

inside ...

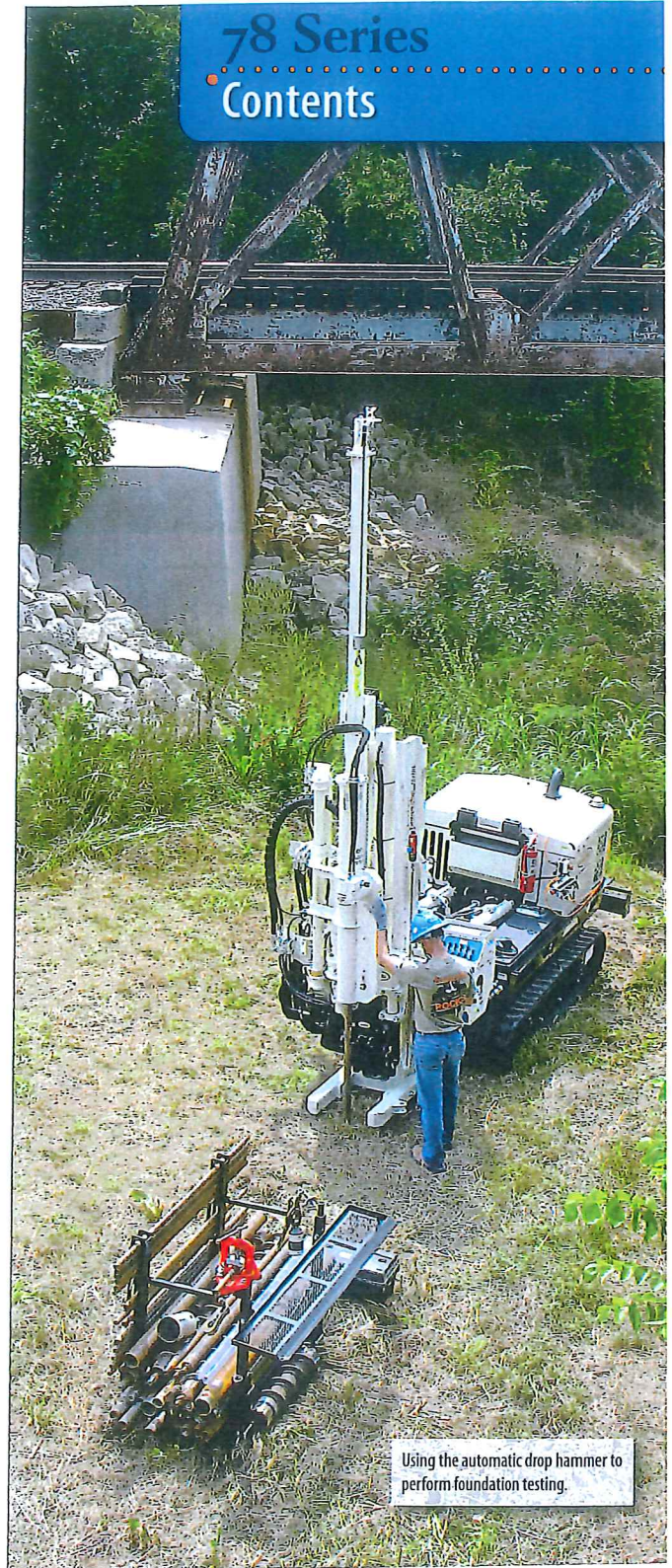
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Geoprobe® 78 Series Machines.

The 78 Series of machines were designed with specific goals in mind for the technical driller. Dependability. Expandability. Performance. These rigs will help you adapt to changing work roles whether you're focused on environmental, geotechnical, or exploration work. From the small footprint of the 7822DT, which makes for easy maneuverability, to the power under the GH60 Series hammer, we think you'll wonder why you don't already own this machine. Call us for an onsite demonstration, or come tour our manufacturing facilities and sample a bit of our Geoprobe® hospitality.



A 7822DT onsite makes small work of rugged terrain and barricades.



Using the automatic drop hammer to perform foundation testing.

