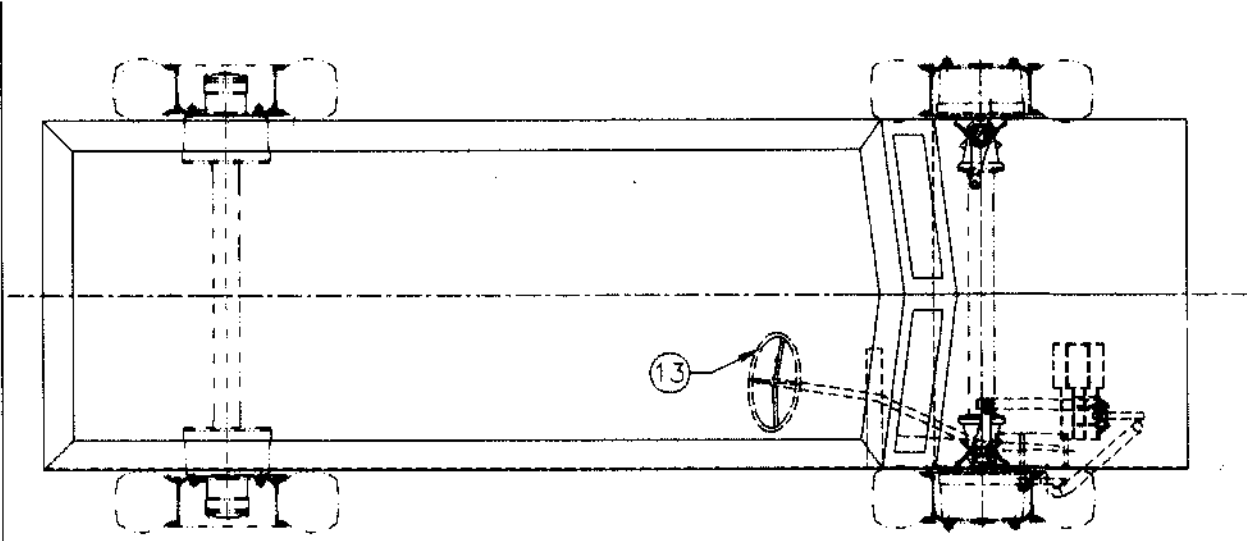
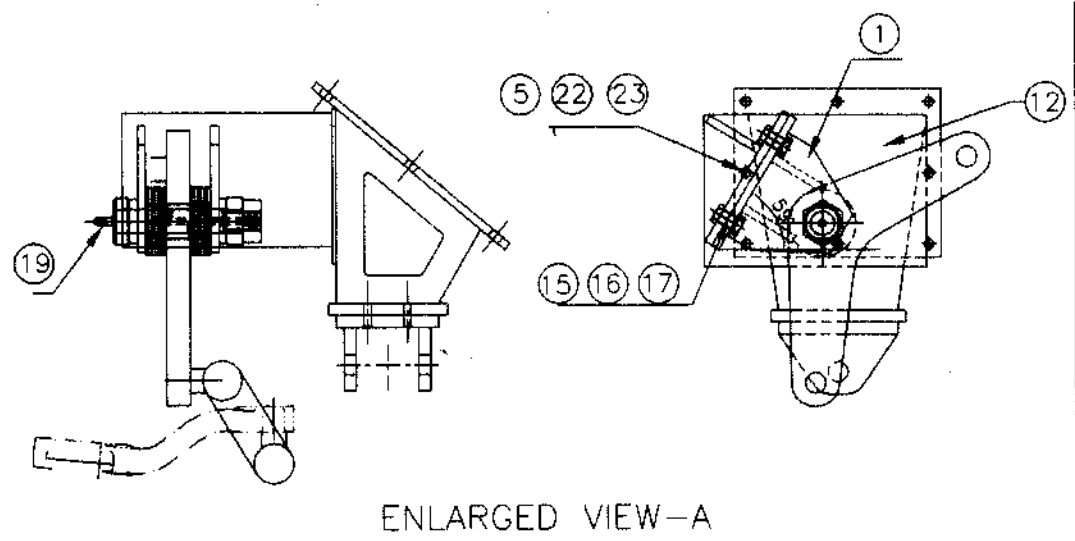
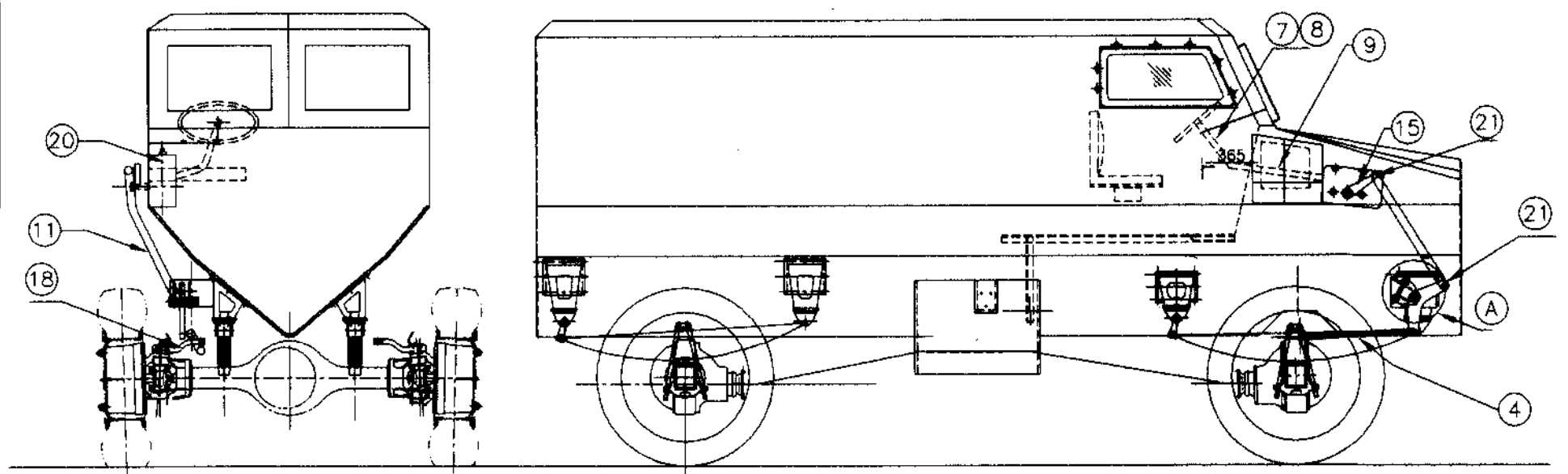


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 OR DISCLOSURE IN WHOLE OR IN PART
 IS SUBJECT TO THE PRIOR WRITTEN
 CONSENT OF THE GENERAL MANAGER,
 ORDNANCE FACTORY, MEDAK
 DATE: 23/03/07 D.O. HOS



