

FIRST ANGLE PROJECTION (ALL DIMENSION IN MILLIMETRES)

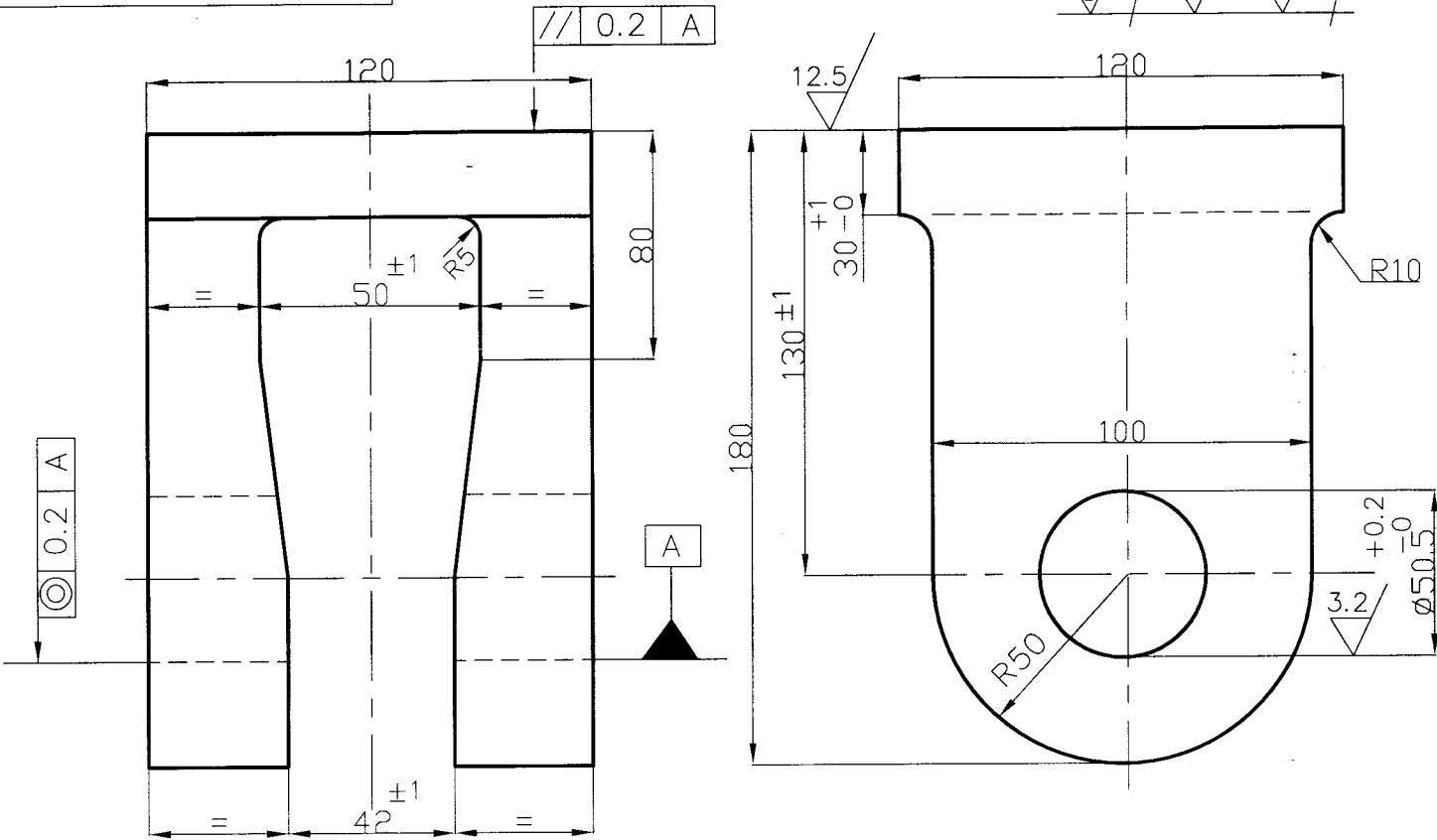
NOTES:

1) CLEVIS SHALL BE SHOT BLASTED AND ZINC DUST PRIMER COATED TO A DEPTH OF 40 MICRONS.

