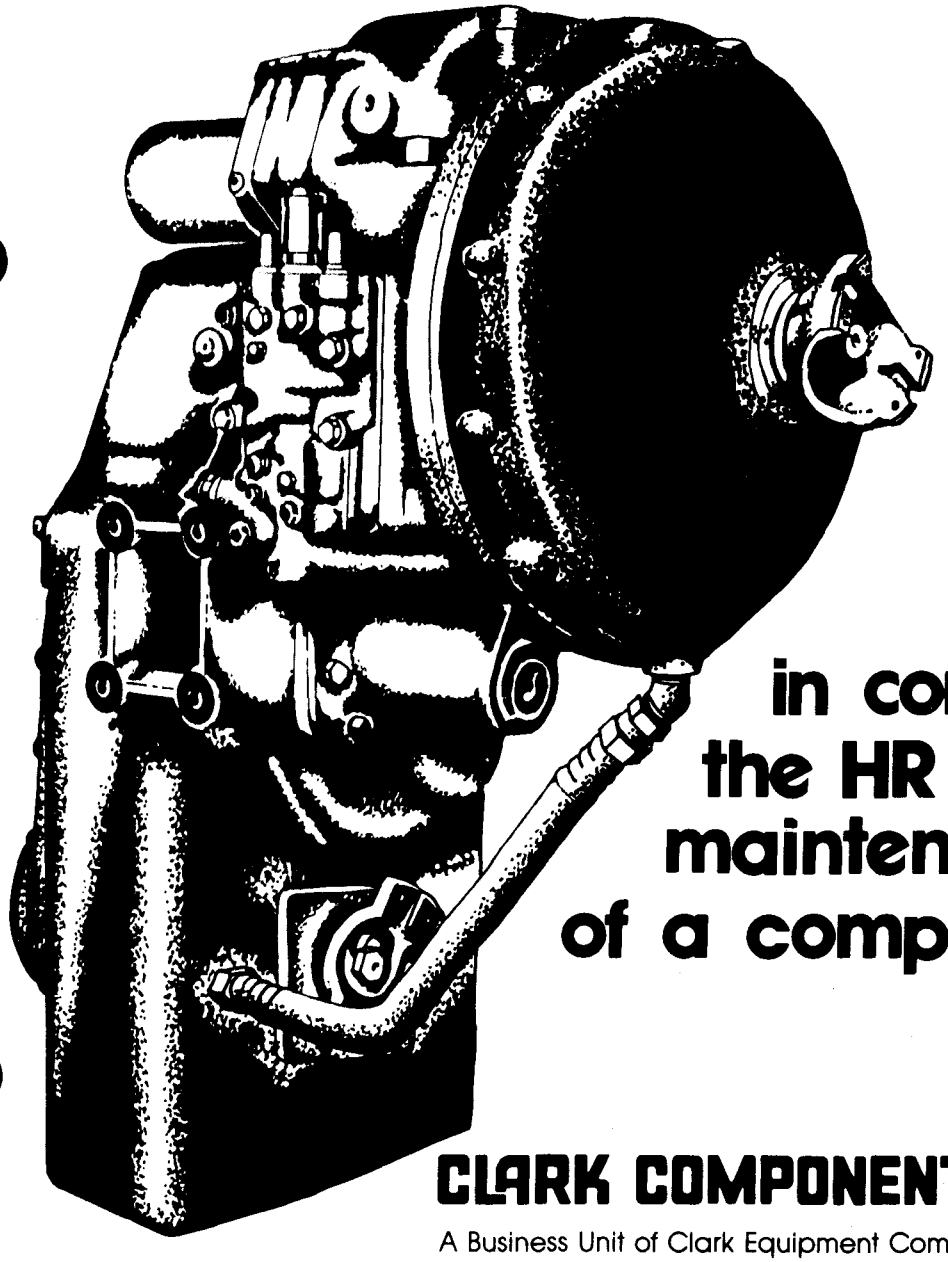
18000 powershift transmission

maintenance & service manual supplement



MHR 18000 series

to be used in conjunction with the HR 18000 series maintenance manual of a comparable speed

CLARK COMPONENTS INTERNATIONAL

A Business Unit of Clark Equipment Company

SM MHR-18 (Rev. 10-86)

