

ANNEXURE

Material of construction MS PU Lined short piece as follows:

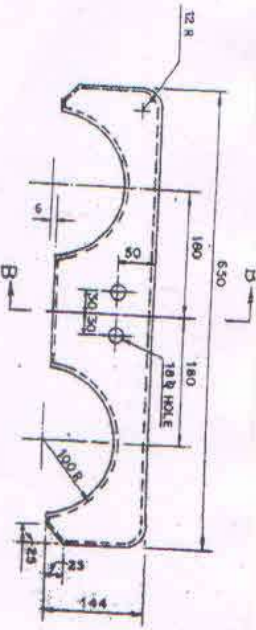
1. Shell material: as per IS:226/2062
Flanges & machined collars: as per IS:226/2062
Pipe Material: as per IS:226/2062
Shell /Pipe thickness: as per Drg no.OP-04-568
2. PU Lining Specification:
Hardness: $80^{\circ} \pm 5^{\circ}$ shore 'A'
Tensile strength: 33 Mpa
100% Modulus: 8.3 Mpa
Angle tear strength (DIEC): 75 kN/m
Elongation: 450 %
Resilience: 62 %
Abrasion: 35 mm³
Cured density: 1.08 gm/cm³
Compression set: 28 %
Lining thickness: As per Drg no.OP-04-568
3. Outside surfaces painting to be carried out as follows:
Chlorinated rubber painting –
 - a. Chlorinated rubber based zinc phosphate primer with dft (dry film thickness) of 35-40 microns.
 - b. Two coats of chlorinated rubber based finished paints with a dft (dry film thickness) of each coat 35-40 microns.

Service Condition:

The material will be used for slurry pumping and distribution for processing. The slurry consists of highly abrasive minerals with saline water.

The specific gravity of solids:	4.00
The specific gravity of pulp:	1.25
Percentage of solids w/w:	25
Velocity of slurry:	4.7 m/sec
Average particle size (of solids in slurry):	150 microns
Working pressure:	10 kgf/cm ²

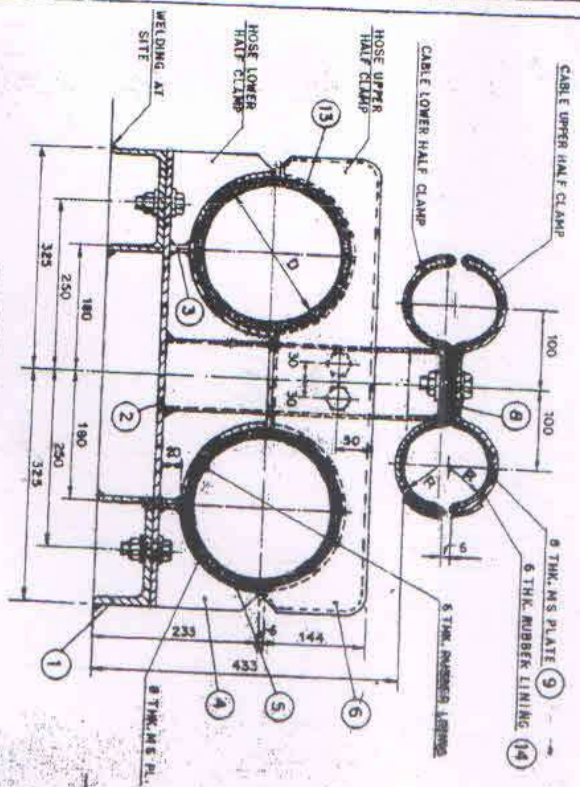
NOTE: PU casting should be in single cast only without any joint.



DETAIL AT ITEM NO. 6

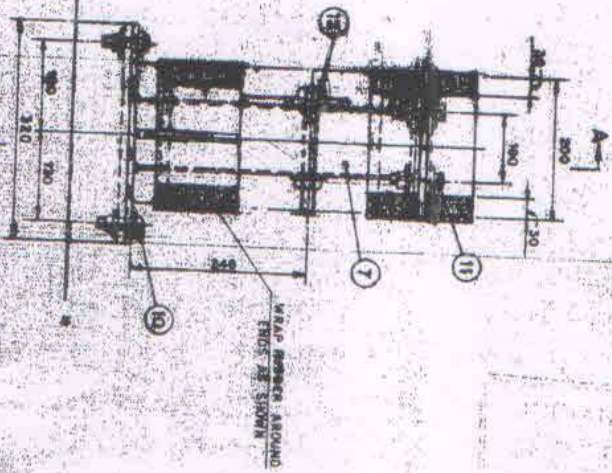


SEC-B



SECTION ON-AA

D - MM.
R - MM.



