



Ferrari North America

Technical Information

Date: February 2016
Bulletin #: 2325
Campaign #:
Supersedes:
Section: 3

Model Type: California T
Model Year: All
Subject: Repair procedures for DCT gearbox – Level 1

Please find below the Level 1 repair procedures which may be performed on the DCT gearbox for the Ferrari California T vehicles in relation to the oil leak found on a DCT gearbox.

- IMPORTANT -

Open an ROL in the event of any major problem related to oil leakage from the gearbox on a car in its first 3 months of warranty, attaching the photographs taken of the diagnostic module as described on page 10 of this document.

- IMPORTANT -

Prior to any procedure, appropriate documentation must be sent to the FNA Helpdesk to obtain authorization for the supply of the requested kit.

To do this, you must complete the form on page 14 of this TI in full.

This module must be sent together with the order request by e-mail to our Spare Parts Department, at the address dealerservices@ferrariusa.com

- IMPORTANT -

The S.T. Schedule for the model in question includes a specific table, viewable from the 2nd update (2016) of the Technical Documentation, indicating the corresponding operation codes for the procedures performed, which are necessary to request reimbursement under warranty.



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Possible operations in relation to type of oil leak (“Level 1” procedures)

1. Replacing Corteco seal rings and differential flanges
2. Seal replacement on the differential cover
3. Replacing the ATF oil filter
4. Rear rubber cap replacement
5. Replacing front shaft
6. Oil cap replacement
7. Replacing seal caps
8. Replacing air breather caps

The following tools and equipment are necessary to perform these procedures:

- Swivel-head base Part. No. 95972621 (AV 2621)
- Gearbox overhaul support Part. No. 95977314 (AM 107314)
- Lev. 1 gearbox overhaul tool kit Part. No. 70002843, consisting of:
 - Gearbox presser tool Part. No. 95978604 (AV 8604)
 - Lift bracket for central section of gearbox Part. No. 95978605 (AV 8605)
 - Lift bracket for rear section of gearbox Part No. 95978606 (AV 8606)
 - Gearbox housing alignment pin Part. No. 95978607 (AV 8607)
 - Axle shaft oil seal installation punch Part. No. 95978608 (AV 8608)
 - Transmission shaft oil seal extractor Part. No. 95978609 (AV 8609)
 - External gearbox pressurizing plugs Part. No. 95978612 (AV 8612)



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The aforementioned tools must be ordered by you directly from our Spare Parts Department in the quantities needed.

The parts to be installed, in relation to the type of operation necessary, are as follows:

- SL1.1 GEARBOX OVERHAUL KIT Part. no. 70002747 Q. ty 1
- SL1.3 GEARBOX OVERHAUL KIT Part. no. 70002805 Q. ty 1
- SL1.5 GEARBOX OVERHAUL KIT Part. no. 70002807 Q. ty 1
- SL1.7 GEARBOX OVERHAUL KIT Part. no. 70002809 Q. ty 1

The following table indicates the kit part numbers necessary for the operations described below, subdivided by model.

The following kits must be ordered by you directly from our Spare Parts Department in the quantities needed.

	Ferrari CaliforniaT
1. Replacing Corteco seal rings and differential flanges	70002807
2. Seal replacement on the differential cover	70002747 70002809
3. Replacing the ATF oil filter	70002747
4. Rear rubber cap replacement	70002747
5. Replacing front flange/front shaft	70002747 70002805
6. Oil cap replacement	70002747
7. Replacing seal caps	70002747
8. Replacing air breather caps	70002747



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Procedure

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

- Whenever the removal of the DCT gearbox is required in the following operations, the specific support tools must be used as indicated in the last Technical Information on this topic.

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

1. Replacing Corteco seal rings and differential flanges

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the [Ferrari California](#).

2. Seal replacement on the differential cover

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the [Ferrari California](#).



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3. Replacing the ATF oil filter

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the [Ferrari California](#).

4. Rear rubber cap replacement

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the [Ferrari California](#).

5. Replacing front shaft



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- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the [F12berlinetta](#).

6. Oil cap replacement

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the [Ferrari California](#).

7. Replacing seal caps

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

Three seal plugs are fitted on the gearbox: one on the left hand side, one on the right hand side and one at the rear.



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LEFT HAND SEAL PLUG

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the Ferrari California.

