

Oil Application in Major Powertrain Systems

* Refer to the operation & maintenance manual for the product model before use.

Powertrain system Komatsu genuine Powertrain oil	Swing machinery	PTO case	Damper case	Transmission case		Steering clutch case	Final drive case	Dump retarder cooling system	Dump differential case	Wheel loader axle case	Hydraulic system
				Planetary type	Counter shaft type						
TO10				● (~+10°C)	●			●			●
TO30	●	●	●	● (0°C~+50°C)		●	●		● (~+40°C)		
TO50									● (+40°C~+50°C)	● (+45°C~+50°C)	
AXO80										● (~+45°C)	

- Caution**
1. The Komatsu genuine Powertrain oil TO Series is designed to be used only in Powertrain units (such as transmission, gear cases, damper and final drive cases). Do not use in the engine.
 2. Do not use TO30, TO50 and AXO80 in the hydraulic system.
 3. TO50 is design to be used at Tropical region. Do not use at cold region.
 4. AXO80 is designed to be used only in wheel loader's axle and articulate dump truck's differential case.

KOMATSU GENUINE PARTS

POWERTRAIN Oil

Komatsu Genuine Powertrain Oil

Powertrain Oil for Mining & Construction Machinery under Severe Operating Conditions

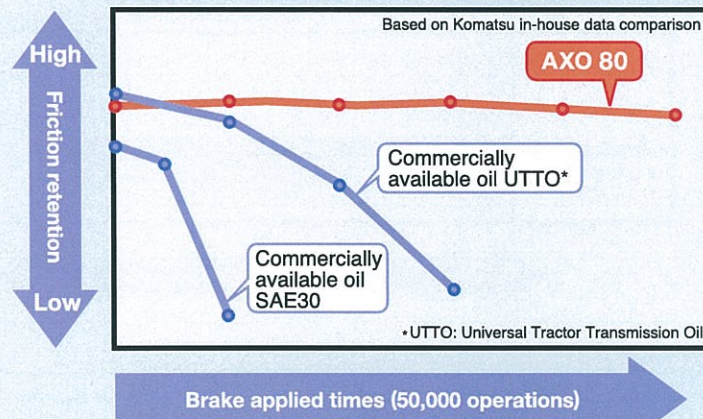
Komatsu Genuine Axle Oil (AXO80)

The Komatsu genuine axle oil AXO80 is a special high-performance oil developed for axle units with an integrated brake or differential units.

Features

1. With excellent thermal stability, this oil maintains the friction retention characteristics over an extended period and maximizes the brake performance.

● Komatsu axle bench test result



Parts No.	Viscosity	Packaging
SYEO-AXO80	SAE 80W	20ℓ · 200ℓ

2. With excellent seizure resistance, the oil extends the service life of friction disks and plates, resulting in less frequent brake squealing.

• The specifications are subject to change without prior notice for improvement purposes. The photos included in this brochure may differ from the products actually sold. For details on precautions for using this product, see the operation & maintenance manual.

Materials and specifications are subject to change without notice. **KOMATSU** is a trademark of Komatsu Ltd.

• PLEASE CONTACT :

KOMATSU



Powertrain oil for mining & construction machinery under severe operating conditions

The Komatsu genuine Powertrain oil TO Series has been developed by Komatsu to deliver the oil performance required in the Powertrain components of mining & construction machinery under severe operating conditions. The TO Series provides superior antiwear, heat resistance, and friction retention characteristics, thus extending the life of Powertrain components.



The Komatsu TO Series of high-quality Powertrain oils meets Komatsu's exacting quality requirements.



