

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
LINE ITEM	DESCRIPTION	UNIT OF MEASURE (SIZE/WT) (for information use only and not to be used for calculations)	MANUFACTURER	BRAND BID	ESTIMATED QTY.	UNIT PRICE	Unit of Measure (For calculation purposes only)	EXTENDED PRICE
3.1.1 2-CYCLE MOTOR OIL - Chainsaw, Power Mowers, Pumps, & Snowmobiles								
1	Motor oil for lubricating 2 cycle engines in 8 oz. containers (chain saw motor oil) - API TC or equal	8 oz.	ITA2CYC 12/8 OZ	Itasca	1800	\$ 0.15	1 oz.	\$ 270.00
3.1.2 OUTBOARD MOTOR OIL								
2	Motor oil for lubricating 2 cycle engines (outboard motor oil) - API TC-W3 or equal	1 qt.	MAR2CYC	Marathan	1300	\$ 3.24	1 qt.	\$ 4,212.00
3.1.3 MOTOR OIL SAE (Gas and/or Diesel)								
3	Motor oil SAE30 - CF-4, CF-2 CF/SJ	1 qt.	MAG30 61	Mag 1	1000	\$ 3.28	1 qt.	\$ 3,280.00
4	Motor oil SAE15W40 - CI-4 CF/SJ CI-4, CI-4 PLUS, CH-4, CK-4	1 qt.	MAG1540FL 61	Mag 1	100,000	\$ 3.68	1 qt.	\$ 368,000.00
5	Motor oil SAE15W40 - CI-4 CF/SJ CI-4, CI-4 PLUS, CH-4, CK-4	1 gal.	MAG1540FL 31	Mag 1	10,000	\$ 12.26	1 gal.	\$ 122,600.00
6	Motor oil SAE15W40 - CI-4, CI-4 PLUS, CH-4, CF-4/SN, SM, CK-4	55 gal. drum	COM1540HD DR	Compass	1210	\$ 12.17	1 gal.	\$ 14,725.70
7	Motor oil SAE15W40 - BULK CI-4, CI-4PLUS, CH-4, CF-4/SN, SM, CK-4	BULK 6,000 gallon	COM1540HD 8K	Compass	6000	\$ 10.74	1 gal.	\$ 64,440.00
8	Motor oil SAE15W40 - FA-4	1 qt.	SHE1030UL 61	Shell	1000	\$ -	1 qt.	\$ -
9	Motor oil SAE15W40 - FA-4	1 gal.	SHE1030UL 31	Shell	1000	\$ 19.62	1 gal.	\$ 19,620.00
10	Motor oil SAE15W40 - BULK - FA-4	55 gal. drum	SHE1030UL DR	Shell	385	\$ 22.35	1 gal.	\$ 8,604.75
11	Motor oil SAE10 - CF/SN CAT TO-2, ALLISON C-4 or equal	5 gallon	COMHD10 PA	Compass	2400	\$ 10.74	1 gal.	\$ 25,776.00
12	Motor oil SAE10 - CF/SN CAT TO-2, ALLISON C-4 or equal	55 gal. drum	COMHD10 DR	Compass	550	\$ 9.89	1 gal.	\$ 5,439.50
13	Motor oil 0W20 - GM Dexos approved or Equal	1 qt.	MAG020SY 61	Mag 1	1500	\$ 3.89	1 qt.	\$ 5,835.00
14	Motor oil 0W20 - GM Dexos approved or Equal	5 qt.	MAG020SY	Mag 1	1000	\$ 4.13	1 qt.	\$ 4,130.00
15	Motor oil 5W20 - CF/SN SM, SJ, ILSAC GF-5	1 qt.	MAG520SB 61	Mag 1	5000	\$ 3.22	1 qt.	\$ 16,100.00
16	Motor oil 5W20 - Synthetic Blend CF/SN SM, SJ, ILSAC GF-5	1 qt.	MAG520SB 61	Mag 1	5000	\$ 3.22	1 qt.	\$ 16,100.00
17	Motor oil 5W20 - Synthetic Blend - BULK - CF/SN SM, SJ, ILSAC GF-5	55 gal. drum	COM520 DR	Compass	550	\$ 9.82	1 gal.	\$ 5,401.00
18	Motor oil 5W30 - CF/SN ILSAC GF-5	1 qt.	MAG530SB 61	Mag 1	7500	\$ 3.22	1 qt.	\$ 24,150.00
19	Motor oil 5W30 - Synthetic Blend CF/SN ILSAC GF-5	1 qt.	MAG530SB 61	Mag 1	7500	\$ 3.22	1 qt.	\$ 24,150.00
20	Motor oil 5W30 - Synthetic Blend - BULK - CF/SN SM, SJ, ILSAC GF-5	55 gal. drum	COM530 DR	Compass	550	\$ 9.82	1 gal.	\$ 5,401.00
21	Motor oil 5W30 - GM Dexos approved or Equal	1 qt.	MAG530SY 61	Mag 1	1000	\$ 4.13	1 qt.	\$ 4,130.00
22	Motor oil 5W30 - GM Dexos approved or Equal	5 qt.	MAG530SY	Mag 1	1000	\$ 4.13	1 qt.	\$ 4,130.00
23	Motor oil 10W30 - CF/SN SM, SJ, ILSAC GF-5	1 qt.	MAG1030 61	Mag 1	20000	\$ 2.89	1 qt.	\$ 57,800.00
24	Motor oil 10W30 Motorcraft Super Duty or Equal (must meet WSS-M2C171-F1, CES20086, Detroit Diesel 93K2222, Volvo VDS-4.5, & Mack EOS-4.5 standards)	1 qt.	MAG1030SB	Mag 1	5000	\$ 3.93	1 qt.	\$ 19,650.00
25	Motor oil 10W30 Motorcraft Super Duty or Equal (must meet WSS-M2C171-F1, CES20086, Detroit Diesel 93K2222, Volvo VDS-4.5, & Mack EOS-4.5 standards)	5 qt.	MAG1030SB	Mag 1	1000	\$ 3.93	1 qt.	\$ 3,930.00
26	Motor oil 10W30 - BULK - Motorcraft Super Duty or Equal (must meet WSS-M2C171-F1, CES20086, Detroit Diesel 93K2222, Volvo VDS-4.5, & Mack EOS-4.5 standards)	55 gal. drum	COM1030HD	Compass	330	\$ 11.49	1 gal.	\$ 3,791.70
27	Motor oil 10W30 - Diesel Engine Service SB (synthetic blend)	1 qt.	SHE1030TS 61	Shell	350	\$ 4.47	1 qt.	\$ 1,564.50
28	Motor oil 10W30 - Diesel Engine Service SB (synthetic blend)	5 qt.	SHE1030TS	Shell	500	\$ 4.47	1 qt.	\$ 2,235.00
29	Motor oil 10W30 - FA-4	1 qt.	SHE1030TU 61	Shell	1000	\$ 5.16	1 qt.	\$ 5,160.00
30	Motor oil 10W30 - FA-4	1 gal.	SHE1030TU 31	Shell	500	\$ 20.62	1 gal.	\$ 10,310.00
31	Motor oil 10W40 - CF/SN	1 qt.	MAG1040 61	Mag 1	500	\$ 2.89	1 qt.	\$ 1,445.00
32	Motor oil 20W50 - CF/SN	1 qt.	MAG2050 61	Mag 1	500	\$ 3.52	1 qt.	\$ 1,760.00
33	Synthetic motor oil SAE 5W40 - CF/SN	1 qt.	MAG540SY 61	Mag 1	500	\$ 6.65	1 qt.	\$ 3,325.00
34	Synthetic motor oil SAE 5W40 - CF/SN	1 gal.	MAG540SY 31	Mag 1	500	\$ 26.60	1 gal.	\$ 13,300.00
35	Synthetic motor oil SAE 10W30 - CF/SN	1 qt.	SHE1030SY 61	Shell	500	\$ 4.03	1 qt.	\$ 2,015.00
36	Synthetic motor oil SAE 5W40 - CI-4, CH-4/SN	1 qt.	VAL540PB 31	Valvoline	100	\$ 5.71	1 qt.	\$ 571.00
3.1.4 EXTREME PRESSURE (EP) GEAR LUBRICANT								
37	Extreme pressure gear lubricant 80W90 GL-5, MT-1, MACK GO-J or equal	35 lb.	COM8090 PA	Compass	280	\$ 1.61	1 lb.	\$ 450.80
38	Extreme pressure gear lubricant 80W90 GL-5, MT-1, MACK GO-J or equal	120 lb.	COM8090 KG	Compass	3960	\$ 1.51	1 lb.	\$ 5,073.60
39	Extreme pressure gear lubricant 85W140 GL-5, MT-1, MACK GO-J or equal	120 lb.	COM85140 KG	Compass	720	\$ 1.69	1 lb.	\$ 1,216.80
3.1.5 GEAR LUBRICANT								
40	Gear Lubricant - mineral gear lube 90 GL-1	35 lb.	COM90GL1 PA	Compass	385	\$ 1.50	1 lb.	\$ 577.50
3.1.6 SYNTHETIC LUBRICANT								
41	SAES0 Powertranz EW 50 EATON PS-164, R7 MACK GO-A PLUS NAVISTAR TMS 6816 or equal	35 lb.	COMST50 PA	Compass	350	\$ 3.07	1 lb.	\$ 1,074.50
3.1.7 WHEEL BEARING & CHASSIS GREASE								
42	Wheel bearing and chassis grease summer weight NLGI #2	14 to 14-1/2 oz. tubes	CAMHTR 10	Cam 2	2500	\$ 0.19	1 oz.	\$ 475.00
43	Wheel bearing and chassis grease summer weight NLGI #2	35 lb.	CAMHTR PA	Cam 2	250	\$ 2.54	1 lb.	\$ 635.00
44	Wheel bearing and chassis grease summer weight NLGI #2	120 lb.	CAMHTR KG	Cam 2	1200	\$ 1.58	1 lb.	\$ 1,896.00
3.1.8 ALL PURPOSE GREASE (MOLY):								
45	All purpose grease (3% moly) water and heat resistant grease NLGI #2	14 to 14-1/2 oz. tubes	VALPALAD 10	Valvoline	120	\$ 0.36	1 oz.	\$ 43.20
46	All purpose grease (3% moly) water and heat resistant grease NLGI #2	35 lb.	VALPALAD PA	Valvoline	200	\$ 3.72	1 lb.	\$ 744.00
47	All purpose grease (3% moly) water and heat resistant grease NLGI #2	120 lb.	VALPALAD KG	Valvoline	240	\$ 3.69	1 lb.	\$ 885.60

05/26/22 1:18:01

W. BUCKLE & ASSOCIATES

3.1.9 HYDRAULIC OIL (HYDRAULIC HOIST OIL):									
48	Hydraulic oil-light weight RO22 Turbine/Circulating Oil	5 gal.	TELS2V22 PA	Shell	50	\$	20.56	1 gal.	\$ 1,028.00
49	Hydraulic oil-light weight (AW32)	5 gal.	COMEAW32 PA	Compass	400	\$	8.48	1 gal.	\$ 3,392.00
50	Hydraulic oil-light weight (AW32)	55 gal. drum	COMEAW32 DR	Compass	110	\$	9.16	1 gal.	\$ 1,007.60
51	Hydraulic oil-medium weight (AW46)	5 gal.	COMEAW46 PA	Compass	35	\$	9.15	1 gal.	\$ 320.25
52	Hydraulic oil-medium weight (AW46)	55 gal. drum	COMEAW46 DR	Compass	110	\$	10.84	1 gal.	\$ 1,192.40
53	Hydraulic oil-heavy weight (AW68)	5 gal.	COMEAW68 PA	Compass	200	\$	9.25	1 gal.	\$ 1,850.00
54	Hydraulic oil-heavy weight (AW68)	55 gal. drum	COMEAW68 DR	Compass	880	\$	10.98	1 gal.	\$ 9,662.40
3.1.10 CATAPILLAR HYDRAULIC OIL									
55	Hydraulic Oil - CAT HYDO ADVANCED 10 or equal	5 gal.	COMT0410 PA	Compass	120	\$	11.94	1 gal.	\$ 1,432.80
56	Hydraulic Oil - CAT HYDO ADVANCED 10 or equal	55 gal. drum	COMT0410 DR	Compass	6,600	\$	10.94	1 gal.	\$ 72,204.00
3.1.11 TRANSMISSION FLUID									
57	Automatic Transmission Fluid - Multi Vehicle - Dexron II, Mercon, or equal	1 qt.	MAGATFDEX 61	Mag 1	22000	\$	2.84	1 qt.	\$ 62,480.00
58	Automatic Transmission Fluid - Multi Vehicle - Dexron II, Mercon, or equal	55 gal. drum	COMATFDM DR	Compass	495	\$	9.21	1 gal.	\$ 4,558.95
59	Transmission fluid - CAT T0-4, Allison C-4, or Equal	5 gal.	COMT0430 PA	Compass	350	\$	12.35	1 gal.	\$ 4,322.50
60	Transmission fluid - CAT T0-4, Allison C-4, or Equal	55 gal. drum	COMT0430 DR	Compass	605	\$	12.35	1 gal.	\$ 7,471.75
61	Automatic Transmission Fluid Multi-Vehicle ATF API DEXRON III, MERCON, MERCON V, ATF+3 ATF+4 or equal	1 qt.	MAGATFLVM 61	Mag 1	1000	\$	4.89	1 qt.	\$ 4,890.00
62	Transmission fluid - Dexron -VI-ATF or equal	1 qt.	MAGATFLVM 61	Mag 1	120	\$	4.89	1 qt.	\$ 586.80
63	TES - 295 Alison TES-295 Fluid BP Autran or Equal	1 qt.	CAST5668 31	Castrol	30	\$	10.05	1 qt.	\$ 301.50
64	Automatic Transmission Fluid - MOTORCRAFT MERCON LV or equal	1 qt.	MAGATFLVM 61	Mag 1	30	\$	4.89	1 qt.	\$ 146.70
65	Automatic Transmission Fluid - MOTORCRAFT MERCON SP or equal	1 qt.	MAGATFMV 61	Mag 1	30	\$	4.89	1 qt.	\$ 146.70
66	Transmission Fluid - VALVOLINE CVT FLUID or equal	1 qt.	MAGATFCVT 61	Castrol	30	\$	5.55	1 qt.	\$ 166.50
3.1.12 COMBINATION FLUID									
67	Combination Fluid: Hydraulic/Transmission Oil: HY-GARD Transmission Oil or equal	5 gal.	COMHTF PA	Compass	250	\$	9.99	1 gal.	\$ 2,497.50
68	Combination Fluid: Hydraulic/Transmission Oil: HY-GARD Transmission Oil or equal	55 gal. drum	COMHTF DR	Compass	20900	\$	9.94	1 gal.	\$ 207,746.00
3.1.13 RAILROAD DIESEL ENGINE OIL									
69	Railroad diesel engine oil must be a generation 5 oil as designated by (LMOA) EMD approved	55 gal. drum	COMRR40 DR	Compass	880	\$	14.00	1 gal.	\$ 12,320.00
3.1.14 SYNTHETIC MULTIPURPOSE GEAR LUBRICANT									
70	75W90 GL-5 Synthesized multipurpose gear lubricant - DANA SHADES 256, REV. C, EATON E500, MACK GO J PLUS or equal	35 lb.	COM7590SY PA	Compass	700	\$	3.07	1 lb.	\$ 2,149.00
71	75W90 GL-5 Synthesized multipurpose gear lubricant - DANA SHADES 256, REV C, EATON E500, MACK GO-J PLUS or equal	120 lb.	COM7590SY KG	Compass	120	\$	2.87	1 lb.	\$ 344.40
72	80W140 GL-5 Synthesized multipurpose gear lubricant - DANA SHADES 256, ARVIN MERITOR D-76, MACK GO -J or equal	35 lb.	COM80140SY PA	Compass	140	\$	3.13	1 lb.	\$ 438.20
3.1.15 FORMULATED GEAR OIL (LS)									
73	Limited slip gear lubricant GL-5 80W90	35 lb.	COM8090 PA	Compass	770	\$	1.65	1 lb.	\$ 1,270.50
74	Limited slip gear lubricant GL-5 80W90	120 lb.	COM8090 KG	Compass	1080	\$	1.54	1 lb.	\$ 1,663.20
3.1.16 DEPOSIT & CREDIT FOR RETURNABLE 55 GALLON DRUMS									
75	Deposit & Credit for Returnable 55 Gal. Drum (Inc. in product price)	55 gal. drum						Must be included in Drum Price.	No Additional Charge permitted
GRAND TOTAL:									\$ 1,292,013.80

Vendor's Name: PUGH LUBRICANTS dba APOLLO
 Contract Manager's Name: BARY D. SWEENEY
 Phone: 304-482-0123
 Fax: _____
 Email Address: gsweeney@cadencepetroleum.com

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. **Application is made for 2.5% vendor preference for the reason checked:**
 Bidder is an individual resident vendor and has resided continuously in West Virginia, or bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia, for four (4) years immediately preceding the date of this certification; **or**,
 Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; **or**,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or**,
2. **Application is made for 2.5% vendor preference for the reason checked:**
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,
3. **Application is made for 2.5% vendor preference for the reason checked:**
 Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; **or**,
4. **Application is made for 5% vendor preference for the reason checked:**
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or**,
5. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or**,
6. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
7. **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.**
 Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.
8. **Application is made for reciprocal preference.**
 Bidder is a West Virginia resident and is requesting reciprocal preference to the extent that it applies.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) rescind the contract or purchase order; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: PUGH LUBRICANTS dba APALCO Signed: [Signature]
 Date: 05/24/2022 Title: TERMINAL BUSINESS MANAGER

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.



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

State of West Virginia
 Centralized Request for Quote
 Chemicals

Proc Folder: 1044522			Reason for Modification:
Doc Description: OIL22 - Statewide Contract for: Oils, Lubricants, & Grease			
Proc Type: Statewide MA (Open End)			
Date Issued	Solicitation Closes	Solicitation No	Version
2022-05-16	2022-05-26 13:30	CRFQ 0212 SWC2200000016	1


BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: # UC0000082006
Vendor Name: PUGH LUBRICANTS dba APOLLO OIL
Address:
Street: 800 FIRST AVE
City: NITRO
State: WEST VIRGINIA **Country:** UNITED STATES **Zip:** 25143
Principal Contact: GARY D. SWEENEY
Vendor Contact Phone: 304-482-0173 (cell) **Extension:** -

FOR INFORMATION CONTACT THE BUYER
 Mark A Atkins
 (304) 558-2307
 mark.a.atkins@wv.gov

Vendor Signature X  **FEIN#** 81-4084872 **DATE** 05/24/2022

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

ADDITIONAL INFORMATION

The West Virginia Purchasing Division is soliciting bids to establish an Open-End Statewide Contract for Oils, Lubricants, and Grease. This contract shall cover all West Virginia State Agencies and Political Subdivisions located in the State of West Virginia, per the attached documents.

INVOICE TO**SHIP TO**

VARIOUS AGENCY
LOCATIONS

STATE OF WEST VIRGINIA

AS INDICATED BY ORDER

VARIOUS LOCATIONS AS
INDICATED BY ORDER

No City
US

WV

No City
US

WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Oils, Lubricants, & Grease: Use Exhibit_A Pricing Page	0.00000	EA		

Comm Code	Manufacturer	Specification	Model #
15120000			

Extended Description:

Note: Vendor shall use Exhibit_A Pricing Pages for bid pricing.

If vendor is submitting a bid online, Vendor should enter \$0.00 in the Oasis commodity line.

Vendor shall enter pricing into the Exhibit_A Pricing Pages and must attach with bid.
See section 18 of Instructions to Bidders.

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Technical Questions due by 10:00am EDT	2022-05-19

	Document Phase	Document Description	Page
SWC2200000016	Final	OIL22 - Statewide Contract for: Oils, Lubricants, & Grease	3

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not allow a vendor to perform work on a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or *"Interested parties"* means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of *W. Va. Code* § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the state agency prior to beginning work under a contract and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: APOLLO OIL Address: 800 1ST AVE. S.
(PUGH AMERICANS) NITRO, WV 25143

Name of Authorized Agent: Michael Brunnenschel Address: 800 1ST AVE. S., Nitro, WV 25143

Contract Number: CRFQ SWC2200000016 Contract Description: OIL22 - Oil & Lubricants

Governmental agency awarding contract: West Virginia Purchasing Division

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract
 Check here if none, otherwise list entity/individual names below.
2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)
 Check here if none, otherwise list entity/individual names below.
3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)
 Check here if none, otherwise list entity/individual names below.

