

# SERVICE MANUAL

LOADER  
TM320, TM420

EN - 9813/6850 - ISSUE 2 - 04/2018


This manual contains original instructions, verified by the manufacturer (or their authorized representative).

Copyright 2018 © JCB SERVICE  
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying or otherwise, without prior permission from JCB SERVICE.

[www.jcb.com](http://www.jcb.com)

## Foreword

### The Operator's Manual

 You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

### Contents

**01 - Machine**

**03 - Attachments, Couplings and Load Handling**

**06 - Body and Framework**

**09 - Operator Station**

**12 - Heating, Ventilating and Air-Conditioning (HVAC)**

**15 - Engine**

**18 - Fuel and Exhaust System**

**21 - Cooling System**

**24 - Brake System**

**25 - Steering System**

**27 - Driveline**

**30 - Hydraulic System**

**33 - Electrical System**

**72 - Fasteners and Fixings**

**75 - Consumable Products**

**78 - After Sales**

## 12 - Clutch - Ratio

### Disassemble and Assemble

#### Special Tools

Description	Part No.	Qty.
Circlip Assembly Tool	998/11334	1

#### Main shaft clutch

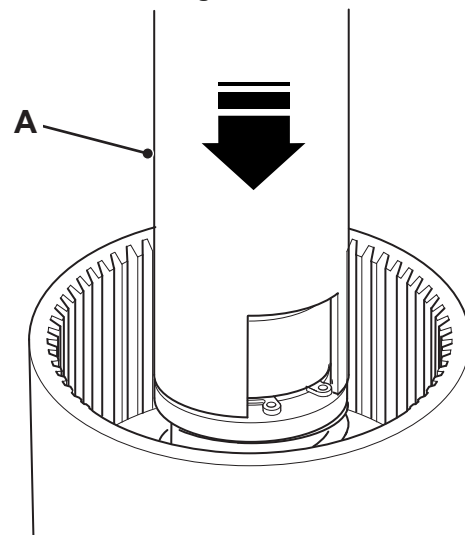
##### Disassembly

The numerical sequence is a guide to the disassembly procedure.

1. Remove and discard the O-ring seals 1.
2. To check the clutch plates.
  - 2.1. Remove the circlip1 from the clutch drum.
  - 2.2. Lift off the thick pressure counter plate then the seven friction plates and seven counter plates.
3. Remove and check the roller bearing race. If necessary discard it.
4. Use either the circlip assembly tool or a tube of suitable diameter to install over the top spring cup.

Special Tool: Circlip Assembly Tool (Qty.: 1)

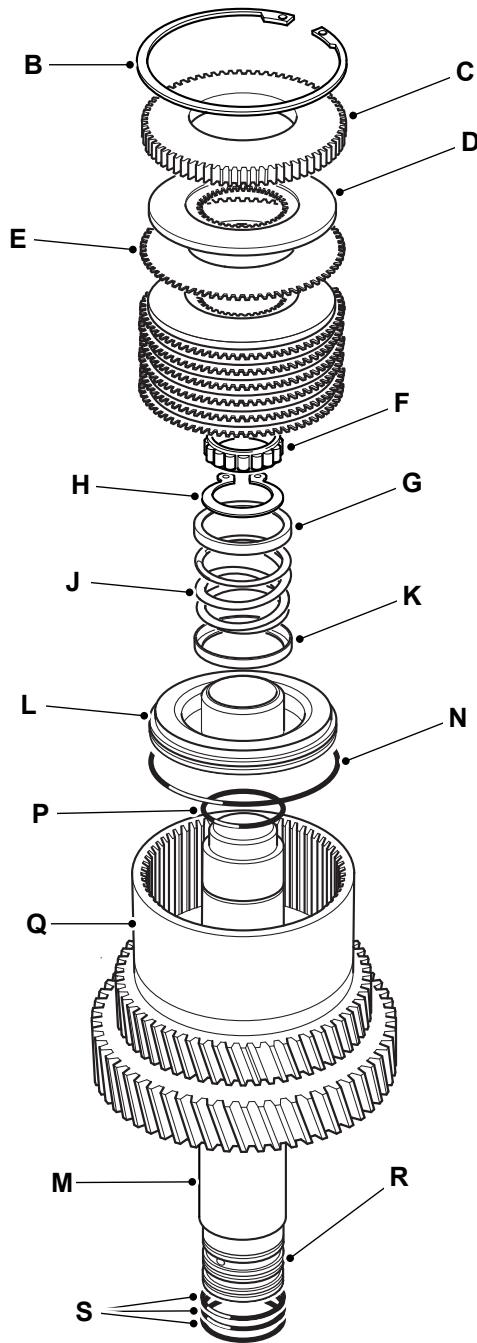
Figure 567.



A Tube

5. Cut out a small portion of the tube, to allow access, to release the circlip 2.
6. With the clutch drum located in the press, compress the spring sufficiently to allow the circlip 2 to be released.
7. When the circlip 2 is released, remove it from the shaft with the spring cup, spring and the lower spring cup.
8. If necessary the clutch operating piston may be removed by compressed air blown through the drilling in the end of the clutch shaft.
9. Remove and discard the clutch piston O-ring seal 2 and seal 3.

**Figure 568.**



**Table 242.**

Item	Description
B	Circlip 1
C	Thick pressure counter plate
D	Friction plate
E	Counter plate
F	Roller bearing race

Item	Description
G	Upper spring cup
H	Circlip 2
J	Spring
K	Lower spring cup
L	Piston
M	Clutch shaft
N	O-ring seal 2

Item	Description
P	O-ring seal 3
Q	Housing
R	Gallery port
S	O-ring seal 1

### Assembly

Assembly is the opposite of the disassembly procedure with the following precautions.

1. Install the new clutch piston O-ring seals 2 and seal 3 to the piston.
2. Lubricate the new seals and push the piston into the housing by hand.
3. Put the lower spring cup over the central spigot of the piston.
4. Replace the spring and the top spring cup.
5. Keep the circlip 2 on the top cup ready for installation.
6. Use the tube with a cutout to compress the spring.
7. Locate the cutout to give access for circlip 2.
8. Install the circlip 2 and make sure that it is seated correctly in the groove.
9. New clutch friction plates must be soaked in oil before assembly.
10. Install the first counter plate to the clutch drum followed by the friction plate.
11. Alternately install all fourteen plates.
12. Use a scrap splined drive hub to align the splines of the friction plates.
13. Install the thick counter plate at the top of the assembly followed by the circlip 1.
14. Check the free play clearance of the clutch plates and it must be within the specified limit.  
Dimension: 3 –3.5 mm
15. You can adjust the clearance by either changing the thick pressure plate from 6.0mm (0.24in) thick version to 6.5mm (0.26in) thick or by the addition of a shim counter plate installed immediately under the thick pressure plate.
16. Once the clutch is assembled completely then apply compressed air to the gallery port in the end of the shaft to check the clutch operation.

### Ratio Clutches

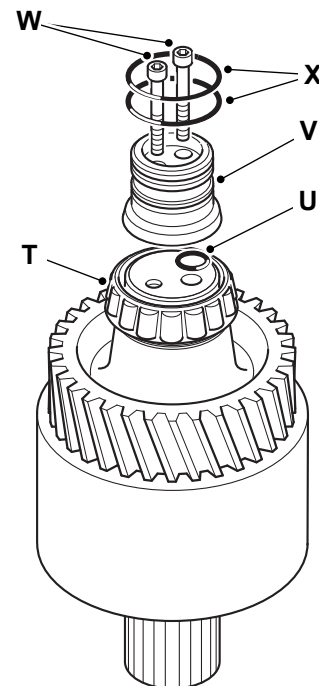
#### Disassembly

1. For the remaining two ratio clutches follow the same disassembly procedure as above.
2. The only difference is the retention of the support taper roller bearing which for each clutch is held in place by a machined cap.

