

REPLACES: Please discard bulletin MC18-01 dated February 16, 2018.

TITLE: REPLACE TRANSMISSION GEARS

RECALL

THIS BULLETIN IS OF THE HIGHEST PRIORITY AND MUST BE ACTED UPON IMMEDIATELY TO ENSURE CUSTOMER SAFETY.

Eligibility

Eligible Units

Yr	Model	Model Code
2016	Ninja ZX-10R	ZX1000RGFL
	Ninja ZX-10R KRT Edition	ZX1000RGFAL
	Ninja ZX-10R ABS	ZX1000SGFL
	Ninja ZX-10R ABS KRT Edition	ZX1000SGFAL
2017	Ninja ZX-10R	ZX1000RHFL
	Ninja ZX-10R KRT Edition	ZX1000RHFAL
	Ninja ZX-10R ABS	ZX1000SHFL
	Ninja ZX-10R ABS KRT Edition	ZX1000SHFAL
	Ninja ZX-10RR	ZX1000ZHFL
2018	Ninja ZX-10R	ZX1000RJFL
	Ninja ZX-10R KRT Edition	ZX1000RJFAL
	Ninja ZX-10R ABS	ZX1000SJFL
	Ninja ZX-10R ABS KRT Edition	ZX1000SJFAL
	Ninja ZX-10RR	ZX1000ZJFL

Verify eligibility using VIP in K-Dealer before starting the repair.

Please check VIP (Vehicle Information Portal) in K-Dealer for other possible repair campaigns for eligible units.

Subject

On affected units, the strength of certain gears in the transmission may not be sufficient. This could cause the gear(s) to break due to excessive impact force during certain manners of shifting. The breakage of transmission gear(s) may cause the loss of control, increasing the risk of a crash.

Kawasaki Action

Initiate Campaign:

Kawasaki has initiated a Recall campaign to repair all eligible units. The repair consists of replacing the affected transmission gears.

Notify Registered Owners:

Kawasaki is sending a Recall letter to all registered owners of eligible units. A copy of the letter is printed on pages 8 & 9 of this bulletin.

Dealer Action

Repair Eligible Units:

Repair all eligible units including sold units in the field and unsold units in your dealership inventory prior to delivery to the retail purchaser. It is the obligation of authorized Kawasaki retail Dealers to repair eligible units in Dealer's possession prior to retail sale. Failure to comply with this obligation to repair all units eligible for Recall or FDM campaigns by the Dealer constitutes a breach of the Dealer Sales and Service Agreement. Refer to Service Policies bulletin SP 08-01. Refer to the Repair Procedure section of this bulletin for details.

IMPORTANT NOTE:

- o *It's the law! Under the U.S. National Highway Traffic Safety Administration (NHTSA), Federal Law 49 U.S.C. Section 30120(i) requires dealers to perform Recall repairs before delivering any vehicle affected by the Recall to a purchaser.*

Document Completed Repairs:

Federal law requires manufacturers to maintain accurate follow-up records on repairs performed on eligible units. Dealers MUST submit a Warranty Claim for each repair. Refer to the Warranty Information section of this bulletin for details.

NOTE:

- If you fail to submit a Warranty Claim for a new unit that is subsequently sold and registered, the new owner will receive the Recall letter requesting the return of the vehicle to you for repair.*

Submit Product Registration:

Submit the product registration to Kawasaki via K-Dealer immediately after retail sale of any eligible unit. Be sure to supply the correct customer name and mailing address. Kawasaki uses the product registration information for customer notification. Also, if you know that the customer has moved, please submit a Customer Update via K-Dealer.

Parts Information

Kit 99999-0662 must be installed on all eligible units.

Order parts to complete the Recall through K-Dealer as outlined in Service Bulletin SP15-03.

Parts Availability:

To ensure parts availability across the dealer network, Kawasaki initially requests that parts are ordered based on immediate demand:

- For retailed units, order parts as customers schedule repairs or for repairs expected to take place within the next two weeks.
- For unsold units, use VIP in K-Dealer to identify the number of affected units in your dealership inventory. Order repair parts only for units that will be repaired for retail sale within the next two weeks.

NOTE:

- Use VIP in K-Dealer to identify affected units in your dealership inventory to order repair kits for unsold units*


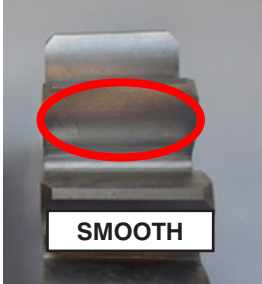

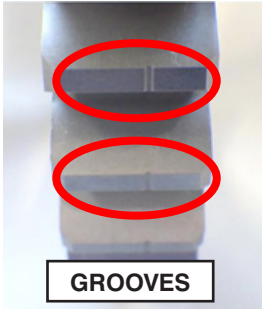

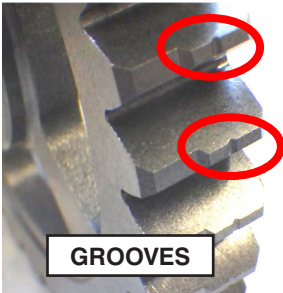

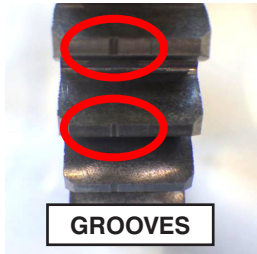
Kit, Gear Trans - P/N 99999-0662			
Ref	Contents	Part Number	Qty
1	Gear, Output 2nd,31T	13262-1356	1
2	Gear, Output 3rd,35T	13262-1357	1
3	Gear, Output 4th,31T	13262-1358	1
4	Ring-Snap, 25.9X30.6X1.2	92033-1037	3
5	Ring-O,21.5X1.5	92055-1293	1
6	Nut	92210-0152	1
7	Gasket	11061-0735	1
8	Circlip-Type-C, 14mm (1 Spare)	480J1400	2
9	Seal-Oil, TC14245	92049-1520	1
10	Washer, 28.3X34.0X1.6	92200-0050	3
11	Washer	92200-1720	1
12	Gear, Input 2nd,14T	13262-1379	1
13	Ring-Snap, T=1.5	92033-1249	1
14	Bolt, 6mm	92154-1891	1
15	Bolt, Flanged,6x22	92154-0387	1
16	Pin-cotter	550AA4045	1
17	Gasket,12x22x2 (Not Used)	92065-097	1

Individual part numbers for reference only.

DO NOT ORDER INDIVIDUALLY



Parts Identification

DESCRIPTION	OLD	NEW
GEAR, INPUT 2ND, 14T	 <p>VISIBLE MACHINE MARKS</p>	 <p>SMOOTH</p>
GEAR, OUTPUT 2ND, 31T	 <p>NO GROOVES</p>	 <p>GROOVES</p>
GEAR, OUTPUT 3RD, 35T	 <p>NO GROOVES</p>	 <p>GROOVES</p>
GEAR, OUTPUT 4TH, 31T	 <p>NO GROOVES</p>	 <p>GROOVES</p>

Repair Procedure

Refer to service manual **99924-1509-04** for detailed information and procedures related to parts removal and installation. Perform the repair by following the tasks listed below in the order that they appear.

IMPORTANT NOTE:

- o The service manual pages required to perform this repair have been attached to this bulletin.

SERVICE MANUAL PAGES	
S/M 99924-1509-04	
Chapter	Pages
2	63~65
6	251, 254~258
7	274 & 275
9	331~337 341~343
11	376 & 377
15	497 & 498

Required Tools & Consumables

- 57001-1243, Clutch Holder
- Torque Wrench, up to 97 in-lb
- Torque Wrench, up to 21 ft-lb
- Torque Wrench, up to 108 ft-lb
- Socket, 8mm
- Socket, 10mm
- Socket, 27mm
- Socket, 32mm
- Socket, T40, TORX
- Socket, 4mm Hex
- Socket, 5mm Hex
- Wrench, 10mm
- Wrench, 12mm
- Needle Nose Pliers
- Snap Ring Pliers, External
- Large Drift or Punch
- Large Chisel
- Sealant, TB1211F or equivalent
- Molybdenum Disulfide Grease

Operation Sequence:

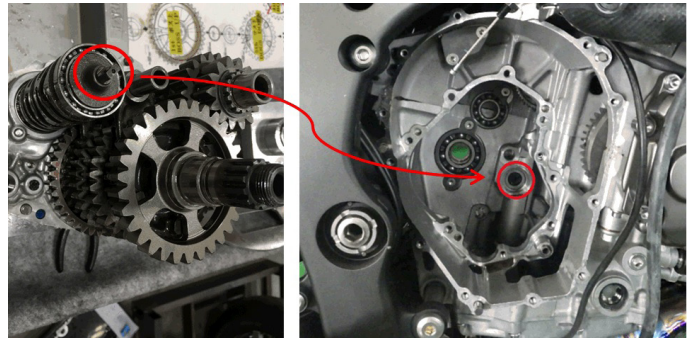
NOTE: Draining engine oil is NOT REQUIRED. Perform repair with vehicle on side stand.

1. Lower Fairing Removal, Right Side Only – Frame, Chapter 15
2. Clutch Cover Removal – Clutch, Chapter 6
NOTE: Cover the exposed area of the crankcase to prevent parts or debris from falling into the oil pan during the repair.
3. Engine Sprocket Removal -Final Drive, Chapter 11.
NOTE: Use a chisel or punch to bend lock washer away from sprocket nut.
4. Clutch Removal – Clutch, Chapter 6
NOTE: Use special tool 57001-1243 modified as specified in the service manual
5. Oil Pump Drive Gear Removal - Engine Lubrication System, Chapter 7
NOTE: The oil pump drive gear bolt is **LEFT HAND THREAD**.
6. External Shift Mechanism Removal - Crankshaft/Transmission, Chapter 9
NOTE: Do not remove the gear position sensor.
7. Transmission Assy Removal- Crankshaft/Transmission, Chapter 9
NOTE: Be careful not to let hardware fall into the oil pan.

REVISED

8. Transmission Assy Disassembly Crankshaft/Transmission, Chapter 9
NOTE: Do not disturb the position of the shift drum during disassembly. This will allow the shift drum projection to fit in the gear position sensor properly during assembly.
9. Transmission Shaft Disassembly- Crankshaft/Transmission, Chapter 9
NOTE: Be careful not to lose the three ball bearings inside the positive neutral finder mechanism during disassembly.
10. Replace Input 2nd Gear With New Gear- Crankshaft/Transmission, Chapter 9
NOTE: Install the snap ring with the punch mark facing the gear.
11. Replace Output 2nd,3rd And 4th Gear With New Gears- Crankshaft/Transmission, Chapter 9
NOTE: Apply Molybdenum Disulfide Grease to the sliding surfaces of the gears and shafts.
NOTE: Install the snap rings with the punch mark facing the washers.
12. Transmission Shaft Assembly - Crankshaft/Transmission, Chapter 9
13. Transmission Assy Assembly - Crankshaft/Transmission, Chapter 9
14. Transmission Assy Installation - Crankshaft/Transmission, Chapter 9
NOTE: Be sure that the dowel pins are in position before installing the transmission assembly.

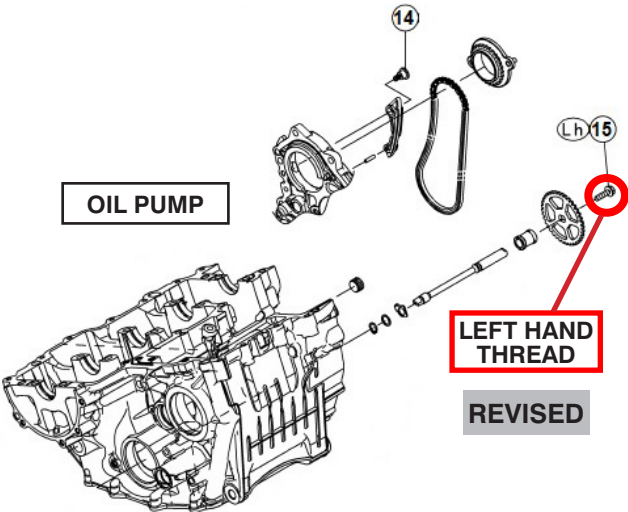
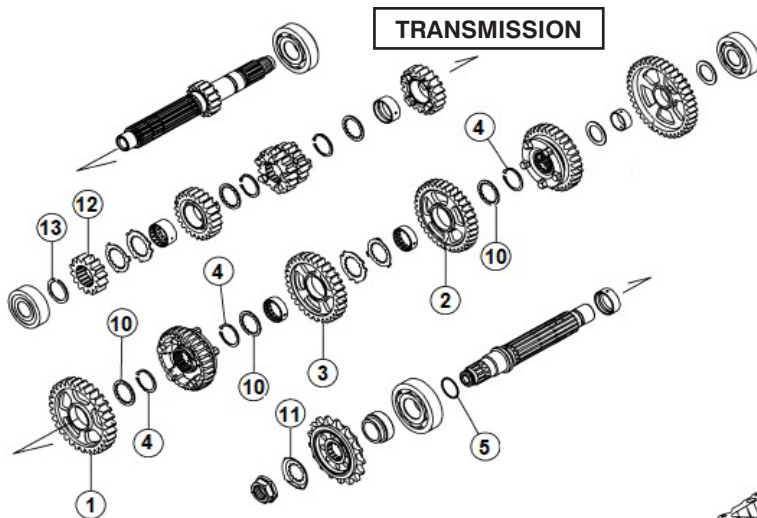
NOTE: Be sure to align the projection on the shift drum with the slotted opening of the gear position sensor. This is opposite of the instructions in the service manual since the gear position sensor was not removed.



15. External Shift Mechanism Installation- Crankshaft/Transmission, Chapter 9
NOTE: Apply non-permanent locking agent to the shift lever clamp bolt.
16. Oil Pump Drive Gear Installation - Engine Lubrication System, Chapter 7
17. Clutch Installation – Clutch, Chapter 6
18. Engine Sprocket Installation - Final Drive, Chapter 11
19. Drive Chain Slack Inspection - Periodic Maintenance, Chapter 2
NOTE: Replace cotter pin (Ref 17) if drive chain slack requires adjustment.
20. Clutch Cover Installation – Clutch, Chapter 6
NOTE: Apply a small dab of TB1211F (or equivalent) sealant to the area where the crankcase halves meet before installing the clutch cover.
21. Lower Fairing Installation – Frame, Chapter 15
22. Test Ride

EXPLODED VIEW OF REPLACEMENT PARTS

PARTS ON THIS PAGE
NUMBERED ACCORDING TO
PARTS LIST ON PAGE 2 OF
THIS BULLETIN



IMPORTANT NOTE:

- o Face punchmark on snap ring (Ref #4, P/N 92033-1037) towards washer.