01/04

QTY./VEH.	1
USED ON	640-00-1000-1

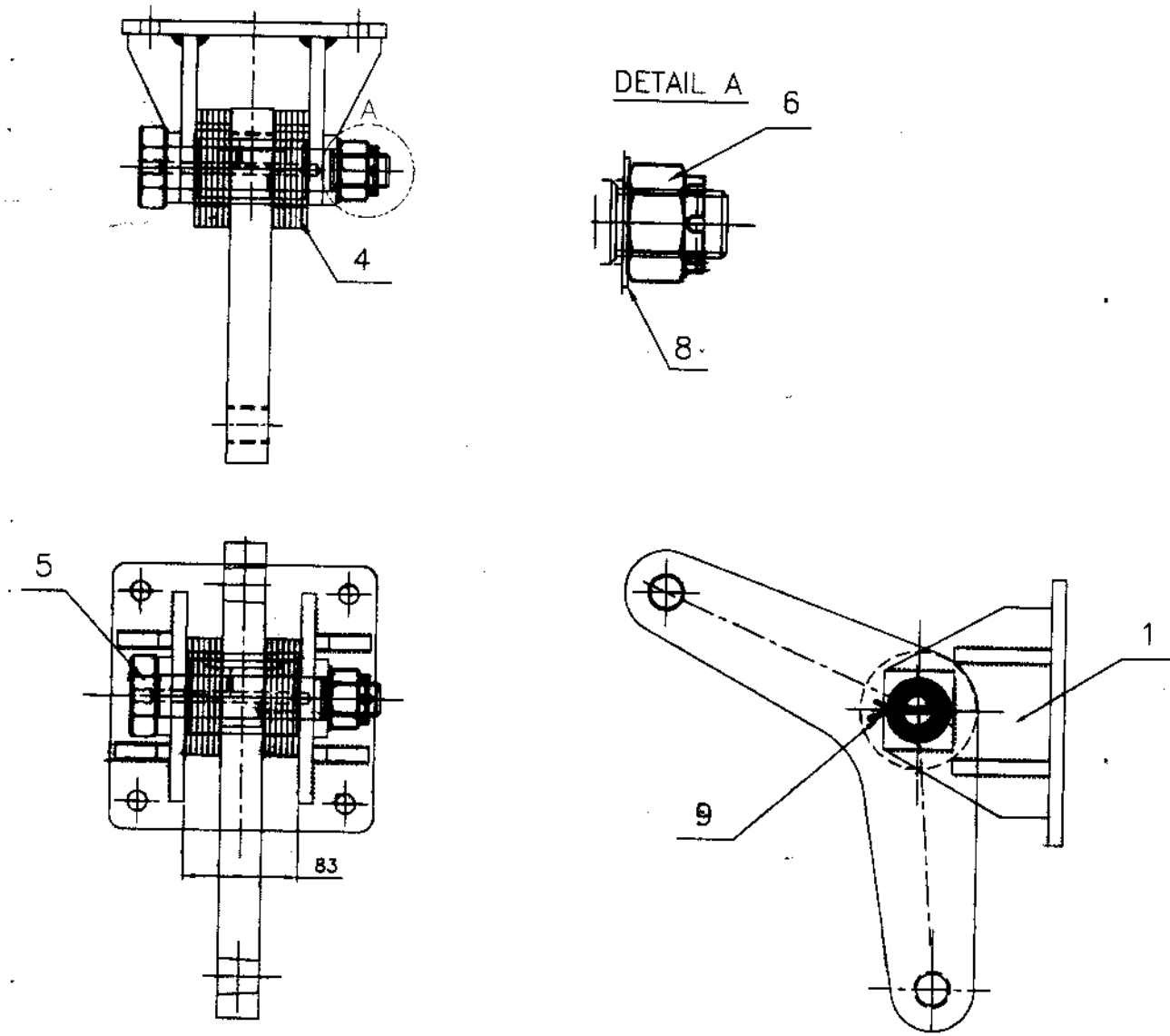
12	640-04-1112-1	PLATE	1	
11	81.46610.6296	DRAG LINK 40x40	1	B.O. ITEM
10				
9	620-04-1124	CONNECTING ROD, LOWER	1	
8	620-04-1123	CONNECTING ROD, UPPER	1	
7	620-04-1121	PIPE (STEERING COLUMN)	1	
6				
5	620-04-1105-1	BASE PLATE	1	
4	640-04-1106-1	MODIFIED STALLION DRAG LINK TO DWG NO: X3218415		(MODIFICATION AT OFPM)
3				
2				
1	610-04-1100-1	CRANK ARM BRACKET ASSY.	1	
SL. NO.	DRAWING NO.	NOMENCLATURE	QTY./VEH.	REMARKS

23	640-04-1114-1	RIB	4	
22	640-04-1113-1	RIB	2	
21	640-04-1116-1	SPACER	2	IF, REQUIRED
20		STEERING GEAR BOX	1	B.O. ITEM
19		CONICAL HEAD GREASE NIPPLE B M10X1 IS:4009(PART-II)	1	B.O. ITEM
18	610-04-1126-1	STEERING ARM, BASE VEHICLE (MODIFICATION WORK)	1	
17		#12 SPRING WASHER TO IS:1363	8	B.O. ITEM
16		BOSS M14x#24x30L	4	B.O. ITEM
15		HEX.HEAD BOLT M12x35 TO IS:1363	4	B.O. ITEM
14	610-04-1128-1	DROP ARM, STEERING GEAR BOX (MODIFICATION WORK)	1	B.O. ITEM
13		STEERING WHEEL	1	B.O. ITEM
SL. NO.	DRAWING NO.	NOMENCLATURE	QTY./VEH.	REMARKS

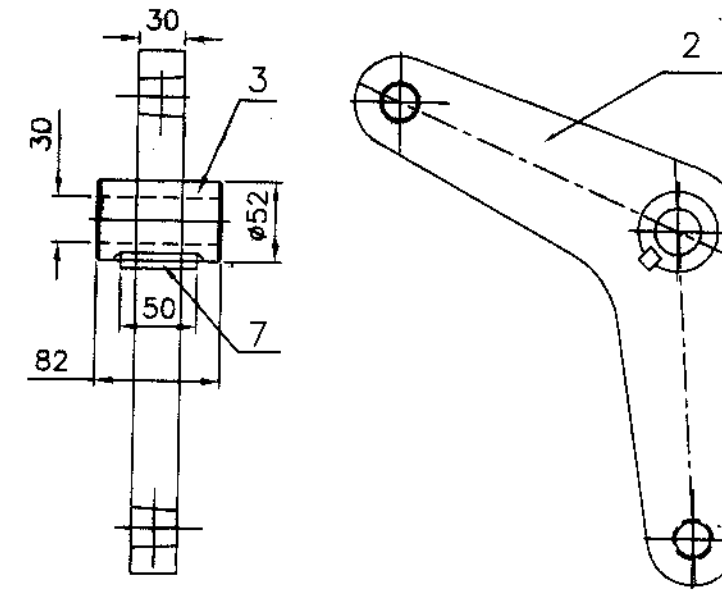
IN PART LIST: AT SL.NO.1 DWG NO. 640-04-1100-1 WAS 640-04-1101-1 AT SL.NO. 2, 3, 6 AND 10, PARTS ARE DELETED AT SL.NO.12 DWG NO. 640-04-1112-1 WAS 640-04-1125-1 AT SL.NO. 22 AND 23, PARTS ARE NEWLY ADDED.		USED ON 640-00-1000-1
AUTHD BPB APRD. SKV CHKD. JP DRWN. MVK	ISSUE APPRD. NAME SIGN DATE	NATURE OF AMENDMENT DRG. NO: 640-04-1000-1/A STEERING SYSTEM (MINE PROTECTED VEHICLE) MATERIAL:
ORDNANCE FACTORY MEDAK	SHEET NO SCALE WEIGHT 	FIRST ANGLE PROJECTION

MPV/ARMY/MOD/043/A

D:\MVK\MPV\04-CODE\640-04-1100-1



BUSH AND CRANK ARM ASSY.
(KEY FITTING)



9	SPLIT PIN ϕ 5X50 - IS: 549	1	
8	SPRING WASHER M24 : IS: 6735	1	
7	620-04-1111-1 KEY	1	
6	620-04-1110-1 CASTLE NUT	1	
5	620-04-1109-1 PIN	1	
4	620-04-1108-1 SPACER	12	
3	610-04-1103-1 BUSH	1	
2	610-04-1101-1 CRANK ARM	1	
1	AMBV/00800-A BRACKET, CRANK ARM	1	
SL. NO.	DRAWING NO.	NOMENCLATURE	QTY./VEH.

NOTE:

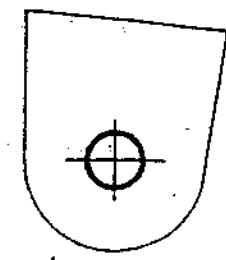
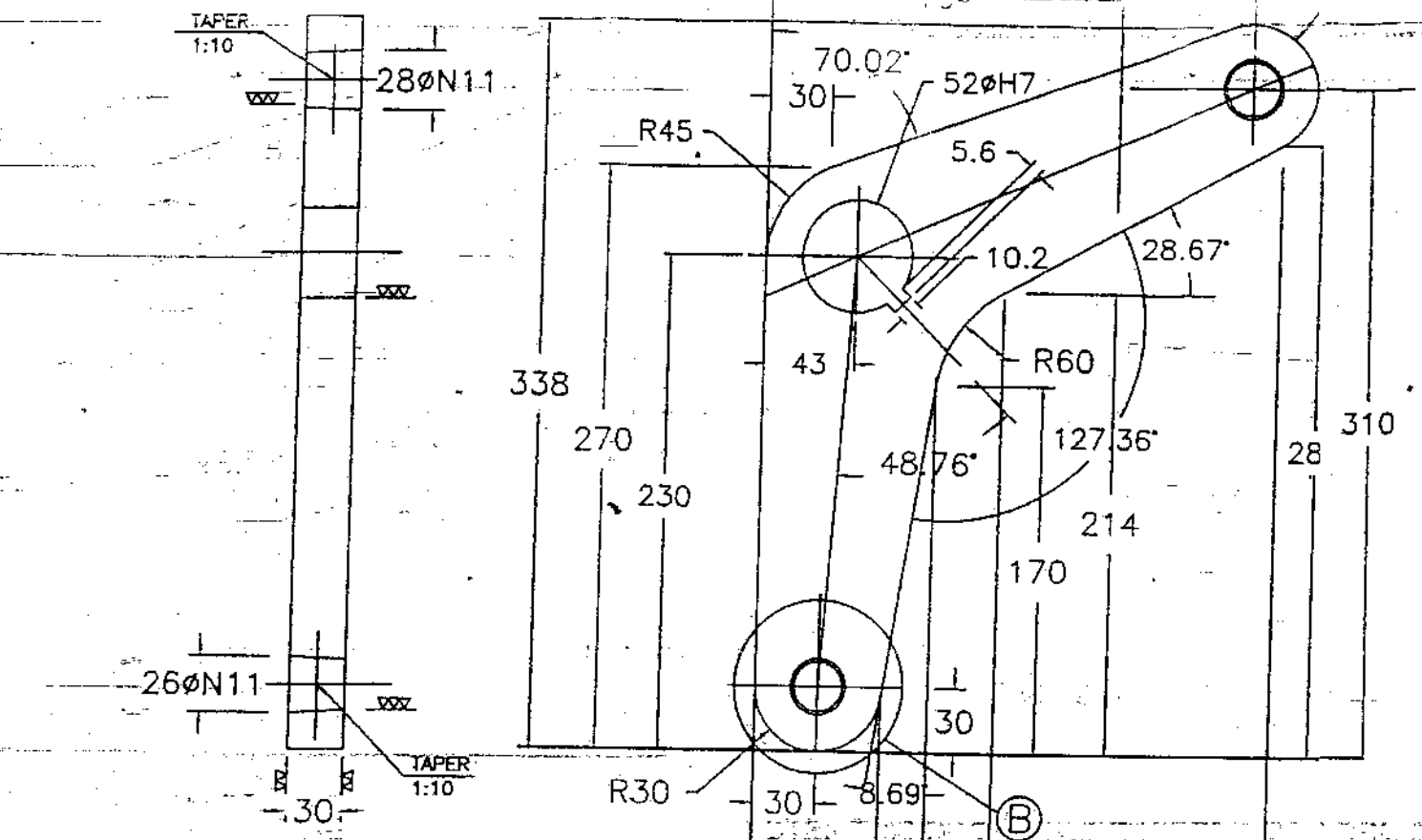
1. ALL THE DIMENSIONS ARE IN mm.
2. ALL THE COMPONENTS ARE TO BE ASSEMBLED IN THE SAME SECTION AND ASSEMBLY HAS TO BE SUPPLIED TO MPV-SECTION.
3. THE CRANK ARM(610-04-1101-1) HAS TO BE FITTED ON BUSH (610-04-1103-1) WITH KEY.
4. BUSH AND CRANK ARM ASSY IS TO BE FREELY ROTATE ON PIN.

ISSUE	APPRD.	DRG. NO:	640-04-1100-1		
AUTHD. M.K.P.		CRANK ARM BRACKET ASSY (STEERING SYSTEM)	SHEET NO	SCALE	WEIGHT
APRD. S.K.					
CHKD. J.P.					
DRWN. M.V.K. <i>[Signature]</i>					
NAME	SIGN	DATE	MATERIAL:		
ORDNANCE FACTORY MEDAK			THIRD ANGLE PROJECTION		

02/04 02/04

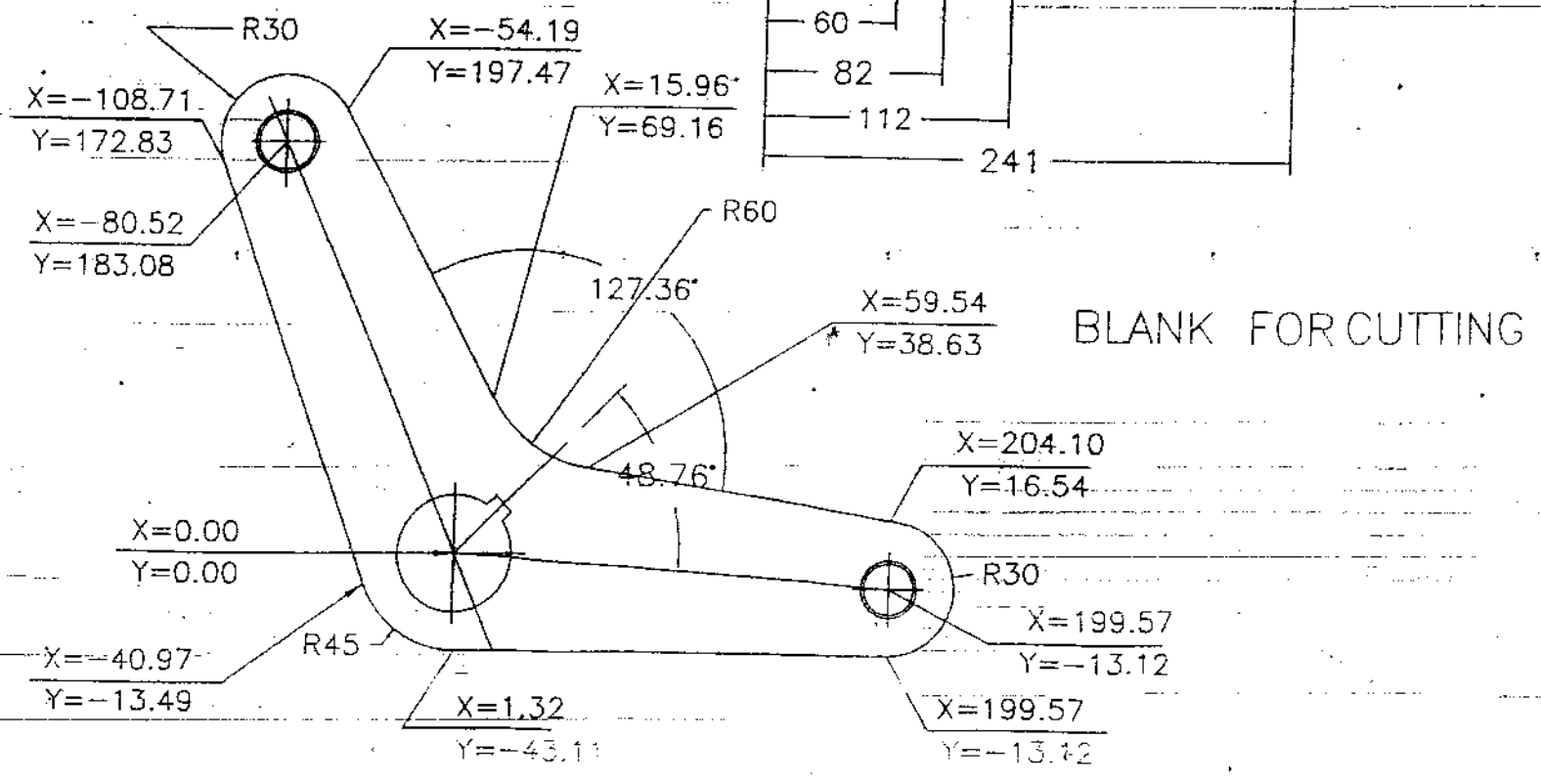
USED ON QTY./VEH. 1
M.P.V.

