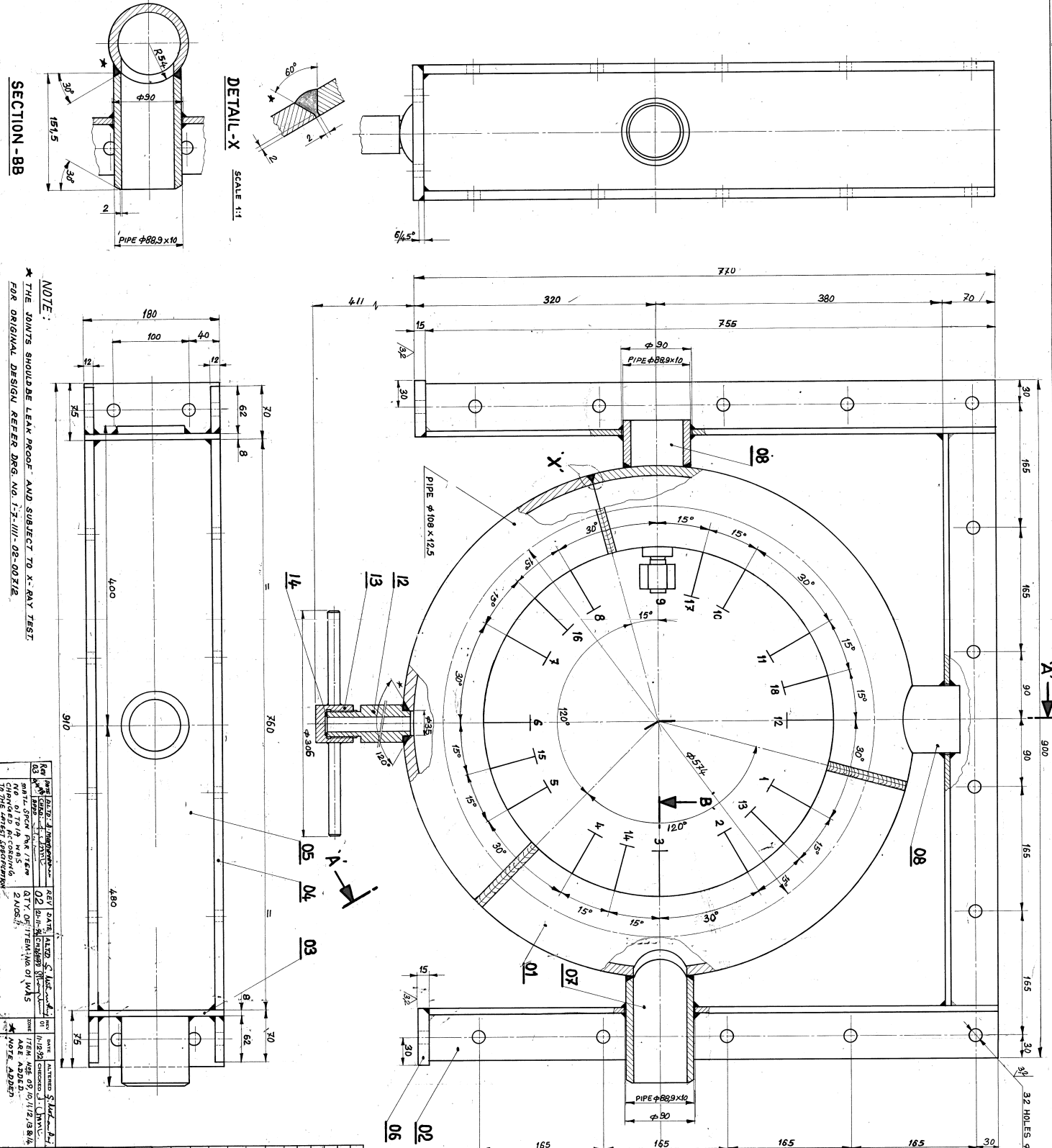


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DETAIL - X  
SCALE 1:1

SECTION - BB

NOTE:  
\* THE JOINTS SHOULD BE LEAK PROOF AND SUBJECT TO X-RAY TEST FOR ORIGINAL DESIGN REFER DRG. NO. I-3-III-02-00218.

