

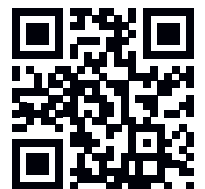
# TSI 150CT

## Compact Truck-Mounted Sonic Drill Rig



## FEATURES

- PTO-Driven Power System
- Electric Over Hydraulic Design with Remote Control Operation
- Slide Base, Wiggle Tail, and Dump Mast
- Standard 19 ft 1 in (5.8 m) Long Mast;
- Accommodates 10 ft (3 m) Sections of Tooling for 5 ft (1.5 m)
- Angle Drill Between Vertical and 70°
- Rated Drilling Depth up to 800 ft (304.8 M) Depending on Lithology and Casing Design



**TSI 150CT • Compact Truck-Mounted Sonic Drill Rig****SPECIFICATIONS****SONIC HEAD**

- **SONIC Head Model:** TSi 150
- **Oscillator Frequency:** 0 to 150 Hz
- **Oscillator Force:** 50,000 lbf (222 kN)
- **Max Torque (high torque/low speed):** 4,677 ft-lb (6,341 Nm)
- **Rotation Speed (low speed/high torque):** 0 to 62 rpm

**TRANSPORT**

- **Width:** 8 ft 3 in (2.5 m)
- **Length:** 23 ft (7 m)
- **Height:** 13 ft (4 m)
- **Standard Weight:** 25,600 lbs (11,612 kg), 33,000 (14,969 kg) with options
- **Ground Clearance:** 9.5 in (241 mm)

**MAST**

- **Head Travel/Stroke:** 14 ft 1 in (4.3 m)
- **Head Travel Speed:** 0 to 155 ft/min (0 to 47.3 m/min)
- **Overall Length:** 20 ft 1-1/2 in (6.1 m)
- **Drilling Angle:** 90° to 45°
- **Articulating Jib Boom and Hoist:** 2,000 lb (907 kg) Capacity, 150 ft/min (46 m/min) Bare Drum Speed
- **Mast Dump:** 55 in (1.4 m)
- **Manual Mast:** Lock in Vertical Position
- **Feed System:** Hydraulic Operated Utilizing Feed Frame and Leaf Chain Design and Rollers as Conventional Hydraulic Cylinder/Chain Method
- **Work Lights:** LED Work Lights
- **Hose Carrier:** Mast Integrated Hose Management System with Accessible Bulkheads
- **Head Tilt:** 87° and Hinges Away from Driller to Enable Jib Over the Hole

**DECK**

- **Ground Operation using Remote Control**
- **Articulating Arm for Mounting Remote**
- **12 in Color Screen to Monitor Drilling Parameters**
- **Slide Base and Wiggle Tale**
- **Jacklegs:** 3-1/2 in (89 mm) × 24 in (618 mm); Built-in Lock Valves

**RIG PERFORMANCE**

- **Rated Drill Depth:** 800 ft (244 m) with 6 in (152 mm) Casing Depending on Lithology and Casing Design
- **Max Drilling Diameter:** 12 in (305 mm) Casing
- **Drill Feed Rate:** 0 to 135 fpm (0 to 41 m/min)
- **Pull Back Force:** 16,800 lbf (74.7 kN)
- **Down Force:** 11,300 lbf (50.3 kN)
- **Max Tooling Length:** 10 ft (3 m)

**HYDRAULIC SYSTEM**

- **Hydraulic Oil Tank Capacity:** 90 gal (340.6 L)
- **Hydraulic Cooling System:** 230,000 Btu/hr @ 100 gpm (67 kW @ 379 Lpm) and 100,000 Btu/hr @ 20 gpm (29 kW @ 76 Lpm) for SONIC Head Lubrication
- **Variable Displacement Pumps:** Load Sense Piston Pumps with Electric Controlled Valves
- **Hydraulic Control:** Electric Over Hydraulic for All Functions
- **Manual Override Capable**

**ENGINE**

- **Engine:** Cummins L9, Diesel Tier 4 Emission Certification Standards
- **Engine Power:** 370 hp (272.1 kW) @ 3,100 rpm
- **Fuel Capacity for Drilling/Transport:** Dual 50 gal (189 L) Tanks
- **Engine Mounted Air Compressor:** 18.7 CFM @ 120 psi (31.7 m<sup>3</sup>/hr @ 8.3 bar)
- **Power Take-Off**
- **Design:** From Selected Truck Base Model International HV607

**BREAKOUT WRENCH**

- **Top and Bottom Wrenches:** Dual Clamping Cylinders with Lock Valves Incorporated in Hydraulic Circuit
- **Wrench Clamp Force:** Preset at 34,500 lbf (153.4 kN)
- **Breakout Torque:** 30,365 ft-lb (41,157 Nm) with Dual Cylinders
- **Wrench Size Range:** 3 in (76 mm) to 8 in (203.2 mm) Jaw; 9 in (228.6 mm) to 12 in (305 mm) Jaw
- **Wrench Travel:** 19° Swing
- **Hardened Teeth Inserts:** Replaceable

**WATER/MUD SYSTEM**

- **Pump Type:** FMC Bean Mud Pump (44 to 53 gpm) (166.56 to 200.63 Lpm)

**RIG OPTIONS**

- 3LL6 Grout Pump
- Diamond Coring Option
- Wireline Winch with 1,250 ft (381 m) of 1/4 in (6.3 mm) Steel Cable (Mounted on Jib Boom)
- TUG Tooling Handling System
- Progressive Cavity 3LL6 Grout Pump
- Air/Water Swivels (Rotary Drill Method)
- Casing Clamp Wrench (3rd Jaw)
- (3) Auxiliary Hydraulic Controls

**TSI 150CT**