABOVE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS (ISO-CR-21, ISO/IEC 17025 AND ISO 9001) AND MIL-STD-45643A. ALL VERIFICATION DEVICES CALIBRATED IN ACCORDANCE WITH AN ISO 9001 PRACTICES AND ARE TRACEABLE TO NIST. THIS CERTIFICATE RELATES ONLY TO THE ITEMS CALIBRATED.

THE UNCERTAINTY OF THE CALIBRATION PROCESS WAS ESTIMATED AT THE 95% CONFIDENCE LEVEL (K=2). THE EQUIPMENT LISTED ABOVE HAS MET ALL APPLICABLE CLAIMS OF THE GOVERNING SPECIFICATION UNLESS NOTED OTHERWISE.

- 10.1 Lower Limit below 200X Resolution
- 10.3 Less than 5 readings taken below 10% FS
- 10.5 Does not return to zero in 30 seconds
- 18.5 Does not meet +/- 1 % accuracy requirement.



Specification: ASTM E 4-10
Calibration Procedure: CR100 Rev 13

Service Order #: 12378 - 23

HATHAWAY, NATHAN 2/16/2012
SERVICE ENGINEER DATE

As a mutual protection to the purchaser, the public, and ourselves, all Cal-Rite calibration reports are submitted as the confidential property of the purchaser, and any authorization for publication of statements, conclusions, or numbers from or regarding our reports is reserved pending our prior written approval.

LC-09-7-000
LC-01-7



July 19, 2016

To whom it may concern,

This letter is to confirm that all Freedman Seating Company Seats, are designed, tested and built to comply with applicable Federal Motor Vehicle Safety Standards when properly installed in a vehicle. This includes, but is not limited to the Freedman Seating Feather Weight line and USR seat belt kits and applies to FMVSS 207, 208, 210 and 302, where applicable.

A handwritten signature in black ink, appearing to read "Dan Cohen", is written over a horizontal line.

Dan Cohen
Vice President
Freedman Seating Company

Note: Full compliance with FMVSS and its Regulations, as set forth under 49 USC 301, et. Seq., can only be achieved through proper in-vehicle testing. Freedman Seating, FMS Seating and 4ONE LLC, its agents, employees, affiliates and subsidiaries ("Freedman Seating") are not liable for any damages resulting from the installation of any seat in a vehicle that has not been FMVSS tested or any installation of a seat that deviates from a FMVSS tested installation method. Freedman Seating bears no responsibility for the design of any vehicle in which its seats may be installed or any damages resulting from the design or manufacture of the vehicle.

RAIN BOOTH INFORMATION

Constructed as part of a corporate-wide pre-delivery inspection facility, the Forest River 20' x 50' motorized vehicle rain booth utilized by Starcraft and Startrans Bus offers exceptional performance in the area of water leak detection.

