

Castrol Syntrans 75W-85

Manual Transmission Fluid

Description

Castrol Syntrans 75W-85 is a full synthetic manual transmission lubricant with outstanding low temperature fluidity, oxidation stability and synchroniser performance. Eaton has approved Castrol Syntrans 75W-85 for extended service intervals in mid-range transmissions.

Application

Castrol Syntrans 75W-85 is recommended for manual transmissions where excellent synchroniser performance is required or where severe duty or extended drain intervals are experienced. Also recommended for passenger car and light commercial vehicle transmissions, transaxles and transfer cases where API GL-3 or GL-4 and SAE 75W-85 or SAE 80 viscosity is specified.

Castrol Syntrans 75W-85 has proved to provide excellent synchroniser performance in a range of Mitsubishi passenger car and 4 Wheel drive manual transmissions. It is also effective in Holden Jackaroo and Rodeo manual transmissions for best cold shift performance and competition applications. It is also approved for Tremec TR3650 manual transmissions as found in the Ford Tickford TE, TS 50 and FPV models.

For ZF manual transmissions in heavy commercial vehicles, our prime recommendation is Castrol Syntrans Max.

Field Experience

Field experience with Castrol Syntrans 75W-85 in Australia has demonstrated excellent performance in Mercedes-Benz, Volvo and Mitsubishi manual transmissions in a range of vehicles, particularly trucks. Long haul operating conditions in Australia differ from most overseas operations. There are a higher proportion of engines above 450hp (335kW) operating on longer point-to-point destinations, at higher speeds, as well as over rough roads. These conditions increase the stress on the drive train and the lubricant. Castrol Syntrans 75W-85 has demonstrated excellent gear set and bearing durability in field evaluation in Australia.

Always ensure the correct manual transmission fluid (as specified by the manufacturer) is used by referring to the operators' handbook or the Castrol Lubrication Reference Guide.

Advantages

- Excellent oxidation stability makes it suitable for high temperature and extended drain service
- Proven synchroniser performance makes gear shifting easier, and transmission operation quieter.
- Very fluid at low temperatures for easier cold start gear shifting in synchronised transmissions
- Excellent viscosity temperature characteristics helps retain effective viscosity over all ambient working temperature ranges.
- Good wear and EP performance ensures component protection under high load conditions reducing downtime and service costs.
- Excellent seal compatibility with normal mineral oil seals. This allows standard seals to be retained and long seal life expected

- Compatible with normal mineral oil, hence no special flushing procedure is needed when changing from mineral to synthetic oil
- Long drain performance - potentially lower maintenance costs and greater vehicle availability
- Specially selected synthetic base fluids and additive system - very stable viscosity in service

Typical Characteristics

Name	Method	Units	Syntrans 75W-85
Viscosity, Kinematic 100°C	ASTM D445	mm ² /s	11.9
Viscosity, Kinematic 40°C	ASTM D445	mm ² /s	64.4
Viscosity, Brookfield @ - 40°C (75W)	DIN 51398	mPa.s (cP)	18000
Pour Point	DIN-ISO 3016	°C	-45
Density	DIN EN ISO 12185	g/ml	0.837

The above data is typical and does not constitute a specification.

Product Performance Levels

Castrol Syntrans 75W-85 is suitable where the following performance levels are specified:

API GL-3, GL-4

Suitable in place of

API CC, CD, SE, SF, SG

Volvo

Mercedes-Benz

MAN

Eaton On-Highway

Where specified for transmission use - do not use in engines.
1273,07 Transmission Oil Part No. 97307 (Syntrans 75W-85 only). Use Syntrans M for high load, high ambient conditions

MB 235.4

MAN 341 Type 4

400,000 km/3 years

Road Ranger transmissions – use only Syntrans M for Australian ambient conditions.

Mid range transmissions; 5109, 6109, 8109, etc. may use Syntrans 75W-85 for improved cold shift performance.

Viscosity

SAE 75W-85; Suitable in place of SAE 75W, 80W, 75W-80, 75W-90

SAE 5W-30, 10W-30, 30 (transmission use only)

Changover Procedure

To change-over from mineral oil to Castrol Syntrans 75W-85.

As Castrol Syntrans 75W-85 is compatible with normal mineral gear oils, extensive flushing is not usually required.

For the optimum performance of Castrol Syntrans 75W-85 the following advice is offered. Where transaxle, transfer case or transmission has been subjected to high operating temperatures, the system should be flushed with clean gear oil, either mineral (Castrol VMX80 or Castrol TFC 430) or preferably Castrol Syntrans 75W-85.

Flushing is best carried out by draining the used oil while still warm, refilling with fresh clean gear oil, then working the unit for at least 1-2 hours. Then drain and refill with Castrol Syntrans 75W-85 making sure transaxle, transfer case or transmission is filled to the correct level.

Note: Although Castrol Syntrans 75W-85 may be topped up with mineral oil (Castrol VMX80 or Castrol Offroad 30/TFC 430 or Offroad 50/TFC 450 preferred), some of the performance advantages and protection provided by Castrol Syntrans 75W-85 will be significantly reduced.

Extended Drain Capabilities

Determining service durability:

1. Recommended maximum service interval 400,000kms or 2 years in heavy commercial vehicles.
2. For extended drain service intervals on-going wear metal analysis is considered vital for maximum equipment durability. Castrol Labcheck analysis at least every 100,000kms should replace the normal visual oil inspection at standard drain intervals.
3. For off-highway or arduous operations, the drain interval should be shortened from 400,000km to a length determined by Castrol Labcheck sampling. To determine the drain interval, Labcheck sampling should be undertaken at least every 100,000km. The drain period should be determined by the sample results and the interpretation by the Castrol Technical Services Manager.
4. Castrol Syntrans 75W-85 is NOT compatible with glycol based gear oils. Compatibility with other synthetic oils would need to be determined on a case-by-case basis. Consult your local Castrol Office for advice.
5. Castrol Syntrans 75W-85 is NOT recommended or suitable for engines, hypoid differentials or transaxles that contain hypoid differentials.

Product Removal

Bare Metal Surfaces: Remove with Castrol solvent cleaners or water based degreasers.

Hand Cleaning: Use any of the Castrol range of hand cleaners; e.g. CareClean Plus.

Other Surfaces: Contact your local Technical Advice Line on 1300 557 998.

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