SUZUKI

2-Stroke

Service Bulletin Index

GT

TWO STROKE

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GT

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SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-1
Date: May 1, 1975

Read and Initial

Manager
Parts
Service AD

Subject GT750 COOLING SYSTEM

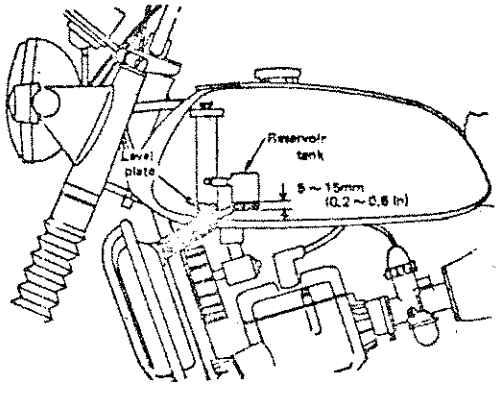
Due to the specialized knowledge required to correctly service the liquid cooling system on the new GT750, the following information has been compiled as a ready reference.

Coolant: "Suzuki CCI Antifreeze and Summer Coolant" is recommended exclusively by the factory for use in the GT750. Tests have shown that no other brand of coolant manufactured in the United States meets the specialized requirements of this motorcycle cooling system.

Suzuki CCI Coolant.....Part No. 99000-24120 is available in 2 liter cans (2.1 U. S. quarts).*

Set-Up: Each machine is serviced with a 50/50 mixture of distilled water and Suzuki CCI Coolant at the factory. This protects the cooling system to a temperature of -24° Fahrenheit. (-31°C). This mixture will probably last for two years or 20,000 miles under normal use. Do not exceed a cooling mixture ratio of 60% Antifreeze as its anti-freezing effectiveness does not increase beyond this ratio. Conversely, do not go below a cooling mixture ratio of 30% Antifreeze in summer weather. This amount is required at all times for anti-corrosion and cooling. Use distilled water only for mixing.

Cooling System Capacity: The specified cooling system capacity is 4.5 liters or 4.75 U. S. quarts. The cooling mixture should be maintained 5-15mm from the bottom of the radiator resevoir tank. To facilitate daily inspection of this level, a white level plate is located inside the radiator refill pipe. The cooling solution should be maintained near this plate at all times. A daily inspection should be made of the cooling mixture level before starting the engine.



Cooling solution level

Maintenance: Although the cooling solution capacity is 4.5 liters, approximately 500 cc will remain trapped after draining or flushing; unless the engine is disassembled. Therefore, after normal draining or flushing, the refill capacity will be 4 liters (4.22 U. S. quarts).

To flush the cooling system, remove all engine water plugs and let drain. With the engine cold, flush with a water hose through the radiator opening. Replace the water plugs and run the engine for ten minutes with a flushing agent. Drain and flush again with water. Refill with the proper cooling mixture.

When refilling the system it will be necessary to run the engine until the thermostat opens, before the system can be filled to capacity. Running the engine at idle for ten minutes should accomplish this.

A container with a pre-mixed solution of the correct distilled water/anti-freeze ratio should be kept on hand to replenish whatever normal cooling mixture loss occurs during use. Refilling with water only will result in diluting the cooling mixture after a while.

The radiator cap pressure is rated at 13 p.s.i. J and K models: A cooling fan is installed behind the radiator and is controlled by a thermostat switch set to activate at a water temperature of 220°F. The fan will then operate until the cooling mixture temperature drops to 212°F. If for some reason you wish to activate the fan to run before a temperature of 220° F is reached, disconnect the brown wire from the thermo-switch and the fan will operate.

Anti-leak Chemicals: At the factory 14 grams (½ oz.) of "Bars-Leaks" brand anti-leak chemical is installed in the cooling system of each GT750. NO ADDITIONAL ANTI-LEAK should be added, except after completely flushing the system and replenishing with new cooling solution. The inner diameter of the radiator tubing is only 1.5mm. Consequently radiator blockage can become critical. "Bars-leak" is capable of plugging a hole 1mm in diameter.
This fact, plus any incidental corrosion which might occur if a proper cooling mixture is not maintained, could result in clogging of the radiator leading to engine failure. Use of any other brand anti-leak is not recommended.

Storage: It is not advisable to drain the cooling system when the motorcycle is to be stored, since this would initiate corrosion in the aluminum radiator, cylinder and cylinder head.

(cont.)

WATER PUMP IMPELLER CIRCLIP:

We have had several reports of water pump damage on the GT-750. This has been due to the impeller circlip, coming off the water pump shaft.

Therefor, whenever the water pump is disassembled, a new impeller circlip, Suzuki Part No. 08331-11109, should always be installed upon reassembly.

