

Hi-Tec Oil Traders Pty Ltd ABN 28 053 837 362 5 Tarlington Place Smithfield NSW 2164 Correspondence: P.O Box 322 Castle Hill NSW 1765

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ODUCT DATA SHEET

ZF HYDRAULIC OILS 10 - 220

PRODUCT DESCRIPTION

ZF Hydraulic Oils are zinc free, ashless, anti-wear lubricants blended from high quality mineral oils possessing a high viscosity index and low pour point. These lubricants ensure a long trouble free service life and will be chemically stable under severe operating conditions. They provide excellent protection against corrosion, resisting emulsification and any formation of unwanted stable foam.

The continuing trend towards higher hydraulic system pressure permits higher performance and reductions in pump and equipment sizes. At the same time, the hard working hydraulic oil is called upon to lubricate, seal and cool the working components under increasing temperature, turbulence and pressure. The continuing need to maintain performance over extended service intervals requires that the specification of additive systems also continues to advance.

ZF Hydraulic Oils are formulated to meet all these requirements, using paraffinic, high viscosity index mineral oil, augmented with performance additives including a special ashless multi-functional oxidation, rust and wear inhibiting additive package.

BENEFITS

The performance benefits of **ZF Hydraulic Oils** include:

- Superior thermal and hydrolytic stability
- Very high oxidation stability
- Good demulsibility and anti-foam properties
- High load carrying capacity excellent EP performance
- Excellent corrosion protection for steel and non-ferrous metals
- Good filterability lower tendency to block filters
- Reduced pump wear

SPECIFICATIONS

ZF Hydraulic Oils meet or exceed the requirements of many international tests and specifications for industrial and mobile hydraulic and compressor systems including:

- AFNOR NFE 48-603 (HM, HV)
- Cincinnati Machine P-68, P-69, P-70
- Denison HF-0, HF-1, HF-2
- DIN 51524, parts 1, 2 (HL, HLP)
- DIN 51506 (VBL, VCL, VDL)
- ISO11158 (HM)
- ISO 6743/4 (HM)
- ISO/DP 6521 (DAA, DAB, DAH, DAG)
- Parker Hannifin France HF-0
- SEB 181 222
- Sperry Vickers I-286-S, M-2950-S
- SS 155434
- US Steel 126, 127 and 136
- VDMA 24318

Hi-Tec suggests that the equipment manufacturers' recommendations for viscosity grade, performance requirements and general operating conditions should be checked prior to use.









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TYPICAL	ASTM	TYPICAL RESULTS								
PROPERTY	METHOD									
ISO Viscosity		10	15	22	32	46	68	100	150	220
Item Code (HI5-)		2708	2709	2757	2758	2761	2763	2765	2767	2782
Appearance	Visual	<			C	lear, Bright				>
Density (kg/Lt) @ 15°C	D-1298	0.842	0.834	0.862	0.865	0.882	0.884	0.890	0.900	0.900
Viscosity (cSt) @ 40°C	D-445	9.85	15.4	22	32	46	68	100	150	220
@ 100°C	D-445	2.69	3.7	4.37	5.5	6.9	8.9	11.4	19.6	19.1
Viscosity Index	D-2270	111	128	107	107	105	104	100	98	98
Sulfated Ash (% wt)	D-874	<>								
Copper Strip; 3hr @ 100°C	D-130	1a	1a	1a	1a	1a	1a	1a	1a	1a
FZG Load; Fail Stage	DIN 51534	12	12	12	12	12	12	12	12	12
Rust Characteristics	D-665 A/B	<				Pass				>
Flash Point (°C)	D-92	>150	>150	>150	>150	>150	>150	>150	>150	>150
Pour Point (°C)	D-97	-33	-22	-27	-27	-27	-27	-30	-30	-21

1,000 Litres, 200 Litres and 20 Litres Available in:

"Hi-Tec Oil Traders Pty Ltd (Hi-Tec Oils) has endeavoured to ensure that all information, representations and specifications contained in this product data sheet are accurate at the time of publication. This general information should be used in conjunction with appropriate inquiries by users of the product including consultation with the vehicle or equipment manufacturers published information.

It is the responsibility of users of the product to use the product safely. Users should consult the safety data sheets for each product at www.hi-tecoils.com.au. Hi-Tec Oils takes no responsibility for injury or damage if the product is used in an inappropriate or unsafe manner.

Our product warranty and product quality statement can be viewed at www.hi-tecoils.com.au"

Effective: March 2020

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