

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

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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.

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## 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<sup>®</sup> products.

Dispose of all fluids according to local regulations and mandates.

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**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.

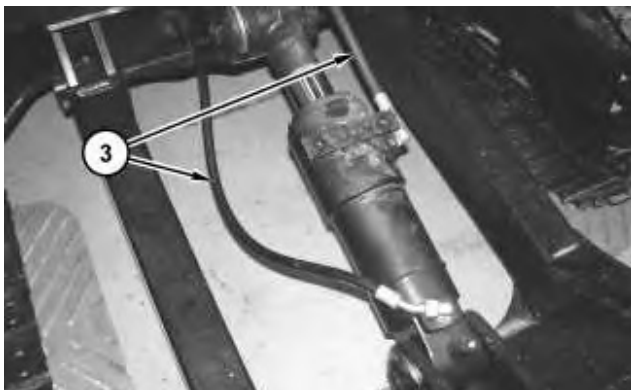
1. Rotate the machine in order to expose the blade cylinder.
2. Release the hydraulic system pressure. Refer to Disassembly and Assembly, "System Pressure - Release".



Illustration 1

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



## 4. Disconnect hose assemblies (3).

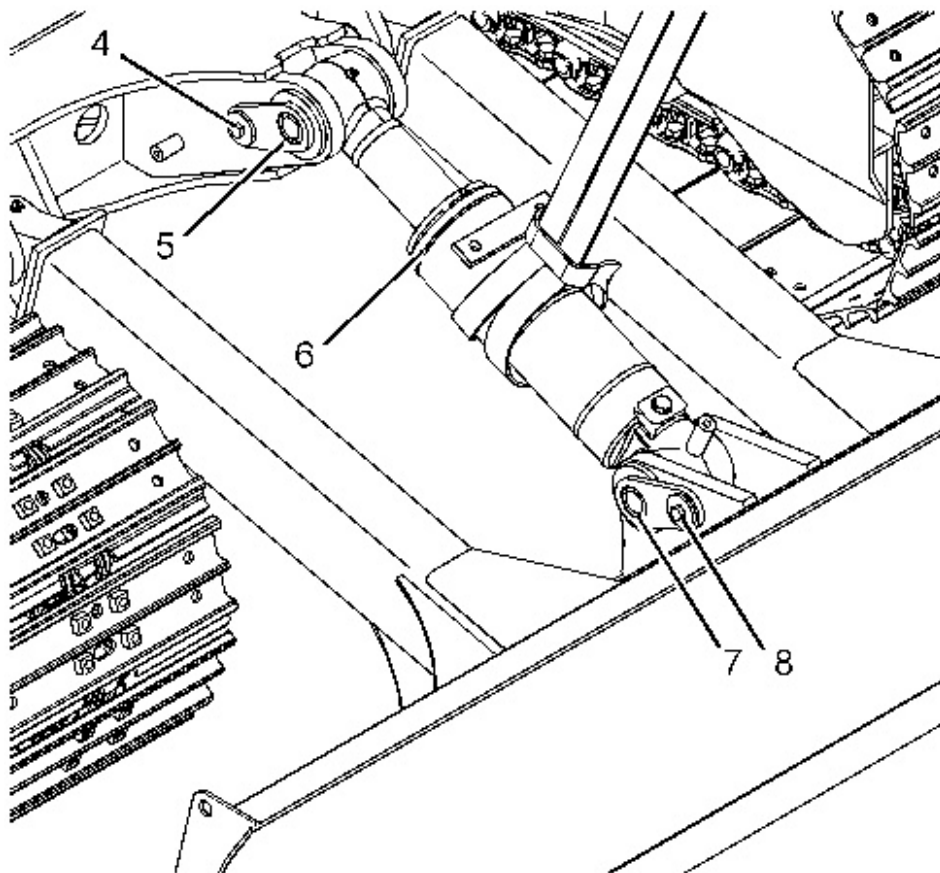


Illustration 3

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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


