



# Shell Rotella *HD Tractor Fluid*

*Premium, SAE 10W-30, Multi-functional Tractor Transmission and Hydraulic Oil*

Premium "universal tractor transmission oil" (UTTO) designed for use in transmissions, hydraulic systems, oil immersed brakes and other ancillary systems fitted to agricultural tractors and off-road equipment. Rotella HD Tractor Fluid is recognised by leading agricultural equipment manufacturers and suitable for use in most modern equipment.

## DESIGNED TO MEET CHALLENGES

### Performance, Features & Benefits

- **Enhanced protection**

Excellent anti-oxidation, shear-stability, anti-wear, anti-corrosion and anti-foam characteristics result from the use of the latest additive technology leading to greater reliability and reduced down time thus minimising cost and maximising utilisation.

- **Operator comfort**

The excellent low temperature fluidity of Rotella HD Tractor Fluid results in responsive hydraulic performance and smooth gearshift performance, from cold starts to maximum operating temperatures. Friction modifying additives help create smooth, noise-free operation of oil immersed brakes.

- **OEM recognition**

Rotella HD Tractor Fluid has been tested and approved by a wide range of equipment manufacturers.

### Main Applications



- **Agricultural tractor transmissions**

Rotella HD Tractor Fluid has been evaluated against the latest requirements of leading tractor and transmission manufacturers including John Deere, Massey Ferguson, CNH and ZF.

- **Hydraulic systems**

Rotella HD Tractor Fluid is ideally suited for hydraulic systems of tractors and ancillary equipment. Rotella HD Tractor Fluid is formulated using specially selected additives and high quality base oils to provide good low temperature fluidity and wear protection.

- **Oil immersed brakes**

Special friction modifying additives are included in Rotella HD Tractor Fluid to ensure optimum performance of oil immersed brakes whilst minimising brake noise. Rotella HD Tractor Fluid is recommended for most wet brake systems fitted to agricultural tractors and off-highway construction equipment.

- **Warning !**

Not to be used as an Engine Oil.

### Specifications, Approvals & Recommendations

- Suitable for use in applications where Allison C-4 type fluids are required
  - Rotella HD Tractor Fluid can be used when a SAE J 306 85W grade is recommended
  - Case new Holland MAT-3525, M2C-134 A-D, FNHA-2-D.201.00
  - John Deere JDM-J20C
  - Massey-Ferguson M1143, M1145
  - Volvo WB 101, Transmission Oil 97303:015
  - ZF TE-ML 03E, 05F, 06D, 06K, 06M, 06N, 06R, 17E, 21F
  - Caterpillar TO-2 (obsolete)
  - Komatsu - recommended for use in certain construction equipment
  - Clark
  - Rotella HD Tractor Fluid is also recommended for use in Case equipment where fluids meeting MS 1207, 1209 or 1210 are specified
  - API Gear Performance : API GL-4
- For a full listing of equipment approvals and recommendations, please consult your local Shell Technical

Helpdesk.

## Typical Physical Characteristics

Properties			Method	Rotella HD Transmission Fluid
SAE Viscosity Grade			SAE J 300	10W-30
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	ISO 3104	60
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	ISO 3104	9.4
Viscosity Index			ISO 2909	138
Density	@15°C	kg/m <sup>3</sup>	ISO 12185	882
Flash Point (COC)		°C	ISO 2592	220
Pour Point		°C	ISO 3016	-42

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

## Health, Safety & Environment

### • Health and Safety

Rotella HD Tractor Fluid is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com>

### • Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## Additional Information

### • Advice

Advice on applications not covered here may be obtained from your Shell representative.