

Procedure 8.020 Engine Cowling Installation

In this procedure...

The engine cowling will be fitted and installed on the aircraft. In addition the upper cowling extension will be installed.

<u>Part Number.</u>	<u>Description.</u>	<u>Qty.</u>
114-11-005	Upper Cowling	1
114-11-006	Lower Cowling	1
114-11-005-01	Upper Cowling Extension	1
114-11-005-02	Upper Cowling Extension Bulkhead	1
MS24693S51	Screws	50
K2000-3	Anchor Nuts	50
AN426AD3-4	Rivets	100

Step 1. Install Upper Cowling Extension

When installing the TCM IO550 engine an upper cowling extension must be added to the fuselage.

Fabricate the firewall extension bulkhead out of 1/2", 2 core 2 Rib Stock. Shape the bulkhead using the dimensions listed below, measuring from the fuselage centerline out along the joggle in 1-inch increments.



1 thru 14	1 3/8
15	1 7/16
16	1 1/2
17	1 3/8
18	1 1/16
19	3/4
20	5/8

Trim the upper fuselage joggle aft so that it is flush with the forward face of the firewall. Hot glue the extension bulkhead in position and laminate 2 layers of cloth over the extension and onto the firewall. On the aft side laminate two laminates on the extension and the upper fuselage. Place the upper fuselage skin on the bulkhead and the fuselage just below the windscreen joggle. Make sure the top of the extension is level with the fuselage waterlines. Sand the areas where the extension meets the fuselage and milled fiber in place.

Step 2. Position Lower Cowling

With the engine and propeller installed clamp the lower cowling in position. You should have minimum 1/8" gap between the spinner backing plate and the cowling. Mark the trailing edge to match the fuselage joggle and trim to fit. Screw spacing on the cowling should be approximately 4".



Step 3. Position Upper Cowling

Position the upper cowling on the aircraft. Trim to fit the lower cowling and the rear joggle. Drill and install screws or the type of fastener you choose.