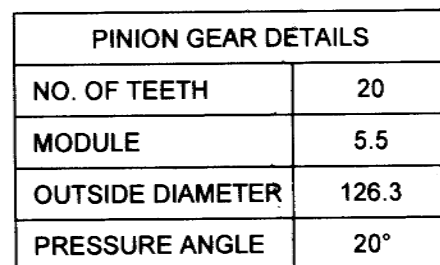


Signature Not Verified
Digitally Signed
Date: 2024.12.01 13:37:24 IST
Reason: IREPS
Location: New D



ITEM	QTY.	DESCRIPTION	MATL/SPECN		REMARKS	
INDIAN RAILWAYS			REF DRG.			
डिस्ट्रीब पीनियन शाफ्ट DRIVE PINION SHAFT FOR CHUCK DRIVE ASSLY. OF PAL BORER			SCALE	AME/D	16.09.13	
			NTS	SSE/D	12.02.12	
				CHD		
			PROJECTION	DRN	RAJESH	10.07.13
			ALT			
RAIL WHEEL FACTORY BANGALORE			DRG.No. 703 4021 1 0520			
			JOB No. 6103		SHEET 1 OF 1	

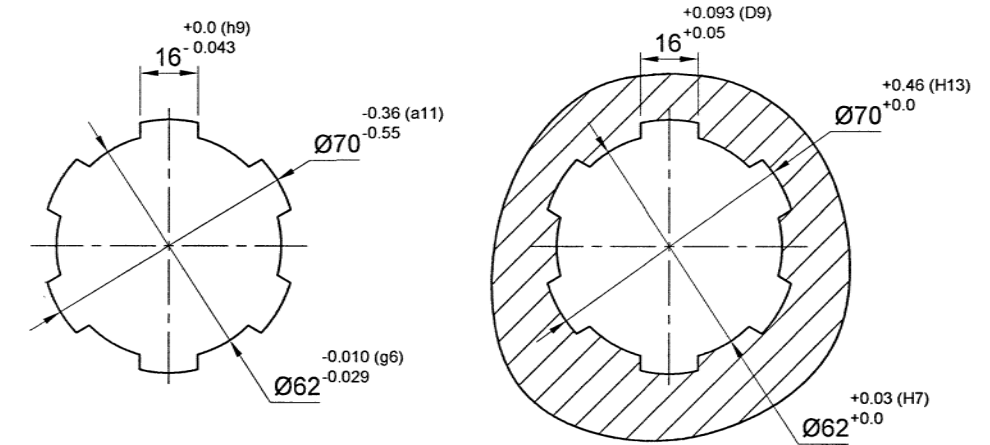
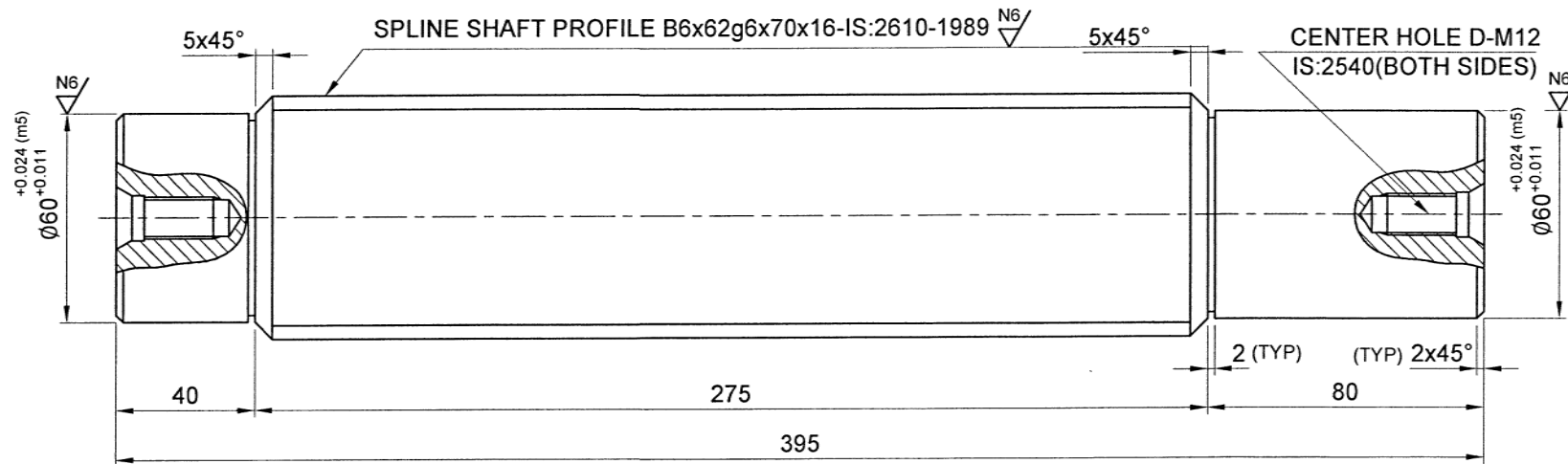
 DY.CME/WSM	 WM/WSM	 AWM/WSM
APPROVED	REVIEWED	VERIFIED