| REV | DATE     | BY          | CHKD        | DESCRIPTION             |
|-----|----------|-------------|-------------|-------------------------|
| 01  | 12/18/84 | S. K. SINGH | S. K. SINGH | ISSUED FOR FABRICATION  |
| 02  | 01/12/85 | S. K. SINGH | S. K. SINGH | REVISED AS PER COMMENTS |

| NO. | DESCRIPTION            | QTY | UNIT | WT.   |
|-----|------------------------|-----|------|-------|
| 01  | PIPE φ108x12.5 - 601.0 | 1   | kg   | 17.59 |
| 02  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 03  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 04  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 05  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 06  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 07  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 08  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 09  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 10  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 11  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 12  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 13  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |
| 14  | PIPE φ88.9x10 - 70.0   | 2   | kg   | 5.6   |

SM - DESCALING RING  
(WITH BI-DIRECTIONAL FLOW)

1-3-III-02-01080 03

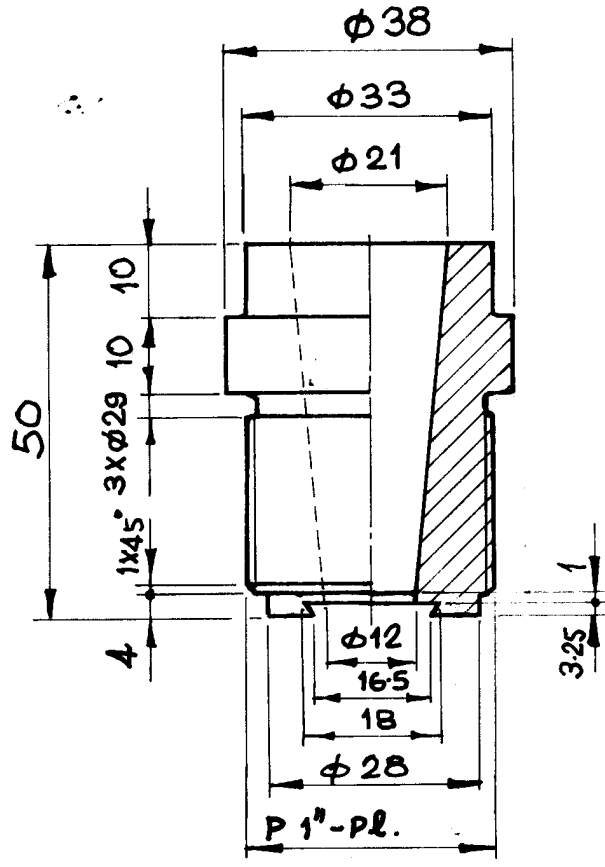
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

05-249 B

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|   |                |                     |
|---|----------------|---------------------|
| REV<br>01   | DATE<br>9-4-98 | ALTERED<br>A. Chand |
| ZONE  |                | CHECKED<br>J. Ummi  |
| APPROVED<br>[Signature]   |                |                     |
| MATERIAL SPECIFICATION<br>13Ni13Cr3<br>15:1570 WAS 13Ni13Cr3<br>15:1570 |                |                     |

16 ✓



DOVETAIL GUIDEWAY TO BE  
CASE HARDENED TO HRC 50 ~ 60  
CASE DEPTH = 0.5 ~ 1 mm.

|          |             |           |         |
|----------|-------------|-----------|---------|
| ITEM NO. | DESCRIPTION | MATL CODE | UNIT WT |
|          |             | MATL SPEC | QTY     |

13Ni13Cr3 15:1570

EQPT: SRM DESCALING UNIT

|   |                     |             |                   |                       |          |
|---|---------------------|-------------|-------------------|-----------------------|----------|
| <p><b>Bharat Heavy Electricals Ltd.,</b><br/>SEAMLESS STEEL TUBE PLANT<br/>TIRUCHIRAPALLI-620 014</p> | DRN                 | NAME        | SIGN              | DATE                  |          |
|   | CHD                 | J. Ummi     | [Signature]       | 28-12-91              |          |
|   | APPD                | [Signature] | [Signature]       | 12-12-92              |          |
| DEPT  | GRADE OF UNTOL. DIM | SCALE       | WEIGHT (kg)       | REF TO ASSY / OLD DRG | ITEM NO. |
| CODE  | C/M/F               | 1:1         | 0.215             | 0-7-1111-00-00710     | 08       |
| TITLE   | CARD CODE           |             | DRAWING NO.       |                       | REV.     |
| <u>NIPPLE</u><br>FOR SRM DESCALING UNIT   | U 01                |             | 4-7-1111-03-01320 |                       | 01       |

