



TD900 DTMS SURFACE CORE DRILL RIG TECHNICAL BROCHURE

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TECHNICAL INFORMATION

Drilling Depth Guidelines		
Fluid Filled	Metric	U.S.
Drill Rod/ Core Barrel	Hole Depth Meters	Hole Depth Feet
NRQ/ NQ	1200	4000
HRQ/ HQ	725	2375
PHD/ PQ	480	1570
*Depth capacities measured based on convenient under surface structure.		

Prime Mover		
	Metric	U.S.
Standard Unit	Cummins QSB 6.7 L, Tier 3 liquid cooled, turbo charged, air cooled, diesel engine.	
Displacement	6.7 L	409 in3
Power (maximum) at 2200 RPM	153 kW	220 hp
Emissions Certification	Tier III	Tier 3

Torque and RPM Ratings			
(Hydraulic motor at maximum/minimum displacement, prime mover at 2,200 RPM)			
	Speed (no load)	Nm	lbft
	RPM		
1 st Gear	122-199	5322 - 3254	3925-2400
2 nd Gear	246-400	2648- 1620	1963 - 1195
3 rd Gear	439-714	1486 - 908	1096 - 670
4 th Gear	769-1250	849 - 519	626 - 383
NOTE: Head output speed and torque are infinitely variable in each gear range as indicated. Actual rotation speed is affected by RPM and hydraulic motor displacement setting.			

Hydraulic System		
	Metric	U.S.
Primary Pump	Axial piston, variable displacement load sensing, pressure compensated with low pressure standby.	
Max Flow	165 L/m	43.5 gpm
Max Pressure (factory setting)	31 MPa	4500 psi
Secondary Pump	Axial piston, variable displacement load sensing, pressure compensated with low pressure standby.	
Max Flow	64 L/m	17 gpm
Max Pressure (factory setting)	21 MPa	3000 psi
Auxiliary Pump	Axial piston, variable displacement, pressure compensated	
Max Flow	54 L/m	14 gpm
Max Pressure (factory setting)	14 MPa	2000 psi
Hydraulic Tank Capacity	242 L	64 Gal

Drill Head		
Rotation Motor	Rexroth hydraulic motor - variable/reversible	
Mechanical Transmission	4 speed	
Ratios	1 st	6.27:1
	2nd	3.12:1
	3rd	1.75:1
	4th	1.00:1
Final Drive	Straight cut gears	
Ratio	02:01	
Head Opener	Side shift style - hydraulically actuated.	
	Nitrogen gas spring actuated chuck	
Hydraulic PQ Chuck	Hydraulically opened, nitrogen gas spring closed	
	Axial holding capacity of 222 400 N (50000 lbf)	
Drill Head	Force fed bearings, oil bath for gears	
Drill Head Lubricating Oil Filtration	25 micron suction oil filter	

Drill Mast and Feed System		
	Metric	U.S.
Feed Stroke	3.35 m	11 ft
Max Pull Capacity	167.7 kN	37700 lbf
Max Thrust Capacity	88.4 kN	19880 lbf
Rod Pull	3 or 6 m	10 or 20 ft
Drilling Angle	45° off horizontal to 90° vertical down	
Mast Dump (crowd)	2.34 m	7.7 ft
Mast Telescope	3.35 m	11 ft

Draw Works		
	Metric	U.S.
Main Line Hoist		
Single speed motor		
Hook Load (single part line)		
Bare Drum	71.2 kN	16,000 lbf
Hoisting Speed (single part line)		
Bare Drum	35 m/min	1.15 ft/s
Main Hoist Cable		
	15 mm	0.59 in
Minimum Breaking Strength		
	226.0 kN	50800 lb
Note: Do not use multiple part lines with the main line hoist, use single part line ONLY.		
Foot Clamp Capacity		
HWT		
Wireline Hoist		
Level Wind		
N/A		
Level Pull		
Bare Drum	12 kN	2700 lb
Full Drum	2.2 kN	502 lb
Line Speed		
Bare Drum	123 m/min	405 ft/min
Full Drum	321 m/min	1054 ft/min
Drum Capacity (4.8mm/316° swaged)	1 890 m	6200 ft
Minimum Breaking Strength		
	2 268 kg	5000 lb
Note: Wireline cable length to be specified at time of order		
Additional Information		
Fuel Tank Capacity	Metric	U.S.
Standard	243 L	64 Gal

