



Transmissions

21-TR-78
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October 9, 1978
Rev. "A", 11-28-78

This Rev. "A" to relate main pressure variation. Please destroy your original copy.

Rev. "A" SUBJECT: Lubrication Oil, Filter Circuit, and Main Pressure Specifications

EQUIPMENT AFFECTED: T(R)T(B) 2000, 3000, and 4000 Series Transmissions

This is to advise of a change in the recommended lubrication pressure specification for the T(R)T-2000 and 3000 Series transmissions. Charging oil pump output pressure and filter circuit pressure drop, applicable to all T(R)T(B) transmissions, is charted below.

As a result of product experience with the 2000 and 3000 Series transmissions, the minimum lubrication pressure has been reduced from 15 to 10 psi. Lubrication pressure schedule of the T(R)T-4000 Series transmissions will remain the same, that is, 15 to 30 psi.

To ensure optimum charging oil pressures exist in the transmission hydraulic system under all operating conditions and not have excessive pressures, a maximum charging pump output pressure and filter circuit pressure drop is also recommended below. Where these specifications are not present, the type and size of fittings, pressure hose and filter should be checked against original vehicle installation requirements.

Rev. "A" Main pressure schedule remains the same as noted but may vary with temperature as stated in specifications and Data, below.

SPECIFICATIONS, DATA

<u>ITEM</u>	<u>DESCRIPTION</u>
Lubrication pressure at full throttle stall.	10 to 30 psi T(R)T(B)-2,3000
Pump output pressure measure at "To Filter" port	15 to 30 psi T(R)T-4000
Pressure drop across filter-measured at "To Filter" and from filter ports	255 psi with clean filter(2,3000)
	260 psi with clean filter(4720,4820)
	Initial (clean filter)-35 psi
	Maximum. Prior to servicing-45 psi maximum
*Main Pressure, at full throttle, all ranges	135 to 170 psi (930 to 1172 kPa)
	(vehicle weight to 28,000 lb. 12,701 kg.); 160 to 195 psi
	(1103 to 1344 kPa) (vehicle weight over 2800 lb., 12,701 kg.)

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- * Main pressure in high range may be as much as 10 psi lower than in other ranges. These pressures are established for a converter-out temperature range of 140°F to 160°F (60 to 73.8°C). As converter-out temperature approaches 250°F (121°C) main pressure may drop as much as 15 psi.

Detroit Diesel Allison Division
General Motors Corporation
Transmission Operations
Indianapolis, Indiana 46206

RLM/pk1



Transmissions

This Rev. "M" to update oil listing and recommend C3 for AT, MT, HT in off-highway applications. Please destroy your Rev. "L" copy.

14-TR-73
(Serial No. 578)
Page 1 of 15
Rev. "M", 1-17-79

SUBJECT: Hydraulic Fluid Recommendations

EQUIPMENT AFFECTED: All Commercial and Military Transmissions and Industrial Torque Converter Assemblies

Recent surveys of Powershift Transmissions and Industrial Torque Converters in new and projected vehicle applications have revealed some Dexron® II, Type C-2 oils and engine oil formulations will have lower friction retention properties than desired. As a result of these findings, a new C-3 specification has been developed to span those heavier and more severe duty operations anticipated.

A listing of the new Type C-3 transmission fluids commercially available to date (see date on list) is attached hereto for your convenience. If listed, Dexron® type, Type C-2 oil or a Synthetic type oil referenced in the listing is a qualified Type C-3 based on the supplier's certification to Detroit Diesel Allison. Commercial Universal Farm Tractor fluids acceptable to date are defined and listed at end of listing. The publication of the oil listing is not to be construed as a specific endorsement, by the Detroit Diesel Allison Division or General Motors Corporation, of the products.

Dexron® II or Dexron® transmission fluids remain the only fluid recommended for Detroit Diesel Allison Automatic transmissions (except CL(B)T-700 Series), however, Type C-3 may be used as an Alternate by conforming to the ambient temperature and fluid viscosity grade illustrated in the chart below. The AT, MT, HT and V Series transmissions are Automatic models; all others are Powershift. The CL(B)T-700 transmission are automatic, but due to vehicle applications, Type C-3 oil should be used. Type C-3 is recommended for any AT, MT, or HT transmission used for off-highway duty cycles.