Signature: [Signature] Date Signed: 5/24/22

Notary Verification

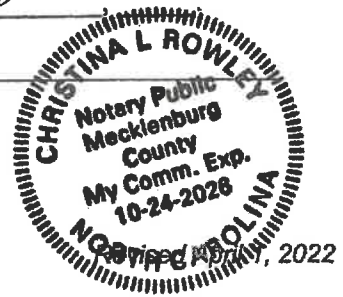
State of North Carolina, County of Mecklenburg:

I, Christina L Rowley, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 24th day of May 2022

Christina L. Rowley
Notary Public's Signature

To be completed by State Agency:
Date Received by State Agency: _____
Date submitted to Ethics Commission: _____
Governmental agency submitting Disclosure: WV Purchasing Division



Terms Conditions

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: May 19, 2022 Due by 10:00am EDT

Submit Questions to: Mark Atkins
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-3970
Email: Mark.A.Atkins@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted on or before the date and time of the bid opening listed in section 7 below. Vendors can submit bids electronically through wvOASIS, in paper form delivered to the Purchasing Division at the address listed below either in person or by courier, or in facsimile form by faxing to the Purchasing Division at the number listed below. Notwithstanding the foregoing, the Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via email. Bids submitted in paper or facsimile form must contain a signature. Bids submitted in wvOASIS are deemed to be electronically signed.

Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason.

For Request for Proposal ("RFP") Responses Only: Submission of a response to a Request for Proposal is not permitted in wvOASIS. In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal prior to the bid opening date and time identified in Section 7 below, plus N/A convenience copies of each to the Purchasing Division at the address shown below. Additionally, the Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

Bid Delivery Address and Fax Number:

Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130
Fax: 304-558-3970

A bid submitted in paper or facsimile form should contain the information listed below on the face of the submission envelope or fax cover sheet. Otherwise, the bid may be rejected by the Purchasing Division.

VENDOR NAME:

BUYER: Mark Atkins

SOLICITATION NO.: CRFQ 0212 SWC220000016

BID OPENING DATE: 05/26/2022

BID OPENING TIME: 1:30pm EDT

FAX NUMBER: 304-558-3970

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: May 26, 2022 at 1:30pm EDT

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, 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.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's

specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

15A. RECIPROCAL PREFERENCE: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or

minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

22. WITH THE BID REQUIREMENTS: In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

23. EMAIL NOTIFICATION OF AWARD: The Purchasing Division will attempt to provide bidders with e-mail notification of contract award when a solicitation that the bidder participated in has been awarded. For notification purposes, bidders must provide the Purchasing Division with a valid email address in the bid response. Bidders may also monitor *wvOASIS* or the Purchasing Division's website to determine when a contract has been awarded.

24. ISRAEL BOYCOTT CERTIFICATION: Vendor's act of submitting a bid in response to this solicitation shall be deemed a certification from bidder to the State that bidder is not currently engaged in, and will not for the duration of the contract, engage in a boycott of Israel. This certification is required by W. Va. Code § 5A-3-63.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: The Initial Contract Term will be for a period of Six (6) Months. The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to Three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Alternate Renewal Term – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that:

the contract will continue for _____ years;

the contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited.

Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney

General's Office (Attorney General approval is as to form only).

One-Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: Contract Term specified in _____

4. AUTHORITY TO PROCEED: Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One-Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One-Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked in this section must be provided to the Purchasing Division by the Vendor as specified:

BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract. The performance bond must be received by the Purchasing Division prior to Contract award.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

Commercial General Liability Insurance in at least an amount of: \$1,000,000.00 per occurrence.

Automobile Liability Insurance in at least an amount of: \$250,000.00 per occurrence.

Professional/Malpractice/Errors and Omission Insurance in at least an amount of: _____ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

Commercial Crime and Third Party Fidelity Insurance in an amount of: _____ per occurrence.

Cyber Liability Insurance in an amount of: _____ per occurrence.

Builders Risk Insurance in an amount equal to 100% of the amount of the Contract.

Pollution Insurance in an amount of: _____ per occurrence.

Aircraft Liability in an amount of: _____ per occurrence.

State of West Virginia must be listed as Additional Insured on the Insurance Certificate. Certificate Holder should read as follows:

State of WV
2019 Washington Street, East
Charleston, WV 25305

Notwithstanding anything contained in this section to the contrary, the Director of the Purchasing Division reserves the right to waive the requirement that the State be named as an additional insured on one or more of the Vendor's insurance policies if the Director finds that doing so is in the State's best interest.

9. WORKERS' COMPENSATION INSURANCE: Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. [Reserved]

11. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

_____ for _____.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

12. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

13. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

14. PAYMENT IN ARREARS: Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

15. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

20. TIME: Time is of the essence regarding all matters of time and performance in this Contract.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code, or West Virginia Code of State Rules is void and of no effect.

22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

23. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

24. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

25. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

26. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

27. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

28. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

29. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

30. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

31. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

32. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

33. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

34. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

36. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

37. NO DEBT CERTIFICATION: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the Vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

38. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

39. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.division@wv.gov.

40. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

41. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.

- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
 - 1. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
 - 2. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

42. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a “substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the Vendor must submit to the Agency a disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

44. PROHIBITION AGAINST USED OR REFURBISHED: Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

45. VOID CONTRACT CLAUSES – This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

46. ISRAEL BOYCOTT: Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of this contract.

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.

(Name, Title) GARY D. SWEENEY, TERRITORY BUSINESS MGR.
(Printed Name and Title) GARY D. SWEENEY TERRITORY BUSINESS MGR.
(Address) 801 1ST. AVE. S, NIRO, WVA 25413
(Phone Number) / (Fax Number) 304-482-0173
(email address) gsweeney@cadencepetro.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

PUSH LUBRICANTS dba. APOLLO OIL
(Company)
Gary D. Sweeney, TERRITORY BUSINESS MANAGER
(Authorized Signature) (Representative Name, Title)
GARY D. SWEENEY, TERRITORY BUSINESS MANAGER
(Printed Name and Title of Authorized Representative) (Date)
304-482-0173 Cell 05/25/2022
(Phone Number) (Fax Number)
gsweeney@cadencepetro.com
(Email Address)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
05/26/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

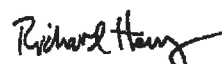
PRODUCER Stephens Insurance, LLC PO Box 3507 Little Rock AR 72203-3507		CONTACT NAME: Mica Grimmatt PHONE (A/C, No, Ext): (800) 852-5053 E-MAIL ADDRESS: mica.grimmatt@stephens.com FAX (A/C, No): (501) 377-2470	
INSURED Cadence Intermediate II, LLC PO Box 4006 Asheboro NC 27204		INSURER(S) AFFORDING COVERAGE INSURER A: Federated Mutual Insurance Company INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	
		NAIC # 13935	

COVERAGES **CERTIFICATE NUMBER:** CL2231140347 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			1826945	02/28/2022	02/28/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			1826945	02/28/2022	02/28/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			1826948	02/28/2022	02/28/2023	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	1826949	02/28/2022	02/28/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
See Remarks Page

CERTIFICATE HOLDER State of West Virginia 2019 Washington Street, East Charleston WV 25305	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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Additional Named Insureds

Other Named Insureds

Apollo Investments, LLC	Limited Liability Company, Additional Named Insured
Apollo Oil of WV, LLC	Limited Liability Company, Additional Named Insured
Apollo Oil, II, LLC	Limited Liability Company, Additional Named Insured
Apollo RP Holdings, LLC	Limited Liability Company, Additional Named Insured
Brewer-Hendley Oil Co., LLC	Limited Liability Company, Additional Named Insured
Cadence Intermediate I, LLC	Limited Liability Company, Additional Named Insured
Cadence Parent Holdings, LLC	Limited Liability Company, Additional Named Insured
CCVB, LLC	Limited Liability Company, Additional Named Insured
Davison Fuels & Oil, LLC	Limited Liability Company, Additional Named Insured
Davison RP Holdings, LLC	Limited Liability Company, Additional Named Insured
Frost Oil Co., LLC	Limited Liability Company, Additional Named Insured
Frost Oil DBA B&J Oil	Additional Named Insured
Frost Oil DBA Bowers Oil	Additional Named Insured
Frost Oil DBA Ethridge Oil	Additional Named Insured
Frost Petroleum Equipment, LLC	Limited Liability Company, Additional Named Insured
JWAY, LLC	Limited Liability Company, Additional Named Insured
Liberty Transport, LLC	Limited Liability Company, Additional Named Insured
Mid South Sales, LLC	Limited Liability Company, Additional Named Insured
Mountain Valley Oil	Additional Named Insured
MS RP Holdings, LLC	Limited Liability Company, Additional Named Insured
POC Holdco, LLC	Limited Liability Company, Additional Named Insured
POC RP Holdings, LLC	Limited Liability Company, Additional Named Insured
Pugh Lubricants, LLC	Limited Liability Company, Additional Named Insured
Veterans RP Holdings, LLC	Limited Liability Company, Additional Named Insured



ADDITIONAL REMARKS SCHEDULE

AGENCY FEDERATED MUTUAL INSURANCE COMPANY		NAMED INSURED CADENCE INTERMEDIATE II LLC PO BOX 4006 ASHEBORO, NC 27204-4006	
POLICY NUMBER SEE CERTIFICATE # 1119.1		EFFECTIVE DATE: SEE CERTIFICATE # 1119.1	
CARRIER SEE CERTIFICATE # 1119.1	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
 FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

THE CERTIFICATE HOLDER IS AN ADDITIONAL INSURED SUBJECT TO THE DESCRIPTION OF OPERATION(S) LISTED AND CONDITIONS OF THE ADDITIONAL INSURED - AUTOMATIC STATUS FOR DESIGNATED OPERATIONS ENDORSEMENT FOR GENERAL LIABILITY. GENERAL LIABILITY CONTAINS A WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION) - AUTOMATIC ENDORSEMENT BUSINESS AUTO LIABILITY CONTAINS A WAIVER OF SUBROGATION IN FAVOR OF THE CERTIFICATE HOLDER SUBJECT TO THE CONDITIONS OF THE BLANKET WAIVER OF TRANSFER OF RIGHTS OF RECOVERY ENDORSEMENT. WORKERS COMPENSATION CONTAINS A WAIVER OF SUBROGATION IN FAVOR OF THE CERTIFICATE HOLDER WHERE PERMITTED BY STATE STATUTE.

REQUEST FOR QUOTATION
CRFQ 0212 SWC2200000016
(OIL22)
Statewide Contract for Oils, Lubricants & Grease

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids to establish an Open-End Statewide Contract for Oils, Lubricants, and Grease. This contract shall cover all West Virginia State Agencies and Political Subdivisions located in the State of West Virginia.

The subsequent award resulting from this RFQ is intended to replace the current contract "OIL19" which can be viewed in its entirety at:

<http://www.state.wv.us/admin/purchase/swc/OIL.htm>

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
- 2.1 **"Contract Item" or "Contract Items"** means the list of items identified in Section 3.1 below and on the Pricing Pages.
- 2.2 **"Pricing Pages"** means the schedule of prices, estimated order quantity, and totals contained in wvOASIS or attached hereto as Exhibit A and used to evaluate the Solicitation responses.
- 2.3 **"Solicitation" or "RFQ"** (Request for Quotation) means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- 2.4 **"SAE"** mean the "Society of Automotive Engineering" used to grade motor oils according to their viscosity.
- 2.5 **"API"** means the "American Petroleum Institute".
- 2.6 **"ILSAC"** means the "International Lubricant Standardization and Approval Committee.
- 2.7 **"LMOA"** means the "Locomotive Maintenance Officers Association.
- 2.8 **"EMD"** Means "Electro-Motive Diesel" engine.
- 2.9 **"NLGI"** means the "National Lubricating Grease Institute".

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CRFQ 0212 SWC2200000016
(OIL22)
Statewide Contract for Oils, Lubricants & Grease

2.10 “OSHA” means the “Occupational Safety and Health Association”.

3. GENERAL REQUIREMENTS:

3.1 Contract Items and Mandatory Requirements: Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

3.1.1 2-CYCLE MOTOR OIL - CHAINSAW, POWER MOWERS, PUMPS, & SNOWMOBILES:

3.1.1.1 Motor Oil must be specifically compounded and marketed for mixing with gasoline to lubricate air- and water-cooled engines.

3.1.1.2 Motor Oil must meet the minimum requirements as an engine lubricant for the major manufacturers of two-cycle engines.

3.1.1.3 Motor Oil must be satisfactory for use in any fuel to oil ration as specified by the engine manufacturer up to and including 50:1 ration.

3.1.1.4 Motor Oil shall be available in the SAE viscosity grade(s) specified for use in Homelite, McCulloch, Poulan, Stihl, Husqvarna, or other two-cycle engines or equal.

3.1.2 OUTBOARD MOTOR OIL:

3.1.2.1 Outboard Motor Oil specifically compounded and marketed for mixing with gasoline to lubricate two-cycle, water cooled engines.

3.1.2.2 Outboard Motor Oil must be tested and certified by the National Marine Manufacturers Association (NMMA) for TCW III.

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CRFQ 0212 SWC2200000016
(OIL22)
Statewide Contract for Oils, Lubricants & Grease**

3.1.2.3 Outboard Motor Oil must be satisfactory for use in any fuel to oil ration as specified by the engine manufacturer up to and including 50:1 ration.

3.1.2.4 Outboard Motor Oil shall be available in the SAE viscosity grade(s) specified by the engine manufacturers for use in Evinrude, Johnson, Mercury, Yamaha, Honda, or other two-cycle outboard motors or equal.

3.1.3 MOTOR OIL (GAS AND/OR DIESEL):

3.1.3.1 Shall be produced from virgin materials.

3.1.3.2 Shall be suitable for use in passenger cars, trucks, and heavy construction equipment.

3.1.3.3 Shall be approved for gasoline and diesel engines.

3.1.3.4 Shall be API certified and have the API seal of approval on the product.

3.1.3.5 Shall meet the performance requirement ("Primary Performance Criteria") described in ASTM designated D4485 for performance categories: API Service CK-4, CJ-4, CI-4 Plus, CH-4/SN, SN Plus, SM, SL, SJ, FA-4.

3.1.3.5.1 Conformance of the oil furnished with the performance requirements shall be determined with the test methods identified in the most recent edition of ASTM D4485 for all categories.

3.1.3.6 Crankcase oil must be suitable for use in new model gasoline and diesel engines where this service category oil requirement is specified by the engine manufacturer.

3.1.3.7 Must meet the performance level of MIL-L 2104E and MIL-L 45152D or equal.

**REQUEST FOR QUOTATION
CRFQ 0212 SWC2200000016
(OIL22)
Statewide Contract for Oils, Lubricants & Grease**

3.1.3.8 Sulfate ash (ASTMD-874) shall be a maximum of 1.00% by weight.

3.1.3.9 Minimum viscosity index for all motor oils shall be 95.

3.1.3.10 Synthetic Motor Oil:

3.1.3.10.1 Must be approved for both Gas and/or Diesel engines.

3.1.3.10.2 Must be API Certified and have the API seal of approval on the product.

3.1.3.10.3 Must meet GM-6094M, GM-4718M, and Ford ESE-MC153-E or Equal

3.1.3.10.4 Must meet the performance level of MIL-L-46152E and MIL-L-2104D or Equal.

3.1.4 EXTREME PRESSURE (EP) GEAR LUBRICANT:

3.1.4.1 API Service Category: GL-5, PG-1, PG-2

3.1.4.2 SAE Viscosity Grades: 80W90 and 85W140

3.1.4.2.1 These lubricants are intended for use in passenger car, truck, and tractor differentials (particularly hypoid type), steering gears, and other points requiring a lubricant of exceptional load carrying ability.

3.1.5 GEAR LUBRICANT:

3.1.5.1 API Service Category: GL-1

3.1.5.2 Mineral gear lube 90.

**REQUEST FOR QUOTATION
CRFQ 0212 SWC2200000016
(OIL22)
Statewide Contract for Oils, Lubricants & Grease**

3.1.5.2.1 For use in automotive and heavy equipment transmission differentials where EP lubricant is not required.

3.1.6 SYNTHETIC LUBRICANT:

3.1.6.1 Must be fully synthetic.

3.1.6.2 SAESO Lubricant for use in heavy-duty truck manual transmissions must meet EATON PS-164, R7, MACK GO-A PLUS, NAVISTAR TMS 6816 or Equal.

3.1.7 WHEEL BEARING & CHASSIS GREASE:

3.1.7.1 Shall be designated by manufacturer as suitable for multi-purpose use in cars, light & heavy trucks, and industrial equipment.

3.1.7.2 Must be made from a lithium complex soap.

3.1.7.3 Minimum NLGI Consistency #1 and #2.

3.1.7.4 Must be resistant to oxidation and water washout as specified in ASTM D1264.

3.1.7.5 Must meet minimum leakage resistance as specified in ASTM D1263.

3.1.7.6 Minimum 450-degree Fahrenheit dropping point as specified in ASTM D2265.

3.1.7.7 Worked penetration per ASTM D217 and D1403.

3.1.7.7.1 NLGI#1 310-340

3.1.7.7.2 NLGI#2 265-295

3.1.7.8 NLGI-GC/LB

REQUEST FOR QUOTATION
CRFQ 0212 SWC2200000016
(OIL22)
Statewide Contract for Oils, Lubricants & Grease

3.1.8 ALL PURPOSE GREASE (MOLY):

3.1.8.1 Shall be designated by the manufacturer as suitable for use in industrial, automotive, and construction equipment including heavy stock loading conditions.

3.1.8.2 Must meet minimum requirements for all major heavy equipment manufactures such as Caterpillar, John Deere, Komatsu, Case, Volvo, etc.

3.1.8.3 Minimum NLGI Consistency #2.

3.1.8.4 Minimum 500-degree Fahrenheit dropping point as specified in ASTM D2265.

3.1.8.5 Minimum 3% moly.

3.1.9 HYDRAULIC OIL (HYDRAULIC HOIST OIL):

3.1.9.1 Turbine/Circulating Oil (RO22): Product must be specially blended for service in hydraulic systems employing either vane or gear-type pumps as utilized on snow removal, road construction, and hydraulic operated equipment. (This oil is not intended for use in hydraulic brakes and automobile type steering units).

3.1.9.1.1 Abex Denision HF-0, HF-1, HF-2 or Equal.

3.1.9.1.2 Sperry Vickers M-2950-S, 1-286-S or Equal.

3.1.9.1.3 Sunstrand Hydrostatics or Equal.

3.1.9.2 Hydraulic Oil Light-Weight (AW32):

3.1.9.2.1 For use when outside temperature is generally below 32-degrees Fahrenheit.

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3.1.9.3 Hydraulic Oil Medium-Weight (AW46):

3.1.9.3.1 For use when outside temperature is generally between 32-100 degrees Fahrenheit.

3.1.9.3.2 Hydraulic Oil Heavy-Weight (AW68):

3.1.9.3.2.1 For use in some systems where ambient temperatures are generally higher and/or when heavier weight products are recommended.

3.1.10 HYDRAULIC OIL REQUIREMENTS:

3.1.10.1 Manufactured to meet or exceed manufacturers hydraulic requirements.

3.1.10.2 Shall not produce deleterious effects on neoprene, leather, or other seals used in hydraulic systems.

3.1.10.3 Shall contain corrosion, oxidation, anti-wear, and foam inhibitors to protect the hydraulic system. This shall include but not limited to pump, motor, and valves.

3.1.10.4 Minimum viscosity index for all hydraulic oil shall be 95.

3.1.10.5 Hydraulic oil shall be tested per ASTM D2619 and approved.

3.1.11 CATAPILLAR HYDRUALIC OIL:

3.1.11.1 Cat Hydro Advanced 10 or Equal:

3.1.11.1.1 Must meet minimum requirements for all CAT Machine Hydraulic Systems.

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3.1.11.1.2 Must meet minimum oxidation stability per ASTM D943.

3.1.11.1.3 Must have a minimum viscosity index of 114 per ASTM D2270.

3.1.11.1.4 SAE Viscosity grade IOW.

3.1.12 TRANSMISSION FLUID:

3.1.12.1 Dexron II – Mercon or Equal:

3.1.12.1.1 This automatic transmission fluid shall be suitable for use in any application where conventional ATF is specified.

3.1.12.1.2 1T0-4 Fluids:

3.1.12.1.2.1 Must meet CAT T0-4 requirements.

3.1.12.1.2.2 Must meet Allison C-4 requirements.

3.1.12.1.2.3 Must provide rust corrosion control, oxidation stability, foam resistance, and elastomer compatibility.

3.1.12.1.3 Dexron III, Mercon, Mercon V, ATF+3, & ATF+4 or Equal:

3.1.12.1.3.1 This automatic transmission fluid shall be suitable for use in any application where multi-vehicle ATF is specified.

