

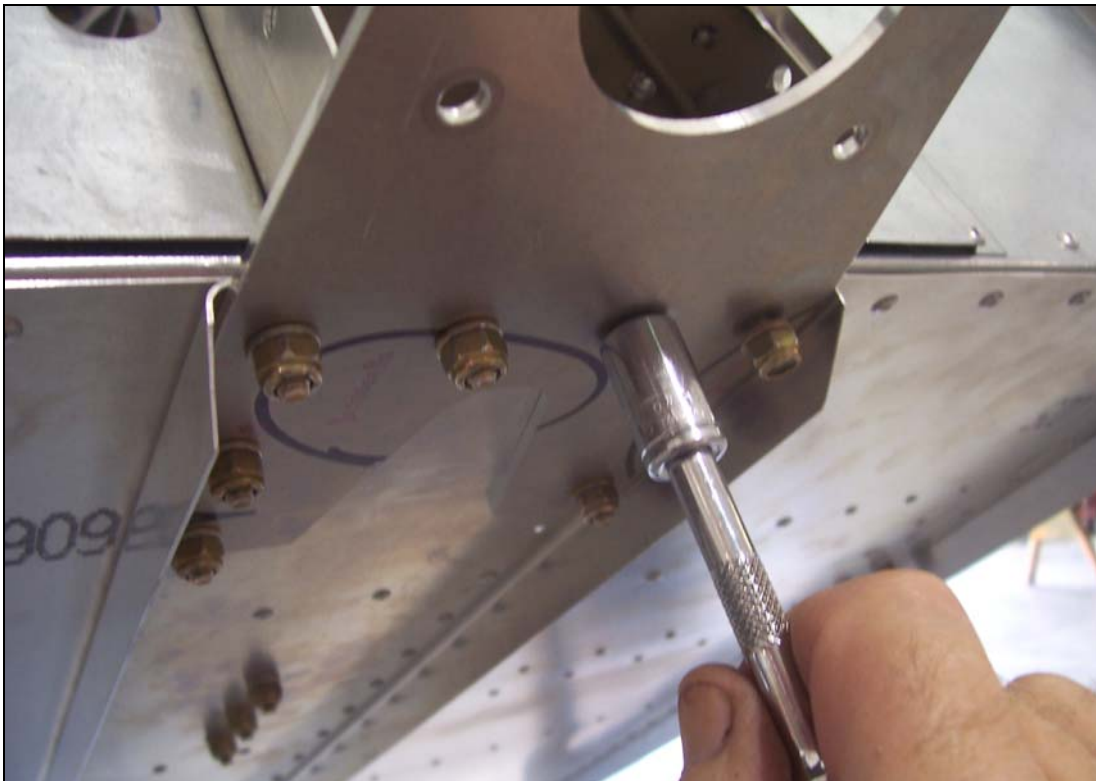
Section 75-LA-1 Nose Gear Installation



This manual has been prepared for assembly of the nose gear. This photo assembly manual is intended as a supplement to the drawings. If there is any discrepancy between this manual and the drawings, the drawings supersede this manual. For more information on building standards and allowable tolerances see "Construction Standards for Zenair Light Aircraft" available from Zenith Aircraft Co.



P/N: 75F12-5
Lower Bearing
Support



Cleco the Lower Bearing Support to the Floor Stiffener and Cabin Floor. With a #30 drill bit, expand the holes and Cleco. With a #12 drill bit, expand the holes. Deburr and bolt the Lower Bearing Support to the Fuselage with 8 AN3 bolts.



