STOL CH 801

LYCOMING O-360
Engine Installation

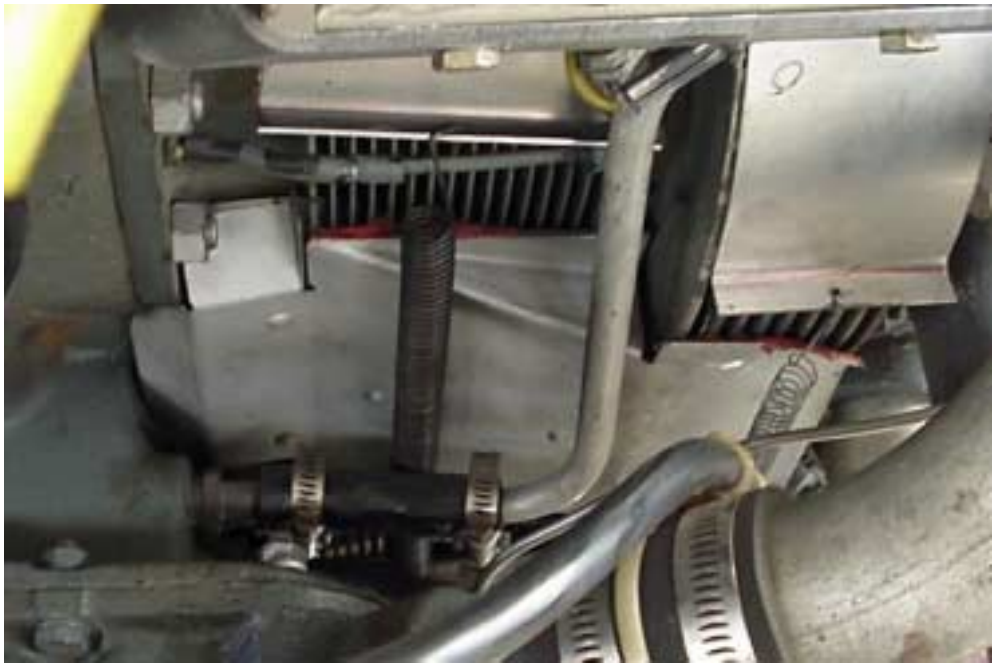
SECTION 1a
Baffles

INSTALLATION OF THE ENGINE BAFFLES

STOL CH 801 Lycoming O-360 engine with baffles

Installation of the Baffles:

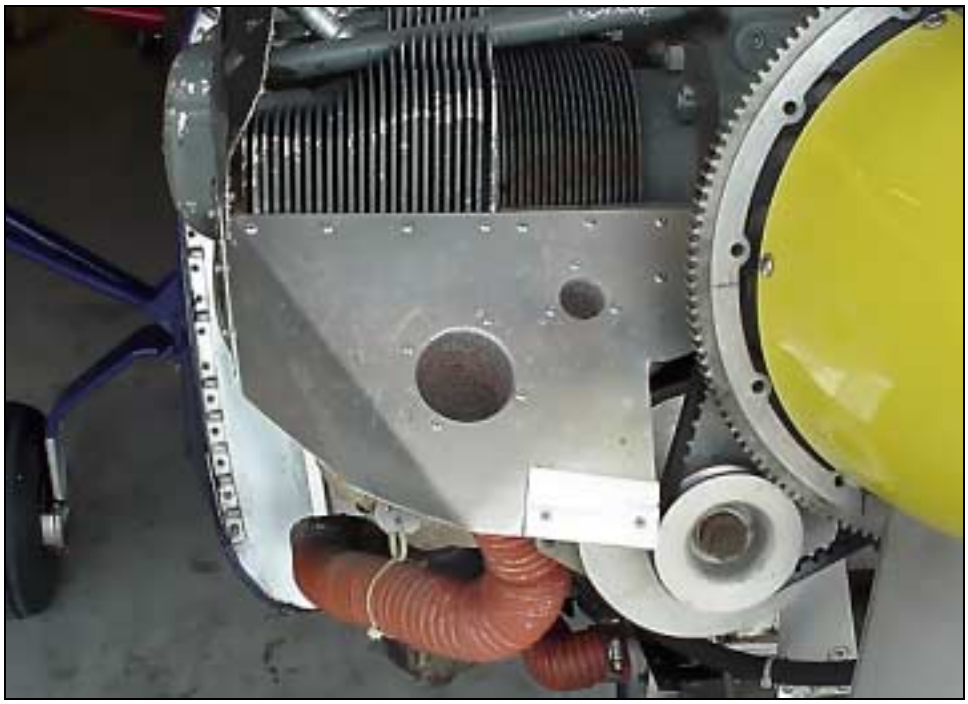
1. Right front baffle (one piece)
2. Right front underside baffles (two pieces): I/B & O/B
3. Right side baffles (two pieces): RB, FR
4. Right rear baffle (one piece): RR (bottom is rolled to fit under the cylinders).
5. Center rear baffle (one piece): positioned on aircraft centerline.
6. Left rear baffle (one piece)
7. Left side baffles (two pieces): LF, LR
8. Left front (one piece, plus oil cooler air scoop)
9. Left front underside baffles (two pieces): I/B & O/B
10. Underside middle (two pieces): I/L, I/R – supplied factory installed on Lycoming engines.
11. Trim top of baffles to fit cowl and rivet baffle tape.