Rev. "M"

Oil recommendations for prevailing ambient temperature are as follows:

A. Commercial Automatic Transmissions

AT-MT-HT-V

Recommended Specification

Prevailing Ambient Temperature

Above -30°F
Below -30°F

Recommended Oil Specification

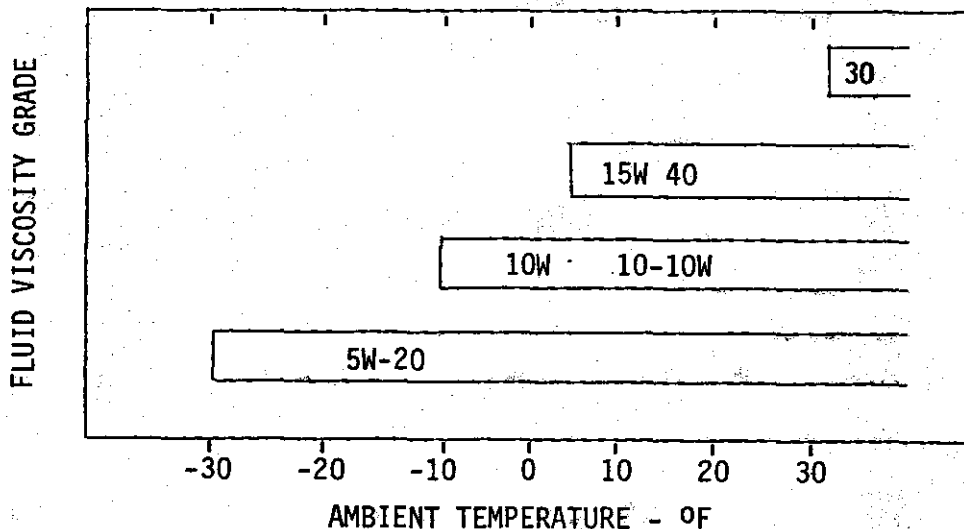
DEXRON® II/DEXRON® Transmission Fluid
DEXRON® II/DEXRON® Transmission Fluid

Auxiliary preheat required to raise temperature in the sump to a temperature above -30°F.

CAUTION: The -30°F sump temperature specification is based on cold engine operation. Even if the engine is warm and capable of full throttle output, the transmission should not be operated for 30 seconds to allow for buildup of sufficient main pressure.

Alternate Recommended Specification

The C-3 specification fluid may be used as an alternate to Dexron® II, Dexron® fluids in AT-MT-HT-V transmissions. The C-3 specification includes several multi-viscosity fluids. The following chart indicates the lowest usable temperature for the various multi-viscosity and straight grade C-3 fluids. Preheat is required below these temperatures.



NOTE: Ford Motor Company's assembly line oil fill is with Ford Type F fluid. It is permissible to continue using either Type F fluid conforming to the latest Ford specification or Dexron® II/Dexron® following delivery. These fluids may be intermixed.

B. Commercial Powershift Transmissions, Industrial Torque Converters, and CLT, CLBT-750 Model Transmissions

Recommended oil specification is Type C-3. Usage should comply to the information and chart related under Item A, "Alternate Recommended Specification," above, relative to ambient temperature, fluid viscosity grade and preheat.

C. Military Transmissions, Commercial Powershift Transmissions, Commercial Automatic Transmissions and Industrial Torque Converters in Military Applications

DETROIT DIESEL ALLISON DIVISION, GMC
QUALIFIED LIST OF TYPE C-3 TRANSMISSION FLUIDS

THIS LIST OF COMMERCIALY AVAILABLE C-3 TRANSMISSION FLUIDS IS COMPILED BY DETROIT DIESEL ALLISON DIVISION AS A SERVICE TO MANUFACTURERS, OWNERS, AND OPERATORS OF EQUIPMENT USING ALLISON TRANSMISSIONS. IT IS BASED ON CERTIFICATION OF DATA TO DETROIT DIESEL ALLISON BY A RESPONSIBLE OFFICER OF THE RESPECTIVE SUPPLIERS OF THESE FLUIDS EVIDENCING COMPLIANCE WITH THE ALLISON C-3 SPECIFICATION.

