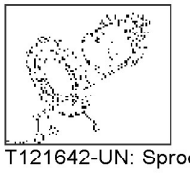
tm1818 - 50ZTS Excavator
Remove and Install Sprocket

Remove and Install Sprocket



T121642-UN: Sprocket and Hardware

LEGEND:

1 - Cap Screw (12 used)
2 - Lock Washer (12 used)
3 - Sprocket

1. Remove track. (See procedure in this group.)
2. Remove cap screws (1) and lock washer (2).
3.

CAUTION:

The approximate weight of sprocket is 15.5 kg (34 lb).

Item	Measurement	Specification
Sprocket		
Sprocket	Weight	15.5 kg (34 lb) approximate

Remove sprocket (3).

4. Repair or replace as necessary.
5. Install sprocket (3), cap screws (1), and lock washers (2). Tighten cap screws.

Item	Measurement	Specification
Sprocket		
Cap Screw	Torque	127.5 N·m (94 lb-ft)

6. Install track. (See procedure in this group.)

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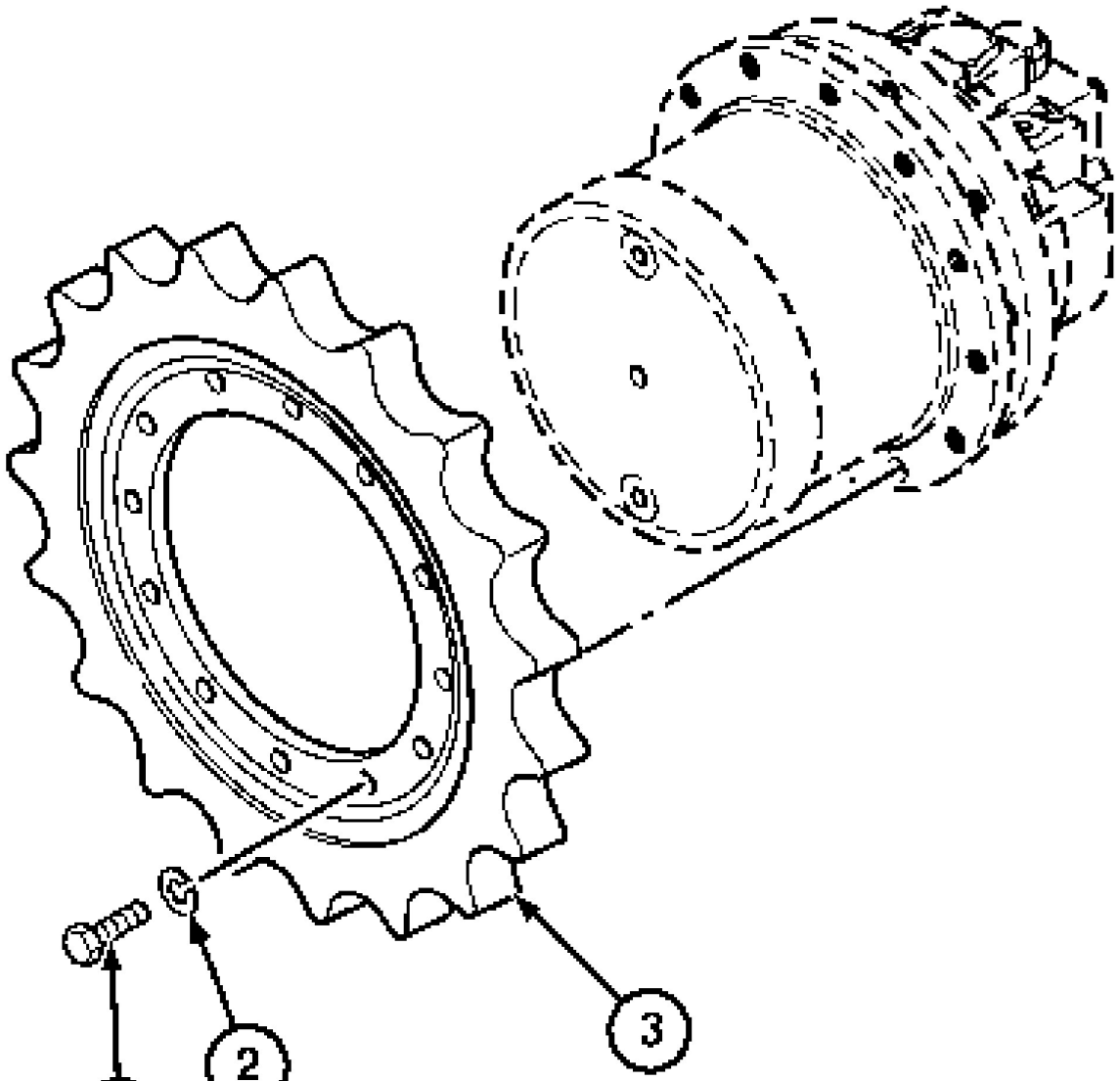

T121642

tm1818 - 50ZTS Excavator
Measure Front Idler Wear

Measure Front Idler Wear

T121638-UN: Front Idler

LEGEND:

1 - Front Idler Diameter
2 - Guide Width

-: Specifications

SPECIFICATIONS	
Front Idler	
Front Idler Diameter	300 mm (11.8 in.) new
Front Idler Diameter	295 mm (11.6 in.) allowable limit
Guide Width	53 mm (2.09 in.) new
Guide Width	48 mm (1.89 in.) allowable limit

-: Service Equipment and Tools

SERVICE EQUIPMENT AND TOOLS
[JT05521Tools are available in a kit such as the JT05518A or JT05523 Undercarriage Inspection Service Tool Kit.] Depth Gauge (200 mm Ruler)
[JT05534Tools are available in a kit such as the JT05518A or JT05523 Undercarriage Inspection Service Tool Kit.] Right Angle Attachment

Measure front idler diameter (1) and guide width (2).

Item	Measurement	Specification
Front Idler		
Front Idler	Diameter	300 mm (11.8 in.) new
	Diameter	295 mm (11.6 in.) allowable limit
Guide	Width	53 mm (2.09 in.) new
	Width	48 mm (1.89 in.) allowable limit