FOREWORD

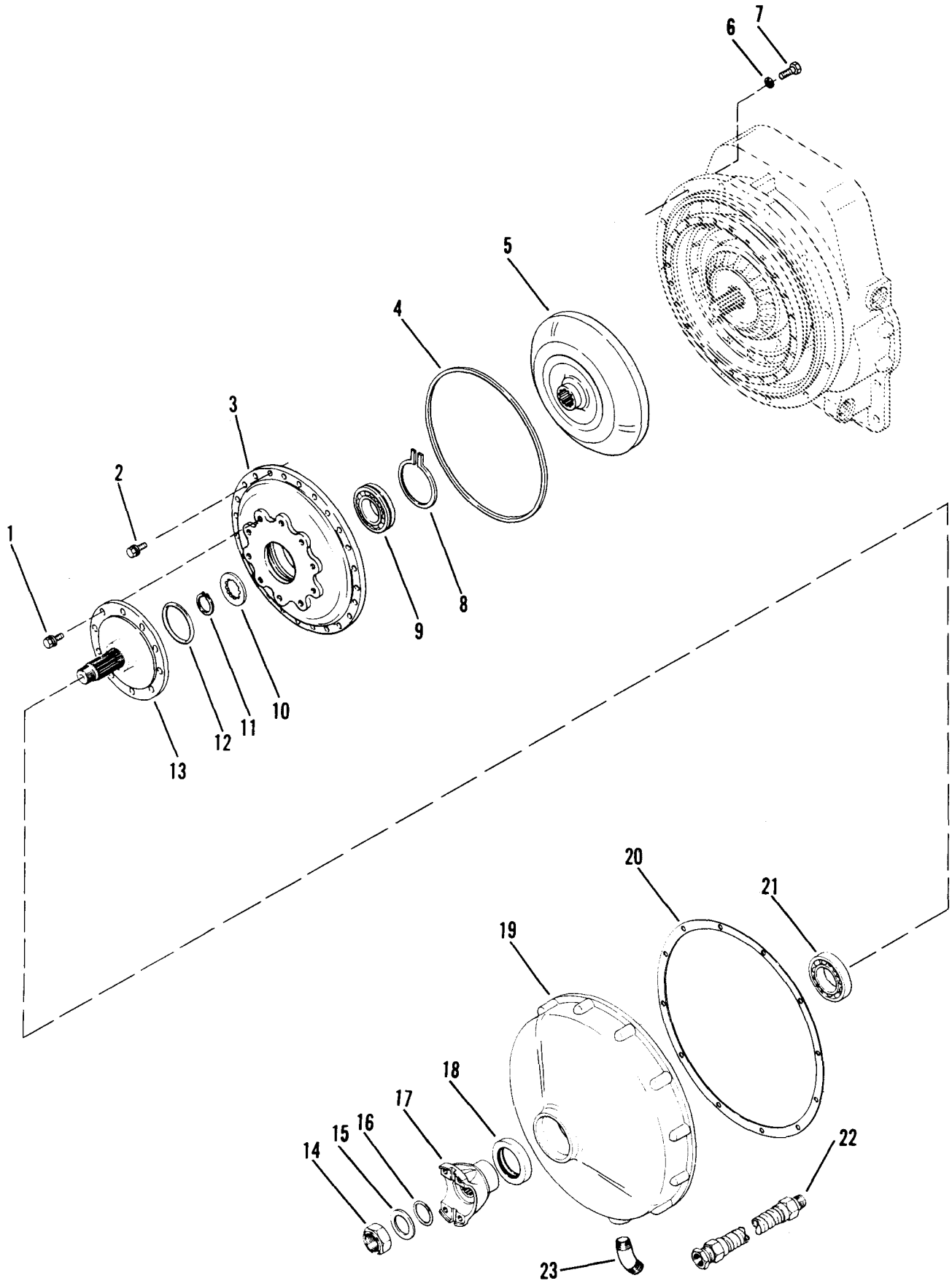
This manual has been prepared to provide the customer and the maintenance personnel with information and instructions on the maintenance and repair of the **CLARK** Power Shift Transmission.

Extreme care has been exercised in the design, selection of materials and manufacturing of these units. The slight outlay in personal attention and cost required to provide regular and proper lubrication, inspection at stated intervals, and such adjustments as may be indicated will be reimbursed many times in low cost operation and trouble free service.

In order to become familiar with the various parts of the transmission, its principal of operation, trouble shooting and adjustments, it is urged that the mechanic study the instructions in this manual carefully and use it as a reference when performing maintenance and repair operations.