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TECHNICAL SERVICE DEPARTMENT

SUZUKI
2-Stroke
Service Bulletin

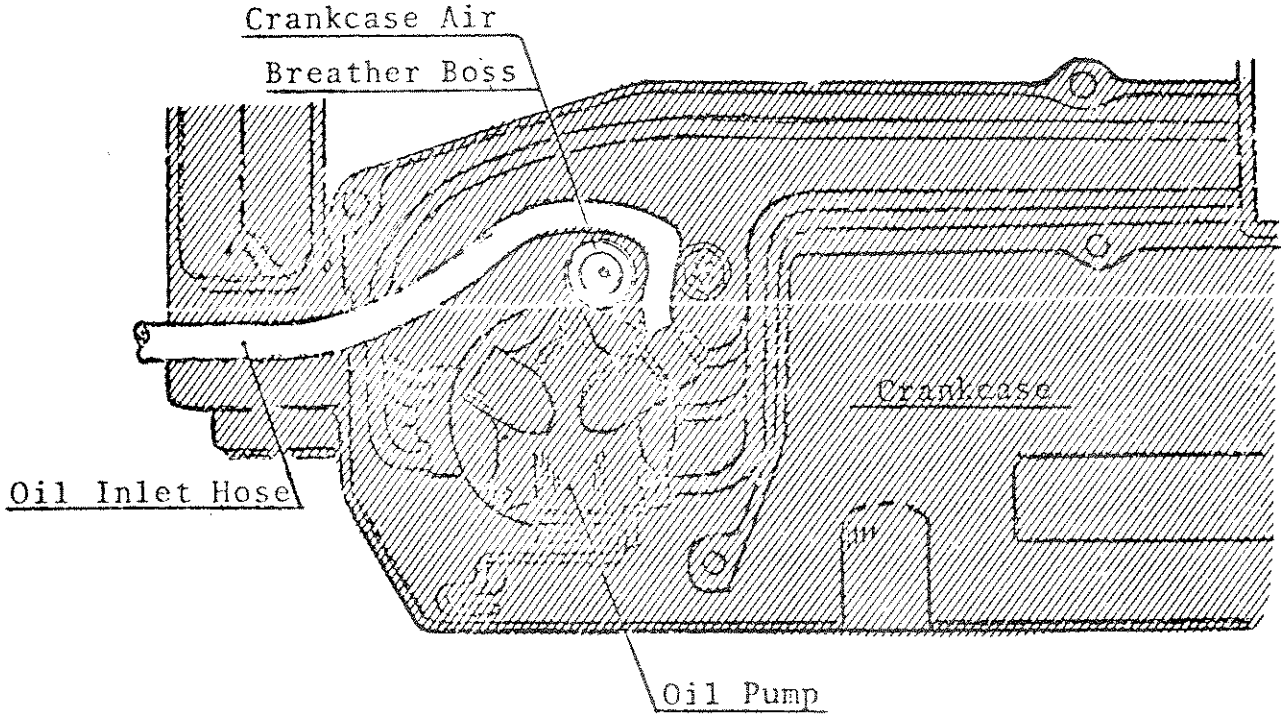
Bulletin No: GT-2
Date: May 1, 1975

Read and Initial

Manager
Parts
Service MAP

Subject: GT750 OIL STARVATION

PROBLEM: If care is not taken it is possible to pinch the inlet line from the oil tank to the oil pump when installing the oil pump cover. Pinching this line closed will result in no oil getting to the oil pump, or to the engine. Naturally this can cause a multitude of problems due to lack of lubrication.



CORRECTION:
1. Take special care that the oil pump inlet hose is routed around the crankcase air breather boss before installing the oil pump cover.
2. Before tightening down the screws holding the cover, check that the cover seats flush against the crankcase, without any gaps. If there is a gap, this would indicate that the hose might be pinched between the breather boss and the cover.
3. After tightening the screws, start the engine and check at the lines for any evidence of oil starving.

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-3
Date: May 1, 1975

Read and Initial

Manager
Parts
Service AAP

Subject: GT750 CRANKCASE AND GEAR REPLACEMENT
(Revised December 19, 1975)
REFERENCE: Service Bulletin #GT-29

The crankcase, 1st driven, 2nd driven and kick starter drive gears of the GT750 will be selection-assembled to obtain the optimum backlash of the gears for less noise from the transmission. Install the most suitable gears according to the following instructions when replacing these parts.

A. Installation of parts

1. When replacing the CRANKASE ASSEMBLY:

   a. The crankcase assembly is supplied with the 1st driven, 2nd driven and kick starter drive gears with which the optimum backlash is obtained. Therefore, install these gears when replacing the crankcase assembly.

   *b. Second drive gear is not supplied with the crankcase assembly, but for engines prior to number GT750-73059 it must be replaced in conjunction with second driven gear which is supplied with the crankcase assembly.

2. When replacing 1ST DRIVEN GEAR AND/OR 2ND DRIVEN GEAR:

   a. In this package of spare parts, there are two gears classified by size, one is painted yellow and the other is painted white. When replacing this gear with a new one, check the paint color indicated on the crankcase originally fitted to the machine, then choose the most suitable gear in accordance with the chart on Page 2.

