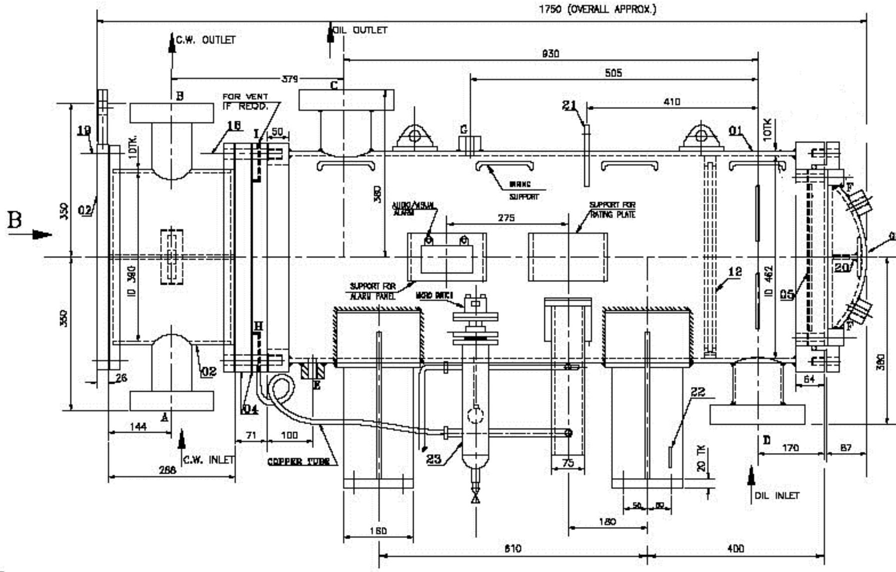
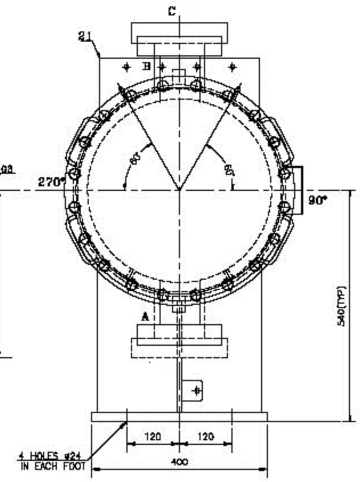
FIRST ANGLE PROJECTION

(ALL DIMENSIOMS ARE IN mm)



ELEVATION



VIEW-B

LIST OF PARTS

PT.NO.	DESCRIPTION	MATERIAL	REMARKS
01	SHELL	STEEL PLATE IS:2062 GR.A	
02	I.O.WATER BOX AND COVER	STEEL PLATE IS:2062 GR.A	
03	REVERSE END WATER BOX	STEEL PLATE IS:2062 GR.A	
04	TUBE PLATE FIXED END	STAINLESS STEEL PLATE SA240 TP304	
05	TUBE PLATE FLOATING END	STAINLESS STEEL PLATE SA240 TP304	
06	TUBE INNER	90/10 CU/NI SB111C70600	
07	[illegible]	COPPER TO SB 111 C 12000	
08	BAFFLE PLATE DISC .3.15 TK.	H.R.STEEL SHEET IS:5986 Fe 330	
09	BAFFLE PLATE DOUGHNUT,3.15 TK	H.R.STEEL SHEET IS:5986 Fe 330	
10	SHEATH	C.R.St.SHEET IS:513 GR.DRAWING	
11	CLAMPING RING	STEEL PLATE IS:2062 GR.B	
12	SEALING RING	STEEL PLATE IS:2062 GR.B	
13	SHEATH SEAL	CHLOROPRENE RUBBER	
14	'O'RING	CHLOROPRENE RUBBER	
15	DISTANCE PIECE	BRASS TUBE IS: 407 Gr.CuZn37	
16	BLANKING BARS	BRT.S.BAR,IS:9550 Gr.C-20	
17	BACKING STRIP	H.R.S.SHEET IS:5986 Fe 330	
18	STUD AND NUTS	CLASS 6.8 HOT DIP GALVANISED	
19	BOLT AND NUTS	CLASS 6.8 HOT DIP GALVANISED	
20	ANODE	ZINC	
21	DIFFERENTIAL PRESSURE GAUGE PAD	IS:2062 GR.A	
22	EARTHING TERMINAL PAD	IS:2062 GR.A	
23	ALARM	IS:2062 GR.A	

EQUIVALENT MATERIAL TO THOSE SPECIFIED IN LIST OF PARTS FOR DIFFERENT ITEM MAY ALSO BE USED.

