

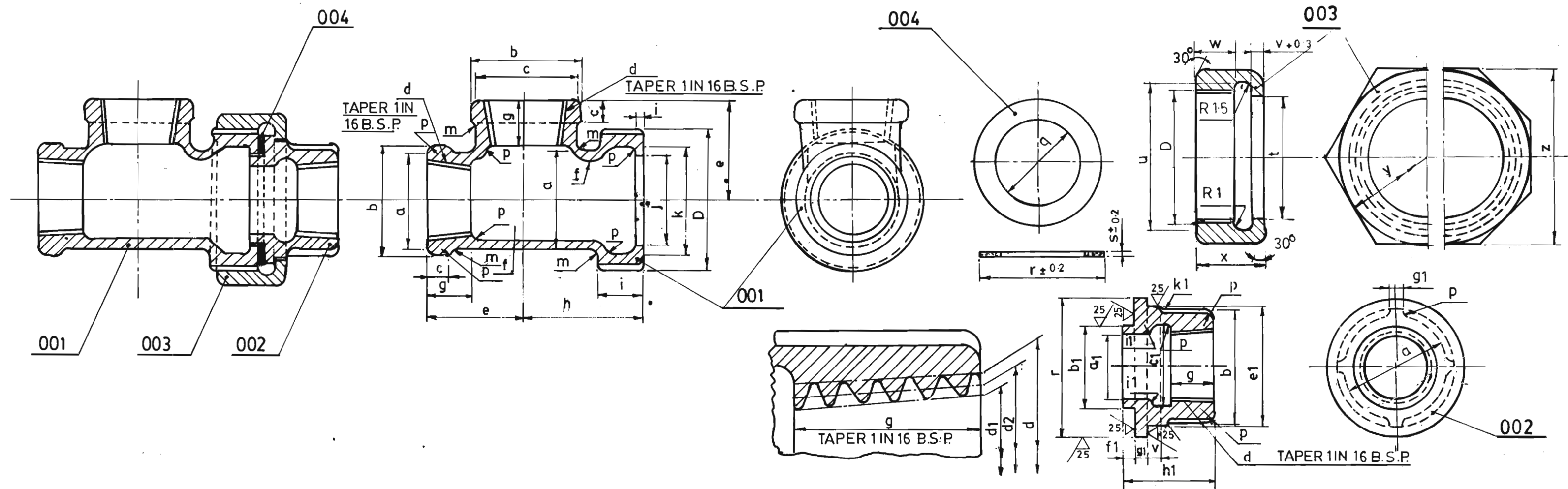
(ALL DIMENSIONS ARE IN mm)

SIZE A2

### **SET OF MCI FITTINGS FOR DESL**

| SL NO. | DESCRIPTION                             | DRG NO.         | ITEM NO. | QTY/LOCO |
|--------|-----------------------------------------|-----------------|----------|----------|
| 1      | Union female (15-21) - 1/2"             | 2 719 65 01 002 | NA       | 12       |
| 2      | Union female (21-27) - 3/4"             | 2 719 65 01 002 | NA       | 10       |
| 3      | Union female (26-34) - 1"               | 2 719 65 01 002 | NA       | 6        |
| 4      | Union female (33-42) - 1-1/4"           | 2 719 65 01 002 | NA       | 10       |
| 5      | Union female elbow (15-21) - 1/2"       | 2 719 65 01 003 | NA       | 10       |
| 6      | Union female elbow (21-27) - 3/4"       | 2 719 65 01 003 | NA       | 12       |
| 7      | Union female elbow (26-34) - 1"         | 2 719 65 01 003 | NA       | 8        |
| 8      | Union female elbow (33-42) - 1-1/4"     | 2 719 65 01 003 | NA       | 10       |
| 9      | Union elbow male female (33-42) 1-1/4"  | 2 719 65 01 020 | NA       | 8        |
| 10     | Union elbow male female (21-27) - 3/4"  | 2 719 65 01 020 | NA       | 2        |
| 11     | Union male & female (15-21) - 1/2"      | 2 719 65 01 048 | NA       | 4        |
| 12     | Union male & female (21-27) - 3/4"      | 2 719 65 01 048 | NA       | 4        |
| 13     | Union male & female (26-34) - 1"        | 2 719 65 01 048 | NA       | 2        |
| 14     | Union tee female (A) (15-21) - 1/2"     | 2 719 65 01 001 | NA       | 5        |
| 15     | Union tee female (A) (21-27) - 3/4"     | 2 719 65 01 001 | NA       | 2        |
| 16     | Union tee female (A) (33-42) - 1-1/4"   | 2 719 65 01 001 | NA       | 2        |
| 17     | Union tee female (B) (15-21) - 1/2"     | 2 719 65 01 047 | NA       | 2        |
| 18     | Union tee female (B) (21-27) - 3/4"     | 2 719 65 01 047 | NA       | 2        |
| 19     | Union tee female (B) (33-42) - 1-1/4"   | 2 719 65 01 047 | NA       | 0        |
| 20     | Cap Nut (15-21) - 1/2"                  | 2 719 65 01 004 | #003     | 2        |
| 21     | Cap Nut (21-27) - 3/4"                  | 2 719 65 01 004 | #004     | 0        |
| 22     | Socket (T) (15-21) - 1/2"               | 2 719 65 01 007 | #003     | 4        |
| 23     | Socket (T) (21-27) - 3/4"               | 2 719 65 01 007 | #004     | 2        |
| 24     | Socket (T) (26-34) - 1"                 | 2 719 65 01 007 | #005     | 4        |
| 25     | Socket (T) (33-42) - 1-1/4"             | 2 719 65 01 007 | #006     | 4        |
| 26     | Elbow 90 deg equal (T) (26-34) - 1"     | 3 719 65 01 001 | NA       | 2        |
| 27     | Elbow 90 deg equal (T) (33-42) - 1-1/4" | 3 719 65 01 001 | NA       | 0        |
| 28     | Elbow 90 deg equal (T) (21-27) - 3/4"   | 3 719 65 01 001 | NA       | 2        |
| 29     | Tee Equal (T) (15-21) - 1/2"            | 2 719 65 01 008 | #003     | 6        |
| 30     | Tee Equal (T) (21-27) - 3/4"            | 2 719 65 01 008 | #004     | 4        |
| 31     | Reducing boss 1/2" x 1/4"               | 3 719 65 01 020 | #001     | 8        |
| 32     | Reducing boss 1/2" x 3/8"               | 3 719 65 01 020 | #002     | 8        |
| 33     | Plug Type B (15-21) - 1/2" BSP          | 3 719 65 01 003 | #001     | 10       |
| 34     | Plug Type B (26-34) - 1" BSP            | 3 719 65 01 003 | #003     | 2        |
| 35     | Elbow Parallel (15-21) - 1/2"           | 2 719 65 01 029 | #004     | 6        |

(ALL DIMENSIONS ARE IN mm)