      EXAMPLE: Fit the white painted gear if the crankcase is painted blue, green or white.

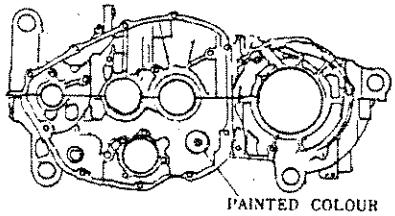
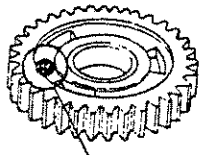
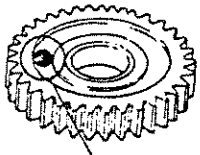
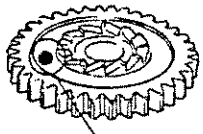
   b. For engine numbers prior to GT750-73059 second drive gear must be replaced at the same time second driven gear is installed.

*Revised: December 19, 1975

3. When replacing the KICK STARTER DRIVE GEAR:

   a. Again there are two gears in the package, one is painted brown and the other is painted yellow. Choose the most suitable gear shown on the chart according to the paint color indicated on the crankcase.

      EXAMPLE: Fit the brown painted gear if the crankcase is painted brown, black, red or yellow.

CRANKCASE COLOUR	1ST DRIVEN GEAR	2ND DRIVEN GEAR	KICK START DRIVE GEAR
B R O W N	YELLOW	YELLOW	BROWN
B L A C K			
R E D			
Y E L L O W			
B L U E	WHITE	WHITE	YELLOW
G R E E N			
W H I T E			
 PAINTED COLOUR	 PAINTED COLOUR	 PAINTED COLOUR	 PAINTED COLOUR

B. Change of part numbers

The part numbers of the relative parts have been changed as follows on page 3:

(cont.)

PART NAME	OLD PART NO.	NEW PART NO.	REMARKS
*Crankcase Ass'y.	11300-31851	11300-31852	includes crankcase ass'y., 1st driven, 2nd driven & kick starter drive gears. For engines up to number GT750-73059. Second drive gear must also be installed. However, it is not supplied with crankcase assembly, and must be ordered separately.
Gear Comp, 1st Driven	24310-31000	24310-31821	includes two gears classified by size.
*Gear Comp, 2nd Driven	24321-31822	24300-37810	includes two gears classified by size. For engines up to number GT750-73059 second drive gear must also be installed at the same time.
Gear Comp, Kick Starter Drive	26240-31000	26240-31823	includes two gears classified by size.
*Second Drive Gear	24221-31000	24221-37000	Up to engine #GT750-73059 install second driven gear at the same time.

NOTE: For further details refer to Service Bulletin Number GT-29 of November 21, 1975.

*Revised: December 19, 1975

U. S. SUZUKI
TECHNICAL SERVICE DEPARTMENT

SUZUKI
2-Stroke
Service Bulletin

Subject: GT750 STARTER CLUTCH MODIFICATION

Bulletin No: GT-4
Date: May 1, 1975

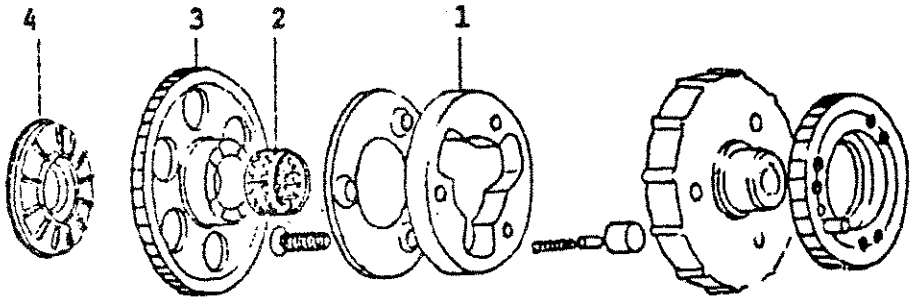
Read and Initial

Manager
Parts
Service

NOTICE:

Reports have been received of starter clutch failures on the subject models. While the symptoms are similar, there have been various contributory factors involved. Therefore, several modifications have been made to effect a total cure, as the following illustrations show.

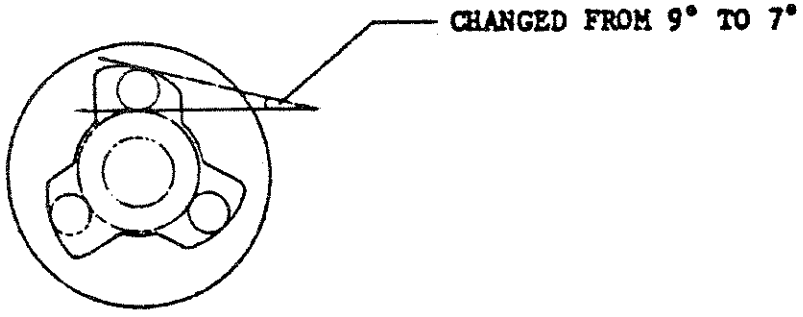
DETAILS OF MODIFICATIONS



STARTER CLUTCH ASSEMBLY

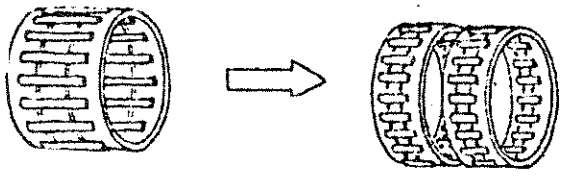
1. STARTER CLUTCH HOUSING

The wedge has been altered as shown in the illustration.