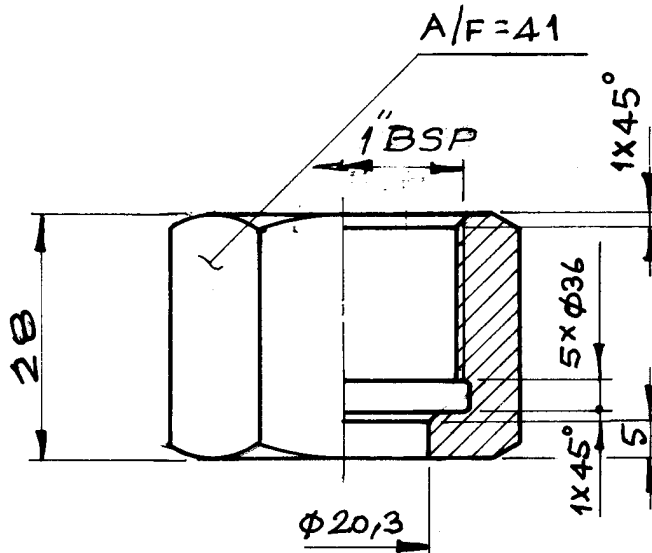
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

05.249 / B

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|           |              |  |   |                            |                             |
|-----------|--------------|--|---|----------------------------|-----------------------------|
| REV<br>01 | DATE<br>6497 | ALTERED<br><i>[Signature]</i>            | REV<br>02   | DATE<br><i>[Signature]</i> | ALD:-<br><i>[Signature]</i> |
| ZONE      |              | APPD.<br><i>[Signature]</i>              | THK WAS 33 REVISED AS PER SHOP (HM/MTEE) REQUEST. |                            |                             |
|           |              | MATL. SPEC. 45CB IS:1875 WAS C43 IS:1570 |   |                            |                             |

312  
✓



|          |             |              |         |
|----------|-------------|--------------|---------|
| ITEM NO. | DESCRIPTION | MATL CODE    | UNIT WT |
|          |             | 45CB IS:1875 |         |
|          |             | MATL SPEC    | QTY     |

EQPT: SRM DESCALING UNIT

|  |      |                    |                    |          |
|--|------|--------------------|--------------------|----------|
| <b>Bharat Heavy Electricals Ltd.,</b><br>SEAMLESS STEEL TUBE PLANT<br>TIRUCHIRAPALLI-620 014 | DRN  | NAME               | SIGN               | DATE     |
|  | CHD  | <i>[Signature]</i> | <i>[Signature]</i> | 24.12.81 |
|  | APPD | <i>[Signature]</i> | <i>[Signature]</i> | 26.12.81 |

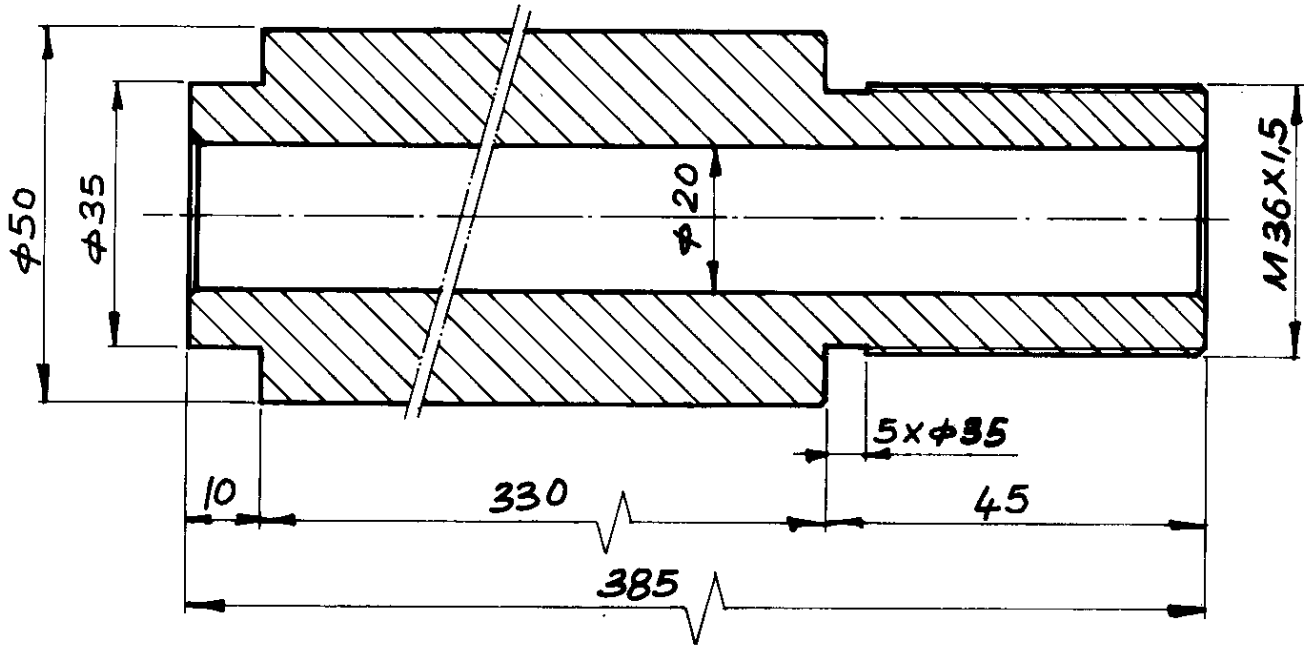
|            |                           |       |             |                     |          |
|------------|---------------------------|-------|-------------|---------------------|----------|
| DEPT       | GRADE OF UNTOL. DIM C/M/F | SCALE | WEIGHT (kg) | REF TO ASSY OLD DRG | ITEM NO. |
| CODE       |                           | 1:1   | 0,180       | 0-7-111-00-00 710   | 09       |
| TITLE      |                           |       | CARD CODE   | DRAWING NO.         | REV.     |
| <u>NUT</u> |                           |       | U 01        | 4-7-111-03-01321    | 02       |

