



AIRTUG® Assembly & Operations Instructions MODEL: 10-SW

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

WARNING: This tug is shipped WITHOUT gas or oil in the engine. Using the 10W-30 oil provided, fill to the “Full” mark on the dipstick. Fill the fuel tank with regular unleaded gasoline (Ethanol Free).

Engine Operation: To start the engine, push the throttle all the way forward to the “choke” position and press the **starter button** by foot located on the tug frame behind the engine. “Warm” starts typically do not require the choke setting. Once started, adjust the engine to a low-mid range power setting. For heavier aircraft, increase the power setting accordingly. The engine is stopped by pulling the throttle all the way back towards the operator. Use a low amp battery charger (available at Airtug 216-941-9781) to maintain a fully charged battery between use and especially in colder environments.

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 and minimum torque. 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 and to smooth the transition. Hangar Ramps can be purchased from Airtug.

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

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 chock 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.

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.

General Maintenance

Tire Pressure: The tire pressure can range from 30 psi for lighter aircraft in the 3,000 pound range to 70 psi 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 should occasionally be checked for oil level. Add 20W-50 oil if level is low.

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.

Assembly Instructions

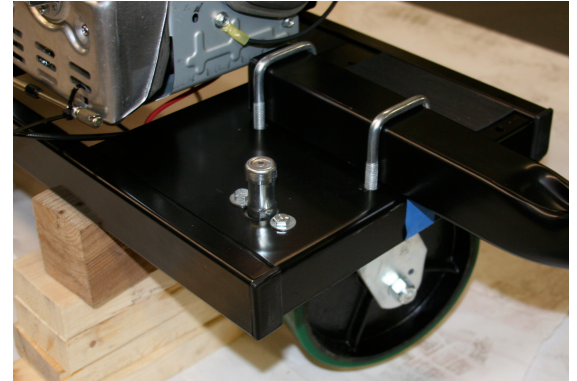
Tools Needed For Assembly: Wire cutter, utility knife, 5/16” - 1/2” - 9/16” & 11/16” socket or wrench.

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

Remove the shrink wrap 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) Quart of Oil
2. One (1) Gear Strut Strap
3. Two (2) Zip Ties

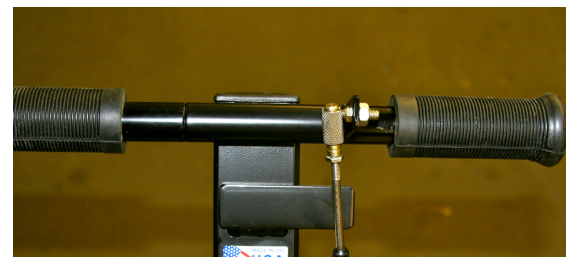
Step 1: Install the handle all the way through the second “U” bolt. Push the handle approximately 1-1/2” beyond the second “U” bolt. If it appears the handle will not fit through the “U” bolt, loosen the nuts below. This is a very close tolerance so the bolt will not interfere with the caster wheel. Once the handle is installed, tighten nuts securely.



Step 2: The throttle cable and transmission cable are zip tied to the engine. While holding each cable separately, cut the zip tie and unravel each cable towards the rear of the tug. Attach the throttle cable to the right side of the handle using the fasteners already in the handle with a 5/16” socket.



Step 3: 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 both cables 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 and frame 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. Connect 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 by cranking the winch handle clockwise. You are now ready to move the aircraft.



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