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Hitachi Genuine Hydraulic Oil

Genuine Hydraulic 46TP

Cautions for Use This Product

Carefully read the cautions printed on the container before using this product. The type of oil that can be used differs depending on the machine and environment. Use the optimum genuine parts in accordance with the operator's manual of the machines to be operated.

Service and Support Provided by Hitachi

Please contact the nearest authorized Hitachi dealer for precise advice on a product or maintenance service.

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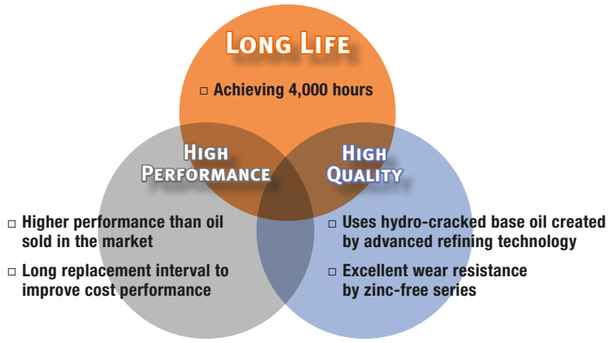
Hitachi Construction Machinery Asia & Pacific Pte., Ltd
www.hitachi-c-m.com/asia/

Long-life Genuine Hydraulic Oil that Matches Hitachi's Machine Lineup

Genuine Hydraulic 46TP

To demonstrate the machine performance, the optimum performance of respective hydraulic devices must be consistent. It is, therefore, important to select an appropriate hydraulic oil that suits to the machine. Unlike other oil sold in the market that actually deteriorates quickly, Genuine Hydraulic 46TP matches the regulation of the replacement interval and expands life of hydraulic devices including pumps or motors, and reduces the maintenance costs.

Three types of the excellent performance of Genuine Hydraulic 46TP



Genuine Hydraulic 46TP uses "Hydro-cracked base oil".

Genuine Hydraulic 46TP has adopted "Hydro-cracked base oil", which is a proof of premium oil. It features distinctively higher performance than other oil sold in the market.

FEATURES OF HYDRO-CRACKED BASE OIL

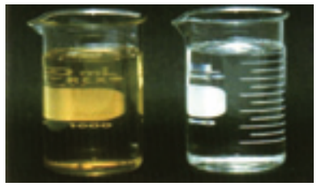
1 COLOR
Clear and transparent oil with a lot less impurities

2 OXIDATION STABILITY
Excellent resistance against oxidation that reduces the lubrication performance of hydraulic oil

3 HIGH PURITY
Excellent oil with a lot less impurities, higher purity than conventional oil

4 HIGH VISCOSITY STABILITY
Maintains appropriate viscosity even under extreme temperature changes

5 HEAT RESISTANCE
Excellent resistance to heat



Oil sold in the market (by conventional manufacturing process) | Hydro-cracked base oil

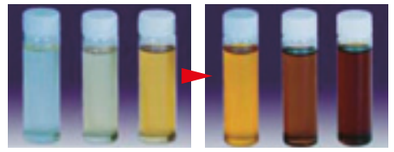
ALWAYS USE HITACHI GENUINE OIL WHEN REPLACING THE HYDRAULIC OIL.

Hydraulic oil is used in high-temperature and harsh conditions, and its quality deteriorates even though it features excellent quality. The replacement interval varies depending on the machine. Replace oil in accordance with the Hitachi authorized dealer's recommendation.

FEATURE 1 High resistance against oxidation and reduces corrosive wear inside the device

Friction load due to high temperature and pressure causes oil oxidation, resulting in various problems such as abnormal wear of hydraulic pump or sludge generation. In a high-pressure piston / pump test, Genuine Hydraulic 46TP has proved much less change in color due to oxidation and reduced corrosive wear of devices after a long period of time compared with oil sold in the market.

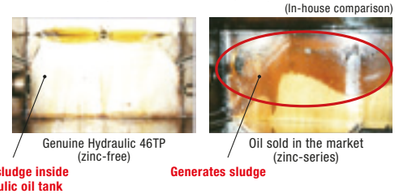
Result of high-pressure piston / pump test
(95 °C / 34.3 MPa)
(In-house comparison)



FEATURE 2 Zinc-free oil to reduce sludge generation when using for a long period of time

Most of the oils sold in the market contain zinc to enhance lubrication performance; however, zinc is combined with the sulfur element in the oil after its separation, causing sludge generation. In a long time circulating pump test, Genuine Hydraulic 46TP has reduced sludge inside the hydraulic oil tank compared with zinc-series oil sold in the market.

