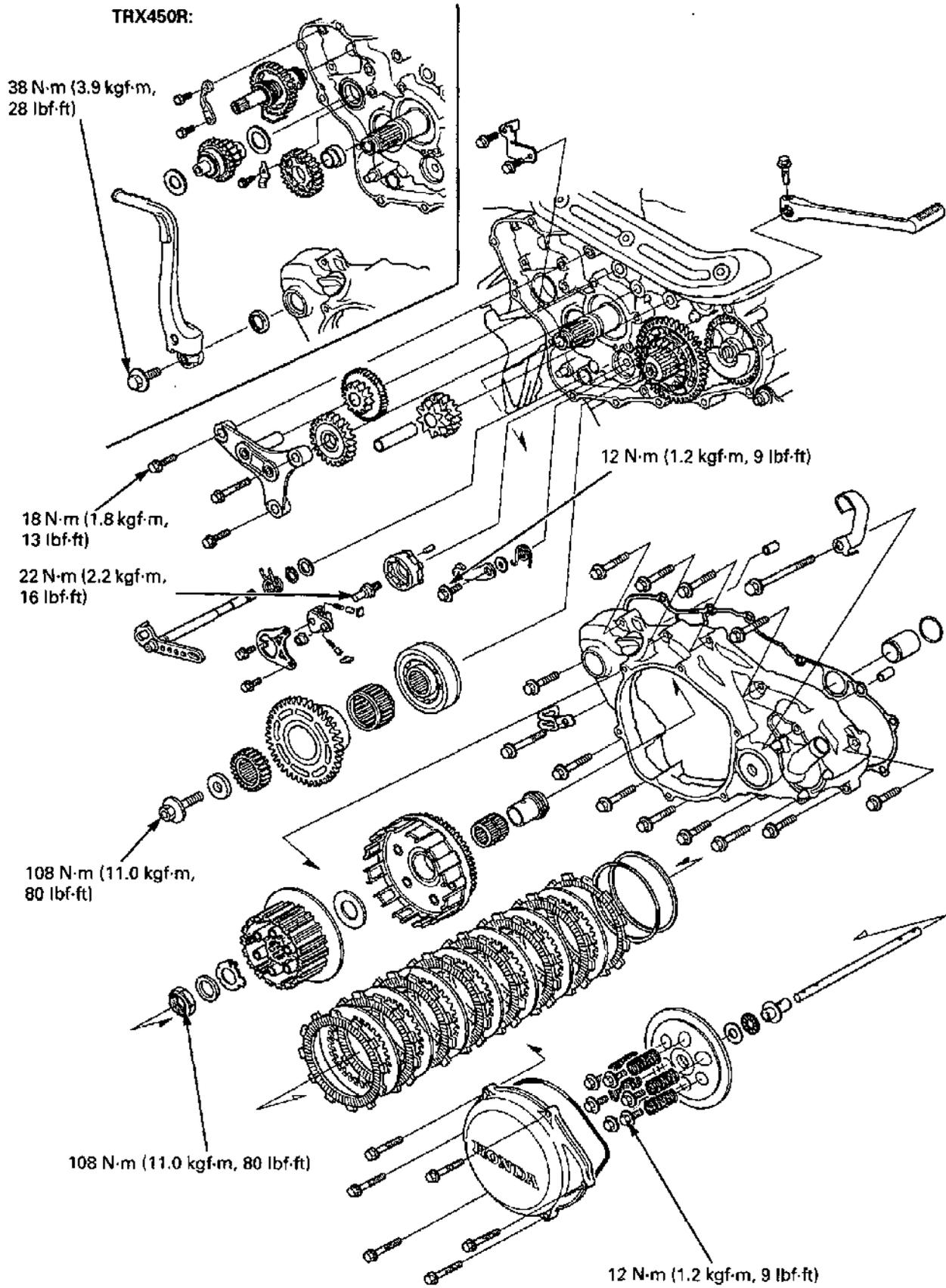


14. CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

SYSTEM COMPONENTS	14-2	STARTER CLUTCH (TRX450ER)	14-15
SERVICE INFORMATION	14-3	KICKSTARTER (TRX450R)	14-20
TROUBLESHOOTING	14-4	GEARSHIFT LINKAGE	14-24
RIGHT CRANKCASE COVER REMOVAL....	14-5	RIGHT CRANKCASE COVER INSTALLATION.....	14-28
CLUTCH.....	14-6		

SYSTEM COMPONENTS



SERVICE INFORMATION

GENERAL

- This section covers service of the clutch, starter clutch, kickstarter and gearshift linkage. These services can be performed with the engine installed in the frame.
- Transmission oil viscosity and level and the use of oil additives have an effect on clutch disengagement. Oil additives of any kind are specifically not recommended. When the clutch does not disengage or the vehicle creeps with the clutch disengaged, inspect the transmission oil viscosity and level before servicing the clutch system.

SPECIFICATIONS

Unit: mm (in)

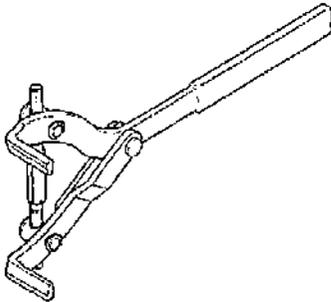
ITEM		STANDARD	SERVICE LIMIT
Clutch	Lever free play	10 – 20 (3/8 – 3/4)	–
	Spring free length	45.7 (1.80)	44.7 (1.76)
	Disc A thickness	2.92 – 3.08 (0.115 – 0.121)	2.85 (0.112)
	Disc B thickness	3.22 – 3.38 (0.127 – 0.133)	3.15 (0.124)
	Plata warpage	–	0.15 (0.006)
Driven gear boss (TRX450ER)	I.D.	36.009 – 36.034 (1.4177 – 1.4189)	36.034 (1.4189)
	O.D.	45.660 – 45.673 (1.7976 – 1.7981)	45.660 (1.7976)
Reduction gear A I.D. (TRX450ER)		12.010 – 12.050 (0.4728 – 0.4744)	12.050 (0.4744)
Reduction gear B I.D. (TRX450ER)		10.045 – 10.085 (0.3955 – 0.3970)	10.085 (0.3970)
Idle gear I.D. (TRX450ER)		12.010 – 12.050 (0.4728 – 0.4744)	12.050 (0.4744)
Gear holder shafts O.D. (TRX450ER)		11.989 – 12.000 (0.4720 – 0.4724)	11.989 (0.4720)
Reduction gear shaft O.D. (TRX450ER)		9.980 – 9.995 (0.3929 – 0.3935)	9.980 (0.3929)
Kickstarter (TRX450R)	Pinion gear I.D.	22.007 – 22.028 (0.8664 – 0.8672)	22.05 (0.868)
	Spindle O.D.	21.959 – 21.980 (0.8645 – 0.8654)	21.95 (0.864)
	Idle gear I.D.	21.020 – 21.041 (0.8276 – 0.8284)	21.07 (0.830)
	Idle gear bushing	I.D.	17.000 – 17.018 (0.6693 – 0.6700)
O.D.		20.979 – 21.000 (0.8259 – 0.8268)	20.96 (0.825)
Countershaft O.D. at kickstarter idle gear (TRX450R)		16.966 – 16.984 (0.6680 – 0.6687)	16.95 (0.667)

TORQUE VALUES

Clutch spring bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	
Clutch center lock nut	108 N·m (11.0 kgf·m, 80 lbf·ft)	Apply oil to the threads and seating surface.
Shift drum center pin bolt	22 N·m (2.2 kgf·m, 16 lbf·ft)	Apply locking agent to the threads.
Shift drum stopper arm bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	
Start gear holder bolt (TRX450ER)	18 N·m (1.8 kgf·m, 13 lbf·ft)	Apply oil to the threads and seating surface.
Start gear holder bolt (TRX450ER)	18 N·m (1.8 kgf·m, 13 lbf·ft)	Apply locking agent to the threads.
Primary drive gear bolt (TRX450ER)	108 N·m (11.0 kgf·m, 80 lbf·ft)	Apply oil to the threads and seating surface.
Start gear holder hole plug bolt (TRX450R)	18 N·m (1.8 kgf·m, 13 lbf·ft)	Apply oil to the threads and seating surface.
Kickstarter pedal bolt (TRX450R)	38 N·m (3.9 kgf·m, 28 lbf·ft)	
Gearshift return spring pin	22 N·m (2.2 kgf·m, 16 lbf·ft)	

TOOL

Clutch center holder
07724-0050002



or 07724-0050001 or equivalent
commercially available in U.S.A.

TROUBLESHOOTING

Faulty clutch operation can usually be corrected by adjusting the free play.

Clutch lever difficult to pull in

- Damaged, kinked or dirty clutch cable
- Improperly routed clutch cable
- Damaged clutch lifter arm/shaft

Clutch will not disengage or vehicle creeps with clutch disengaged

- Excessive clutch lever free play
- Warped clutch plate
- Transmission oil level too high, improper oil viscosity, or additive used

Clutch slips

- Worn clutch discs
- Weak clutch springs
- No clutch lever free play
- Transmission oil additive used

Hard to shift

- Misadjusted clutch lever free play
- Damaged or bent shift fork
- Bent shift fork shaft
- Incorrect transmission oil viscosity
- Damaged gearshift spindle assembly
- Damaged shift drum guide grooves

Transmission jumps out of gear

- Worn shift drum stopper arm
- Worn or broken gearshift spindle return spring
- Bent shift fork shaft
- Damaged shift drum guide grooves
- Worn gear dogs or dog holes

Gearshift pedal will not return

- Weak or broken gearshift spindle return spring
- Bent gearshift spindle

Starter motor turns, but engine does not turn (TRX450ER)

- Faulty starter clutch
- Damaged or faulty starter motor idle gear, reduction gears or starter driven gear

RIGHT CRANKCASE COVER REMOVAL

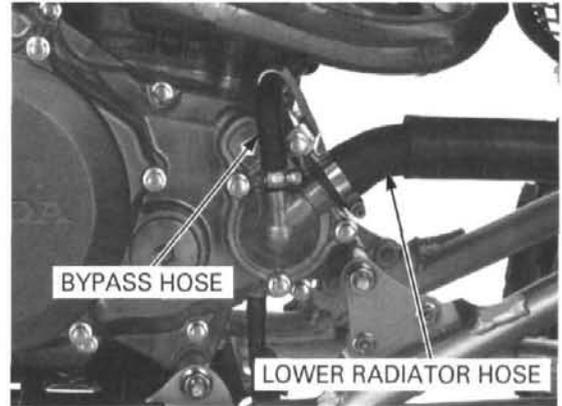
Drain the coolant (page 9-7).

