

MANNOL TO-4 Powertrain Oil SAE 50

2603

A special all-season transmission-hydraulic mineral oil mostly designed for differentials and final drives where the main task is the lubrication of toothed gearing and bearings operating in high-load conditions. In subsystems without friction materials, such as brakes and the clutch that work in an oil bath and where they are. It is designed for use in hydraulic systems, transmissions and gearboxes (including power ones).
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 operation of friction discs of oil-immersed “wet” brakes and clutches;
- 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 and anti-scuffing 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. High anti-scuffing properties extend the service life of gears and bearings in the conditions of high temperatures and loads;
- It ensures good low-temperature properties that ensure an easy starting of hydraulic subsystems, reliable lubrication at any ambient temperatures (up to -27 °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 time between oil changes 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 and of other above-mentioned specifications. Comply with the manufacturer's instructions provided in the user's manual.

Specifications
SAE 50
ALLISON C4 (off-road)
CATERPILLAR TO-4
KOMATSU KES 07.868.1

PACKAGING

20L	MN2603-20	Plastic	
1000L	MN2603-IBC	Pallet tank	
208L	MN2603-DR	Drum	