



AeroConversions

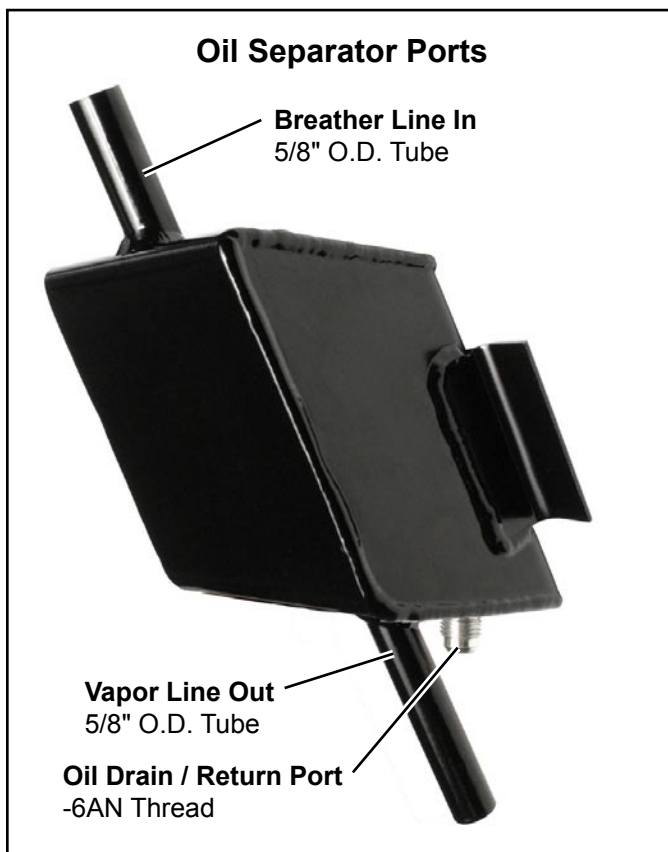
A Product Line of Sonex Aircraft LLC

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Installing the AeroConversions Oil Separator

(Rev A 112409)

While the AeroConversion's oil separator can be adapted to nearly any engine/airframe installation, these instructions apply specifically to the Sonex Aircraft airframes and the AeroVee engine. **AeroConversions and Sonex Aircraft offer no specific advice for fitting an oil return line to any engine other than those covered in these instructions.**



Other Items You May Need

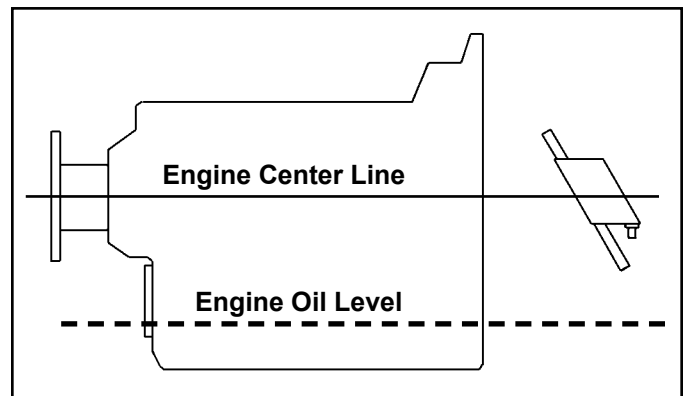
Review these instructions to determine specifically what additional parts you may need to complete your particular installation:

- 6AN Hose End Fitting, Qty. 2 (or as req'd.)
Used to attach a hose to the oil drain on the separator.
Jegs part number 555-100001
- 6AN to 3/8 NPT Adapter, 90-degree, Qty. 1
Used to attach the oil drain hose to the AeroVee when recirculating the vented oil.
Jegs part number 361-982266

- High-Performance Braided Hose, 6 feet (or as req'd.)
Used for oil drain line/oil return line.
Jegs part number 555-100911
- DTL-60000C Series Fuel Line, 5/8" I.D., length as req'd.
Used for engine-to-separator breather line.
Wicks part number MILDTL6000-5/8
- 6AN Flare Cap, Qty. 1
Used to cap the separator's oil drain when no oil drain return line is fitted.
Jegs part number 555-100312
- Hose Clamps, Qty. 4
Used for engine-to-separator breather line.
- Oil Separator Return Plate, Qty. 1
Used to install an oil return line on AeroVee engines which do not have an oil temperature plate as standard equipment.
Sonex Aircraft part no. ACV-P02-20.

Mounting the Separator

The oil separator must be mounted in a position that permits the oil drain port to be above the engine's oil level in normal flight attitudes.



The drain port of the separator must be above the oil level of your engine.

When selecting a location for the oil separator keep in mind the need for access to the oil drain port if an oil return line to the engine will not be installed.

The separator can be mounted with 1/8" stainless steel pulled (blind) rivets or the AN hardware of your choice.

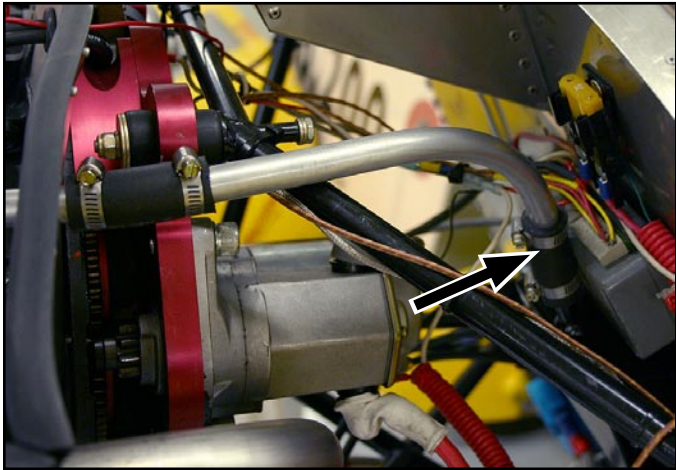
Connecting the Ports

Breather Line In

The oil breather line from the engine is attached to this port.