DIMENSIONS AND WEIGHTS*

Weight = 8,392 KG
Consisting of:
Power Unit Group Cummins 6.7 L, Tier 3, 6 cylinder Diesel Engine Unit
Hydraulic Module
Draw Works Grp. c/w 16000 lb Main Line Hoist with Cable, Wireline Hoist less Cable
Hydraulic Mast Raising
Hydraulic Mast Dump
Telescopic Mast Assembly
Rotation Unit Grp. c/w PQ Chuck
Base Frame
Battery - 24V
Hydraulic Foot Clamp HWT Capacity
Triplex Mud Pump
Mud Mixer Assembly

Options

Truck Mounted

Catwalk, Railing and Access Stairs

Rod Rack Platform

Hydraulic Leveling Jacks/Outriggers

Truck Mounting Sub-frame

Hot Weather Hydraulic Cooling Group

Decals available in multiple languages

Mud Mixer

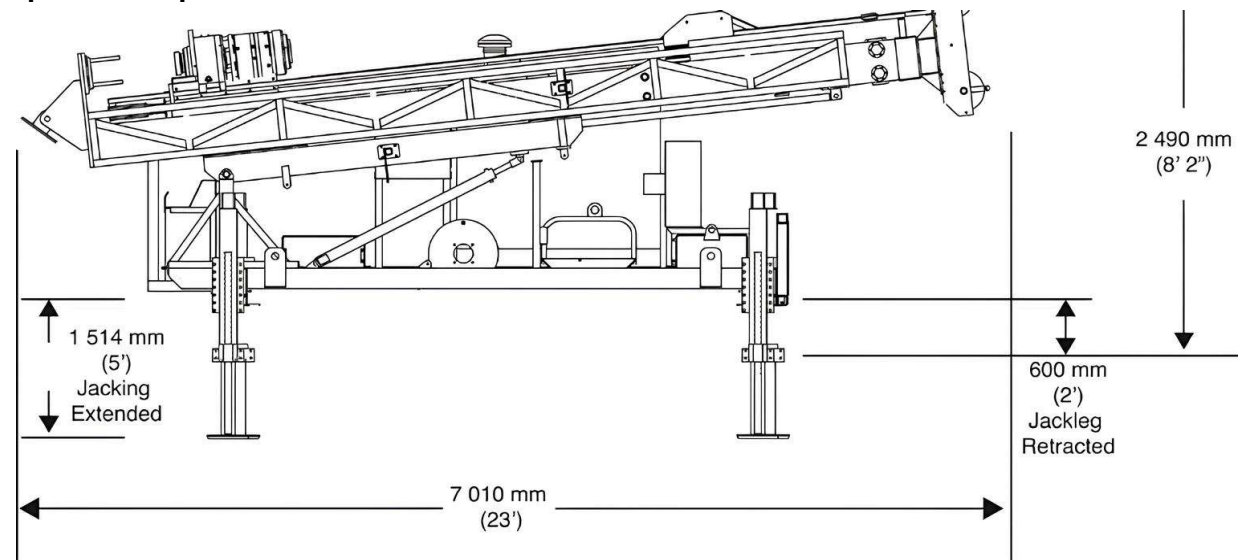
NOTE: The TD900D requires an additional sub frame for mounting onto a truck. **WARNING:** Do not operate this drill with rods racked in wind velocities in excess of 85 km/h.

