Hydraulic oils

HYDROMIL SUPER ARCTIC L-HV

Hydraulic oils Hydromil Super Arctic L-HV 15; 22 are designed for application in heavy loaded drive and hydraulic control systems operating at extremely low temperatures. Hydromil Super Arctic L-HV 15; 22 oils are formulated upon specially modified, deeply refined, dewaxed and hydrorefined oils received from crude oil refining. The oils contain a properly selected package of ash-less and zinc-free viscosity/temperature, anticorrosion, anti-oxidation and lubrication additives as well as de-emulsifying and antifoam attributes.
Hydromil Super Arctic L-HV 15; 22 oils are perfect for application in machines and devices working at temperatures below -45°C, where machine cold start is unavoidable. Extremely high oil viscosity indexes guarantee the correctness of oil exploitation for the following temperature ranges of oil work:
- Hydromil Super Arctic L-HV 15 – for the range from -50°C to +50°C,
- Hydromil Super Arctic L-HV 22 – for the range from -45°C to +60°C,

in all types of hydraulic and circulation systems, where a very high viscosity index and low-temperature properties are required as critical.

Characteristics:

The oil formula guarantees:
- optimum protection of the lubricated elements` surface,
- high antifoam properties,
- very good air release,
- excellent de-emulsifying qualities,
- very high hydrolytic stability,
- super-low dependence of oil viscosity on working temperature,
- viscosity resistance to coagulation during work,
- high filterability,
- high resistance to exploitation sludge formation,
- very high cleanness of the lubrication system,
- anti-wear protection and a long life of the lubrication system elements.

The oils are designed for lubrication of:
- hydraulic power transmission and control systems,
- gears, hydraulic transmissions,
- control gears,
- systems of bearing general lubrication,
- gear pumps up to 25MPa,
- piston pumps up to 35MPa,

used in conditions of changing working temperatures, particularly when extremely low temperatures and changing thermal loads occur.

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№	Requirements	Research methods by	Unit	Value	
				Hydromil Super Arctic L-HV 15	Hydromil Super Arctic L-HV 22
1.	Kinematic viscosity: - at 40^{0}C, - at -20^{0}C, - at -45^{0}C, - at -50^{0}C	ASTM D-445	mm^2/s	 15,0 140 2000	 22,0 240 2000
2.	Pour point	ASTM D-5950	^{0}C	-55	-51
3.	Air release ability 50^{0}C	ASTM D 892	min	5	5
4.	De-emulsifying properties	ASTM D1401	min	12	12
5.	Viscosity index	ASTM D-2270		350	340
10.	Foaming resistance: -susceptibility/stability: at 25 ^{o}C, at 95 ^{o}C, from 25 ^{o}C to 95 ^{o}C,	ASTM D-892	ml	 <100/0 <100/0 <100/0	 <100/0 <100/0 <100/0

The above given data are typical values for a production batch, they are not included in the technical specification, and they are subject to change due to continual product research and development.

Application recommendations:
Hydromil Super Arctic L-HV 15; 22 oils can be applied in hydraulic systems wherever zinc-free oils with extremely high viscosity and temperature qualities as well as anti-wear properties are required according to their viscosity grade. Hydromil Arctic L-HV 15; 22 oils meet the quality requirements for hydraulic oils in accordance with ISO- L-HV; DIN 51524 part 3 HVLP and can be used in systems where the OEM recommends ISO-L-HV classical grade and VG 10-32 for Hydromil Super Arctic L-HV 15, VG 10-46 and for Hydromil Super Arctic L-HV 22.

Specifications, classifications:
ISO VG 15, 22
DIN HVLP (DIN 51524cz3),
ISO-L-HV,

Approvals:
HF-0; HF-1; HF-2 Denison-Parker Hydraulic, Vickers, Bosch-Rexroth

Packaging:
26kg, 180kg, 1 tonne

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Storage:
The products should be stored under a roof. If they are stored in the open air where they can be exposed to atmospheric conditions – rains, they should be placed in a horizontal position in order to avoid inrush of water to a container and to prevent label damaging; they should be covered with tarpaulin.
The products should not be stored at the temperature above 60^{o}C and in the places where solar radiation is very strong or – temperatures very low. The expiry date is 3 years if the storage conditions are satisfied.

Heath, industrial safety and the environment:
Information concerning safety is included in the product Safety Sheet. It contains detailed information on possible threats, warnings, first aid as well as the impact on the environment and ways of utilization of the used products.
LOTOS Oil S.A. and the cooperating companies do not take responsibility for misuse of the product or – the use with the violation of the precautions given.
Before using the product for other than recommended purposes, seek advice in the local LOTOS Oil S.A. office.

Prepared: 7.03. 2010
Edition №: 3
Updating:8.04.2013

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