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Header

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 [Document Information](#)

Procurement Folder: 60515

SO Doc Code: CRFQ

Procurement Type: Central Master Agreement

SO Dept: 0212

Vendor ID: 000000201215 

SO Doc ID: SWC1500000010

Legal Name: HARRIS OIL COMPANY INC

Published Date: 12/9/14

Alias/DBA:

Close Date: 1/20/15



Total Bid: \$2,729,953.50

Close Time: 13:30

Response Date: 01/20/2015 

Status: Closed

Response Time: 12:44

Solicitation Description: OIL15 - STATEWIDE
CONTRACT FOR OILS, 


Total of Header Attachments: 0

Total of All Attachments: 0



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

State Of West Virginia
Solicitation Response

Proc Folder : 60515

Solicitation Description : OIL15 - STATEWIDE CONTRACT FOR OILS, LUBRICANTS & GREASE

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation No	Version
	2015-01-20 13:30:00	SR 0212 ESR01201500000001730	1

VENDOR
000000201215 HARRIS OIL COMPANY INC

FOR INFORMATION CONTACT THE BUYER

Evelyn Melton
(304) 558-7023
evelyn.p.melton@wv.gov

Signature X	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	OILS, LUBRICANTS AND GREASE	1.00000	EA	\$2,729,953.50	

Comm Code	Manufacturer	Specification	Model #
15120000			

Extended Description :	STATEWIDE CONTRACT FOR OILS, LUBRICANTS AND GREASE. NOTE: WHEN RESPONDING THROUGH VSS, UNIT PRICE FOR COMMODITY LINE 1 WILL BE YOUR GRAND TOTAL AMOUNT FROM EXHIBIT A - PRICING PAGES.
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EXHIBIT A

OIL15 - PRICING PAGE

SECTION 1 - TRUCK LOAD

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
ITEM	DESCRIPTION	PREFERRED SIZE/WT (for information use only and not to be used for calculations)	MANUFACTURER	BRAND BID	ESTIMATED QUANTITY	UNIT PRICE TRUCK LOAD	Unit of Measure (For calculation purposes only)	EXTENDED PRICE TRUCK LOAD
1	Motor oil for lubricating 2 cycle engines one pint containers (chain saw motor oil) - API TC or equal	8 oz.	PENNZOIL	2-CYCLE AIR-COOLED 8 OZ	1800	\$ 0.16	1 oz.	\$ 288.00
2	Motor oil for lubricating 2 cycle engines (outboard motor oil) - API TC-W3 or equal	1 qt.	SHELL	NAUTILUS 2-CYCLE OUTBOARD	1300	\$ 3.51	1 qt.	\$ 4,563.00
3	Motor oil for all diesel and gasoline engine service SAE30 - CF-4, CF-2 CF/SJ	1 qt.	QUANTUM	HD FLEET MOTOR OIL SAE 30	3300	\$ 2.43	1 qt.	\$ 8,019.00
4	Motor oil for all diesel and gasoline engine service SAE15W40 - CI 4 CF/SJ CJ-4, CI-4 PLUS, CH-4, CG-4	1 qt.	QUANTUM	HYPERION ULTRA 15W40	150,000	\$ 2.75	1 qt.	\$ 412,500.00
5	Motor oil for all diesel and gasoline engine service SAE15W40 - CI-4, CI-4 PLUS, CH-4, CG-4, CF-4/SL, SM	55 gal.	QUANTUM	HYPERION ULTRA 15W40	1320	\$ 9.25	1 gal.	\$ 12,210.00
6	Motor oil for all diesel and gasoline engine service SAE15W40 - BULK CJ-4, CI-4PLUS, CH-4, CG4, CF-4/SL, SM	BULK 6,000 gallon	QUANTUM	HYPERION ULTRA 15W40	6000	\$ 6.15	1 gal.	\$ 36,900.00
7	Motor oil for all diesel and gasoline engine service SAE10 - CF/SL CAT TO-2, ALLISON C-4 or equal	5 gallon	SHELL	ROTELLA T-1 10	2400	\$ 10.25	1 gal.	\$ 24,600.00
8	Motor oil for all diesel and gasoline engine service SAE10 - CF/SL CAT TO-2, ALLISON C-4 or equal	55 gal.	SHELL	ROTELLA T-1 10	55	\$ 10.25	1 gal.	\$ 563.75
9	Motor oil for all diesel and gasoline engine service 5W20 - CF/SL SM, SJ, ILSAC GF-4	1 qt.	QUANTUM	X-5 MAX-BLEND 5W20	5000	\$ 2.28	1 qt.	\$ 11,400.00
10	Motor oil for all diesel and gasoline engine service 5W30 - CF/SL ILSAC GF-4	1 qt.	QUANTUM	X-5 MAX-BLEND 5W30	10000	\$ 2.28	1 qt.	\$ 22,800.00
11	Motor oil for all diesel and gasoline engine service 5W30 - CF/SL SM, SJ, ILSAC GF-4	55 gal.	QUANTUM	X-5 MAX-BLEND 5W30	550	\$ 8.74	1 gal.	\$ 4,807.00
12	Motor oil for all diesel and gasoline engine service 10W30 - CF/SL SM, SJ, ILSAC GF-4	1 qt.	QUANTUM	X-5 MAX-BLEND 10W30	58000	\$ 2.28	1 qt.	\$ 132,240.00
13	Motor oil for all diesel and gasoline engine service 10W40 - CF/SL	1 qt.	QUANTUM	X-4 SUPREME 10W40	500	\$ 2.40	1 qt.	\$ 1,200.00
14	Motor oil for all diesel and gasoline engine service 20W50 - CF/SL	1 qt.	QUANTUM	X-4 SUPREME 20W50	500	\$ 2.40	1 qt.	\$ 1,200.00
15	Extreme pressure gear lubricant 80W90 GL-5, MT-1, MACK GO-J or equal	35 lb.	QUANTUM	MP GEAR LUBE 80W90	280	\$ 1.53	1 lb.	\$ 428.40
16	Extreme pressure gear lubricant 80W90 GL-5, MT-1, MACK GO-J or equal	120 lb.	QUANTUM	MP GEAR LUBE 80W90	3360	\$ 1.63	1 lb.	\$ 5,476.80
17	Extreme pressure gear lubricant 85W140 GL-5, MT-1, MACK GO-J or equal	120 lb.	QUANTUM	MP GEAR LUBE 85W140	720	\$ 1.53	1 lb.	\$ 1,101.60
18	Extreme pressure gear lubricant - mineral gear lube 90 gl-1	35 lb.	SHELL	DENTAX 80W90	385	\$ 2.00	1 lb.	\$ 770.00
19	Powertranz EW 50 EATON PS-164, R7 MACK GO-A PLUS NAVISTAR TMS 6816 or equal	35 lb.	QUANTUM	HYPERION SYN TRANS CD50	350	\$ 3.02	1 lb.	\$ 1,057.00
20	Wheel bearing and chassis grease summer weight NLGI #2	14 to 14-1/2 oz. tubes	QUANTUM	HYPERION RED PREMIUM	2500	\$ 2.00	1 oz.	\$ 5,000.00
21	Wheel bearing and chassis grease summer weight NLGI #2	35 lb.	QUANTUM	HYPERION RED PREMIUM	245	\$ 2.00	1 lb.	\$ 490.00
22	Wheel bearing and chassis grease summer weight NLGI #2	120 lb.	QUANTUM	HYPERION RED PREMIUM	1200	\$ 2.10	1 lb.	\$ 2,520.00
23	All purpose grease (3% molly) water and heat resistant grease NGLI #2	14 to 14-1/2 oz. tubes	SHELL	GADUS S3V 460D2	120	\$ 2.93	1 oz.	\$ 351.60
24	All purpose grease (3% molly) water and heat resistant grease NGLI #2	35 lb.	QUANTUM	MOLYCAT GREASE EP2	200	\$ 2.49	1 lb.	\$ 498.00
25	All purpose grease (3% molly) water and heat resistant grease NGLI #2	120 lb.	QUANTUM	MOLYCAT GREASE EP2	240	\$ 2.53	1 lb.	\$ 607.20

EXHIBIT A

OIL15 - PRICING PAGE

26	Hydraulic oil-light weight RO22 Turbine/Circulating Oil	5 gal.	SHELL	TELLUS S2V22	45	\$ 12.44	1 gal.	\$ 559.80
27	Hydraulic oil-light weight	5 gal.	QUANTUM	HYPERION 6000 AW ISO 32	45	\$ 7.60	1 gal.	\$ 342.00
28	Hydraulic oil-light weight	55 gal.	QUANTUM	HYPERION 6000 AW ISO 32	24200	\$ 7.40	1 gal.	\$ 179,080.00
29	Hydraulic oil-medium weight	5 gal.	QUANTUM	HYPERION 6000 AW ISO 46	35	\$ 7.60	1 gal.	\$ 266.00
30	Hydraulic oil-medium weight	55 gal.	QUANTUM	HYPERION 6000 AW ISO 46	11000	\$ 7.40	1 gal.	\$ 81,400.00
31	Hydraulic oil-heavy weight	5 gal.	QUANTUM	HYPERION 6000 AW ISO 68	200	\$ 7.60	1 gal.	\$ 1,520.00
32	Hydraulic oil-heavy weight	55 gal.	QUANTUM	HYPERION 6000 AW ISO 68	880	\$ 7.40	1 gal.	\$ 6,512.00
33	Transmission fluid - Multi Vehicle ATF	1 qt.	QUANTUM	T-3 ATF	22000	\$ 2.36	1 qt.	\$ 51,920.00
34	Transmission fluid - Multi Vehicle ATF	55 gal.	QUANTUM	T-3 ATF	495	\$ 8.76	1 gal.	\$ 4,336.20
35	Transmission fluid - TO - 4 fluid	5 gal.	QUANTUM	HYPERION TO-4 FLUID	350	\$ 10.97	1 gal.	\$ 3,839.50
36	Transmission fluid - TO - 4 fluid	55 gal.	QUANTUM	HYPERION TO-4 FLUID	605	\$ 10.04	1 gal.	\$ 6,074.20
37	Automatic Transmission Fluid Multi-Vehicle ATF API DEXRON III, MERCON, MERCON V, ATF+3 ATF+4 or equal	1 qt.	QUANTUM	TS GLOBAL SYN TRANS FLUID	1000	\$ 3.25	1 qt.	\$ 3,250.00
38	Combination fluid, combination hydraulic	5 gal.	QUANTUM	HYPERION UNIV TRACTOR HYD	250	\$ 7.95	1 gal.	\$ 1,987.50
39	Combination fluid, combination hydraulic	55 gal.	QUANTUM	HYPERION UNIV TRACTOR HYD	20900	\$ 7.95	1 gal.	\$ 166,155.00
40	Railroad diesel engine oil - must be a generation 4 oil as designated by (LOMA) EMD approved, (LOMA) generation 4 SAE40	55 gal.	SHELL	CAPRINUS XR 40	880	\$ 12.01	1 gal.	\$ 10,568.80
41	Synthetic motor oil for gasoline and diesel engines SAE 5W40 - CF/SL, SAE 10W30 - CF/SL, SAE 5W40 - CJ-4, CH-4/SL	1 qt.	SHELL	ROTELLA T6 5W40	100	\$ 5.97	1 qt.	\$ 597.00
42	Synthesized multipurpose gear lubricant 75W90 DANA SHADES 256, REV. C, EATON E500, MACK GO J PLUS or equal	35 lb.	QUANTUM	FULL SYN PREM 75W90	700	\$ 3.02	1 lb.	\$ 2,114.00
43	Synthesized multipurpose gear lubricant 80W140 DANA SHADES 256, ARVIN MERITOR O-76, MACK GO -J or equal	35 lb.	QUANTUM	FULL SYN PREM 80W140	140	\$ 3.23	1 lb.	\$ 452.20
44	Synthesized multipurpose gear lubricant 75W90 DANA SHADES 256, REV C, EATON E500, MACK GO-J PLUS or equal	120 lb.	QUANTUM	FULL SYN PREM 75W90	120	\$ 3.28	1 lb.	\$ 393.60
45	Limited slip gear lubricant 80W90 GL-5	35 lb.	QUANTUM	MP GEAR LUBE 80W90	770	\$ 1.53	1 lb.	\$ 1,178.10
46	Limited slip gear lubricant 80W90 GL-5	120 lb.	QUANTUM	MP GEAR LUBE 80W90	1080	\$ 1.63	1 lb.	\$ 1,760.40
47	Motor oil for all diesel and gasoline engine service CF/SL , SM, ILSAC GF-4	55 gal.	QUANTUM	X-5 MAX BLEND 5W20	1300	\$ 8.74	1 gal.	\$ 11,362.00
48	Transmission fluid - Dexron -VI-ATF or equal	1 qt.	PENNZOIL	DEXRON VI	120	\$ 5.18	1 qt.	\$ 621.60
49	TES - 295 Alison TES Fluid or equal	1 qt.	QUANTUM	HYPERION SYNHD-5 GAL/PER GAL	30	\$ 15.45	1 qt..	\$ 463.50
50	Hydraulic/Transmission Oil: HY-GARD Transmission Oil or equal	5 gal	QUANTUM	HYPERION UNIV TRACTOR HYD	150	\$ 7.95	1 gal.	\$ 1,192.50
51	Hydraulic/Transmission Oil: HY-GARD Transmission Oil or equal	55 gal	QUANTUM	HYPERION UNIV TRACTOR HYD	8,250	\$ 7.95	1 gal.	\$ 65,587.50
52	Hydraulic Oil - CAT HYDO ADVANCED 10 or equal	5 gal	QUANTUM	HYPERION TO-4 FLUID	120	\$ 10.97	1 gal.	\$ 1,316.40
53	Hydraulic Oil - CAT HYDO ADVANCED 10 or equal	55 gal	QUANTUM	HYPERION TO-4 FLUID	6,600	\$ 10.04	1 gal.	\$ 66,264.00