3.1.12.1.4 Dexron VI or Equal:

3.1.12.1.4.1 ATF meeting GM specifications or equal.

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3.1.12.1.5 TES-295 Allison Fluid BP Autran or Equal:

3.1.12.1.5.1 ATF must meet Allison specifications or equal.

3.1.12.1.6 Motorcraft Mercon LV or Equal:

3.1.12.1.6.1 ATF must meet Ford Motor Company specifications.

3.1.12.1.6.2 Minimum Viscosity index must be 155.

3.1.12.1.7 Motorcraft Mercon SP or Equal:

3.1.12.1.7.1 ATF must meet Ford Motor Company specifications.

3.1.12.1.7.2 Minimum Viscosity index must be 155.

3.1.12.1.8 Valvoline CVT Fluid or Equal:

3.1.12.1.8.1 Must be formulated with premium synthetic base stocks, long-life friction modifiers, anti-wear additives and shear stable viscosity modifiers.

3.1.12.1.8.2 Minimum Viscosity @ 100-degrees Celsius must be 7.2.

3.1.12.1.8.3 Must meet all major automobile (i.e. Ford, Chrysler, GM, Toyota, etc.) manufacturers specifications for belt and chain driven continually variable transmissions (CVT) and will not void vehicle warranties.

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3.1.13 COMBINATION FLUID (Universal Tractor Hydraulic/Transmission Oil):

3.1.13.1 HY-GUARD OIL or Equal.

3.1.13.2 Minimum Viscosity @ 40-degree Celsius must be ISO grade 46.

3.1.13.3 Must meet the minimum manufacturer requirements for farm equipment, off highway machinery, and industrial tractor transmissions, final drives, wet brakes, and hydraulics when supplied from a common fluid reservoir.

3.1.13.3.1 This fluid shall meet or exceed all of the manufacturer requirements for John Deere J20A, John Deere J20C, Allis Chalmers 257541, Massey Ferguson Permatran III, White Equipment Q-1722, and Ford M2C134A, or Equal.

3.1.14 RAILROAD DIESEL ENGINE OIL:

3.1.14.1 Must be generation 4 SAE40 oil as designated by (LOMA) EMD approved.

3.1.15 SYNTHETIC MULTIPURPOSE GEAR LUBRICANT:

3.1.15.1 API Service Category GL-5.

3.1.15.2 SAE Viscosity grade 75W90.

3.1.15.2.1 DANA SHADES 256, REV.C, EATON E500, MACK GO-J PLUS, or Equal.

3.1.15.3 SAE Viscosity grade 80W140.

3.1.15.3.1 DANA SHADES 256, ARVIN MERITOR O-76, MACK GO-J or Equal.

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- 3.1.15.4** Shall be manufactured from synthesized hydrocarbon base oils and a sulfur phosphorus gear lubricant additive package.
- 3.1.15.5** Must meet manufacturers minimum requirements for farm equipment, off highway machinery, and industrial tractors.

3.1.16 FORMULATED GEAR OIL (Limited-Slip Gear Lubricant):

- 3.1.16.1** API Service Category GL-5.
- 3.1.16.2** SAE Viscosity grade 80W90.
- 3.1.16.3** Must contain rust, corrosion, anti-wear and foam inhibitors.

3.1.17 55 GALLON DRUMS:

- 3.1.17.1** All drums shipped become the property of the ordering agency and cannot be invoiced separately for deposits or credits.
- 3.1.17.2** Vendor should include the price of the drum into their Unit Price cost for each commodity item shipped in drum packaging.
 - 3.1.17.2.1** If an Agency desires to return any drum purchased when empty, the vendor may pick up the drum at no charge to the agency if the vendor desires.
- 3.1.17.3** See **Section 6.1** for additional drum requirements.

3.2 REPORTS: The Contractor shall provide to the State of West Virginia's primary contact person quarterly utilization reports containing at a minimum the following information pertaining to the State of West Virginia agencies, boards, commissions, and political subdivisions:

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- 3.2.1 Ordering Entity;
- 3.2.2 Purchase order number;
- 3.2.3 Description;
- 3.2.4 Quantity;
- 3.2.5 Price.

These reports must be provided in Excel format and sent via email on a quarterly basis as follows:

<u>PERIOD END</u>	<u>REPORT DUE</u>
December 31	January 31
March 31	April 30
June 30	July 31
September 30	October 31

The contract number **CMA 0212 OIL22** must be included on all Quarterly Sales Reports. Any quarter with zero sales must be reported as zero sales.

FAILURE TO PROVIDE THE REPORTS SPECIFICED IN THE RFQ MAY BE GROUNDS FOR CONTRACT CANCELLATION.

4. CONTRACT AWARD:

- 4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price on all Contract Items. The Contract shall be awarded to the Vendor that provides all Contract Items meeting the required specifications for the lowest overall Grand Total Cost as shown on the Pricing Pages.
- 4.2 Pricing Pages:** Vendor should complete the Exhibit_A Pricing Pages by entering the Manufacturer (Column 4), Brand Name (Column 5), Unit Price (Column 7), Vendor Order/Part Number (Column 10), and Vendor Preferred Order size/weight (Column 11), into the correct boxes and complete the vendor information at the bottom of the pricing page. The Exhibit_A Pricing pages are formatted to automatically calculate the Extended Price and Grand Total Cost when the Unit Price is entered. However, it is the vendors responsibility to ensure the calculations for their bid is correct before submitting. In the event of an error, the Unit Price shall prevail. The Purchasing Division may correct errors at its discretion. Vendor should

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complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

If submitting in wvOasis, vendor should download the Exhibit_A Pricing pages and complete then upload as an attachment to their bid.

If responding on paper, vendor should download the Exhibit_A Pricing pages, complete, then print and attach with their bid submission.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document.

5. ORDERING AND PAYMENT:

- 5.1 Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written form of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line. Spending Units (Agencies) shall process release orders through WVOasis using Agency delegated release orders (ADO).

Minimum orders shall be \$200.00 and shipped FOB Destination. Orders less than \$200.00 may be obtained by the Agency using proper purchasing procedures.

- 5.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

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6. DELIVERY AND RETURN:

6.1 Delivery Time: Vendor shall deliver standard orders within seven (7) calendar days after orders are received (ARO). Vendor shall deliver emergency orders within three (3) calendar days after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.

DRUMS: All Drums furnished shall be labeled as required by OSHA for hazardous materials. Material Safety Data Sheets (MSDS) shall be furnished in accordance with the current federal and state laws and requirements concerning hazardous chemicals to the ordering Agency. MSDS must be submitted and shipped with the product ordered.

A packing slip must accompany all shipments. All drums must be sealed and shipped on a two-way, non-refundable pallet.

6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

6.3 Delivery Payment/Risk of Loss: Standard order delivery shall be F.O.B. destination to the Agency's 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. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.

6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that the items are unacceptable or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

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6.5 Return Due to Agency Error: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7. VENDOR DEFAULT:

7.1 The following shall be considered a vendor default under this Contract.

- 7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
- 7.1.2** Failure to comply with other specifications and requirements contained herein.
- 7.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
- 7.1.4** Failure to remedy deficient performance upon request.

7.2 The following remedies shall be available to Agency upon default.

- 7.2.1** Immediate cancellation of the Contract.
- 7.2.2** Immediate cancellation of one or more release orders issued under this Contract.

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7.2.3 Any other remedies available in law or equity.

8. MISCELLANEOUS:

- 8.1 No Substitutions:** Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 8.2 Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 8.3 Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 8.4 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: Gary D. Sweeney
Telephone Number: 304-482-0173
Fax Number: _____
Email Address: gsweeney@cadenerpetroleum.com



***ITASCA OUTDOORS
2-Cycle Engine Oil***

Warren Oil Company

Product Data Sheet

Itasca Outdoors 2-Cycle Engine Oil is specifically formulated for 2-cycle engines such as motorbikes, scooters, lawnmowers, pumps, garden tractors, chain saws and string trimmers.

Benefits

- Meets the requirements of JASO FB
- Low Ash content
- Contains anti-scuffing compounds for extra protection
- Mixes readily with gasoline
- Dyed for easy identification
- Provides rust and corrosion protection

Follow manufacturer's recommended mix: For 16-to-1 proportions mix 8 oz. with one gallon of gasoline. For 32-to-1 proportions mix 8 oz. with two gallons of gasoline. For 50-to-1 proportions mix 8 oz. with three gallons of gasoline. To mix, partially fill clean can with gasoline and add correct amount of Itasca Outdoor 2-Cycle Engine Oil. Shake well, then add remainder of gasoline to achieve proper proportions.

Typical Characteristics

**ITASCA
Outdoor 2-Cycle Oil**

Gravity, API	0.8937
Pound per gallon	7.45
Viscosity (typical)	
@40 Deg. C, cSt	67.5
@100 Deg. C, cSt	8.3
Viscosity Index	90
Pour Point Deg. F	-20
Calcium Content, ppm	170
Appearance	Green

Warren Oil Company, Inc.
*Dunn, NC 28334; Benton, AL 36758; San Antonio, TX 78210;
Marion, IL 62959; Johnstown, PA 1590; West Memphis, AR 72303*

Marine-Terrain 2-Cycle Oil

A premium quality 2-cycle engine oil designed for use in air and water-cooled 2-cycle engines with and without oil injection.



Applications include:

- Outboards, snowmobiles, motorcycles, lawn mowers, snow blowers, and others.

Solvent treated for easy mixing and dyed for identification in gasoline. Meets NMMA TC-W3[®]. Also suitable for TC[®], TC-W[®] and TC-WII[®].

Typical Properties

Color	Green
Gravity, °API	30.1
Viscosity, cSt@ 40° C	44.4
cSt @ 100° C	8.3
Viscosity Index	185
Flash Point, °C	95
Pour Point, °C Max	-46

Available in: Bulk Transport/55 Gallon/1 Quart



MAG 1® SAE 30 MOTOR OIL

CONVENTIONAL MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1® SAE 30W Motor Oil is formulated for older vehicles and/or high-temperature climates, if thicker oil is preferred.

- Reduced friction for excellent protection against engine wear.
- High resistance to viscosity and thermal breakdown.

MAG 1® SAE 30 MOTOR OIL FEATURING **EVOLUTIONARY PERFORMANCE™**

MAG 1® with FMX™ Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

- Outstanding control of friction and wear.

STRENGTH

- Provides a strong oil film to protect rotating engine parts, even under extreme stress conditions.

DURABILITY

- Stands up to the heat and shearing so it extends oil life.

APPLICATIONS

- Formulated to meet all API, SN, SM, and SL requirements.

INDUSTRY/OEM SPECIFICATIONS

	Approved
	Approved
	Meets Requirements
	Meets Requirements
	Meets Requirements

TYPICAL PROPERTIES

ASTM D5185	0.018
ASTM D5185	0.132
ASTM D1500	3
ASTM D92	210
ASTM D92	410
ASTM D892 (Opt. A)	0/0
ASTM D892 (Opt. A)	0/0
ASTM D892 (Opt. A)	0/0
ASTM D287	29.85
ASTM D6082 (Opt A)	10/0
ASTM D5481	3.38
ASTM D5185	0.043
ASTM D5185	0.004
ASTM D4629	0.086
ASTM D6375	6.1
ASTM D5185	0.077
ASTM D5950	-33°C (-27°F)
ASTM D4052	0.877
ASTM D874	0.92
ASTM D4951	0.3
ASTM D2896	7.0
ASTM D445	10.94
ASTM D445	87.96
ASTM D2270	110
ASTM D5185	0.085

4/5/2019

<https://mag1.com/products/49/pds/>

CONTAINER/BULK AVAILABILITY

Product Number - 64877

Product Number - 00402

Product Number - 61646

Available in Bulk

Information accurate as of April 4, 2019

MAG 1® PREMIUM CONVENTIONAL 15W-40 CK-4 HEAVY DUTY DIESEL ENGINE OIL

PREMIUM CONVENTIONAL HEAVY DUTY DIESEL ENGINE OIL HEAVY DUTY ENGINE OIL



Featuring MAG 1® with FMX® Technology – Friction Management for Xtreme protection™. Delivers unsurpassed protection when thicker oil is preferred or recommended by the OEM.

MAG 1® Premium Conventional 15W-40 CK-4 is technologically advanced heavy duty diesel engine oil that provides outstanding performance, including the following benefits:

- Recommended for use in a wide range of heavy-duty applications and operating environments found on and off highway, including engines operating under heavy loads.
- Meets or exceeds the requirements of OEMs.
- Backward compatible with diesel engines in which the API CJ-4, CI-4, CI-4 Plus and CH-4 service categories are recommended.

ENGINEERING AND INNOVATION FOR EXTRA PROTECTION

MAG 1® with FMX® Technology provides unsurpassed protection in every viscosity. FMX Technology creates a strong, durable and high-performing level of protection that controls friction and reduces metal-to-metal contact.

Our advanced oil technology actually improves oil properties over time, retaining viscosity, friction and anti-wear benefits, even in today's hotter engines. This is exactly the kind of protection called for in today's engines that deliver greater horsepower and better fuel economy.

PREMIUM CONVENTIONAL HEAVY DUTY DIESEL ENGINE OIL FEATURING FMX® TECHNOLOGY AND EVOLUTIONARY PERFORMANCE™

The latest MAG 1 Heavy Duty Diesel Engine Oils are specially engineered and formulated to provide:

PERFORMANCE

Unsurpassed protection.

- **FMX Technology.** Provides unsurpassed protection and performance.

STRENGTH

Up to 53% better wear protection.¹

- **Enhanced friction reduction.** MAG 1 provides a very strong oil film to prevent metal-to-metal contact between rotating parts, delivering up to 53% better wear protection.²
- **Unsurpassed wear protection.** The latest generation API CK-4 MAG 1 engine oils provide increased protection against harmful engine and bearing wear due to cavitation, because they improve oil aeration.

DURABILITY

Up to 83% better oxidation control.¹

Up to 63% better deposit control.¹

- **Better oxidation and deposit control.** FMX Technology stands up to high heat and stress to protect as well on the last day as it does on the first day. Up to 83% better oxidation control and 63% better deposit control.³
- **Formulated with higher starting TBN (10).** Provides added oxidation control and protection against acid buildup that can cause rust and corrosion.

¹ Compared to new limits of API CK-4 requirements.

² To measure friction reduction benefits, engineers used the ball-on-disk traction test.

³ Compared to new limits of API CK-4 requirements.

APPLICATIONS

- For naturally aspirated and turbocharged four-stroke diesel engines in which the API CK-4 service category is recommended.
- It is backward compatible for CJ-4 and older API service categories.
- Approved by or meets requirements of major OEMs such as Cummins, Detroit Diesel, Mack/Volvo, Paccar, Navistar, Caterpillar, and others.

INDUSTRY/OEM SPECIFICATIONS

API CK-4	Approved
API SN	Approved
Cummins 20086	Approved
Detroit Diesel 83K222	Approved
Ford WSS-M2C171-F1	Approved
Mack EDS-4.5	Approved
Renault RLD-4	Approved
Volvo VDS-4.5	Approved
ACEA E9, E7, E4, E2	Meets Requirements
API CI-4 Plus, CI-4, CH-4, CG-4, CF-2, CF	Meets Requirements

API CJ-4	Meets Requirements
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
CAT ECF-3, ECF-2, ECF-1-a	Meets Requirements
Chrysler/Fiat MS-10802	Meets Requirements
CID A-A-52306, MIL-PRF-2104G	Meets Requirements
Cummins CES 20081, 20077, 20076	Meets Requirements
Detroit Diesel 93K218, 93K215, 93K214	Meets Requirements
Ford WSS-M2C171-E	Meets Requirements
Global DHD-1	Meets Requirements
JASO DH-2	Meets Requirements
Mack EO-O Premium Plus, EO-N Premium Plus 03, EO-M Plus, and prior	Meets Requirements
MAN 3275, 270	Meets Requirements
MAN 3575	Meets Requirements
MB 228.3, 228.31	Meets Requirements
MTU 2.1	Meets Requirements
MTU Type I, Type II	Meets Requirements
Volvo VDS-4, 3, 2	Meets Requirements
CAT TO-2	Suitable for use
Allison C-4	Suitable for Use

TYPICAL PROPERTIES

Calcium, wt. %	ASTM D5185	0.105
Cold Cranking Simulator at (°C), cP	ASTM D5293	5832 (-20)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	224
Flash Point °F	ASTM D92	435
Gravity, °API	ASTM D267	30.10
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	4.2
Magnesium, wt. %	ASTM D5185	0.1
Molybdenum, wt. %	ASTM D5185	0.0088
Nitrogen, wt. %	ASTM D4629	0.105
Noack Volatility, % loss	ASTM D6375	10
Phosphorus, wt. %	ASTM D5185	0.115
Pour Point °C (°F)	ASTM D5950	-36°C (-33°F)
Pumping Viscosity at (°C), cP	ASTM D4684	20,000 (-25)
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8758
Sulfated Ash, wt. %	ASTM D874	0.99
Sulfur, wt. %	ASTM D4951	0.32
TBN, mgKOH/g	ASTM D2896	10
Total Acid Number, mgKOH/g	ASTM D664	2.9
Viscosity @ 100°C cSt	ASTM D445	15.56
Viscosity @ 40°C cSt	ASTM D445	116.2
Viscosity Index	ASTM D2270	141
Zinc, wt. %	ASTM D5185	0.127

CONTAINER/BULK AVAILABILITY

5 Gallon Pail	Product Number - 67980
6/1 Quart - Not for sale in US	Product Number - 69081
5 Gallon Pail - Not for sale in US	Product Number - 64257
2/2.5 Gallon	Product Number - 61170
6 Gallon Enviro Box*	Product Number - 69280
3/1 Gallon	Product Number - 62631
330 Gallon Tote	Product Number - 67985
55 Gallon Drum	Product Number - 67983
3/1 Gallon - Not for sale in US	Product Number - 64255
6/1 Quart	Product Number - 61658
3/4 Liter	Product Number - 63583

Available in Bulk

Information accurate as of April 4, 2019



PRODUCT DATA SHEET

Compass Heavy Duty Diesel Motor Oil

COMPASS HEAVY DUTY DIESEL MOTOR OIL is a synthetic blend engine oil formulated to provide reliable protection and uses "Low-SAPS" additive technology to protect in modern, low-emission engines. Compass HD Diesel Motor Oil has been de-signed to meet API CK-4 specification and provide performance in both on-highway and off-highway equipment. Back-wards compatibility for older equipment requiring API CJ-4, CI-4 Plus, CI-4 or CH4 diesel engine oil. The low ash for-mulation helps protect the exhaust catalyst and particulate filters found on the latest low emission vehicles. Compass HD Diesel Motor Oil has been formulated to meet the most recent API CK-4 specifications. This specification requires proven performance in key test around oxidation control, aeration control, and shear stability.

Applications

- API Service CK-4, CJ-4, CI-4 PLUS, SN (SAE 15W-40 only)
- ACEA E9
- Caterpillar, ECF-3, ECF-2
- Cummins CES 20086
- Detroit Diesel DFS 93K222, 93K222, 93k218
- Mack EOS 4.5, EO-O Premium Plus
- Mercedes-Benz Sheet 228.31 (SAE 15W-40)
- MTU MTL 5044 Type 2.1 (SAE 15W-40)
- Renault VI RLD-4
- Volvo VDS-4.5
- Ford WSS-M2C171-F1
- Chrysler MS-10902 (SAE 15W-40)
- Diesel engines manufactured by OEMs not listed above, where the OEM specifies API CK-4 engine oil

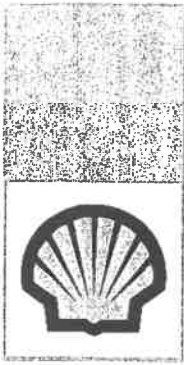
Features/Benefits

- Excellent protection for newer low-emission diesel engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment systems
- Protects against particulate filter plugging
- Excellent soot control for protection against abrasive wear and soot-induced oil thickening
- Excellent resistance to viscosity and thermal breakdown at high temperatures
- Protects against sludge and varnish formation



PRODUCT DATA SHEET
Compass Heavy Duty Diesel Motor Oil

Typical Characteristics:	
	15W-40
API Service	CK-4/SN
Kinematic Viscosity	
cSt @ 40°C	115.6
cSt @ 100°C	15.3
Viscosity Index	138
CCS Viscosity	
Flash Point, °C	237
Pour Point, °C	-36
Total Base Number, ASTM D2896	10
Sulfated Ash, wt%	1.0
Zinc wt %	0.125
Phosphorus wt %	0.1116
Density, lbs/gal @ 60° F	7.32



SHELL ROTELLA® T5 ULTRA 10W-30

ALL THE HARD WORK YOU EXPECT, ONLY BETTER

The next generation of heavy duty diesel engine oils is here. Engine manufacturers sought a new diesel engine oil that would provide improved fuel economy over existing oils. The API FA-4 performance standard requires the oil to be blended to a thinner viscosity, which helps improve fuel economy and lower emissions*. Shell ROTELLA® T5 Ultra 10W-30 meets and exceeds the new performance standard without sacrificing engine protection.

