CATERPILLAR®

Service Repair Manual

Models

307E Mini Hydraulic Excavator

Product: MINI HYD EXCAVATOR
Model: 307E MINI HYD EXCAVATOR H1Y
Configuration: 307E Mini Hydraulic Excavator H1Y00001-UP (MACHINE) POWERED BY C2.6 Engine

Disassembly and Assembly
307E Mini Hydraulic Excavator Machine Systems
Media Number -KENR9862-05 **Publication Date -01/09/2015** **Date Updated -11/06/2018**

i05137710

Blade Cylinder - Remove and Install

SMCS - 7562-010-BG

Removal Procedure

WARNING

At operating temperature, the hydraulic oil is hot and under pressure. Hot oils can cause burns.

To prevent possible personal injury, release the pressure in the work tool hydraulic circuit (boom, stick, bucket, and swing), travel circuits, and the hydraulic oil tank at the filler cap before any hydraulic lines or components are disconnected or removed.

Remove the filler cap only when the engine is stopped and the filler cap is cool enough to touch.

WARNING

Cylinders equipped with lock valves can remain pressurized for very long periods of time, even with the hoses removed.

Failure to relieve pressure before removing a lock valve or disassembling a cylinder can result in personal injury or death.

Ensure all pressure is relieved before removing a lock valve or disassembling a cylinder.

NOTICE

Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting, and repair of the product. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids.

Refer to Special Publication, NENG2500, "Dealer Service Tool Catalog" for tools and supplies suitable to collect and contain fluids on Cat® products.

Dispose of all fluids according to local regulations and mandates.

Note: Put identification marks on all hoses. Plug all hose assemblies. This action helps to prevent fluid loss, and this action also helps to keep contaminants from entering the system.

1. Rotate the machine in order to expose the blade cylinder.
2. Release the hydraulic system pressure. Refer to Disassembly and Assembly, "System Pressure - Release".

Illustration 1 g01522230

3. Remove bolts (1). Remove cover (2).

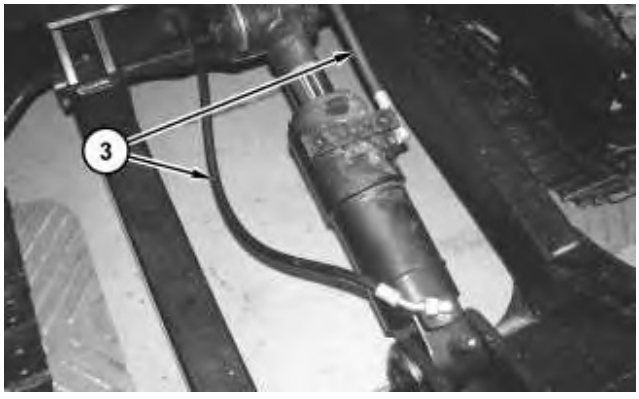

Illustration 2 g01522239

4. Disconnect hose assemblies (3).

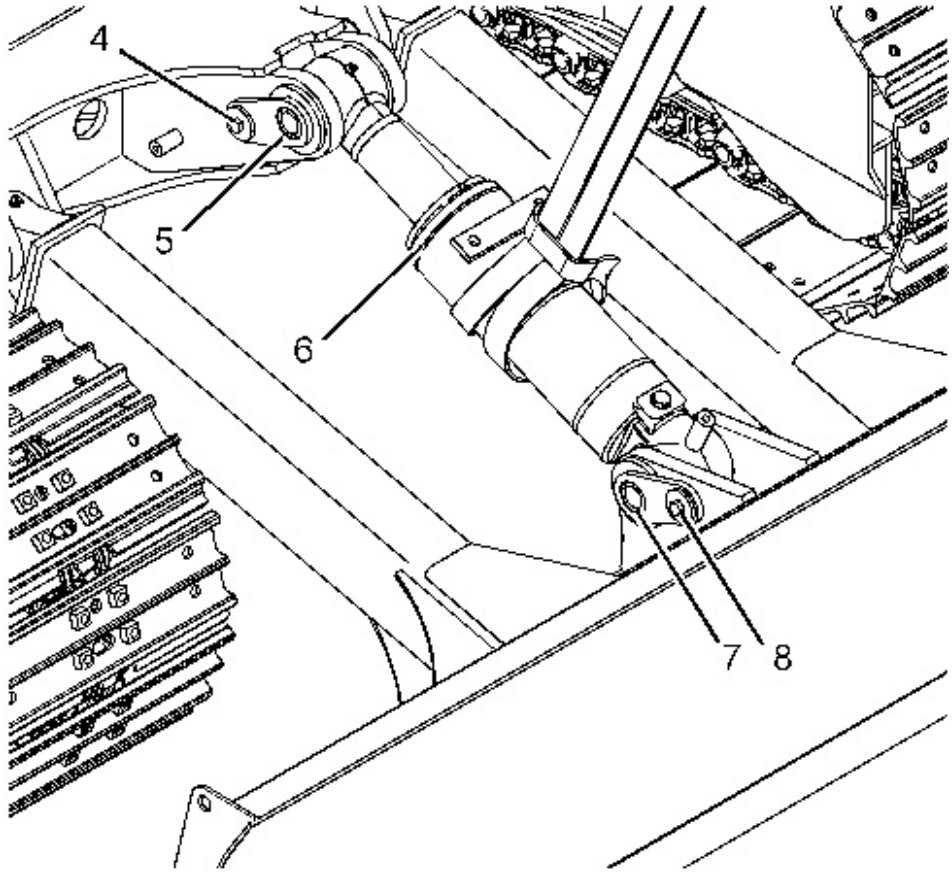

Illustration 3 g01522248

5. Attach a suitable lifting device to blade cylinder (6). The weight of blade cylinder (6) is approximately 69 kg (152 lb).