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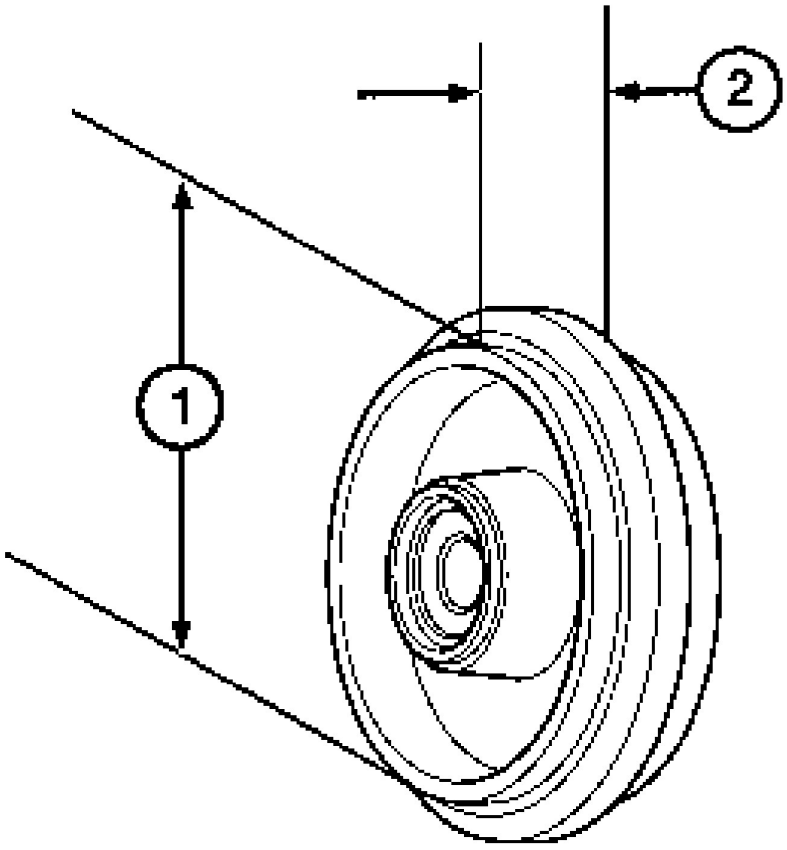
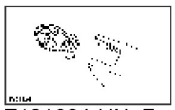


T121638

tm1818 - 50ZTS Excavator
Remove and Install Front Idler

Remove and Install Front Idler

T121683-UN: Front Idler on Track Frame



T121684-UN: Front Idler Removed from Track Frame

1. Remove track. (See procedure in this group.)
2.

CAUTION:

The approximate weight of front idler is 41 kg (90 lb).

Item	Measurement	Specification
Front Idler		
Front Idler	Weight	41 kg (90 lb) approximate

Using a shop hoist, remove front idler from track frame.

3. Repair or replace as necessary.
4. Apply grease to sliding surfaces inside track frame.
5. Install front idler into track frame.
6. Install track. (See procedure in this group.)

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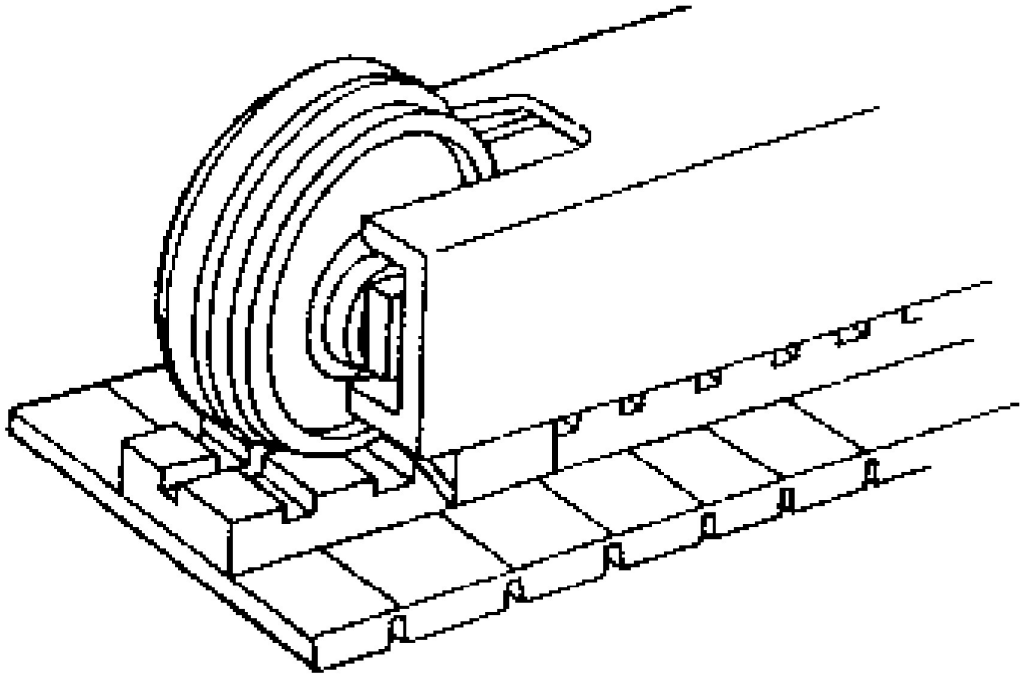
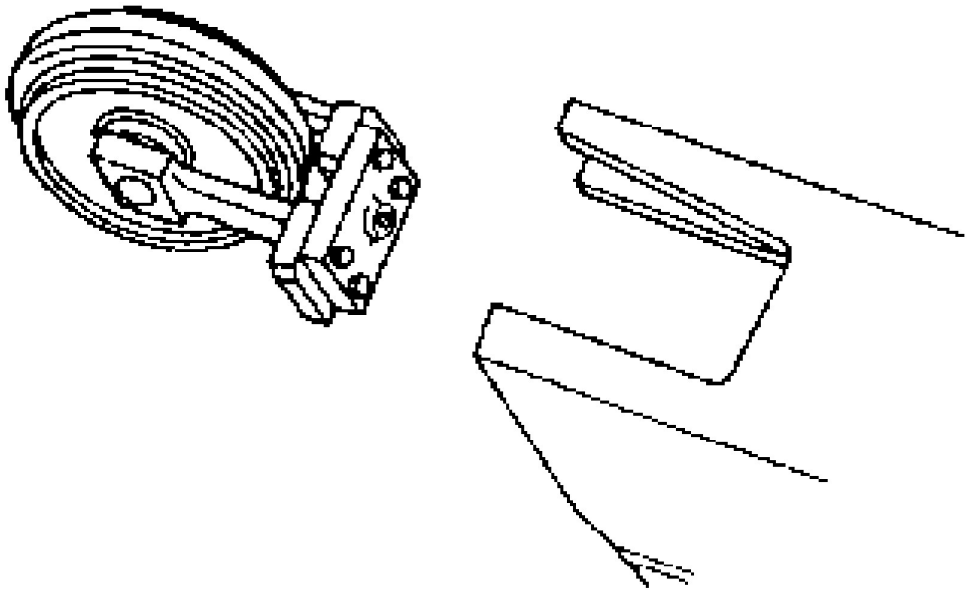


T121683

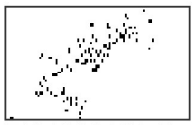
Front Idler Removed from Track Frame [T121684]



T121684

tm1818 - 50ZTS Excavator
Disassemble and Assemble Front Idler

Disassemble and Assemble Front Idler



T121616-UN: Front Idler Components

LEGEND:

1 - Spring Pin (2 used)
2 - Seal (2 used)
3 - O-Ring (2 used)
4 - Axle
5 - Bushing (2 used)
6 - Idler
7 - Yoke (2 used)
8 - Cap Screw (4 used)
9 - Plate

1. **IMPORTANT:**

   Metal face seals can be reused if they are not worn or damaged. A used seal must be kept together as a set because of wear pattern on seal ring face.

   Inspect metal face seals. (See procedure in this group.)

2. Measure axle and bushings for wear or defects. (See specification for new and allowable limit of wear.)

Item	Measurement	Specification
Front Idler		
Axle	OD	40.0 mm (1.57 in.) new
	OD	39.2 mm (1.54 in.) allowable limit
Bushing	ID	40.0 mm (1.57 in.) new
	ID	41.0 mm (1.61 in.) allowable limit
	Thickness	2 mm (0.08 in.) new flange
	Thickness	1.5 mm (0.06 in.) allowable limit of flange

3. *NOTE:*

   Remove bushings only if replacement is necessary.

