

Section 2.0: SPECIFICATIONS

Unit dimensions, capacities, and performance ratings for the Geoprobe® Model 7822DT are provided in this section.

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 SYSTEM		
Ambient Operating Temp Range	-20°F to 120°F	-29°C to 49°C
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 4	
Engine Power (rated)	64 hp	48 Kw
Fuel Capacity (diesel)	17 gal	64 L

SAFETY	
Guaranteed Sound Power Level (L_{WA}) ⁽¹⁾	123 dB
Max Allowable Surface Slope for Transport Condition	20°
Max Allowable Surface Slope for Working Condition (machine parallel to surface slope - hammer "uphill")	20°
(machine parallel to surface slope - hammer "downhill")	2°
(machine perpendicular to surface slope)	18°

⁽¹⁾Using an A-weighted standard deviation of 1.5 dB, the guaranteed sound power level is reported with 99.7% confidence.

AUGERHEAD		
GA4100 Augerhead, 4-Speed		
High Torque	4,000 ft-lb	5,423 N-M
Low Torque	400 ft-lb	542 N-M
High Speed Rotation	0-750 rpm	
Low Speed Rotation	0-75 rpm	
Hex Adapter	1-5/8 in	41 mm
GA4000 Augerhead, 2-Speed		
High Torque	4,000 ft-lb	5,423 N-M
Low Torque	2,000 ft-lb	2,711 N-M
High Speed Rotation	0-150 rpm	
Low Speed Rotation	0-90 rpm	
Hex Adapter	1-5/8 in.	41 mm

HYDRAULIC WINCH		
Primary Winch		
Winch Rating	2,500 lbf	11.1 kN
Winch Speed	0-125 fpm	0-38 m/min
Cable Length	75 ft	23 m
Secondary Winch		
Winch Rating	1,100 lbf	4.9 kN
Winch Speed	0-220 fpm	0-67 m/min
Cable Length	250 ft	76 m

7-in. SINGLE CLAMP BREAKOUT		
Clamp Opening	7 in	178 mm
Clamp Range	1.25 - 6 in	31.75 - 152 mm
Clamp Force	0 - 17,500 lbf	0 - 78 kN
Breakout Torque	6,000 ft-lbf	8,135 N-m
Weight	350 lb	159 kg

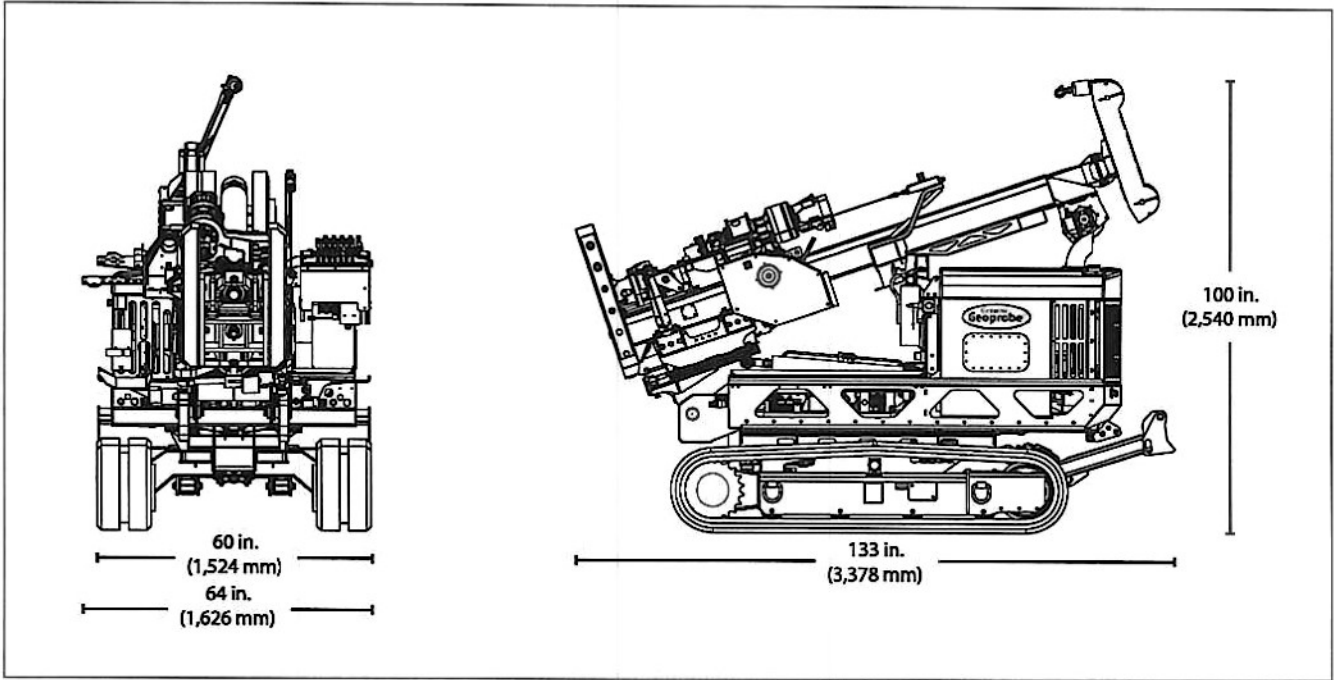


Figure 2.1: Geoprobe® Model 7822DT -- Probe derrick folded for transport.

