

Ample Power Company



Troubleshooting the Ample Power Genie

Introduction

Most installations that fail to operate from the start are due to some sort of fuel problem. The purpose of this guide is to provide a troubleshooting approach that will locate those problems with a minimal of effort.

Getting Help

Because many problems are battery related, rather than Genie problems, include in your correspondence the capacity, type and

This guide is to be used in conjunction with the Installation and Operating Instructions for the Genie. Also refer to the Genie Trouble Shooting Guide in the manuals section of this site.

age of your batteries.

Getting Assistance

Free online support is available.

Symptoms	Possible Causes
Engine tries to start but sputters and stops.	Fuel line contains air. Pypass the normal fuel pump wiring and run the fuel pump while 'cracking' the nut above the fuel hose connection until no more bubbles appear.
Engine tries to start but sputters and stops.	There may still be air in the fuel line at the injector. Run the fuel pump again as above while cracking the nut on the fuel line at the injector.
The throttle solenoid doesn't pull the throttle open very far.	There isn't enough clearance between the lever and the packing gland that is on the axis of throttle lever rotation. Back off on the top jam nut and then tighten the bottom nut up onto the top nut. Do not tighten the top nut onto the bottom one.
The throttle solenoid doesn't pull the throttle open very far.	Voltage to the Genie is too low. Operating voltage for the Genie controls is picked off the wire connected to the main starter post. Make sure that there is 12V at that post.
The throttle solenoid got very hot and no longer operates.	The solenoid was operated too long with low voltage, or too much throttle lever friction. Replace solenoid.
After bleeding the fuel line and despite pre-heating the engine, it needs to be cranked a long time before it will start.	Voltage is not getting to the glow plug. Quickly touch the glow plug to see if it is warm. Test the voltage at the glow plug. If voltage is present with the switch turned against the spring, and the glow plug doesn't warm to the touch, replace the glow plug.
A few seconds after turning on the regulator, the engine loads down and stalls.	The current limit adjustment on the regulator is set too high, or current limiting input is not wired.
The engine starts bogging down as the current limit is adjusted higher, even though output is well below the rated output.	The engine is being starved for fuel. Some causes for this include: <ul style="list-style-type: none"> • air in the fuel line; • a blocked fuel filter; • a pinched fuel line; or • a bad external fuel pump.
The unit operates fine for a long time, delivering rated Amps to the batteries. Then it starts slowing down and eventually quits running.	The fuel tank may not be vented properly so that a vacuum is being drawn.
Battery voltage immediately goes to the absorption setpoint and skips the bulk charge step.	The batteries are either full, or otherwise won't accept the current which the Genie can deliver.
Oil pressure has large fluctuations.	Like most engines, oil pressure is regulated by a spring loaded ball bearing that presses into a formed seat. Pressure from the oil pump pushes against the ball/spring which compresses enough to bypass oil and limit pressure. Obstructions in the seat, prevent the ball from seating properly and so excess oil is bypassed and large pressure variations occur. The ball/spring needs to be removed and cleaned. Drain the oil first. Locate the ball/spring assembly on the bottom left of the engine, below the injector pump. A large nut, 17mm, needs to be removed. Do not let the ball or spring jump free on removal.

Table 1: Genie Troubleshooting Table