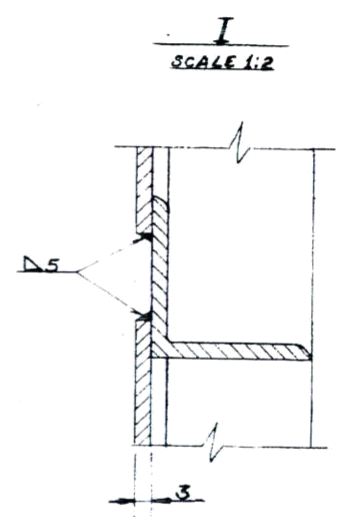


NOTES:-

1. WELD SIZE SHOULD BE 15mm AT ALL WELDING PLACES.
2. ALL DIMENSIONS ARE OBTAINED BY MEASUREMENT OF THE PART AND BASED ON DRG. 085-001-00-023 (USSR DRG. NO. K-352190. BSL. ARC. NO. UT-E 89585)
3. THIS DRG. IS CORRESPONDS TO USSR DRG. NO.-K-352138 WHICH IS NOT AVAILABLE

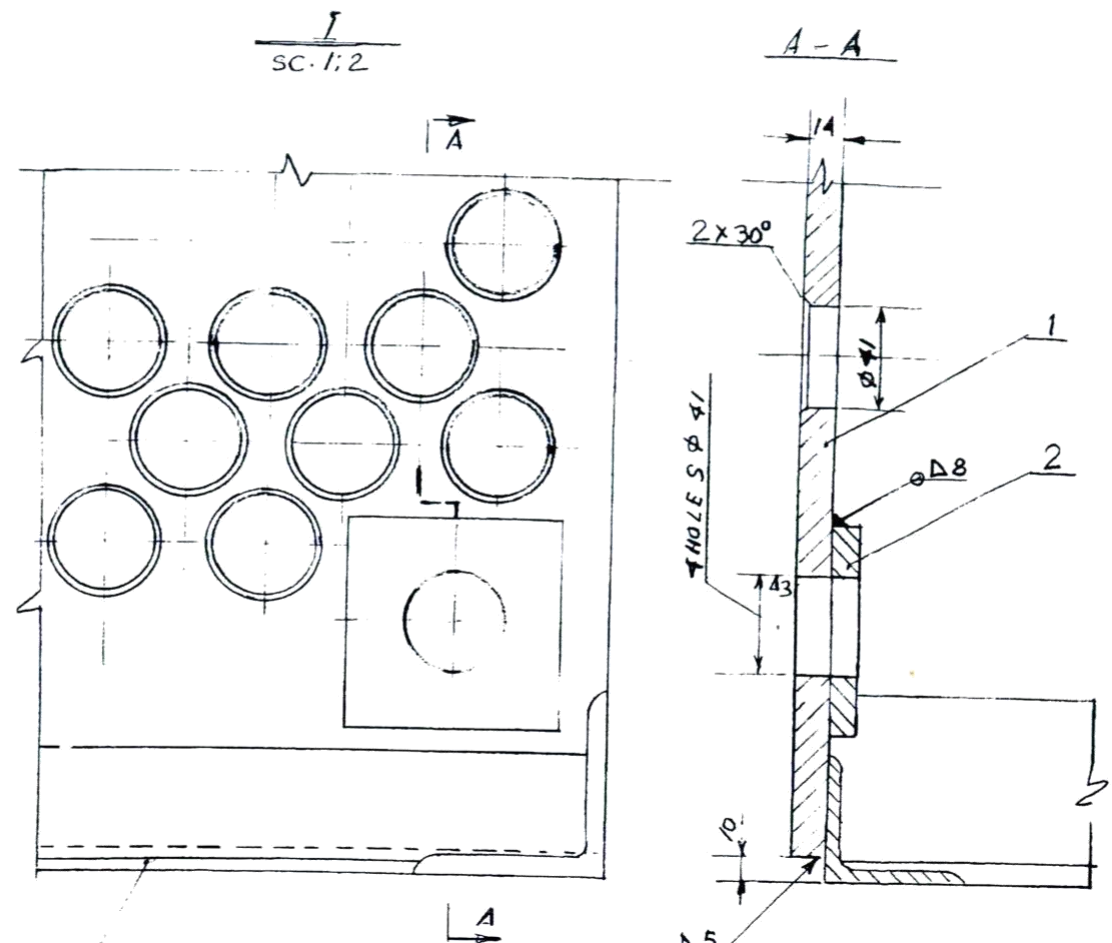
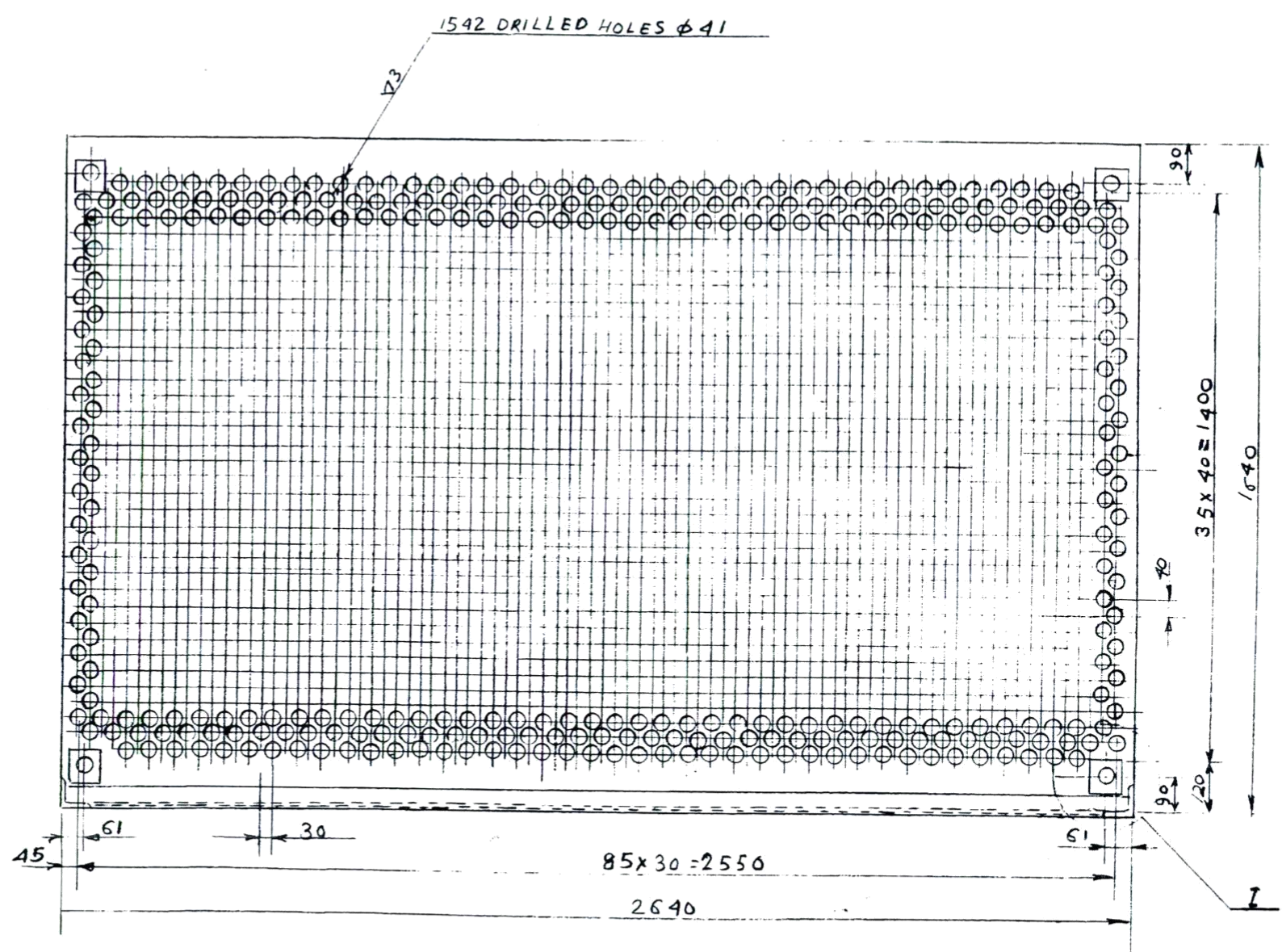


