



SYN HDH & IDO

These lubricants are intended for the lubrication of transmissions, transfer cases, differentials and planetary gear sets found in trucks and construction equipment. They use a synthetic base for excellent stability, long life, extreme temperature operation, improved fuel economy, reduced wear and cleaner components.

Eaton Corporation approves both **SYN HDH** and **SYN IDO** for use under its Roadranger™ extended warranty and drain interval program. Mack Trucks Inc approves **SYN HDH** for use under its GO-J and GO-J Plus programs, and also approves **SYN IDO** under its TO-A Plus program. The US Military also approves the use of **SYN HDH** under its Mil-PRF-2105E program.

Irving **SYN HDH** has a complete protection package for the extreme pressure (EP) conditions of differentials, including limited slip, and planetaries working under the heaviest load conditions. It meets the performance requirements of API* GL-5, Rockwell Corporation and Dana Corporation.

Irving **SYN HDH** is available in 2 multi-grades to cover the broadest possible temperature ranges. The use of synthetic base rather than mineral oil reduces friction in extreme conditions, increasing fuel economy by making more horsepower available to the driving wheels. The 80W140 grade also exceeds the requirements of J.I. Case MS 1317 for transaxle fluid.

SYN IDO is specially formulated for manual transmissions in class 6, 7 and 8 trucks where straight mineral oils (non-EP) or SAE 50 diesel engine oil is usually recommended. Irving **SYN IDO** has wider operating temperature range than the alternatives. At low temperatures, this gives easier shifting with less drag and gear wear, and lubricating vital transmission parts quickly. At high temperatures, this oil provides a thicker protective oil film than mineral oil lubricants, reducing friction and wear. Taken together, these advantages mean better fuel economy and transmission life.

NOTE: SYN IDO IS NOT APPROVED FOR USE AS ENGINE OIL.

The extended drain approval by Eaton Corporation applies anytime these oils are used instead of mineral based lubricants. However, when switching from mineral to synthetic lubricants, the two may not be compatible so it is important to drain the unit completely before refilling with the synthetic lubricant. After the change, all seal areas should be checked for the first 20,000 Km.

Features

Meets or exceeds the following and other specifications:

SYN HDH 75W90:

- Eaton Roadranger™
- Mack GO-J Plus
- SAE J2360

SYN HDH 80W140:

- Eaton Roadranger™
- Mack GO-J
- SAE J2360

SYN IDO 50:

- Eaton PS-164 REV 7
- Mack TO-A Plus
- ARVIN MERITOR 0-81
- INTERNATIONAL TMS 6816

Benefits

- Extreme protection
- Long life – qualifies for extended drain
- Excellent stability
- Improved economy
- Improved Component Protection

*API : American Petroleum Institute



Typical Performance Results

NAME	SYN HDH	SYN HDH	SYN IDO
SAE GRADE	75W90	80W140	50
VISCOSITY (D-445)			
cSt @ 40°C	137	255	132
cSt @ 100°C	17.5	30.7	17.5
VISCOSITY INDEX (D-2270)	152	161	146
BROOKFIELD VISC. (D-2602)			
cP @ -18°C	7125	20500	--
cP @ -26°C	--	90000	24250
cP @ -40°C	140000	--	104000
POUR POINT (°C) (D-97)	< -45	-34	< -45
CHANNEL POINT (°C) (FTMS 3456)	< -51	< -48	--
FLASH POINT (°C) (D-92)	205	196	221
FOAM PREVENTION (D-892)			
SEQUENCE I	PASS	PASS	PASS
SEQUENCE II	PASS	PASS	PASS
SEQUENCE III	PASS	PASS	PASS
COPPER STRIP CORROSION (D-130)			
3 Hrs. @ 121°C	PASS	PASS	PASS

Available Package Sizes

SYN HDH 75W90

- 20 L (5.28 US gal.) Pail
- 60 L (15.85 US gal.) Keg
- 210 L (55.5 US gal.) Drum

SYN HDH 80W140

- 20 L (5.28 US gal.) Pail
- 60 L (15.85 US gal.) Keg
- 205 L (54.2 US gal.) Drum

SYN IDO 50

- 20 L (5.28 US gal.) Pail
- 60 L (15.85 US gal.) Keg
- 210 L (55.5 US gal.) Drum

