



401 South Grand Ave., Santa Ana, CA 92705 USA
Tel: 714-550-6070 Fax: 714-550-9661 www.twobros.com

Mfg: Honda Make: XR50R

Year: All

Product: Takegawa 3 Speed Transmission Kit



Required Special Tools

- Takegawa Flywheel Puller (# 010-9-01-03) or equivalent
- Takegawa Rotor Holder (# 010-9-01-05) or equivalent
- Takegawa Clutch Locknut Wrench (# 010-9-01-021) or equivalent

Disclaimer / Warranty

Disclaimer

Before starting the installation of your new 3 speed transmission and clutch kit please understand that procedure first. If you have any questions do not hesitate to call us at 1-800-211-2767.

The instructions provided are to be used as a guideline for installation based on the assumption that the installer has some mechanical inclination. If you are unsure of your self call us for help or seek a qualified technician. We have provided some photos and installation tips for you to use along with the Japanese instructions and diagrams. Please take your time and use care during installation and call us if you have any questions.

Warranty

Two Brothers Racing products are intended for closed course competition purposes only, and therefore are sold "as is" without warranty. Two Brothers Racing specifically disclaims any warranties of merchantability or fitness for a particular purpose and disclaims all responsibility for consequential and incidental damages or any other losses arising from the use of these products or parts.

Installation Instructions

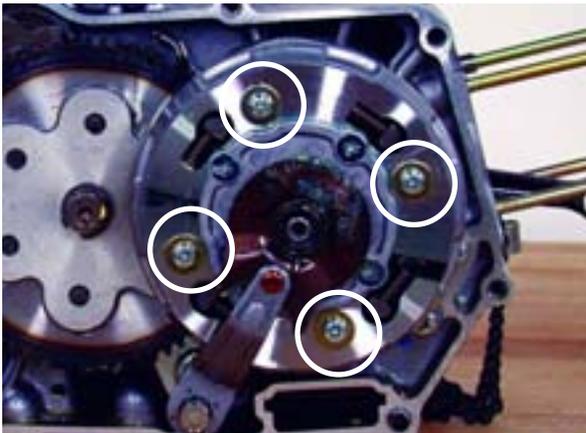
1. Drain the oil from the engine. Remove the engine from the frame. Remove the cylinder and head.



2. Remove the right side engine cover. Remove the clutch by first removing the arm on the shaft, be careful not to lose the spring or the bearing.

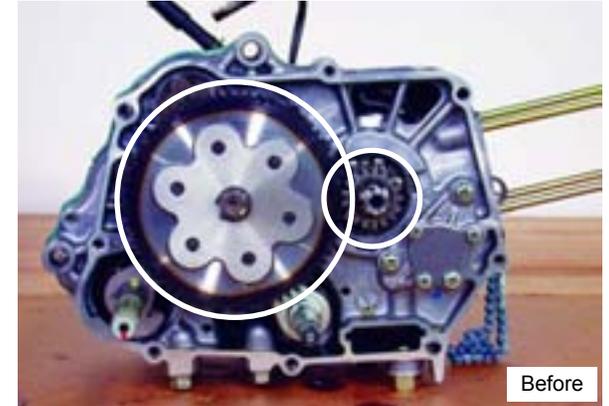


Remove the four phillips head screws and remove the cover.



After the cover is removed, you will be able to see the clutch locknut. Peel back the safety tabs and remove the clutch locknut using the Clutch Locknut Tool (# 010-9-01-03) or equivalent. Once this nut is removed slide the stock clutch off.

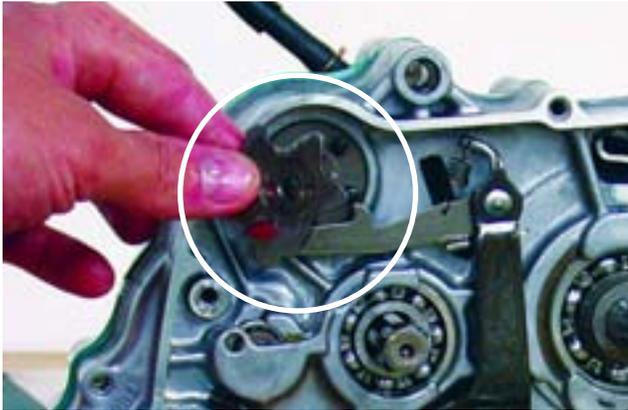
3. Remove both gears, be sure to remove the bushing from the smaller gear as well.



4. Remove the shift detent arm.



Remove the star shaped piece by removing the 10mm headed bolt.



Slide the shaft assembly completely out.