* Compared to CK-4 heavy duty engine oils

Main Applications



Shell ROTELLA® T5 Ultra 10W-30 is suitable for use in 2017 as well as some late model engines **allowing** an API FA-4 diesel oil in this viscosity. Some engine manufacturers do not yet approve the use of API FA-4 engine oils, while some allow limited backwards compatibility to earlier model year engines. Check with your original equipment manufacturer regarding the use of API FA-4 diesel oil.

About Triple Protection Plus™

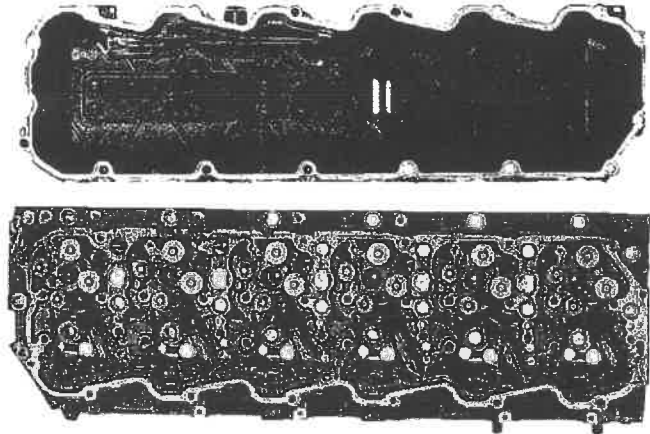
Hardworking diesel engines need a heavy-duty oil that works just as hard. Shell ROTELLA® T5 Ultra 10W-30 with Triple Protection Plus™ technology is designed to provide modern diesel engines with hardworking protection that adapts to virtually any driving condition. Triple Protection Plus™ is the unique combination of Triple Protection® - advanced additive technology and synthetic base oils. Triple Protection Plus™ represents protection against wear, deposits, oil breakdown plus better fuel economy performance. This unique combination helps to deliver excellent equipment protection, long engine life and maintain viscosity control under high temperatures.



Delivers savings without compromising protection

Shell ROTELLA® T5 Ultra 10W-30 with Triple Protection Plus™ provides enhanced fuel savings compared to a conventional SAE 15W-40 oil. It can help you save on fuel but without sacrificing wear protection. Wear protection is critical to prolonging engine life and Shell ROTELLA® T5 Ultra 10W-30 delivers an average result across all the API FA-4 and OEM tests that is 32.5% of the respective limit. So customers can expect excellent wear protection while saving on fuel.

Shell Lubricants goes beyond the lab to test products in the field where they will actually be used by our customers. Field trials further demonstrated the excellent deposit control seen in the lab.



These pictures are from a Cummins ISX engine with 460,913 miles running Shell ROTELLA® T5 Ultra 10W-30. The valve deck received a rating of 9.72 and the Rocker Cover a rating of 9.74 with 10 being clean.

Shell ROTELLA

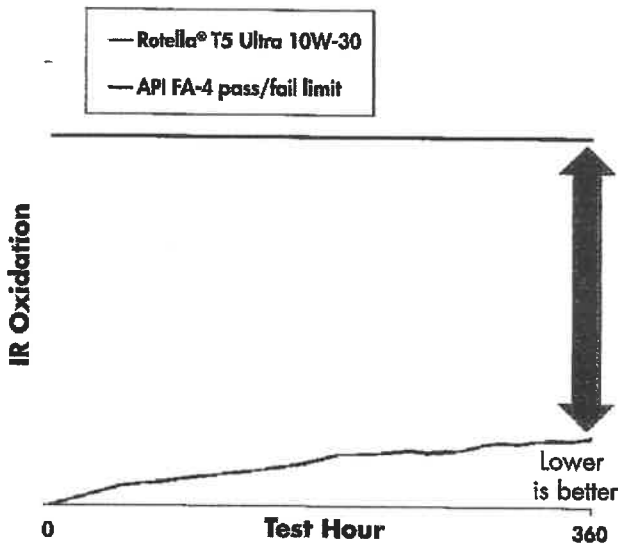
The Engine Oil That Works As Hard As You.

ADDITIONAL SHELL ROTELLA® T5 ULTRA PERFORMANCE, FEATURES AND BENEFITS:

Oxidation Protection

Shell ROTELLA® T5 Ultra 10W-30 performs outstanding in API and OEM oxidation tests: resisting oxidative thickening, delivering results that far exceed the maximum allowable thickening. This demonstrates the ability to control harmful acid buildup which can cause corrosive wear in the engine. In addition, strong oxidation protection means better viscosity control, which helps maintain fuel economy. If the oil is not thickening up, then the fuel economy performance will be better maintained throughout the oil drain. It also helps prevent deposits in the engine and maintain engine cleanliness, which can prolong engine life.

Volvo T13 IR Peak Height



Exceptional oil consumption control

Shell ROTELLA® T5 Ultra 10W-30 with Triple Protection Plus™ has been formulated to minimize and control oil consumption and help reduce the need for oil top off.

Low emissions for 2017 and beyond

Shell's exclusive ROTELLA® T5 Ultra low ash formulation helps protect the exhaust catalysts and particulate filters found on 2017 and beyond on-highway low emission vehicles. It meets the requirements of all of the major U.S. and European engine manufacturers for low emission applications requiring an API FA-4 quality diesel oil.

Our Complementary Range

In addition to a full range of Shell ROTELLA® heavy duty engine oils, Shell Lubricants offers a complete portfolio of lubricants for every part of your equipment, including Shell SPIRAX® gear/axle oils and transmission fluids, Shell GADUS® greases, Shell ROTELLA® ELC Extended Life Coolant/Antifreeze, and Shell HD Antifreeze/Coolant.

For more information, contact your local Shell Lubricants Representative or visit www.rotella.com or www.shell.ca/rotella in Canada

OEM SPECIFICATIONS AND APPROVALS

SAE 10W-30

API FA-4
Cummins CES 20087
Detroit Diesel Fluid Specification (DFS) 93K223

PRODUCT MATERIAL CODE & PACKAGE SIZE

PRODUCT	3 * 1 GALLON JUG/3 * 5 LITRE JUG	55 GALLON DRUM	BULK
US	550046254	550046249	500010121
Canada	550046250	550046249	500010121

The term 'Shell Lubricants' collectively refers to individual Shell Group companies engaged in the lubricants business throughout the world. These are separate and distinct entities. The collective expressions 'Shell' and 'Shell Lubricants' may be used herein for convenience where reference is made in general to those companies or where no useful purpose is served by identifying any particular company or companies.



PRODUCT DATA SHEET
Compass Heavy Duty Motor Oil

COMPASS HDMOs are SAE Single-Grade crankcase oils formulated for diesel and gasoline engines. These oils are blended from selected and highly refined base stocks. They are compounded with detergents, dispersants, wear control elements, anti-oxidants, corrosion inhibitors, and a foam suppressant additive.

Recommended for all major automotive diesel and four-cycle gasoline engines in all services and under all operating conditions. SAE grades 30, 40, and 50 meet former API Service Classifications CF, CF-2. SAE Grades 10W and 20W meet former API Service Classification CF. All comply with obsolete API classifications CD, CD-II, CE. These products meet the performance requirements of MIL-PRF-2104G (SAE 10W, 30, 40), MIL-L-46152D and conform to all major automobile manufacturers' and automotive/truck diesel engine builders' requirements, including Caterpillar, Cummins, Detroit Diesel-Allison, and Mack Truck. SAE 10W thru SAE 30 meet the Allison Type C-3, C-4 transmission performance requirements recommended for hydraulic systems.

[Do not use in EMD Diesel Engines (railroad, marine) which requires oil with <10 ppm zinc content].

Typical Characteristics:		
	10	30
Specific Gravity @ 15.6°C (60°F)	27.9	26.5
Viscosity		
cSt @ 40°C	42	114
cSt @ 100°C	6.5	11.8
SUS @100°F	210	560
SUS @210°F	48	65
Viscosity Index	+90	+90
Flash Point, °F	+400	+435
Pour Point, °F	-25	-5
TBN-E, Neut. No.	7.5	7.5
Ash %wt.-Sulfated	<1.0	<1.0
Zinc Content, ppm	<10	

Note: Values shown above are representative of current production and may vary within modest ranges.

MAG 1® FULL SYNTHETIC 0W-20 MOTOR OIL

FULL SYNTHETIC MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1 Full Synthetic 0W-20 Motor Oil is our purest and most advanced formulation for the best fuel mileage performance. It delivers unsurpassed protection and performance, including the following benefits:

- MAG 1 Full Synthetic 0W-20 Motor Oil meet or exceed GM dexos1™ Gen 2 specifications for worldwide warranty requirements for all GM automotive gasoline engines currently in use. The oils are fully licensed by GM.
- Engineered to improve fuel mileage and to maximize horsepower and acceleration.
- Longer and better engine protection than conventional oils due to strong and uniform synthetic base oils and advanced molecules that provide a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Created for extreme hot and cold driving conditions: stop and go, frequent short trips, heavy loads and dusty conditions.
- Meets or exceeds dexos1™ Gen 2, API SN Plus and ILSAC GF-5 requirements.

FORMULATED FOR TODAY'S ENGINE DESIGNS

OEMs continue to evolve engine designs that demand more from motor oil. One brand has evolved right alongside – MAG 1®. It provides unsurpassed protection, even in our lightest viscosities. Protects better than the thick oils of the past.

UNSURPASSED PROTECTION, EVEN IN THE LIGHTEST VISCOSITY

MAG 1® with FMX® Technology provides unsurpassed protection in every viscosity. Even our lowest viscosity oils protect better than thick oils of the past. Our advanced oil chemistry actually improves oil properties through time, retaining viscosity, friction and anti-wear benefits, in spite of severe engine temperatures.

FULL SYNTHETIC MOTOR OIL FEATURING *EVOLUTIONARY PERFORMANCE™*

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear more than 80% better than the latest API requirements.¹

- Improved fuel economy. Reduces fuel costs without sacrificing engine protection and performance. Also improves acceleration.
- Extended oil drain intervals.
- Engineered to handle the most extreme conditions.
- 100% pure synthetic oils. Contains uniform molecules that provide the best, longest-lasting engine protection and performance.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Unsurpassed wear protection. Advanced molecules bond together to avoid metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.²

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Stands up to the heat and shearing so it extends oil life.

¹ Based on Sequence IV Wear test.

² To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Gasoline-fueled and flex-fuel passenger cars, light trucks and sport utility vehicles, including gasoline-electric hybrids, especially when operating under severe conditions.
- Formulated to protect turbochargers and emission control system catalysts.
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85.

INDUSTRY/OEM SPECIFICATIONS

API SN	Approved
API SN Plus	Approved
dexos1® Gen2	Approved
ILSAC GF-5	Approved
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
Chrysler MS-6325	Meets Requirements
GM 4718M	Meets Requirements
GM 6094M	Meets Requirements
ILSAC GF-4	Meets Requirements

TYPICAL PROPERTIES

Boron, wt. %	ASTM D5185	0.023
Calcium, wt. %	ASTM D5185	0.135
Cold Cranking Simulator at (°C), cP	ASTM D5283	5800 (-35)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	226
Flash Point °F	ASTM D92	439
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	5/0
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Gravity, °API	ASTM D287	35.66
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6616	5.76
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	2.7
Magnesium, wt. %	ASTM D5185	0.059
Molybdenum, wt. %	ASTM D5185	0.0079
Nitrogen, wt. %	ASTM D4629	0.104
Noack Volatility, % loss	ASTM D6375	13
Phosphorus, wt. %	ASTM D5185	0.076
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	21,000 (-40)
Shear Stability, Final Viscosity in cSt	ASTM D6278	7.5
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8465
Sulfated Ash, wt. %	ASTM D874	0.9
Sulfur, wt. %	ASTM D4951	0.3
TBN, mgKOH/g	ASTM D2896	7.9
Viscosity @ 100°C cSt	ASTM D446	8.475
Viscosity @ 40°C cSt	ASTM D445	44.59
Viscosity Index	ASTM D2270	170
Zinc, wt. %	ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

330 Gallon Tote	Product Number - 65832
55 Gallon Drum	Product Number - 65830
6 Gallon Enviro Box®	Product Number - 66077
3/5 Quart	Product Number - 65828
5/1 Quart	Product Number - 61794

Available in Bulk

Information accurate as of April 4, 2019

MAG 1® SYNTHETIC BLEND 5W-20 MOTOR OIL

SYNTHETIC BLEND MOTOR OIL PASSENGER CAR MOTOR OIL



OEMs continue to evolve engine designs that demand more from motor oil. One brand has evolved right alongside – MAG 1®.

Synthetic Blend 5W-20 Motor Oil provides extra protection and peace of mind, compared with conventional oil. It provides unsurpassed protection, even in our lightest viscosities. Protects better than the thick oils of the past.

- MAG 1 resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Meets or exceeds U.S. and import car and light truck warranty requirements for most automotive gasoline engines currently in use.

SYNTHETIC BLEND MOTOR OIL FEATURING *EVOLUTIONARY PERFORMANCE™*

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear more than 85% better than the latest API requirements.¹

- Engineered to handle the most severe or extreme conditions.
- Provides extra protection, compared to conventional oil.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Unsurpassed wear protection. Advanced molecules bond together to prevent metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.²

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Better oxidation and deposit control. New engine design strategies for some OEMs result in higher operating temperatures and the need for greater protection.
- Retains viscosity and prevents thermal breakdown. The oil excels even in the harshest conditions.

¹ As measured against the Sequence IV Average Cam Wear Limit for API SN.

² To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Provides extra performance benefits for passenger cars, light trucks and sport utility vehicles; plus new and rebuilt engines.
- Formulated to exceed ILSAC GF-5 performance requirements.

INDUSTRY/OEM SPECIFICATIONS

API SN	Approved
API SN Plus	Approved
ILSAC GF-5	Approved
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
Chrysler MS-10797	Meets Requirements
Chrysler MS-6395	Meets Requirements
Ford WSS M2C945-A, M2C930-A, M2C153	Meets Requirements
GM 6094M	Meets Requirements
ILSAC GF-4	Meets Requirements

TYPICAL PROPERTIES

Boron, wt. %	ASTM D5185	0.018
Calcium, wt. %	ASTM D5185	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	5850 (-30)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	206
Flash Point °F	ASTM D92	403
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Gravity, °API	ASTM D287	33.40

High Temperature Foaming, static foam	ASTM D6082 (Opt A)	30/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6616	6.01
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	2.72
Magnesium, wt. %	ASTM D5185	0.043
Molybdenum, wt. %	ASTM D5185	0.004
Nitrogen, wt. %	ASTM D4629	0.086
Noack Volatility, % loss	ASTM D6375	14.8
Phosphorus, wt. %	ASTM D5185	0.077
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	23,600 (-35)
Shear Stability, Final Viscosity in cSt	ASTM D6278	7.31
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8581
Sulfated Ash, wt. %	ASTM D874	0.92
Sulfur, wt. %	ASTM D4951	0.3
TBN, mgKOH/g	ASTM D2896	7.0
Viscosity @ 100°C cSt	ASTM D445	9.012
Viscosity @ 40°C cSt	ASTM D445	52.43
Viscosity Index	ASTM D2270	153
Zinc, wt. %	ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

330 Gallon Tote	Product Number - 65579
55 Gallon Drum	Product Number - 62909
6 Gallon Enviro Box®	Product Number - 65666
3/5 Quart	Product Number - 62941
6/1 Quart	Product Number - 62943

Available in Bulk

Information accurate as of April 4, 2019



PRODUCT DATA SHEET

Compass Synthetic Dexos1 Motor Oil

COMPASS SYNTHETIC DEXOS1™ MOTOR OILS is formulated with select synthetic base oils and a state-of-the-art additive system to deliver trusted engine protection and peak vehicle performance. Synthetic dexos® Motor Oil provides added resistance to sludge formation and varnish deposits during stop-and-go driving and maintains outstanding wear protection under severe driving conditions.

COMPASS SYNTHETIC DEXOS® MOTOR OIL is available in SAE grades 0W-20 and 5W-30 and exceeds new car warranty requirements as defined by ILSAC standard GF-6A, API classification Resource Conserving SP and approved and licensed for General Motors dexos1™ Gen 2 specification.

PERFORMANCE BENEFITS

- Special chemistry minimizes low speed pre-ignition (LSPI)
- Excellent wear protection for critical engine components
- Ultimate low-temperature engine protection and performance
- Maintains maximum engine protection under severe operating conditions
- Protects vehicle emission systems
- Delivers optimum fuel economy

Typical Characteristics:		
	0W-20	5W-30
API Service	SP	SP
ILSAC	GF-6A	GF-6A
General Motors Performance	dexos1™	dexos1™
Kinematic Viscosity		
cSt @ 40°C	44.8	63.9
cSt @ 100°C	8.4	11.0
Viscosity Index	169	167
CCS Viscosity		
cP @ -30°C	5600	4900
Evaporative Loss, NOACK, wt%	<13	<13
Specific Gravity @ 15.6°C (60°F)	0.846	0.849
Flash Point, °C	230	232
Pour Point, °C	-42	-39
Total Base Number (TBN)	8.5	8.5
Sulfated Ash, wt%	0.90	0.90

PRODUCT APPLICATION

Recommended for turbo-charged or naturally aspirated gasoline-powered and flex-fuel passenger cars, hybrid vehicles, light-trucks and sport utility vehicles and fleets requiring:

ILSAC GF-6A & API Service Category Resource Conserving SP (API License number 3233)
 Chrysler; MS-6395 (Revision S)
 Ford WSS-M2C946B-1 (5W-30)
 General Motors dexos1™ Gen 2 (License numbers 0W-20 D10645HI161 & 5W-30 D10646HI161)
 Backward compatible and supersedes General Motors GM-LL-A-025, GM4718M & GM6094M (obsolete)

Note: Values shown above are representative of current production and may vary within modest ranges.



PRODUCT DATA SHEET

Compass Synthetic Blend Motor Oil

COMPASS SYNTHETIC BLEND MOTOR OILS are designed for professionals and for protection. They are formulated with Group II+ base oils and advanced additives to meet the latest API Service Category (API SP) and ILSAC Specification (GF-6). In addition to being backwards compatible (SN Plus and SN), they meet or exceed the latest demands of gasoline and propane engine cars and light duty trucks.

Professionals use COMPASS for engine cleanliness, protection against sludge, and oxidation control.

Typical Characteristics:			
	5W-20	5W-30	10W-30
API Service	SP	SP	SP
ILSAC	GF-6A	GF-6A	GF-6A
Kinematic Viscosity			
cSt @ 40°C	51.6	65.4	65.4
cSt @ 100°C	8.7	10.8	10.0
Viscosity Index	147	156	142
CCS Viscosity			
cP @ -30°C	6100	6100	-
cP @ -25°C	-	-	5500
Evaporative Loss, NOACK, wt%	<15	<15	<15
Specific Gravity @ 15.6°C (60°F)	0.856	0.856	0.860
Flash Point, °C	236	234	242
Pour Point, °C	-42	-42	-39
Color (ASTM)	3.5	3.5	3.5
Sulfated Ash, wt%	0.8	0.8	0.8

Note: Values shown above are representative of current production and may vary within modest ranges.

MAG 1® SYNTHETIC BLEND 5W-30 MOTOR OIL

SYNTHETIC BLEND MOTOR OIL PASSENGER CAR MOTOR OIL



OEMs continue to evolve engine designs that demand more from motor oil. One brand has evolved right alongside – MAG 1®.

Synthetic Blend 5W-30 Motor Oil provides extra protection and peace of mind, compared with conventional oil. It provides unsurpassed protection, even in our lightest viscosities. Protects better than the thick oils of the past.

- Resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Meets or exceeds U.S. and import car and light truck warranty requirements for all automotive gasoline engines currently in use.

SYNTHETIC BLEND MOTOR OIL FEATURING **EVOLUTIONARY PERFORMANCE™**

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear more than 85% better than the latest API requirements.¹

- Engineered to handle the most severe or extreme conditions.
- Provides extra protection, compared to conventional oil.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Unsurpassed wear protection. Advanced molecules bond together to prevent metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.²

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Better oxidation and deposit control. New engine design strategies for some OEMs result in higher operating temperatures and the need for greater protection.
- Retains viscosity and prevents thermal breakdown. The oil excels even in the harshest conditions.

¹ As measured against the Sequence IV Average Cam Wear Limit for API SN.

² To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Provides extra performance benefits for passenger cars, light trucks and sport utility vehicles; plus new and rebuilt engines.
- Formulated to exceed ILSAC GF-5 performance requirements.