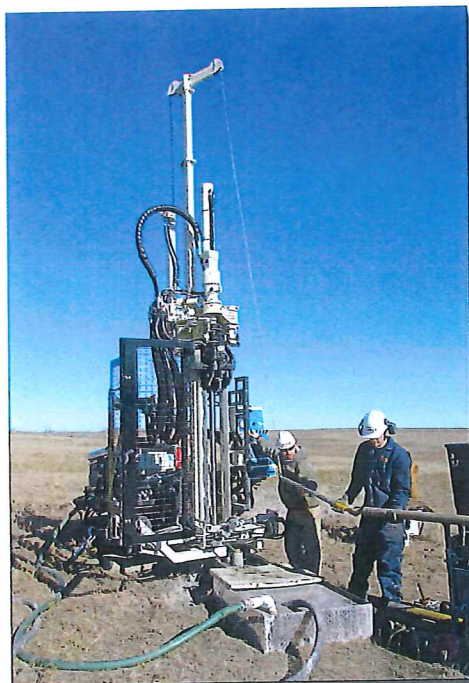
7822DT Machine Applications



Underground Storage Tank Investigations
At this site, the 7822DT is used to collect soil and groundwater samples to determine the extent of contamination from a leaking underground fuel line.



Cone Penetration Testing
CPT testing is a common application for 78 Series machines. The augerhead torque allows insertion of ample-sized anchors to stabilize the machine. Up to 9 tons of push is typical for this platform. Once the CPT cone has been pushed and recovered, the operator is able to change functions and perform confirmatory soil sampling with the same machine.



Diamond Core Drilling
This 7822DT cored through rock to 150 feet using industry standard NQ wireline diamond core drilling tools. The core boxes below hold the top 115 feet of rock cores, with the top of the first core shown upper left. The site is underlain by Permian Age formations consisting of an alternating series of limestone and shale.



Direct Image® Subsurface Logging
The 78 Series machines have been used extensively for MIP (Membrane Interface Probe), HPT (Hydraulic Profiling Tool), and EC (Electrical Conductivity) logging projects.



Augering
Turning augers for well installation and other environmental investigations is made easy with the power of the 78 Series machines and augerheads.

Soil Sampling
This 7822DT collects DT22 (dual tube) samples along a damaged sea wall. Because of its lightweight and compact size, the rig was able to drive along the beach without the use of tracking pads.