Drain the transmission oil (page 4-18).

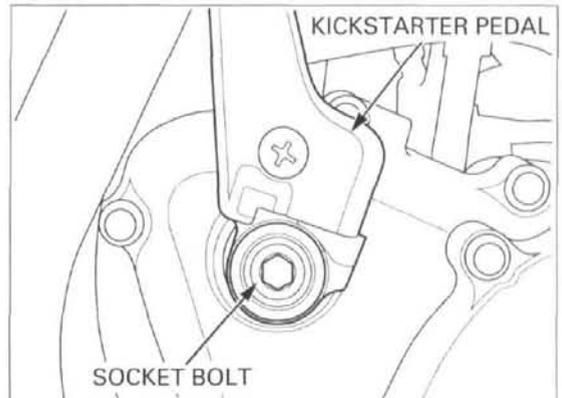
Remove the brake pedal (page 19-28).

Loosen the hose band screws and disconnect the lower radiator hose and bypass hose from the water pump cover.

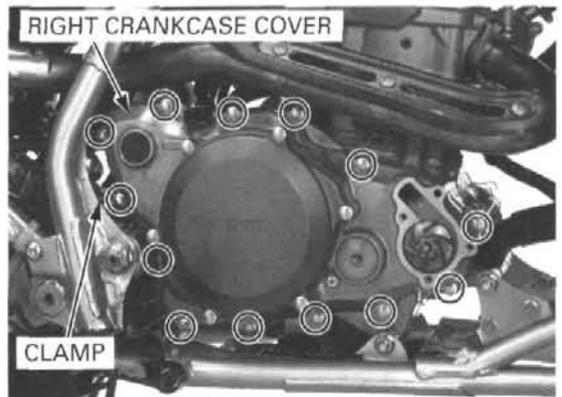
Remove the water pump cover (page 9-15).



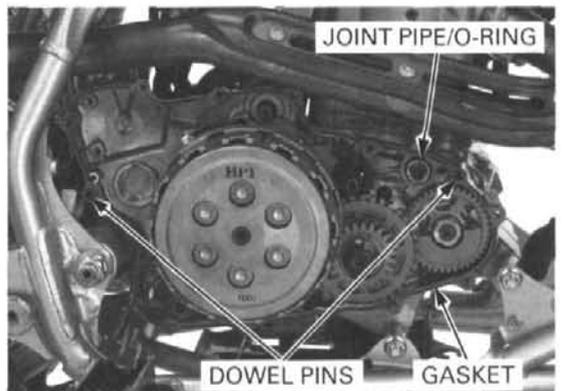
TRX450R only: Remove the socket bolt and kickstarter pedal.



Loosen the right crankcase bolts in a crisscross pattern in 2 or 3 steps, and remove the bolts, clamp and right crankcase cover.



Remove the dowel pins, water joint pipe and O-ring.



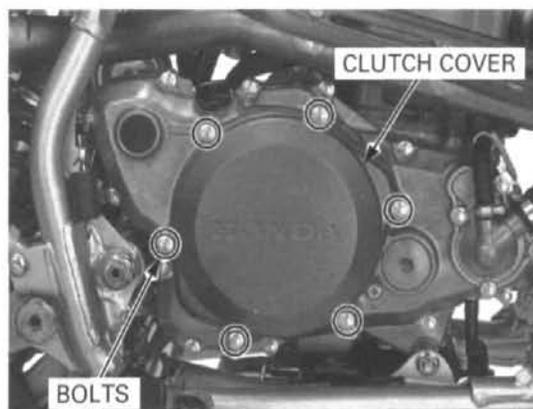
CLUTCH

DISASSEMBLY

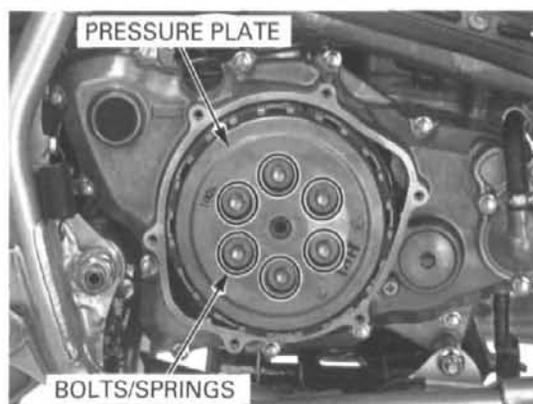
Drain the transmission oil (page 4-18).

Remove the following:

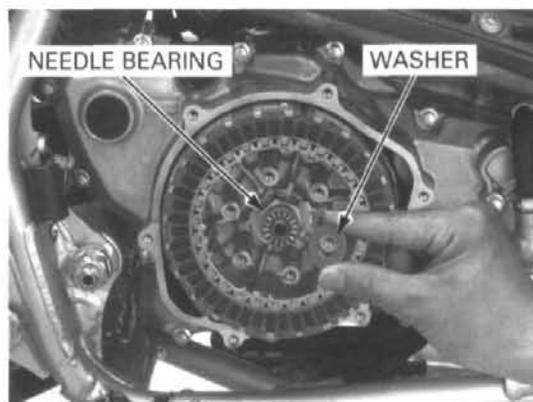
- brake pedal (page 19-28)
- bolts
- clutch cover
- O-ring



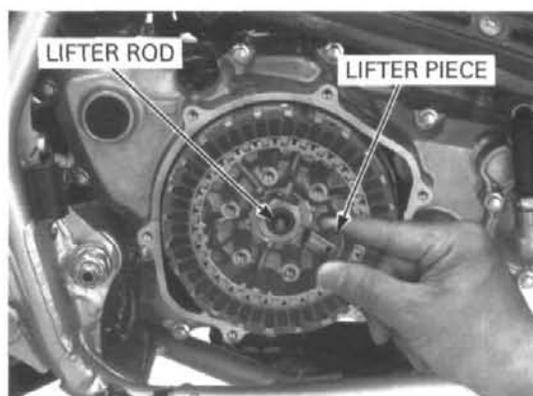
- six bolts and springs
- clutch pressure plate



- washer
- needle bearing

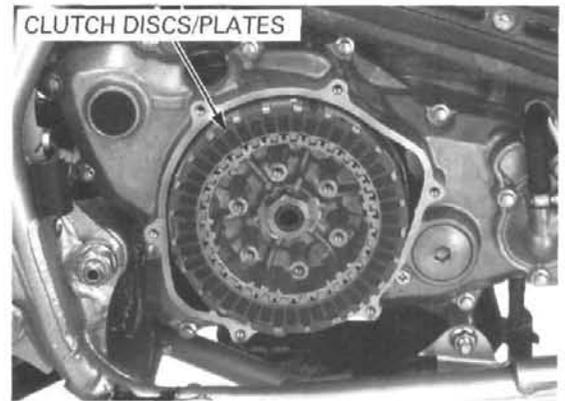


- clutch lifter piece
- clutch lifter rod

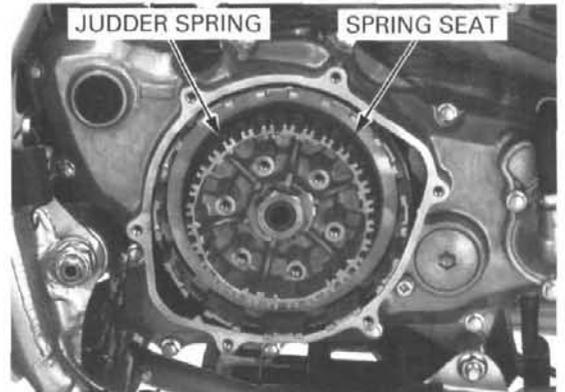


CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

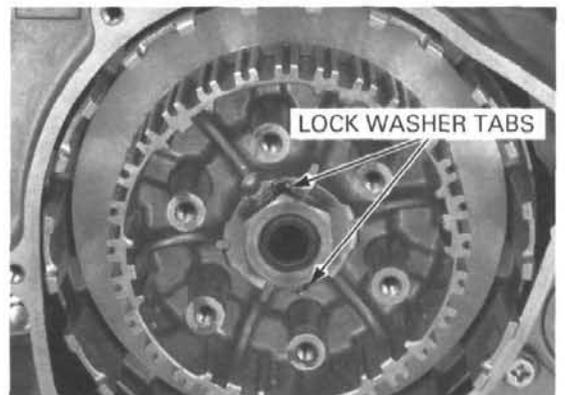
- seven clutch discs A and plates
- clutch disc B



- judder spring
- spring seat



Straighten the lock washer tabs.

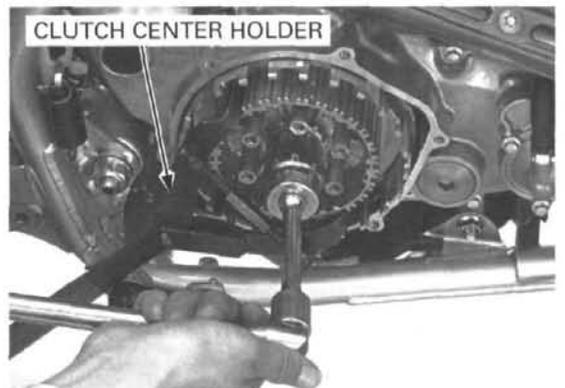


Hold the clutch center using the special tool and loosen the clutch center lock nut.