**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.**

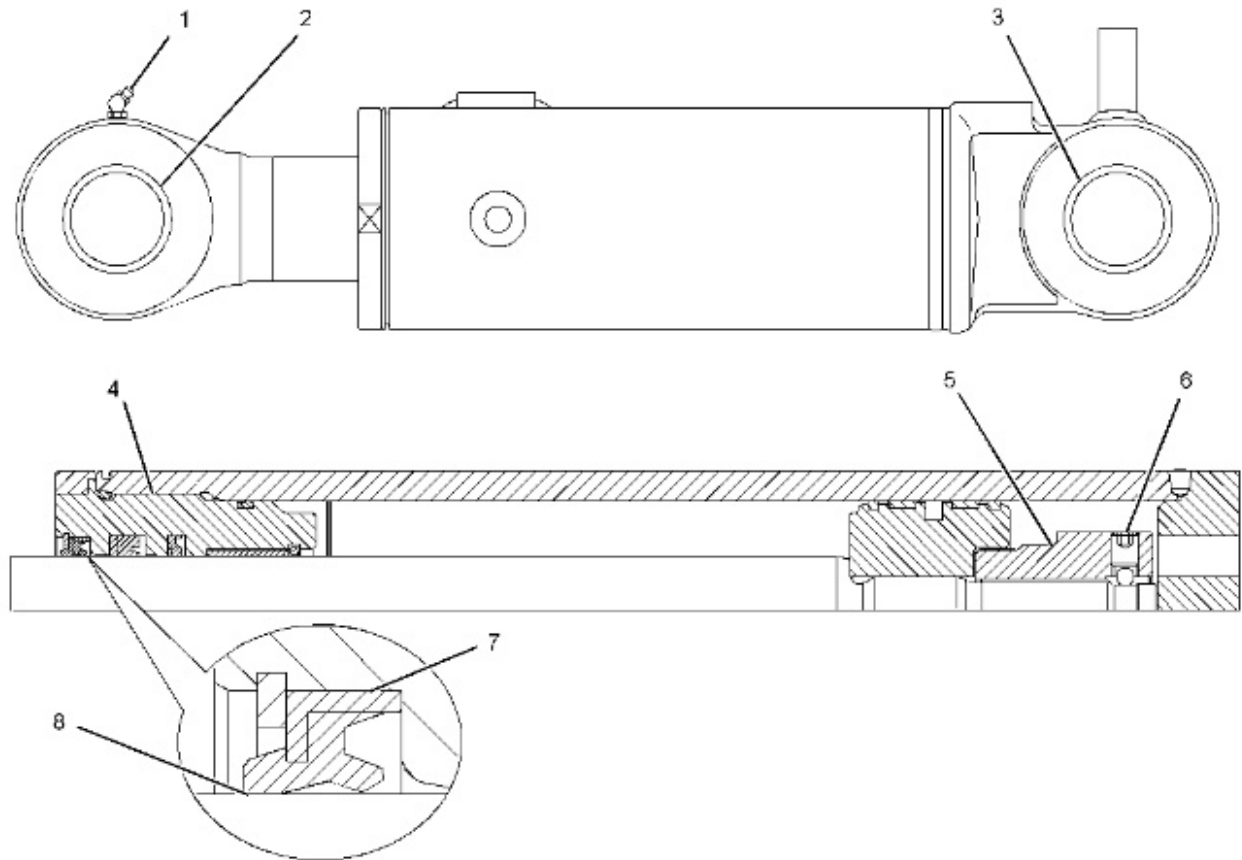


Illustration 4

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- (1) Tighten elbow adapter to a torque of  $9.32 \pm 4.9 \text{ N}\cdot\text{m}$  ( $82 \pm 43 \text{ lb in}$ ).
- (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  $1020 \pm 100 \text{ N}\cdot\text{m}$  ( $752 \pm 74 \text{ lb ft}$ ).
- (5) Tighten nut so a torque of  $5550 \text{ N}\cdot\text{m}$  ( $4094 \text{ lb ft}$ ).
- (6) Tighten screw to  $60 \pm 11 \text{ N}\cdot\text{m}$  ( $44 \pm 8 \text{ lb ft}$ ).
- (7) Prior to assembly apply Tooling (A) to the wiper seal groove.