#### Assembly

1. Clutch 1 and clutch 2 assembly.
  - 1.1. Use a mandrel to carefully push the taper bearing 1 into its position.
  - 1.2. Rotate the roller cage as the bearing is pushed into place to make sure that the mandrel does not foul and distort the cage.
  - 1.3. Put the new O-ring seal 4 into the grooves in the cap 1.

**Figure 569.**

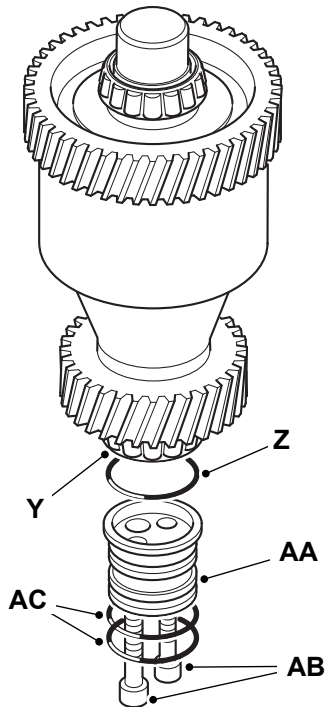


- T** Taper bearing 1
- U** O-ring sea l4
- V** Cap 1
- W** Capscrews 1
- X** O-ring seals 5

- 1.4. Two capscrews 1 hold the cap 1 in place.
- 1.5. Tighten the capscrews 1 to the correct torque value.
- 1.6. Put two new O-ring seals 5 into the groves in cap 1.

2. Clutch 3 and clutch 4 assembly.
  - 2.1. Use a mandrel to carefully push the taper bearing 2 into its position.
  - 2.2. Rotate the roller cage as the bearing is pushed into the place to make sure that the mandrel does not foul and distort the cage..
  - 2.3. Put the new O-ring seal 6 into the grooves in the cap 2.

**Figure 570.**



- Y** Taper bearing 2
- Z** O-ring seal 6
- AA** Cap 2
- AB** Capscrews 2
- AC** O-ring seals 7

- 2.4. Two capscrews 2 hold the cap 2 in place.
- 2.5. Tighten the capscrews 2 to the correct torque value.
- 2.6. Put two new O-ring seals 7 into the groves in cap 2.

**Table 243. Torque Values**

Item	Description	Nm
W	Capscrews1	18
AB	Capscrews2	45

## 13 - Clutch - Master

Remove and Install ..... 27-130  
Disassemble and Assemble ..... 27-136

## Remove and Install

### Special Tools

Description	Part No.	Qty.
Clutch Pack Retainers	892/01048	2
Mandrel	892/01050	1
Locking Plates	892/01052	2

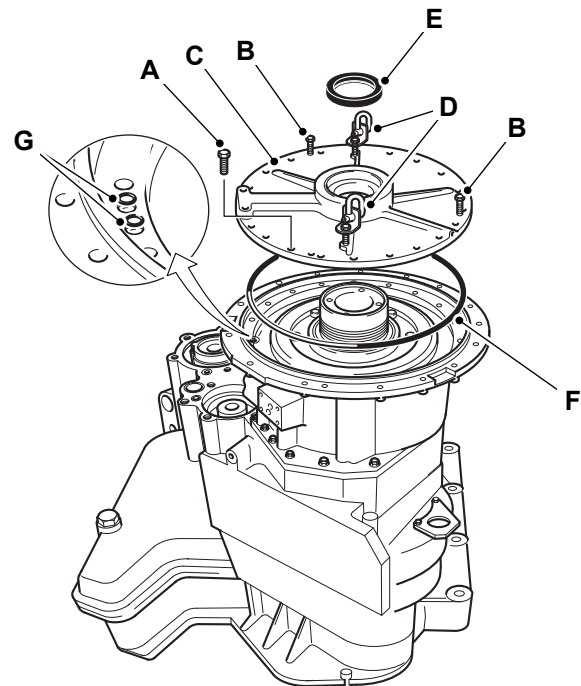
### Consumables

Description	Part No.	Size
JCB Multi-Gasket	4102/1212	0.05 L

### Remove

- Put the gearbox on a suitable manipulator. Rotate the gearbox until the clutch is in the top position.
- Remove all the cover attaching bolts and then install the M10 jacking bolts<sup>1</sup> (x3).
- Screw all the jacking bolts evenly until the cover is clear of its spigot.

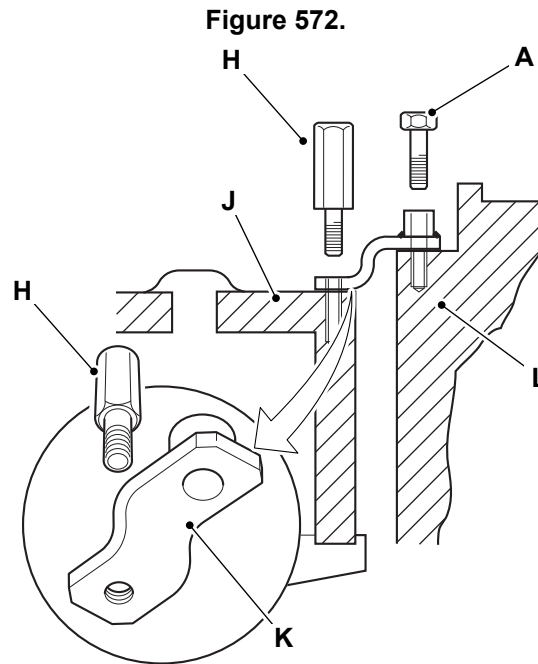
**Figure 571.**



- A** Cover attaching bolts (x18)
- B** M10 jacking bolts<sup>1</sup> (x3)
- C** Cover
- D** M10 threaded lifting eyes (x2)
- E** Oil seal<sup>2</sup>
- F** Cover O-ring seal
- G** O-ring<sup>1</sup> seal

- Install the M10 threaded lifting eyes to lift the cover.

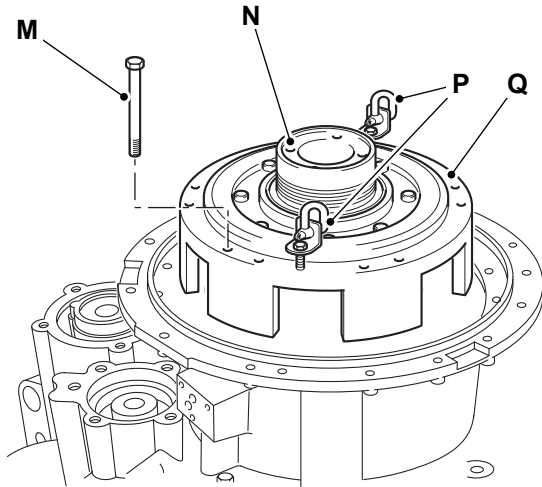
5. Carefully lift off the cover and make sure that you keep it square to the housing.
6. Make sure that you remove and discard all the O-ring<sup>1</sup> seals.
7. Remove the jacking bolt.
8. Remove and discard the cover O-ring seal.
9. Prise out and discard the oil seal<sup>2</sup> carefully and make sure that the seal housing in the cover is not damaged.
10. Install the special locking plates to prevent the clutch assembly from rotating.  
Special Tool: Locking Plates (Qty.: 2)



- |   |   |
|---|---|
| <p><b>A</b> Cover attaching bolts (x18)<br/><b>J</b> Clutch assembly<br/><b>L</b> Housing</p> | <p><b>H</b> Special screws<br/><b>K</b> Special locking plate</p> |
|---|---|

11. Use the cover attaching bolts and the special screws that are supplied with the locking plates, to lock the clutch assembly to the housing.
12. Remove all the clutch drum bolts.

Figure 573.

