



# Service Bulletin

MOTORCYCLE

ISSUE NO. M-045

DATE Jun. 20, '73

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**SUBJECT** MODIFICATION OF CRANKSHAFT

**APPLICABLE MODEL** GT750

**EFFECTIVE ENGINE OR FRAME NO.** E. NO. GT750-38060

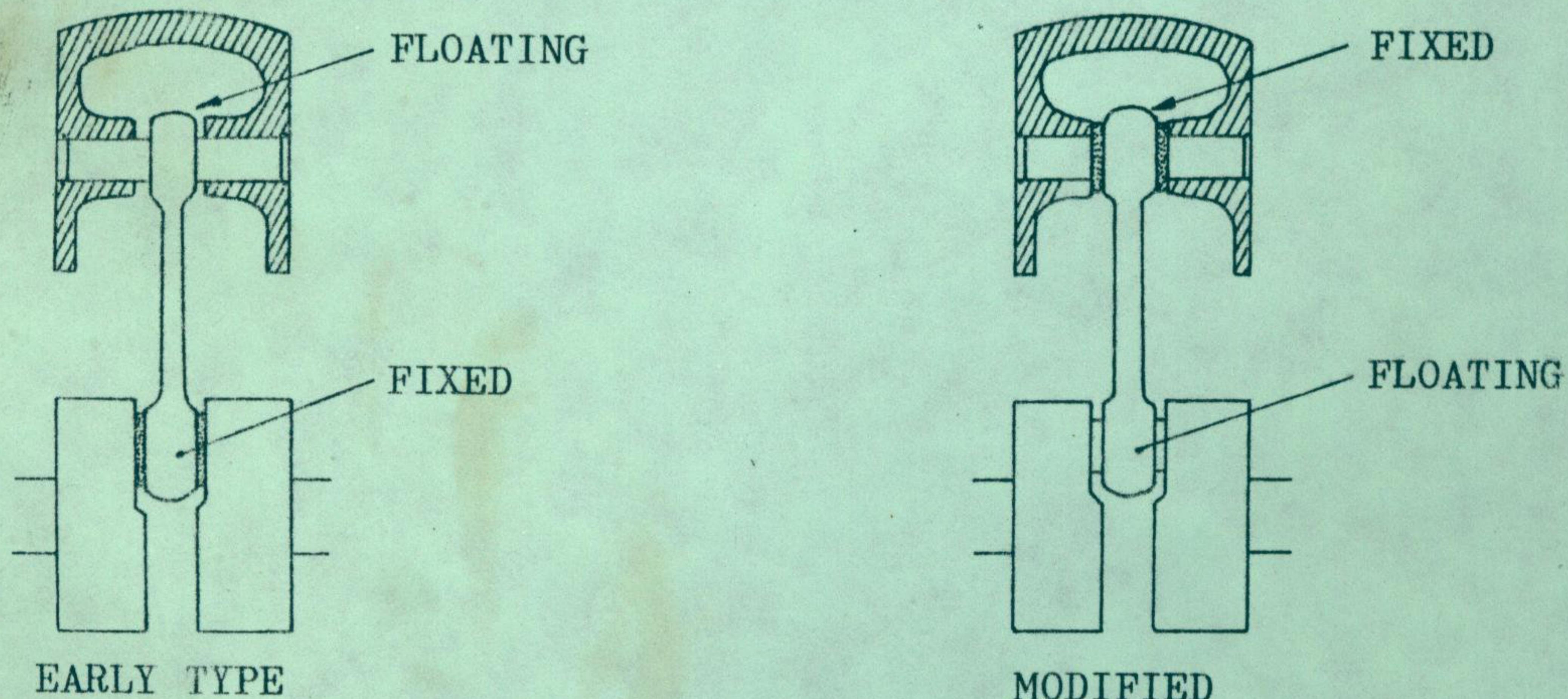
In order to increase further the durability of the crankshaft of GT750, we have redesigned it to the type illustrated below.

In accordance with this alteration, some other parts have also been modified at the same time.

In using these new type parts on the distributor's or the dealer's side, it is necessary that extreme attention be paid to the proper use and also to the spare supply system of the modified parts being slightly different from that of the old.

This service news is issued intending to clear up the important points in regard to the above.

## DETAILS OF MODIFICATION

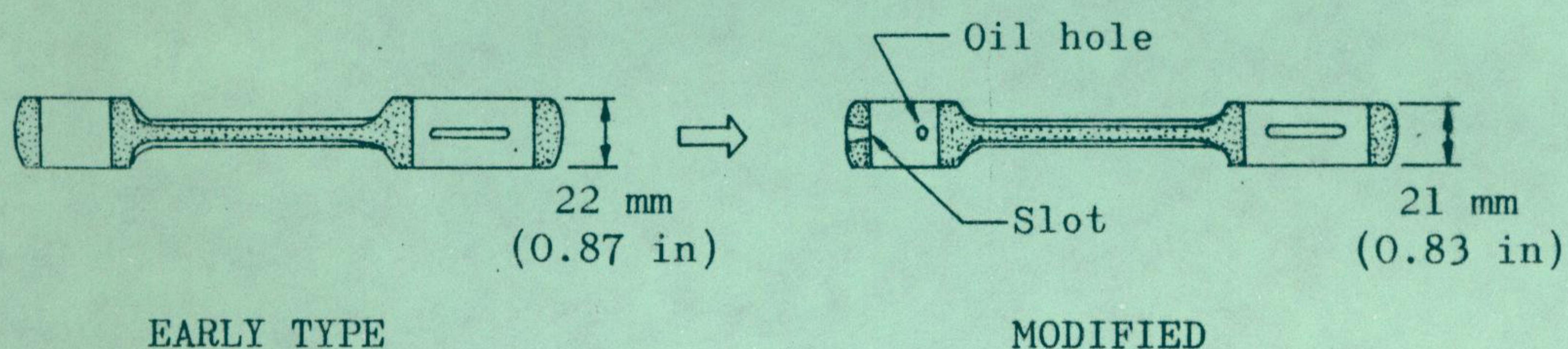


In the new type crankshaft of GT750, the movement of the con-rod in the direction perpendicular to the stroke is restricted by the limited space inside the piston and the big end support is a floating type unlike that in the conventional construction, the big end is fixed on the crank pin and the small end is floated. Above illustration shows these differences.