P/N: 75L1-1
Nose Gear Leg



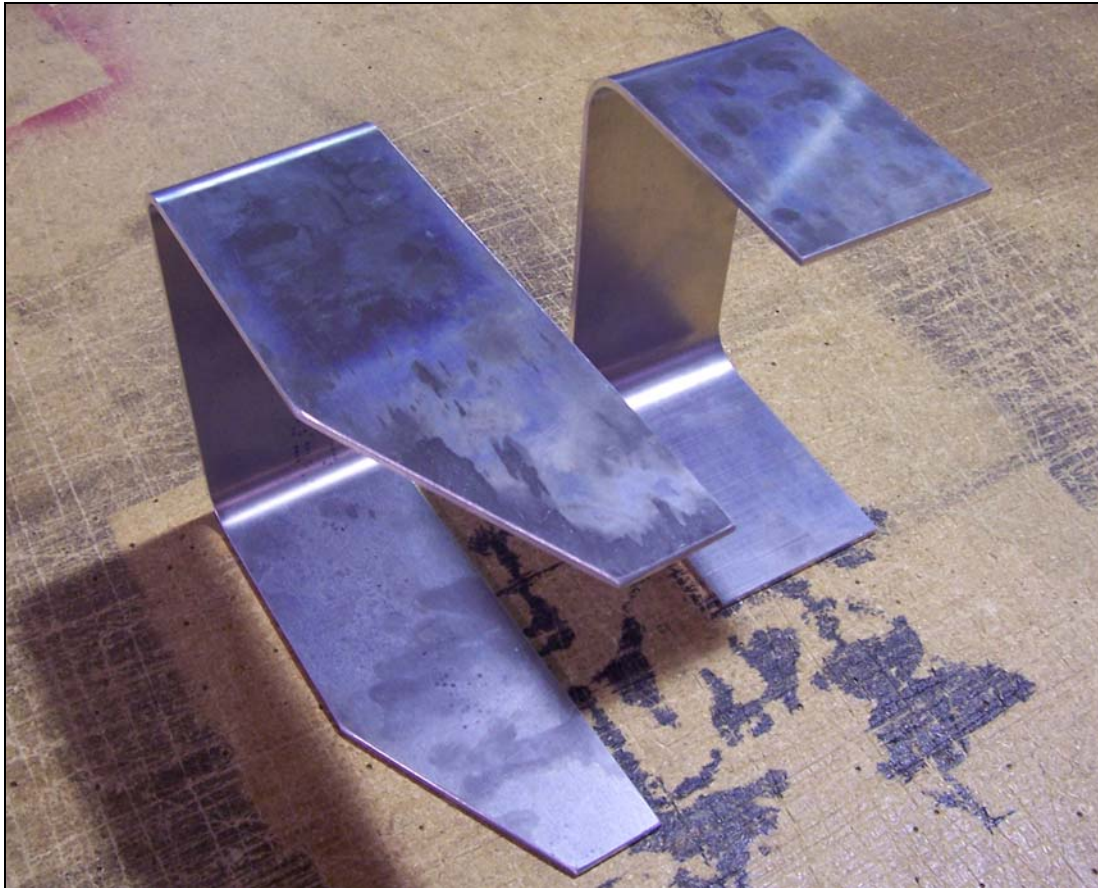
P/N: 75L1-7
Nose Gear Bottom Bearing



Position the Bottom Bearing around the Nose Gear Leg. Slide the Nose Gear Leg up into the Upper Bearing and push the Bottom Bearing between the flanges of the Center Firewall Stiffener until the Bottom Bearing is against the back of the Center Firewall Stiffener. Back drill through the Lower Bearing Support into the Bottom Bearing with a #30 drill bit and Cleco. Expand the holes in steps up to a #3 drill bit.

