

**BEARING LOAD DURING  
OVERSPEED TEST 202180N**

**BEARING LOAD DURING  
OVERSPEED TEST 223920 N**

32/ ALL OVER EXCEPT  
OTHERWISE STATED

6372 ( DISTANCE BETWEEN BEARING

TURBINE SIDE

GENERATOR SIDE

DETAIL I  
(SCALE 1:5)

DETAIL :  
(SCALE 2:1)

**DETAIL**  
(SCALE 1:1)

DETAIL V (TS)  
(N.T.S)

DETAIL VI (GS)  
(N.T.S)

DETAIL G

**DETAIL H**  
(TURNED)

SECTION A-A  
( NTS )

**VIEW C**

SECTION C-C  
(N.T.S.)

**FITTING OF BALANCING WEIGHTS**  
( SEE T.R.-15 ) (N.T.S.)

DETAIL III  
(SCALE 1:2)

### DETAIL IX

DETAIL VIII

**SECTION B-B**  
(SCALE 1:2)

### TECHNICAL REQUIREMENTS :-

1. WHILE MARKING, IT SHOULD BE NOTED THAT THE COORDINATE SYSTEM OF AXIS 1 ON TURBINE END MATCHES WITH COORDINATE SYSTEM OF AXIS 1 ON GENERATOR END.
2. GROOVES FOR BALANCING WEIGHTS AS PER DETAIL--V ARE NOT TO BE USED DURING BALANCING OF ROTOR IN THE PLANT. THESE ARE TO BE USED ONLY FOR ADDITIONAL BALANCING OF ROTOR AT PLANT.
3. THE EXACT QUANTITY OF ITEM No. 4 & 5 TO BE USED IS DETERMINED DURING BALANCING OF LP ROTOR IN THE PLANT.
4. 50 PIECES EACH OF THE ITEM No. 9 & 10 ARE TO BE SUPPLIED LOOSE TO SITE FOR ADDITIONAL BALANCING OF ROTOR IF REQUIRED AT SITE.
5. FOR FORGING DRAWING OF THE SHAWT REFER DRG.No. 1-103-01-62906-00
6. WEIGHT OF BLADED ROTOR = 4495.0 Kg.
7. DIMENSION WITH (-----) ARE FOR REFERENCE ONLY.
8. HOLES FOR COUPLING BOLTS ( SEC--AA & VIEW-X ) ARE TO BE DRILLED AND REAMED WITH THE HELP OF JIG AND THE SAME JIG MUST BE USED FOR DRILLING AND REAMING OF COUPLING HOLES ON THE FLANGE OF THE MATING ROTOR ALSO.
9. FOR ASSEMBLY OF POS. 12, 13 REFER PGMA 10781 (Assy Drawing-0107/6622000-00)
10. (a) RUNDOUT VALUES OF LP ROTOR BEFORE AND AFTER BALANCING AND OVER SPEEDING TEST TO BE RECORDED AS PER Q.A DOCUMENT No. 0-10301-35000-LS.
11. (b) BALANCING TO BE CARRIED OUT AS PER TC51357
12. IF THE ROTOR FORGING IS WITH THE ALUM. TREATED CORE HOLE, IT SHALL BE PLUGGED AS PER DRG. No. 1-10305-01500.
13. THE SCREWS ITEM No.2 (SEC--AA) SHOULD BE CALULATED AT TWO DIAGONALLY OPPOSITE LOCATION BY CENTRE PUNCH AFTER ASSLY. OF COVER ITEM No.2 (SEC--AA) AT SITE.
14. THESE POINTS ARE ROTOR SLUNGING POINTS , USE RUBBER/LEATHER SHEET (10x200x000) AROUND THE SLUNGS LIFTING OF ROTOR TO AVOID ANY DAMAGE OF WORKED SURFACE.
15. CARE TO BE TAKEN REGARDING POSITION OF THE CHAMFER SHOWN IN DETAILS V & VI.  
ONLY ONE EDGE OF EACH GROOVE AS SHOWN IS TO BE CHAMFERED.
16. THE END BALANCING WEIGHTS OF ANY VECTOR ON EITHER SIDE SHOULD BE STELLITE-6 ITEM No.11.
17. HOLES AS SHOWN IN DETAIL--IX MUST BE MADE IN ALIGNMENT WITH THE CENTER LINE OF JIG.
18. IDENTIFICATION ACC TO HIR.0400397 AT THE PLACE INDICATED WITH II
19. An Allowance of 2mm on Diameter is to be provided on Journal surface , which will be finished after blading of rotor

**DATA FOR OVERSPEED TEST:-**

- a. OVER SPEED FREQUENCY .. .. = 62.5 Hz ( 3750 RPM )
  - b. DURATION OF OVERSPEED .. .. = 2 MINUTES.
  - c. CRITICAL SPEED OF THE ROTOR .. = 132.8 RPM ( 22.137 S<sup>-1</sup> ) ( COLD )
  - d. OPERATIONAL SPEED .. .. = 50.0 Hz ( 3000 RPM )
  - e. EXPLODING ENERGY OF THE ROTOR IS LESS THAN 7500 1/2 INCH METRE
- f. DIRECTION OF ROTATION OF ROTOR WHEN SEEN IN DIRECTION OF THE GENERATOR : ANTICLOCKWISE
- g. BEFORE BALANCING AND OVERSPEEDING TEST, THE ASSEMBLY OF ROTOR SHOULD BE COMPLETE IN ALL RESPECT.

VAR.00		REMARKS	ITEM NO	DESCRIPTION	STD	DRAWING NO.	29.31	MATERIAL CODE	UNIT	UNIT WEIGHT	QTY
558	64	65	75	25	27	29	31	32	33	34	35
CARD TYPE - 3 - 28						CARD TYPE - 2					
QMS NO / GRP SP NO						TYPE OF PRODUCT					
OR						NAME OF CUSTOMER / PROJECT					
APPROVED BY						SIGNATURE					
NAME						NAME					
SIGNATURE						SIGNATURE					
DATE						DATE					
ZONE						ZONE					
H11						H11					
DATE						DATE					
01/05/09						01/05/09					
CHECKED						CHECKED					
GMM						GMM					
CNVR						CNVR					
DMM 601 WAS 803						DMM 601 WAS 803					
DMM 1416 WAS 1418						DMM 1416 WAS 1418					
DMM 1276 WAS 1278						DMM 1276 WAS 1278					
DEPT.						DEPT.					
CODE						CODE					
TITLE						TITLE					
L.P. SHAFT						L.P. SHAFT					
DRAWING NO						DRAWING NO					
01030162005						01030162005					
SHEET NO						SHEET NO					
1						1					
NO OF SHEETS						NO OF SHEETS					
1						1					