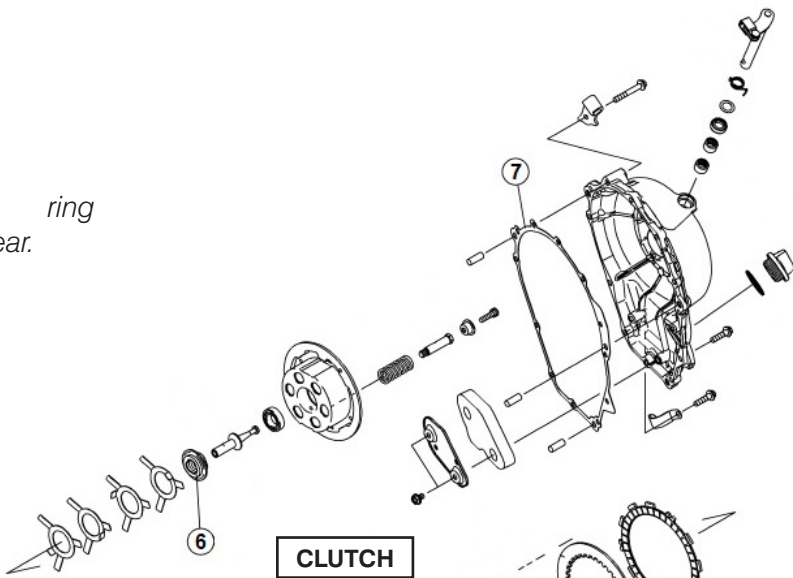
PUNCH MARK
TOWARDS
WASHER

IMPORTANT NOTE:

- o Face punchmark on snap ring (Ref # 13, P/N 92033-1249) towards gear.

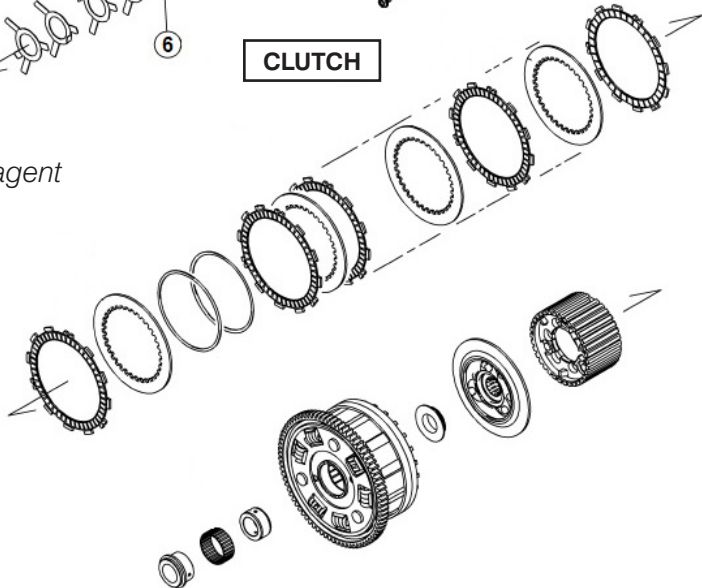
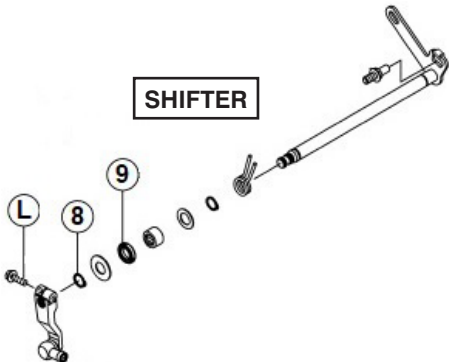


PUNCH MARK
TOWARDS GEAR



IMPORTANT NOTE:

- o Use non-permanent locking agent on shift lever locking clamp bolt (Ref L)



Warranty Information

This is a safety Recall campaign. Repair is authorized regardless of ownership or warranty status.

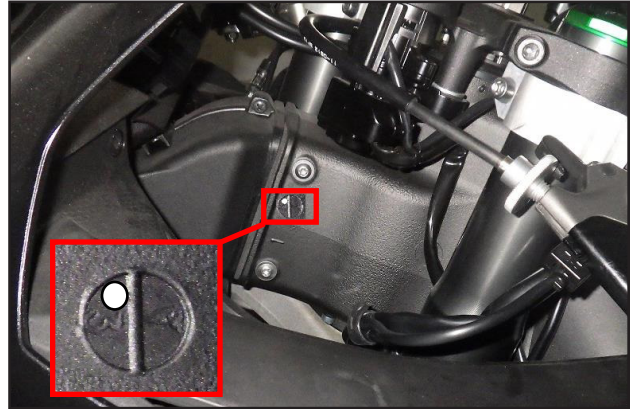
Repairs **MUST BE PERFORMED IMMEDIATELY ON ALL ELIGIBLE UNITS** in the field and during initial assembly and preparation.

See the Warranty Policies and Procedures Manual (claim type 3 information) for detailed instructions when submitting the Warranty Claim.

	R&R Transmission Gears
Job Code	22502
Flat Rate Time	2.5 hr
Claim Type	3
Part Number	99999-0662
Description	Kit, Gear Trans
Qty	1

Repair Verification

Make a white paint mark on the forward upper left portion of the frame in the forward upper half of the casting lot stamp as shown in the photo below to serve as repair verification.



NOTE:

- o *Repair verification is an essential part of the repair procedure. Along with the physical repair verification, check VIP (Vehicle Information Portal) in K-Dealer for other possible repair campaigns for eligible units.*

2016 ~ 2018 Ninja® ZX™ -10R & -10RR REPLACE TRANSMISSION GEARS

IMPORTANT SAFETY RECALL

NHTSA RECALL NO. 18V-089

Dear Kawasaki Motorcycle Owner:

This notice has been sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. Kawasaki Motors Corp., U.S.A., has decided that a defect which relates to motor vehicle safety exists in certain 2016 ~ 2018 Ninja ZX-10R & -10RR models.

2016	Ninja ZX-10R	ZX1000RGFL
	Ninja ZX-10R KRT Edition	ZX1000RGFAL
	Ninja ZX-10R ABS	ZX1000SGFL
	Ninja ZX-10R ABS KRT Edition	ZX1000SGFAL
2017	Ninja ZX-10R	ZX1000RHFL
	Ninja ZX-10R KRT Edition	ZX1000RHFAL
	Ninja ZX-10R ABS	ZX1000SHFL
	Ninja ZX-10R ABS KRT Edition	ZX1000SHFAL
	Ninja ZX-10RR	ZX1000ZHFL
2018	Ninja ZX-10R	ZX1000RJFL
	Ninja ZX-10R KRT Edition	ZX1000RJFAL
	Ninja ZX-10R ABS	ZX1000SJFL
	Ninja ZX-10R ABS KRT Edition	ZX1000SJFAL
	Ninja ZX-10RR	ZX1000ZJFL

The reason for this notice:

On affected units, the strength of certain gears in the transmission may not be sufficient. This could cause the gear(s) to break due to excessive impact force during certain manners of shifting. The breakage of transmission gear(s) may cause the loss of control increasing the risk of a crash. Our records indicate that you have purchased one of these units.

What Kawasaki and your dealer will do:

Kawasaki has authorized your dealer to replace the affected transmission gears free of charge. The actual repair will take up to two and a half hours but may take longer due to scheduling at the dealership and the time needed to obtain required parts.

DO NOT RIDE YOUR MOTORCYCLE UNTIL THE REPAIR HAS BEEN COMPLETED.

What should you do to ensure your safety?

Please call your Kawasaki dealer to schedule an appointment to have your motorcycle inspected and repaired. Please have your Vehicle Identification Number (VIN) ready when calling. To locate the nearest authorized Kawasaki motorcycle dealer, please visit www.kawasaki.com and click on the "LOCATE DEALER" link.

If you need help:

If you have questions or concerns that your dealer is not able to resolve, please contact Kawasaki's Consumer Services Department at (866) 802-9381 (toll-free) between 7:30 a.m. and 4:30 p.m. PT Monday through Friday. Please have your Vehicle Identification Number ready when calling.

If your dealer fails or is unable to remedy this defect without charge within a reasonable amount of time (60 days after your first attempt to obtain remedy), you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave. S.E., Washington, D.C. 20590, or call the toll-free Vehicle Safety Hotline at 1(888) 327-4236 (TTY: 1-800-424-9153); or go to <http://www.safercar.gov>.

If you received this notice in error:

Our records indicate you are the current owner of the motorcycle described in this letter. If you no longer have the vehicle described in this letter, please help us to update our records at www.kawasaki.com by clicking on "OWNER CENTER => OWNER SUPPORT => UPDATE OWNER INFO" or by calling Kawasaki toll free at (866) 802-9381. Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Reimbursement:

If you have experienced the failure described above prior to receiving this letter and have paid to have it corrected, you may be eligible for full or partial reimbursement for your documented cost of repair(s). To apply for reimbursement, please send copies of current owner and VIN information along with copies of repair orders and payment confirmation to the following address:

Kawasaki Motors Corp., U.S.A.
ATTN: Consumer Services Department
P.O. Box 25252
Santa Ana, California 92799-5252

Please note the following conditions for reimbursement:

- Claims may be excluded if proper documentation is not included. Current owner and VIN information along with copies of repair orders and payment confirmation must be provided.

We are sorry for any inconvenience this may cause, but we have taken this action in the interest of your safety and your continued satisfaction with your Kawasaki motorcycle.

Sincerely,

Kawasaki Motors Corp., U.S.A.

Ninja ZX-10R
Ninja ZX-10R ABS
Ninja ZX-10RR

Motorcycle
Service Manual



Kawasaki

Periodic Maintenance Procedures

Final Drive

Drive Chain Lubrication Condition Inspection

Lubrication is necessary after riding through rain or on wet roads, or any time that the chain appears dry.

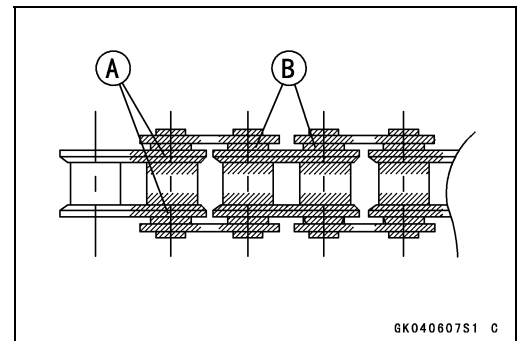
Use a lubricant for sealed chains to prevent deterioration of chain seals. If the chain is especially dirty, clean it using a cleaner for sealed chains following the instructions supplied by the chain cleaner manufacturer.

NOTICE

The O-rings between the side plates seal in the lubricant between the pin and the bushing. To avoid damaging the O-rings and resultant loss of lubricant, observe the following rules.

Use only chain cleaner for cleaning of the O-ring of the drive chain. Any other cleaning solution such as gasoline will cause deterioration and swelling of the O-ring. Immediately blow the chain dry with compressed air after cleaning. Complete cleaning and drying the chain within 10 minutes.

- Apply chain oil to the sides of the rollers so that oil will penetrate to the rollers and bushings. Apply the oil to the O-rings so that the O-rings will be coated with oil.
- Wipe off any excess oil.
Oil Applied Areas [A]
O-rings [B]
- Wipe off lubricant that gets on the tire surface.



Drive Chain Slack Inspection

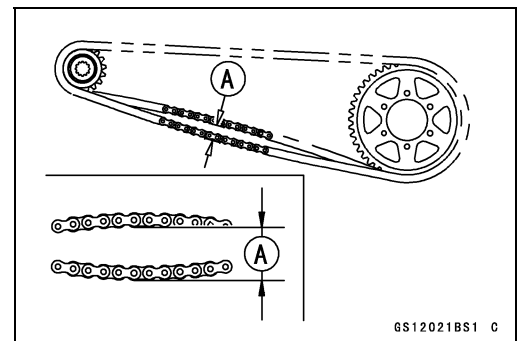
NOTE

- Check the slack with the motorcycle setting on its side stand.
- Clean the chain if it is dirty, and lubricate it if it appears dry.

- Check the wheel alignment (see Wheel Alignment Inspection).
- Rotate the rear wheel to find the position where the chain is tightest.
- Measure the vertical movement (chain slack) [A] midway between the sprockets.
- ★ If the chain slack exceeds the standard, adjust it.

Chain Slack

Standard: 25 ~ 35 mm (1.0 ~ 1.4 in.)

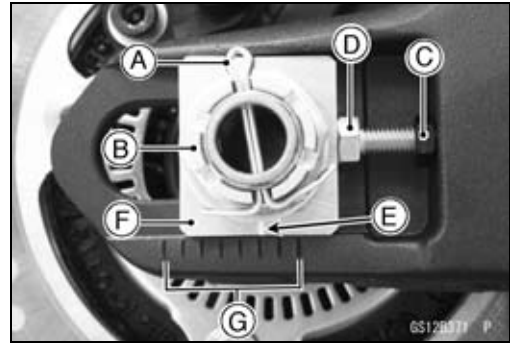


2-40 PERIODIC MAINTENANCE

Periodic Maintenance Procedures

Drive Chain Slack Adjustment

- Remove the cotter pin [A], and loosen the rear axle nut [B].
- Loosen the both chain adjuster locknuts [C].
- ★ If the chain is too loose, turn out the left and right chain adjusters [D] evenly.
- ★ If the chain is too tight, turn in the left and right chain adjusters evenly, and kick the wheel forward.
- Turn both chain adjusters evenly until the drive chain has the correct amount of slack. To keep the chain and wheel properly aligned, the notch [E] on the left wheel alignment indicator [F] should align with the same swingarm mark or position [G] that the right indicator notch aligns with.



WARNING

Misalignment of the wheel will result in abnormal wear and may result in an unsafe riding condition. Be sure the wheel is properly aligned.

- Tighten the both chain adjuster locknuts securely.
- Tighten the rear axle nut.
Torque - Rear Axle Nut: 130 N·m (13.3 kgf·m, 95.9 ft·lb)
- Turn the wheel, measure the chain slack again at the tightest position, and readjust if necessary.
- Insert a new cotter pin [A].

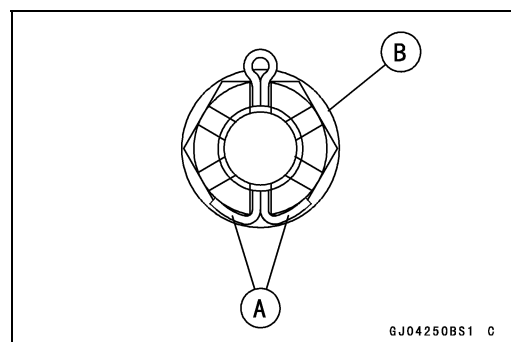
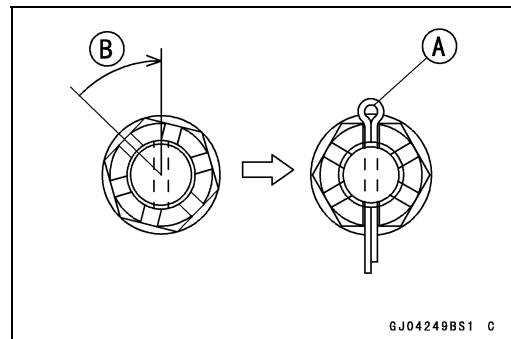
NOTE

- When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle, tighten the nut clockwise [B] up to next alignment.
- It should be within 30 degrees.
- Loosen once and tighten again when the slot goes past the nearest hole.

- Bend the cotter pin [A] along the nut [B].

WARNING

A loose axle nut can lead to an accident resulting in serious injury or death. Tighten the axle nut to the proper torque and install a new cotter pin.



