



## Approved Rear Drive Axle Lubricants

### CAUTION

You must fill Meritor axles with Meritor-specified lubricants only. Do not fill an axle with non-approved lubricants, which will void Meritor's warranty. Damage to axle components also can result.

To avoid axle component damage, fill Meritor axles with approved lubricants only. Using non-approved lubricants also will void Meritor's warranty.

For complete lubrication information, refer to Maintenance Manual 1, Preventive Maintenance and Lubrication. To obtain this publication, contact the Meritor OnTrac™ Customer Call Center at 866-OnTrac1 (866-668-7221), or visit our website at meritor.com.

**Table A: Oil Change Intervals and Specifications for All Rear Drive Axles**

Vocation or Vehicle Operation	Linehaul	Intercity Coach	City Delivery, School Bus, Fire Truck, Motorhome	Construction, Transit Bus, Refuse, Yard Tractor, Logging, Heavy Haul, Mining, Oil Field, Rescue
Initial Oil Change	Not required			
Check Oil Level Add the correct type and amount of oil as required.	Every 25,000 miles (40 000 km), or the fleet maintenance interval, whichever comes first		Every 10,000 miles (16 000 km), once a month, or the fleet maintenance interval, whichever comes first	Every 5,000 miles (8000 km), once a month, or the fleet maintenance interval, whichever comes first ①
Petroleum-Based Oil Change on Axle with or without Pump and Filter System ②	Every 100,000 miles (160 000 km), or annually, whichever comes first		Every 50,000 miles (80 000 km), or annually, whichever comes first	Every 25,000 miles (40 000 km), or annually, whichever comes first
Synthetic Oil Change on Axle with or without Pump and Filter System ③	Every 500,000 miles (800 000 km), or every 4 years, whichever comes first	Every 250,000 miles (400 000 km), or every 4 years, whichever comes first	Every 250,000 miles (400 000 km), or every 3 years, whichever comes first	Every 100,000 miles (160 000 km), or every 2 years, whichever comes first ④
Filter Change on Axle with Pump and Filter System	Every 100,000 miles (160 000 km)			

① For continuous heavy-duty operation, check the oil level every 1,000 miles (1600 km).

② All Meritor GL5 approved gear lubricants have been SAE J2360 tested and approved. Access the current approved gear oil list at pri-network.org. Go to the Qualified Products pulldown menu. Click Lubricant Review Institute/Current QPL Listing. Then choose the SAE J2360 tab at the bottom of the file.

③ These intervals apply to approved semi-synthetic and full synthetic oils only. For a list of approved extended-drain axle oils, refer to **Table C** or **Table D**.

④ The change interval for transit buses can be increased to **150,000 miles** or **3 years**, whichever comes first, contingent upon:  
1) documented 10% fleet oil sampling with results below Meritor guidelines per Maintenance Manual 1,  
2) minimum of six magnets in housing (61163/ 71163 drive axles come standard with six magnets in housing), and  
3) use of approved extended-drain interval lubricants per **Table B**. (Drive axles excluded are: RC-26-633/634 and RC-26/27-720.)

**Table B: Axle Oil Specifications**

	<b>Gear Oil Type</b>	<b>A.P.I. Specification</b>	<b>SAE Viscosity Grade</b>	<b>Meritor Specification</b>	<b>SAE Specification</b>	<b>Outside Temperature</b>
<b>Standard Drain Lubricants</b>	Petroleum with EP additives	GL-5	85W/140	O76-A	SAE J2360 Tested and Approved	Above +10°F (-12°C)
			80W/140	O76-B		Above -15°F (-26°C)
			80W/90	O76-D		Above -15°F (-26°C)
			75W/90	O76-E		Above -40°F (-40°C)
			75W	O76-J		From -40°F (-40°C) to +35°F (+2°C)
			75W/140	O76-L		Above -40°F (-40°C)
<b>Extended-Drain Lubricants</b>	Petroleum with Extended-Drain Base Oils and EP additives	GL-5	75W/90, 80W/90, 80W/140 or 75W/140	O76-Q, O76-R	SAE J2360 Tested and Approved	Depends on viscosity. Refer to the viscosity grades listed above.
	Petroleum with Semi-Synthetic Base Oils and EP additives		80W/90	O76-P		Above -15°F (-26°C)
	Fully Synthetic Base Oil and EP additives		75W/140	O76-M		Above -40°F (-40°C)
	Fully Synthetic Base Oil and EP additives		75W/90	O76-N		Above -40°F (-40°C)