Based on Komatsu in-house data comparison

Komatsu genuine oil TO Series

High Clutch anti-seizure performance

Low

Variations in commercially available oils SAE 10W & 30W

High Gear antiwear and pitting prevention Low

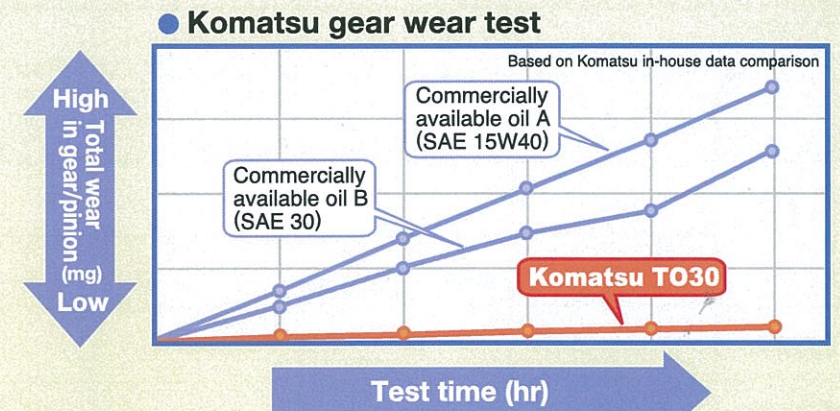
Type	Parts No.	Viscosity	Packing	Features
Single grade oil	TO10	SAE10W	4ℓ · 20ℓ · 200ℓ	Suitable for Powertrains of planetary type transmissions or gear cases
	TO30	SAE30	4ℓ · 20ℓ · 200ℓ	Suitable for Powertrains of planetary type transmissions or gear cases
	*TO50	SAE50	—	Suitable for Axles or Differential cases when working at tropical region. (Apply temperature range : +45°C~+50°C)

*TO50 is available at tropical region Distributor Only.

Features of Komatsu Genuine Powertrain Oil "TO Series"

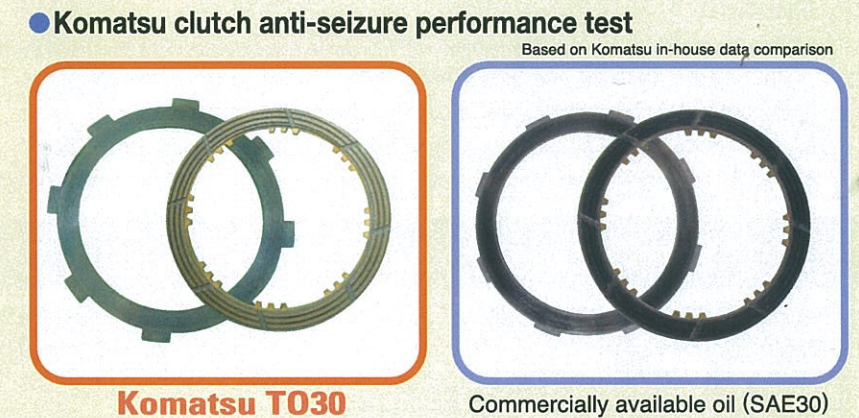
1 Antiwear Performance

Superior antiwear performance prevents wear/pitting in gears and bearings, extending the component life of Powertrain systems.



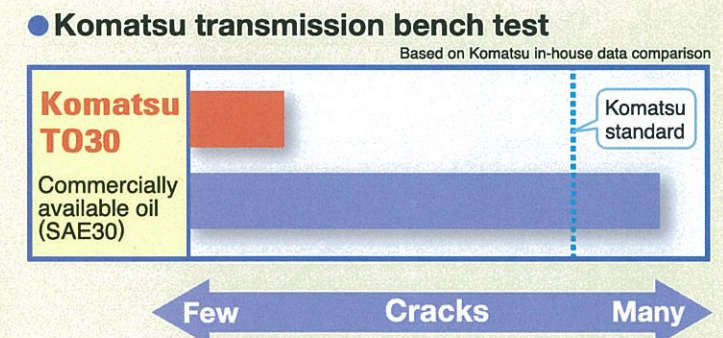
2 Anti-Seizure Performance

Superior anti-seizure performance prevent damage to transmission clutches and disk plates, leading to longer life.



3 Maintaining Good Friction Retention Characteristics for the Long Term

If a transmission clutch has lower friction retention due to deteriorated oil, excessive clutch slippage causes thermal cracks. Maintaining appropriate friction retention characteristics will prevent damage and flaking of the disks and plates, keeping the traction force of the machine.



4 Suitable for All Materials Used in Powertrain Components

The product has passed metal corrosion and sealing material compatibility tests for all materials used in Powertrain systems.

Item	Material	Test conditions
Corrosion resistance	Copper	Komatsu Amihot test
	Lead	
Disk compatibility	Organic	Komatsu disk compatibility test
	Sintered alloy	
Sealing compatibility	NBR	● Rate of change of hardness
	Urethane	● Rate of change of tensile force
	Acrylic	● Rate of change of elongation
	Fluorinated	● Rate of change of volume

Passed all these tests!