



REPAIR GUIDELINES FOR REAR AXLES

OF THE MODEL RANGES CITROËN BERLINGO AND PEUGEOT PARTNER
REPAIR SOLUTION 965912S, 965900 + 965901
WITH HELP OF THE RUVILLE TOOL SET 1002226



IMPORTANT – FIRST CHECK WITH THE SUPPLIER ABOUT AVAILABILITY OF THE OVER-SIZED STUB. THIS WILL PREVENT POSTPONEMENT OF THE WORK, AS THE VEHICLE CANNOT BE MOVED UNTIL REPAIR IS COMPLETED.

NOTE – INSTALLATION SHOULD ONLY BE DONE BY A QUALIFIED PROFESSIONAL AND IN COMPLIANCE WITH THE MANUFACTURER’S GENERAL REPAIR GUIDELINES!

NECESSARY FIRST TASKS:

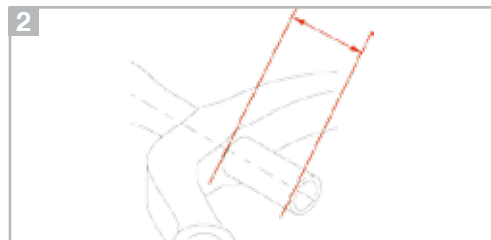
- Unfasten the parking-brake cables
- Carefully clean the working area of the torsion-bar mounts
- Unscrew the brake caliper’s hydraulic lines
- Unplug the electric cables to the wheel-speed sensors
- Remove the brake calipers
- Remove the dampers
- Measure the distance between the fender edge and the middle of the wheel hub (this distance serves for check after repair)

IMPORTANT – ALWAYS CAREFULLY CLEAN THE ELEVATING SCREW AND AXIAL BEARING BEFORE USE!

DISSASSEMBLY:

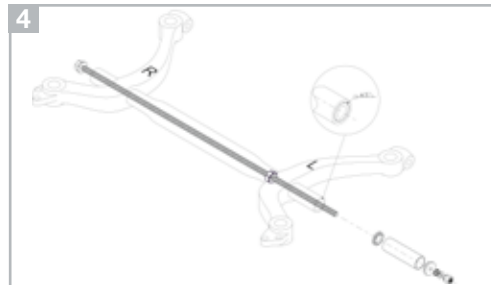
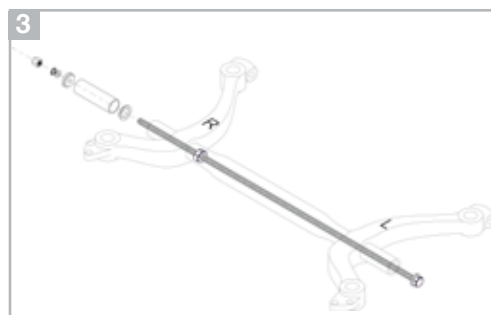
1. Remove the screws of the retaining plate (ABS cable / 1a) on both sides.
2. Disassemble the stabilizer, then remove the clamping screws and carefully cleaning the grooves and gears.
3. Pull out the stabilizer on the right side of the vehicle (optional: use RUVILLE torsion bar tool).
4. Disassemble the torsion bar – take the retaining screws (1b) out of the torsion bars and remove the eccentric discs, clean the grooves carefully.
5. Mark the position of the torsion bars in their serrations to avoid any mistakes during re-assembly.
6. Force the torsion bar out in the direction of its larger serrations.
7. Pull the radial arms off the stub shafts (if need be, use special tool Peugeot No. 0538 and 0539).
8. Measure the distance that the shaft sticks out of the axle tube (Sketch 2) and enter in table.

Stub shaft offset left	_____ mm
Stub shaft offset right	_____ mm



THE FOLLOWING STEPS MUST BE CARRIED OUT ON BOTH SIDES OF THE VEHICLE

9. Axle stub removal on right side of vehicle – take nut from Repair Set 965907S and screw it ca. 60 cm onto the long jackscrew. From the left side of the vehicle insert it into the axle. Then put the tool together onto the jackscrew as shown in Image 3.
10. Axle stub removal on left side of the vehicle – first apply a MAG weld-seam to the inside of the stub shaft to reduce its internal diameter to a minimum of 24 mm so that the tool and jackscrew inserted on the right can be pushed through easily. The nut (of the repair set) on the threaded jackscrew braces up against the weld-seam. Make sure that there is enough screw thread sticking out on the left side to put on the tool components (Image 4).
Important – Makes sure to let the weld-seam cool off! This ensures there will be no problems pulling out the stub. Before welding, disconnect the battery.
11. Now pull out the stub shaft using the tool’s nut (Image 4).
Important – Considerable force is needed here, use appropriate tool, wear safety glasses!



RE-ASSEMBLY:

13. **IMPORTANT** – Check the condition/usability of the inner surfaces of the axle tube, clean, measure and grease sparingly.
14. Measure the axle yoke to identify which oversized stub you need to use (see reverse page):

Measuring points	Left		Right	
	1↔2	3↔4	1↔2	3↔4
A				
B				
C				
Average of all measurements				

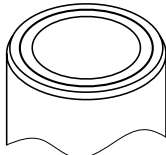
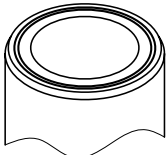
Stub shaft used	<input type="checkbox"/> 965900 / <input type="checkbox"/> 965901	<input type="checkbox"/> 965900 / <input type="checkbox"/> 965901
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IMPORTANT – Staple the measurement report to the garage invoice!

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! Measure using only an inside caliper (+/- 0.01 mm)!

