HJ-HR-HJA-HT Jet Pump Installation and Service

JET PUMP TROUBLESHOOTING CHECKLIST

This information is for checking jet pump installations which are not operating properly. It is based on the premise that the installed system will consist of a jet pump taking water from a well where the water well level is below the pump and the pump is delivering water into a pressure storage tank.

Warning: To guard against accidental personal injury, the electric power to the pump should be turned off when conducting the checking procedures outlined herein. There are obvious exceptions, however, and service personnel should take necessary safeguards against the hazard of electrical shock.

Shallow Well

PROBLEM	CHECKING PROCEDURE	
Pump will not prime.	1. Stop motor, remove priming plug, and fill case with water.	4. Check for plugged venturi or nozzle.
	2. Make sure suction line has no leaks, and that it slopes gradually from pump to well with no high or low spots.	5. Make sure the foot valve is not sitting in sand or mud, and that it is not stuck shut.
	3. Make sure pump shaft turns clockwise when viewed from motor end opposite shaft.	
Pump delivers water for a period of time, then stops pumping.	1. Make sure well water is not drawing below the foot valve. Use a water-level tester while pump is operating.	3. Check for plugged impeller parts.
	2. Check for plugged or worn nozzle or venturi tube.	
Pump does not deliver rated capacity.	1. Check nozzle and venturi for wear or partial plugging.	3. Check pressure gauge. It may be defective, resulting in false readings.
	2. On ¾ and 1 HP models, make sure diffuser O-ring seal is in place.	
Motor overheats and shuts off (overload).	1. Make sure motor is properly wired for the correct voltage. (See Electrical Information on pages 3-4.)	3. Make sure the impeller is not rubbing against the pump case.
	2. Make sure wire is properly sized. (See chart on page 4.)	
Motor fails or does not operate properly.	1. If within warranty, return pump/motor unit to place of purchase (with proof of purchase) for repair or exchange, if necessary.	

JET PUMP TROUBLESHOOTING CHECKLIST cont'd.

Deep Well

PROBLEM	CHECKING PROCEDURE	
Pump will not prime.	1. Stop motor, remove plug from pressure regulator body and fill case with water.	5. Take pump apart to see whether diffuser O-ring seal is properly positioned.
	2. If pump is offset, check horizontal piping for dips or high spots. Pipe must have a gradual slope from pump downward to well.	6. Be sure motor is running in correct rotation; clockwise when viewed from motor end opposite shaft.
	3. Check well water level to be sure ejector is in water.	7. Pull well piping and check ejector for plugged nozzle or venturi.
	4. Check piping and pump for air leaks.	8. Make sure foot valve is not sitting in sand or mud.
Pump delivers water for a period of time, then stops pumping.	1. Make sure well water is not drawing below the foot valve. Use a water-level tester while the pump is operating.	3. Pull well piping and check ejector for plugged nozzle or venturi.
	2. Make sure the regulator is set properly, especially is well draws down. Regulator must be set to provide minimum operating pressure at the maximum drawdown. (See chart on page 8.)	
Pump delivers water but will not kick off pressure switch.	1. Well may be drawing down below limit of ejector. Check with water-level tester while pump is operating.	4. Check for wear at impeller neck.
	2. Make sure tube from pressure switch to pressure regulator is not plugged.	5. Make sure diffuser O-ring seal is properly positioned.
	3. Check pressure switch for defects.	
Pump does not deliver rated capacity.	1. Check well lift. Use water-level tester while pump is operating.	3. Operating pressure may be too high. Set the regulator to the minimum operating pressure for your pump size. (See chart on page 8.)
	2. Check submergence depth of ejector. If the ejector is installed more than 10 feet below the pumping level, capacity will be reduced due to increased friction in piping.	4. Pull well piping and check the ejector for proper size and depth setting.
Motor overheats and shuts off (overload).	1. Make sure motor is properly wired for the correct voltage. (See Electrical Information on pages 3-4.)	3. Make sure the impeller is not rubbing against the pump case.
	2. Make sure wire is properly sized. (See chart on page 4.)	
Motor fails or does not operate properly.	1. If within warranty, return pump/motor unit to place of purchase (with proof of purchase) for repair or exchange, if necessary.	