

## Hydraulic Tank Liquid Level Switches

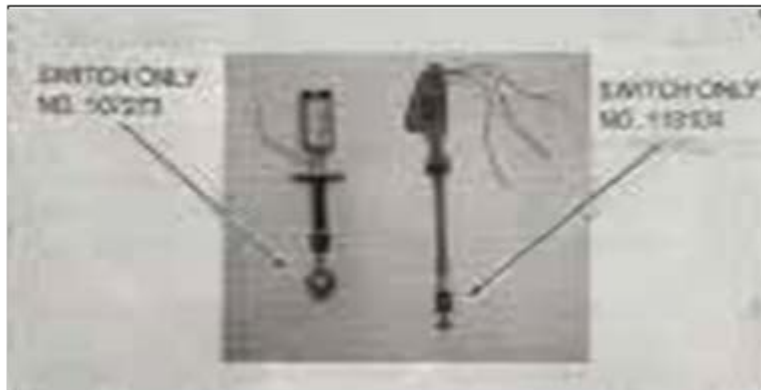
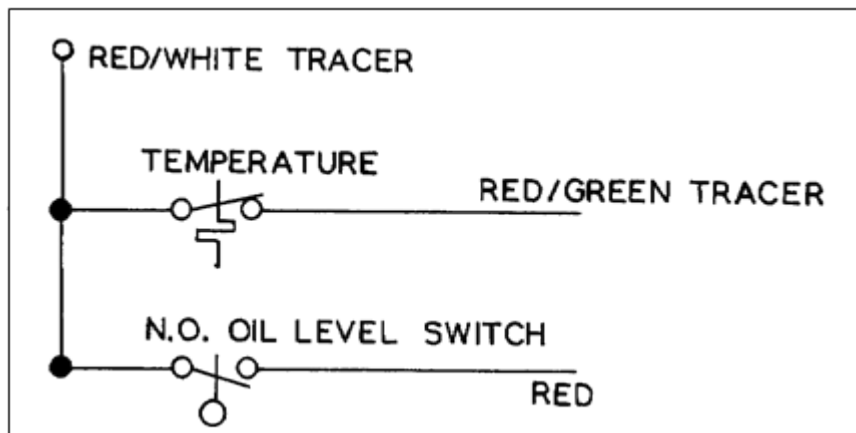


Figure 1

The float and temperature switch part No. 113104 found in the gray hydraulic power unit on AF-7 Cubers, PTS-3, and LSC-40 Cars are cylindrical and have 3 wires as shown in Fig. 1. The wires are red, red with a green tracer, and red with a white tracer. Prior to the year 1988 the wires in this switch were solid colors; green, red, and white. We only use the oil level indicator portion of this switch. The red wire and the red wire with a white tracer are the wires we use to the float level indicator. The red wire with green tracer goes to the temperature sensing portion which we do not use.

**A wiring diagram of switch No. 113104 is shown below.**



Liquid level switch No. 107273 as shown in Fig. 1 is round in shape and found in many Besser Hydraulic Power Units. It is used on SF Cubers, Bescopacs, LSC-40 Crawlers, and other hydraulic tanks painted Besser yellow. No.107273 is only a float switch. There is not a temperature sensor included and only two wires are found. The float switch can be easily changed to normally closed or normally open by removing the float ball, inverting it, and putting it back on. The normally open side up means it is normally open. If the normally closed side faces up the switch will be normally closed. In most applications we use normally open.

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### **SAFETY BULLETIN**

This notice is issued to advise you that some previously accepted shop practices may not be keeping up with changing Federal and State Safety and Health Standards. Your current shop practices may not emphasize the need for proper precautions to insure safe operation and use of machines, tools, automatic loaders and allied equipment and/or warn against the use of certain solvents or other cleaning substances that are now considered unsafe or prohibited by law. Since many shop practices may not reflect current safety practice and procedures, particularly with regard to the safe operation of equipment, it is important that you review your practices to ensure compliance with Federal and State Safety and Health Standards.

### **IMPORTANT**

The operation of any machine or power-operated device can be extremely hazardous unless proper safety precautions are strictly observed. Observe the following safety precautions:

#### **ALWAYS:**

- ✓ Be sure proper guarding is in place for all pinch, catch, shear, crush, and nip points.
- ✓ Be sure that all personnel are clear of the equipment before starting it.
- ✓ Be sure the equipment is properly grounded.
- ✓ Turn the main electrical panel off and lock it out in accordance with published lockout/tagout procedures prior to making adjustments, repairs, and maintenance.
- ✓ Wear appropriate protective equipment such as safety glasses, safety shoes, hearing protection, and hard hats.
- ✓ Keep chemical and flammable material away from electrical or operating equipment.
- ✓ Maintain a safe work area that is free from slipping and tripping hazards.
- ✓ Be sure appropriate safety devices are used when providing maintenance and repairs to all equipment.

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### **NEVER:**

- ✓ Exceed the rated capacity of a machine or tool.
- ✓ Modify machinery in any way without prior written approval of the Besser Engineering Department.
- ✓ Operate equipment unless proper maintenance has been regularly performed.
- ✓ Operate any equipment if unusual or excessive noise or vibration occurs.
- ✓ Operate any equipment while any part of the body is in the proximity of potentially hazardous areas.
- ✓ Use any toxic flammable substance as a solvent cleaner.
- ✓ Allow the operation or repair of equipment by untrained personnel.
- ✓ Climb or stand on equipment when it is in operation.

It is important that you review Federal and State Safety and Health Standards on a continual basis. All shop supervisors, maintenance personnel, machine operators, tool operators, and any other person involved in the setup, operation, maintenance, repair or adjustment of Besser-built equipment should read and understand this bulletin and Federal and State Safety and Health Standards on which this bulletin is based.