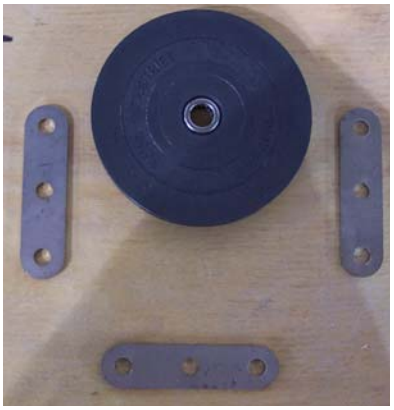
Required Items: Pedal assemblies, Pedal support trusses, pedal mixer tube 16 3/16", 4 pulleys, 12 pulley tangs, 2 rudder cables long, 1/4-28 rod ends, jam-nuts, AN4 hardware, 1/8 rivets, AN3 hardware.

Locate the pedal mixer tube and install rod ends on each end with jam-nuts.

1. The rod ends should be run in 5 turns, this is a minimum depth, now run them in half of the distance left on the rod end, lock down the jam-nuts.
2. Slide the pedal assemblies on to the 1" aluminum tube, this tube should be cut to 26".
3. Bolt the mixer tube between the pedal tri-horns, the horns should be vertical as in the picture. The mixer sets the pedal separation.
4. Fabricate 2 stops from the excess 1" tube, place these against the pedals drill a 1/8" hole in them in 2 places. Rivet in place with 1/8 pop rivets.

5. Measure the center of the 1" tube between the pedals.
6. Marks 1.25 " from center the placement of the pulley attach points, the tube can still rotate at this point so the pulley attach points only must be aligned to each other, the tube will be rotated later to get the correct angle.
7. Drill thru the tube (both sides) to 3/16".

8. Locate the 3 tangs.
9. 2 of the tangs must have one end drilled to 1/4", this is for the bolt thru the pulley.
10. Drill the other ends to 3/16" and all 3 holes in the last tang.
11. Drill a 3/16" hole in the inboard side of the pedal horn at the spot in the picture at left.



12. Bend the tangs with only 3/16” holes in it to create a u bracket as pictures at right.
13. Bolt the tangs with 1/4” holes in the end to the pulley ,one on each side.
14. There must be a standard washer between the tangs and pulley to prevent it from rubbing.
15. Do not assemble the U bracket to the tangs yet as the cable will not fit thru.
16. Bolt the U bracket to the pulley tube with a AN3 bolt of proper length, the bolt must go thru the bracket than the tube. **Do not substitute the bolt with a rivet as this could cause failure of the rudder system.**

17. Working on the lower firewall flange on center.
18. Measure out 1.25” from center.
19. The pilot side pulley is 1/2” from the floor .
20. The co-pilot side pulley is 1” from the floor.
21. Drill to 3/16”.
22. Install the U bracket with AN3 bolts thru the bracket than firewall, with a large area washer on the backside.
23. Use heat lock nuts on the firewall side only.
24. When the Pedal trusses are installed the flange must point inward, and the pivot bushing must also point inward with its flange on the outside of the truss.
25. Mix a small amount of epoxy and flox and bond the pivot bushing to the truss, create a filet around the bushing. /make sure to sand both areas to get a good bond.
26. Let cure.
27. Build the entire assembly on the table as per the picture on the next page.
28. Install in the aircraft on center line.
29. Match drill the mounting holes in the support truss to the fire wall and the mid support bulk-head to 3/16”.
30. Bolt in with the correct AN3 hardware, do not bolt the fire wall side for the final time as this must be done after the final install of the firewall.
31. Hold in place with 3/16” clecos.

32. Bolt the end of the long rudder cable to the inboard side of the horn where the extra hole was drilled
33. Use AN3 hardware to install the cable should be able to move freely but have no slop.
34. Run the cable thru the U-bracket and bolt the pulley in place with AN3 hardware.
35. Do the same for the other 3 pulleys, do not cross the cables yet this happens further down the line.
36. With the cables in place pull the cables tight at the bottom , make sure they are in the pulleys channel.
37. Rotate the 1” pedal cross tube until the upper pulleys allow the cables to line up with the bottom pulleys.
38. There must be no binding.
39. Once satisfied, drill an 1/8” hole in the pivot bushing that was bonded to the truss, all the way thru the 1” tube.
40. Rivet with an 1/8” pop rivet to stop the tube from rotating and misaligning the pulleys.