RIGHT HAND SEAL PLUG

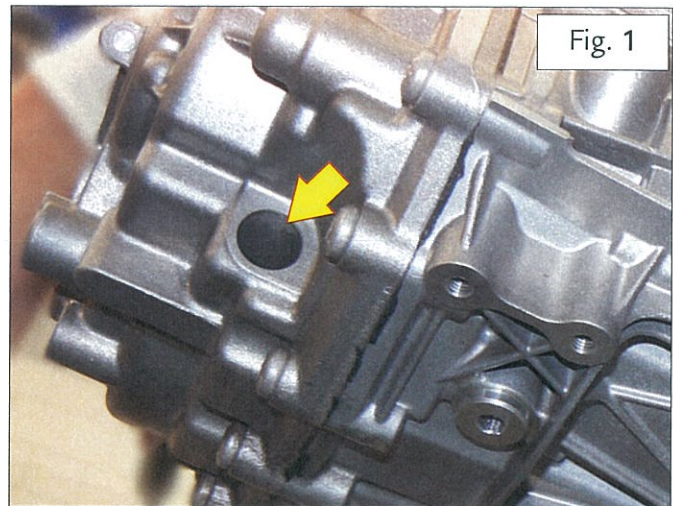
For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the Ferrari California.

REAR SEAL PLUG

- Remove the rear bumper (as described in paragraph E3.04 of the Workshop Manual).
- Drain the Shell Transaxle 75W-90 GL5 gear oil (as described in paragraph C2.05 step 1 of the Workshop Manual).

- Remove the indicated plug and replace, ensuring that the new plug is securely fastened – Fig. 1.

Note: the plug has no head and is the same diameter as the relative seat; fit the plug with caution to prevent it from falling into the casting.



- Fill with Shell Transaxle 75W-90 GL5 gear oil (as described in paragraph C2.05 step 2 of the Workshop Manual). **Note:** When refilling the oil and fluid and inspecting the relative levels, replace all the oil/fluid plugs and the relative seals removed during the procedures described in this bulletin.



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- Mark the repaired gearbox for identification as described at the end of this document.
- Refit the rear bumper (as described in paragraph E3.04 of the Workshop Manual).
- Once the procedure is complete, preferably test drive the vehicle for 7 miles, and check for leaks from the replaced components after returning to the workshop.

8. Replacing air breather caps

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

For the detailed operating procedure, see the last Technical Information on this topic, in the section relative to the Ferrari California.

System pressurization procedure

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

- Whenever the procedure to pressurise the gear oil system and AFT clutch hydraulic system is requested, follow the detailed operating procedure given in the last Technical Information on this topic.



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Procedure for marking repaired gearbox

Whenever any of the operations described above are performed, the gearbox must be marked appropriately for identification, as described in the last Technical Information on this topic.

Thank you for your co-operation.



Form for “Level 1” diagnosis of DCT gearbox leaks

Model	Updated on
	February 2016

As mentioned previously, when opening the ROL, photographs must be taken of the leak as described as follows and attached to the ROL:

- A PHOTO of the leak on the gearbox and a PHOTO of the flat undertray, if fouled with oil;
- Clean the leak area thoroughly with heptane and lint-free clean cloths;
- Apply leak detection powder to the area of the gearbox where the leak was noted;
- Test drive the vehicle for 10 Km;
- Check for the leak again upon returning to the workshop. If the leak still exists, take another PHOTO of the leak.

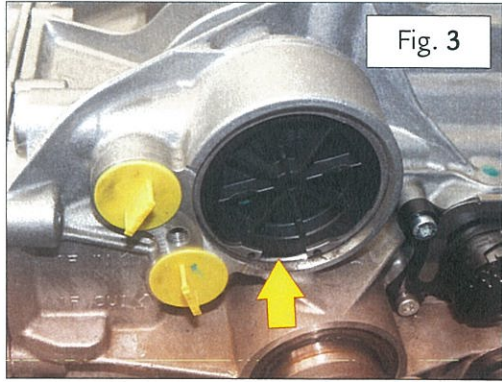
Oil leaks from Corteco seal rings/differential flanges		
Fault	Procedure	
Oil leaks from Corteco seal rings/differential flanges (Fig. 1)	Perform procedure 1. ➤ Replacing Corteco seal rings and differential flanges.	
Oil leak from differential casing cover		
Fault	Procedure	
Oil leakage from differential cover (Fig. 2)	Perform procedure 2. ➤ Replace O-ring on differential cover.	