   Remove bushing using a 2-jaw puller and adapter from 17-1/2 and 30-ton puller set.

4. Apply a thin film of oil on bushings. If removed, install bushings with flange tight against shoulder of idler.

5. **IMPORTANT:**

   O-rings and O-ring grooves must be clean, dry and free of oil to prevent O-rings from slipping when idler is turning.

   Apply a thin layer of NEVER-SEEZ® Anti-Seize Lubricant or equivalent to both ends of axle from O-ring grooves, bore of yokes, and spring pins.

6. Assemble and tighten cap screws.

Item	Measurement	Specification
Front Idler		
Yoke Cap Screw	Torque	175 N·m (130 lb-ft)

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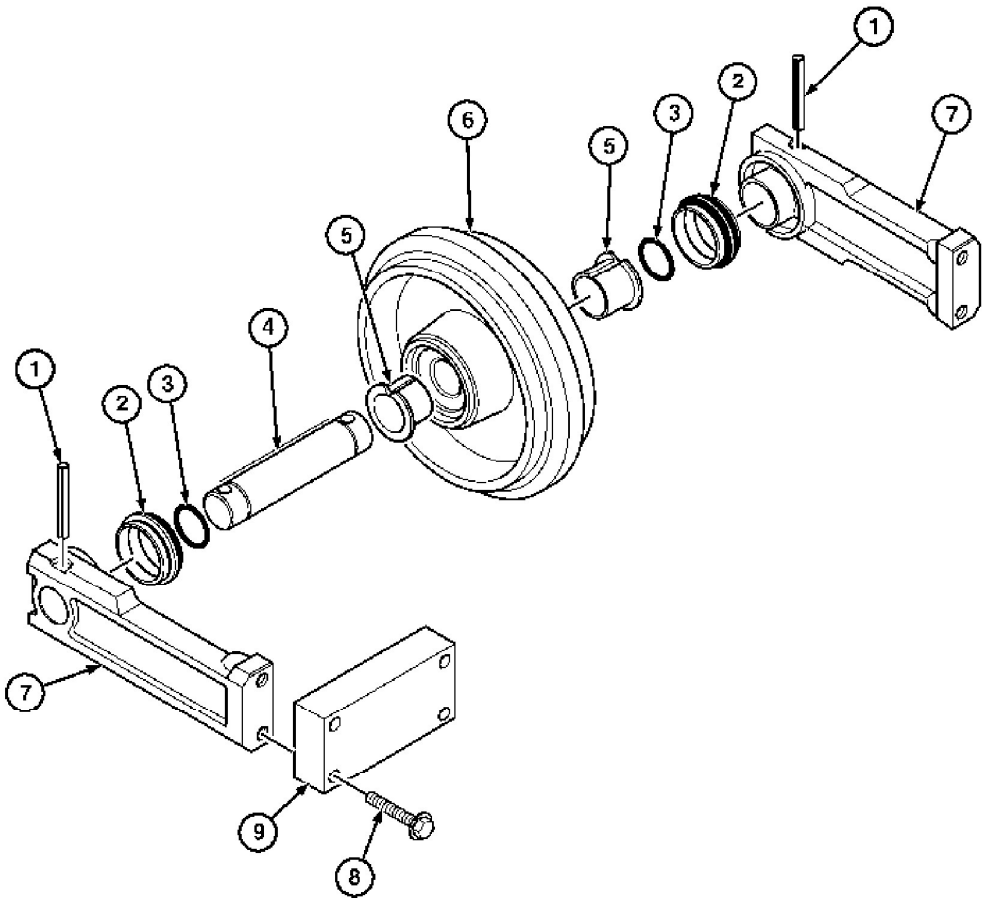
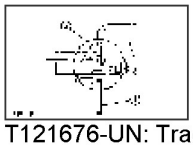


T121616

tm1818 - 50ZTS Excavator
Remove and Install Track Adjuster and Recoil Spring

Remove and Install Track Adjuster and Recoil Spring


T121675-UN: Track Adjuster Removed from Track Frame


T121676-UN: Track Adjuster Correctly Sealed on Plate


T121677-UN: Spring Guide

LEGEND:

1 - Track Adjuster
2 - Track Frame
3 - Spring Guide
4 - Plate

1. Remove front idler. (See procedure in this group.)

2. ***CAUTION:***

   Spring or rod may break if dropped while handling, transporting or disassembling. Nicks or weld craters in spring and rod assembly can cause stress concentration resulting in a weak spot. Weak spots may result in immediate or eventual failure creating a risk of personal injury. Put a heavy protective covering around spring assembly when handling, transporting, or disassembling.

   Slide track adjuster (1) and recoil spring out of track frame (2).

3. Repair or replace parts as necessary.

4. **IMPORTANT:**

   When installing track adjuster (1) with recoil spring into track frame (2), make sure that flat bottom of plate faces down and top radius of plate aligns with spring guide (3).

   Install track adjuster (1) with recoil spring into track frame (2) and push into place until track adjusting valve protrudes from hole in plate (4).

