

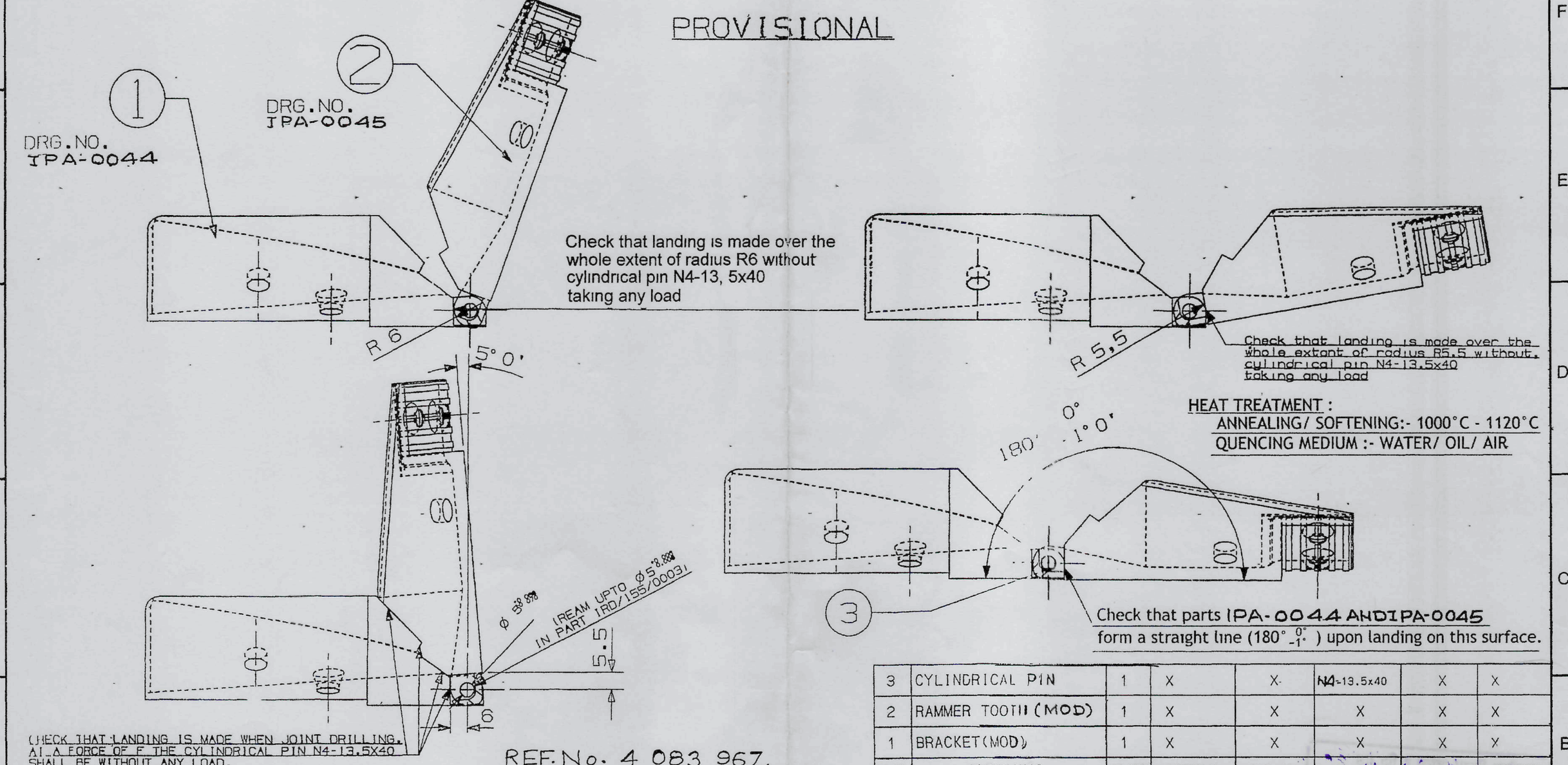
DS CAT No	PART No	DESCRIPTION	No. PER ASSY.	DESIGNER'S REFERENCE
		SCHEDULE OF PARTS		
	IPA-0040	KIT MOD. LOADING TROUGH		CQA/WPN/2370
	IPA-0041	RAMMER TOOTH ASSY. (MOD.)	1	CQA/WPN/2371
	IPA-0042	LOADING TROUGH RAMMER (MOD.) WELDING & MACHINING DRG.	1	CQA/WPN/2371/1
	IPA-0043	PLATE (MOD.)	1	CQA/WPN/2371/2
	JPA-0044	BRACKET (MOD.)	1	CQA/WPN/2371/3
	IPA-0045	RAMMER TOOTH (MOD.)	1	CQA/WPN/2371/4
	IPA-0046	GABLE (MOD.)	1	CQA/WPN/2371/5
	IPA-0060	INSERT	1	CQA/WPN/2494

DATE	AUTHORITY	NATURE	SIG AHSP	SIG DO	DESIGNER'S REFERENCE
CQA(W) JABALPUR					
13-04-15	19397-W	PART NO. AMENDED & IPA-0060 PART ADDED			PREPARED
13-2-12	19237-W	PART No. ADDED.			SCANNED
28-10-11	19229-W	PROV. SEALING ADDED			CHECKED
23-8-11		NEW SCHEDULE PREPARED			PKR
					CQA/WPN-2370
AMENDMENTS					PART No. IPA-0040
SCHEDULE SEALED :- PROV. SEALED 19229-W DATED: 28-10-11				JAB 17.1.12 FOR CQA(W)	SCHEDULE No.

PART No
IPA-0041

DRAWING CONVENTIONS CONFORM TO SP - 46
DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED

PROVISIONAL



HEAT TREATMENT :
ANNEALING/ SOFTENING:- 1000°C - 1120°C
QUENCING MEDIUM :- WATER/ OIL/ AIR

PT. NO.	NOMENCLATURE	NO. OFF	MATERIAL	HARDNESS	STANDARD	SIZE	REMARKS
3	CYLINDRICAL PIN	1	X	X	N4-13.5x40	X	X
2	RAMMER TOOTH (MOD)	1	X	X	X	X	X
1	BRACKET (MOD)	1	X	X	X	X	X

