

## Blade Lift Relief Valve Test

### -: Specifications

SPECIFICATIONS	
Oil Temperature	60—70°C 140—160°F
Engine Speed	Slow Idle
Blade Lift Relief Valve Pressure	20 684—22 063 kPa 207—221 bar 3000—3200 psi

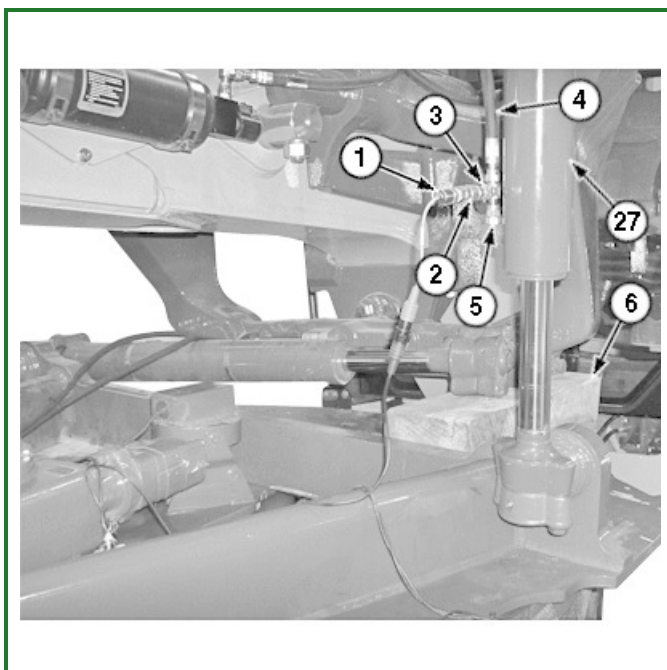
### -: Service Equipment and Tools

SERVICE EQUIPMENT AND TOOLS
JT05510 Vacuum Pump (air operated)
Tee (-6 M ORFS x -6 F ORFS x -6 M ORFS)
Quick Coupler (-6 ORFS)
JT02162 Transducer 34 000 kPa (350 bar) (5000 psi)
JT02156A Digital Pressure/Temperature Analyzer
Gauge 34 000 kPa (350 bar) (5000 psi)

The purpose of blade lift relief valves is to relieve high pressure spikes caused by external forces to the blade. This test checks that the blade lift relief valve pressure is set to specification to protect components from damage.

1. Connect vacuum pump to hydraulic oil tank breather hose. [See Vacuum Pump Installation](#) . (Group 9025-25.)

2.



**TX1053725A-UN: Blade Lift Relief Valve Test (left blade lift cylinder shown)****LEGEND:**

- 1 - JT02162 Transducer
- 2 - Quick Coupler (-6 F ORFS)
- 3 - Tee (-6 M ORFS x -6 F ORFS x -6 M ORFS)
- 4 - Left Blade Lift Hose
- 5 - Left Blade Lift Port
- 6 - Block
- 27 - Left Blade Lift Cylinder

Remove blade lift hose (4) from blade lift port (5).

3. Install -6 M ORFS x -6 F ORFS x -6 M ORFS tee (3) inline with blade lift hose and blade lift port.
4. Install -6 ORFS quick coupler (2) to tee.
5. Install JT02156A Digital Pressure/Temperature Analyzer and JT02162 Transducer or 34 000 kPa (350 bar) (5000 psi) gauge to quick coupler. [See JT02156A Digital Pressure and Temperature Analyzer Kit Installation](#) for installation procedures. (Group 9025-25.)
6. Remove vacuum pump from hydraulic oil tank breather hose.
7. Warm hydraulic oil to temperature specifications. [See Hydraulic Oil Warm-Up Procedure](#) . (Group 9025-25.)

Item	Measurement	Specification
Oil	Temperature	60—70°C 140—160°F

8.

**NOTE:**

*A block placed as shown creates a pivot point for the draft frame that allows for the test to be completed.*

Place a block (6) as between draft frame and saddle as shown on the side that is being tested.

9. Run engine at test specifications.

Item	Measurement	Specification
Engine	Speed	Slow Idle

10. Raise the blade on the side of the machine that you are checking the relief pressure, until the block is trapped between the draft frame and saddle and release the lever.
11. Raise the opposite side of the blade. When the cylinder nears the end of its stroke, the draft frame will start to pivot on the saddle and the first cylinder raised, will begin to extend.
12. During the time the cylinder is extending, the pressure reading at the blade lift port is the blade lift relief valve pressure setting. Record the pressure measured as the cylinder is extending.