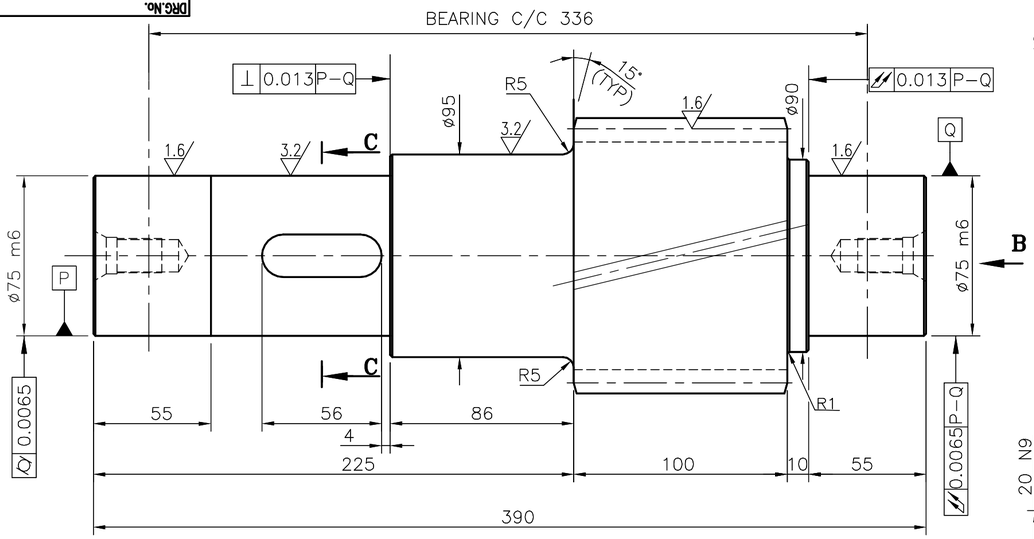
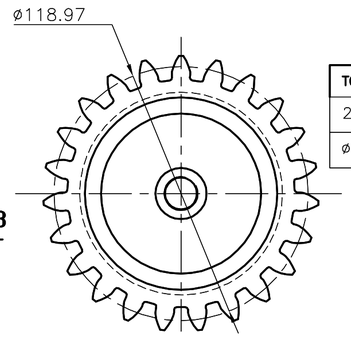
DRG.No.	REV. No.
	0

