

HEC

the leading player in Indian Industry

एच. ई. सी



HEAVY ENGINEERING CORPORATION LIMITED

(A Government of India Enterprise)

Website : www.hecltd.com

HEC pioneered the manufacture of heavy duty mining equipment and supplied over 2,50,000 tonnes of equipment and spares to Indian Mining sector.

Our presence in Mining sector can be seen in following categories:

- HEMM
- Crushing & Grinding Equipment
- Material Handling Equipment
- Turnkey Projects

HEMM Supplied by HEC

4.6/5 Cu.m Electric Rope Shovel	+580
10 Cum Electric Rope Shovel	30
12.5 Cum Electric Rope Shovel	2
Dragline (20/90)	3
Dragline (24/96)	15
Hydraulic Shovel (3.5/5/8.1 m ³)	23
Over Burden Drill	89

HEAVY EARTH MOVING MACHINERY (HEMM)

Dragline

HEC is the first Indian company to manufacture walking Dragline of 24 Cu.m Bucket capacity and supplied 15 such machines to Indian Mining Industry. In addition, 3 nos. of Draglines with 20 Cu.m bucket and 90 m long boom also supplied.

Clients	24/96	20/90
NCL	11	2
BCCL	1	-
SCCL	1	-
WCL	2	-
MCL	-	1



Important Parameters

Bucket capacity	24 to 34 Cu.m
Boom length	74.6 to 95.6 m
Boom angle	30/ 38 Degrees
Operating radius	64 to 88 m
Dump height	25.5 to 48.1 m
Digging depth	46.2 to 74.5 m
Base diameter	15.25 m
Bearing area	182.65 sq.m
Average bearing pressure	0.95 kg / sq.cm.
Walking shoe bearing area (for 2)	95.2 sq.m.
Walking speed (approx.)	0.24 kmph
Overall weight	Approx. 2000 t

10 Cu.m Electric Rope Shovel

Manufactured and supplied since 1982, it is one of the most powerful and productive machines in mining industry. It is equipped with features like tubular handle, rope crowd design and low inertia front end system.

Clients	No.of Shovels
BCCL	2
CCL	2
ECL	2
NCL	12
SCCL	4
SECL	3
OTHERS	5



Important Parameters

Bucket Size	10 Cu.m	Max. Dumping Height	7.67 m
Max. Digging Radius	17.12 m	Av. Cycle	28 sec
Max. Digging Height	13.03 m	Power supply	3.3/6.6 KV, 3phase, 50 Hz
Max. Dumping Radius	14.61 m		

4.6/5 Cu.m Electric Rope Shovel



The first heavy duty mining shovel in India, rolled out from HEC works in the year 1966. This rugged machine became so popular that it can be seen in most of the open cast mines of India.

Clients	No. of Shovels	Clients	No. of Shovels
BCCL	87	BSP	5
CCL	131	ECL	22
HCL	7	MCL	55
NCL	22	NMDC	8
RSMM	3	SAIL	32
SCCL	7	SECL	77
TATA Steel	7	UPSCC	3
WCL	95	OTHERS	10

Important parameters

Bucket Size	5 Cu.m	Max. Dumping Height	6.7 m
Boom Length	10.5 m	Hoist Force	50 t
Max. Digging Radius	14.4 m	Crowd Force	20.5 t
Max. Digging Height	10.3 m	Electric supply	3.3/6.6 KV, 50 Hz, 3 ph
Max. Dumping Radius	12.65 m		

CRUSHING & GRINDING EQUIPMENTS

A total solution for economic crushing and grinding are offered by HEC in terms of wide variety of crushing and grinding equipments to meet the requirements of ferrous and non-ferrous ore processing plants, cement, fertilizer, chemical and coal industries.

- Gyratory Crusher
- Cone Crusher
- Jaw Crusher
- Two Roll Crusher
- Four Roll Crusher
- Single Roll Sinter Crusher
- Reversible Hammer Mill
- Grizzly Screens
- Apron feeders
- Rod & Ball Mills etc...