Drill Transport and Position - Basic

Drills **Wet Weight = 18600 lbs (8437**

kg) Ground pressure: 0.6 kg/cm² Max

speed: 2.4 kph

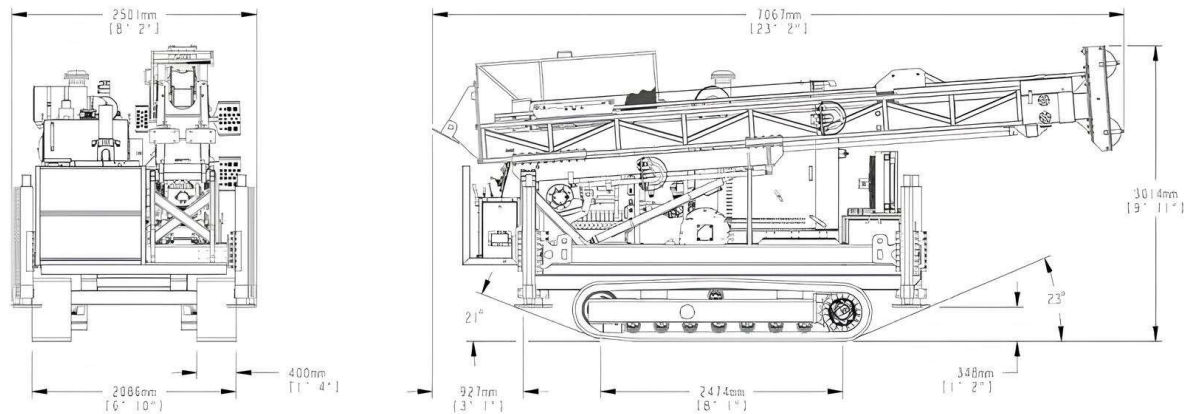


Drill Transport Positions C/W Standard Crawler

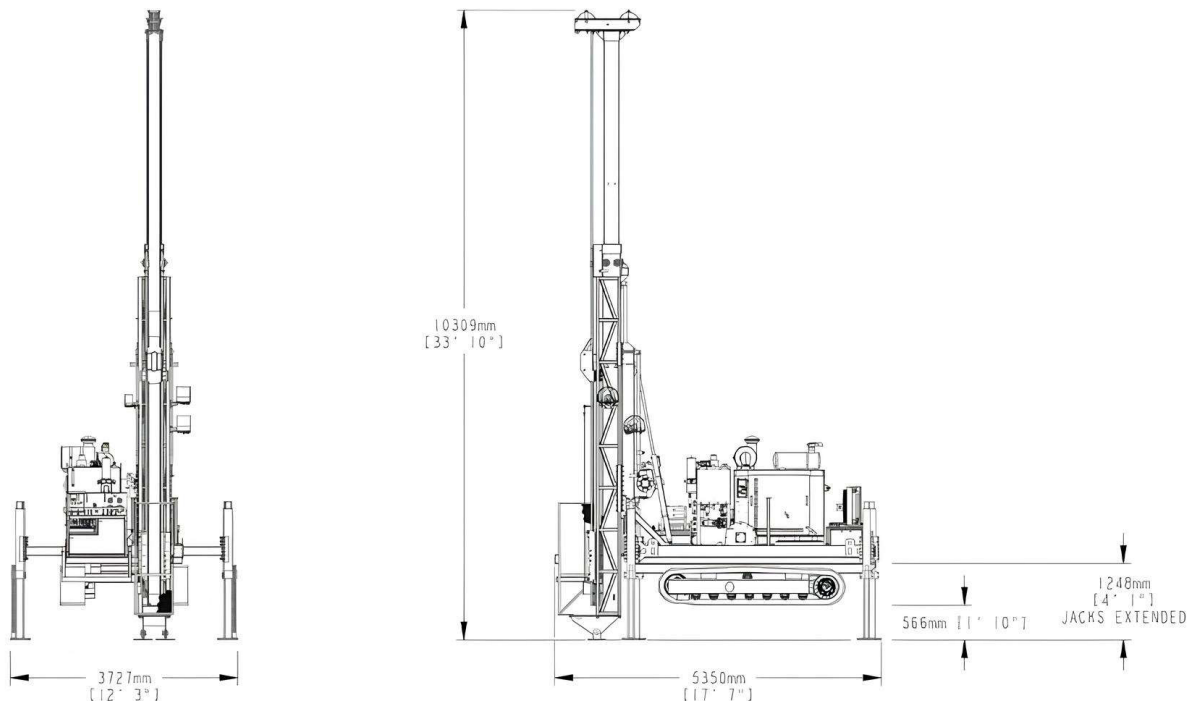
Wet Weight = 25950 lbs (11771 kg)