DRG. NO.	POS.	DESCRIPTION	QTY	UNIT	TOTAL	MATERIAL	REMARKS
				NT. IN K.G.	NT. IN K.G.		
		WELD METAL		4.5	4.5	M. 8	
	8	PLATE 1535x1400x3	1	50.25	50.25	SL-425 IS:226-69	
	7	PLATE 1535x1415x3	1	50.80	50.80	SL-428 IS:226-69	
	6	PLATE 1535x700x3	1	25.1	25.1	SL-428 IS:226-69	
	5	ANGLE 65x65x5, L=1400	2	18.0	36.0	STRU-STEEL	
	4	ANGLE 65x65x5, L=720	2	3.5	7.0	STRU-STEEL	
	3	ANGLE 65x65x5, L=735	1	3.7	3.7	-DO-	
	2	ANGLE 65x65x5, L=730	2	3.6	7.2	-DO-	
	1	ANGLE 65x65x5, L=1545	6	7.6	45.6	-DO-	

DRG. NO.	POS.	DESCRIPTION	QTY	UNIT	MATERIAL	G.A. DRG.	SC.	DRG. NO.
085-001-00-023	7	SECTION SIDE SHIELD	1	230-15	ASSLY	085-001-00-023	1:20	085-001-00-024

BOKARO STEEL LIMITED	
SHOP	T. P. P. & T. B. S.
UNIT	BOILER
DESCRIPTION OF DRAWING	DETAILS OF AIR HEATER SECTION EXTREME OF BOILER T ₁₇₋₁₅₅ , D=220 7/8, P=100 kg/cm ² , t=5mm
REVISIONS	DRAWN S. PRASAD 12/5 DATE MAY-75
	CHECKED B. RAM SCALE
	TRACED
	SUBMITTED 085-001-00-024
	APPROVED

0.5A1



FRAME POS. NO. 6 DRG. NO. 085.001.00.033
SHOWN CONVENTIONALLY IN ASSLY. WITH
BED PLATE (LOWER)

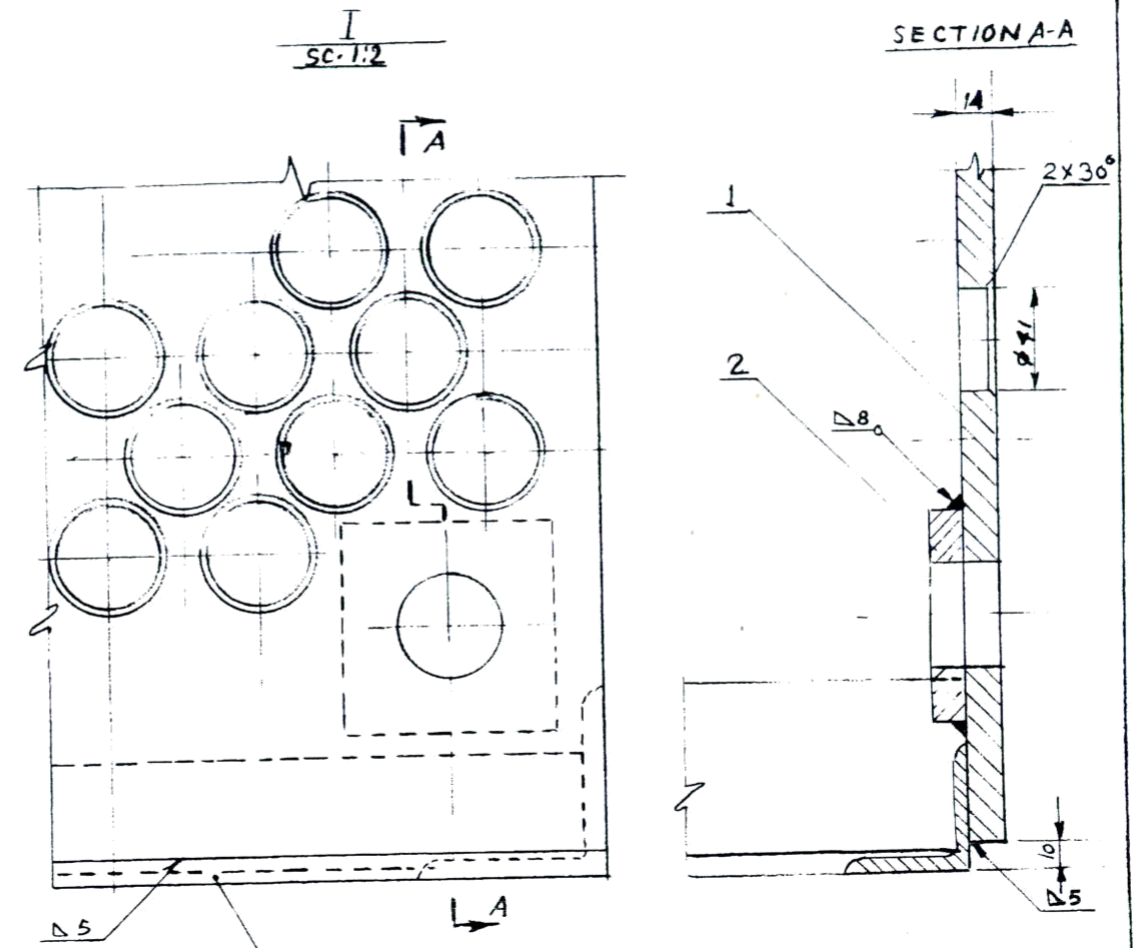
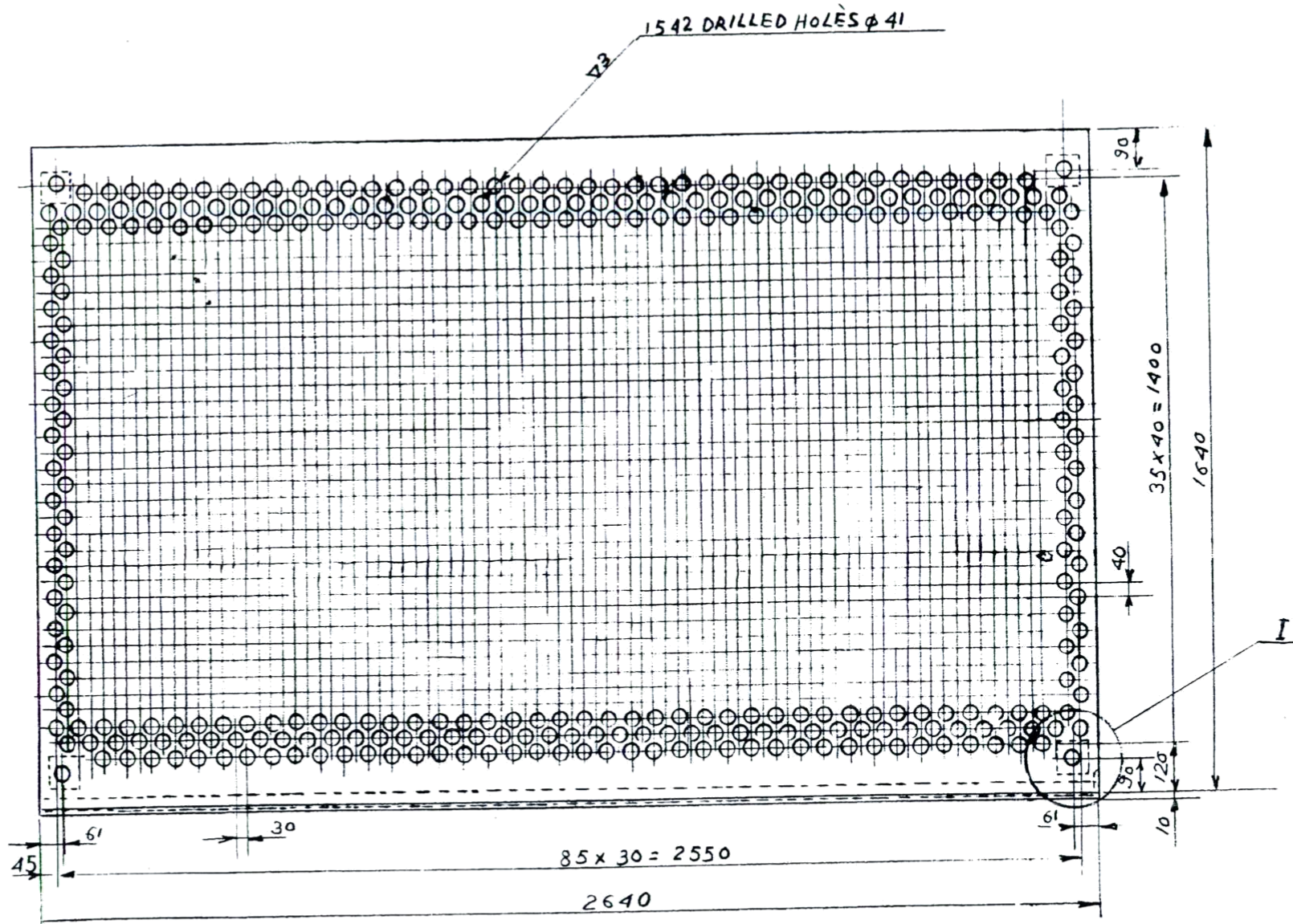
DRG. NO.	POS.	DESCRIPTION	QTY.	UNIT	TOTAL WT. IN KG.	MATERIAL	REMARKS
085.001.00.029	2	SQ. PLATE 84 X 84 X 2	4	0.54	2.16	St. 42W IS: 2062-69	Fe 410 WB IS: 2062-92
085.001.00.030	1	PLATE 2640 X 1640 X	1	255.35	255.35	St. 42W IS: 2062-69	Fe 410 WB IS: 2062-92

