

# 2022 Diaphragm clutch kit

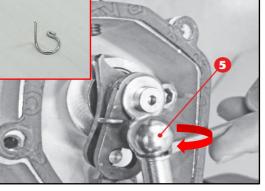
## AB-22230-2

Fits 2018-21 2 Stroke 250-300RR, Race edition and X Trainer( Excludes 125-200) Installation instructions

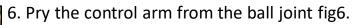
- Kit contents:
- Gaskets
- Fiber and steel clutch plates
- 6 Sliding pins
- Locking tab washer
- 6 Pressure plate bolts
- Pressure plate
- Clutch basket
- Conical washer
- Preload ring Steel ring
- Power valve bolt (Tamper proof replacement)Copper washer
- Remove the muffler and exhaust pipe.
  Remove the skid plate then drain the transmission oil.
  - 3. Drain the coolant by removing the drain bolt and washer fig11.

loosen the bleed screw (A) if applicable and radiator cap to start the flow of coolant into a clean container fig1.

4. Remove the two power valve bolts (fig 3) and the tamper proof screw using the supplied bit (fig2) then remove the power valve cover fig4.



5. Pry the control arm locking pin loose then rotate clockwise fig5.Pull down to remove it.

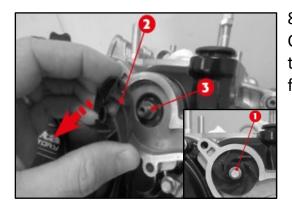




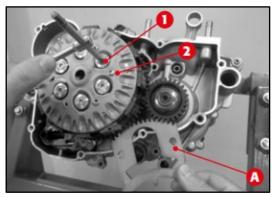


7. Remove the 4 bolts holding the water pump cover (fig2) then the water pump cover fig1.

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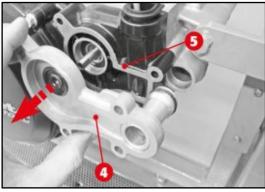


8. Remove the impeller bolt fig1. Carefully remove the impeller from the shaft fig2 and thrust washer fig3.

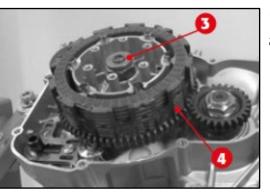


11. Using the Beta clutch holding tool AB-50009-22 (fig A), lock the clutch assembly and remove the 6 bolts holding the pressure plate to the inner hub along with the washers and springs fig1.

Remove the pressure plate fig2.



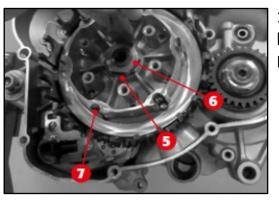
9. Remove the water pump body and coolant tube (fig4) and gasket fig5.



12. Remove the thrust bearing (fig3) and all the clutch plates fig4.



10. Remove these 7 bolts holding the inner clutch cover(fig3) then remove the inner clutch cover.



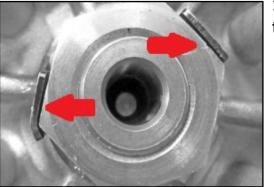
13. Use a hammer and chisel to bend the locking tabs (fig5) away from the clutch nut fig6.Remove the sliding pins fig7.

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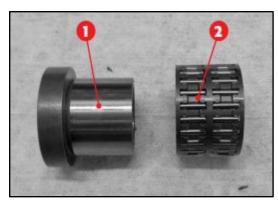


14. Install the new sliding pins.Using the clutch holding tool (fig A), remove the nut, tab washer, inner hub, spacer and clutch basket.Leave the new sliding pins in the inner

hub. Warning: Using an impact can cause damage.



16. Using channel lock pliers, fold the locking tabs over against the nut.

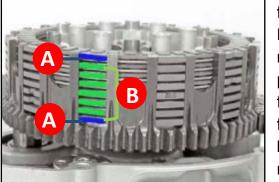


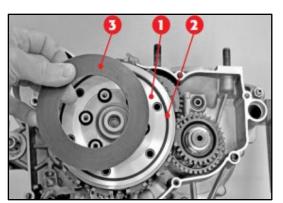
**Note:** Replace the clutch basket bushing and needle bearing if traces of meshing or abnormal wear are detected.

15. Make sure the needle bearing is lubricated then install the new clutch basket, spacer, inner hub(stock) and new tab washer.

Using the clutch holding tool to lock the clutch, apply medium strength Loctite to the nut then torque to 120Nm.

Warning: Using an impact can cause damage.



