
Chapter 7

Troubleshooting

General

This chapter provides information for diagnosing and correcting machine malfunctions.

NOTE

Always check AC voltage across phases, never to ground!

If there is a main power failure, the machine will **not** restart automatically when power is restored.

Always start troubleshooting by making a thorough visual inspection of the equipment. Check circuit breakers, electrical connections, and switches for evidence of overheating and damage. Check all plumbing and pneumatic connections for leakage or damage.

Engineering drawings (pneumatic, electrical, etc., as required) are supplied with the machine for future reference. Refer to these drawings for specific machine information which is essential to the troubleshooting process.

The following Troubleshooting Table has information for diagnosing and correcting machine malfunctions.

Machine Trouble Shooting Table

Table 7-1 Washer Trouble Shooting Table

| No. | Symptom | Operator Action | Maintenance Action |
|------------------------------|--|---|---|
| Washer Does Not Start | | | |
| 1. | Machine will not start. | <ul style="list-style-type: none"> a. Check controller display panel for power applied status. b. Check wash formula. c. Make sure the "Emergency Stop" switch is released. d. Check the machine circuit breakers. e. Check incoming air pressure for 100 PSI (7 bar). | <ul style="list-style-type: none"> a. Check operation of shell door limit switch(s). b. Check motor overloads, if equipped, for fault or error condition. c. Check electrical power source. d. Check rear down proximity switch. |
| 2. | Motor overload(s) protector trips. | Call Maintenance | <ul style="list-style-type: none"> a. Check motor amperage. b. Check for low voltage and for proper voltage on all three phases. c. Check for defective starter or overload protection. |
| 3. | Machine does not operate at process speed. | Call Maintenance | <ul style="list-style-type: none"> a. Check drive motor and belt. b. Check for tripped overload(s), circuit breakers, etc. |
| 4. | Machine shuts off or does not extract. | <ul style="list-style-type: none"> a. Check for excessively unbalanced load. b. Call Maintenance. | <ul style="list-style-type: none"> a. Check for actuated or defective unbalance switch/sensor. b. Check Floataire® height and centering, and adjustment of the unbalance switches. Refer to the Maintenance Chapter. c. Check the door closed air cylinder reed switch and proximity switch. Possibly dropping out, due to machine vibration. d. Make sure the drain valve is fully open during extraction. e. Check main air pressure switch. Switch may open if air pressure is too low. f. Check motor overloads, if equipped, for fault or error condition. g. Make sure a water level signal does not remain on prior to extract. |
| 5. | Water level is too high. | Check wash formula. | <ul style="list-style-type: none"> a. Check air trap and water level components for leaks. Check all connections. b. Check water inlet valves for leakage. c. Calibrate water system. d. Check for loose electrical connection. |

Table 7-1 Washer Trouble Shooting Table (continued)

| No. | Symptom | Operator Action | Maintenance Action |
|--------------------------|---|---|--|
| Water System | | | |
| 6. | Water does not enter washer. | a. Check wash formula. b. Make sure that the manual shut off valve(s) is open. c. Call Maintenance. | a. Check water valve solenoid output voltage from controller. b. Check for blocked air trap or faulty water level components. c. Check associated solenoid valve(s), electrical connection(s), water valve(s), and for proper air supply to valve(s). d. Make sure water inlet valve is functioning properly. |
| 7. | Water or chemical supplies enter the washer all the time. | Call Maintenance. | a. Check water or chemical valve solenoid output voltage from controller. b. Check inlet valve operation, electrical connection, pump operation, and water level components. |
| 8. | Water will not heat. | a. Check wash formula. b. Call Maintenance. | a. Check steam valve solenoid output voltage from controller. b. Check steam solenoid, steam valve, steam pressure, and for proper air supply to valve. c. Check for faulty temperature probe or wiring. d. Make sure a water level is sensed inside the machine. |
| Waste Drain Valve | | | |
| 9. | Water drains from washer involuntarily. | Call Maintenance. | a. Check drain valve solenoid output voltage from controller. b. Check drain valve operation. c. Check drain valve gasket. d. Check for faulty drain valve solenoid. e. Check for debris in drain valve. f. Check for air supply at drain valve air cylinder. |
| 10. | Washer does not drain. | a. Check wash formula. b. Call Maintenance. | a. Check drain valve solenoid output voltage from controller. b. Check drain valve solenoid, drain valve, and for proper air supply to valve. c. Check drain output. d. Check DRAIN LEDs for indication. If ON, check for loose wire. |

Table 7-1 Washer Trouble Shooting Table (continued)

| No. | Symptom | Operator Action | Maintenance Action |
|--------------------------------------|---|--|---|
| Shell Door Operations Failure | | | |
| 11. | Shell door does not open or close. <p align="center">NOTE</p> The shell door will not open if a water level is sensed inside the washer, or if the internal washer temperature is above 130° F or 54°C. | a. Check and drain water from washer. b. Check internal washer temperature. | a. Check door open/close solenoid output voltage from controller. b. Check door open switch. c. Check for proper air and hydraulic pressure. d. Check that airmounts are not inflated. e. Check operation of the door hydraulic actuator. f. Check door solenoid operation. g. Check rear down sensor switch. |
| Excessive Washer Vibration | | | |
| 12. | Machine or pedestals vibrate excessively. | a. Check load distribution. b. Make sure the washer is not under loaded. | a. Check that machine is level in all directions and is properly grouted. b. Tighten anchor bolts. Refer to Table 4-6 for torque values. c. Check height of centering of Floataire® system. Refer to Maintenance Chapter. |
| Chemical System | | | |
| 13. | Chemicals or supplies enter washer without being programmed. | a. Make sure correct amount of time is programmed in the chemical step. b. Call Maintenance | a. Check that inlet valve is fully closed and operates properly. b. Check operation of chemical pump(s). |
| 14. | Chemical pumps do not operate. | | a. Check chemical solenoid output voltage from controller. b. Make sure the chemical system is installed correctly. |
| 15. | Incorrect amount of automatic chemical injected. | | a. Calibrate chemical system. b. Make sure the appropriate time is assigned. |
| Tilt Operations Failure | | | |
| 16. | Tilt system does not function. | Call Maintenance | a. Check tilt solenoid output voltage from controller. b. Check hydraulic power unit for pressure and operation. c. Check the shell locking pins, and proximity switches. |