TOOL:

Clutch center holder

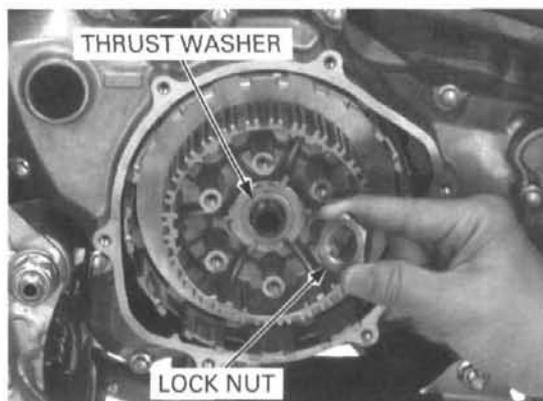
**07724-0050002 or
07724-0050001 or
equivalent commercially
available in U.S.A.**



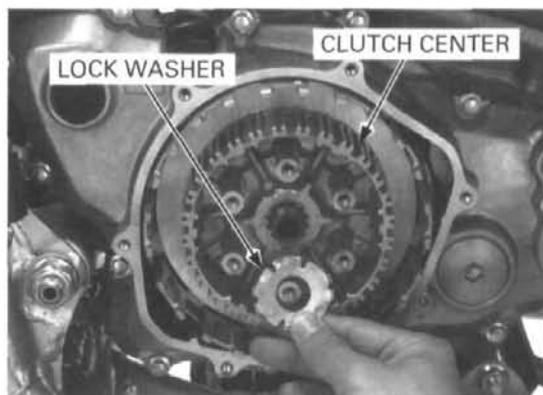
CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Remove the following:

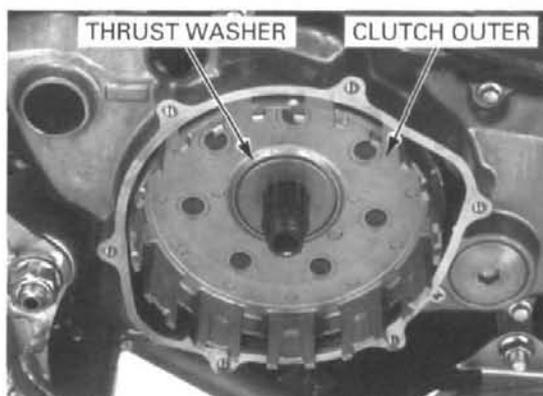
- lock nut
- thrust washer



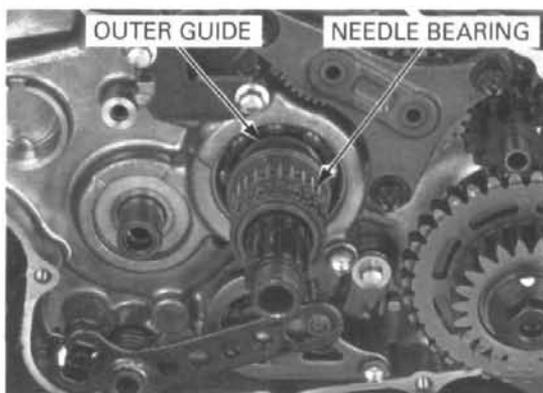
- lock washer
- clutch center



- thrust washer
- right crankcase cover (page 14-5)
- clutch outer



- needle bearing
- clutch outer guide



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

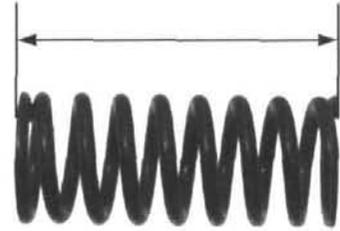
INSPECTION

Clutch spring

Replace the clutch springs as a set.

Measure the clutch spring free length.

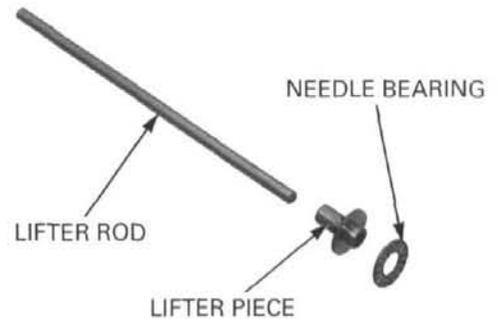
SERVICE LIMIT: 44.7 mm (1.76 in)



Clutch lifter piece/bearing/rod

Check the clutch lifter piece and needle bearing for wear or damage.

Check the clutch lifter rod for bends or damage.



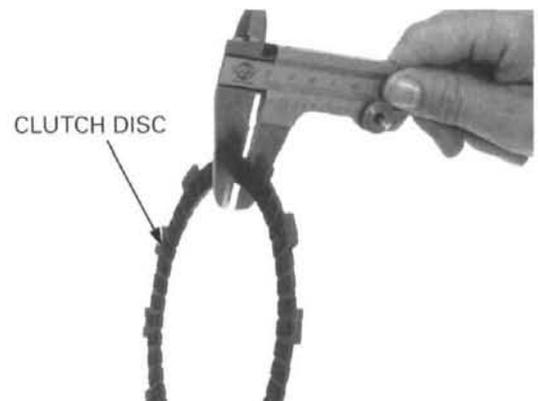
Clutch disc

Replace the clutch discs and plates as a set.

Check the clutch discs for signs of scoring or discoloration.

Measure the thickness of each disc.

**SERVICE LIMITS: Disc A: 2.85 mm (0.112 in)
Disc B: 3.15 mm (0.124 in)**



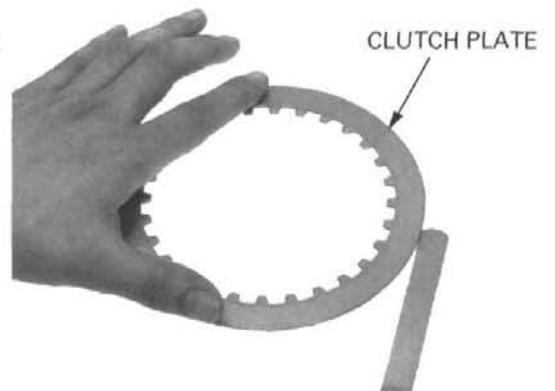
Clutch plate

Replace the clutch discs and plates as a set.

Check the plate for discoloration.

Check the clutch plate for warpage on a surface plate using a feeler gauge.

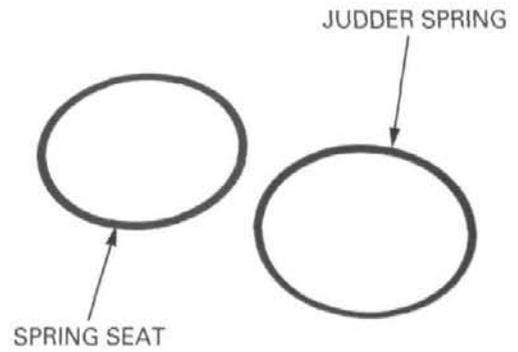
SERVICE LIMIT: 0.15 mm (0.006 in)



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

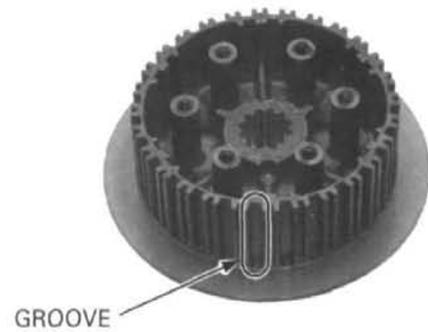
Judder spring/spring seat

Check the judder spring and seat for damage or warpage.



Clutch center

Check the grooves of the clutch center for damage or wear caused by the clutch plates. Replace if necessary.



Clutch outer

Check the slots in the clutch outer for nicks, cuts or indentations made by the clutch discs. Check the primary driven gear teeth for wear or damage.



Clutch outer guide/bearing

Check the clutch outer guide and needle bearing for wear or damage.

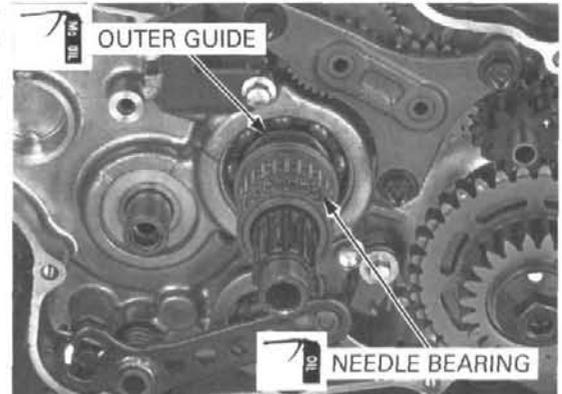


CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

ASSEMBLY

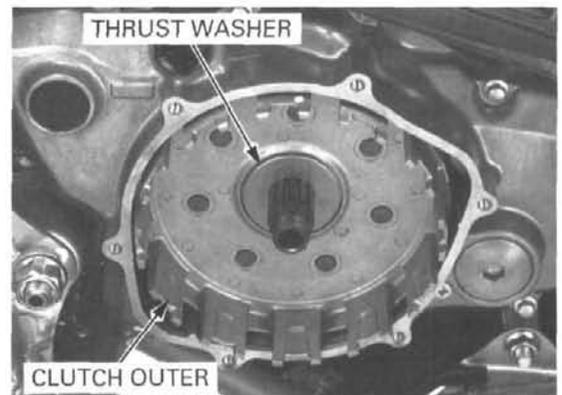
Apply molybdenum oil solution to the sliding surface of the clutch outer guide and install it onto the mainshaft.

Apply transmission oil to the needle bearing and install it onto the clutch outer guide.

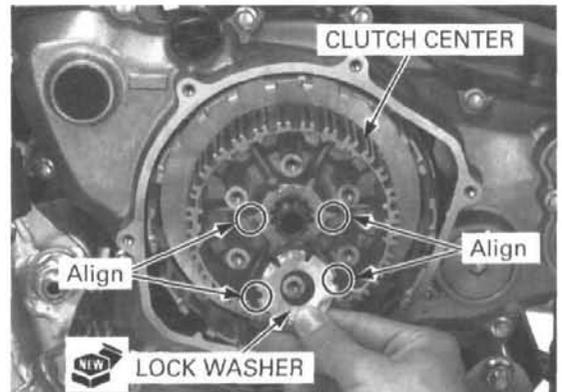


Install the clutch outer and thrust washer.

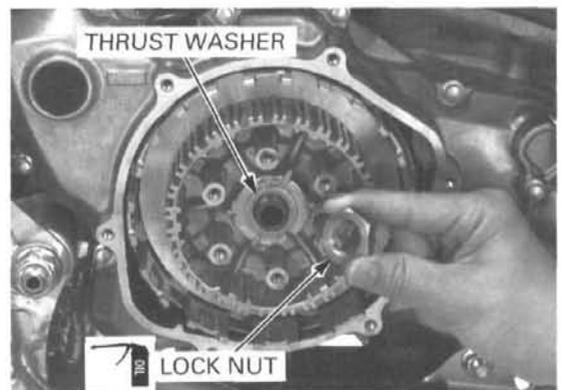
Install the right crankcase cover (page 14-28).



Install the clutch center onto the mainshaft.
Install a new lock washer by aligning the grooves with the ribs of the clutch center.



Apply transmission oil to the threads and sealing surface of the clutch center lock nut.
Install the thrust washer and lock nut.



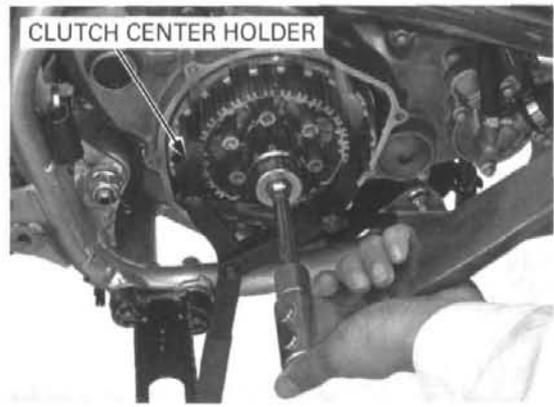
CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Hold the clutch center using the special tool and tighten the lock nut.

