Valvoline HLP Series

Valvoline_™ EHVI Series

Meets and exceeds performance requirements

DIN 51524 Part II

Denison HF-0, HF-1, HF-2

MAG IAS P-68, P-69, P-70

Valvoline HLP Oils are premium quality hydraulic oils having excellent anti-wear properties, high oxidation stability and high load carrying capacity.

They have superior thermal stability and anti-oxidation properties to avoid sludge formation at high temperatures and ensure longer life.

They have excellent air separation and water separation characteristics.

Valvoline HLP Oils show good hydrolytic stability and anti-foam properties.

With their superior anti-wear performance and thermal and oxidation stability, they can be used in the system for longer periods, reducing down time and maintenance cost.

The product is available in ISO VG 32,46,68.

Applications

Valvoline HLP Oils are recommended for many uses in the commercial, industrial and construction industries, typified as follows:

- Gear cases
- Electric motors
- Textile machinery
- Hydraulic systems with Servomotors and controls with fine filters
- Air compressors
- Steel and paper industrial machines
- Circulating systems
- Mould injection machines
- Machine tools
- Sliding & roller bearings

Packs Available: 210 ltrs. and 20 ltrs.

Valvoline HLP Hydraulic Oils					
Typical Characteristics	Valvoline HLP Oils				
ISO VG	32	46	68		
Kinematic Viscosity, cSt@40°C	32	46	68		
Viscosity Index	105	105	95		
Flash Point, COC, °C	214	218	232		
Pour Point, °C	-24	-24	-24		
FZG Test, Pass Stages	10	10	12		
Rust Test D665, A&B, 24 hrs.	Pass	Pass	Pass		
Emulsion Test, D-1401, 40-40-0, minutes	10	10	15		

DIN 51524 Part III

Meets and exceeds performance requirements

Denison HF-0, HF-1, HF-2

| MAG IAS P-68, P-69, P-70

Valvoline EHVI Oils are very high viscosity index products blended with low aromatic high VI base oils and shear stable VI improvers. Besides having wide operational temperature range, these premium quality oils have excellent anti-wear properties, high oxidation stability and high load carrying capacity.

These oils are designed to withstand sudden change in temperatures and varying loads and pressures.

They have superior thermal stability and anti-oxidation properties to avoid sludge formation and avoid filter blockages.

They also have excellent air seperation and water separation characteristics.

With their superior anti-wear performance, thermal and oxidation stability, they can be used in the system for longer periods, reducing downtime and maintenance cost.

The product is available in ISO VG 46, 68, 100.

Applications

Valvoline EHVI Oils are recommended for all heavy-duty applications, such as excavators and many other earth-moving requirements.

Packs Available: 210 ltrs. and 20 ltrs.

Valvoline AW EHVI Oils					
Typical Characteristics		Valvoline AW EHVI OIIs			
ISO VG	46	68	100		
Kinematic Viscosity, cSt@40°C	46	68	100		
Viscosity Index, min.	140	140	140		
Flash Point, COC, °C	224	210	236		
Pour Point, °C	-33	-33	-33		
FZG Test, Pass Stages	11	12	12		
Rust Test D665, A&B, 24 hrs.	Pass	Pass	Pass		
Emulsion Test, D-1401, 40-40-0, minutes	15	15	15		

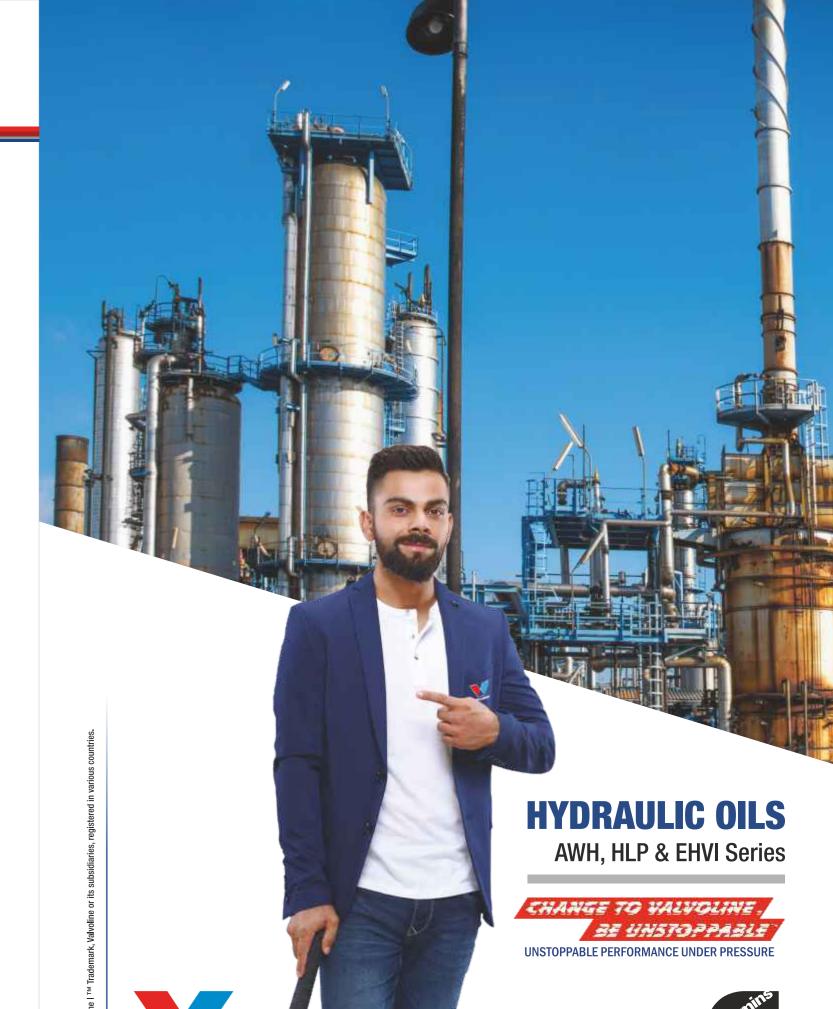


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Valvoline.