EXHIBIT A **OIL15 - PRICING PAGE**

54	Automatic Transmission Fluid - MOTORCRAFT MERCON LV or equal	1 qt.	PENNZOIL	PLATINUM LV MVATF	30	\$ 4.52	1 qt.	\$ 135.60
55	Automatic Transmission Fluid - MOTORCRAFT MERCON LV or equal	1 gal	PENNZOIL	PLATINUM LV MVATF	120	\$ 16.21	1 gal.	\$ 1,945.20
56	Transmission Fluid - VALVOLINE CVT FLUID or equal	1 qt.	PENNZOIL	PLATINUM CVT-2	30	\$ 6.36	1 qt.	\$ 190.80
57	Transmission Fluid - VALVOLINE CVT FLUID or equal	1 gal	NOT AVAILABLE	NOT AVAILABLE	120	\$ -	1 gal.	\$ -
58	Deposit & Credit for Returnable 55 Gal. Drum	55 Gallon	NONE	NONE	1	\$ -	each	\$ -
SECTION 1 : TOTAL - TRUCK LOAD							\$	1,364,976.75

EXHIBIT A

OIL15 - PRICING PAGE

SECTION 2 - LESS THAN TRUCK LOAD (LTL)

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
LINE ITEM	DESCRIPTION	PREFERRED SIZE/WT (for information use only and not to be used for calculations)	MANUFACTURER	BRAND BID	ESTIMATED QTY.	UNIT PRICE LESS THAN TRUCK LOAD (LTL)	Unit of Measure (For calculation purposes only)	EXTENDED PRICE LESS THAN TRUCK LOAD (LTL)
1	Motor oil for lubricating 2 cycle engines one pint containers (chain saw motor oil) - API TC or equal	8 oz.	PENNZOIL	2-CYCLE AIR-COOLED 8 OZ	1800	\$ 0.16	1 oz.	\$ 288.00
2	Motor oil for lubricating 2 cycle engines (outboard motor oil) - API TC-W3 or equal	1 qt.	SHELL	NAUTILUS 2-CYCLE OUTBOARD	1300	\$ 3.51	1 qt.	\$ 4,563.00
3	Motor oil for all diesel and gasoline engine service SAE30 - CF-4, CF-2 CF/SJ	1 qt.	QUANTUM	HD FLEET MOTOR OIL SAE 30	3300	\$ 2.43	1 qt.	\$ 8,019.00
4	Motor oil for all diesel and gasoline engine service SAE15W40 - CI 4 CF/SJ CJ-4, CI-4 PLUS, CH-4, CG-4	1 qt.	QUANTUM	HYPERION ULTRA 15W40	150,000	\$ 2.75	1 qt.	\$ 412,500.00
5	Motor oil for all diesel and gasoline engine service SAE15W40 - CI-4, CI-4 PLUS, CH-4, CG-4, CF-4/SL, SM	55 gal.	QUANTUM	HYPERION ULTRA 15W40	1320	\$ 9.25	1 gal.	\$ 12,210.00
6	Motor oil for all diesel and gasoline engine service SAE15W40 - BULK CJ-4, CI-4PLUS, CH-4, CG4, CF-4/SL, SM	BULK 6,000 gallon	QUANTUM	HYPERION ULTRA 15W40	6000	\$ 6.15	1 gal.	\$ 36,900.00
7	Motor oil for all diesel and gasoline engine service SAE10 - CF/SL CAT TO-2, ALLISON C-4 or equal	5 gallon	SHELL	ROTELLA T-1 10	2400	\$ 10.25	1 gal.	\$ 24,600.00
8	Motor oil for all diesel and gasoline engine service SAE10 - CF/SL CAT TO-2, ALLISON C-4 or equal	55 gal.	SHELL	ROTELLA T-1 10	55	\$ 10.25	1 gal.	\$ 563.75
9	Motor oil for all diesel and gasoline engine service 5W20 - CF/SL SM, SJ, ILSAC GF-4	1 qt.	QUANTUM	X-5 MAX-BLEND 5W20	5000	\$ 2.28	1 qt.	\$ 11,400.00
10	Motor oil for all diesel and gasoline engine service 5W30 - CF/SL ILSAC GF-4	1 qt.	QUANTUM	X-5 MAX-BLEND 5W20	10000	\$ 2.28	1 qt.	\$ 22,800.00
11	Motor oil for all diesel and gasoline engine service 5W30 - CF/SL SM, SJ, ILSAC GF-4	55 gal.	QUANTUM	X-5 MAX-BLEND 5W20	550	\$ 8.74	1 gal.	\$ 4,807.00
12	Motor oil for all diesel and gasoline engine service 10W30 - CF/SL SM, SJ, ILSAC GF-4	1 qt.	QUANTUM	X-5 MAX-BLEND 5W20	58000	\$ 2.28	1 qt.	\$ 132,240.00
13	Motor oil for all diesel and gasoline engine service 10W40 - CF/SL	1 qt.	QUANTUM	X-4 SUPREME 10W40	500	\$ 2.40	1 qt.	\$ 1,200.00
14	Motor oil for all diesel and gasoline engine service 20W50 - CF/SL	1 qt.	QUANTUM	X-4 SUPREME 20W50	500	\$ 2.40	1 qt.	\$ 1,200.00
15	Extreme pressure gear lubricant 80W90 GL-5, MT-1, MACK GO-J or equal	35 lb.	QUANTUM	MP GEAR LUBE 80W90	280	\$ 1.53	1 lb.	\$ 428.40
16	Extreme pressure gear lubricant 80W90 GL-5, MT-1, MACK GO-J or equal	120 lb.	QUANTUM	MP GEAR LUBE 80W90	3360	\$ 1.63	1 lb.	\$ 5,476.80
17	Extreme pressure gear lubricant 85W140 GL-5, MT-1, MACK GO-J or equal	120 lb.	QUANTUM	MP GEAR LUBE 85 W 140	720	\$ 1.53	1 lb.	\$ 1,101.60
18	Extreme pressure gear lubricant - mineral gear lube 90 gl-1	35 lb.	SHELL	DENTAX	385	\$ 2.00	1 lb.	\$ 770.00
19	Powertranz EW 50 EATON PS-164, R7 MACK GO-A PLUS NAVISTAR TMS 6816 or equal	35 lb.	QUANTUM	HYPERION SYN TRANS CD50	350	\$ 3.02	1 lb.	\$ 1,057.00
20	Wheel bearing and chassis grease summer weight NLGI #2	14 to 14-1/2 oz. tubes	QUANTUM	HYPERION RED PREMIUM	2500	\$ 2.00	1 oz.	\$ 5,000.00
21	Wheel bearing and chassis grease summer weight NLGI #2	35 lb.	QUANTUM	HYPERION RED PREMIUM	245	\$ 2.00	1 lb.	\$ 490.00
22	Wheel bearing and chassis grease summer weight NLGI #2	120 lb.	QUANTUM	HYPERION RED PREMIUM	1200	\$ 2.10	1 lb.	\$ 2,520.00
23	All purpose grease (3% molly) water and heat resistant grease NGLI #2	14 to 14-1/2 oz. tubes	SHELL	GADUS S3V 460D2	120	\$ 2.93	1 oz.	\$ 351.60
24	All purpose grease (3% molly) water and heat resistant grease NGLI #2	35 lb.	QUANTUM	MOLYCAT GREASE EP2	200	\$ 2.49	1 lb.	\$ 498.00

EXHIBIT A

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25	All purpose grease (3% molly) water and heat resistant grease NGLI #2	120 lb.	QUANTUM	MOLYCAT GREASE EP2	240	\$ 2.53	1 lb.	\$ 607.20
26	Hydraulic oil-light weight RO22 Turbine/Circulating Oil	5 gal.	SHELL	TELLUS S2V22	45	\$ 12.44	1 gal.	\$ 559.80
27	Hydraulic oil-light weight	5 gal.	QUANTUM	HYPERION 6000 AW ISO 32	45	\$ 7.60	1 gal.	\$ 342.00
28	Hydraulic oil-light weight	55 gal.	QUANTUM	HYPERION 6000 AW ISO 32	24200	\$ 7.40	1 gal.	\$ 179,080.00
29	Hydraulic oil-medium weight	5 gal.	QUANTUM	HYPERION 6000 AW ISO 46	35	\$ 7.60	1 gal.	\$ 266.00
30	Hydraulic oil-medium weight	55 gal.	QUANTUM	HYPERION 6000 AW ISO 46	11000	\$ 7.40	1 gal.	\$ 81,400.00
31	Hydraulic oil-heavy weight	5 gal.	QUANTUM	HYPERION 6000 AW ISO 68	200	\$ 7.60	1 gal.	\$ 1,520.00
32	Hydraulic oil-heavy weight	55 gal.	QUANTUM	HYPERION 6000 AW ISO 68	880	\$ 7.40	1 gal.	\$ 6,512.00
33	Transmission fluid - Multi Vehicle ATF	1 qt.	QUANTUM	T-3 ATF	22000	\$ 2.36	1 qt.	\$ 51,920.00
34	Transmission fluid - Multi Vehicle ATF	55 gal.	QUANTUM	T-3 ATF	495	\$ 8.76	1 gal.	\$ 4,336.20
35	Transmission fluid - TO - 4 fluid	5 gal.	QUANTUM	HYPERION TO-4 FLUID	350	\$ 10.97	1 gal.	\$ 3,839.50
36	Transmission fluid - TO - 4 fluid	55 gal.	QUANTUM	HYPERION TO-4 FLUID	605	\$ 10.04	1 gal.	\$ 6,074.20
37	Automatic Transmission Fluid Multi-Vehicle ATF API DEXRON III, MERCON, MERCON V, ATF+3 ATF+4 or equal	1 qt.	QUANTUM	TS GLOBAL SYN TRANS FLUID	1000	\$ 3.25	1 qt.	\$ 3,250.00
38	Combination fluid, combination hydraulic	5 gal.	QUANTUM	HYPERION UNIV TRACTOR HYD	250	\$ 7.95	1 gal.	\$ 1,987.50
39	Combination fluid, combination hydraulic	55 gal.	QUANTUM	HYPERION UNIV TRACTOR HYD	20900	\$ 7.95	1 gal.	\$ 166,155.00
40	Railroad diesel engine oil must be a generation 4 oil as designated by (LOMA) EMD approved	55 gal.	SHELL	CAPRINUS XR 40	880	\$ 12.01	1 gal.	\$ 10,568.80
41	Synthetic motor oil for gasoline and diesel engines SAE 5W40 - CF/SL, SAE 10W30 - CF/SL, SAE 5W40 - CJ-4, CH-4/SL	1 qt.	SHELL	ROTELLA T6 5W40	100	\$ 5.97	1 qt.	\$ 597.00
42	Synthesized multipurpose gear lubricant 75W90 DANA SHADES 256, REV. C, EATON E500, MACK GO J PLUS or equal	35 lb.	QUANTUM	FULL SYN PREM 75W90	700	\$ 3.02	1 lb.	\$ 2,114.00
43	Synthesized multipurpose gear lubricant 80W140 DANA SHADES 256, ARVIN MERITOR O-76, MACK GO -J or equal	35 lb.	QUANTUM	FULL SYN PREM 80W140	140	\$ 3.23	1 lb.	\$ 452.20
44	Synthesized multipurpose gear lubricant 75W90 DANA SHADES 256, REV C, EATON E500, MACK GO-J PLUS or equal	120 lb.	QUANTUM	FULL SYN PREM 75W90	120	\$ 3.28	1 lb.	\$ 393.60
45	Limited slip gear lubricant 80W90 GL-5	35 lb.	QUANTUM	MP GEAR LUBE 80W90	770	\$ 1.53	1 lb.	\$ 1,178.10
46	Limited slip gear lubricant 80W90 GL-5	120 lb.	QUANTUM	MP GEAR LUBE 80W90	1080	\$ 1.63	1 lb.	\$ 1,760.40
47	Motor oil for all diesel and gasoline engine service CF/SL , SM, ILSAC GF-4	55 gal.	QUANTUM	X-5 MAX-BLEND 5W20	1300	\$ 8.74	1 gal.	\$ 11,362.00
48	Transmission fluid - Dexron -VI-ATF or equal	1 qt.	PENNZOIL	DEXRON VI	120	\$ 5.18	1 qt.	\$ 621.60
49	TES - 295 Alison TES Fluid	1 qt.	QUANTUM	HYPERION SYNHD-5 GAL/PER GAL	30	\$ 15.45	1 qt.	\$ 463.50
50	Hydraulic/Transmission Oil: HY-GARD Transmission Oil or equal	5 gal	QUANTUM	HYPERION UNIV TRACTOR HYD	150	\$ 7.95	1 gal.	\$ 1,192.50
51	Hydraulic/Transmission Oil: HY-GARD Transmission Oil or equal	55 gal	QUANTUM	HYPERION UNIV TRACTOR HYD	8,250	\$ 7.95	1 gal.	\$ 65,587.50
52	Hydraulic Oil - CAT HYDO ADVANCED 10 or equal	5 gal	QUANTUM	HYPERION TO-4 FLUID	120	\$ 10.97	1 gal.	\$ 1,316.40