TOOL:

Clutch center holder 07724-0050002 or 07724-0050001 or equivalent commercially available in U.S.A.

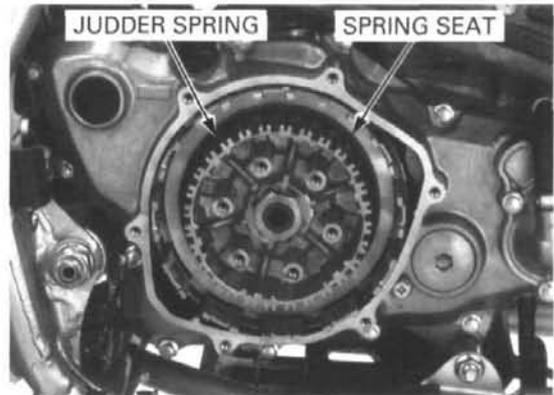
TORQUE: 108 N·m (11.0 kgf·m, 80 lbf·ft)



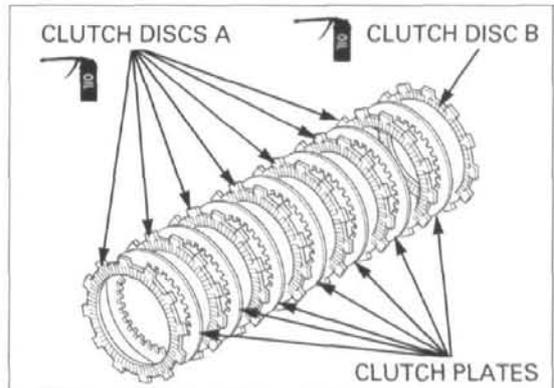
Bend the lock washer tabs against the clutch center lock nut.



Install the spring seat.
Install the judder spring with the concaved side facing out.

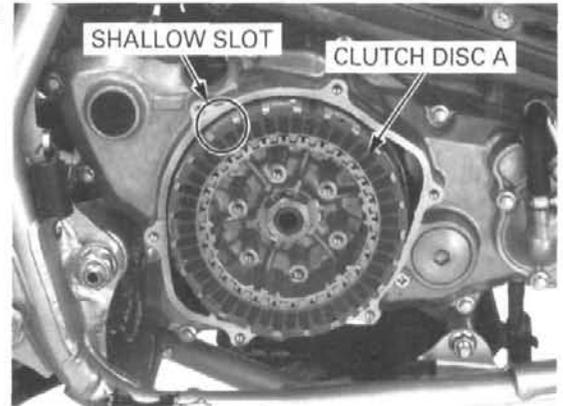


Coat the clutch discs with transmission oil.
Install the clutch disc B.
Install the seven clutch plate and six clutch discs A alternately, starting with a plate.

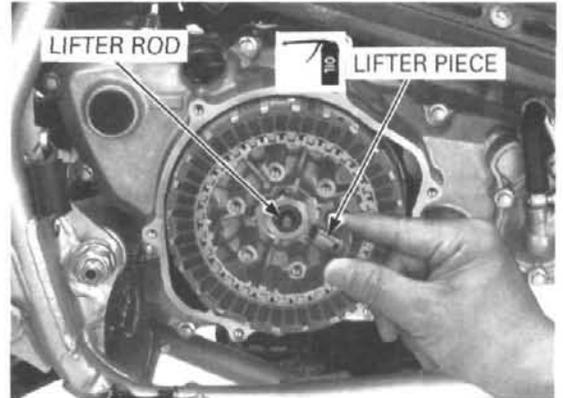


CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

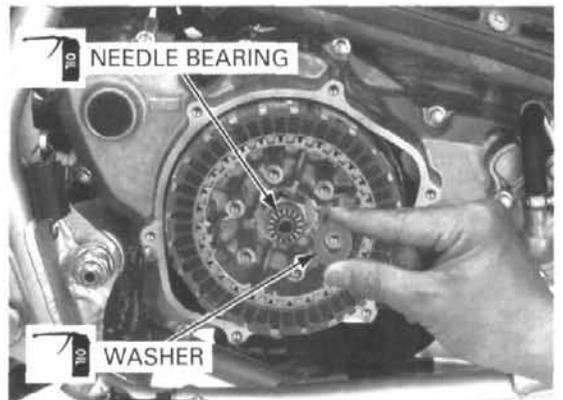
Install clutch disc A into the shallow slots in the clutch outer.



Install the clutch lifter rod into the mainshaft. Coat the clutch lifter piece with transmission oil and install it into the mainshaft.

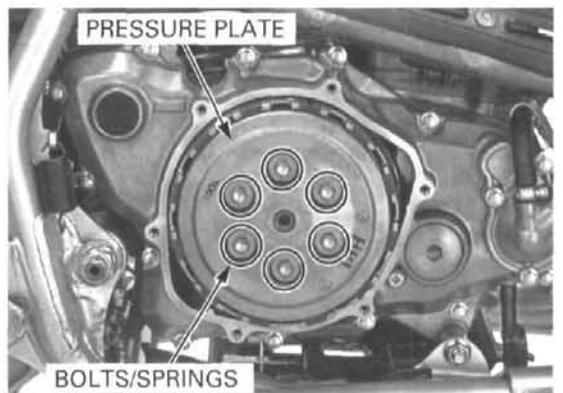


Coat the needle bearing and washer with transmission oil and install them onto the clutch lifter piece.



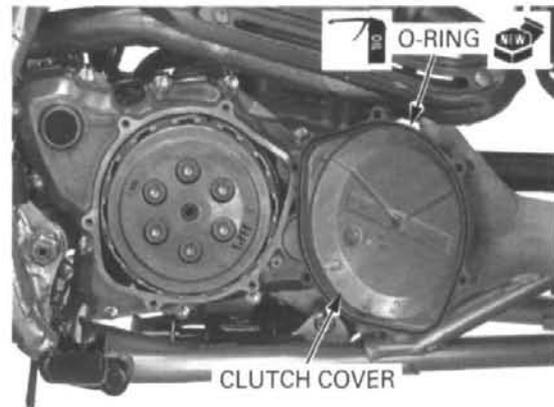
Install the clutch pressure plate. Install the six clutch springs and bolts, and tighten the bolts to the specified torque.

TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)



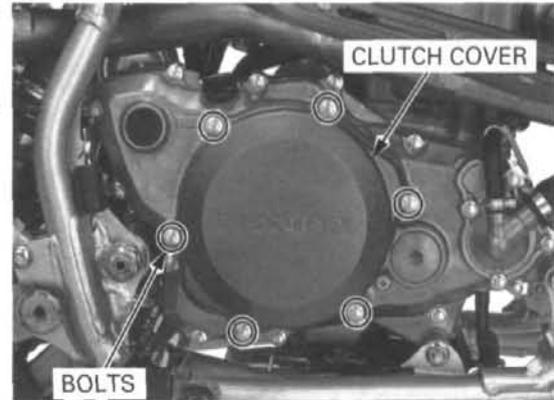
CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Coat a new O-ring with oil and install it into the clutch cover groove.



Install the clutch cover, and tighten the six bolts securely.

Install the brake pedal (page 19-28).
Fill the crankcase with the recommended transmission oil (page 4-18).



CLUTCH LIFTER ARM

REMOVAL

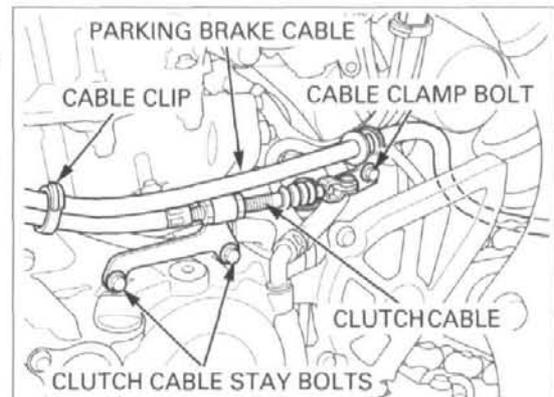
Remove the clutch lifter rod (page 14-6).

Remove the bolt and parking brake cable clamp from the stay.

Remove the mounting bolts and clutch cable stay.

Remove the cable clip.

Disconnect the clutch cable from the clutch lifter arm.

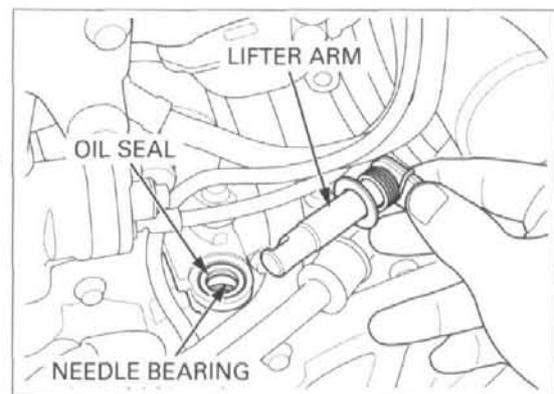


Remove the clutch lifter arm.

Remove the oil seal.

INSPECTION

Check the needle bearing, oil seal for wear or damage and replace them if necessary.



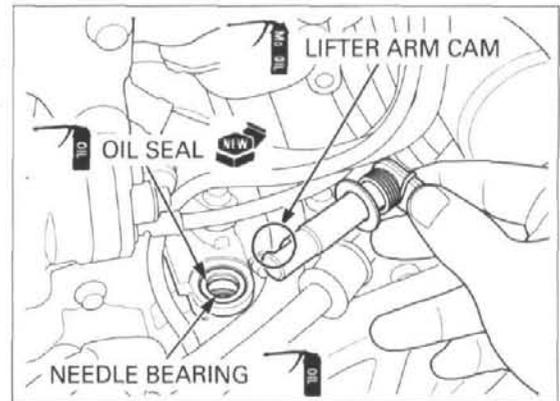
CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Check the clutch lifter arm cam (rod contact area) for wear or damage.



INSTALLATION

Apply oil to the needle bearing.
Apply oil to a new oil seal lip and install the seal.
Apply molybdenum oil solution to the clutch lifter arm cam (rod contact area) and install the lifter arm.