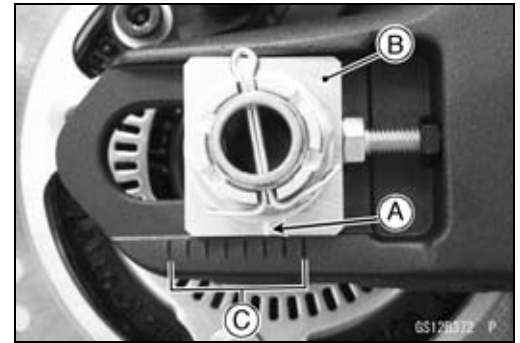
Periodic Maintenance Procedures

Wheel Alignment Inspection

- Check that the notch [A] on the alignment indicator [B] aligns with the same swingarm mark or position [C] that the other side alignment indicator notch aligns with.
- ★ If they do not, adjust the chain slack and align the wheel alignment (see Drive Chain Slack Adjustment).

NOTE

○ Wheel alignment can be also checked using the straightedge or string method.

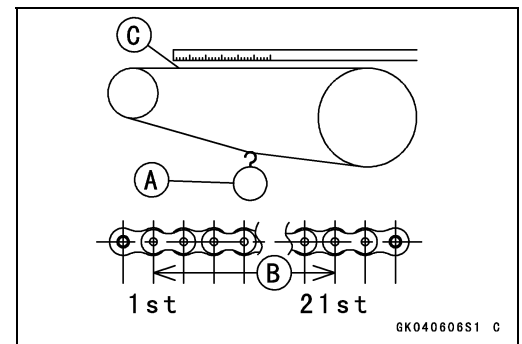


⚠ WARNING

Misalignment of the wheel will result in abnormal wear and may result in an unsafe riding condition. Be sure the wheel is properly aligned.

Drive Chain Wear Inspection

- Remove the chain cover (see Drive Chain Removal/Installation in the Final Drive chapter).
- Rotate the rear wheel to inspect the drive chain for damaged rollers, and loose pins and links.
- ★ If there is any irregularity, replace the drive chain.
- ★ Lubricate the drive chain if it appears dry.
- Stretch the chain taut by hanging a 10 kg (22 lb) weight [A] on the chain.
- Measure the length of 20 links [B] on the straight part [C] of the chain from the pin center of the 1st pin to the pin center of the 21st pin. Since the chain may wear unevenly, take measurements at several places.
- ★ If any measurements exceed the service limit, replace the chain. Also, replace the front and rear sprockets when the drive chain is replaced.



Drive Chain 20-link Length

Standard: 317.5 ~ 318.2 mm (12.50 ~ 12.53 in.)

Service Limit: 319 mm (12.6 in.)

⚠ WARNING

A chain that breaks or jumps off the sprockets could snag on the engine sprocket or lock the rear wheel, severely damaging the motorcycle and causing it to go out of control. Inspect the chain for damage and proper adjustment before each ride. If chain wear exceeds the service limit, replace it with the standard chain.

Standard Chain

Make: ENUMA

Type: EK525RMX3/3D

Link: 114 links

Exploded View



Exploded View

No.	Fastener	Torque			Remarks
		N·m	kgf·m	ft·lb	
1	Clutch Lever Clamp Bolts	9.0	0.92	80 in·lb	S
2	Clutch Cover Bolts	10	1.0	89 in·lb	S
3	Oil Filler Plug	–	–	–	Hand-tighten
4	Clutch Spring Bolts	11	1.1	97 in·lb	
5	Sub Clutch Hub Bolts	25	2.5	18	L
6	Clutch Cover Plate Bolts	10	1.0	89 in·lb	L
7	Clutch Hub Nut	130	13.3	95.9	R

CL: Apply cable lubricant.

EO: Apply engine oil.

G: Apply grease.

L: Apply a non-permanent locking agent.

M: Apply molybdenum disulfide grease.

R: Replacement Parts

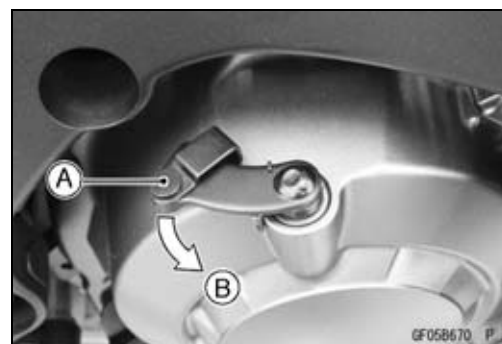
S: Follow the specified tightening sequence.

Si: Apply silicone grease.

Clutch Cover

Clutch Cover Removal

- Drain the engine oil (see Engine Oil Change in the Periodic Maintenance chapter).
- Remove:
 - Right Lower Fairing (see Lower Fairing Removal in the Frame chapter)
 - Clutch Cable Lower End (see Clutch Cable Removal)
 - Clutch Cover Bolts [A]
 - Bracket [B]
 - Clamp [C]
- Turn the release lever [A] counterclockwise as shown, and remove the clutch cover.
 - About 90° [B]



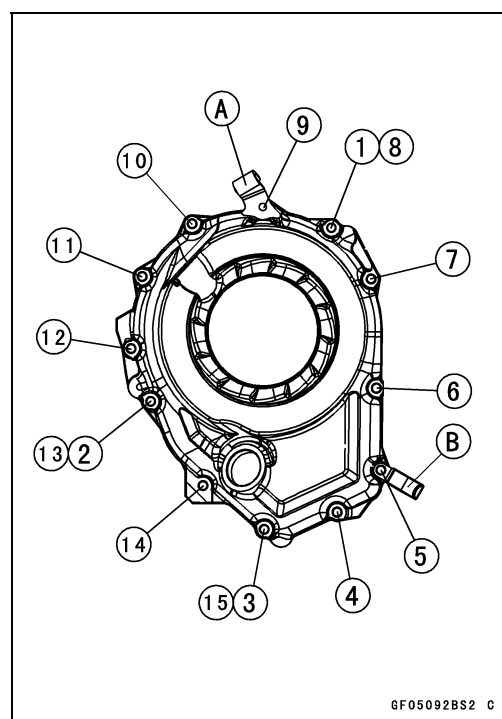
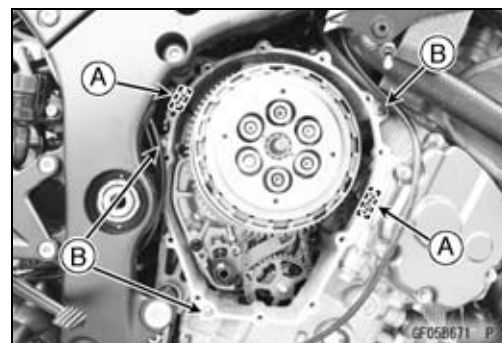
Clutch Cover Installation

- Using a cleaning fluid, clean off any oil or dirt that may be on the liquid gasket coating area. Dry them with a clean cloth.
- Apply liquid gasket to the area [A] where the mating surface of the crankcase touches the clutch cover gasket.

Sealant - Liquid Gasket, TB1211F: 92104-0004

- Be sure that the dowel pins [B] are in position.
- Replace the clutch cover gasket with a new one.
- Tighten the clutch cover bolts by following the sequence numbers [1 ~ 15].
 - Bracket [A]
 - Clamp [B]

Torque - Clutch Cover Bolts: 10 N·m (1.0 kgf·m, 89 in·lb)

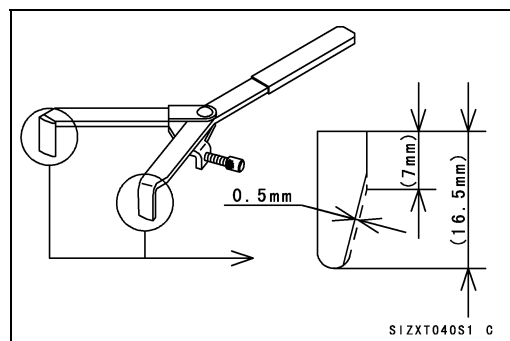
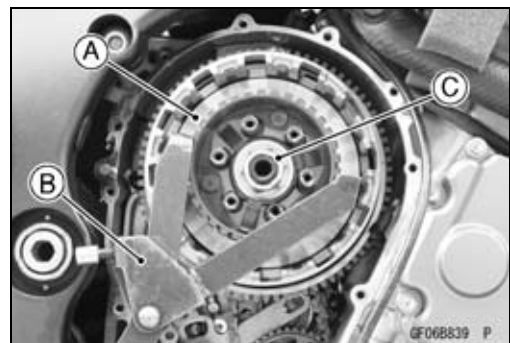
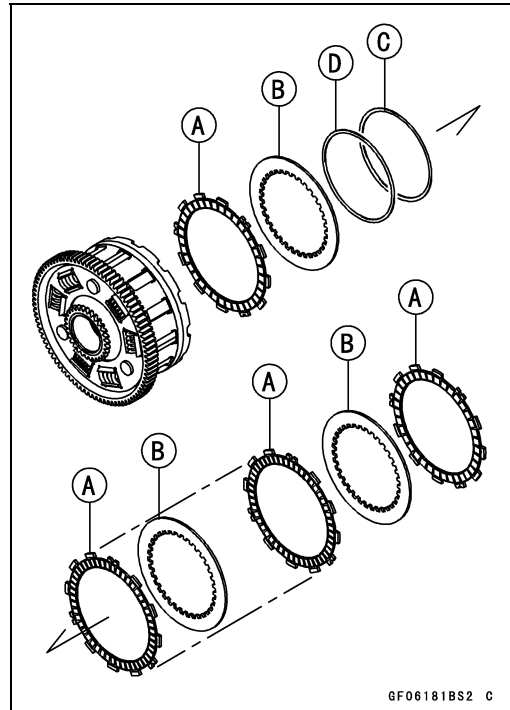
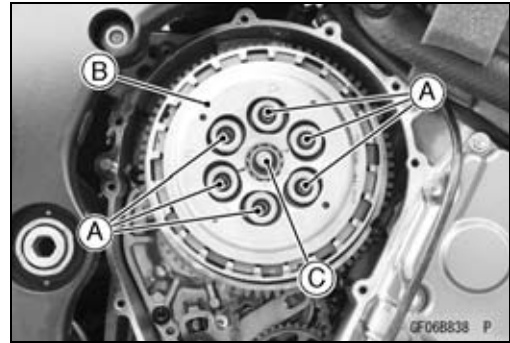


6-12 CLUTCH

Clutch

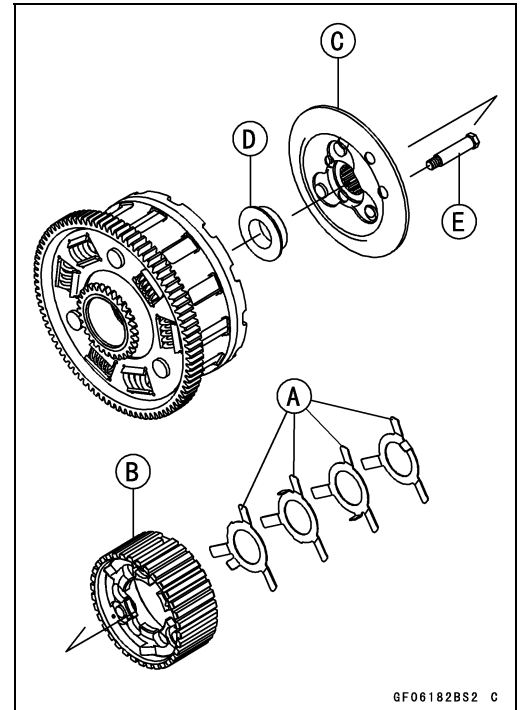
Clutch Removal

- Remove:
 - Clutch Cover (see Clutch Cover Removal)
 - Clutch Spring Bolts [A]
 - Clutch Springs (with Clutch Spring Holders)
 - Clutch Spring Plate [B]
 - Pusher [C]
- Remove:
 - Friction Plates (10) [A]
 - Steel Plates (9) [B]
 - Spring [C]
 - Spring Seat [D]
- Hold the sub clutch hub [A] steady with the clutch holder [B], and remove the clutch hub nut [C].
Special Tool - Clutch Holder: 57001-1243
- Use the clutch holder with sharpened hook nose by grinding.
Special Tool - Clutch Holder: 57001-1243
- Grind the hook nose by 0.5 mm (0.02 in.) as shown.

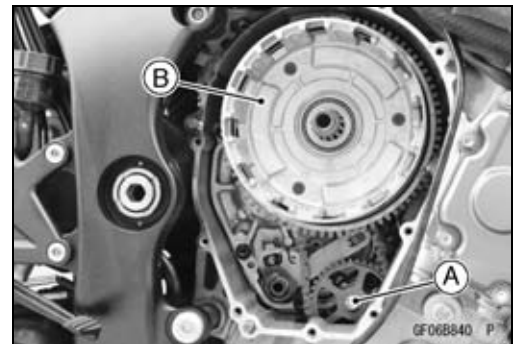


Clutch

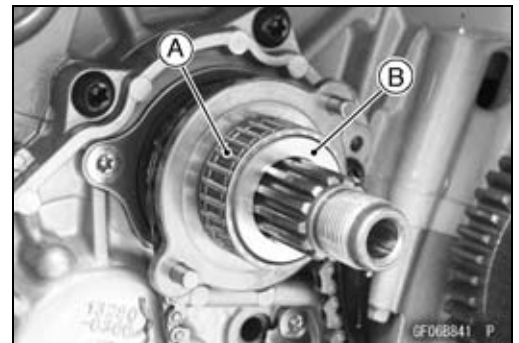
- Remove:
 - Torque Limiter Springs [A]
 - Sub Clutch Hub [B]
 - Clutch Hub [C]
 - Spacer [D]
- Remove the sub clutch hub bolts [E] as necessary.



- ★ If the oil pump drive gear is to be disassembled, loosen the oil pump drive gear bolt [A] (left-hand threads).
- Remove the clutch housing [B].



- Remove:
 - Needle Bearing [A]
 - Sleeve [B]



Clutch Installation

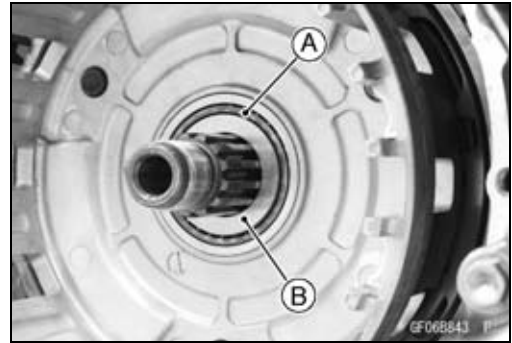
- Install the clutch housing [A].
- Fit the holes [B] and projections [C].
- Engage the clutch housing gear and the crankshaft primary gear.



