



Beta Steel Oil Pump Gear Kit

Part# AB-12115

Fits: Beta 2015+ RR/RS/RR-S 4-stroke & '14 350 RR Factory Ed.

Installation Instructions, read entire instruction page before beginning:

Tools needed: 27mm, 13mm, 10mm, & 8mm socket wrenches, clutch holding tool, circlip pliers, channel lock pliers, hammer & chisel, coolant, Motul gear oil, drain pan, & a clean container for the engine coolant.

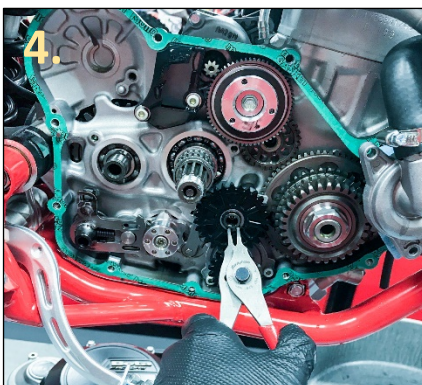
Beta Steel Oil Pump Gear Kit includes:

2 - Steel Oil Pump Gears: Part# 031-460298-200

1 - Inner Clutch Cover Gasket: Part# 029-010310-000

2 - Clutch tab washers: Part# 006-030640-009 ('15-'17), 029-030004-800 ('18-'19+)

Note: Refer to the 2015+ 4-stroke engine & parts manuals at www.betausa.com/content/support.



1. Use a 13mm wrench to drain transmission oil. Drain coolant by removing the lower water pump cover bolt & washer, Fig 1. Drain into a clean container. Remove the other 3 water pump cover bolts.
2. To lower the rear brake pedal, disconnect pedal return spring & press rear caliper into the disc to compress brake fluid. Remove all 9 inner clutch cover bolts & move water pump cover aside, Fig 2.
3. Remove the inner clutch cover & gasket, noting the two gasket locating pins & their positioning.
4. Remove the six (5mm allen on '18-'19+) or four (8mm hex on '15-'17) bolts to remove the clutch cap from the inner hub, along with their washers & springs. Remove the clutch rod's outer thrust bearing.
5. Use a chisel to flatten the 27mm clutch nut washer tabs, Fig 3. With gearbox in neutral, use a clutch holding tool & 27mm wrench to remove the clutch nut. It's also possible to use a rag to firmly hold the clutch pack in place while using an impact wrench to remove the nut.
6. Remove the entire clutch pack as one unit with its inner basket & washer, then remove the outer clutch basket, exposing the 2 plastic oil pump gears below.
7. Remove upper oil gear's circlip, thrust washer, & gear, Fig 4. Install new steel upper gear (its flatter side facing inward) thrust washer & circlip, aligning its teeth with the lower gears teeth.
8. Remove the lower gear's c-clip, thrust washer, & plastic oil pump gear, & be sure to turn the gear shaft's roller pin to a horizontal position to prevent the pin from dropping out.
9. Install new lower steel gear onto the shaft, with the groove in the gear's backside coupled onto the gear-shaft's roller pin. Install the thrust washer & c-clip. Rotate the gears to ensure correct function. If this step is not completed you may cause damage to your oil pump gears.
10. Use liberal amounts of gear oil on all rotating parts & component mating surfaces during reassembly. Align & reinstall the outer clutch basket, then the washer & inner clutch basket with clutch pack.
11. Install the 27 mm clutch nut's new tab washer (that best matches the old washer), & apply medium blue Loctite to the clutch output shaft threads.
12. Using a clutch holding tool on the inner basket, install the clutch nut & torque to 120 nm. Use channel lock pliers to bend & flatten the 2 washer tabs onto the clutch nut's sides.
13. Insert clutch rod thrust bearing into clutch nut hole & onto clutch rod, install outer clutch pressure cap, outer springs, spring retainers & screws, tightening the screws in a cross pattern to 10 nm.
14. Install new inner clutch cover gasket, using the 2 locating pins to position it. Re-install the inner clutch cover assembly, turning the water pump impeller to help insert the pump shaft correctly.
15. Re-install & lightly tighten the 9 cover mounting screws, install the water pump cover including copper drain bolt washer. Tighten all 13 mounting screws in a cross pattern to 10nm.
16. Re-install gear oil drain plug, refill gear oil to specified level, refill engine coolant, start the engine & bleed cooling system per owners manual specs.