



TSi 150T
SONIC DRILL RIG

TECHNICAL INFORMATION

TSi 150T SONIC DRILL RIG

TECHNICAL INFORMATION

MODEL DESCRIPTION

The TSi 150T Sonic Drill Rig is a truck chassis mounted unit with a 250 HP (186.42 kW) separate deck engine that powers all drilling and accessory hydraulic functions.

The TSi 150T features our exclusive TSi 150 Sonic oscillator that efficiently utilizes up to 150 HP (111.85 kW) to generate powerful resonant sonic energy in the drill string to a rated drilling depth of 700 feet (213.36 meters) with 6 inch (152.4 mm) casing. In addition, the unit has full rotational drilling capability.

The TSi 150T mast enables drilling angles anywhere between vertical and 45°, incorporates an integrated hose management system within its tubular frame, and utilizes a drive system that operates the feed frame with half the chain length and rollers of conventional drive methods.

The TSi 150T has an extra large work platform and fold-down walkways to enhance crew operating efficiency and safety. Removable stairs provide access to the work platform, and safety handrails surround the perimeter.

The following specifications provide a closer look at the TSi 150T.

Deck Specifications	
	US CUSTOMARY (METRIC)
Working Platform	7 ft.-1/4 in. (2140 mm) Long X 11 ft.- 6 in. (3505 mm) Wide, Aluminum Bar Grating, Handrails, Adjustable Jacklegs, Removable Stairs, Safety Chain, Rear Hinge, Winch Cable Operated
Walkway	Fold-Down on both Sides of Deck and Working Platform with Handrails, Aluminum Perforated Safety Grating
Tow Hooks	Front and Rear of Chassis Frame
Jacklegs	Two 4" X 36" (102 mm X 914 mm) Front, Two 4" X 30" (102 mm X 762 mm) Rear, At Deck Corners with Built-In Lock Valves
On-Board Water Tank Capacity	725 gal (2744 L)
Deck Skin	Diamond Plate

Engine Specifications	
	US CUSTOMARY (METRIC)
Engine Type (Deck Engine)	John Deere, 6.8 L, Air-to-Air Intercooled, Turbocharged, Tier 3 / Stage IIIA Emission Certification Standards
Engine Power	250 HP (186.42 kW) @ 2400 RPM
Monitoring	Murphy PowerView to Monitor Engine and Transmission Parameters
Fuel Capacity for Drilling / Transport	100 gal / 140 gal (379 L / 530 L)
Auxiliary Air Compressor	13.2 CFM @ 120 psi (22.43 m³/hr @ 8.27 bar)

TSi 150T SONIC DRILL RIG

TECHNICAL INFORMATION

Rig Performance Specifications	
	US CUSTOMARY (METRIC)
Rated Drilling Depth	700 ft. (213.36 m) with 6 in. (152.4 mm) Casing
Max Drilling Diameter	12" (304.8 mm) Casing
Drill Feed Rate	0 to 135 fpm (0 to 41.15 m/min)
Pull Back Force	22,000 lbs. (9979 kg)
Down Force	15,000 lbs. (6804 kg)
Max Casing Length	20 ft. (6.1 m)

Hydraulic System Specifications	
	US CUSTOMARY (METRIC)
Hydraulic Oil Capacity	120 gal (454.3 L)
Hydraulic Cooling System	240,000 Btu/hr @ 100 gpm (70,337 w @ 378.5 Lpm), and 50,000 Btu/hr @ 20 gpm (14,654 w @ 75.7 Lpm) for Sonic Head
Variable Speed Control	Variable Displacement Pumps
Hydraulic Control	Hydraulic over Hydraulic for Drilling Functions, Electric over Hydraulic for Set-Up / Non-Drilling Functions