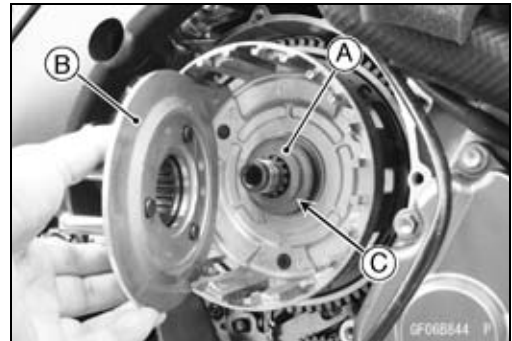
6-14 CLUTCH

Clutch

- Apply engine oil to the needle bearing [A] and the sleeve [B].
- Install:
 - Needle Bearing
 - Sleeve



- Install the spacer [A] and the clutch hub [B].
 - Face the stepped side [C] of the spacer to outside.



- ★ If the sub clutch hub bolts were removed, install them as follows.

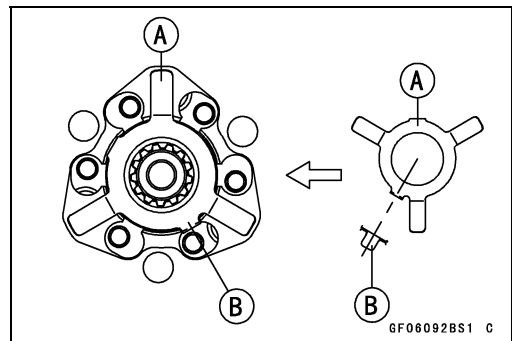
- Apply a non-permanent locking agent to the threads of the sub clutch hub bolts, and tighten them.

Torque - Sub Clutch Hub Bolts: 25 N·m (2.5 kgf·m, 18 ft·lb)

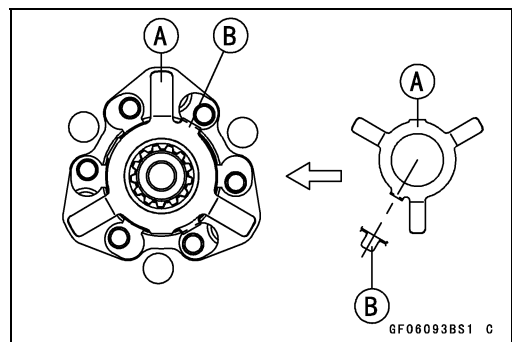
- Install the clutch sub clutch hub [A].
- Align the damper cams [B] of the sub clutch hub to the cam followers [C] of the clutch hub [D].



- Install the four torque limiter springs as shown.
- Install the first torque limiter spring [A].
 - Tang [B]

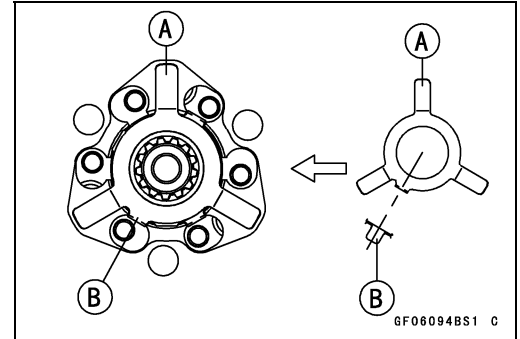


- Install the second torque limiter spring [A].
 - Tang [B]

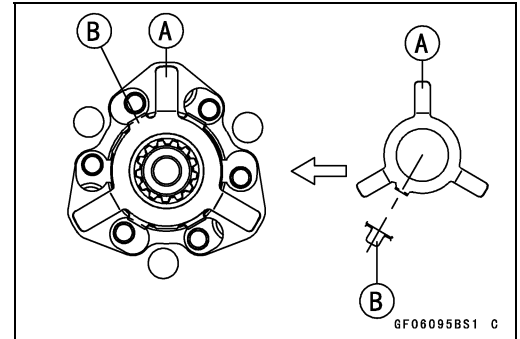


Clutch

- Install the third torque limiter spring [A].
Tang [B]



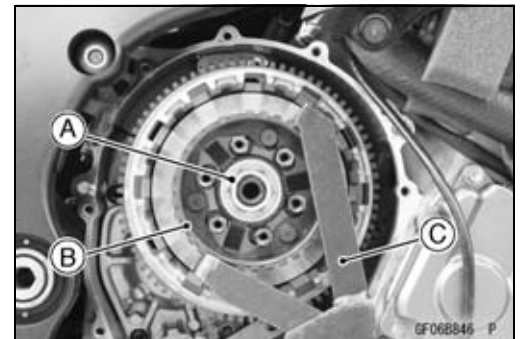
- Install the fourth torque limiter spring [A].
Tang [B]



- Replace the clutch hub nut [A] with a new one.
- Hold the sub clutch hub [B] steady with the clutch holder [C], and tighten the clutch hub nut.

Special Tool - Clutch Holder: 57001-1243

Torque - Clutch Hub Nut: 130 N·m (13.3 kgf·m, 95.9 ft·lb)



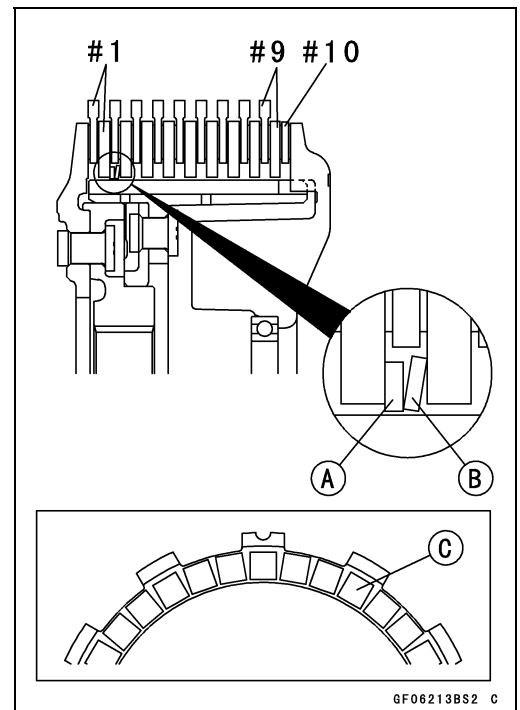
- Install the following as shown.
 - Friction Plates (48 Lining Blocks) [#1, #10]
 - Friction Plates (36 Lining Blocks) [#2 ~ #9]
 - Steel Plates (T = 2.9 mm, 0.11 in.) [#1 ~ #7]
 - Steel Plates (T = 2.6 mm, 0.10 in.) [#8, #9]
 - Spring Seat [A]
 - Spring [B]

NOTE

- The lining blocks [C] of the friction plate [#1, #10] are smaller than them of the friction plates [#2 ~ #9].
- Install the spring seat and spring between first steel plate and second steel plate.

NOTICE

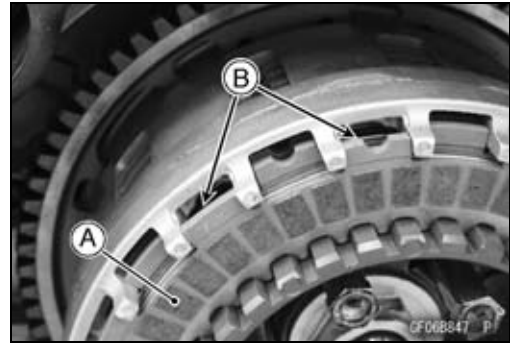
If new dry friction plates and steel plates are installed, apply engine oil to the surfaces of each plate to avoid clutch plate seizure.



6-16 CLUTCH

Clutch

- Install the last friction plate (48 lining blocks) [A] fitting the tangs [B] in the grooves in the housing as shown.



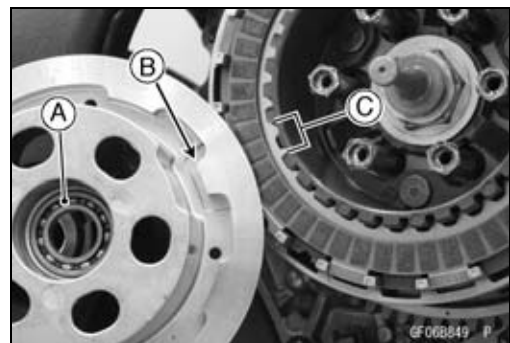
- Apply molybdenum disulfide grease [A] to the pusher [B].
- Install the pusher to the drive shaft.



- Apply engine oil to the ball bearing [A] on the spring plate.
- Align the projections [B] of the spring plate to the grooves [C] of the sub clutch hub to install the spring plate on the sub clutch hub.
- Install the clutch springs and spring holders, and tighten the clutch spring bolts.

Torque - Clutch Spring Bolts: 11 N·m (1.1 kgf·m, 97 in·lb)

- Install the clutch cover (see Clutch Cover Installation).



Spring Plate Free Play Measurement

Insufficient clutch free play will cause the engine braking effect to be more sudden, resulting in rear wheel hop. On the other hand, if the free play is excessive, the clutch lever may feel “spongy” or pulsate when pulled.

- Hold an extra drive shaft in a vise and install the following clutch parts on the shaft (see Clutch Installation).

Collar [A]

Needle Bearing [B]

Sleeve [C]

Clutch Housing [D]

Spacer [E]

Clutch Hub [F]

Sub Clutch Hub [G]

Friction Plates (48 Lining Blocks) [H] (#1, #10)

Steel Plates (T = 2.9 mm, 0.11 in.) [I] (#1 ~ #7)

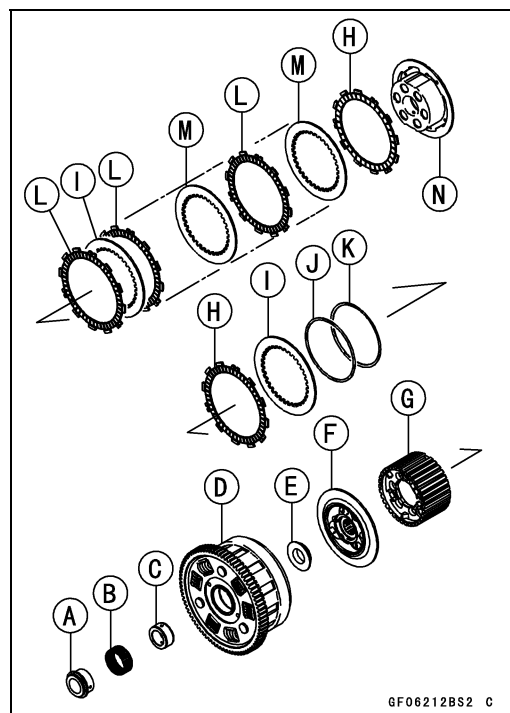
Spring Seat [J]

Spring [K]

Friction Plates (36 Lining Blocks) [L] (#2 ~ #9)

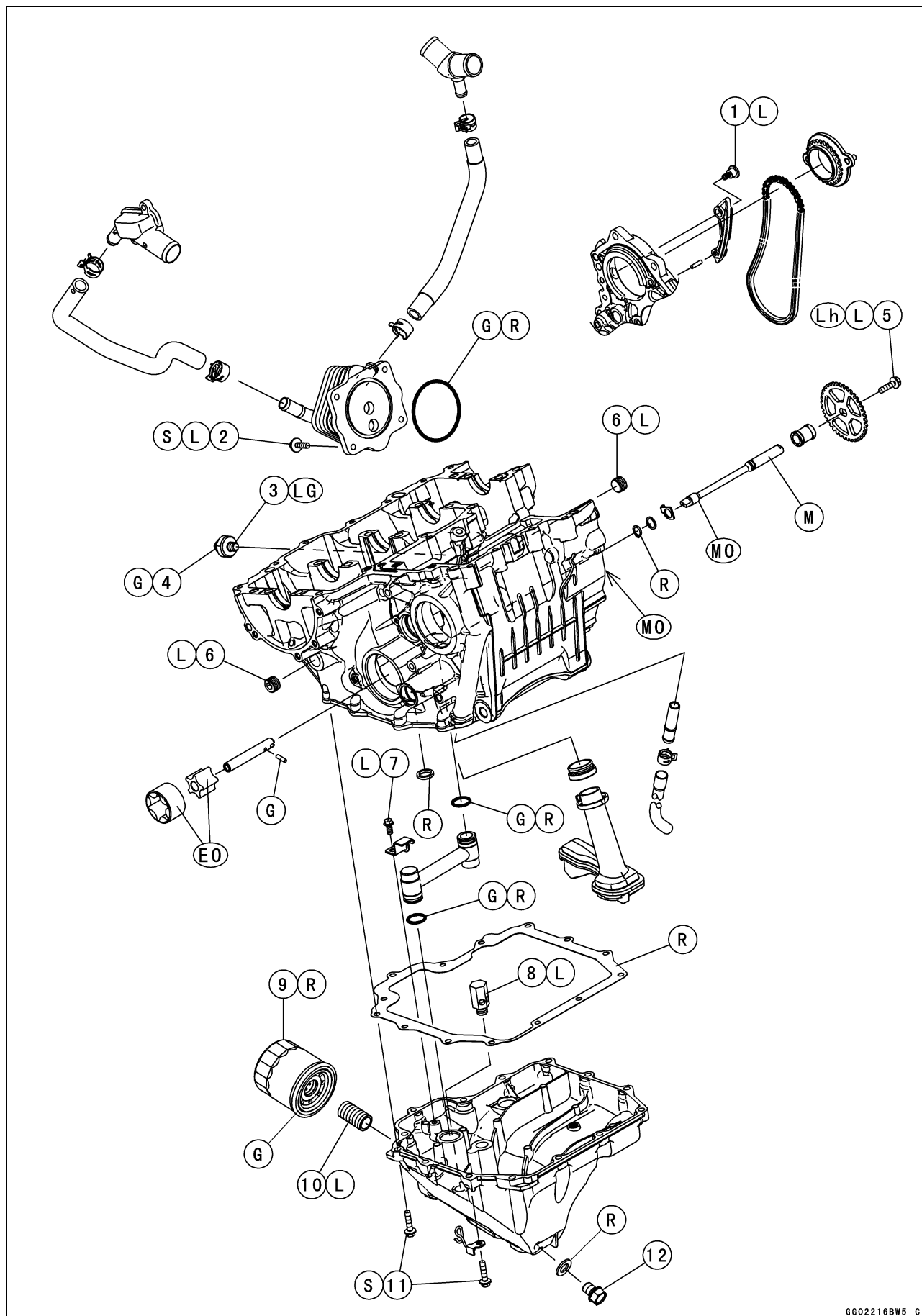
Steel Plates (T = 2.6 mm, 0.10 in.) [M] (#8, #9)

Clutch Spring Plate [N]



7-2 ENGINE LUBRICATION SYSTEM

Exploded View



Exploded View

No.	Fastener	Torque			Remarks
		N·m	kgf·m	ft·lb	
1	Oil Pump Drive Chain Guide Bolt	10	1.0	89 in·lb	L
2	Oil Cooler Mounting Bolts	12	1.2	106 in·lb	L, S
3	Oil Pressure Switch	15	1.5	11	LG
4	Oil Pressure Switch Terminal Bolt	1.5	0.15	13 in·lb	G
5	Oil Pump Drive Gear Bolt	10	1.0	89 in·lb	L, Lh
6	Oil Passage Plugs (Tapered)	20	2.0	15	L
7	Oil Pipe Holder Bolt	10	1.0	89 in·lb	L
8	Oil Pressure Relief Valve	15	1.5	11	L
9	Oil Filter	17	1.7	13	G, R
10	Oil Filter Holder Bolt	35	3.6	26	L
11	Oil Pan Bolts	10	1.0	89 in·lb	S
12	Engine Oil Drain Bolt	29	3.0	21	

EO: Apply engine oil.

