

Automatic Transmission - Deep Sump Conversion

Applicable to:

All Rolls-Royce and Bentley Motor Cars fitted with the General Motors Turbohydramatic 400 Transmission

Rolls-Royce Silver Shadow, Silver Shadow II, Camargue, Corniche, Silver Spirit, Silver Spur
Bentley T-Series, Corniche, T2, Mulsanne, Mulsanne Turbo, Turbo R, Continental

Introduction

A deeper gearbox sump has been introduced on Bentley Turbo R motor cars from vehicle identification number (VIN) *SCBZSOTOOGCH14710*

The deep sump arrangement is especially useful for all turbocharged vehicles, and is recommended as an upgrade for turbocharged and naturally-aspirated vehicles listed under Applicable.

The components and procedure listed are applicable to all Rolls-Royce and Bentley vehicles fitted with the appropriate transmission built before VIN *SCBZSOTO3HCX20001*. For all vehicles, including naturally-aspirated vehicles from VIN 20000 onwards, the transmission sump, dipstick, dipstick tube, filter and sundry components introduced on turbocharged vehicles at VIN *SCBZSOTO3HCX20001* may be fitted as an alternative. On vehicles before VIN *SCBZSOTO3HCX20001*, this involves removing a blanking plug from the transmission casing to accommodate a revised dipstick tube configuration.

Description

The deep sump installation necessitates the following changes.

The dipstick, dipstick filler tube, and oil filter pick-up pipe have been extended to suit the new sump. However, the oil capacity remains unchanged.

As the oil filter is now positioned further away from the valve body, a longer bolt and spacer are used to secure the filter to the valve body.

The front silencer heatshield has been lowered to correspond to the new position of the sump. This has been achieved by using a longer mounting bracket at the front of the heatshield.

To provide the required clearance between the lowered heatshield and the exhaust clamp, the flange type clamp has been replaced by a spherical exhaust clamp.

The parking brake cable retaining bracket has also been extended to provide clearance between the cable and sump.

New gearbox sump retaining bolts have been introduced with the new sump. These now incorporate conical washers under the bolt head.

Procedure

- 1.) Place the car on a suitable ramp.
- 2.) Chock the wheels and apply the parking brake. Remove the gearbox isolator.
- 3.) Drain and remove the gearbox sump. Remove the dipstick tube.
- 4.) Remove the oil filter and oil filter pick-up pipe. Discard the pick-up pipe.
- 5.) Fit the new longer oil filter pick-up pipe and 'O' ring.
- 6.) Fit a new filter, new longer retaining bolt and spacer. Ensure that the spacer is fitted between the filter and the valve body.
- 7.) Fit the deeper sump using the new sump retaining bolts and washers.
- 8.) Remove the three bolts from the downtake to the front silencer exhaust clamp. Discard the olive, then cut off both flange plates.
- 9.) Remove the bracket which supports the front of the front silencer heatshield, replace it with the longer bracket.
- 10. Fit the longer dipstick tube.
- 11. Fit the new exhaust clamp olive and spherical clamp.
- 12. Fit the longer parking brake cable mounting bracket.
- 13. Refill the gearbox, refit the gearbox isolator and check the oil level.

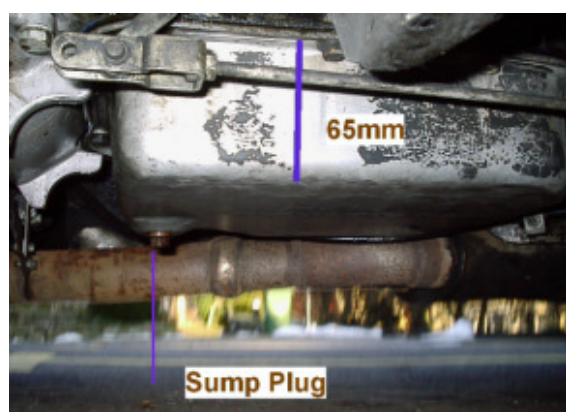
Defect and Repair code manual

Defect code	Repair code	Time
5503210099	55032100S - Gearbox sump modification	1.7 hour Gearbox in situ 0.8 hour Gearbox out of the car

Parts affected

The parts required are supplied in service kit, part number RH 2926. The contents and part numbers of items in the kit are described below.

Displaced part number	Description	Quantity	New part number
	Exhaust clamp	1	UR 26800
	Bolt - exhaust clamp	1	SPC 3278
	Nut - exhaust clamp	1	SPC 2681
	Washer - exhaust clamp	2	UA 1252/SS
UA 26455	Olive - exhaust clamp	1	UR 26799
UG 12848	Dipstick tube assembly	1	UE 46320
UG 14543	Dipstick	1	UE 46316
UG 14617	Parking brake cable bracket	1	UR 27724
GM 3829139	Sump bolt and washer	13	GM 8655026
	Heatshield bracket	1	RH 9909
Deep sump kit Containing the following		1	GM 8629922
GM 8626886	Intake pipe	1	GM 8629526
GM 8625769	Retaining bolt - filter	1	GM 8633208
	Spacer - filter bolt	1	GM 8629523
GM 8625836	Sump	1	GM 8655288
Unchanged	'O' ring pick-up pipe	1	GM 1363951
Unchanged	Filter	1	GM 6437741
Unchanged	Gasket - sump	1	GM 8629807



Deep Sump - 20,000-Series Turbo R
Standard Fitment

Depth and Sump Plug Location