## CRANKSHAFT

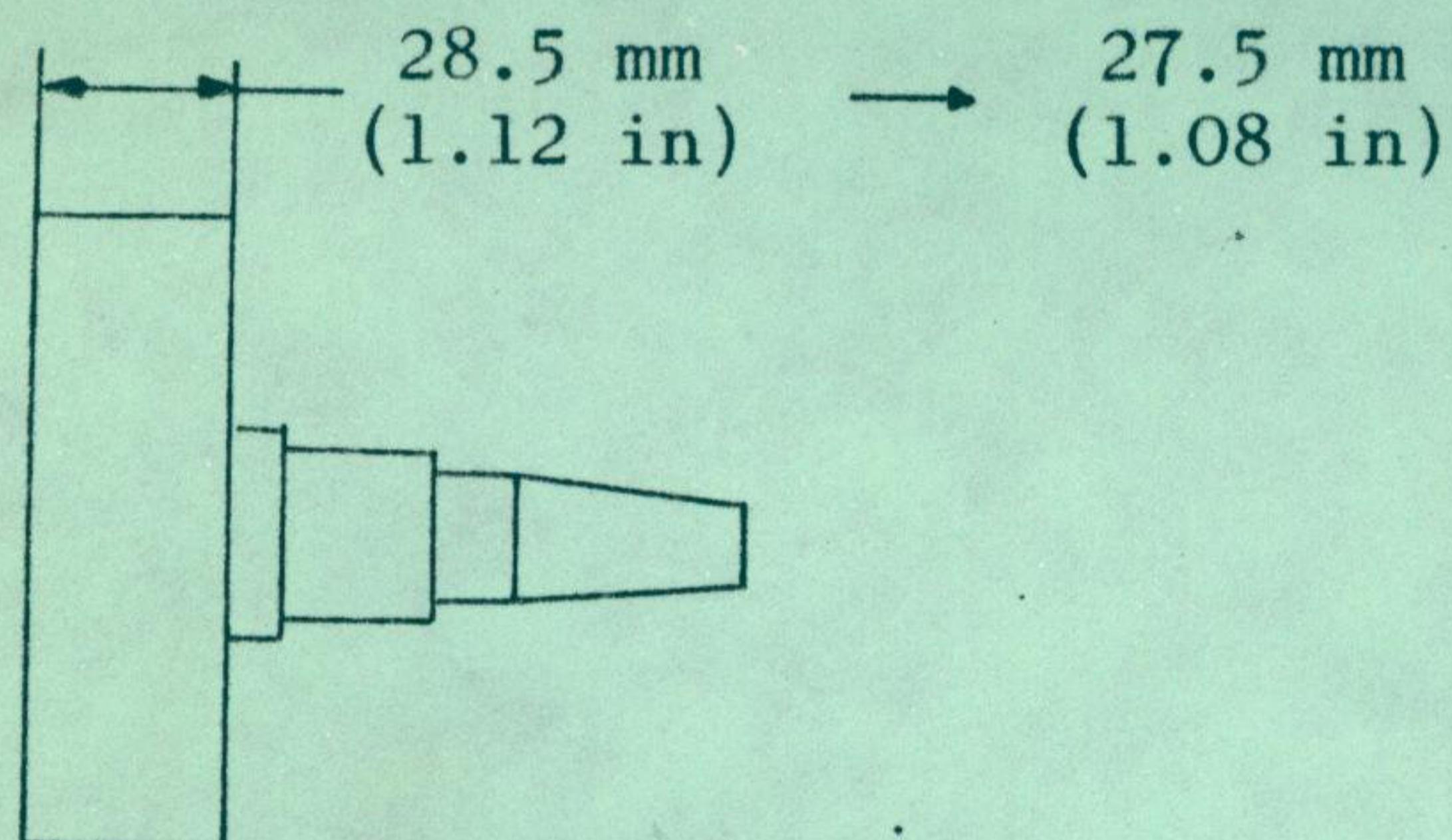
### 1) CON-ROD

The width of the big end has been narrowed and a slot and a hole have been provided on the small end for better lubrication purpose.

