

45
YEARS

REL
REVATHI EQUIPMENT LIMITED

C650

ROTARY / DTH SERIES



REL



C650

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- ✓ REL C650 series is a Diesel-powered, Crawler mounted, Hydraulic top drive Rotary blast hole drill rig.
- ✓ Designed to drill clean holes of 5 inch (127mm) to 6 1/2 inch (165mm) by DTH & 6 1/4 inch (159mm) to 9 inch (229mm) by Rotary, available with different mast configuration and rod carousel options.
- ✓ REL C650 Rotary comes in three variants DL, DM, DH designed to deliver the required diameter hole based on your mining needs.

PRIME MOVER:

- ✓ Optimized for higher productivity, with a reduced overall operating cost, we have designed the power pack with different power output options, that provide the right combination for each drilling condition. The engine and compressor range allow for optimized hole flushing and the most power for Rotary Drilling. Operating at rated speed and lower load factor assures longevity of the engine, that produces abundant power to work under extreme conditions.

MAST AND ROD CAROUSEL:

- ✓ The C650 is available with different mast and rod carousel configuration options for achieving variable hole depth as required.

STANDARD MAST:

- ✓ Standard Mast to drill a maximum single pass depth of 9 Meters (30 Feet) and a multi-pass depth of 18 meters (60 Feet) using single rod carousel or 45 meters (150 Feet) using 4-rod carousel.

MAXXDRILL MAST:

- ✓ Designed by taking actual drilling parameter into consideration, allows the drill to achieve single pass depth of 13 Meters (42.6 Feet) and a multi pass depth of 26.7 meters (87.6 Feet) using single rod carousel.

CABIN:

- ✓ We have designed the cabin of the REL C650 to provide with maximum comfort, safety, and usability while conforming to required regulatory standards.
- ✓ The FOPS, 80db cabin is mounted on anti-vibration mounting pads to keep the vibration away. The cabin is well illuminated, air-conditioned cooled, thermally insulated, pressurized, heated and ventilated. Assuring the safety of the personnel, drill rig, and its surroundings.



REL C650 - DL / DM / DH

Selection Guide

C650 -DL

C650 -DM

C650 -DH

6 1/4" - 6 3/4"

6 3/4" - 7 7/8"

7 7/8" - 9"

MAST SELECTION

STANDARD MAST

SP - 30 Feet; 9 Meter

MP - 60 Feet; 18 Meter (1 + 1*)

150 Feet; 45 Meter (4+1#)

REL "Maxx Drill" MAST

SP - 42.6 Feet; 13 Meter

MP - 87.6 Feet; 26.7 Meter (1 + 1*)