5. Remove the snap ring from the kickstart shaft with snap ring pliers. Remove the kick start spring assembly. Note orientation of this piece, you may wish to practice installation of this piece before proceeding as this will make it easier to do so later on.



6. Using an impact wrench remove the flywheel nut. If you do not have an impact wrench you can use the Rotor Holder (# 010-9-01-05). Remove the flywheel using the Takegawa Flywheel Puller (# 010-9-01-03) or equivalent.



7. Remove the left side engine cover. Remove the magnet assembly (left side of).



8. Remove the two phillips head screws from the cam chain inner cover. These screws are pretty tight so you may have to use an impact driver to break them loose. Remove the screws and the cover.



9. Remove the cam tensioner bolt (17mm bolt), then remove the tensioner arm, guide wheel and cam chain.



10. Remove the seven 8mm bolts from around the edge of the engine case. Take note of the different lengths.



11. Lay the cases down with the drain plug facing up. Separate the cases. Do this slowly and carefully. If you have done everything correctly the cases will come apart very easily.



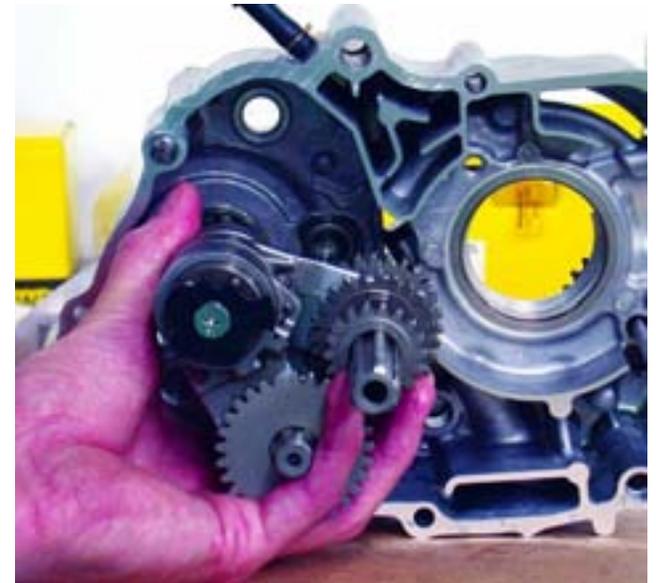
12. Remove the rubber cover.



Remove the 10mm shift drum bolt. Now turn the case around and the entire transmission can be removed.



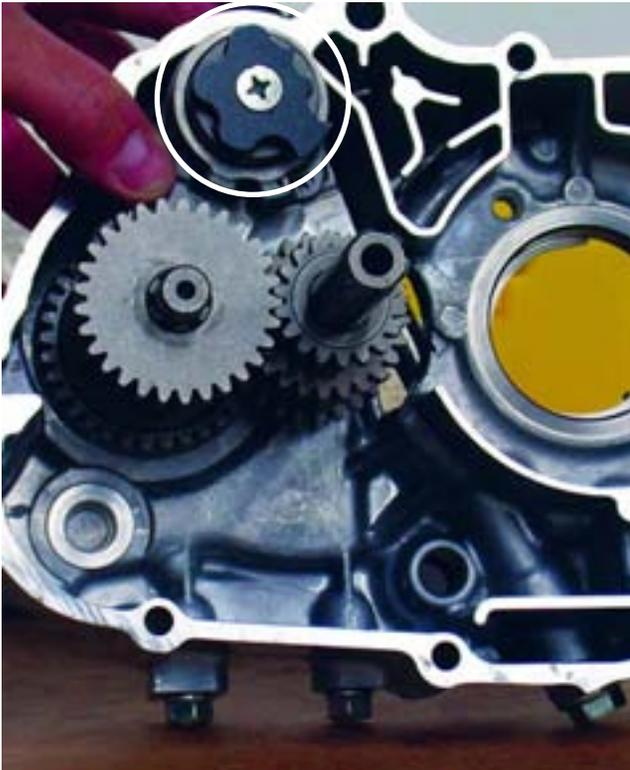
15. Refer to the transmission diagram (page 5) and replace the specified gears and mainshaft on your stock transmission. You will also be replacing the kickstart gear with the new gear supplied.



16. Reinstall the 10mm shift drum bolt and rubber cover. This will keep the transmission in place.



Remove the shift detent piece.