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53	Hydraulic Oil - CAT HYDO ADVANCED 10 or equal	55 gal	QUANTUM	HYPERION TO-4 FLUID	6,600	\$ 10.04	1 gal.	\$ 66,264.00
54	Automatic Transmission Fluid - MOTORCRAFT MERCON LV or equal	1 qt.	PENNZOIL	PLATINUM LV MVATF	30	\$ 4.52	1 qt.	\$ 135.60
55	Automatic Transmission Fluid - MOTORCRAFT MERCON LV or equal	1 gal	PENNZOIL	PLATINUM LV MVATF	120	\$ 16.21	1 gal.	\$ 1,945.20
56	Transmission Fluid - VALVOLINE CVT FLUID or equal	1 qt.	PENNZOIL	PLATINUM CVT-2	30	\$ 6.36	1 qt.	\$ 190.80
57	Transmission Fluid - VALVOLINE CVT FLUID or equal	1 gal	NOT AVAILABLE	NOT AVAILABLE	120	\$ -	1 gal.	\$ -
50	Deposit & Credit for Returnable 55 Gal. Drum	55 Gallon	NONE	NONE	1		each	\$ -
SECTION2: TOTAL - LESS THAN TRUCK LOAD (LTL)							\$	1,364,976.75

EXHIBIT A

OIL15 - PRICING PAGE

Vendor Contract Manager's Name: _____

Vendor Name: _____

Address: _____

Authorized Signature: _____

Date: _____

Phone: _____

Fax: _____

Email: _____

IF RESPONDING IN WVOASIS VSS,
PLEASE ENTER THIS AMOUNT AS YOUR
UNIT PRICE ----->

TOTAL: SECTION 1 - TRUCK LOAD	\$ 1,364,976.75
TOTAL: SECTION 2 - LESS THAN TRUCK LOAD (LTL)	\$ 1,364,976.75
GRAND TOTAL:	\$ 2,729,953.50

STANDARD DELIVERY AFTER RECEIPT OF ORDER (ARO)	DAYS	5
EMERGENCY DELIVERY AFTER RECEIPT OF ORDER (ARO)	DAYS	3

LOCATION OF WAREHOUSE FROM WHICH SHIPMENT CAN BE MADE FROM:

HARRIS OIL COMPANY, INC.

330 OAK DRIVE

SPENCER, WV 25276



2-CYCLE AIR-COOLED ENGINE OIL

For All Air-Cooled 2-Cycle Engines

PRODUCT DESCRIPTION

PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL is formulated with high quality Pennzoil "tough film" base stocks and an additive package designed specifically for air-cooled engines. Air-cooled engines run hotter than water cooled outboard engines and require a lubricant formulated for their unique lubrication requirements. Applications such as small maintenance equipment can run extremely hot. Dust and dirt on the cooling fins increase the severity. PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL contains a unique combination of detergents and ash-free dispersants to protect against high-temperature deposits and ring sticking, plug fouling and port plugging. Anti-wear protection for the high rpm needle roller bearing commonly found in small air-cooled engines is also critical.

PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL is designed to protect these components and protect against piston scuffing during start up and extended use conditions. It also contains additives to protect against rust and corrosion.

The unique combination of base oils and additives provides superior protection (even at high temperatures and high loads) against piston scuffing, while minimizing exhaust smoke and spark plug fouling. It is prediluted to allow easy mixing with gasoline and smooth flowing in oil injection systems. It is dyed blue for easy identification in the fuel.

APPLICATION

PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL is recommended for air-cooled, two-cycle engines in all applications which do not specify NMMA TC-W®, TC-WII® or TC-W3®. It may be used in premix with gasoline or oil injection systems. It is specifically formulated for higher temperature applications such as chain saws, weed cutters, air blowers, lawnmowers, snow blowers and small generators. It is also recommended for two-cycle engines in motorcycles, snowmobiles and ATV's which do not specify NMMA TC-W®, TC-WII®, or TC-W3® products. It may be used in any application which requires API Service TC lubricants and is suitable for use in Rotax engines. For applications calling for NMMA TC-W®, TC-WII® or TC-W3® oils, use Pennzoil® Premium Outboard and Multi-Purpose Two-Cycle Oil.

Under heavy-duty operating conditions in air-cooled engines, some TC-W®, TC-WII® or TC-W3® oils can promote the formation of deposits which result in ring sticking. PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL contains special detergents that offer excellent protection against ring sticking in these applications.

PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL is a highly fortified, high quality lubricant and should be used at the fuel to oil levels of original equipment oils. The use of lower fuel to oil ratios reduces economy and promotes deposits. Always check the manufacturer's recommendations for fuel to oil ratios and use at the highest ratio allowed.

Because of its special formulation, PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL is generally not compatible with NMMA TC-W®, TC-WII® or TC-W3® lubricants. Caution should be exercised to assure that these products are not commingled. Special precautions should be taken when changing from a TC-W®, TC-WII® or TC-W3® lubricant, like Pennzoil® Premium Outboard and Multi-Purpose Two-Cycle Oil, to PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL to avoid mixing these products in the equipment.

BENEFITS

- High temperature protection
- Protects against deposits and ring sticking
- Ideal for air cooled two-cycle engines
- For premix or injector systems
- Protects bearings and pistons from wear and scuffing
- Minimizes spark plug fouling
- Minimizes exhaust smoke
- Prediluted for easier gasoline mixing
- Dyed blue for ease of identification
- Prevents port plugging

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES PENNZOIL® 2-CYCLE AIR-COOLED ENGINE OIL

TEST	METHOD	TYPICAL RESULTS
Gravity, °API	ASTM D-287	29.3
Density, g/cc	ASTM D-1298	0.88
Pounds per Gallon	ASTM D-1298	73.4
Viscosity		
@ 40°C, cSt	ASTM D-445	78.6
@ 100°C, cSt	ASTM D-445	10.3
Viscosity Index	ASTM D-2270	112
Pour Point, °C(°F)	ASTM D-97	-33(-27)
Flash Point, °C(°F)	ASTM D-92	104(219)
Color		Blue
Material Number		
Bulk		4132

FUEL MIX TABLE OUNCES 2-CYCLE AIR-COOLED ENGINE OIL TO GALLONS OF FUEL

RATIO FUEL:OIL	1 GAL	2 GAL	3 GAL	4 GAL	5 GAL	6 GAL
16:1	8	16	24	32	40	48
20:1	6	13	19	26	32	38
24:1	5	11	16	21	27	32
32:1	4	8	12	16	20	24
50:1	3	5	8	11	13	16

BE SURE TO MIX GASOLINE AND OIL THOROUGHLY



Shell Nautilus 2-Cycle Outboard (Formula Shell)

Shell Canada, for Years the Proven Lubricants leader in all two Cycle, Water Cooled Outboard Engines With: Nautilus, now introduces a new Formulation That goes Beyond the Latest TC-W3 Performance Standard issued by the Nmma to Improve Outboard Engine Life. Nautilus is Designed to Meet all Outboard Engine manufactures Performance Requirements for pre-mix, Direct oil Injection, and Newer Generation Direct Injection two Cycle Engines.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

▪ National Marine Manufacturers Association (Nmma) Approval

Nautilus has exceeded the recertification Requirements of the Severe TC-W3 Standard.

▪ Meets all Major Outboard Engine Manufacturers Recommendations

Nautilus is Specifically Designed to Meet the Requirements of all Major Outboard Engine Manufacturers and Provides Performance demanded in Their "own Brand" TC-W3 oil. In Addition, it Meets the Requirements of all Other Manufacturers Requiring TC-W, TC-W II or TC-W3 Quality Lubricant.

▪ Low aquatic Toxicity

Through the use of Unique Additive Chemistry Nautilus has Proven to be More Environmentally Friendly Than Most Other 2 Cycle Motor Oils.

▪ Reduced Spark Plug Fouling and preignition

Its State of the art "Ashless" Formulation Minimizes the Combustion Chamber Deposits Which Cause Spark Plug Fouling and preignition.

Reduced Deposits Result in Enhanced Performance and Durability of the Engine While Eliminating the Risk of preignition-Induced Engine Damage.

▪ Minimized Piston Deposits

Superior Dispersants Enable the oil to Help Keep Pistons Clean and Avoid Ring Sticking to Ensure Peak Performance Engine Operation and Lower Maintenance Costs.

▪ Improved Lubricity/Scuffing Protection

With its Exclusive Chemistry, Nautilus Provides Exceptional Lubrication Protection at Higher Temperatures in Today's High Powered, Hard Working Outboard Engines.

▪ Superior Rust Protection

Superb Anti-Rust Additives Help Prevent Rusting of Critical Engine Parts During Operation and Storage for Longer Engine Life.

▪ Designed to Perform With Unleaded Fuels at Fuel to oil ratios up to 100:1

Proven Shell Performance When Used in Accordance With Manufacturers Recommended Lubrication practices.

▪ Reduced Smoke Emissions

New Nautilus Formulation responds to Environmental Concerns shared by all boating enthusiasts, by Meeting the Latest Jaso FC Smoke Emission Standard.

▪ Blends Easily and Stays Mixed in Cold Temperatures

It Exceeds the Requirements of an SAE FM 4 at -40°C for Outstanding Lubrication Protection.

▪ Dyed Blue for pre-mix Systems

Nautilus Contains an Easily seen Blue dye as a Safety Check - if it's Blue it's Blended.

Main Applications

The Last decade has seen a gradual Increase in the Average horsepower Produced by Outboard Engines, the Introduction of Fuel and Lubricant Injection Systems, the phasing out of Leaded Fuels Along With trends to Higher Fuel to oil ratios. More Recently, new challenges Such as Smoke Emissions and Environmental Concerns Have Come to the forefront. In Addition, Today's Outboard Engines Must be able to Withstand the Effects of Higher Speed and Much Higher Temperatures.

In response to the Needs of Outboard Engine Manufacturers, the Nmma Defined the TC-W3 Standard of Performance. This Standard, is Designed to Increase the Quality of Lubricants Available to the Industry and the public. This new Standard of Quality Will Result in Longer, Trouble-Free Engine Life by Offering vastly Improved Lubricity and Anti-Scuffing Protection Over the former TC-W II Specification. In Addition, Superior Dispersants Ensure Peak Engine Performance by Keeping Pistons Clean and Free of Deposits.

Shell Nautilus is Formulated and Tested to Exceed the Nmma TC-W3 Standard. To the boating enthusiasts, Nautilus Provides the Ultimate in Protection and Performance in all Water Cooled, two Cycle Outboard Engines.

Specifications, Approvals & Recommendations

- Bombardier (Formerly O.M.C.) - the Manufacturers of Johnson and Evinrude
- Mercury Marine
- Yamaha
- Suzuki
- Nissan
- Nmma TC-W3

For additional questions regarding equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Compatibility & Miscibility

▪ Compatibility

Shell Nautilus is Fully Compatible With all Other TC-W3 and TC-W II Lubricants to eliminate any Risk of Operating mishaps.

Typical Physical Characteristics

Properties			Method	Shell Nautilus 2-Cycle Outboard
Product Code				427-531
API Rating				TC
Nmma Rating				TC-W3
SAE Fluidity / Miscibility Grade				FM 4
Density	@15°C	kg/m ³	ASTM D1298	863
Color			Visual	Blue
Pour Point			°C	-48
Flash Point Pmcc			°C min	65
Viscosity	@40°C	mm ² /s	ASTM D445	33.1
Viscosity	@100°C	mm ² /s	ASTM D445	6.8
Brookfield	@-40°C	mPa.s	ASTM D2983	12354
Neutralization Value TBNe		mg KOH/g	ASTM D2896	9.3

These Characteristics are Typical of Current Production. While Future Production Will Conform to Shell's Specification, Variations in These Characteristics may Occur.

Health, Safety & Environment

▪ Health and Safety

Shell Nautilus 2-Cycle Outboard is Unlikely to Present any Significant Health or Safety Hazard When Properly Used in the Recommended Application and Good Standards of Personal Hygiene are Maintained.

Avoid Contact With Skin. Use Impervious Gloves With Used oil. After Skin Contact, Wash Immediately With Soap and Water.

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 Authorized Collection point. Do not Discharge Into Drains, Soil or Water.

Additional Information

- **Advice**

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.



America's Fastest Growing Lubricant Brand!

Quantum® HD Fleet Motor Oil

Quantum HD Fleet Motor Oil is a premium, heavy-duty engine oil formulated with select base oils and a robust additive system that includes dispersants, detergents, oxidation and corrosion inhibitors, and anti-wear and anti-foam agents. These characteristics provide optimum engine cleanliness and reduce port plugging, long-lasting soot control, and superior wear protection for critical engine components.

Quantum HD Fleet Motor Oils, in SAE grades 30 and 40, are designed for use in high-output 2-stroke cycle diesel engines and both turbo-charged and naturally aspirated engines used in heavy-duty trucking, construction, marine, mining, and agriculture applications. Quantum HD Fleet SAE 10W is recommended for use in hydraulic systems and hydrostatic transmissions in off-highway heavy equipment when a premium fluid is recommended. It also meets Caterpillar TO-4 hydraulic 10W performance standards and exceeds zinc anti-wear composition requirements. Quantum HD Fleet Motor Oil SAE 50 is recommended for use in heavy-duty manual transmissions requiring a Caterpillar TO-2 and CD fluid.

