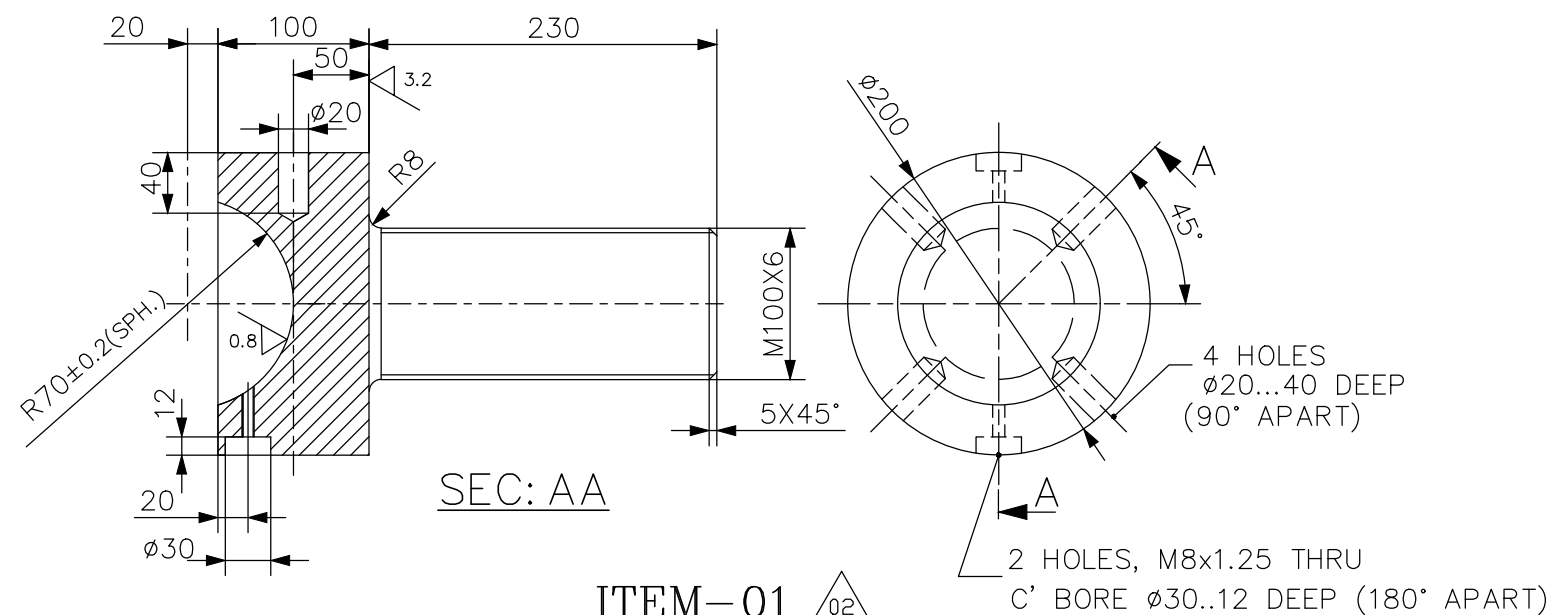


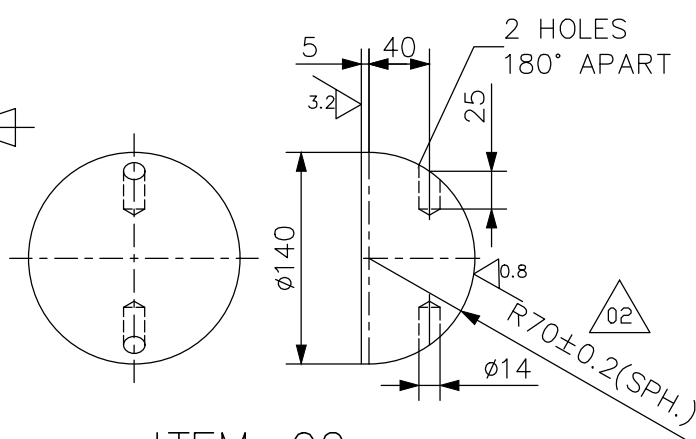
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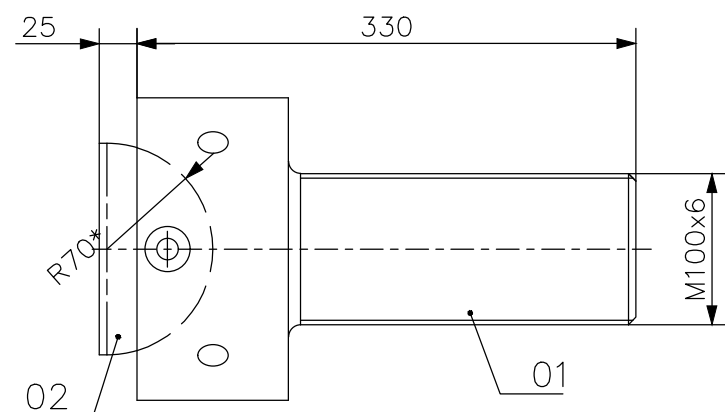
ITEM-01