RESPONSIBILITY FOR THE QUALITY OF A HYDRAULIC FLUID AND ITS PERFORMANCE MUST REMAIN WITH THE OIL COMPANY MAKING THE PRODUCT.

SINCE NEW PRODUCTS ARE CONTINUOUSLY BEING TESTED BY THE OIL INDUSTRY, REVISED LISTS WILL BE MADE AVAILABLE FROM TIME TO TIME. NEW PRODUCTS THAT HAVE BEEN VERIFIED BY THE FLUID SUPPLIER AS MEETING THE ALLISON APPROVED C-3 SPECIFICATION WILL BE INCLUDED IN THESE REVISED LISTS.

IT IS PERMISSIBLE FOR A LISTED MARKETER TO DUPLICATE THIS LISTING PROVIDED HE INDICATES ON THE REPRODUCTION THAT IT IS A COMPLETE REPRINT OF THE ORIGINAL.

DETROIT DIESEL ALLISON DIVISION
GENERAL MOTORS CORPORATION
INDIANAPOLIS, INDIANA

Prevailing
Ambient Temperature

Recommended Oil Specification

Above -10°F

MIL-L-2104 Grade 10 to latest specification, or
Hydraulic Transmission Fluid Type C-3.

0°F to -65°F

MIL-L-10295 to latest specification.

NOTE: If auxiliary preheating equipment is available and the sump temperature can be raised to -10°F, it is recommended that MIL-L-2104 Grade 10 oil be used. When changing to oil of different grade, thoroughly flush system with grade oil to be used before refilling.

CAUTION: Do not use MIL-L-10295 when the ambient temperature is consistently above -10°F.

Detroit Diesel Allison Division
General Motors Corporation
Transmission Operations
Indianapolis, Indiana 46206

RLM/pk1

THE FOLLOWING OILS CONFORM TO DETROIT DIESEL
ALLISON C-3 GRADE 10W AND GRADE 30 SPECIFICATIONS

OIL GRADES ARE INDICATED AS FOLLOWS

GRADE 10W *
GRADE 30 ***

DECEMBER 12, 1978

MARKETER	TRADE NAME
AGIP S.P.A.	* AGIP F.1 DIESEL GAMMA SAE 10W *** AGIP F.1 DIESEL SIGMA SAE 30
AMALIE DIVISION OF WITCO CHEMICAL CORPORATION	* AMALIE HD-1 MOTOR OIL SAE 10W
AMERICAN PETROFINA CO. OF TEXAS	* FINA C-3 TRANSDRAULIC FLUID FOR ALLISON * FINA ALLISON HYDRAULIC TRANSMISSION TYPE C-3 FLUID CODE 9720
AMOCO OIL COMPANY	* AMOCO FLUID TYPE C-2 * AMOCO C-3 FLUID *** AMOCO 300 MOTOR OIL SAE 15W-40
AMPOL PETROLEUM LIMITED	* AMPOL HYDRAULIC TRANSMISSION FLUID TYPE C-3, SAE 10W * DEULUBE 10W S3 *** DEULUBE 30 S3
ANTAR S.A. ET COMPAGNIE	* MILANTAR 3C 10W * TRANSANTAR C 3
ARKLA CHEMICAL CORPORATION	* ARKLA TC-252
ATLANTIC RICHFIELD COMPANY	* ARCO C-3 FLUID * ARCOFLEET MS-3 *** ARCO TRACTOR FLUID * ARCOFLEET S 3 PLUS SAE 10 *** ARCOFLEET S 3 PLUS SAE 30
BENZ OIL INC.	* BENZ C-3 TRANSMISSION FLUID * EDL MULTI-SERVICE MOTOR OIL SAE 10-10W *** EDL MULTI-SERVICE MOTOR OIL SAE 30