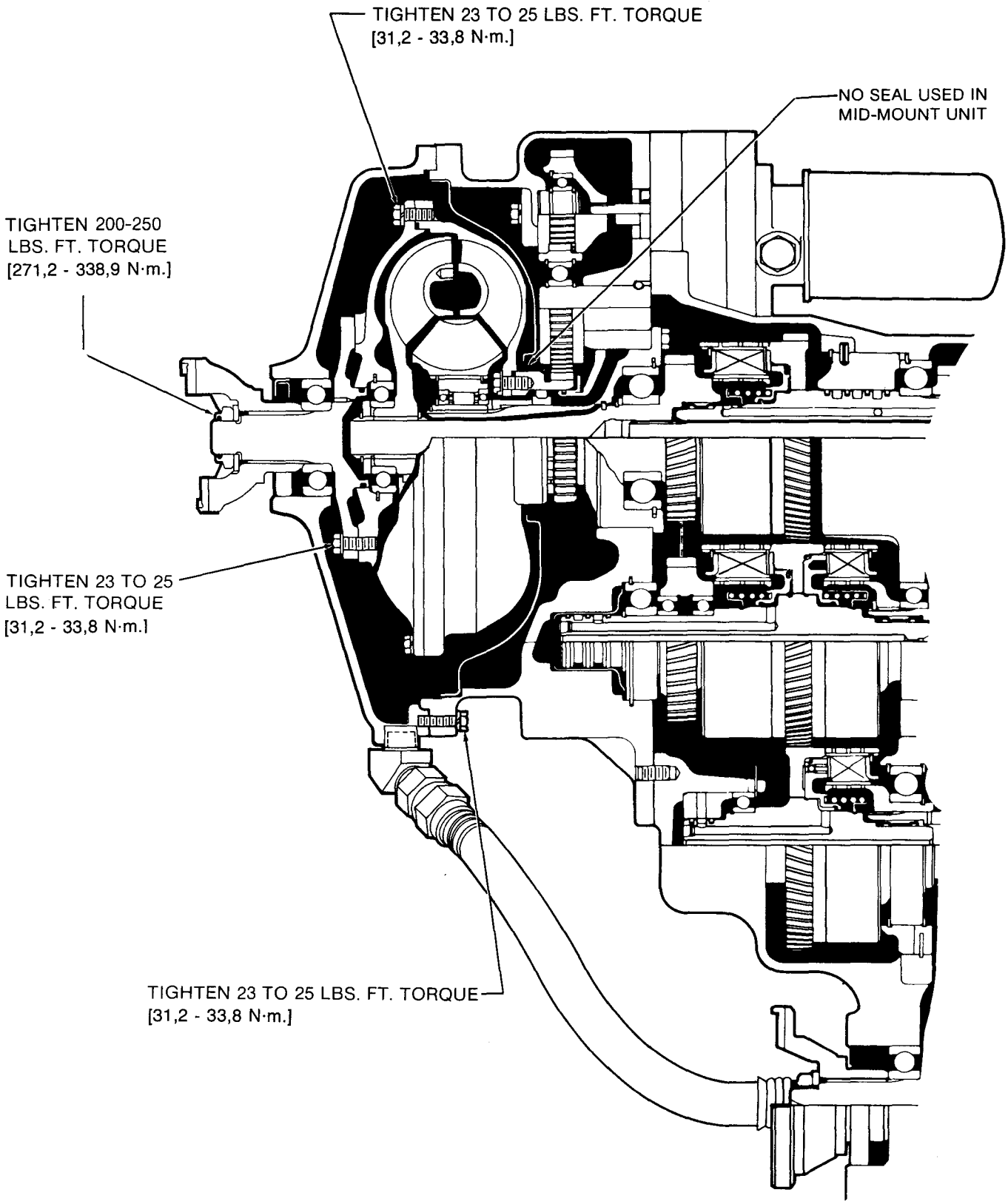
Whenever repair or replacement of component parts is required, only Clark Components International-approved parts as listed in the applicable parts manual should be used. Use of "will-fit" or non-approved parts may endanger proper operation and performance of the equipment. Clark Components International does not warrant repair or replacement parts, nor failures resulting from the use thereof, which are not supplied by or approved by Clark Components International. IMPORTANT: **Always furnish the Distributor with the transmission serial and model number when ordering parts.**

CLARK



MHR COVER GROUP

ITEM	DESCRIPTION	QTY.
1	Input Shaft Screw and Lockwasher	10
2	Impeller Cover to Impeller Screw and Lockwasher	18
3	Impeller Cover	1
4	Impeller Cover "O" Ring	1
5	Turbine	1
6	Converter Housing to Front Cover Screw Lockwasher	11
7	Converter Housing to Front Cover Screw	11
8	Turbine Hub Bearing Locating Ring	1
9	Turbine Hub Bearing	1
10	Bearing Retainer Washer	1
11	Turbine Retaining Ring	1
12	Input Shaft "O" Ring	1
13	Input Shaft	1
14	Input Flange Nut	1
15	Input Flange Washer	1
16	Input Flange "O" Ring	1
17	Input Flange	1
18	Input Shaft Oil Seal	1
19	Converter Housing Front Cover	1
20	Front Cover Gasket	1
21	Input Shaft Bearing	1
22	Cover to Transmission Sump Drain Back Hose	1
23	Hose Adaptor	1



MHR 18000 SERIES POWER SHIFT TRANSMISSION

MHR 18000 SERVICE INFORMATION

The information contained herein must be used in conjunction with a HR 18000 Series Maintenance and Service Manual of a comparable type and speed (in-line output; long drop output; 2, 3 or 6 speed).

The MHR model is a remote mounted 18000 series transmission with an integral torque converter unit.