5. Install front idler. (See procedure in this group.)

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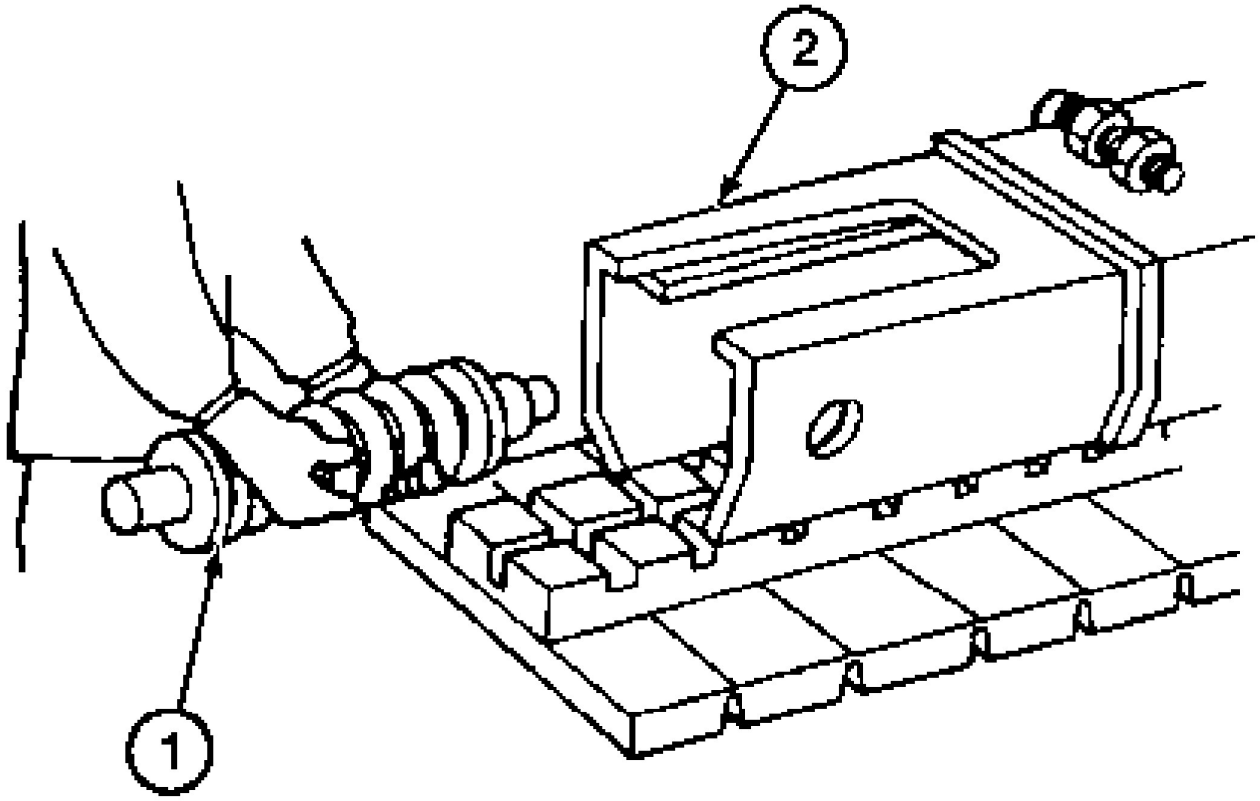
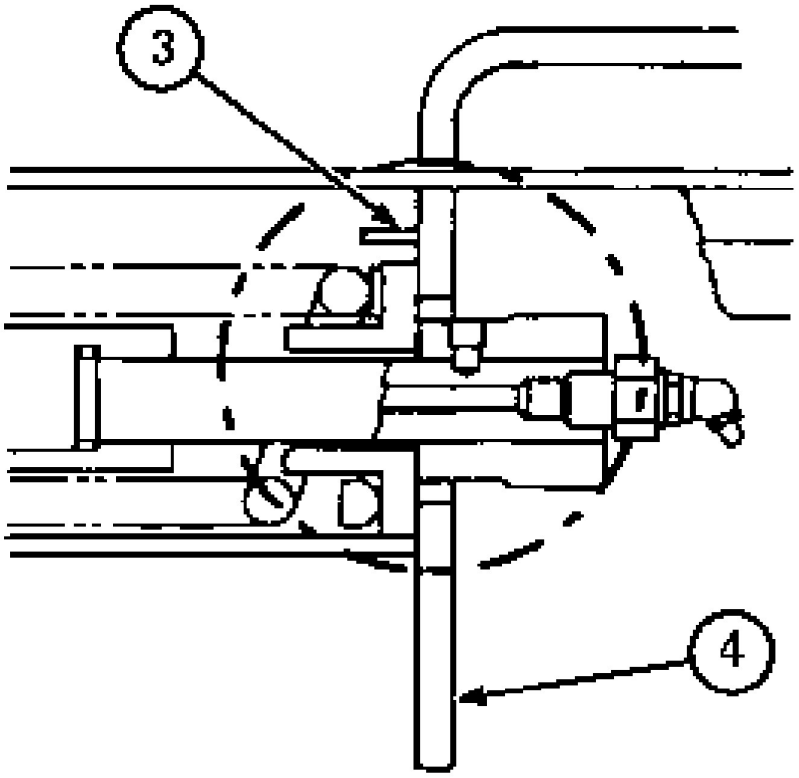
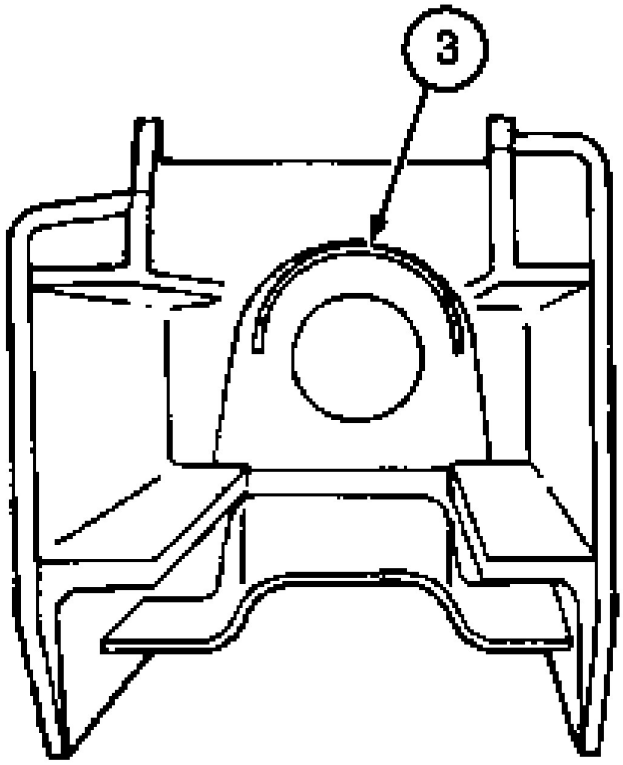


T121675

Track Adjuster Correctly Sealed on Plate [T121676]



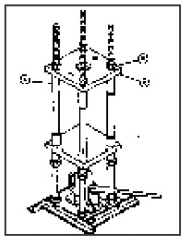
T121676



T121677

tm1818 - 50ZTS Excavator
Disassemble and Assemble Track Adjuster and Recoil Spring

Disassemble and Assemble Track Adjuster and Recoil Spring



T6557DY-UN: ST4920 Track Recoil Spring Disassembly And Assembly Tool

LEGEND:

A - Assembly Tool
B - Nut (12 used)
C - Top Plate

CAUTION:

Spring or rod may break if dropped while handling, transporting or disassembling. Nicks or weld craters in spring and rod assembly can cause stress concentration resulting in a weak spot. Weak spots may result in immediate or eventual failure creating a risk of personal injury. Put a heavy protective covering around spring assembly when handling, transporting, or disassembling track adjuster.

A compression tool must be used for disassembly and assembly because of the extreme preload on spring.

The approximate weight of track recoil spring disassembly and assembly tool is 225 kg (496 lb).

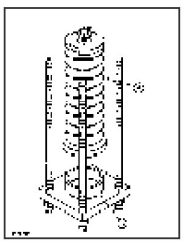
Item	Measurement	Specification
Track Adjuster and Recoil Spring		
Track Recoil Spring Disassembly and Assembly Tool	Weight	225 kg (496 lb)

1. Place an 18-t (20-ton) jack on bottom of ST4920 Track Recoil Spring Disassembly and Assembly Tool (A). Remove nuts (B) and top plate (C). (See Section 99 for instruction to make tool.)

   NOTE:

   It is not necessary to remove the recoil spring to replace wear ring and U-ring packing on piston. To replace O-ring in the cylinder, remove recoil spring and rod.

2. Remove nuts (B). Remove top plate (C).

3. 

T121701-UN: Track Adjuster Tool

LEGEND:

A - Track Adjuster
B - Spacer

Put track adjuster (A) in assembly tool with cylinder end on spacer (B).