G: Apply grease.

L: Apply a non-permanent locking agent.

LG: Apply liquid gasket.

Lh: Left-hand Threads

M: Apply molybdenum disulfide grease.

MO: Apply molybdenum disulfide oil solution.

(mixture of the engine oil and molybdenum disulfide grease in a weight ratio 10:1)

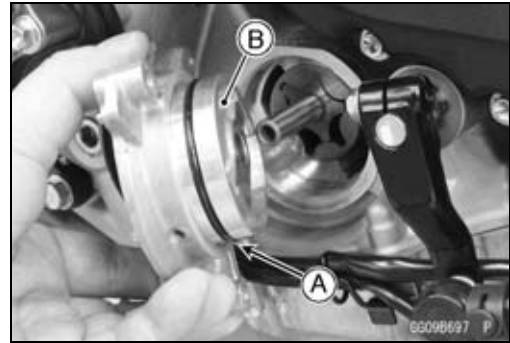
R: Replacement Parts

S: Follow the specified tightening sequence.

7-12 ENGINE LUBRICATION SYSTEM

Oil Pump

- Replace the O-ring [A] with a new one.
- Apply grease to the O-ring.
- Install the oil (water) pump body [B].



- Apply coolant to the surface of the rubber seal [A] on the impeller.
- Install the impeller, washer and impeller bolt.
- Tighten:

Torque - Impeller Bolt: 10 N·m (1.0 kgf·m, 89 in·lb)

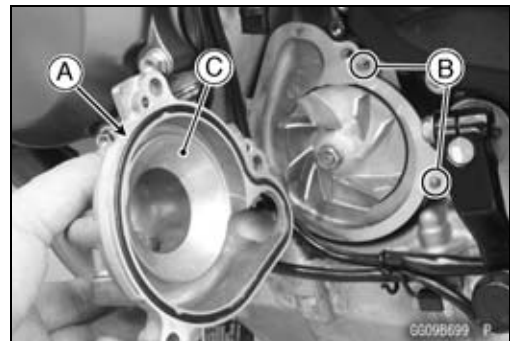


- Replace the O-ring [A] with a new one.
- Apply liquid gasket to any positions of the O-ring to prevent it from coming off.

Sealant - Liquid Gasket, TB1211F: 92104-0004

- Install the dowel pins [B] and water pump cover [C].
- Apply a non-permanent locking agent to the water pump cover bolts (L = 40 mm, 1.6 in.) and tighten them.
- Insert the bolt (L = 25 mm, 1.0 in.) to the upper bolt hole.

Torque - Water Pump Cover Bolts: 10 N·m (1.0 kgf·m, 89 in·lb)



- Install the water pipe and hoses (see Cable, Wire, and Hose Routing section in the Appendix chapter).
- Replace the O-ring [A] with a new one.
- Apply soap and water solution to the O-ring.
- Apply a non-permanent locking agent to the water pipe mounting bolt.
- Tighten:

Torque - Water Pipe Mounting Bolt: 10 N·m (1.0 kgf·m, 89 in·lb)

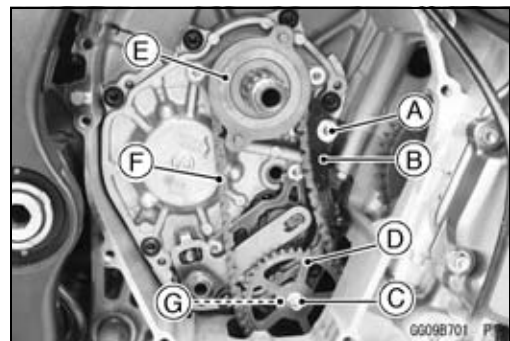
Water Hose Clamp Screw: 3.0 N·m (0.31 kgf·m, 27 in·lb)



Oil Pump Drive Gear Removal/Installation

- Remove:
 - Clutch (see Clutch Removal in the Clutch chapter)
 - Oil Pump Drive Chain Guide Bolt [A]
 - Oil Pump Drive Chain Guide [B]
 - Oil Pump Drive Gear Bolt [C]
 - Oil Pump Drive Gear [D]
 - Oil Pump Sprocket [E]
 - Oil Pump Drive Chain [F]
 - Collar [G]

○ The oil pump drive gear bolt is left-hand threads.



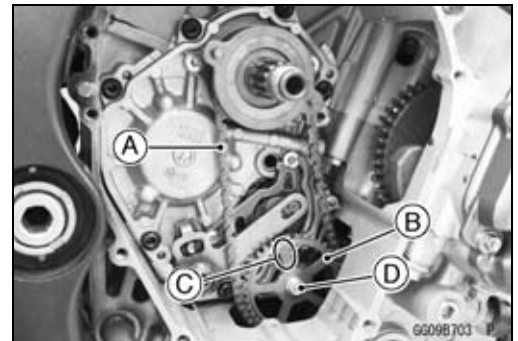
Oil Pump

Oil Pump Drive Gear Installation

- Install the collar [A] to the oil pump drive gear shaft.



- Engage the oil pump drive chain [A] to the gears, and then install the oil pump drive gear [B].
- Face the "OUT" mark [C] to outside.
- Apply a non-permanent locking agent to the oil pump drive chain guide bolt and the oil pump drive gear bolt [D].
- Tighten the oil pump drive gear bolt temporary.
- The oil pump drive gear bolt is left-hand threads.
- Install the oil pump drive chain guide and tighten its bolt.



Torque - Oil Pump Drive Chain Guide Bolt: 10 N·m (1.0 kgf·m, 89 in·lb)

- Install the clutch (see Clutch Installation in the Clutch chapter).

- Tighten:

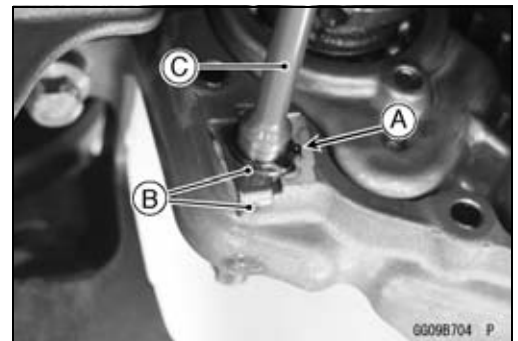
Torque - Oil Pump Drive Gear Bolt: 10 N·m (1.0 kgf·m, 89 in·lb)

- Install the removed parts (see appropriate chapters).

Oil Pump Drive Gear Shaft Removal

- Remove:
 - Oil Pump Drive Gear (see Oil Pump Drive Gear Removal)
 - Oil Pan (see Oil Pan Removal)
 - Circlip [A]
 - Washers [B]
 - Oil Pump Drive Gear Shaft [C]

Special Tool - Outside Circlip Pliers: 57001-144

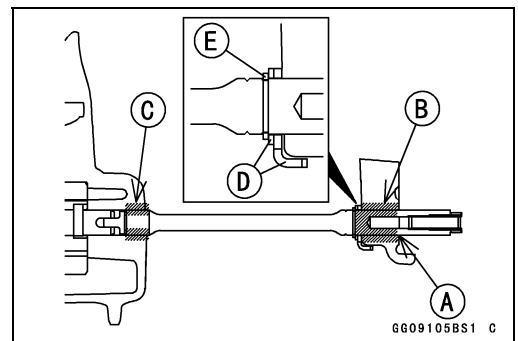


Oil Pump Drive Gear Shaft Installation

- Apply molybdenum disulfide grease [A] to the oil pump drive gear shaft.
- Apply molybdenum disulfide oil solution to the followings.
 - Transmission Case [B]
 - Crankcase [C]
- Install the oil pump drive gear shaft and washers [D] as shown.
- Replace the circlip [E] with a new one.
- Install the circlip into the groove of the oil pump drive gear shaft.

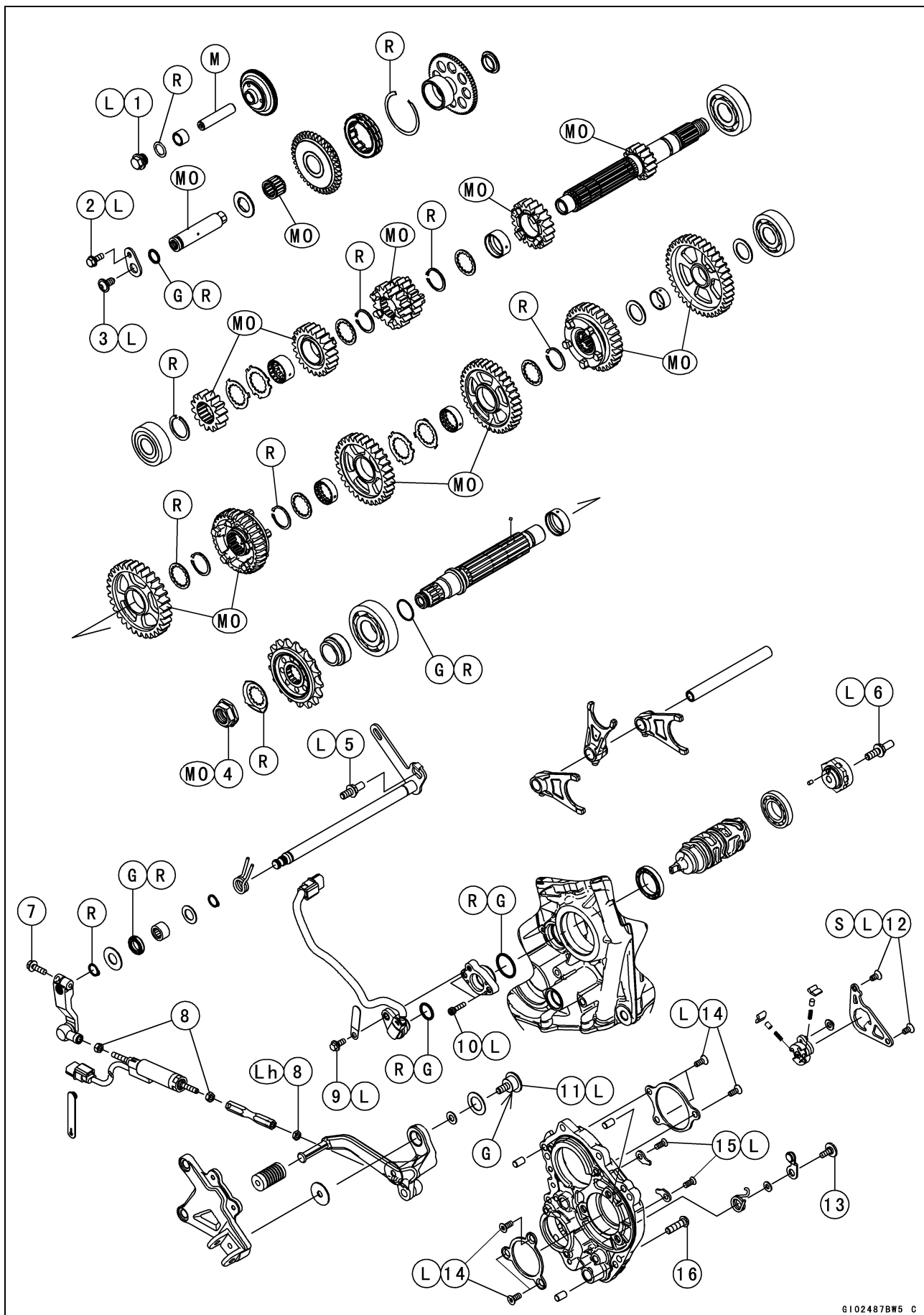
Special Tool - Outside Circlip Pliers: 57001-144

- Install the removed parts (see appropriate chapters).



9-4 CRANKSHAFT/TRANSMISSION

Exploded View



Exploded View

No.	Fastener	Torque			Remarks
		N·m	kgf·m	ft·lb	
1	Torque Limiter Shaft Plug	25	2.5	18	L
2	Starter Motor Clutch Shaft Holder Bolt	10	1.0	89 in·lb	L
3	Starter Motor Clutch Shaft Bolt	20	2.0	15	L
4	Engine Sprocket Nut	147	15.0	108	MO
5	Shift Shaft Return Spring Pin	29	3.0	21	L
6	Shift Drum Cam Holder Bolt	24	2.4	18	L
7	Shift Lever Clamp Bolt	10	1.0	89 in·lb	
8	Shift Rod Adjusting Locknuts	7.0	0.71	62 in·lb	Lh (1)
9	Gear Position Sensor Bolt	10	1.0	89 in·lb	L
10	Gear Position Sensor Holder Bolts	5.0	0.51	44 in·lb	L
11	Shift Pedal Mounting Bolt	25	2.5	18	G, L
12	Shift Ratchet Assembly Holder Bolts	15	1.5	11	L, S
13	Gear Positioning Lever Bolt	12	1.2	106 in·lb	
14	Transmission Case Bearing Holder Bolts (L = 15)	10	1.0	89 in·lb	L
15	Transmission Case Bearing Holder Bolts (L = 14)	10	1.0	89 in·lb	L
16	Transmission Case Bolts	20	2.0	15	

G: Apply grease.

L: Apply a non-permanent locking agent.

Lh: Left-hand Threads

M: Apply molybdenum disulfide grease.

MO: Apply molybdenum disulfide oil solution.

(mixture of the engine oil and molybdenum disulfide grease in a weight ratio 10:1)

R: Replacement Parts

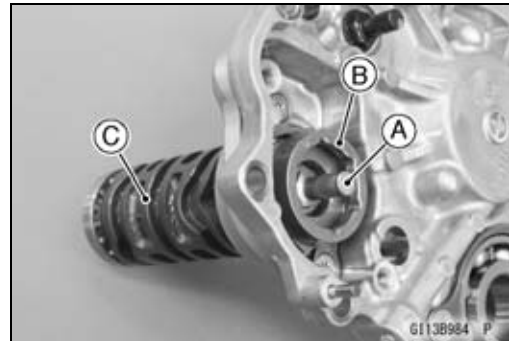
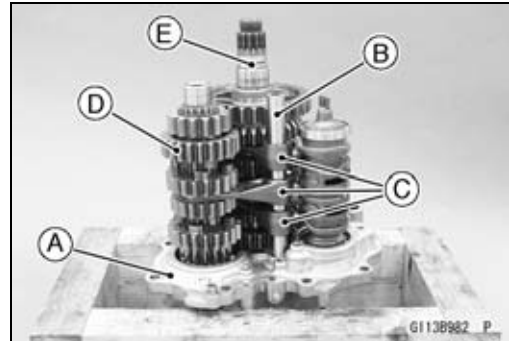
S: Follow the specified tightening sequence.