2. THIS DRAWING IS APPLICABLE ONLY FOR SHAKTIMAN DRAG LINK.



ENLARGED VIEW-B

NOTE:- THIS DRG. ⁵ SUPERSEDES OFM DRG.610-04-1101-1/A



BLANK FOR CUTTING

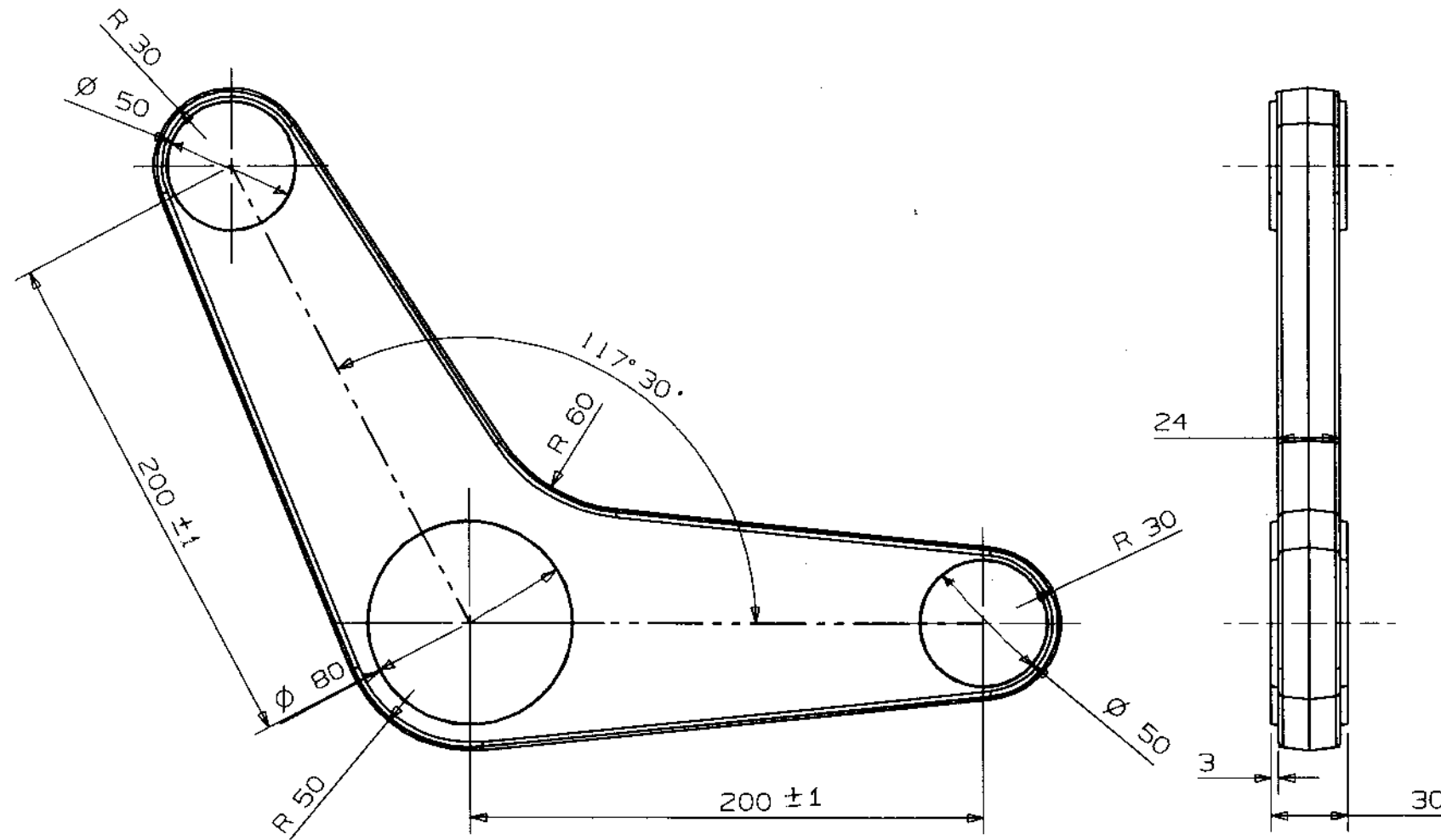
MATERIAL:- 50Cr V4
Alt. Material :- EN-19 (BS.970) +709M40

USED ON	QTY./VEH.
M.M.P.V	1

ITEM	DESCRIPTION	NO. OFF	MAT.	STD.	SIZE/WT.	REMARKS
						JANAKDO
						CHANDER SINGH
INDEX	ALTERATION	DATE	SIGN.	DRN	CKD	APPD.
DIMENS.	TOL.					
1 - 30	±0.1					
30 - 250	±0.2					
250 - 500	±0.3					
500 - 2000	±0.5					
>2000	±0.8					
GEN. TOL.						
VEHICLE FACTORY JAIPUR				MPV/HULL/100/A		

CRANK ARM FOR (STEERING SYSTEM) MPV

610-04-1101-1
 REF.DRG. NO.
 SCALE 1:1
 17/3/06
 DATE
 1/1
 SHEETS



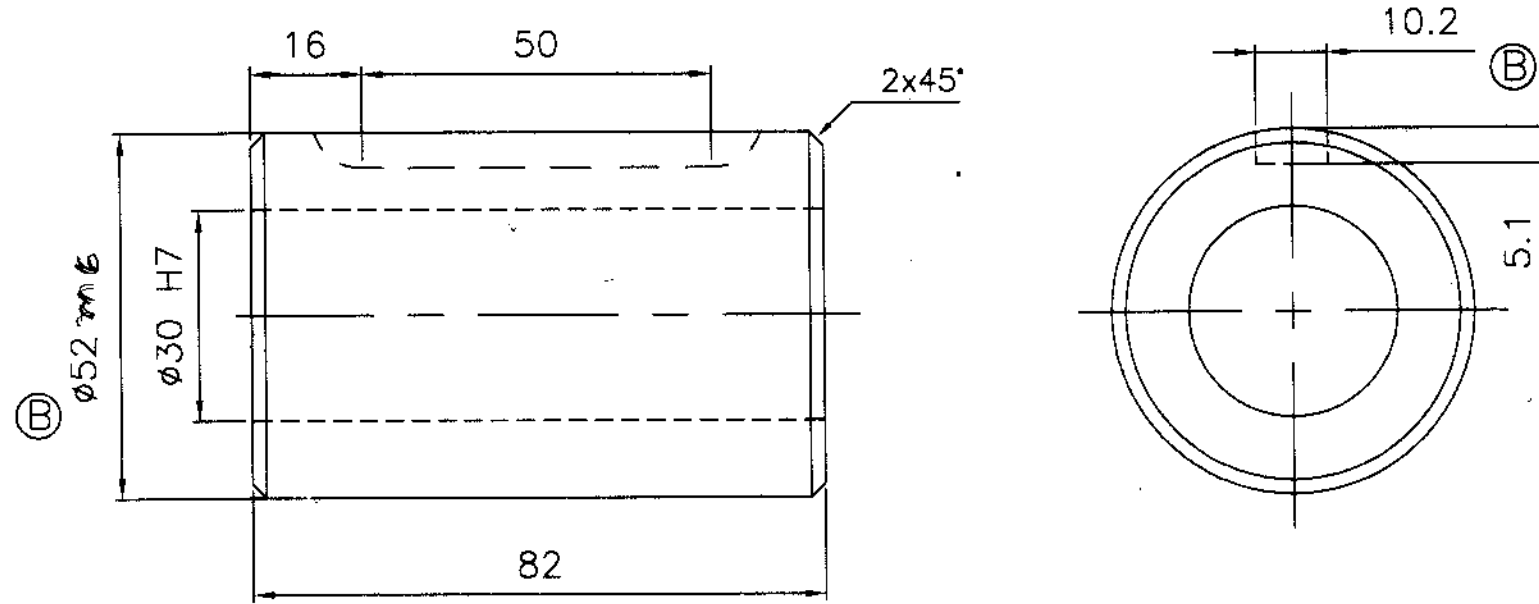
NOTE :

- 1) All dimensions are in mm
- 2) Forging drafts should not exceed 7°
- 3) Heat treat the forging up to 250-285 HB
- 4) Surface defects should not exceed 1mm in depth
- 5) Skewness allowed up to 0.5mm
- 6) Residual Burr should not Exceed 0.5
- 7) Warpage allowed up to 0.5mm
- 8) Dress scale
- 9) Unspecified radii are 2mm

10
QTY/VEH
USED ON
FORG-70-049

ISSUE	APPRO.	NATURE OF AMENDMENT		
		DRG NO: 610-04-1101-2		
APPRO.		CRANK ARM (FORGING)	SHEET No	SCALE
USER	MSP			WEIGHT
CHKD	NSR			
DRAWN	BCD			
	NAME	SIGN	DATE	
ORDNANCE FACTORY MEDAK		MATERIAL: Gr: 35 Ni 5 Cr 2 to IS:4367-91		T P

04/04



NOTE:

1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS are $\pm 0,5\text{mm}$.
3. HARDNESS - 32 TO 35 HRC.
4. COATING : PHOSPHATING, 9 MICRONS THICK.
5. BUSH SHOULD SUIT WITH PIN TO DRG. NO.: 620-04-1109-1 AND WITH CRANK ARM TO DRG. NO: 610-04-1101-1/A.