Ground pressure: 0.6 kg/cm² Max

speed: 2.4 kph



Drill Mast at 90 C/W Optional Crawler

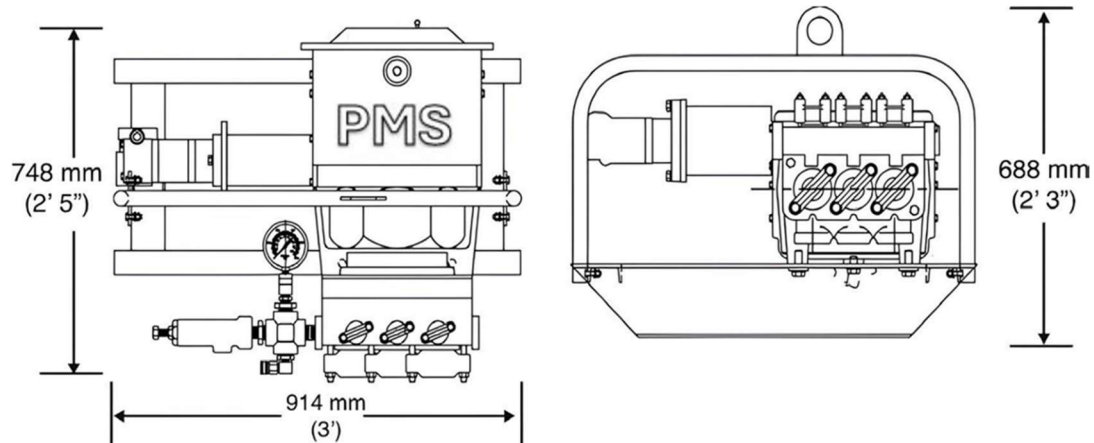


(W11) Fluid Circulation Pump Group (optional)

Wet Weight = 254 kg (560 lb)

The max. Output of W11 pump: = 35 GPM @1000 psi (70 bar)

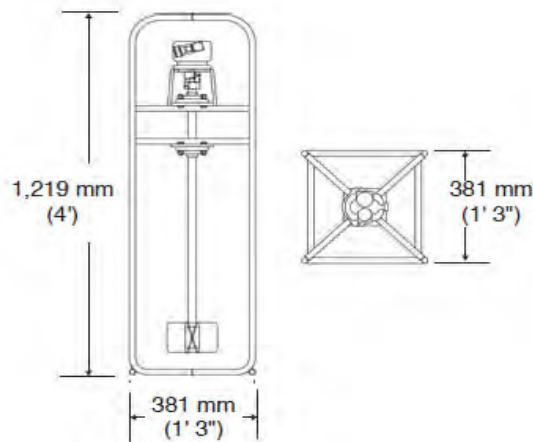
An optional liner kit is available to improve pump operation at lower flow rates. Max output with kit installed is limited to 20 GPM @ 1000 psi (70 bar)



Mud Mixer Assembly (Optional)

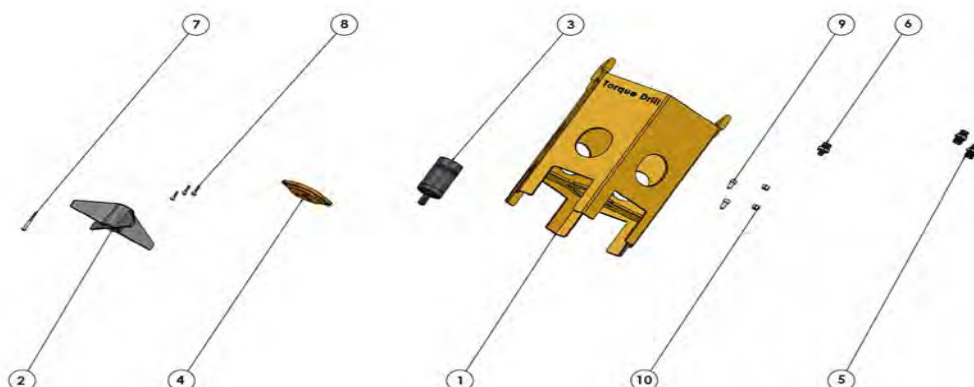
Wet Weight = 31 kg (68 lb)

