

**Service Call:**

Adjusting Boom Over-stow Protection  
on a Digger Derrick

**Tools Required:**

3/4" wrench & 1/4" Allen wrench

**Model(s):**

Optional on All Terex Digger Derricks

## Tech Tip Safety Rules




### 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.

 **WARNING**



Escaping fluid under pressure can penetrate skin causing serious injury.

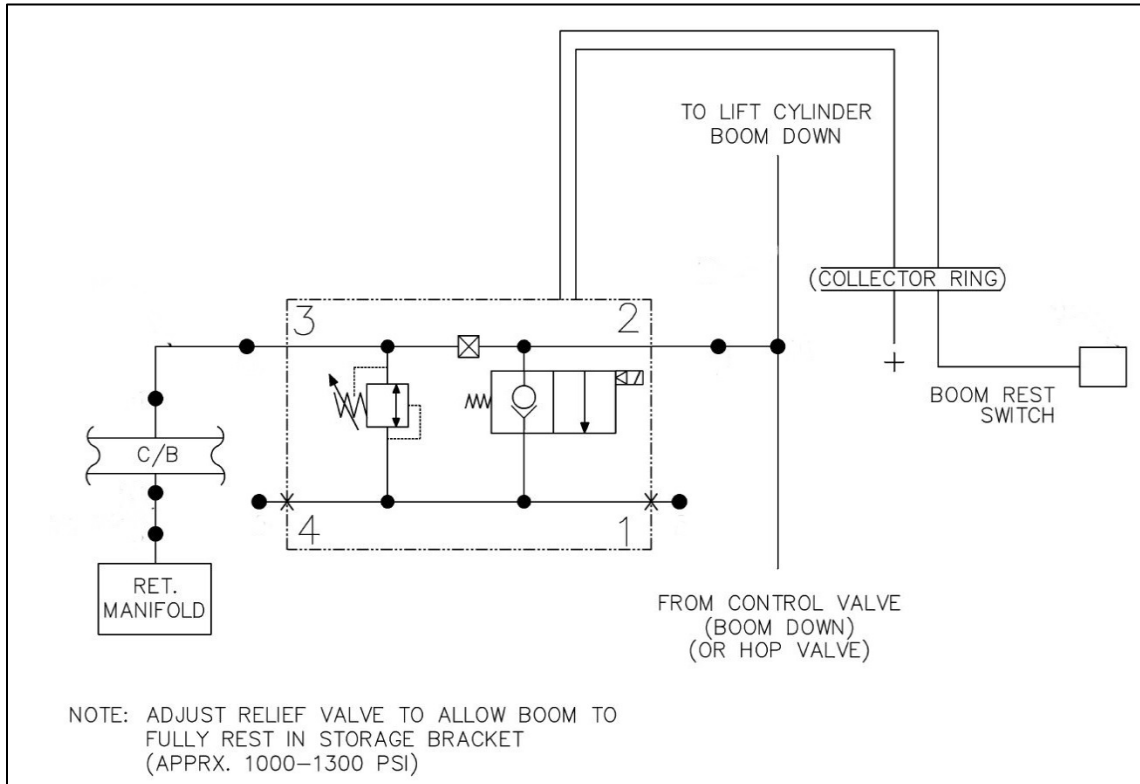
Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene will result.

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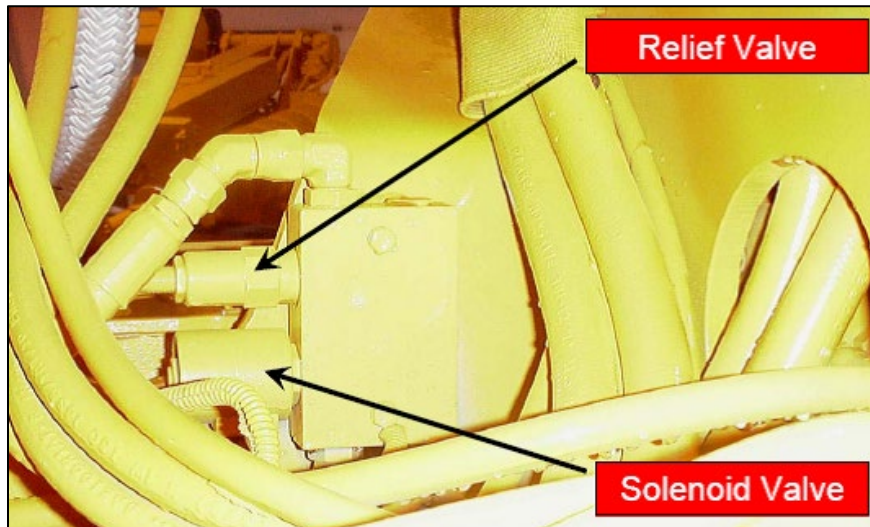
## Introduction

The boom over-stow system is used to limit the amount of down pressure that the lower boom can put into the rest. This is accomplished by opening a solenoid valve that sends boom down oil over a relief that is set lower than system pressure. The solenoid valve is enabled by a switch positioned at the lower boom rest.



## Step 1

Locate the over-stow protection valve that is teed into the boom down hydraulic circuit. The valve is typically located above rotation, inside the turntable.



## Step 2

Check to see if the unit has a system pressure gauge installed at the upper control station. If your unit does not have a system pressure gauge, then a gauge will need to be installed into the boom down line at the lift cylinder.



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## Step 3

To verify that the boom stow protection is working properly:

- Bring engine throttle up to full throttle
- Slowly boom down into the rest
- Monitor the pressure: when the booms stop in the boom rest the pressure should be 1000-1300 psi with the control fully actuated

No adjustment is needed if the pressure falls between 1000 and 1300 psi.

Continue to Step 4 if:

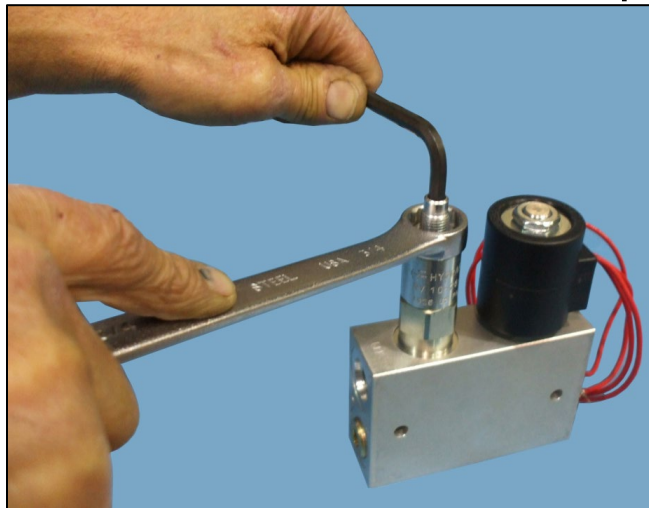
- The booms stop moving before reaching the boom rest
- Pressure is lower than 1000 psi
- Pressure is higher than 1300 psi

## Step 4

Locate the boom over-stow valve and loosen the  $\frac{3}{4}$ " locknut.

If the pressure is higher than 1300 psi, turn the Allen adjustment **OUT** until the pressure is correct as outlined in Step 3.

If the pressure is lower than 1000 psi or the booms stop moving before reaching the boom rest, turn the Allen adjustment **IN** until the pressure is correct as outlined in Step 3.



## Step 5

Once the adjustment is complete, tighten the  $\frac{3}{4}$ " locknut while holding the Allen adjustment and repeat Step 3 to verify that the settings have not changed.