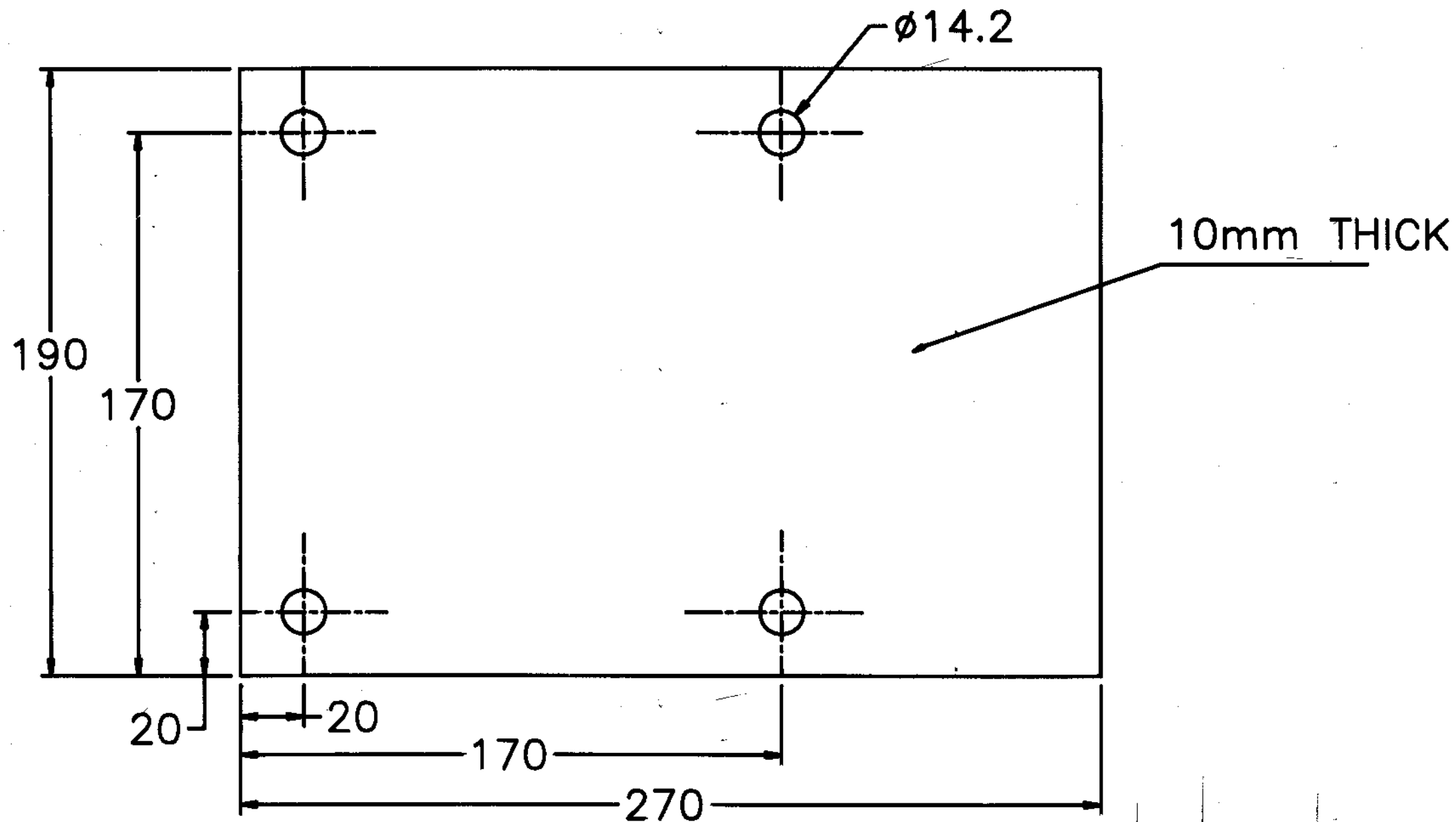
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ISSUE	APPRD.	NATURE OF AMENDMENT	
(B)		1. DIA OF THE BUSH 52 WAS 42. AND KEY WAY IS INTRODUCED NEWLY. 2. IN TECH. NOTES POINT NO. 5 IS AMEDED AND POINT NO: 6 IS DELETED	
(A)		IN TECH. NOTES POINT NO. 5 & 6 ARE ADDED.	
AUTHD.		DRG. NO: 610-04-1103-1/B	
APRD.	M.S.P	ORDNANCE FACTORY MEDAK	SHEET NO
CHKD.	MK		SCALE
DRWN	M.V.K		WEIGHT
	NAME SIGN DATE	MATERIAL: C-45 IS: 3930	

04/04
 04/04
 04/04

ORDNANCE FACTORY MEDAK
 1974-75
 1975-76
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 2021-22
 2022-23
 2023-24
 2024-25



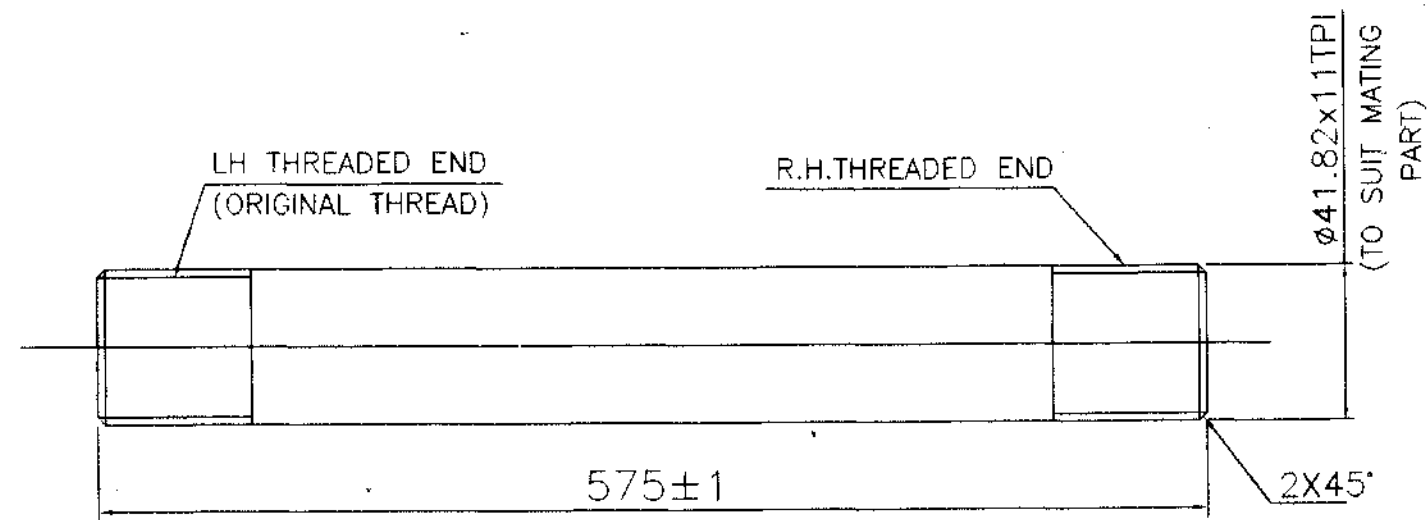
NOTE:

1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS are $\pm 0,5\text{mm}$.
3. ~~Holes are to be made at the time of assembly only.~~

(A) ~~ATINGS: PHOSPHORUS 2microns thick.~~

05/04

ISSUE		APPRD.	NATURE OF AMENDMENT		
AUTHD. BY/ISSD			DRG. NO: 620-04-1105-1/A		
APRD. M.S.P.			BASE PLATE (STEERING SYSTEM)		
CHKD. R.S.E.					
DRWN. M.V.K.			MINE PROTECTION VEHICLE		
NAME		SIGN	DATE	SHEET NO.	SCALE
ORDNANCE FACTORY MEDAK					
MATERIAL:		SE 50-IS:1079 (A)			