| NOM. SIZE<br>IN MM |        | IN INCH<br>B.S.P.<br>SIZE | a  | b  | c  | MAJOR<br>DIA<br>d | EFFECTIVE<br>DIA<br>d <sub>1</sub> | MINOR<br>DIA<br>d <sub>2</sub> | n<br>T.P.I. | e      | f   | g  | h      | i  | j                                 | k  | l | m   | p   | q                                | r  | s   | t                                | u  | v   | w  | x  | y<br>HEX                        | z<br>OCT.                       | D.WITH |        | a <sub>1</sub> | b <sub>1</sub>                 | c <sub>1</sub> | e <sub>1</sub>                     | f <sub>1</sub> | g <sub>1</sub> | STYLE NO. | STYLE NO FOR<br>WAG-7 LOW. |  |
|--------------------|--------|---------------------------|----|----|----|-------------------|------------------------------------|--------------------------------|-------------|--------|-----|----|--------|----|-----------------------------------|----|---|-----|-----|----------------------------------|----|-----|----------------------------------|----|-----|----|----|---------------------------------|---------------------------------|--------|--------|----------------|--------------------------------|----------------|------------------------------------|----------------|----------------|-----------|----------------------------|--|
| ID                 | OD     |                           |    |    |    |                   |                                    |                                |             |        |     |    |        |    |                                   |    |   |     |     |                                  |    |     |                                  |    |     |    |    |                                 |                                 | DIA    | T.P.I. |                |                                |                |                                    |                |                |           |                            |  |
| 8-13               | 1/4"   |                           | 19 | 22 | 5  | 13-157            | 12-301                             | 11-445                         | 19          | 19±1.5 | 2-5 | 9  | 26±1.5 | 10 | 17-0 <sup>0.15</sup> <sub>0</sub> | 21 | 2 | 1-5 | 1   | 16±0 <sup>0.5</sup> <sub>0</sub> | 26 | 1-5 | 24±0 <sup>0.2</sup> <sub>0</sub> | 31 | 2-5 | 9  | 16 | 35-0 <sup>0</sup> <sub>8</sub>  |                                 | 30     | 12     | 11             | 16-0 <sup>0</sup> <sub>5</sub> | 14             | 23-7-0 <sup>0</sup> <sub>0.2</sub> | 3              | 2-5            | 706235    |                            |  |
| 12-17              | 3/8"   |                           | 23 | 25 | 5  | 16-662            | 15-606                             | 14-950                         | 19          | 23±1.5 | 2-5 | 10 | 29±1.5 | 11 | 20±0 <sup>0.2</sup> <sub>0</sub>  | 23 | 2 | 2-5 | 1   | 19±0 <sup>0.2</sup> <sub>0</sub> | 28 | 1-5 | 26±0 <sup>0.2</sup> <sub>0</sub> | 33 | 3   | 10 | 18 | 38-0 <sup>0</sup> <sub>8</sub>  |                                 | 32     | 12     | 14             | 19-0 <sup>0</sup> <sub>2</sub> | 18             | 25-7-0 <sup>0</sup> <sub>0.2</sub> | 3              | 2-5            | 706020    | 642109                     |  |
| 15-21              | 1/2"   |                           | 27 | 30 | 6  | 20-955            | 19-793                             | 18-631                         | 14          | 27±1.5 | 2-5 | 12 | 32±1.5 | 12 | 24±0 <sup>0.2</sup> <sub>0</sub>  | 29 | 2 | 2-5 | 1   | 23±0 <sup>0.2</sup> <sub>0</sub> | 34 | 1-5 | 32±0 <sup>0.2</sup> <sub>0</sub> | 40 | 3   | 10 | 18 | 46-0 <sup>0</sup> <sub>10</sub> |                                 | 38     | 12     | 18             | 23-0 <sup>0</sup> <sub>2</sub> | 22             | 31-7-0 <sup>0</sup> <sub>0.2</sub> | 35             | 2-5            | 706021    | 642110                     |  |
| 21-27              | 3/4"   |                           | 34 | 36 | 6  | 26-441            | 25-279                             | 24-117                         | 14          | 32±1.5 | 3   | 14 | 38±1.5 | 13 | 30±0 <sup>0.2</sup> <sub>0</sub>  | 34 | 2 | 3   | 1   | 29±0 <sup>0.2</sup> <sub>0</sub> | 40 | 1-5 | 37±0 <sup>0.2</sup> <sub>0</sub> | 45 | 3   | 11 | 19 | 50-0 <sup>0</sup> <sub>10</sub> |                                 | 44     | 12     | 24             | 29-0 <sup>0</sup> <sub>2</sub> | 28             | 36-7-0 <sup>0</sup> <sub>0.2</sub> | 4              | 2-5            | 706022    | 642111                     |  |
| 26-34              | 1"     |                           | 41 | 44 | 7  | 33-249            | 31-770                             | 30-291                         | 11          | 38±1.5 | 3   | 16 | 43±1.5 | 14 | 37±0 <sup>0.2</sup> <sub>0</sub>  | 44 | 3 | 3   | 1   | 36±0 <sup>0.2</sup> <sub>0</sub> | 50 | 1-5 | 47±0 <sup>0.2</sup> <sub>0</sub> | 56 | 3-5 | 12 | 21 |                                 | 63-0 <sup>0</sup> <sub>12</sub> | 55     | 12     | 30             | 36-0 <sup>0</sup> <sub>2</sub> | 35             | 46-7-0 <sup>0</sup> <sub>0.2</sub> | 4              | 3              |           |                            |  |
| 33-42              | 1 1/4" |                           | 50 | 53 | 8  | 41-910            | 40-431                             | 38-952                         | 11          | 46±2   | 3-5 | 18 | 50±2   | 15 | 45±0 <sup>0.2</sup> <sub>0</sub>  | 51 | 3 | 3   | 1   | 44±0 <sup>0.2</sup> <sub>0</sub> | 58 | 1-5 | 55±0 <sup>0.3</sup> <sub>0</sub> | 63 | 4   | 13 | 23 |                                 | 71-0 <sup>0</sup> <sub>15</sub> | 62     | 12     | 38             | 44-0 <sup>0</sup> <sub>2</sub> | 43             | 54-7-0 <sup>0</sup> <sub>0.3</sub> | 4              | 3-5            | 706230    | 642112                     |  |
| 40-49              | 1 1/2" |                           | 56 | 60 | 9  | 47-803            | 46-324                             | 44-845                         | 11          | 48±2   | 3-5 | 19 | 53±2   | 16 | 51±0 <sup>0.3</sup> <sub>0</sub>  | 59 | 3 | 3   | 1-5 | 50±0 <sup>0.2</sup> <sub>0</sub> | 66 | 1-5 | 62±0 <sup>0.3</sup> <sub>0</sub> | 72 | 4   | 14 | 24 |                                 | 80-0 <sup>0</sup> <sub>15</sub> | 70     | 12     | 44             | 50-0 <sup>0</sup> <sub>2</sub> | 49             | 61-7-0 <sup>0</sup> <sub>0.3</sub> | 4-5            | 3-5            |           |                            |  |
| 50-60              | 2"     |                           | 69 | 73 | 11 | 59-614            | 58-135                             | 56-656                         | 11          | 57±2.5 | 4   | 21 | 62±2.5 | 18 | 64±0 <sup>0.3</sup> <sub>0</sub>  | 70 | 3 | 3-5 | 1-5 | 62±0 <sup>0.3</sup> <sub>0</sub> | 78 | 1-5 | 74±0 <sup>0.3</sup> <sub>0</sub> | 86 | 4-5 | 16 | 27 |                                 | 95-0 <sup>0</sup> <sub>15</sub> | 32     | 12     | 55             | 62-0 <sup>0</sup> <sub>3</sub> | 61             | 73-5-0 <sup>0</sup> <sub>0.3</sub> | 5              | 4              | 706023    |                            |  |

| NOM. SIZE<br>IN MM.<br>ID.-O.D. | IN INCH<br>B.S.P.<br>SIZE | $h_1$        | $i_1$ | $j_1$ | $k_1$ |
|---------------------------------|---------------------------|--------------|-------|-------|-------|
| 8-13                            | 1/4"                      | $21^{+1.5}$  | 2.5   | 3     | 3     |
| 12-17                           | 3/8"                      | $22 \pm 1.5$ | 2.5   | 3     | 3     |
| 15-21                           | 1/2"                      | $24 \pm 1.5$ | 2.5   | 4     | 3     |
| 21-27                           | 3/4"                      | $28 \pm 1.5$ | 2.5   | 4     | 3     |
| 26-34                           | 1"                        | $32 \pm 1.5$ | 3     | 5     | 4     |
| 33-42                           | 1 1/4"                    | $34 \pm 2$   | 3     | 5     | 4     |
| 40-49                           | 1 1/2"                    | $36 \pm 2$   | 3     | 5     | 4     |
| 50-60                           | 2"                        | $40 \pm 2.5$ | 3.5   | 5     | 5     |

\* 1 MATERIAL SPECN:-- MALLEABLE CAST IRON TO IS: 2107 (1979) GR. WM -340 (WHITE HEART) OR IS: 2108 (1979) GR. M -290 (BLACK HEART) VIDE SR.C & M'S LETTER NO. M/6/163/948 Dt. 13-8-79 AS AN ALTERNATIVE TO MC 1, FORGING STEEL TO IS: 1875 CL-2 IS ALSO ACCEPTABLE.

