## Škoda Roomster Clutch Replacement

The Škoda Roomster – an incredibly versatile family car – was first introduced into the market in 2006. This model can be described as the forerunner to the Yeti. Many of the mechanical components that make up this model are very familiar to the rest of the Volkswagen Group range, including the chassis and powertrain, which were taken from the Fabia and Octavia models.

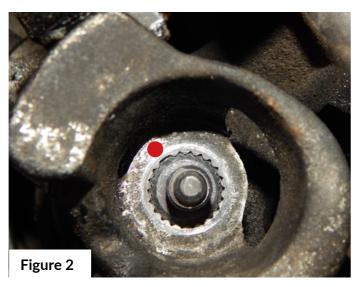
The model featured in this article is the later facelifted version, fitted with the popular 1.2 TSi engine and a 5-speed manual gearbox. The vehicle was reported to have an issue with the smoothness of its clutch pedal operation. This required the gearbox to be removed and the clutch inspected in order to fully diagnose the fault and rectify it.



Once the vehicle was brought into the workshop, the bonnet was opened and the battery, battery tray and air cleaner assembly were removed to provide access to the top of the gearbox. This revealed the gear selector, clutch slave cylinder, starter motor and gearbox mounting. (Fig 1)

First, the gear selector cables were unclipped from the selector levers. Then, the three retaining bolts from the cable bracket were removed and the cables were put to one side. Next, the plastic clip retaining the relay lever was carefully removed. Thereafter, the selector lever was removed and unbolted. With this lever removed, the starter motor could be taken out. This supplies extra clearance when removing the gearbox. The lever shaft has a master spline – when it comes to refitting the lever, it can only be fitted in one position. (Fig 2)

The clutch slave cylinder was unbolted and secured, followed by the reverse lamp switch wiring harness, leaving only the gearbox retaining bolts to be removed at this stage.



The engine was supported by an engine brace before the two bolts that hold the gearbox mount in place were removed. Then, the vehicle was raised up to a working height.

The front wheels were removed. This was followed by the removal of both lower suspension arm swivel joint retaining bolts. The joints were freed from the hub assemblies and covered with a plastic cap to protect the rubber boot and thread from any potential damage. (Fig 3) This was followed by the left-hand wheel arch liner.

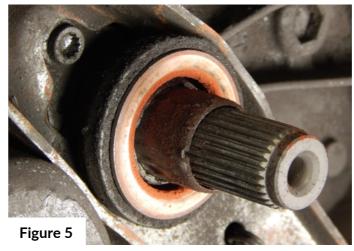


The inner driveshaft joint retaining bolts were unbolted. The driveshafts could then be pulled free from the drive flanges to provide ample clearance for the removal of the gearbox. The exposed driveshaft joints were wrapped in a plastic bag to stop any grit from entering the joint until they were ready to be refitted. (Fig 4)



Working underneath the vehicle, the exhaust hangers were removed, followed by the rear gearbox mounting and the lower gearbox shield. All that remained was the removal of the upper gearbox retaining bracket and the lower gearbox retaining bolts. The engine and gearbox were lowered to an appropriate position and the mounting bracket was removed. With the gearbox supported, the last retaining bolts were removed and the gearbox was lowered from the vehicle.

The clutch pressure plate and disc were removed from the flywheel and inspected. 80% of the material was worn and would have needed to be renewed soon. Upon inspection of the release bearing, it had become worn and sticky during operation; this was the root cause of the stiff operation of the clutch pedal. (Fig 5) The conclusion was that the clutch kit was in need of replacement.

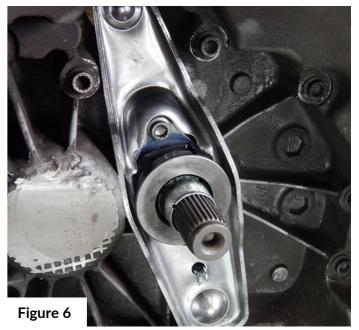


Blue Print clutch kit ADV183056 was used. Included in the kit was a pressure plate, disc, release bearing, release lever and a guide tube.

The flywheel was cleaned and inspected for any heat spots or cracks before the new pressure plate and disc were fitted. When fitting the new pressure plate and disc, it is important to make sure that the contact surfaces of the pressure plate are positioned in the correct way and that the clutch disc lining is aligned and fitted fully against the flywheel before the retaining bolts are inserted. The six pressure plate bolts were tightened diagonally and evenly to ensure an even contact and to prevent any damage to the pressure plate centring hole and flywheel centring pins.

## **TECHNICAL FEATURE**

Turning our attention to the release mechanism, the two bolts to remove the clutch release arm were taken out, complete with guide tube and bearing. This revealed the input shaft seal, which needs to be inspected for any oil leaks. The surface area was cleaned before the new parts were fitted. The pivot points were greased and the new release arm, bearing and guide tube were fitted; the retaining bolts were tightened. The new release bearing was rotated until the catch pegs could be pushed into the release arm. Thereafter a test was conducted to check the smoothness of operation. (Fig 6)



The gearbox was refitted to the engine using some of the retaining bolts to hold it in place, followed by the gearbox mounting bracket. The engine was raised using the support brace and put back into position. Then, the gearbox and exhaust mountings were refitted. The driveshafts, suspension joints and wheels were then fitted, ensuring all fixings were tightened to manufacturer's specifications.

Working from the top of the gearbox, the gearbox mounting was refitted and the engine brace was removed. The starter motor and wiring harness for the reverse lamp switch were refitted. The gear selector levers were reassembled while all mating surfaces were cleaned and lubricated with grease; this will help improve smoothness of operation. The clutch slave cylinder, selector cables, air filter and the battery were reconnected. The clock and the one touch window operation were reset. The clutch operation was tested and a road test was carried out. The clutch fault was fixed, giving an exceptionally smooth pedal feel and operation.

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