**Table C: Extended-Drain-Approved Synthetic Axle Oil Suppliers – United States Distributors**

<b>Name of Lubricant</b>	<b>Viscosity</b>	<b>Manufacturer</b>
Allied Mag Synthetic EP	75W/90, 80W/140	Allied Oil and Supply Incorporated
Altra Syntec GT-7	75W/90, 80W/140	Allegheny Petroleum Products
Amalie Synthetic Gear Lubricant	75W/90, 80W/140	Amalie Refining Company
Amoco Ultimate Multipurpose Gear Lube	75W/90, 80W/140	Amoco Oil Company
Archer Synthetic	75W/90, 80W/140	McCollister & Co.
Brad Penn Full Syn. Hypoid Gear Lube	75W/90, 80W/140	American Refining Group
Bulldog Syn Gear Lube	75W/90, 80W/140	Mack Truck Company
Chevron Delo Synthetic Gear Lubricant	75W/90	Chevron Global Lubricants
Chevron RPM Synthetic Gear Lubricant	75W/90, 80W/140	Chevron Global Lubricants
Citgo Synthetic Gear Lube	75W/90, 80W/140	Citgo Petroleum Corporation
Coastal HD	75W/90, 80W/140	Coastal Unilube Inc.
Dyna-Plex 21C Synzol	75W/90, 80W/140	Universal Lubricants
Dyno-Tech HD	75W/90, 80W/140	Chemtool Inc.
Emgard EP	75W/90, 80W/140	Cognis Corporation
Emgard FE Fuel Efficient Synthetic Gear Lubricant	75W/90	Cognis Corporation
Emgard Synthetic Gear Lubricant	75W/90, 80W/140	Cognis Corporation
Emgard 2986	75W/90	Cognis Corporation
Fleerite Synthetic	75W/90, 80W/140	International Truck & Engine Group
FS Synthetic	75W/90, 80W/140	Growmark
Gear Plus Super EW	75W/90, 80W/140	Pennzoil-Quaker State

**Table C: Extended-Drain-Approved Synthetic Axle Oil Suppliers – United States Distributors**

<b>Name of Lubricant</b>	<b>Viscosity</b>	<b>Manufacturer</b>
Gibraltar Syn-Gear	75W/90, 80W/140	David Weber Oil Company
Gulf Syngear	75W/90, 80W/140	Gulf Oil
Hi-Tek Synthetic	75W/90, 80W/140	Industrial Oils Limited
Imperial SGO	75W/90, 80W/140	IPAC
Lubemaster Syn EP	75W/90, 80W/140	Lubemaster (A Division of Certified Labs)
Maxtron GL	75W/90, 80W/140	Country Energy LLC
Mobil Delvac Synthetic Gear Oil	75W/90, 80W/140	ExxonMobil Corporation
Mobilube SHC	75W/90, 80W/140	ExxonMobil Corporation
Monarch Syngear Plus	75W/90, 80W/140	Royal Manufacturing Co. Inc.
Mystik Synguard SX-7000	75W/90, 80W/140	Cato Oil and Grease Company
NEO	75W/90, 80W/140	Neo Lubricants
Paccar Genuine FE	75W/90	Paccar Inc.
Pennzoil Long-Life EW	75W/90, 80W/140	Shell Oil U.S.
Quaker State FCI Synthetic	75W/90, 80W/140	Shell Oil U.S.
Raloy Transintex Plus EP	75W/90, 80W/140	Raloy Lubricantes S. A. de C.V.
Roadranger FE Fuel Efficient Synthetic Gear Lubricant	75W/90	Eaton Corporation
Roadranger Synthetic Gear Lubricant	75W/90, 80W/140	Eaton Corporation
Schaeffer Synthetic EP	75W/90, 80W/140	Schaeffer Manufacturing Company
SHP Gear Lube	75W/90, 80W/140	Kendall Lubricants
Spirax S	75W/90, 80W/140	Shell Lubricants
SYN HD Gear Oil	75W/90, 80W/140	Lyondell Lubricants
Syn. Axle Lubricant 12345841	75W/90, 80W/140	General Motors Service Parts
Syncon HP Synthetic Gear Oil	75W/90, 80W/140	Conoco Lubricants
SYN-EP Gear Lubricant	75W/90, 80W/140	Black Bear Company Incorporated
Synergy Syn. Gear Lube EP	75W/90, 80W/140	Northland Products Company
Syn-Gear	75W/90, 80W/140	Castrol Heavy Duty Lubricants, Inc.
Syngear EP	75W/90, 80W/140	American AGIP
Synolec	75W/90, 80W/140	Lubrication Engineers Incorporated
Synpro	75W/90, 80W/140	Fina Oil and Chemical Company
Syn-Star GL	75W/90, 80W/140	Texaco Lubricants Company
Synsure Synthetic Lubricant	75W/90, 80W/140	D-A Lubricant Company Incorporated
Syn-Tech EP	75W/90, 80W/140	Benz Oil
Syntex 2700	75W/90, 80W/140	Texas Refinery Corporation
Texaco Syn-Star GL	75W/90, 80W/140	Chevron Global Lubricants
Traxon E Synthetic	75W/90, 80W/140	Petro-Canada Lubricants Centre
Triton Syn Lube EP	75W/90, 80W/140	76 Lubricants
United Syn	75W/90, 80W/140	McCullister & Co.
Valvoline HD Synthetic Gear Oil EP	75W/90, 80W/140	Valvoline Incorporated

