

1000 HOUR (1 YEAR) SERVICE KIT A700178 FOR S700157/159 COMPRESSOR SYSTEM

Shut down the welder/compressor system. Allow the compressor system to fully depressurize. Allow sufficient time for all components to cool before commencing any servicing.

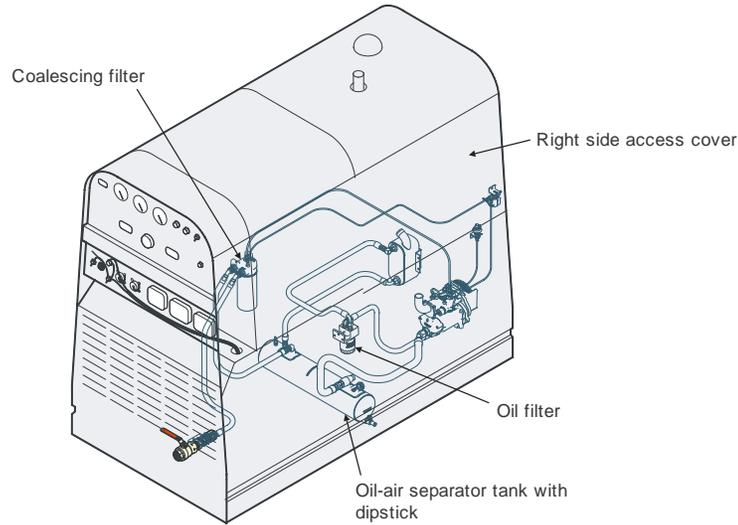


Failure to depressurize the system could cause parts to separate explosively, causing injury or death. A leak of high-pressure oil/air mixture spray can have enough force to penetrate the skin, which could cause serious injury or death.



The compressor and the compressor system get very hot during operation. Allow the system to cool before attempting service. Contact with hot components or hot oil can cause serious burns.

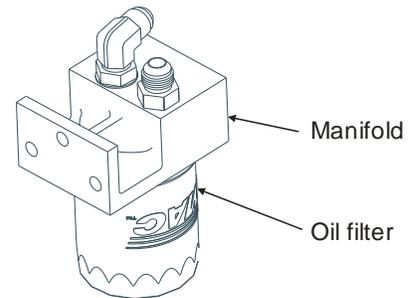
All service can be performed by opening the right side access cover.



Changing the Compressor Oil Filter

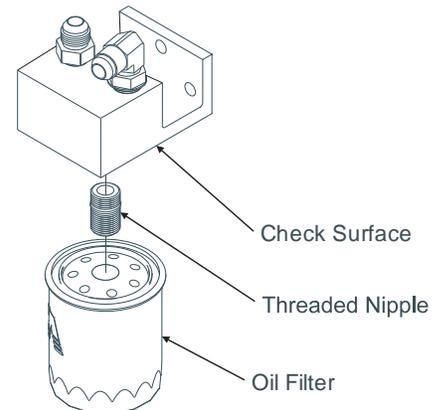
Parts required: oil filter 9200039; compressor oil A700094 (4 litres).

1. Clean around the manifold block and the filter to prevent contamination.
2. Remove the filter by turning it counter-clockwise.
3. Check the filter to make sure that the threaded nipple did not unscrew with the filter. If the nipple is in the filter, remove it carefully to avoid thread damage. Coat the threads of the threaded nipple that engage the manifold block with a small amount of Loctite blue and install it into the manifold block.
4. Check the gasket-sealing surface of the manifold block for contamination, old gasket material or damage.



Make sure the new filter is a VMAC certified filter. This is a high-pressure oil filter, even though it may look like a normal automotive oil filter. A normal filter will rupture under operating pressure. The rupturing of a filter could result in flying projectiles or a leak of high-pressure oil/air mixture could penetrate the skin, either of which could cause serious injury or death.

5. Apply a thin coating of compressor oil to the filter sealing gasket.
6. Spin the filter onto the threaded nipple until the gasket contacts the sealing surface of the manifold block.
7. Tighten the filter an additional 3/4 to 1 turn to seat the sealing gasket.

