



TIER ONE
LUBRICANTS
PRODUCT DATA SHEET

Tier One Lubricants™ VHVI Hydraulic Oils
High Viscosity Index and Low Pour Point

Product Description

Tier One Lubricants™ VHVI hydraulic oils are designed to give long service in high-output hydraulic systems using vane, piston or gear pumps. These oils have high viscosity index (VI) and low pour point for use over a wider temperature range than conventional anti-wear hydraulic fluids. Since these oils contain a Zincdithiophosphate anti-wear agent, it should not be used in those specialized pumps having silver-faced bearing surfaces. These oils are recommended for high-pressure pumps and hydraulic systems from leading manufacturers such as:

Industry and OEM Specifications

- John Barnes
- Denison HF-O
- Cincinnati Machine (appropriate viscosity grades)
- Bellows-Valveair
- Dynes
- Sundstrand
- Hydrec0
- Pesco
- Racine, Variable volume pump
- Vickers M-2950-S (mobile) and I-286-S (industrial)

Applications

Tier One Lubricants™ VHVI hydraulic oils are ideally suited for piston, gear, and vane pumps used in industrial, marine, woodlands, and mining and other mobile hydraulic systems operating in cold weather or with wide temperature fluctuations. The typical applications also include hydraulic elevators, hoists and lifts.

Typical Properties*

ISO grade	Test	15	22	32	46	68	100
Viscosity at 100°C	D445	3.84	4.86	6.42	8.3	10.5	13.1
Viscosity at 40°C	D445	15.23	22.77	34.6	50.0	67.7	100
Viscosity Index	D2770	151	141	140	140	143	130
Pour Point °C	D97	-54	-54	-50	-41	-40	-40
Color	D1500	0.5	0.5	0.5	1.0	1.5	1.5

*The values shown here are representative of current production. Some are controlled by manufacturing specifications while others are not. All of them may vary within modest ranges.