Lycoming supplied baffle:

Located on the bottom of engine between the two cylinders, one per side. Held in place with a spring to the top.

Left side: front view looking up.

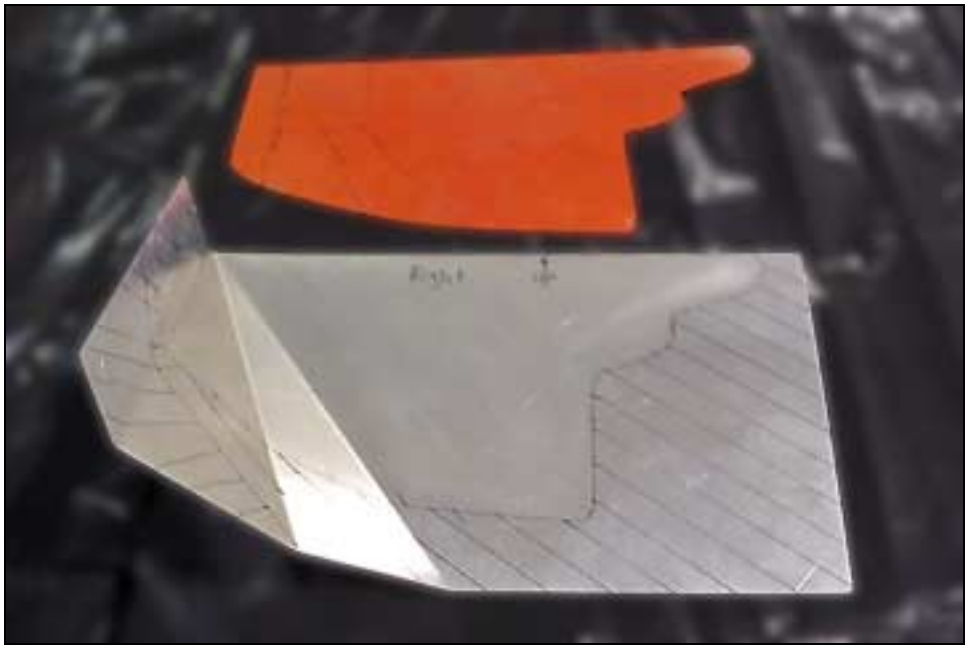


The right front baffle (installed)

- 2-inch hole and flange for carb heat air.
- ¾" hole and flange open.

Top of the right front baffle.
The top rivet line is through the inboard and outboard front underside baffles.
Plastic material riveted at bottom of baffle to protect the cowl.

The installed right front baffle with the lower engine cowl.



Top: the trimmed baffle.

Bottom: the supplied baffle material with the marked trim lines.

Trim 8F21-2: Approx. 45 mm. at the center (the width of the channel) and the height of the ¾" tube of the cabin frame at both ends.

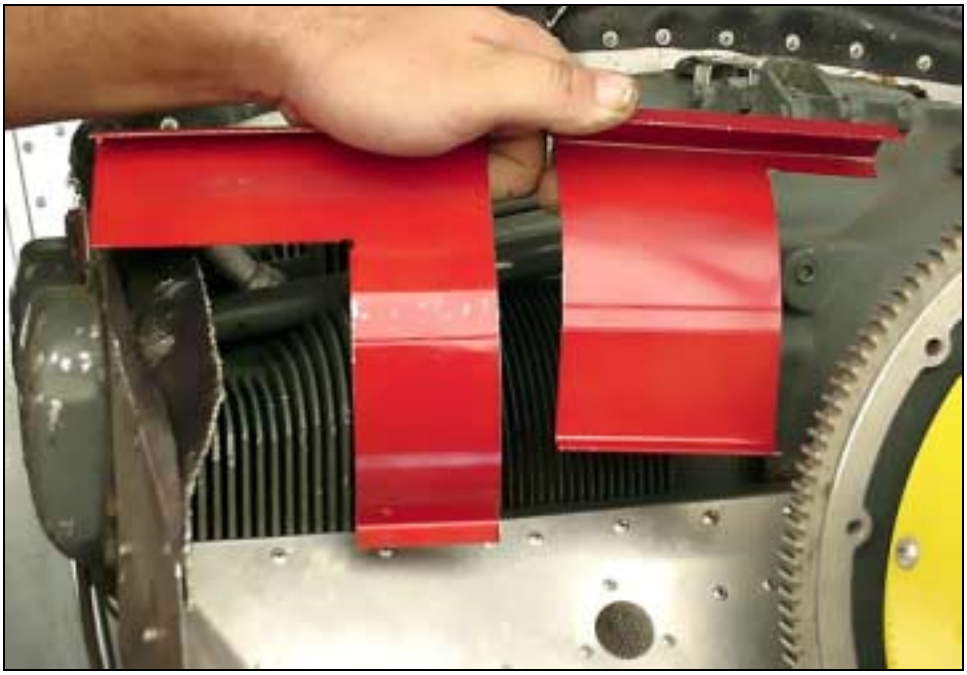
The right front underside baffles:

Top: the trimmed baffles.