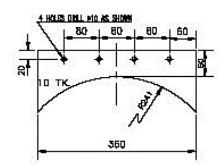
LIST OF CONNECTIONS

REF.	BORE	FLANGE			BOLT/STUD		DESCRIPTION	RATING	NO. OFF	REMARK
		O.D.	P.C.D.	TK.	NO	SIZE				
A	80	190	150	45	4	M16	COOLING WATER INLET	–	1	
B	80	190	150	45	4	M16	COOLING WATER OUTLET	–	1	
C	100	215	180	45	4	M16	OIL OUTLET	–	1	
D	100	215	180	45	4	M16	OIL INLET	–	1	
E	R 3/4						SHELL DRAIN	–	1	VALVE FITTED
F	R 3/4						R/E WATERBOX DRAIN/VENT	–	2	VALVE FITTED
G	R 1/4						SHELL VENT	–	1	VALVE FITTED
H	R 1/4						DRAIN (TUBE PLATE FIXED END)	–	1	PLUG FITTED
I	R 1/4						VENT (TUBE PLATE FIXED END)	–	1	PLUG FITTED

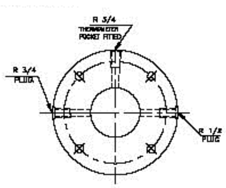
CONNECTION A & B CAN BE INTERCHANGED.

DESIGN DATA

HEAT DISSIPATION/COOLER			165 KW
No. OF PASSES			2
PLUGGING CAPACITY			10 %
PERSSURE DROP	SHELL SIDE		0.5 Kg/sq.cm.g
	TUBE SIDE		0.2 Kg/sq.cm.g
DESIGN PRESSURE	SHELL SIDE		3.5 Kg/sq.cm.g
	WATER SIDE		5 Kg/sq.cm.g
HYDRAULIC TEST PRESSURE	SHELL SIDE		5.25 Kg/sq.cm.g (FOR ONE HR.)
	WATER SIDE		7.5 Kg/sq.cm.g (FOR ONE HR.)
PAINTING	SHELL	INSIDE	AS PER TR 10256P WHITE SHADE
		OUTSIDE	2 COATS OF POLYURETHANE FINISHING PAINT SHADE 631 OF IS5
	WATER BOX	INSIDE	AS PER AA 0674104 COALTAR PITCH EPOXIDE TO AA 56135
		OUTSIDE	2 COATS OF POLYURETHANE FINISHING PAINT SHADE 631 OF IS5
	TUBE PLATE	WATER SIDE	NO PAINTING
		OIL SIDE	NO PAINTING
ESTIMATED WEIGHT	EMPTY		935 Kg
	WORKING		1150 Kg
L.B.T.P.			1200 mm.
C.W.INLET/OUTLET TEMP.	°C		31.0 / 34.8
OIL INLET/OUTLET TEMP.	°C		75 / 68
OIL FLOW	LPM		850
WATER FLOW	LPM		650
NO. OF COOLERS	–		24



DETAIL OF ITEM 21



(CONN. A TO D)

NOTES :-

1. AFTER HYDROSTATIC TESTING COOLER SHOULD BE CLEANED COMPLETELY DRAINED AND DRIED BY BLOWING AIR.
2. ALL NOZZLE CONNECTIONS SHALL BE SUPPLIED BLANKED/PLUGGED.
3. FOR GENERAL MFG. TOLERANCES REFER SPEC. HE-04001.
4. COOLER SHOULD NOT BE KEPT WITH STAGNANT WATER DURING SHUT DOWN OR STORAGE.
5. FINAL PAINT SHADE SHALL BE SHADE 631 OF IS:5 LIGHT GREY.
6. JOINT OF COPPER TUBE AND CONN.-H TO BE FITTED WITH SUITABLE NIPPLE.
7. USE CLEAN AND FILTER TRANSFORMER OIL.

REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED
ZONE			ZONE								

ADDITIONAL INFORMATION
W.O.NO.
STATUS OF DRAWING

DISTRIBUTION OF PRINTS
OC – 1 HCM – 4
FBM – 4

REV DATE ALTERED -SD/- CHECKED -SD/- APPROVED -SD/-

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

DOUBLE TUBE OFWF COOLER
4 X 82.5 MW ALAKNANDA

BHARAT HEAVY ELECTRICALS LTD.

DEPT. CDE CODE 411 UNTOL. DIMS. GR N

SCALE 1:5

WEIGHT (Kg)

REF. TO RESP. DRG. —

ITEM NO. ---

GENERAL ARRANGEMENT OF COOLER

DRAWING NO. TRE/7016/AHPC/VJ 00

SHT. NO. 1 NO. OF SHT. 1

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