

Ultra-low temperature hydraulic oil (L-HS)

● Performance Overview

Maxtop Ultra low temperature hydraulic oil (L-HS) high quality compound additive is refined with hydrofining base oil. Ultra-low temperature hydraulic fluid is a high-performance synthetic hydraulic fluid designed for extreme cold environments, suitable for polar research, aerospace, cryogenic industry and other harsh scenarios. Ultra-low temperature fluidity ensures fast start-up of equipment in extremely cold environments. Extreme pressure anti-wear protection to protect the wear of hydraulic pumps and valves under high load and low temperature conditions. Low volatility, reduce volatilization loss at high temperature, ensure safe operation.

● Features

01

Anti-wear protection equipment: contains special anti-wear additives to reduce the wear of metal parts and extend the life of equipment.

02

Anti-rust and anti-corrosion: isolate moisture and air, protect the hydraulic pipeline from rust and corrosion.

03

Super low temperature resistance: the pour point (the temperature at which the flow stops) is as low as -40°C , and it can be easily pumped in cold weather to avoid "freezing" of the equipment.

04

Long life: antioxidant formula, oil change cycle than ordinary hydraulic oil more than 1 times longer.



● Application Scenario

1. Polar research equipment: hydraulic system of Antarctic research vehicle and snow exploration machine.
2. Construction machinery in snow and ice areas: mine excavators in cold zones, snow plows in cold regions.
3. Aerial working platform: lifting hydraulic system of aerial working vehicle in winter.
4. Cold chain logistics equipment: cold storage loading and unloading trucks, low temperature storage hydraulic machinery.
5. Military armored vehicles: hydraulic drive systems for combat vehicles in extremely cold zones.
6. Aircraft ground equipment: airport deicing truck, cargo platform lifting device.
10. Wind turbine: hydraulic yaw system of north low temperature fan.
11. Liquefied natural gas (LNG) equipment: hydraulic control of LNG carriers and cryogenic pumping stations.

Ultra-low temperature hydraulic oil performance index (L-HS)

Project		Quality indicators			
Viscosity grade (GB/T 3141)		15	22	32	46
Kinematic viscosity (40 °C) / (mm ² / s)		13.5~16.5	19.8~24.2	28.8~35.2	41.4~50.6
Viscosity index b	Not less than	130	150	150	150
Pour point c /°C	No higher than	-45	-45	-45	-39
Flash point/°C					
Opening	no less than	125	175	175	180
Closed	not less than	-	-	-	-
Acid value d (in KOH)/(mg/g)		Report			
Water content (mass fraction) /%	No more than	trace			
Mechanical impurities		nono			
Copper corrosion (100°C, 3h)/level	No more than	1			
Foaming properties (foaming tendency / foaming stability) / (mL/mL)					
Program I (24°C)	No more than	150/0			
Procedure II (93.5 °C)	No more than	75/0			
Program III (24°C later)	No more than	150/0			
Sulfated ash (mass fraction) /%		Report			
Liquid phase corrosion (24h)		Rust-free			
Shear stability(After 250 cycles, the kinematic viscosity decrease rate at 40°C)/% is		10			
Air release value (50°C)/min	No more than	5	6	8	10
Demulsification (time for emulsion to reach 3ml) / min					
54 °C	No more than	30	30	30	30
Seal Adaptability Index	No more than	16	14	13	11