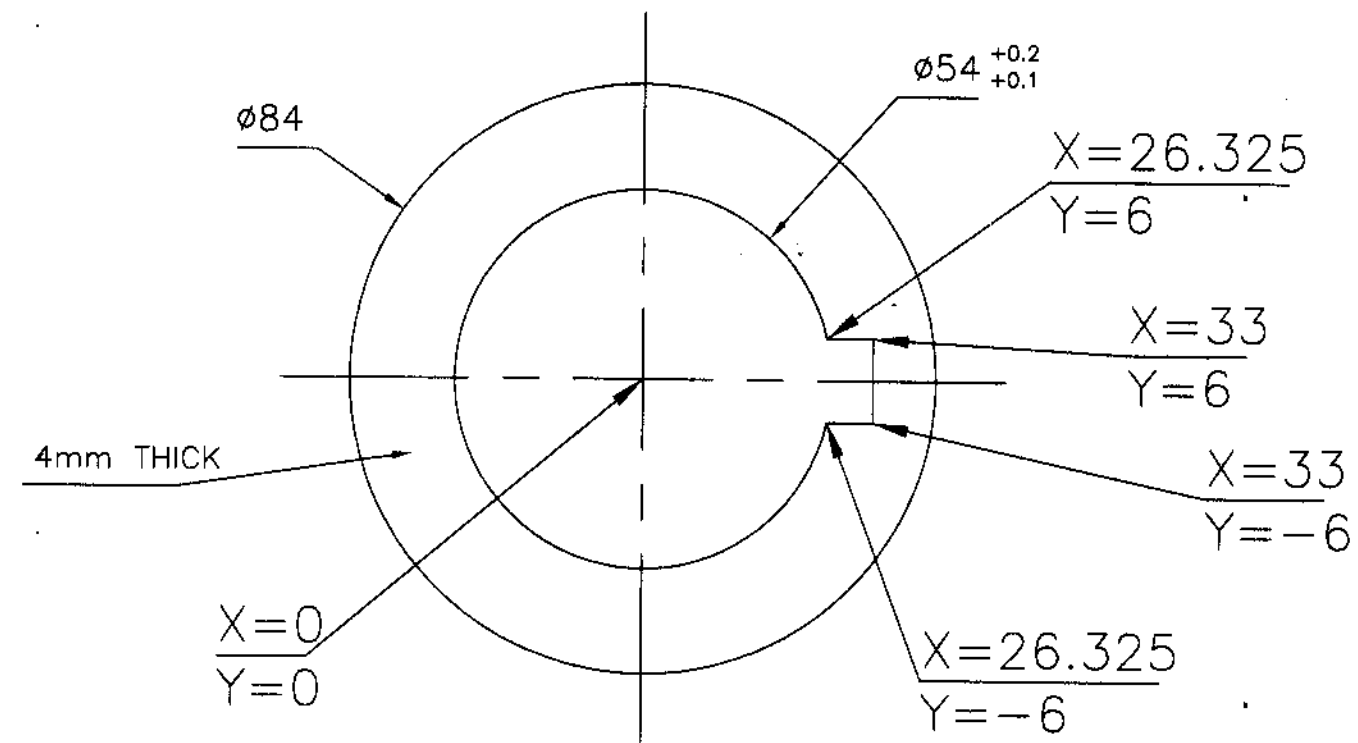


NOTE:

1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS ARE $\pm 0.5\text{mm}$.
3. ORIGINAL STALLION DRAG LINK WILL BE SUPPLIED BY SVS SECTION.
4. MODIFICATION TO BE CARRIED OUT TO ORIGINAL STALLION DRAG LINK AS SHOWN IN THE DRAWING. LENGTH OF THE DRAG LINK IS TO BE REDUCED TO 575mm.
5. WHILE MAINTAINING THE LENGTH OF THE DRAG LINK, LHS THREADED PORTION TO KEEP AS IT IS AND ONLY RH THREADED SIDE TO CUT AND RH THRED IS TO MAKE AS SHOWN IN THE DRAWING AND TO MATCH WITH MATING PART.
6. ORIGINAL STALLION DRAG LINK NO: X3218415.

(A)	<i>M.K.</i>	MODIFICATION OF CUTTING AND THREADING WAS CUTTING AND WELDING.								USED ON	QTY./VEH.	
ISSUE	APPRD.	NATURE OF AMENDMENT										
AUTHD.	M.S.P.	<i>M.K.</i>	DRG. NO: 640-04-1106-1/A									
CHKD.	M.K.	<i>M.V.K.</i>	MODIFICATION WORK TO STALLION DRAG LINK							SHEET NO	SCALE	WEIGHT
DRWN	M.V.K.	<i>M.V.K.</i>	NAME	SIGN	DATE					THIRD ANGLE PROJECTION		
ORDNANCE FACTORY MEDAK			MATERIAL:				ORIGINAL STALLION DRAG LINK					

06/04
06/04



NOTE:

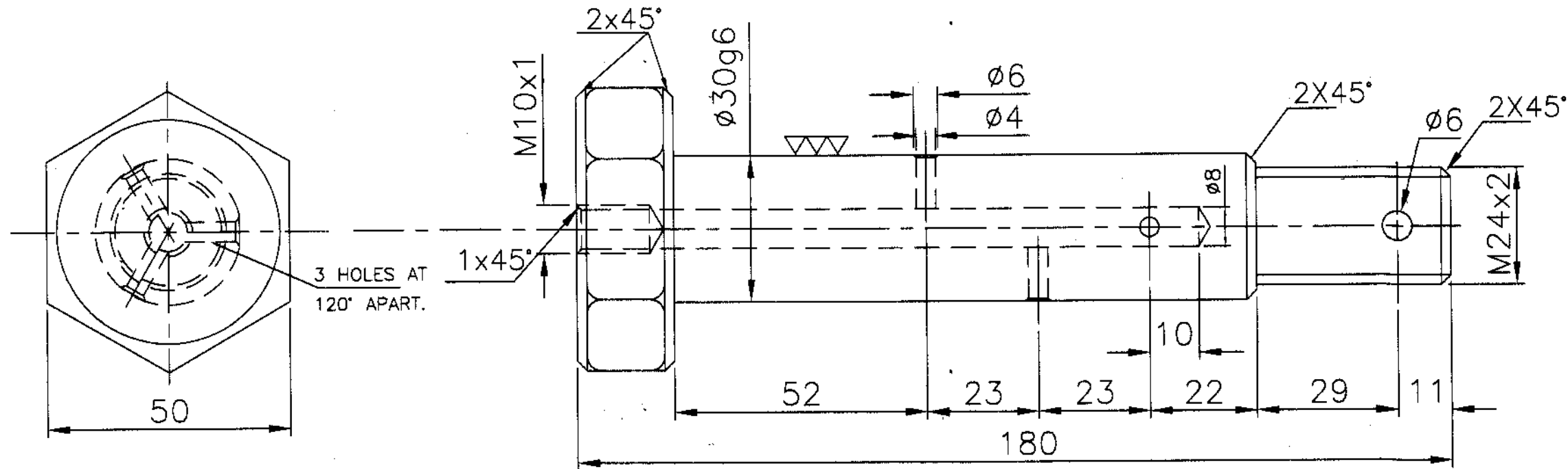
1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS are $\pm 0,5$ mm.
3. COATING : PHOSPHATING, 9 MICRONS THICK.

ORDNANCE FACTORY, MEDAK
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ISSUE		APPRD.	NATURE OF AMENDMENT		USED ON	QTY./VEH.	
①			1. KEY WAY IS NEWLY INTRODUCED. 2. HOLE DIA $\phi 54$ mm WAS DIA $\phi 44$		MPV	12	
AUTHD.		M.K.P.	DRG. NO: 620-04-1108-1/A				
APRD.		S.K.	SPACER (STEERING SYSTEM)		SHEET NO	SCALE	
CHKD.		J.P.			WEIGHT		
DRWN		M.V.K. <i>[Signature]</i> 2/08/05					
		NAME	SIGN	DATE			
ORDNANCE FACTORY MEDAK				MATERIAL: St 34-IS:1079 4mm THICK			

07/04



NOTE:

1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS ON DIMENSIONS ARE $\pm 0.5\text{mm}$.
3. HARDNESS - 32 TO 35 HRC
4. MATERIAL : HEX. BAR -IS: 9550 Gr.3.
5. COATING: PHOSPHATING, 9 MICRONS THICK.
6. PIN SHOULD SUPPLY ALONG WITH CASTLE NUT TO DRG. NO.: 640-04-1110-1 & BUSH TO DWG NO: 610-04-1103-1 AS A SET.
7. PIN SHOULD SUIT FOR RUNNING FIT WITH BUSH TO DWG. NO:610-04-1103-1 AND TO SUIT WITH CASTLE NUT TO DWG. NO: 640-04-1110-1

©

ORDNANCE FACTORY, MEDAK
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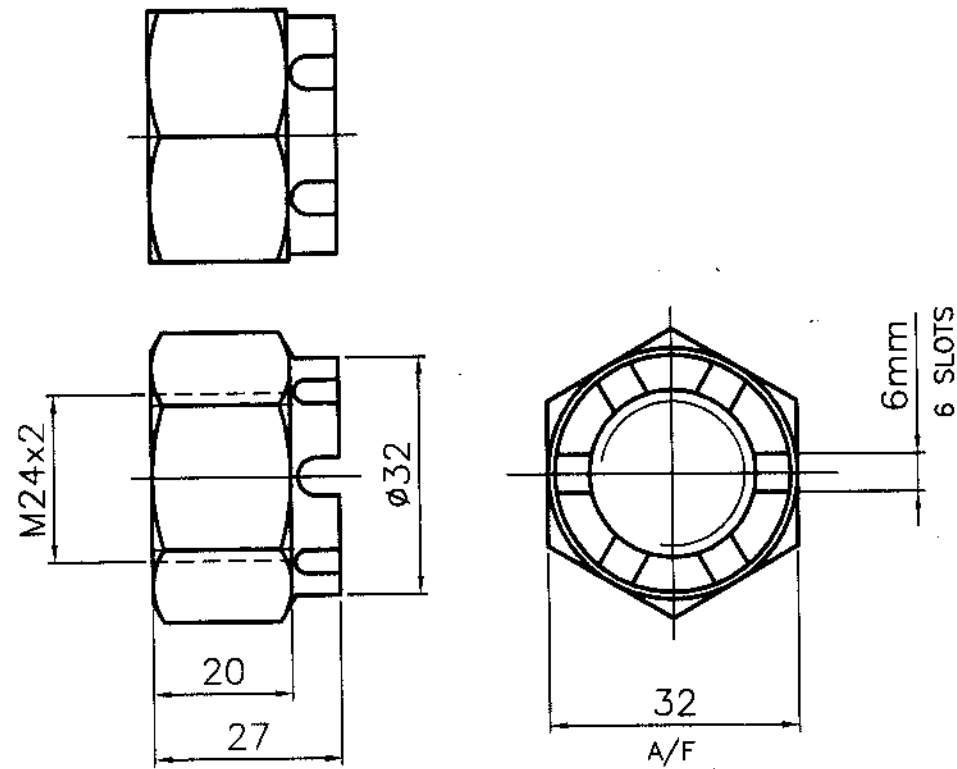
Control No: _____ Date: _____
 Issued To: _____
 Copy No. : _____ HOS/R&D

