

TM1939 - 80C Excavator Repair

Front Idler Remove and Install

Front Idler Remove and Install



T118321-UN: Remove Front Idler

LEGEND:

A - Front Idler

1. Disconnect track chain. [See Track Chain Remove and Install](#)
2. _____



CAUTION:

Heavy component; use a hoist.

Item	Measurement	Specification
Front Idler	Weight	52 kg approximate 115 lb approximate

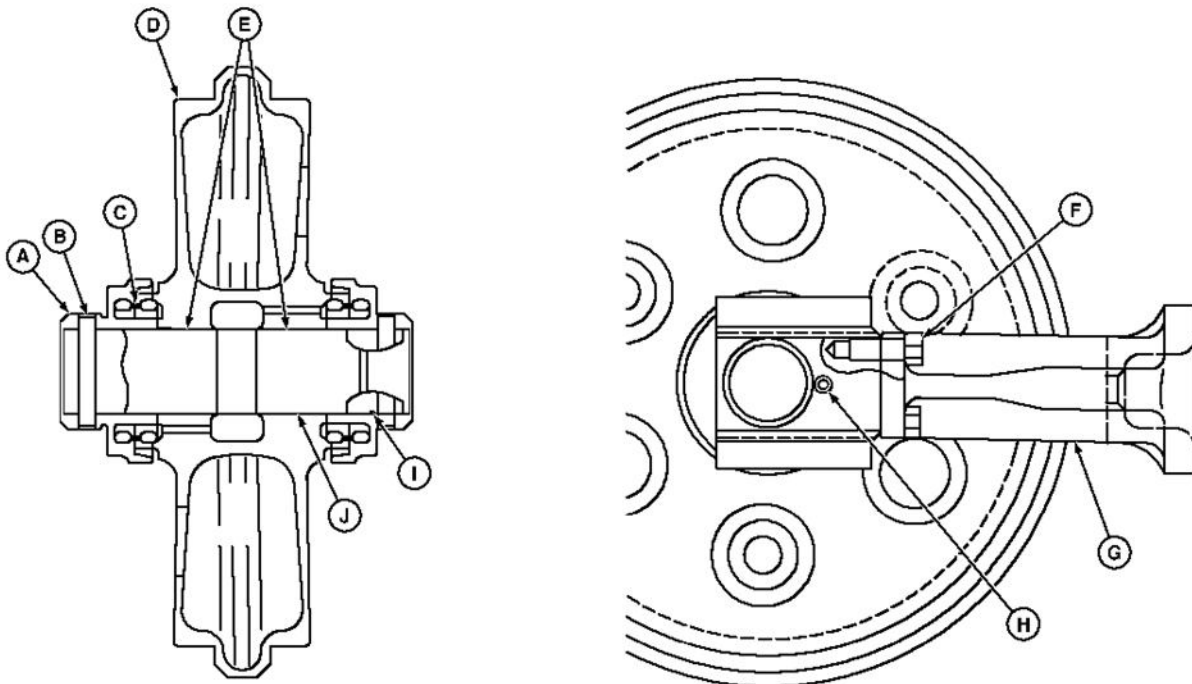
Slide front idler (A) forward using a pry bar.

3. Attach front idler to hoist. Remove from frame.
 4. Measure front idler wear. [See 80C Front Idler Flange Height](#) . (SP326 Undercarriage Appraisal Manual.)
 5. Repair or replace parts as necessary.
 6. Install front idler and slide rearward into frame as far as possible.
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TM1939 - 80C Excavator Repair

Front Idler Disassemble

Front Idler Disassemble



T117211

T117211-UN: Front Idler—Cross Section

LEGEND:

- A - Bracket (Bearing) (2 used)
- B - Pin (2 used)
- C - Metal Face Seal (2 used)
- D - Idler
- E - Bushing (2 used)
- F - Cap Screw (4 used)
- G - Yoke
- H - Plug (2 used)
- I - O-Ring (2 used)
- J - Axle

1. Remove cap screws (F). Remove yoke (G).
2. Remove drain plug (H). Drain oil.
3. **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 patterns on seal ring face.

Remove pins (B), brackets (A), O-rings (I), and metal face seals (C).

4. [See Metal Face Seals Inspection](#) . (Group 0130.) Keep seal rings together as a matched set with seal ring faces together to protect surfaces.
5. Remove axle (J).
6. Inspect the bushing for scoring or excessive wear.