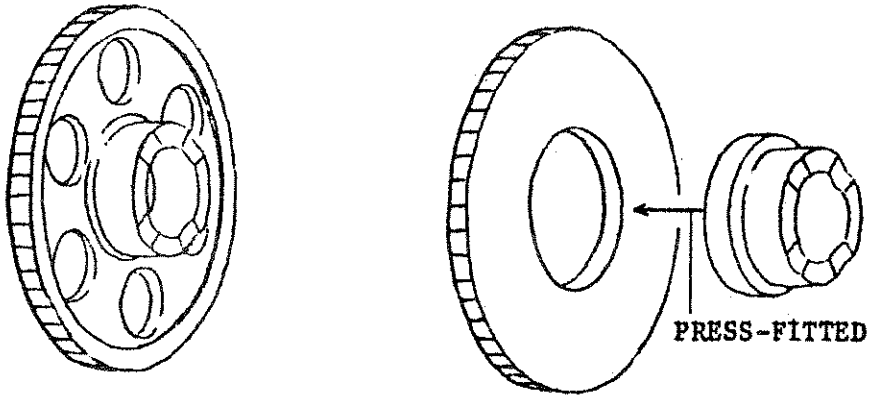
2. NEEDLE BEARING

The width of the needle roller bearing has been narrowed so that a pair may be installed in place of the old type wider bearing.



3. STARTER CLUTCH GEAR

The hub on the starter clutch gear on which the starter clutch rollers run has been changed from a solid type to a press-fitted type as shown below.

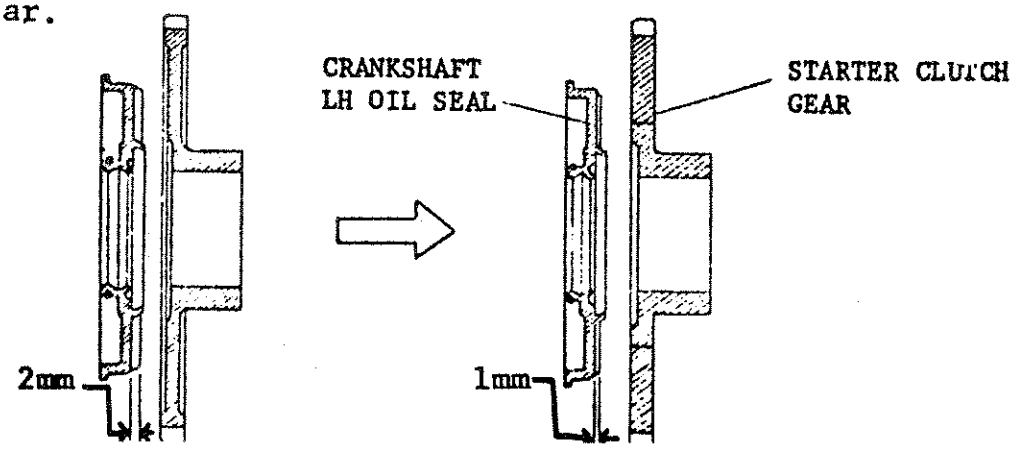


SOLID PRESS FITTED

4. CRANKSHAFT LH OIL SEAL

In connection with the modification of the starter clutch gear the thickness of the gear is evened so as to have enough contact surface around the hub being press-fitted.

In addition, the height of the ribs on the crankshaft oil seal have been lowered by 1 mm in order to clear the starter clutch gear.



(cont.)

5. INTERCHANGEABILITY

UPDATED

The parts, except the crankshaft oil seal, may be interchanged. However, it is still highly recommended to use only the modified parts in order to thoroughly avoid a possible problem.

