SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-22
Date: May 1, 1975

Read and Initial

Manager
Parts
Service AAP

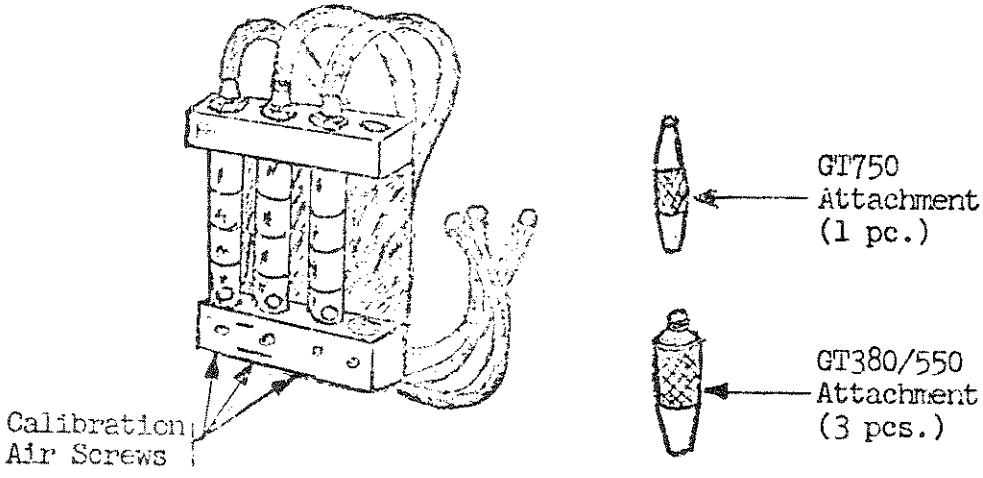
Subject: INSTRUCTIONS FOR USING GT380/550/750 CARBURETOR SYNCHRONIZATION TOOL

NOTICE

Beginning with the 1974 model year, the three cylinder models were equipped with new type carburetors. These carburetors have a feature which allows the use of a carburetor balancer to be connected, enabling very accurate carburetor synchronization.

PARTS

The U. S. Suzuki Parts Department now has a special three cylinder carburetor balancer available. This new tool is illustrated below.



The Carburetor Balancer Part Number is: 09913-13120.

INSTRUCTIONS

Prior to performing carburetor synchronization the following items should be checked and adjusted to specifications.

A. Point Gap
B. Ignition Timing
C. Spark Plug Gap
D. Throttle Cable Play at Pulley
E. GT380/550 Pilot Air Screws
F. GT750 Fuel-Air Mixture

Following are instructions for calibrating the tool and for adjusting the engine idle speed and carburetor synchronization, using the new carburetor balancer, (09913-13120).

Calibration of Tool:

1. Start the engine and allow it to run until normal operating temperature is obtained.

2. Stop engine. Attach one balancer tube hose to one carburetors vacuum outlet. (Locations of the vacuum outlets are listed at end of these instructions.) Start engine and note position of check ball.

3. Stop engine. Attach the second balancer tube hose to the same carburetor. Start engine and adjust the position of check ball to that noted of the first check ball in Step 2, by turning the appropriate air adjusting screw, in the bottom of the balancer tubes base.

4. Repeat Step Number 3. for the remaining balancer tube.

NOTE: The tools calibration should be checked and adjusted each time it is used.

Carburetor Synchronization:

1. Start the engine and allow it to run until normal operating temperature is obtained.

2. Stop engine. Connect a balancer tube hose to each carburetors vacuum outlet. (Locations of the vacuum outlets are listed at the end of these instructions.) IMPORTANT - FINGER TIGHTEN ONLY TO SEAT "O" RING. If a wrench is used to tighten the connector, the carburetor threads can be damaged.

(cont.)

3. Start engine. Bring all three check balls to the same level, using the carburetor throttle valve adjusters. (See New Type Carburetor Service Manual For Models GT380, GT550, GT750.)

4. When all three check balls are at the same level, turn the throttle stop screw so the engine will idle smoothly at the lowest possible RPM. (Approximately 1,000 to 1,300 RPM depending on each individual motorcycle.)

NOTE: GT750 carburetor synchronization must be performed in the following order: RIGHT - CENTER - LEFT.

Location of Carburetor Vacuum Outlets:

Right and Left Carburetors - The vacuum outlets for the right and left carburetors are foward of the throttle slide, on the carburetor body. Phillips head screws (5mm) are threaded into the vacuum outlets on GT380/550 models, and face towards the outside of the motorcycle. The GT750's vacuum outlets are not threaded and the hose should be placed over the outlets without the threaded adapters.