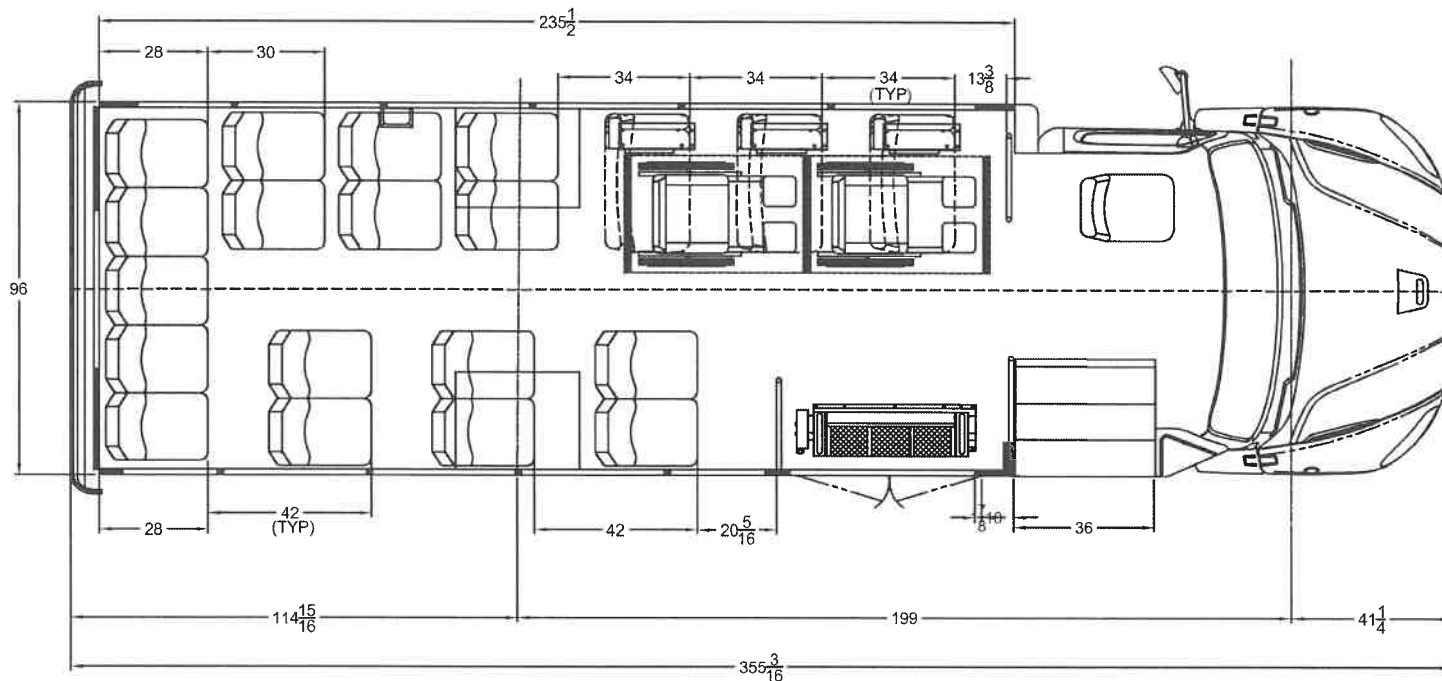


The motorized vehicle rain booth adds front wall nozzles to the design of the towable rain booth, simulating the pelting of oncoming rain at highway speeds. Both booths include two 1200 gallon recycling tanks and utilize a 12Horsepower pump with multi-bank filters capable of delivering 40 – 60 p.s.i. That equates to 300 gallons per minute pushed through the spray heads, or the equivalent of a 24 inch-per-hour downpour!

With nozzles directed at the roof, sidewalls, front and undercarriage, nothing goes untouched in our quest for leak elimination. Using both velocity and volume in our test procedure ensures our valuable customers that we are doing the utmost to deliver a leak-free product to them.



Visitors are always welcome to witness the test booths whenever they are in operation.



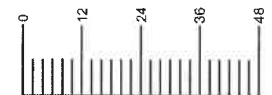
NOTE: SHOWN WITH MID BACK FREEDMAN SEATS
 PRESIDENT S2 FREIGHTLINER 6.7D 26,000 GVWR
 THIS FLOOR PLAN IS FOR ILLUSTRATION PURPOSES ONLY.
 A WEIGHT ANALYSIS HAS NOT YET BEEN PERFORMED.
 FINAL APPROVAL WITH A WEIGHT ANALYSIS IS REQUIRED UPON RECEIPT OF A
 COMPLETED ORDER WITH ALL OPTIONS SHOWN.
 OPTIONAL EQUIPMENT MAY BE SHOWN.
 THE SALES ORDER PLACED DICTATES ACTUAL OPTION CONTENT.

