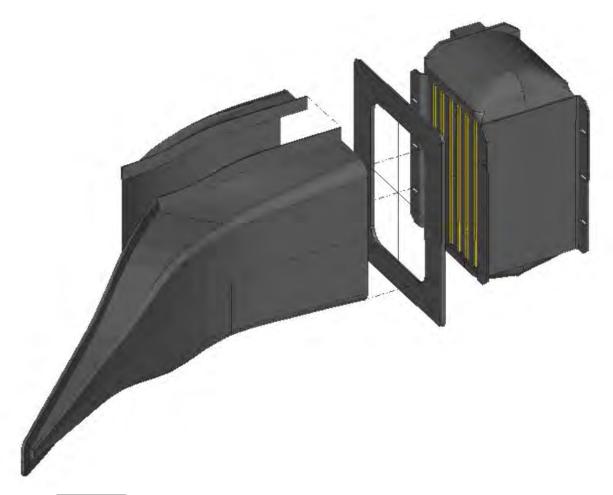


# NACA Oil Cooler Inlet Assembly





#### PRESCOTT PRODUCTS CORP.

P. O. Box 1238, Lockhart, Texas 78644-1238 Phone: (512) 398-3668 Fax: (512) 398-5096

www.nacascoop.com

Page 1

## PI35 NACA Oil Cooler Inlet Assembly/Installation instructions

Part Number 160904-01

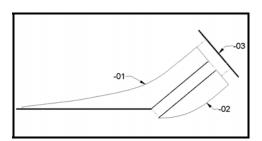
Congratulations! You have purchased one of the finest aviation products available.

**PRESCOTT PRODUCTS** is dedicated to quality and service.

The PI35 NACA Oil Cooler Inlet Kit allows the quick and easy assembly and installation of an efficient NACA oil cooler inlet scoop. The best method of obtaining inlet air into your aircraft is with a **PRESCOTT PRODUCTS** NACA inlet kit. Follow these step by step instructions for assembly and installation.

#### **Kit Contents:**

<u>Quantity</u>	<u>Item</u>	<u>Part Number</u>
1 each	Assembly/ Installation Instructions	160904-01
1 each	Inlet Main Body	160935-01
1 each	Inlet Outlet Body	160935-02
1 each	Oil Cooler Attachment Flange	160935-03
1 each	"Cut-out" Template	160904-02
1 each	"Cut-out" Template	160904-03

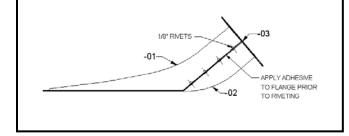


#### **Assembly Instructions:**

**1.0** Locate the –01 and –02 components. Trial fit the two parts making sure the rectangular outlet face is flush.

De-burr and trim as necessary.

Caution: Care should be exercised when working with fiberglass/epoxy components. epoxy resin and sanding dust can cause an allergic reaction. When epoxying components they must be clean and free of oils and residues.



- **2.0** Lightly sand the mating surfaces of the two components with #150 grit sandpaper.
- 3.0 Clamp the two components together and check to insure the outlet face is flush. When the Inlet Assembly is installed the outlet will have the oil cooler attached to it. Therefore, the flange must

#### 34. Oil Cooler Inlet Install



be cut back from the outlet face. Mark the two flanges 1/8 inch from the end. Cut away the two flanges. Smooth the edges where the cuts were made.

Page 2

Part Number 160904-01Rev.A

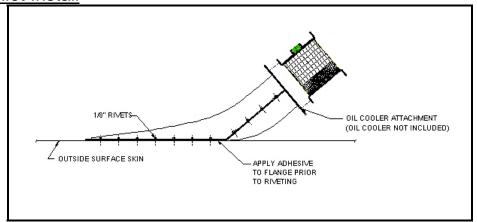
- **4.0** Pilot drill four holes per side to accept 1/8 inch "pop" rivets (not supplied). These rivets should be located at least 1.5 inches apart and centered on the flange. Final drill holes to size.
- 5.0 Separate the parts and de-burr the rivet holes. Final inspect the components and clean the mating surfaces with epoxy thinner, lacquer thinner, or Methyl Ethyl Ketone (MEK).
- 6.0 Mix a small quantity of epoxy (not supplied) and coat both mating surfaces of the components. Mate the two components and install the rivets. Allow Inlet to cure for 24 hours.
- 7.0 Cut out the center of -03 plate using the 160904-02 template supplied. Trial fit the Oil Cooler Attachment Flange. Once it mates properly and is flush with the -01/-02 assembly, lightly sand the mating surfaces of the two components with #150 grit sandpaper. Also, sand an area completely around the flange extending ½" outward from the cut-out on one face only. Final inspect the components and clean the mating surfaces with epoxy thinner, lacquer thinner, or Methyl Ethyl Ketone (MEK).
- 8.0 Mix a quantity of epoxy (not supplied) thickened with colloidal silica (not supplied) to a paste consistency and coat both mating surfaces of the components. Mate the two components and create a fillet completely around the flange. Allow Inlet to cure for 24 hours.