INDUSTRY/OEM SPECIFICATIONS

API SN	Approved
API SN Plus	Approved
ILSAC GF-5	Approved
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
Chrysler MS-6395	Meets Requirements
Ford WSS M2C94G-A, M2C929-A	Meets Requirements
GM 6094M	Meets Requirements
ILSAC GF-4	Meets Requirements

TYPICAL PROPERTIES

Boron, wt. %	ASTM D5185	0.018
Calcium, wt. %	ASTM D5185	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	6119 (-30)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	215
Flash Point °F	ASTM D92	419
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Gravity, °API	ASTM D287	33.32

High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6616	6.94
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.14
Magnesium, wt. %	ASTM D5185	0.043
Molybdenum, wt. %	ASTM D5185	0.004
Nitrogen, wt. %	ASTM D4629	0.088
Noack Volatility, % loss	ASTM D6375	14.2
Phosphorus, wt. %	ASTM D5185	0.077
Pour Point °C (°F)	ASTM D6950	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	28,400 (-35)
Shear Stability, Final Viscosity in cSt	ASTM D6278	8.5
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8585
Sulfated Ash, wt. %	ASTM D874	0.92
Sulfur, wt. %	ASTM D4951	0.3
TBN, mgKOH/g	ASTM D2896	7.0
Viscosity @ 100°C cSt	ASTM D445	11.11
Viscosity @ 40°C cSt	ASTM D445	66.92
Viscosity Index	ASTM D2270	159
Zinc, wt. %	ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

330 Gallon Tote	Product Number - 65580
35 Gallon Drum	Product Number - 60181
6 Gallon Enviro Box®	Product Number - 65867
3/5 Quart	Product Number - 62937
6/1 Quart	Product Number - 61652

Available in Bulk

Information accurate as of April 4, 2019

MAG 1® FULL SYNTHETIC 5W-30 MOTOR OIL

FULL SYNTHETIC MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1® Full Synthetic 5W-30 Motor Oil is our purest and most advanced formulation. It delivers unsurpassed protection and performance, including the following benefits:

- MAG 1® Full Synthetic 5W-30 Motor Oil meet or exceed GM dexos1™ Gen 2 specifications for worldwide warranty requirements for all GM automotive gasoline engines currently in use. The oils are fully licensed by GM.
- Engineered to improve fuel mileage and to maximize horsepower and acceleration.
- Longer and better engine protection than conventional oils due to strong and uniform synthetic base oils and advanced molecules that provide a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Created for extreme hot and cold driving conditions: stop and go, frequent short trips, heavy loads and dusty conditions.
- Meets or exceeds API, SN Plus and ILSAC GF-5 requirements

FORMULATED FOR TODAY'S ENGINE DESIGNS

OEMs continue to evolve engine designs that demand more from motor oil. One brand has evolved right alongside – MAG 1®. It provides unsurpassed protection, even in our lightest viscosities. Protects better than the thick oils of the past.

UNSURPASSED PROTECTION, EVEN IN THE LIGHTEST VISCOSITY

MAG 1® with FMX® Technology provides unsurpassed protection in every viscosity. Even our lowest viscosity oils protect better than thick oils of the past. Our advanced oil chemistry actually improves oil properties through time, retaining viscosity, friction and anti-wear benefits, in spite of severe engine temperatures.

FULL SYNTHETIC MOTOR OIL FEATURING **EVOLUTIONARY PERFORMANCE™**

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear more than 80% better than the latest API requirements.¹

- Improved fuel economy. Reduces fuel costs without sacrificing engine protection and performance. Also improves acceleration.
- Extended oil drain intervals.
- Engineered to handle the most extreme conditions.
- 100% pure synthetic oils. Contains uniform molecules that provide the best, longest-lasting engine protection and performance.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Unsurpassed wear protection. Advanced molecules bond together to avoid metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.²

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Stands up to the heat and shearing so it extends oil life.

¹ Based on Sequence IV Wear test.

² To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Gasoline-fueled and flex-fuel passenger cars, light trucks and sport utility vehicles, including gasoline-electric hybrids, especially when operating under severe conditions.
- Formulated to protect turbochargers and emission control system catalysts.
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85.

INDUSTRY/OEM SPECIFICATIONS

API SN	Approved
API SN Plus	Approved
dexos1® Gen2	Approved
ILSAC GF-5	Approved
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
Chrysler MS-6395	Meets Requirements
Ford WSS M2C946-A, M2C929-A	Meets Requirements
GM 4718M	Meets Requirements
GM 6094M	Meets Requirements
ILSAC GF-4	Meets Requirements

TYPICAL PROPERTIES

Barium, wt. %	ASTM D5185	0.023
Calcium, wt. %	ASTM D5185	0.135
Cold Cranking Simulator at (°C), cP	ASTM D5293	4400 (-30)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	227
Flash Point °F	ASTM D92	441
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	10/0
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Gravity, °API	ASTM D287	34.93
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	15/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6616	6.9
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.2
Magnesium, wt. %	ASTM D5185	0.059
Molybdenum, wt. %	ASTM D5185	0.0079
Nitrogen, wt. %	ASTM D4629	0.104
Noack Volatility, % loss	ASTM D6375	12
Phosphorus, wt. %	ASTM D5185	0.076
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	15,000 (-35)
Shear Stability, Final Viscosity in cSt	ASTM D6278	9.4
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8502
Sulfated Ash, wt. %	ASTM D874	0.9
Sulfur, wt. %	ASTM D4951	0.3
TBN, mgKOH/g	ASTM D2896	7.9
Viscosity @ 100°C cSt	ASTM D445	10.91
Viscosity @ 40°C cSt	ASTM D445	62.09
Viscosity Index	ASTM D2270	169
Zinc, wt. %	ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

3/4 Liter	Product Number - 67936
3/1 Gallon	Product Number - 69146
6/1 Quart	Product Number - 61790
339 Gallon Tote	Product Number - 65476
65 Gallon Drum	Product Number - 64876
6 Gallon Enviro Box®	Product Number - 65446
3/5 Quart	Product Number - 64193

Available in Bulk

Information accurate as of April 4, 2019

MAG 1® CONVENTIONAL 10W-30 MOTOR OIL

CONVENTIONAL MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1® Conventional 10W-30 Motor Oil is formulated for older vehicles and/or high-temperature climates, if thicker oil is preferred. It also delivers the following benefits:

- Resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.

CONVENTIONAL MOTOR OIL FEATURING *EVOLUTIONARY PERFORMANCE™*

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear.

- Engineered to handle the most severe or extreme environmental conditions and engine stress.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Excellent wear protection. Advanced molecules bond together to prevent metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.¹

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Excellent oxidation and deposit control.
- Retains viscosity and prevents thermal breakdown. The oil excels even in the harshest conditions.

¹ To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Provides performance benefits for passenger cars, light trucks and sport utility vehicles; plus new and rebuilt engines.
- Formulated to exceed ILSAC GF-5 performance requirements.

INDUSTRY/OEM SPECIFICATIONS

API SN	Approved
API SN Plus	Approved
ILSAC GF-5	Approved
API S1, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
Chrysler MS-6395	Meets Requirements
GM 6094M	Meets Requirements
ILSAC GF-4	Meets Requirements

TYPICAL PROPERTIES

Boron, wt. %	ASTM D5185	0.018
Calcium, wt. %	ASTM D5185	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	4000 (-25)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	206
Flash Point °F	ASTM D92	403
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Gravity, °API	ASTM D287	32.37
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6816	7.04
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.08
Magnesium, wt. %	ASTM D5185	0.043
Molybdenum, wt. %	ASTM D5185	0.004
Nitrogen, wt. %	ASTM D4829	0.086

Noack Volatility, % loss	ASTM D6375	14.5
Phosphorus, wt. %	ASTM D5185	0.077
Pour Point °C (°F)	ASTM D5950	-42°C (-44°F)
Pumping Viscosity at 1°C, cP	ASTM D4684	15,900 (-30)
Shear Stability, Final Viscosity in cSt	ASTM D6278	8.54
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8635
Sulfated Ash, wt. %	ASTM D874	0.92
Sulfur, wt. %	ASTM D4851	0.3
TBN, mgKOH/g	ASTM D2896	7.0
Viscosity @ 100°C cSt	ASTM D445	10.35
Viscosity @ 40°C cSt	ASTM D445	63.85
Viscosity Index	ASTM D2270	150
Zinc, wt. %	ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

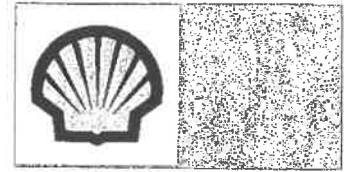
55 Gallon Drum	Product Number - 62848
5 Gallon Pail	Product Number - 00504
2/2.5 Gallon	Product Number - 00502
3/5 Quart	Product Number - 62939
3/1 Gallon - Not for sale in US	Product Number - 64153
6/1 Quart	Product Number - 61648

Available in Bulk

Information accurate as of April 4, 2019



SHELL ROTELLA® T4 Triple Protection® 10W-30



Triple Protection® technology against wear, deposits and oil breakdown

Main applications



Suitable for all on/off highway engines requiring an API CK-4, CJ-4, CI-4 Plus, CI-4 or CH-4 diesel oil in this viscosity.

About Triple Protection®

Today's demands on your engine are greater. And that demands a harder working oil, designed to deliver protection and performance under the most severe engine conditions in modern, low-emission engines as well as in older equipment.

The most technically advanced Shell ROTELLA® formulation ever

Shell ROTELLA® T4 Triple Protection® is the same Triple Protection® technology customers have come to depend on. But today, it's better than ever, with advanced additive technology that adapts to your driving conditions to protect against wear, deposits and oil breakdown. That's why it's recommended by a wide range of OEMs.

Works harder to save on fuel

Shell ROTELLA® T4 10W-30 Triple Protection® also protects your bottom line. Compared to a 15W-40, its lower viscosity allows for less resistance in the engine for improved fuel economy.

Triple Protection® performance, features & benefits:

Exceptional wear protection

Proven over millions of miles of real world performance, Shell ROTELLA® T4 Triple Protection® provides exceptional wear protection to maximize engine efficiency and prolong engine life.

Exceptional engine cleanliness

Formulated for enhanced deposit protection to help keep engines clean over the oil drain interval.

Emissions system compatibility

This formulation, exclusive to Shell, helps protect exhaust catalysts and particulate filters found on the latest low emission vehicles to help maintain vehicle emission compliance and engine fuel efficiency.

Enhanced shear stability performance

Shell ROTELLA® continues its heritage of outstanding shear stability for improved viscosity control and optimal oil pressure.

SPECIFICATIONS AND APPROVALS

SHELL ROTELLA® T4 10W-30
API CK-4, CJ-4, JASO DH-2, Cummins 20086, Volvo VDS-4.5, MACK EOS-4.5, Detroit Diesel 93K222, Caterpillar ECF-2, ECF-3, Ford WSS-M2C171-E1

PRODUCT MATERIALS & PACKAGE SIZE

PRODUCT	12x1 Quart	3x1 Gal Jug	55 Gal Drum	275 Gal Tote	Bulk
T4 10W-30 (CK-4)	550045146	550045144	550045137	550045145	500010011



**Shell
ROTELLA**

MAG 1® CONVENTIONAL 10W-40 MOTOR OIL

CONVENTIONAL MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1® Conventional 10W-40 Motor Oil is formulated for older vehicles and/or high-temperature climates, if thicker oil is preferred. It also delivers the following benefits:

- Resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.

CONVENTIONAL MOTOR OIL FEATURING *EVOLUTIONARY PERFORMANCE™*

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear.

- Engineered to handle the most severe or extreme environmental conditions and engine stress.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Excellent wear protection. Advanced molecules bond together to prevent metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.¹

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Excellent oxidation and deposit control.
- Retains viscosity and prevents thermal breakdown. The oil excels even in the harshest conditions.

¹ To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Provides performance benefits for passenger cars, light trucks and sport utility vehicles; plus new and rebuilt engines.
- Formulated to exceed ILSAC GF-5 performance requirements.

INDUSTRY/OEM SPECIFICATIONS

	Approved
	Approved
	Meets Requirements
	Meets Requirements
	Meets Requirements

TYPICAL PROPERTIES

ASTM D5185	0.018
ASTM D5185	0.132
ASTM D5293	4300 (-25)
ASTM D1500	3
ASTM D82	208
ASTM D92	406
ASTM D892 (Opt. A)	0/0
ASTM D892 (Opt. A)	0/0
ASTM D892 (Opt. A)	0/0
ASTM D287	32.94
ASTM D6082 (Opt A)	20/0
ASTM D5481	4.02
ASTM D5185	0.043
ASTM D5185	0.804
ASTM D4629	0.086
ASTM D6375	11.7
ASTM D5185	0.077
ASTM D5950	-39°C (-38°F)
ASTM D4684	33,800 (-30)
ASTM D6278	11.5
ASTM D4052	0.8605
ASTM D874	0.92

ASTM D4951	0.3
ASTM D2896	7.0
ASTM D445	14.83
ASTM D445	96.2
ASTM D2270	161
ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

Product Number - 62849
Product Number - 69136
Product Number - 61650
Product Number - 63579

Available in Bulk

Information accurate as of April 4, 2019

MAG 1® CONVENTIONAL 20W-50 MOTOR OIL

CONVENTIONAL MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1® Conventional 20W-50 Motor Oil is formulated for older vehicles and/or high-temperature climates, if thicker oil is preferred. It also delivers the following benefits:

- Resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.

CONVENTIONAL MOTOR OIL FEATURING *EVOLUTIONARY PERFORMANCE™*

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear.

- Engineered to handle the most severe or extreme environmental conditions and engine stress.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Excellent wear protection. Advanced molecules bond together to prevent metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.¹

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Excellent oxidation and deposit control.
- Retains viscosity and prevents thermal breakdown. The oil excels even in the harshest conditions.

¹ To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Provides performance benefits for passenger cars, light trucks and sport utility vehicles; plus new and rebuilt engines.
- Formulated to exceed ILSAC GF-5 performance requirements.

INDUSTRY/OEM SPECIFICATIONS

	Approved
	Approved
	Meets Requirements
	Meets Requirements
	Meets Requirements

TYPICAL PROPERTIES

ASTM D5185	0.018
ASTM D5185	0.132
ASTM D5293	7014 (-15)
ASTM D1500	3
ASTM D92	240
ASTM D92	464
ASTM D892 (Opt. A)	0/0
ASTM D892 (Opt. A)	0/0
ASTM D892 (Opt. A)	0/0
ASTM D287	29.83
ASTM D6082 (Opt A)	10/0
ASTM D5481	4.85
ASTM D5185	0.043
ASTM D5185	0.004
ASTM D4629	0.086
ASTM D6375	5.1
ASTM D5185	0.077
ASTM D5950	-33°C (-27°F)
ASTM D4684	21,900 (-15)
ASTM D6278	15.15
ASTM D4052	0.8782
ASTM D874	0.92

ASTM D4951	0.3
ASTM D2896	7.0
ASTM D445	19
ASTM D445	189.8
ASTM D2270	127
ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

Product Number - 62851
Product Number - 64563
Product Number - 69138
Product Number - 64157
Product Number - 61654
Product Number - 64258
Product Number - 63581

Available in Bulk

Information accurate as of April 4, 2019

MAG 1® FULL SYNTHETIC 10W-30 MOTOR OIL

FULL SYNTHETIC MOTOR OIL PASSENGER CAR MOTOR OIL



MAG 1® Full Synthetic 10W-30 Motor Oil is our purest and most advanced formulation for our best fuel mileage. It delivers unsurpassed protection and performance, including the following benefits:

- MAG 1 - engineered to maximize horsepower and acceleration.
- Longer and better engine protection than conventional oils due to strong and uniform synthetic base oils and advanced molecules that provide a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Created for extreme hot and cold driving conditions: stop and go, frequent short trips, heavy loads and dusty conditions.
- Meets and exceeds API SP and ILSAC GF-5 requirements.

FORMULATED FOR TODAY'S ENGINE DESIGNS

OEMs continue to evolve engine designs that demand more from motor oil. One brand has evolved right alongside – MAG 1®. It provides unsurpassed protection.

UNSURPASSED PROTECTION, EVEN IN THE LIGHTEST VISCOSITY

MAG 1® with FMX® Technology provides unsurpassed protection. Our advanced oil chemistry actually improves oil properties through time, retaining viscosity, friction and anti-wear benefits, in spite of severe engine temperatures.

FULL SYNTHETIC MOTOR OIL FEATURING *EVOLUTIONARY PERFORMANCE*™

MAG 1® with FMX® Technology – Friction Management for Xtreme protection™ provides these benefits:

PERFORMANCE

Controls friction and wear more than 29% better than the latest API requirements.¹

- Engineered to handle the most extreme conditions.
- 100% pure synthetic oils. Contains uniform molecules that provide the best, longest-lasting engine protection and performance.

STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

- Unsurpassed wear protection. Advanced molecules bond together to avoid metal-to-metal contact of rotating engine parts.
- Enhanced friction reduction. MAG 1 oils react to heat to produce a critical friction-reducing barrier that protects metal surfaces.²

DURABILITY

Stands up to the heat and shearing so it extends oil life.

- Stands up to the heat and shearing so it extends oil life.

¹Based on Sequence IV Wear test.

²To measure friction reduction benefits, engineers used the ball-on-disk traction test.

APPLICATIONS

- Gasoline-fueled and flex-fuel passenger cars, light trucks and sport utility vehicles, especially when operating under severe conditions.
- Formulated to protect turbochargers and emission control system catalysts.
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85.

INDUSTRY/OEM SPECIFICATIONS

API SP	Approved
ILSAC GF-5	Approved
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
API SN	Meets Requirements
API SN Plus	Meets Requirements
Chrysler MS-6395	Meets Requirements
GM 4718M	Meets Requirements
GM 6094M	Meets Requirements
ILSAC GF-4	Meets Requirements

TYPICAL PROPERTIES

Boron, wt. %	ASTM D5185	0.02
Calcium, wt. %	ASTM D5185	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	3760 (-25)
Color	ASTM D1500	3
Flash Point °C	ASTM D92	225
Flash Point °F	ASTM D92	437
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0
Gravity, °API	ASTM D287	33.19
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.03
Magnesium, wt. %	ASTM D5185	0.059
Molybdenum, wt. %	ASTM D5185	0.0079
Nitrogen, wt. %	ASTM D4629	0.087
Noack Volatility, % loss	ASTM D6375	8.2

Phosphorus, wt. %	ASTM D5185	0.077
Pour Point °C (°F)	ASTM D5950	-42°C (-44°F)
Pumping Viscosity at (°C), cP	ASTM D4684	10,000(-30)
Shear Stability, Final Viscosity in cSt	ASTM D6278	8.99
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8592
Sulfated Ash, wt. %	ASTM D874	0.92
Sulfur, wt. %	ASTM D4951	0.3
TBN, mgKOH/g	ASTM D2896	7.0
Viscosity @ 100°C cSt	ASTM D445	9.897
Viscosity @ 40°C cSt	ASTM D445	61.84
Viscosity Index	ASTM D2270	147
Zinc, wt. %	ASTM D5185	0.085

CONTAINER/BULK AVAILABILITY

6 Gallon Enviro Box®	Product Number - 69880
3/5 Quart	Product Number - 64194
6/1 Quart	Product Number - 61788
55 Gallon Drum	Product Number - 64883

Available in Bulk

Information accurate as of May 5, 2022

MAG 1® FULL SYNTHETIC 5W-40 CK-4 HEAVY DUTY DIESEL ENGINE OIL

FULL SYNTHETIC HEAVY DUTY DIESEL ENGINE OIL HEAVY DUTY ENGINE OIL



Featuring **MAG 1® with FMX® Technology – Friction Management for Xtreme protection™**. Provides unsurpassed protection, even in our lightest viscosities. Protects better than the thick oils of the past.

MAG 1 Full Synthetic 5W-40 is technologically advanced heavy duty diesel engine oil that provides unsurpassed protection and performance, including the following benefits:

- Our best cold temperature performance.
- Superior extended drain capability.
- Meets or exceeds the requirements of OEMs.

ENGINEERING AND INNOVATION FOR EXTRA PROTECTION

MAG 1® with FMX® Technology provides unsurpassed protection in every viscosity. Even our lowest viscosity oils protect better than thick oils of the past. FMX Technology creates a strong, durable and high-performing level of protection that controls friction and reduces metal-to-metal contact.

Our advanced oil technology actually improves oil properties over time, retaining viscosity, friction and anti-wear benefits, even in today's hotter engines, reducing the need for thicker oil. This is exactly the kind of protection called for in today's engines that deliver greater horsepower and better fuel economy.