* - With Single rod Carousel & One rod on Rotary Head

- With Four rod Carousel & One rod on Rotary Head

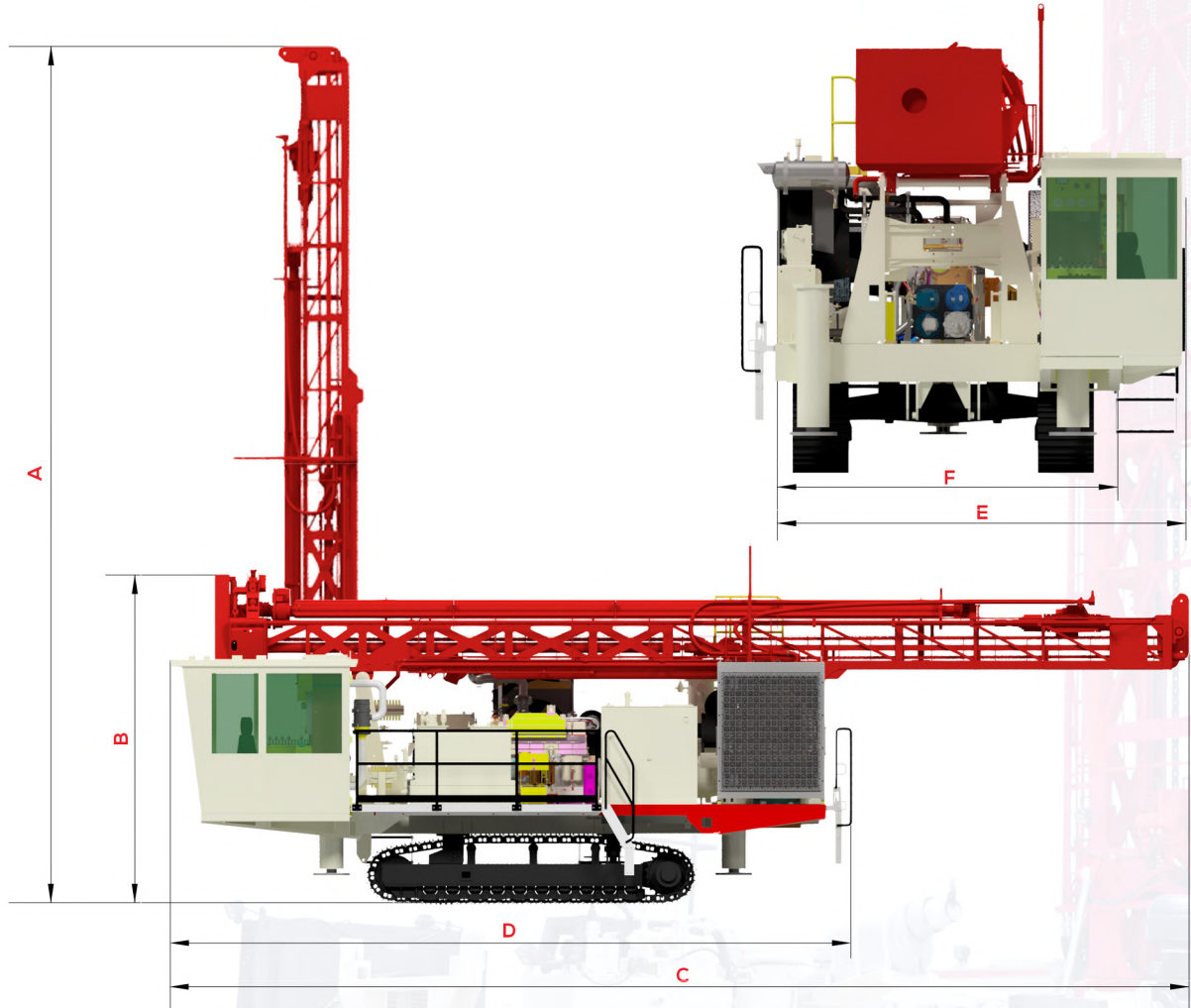
SP - Single Pass | MP - Multi Pass

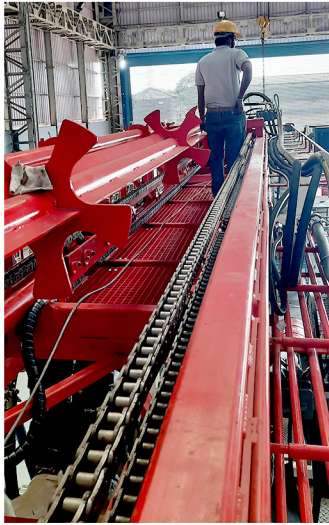
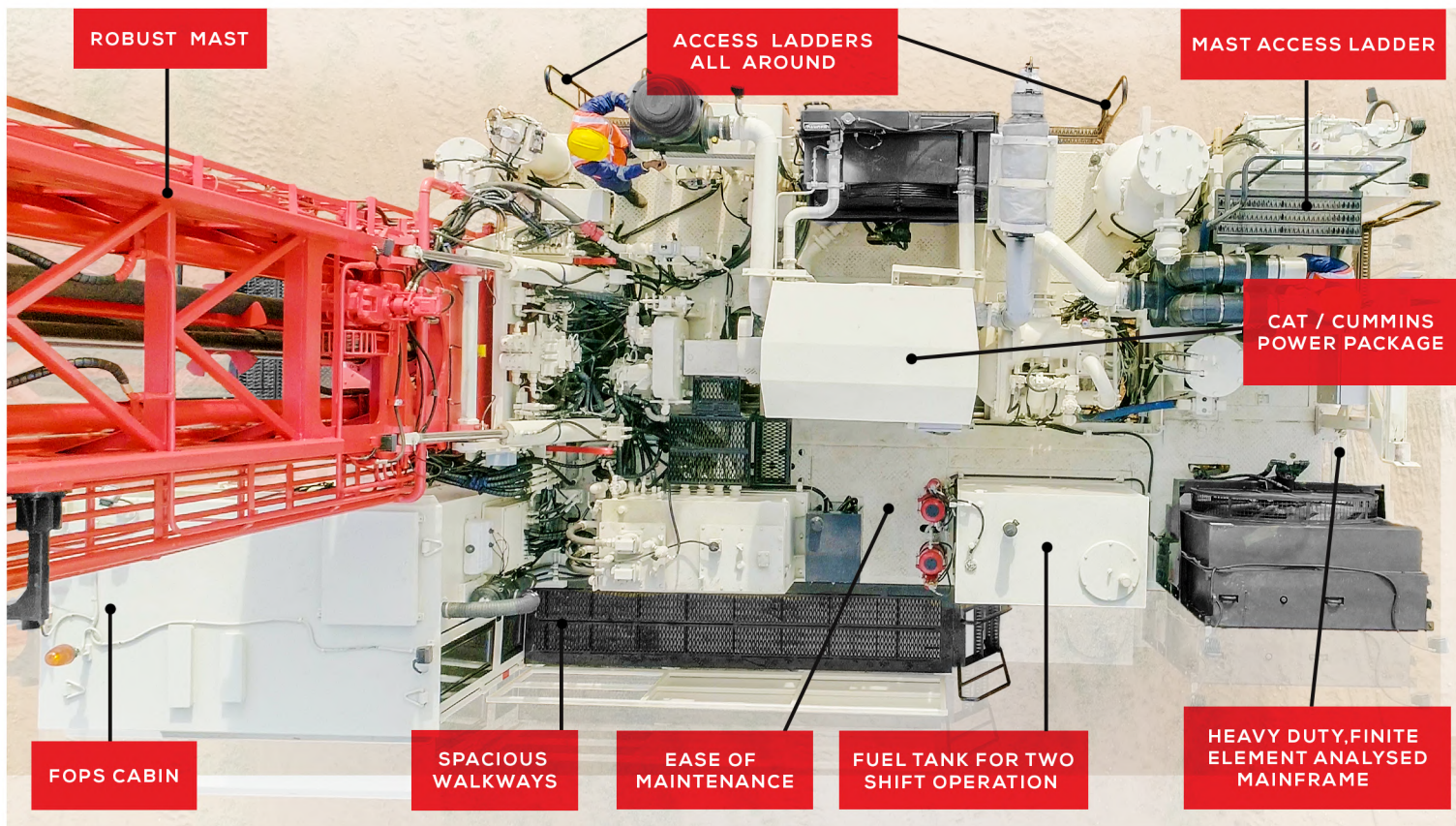
PARAMETERS	UNIT	ROTARY			DTH
		C650DL	C650DM	C650DH	C650H
Hole -Diameter	inch	6-1/4 to 6-3/4	6-3/4 to 7-7/8	7-7/8 to 9	5 to 6-3/4
	mm	159 to 171	171 to 200	200 to 229	127 to 171
Drill rod /tube diameter	inch	5	5 to 6-1/4	5 to 7	4 to 5
	mm	127	127 to 159	127 to 178	101 to 127
Single pass (Standard)	feet (m)	30 (9)	30 (9)	30 (9)	30 (9)
Single pass (Optional)	feet (m)	39.3 (12) / 42.6 (13)	39.3 (12) / 42.6 (13)	39.3 (12) / 42.6 (13)	39.3(12)/42.6 (13)
Multi pass capacity	feet (m)	150 (45)	150 (45) /120 (36)	120 (36)	150 (45)
Drill pipe length	feet (m)	30 (9)	30 (9)	30 (9)	30 (9)
Storage capacity		4 pod	4 pod / 3 pod	3 pod	4 pod
Rotation Torque	lbf.in	55000	55000	78000	53100
	Nm	6200	6200	8800	600
Rotation Speed	rpm	0 to 150	0 to 150	0 to 150	0 to 90