MHR DISASSEMBLY

Remote mounted — closed front end.

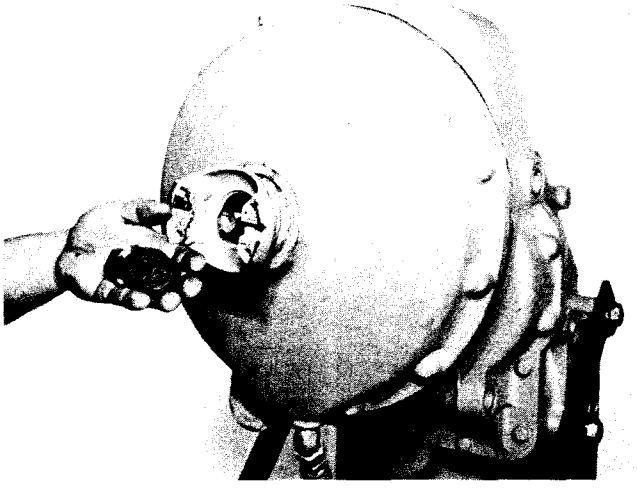


Figure 1
Remove input flange retaining nut, washer, "O" ring, and flange.

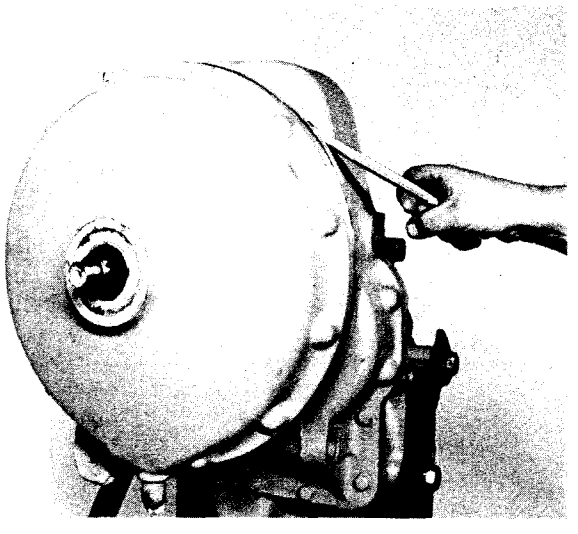


Figure 2
Remove front cover to transmission sump drain back hose. Remove bolts and washers securing front cover to converter housing.

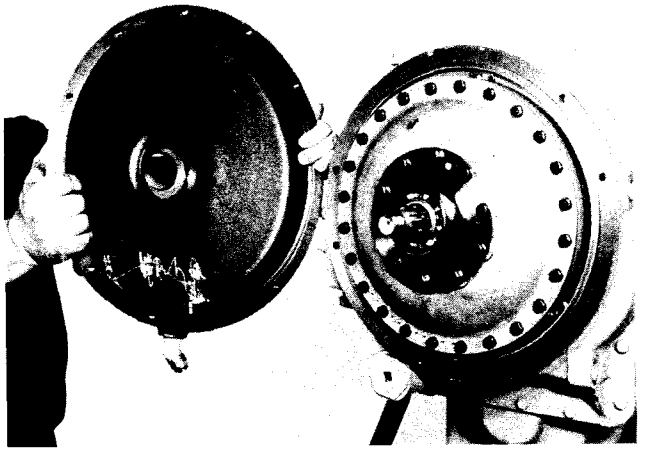


Figure 3
Remove front cover.

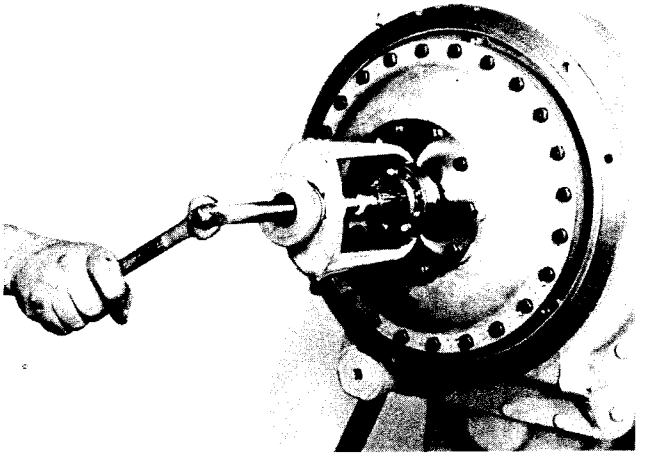


Figure 4
Remove input shaft support bearing.