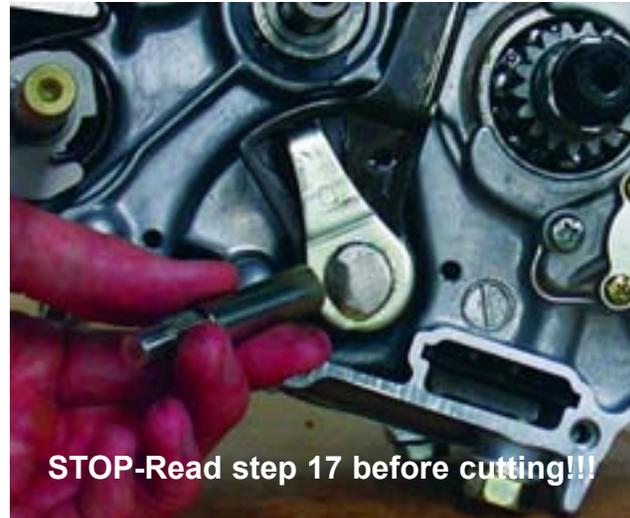


17. Reinstall the kick start spring assembly and check for proper operation by installing the kick starter and pushing it down as if you were kicking it. Make sure it returns after it is pushed down and that it works properly.



Your new 3 speed has a new shift shaft supplied so you do not have to complete this step, but you will have to use the supplied shifter. **The stock or aftermarket shifter will not work with the supplied shift shaft you will have to use the new shift inconjunction with the supplied shift shaft.**

If you wish to use the stock or aftermarket shifter you must complete the following steps. Before installing the shift shaft assembly you will need to trim it. Cut just beyond the welded area (be sure NOT to cut the weld). Do your cutting BEFORE installing the shiftshaft assembly. The outside of the cut must be flush with the engine case. Use a straight edge to make sure its flush.



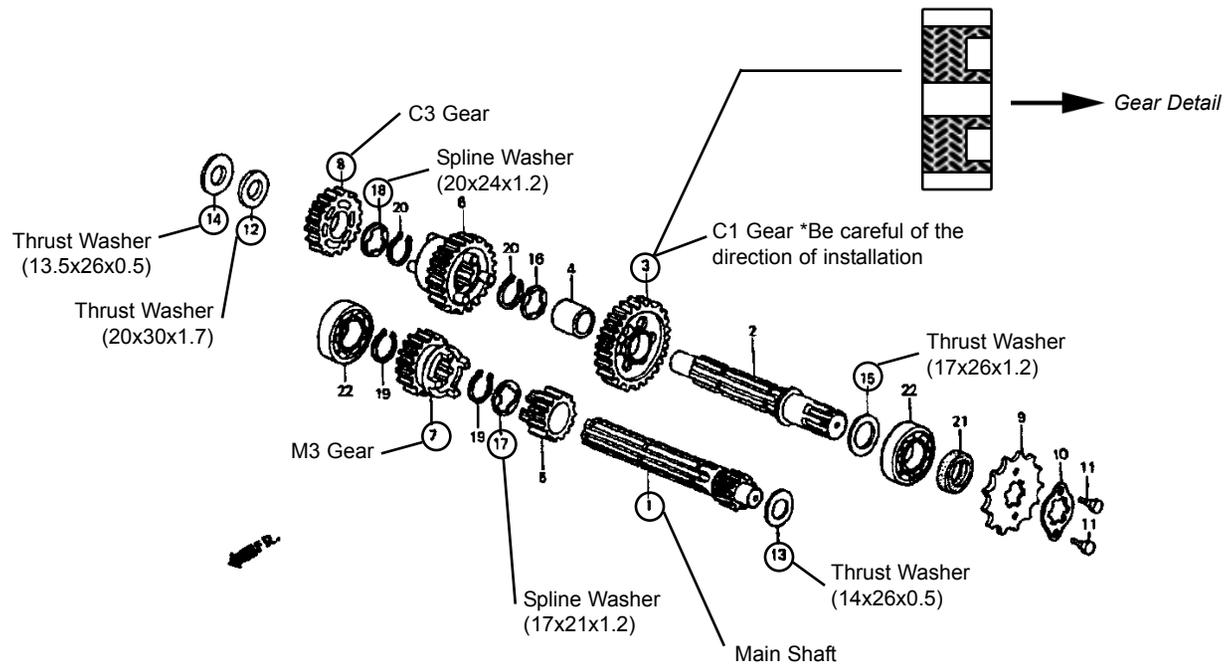
STOP-Read step 17 before cutting!!!

Install the detent arm in the reverse order you disassembled them. Check for proper operation by spinning the shaft by hand, it should spin smoothly.



Now you are ready to install the clutch (# 010-3-01-2632).

TRANSMISSION DIAGRAM



CLUTCH DIAGRAM