DEALER APPROVAL

APPROVED

CUSTOMER SIGNATURE

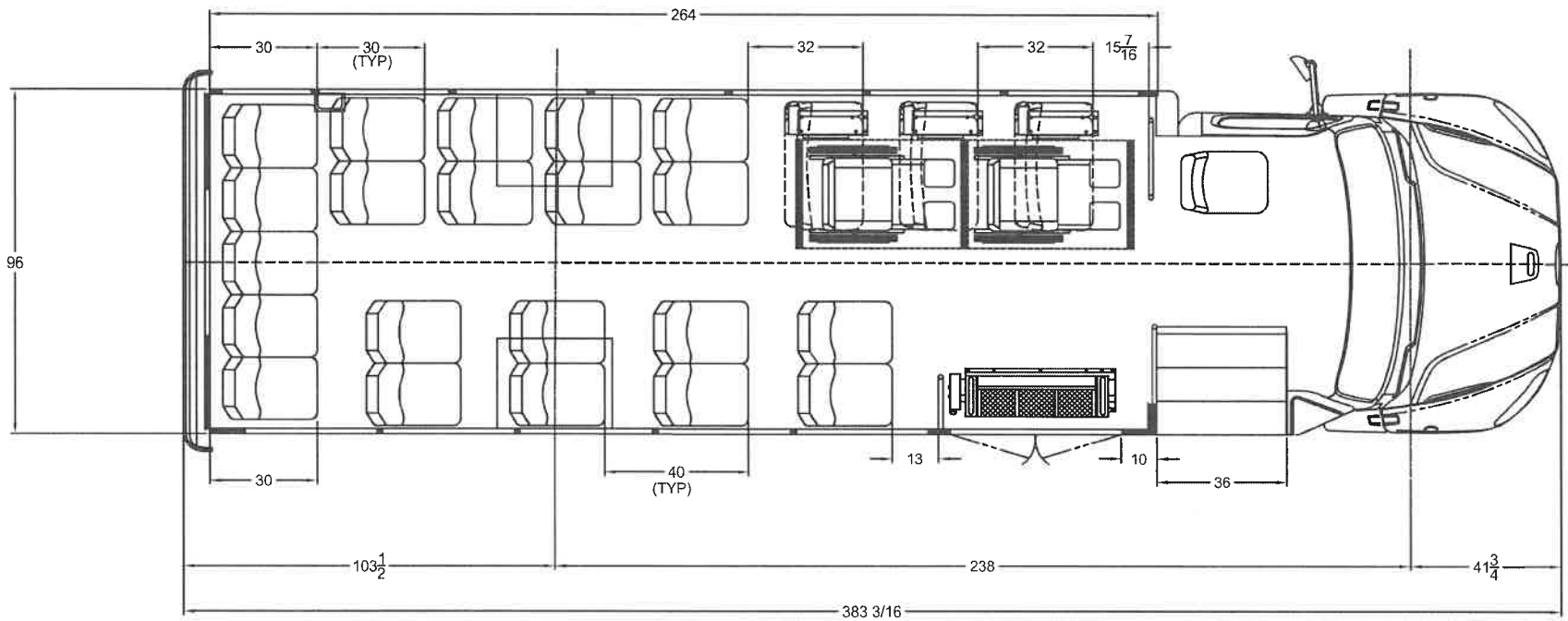
SCALE
IN INCHES



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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

TOLERANCE UNLESS OTHERWISE SPECIFIED		 STARTRANS a division of Forest River, Inc.	
WOOD	OTHER	DATE: 05/11/17	TITLE: 17 PASS 2 WC 199"WB 265 RDY 30' PRESIDENT S2
± 1/8"	± 1/16"	NAME: JPC	
± 1°	± 1/2°	DWG. No.	17 2 WC 3 DBL FOLDS 199 WB 235 BDY USA



NOTE: SHOWN WITH MID HI FREEDMAN SEATS
 PRESIDENT S2 FREIGHTLINER 6.7D 26,000 GVWR
 THIS FLOOR PLAN IS FOR ILLUSTRATION PURPOSES ONLY.
 A WEIGHT ANALYSIS HAS NOT YET BEEN PERFORMED.
 FINAL APPROVAL WITH A WEIGHT ANALYSIS IS REQUIRED UPON RECEIPT OF A
 COMPLETED ORDER WITH ALL OPTIONS SHOWN.
 OPTIONAL EQUIPMENT MAY BE SHOWN.
 THE SALES ORDER PLACED DICTATES ACTUAL OPTION CONTENT.