S 27-009

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|   |                |                               |
|---|----------------|-------------------------------|
| REV<br>01   | DATE<br>9-4-98 | ALTERED<br><i>[Signature]</i> |
|   |                | CHECKED<br><i>[Signature]</i> |
| APPROVED:<br><i>[Signature]</i>                                   |                |                               |
| ZONE<br>M7L SPEN 13Ni13 Cr3<br>IS:1570 WAS 13Ni13 Cr80<br>IS:1570 |                |                               |

3.2/✓



|          |                          |                   |         |
|----------|--------------------------|-------------------|---------|
|          | ROD $\phi 50 \times 390$ | 13Ni13Cr3 IS:1570 |         |
| ITEM NO. | DESCRIPTION              | MATL CODE         | UNIT WT |
|          |                          | MATL SPEC         | QTY     |

EQPT: DESCALING DEVICE (SRM)

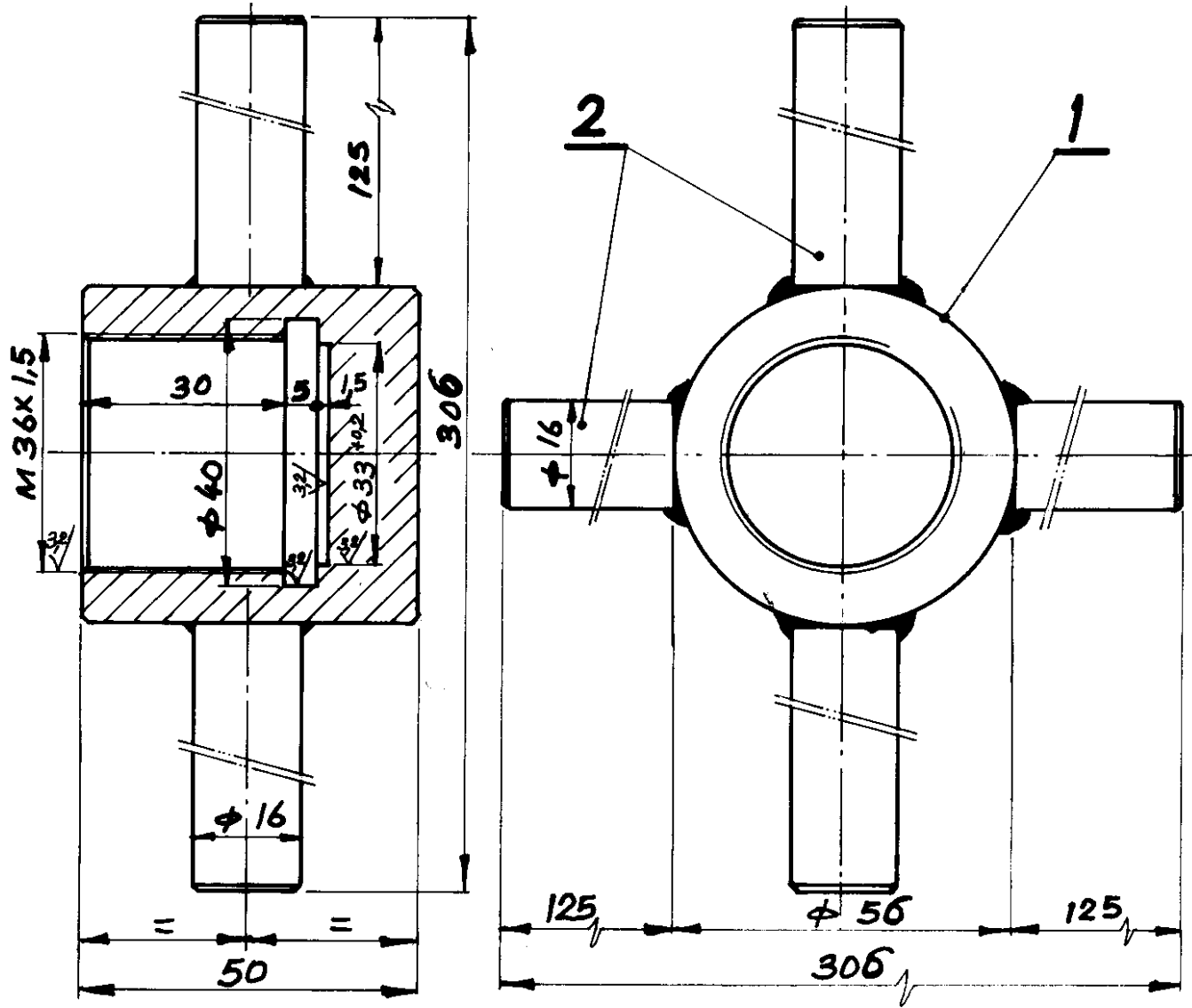
|  |  |      |                     |                                     |  |                |
|--|--|------|---------------------|-------------------------------------|--|----------------|
|  | <b>Bharat Heavy Electricals Ltd.,</b><br>SEAMLESS STEEL TUBE PLANT<br>TIRUCHIRAPALLI - 620 014 | DRN  | NAME<br>B. MOHANRAJ | SIGN<br><i>[Signature]</i>          | DATE<br>11-12-92                           |                |
|  |  | CHD  | <i>[Signature]</i>  | <i>[Signature]</i>                  | 12-12-92                                   |                |
|  |  | APPD | <i>[Signature]</i>  | <i>[Signature]</i>                  | 11-12-92                                   |                |
| DEPT   | GRADE OF UNTOL. DIM<br>C/M/F   |      | SCALE<br>1:1        | WEIGHT (kg)<br>4.5                  | REF TO ASSY / OLD DRG<br>1-7-1111-00-01080 | ITEM NO.<br>12 |
| CODE   |  |      |                     |                                     |  |                |
| TITLE<br><b>DRAIN TUBE</b><br>(SRM DESCALING RING) |  |      | CARD CODE<br>U 01   | DRAWING NO.<br>4-7-1111-03-02452 01 |  | REV            |