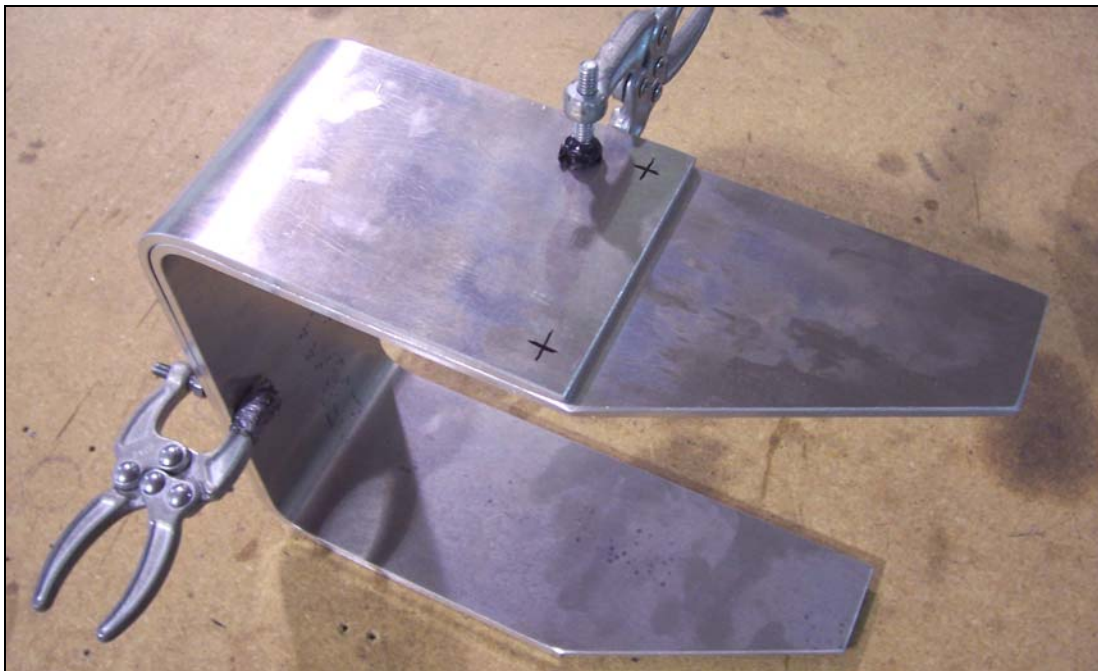


Remove the Bottom Bearing and Nose Gear Leg from the Firewall. Flip the Bottom Bearing over and use a couple pieces of plywood to support the front of the Bottom Bearing. Use a 1/4"-28 tap, to tap the holes just drilled for AN4H-5A bolts. Be careful when tapping the threads; be sure the tap is perpendicular to the bottom of the Bearing.



P/N: 75L1-2
Nose Wheel Fork

P/N: 75L1-3
Nose Wheel Fork
Doubler

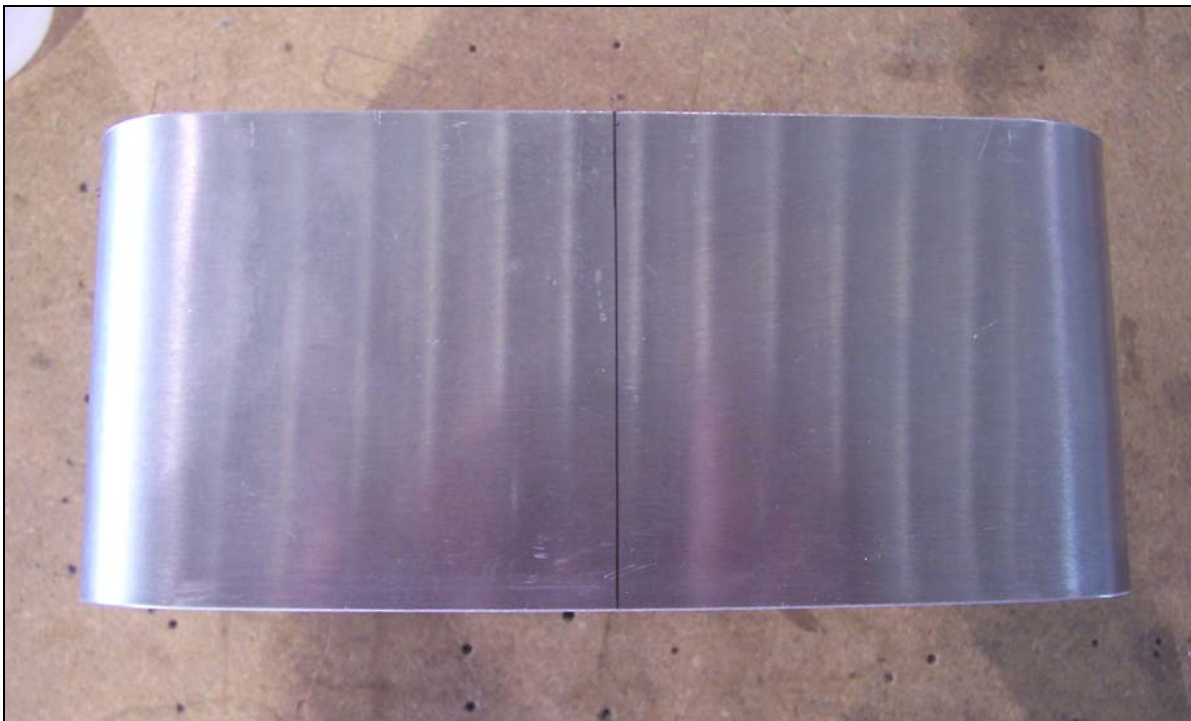


Clamp the Doubler on the Fork. Mark bolt locations 12mm from the front and back edges and up 12mm from the bottom of the Doubler on the left and right side. With a #40 drill bit, drill and Cleco the Doubler to the Fork. Expand the holes to 1/4". Deburr the holes and bolt the Doubler to the Fork with AN4 bolts.