SIDE VIEW

Roland P.K. Mohan
16.06.76
Manager (Civil)

NOTE
ALL DIMENSIONS ARE IN MM
ALL FILLET WELDS ARE IN 5MM

RUBBER LINING
RUBBER HARNESS-4.5 S SMOKE-A, NATURAL, SOFT RUBBER.
AUTO CLAVE VIA COMPRESSION UNDER PRESSURE AND TESTING
(SPARK TEST & HARNESS TEST) WILL BE CARRIED OUT AS
PER IS-4882, PART-1

PAINTING
ALL THE EXTERNAL METAL SURFACES TO BE SAND BLASTED TO
WHITE METAL AND TWO COATS OF ZINC PHOSPHATE PRIMER
TO BE APPLIED. EACH COAT OF 25 MICRONS.

100

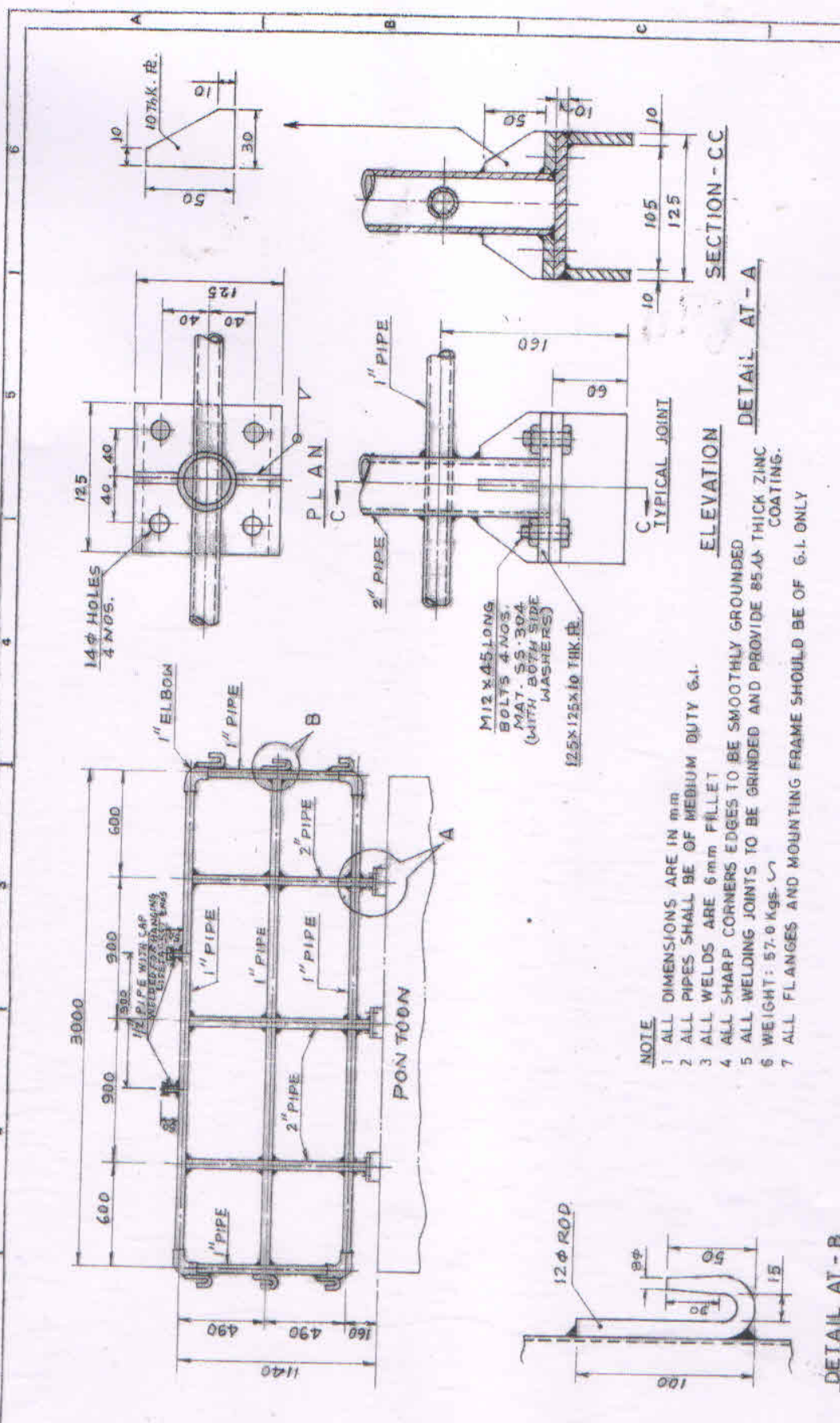
15	450 X 144 X 3 THK	1	RUBBER	0.2 M ²
14	700 X 260 X 6 THK.	2	RUBBER	0.4 M ²
13	514 X 260 X 6 THK	2	RUBBER	0.2 M ²