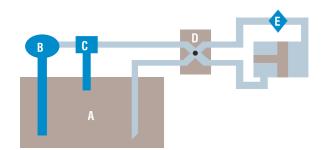


VALVOLINETM HYDRAULIC OILS

Power transmission utilizing a hydraulic system has a wide range of applications. It is used in systems where multiplication of force is required, as well as in a system where accurate and reliable controls are provided.

In modern times, hydraulic systems play vital role in peak operating efficiency. With hydraulic systems operating under greater pressure and loads, there is an ever increasing need for superior hydraulic oils.

Essential Hydraulic Circuit Components



- A Reservoir (tank): To hold fluid supply
- B Pump: Convert mechanical to fluid energy
- **(C)** Pressure relief valve: Regulates pressure and flow
- **Distributor**: Distributes and directs fluid flow
- **E** Reception units : Hydraulic System

Hydraulic oils play a crucial role in the continuous and efficient operation of the machines. But as machines have become more and more compact and oil reservoirs are becoming smaller, thermal stress is increasing with increase in temperature of the system and the hydraulic fluids. Modern hydraulic system design has also resulted in increase in system pressure, which, while resulting in high output, increases the thermal stress on oils further.

In a closed system, hydraulic fluid does the following:

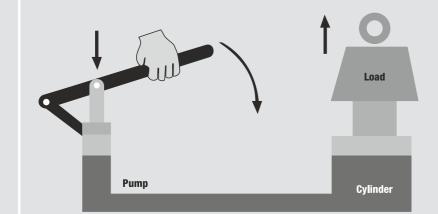
- Transmits power
- Maintains pressure
- Cools system or transfers heat
- Lubricates the parts
- Protects system from corrosion and rusting

Non-return valves

■ Acts as a seal to prevent leakages

Valvoline Hydraulic Oils

Reduce Wear
Resist Chemical Breakdown
Protect Seals
Resist Foaming
Provide Rust Protection



Properties of Valvoline Hydraulic Fluids

- Suitable viscosity to provide adequate oil film between moving parts and thus lubricates all parts of the systems.
- Resist thinning at elevated temperatures and thickening at lower temperatures of operation (High Viscosity Index).
- Adequate anti-wear characteristics.
- · Anti-rust and ant-corrosion properties.

- Resistance to oxidation and chemical decomposition.
- · Good thermal stability.
- Good water separation or demulsibility properties to remove entrapped water during operation.
- · Good filterability.
- Adequate seal compatibility.

Valvoline Hydraulic Oils are high-quality, stable prducts formulated to provide excellent performance. It forms a film on metal surfaces, reducing metal-to-metal contact. Valvoline Hydraulic Oils are a blend of highly refined base oils and performance additives.

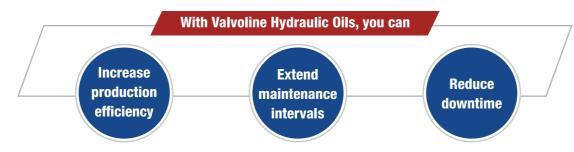
The base oil selected for Valvoline Hydraulic Oils have excellent inherent oxidation and thermal stability. These base oils quickly release the air and water entrapped during operation, eliminating wear.

To enhance performance and meet and exceed industry specification, Valvoline Hydraulic Fluids are strengthened with selected anti-oxidant, anti-wear, anti-rust, anti-foam and other performance additives.

Most importantly, these additives are thermally stable. They do not decompose or break down to form residue, which could block filters. Blockage of the filters can lead to increase in level of impurities and cause abrasive wear. The result is increase in the cost of changing filter, increase in downtime and decrease in productivity.

At the same time these thermally stable additives do not lose their extreme pressure characteristics. They prevent damage to pumps, bearings and pistons.

Valvoline Hydraulic Oils are the perfect match for stationary or mobile hydraulic systems.





Valvoline■ AWH Series

Meets and exceeds performance requirements

DIN 51524 Part I

Valvoline AWH Series comprises of premium quality anti-wear hydraulic Oils designed to provide maximum pump life and trouble-free service in industrial and mobile hydraulic systems. These oils can be applied in hydraulic system operating under moderate to severe conditions in stationary and mobile equipment. They perform well in circulation systems, splash and ring oil systems or bearing, servo control valves etc.

Applications

Valvoline AWH oil are recommended for many uses in the commercial and construction industries, typified as follows:

- Circulating systems
- General hand oiling
- Mist applicators
- Machine Tools
- Bearing journal, anti-friction gear cases
- Electric motors
- Textile machinery
- Hydraulic systems

Packs Available: 210 ltrs. and 20 ltrs.



Valvoline Anti Wear Hydraulic Oils					
Typical Characteristics	Valvoline 'Anti-wear Hydraulic Olls				
ISO VG.	32	46	68		
Kinematic Viscosity, cSt@40°C	32	46	68		
Viscosity Index, min.	95	95	95		
Flash Point, COC, °C	220	220	228		
Pour Point, °C	-12	-12	-12		
Rust Test D665, A&B, 24 hrs.	Pass	Pass	Pass		
Emulsion Test, D-1401, 40-40-0, minutes	15	15	25		