Middle Carburetor - The GT380/550 middle carburetor's vacuum outlets are located in the throttle valve shafts left support bracket, near the fuel petcock vacuum hose connection. A 5mm Phillips head screw is also threaded into this outlet.

The GT750 middle carburetor does not have a special vacuum outlet and the fuel petcock's vacuum hose must be disconnected from the petcock. A special adapter is included with the Carburetor Balancer for inserting into the petcocks vacuum hose. After the GT750 engine is started for adjustment, the fuel petcock should be placed in the "PRIME" position.

WARNING: When the engine is stopped be sure the petcock is returned to the "ON" or "RES" position. Failure to comply with this warning can result in serious damage to the engine.

NOTE: Some early 1974 GT750's with new type carburetors were not equipped with vacuum outlets, and the new tool cannot be used to synchronize those units carburetors.

U. S. SUZUKI
TECHNICAL SERVICE DEPARTMENT

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-23
Date: May 1, 1975

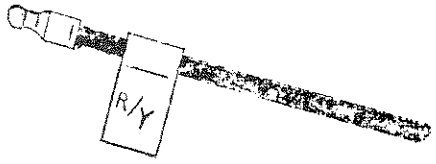
Read and Initial
Manager
Parts
Service

Subject: GT380/750 WIRING HARNESS
TEMPORARY COLOR CODE CHANGES

Sufficient amounts of the standard color coded wire insulation used in Suzuki electrical systems were unavailable at the beginning of the 1974 "L" model production. Therefore, temporarily non-standard wiring colors have been substituted whenever necessary.

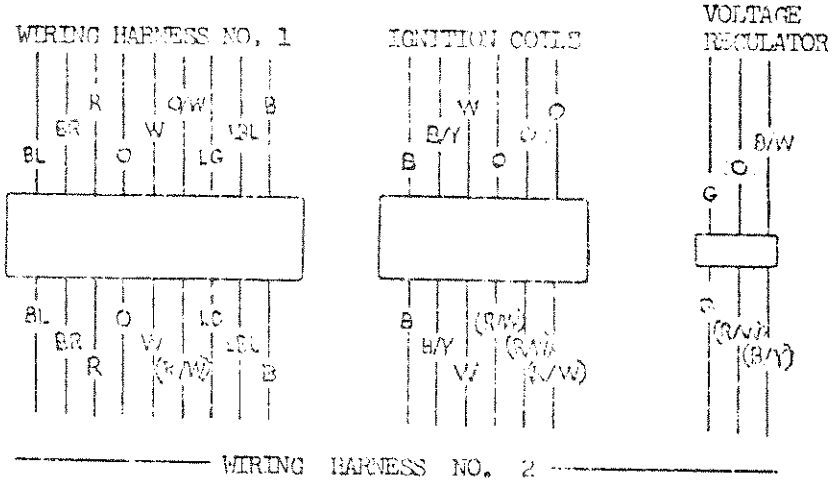
Units manufactured during and after the month of February 1974 will have white tape with a color code printed on it attached near the end of the connector of the substitute wires. This will indicate the color of the wire it is to be connected to. Example:

TO BE CONNECTED TO A RED WIRE WITH YELLOW TRACER



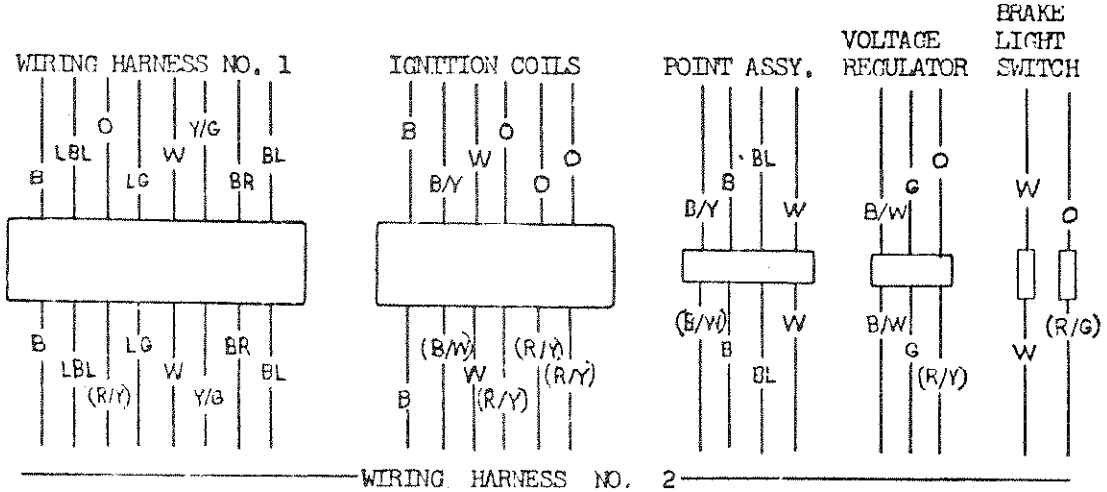
Listed below are the basic color code changes which have been necessary. Variations of the color codes listed below may occur, while some units may be equipped with the standard color codes.