Result of circulating pump test
(80 °C / 20.59 MPa / 1,500 rpm)
(In-house comparison)

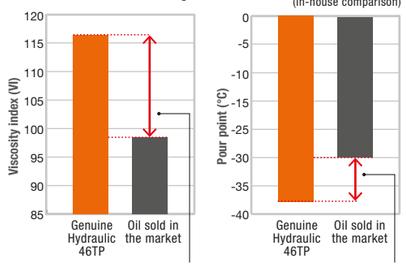


FEATURE 3 Maintains appropriate viscosity in a wider range of temperatures

Use of the machine under a low-temperature condition raises oil viscosity and reduces the machine performance. On the other hand, use of the machine under a high-temperature condition lowers oil viscosity causing wear of devices. Compared with oil sold in the market, Genuine Hydraulic 46TP features not only a lower pour point but also higher viscosity index (VI), allowing machine usage under various temperature conditions. A stable performance under various temperature conditions improves fuel consumption.

□ Pour point: The minimum temperature at which oil does not flow
□ Viscosity index: Indicates oil viscosity variation due to the temperature. As the index is larger, the viscosity becomes more stable.

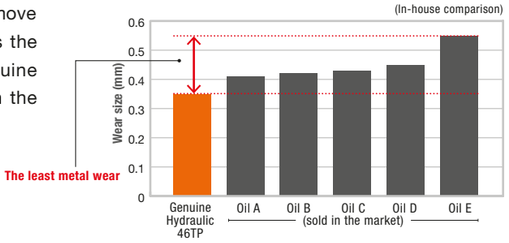
Result of viscosity index / pour point comparison test
(In-house comparison)



FEATURE 4 High lubrication performance to reduce metal wear

Hydraulic oil has the role of high lubrication performance so as to remove contact with metals and reduce wear. Excessive metal wear reduces the device life. In a shell 4 ball wear test to measure metal wear, Genuine Hydraulic 46TP reduced metal wear compared with other oil sold in the market.

Result of shell 4 ball wear test
(1,200 rpm / 30 kg / 30 minutes / Wear size)
(In-house comparison)



LINEUP

Drum
(200 liters)

Pail
(20 liters)

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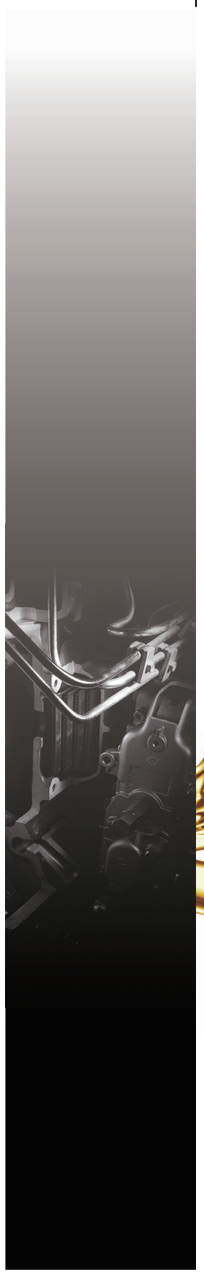

Hitachi Genuine Engine Oil

SUPER WIDE DH-1 SERIES

Cautions for Use This Product

Carefully read the cautions printed on the container before using this product. The type of oil that can be used differs depending on the machine and environment. Use the optimum genuine parts in accordance with the operator's manual of the machines to be operated.

Service and Support Provided by Hitachi

Please contact the nearest authorized Hitachi dealer for precise advice on a product or maintenance service.

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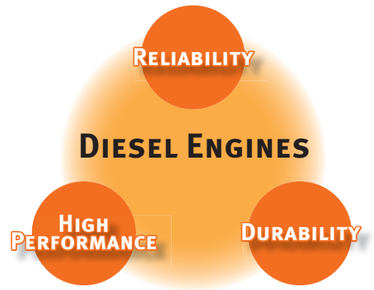
High-quality Engine Oil Suitable for Engines Mounted in Hitachi Machines

SUPER WIDE DH-1 SERIES

Engine oil is blended to ensure maximum performance tailored to the engine.
It is, therefore, important to select correct engine oil that suits to the machine.
SUPER WIDE DH-1 meets the strict criteria of JASO* that is an engine oil standard suitable for engines manufactured in Japan and can be used in large-sized machines with continuous high speed operation.

* JASO (Japanese Automobile Standard Organization): A standard developed by the Society of Automotive Engineers of Japan, Inc.

Three Types of Performance Required for Construction Machine Engines



To maximize engine performance,
use on engine oil optimized for engines.

SUPER WIDE DH-1 Maximizes The Engine Performance of Hitachi Products.

The demands of lubricants for high-output and low-emission diesel engines have intensified. SUPER WIDE DH-1 includes high-quality base oil and advanced additives combined in a balanced manner. Accordingly, it can be used for low-emission diesel engines requiring high-performance engine oil. Additionally, it also excels when used in conventional diesel engines.

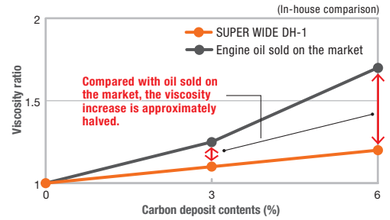
ALWAYS USE HITACHI GENUINE OIL WHEN REPLACING THE ENGINE OIL.