This port is a 5/8" O.D. tube which will accept an oil-proof 5/8" I.D. hose held in place by a hose clamp.

If fitting the separator to an AeroVee engine on a Sonex you can cut the engine's aluminum breather tube behind the rear fence baffle and fit a piece of hose between the breather tube and the oil separator.

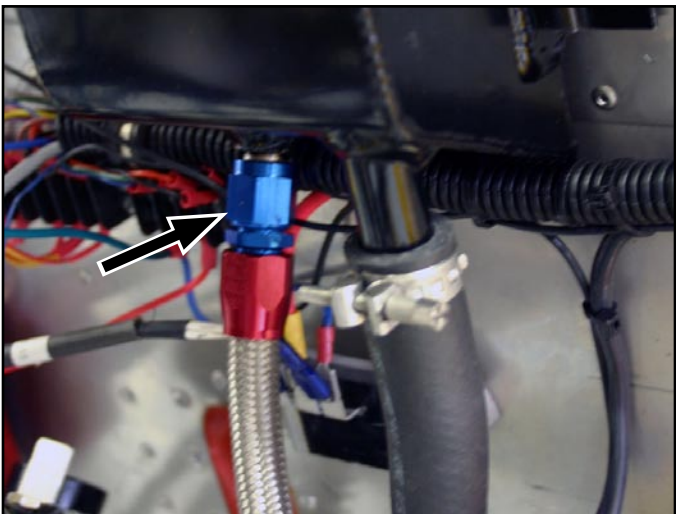


The breather line can be an aluminum tube connected to the breather port with a rubber hose and hose clamps, or it can be only a rubber hose.

Oil Drain / Return

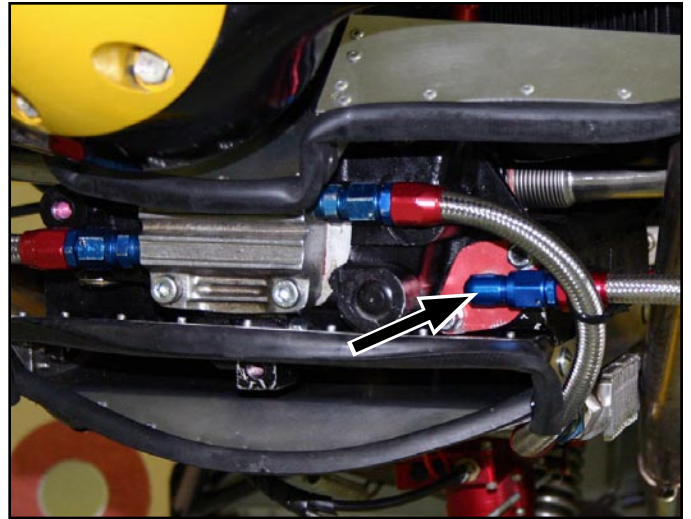
The drain can be plumbed back to the bottom of the engine to return oil to the case, or it can be fitted with a cap so captured oil can be periodically drained.

This port will accept a -6AN hose end or -6AN flare cap.



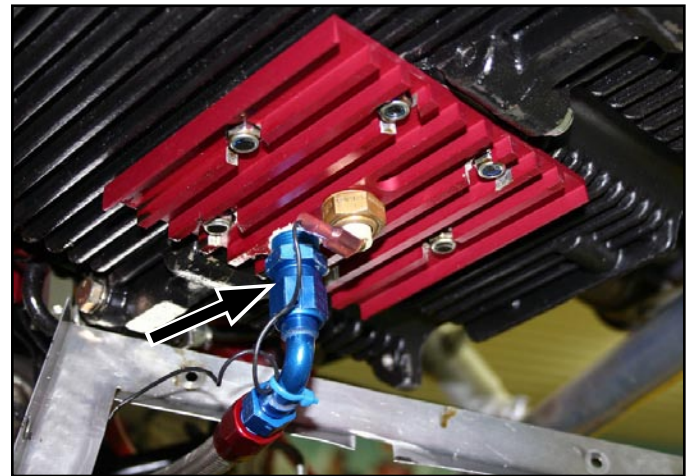
The oil drain / return line with a return hose attached.

If fitting the separator to an AeroVee engine equipped with an oil temperature plate, tap the plate to accept a -6AN to 3/8 NPT 90-degree adapter and attach a braided hose between the elbow and the separator.



In this photo the oil temperature plate fitted to most AeroVee engines has been drilled and tapped to 3/8 NPT and an oil return line installed.

To fit an oil return line to an AeroVee that is not equipped with an oil temperature plate you must install an optional Oil Separator Return Plate, AeroConversions' part number ACV-P02-20, which can be tapped for fitting an oil return line. We recommend a 3/8 NPT hole.



This photo shows a typical oil return line installation in a prototype return plate. While the production return plates (ACV-P02-20) appear different, the installation is the same.

Vapor Line Out

This is the outlet for vapor and should be vented out the bottom of the airplane. This port will also vent oil if the oil separator is allowed to fill with oil before being drained, or if the drain is not plumbed back into the engine.

This port is a 5/8" O.D. tube which will accept an oil-proof 5/8" I.D. hose held in place by a hose clamp.