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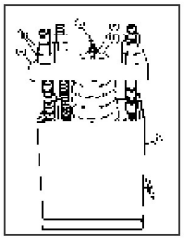
4. 
T7720AG-UN: DFT1087 Guard Tool

LEGEND:

A - Top Plate
B - Nut (8 used)
C - Valve
D - Nut
E - Special Plug
F - DFT1087 Track Recoil Spring Disassembly and Assembly Guard Tool

Install DFT1087 Track Recoil Spring Disassembly and Assembly Guard Tool (F). (See Section 99 for instruction to make tool.)

5. Install plate (A) and nuts (B) with smallest opening to allow access to nut (D).

6. Extend jack ram so there is enough travel to release spring.

Item	Measurement	Specification
Track Adjuster and Recoil Spring		
Recoil Spring	Free Length	649 mm (25.6 in.) approximate

7. Tighten nuts (B) so plate is tight against retainer plate.

8. Remove valve (C). Remove special plug (E).

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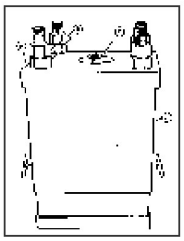
9. 
T7720AH-UN: Raise Guard Tool

LEGEND:

A - Top Plate
B - Nut (8 used)
D - Nut
F - DFT1087 Track Recoil Spring Disassembly and Assembly Guard Tool

Raise upper half of guard tool (F). Tighten T-handles.

10. Operate jack to compress spring just enough so nut (D) can be removed.

11. Lower jack ram to release spring force.
12. Disassemble and assemble track adjuster cylinder. (See procedure in this group.)
13. Put track adjuster cylinder in assembly tool with cylinder end on spacer.
14. Install spacer on rod.
15. Install retainer plate.
16. Install guard tool.
17. Install top plate. Install nuts.
18. Raise upper half of guard tool. Tighten T-handles.
19. Operate jack to compress spring.

Item	Measurement	Specification
Track Adjuster and Recoil Spring		
Recoil Spring	Compressed Length	538 mm (21.18 in.)

20. Install nut (D) so hole is aligned with hole in rod. Install special plug.
21. Install valve and tighten.

Item	Measurement	Specification
Track Adjuster and Recoil Spring		
Track Adjuster Cylinder Valve	Torque	147 N·m (110 lb-ft)