DEALER APPROVAL

APPROVED

CUSTOMER SIGNATURE

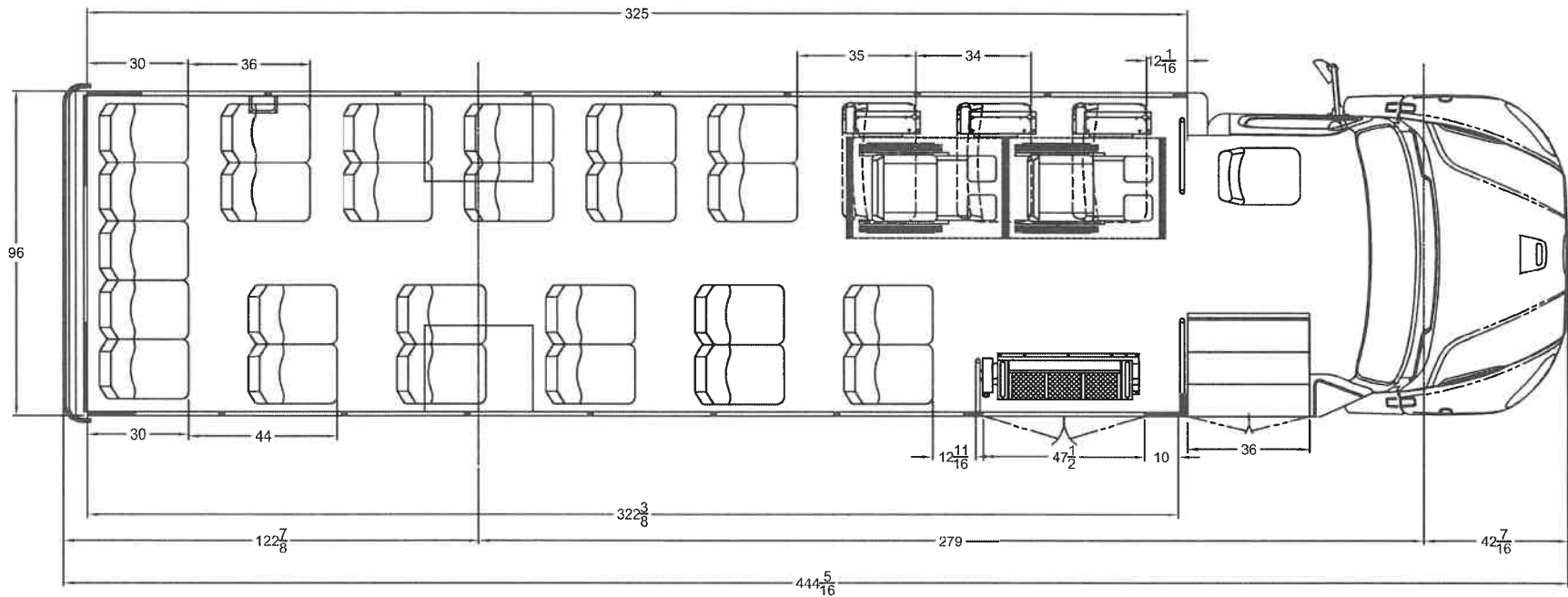
SCALE
IN INCHES



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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

TOLERANCE UNLESS OTHERWISE SPECIFIED		 STARTRANS a division of Forest River, Inc.	
WOOD	OTHER	DATE: 05/11/17	TITLE: 21 PASS 2WC 238" WB 264 BDY 32" PRESIDENT S2
± 1/8"	± 1/16"	NAME: JPC	
± 1°	± 1/2°	DWG. No. 21 2 WC 3 DBL FOLD 238 WB 264 BDY USA	



NOTE: SHOWN WITH MID HI FREEDMAN SEATS
 PRESIDENT PS2 FREIGHTLINER CHASSIS 96" WIDE
 26,000 GVWR
 THIS FLOOR PLAN IS FOR ILLUSTRATION PURPOSES ONLY.
 A WEIGHT ANALYSIS HAS NOT YET BEEN PERFORMED.
 FINAL APPROVAL WITH A WEIGHT ANALYSIS IS REQUIRED UPON RECEIPT OF A
 COMPLETED ORDER WITH ALL OPTIONS SHOWN.
 OPTIONAL EQUIPMENT MAY BE SHOWN.
 THE SALES ORDER PLACED DICTATES ACTUAL OPTION CONTENT.

