

WJ1, wing Jack kit, assembly

The Wing Jack kit turns an inexpensive Harbor Freight long jack into a great wing jack for experimental aircraft.

Assembled weight 25.5lb

closed height 25.5 inches

Extended height 45 inches

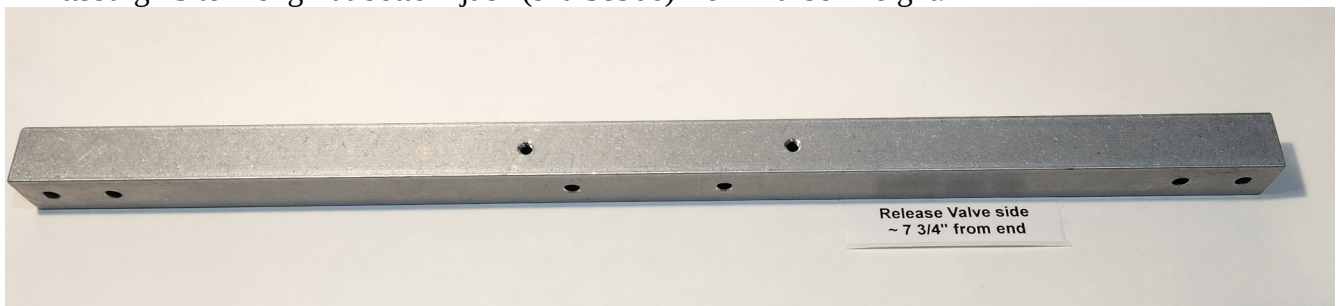
Warning, jacking an aircraft can result in damage, injury or death. Only use the jack created by this kit with a load of 1000 pounds or less. The floor must be flat and level and the aircraft must be raised in a level position. Never allow anyone to get on the aircraft or jostle it in any way., The aircraft must be out of the wind or any force that could move it around. No warranty or fitness for purpose is expressed or implied. The only warranty available is inability of the kit pieces to fit together when assembled in which case the remedy is replacement of defective parts when claim is made within 60 days of purchase. The use of this product is entirely at your own risk.

Whats in the package:

- 1 main base rail
- 2 aux base rails
- 4 aux to main connector angles
- 8 main to brace connector plates
- 4 braces
- 4 brace clamps
- 21 $\frac{1}{4} \times 1 \frac{3}{4}$ " grade 8 bolts
- 21 stainless washer
- 21 nylon insert lock nut
- 4 $\frac{1}{4} \times \frac{1}{2}$ socket head screw
- 1 Nose cap

What else you need:

A Pittsburgh 3 ton long flat bottom jack (sku 58906) from Harbor freight.



To assemble:

Lay out the main base rail on a flat surface with the 2 threaded holes up. Note that the 2 threaded holes are not symmetrical. The one closest to the end (about 7 $\frac{3}{4}$ ") will be where the release valve of the jack is located.

Locate 4 of the aux to main connector angles. Connect the angles to the main and aux rails with the threaded holes facing up. Insert the bolts and place a washer under each nut, but do not tighten any bolts until all 4 bolts are installed.



Note that there are 2 threaded holes in each aux base rail. Assuming the assembler is facing the release valve, the farthest right screw hole would be used on the left and right aux rails.

Insert a $\frac{1}{4} \times \frac{1}{2}$ socket head screw into the main base rail threaded holes and the right hole on the right aux rail and the right hole on the left aux rail.



Locate the 8 flat main to brace plates and the 4 brace rails.
Set the assembled main base rails on a flat surface with the release valve side towards the assembler. Set the jack on the base.
Loosely assemble the braces to the main base rails with a plate on each side and 2 bolts.

Before installing the last brace, screw 4 $\frac{1}{4}$ x 20 x $\frac{1}{2}$ socket head screws into the holes that allow the jack to set squarely on the bottom with the cylinder centered. Consider rotating slightly to allow access to the release valve.

Install the final brace.



Locate the 4 clamps. Loosely assemble the clamps to the top of the braces. Slowly tighten all the bolts.
If the base is not flat, the aux sides can be tapped up or down so the bottom is flat. The clamps have slightly slotted holes and are designed to clamp tightly on the hydraulic cylinder when tightened.



Final tighten the bolts.

Assemble the nose cap.

Slip it on the end of the jack and secure it with a $\frac{1}{4}$ x $1 \frac{3}{4}$ bolt. The only purpose of the bolt is to keep it from falling off and getting lost.



Note that the hydraulic jacks do not provide any backup to the release valve. Use at your discretion. These jack kits are intended to be used by aircraft home builders that are accustomed to and capable of making decisions as to the suitability and safety of parts, tools and their usage.



Carefully read and comply with the safety information of the Harbor freight Jack. While the maximum extended height is 45 inches, only raise to the absolute minimum amount as the higher it is extended, the lower the ability to withstand side loads.