PERMISSIBLE DEVIATION FOR UNTOLERANCED DIMENSIONS AS PER IS:2102 CLASS 'm'												
SIZE	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	2.5
0.1	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
0.2	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
0.3	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
0.4	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
0.5	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
0.6	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
0.8	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
1	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
1.2	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
1.5	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
2	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
2.5	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05

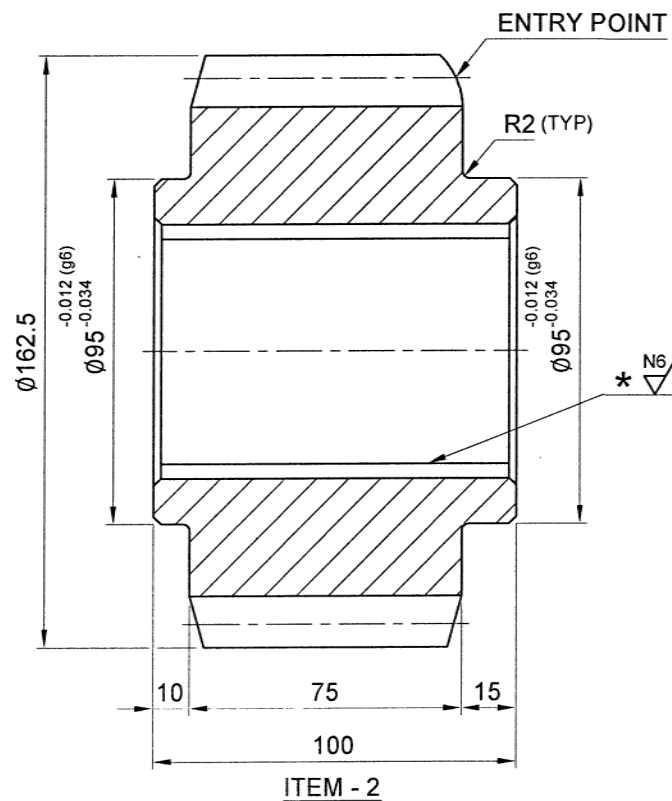
DO NOT SCALE DRAWING

N8/ [N6/]

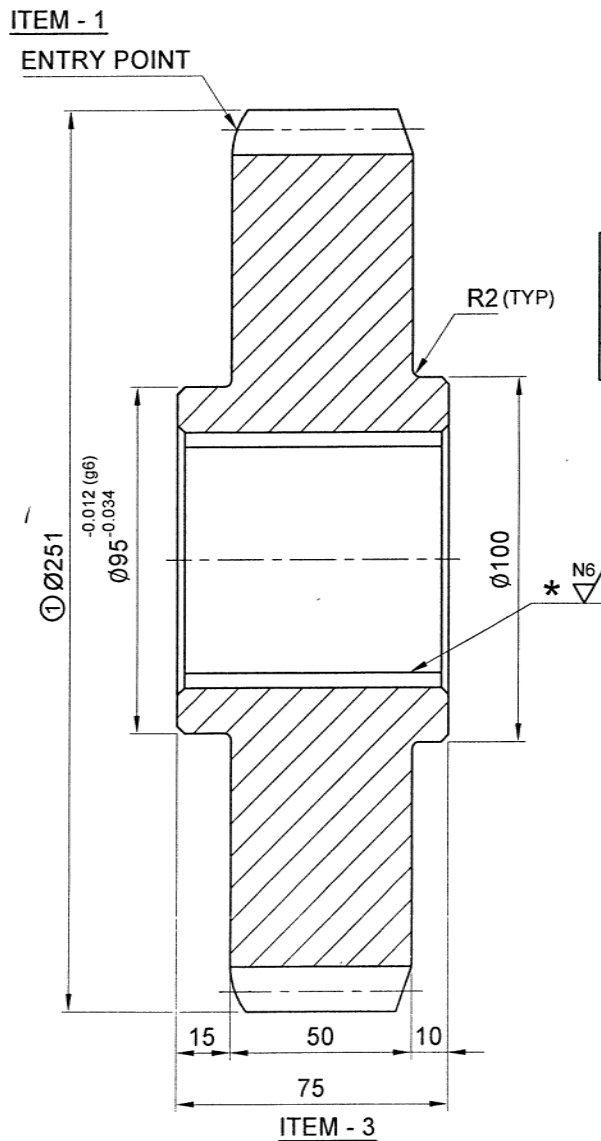
ALT	DESCRIPTION	JOB No.	APPROVED
① 30 11 20	DIM. Ø251 WAS Ø247.5 IN ITEM-3. HARDNESS 50-55Rc WAS 45-50Rc OF ITEM 1,2 & 3. DRG. REVISED AND REDRAWN.	7419	