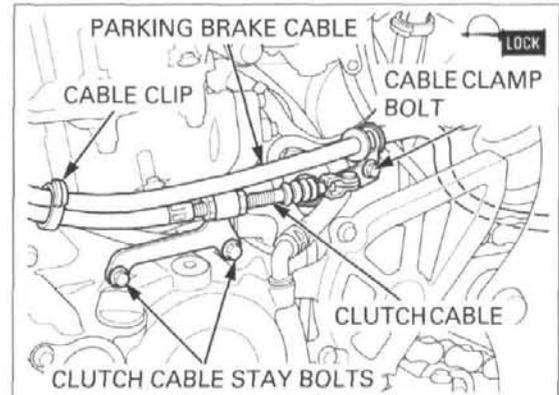
Connect the clutch cable to the clutch lifter arm.
Install the clutch cable stay and tighten the mounting bolts.

Apply locking agent to the cable clamp bolt threads.
Install parking brake cable clamp onto the stay and tighten the bolt.

TORQUE: 9.8 N·m (1.0 kgf·m, 7 lbf·ft)

Install the cable clip.

Install the clutch lifter rod (page 14-11).
Adjust the clutch lever free play (page 4-29).



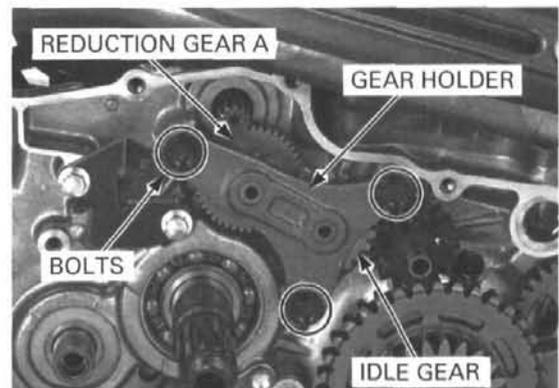
STARTER CLUTCH (TRX450ER)

REMOVAL

Remove the following:

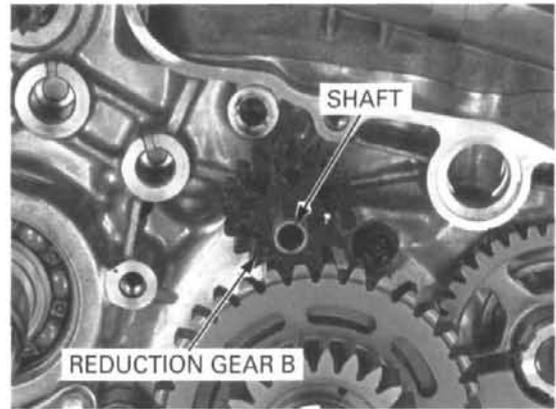
- right crankcase cover (page 14-5).
- clutch assembly (page 14-6).

Remove the bolts, gear holder, reduction gear A and idle gear.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Remove the reduction gear shaft and reduction gear B.



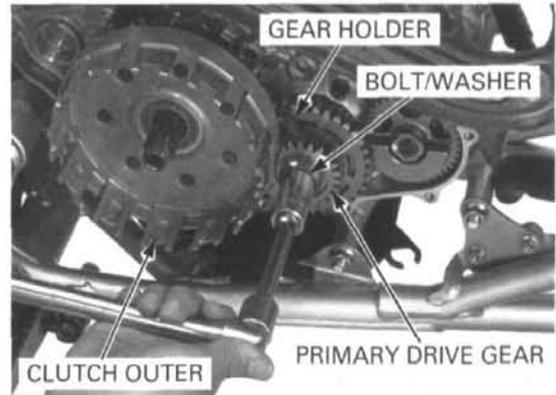
Temporarily install the clutch outer guide, needle bearing and clutch outer onto the mainshaft. Install the special tool between the primary drive and driven gears as shown, and loosen the primary drive gear bolt.

TOOL:

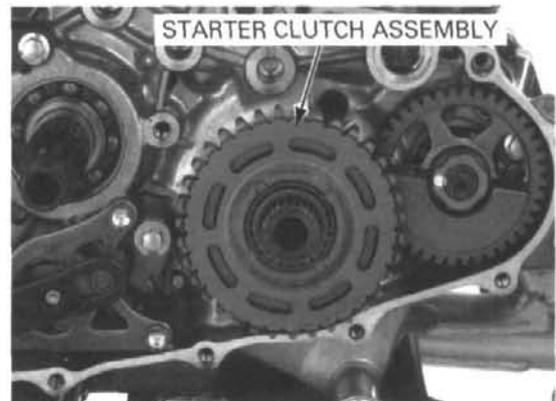
Gear holder, M2.5

**07724-0010100 or
07724-001A100
(U.S.A. only)**

Remove the clutch outer, needle bearing and clutch outer guide.
Remove the primary drive gear bolt, washer and gear.



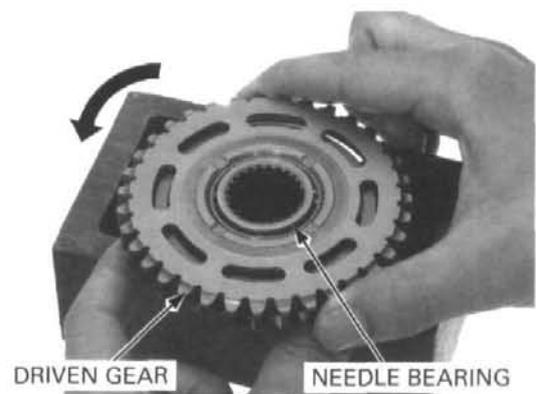
Remove the starter clutch assembly.



DISASSEMBLY/INSPECTION

Check that the starter driven gear turns counter-clockwise smoothly and does not turn clockwise.

Remove the driven gear and needle bearing from starter clutch outer while turning the driven gear counterclockwise.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Remove the snap ring and one-way clutch from clutch outer.



Check the needle bearing for abnormal wear or damage.



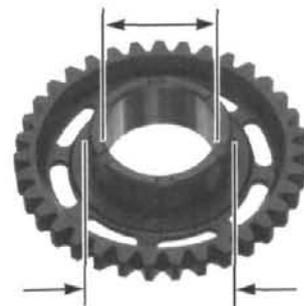
Check the starter driven gear for abnormal wear or damage.

Measure the driven gear boss O.D.

SERVICE LIMIT: 45.660 mm (1.7976 in)

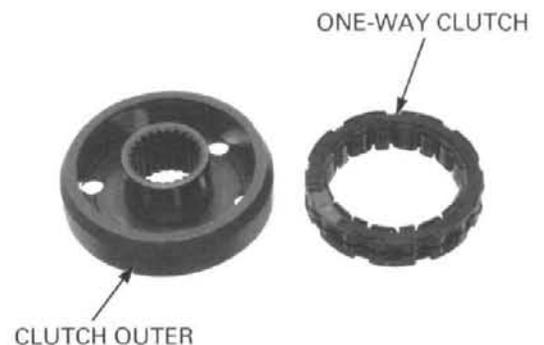
Measure the driven gear boss I.D.

SERVICE LIMIT: 36.034 mm (1.4189 in)



Check the one-way clutch sprang for abnormal wear or damage.

Check the starter clutch outer sliding surface for wear or damage.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

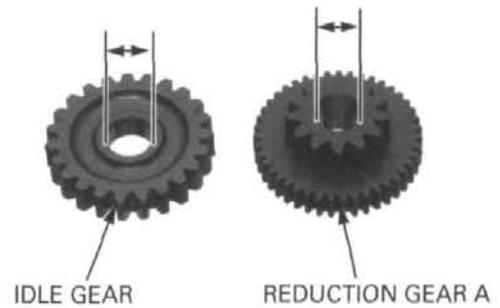
Check the reduction gear A and idle gear for wear or damage.

Measure the reduction gear A I.D.

SERVICE LIMIT: 12.050 mm (0.4744 in)

Measure the idle gear I.D.

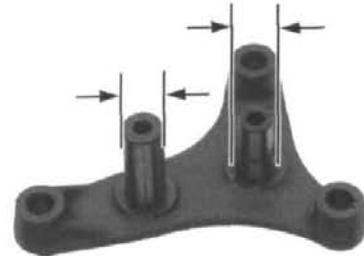
SERVICE LIMIT: 12.050 mm (0.4744 in)



Check the gear holder shafts sliding surface for wear or damage.

Measure the gear holder shafts O.D.

SERVICE LIMIT: 11.989 mm (0.4720 in)



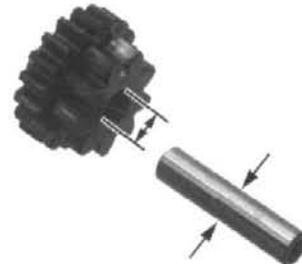
Check the reduction gear B and reduction gear shaft for wear or damage.

Measure the reduction gear B I.D.

SERVICE LIMIT: 10.085 mm (0.3970 in)

Measure the reduction gear shaft O.D.

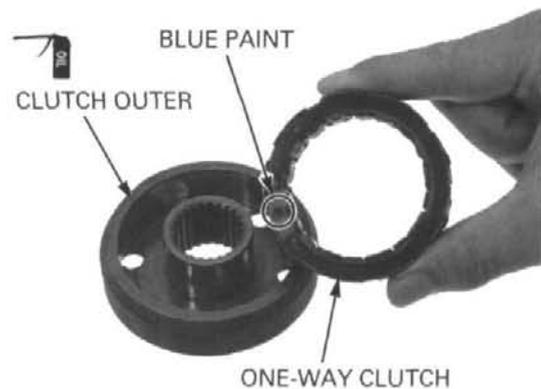
SERVICE LIMIT: 9.980 mm (0.3929 in)



ASSEMBLY

Apply transmission oil to the clutch outer sliding surface.

Install the one-way clutch into starter clutch outer with the blue paint facing out.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Install the snap ring securely.

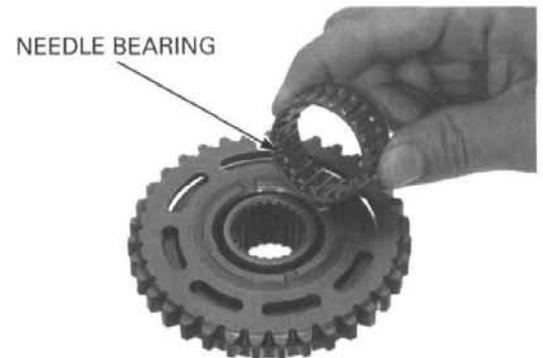


Install the starter driven gear into the clutch outer while turning it counterclockwise.



Install the needle bearing.