Bottom: the supplied baffle material with the marked trim lines.

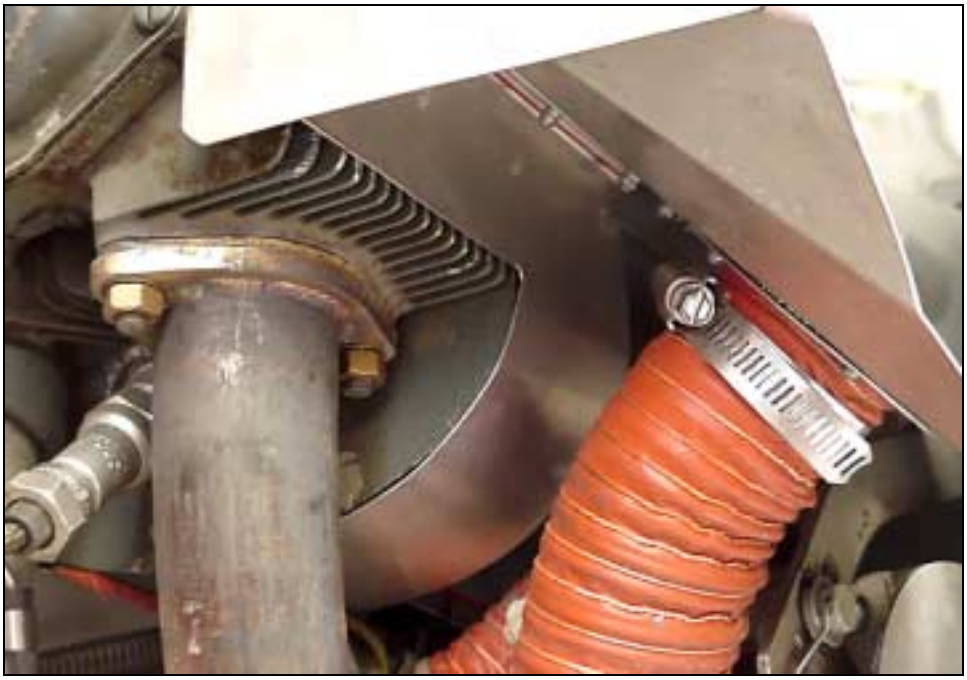
Right: The right inboard baffle.

Left: The right outboard baffle



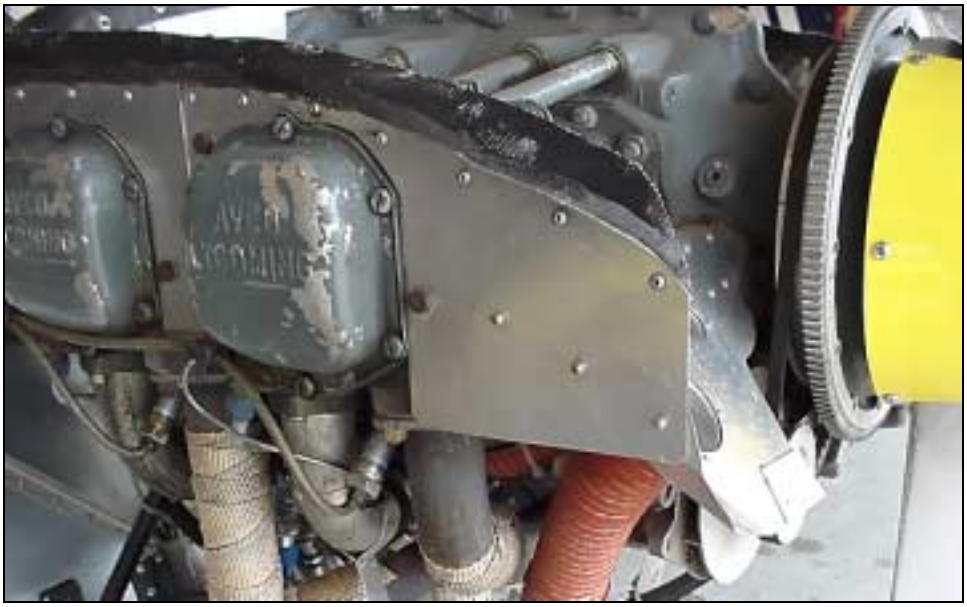
The right front underside baffles.

The right front underside baffles are located under the front right baffle. The bent flange at the top of the underside baffles is riveted to the front right baffle.



Retaining springs hook to the bottom of the flanges.

