

[www.dragger.com](http://www.dragger.com)

Nose-Dragger Dragger®

Model: Gas – NDG-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 Nose-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 Nose-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 Nose-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 Nose-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 Nose-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. Remove packaging on tug frame above front axle. Unravel clutch handle and place behind and to the left side of the tug frame.

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

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: Handle Installation:** Loosen the two (2) 3/8” bolts at the rear center section of the tug frame on the handle sleeve/guide. Insert the handle into the sleeve all the way to the bend in the handle. Tighten the two (2) 3/8” bolts firmly to secure the handle in place. The small moving part at the base of the handle is a kick stand. Lower it to stabilize the tug when loading/unloading your aircraft. The kick stand should be in the up position when moving the aircraft.

**Step 2: Clutch Handle:** Install the clutch handle on 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.



**Step 3: 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.

Forward/Reverse Control Handle: There is one (1) forward speed. Neutral is one (1) notch back from full forward. There are multiple reverse speeds. Position the forward/reverse handle to the “neutral” position before starting the engine.

ENGINE: **Caution:** There is NO oil in the engine!! Fill with Briggs & Stratton synthetic SAE 30 motor oil (20oz). See [www.briggsandstratton.com](http://www.briggsandstratton.com) for information on engine operation and maintenance. If necessary, see your local Briggs & Stratton dealer for manufacturing warranty work (1 year) or general service. This special four-cycle engine is easy to start and operate. Add approximately 20 ounces of synthetic SAE 30 motor oil or as needed to proper level using the engine oil dipstick to confirm the level.

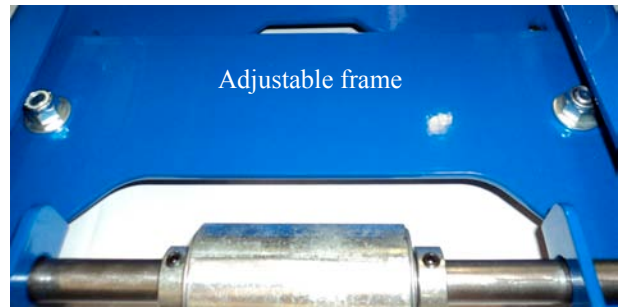
USE CHOCKS: When backing into a tight parking space to protect against accidental collision with objects or walls nearby, always use chocks.

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

### Tug Adjustments & Loading the Aircraft

The rear roller is mounted on an adjustable frame. A one-time adjustment must be made when using the tug for the very first time. Subsequent adjustments will only be necessary when using the tug with an aircraft that has a different size nose wheel than your primary aircraft. When adjusting the position of this roller for the very first time – open the swing gate and push (from the neutral position) the tug so the front of the nose wheel of the aircraft is positioned tight against the rear roller. Close the swing gate. If the swing gate will not close, adjust the moveable frame holding the rear roller back a little bit at a time until the swing gate will close firmly against the rear of the aircraft nose wheel. Next, adjust the side nose wheel guide until the white nylon strips are just about (but not) touching the nose wheel. Tighten the bolts firmly to secure the guide in place.

**Note:** Nose Wheel Fairing: If your aircraft has a nose wheel fairing, adjust the rear roller on the tug to keep the front of the nose wheel fairing from hitting the tug.



**Swing Gate:** The swing gate latch can be released with your foot. Open the swing gate when loading the aircraft. Confirm a tight fit against the nose wheel when swing gate is closed and latched. If not – unload aircraft and adjust rear roller accordingly. Use the kickstand on the handle for additional tug stability when loading the aircraft. Raise the kickstand when operating the tug.

**Transmission:** The gearshift is mounted directly to the transmission. Move the handle forward or aft as indicated on the handle for forward and reverse operation. There is one forward speed. Neutral is one (1) notch back from forward. There are multiple reverse positions ranging from slow to moderate speeds.

**Traction:** When operating the tug with the aircraft loaded, it is permissible to push down on the tug handles to aid in additional traction if necessary.

**Moving the Tug With No Power:** Lift the handlebar until the main wheels are off the surface and the smaller coaster wheels towards the front of the tug are now on the pavement.

**Tire Pressure:** Maintain 30 lbs psi.

**Video And Slide Show Examples Of Using The Tug:** Refer to our website for an example of how to load and unload an aircraft (<http://dragger.com/Nose-Dragger-DRAGGER/> or <http://dragger.com/dragger-video-gallery/> )