POS. NO.	DESCRIPTION	QTY.	UNIT	MATERIAL	G.A. DRG.	SC.	DRG. NO.
1	BED PLATE (LOWER)	1	257.51	ASSLY.	085.001.00.029	1:10	085.001.00.025A

BOKARO STEEL LIMITED							
SHOP	T. P. P. E' T. B. S.						
UNIT	BOILER (085/001)						
DESCRIPTION OF DRAWING	DETAILS OF AIR HEATER SECTION EXTREME E' INTERMEDIATE OF BOILER T77-155 D=220 TH P=100KG/CM ² t=540 ^C						
REVISIONS	DRAWN	S. PRASAD	28/5	sd.	DATE	MAY 75	
sd. M. H. R. ANSARI	CHECKED	B. RAM		sd.	SCALE	1:10, 1:2	
27.8.02	TRACED						
	SUBMITTED						
	APPROVED					085.001.00.025 A	

NOTES:-
1. THIS DRG. HAS BEEN MADE AFTER TAKING THE MEASUREMENTS OF THE PART E' BASED ON USSR DRG. NO. K-352190, BSL ARCH. NO. UT-E/89195 (PLD. DRG. NO. 085.001.00.023)
2. THIS DRG. CORRESPONDS TO USSR DRG. NO. K-255234 WHICH IS NOT AVAILABLE.

RETRACED	MD. ZAINUDDIN	MD. ZAINUDDIN	DATE
CHECKED	N. K. JHA		OCT-2004



FRAME POS. NO. - 6. DRG. NO. 085.001.00.033
SHOWN CONVENTIONALLY IN ASSLY. WITH BED
PLATE (TOP)

DRG. NO.	POS.	DESCRIPTION	QTY	UNIT	TOTAL	MATERIAL	REMARKS
085.001.00.029	2	Sq. PLATE 84x84x12	4	0.54	2.16	St. 42W Fe 410 WB IS:2062-59	IS:2062-92
085.001.00.034	1	PLATE 2640x1640x14	1	255.35	255.35	St. 42W Fe 410 WB IS:2062-59	IS:2062-92

POS.	DESCRIPTION	QTY	UNIT	MATERIAL	G.A. DRG.	SC	DRG. NO.
3	BED PLATE (TOP)	1	257.51	ASSLY	085.001.00.023	B:10	085.001.00.026A

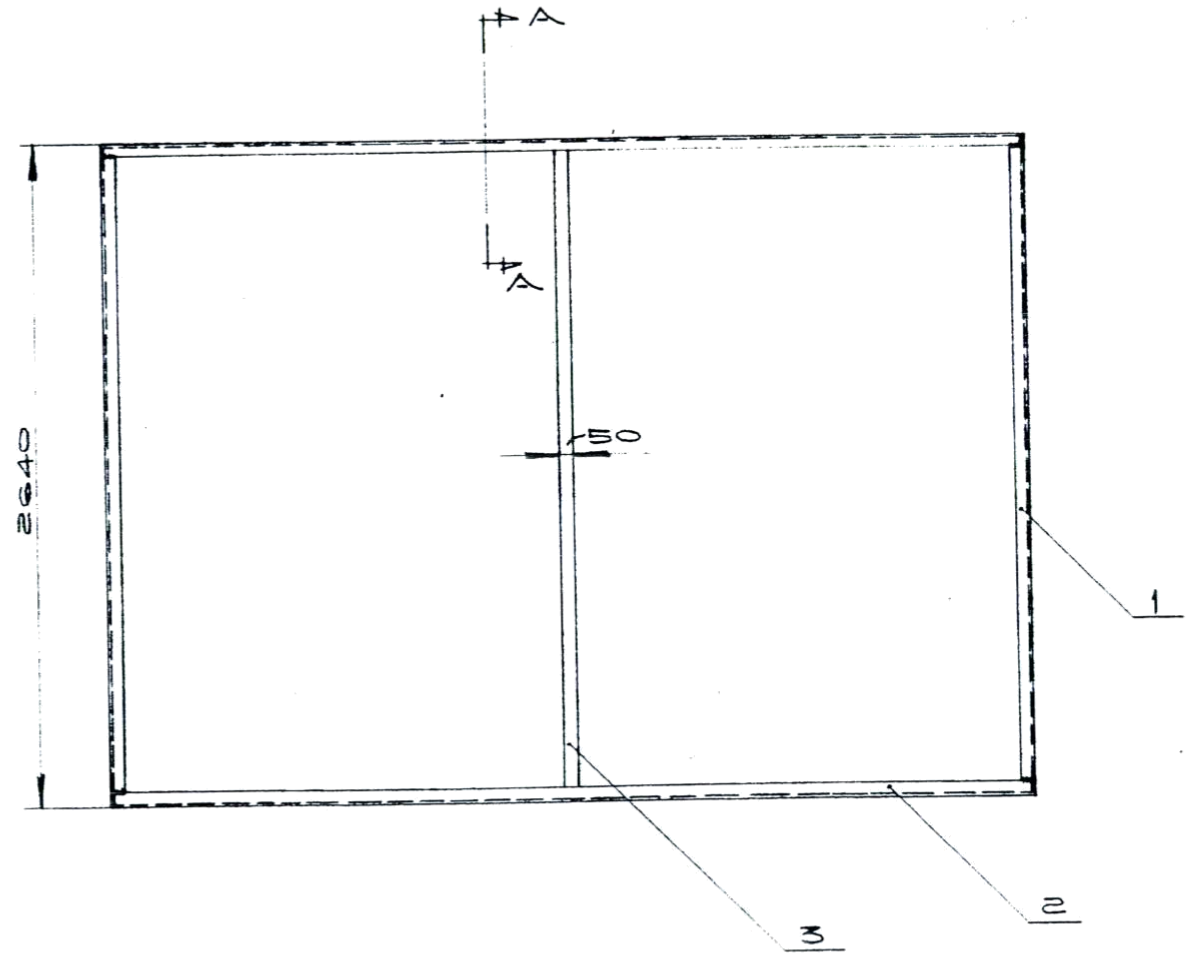
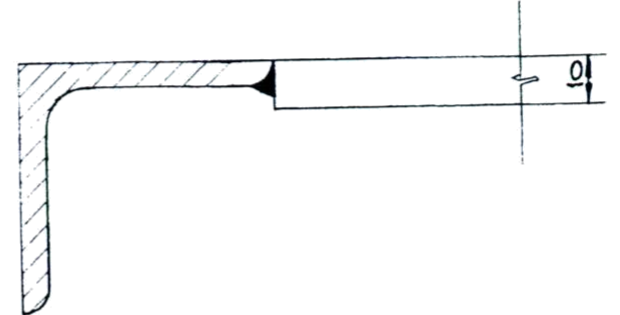
BOKARO STEEL LIMITED							
SHOP	T P P E' T B S						
UNIT	BOILER (085/001)						
DESCRIPTION OF DRAWING	DETAILS OF AIR HEATER SECTION EXTREME OF BOILER T11-155, D=220 T/M, P=100kg/sq.cm, t=540						
REVISION	DRAWN	S. PRASAD	27/5	sd.	DATE	MAY-75	
MAT. UPDATED BY M.H. RAMSARI dt. 27.8.02	CHECKED	B. RAM		sd.	SCALE		
	TRACED						
	SUBMITTED	J.C. SINHA		sd.		085.001.00.026 A	
	APPROVED						

RETRACED	MD. ZAINUDDIN	MD. ZAINUDDIN	DATE
CHECKED	S.K.B.	27/8/02	OCT. 2004

- NOTES:-
- THIS DRG. HAS BEEN MADE AFTER TAKING THE MEASUREMENTS OF THE PART AND BASED ON USSR DRG. NO. 352190. BSL ARCHIVE NO. UTE/89695. (PLD DRG. 085.001.00.023)
 - THIS DRG. CORRESPONDS TO USSR DRG. NO. K-255233. WHICH IS NOT AVAILABLE