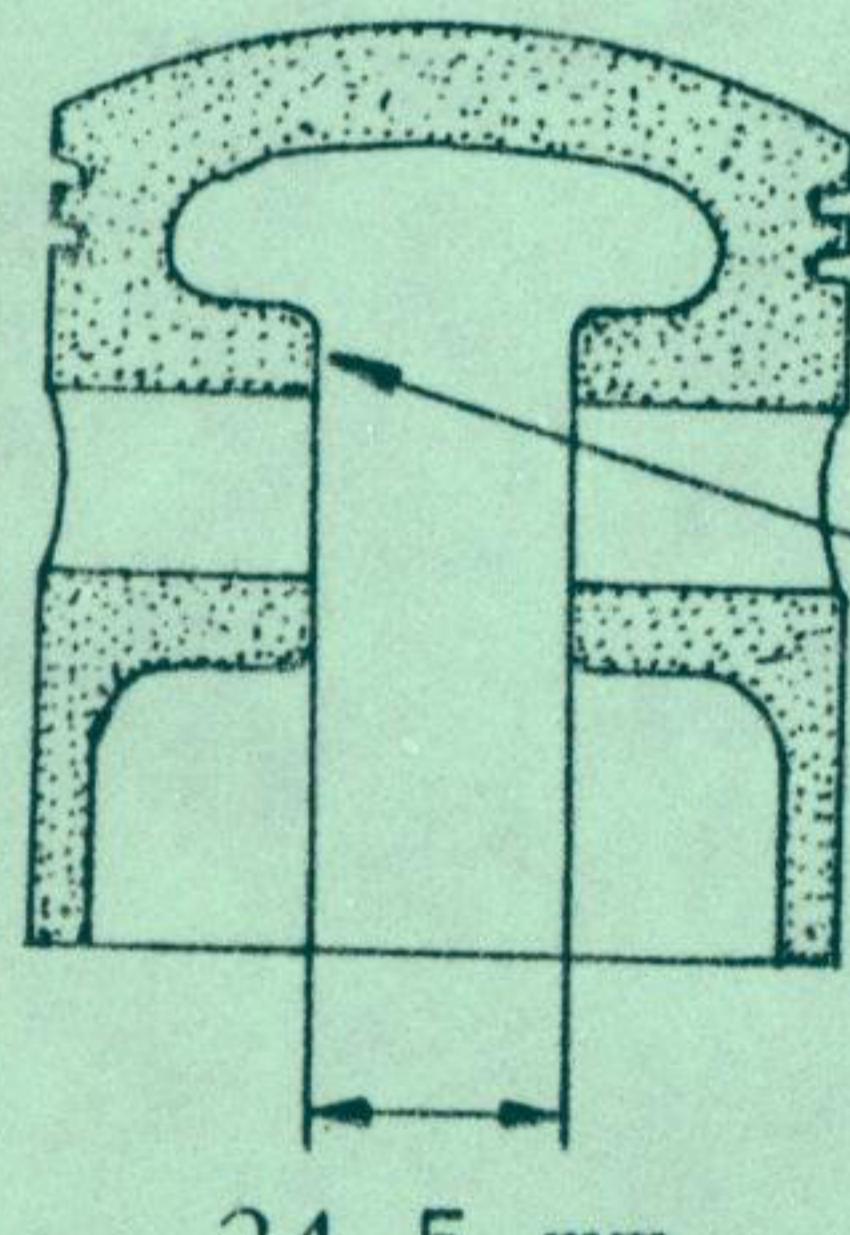


### 2) CRANKSHAFT COMPONENTS

The width of the crank wheels has been narrowed from 28.5 (1.12) to 27.5 mm (1.08 in).



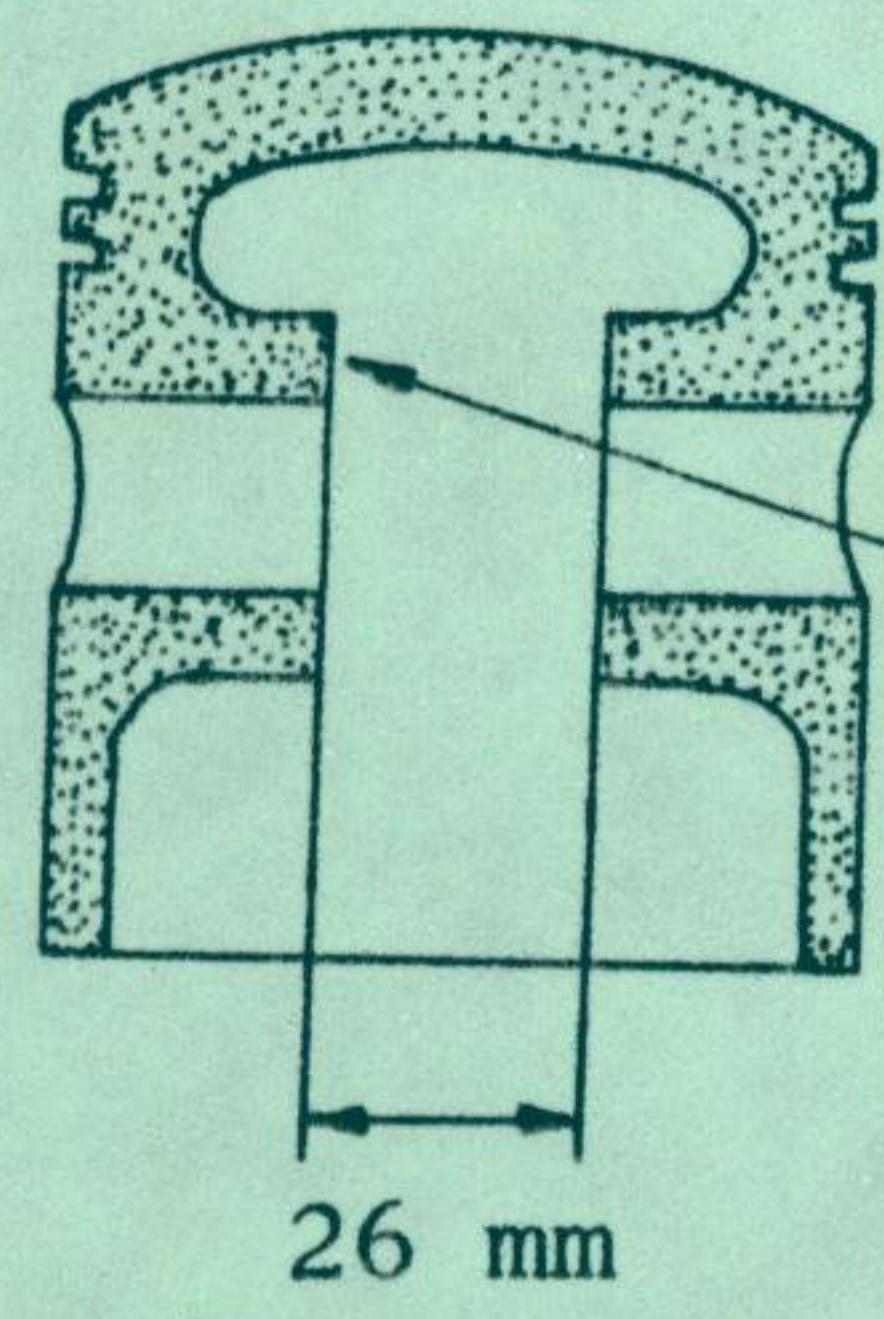
## PISTON



CASTING SURFACE

24.5 mm  
(0.96 in)