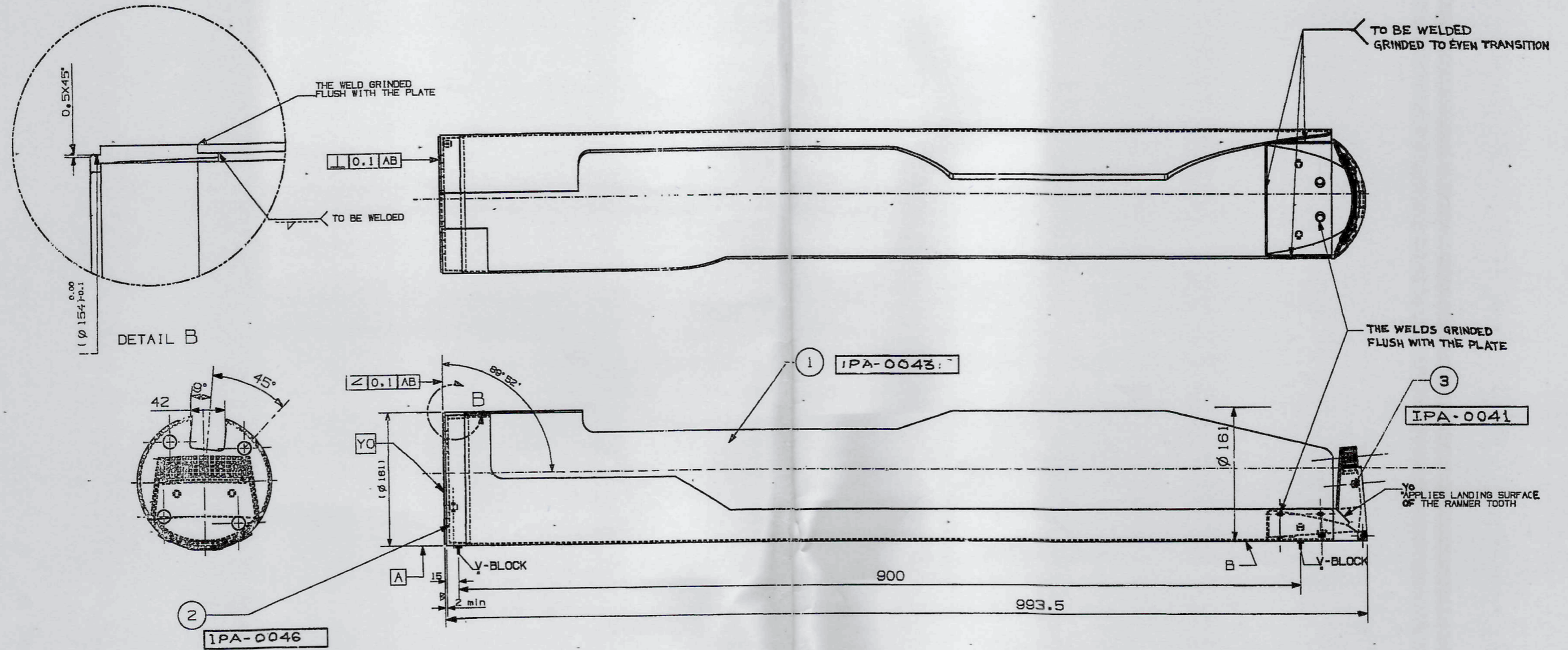
13-2-12	19237-W	PART No. ADDED & ZONE C/1-2, E-8, E-7 & BC/3-4 (i) & (ii) AMENDED		<i>[Signature]</i>	DRAWN -	CHD -	ASSY DRG -	CQA(W), JABALPUR
28-10-11	19229-W	PROV. SEALING ADDED		<i>[Signature]</i>	SCANNED - MK	CHD - AKJ	DATE -	
27-8-11		SCANNED & PRINTED WITHOUT CHANGE		<i>[Signature]</i>	<i>[Signature]</i> HOS	AHSP DO FOR CQA(W)	SCALE - NTS	
DATE	AUTHORITY	ZONE	AMENDMENTS	SIG AHSP	SIG DO	MATERIAL -	ESTD mass -	DESIGN No CQA/WPN/2371
PREV DC Nos -						PROTECTIVE FINISH -		PART No IPA-0041
DRG SEALED - PROV. SEALED 19229-W DATED:- 28-10-11						RAMMER TOOTH ASSY (MOD) (155/39 - BMCS)		DS CAT No

DO CQA(W)

PART No.
IPA-0042

DRAWING CONVENTIONS CONFORM TO SP-46
DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.

PROVISIONAL



- * SHOT BLASTED Sd 2.5, WAPOUR DEGREASED WITH WB-28, Y4-36-2.
- * AFTER SURFACE TREATING CHECK THAT THE RAMMER TOOTH JOINT DOES NOT BIND. IF NECESSARY REMOVE THE PIN AND REMOVE EXCESS POINT.
- * HT AT 420° C