Engine oil is used in harsh conditions, and its quality deteriorates even though it features excellent quality. Periodical oil replacement is recommended in accordance with the operator's manual.

FEATURE 1 Prevents increased viscosity due to soot entering and maintains engine performance

Soot in oil tends to increase during fuel combustion. So, an oil which excels in soot dispersancy must be used. Compared with other oil sold on the market, SUPER WIDE DH-1 reduces oil viscosity caused by soot entering by approximately half. For these reasons, unlike other oil that actually deteriorates quickly, this oil matches the regulation of the replacement interval while maintaining engine performance, even for high operation machines.

Result of variation test of soot mixed oil viscosity

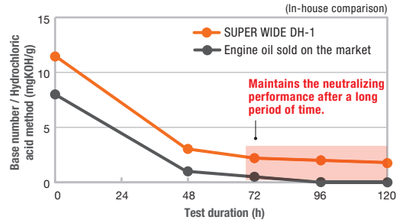


FEATURE 2 Prevents oil oxidation and corrosive wear inside engine

Engine oil deterioration lowers the lubrication performance and causes corrosion and wear inside the engine; therefore, the base number (neutralizing additives) in the oil neutralizes the acid in the exhaust gas to prevent oil deterioration.

Compared with oil sold on the market, the initial base number of SUPER WIDE DH-1 is high, featuring a base retention ability after a long period of time. Oil, therefore, deteriorates less, and corrosion and wear inside the engine are prevented.

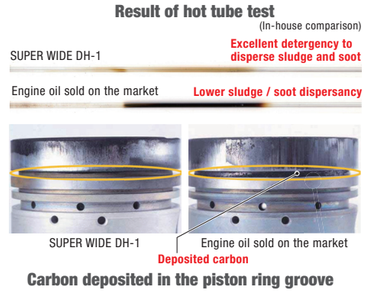
Result of oxidation stability test



FEATURE 3 Excellent high-temperature detergency

When exposed to a high temperature, engine oil generates soot and sludge, thereby causing various engine troubles. In a test at a high temperature (hot tube test), SUPER WIDE DH-1 has demonstrated a high sludge / soot dispersancy and excellent detergency compared with other oil sold on the market. This oil prevents the piston ring from being stuck even under harsh operating environments.

Result of hot tube test



Carbon deposited in the piston ring groove

FEATURE 4 High wear resistance to reduce internal engine wear

Engine oil has the role of reducing internal engine wear. When engine oil deteriorates, the lubrication performance declines, which causes wear and seizure inside the engine. Compared with other oil sold on the market, SUPER WIDE DH-1 includes a balanced composition of advanced additives to improve wear resistance and reduce the wear of valve gears including cams.

Wear of camshaft

LINEUP

Drum
(200 liters)

Pail
(20 liters)

Carrying can
(4 liters)

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HITACHI GENUINE OIL

GEAR OIL 90

Gear Oil Featuring Excellent Lubricity

GEAR OIL 90 has been developed for small to extra large hydraulic excavators of Hitachi. Meeting the strict quality standards of Hitachi, the oil prevents gear rusting and corrosion and demonstrates excellent lubricity.
When used in travel reduction gears and swing reduction gears of hydraulic excavators, the oil contributes to smooth gear operation and ensures high machine performance.

FEATURE 1 Excellent extreme pressure performance to reduce gear wear and seizure

Oil lubricity easily lowers causing the performance of the machine to lower when the machine is operated under conditions of high speed and low torque or of low speed and high torque.

GEAR OIL 90 excels in producing an oil film on friction surfaces and reduces gear wear and seizure.

FEATURE 2 High rust prevention performance reduces gear rusting and corrosion

Oil deterioration causes gear rusting and corrosion, lowering the machine performance.

GEAR OIL 90 retards oxidation and maintains stable performance even under harsh conditions. Gear rusting and corrosion can, therefore, be prevented even after machine operation for a long time.

FEATURE 3 Oil bubbling is prevented and excellent lubricity is maintained

Stirring of oil by the gear generates bubbles and causes a rise in oil temperature and low strength of the oil film. As a result, the oil lubricity lowers, causing gear wear and seizure.

GEAR OIL 90 generates bubbles less and features high lubricity, maintaining smooth gear operation.

FEATURE 4 Stable quality to reduce oil seal deterioration

Some oils deteriorate rubber products such as oil seals and lower machine performance.

Fully utilizing expertise gained over many years and accumulated operational data, GEAR OIL 90 demonstrates a high suitability for rubber products such as oil seals. Prevention of oil seal deterioration contributes to reducing the maintenance cost.

LINEUP

Drum
(200 liters)

Pail
(20 liters)

Carrying can
(4 liters)

CAUTIONS FOR USE THIS PRODUCT

Carefully read the cautions printed on the container before using this product. The replacement interval varies depending on the machine. Replace oil in accordance with the operator's manual.

SERVICE AND SUPPORT PROVIDED BY HITACHI

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