Mast Specifications	
	US CUSTOMARY (METRIC)
Head Tilt	87°
Head Travel	24.5 ft. (7.47 m)
Head Travel Speed	0 to 180 fpm (0 to 54.88 m/min)
Overall Length	32 ft. (9.75 m)
Drilling Angle	Vertical to 45° Off Vertical
Upper Jib Hoist	2000 lbs. (907.18 kg) Capacity, 150 fpm (45.72 m/min) Bare Drum Speed
Lower Jib Hoist	2000 lbs. (907.18 kg) Capacity, 150 fpm (45.72 m/min) Bare Drum Speed
Wiggle	6 in. (152.4 mm) Lateral Swing, 6 in. (152.4 mm) Fore/Aft
Feed System	Hydraulic Cylinder Operated Feed Frame Using Half the Leaf Chain Length and Rollers as Conventional Hydraulic Cylinder/ Chain Method
Mast Lock	Hydraulic Cylinder Tower Lock
Hose Carrier	Mast Integrated Hose Management System with Accessible Bulkheads
Rod Rack	800 ft. (243.84 m) of Vertical Mast Rod Storage



Reno Business Park
27825 State Route 7
Marietta, Ohio, USA 45750
Corporate: 1.740.374.6608
Fax: 1.740.374.6907

www.terrasonicinternational.com

TSi 150T

SONIC DRILL RIG

TECHNICAL INFORMATION

Breakout Specifications	
	US CUSTOMARY (METRIC)
Wrench	Dual Cylinders on both Top and Bottom Wrench
Wrench Clamp Force	Adjustable Pressure Control Preset at 34,500 lbs. (15,649 kg)
Breakout Torque	30,365 ft-lbs (41,169 N-m) with Dual Cylinders
Wrench Size Range	3 in. (76.2 mm) to 12 in. (304.8 mm)
Wrench Travel	19° Swing
Hardened Inserts	Standard

Sonic Head Specifications	
	US CUSTOMARY (METRIC)
Sonic Head Model	TSi-150
Oscillator Frequency	0 - 150 Hz
Oscillator Force	50,000 lbs. (22,680 kg)
Max Torque (high torque/low speed)	4677 ft-lbs (6341 N-m)
Rotation Speed (low speed/high torque)	0 to 80 rpm

Options					
PTO for Chassis Engine Drive (TSi 150P)			High Rotation Speed of 145 rpm with 3,187 ft-lbs (4321 N-m) torque		
Pipe Handling System		Casing Clamp		Drill Maintenance Tool Kit	
Diamond Coring Adapter with Dual Speed of 0 - 400 rpm with 2,200 ft-lbs (2983 N-m) Continuous Torque, and 0 - 800 rpm with 1,100 ft-lbs (1491 N-m) Continuous Torque					
Truck-Mounted Rod Carrier	Lighting	Tool Boxes	Drill Training Program	Drill Tool Sets	Grout Mixer / Pump
Custom Paint and Customer Logo			Larger Air Compressor Capacity of 34 CFM @ 120 psi (57.77 m ³ /hr @ 8.27 bar)		

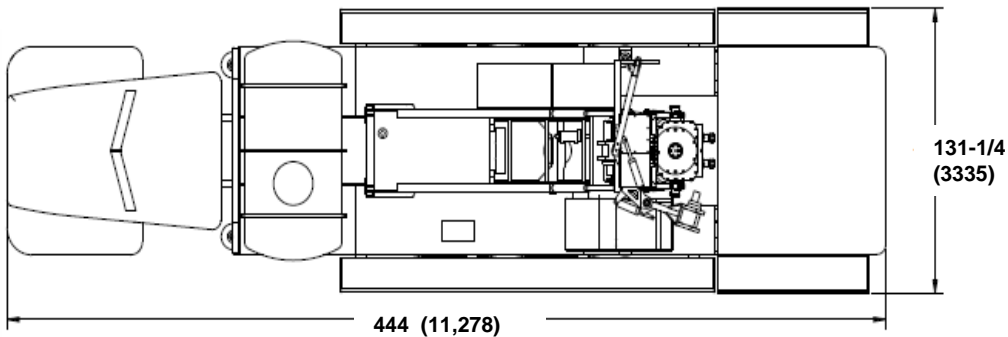


Reno Business Park
27825 State Route 7
Marietta, Ohio, USA 45750
Corporate: 1.740.374.6608
Fax: 1.740.374.6907