AUTHD.		DRG. NO: 620-04-1109-1/C		USED ON	QTY./VEH.
APRD. M.S.P.		NATURE OF AMENDMENT		M.P.V	1
CHKD. R.K.D.		IN TECH. NOTE. POINT NO. 6 IS AMENDED. AND POINT NO. 7 IS NEWLY ADDED.			
DRWN. M.V.K.		ISSUE			
NAME SIGN DATE		APPRD.			
ORDNANCE FACTORY MEDAK		SHEET NO		SCALE	WEIGHT
MATERIAL:					

Sheet No: 7 of 18

08/04

04/09



NOTE:

1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS are $\pm 0,1\text{mm}$.
3. HARDNESS - 32 TO 35 HRC.
4. COATING : PHOSPHATING, 9 MICRONS THICK.
5. CASTLE NUT SHOULD SUIT WITH PIN TO DRG. NO.: 620-04-1109-1
6. CASTLE NUT SHOULD SUPPLY ALONG WITH PIN TO DWG. NO: 620-04-1109-1 AND BUSH TO DWG. NO: 610-04-1103-1 AS A SET. IN ASSY. CONDITION.

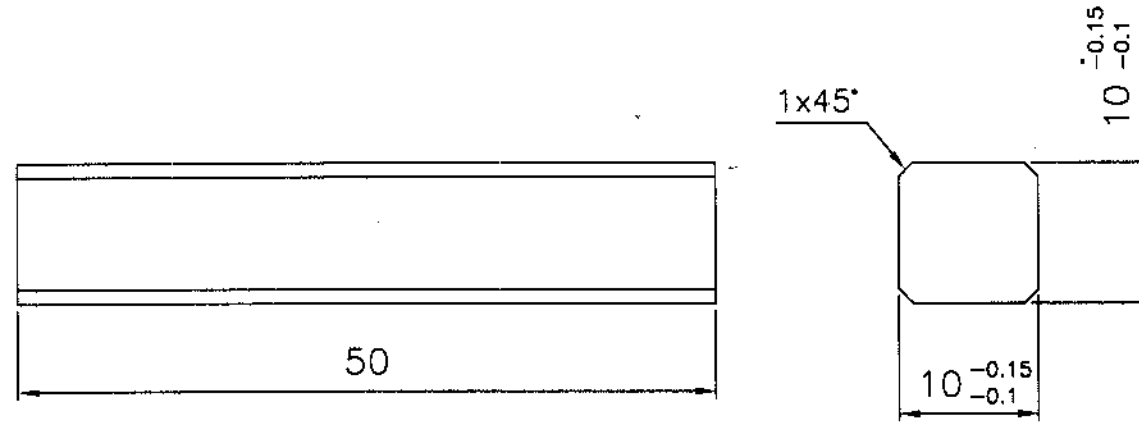
(A)

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ISSUE		APPRD.	NATURE OF AMENDMENT	
(A)		M.S.P.	TECH. NOTES POINT NO. 5 & 6 ARE ADDED.	
AUTHD.		DRG. NO: 640-04-1110-1/A.		
APRD.	M.S.P.	CASTLE NUT		
CHKD.	MK			
DRWN.	M.V.K.C.P.	MATERIAL: HEX. BAR-IS:9550		
NAME	SIGN	DATE	SHEET NO	SCALE

USED ON MPV
 QTY./VEH. 01



NOTE:

1. ALL DIMENSIONS ARE IN MM.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS are $\pm 0,1$ mm.
3. HARDNESS : 30-35 HRC
4. COATING : PHOSPHATING, 9 MICRONS THICK.

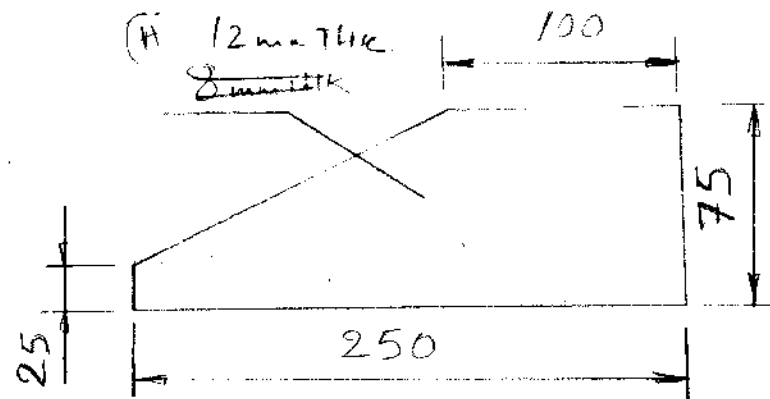
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Control No: _____ Date: _____
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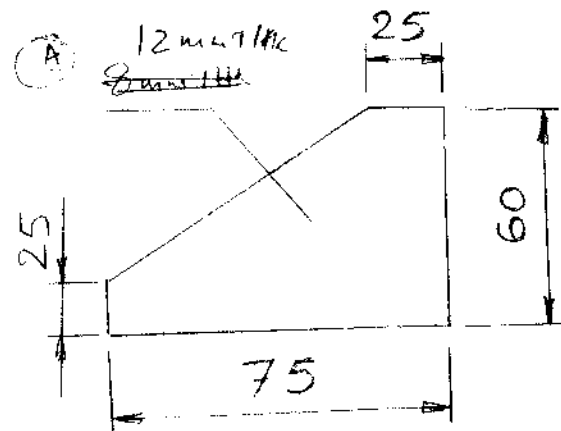
ISSUE	APPRD.	NATURE OF AMENDMENT	
AUTHD.	M.K.P.	DRG. NO: 620-04-1111-1	
APRD.	S.K.	KEY (STEERING SYSTEM)	SHEET NO
CHKD.	J.P.		SCALE
DRWN	M.V.K.	MATERIAL: EN9-BS:970 (OR) C45-IS:3930	WEIGHT
	NAME SIGN DATE		
ORDNANCE FACTORY MEDAK			

10/04
 USED ON QTY./VEH.
 MPV 01

640-04-1113-1/A



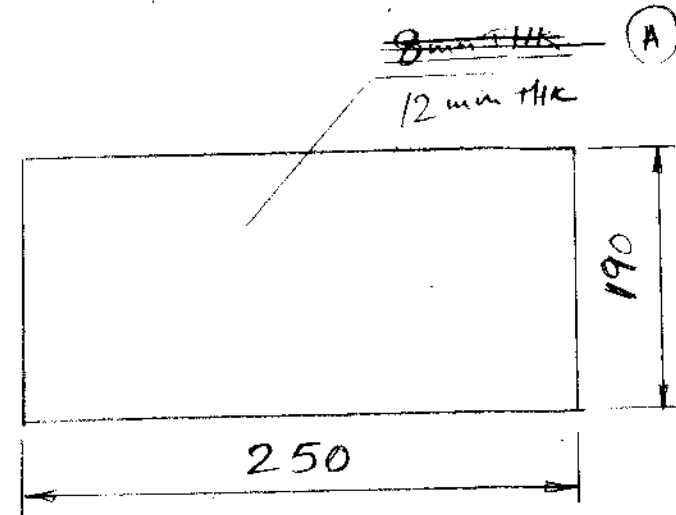
QTY/VEH: 2 NOS RIB



QTY/VEH: 8 NOS RIB

640-04-1114-1/A

1. ALL DIMENSIONS ARE IN MM.
2. THE LIMIT DEVIATIONS OF DIMENSIONS ARE ± 1 mm.
3. RED-OXIDE TO BE COATED AFTER WELDING.
4. ALL SHARP CORNERS TO BE R5.