TOTAL - 78.28G

13	M16 X 120 LG. BOLT, NUT & WASHER	2 SETS	STEEL	1.0
11	M18 X 60 LG. BOLT, NUT & WASHER	2 SETS	"	0.3
10	M15 X 55 LG. BOLT, NUT & WASHER	4 SETS	"	0.5
9	420 X 200 X 8 THK. PL.	2	MS IS 206	10.6
8	15MC 100, 200 LG.	1	"	3.3
7	15MC 200, 433 LG.	2	"	14.2
6	650 X 150 X 12 THK. PL.	2	"	7.6
5	208 X 200 X 8 THK. PL.	2	"	7.9
4	230 X 148 X 10 THK. PL.	2	"	5.8
3	20 X 25 X 8 THK. PL.	4	"	0.2
2	650 X 320 X 10 THK. PL.	1	"	16.3
1	15MC 150, 370 LG.	2	"	10.5

NO.	QTY	BRIF DESCR	INITIAL

SCALE: 1:5
TOLERANCE:
INDIAN RARE EARTHS LTD.
05004 - CHATRAKUN - 761 020
OUTPUT HOSE & CABLE SUPPORT DWUP
DRS. No. 1
DP-04-M-173
APD.



NOTE

- 1 ALL DIMENSIONS ARE IN mm
- 2 ALL PIPES SHALL BE OF MEDIUM DUTY G.I.
- 3 ALL WELDS ARE 6mm FALLET
- 4 ALL SHARP CORNERS EDGES TO BE SMOOTHLY GROUNDED
- 5 ALL WELDING JOINTS TO BE GRINDED AND PROVIDE 85μ THICK ZINC COATING.
- 6 WEIGHT: 57.0 kgs.
- 7 ALL FLANGES AND MOUNTING FRAME SHOULD BE OF G.I ONLY