## Table D: Additional Extended-Drain-Approved Axle Oil Suppliers

### CANADA:

Name of Lubricant	Viscosity	Manufacturer
HDH Synthetic	75W/90, 80W/140	Irving Oil Limited
NEMCO Syngear	75W/90, 80W/140	NemCo Resources Limited
Sonic MP Gear Oil	75W/90, 80W/140	Federated Cooperatives Limited
Titan Syndrive	75W/90, 80W/140	Fuchs Lubricants Canada Limited

### MEXICO:

Name of Lubricant	Viscosity	Manufacturer
Akron Axle Synthetic	75W/90, 80W/140	Mexicano de Lubricantes, S.A. de C.V.
Q.S. Synquest Gear	80W/140	Commercial Importada, S.A. de C.V.
Sun Gear Gold Syn	75W/90, 80W/140	Aceites Y Parafinas Industriales
Syn-Star GL	75W/90, 80W/140	Productos Texaco, S.A. de C.V.
Transintex Plus EP	75W/90, 80W/140	Raloy Lubricantes, S.A. de C.V.

### AUSTRALIA/NEW ZEALAND:

Name of Lubricant	Viscosity	Manufacturer
Synstar GL	75W/90, 80W/140	Caltex Oil Pty. Limited
Syntrax E	75W/90, 80W/140	Castrol Australia PTY Limited
TransGear S	80W/140	BP Oil Company
Tutela Truck FE Axle	80W/140	Fiat Lubrificanti

### Other Approved Extended-Drain Gear Oils

Name of Lubricant	Viscosity	Manufacturer
Delo Gear Lubricant ESI	80W/90, 85W/140	Chevron Global Lubricants
PED 6449	75W/90	Chevron Global Lubricants
Pennzoil Long-Life EW	75W/90, 80W/140	Shell Lubricants
SAF-AM	80W/90	Castrol Heavy Duty Lubricants
Shell Spirax EW	75W/90, 80W/140	Shell Lubricants
Super Three Star	75W/90, 80W/140	Kendall
Synergyn Blended Synthetic	80W/90	Synergyn Racing Products
Texaco Star Gear Lubricant	80W/90, 85W/140	Chevron Global Lubricants
Triton Syn Lube LDO	75W/90, 80W/140	76 Lubricants

## For Meritor R-170 Axles Equipped With Traction Equalizer®

Meritor's R-170 axles with Traction Equalizer normally operate with either standard petroleum, semi-synthetic or full-synthetic oils.

### When to Use "Limited Slip Friction Modifiers"

Occasionally the Traction Equalizer will "slip" or "stick." When this happens, you will hear intervals of shrill noises when the vehicle operates at low speed or when the vehicle makes sharp turns. You can correct this condition by adding "limited slip friction modifiers."

**NOTE:** "Limited slip friction modifiers" usually deteriorate more quickly than extreme pressure (EP) additives. Shorten the lubricant change schedule if you add a friction modifier.

- **At the initial lubricant change interval for an R-170 equipped with Traction Equalizer:** Replace the factory-installed lubricant with an approved lubricant and one of the additives specified in the following table.
- **After the initial change interval:** Change the lubricant and the additive at or before 50,000 miles (80 000 km).

### Specifications

For all GL-5 oils (petroleum oil or synthetic), add one of the following modifiers specified in the following table.

Manufacturer	Specification
DSL-178	Guardsman Products
Equa-Torque #2411 and #2414	Sta-Lube Corporation
Lubrizol #6178	Lubrizol Corporation

### Quantities for R-170 Axles With and Without Traction Equalizer

WITH Traction Equalizer	WITHOUT Traction Equalizer
40 pints oil (18.9 liters) + 3 pints additive (1.4 liters)	43 pints oil (20.3 liters)

## Lubrication Analysis Recommendations

Meritor recommends using a lubricant analysis program. Perform lubricant analysis at regularly-scheduled preventive maintenance intervals. Refer to Maintenance Manual 1, Preventive Maintenance and Lubrication, for drive axle differential oil analysis guidelines.

# Notes



– PROPRIETARY –  
NOT RELEASED 07-07-16



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