FULL SYNTHETIC HEAVY DUTY DIESEL ENGINE OIL FEATURING FMX® TECHNOLOGY AND *EVOLUTIONARY PERFORMANCE™*

The latest MAG 1® Full Synthetic Heavy Duty Diesel Engine Oils are specially engineered and formulated to provide:

PERFORMANCE

Unsurpassed protection for extended drain intervals.
Up to 1.6% improved fuel mileage.¹

- **Improved fuel economy.** Reduces fuel costs without sacrificing engine protection and performance.
- **Extended oil drain intervals.** Fuel economies can be gained when following engine manufacturer recommendations and in conjunction with scheduled oil analysis.

STRENGTH

Up to 53% better wear protection.²

- **Enhanced friction reduction.** MAG 1® provides a very strong oil film to prevent metal-to-metal contact between rotating parts, delivering up to 53% better wear protection.³
- **Unsurpassed wear protection.** The latest generation API CK-4 MAG 1 engine oils provide increased protection against harmful engine and bearing wear due to cavitation, because they improve oil aeration.

DURABILITY

Up to 83% better oxidation control.²

Up to 63% better deposit control.²

- **Better oxidation and deposit control.** FMX® Technology stands up to high heat and stress to protect as well on the last day as it does on the first day. Up to 83% better oxidation control and 63% better deposit control.⁴
- **Formulated with higher starting TBN (10).** Provides added oxidation control and protection against acid buildup that can cause rust and corrosion.

¹ Using HD 10W-30 CK-4, compared to Conventional HD 15W-40 CK-4 during on-highway long-haul service. Savings will vary on idle time and other driving conditions of your fleet or vehicle.

² Compared to new limits of API CK-4 requirements.

³ To measure friction reduction benefits, engineers used the ball-on-disk traction test.

⁴ Compared to new limits of API CK-4 requirements.

APPLICATIONS

- This product and grade is a fuel economy and mixed fleet engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines in which the API CK-4 service categories are recommended. It is formulated for engines operating under severe service and a wide range of cold and hot temperatures.
- It is backward compatible for CJ-4 and older API service categories.
- Approved by or meets requirements of major OEMs such as Cummins, Detroit Diesel, Mack/Volvo, Paccar, Navistar, Caterpillar, and others.

INDUSTRY/OEM SPECIFICATIONS

API CK-4	Approved
API SN	Approved
Ford WSS-M2C171-F1	Approved
ACEA E9, E7, E4, E2	Meets Requirements
API CI-4 Plus, CI-4, CH-4, CG-4, CF-2, CF	Meets Requirements
API CJ-4	Meets Requirements
API S.J, S.H, S.G, S.F	Meets Requirements
API SL	Meets Requirements

API SM	Meets Requirements
CAT ECF-3, ECF-2, ECF-1-a	Meets Requirements
Chrysler/Fiat MS-10902	Meets Requirements
CID A-A-52306, MIL-PRF-2104G	Meets Requirements
Cummins 26086	Meets Requirements
Cummins CES 20061, 20077, 20076	Meets Requirements
Detroit Diesel 93K218, 93K215, 93K214	Meets Requirements
Detroit Diesel 93K222	Meets Requirements
Ford WSS-M2C171-E	Meets Requirements
Global DHD-1	Meets Requirements
JASO DH-2	Meets Requirements
Mack EO-O Premium Plus, EO-N Premium Plus 03, EO-M Plus, and prior	Meets Requirements
Mack EOS-4.5	Meets Requirements
MAN 3275, 270	Meets Requirements
MAN 3575	Meets Requirements
MB 228.3, 228.31	Meets Requirements
MTU 2.1	Meets Requirements
MTU Type I, Type II	Meets Requirements
Renault RLD-4	Meets Requirements
Volvo VDS-4, 3, 2	Meets Requirements
Volvo VDS-4.5	Meets Requirements
Allison C-4	Suitable for Use

TYPICAL PROPERTIES

Calcium, wt. %	ASTM D5185	0.082
Cold Cranking Simulator at (°C), cP	ASTM D5293	6535 (-30)
Color	ASTM D1500	2.5
Flash Point °C	ASTM D92	225
Flash Point °F	ASTM D92	437
Gravity, °API	ASTM D287	33.57
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.5
Magnesium, wt. %	ASTM D5185	0.116
Molybdenum, wt. %	ASTM D5185	0.007
Nitrogen, wt. %	ASTM D4629	0.124
Noack Volatility, % loss	ASTM D6375	12
Phosphorus, wt. %	ASTM D5185	0.115
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	24,113 (-35)
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8572
Sulfated Ash, wt. %	ASTM D874	0.99
Sulfur, wt. %	ASTM D4951	0.314
TBN, mgKOH/g	ASTM D2896	10
Viscosity @ 100°C cSt	ASTM D445	14.76
Viscosity @ 40°C cSt	ASTM D445	87.75
Viscosity Index	ASTM D2270	177
Zinc, wt. %	ASTM D5185	0.127

CONTAINER/BULK AVAILABILITY

330 Gallon Tote	Product Number - 68035
55 Gallon Drum	Product Number - 68037
5 Gallon Pail	Product Number - 68036
3/1 Gallon	Product Number - 62627
6/1 Quart	Product Number - 62625

Available in Bulk

Information accurate as of April 4, 2019



PRODUCT DATA SHEET

Compass MP Gear Lube 80W90

COMPASS MP Gear Lube 80W90 is a multipurpose, API GL-5 automotive gear lubricant specifically designed for use in passenger car and truck axles with hypoid gear sets. It also is recommended for use in some heavy-duty manual transmissions in trucks and buses.

Compass MP Gear Lube 80W90 is formulated to provide long service life and extended gear life in automotive differentials operating under varying conditions of speed, load, temperature and torque. The carefully balanced formulation is designed to minimize oxidative sludge and varnish formation, reduce wear, prevent scoring damage, and protect against metal fatigue and spalling damage under shock-load conditions.

Applications

- Service fill of conventional differentials in passenger cars and trucks
- Top-off only of limited-slip differentials in passenger cars and light trucks(1)
- Service fill of differentials, final drives and transfer cases in some off-highway equipment
- Non-synchronized manual transmissions in trucks, buses and heavy equipment where the manufacturer specifies an API GL-5 or MT-1 gear oil

Note: For complete drain and refill, many limited-slip differentials may require the manufacturer's specified gear lubricant or supplemental additive. Refer to the owners manual for specific requirements.

Compass MP Gear Lube 80W90 meets or exceeds the requirements of:

- API Service GL-5, MT-1
- Meritor O76-A (SAE 85W-140), O76-D (SAE 80W-90), O76-E (SAE 75W-90)
- MIL-PRF-2105E

Compass MP Gear Lube 80W90 is registered or approved for:

- Mack GO-J (SAE 80W-90, 85W-140)
- MAN 342 Type M2 (SAE 75W-90, SAE 80W-90)
- MAN 342 Type M1 (SAE 85W-140)
- SAE J2360 (SAE 80W-90, 85W-140)

Features/Benefits

- Excellent oxidation resistance and thermal stability to minimize sludge and varnish formation
- Excellent thermal durability and extreme-pressure (EP) properties for extended gear life
- High load-carrying capacity for protection against scuffing and wear
- Protects against rust and corrosion
- Good foam resistance

Note: Values shown above are representative of current production and may vary within modest ranges.



PRODUCT DATA SHEET
 Compass MP Gear Lube 80W90

Typical Characteristics:	
	80W90
Kinematic Viscosity	
cSt @ 40°C	146
cSt @ 100°C	14.5
Viscosity Index	97
CCS Viscosity	
cP @ -26°C	105,000
Density, lbs/gal @ 60° F	7.40
Specific Gravity @ 15.6°C (60°F)	0.880
Flash Point, °C	220
Pour Point, °C	-30
Color (ASTM)	2.5

Note: Values shown above are representative of current production and may vary within modest ranges.

Compass Gear Oil 80W-140 is a full synthetic, multipurpose, heavy duty gear lubricant formulated for heavy duty differentials that call for an API GL-5 type product. It is a thermally stable, extreme pressure lubricant designed to operate in both high and low temperature conditions for all season use, even in sub-zero temperatures.

FEATURES/ BENEFITS

- **Outstanding Thermal Stability** allows operation in both high & low temperature conditions.
- **High Film Strength & Shear Stability** prolongs equipment life.
- **Excellent low temperature properties** promote oil flow to help protect gears & bearings even at sub-zero temperatures.
- **Includes rust, oxidation & corrosion inhibitors** for superior, long-term performance.

RECOMMENDATIONS

Compass Gear Oil 80W-140 is suitable for use where the following specifications are recommended:

- API GL-5, MT-1
- E37 \$% " /ad_ Vnk ? ;>BDBZ\$#" ' 7fi
- DANA SHAES 429 Rev. A
- Mack GO-J
- ArvinMeritor O76-B, O76-M
- General Electric D50E9C
- Harnischfeger (P&H) 474
- International Truck & Engine TMS 6816
- U.S. Steel Specification 224
- AGMA Standard 250.03
- L8F7Z >Z' 4i \$#3

APPLICATIONS

- Rear wheel bearings and universal joints calling for an SAE 80W-140 grade
- Transfer cases for automobiles, light & heavy duty trucks
- Farm equipment
- Heavy construction equipment calling for SAE 80W-140
- Industrial gear applications
- Gear differentials calling for SAE 80W-140
- Manual transmissions

SPECIAL HANDLING, NOTICES OR WARNINGS

Take same precautionary measures as with any lubricant. Store in cool, well-ventilated area.

TYPICAL CHARACTERISTICS

Compass Gear Oil 80W-140		
Properties	Test Method	Data
Gravity, °API	D 287	23.6
Viscosity:		
@ 40°C, cSt	D 445	265
@ 100°C, cSt	D 445	28
@ -26°C, cP	D 2983	90000
@ -40°C, cP	D 2983	---
Viscosity Index	D 2270	140
Flash Point, °C (°F)	D 92	201 (395)
Pour Point, °C (°F)	D 97	< -40 (< -40)
Timken, OK Load	D 2509	85
FZG Gear Test		12

**AUTOMOTIVE GEAR LUBRICANT
GRADES GL-1 SAE GEAR 90 & 140**Typical Properties

SAE Grade		
Gear	90	140
Viscosity, cSt		
At 40 C	270	563
At 100 C	17.5	28.0
Flash Point, (COC) Deg F	420	425
Pour Point, Deg F	10	25
Gravity, API @ 60 F	24.3	22.8

The values shown are typical of current production. Some are controlled in the manufacturing process, while others are not. All of them may vary within tolerable ranges.

An uninhibited gear lubricant designed for API Service Classification "GL-1". These gear oils are blended from highly refined base stocks that resist oxidation and thickening.

APPLICATIONS

Recommended for manual transmissions in passenger cars and trucks, and those applications where API Service Level GL-1 lubricant is specified.

PRODUCT INFORMATION



VALVOLINE™ HEAVY DUTY SYNTHETIC SAE 50 TRANSMISSION FLUID

Valvoline Heavy Duty Synthetic Transmission Fluid SAE 50 is formulated for heavy duty non-synchronized manual transmissions in severe-service applications. With over 500K miles of field trials, the additive package in this fluid is robust and well established in heavy duty service runs. **HD Synthetic SAE 50** is recommended for use in non-synchronized manual transmissions calling for a SAE 50 MTF and in applications calling for the following specifications:

API GL-4
API MT-1
Meritor O81
International 6816
ZF Freedom Line
Mack TO-A

Valvoline Heavy Duty Synthetic Transmission Fluid SAE 50 Advantages:

- Helps protect against rust and corrosion
- Formulated to help inhibit oxidation and high temperature effects
- Exceptional cold temperature performance
- Excellent deposit control to protect seals.

Typical Properties:

	SAE 50
KV100 (cSt)	19.0
KV40 (cSt)	135
Viscosity Index	160
Density (g/cm ³)	0.862
Pour Point (°C)	-39
Flash Point (°C)	200
Cu Strip Corrosion	1b

Part Numbers:

	SAE 50
55 Gallon Drum	VV70601
16 Gallon Keg	VV70602
5 Gallon Pail	VV70603

Refer to Valvoline's Safety Data Sheet for health and safety information.

This information only applies to products manufactured in the following location(s): USA, Canada.

*For in-warranty applications requiring the Eaton PS-386/PS-164 Rev. 7 fluids, use Valvoline™ Syn Gard™ Transmission Fluid E-386

Effective Date:
9/28/21

Author:
KD

PRODUCT BULLETIN

Hi-Temp Red Lithium Complex Grease

PRODUCT #227

CAM2 Hi-Temp Red Grease is an 12-HSA extended service, premium, lithium complex, extreme pressure (EP) grease that provides superior protection to lubricate a wide variety of automotive, agricultural, trucking, mining, construction, and industrial equipment. Combines excellent multipurpose properties with a high dropping point to offer protection across a wide temperature range. Lithium complex greases are extremely versatile performers that are highly recommended for disc brake wheel and conveyor bearings providing outstanding shock load protection.

CAM2 Hi-Temp Red Grease was designed to outperform conventional products by applying cutting edge, proprietary, lithium complex manufacturing technology. They are formulated to provide excellent high temperature performance with superb adhesion, structural stability and resistance to water contamination. These greases have a high level of chemical stability and offer excellent protection against rust and corrosion. Their performance features make them ideal choices for operating conditions including high temperature, water contamination, shock loading and extended re-lubrication operations.

CAM2 Hi-Temp Red Grease is compatible with most grease thickeners making it an excellent multi-use grease effectively reducing inventory. Lithium complex greases are found to be compatible with a broader range of thickeners than other grease thickeners.

SPECIFICATIONS

Soap type: Lithium Complex

Color: Red

Texture: Smooth, buttery

FEATURES

- **Water Resistant** - helps assure proper lubrication and protection even in the most severe water exposure conditions
- **Corrosion Protection** - protection of lubricated parts even in hostile aqueous environments
- **Oxidation Stability** - helps extend grease life and enhance bearing protection in high temperature applications helping to reduce maintenance and replacement costs
- **Economical** - premium performance in a low cost formula
- **Highly Adhesive** - excellent grease tenacity, helps reduce leakage and extend re-lubrication intervals for reduced maintenance requirements
- **Wear Protection** - reliable protection of lubricated equipment, even under conditions of high sliding with potential for extended equipment life and reduced unanticipated downtime
- **Resists Separation** - operation over wide temperature range allows for reduced inventory

Table 1. Grease Compatibility

	Aluminum Complex	Barium	Calcium	Calcium 12 Hydroxy	Calcium Complex	Clay	Lithium	Lithium 12 Hydroxy	Lithium Complex	Polyurea	Sodium	Calcium Sulfonate
Aluminum Complex	•	■	■	●	■	■	■	■	●	■	■	■
Barium	■	•	■	●	■	■	■	■	■	■	■	▼
Calcium	■	■	•	●	■	●	●	▼	●	■	■	N/A
Calcium 12-Hydroxy	●	●	●	•	▼	●	●	●	●	■	■	N/A
Calcium Complex	■	■	■	▼	•	■	■	■	●	●	■	●
Bentonite (Clay)	■	■	●	●	■	•	■	■	■	■	■	■
Lithium	■	■	●	●	■	■	•	●	●	■	■	●
Lithium 12-Hydroxy	■	■	▼	■	■	■	•	•	●	■	■	●
Lithium Complex	●	■	●	●	●	■	●	•	•	■	■	●
Polyurea	■	■	■	■	●	■	■	■	■	•	■	■
Sodium (Soda Base)	■	■	■	■	■	■	■	■	■	■	•	■
Calcium Sulfonate	■	▼	N/A	N/A	●	■	●	●	●	■	■	•

▼ Borderline Compatibility ● Compatible ■ Incompatible N/A - Not Available



*TECHNICAL DATA ON PAGE 2

TECHNICAL DATA

CAM2 HI-TEMP RED NLGI #2

<i>Properties</i>	<i>Test Method ASTM D-</i>	<i>Data</i>
All Applications		
Appearance	Visual	Red
Consistency	Visual	Smooth, adhesive
Soap type		Lithium complex
NLGI Grade		2
NLGI Classification		Gc-1b
Worked Penetration	217	265-295
Drop Point (°c/°f)	2265	>260(500)
Oil Separation	1742	1.2
Base Oil Viscosity cSt @ 40 °c cSt @ 100 °c	445	220 15.74
Viscosity Index	2270	>90
Automotive Applications		
Water Washout @ 175 °f	1264	4.1
Leakage Tendencies, g loss	4290	1.4
High Temp life hours	3527	100
Fretting Protection mg	4170	7.8
Elastomer change at 100 °c Volume change % Hardness change %	4289	24 -9
4 Ball Wear Scar diam., mm	2266	0.54
4 Ball load Wear index kgf	2596	50
4 Ball EP Weld kgf	2596	315
Rust Test	1743	Pass
Low Temperature Torque n-m	4693	13.0
Industrial Applications		
Timken OK load lbs	2509	45
Cu Corrosion	4048	Pass
Oxidation, psi drop @ 100 hrs	942	10 max

PRODUCT INFORMATION



VALVOLINE™ PALLADIUM™ MOLY GREASE

Valvoline Palladium Moly Grease provides excellent protection against extreme pressures and shock loads by employing high purity 3% and 5% molybdenum disulfide solid lubricant in an alkalinity-balanced thickener system. This lithium complex grease minimizes wear at applied loads as it maintains balanced EP properties.

Valvoline Palladium Moly Grease provides high temperature and extreme shock loading protection for extended periods of time, helping to extend the service life of equipment and lower maintenance cost.

Applications include: Mining, Quarry, Construction, Industrial, Farm, and wherever shocking loading and extreme sliding applications occur.

Valvoline Palladium Moly Grease meets the requirement of the **NLGI GC-LB** specification.

Typical Properties:	ASTM Method	3% NLGI #1	3% NLGI #2	5% NLGI #1	5% NLGI #2
Thickener		Lithium Complex	Lithium Complex	Lithium Complex	Lithium Complex
Color	Visual	Gray	Gray	Gray	Gray
KV@40 (cSt)	D445	ISO 220	ISO 320	ISO 220	ISO 320
Density (lb/gal)		7.91	7.91	7.91	8.01
Operating Temp Range, °F		0-300	25-350	0-300	30-350
Timken, lbs.	D2509	60	60	60	60
4-ball wear, scar diameter, mm	D2266	.55	.55	.55	.55
4-Ball EP Load Wear Index @ XX kg	D2596	500	500	500	500
Load Wear Index	D2596	75	75	75	75
Rust Prevention	D1743	Pass	Pass	Pass	Pass
Dropping point, °F	D2265	>500	>500	>500	>500
Mobility @ 60°F	US Steel	350	200	350	200
Falex Ring on Block, high load low speed	D2509 Modified	-----	-----	Pass	Pass

Part Numbers:	3% NLGI #1	3% NLGI #2	5% NLGI #1	5% NLGI #2
Bulk	VV70160	VV70161	-----	877140
Tote	VV70141	VV70108	880430	876401
400 Lb. Drum	VV70142	VV70109	880417	876338
120 Lb. Keg (L)	VV70143	VV70110	880404	876372
35 Lb. Plastic Pail	-----	VV70111	880403	877378
14 Oz. Carton	873751	VV70112	880402	876339

Refer to Valvoline's Safety Data Sheet for health and safety information.

This information only applies to products manufactured in the following location(s): USA, Canada.

Effective Date:
9/9/21

Author:
JB



Previous Name: Shell Tellus T

Shell Tellus S2 V 22

- Extra Protection
- Versatile Applications

Industrial Hydraulic Fluid for wide temperature range

Shell Tellus S2 V fluids are high performance hydraulic fluids that use Shell's unique patented technology with excellent viscosity control under both severe mechanical stress and across a wide range of temperatures. They provide outstanding protection and performance in most mobile equipment and other applications subjected to wider ranges of ambient or operating temperatures.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

• Long fluid life – Maintenance saving

Shell Tellus S2 V fluids help extend equipment maintenance intervals by resisting thermal and chemical breakdown. This minimizes sludge formation and provides excellent performance in the industry standard ASTM D 943 TOST test (Turbine Oil Stability Test), providing better reliability and system cleanliness.

Shell Tellus S2 V fluids also have good stability in the presence of moisture, which ensures long fluid life and reduces the risk of corrosion and rusting, particularly in moist or humid environments.

Highly shear stable viscosity modifiers help minimize variations in the fluid properties throughout the fluid drain interval.

• Outstanding wear protection

Proven zinc-based anti-wear additives are incorporated to be effective throughout the range of operating conditions, including low load and severe duty high load conditions.

Outstanding performance in a range of piston and vane pump tests, including the tough Denison T6C (dry and wet versions) and the demanding Vickers 35VQ25, demonstrates how Shell Tellus S2 V fluids can help system components last longer.

• Maintaining system efficiency

The extended temperature range capability of Shell Tellus S2 V allows efficient operation of mobile equipment from cold start to normal operating conditions.

