

3-speed cross-transmission kit Instruction manual

Product number 02-04-254

Adaptation model XR50R

Chassis numbers AE03-1000001 ~

Thank you very much for purchasing our products.

Thank you so you will comply with the following matters at the time of use. Before installation, please check your always kit contents. If there is a point of notice event, Please contact us the dealer of purchase.

◎ If the description, such as photos or illustration different with this part.

☆ Please read carefully before use ☆

- ◎ The use ignoring the instructions that are written in the manual, if the accident or damage has occurred, we can not assume any responsibility for compensation.
- ◎ This product installation and use, when a problem occurs to after market goods, guarantee other than this product, also can not assume any in any such matters.
- ◎ If it was the case or mounting that has been processed like a product, it will not be covered under warranty.
- ◎ This product is XR50R only. Since you can not the other vehicle mounting, please note.
- ◎ This product, can be installed in genuine clutch and special clutch. However, because the dimensions are different to our dry clutch and engine COMP, please note can not be installed.
- ◎ Transmission during assembly, you need to adjust the final gear. To suit the engine specs and intended use, select the drive and driven gear.
- ◎ This kit is a necessary work crankcase split from engine desorption, also use special tools. This manual and service manual is intended for people who have the basic skills and knowledge. When people who do not have the technology and knowledge to work, please note that might damaging the parts can not correct assembly.
- ◎ With regard to work, remove the engine from the vehicle, cylinder head, cylinder, piston, left crankcase cover, flywheel, stator ASSY, right crankcase cover, clutch ASSY, primary drive / driven gear, oil pump, cam chain etc. can be already removed be described in a state where crankcase is divided. So far removal and installation work, be sure to see the Honda Service Manual XR50R, go to certainty.
- ◎ Gaskets, packing, O-ring or the like should be replaced with always new when decomposing. The kit, gasket necessary engine assembly, packing, O-ring or the like are not included at all. Please purchase separately by the engine specification.
- ◎ Parts reuse, cleaning is performed after inspection, replace with new if there is wear or damage. In particular, if there is a problem in bearings and crank case, it will always be replaced with a new.
- ◎ Combination with other manufacturers (engine, clutch, etc.), do not at all. There is possibility damage to the new part. Also, in combination with other manufacturers, if part is damaged, we do not take any responsibility.
- ◎ To inquire about the combination of the non-adaptive models or third manufacturers product, we can not answer at all.
- ◎ XR50R in the competition dedicated vehicle that has been produced as an off-road, it is a special handling that is different from general vehicle. There is no contract to guarantee general production vehicle. Please note.

~ feature ~

- Use the genuine 2nd gear in motocross dedicated gear ratio and cross ratio of the 1st gear and 3rd gear.
- Genuine clutch, also can be attached to either special clutch.
- In a kit of only gear replacement is no need of processing, the combination of the final gear, it can be widely used from genuine engine to a high-power engine.

⚠ Caution When the handling of ignoring this display, property damage and human shows the assumption of what injury.

- Be sure to carried out cold state (35 °C or less) work. If you make a work in a state in which engine and muffler is not cooled, it causes burns.
- When performing the work, bolt using a sure tool for the job, please fasten it to the specified torque using nuts always torque wrench.
- Use and processing other than included parts and indicated parts, do not perform any. There is possibility damage to the part.
- When performing processing, dust-proof glasses and dust mask, sure to use the protective equipment such as gloves.
- Vehicle to select a firm location of flat scaffolding, use the maintenance stand, should be done in a state of being stable. There is a possibility of injury in a rollover of the vehicle.
- If the kick starter of engine start-up, please down surely stepping on starter arm than in starter arm where the resistance is applied (a state in which the starter pinion and the ratchet is engaged). Cause of gear damage. Also, if you want to push start-up in the race-only vehicle, after the shift, please push the vehicle off the clutch. If you give a violent shock, cause of gear damage.
- Beyond it indicated the engine rotation speed, do not shift down. Cause of gear damage.
- Running before sure to do the warm-up engine operation, oil temperature is elevated (50 °C or more) to please running from. There is a possibility to damage the parts when each part of clearance is not proper.
- Always each part inspection before running, bolts and nuts etc. loose or abnormal noise, make sure the oil leakage. Also, if you feel occurrence of running abnormal, do the inspection of abnormal portion to immediately stop the vehicle in a safe place.