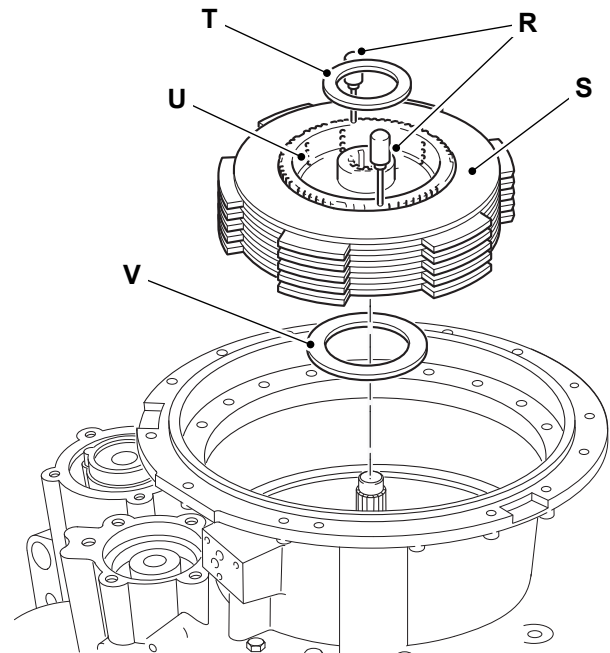


- M** Clutch drum bolts (x12)
- N** Plug1
- P** M8 threaded lifting eye (x2)
- Q** Clutch drum

13. Remove the locking plate.
14. Install the M8 threaded lifting eyes to the clutch drum.
15. Attach suitable lifting equipment to the clutch drum.
16. Carefully remove the clutch drum, hub and the pressure plate assembly.
17. Install the special pack retainers to the clutch plate carrier.

[Special Tool: Clutch Pack Retainers \(Qty.: 2\)](#)

Figure 574.

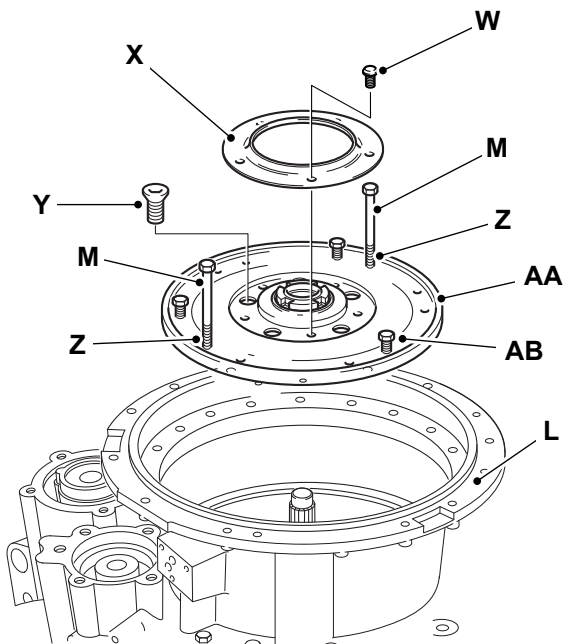


- R** Special pack retainers (x2)
- S** Clutch plates
- T** Thrust washer1
- U** Plate carrier
- V** Thrust washer2

18. Remove the carrier together with the clutch plates and the thrust washer1.
19. Remove the thrust washer2.
20. Remove the button head capscrews.
21. Remove the oil baffle plate.
22. Rotate the drum carrier to align the five holes with countersunk capscrews.
23. Remove the countersunk capscrews.



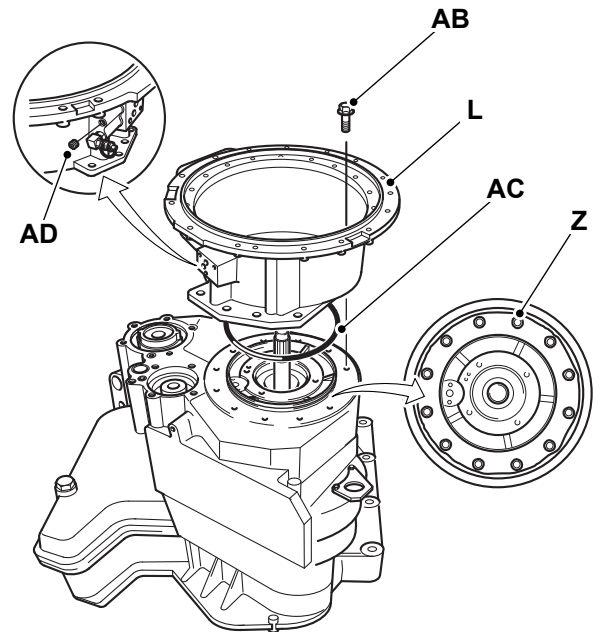
Figure 575.



- M** Clutch drum bolts (x12)
- L** Housing
- W** Button head capscrews (x5)
- X** Oil baffle plate
- Y** Countersunk capscrews
- Z** JCB multigasket
- AA** Drum carrier
- AB** M10 jacking bolts2 (x3)

24. Install the M10 jacking bolts2 and jack the drum carrier to remove it from the housing.
25. Make sure that you install the drum bolts that will assist you to lift the drum carrier clear of the housing.
26. The drum carrier will be removed completely with the PTO (Power Take-Off) input gear and the bearing.
27. It is not necessary to remove the clutch housing unless it is damaged or the PTO/splitter gearbox needs to be disassembled.

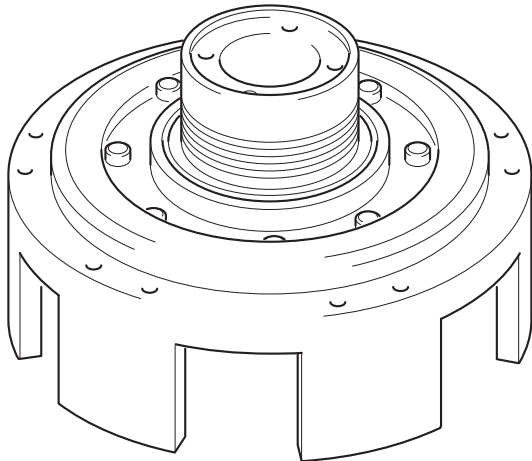
Figure 576.



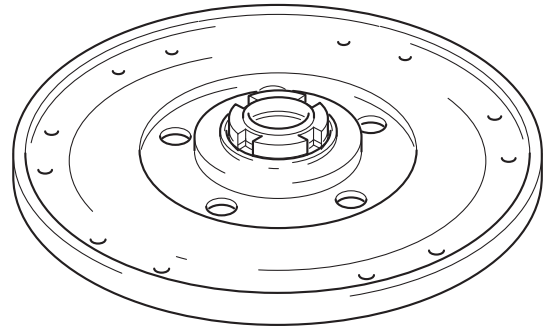
- L** Housing
- Z** JCB multigasket
- AB** Verbus-ripp bolts (x12)
- AC** O-ring2
- AD** Cross drilling blanking plug2

28. The clutch house removal.
  - 28.1. Remove and discard all the Verbus-ripp bolts.
  - 28.2. Use a soft faced hammer to separate the housing from the PTO/splitter gearbox.
  - 28.3. Remove the clutch housing.
29. After you remove the clutch from the housing there will be three main sub assemblies.
  - 29.1. Remove the Clutch drum, hub and pressure plate sub-assembly. Refer to Figure 577.

**Figure 577.**

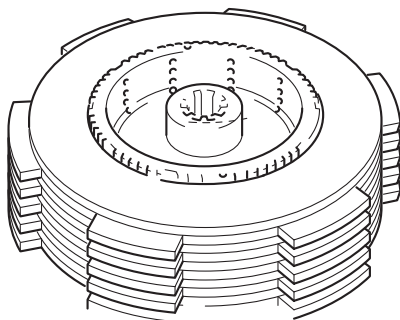


**Figure 579.**



- 29.2. Remove the clutch plates and plate carrier sub-assembly. Refer to Figure 578.

**Figure 578.**



- 29.3. Remove the clutch drum carrier and input gear PTO sub-assembly.

**Install**

Installation is the opposite of the removal procedure but make sure that additionally you follow the instructions below.