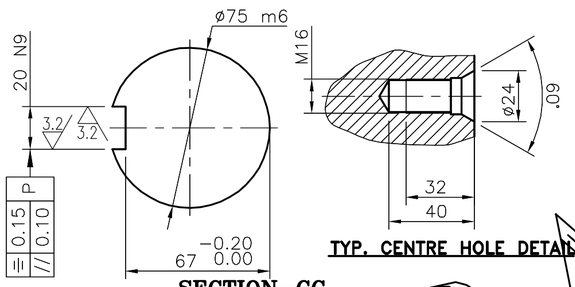


PART-17



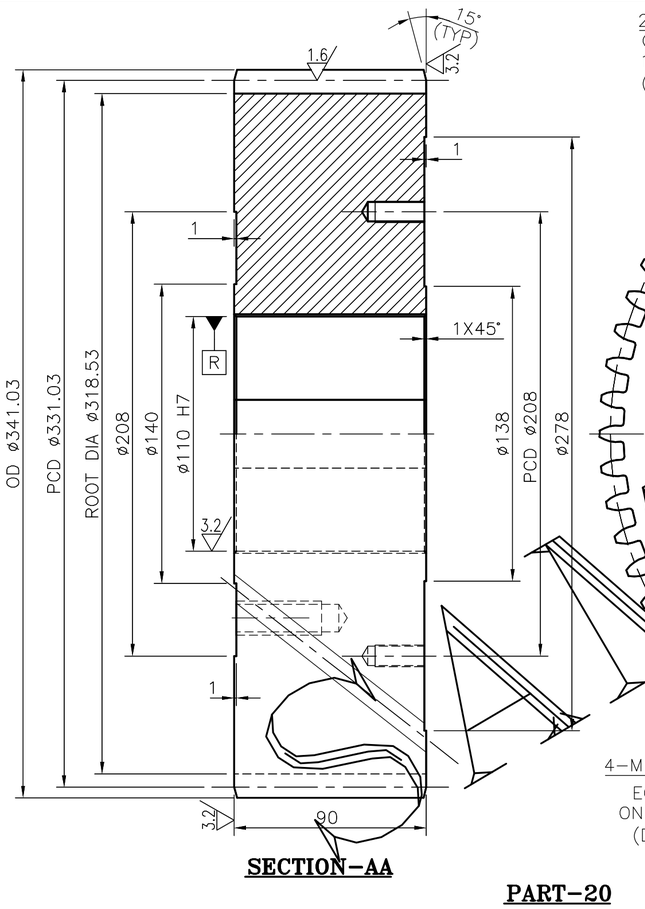
VIEW B

TOL. ON FIT	TOL. IN mm.
20 N9	0.000 −0.052
ø75 m6	+0.030 +0.011

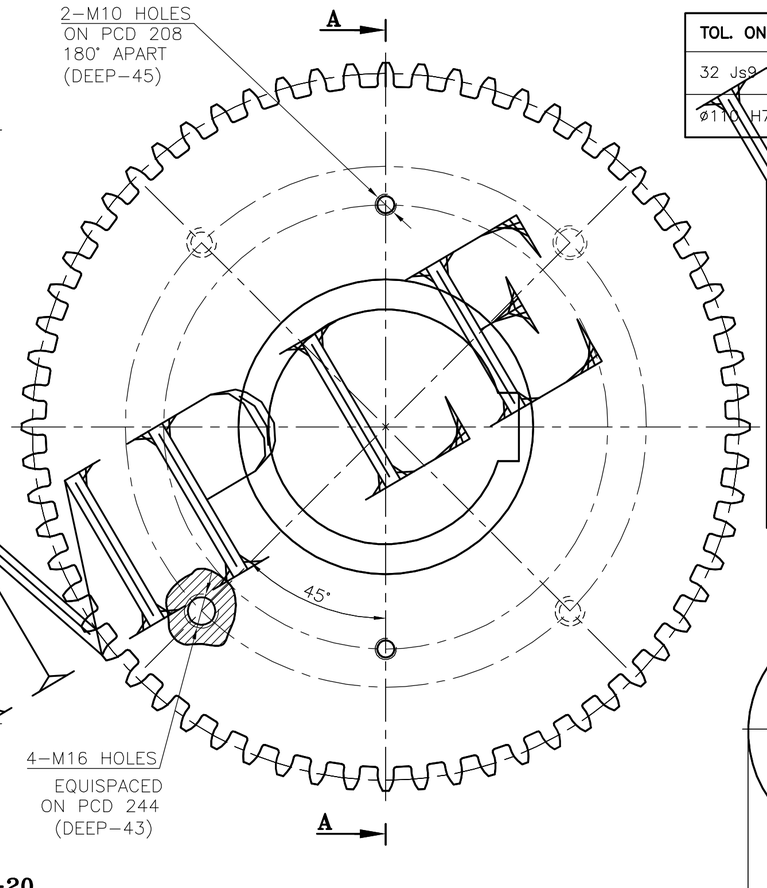


SECTION-CC

TYP. CENTRE HOLE DETAIL

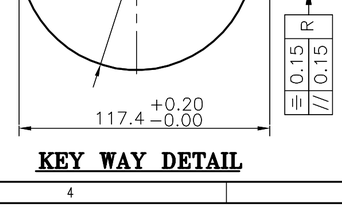


SECTION-AA



PART-20

TOL. ON FIT	TOL. IN mm.
32 Js9	+0.031 −0.031
ø110 H7	+0.035 0.000



KEY WAY DETAIL

CHARACTERISTICS OF GEAR

SL. No.	DESCRIPTION	SYMBOL	DATA PINION	DATA GEAR
1.	TYPE OF GEAR	–	HELICAL	
2.	NORMAL MODULE	mn	5	
3.	No. OF TEETH	Z1 / Z2	23	64
4.	HAND OF HELIX	–	LH	RH
5.	HELIX ANGLE	β	14°50'24"	
6.	PRESSURE ANGLE	α	20°	
7.	BASIC RACK		AS PER IS : 2535	
8.	REFERENCE CIRCLE DIA	d1/d2	118.97	331.03
9.	TIP CIRCLE DIAMETER	da1/da2	128.97	341.03
10.	ROOT CIRCLE DIAMETER	db1/db2	106.47	318.53
11.	ADDENDUM	ha1/ha2	5	5
12.	DEDENDUM	hf1/hf2	6.25	6.25
13.	CLEARANCE	C	1.25	
14.	PROFILE CORRECTION FACTOR	x	–	–
15.	CENTRE DISTANCE	a	225±0.10	
16.	ACCURACY GRADE	–	Gr.6 AS PER IS : 7504	
17.	BASE TANGENT LENGTH OVER 3/11 No. OF TEETH	wk	53.44	130.40
18.	CONSTANT CHORD	$\bar{s}_c$	6.94	6.94
19.	CONSTANT CHORD HEIGHT	$\bar{h}_c$	3.74	3.74

NOTES :-

1. PART SHALL BE FREE FROM ALL KINDS OF DEFECTS.