PART NUMBER:

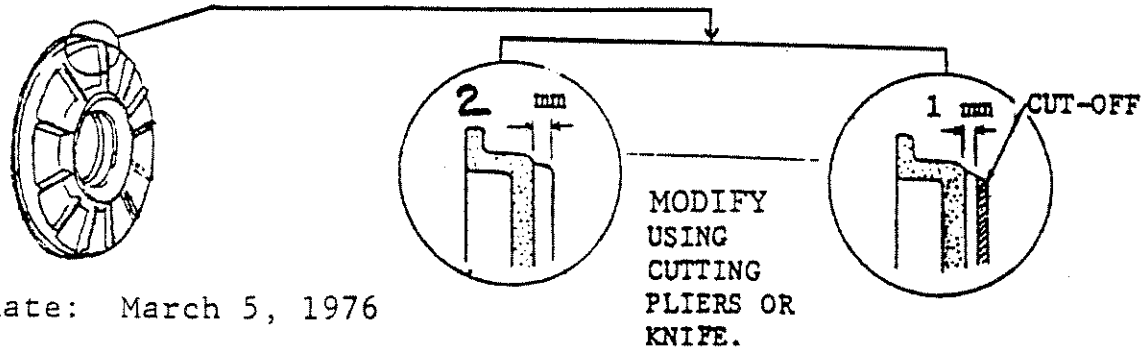
DESCRIPTION	OLD NO.	NEW NO.
Starter Clutch Assembly	12603-31832	*12600-31832
Starter Clutch Gear	12620-31003	*12620-31004
Starter Clutch Gear Bearing	09263-25011	09263-25011
Crankshaft LH Oil Seal	09289-30001	*09263-30001

APPLICABILITY:

DESCRIPTION	PRODUCTION MONTH	ENGINE NO.
Starter Clutch Housing	From April, 1972	From #27667
Starter Clutch Gear Bearing	From April, 1972	From #26030
Starter Clutch Gear	1. April and May production	1. #26030-#29045
Crankshaft LH Oil Seal	2. After old stock is exhausted	2. ---

Note:

On future parts orders only the new type starter clutch parts will be supplied. However, the old type LH crankshaft oil seal will still be supplied until such time as the existing stock is exhausted. Therefore, when the old oil seal is retained in the unit and the starter clutch is modified or replaced, it is necessary to check the rib height of the oil seal and modify the same as shown.



*Update: March 5, 1976

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-5
Date: May 1, 1975

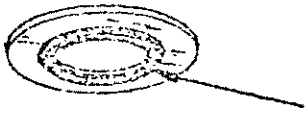
Read and Initial
Manager
Parts
Service DAP

Subject: NEW STYLE GT750 CYL. HEAD BOLT WASHER

NOTICE

A new style washer has been designed for the cylinder head bolt of the GT750. The new style washer has a rubber seal molded around its inside surface as shown below.

OLD STYLE WASHER
(08322-11148)



NEW STYLE WASHER
(09168-14008)

The rubber seal will prevent any possibility of coolant leaking past the washer and also prevent water from outside (rain or washing) passing in past the washer and rusting the bolt.

APPLICABILITY

GT750's on and after Engine Number GT750-51822 and Frame Number GT750-45213 have had the new style washers installed.

RECOMMENDATION

For units prior to the above Engine and Frame Numbers, it is recommended that the old style washers be replaced with new style washers whenever the cylinder head is removed from the GT750.

PARTS

The new style washer is now available from the U. S. Suzuki Parts Department, and the Part Number is: 09168-14008.

SUZUKI
2-Stroke
Service Bulletin

Subject: GT750 CRANKSHAFT MODIFICATIONS

Bulletin No: GT-6
Date: May 1, 1975

Read and Initial

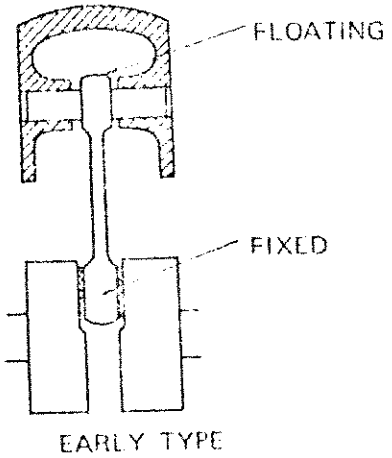
Manager
Parts
Service

NOTICE:

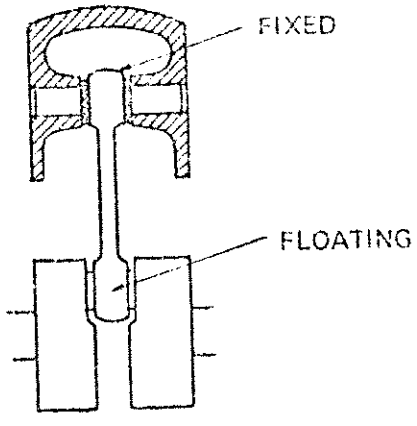
The GT750 crankshaft assembly, has been modified in several ways to further increase its durability.

DETAILS OF MODIFICATIONS:

Side movement of the connecting rod is restricted on the small end, and the big end has been changed to a floating type as shown in the illustration below.



EARLY TYPE



MODIFIED

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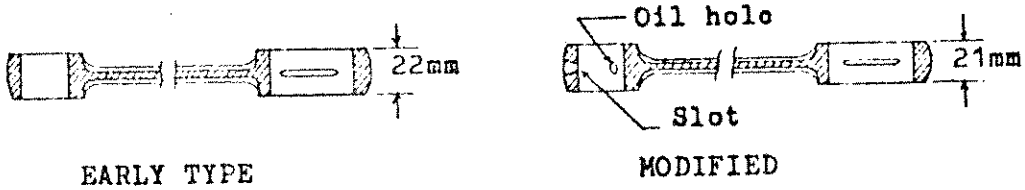
This has been accomplished by the following individual modifications.

