

# HYDRAULIC 10W



HYDRAULIC 10W is a hydraulic oil for automotive vehicles. Blended from high quality base oils and additives to meet the performance of API CF/SF standard. It has the properties in power transmission, anti-wear, anti-rust, anti-oxidation enable the hydraulic system to operate under severe conditions without adverse effects.

## APPLICATION

HYDRAULIC 10W is commonly used with hydraulic system in various vehicles such as dump trucks, forklift trucks, crane trucks, tractors, mobile hydraulic system and other heavy equipment. It can be used as a torque fluid in the hydraulic transmission system of heavy- equipments and also in the power-assisted steering units. It is suitable for diesel and gasoline engine where oil type and viscosity are appropriate.

## REQUIREMENT:

- API CF/SF

## Special characteristics of Hydraulic 10W

PROPERTIES	HYDRALIC 10W
Appearance	Bright & Clear
Color	Report
Density @ 15 °C, g/cm <sup>3</sup>	Report
Flash Point (COC), °C	215 Min
Foam Test (Seq II), mL/mL	50/0 Max
Pour Point, °C	-6 Max
Kinematic Viscosity @ 100 °C, cSt.	6.0-7.0
Viscosity Index	95 Min
Water Content, % Vol	NIL
TBN, mg KOH/g	7.8 Min

Packages: 200 litres and 5 litres

# Hydraulic ZF HAO



HYDRAULIC ZF HAO is a premium-quality hydraulic oil anti-wear type made from of selected and carefully refined high-quality base stocks incorporating additives to improve the anti-wear, load-carrying, oxidation stability and separation/foaming properties. Excellent filterability, demulsification of water and high corrosion resistance, viscosity index allow operation under adverse condition and assure long oil service life.

## APPLICATION

HYDRAULIC ZF HAO can be used for general lubrication in pneumatic system, small bearings and gears. However, it can be used with pumps containing silver or bronze.

## REQUIREMENT

- Denison Filterability TP 02100
- Sperry Vickers I-286-S, M-2950-S
- U.S.Steel 126,127,136
- DIN 51524, Part 2 and 3 (HPL)
- SIS SS 155434
- Hoesch HWN 2333
- Thyssen THN-256132
- CETOP RP 91 H (HM)
- AFNOR NF E 48-603 (HM)

## Special characteristics of HYDRAULIC ZF HAO

PROPERTIES	HYDRAULIC ZF HAO 10	HYDRAULIC ZF HAO 22
Appearance	Bright & Clear	Bright & Clear
Color, ASTM	Report	Report
Density @ 15°C	Report	Report
Flash Point (COC), °C	150 Min	205 Min
Foam Test (Seq II), mL/mL	50/0 Max	50/0 Max
Pour Point, °C	-25 Max	-6 Max
Kinematic Viscosity @ 40°C, cSt.	9.0-11.0	20.0-24.0
Viscosity Index	150 Min	150 Min

# HDO High Lube



HDO HIGH LUBE is a premium-quality hydraulic oil anti-wear type made from of selected and carefully refined high-quality base stocks incorporating additives to improve the anti-wear, lubricity, load-carrying, corrosion resistance, oxidation stability and separation/foaming properties. Excellent filterability, demulsification of water and high viscosity index allow operation under adverse condition and assure long oil service life.

## APPLICATION

HDO HIGH LUBE is designed specially to meet the demanding heavy duty requirements of modern hydraulic equipment in which high-speed and high-pressure oil pump are used. It is also appropriated for air compressor. It can be used with hydraulic system in dumptruck, fork lift, crane truck and construction equipment. However, it should not be used with pumps containing silver or bronze.

HDO HIGH LUBE can be used for general lubrication in bearings,gears, air compressor (piston type) and etc.

## REQUIREMENT

### Special characteristics of HDO HIGH LUBE

PROPERTIES	ISO 32
Appearance	Bright & Clear
Color, ASTM	Report
Density @ 15°C	Report
Flash Point (COC), °C	205 Min
Foam Test (Seq II), mL/mL	50/0 Max
Pour Point, °C	-6Max
Kinematic Viscosity @ 40°C, cSt.	30.0 - 35.0
Viscosity Index	95 Min

- Denison HF-0, HF-1, HF-2
- Vickers I-286-S, M-2950-S
- U.S. Steel 127, 136
- DIN 51524, Part 2 (HLP) and 3
- Cincinnati Milacron P-68, P-69, P-70
- EATON I-286-S3

# Hydraulic AW ZF 10



Hydraulic AW ZF 10 is a hydraulic oil with special added anti-abrasives which do not cause a reaction with brass and silver. With a high viscosity index, the oil does not react with oxygen at high temperatures. The resultant oil has a long working life, helps protect against the wear and tear of pumps, and prevents rust and corrosion.