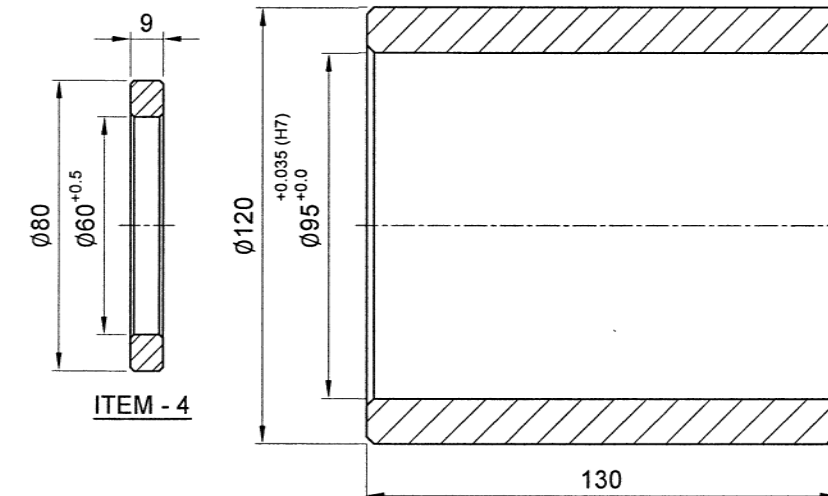
* SPLINE BORE PROFILE 6x62x70x16, IS:2610-1989 FOR ITEM 2 & 3



ITEM - 2	
NO. OF TEETH	24
MODULE	6.25
Pr. ANGLE	20°



ITEM - 3	
NO. OF TEETH	43
MODULE	5.5
Pr. ANGLE	20°



NOTE:- GEAR TEETH TO BE HARDENED AND GROUND.

"DEVELOPMENTAL ITEM"

5	1	SPACER	M.S, IS:2062 E 250 BR	
4	1	SPACER	QUALITY	
3	1	GEAR	15NiCr1Mo12-IS:4368,	CASE HARDENED 0.8-1.5, HARDNESS 50-55Rc ①
2	1	GEAR	En353	
1	1	SHAFT		
ITEM	QTY.	DESCRIPTION	MATL/SPECN	REMARKS
INDIAN RAILWAYS			REF DRG.	
INTERMEDIATE SHAFT & GEARS			SCALE	DATE/D 01.12.20
FOR CHUCK DRIVE ASSEMBLY OF PAL BORER-1			NTS	SSE/D 01.12.20
RAIL WHEEL FACTORY BANGALORE			CHD	
			DRN	RAJESH 11.07.19
			ALT	①
			DRG.No.	713 4021 1 0650
			JOB No.	7264
			SHEET	1 OF 1