1. If it is necessary to replace the clutch housing with a new one then make sure that the cross drilling blanking plug<sup>2</sup> is installed to the new housing.
2. Tighten the plug<sup>2</sup> to the correct torque value.
3. Make sure that the oil feed cross drillings are clear.
4. Carefully clean all the traces of the sealing compound from the clutch and the smoothshift gearbox housing mating surfaces.
5. Lightly lubricate with oil and install a new O-ring<sup>2</sup>.
6. Apply even beads of JCB Multigasket to the Smoothshift Gearbox housing (around the outer diameter and around each threaded bolt hole).  
**Consumable: JCB Multi-Gasket**
7. Make sure that you install new Verbus-ripp bolts.
8. Tighten the Verbus-ripp bolts to the correct torque value.
9. Make sure that the clutch components are carefully checked for any signs of wear or damage.
10. If any of the friction or counter plates are damaged or if any of the friction plates are excessively worn (thickness less than 3.5 mm or oil grooves less than 0.1 mm deep) replace the complete set of plates.

11. Make sure that the new friction plates are soaked in transmission oil before you install them.
12. Check the thrust washer<sup>2</sup> for any signs of wear.
13. If the thickness (3.9mm) or the outside diameter (110.0mm) is less than the mentioned value then install a new thrust washer<sup>2</sup>.
14. Before you install the new thrust washer<sup>2</sup> soak it in the transmission oil for at least an hour.
15. Do not apply any kind of thread locking compound to any of the bolts or screws.
16. Tighten the plug<sup>1</sup>s to the correct torque value to prevent oil gallery leakage.
17. It is not possible to locate the clutch drum over the clutch plates and carrier assembly inside the housing.
18. First sub-assemble the components on the bench and then use the retainers to hold the assembly together.
19. Before you replace the drum, plates, carrier and hub assembly install the two guide pins to the M10 threaded holes in the drum carrier.
20. Use a special mandrel to install the new oil seal<sup>2</sup>.  
[Special Tool: Mandrel \(Qty.: 1\)](#)
21. If the clutch plates are replaced with new ones, check to make sure that the clutch is disengaged before installing the cover <sup>2</sup>.
22. Lightly apply oil and install a new O-ring<sup>1</sup> and the cover O-ring.

**Table 244. Torque Values**

Item	Description	Nm
A	Cover attaching bolt	56
M	Clutch drum bolt	52
W	Button head capscrews	12
Y	Countersunk capscrews	38
N	Plug1(Black)	22
N	Plug1(Gold)	12
AB	Verbus-ripp bolt	75
AD	Cross drilling blanking plug <sup>2</sup>	15

## Disassemble and Assemble

### Special Tools

Description	Part No.	Qty.
<a href="#">Peg Socket</a>	<a href="#">892/01045</a>	1
<a href="#">Mandrel</a>	<a href="#">892/01046</a>	1
<a href="#">Clutch Jig</a>	<a href="#">892/01047</a>	1
<a href="#">Clutch Pack Retainers</a>	<a href="#">892/01048</a>	2
<a href="#">Guide Rods</a>	<a href="#">892/01049</a>	2
<a href="#">Slide Hammer Kit</a>	<a href="#">993/68100</a>	1

### Consumables

Description	Part No.	Size
JCB Threadlocker and Sealer (Medium Strength)	<a href="#">4101/0250</a>	0.01 L
	<a href="#">4101/0251</a>	0.05 L

## Master Clutch- Clutch Drum and Hub

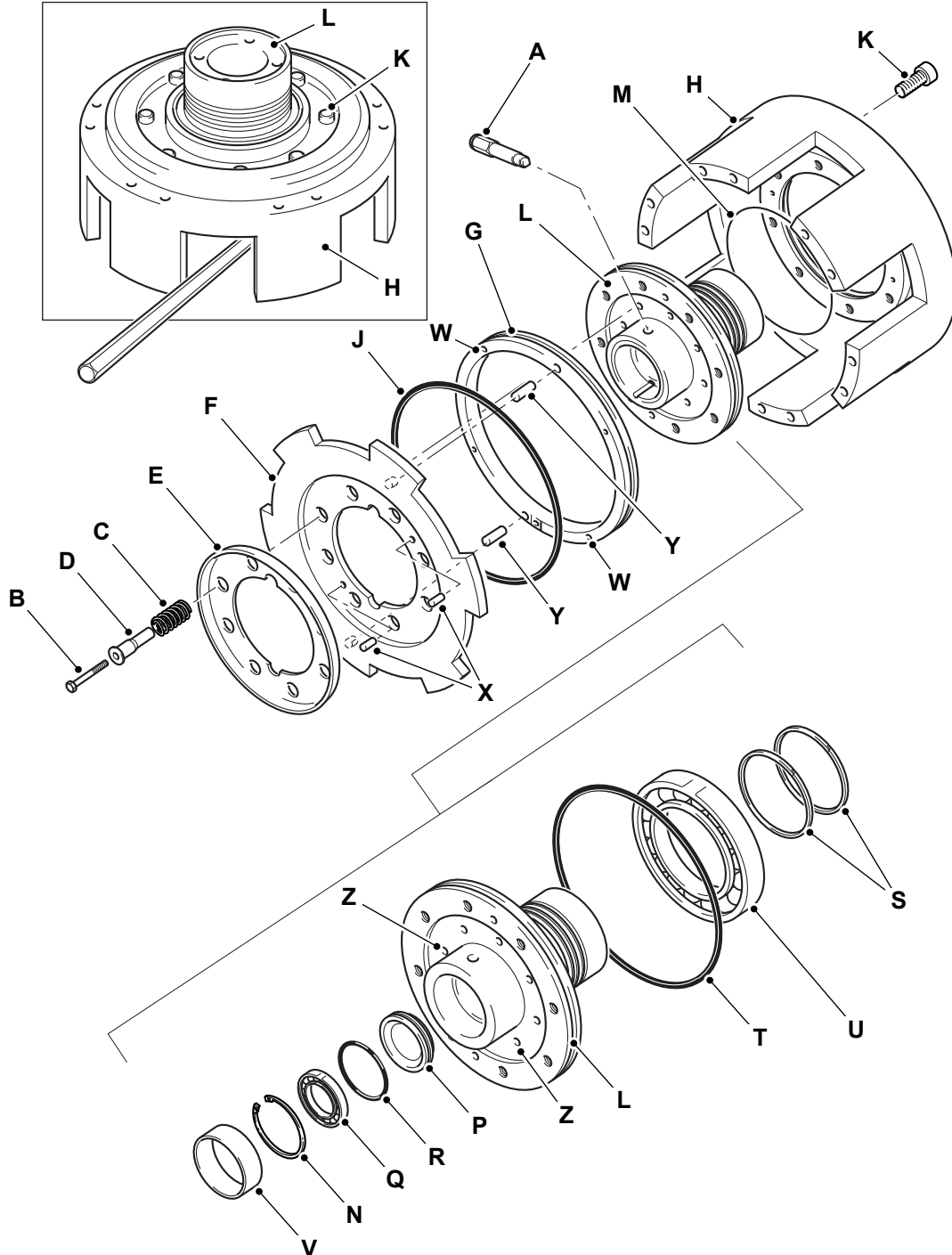
### Disassembly

1. Remove the lubrication nozzles.
2. Remove the bolts.
3. Remove the release springs and the spring pillars then discard the springs.
4. Remove the oil baffle plate from the locating dowel 1.
5. Remove the pressure plate.
6. Make sure that you do not lose the dowel 1 and dowel 2
7. Remove the piston from the drum.