Gyratory Crusher

- Usually used for primary crushing
- Designed for heavy duty services and stable product size.
- Wide range of models with receiving opening ranging from 1350 to 1500 mm
- Adjustment provision for discharge setting to compensate wear & tear of concaves & mantel.
- Spider suspension of main shaft assembly
- Optional dual prime movers



Type	Capacity (M3/Hr)	Clients
PGC 1500	1150-1450	NCL
PGC 1500 B	1150-1450	NMDC, NCL
PGC 1500(H)	1150-1550	NCL, L&T
PGC 1350	680- 910	HCL

Technical Specification of Gyratory Crusher

1	Type		Gyratory Crusher		
2	Model		PGC 1500	PGC 1500-H (with hydroset)	PGC 1350
3	Diameter of crusher head	mm	2520	2520	1900
4	Nominal width of feed opening	mm	1500	1500	1350
5	Width of discharge opening	mm	150-250	150-250	150-180
6	Recommended feed size	mm	1300	1300	1150
7	Output capacity of crusher	M3/hr	1450	1450	1050
8	Speed of crushing head	Oscillation/min	100	100	120
9	Lubrication of eccentric counter shaft and spindle of hyd. cylinder		Oil lubrication from separate station		
	Lubrication of suspension, drive bearings and dust seal bonnet		Grease from centralized automatic motorized station		
10	Electric motor (main drive)	Type	Slip ring induction motor		
		Power (KW)	400		360
		R.P.M	590		590
		Voltage	3300/6600		3300/6600



Cone Crusher

HEC Make cone crushers find applications as secondary or tertiary crusher which are specially designed to crush extra hard and abrasive material.

The machines are available with standard head and Short head. Higher productivity is achieved through high speed gyration and large travel of crusher head. The machines call for less supervision because of spring protection which allows tramp Iron / un-crushable material without any stoppage.

Model	Capacity (M3/Hr)	Clients
SCC 2200	75-220	HCL/Khetri
SCC 2200 A	120-340	BSL/KIOM & MIOM
	180-340	BSL/KIOM & MIOM
SCC 2200 B	340-550	BSP, BSL/KIOM & MIOM
	360-610	HCL/Khetri & Malanjkhand, NMDC
SCC 2200 A	180-340	BSL/MIOM
SCC 2200 B	350-610	BSL, BSP

Model	Capacity (M3/Hr)	Clients
SCC 1750 (C)	170-320	BSL
SCC 1750 (F)	100-190	VSP
SCC 1750	85-110	BSP, HZL
SCC 1750 B	170-320	HZL
TCC 2200	170-320	HCL/Malanjkhand, RSP
SCC 1200	12-55	BSL

Technical Characteristics of Cone Crushers 2200

Type			Secondary cone crusher		Tertiary cone crusher
Model			SCC 2200 (Fine)	SCC 2200 (Coarse)	TCC 2200
Width of feed opening		mm	275	350	100
Recommended feed size		mm	250	300	85
Recommended width of discharge opening		mm	15-30	30-60	15-15
Output of crusher		M3/hr	180-340	360-610	170-230
Electric motor	Power	KW	250	250	250
	speed	rpm	500	500	500
Weight without electric		T	100	100	101

Reversible Hammer Crusher

Important Parameters

Parameters	Unit	1450x1300	1500x1500
Feed Material	-	Coal/Limestone/Dolomite	
Dia. of rotor	mm	1450	1500
Width of rotor	mm	1300	1500
Recommended feed size	mm	80	120
Product size	mm	0-3	0-3
Capacity	TPH	Up to 300	Up to 550
Electric Motor power	KW	500/630	800
Weight of machine without electric	T	20	28
Clients	-	BSP, BSL, RSP, IISCO, VSP, DSP	BSP, BSL, RSP, DSP, KMCL



Rod Mill

Rod Mill and Ball Mill find application in the small size reduction of ores. Rod Mills are used for size reduction in coarse fractions.