Detail view of the right front underside outboard baffle.
The cylinder shown is the front right cylinder.



The right side baffle (installed).

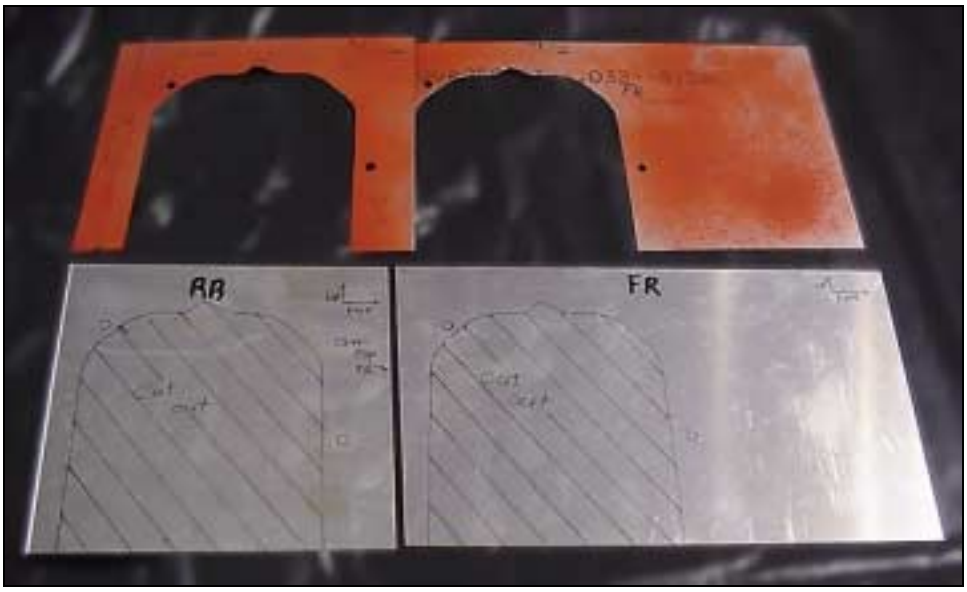
Bottom rivet line:
Three rivets at the lower front: Rivet into the side of the front right baffle.

The right side baffle (installed)

The rear baffle has a short flange pointing inboard.

Note:
The top edge of the baffle is trimmed to clear the top half of the cowl.

The right side baffles with the lower cowl installed.



Top: the trimmed baffles.

Bottom: the supplied baffles material with the marked trim lines.

The right side baffles. Front (FR) and Rear (RR)

The rear right (RR) baffle installed.

Note: the 2-inch hole and flange does not need to be installed.

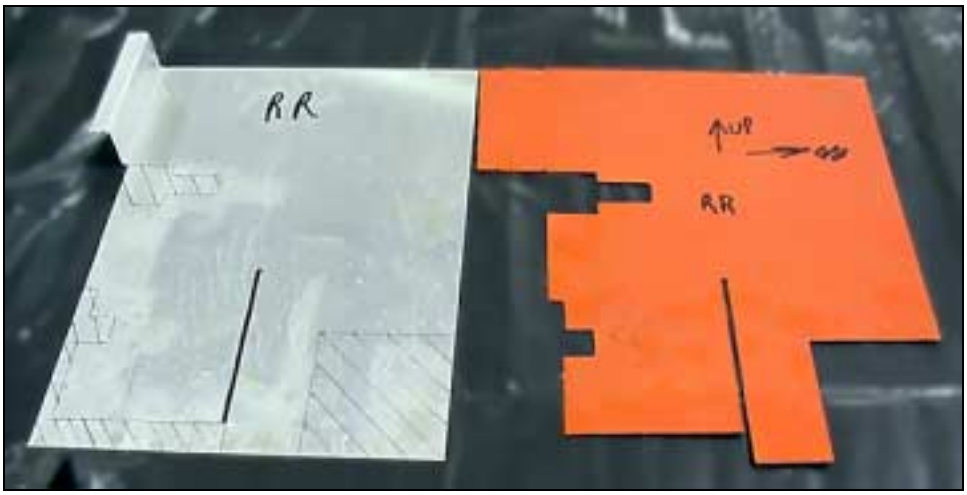
Rivet the rear edge of the rear right baffle RR to the flange of the rear right side baffle.

View from the front of the installed rear right (RR) baffle.

Note: the 2-inch hole and flange does not need to be installed.

Detail view of the bottom of the rear right (RR) baffle (installed), view from the bottom.

Bend a small flange at the bottom edge to attach two retaining springs. Springs join to the inboard and outboard front underside baffle.

