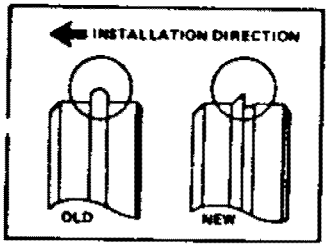
TECHNICAL BULLETIN

XS650
OIL SEAL REPLACEMENT

Yamaha Parts Distributors Inc. now stocks a new-style drive-axle oil seal. This new oil seal can be installed without splitting the crankcase. As a result, the flat rate for replacing the drive-axle oil seal has been changed. Please read this bulletin, and update your warranty flat rate manual.

AFFECTED MODELS

All XS650's



The new seals have a different retention lip configuration which permits installation of a seal with a seal driver. A channel next to the retention lip protects the lip so it will not be damaged during installation.

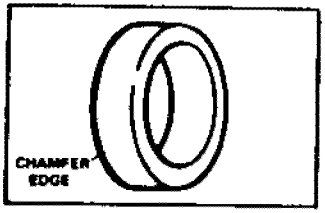
PROCEDURE

1. Remove the front footpeg, shift lever, and the side cover from the left side of the motorcycle.
2. Disconnect the clutch cable from the side cover so the cover will not be scratched.
3. Clean the area around the drive sprocket with a degreaser such as Yamaha Mud and Grease Release. This will assure that grime does not enter the engine.
4. Loosen the chain to get sufficient chain free play.
5. Flatten the lock washer, and remove the 22mm nut from the drive axle. Remove and discard the lock washer.
6. Remove the sprocket and the collar from the drive axle.
7. Remove the oil seal from the crankcase. Hook the seal with a cotter pin puller, and pry out the seal. Be careful not to damage the bearing cage.
8. Thoroughly grease the inside and outside diameter of the new seal with molybdenum grease. Using an appropriately sized seal driver (80mm outside diameter) and a mallet, install the new oil seal in the crankcase. The outside edge of the seal must be flush with the crankcase.



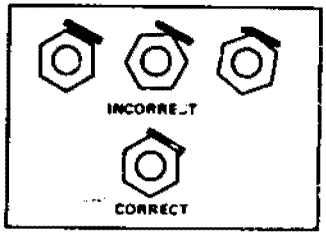
CAUTION: Do not drive the oil seal too far into the crankcase.

9. Examine the collar. Carefully remove any sharp edges with a whetstone. Use the whetstone to chamfer the edge of the collar that will go into the seal. Insert the collar into the seal until it bottoms against the bearings.



10. Fit the drive sprocket into the chain loop, and install the drive sprocket onto the drive axle. The sprocket must correctly engage the splines of the drive axle.
11. Install a new lock washer onto the drive axle. The lock washer must correctly engage the splines of the drive axle.
12. Thread the 22mm nut onto the drive axle, and torque it to specification.

    TIGHTENING TORQUE: 10.0 ~ 12.0 m-kg (72 ~ 87 ft-lbs)



13. Bend the lock washer over a flat of the nut. Be sure that the washer rests against one entire flat.
14. Attach the clutch cable to the side cover, and reinstall the cover onto the machine.
15. Reinstall the shift lever and foot peg. Readjust the chain. Be sure to use a new cotter pin when adjusting the chain tension.

PARTS INFORMATION

PART NUMBER	DESCRIPTION	DEALER COST
93105-40018-00	New-style Oil Seal	
90215-28024-00	Lock Washer	
91401-40035-00	Cotter Pin	

WARRANTY

The flat rate for this procedure has been changed. The new flat rate is 0.7 hours. Please update your flat rate manual. Warranty flat rate will no longer include splitting the crankcase when replacing the drive-axle oil seal.