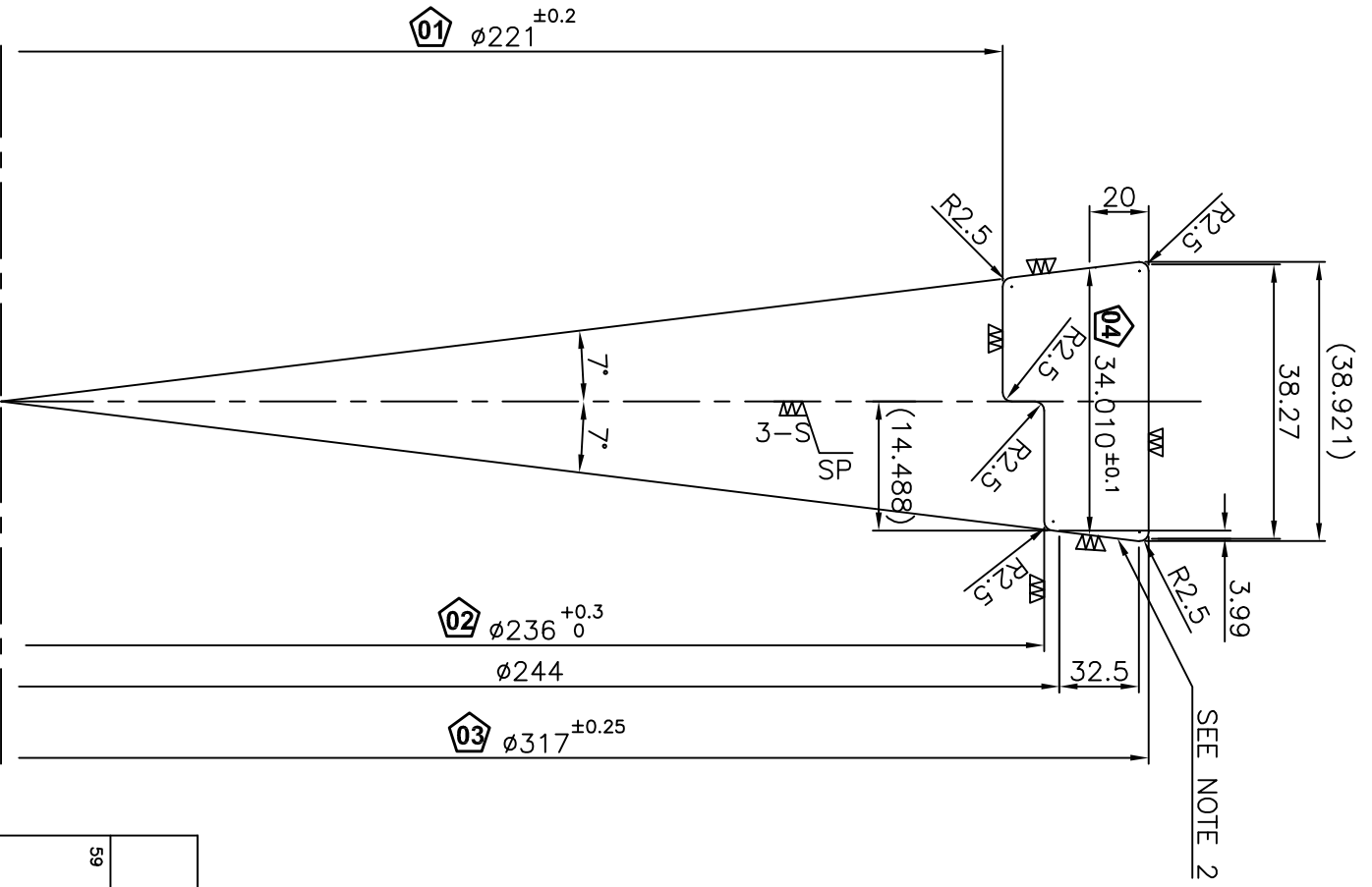


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FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

