

6.3 Front Spar Assembly

- 1) Start by laying an inboard Front Spar (W0518) on your building table. Make sure the most open angle is on top. This angle will match the angle of the top of the leading edge rib. Figure 6.3.1.

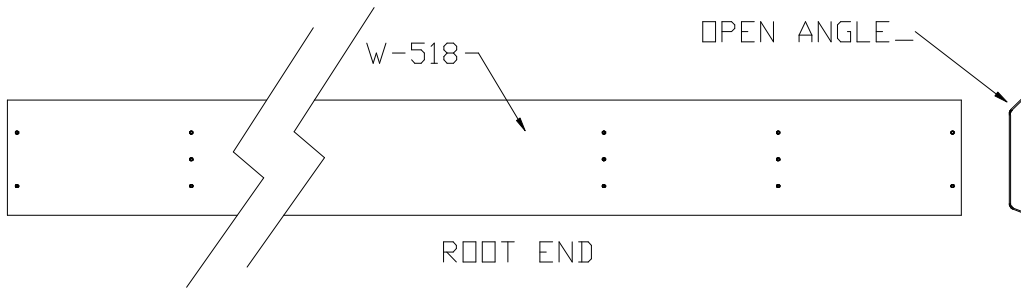
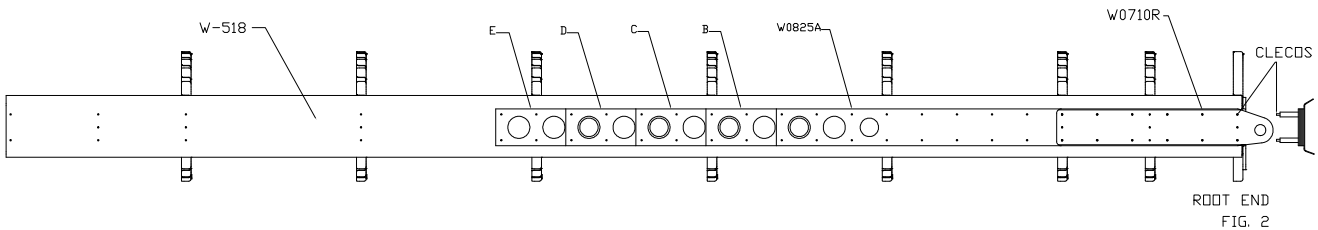


Fig. 6.3.1

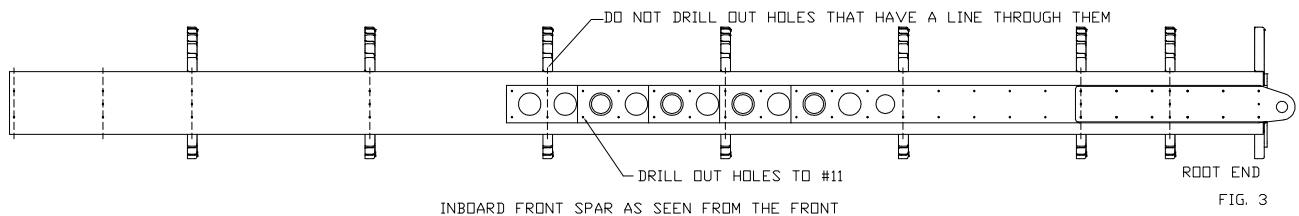
- 2) Cleco the six Front Spar Attach Brackets (W0825 A,B,C,D,E) in position. Figure 6.3.2.



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Fig. 6.3.2

- 3) With a #40 Bit, back drill the Inboard Front Spar.
- 4) Drill out to #11 all holes except those with a dash line drawn through them. Figure 6.3.3.



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Fig. 6.3.3

- 5) Nest a Radius Shim (W0528) into a Root Attach Bracket (W0720). Backdrill the two #11 holes. Figure 6.3.4.

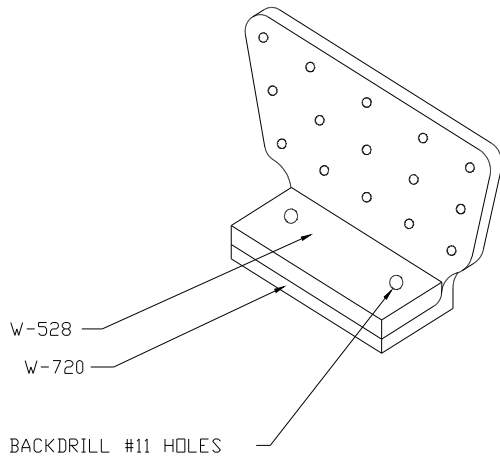


Fig. 6.3.4

- 6) With AN509-416R28 and AN4-15A, connect the Radius Shim (W0528), Root Attach Bracket (W0720) and the three Front Attach Brackets (W0709R) to the Spar and other Front Attach Brackets (W0710R). Figure 6.3.5. Refer Fig. 6.3.6 for bolts map.

