

Terminal Tractor/Yard Spotter

Used Yard Spotter Santa Clara - Tow tractors, sometimes call towing tractors or tow tugs, are vehicles used in transporting loads horizontally in warehouses, manufacturing plants, airports, arenas and other large facilities. They are capable of towing several trailers in a train formation. Some are designed specifically to tow large aircraft in order to position them into and out of airport terminals and hangers. All tow tractors use the concept of tractive effort to move loads. The complete amount of traction a vehicle utilizes on the ground. The heavier the load is, the more tractive effort is needed. The unit works by lifting a part of the load while it is towing; however, the load's wheels stay on the ground. The load is partially lifted by use of the tow tractor's hydraulic mast which is specifically designed to produce downforce on the drive wheel immediately beneath it, increasing the tractive effort. The tow tractor is capable of transporting very heavy and large loads thanks to the traction it provides. Types of Tow Tractors Heavy-duty tow tractors and load carriers are two types of tow tractors. Load Carriers Numerous businesses need to transport items of different sizes on a regular basis including manufacturing, parcel delivery services and airport baggage. Tow tugs and load carriers easily transport single items that have been deposited on wheeled platforms and move them with ease. Load carrier tow tractor models are categorized in the material handling equipment that covers cranes, forklifts and pallet jacks. Load carrier tow tugs transport loads at ground level only, rather than lifting or lowering off the ground or from shelving or other hard to reach areas. In order to be ready for transport, items must be secured on a wheeled platform or already on wheels to use the tow tractor. Wheeled platforms are called skates, trollies and bogies. The tow tractor attaches to the trolley and operates similarly to how train cars are attached to a locomotive. Usually, the tow tug has a male-end steel coupling that couples to the female-end fixed to the front of the trolley. The back of the trolley has a male-end steel coupling that can then be used to attach multiple trollies onto a single tow tug, transporting all the trollies in a train-like formation. These machines can transport a variety of items in varying conditions. Different trolley types are on the market to facilitate better transportation customization. Many trollies can be connected since they are compatible with one another. This means several different types of trollies can be used in a single train allowing greater flexibility for operations. An additional benefit of operating with load carrier tow tractors as opposed to forklifts is the unobstructed view offered by a tow tractor, increasing the safety of work areas. Load carrier tow tractors transport trollies in a forward direction which decreases the safety concerns common with reverse forklift operations. This is vital for safety-sensitive places including airports and manufacturing facilities. Towing solutions are a good alternative to traditional forklifts to handle many single items. They are safe and easy to maneuver. The operator doesn't require a license, which is another benefit compared to forklifts. No license is necessary since these units do not lift loads up from the ground like cranes, and forklifts that require licensing. There are three kinds of load carrier tow tractor units to choose from; pedestrian, stand-in and rider-seated. Pedestrian Tow Tractors A walk-behind model that can transport wheeled loads is called a pedestrian tow tractor. These machines may go by the names of electric hand tug, electric tugger, electric tug or tow tractor. These machines are simple to use, extremely maneuverable and very compact. Stand-in Tow Tractors The most common design for businesses that rely on horizontal manufacturing transport and order picking are stand-in tow tractors. Stand-in tow tractors feature a tinier footprint compared to rider-seated editions and they offer a safe driver platform. Rider-Seated Tow Tractors The rider-seated tow tractors are similar to the stand-in tow tractors with the exception they provide a seated platform for the driver. Rider-seated models are used for moving loads longer distances. They are popular for airport luggage transport to move checked baggage from the check-in counter to the aircraft parked at the terminal. Rider fatigue is decreased with sit-down units for more efficiency and productivity. Heavy Duty Tow Tractors Aviation relies on the pushback concept for moving big passenger and cargo aircraft. Pushing an aircraft back from the airport terminal without using the aircraft's own power is the pushback concept.

Heavy-duty tow tractors are known as pushback tugs or pushback tractors complete this task. Pushback tugs feature a low-profile enabling them to travel under the aircraft's nose for easy attachment. Enough ground friction is required to move the weighted aircraft, so these models need to be heavy themselves. A typical tractor for large aircraft weighs up to 54 tons. They usually have a driver's cab that can be raised and lowered to increase visibility when reversing. While the vehicle is referred to as a pushback tug or pushback tow tractor, it is also used to tow aircraft in areas where taxiing the aircraft is not practical or safe, such as moving large aircraft in and out of maintenance hangars. The two subtypes of pushback tow tractors include conventional tow tractors and towbarless tow tractors.

Conventional Pushback Tow Tractors Conventional units rely on a tow bar to connect the tug to the aircraft's nose landing gear. Laterally attached to the nose landing gear, the tow tractor can make certain slight vertical height adjustments if needed. The tow bar that attaches to the tug can pivot vertically and laterally. The tow bar functions as a sizeable lever to facilitate nose landing gear rotation. There are a towbar and precise tow fitting that acts as an adapter between the standard-sized tow pin and on the landing gear of the aircraft. On heavy towbars for large aircrafts, the towbar rides on its own wheels when not connected to an aircraft. Attached to the wheels, the hydraulic jacking mechanism allows the towbar to lift to the proper height to mate with the aircraft and tug. The same mechanism is employed in reverse to raise the towbar wheels off the ground for pushback. The towbar can be connected at the front or the rear of the tractor, depending on whether the aircraft will be pushed or pulled.

Towbarless Pushback Tow Tractors Towbarless tractors, as their name suggests, don't rely on a towbar. Instead, these machines scoop up the nose landing gear to lift it off of the ground so the tug can move the plane. This allows better control of the aircraft and higher speeds; it may also eliminate the need to have a worker in the cockpit to apply the aircraft's brakes. The main advantage of a towbarless tug is simplicity; there is no need to maintain multiple towbars. By connecting the tug directly to the aircraft's landing gear tug operators have better control and responsiveness when maneuvering.