

B : Exploratory Equipment

BI EXPLORATORY DRILLS

BI (1) Rotary Drilling Equipment for Surface Workings

Capacity	:	200 to 900 m
1. Manufacturer/Supplier	:	M/s Greaves Cotton & Co. Ltd., 1, Dr. V.B. Gandhi Marg, Mumbai-400 023.
Type	:	GD 42 S heavy duty diamond core drill
Cap	m	: 625 with NW drill rods
Engine	:	Diesel
Cylinder	:	3
HP	:	45 - Elec starting with Dynamo and heavy duty 12V battery
Hydraulic Swivel Head	mm	: 78, Hexagonal spindle suitable for use of NW drill rods Or 98, Hexagonal spindle suitable for use of NW drill rods
Downward Thurst Cap	kg	: 5322 (with 78 mm spindles) 7203 (with 98 mm spindles)
Pulling Cap	kg	: 6334 or 9116
Spindle Speeds	rpm	: Low speeds : 50, 110, 195, 330 High speeds : 145, 315, 560, 950
Cath rotation Speeds	rpm	: 95, 206, 372, 618
Hoisting Speeds	m/min	: 20, 42, 75, 108
Overall Dimensions	L m	: 2.2
	W m	: 0.9
	H m	: 1.62
	wt kg	: 1600

B : Exploratory Equipment

2. Manufacturer/Supplier	: M/s Voltas Limited 19, J.N. Heredia Marg, Ballard Estate, Mumbai - 400 001																																
Type	(i) : Voldrill 35 Diamond Drill	(ii) : Voldrill 90 Diamond Core Drill																															
Cap	m	: 200	<table border="0"> <tr> <td></td> <td><u>Diesel Engine</u></td> <td><u>Electric Engine</u></td> </tr> <tr> <td></td> <td>560</td> <td>305</td> </tr> <tr> <td></td> <td>With MW Rods</td> <td>With EW Rods</td> </tr> <tr> <td></td> <td>255</td> <td>500</td> </tr> <tr> <td></td> <td>With BW Rods</td> <td>With AW Rods</td> </tr> <tr> <td></td> <td>343</td> <td>400</td> </tr> <tr> <td></td> <td>With AW Rods</td> <td>With BW Rods</td> </tr> <tr> <td></td> <td>360</td> <td>300</td> </tr> <tr> <td></td> <td>With EW Rods</td> <td>With NW Rods</td> </tr> <tr> <td></td> <td></td> <td>With NW Rods</td> </tr> </table>		<u>Diesel Engine</u>	<u>Electric Engine</u>		560	305		With MW Rods	With EW Rods		255	500		With BW Rods	With AW Rods		343	400		With AW Rods	With BW Rods		360	300		With EW Rods	With NW Rods			With NW Rods
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Prime Mover	: Air Cooled Diesel Engine 19 HP at 1500 rpm FLP/TEFC Electric Motor 15 HP at 1440 rpm																																
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Drilling Head	: ID spindle	mm : 47.6	74.6																														
	: Feed length	mm : 457	610																														
	: No. of cylinders	: 2	2																														
	: Size of cylinder	mm : 77	89																														
	: Total area of cylinder	sq cm : 93.12	124																														
	: Angle Range	: 360°	360°																														
	: Chuck	: Balanced 2 jaw chuck																															
	: Hydraulic Pump	: 25 LPM at 7 kg/cm ² at 1500 rpm																															
Transmission	: Sliding Gear Type 4 speed																																
Hoist Cap	m	: 28																															
General Dimension	mm	: L : 1955 w : 1105 h : 1524																															
General Dimension	mm	: L : 2057 (Diesel Engine) w : 1219 h : 1702																															
		: Sliding Gear type 4 speed 28 2175 1020 1980 - - -																															