VEHICLE BENEFITS

- Superior wear protection for critical engine components
- Added resistance to varnish piston deposits and sludge formation
- Excellent rust and bearing corrosion protection
- Low-ash content to minimize deposits and keep intake ports clean



PRODUCT FEATURES

- Exceeds API performance standard CF-2 (SAE 30 & 40)
- Active detergents and low-ash content reduces port plugging and fouling
- Special dispersants maintain optimum soot control for optimum lubricant performance

APPLICATIONS

Recommended for high output 2-stroke cycle engines, manual transmissions, hydrostatic transmissions, and hydraulic systems requiring:

- API standards CF-2 (SAE 30 & 40), CF, CE, CD-II, & CD
- Pre-2002 automotive gasoline engine applications (SAE 30 & 40)
- Detroit Diesel Type 1 & 2 (SAE 30 & 40)
- U.S. military specifications MIL-L-2104E & MIL-L-46152D (SAE 30)
- Transmission requirements Allison C-4, Caterpillar CD & TO-2 Fluid, Man 270 (SAE 50)
- Caterpillar TO-4 hydraulic system standards & zinc content (Hydraulic SAE 10W)

Quantum® HD Fleet Motor Oil				
Typical Physical Properties				
SAE Grade	10W	30	40	50
API Service	CF	CF-2	CF-2	CF
Gravity, API	30.5	29.0	28.5	28.3
Flash Point, °C (°F)	210 (410)	215 (419)	213 (415)	222 (432)
Pour Point, °C (°F)	-45 (-49)	-42 (-44)	-36 (-33)	-31 (-23)
cSt @ 40°C	37.5	81.1	131.5	207.0
cSt @ 100°C	6.6	11.2	15.1	18.0
Viscosity Index	133	130	119	98
Total Base Number	10.0	10.0	9.2	10.0
Phosphorus, wt. %	.110	.110	.110	.110
Calcium, wt. %	.192	.192	.192	.192
Zinc, wt. %	.125	.125	.125	.125
Sulfated Ash, wt %	1.2	1.2	1.2	1.2

Minor variations in typical physical properties may occur from normal manufacturing processes



America's Fastest Growing Lubricant Brand!

HYPERION® ULTRA Multi-Grade Engine Oil 15W-40

Hyperion Ultra Engine Oil is a top-tier lubricant formulated exclusively with premium Group II base stocks to exceed the requirements of 2007 or later low-emission engines equipped with diesel particulate filters (DPF) and the performance standards for virtually all global diesel engine manufacturers. It provides outstanding lubricity characteristics with ultra-low sulfur (ULS) diesel and low-sulfur EPA diesel fuels. Hyperion Ultra Engine Oil is backward compatible and may also be used in older vehicles with diesel or gasoline engines.

Hyperion Ultra Engine Oil is formulated with CleanGuard™ technology, an advanced additive system that contains active cleaning agents. CleanGuard™ provides superior soot control and a proprietary detergent system that delivers ongoing engine cleanliness, extending the life and optimizing service intervals of diesel particulate filters (DPF) and exhaust gas recirculation (EGR) systems.

EQUIPMENT BENEFITS

- High TBN formulation and excellent TBN retention
- Superior wear protection to protect critical engine components
- Maintains excellent soot control
- Optimum DPF service life and operation
- Protects pistons from carbon deposits
- Supports extended service intervals



PRODUCT FEATURES

- Technology proven in more than 2.5 Trillion Miles of heavy-duty engine operation
- CleanGuard™ technology maintains engine cleanliness and extends the service life of DPF systems
- Advanced dispersants keep soot in suspension and reduces soot-thickening in extended intervals
- High TBN formulation neutralizes acidic engine conditions for optimum performance in extended intervals

APPLICATIONS

Hyperion Ultra Engine Oil is recommended for the following heavy-duty engine oil requirements:

- Exceeds API Service Categories CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF-4 & (gasoline engines) SM, SL, SJ, SH
- Exceeds ACEA E7-08, E9-08 performance standards
- **Exceeds Engine Manufacturer Performance Requirements:** Caterpillar ECF-1, ECF-2 & ECF-3, Cummins CES 20081, 20077, 20076, 20071 & Detroit Diesel 93K218, Mack EO-O Premium Plus 07, EO-N, EO-M Plus, EO-M, EO-L Plus, EO-L, Mercedes Benz 228.3 & 228.31, Chrysler MS-10902 & MS 6395-G, Ford ESE-M2C 153-E & WSS-M2C 171-E, MIL-L-2104E, Allison C-4, Caterpillar TO-2, Department of Defense CID-a-a-52306A2 & A-A-52039A3, Navistar (International), John Deere, Deutz DQC III-05, AGCO (Allis Chalmers), Volvo VDS-4, MAN M3275, JASO DH-2, MTU Type I & II, Renault RLD-3 & Global DHD-1

HYPERION® ULTRA Multi-Grade Engine Oil

Typical Physical Properties

SAE Grade	15W-40
API Service	CJ-4/SM
API Gravity @ 60°F	29.70
Flash Point, °C (°F)	218 (424)
Pour Point °C (°F)	-42 (-44)
Viscosity, cSt @ 40°C	125.5
Viscosity, cSt @ 100°C	16.0
Viscosity Index	140
Total Base Number, D2896	10.0
Sulfated Ash, wt %	1.0 Max
Sulfur, wt %	0.30
Zinc, wt. %	0.13
Phosphorus, wt %	0.12

Minor variations in typical physical properties may occur from normal manufacturing processes



Technical Data Sheet

- Reliable Lubrication

Shell Rotella® T1 10W (CF)

High Quality Heavy Duty Diesel Engine Oils

Shell Rotella® T1 Energized Protection™ oils use well-proven performance additives to fight engine wear and prevent deposits, providing reliable lubrication and consistent performance. Suitable for day to day use in turbo and non-turbocharged older engines.



Performance, Features & Benefits

▪ Reliable performance

Provide reliable all-year-round performance in the applications for which they are intended.

▪ Proven durability

Shell Rotella® T1 provides excellent wear protection that promotes engine durability. It has a low ash content which minimizes the formation of deposits and keeps intake ports clean. It offers excellent rust and corrosion protection for critical engine parts.

Main Applications



▪ Heavy duty diesel engines

Shell Rotella® T1 is suitable for mixed applications combining older diesel applications and some stationary engines.

Shell Rotella® T1 is suitable for heavy equipment used for construction, mining or quarry operations.

▪ Hydraulic and transmissions

Shell Rotella® T1 oils can be used in certain transmission and mobile hydraulic systems where the equipment manufacturer recommends use of mono-grade engine oils.

Specifications, Approvals & Recommendations

- API CF
- Allison C-4, C-3
- CAT TO-2
- Vickers 35VQ25
- For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk, or the OEM Approvals website.

Typical Physical Characteristics

Properties	Method	Shell Rotella T1 10W
SAE Viscosity Grade	J300	10W
Kinematic Viscosity @40°C cSt	ASTM D445	38
Kinematic Viscosity @100°C cSt	ASTM D445	6.5
Viscosity Index	ASTM D2270	120
Density @15°C kg/l	ASTM D4052	0.876
Total Base Number mg KOH/g	ASTM D2896	6
Flash Point (Cleveland Open Cup)	ASTM D92	205
Pour Point °C	ASTM D97	-33

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

Health, Safety & Environment

▪ Health and Safety

Shell Rotella T1 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

▪ Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Additional Information

▪ Advice

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.



America's Fastest Growing Lubricant Brand!

Quantum® X-5 Max-Blend Motor Oil

Quantum X-5 Max-Blend Motor Oil is formulated from premium synthetic-blend base stocks and CleanGuard™ additive technology to deliver trusted engine protection and peak vehicle performance. CleanGuard™ is a state-of-the-art additive system that contains active cleaning agents that keeps engines running at ideal conditions. Quantum X-5 Max-Blend 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.

Quantum X-5 Max-Blend Motor Oil is available in SAE grades 5W-20, 5W-30, and 10W-30 and exceeds new car warranty requirements as defined by ILSAC standards GF-5 and API classification Resource Conserving SN.

VEHICLE BENEFITS

- Excellent wear protection for critical engine components
- Optimum fuel economy
- Delivers excellent low-temperature performance
- Maintains maximum engine protection under severe operating conditions
- Protects vehicle emission systems



PRODUCT FEATURES

- Exceeds ILSAC GF-5 and API Resource Conserving SN performance standards
- Formulated with premium synthetic-blend base stocks for added resistance to thermal breakdown
- Improved oxidation stability and volatility properties reduce oil consumption between services
- CleanGuard™ technology maintains engine cleanliness and protects against sludge and piston deposits

APPLICATIONS

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

- ILSAC GF-5 & API Service Category Resource Conserving SN
- Chrysler; MS-6395 (Revision S)
- Ford; WSS-M2C945-A (5W-20) & WSS-M2C946A (5W-30)
- General Motors; GM6094M (Obsolete)

Quantum® X-5 Max-Blend Motor Oil				
Typical Physical Properties				
GRADE	Test Method	5W-20	5W-30	10W-30
API Service		SN	SN	SN
ILSAC Performance		GF-5	GF-5	GF-5
Density@15°C, g/cc ³	ASTM D4052	0.861	0.863	0.871
Viscosity @ 40°C, cSt	ASTM D445	49.5	64.2	69.9
Viscosity @ 100°C, cSt	ASTM D445	8.5	10.8	10.6
Viscosity Index	ASTM D2270	153	161	148
Flash Point, °C (°F)	ASTM D93	207 (405)	207 (405)	207 (405)
Pour Point, °C (°F)	ASTM D97	-36 (-33)	-36 (-33)	-36 (-33)
CCS, cP, max	ASTM D5293	6200 @ -30	6300 @ -30	6600 @ -25
MRV, cP, max	ASTM D4684	30000 @ -35	30000 @ -35	25000 @ -30
HTHSV, @150°C, mPa.S	ASTM D4683	2.6	3.1	3.2
TBN, mg KOH	ASTM D2896	8.5	8.5	8.5
Volatility @ 700°F, %loss	ASTM D5800	<15.0	<15.0	<12.0
Zinc, wt%	ASTM D4951	0.085	0.085	0.085

Minor variations in typical physical properties may occur from normal manufacturing processes



Quantum® MP Gear Lube

Quantum MP Gear Lube is a premium multi-service EP gear lubricant formulated with high-quality base stocks and superior additive technology. They are recommended for use in gearboxes, manual transmissions, bearings, gear reducers, hypoid gear sets, and many other applications where an API Service classification GL-5 gear lubricant is specified. Quantum MP Gear Lube is also specially formulated for use in Limited Slip (LS) & Positive Traction rear axles.

VEHICLE BENEFITS

- Superior wear protection for critical gear components
- Outstanding low-temperature shifting performance
- Maximum resistance to oxidation, sludge, and varnish formation
- Provides active protection against rust and corrosion development
- Optimum fuel economy
- Provides smooth shifting operation

PRODUCT FEATURES

- SAE grade 80W-90 can be formulated with limited-slip (LS) additive when specified
- Provides ultimate wear protection for critical gear components from shock loading
- Resists deposit formation to protect seals from deterioration to prevent loss of fluid

APPLICATIONS

Recommended for passenger car, light-truck and heavy-duty truck axles with hypoid gear sets operating under severe conditions, extreme temperatures and extended service intervals requiring:

- API MT-1
- API GL-5
- Ford WSP-M2C197-A (80W-90 with LS)
- MIL-PRF-2105E
- PG-2 (LS)
- MACK GO-J

Quantum® MP Gear Lube			
Typical Physical Properties			
SAE Grade	Test Method	80W-90	85W-140
API Service		GL-5 & MT-1	GL-5 & MT-1
Gravity, °API	ASTM D287	27.79	27.21
Flash Point, °C (°F)	ASTM D445	219(426)	203(398)
Pour Point, °C (°F)	ASTM D97	-29 (-20)	-14 (7)
Viscosity, cSt @ 40°C	ASTM D445	151.0	360.0
Viscosity, cSt @ 100°C	ASTM D445	15.35	28.74
Viscosity Index	ASTM D2270	96	109
Minor variations in typical physical properties may occur from normal manufacturing processes			



America's Fastest Growing Lubricant Brand!

HYPERION® SYN Trans CD 50

Hyperion SYN Trans CD 50 is a premium, full-synthetic transmission fluid specifically designed for use in heavy-duty manual transmissions in over-the-road trucks, buses and off-road equipment operating under severe conditions, extreme ambient temperatures, and utilizing extended service intervals.

Formulated with proprietary PolyAlphaOlefin (PAO) synthetic base stocks and advanced additive technology, Hyperion SYN Trans CD 50 boasts outstanding thermal and oxidation stability to support extended drain intervals as defined by Eaton Roadranger and Dana Transmission 500,000 mile line-haul service.

Hyperion SYN Trans CD 50 meets and exceeds the performance requirements of API GL-1/MT-1.