## Usage of Hydraulic AW ZF 10

Pneumatic systems in industry, small pump lubrication, and rotary bearing lubrication systems.

## Passed standard tests

- Denison Filterability TP 02100
- Sperry Vickers I-286-S, M-2950-S
- VDMA 24318
- U.S. Steel 126,127,136
- DIN 51524, Part 2 and 3 (HLP)
- SIS SS 155434
- Hoesch HWN 2333
- Thyssen THN-256132
- CETOP RP 91 H (HM)
- AFNOR NF E 48-603 (HM)

## Special characteristics of Hydraulic AW ZF 10

The General Characteristics	AW 10
Viscosity @ 40°C, cSt.	10.00
Viscosity @ 100°C, cSt.	2.64
Viscosity Index	96
Flash Point (COC), °C	182
Color, ASTM	L.0.5
Foaming Test, Sequence II, III	10/0, Trace/0
FZG (Damage Load Stage)	Pass 10
Density @ 15°C	0.8555

**Packages: 200 litres**

# Hydraulic AW



Hydraulic AW is a hydraulic oil with added anti-abrasives. With a high viscosity index, the oil does not react with oxygen at high temperatures. The result is an oil with a long working life, that prevents the wear and tear of hydraulic pumps and cylinders, and helps prevent rust and corrosion.

## Usage of Hydraulic AW

- Hydraulic systems for ocean liners, dump trucks, forklift trucks, crane trucks, tractors and graders
- Hydraulic systems for lubricating industry, cylindrical vacuum air-pump, light-load high-speed industrial gear and circulating bearing lubricating systems

## Passed standard tests

- Denison HF-0, HF-1, HF-2
- Vickers I-286-S, M-2950-S
- U.S. Steel 127, 136
- DIN 51524, Part 2 and 3
- Cincinnati Milacron P-68, P-69, P-70
- VDMA 24318

## Special characteristics of Hydraulic AW

The General Characteristics	AW 32	AW 37	AW 46	AW 68	AW 100
Viscosity @ 40°C, cSt.	34.39	37.37	47.98	67.33	98.95
Viscosity @ 100°C, cSt.	5.70	5.97	7.03	8.76	11.14
Viscosity Index	105	103	103	102	98
Flash Point (COC), °C	224	220	232	248	258
Color, ASTM	L. 1.5	L. 1.5	L. 1.5	L. 1.5	L. 1.5
Foaming Test, Sequence II, III	10/0, Trace/0	10/0, Trace/0	10/0, Trace/0	10/0, Trace/0	15/0, Trace/0
FZG (Damage Load Stage)	Pass 12	Pass 12	Pass 12	Pass 12	Pass 12
Density @ 15°C	0.8641	0.8699	0.8701	0.8731	0.8781

**Packages: 200 litres and 18 litres**

# Hydraulic HDO AW



Hydraulic HDO is a hydraulic oil with added anti-abrasives and a high viscosity index, which does not react with oxygen at high temperatures. The resultant oil has a long working life, helps protecting against the wear and tear of hydraulic pumps and cylinders, while preventing rust and corrosion.

## Usage of HDO

- Hydraulic systems in ocean-going vessels, dumper trucks, forklift trucks, cranes, tractors and graders
- Hydraulic systems in industry, lubrication, compressor engines-piston-gear pumps, high speed industry, light work and lubrication system using rotary bearings.

## Passed standard tests

- Denison HF-0, HF-1, HF-2
- Vickers I-286-S, M-2950-S
- U.S. Steel 127, 136
- DIN 51524, Part 2 and 3
- Cincinnati Milacron P-68, P-69, P-70
- VDMA 24318

## Special characteristics of HDO

The General Characteristics	ISO 32	ISO 37	ISO 46	ISO 68	ISO 100
Viscosity @ 40°C, cSt.	34.39	37.37	47.98	67.33	98.95
Viscosity @ 100°C, cSt.	5.70	5.97	7.03	8.76	11.14
Viscosity Index	105	103	103	102	98
Flash Point (COC), °C	224	220	232	248	258
Color, ASTM	L. 1.5	L. 1.5	L. 1.5	L. 1.5	L. 1.5
Foaming Test, Sequence II, III	10/0, Trace/0	10/0, Trace/0	10/0, Trace/0	10/0, Trace/0	15/0, Trace/0
FZG (Damage Load Stage)	Pass 11	Pass 11	Pass 11	Pass 11	Pass 11
Density @ 15°C	0.8641	0.8699	0.8701	0.8731	0.8781

**Package: 200 litre**

# HYDRAULITE



HYDRAULITE is a premium-quality hydraulic oil anti-wear type made from of selected and carefully refined high-quality base stocks incorporating additives to improve the anti-wear, load-carrying, corrosion resistance, oxidation stability and separation/foaming properties. Excellent filterability, demulsification of water and high viscosity index allow operation under adverse conditions and assure long oil service life.