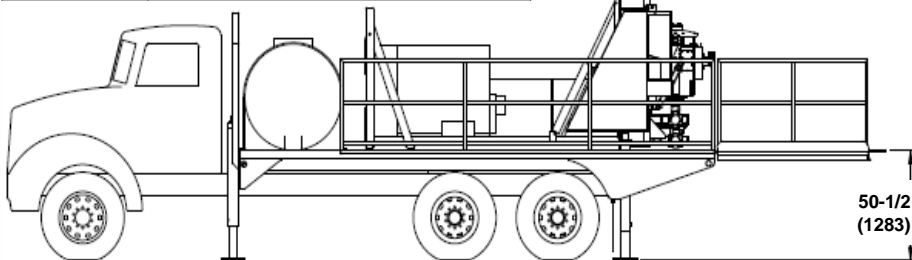
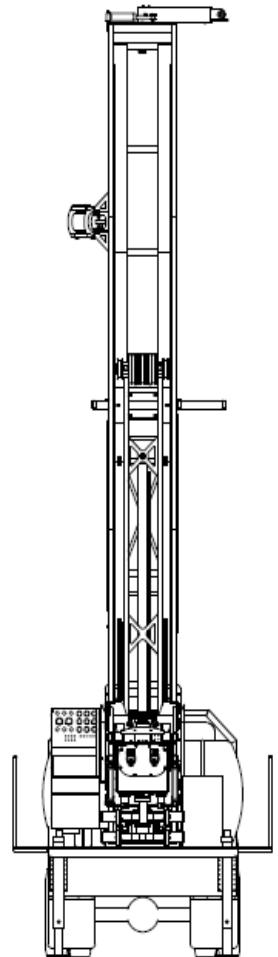
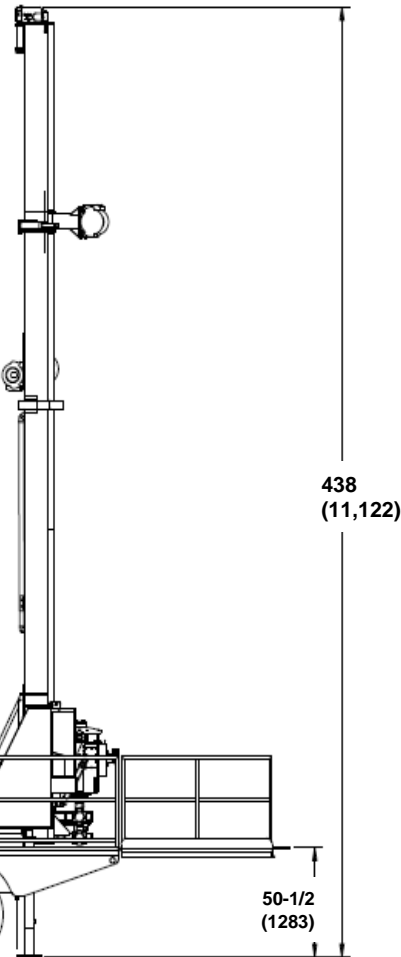
www.terrasonicinternational.com

TSi 150T SONIC DRILL RIG

TECHNICAL INFORMATION



Dimension & Weight Specifications	
	US CUSTOMARY (METRIC)
Width (folded)	8 ft. - 5 in. (2.57 m)
Width (unfolded)	10 ft. - 11-1/4 in. (3.33 m)
Length (folded)	33 ft. - 2-1/2 in. (10.12 m)
Length (unfolded)	37 ft. (11.278 m)
Height (folded)	12 ft. - 9-1/8 in. (3.89 m)
Height (unfolded)	36 ft. - 6 in. (11.12 m)
Weight	42,000 lbs. (19,051 kg)
Ground Clearance	14 in. (356 mm)



TERRASONIC
INTERNATIONAL

Reno Business Park
27825 State Route 7
Marietta, Ohio, USA 45750
Corporate: 1.740.374.6608
Fax: 1.740.374.6907
www.terrasonicinternational.com



Distributor Information



Reno Business Park, 27825 State Route 7, Marietta, Ohio, USA 45750
Corporate: 1.740.374.6608 Fax: 1.740.374.6907 www.terrasonicinternational.com