2. UNSPECIFIED RADII SHALL BE NOT MORE THAN 2mm.
3. UNSPECIFIED CHAMFERS SHALL BE NOT MORE THAN 1X45°.
4. ALL SHARP EDGES TO BE SMOOTHLY ROUNDED OFF.
5. REMOVE BURRS AFTER MACHINING.
6. PINION AND GEAR SHALL BE CHANGED IN PAIR ONLY.

MATERIAL SPECN. :-

1. ALTERNATIVE MATERIALS FOR PINION/GEAR :
   - (a) 17NiCrMo6 ISO 683(11)-1987
   - (b) 815H17 BS 970(1)-1991
   - (C) 8620 SAE J403-1994

HEAT TREATMENT :-

1. PINION AND GEAR TOOTH TO BE CASE HARDENED TO HRC 58±2 AND GROUND.

PART No.	DESCRIPTION	DRG. No./ SPECN.	MATERIAL SPECN.	QTY.	UNIT WEIGHT (Kg.)(APPROX.)	TOTAL WEIGHT (Kg.)(APPROX.)	REMARKS/ CATALOGUE No.
20.	2nd INT. GEAR(Z=64,m=5) OD 341.03 X ID 110 X 90 Thk.		ALLOY STEEL 15Ni5Cr4Mo1 IS:4432-2004	1	29.61	29.61	
17.	1st INT. PINION SHAFT(Z=23,m=5) OD 128.97 X 390 Lg.		ALLOY STEEL 15Ni5Cr4Mo1 IS:4432-2004	1	25.18	25.18	

ALL DIMENSIONS ARE IN mm.
TOL. AS PER:- IS:919 AND IS:2102
SUR. FINISH IN MICRONS IS:10719

R.No	ZONE	DESCRIPTION	DATE	APD.
REVISION				

JOB No.
SCALE: 1:2
TOTAL Wt. (Kg) 54.79
SHEET SIZE: A2

UNIT/SECTION:
EQUIPMENT:

1st. INTERMEDIATE PINION SHAFT & 2nd. INTERMEDIATE GEAR OF DRIVE GEAR

	NAME	SIGNATURE	DATE
SKD.			
DRN.			
CHD.			
APD.			

REF. DRG. No. –
–

DRAWING No.	REV.No.
	0