## Usage of Hydrolite

HYDRAULITE is designed specially to meet the demanding heavy duty requirements of modern hydraulic equipment in which high-speed and high-pressure oil pumps are used. It is also appropriated for air compressor. It can be used with hydraulic systems in dump trucks, fork lifts, crane trucks and construction equipment. However, it should not be used with pumps containing silver or bronze. HYDRAULITE can be used for general lubrication in bearings, gears, air compressors (piston type) and etc.

## Passed standard tests

- Denison HF-0, HF-1, HF-2 or Vickers I-286-S, M-2950-S or U.S. Steel 126,127
- DIN 51524, Part 2 and 3

## Special characteristics of Hydrolite

The General Characteristics	AW 32	AW 46	AW 68	AW 100
Viscosity @ 40°C, cSt.	34.39	47.98	67.33	98.95
Viscosity @ 100°C, cSt.	5.70	7.03	8.76	11.14
Viscosity Index	105	103	102	98
Flash Point (COC), °C	224	232	248	258
Color, ASTM	L.1.5	L.1.5	L.1.5	L.1.5
Foaming Test, Sequence II, III	10/0, Trace/0	10/0, Trace/0	10/0, Trace/0	15/0, Trace/0
Density @ 15°C	0.8641	0.8701	0.8731	0.8781

**Packages: 18 litres**

# HVI hydraulic



HVI oil is a hydraulic oil with a high viscosity index, with added anti-abrasives to provide excellent protection against rust and corrosion. With an especially high viscosity index, it does not react with oxygen at high temperatures, particularly in work that requires wide variations in temperature conditions. The resultant oil has a long working life, protecting against the wear and tear of hydraulic pumps and cylinders.

## Usage of HVI hydraulic

- All hydraulic systems in working conditions with wide temperature variations
- Hydraulic systems in ocean-going vessels, dumper trucks, forklift trucks, cranes, tractors and graders
- Hydraulic systems in industry, construction, mines and mills
- Hydraulic systems in high-speed industries, light work and lubrication systems using R&O rotary bearings

## Passed standard tests

- DIN 51524, Part 2 and 3
- Cincinnati Milacron P-68, P-69, P-70
- U.S. Steel 127 and 136
- Vickers I-286-S and M-2950-S
- Denison HF-0, HF-1, HF-2

## Special characteristics of HVI hydraulic

The General Characteristics	ISO 32	ISO 46	ISO 68	ISO 100
Viscosity @ 40°C, cSt.	36.63	47.71	68.84	102.5
Viscosity Index	150	150	150	150
Flash Point (COC), °C	230	235	240	250
Color, ASTM	L. 1.0	L. 1.0	L. 2.0	L. 2.0
Foaming Test, Sequence II, III	10/0, Trace/0	10/0, Trace/0	10/0, Trace/0	15/0, Trace/0
FZG (Damage Load Stage)	Pass 12	Pass 12	Pass 12	Pass 12
Density @ 15°C	0.8610	0.8801	0.8847	0.8893

**Packages: 200 litres**



# SUPER TRAC 7884



Super Trac 7884 is a special lubricant for the hydraulic system, transmission, axles and wet-brake of tractors. It is blended from high quality base stock with additives to protect and reduce wear.

Super Trac 7884 has gained major acceptance with the leading tractor manufacturers such as John Deere, Ford and Massey-Ferguson.

## Usage of Super Trac 7884

- It can be used in the hydraulic system of a tractor.
- Reduces and protects wear with absolute lubrication for gears, bearings and hydraulic pumps.
- Appropriate for transmission systems: Power Shift, Hydrostatic Transmission, Torque Converter.
- Reduces wear and increases performance of the brake system.

## Special characteristics of Super Trac 7884

The General Characteristics	Super Trac 7884
Density @ 15°C	0.99
Viscosity @ 40°C, cSt.	94.41
Viscosity @ 100°C, cSt.	11.20
Viscosity Index	99.00
Flash Point (COC), °C	225.00
Color, ASTM	L 1.5
Foaming Test, (Seq II)	Nil

Packages: 18 litre, 200 litre