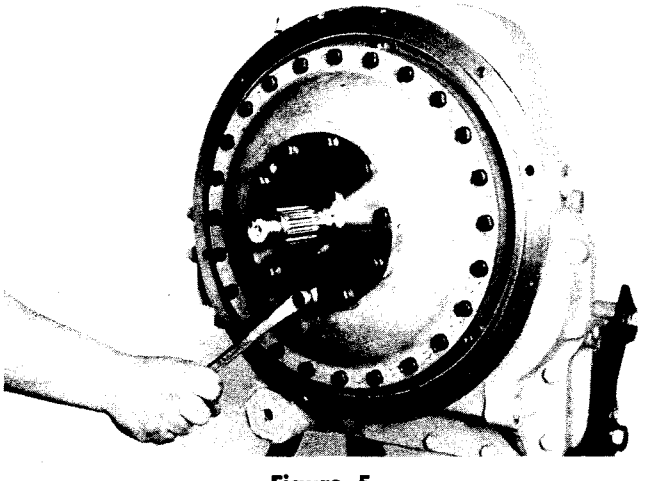


Figure 5
Remove input shaft to impeller cover bolts.

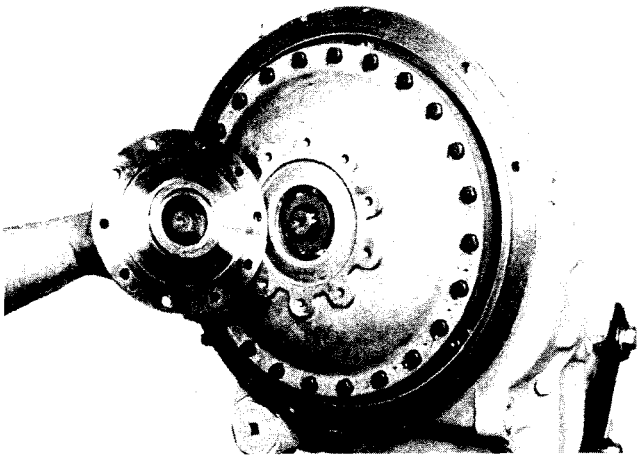


Figure 6
Remove input shaft.

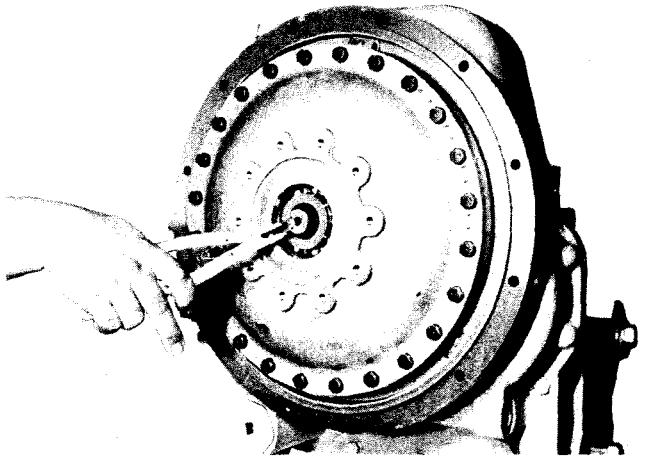


Figure 7
Remove turbine retainer ring.

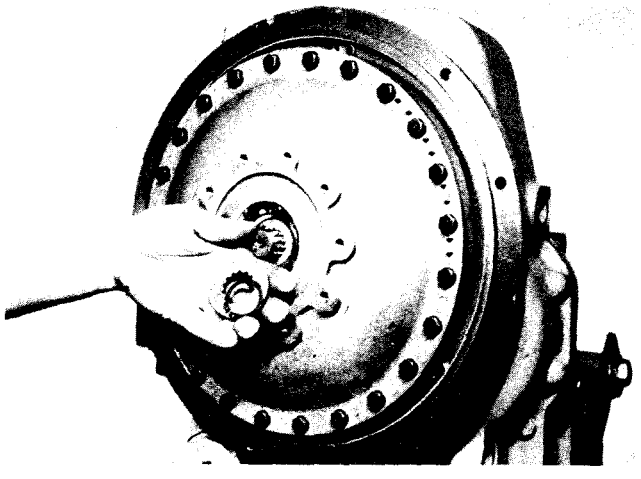


Figure 8
Turbine retaining ring and washer removed.

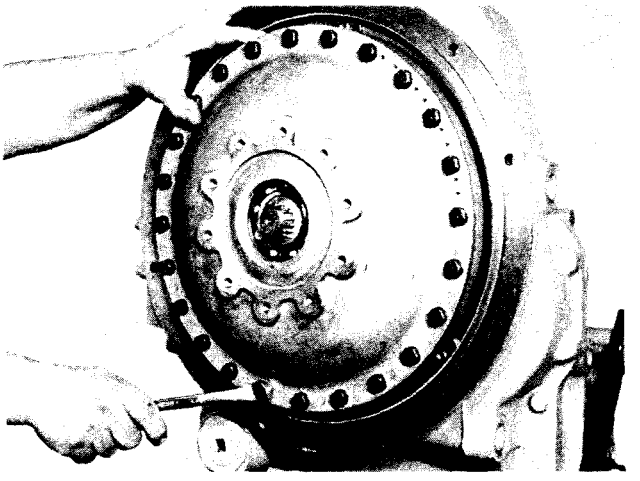


Figure 9
Remove impeller cover to impeller bolts.