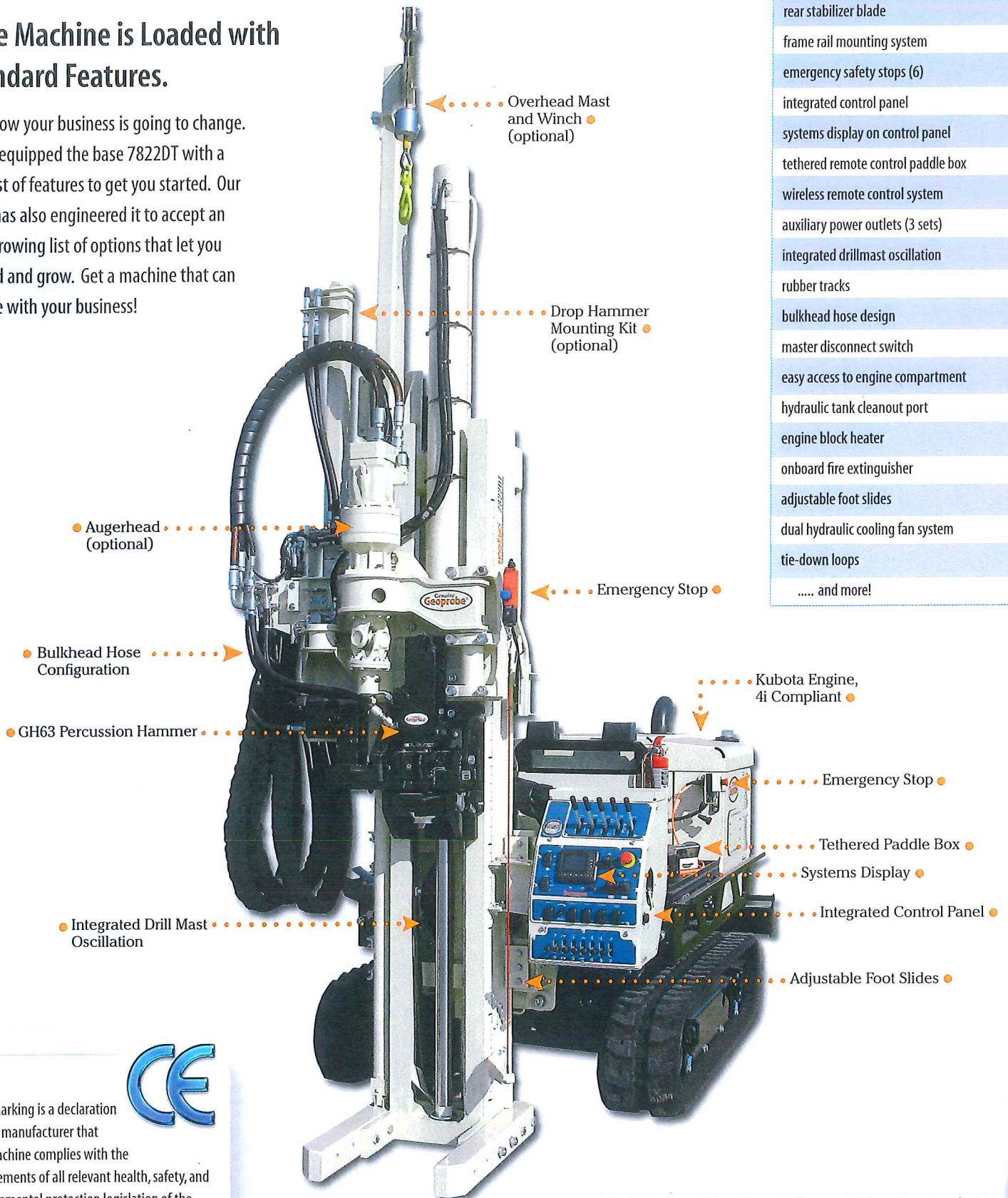


Concrete Coring
A 5-in. concrete core opens up the subsurface for sampling or monitoring well installation.

7822DT Machine Features

Base Machine is Loaded with Standard Features.

You know your business is going to change. We've equipped the base 7822DT with a long list of features to get you started. Our team has also engineered it to accept an ever-growing list of options that let you expand and grow. Get a machine that can change with your business!



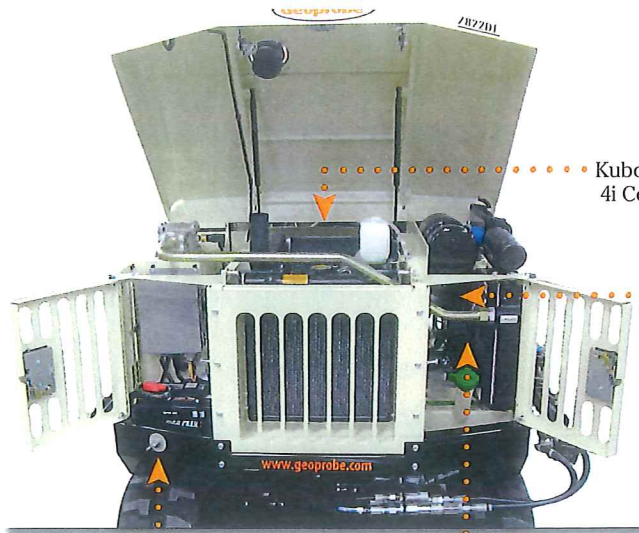
7822DT Standard Features

- gh63 percussion hammer
- kubota engine 4i compliant
- rear stabilizer blade
- frame rail mounting system
- emergency safety stops (6)
- integrated control panel
- systems display on control panel
- tethered remote control paddle box
- wireless remote control system
- auxiliary power outlets (3 sets)
- integrated drillmast oscillation
- rubber tracks
- bulkhead hose design
- master disconnect switch
- easy access to engine compartment
- hydraulic tank cleanout port
- engine block heater
- onboard fire extinguisher
- adjustable foot slides
- dual hydraulic cooling fan system
- tie-down loops
- and more!



A CE Marking is a declaration by the manufacturer that the machine complies with the requirements of all relevant health, safety, and environmental protection legislation of the European Community. At Geoprobe Systems®, we incorporate many of the CE Marking features in to all of our new machines.