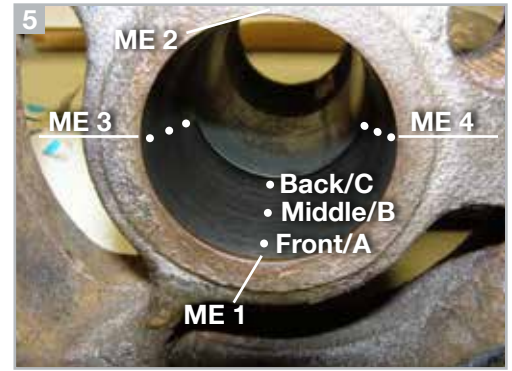
Please make sure that measurements are carried at appropriate points (where there are no scratches or ridges). For this process, the yoke is divided into two planes of measurement, 1-2 and 3-4 (see Graphic 5). There are 3 measuring points specified for each plane of measurement (A, B, C). Determine the average value from all 6 measurements, locate this value within specified ranges, and choose the correct oversized stub shaft. Choosing the right oversized stub shaft:

	965900	965901
Value ranges	50.133 - 50.155	50.155 - 50.185
		
	1 groove	2 grooves

The stub shafts can be visually differentiated by a groove marking (1 or 2 grooves). During re-assembly, the grooves must always point outward in the direction of the vehicle exterior.

IMPORTANT – Always stay within the specified ranges.

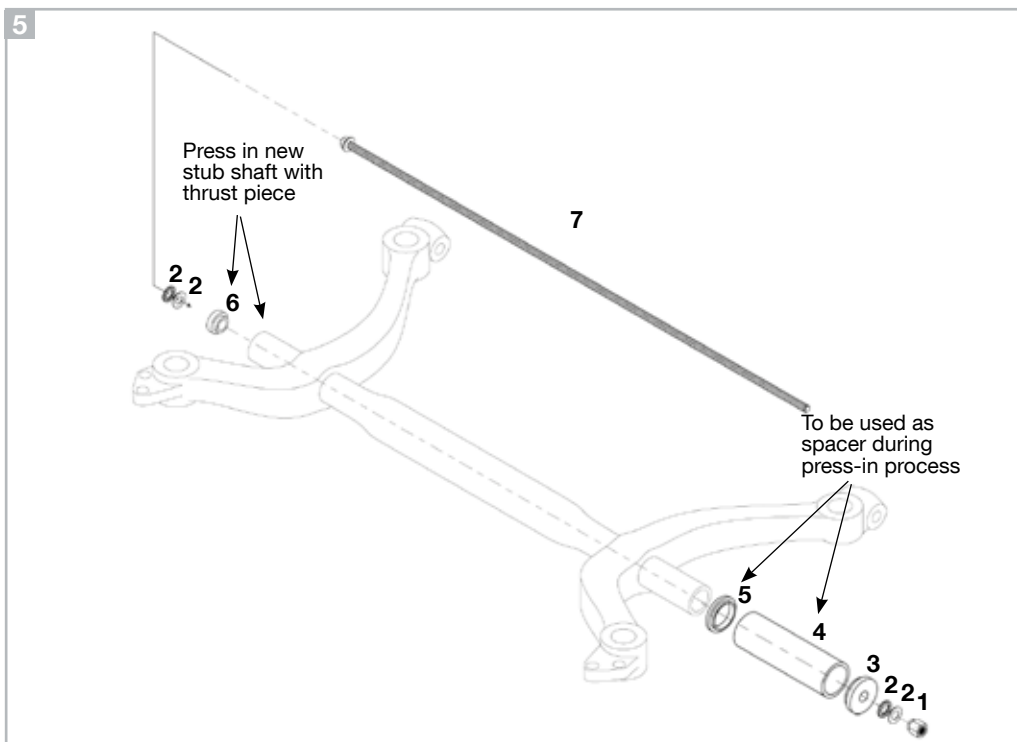
15. Renew the bearings and sealing rings of the radial arms in accordance with manufacturer specifications. Use grease No. 71174 for the bearings.
16. Apply assembly paste No. 71018 thinly and evenly onto the area of the wide chamfer of the new stub shaft that needs to be pressed in, and apply paste extensively onto the opening of the axle tube.
17. Insert the stub shaft as seen in Image 5 with the tool set to the same depth as the offset distance previously measured (at step 8 above).



ME = Planes of measurement

NOTE

When inserting the stub, constantly check that it is being inserted parallel to the axle tube.



1 Nut M20x1,5 / DIN 6334	31305
2 Axial bearing	51204
3 End piece	1002219
4 Thrust pipe	1002216
5 Thrust pipe 1	1002217
5 Thrust pipe 2	1002218
6 Thrust pipe 3	1002220
6 Thrust pipe 4	1002227
7 Jackscrew long	1002221
- Protective sleeve	1002223
- Jackscrew short: screw DIN 961	1002222
- Connection sleeve	1002224

18. Lubricate the axle stub using grease No. 71174 and mount the axial arms with the new bearings.
19. Mount the torsion bars again according to manufacturer specifications. Use the marks made earlier (see step 5 above) to position the torsion bars correctly.
20. Put the torsion bars' eccentric discs back into their cleaned grooves and tighten them down again with the retaining screws.
21. Remount the stabilizer in reverse order.
22. Check the control marks made here during disassembly. If they do not match, correct the position of the torsion bars.
23. Reinstall all of the other components in reverse order as well.

RUVILLE Brake Kits

For technical reasons, when brake discs at the rear axle are replaced, the brake linings are replaced with them. For this reason, RUVILLE is one of the first companies of the automotive Aftermarket to offer a complete repair solution for brake disc replacement at both ends of an axle that comes with integrated wheel bearings and the right brake shoes... all in OE quality.

Ask your distributor about RUVILLE brake kits!