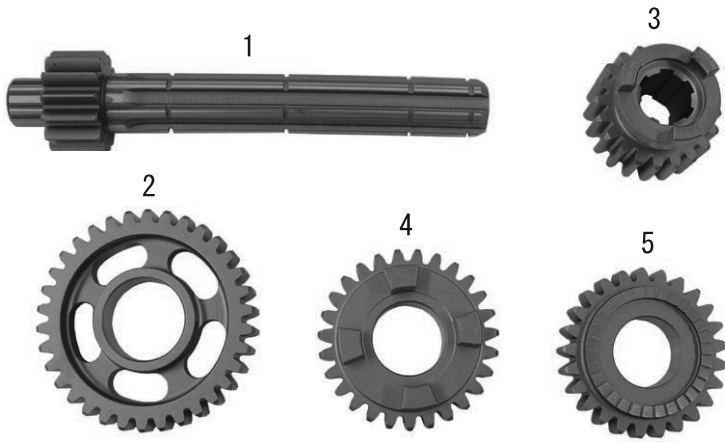
⚠ Warning When the handling of ignoring this display people died, shows the contents of the serious injury possibility is assumed.

- During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running. (It may lead to an accident.)
- When performing the work, do the work safely stabilize the vehicle in a horizontal location. (There is a risk of injury vehicle collapsed while working.)
- Inspection, maintenance, the instruction manual or, inspection methods such as service manuals, to protect the way, should be done correctly. (unsuitable inspection and maintenance, there is a risk that result to an accident.)
- When carrying out the inspection and maintenance, etc., if found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)
- Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded. (When the children or wearing, there is a risk of suffocation.)

- ◎ Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without notice.
- ◎ Keep this manual stored until this product is discarded.

SPECIAL PARTS
TAKEGAWA

CONTACT Address : 3-5-16 Nishikiorihigashi Tondabayashi Osaka JAPAN
TEL: +81-721-25-1357 FAX: +81-721-24-5059 e-mail: english@takegawa.co.jp URL: http://www.takegawa.co.jp
Please contact with your name and country name provided. (Only English please)