9-40 CRANKSHAFT/TRANSMISSION

Transmission

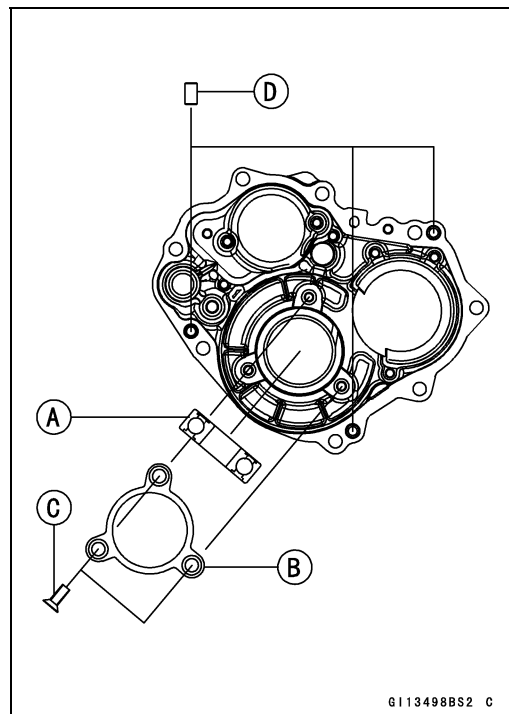
Transmission Assy Disassembly

- Remove the transmission assy (see Transmission Assy Removal).
- Remove the following from the transmission case [A].
 - Shift Rod [B]
 - Shift Forks [C]
 - Drive Shaft [D]
 - Output Shaft [E]
- Remove:
 - Shift Drum Cam Holder Bolt [A]
 - Shift Drum Cam [B]
 - Shift Drum [C]



Transmission Assy Assembly

- Install the ball bearing [A] until it is bottomed.
 - Face the oil seal side to the bottom.
- **Special Tool - Bearing Driver Set: 57001-1129**
- Install the bearing holder [B].
 - Face the flat side to the bottom.
- Apply a non-permanent locking agent to the bearing holder bolts [C].
- Tighten:
 - Torque - Transmission Case Bearing Holder Bolts (L = 15):**
10 N·m (1.0 kgf·m, 89 in·lb)
- Install the dowel pins [D] until they are bottomed.



Transmission

- Install the ball bearing [A] until it is bottomed.
- Face the stepped side to the outside.

Special Tool - Bearing Driver Set: 57001-1129

- Install the bearing holder [B].
- Face the flat side to the bottom.
- Apply a non-permanent locking agent to the bearing holder bolts [C].
- Tighten:

Torque - Transmission Case Bearing Holder Bolts (L = 15): 10 N·m (1.0 kgf·m, 89 in·lb)

- Install the ball bearing [D] until it is bottomed.
- Install the bearing holders [E].
- Face the flat side to the bottom.
- Apply a non-permanent locking agent to the bearing holder bolts [F].
- Tighten:

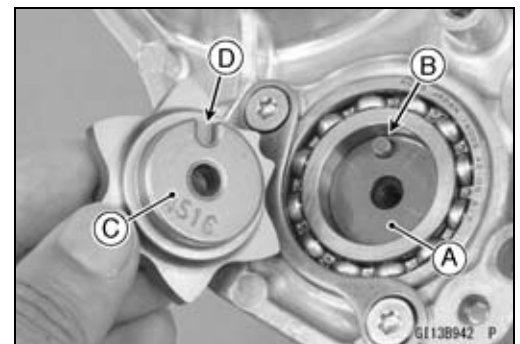
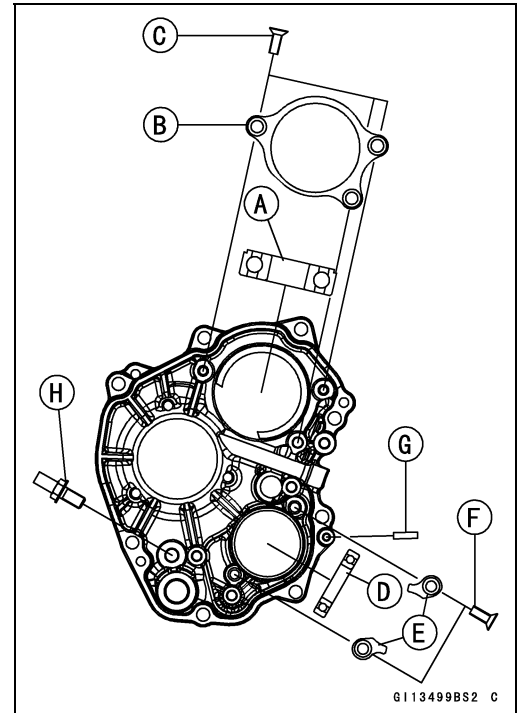
Torque - Transmission Case Bearing Holder Bolts (L = 14): 10 N·m (1.0 kgf·m, 89 in·lb)

- Install the pin [G] until it is bottomed.
- Apply a non-permanent locking agent to the shift shaft return spring pin [H].
- Tighten:

Torque - Shift Shaft Return Spring Pin: 29 N·m (3.0 kgf·m, 21 ft·lb)

- Install:
 - Shift Drum Assembly [A]
 - Pin [B]
 - Shift Drum Cam [C]
- Align the pin with the recess [D].
- Apply a non-permanent locking agent to the threads of the shift drum cam holder bolt, and tighten it.

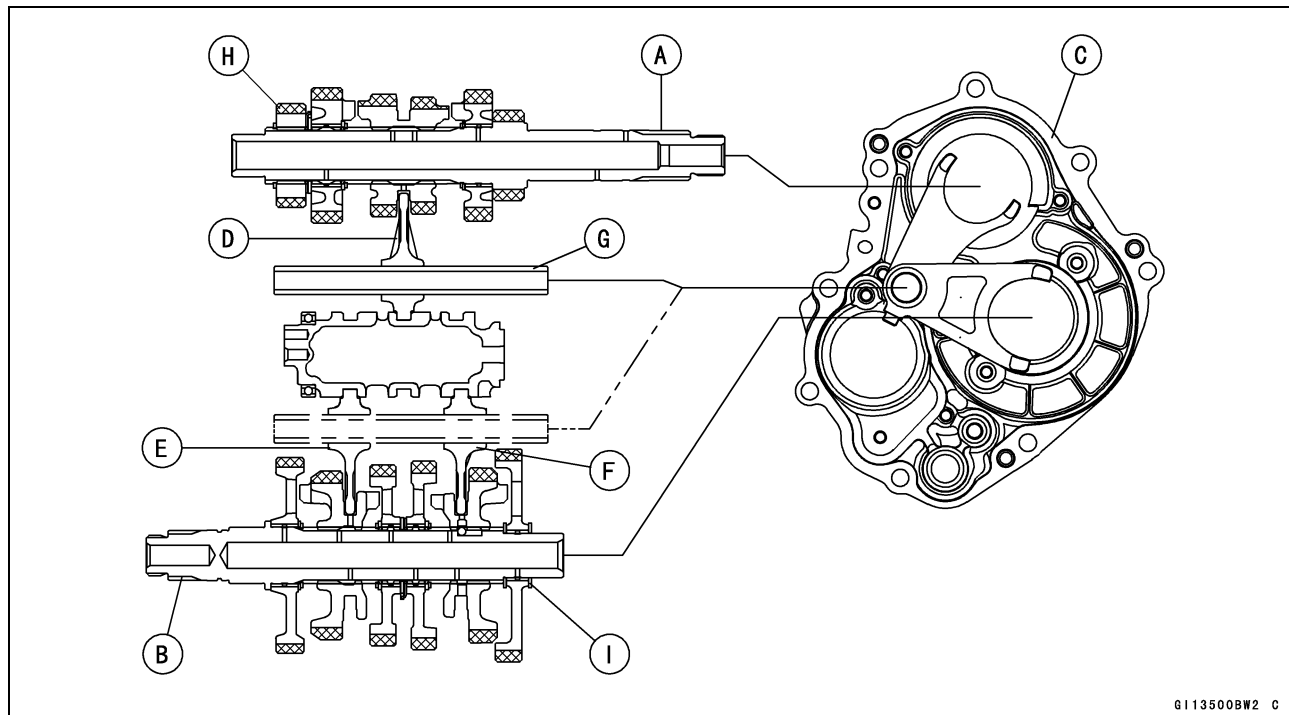
Torque - Shift Drum Cam Holder Bolt: 24 N·m (2.4 kgf·m, 18 ft·lb)



9-42 CRANKSHAFT/TRANSMISSION

Transmission

- Install the drive shaft [A] and output shaft [B] as a set in the transmission case [C].
- Install the shift forks as shown.
- The shift fork [D] for drive shaft has “A2” mark. Face the mark to the upside.
- The shift forks [E] for output shaft have “A1” mark. Face the mark to the bottom.
- The shift forks [F] for output shaft have “A3” mark. Face the mark to the bottom.
- Install the shift rod [G].
- Apply molybdenum disulfide oil solution to the transmission gears (x marks) [H].
- Install the washer [I] on the output shaft.



Transmission Shaft Removal

- Refer to the Transmission Assy Disassembly.

Transmission Shaft Installation

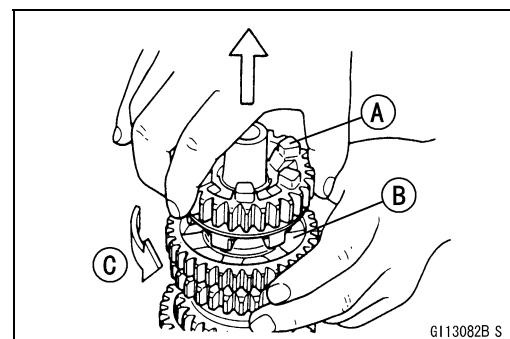
- Refer to the Transmission Assy Assembly.

Transmission Shaft Disassembly

- Remove the transmission shafts (see Transmission Shaft Removal).
- Remove the circlips, and then disassemble the transmission shafts.

Special Tool - Outside Circlip Pliers: 57001-144

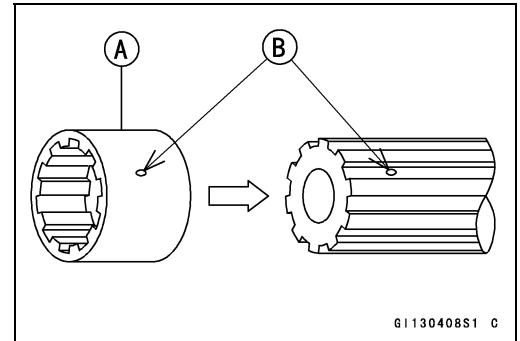
- The 5th gear [A] on the output shaft has three steel balls assembled into it for the positive neutral finder mechanism. Remove the 5th gear as follows.
- Set the output shaft in a vertical position holding the 3rd gear [B].
- Spin the 5th gear quickly [C] and pull it off upward.



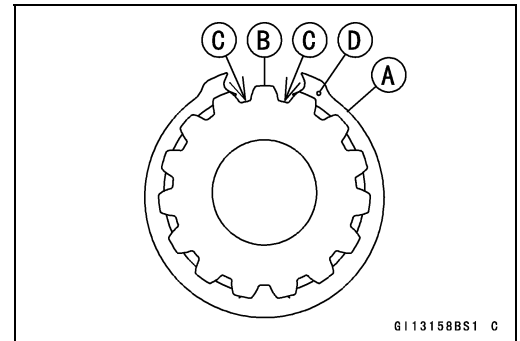
Transmission

Transmission Shaft Assembly

- Apply molybdenum disulfide oil solution to the sliding surfaces of the gears and shafts.
- Install the gears and the gear bushings [A] with their holes [B] aligned.



- Replace any circlips removed with new ones.
- Install the circlips [A] so that the opening [B] of it is aligned with spline grooves [C].
- Install the circlips so that the mark [D] on them faces to each gear side.



- The drive shaft gears can be recognized by size: the gear with the smallest diameter is 1st gear, and the largest one is 6th gear. Be sure that all parts are put back in the correct sequence and all circlips and washers are properly in place.
- Install the 3rd/4th gear onto the drive shaft with their oil holes aligned.
- Install the 5th and 6th gear bushings onto the drive shaft with their oil holes aligned.
- The output shaft gears can be recognized by size: the gear with the largest diameter is 1st gear, and the smallest one is 6th gear. Be sure that all parts are put back in the correct sequence and all circlips and washers are properly in place.
- Install the 6th gear onto the output shaft with their oil holes aligned.
- Install the 1st, 2nd and 3rd/4th gear bushings onto the output shaft with their oil holes aligned.

9-44 CRANKSHAFT/TRANSMISSION

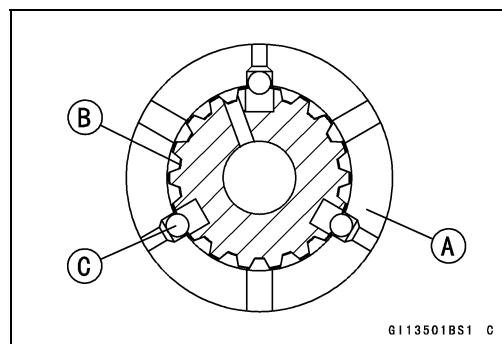
Transmission

- Fit the steel balls into the 5th gear holes in the output shaft.
5th Gear [A]
Output Shaft [B]
Steel Balls [C]

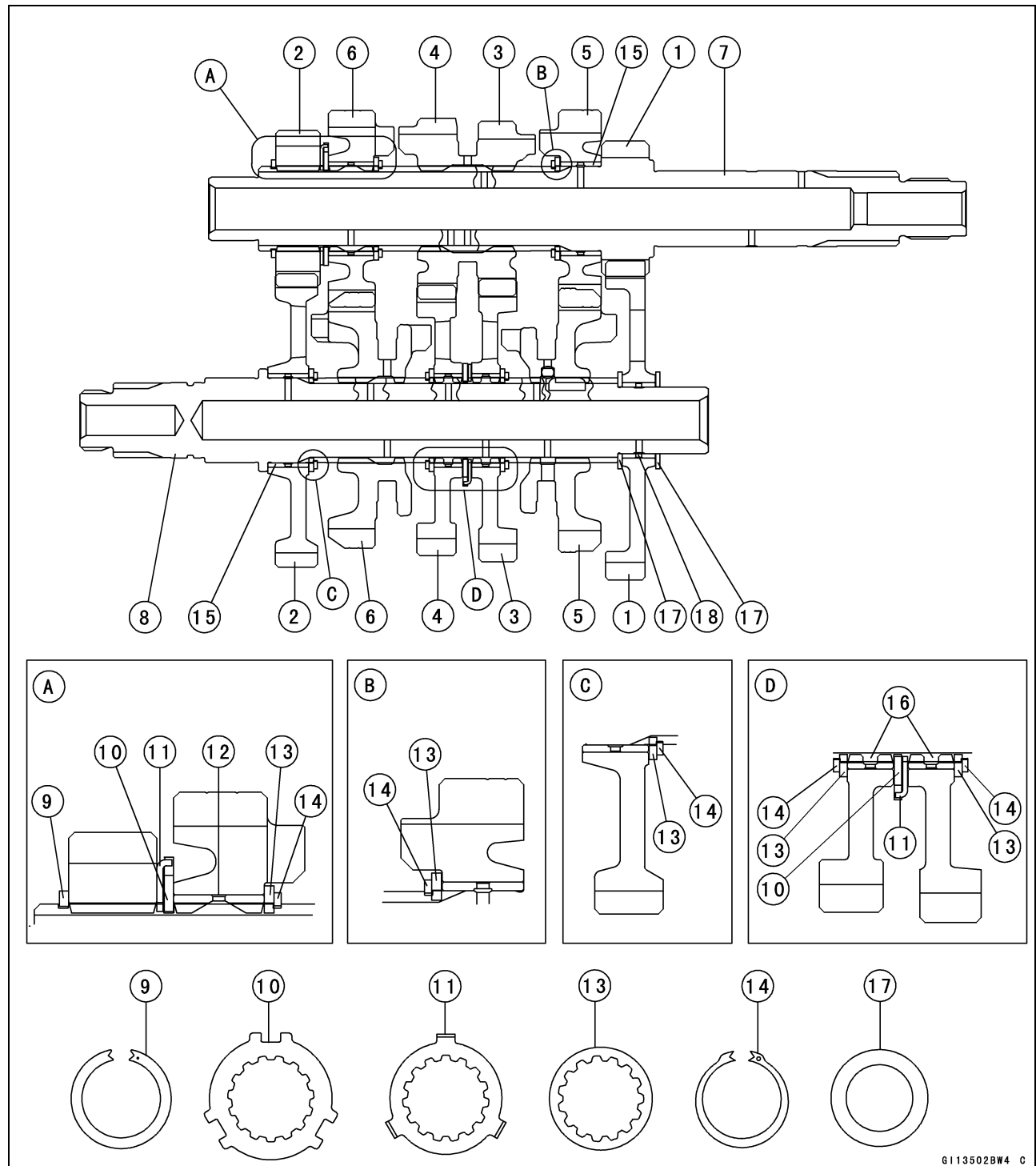
NOTICE

Do not apply grease to the balls to hold them in place. This will cause the positive neutral finder mechanism to malfunction.