S 27-009

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|        |   |                    |
|--------|---|--------------------|
| REV 01 | DATE  | ALTERED A. Madhavi |
|        | 9-4-98  | CHECKED J. J. J.   |
| ZONE   | MTL SPEC FE410WC 15:2062<br>FOR ITEM 01 AND 02 WERE<br>C20 IS:2062 AND C20<br>IS:226 RESPECTIVELY |                    |

N/32



|          |                          |                 |         |      |
|----------|--------------------------|-----------------|---------|------|
| 2        | ROD $\phi 16 \times 125$ | FE410WC 15:2062 | 4       | 0,19 |
| 1        | $\phi 56 \times 50$      | FE410WC 15:2062 | 1       | 0,66 |
| ITEM NO. | DESCRIPTION              | MATL CODE       | UNIT WT |      |
|          |                          | MATL SPEC       | QTY     |      |

EQPT: DESCALING DEVICE (SRM)



**Bharat Heavy Electricals Ltd.,**  
SEAMLESS STEEL TUBE PLANT  
TIRUCHIRAPALLI-620 014

|      |             |            |          |
|------|-------------|------------|----------|
| DRN  | NAME        | SIGN       | DATE     |
| CHD  | S.MOHAN RAO | S. Madhavi | 11-12-92 |
| APPD | J. J. J.    | J. J. J.   | 12-12-92 |
|      |             |            | 12-12-92 |

|      |                     |       |             |                     |          |
|------|---------------------|-------|-------------|---------------------|----------|
| DEPT | GRADE OF UNTOL. DIM | SCALE | WEIGHT (kg) | REF TO ASSY OLD DRG | ITEM NO. |
| CODE | C/M/F               | 1:1   | 1,42        | 1-7-1111-00-01080   | 13       |

|   |           |                          |     |
|---|-----------|--------------------------|-----|
| TITLE                                     | CARD CODE | DRAWING NO.              | REV |
| <b>CLOSED NUT</b><br>(SRM DESCALING RING) | U 01      | <b>4-7-1111-03-02453</b> | 01  |