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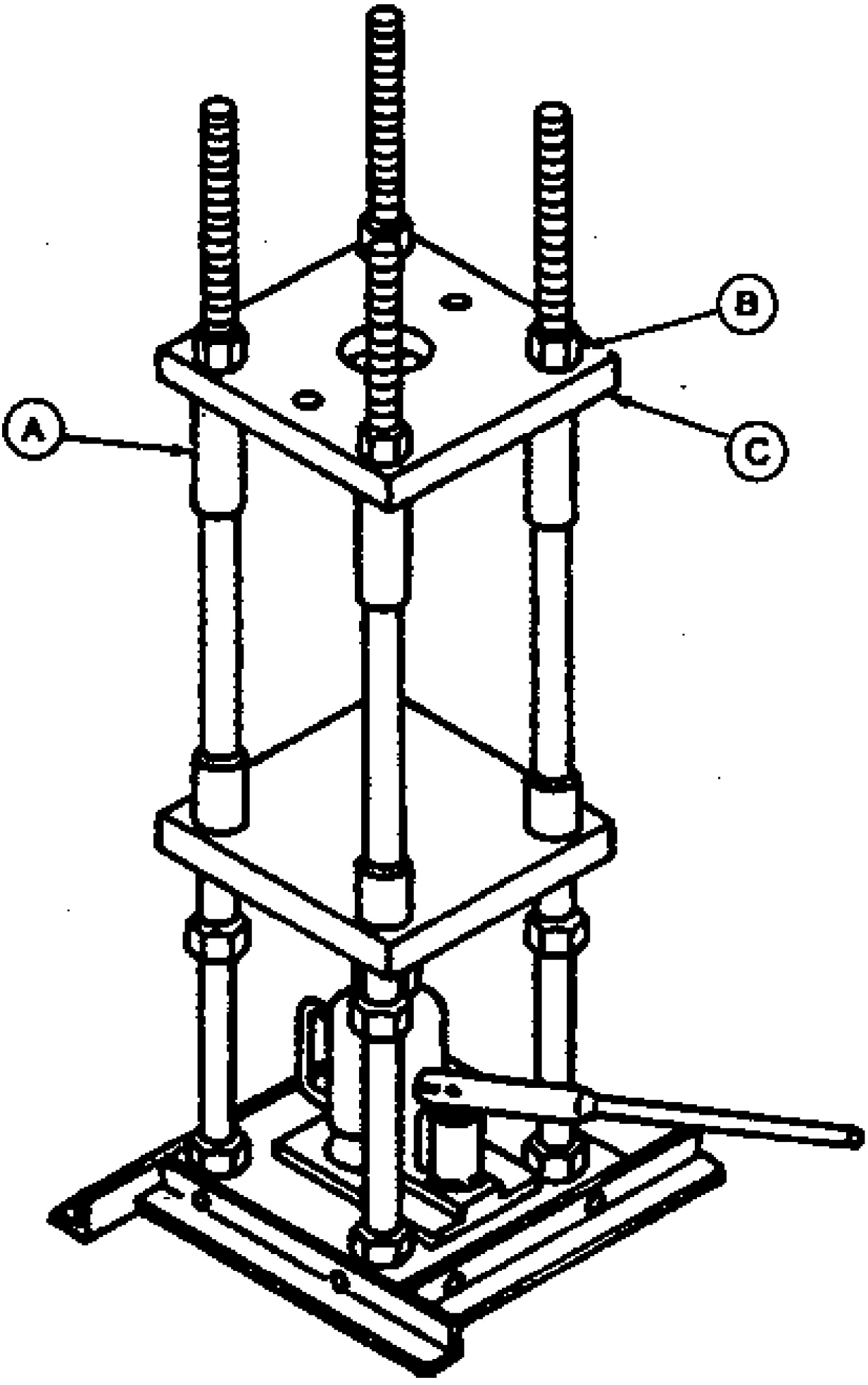
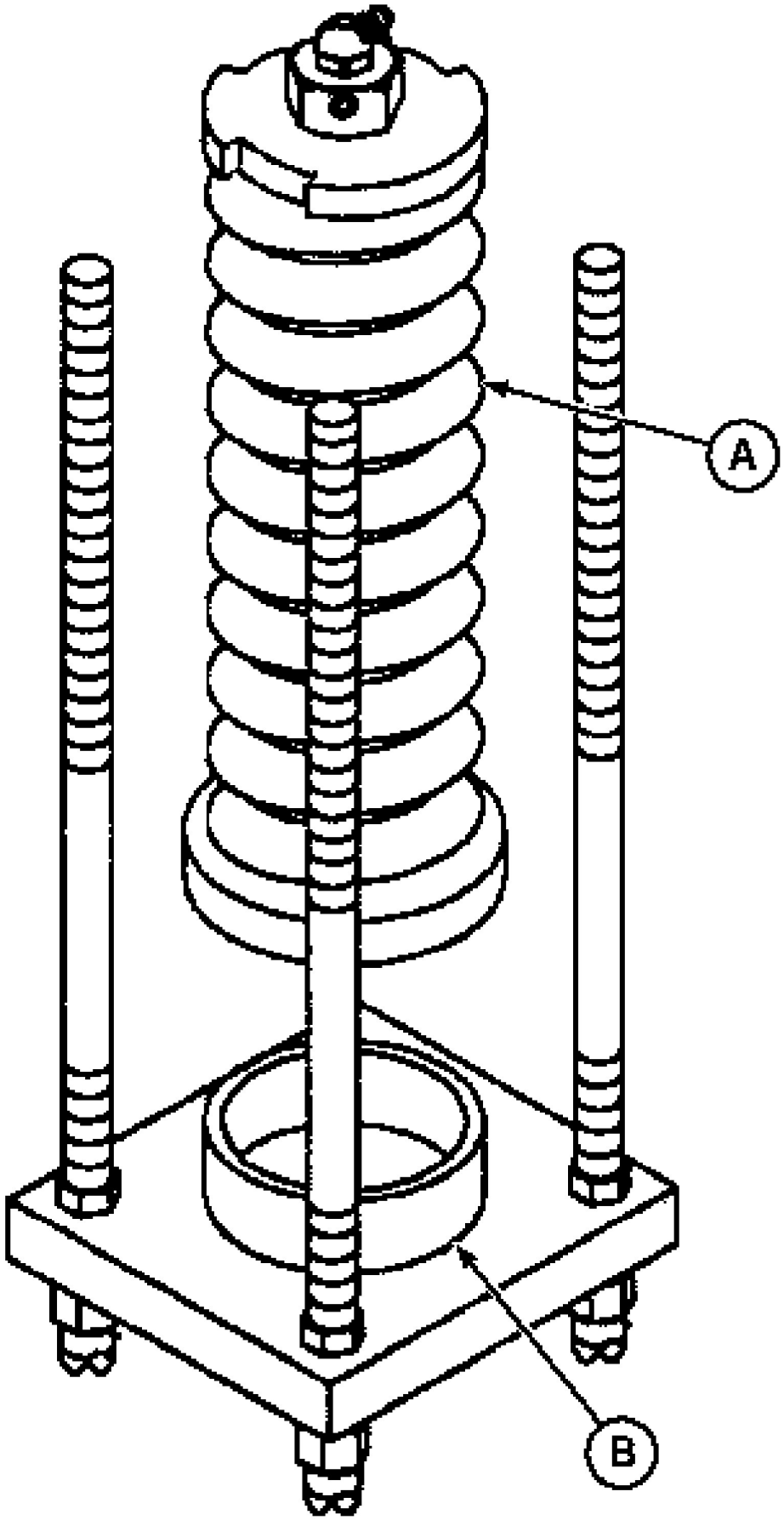
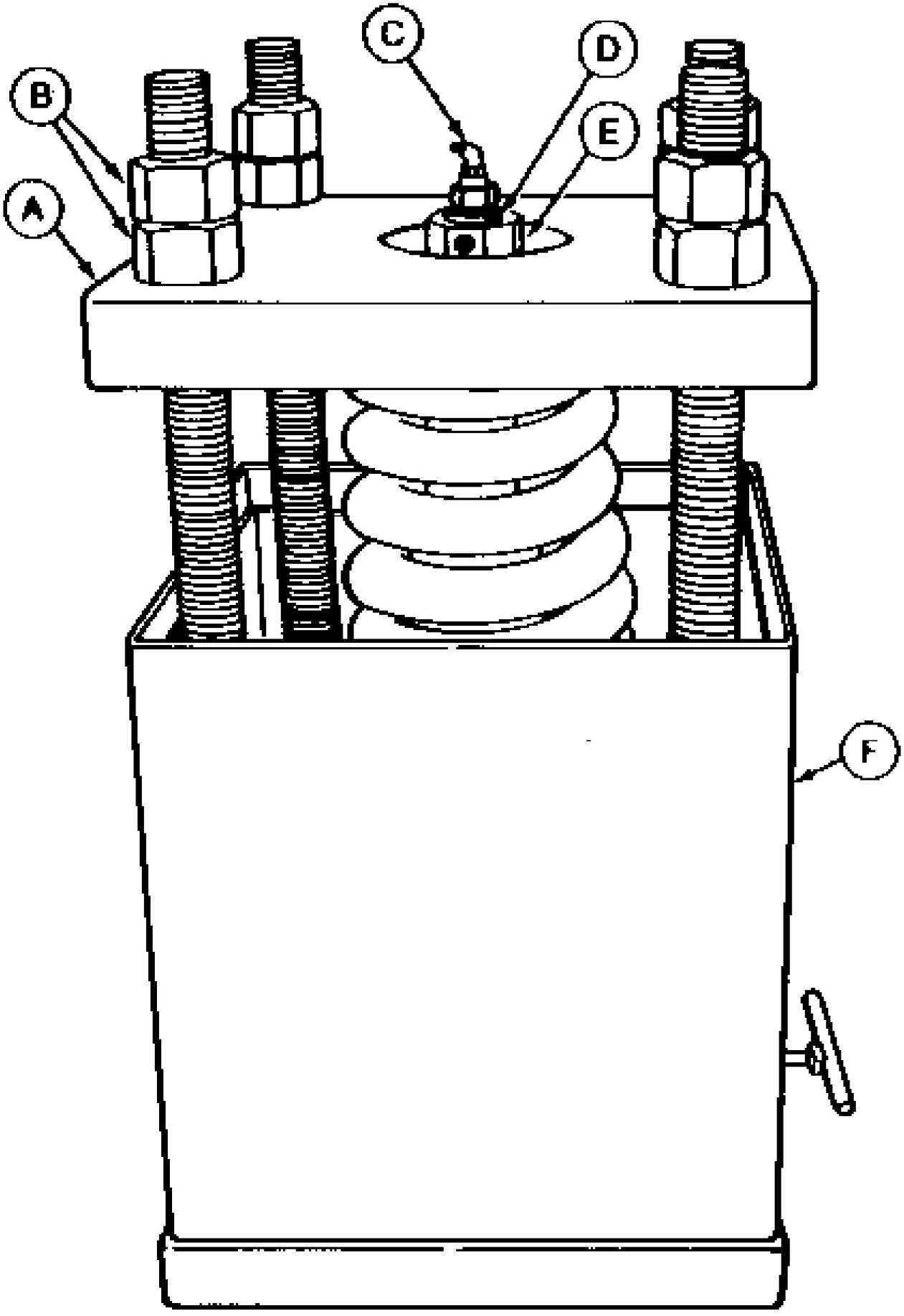
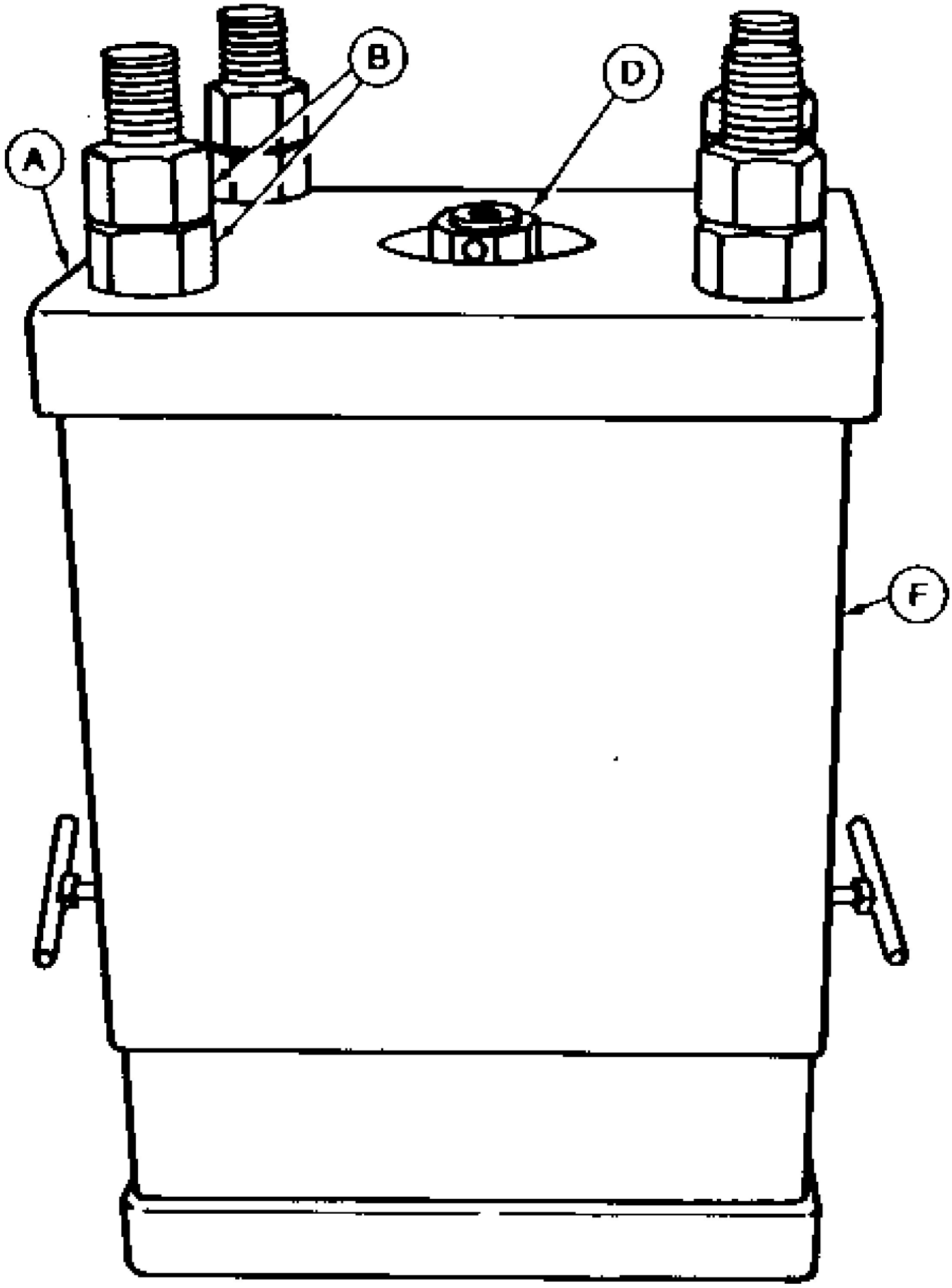