Feed force	lbf	40000	40000	50000	30000
	kN	178	178	222	133
Hoist force	lbf	22000	22000	28000	20000
	kN	98	98	125	89
Normal Feed rate	ft/min	22	22	15	22
	m/min	6.7	6.7	4.5	6.7
Normal Hoist Rate	ft/min	40	40	25	40
	m/min	12.1	12.1	7.6	12.2
Fast Feed rate	ft/min	65	65	90	65
	m/min	19.8	19.8	27.4	19.8
Fast Hoist Rate	ft/min	110	110	130	105
	m/min	33.5	33.5	39.6	32
Engine type	Model	CAT C13 (Tier 3)/ Cummins NTA855C	CAT C15 (Tier 3)/ Cummins KTA1150C	CAT C15 (Tier 3)/ Cummins KTA1150C	CAT C15 (Tier 3)/ Cummins NTA855C
Engine output power	HP	440 / 415 HP. @ 1800 rpm	540 / 530 @ 1800 rpm	540 / 530 @ 1800 rpm	540 / 530 @ 1800 rpm
	kW	328 / 309 kW @ 1800 rpm	403 / 395 kW @ 1800 rpm	403 / 395 kW @ 1800 rpm	403 / 395 kW @ 1800 rpm
Compressor capacity	cfm x psi	750 x 100	1000 x 100	1050 x 125	1000/900x 350
	m³/min x bar	21.2 x 6.9	28.3 x 6.9	29.7 x 8.6	28.3/25.5 x 24.1
Operator cabin		FOPS Certified,AC & Heater			
Tramming speed	mph	0.9 / 2.2	0.9 / 2.2	1 / 2	0.9 / 2.2
	kmph	1.5 / 3.5	1.5 / 3.5	1.6 / 3.2	1.5 / 3.5