Note: Maximum speed of the mud mixer shaft at full flow is 2,300 rpm



Mud Mixer Assembly (Standard)

Note: Maximum speed of the mud mixer shaft at full flow is 2300 rpm.



Full Mine Spec Safety Options

Consisting of:

Tramming lights, tramming back-up alarm. (Forward & Reverse)

Fire suppression system

Mainline winch cover, limiter & tensioner kit

Wireline winch limiter

Control panel safety top cover, and operators cage.

Rotation safety barrier (No hands on rotation)

Led lights on top of mast

Remote Control(Radio Control System)

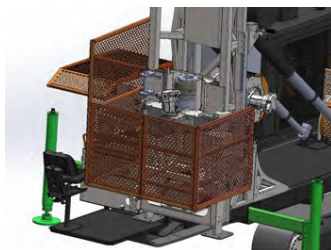
Exhaust Muffler Safety Cover



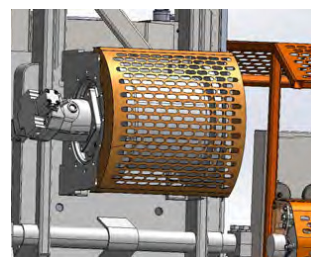
LED LIGHTS ON THE TOP
OF THE MAST



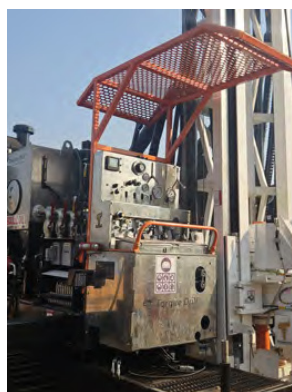
TRAMMING LIGHTS



ROTATION SAFETY BARRIER
(NO HANDS ON ROTATION)



MAINLINE WINCH COVER



CONTROL PANEL SAFETY
TOP COVER



FIRE SUPPRESSION SYSTEM



MAINLINE WINCH LIMITER



EXHAUST MUFFLER
SAFETY COVER



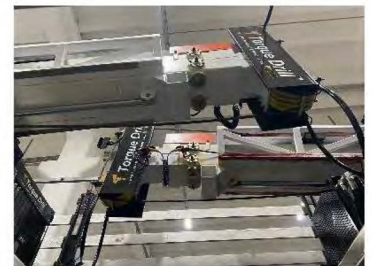
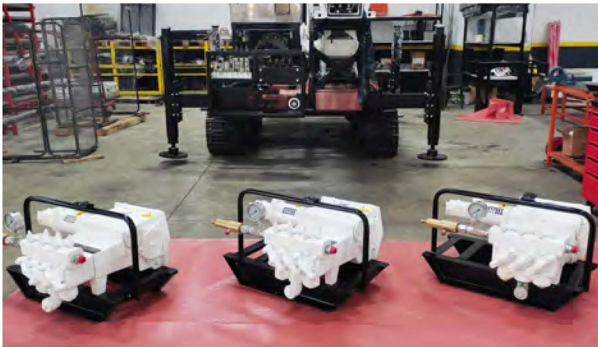
WIRELINE WINCH
LIMITER