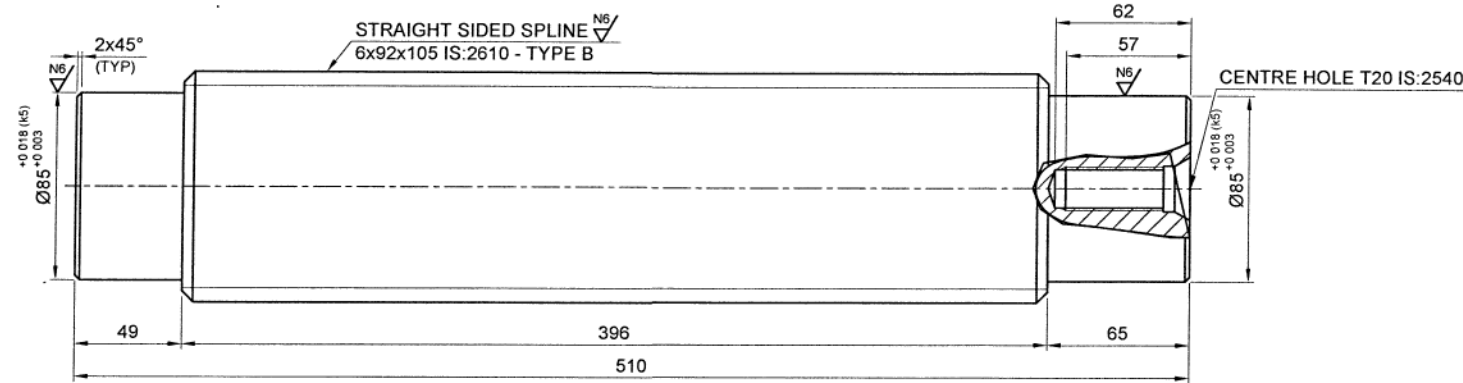
hmm	WM/WSM	AWM/
APPROVED	REVIEWED	VERIFIED

ALL DIMENSIONS ARE IN mm UNLESS SPECIFIED OTHERWISE.

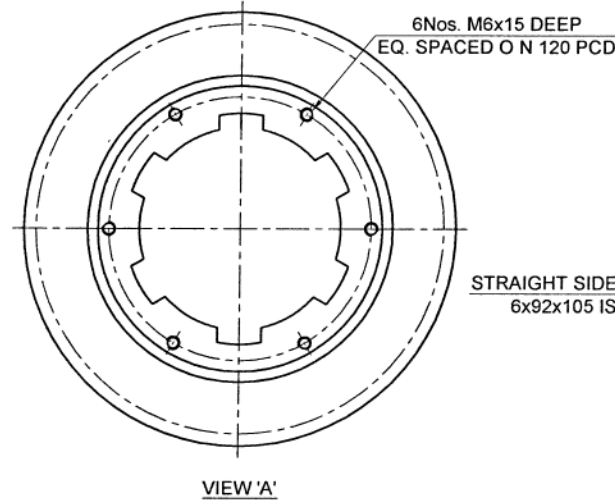
PERMISSIBLE DEVIATION FOR UNTOLERANCED DIMENSIONS AS PER IS:2102 CLASS 'm'

N8/ [N6/]

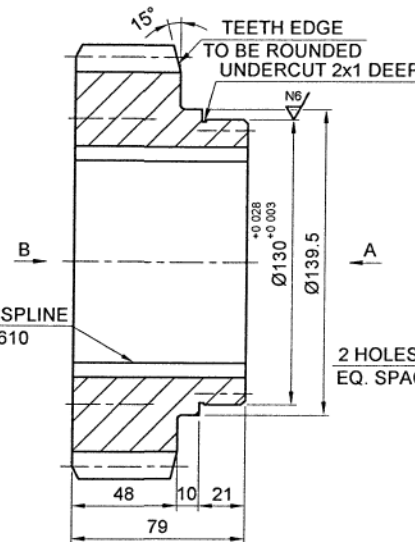
ALT	DESCRIPTION	JOB No.	APPROVED
① 30.11.20	DIM. 197 WAS 197.5 OF ITEM-2 IN TABLE. MATERIAL OF ITEM 1,2,3a & 4 En 353 WAS En24. DRG. REVISED AND REDRAWN.	7420	