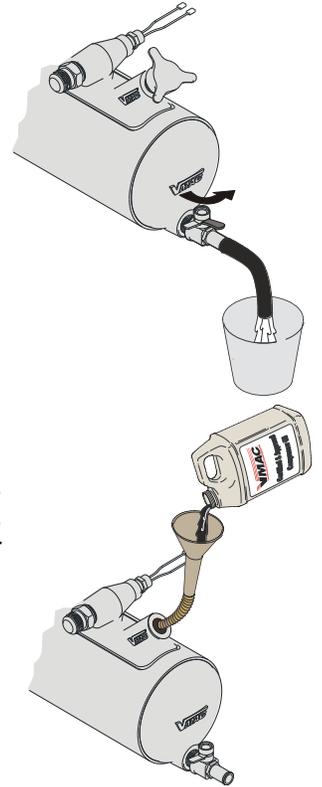


Never over-tighten the filter, as this may damage the seal or filter.

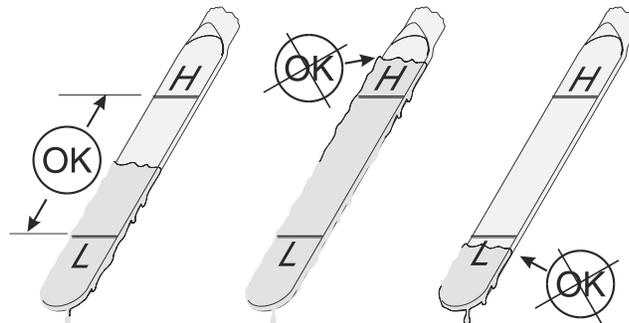
Changing the Oil

Parts required: compressor oil A700094 (4 litres).

1. Clean around the drain valve of the oil/air separator tank.
2. Insert a small hose over the oil/air separator tank's drain valve outlet and open the valve to drain the oil into a container large enough to hold at least 6 litres (1-1/2 US Gal.). After the oil has drained close the valve.
3. Clean around the oil level dipstick of the oil/air separator tank to prevent contamination.
4. Unscrew and remove the oil level dipstick. Insert a funnel into the oil level dipstick hole and pour in the required amount of VMAC VR high performance synthetic oil.
5. Refit the oil level dipstick and check that all components and hoses are correctly connected and tight and the system is ready for operation.
6. Run the system so that the system reaches operating temperature. Shut off the engine. Allow the compressor system to depressurize and all system components to cool. Ensure the system is fully depressurized and check the oil level in the air oil separator tank.



The oil level is acceptable when it reads between the, “high” and “low” marks of the dipstick, see image below. Due to the system being closed loop, and depending on operation and shutdown, a volume of oil will exist in other components within the system, this oil volume can vary slightly causing a variance in the dipstick reading. Additional oil is only required if oil level reads below the “low” level on the dipstick.



*VMAC VR high performance synthetic oil **MUST** be used. Failure to use this special oil may result in damage to the compressor and may void the warranty.*

Changing the Compressor Air Filter



The air filter is located on the top of the machine. This system is equipped with a ‘filter minder’ which indicates the air filter condition. This should be checked on a regular basis to ensure proper performance. Never attempt to clean the air filter element with compressed air, as this is likely to allow some contaminants into the compressor system. Always replace the air filter element when indicated. Please contact your local Lincoln Electric dealer for air filter components.

Changing the Coalescing Filter

Parts required: coalescing filter 3600089

1. Clean debris and dust from the area around the manifold block and the filter to prevent contamination.
2. Remove the filter by turning it counter-clockwise using a suitable filter wrench
3. Do not use a screwdriver punched into the side of the filter, as this practice can damage the scavenging tube and screen.



Check the filter to make sure that the threaded nipple did not unscrew with the filter. If it is in the filter, remove it carefully to avoid thread damage, coat the threads that go into manifold block with a small amount of Loctite blue and install it into the manifold block. Use caution when removing the filter so as to avoid catching the scavenge screen orifice on the bottom of the scavenge tube on the lip of the coalescing filter. This scavenge screen orifice is attached to the scavenge tube by a "push to connect" fitting, if the fitting has come off of the tube re-insert the tube into the fitting ensuring that the tube is fully engaged.

