You Aircraft Tug

The Tiffin Tug is a product of long development and offers the best possible safety, economy and comfort when towing aircraft. It is up to you to maintain these characteristics for a long time and to use the resulting advantages.

Inspection and maintenance work must be carried out regularly and with the operating materials and aids provided. Expert knowledge, special tools and measuring instruments are required for maintenance and repair work not described here.

Operating instructions

For safe operation of the aircraft tug, basic knowledge is required, which is learned and provided by these operating instructions. On the job training and operations on Apron 1 & 2 is done under the supervision of senior Line Crew or Supervisor who is trained in Tug operations.

Safety Instructions

These operating instructions contain safety instructions that point out possible hazards and thus enable safe operation of the electric aircraft tug. Please always follow these safety instructions! In this section you will find general safety instructions which do not refer to any specific work step.

General Safety Instructions

Before the aircraft tug is put into operation, it is imperative to read the operating instructions, understand them and make them available to other users!

It is prohibited to operate the aircraft tug with damaged components! In the event of a malfunction immediately stop any operations and advise a supervisor.

Verify the following are in good condition before operations:

- Fuel Level (Unleaded Gas)
- Coolant Level
- Oil Level
- Hydraulic Level
- Tire Condition
- Lights

Obligations of the Operator

The operator must ensure that the aircraft tug is only used for its intended purpose and that dangers of any kind to the life and health of the operator or third parties are avoided. In addition, the operator must ensure that the accident prevention regulations, other safety regulations and the operating, maintenance and repair guidelines are observed.

Damage and Defects

Damage and other defects to the aircraft tug or its attachments must be reported immediately to the supervisor. Tugs that are unsafe to operate (e.g. worn wheels or defective brakes) must not be used until they have been properly repaired.

Repairs and Maintenance

The operator must not carry out any repairs or modifications to the aircraft tug without written authorisation and without special training. Under no circumstances may the operator disable or block safety devices or controls.

Hazards When towing aircraft

Care must therefore always be taken to ensure that no objects or persons are in the danger area and not reached into it.

This device may only be used by persons who have successfully completed training (whether in-house or by Summit personnel).

Risk and Security Statements

Intended Use

The aircraft tug may only be used for its intended purpose. It is used to move aircraft via the nose wheel. The load capacity of the carrier must be taken into account (max. load). Damaged or defective tugs may not be operated until they have been properly repaired. Safety switches, brackets and safety devices must not be removed or disabled. Specified settings must not be changed without the manufacturer ‘s written consent.

Danger Area

A danger zone is defined as the area in which persons are endangered by movements of the tug with and without the aircraft being towed. No persons may stay in the hazardous area of the tug. The manufacturer recommends a safety distance of at least 2 metres. In addition, the user must always keep his surroundings in view and be aware of other potential sources of danger.
WARNING: Risk of accident/injury when staying in the danger area of the aircraft tug.

Routes and Parking

Aprons must be adequately secured, leveled and free from objects. Guide markings of hangar entrances, drainage channels or similar must be leveled in such a way that they can be driven over without shocks. Maximum area and point loads must not be exceeded.

Improper Use

Any use for which the tug is not approved is the responsibility of the operator or driver and not the manufacturer. The following list is only an example and does not claim to be exhaustive. The tug is not approved for:

- Riding on the tug unless the tug is specially equipped for this purpose
- Use in fire or explosion-hazard areas unless it has special certification for this
- Exceeding the maximum capacity
- Exceeding the restricted speed at max towing

Protective measures

In order to prevent injuries, the operator must be equipped with sufficient protective clothing. In general, the operator must wear safety shoes when towing. If you are working on the apron in low light / no light condition you must also provide safety vests for every person involved in the operation. If the above protective measures are not provided by the operator, the operator must refrain from operating the aircraft tug.

Driving permit (AVOP)

The aircraft tug may only be used by persons who are trained by officially certified personnel and who have demonstrated to the operator or his agents their ability to tow aircraft and have subsequently been expressly assigned to operate the aircraft tug. If necessary, the national regulations must be observed.

Vehicle Description

Application

The Tiffin Tug is an gas powered, towbar less aircraft tug designed for towing and manoeuvring aircraft. The aircraft tug can be operated on the apron and allows several towing operations per day, depending on the weight.

General Vehicle Description

The frame of the aircraft tug is based on a John Deere X790 frame and is finished with a custom lifting device for the front wheel of aircraft. Two Hydrostatic driven wheels together with the 2 small steering wheels make the aircraft tug extremely manoeuvrable.



Lighting

The lighting system includes;

- two front headlights
- Status LEDs-
- Flashing beacon

Brake & Drive

In general, the aircraft tug is braked a Hydrostatic system. A hydrostatic drive system uses hydraulic fluid to transmit power from an engine to a machine's moving parts, like wheels or tracks. It consists of a pump driven by the engine, which pressurizes hydraulic fluid to power hydraulic motors connected to the output, allowing for precise, variable speed and direction control without traditional gears.

Nose Wheel Scoop

By two swivel arms the nose wheel is first enclosed and then lifted. The mount moves the nose wheel under the safety bar and thus offers an optimal fit of the nose wheel in the mount. The entire mount is attached to a turntable that can be rotated by 360°, allowing free movement underneath the aircraft.