EQUIPMENT BENEFITS

- Extended service wear protection for critical transmission components
- Excellent frictional properties and low-temp performance for smooth shifting
- Optimum performance under heavy-load
- Maximum protection against transmission varnish and sludge formation
- Superior thermal stability and oxidation resistance to support extended service intervals
- Optimizes fuel economy when compared to conventional manual transmission fluids
- Maximizes manual transmission's operational life



PRODUCT FEATURES

- Formulated with PolyAlphaOlefin (PAO) base stocks for maximum resistance to thermal breakdown
- Provides active anti-wear agents to protect critical transmission components, including synchronizers
- Delivers maximum resistance to fluid oxidation in severe operating conditions, including stop-and-go driving
- Advanced friction modifiers provide smooth shifting performance

APPLICATIONS

Hyperion Syn Trans CD 50 is recommended for the following heavy-duty manual transmission requirements:

- U.S. Military MIL-2104D & MIL-L-46152B
- Eaton Roadranger (Eaton Fuller) PS-164 (E500), PS-081 (E250) & REV 7
- Dana Spicer
- ArvinMeritor O-81
- International TMS 6816
- Mack TO-A Plus
- ZF Freedomline

HYPERION® SYN Trans CD 50

Typical Physical Properties

SAE Viscosity Grade	50
API Service	GL-1/MT-1
API Gravity @ 60° F	31.0
Density, lbs/gal @ 60° F	7.2
Brookfield Viscosity, cP @ -40° C	105,000
Viscosity, cSt @ 40° C	151.0
Viscosity, cSt @ 100° C	19.8
Viscosity Index, ASTM D2270	152
Flash Point, C° (F°)	235 (455)
Pour Point, C° (F°)	-40 (-40)

Minor variations in typical physical properties may occur from normal manufacturing processes

America's Fastest Growing Lubricant Brand!



HYPERION® RED Premium Grease

HYPERION RED Premium Grease EP 2 is a high-temperature, lithium complex grease with excellent multi-purpose properties. It is formulated with extreme-pressure (EP) additives, anti-wear agents and long-lasting corrosion and oxidation inhibitors. Hyperion RED Premium Grease provides maximum protection and trouble-free operation in a wide range of lubricating applications including automotive, heavy-duty trucking, construction, agriculture, mining and industrial service.

EQUIPMENT BENEFITS

- Aggressive EP and anti-wear agents protect critical components under extreme load
- Outstanding resistance to corrosion extends equipment life
- Excellent shock load protection for heavy-duty equipment
- Optimum high-temperature performance provides resistance to grease softening
- Oxidation inhibitors maintain maximum protection in extended service



PRODUCT FEATURES

- NLGI certification GC-LB multi-purpose application for wheel bearing and heavy-duty chassis lubrication
- Excellent four-ball wear and EP performance delivers maximum protection in severe applications
- Balanced base oil viscosity resists separation and bearing dropout while maintaining optimum pumpability
- Select lithium complex thickener delivers optimum high-temperature performance
- Maintains grease consistency and lubricating film strength under heavy load
- Special polymers deliver desired tackiness to prevent bearing drop out and resist water washout

APPLICATIONS

Hyperion RED Premium Grease EP 2 is recommended for use in a wide range of automotive, heavy-duty trucking, construction, agriculture, mining and industrial service applications including:

- Disc and drum brake wheel bearings
- Industrial ball and roller bearings
- Heavy-duty chassis and ball & universal joint lubrication
- Boat trailer & 5th wheel lubrication
- Conveyor bearings & equipment hinge pins

HYPERION® RED Premium Grease EP 2		
Typical Physical Properties		
TEST	NLGI Consistency	2
NLGI Certification	ASTM D 4950	GC-LB
Thickener	Type	Lithium Complex
Color	Visual	RED
Texture	Visual	Smooth-Tacky
Worked 60 Penetration @ 25°C	ASTM D 217	285
Base Oil Viscosity, cSt @ 40°C	ASTM D445	224
Dropping Point, °F	ASTM D 2265	550
Four-Ball EP Weld Point, kgf	ASTM D 2596	315
Four-Ball Wear, mm	ASTM D 2266	0.60
Four-Ball Load Wear Index, kgf	ASTM D 2596	50
Timken OK Load, lbs.	ASTM D 2509	70
Oil Separation, %	ASTM D 1742	1.0
Water Washout @ 80°C, % wt.	ASTM D 1264	<10.0
Rust Protection	ASTM D 1743	Pass
Copper Corrosion	ASTM D 4048	Pass
Minor variations in typical physical properties may occur from normal manufacturing processes		



Previous Names: **Shell Albida Grease HDX 2**, **Shell Retinax CMX 2**

Shell Gadus S3 V460D 2

- Heavy Duty Protection
- High Temperature
- Lithium Complex

Premium multi-purpose heavy duty grease with solids

Shell Gadus S3 V460D greases are high performance high temperature greases for slow moving heavily loaded large bearings subject to shock loads. They are based on high viscosity index mineral oil and a lithium complex soap thickener. Apart from containing the latest additives to ensure excellent high temperature, anti corrosion & anti oxidation performance, they also contain MoS₂ to ensure the grease can handle shock loads.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **High base oil viscosity to provide excellent load carrying performance**
Meets the recommended base oil viscosity recommended by leading OEMs.
- **Excellent mechanical stability even under vibrating conditions**
Consistency retained over long periods, even in conditions of severe vibration.
- **Enhanced extreme-pressure properties & resistant to shock loads**
Excellent load-carrying performance enhanced by the presence of MoS₂.
- **Excellent water resistance**
Ensures lasting protection even in the presence of large amounts of water.
- **Effective corrosion protection**
Ensures components/bearings do not fail due to corrosion.
- **High dropping point**
Resistant to high temperatures.

Specifications, Approvals & Recommendations

Shell Gadus S3 V460D is listed by several leading OEMs:

- Komatsu Mining (Germany)
- Terex
- BE (certified)
- Dieffenbacher
- Hitachi
- Konecranes
- CMI
- Flat Products Equipment
- Pfeiffer
- Voith Paper Environmental
- Meets the requirements of the 3% MoS₂ grease Caterpillar specification
- Rothe Erde

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

Main Applications



Shell Gadus S3 V460D greases are used for the grease lubrication of heavy-duty, slow moving bearings subject to shock loads found in the following industries:

- Mining
- Steel

Typical Physical Characteristics

Properties			Method	Shell Gadus S3 V460D 2
NLGI Consistency				2
color				Black
Soap Type				Lithium complex
Base Oil Type				Mineral
Kinematic Viscosity	@40°C	cSt	ASTM D445	460
Kinematic Viscosity	@100°C	cSt	ASTM D445	31
Cone Penetration, Worked	@25°C	0.1 mm	ASTM D217	265-295
Dropping Point		°C	IP 396	>240

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

Health, Safety & Environment

• Health and Safety

Shell Gadus S3 V460D grease is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

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 authorized collection point. Do not discharge into drains, soil or water.

Additional Information

• Operating Temperature

-20°C to +140°C (peak 150°C)

• Advice

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.



America's Fastest Growing Lubricant Brand!

Quantum® MolyCAT Grease

Quantum MolyCAT Grease EP 2 is a premium, high-temperature, lithium complex grease formulated with 3% Molybdenum Disulfide (Moly). Moly reduces the coefficient of friction, and acts as a dry lubricant when required, to deliver optimum film strength and provide added protection of critical metal parts from wear and localized heating under shock load and vibration. It is also formulated with extreme pressure (EP) additives, making it ideal for heavy-load, high-temperature and slow-speed applications found in off-road equipment.

EQUIPMENT BENEFITS

- 3% Moly composition meets Caterpillar equipment grease service requirements
- Aggressive EP and anti-wear agents protect critical components under extreme load
- Outstanding resistance to corrosion extends equipment life
- Optimum shock load protection for heavy-duty equipment
- Excellent high-temperature performance provides resistance to grease softening
- Oxidation inhibitors maintain maximum protection in extended service



PRODUCT FEATURES

- NLGI certification GC-LB multi-purpose application for wheel bearing and heavy-duty chassis lubrication
- Excellent four-ball wear and EP performance delivers maximum protection in severe applications
- Exceptional film strength for low-speed applications under heavy load
- Balanced base oil viscosity resists separation while maintaining optimum grease pumpability
- Special polymers deliver desired tackiness to prevent bearing drop out and resist water washout

APPLICATIONS

Quantum MolyCAT Grease EP 2 is recommended for use in slow-speed, high-temperature and heavy-load applications found in heavy-duty equipment used in construction, mining and earth moving including:

- Disc and drum brake wheel bearings
- Slow-speed, heavy-loaded bearings found in mining, construction and off-road equipment
- Heavy-duty chassis and ball & universal joint lubrication
- Ball and roller bearings
- 5th wheel lubrication

QUANTUM® MolyCAT Grease EP 2		
Typical Physical Properties		
TEST	NLGI Consistency	2
NLGI Certification	ASTM D 4950	GC-LB
Thickener	Type	Lithium Complex
Color	Visual	Black-Grey
Texture	Visual	Smooth-Tacky
Worked 60 Penetration @ 25°C	ASTM D 217	285
Base Oil Viscosity, cSt @ 40°C	ASTM D445	224
Dropping Point, °F	ASTM D 2265	500
Four-Ball EP Weld Point, kgf	ASTM D 2596	400
Four-Ball Wear, mm	ASTM D 2266	0.60
Four-Ball Load Wear Index, kgf	ASTM D 2596	50
Timken OK Load, lbs.	ASTM D 2509	60
Oil Separation, %	ASTM D 1742	1.0
Water Washout @ 80°C, % wt.	ASTM D 1264	<10.0
Rust Protection	ASTM D 1743	Pass
Copper Corrosion	ASTM D 4048	Pass
Minor variations in typical physical properties may occur from normal manufacturing processes		



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 D943 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 minimise fluid and equipment impacts of cavitation-induced oxidation that can shorten fluid life.

Main Applications



- **Mobile/exterior 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)
- Fives Cincinnati P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- Eaton Vickers (Brochure 694)
- 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.

Typical Physical Characteristics

Properties			Method	Tellus S2 V 22
ISO Viscosity Grade			ISO 3448	22
ISO Fluid Type				HV
Kinematic Viscosity	@-20°C	cSt	ASTM D445	695
Kinematic Viscosity	@40°C	cSt	ASTM D445	22
Kinematic Viscosity	@100°C	cSt	ASTM D445	4.8
Viscosity Index			ISO 2909	142
Density	@15°C	kg/m³	ISO 12185	872
Flash Point (COC)		°C	ISO 2592	190
Pour Point		°C	ISO 3016	-42
Dielectric Strength*		kV	ASTM D877	>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.

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.

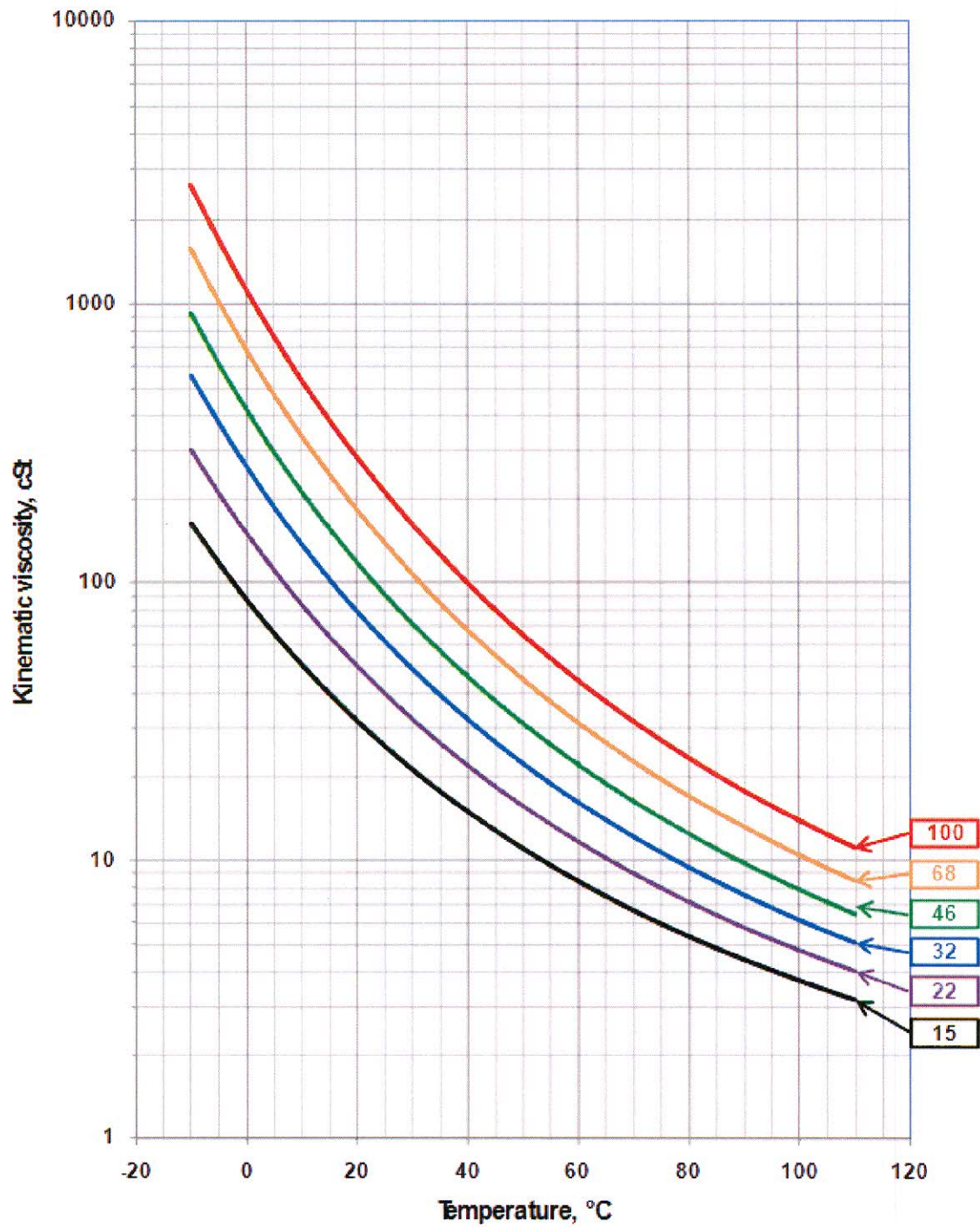
• Fluid Compatibility

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.

