SUZUKI

Service Bulletin

MOTORCYCLE DIVISION **4-STROKE**

BULLETIN NO. GS/GSX/GSX-R-112

DATE: 10/27/2000

SAFETY RECALL CAMPAIGN
1999 & 2000 GSX1300R Hayabusa
SECOND GENERATION
CAM CHAIN TENSION ADJUSTER

MODEL: **GSX1300R Hayabusa**

SUBJECT: **RECALL CAMPAIGN - CAM CHAIN TENSION ADJUSTER**

AFFECTED UNITS: **ALL 1999 & 2000 MODEL YEAR GSX1300Rs ARE AFFECTED**

REFERENCE: **GSX1300R SERVICE MANUAL (PN 99500-39181-03E) & SERVICE BULLETIN GS/GSX/GSX-R #108 - FUEL HOSE ROUTING**

ATTACHMENT: **DEALER AND CUSTOMER LETTERS**

NOTICE:

Suzuki Motor Corporation has decided that a defect which relates to motor vehicle safety exists in all 1999 and 2000 model year GSX1300R Hayabusa motorcycles.

Suzuki Motor Corporation has determined that the spring in the engine's original cam chain tension adjuster, **and the spring in the first generation 1999 GSX1300RX safety recall campaign cam chain tension adjuster**, can break. If this happens, excessive slack will develop in the cam chain, which can allow the cam chain to jump to the wrong position on the camshaft sprockets. If the chain jumps to the wrong position, severe engine damage can occur. This may cause sudden engine failure. Sudden engine failure while riding could cause rear wheel lockup, disturbing the rider's ability to control the motorcycle, and could cause a crash without prior warning.

STOP DELIVERY OF GSX1300RX AND GSX1300RY MOTORCYCLES IMMEDIATELY

Effective immediately, DO NOT DELIVER a NEW or USED 1999 or 2000 model year GSX1300R Hayabusa motorcycle to a customer until you complete the second generation cam-chain tension adjuster recall service described in this service bulletin.

Continued ⇨

- IMPORTANT SAFETY RECALL REQUIREMENT -

Title 49 of the United States Code, Section 30120 (i) states that if a manufacturer has notified a dealer that a defect or noncompliance exists in a vehicle in the dealer's possession, the dealer may NOT sell or lease the vehicle, unless the dealer remedies the defect or non compliance before delivery under sale or lease.

Failure to comply with this federal law may subject your dealership to a federal penalty of up to $1,100.00 for each vehicle delivered to a customer before the recall service was completed.

It has been a longstanding policy of American Suzuki that **ALL** vehicles affected by such a campaign be corrected prior to sale or lease to a customer. You must verify this on the Suzuki "Certificate of Vehicle Pre-Delivery" form (99923-09823-005), which is to be completed for all vehicle sales.

Please inform all affected dealership personnel of this requirement and make sure that no affected vehicles or spare parts are delivered to a customer without all applicable campaign modifications or repairs having been performed.

TAKE IMMEDIATE ACTION:
Due to the serious nature of this situation, Suzuki requires that you **ORDER THE REQUIRED PARTS AND PERFORM THE RECALL SERVICE AS QUICKLY AS POSSIBLE ON YOUR CUSTOMERS' MOTORCYCLES,** see page 4 of this bulletin for parts ordering information. Join with us in promoting the safe use of Suzuki products.

NEW, SECOND GENERATION CAM CHAIN TENSION ADJUSTER RECALL SERVICE:
Due to tension adjuster failures on the 1999 and 2000 model year GSX1300R motorcycles, and first generation recall tension adjuster parts, Suzuki has developed a new, oil-damped ratchet-type tension adjuster that will eliminate subsequent tension adjuster failures. The new, second generation oil-damped ratchet-type tension adjuster has steel internal components.

Flat rate time for installing the new, second generation cam chain tension adjuster and related components is 3.5 hours. While this takes some time, this repair is the best solution for your customer's safety and satisfaction (see page 5 through 26 for the recall service procedure). This recall service will be done at no cost to the customer for parts and labor.

- GSX1300R TENSION ADJUSTER RECALL HISTORY & REQUIREMENTS -

1999 GSX1300RX motorcycles:
Should have received first generation cam chain tension adjusters under recall service campaign #2039 (Service Bulletin GS/GSX/GSX-R#110 October 10, 1999).

Require the new, second generation tension adjuster recall service under campaign #2044 (Service Bulletin GS/GSX/GSX-R #112, October 27, 2000).

2000 GSX1300RY motorcycles:
No previous cam chain tension adjuster recall was issued.

Require new, second generation tension adjuster recall service under campaign #2044 (Service Bulletin GS/GSX/GSX-R #112, October 27, 2000).

2001 GSX1300RK1 motorcycles:
Not affected by the first or second generation cam chain tension adjuster recall. Engine is equipped with oil damped ratchet-type tension adjuster.

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CUSTOMER NOTIFICATION LETTER:
For motorcycles that have already been delivered to customers, perform the recall service as promptly as possible. Attached is a letter being sent to all owners of affected motorcycles about whom we have information. This letter was mailed October 27, 2000.

Since Suzuki is instituting a recall campaign for an item that was replaced under a prior recall campaign there is the possibility that customers may be confused. It is essential that you brief your staff on the important aspects of the recall campaign so they can be prepared to assist customers correctly when they contact your dealership. Suzuki strongly suggests you conduct a store meeting so all staff members can be made familiar with the important aspects of this recall service campaign.

NOTE: *Suzuki's warranty records indicate that 70% of the 1999 GSX1300RX motorcycles have received the first generation cam chain tension adjuster recall service. As such, some customers may not understand that their recall campaign letter is notifying them about a completely different tension adjuster part and service. Please use your very best efforts to get the second generation cam chain tension adjuster installed in ALL 1999 and 2000 model year GSX1300R motorcycles.*

FAQ LIST:
The customer notification letter also contains a Frequently Asked Question (FAQ) list that addresses most of the questions a customer might ask about the second generation cam chain tension adjuster safety recall campaign. Review of the FAQs and the responses during your store meeting will aid in the understanding and administration of the safety recall campaign.

TRACKING RECALL SERVICE COMPLETION:
Suzuki will mail you a listing of affected motorcycles your dealership has sold and registered. Use this list to track the recall services you perform and to contact customers whose 1999 or 2000 GSX1300R motorcycles may not be registered and who you must contact and inform of the need to have the second generation cam chain tension adjuster recall service performed.

UNREGISTERED UNITS:
If your dealership has sold a 1999 or 2000 model year GSX1300R to a customer, but not yet mailed us the "Sales-In-Service Registration" card or submitted a SCAT entry, send the sales information to American Suzuki **AT ONCE**. We will send the customer an owner notification letter when we receive the sales information from your dealership.

Since only you know the identity of these customers, ***you*** **must immediately notify these customers of the recall campaign.** Please telephone all of these customers and inform them of the need to have the recall service performed.

UNITS OUT OF REACH:
If you are aware of any 1999 or 2000 model year GSX1300R motorcycles which have been scrapped, stolen or exported outside of the United States, send this information to the Suzuki Warranty Dept. in Brea, CA.

RECALL PARTS SHIPPING:
Suzuki anticipates all recall service parts can be delivered to dealerships by the week of October 27, 2000. Parts will be shipped freight pre-paid, UPS 3-day delivery. The recall service parts will be billed to your parts account at 90-day net terms.

WARRANTY CLAIM PROCESSING:
The SCAT system will accept recall service warranty claims. Dealers not using SCAT will need to complete and mail in a regular paper warranty request form for each recall service performed. See pages 26 and 27 of this bulletin for warranty request information.

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FAX PARTS ORDER SYSTEM:

FOR THIS CAMPAIGN, YOU WILL NEED TO ORDER PARTS USING THE FAX ORDER SYSTEM.
Sorry, but you can NOT use your normal parts ordering procedure to order recall service parts.

Attached to this bulletin are FAX order forms. Print your customer's name and the affected motorcycle's VIN number on the form, along with your dealership information. Fax the form to the recall parts order FAX line at 714-528-3090. Questions about recall service parts orders will be addressed by the recall parts coordinator at 714-996-7040, extension 2551.

FAX ORDER FORM EXAMPLE

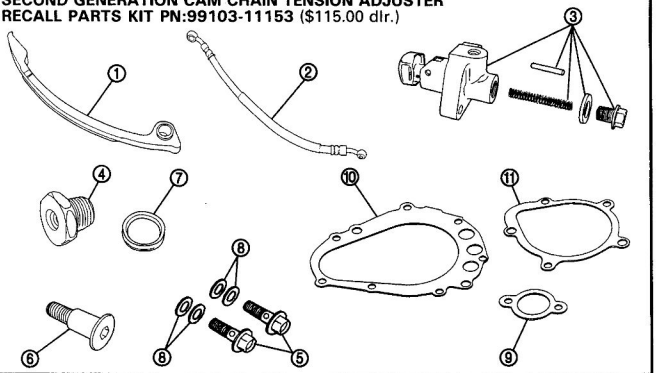
VIN# (last 9 digits)

3	Y	2	1	0	1	2	2	5

Customer name * *If a new unit, write in* "UNSOLD"

Thomas Falcon

SECOND GENERATION CAM CHAIN TENSION ADJUSTER
RECALL PARTS KIT PN:99103-11153 ($115.00 dlr.)



Item	*Part number*	*Part description*	*Quantity*
①	12811-24F10	Cam chain tensioner	1
②	12835-24F00	Cam chain tension adjuster oil hose	1
③	12830-24F10	Cam chain tension adjuster	1
④	12839-24F00	Adjuster oil hose union plug	1
⑤	12838-35F00	Adjuster oil hose union bolt	2
⑥	12812-26B02	Cam chain tensioner bolt	1
⑦	09168-14002	Adjuster oil hose plug gasket	1
⑧	09168-08008	Adjuster oil hose bolt gaskets	4
⑨	12837-24A10	Cam chain tension adjuster gasket	1
⑩	11491-24F01	Starter clutch cover gasket	1
⑪	11492-24F00	Starter idler gear cap gasket	1

Note: *Do not order recall service parts individually based on upon the part numbers listed here. These numbers are for reference only and individual parts may not be initially available. Use the recall parts FAX order form to order parts for your customers' safety recall service.*

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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE:

NOTE

Refer to the GSX1300R Service Manual (99500-39181-03E) for additional information on the recall service described in this bulletin.

FUEL TANK REMOVAL

1. Place the motorcycle on a suitable service stand (or on the centerstand, if equipped).

2. Remove the allen bolts securing the rider's seat and remove the seat from the motorcycle (*figure 1*).

3. Disconnect the battery ⊖ (negative) lead wire (*figure 2*).

4. Using a 4 mm Allen wrench, remove the front fuel tank mounting bolts (*figure 3*).

5. Use the ignition key to release the seat lock and remove the rear (passenger) seat. Remove the fuel tank prop stand from its clips on the inside of the rear fender (*figure 4*).

   Remove the fuel tank plugs from the retaining nipples on the inner rear fender. Keep the plugs handy as they will be used in step 7.

6. Insert the stepped end of the prop stand in the steering stem and the other end of the stand in the fuel tank mounting tab. This will prop the fuel tank up to permit access to the top of the engine (*figure 5*).