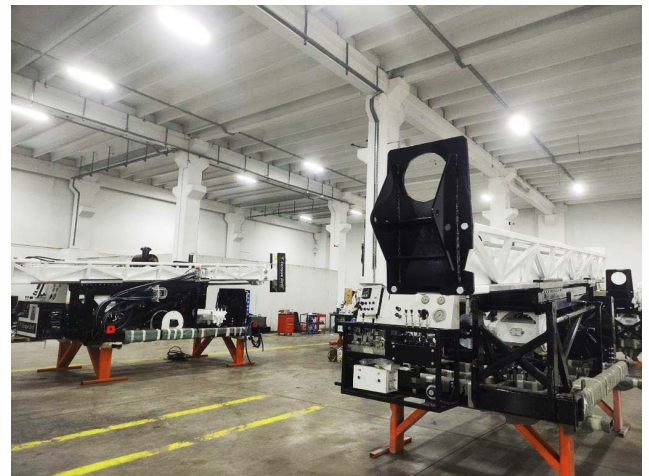
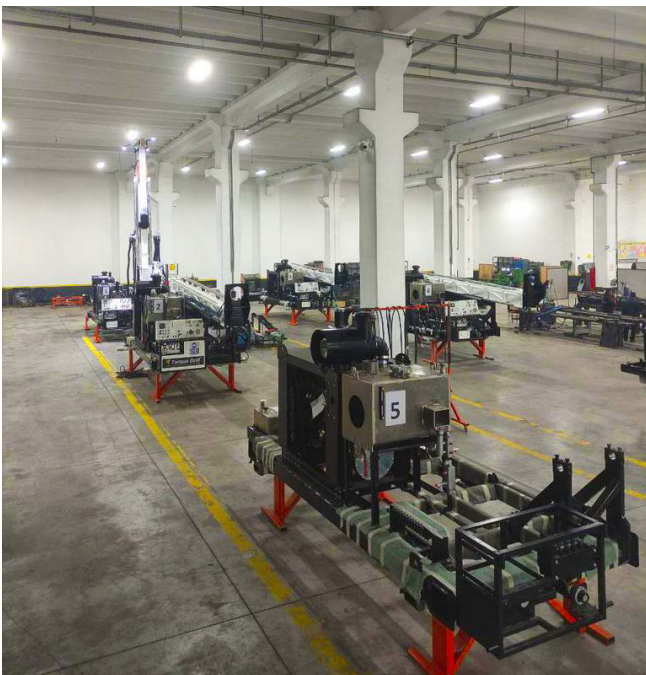
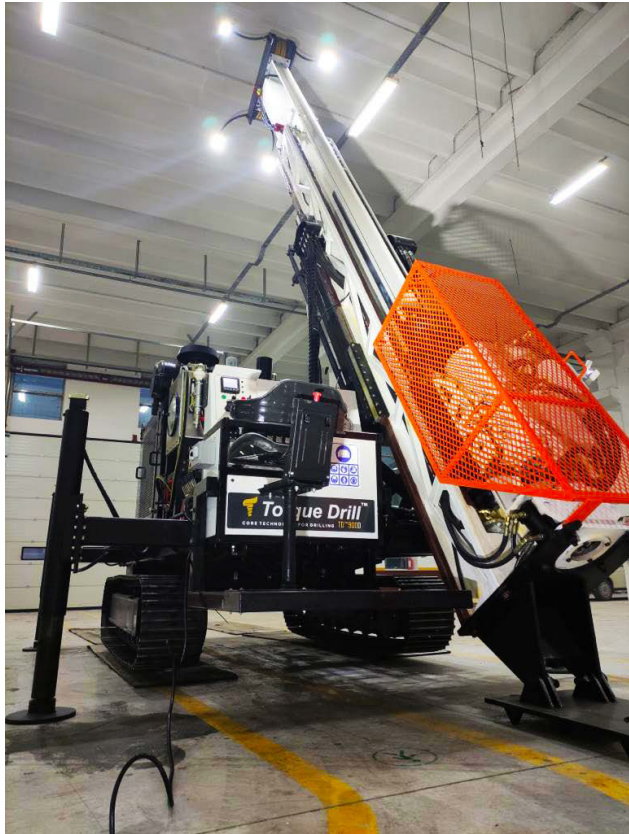
RADIO CONTROL
SYSTEM



MAINLINE WINCH
TENSIONER









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