



Service Bulletin Number 280

Confidential

Sprag clutch assembly check.

June 2000
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Affected Models.....TT800
Vin Range.....Up to 108880
Markets.....All

During routine quality checks we have become aware that motorcycles built up to VIN 108880 may have the sprag clutch housing to alternator rotor bolts incorrectly torqued.

We therefore require dealers to remove the alternator rotor on motorcycles in the VIN range above and dismantle and reassemble the sprag clutch as follows. This action must be carried out as detailed in the recall bulletin. Prior to carrying out the procedure, check the service handbook to ensure the necessary work has not already been carried out.

Parts required

T3550042 x 1 Copper Washer
T3050062 x 8 Bolt 6 x 12
T12B1082 x 1 Alt. Cover gasket

Procedure

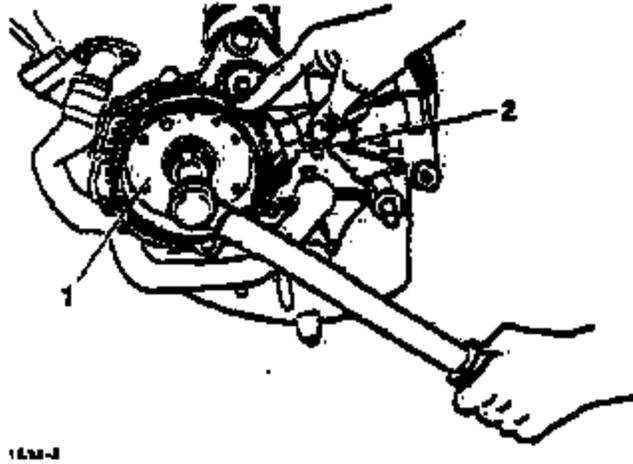
1. Remove the seat and disconnect the battery, disconnecting the negative (black lead) first.
2. Remove the left-hand lower fairing panel.
3. Reach in under the fuel tank and disconnect the alternator lead from the engine wiring harness, noting its correct routing.
4. Position a clean container beneath the alternator cover to catch any lost oil (the oil can then be reused) then unscrew the bolts securing the alternator cover to the crankcase.



1. Alternator cover

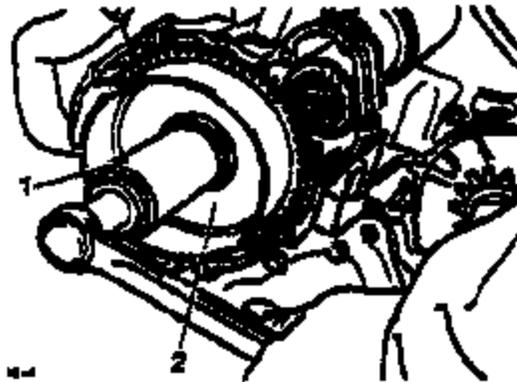
5. Withdraw the cover from the crankcase against the pull of the alternator rotor magnet. Discard the gasket. Please note that it is possible to remove the alternator cover without disturbing the coolant elbow or hose.

6. Fit the holding tool T3880385 to the alternator rotor to prevent crankshaft rotation then slacken and remove the rotor bolt and washer.



1. Rotor
2. Tool T3880385

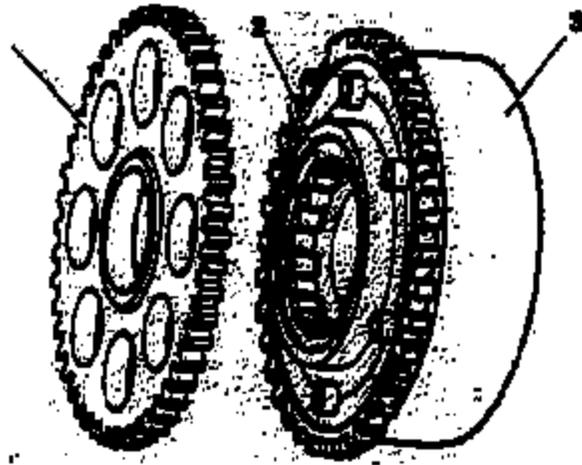
7. Fit the puller T3880386 securely to the alternator rotor then free the rotor from the crankshaft by tightening the puller centre-bolt.



1. Tool T3880386
2. Rotor

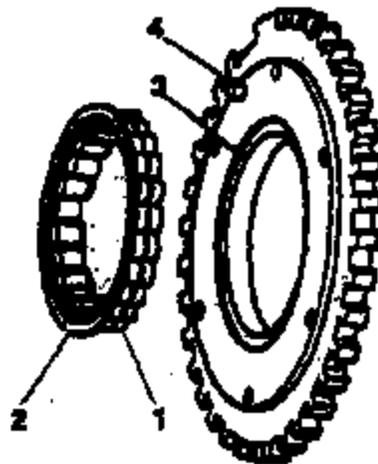
8. Withdraw the rotor, complete with starter drive gear and puller. Taking care not to lose the woodruff key from the crankshaft end. Remove the puller from the rotor.