Note: Install the bolts with the head on the inside of the Fork to prevent the Tire from rubbing on the bolts.



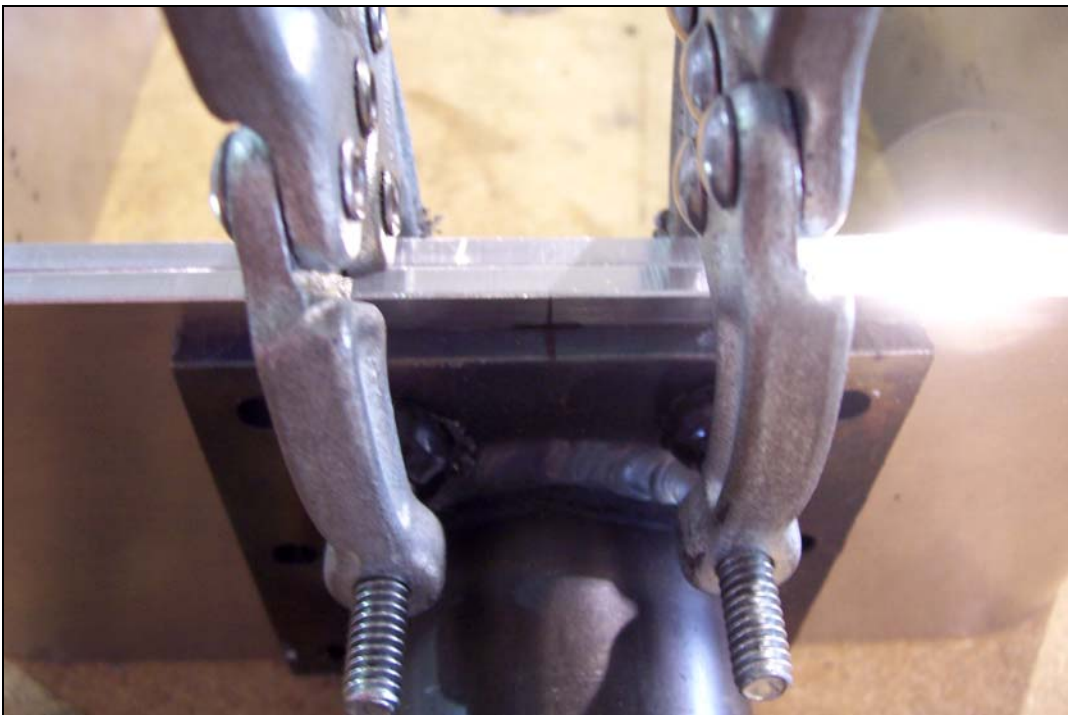
Mark a hole location 25mm from the bottom and 28mm from the back of the Fork for the axle bolts. Then mark a hole location 10mm from the bottom and 10mm from the back of the Fork. Mark both the left and right side of the Fork. With a #40 drill bit drill both holes. Expand the hole for the Axle Bolt **ONLY** to 5/16"; the smaller hole is used to safety wire the AN5 axle bolt.