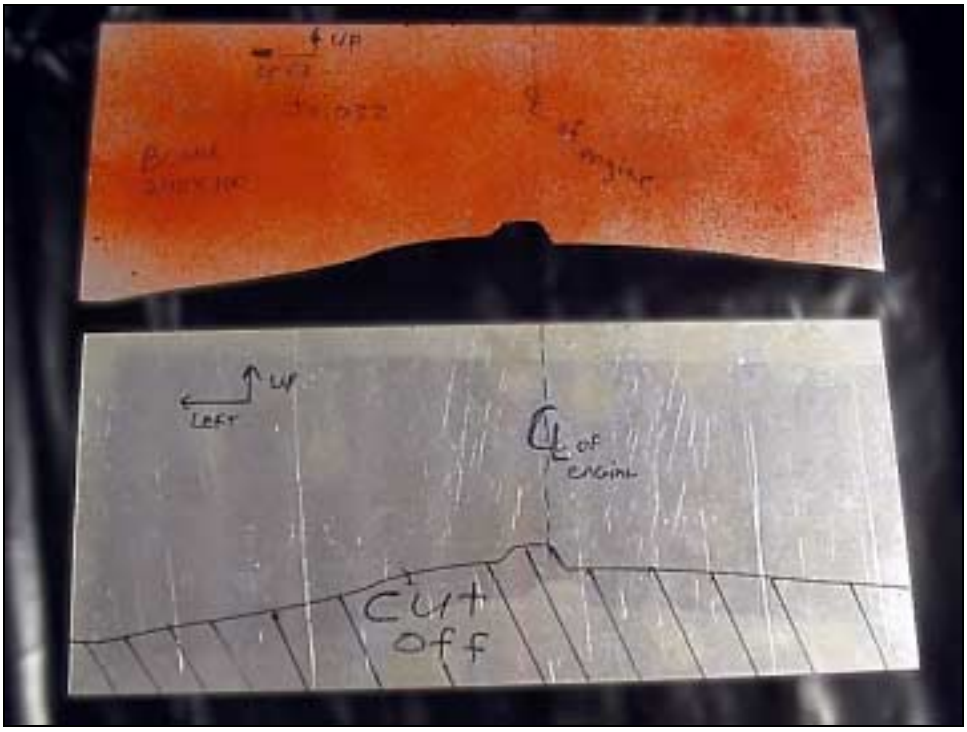


Right: the trimmed rear right (RR) baffle.

Left: the supplied baffle material with the marked trim lines.

Center rear baffle (installed).

The right side is riveted to the short flange of the RR baffle.
The left side is riveted to the top of the left rear baffle.



Center Rear Baffle:

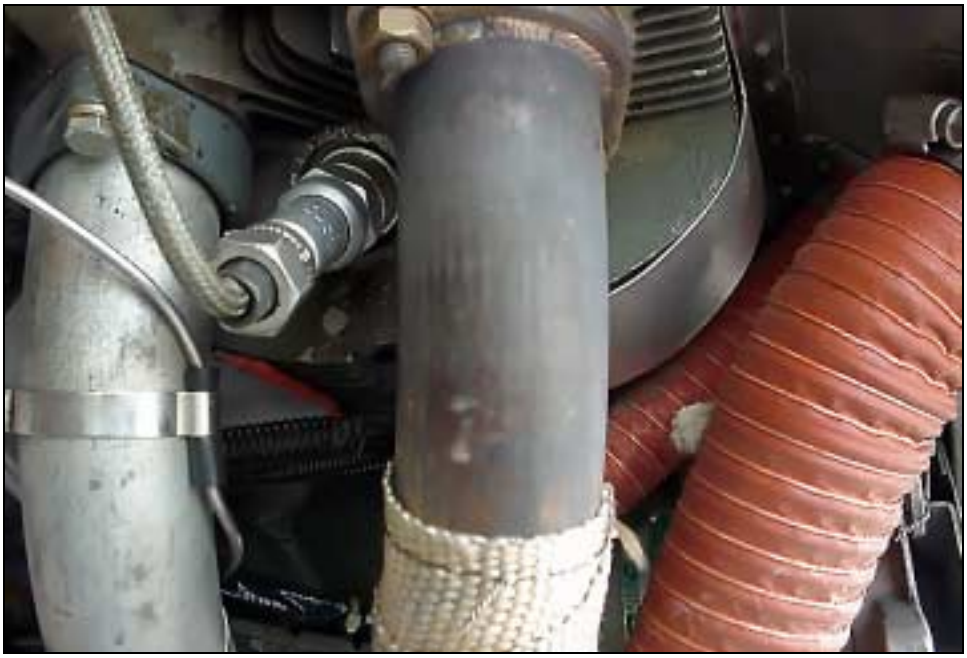
Top: the trimmed baffle.

Bottom: the supplied baffle material with the marked trim lines.

The left rear baffle.

Optional two-inch hole and flange for cabin fresh air vent.

Rivet the rear flange at the back of the left side rear baffle to the side of the left rear baffle.



Detail view of the bottom of the rear left (RL) baffle (installed).

