



# Service Repair Manual

## **Models**

# 140M Motor Grader

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Product: MOTOR GRADER

Model: 140M MOTOR GRADER B9G

Configuration: 140M Motor Grader - All Wheel Drive B9G00001-UP (MACHINE) POWERED BY C9 Engine

## Disassembly and Assembly 140M Motor Grader

Media Number -KENR6424-07

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i02837848

# Blade Lift Cylinder - Remove and Install

SMCS - 5102-010

## Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	311-1362	Vacuum Cap	1



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, PERJ1017, "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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 **WARNING**

Hydraulic oil pressure can remain in the hydraulic system on this machine after the engine and pump have been stopped. Serious injury can result if this pressure is not released before any service is done on the hydraulic systems. In order to prevent possible injury, release the hydraulic system pressure before working on any fitting, hose, or hydraulic component.

Lower all attachments to the ground before service is started. If the hydraulic system must be serviced, tested, or adjusted with the attachment in the raised position, the attachments and lift cylinders must be supported properly.

Always move the machine to a location away from the travel of other machines. Be sure that other personnel are not near the machine when the engine is running and tests or adjustments are being made.

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1. Release the system pressure. Refer to Operation and Maintenance Manual, "System Pressure - Release".

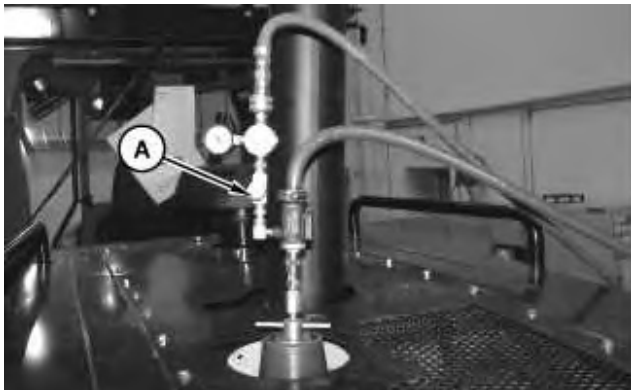


Illustration 1

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2. Install Tooling (A) onto the hydraulic tank. Attach an air supply hose onto Tooling (A). Apply 138 kPa (20 psi). This procedure will pull a vacuum on the hydraulic system.
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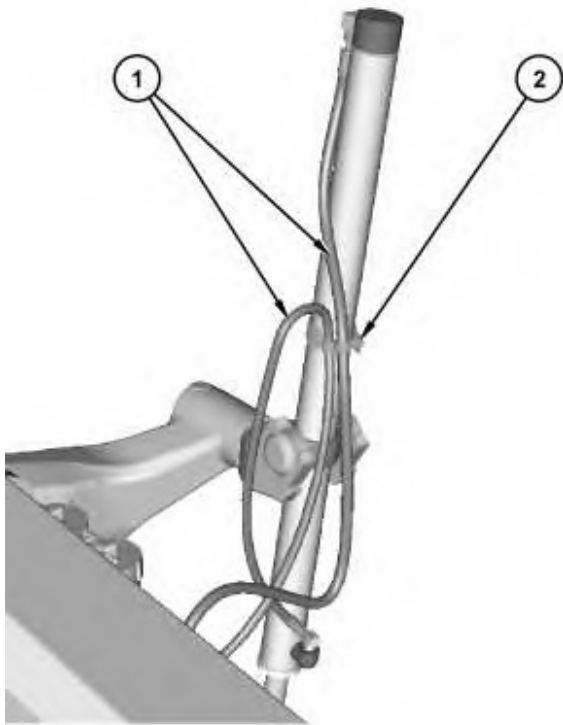


Illustration 2

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3. Disconnect hose assemblies (1). Remove clamp (2).

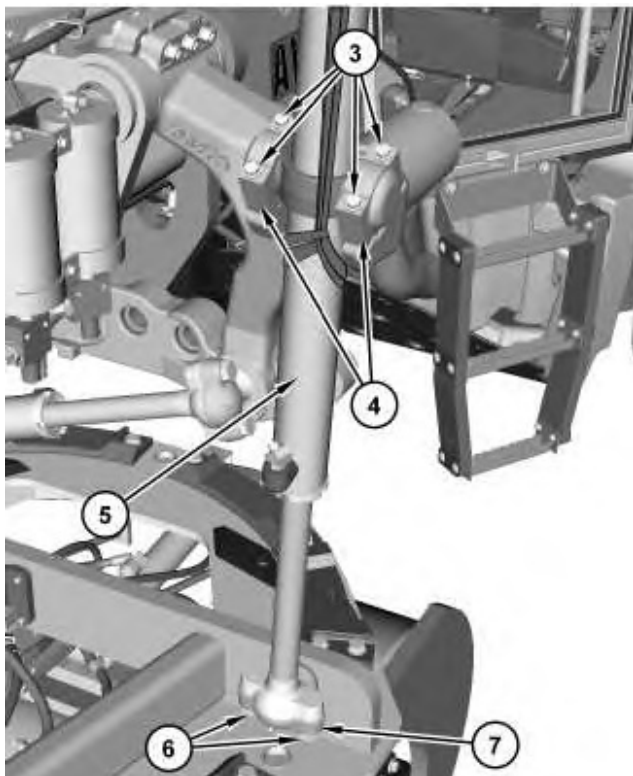


Illustration 3

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4. Remove bolts (6) and remove cap (7).

**Note:** Note the shims and inserts for installation purposes.

5. Attach a suitable lifting device to blade lift cylinder (5). The weight of blade lift cylinder (5) is approximately 59 kg (130 lb).
6. Remove bolts (3) and remove blade lift cylinder (5).
7. Remove cap assemblies (4) from blade lift cylinder (5).

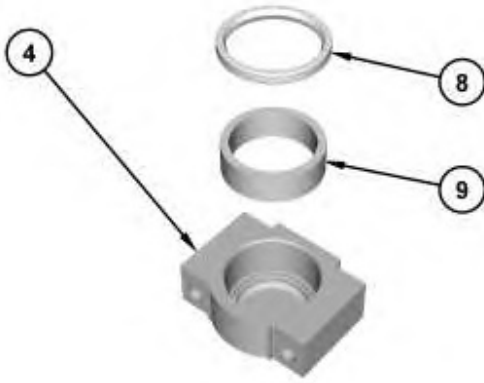


Illustration 4

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8. Remove seal (8) from cap assembly (4). Remove bearing (9) from cap assembly (4).
9. Repeat Step 8 for the remaining cap assembly.

## Disassembly and Assembly Information

Table 2

Required Tools			
Tool	Part Number	Part Description	Qty
B	127-4904	Repair Stand	1
C	195-4609	Seal Pick	1
D	7M-7456	Bearing Mount Compound	1
E	1P-0808	Multipurpose Grease	1
F	9U-7868	Spanner Wrench	1
	127-8064	Adjustable Plate	1



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