

Minimax HD Tail-Dragger Aircraft Tug Assembly Instructions



[Fig.1]



[Fig.2]



[Fig.3]



1. Carefully unpack contents of shipping carton and locate the charger and battery. The battery may or may not be installed in the drill. Plug in the charger and charge the battery for at least one hour. You will need a 1/2" and two 7/16" boxed in wrenches, two large adjustable wrenches and an 1/8" Allen wrench.
2. **MILWAUKEE DRILL:** Locate the 1/2" drive shaft and insert the end with one machined flat fully into the hub of the drill. Be sure the flat aligns with threaded set screw holes. **Apply blue thread lock to both set screws** and install **tightening securely** with a 1/8" Allen wrench being sure that they are centered on the flat of the drive shaft. Allow one-hour dry time before use. Install side handle into drill right or left side. Failure to follow this assembly procedure exactly will cause damage to the drive shaft and will not be covered under our warranty.
3. Visually check to see the foam drive shaft alignment insert installed 8" inside the handle end which inserts into the tug receiver. With the drive shaft installed in the drill, insert it into the expanded handle end and see that it slips through the center of the foam alignment insert (a light source at the end of handle is helpful) and push the drill into the handle as far as it will go noting that it fits squarely to the drill collar and that drive shaft is centered in foam alignment insert. (Visually check inside handle end) Rotate drill per image above and tighten compression clamp to prevent drill from rotating in handle tube.
4. Install wheels onto axels with 1/4" x 2" bolts and lock nuts. The wheel hubs are designed to be somewhat loose on the drive axel to protect the drive train gears and also aid in turning your tug. Air tires to **22-25 PSI** and maintain this air pressure at all times.
5. Install the main frame [Fig.1] onto the tug with 4- 5/16" X 3/4" bolts and speed nuts. If not installed, install the tail wheel cradle assembly [Fig.2] onto the main frame with the 5/8" x 5" bolt (Lubricate with 20-30 weight oil.) securing with a flat washer, lock washer and the lock nut. Tighten that it is stiff to operate without using the foot pedal.
6. Install casters onto the mainframe using 8- 5/16" x 3/4" bolts and nuts. Insert foot pedal lever [Fig.3] into lifting lever socket.
7. Be sure the stainless steel compression clamp is fit onto the tug handle receiver approx. 1/8" from the top. Install the battery into the drill and note that it "snaps" into place. Install the handle tube into the tug receiver fully to black depth mark rotating as necessary or lightly "bumping" the drill trigger to engage the square drive socket. Tighten compression clamp snugly with drill in the position shown above. **It is critical that this connection is always tight when the tug is in use.**
8. Familiarize yourself with the drill operation and assure that the drive wheels rotate in both directions.
9. Position your tug with lifting cradle [Fig.2] in its lowest position steering directly to and straddling aircraft tail wheel to position lifting cradle under tail wheel axle nuts. Step down on the foot pedal plate to engage the tail wheel axle nuts. Continue stepping down and lock foot pedal lever by pushing to the left to engage horizontal locking pin and release foot pressure. Reverse procedure to lower and release tail wheel. Use tug power to back away from aircraft.
10. Beware that the maximum lifting capacity of the tug is **300 lbs.** Slowly pull the drill trigger all the way in to move aircraft. When stopping, slowly let off on the drill trigger until plane stops. Avoid sudden starts and stops as this can damage the transmission. Keep chain and axel bushings lubricated per ["Use and Care Guide"](#).

NEVER LEAVE TUG ATTACHED TO AIRCRAFT WHILE NOT IN USE!

Practice makes perfect! Thank you for buying a Minimax Aircraft Tug!

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