Important Parameter

Drum diameter	2700-3600mm
Drum length	3100-5500 mm



MATERIAL HANDLING EQUIPMENT

The major equipment manufactured and supplied are wagon pusher, wagon tippers, apron feeders, stacker, reclaimers and wagon loader.

Wagon Pusher

HEC designed and manufactured wagon pushers having hauling capacity up to 6000 t for hauling around 58 wagons. These are mostly supplied to Steel industries.



Wagon Tippler

Designed and manufactured for fast and safe handling and unloading materials from broad gauge open railway wagons carrying coal, iron ore etc.



Apron Feeder

Important Parameter

Width or pan	2400 mm
Centre distance	6500 mm
Speed of pan	0.02– 0.06 m/s
Output	200– 600 m ³ /hr
Bulk wt. transport	2.5 t/m ³
Max inclination	15 degrees



EOT Crane



Material handling equipment supplied by HEC

Wagon Pusher	23
Wagon & Side Discharge Tippler	24
Apron Feeder	12
Grizzly Screen	24
EOT Crane	+350

Capacity: 400 /60 t, 32 m Span installed at a height of 46 m to handle GSLV and PSLV at ISRO, Sriharikota

TURN KEY PROJECTS

HEC executes turnkey projects from concept to commissioning.



Coal Handling Plant
at Nigahi, Singrauli, Northern Coalfields Limited.

Major projects completed are :

Project	Capacity	Year
Coal Handling Plant/NCL	1600 TPH	2009
Second Launching Pad/ISRO		2006
Raw Material Handling System/NINL	1000 TPH	2001
Coal Preparation Plant/CCL	650 TPH	2001
Lime Storage & Screening Plant/BSP	1500 TPH	1996
Raw Material Handling System (II)/RSP	1200 TPH	1996
Coal Complex/CIL	1000 TPH	1991
Coal Handling Plant/NCL	1200 TPH	1987
Coal Handling Plant/UPSEB	675 TPH	1984

Projects under execution

- Ore Handling Plant, Part A, PKG-060 for BSP Bhilai
- New Ore Bedding & Blending Plant, PKG-090, RSP Rourkela
- New Coal Handling Plant, PKG-062, BSP Bhilai
- 5 MTPA, Madhuban Washery, BCCL, Dhanbad
- 4 MTPA Coal Handling Plant, Krishnashila, NCL Singrauli.
- Installation of Tertiary Crushing System for MIOM, SAIL, Meghahatuburu.



New OBBP, RSP Rourkela

Abbreviations used for Clients

Subsidiaries of Coal India Ltd. (CIL): BCCL, CCL, NCL, SECL, MCL, WCL, ECL
 Subsidiaries of Steel Authority of India Ltd. (SAIL): BSP, BSL, VSP, RSP, IISCO, DSP
 Hindustan Copper Ltd. (HCL), Singareni Collieries Company Ltd. (SCCL), Hindustan Zinc Ltd. (HZL)
 Indian Space Research Organization (ISRO)



For Enquiries

EQUIPMENT, SPARES AND SERVICES

Ph.: +91 651 2400995 / 2401438 / 2401060

Fax : +91 651 2401166 / 2400579

TURNKEY PROJECTS

Ph. : +91 651 2401444

Fax : +91 651 2401166 / 2400579

CORPORATE OFFICE

Plant Plaza Road, Dhurwa,

Ranchi – 834 004, Jharkhand (India)

Phone : +91-651-2401249/2401176, Fax : +91-651-2401571

Email : corpmktg@hecltd.com

BRANCH OFFICES

NEW DELHI :

HEAVY ENGINEERING CORPORATION LIMITED

E-84, Masjid Moth, Greater Kailash–III

New Delhi – 110 048

Tel. : +91 11 29220224, 41437422

Fax : +91 11 29220225

Email : hecdelhi@hecltd.com

KOLKATA :

HEAVY ENGINEERING CORPORATION LIMITED

77, Park Street,

Kolkata – 700 016

Tel : +91 33 22172397, 22176473

Fax : +91 33 22291509

Email : heckolkata@hecltd.com