EARLY TYPE



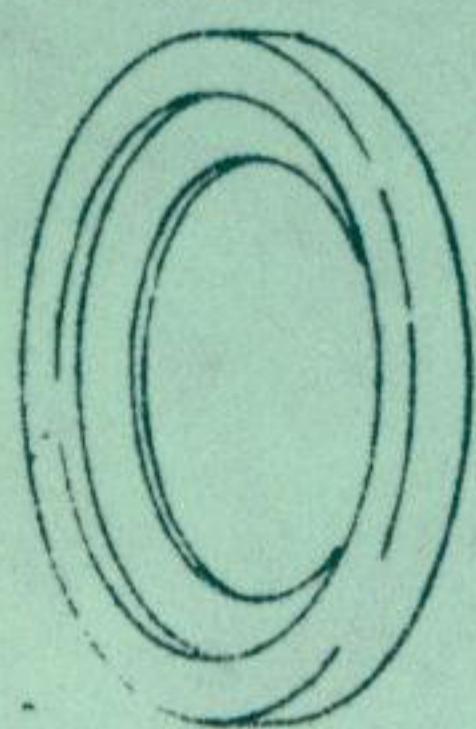
MACHINED

26 mm  
(1.02 in)

MODIFIED

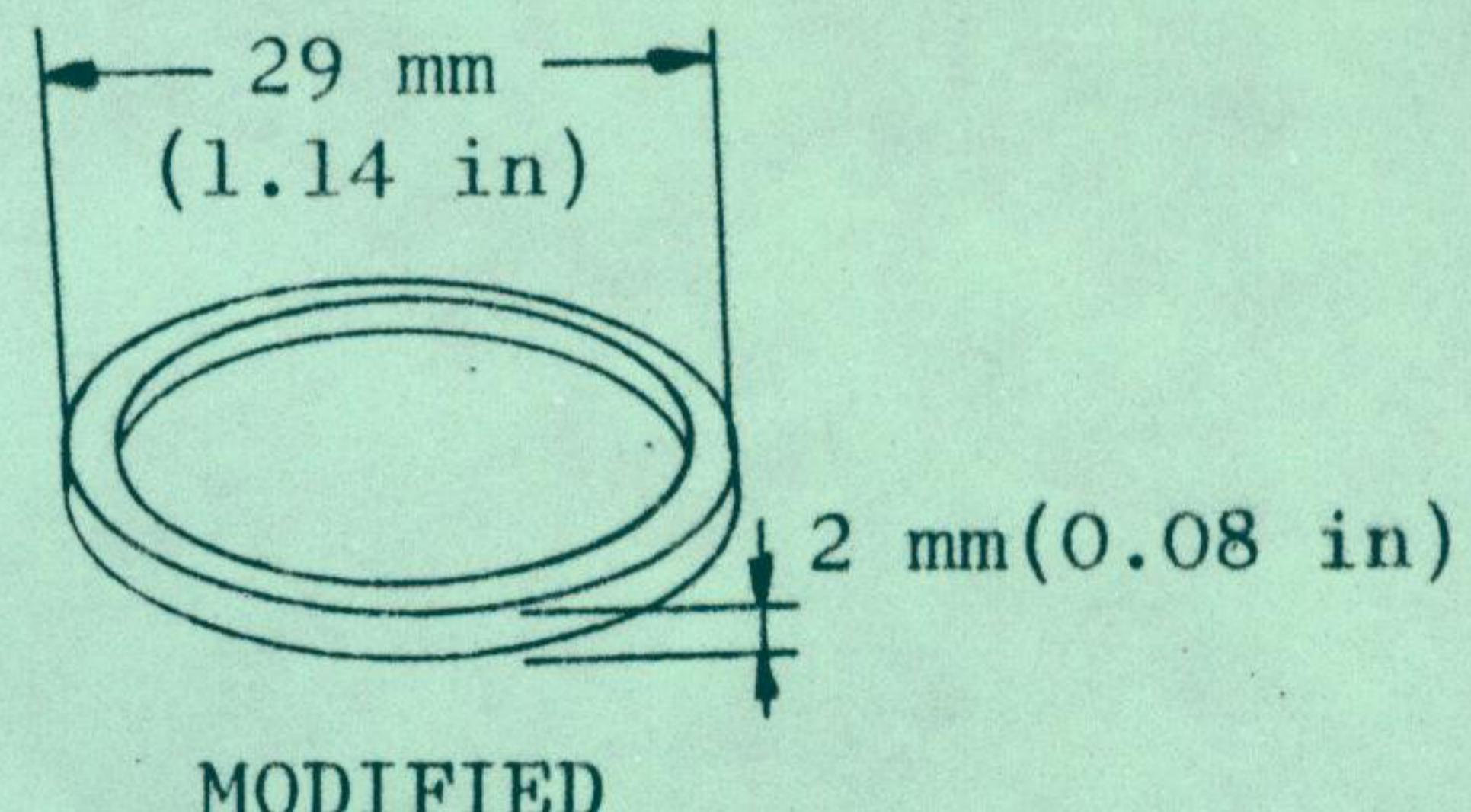
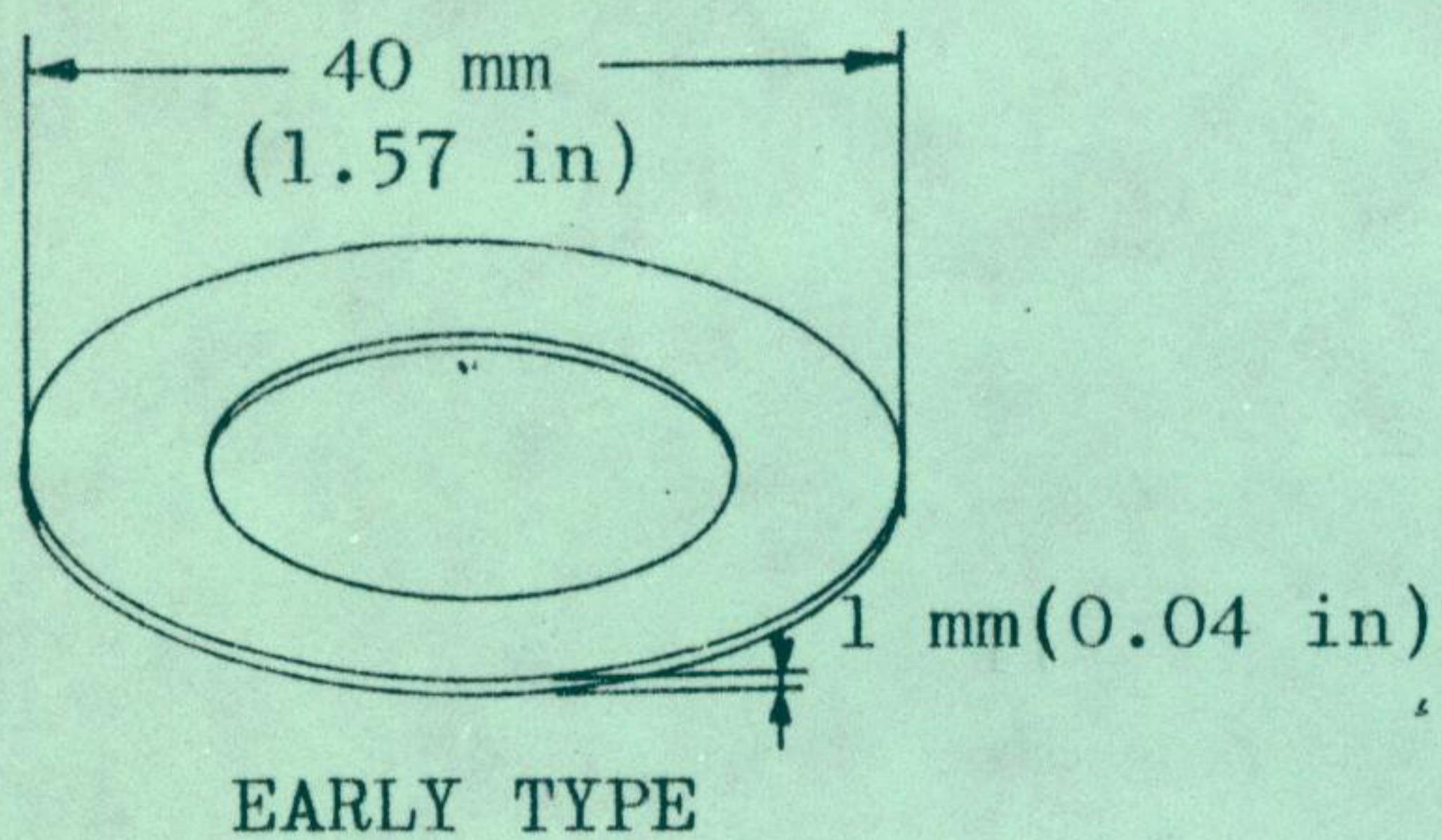
### THRUST WASHER, CON-ROD SMALL END

