



## MANNOL Agro Gear 90 LS 8110

A special highly refined mineral-based all-season gear oil for manual transmissions. It is designed for a safe and reliable operation of modern self-locking differentials (excessive friction/limited-slip differentials – LS), main gears with hypoid gears and other manual transmission parts (final drive groups, gearboxes) with bevel, worm and cylindrical pairs withstanding extreme (including impact) loads and high operating temperatures. It is developed on the basis of the requirements introduced by NEW HOLLAND and VOLVO manufacturers of agricultural equipment.

Product properties:

- The unique, high-viscosity base of the highest quality preserving the required viscosity at high operating temperatures and pressures, in combination with the special latest-generation additive package in an elevated concentration, ensures excellent antifriction properties that ensure a significant fuel economy;
- Due to its composition and an increased content of EP additives, it ensures excellent antiwear and superior anti-scuffing properties in the conditions of a forced oil starvation (when starting, pulling off), as well as when increasing the load at low rpm, 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 has a very high resistance of the oil film to extreme pressures and temperatures. It ensures a long-term protection of friction clutches and other transmission components;
- It ensures required low-temperature properties that ensure a reasonably easy starting and a reliable lubrication at ambient temperatures up to -28 °C in any operating conditions;
- It has an increased thermal-oxidative stability, a resistance to the thermal degradation and ageing, that allows maintaining mechanisms exceptionally clean, increasing the time between oil changes and reducing equipment maintenance costs;
- It improves the characteristics of the LS differential making its operation more efficient, ensuring a high energy conversion efficiency and neutralising the noise, slipping and vibration;
- It has a good demulsifying ability, low foam formation, it removes the heat generated from gear and clutch friction well thus preventing them from overheating;
- It has an excellent compatibility with metals, alloys and transmission sealing materials;
- It is suitable for screw-type gears.

It is recommended for use in heavy-load manual transmissions of highway (freight trucks, buses, etc.), off-road (construction, mining, agricultural) and special vehicles produced by European, American and Asian manufacturers in which the required level of service characteristics is GL-5 LS.

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

### **Specifications**

SAE 90

### **Recommendation**

API GL-5 LS (Limited Slip)

NEW HOLLAND NH-520B

SDFG OP 1705LS

VOLVO 97310

ZF TE-ML 05C

ZF TE-ML 12C

ZF TE-ML 16E

MIL L 2105D

### **PACKAGING**

|       |            |             |  |
|-------|------------|-------------|--|
| 10L   | MN8110-10  | Plastic     |  |
| 1000L | MN8110-IBC | Pallet tank |  |
| 208L  | MN8110-DR  | Drum        |  |
| 60L   | MN8110-60  | Drum        |  |
| 20L   | MN8110-20  | Plastic     |  |