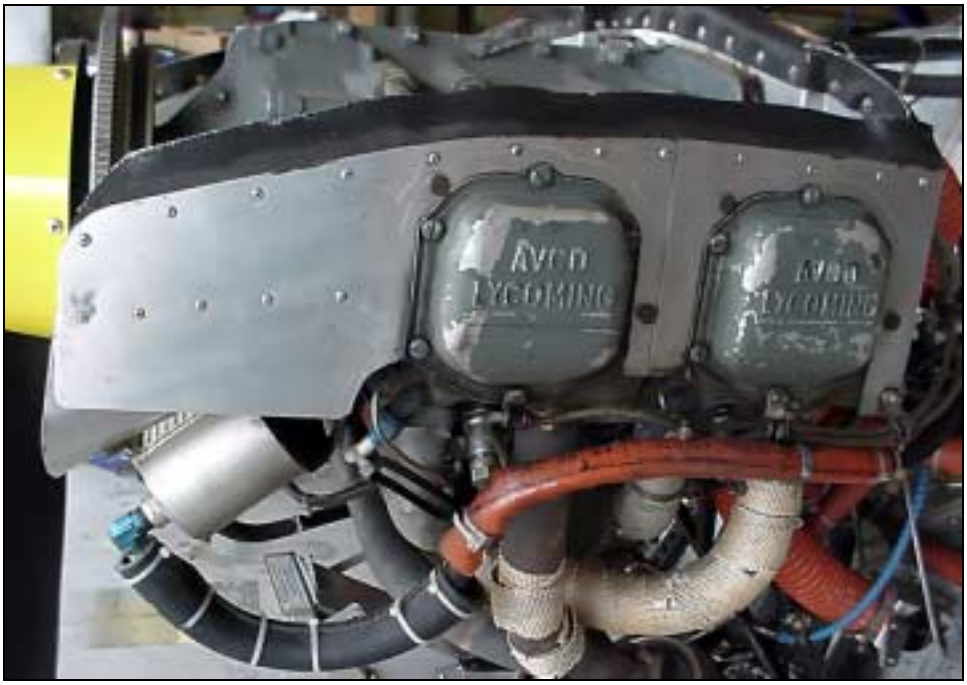
The baffle is curved to follow the underside of the engine cylinder.

Bend the small flange to attach spring (joined to the front inboard and outboard underside baffles).

Left Rear Baffle:

Right: the trimmed baffle.

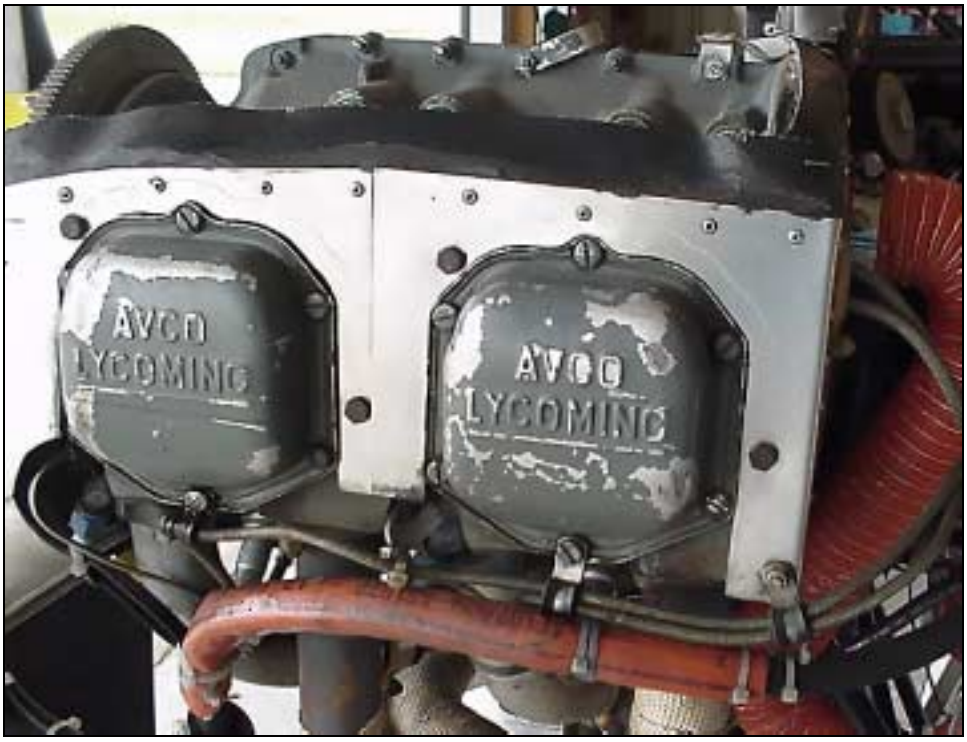
Left: the supplied baffle material with the marked trim lines.



Left side baffles (installed).