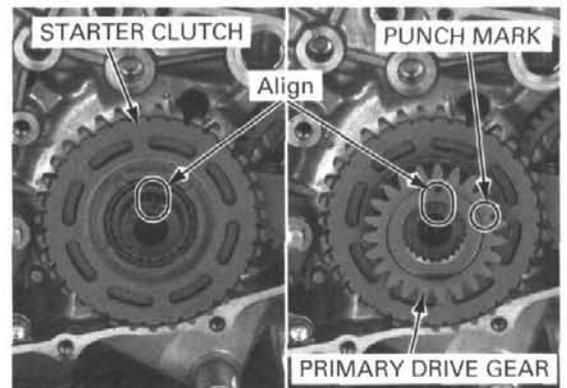
Check that the starter driven gear turns counterclockwise smoothly and does not turn clockwise.



INSTALLATION

Install the primary drive gear with the punch mark facing out.

Install the starter clutch and primary drive gear while aligning its wide cut-out in the splines with the punch mark on the mainshaft.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Temporarily install the clutch outer guide, needle bearing and clutch outer onto the mainshaft.

Install the special tool between the primary drive and driven gears as shown.

TOOL:

Gear holder, M2.5 07724-0010100 or
 07724-001A100

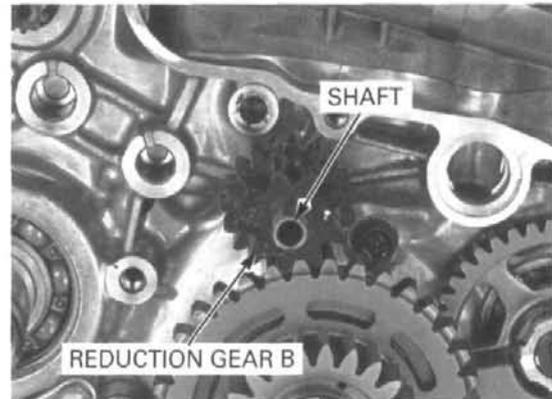
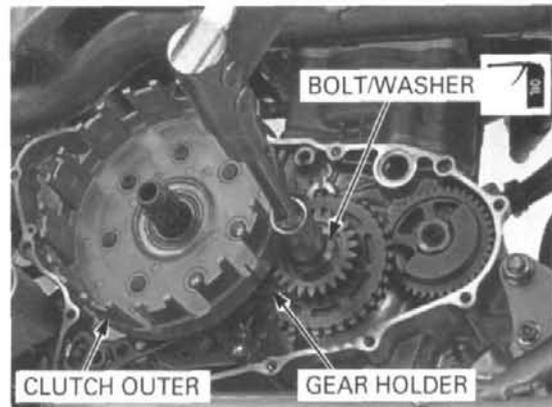
Apply transmission oil to the primary drive gear bolt threads and seating surface.

Install the washer, primary drive gear bolt and tighten the bolt to the specified torque.

TORQUE: 108 N·m (11.0 kgf·m, 80 lbf·ft)

Remove the clutch outer, needle bearings and clutch outer guide.

Install the reduction gear B and reduction gear shaft securely.



Apply molybdenum oil solution to the gear holder sliding surface.

Install the idle gear and reduction gear A onto the gear holder.

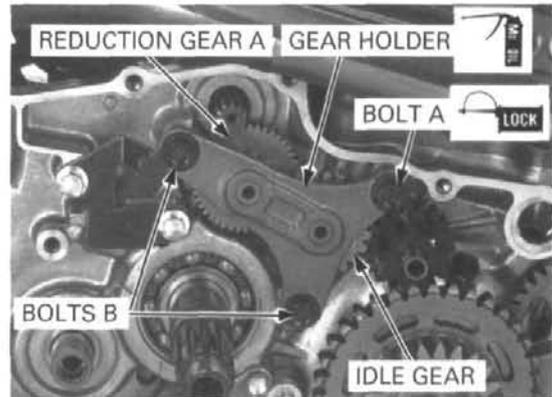
Apply a locking agent to the gear holder bolt A.

Install the gear holder assembly and tighten the gear holder bolts A, B to the specified torque.

TORQUE: 18 N·m (1.8 kgf·m, 13 lbf·ft)

Install the following:

- clutch assembly (page 14-11)
- right crankcase cover (page 14-28)



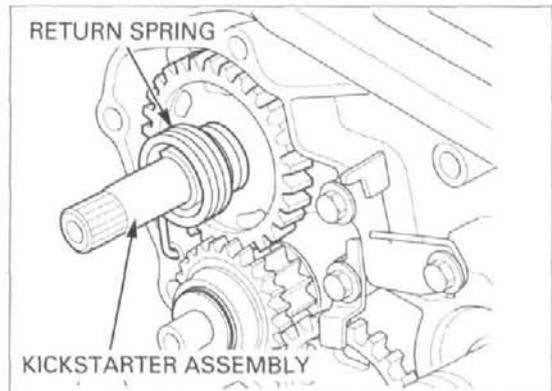
KICKSTARTER (TRX450R)

REMOVAL

Remove the following:

- right crankcase cover (page 14-5).
- clutch assembly (page 14-6)

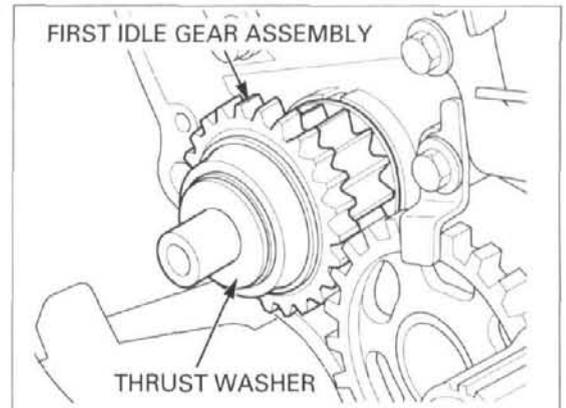
Unhook the kickstarter return spring end from the hole in the crankcase, and remove the kickstarter assembly.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

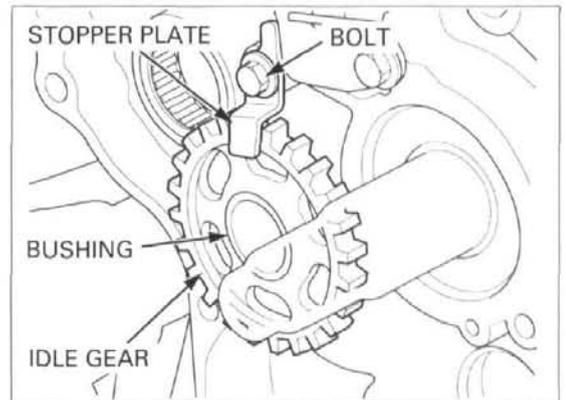
Remove the thrust washer from the kickstarter first idle gear.

Remove the kickstarter first idle gear assembly.



Remove the bolt and idle gear stopper plate.

Remove the kickstarter idle gear and bushing.



DISASSEMBLY

Remove the following from the kickstarter spindle:

- ratchet spring
- ratchet
- snap ring
- thrust washer
- pinion gear
- spring collar
- return spring
- thrust washer

INSPECTION

Check the ratchet spring and return spring for fatigue or damage.

Check the starter ratchet for wear or damage.

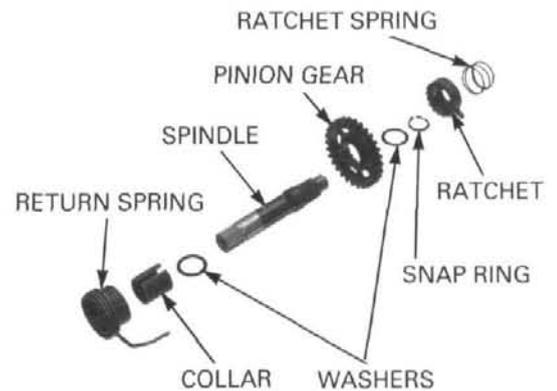
Check the kickstarter pinion gear and spindle for damage.

Measure the kickstarter pinion gear I.D.

SERVICE LIMIT: 22.05 mm (0.868 in)

Measure the kickstarter spindle O.D.

SERVICE LIMIT: 21.95 mm (0.864 in)



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

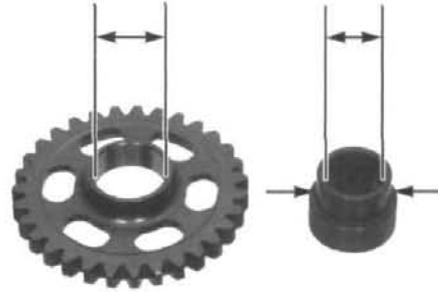
Check the kickstarter idle gear and bushing for damage.

Measure the starter idle gear I.D.

SERVICE LIMIT: 21.07 mm (0.830 in)

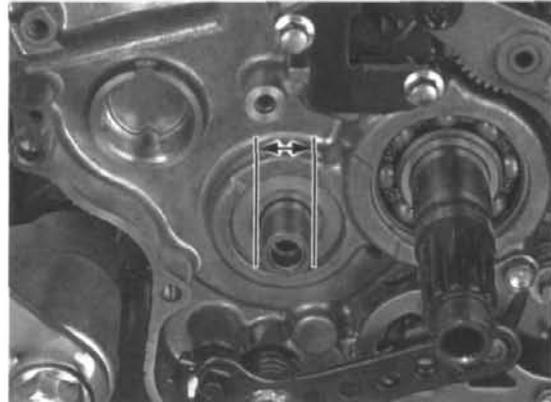
Measure the kickstarter idle gear bushing I.D. and O.D.

**SERVICE LIMITS: I.D.: 17.04 mm (0.671 in)
O.D.: 20.96 mm (0.825 in)**



Measure the countershaft O.D. at the kickstarter idle gear.

SERVICE LIMIT: 16.95 mm (0.667 in)



Check the kickstarter first idle gear assembly for wear or damage.



ASSEMBLY

Apply molybdenum oil solution to the pinion gear inner surface.

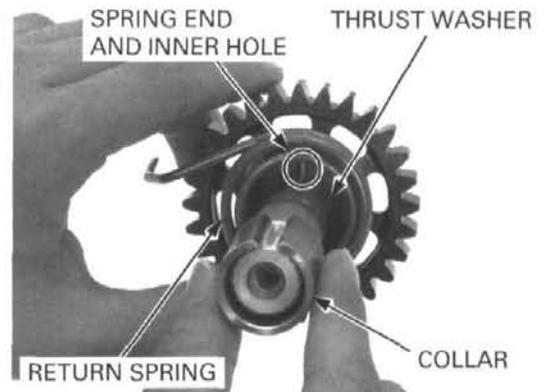
Install the pinion gear and thrust washer onto the spindle.

Install the snap ring into the spindle groove with the chamfered (rolled) edge facing to the pinion gear.

