

Gazpromneft Hydraulic HZF – 32, 46 and 68

Zinc-free Hydraulic Oils



Hydraulic systems



Zinc-free



Excellent filterability



High anti-wear properties



Low foaming



Mineral

Gazpromneft Hydraulic HZF oils are superior performance hydraulic oils developed for use in high-speed, high-pressure piston, vane and gear pumps. Formulated from high quality base stocks and advanced zinc-free additive system they provide oxidation resistance, thermal stability and corrosion protection even for copper-based alloys in severe hydraulic applications such as high-pressure axial piston pumps. Gazpromneft Hydraulic HZF are designed to work with systems operating under moderate to severe conditions where high levels of anti-wear and film strength protection are needed and can lead to extension of oil and filter change intervals and provide exceptionally clean systems and trouble-free operation.

Applications

- Manufacturing and industrial hydraulic systems
- Severe duty hydraulic service
- Marine and mobile hydraulic systems
- High pressure vane, piston and gear pumps operating at high temperatures
- Systems employing multi-metal designs in system components

Features	Advantages and Potential Benefits
Zinc-free anti-wear additives	Reduced wear for systems using various metallurgy for excellent performance of components. Providing non contaminated waste water for environmentally friendly disposal
Controlled demulsibility	Protects systems where small quantities of water are present and readily separates larger quantities of water for long oil and equipment life
Superior cleanliness	In combination with active additives reduce the impact of contaminants on filter blocking to prolong the life of hydraulic equipment
Outstanding thermal and oxidation stability	Reduced deposits and sludge formation to provide long oil and equipment life. Extends filter life
Excellent corrosion protection	Prevents internal hydraulic system corrosion, reduces negative effects of moisture in systems for reduced maintenance costs.
Fast air release and low foaming	Provide efficient hydraulic power transfer and minimize cavitation to prolong equipment life

Gazpromneft Hydraulic HZF series meets the requirements of

Specifications	Gazpromneft Hydraulic HZF		
	32	46	68
DIN 51524 Part 2	✓	✓	✓
Bosch Rexroth RE 90220	✓	✓	✓
Fives Cincinnati	MAG P-68	MAG P-70	MAG P-69

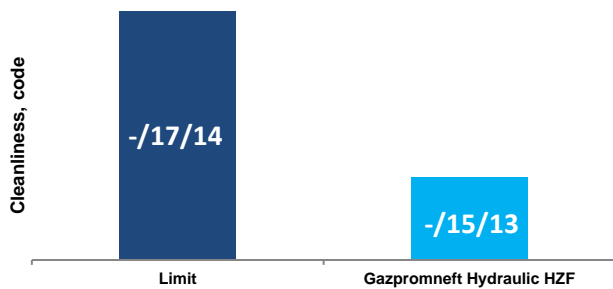
Gazpromneft Hydraulic HZF series has the following builder approvals

Specifications	Gazpromneft Hydraulic HZF		
	32	46	68
Denison Hydraulics HF-0,1,2	✓	✓	✓
Eaton Vickers 35VQ25	✓	✓	✓

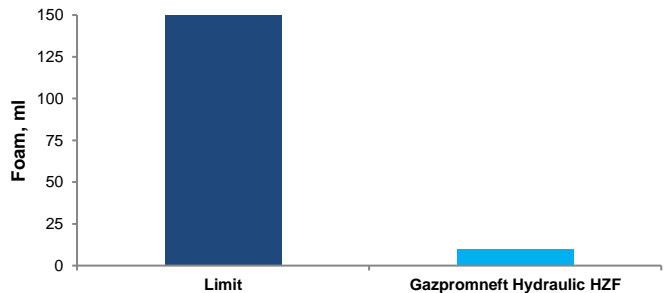
Typical Characteristics

Properties	Method	Gazpromneft Hydraulic HZF		
		32	46	68
ISO Viscosity Grade		32	46	68
Kinematic Viscosity @40°C, mm²/s	ASTM D445	32	46	68
Kinematic Viscosity @100°C, mm²/s	ASTM D445	5,4	6,7	8,5
Viscosity Index	ASTM D2270	101	98	95
Flash Point (COC), °C	ASTM D92	228	226	240
Pour Point, °C	ASTM D97	-37	-35	-32
Total Acid Number, mg KOH/g	ASTM D664	0,1	0,1	0,1
Cleanliness class, max	ISO 4406	-/15/13	-/15/13	-/15/13
Density @15°C, kg/m³	ASTM D4052	874	879	884

Superior cleanliness*



Low foaming**



* ISO 4406; ** ASTM D892

Health, Safety & Environment

Information is provided for products in the relevant Safety Data Sheet (SDS). This provides guidance on potential hazards, precautions and first-aid measures, together with environmental effects and disposal of used products. SDS's are available upon request through your sales contract office. This product should not be used for purposes other than its intended use.