2. ALL THE FINISH PIPE FITTINGS SHALL BE TESTED AS PER THE CLW'S TEST SPECN/NO. M/EL/57/Ts: 68 Dt 8-5-85.

[illegible]

#### ADDITIONAL INFORMATION

**STATUS OF DRAWING**

| DISTRIBUTION OF PRINTS      |  |
|-----------------------------|--|
| 0/C - 1, PPC - 2, ASSY - 2, |  |
| IE - 1, QAX - 1, BAY3 - 2,  |  |
| BAY 1&2 - 2.                |  |

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT STANDARD

|                                                                                                                                                |      |                |              |                 |                |
|------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|--------------|-----------------|----------------|
|  <b>BHARAT HEAVY ELECTRICALS LIMITED</b><br><b>JHANSI</b> | DRN. | NAME<br>S.E.S. | SIGN.<br>SES | DATE<br>1.11.87 | 73 74          |
|                                                                                                                                                | CHD. | VINAY          | VS           | 1.11.87         | No. OF<br>VAR. |
|                                                                                                                                                | APPD | P.G.K          |              | 1.12.87         |                |

|           |                   |                                                                                       |       |              |                    |               |
|-----------|-------------------|---------------------------------------------------------------------------------------|-------|--------------|--------------------|---------------|
| DEPT. LCE | GRADE OF UN. TOL. |  | SCALE | WEIGHT (Kg.) | REF. TO ASSY. DRG. | ITEM 75 77    |
| CODE 40L  | DIMC/M/F          |                                                                                       |       |              |                    | No. OF No. OF |
|           |                   |                                                                                       |       |              |                    | ITEMS 004     |

|                      |      |   |   |                 |               |    |    |
|----------------------|------|---|---|-----------------|---------------|----|----|
| TITLE                | 1    | 3 | 7 | DRAWING No.     | 22            | 23 | 24 |
|                      |      |   |   |                 |               |    |    |
| UNION TEE FEMALE (A) | CARD |   |   | 2 719 65 01 001 | REV.          | 02 |    |
|                      | CODE |   |   | SHEET No. 01    | No. OF SHEETS | 01 |    |

S.E.S. BPL. SIZE A2

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CLW 0/3/65/13 REV. 5  
SIGN. & DATE REF. DRG. No.

INVENTORY No.

(ALL DIMENSIONS ARE IN mm)



NOTES :—

- \* 1. MATERIAL SPECN:-MALLEABLE CAST IRON TO IS:2107(1991)GR.WM-340 (WHITE HEART)  
OR IS:2108(1991)GR.M 290(BLACK HEART)VIDE SR.C&M'S LETTER NO.M/5/163/948  
DT.13-8-79 AS AN ALTERNATIVE TO MCI. FORGING STEEL TO IS:1875 CL 2 IS ALSO  
ACCEPTABLE.
2. ALL THE FINISH PIPE FITTINGS SHALL BE TESTED AS PER THE BHEL PURCHASE SPECN.  
NO. LME/PDR/097.
3. THE MATERIAL TO BE CLEANED PROPERLY & TO BE PHOSPHATED (IS: 3618-91)  
AFTER MACHINING TO RESIST COROSSION.

[illegible]

#### ADDITIONAL INFORMATION

|             |  |
|-------------|--|
| CARD TYPE-1 |  |
|             |  |

**CARD TYPE-2**

#### STATUS OF DRAWING

TYPE OF PRODUCT  
OR  
NAME OF CUSTOMER/PROJECT

**DISTRIBUTION OF PRINTS**

|                                                                                                                                                |      |       |       |         |     |
|------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-------|---------|-----|
|  <b>BHARAT HEAVY ELECTRICALS LIMITED</b><br><b>JHANSI</b> | DRN. | NAME  | SIGN. | DATE    | 73  |
|                                                                                                                                                | CHD. | VINAY | VS    | 1.10.87 | No. |
|                                                                                                                                                | APP. | P.G.K |       | 1.12.87 | 74  |

|     |      |         |    |
|-----|------|---------|----|
| REV | DATE | ALTERED | By |
|-----|------|---------|----|

|           |                   |                                                                                       |       |              |                    |          |         |
|-----------|-------------------|---------------------------------------------------------------------------------------|-------|--------------|--------------------|----------|---------|
| DEPT. LCE | GRADE OF UN. TOL. |  | SCALE | WEIGHT (Kg.) | REF. TO ASSY. DRG. | ITEM No. | 75 No.  |
| CODE 404  | DIM.C/M/F         |                                                                                       | —     |              |                    |          | ITEM 00 |
| TITLE     |                   |                                                                                       |       | 1            | 2                  | 7        | 22      |

|      |           |            |
|------|-----------|------------|
| 01   | 10/10/99  | CHECKED 20 |
| ZONE | STYLE NO. | ADDED      |

TITLE  
UNION FEMALE

CARD CODE

DRAWING No.  
**2 719 65 01 002**

SHEET No. 01 No. OF SHEETS 01

S.E.S. BPL.

**SIZE A2**

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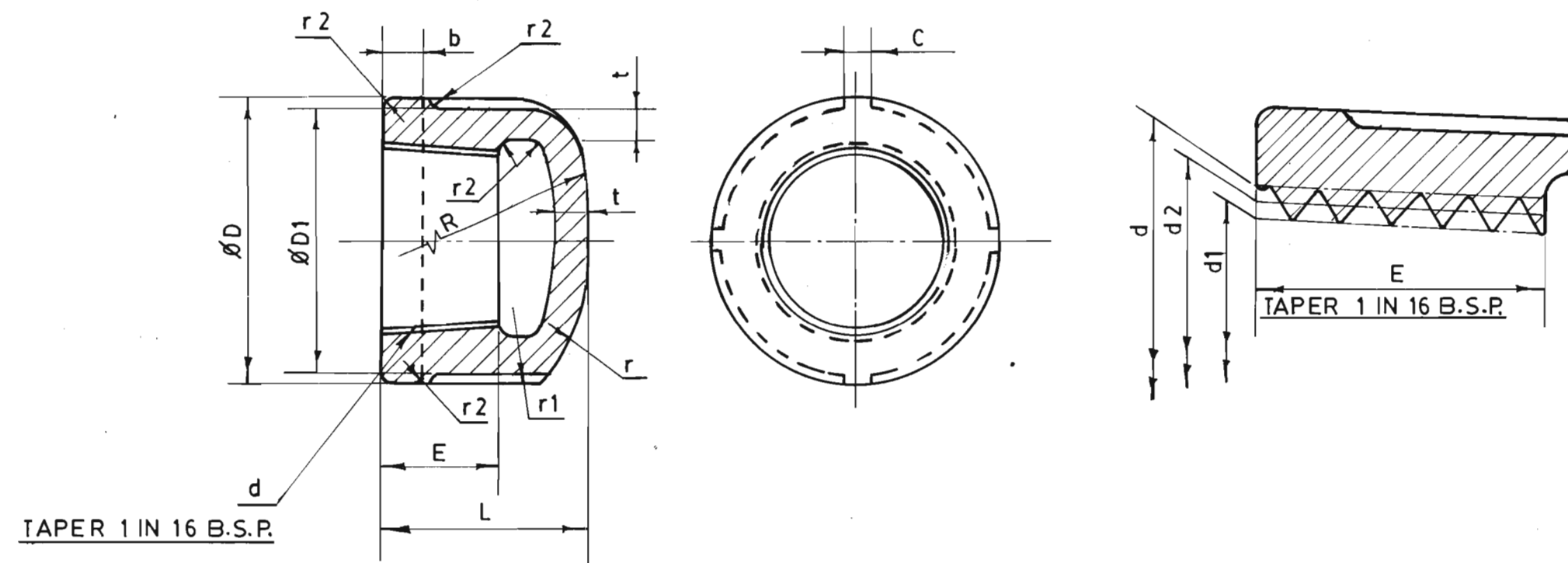
CLW013/65/8 REV.7

INVENTORY NO.



(ALL DIMENSIONS ARE IN mm)

DIMNL.TOL:- AS PER CORP.STD. AA 023 02 08 MEDIUM GRADE  
UNLESS OTHERWISE STATED.



1 MATERIAL SPECN:- MALLEABLE CAST IRON TO IS:2107(1979) GR.WM - 340 (WHITE HEART) OR IS:2108 (1979) GR. M-290 (BLACK HEART) AS AN ALTERNATIVE TO M.C.I. FORGING STEEL TO IS 1875 CL\*2 IS ALSO ACCEPTABLE.

