

Tail-Dragger Dragger™
Model: Gas - TDG-6

ASSEMBLY AND OPERATION INSTRUCTIONS

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

GENERAL

Thank you for purchasing the Tail Dragger Dragger. We hope that this unique powered Dragger aircraft tug will enable you to fly more by allowing easy ground handling. Like all other airplane moving devices, this unit has some limitations. It will not take your airplane over large curbs or craters, but it will perform well on gentle slopes and hard surfaces. The Tail-Dragger Dragger will also handle wet surfaces and light snow and can be fitted with snow chains. It is simple to operate. It takes some practice and planning to use, but once accustomed to the handling, it is like having a strong buddy along every time you must push your plane back into the hangar. Practice driving forward, neutral and reverse. Next, try moving your airplane in the open, away from the hangar and other obstacles. When you practice moving the unit into the hangar, have a friend watch the wings and tail to help avoid bumping into obstructions. It also pays to have wheel chocks in place to prevent pushing back too far. Lines painted on the hangar floor and ramps will also help guide you to safe parking.

Your new Tail-Dragger Dragger comes partially pre-assembled from the factory. The procedures listed below are all you need to get your unit fully operational.

SAFETY

Read these instructions carefully. Be thoroughly familiar with the controls and the proper use of the Tail-Dragger Dragger. Know how to stop it and disengage the controls quickly. Never allow children to operate it and keep them away while it is operating. Never allow adults to operate the Dragger without proper instructions. Keep the area of operation clear of all persons, particularly small children and pets. Exercise caution to avoid slipping or falling, especially when operating in reverse. Thoroughly inspect the area where the Tail-Dragger Dragger is to be used and remove foreign objects. Wear proper footwear that will improve footing on slippery surfaces. Never attempt to make any adjustments while the engine (motor) is running. Always wear safety glasses or shields during operation.

Prevent Carbon Monoxide Poison – Operate only in well ventilated places.

Assembly Instructions

Remove all items from shipping container and spread out neatly on floor or work bench. Unpack handle and forward/reverse rod included with handle packaging. Unpack swivel caster wheel. Remove bag of zip ties and miscellaneous fasteners stored on tug frame. Unravel clutch handle and place behind and to the left side of the tug frame.

Note: All reference to “right” and “left” orientation is made while standing behind the tug and looking forward. Chock the front wheels of the tug. If you are by yourself it is helpful in the assembly process to prop the rear of the tug frame up about 6-12”.

The drive chain tension is preset at the factory and should have no more than an inch of slack. If the chain requires adjustment, loosen the four (4) nuts in the center of the tug frame and slide the steel plate forward or aft to set the desired chain tension. Tighten nuts firmly to hold in place.

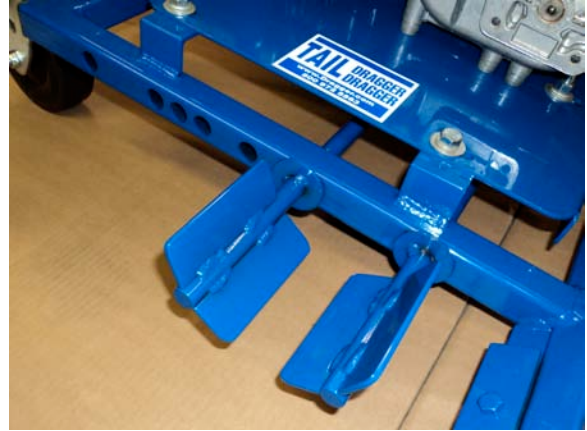
Step 1: Swivel Caster Wheel: Install at rear of frame by first inserting the long pin welded to the plate of the caster wheel through the hole at the rear center of the tug frame. Then slide the pin back to the right side of the frame into the hole on the opposite side. Insert cotter pins included with other miscellaneous parts at each end of the pin and bend to secure in place. Leave in collapsed position for now. Note: The caster wheel is ALWAYS collapsed when mounting aircraft tail wheel onto tug.