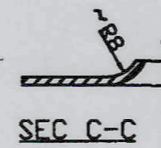
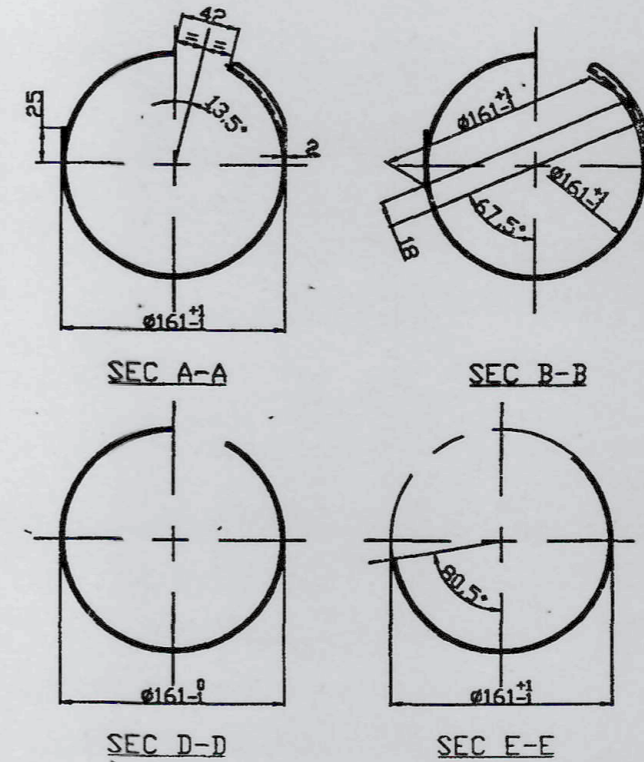
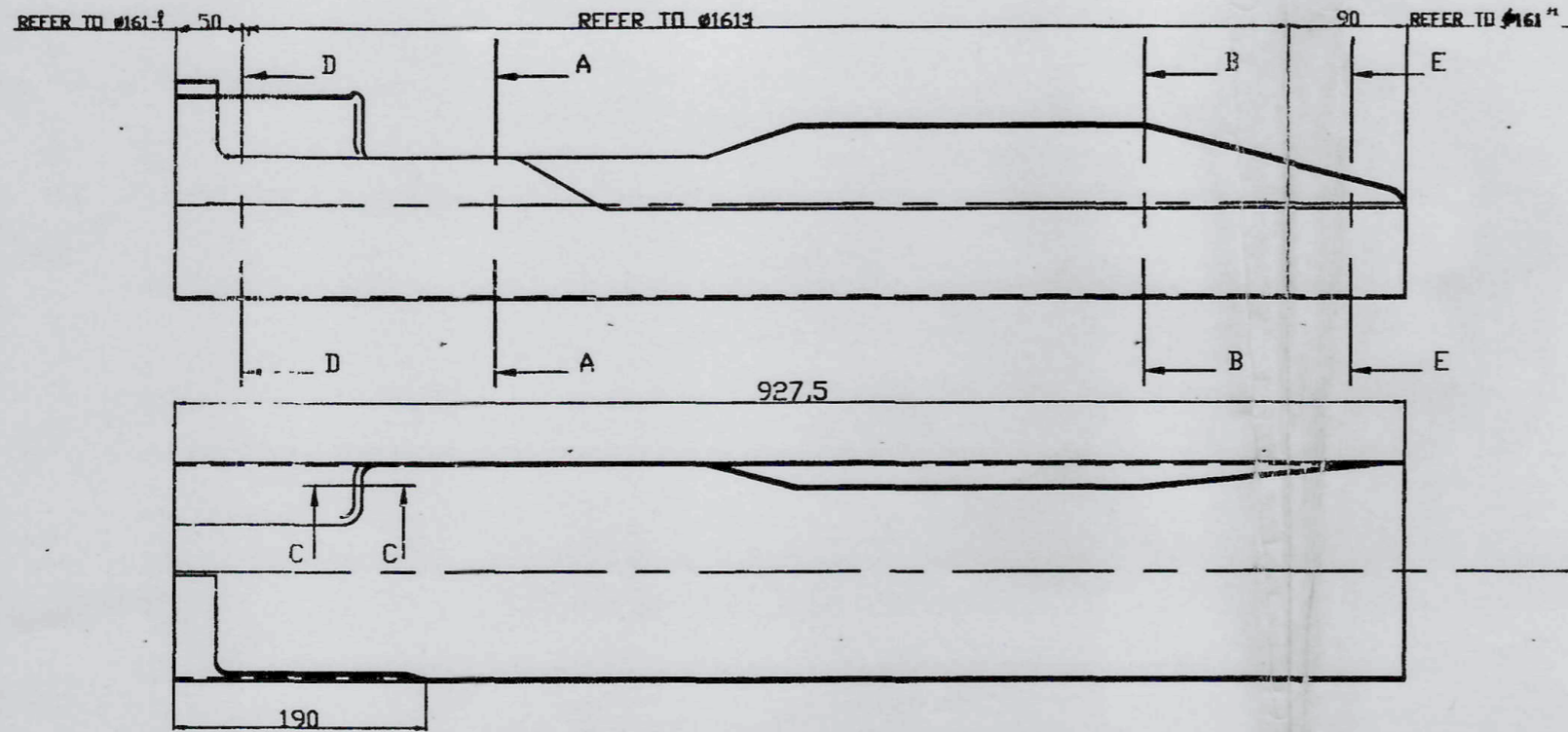
REF. No. 3 053 681

PT. NO.	NOMENCLATURE	NO. OF	MATERIAL	HARDNESS	STANDARD	SIZE	REMARKS
3	RAMMER TOOTH ASSY	1	---	---	---	---	---
2	GABLE	1	---	---	---	---	---
1	PLATE	1	---	---	---	---	---

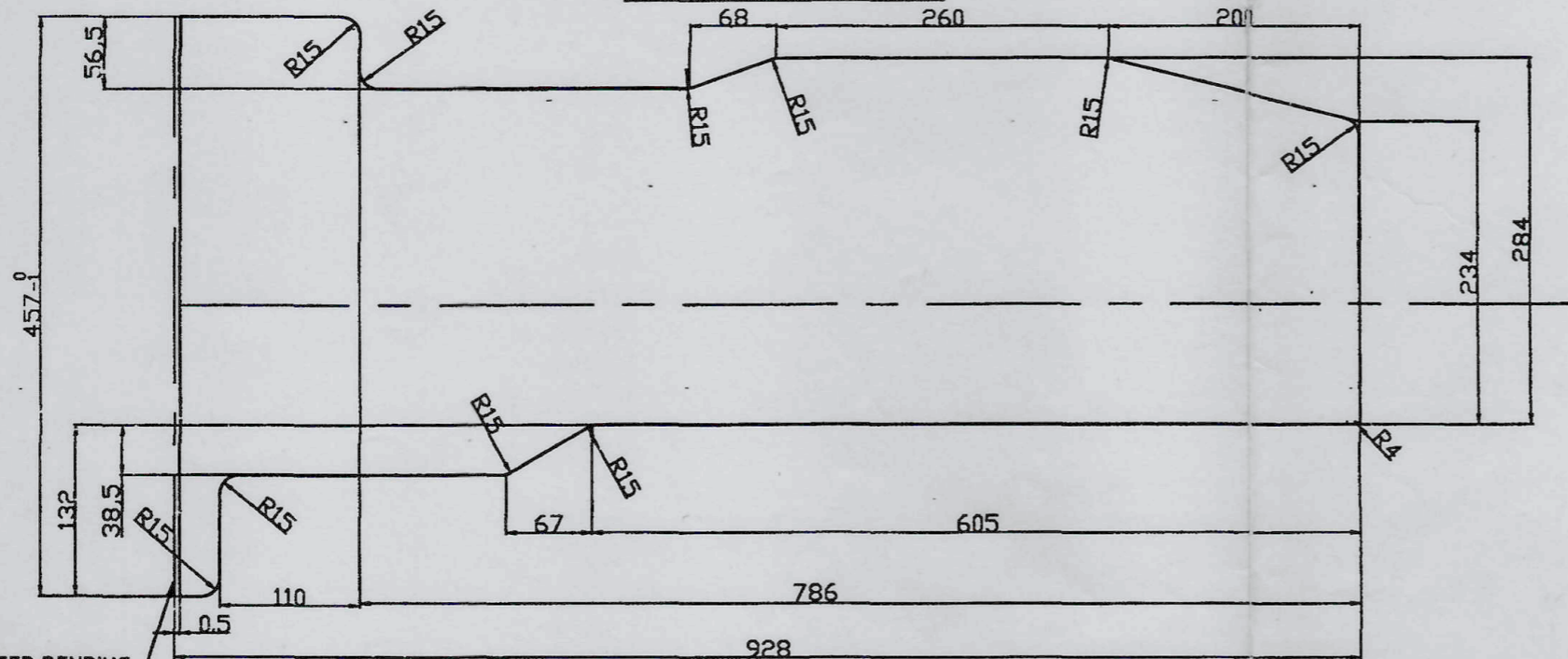
13-2-12	19237-W-	PART No. & ASSY DRG No ADDED & ZONE B-7, D-4, D-1 AMENDED			DRAWN -	CHD -	ASSY DRG - IPA-0040	CQA(W), JABALPUR
28-10-11	19229-W	PROV SEALING ADDED.			SCANNED - MK	CHD - AKJ	DATE -	
27-8-11		SCANNED & PRINTED WITH CHANGE			H.O.S.	DO	SCALE - NTS	
DATE	AUTHORITY	ZONE	AMENDMENTS	SIG AHSP	SIG DO	MATERIAL -	ESTD mass -	DESIGN No CQA/WPN/2371/1
PREV DC Nos -						PROTECTIVE FINISH -		PART No IPA-0042
DRG SEALED - PROV. SEALED - 19229-W DATED:- 28-10-11						LOADING TROUGH/ RAMMER (MOD) (155/ 39 - BMCS)		DS CAT No
						WELDING AND MACHINING DRAWING		