#### Installation Instructions:



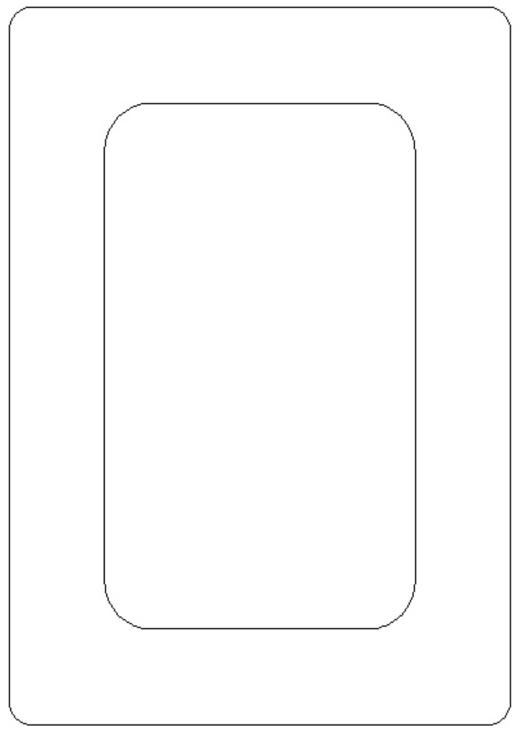


**1.0** Locate area for the installation of the NACA Inlet.

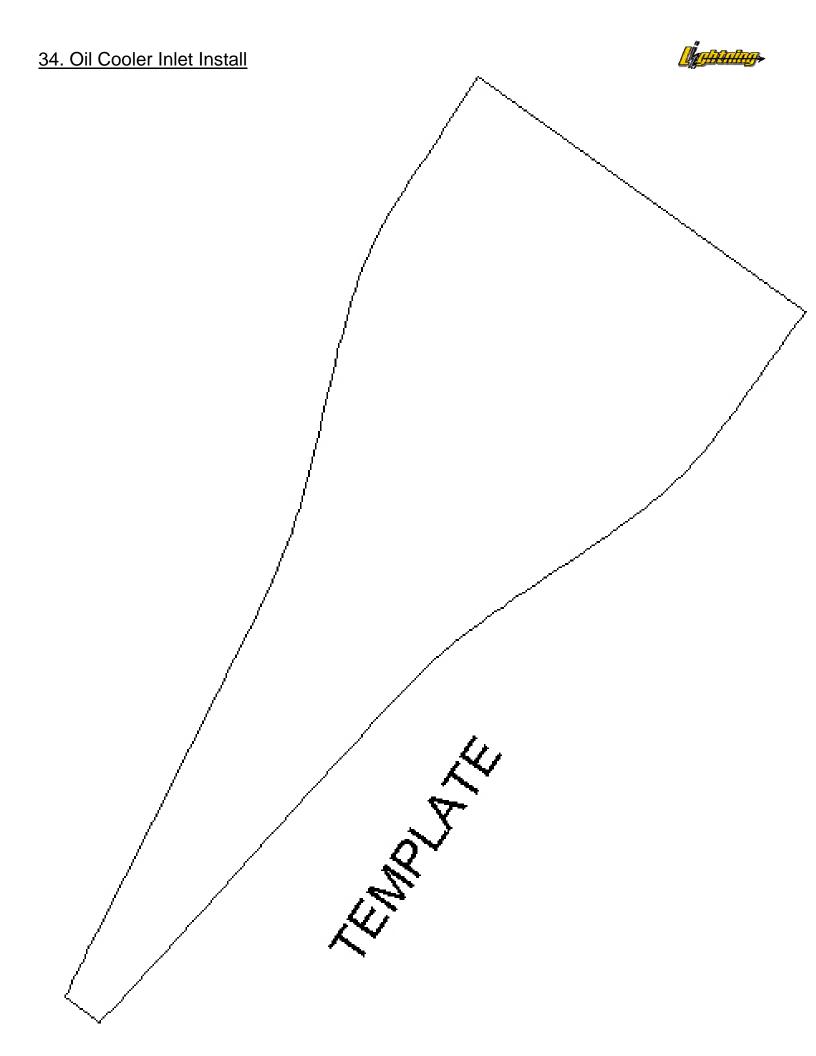
Note: Insure that when the installation is complete there is sufficient room around the outlet to allow the attachment of the oil cooler.

- **2.0** Temporarily attach the oil cooler to the inlet attachment flange. Use appropriate hardware for the attachment. Remove the oil cooler and proceed with the air inlet installation.
- 3.0 Mark a centerline where the inlet is to be installed (see "Cut-out" Template Part #160904-03).
- **4.0** Cut out "Cut-out" Template. Locate the template on centerline. Mark cut-out on surface.
- **5.0** Cut inlet area as marked. De-burr and trial fit inlet. Trim as required.
- 6.0 Hold inlet in proper position and pilot drill a rivet hole. Note that seven rivets per side should be planned (not supplied) for each flange. Minimum separation should be 1.5. Install a Cleco in the pilot hole. Locate and pilot drill additional holes.
- **7.0** Final drill all 1/8 inch rivet holes. Remove Inlet and de-burr holes.
- **8.0** Lightly sand the mating surfaces with #150 sandpaper.
- **9.0** Clean the mating surfaces with epoxy thinner, lacquer thinner, or MEK.
- **10.0** Mix a small amount of epoxy (not supplied) and coat both mating surfaces.
- 11.0 Install the inlet with "pop" rivets with 1/8" ID X ½" OD washer on the Inlet side. The installation is now complete. Allow epoxy to cure for 24 hours.





"Cut-out" Template 160904-02



### 34. Oil Cooler Inlet Install

"Cut-out" Template 160904-03