Fig. 1

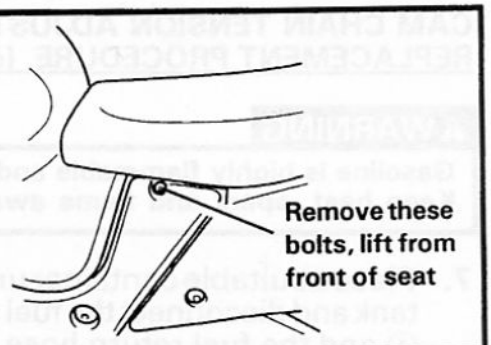


Fig. 2

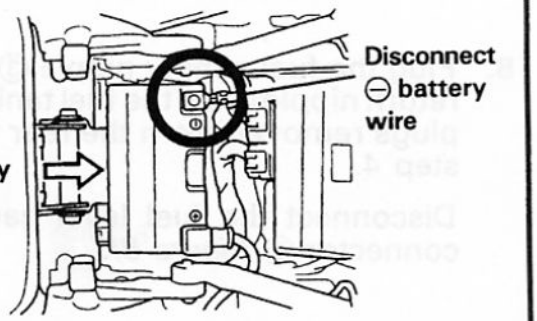


Fig. 3

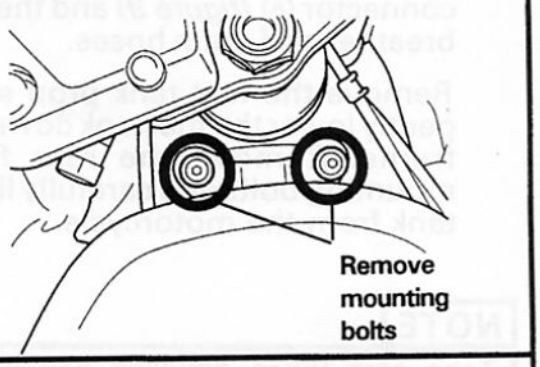


Fig. 4

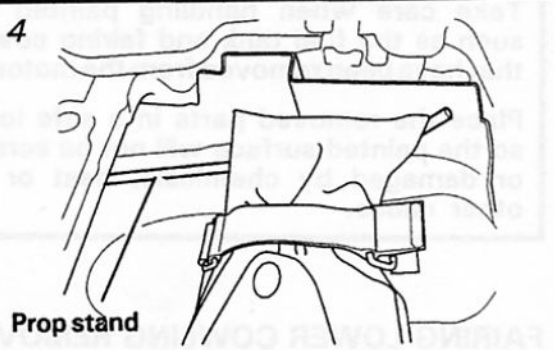
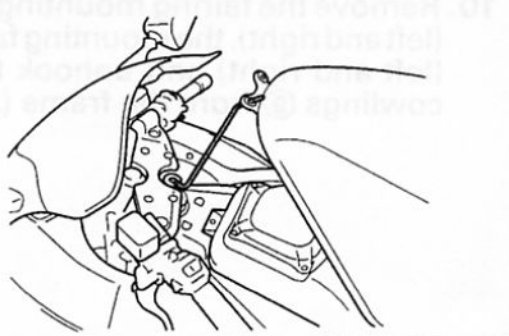


Fig. 5



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⚠WARNING

Gasoline is highly flammable and explosive. Keep heat, spark and flame away.

7. Place a suitable container under the fuel tank and disconnect the fuel supply hose ① and the fuel return hose ②.

8. Plug the fuel supply nipple ③ and fuel return nipple ④ on the fuel tank with the plugs removed from the rear fender in step 4.

   Disconnect the fuel level gauge wire connector ⑤ *(figure 8)*.

9. Disconnect the tip-over sensor wire connector ⑥ *(figure 9)* and the fuel tank breather and drain hoses.

   Remove the fuel tank prop stand and gently lower the fuel tank down onto the frame. Remove the rear fuel tank mounting bolts and carefully lift the fuel tank from the motorcycle.

NOTE

Take care when handling painted parts, such as the fuel tank and fairing cowlings, that have been removed from the motorcycle.

Place the removed parts in a safe location so the painted surface will not be scratched or damaged by chemicals, heat or some other cause.

FAIRING LOWER COWLING REMOVAL

10. Remove the fairing mounting screws ⑦ (left and right), the mounting fasteners ⑧ (left and right) and unhook the fairing cowlings ⑨ from the frame (*figure 10*).

Fig. 7

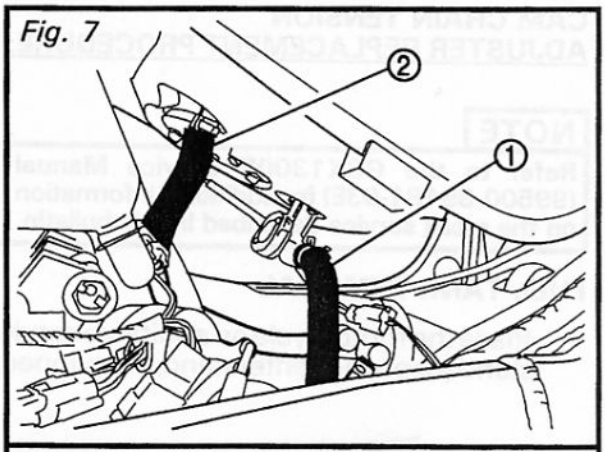


Fig. 8 ***Underside of 2000 model fuel tank shown***

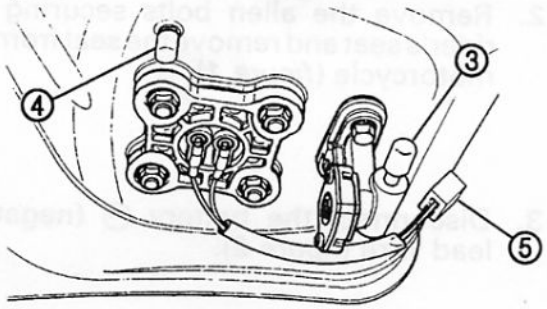


Fig. 9

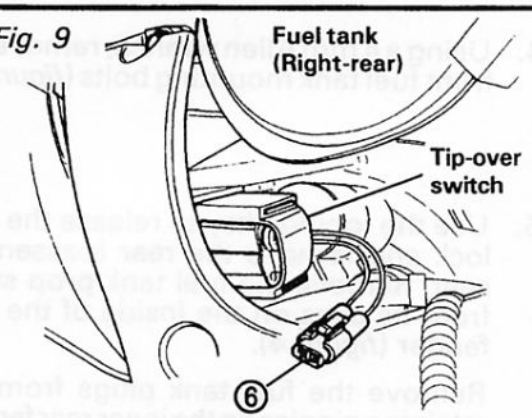
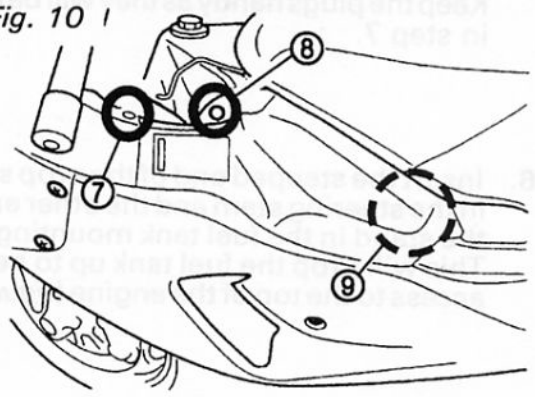


Fig. 10



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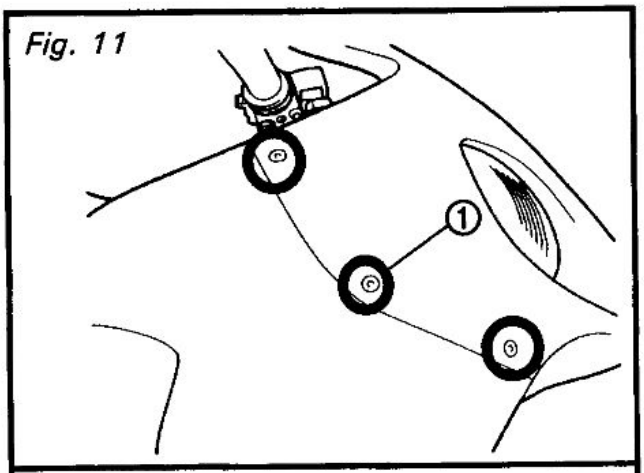
CAM CHAIN TENSION ADJUSTER
REPLACEMENT PROCEDURE, (continued):

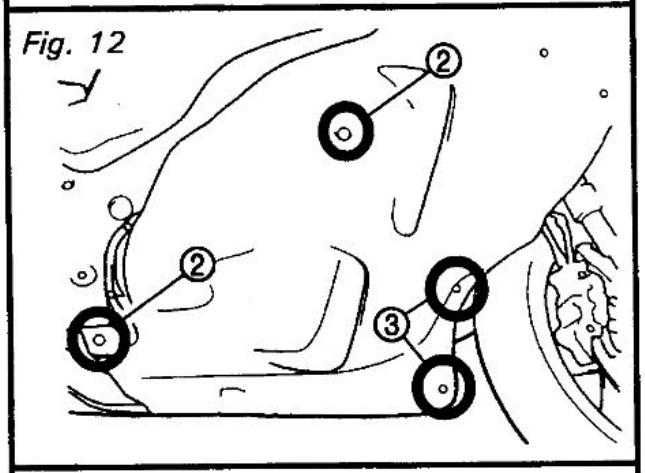
11. Remove the fairing mounting screws ① (left and right) at the fairing upper and lower cowling joint (*figure 11*).

Fig. 11



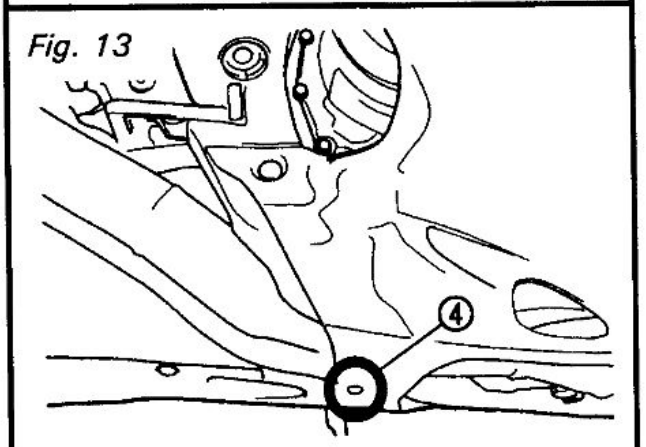
12. Remove the mounting screws ② (left and right) that secure the fairing cowlings to the frame. Remove the screws ③ (left and right) that secure the fairing lower cowlings to the center cowling (*figure 12*).

Fig. 12



13. Remove the fairing mounting screw ④ that connects the left lower fairing cowling to the right lower cowling (*figure 13*).

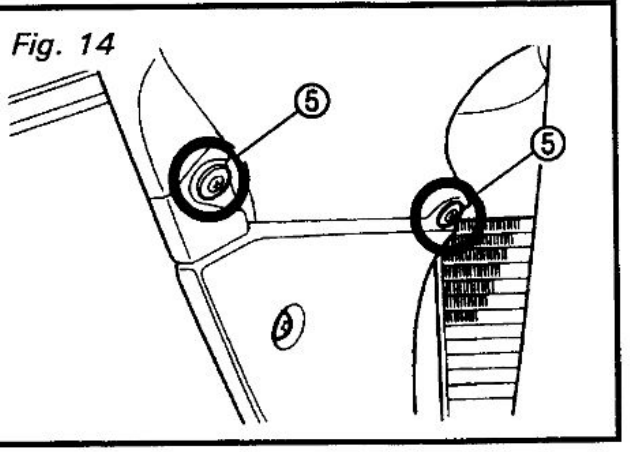
Fig. 13



14. Remove the fasteners (two on the left, two on the right) ⑤ that secure the lower fairing cowlings to the upper fairing (*figure 14*).

Carefully remove the lower fairing cowlings from the motorcycle. Place these parts in a safe location.

Fig. 14



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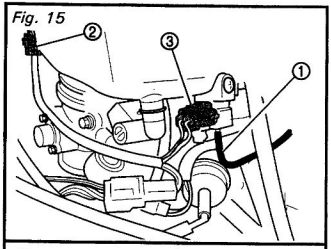
AIR CLEANER ASSEMBLY REMOVAL

15. Disconnect the IAP vacuum hose ①. Disconnect the IAT sensor wire coupler ② and the IAP sensor wire coupler ③ (*figure 15*).

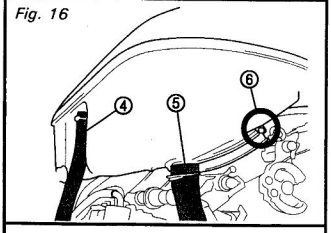
Fig. 15



16. Disconnect the crankcase breather hose ④ and the PAIR valve air cleaner hose ⑤ (*figure 16*).

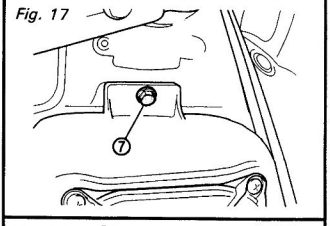
Loosen the throttle body air inlet clamp screws ⑥.

Fig. 16



17. Remove the air cleaner mounting bolt ⑦ (*figure 17*).

Fig. 17



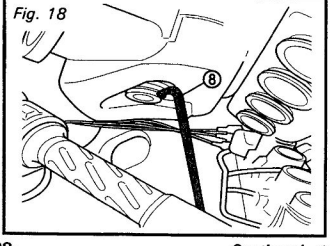
18. Lift the air cleaner assembly up off the throttle body assembly a few inches.