9. Withdraw the starter drive gear from the rear of the alternator rotor.



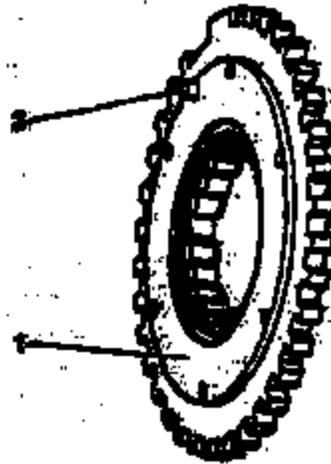
- 1. Starter drive gear
- 2. Sprag clutch housing
- 3. Alternator rotor

10. Unscrew the bolts and remove the sprag clutch housing from the rear of the rotor. Discard the bolts then separate the housing and sprag clutch.
11. Clean all components with a high flash point solvent. Ensure the mating surfaces of the sprag clutch housing and rotor are perfectly clean and dry and all traces of locking compound are removed from the rotor threads.
12. Fit the sprag clutch assembly to the housing as shown. Push the clutch firmly in until its lip is correctly seated in the housing recess.



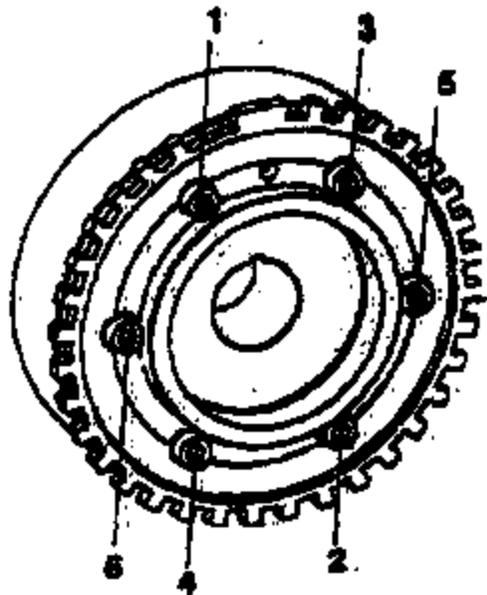
- 1. Sprag clutch
- 2. Lip
- 3. Housing recess
- 4. Locating dowel

13. Fit the sprag clutch housing assembly squarely to the rear of the alternator rotor, aligning its locating dowel with the corresponding hole in the rotor.



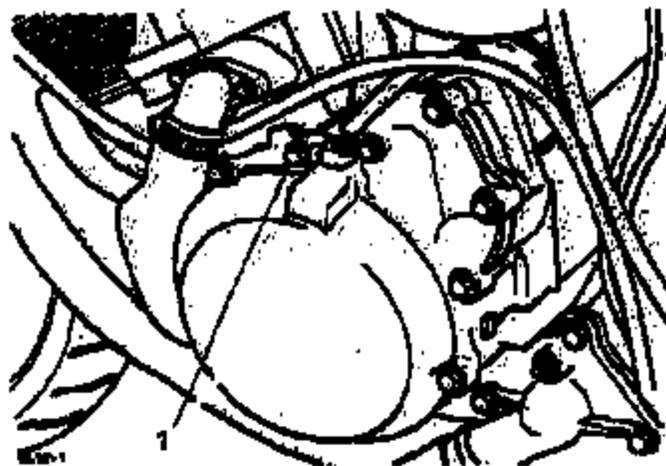
1. Sprag clutch housing
2. Locating dowel

14. Ensure that the housing is squarely seated and is not jammed on the rotor (if assembled correctly, there should be a small amount of rotational movement detectable between the housing and rotor) then install the new bolts. Working in the sequence shown, tighten the bolts to 16 NM using an accurately calibrated torque wrench. Once all six bolts have been tightened, go around again in sequence and recheck each bolt is correctly torqued, if any bolt moves, go around again. Repeatedly check the bolts in sequence until all are correctly torqued and do not move when checked, this will ensure the sprag clutch housing is correctly seated in the rotor.



15. Lubricate the sprag clutch with clean engine oil the rest the starter drive gear. Check the starter drive gear rotates easily in one direction but locks up when rotated in the opposite direction.
16. Ensure the crankshaft taper and rotor mating surfaces are clean and dry. Refit the rotor to the crankshaft, aligning its slot with the woodruff key, whilst engaging the starter drive gear with the idler gear.

17. Measure the rotor bolt thread diameter to identify its size (it will either be M10 or M12) then refit the bolt and washer to the crankshaft. Use tool T3880385 to prevent crankshaft rotation then tighten the rotor bolt to the specified torque ; where an M10 bolt is fitted the bolt must be tightened to 180NM, If an M12 bolt is fitted it must be tightened to 120 NM. It is essential that the rotor bolt is tightened to the correct torque with an accurately calibrated torque wrench.
18. Ensure the crankcase and alternator cover surfaces are clean and dry and remove all silicone sealant from the cover wiring grommet.
19. Apply an oil resistant silicone sealant to the cover wiring grommet and also to the area of the crankcase mating surface where the grommet locates. Do not apply sealant to any other area of the gasket.
20. Ensure the locating dowel is in position then fit the new gasket to the crankcase.
21. Fit the alternator cover assembly, taking care not to trap your fingers as the magnetic pull of the rotor draws the cover inwards.
22. Install the alternator cover bolts ensuring the new copper sealing washer is fitted to the bolt located just in front of the wiring grommet. Tighten all cover bolts to 9NM.



1. Alternator cover bolt which copper sealing washer is to be fitted

23. Reconnect the alternator wiring plug, ensuring it is correctly routed.
24. Refit the fairing panel.
25. Reconnect the battery, connecting the positive (red) lead first.
26. Check the engine oil level. If necessary, top-up using oil of the correct grade and type.

A repair time allowance of 0.90 hours may be claimed for this work by submitting a warranty claim quoting fault code 01221199.

On completion, the service handbook must be marked that the requirements of this bulletin have been met.

Distribution

Service Manager	Parts Manager	Sales Manager	Workshop Supervisor	Technician 1	Technician 2

(Initial and date when read and return to central file holder)