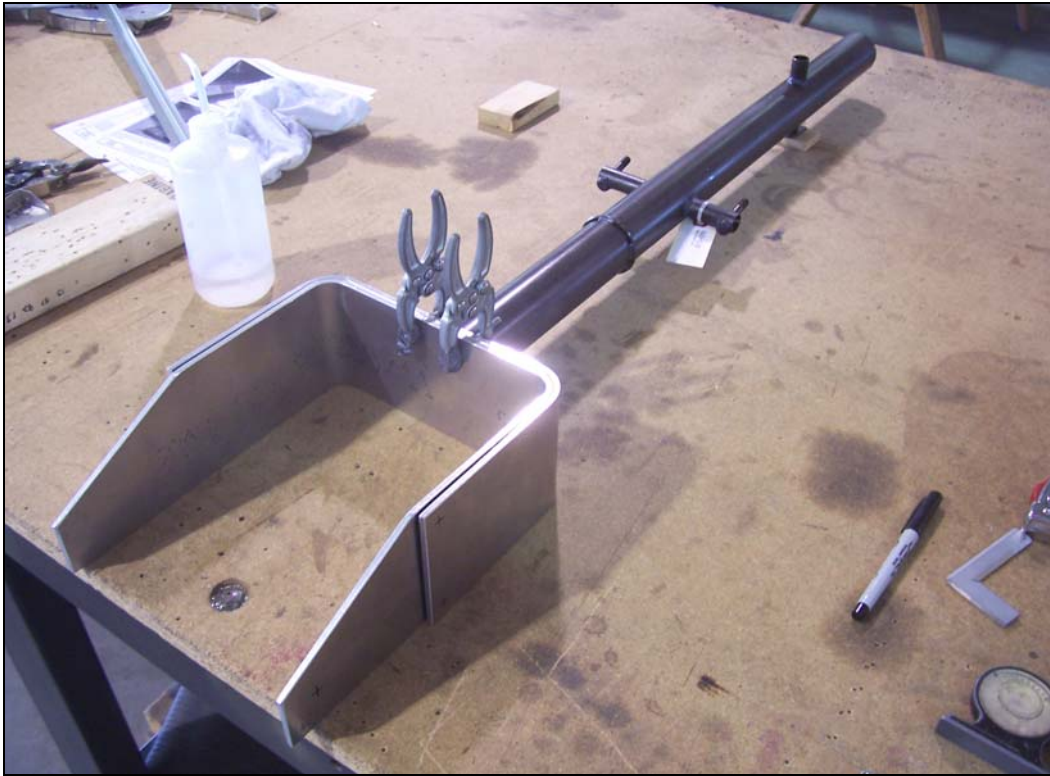
Mark the center line on the top of the Doubler.



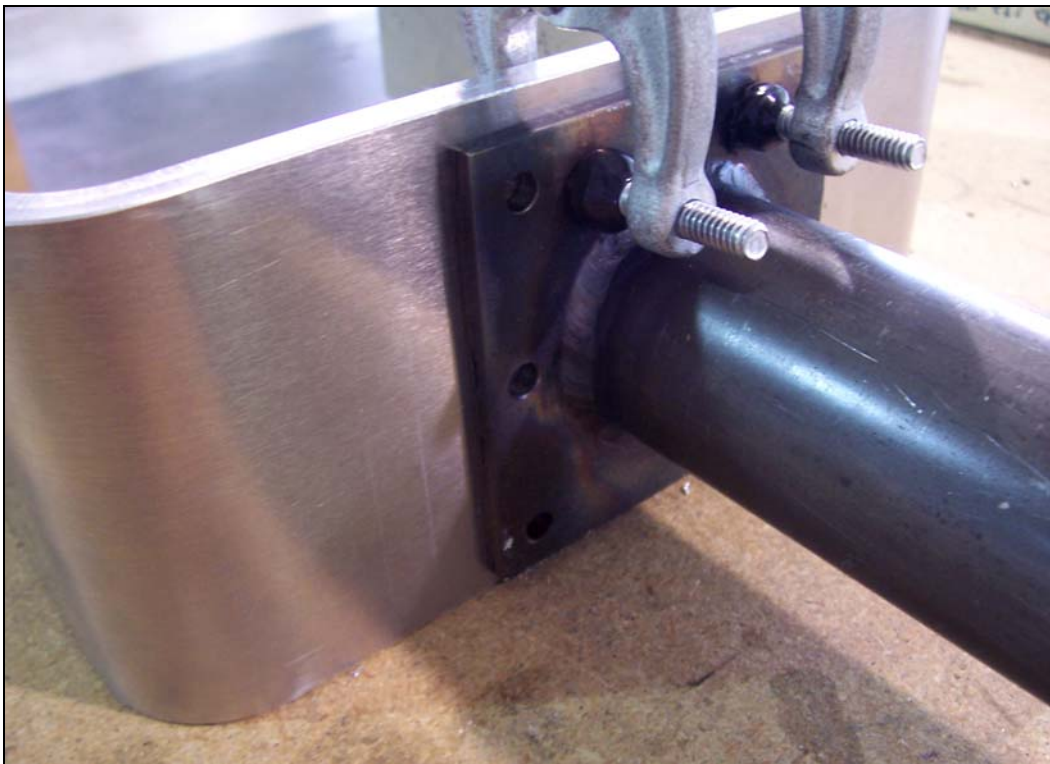
Mark a line 5mm from the front and back edge of the Doubler to position the Nose Gear Leg on the Fork and Doubler.