SECTION - CC

DETAIL AT - A

ELEVATION

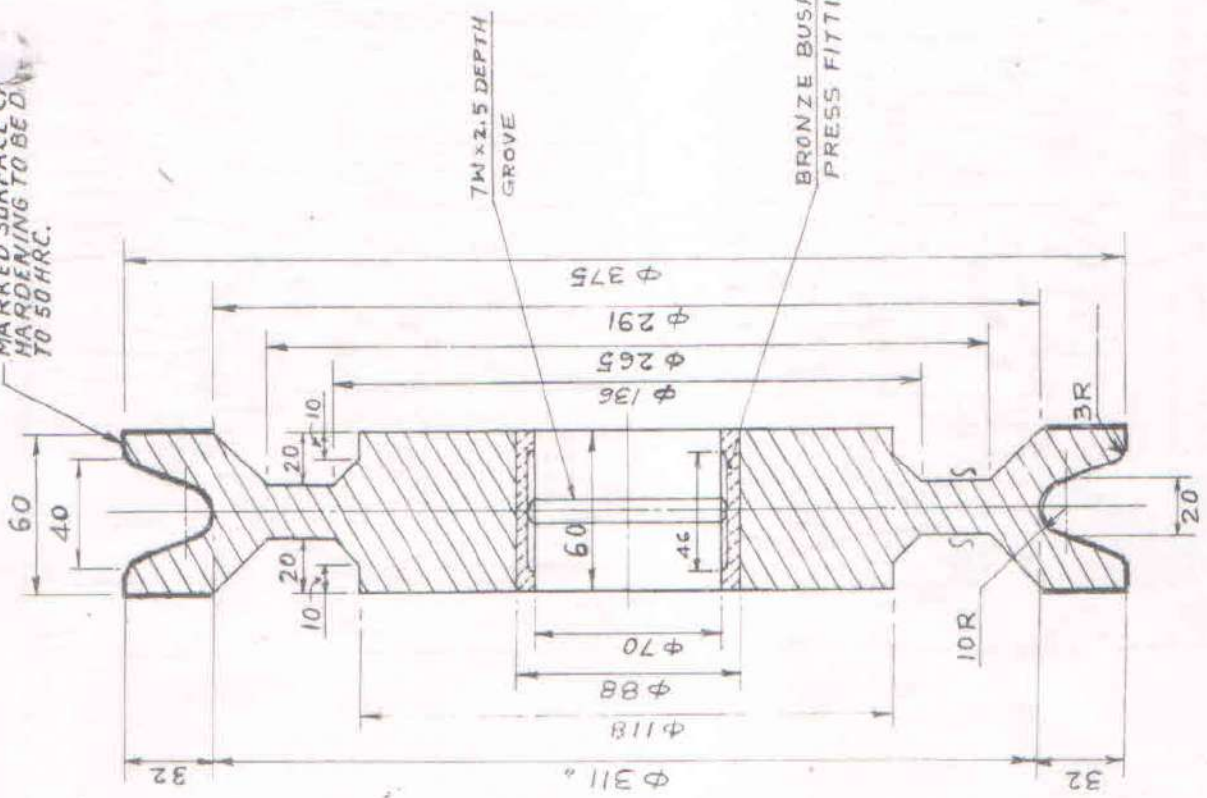
DETAIL AT - B

DATE	NAME	INDIAN RARE EARTHS LTD OSCOM - MATIKHALO 761045
DRN.	DR.	
CRD.	T.C.D.	
COMR.	WEL.COMR.	
SCALE: 1:20, 1:3, 1:2		HAND RAIL DETAILS OF FLOAT LINE PONTOON
TOLERANCE:		
SHEET NO.		
NOTE ITEM No. 5 75μ Change 25μ.		APPR. DRG. NO. OR 04-M-337
CONK. DIM. AT TYPICAL JOINT 25x125x100 G.I. 40x160 S.		

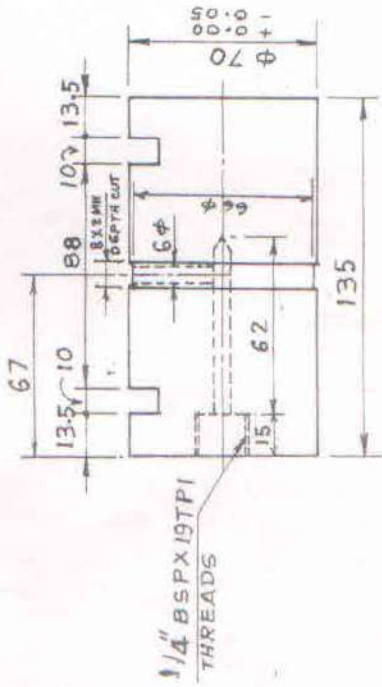
DETAIL AT - B

15-12-09	2	K.V. S.A.E.
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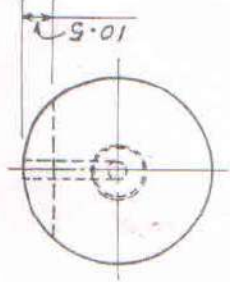
MARKED SURFACE TO BE HARDENING TO BE D₁ TO 50 HRC.