GT380



( ): INDICATES THE SUBSTITUTE COLORS

GT750



( ): INDICATES THE SUBSTITUTE COLORS

U.S. Suzuki Motor Corp. • 13767 Freeway Drive • Santa Fe Springs, California • 90670 • (213) 921-4461

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-24
Date: May 1, 1975

Read and Initial

Manager
Parts
Service AMP

Subject: BURNED OUT GT250 HEADLIGHT BULB

PROBLEM:

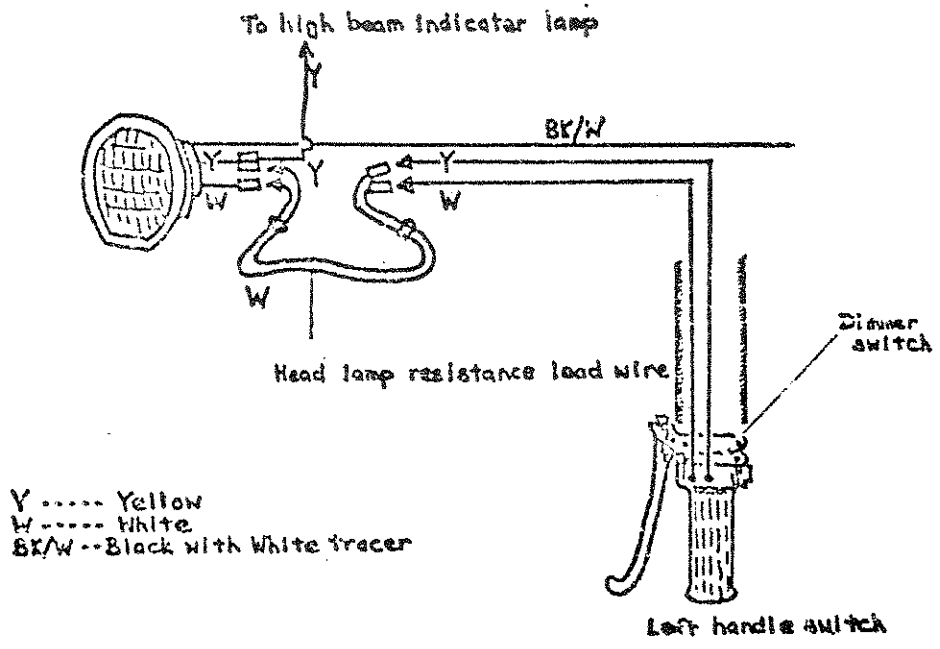
Routine reports indicate that certain units of the subject models have experienced premature headlight bulb failure. The usual cause is excessive voltage combined with high r.p.m. vibrations.

INSPECTION:

Check all the usual ground connections within the system, paying particular attention to such items as the high beam indicator bulb, neutral indicator bulb and taillight bulb. These must all be firmly connected, in working order and of the correct values, as listed in your service data manual.

CORRECTION:

Should the condition still exist, install the resistance lead wires, according to the following instructions.



GT250

Disconnect the white and yellow wire couplers inside the headlight shell. Install the resistance leads, in series, as shown in the illustration.

PART NUMBER AND AVAILABILITY:

The resistance leads are available from U. S. Suzuki's Parts department. The part number is 37131-18999.

For further information, refer to Service Bulletin No. TS-11.

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GT-25
Date: August 15, 1975

Read and Initial

Manager
Parts
Service AHP

Subject: GT750 CYLINDER PULLER TOOL SET

NOTICE:

We have received occassional reports of some GT750 cylinders being difficult to remove. Especially those with high mileage. In extreme cases the crankcase and/or cylinder has been damaged during removal attempts.

To easily remove the cylinder from a GT750, a Cylinder Puller Tool Set is now available from U. S. Suzuki's Parts Department.

INSTRUCTIONS:

Instructions for using the GT750 Cylinder Removal Tool Set are listed below. Read them thoroughly prior to use. Pay special attention to CAUTIONS to prevent cylinder and crankcase damage.