[illegible]

→ **CARD TYPE-2**

|                          |                   |
|--------------------------|-------------------|
| TYPE OF PRODUCT          | 25 K.V. A.C. LOCO |
| OR                       |                   |
| NAME OF CUSTOMER/PROJECT |                   |

|                                                                                                                                                |      |                     |       |                     |         |        |
|------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------|-------|---------------------|---------|--------|
|  <b>BHARAT HEAVY ELECTRICALS LIMITED</b><br><b>JHANSI</b> | DRN. | <u>P. K. Khatri</u> | SIGN. | <u>P. K. Khatri</u> | DATE    | 73     |
|                                                                                                                                                | CHD. | <u>A. K. S.</u>     |       | <u>[Signature]</u>  | 31/5/00 | No. C. |
|                                                                                                                                                | APPD | <u>G. S. Jolly</u>  |       | <u>[Signature]</u>  | 31/5/00 | VAR    |

|                   |                   |                                                                                       |            |              |                    |          |                           |
|-------------------|-------------------|---------------------------------------------------------------------------------------|------------|--------------|--------------------|----------|---------------------------|
| DEPT. <u>LM</u>   | GRADE OF UN. TOL. |  | SCALE<br>- | WEIGHT (Kg.) | REF. TO ASSY. DRG. | ITEM No. | 75<br>No. C<br>ITEM<br>00 |
| CHECKED <u>OR</u> | CODE <u>404</u>   |                                                                                       |            |              |                    |          |                           |

|       |         |           |                |                  |
|-------|---------|-----------|----------------|------------------|
| TITLE | CAP NUT | CARD CODE | DRAWING No.    | 23               |
|       |         |           | 2 719 65 01004 | REV 01           |
|       |         |           | SHEET No. 01   | No. OF SHEETS 01 |

**SIZE A2**

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|               |              |                 |
|---------------|--------------|-----------------|
| INVENTORY No. | SIGN. & DATE | C-L W. 0/3/65/3 |
|               |              | REF. DRG. No.   |

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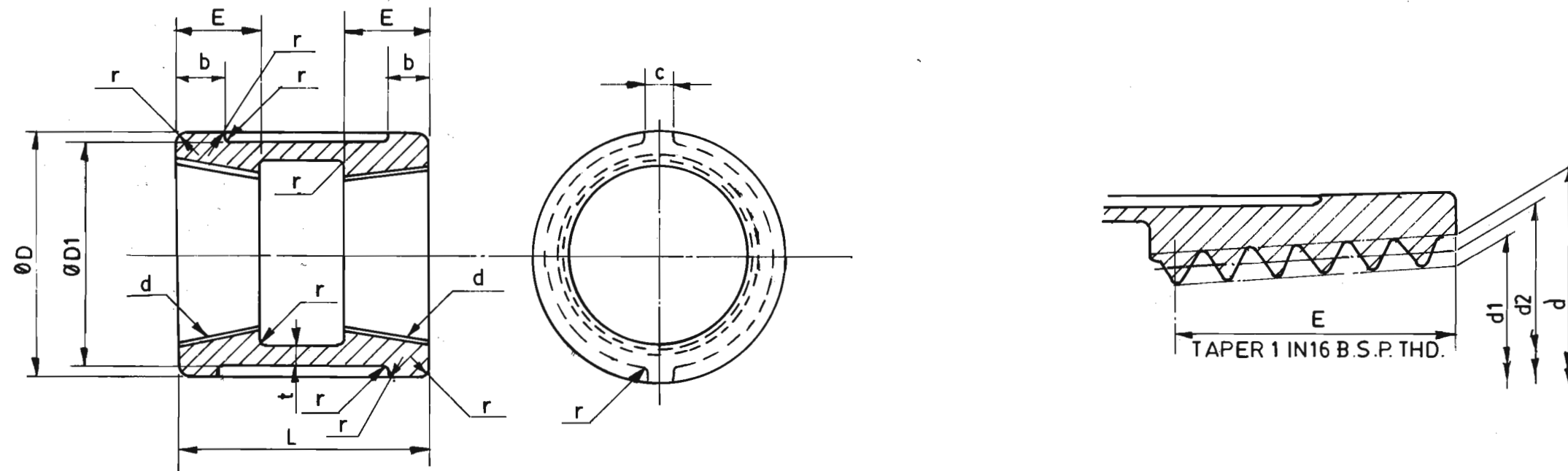
CLW 0/3/65/4  
SIGN. & DATE REF. DRG. No.  
INVENTORY No.

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. No. 2 719 65 01 007

DIMNL. TOL. — AS PER CORP. STD. AA 023 02 08 MEDIUM  
GRADE UNLESS OTHERWISE STATED.



NOTES —

1. MATERIAL SPECN — MALLEABLE CAST IRON TO IS. 2107 (1979) GR. WM-340 (WHITE HEART) OR IS. 2108 (1979) GRADE M-290 (BLACK HEART)

AS AN ALTERNATIVE TO MCI, FORGING STEEL TO IS:1875 CL-2 IS ALSO ACCEPTABLE.

|                               |                    |                          |     |    |    |          |    |   |        |        |        |             |     |           |         |             |                     |             |             |           |             |               |             |      |      |
|-------------------------------|--------------------|--------------------------|-----|----|----|----------|----|---|--------|--------|--------|-------------|-----|-----------|---------|-------------|---------------------|-------------|-------------|-----------|-------------|---------------|-------------|------|------|
|                               | 80-90              | 3 <sup>n</sup>           | 105 | 99 | 25 | 75 ± 2.5 | 13 | 7 | 87-884 | 86-405 | 84-926 | 11          | 2.0 | 5 ± 1.5   |         | 009         | SOCKET M.C.I. 80-90 |             | SEE NOTE -1 |           |             |               |             |      |      |
|                               | 50-60              | 2 <sup>n</sup>           | 73  | 69 | 20 | 60 ± 2.5 | 11 | 5 | 59-614 | 58-135 | 56-656 | 11          | 1.5 | 4 ± 0.7   |         | 008         | SOCKET M.C.I. 50-60 | 706 302     | SEE NOTE -1 |           |             |               |             |      |      |
|                               | 40-49              | 1 1/2 <sup>n</sup>       | 60  | 56 | 18 | 55 ± 2.5 | 9  | 5 | 47-803 | 46-324 | 44-845 | 11          | 1.5 | 3.5 ± 0.7 |         | 007         | SOCKET M.C.I. 40-49 |             | SEE NOTE -1 |           |             |               |             |      |      |
|                               | 33-42              | 1 1/4 <sup>n</sup>       | 53  | 50 | 17 | 50 ± 2.0 | 8  | 5 | 41-910 | 40-431 | 38-952 | 11          | 1.0 | 3.5 ± 0.7 |         | 006         | SOCKET M.C.I. 33-42 |             | SEE NOTE -1 |           |             |               |             |      |      |
|                               | 26-34              | 1 <sup>n</sup>           | 44  | 41 | 15 | 45 ± 2.0 | 7  | 5 | 33-249 | 31-770 | 30-291 | 11          | 1.0 | 3 ± 0.7   |         | 005         | SOCKET M.C.I. 26-34 |             | SEE NOTE -1 |           |             |               |             |      |      |
| 642085                        | 21-27              | 3/4 <sup>n</sup>         | 36  | 33 | 13 | 40 ± 2.0 | 6  | 4 | 26-441 | 25-279 | 24-117 | 14          | 1.0 | 3 ± 0.7   |         | 004         | SOCKET M.C.I. 21-27 | 706 032     | SEE NOTE -1 |           |             |               |             |      |      |
| 642084                        | 15-21              | 1/2 <sup>n</sup>         | 30  | 27 | 11 | 35 ± 2.0 | 6  | 4 | 20-955 | 19-793 | 18-631 | 14          | 1.0 | 2.5 ± 0.5 |         | 003         | SOCKET M.C.I. 15-21 | 706 031     | SEE NOTE -1 |           |             |               |             |      |      |
|                               | 12-17              | 3/8 <sup>n</sup>         | 26  | 23 | 9  | 30 ± 1.5 | 5  | 3 | 16-662 | 15-806 | 14-950 | 19          | 1.0 | 2.5 ± 0.5 |         | 002         | SOCKET M.C.I. 12-17 |             | SEE NOTE -1 |           |             |               |             |      |      |
|                               | 8-13               | 1/4 <sup>n</sup>         | 22  | 19 | 8  | 25 ± 1.5 | 5  | 3 | 13-157 | 12-301 | 11-445 | 19          | 1.0 | 2.5 ± 0.5 |         | 001         | SOCKET M.C.I. 8-13  |             | SEE NOTE -1 |           |             |               |             |      |      |
| STYLE NO<br>FOR<br>WAG-7 LOCO | NOM. SIZE<br>ID-OD | IN INCH<br>B.S.P<br>SIZE | D   | D1 | E  | L        | b  | c | d      | d2     | d1     | n<br>T.P.I. | r   | t         | REMARKS | VAR.<br>No. | ITEM<br>No.         | DESCRIPTION | STD.        | STYLE NO. | M.T.L. CODE | M.T.L. SPECN. | UNIT<br>WT. | QTY. | ZONE |

28 — CARD TYPE-3

28 — CARD TYPE-1

28 — CARD TYPE-2

ADDITIONAL INFORMATION

STATUS OF DRAWING

U

DISTRIBUTION OF PRINTS

O/C — 1, IE — 1, QAX — 1,

PPC — 2, ASSY — 2,

BAY3 — 2, BAY1&2 — 2.

