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# LuK Clutch Academy

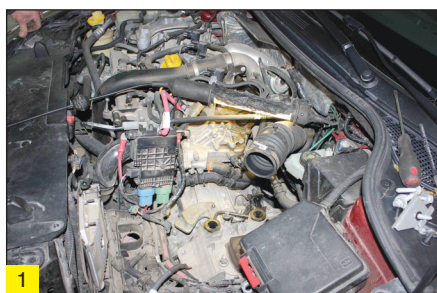
## Laguna 3 2.0 Petrol F4R

The Renault Laguna was launched in 1994. In 2001 we saw the second generation Laguna followed by the third generation, in October 2007. The vehicle has seen very strong sales in the Ireland, and is popular with families for its room and comfort. LuK offers advice on tackling this clutch replacement.

**T**his particular vehicle focused on by the LuK technical team covered more than 125,000 miles and was fitted from new with a LuK Self-Adjusting Clutch (SAC), Dual Mass Flywheel (DMF) and Concentric Slave Cylinder (CSC).

To replace the clutch, you need the usual workshop equipment, two post ramp, gearbox jack, engine support and a self-adjusting clutch mounting tool.

If the vehicle is fitted with locking wheel nuts, make sure you have the key to hand. With the car on the ramp remove the battery, battery tray, air filter, filter housing, and the starter motor (figure 1). Remove the engine under shields and drain the gearbox oil. Remove the front wheels (as the drive shafts are to be removed from their respective hubs it is advisable to slacken the hub nut at this stage), front wheel arch liners, ABS wiring and headlight level sensors.



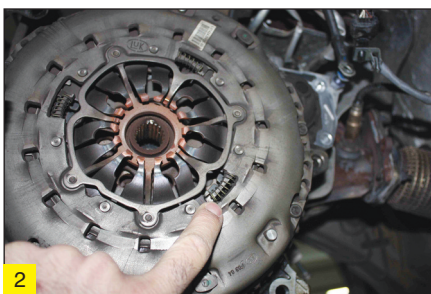
Remove the front brake calipers and discs from the front hub assemblies, detach the track rod ends and the anti roll bar links. Remove the two bolts from the bottom of the front suspension struts to detach the hubs from the struts. Remove the intercooler holding bar/alloy subframe, tie up the intercooler to support the hoses.

Disconnect the steering rack from the column, making sure the front wheels are in the straight ahead position before doing so (it is advisable to lock the steering wheel in position and make a mark as a reference point to help when re-connecting the rack to

the column). You can now remove the front subframe complete with front hub assemblies, power steering rack and anti roll bar. The driveshafts can now be removed from the gearbox.

Disconnect the reverse switch multiplug and unclip the wiring loom, clamp the flexible part of the clutch hydraulic pipe and remove from the clutch concentric slave cylinder at the retaining clip. Disconnect the gear linkage cable from the gearbox and disconnect breather pipes and coolant hoses from retaining clips ready for gearbox removal. Support the engine on the engine support beam, then remove the gearbox mountings. Support the gearbox with a transmission jack and remove the bell housing bolts, the gearbox is now ready for removal. Lower the engine and gearbox slightly to aid removal and pull the gearbox away from the engine. Lower the transmission jack to remove the gearbox from the engine compartment.

You will be able to see if the clutch is at the end of its service life by looking at the length of the small yellow springs on the pressure plate. If they are at full extension, the clutch is at full adjustment and requires replacement (figure 2). Clean the bell housing area and replace the concentric slave cylinder.

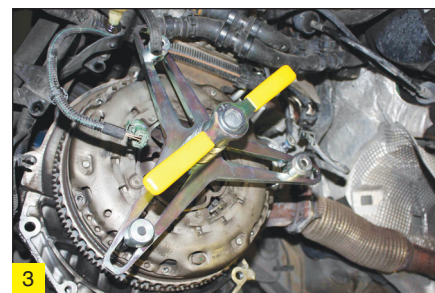


Select the correct adaptor that goes in between the concentric slave cylinder and the clutch pipe (adaptors come with the LuK CSC), clean the input shaft splines and lightly grease using a high melting point grease, at this point we can fit the clutch plate to the input shaft to ensure the grease is spread

evenly and also that the clutch plate fits the input shaft, wipe off any excess grease.

Remove the clutch assembly, and as this vehicle is fitted with a dual mass flywheel (DMF), it should always be checked with the DMF tool and replaced if necessary (LuK part number 400008010 is specifically developed for this purpose).

The LuK self adjusting clutch installation tool should always be used for vehicles with an SAC (LuK part number 400023710), this ensures the clutch is fitted centrally and squarely, and ensures the adjusting ring in the pressure plate does not rotate causing incorrect adjustment (figure 3).



When installing the clutch plate, stamped into the clutch plate is "Getriebeseite" or "Gearbox side", this is to help ensure the clutch plate is fitted correctly, torque up the clutch as per manufacturer's instructions, ensure the dowells are fitted correctly for gearbox location and alignment. Refit the gearbox and all other components in reverse order, always checking for correct position, condition and alignment of components. Fill the gearbox with the correct quantity and grade of gearbox oil, bleed the clutch (ideally with a vacuum bleeder) and carry out a full transmission system test ensuring clutch and gear operation is correct.

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contact the LuK  
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