

# Fork Type Aircraft Tug Assembly Instructions



[Fig.2]

[Fig.1]

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" box-in wrenches to assemble your tug. Milwaukee drill will require a 1/8" Allen wrench.
2. **DEWALT DRILL:** Locate the 1/2" drive shaft and chuck the end with three flats into the Dewalt drill. Be sure the flats align with the jaws in the chuck and are seated on the jaw tips. Tighten by hand as hard as you can with the clutch setting in the **DRILL BIT** image position and in speed selector switch setting **1**. (See enclosed Dewalt operating instructions.)
3. **MILWAUKEE DRILL:** Locate the 1/2" drive shaft and insert the end with one machined flat fully 1" into the hub of the drill. Be sure the flat aligns with the 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 left or right side if desired. Failure to follow this assembly procedure exactly will cause damage to the drive shaft and will not be covered under our warranty.
4. 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 tube end and see that it fits 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 (visually check) in opposite end. (Use a block of wood and hammer to tap handle tube onto drill collar if necessary.) Rotate drill per image above and tighten compression clamp to prevent drill from rotating in handle tube.
5. Install wheels onto axels and secure 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.
6. Install into the lower most holes of your tug the aircraft attach assembly [Fig.1] with 4- 5/16" X 3/4" bolts and flange nuts. Note that the fork assembly has been bench assembled and adjusted by our technicians. There may be minor scratches in the paint as such. [FORK LOCKING MECHANISM VIDEO](#)
7. Be sure the stainless steel compression clamp [Fig.2] is loosely fit onto the tug handle receiver 1/8" from the top. Install charged battery in drill noting that it snaps into place. Install the handle tube into the tug receiver fully to depth mark (1-7/8") rotating if necessary or lightly "bumping" the drill trigger to engage the square drive socket. After engaging the square drive socket position drill per image above. Tighten compression clamp securely. **It is critical that this connection is always tight while the tug is in use!** Familiarize yourself with the drill operation and assure that the drive wheels rotate in both directions, trigger rheostat functions and speed changer (If equipped) function properly.
8. Attach tug to your aircraft nose gear positioning left fork onto aircraft left tow pin or hub as you position the opened right fork onto the right tow pin or hub. **(See Fork width adjustment instructions.)** You are now ready to tow your plane. Push down on the tug handle and slowly pull the drill trigger all the way in to move your plane. When stopping, slowly let off on the drill trigger until plane stops. You can control towing speed with the trigger rheostat or speed changer switch.(Dewalt only)
9. To remove tug from aircraft, lift cross-locking bar just enough to clear locking pin, open right fork, turn tug left to disengage left tow pin. Power drill in reverse to back away from aircraft. Avoid sudden under-load starts and stops as this can damage the transmission gears in your tug. Maintain tug 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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