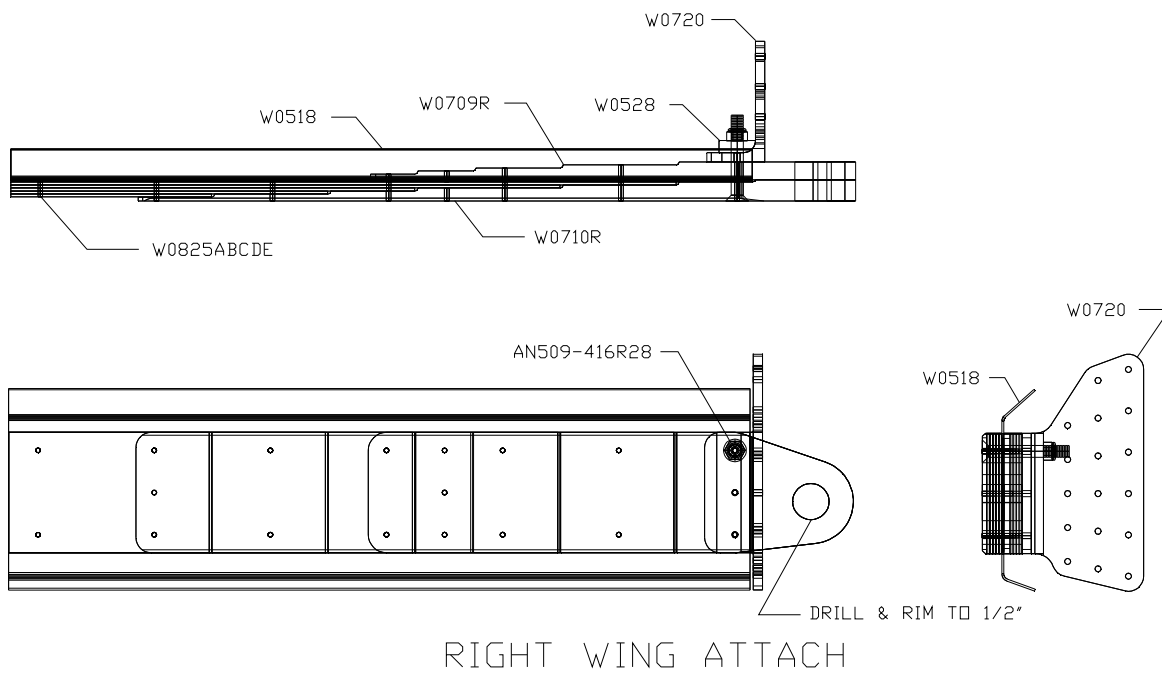


Fig. 6.3.5

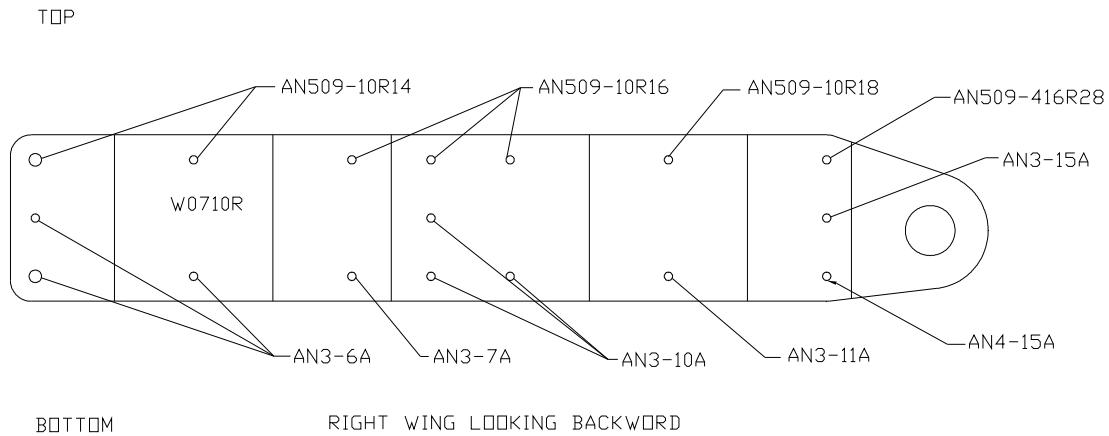


Fig. 6.3.6

- 7) Ream out the open hole to 1/4".
- 8) Insert a 1/4" bolt. Remove the 3/16" bolt and ream the second hole to 1/4".
- 9) Drill and Ream the Spar Attach hole to 1/2". Figure 6.3.5. **IMPORTANT NOTE:** For the position of the Root Attach Bracket (W0720), for the Left Wing see Figure 6.3.7. You will notice that the short Flange of the bracket faces the same direction on both wings.