TYPE OF PRODUCT

OR

NAME OF CUSTOMER/PROJECT

25 K.V.A.C. LOCO



BHARAT HEAVY ELECTRICALS LIMITED

JHANSI

DRN.

NAME

SIGN

DATE

CHD.

A. SAXENA

3.5.00

APPD.

G. GADIX

3.5.00

REF. TO ASSY. DRG.

ITEM No.

No. OF ITEMS

009

DEPT. LCE

GRADE OF UN. TOL.

CODE 404

DIM. C/M/F

SCALE

WEIGHT (Kg.)

REF. TO ASSY. DRG.

ITEM No.

No. OF ITEMS

009

TITLE

SOCKET (TAPER)

CARD CODE

DRAWING No.

2 719 65 01 007

SHEET No. 01

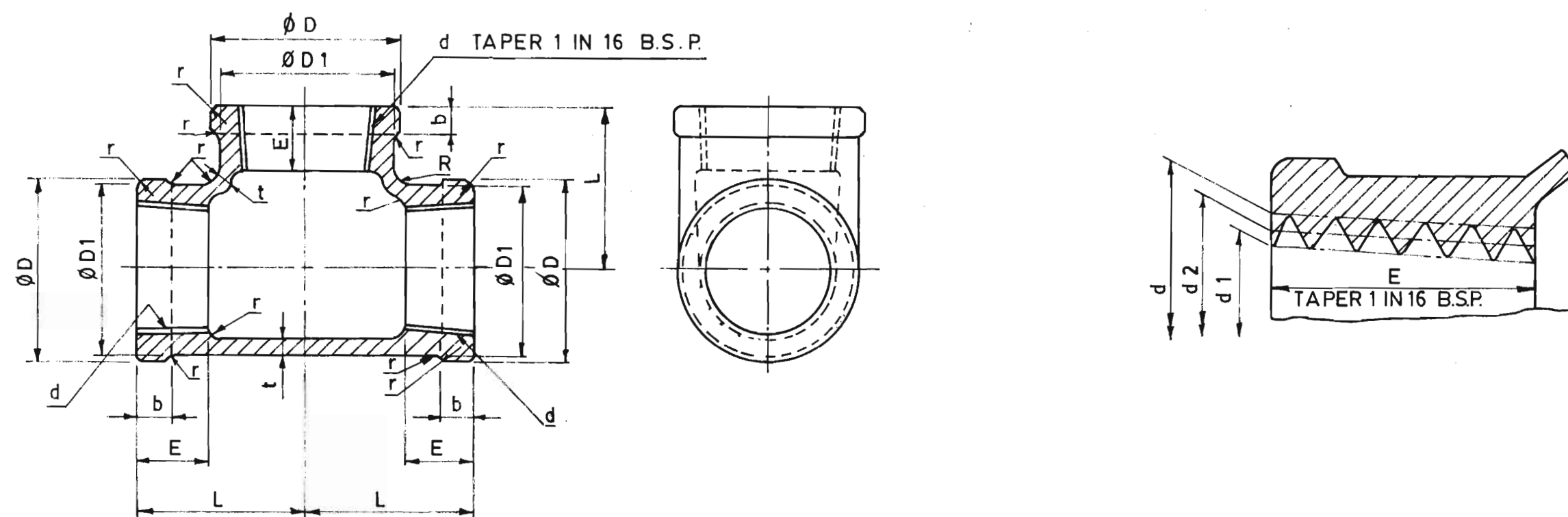
No. OF SHEETS 01

SIZE A2

(ALL DIMENSIONS ARE IN mm)

DIMNL. TOL. AS PER CORP. STD. AA 023 02 08 MEDIUM  
GRADE UNLESS OTHERWISE STATED.

1. MATL. SPECN.:— MALLEABLE CAST IRON TO IS: 2107 (1979) GR. WM. 340 ( WHITE HEART) OR IS: 2108 ( 1979) GR. M-290 (BLACK HEART).  
AS AN ALTERNATIVE TO M.C.I. FORGING STEEL TO IS: 1875 CL-2 IS ALSO ACCEPTABLE.
2. ALL FINISH PIPE FITTINGS SHALL BE TESTED AS PER THE CLWS TEST SPECN. NO. M/EL/57/TS: 68 Dt. 8-5-85

[illegible]

28 → CARDTYPE-3      28 → CARDTYPE-1      28 → CARDTYPE-2

## ADDITIONAL INFORMATION

|                   |  |
|-------------------|--|
| STATUS OF DRAWING |  |
|-------------------|--|

DISTRIBUTION OF PRINTS  
LME (DV) - 1  
LMP (DV) - 1  
LMM (DV) - 3

TYPE OF PRODUCT  
OR

NAME OF CUSTOMER/PROJECT

\_\_\_\_\_



**BHARAT HEAVY ELECT**  
**JHANS**

|       |     |      |
|-------|-----|------|
| DEPT. | LCE | GRA  |
| CODE  | 404 | UN   |
|       |     | DIM. |

|       |           |
|-------|-----------|
| TITLE | TEE EQUAL |
|-------|-----------|

25 K.V. A.C. LOCO

|    |      | NAME       | SIGN.                                                                                 | DATE   | 73  |
|----|------|------------|---------------------------------------------------------------------------------------|--------|-----|
| ED | DRN. | P.K.Khatni | P.K.Khatni                                                                            | 3/5/00 | No. |
|    | CHD. | A.K.S.     |  | 3/5/00 | VAL |
|    | APPD | G.S.Jally  | G.S.Jally                                                                             | 3/5/00 |     |

|          |                   |
|----------|-------------------|
| HT (Kg.) | REF. TO ASSY. DRG |
|----------|-------------------|

|      |     |
|------|-----|
| No.  | No. |
| ITEM | 00  |

|      |   |                 |             |  |  |  |  |  |  |  |  |  |    |     |    |
|------|---|-----------------|-------------|--|--|--|--|--|--|--|--|--|----|-----|----|
| 1    | 3 | 7               | DRAWING No. |  |  |  |  |  |  |  |  |  | 22 | 23  |    |
| CARD |   | 2 719 65 01 008 |             |  |  |  |  |  |  |  |  |  |    | REV |    |
| CODE |   |                 |             |  |  |  |  |  |  |  |  |  |    |     | 01 |

|              |  |                 |  |
|--------------|--|-----------------|--|
| SHEET No. 01 |  | No. OF SHEETS 0 |  |
|--------------|--|-----------------|--|

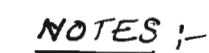
**SIZE A2**

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

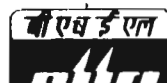
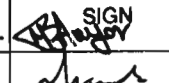
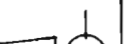
CLW 0/3/65/6  
REF. DRG. No.

INVENTORY No.

AS PER CORPT. STD. AA 0 23 02 08 COARSE GRADE UNLESS OTHERWISE STATED.