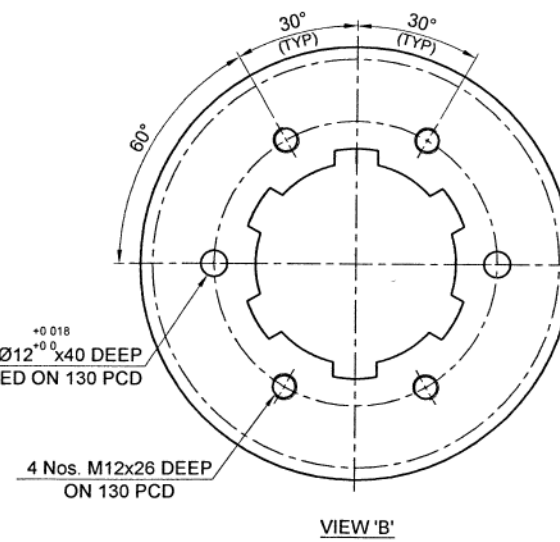
ITEM - 1



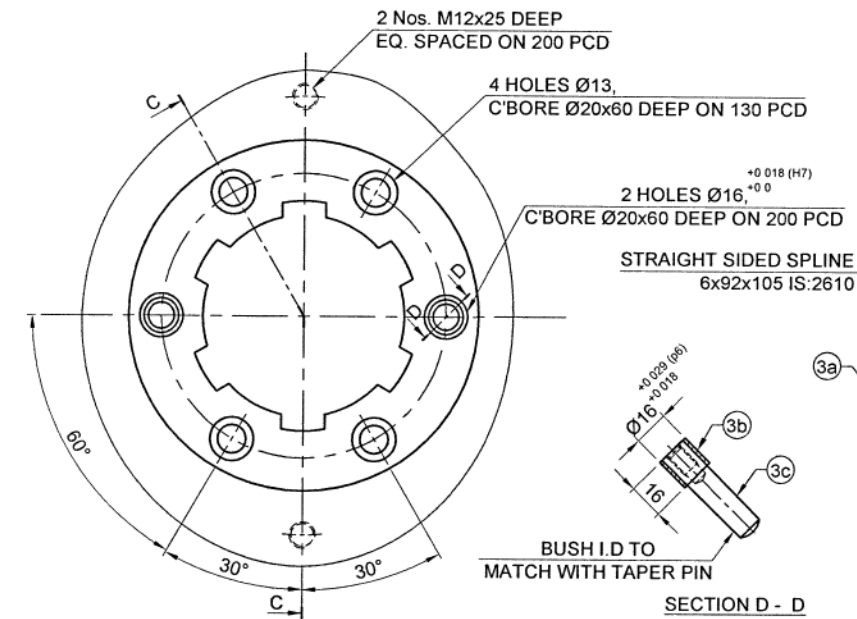
VIEW 'A'



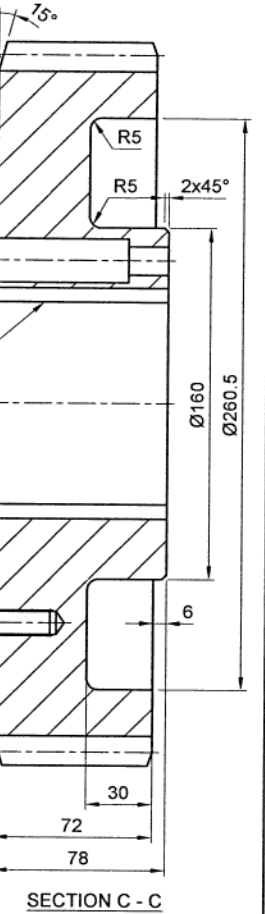
ITEM - 2



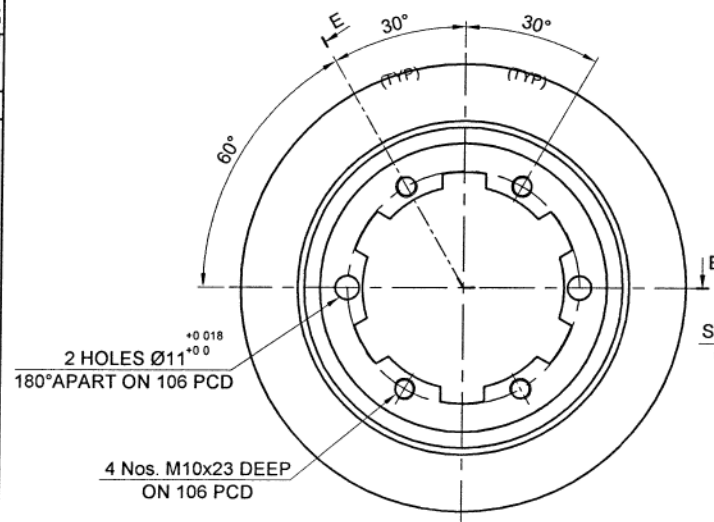
VIEW 'B'