Disconnect the vacuum hose ⑧ from the control valve diaphragm (*figure 18*).

Remove the air cleaner assembly from the motorcycle.

Place the air cleaner is a safe place. Position it so objects will not fall into the air cleaner inlet or outlet openings.

Fig. 18



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

THROTTLE BODY ASSEMBLY REMOVAL

19. Disconnect the throttle cables ① and the fast idle cable ② (*figure 19*)

⚠ CAUTION

After disconnecting the throttle cables, DO NOT snap the throttle valves from open to fully closed. Letting the throttle valves snap closed can damage the throttle valve shaft, the throttle valves and the inner bore of the throttle body.

20. Disconnect the fuel pump / fuel injector / TPS lead wire connector ③ (*figure 20*).

21. Remove the clamp ④ (*figure 21*).

Disconnect the vacuum hose ⑤ from the No. 1 throttle body (*figure 21*).

22. Disconnect the vacuum hose ⑥ from the No. 4 throttle body (*figure 22*).

Remove the throttle stop screw from the guide.

Remove the tank rail caps.

Loosen the intake pipe clamp screws. Lift the throttle body assembly, with the fuel pump attached, off the engine.

⚠ CAUTION

Take care to not drop any objects into the open intake pipes. Use duct tape or a clean shop rag to temporarily seal the open intake pipes.

Fig. 19

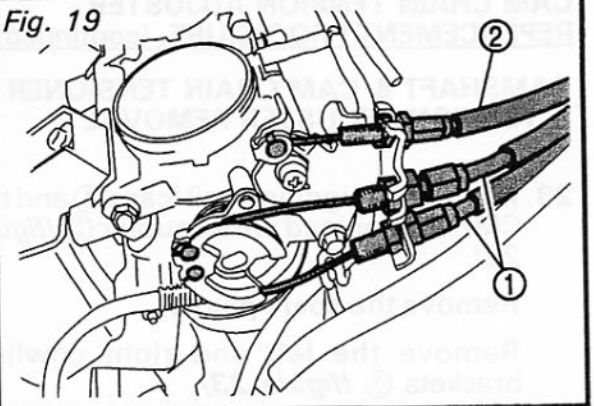


Fig. 20

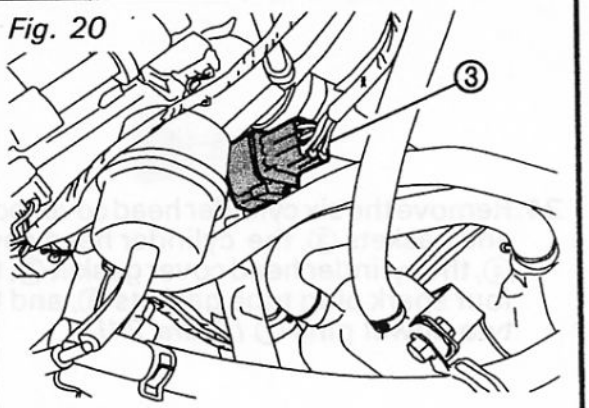


Fig. 21

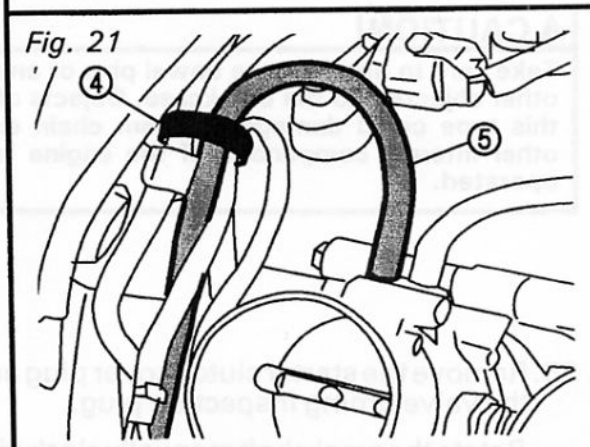
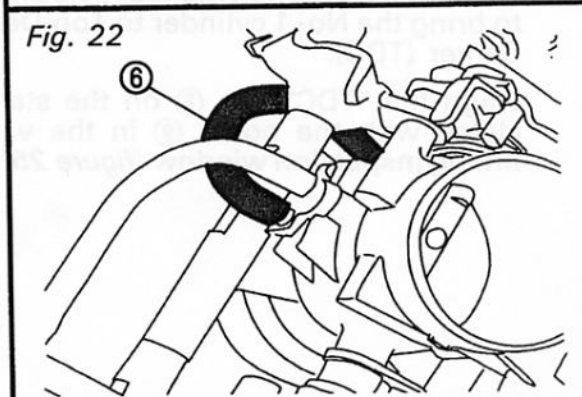


Fig. 22



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

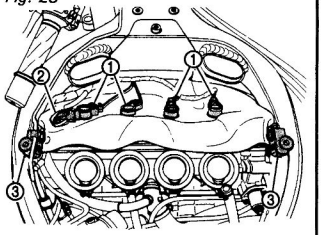
CAMSHAFT & CAM CHAIN TENSIONER & TENSION ADJUSTER REMOVAL

23. Remove the ignition coil/caps ① and the CMP sensor lead wire coupler ② *(figure 23)*.

Remove the spark plugs.

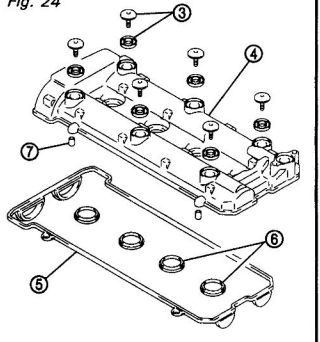
Remove the left and right cowling brackets ③ *(figure 23)*.

Fig. 23



24. Remove the six cylinder head cover bolts and gaskets ③, the cylinder head cover ④, the cylinder head cover gasket ⑤, the four spark plug tube gaskets ⑥, and the two dowel pins ⑦ *(figure 24)*.

Fig. 24



⚠ CAUTION

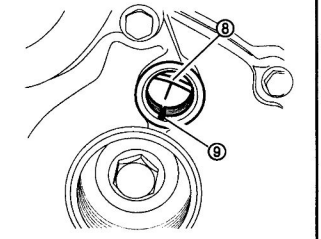
Take care to not drop the dowel pins or any other objects into the crankcase. Objects of this type could damage the cam chain or other internal components if the engine is operated.

25. Remove the starter clutch cover plug and the valve timing inspection plug.

Rotate the crankshaft manually clockwise to bring the No. 1 cylinder to Top-Dead-Center (TDC).

Align the "TDC" line ⑧ on the starter clutch with the notch ⑨ in the valve timing inspection window *(figure 25)*.

Fig. 25



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

26. Remove the cam chain guide No. 2 ①, *(figure 26)*.

⚠ CAUTION

Take care to not drop any bolts, washers or other objects into the crankcase.

27. Remove the oil pipe ② that connects the exhaust and intake camshaft journal holders ③, *(figure 27)*.

NOTE

Before proceeding to the next step (removing the cam chain tension adjuster) verify the camshaft timing.

With the engine set on TDC No. 1 cylinder, check to see if the camshaft sprocket timing marks properly align with the cylinder head cover surface and the correct number of cam chain pins. Refer to the illustration on page 18 of this bulletin.

If the camshaft timing is incorrect, verify the engine condition with a compression and cylinder leak-down test.

If the compression and cylinder leak-down test indicates potential engine damage, contact TECH-LINE to discuss repairs.

28. Remove the cam chain tension adjuster ④, *(figure 28)*.

Clean any gasket material from the cam chain tensioner mounting surface on the cylinder head.

Fig. 26

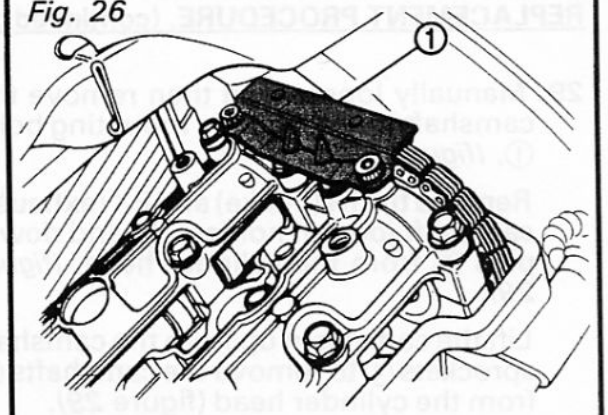


Fig. 27

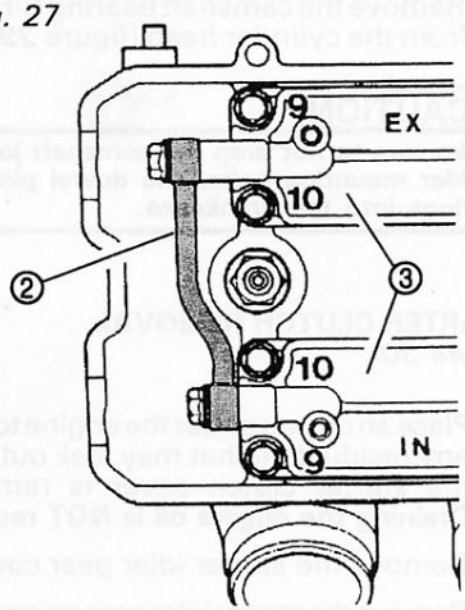
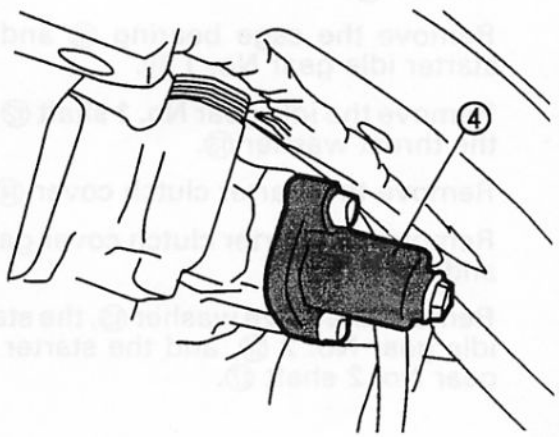


Fig. 28



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

29. Manually loosen and then remove the camshaft journal holder mounting bolts ①, *(figure 29)*.

Remove the IN (intake) and EX (exhaust) camshaft journal holders ② and dowel pins ③ from the cylinder head, *(figure 29)*.

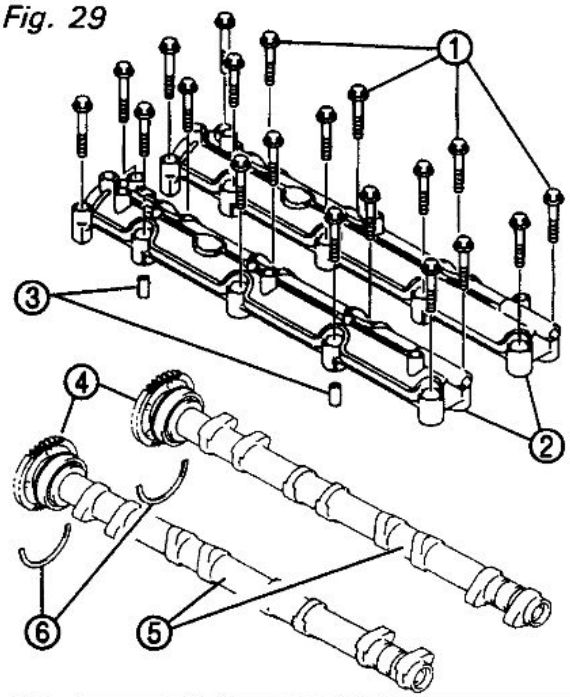
Lift the cam chain up from the camshaft sprockets ④ to remove the camshafts ⑤ from the cylinder head (figure *29)*.

Remove the camshaft bearing C-rings ⑥ from the cylinder head (figure *29)*.

⚠ CAUTION

Take care to not drop the camshaft journal holder mounting bolts, the dowel pins, or C-rings into the crankcase.

Fig. 29



STARTER CLUTCH REMOVAL, *(figure 30)*.

30. Place an oil pan under the engine to catch any residual oil that may leak out when the starter clutch cover is removed. **Draining the engine oil is NOT required.**

Remove the starter idler gear cover ⑦.

