


# MANNOL TO-4 Powertrain Oil SAE 30

## 2602

A special all-season transmission-hydraulic mineral oil designed for use in hydraulic systems, transmissions and gearboxes (including power ones), on-board gearboxes of other devices of off-road equipment with and without low-load brakes (clutches).

It complies with strict Cat TO-4, requirements imposed for TDTO (Transmission/Drive Train Oil) lubricants by the Caterpillar company. The specification TO-4 is the industry standard. The specification determines operating requirements imposed on hydraulic fluids for their use in CAT equipment.

Product properties:
- It cannot be used as an engine oil.
- A special complex of additives ensures an extended service life of friction discs of oil-immersed “wet” brakes and clutches. It prevents the clutch and transmission from sliding and minimises the necessity to adjust;
- A reverse replacement by Caterpillar TO-2 is possible;
- A highly-purified mineral base of the highest quality with the addition of the newest additive package with an ideal viscosity in a wide range of temperatures, ensure a reliable operability of subsystems and mechanisms in any conditions and ensure a significant fuel conservation;
- Due to its unique composition, it ensures excellent antiwear properties that significantly extend the expected life of the technical equipment in all, even the most extreme, modes of operation in a wide range of ambient temperatures;
- It ensures excellent low-temperature properties that ensure an easy starting of hydraulic subsystems, reliable lubrication at any ambient temperatures (up to -30 °C) and in any operating conditions;
- It has a unique oxidation stability and an excellent resistance to the high-temperature thermal degradation that allows increasing the oil replacement age and reducing equipment maintenance costs.
- It has excellent cleaning properties and provides an effective protection from sludge and abrasive sediments that destroy stuffing boxes;
- Due to the use of last-generation corrosion inhibitors, it effectively protects metal parts from all types of corrosion. It protects parts from oxidation and rusting. It minimises the formation of carbon and dirt deposits even during the operation in high humidity conditions. It extends the service life of the equipment;
- It provides an excellent compatibility with sealing materials, prevents them from swelling, hardening and shrinking thus reducing the costs for spare parts and preventing leakages;
- It reduces noise;
- It is not recommended to mix the oil with other types of hydraulic and engine

oils.

It is designed for off-road (construction, quarry, mining, agricultural) and special equipment (tractors, loaders, bulldozers, excavators, etc.) produced by European, American and Asian manufacturers, when the required level of operating properties is TO-4 or lower and a corresponding viscosity class.

Comply with the manufacturer's instructions provided in the user's manual.

**Specifications**
SAE 30
ALLISON C4 (off-road)
CATERPILLAR TO-4
KOMATSU KES 07.868.1

## PACKAGING

| | | | |
|---|---|---|---|
| 20L | MN2602-20 | Plastic | |
| 1000L | MN2602-IBC | Pallet tank | |
| 208L | MN2602-DR | Drum | |