DEALER APPROVAL

APPROVED

 CUSTOMER SIGNATURE

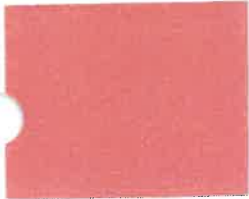
**SCALE
 IN INCHES**



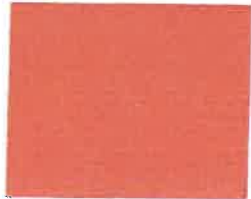
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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

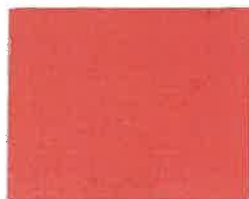
TOLERANCE UNLESS OTHERWISE SPECIFIED		 STARTRANS a division of Forest River, Inc.	
WOOD	OTHER	DATE: 05/11/17	TITLE: 25 PASS 2 WC 27' WB 325" BDY 36' PRESIDENT PS2
± 1/8"	± 1/16"	NAME: JPC	
± 1°	± 1/2°	DWG. No. 25 PASS 2 WC 3 DBL FOLDS 279 325 USA	



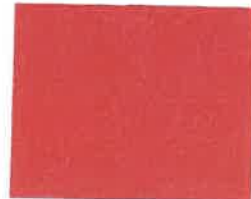
29605
Red



5080
Orange



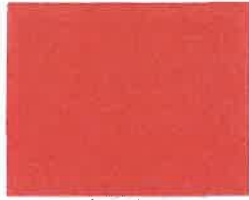
6282
Red



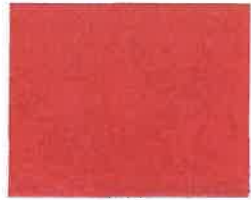
5470
Red



6543
Red



44128
Red



2622
Scarlet



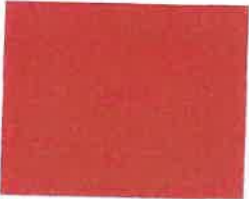
5027
Red



29198
Red



8554
Flame Red



674
Red



48
Red



77968
Red



51078
Medium Red



4992
Red



143
Maroon



32678
Red



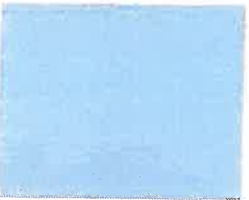
75334
Purple



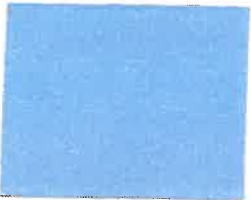
58360
Aquatone Blue



5079
Blue



95605
Baffin Blue



92095
Blue



43500
Pastel Blue



96581
Sierra Blue



78387
Light Blue



K9441
Blue



6544
Blue



5351
Blue



5205
Blue



K9359
Blue



G9369
Blue



77257
Blue



5240
Bright Med. Blue



7165
Blue



42811
Med. Blue



K9740
Blue



24160
Blue



63203
Blue



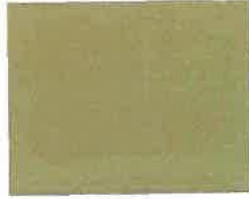
2063
Blue



81501
Dark Blue



62703
Light Green



43521
Med. Green Gold



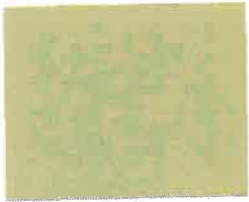
80334
Green



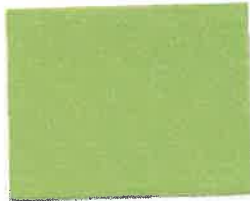
1650
Green



29609
Green



29608
Green



5181
Lime



43757
Green



5081
Green



43073
Signal Green



74844
Green



79039
Green



7456
Bright Green



5316
Green



1317
Green



546
Green



7666
Green



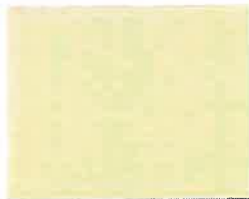
7498
Green



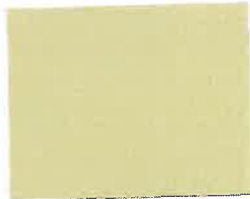
62006
Green



2015
