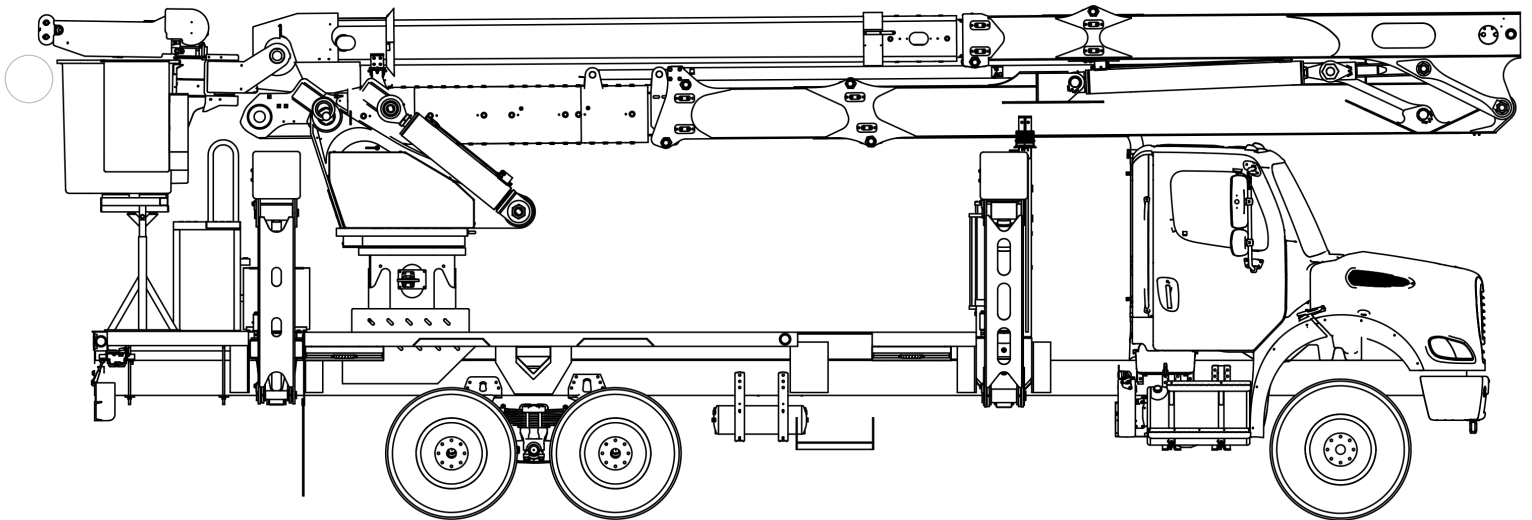




TECH TIPS

REMOVING THE UPPER BOOM EXTENSION CYLINDER ON A TM

NO. 47



SERVICE CALL:
REMOVING THE UPPER BOOM
EXTENSION CYLINDER



MODEL(S):
TM




TOOLS NEEDED:
SEE INTRODUCTION

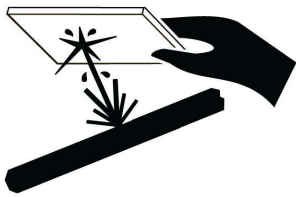
TEREX UTILITIES TECHNICAL SUPPORT TEAM

PHONE: 1-844-TEREX4U (1-844-837-3948) | EMAIL: UTILITIES.SERVICE@TEREX.COM

! WARNING



Injection Hazard
Fluid escaping under pressure can penetrate skin and result in death or serious injury.



Relieve pressure before disconnecting hydraulic lines.
Stay clear of leaks and pin holes. Use a piece of cardboard or wood to search for leaks. Do not use hand.
Fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this type of injury, or gangrene will result.



DANGER

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury.

Many of the hazards identified in the Operator's Manual are also safety hazards when maintenance and repair procedures are performed.

DO NOT PERFORM MAINTENANCE UNLESS:

- ✓ You are trained and qualified to perform maintenance on this machine.
- ✓ You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- ✓ You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this Tech Tip is a supplement to the Service Manual. Consult the appropriate Service Manual of your machine for safety rules and hazards.



