

AIRTUG® Assembly & Operations Instructions  
MODELS: 6-S & 6-H

**Airtug, LLC is not responsible for aircraft damage sustained when proper clearance is not maintained by the operator between the tug and the aircraft.**

**WARNING:** This tug is shipped WITHOUT oil or gas in the engine. Use appropriate oil as specified by owners manual and operating temperatures and fill to the “Full” mark on the dipstick. Fill the fuel tank with regular unleaded gasoline.

**Engine Operation:** DO NOT start engine until after filling the engine with Briggs & Stratton recommended motor oil (not included with shipment). Check for proper oil level with dipstick. See [www.briggsandstratton.com](http://www.briggsandstratton.com) for information on engine operation and maintenance. See your local Briggs & Stratton dealer for warranty work (1 year ) and general service information.

**Tug Operation:** The twist grip handle operates the hydrostatic transaxle. Rotating the twist grips forward or aft moves the Airtug accordingly. Rotating the grip slightly in either direction will move the tug very slowly. As you increase the rotation of the handle grips, the tug speed increases. Maximum torque is applied at very slow speeds ensuring excellent maneuverability in the hangar and around other aircraft, while rotating the handle grips fully results in maximum tug speed. The hydrostatic transaxle provides smooth variable speed control throughout the entire range of grip motion. The twist grip is spring loaded to “return-to-brake position.” This position locks the power-train. The tug will not move in this position. Nevertheless, it is not recommended to walk away from the tug while the engine is running. While moving the aircraft, braking is effected by gradually returning the grip to the neutral or brake position. Even while moving an aircraft on a downgrade, the tug will only go as fast as you have the twist grip turned. Braking too abruptly with a heavy aircraft or moving too fast can seriously damage the differential ring gear. This is considered abuse and is not covered by the transaxle warranty. When moving an aircraft over the hangar door weather edge or door rail, it’s recommended to have a little momentum. Hangar Ramps can be purchased from Airtug, if necessary, to overcome high door sills or rough pavement..

**Aircraft Loading:** Position the Airtug up to the the nose wheel with the ramp centered on the wheel and stop. Using the strut strap or optional “J” hook (purchased separately), connect the winch hook, and using the winch, pull the aircraft onto the tug until the tire hits the backstop or the chock wall (an accessory for aircraft with a nose wheel fairing). Make sure the winch is in the locked position prior to moving the tug. All Airtug load platforms are designed for retractable gear. All Airtug’s require adapters to accommodate tail wheelers or nose wheel fairings.

Note: 6-H Models (hydraulic) - Using the lever on the jack, raise the Airtug platform up an inch or two prior to moving the aircraft. Close the valve and pump the jack handle for “up” operation and open the valve to lower the platform.

**Aircraft Unloading:** Chock the aircraft first if necessary. Disconnect the strut strap or “J” hook from the aircraft and secure the winch strap to the tug. Gently pull the tug away from the aircraft.

Note: 6-H Models (hydraulic) Open the jack valve to lower the tug platform prior to unloading the aircraft.

**SAVE THIS DOCUMENT AND ENSURE ALL OPERATORS READ IT PRIOR TO MOVING ANY AIRCRAFT**

## **General Maintenance**

**Tire Pressure:** The tire pressure can range from 30psi for lighter aircraft in the 3, 000 pound range to 50psi for heavier aircraft up to 16,000 pounds

**Battery:** Keep the battery fully charged. Chargers are available by calling Airtug at 216-941-9781.

**Hydrostatic Transaxle:** This is a sealed unit and should not require maintenance or fluid.

**Drive Wheel Bearings:** Permanently lubricated.

**Caster Zerk Fittings:** Needs to be lubed periodically to ensure ease of caster wheel steering.

**Drive Chains:** Apply chain lube periodically depending on use and environment.

**Tractive Ability:** If the tug seems to be losing tractive ability, it's an indication of a loose drive belt. The engine plate is mounted on slotted holes and can be moved rearward to tighten the drive belt if necessary. Simply loosen the nuts, push the engine plate towards the rear of the tug and tighten the nuts firmly.

**Tools Needed For Assembly:** Wire cutter, utility knife, 5/16" - 1/2" - 9/16" & 11/16" socket or wrench.

**Assembly Note:** All reference to “right” and “left” orientation is made while standing behind the tug and looking forward.