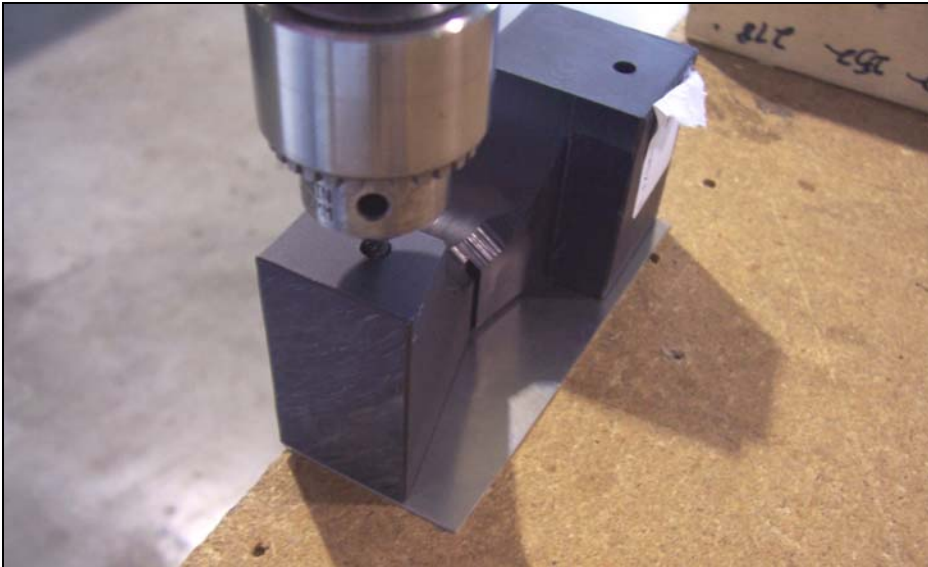
Mark the center line on the bottom plate of the Nose Gear Leg. Align the center line on the Doubler with the center line on the Nose Gear Leg. Position the edge of the Nose Gear Leg plate on the line 5mm from the edge of the Doubler and Clamp the Nose Gear Leg in place.



Be sure the front of the Nose Gear Leg is clamped to the front of the Fork. The tapered side is forward on the Fork and the plate to retain the bungee is on the back of the Nose Gear Leg.



Layout 3 bolts locations on each side of the Nose Gear Leg plate and drill the holes to 1/4". Start with a #40 drill and work up to 1/4". Deburr the holes and bolt the Nose Gear Leg to the Fork and Doubler.