ROPE SLEEVE W (S)



PIN W

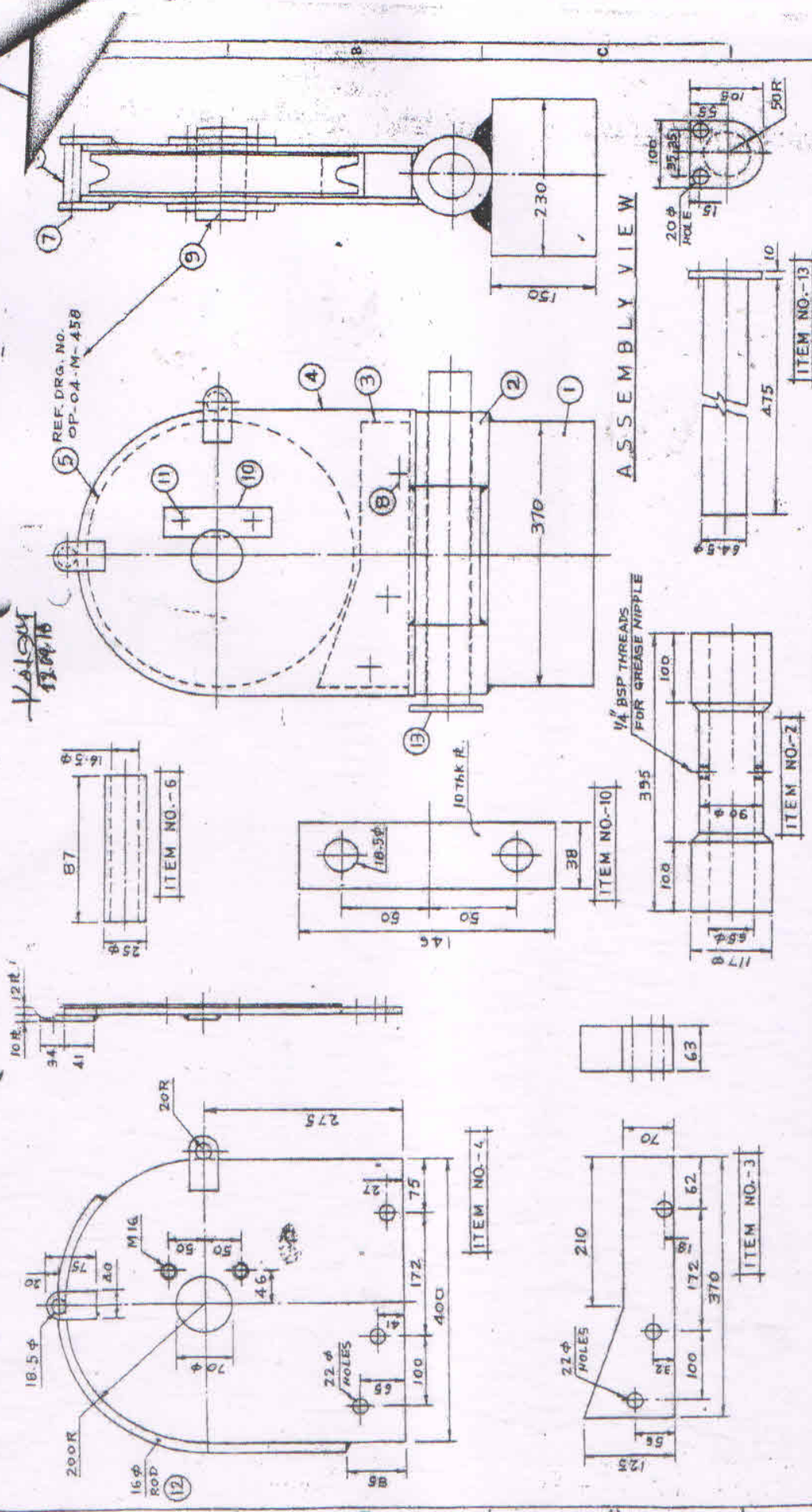


SIDE VIEW

ISSUED FOR TENDERING

INDIAN RARE EARTHS LTD	DATE	NAME
OSCOM - MATIKHALO 761045	28-7-07	Subhanshu
ROPE SHEAVE AND PIN FOR IHC DREDGE LADDER	CHG.	2-8-07
	TCD.	W. K. V. 410
	COMP.	
SCALE: NTS	SHEET NO. 1 OF 2	
TOLERANCE:	APPROV. DRG. NO. OF 04-M-458	