Remove the starter idler gear cover gasket and dowel pins.

Remove the wave washer ⑧ and the flat washer ⑨.

Remove the cage bearing ⑩ and the starter idle gear No. 1 ⑪.

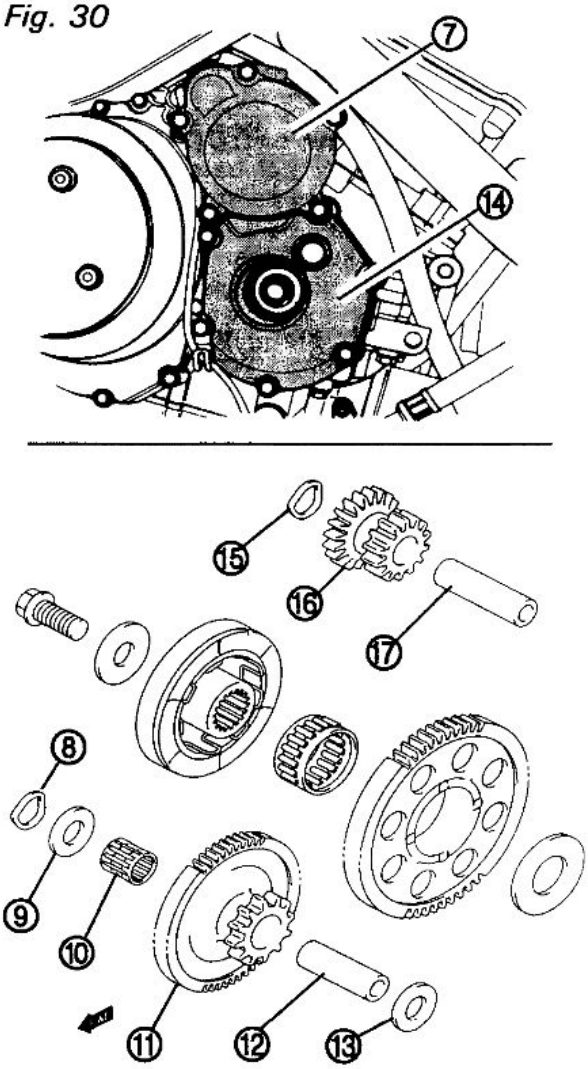
Remove the idle gear No. 1 shaft ⑫ and the thrust washer ⑬.

Remove the starter clutch cover ⑭.

Remove the starter clutch cover gasket and dowel pins.

Remove the wave washer ⑮, the starter idle gear No. 2 ⑯, and the starter idle gear No. 2 shaft ⑰.

Fig. 30



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

STARTER CLUTCH REMOVAL, continued, *(figure 31)*.

31. Hold the starter clutch ① with the special tool ②.

TOOL **Starter clutch holder**
PN: 09920-34830

Remove the starter clutch bolt ③ and washer ④.

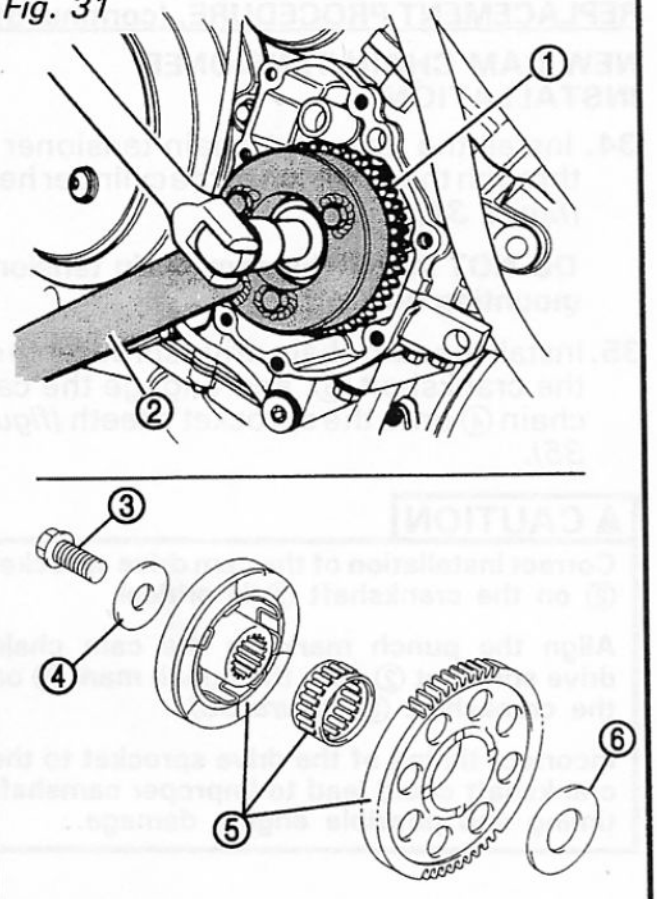
Remove the starter clutch assembly ⑤.

Remove the washer ⑥.

⚠ CAUTION

When removing the starter clutch, pull the cam chain upward, or the chain may get caught between the crankcase and the cam drive sprocket. This could cause damage to the cam chain, drive sprocket or crankcase.

Fig. 31



CAM CHAIN TENSIONER REMOVAL

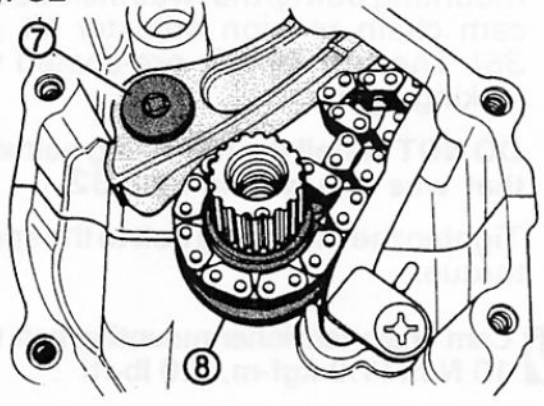
32. Remove the cam chain tensioner mounting bolt ⑦ and washer *(figure 32)*.

NOTE

The mounting bolt washer is located between the bolt head and the tensioner.

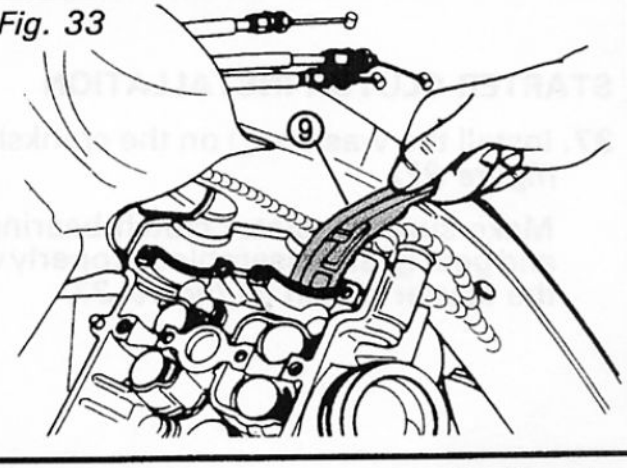
Remove the cam chain drive sprocket ⑧ *(figure 32)*.

Fig. 32



33. Remove the cam chain tensioner ⑨ from the open top of the cylinder head *(figure 33)*.

Fig. 33



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

NEW CAM CHAIN TENSIONER INSTALLATION

34. Install the new cam chain tensioner ① through the open top of the cylinder head *(figure 34)*.

    DO NOT install the cam chain tensioner mounting bolt yet.

35. Install the cam chain drive sprocket ② on the crankshaft ③, and engage the cam chain ④ onto the sprocket's teeth *(figure 35)*.

⚠ CAUTION

Correct installation of the cam drive sprocket ② on the crankshaft ③ is critical.

Align the punch mark on the cam chain drive sprocket ② with the punch mark ⑤ on the crankshaft ③ *(figure 35)*.

Incorrect timing of the drive sprocket to the crankshaft could lead to improper camshaft timing and possible engine damage.

36. Install the new cam chain tensioner mounting bolt ⑥ that was included in the cam chain tension adjuster kit *(figure 36)*. The new bolt is pre-coated with a locking agent.

    DO NOT install the mounting bolt washer that was removed in step 32.

    Tighten the mounting bolt to the specified torque.

Cam chain tensioner mounting bolt torque: 10 N.m (1.0 kgf-m, 7.0 lb-ft)

STARTER CLUTCH INSTALLATION

37. Install the washer ⑦ on the crankshaft, *(figure 37)*.

    Make sure the stater clutch bearing ⑧ and gear ⑨ are assembled properly with the starter clutch ⑩ *(figure 37)*.

Fig. 34

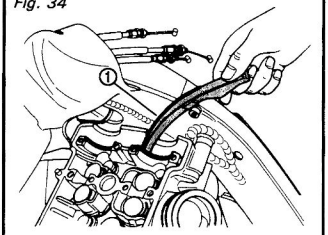


Fig. 35

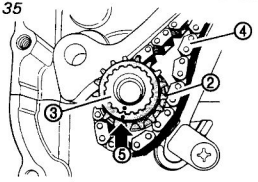


Fig. 36

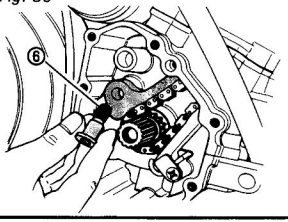
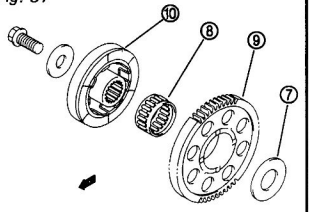


Fig. 37



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

38. Install the starter clutch assembly ① on the crankshaft ②, *(figure 38)*.

⚠ CAUTION

Correct installation of the starter clutch ① on the crankshaft ② is critical.

Align the engraved line on the starter clutch with the punch mark ③ on the crankshaft *(figure 38)*.

Incorrect timing of the starter clutch to the crankshaft could lead to improper camshaft timing and possible engine damage.

39. Install the starter clutch bolt with washer.

Hold the starter clutch with the special tool ④ and tighten the bolt to the specified torque, *(figure 39)*.

⚠ CAUTION

When tightening the starter clutch bolt, pull the cam chain upward, or the chain may get caught between the crankcase and the cam drive sprocket. This could cause damage to the cam chain, drive sprocket or crankcase.

TOOL **Starter clutch holder**
PN: 09920-34830

Starter clutch bolt torque:
55 N.m (5.5 kgf-m, 40.0 lb-ft)

40. Install the starter idler gear No. 2 ⑤ and the wave washer ⑥ on the idler gear shaft ⑦, *(figure 40)*.

Install the assembled idler gear, shaft and washer ⑧ into the crankcase. Engage the idler gear with the starter clutch gear.

Lightly apply some SUZUKI BOND "1207B" sealant to the mating surface of the upper and lower crankcase, *(figure 40)*.