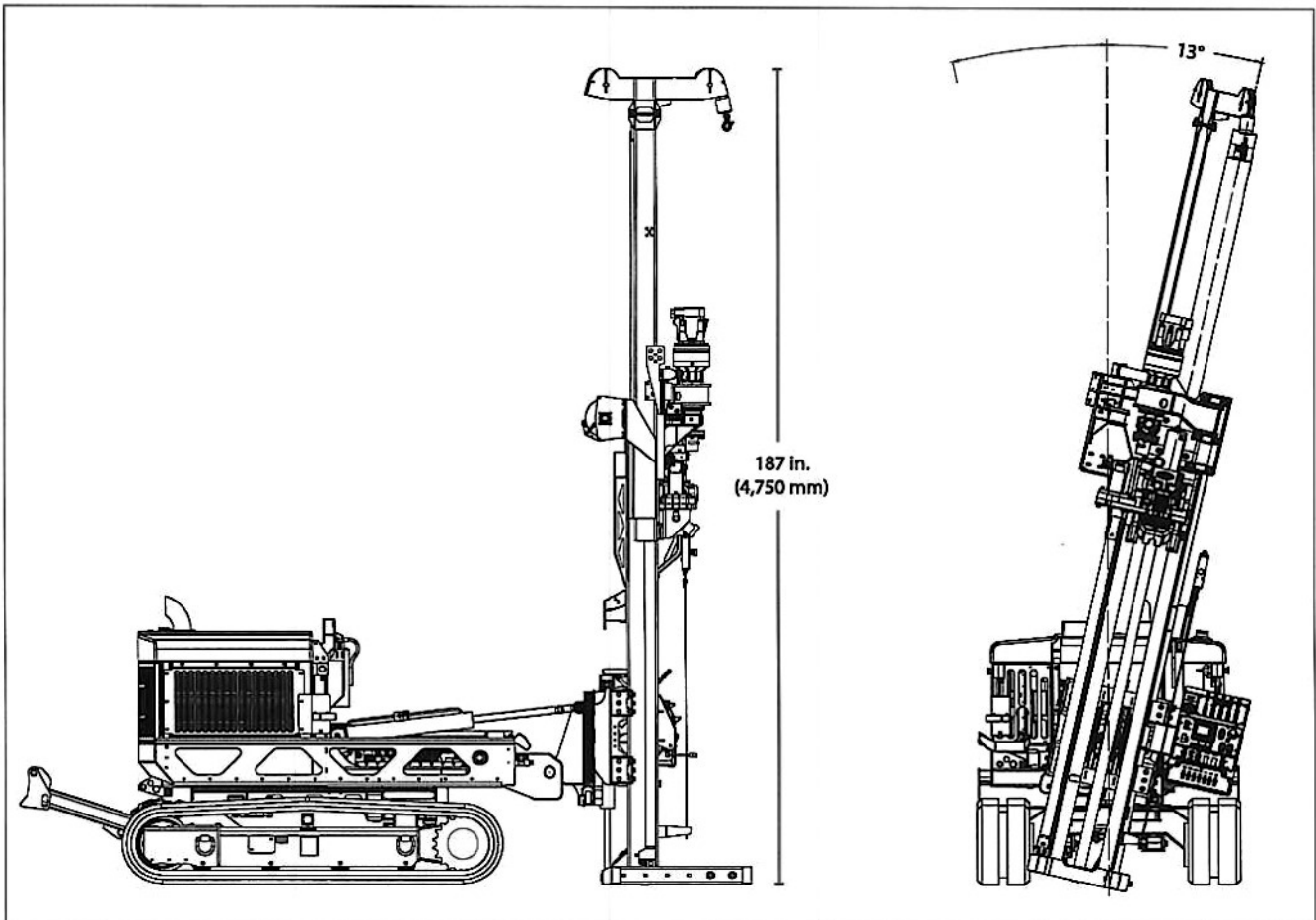


Figure 2.2: Geoprobe® Model 7822DT -- Probe derrick unfolded for work.