Green



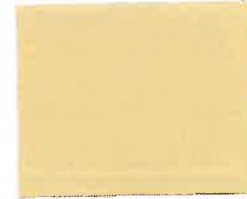
5363
Pastel Lime



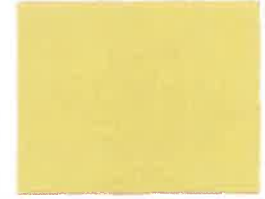
43522
Light Green Gold



5371
Green



7364
Cream



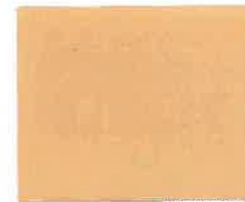
5577
Bright Lime



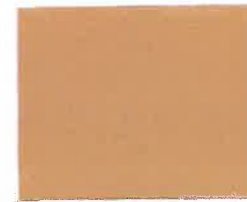
530
Cream



5443
Cream Yellow



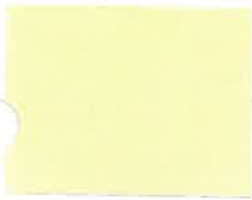
42831
Dark Yellow



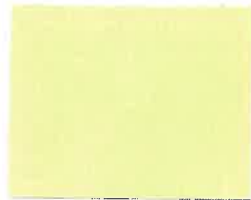
7863
Bahama Yellow



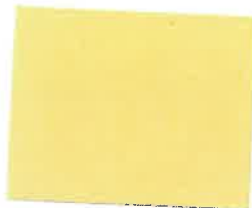
44129
Harvest Gold



44162
Solar Yellow



76556
Lunar Yellow



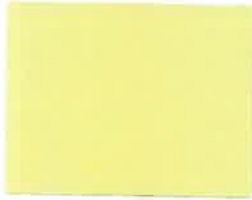
K9599
Yellow



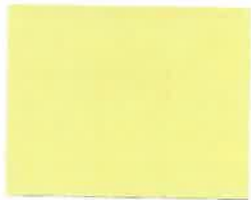
42882
Yellow



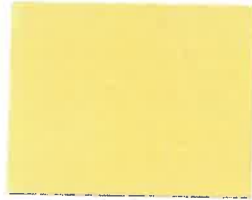
5283
Sunflower



8550
Chrome Yellow



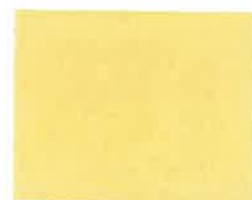
58199
Golden Yellow



44139
Bright Yellow



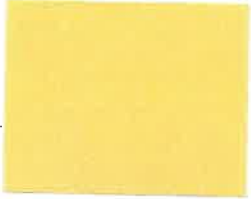
5194
Bright Yellow



78134
Yellow



224
Yellow



5248
Yellow



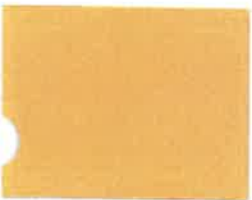
54701
Yellow



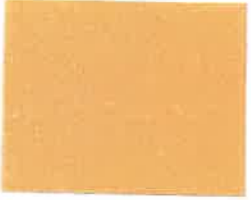
6561
Yellow



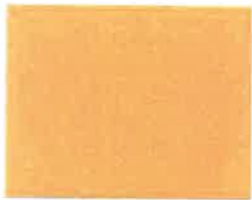
K9590
Yellow



218
Yellow



G9737
Yellow



4357
Yellow



24316
Yellow



1021
Orange



31
Omaha Orange



60659
Orange



5146
Orange



24592
Orange



7455
Burnt Orange



55769
White



95922
White



508
White



6538
White



28072
White



7372
White



7414
White



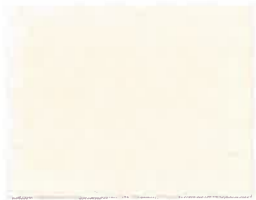
817
White



8796
White



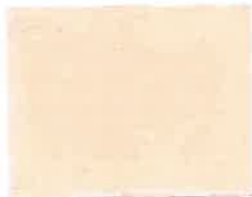
4950
Blue



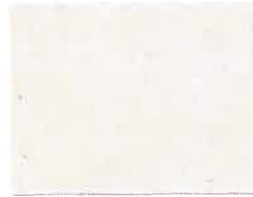
59373
White



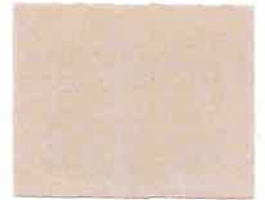
4296
White



4775
White



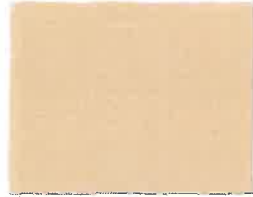
93774
White



78390
Beige



43938
Cream



42807
Beige



96939
Bengal Tan



3295
Brown



29607
Brown



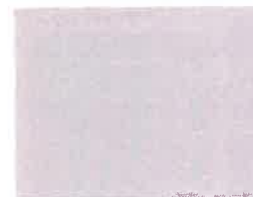
96704
Tan



7444
Dark Brown



7502
Brown



72092
Gray



57704
Gray



71537
Polar Gray



55137
Gray



6334
Gray



99