7. **NOTE:**

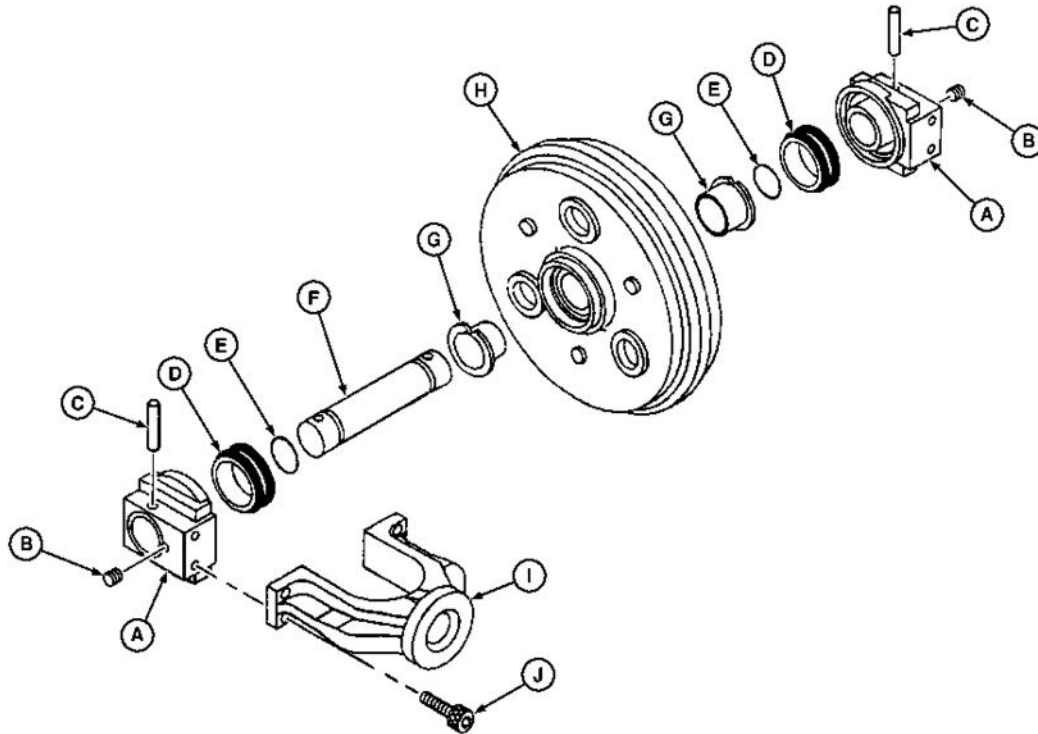
Remove bushings only if replacement is necessary.

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

8. Repair or replace parts as necessary.

TM1939 - 80C Excavator Repair
Front Idler Assemble

Front Idler Assemble



T117212

T117212-UN: Front Idler—Exploded View

LEGEND:

- A - Bracket (Bearing) (2 used)
- B - Plug (2 used)
- C - Pin (2 used)
- D - Metal Face Seal (2 used)
- E - O-Ring (2 used)
- F - Axle
- G - Bushing (2 used)
- H - Idler
- I - Yoke
- J - Cap Screw (4 used)

1. Apply a thin film of oil to bushings (G). Install bushings so flange is tight against shoulder of idler.
2. Install O-rings (E) on axle.
3. Apply a thin layer of NEVER-SEEZ® anti-seize lubricant or an equivalent to end of axle from O-ring to end of axle, and to bore in bracket (A).
4. Install axle into bracket.
5. Apply NEVER-SEEZ® anti-seize lubricant or an equivalent to pin (C). Install pin.
6. **IMPORTANT:**
O-rings and seat surfaces for O-rings must be clean, dry, and oil free, so O-rings do not slip when idler is turning.
 Thoroughly clean the O-rings and seat surfaces in idler, bracket, and seal rings using volatile, non-petroleum base solvent and lint-free tissues.
7. Install O-ring on seal rings.
8. Install seals in bracket and idler. Apply equal pressure with fingers at four equally spaced points on seal face. Seal must "pop" down into place so O-ring is tight against seal bore.
9. **NOTE:**
A volatile non-petroleum base solvent or talcum powder may be used as a lubricant.
 Wipe finger prints and foreign material off seal ring face using clean oil and lint-free tissues. Apply a thin film of oil to each seal ring face.
10. Install axle into idler.
11. Repeat procedure for other side of idler.
12. Fill front idler with oil.

Item	Measurement	Specification
Front Idler	Capacity	140 mL 4.7 oz

[See Track Roller, Front Idler, and Carrier Roller Oil](#) . (Group 0130.)

13. Clean threads of drain plug (B). Apply cure primer.
14. Apply pipe sealant and install plug.

Item	Measurement	Specification
Idler Bearing Drain Plug	Torque	20 N·m 177 lb-in.

15. Install yoke (I). Tighten cap screws (J).

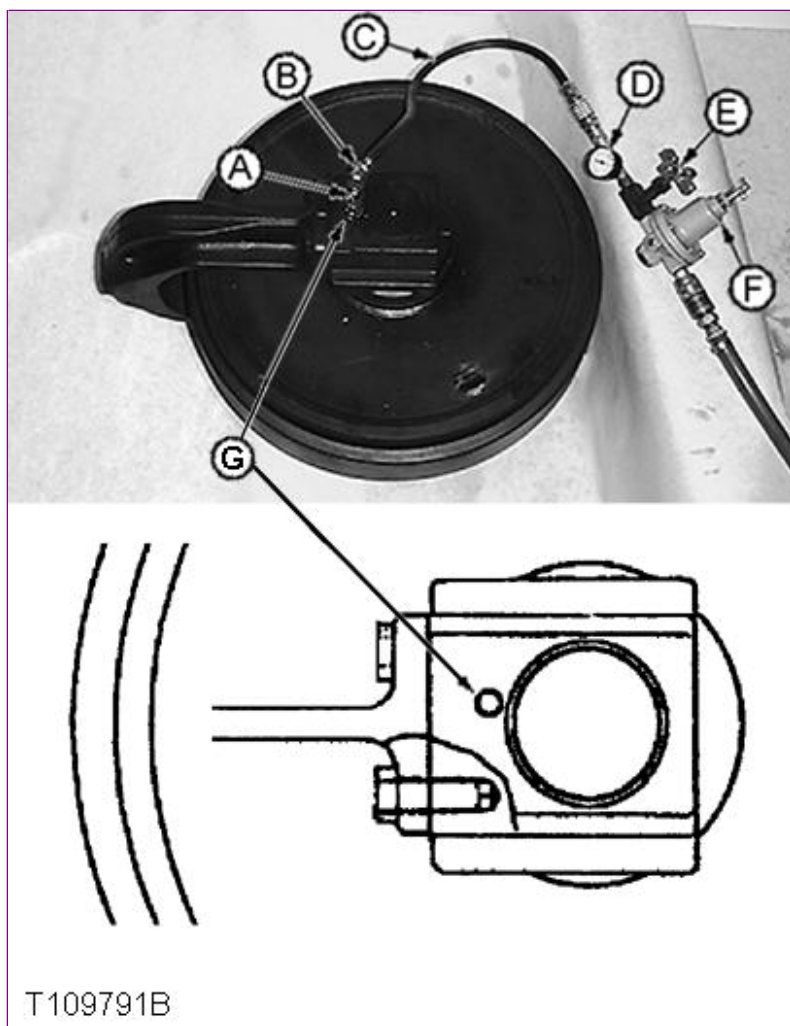
Item	Measurement	Specification
Yoke-to-Bracket Cap Screw	Torque	175 N·m 130 lb-ft