- After assembling the 5th gear with steel balls in place on the output shaft, check the ball-locking effect that the 5th gear does not come out of the output shaft when moving it up and down by hand.
- Check that each gear spins or slides freely on the transmission shafts without binding after assembly.



Transmission



- | | |
|---|--|
| 1. 1st Gear | 11. Toothed Washer |
| 2. 2nd Gear | 12. Toothed Bushing, L = 15 mm (0.60 in.) |
| 3. 3rd Gear | 13. Toothed Washer |
| 4. 4th Gear | 14. Circlip (Face the punch mark to the washer.) |
| 5. 5th Gear | 15. Bushing, ϕ 31 mm (1.2 in.) |
| 6. 6th (Top) Gear | 16. Toothed Bushing, L = 9.4 mm (0.37 in.) |
| 7. Drive Shaft | 17. Washer |
| 8. Output Shaft | 18. Bushing, ϕ 25 mm (1.0 in.) |
| 9. Circlip (Face the punch mark to the gear.) | |
| 10. Toothed Washer | |

9-46 CRANKSHAFT/TRANSMISSION

Transmission

Shift Drum and Fork Removal

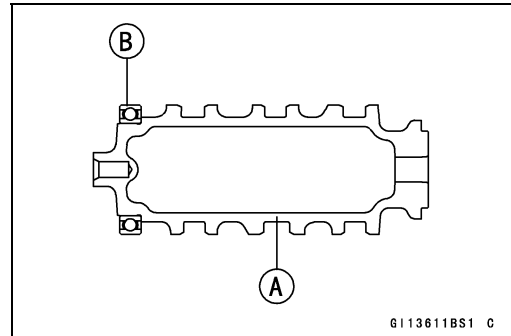
- Refer to the Transmission Assy Disassembly.

Shift Drum and Fork Installation

- Refer to the Transmission Assy Assembly.

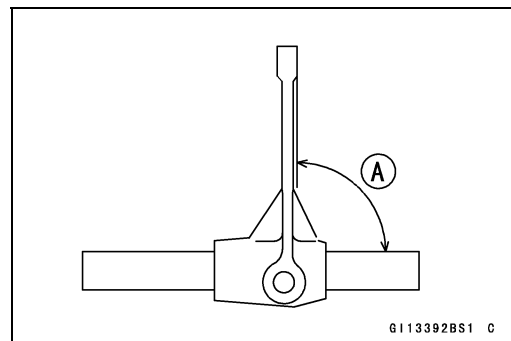
Shift Drum Disassembly/Assembly

- Remove:
 - Shift Drum [A] (see Transmission Assy Disassembly)
 - Ball Bearing [B]
- Press the ball bearing on the shift drum until it is bottomed.
- Install the removed parts (see appropriate chapters).



Shift Fork Bending Inspection

- Visually inspect the shift forks, and replace any fork that is bent. A bent fork could cause difficulty in shifting, or allow the transmission to jump out of gear when under power. 90° [A]



Shift Fork/Gear Groove Wear Inspection

- Measure the thickness of the shift fork ears [A], and measure the width [B] of the gear grooves.
- ★ If the thickness of a shift fork ear is less than the service limit, the shift fork must be replaced.

Shift Fork Ear Thickness

Standard: 5.7 ~ 6.0 mm (0.224 ~ 0.236 in.)

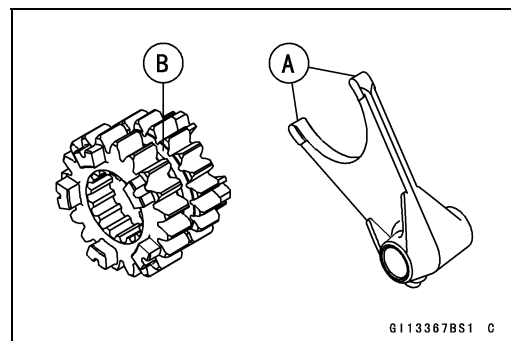
Service Limit: 5.6 mm (0.220 in.)

- ★ If the gear groove is worn over the service limit, the gear must be replaced.

Gear Groove Width

Standard: 6.05 ~ 6.15 mm (0.238 ~ 0.242 in.)

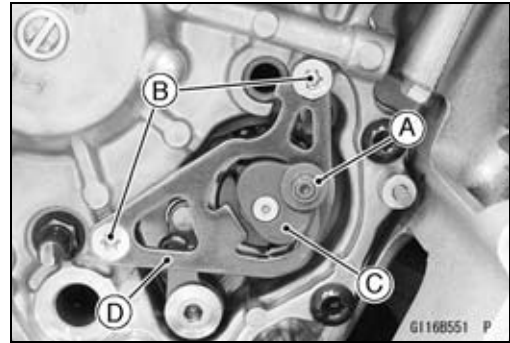
Service Limit: 6.3 mm (0.25 in.)



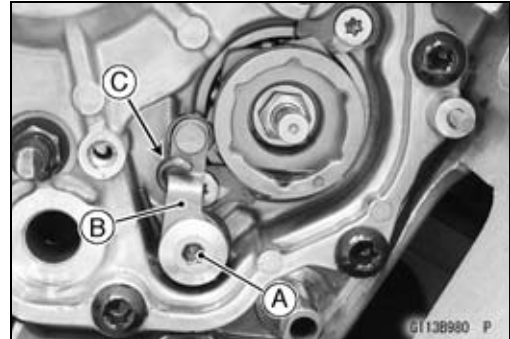
9-50 CRANKSHAFT/TRANSMISSION

External Shift Mechanism

- Remove:
Collar [A]
Shift Ratchet Assembly Holder Bolts [B]
Shift Ratchet Assembly [C] and Holder [D]

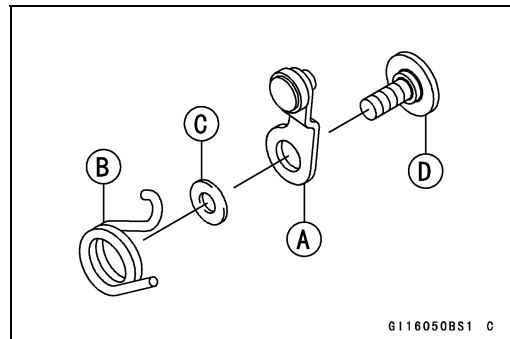


- Remove:
Gear Positioning Lever Bolt [A]
Gear Positioning Lever [B]
Washer and Spring [C]

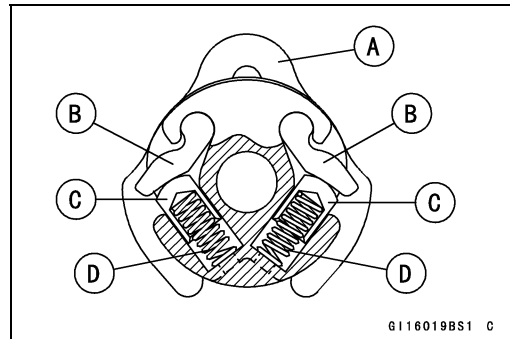


External Shift Mechanism Installation

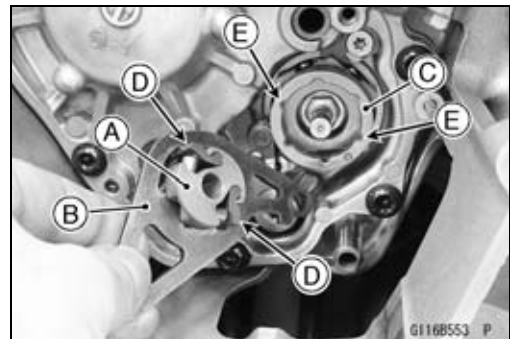
- Install the gear positioning lever [A] as shown.
- Install:
Spring [B]
Washer [C]
- Tighten:
Torque - Gear Positioning Lever Bolt [D]: 12 N·m (1.2 kgf·m, 106 in·lb)



- Assemble:
Ratchet [A]
Pawls [B]
Pins [C]
Springs [D]



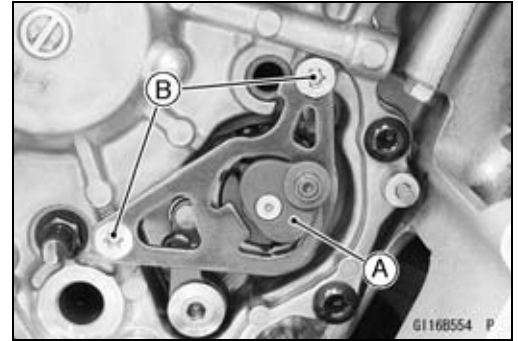
- Install the shift ratchet assembly [A] to the holder [B] as shown.
- Install the shift ratchet assembly to the shift drum cam [C].
- Fit the pawls [D] into the grooves [E].



External Shift Mechanism

- Set the shift ratchet assembly [A] as shown.
- Turn the shift ratchet assembly while pushing the pawls.
- Apply a non-permanent locking agent to the shift ratchet assembly holder bolts [B].
- Tighten the shift ratchet assembly holder bolts temporarily, and then tighten their bolts to the specified torque.
- Tighten the lower bolt first, and then tighten the upper one.

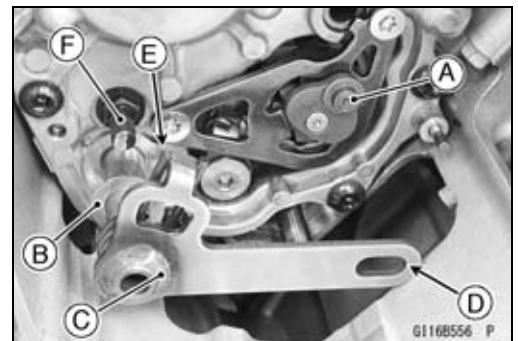
Torque - Shift Ratchet Assembly Holder Bolts: 15 N·m (1.5 kgf·m, 11 ft·lb)



- Replace the oil seal [A] with a new one.
- Apply grease to the lips of the oil seal.
- Apply engine oil to the needle bearing [B].



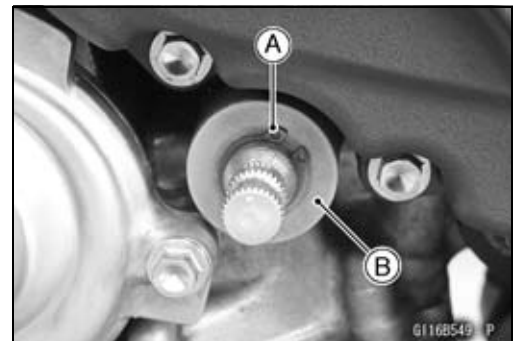
- Install:
 - Collar [A]
 - Washer [B]
 - Shift Shaft Assembly [C]
- Fit the hole [D] and the collar.
- Fit the return spring [E] and the pin [F].



- Replace the circlip [A] with a new one.
- Install:
 - Washer [B]
 - Circlip

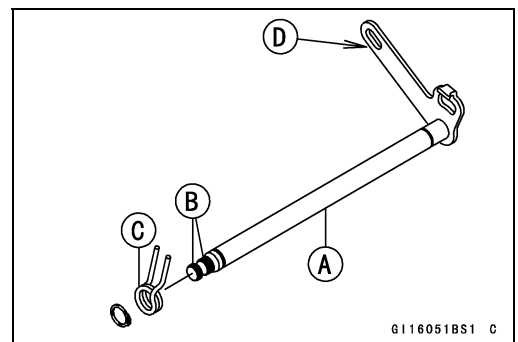
Special Tool - Outside Circlip Pliers: 57001-144

- Fit the circlip into the groove of the shift shaft securely.
- Install the removed parts (see appropriate chapters).



External Shift Mechanism Inspection

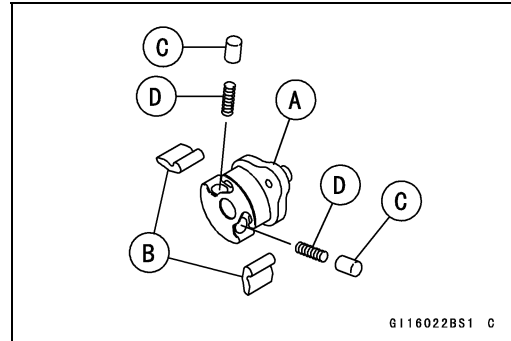
- Examine the shift shaft [A] for any damage.
- ★ If the shaft is bent, straighten or replace it.
- ★ If the serration [B] are damaged, replace the shaft.
- ★ If the spring [C] is damaged in any way, replace it.
- ★ If the shift mechanism arm [D] is damaged in any way, replace the shaft.



9-52 CRANKSHAFT/TRANSMISSION

External Shift Mechanism

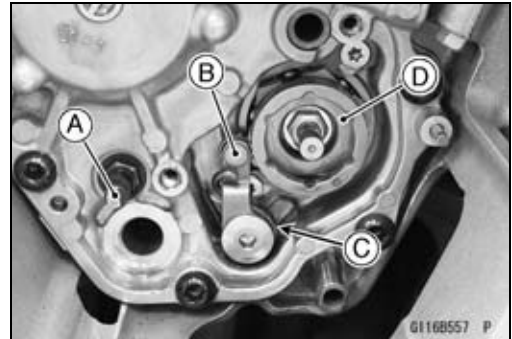
- Check the shift ratchet assembly for any damage.
- ★ If the ratchet [A], pawls [B], pins [C] or springs [D] are damaged in any way, replace them.



- Check the return spring pin [A] is not loose.
- ★ If it is loose, unscrew it, apply a non-permanent locking agent to the threads, and tighten it.