3-80-999-97656

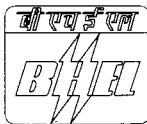
DRAWING NO.

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



STANDARD

| VAR NO. | ITEM NO. | DESCRIPTION    | DRAWING NUMBER | ITEM NO | MATERIAL CODE  | UNIT WEIGHT |
|---------|----------|----------------|----------------|---------|----------------|-------------|
|         |          | WELD ON CLEVIS | 3-80-999-97656 |         | SA105          | 9.500       |
|         |          |                |                | VAR NO  | MATERIAL SPECN | QUANTITY    |



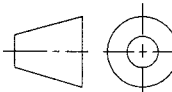
BHARAT HEAVY ELECTRICALS LTD.,  
PIPING CENTRE, CHENNAI, 600 017

| NAME             | SIGN               | DATE       |
|------------------|--------------------|------------|
| DRN R.ANANTH     | <i>[Signature]</i> | 17.09.2001 |
| CHD R.ANANTH     | <i>[Signature]</i> | 17.09.2001 |
| APPD A.P.M.KUTTY | <i>[Signature]</i> | 17.09.2001 |

| REV | DATE | ALTERED  |
|-----|------|----------|
| 01  |      | APPROVED |

ZONE

DEPT. GRADE OF UN TOL DIM  
CODE C/M/F



SCALE  
N.T.S.

WEIGHT (Kg)  
9.500

REF. TO ASSY / OLD DRG.

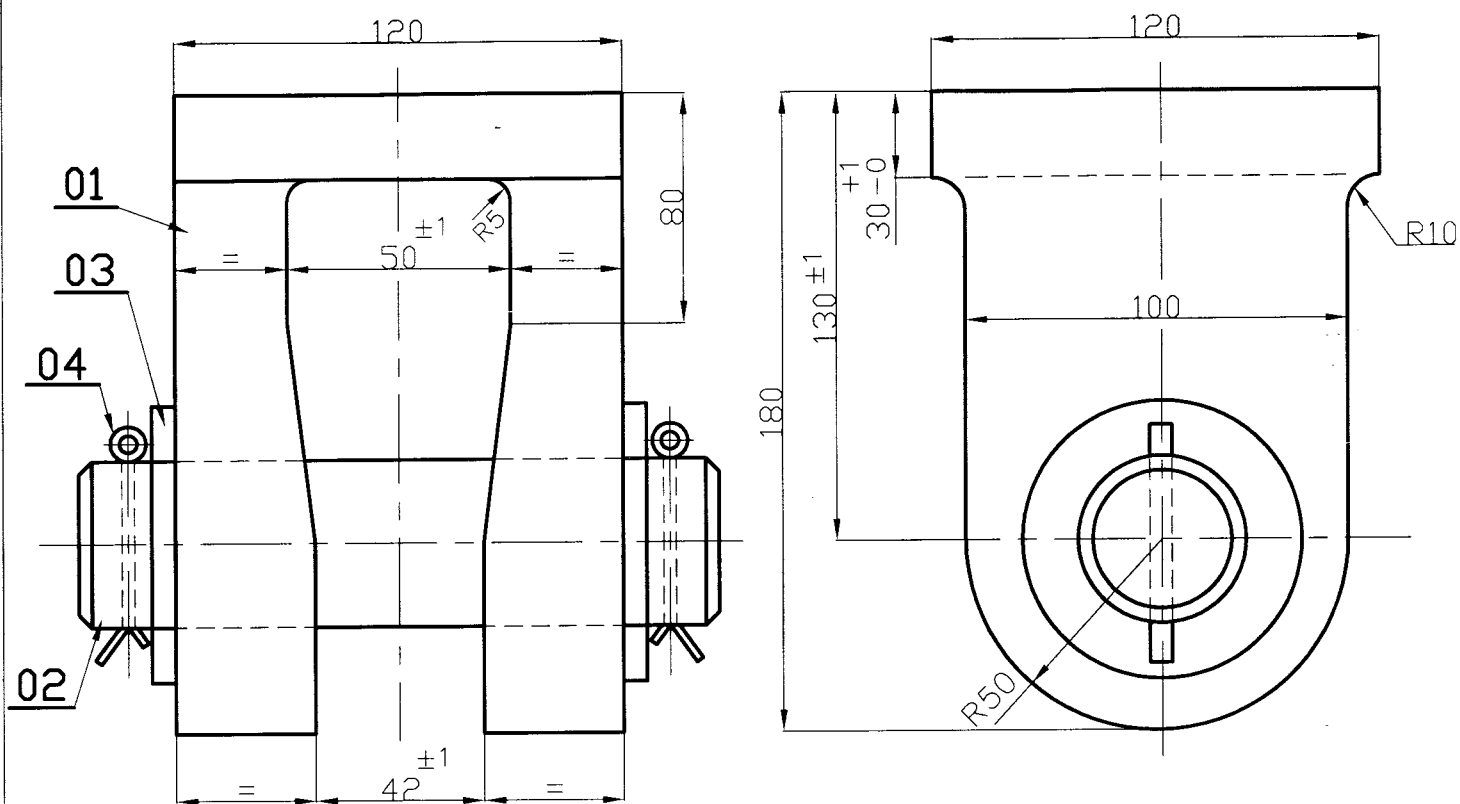
TITLE  
WELD ON CLEVIS (WCA-8)  
(FORGED)