QTY/VEH: 1 NO PLATE

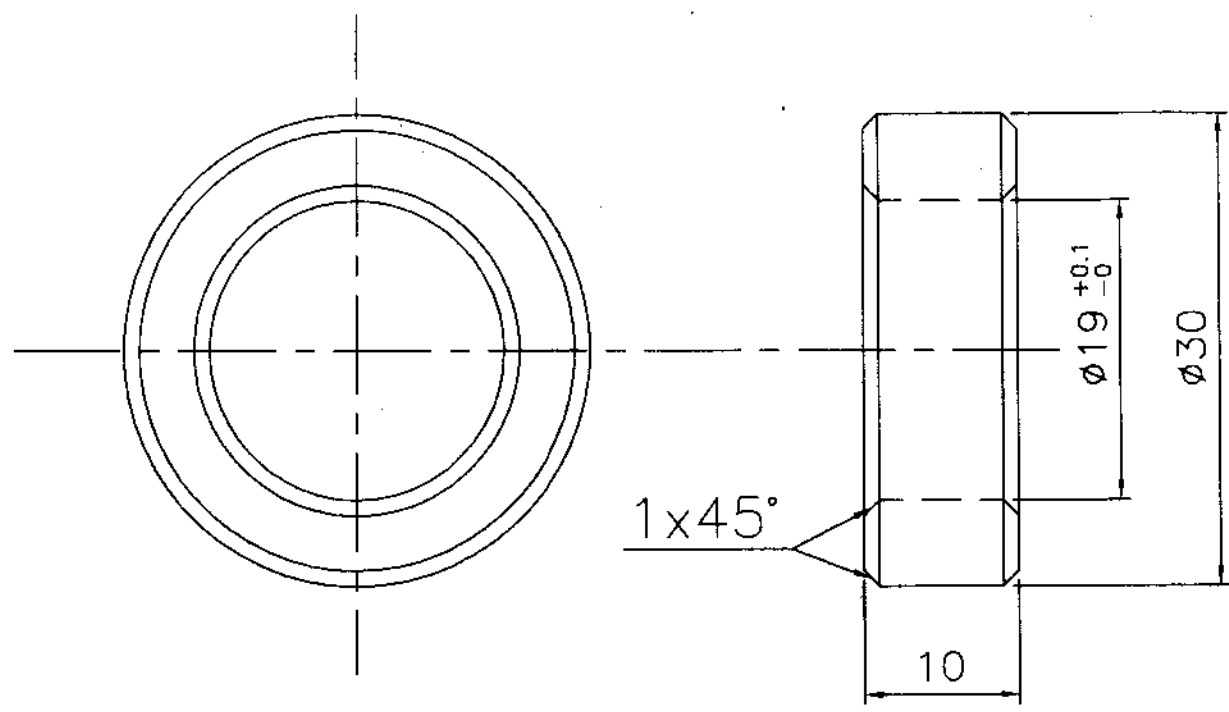
640-04-1112-1/A

ORDNANCE FACTORY MEDAK
 10/01/14
 Thickness of the plate, 12 mm was correct.

QTY/VEH.		1/a	
USED ON		M.M.P.V.	
ISSUE		NATURE OF AMENDMENT	
(A)	10/01/14	Thickness of the plate, 12 mm was correct.	
AUTHD.	B. YESU	DRG. NO: 640-04-1112-1, 1113-1, 1114-1/A	
APRD.	M.S.P	SHEET NO. SCALE WEIGHT	
CHKD.		1 NTS -	
DRWN.	M.V.K. 10/12/03	RIB (STEERING BRACKET)	
NAME	SIGN	DATE	
ORDNANCE FACTORY MEDAK		MATERIAL: ST 34-IS 1079 (OR) EN 8-BS: 970	

Sheet no: 9 of 18

04/12



1. ALL DIMENSIONS ARE IN mm .
2. UNSPECIFIED LIMIT DEVIATIONS ARE ±0.1mm
3. COATING: PHOSPHATING, 9 MICRONS THICK.

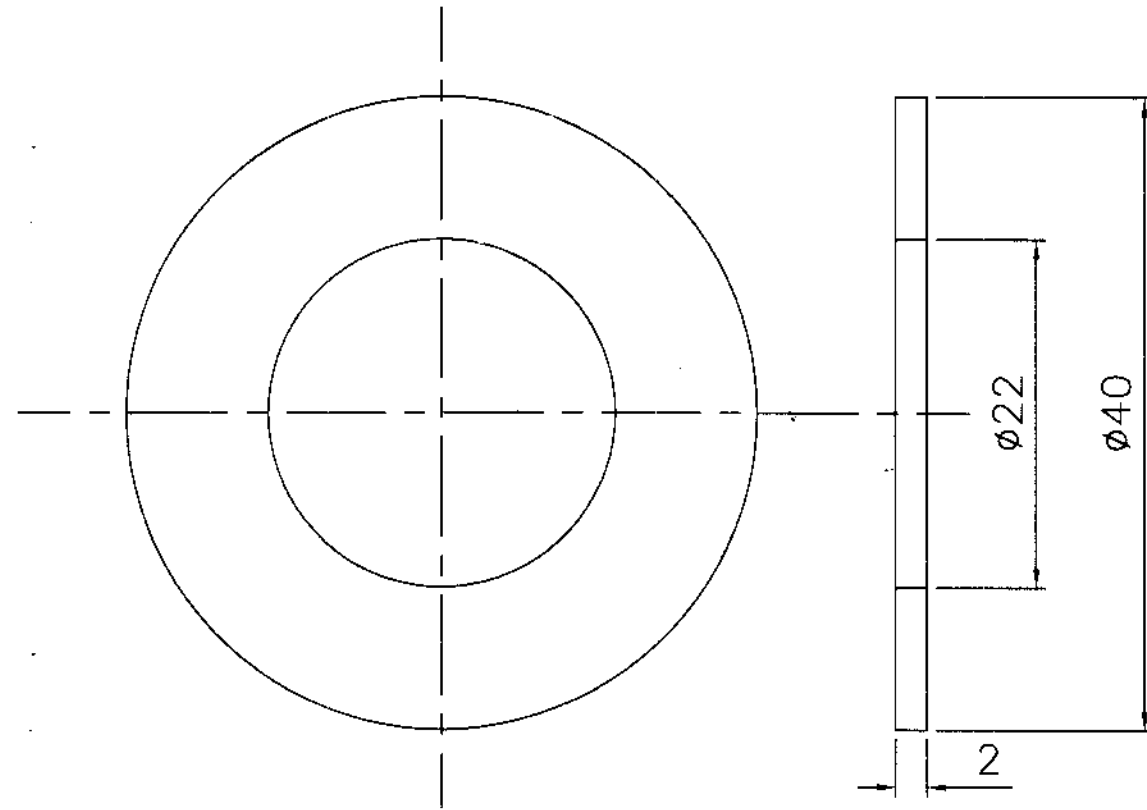
12/04

QTY./VEH.	4
USED ON	640-04-1000-1

(A) <i>18 Dec</i> SPECIFICATION IS: 9550 WAS IS:1723		
ISSUE	APPRD.	NATURE OF AMENDMENT
AUTHD	BPB	DRG. NO: 640-04-1115-1/A
APRD.	MKP	10-12-07
CHKD.	MVK	<i>10/12/07</i>
DRWN	DVR	<i>10-12-07</i>
NAME	SIGN	DATE
ORDNANCE FACTORY MEDAK		WASHER (STEERING GEAR BOX) (MPV-R&D VERSION)
MATERIAL: BRIGHT BAR ø30-IS:9550		SHEET NO SCALE WEIGHT (A)
		THIRD ANGLE PROJECTION

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 DATE: 10/12/07 D.P.HOS *[Signature]*

04/13



1. ALL DIMENSIONS ARE IN mm .
2. UNSPECIFIED LIMIT DEVIATIONS ARE $\pm 0.1\text{mm}$
3. COATING: PHOSPHATING, 9 MICRONS THICK.

ORDNANCE FACTORY, MEDAK
 Yeddumailaram-502 205 (AP)
 Research & Development Section
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Issued To:

No. of prints:.....

HOS/R&D

ISSUE	APPRD.	NATURE OF AMENDMENT	
		DRG. NO: 640-04-1116-1	
AUTHD		SPACER (STEERING DRAG LINK) (MPV-R&D VERSION) MATERIAL: St 34-IS:1079	SHEET NO
APRD. M.S.P			SCALE
CHKD. M.K.			WEIGHT
DRWN M.V.K.			
	NAME SIGN DATE		THIRD ANGLE PROJECTION

USED ON	QTY./VEH.
M.P.V.	8

13/05