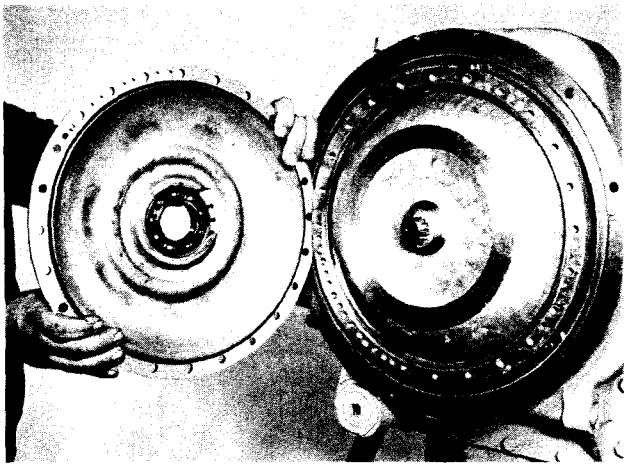


Figure 10
Remove impeller cover and bearing from impeller.

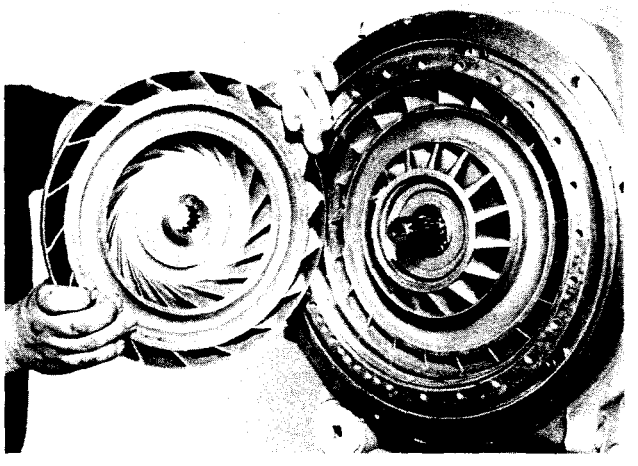


Figure 11
Remove turbine.

Proceed with disassembly of the transmission by using the information explained in the specific 2, 3, or 6 speed HR18000 series maintenance manual.

SEE CLEANING AND INSPECTION SECTION IN THE APPLICABLE MAINTENANCE & SERVICE MANUAL.

REASSEMBLY

Reassemble transmission following step by step procedures as explained in the HR18000 manual up to and including "install turbine to turbine shaft locating ring."

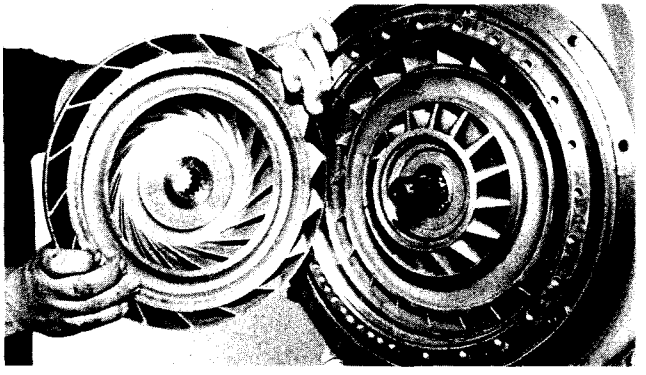


Figure 12
Position turbine on turbine shaft.

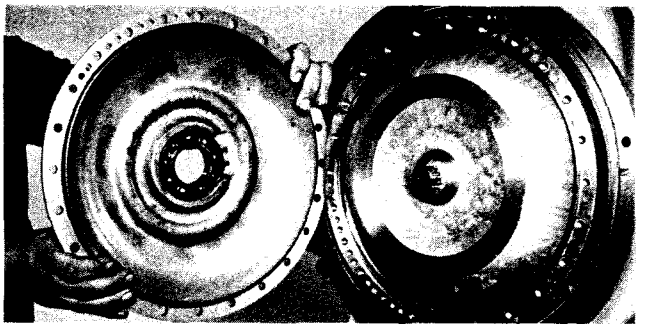


Figure 13
Position a new impeller cover "O" ring on cover. Align holes in impeller cover with holes in impeller.