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Dia of core	mm	:	-	EWX 20.4	BWX 41.3
			-	AWX 30.2	NWX 54.0
Dia of hole	mm	:	-	EWX 38.1	BWX 60.3
			-	AWX 49.2	NWX 76.2
Mounting		:	-	Structural Skid Frame	
Total Weight	kg	:	-	1560 (Diesel)	
(Approx) with NW head and power unit		:	-	1470 (Electric)	
Mounting Optional		:	Structural Steel Skid	-	
			Bolted Type Trailer/Jeep	-	
Type		:	(iii) Voldrill 180 Diamond Core Drill	(iv) Voldrill 300 Diamond Core drill	
	m	:	600 With NW Rods	1524 With AW Rods 1158 With BW Rods 900 With NW Rods	
Prime Mover		:	Diesel Engine Cylinder		
			Air cooled	: 4	-
			Water cooled	: -	6
			HP	: 43	65
			rpm	: 1500	1500
Drilling Head		:	Hydraulic Head HW		
			Type	: Twin Cylinder	Twin Cylinder
			ID Spindle	mm : 98.4	98.4
			Feed Length	mm : 610	610
			Size of cylinder	mm : 88.9	-
			Total area of cylinder	sq cm : 124	124
			Hydraulic Head HW-HY (with hydraulic chuck)		
			Type	: Twin Cylinder	Twin Cylinder
			ID spindle	mm : 92	92
			Feed length	mm : 610	610
			Size of cylinder	mm : 101.6	101.6
			Total area of cylinder	sq cm : 162	162
Transmission		:	Sliding gear type		
			No. of speeds		
			Forward	: 4	5
			Reverse	: 1	1
Hoist		:	Type	: Planetary	Planetary
			Drum Dia	mm : 267	320
			Drum length	mm : 114	155
General Dimensions mm		:	l	: 2970	3630
			w	: 1320	1520
			h	: 2160	2440

B : Exploratory Equipment

Capacity	:	Depth up to 32 m
Manufacturer/Supplier	:	M/s Heavy Engineering Corporation Ltd., (A Govt. of India Enterprise), Ranchi-834 004.
Type	:	SBSH 250 O.B. Drill
Drill Bit Dia	mm :	245 & 269
Type	:	Rock Roller
Drilling Direction	:	Vertical and at angles of 15° and 30° to vertical

Drill Rods

i) 1 No. : dia	mm :	200
Wall Thickness	mm :	50
L	m :	8
ii) 3 nos. : dia	mm :	200
Wall Thickness	mm :	25
L	m :	8
Bit Speed	rpm :	0 TO 150
Air Compressor	:	Screw type rated at 28.3 cu m/min at 800 KPA
Power	kw :	200
Service wt	T :	76
		Crawler mounted

BI (2) Rotary Drilling Equipment for Underground Workings

Capacity	:	Upto 2 m depth
1. Manufacturer/Supplier	:	M/s EIMCO ELECON (India) Ltd., Anand Sojitra Road, Vallabha Vidya Nagar - 388 120, Gujarat.
Type	:	625 SDL Base Auger CVM Drill (Crawler Track)
Electric Motor	hp :	65
V	:	550/500 or 400/440
ph	:	3
Wt of Machine	kg :	9500
Speed of Machine	km/hr :	2.59
Ground Pressure	kg/cm ² :	0.96
Drill Unit	:	Rotary Hydraulic
Dia	mm :	45
Auger unit	:	Rotary Hydraulic
Dia	mm :	280 to 300
H	m :	1.25
Gradient	:	up to 11 N B Cross Gradient up to 11 N 4 to rise or dip
2. Manufacturer/Supplier	:	M/s Orient Engineering Co., 118 F Dharamtalla street, Calcutta -700 013
Type	:	Portable Diamond Drill

B : Exploratory Equipment

Capacity : NX 140 m
 BX 180 m
 AX 225 m

Manufacturer/Supplier : M/s Greaves Cotton & Co. Ltd.,
 1, Dr. V.B. Gandhi Marg,
 Mumbai - 400 023.