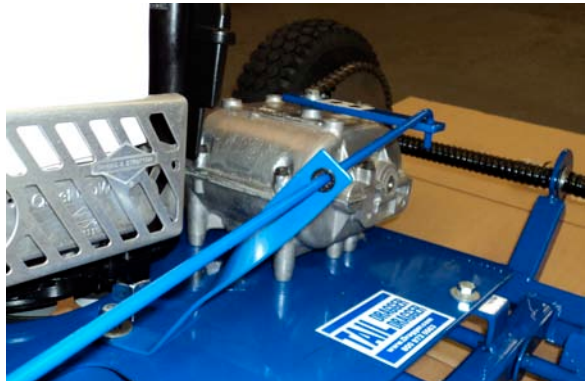
Step 2: Handle Installation: If you are by yourself, prop up the rear of the tug frame approximately 10”. Remove each of the two (2) nuts from the bolts located at the rear center section of the tug frame and just to the right of the engine. When doing this – the **guide** for the forward/reverse rod will fall over. Be sure to **reposition this guide** in the exact position prior to removing the nuts. Remove bolts and reinstall in identical place when ready. Insert the handle at the rear of the tug between the main tug frame and the top engine mount plate. Install the front bolt first from the bottom. Reinstall the forward/reverse rod guide with the bend towards the right of the tug frame and set to 90 degrees from the handle. Place washer over bolt and tighten nut firmly. Install the rear bolt from the bottom with several washers already on the bottom of the bolt. This bolt acts as a **pivot point** when the tug is completely assembled during the aircraft tail wheel mounting process. Place the washer on top and tighten nut firmly.



Step 3: Tail Wheel Lifting Paddles: Remove the rear paddle on the right side of the tug frame by removing the hair pin underneath the flat steel plate on the center of the tug frame and sliding the paddle out from the frame. Reposition the paddle to the 2nd or 3rd hole behind the front paddle depending on the size of your tail wheel. Adjust as needed. If the paddles are too close or too far apart, you won't be able to mount the aircraft to the tug. It may take adjusting the paddle 1 or 2 times until it is just about perfect. It is also acceptable to remove the front paddle and use the front of the tug frame in its place if desired for additional flexibility.



Step 4: Forward/Reverse Control Rod: Insert the ½ "T" end of the rod through the rod guide mounted on the tug frame and push rod through until it reaches the transmission lever. Connect to the transmission lever with the rod end pointing down and use the hair pin to secure in place.



Step 5: Clutch Handle: Install the clutch handle to the left side of the tug handle and close to the handle grip. Position the clutch handle for desired comfort. Use zip ties to secure the clutch cable to the tug handle. Cut off the end of the zip ties for a clean/neat appearance.



ENGINE: CAUTION: There is **NO** oil in the engine as shipped!! Also – see engine manual. **Fill engine with oil and fuel:** **DO NOT** start engine until after filling the engine with Briggs & Stratton synthetic SAE 30 motor oil (not included with shipment). Check for proper oil level with dipstick. See www.briggsandstratton.com for information on engine operation and maintenance. You may collapse the caster wheel before starting engine. This will make the unit more stable when pulling the starter rope. See your local Briggs & Stratton dealer for warranty work (1 year) and general service information.

Aircraft Loading: Refer to the web page (<http://dragger.com/dragger-video-gallery/> or <http://dragger.com/tail-dragger-draggers/>). Use the video or the slide show as a guide to demonstrate how to position the Dragger load pins around the tail wheel to load the aircraft.

- (1) Drive up to the left side of the rear fuselage.
- (2) Collapse the caster by pulling the control rod and pin clear of the slot.
- (3) With Dragger low, pull the Dragger back, positioning near the tail wheel.
- (4) Wiggle/walk the Dragger to position the load pin on the front of the tail wheel.
- (5) Swing the rear pin or paddle into place at the rear of tail wheel.
- (6) Align tail wheel between pins.//Lift up the tail dragger dragger by the handles.
- (7) Pin the caster down, pushing on the control rod and push the pin into the slot. Note: For more information on the loading sequence, please see the following link: <http://dragger.com/tail-dragger-draggers>.

VERY IMPORTANT: For hookup caster, caster must be in full, retracted position, with wheel extending to the right. **DO NOT** lower when wheel extends to left. Damage to the Dragger can result.

FOR EXTRA TRACTION, lift on handle bar. This transfers weight from caster to drive wheels.

USE CHOCKS: When backing into a tight parking space to protect against accidental collision with objects or walls nearby, always use chocks.

WHEEL BEARINGS: Wheels should receive light oil a few times each year.

Tire Pressure: Maintain 30 lbs psi.

PRACTICE IS HIGHLY RECOMMENDED: Operating your Tail-Dragger Dragger before hooking up to the plane is essential. Get familiar with handling, speed, maneuvering, etc. Then try moving the airplane in the open. Do not attempt to park in a tight space until you are thoroughly familiar with the unit. Always check for clearance around the fuselage and propeller, wing tips and tail features. www.dragger.com has a video to observe operators loading the tail wheel.