

# Blue Print Info

## Toyota Aygo / Citroën C1 / Peugeot 107 Clutch Kit Replacement

**Applicable References:** ADT330246, ADT33351, ADT33352

**Applications:** 1.0i Petrol (KGB10, 1KR-FE) 2005>

**Date Issued:** 02/2014

### Clutch problems on the Aygo explained:

The Toyota Aygo (KGB10), which is platform shared with the Citroën C1 and Peugeot 107, is known to suffer from premature clutch disc wear. Drivers also complain about clutch noise; this is attributed to release bearing 'squeak', which is caused by a worn clutch cover diaphragm spring and/or a broken release bearing tab – this may make the clutch feel heavy and difficult to change gear.

Blue Print advises that if you are working on an Aygo, C1 or 107 that has symptoms relating to a worn clutch disc, then a complete clutch kit replacement is required. It is also recommended that if you are replacing the clutch kit, or the complaints relate to the symptoms highlighted above, then the clutch fork must also be checked and replaced if necessary. In this situation the increased effort required to change gear may result in stress fractures in the clutch release lever.

**Please note:** The manufacturer has issued a service bulletin to highlight that the design of the fork has been improved to prevent future issues with heavy clutch operation and release lever damage, therefore, if you find stress fractures on the clutch release lever, replace both the clutch fork and the clutch release lever with Blue Print part numbers **ADT33351** (clutch fork) and **ADT33352** (clutch release lever).

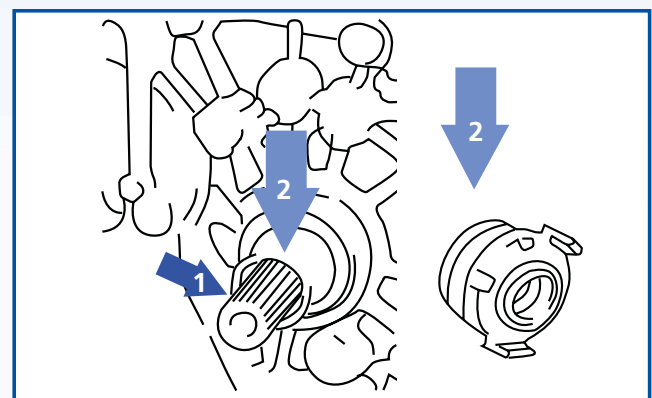
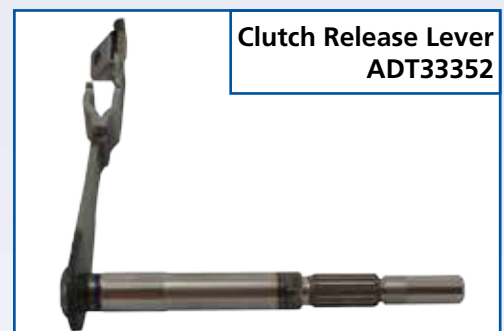
There was a second service bulletin issued by the manufacturer regarding premature clutch disc wear. To maximise the service life of the clutch disc, they have replaced the original 180mm diameter disc with the 190mm disc used on the Yaris (KSP90). Blue Print's clutch kit **ADT330246** for the above applications is only supplied with the 190mm clutch assembly.

**Please note:** With the larger clutch disc installed the clutch engagement point will be 15-20mm lower, which could be noticed by the driver. Also, because of the increase in diameter it is essential to check the condition of the flywheel and if required, replace it or have it professionally machined.

### When fitting the new release bearing you must follow these guidelines:

1. Apply clutch spline grease only to the input shaft splines.
2. Do not apply the grease to the release bearing or other parts of the input shaft.

Finally, the manufacturer issued a third bulletin which highlights that the lifetime of the clutch disc can be extended further, if in all instances, whether the vehicle is in for a service (every 9000 miles) or a clutch replacement, that the clutch pedal free play is checked and adjusted – if there is no free play, clutch disc wear increases.



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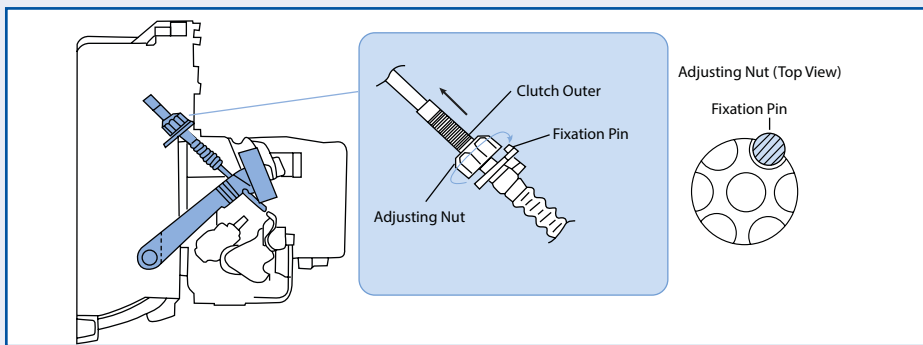
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### The procedure to check and adjust clutch pedal free play:

1. Push the clutch pedal down by hand (Fig. 1) checking for smoothness of operation. Stiffness or roughness in operation will require further investigation to determine the root cause.
2. Measuring the free play in the pedal can be done quickly and easily by applying gentle force to the pedal with your hand (approx 15-20Nm) until you feel the amount of pressure required increase. Measure the distance travelled by the pedal with a ruler – the amount of free play in the clutch pedal needs to be 23mm, +/- 5mm (Fig. 2).



### Adjusting the clutch cable:

1. Pull the clutch outer cable until it is released from the Fixation Pin (approx 3mm).
2. Rotate the Adjusting Nut to increase or decrease the free play as necessary (1 full turn of the Adjusting Nut is equivalent to about 6.5mm of pedal free play).
3. Ensure the Adjusting Nut is locked back in place on the fixation pin after adjustment.
4. Operate the clutch 2-3 times.
5. Re-measure the clutch pedal free play and adjust as necessary.

**Please Note:** After adjustment, the clutch pedal may be higher than the brake pedal – this is normal.