1207B **SUZUKI BOND "1207B"**
PN: 99104-31140

Fig. 38

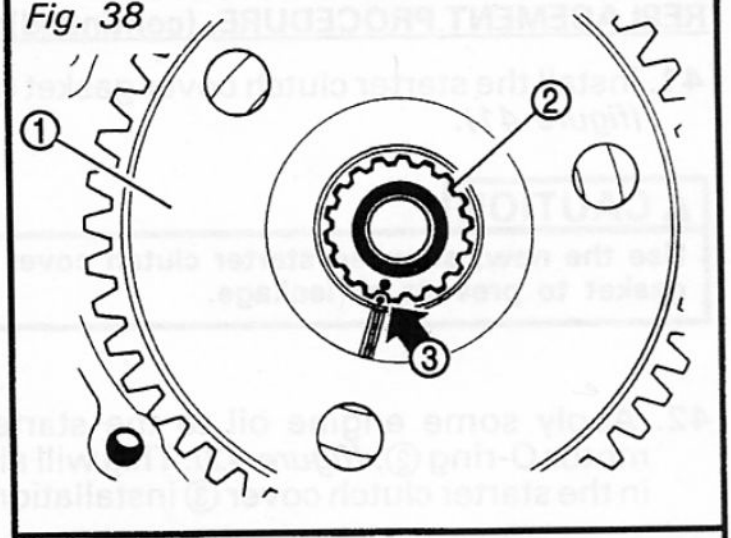


Fig. 39

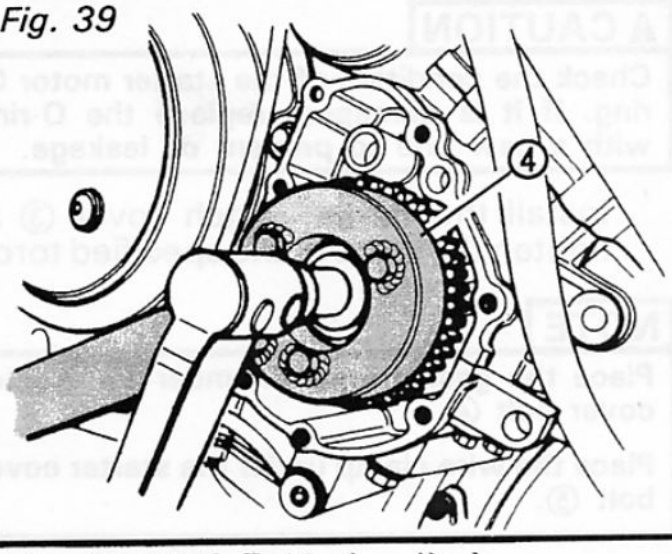
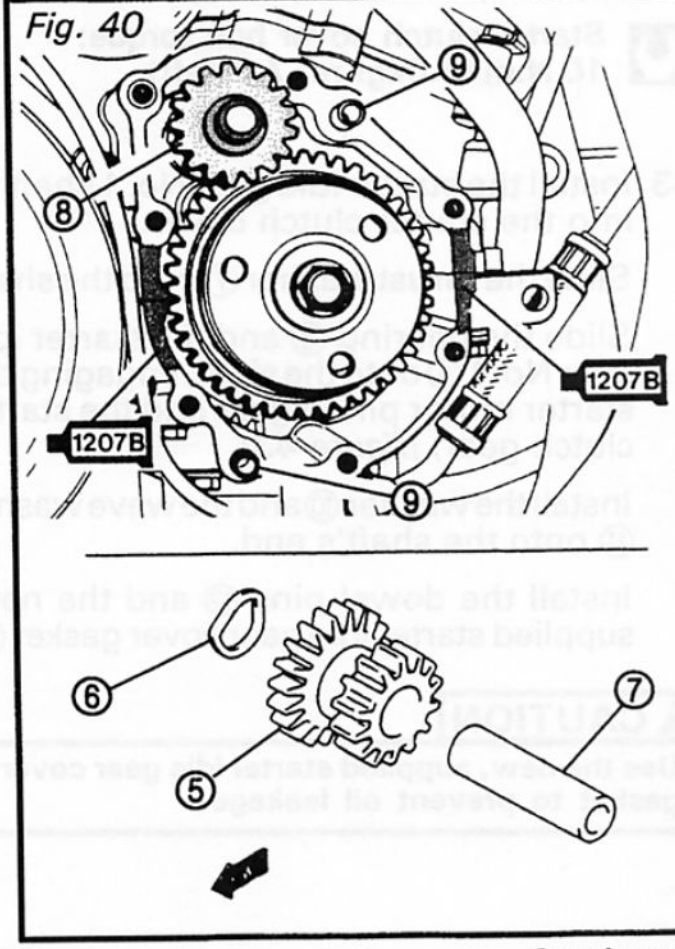


Fig. 40



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

41. Install the starter clutch cover gasket ①, *(figure 41)*.

⚠ CAUTION

Use the new, supplied starter clutch cover gasket to prevent oil leakage.

42. Apply some engine oil to the starter motor O-ring ②, *(figure 42)*. This will aid in the starter clutch cover ③ installation.

⚠ CAUTION

Check the condition of the starter motor O-ring. If it is damaged, replace the O-ring with a new one to prevent oil leakage.

Install the starter clutch cover ③ and tighten the bolts to the specified torque.

NOTE

Place the gasket washer under the starter cover bolt ④.

Place the wire clamp under the starter cover bolt ⑤.

Starter clutch cover bolt torque: 10 N.m (1.0kgf-m, 7.0 lb-ft)

43. Install the starter idle gear No. 1 shaft ⑥ into the starter clutch cover.

Slide the thrust washer ⑦ onto the shaft.

Slide the bearing ⑧ and the starter idle gear No. 1 ⑨ onto the shaft, engaging the starter motor pinon gear and the starter clutch gear, *(figure 43)*.

Install the washer ⑩ and the wave washer ⑪ onto the shaft's end.

Install the dowel pins ⑫ and the new, supplied starter idle gear cover gasket ⑬.

⚠ CAUTION

Use the new, supplied starter idle gear cover gasket to prevent oil leakage.

Fig. 41

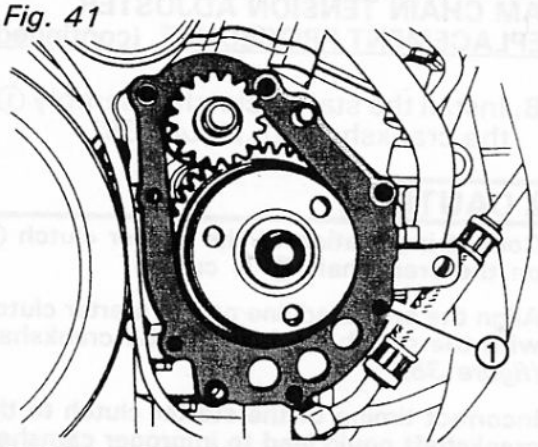


Fig. 42

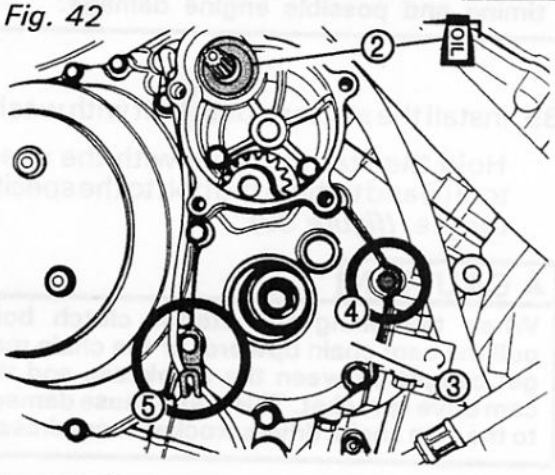
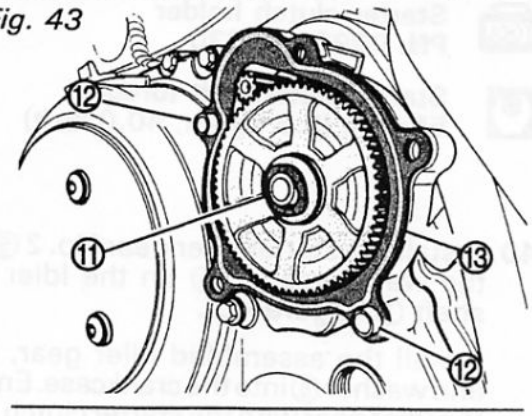
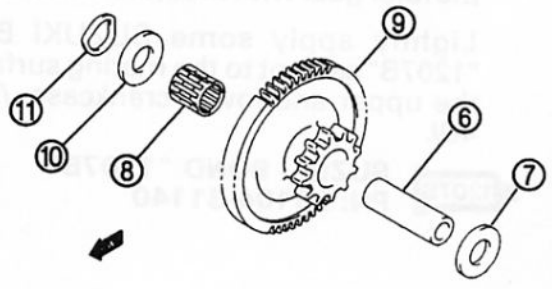


Fig. 43





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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

44. Install the starter idle gear cover ① and tighten the cover's bolts ② to the specified torque, *(figure 44)*.

Starter clutch cover bolt torque: 10 N.m (1.0kgf-m, 7.0 lb-ft)

CAMSHAFT INSTALLATION

45. Manually turn the crankshaft ③ clockwise with a box wrench or socket until the "TDC" line ④ on the starter clutch aligns with the notch ⑤ in the valve timing inspection window, *(figure 45)*.

⚠ CAUTION

When rotating the crankshaft, pull the cam chain upward, or the chain may get caught between the crankcase and the cam drive sprocket. This could cause damage to the cam chain, drive sprocket or crankcase.

46. Install the C-rings ⑥ into the camshaft bearing grooves in the cylinder head, *(figure 46)*.

Before setting the camshafts into the cylinder head, apply Suzuki Moly Paste (or similar assembly lube) to all of the camshaft journal and lobe surfaces.

SUZUKI MOLY PASTE
PN: 99000-25140

⚠ CAUTION

Before setting the camshafts into the cylinder head, lift up each valve tappet and make sure the valve lash adjustment shims have not been moved from their proper position in the valve spring retainers.

Return any disturbed shims to the proper position so damage to the valve train will not occur when the engine is operated.

When installing the camshafts into the cylinder head, make sure the bearings ⑦ are set in the proper location with the C-ring ⑥ properly engaged in the grooves.

If the C-rings are not in the proper location when the camshaft journal holders are installed, damage to the camshaft or cylinder head may occur.

Fig. 44

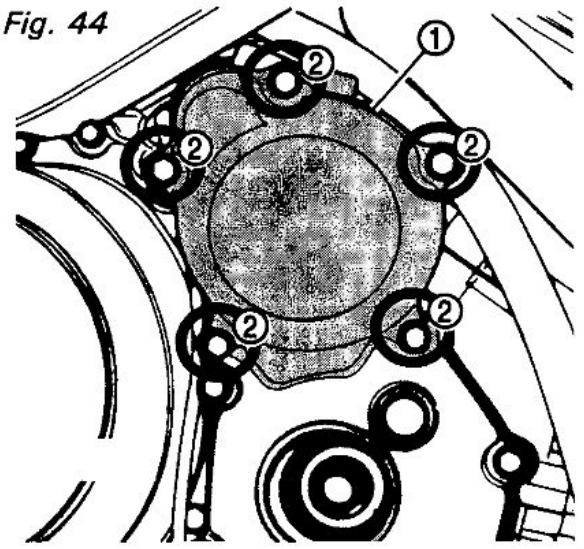

Fig. 45

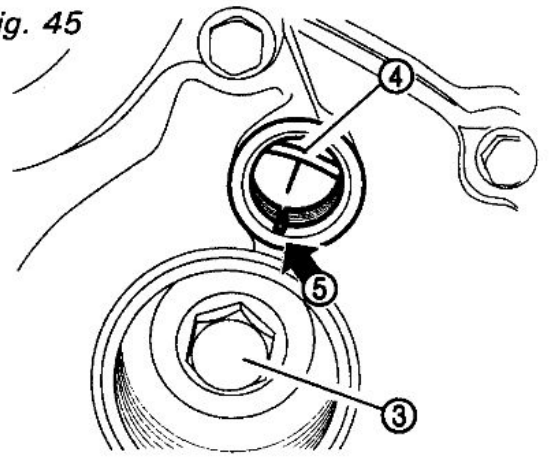

Fig. 46

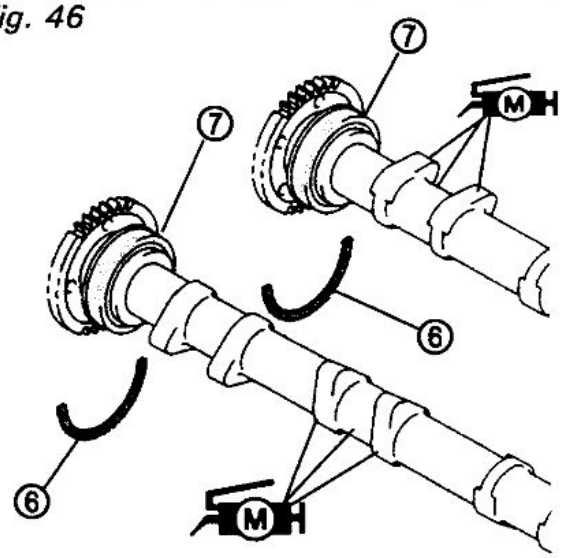

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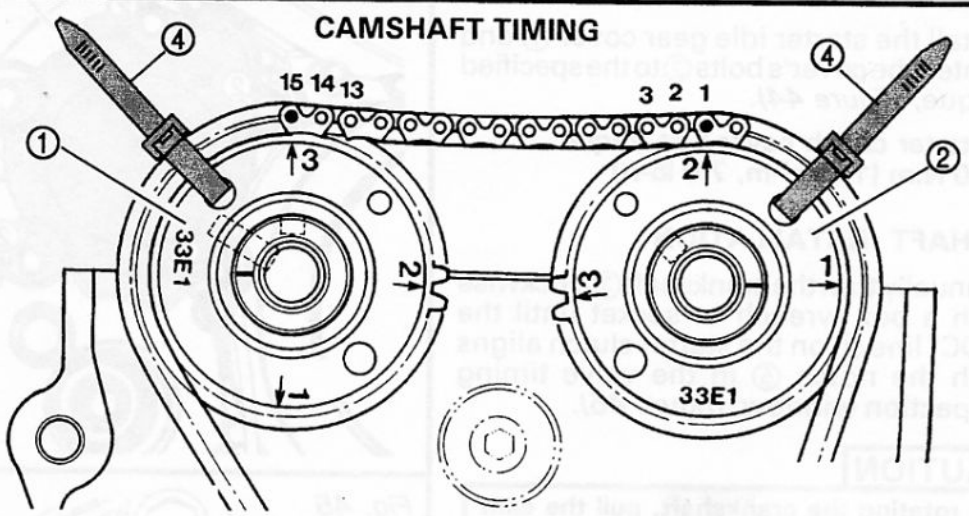
Fig. 47