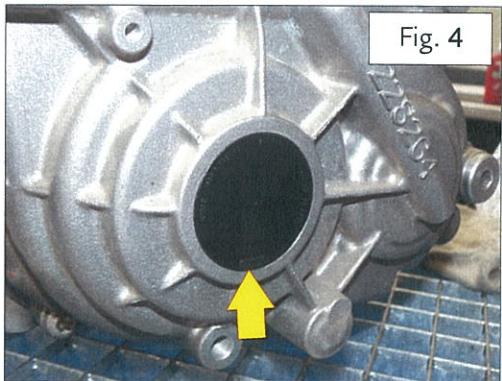


Form for “Level 1” diagnosis of DCT gearbox leaks

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Model	Updated on
<small>Ferrari</small> <i>California</i> T	February 2016


Fluid leak from ATF fluid filter		
Fault	Procedure	
Fluid leakage from ATF fluid filter (Fig. 3)	Perform procedure 3. ➤ Replace the ATF fluid filter.	

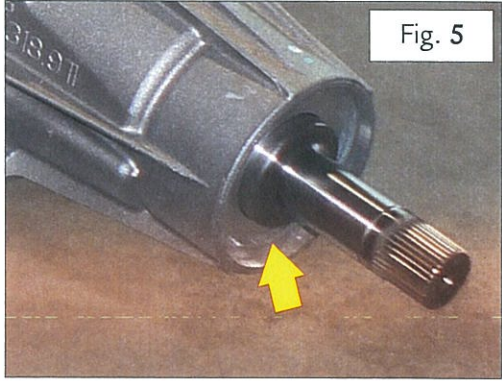
Oil leak from rear plug		
Fault	Procedure	
Oil leakage from rear gearbox plug (Fig. 4)	Perform procedure 4. ➤ Replace rear plug.	

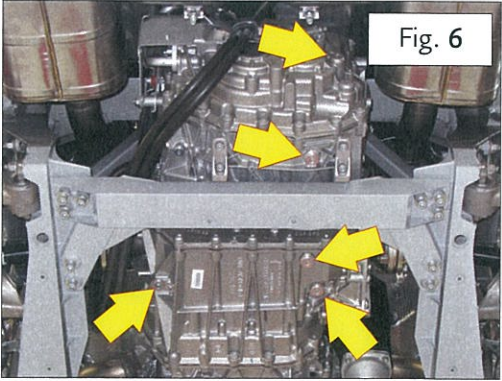


Form for “Level 1” diagnosis of DCT gearbox leaks

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Model	Updated on
	February 2016

Leakage from flange/front shaft		
Fault	Procedure	
<p>Oil leakage from flange/front shaft (Fig. 5)</p>	<p>Perform procedure 5.</p> <ul style="list-style-type: none"> ➤ Replace front flange/shaft. 	

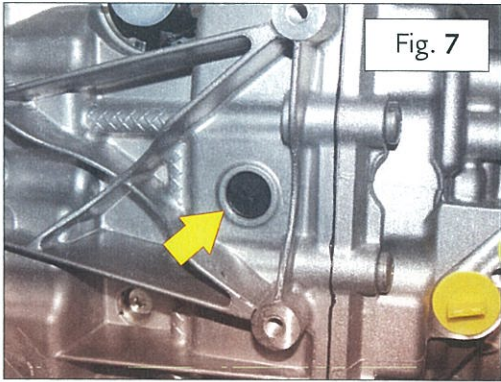
Leakage from oil plugs on gearbox		
Fault	Procedure	
<p>Oil leakage from gearbox oil plugs (Fig. 6)</p>	<p>Perform procedure 6.</p> <ul style="list-style-type: none"> ➤ Replace the plug. 	



Form for “Level 1” diagnosis of DCT gearbox leaks

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Ferrari <i>California T</i>	February 2016

Leakage from seal plugs		
Fault	Procedure	
Oil leakage from the three oil plugs (Fig. 7)	Perform procedure 7. ➤ Replace the seal plug.	



DCT Gearbox Repair_ "Level 1" Certificate

Model	Updated on
<small>Ferrari</small> <i>California</i> T	February 2016

VEHICLE FILE	
Date:	Chassis number:
Model:	Dealer:
Market:	Vehicle Km/mi:
Gearbox No.:	ROL No. (if available):
Warranty start date:	Warranty end date:
Prior procedures on DCT gearbox (date and type of procedure):	
DIAGNOSTIC FILE	
Fault (attach photo):	
JOB FILE	
Procedure performed (from operation list on page 2):	
Kit Part Nos. ordered:	

Task performed by (Dealer):

Technical Manager:

First name _____ (Print) Surname _____ (Print)

Company stamp

Full signature