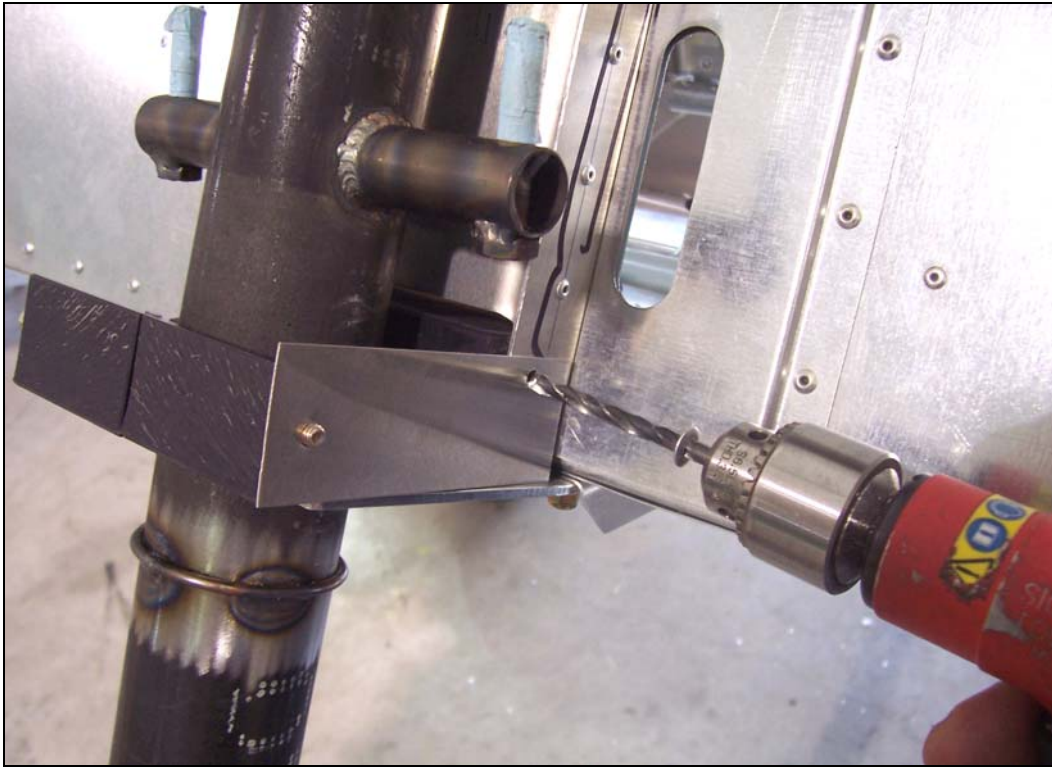
Make a drill guide for the Lower Bearing from a piece of scrap material. Be sure the scrap material is flush at the bottom and rear of the Bearing. With a #12 drill bit, back drill through the Bearing into the scrap, be sure to drill both holes.



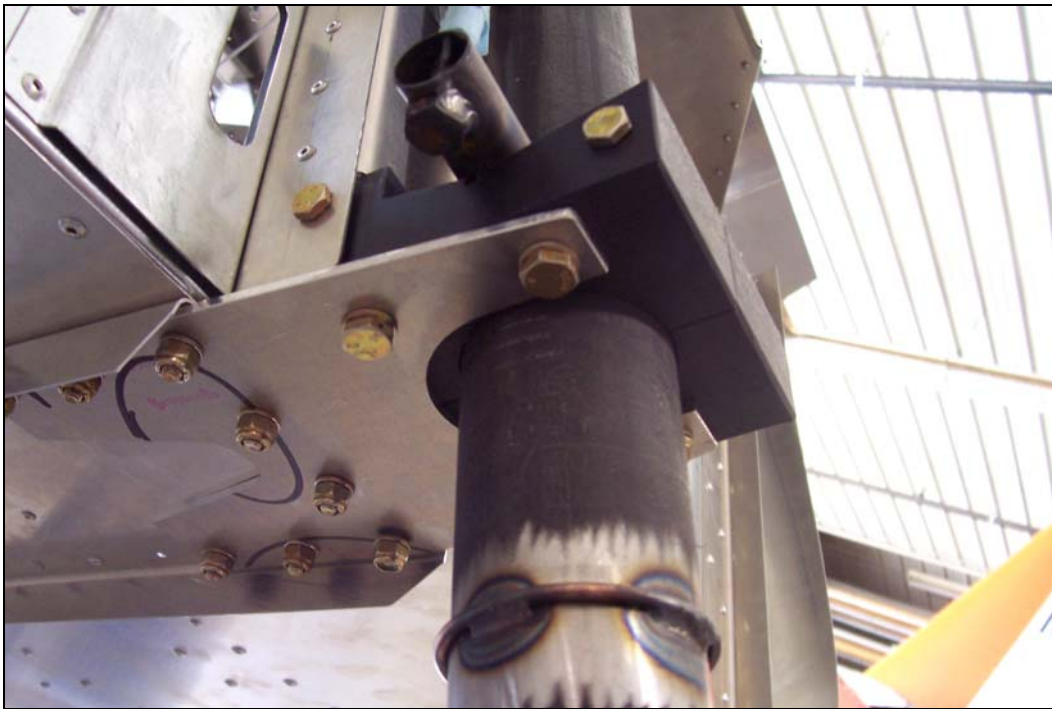
P/N: 75L1-6
Bungee Pin

P/N: 1080HD
Shock Bungee

Position the Shock Bungee around the Nose Gear and reinstall the Nose Gear on the Firewall. Be sure to grease the Bearings before final installation. Install the Bungee Pin and secure it to the Firewall with a Cotter Pin on each side. Make sure the Bungee is under the Pin.