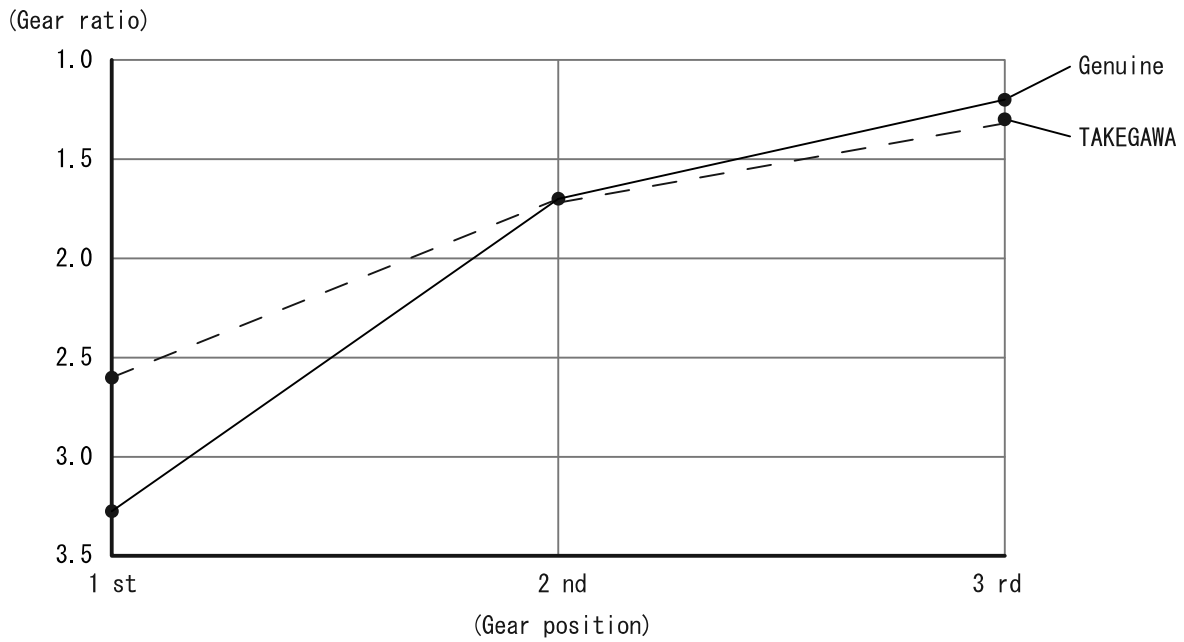


No.	Product content	Qty	Item Number
1	Main shaft(13T)	1	23211-GCF-T10
2	Counter shaft first gear(34T)	1	23421-GCF-T00
3	Main shaft third gear(21T)	1	23471-GCF-T10
4	Counter shaft third gear(27T)	1	23481-GCF-T10
5	Kick starter pinion(24T)	1	28211-GEF-T00

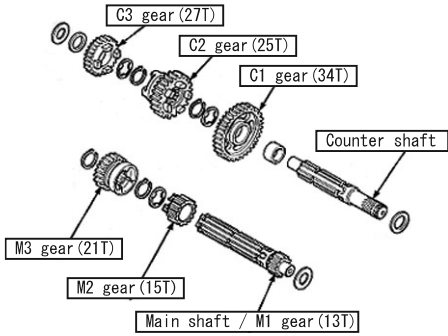
※ Please order in the repair parts are always repair part number.
 If it is not the part number order, you may not be able to order. Please be forewarned.
 It should be noted, In the case of parts that can not be separately shipment, please order a set part number.

Gear ratio table

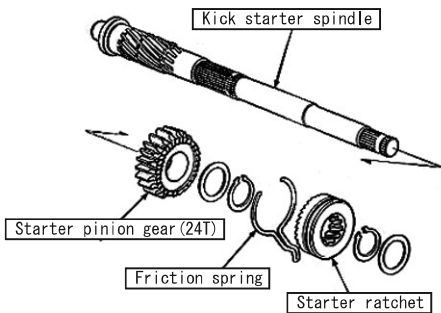
		1 st (C/M)	2 nd (C/M)	3 rd (C/M)
XR50R	Number of teeth	36/11	25/15	25/21
	Gear ratio	3.272	1.666	1.190
TAKEGAWA	Number of teeth	34/13	25/15 <small>(Genuine)</small>	27/21
	Gear ratio	2.615	1.666	1.285



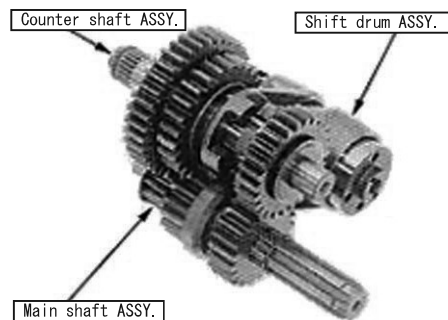
1. Decomposes the main shaft and the counter shaft, and replaced with the included gear.
 ※ Assembly should be coated with the engine oil to each gear tooth portion and the sliding surface.



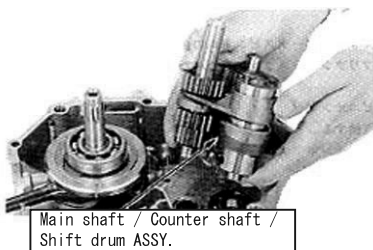
2. Snap ring, remove the thrust washer, take out the pinion gear.
 Install the included pinion gear, install thrust washers, the snap ring.
 ※ Assembly should apply the engine oil to the gear teeth and the sliding surface.