1. Using compressed air, blow loose residue out of all eleven cylinder stud holes.

CAUTION: Always wear safety goggles whenever performing an operation of this type.

2. Using the 5/8 NF tap (#99104-03140), thread all eleven holes until tap lightly bottoms on the cylinder studs.

CAUTION: Do not force tap further as damage to the cylinder will result.

3. Using compressed air, blow all the aluminum chips out of the stud holes and install puller body (99104-03110) using the installation bolt until body lightly bottoms in the threaded hole. The puller bodies internal threads should face down, towards cylinder studs. Shop towels should be placed in cylinders to prevent aluminum chips from entering.

CAUTION: Always wear safety goggles whenever performing an operation of this type.

NOTE: Do not use installation bolt to remove puller bodies after cylinder is removed. To do so will result in thread damage to it and the puller body.

4. Using a good grade of penetrating oil, fill all eleven cylinder stud holes. Then install eleven starter bolts (#99104-03120) until they bottom on the studs.

CAUTION: The following procedures must be adhered to or damage to the cylinder and engine cases will result.

5. Using the appropriate allen wrench, tighten all bolts ½ turn at a time using the same pattern as you would to torque the cylinder head. Continue tightening ½ turn at a time until the eleven starter bolts bottom in puller bodies. Uneven insertion of puller bodies must be allowed for. Therefore, when first bolt bottoms do not tighten any remaining bolts further if they break the tightening sequence pattern.

CAUTION: Under no circumstance should you tighten the starter bolts more than ½ turn at a time, to do so will probably cause damage to cylinder and cases, due to uneven pulling of cylinder.

6. Remove all starter bolts and install the eleven extension bolts (#99104-03130) until they bottom on the studs. Use the same tightening procedure one (1) turn at a time in sequence until the cylinder is completely removed.

SUMMARY:

It can not be stressed strongly enough, the importance of the above instructions and cautions. Failure to follow these will result in destroying the cylinder and/or the crankcase ass'y. All corrosion should be cleaned from cylinder studs and cylinder holes before re-assembling.

NOTE: After the above procedure is used to remove the cylinder, it is strongly recommended that the new cylinder washer with the rubber seal be used, part (#09168-14008). Please refer to Service Bulletin #GT-5, May 1, 1975.

PARTS:

The following is a list of parts that make-up the Puller Kit (#99104-03100). All listed parts are available from U. S. Suzuki in quantities of one, with the exception of the Installation Bolt.

(cont.)

PART NUMBER	DESCRIPTION	Q'TY PER KIT	DLR. COST
99104-03100	Puller Set	———	$46.88
99104-03110	Puller Body	11	$1.82 ea.
99104-03120	Starter Bolt	11	$0.28 ea.
99104-03130	5 1/4" Extension Bolt	11	$1.75 ea.
99104-03140	5/8" x 24 Tap	1	$4.57
N/A	3/8" x 1 ½" Installation Bolt	1	N/A

NOTE: The 3/8" x 1 ½" Installation Bolt can be easily obtained from any hardware store.

U. S. SUZUKI
TECHNICAL SERVICE DEPARTMENT

SUZUKI
2-Stroke
Service Bulletin

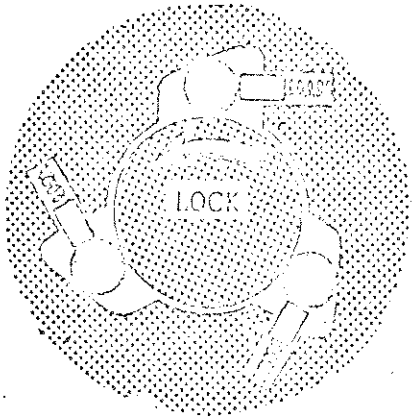
Bulletin No: GT-26
Date: August 15, 1975

Read and Initial
Manager
Parts
Service AHP

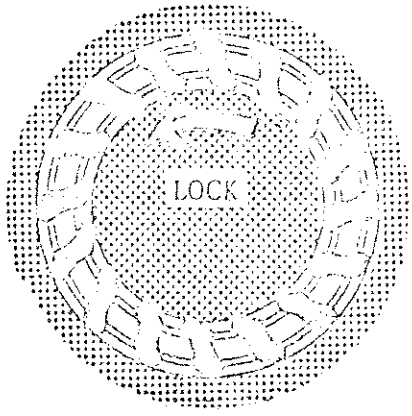
Subject: GT550 STARTER CLUTCH CHANGE

NOTICE:

To increase the durability of the GT550 starter clutch assembly, its design has been changed from a 3-roller to a "Borg Warner" type clutch.