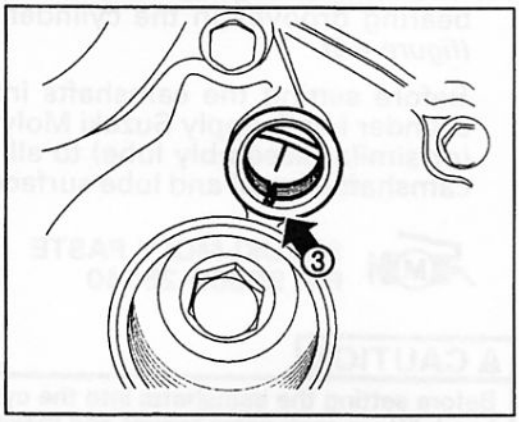
47. Set the IN ① and EX ② camshafts into the cylinder head with the arrow marks on the sprockets oriented per the illustration above.

The "1" arrow on the EX camshaft should be aligned with the gasket surface of the cylinder head when the TDC line of the starter clutch aligns with the notch in the valve timing inspection window ③.

To time the IN camshaft, start the cam chain pin count at the "2" arrow on the EX camshaft.

Align the "3" arrow on the IN camshaft with the 15th pin on the cam chain, counting back from the "2" arrow on the EX camshaft.

Once the camshafts are at the correct position, secure the cam chain to the IN and EX camshaft sprockets with cable ties ④ so the timing will not change when the camshaft journal holders are installed.



48. Install the camshaft journal dowel pins ⑤ into the mounting bolt holes in the cylinder head, *(figure 48)*.

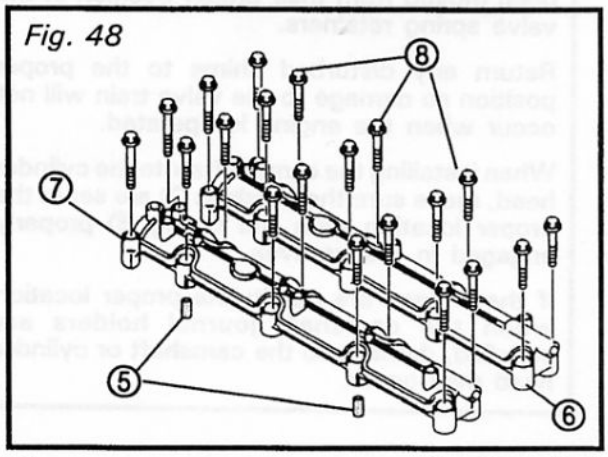
Set the IN ⑥ and EX ⑦ camshaft journal holders on the camshafts installed in the cylinder head.

Temporarily hand-tighten the journal holder mounting bolts ⑧.

⚠ CAUTION

Take care to not drop the camshaft journal holder mounting bolts or the dowel pins into the crankcase.

Fig. 48



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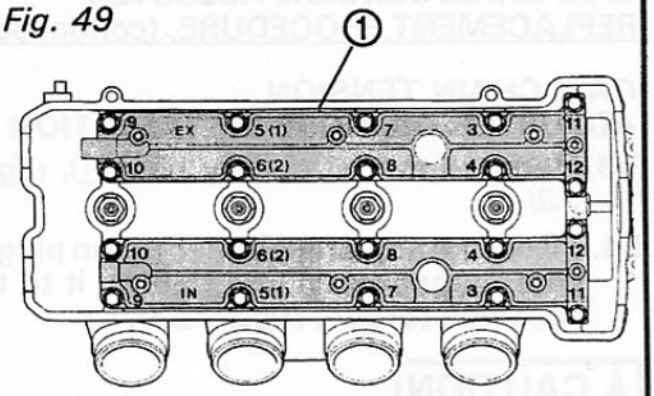
CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

49. Following the order of the numbers embossed on the camshaft journal holders ①, tighten the journal holder bolts to the specified torque, (*figure 49*).

Camshaft journal holder bolt torque: 10.0 N·m (1.0 kgf-m, 7.0 lb-ft)

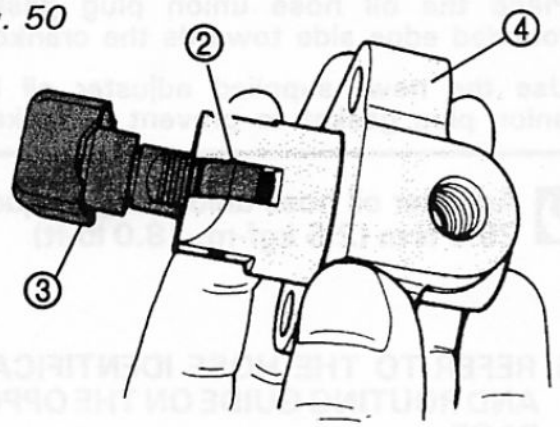
Fig. 49



CAM CHAIN TENSION ADJUSTER INSTALLATION

50. Release the ratchet ② so the push rod ③ retreats fully into the tension adjuster ④, *(figure 50)*.

Fig. 50



51. Install the new cam chain tension adjuster with the new, supplied gasket ⑤, *(figure 51)*.

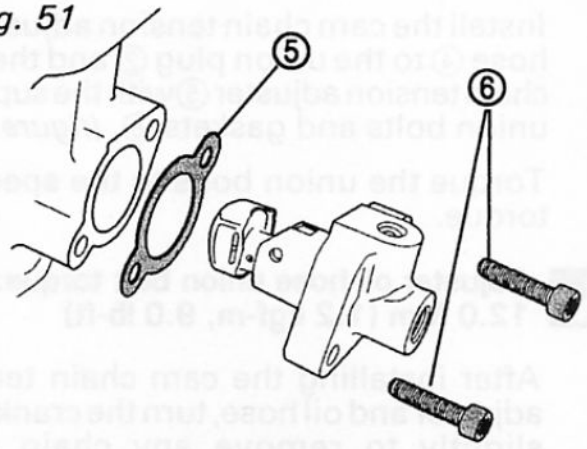
⚠ CAUTION

Use the new, supplied cam chain tension adjuster gasket to prevent oil leakage.

Tighten the cam chain tension adjuster mounting bolts ⑥ to the specified torque.

Tension adjuster mounting bolt torque: 10.0 N·m (1.0 kgf-m, 7.0 lb-ft)

Fig. 51



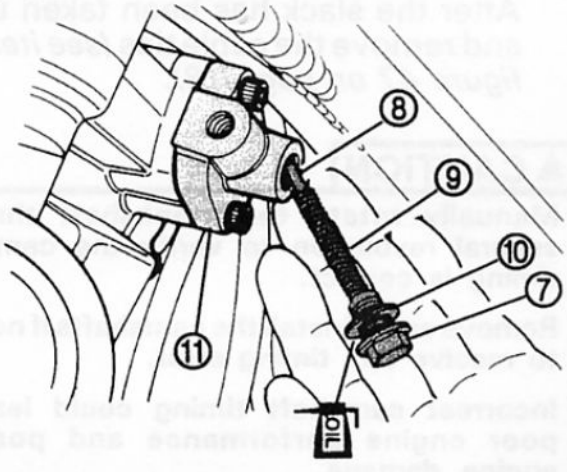
52. Apply some engine oil to the cam chain tension adjuster bolt ⑦, (figure 52).

Install the adjuster shaft ⑧, the spring ⑨, washer ⑩, and the cam chain tension adjuster bolt ⑦ into the cam chain tension adjuster ⑪.

Tighten the cam chain tension adjuster bolt ⑦ to the specified torque.

Cam chain tension adjuster bolt torque: 35.0 N·m (3.5 kgf-m, 25.5 lb-ft)

Fig. 52



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

CAM CHAIN TENSION ADJUSTER OIL HOSE INSTALLATION

53. Remove the oil gallery plug ①, *(figure 53)*.

54. Install the adjuster oil hose union plug ② with its gasket ③ and tighten it to the specified torque, *(figure 54)*.

⚠ CAUTION

Place the oil hose union plug gasket's rounded edge side towards the crankcase.

Use the new, supplied adjuster oil hose union plug gasket to prevent oil leakage.

Adjuster oil hose union plug torque: 25.0 N·m (2.5 kgf-m, 18.0 lb-ft)

55. **REFER TO THE HOSE IDENTIFICATION AND ROUTING GUIDE ON THE OPPOSITE PAGE.**

Install the cam chain tension adjuster oil hose ④ to the union plug ② and the cam chain tension adjuster ⑤ with the supplied union bolts and gaskets ⑥, *(figure 55)*.

Torque the union bolts to the specified torque.

Adjuster oil hose union bolt torque: 12.0 N·m (1.2 kgf-m, 9.0 lb-ft)

After installing the cam chain tension adjuster and oil hose, turn the crankshaft slightly to remove any chain slack between the IN and EX camshafts.

After the slack has been taken up, cut and remove the cable ties *(see item ④ in figure 47 on page 18)*.

⚠ CAUTION

Manually rotate the crankshaft through several revolution to verify the camshaft timing is correct.

Remove and reinstall the camshafts if needed to resolve any timing error.

Incorrect camshaft timing could lead to poor engine performance and possible engine damage.

Fig. 53

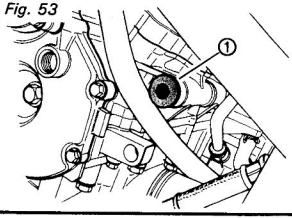


Fig. 54

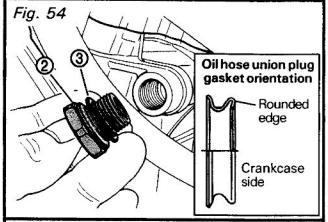
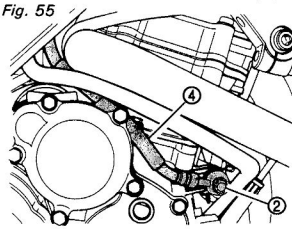
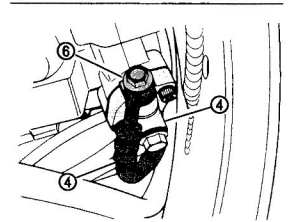