(1:5)



ITEM-02

(1:5)



ASSEMBLY VIEW

(1:5)

NOTES:

3.2/3.2/0.8/ALL DIMENSIONS ARE IN MILLIMETERS

1. THE MATERIAL, FABRICATION AND EXAMINATION SHALL BE AS PER ASME SEC.III NF FOR CLASS-I COMPONENT SUPPORT.
2. ALL RODS & BARS SHALL BE UT EXAMINED AS PER ASME SECTION-V, NF-2584 AND NPCIL APPROVED PROCEDURE.
3. SPHERICAL SURFACE OF HEMI SPHERICAL BALL SHALL BE LAPPED WITH SPHERICAL GROOVE IN BALL HOUSING FOR PROPER BEARING (70-80%). HARDNESS OF HEMISPHERICAL BALL AND BALL HOUSING SHALL BE SUITABLY DIFFERENT WITH HARDNESS OF BALL HOUSING AT LEAST 4 HRC HIGHER THAN HEMISPHERICAL BALL.
4. ALL FINISH MACHINED SURFACES AND THREADED SURFACE SHALL BE PROTECTED SUITABLY TO AVOID ANY DAMAGE DURING HANDLING, HEAT TREATMENT OR OTHERWISE.
5. IMPACT TEST SHALL CARRIED OUT AS PER RELEVANT MATERIAL SPECIFICATION. ADDITIONALLY, FOR ALL MATERIALS IMPACT TEST BE CARRIED OUT AS PER NF-2300 AT 0°C.
6. ANY REPAIR BY WELDING IS PROHIBITED.
7. M.T. SHALL BE DONE ON BOLTING MATERIAL WITH NORMAL SIZE > 50mm.
8. ALL MACHINED SURFACES SHALL BE SUBJECTED TO P.T. AS PER SPECIFICATIONS.
9. THREADING SHALL BE AS PER IS:4218 PART-1
10. THREADING SHALL BE DONE AFTER HT (IF ANY) OF SUB-ASSEMBLIES.
11. MATERIAL SHALL BE MELTED TO FINE GRAIN MELTING PRACTICE & VACUUM DEGASSED.
12. ALL UN MACHINED SURFACES SHALL BE PROTECTED WITH EPOXY BASED PRIMER, MACHINED SURFACES SHALL BE GREASED AND THREADED SURFACES SHALL BE PROVIDED WITH EASILY CLEANABLE PROTECTIVE COATING MATERIAL.
13. *-DIMENSIONS ONLY FOR REFERENCE.

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS:2102-m)

LINEAR				ANGULAR	
0.5 TO 3	±0.1	400 TO 1000	±0.8	0 TO 10	± 1'
3 TO 6	±0.1	1000 TO 2000	±1.2	10 TO 50	± 30'
6 TO 30	±0.2	2000 TO 4000	±2.0	50 TO 120	± 20'
30 TO 120	±0.3	—	—	120 TO 400	± 10'
120 TO 400	±0.5	—	—	OVER 400	± 5'

ITEM NO.	DESCRIPTION	SPECN.
01	BALL HOUSING	SA193 Gr.B7
02	HEMI SPH. BALL	EN 24/34CrNiMo6

REV	DATE	ALTERED :
02	29.01.20	CHD&APPD :

ITEM No-01 VIEW CORRECTED, ITEM No-02 TOLERANCE AND SURFACE FINISH ADDED AND NOTE-13 ADDED AS PER CUSTOMER COMMENT.

REV	DATE	ALTERED :
03	07.02.20	CHD&APPD :

NOTE-2 MODIFIED AS PER NPCIL COMMENTS.

REV	DATE	ALTERED :
01	12.11.19	CHD&APPD :

NOTE-2 MODIFIED

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

700MWe-STEAM GENERATOR

W.O. D157 TO 160

(Customer Drg.: GHAVP-1&2/33111/4223/DD/REV:00)



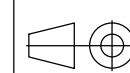
Bharat Heavy Electricals Ltd

UNIT: HIGH PRESSURE BOILER PLANT

TIRUCHIRAPALLI - 620014

DEPT
NC
CODE
150

GRADE OF
UNTOL. DIM
C/M/F



SCALE
1:5

WEIGHT (Kg)
41.0

REF TO ASSY / OLD DWG
2-93-171-05302

ITEM
NO

No OF
ITEMS

TITLE
HEMI SPHERICAL
BALL HOUSING

CARD
CODE
U 01

DRAWING NO :
3-93-171-05470

REV

03

Size A3