SECTION-A-A
SCALE-1:1



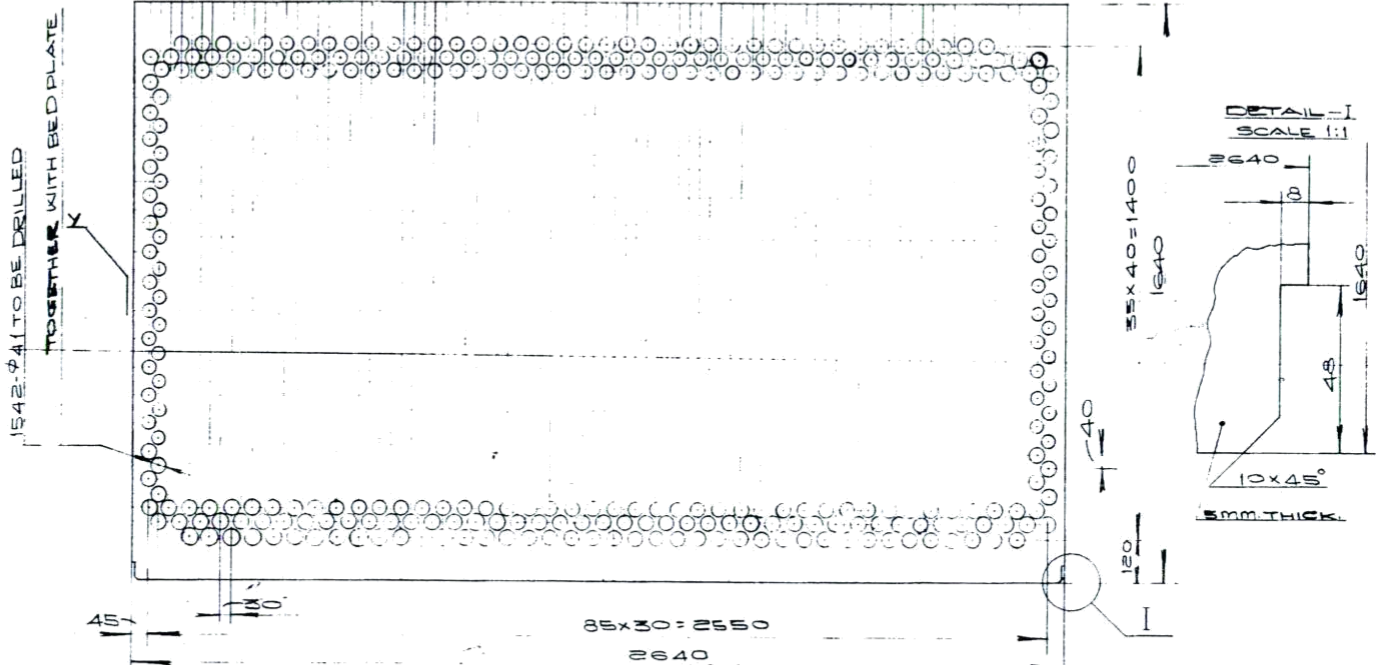
PLD DRC. NO.	BO. NO.	DESCRIPTION	QTY	UNIT	TOTAL WT. IN KG	MATERIAL	REMARKS
-	-	WELD METAL 8%	-	-	1.14	M.S.	
3		PLATE 2540X50X10	1	9.9	9.9	M.S.	STAIN FILING 15.2062-69 15.2062-70
2		ANGLE 50X50X5 L=3672	2	13.98	27.9	M.S.	
1		ANGLE 50X50X5 L=2640	2	9.65	19.3	M.S.	

POS NO.	DESCRIPTION	QTY	UNIT WT. IN KG	MATERIAL	CAD. NO.	BO. DRC. NO.
6	FRAME ASSLY.	1	582	ASSLY	K-352180	180

		BOKARO STEEL LIMITED	
SHOP	T.F.R. & T.B.S.		
UNIT	BOILER 35/001		
DESCRIPTION OF DRAWING	DETAILS OF AIR HEATER SECTION EXTREME OF BOILER T.F.R. D=2200/H= P=100KG/Sq. CM. t=540°C		
REVISIONS	DRAWN	D.PRASAD	DATE MAY '75
	CHECKED	B.RAM	SCALE 1:20
	TRACED		
	SUBMITT.	I.C. SINHA,	085.001.00.028A
	APPROV.		

085.001.00.032A

∇3 ALL OVER



1542.41 TO BE DRILLED TOGETHER WITH BED PLATE

DETAIL I SCALE 1:1

5mm THICK

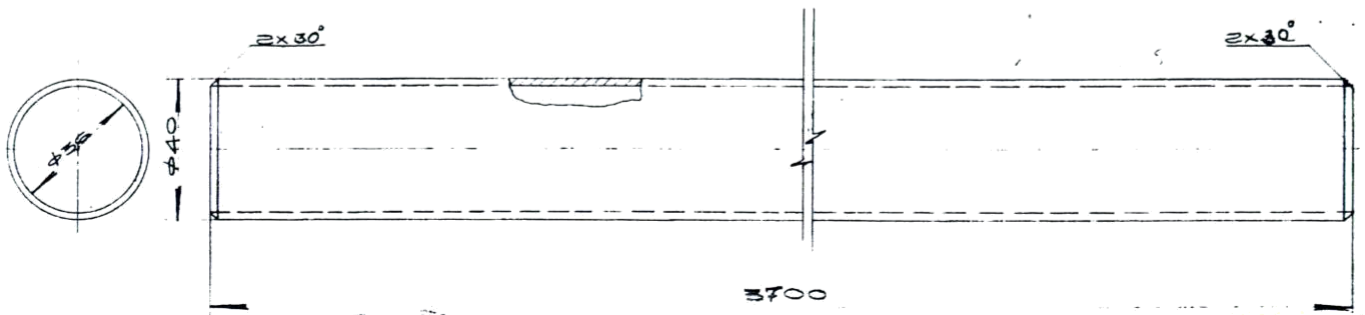
85x30=2650
2640

@ Mall updated
Rashed
20.9.04

THIS DRG. HAS BEEN MADE AFTER TAKING THE MEASUREMENTS OF THE PART AND BASED ON USSR DRG. NO. K 352183 AND BSL ARCH. NO. UT-E/89594, P.D. No 085 001.00.022. 15:2062-92

NO	DESCRIPTION	QTY	UNIT	MATERIAL	GA	DRG	SC	DRG NO
2	BED PLATE MIDDLE	1	SIZE	ST 42A	085-001-1110	00.032A		
				2062-92	00.022			

085.001.00.031A



NOTE: THIS DRG. HAS BEEN MADE AFTER TAKING THE MEASUREMENTS OF THE PART AND BASED ON USSR DRG. NO. K 352183 AND BSL ARCH. NO. UT-E/89594, P.D. No 085 001.00.022.