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TM1939 - 80C Excavator Repair Front Idler Oil Leakage Test

Front Idler Oil Leakage Test



T109791B-UN: Test Front Idler for Oil Leakage

LEGEND:

- A - Plug, Adapter and Connector
- B - Connector 1/8 M NPT x 7/16-20 M 37°
- C - Hose
- D - Pressure Gauge
- E - Snubber (Needle) Valve
- F - Air Pressure Regulator
- G - Drain Plug

1. Turn shaft several turns to seat metal face seals.
2. Remove plug (G).
3. Install parts (A—F) as shown. Plug, barbed adapter, and connector are from a leak detector kit such as the D05361ST Rubber Stopper/Leak Detector Kit.
4. Holding plug so it is not pushed out, slowly pressurize oil cavity using air.

Item

Measurement

Specification

Front Idler Oil Leakage Test

Pressure

110 kPa
1.1 bar
16 psi

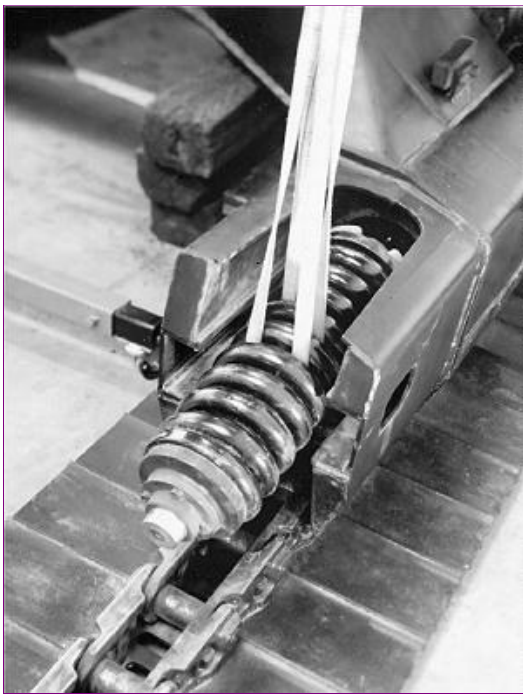
5. Close valve and wait for a minimum of 30 seconds to check for oil leakage. Check gauge to see if air pressure has decreased.
6. If there is external leakage, disassemble idler and replace parts as necessary.
7. Check oil level in idler. If oil level is down and there is no external leakage, check for a leak from oil cavity to interior of idler wheel.
8. Clean threads of plug. Apply cure primer.
9. Apply pipe sealant to threads of plug. Install and tighten plug.

TM1939 - 80C Excavator Repair Track Adjuster Cylinder and Recoil Spring Remove and Install

Track Adjuster Cylinder and Recoil Spring Remove and Install



T6557CX-UN: Recoil Spring



T6557CY-UN: Track Adjuster Cylinder

LEGEND:

A - Track Adjuster Cylinder and Recoil Spring

1. Remove track chain. [See Track Chain Remove and Install](#) . (Group 0130.)
 2. Remove front idler. [See Front Idler Remove and Install](#) . (Group 0130.)
 3. _____
-

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 that 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.

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

Slide track adjuster cylinder and recoil spring (A) forward using a pry bar.

4.



CAUTION:

Heavy component; use a hoist.

