



TME 2013

## PRODUCT STANDARD

TME DIVISION, BHOPAL

TM 12545

Rev. No. 00

PAGE 01 OF 02

### Quality Requirement of components (with mandatory requirement of checking on 3DCMM)

1.0. For bought out components with mandatory requirement of checking on 3D CMM, BHEL inspection for the components/lot shall be done at BHEL Bhopal and final acceptability of the component/lot will be based on this inspection.

**List of components:** Magnet frame, Bearing assembly components, Suspension tubes and its assembly components, etc. having requirement of checking on 3DCMM as mentioned in indent/enquiry.

1.1. Supplier has to furnish all the documents along with each consignment as per quality requirements mentioned in this product standard.

#### 2.0. Quality requirement:

| Sl. No. | Parameters                                                    | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Norm for Acceptability and Rejection                                                                                                                                              |
|---------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Prototype inspection for the first time supply to BHEL Bhopal | In case of any supply of components (against a particular drawing) for which no supply has been done earlier by vendor to BHEL, prototype clearance of 6 sets of component at BHEL will be required before bulk supply.                                                                                                                                                                                                                                                                                                             | Rejection of the prototype will require the supplier to offer new set of prototype components.                                                                                    |
| 2       | Unique Identification of components                           | Each component shall be punched on unmachined surface/ etched (by pencil etching machine with tungsten carbide tip) on machined surface legibly and indelibly in capital letters, preferably by using stencils, with following details<br>a) Manufacturer's initials or trade mark<br>b) Manufacturers unique Sl. No., BHEL PO no., Batch no./Heat no., date of manufacturing in MM-YY format<br>For size and location of identification marks supplier to take prior approval from BHEL unless otherwise specified in the drawing. | In case of non-Compliance of requirement the component will be rejected.                                                                                                          |
| 3       | Dimensional report                                            | Supplier to ensure that all dimensions and geometrical tolerances are as per drawing. Dimensional report of each component checked on 3DCMM must be submitted against each lot/Store Receipt Voucher (SRV). The supplier report of the components must contain all the toleranced dimensions and geometrical tolerances                                                                                                                                                                                                             | In case of non-submission of reports against each SRV, the lot will not be acceptable. In case of non-conformity observed in 3DCMM report the component are liable to be rejected |

Rev. No. 00

Distribution

Prepared

Checked

Approved

Date: 11/04/2013

TME - 2 MNX - 1  
TXM - 1 TAM - 1  
QMX - 1

(N Kumar)

(M Verma)

(S K Bhatia)



TME 2013

## PRODUCT STANDARD

TME DIVISION, BHOPAL

TM 12545

Rev. No. 00

PAGE 02 OF 02

|   |                              |                                                                                                                                                                                                                                                      |                                                                                                                                                        |
|---|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Material testing at BHEL     | Supplier to provide test samples (one sample per heat/lot against each PO) for testing of the same at BHEL. Tests will be carried out at BHEL as per respective specification.                                                                       | In case of non-submission of test samples whole lot will be rejected. In case of non-conformity in test sample the whole lot is liable to be rejected. |
| 5 | Material test certificate    | Supplier to furnish material test certificate from NABL approved laboratory, as per respective material specification.                                                                                                                               | Based on non-conformity in the test certificates, whole lot is liable to be rejected.                                                                  |
| 6 | Dimensional Check at BHEL    | The dimensions shall be checked at BHEL on samples at BHEL discretion (min. 1 no. or 20% of the received quantity against each lot/SRV) selected on random basis and final acceptability of the lot shall be decided after inspection at BHEL Works. | Whole lot is liable to be rejected in case of discrepancies.                                                                                           |
| 7 | NDT of the supplied material | Supplier to furnish records of NDT conducted on components as per drawing requirement, specification requirement and records of the same to be submitted along with the supply. NDT on sample basis shall also be conducted at BHEL.                 | Based on non-conformity in supplier reports and test samples tested in BHEL, whole lot is liable to be rejected.                                       |
| 8 | Any other requirement        | Supplier to furnish compliance certificate of other requirements mentioned in drawing/specification. For compliance of other requirements necessary check on sample basis shall also be conducted at BHEL.                                           | Based on non-conformity observed in supplier certificate or BHEL inspection of samples, whole lot is liable to be rejected.                            |
| 9 | Packing of the components    | Supplier shall ensure proper packing of components to prevent any damage to components during transit. Machined surfaces shall be suitably protected with air bubble polythene sheet/foam sheet.                                                     | The components received in damaged condition will not be acceptable.                                                                                   |

*Signature*  
*Signature*