PUMA UNIVERSAL TRACTOR TRANSMISSION OIL 10W-30

Tractor Transmission Oil

Puma Universal Tractor Transmission Oil 10W-30 is a multi-purpose lubricant with special properties which make it suitable for use in modern tractors, where a single system is adopted for the lubrication of the gearbox, differential, oil-bath clutches, wet brakes, hydraulic systems, final drives and power take-off gearboxes.

Designed to Perform

**Anti-wear Protection – Longer Equipment Life**
Proven Anti Wear Additive packages provide greater resistance to sliding wear thus ensuring efficiency and long life of all moving parts of which greatly reduce the need for engine servicing and overhauls.
It is formulated with a special additive package that addresses anti-wear and EP properties which protect gear teeth and bearings.

**Multi-grade Performance**
Suitable for all year use in most climatic conditions.
An enhanced Viscosity index improver allows for the Engine oil to give excellent protection during cold start-ups and extremely hot conditions.

**Oxidation Resistance - Longer Oil Life**
It has extremely good oil life and Lubricant stability even when subjected to unusually high thermal stresses; this property minimizes sludge and deposit formation, thus preventing blocking of ports, valves and controls, while guaranteeing that the oil remains properly fluid. Maintenance costs are therefore reduced and the useful service life of the oil is extended.

**High Detergency – Increased Engine Cleanliness**
It has excellent detergency properties, making it particularly suitable for use in supercharged engines. It also has high dispersant properties. The lubricant is thus very resistant to the formation of lacquer and varnish, as well as sludge and other engine deposits. It helps prevent ring sticking and keeps pistons clean, while maintaining soot deposits in suspension ready to be filtered.

**Antifoam – Increased Performance**
Easy release of entrained air which will prevent difficulties with pumps and controls which can cause irregularities in performance and other problems arising from the compressibility of air bubbles.

**Universal Application**
Used on all types of farm engines (gasoline and diesel, naturally-aspirated and turbocharged), as well as for all units found in modern agricultural machinery (transmission/clutch units, wet brakes, hydraulic and mechanical final-drives and power take-offs, hydraulic circuits, etc.). Its special anti-stick, anti-slip additive (friction modifier) prevents vibration and chatter in the wet clutches and brakes used in the transmission systems of modern tractors. It prevents rubbery decay (e.g. swelling) with particular regard to the seals used in the hydraulic circuits.

**Anti-corrosion & Anti-rust Properties**
It has particularly good anticorrosion properties which effectively protect the engine from corrosion from combustion moisture and acids. These additives inhibit the oxidation of internal surfaces of the engine and therefore prevent operating difficulties and breakdown of the oil caused by metallic oxides that would otherwise form within the engine.

**Demulsibility – Engine Life Extension**
Prevents the formation of water in oil emulsion which enters the system through leakage or condensation. The fluids therefore maintain their lubricating power and anticorrosion performance even under these circumstances.

Universal Tractor Transmission Oil 10W-30

Meets the requirements of the following specifications:

- John Deere JDM-I20C
- CNH MAT 3525/3526
- API : GL-4 / CF-4
- Massey-Ferguson M1135-M1141-M1143
- M1145
- Allison C-4
- FORD ESEN M2C-134D
- FORD ESEN M2C-868
- Eaton Vickers
- Parker (Denison UTTO, HF-0)
- Caterpillar : TO-2
- Kubota UDT
- Case MS 1204/1206/1207/1209
- JCMAS HK P-041 & HK P-042
Technical Data Sheet (TDS)

Typical Physical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Temp</th>
<th>Units</th>
<th>Test Methods</th>
<th>10W-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity Grade</td>
<td></td>
<td>SAE</td>
<td></td>
<td>10W-30</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>@ 40°C</td>
<td>cSt</td>
<td>ASTM D445</td>
<td>55</td>
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<tr>
<td>Kinematic Viscosity</td>
<td>@ 100°C</td>
<td>cSt</td>
<td>ASTM D445</td>
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<tr>
<td>Viscosity Index</td>
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<td>ASTM D4292</td>
<td>155</td>
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<tr>
<td>Flash Point (COC)</td>
<td>°C</td>
<td></td>
<td>ASTM D92</td>
<td>220</td>
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<tr>
<td>Pour Point</td>
<td>°C</td>
<td></td>
<td>ASTM D97</td>
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<td>Density</td>
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<td>kg/m³</td>
<td>ASTM 4052</td>
<td>0.880</td>
</tr>
</tbody>
</table>

These characteristics are typical of current product methods whilst future production will conform to Puma Lubricants specifications, variations in these physical characteristics may occur.

Health & Safety Environment

- This product is unlikely to present any significant health and safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.
- Avoid contact with eyes and skin, use proper 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 (MSDS) which can be obtained from lubricants@pumaenergy.com

Protect the Environment

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

Additional Information

- Technical advice on any applications not covered here may be obtained from your Puma Energy Representative.