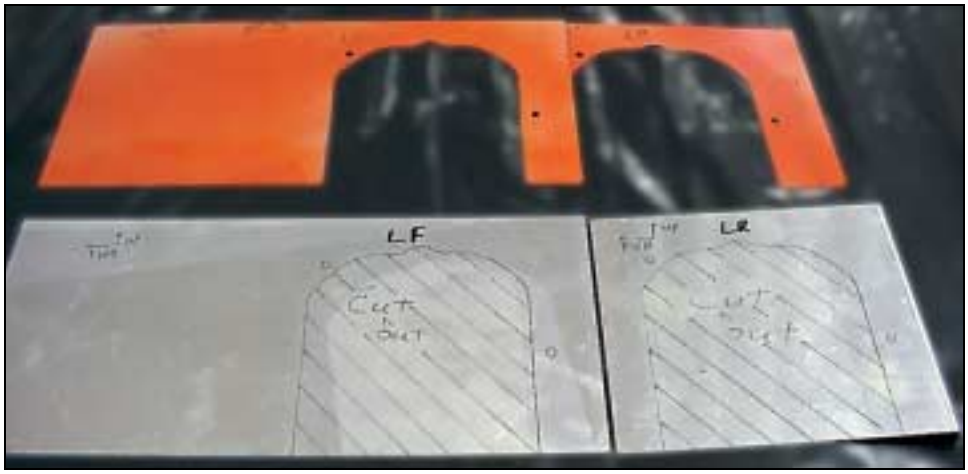
Note: cut-out to clear the primer line.

The lower front rivet line is through the side of the left front baffle.



Detail of the left side baffles.

The flange of the rear side baffle points inboard and is riveted to the left rear baffle.



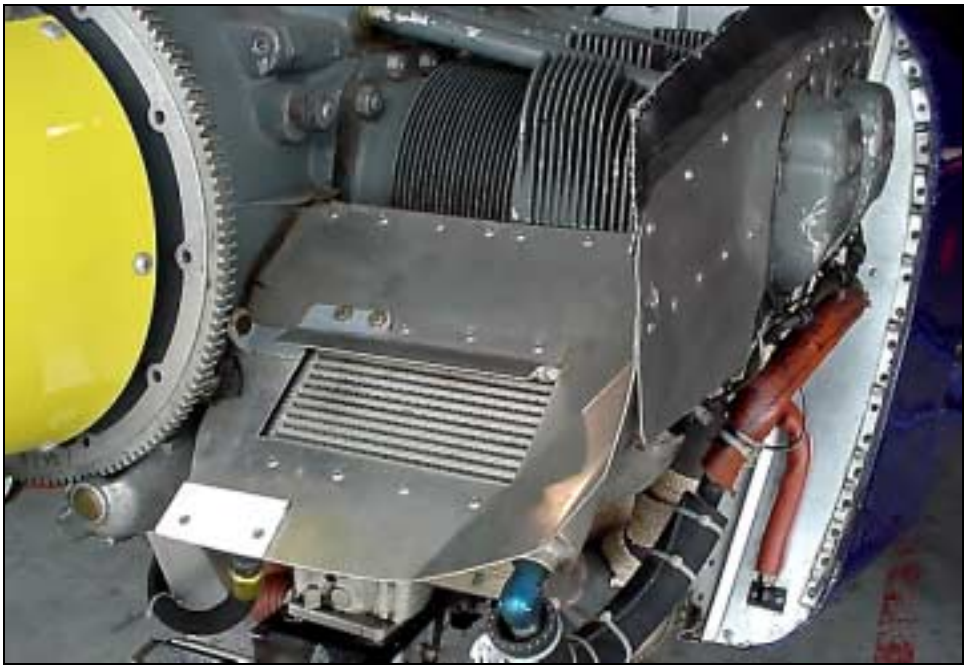
The left side baffles (front and rear).

Top: the trimmed baffles.

Bottom: the supplied baffles material with the marked trim lines.

The right side baffles installed with the bottom half of the cowl installed.

Note: Trimming of the top of the baffles is required to clear the top of the engine cowl.



The left front baffle.

Plastic material riveted at bottom of baffle to protect the cowl.

The steel bracket bolts the oil cooler in place.
The rivet line through the top front of the baffle is through the inboard and outboard underside baffles.