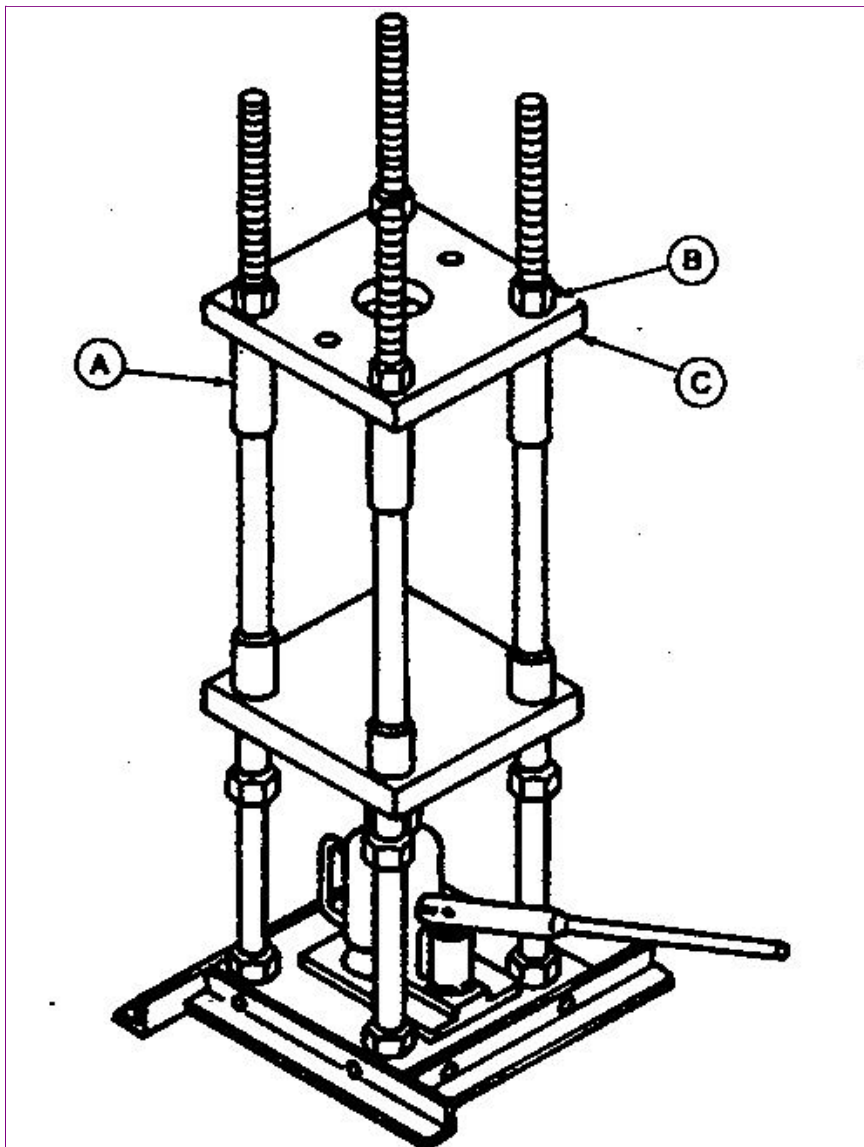
Item	Measurement	Specification
Track Adjuster Cylinder and Recoil Spring	Weight	31 kg approximate 68 lb approximate

Remove track adjuster using a lifting strap and a hoist.

5. Repair or replace parts as necessary.
6. Install track adjuster, valve end first.
7. Install front idler. [See Front Idler Remove and Install](#) . (Group 0130.)
8. Connect track chain. [See Track Chain Remove and Install](#) . (Group 0130.)

TM1939 - 80C Excavator Repair Track Adjuster and Recoil Spring Disassemble and Assemble

Track Adjuster and Recoil Spring Disassemble and Assemble



T6557DY-UN: Assembly Tool

LEGEND:

- A - ST4920 Track Recoil Spring Disassembly and Assembly Tool
- B - Nut (4 used)
- C - Top Plate

1. _____

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 can 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.

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

Place an 18-t (20-ton) jack on bottom of ST4920 Track Recoil Spring Disassembly and Assembly Tool (A). [See ST4920 Recoil Spring Disassembly and Assembly Tool](#) for instructions to make tool. (Group 9900.)

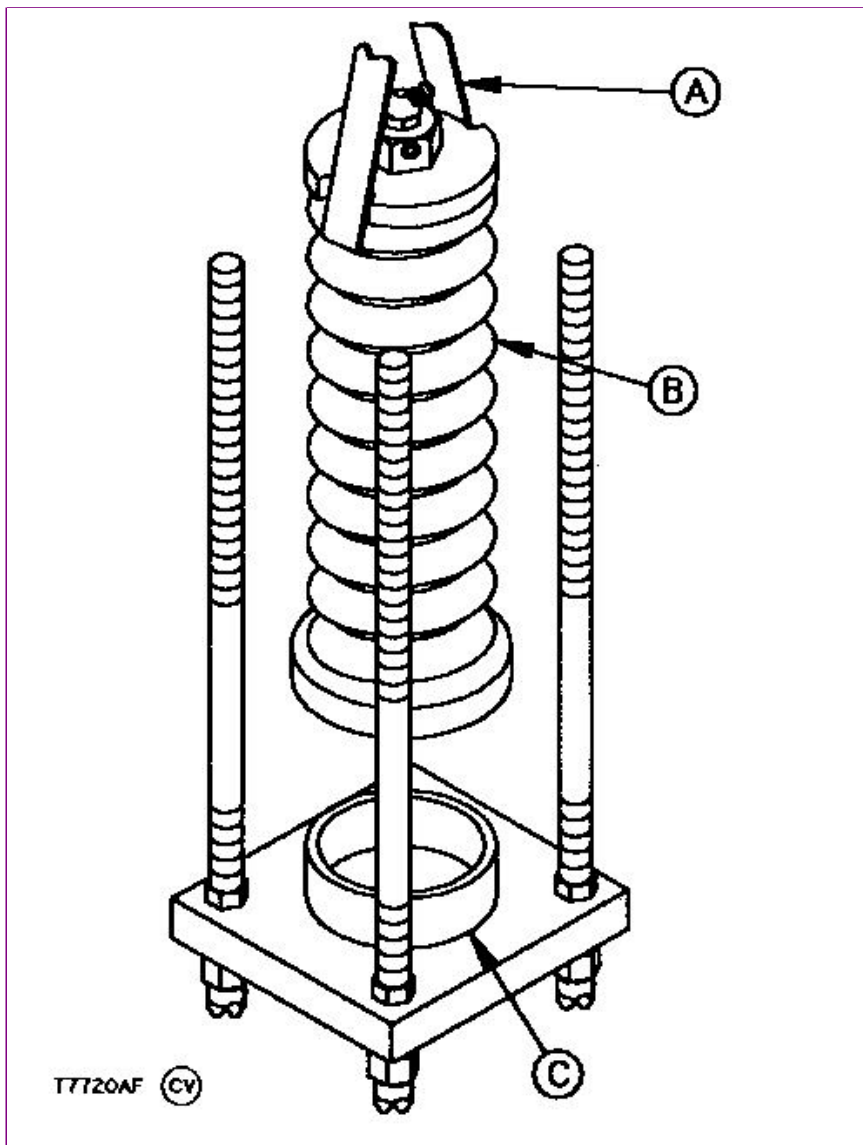
2. Remove nuts (B). Remove top plate (C).

