



## IMPORTANT PRODUCT INFORMATION

SA-ZF-217-2-2013

### ZF AUTOMATIC CAR TRANSMISSIONS

#### The case for oil servicing and the use of approved oil and filters

##### The oil is supposed to be lifetime fill – why change it?

- ❖ The oil in a modern automatic transmission is a highly engineered component as it serves many functions including lubrication, cooling, hydraulic application of clutches and power transmission via the torque converter.
- ❖ Modern transmissions utilise overlapping application of clutch packs at gear changes (instead of freewheels) and controlled slip of the torque converter lock up clutch which puts greater stresses on the oil.
- ❖ To meet these challenges partially synthetic oils have been developed for ZF 5, 6 and 8 speed transmissions which are maintenance free under normal operating conditions. However, as some degradation of the oil inevitably occurs over time and usage, **ZF recommends oil and filter changes after 50,000 to 75,000 miles to ensure optimum performance.**
- ❖ Oil degradation can lead to complaints such as judder, noises and a deterioration in gear change quality.
- ❖ Some car manufacturers already recommend oil servicing at 60,000 miles and others are starting to put greater emphasis on the technical benefits rather than 'cost of ownership'.

##### Why use approved oil?

- ❖ There were many approved oils for the simpler 3 and 4 speed transmissions, however it is only feasible to exhaustively develop and test one oil to meet all the demands imposed on a modern transmission.
- ❖ Claims are made that alternative oils are equivalent but whilst they might have the same basic characteristics such as viscosity they won't have the same crucial additive packages which are closely guarded secrets of the oil companies.
- ❖ The consequences of using unapproved oils might not be immediately apparent but there are well-documented cases of problems such as judder and noises occurring after thousands of miles in service.