PART No
IPA-0043

DRAWING CONVENTIONS CONFORM TO SP:46
DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED



DEVELOPMENT OF PLATE



***MATERIAL:-**
 IS:6911-1992 DESIGN X07Cr18Ni9
 (WORK HARDEND) TO Rm=890 MPa (MIN)
 Rp0.2=550 MPa
 OR
 STEEL GRADE X02 Cr17Ni12Mo2;
 IS: 6911-1992 (RE-AFFIRMED-2004)

HEAT TREATMENT:
 ANNEALING/ SOFTENING:- 1000°C - 1120°C
 QUENCING MEDIUM :- WATER/ OIL/ AIR

REF.No. 3053 682

AFTER BENDING
SQUARE FINISH

1	MODIFIED PLATE	1	*	-	-	AS SHOWN	-
P.No.	NOMENCLATURE	No. OFF	MATERIAL	HARDNESS	STANDARD	SIZE	REMARKS

DATE	AUTHORITY	ZONE	AMENDMENTS	SIG AHSP	SIG DO
06-1-16	19471-W		MATL AMENDED		
13-2-12	19237-W		PART No. & ASSY DFG No ADDED		
28-10-11	19229-W		PROV. SEALING ADDED		
27-8-11			SCANNED & PRINTED WITHOUT CHANGE		
PREV DC Nos -					
DRG SEALED - PROV. SEALED 19229-W DATED:- 28-10-11					

DRAWN - CHD -	ASSY DRG - IPA-0040
SCANNED - MK	DATE -
AHSP	SCALE - NTS
HOS	ESTD mass -
DO	FOR CQA(W)
MATERIAL * AS ABOVE	
PROTECTIVE FINISH -	

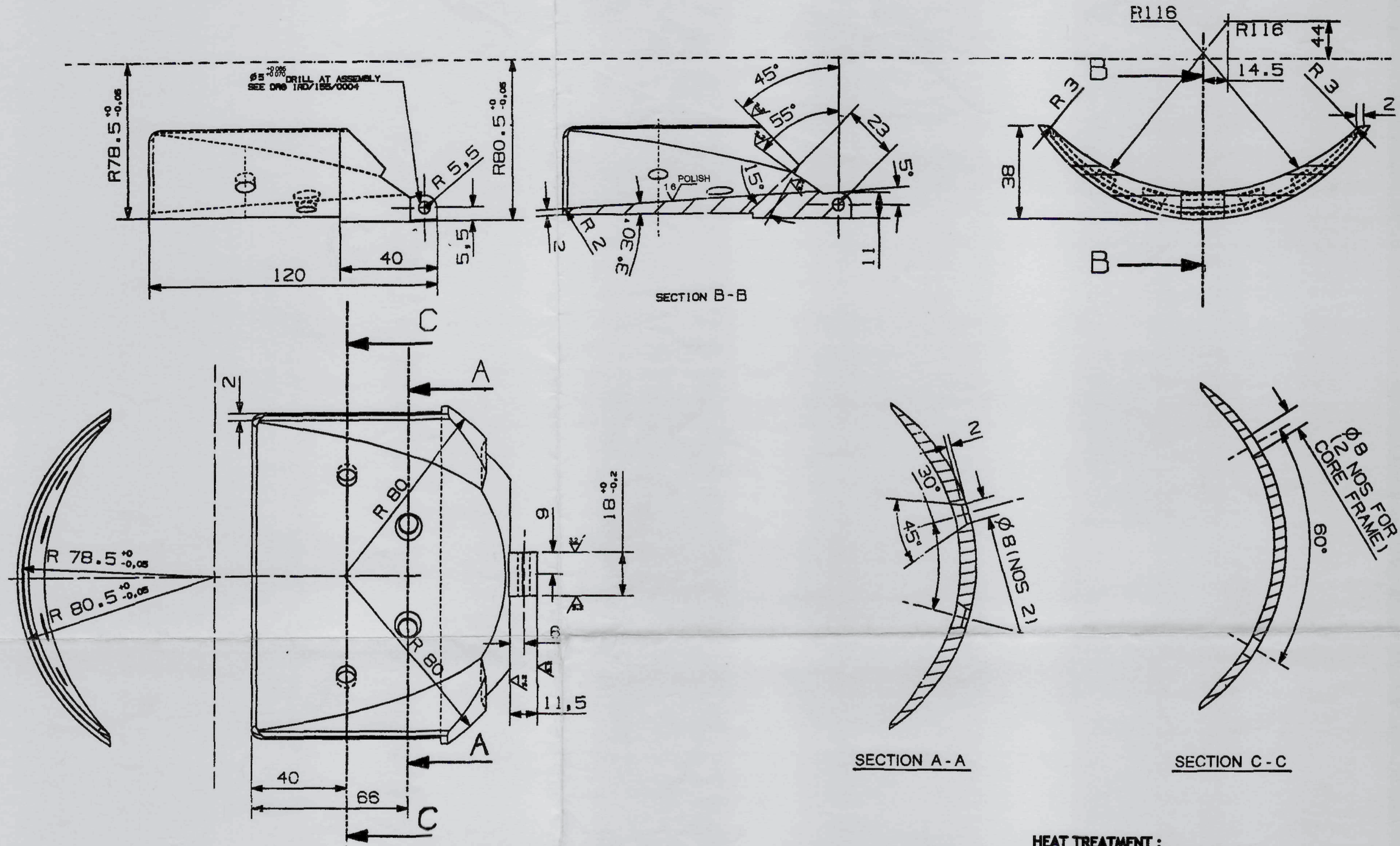
CQA(W), JABALPUR	
DESIGN No	CQA/WPN/2371/2
PART No	IPA-0043
DS CAT No	

PLATE (MOD)
(155/ 39 - BMCS)

PART No
IPA-0044

DRAWING CONVENTIONS CONFORM TO SP 46
DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED

PROVISIONAL



* MATERIAL:-
 BS:3100-76 Gr309C32 OR
 IS:9516-80 Gr X15Cr24Ni13 OR
 STEEL GRADE X02Cr17Ni12Mo2;
 IS:6911-1992(RE-AFFIRMED-2004)

HEAT TREATMENT:
 ANNEALING/ SOFTENING- 1000°C - 1120°C TEMPRETURE
 QUENCHING MEDIA- WATER/OIL/ AIR

NOTE:- INSPECTION AND DELIVERY SPEC: A2017,
 COMMERCIAL QUALITY. X-RAY TESTING
 FIRST PART SAMPLES ONLY CASTING
 TOLERANCES ACC TO SS722 GTA 13
 UNLESS OTHERWISE STATED.