3.

 **CAUTION:**

Heavy component; use a hoist.

Item	Measurement	Specification
Track Adjuster Cylinder and Recoil Spring	Weight	31 kg approximate 68 lb approximate



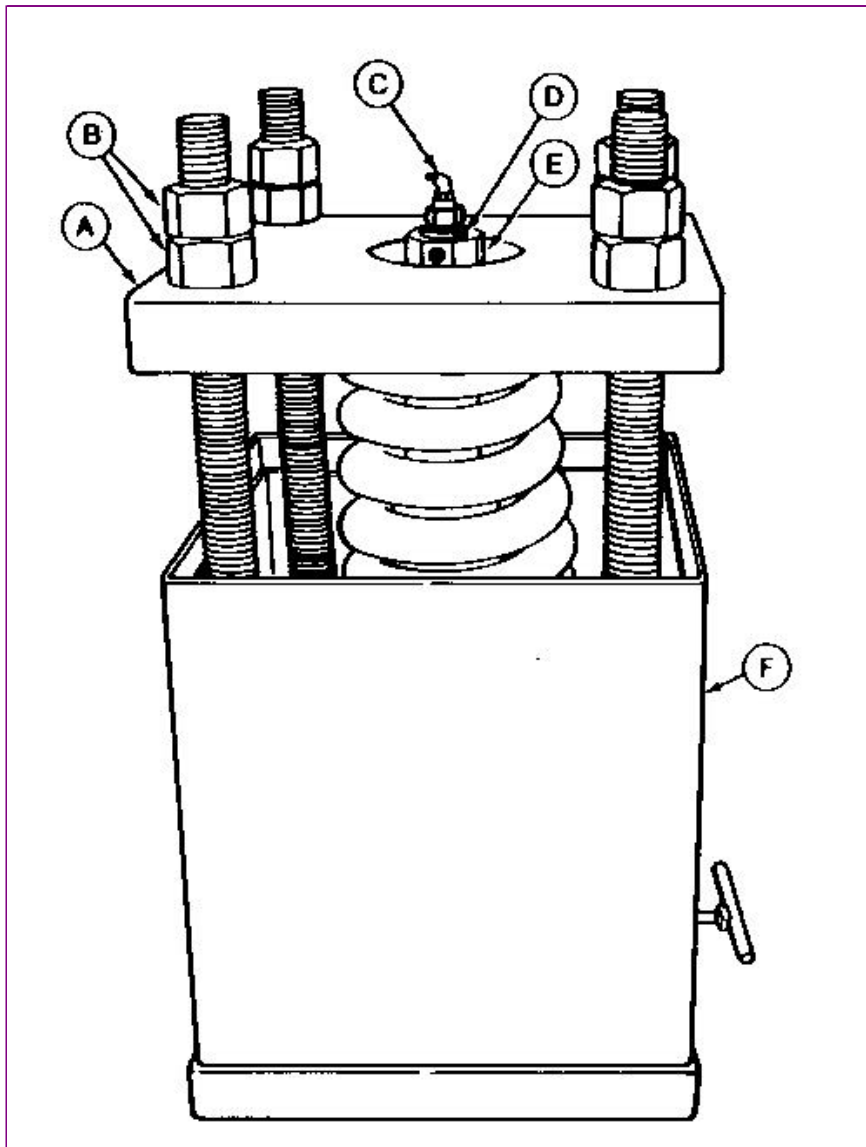
T7720AF-UN: Track Adjuster and Assembly Tool

LEGEND:

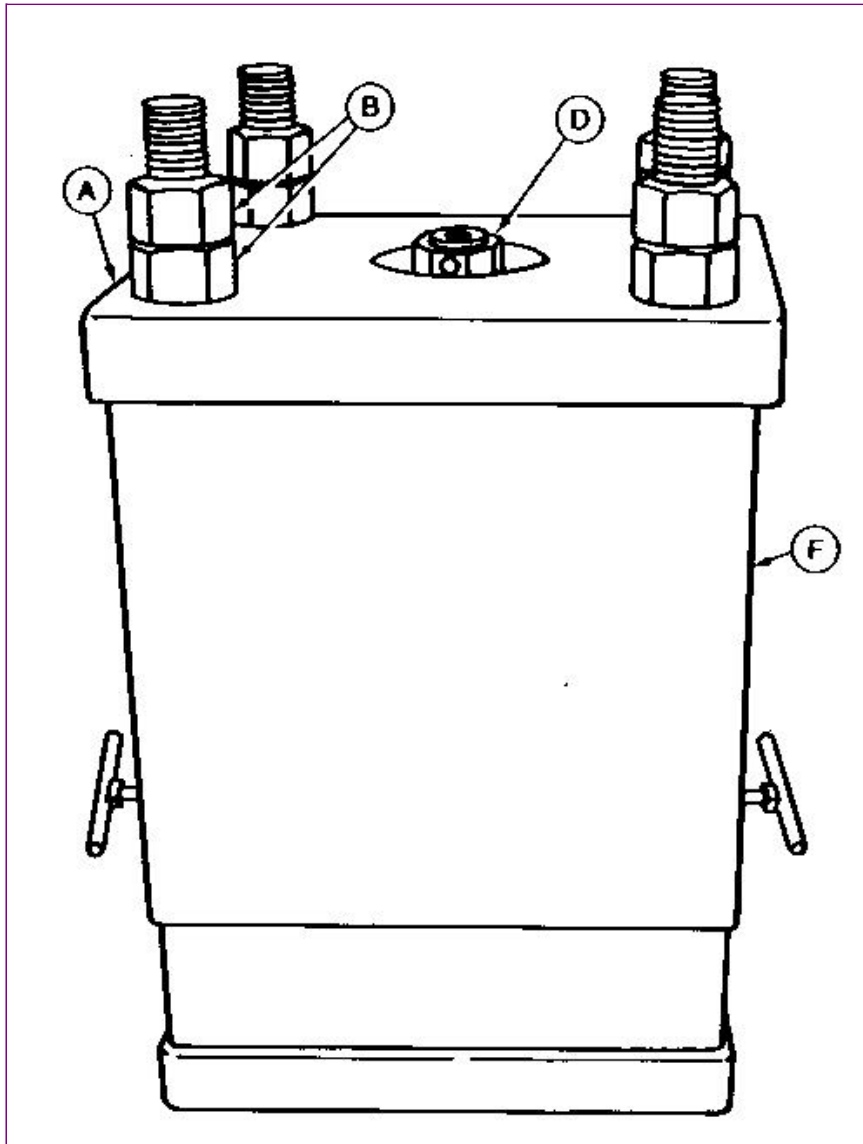
- A - Lifting Strap
- B - Track Adjuster
- C - DFT1112A Spacer

Connect track adjuster (B) to a hoist using a lifting strap (A).

4. Put track adjuster in assembly tool with cylinder end on DFT1112A Spacer (C). [See DFT1112A Spacer](#) for instructions to make tool. (Group 9900.)



5. T7720AG-UN: Open Assembly Adjuster



T7720AH-UN: Closed Assembly Adjuster

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 DFT1087 Track Recoil Spring Disassembly and Assembly Guard Tool](#) for instructions to make tool. (Group 9900.)

6. Install the top plate (A) with smallest opening to allow access to nut (D).
7. Extend jack ram so there is enough travel to release spring.

Item	Measurement	Specification
Track Adjuster Cylinder Recoil Spring	Free Length	327 mm approximate 12.9 in. approximate

8. Tighten nuts (B) so plate is tight against retainer plate.
9. Remove valve (C). Remove special plug (E).
10. Raise upper half of guard tool. Tighten T-handles.
11. Operate jack to compress spring just enough so nut (D) can be removed.

12. Lower jack ram to release spring force.
13. Disassemble track adjuster cylinder. See Disassemble and Assemble Track Adjuster Cylinder. (Group 0130.)
14. Repair or replace parts as necessary.
15. Put track adjuster cylinder in assembly tool with cylinder end on spacer.
16. Install spacer on rod.
17. Install spring using a hoist and lifting strap.
18. Install retainer plate.
19. Install guard tool.
20. Install top plate. Install nuts.
21. Raise upper half of guard tool. Tighten T-handles.
22. Operate jack to compress spring.

Item	Measurement	Specification
Track Adjuster Cylinder Recoil Spring	Compressed Length	267 mm 10.5 in.

23. Install nut (D) so hole is aligned with hole in rod. Install special plug (E).
24. Tighten valve (C).

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

25. Remove track adjuster using a lifting strap and hoist.

Thank you very much for your reading. Please Click Here. Then Get COMPLETE MANUAL. NO WAITING