Superior cleanliness, excellent filterability and high performance water separation, air release and anti-foam characteristics all help contribute to maintaining or enhancing the efficiency of hydraulic systems.

The unique additive system in Shell Tellus S2 V, in combination with superior cleanliness (meeting the requirements of max ISO 4406 21/19/16 class, ex Shell filling lines. As recognized by DIN 51524 specification, the oil is exposed to various influences with transport and storage that could effect the cleanliness level) helps reduce the impact of contaminants on filter blocking, allowing both extended filter life and use of finer filtration for extra equipment protection.

Shell Tellus S2 V fluids are formulated for fast air release without excessive foaming to help efficient hydraulic power transfer and minimize fluid and equipment impacts of cavitation-induced oxidation that can shorten fluid life.

Main Applications



• Mobile/external hydraulic applications

Hydraulic and fluid power transmission systems in exposed environments can be subject to wide variations in temperature. The high viscosity index of Shell Tellus S2 V helps deliver responsive performance from cold start conditions to full load, severe duty operation.

• Precision hydraulic systems

Precision hydraulic systems require excellent control of fluid viscosity over the operating cycle. Shell Tellus S2 V provides greater temperature-viscosity stability compared to ISO HM fluids that can help improve the performance of such systems.

For more severe operating conditions, longer fluid life and enhanced efficiency, the Shell Tellus "S3" and "S4" ranges offer additional performance benefits.

Specifications, Approvals & Recommendations

- Denison Hydraulics (HF-0, HF-1, HF-2)
- Cincinnati Machine P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- Eaton Vickers M-2950 S
- Eaton Vickers I-286 S
- Swedish Standard SS 15 54 34 AM
- ISO 11158 (HV fluids)
- AFNOR NF-E 48-603
- ASTM 6158-05 (HV fluids)
- DIN 51524 Part 3 HVLP type
- GB 111181-1-94 (HV fluids)

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Compatibility & Miscibility

- **Compatibility**
Shell Tellus S2 V fluids are suitable for use with most hydraulic pumps. However, please consult your Shell Representative before using in pumps containing silver plated components.
- **Fluid Compatibility**
Shell Tellus S2 V fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids).
- **Seal & Paint Compatibility**
Shell Tellus S2 V fluids are compatible with seal materials and paints normally specified for use with mineral oils.

Typical Physical Characteristics

Properties	Method	Shell Tellus S2 V
ISO Viscosity Grade	ISO 3448	22
ISO Fluid Type		HV
Kinematic Viscosity @ 20°C	cSt	695
Kinematic Viscosity @ 40°C	cSt	22
Kinematic Viscosity @ 100°C	cSt	4.8
Viscosity Index	ISO 2909	142
Density @ 15°C	kg/l	872
Flash Point (COC)	°C	190
Pour Point	°C	-42
Dielectric Strength*	kV	>30

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

* Dielectric strength value applies only to "point of manufacture" at a Shell authorized manufacturing facility. As with all hydraulic fluids, contamination with water or particulate leads to a reduction in dielectric strength.

Health, Safety & Environment

- Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>
- **Protect the Environment**
Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**
Advice on applications not covered here may be obtained from your Shell representative.



PRODUCT DATA SHEET

Compass AW Hydraulic Oil

COMPASS AW HYDRAULIC OIL is a high-quality anti-wear hydraulic oil developed for use in a wide variety of industrial and mobile hydraulic system applications. It meets the performance requirements of all major hydraulic pump manufacturers, and is recommended for use in all types of high-pressure, high-speed hydraulic pumps.

Compass AW Hydraulic Oil is formulated to provide excellent wear protection for hydraulic pumps and motors, and to protect hydraulic system components against rust and corrosion. It has excellent oxidation resistance and thermal stability at high temperatures to minimize deposit formation and provide long service life. It has excellent water-separating properties to minimize the formation of emulsions, and is resistant to excessive foam build-up that can cause poor or sluggish hydraulic system response.

Applications

- Hydraulic systems on industrial, mobile and marine equipment
- Automated machine tools
- Elevators, hoists, presses and floor jacks
- Marine cargo winches and steering systems
- Mobile construction equipment
- Service station lifts
- Air tools and other pneumatic equipment lubricated through air line lubricators
- Chain drives
- Electric motor bearings
- Lightly to moderately loaded enclosed industrial gear drives that do not require a compounded or extreme-pressure (EP) gear oil

Compass AW Hydraulic Oil meets the requirements of the following industry and OEM specifications:

- Bosch Rexroth RE 90220, Type HLP
- DIN 51524 Part 2, Anti-wear Hydraulic Oils, Type HLP
- Parker Hannifin (Denison) HF-0, HF-1, HF-2 (approved ISO 32, 46, and 68)
- Eaton-Vickers I-286-S, M-2950-S, 35VQ25A anti-wear performance (brochure)
- 03-401-2010 Rev 1 ISO 32, 46, and 68)
- Fives Cincinnati P-68 (ISO VG 32), P-70 (ISO VG 46), P-69 (ISO VG 68) (approved)
- German Steel Industry SEB 181222
- ISO 11158:1997, Family H (Hydraulic Systems), Type HM



PRODUCT DATA SHEET
Compass AW Hydraulic Oil

Features/Benefits

- Excellent wear protection for hydraulic pumps and motors
- Excellent oxidation resistance and thermal stability
- Protects against rust and corrosion
- Excellent water-separating properties
- Good foam resistance

Typical Characteristics:				
	32	46	68	100
Color, ASTM D1500	0.5	0.5	0.5	0.5
Specific Gravity @ 60°F	0.862	0.869	0.874	0.878
Viscosity				
cSt @ 40°C	32.0	46.0	68.0	100
cSt @ 100°C	5.4	6.8	8.7	11.0
SUS @ 100°C	150	214	315	463
SUS @ 210°C	44.0	48.5	54.9	62.8
Viscosity Index	102	102	99	94
Flash Point, °F	216	227	238	486
Pour Point, °F	-37	-37	-33	-26
Demulsibility D1401, minutes to pass	10	10	10	10
Oxidation Stability D943-04a, hrs	>6000	>6000	>6000	>6000
Rust Test D665, A & B	Pass	Pass	Pass	Pass
Copper Corrosion, ASTM D130	1a	1a	1a	1a
Acid Number, ASTM D974, mg KOG/g	0.38	0.38	0.38	0.38
Zinc, wt %	0.043	0.043	0.043	0.043
Density, lbs/gal @ 60 °F	7.18	7.24	7.27	7.31
Foam Test, ASTM D892, Seq. I, mL	0/0	0/0	0/0	0/0

Note: Values shown above are representative of current production and may vary within modest ranges.

PRODUCT INFORMATION



VALVOLINE™ DRIVE TRAIN TRANSMISSION OIL

Valvoline Drive Train Transmission Oil (DTTO) is a heavy duty powershift transmission and drive train lubricant designed and recommended for applications requiring oils meeting the Caterpillar TO-4 specification and Allison C-4 (Off-road applications) specification or in any other equipment in which TO-4 is called for. **Valvoline DTTO** also meets performance requirements of Komatsu equipment, Komatsu micro clutch, where TO-4 is called for in Dana Powershifts, Eaton Fuller, and Tremac/TTC equipments.

Valvoline DTTO is formulated from premium base stocks and a select additive system to meet the requirements of Caterpillar TO-4 specification and Komatsu equipment. It provides elastomer and friction material compatibility, while guarding against gear wear, rust, corrosion, foaming, and oxidation. **Valvoline DTTO** provides wear control and extreme pressure performance.

Valvoline DTTO is designed for transmissions and drive trains only and should not be used as engine oil.

Typical Properties	10W	30	50
KV40 (cSt)	42	94	220
KV100 (cSt)	6.6	11.0	19.3
KV -25 °C (cP)	<6800	-	-
Viscosity Index	109	102	99
Specific Gravity @ 60°F	0.871	0.876	0.888
Pour Point (°C)	-35	-25	-15
Sulfated Ash, wt.%	1.2	1.2	1.2
Zinc, wt%	0.110	0.110	0.110

Part Numbers	10W	30	50
Tote	853214	841597	841598
Bulk	VV3190	VV3230	VV3270
55 Gallon Drum	VV319	VV323	VV327
5 Gallon Pail	VV321	VV325	VV329

Refer to Valvoline's Safety Data Sheet for health and safety instructions.

This information only applies to products manufactured in the following location(s): USA, Canada

Effective Date:
1/26/21

Author:
JW

MAG 1® AUTOMATIC TRANSMISSION FLUID

PASSENGER CAR TRANSMISSION PRODUCTS AUTOMATIC TRANSMISSION PRODUCTS



MAG 1 Automatic Transmission Fluid is engineered to extend transmission life and smooth operation of Ford and General Motors vehicles where a DEXRON III/MERCON® fluid is specified.

PROTECTION FOR TODAY'S AUTOMATIC TRANSMISSION DESIGNS

Automotive transmissions have evolved dramatically, requiring highly specialized fluids for unique applications. One brand has evolved right alongside – MAG 1®. Only the most advanced transmission fluids meet the difficult challenges of effectively balancing performance, strength and durability.

PERFORMANCE

- Delivers superior friction stability to maintain smooth, consistent shifting and prevent shudder.

STRENGTH

- Provides a strong oil film to prevent metal-to-metal contact between rotating parts to prevent wear.

DURABILITY

- Resists thickening due to high operating temperatures.

APPLICATIONS

- Also recommended for all transmissions requiring DEXRON® II or IIE, or Type A transmission fluids. Do not use this product in General Motors vehicles after model year 2005 and Ford® vehicles after model year 2006. Do not use this product in transmissions that specify Ford Type F, MERCON® V fluids or GM Dexron® VI fluid.

INDUSTRY/OEM SPECIFICATIONS

	Meets Requirements
	Meets Requirements
	Meets Requirements
	Meets Requirements

TYPICAL PROPERTIES

ASTM D2983	18,500
ASTM D1500	Red
ASTM D130	1B
ASTM D92	204
ASTM D92	400
ASTM D892	<100/0 ml
ASTM D287	32.98
ASTM D2619	Pass
ASTM D5950	-51°C (-60°F)
ASTM D685A	Pass
ASTM D4052	0.8603
	Pass
ASTM D445	7.38
ASTM D445	35.67
ASTM D2270	179

CONTAINER/BULK AVAILABILITY

	Product Number - 65479
	Product Number - 62856
	Product Number - 00905
	Product Number - 64269
	Product Number - 00902
	Product Number - 00906
	Product Number - 00900
	Product Number - 901

Available in Bulk

Information accurate as of April 4, 2019



PRODUCT DATA SHEET

Compass DexMerc ATF

COMPASS DEXMERC AUTOMATIC TRANSMISSION FLUID is formulated to reduce wear, protect against corrosion, and last longer in vehicles with automatic and power-shift transmissions. It is recommended for domestic and imported transmissions that specify DEXRON®-III, DEXRON®IIIE, DEXRON®, MERCON®, ford ESP-M2C138-CJ, ford ESP-M2C166-H or Type A Suffix A, Allison C-3/C-4 or Caterpillar TO-2 fluids.

Typical Characteristics:	
Specific Gravity @ 15.6°C (60°F)	0.862
Kinematic Viscosity	
cSt @ 40°C	32.9
cSt @ 100°C	7.0
Brookfield Viscosity	
cP @ -40°C	17700
Viscosity Index	180
Flash Point, °C	204
Pour Point, °C	-51
Color	Red

Note: Values shown above are representative of current production and may vary within modest ranges.

DEXRON® is a registered trademark of General Motors Corporation.
MERCON® is a registered trademark of Ford Motor Company.



PRODUCT DATA SHEET

Compass DexMerc ATF

COMPASS DEXMERC AUTOMATIC TRANSMISSION FLUID is formulated to reduce wear, protect against corrosion, and last longer in vehicles with automatic and power-shift transmissions. It is recommended for domestic and imported transmissions that specify DEXRON®-III, DEXRON®IIE, DEXRON®, MERCON®, ford ESP-M2C138-CJ, ford ESP-M2C166-H or Type A Suffix A, Allison C-3/C-4 or Caterpillar TO-2 fluids.

Typical Characteristics:	
Specific Gravity @ 15.6°C (60°F)	0.862
Kinematic Viscosity	
cSt @ 40°C	32.9
cSt @ 100°C	7.0
Brookfield Viscosity	
cP @ -40°C	17700
Viscosity Index	180
Flash Point, °C	204
Pour Point, °C	-51
Color	Red

Note: Values shown above are representative of current production and may vary within modest ranges.

DEXRON® is a registered trademark of General Motors Corporation.
MERCON® is a registered trademark of Ford Motor Company.

MAG 1® LOW VISCOSITY MULTI-VEHICLE TRANSMISSION FLUID

PASSENGER CAR TRANSMISSION PRODUCTS AUTOMATIC TRANSMISSION PRODUCTS



MAG 1 Low-Viscosity Automatic Transmission Fluid is a balanced advanced formula utilizing superior additive technology and 100% synthetic base oils, helping to ensure peak performance of almost any automatic transmission.

PROTECTION FOR TODAY'S AUTOMATIC TRANSMISSION DESIGNS

Automotive transmissions have evolved dramatically, requiring highly specialized fluids for unique applications. One brand has evolved right alongside – MAG 1®. Only the most advanced transmission fluids meet the difficult challenges of effectively balancing performance, strength and durability.

Featuring MAG 1® with FMX® Technology – Friction Management for Xtreme protection™. MAG 1 is designed to provide unsurpassed protection.

PERFORMANCE

- Delivers superior friction stability to maintain smooth, consistent shifting and prevent shudder.

STRENGTH

- Provides a strong oil film to prevent metal-to-metal contact between rotating parts to prevent wear.

DURABILITY

- Resists thickening due to high operating temperatures.

APPLICATIONS

MAG 1 Low-Viscosity Multi-Vehicle ATF is licensed by GM and Ford for use where Dexron®-VI and MERCON® LV transmission fluids are recommended. Additional applications may include:

- Audi/VW: G 052 025, 052 162, 055 025, GUS 000 162
- GM DEXRON®III, II
- Honda: DW-1, Z-1
- Hyundai/Kia/Mitsubishi: SP-II, SP-III, SP-IV
- Mazda ATF M-III, MV, T-IV
- Nissan: Matic-D, J, K, 402
- Subaru: ATF, ATF-HP
- Toyota: WS, T-IV, T-III, T-II

INDUSTRY/OEM SPECIFICATIONS

Dexron VI	Approved
Mercon LV (XT-10-QLV)	Approved
Allison TES-389	MAG 1 Recommends this product for use in applications calling for this specification
BMW P/N 83 22 0 024 359, ETL-9072B	Meets Requirements
GMN10050	Meets Requirements
Mercon, Ford ESP-M2C166-H	SFU, Vis Requirements not met
XT-6-QSP, XT-6-DSP, except 6HP26 / 6R60/ 6R75 transmissions	SFU, Vis Requirements not met
Allison C-3	Suitable for Use
Allison C-4	Suitable for Use
Audi S HP LT71141, G 052162-A1/A2, G052 025 A2	Suitable for Use
Audi G 052 025, 052 162, 055 025	Suitable for Use
BMW 7045E, LA2634, LT71141	Suitable for Use
BMW JWS 3309, LA2634, ZF 5HP18FL, 5HP24, 5HP30, Mini	Suitable for Use
BMW P/N 83 22 0 0246 922, ETL-7045E	Suitable for Use
BMW P/N 83 22 0 403 249, ETL-9072B	Suitable for Use
BMW P/N 83 22 9 407 765, LA 2634	Suitable for Use
BMW P/N 83 22 9 407 807, LT 711 41	Suitable for Use
Chrysler AS68RC, Diamond SP-III	Suitable for Use
Chrysler P/N 05127382AA, P/N 68043742AA	Suitable for Use
Daewoo LT 71141	Suitable for Use
Daihatsu ANMIX ATF D-II, D-III SP	Suitable for Use
Dexron III G/H, Dexron II, Dexron, AW1	Suitable for Use
Esso 71141	Suitable for Use
Fiat T-VI, JWS 3309	Suitable for Use
Ford FNR5	Suitable for Use
Ford M2C138-CJ	Suitable for Use

Ford M2C166H, 136CJ, 922A1, 924A, JWS 3309	Suitable for Use
Fuchs 3353	Suitable for Use
FUSO ATF-II, SP11L, A4	Suitable for Use
Honda DW-1, Z-1	Suitable for Use
Hyundai/Kia/Mitsubishi Diamond SP-II and SP-III, RED-1, SP-IV	Suitable for Use
Hyundai/Kia SP-IV M, RR Dex-II/SP-II, JWS 3314, 9683	Suitable for Use
Hyundai NSW89638	Suitable for Use
IDEMITSU APOROIL ATF HP	Suitable for Use
ISUZU 68200-9081 / Genuine ATF	Suitable for Use
Jaguar ATF 3403 M115, LT71141, ZF5HP24, JLM20238	Suitable for Use
Jaguar P/N WSS-M2C922-A-1	Suitable for Use
Jaso M315-2013 1A, 1A-LV, 2A	Suitable for Use
JWS 3309, Any 3309	Suitable for Use
JWS 3324	Suitable for Use
Lexus JWS 3309	Suitable for Use
M315-2004 JASO 1A, 2A	Suitable for Use
MAN 339 Type V2	Suitable for Use
MAN 339 Type Z1, Z2, V1	Suitable for Use
Mazda ATF D-II, M-III, M-V, FZ, F-1, S-1, N-1, 3317	Suitable for Use
Mazda ATF M-III, RTV, T-IV	Suitable for Use
MB 223.2, 236.1, 236.2, 236.10, 236.12, 236.41, 236.5, 236.6, 236.7, 236.8, 236.9	Suitable for Use
Mini Cooper T-IV	Suitable for Use
MINI P/N 83 22 0 402 413	Suitable for Use
Mitsubishi Diaqueen SK, AV, J2, J3, PA	Suitable for Use
Mopar AS 68 RC, JWS 3309	Suitable for Use
NAG-1	Suitable for Use
Nissan Matic-D, J, K	Suitable for Use
Nissan Matic, J, S	Suitable for Use
Opel	Suitable for Use
Peugeot ZF 4HP20	Suitable for Use
Porsche P/N 989 917 547 00 (A2)	Suitable for Use
Porsche ZF 5HP19FL, ZF 5HP20, LT71141, ATF 3403-M115, T-VI, JWS 3309	Suitable for Use
SAAB P/N 22 717 466, 93 165 147 (AW-1)	Suitable for Use
Saturn P/N 21005366	Suitable for Use
Saturn T-IV, GM TASA, T-IV ATF, GM WS ATF	Suitable for Use
Scion	Suitable for Use
Shell 3403, LA2634, Texaco 7045-E, ETL-8072B	Suitable for Use
Shell 3403 M115	Suitable for Use
Subaru ATF 5AT, Dex II, AT OIL 5D06,	Suitable for Use
Subaru ATF, ATF-HP	Suitable for Use
Suzuki ATF 2326, 2384K, JWS 3309, 3314	Suitable for Use
Texaco N402	Suitable for Use
Toyota D-II, D-III	Suitable for Use
Toyota T-II, T-III, T-IV, WS, Ford XT8QAW	Suitable for Use
Type A	Suitable for Use
Voith 55.6335 (G607)	Suitable for Use
Volvo Passenger Car (4 / 6 sp), Volvo 97340, 97341, 97342	Suitable for Use
Volvo P/N 1161540-8	Suitable for Use
VW 5 HP ZF5 HP 30, 18FL, 30, 19FL, 24A, G-055-025 A2, TL 521 62	Suitable for Use
VW G 052 025, 162, 099, 055 025	Suitable for Use
VW P/N GUS 000 162	Suitable for Use
VW TL52162 (LT71141)	Suitable for Use
ZF 845RE / 870RE, ZF 8HP45 / 8HP70 / 8HP90	Suitable for Use
ZF all 3 & 4 speed trans.	Suitable for Use
ZF TE-ML 02F, TE-ML 03D, TE-ML 04D, TE-ML 09, TE-ML 11A	Suitable for Use
ZF TE-ML 14A, TE-ML 14B, TE-ML 14C, TE-ML 16L, ZF TE-ML 17C	Suitable for Use
CAT TO-2	Suitable For Use
Hino Blue Ribbon ATF	Suitable For Use
ISUZU BESCO ATF-II, III	Suitable For Use

*Allison TES-389 is a registered trademark of Allison Transmissions, Inc.