KALSHY
13.08.16



ASSEMBLY VIEW

ITEM NO.	DESCRIPTION	ITEM NO.	REG.	REG.	DESCRIPTION
13	PIN	1	IS: 7283, C-30	2	M.S. BUSH
12	16φ ROD, 660 Lg.	2	IS: 7283, C-40	1	ROPE SHEAVE
11	M16 BOLTS, 30 Lg.	4	HT, Cr-10.9	2	SHEAVE BRACKET PLATE
10	LOCKING PLATE	2	IS: 226	1	DISTANCE PEICE
9	PIN	1	IS: 7283, C-30	1	M.S. BUSH
8	M20 BOLT WITH NUT, 90 Lg.	3	HT, Cr-10.9	1	BLOCK
7	M16 BOLT & NUT, 136 Lg.	2	HT, Cr-10.9	1	BLOCK

DATE	NAME	DRG. NO.	CHK.	ICD.	COMP.	SCALE	TOLERANCE	SHEET NO.	2 OF 2
22-11-08	S. S. SINGH	OSCOM - MATIKHALO 781045				1:5; 1:2			

INDIAN RARE EARTHS LTD	OSCOM - MATIKHALO 781045
DETAIL DRG. OF PARTS OF ROPE SHEAVE IHC DREDGE LADDER	

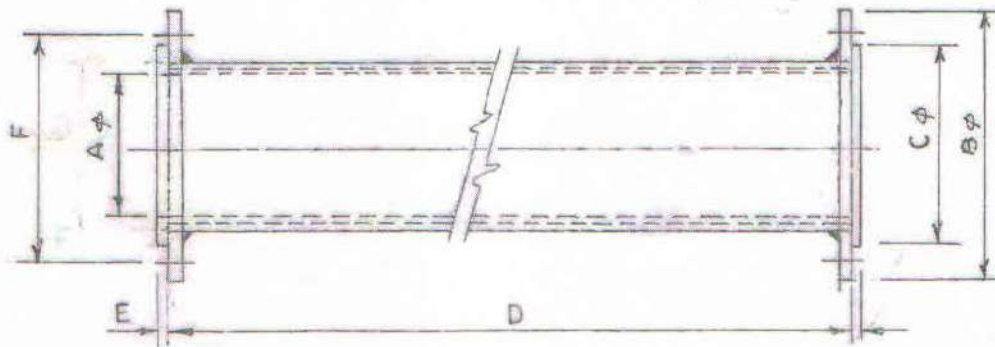
APPRO.	DRG. NO. OP
	04-M-458

IREL (India) Limited
 O.SCOM-MATIKHALO 761045

TITLE-

DISCHARGE LINE
SHORT PEICE

DRG. NO.: OP-04-M-568
 SCALE: N.T.S.
 DRN.: Chakraborty
 CHD: Dolani
 DATE: 08/11/2012
 APRD:



SHORT PEICE

ITEM NO	DESCRIPTION	A φ	B φ	C φ	D	E	F. P. C. D.	REMARKS	Qty.
1	OUTPUT DISCHARGE LINE	200	360	300	1500	8MM	8 NOS 22 φ HOLE ON 32A PCD FLG. THK-16MM	M.S. PIPE WITH PU LINING.	6
2	-do-	200	360	300	1200	8MM	8 NOS 22 φ HOLE ON-32A PCD FLG. THK-16MM	-do-	6
3	TAILS DISCHARGE LINE	250	430	400	1100	8MM	8 NOS 22 φ HOLE ON 35G PCD. FLG. THK-16MM	-do-	6
4									

NOTE

- 1) ALL DIMENSIONS ARE IN-MM, UNLESS OTHERWISE STATED IN DRG.
- 2) DIMENSIONS SHOWN AFTER PU-LINING.
- 3) ALL FLANGES SHOULD BE WELDED ON OPP CENTRE LINE
- 4) ALL FILLET WELDS SHOULD BE GMM CONTINUOUS.
- 5) LINING MATERIAL:- POLYURETHANE, SHORE HARDNESS 80 ± 5° SCALE 'A'