OLD TYPE (3-roller)



NEW TYPE ("Borg Warner")

INTERCHANGEABILITY:

The old and new type starter clutches are interchangeable as an assembly only. Individual components are not interchangeable.

PARTS AND AVAILABILITY:

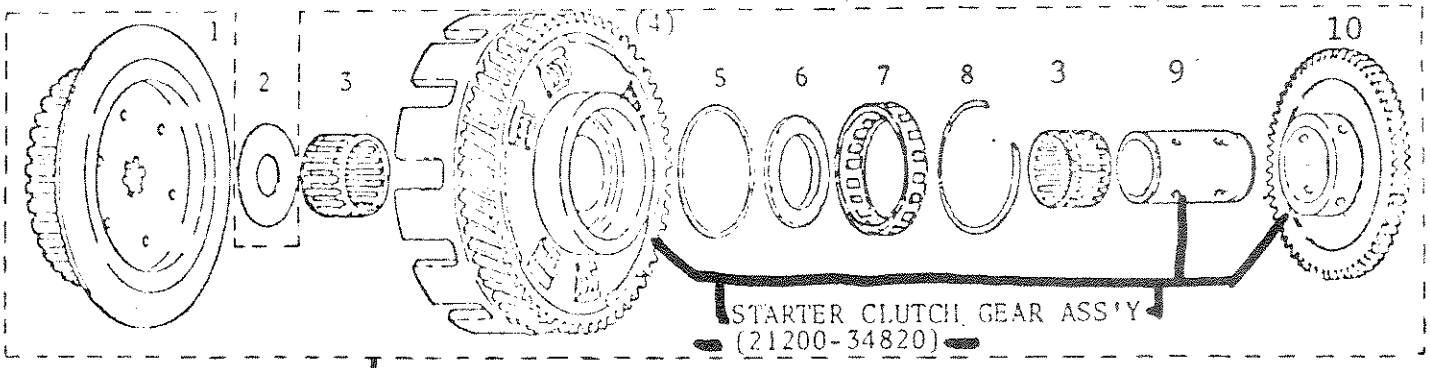
The 3-roller type starter clutch assembly is no longer available from U. S. Suzuki's Parts Department. Only those component parts still used in other models shall remain available. These are listed below:

DESCRIPTION	PART NUMBER
Starter clutch hub screw	02121-08258
Primary driven gear thrust washer	08211-22423
Starter clutch roller	09261-15001
Starter clutch spring	09440-04015
Starter clutch roller push piece	12633-31000
*Clutch sleeve hub	21411-34000

U.S. Suzuki Motor Corp. • 13767 Freeway Drive • Santa Fe Springs, California • 90670 • (213) 921-4461

*The old style clutch sleeve hub will remain available until the current stock is depleted.

The new "Borg Warner" type starter clutch assembly is now available from the Parts Department. Its Part Number is 21200-34830. Its individual components are also available as listed below:



REF. NO	DESCRIPTION	PART NUMBER
	"Borg Warner" starter clutch ass'y.	21200-34831
1.	Clutch sleeve hub	21411-34001
2.	Thrust washer	08211-22503
3.	Needle bearing	09263-38005
*4.	Primary driven gear ass'y.	21200-34821
5.	Thrust washer	09160-64001
6.	Thrust bearing	09263-38003
7.	One-way clutch ass'y.	12650-34020
8.	One-way clutch circlip	09381-71001
*9.	Primary driven gear spacer	21200-34821
*10.	Starter clutch gear	21200-34821

(cont.)

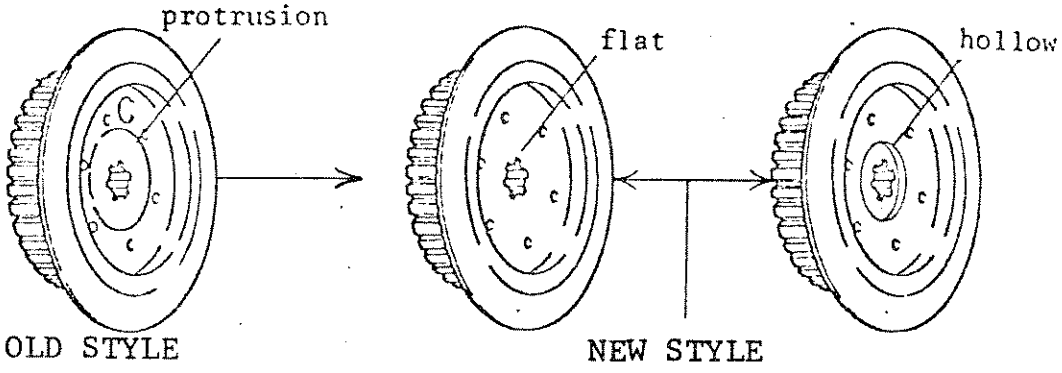
REVISED

Note: Item 2 is not supplied with the new starter clutch assembly. It is the same washer as in the old style assembly. Be sure to install it with the new assembly.