8. Use M6 bolt (x2) and suitable levers to help in removal of the piston.
9. Remove and discard the outer seal from the piston.
10. Remove the socket head capscrews (x8).
11. Use a suitable bar to prevent drum rotation.
12. Use a soft faced hammer to tap out the hub from the drum.
13. Remove and discard the O-ring 1 from the drum.
14. Remove the circlip.
15. Use a suitable drift to tap out the blanking disc together with the inner bearing.
16. Remove and discard the O-ring 2.
17. Remove and discard the iron sealing ring.
18. Remove and discard the inner piston seal from the hub.
19. Do not remove the outer bearing unless it is to be replaced with a new one.
20. At the time of removal the bearing can be damaged. When the bearing is removed it must be replaced.
21. To remove the outer bearing, screw in two jacking bolts at their correct location on the hub.
22. If the bronze bush is to be replaced, then remove it with a suitable puller and slide hammer.

Special Tool: [Slide Hammer Kit \(Qty.: 1\)](#)

Figure 580.



**Table 245.**

Item	Description
A	Lubrication nozzles
B	Bolts
C	Springs
D	Spring pillars
E	Oil baffle plate
F	Pressure plate
G	Piston
H	Drum
J	Outer seal
K	Socket head capscrews (x8)
L	Hub
M	O-ring 1
N	Circlip
P	Blanking disc
Q	Inner bearing
R	O-ring 2
S	Sealing ring

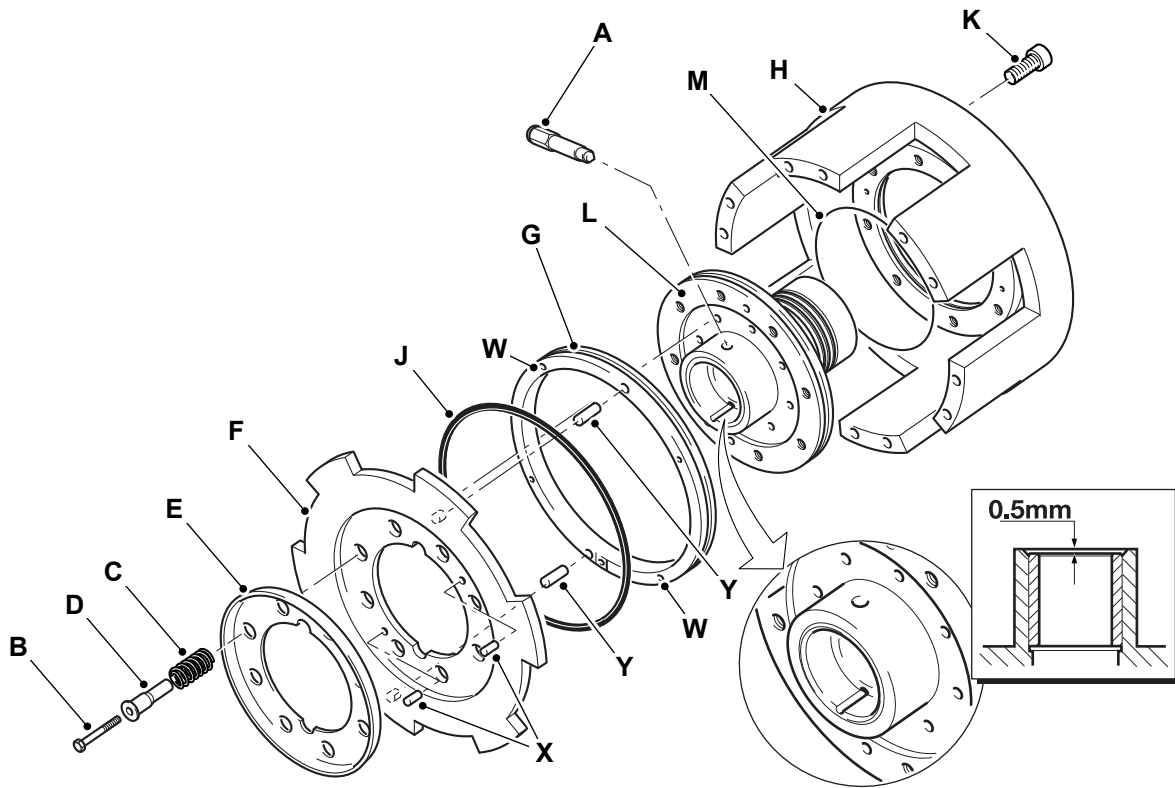
Item	Description
T	Inner piston seal
U	Outer bearing
V	Bronze bush
W	M8 bolt (x2)
X	Dowel 1
Y	Dowel 2
Z	Jacking bolts (x2)

### Assembly

Assembly is the opposite of the disassembly procedure but additionally follow the steps below.

1. Check that the oil feed slots and drillings are clear.
2. Check the condition of the pressure plate, if it is excessively scored then replace with a new one.
3. If it is necessary to replace the pressure plate, dowel 1 and dowel 2 must be installed to the plate before assembly.

**Figure 581.**



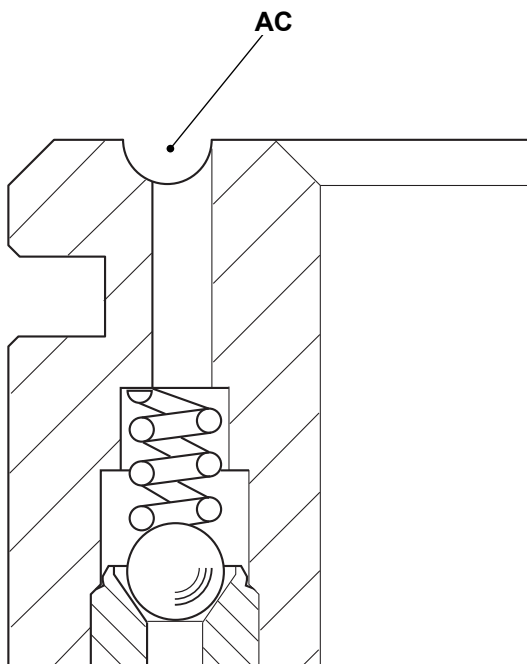
- A** Lubrication nozzles
- C** Springs
- E** Oil baffle plate
- G** Piston
- J** Outer seal
- L** Hub
- W** M8 bolt (x2)
- Y** Dowel 2

- B** Bolts
- D** Spring pillars
- F** Pressure plate
- H** Drum
- K** Socket head capscrews (x8)
- M** O-ring 1
- X** Dowel 1

4. The larger dowel 2 must be tapped into the blind holes on one face of the plate and the smaller dowel 1 must be tapped onto the through holes on the opposite face so that they reach through the plate but do not protrude.
5. Check the faces of the drive tangs on the drum and if you find any small burrs then carefully use a file to remove the small burrs.
6. Check the pressure relief ball valve in the piston, the ball should be free to move against its spring.
7. Check the pressure relief valve for leakage. Refer to Figure 582.

- 7.1. Put a drop of paraffin in the orifice of the valve.

**Figure 582.**



**AC** Valve orifice

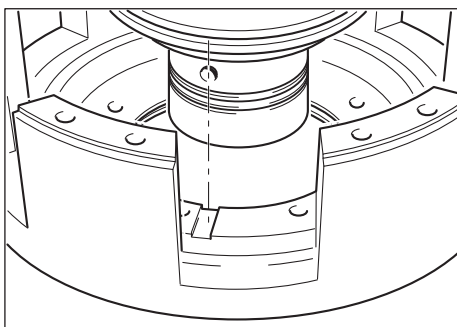
- 7.2. There should not be any leakage on the other side of the ball.
- 7.3. If there is leakage then the piston or the valve assembly must be replaced with a new one.

- 8. If the bronze bush is to be replaced then make sure that the oil grooves must align with the oil feed drillings in the hub.
- 9. Use a suitable mandrel to push the bush until it is 0.5mm below the end face of the hub.