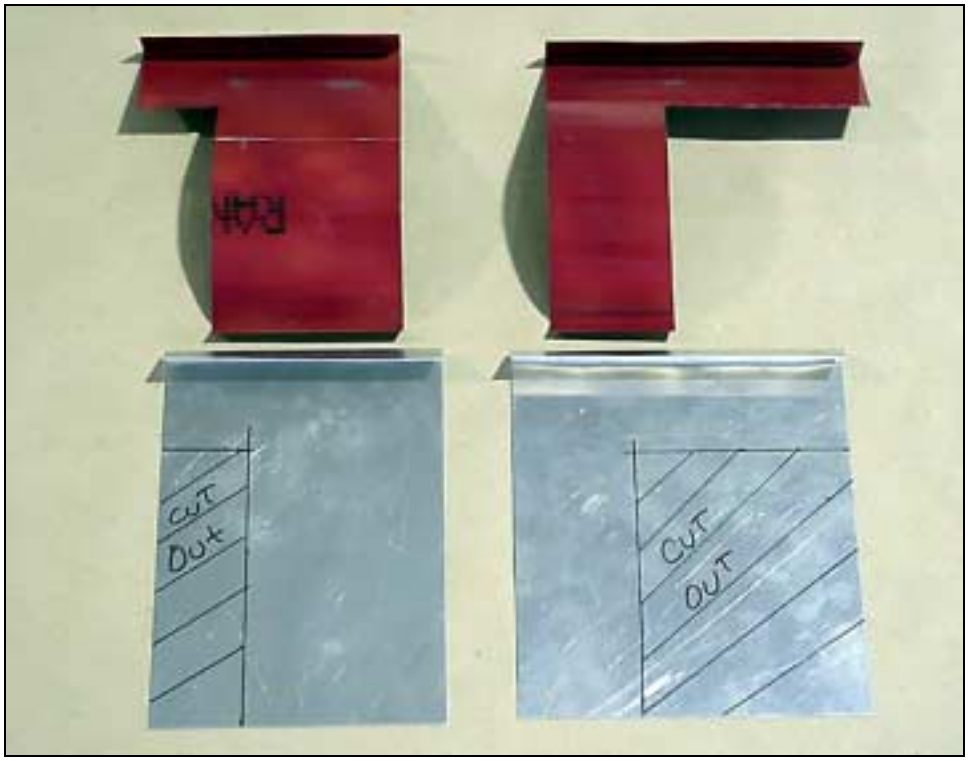
Top: the trimmed baffle.

Bottom: the supplied baffle material with the marked trim lines, plus the oil cooler air scoop.

The oil cooler air scoop is positioned just above the cut opening.

Rivet line through the oil cooler flange.

Oil cooler air scoop.



After trimming, bend a small flange (10 – 15 mm.) at the bottom ends to attach the springs.

The left front underside baffles:

Top: the trimmed baffles.

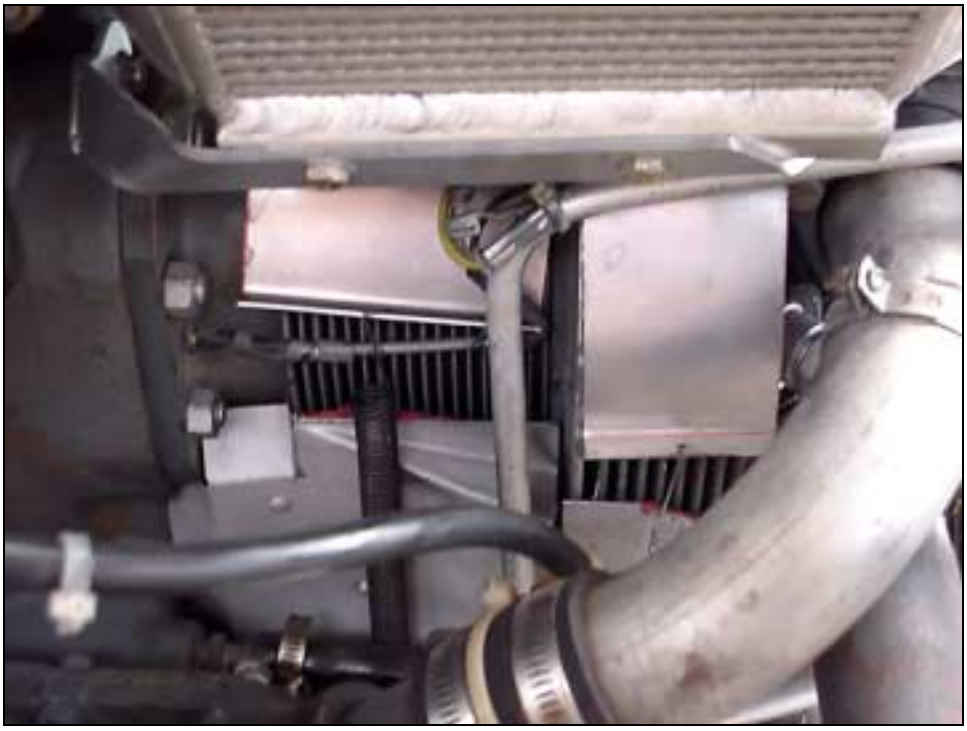
Bottom: the supplied baffle material with the marked trim lines.

Right: The right outboard baffle.

Left: The right inboard baffle

The left front underside baffles.

The left front underside baffles are located under the front left baffle. The bent flange at the top of the underside baffles is riveted to the front left baffle.



Detail of the left front underside baffles (view from bottom front):

- Oil cooler shown at the top of photo.
- Retaining springs hook to the bottom of the flanges and connect to the right rear baffle.

Trim the top of the aluminum baffles installed to provide adequate clearance for the top half of the cowl.

Rivet Baffle Tape along the top edge of the aluminum baffles to provide an “air-tight" seal.
(Part No: 05-00700, Qty: approx. 7 feet.)

Completed installation of baffles on the Lycoming O-360 engine.