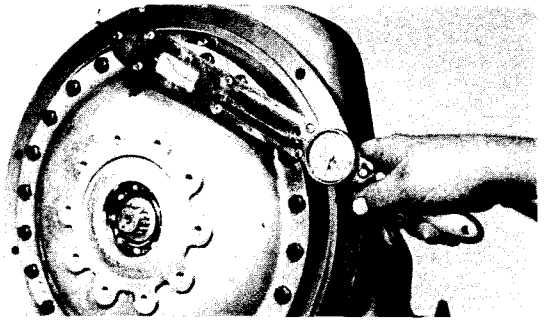


Figure 14
Install bolts and washers and tighten 23 to 25 ft. lbs torque [31,2-33,8 N.m].

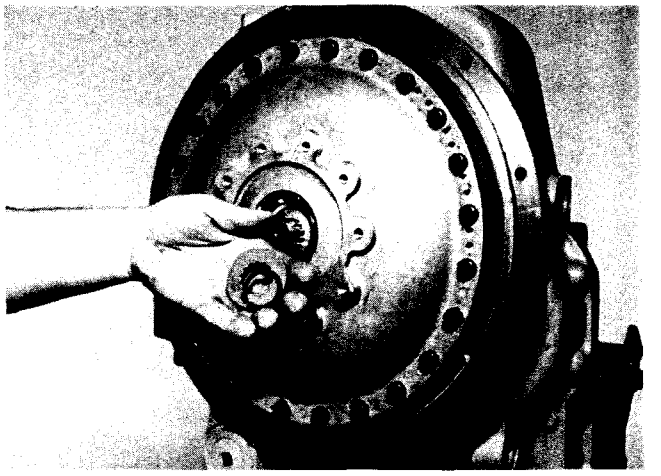


Figure 15
Position turbine retaining washer on turbine shaft.

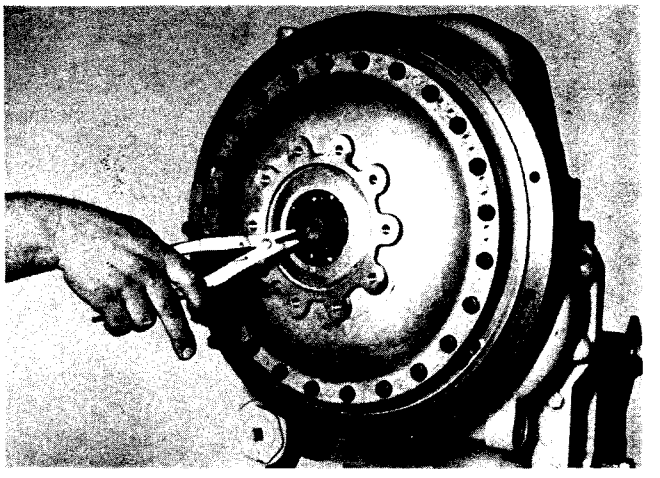


Figure 16
Install turbine retaining ring.

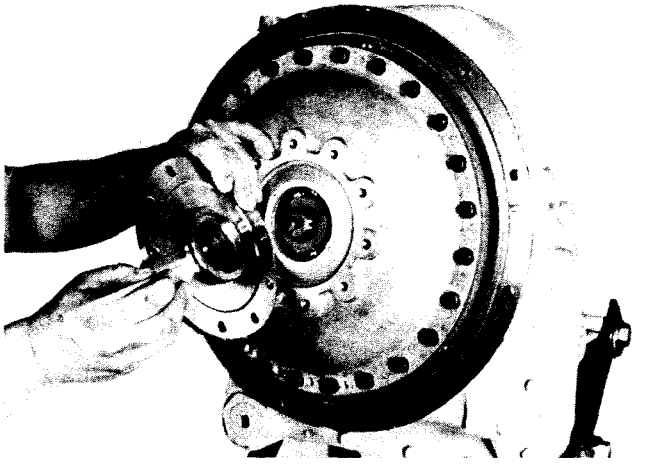


Figure 17
Position a new "O" ring on input shaft.

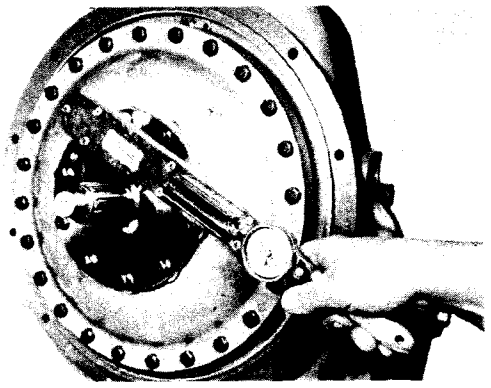


Figure 18

Align holes in input shaft with holes in impeller cover. Install bolts and washers and tighten 23 to 25 ft. lbs. torque [31,2-33,8 N.m].