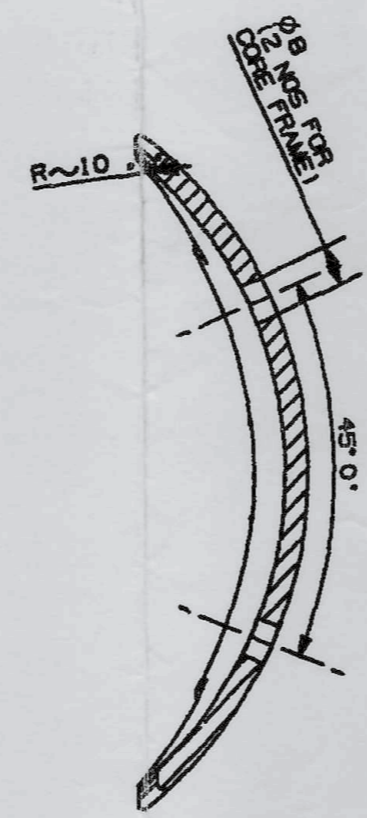
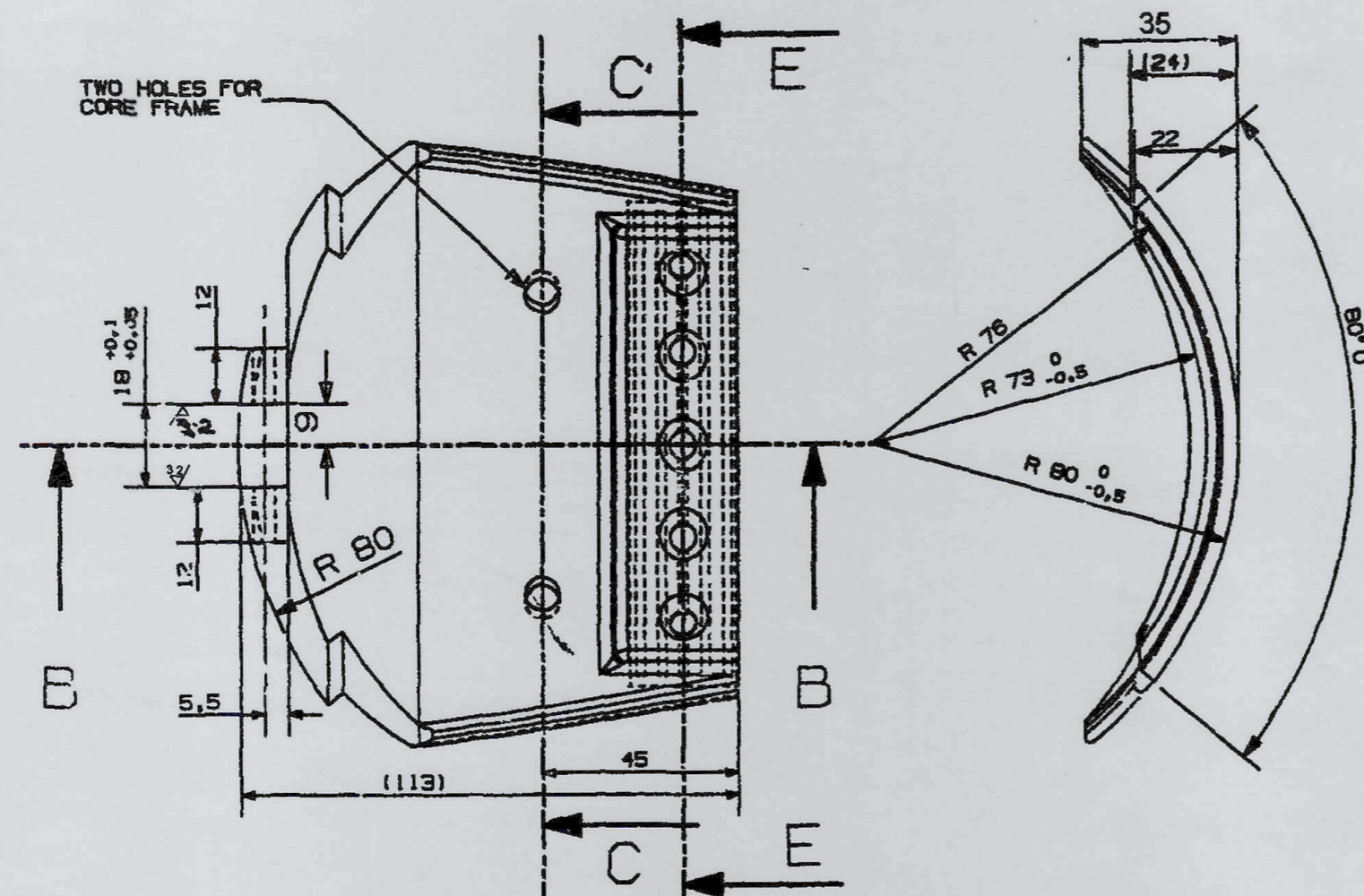
REF.No. 4 080 765.

1		MODIFIED BRACKET	1	*	X	X	AS SHOWN	X
PT. NO.	NOMENCLATURE		NO. OFF	MATERIAL	HARDNESS	STANDARD	SIZE	REMARKS
06-1-16	19471-W	MATL AMENDED						
13-2-12	19237-W	PART No. & ASSY DRG No ADDED						
28-10-11	19229-W	PROV SEALING ADDED						
27-8-11		SCANNED & PRINTED WITHOUT CHANGE						
DATE	AUTHORITY	ZONE	AMENDMENTS	SIG AHSP	SIG DO	MATERIAL * AS ABOVE.	DESIGN No CQA(W), JABALPUR	
PREV DC Nos -			PROTECTIVE FINISH -			SCALE - NTS		
DRG SEALED - PROV. SEALED 19229-W DATED: 28-10-11			DO CQA(W)			ESTD mass -		
BRACKET (MOD)							DESIGN No CQA/WPN/2371/3	
(155/ 39 - BMCS)							PART No IPA-0044	
							DS CAT No	

