

PRINCIPAL DIMENSIONS AND MAIN PARTICULARS OF CUTTER SUCTION DREDGING UNITS EACH COMPRISING OF ONE NO. CUTTER SUCTION DREDGER, ONE WORKBOAT/TUG, ONE ACCOMMODATION BOAT AND ONE DUMB ANCHOR PONTOON

A) CUTTER SUCTION DREDGERS:

	CSD TAPI, CSD ALAKNANDA, CSD SHIPRA AND CSD SWETA	CSD JALANGI, CSD MAHANANDA AND CSD TIZU
<u>Dimension</u>		
Length (overall)	42.7m	40.30 m
Length of pontoon	33.5m	28.00 m
Breadth (Mld)	9.486m	7.00 m
Depth (Mld)	2.284m	2.46 m
Draft		1.20 m
Mean Draft (30 T of stores)	1.14m	
Mean Draft (Fully Loaded)	1.38m	
Fuel capacity	80m ³	
Dredge capacity	500m ³ /hr.	500 cum/hr.
<u>Main Engine For Dredge Pump</u>		
Make	Cummins	Caterpillar
Model	KTA 38m2	CAT 35 08 DI – TA
No. of Cylinder	12	
Total max output	895KW(1200HP)	855 B.H.P.
RPM	1800	1800
<u>Dredge Pump</u>		
Make	Damen Dredging Equipments (Netherlands)	IHC Holland
Model	BP 5045 HD.	MAX 5470643 G
<u>Gland Pump</u>		
Make	Burhani Engineers & Contractors	B.E. Pumps
Model	BEC 80/36	823 kk – IB
Type	Self-Priming	
Capacity	65 cum/hr. at 8 bar	
<u>Auxiliary Engine</u>		
Make	Cummins	Caterpillar
Model	KTA 19- D(MI)	CAT 3306 D1 - TA
HP	550 BHP	285
RPM	1500	1800
No. of Cylinder	6	
Power for Alternator	65 KVA	
<u>Emergency Gen Set</u>		

Engine Make	Kirloskar Oil Engine	Cummins
Model	4R 1040 T	538 G4
Power (HP)	82	52
RPM	1500	1500
Alternator make	Crompton Greaves	
Model	GIR 200 SC	
Capacity	50 KVA	
<u>General Service Pump (Driven by Emergency Gen Set)</u>		
Make	B E Pumps	
Model	A-5120-kk	
Type	Self-Priming	
Capacity	15 cum/ hr. @ 3.5 bar	
<u>F. W. Cooling System Pump</u>		
Make	B E Pump	
Model	SH 65 – 160MN – 2 – 316	
Capacity	30 cum/ hr. @ 3 bar	
<u>Plate Heat Exchanger</u>		
Make	SONDEX A/S Denmark	
Model	S 19 A – 1G – 10 – 86 –TMTL73	
Capacity	344.2 kw	
<u>Sewage Discharge Pump</u>		
Make	Allweiler As	
Model	AEB1E200 – 1E	
Capacity	7 cum/ hr. @ 3 bar	
<u>General Service Pump (Bilge/GS/ Deck Wash)</u>		
Make	Johnson Pumps	
Model	CH – 40 – 200, G2M2 TL	
Type	Hoz. Self-priming	
Capacity	25 cum/ hr. @ 4 bar	
<u>Air Compressor(2Nos.)</u>		
Make	Atlas Copco	INGERSOL
Model	LT – 7 – 30 KE	231
Capacity	20m ³ /hr. @ 30 bar	
Speed	1500 rpm	
<u>Hydraulic Pump- No. 1 (Aux. Engine Driven)</u>		
Make	HY – COM B.V.	IHC
Model	PV 140	3525 VQ 38 A 1786 AA 20 R
Capacity	P = 96 kw, Q = 320 L pm	
Speed	2400 rpm	
<u>Hydraulic Pump- No. 2 (Aux. Engine Driven)</u>		
Make	HY – COM B.V.	IHC
Capacity	P = 144 kw, Q = 480 L pm	--
Speed	1800 rpm	--
<u>Emergency Hydraulic Pump</u>		
Make	HY – COM B.V.	