CARD CODE  
U 01

DRAWING No.  
3-80-999-97656

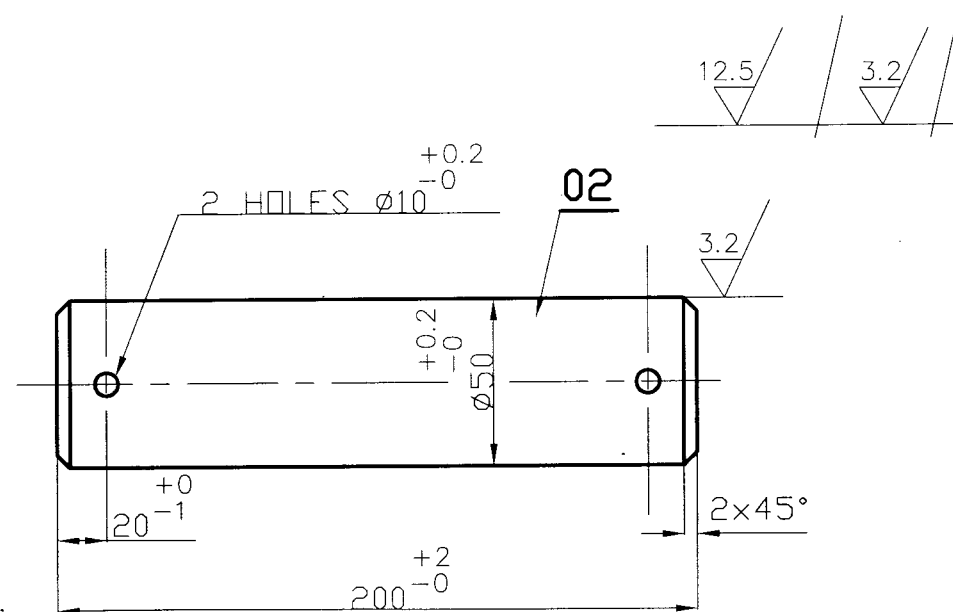
REV  
00

DRAWING NO.