Viscosity - Temperature Diagram for Shell Tellus S2 V





America's Fastest Growing Lubricant Brand!

HYPERION™ 6000 AW Hydraulic Oil

Hyperion 6000 Hydraulic AW Oils are premium hydraulic fluids formulated from highly-refined base stocks and an advanced additive system to deliver ultimate equipment protection with extended service intervals.

Hyperion 6000 Hydraulic AW Oil's high viscosity index delivers optimum fluid performance over a wide-range of operating temperatures and conditions. Their long-lasting performance and protection is supported by a 6,000 hour rating in the ASTM D-943 oxidation stability test. They also exhibit excellent demulsification (water separation) properties, even at high operating temperatures and operating pressures.

EQUIPMENT BENEFITS

- Ultimate wear protection for critical system components
- Ultimate resistance to rust and oxidation
- Maximum protection and peak performance under heavy-loads
- Maintains excellent water separating properties
- Provides maximum protection for sensitive servo valves
- Delivers smooth hydraulic operation through rapid air release
- Provides extended equipment service intervals



PRODUCT FEATURES

- Formulated with highly-refined base stocks for ultimate resistance to thermal breakdown
- Provides active anti-wear agents to protect critical system components
- Protects sensitive servo valves for trouble-free operation
- Special dispersants provide resistance to system rust and corrosion
- Ultimate oxidation stability maximizes lubricant service life

APPLICATIONS

Recommended for hydraulic pumps and hydraulic and high-pressure circulating systems requiring:

- Parker Hannifin (Denison) HF-O, HF-1, HF-2, & T6H2OC
- Eaton Vickers 35VQ25A Pump, M-2950-S, & I-286-S
- Cincinnati Milacron P-68, P-69, & P-70
- DIN 51524-2

HYPERION™ 6000 AW Hydraulic Oil				
Typical Physical Properties				
ISO Grade	32	46	68	100
Lbs./Gallon	7.2	7.2	7.2	7.3
Pour Point °C (°F)	-39 (-39)	-38 (-36)	-37 (-35)	-33 (-28)
Flash Point, °C (°F)	204 (400)	207 (405)	232 (450)	241 (465)
Oxidation Hrs, ASTM D-943	>6000	>6000	>6000	>6000
Viscosity Index	110	110	108	106
Viscosity cSt @ 40°C	30.4	46.8	66.0	100.2
Viscosity cSt @ 100°C	5.3	7.0	8.4	11.1
Gravity, API	31.2	30.4	29.7	29.0
Color ASTM D1500	<1.5	<1.5	<1.5	<2.0

Minor variations in typical physical properties may occur from normal manufacturing processes



America's Fastest Growing Lubricant Brand!

Quantum® T-3 Automatic Transmission Fluid

Quantum T-3 Transmission Fluid is a premium fluid designed and recommended for use in automatic transmissions previously serviceable by GM DEXRON®-III (H) and Ford MERCON® brands. It may also be used in equipment requiring a Type A fluid, Allison C-4, Caterpillar TO-2 or Ford specifications M2C138-CJ and M2C166-H.

Quantum T-3 Transmission Fluid's state-of-the-art additive system provides ultimate transmission protection and peak performance in passenger cars, sports utility vehicles and light trucks. It also provides excellent hydraulic performance in industrial applications where low-temperature fluidity or leak detection is an important requirement.

EQUIPMENT BENEFITS

- Superior wear protection
- Excellent frictional properties for smooth shifting
- Excellent anti-shudder performance
- Good seal compatibility
- Protection against varnish and sludge formation
- Superior thermal stability
- Outstanding low-temperature performance



PRODUCT FEATURES

- Formulated with select base stocks for added resistance to thermal breakdown
- Provides active anti-wear agents to protect critical transmission components
- Delivers added resistance to fluid oxidation in severe operating conditions
- Shear-stable viscosity modifiers provide stay-in-grade protection

APPLICATIONS

Quantum T-3 Automatic Transmission Fluid is recommended for the following transmission requirements:

- Transmissions previously serviceable by GM DEXRON®-III (H) and Ford MERCON® brands
- Allison C-4, Caterpillar TO-2 or Ford specifications M2C138-CJ and M2C166-H
- **Not recommended for use in transmissions requiring GM DEXRON®-VI, Ford MERCON®-V, MERCON® SP & LV fluids, or Ford ATF Type F applications**

Quantum® T-3 Automatic Transmission Fluid	
Typical Physical Properties	
Density, g/cm ³ @ 15° C	0.860
Flash Point, COC C° (F°)	212 (413)
Pour Point, C° (F°)	-52 (-61)
Viscosity, cP @ -20° C	1300
Viscosity, cP @ -30° C	4200
Viscosity, cP @ -40° C	17000
Viscosity, cSt @ 40° C	35.4
Viscosity, cSt @ 100° C	7.2
Viscosity Index	172
Color	Red
Foam Test, ASTM D892	Pass
Minor variations in typical physical properties may occur from normal manufacturing processes	



America's Fastest Growing Lubricant Brand!

HYPERION™ TO-4 Fluid

Hyperion TO-4 Fluids are next generation oils designed to meet the demanding lubricant requirements of late model Caterpillar equipment. They are formulated with select base stocks and advanced additive technology to provide ultimate protection for Caterpillar and other off-road power shift transmissions, hydrostatic transmissions, clutch plates, torque convertors, final drives, and hydraulic systems.

Available in SAE grades 10W, 30, & 50, Hyperion TO-4 Fluids meet and exceed Allison C-4 and Caterpillar TO-4 performance requirements.

EQUIPMENT BENEFITS

- Excellent wear protection for critical transmission and final drive components
- Maximum resistance to sludge and varnish deposit formation
- Delivers optimum friction properties for smooth clutch plate operation
- Reduces brake chatter in wet brake applications under heavy-load
- Extends component service life



PRODUCT FEATURES

- Formulated with premium group II base stocks for added resistance to oxidation and thermal breakdown
- Delivers added protection against rust and corrosion formation
- Long-lasting shear stability provides stay-in-grade performance
- Aggressive resistance to oil oxidation under extreme operating conditions
- Multiple viscosity grades allow for use in a wide-range of ambient operating temperatures

APPLICATIONS

Recommended for Caterpillar and other off-road power shift transmissions, hydrostatic transmissions, clutch plates, torque convertors, final drives, and hydraulic systems requiring:

- Caterpillar TO-2 (obsolete) & TO-4
- Allison C-4 (SAE 10W & 30)
- Komatsu Micro-Clutch Equipment
- Vickers (Eaton) M-2950-S
- ZF TE-ML 03C Transmission (SAE 10W & 30)

HYPERION™ TO-4 Fluid				
Typical Physical Properties				
SAE GRADE	Test Method	10W	30	50
API Gravity @ 60°F		30.4	28.4	27.0
Viscosity @ 40°C, cSt	ASTM D445	28.3	75.6	174.5
Viscosity @ 100°C, cSt	ASTM D445	5.2	9.7	1.9
Viscosity Index	ASTM D2270	102	102	102
Flash Point, °C (°F)	ASTM D93	208 (406)	232 (450)	217 (423)
Pour Point, °C (°F)	ASTM D97	-36 (-33)	-30 (-22)	-24 (-11)
TBN, mg KOH	ASTM D2896	7.5	7.5	7.5
Zinc, ppm		1100	1100	1100
Minor variations in typical physical properties may occur from normal manufacturing processes				



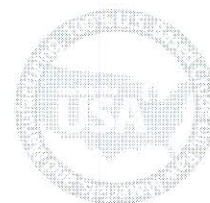
America's Fastest Growing Lubricant Brand!

Quantum® TS Global Synthetic Transmission Fluid

Quantum TS Global Synthetic Transmission Fluid is formulated from premium synthetic base stocks and a state-of-the-art additive system, specially engineered and recommended for use in virtually all global automatic transmissions. It exceeds the performance requirements for GM DEXRON®-VI, Ford Mercon® V, Mercon® SP & Mercon® LV, Chrysler ATF+4, Toyota T-IV & WS, Honda/Acura, Volvo, Mercedes, BMW and JASO fluids. It is also backward compatible for use in transmissions previously serviceable by GM DEXRON®-II or DEXRON®-III (H) and Ford Mercon® brands.

TRANSMISSION BENEFITS

- Excellent frictional properties for smooth shifting
- Optimum performance in GM 6-speed transmissions
- Excellent performance in hybrid transmissions, including Ford and Toyota
- Superior shear stability and wear protection
- Protection against varnish and sludge formation
- Superior thermal stability and oxidation resistance
- Outstanding low-temperature performance
- One fluid for virtually every global transmission application



PRODUCT FEATURES

- Meets low-viscosity OEM transmission fluid requirements
- Formulated with synthetic base stocks for maximum resistance to thermal breakdown
- Provides active anti-wear agents to protect critical transmission components
- Delivers optimum resistance to fluid oxidation in severe operating conditions
- Compatible with conventional fluids whether used in a complete fluid exchange or top-off
- Nearly eliminates the possibility of a fluid misapplication and reduces service liability

Quantum® TS Global Synthetic Transmission Fluid		
Typical Physical Properties		
Density, g/cm ³ @ 15° C	ASTM D4052	0.849
Flash Point, COC °C (F°)	ASTM D93	227 (440)
Pour Point, °C (F°)	ASTM D97	-51 (-60)
Brookfield Viscosity, cP @ -40° C	ASTM D2983	12,500
Viscosity, cSt @ 40° C	ASTM D445	32.6
Viscosity, cSt @ 100° C	ASTM D445	6.3
Viscosity Index	ASTM D2270	180
Color	Visual	Red
Foam Test	ASTM D892	Pass
Minor variations in typical physical properties may occur from normal manufacturing processes		

TRANSMISSION APPLICATIONS

Quantum TS Global Synthetic Transmission Fluid is specially formulated to meet and exceed the performance requirements of virtually all global automatic transmission fluid requirements for passenger cars, flex-fuel vehicles, hybrids, light-trucks, sports utility vehicles and most heavy-duty equipment transmission standards. It is recommended for use in the warranted applications and will not void applicable vehicle warranties.

(Continued on following page)

Technical Data Sheet

Quantum TS Global Transmission Fluid warrants the following transmission applications:

- ATF Type A - Suffix A
- Aisin Warner M315 Types A-1, AW-1, 3309
- Acura ATF-Z1, DW-1 (except CVTs)
- Alfa Romeo (all vehicles)
- Allison C-3, C-4, TES-389
- American Motors using ATF +3 (MS7176-E), ATF +4 (MS 9602)
- Audi ZF, 5HP19FL, 5HP24A, LT71141, TL 52162, G-052-025-A2, G-052-162-A1, A2; G-052-182-A2, G-055-025-A2
- BMW 83 22 9 400 (272,275), 83 22 9 407 (765,807,858,859), 83 220 397 (114), ZF, 5HP (18FL, 19FL, 24A, 30), LA2634, ETL-7045E, ETL-8072B, N402, LT71141,
- Caterpillar Power Shift TO-2
- Chrysler ATF+3(MS7176-E), ATF+4(MS 9602), Mopar AS68RC ATF
- Daewoo LT 71141
- Daihatsu ALUMIX MULTI
- Esso LT 71141
- Fiat (all vehicles), Type TIV
- Ford MERCON®, MERCON® (M506050501), MERCON® V (XP-5-QM),MERCON® SP (XT-6-QSP),MERCON® LV (XT-10-QLV); WSS-M2C-138-CJ, 166-H, 185-A, 195-A, 202-B, WSS-M2C-910-A, 922-A1, 924-A (XT-8-QAW), Ford FNR5
- GM DEXRON®; DEXRON® II, II-E, III, III-G, III-H, VI; GM 9986195; GM12378515; GM Transfer Case 12378396, 12378508
- Honda ATFZ-1, DW-1 (except CVTs)
- Hyundai SP-II, SP-III, SP-IV, SPH-IV, NWS-9638 T-5, SP4-M
- Idemitsu K17, Jatco 3100 PL085
- Infiniti Matic-D, Matic-J, Matic-K, Matic-S
- Isuzu Besco ATF-II, ATF-III
- Jaguar ZF 5HP24, LT71141, JLM20238, M1375.4, ATF 3403 M115
- JASO M315 Type 1-A
- Jeep (ATF +3, ATF +4)
- JWS 3309
- Kia SP-II, SP-III, SP-IV, Red 1, SP4-M
- Lexus Type T, T-II, T-III, T-IV, WS
- MAN 339A, F, V1, V2, Z1, Z2, Z3
- Mazda ATF-M III, ATF M-3, ATF-MV, V (XT-9-QMM5)
- Mercedes Benz ZF 4HP20, 236.1, 236.2, 236.3(PSF), 236.5(C-4), 236.6,236.7, 236.8, 236.81, NAG-1, 236.9, 236.10, 236.11, 236.12, 236.14, 236.15 & 722.9 (NAG-2)
- Mini Cooper T-IV
- Mitsubishi Diamond SP II, SP III; Dia Queen J2
- Nissan Matic-D, Matic-J, Matic-K, Matic-S
- Opel 19 40 700, 19 40 707, 19 40 767
- Peugeot ZF 4HP20
- Porsche ZF 5HP19FL, ATF 3403-M115, T-IV
- Renault (all vehicles), Renk-Doromat
- SAAB 3309, 93 165 146, 93 165 147 (except those requiring Type F)
- Saturn: see GM listing
- Scion (all vehicles)
- Shell 3403, 3353, LA 2634, M-1375.4
- Subaru ATF, AT-HP
- Suzuki ATF 3309, 3317
- Texaco ETL-7045E, ETL-8072B, N402
- Toyota Type T-II, T-III, T-IV, WS
- Vickers M-2950-S, I-286-S
- Voith G607 (55.6335.XX), G1363 (55.6336.XX), Turbo
- Volvo 97340, 97341, 1161521, 1161540, T-IV, STD 1273.41
- VW ZF, 5HP19FL, 5HP24A, LT71141, TL 52162, G-052-025-A2, G-055-025-A2, G-052-162-A1, A2; G-052-182-A2, G-052-990-A2, G-055-005-A2, G-055-162, G-060-162-A2
- ZF, Ecomat; ZF TE-ML 02F, 03D, 04D, 05L, 09, 11B; ZF TE-ML 14 A,B,C,16L,17C

Quantum TS Global Transmission Fluid IS NOT recommended for use in Continuously Variable Transmissions (CVT), Dual Clutch Transmissions (DCT) or applications that require a non-friction modified ATF, such as Ford Type F or Ford Type G (used in certain European transmissions).

