

Aircraft Support Equipment



Model shown above includes additional options.

Aircraft Tow Tractor Model GT-110

With over 20 years of airline service, S&S TUG's Gator Series tractors are proven performers. The largest Gator tractor available, the GT-110, is the ideal tractor to handle pushback and towing requirements for all wide-body aircraft. Utilizing the newest manufacturing technology, choice of engine packages and a wealth of tractor-building experience, the GT-110 provides our customers with reliability and guarantees satisfaction.

The combined efforts of S&S TUG and other major OEMs have established



the GT-110 as the tractor of choice for customers that want to lower engine noise levels, lower harmful emissions, improve fuel economy and eliminate heavy diesel smoke. The GT-110's coordinated, track or crab steering can be selected to provide optimum maneuverability in tight places and ensure aircraft safety. Enhanced viewing to rear hitch is provided by the rear sight tunnel. All of these important needs are met while simultaneously providing up to 78,000 pounds of drawbar pull.

As with all of our equipment, the GT-110 is backed fully by S&S TUG's worldwide parts and service. This, in addition to superior quality, will ensure customer satisfaction.

Standard features include:

- 3-Mode steering (coordinated, track, crab)
- Downshift inhibitor
- Out of neutral, parking brake "ON" alarm
- Upper-surface access steps
- Sealed-beam halogen headlights
- Backup lights
- Turn signals/side marker/ emergency flashing lights
- Dual-view rearview mirrors
- Electric horn
- Racor-fuel separator
- Automatic lube system
- Engine glow plugs for cold-start aid
- Front and rear communication jacks
- Two removable jacking plate adapters
- Anti-skid matting on top of tractor
- Single-color polyurethane paint

Specifications

Model GT-110

General

Gross Vehicle Weight (gvw)	Maximum Drawbar Pull*
At gvw 90,000 lb (40,824 kg)	72,000 lb(32,688 kg)
At gvw 100,000 lb (45,400 kg)	78,000 lb(35,412 kg)
At gvw 110,000 lb (49,940 kg)	78,000 lb(35,412 kg)
At gvw 120,000 lb (54,480 kg)	78,000 lb(35,412 kg)

* At 0.8 traction coefficient. ±3% variation on published drawbar pull and weight, owing to manufacturing tolerances.

Speed*

Forward	1st	1.5 mph @ 32,000 lb dbp(2.4 km/h @ 14,528 kg)
	2nd	3.0 mph @ 17,500 lb dbp(4.8 km/h @ 7,945 kg)
	3rd	5.0 mph @ 11,000 lb dbp(8.05 km/h @ 4,994 kg)
	4th	13.5 mph @ (21.7 km/h)
Reverse		same as above, but without 4th gear.

*At gvw-100,000 lb (45,400 kg) and 2300 rpm of the engine running on dry, level concrete.

Overall Dimension (includes GPU/ROC platform)

Length*	w/o Hitches	258"(6,553 mm)
	w/Standard Hitches	300"(7,620 mm)
	w/GPU-and Standard Hitches	342"(8,687 mm)
Width		110"(2,794 mm)
Height	Over frame	68"(1,727 mm)
	w/Standard Stationary Frame	81.5"(2,070 mm)
Wheel Base		124"(3,150 mm)
Ground Clearance		10"(254 mm)

*Length will vary with hitch selection.

Turning Radius (Four-Wheel Coordinated Steer)

Minimum Inside	96"(2,438 mm)
Minimum Outside	260"(6,604 mm)

Ramp Angles

Approach Angle	7.0°
Breakover Angle	12.0°
Departure Angle	17.0°
Departure Angle w/GPU	8.0°

Engine - Certified to US 1996 Certification &-Euro II

Manufacturer	Deutz Model BF6M1013CP
Type	Water-cooled, diesel, four-cycle
Number of Cylinders and Arrangement	Six (6)-cylinder; in-line
Bore	4.25" (108 mm)
Stroke	5.12" (130 mm)
Displacement	436 C.I.D. (7.14 L)
Horsepower @ Flywheel	255 hp (190 kW) @ 2300 rpm
Maximum Torque	700 lb-ft @ 1400 rpm
Fuel Injection	Direct
Aspiration	Turbocharged, charge aircooled
<i>Caterpillar 3208 ATAAC engine optional</i>	