Use an AN3 bolt at the front of the Bearing to hold the drill guide in place. Set the bottom of the drill guide on the Lower Bearing Support and overlap the outside of the Center Firewall Stiffener. With a #12 drill bit, back drill through the drill guide into the Center Firewall Stiffener. Bolt the two halves of the Bottom Bearing together and to the Center Firewall Stiffener.



Bolt the Bearing to the Lower Bearing Support and safety wire the heads of the bolts to prevent them from backing out.



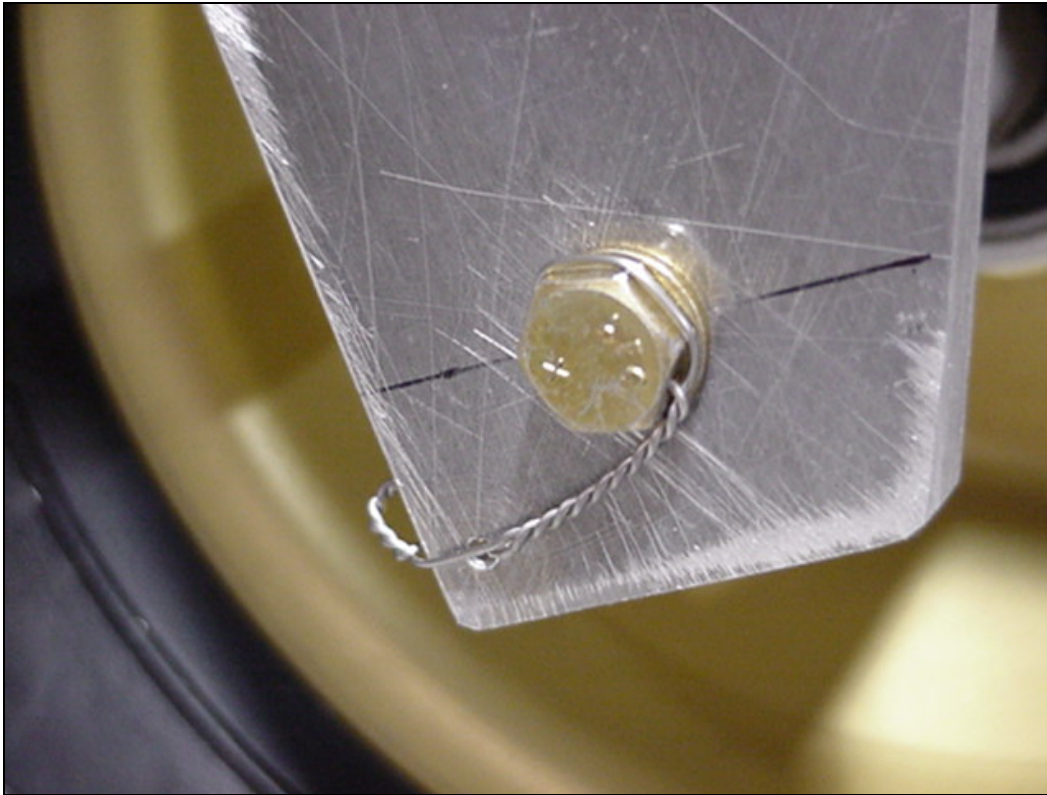
P/N: 75L1-5
Nose Wheel Axle

P/N: 75L1-4
Axle Spacer

Mount the tires to the rim for the Nose and Main Wheel (refer to the Matco Installation Drawing for Tubeless Kit Installation).



Install the Axle through the bearings on the Wheel. Slide the Axle Spacers on the Axle. The Spacer is longer of the right (passenger) side than the left (pilot) side. Install the Axle, Wheel, and Spacer on the Fork. Bolt the Axle to the Fork with AN5H-5A bolts.



Safety-wire the bolt head to the Fork to prevent the axle bolt from backing out.