This washer has been newly provided for this modification and each two pieces of the washer are used per one piston.



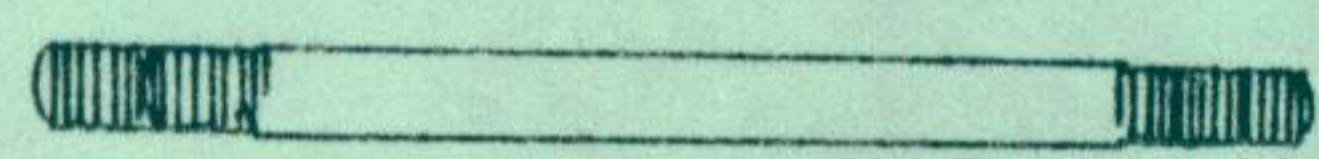
### THRUST WASHER, CRANK PIN BEARING

In order to have the con-rod floated, the thrust washer has been modified as shown below.

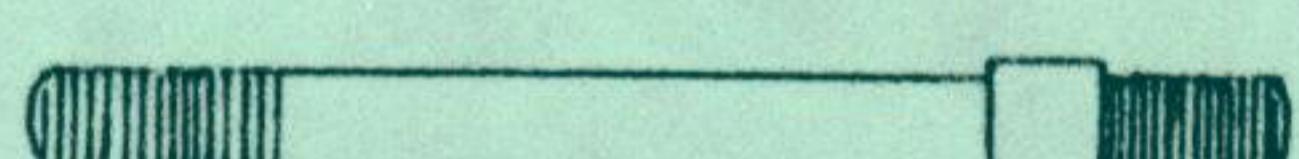


### STUD BOLT

Two pieces out of 12 stud bolts on the crank case are replaced with the new type.