Type : GD 140 S Diamond Drill
Drill Rods : A/AW
Swivel Angle : 360°
Clutch : Dual Clutch
Transmission : Standard Duplex Roller Chain and SP rockets
 The Hoist is driven through worm reduction arrangement

Mounting : On rigid steel skid base
Feeds : Standard - 300, 350, 425 & 500
 revolutions per inch of advance

Prime Mover : Rustom single cylinder vertical air cooled diesel
 engine Model 1 YWA
 hp : 9.6
 rpm : 1500

Capacity : NX 125 m
 BX 160 m
 AX 200 m

Manufacturer/Supplier : M/s Greaves Cotton & Co. Ltd.,
 1, Dr. V.B. Gandhi Marg,
 Mumbai - 400 023.

Type	(i) GD 125 1 U Diamond Core Drill	(ii) GD 125 UE Diamond core Drill
Prime Mover	Greaves -Tool Model A-16 Twin Cylinder Double Acting NR Motor hp : 16 rpm : 1600 Air supply : 330 at 90 PSI	TEFC flame proof electric motor hp : 9 rpm : 1500 CFM V : 550/440
Swivel Angle Mounting	360°	360°
Mounting	Standard twin column mining bar	Standard twin column bar
Transmission	Through Bevel Gears	4 speed gear box Spindle rpm of 83, 173, 317, 535
Feeds	Standard - 300, 350, 425 & 500 Revolutions per inch of advance	Standard - 80, 90, 350 & 450 Revolutions per inch of advance
Drill Rods	AW	AW
Rod Puller	Greaves tool model R-6	-
Clutch	-	Heavy duty industrial type

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BI(3) Accesories of Roatary Drilling Equipment

Taps and Derrick

1. Manufacturer/Supplier : M/s Indian Drilling & Mining Co. Pvt. Ltd.,
7, Old Court House Street,
Calcutta -700 001.

Item : Taps and Derrick for diamond drilling

2. Manufacturer/Supplier : M/s Orient Engineering Co.,
118 F, Dharamtalla street,
Calcutta-700 013

Item : Derricks for Diamond core drilling

Drill String

Manufacturer/Supplier : M/s Indian Drilling & Mining Co. Pvt. Ltd.,
7, Old Court House Street,
Calcutta-700 001.

Item : Drill string

Bits

1. Manufacturer/Supplier : M/s Greaves Cotton & Co. Ltd.,
1, Dr. V.B. Gandhi Marg,
Mumbai - 400 023.

Item :

- M Series Core Bit
International Discharge for drilling soft to medium hard formation
- Saw Tooth Design Core bit
Suitable for air flush drilling used in soft formation
- M Series Core Bit
Face Discharge for drilling in medium hard formation
- BI Centre Bit
For use in tight/deep holes
- Wireline Core Bit (multistep)
For fast drilling using wireline coring system
- Combination wireline coring bit for hard formation drilling
- Surface set diamond core bit
For drilling in general conditions available in all standards
- Self sharpening impregnated diamond core bit
Used in hard to very hard and fractured formations available in all standards
- Random set tungsten carbide core bit
Suitable for drilling sandstone, coal shale, etc.
- Double Cone Non Coring Bit
To achieve fast rate of penetration in medium hard rock.
- Blade design bit
For fast penetration and can withstand considerable abuse while drilling in very hard and fractured formations. This bit should be subjected to heavy to downward thrust (4 to 5 kg per diamond) to give best performance.
- Ring set type reaming shell.
These are used in conjunction with core bits available in all standards

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2. Manufacturer/Supplier : M/s Indian Drilling & Mining Co. Pvt. Ltd.,
7, Old Court House Street,
Calcutta-700 001.

Item : Rock Roller Bits

3. Manufacturer/Supplier : M/s Orient Engineering Co.,
118 F, Dharamtalla Street,
Calcutta-700 013

Item : Diomond Drill Bits

Drill Rods

Manufacturer/Supplier : M/s Indian Drilling & Mining Co. Pvt. Ltd.
7, Old Court House Street,
Calcutta -700 001.

Item : Drill Rods for diamond drilling and drilling rings

Core Barrels

Manufacturer/Supplier : M/s Indian Drilling & Mining Co. Pvt. Ltd.,
7, Old Court House Street,
Calcutta -700 001.

Item : Core Barrels for diamond drilling