6. Remove retaining bolt (4) and (8). Remove pin assemblies (5) and (7).

7. Remove blade cylinder (6).

Disassembly and Assembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	-	Loctite 609	1

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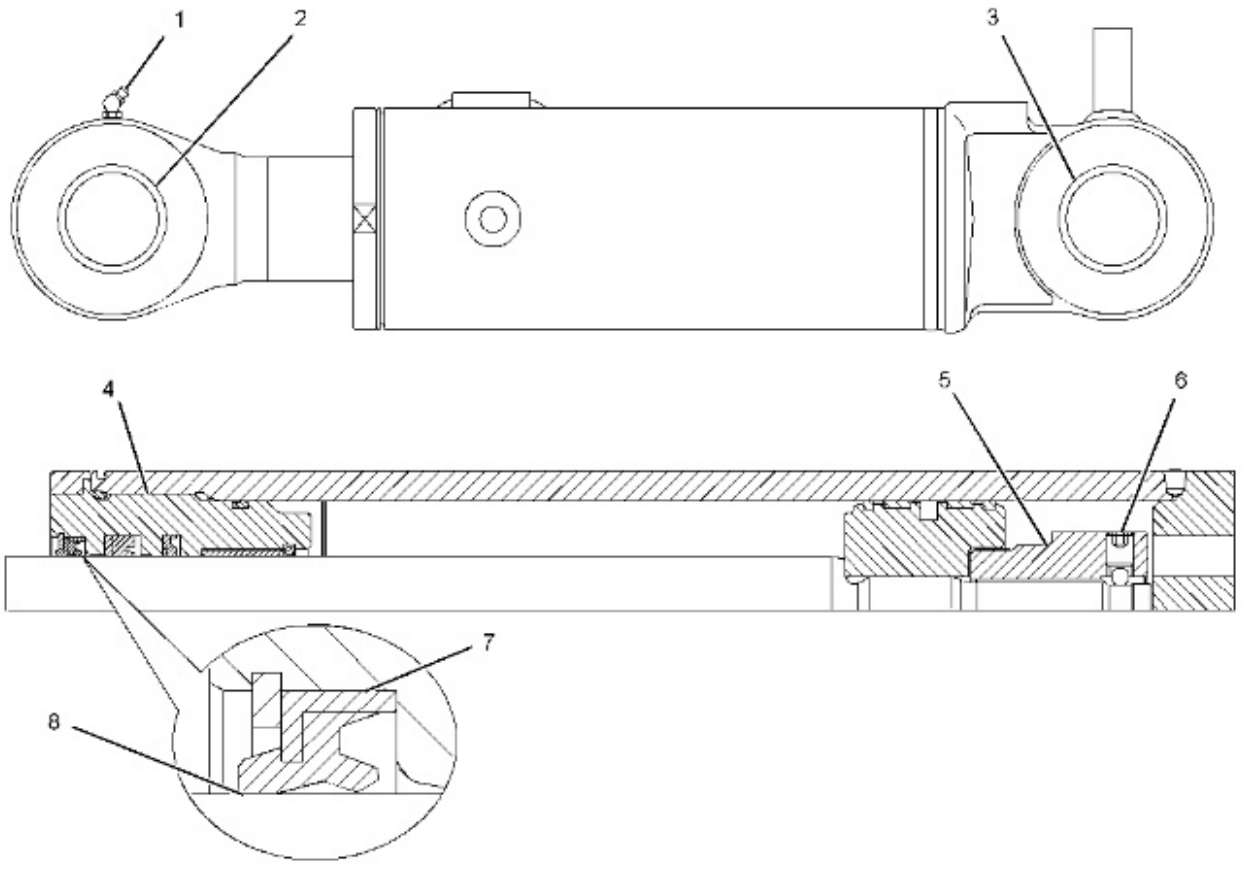

Illustration 4 g03295959

(1) Tighten elbow adapter to a torque of 9.32 ± 4.9 N·m (82 ± 43 lb in).

(2) Pin bores to be lubricated and free of paint.

(3) Pin bores to be lubricated and free of paint.

(4) Lubricated the threads lightly with oil prior to tightening. Tighten the head to a torque of 1020 ± 100 N·m (752 ± 74 lb ft).

(5) Tighten nut so a torque of 5550 N·m (4094 lb ft).

(6) Tighten screw to 60 ± 11 N·m (44 ± 8 lb ft).

(7) Prior to assembly apply Tooling (A) to the wiper seal groove.

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