SELECTION OF OPTIONAL EQUIPMENT

- ❑ Cold starting kit for -20 deg C & -40 deg C
- ❑ Wiggins fast fuelling system
- ❑ Retractable dust curtain
- ❑ Oil filling pump
- ❑ Drill monitoring system
- ❑ Drill positioning system
- ❑ Hydraulic powered winch
- ❑ Angle hole drilling package
- ❑ Auto levelling
- ❑ Auto power break out wrench
- ❑ Variable volume compressor
- ❑ Inline oil filtering system
- ❑ Centralized drain system
- ❑ Central hydraulic test station

DESCRIPTION		C650
Standard Mast (9m)		
A	Height - Mast Up Inch (Meter)	564(14.3)
B	Height - Mast Down Inch (Meter)	177(4.5)
	Height - Without Mast Inch (Meter)	137(3.4)
C	Length - Mast Down Inch (Meter)	546(13.8)
D	Length - Mast Up Inch (Meter)	387(9.8)
Max Drill Mast (13m)		
A	Height - Mast Up Inch (Meter)	724(18.3)
B	Height - Mast Down Inch (Meter)	177(4.5)
	Height - Without Mast Inch (Meter)	137(3.4)
C	Length - Mast Down Inch (Meter)	706(17.9)
D	Length - Mast Up Inch (Meter)	387(9.8)
Standard Mast (9m)		
E	Width - Drilling End Inch (Meter)	171(4.3)
F	Width - Non Drilling End Inch (Meter)	150(3.8)





ROTARY HEAD ACCESS SYSTEM: **FIRST IN THE SEGMENT**

SAFETY

As a policy, REL always emphasizes the importance of providing drill rigs with the highest level of safety and operator comfort. Our drill rigs are provided with:

Starter and Battery Isolator | AFDSS - Auto Fire Detection and Suppression System FOPS - Falling Object Protective Structure | Whip socks and Whip checks Flame Proof Jacket for Engine Exhaust Muffler | Lightning arrestor | Emergency Stop Switch Shutdown Switch | Over Centre Check Valve on all load cylinder | Relief Valves for hydraulic circuits Pop Safety Valve | Approved type dust suppression system | Low lube. oil switch | Seat belt Propel interlock | High air discharge temp. switch | Moving parts of the machinery, guarded/fenced Propel joystick, spring-loaded type (Deadman safety) | Approved type of audio-visual alarm Disc Brake and brake valve for propel circuit | Flame resistant hydraulic hoses and wiring near hot zone Turbocharger guard | Walkway with hand railing for easy access and safe maintenance



Always Dependable.

REL drill rigs have earned a reputation for dependability and productivity, Operator safety and Ergonomics. We believe in working closely with our clients to achieve optimum safe and cost-effective performance in drilling. Whatever your requirement may be standard or custom, simple and rugged, or advanced and automated you can depend on REL.



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