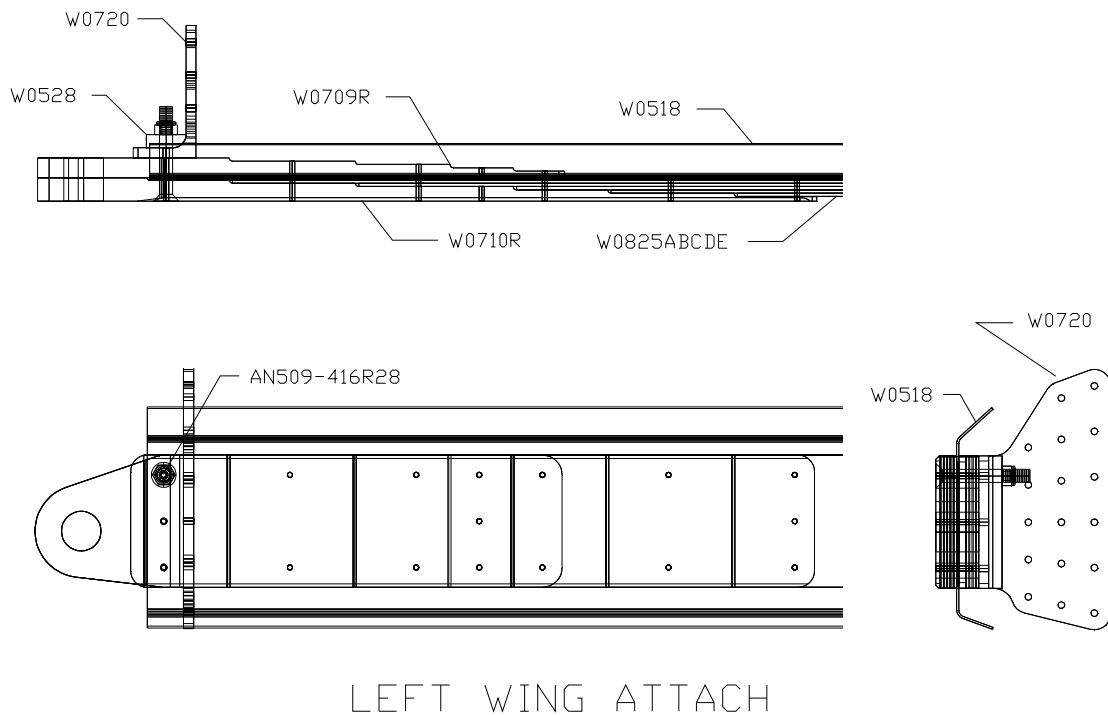


Fig. 6.3.7

- 10) Disassemble, deburr and clean all mating surfaces.
- 11) Chromate mating surfaces.
- 12) Rivet together with 3/16" Avex Rivets as in Figure 6.3.8. Use two AN4 -14A bolts for attaching the Radius Shim, Root Attach Bracket and three Front Attach Brackets.

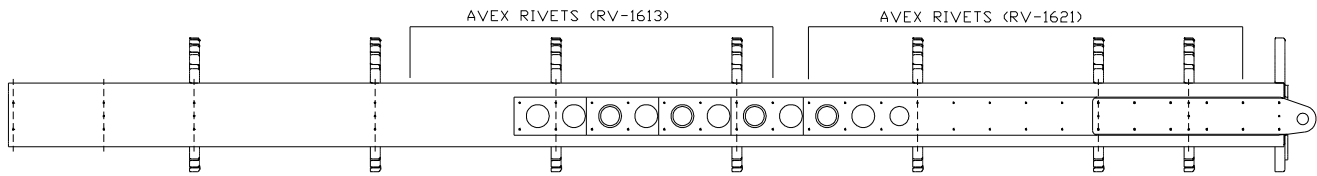


FIG. 7

[DGM0529]

Fig. 6.3.8

- 13) Set the Front Spar aside for now.