Always consult your owner's manual to verify the proper fluid recommendation for your vehicle

Quantum TS Global Transmission Fluid is engineered to service nearly every world-wide transmission!!



HYPERION™ Universal Tractor Fluid

Hyperion Universal Tractor Fluid is a premium multi-purpose lubricant formulated from select base stocks and state-of-the-art additive technology. It is designed for use in a variety of farm equipment, off-highway machinery, industrial tractors, final drives, power take-off units, wet brakes, power steering units, and hydraulic systems. It provides the unique combination of ultimate equipment protection and the convenience of using one fluid in place of two or more fluids while maintaining optimum component performance and durability.

The combination of special friction modifiers and shear-stable viscosity modifiers offer optimum performance levels. Hyperion Universal Tractor Fluid is recommended for use in all major OEM equipment including, but not limited to; Kubota, Oliver, Minneapolis-Moline, Caterpillar, International Harvester, White Farm, John Deere, Deutz-Allis Chalmers, Case New Holland, J.I. Case, and AGCO (Massey Ferguson).

EQUIPMENT BENEFITS

- Superior wear protection to protect critical components
- Excellent frictional properties for smooth shifting
- Excellent anti-shudder performance
- Good seal compatibility
- Protection against varnish and sludge formation
- Superior thermal stability and oxidation resistance



PRODUCT FEATURES

- Formulated with highly-refined Group II base stocks for added resistance to thermal breakdown
- Provides active anti-wear agents to protect critical transmission components
- Delivers added resistance to fluid oxidation
- Shear-stable viscosity modifiers provide "stay in grade" protection

APPLICATIONS

Hyperion Universal Tractor Fluid is recommended for the following fluid requirements and applications:

- Allison: C-4
- John Deere: Quatrol, J20C, J20A, J21A, Hy-Gard J14B/C, Type 303 Fluid
- International Harvester: Hy-Tran, B-6
- AGCO (Massey Ferguson): M-1145, M-1143, M-1110, M-1127B, M-1129A, M-1135 Permatran III, M-1138, M-1141, White Q-1826, & Allis Chalmers Power Fluid 821 XL, Deutz-Allis Hyd Trans Fluid, 25743, 272843, & AGCO-Allis
- J.I. Case: TFD (JIC-143/146), Hi-Vis (JIC-185), JIC-144/145, MS-1204, MS1205/1206/1207, MS-1210 (TCH) and B-6
- Case New Holland: MAT 3505, MAT 3525, MAT 3526, ESN M2C86-A/B/C, M2C134-A/B/C/D, M2C41-B, M2C43, M2C53-A/B, M2C92-A
- Vickers: I-2986-S, 104C, & M2950S, Denison UTTO, HF-0, HF-01, HF-02
- Kubota Universal Transdrdraulic Fluid: UTD & Super UTD
- Sundstrand Hydrostatic Transmissions: JDQ-84
- Volvo: BM, VCE 1273.03 & WB-101 (wet brake)
- Caterpillar: TO-2, & MTO (Multi-Application Tractor Oil), for older Backhoe Loader rear axles and Challenger Tractors

HYPERION™ Universal Tractor Fluid	
Typical Physical Properties	
Performance Level	J20C
API Gravity @ 60° F	29.7
Lbs./gallon	7.2
Viscosity, cSt @ 100°C	10.2
Viscosity, cSt @ 40°C	68.4
Viscosity Index	140
Pour Point, °C (°F)	-40 (-40)
Flash Point, °C (°F)	218 (424)
Minor variations in typical physical properties may occur from normal manufacturing processes	



SHELL CAPRINUS[®] XR OILS

High performance, zinc-free & chlorine-free railroad and marine engine oils

Product Description

Shell Caprinus[®] XR are premium quality, zinc-free, and chlorine-free railroad and marine engine oils with an established history of providing outstanding engine cleanliness. Caprinus XR oils are available in SAE 40 and SAE 20W-40 viscosity grades.

Applications

- recommended for medium speed two-cycle and four-cycle diesel engines, including:
 - EMD
 - Fairbanks-Morse
 - General Electric
 - ALCO
- other similar diesel engines used as auxiliary or main engines in marine service or as switching locomotives
- stationary engines requiring oils with API CF and API CD (obsolete) level performance

Features/Benefits

- formulated with a unique Shell additive system that is both zinc free and chlorine free
- provide excellent engine cleanliness, especially engine top decks
- provide superior in service retention of Total Base Number (TBN). (Note: EMD and General Electric, as well as the LMOA, recognize that new oil TBN is not an indicator of an oil's performance and do not include TBN in their oil specifications)
- provide extended oil drain interval capability
- multigrade Caprinus XR 20W-40 contains a shear-stable viscosity index improver additive that provides reduced oil consumption and better fuel economy, allows for longer oil drain intervals through control of used oil viscosity increase in severe applications & provides better lubrication and oil flow at low temperatures and during engine warm-up

Approvals and Recommendations

- ElectroMotive Division of General Motors (EMD)
- General Electric as Generation 4 Long Life Oils
- Locomotive Maintenance Officers Association (LMOA) Generation 5
- API CF
- API CD (obsolete)

Typical Properties of Shell Caprinus XR Oils

	Test Method	SAE Grade	
		40	20W-40
Product Code		54794	54793
Gravity, °API	D 1298	24.9	27.0
Viscosity:			
@ 40°C, cSt	D 445	150	139
@ 100°C, cSt	D 445	15.0	15.5
Viscosity Index	D 2270	97	115
Flash Point, COC, °C (°F)	D 92	246 (480)	222 (435)
Pour Point, °C (°F)	D 97	-21 (-10)	-24 (-11)
Neutralization No, TBN-E	D 2896	13.6	13.6
Sulfated Ash, wt%	D 874	1.46	1.46
Calcium, wt%	X-ray	0.43	0.43
Zinc, ppm	X-ray	< 10	< 10

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.equivalshellsds.com>. For more information and availability, call 1+800-782-7852 or World Wide Web: <http://www.shell-lubricants.com/>.



Shell Rotella® T6 5W-40 (CJ-4)

- Low Emissions
- Energy Saving

Fully Synthetic Heavy Duty Diesel Engine Oil -Extreme Temperature Performance

Shell Rotella® T6 Energized Protection™ oil features Shell exclusive "Low-SAPS" additive technology reinforced with a novel and unique anti-wear system. Protective power is further enhanced through the use of synthetic base oil technology that increases additive activity to deliver low-viscosity fuel saving performance with no compromise in durability. Key benefits include; compatibility with exhaust emissions control systems, protection in extreme operating temperatures and fuel economy performance*.



ENERGISED PROTECTION
Adapting to your engine's changing needs

Performance, Features & Benefits

- **Improved fuel economy**
Through use of Shell's most advanced technology Shell Rotella® T6 oil offers enhanced fuel economy capability* that can save money in fuel consumption, without compromising engine protection or durability.
*eg compared to 15W-40 oils
- **Improved wear performance**
Provides a significantly increased level of protection against harmful engine wear when compared to previous generation API CI-4+ engine oils.
- **Improved deposit control**
The advanced multi-functional dispersant additives in combination with synthetic base oils provide an enhanced level of protection against the effects of soot, dirt and other contaminants.
- **Improved heat resistance**
Shell Rotella® T6 Synthetic oil resists breakdown by heat to provide continuous protection throughout the service interval.
- **Emissions system compatibility**
Advanced low-ash formulation helps control blocking of or poisoning of exhaust after-treatment devices, helping maintain vehicle emission compliance and engine fuel efficiency.
- **Protection in extreme climates**
Shell Rotella® T6 Synthetic oil is based on freeflowing synthetic base oils that allow reliable pumping on start-up under cold climate conditions yet remain thick enough under high temperature operation to protect against wear.
- **Outstanding shear stability**
Shell Rotella® T6 Synthetic oil resists viscosity loss through shear and will maintain optimal oil pressure in the engine.

Main Applications



- **For new and older diesel powered vehicles**
Suitable for new and older diesel powered vehicles from Class 8 tractor/trailers to heavy duty diesel pickups, delivery, utility, and school bus fleets.
- **Meets or exceeds diesel engine requirements**
Meets or exceeds requirements of API CJ-4, Cummins, Caterpillar, Detroit Diesel, Mack, Mercedes Benz, Volvo, Ford.
- **Gasoline engine applications**
Meets the requirements of API SM.

Specifications, Approvals & Recommendations

- API: CJ-4, CI-4 PLUS, CI-4, CH-4, CG-4, CF-4, CF
- API: SM, SL, SJ, SH
- ACEA: E9
- Caterpillar: ECF-3, ECF-2
- Cummins: CES 20081
- DDC: 93K218
- Ford: WSS-M2C171-E
- JASO: DH2, MA, MA2
- Mack: EO-O Premium Plus
- MB Approval: 228.31
- Volvo: VDS-4

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

Typical Physical Characteristics

Properties			Method	Shell Rotella T6 5W-40 (CJ-4)
SAE Viscosity Grade				5W-40
Kinematic Viscosity	@40°C	mm ² /s	ASTM D445	87
Kinematic Viscosity	@100°C	mm ² /s	ASTM D445	14.2
Dynamic Viscosity	@-30°C	mPa s	ASTM D5293	6000
Total Base Number		mg KOH/g	ASTM D2896	10.6
Sulfated Ash		%	ASTM D874	1.0
density	@15°C	kg/l	ASTM D4052	0.858
Flash Point (COC)		°C	ASTM D92	224
Pour Point		°C	ASTM D97	-42

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

Health, Safety & Environment

• Health and Safety

Shell Rotella® T6 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

• Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Additional Information

• Advice

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.



America's Fastest Growing Lubricant Brand!

Quantum® FullSYN Premium Gear Oil

Quantum FullSYN Premium Gear Oil is specially formulated with proprietary PolyAlphaOlefin Synthetic base stocks and state-of-the-art additive technology to provide ultimate protection and peak performance in passenger car and truck axles with hypoid gear sets operating under severe conditions and extreme temperatures. Quantum FullSYN Gear Oils meet the stringent performance standards for Dana Corporation's (Eaton) Roadranger 750,000 mile extended warranty program.

Quantum FullSYN Premium Gear Oil is available in SAE grades 75W-90, 75W-140, and 80W-140 and exceeds performance requirements as defined by API classifications GL-5 and MT-1.

VEHICLE BENEFITS

- Outstanding low-temperature shifting performance and cold start-ups
- Maximum resistance to oxidation, sludge and varnish formation
- Protection against gear rust and corrosion
- Optimum fuel economy
- Superior wear protection for critical gear components
- Provides smooth shifting operation



PRODUCT FEATURES

- Formulated with proprietary PolyAlphaOlefin Synthetics for maximum resistance to thermal breakdown
- Meets performance requirements for Dana/Eaton Roadranger 750,000 mile extended warranty program
- SAE grades 75W-90 and 75W-140 are formulated with limited-slip (LS) additive
- Provides ultimate wear protection for critical gear components from shock loading
- Resists deposit formation to protect seals from deterioration and prevent loss of fluid

APPLICATIONS

Recommended for passenger car, light-truck and heavy-duty truck axles with hypoid gear sets operating under severe conditions, extreme temperatures and extended service intervals requiring:

- API Service GL-5 & MT-1
- U.S. Military MIL-PRF-2105E
- Ford WSL-M2C192-A (75W-140)
- Dana Corporation SHAES-256
- ArvinMeritor (Rockwell) O76-Q (extended drain), O-76-E (petrol), O-76-N (syn)
- Mack GO-J & GO-J Plus
- Eaton PS-163, PS-037 & PS-109; General Electric D50E9C; Harnischfeger (P & H) 474; Navistar TMS 6816; U.S. Steel 224 and AGMA Standard 250.03

Quantum® FullSYN Premium Gear Oil				
Typical Physical Properties				
SAE Grade	Test Method	75W-90	75W-140	80W-140
API Service		GL-5 & MT-1	GL-5 & MT-1	GL-5 & MT-1
Pounds per Gallon		7.27	7.30	7.34
Gravity, °API	ASTM D287	28.3	31.6	27.8
Flash Point, °C (°F)	ASTM D445	204(400)	210(412)	212(415)
Pour Point, °C (°F)	ASTM D97	-48 (-54)	-45 (-49)	-39 (-38)
Viscosity, cSt @ 40°C	ASTM D445	128.0	176.4	262.0
Viscosity, cSt @ 100°C	ASTM D445	17.5	24.8	31.1
Brookfield Viscosity, cP	ASTM D2983	100,000@-40°C	126,000@-40°C	60,000@-26°C
Viscosity Index	ASTM D2270	158	173	160

Minor variations in typical physical properties may occur from normal manufacturing processes

Pennzoil® ATF Dexron® -VI Automatic Transmission

Lubricant

TECHNICAL DATA SHEET



PENNZOIL® Dexron® -VI Automatic Transmission Fluid is an exceptional automatic transmission fluid approved by General Motors for use in vehicles with automatic transmissions. It is specially formulated to provide twice the service life of a Dexron®-III(H) ATF and offers enhanced performance for both new and older transmissions. It is designed to protect transmissions through improved oxidation resistance, friction durability, shear stability and wear protection to help meet warranty protection requirements in late model vehicles.