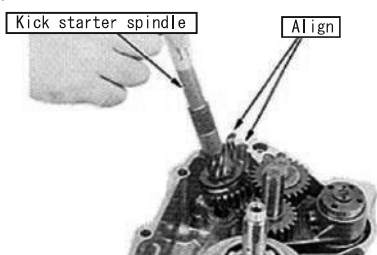
3. Each transmission gear, it will apply the engine oil to the shift drum.
 Main shaft, counter shaft, it will assemble the shift drum.



4. Main shaft, and attach it to the left crank case in combination counter shaft, the shift drum.
 ※ Rotate the shift drum, check the operation of the transmission.

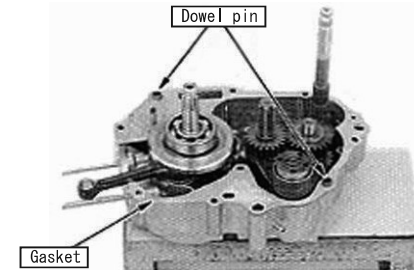


5. Align the friction spring into the groove of the crank case, and install the kick starter spindle.

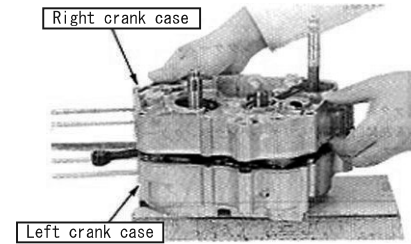


6. It will clean the mating surfaces of the crank case.

Dowel pins, install the new gasket.
 ※ If the case mating surface there is a distortion or scratches, it will be corrected in oil stone.



7. Place the left crank case the lower, and install the right crank case.
 ※ Be careful not to shift the gasket.

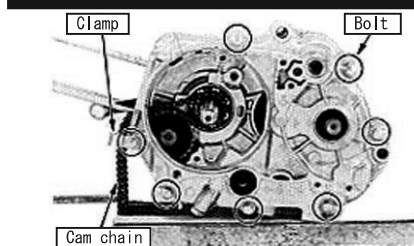


8. Install the tube clamp and the crankcase bolts, and tighten divided into 2-3 times the diagonal.

Engine oil is applied to the cam chain, install the cam chain.
 ※ Make sure that the counter shaft is rotated smoothly while tightening the bolt. If the rotation is heavy, make sure direction and the like assembly of the gear.

⚠ Note: Be sure that you protect specified torque.

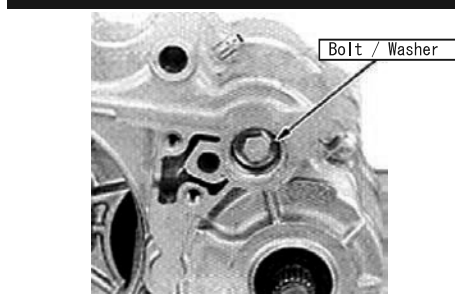
Crankcase bolt
 Torque : 10N · m (1.0kgf · m)



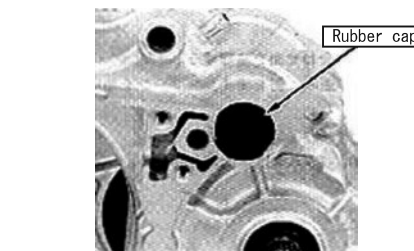
9. Install the washer and the shift drum bolt and tighten it to the specified torque.

⚠ Note: Be sure that you protect specified torque.

Shift drum bolt
 Torque : 12N · m (1.2kgf · m)

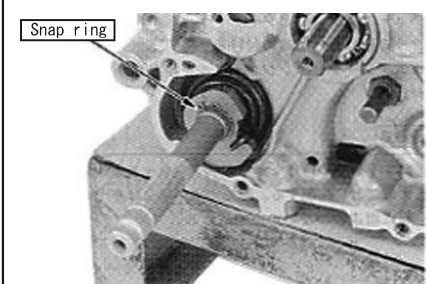


Attach the rubber cap.

