

Universal HP Hydraulic Oil

Universal HP Hydraulic Oil is formulated to meet the demanding requirements found in Caterpillar hydraulic systems and hydrostatic transmissions. Like CAT HYDO, Universal HP contains a balanced additive system with detergents, rust inhibitors, anti-wear agents and defoamers. It provides protection against mechanical wear, rust, corrosive wear in hydraulic systems and wear in hydrostatic transmission systems. Universal HP is formulated to ensure optimum life and performance in CAT equipment.

Samples of CAT HYDO (10W) and Universal HP Hydraulic Oil (10W) were analyzed to determine additive levels and types, viscosity characteristics and low temperature flow properties. This data is summarized below:

<u>TEST</u>	<u>HP</u>	<u>HYDO</u>
Viscosity @ 100°C, cSt	6.7	6.2
Viscosity @ 40°C, cSt	40.0	38.7
Viscosity Index	120	108
Pour point, °C	<-36	<-36
Zinc, %wt.	0.13	0.13
Calcium, %wt.	0.18	0.12
Magnesium, %wt.	0.02	0.04
Phosphorous, %wt.	0.12	0.11

The data shows that the viscosity characteristics are very similar with a somewhat higher viscosity index for Universal HP. This means that HP retains its viscosity a little better as oil temperatures increase. The low temperature pour points for both products are excellent, below -36°C. The zinc and phosphorous levels are essentially the same. These additive elements provide for antiwear protection. The total detergent level (Calcium + Magnesium) is higher for HP at 0.22 wt.% compared to 0.16 wt.% for CAT HYDO. The detergent additive level is needed to disperse water and prevent corrosive wear.

In the field, Universal HP has proven itself providing optimum protection in all types of CAT equipment over thousands of hours of trouble free performance. In this case, HP really does mean high performance.

Technical Services
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