48,000 lb. of Pullback in a 64-in. Footprint



● Kubota Engine, 4i Compliant ●

● Engine Block Heater ●

● Master Disconnect Switch ●

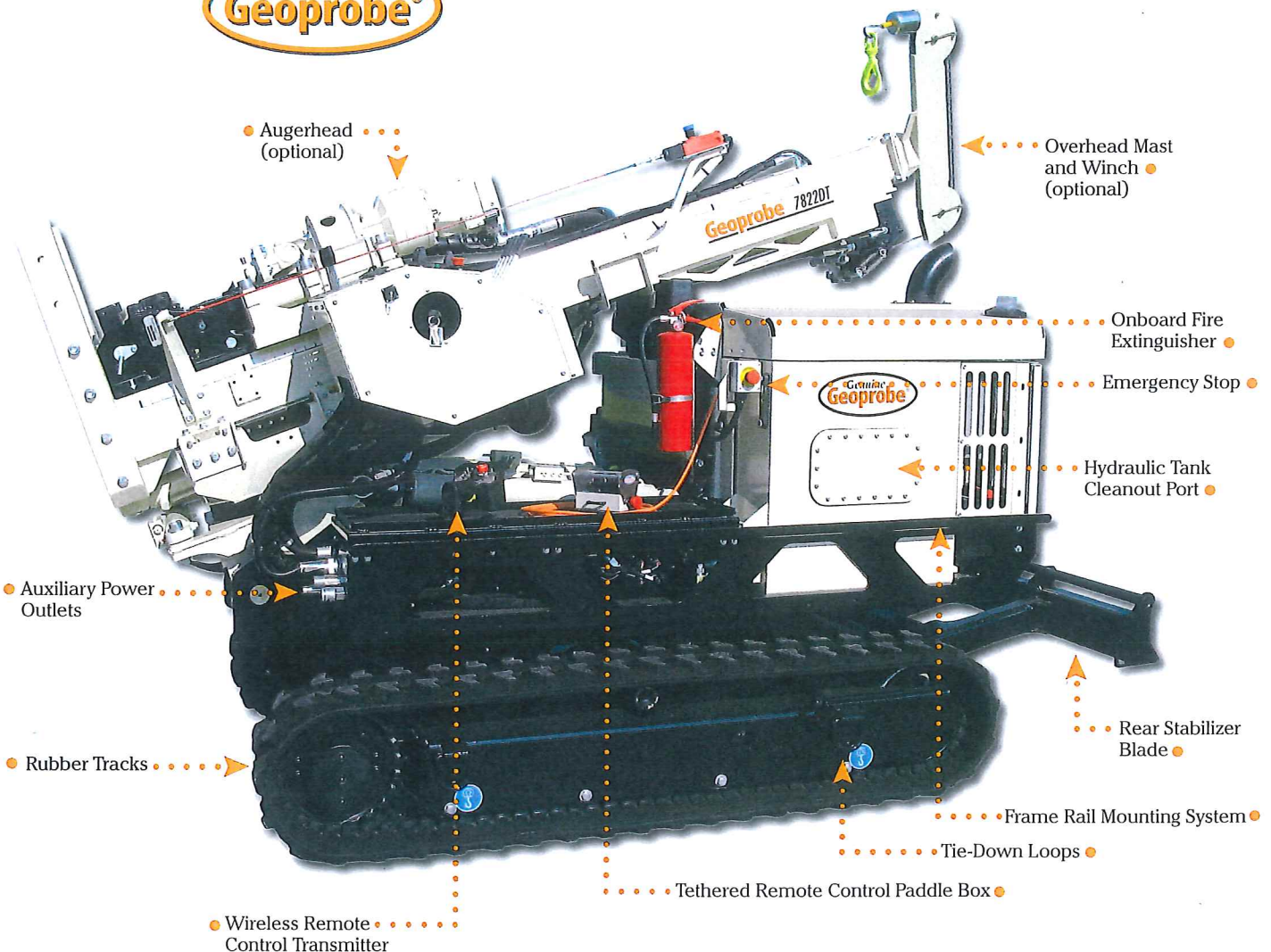
● Dual Hydraulic Cooling Fan System ●

Easy Access to Engine Compartment for Easy Serviceability



7822DT Control Panel

All of the machine's functions are at your fingertips in a well-organized, compact control panel. The new Systems Display, standard on the updated 7822DT control panel, provides real-time systems analysis and a suite of built-in diagnostic tools. Also included are system safeguards that protect the main engine and hydraulic components when important operational parameters are compromised. It's all there to assist the rig operator.