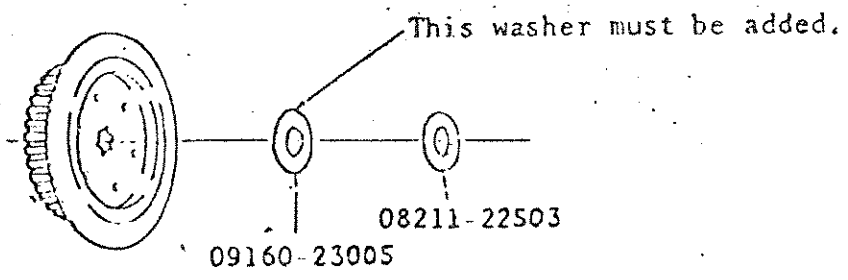
Items 4, 9, and 10 are supplied as a matched set. This is explained under Assembly Notes III.

COMPONENT PART CHANGES:

Changes to the individual component parts are explained below:



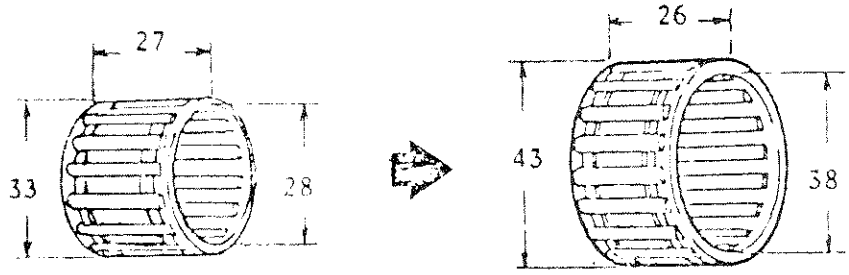
*The new style clutch sleeve hub, either the flat or hollowed out type as shown above, can be used with the old style primary driven gear, as long as a 3mm washer (09160-23005) is used between the standard thrust washer and hub as shown below.



*REVISED

Needle Bearing:

The dimensions of the needle bearing have been changed as shown.



OLD TYPE NEW TYPE

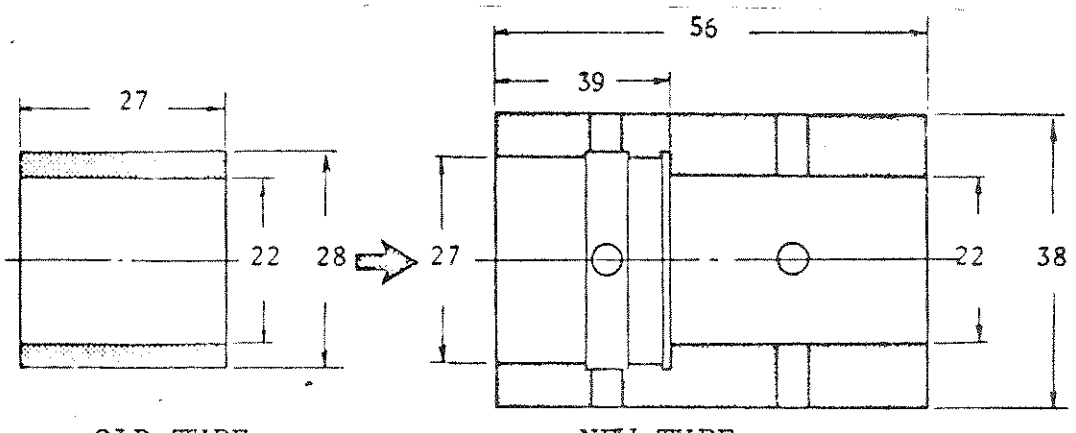
unit: mm

Two needle bearings are used in the new type starter clutch assembly; one for the primary driven gear and one for the starter clutch gear.

The old type starter clutch used one needle bearing, and it was for the primary driven gear.

Primary Driven Gear Spacer:

The dimensions and shape of the primary driven gear spacer have been changed as shown.