150 09 24 634 3 ON DRD



ALT. 1  
ALT. 2  
ALT. 3

- NOTE:-**
1. FINISHED PRODUCT SHALL BE COATED WITH ANTI-RUST VARNISH/COMPOUND, SUITABLY PACKED TO PREVENT TRANSIT AND LONG TIME STORING DAMAGE.
  2. MANUFACTURER TO PROVIDE THEIR METAL PUNCH IDENTIFICATION MARK AT THE LOCATION SHOWN.
  3. METALLURGICAL TESTING FOR PROTOTYPE SUPPLIES SHALL BE CARRIED OUT BY BHEL FOR BULK SUPPLIES METALLURGICAL TEST SHALL BE DONE BY (a) BHEL OR (b) NABL OR BHEL APPROVED LABORATORY, TO BE WITNESSED BY REPRESENTATIVE OF BHEL INSPECTION CELL IN CASE OF (b).

**NOTE:-**

FROM RAW MATERIAL DRG. NO. 34394260062.

1. MATERIAL SHALL BE HEAT TREATED.
2. MECHANICAL PROPERTIES SHALL BE AS FOLLOWS:-

YIELD POINT	≥ 85 KG/MM <sup>2</sup>	TENSILE STRENGTH	≥ 100 KG/MM <sup>2</sup>
ELONGATION	≥ 11%	REDUCTION OF AREA	≥ 40%
HARDNESS	HB285~310	IMPACT VALUE	≥ 5Kgm/cm <sup>2</sup>
DEFLECTION	0.70-0.75 MM AT 80-85 TONES PRESSURE RESPECTIVELY		

ALT. 4  
ALT. 4  
ALT. 4

3. DISK SPRING SHALL CONFORM TO SPECN. NO. TM1045Z.
4. HITACHI LTO'S TECHNICAL INFORMATION NO. 10V.701-713 & 714 (06 SHEETS) ON "CALCULATION OF PRESSURE APPLIED TO DISC SPRING" AND MEASUREMENT OF DISC SPRING CHARACTERISTICS MAY BE REFERRED FOR GENERAL GUIDENCE FOR DEFLECTION TEST.
5. ALL 4 NOS. "◇" MARKED DIMENSION ARE CRITICAL TO QUALITY(CTQ) & S.L.NO. OF CTQ DIMENSION ARE INSCRIBED IN ◇ e.g.◇.

TOOL LIST		
IT. NO.	TOOL NO.	DESCRIPTION
	1571348	FIX. FOR MEASURING THE DEFLECTION OF DISC SPR.

REF. DRG. NO. SIGN. & DATE INVENTORY NO.

SURFACE ROUGHNESS			
REV.	DATE	ALTERED	CHECKED
04	19.05.13	ROUGH MACHINED	APPROVED
03	18.09.11	FINISHED FINE MACHINED	APPROVED
02	18.06.11	6-S	APPROVED

ADDITIONAL INFORMATION			
REV.	DATE	ALTERED	CHECKED
01	14.05.11	STATUS OF DRAWING	APPROVED
01	14.05.11	DISTRIBUTION OF PRINTS	APPROVED

NAME OF PRODUCT OR NAME OF CUSTOMER/PROJECT		TRACTION MOTOR	
TYPE OF PRODUCT		HS:15250A	
DISK SPRING		DISK SPRING	
DISK SPRING		DISK SPRING	

QTY	VAR	REMARKS	VAR.	ITEM NO.	DESCRIPTION	VAR.	ITEM NO.	DESCRIPTION	VAR.	ITEM NO.	DESCRIPTION											
59	64	RAW WT. 15.0KG	00	001	DISK SPRING	58	59	60	77	29	31	34	JISG4105-SCM440	45	55	56	57	58	UNIT WT.	65	72	ZONE
																			11.50			



**BHARAT HEAVY ELECTRICALS LTD.**  
BHO PAL

DRN.	S.D.	BHAGAT	CHD.	D.K.	APPD.	S.	ANAND

REF. TO ASSY. DRG.	ITEM NO.	NO. OF
14394260051	008	001
3 439 42 60 051		04

SIZE A3