ASSEMBLY MATERIAL CODE No. 94-821-356-0000

STANDARD



PIN (ITEM NO.02) SHALL BE ELECTRO GALVANISED TO A DEPTH OF 15 MICRONS AND THEN YELLOW CHROMOTISED. BAKE AT 200°C BEFORE YELLOW CHROMOTISING.

|         |          |                    |                |         |                 |   |             |
|---------|----------|--------------------|----------------|---------|-----------------|---|-------------|
|         |          |                    |                |         |                 |   |             |
|         | 04       | SPLIT PIN 10x71    | 41704 10071    |         | 41704 10071     |   | 0.040       |
|         |          |                    |                |         |                 |   | 2           |
|         | 03       | PUNCHED WASHER A48 | 41408 48000    |         | 41408 00048     |   | 0.284       |
|         |          |                    |                |         |                 |   | 2           |
|         | 02       | PIN D 50 L200      | 3-80-999-97657 |         | 15.339.143.0000 | C | 3.000       |
|         |          |                    |                |         | SA105           |   | 1           |
|         | 01       | WELD ON CLEVIS     | 3-80-999-97656 |         | -               | C | 9.500       |
|         |          |                    |                |         | SA105           |   | 1           |
| VAR NO. | ITEM NO. | DESCRIPTION        | DRAWING NUMBER | ITEM NO | MATERIAL CODE   | A | UNIT WEIGHT |
|         |          |                    |                | VAR NO  | MATERIAL SPECN  | C | QUANTITY    |

|                                                                                       |                                                                   |      |             |                                                                                       |            |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|------|-------------|---------------------------------------------------------------------------------------|------------|
|  | BHARAT HEAVY ELECTRICALS LTD.,<br>PIPING CENTRE, CHENNAI, 600 017 |      | NAME        | SIGN                                                                                  | DATE       |
|                                                                                       |                                                                   | DRN  | R.ANANTH    |  | 17.09.2001 |
|                                                                                       |                                                                   | CHD  | R.ANANTH    |  | 17.09.2001 |
|                                                                                       |                                                                   | APPD | A.P.M.KUTTY |  | 17.09.2001 |

|  |           |      |          |       |                        |                                                                                       |        |              |                         |                               |
|--|-----------|------|----------|-------|------------------------|---------------------------------------------------------------------------------------|--------|--------------|-------------------------|-------------------------------|
|  | REV<br>01 | DATE | ALTERED  | DEPT. | GRADE OF<br>UN TOL DIM |  | SCALE  | WEIGHT (Kg). | REF. TO ASSY / OLD DRG. |                               |
|  |           |      | APPROVED | CODE  | C/M/F                  |                                                                                       | N.T.S. | 13.148       |                         |                               |
|  | ZONE      |      |          |       | TITLE                  | WELD ON CLEVIS ASSEMBLY<br>(WCA-8) (FORGED)                                           |        |              | CARD<br>CODE<br>U 01    | DRAWING No.<br>3-80-999-97657 |

FIRST ANGLE PROJECTION (ALL DIMENSION IN MILLIMETRES)

