

PARTS & SERVICE NEWS

REF NO.	AA97136A
DATE	December 13, 2000

SUBJECT: TESTING 1430 227 H2 BRAKE PRESSURE WARNING SWITCHES

PURPOSE: Provide testing procedure for brake warning switches.

APPLICATION: GD530AW-1 Graders Serial Number 200840 thru 201999
 GD650AW-1 Graders Serial Number 200840 thru 201999
 GD670AW-1 Graders Serial Number 200840 thru 201999
 GD530AW-2 Graders Serial Number 202002 & up
 GD650AW-2 Graders Serial Number 202002 & up
 GD670AW-2 Graders Serial Number 202002 & up
 830 Graders Serial Number 100496 & up
 850 Graders Serial Number 100477 & up
 870 Graders Serial Number 100481 & up

DESCRIPTION:

Introduction:

High pressure switch 1430 227 H2 is a direct replacement for 1430 227 H1. The high pressure switch is used two places on the grader.

Condition #1 - If the warning buzzer sounds and the low brake pressure indicator is lit at the same time, then conduct the test procedure on page 2, "Low Brake Pressure Warning Switch."

Condition #2 - If the transmission suddenly shifts into neutral while the transmission gear shift selector is still in a gear position and the parking brake indicator light comes on, then conduct the testing procedure on page 3, "Parking Brake Pressure Switch."

NOTE: If the above problem occurs and it is inconvenient to trouble shoot the condition, disconnect the switch from the harness and the grader can be temporarily operated.

Condition #3 - If the parking brake switch on the switch panel is applied, and the parking brake indicator light doesn't come on, check bulb. If bulb is ok, conduct the testing procedure on page 3, "Parking Brake Pressure Switch."

LOW BRAKE PRESSURE WARNING SWITCH

1. Lower moldboard to the ground. Shutdown engine and set parking brake. Block wheels to prevent machine from moving during test.
2. Disconnect Low Pressure Warning Switch (1, Figure 2) from the main wiring harness (2) on the brake check valve block (3). Depress brake pedal 25-50 times to discharge accumulator charge pressure.
3. Connect a calibrated 2000 - 3000 PSI (140.6 - 210.9 kg/cm²) gauge to pressure test port (1, Figure 1) on steering and brake pump.
4. With pressure gauge reading 0 PSI, use a Volt-Ohm Meter and test continuity across the pressure switch terminals. Switch must indicate a closed circuit. If switch shows an open circuit at 0 PSI, replace switch as outlined in Shop Manual.
5. Have another person start machine and set engine RPM to 1000 ±25 RPM.
 - A. Pressure gauge should read 1650 PSI (116.0 kg/cm²). If pressure is less than 1600 PSI (112.5 kg/cm²), readjust pump relief valve (2, Figure 1) as outlined in Shop Manual.
 - B. If pressure is 1650 PSI (116.0 kg/cm²), test switch for open circuit with Volt-Ohm Meter. If switch indicates a closed circuit, replace switch as outlined in Shop Manual.