MARKETER	TRADE NAME
RODIE-HOOVER PETROLEUM CORPORATION	* PENNSTATE C-3 FLUID
BORON OIL CO.	* FACTO 10W
BP AUSTRALIA LIMITED	* BP AUTRAN C-3
BP OIL INC.	* VANNELLUS MCS-3 10W * BP HYDRAULIC TF-C3
BP OIL LIMITED	* BP DIESEL S3 SAE 10W * BP VANELLUS C3 EXTRA SAE 10W * BP VANELLUS MCS-3
BP SOUTHERN AFRICA (PTY) LTD	* BP HYDRAULIC TF-C3-10 *** BP HYDRAULIC TF-C3-30
BP TRADING LIMITED	* BP VANELLUS C3 SAE 10W *** BP VANELLUS C3 SAE 30 * BP AUTRAN GM-MP * BP AUTRAN C3 *** BP AUTRAN C3 * BP TRANSFLEET 810 *** BP TRANSFLEET 830 * BP TRANSPORT FLEET OIL SAE 10W *** BP TRANSPORT FLEET OIL SAE 30 * BP TRANSFLEET SAE 10W *** BP TRANSFLEET SAE 30
CALTEX PETROLEUM CORPORATION	* CALTEX RPM DELO 200 OIL SAE 10W *** CALTEX RPM DELO 200 OIL SAE 30 * CALTEX RPM DELO 300 OIL SAE-10W *** CALTEX RPM DELO 300 OIL SAE 30 * CALTEX RPM DELO 400 OIL SAE 10W *** CALTEX RPM DELO 400 OIL SAE 30 * CALTEX RPM TORQUE FLUID NO. 5
J. I. CASE COMPANY	* CASE TCH FLUID
CASTROL AUSTRALIA PTY., LTD.	* CASTROL TRANSMISSION FLUID TYPE C-3 10W 20 * CASTROL RX SUPER *** CASTROL RX SUPER
CASTROL LIMITED	* CASTROL/DEUSOL TFC 310 *** DEUSOL TFC 330 *** CASTROL/DEUSOL RX SUPER 15W/40

MARKETER	TRADE NAME
CASTROL SOUTH AFRICA (PTY.) LIMITED	* CASTROL DEUSOL TFC 310 * CASTROL TRANSMISSION FLUID TYPE C3
CATO OIL AND GREASE CO.	* C-3 TRANSDRAULIC FLUID FOR ALLISON
CENEX	* CENEX C-3 FLUID
CHAMPLIN PETROLEUM COMPANY	* CHAMPLIN S-3 PLUS MOTOR OIL (SAE 10W)
CHEVRON OIL CANADA, LTD	* CHEVRON DELO 400 MOTOR OIL SAE 10W *** CHEVRON DELO 400 MOTOR OIL SAE 30 * CHEVRON TORQUE FLUID 5
CHEVRON OIL EUROPE, INC.	* CHEVRON TORQUE FLUID 5
CHEVRON U.S.A. INC. (CHEVRON OIL COMPANY)	* CHEVRON DELO 400 MOTOR OIL SAE 10W *** CHEVRON DELO 400 MOTOR OIL SAE 30 * CHEVRON TORQUE FLUID 5 * CHEVRON TRACTOR HYDRAULIC FLUID
CHINA GULF OIL CO.	* GULF H. T. FLUID C-3
CITIES SERVICE COMPANY	* CITGO TORQUE CONVERTER FLUID 250
COMPANHIA ATLANTIC DE PETROLEO S/A	* "HT FLUID" - TYPE C-3
COMPANIA PETROLERA CHEVRON	* CHEVRON DELO 400 MOTOR OIL SAE 10W *** CHEVRON DELO 400 MOTOR OIL SAE 30 * CHEVRON TORQUE FLUID 5
COMPANIA PETROLERA CHEVRON, INC.	* CHEVRON DELO 400 MOTOR OIL SAE 10W *** CHEVRON DELO 400 MOTOR OIL SAE 30 * CHEVRON TORQUE FLUID 5
COMPANIA PETROLERA CHEVRON, LTD.	* CHEVRON DELO 400 MOTOR OIL SAE 10W *** CHEVRON DELO 400 MOTOR OIL SAE 30 * CHEVRON TORQUE FLUID 5
CONTINENTAL OIL COMPANY	* CONOCO POLAR START DN-600 FLUID * CONOCO HYDRAULIC TRANSMISSION FLUID, TYPE C-3
D-A LUBRICANT COMPANY, INC.	* D-A TORQUE FLUID * D-A DIESEL PLUS OIL, SAE 10W GRADE *** D-A DIESEL PLUS OIL, SAE 30 GRADE