Fig. 55





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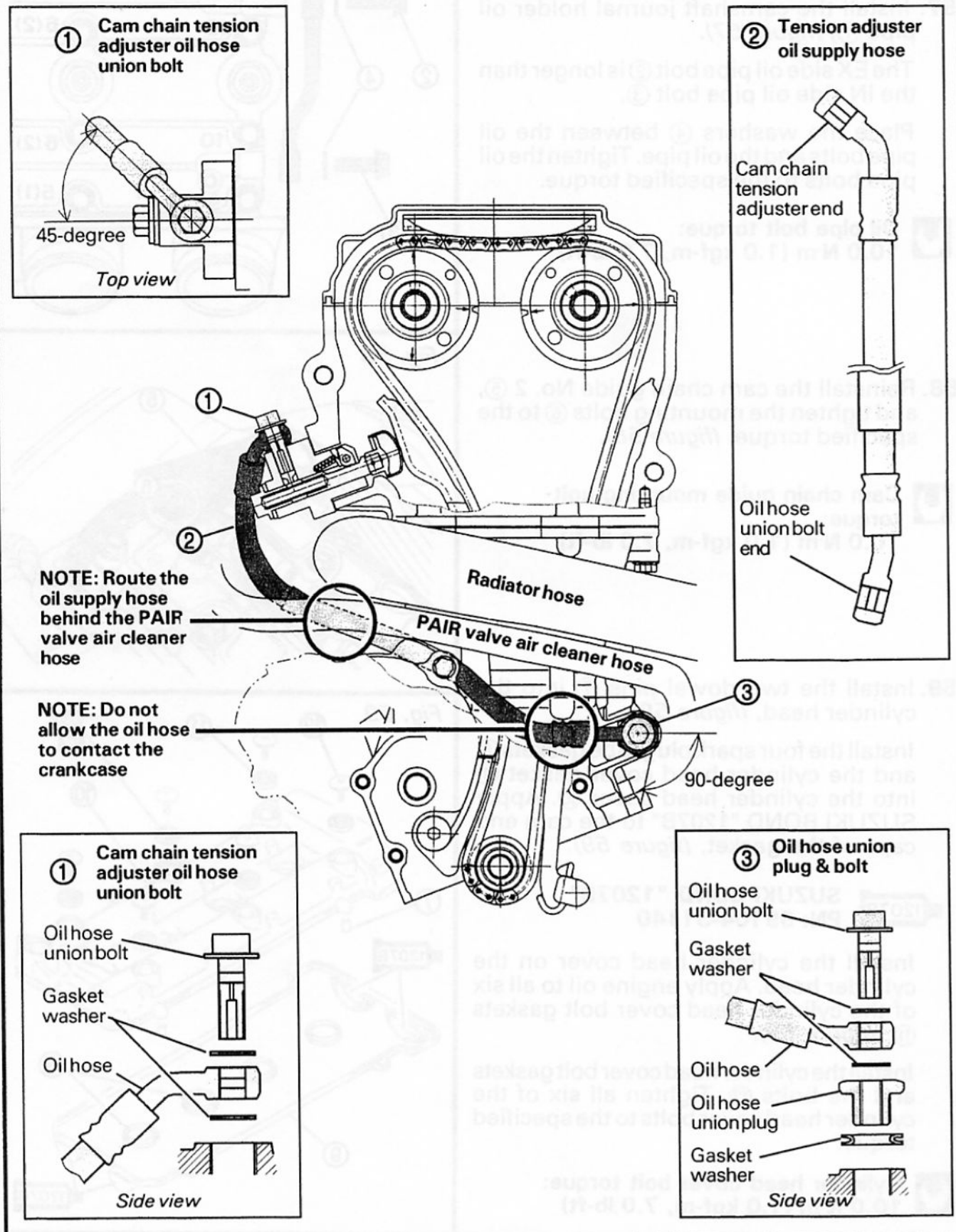
CAM CHAIN TENSION ADJUSTER OIL SUPPLY HOSE IDENTIFICATION & ROUTING

Fig. 56



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CYLINDER HEAD COVER INSTALLATION

57. Install the camshaft journal holder oil pipe ①, *(figure 57)*.

    The EX side oil pipe bolt ② is longer than the IN side oil pipe bolt ③.

    Place the washers ④ between the oil pipe bolts and the oil pipe. Tighten the oil pipe bolts to the specified torque.

Oil pipe bolt torque:
10.0 N·m (1.0 kgf-m, 7.0 lb-ft)

58. Reinstall the cam chain guide No. 2 ⑤, and tighten the mounting bolts ⑥ to the specified torque, *(figure 58)*.

Cam chain guide mounting bolt torque:
10.0 N·m (1.0 kgf-m, 7.0 lb-ft)

59. Install the two dowel pins ⑦ into the cylinder head, *(figure 59)*.

    Install the four spark plug tube gaskets ⑧ and the cylinder head cover gasket ⑨ into the cylinder head cover ⑩. Apply SUZUKI BOND "1207B" to the cam end caps of the gasket, *(figure 59)*.

1207B SUZUKI BOND "1207B"
PN: 99104-31140

Install the cylinder head cover on the cylinder head. Apply engine oil to all six of the cylinder head cover bolt gaskets ⑪, *(figure 59)*.

Install the cylinder head cover bolt gaskets and the bolts ⑫. Tighten all six of the cylinder head cover bolts to the specified torque.

Cylinder head cover bolt torque:
10.0 N·m (1.0 kgf-m, 7.0 lb-ft)

Fig. 57

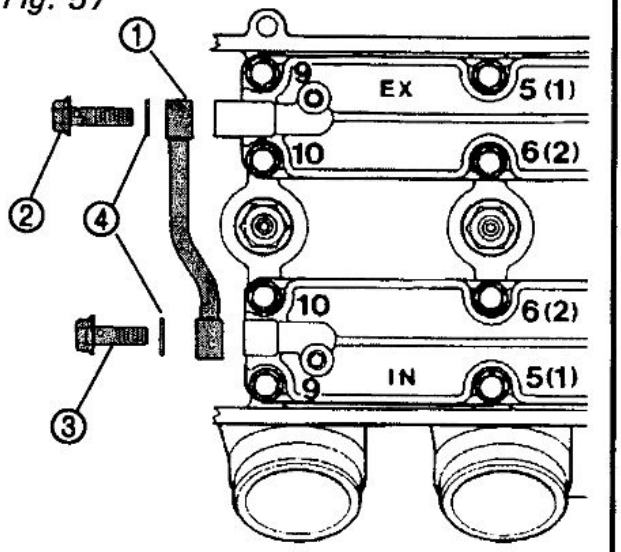


Fig. 58

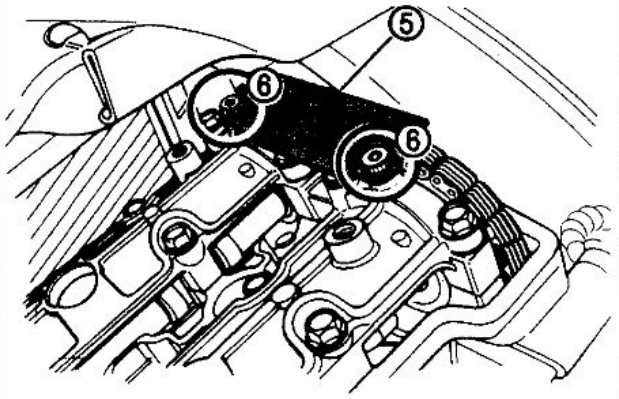
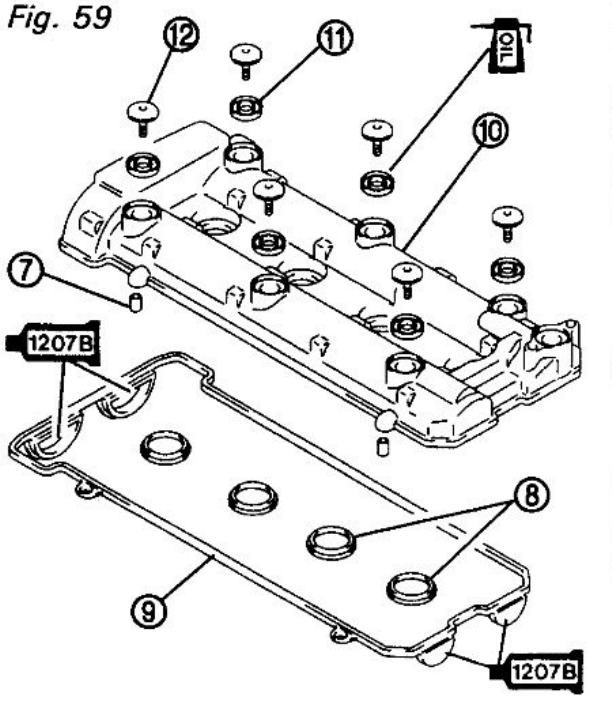


Fig. 59



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

60. Install and tighten the valve timing inspection window plug ① and the starter clutch cover plug ② to the specified torque, *(figure 60)*.

Valve timing inspection plug torque: 11.0 N·m (1.1 kgf-m, 8.0 lb-ft)

Starter clutch cover plug torque: 23.0 N·m (2.3 kgf-m, 16.5 lb-ft)

61. Install the fairing cowling brackets ③, *(figure 61)*.

Install the spark plugs finger tight, then tighten them to the specified torque.

Spark plug torque: 11.0 N·m (1.1 kgf-m, 8.0 lb-ft)

Install the ignition coil / caps ④ and connect the lead wire couplers. Connect the CMP sensor lead wire coupler ⑤, *(figure 61)*.

NOTE

Position the ignition coil /cap lead wire couplers so they do not touch the cylinder head.

THROTTLE BODY ASSEMBLY & AIR CLEANER ASSEMBLY INSTALLATION

Use the GSX1300R Service Manual (99500-39181-03E) as a guide to reinstall these items. Pay particular attention to the additional steps listed in this bulletin.

62. Connect the throttle cables ⑥ and the fast idle cable ⑦, *(figure 62)*.

Refer to section 4 the GSX1300R Service Manual for cable play adjustment.

Install the air cleaner assembly. Connect the crankcase breather hose, the PAIR hose, related vacuum hoses and sensor lead wire couplers.

Fig. 60

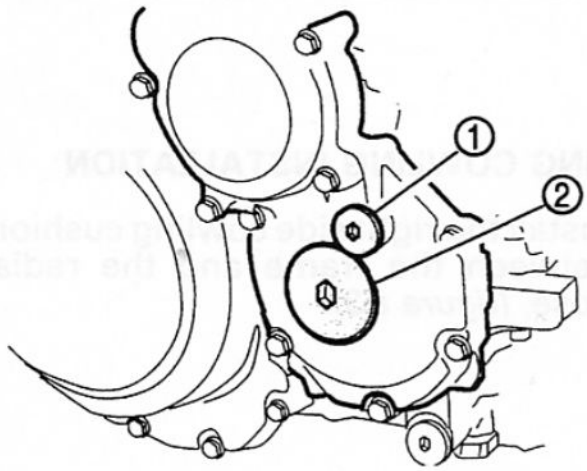


Fig. 61

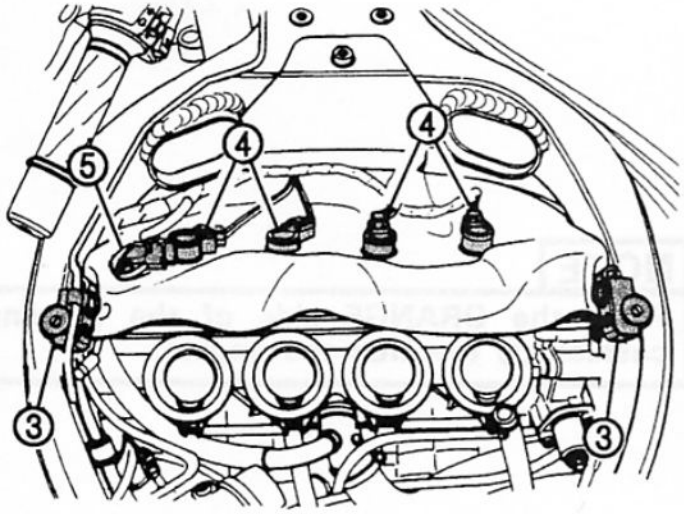
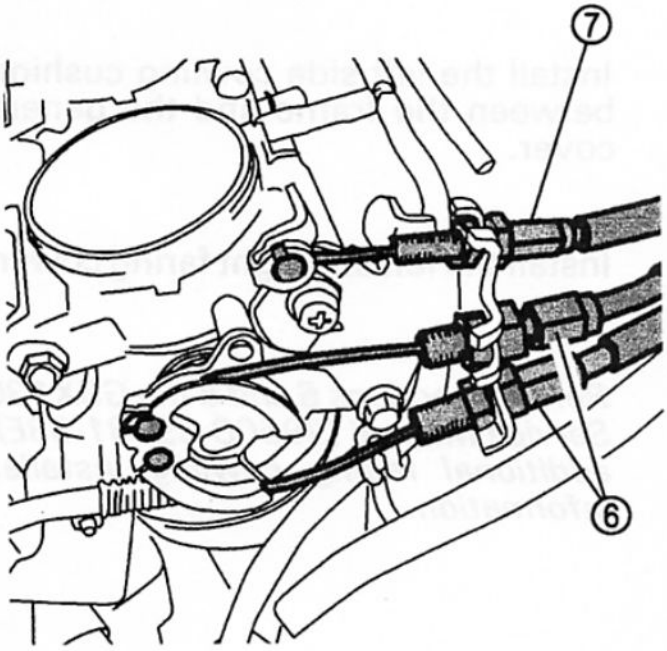