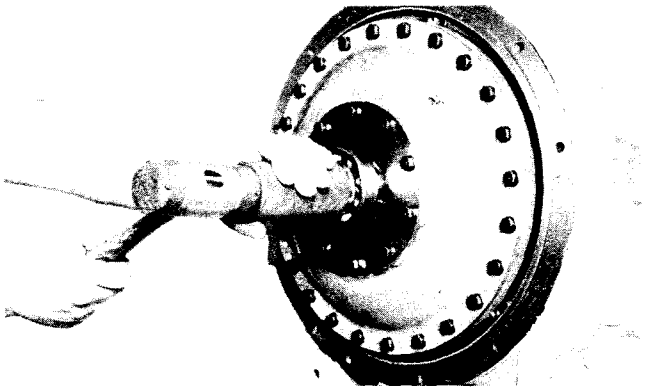


Figure 19

Install input shaft bearing on shaft.

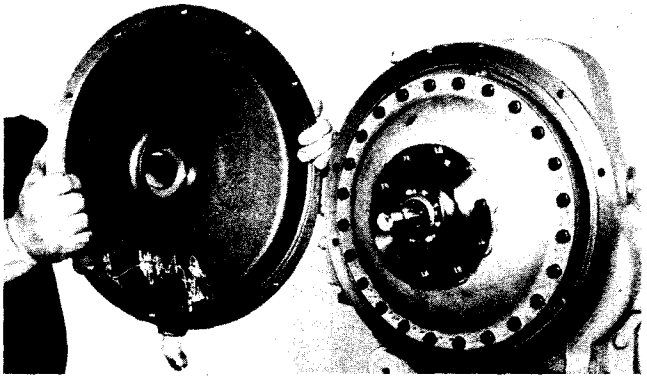


Figure 20

Install a new input shaft oil seal in cover, lip of seal in.

Install new converter housing to front cover gasket. Align holes in front cover with holes in converter housing.

NOTE: Drain back hole in the front cover must be in the lowest position when the transmission is reinstalled in the machine. This is to allow leakage oil to return to the transmission oil sump.

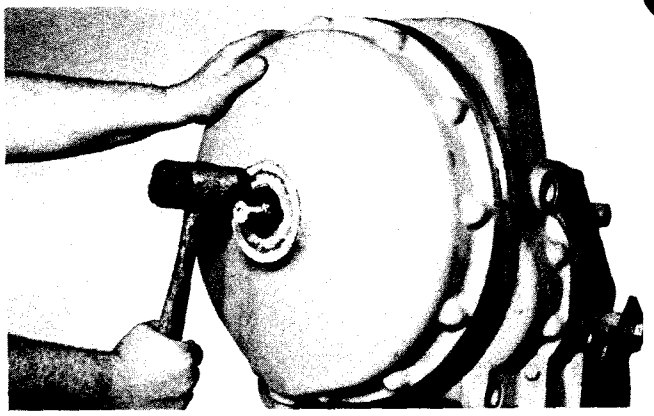


Figure 21

Tap cover in place. Use caution as not to damage oil seal.

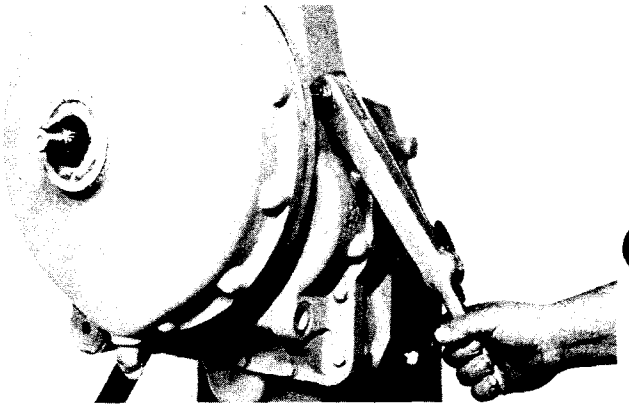


Figure 22

Install bolts and washers. Tighten 23 to 25 ft. lbs. torque [31,2-33,8 N.m].

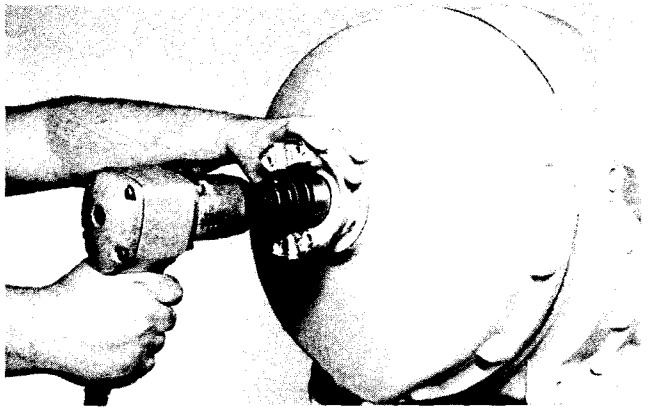


Figure 23

Install companion flange, "O" ring, washer and nut. Tighten nut 200 to 250 ft. lbs. torque [271,2-338,9 N.m].

Install front cover to transmission sump drain back hose (see note in Figure 20).