MARKETER	TRADE NAME
DALTON & CO. LTD.	* SILKOLFNE ALLISON C-3 FLUID 1657
DB CORPORATION	* D-B TORQUE FLUID TYPE C-3 *** D-B TORQUE FLUID TYPE C-3
DAVIS-HOWLAND OIL CORP.	* DSL TORQUE FLUID C-3
DELTA PETROLEUM CO.. INC.	* FIVE STAR ALLISON C-3
DETROIT OIL CO.	* ROAD KING TRANSMATIC FLUID TYPE C-3 * ENDURO TYPE C-3 TRANS FLUID
DRYDEN OIL COMPANY, INC.	* TORQUE FLUID C-3 (1204) * TORQUE FLUID C-3 (DEXRON TYPE) (1906) * DRYDEN SUPREME XHD-10
ELF UNION	* PERFORMANCE 3C - SAE 10W
ENPETROL, S.A.	* ENPETROL "CS TELEX AC-3E" * ENPETROL-"REPSOL HYDRAULIC C-3 EP"
ESSO AUSTRALIA LTD	* ESSO TORQUE FLUID 47 * ESSOLURE XD-3 10W *** ESSOLURE XD-3 30
ESSO BRASILEIRA DE PETROLEO S.A.	* ESSO TORQUE FLUID 47
ESSO CHILE S.A. PETROLERA	* ESSO TORQUE FLUID 47
ESSO EUROPE INC. AFFILIATES	* ESSO TORQUE FLUID 47
ESSO STANDARD SOUTH AFRICA (PTY) LTD.	* ESSOLURE XD-3 10W
EXXON COMPANY U.S.A.	* TORQUE FLUID 47 * XD-3, SAE 10W *** XD-3, SAE 30
FARMLAND INDUSTRIES, INC.	* CO-OP DIESEL ENGINE OIL, SAE 10W
FIAT LUBRIFICANTI S.P.A.	* OLIOFIAT GI/M
FILMITE OIL CORPORATION	* FILMITE C-3 FLUID SAE 10W *** FILMITE C-3 FLUID SAE 30

MARKETER	TRADE NAME
FINA SA	* FINAMATIC C-3
FISKE BROTHERS REFINING CO.	*** LUBRIPLATE UTF C-3
FS SERVICES, INC.	* FS SUPER LURE SAE 10-10W
GETTY REFINING AND MARKETING CO.	*** TAGOLENE 303 FLUID
GOLDEN BEAR DIVISION OF WITCO CHEMICAL CORPORATION	* GOLDEN BEAR "CODE 510" *** GOLDEN BEAR "CODE 513" * 400 SUPREME SAE 10W
GOLDEN FLEECE	* AUTOFLOW C3 10 *** AUTOFLOW C3 30 * AUTOFLOW AA * GOLDEN FLEECE SUPERFLEET *** GOLDEN FLEECE SUPERFLEET
GULF OIL CANADA LIMITED	* GULF LOW ASH SUPER DUTY MOTOR OIL 5W 20 * GULF LOW ASH SUPER DUTY MOTOR OIL 10W *** GULF LOW ASH SUPER DUTY MOTOR OIL 15W-40 * GULFLURE MOTOR OIL X.H.D. 5W-20* * GULFLURE MOTOR OIL XHD SAE 10W * GULF SUPER DUTY MOTOR OIL 10W
GULF OIL CORPORATION	* GULF HT FLUID C-3 * GULF SUPER DUTY MOTOR OIL 10W
HULHURT OIL AND GREASE COMPANY	* TORQUE FLUID C-3/10 *** TORQUE FLUID C-3/30
IDEMITSU KUSAN CO., LTD.	* APOLLOIL DIESELMOTIVE S-310
IMPERIAL OIL LIMITED	* ESSOLUBE HDX PLUS 10W * ESSOLUBE HDX PLUS 5W 20 * ESSOLUBE XD-3 10W * ESSOLUBE XD-3 5W-20 *** ESSOLUBE XD-3 15W-40 * ESSO HYDRAULIC OIL XD-3 10W * HYDRAUL 50
INDIAN OIL CORPORATION LTD.	* SERVO TRANSMISSION C-3 SAE 10
IP (INDUSTRIA ITALIANA PETROLI)	* IP AXIA OIL