TUBE MATERIAL: BS 6323-5-ERW-4-1982

31/7/19

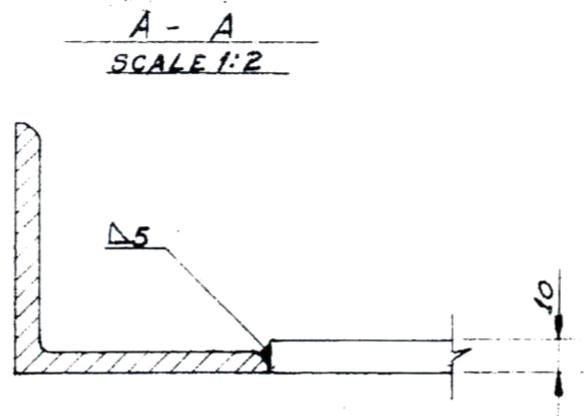
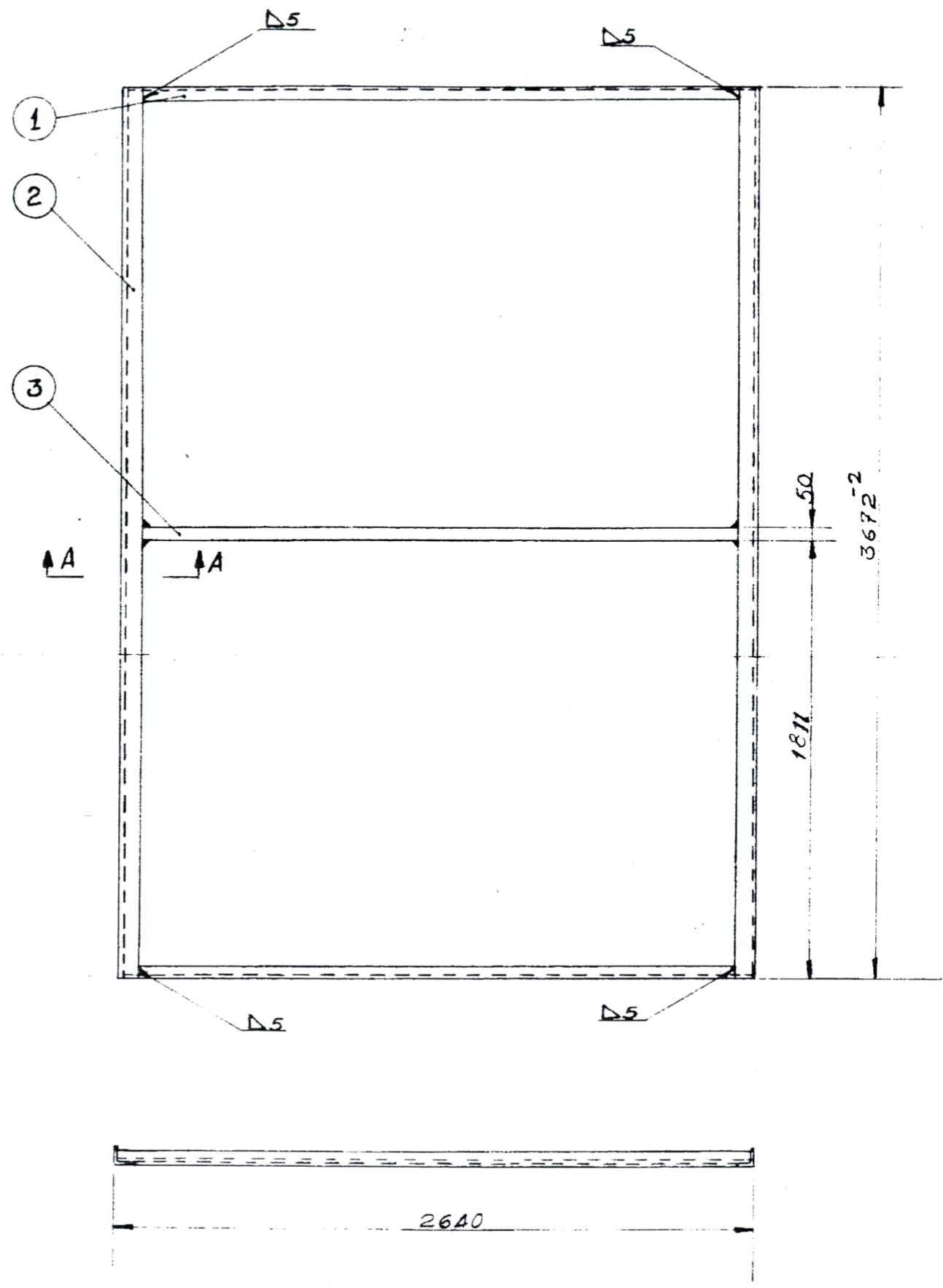
NO	DESCRIPTION	QTY	UNIT	MATERIAL	GA	DRG	SC	DRG NO
5	PIPE	1542.3	CM	BS 6323-5-ERW-4-1982				085.001.00.031A

FP 11	BOKARO STEEL LIMITED
SHOP	TPP. E TBS.
UNIT	DRUM TYPE STEAM BOILER TP-195: 0.2207/1. P. 10000/cm ² 1.3400
DESCRIPTION OF DRAWING	DETAILS OF AIR HEATER SECTION (INTERMEDIATE)
REVISIONS	DRAWN D.P.D. DATE MAY 75
CHECKED	B.R.A.M. SCALE 1:1:1:1:10
TRACED	
SUBMITT	085.001.00.031A
APPROV	TO 085.001.00.032

05A1

173412

085.001.00.033



NOTES:-

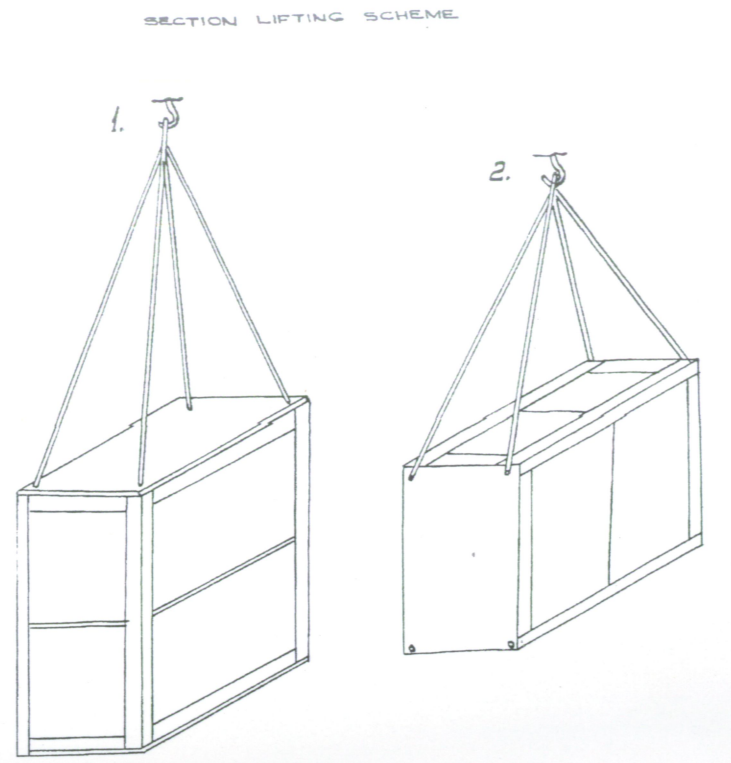
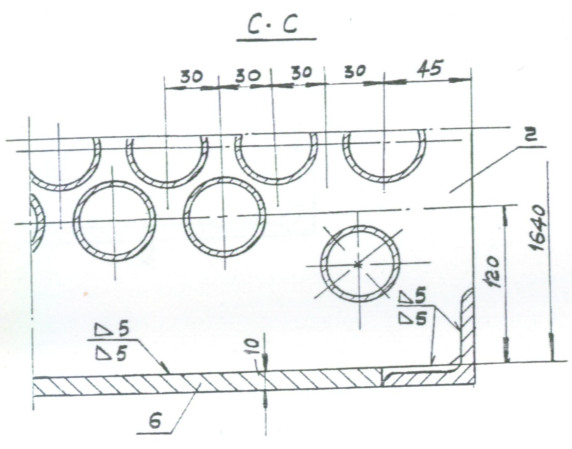
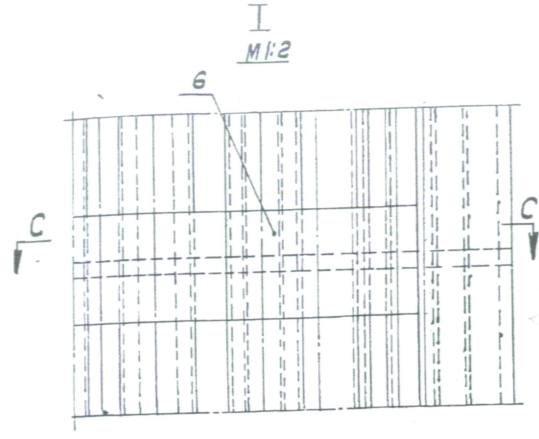
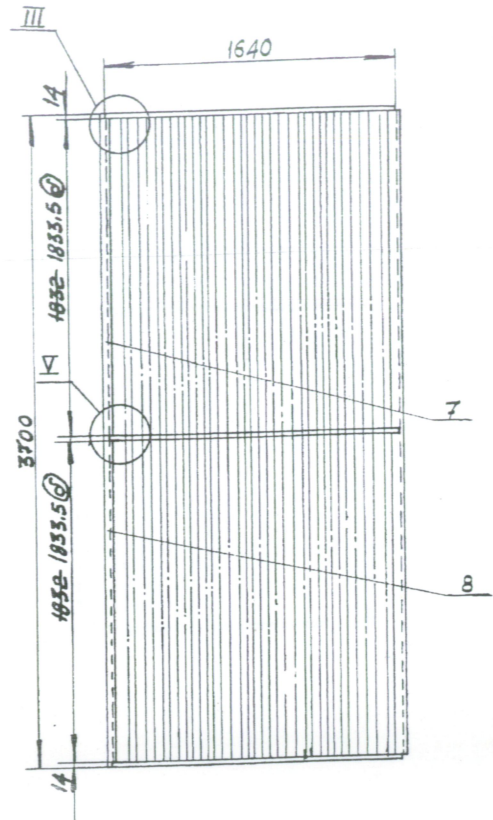
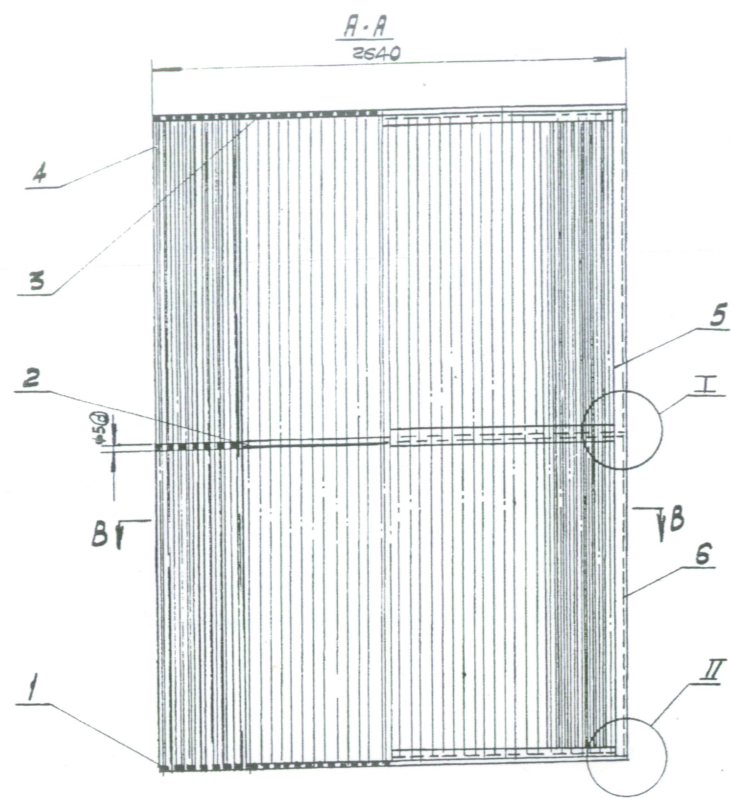
1. ALL DIMENSIONS ARE OBTAINED BY MEASUREMENT OF THE PART AND BASED ON DRG. NO. - 085-001.00.023 (USSR DRG. NO. - K-352190 B.S.L. ARCHIVES NO. - UT-E/89595).
2. THIS DRG. IS CORRESPONDS TO USSR DRG. NO. - K-352139 WHICH IS NOT AVAILABLE.