ITEM - 3

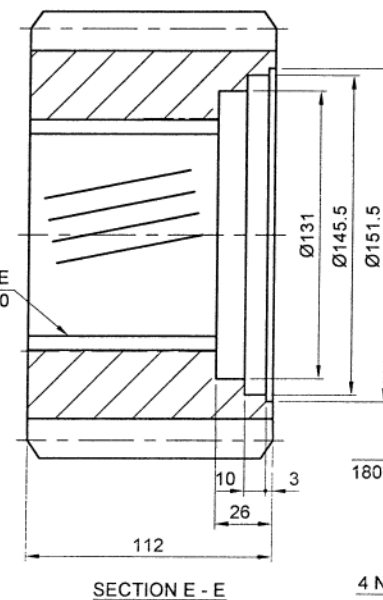


SECTION C - C

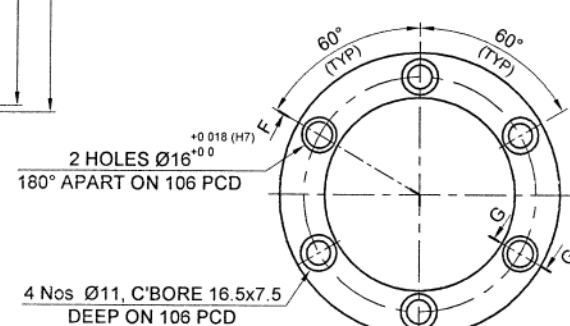


ITEM - 4

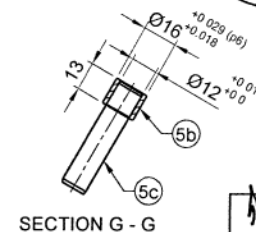
HELICAL GEAR DETAILS (ITEM - 4)	
MODULE	8
NO. OF TEETH	22
OUTSIDE DIAMETER	203.3
PRESSURE ANGLE	20°
CORRECTION FACTOR 'X'	0.5
HELIX ANGLE 'β'	11°



SECTION E - E



ITEM - 5



SECTION G - G

SPUR GEAR DETAILS		
DESCRIPTION	ITEM - 2	ITEM - 3
MODULE	5.5	6
NO. OF TEETH	33	53
OUTSIDE DIAMETER	①197	330
PRESSURE ANGLE	20°	20°
CORRECTION FACTOR	+0.54	0

NOTE:-

- ALL SHARP CORNERS TO BE REMOVED.
- GEAR TEETH TO BE HARDENED AND GROUND

"DEVELOPMENTAL ITEM"

ITEM	QTY.	DESCRIPTION	MATL/SPECN	REMARKS
5	2	CYL. PIN 12 h8 x 50	IS:2393	
b	2	BUSH	M.S, IS:2062	
a	1	LOCKING PLATE		
①	4	HELICAL GEAR	15NiCr1Mo12-IS:4368, En353	CASE HARDENED 0.8-1.5 HARDNESS 50-55Rc
c	2	INTERNAL THREADED TAPER PIN 12x50	IS:3524	
b	2	BUSH	M.S, IS:2062	
a	1	SLIDING GEAR		
①	2	SLIDING PINION	15NiCr1Mo12-IS:4368, En353	CASE HARDENED 0.8-1.5 HARDNESS 50-55Rc
①	1	OUTPUT SHAFT		
INDIAN RAILWAYS		REF DRG		
SCALE		SME/D	01.12.20	
NTS		SSE/D	01.12.20	
CHD		DRN	RAJESH	13.03.14
PROJECTION		ALT	①	
RAIL WHEEL FACTORY BANGALORE		DRG.No. 713 4021 1 0570		
JOB No. 6273		SHEET 1 OF 1		

OUTPUT SHAFT & GEARS
FOR CHUCK DRIVE ASSY. OF PAL VTL

RAIL WHEEL FACTORY
BANGALORE

APPROVED	REVIEWED	VERIFIED