PERFORMANCE, FEATURES & BENEFITS

- Extended fluid life vs. Dexron® -III (H) ATF and helps extend the life of the transmission
- Outstanding resistance against sludge and deposit formation
- Improved oxidation and thermal stability vs. Dexron® -III (H) ATF
- Superior anti-wear protection vs. Dexron® -III (H) ATF
- Outstanding low temperature fluidity
- Enhanced foam control which maintains responsive shifts and reduces wear on bearings, bushing and gears
- Helps prevent clutch shudder in modulated torque converters
- Improved torque transfer vs. Dexron® -III (H) ATF
- Improved shear stability vs. Dexron® -III (H) ATF

MAIN APPLICATIONS

PENNZOIL® Dexron® -VI Automatic Transmission Fluid is recommended for all 2006 and beyond GM vehicles with Hydra-Matic automatic transmissions. It is fully back serviceable for Dexron®-III (H), III and IIE applications. Meets GM specification GMN10060. Always consult your vehicle owner's manual for specific recommendation.

SPECIFICATIONS, APPROVALS & RECOMMENDATIONS

- PENNZOIL® Dexron® -VI Automatic Transmission Fluid is recommended for all 2006 and beyond GM vehicles with Hydra-Matic automatic transmissions.
- PENNZOIL® Dexron® -VI Automatic Transmission Fluid meets GM specification GMN10060

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

To find the right Pennzoil® product for your vehicles and equipment, please consult www.pennzoil.com to look up the right motor oil recommendation using our oil selector.

TYPICAL PHYSICAL CHARACTERISTICS

Properties			Method	Pzl® ATF Dexron® VI
Density	@15°C	kg/l	ASTM D4052	0.846
Kinematic Viscosity	@40°C	cSt	ASTM D445	29.8
Kinematic Viscosity	@100°C	cSt	ASTM D445	6.0
Viscosity Index			ASTM D2270	151
Total Base No.			ASTM D2896	2.0

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Pennzoil® ATF Dexron® -VI *Automatic Transmission Lubricant*

Properties			Method	Pzl® ATF Dexron® VI
Flash Point		°C/°F	ASTM D92	206/403
Brookfield Viscosity	@-20°C	cSt	ASTM D2983	1 053
Brookfield Viscosity	@-30°C	cSt	ASTM D2983	3 164
Brookfield Viscosity	@-40°C	cSt	ASTM D2983	12 030
Pour Point		°C/°F	ASTM D97	-54/-65
Sulphated Ash		% wt	ASTM D874	0.02
Color				Red

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

Dexron® is a registered trademark of General Motors Corporation

HEALTH, SAFETY & ENVIRONMENT

Health and Safety

Pennzoil® ATF Dexron® VI is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet (MSDS), which can be obtained from 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 Lubricants distributor representative or Shell Technical Help Desk.



HYPERION™ Synthetic HD Transmission Fluid

Hyperion Synthetic HD Transmission Fluid is a premium automatic transmission fluid formulated with select synthetic base stocks and next-generation additive technology. It is specifically designed and recommended for use in heavy-duty automatic transmissions in trucks and buses requiring Allison TES-295 fluid for extended warranty service. It is also recommended for use in transmissions requiring Allison C-4 and Allison TES-389 specifications and exceeds extended drain requirements of Voith and ZF transmissions.

Hyperion Synthetic HD Transmission Fluid also exceeds performance requirements of demanding automotive applications such as taxi cabs, police cars, delivery trucks, recreational vehicles and tow-trucks and provides added protection, extended service intervals and extends the service life of critical transmission components.

EQUIPMENT BENEFITS

- Extended drain warranty protection
- Excellent frictional properties for smooth shifting
- Excellent anti-shudder performance
- Superior anti-wear protection for critical transmission components
- Protection against transmission varnish and sludge formation
- Superior thermal stability and oxidation resistance
- Outstanding low-temperature performance

PRODUCT FEATURES

- Formulated with premium synthetic base stocks for maximum resistance to thermal breakdown
- Provides active anti-wear agents to protect critical transmission components
- Delivers maximum resistance to fluid oxidation in severe operating conditions, including stop-and-go driving
- Advanced friction modifiers provide smooth shifting performance

APPLICATIONS

Hyperion Synthetic HD Transmission Fluid is recommended for the following transmission requirements:

- Allison TES-295 (extended service warranty), TES-389 & C-4
- Exceeds extended drain requirements for Voith and ZF transmissions
- Exceeds most automotive requirements including those previously serviced by GM DEXRON®-III (H) and Ford MERCON® brands, Ford MERCON®-V & Chrysler ATF +4 performance levels
- **Not recommended for DEXRON® VI, MERCON® SP & LV, Ford ATF Type F or CVT applications**

HYPERION™ Synthetic HD Transmission Fluid TYPICAL INSPECTION TESTS

Density, g/cm ³ @ 15° C	0.860
API Gravity	35.3
Viscosity Brookfield cP @ -40° C	8,700 Max
Viscosity, cSt @ 40° C	35.7
Viscosity, cSt @ 100° C	7.2
Viscosity Index	184
Flash Point, C° (F°)	237 (459)
Pour Point, C° (F°)	-52 (-61)
Fluid Color	Red
Seal Compatibility Test, GM6297M	Pass
Foam Test, GM6297M	Pass

Minor variations in typical physical properties may occur from normal manufacturing processes

PENNZOIL PLATINUM™ LV MULTI-VEHICLE ATF

Premium, Synthetic Technology Multi-Vehicle Automatic Transmission Fluid for Lower Viscosity ATF Requirements in General Motors, Ford, and many import cars and trucks.

TECHNICAL DATA SHEET



Premium performance, synthetic technology fluid designed to meet the needs of multiple vehicle types for service fill in automatic transmission service. Pennzoil Platinum™ LV Multi-Vehicle ATF meets the needs of many Japanese, Asian, European, and North American designed automatic transmissions that require medium viscosity automatic transmission fluid such as GM DEXRON® -VI, Ford MERCON® LV and Toyota WS.

PERFORMANCE, FEATURES & BENEFITS

Friction modified

Provides consistent, reliable, smooth, and trouble free operation of automotive transmission systems.

Exceptionally high oxidation resistance

Resistant to oil degradation and keeps automatic transmissions clean. Maintains performance in older transmissions and the long service life in many import transmissions.

Excellent shear-stability

A special 'VI' improver minimises the changes in viscosity with operating temperature and viscosity loss with use. This provides a constant viscosity used by many 2005 and later vehicles as well as imports and some domestic vehicles currently and provides the stability needed in many older vehicles.

Dependable anti-wear and gear protection

Long component life and protection of gears as vehicles age.

Seal Swell

Contains seal swell agents to maintain seals that have aged for proper performance in transmissions that are seeing their first or even second or more ATF changes.

Low temperature performance

Excellent oil fluidity at low temperatures helps provide proper shift feel and operation at first start up and when cold.

MAIN APPLICATIONS

- Passenger car automatic transmissions
- Heavy duty automatic transmissions
- Power steering units

SPECIFICATIONS, APPROVALS & RECOMMENDATIONS

Ford - Approved MERCON® LV

General Motors -Approved DEXRON®-VI

JASO 1-A

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

To find the right Pennzoil® product for your vehicles and equipment, please consult www.pennzoil.com to look up the right motor oil recommendation using our oil selector.

PENNZOIL PLATINUM™ LV MULTI-VEHICLE ATF

Premium, Synthetic Technology Multi-Vehicle Automatic Transmission Fluid for Lower Viscosity ATF Requirements in General Motors, Ford, and many import cars and trucks.

TYPICAL PHYSICAL CHARACTERISTICS

Properties			Method	Pennzoil Platinum™ LV Multi-Vehicle ATF
Kinematic Viscosity	@-40°C	mPa.s	ASTM D2983	10 000
Kinematic Viscosity	@100°C	mm²/s	ASTM D445	6.2
Density	@15°C	kg/m³	ASTM D1298	850
Flash Point (COC)		°C	ASTM D92	190

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

HEALTH, SAFETY & ENVIRONMENT

Health and Safety

Pennzoil Platinum™ LV Multi-Vehicle ATF is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet (MSDS), which can be obtained from 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 Lubricants distributor representative or Shell Technical Help Desk.

Applications

Pennzoil Platinum™ LV Multi-Vehicle ATF can be used in applications calling for GM DEXRON® -VI and all earlier GM ATF passenger car requirements
All requirements using Ford MERCON® LV
Chrysler AS 68 RC ATF
JASO 1-A for Most Japanese and Asian automatic transmissions service fill (except CVT and DCT) and where ATF is specified such as power steering systems, some manual transmissions and some transfer cases:
All Toyota service fill needs
All Nissan Matic service fill needs
All Honda service fill needs
Hyundai and Kia ATF needs except the 8 speed SPH-IV RR applications
All Mitsubishi service fill needs
Mazda service fill needs
All Suzuki service fill needs
All Subaru service fill needs
Isuzu ATF requirements
European vehicles using Aisin Warner, General Motors/Allison and Hyundai transmissions, Volvo, Mini, some BMW, Saab, some Porsche, some Fiat, some Jaguar/Land Rover
Mercedes-Benz applications using ATFs as listed in 236.1 through 236.10
Other vehicles and applications calling for one of these ATFs.

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PENNZOIL PLATINUM™ LV MULTI-VEHICLE ATF

Premium, Synthetic Technology Multi-Vehicle Automatic Transmission Fluid for Lower Viscosity ATF Requirements in General Motors, Ford, and many import cars and trucks.

Application Exceptions

1) Pennzoil Platinum™ LV Multi-Vehicle ATF should not be used where type F fluids are recommended; check application manual if the vehicle is one of the following: Datsun/Nissan pre 1971, Lincoln pre 1978, Ford/Mercury pre 1981, Toyota pre 1983, Volvo pre 1985, Mazda pre 1986, Saab pre 1993.

2) Pennzoil Platinum™ LV Multi-Vehicle ATF should not be used in Continuous Variable Transmissions (CVTs) or Double Clutch Transmissions (DCTs) unless the transmission requires one of these specific OEM grades or equivalent fluid applications.

3) Pennzoil Platinum™ LV Multi-Vehicle ATF is not recommended for Hyundai SPH-IV RR, Chrysler ZF 8 and 9 speed ATF, other ZF 8 and 9-speed ATFs (in a number of European cars), newer Daimler transmissions (ATF 134 or later MB Approval 236.12, 236.14, 236.15 or 236.16) and other specialty transmissions where a very low viscosity ATF is recommended.

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

PENNZOIL PLATINUM™ CVT-2 Premium, Synthetic

Technology, Push Belt CVT Fluid

TECHNICAL DATA SHEET



Pennzoil Platinum™ CVT-2 fluid is a CVT fluid fulfilling JATCO and Nissan FF and SF specifications. This fluid can be used as well for a variety of other vehicle manufacturer's with Push Belt CVTs.

PERFORMANCE, FEATURES & BENEFITS

Excellent thermal and oxidative stability

Excellent low temperature fluidity

Smooth speed changing due to delicately balanced friction coefficient between belt and pulley

Excellent shear stability

Offers high wear protection

Highest production quality control system in place to ensure consistent product quality

MAIN APPLICATIONS

This product can be used in all service fill applications requiring NS-2 or NS-2V Fluid.

These applications include:

Chrysler CVTF+4 (CVTF Green 1V), Suzuki, Mercedes Benz 236.20, Mini EZL 799, GM/Saturn DEX-CVT, Mitsubishi CVTF-J1.

TYPICAL PHYSICAL CHARACTERISTICS

Properties			Method	Pennzoil Platinum™ CVT-2
Kinematic Viscosity	@40°C	mm²/s	JIS K 2283	32.6
Kinematic Viscosity	@100°C	mm²/s	JIS K 2283	7.01
Viscosity Index			JIS K 2283	184
Density	@15°C	kg/m³	JIS K 2249	0.852
Flash Point (COC)		°C	JIS K 2265 7	212
Pour Point		°C	JIS K 2269	-50

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

Please consult the vehicle manual carefully before utilizing this fluid.

This fluid is NOT interchangeable with Nissan CVT Fluid NS-1.

SPECIFICATIONS, APPROVALS & RECOMMENDATIONS

Nissan NS-2V Replacement Fluid

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

To find the right Pennzoil® product for your vehicles and equipment, please consult www.pennzoil.com to look up the right motor oil recommendation using our oil selector.

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PENNZOIL PLATINUM™ CVT-2 *Premium, Synthetic Technology, Push Belt CVT Fluid*

HEALTH, SAFETY & ENVIRONMENT

Health and Safety

Pennzoil Platinum™ CVT-2 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet (MSDS), which can be obtained from 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 Lubricants distributor representative or Shell Technical Help Desk.