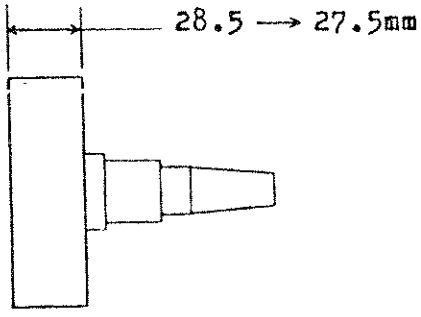
1) Connecting rod:
The big end width has been reduced and a slot and a hole have been provided on the small end for better lubrication.



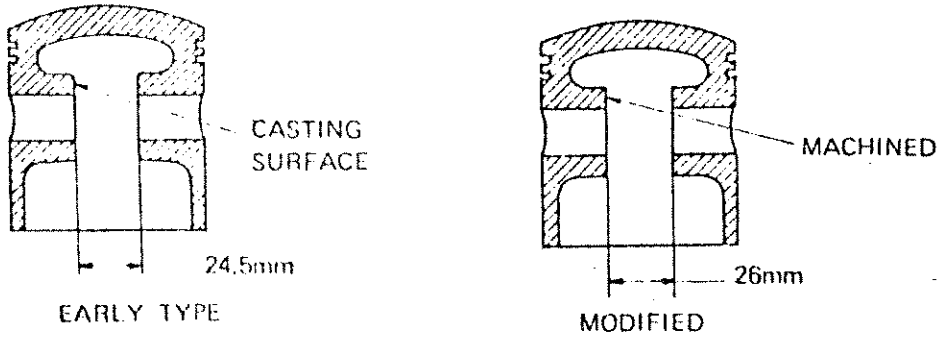
EARLY TYPE MODIFIED

2) Crankshaft components:

A) Crank Wheels:
The width of the crank wheels has been reduced from 28.5mm to 27.5mm.



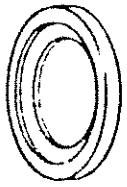
B) Pistons:
The pistons inside surface has been changed from a casting surface to that of a machined surface. The inside dimension between the wrist pin bosses has also been changed.



EARLY TYPE MODIFIED

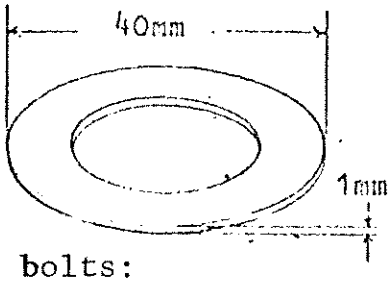
(cont.)

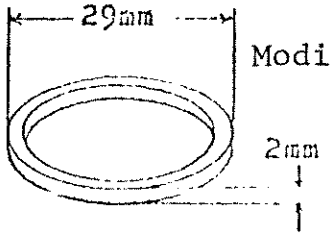
C.) **Thrust** washer, connecting rod small end:
This thrust washer has been provided for the non-floating small end of the connecting rod. Two of these are used for each piston.



D.) Thrust washer, crank pin bearing:
In order to have the connecting rod floating on the crank pin, this thrust washer has been modified as shown below.

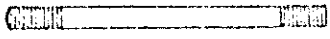
Early Type



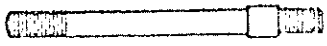


Modified

E.) Stud bolts:
Two of the twelve stud bolts on the crankcase assembly have been replaced with a new type shouldered bolt.

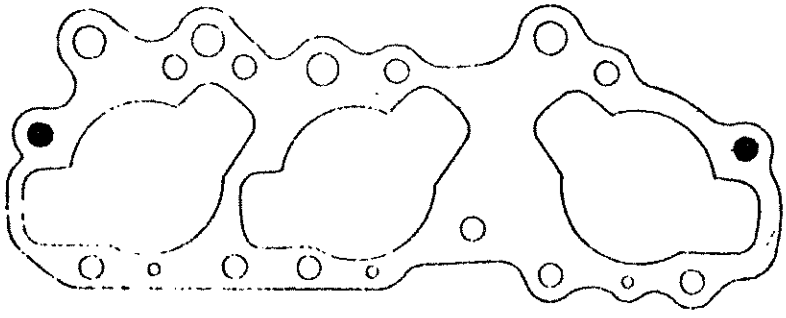


EARLY TYPE



MODIFIED

F.) Cylinder gasket:
Two holes in the gasket have been enlarged from 11mm to 12.5mm in diameter to match the new type stud bolts.



● : ENLARGED

(cont.)

PART NUMBERS AND AVAILABILITY:

For assembly convenience, the new style crankshaft assembly consists of the following parts.