Fig. 62



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FAIRING COWLING INSTALLATION

63. Install the right side cowling cushion ① between the frame and the radiator hose, *(figure 63)*.

NOTE

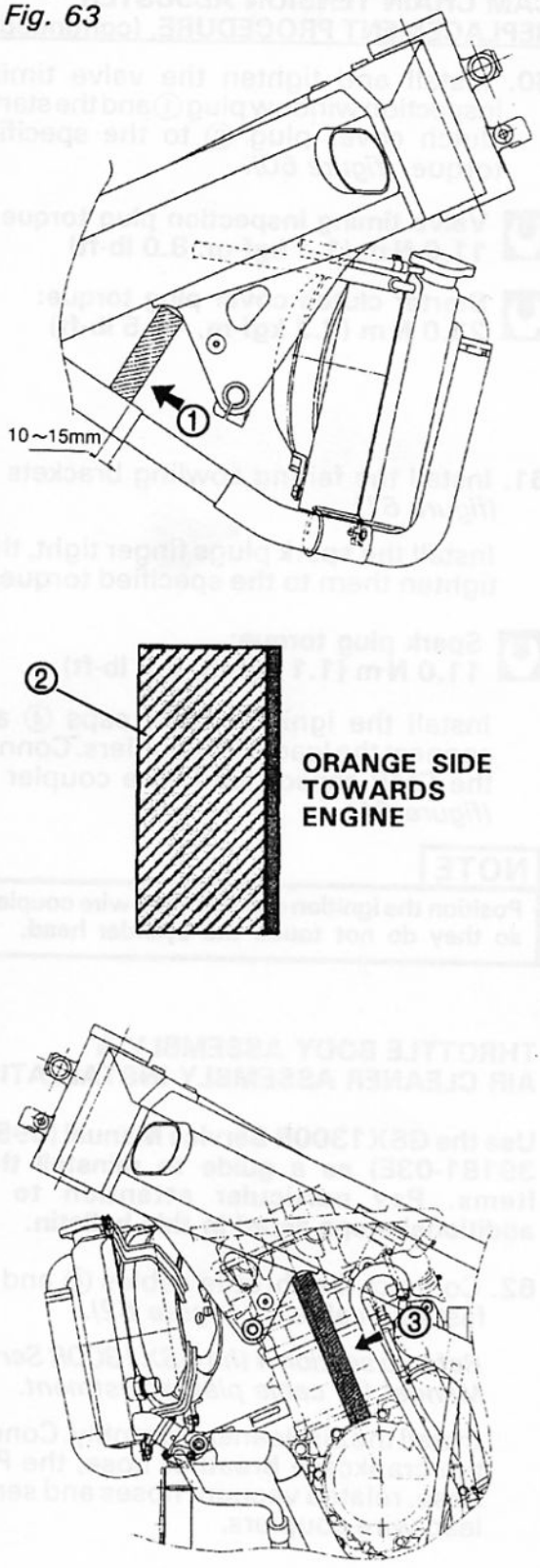
Place the ORANGE side of the cowling cushion ② towards the engine.

Install the left side cowling cushion ③ between the frame and the generator cover.

Install the left and right faring cowlings.

Refer to sections 6 and 8 the GSX1300R Service Manual (99500-39181-03E) for additional fairing cowling installation information.

Fig. 63



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FUEL TANK INSTALLATION

Use the GSX1300R Service Manual (99500-39181-03E) and Service Bulletin GS/GSX/GSX-R #108 as guides to make sure the fuel hose routing is correct.

64. Set the fuel tank back onto the motorcycle and install the rear fuel tank mounting hardware. Reconnect the tip-over switch lead wire connector and attach the fuel vent and drain hoses.

Figure 64 legend:

① Fuel hose
② Fuel return hose
③ Fuel pump
④ Clamp
⑤ Frame
⑥ Wiring harness
⑦ Starter motor ⊕ lead wire
⑧ Crankcase breather hose

Connect the fuel hose ① and the fuel return hose ② to the fuel tank properly.

NOTE

Route the fuel return hose ② ahead of the crankcase breather hose ⑧.

⚠ CAUTION

When connecting the fuel hoses, take care to route the hoses so the fuel supply will not be interrupted.

When lowering the fuel tank down from the propped-up position, check to make sure the fuel hose routing remains correct and the hoses are not pinched or bent.

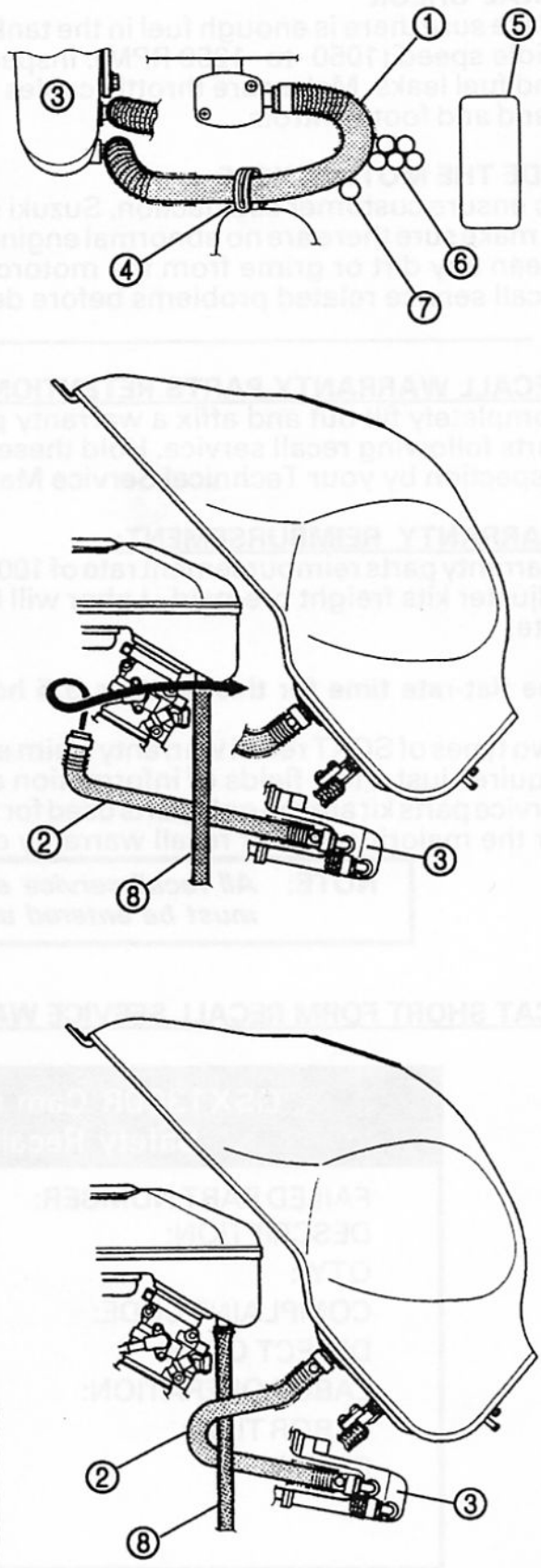
65. Lower the fuel tank back into place and install the front fuel tank mounting bolts.

Return the fuel tank prop rod and the fuel nipple caps back to the inner rear fender.

Reconnect the battery and replace the rider and passenger seats.

Check the engine oil level. Add oil if needed to bring the level up to the "F" mark on the oil level inspection window.

Fig. 64



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CAM CHAIN TENSION ADJUSTER REPLACEMENT PROCEDURE, (continued):

FINAL CHECK

Make sure there is enough fuel in the tank to operate the engine. Start and run the engine a idle speed (1050 -to- 1250 RPM). Inspect the motorcycle to make sure there are no oil and fuel leaks. Make sure throttle cables and the fast idle cables work properly, as do all hand and foot controls.

RIDE THE MOTORCYCLE

To ensure customer satisfaction, Suzuki suggests you ride the motorcycle several miles to make sure there are no abnormal engine sounds and the motorcycle operates correctly. Clean any dirt or grime from the motorcycle before and after the test ride. Correct any recall service related problems before delivering the motorcycle to the customer.

RECALL WARRANTY PARTS RETENTION:

Completely fill out and affix a warranty parts tag (PN 99923-09822-003) to the replaced parts following recall service. Hold these parts in your warranty parts retention area for inspection by your Technical Service Manager.

WARRANTY REIMBURSEMENT:

Warranty parts reimbursement rate of 100% will apply as Suzuki shipped the recall tension adjuster kits freight pre-paid. Labor will be reimbursed at 100% of your approved labor rate.

The flat-rate time for this repair is 3.5 hours.

Two types of SCAT recall warranty claim entries are available. The Short Form claim entry requires just a few fields of information and can only be used in cases where the recall service parts kit are the only parts used for the repair. The Short Form claim should be used for the majority of your recall warranty claims.

> **NOTE:** ***All recall service expenses for each motorcycle must be entered using a single warranty claim.***

SCAT SHORT FORM RECALL SERVICE WARRANTY CLAIM INFORMATION:

GSX1300R Cam Chain Tension Adjuster
Safety Recall Campaign #2044

FAILED PART NUMBER:	**99103-11153**
DESCRIPTION:	**Tension Adjuster Recall Kit**
QTY.:	**1**
COMPLAINT CODE:	**99**
DEFECT CODE:	**D8**
LABOR OPERATION:	**AH9999**
LABOR TIME:	**3.5 hr**
REPAIR:	**REPLACE CAM CHAIN TENSION ADJUSTER PER SERVICE BULLETIN GS/GSX/GSX-R #112**

Continued ⇨

SCAT LONG FORM RECALL SERVICE WARRANTY CLAIM INFORMATION:
To submit a SCAT Long Form recall service warranty claim, *or a regular paper warranty request*, use the information below. **You should only use the SCAT Long Form claim entry in situations where additional parts or labor were required to complete the recall service.** If submitting a paper claim, have the customer sign the request before you mail it to the American Suzuki Warranty Dept. in Brea, CA.

GSX1300R Cam Chain Tension Adjuster Safety Recall Campaign #2044	
FAILED PART NUMBER:	**99103-11153**
DESCRIPTION:	**Tension Adjuster Recall Kit**
QTY.:	**1**
ADDTL. PARTS NUMBER:	**As approved by TECH-LINE**
DESCRIPTION:	**As approved by TECH-LINE**
QTY.:	**As approved by TECH-LINE**
COMPLAINT CODE:	**99**
DEFECT CODE:	**D8**
LABOR OPERATION:	**AH9999**
LABOR TIME:	**3.5 hr (or as approved by TECH-LINE)**
REPAIR:	**REPLACE CAM CHAIN TENSION ADJUSTER PER SERVICE BULLETIN GS/GSX/GSX-R #112**

NOTE:
SCAT Long Form warranty claim entries with parts or labor in addition to the recall kit requires a prior authorization (PAS) code from TECH-LINE or your Technical Service Manager, or the SCAT system will not accept the claim.

REMINDER:
Effective November 1, 2000 the new TECH-LINE "Live" toll-free telephone number is 800/756-3251. Use this number to contact TECH-LINE or your Technical Service Manager. See Service Bulletin - Service News #163 for TECH-LINE instructions.

IMPORTANT:
Successful completion of this recall campaign depends on your efforts. It is very important that your dealership contact each customer and inform them of the need to have this recall service performed. You must perform the recall service and submit a SCAT claim or Warranty Request Form within the shortest possible time.

It is your responsibility to perform the recall service on any affected motorcycle brought to your dealership, even if your dealership did not originally sell the motorcycle.

All recall campaign service is to be done at no cost to the customer for parts and labor. Incidental costs your customers may incur are not normally covered. However, if you have a customer with special needs, contact your Technical Service Manager to discuss possible solutions.

Continued ⇨

CUSTOMER SATISFACTION:
Please be sure that all dealership personnel are familiar with the recall service procedures. Only your conscientious action at the dealership level can lead to a successful campaign conclusion. Please remind your staff to be sympathetic and sensitive to your customers' feelings. Please extend Suzuki's apologies for the inconvenience this recall service may cause them.

Thank you for your cooperation in conducting this very important campaign for your customers' safety.

AFFECTED DEPARTMENTS:
The following departments in your dealership should be notified of this information:

☒ **Management** ☒ **Service** ☒ **Warranty** ☒ **Sales** ☒ **Parts** ☒ **Accessories**

American Suzuki Motor Corporation
Technical Service Department
Motorcycle

Letters & FAX Order Forms attached ⇨