DRG. NO.	POS.	DESCRIPTION	QTY.	UNIT	TOTAL	MATERIAL	REMARK
				WT. IN KG.			
		WELD METAL			0.94		
	3	PLATE 2490x52x10	1	8.83	8.83	St-42M	15:206269
	2	ANGLE 75x75x8, l=3672	2	32.68	65.36	STRU-STEEL	
	1	ANGLE 50x50x5, l=2640	2	10.07	20.14	STRU-STEEL	

POS.	DESCRIPTION	QTY.	UNIT	MATERIAL	G.A. DRG.	SC. DRG. NO.
		WT. KG.				
6	FRAME	1	95% ASSLY		085-001.00.023B	1:20 085-001.00.033

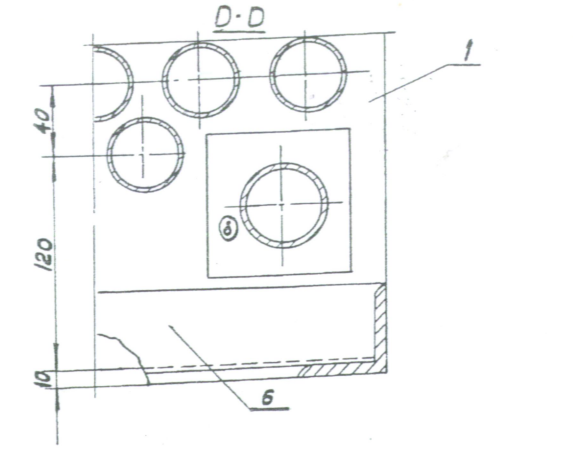
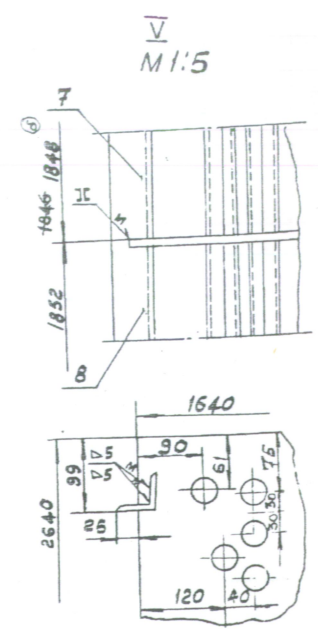
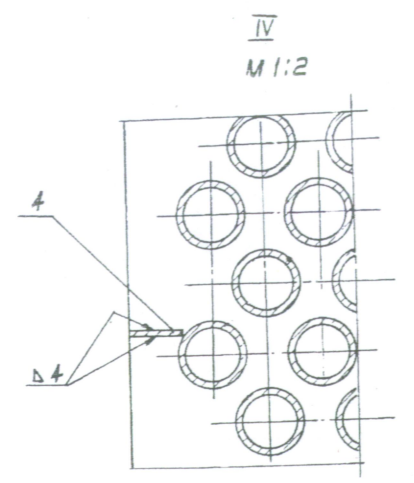
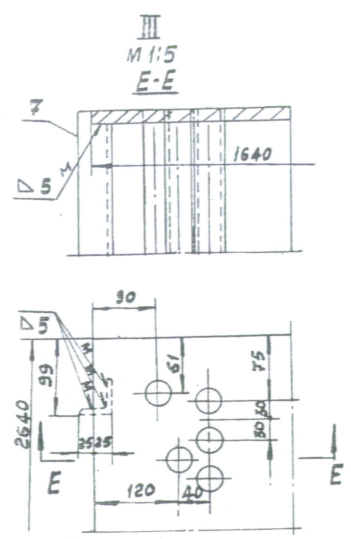
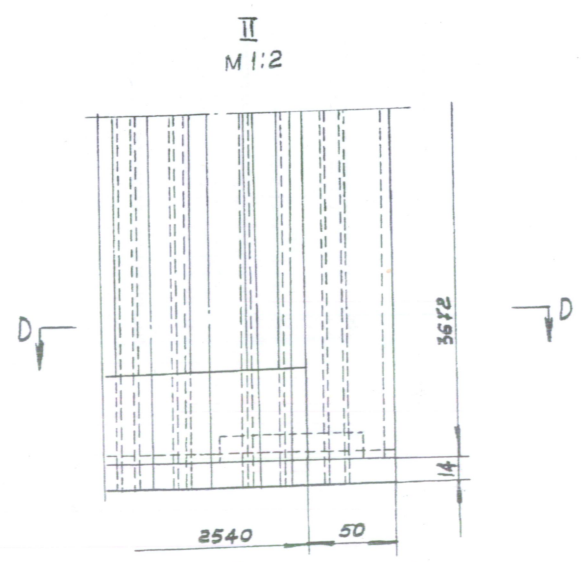
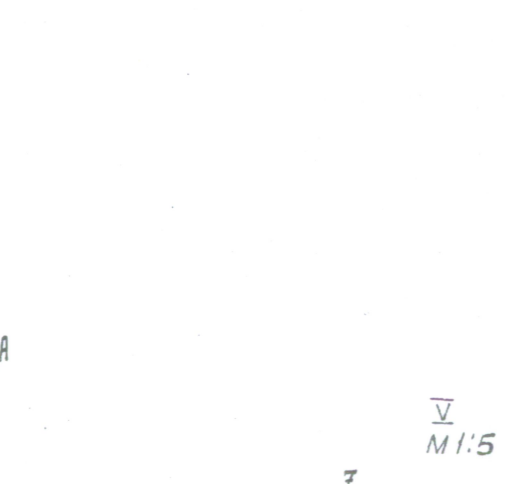
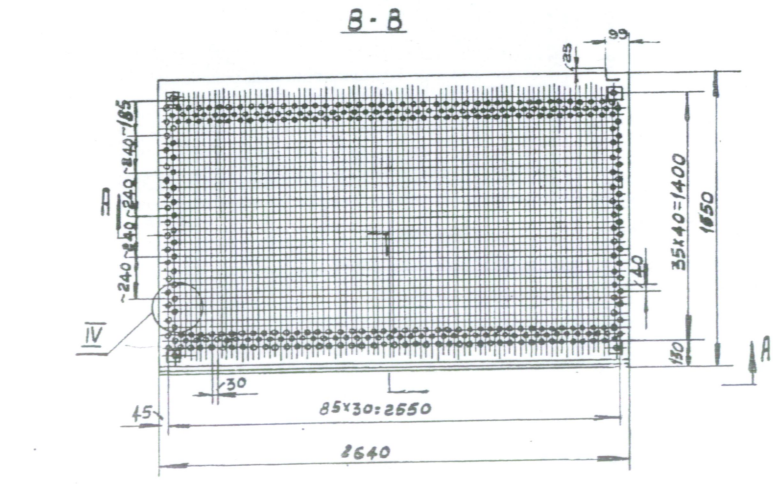
	BOKARO STEEL LIMITED					
SHOP	T. P. P. & T. B. S.					
UNIT	BOILER (085/001)					
DESCRIPTION OF DRAWING	DETAILS OF AIR HEATER SECTION EXTREME OF BOILER T ₁ -155, D=220T/H, P=100KG/CM ² , t=540°C					
REVISIONS	DRAWN	S. PRASAD	14/5	<i>Prasad</i>	DATE	MAY-75
	CHECKED	B. RAM		<i>Prasad</i>	SCALE	
	TRACED					
	SUBMITTED					085.001.00.033
	APPROVED					

