

## TROUBLESHOOTING

The engine and generator have been set to run at 1800 rpm, 60 Hz at the NorAm factory. The light tower should not require additional adjustment in the field. Adjustments should be made by a qualified technician to prevent voiding of manufacturer's warranty.



*If you feel a shock at any time, shut down the light tower and have it inspected by a trained electrician.*

### MECHANICAL

PROBLEM	POSSIBLE CAUSE	SOLUTION
Boom will not raise	Traveling locking pin has not been removed	- Remove pin
	Winch is defective	- Have a trained technician examine and repair as needed
	Cable or pulley is defective	- Have a trained technician examine and repair as needed
Boom will not extend	Winch is defective	- Have a trained technician examine and repair as needed
	Cable or pulley is defective	- Have a trained technician examine and repair as needed
	Telescope lock pin is closed	- Open telescope lock pin

### ENGINE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine will not turn over	Dead battery	- Check battery voltage and cables
	Engine has seized	- Have a trained technician examine and repair as needed
Engine turns over, but will not start	Fuel line or filter is clogged	- Check and clean fuel system as required
	No fuel	- Fill tank
	Fuel line leak	- Tighten connections, replace lines as needed
	Fuel solenoid is closed	- Replace solenoid
Engine runs rough	Heater elements burned out	- Replace heater elements
	Clogged air filter	- Clean/replace air filter
	Clogged exhaust	- Clear system
	Clogged/leaking fuel system	- Check and clean fuel system as required, tighten connections, replace lines as needed
	Clogged/stuck fuel injectors	- Have a trained technician examine and repair as needed
Engine exhausts dense smoke when running	Damaged valve springs	- Have a trained technician examine and repair as needed
	Valve clearance out of adjustment	- Have a trained technician examine and repair as needed
	Defective governor	- Have a trained technician examine and repair as needed
Engine exhausts dense smoke when running	Defective fuel pump	- Have a trained technician examine and repair as needed
	Too much oil in crankcase	- Drain oil to proper crankcase level
Engine exhausts dense smoke when running	Cylinder compression is low	- Have a trained technician check rings and valve clearance

**ENGINE**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Engine overheats	Coolant level is low	- Add appropriate coolant
	Radiator air intake is blocked	- Inspect and clear as needed
	Radiator fins are clogged	- Clear the fins
	Loose fan belt	- Tighten the belt
Battery voltage is low	Alternator is defective	- Have a trained technician examine and repair as needed



*Verify that circuit breakers are OFF prior to working on lights.*



*Only qualified electricians should troubleshoot electrical systems.*

**LIGHTS**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Lights will not operate	Tripped circuit breaker	- Reset the breaker
	Burned out bulb	- Replace bulb
	Engine speed is too low	- Have a trained technician examine and repair as needed
	Plugs not tight	- Examine and tighten as needed
Circuit breaker trips on start-up	Insufficient cool down time from previous operation	- Switch off breaker and allow light to cool
	Loose wiring connection	- Have a trained electrician examine and repair as needed
	Defective ballast and capacitors	
Low output	Short circuit or grounded	- Verify wiring to diagram and inspect for shorts or grounds; repair as needed
	End of bulb life	- Replace bulb
	Dirty lens	- Clean lens
	Defective ballast	- Have a trained technician examine and repair as needed
	Incorrect ballast	- Compare ballast spec to lamp requirement, replace as needed
	Wrong voltage	- Voltage at ballast should be $\pm 10\%$ of rating during normal operation. Check wiring for voltage drops, repair as needed.