1. Pistons (3)

2. Thrust washers, connecting rod small end. (6)

3. Stud bolts. (2)

4. Crankshaft assembly.

The above crankshaft set does not include the cylinder base gasket, although it has been modified as explained in paragraph #2 (F). Consequently, when using the old style gasket, the necessary two holes should be enlarged before assembly.

PART NAME	OLD PART NO.	NEW PART NO.	AVAILABILITY
CRANKSHAFT SET	12003-31803	12200-31835	NEW ONLY
(CONNECTING ROD)	12161-31000	12161-31001	OLD & NEW
(CRANKSHAFT, R)	12221-31000	12221-31001	NEW ONLY
(CRANKSHAFT, MIDDLE)	12231-31000	12231-31001	NEW ONLY
(CRANKSHAFT, L)	12241-31002	12241-31003	NEW ONLY
(CRANK WEB, L)	12242-31000	12242-31001	NEW ONLY
(THRUST WASHER, CRANK PIN BEARING)	09160-24012	09160-24014	OLD & NEW
PISTON, R	12110-31000	12110-31001	OLD & NEW
PISTON, L	12120-31000	12120-31001	OLD & NEW
THRUST WASHER, CON-ROD SMALL END	NOT EXIST	09169-18001	AVAILABLE
STUD BOLT, CYLINDER	09108-10006	09108-10012	OLD & NEW
CYLINDER GASKET	11241-31000	SAME AS OLD	NEW ONLY

(cont.)

*The parts shown in parentheses are the modified components of the crankshaft.

PARTS STOCK:

Since the old style piston cannot be used on the new style crankshaft assembly, some of which are already in the field, it is recommended that you add the new style pistons to your parts inventory as soon as possible.

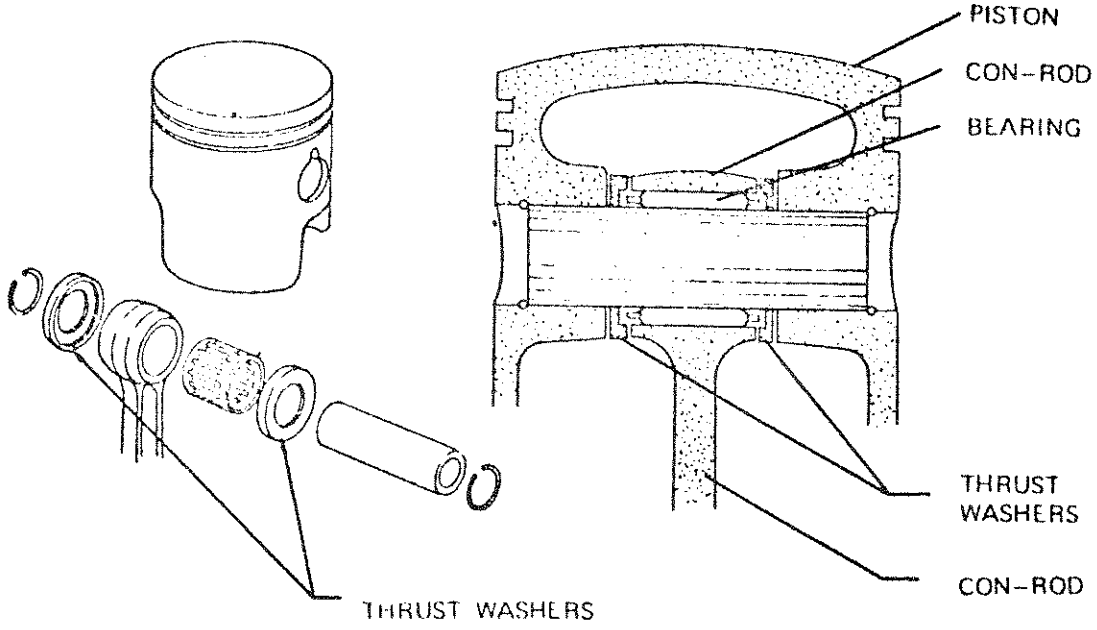
APPLICABILITY:

The crankshaft modification has been applied, on and from Engine Number 38060.

ASSEMBLING PROCEDURE:

If the new style crankshaft is to be used on the early type engine, the following procedure should be noted.

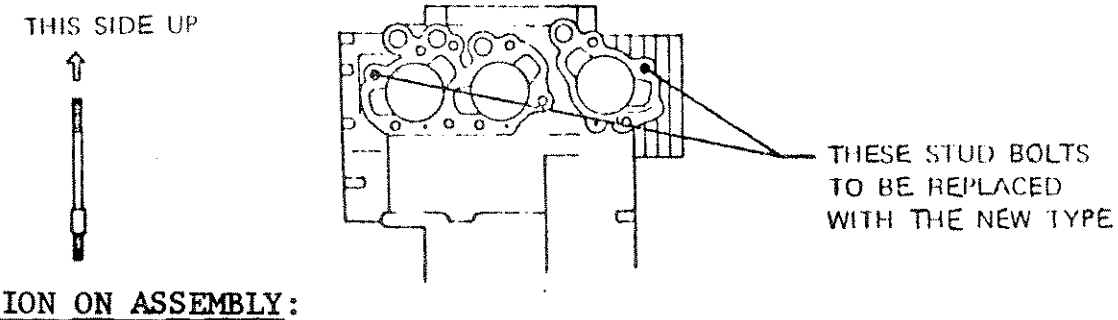
1) The pistons and thrust washers should be assembled as shown below.