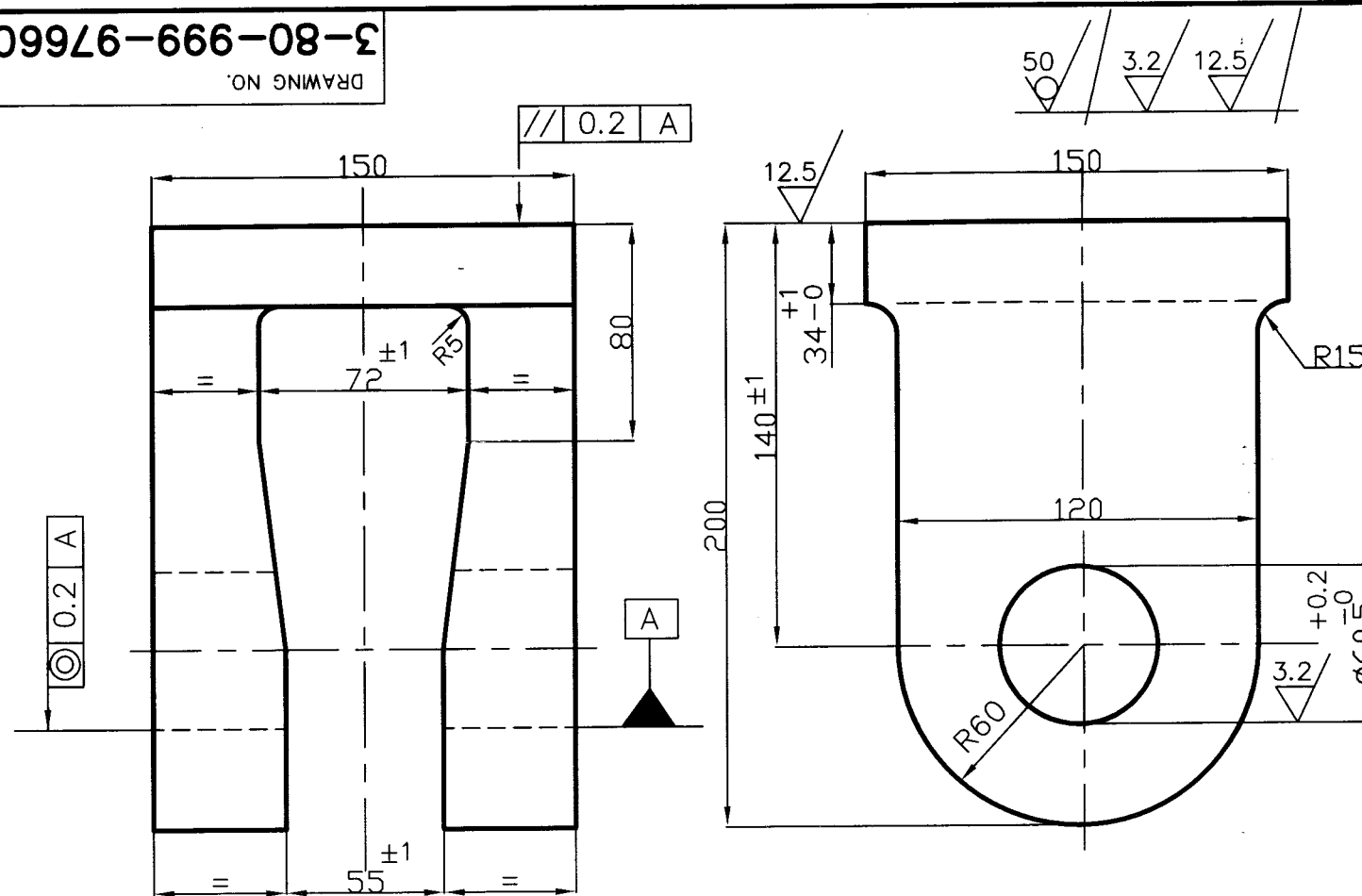
09976-666-08-3

DRAWING NO.

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

NOTES:

- 1) CLEVIS SHALL BE SHOT BLASTED AND ZINC DUST PRIMER COATED TO A DEPTH OF 40 MICRONS.



STANDARD

| VAR NO. | ITEM NO. | DESCRIPTION    | DRAWING NUMBER | ITEM NO | MATERIAL CODE  | UNIT WEIGHT |
|---------|----------|----------------|----------------|---------|----------------|-------------|
|         |          | WELD ON CLEVIS | 3-80-999-97660 |         | SA105          | 16.400      |
|         |          |                |                | VAR NO  | MATERIAL SPECN | QUANTITY    |