Black



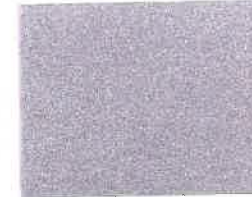
5093
Dark Blue



45406
Aztec Silver Met.



44716
Silver Blue Met.



N8075
Indian Silver Met.



44434
Silver Met.



43862
Silver Met.



43523
Cloud Silver Met.



5032
Quick Silver Met.



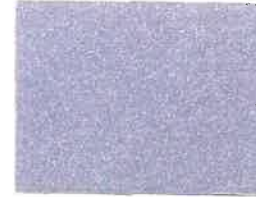
43859
Silver Met.



44401
Pewter Gray Met.



14163
Gray Met.



5563
Silver Met.



44489
Smoke Gray Met.



44488
Cumulus Gray Met.



B8012
Dk.Charcoal Met.



44433
Slate Gray Met.



44490
Pepper Gray Met.



45537
Shadow Gray Met.



5031
Phantom Gray Met.



44494
Sable Met.



44435
Black Met.



H7994
Seminole Red Met.



44460
Lt. Firethorne Met.



44459
Dk. Firethorne Met.



44467
Dk. Persimmon Met.



44471
Burnt Orange Met.



44466
Lt. Persimmon Met.



44458
Autumn Red Met.



H7926
Carmine Met.



44456
Dk. Burgundy Met.



44457
Lt. Burgundy Met.



43821
Red Bronze Met.



5477
Dark Red Met.



45731
Regent Red Met.



4490
Burgundy Met.



44455
Lt. Maroon Met.



44461
Lt. Rose Met.



44472
Lt. Rose Gray Met.



44473
Dk. Rose Gray Met.



44402
Red Met.



44493
Dk. Violet Met.



44465
Orchid Met.



44462
Med. Rose Met.



44464
Berry Red Met.



44474
Wine Met.



44463
Dk. Rose Met.



44491
Lt. Violet Met.



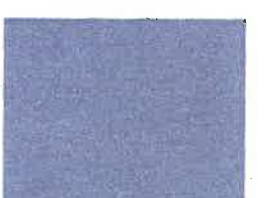
5513
Diamond Blue Met.



B8141
Lt. Blue Met.



44436
Lt. Blue Met.



44410
Seascape Blue Met.



44717
Lt. Blue Met.



B8103
Lt. Jadestone Met.



44479
Med. Potomac Blue Met.



44403
Teal Blue Met.



44438
Lt. Continental Blue Met.



G8124
Lt. Blue Met.



4839
Med. Blue Met.



44425
Med. Aqua Met.



44409
Turquoise Met.



43866
Turquoise Met.



44442
Dk. Continental Blue Met.



44482
Bay Blue Met.



5535
Bright Blue Met.



N8076
Lauderdale Blue Met.



44431
Med. Concord Blue Met.



44426
Bright Blue Met.



45615
Regal Blue Met.



7446
Mariner Blue Met.



44429
Dk. Rich Blue Met.



G8125
Sovereign Blue Met.