- [illegible]

|                                                                                                                                                |  |             |  |                                                                                                                                    |  |                                                                                                                                                                           |  |
|------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|--|------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 28                                                                                                                                             |  | CARD TYPE-1 |  | 28                                                                                                                                 |  | CARD TYPE-2                                                                                                                                                               |  |
| ADDITIONAL INFORMATION<br>STATUS OF DRAWING <b>U</b><br>DISTRIBUTION OF PRINTS<br><b>LME LMP LMM</b><br><b>1 2 3</b>                           |  |             |  | TYPE OF PRODUCT<br>OR<br>NAME OF CUSTOMER/PROJECT<br><b>25 K.V.A.C. / WCAM-2 / WCAM-3 LOCOMOTIVE</b><br><b>M/S- INDIAN RAILWAY</b> |  |                                                                                                                                                                           |  |
|  <b>BHARAT HEAVY ELECTRICALS LIMITED</b><br><b>JHANSI</b> |  |             |  | DRN. <b>M/S-R.E.S.</b><br>CHD. <b>M. L.</b><br>APPD. <b>M. D.</b>                                                                  |  | NAME <b>RES.</b><br>SIGN <br>DATE <b>13-10-96</b><br><b>17-10-96</b><br><b>19.10</b> |  |
| DEPT. <b>LME</b><br>CODE <b>404</b><br>GRADE OF UNIT <b>1</b><br>DIM <b>CM</b>                                                                 |  |             |  |  <b>NTS.</b>                                  |  | WEIGHT (Kg) <b>—</b><br>REF. TO ASSY. DRG. <b>—</b>                                                                                                                       |  |
| REV <b>01</b><br>DATE <b>17-5-8</b><br>ALTERED <b>PPD</b><br>CHECKED <b>PPD</b><br>ZONE <b>STYLE NO ADDED FOR WAG-7 LOCO.</b>                  |  |             |  | ITEM NO. <b>—</b><br>NO. OF ITEMS <b>004</b>                                                                                       |  | 75 77<br>NO. OF<br>ITEMS<br><b>004</b>                                                                                                                                    |  |
| TITLE<br><b>UNION ELBOW</b><br><b>(MALE AND FEMALE)</b>                                                                                        |  |             |  | 1 3<br>CARD CODE                                                                                                                   |  | 7<br>DRAWING NO.<br><b>2 719 65 01 020</b><br>SHEET NO. <b>01</b><br>NO. OF SHEETS <b>01</b>                                                                              |  |

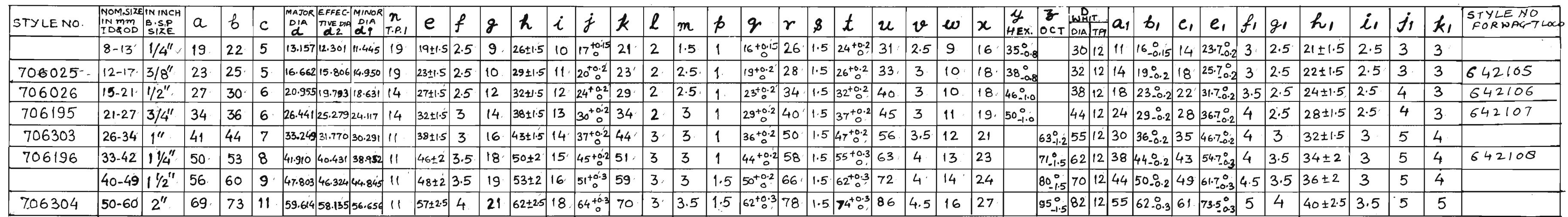
SIZE A 2

|               |             |                     |              |
|---------------|-------------|---------------------|--------------|
| INVENTORY NO. | SIGN & DATE | REF DBG NO AIT NO.5 | CLW-03/65/11 |
|---------------|-------------|---------------------|--------------|



(ALL DIMENSIONS ARE IN mm)

1



1. MATERIAL SPECN.:- MALLEABLE CAST IRON TO IS: 2107 (1979) GR. WM-340 (WHITE HEART) OR IS: 2108 (1979) GR.M-290 (BLACK HEART). AS AN ALTERNATIVE TO MC-I, FORGING STEEL TO IS: 1875 CL-2 IS ALSO ACCEPTABLE.

|     |  |                      |  |  |                         |  |  |  |  |  |  |
|-----|--|----------------------|--|--|-------------------------|--|--|--|--|--|--|
| 001 |  | 004 GASKET           |  |  | SY-RUBBER IRS-R-48      |  |  |  |  |  |  |
| 001 |  | 003 UNION NUT        |  |  | MALLEABLE & CAST IRON * |  |  |  |  |  |  |
| 001 |  | 002 UNION END FEMALE |  |  | MALLEABLE & CAST IRON * |  |  |  |  |  |  |
| 001 |  | 001 UNION TEE FEMALE |  |  | MALLEABLE & CAST IRON * |  |  |  |  |  |  |

28 ————— CARD TYPE-3

28 — CARD TYPE 1

28 ————— CARD TYPE-2

### ADDITIONAL INFORMATION

TYPE OF PRODUCT : AC/DIESEL LOCOMOTIVES

STATUS OF DRAWING

NAME OF CUSTOMER/PROJECT

DISTRIBUTION OF PRINTS  
LME, LMP, LMM

**बी एच ई एल**  
**BH**  
**BHARAT HEAVY ELECTRICALS LIMITED**  
**JHANSI**

| DRN  | NAME       | SIGN             | DATE      | 73 74<br>NO OF<br>VAR |
|------|------------|------------------|-----------|-----------------------|
| CHD. | A. Saxena  | <i>A. Saxena</i> | 15.5.2006 |                       |
| APPD | G.S.J/A.P. | <i>G.S.J</i>     | 18.5.00   |                       |

|           |                |                     |
|-----------|----------------|---------------------|
| REV<br>01 | DATE<br>17-5-0 | ALTERED<br>PCW      |
|           |                | CHECKED<br>A.A.P.D. |

|      |     |          |
|------|-----|----------|
| DEPT | LME | GRADE OF |
| CODE | 404 | UN TOL   |
|      |     | DIM C/MF |

SCALE

WEIGHT (Kg)

|                    |          |                                 |
|--------------------|----------|---------------------------------|
| REF. TO ASSY. DRG. | ITEM NO. | 75 77<br>NO. OF<br>ITEMS<br>004 |
|--------------------|----------|---------------------------------|

TITLE  
UNION TEE FEMALE (B)

|              |   |                               |    |           |    |
|--------------|---|-------------------------------|----|-----------|----|
| 1            | 3 | 7                             | 22 | 23        | 24 |
| CARD<br>CODE |   | DRAWING NO.<br>2719 65 01 047 |    | REV<br>01 |    |
| SHEET NO. 01 |   | NO OF SHEETS 01               |    |           |    |

SIZE A 2

(ALL DIMENSIONS ARE IN mm)

1



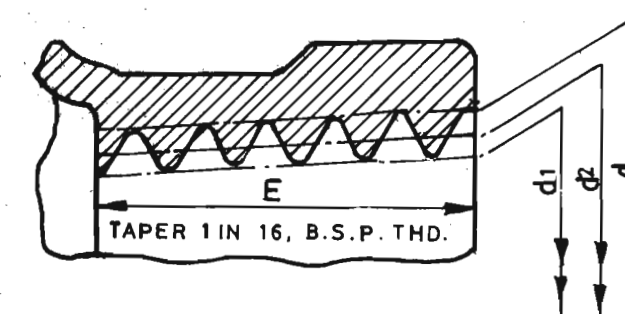
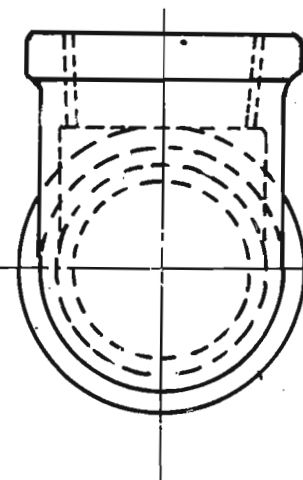
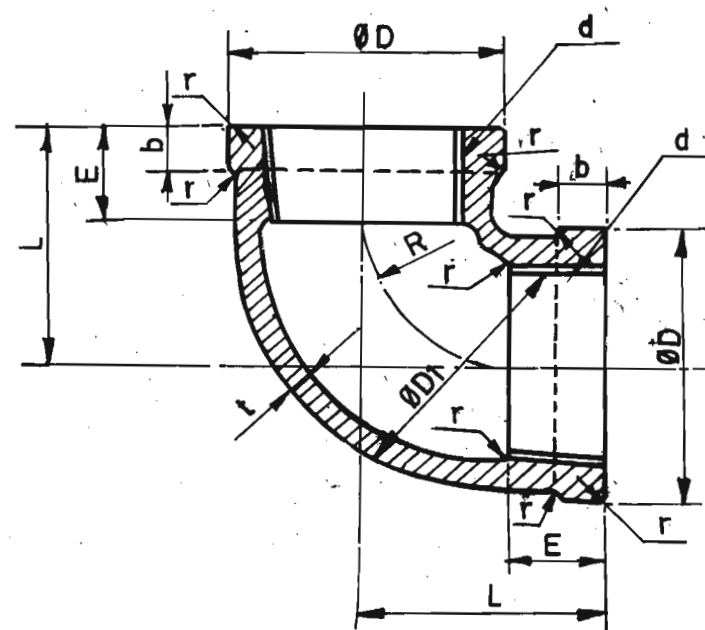
SIZE A 2