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- | Install bolts in cylinder
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- | Remove plastic covers
- | Remove bolts holding the cylinder to catrac plate
- | Retract upper boom
- | Remove snap ring and pin

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- | Label hoses, cap and plug
- | Remove 3/8" bolts
- | Remove 2-3/4" bolts holding the trunnion

STEP 7 - STEP 10

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- | Remove the trunnions
- | Reinstall components

STEP 11 - STEP 14

INTRODUCTION

Tools Required:

- Snap ring pliers
- ½ inch socket set
- Open end wrench set
- Ball peen hammer
- Bar to remove cylinder pin
- (2) - Eight foot 2x4's nailed together
- (2)- 3/8 JIC caps and plugs
- Red Loctite
- Blue Loctite
- Calibrated torque wrench

STEP 1

Locate the unit in a suitable place that will allow the upper boom to be lifted and extended out at least 3 feet with no obstructions.

STEP 2

With the unit in the stored position, place the 2x4's under the upper boom extension cylinder. The 2x4's should be just past the collars of the trunnions on the cylinder and centered under the cylinder. (Figure 1 & 2)



FIGURE 1

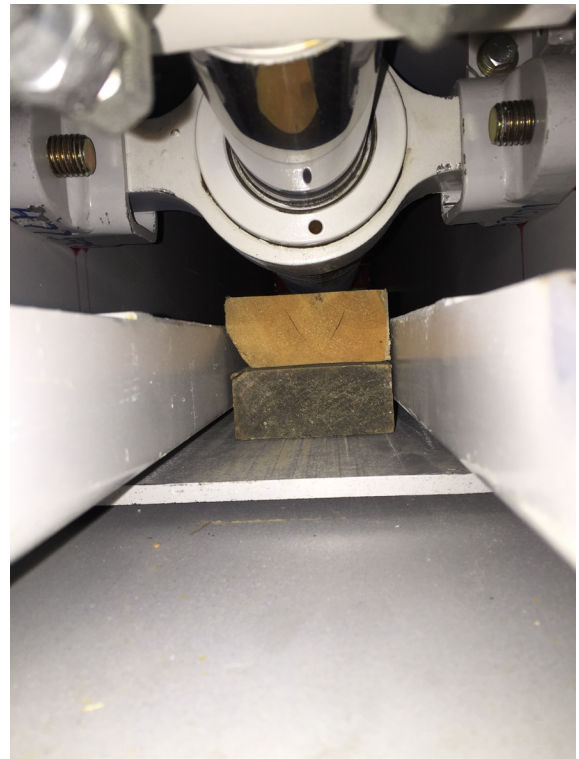


FIGURE 2

STEP 3

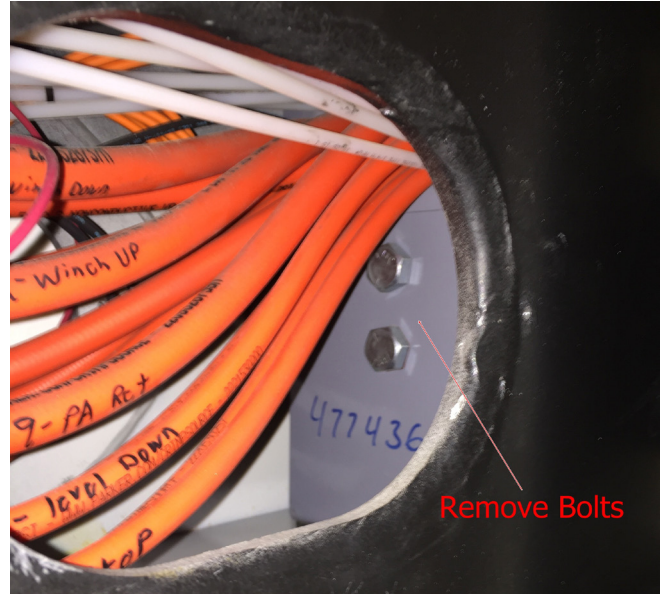
Extend the upper boom far enough to allow removal of the plastic access covers on the side of the steel portion of the upper boom.