NOTE: Two different pistons are used in the GT750 engine, and they are marked "R" and "L" on top of the piston crown. The "R" piston is for the right cylinder and the "L" pistons are for the left and middle cylinders.

(cont.)

2) In order to achieve proper alignment of the connecting rod with the center of the cylinder bore, the necessary stud bolts should be replaced with the new style as shown below.



CAUTION ON ASSEMBLY:

1) To prevent transmission oil leaking into the crankcase, care should be taken when placing the crankshaft assembly into the lower crankcase half. There should not be any clearance allowed between the crankshaft oil seals and crankshaft bearings and oil seal retainer.

2) Be certain to apply Suzuki bond #4 (99000-33030) to the crankcase around the water by-pass hole to avoid water leakage into the transmission.

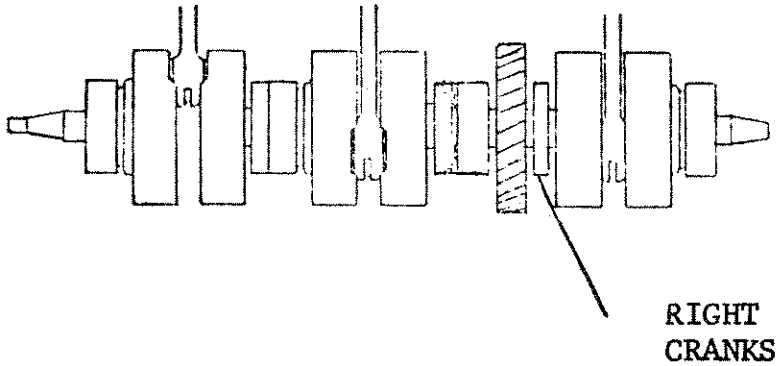
3) When installing the starter clutch unit to the crankshaft, apply Thread Lock Cement (Part No. 99000-32010) to the threads of the crankshaft and torque the fitting nut to 50 lb-ft.

ADDENDUM

We have received occasional reports of GT750's smoking excessively from the right exhaust pipe.

CAUSE:

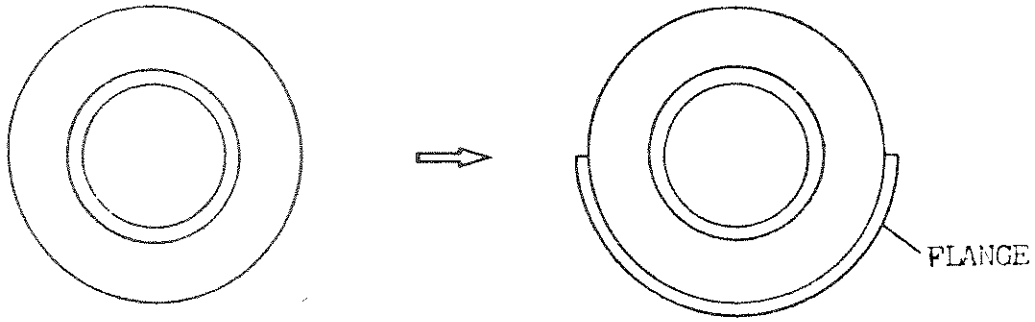
The excessive smoking was attributed to the right inboard crankshaft oil seal becoming displaced, allowing transmission oil to pass into the right cylinders crankcase.



(cont.)

MODIFICATION:

To provide a more positive method of positioning the right inboard oil seal, a metal flange has been added to the seal.



OLD STYLE NEW STYLE

The new style seal's flange eliminates the old style seals positioning "C"-ring (Part No. 09390-78003). The flange of the oil seal should be placed in the "C"-rings crankcase groove when positioning the crankshaft assembly in the lower crankcase half.

PARTS:

The new style parts are now available from the U. S. Suzuki Parts Department.

DESCRIPTION	OLD PART NO.	NEW PART NO.
Oil Seal, R. H. Inboard	09289-38003	09289-38008
Crankshaft Assembly	12200-31834	12200-31835
"C" Ring	09390-78003	----------

APPLICATION:

The new style oil seal has been installed on and after the following Engine and Frame Number.

Engine Number: GT750-54214 Frame Number: GT750-49895

INTERCHANGEABILITY:

The old and new style oil seals are interchangeable.

When using the old style seal (without the flange) the "C" ring must also be used.

When installing a new style oil seal in an engine prior to No. GT750-54214, the "C" ring is not needed.