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

100 10 59 617 E ON 080

50 ALL OVER



| STYLE NO          | NOM SIZE<br>IN MM<br>ID - OD | IN INCH<br>B.S.P.<br>SIZE | D   | D1 | E  | L      | R  | b  | d      | d2     | d1     | n<br>T.P.I. | r   | t       |
|-------------------|------------------------------|---------------------------|-----|----|----|--------|----|----|--------|--------|--------|-------------|-----|---------|
|                   | 8-13                         | 1/4"                      | 22  | 19 | 8  | 19±1.5 | 11 | 5  | 13.157 | 12.301 | 11.445 | 19          | 1   | 2.5±0.5 |
|                   | 12-17                        | 3/8"                      | 26  | 23 | 9  | 23±1.5 | 14 | 5  | 16.662 | 15.806 | 14.950 | 19          | 1   | 2.5±0.5 |
|                   | 15-21                        | 1/2"                      | 30  | 27 | 11 | 27±1.5 | 16 | 6  | 20.955 | 19.793 | 18.631 | 14          | 1   | 2.5±0.5 |
| 955248            | 21-27                        | 3/4"                      | 36  | 33 | 13 | 32±2   | 20 | 6  | 26.441 | 25.279 | 24.117 | 14          | 1   | 3±0.7   |
| 706033            | 26-34                        | 1"                        | 44  | 41 | 15 | 38±2   | 24 | 7  | 33.249 | 31.770 | 30.291 | 11          | 1   | 3±0.7   |
| <del>955248</del> |                              |                           |     |    |    |        |    |    |        |        |        |             |     |         |
| 706034            | 33-42                        | 1 1/4"                    | 53  | 50 | 17 | 46±2   | 28 | 8  | 41.910 | 40.431 | 38.952 | 11          | 1   | 3.5±0.7 |
|                   | 40-49                        | 1 1/2"                    | 60  | 56 | 18 | 48±2   | 32 | 9  | 47.803 | 46.324 | 44.845 | 11          | 1.5 | 3.5±0.7 |
| 706253            | 50-60                        | 2"                        | 73  | 69 | 20 | 57±2.5 | 38 | 11 | 59.614 | 58.135 | 56.656 | 11          | 1.5 | 4±0.7   |
|                   | 80-90                        | 3"                        | 105 | 99 | 25 | 78±3   | 55 | 13 | 87.884 | 86.405 | 84.926 | 11          | 2   | 5±1.5   |

## NOTES:—

- MATERIAL SPECN:—MALLEABLE CAST IRON TO IS:2107(1979)GR.WM-340(WHITE HEART) OR IS:2108(1979)GR.M-290(BLACK HEART) VIDE SR.C&M'S LETTER NO.M/6/163/948 DT.13-8-79 AS AN ALTERNATIVE TO MCI. FORGING STEEL TO IS:1875 CL-2 IS ALSO ACCEPTABLE.
- ALL THE FINISH PIPE FITTINGS SHALL BE TESTED AS PER THE CLW'S TEST SPECN. NO.M/EL/ST/TS:68 DT.8-5-85.

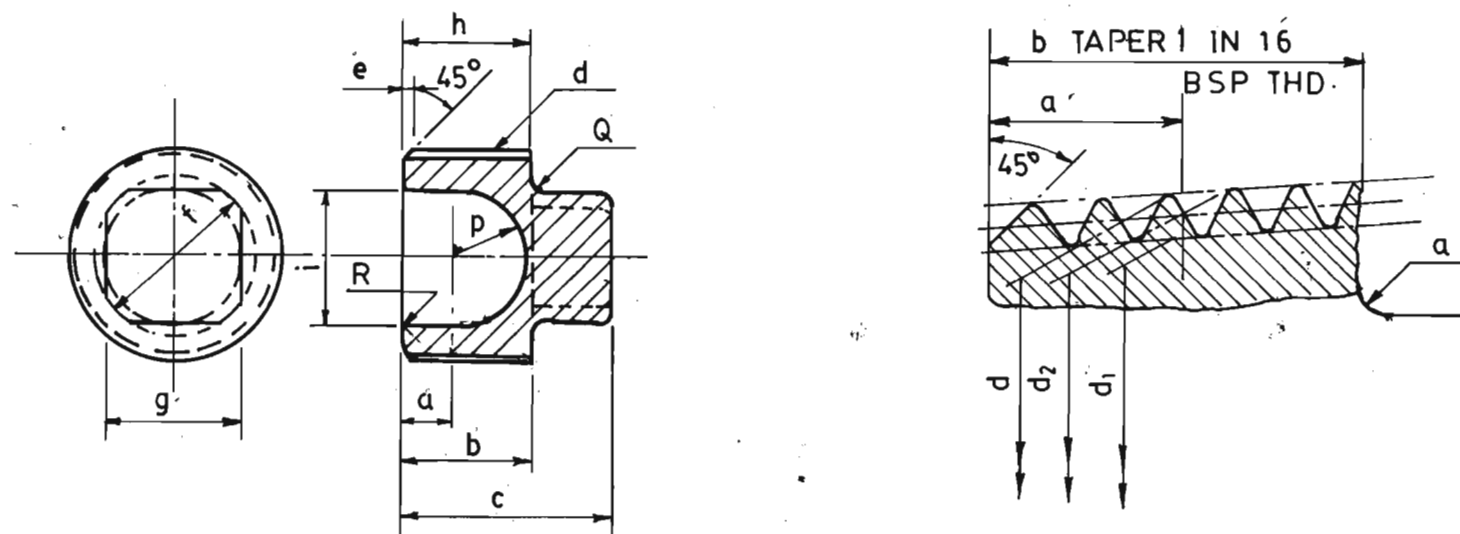
|                        |         |       |          |                                                                                                                                                                                                                                                                                                                 |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|------------------------|---------|-------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------|---------|-------------|------|----------|------|------|--|--|--|------|------|-------|------|----|----|------|------|--|---------|-----|----|-------|--------|--|---------|------|--|
| SEE NOTES              |         | 001   | ELBOW    |                                                                                                                                                                                                                                                                                                                 |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| VAR 00                 | REMARKS | NO.   | ITEM NO. | DESCRIPTION                                                                                                                                                                                                                                                                                                     | STD. | DRAWING NO. | IT. NO. | MATL. CODE  | UNIT | UNIT WT. | QTY. | ZONE |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| CARD TYPE-3            |         |       |          | CARD TYPE-1                                                                                                                                                                                                                                                                                                     |      |             |         | CARD TYPE-2 |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| ADDITIONAL INFORMATION |         |       |          | TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT                                                                                                                                                                                                                                                                     |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| STATUS OF DRAWING      |         |       |          | <b>BHARAT HEAVY ELECTRICALS LIMITED</b><br><b>JHANSI</b>                                                                                                                                                                                                                                                        |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| DISTRIBUTION OF PRINTS |         |       |          | <table border="1"> <tr> <td>DRN.</td> <td>NAME</td> <td>SIGN.</td> <td>DATE</td> <td>73</td> <td>74</td> </tr> <tr> <td>CHD.</td> <td>V.S.</td> <td></td> <td>8.11.90</td> <td>NO.</td> <td>OF</td> </tr> <tr> <td>APPD.</td> <td>P.G.K.</td> <td></td> <td>8.11.90</td> <td>VAR.</td> <td></td> </tr> </table> |      |             |         |             |      |          |      |      |  |  |  | DRN. | NAME | SIGN. | DATE | 73 | 74 | CHD. | V.S. |  | 8.11.90 | NO. | OF | APPD. | P.G.K. |  | 8.11.90 | VAR. |  |
| DRN.                   | NAME    | SIGN. | DATE     | 73                                                                                                                                                                                                                                                                                                              | 74   |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| CHD.                   | V.S.    |       | 8.11.90  | NO.                                                                                                                                                                                                                                                                                                             | OF   |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| APPD.                  | P.G.K.  |       | 8.11.90  | VAR.                                                                                                                                                                                                                                                                                                            |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| REV. DATE ALTERED      |         |       |          | DEPT. LCE                                                                                                                                                                                                                                                                                                       |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| 02 1.6.00 CHD.         |         |       |          | GRADE OF UN. TOL. DIM.C/M/F                                                                                                                                                                                                                                                                                     |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| STYLE NO. UPDATED      |         |       |          | SCALE                                                                                                                                                                                                                                                                                                           |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| 01 12.5.00 CHECKED     |         |       |          | WEIGHT (Kg.)                                                                                                                                                                                                                                                                                                    |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
| ZONE STYLE NOS. ADDED  |         |       |          | REF. TO ASSY. DRG.                                                                                                                                                                                                                                                                                              |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | ITEM NO.                                                                                                                                                                                                                                                                                                        |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | TITLE                                                                                                                                                                                                                                                                                                           |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | ELBOW-90° EQUAL (TAPER)                                                                                                                                                                                                                                                                                         |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | CARD CODE                                                                                                                                                                                                                                                                                                       |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | DRAWING NO.                                                                                                                                                                                                                                                                                                     |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | 3 719 65 01 001                                                                                                                                                                                                                                                                                                 |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | SHEET NO. 01                                                                                                                                                                                                                                                                                                    |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |
|                        |         |       |          | NO. OF SHEETS 01                                                                                                                                                                                                                                                                                                |      |             |         |             |      |          |      |      |  |  |  |      |      |       |      |    |    |      |      |  |         |     |    |       |        |  |         |      |  |