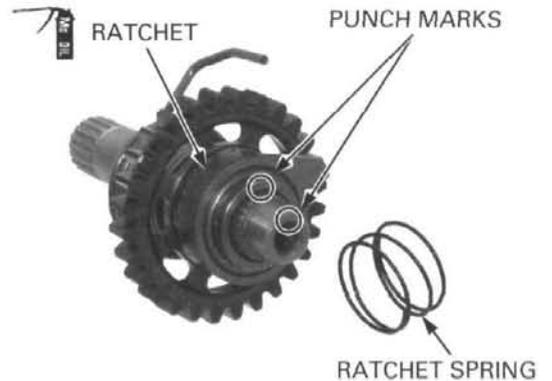


CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Install the thrust washer onto the spindle.
Install the return spring and insert the spring end into the inner hole in the spindle.
Install the collar by aligning the groove with the return spring end.



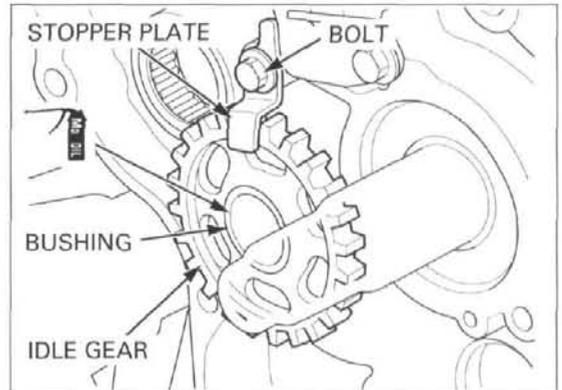
Apply molybdenum oil solution to the ratchet sliding surface.
Install the ratchet onto the spindle by aligning the punch marks on the ratchet and spindle.
Install the ratchet spring.



INSTALLATION

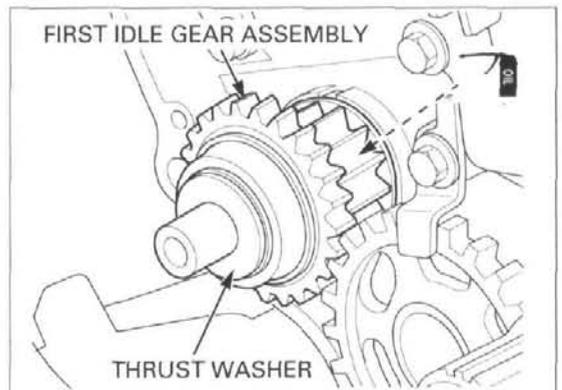
Apply molybdenum oil solution to the kickstarter idle gear inner surface and bushing whole surface.
Install the kickstarter idle gear bushing and gear.
Install idle gear stopper plate and tighten the bolt securely.

Install the clutch (page 14-11).



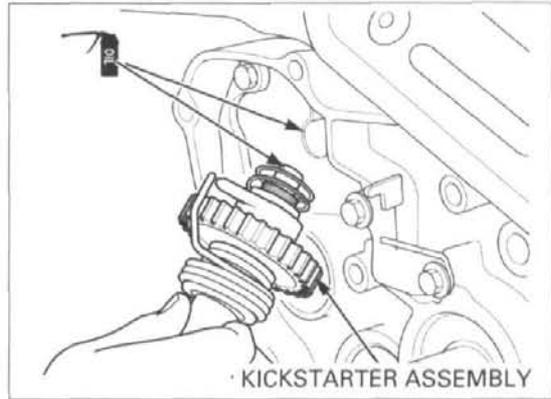
Apply oil to the kickstarter first idle gear bearing.
Install the kickstarter first idle gear assembly.

Install the thrust washer onto the kickstarter first idle gear.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

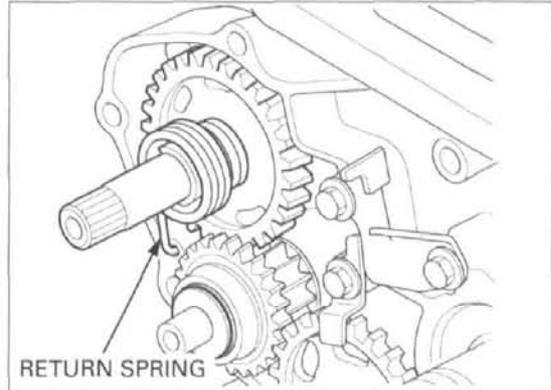
Apply oil to the kickstarter spindle bearing area.
Install the kickstarter assembly into the crankcase.



Hook the kickstarter return spring end to the hole in the crankcase as shown.

Install the following:

- clutch assembly (page 14-11)
- right crankcase cover (page 14-28)

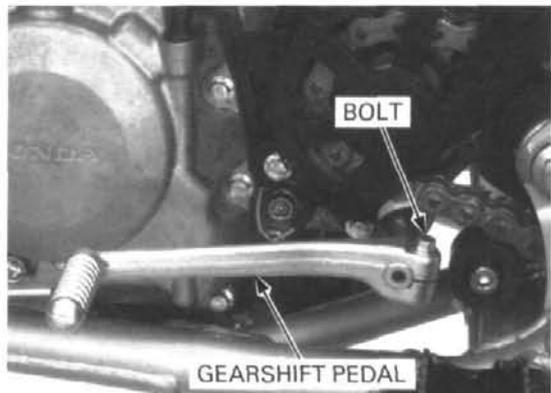


GEARSHIFT LINKAGE

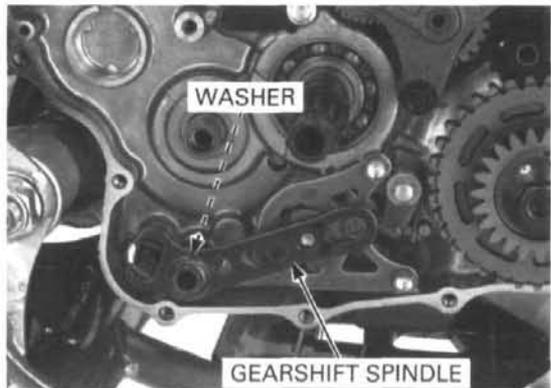
REMOVAL

Remove the following:

- bolt and gearshift pedal
- right crankcase cover (page 14-5)
- clutch assembly (page 14-6)
- right mud guard and foot peg (page 3-3)

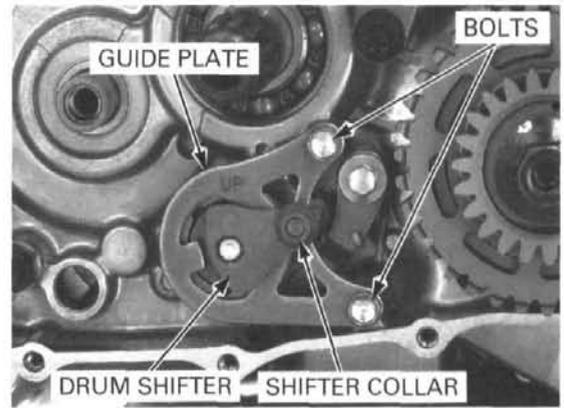


- gearshift spindle and thrust washer

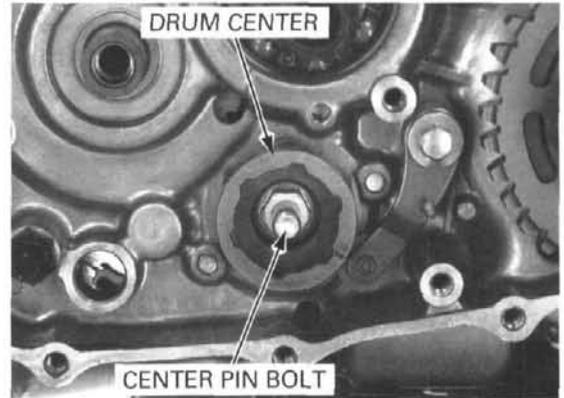


CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

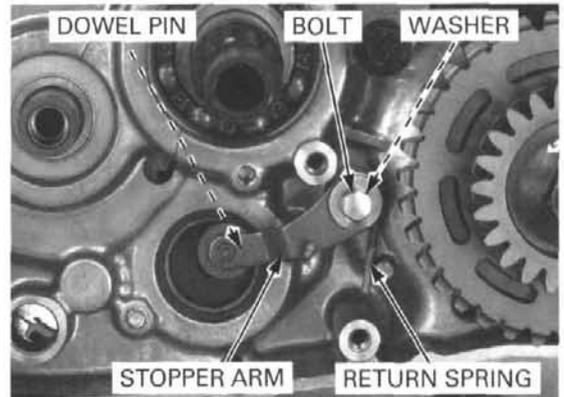
- shifter collar
- two bolts
- guide plate and drum shifter as an assembly



- center pin bolt
- gearshift drum center

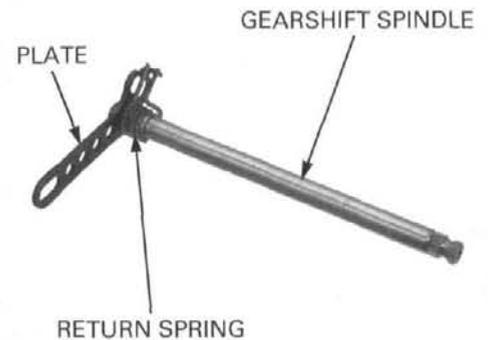


- bolt
- stopper arm
- washer
- return spring
- dowel pin



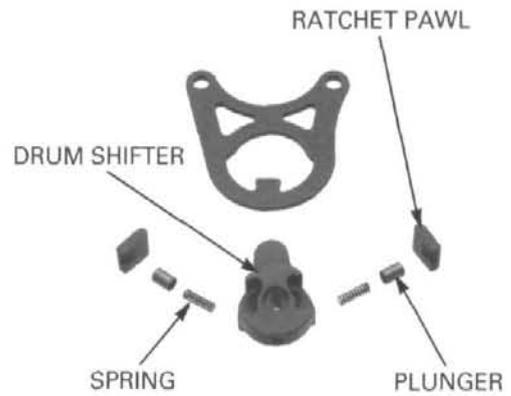
INSPECTION

Check the gearshift spindle for wear or damage.
Check the spindle plate for wear, damage or deformation.
Check the return spring for fatigue or damage.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Check the ratchet pawls, plungers and drum shifter for wear or damage.
Check the plunger spring for fatigue or damage.