MARKETER	TRADE NAME
KENDALL DIVISION OF WITCO CHEMICAL CORPORATION	* KENDALL F-L SELECT MOTOR OIL
KERR-MCGEE REFINING CORPORATION	* C-3 TRANSRAULIC FLUID FOR ALLISON
LEAHY-WOLF CO.	* TORQUE MASTER 310
LION OIL COMPANY SUBSIDIARY OF THE OIL SHALE CORPORATION	* LION C-2/C-3 FLUID
LUBRICATION ENGINEERS, INC.	* 7500 MONOLEC POWER FLUID
LUBRICATING SPECIALTIES COMPANY	* GOLD MEDAL ALLISON C-3 SAE 10W *** GOLD MEDAL ALLISON C-3 SAE 30
MARATHON OIL COMPANY	* MULTIPOWER -3 MOTOR OIL SAE 10W
MID-STATES DISTRIBUTING CO.	* C-3 TRANSRAULIC FLUID FOR ALLISON
MOBIL OIL INTERNATIONAL (OUTSIDE USA)	* MOBIL DELVAC 1310 *** MOBIL DELVAC 1330 * MOBILFLUID 423 * MOBIL ATF 200
MOBIL USA	* MOBIL DELVAC 1210 *** MOBIL DELVAC 1230 * MOBIL DELVAC 1310 *** MOBIL DELVAC 1330 * POWER FLUID C-3 * MOBILFLUID 423 * MOBIL TRANSMISSION FLUID C-3
MORRIS & COMPANY (SHREWSBURY) LTD.	* GOLDEN FILM LIQUIMATIC C-3
MOLYBOND LABORATORIES	* MOLYBOND OIL D20-02
NIPPON MINING COMPANY	* KYOSEKI HTF C-3 10W *** KYOSEKI HTF C-3 30
NIPPON OIL COMPANY	* PANTORQUE C-3 10 *** PANTORQUE C-3 30
AB NYNAS-PETROLEUM, STOCKHOLM, SWEDEN	* NYNAS HTF C3

MARKETER	TRADE NAME
PACER LUBRICANTS, INC.	* PACER ALLISON C-2, C-3 FLUID *** PACER C-2/C-3 FLUID SAE 30
PENNZOIL COMPANY	* PENNZOIL C-2/C-3 FLUID
PENTALUBE OIL, INC.	* PENTA TORQUE CONVERTER OIL TYPE C-3
PETROFINA S.A., BRUSSELS & AFFILIATED COMPANIES	* FINA TRANSMISSION OIL C 3
PETROL OFISI	*** UNIVERSAL MOTOR YAGI D SAE-30
PETROLEO BRASILEIRO S.A. PETROBRAS	* LUBRAX MD-300 SAE 10W *** LUBRAX MD-300 SAE 30
PETROLEUM MARKETERS (RED RAM) LTD.	* RED RAM TYPE "A" FLUID
PETROLEUM PACKERS, INC.	* #611-01 TORQUE FLUID TYPE C-3 GRADE 10
PETROLEOS DEL PERU	* PETROTORQUE 47
PHILLIPS PETROLEUM COMPANY	* TYPE C-2/C-3 FLUID * SUPER HD MOTOR OIL * SUPER HD II MOTOR OIL *** SUPER HD II MOTOR OIL
PRIMROSE OIL COMPANY	* PRIMROSE #253 C-2/C-3 HYDRAULIC TRANSMISSION FLUID
SHELL BRASIL S/A (PETROLEO)	* SHELL TRANSMIFLUIDO
SHELL CANADA LIMITED	* SHELL ARCTIC CL-1082 (5W 20) * SYNARCTIC 5W20 MOTOR OIL * SHELL RIMULA CT OIL SAE 10W * SUPER U 10W * DONAX T-5
SHELL CO. OF AUSTRALIA LTD.	*** SHELL ROTELLA TX OIL 730
SHELL CO. (PACIFIC ISLANDS) LTD.	*** SHELL ROTELLA TX OIL 730
SHELL FRANCAISE	* SHELL RIMULA CT 10W