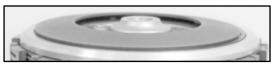


17. Soak the new fiber clutch plates in gear oil for at least 5 minutes.

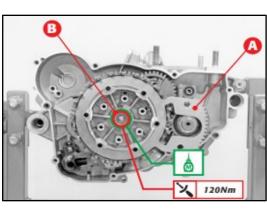
Install the clutch plates starting with a fiber marked with blue fig A. Install the following plates alternating between steel plates and fibers with green marks (fig B)ending with a fiber marked with blue fig A.

**Note:** One side of all the steel plates has a rounded edge and it should face inward.

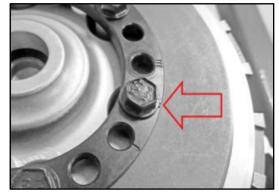
18. Reinstall the thrust bearing on to the transmission shaft. (not shown)Install the pressure plate (fig 1), the steel ring (fig 2) and the conical washer fig3.



\*Positon the conical washer so the larger diameter is against the pressure plate.



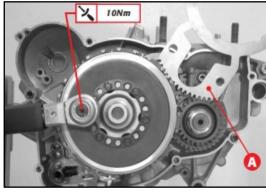
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Note: The preload ring has three settings... III is the stock X trainer position and has the lightest lever pull and engagement. The II is stock for all other bikes and offers medium lever pull and engagement. The I setting has the firmest lever pull and engagement.

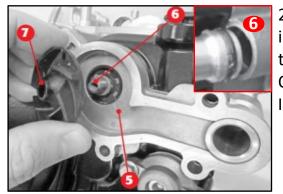


21. Install the inner clutch cover on the right center case.Rotate the water pump shaft until the cover sits flush on the center case .Reinstall the 7 bolts and leave slightly loose.

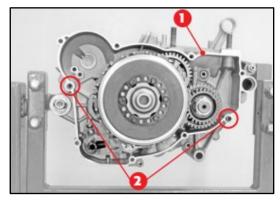


19. Start the first bolt in the desired preload ring position then add the other 5 bolts.

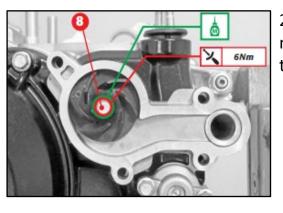
Using the clutch holding tool, torque the bolts to 10Nm in a criss cross pattern.



22. Install the new water pump gasket then install the water pump body and transfer tube (fig 5) making sure to grease the tube O- ring and shaft seal fig 6. Install the thrust washer then impeller.

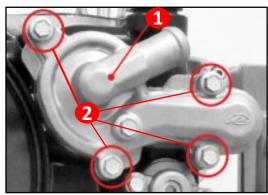


20. Install the inner clutch cover gasket (fig 1) using the 2 locating dowels to hold the gasket fig 2.

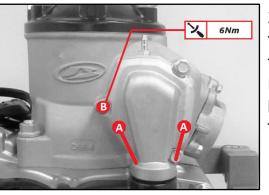


23. Install the impeller bolt after Applying medium strength Loctite to the threads then torque to 6Nm fig 8.

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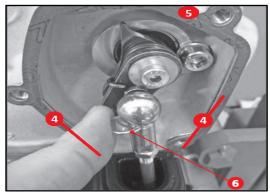


24. Install the water pump cover (fig 1) and 4 bolts (fig 2) leaving them slightly loose.



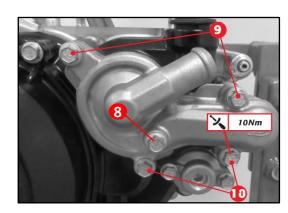
26. Apply high temp silicone to the inside edges of the power valve cover locations (fig A) then install the cover.

Install the 3 cover bolts replacing the tamperproof bolt (fig B) with the extra one provided. Tighten to 6Nm.



25. Apply high temp silicone to the areas in fig4 then install the gasket fig5.

Apply grease to the ball joint then snap the control arm on to the ball. Reinsert the locking pin then rotate it and lock it in to position fig6.



27. Tighten the previously installed water pump cover bolts in a criss cross pattern to 10Nm.Reinstall the drain bolt (fig 8) and new copper washer then torque to 10Nm.Reinstall the oil drain bolt and tighten to 14Nm.Refill transmission oil. (850cc)

28. Reinstall the exhaust pipe and muffler then tighten the bolts to 7Nm.

Reinstall the skid plate and tighten the bolts to 7Nm.

Refill the cooling system until coolant appears from the radiator bleed hole if applicable.

Replace the air bleed screw and tighten to 7Nm if applicable.

Tighten the radiator cap.



26. Tighten the 7 inner cover bolts(fig 3) in a criss cross pattern to 10Nm.