Model	ALP 2 – D – 16	
Capacity	17.25 L pm	
Speed	1450 rpm	
Pressure	100 bar	
<u>Ladder Hoisting Winch</u>		
Make	Damen Dredging equipments/ Brevini Power Transmission.	HYTOR
Model	BW I / 140 / 2	
Capacity	13 Tons	
Pressure	130 bar	
<u>Cutter Unit Assembly</u>		
Make	Damen Dredging equipments/ POCLAIN	IHC
Model	TS CO 4 5 bladed	5 bladed
Capacity	110 kw	
Pressure	160 bar	
<u>Side Winches (2 Nos.)</u>		
Make	Damen Dredging equipments/ Brevini Power Transmission	HYTOR
Type	BWI/140/2	
Capacity	13 Tons	
Pressure	130 bar	
<u>Spud Tilting Winch</u>		
Make	Damen Dredging equipments/ Brevini Power Transmission.	
Model	E 90290 LS	
Capacity	2.5 Tons	
Pressure	195 bar	
<u>Carriage Cylinder</u>		
Make	HYCOM B.V.	HYTOR
Pressure	300 bar	
<u>Spud Clamp Cylinder</u>		
Make	HYCOM B.V.	
Pressure	330 bar	
<u>Spud Hoisting Cylinder</u>		
Make	HYCOM B.V.	HYTOR
Pressure	250 bar	

B. WORKBOAT/TUGS

	Multipurpose Tugs Khudiram Bose,Sukhdev	Tug SC Bose Tug Birsamunda Tug Bhagatsingh	Pusher Tug Tilak	Workboat Lily
<u>Dimension</u>				
Length (overall)	28.00 m	21.50 m	20.45 m	22.45 m
Breadth(Mld)	7.20 m	7.20 m	6.50 m	8.51 m
Depth	2.60 m	2.0 m	2.0 m	1.94 m
Draft	1.2 m	1.2 m	1.2 m	1.2 m
Fuel Capacity	20 t	6000 ltr.		
Bollard Pull	6 T	5 T	6 T	5 T
Propulsion	Twin Screw	Twin Screw	Twin Screw	Twin Screw
<u>Main Engines (2 Nos.)</u>				
Make	Cummins	Cummins	Cummins	DAF
Model	NT – 855 M	NT – 855 M	NT – 855 M	DKS 1160 MK
BHP	270 BHP at 1800 RPM	270 BHP at 1800 RPM	270 BHP at 1800 RPM	270 BHP at 1800 RPM
<u>Propulsion</u>				
Type	Rudder Propeller	Conventional	Conventional	Rudder Propeller
Make	HRP 2000			HRP 200
HRP	2000			
Model	2111 WM			
HP	200/KW			
<u>Bilge/ G.S. /Fire Pumps (Self Priming Centrifugal Pump)</u>				
Model	A 7110KKTE - 1B - WCF			
<u>Auxiliary Engines/ Generators</u>				
Make	KOEL (25 KVA)	Kirloskar (32 BHP)	KOEL (25 BHP)	DAF (48 KW)
Model	3R1040	HA-394	RB-22	DF-615 AG
Alternator	Crompton	Kirloskar (25 KVA)		Stamford MHC-234 D
Make	KOEL (50 KVA)	Kirloskar (13.3 BHP)		
Model	4R1040T	TAF 2		
Alternator	Crompton	Kirloskar (10 KVA)		
Crane				Effer – 398004 VS

C. ACCOMMODATION BOAT:

	H.B. Vindhyas, Himgiri, Nandadevi, Dhawalgiri, Chandradinga, Kailash, Kedarnathetc
<u>Dimensions</u>	
LOA	26.5 m
Breadth (Mld)	9.0 m
Depth (Mld)	2.2 m
Draft (Max)	0.8 m
Fuel Capacity	3.68 m ³ (3.06 T)
<u>Generator Engine (2 Nos.)</u>	
Make	Kirloskar Oil Engine Ltd.
Model	3 R 1040
Details	43 BHP, Water Cooled,12 V Electric Start
<u>Alternator (2 Nos.)</u>	
Make	Crompton Greaves Ltd.
Model	GIR 160 SC
Details	25 KVA, 415 V, Class H.
<u>Bilge/ G.S/Fire Pumps</u>	
Make	B. E. Pumps Pvt. Ltd.
Model	SH – 160 N