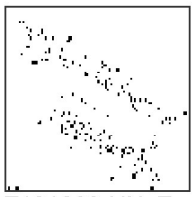
T121701





tm1818 - 50ZTS Excavator
Disassemble and Assemble Track Adjuster Cylinder

Disassemble and Assemble Track Adjuster Cylinder



T121698-UN: Track Adjuster Cylinder Assembly

LEGEND:

1 - Socket Head Cap Screw (3 used)
2 - Dust Seal
3 - Flange
4 - Piston Rod
5 - Wear Ring
6 - U-Ring Packing
7 - Retaining Ring
8 - Rod
9 - Cylinder
10 - O-Ring
11 - Plug
12 - Valve
13 - Nut
14 - Retainer Plate
15 - Recoil Spring
16 - Spacer

CAUTION:

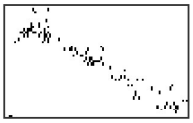
Spring or rod may break if dropped while handling, transporting or disassembling. Nicks or weld craters in spring and rod assembly can cause stress concentration resulting in a weak spot. Weak spots may result in immediate or eventual failure of spring or rod creating a risk of personal injury. Put a heavy protective covering around spring assembly when handling, transporting, or disassembling.

A compression tool must be used for disassembly and assembly because of the extreme preload on spring.

NOTE:

It is not necessary to remove the recoil spring to replace wear ring (5), U-ring packing (6) and dust seal (2). To replace O-ring (10), remove recoil spring (15) and rod (8). The recoil spring is removed using the ST4920 Track Recoil Spring Disassembly and Assembly Tool. (See procedure in this group.)

1. Remove recoil spring if necessary. (See Disassemble and Assemble Track Adjuster and Recoil Spring in this group.)

2. 

T121703-UN: Track Adjuster Cylinder Assembly

LEGEND:

1 - Socket Head Cap Screw (3 used)
2 - Dust Seal
3 - Flange
4 - Piston Rod
5 - Wear Ring
6 - U-Ring Packing
7 - Retaining Ring
8 - Rod
9 - Cylinder
10 - O-Ring

If necessary, remove rod (8) from cylinder (9) using a press.

3. Repair or replace parts as necessary.
4. Apply multi-purpose grease to U-ring packing (6), dust seal (2), wear ring (5), and O-ring (10). Fill grooves inside flange (3) with grease.
5. Install U-ring packing (6) with lip towards inside of cylinder.
6. Tighten cap screws (1).

Item	Measurement	Specification
Track Adjuster and Recoil Spring		
Flange-to-Track Adjuster Cylinder Cap Screw	Torque	29 N·m (256 lb-in.)