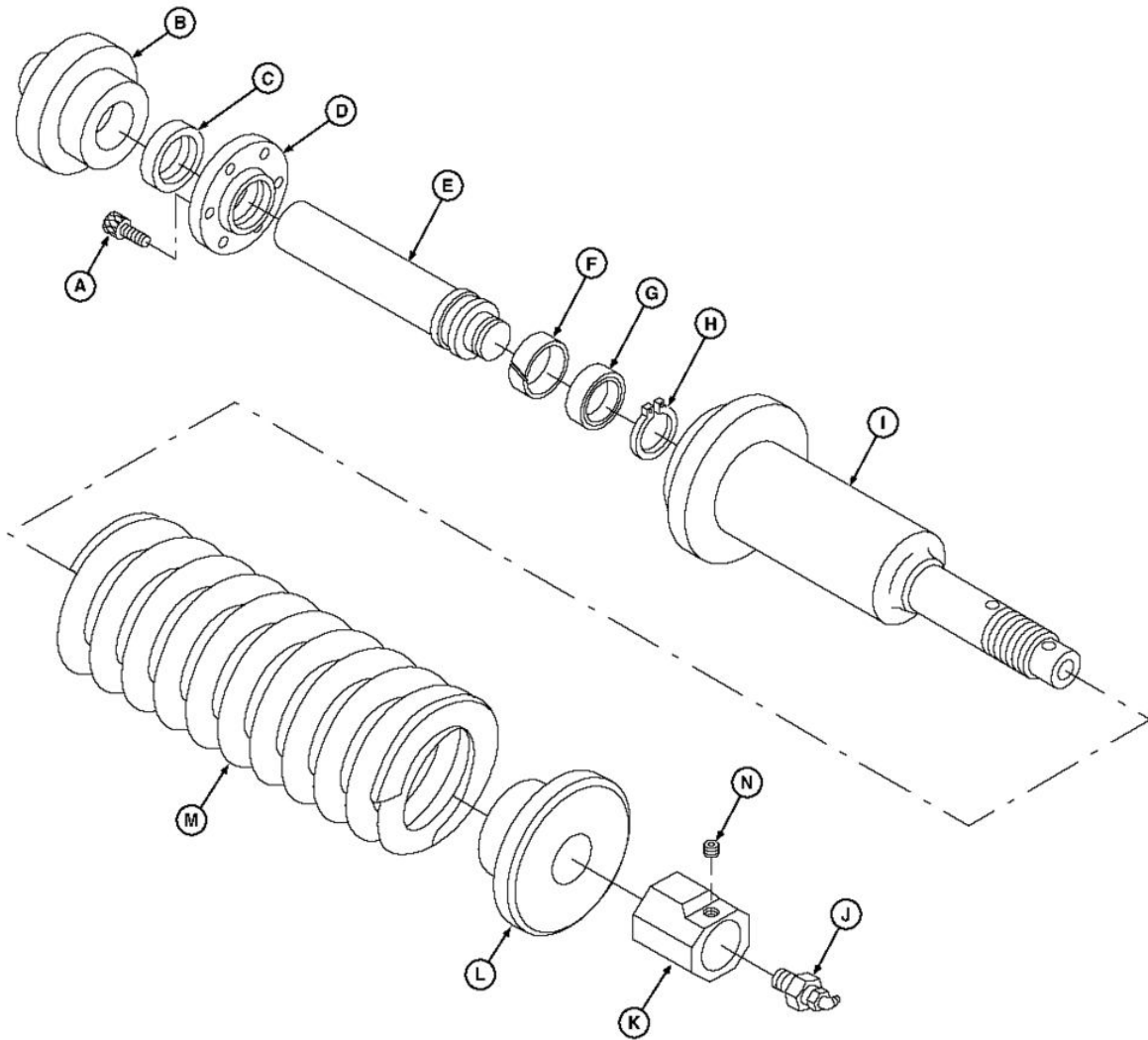


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TM1939 - 80C Excavator Repair
Track Adjuster Cylinder Disassemble and Assemble

Track Adjuster Cylinder Disassemble and Assemble



T117213

T117213-UN: Breakdown of Track Adjuster Cylinder

LEGEND:

- A - Cap Screw (4 used)
- B - Holder
- C - Dust Seal
- D - Flange
- E - Piston Rod
- F - Wear Ring
- G - U-Ring (Packing)
- H - Snap Ring
- I - Adjuster Cylinder
- J - Valve
- K - Nut
- L - Washer
- M - Spring
- N - Plug

⚠ CAUTION:

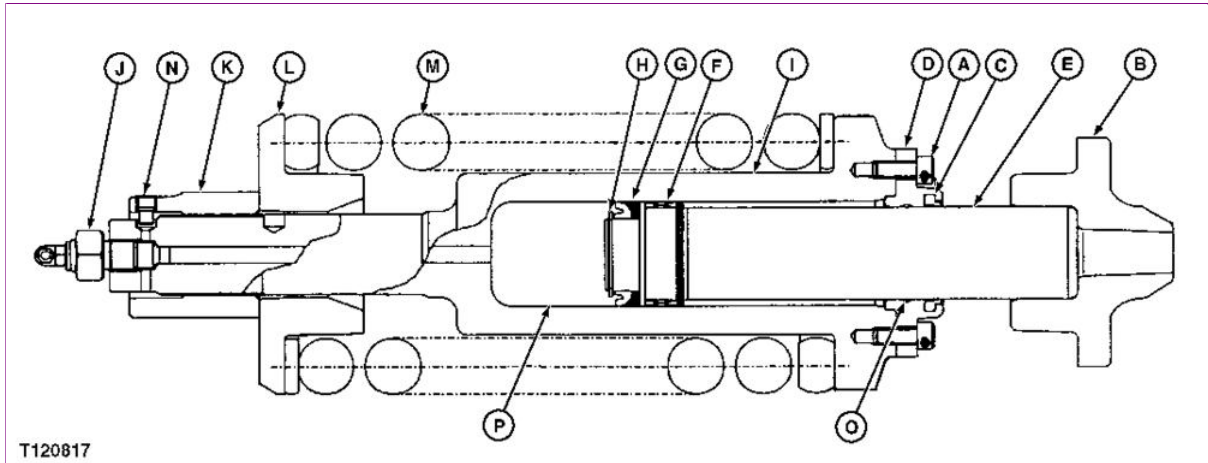
Spring or rod may break if dropped while handling, transporting or disassembling. Nicks or weld craters in spring and rod assembly can cause stress concentration resulting in a weak spot. Weak spots can result in immediate or eventual failure of spring or rod creating a risk of personal injury. Put a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

1. If necessary, remove recoil spring. [See Track Adjuster Cylinder and Recoil Spring Remove and Install](#) . (Group 0130.)