44404
Biscayne Blue Met.



44427
Lt. Rich Blue Met.



G8067
Vivid Blue Met.



44428
Med. Rich Blue Met.



G8064
Concord Blue Met.



H8061
Panama Blue Met.



44441
Dk. Aqua Met.



44405
Dk. Blue Met.



44481
Plum Met.



44432
Lt. Concord Blue Met.



5155
Blue Met.



45721
Ensign Blue Met.



7870
Haze Blue Met.



B8007
Midnight Blue Met.



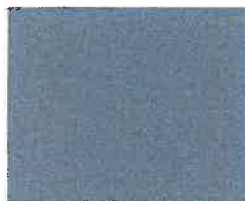
44430
Dk. Concord Blue Met.



44437
Ice Blue Met.



H7924
Sky Mist Blue Met.



5056
Turquoise Met.



44440
Lt. Aqua Met.



44477
Pacific Blue Met.



44439
Lt. Turquoise Met.



43867
Turquoise Met.



45024
Sea Sprite Green Met.



44415
Bright Green Met.



44417
Dark Ivy Met.



44424
Lt. Lime Met.



44421
Med. Lime Met.



5055
Yellow Green Met.



45803
Med. Green Met.



29235
Green Met.



44422
Lt. Olive Met.



44416
Med. Ivy Met.



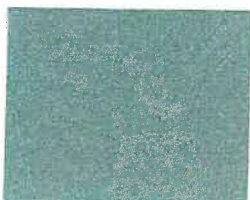
44420
Med. Olive Met.



G8068
Olive Green Met.



44423
Dk. Olive Met.



44406
Lt. Green Met.



44407
Med. Green Met.



14283
Jade Green Met.



44414
Med. Jade Met.



44413
Dk. Jade Green Met.



10552
Glade Green Met.



15394
Green Met.



43517
April Green Met.



H8070
Spruce Green Met.



44408
Dk. Green Met.



45192
Dk. Green Met.



44487
Alpine Green Met.



44412
Midnight Green Met.



H7925
Sherwood Green Met.



C8068
Dark Pine Met.



44484
Lt. Moss Green Met.



44483
Dk. Moss Green Met.



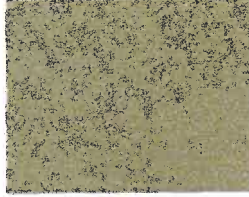
44418
Lt. Frost Green Met.



44419
Dk. Frost Green Met.



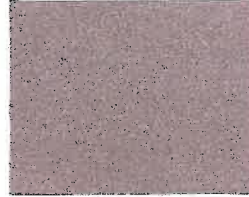
7274
Green Met.



5537
Lime Gold Met.



44485
Tropic Green Met.



92654
Pearl Fawn Met.



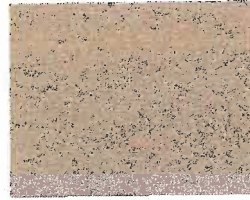
B8178
Heather Mist Met.



44448
Med. Taupe Met.



G7809
Gold Met.



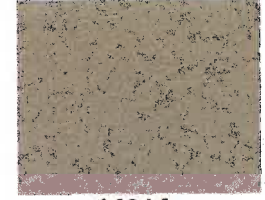
44411
Green Gold Met.



43820
Spanish Gold Met.



G8065
Gold Met.



14814
Gold Met.



44495
Saturn Gold Met.



G8070
Gold Met.



5242
Las Vegas Gold Met.



44453
Sand Met.



44447
Lt. Saddle Met.



N8014
Med. Gold Met.



44469
Med. Gold Met.



44468
Brt. Yellow Gold Met.



44450
Lt. Chestnut Met.



43822
Bronze Met.



H9135
Red Gold Met.



G8066
Brown Met.



5185
Dark Bronze Met.



44454
Dk. Maroon Met.



44475
Deep Maroon Met.



44449
Dk. Chestnut Met.



45785
Desert Gold Met.



44444
Dk. Brown Met.



44445
Lt. Brown Met.



45189
Dk. Carmine Met.

**ALTOONA TEST RESULTS
INCLUDED ON FLASH DRIVE
IN BINDER COVER**