**Special Tool: Mandrel (Qty.: 1)**

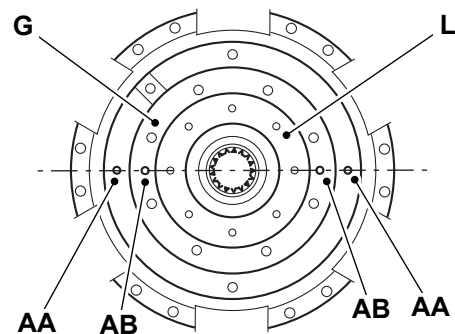
- 10. Lubricate and install a new O-ring 1 to the drum.
- 11. Align the oil feed holes in the hub with the oil feed slots in the drum. Refer to Figure 583.

**Figure 583.**



- 12. Keep the hub square to the drum to avoid damage to the O- ring 1.
- 13. Install the socket head capscrews.
- 14. Gradually tighten the capscrews to the correct torque value.
- 15. Align the threaded holes in the piston with the guide hole in the hub. Refer to Figure 584.

**Figure 584.**



- G** Piston
- L** Hub
- AA** Threaded holes in piston
- AB** Guide holes in hub

- 16. Locate the piston inside its groove.
- 17. Locate the larger dowel (dowel2) pins on the pressure plate into the drilled holes in the piston.
- 18. Use a suitable press to push the pressure plate and the plate will push the piston down.
- 19. Remove the pressure plate and make sure that there is no evidence of damaged seals in the form of small slices of seal material.
- 20. If damage is suspected, remove the piston, install new seals and then assemble again.
- 21. Make sure that the pressure plates are aligned correctly.
- 22. Replace the oil baffle plate on the locating dowel 1.
- 23. Install new springs.
- 24. Remove any debris that may have been pushed from the bolt holes into the hub.
- 25. If the drum and the hub are separated then the outer bearing and the capscrews must be replaced with a new one.
- 26. Before you install the outer bearing make sure that the spring is installed already.

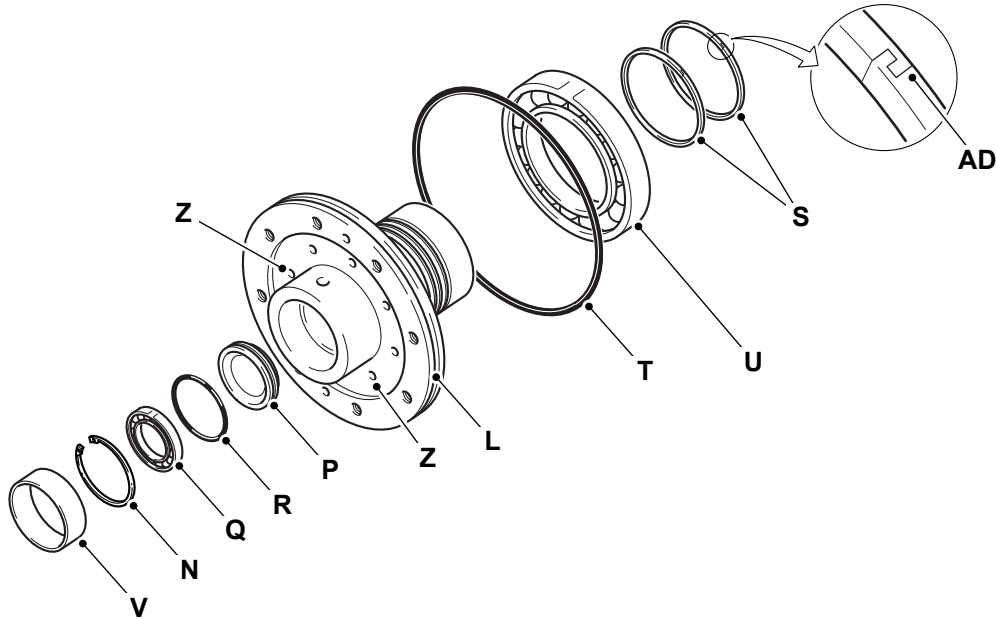


27. Use a suitable press to install the outer bearing and apply force only on to the inner race.
28. Note that the piston rings cannot be installed before the outer bearing.
29. Apply one drop of JCB Threadlocker and Sealer to one or two threads from the end, on the lubrication nozzles.

**Consumable: JCB Threadlocker and Sealer (Medium Strength)**

30. Install new piston rings with extreme care, as the rings can break very easily.
31. Note the interlocking end of the piston rings.

**Figure 585.**



- |  |                             |
|--|-----------------------------|
| <b>N</b> Circlip                       | <b>P</b> Blanking disc      |
| <b>Q</b> Inner bearing                 | <b>R</b> O-ring 2           |
| <b>S</b> Sealing ring                  | <b>T</b> Inner piston seal  |
| <b>U</b> Outer bearing                 | <b>V</b> Bronze brush       |
| <b>L</b> Hub                           | <b>Z</b> Jacking bolts (x2) |
| <b>AD</b> Piston ring interlocking end |                             |

**Table 246. Torque table**

Item	Description	Torque value
A	Lubrication nozzles	15 N·m
B	Bolts	28 N·m
K	Socket head capscrews	85 N·m

**Master Clutch- Clutch Plates and Plate Carrier**

**Disassembly**

1. Remove the friction plates and counter plates from the plate carrier.
2. The plates can only be removed from one end of the carrier. There are six friction plates and five counter plates.
3. If the thrust washer is not removed at the time of removal then remove it now.

Figure 586.

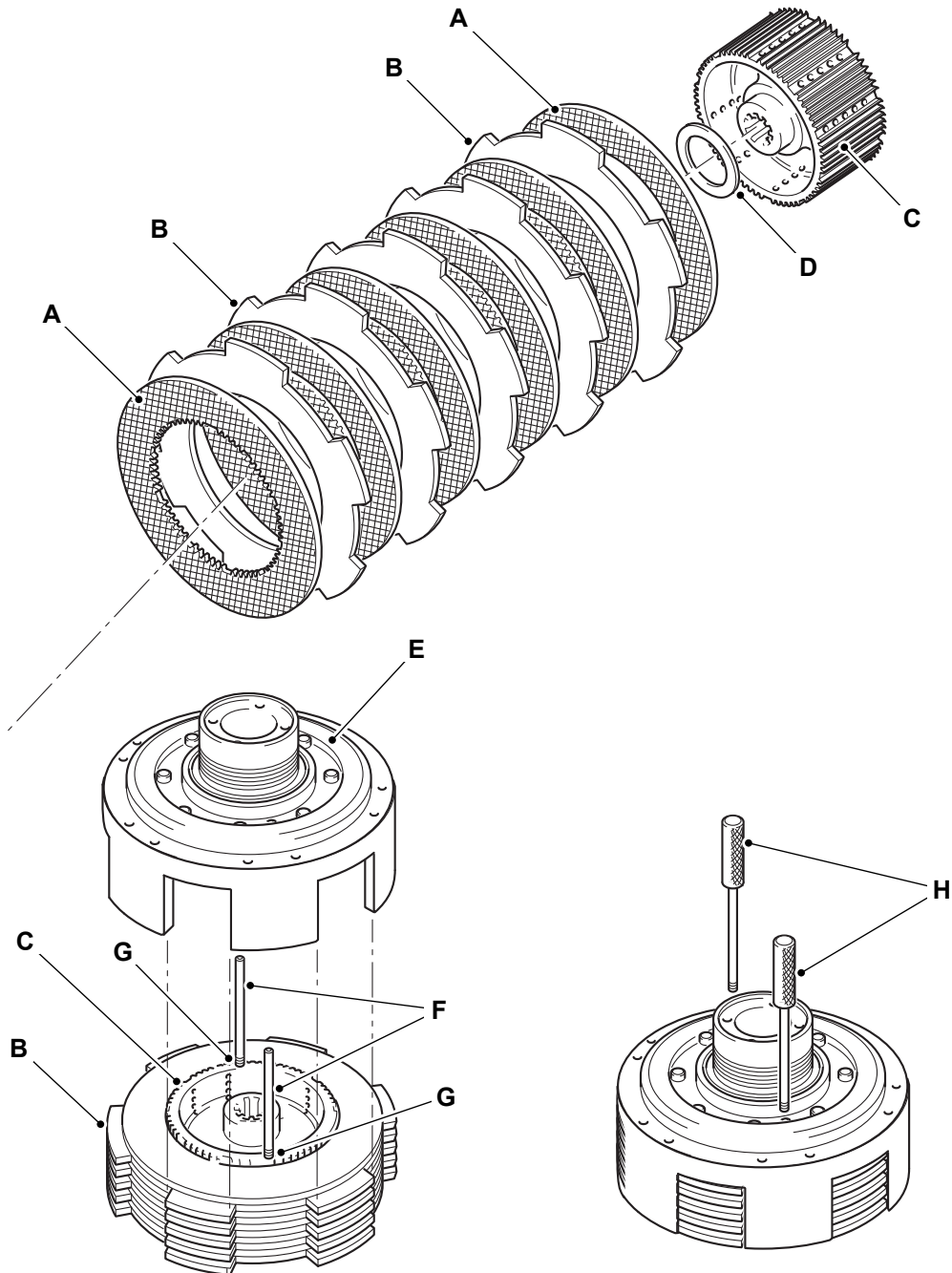


Table 247.