S.E.S. DPL. SIZE A

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. No. 3 719 65 01 003

DIMNL. TOL. AS PER CORP. STD. AA 023 02 08 MEDIUM  
GRADE UNLESS OTHERWISE STATED.

## NOTES:-

- MATL. SPECN:- MALLEABLE CAST IRON TO IS:2107 (1979) GR. WM-340 (WHITE HEART) OR IS: 2108 (1979) GR. M-290 (BLACK HEART).  
AS AN ALTERNATIVE TO M.C.I., FORGING STEEL TO IS:1875 CL-2 IS ALSO ACCEPTABLE.
- ALL THE FINISH PIPE FITTINGS SHALL BE TESTED AS PER THE CLW'S TEST SPECN NO M/EL/57/TS:68 Dt.8-5-85

TABLE OF DIMENSIONS (CONTD.)

|         |                             |                     |                |                     |                 |
|---------|-----------------------------|---------------------|----------------|---------------------|-----------------|
| 003     | 26-34                       | 1"                  | 33'249         | 31'770              | 30'291          |
| 002     | 21-27                       | 3/4"                | 26'441         | 25'297              | 24'117          |
| 001     | 15-21                       | 1/2"                | 20'955         | 19'793              | 18'631          |
| ITEM NO | NOM SIZE IN MM<br>I/D - O/D | IN INCH<br>BSP SIZE | MAJOR DIA<br>d | EFFECTIVE DIA<br>d2 | MINOR DIA<br>d1 |

|                         |             |        |        |     |          |          |    |    |   |   |            |         |                   |                             |             |      |           |            |          |
|-------------------------|-------------|--------|--------|-----|----------|----------|----|----|---|---|------------|---------|-------------------|-----------------------------|-------------|------|-----------|------------|----------|
| 10'39'2'31              | 19          | 31'2   | 2      | 25  | 19'0'0'6 | 20       | 24 | 11 | 1 | 1 | NOT IN USE | 003     | PLUG M.C.I. 26-34 | 955169                      | SEE NOTE 1  |      |           |            |          |
| 9'53'1'81               | 17          | 28'1'5 | 1'5    | 22  | 17'0'0'5 | 18       | 18 | 8  | 1 | 1 |            | 002     | PLUG M.C.I. 21-27 | <del>955168</del>           | SEE NOTE 1  |      |           |            |          |
| 642063                  | 8'16'2'1'81 | 15     | 25'1'5 | 1'5 | 18       | 14'0'0'5 | 15 | 13 | 6 | 1 | 1          | 001     | PLUG M.C.I. 15-21 | 706239<br><del>955167</del> | SEE NOTE 1  |      |           |            |          |
| STYLE NO FOR WAG-7 LOCO | a           | b      | c      | e   | f        | g        | h  | i  | p | Q | R          | REMARKS | VAR. No.          | ITEM No.                    | DESCRIPTION | STD. | STYLE NO. | MATL. CODE | UNIT WT. |
|                         |             |        |        |     |          |          |    |    |   |   |            |         |                   |                             |             |      |           |            |          |
|                         |             |        |        |     |          |          |    |    |   |   |            |         |                   |                             |             |      |           |            |          |
|                         |             |        |        |     |          |          |    |    |   |   |            |         |                   |                             |             |      |           |            |          |

CARD TYPE-3

CARD TYPE-1

CARD TYPE-2

ADDITIONAL INFORMATION

STATUS OF DRAWING U

DISTRIBUTION OF PRINTS

LME (DV) - 1

LMP (DV) - 1

LMM (DV) - 3

TYPE OF PRODUCT

25 K.V. A.C. LOCO. TYPE WAG-5A

OR

NAME OF CUSTOMER/PROJECT INDIAN RAILWAY BOARD NEW DELHI



BHARAT HEAVY ELECTRICALS LIMITED

JHANSI

|       |            |       |        |             |
|-------|------------|-------|--------|-------------|
| DRN.  | NAME       | SIGN. | DATE   | 73 74       |
| CHD.  | A. SAKENA  |       | 4.5.00 | No. OF VAR. |
| APPD. | G.S. JALLY |       | 4.5.00 |             |

|      |        |                    |      |         |                    |      |        |                    |
|------|--------|--------------------|------|---------|--------------------|------|--------|--------------------|
| REV. | DATE   | ALTERED            | REV. | DATE    | ALTERED            | REV. | DATE   | ALTERED            |
| 03   | 17-5-8 | CHECKED <i>Rev</i> | 02   | 3-11-05 | CHECKED <i>Rev</i> | 01   | 1-6-00 | CHECKED <i>Rev</i> |

STYLE NO ADDED FOR WAG-7 LOCO.

ST NO. 955169 UPDATED.

STYLE NO. UPDATED.

|      |                   |       |              |                    |          |              |
|------|-------------------|-------|--------------|--------------------|----------|--------------|
| DEPT | GRADE OF UN. TOL. | SCALE | WEIGHT (Kg.) | REF. TO ASSY. DRG. | ITEM No. | 75 77        |
| CE   | 404               |       |              |                    |          | No. OF ITEMS |

TITLE  
PLUG TYPE BDRAWING No.  
3 719 65 01 003  
REV. 03

SHEET No. 01 No. OF SHEETS 01

SIZE A3

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CLW 0/3/65/2  
REF. DRG. No.

SIGN. &amp; DATE

INVENTORY No.

(ALL DIMENSIONS ARE IN mm)

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## REDUCING BOSS

1. MATERIAL SPECN:- MALLEABLE CAST IRON TO IS: 2107 (1991) GR. WM-340 (WHITE HEART) OR IS: 2108 (1991) GR. M-290 (BLACK HEART) VIDE AN ALTERNATIVE TO MCI, FORGING STEEL TO IS: 1875 CL-2 IS ALSO ACCEPTABLE.
2. ALL THE FINISH PIPE FITTINGS SHALL BE TESTED AS PER THE BHEL PURCHASE SPECN. NO. LME/PUR/097
3. MATERIAL TO BE CLEANED PROPERLY & TO BE PHOSPHATED (IS : 3618-91) AFTER MACHINING TO RESIST CORROSION.
4. SUPPLIER IS REQUIRED TO SUBMIT DETAIL DIMENSION DRAWING | STANDARD FOR APPROVAL.