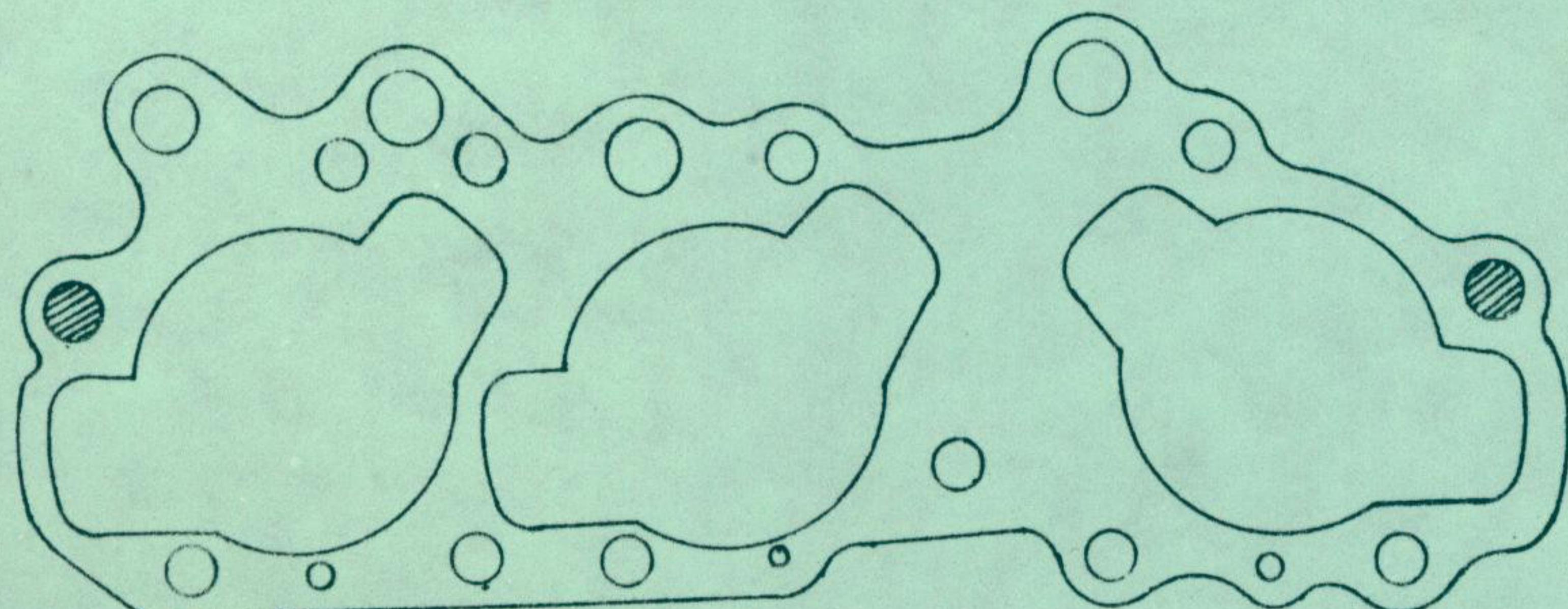
EARLY TYPE



MODIFIED

### CYLINDER GASKET

Two holes on the gasket are enlarged from 11mm (0.43 in) to 12.5mm (0.49 in) in the diameter so as to meet the size of the new stud bolt being thickened.



◎ : ENLARGED

PART NUMBER AND AVAILABILITY

PART NAME	OLD PART NO.	NEW PART NO.	AVAILABILITY
CRANKSHAFT SET	12003-31803	12200-31834	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)	12241-31001	12241-31003	NEW ONLY
(CRANK WEB, L)	12242-31000	12242-31003	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

\* The parenthesized parts are the modified components of the crankshaft.

\* The crankshaft set under the new part number includes the following parts of new type providing for the assembly convenience.

1. PISTON
2. THRUST WASHER, CON-ROD SMALL END
3. STUD BOLT
4. CRANKSHAFT ASS'Y

\* The above crankshaft set excludes the cylinder gasket though it has also been modified as explained previously. Therefore, when using the current cylinder gasket to the new type engine, it is necessary to rectify the holes so as to meet the size of the new type stud bolt. \*

INTERCHANGEABILITY

For the parts shown as "NEW ONLY" in availability in the previous list, there is interchangeability between the old and the new parts and as "OLD & NEW", there is no interchangeability.

APPLICABILITY

This modification has been applied to the production units assembled since October, 1972 to which the following engine number correspond.