Remove covers.



STEP 4

Remove the 2 bolts holding the cylinder to the catrac mounting plate.



STEP 5

Retract the upper boom and place the upper boom in the rest.

STEP 6

Remove the snap ring on the pin for the extension cylinder, and then remove the pin. (Figure 5)



FIGURE 5

STEP 7

Slowly extend the cylinder out far enough to allow the rod eye to be turned without hitting the knuckle.

STEP 8

Label the hoses on the cylinder, then remove, cap and plug.

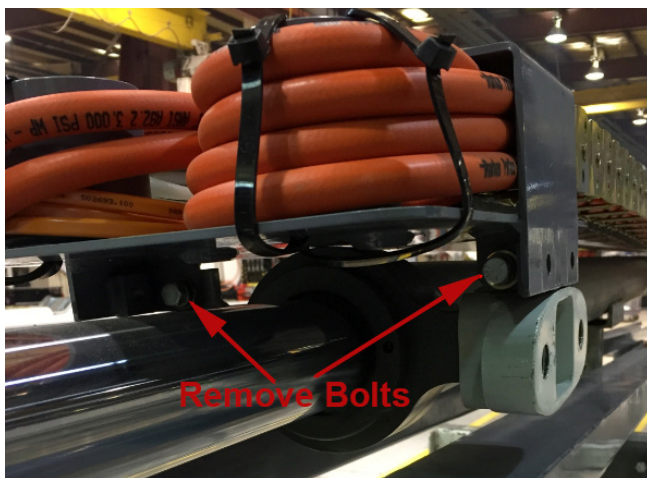


Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. DO NOT use your hand.

STEP 9

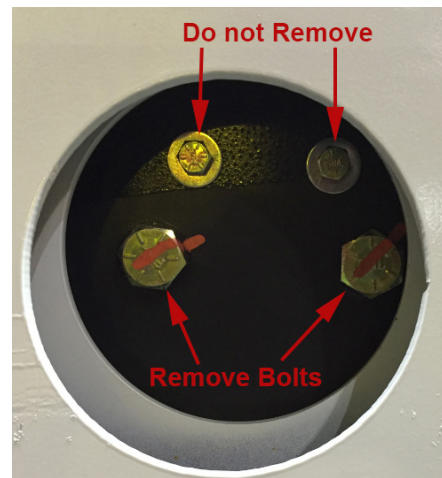
Rotate the rod eye far enough to remove the 2 - 3/8" bolts from the trunnion block.



STEP 10

Remove the 2 - 3/4" bolts (4 total) holding each trunnion to the inner boom.

DO NOT remove the top bolts holding the catrac to the boom. Removing the bolts will cause the catrac to fall.



STEP 11

Remove the trunnions off of the cylinder and then slowly remove the cylinder leaving the 2x4's in the boom.

STEP 12

Reinstallation: Slide cylinder back into the boom by placing cylinder on top of 2x4's, guiding the cylinder so it stays on top of the 2x4's.

the catrac to the trunnion and torque to 23 ft. lbs.
(See step 9)

STEP 13

Reinstall the trunnion blocks; make sure that the threads for the 3/8" bolts are facing towards the rod eye. Lubricate the 4-3/4" bolts with red Loctite and torque to 280 ft. lbs.

Lubricate the 2-3/8" bolts with blue Loctite for the catrac to the trunnion and torque to 23 ft. lbs.
(See step 9)

STEP 14

Next line the rod eye up with the pinning hole and install the pin, snap rings and connect the hoses for the extension cylinder.



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STEP 15

Extend the upper boom out far enough so that you can get to the side access holes to reinstall the bolts in the cylinder. Lubricate the bolts with red Loctite and torque to 200 ft. lbs. (Figure 8)



FIGURE 8

STEP 16

After hooking hoses back up run the upper boom extension and verify that everything works properly, there are no leaks and it runs in and out smoothly.



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FOR FURTHER ASSISTANCE,
CONTACT THE TEREX UTILITIES TECHNICAL SUPPORT TEAM
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