0.25A1



- NOTES
- SECTION TO BE MADE AFTER TY-36-59 APP-1
 - ATTACHMENT THE TUBES TO THE TOP AND LOWER TUBE BED PLATE TO BE DONE BY ELECTRO-WELDING WITH DENSE CONTINUOUS WELD D02.
 - HEATING SURFACE OF THE SECTION H=680m²
 - THE TUBES POS. NO. 5 MAY BE MADE FROM ERW PIPES ALSO.

⊗ Tube Material : BS 6323-5-ERW-4-1982



TOTAL WEIGHT OF WELDED CARBONIC METAL, 11 KG.

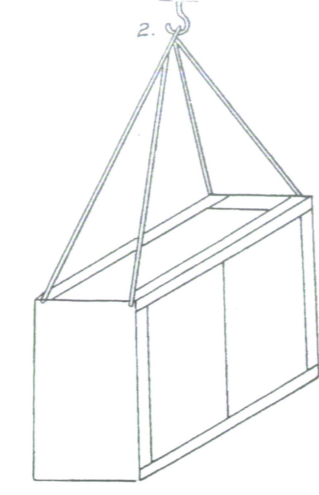
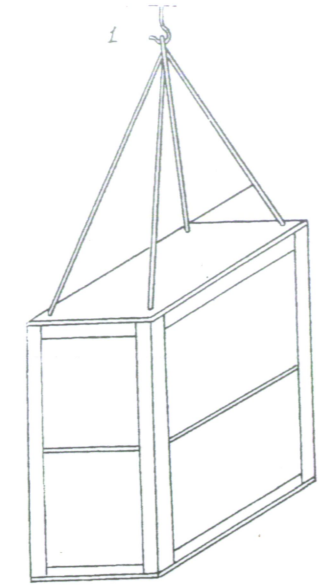
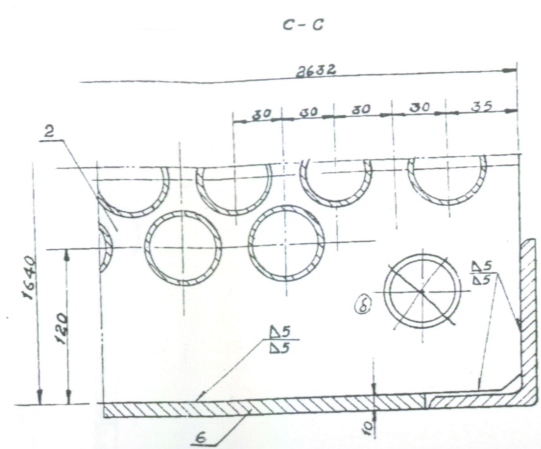
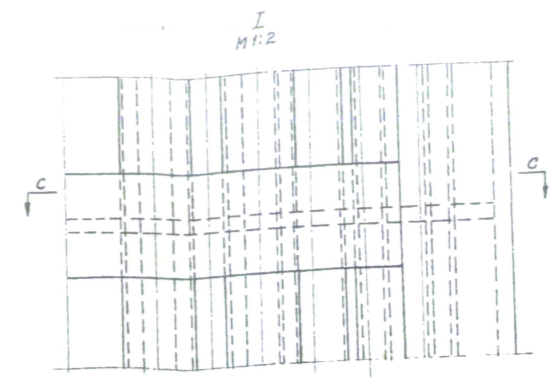
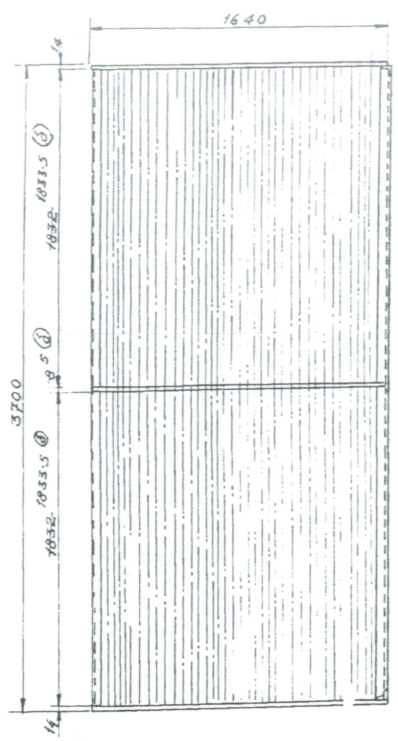
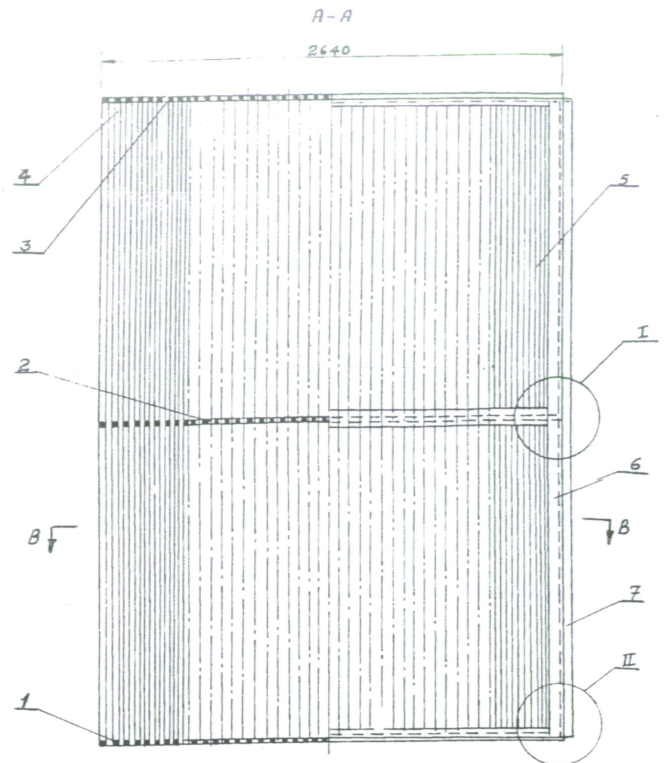
NO.	QTY.	DESCRIPTION	UNIT	TOTAL	MATERIAL	REMARKS	
① K-353204	8	ANGLE, 50x50x5 L=1832	1 7 7	8	B ⁴ cm 5kn 13:241-12		
② K-353205	7	ANGLE, 50x50x5 L=1848	1 7 7	7	-D0-	-20-	
③ K-352188	085.001. 00.028	6 FRAME	1 57 57	60	ASSLY.	⊗	
④ K-322143	085.001. 00.031	5 TUBE, φ40x2; L=3700	1542 6.9	10639.8	CM30 107.2x33 200-58	13:191 13:191-82	
⑤	085.001. 00.026	4 STRIP, 4x30; L=1830	20 17 34	680	B ⁴ cm 3kn 13:241-12	Fe 410/18	
K-255233	085.001. 00.026	3 BED PLATE TOP	1 258 258	258	ASSLY.	⊗	
⑥ K-255232	085.001. 00.032	2 BED PLATE MIDDLE	1 94 94	150	B ⁴ cm 3kn 13:241-12	Fe 410/18	
K-255234	085.001. 00.025	1 BED PLATE LOWER	1 258 258	258	ASSLY.	⊗	
SUPPLIER'S PLD. DRG. NO.	POS. NO.	DESCRIPTION	QTY.	UNIT	TOTAL	MATERIAL	REMARKS
DRG. NO.	NO.			WT. IN KG.			

