Gulf Harmony ZF-HVI

Premium quality ashless high viscosity index hydraulic oil for extreme temperature ranges

Product Description

Gulf Harmony ZF-HVI series are premium quality ashless anti-wear hydraulic oils specially developed for modern hydraulic systems, using high pressure high output pumps, subjected to wide range of temperature or where small viscosity change with fluctuating temperature is needed. They are formulated with high quality paraffinic base oils, a highly shear stable polymer and an advanced ash-less additive system to provide reduced environmental impact in case of spillage. These oils provide excellent protection against oxidation degradation, rust & corrosion and wear. They exceed the performance requirements of global industry standards viz. DIN 51524 Part 3 HVLP, ISO 11158 HV, etc and majority of the international OEMs viz. Hitachi, FIVES CINCINNATI (Former MAG IAS, LLC), Eaton and Denison.

Features & Benefits

- Exceptional anti-wear property results in longer component life reducing cost.
- Extremely high viscosity index assures equipment protection at cold start-up temperatures as well as at high operating temperatures.
- Excellent shear stability minimises viscosity loss over time and exhibits “stay-in-grade” performance under high shear conditions.
- Excellent thermo-oxidative stability controls the formation of sludge & varnish and improves oil life.
- Superior demulsibility helps in faster separation of water from oil and resists formation of emulsions.
- Advanced ashless additive technology reduces environmental impact in case of accidental spillage.
- Special rust & corrosion inhibitors protect multi-metallurgy components even in presence of moisture.
- Rapid air release property minimises chances of pump cavitation leading to trouble free operations.
- Compatible with multi-metals and most sealing materials used in hydraulic systems.

Applications

- Hydraulic and power transmission systems operating under high pressures and subjected to a wide range of ambient & operating temperatures.
- Critical high accuracy industrial hydraulic systems.
- Hydraulic systems of excavators, cranes and hydrostatic drives subjected to most severe outdoor operating conditions.

Specifications, Approvals & Typical Properties

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ISO Viscosity grades			32	46	68	100
Meet the following Specifications						
DIN 51524 Part 3 HVLP, AFNOR NFE 48-603, (HV) ISO 11158 HV			**X**	**X**	**X**	**X**
Denison HF-0, HF-1, HF-2, Eaton (Vickers) M-2950-S and I-286-S			**X**	**X**	**X**	
FIVES CINCINNATI (Former MAG IAS, LLC)			**P-68**	**P-70**	**P-69**	
Hitachi				**X**		
Typical Properties						
Test Parameters		**ASTM**			**Test Values**	
Viscosity @ 40 ºC, cSt		D 445	32	46	68	100
Viscosity Index		D 2270	148	148	148	147
Flash Point, ºC		D 92	210	218	226	238
Pour Point, ºC		D 97	-39	-30	-27	-24
Density @ 15 ºC, Kg/l		D 1298	0.869	0.874	0.881	0.886
Rust Test		D 665A/B	Pass	Pass	Pass	Pass
Emulsion Test	@ 54 ºC	D 1401	Pass	Pass	Pass	-
30 minutes max	@ 82 ºC		-	-	-	Pass
Foam Stability in all three sequences, ml		D 892	Nil	Nil	Nil	Nil
Turbine Oil Stability Test, hrs		D 943	-	3000+	2500+	2000+
FZG, fail load stage, minimum		DIN 51354 Part II	-	11	11	11

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