



To All Lamborghini Dealers and Licensed Service Point.
From Customer Service Department.
Subject Planetary Gear And Side Pinion Replacement Of Rear Differential.
Group 3.01.00
Date 20/05/2011
Pages 13

Subject

Replacement of planetary gears and side pinions of rear differential.

Model

All Gallardo Coupé & Spyder LP-560-4 and Superleggera LP 570-4, MY 2010 e 2011, from VIN ALA09703 to VIN BLA10493.

Warning: some vehicles included in this VIN range may not be involved, so check carefully on the Lamborghini WEB Portal (at the section named VIN Info) if the cars in your workshop or in your dealer stock are involved before performing any other operation.

Information to the field

Replacement of planetary gears and side pinions of rear differential.

Field solution

As the result of the continuous monitoring, Automobili Lamborghini Spa has found that in rare cases the “thrust mode” procedure might damage the rear differential.

Spare Parts

P/N	Description	Q
0R1400528	Planetary gear set kit: - Planetary gears 2 - Side pinions 4 - O rings 2 - Screws 12	1
0024016729	Oil- Burmah 70W-75 171 01	5

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Replaced parts management

The replaced gears and pinions have to be stored with care and tagged with the proper label.

The items can be scrapped only with approval of the Service Area Manger of reference and at his presence.

Warranty Claim data

The warranty reimbursement request for this rework action will be managed by the following standard Warranty Claim procedures.

Campaign Code: L71X-A.02.11
Campaign Description: Planetary gear and side pinion replacement
Cost Code: 50
Component Code: CCA0211
Trouble Code: 220
Labour Code: CCA0211100
Labour Time: 15 h

Remember to fill all data in the section “Service and Recall Campaign” in the Warranty booklet of the vehicle as shown below.

Automobili Lamborghini S.p.A.
 Campagne service assistenza e campagne di richiamo / Service-und Rückrufaktion / Service and Recall Campaign
 Service et campagne de rappel / Campaña de Servicio y Llamada a Taller

Service/Service Richiamo/Rückruf
 Service/Service Recall/Rappel
 Servizio Llamada a Taller

Numero/Number
 Number/Nummer
 Número

Data/Datum/Date/Date/Fecha
DD MM YY

Data riparazione/Reparaturdatum
 Repair Data/Date de réparation
 Fecha reparación

Eseguito dal Concessionario / Ausgeführt von der Vertragswerkstatt / Done by the Dealer
 Effectué par le concessionnaire / Efectuado por el Concessionario

Firma / Unterschrift / Signature / Signature / Firma

Service/Service Richiamo/Rückruf
 Service/Service Recall/Rappel
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Numero/Number
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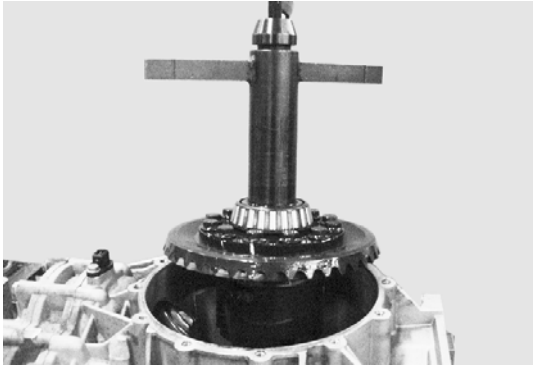
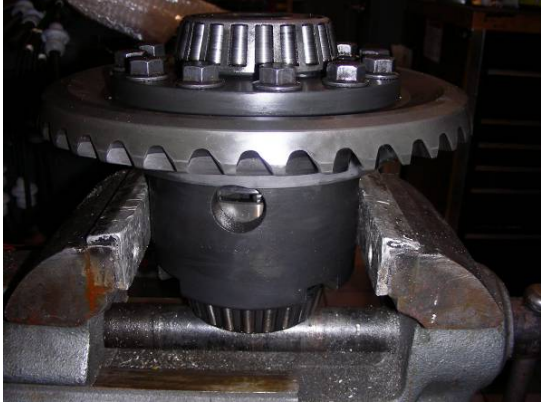

Description of required procedures

Disassembly

Preliminary operations:

1.	Remove the gearbox as shown in the workshop manual in sections 03 21 03 for e-gear transmission and 03 01 03 for manual transmission.
2.	Fix the gearbox on the carriage (chapter 00 02 00 – position 35c).
3.	<p>Manually remove the 12 M8 screws of the differential cover</p> 
4.	<p>Remove the differential aluminum cover</p>  
 <p>Do not use levers inserted between the cover and the box to dismantle. Make sure that the O-ring does not fall inside the gearbox</p>	

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<p>5.</p>	<p>Remove the entire differential assembly from the gearbox. Use tool 62451006 (00020019b).</p>	
<p>6.</p>	<p>Fix the differential box in a vise.</p>	
<p> Use aluminum jaws and do not position the jaws over the lubrication holes of the differential box.</p>		

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Removing the self locking differential:

Perform all the following tasks without removing the self locking differential from the vise:

7.

Unscrew the 12 M10 screws of the differential cover.



Do not remove the bearing and take care not to damage it with the wrench. Do not allow dirt to enter the bearing. The screws removed in the point 7 have to be scrapped.





8.

Remove the differential cover.




Do not drop the washer supporting the planetary gear; if the washer does fall accidentally, clean it carefully and then lubricate it with gear oil.

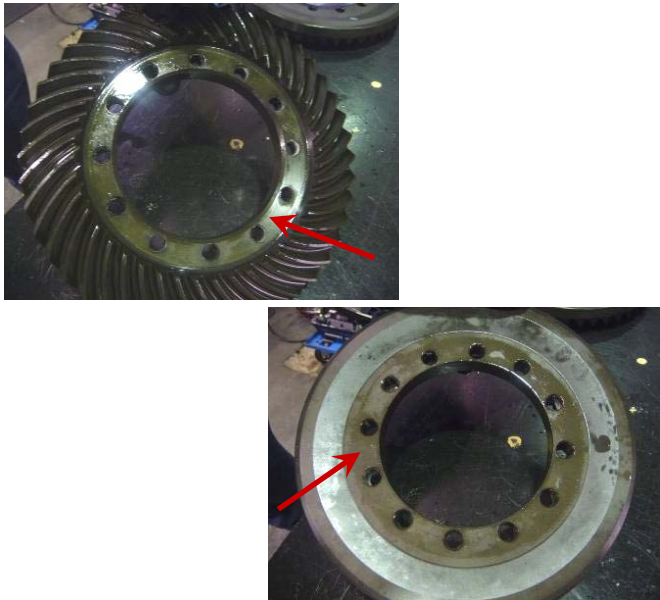
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9.	Remove the parts circled in red in point 10.	
10.	Extract the planetary gear to be replaced and the friction disk pack.	
 Maintain sequence of disk pack. If the sequence is accidentally lost, see procedure at point 20.		
11.	Extract the spider and side pinions to be replaced.	

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<p>12.</p>	<p>Extract the planetary gear to be replaced.</p>	
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Preparing components for assembly.

<p>13.</p>	<p>Thoroughly clean the resting surfaces of the ring bevel gear with a common grease remover (for example Loctite 7063).</p>	
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<p>14.</p>	<p>Clean the resting surfaces of the body thoroughly with a common grease remover (for example Loctite 7063) and blow compressed air through the threaded holes.</p>	
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Make sure that there is no residual glue on the flat surface.


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15.	Replacement kit: 2 planetary gears 4 side pinions 2 O rings 12 screws	
 Components that are ready for assembly require no additional operation.		

Reinstalling the self locking differential:


16.	Fit the new planetary gear. Make slight rotating movements to assist manual fitting.	
17.	Fit new side pinions on old spider.	

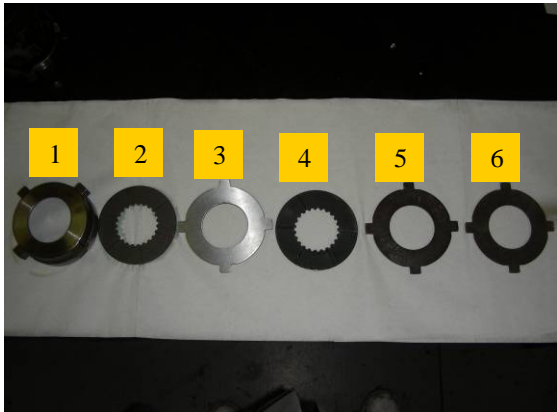
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18.	Fit spider with new side pinions.	
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Fit spider with arrow facing the open side of the differential box.

