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Product Data Sheet (PDS)



GP MARGEN MARINE HYDRAULIC SERIES

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Supreme quality high viscosity index hydraulic oil for extreme temperature ranges

Product Description:

GP Margen Marine Hydraulic series are supreme quality anti-wear hydraulic oils specially developed for applications subjected to wide range of temperature or where small viscosity change with fluctuating temperature is needed. They are formulated with severely hydro processed Group II base oils, a highly shear stable polymer and an advanced additive system to meet the stringent requirements of modern hydraulic systems using high pressure high output pumps and critical requirement of other hydraulic system components such as high accuracy numerically controlled machine tools and those employing close clearance servo valves. Their outstanding thermo-oxidative stability and low & high temperature performance allows for extended service life. They provide excellent anti-wear property, rust & corrosion protection, water separation & air-release properties and hydrolytic stability to reduce breakdowns and help improve production capacity.

They are available in ISO viscosity grades 15 through 150 and exceed the performance requirements of global industry standards viz. DIN 51524 Part 3 HVL, ASTM D 6158 (HV) & ISO 11158 HV and majority of the international OEMs viz. Parker (formerly Denison), Bosch Rexroth, Fives Cincinatti, Eaton (Vickers) and JCMAS.

Features & Benefits:

- Outstanding thermo-oxidative stability reduces deposit formation, improves pump & valve performance and allows extension of oil and filter change intervals.
- Extremely high viscosity index assures equipment protection at cold start-up temperatures and protects system components at high operating temperatures.
- Exceptional anti-wear property results in fewer breakdowns, longer pump life and reduced maintenance costs.
- Excellent shear stability minimises viscosity loss over time and exhibits “stay-in-grade” performance under high shear conditions.
- Excellent demulsibility helps in faster separation of water from oil and resists formation of emulsions
- Special rust & corrosion inhibitors protect multi-metallurgy components against negative effects of moisture presence in the system.
- Rapid air release property minimises chances of pump cavitation and thus prevents component damage, reduces vibration and maintains efficiency especially in modern hydraulic systems where sump sizes are becoming smaller.
- Offers long term hydrolytic stability and yellow metal compatibility in presence of water.
- Compatible with multi-metals and sealing materials commonly used in hydraulic systems.

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Applications:

- Hydraulic and power transmission systems subjected to a wide range of ambient & operating temperatures.
- Applications requiring extended oil change intervals.
- Critical hydraulic systems such as high accuracy numerically controlled machine tools and those employing close clearance servo valves.
- Hydraulic systems of excavators, cranes and hydrostatic drives subjected to most severe outdoor operating conditions.

TECHNICAL DATA:

GP MARGEN Hydraulic HVI Plus Series							
ISO Viscosity grades	15	22	32	46	68	100	150
Meets the following Specifications							
DIN 51524 Part 3 HVLP	X	X	X	X	X	X	X
ASTM D 6158 (HV)	X	X	X	X	X	X	X
ISO 11158 HV	X	X	X	X	X	X	X
Eaton E-FDGN-TB002-E	X	X	X	X	X	X	X
GB 11118.1-2011 (L-HV)	X	X	X	X	X	X	X
SAE MS 1004 (HV)	X	X	X	X	X	X	
SEB 181222		X	X	X	X	X	
Parker (formerly Denison) HF-0, HF-1, HF-2			X	X	X		
Bosch Rexroth RDE 90235			X	X	X		
JCMAS P041 HK			X	X	X		
Fives CINCINNATI (Former MAG IAS, LLC)			P-68	P-70	P69		
TYPICAL PROPERTIES							
Test Parameters	TEST VALUES						
Viscosity @ 40 °C, cSt	14.9	22.5	32.2	46.9	68.9	98.6	147.2
Viscosity Index	152	151	150	151	152	150	151
Flash Point, °C	180	192	219	222	223	242	248
Pour Point, °C	-42	-40	-39	-33	-30	-30	-27
Density @ 15°C, Kg/l	0.855	0.857	0.866	0.865	0.867	0.869	0.868
Rust Test	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Emulsion Test at 54C	Pass	Pass	Pass	Pass	Pass		
30 minutes max at 84C						Pass	Pass
Foam Test foam after 10 minutes of settling for all sequences	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Turbine Oil Stability Test, hrs	5000+					4000+	
FZG, fail load stage minimum	-	10	12	12	12	12	12

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Health and Safety:

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, following the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

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