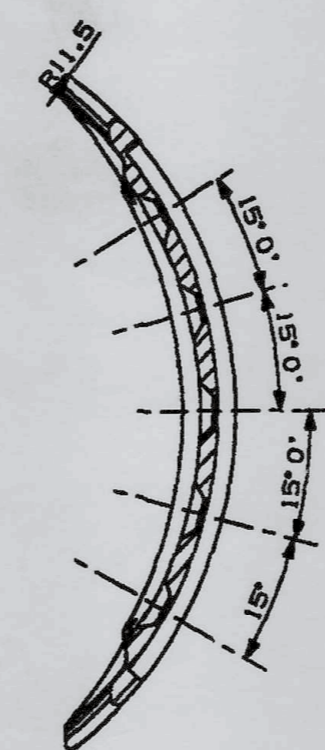
PART No
IPA-0045

DRAWING CONVENTIONS CONFORM TO SP-46
DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED

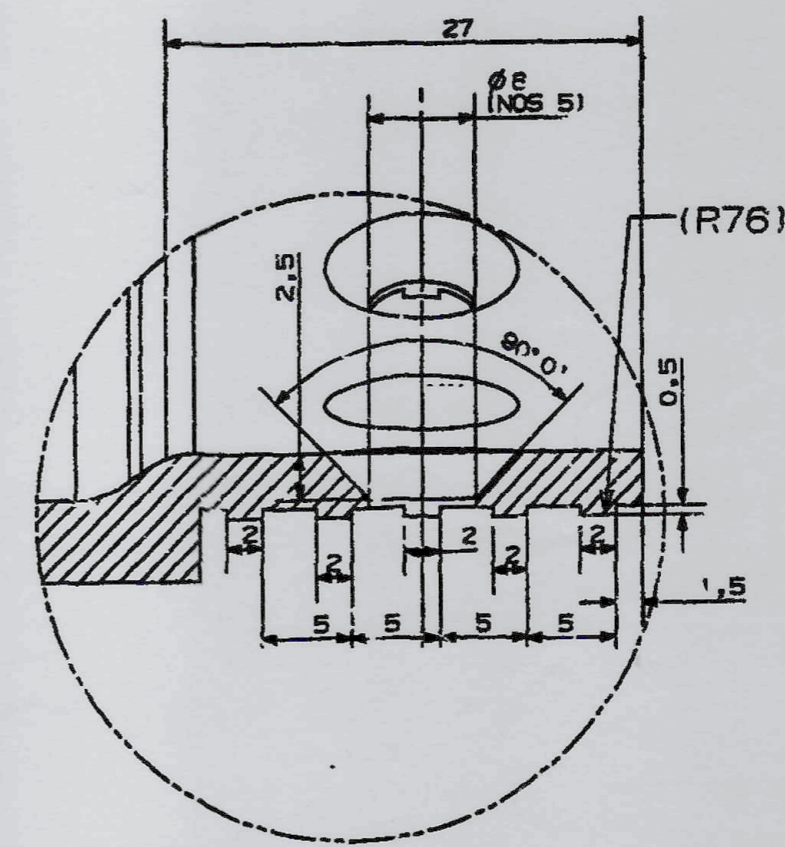
PROVISIONAL



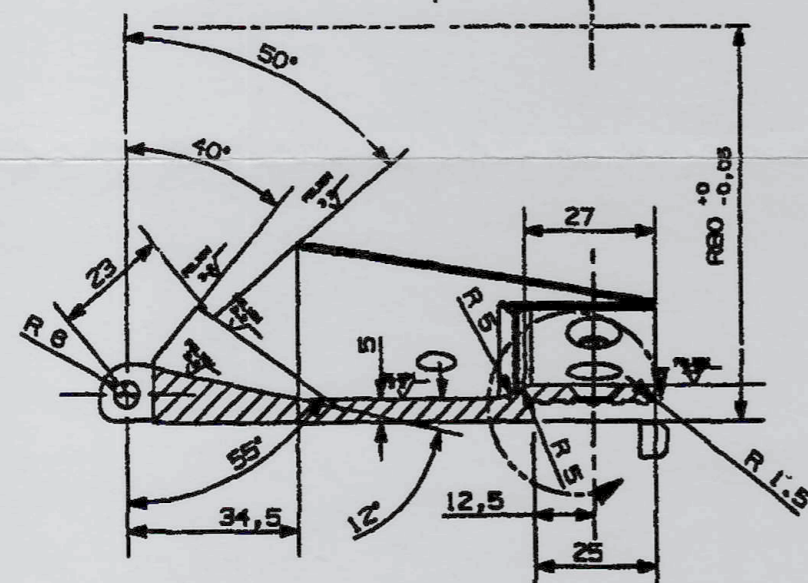
SECTION C-C



SECTION E-E

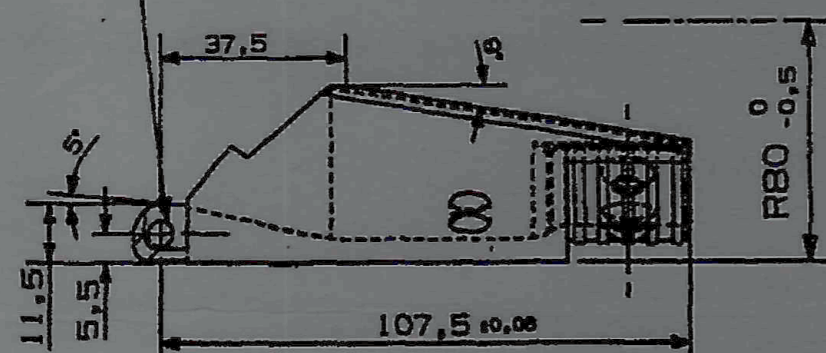


DETAIL D



SECTION B-B

Ø 5^{+0.000} DRILL AT ASSEMBLY
SEE DRG. 1RD/155/0013



MATERIAL:-

BS:3100-76 Gr 309C32 OR IS:9516-80
Gr X15Cr24Ni13 OR STEEL GRADE
X02Cr17Ni12Mo2; IS:6911-1992
(RE-AFFIRMED-2004)

NOTE:- Inspection and delivery spec:a2017,
commercial quality, X-ray testing
first part samples only casting
tolerances acc to ss722 GTA13,
unless otherwise stated

HEAT TREATMENT - ANNEALING/ SOFTENING 1000°C - 1120°C
QUENCHING MEDIUM - WATER/OIL/AIR

REF. No. 4 080 764.