2.

NOTE:



T120817

T120817-UN: Track Adjuster Cross Sectional

LEGEND:

- A - Cap Screw (4 used)
- B - Holder
- C - Dust Seal
- D - Flange
- E - Piston Rod
- F - Wear Ring
- G - U-Ring (Packing)
- H - Snap Ring
- I - Adjuster Cylinder
- J - Valve
- K - Nut
- L - Washer
- M - Spring
- N - Plug
- O - Groove
- P - Chamber

It is not necessary to remove the recoil spring to replace wear ring (F), dust seal (C), and packing (G).

If necessary, remove rod (E) from cylinder (I) using a press.

3. Repair or replace parts as necessary.
4. Apply multi-purpose grease to dust seal (C), packing (G), and wear ring (F). Fill grooves (O) inside holder (B) with grease.
5. Install packing (G) with lip towards inside of cylinder.
6. Fill chamber (P) in cylinder with grease. Insert piston rod (E) into cylinder (I) to bleed air remaining in the cylinder.
7. Tighten cap screws (A).

Item	Measurement	Specification
Flange-to-Adjuster Cylinder Cap Screw	Torque	30 N·m 22 lb-ft

TM1939 - 80C Excavator Repair

Propel Gearbox Remove and Install

Propel Gearbox Remove and Install

1. Disconnect track chain. [See Track Chain Remove and Install](#) . (Group 0130.)
2.

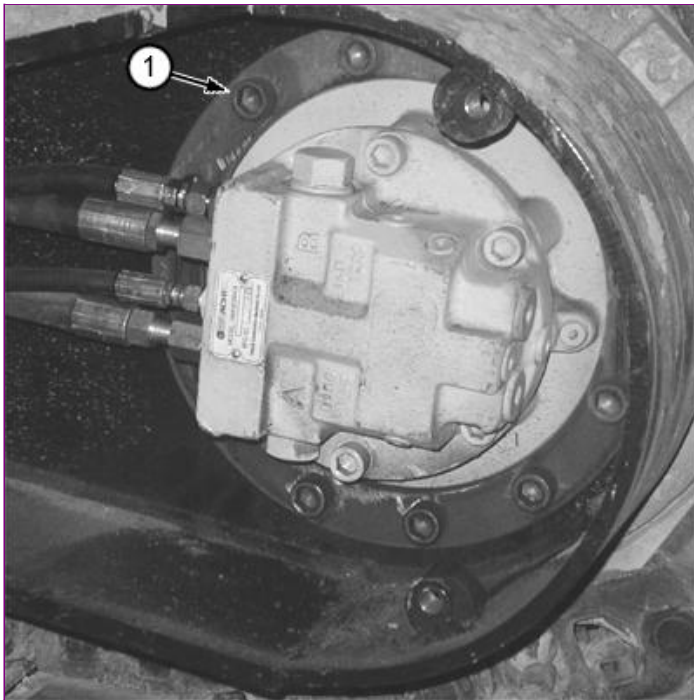


CAUTION:

The hydraulic oil tank is pressurized. High pressure release of oil can cause serious burns or penetrating injury.

[Perform Hydraulic Oil Tank Pressure Release Procedure](#) . (Group 3360.)

3. Pull vacuum in hydraulic oil tank using vacuum pump or drain hydraulic oil tank. Approximate capacity is 58.7 L (15.5 gal).
 4. Remove cover from propel motor.
 5. Disconnect lines.
-



6. T189127B-UN: Propel Gearbox Cap Screws

LEGEND:

1 - Cap Screw (10 used)

Attach propel gearbox to hoist using lifting strap.



CAUTION:

Heavy component; use a hoist.

Item	Measurement	Specification
Propel Gearbox with Sprocket	Weight	130 kg approximate 285 lb approximate

7. **NOTE:**

Make alignment marks between propel gearbox and undercarriage to aid in installation.

Remove cap screws (1). Remove propel gearbox, propel motor, and sprocket.

8. Repair or replace parts as necessary.

9. **NOTE:**

Align marks made during removal.

Install gearbox. Tighten cap screws (1).

Item	Measurement	Specification
Propel Gearbox-to-Frame Cap Screw	Torque	300 N·m 220 lb-ft

10. Connect lines. [See Propel And Blade Hydraulic System Line Connection](#) . (Group 9025-15.)
11. Fill hydraulic oil tank. See Drain and Refill Capacities. (Operator's Manual.)
12. Check propel gearbox oil level. See Check Propel Gearbox Oil Level. (Operator's Manual.)
13. [Perform Propel Motor Start-Up Procedure](#) . (Group 0260.)
14. Install cover.
15. Connect track chain. [See Track Chain Remove and Install](#) . (Group 0130.)
16. [Perform Check and Adjust Track Sag](#) . (Group 0130.)