Transmission

Manufacturer	ZF
Type	Torque Converter/Powershift
Speeds	Four (4) forward; three (3) reverse
Control	Electric shift with downshift inhibitor

Axles

Manufacturer	Rockwell International
Type (Front and Rear)	Planetary-drive and steering w/high traction differential
Tires	16.00 x 25
Suspension	Front, rigid; Rear, cradle
Interaxle Differential	Integral with transmission
Type	Bias (proportional)

Brakes

Service Brakes	Hydraulic power braking system w/dual accumulator backup. Disk brakes on the four wheels. Brakes on each axle are actuated through 1 of the 2 independent service brake circuits.
Parking Brakes	Spring-applied, hydraulically released calipers on each axle pinion.

Hydraulic System

Hydraulic Pump	Engine-driven, providing hydraulic power for steering & braking
Type	Piston
Capacity	40 gpm (152 L/min) @ 2300 rpm
Hydraulic Oil Tank	Removable
Capacity	30 U.S. gallons (113 L)
Steering Type	Closed center hydraulic power steering system. Three mode steering with electrical selection of front 2-wheel, 4-wheel coordinated or 4-wheel cab.
Emergency Steering	Provided by 12VDC motor-driven hydraulic pump

Electrical System

Voltage	12V
Alternator	90A
Batteries (2)	Type Heavy-duty diesel starting
	Cranking Capacity (ea.) 900A

Fuel System

Capacity	65 U.S.-gallons (246 L)
Fuel	No. 2 Diesel (Jet-A approved)

Hitches

Front and Rear - Standard	Type Pin coupler
	Height 16"(406 mm)
	Pin diameter 2.5"(63.5 mm)
Front and Rear - Optional	Type Cushioned, pin coupler
	Height 16.0"(406 mm)
	Pin diameter 2.5"(63.5 mm)

*Hitches include automatic pin retainers.

Capacities

Hydraulic Oil	30 U.S. gallons(removable tank)
Engine Coolant	18.4 quarts
Engine Oil	22.2 quarts
Transmission Fluid	8 gallons
Fuel	65 U.S. gallons(No. 2 Diesel Jet-A-approved)

Standard Front Operator Instrument Panel

Speedometer with odometer • engine tachometer/ hourmeter • engine oil pressure gauge • engine coolant temperature gauge • engine low coolant level light • transmission oil temperature gauge • fuel indicator with low fuel level warning light • voltmeter • keyless, anti-restart ignition/shutdown switch • emergency engine shutdown switch • light switches • blue high-beam indicator light • red parking brake "ON" warning light • turn signal/ hazard indicator lights • glow plug "ON" indicator light • generator "NO CHARGE" indicator light • warning lights and audible alarm for engine L.O.P., H.C.T., L.C.L. and transmission H.O.T. • parking brake switch • steering mode selector switch • system pressure gauge • emergency steering switch

Optional Equipment

310 hp-certified Caterpillar diesel engine package • full-width elevating cab with front hitch mirror or stationary front cab • open front operator compartment • rear operator compartment with GPU platform • backup alarm • battery disconnect • amber safety beacon • rear viewing camera • cold-weather options • fire extinguisher • fire suppression system, integral • internal GPU cable • GPU installation • front and rear hitch lights • hydraulic self-jacking system • rear driving lights • spare tire and wheel assembly • tire chains • custom paint schemes • other options available

Optional Front Cab Features

Removable doors with door retainers • sliding door windows • rear windows • roof windows with driver's side wiper • ventilating fans (2) • front windshield wipers and washers • adjustable, padded driver's seat • two-man, padded passenger seat with storage compartment • heater-defroster • dome light • audible alarm while raising/lowering cab

Optional Rear Operator Compartment Features

Operator station selection switch • dual rearview mirrors • standing position driver's seat • electric shift control with downshift inhibitor and out of neutral parkbrake "ON" alarm • parkbrake switch • rear headlight switch • emergency engine shutdown switch • steering mode selector switch • emergency steering switch • generator "NO CHARGE" indicator light • warning lights for engine L.O.P., H.C.T., L.C.L. and transmission H.O.T.