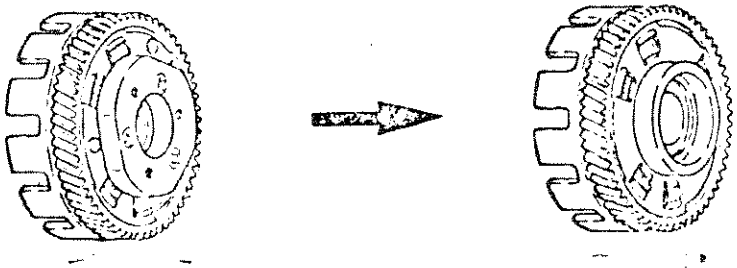
OLD TYPE NEW TYPE

unit: mm

(cont.)

Primary Driven Gear Assembly:

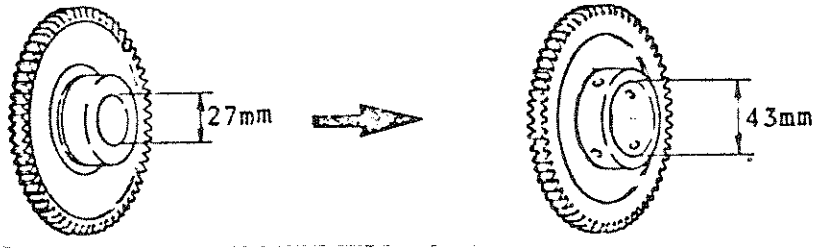
The primary driven gear assembly has been changed to incorporat the new one-way starter clutch.



OLD TYPE NEW TYPE

Starter Clutch Gear:

The shape and inside diameter of the starter clutch gear has been changed as shown.



OLD TYPE NEW TYPE

Any component parts not shown have been either discontinued, or newly added to the new type starter clutch assembly.

APPLICATION:

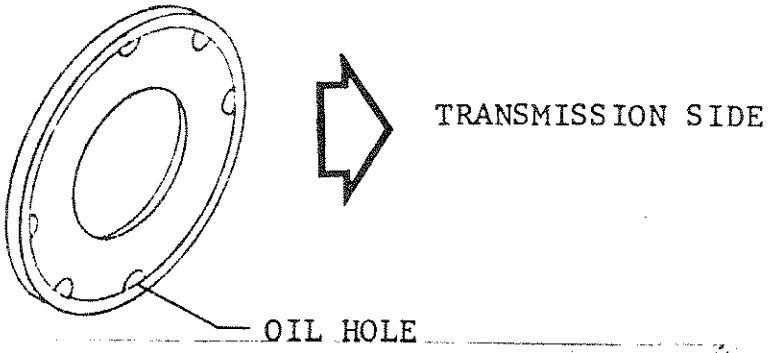
The new type starter clutch assembly has been installed in GT550's on and from Engine Number: GT550-63692.

ASSEMBLY NOTES:

Whenever replacing new type starter clutch individual components, refer to the following notes.

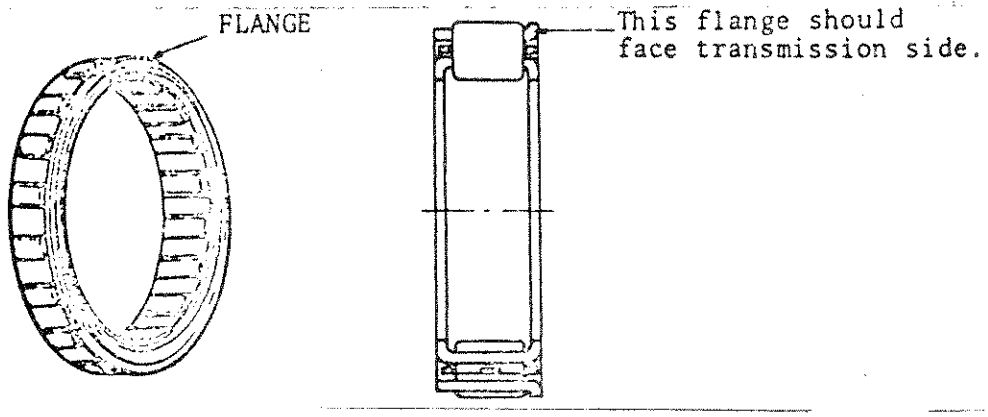
I. Primary driven gear thrust bearing:

When installing the thrust bearing, be certain the side with the oil holes is positioned towards the transmission when the primary driven gear is installed on the countershaft.



II. One-way clutch assembly:

Installation of the one-way cl tch assembly should be with the flanged side facing the transmission when the primary driven gear is installed on the countershaft.



