

Clutch component failure diagnosis part 3

Despite the complex nature of the modern clutch system, many technicians remain under the misapprehension that clutch replacement is a simple and straightforward affair. However, with clutch replacement now often taking several hours, it's imperative to workshop profitability, that technicians have the information they need to fit the replacement right, first time. Borg & Beck highlights some common failures and their causes.

To help mechanics, clutch specialists Borg & Beck have produced a useful fault diagnosis chart to highlight the issues that can result from incorrect clutch fitment, so that fitting problems can be avoided and business profits and customer satisfaction retained. Using the chart to recognise the symptoms, technicians can identify the cause, its effect and the remedy and therefore prevent costly installation problems before they occur. The examples below are just a portion of those on the chart.

Broken Segment Necks (1)

Cause

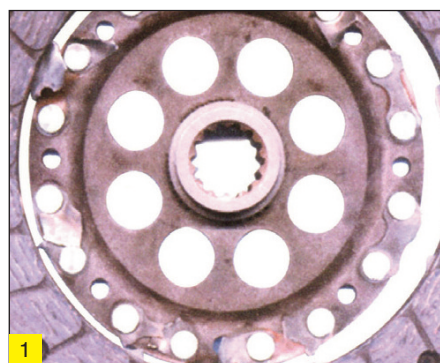
Angular misalignment of engine and gearbox.

Effect

Loss of drive.

Remedy

Correct the misalignment which may be due to bent engine back plate, burrs or debris trapped between mating faces, cracked bell housing; worn pilot or gear box bearings; incorrect or missing dowels.



Damaged Spline (2)

Cause

Failure to correctly align spline with driven plate during gearbox installation.

Effect

Clutch drag.

Remedy

Replace driven plate and take care during gearbox installation.



Heat Patched Pressure Plate (3)

Cause

Weakened or damaged drive straps.

Effect

Clutch Drag.

Remedy

Renew cover assembly.



Worn Diaphragm Spring Fingers (4)

Cause

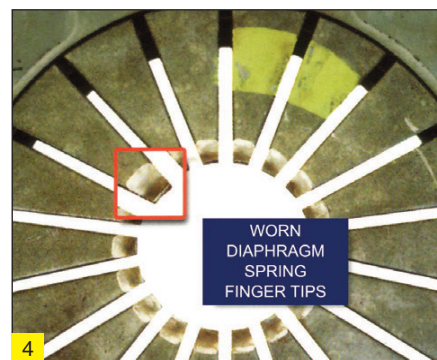
Failure to maintain a contact between bearing and clutch assembly.

Effect

Jerky clutch engagement.

Remedy

Renew cover assembly, check release mechanism (including self adjustment) for correct operation. Observe correct adjustment frequency and procedure.



Oil Contaminated Driven Plate (5)

Cause

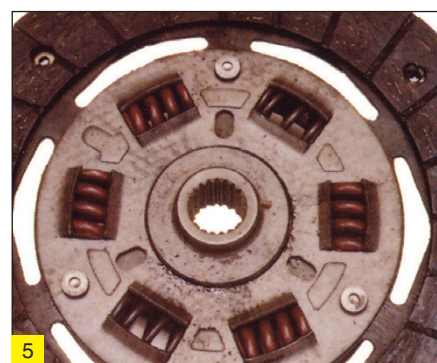
Oil leak from gearbox main shaft seal or from engine main bearing seal.

Effect

Progressing through clutch drag, judder and finally slip.

Remedy

Eliminate oil leak and renew clutch components.



You can contact the Borg & Beck technical helpline on +44 (0) 1869 329 709. or visit www.borgandbeck.com/technical. The Fault Diagnosis Chart that these faults were taken from can be downloaded from Techtips.ie.