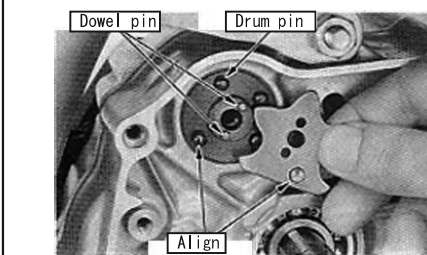


10. Attach the return spring and retainer to kick starter spindle.

Return spring hook to the protrusion of the crank case and the retainer.
 The snap ring it will attached to the groove of the spindle.



11. Four gear shift drum pin on the gear shift drum, attach the two dowel pins.
 Align the dowel pins and drum pin hole cam and groove and attach the cam plate.



12. Attach the cam plate bolt tighten the bolt at the specified torque.

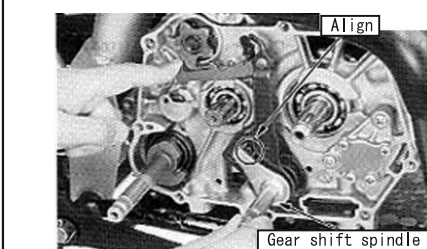
⚠ Note: Be sure that you protect specified torque.

Bolt
 Torque : 17N · m (1.7kgf · m)



13. While down on the arm portion to attach the gear shift spindle to the crankcase.

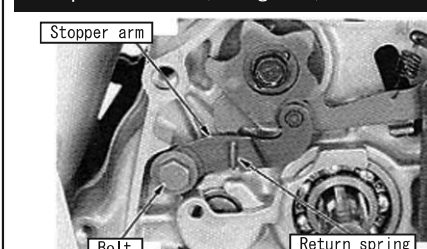
※ Align the gear shift spindle return spring end the stopper pin of the crank case.



14. Return spring, the stopper arm is attached, and tighten the bolt at the specified torque.

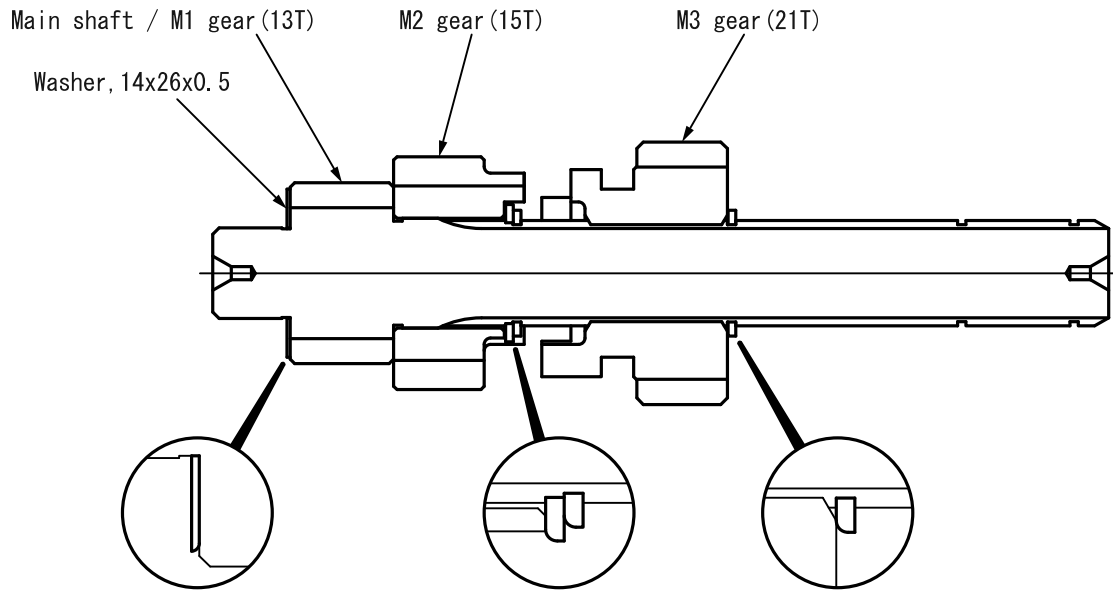
⚠ Note: Be sure that you protect specified torque.