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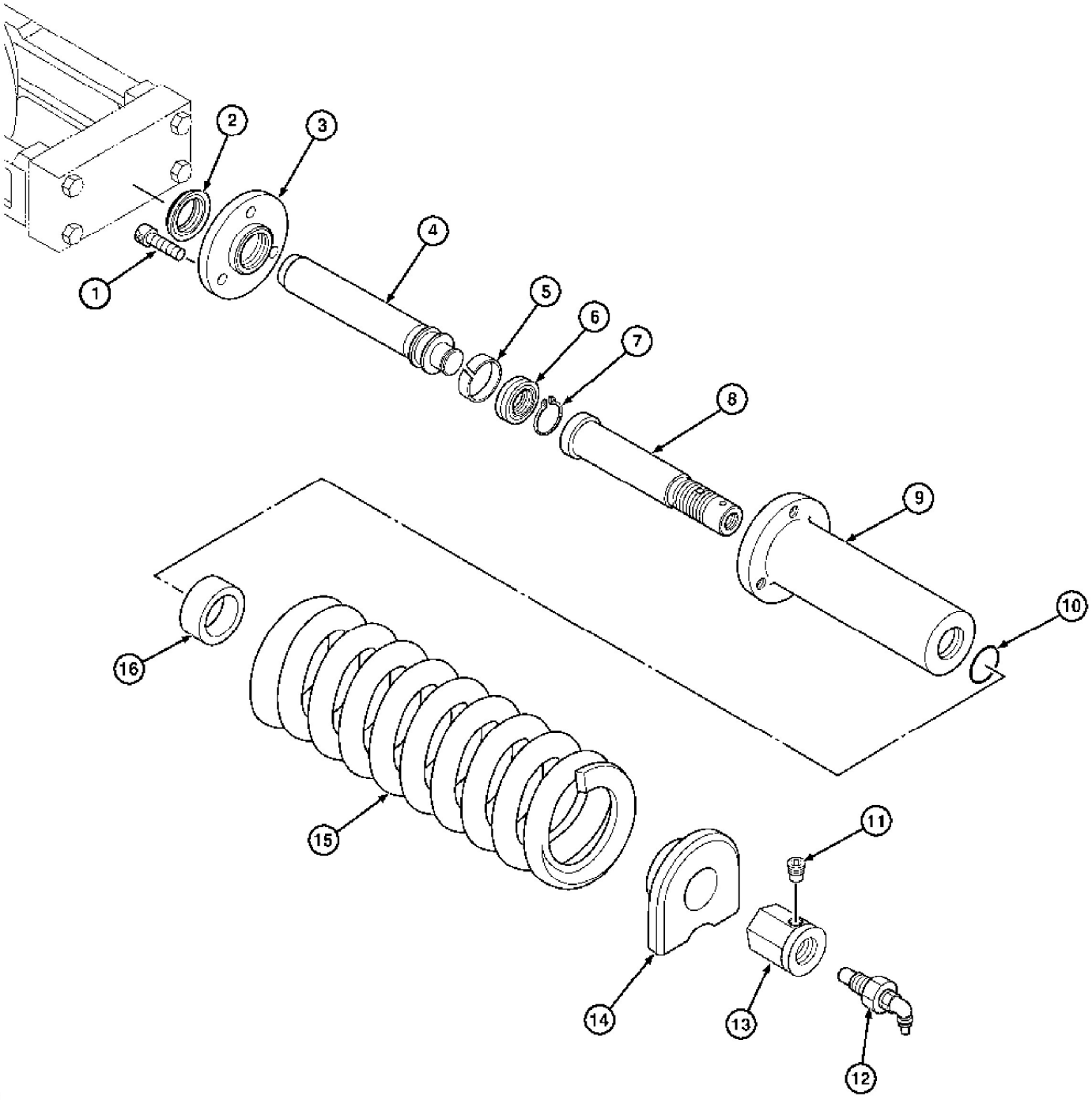

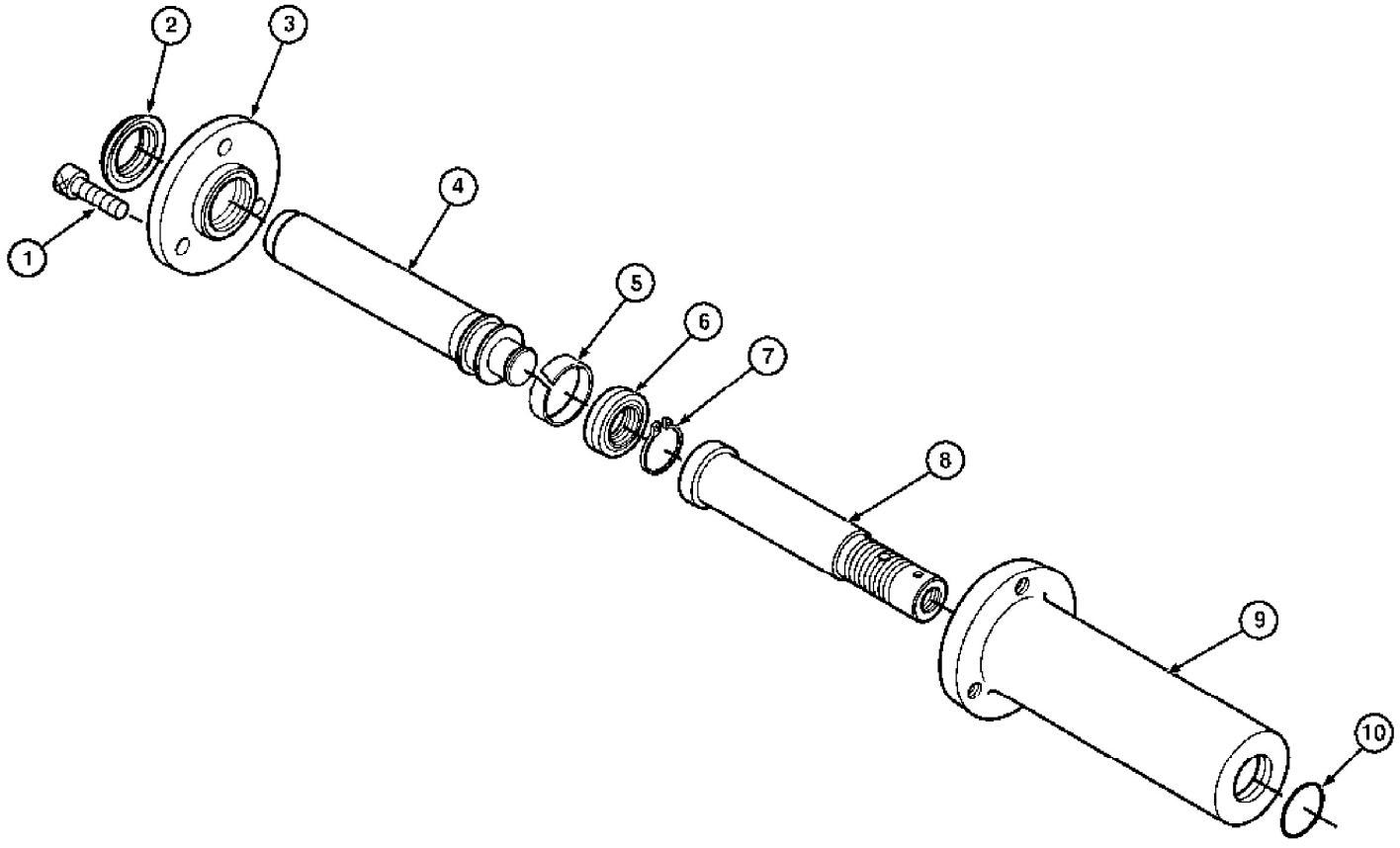

T121703

tm1818 - 50ZTS Excavator
Service Equipment and Tools

Service Equipment and Tools

NOTE:

Order tools according to information given in the U.S. SERVICEGARD™ Catalog or from the European Microfiche Tool Catalog (MTC). Some tools may be available from a local supplier.

Hoist
To support hydraulic pump.

Bench Press
To remove and install pressed fit components.

CED,OUOE020,9-19-04NOV99

tm1818 - 50ZTS Excavator
Other Material

Other Material

Number	Name	Use
T43513 (U.S.) TY9474 (Canadian) 271 LOCTITE® (LOCTITE®)	Thread Lock and Sealer (High Strength)	Apply to threads of sprocket-to-propel gearbox cap screws.
TY16285 (U.S.) CXTY16285 (Canadian) 7649 LOCTITE® (LOCTITE®)	Cure Primer	To speed cure time of adhesives and sealants.
TY9375 (U.S.) TY9480 (Canadian) 592 LOCTITE® (LOCTITE®)	Pipe Sealant	Apply to threads of plugs and threaded fittings.

LOCTITE is a trademark of Loctite Corp.

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