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# SERVICE MANUAL FOR THE TB-12ST STRAIGHT TOW BAR

Revision A

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**LOG OF REVISIONS**

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# WIPLINE MODEL TB-12ST MANUAL

## **INTRODUCTION**

This manual is provided for the owners of Wipaire model 12ST tow bar to convey guidance on the use of the product.

The service products referred to throughout this manual are described by their trade names.

Wipaire customer service information is:

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# WIPLINE MODEL TB-12ST MANUAL

## **1.0 GENERAL**

The TB-12ST straight tow bar is designed to be used with aircraft on amphibious floats. The tow bar can be used on all models of Wipline floats.

The tow bar consists of a tow hook that attaches to the tug and two legs which have fittings to attach to the tow lugs located on the amphibious floats.

**Leg length:** 126 in. (not including tow hook and aircraft attach fittings)

**Weight:** 36 lbs (maximum)

**Finish:** Powder coat

**Material:** Aluminum

## **2.0 LIMITATIONS**

- Aircraft maximum weight shall be limited to the maximum takeoff or ramp weight (if applicable, whichever is greater) listed in the Aircraft Flight Manual associated with the aircraft on amphibious floats
- Maximum load through the tug shall be limited to:
  - 3,659 lbs in tension
  - 3,668 lbs in compression
- Do not exceed 8 mph/13 kph when aircraft weight is greater than 8,000 lbs
- Do not exceed 12 mph/19 kph when aircraft weight is less than 8,000 lb
- When starting/stopping, increase/decrease acceleration gradually and smoothly
- Do not tow with chocks installed
- Do not tow with aircraft brakes engaged
- Do not operate aircraft (Taxi/Takeoff/Run-up) with towbar attached
- Ensure proper aircraft tire inflation per manufacturer recommendations prior to towing operations
- Avoid rough surfaces with large cracks/gaps that prevent aircraft the float's nose wheels from freely castering
- Pushing or pulling aircraft is acceptable. Recommend avoiding pushing aircraft over long distances, preferred method is a tug-pull configuration.
- Ensure tow bar is free of bends and dents before beginning towing operations
- Ensure tow bar is fully assembled and all hardware is in place before beginning towing operations
- Limit angles of towing to prevent the tow bar from contacting the float

## **3.0 OPERATION**

- Check tow bar to ensure it is fully assembled
- Inspect the tow bar legs and tow hook for bends and cracks or dents greater than 1/16". A damaged tow bar should not be used.
- Attach tow bar to the aircraft first using the fittings at the end of each leg
- Attach tow bar to the tug after aircraft attachment is complete using the tow hook
- Ensure excess force is not applied to the tow hook or aircraft attachment fittings due to excessive angles between the aircraft attach fittings and the tug from height differences
- When in use avoid towing angles that cause contact between the tow bar and either float
- The preferable method for aircraft movement is a tug-pull configuration to keep the tow bar in tension during use

**Damaged or bent tow bar**

A damaged or bent tow bar should not be used for aircraft towing as it could lead to tow bar failure under load. Damage can be from impact dents, corrosion or excessive out-of-plane loading.

**4.0 REPLACABLE COMPONENTS**

The following replacement hardware can be used.

Item	Quantity	Part Number	Description
1	2	90566A230	Lock Nut, 1/2-20, Thin
2	4	91247A358	Hex Head Screw, 1/2-20 x 2.5"
3	32	91253A537	Flat Head Screw, 1/4-20 x 1/2"
4	2	93705A628	Socket Head Screw, 3/8-16 x 1.5"
5	2	95615A220	Lock Nut, 1/2-20, zinc plated
6	2	98325A168	Pin, T-Handle, 1/2" x 1.3"