19.	Fit the new planetary gear.	
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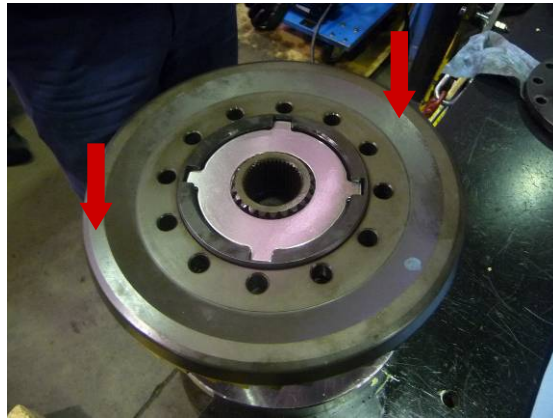
20.	Fit friction disk pack. If the sequence of disks is lost, follow the indicated insertion order.	
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The disk sequence is as follows:
Half bearing (1), molybdenum disk (2), steel disk (3), molybdenum disk (4), steel disk (5), steel disk (6).

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21. Fit ring bevel gear.



Push alternately on two points at 180° and check that the ring bevel gear does not move.

22. Fit the washer supporting the planetary gear on the differential cover.

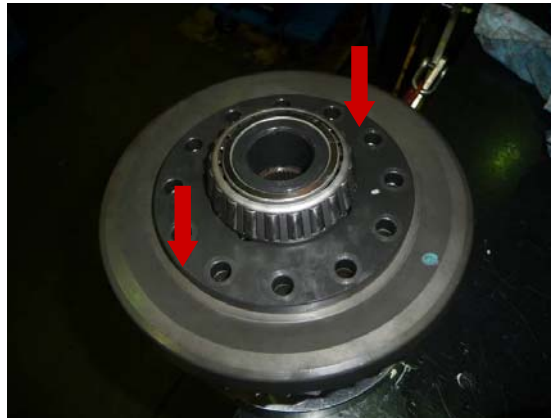


Support fifth wheel with grease and insert it with the flat side toward the differential cover and its detent in any hollow of the cover.



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23. Install the differential cover.



Push alternately on two points at 180° and check that the ring bevel gear does not move.

24. **Use the new screws provided with the kit**
Lubricate the screws of the ring bevel gear with Loctite® 270.



Apply the glue on the first 10 millimeters of the thread. Use the photograph as a reference for the quantity

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25. Tighten the screws of the ring bevel gear in the described sequence.




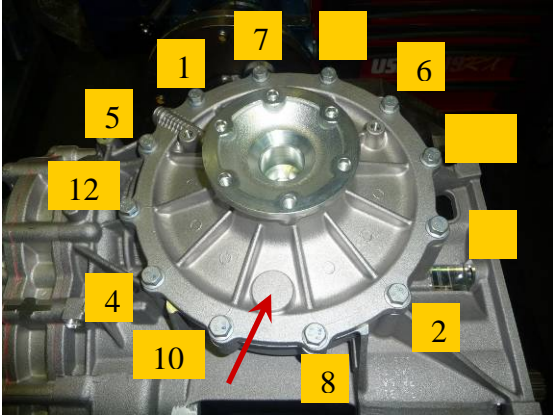

Tighten the screws to 60 Nm, check that torque setting of 60 Nm has actually been reached by tightening again to 60Nm and then tightening further by 60°. Clamp cross clamping element as shown in the following Fig.



26. Insert the differential unit in the gearbox.
26. Make slight rotating movements to assist manual fitting.



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<p>27.</p>	<p>Fit the O-ring on the gearbox and on the differential cover.</p>	
<p>28.</p>	<p>Lubricate the screws with Loctite® 242 and Medio thread sealant. Tighten the screws to 35Nm, as shown in the sequence in the photograph.</p>	
<p> Position the cover with the stud (marked with red arrow) facing the bottom of box.</p>		
<p>29.</p>	<p>Reinstall the gearbox in the vehicle as shown in the workshop manual in sections 03 21 05 for e-gear transmission and 03 01 05 for manual transmission.</p>	

Please contact your Area Manager for any further information.

Yours sincerely,

Customer Service .

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