● Augerhead (optional) ●

● Overhead Mast and Winch (optional) ●

● Onboard Fire Extinguisher ●

● Emergency Stop ●

● Hydraulic Tank Cleanout Port ●

● Auxiliary Power Outlets ●

● Rear Stabilizer Blade ●

● Rubber Tracks ●

● Frame Rail Mounting System ●

● Tie-Down Loops ●

● Wireless Remote Control Transmitter ●

● Tethered Remote Control Paddle Box ●

7822DT Machine Specifications

7822DT Unit Platform

Stroke	78 in	1,981 mm
Weight (approximate)	8,000 lb	3,632 kg
Width	64 in	1,626 mm
Length (folded)	133 in	3,378 mm
Height, w/standard mast (folded)	100 in	2,540 mm
Height, w/rotating mast (folded)	86 in	2,184 mm
Height, w/dual mast (folded)	100 in	2,540 mm
Height, no mast (folded)	79 in	2,007 mm
Height, w/mast (unfolded)	187 in	4,750 mm
Height, no mast (unfolded)	118.5 in	3,010 mm
Foot Travel	20.5 in	521 mm
Extension	15.5 in	394 mm
Lateral Movement (side-to-side)	+ 7 degrees from centerline	
Oscillation	± 13 degrees from vertical	
Rear Stabilizer Lift	2,000 lb	907 kg
Rear Blade Width	60 in	1,524 mm
Ground Speed	0 - 5 mph	0 - 8 kph
Surface Load	4.6 lb/in ²	0.32 kg/cm ²
Track Width	12 in	305 mm

Percussion Hammer

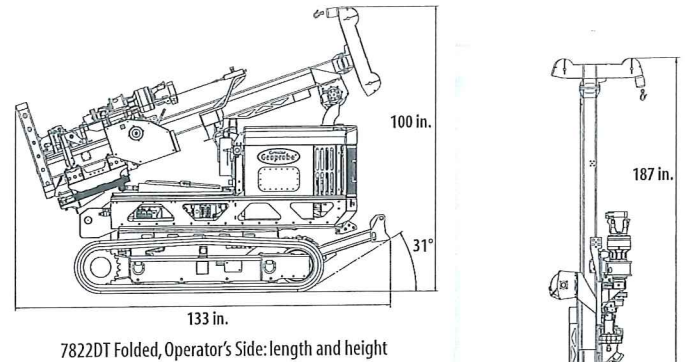
Hammer System	GH63	
Percussion Rate	32 Hz	
Forward Torque	517 ft-lb	701 N·M
Reverse Torque	637 ft-lb	864 N·M
Rotation Speed	0 - 234 rpm	
Power Cell Weight	90 lb	41 kg

Hydraulic Systems

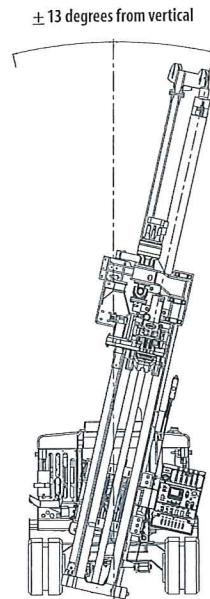
Down Force	36,000 lb	160 kN
Retraction Force	48,000 lb	214 kN
Hydraulic Pressure (system)	4,000 psi	275 bar
Hydraulic Flow Rate (system)	40 gpm	151 Lpm

Engine

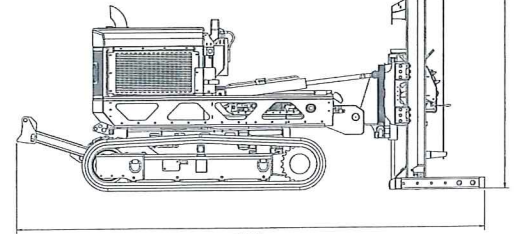
Engine (diesel)	Kubota, 4-cylinder turbo, Tier 4i	
Engine Power (rated)	58 hp	42 Kw
Fuel Capacity (diesel)	17 gal	64 L



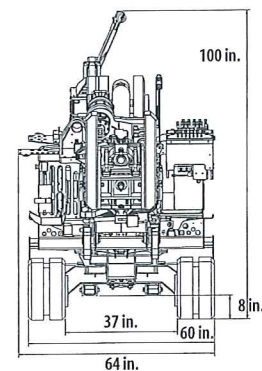
7822DT Folded, Operator's Side: length and height



7822DT Oscillation



7822DT Unfolded, Helper's Side: length and height



7822DT Folded, Front: rig width and track width

Built-in Oscillation

The 78 Series machines feature built-in oscillation for easy setup on sites with rough terrain, uneven slopes, or hills. The machine remains stable while the field operator aligns the probe cylinder and tool string on a straight path into the subsurface. Built-in oscillation ... a standard feature on ALL 78 Series rigs!