NO.	DESCRIPTION	QTY.	UNIT	MATERIAL	DRG. NO.	SC. DRG. NO.
	AIR HEATER SECTION (INTERMEDIATE)		ASSLY			1:20 085.001. 00.022A

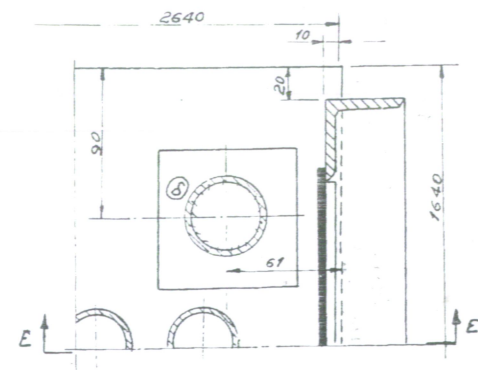
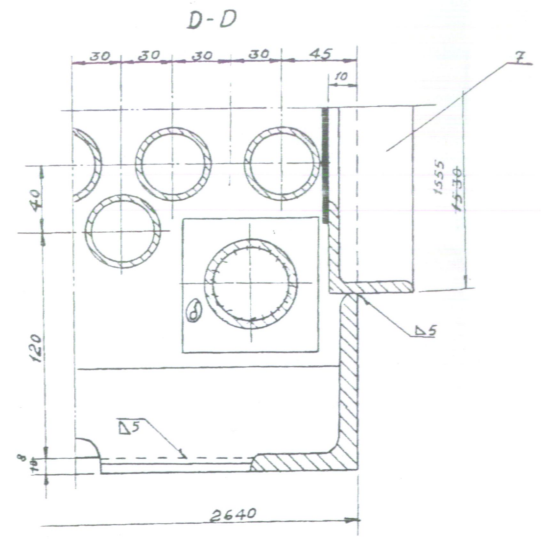
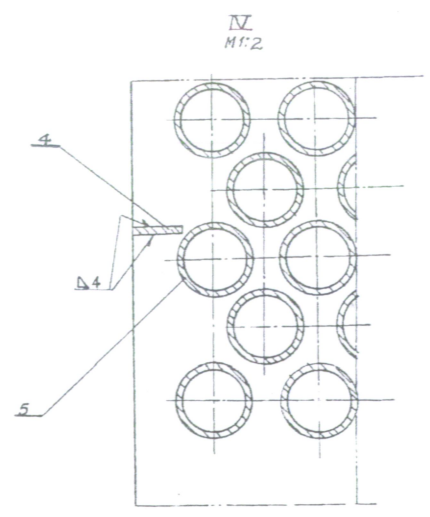
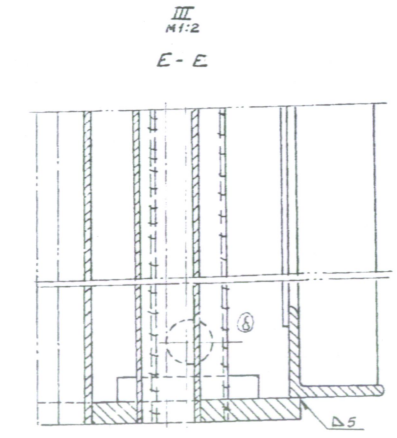
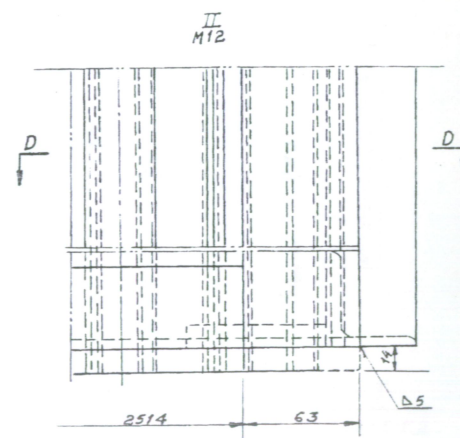
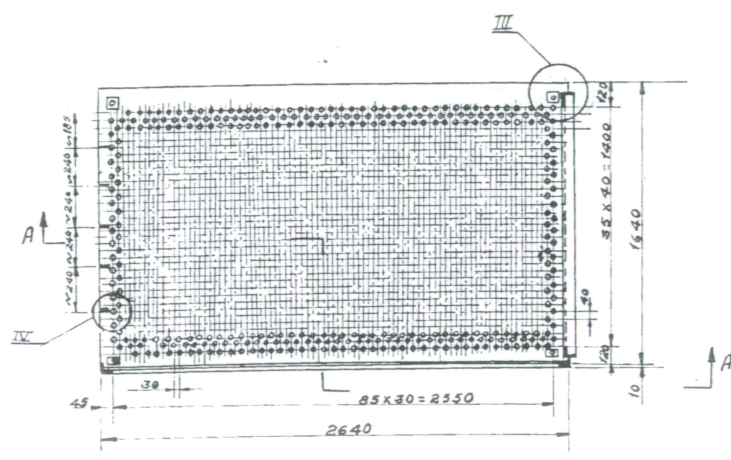
BOKARO STEEL LIMITED

SHOP	THERMAL POWER PLANT		
UNIT	DRUM-TYPE STEAM BOILER DPR NO 85/001		
DESCRIPTION OF DRAWING	BOILER TA-155, D=220 ⁷ / ₈ ; P=100 ⁷ / ₈ secm; t=540°C AIR HEATER SECTION (INTERMEDIATE)		
REVISIONS	DRAWN	DATE	MAY '75
	CHECKED B. RAM	SCALE	1:20
	TRACED D. PRASAD		
	SUBMITTED		
	APPROVED		

REFERENCE DOCUMENTS
 SUPPLIER'S DRG. NO. K-352183 USK
 BSL-PR-4 NO. UTE/89894



SECTION LIFTING SCHEME



NOTES:-

- SECTION TO BE MADE AFTER TY-36-59 AND APP.1
- ATTACHMENT THE TUBES TO THE TOP AND LOWER TUBE BED PLATE TO BE DONE BY ELECTRO-WELDING WITH DENSE CONTINUOUS WELD
- HEATING SURFACE OF THE SECTION $H=680M^2$
- THE TUBES POS. NO.-5 MAY BE MADE FROM ERW PIPES ALSO.

⊗ TUBE MATERIAL: BS 6323-5-ERW-4-1982

PLD. DRG. NO.	USR DRG. NO.	POS.	DESCRIPTION	QTY.	UNIT	TOTAL WT. IN KG.	MATERIAL	REMARKS
085.001-00.024	K-352138	7	SECTION SIDE SHIELD	1	237	237	ASSLY	
085.001-00.033	K-352139	6	FRAME	1	95.4	95.4	ASSLY	
085.001-00.031	K-352143	5	TUBES $\phi 40 \times 2, L=3700$	1542	6.9	10650	CM-20	15.1914
085.001-00.026	K-255233	3	BED PLATE TOP	1	258	258	ASSLY	
085.001-00.027	K-255231	2	BED PLATE MIDDLE	1	94	94	BCM 3RN	F4 410WB
085.001-00.025	K-255234	1	BED PLATE LOWER	1	258	258	ASSLY	

POS.	DESCRIPTION	QTY.	UNIT	MATERIAL	G.R. DRG.	SC.	DRG. NO.
1	AIR HEATER SECTION EXTREME	12	11710	ASSLY	K-553224	1.20	085-001-00-023A

ORIGINAL DOCUMENTS		BOKARO STEEL LIMITED	
SUPPLIER'S NAME	UT-1/89595	SHOP	T. P. P. E. T. B. S.
UT-1/89595		UNIT	BOILER TYPE-T Π -155, D=220 $\frac{1}{2}$ " (085/001)
		DESCRIPTION OF DRAWING	BOILER T Π -155; D=220 $\frac{1}{2}$ " ϕ ; P=100 $\frac{1}{2}$ kg/cm 2 ; L=540 $\frac{1}{2}$ "
			DETAILS OF AIR HEATER (ARCH. NO. UT-E/89596)
REVISIONS	DRAWN	DATE	MAY-75
	CHECKED	B. RAM	SCALE
	TRACED	S. PRASAD	
	APPROVED		

⊗ CORRECTIONS 5"(3)KU-757