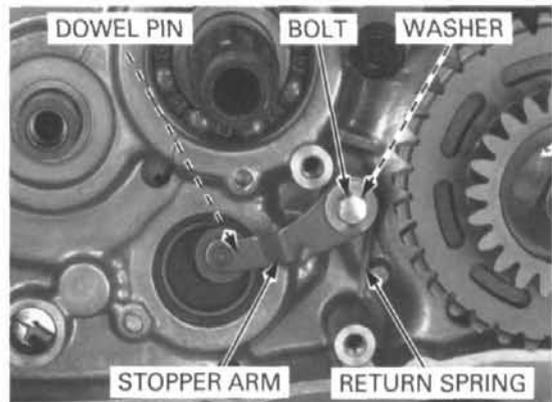


INSTALLATION

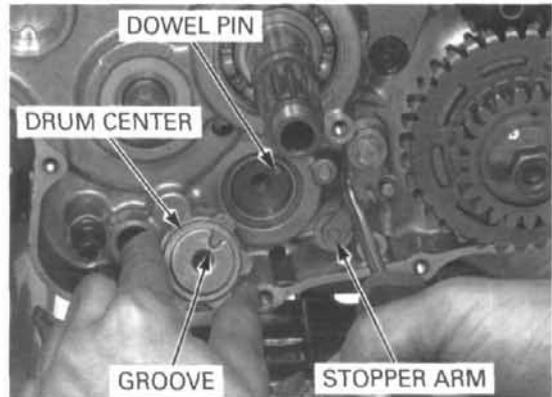
Install the dowel pin into the shift drum hole.

Install the return spring, washer, stopper arm and bolt, and tighten the bolt.

TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)

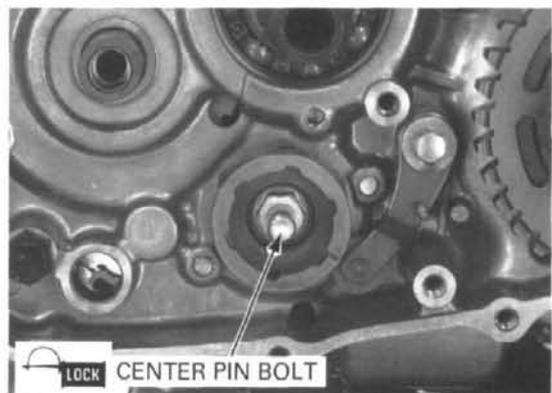


Hold the stopper arm using a screwdriver and install the gearshift drum center by aligning the pin groove with the dowel pin.



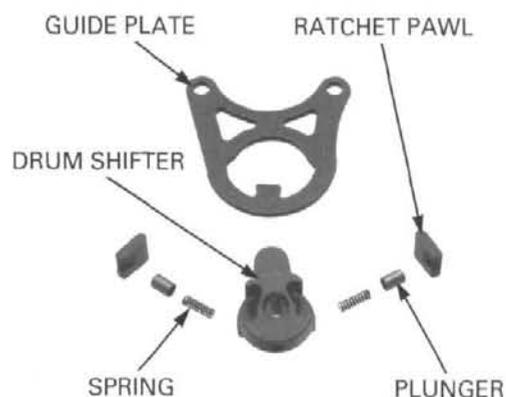
Apply locking agent to the center pin bolt threads. Install the center pin bolt and tighten it.

TORQUE: 22 N·m (2.2 kgf·m, 16 lbf·ft)



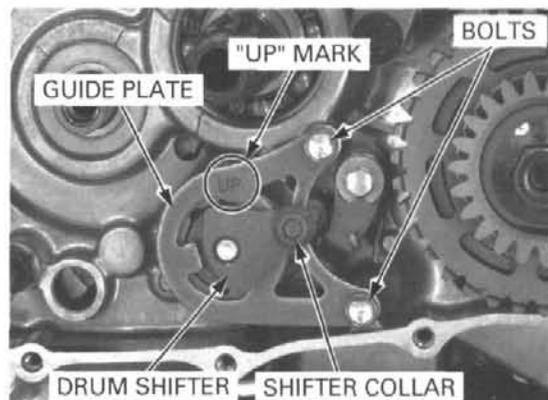
CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

Install the plunger springs, plungers and ratchet pawls into the drum shifter, and set them into the guide plate.



Install the guide plate/drum shifter assembly with the "UP" mark facing up and tighten the two bolts securely.

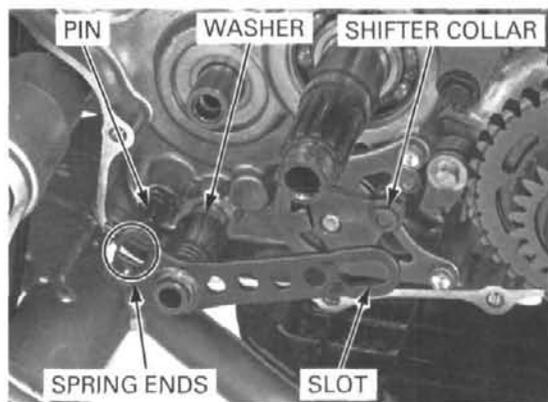
Install the shifter collar onto the drum shifter.



Install the thrust washer onto the gearshift spindle. Insert the spindle into the crankcase while aligning the return spring ends with the spring pin, and the slot with the shifter collar.

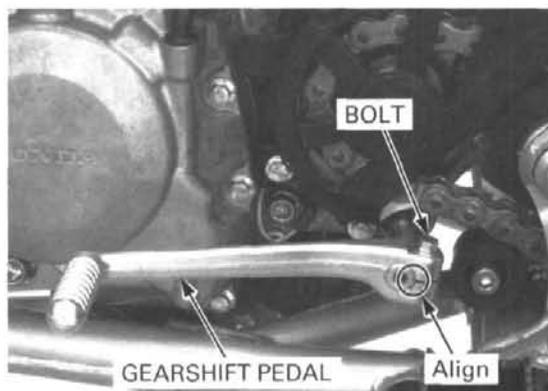
Install the clutch assembly (page 14-6).

Install the right crankcase cover (page 14-28).



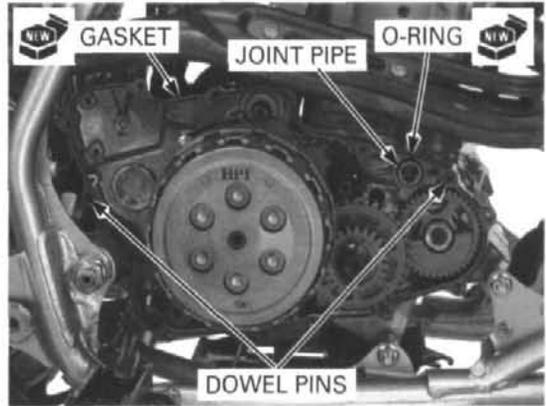
Install the gearshift pedal by aligning the slit with the punch mark on the gearshift spindle.

Install the pedal pinch bolt and tighten it securely.

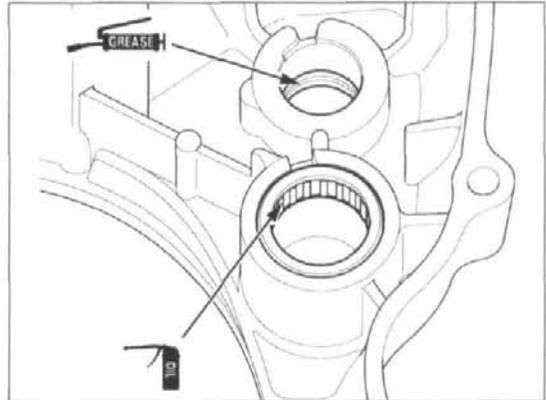


RIGHT CRANKCASE COVER INSTALLATION

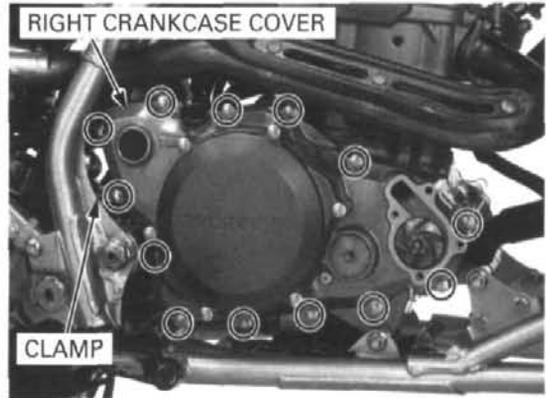
Install the water joint pipe, a new O-ring, dowel pins and a new gasket.



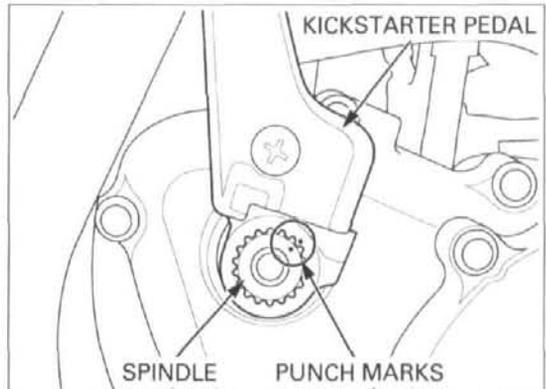
TRX450R only: Apply grease to the kickstarter spindle oil seal lip. Apply oil to the kickstarter first idle gear bearing.



Install the right crankcase cover while engaging the water pump shaft with the balancer shaft. Install the wire clamp, hose clamp and right crankcase bolts, and tighten the bolts in a crisscross pattern in 2 or 3 steps.



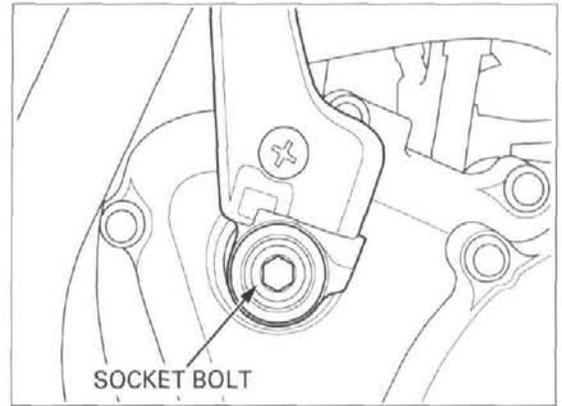
TRX450R only: Install the kickstarter pedal onto the kickstarter spindle by aligning the punch marks.



CLUTCH/STARTER CLUTCH/KICK STARTER/GEARSHIFT LINKAGE (After '05)

TRX450R only: Install the socket bolt and tighten it.

TORQUE: 38 N·m (3.9 kgf·m, 28 lbf·ft)



Install the water pump cover (page 9-17).

Connect the lower radiator hose and bypass hose to the water pump cover, and tighten the hose band screws.

Install the brake pedal (page 19-28).

Fill the crankcase with the recommended transmission oil (page 4-18).

Fill and bleed the cooling system (page 9-7).