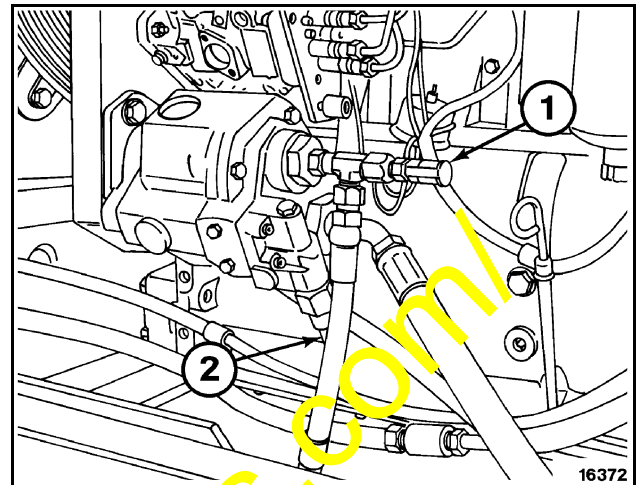


Figure 1

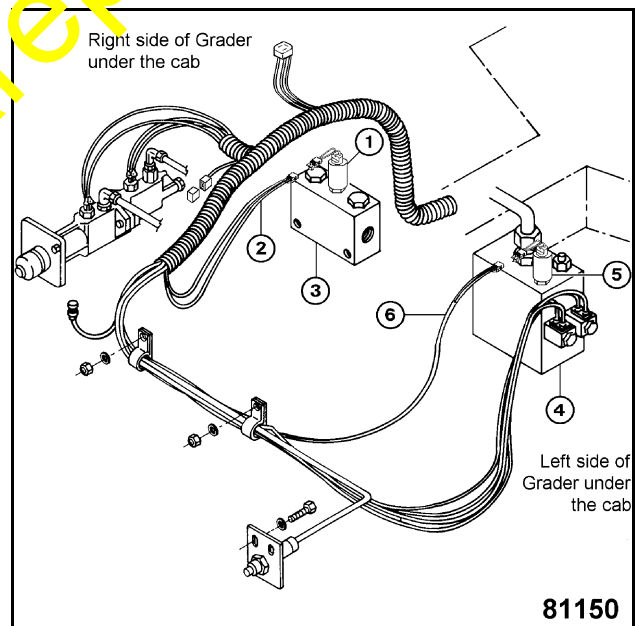


Figure 2

PARKING BRAKE PRESSURE SWITCH

1. Lower moldboard to the ground. Shutdown engine and set parking brake. Block wheels to prevent machine from moving during test.
2. Connect a calibrated 2000 - 3000 PSI (140.6 - 210.9 kg/cm²) gauge to pressure test port on bottom of junction block (4, Figure 2).
3. Disconnect High Pressure Warning Switch (5, Figure 2) from the main wiring harness (6) on the junction block (4).
4. With pressure gauge reading 0 PSI, use a Volt-Ohm Meter and test continuity across the pressure switch terminals. Switch must indicate a closed circuit. If switch shows an open circuit at 0 PSI, replace switch as outlined in Shop Manual.
5. Have another person start machine and set engine RPM to 1000 ±25 RPM.
6. Release parking brake.
 - A. Pressure gauge should read 1650 PSI (112.0 kg/cm²). If pressure is less than 1600 PSI (112.5 kg/cm²), readjust pump relief valve (2, Figure 1) as outlined in Shop Manual.
 - B. If pressure is 1650 PSI (112.0 kg/cm²), test switch for open circuit with Volt-Ohm Meter. If switch indicates a closed circuit, replace switch as outlined in Shop Manual.

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LOW BRAKE PRESSURE WARNING SWITCH

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2. Disconnect Low Pressure Warning Switch (1, Figure 2) from the main wiring harness (2) on the brake check valve block (3). Depress brake pedal 25-50 times to discharge accumulator charge pressure.
3. Connect a calibrated 2000 - 3000 PSI (140.6 - 210.9 kg/cm²) gauge to pressure test port (1, Figure 1) on steering and brake pump.
4. With pressure gauge reading 0 PSI, use a Volt-Ohm Meter and test continuity across the pressure switch terminals. Switch must indicate a closed circuit. If switch shows an open circuit at 0 PSI, replace switch as outlined in Shop Manual.
5. Have another person start machine and set engine RPM to 1000 ±25 RPM.
 - A. Pressure gauge should read 1650 PSI (116.0 kg/cm²). If pressure is less than 1600 PSI (112.5 kg/cm²), readjust pump relief valve (2, Figure 1) as outlined in Shop Manual.
 - B. If pressure is 1650 PSI (116.0 kg/cm²), test switch for open circuit with Volt-Ohm Meter. If switch indicates a closed circuit, replace switch as outlined in Shop Manual.

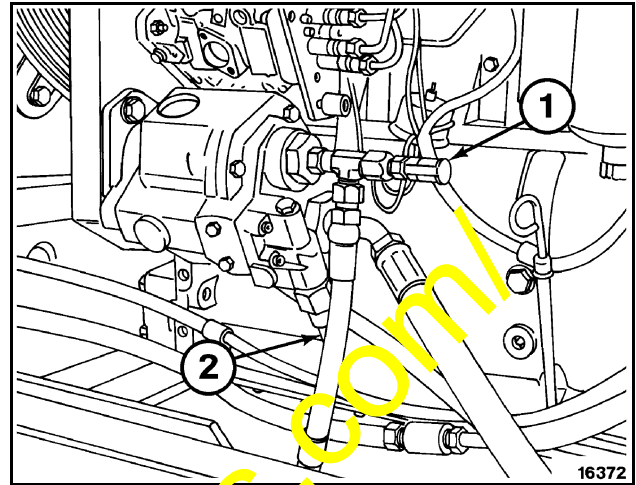


Figure 1

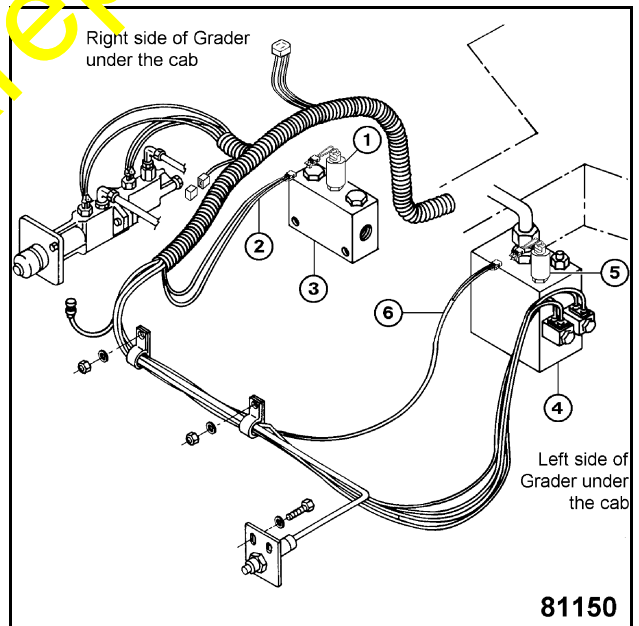


Figure 2

PARKING BRAKE PRESSURE SWITCH

1. Lower moldboard to the ground. Shutdown engine and set parking brake. Block wheels to prevent machine from moving during test.
2. Connect a calibrated 2000 - 3000 PSI (140.6 - 210.9 kg/cm²) gauge to pressure test port on bottom of junction block (4, Figure 2).
3. Disconnect High Pressure Warning Switch (5, Figure 2) from the main wiring harness (6) on the junction block (4).
4. With pressure gauge reading 0 PSI, use a Volt-Ohm Meter and test continuity across the pressure switch terminals. Switch must indicate a closed circuit. If switch shows an open circuit at 0 PSI, replace switch as outlined in Shop Manual.
5. Have another person start machine and set engine RPM to 1000 ±25 RPM.
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