Bolt
 Torque : 13N · m (1.3kgf · m)

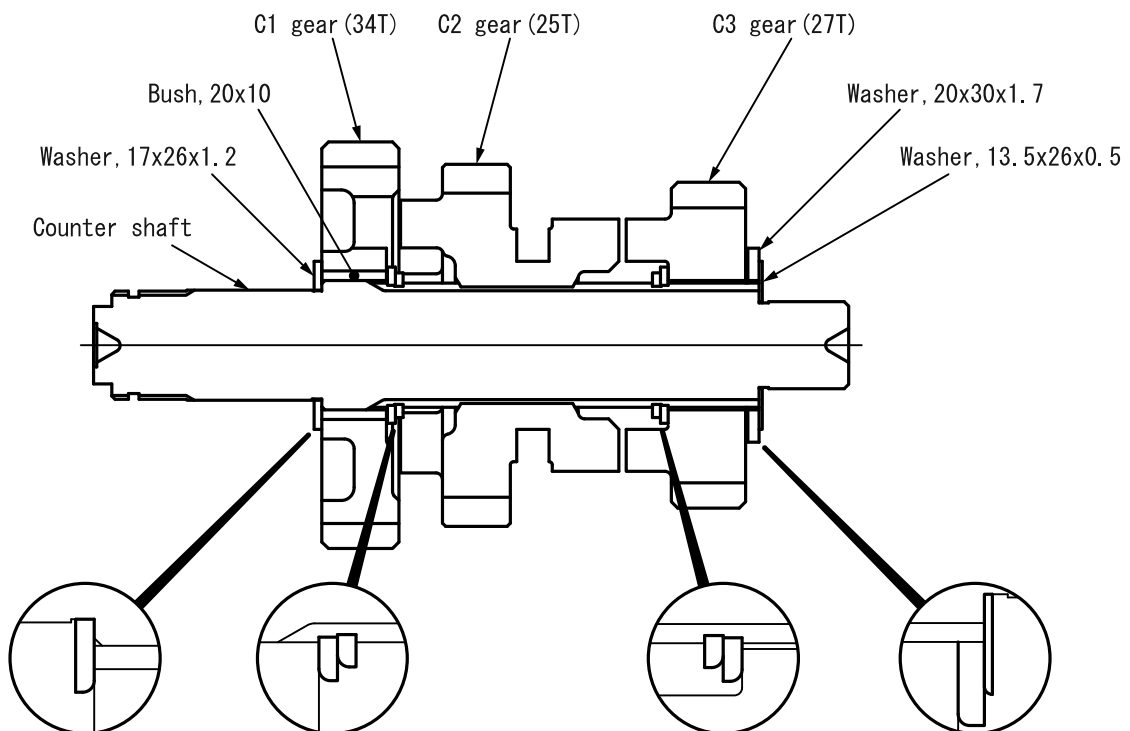


15. Please assembly the rest of parts in accordance with services manual.

Main shaft ASSY.



Counter shaft ASSY.



Precautions of kick starter pinion

Depending on the type of the crank case, if the kick starter pinion can not be assembled to interfere with the left crank case, as can a gap of about 1mm a O mark part to starter pinion and the left case, please process the case.



Scrape off

Precautions of kick starter pinion

Depending on the type of the crank case, if the kick starter pinion can not be assembled to interfere with the left crank case, as can a gap of about 1mm a O mark part to starter pinion and the left case, please process the case.



Scrape off

SPECIAL PARTS
TAKEGAWA
CONTACT Address : 3-5-16 Nishikiori Higashi Tondabayashi Osaka JAPAN
TEL : +81-721-25-1357 FAX : +81-721-24-5059
e-mail : english@takegawa.co.jp URL http://www.takegawa.co.jp

Please contact with your name and country name provided. (Only English please)

SPECIAL PARTS
TAKEGAWA

CONTACT Address : 3-5-16 Nishikiori Higashi Tondabayashi Osaka JAPAN
TEL : +81-721-25-1357 FAX : +81-721-24-5059

e-mail : english@takegawa.co.jp URL http://www.takegawa.co.jp

Please contact with your name and country name provided. (Only English please)