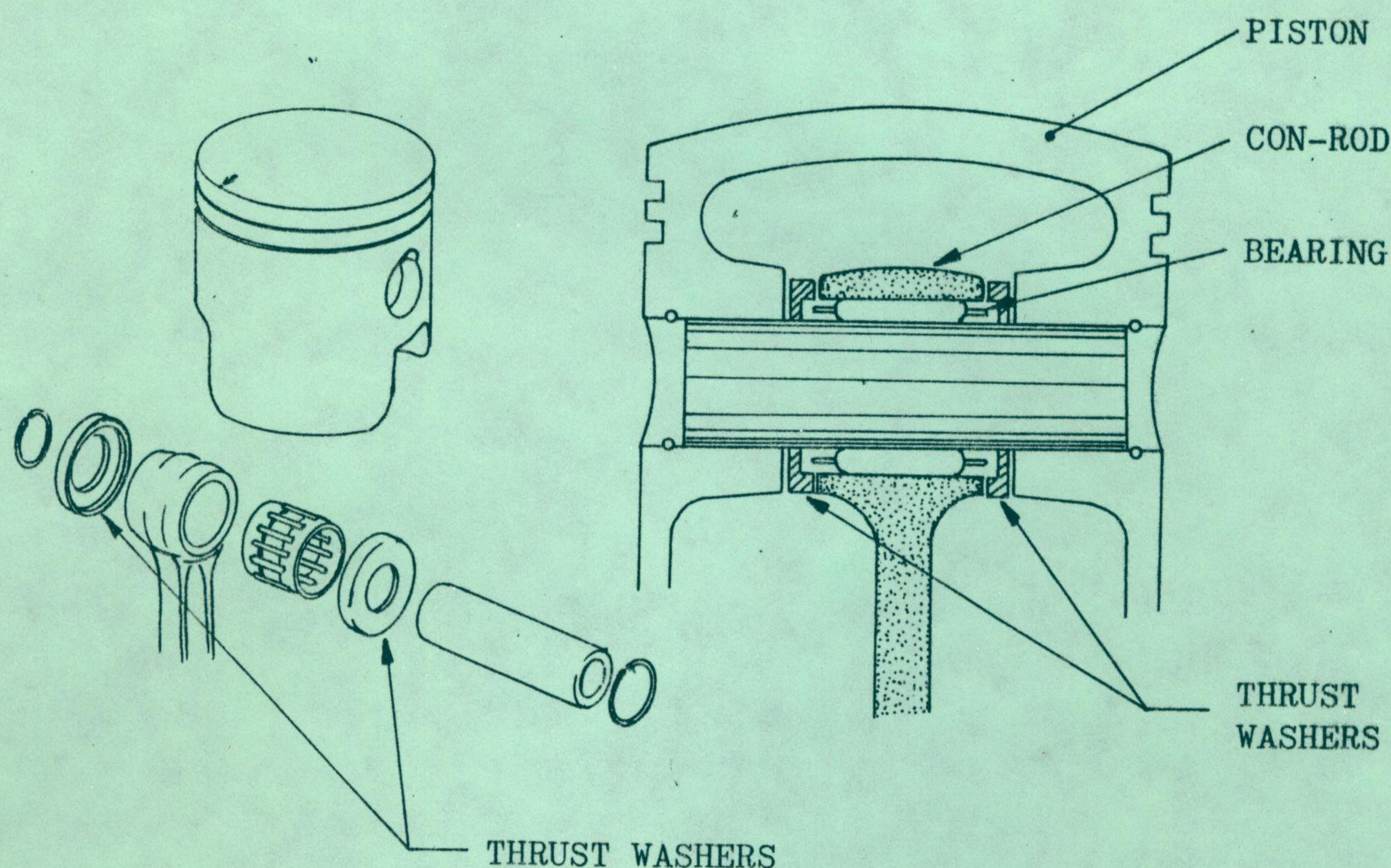
GT750 ..... #38060

ASSEMBLING PROCEDURE

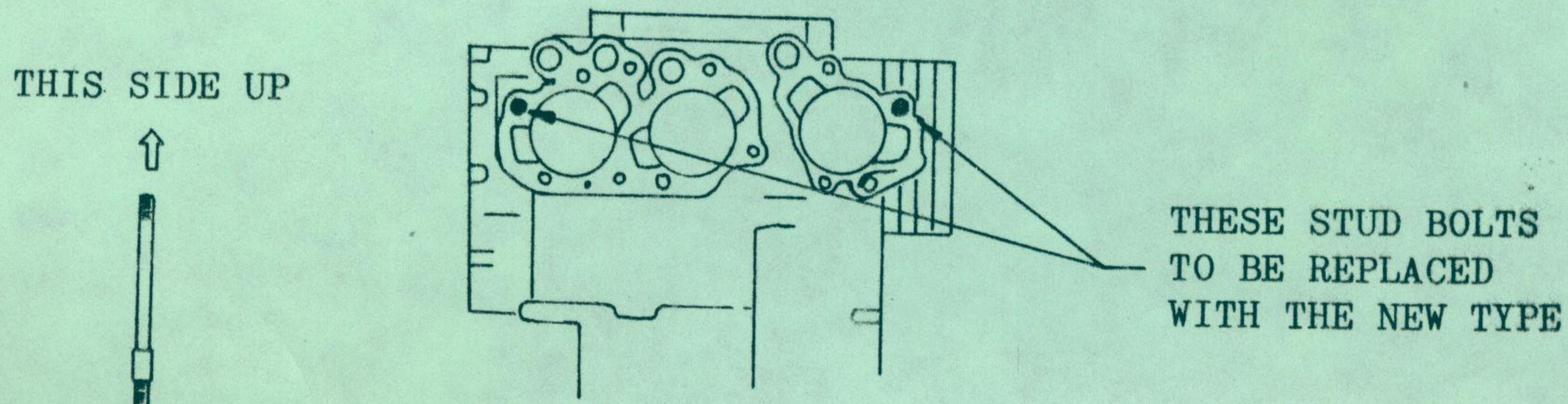
If the new type crankshaft set is to be used for the early type engine, assemble the parts observing the following instruction.

- 1) The piston and the thrust washer should be assembled as shown below.

NOTE: Two kinds of different pistons are used in the engine marked "R" and "L" on the head and the piston with "R" is for right and that with "L" is for left and center cylinders.

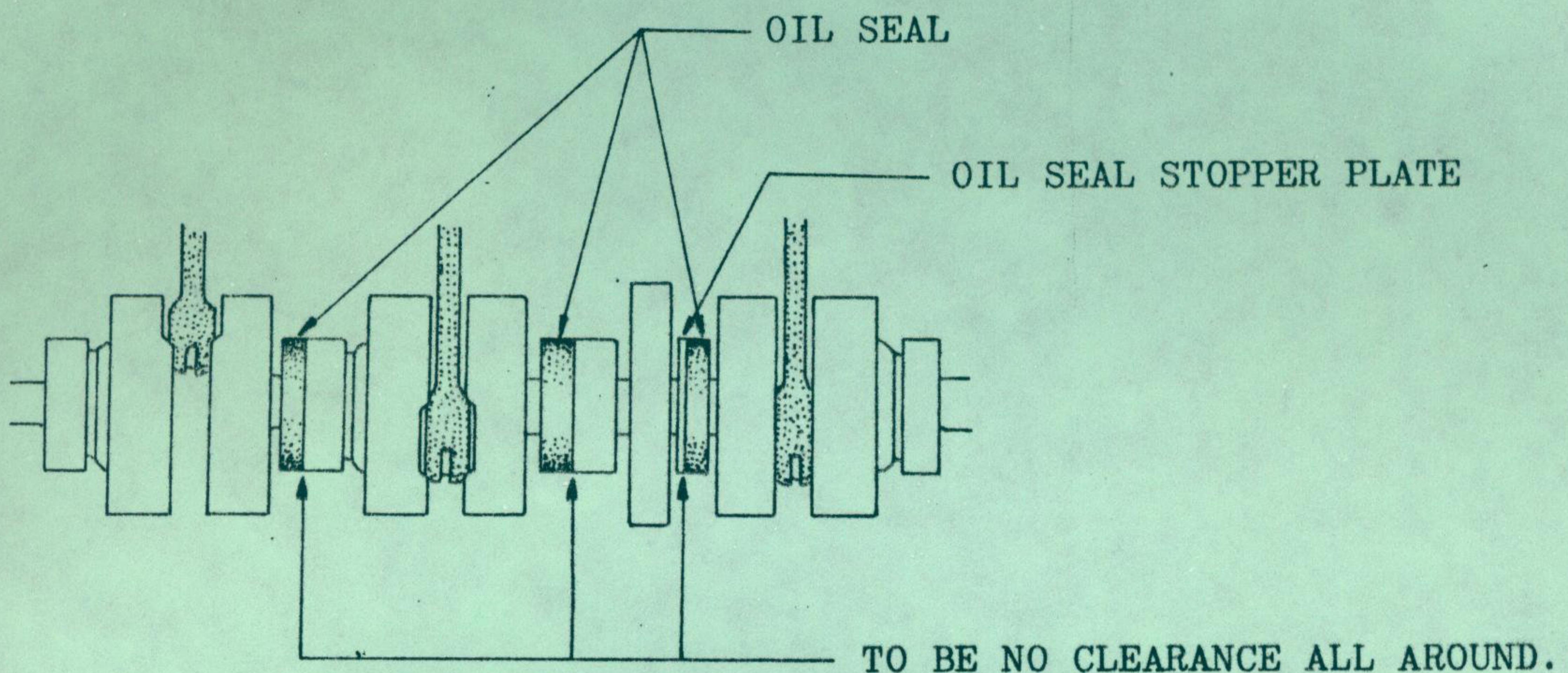


- 2) Replace two stud bolts shown below with those modified; the stud bolts have the cylinder locate in place on the crank case so that the center of the bore just aligns with that of the con-rod.