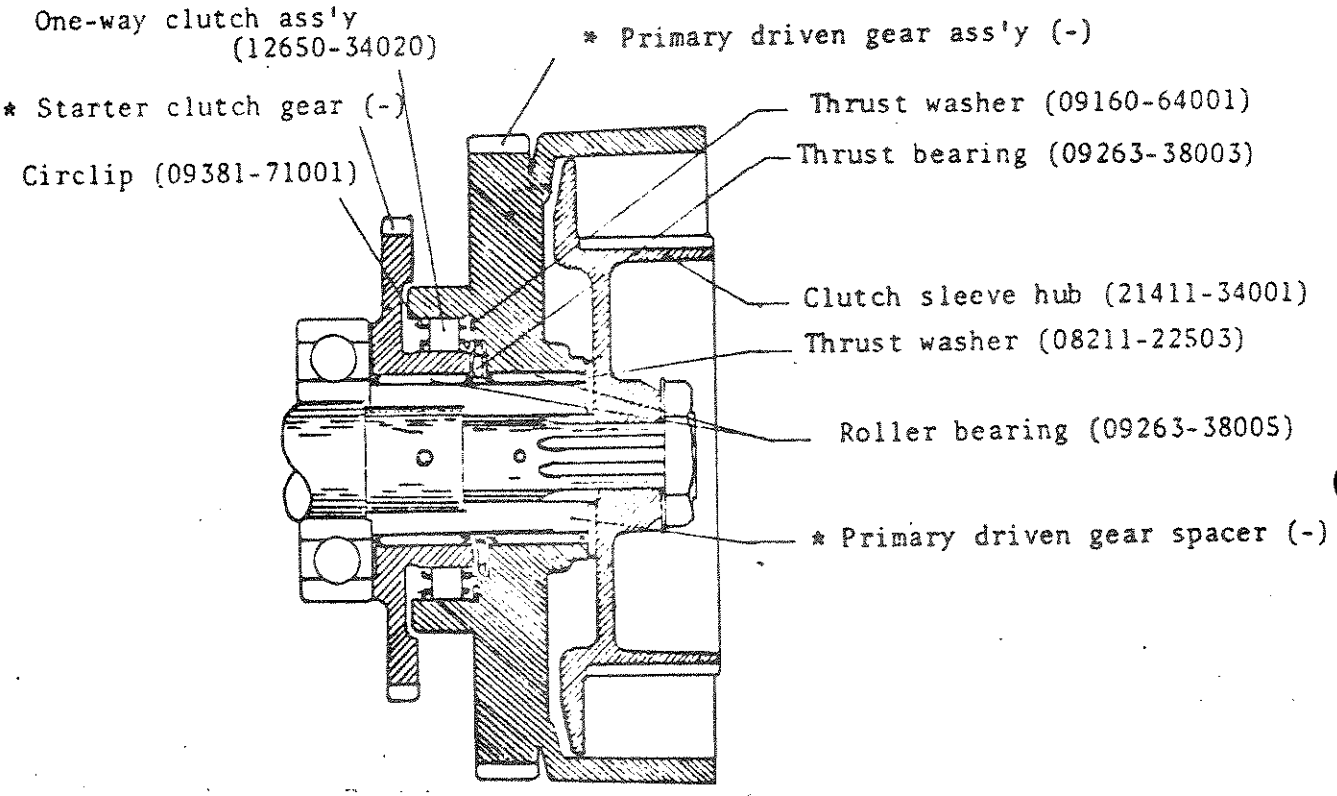
If the one-way clutch is installed inversely, the clutch will not engage when the electric starter is used. If the engine is then started with the kick starter, damage to the starter motor will occur.

III. Starter clutch gear assembly:

The primary driven gear, primary driven gear spacer, and starter clutch gear are supplied as a matched set (21200-34820). These

individual components require replacement the entire matched set must be replaced. To mix the component parts of different starter clutch sets can cause difficult assembly or will cause premature starter failure.

IV. Below is a sectional illustration of the starter clutch assembled and installed.



*See Assembly Note III.

MICELLANEOUS NOTES:

1. Since the clutch sleeve hub thrust washer (08211-22503) is not included with the starter clutch assembly, be certain that it is installed. This washer is used in both new and old style clutches.

2. The starter one-way clutch is susceptible to foreign particles in the transmission oil. Therefore, transmission oil changes at regular intervals of 2,000 miles are strongly recommended. At the same time, the transmission should be flushed with cleaning solvent.

U. S. SUZUKI
TECHNICAL SERVICE DEPARTMENT