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Technical Service Bulletin

TSB Number: PC5-071

Date: September 22, 2006 Revised (10-12)

SUBJECT: Compressor Discharge Air Temperature Switches

MODELS AFFECTED:

Portable Compressors		SERIAL NUMBER RANGE		
MODEL	CODE	SERIAL CODE*	FROM	THRU
P185WJD	E	221, 231, 015	327448	368466
XP185WJD	E	222, 017	327358	374358
P185WIR		295, 241	327385	339864
P135WIR		242	327965	337061
P110WIR		118	327384	337811
XP185WIR		288	327522	341346
P425WIR		060	323616	339999
XP375WIR		061	335671	339284
HP365WIR		062	323697	337983
VHP300WIR		063	325365	336730
HP375WJD		064	323619	340351
XP375WJD	A	047	329831	341778
USMCP260		004	607101	607238

Utility Compressors		SERIAL NUMBER RANGE		
MODEL	CODE	SERIAL CODE*	FROM	THRU
P130WJDU	A	228	327895	374526
P175WJDU	A	310	327508	374564
P185WJDU	A	297, 235, 229	327364	375566
P250WJDU		A23, A39	339417	375300

* Serial code is last 3 digits at the end of the 12 digit machine serial number and is the same for all common models. All P185(E) WJD machines have unique serial numbers but the last 3 digits are always 221. Example 327579UBM**221**.

SYMPTOMS: Compressor may not shutdown when compressor oil is overheated.
High air temperature may ignite the compressor oil causing a fire in the separator tank.

CAUSE: Repeated cycles of the temperature switches may cause them to fail in the closed (operating) position.

INVESTIGATION: Affected switches have 3-wires connecting them to the machine wiring harness and are part numbers 54764964 and 54764956, located at the airend discharge and separator tank safety valve respectively.

REMEDY: Replace existing 3 wire switches (new switches have 2 wire connections). Check shutdown systems monthly and switches annually.
Instructions for replacing the switches are included below.

ACTION: Machines with Standard instrumentation

For each machine order:

- 1 switch 22823199 (airend)
- 1 switch 36865756 (separator tank)
- 2 adaptors 22828016

Machines with Optional Diagnostic lights

For each machine order:

- 1 switch 22823199 (airend)
- 1 switch 36865756 (separator tank)
- 1 adaptor 22881122
- 1 relay 36878361 (for 12 volt systems) **or**
- 1 relay 36892362 (for 24 volt systems)

Warranty Action: Remove existing switches and replace as soon as possible.
Warranty claims will be accepted for

- a) Parts
- b) Up to .5 hours labor
- c) Travel time and mileage are not accepted for single axle machines.
- d) All claims must reference "CAMPAIGN 06-9".
- e) Multiple serial numbers may be submitted on a single claim if all serial numbers are listed in the claim description area.

Airend and Separator Tank Temperature Switch Replacement Instructions

Disconnect battery before replacing switches in order to prevent unexpected starting of the machine.

Replacing temperature switch 54764964 and 54764956 on compressors that do not have the diagnostic (indicator lights) option

1. Disconnect the harness connector from the airend and separator tank temperature switches.
2. **Remove the switch from the tee at the safety valve and the airend.**
3. Install the new switch (36865756) in the tee at the safety valve and the new switch (22823199) in the airend.
4. Connect the new adapters (22828016) to the main harness where the old switches connected. Connect the two quick disconnects on each adapter harness to the new temperature switches. Polarity does not matter.
5. Test the shutdown system after installing the new switches by operating the compressor at idle speed and the service valve closed. Remove one of the quick disconnects from the new airend switch (compressor should shutdown). Reconnect the terminal to the switch. Repeat the same test but remove one of the quick disconnects from the new separator tank switch (compressor should shutdown). Reconnect the terminal to the switch. If the compressor shuts down in both tests, place it back into service. If the compressor does not shutdown in both tests, a problem exists in the electrical circuit and must be resolved. Do not place the compressor back into service until the problem is resolved.

Replacing temperature switch 54764964 and 54764956 on compressors with diagnostic (indicator lights) option.

Machines with diagnostic light option require additional components in order to maintain the diagnostic light function. In addition to 1 each of the above temperature switches part number 22823199 and 36865756, also required are:

1	Adapter	Part No. 22881122
1	Relay	Part No. 367878361 for 12 volt system or Part No. 36892362 for 24 volt system

The adapter part number 22828016 required in the above installation is not required.

If the switches are replaced without connector 22881122 and a relay, the shutdown function of the switches will work but the indicator light function will not.

- 1. Disconnect the harness connector from the airend and separator tank temperature switches.**
- 2. Remove the switch from the tee at the safety valve and the airend.**
- 3. Install the new switch (36865756) in the tee at the safety valve and the new switch (22823199) in the airend.**
- 4. Connecting the new adapter (22881122):**
 - **Connect the adapter harness labeled TS1-1 to the main harness where the old airend temperature switch connected.**
 - **Connect the two quick disconnects labeled TS1 to the new airend temperature switch. Polarity does not matter.**
 - **Connect the connector on the adapter harness labeled TS2-1 to the connector on the main harness where the old separator tank temperature switch connected.**
 - **Connect the two quick disconnects labeled TS2 to the new separator tank temperature switch. Polarity does not matter.**
 - **Connect the ring terminal labeled GND on the adapter harness on the main harness ground bolt.**
 - **Tie strap the adapter to the main harness.**
 - **Install the relay into the connector on the adapter harness labeled K10.**
 - **Tie strap the relay to the adapter harness.**
- 5. Test the shutdown system after installing the new switches by operating the compressor at idle speed and the service valve closed. Remove one of the quick disconnects from the new airend switch (compressor should shutdown and the temperature light on the panel should come on). Reconnect the terminal to the switch. Repeat the same test but remove one of the quick disconnects from the new separator tank switch (compressor should shutdown and the temperature light on the panel should come on). Reconnect the terminal to the switch. If the compressor shuts down in both tests, place it back into service. If the compressor does not shutdown and the temperature light on the panel does not come on in both tests, a problem exists in the electrical circuit and must be remedied. Do not place the compressor back into service until the problem is resolved.**