

Trouble Shooting for the Armadillo 60, 90, &120 Hot Oil Filtration Machine

The Armadillo portable oil filter has been designed and engineered to be reliable under normal operating conditions. It like any other machine can need trouble shooting from time to time. Sometimes, the Armadillo unit will not run properly due to operational abuse.

The following is a trouble shooting guide that will help resolve operational issues and keep the filter unit running.

General maintenance of unit will lengthen its useful life. It is important to wipe down motor pump unit daily. Spattered oil solidifies and hardens, creating massive build-up over a period of weeks.

The tank (not the filter media) can be thoroughly washed with degreasing solution, rinsed thoroughly, and towel dried. If properly cared for, your Armadillo filter machine can look like new years from now.

	Problem	Resolution
1	Motor will not run	Make sure that motor unit is plugged into a working 115v outlet. Test any other appliance in outlet to insure outlet is hot or working.
2	<ul style="list-style-type: none"> • If outlet is not hot 	Check circuit breaker, or find another outlet.
3	<ul style="list-style-type: none"> • If outlet is hot 	Repeat previous test on extension cord
4	<ul style="list-style-type: none"> • If extension cord is hot and can run another appliance 	Remove plate from bottom of motor base plate and find reset button on bottom of motor. Push with deliberate pressure the reset button. <i>*NOTE- motor must be cool in order to reset.</i> You will hear a small click if it resets.
5	<ul style="list-style-type: none"> • If motor is cool to the touch and does not reset 	Push hard several more times on the reset button
6	<ul style="list-style-type: none"> • If the motor still does not run 	Check switch for continuity
7	<ul style="list-style-type: none"> • If the motor still does not run 	Replace motor pigtail to motor
8	<ul style="list-style-type: none"> • Motor seems to be on, but hums 	Pump is probably gummed up with old, dried, sticky oil. Remove 4 pump bolts. Manually turn the pump gear until it turns freely. You may need to

		<p>squirt some fresh oil in the suction nipple side of the pump.</p> <p>When gear turns free, re-assemble on motor housing. Be sure that gear drive is aligned with slot in motor drive before tightening bolts. Install four bolts and tighten</p>
9	<ul style="list-style-type: none"> Motor seems to be on, but hums and does not run 	<p>With pump removed, see if motor armature will turn freely by inserting a flat-blade screwdriver in top of armature slot, and manually turn.</p> <p>If armature will not turn, motor probably needs to be serviced or replaced.</p>
10	<p>Motor runs, but pump doesn't seem to work well</p>	<p>Filter material could be plugged up and needs to be changed</p> <p>Or</p> <p>Filter material could have become wet or washed which plugs the filter with emulsified oil or dried water soluble minerals.</p> <p><i>*NOTE- <u>Filter must never be washed</u></i></p> <p><i>*NOTE- <u>Filter needs to be changed weekly</u></i></p>
11	<ul style="list-style-type: none"> New filter material, but pump doesn't seem to work well 	<p>The suction hose could be drawing air. This is usually a poorly connected disconnect from the suction hose to the riser nipple. Insure that this connection is tight.</p>
12	<ul style="list-style-type: none"> Good connection between suction disconnect and riser, but pump doesn't seem to work well 	<p>Inspect suction hose to see that there are no leaks.</p> <p>Make sure disconnect from suction hose to pump is firmly connected.</p>
13	<ul style="list-style-type: none"> Hose is sound, and good connection between disconnect and pump, but pump doesn't seem to work well 	<p>Firmly reconnect supply hose disconnect to pump. *NOTE- there is a safety shut off valve in the supply nipple and the quick disconnect. In order for oil to flow, both of these valves need to be open.</p> <p>*NOTE- This fitting needs to be disconnected and reconnected once per day or the fitting will become gummed up and separation becomes almost impossible. A degreaser can be used occasionally on this fitting to keep it working properly.</p>
14	<p>Motor runs for 30 seconds to 1</p>	<p>The safety shut off valve prevents the pump</p>

	minute and then stops running	from pumping and causes the motor to overheat and shut off. After the motor cools 2 to 10 minutes, the reset button can be depressed to reset the motor. See #4
14a	<ul style="list-style-type: none"> Return hose disconnect firmly attached, but motor still shuts off within 10 – 30 seconds after thermal overload has been reset. 	<p>If the machine has been operated without a filter in place, crumbs can become compacted in the safety shut off valve. Valve needs to be removed from pipe with open end adjustable wrench, cleaned, and then re-installed.</p> <p>Repeat step 4</p>
15	Motor runs sluggishly	<p>Filter media could be plugged up</p> <p>Oil in filter tank could be too cold (room temp to 150F) Oil pumps best if 150F or hotter</p> <p>Extension cord at plug in point could be plugged with grease and spades of power plug could not be making appropriate contact. Clean plug on motor unit and use a new extension cord</p>
16	Motor still runs sluggishly	<p>Bottom seal in pump could have allowed oil to seep into area between pump and motor. Unbolt 4 pump bolts, clean out gummed up oil, run motor and using 3 in 1 oil, oil the bearing . When motor runs normally, replace pump. Be sure that gear drive is aligned with slot in motor drive before tightening bolts. Install four bolts and tighten.</p>

These remedies should solve operational issues with your Armadillo 60, 90, or 120 Turbo unit. If you need assistance, you can call our technical support at 1-800-459-2112