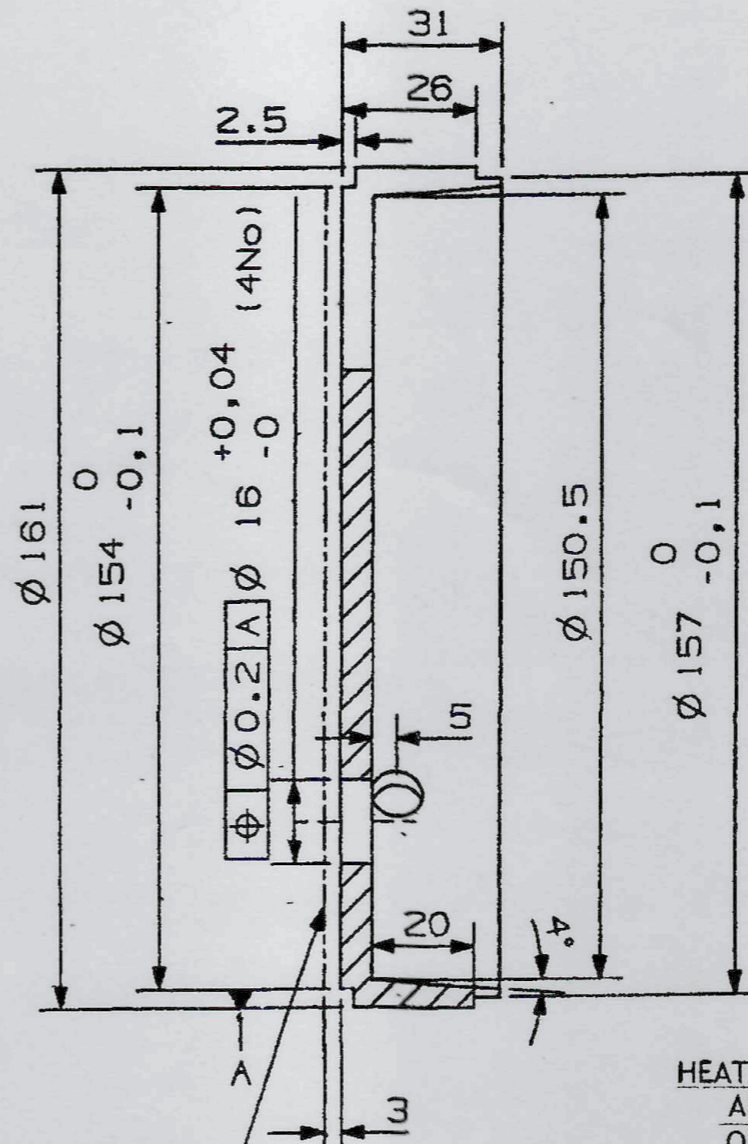
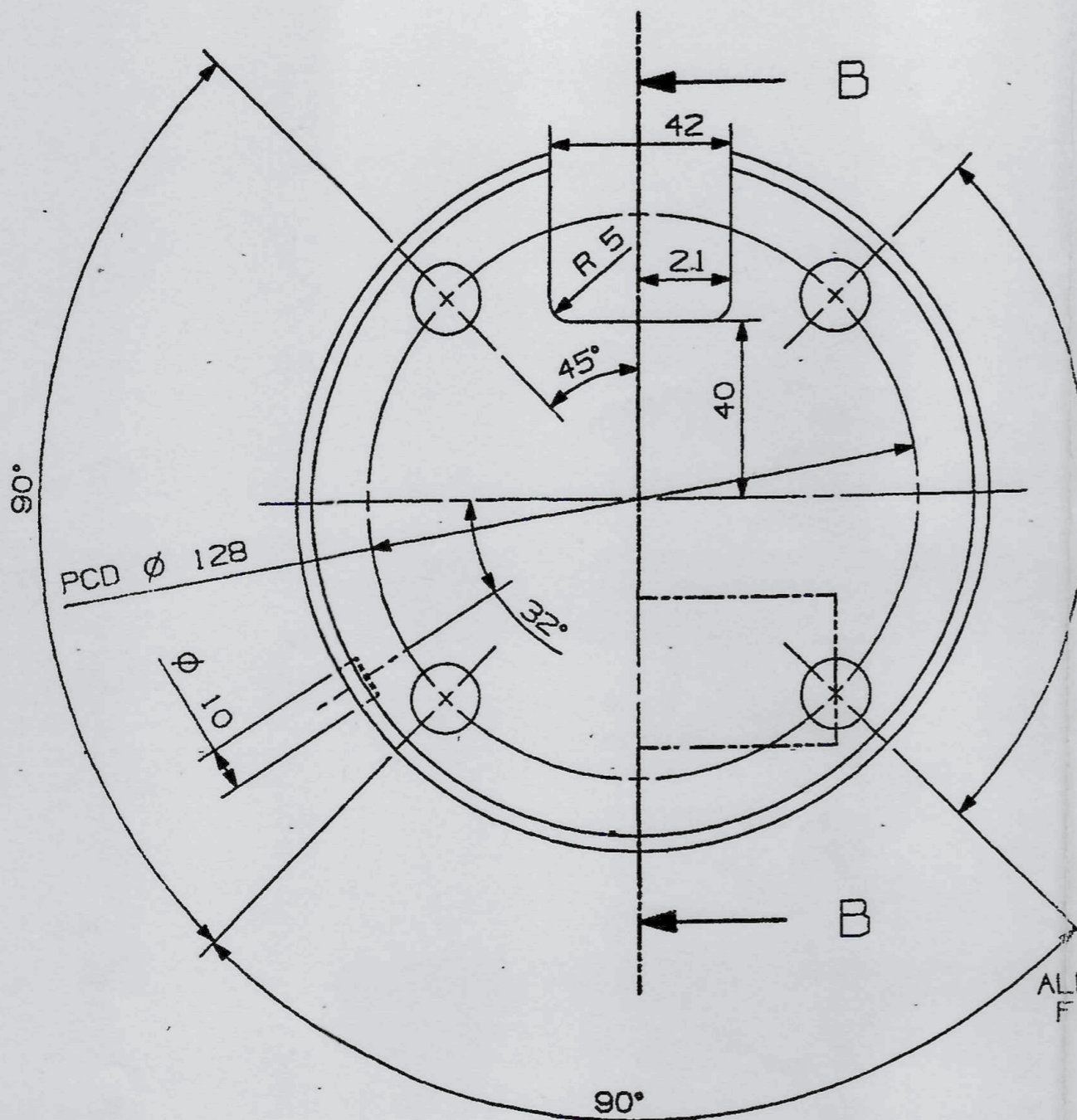
PT No	NOMENCLATURE	No OFF	MATERIAL	HARDNESS	STANDARD	SIZE	REMARKS
1	MODIFIED RAMMER TOOTH	1	*	*	X	AS SHOWN	X

06-1-16	19471-W	MATL AMENDED	DRAWN -	CHD -	ASSY DRG - IPA-0040	CQA(W), JABALPUR	
13-2-12	19237-W	PART No. & ASSY DRG No. ADDED	SCANNED - MK	CHD - AKJ	DATE -		
28-10-11	19229-W	PROV. SEALING ADDED.		AHSP	SCALE - NTS		
27-8-11		SCANNED & PRINTED WITHOUT CHANGE	H.O.S.	DO	FOR CQA(W)	ESTD mass -	
DATE	AUTHORITY	ZONE	AMENDMENTS		MATERIAL - AS ABOVE		DESIGN No
			SIG AHSP	SIG DO	PROTECTIVE FINISH -		CQA/WPN/2371/4
PREV DC Nos -			RAMMER TOOTH (MOD)				PART No
DRG SEALED - PROV. SEALED - 19229-W			155/39 - BMCS				IPA-0045
DATED - 28-10-11							DS CAT No