4. Check the gasket-sealing surface of the manifold block for contamination, old gasket material or damage.



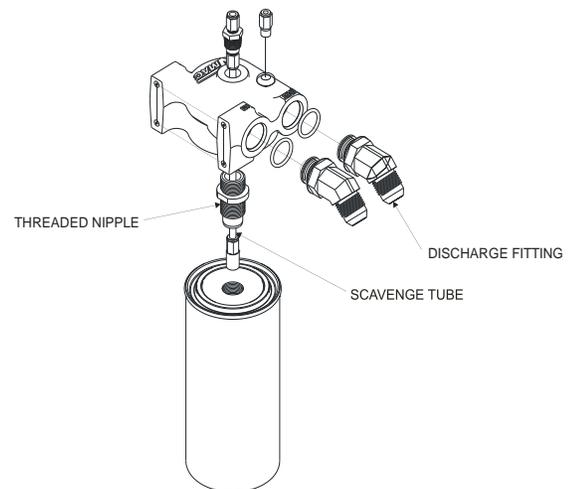
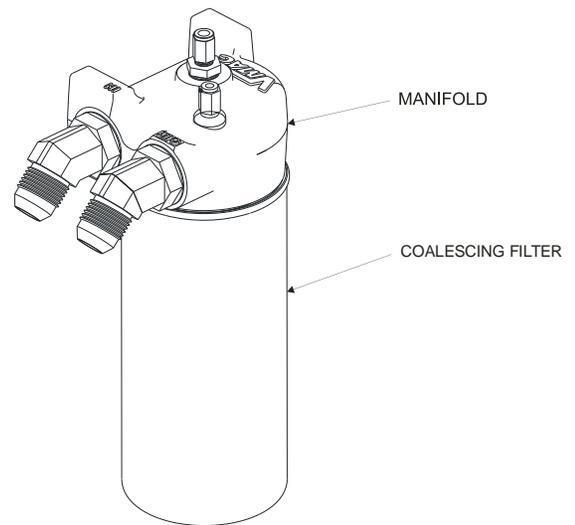
Make sure the new filter is a VMAC filter, part # 3600079. This is a high pressure filter. Use of other filters not rated to the required pressure may cause the filter to rupture.

5. Apply a thin coating of compressor oil to the coalescing filter sealing gasket and coat the end of the threaded nipple, as there is also an O-ring inside the coalescing filter.
6. Spin the filter onto the threaded nipple until the gasket contacts the sealing surface of the manifold block.
7. Tighten the filter an additional 3/4 to 1 turn to seat the sealing gasket.



Never over-tighten the filter, as this may damage the seal or filter.

8. Check the oil level following the procedure in 'Changing the Oil' section above..



Flushing Procedure

Parts required: oil filter 9200039; compressor oil A700094 (4 litre).

Component failure (such as a gearbox, compressor, hose or cooler core) can leave metal filings and other foreign materials in the system.

1. Before replacing any failed component, check all other system components for evidence of contamination and clean thoroughly. Use compressed air to blow out lines and other components. Remove the oil filter and dump out oil from the filter. If there is no metal in the oil filter, continue with the regular flush procedure, (continue to step 2).

If there is metal in the oil filter, look for metal in the return line to the compressor. If metal is found, the cooler must be flushed before the new compressor is installed. As well, the lines from the tank to the cooler and cooler to compressor need to be thoroughly checked and/or flushed or replaced before installing the new compressor.

2. Once the system has been cleaned, replace the failed component and reconnect the lines and fittings.
3. Install a new oil filter and fill the system with VMAC compressor oil to the correct level.
4. Start the engine and engage the air system following correct start up procedures. Allow the system to pressurize and operate in no-load mode for about 15 minutes without discharging any air.
5. Shut-down, allow the system to cool and change the oil and the oil filter. Refill with compressor oil to the correct level.
6. After 50 hours, replace the oil filter and top up the oil level.

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000	Original Document	MRH 05/Jun/2012	-	-
A	ECN 12-087: ENGINEERING RELEASE	MRH 05/Jun/2012	NC 22 Jun 2012	11 Jul 2012



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