Item	Description
A	Friction plates
B	Counter plates
C	Plate carrier
D	Thrust washer
E	Clutch drum and hub assembly

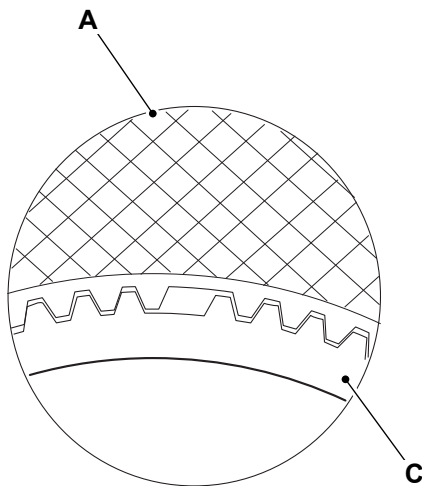
Item	Description
F	Guide rods
G	Threaded hole
H	Clutch pack retainers

**Assembly**

1. Before you assemble the friction and the counter plates check them for any signs of damage or wear.

2. Friction plates should not be less than 3.5 mm thick or have oil grooves less than 0.1 mm deep. If the friction plate thickness is less than 3.5 mm then it needs to be changed for a new one.
3. Replace the plates in a set, not as a single piece.
4. Check the thrust washer for wear.
5. If the thickness is less than 2.9mm or the outside diameter is less than 90mm then replace the thrust washer.
6. Before you install new friction plates and a new thrust washer soak them in transmission oil for at least one hour.
7. Start the assembly with a friction plate followed by a counter plate and so on.
8. Note the correct orientation of oil slots in the friction plates relative to the plate carrier. Refer to Figure 587.

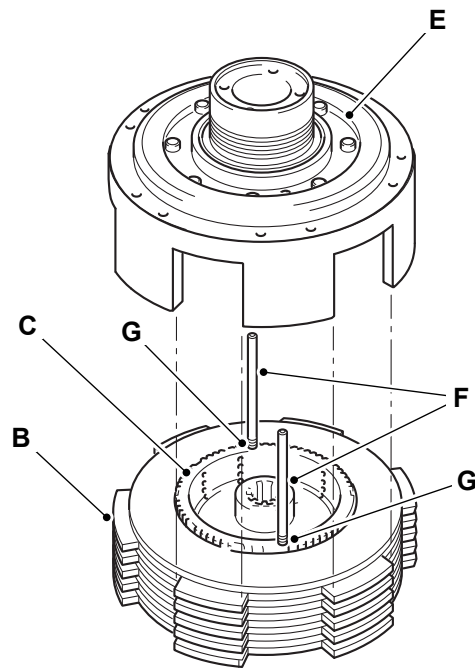
**Figure 587.**



- A** Friction plate
- C** Plate carrier

9. The counter plates should be positioned relative to the two threaded holes. Refer to Figure 588.

**Figure 588.**



- B** Counter plates
- C** Plate carrier
- E** Clutch drum and hub assembly
- F** Guide rods
- G** Threaded hole

10. It is not possible to replace the clutch drum and hub assembly inside the clutch housing unless it is first installed to the plates and plate carrier assembly.
11. Install the thrust washer to the plate carrier.
12. Install two suitable guide rods to the threaded holes in the plate carrier.  
**Special Tool: Guide Rods (Qty.: 2)**
13. Use suitable lifting equipment to carefully lower the drum and hub sub-assembly over the plates.
14. Make sure that the guide rods locate through the corresponding holes in the drum.
15. Make sure that the drive tangs on the counter plates engage with the cut-outs in the drum.
16. It may be necessary to rotate the drum and plates slightly to align them.
17. With the drum and hub fully lowered, remove the guide rods and install two special pack retainers to temporarily hold the assembly together.  
**Special Tool: Clutch Pack Retainers (Qty.: 2)**
18. Do not use bolts or screws, mistakenly they may be left in the place which can make the clutch inoperative.

19. The special retainers prevent further assembly until they are removed.
20. The drum, hub, plates and plate carrier can now be replaced inside the clutch housing as a complete assembly.  
[Refer to: PIL 27-06-13.](#)
21. Remove the special retainers and install plugs to the holes in the clutch drum.
22. If the clutch plates are replaced, the plate stack height is changed.
23. If the stack height is too high then the clutch will be permanently engaged. Do the following check.
  - 23.1. Assemble the clutch components inside the housing.
  - 23.2. Do not install the cover.

- 23.3. Make sure that the bolts are tightened and the splitter input shaft is engaged in the clutch plate carrier.
- 23.4. Turn the clutch drum/hub assembly and, at the same time hold the splitter shaft so it does not rotate. Some drag is normal.

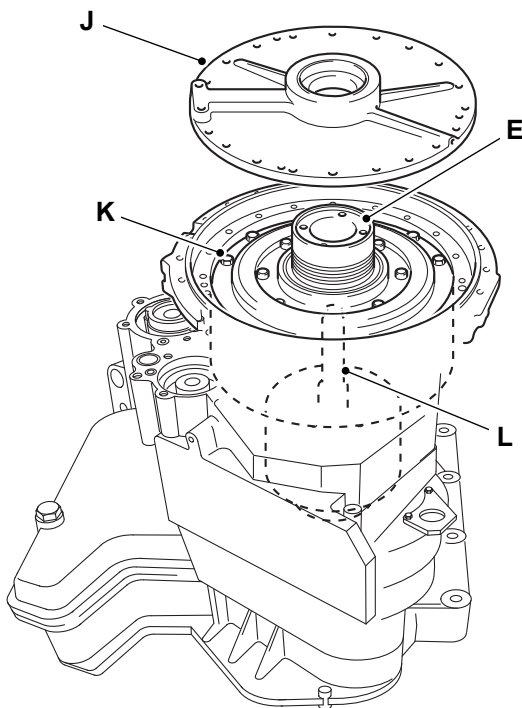
### Master Clutch- Clutch Drum Carrier and Power Take Off Input gear

#### Disassembly

1. To remove the stake nut follow the steps below.
  - 1.1. Use a vice and a suitable jig to position the assembly as shown.