MARKETER	TRADE NAME
SHELL INTERNATIONAL PETROLEUM COMPANY LIMITED	* SHELL DONAX TM * SHELL RIMULA CT OIL 10W *** SHELL RIMULA CT OIL 30 * SHELL RIMULA X 10W *** SHELL RIMULA X OIL 30
SHELL OIL COMPANY	* DONAX T-5, CODE 53005 * SHELL HYDRAULIC FLUID C-3, CODE 53105 * RIMULA U SAE 10W *** RIMULA U SAE 30
SHELL SOUTH AFRICA (PTY) LTD	* DYNASHELL MARK II 10W *** DYNASHELL MARK II 30
SOLENE LUBRICANTS, INC.	* SOLENE C-2 FLUID * SOLENE C-3
SOUTH COAST TERMINALS, INC.	* SCT C-2/C-3 FLUID (10W)
SOUTHWEST GREASE & OIL CO. (WICHITA), INC.	* HYDRAULIC TRANSMISSION FLUID C-3 * MOTOR OIL SAE 10W SE-CD
STANDARD OIL CO. (OHIO)	* FACTO 10W *** ELDORAN UTH
STP CORPORATION, INDUSTRIAL DIV	* STP UNIVERSAL POWER TRANSMISSION FLUID
J. D. STREETT & CO., INC.	* ZEPHYR SUPER HEAVY SAE 10-10W
SUN PETROLEUM PRODUCTS COMPANY	* SUNFLEET C-2/C-3 *** SUNFILL C2 30 *** SUNFILL C-2/C-3-30 * SUNOCO TRANSMATIC FLUID TYPE F
SUNOCO INCORPORATED	* SUNOCO TRANSMISSION FLUID C-2/C-3 * SUNFLEET C-2/C-3 FLUID
SUN OIL COMPANY (BELGIUM) NV	* SUNOCO TRANSMATIC FLUID TYPE A SUFFIX A
TEXACO BRAZIL S.A.	* TORQUE FLUID C-3

MARKETER	TRADE NAME
TEXACO, INC.	* TORQUE FLUID C-3 * TRANSHYDRAL FLUID * URSA SUPER PLUS (10W) *** URSA SUPER PLUS (15W 40) *** URSA SUPER PLUS SAF-30 * URSA OIL SUPER 3 SAE-10W *** URSA OIL SUPER 3
TEXACO SERVICES (EUROPE) LTD.	* URSA OIL S-3 SAE-10W
TOTAL COMPAGNIE FRANCAISE DE RAFFINAGE	* TOTAL FLUIDE CC * TOTAL RUBIA S *** TOTAL RUBIA S *** TOTAL MOTEUR G 8425 *** G-568
TOTAL COMPAGNIE FRANCAISE DES PETROLES AND AFFILIATED COMPANIES	* TOTAL FLUIDE CC * TOTAL RUBIA S *** TOTAL RUBIA S *** TOTAL MOTEUR G 8425 *** G-568
TURBO REFINERIES LTD.	* TURBO AUTOMATIC TRANSMISSION FLUID "TYPE A"
UNION INTERNATIONALE D'INDUSTRIELS ET IMPORTATEURS EN LUBRIFIANTS (UNIL)	* UNIL-MATIC C3
UNION OIL COMPANY OF CALIFORNIA	* UNION C-3 FLUID *** UNION C-3 FLUID
UNITED OIL COMPANY, INC.	* DURALENE TYPE C-3
VALVOLINE OIL COMPANY	* VAL-TORQUE C-3 *** VALVOLINE UNITRAC FLUID
VALVOLINE (AUSTRALIA) PTY. LIMITED	* VAL-TORQUE C-3
VISCOSITY OIL COMPANY	* INTERNATIONAL HARVESTER "IH NO. 1 ENGINE OIL SAE 10W"
WESTLAND OIL COMPANY	* WESTLAND DURA C-3 TRANS FLUID * DURA-TORQUE AHT FLUID SAE 10W *** DURA-TORQUE AHT FLUID SAE 30

MARKETER

TRADE NAME

WM. PENN

* MULTI-SERVICE FLEET
ENGINE OIL 10W

WOLF'S HEAD OIL REFINING CO.

* WOLF'S HEAD AUTOMATIC
TRANSMISSION FLUID C-3