(8) Lubricate the sealing lip lightly with the lubricant that is being seals.

## Installation Procedure

Table 2

Required Tools			
Tool	Part Number	Part Description	Qty
A	5P-0960	Grease Cartridge	1

**Note:** Check the condition of the seals and the bearings. If the seals or bearings are worn or damaged, use new parts for replacement.

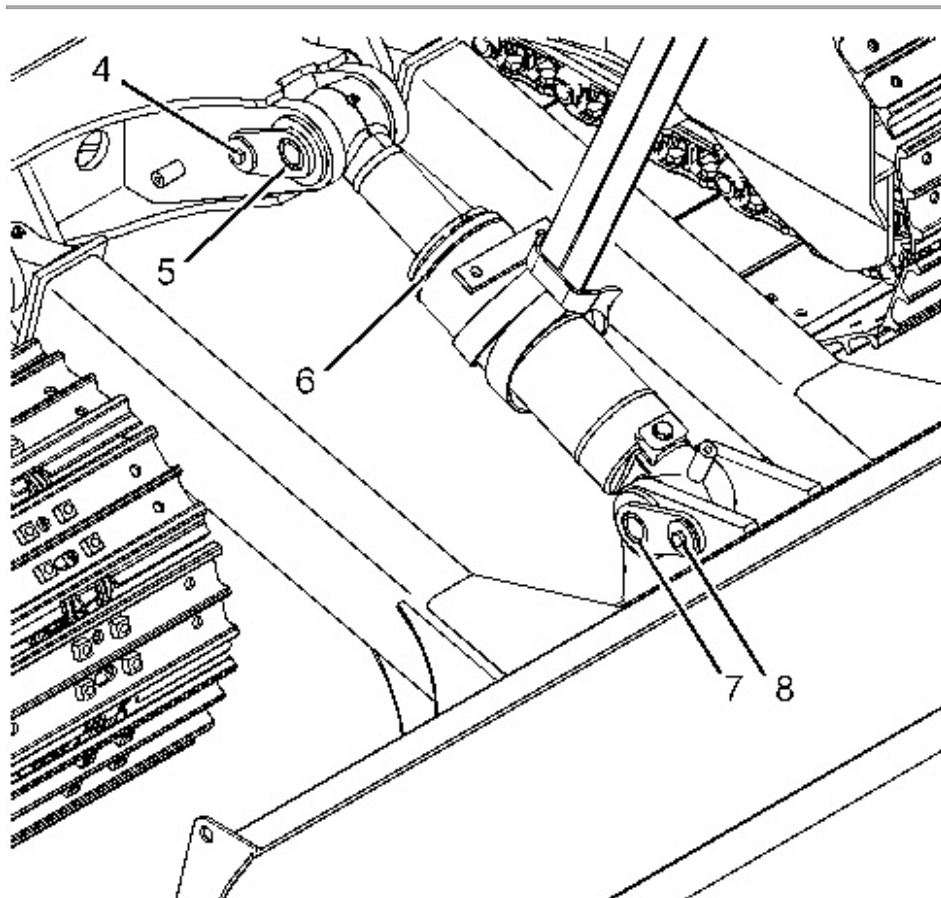


Illustration 5

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1. Attach a suitable lifting device to blade cylinder (6). The weight of blade cylinder (6) is approximately 69 kg (152 lb).
2. Position blade cylinder (6) onto the chassis and the blade.
3. Prior to installing pin assemblies (5) and (7), check that the bore is free of paint and grease. Install pin assemblies (5) and (7).
4. Install retaining bolts (4) and (8). Tighten retaining bolts (4) and (8) to a torque of  $70 \pm 15 \text{ N}\cdot\text{m}$  ( $52 \pm 11 \text{ lb ft}$ ). Remove the suitable lifting device.

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