TYPICAL PROPERTIES

Brookfield Viscosity at -40°C, cP	ASTM D2983	10,300
Color	ASTM D1500	Red
Flash Point °C	ASTM D92	220
Flash Point °F	ASTM D92	428
Gravity, °API	ASTM D287	35.60
Pour Point °C (°F)	ASTM D5950	-51°C (-60°F)

Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8468
Viscosity @ 100°C cSt	ASTM D445	5.797
Viscosity @ 40°C cSt	ASTM D445	28.56
Viscosity Index	ASTM D2270	151

CONTAINER/BULK AVAILABILITY

330 Gallon Tote	Product Number - 65480
55 Gallon Drum	Product Number - 64084
6 Gallon Enviro Box®	Product Number - 65449
6/1 Quart	Product Number - 64082

Available in Bulk

Information accurate as of April 4, 2019



TranSynd 668

Full-Synthetic Automatic Transmission Fluid

Description

Castrol® TranSynd 668® is a premium, full-synthetic automatic transmission fluid specifically formulated for Allison Transmission® heavy-duty, on-highway automatic transmissions. TranSynd 668 provides oxidative stability, anti-wear performance, and friction durability. TES 668™ specification differentiators include extended anti-shudder durability and extended clutch-friction durability. This fluid features an Allison TES 668™ approval. The TES 668 specification is fully backwards compatible with both TES 295® and TES 468™ applications.

Advantages

- Delivers improved gear protection.
- Delivers extended anti-shudder durability.
- Delivers extended clutch-friction durability.
- Excellent corrosion and foaming resistance.
- Excellent thermal and oxidative stability that helps to prevent deposits and oil thickening.
- Excellent transmission cleanliness under all conditions permits extended oil-drain intervals and decreased servicing.
- Excellent temperature reduction through reduced friction leads to longer oil and component life.
- Outstanding cold-flow properties enables faster oil flow to all critical components particularly during cold starts.
- Optimized frictional characteristics gives smoother gear changing at all ambient temperatures and load conditions.
- Excellent shear stability properties help to retain full transmission performance over entire oil-drain interval.

Typical Characteristics

Name	Method	Units	TranSynd 668
Appearance	Visual	-	Bright & Clear
Color	Visual	-	Red
Density @ 15C, Relative	ASTM D4052	g/ml	0.8508
Viscosity, Kinematic 100C	ASTM D445	mm ² /s	6.9
Viscosity, Kinematic 40C	ASTM D445	mm ² /s	33
Viscosity Index	DIN ISO 2909	None	168
Viscosity, Brookfield @ -40C (75W)	ASTM D2983	mPa.s (cP)	< 12,000
Flash Point, COC	ASTM D92	°C	> 210
Pour Point	ASTM D5950	°C	-51

MAG 1® FULL SYNTHETIC MULTI-VEHICLE TRANSMISSION FLUID

PASSENGER CAR TRANSMISSION PRODUCTS AUTOMATIC TRANSMISSION PRODUCTS



MAG 1 Full Synthetic Multi-Vehicle ATF is a balanced advanced formula utilizing superior additive technology and 100% synthetic base oils helping to ensure peak performance of almost any automatic transmission. This premium-quality product meets and exceeds the frictional and wear requirements of many automatic transmissions manufactured after 1983, including many foreign vehicles.

PROTECTION FOR TODAY'S AUTOMATIC TRANSMISSION DESIGNS

Automotive transmissions have evolved dramatically, requiring highly specialized fluids for unique applications. One brand has evolved right alongside -- MAG 1®. Only the most advanced transmission fluids meet the difficult challenges of effectively balancing performance, strength and durability.

Featuring MAG 1® with FMX® Technology – Friction Management for Xtreme protection™. MAG 1 is designed to provide unsurpassed protection.

PERFORMANCE

- Delivers superior friction stability to maintain smooth, consistent shifting and prevent shudder.

STRENGTH

- Provides a strong oil film to prevent metal-to-metal contact between rotating parts to prevent wear.

DURABILITY

- Resists thickening due to high operating temperatures.

APPLICATIONS

- MAG 1 Full Synthetic Multi-Vehicle ATF is recommended for a wide range of vehicles requiring DEXRON®III/MERCON® fluids including: GM (pre -2006 models), Ford® (all models except where MERCON® SP, LV or Type F are required), Mazda, Honda/Acura, and Subaru (all models except Continuously Variable Transmissions [CVTs]), Suzuki JWS-3309, and Volkswagen (pre-2006 models). Additionally recommended for transmissions calling for Toyota Type T, T-III, T-IV; Nissan, SP-III.

INDUSTRY/OEM SPECIFICATIONS

Allison C-4	Suitable for Use
Audi Q 052 025, 052 162, 055 025	Suitable for Use
BMW 7045E, LA2634, L171141	Suitable for Use
BMW P/N 83 22 0 024 359, ETL-8072B	Suitable for Use
BMW P/N 83 22 0 0246 922, ETL-7045E	Suitable for Use
BMW P/N 83 22 0 403 249, ETL-8072B	Suitable for Use
BMW P/N 83 22 9 407 765, LA 2634	Suitable for Use
BMW P/N 83 22 9 407 807, LT 711 41	Suitable for Use
Dexron III G/H, Dexron II, Dexron, AW1	Suitable for Use
Esso 71141	Suitable for Use
Ford P/N XT-2-DX (MERC), Ford P/N XT-2-SM (SYN MERC)	Suitable for Use
Fuchs 3353	Suitable for Use
Honda DW-1, Z-1	Suitable for Use
Hyundai/Kia/Mitsubishi Diamond SP-II and SP-III, RED-1, SP-IV	Suitable for Use
Hyundai NSWS9638	Suitable for Use
IDEMITSU APORON ATF HP	Suitable for Use
Idemitsu K17	Suitable for Use
ISUZU 08200-8001 / Genuine ATF	Suitable for Use
Jaguar P/N WSS-M2C922-A-1	Suitable for Use
JWS 3309, Any 3309	Suitable for Use
JWS 3324	Suitable for Use
M315-2004 JASO 1A, 2A	Suitable for Use
MAN 339 Type V2	Suitable for Use
MAN 339 Type Z1, Z2, V1	Suitable for Use
Mazda ATF M-II, MFV, T-IV	Suitable for Use
MB236.1 2,5,6,7,9, 10, 11	Suitable for Use
Mercon, Ford ESP-M2C166-H	Suitable for Use
MINI P/N 83 22 0 402 413	Suitable for Use
NAG-1	Suitable for Use
Nissan Matto-D, J, K	Suitable for Use

Porsche P/N 999 917 547 00 (A2)	Suitable for Use
SAAB P/N 22 717 466, 93 165 147 (AW-1)	Suitable for Use
Saturn P/N 21005966	Suitable for Use
Saturn T-IV, GM TASA, T-IV ATF, GM WS ATF	Suitable for Use
Shell 3403, LA2634, Texaco 70MS-E, ETL-8072B	Suitable for Use
Shell 3403 M115	Suitable for Use
Subaru ATF, ATF-HP	Suitable for Use
Suzuki 3314, 3317	Suitable for Use
Texaco N402	Suitable for Use
Toyota T-II, T-III, T-IV, WS, Ford XT8QAW	Suitable for Use
Voith 55.6335 (G607)	Suitable for Use
Volvo Passenger Car (4 / 6 sp), Volvo 97340, 97341, 97342	Suitable for Use
Volvo P/N 1161540-8	Suitable for Use
VW G 052 025, 162, 099, 055 025	Suitable for Use
VW P/N GUS 000 162	Suitable for Use
ZF TE-ML 03D, 04D, 05L, 09, 11B, 14A, 16L, 17C	Suitable for Use
ZF TE-ML 14B	Suitable for Use

TYPICAL PROPERTIES

Brookfield Viscosity at -40°C, cP	ASTM D2883	10,300
Color	ASTM D1500	Red
Copper Strip Corrosion (3 hrs@100°C)	ASTM D130	1B
Flash Point °C	ASTM D92	216
Flash Point °F	ASTM D92	420
Gravity, °API	ASTM D287	34.66
Pour Point °C (°F)	ASTM D5950	-51°C (-60°F)
Rust Protection	ASTM D665A	Pass
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8516
Viscosity @ 100°C cSt	ASTM D445	7.41
Viscosity @ 40°C cSt	ASTM D445	33.64
Viscosity Index	ASTM D2270	198

CONTAINER/BULK AVAILABILITY

55 Gallon Drum	Product Number - 62869
3/1 Gallon	Product Number - 63341
6/1 Quart	Product Number - 62555

Available in Bulk

Information accurate as of April 4, 2019

PRODUCT INFORMATION



VALVOLINE™ CVT FLUID

Valvoline Continuously Variable Transmission (CVT) Fluid is specifically formulated for today's technologically sophisticated variable transmissions. CVT Fluid is formulated with premium synthetic base stocks, long-life friction modifiers, special anti-wear additives, and shear stable viscosity modifiers. CVT Fluid is recommended for use in most belt and chain-driven continuously variable transmissions and will not void new car warranties. CVT Fluid is not recommended for Hybrid CVT units (Toyota and Ford).

The Valvoline Continuously Variable Transmission Fluid Advantages:

- Full synthetic fluid
- Excellent anti-shudder durability
- Superior wet clutch performance
- Excellent anti-wear performance
- Excellent metal-metal friction protection
- Designed to provide excellent torque transfer

Recommended for the following applications:

Audi/VW	G 052 180	Mercedes Benz	EM-CVT
	G 052 516		MB-Approval 236.20
BMW/ Mini Cooper	EZL 799A	Mitsubishi	Dia Queen CVTF J1
	8322 0 136 376		Dia Queen CVTF J4
	8322 0 429 154	Nissan	NS-1
Ammix CVTF-DC	NS-2		
Ammix CVTF-DFE	NS-3		
Chrysler/ Dodge/ Jeep	CVTF +4	Shell Green 1V	Shell Green 1V
	NS-2	Subaru	e-CVTF
Ford	Mercon C		CV-30, Lineartronic CVTF (PN K0425Y0710)
	WSS-M2C933-A		Lineartronic CVTF-II
	WSS-M2C928-A		Lineartronic CVTF-III
GM	DEX-CVT (AC Delco 15234609, 15250985, 15231847, 22688912)		High Torque CVTF
	CVT (GM 19260800, 19299096)		High Torque CVTF LV
	Dexron HP CVT		i-CVT F
	GM 19355873/ GM 19355874	i-CVT FG	
Honda	Genuine CVTF/ Multi-matic Fluid (HMMF)	Suzuki	CVT Fluid Green1
	HCF2		CVT Fluid Green2
Hyundai/ KIA	SP CVT-1, IVTF-SP-CVT-1		CVT 3320 (JWS3320)
Mazda	CVTF 3320 (JWS3320)	Toyota	TC
			FE

Typical Properties:

	CVT
KV100 (cSt)	5.6
KV40 (cSt)	27.6
Viscosity Index	147
Specific Gravity @ 60°F	0.852
Brookfield Viscosity @ -40°C, cP	9,000
Appearance	Amber

Part Numbers:

	CVT
55 Gallon Drum	874618
6 Gallon Bay Box	876268
Gallon	876133
Quart	804751

Effective Date: 11/10/21

Author: LK



PRODUCT DATA SHEET

Compass Hydraulic Tractor Fluid

COMPASS HYDRAULIC TRACTOR FLUID is a premium transmission / differential / hydraulic fluid with superior anti-wear properties recommended for use in power shift / hydrostatic / manual transmissions, differentials, final drives, wet brakes / clutches, power steering, and PTO drives commonly used in farm and construction equipment, off-highway vehicles, and industrial tractors. Some applications include: Power shift transmissions specifying Allison C-3/C-4 or CAT TO-2 fluids; John Deere J20A, J20C; Ford New Holland M2C-41B, -48B, -48C, -86C, -134D; Kubota B6 (UDT); Vickers 35VQ25, Allis-Chalmers/Deutz 272843, J.I. Case MS-1206, MS-1210, Deutz-Allis, Heston Fiat AF-87, International Harvester Hy-Tran, B-6, Massey Ferguson M-1141, Steiger, Sundstrand, and White/Oliver Q1826, Type 55

Typical Characteristics:	
	HTF
Specific Gravity @ 15.6°C (60°F)	0.869
Kinematic Viscosity	
cSt @ 40°C	58.7
cSt @ 100°C	9.4
Brookfield Viscosity	
cP @ -18°C	2600
Flash Point, °C	226
Pour Point, °C	-42
Color	L 3.0

Note: Values shown above are representative of current production and may vary within modest ranges.



PRODUCT DATA SHEET

Compass EMD Railroad

COMPASS EMD RAILROAD has outstanding high-dispersancy with reserve alkalinity crankcase oil for railroad and marine diesel engines. Compounded from HVI Base (Paraffinic) oils. Contains detergent, dispersant, anti-wear/EP agent, antioxidant, corrosion inhibitor, and foam-suppressant additives. The additive system does NOT contain "zinc-compounded" derivatives; they are classified as zinc-free at less than 10 ppm zinc in the formulated product; they are non-chlorinated

Applications

Recommended for use in Electro-Motive Division of General Motors Corporation (EMD), Caterpillar, General Electric Generation IV, LMOA Generation V, VI, and other diesel engines operating on lower sulfur distillate-fuel with a sulfated ash of 1.0%. Meets API Service Classification Level "CD" and can be used in all two and four cycle, turbocharged and non-turbocharged, railroad diesel engines burning distillate type fuels where the use of a zinc-free additive system and HVI base oils are preferred. EMD and GE Engines manufactured for railroad and marine use are frequently used in stationary power generation systems with similar crankcase lubrication requirements.

Typical Characteristics:	
	40
Kinematic Viscosity	
cSt @ 40°C	152
cSt @ 100°C	14.8
Viscosity Index	96
Density lbs/gal @ 60° F	7.124
Specific Gravity @ 15.6°C (60°F)	27.2
Flash Point, °F	450
Pour Point, °F	0
Sulfated Ash, wt%	1.0
TBN, ASTM D 2896	9

Note: Values shown above are representative of current production and may vary within modest ranges.



PRODUCT DATA SHEET

Compass GL-5 75W90

COMPASS FULL GL-5 75W90 is a full synthetic, extended drain, heavy duty gear lubricant designed to meet the service demands of the latest heavy duty manual transmissions, axles and drive units that call for an API GL-5 type product. Compass GL-5 75W90 is formulated for extreme pressure and severe service with additives to prevent rust and oxidation, and has the added advantage of improved fuel economy, extended drain capabilities, and all season use even at sub-zero temperatures.

Designed for use in many railway gearboxes and provides excellent load-carrying capability where extreme pressures and shock loading are expected. The PAO base stock provides excellent thermal and oxidation stability, high Viscosity Index (VI), extremely low pour point, and low-temperature fluidity. Heavy duty gearbox designs have changed and increased the requirements of fluids to deliver higher performance including potentially increased productivity and reduced operating costs. Compass GL-5 75W-90 is engineered to deliver exceptional performance and contribute to lower total lubrication-related operating costs.

Features/Benefits

- Outstanding Low Temperature Fluidity - PAO base provides improved performance over mineral oils
- Fuel Efficient Formulation - improves fuel economy
- Extended Drain Capabilities help maximize oil drain intervals resulting in less overall lubricant usage
- Fortified with additives to prevent rust and oxidation prolonging equipment life and providing superior long term performance
- Thermally Stable enabling operation in both high & low temperature conditions
- Shear Stability - maintains film strength for reliable lubrication

Applications

- API GL-5, MT-1
- ArvinMeritor O76-N, O76-E
- DANA SHAES-256 Rev C
- Eaton E500
- International TMS 6816
- US MIL-PRE-2105E / SAE J2360
- Mack GO-J Plus
- Make-up or Refill of conventional and high performance differentials
- Manual Transmissions
- Spiral-Bevel and Hypoid Gears
- Light and Heavy Duty Axles and Drive Units

Note: Values shown above are representative of current production and may vary within modest ranges.



PRODUCT DATA SHEET
Compass GL-5 75W90

Typical Characteristics:	
	75W90
Appearance	Amber
Kinematic Viscosity	
cSt @ 40°C	100
cSt @ 100°C	14.0
Viscosity Index	149
CCS Viscosity	
Flash Point, °C	215
Pour Point, °C	-45

Note: Values shown above are representative of current production and may vary within modest ranges.

Compass Gear Oil 80W-140 is a full synthetic, multipurpose, heavy duty gear lubricant formulated for heavy duty differentials that call for an API GL-5 type product. It is a thermally stable, extreme pressure lubricant designed to operate in both high and low temperature conditions for all season use, even in sub-zero temperatures.

FEATURES/ BENEFITS

- **Outstanding Thermal Stability** allows operation in both high & low temperature conditions.
- **High Film Strength & Shear Stability** prolongs equipment life.
- **Excellent low temperature properties** promote oil flow to help protect gears & bearings even at sub-zero temperatures.
- **Includes rust, oxidation & corrosion inhibitors** for superior, long-term performance.

RECOMMENDATIONS

Compass Gear Oil 80W-140 is suitable for use where the following specifications are recommended:

- API GL-5, MT-1
- E37 \$%(" />ad_ Wtk ? ;>BDBZ\$#" ' 7fi
- DANA SHAES 429 Rev. A
- Mack GO-J
- ArvinMeritor O76-B, O76-M
- General Electric D50E9C
- Harnischfeger (P&H) 474
- International Truck & Engine TMS 6816
- U.S. Steel Specification 224
- AGMA Standard 250.03
- L8F7Z? >Z' ' 4! \$#3

APPLICATIONS

- Rear wheel bearings and universal joints calling for an SAE 80W-140 grade
- Transfer cases for automobiles, light & heavy duty trucks
- Farm equipment
- Heavy construction equipment calling for SAE 80W-140
- Industrial gear applications
- Gear differentials calling for SAE 80W-140
- Manual transmissions

SPECIAL HANDLING, NOTICES OR WARNINGS

Take same precautionary measures as with any lubricant. Store in cool, well-ventilated area.

TYPICAL CHARACTERISTICS

Compass Gear Oil 80W-140		
Properties	Test Method	Data
Gravity, °API	D 287	23.6
Viscosity:		
@ 40°C, cSt	D 445	265
@ 100°C, cSt	D 445	28
@ -26°C, cP	D 2983	90000
@ -40°C, cP	D 2983	---
Viscosity Index	D 2270	140
Flash Point, °C (°F)	D 92	201 (395)
Pour Point, °C (°F)	D 97	< -40 (< -40)
Tlarken, OK Load	D 2509	85
FZG Gear Test		12



PRODUCT DATA SHEET

Compass MP Gear Lube 80W90

COMPASS MP Gear Lube 80W90 is a multipurpose, API GL-5 automotive gear lubricant specifically designed for use in passenger car and truck axles with hypoid gear sets. It also is recommended for use in some heavy-duty manual transmissions in trucks and buses.

Compass MP Gear Lube 80W90 is formulated to provide long service life and extended gear life in automotive differentials operating under varying conditions of speed, load, temperature and torque. The carefully balanced formulation is designed to minimize oxidative sludge and varnish formation, reduce wear, prevent scoring damage, and protect against metal fatigue and spalling damage under shock-load conditions.

Applications

- Service fill of conventional differentials in passenger cars and trucks
- Top-off only of limited-slip differentials in passenger cars and light trucks(1)
- Service fill of differentials, final drives and transfer cases in some off-highway equipment
- Non-synchronized manual transmissions in trucks, buses and heavy equipment where the manufacturer specifies an API GL-5 or MT-1 gear oil

Note: For complete drain and refill, many limited-slip differentials may require the manufacturer's specified gear lubricant or supplemental additive. Refer to the owners manual for specific requirements.

Compass MP Gear Lube 80W90 meets or exceeds the requirements of:

- API Service GL-5, MT-1
- Meritor O76-A (SAE 85W-140), O76-D (SAE 80W-90), O76-E (SAE 75W-90)
- MIL-PRF-2105E

Compass MP Gear Lube 80W90 is registered or approved for:

- Mack GO-J (SAE 80W-90, 85W-140)
- MAN 342 Type M2 (SAE 75W-90, SAE 80W-90)
- MAN 342 Type M1 (SAE 85W-140)
- SAE J2360 (SAE 80W-90, 85W-140)

Features/Benefits

- Excellent oxidation resistance and thermal stability to minimize sludge and varnish formation
- Excellent thermal durability and extreme-pressure (EP) properties for extended gear life
- High load-carrying capacity for protection against scuffing and wear
- Protects against rust and corrosion
- Good foam resistance

Note: Values shown above are representative of current production and may vary within modest ranges.



PRODUCT DATA SHEET
Compass MP Gear Lube 80W90

Typical Characteristics:	
	80W90
Kinematic Viscosity	
cSt @ 40°C	146
cSt @ 100°C	14.5
Viscosity Index	97
CCS Viscosity	
cP @ -26°C	105,000
Density, lbs/gal @ 60° F	7.40
Specific Gravity @ 15.6°C (60°F)	0.880
Flash Point, °C	220
Pour Point, °C	-30
Color (ASTM)	2.5

Note: Values shown above are representative of current production and may vary within modest ranges.