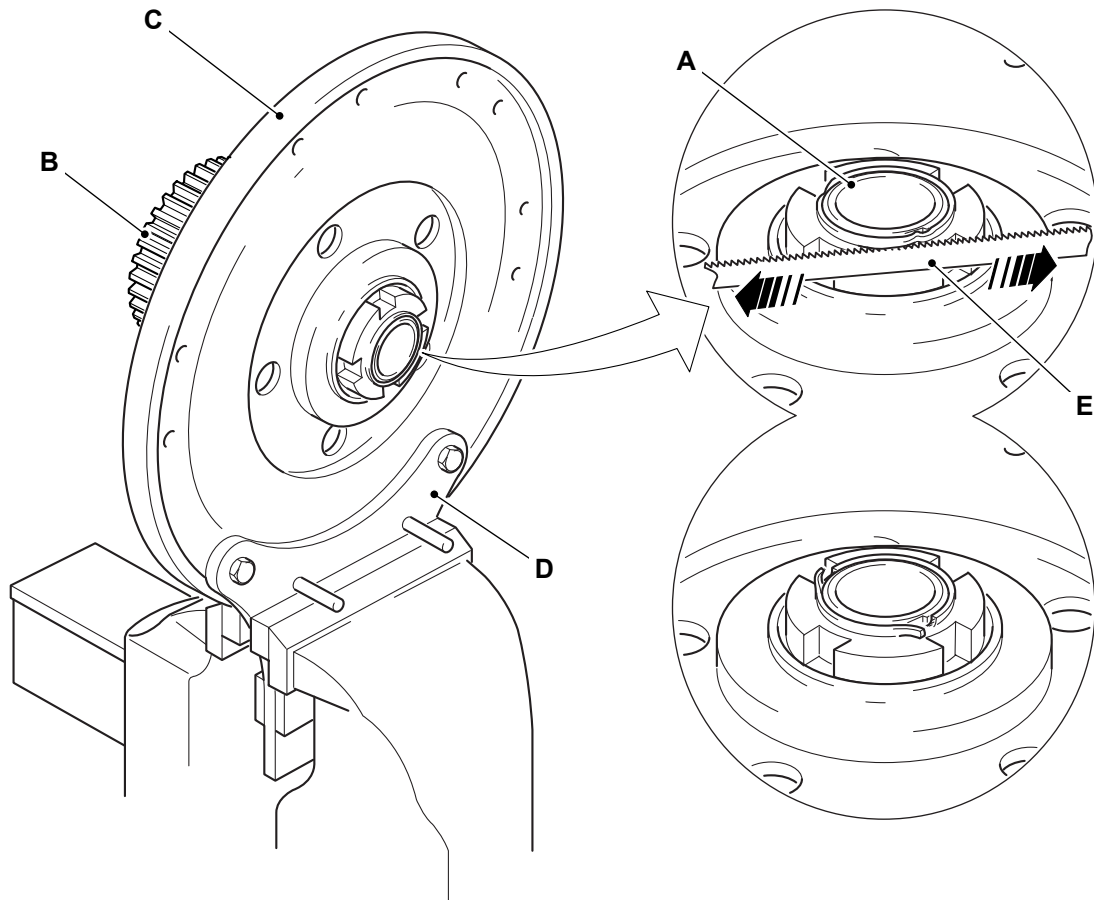
Special Tool: Clutch Jig (Qty.: 1)

**Figure 589.**



- E** Clutch drum and hub assembly
- J** Cover
- K** Bolt
- L** Splitter input shaft

Figure 590.



- A Stake nut
- C Drum plate carrier
- E Hacksaw

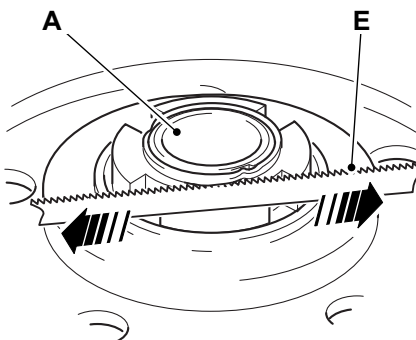
- B Input gear
- D Clutch jig

1.2. To avoid damage to the input gear threaded shaft, use a hacksaw to carefully cut-away the staked portion of the collar on the stake nut. Refer to Figure 591.

1.3. Make sure that the gear shaft is not damaged.

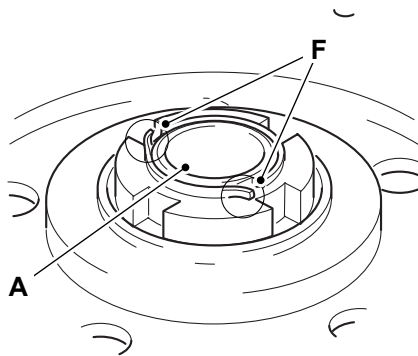
1.4. The staked portion can now be easily bent clear of the shaft. Refer to Figure 592.

Figure 591.



- A Stake nut
- E Hacksaw

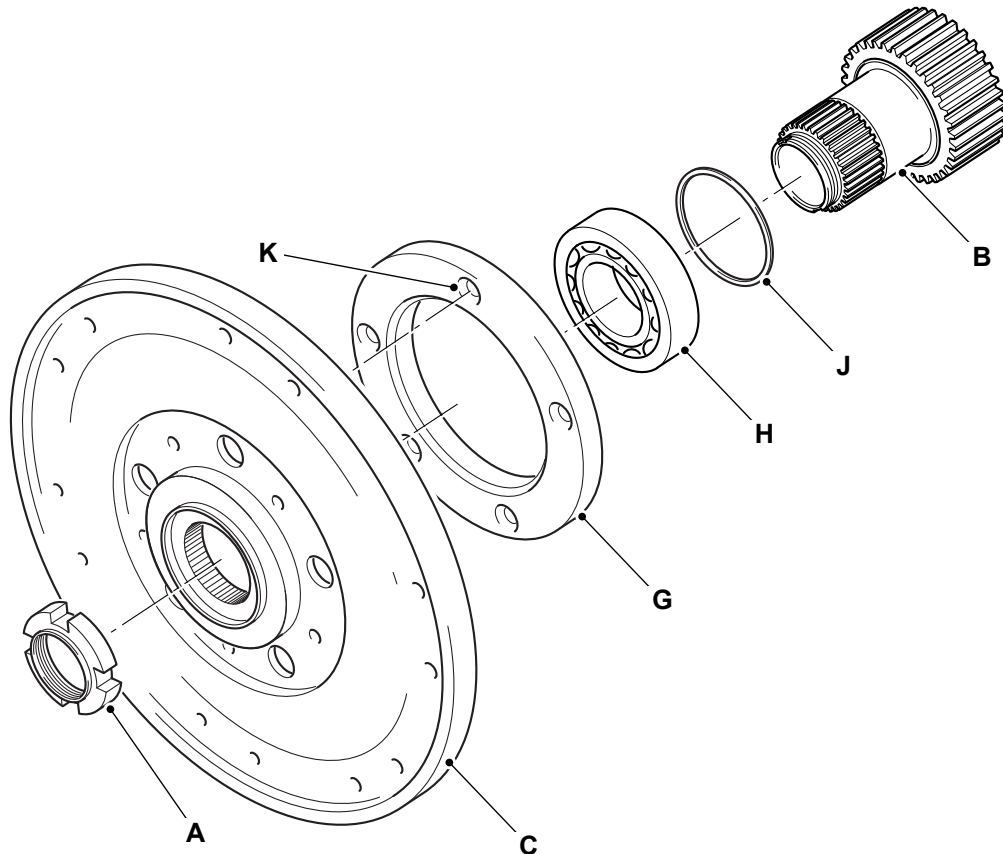
**Figure 592.**



- A Stake nut
- F Bent on the stake

- 1.5. Use a special peg socket to loosen the stake nut. The nut is very tight.  
Special Tool: Peg Socket (Qty.: 1)
- 1.6. Make sure that the gear shaft is not damaged.
- 1.7. Support the input gear and then remove the stake nut.
- 1.8. Remove the gear and the bearing retainer plate from the drum carrier.
- 1.9. Discard the stake nut.
2. Use a suitable press to push off the bearing and then remove the loose bearing rib.

**Figure 593.**



**Table 248.**

Item	Description
A	Stake nut
B	Input gear
C	Drum plate carrier
G	Gear and bearing retainer plate

Item	Description
H	Bearing
J	Bearing rib
K	Attaching screw holes



**Download the full PDF manual instantly.**

**Our customer service e-mail:**

**[aservicemanualpdf@yahoo.com](mailto:aservicemanualpdf@yahoo.com)**