Torque - Shift Shaft Return Spring Pin: 29 N·m (3.0 kgf·m, 21 ft·lb)

- Check the gear positioning lever [B] and spring [C] for breaks or distortion.
- ★ If the lever or spring are damaged in any way, replace them.
- Visually inspect the shift drum cam [D].
- ★ If they are badly worn or if they show any damage, replace it.



Exploded View

No.	Fastener	Torque			Remarks
		N·m	kgf·m	ft·lb	
1	Engine Sprocket Cover Bolts	10	1.0	89 in·lb	
2	Engine Sprocket Nut	147	15.0	108	MO
3	Rear Axle Nut	130	13.3	95.9	
4	Rear Sprocket Nuts	60	6.1	44	R, S
5	Chain Guide Mounting Bolt	1.8	0.18	16 in·lb	L
6	Chain Cover Mounting Bolts	3.0	0.31	27 in·lb	L

HG: Apply high-temperature grease.

HO: Apply heavy oil.

L: Apply a non-permanent locking agent.

MO: Apply molybdenum disulfide oil solution.

(mixture of the engine oil and molybdenum disulfide grease in a weight ratio 10:1)

R: Replacement Parts

S: Follow the specified tightening sequence.

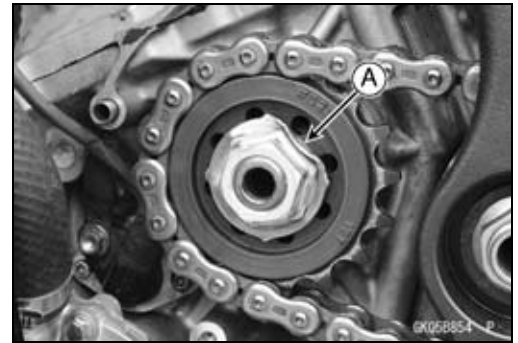
11-4 FINAL DRIVE

Specifications

Item	Standard	Service Limit
Drive Chain		
Drive Chain Slack	25 ~ 35 mm (1.0 ~ 1.4 in.)	— — —
Drive Chain Wear (20-link Length)	317.5 ~ 318.2 mm (12.50 ~ 12.53 in.)	319 mm (12.6 in.)
Standard Chain:		
Make	ENUMA	— — —
Type	EK525RMX3/3D	— — —
Link	114 links	— — —
Sprockets		
Rear Sprocket Warp	TIR 0.4 mm (0.016 in.) or less	TIR 0.5 mm (0.020 in.)

Sprocket, Coupling

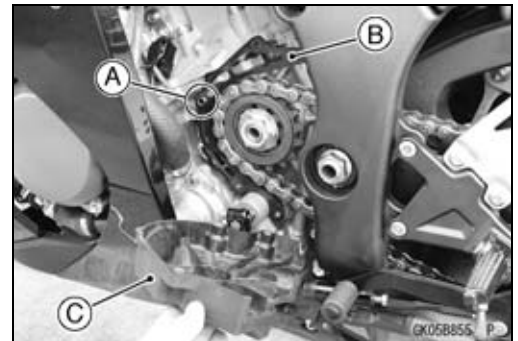
- After torquing the engine sprocket nut, bend [A] one side of the washer over the nut.
- Adjust the drive chain slack after installing the engine sprocket (see Drive Chain Slack Adjustment in the Periodic Maintenance chapter).



- Install:
 - Dowel Pin [A]
 - Chain Guide [B]
 - Engine Sprocket Cover [C]

- Tighten:

Torque - Engine Sprocket Cover Bolts: 10 N·m (1.0 kgf·m, 89 in·lb)



Rear Sprocket Removal

- Remove the rear wheel (see Rear Wheel Removal in the Wheels/Tires chapter).

NOTICE

Do not lay the wheel on the ground with the disc facing down. This can damage or warp the disc. Place blocks under the wheel so that the disc does not touch the ground.

- Remove:
 - Rear Sprocket Nuts [A]
 - Rear Sprocket [B]



Rear Sprocket Installation

- Replace the rear sprocket nuts with new ones.
- Install:
 - Rear Sprocket
- The tooth number marking [A] faces to the outside of the wheel.



11-12 FINAL DRIVE

Sprocket, Coupling

- Tighten the rear sprocket nuts to a snug fit following the specified sequence.
- Tighten the rear sprocket nuts to the specified torque with the same sequence.

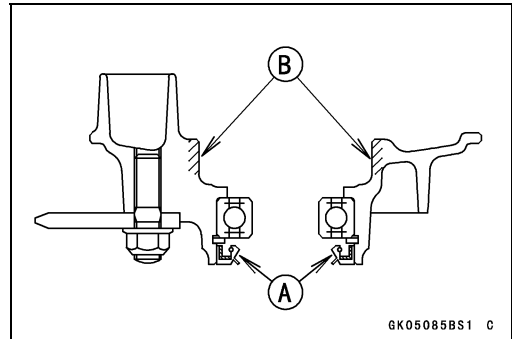
Torque - Rear Sprocket Nuts: 60 N·m (6.1 kgf·m, 44 ft·lb)

- After tightening, check that the bolt ends protrude from the nuts.
- Install the rear wheel (see Rear Wheel Installation in the Wheels/Tires chapter).

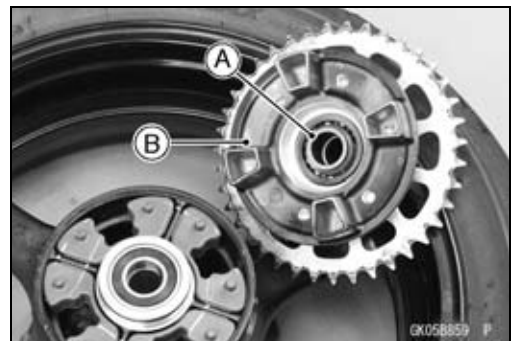


Coupling Installation

- Apply high-temperature grease to the following.
 - Coupling Grease Seal Lip [A]
 - Coupling Internal Surface [B]



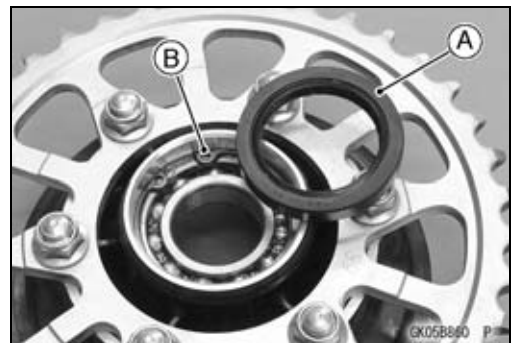
- Install:
 - Collar [A]
 - Coupling [B]



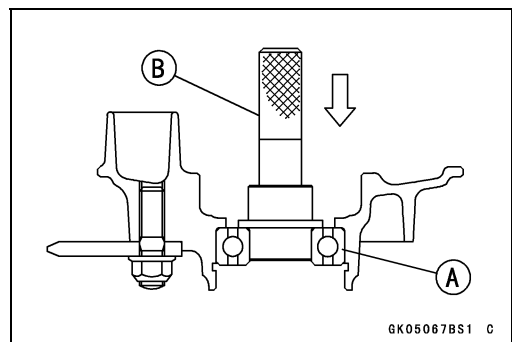
Coupling Bearing Removal

- Remove:
 - Coupling
 - Grease Seal [A]
 - Circlip [B]

Special Tool - Inside Circlip Pliers: 57001-143

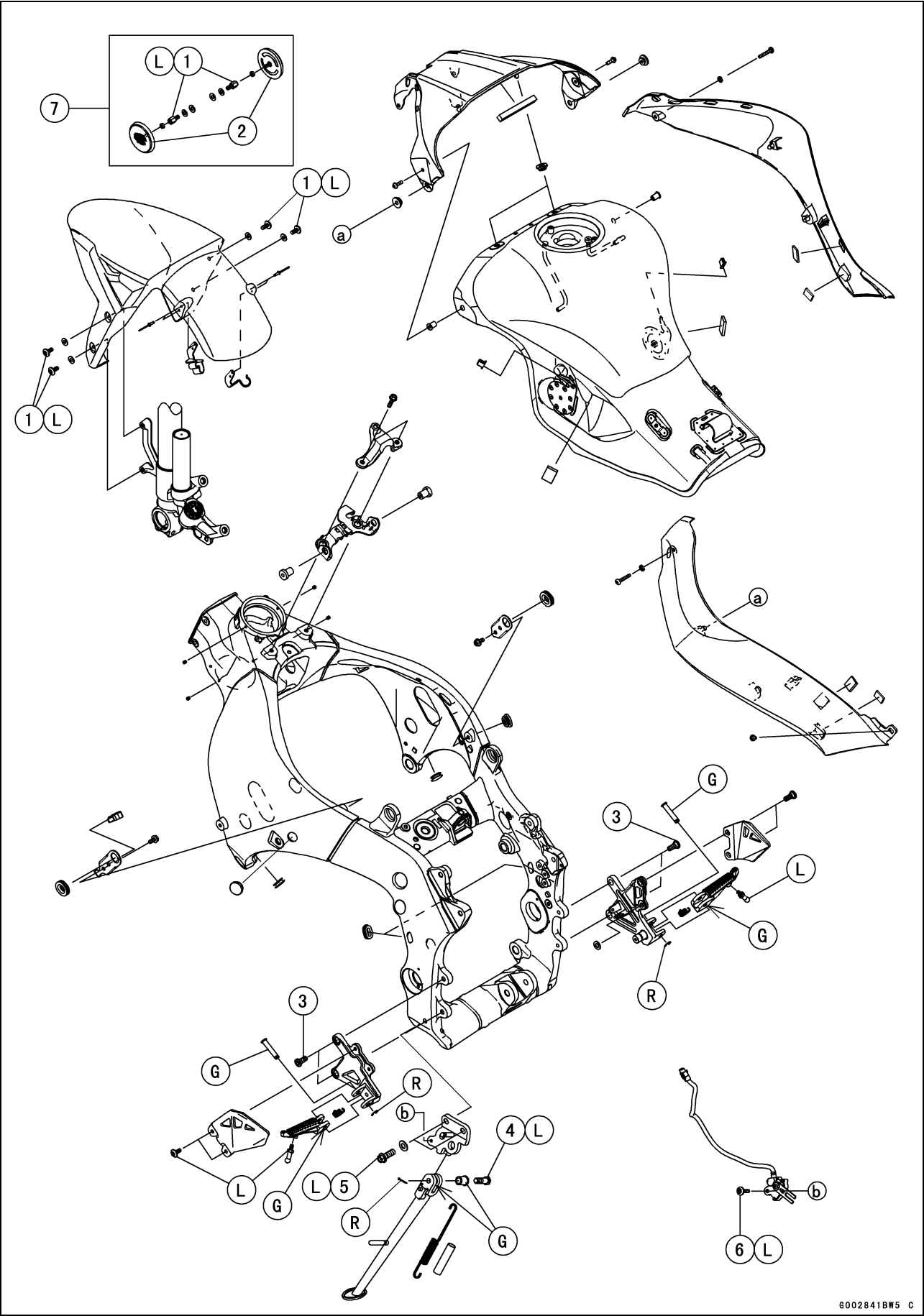


- Remove the bearing [A] by tapping from the wheel side.
Special Tool - Bearing Driver Set [B]: 57001-1129



15-2 FRAME

Exploded View



Exploded View

No.	Fastener	Torque			Remarks
		N·m	kgf·m	ft·lb	
1	Front Fender Mounting Bolts	4.0	0.41	35 in·lb	L
2	Front Reflectors	3.4	0.35	30 in·lb	
3	Front Footpeg Bracket Bolts	25	2.5	18	
4	Side Stand Bolt	45	4.6	33	L
5	Side Stand Bracket Bolts	50	5.1	37	L
6	Side Stand Switch Bolt	9.0	0.92	80 in·lb	L

7. US and CA Models

G: Apply grease.

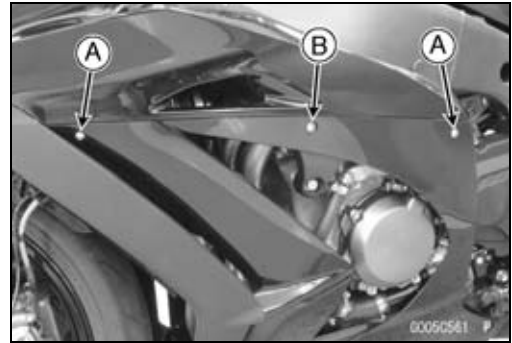
L: Apply a non-permanent locking agent.

R: Replacement Parts

15-14 FRAME

Fairings

- Remove:
Bolts [A] and Washers
Bolt [B] and Collar



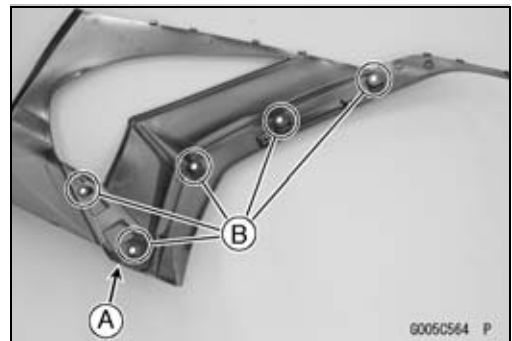
- Pull the rear part of the lower fairing downward to clear the hooks [A] from the upper fairing [B].



- Pull the lower fairing rearward to clear the hook [A] from the upper fairing.



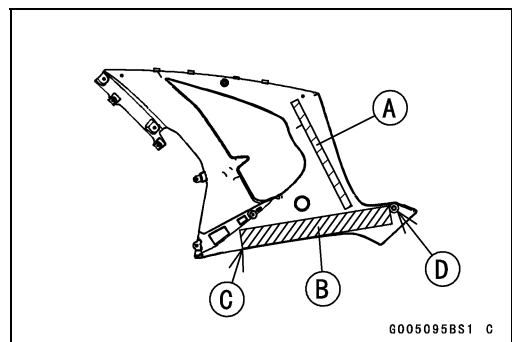
- Remove the followings if necessary.
Quick Rivet [A]
Screws [B]



Lower Fairing Installation

Right Side

- When installing the pad [A], align it along the marked line.
- When installing the pad [B], align it along the edge [C] and boss [D] of the fairing.



Left and Right Side

- Install the lower fairing in the reverse of removal.

Fairings

Upper Fairing Assembly Removal

- Remove:
 - Lower Fairings (see Lower Fairing Removal)
 - Inner Fairing (see Inner Fairing Removal)
 - Inner Covers (see Inner Cover Removal)
 - Rear View Mirrors (see Rear View Mirror Removal)
 - Disconnect the regulator/rectifier connectors [A].
 - Remove:
 - Bolt [B]
 - Nut [C]
 - Regulator/Rectifier [D] with Bracket
 - Open the clamps [E].
-
- Remove the fuse box [A] and connectors from the bracket on the upper fairing.
 - Remove:
 - Bolt [B] and Clamp [C]
 - Disconnect:
 - Headlight Lead Connector [D]
-
- Disconnect:
 - Headlight Lead Connector [A]
 - City Light Lead Connector [B]
 - Open the clamp [C].
 - Remove:
 - Bolt [D] and Clamp [E]
-
- Open the clamp [A].