### Assembly Instructions

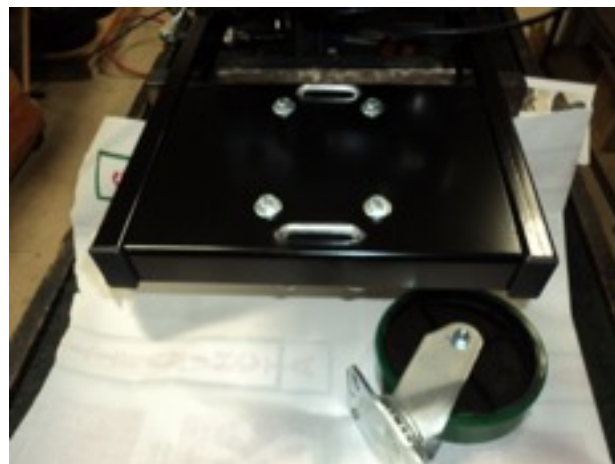
**\*Note: The rear frame of the tug is bolted to the skid for shipping\*.** It is recommended to have two people available for installing the handle to the frame. Following that, it is easy for one person to complete the assembly in a short period of time.

Remove the tug and all of the contents from the box. In addition to the tug and the handle, the following parts are included in the box with the necessary fasteners:

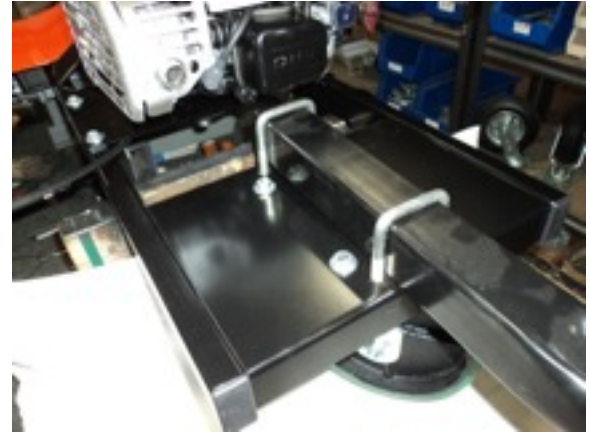
1. One (1) Gear Strut Strap,
2. One (1) “U” Bolts for handle,
3. One (1) Caster Wheel,
4. Two (2) Zip Ties
5. Engine Manual
6. Assembly Instructions

**Step 1:** (Easiest with 2 people) Block up (raise) the rear of the tug frame approximately 10”.

At the rear center section of the tug frame, attach the caster wheel underneath the tug frame by installing the four (4) 3/8” x 1” bolts to the caster wheel.



**Step 2:** (Easiest with 2 people) Pull the loose “U” bolts up and install the handle all the way through the second “U” bolt. Push the handle approximately 1 1/2” beyond the second “U” bolt. If it appears the handle will not fit through the “U” bolt, loosen the nuts below. This is a very close tolerance so the bolt will not interfere with the caster wheel. Once the handle is installed, tighten both nuts securely.



At this point - all subsequent steps can be completed with one person.

**Step 4:** Attach the transmission cable end to the left hand grip with the “ball” on it. Then open the nuts located several inches from the hand grip on the cable and slip the cable between the bracket on the left side of the handle and then secure the nuts firmly using an 11/16” wrench.



**Note:** Using the zip ties provided, secure the cable to the handle towards the bottom of the handle loosely.



## Winch Operation

1. Ensure the strap is always over the top of the winch wheel. If you notice it on the bottom - pull the strap all the way out and wind it back in so the strap is positioned over the top of the winch wheel.
2. When loading an aircraft, press the lock lever towards the handle to the down position and pull the strap out towards the front of the tug. You should hear the winch clicking throughout this action.
3. Bring the winch lever to the neutral position which will leave the strap loose or otherwise unlocked.
4. Using the strut strap around the nose gear or the “J” hook (if purchased as an option) - connect to the hook at the end of the strap. Position the winch lever to the straight up position (locked) and load the aircraft onto the tug cranking the winch handle clockwise. You are now ready to move the aircraft.

