

# STOL CH 801 GEAR

## Section 3

### “MAIN GEAR SPRING” MATCO MAIN WHEEL



Front view of left wheel (Murphy wheel with dual calipers used up to Jan 2003, Ref drawing 8LS-1 for gear cutout for murphy wheels only)



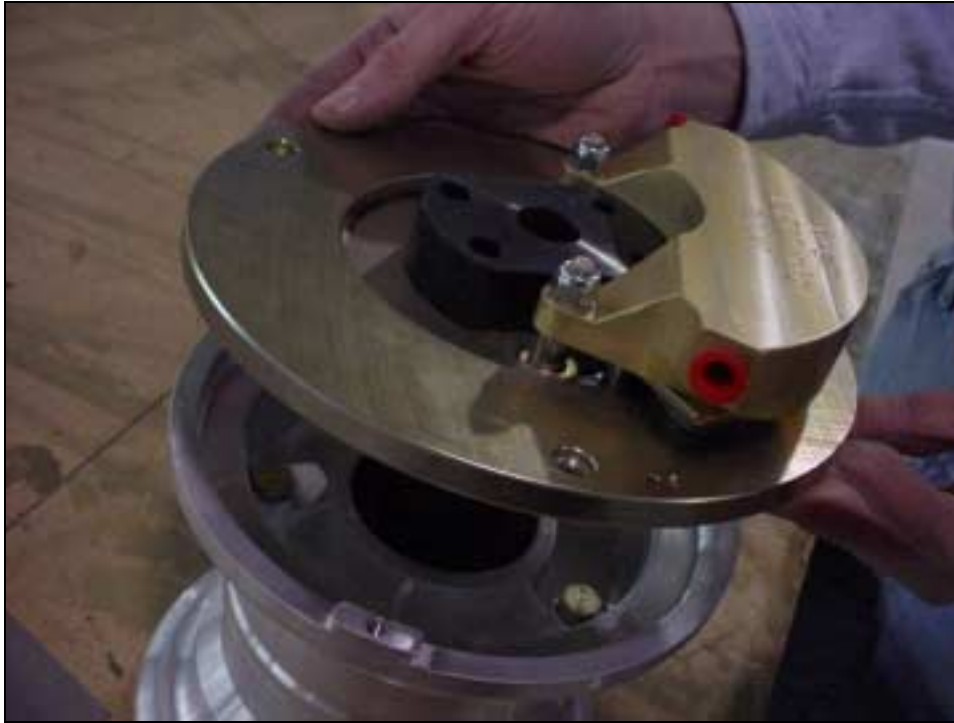
Note: In this photo Axle is held in place with 2 plastic tie wraps (for shipping only) Cut and remove the tie wraps.

Matco Main wheels



Remove the dust cover, remove the cotter pin and castle nut at the end of the axle.

Unscrew the 3 cap screws to remove the disk brake



Remove the disk brake and calipers from the wheel



Take the two hubs apart to install the inner tube and tire

Note: Position the red triangle on the side of the tire in line with the stem of the inner tube



The 3/8" holes are at the bottom Axle

AN6-22A BOLT  
AN5-22A BOLT



Clamp the Axle to the gear.

Clamp back edge of the axle on the edge of the machined radius of the aft edge of the Gear.

The straight sides of the axle are installed parallel aft of the gear spring.



Front view of the axle clamped at the end of the gear.



Trial fit of caliper

The aft corner must be cutout off to make room for the calipers.

Looking at the I/B side of the Gear.



With a Marker, trace around the Axle.

View from the O/B side.



Remove the Axle to trim the corner of the gear.



Cut up to the black line.

Reinstall the axle to the gear to drill the axle to the gear.

Note: It is acceptable round off the front corner.



Bearings must be greased.

Bearings



Wait to reinstall the wheels to the gear until the gear is bolted to the fuselage.

Bearing must be packed with grease



Safety wire the 4 cap screws on the back side of the caliper



Also safety wire the 3 cap screw through the 1/16" hole in the disk brake.





The back of the gear is straight.



The tapered edge of the gear is towards the front



Location of the notches as measured between the Gear Strut fittings bolts on the fuselage.



Filing the front side of the gear spring



The notches provide lateral stability of the gear layout the notches to match your aircraft. Work from centerlines.

Notch the main gear to clear the fore and aft attachment bolts.



AN310-8  
Castle nuts

Drill the holes in the Rubber pads and 8F17-2 to fit welded bolts on the gear strut fittings.



Bolting the gear to the  
fuselage.

Top view looking down



The flange is installed on the inboard side



Tighten the Castle nut then drill a hole gear strut fitting to install the cotter pin.



**AN380-3-4**  
3/32" COTTER PIN