PART No
IPA-0046

DRAWING CONVENTIONS CONFORM TO SP - 46
DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED

3.2



ALLOWANCE FOR FINAL MACHINING

SECTION B-B

HEAT TREATMENT :
ANNEALING/ SOFTENING:- 1000°C - 1120°C
QUENCING MEDIUM :- WATER/ OIL/ AIR

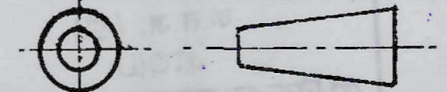
REF.No 4080767

PT. NO.	INOMENCLATURE	NO. OFF	MATERIAL	HARDNESS	STANDARD	SIZE	REMARKS
1	MODIFIED GABLE	1	*	--	--	AS SHOWN	--

DATE	AUTHORITY	ZONE	AMENDMENTS	SIG AHSP	SIG DO
06-1-16	19471-W		MATL AMENDED		
13-2-12	19237-W		PART No. & ASSY DRG No. ADDED.		
28-10-11	19229-W		PROV. SEALING ADDED.		
27-8-11			SCANNED & PRINTED WITHOUT CHANGE		

DRAWN -	CHD -	ASSY DRG -	IPA-0040
SCANNED - MK	CHD - AKJ	DATE -	
HOS	DO	SCALE - NTS	
		ESTD mass -	

CQA(W), JABALPUR

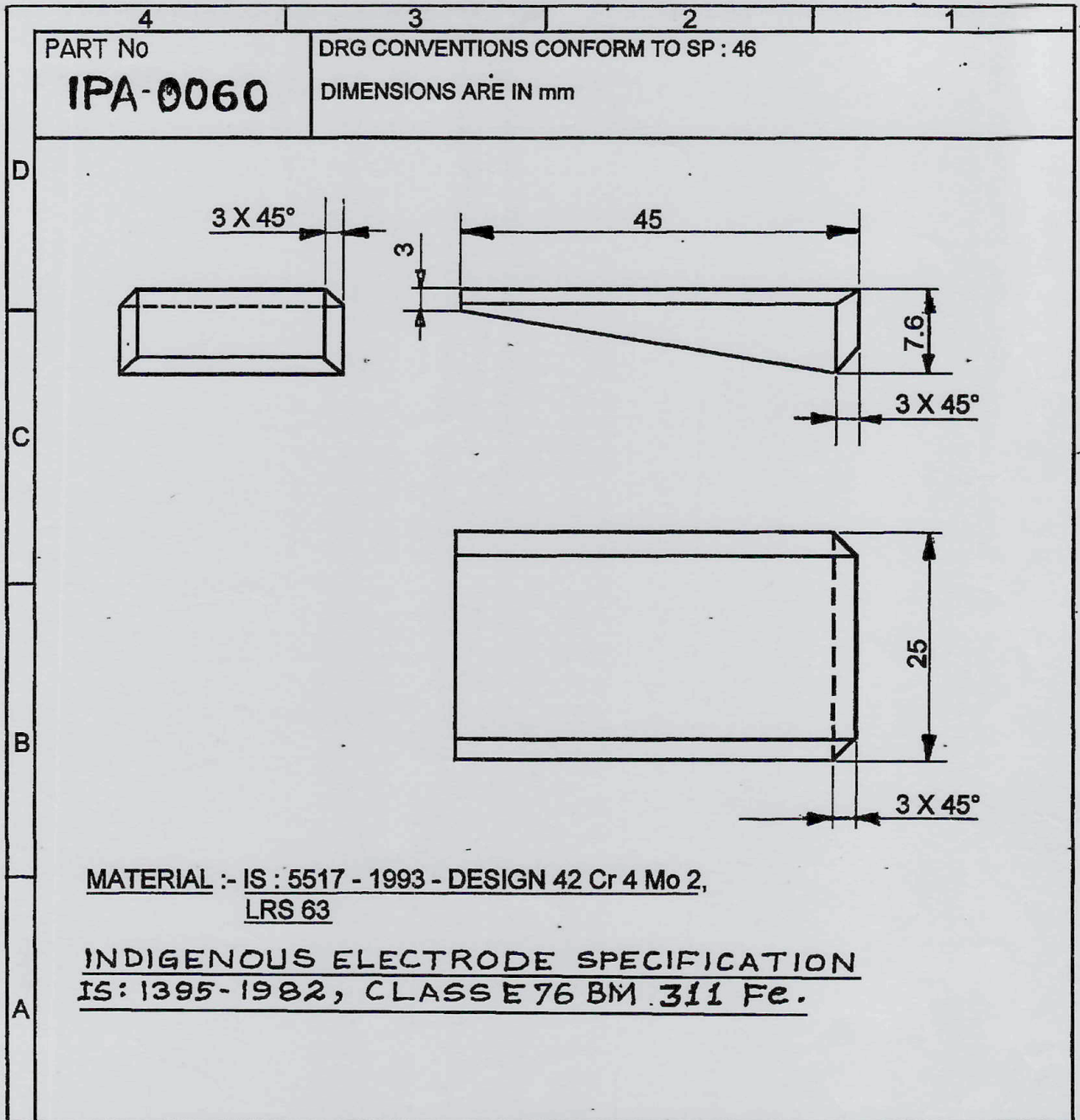


DATE	AUTHORITY	ZONE	AMENDMENTS	SIG AHSP	SIG DO
PREV DC Nos -					
DRG SEALED - PROV. SEALED 19229-W DATED:- 28-10-11					

MATERIAL - 3S:970(PART-1)-1983 Gr 303931 OR STEEL GRADE X02Cr17Ni12Mo2 1S: 6911-1992(RE-AFFIRMED-2004)
PROTECTIVE FINISH -

GABLE (MOD)
(155/39 - BMCS)

DESIGN No
CQA/WPN/2371/5
PART No
IPA-0046
DS CAT No



7-7-15	19432-W	DRG SEALED PROV.			CQA(W), JABALPUR
9-1-15	3C2801/caaw/ DGA A ppl	PART No. ADDED.			DRN
20-11-12		SCANNED & PRINTED WITHOUT CHANGE			CHD
DATE	AUTH	AMENDMENTS	SIG AHSP	SIG DO.	SCANNED :- PKA
PREV DC Nos:-					CHD:- <i>P.R. Vagh</i>
DRG SEALED :- (PROV.) 19432-W, DT. 7-7-15					AHSP
SCALE :- NTS					H O S
ESTD mass					FOR CQAW
DATE :-					ASSY DRG.
MATERIAL :- AS ABOVE					CQA/WPN/2495
PROT FINISH :-					DESIGN No.
INSERT					CQA / WPN / 2494
					PART No IPA - 0060
					DS CAT No.