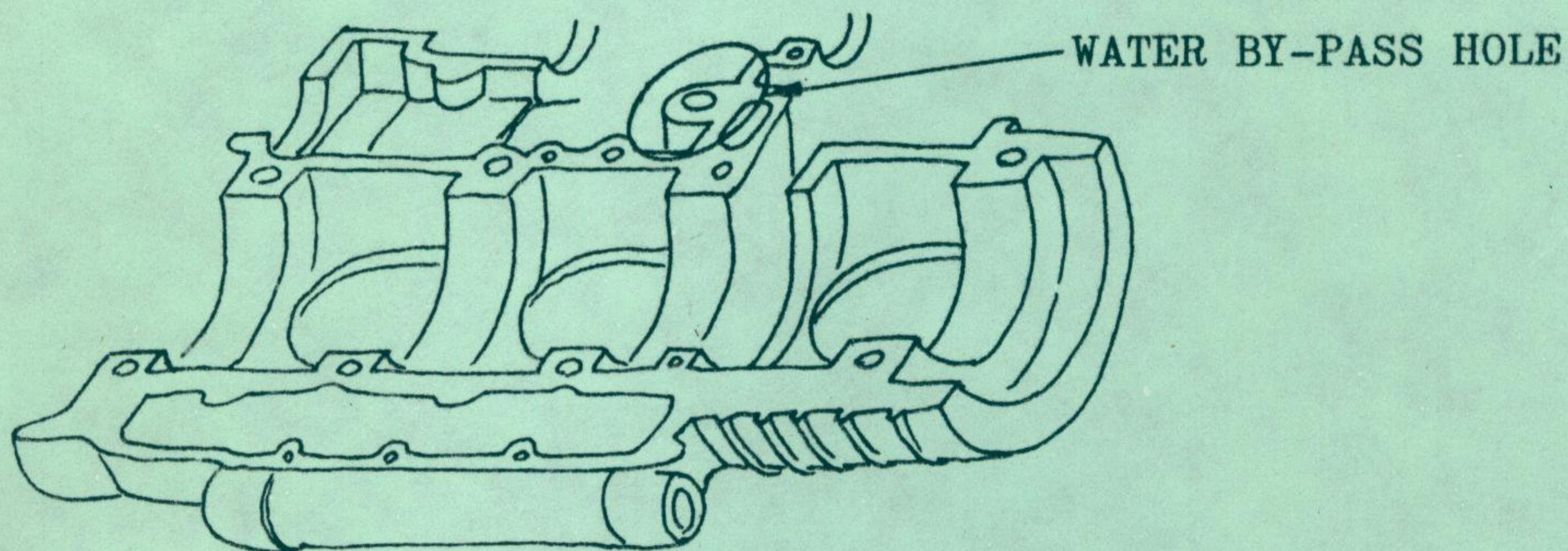


CAUTION ON ASSEMBLY

- 1) In placing the crankshaft on the crank case lower half, following instruction should be conducted in order to avoid gear box oil leakage to the crank camber.



- 2) When coating SUZUKI BOND NO. 4 (99000-33030) for the crank case seal, be sure to apply it to the part of the water by-pass hole shown below in order to avoid water leakage to the gear box.



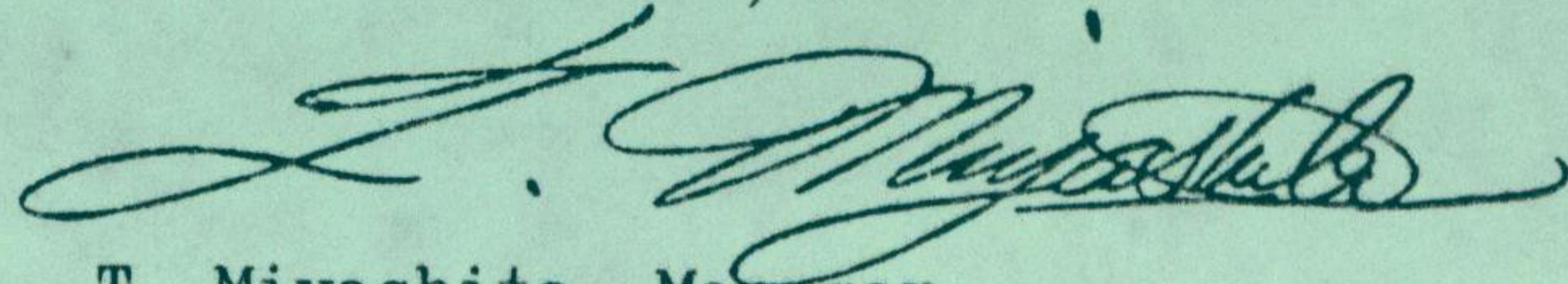
- 3) When installing the starter clutch unit on the crankshaft left end, apply thread lock cement (99000-32010) to the thread part on the crankshaft where the fitting nut (08312-11128) of the unit is screwed on.

Torque the nut to 500 kg-cm (36 lb-ft).

RECOMMENDED PARTS TO STOCK

In accordance with the modification having already been made to the production units, it is necessary that the new type parts be kept in your stock in order to provide for unforeseen requirement of your spare supply. Among engine parts, pistons are generally quite fast moving spares in the spare parts bin and the old type piston can not be used for the modified engine, therefore it is especially recommended to order from us necessary quantity of the new type piston.

SUZUKI MOTOR CO., LTD.



T. Miyashita, Manager  
International Service Dept.