BHARAT HEAVY ELECTRICALS LTD.,  
PIPING CENTRE, CHENNAI, 600 017

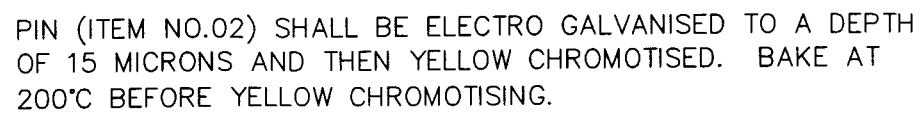
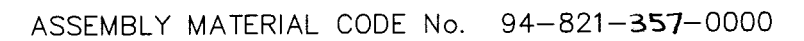
| NAME             | SIGN | DATE       |
|------------------|------|------------|
| DRN R.ANANTH     |      | 24.06.2002 |
| CHD R.ANANTH     |      | 24.06.2002 |
| APPD A.P.M.KUTTY |      | 24.06.2002 |

| REV  | DATE | ALTERED  | DEPT. | GRADE OF UN TOL DIM | SCALE  | WEIGHT (Kg) | REF. TO ASSY / OLD DRG. | CARD CODE | DRAWING No.    | REV |
|------|------|----------|-------|---------------------|--------|-------------|-------------------------|-----------|----------------|-----|
| 01   |      | APPROVED |       | C/M/F               | N.T.S. | 16400       |                         | U 01      | 3-80-999-97660 | 00  |
| ZONE |      |          |       |                     |        |             |                         |           |                |     |

TITLE  
WELD ON CLEVIS (WCA-9)  
(FORGED)

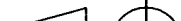
**CAUTION** THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

DRAWING NO.



|         |          |                    |                |         |                 |   |             |
|---------|----------|--------------------|----------------|---------|-----------------|---|-------------|
|         |          |                    |                |         |                 |   |             |
|         | 04       | SPLIT PIN 10x80    | 41704 10080    |         | 41704 10080     |   | 0.060       |
|         |          |                    |                |         |                 |   | 2           |
|         | 03       | PUNCHED WASHER A56 | 41408 56000    |         | 41408 00056     |   | 0.405       |
|         |          |                    |                |         |                 |   | 2           |
|         | 02       | PIN D 60 L232      | 3-80-999-97661 |         | 15.339.143.0000 | C | 5.100       |
|         |          |                    |                |         | SA105           |   | 1           |
|         | 01       | WELD ON CLEVIS     | 3-80-999-97660 |         | -               | C | 16.400      |
|         |          |                    |                |         | SA105           |   | 1           |
| VAR NO. | ITEM NO. | DESCRIPTION        | DRAWING NUMBER | ITEM NO | MATERIAL CODE   | A | UNIT WEIGHT |
|         |          |                    |                | VAR NO  | MATERIAL SPECN  | C | QUANTITY    |

|                                                                                       |                                                                                 |      |             |                                                                                       |             |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------|-------------|---------------------------------------------------------------------------------------|-------------|
|  | <b>BHARAT HEAVY ELECTRICALS LTD.,</b><br><b>PIPING CENTRE, CHENNAI, 600 017</b> |      | <b>NAME</b> | <b>SIGN</b>                                                                           | <b>DATE</b> |
|                                                                                       |                                                                                 | DRN  | R.ANANTH    |  | 24.06.2002  |
|                                                                                       |                                                                                 | CHD  | R.ANANTH    |  | 24.06.2002  |
|                                                                                       |                                                                                 | APPD | A.P.M.KUTTY |  | 24.06.2002  |

|                                             |                        |                                                                                       |        |              |                         |
|---------------------------------------------|------------------------|---------------------------------------------------------------------------------------|--------|--------------|-------------------------|
| DEPT.                                       | GRADE OF<br>UN TOL DIM |  | SCALE  | WEIGHT (Kg). | REF. TO ASSY / OLD DRG. |
| CODE                                        | C/M/F                  |                                                                                       | N.T.S. | 22.430       |                         |
| TITLE                                       |                        |                                                                                       |        | CARD<br>CODE | DRAWING No.             |
| WELD ON CLEVIS ASSEMBLY<br>(WCA-9) (FORGED) |                        |                                                                                       |        | U 01         | 3-80-999-97661          |
|                                             |                        |                                                                                       |        |              | REV<br>00               |

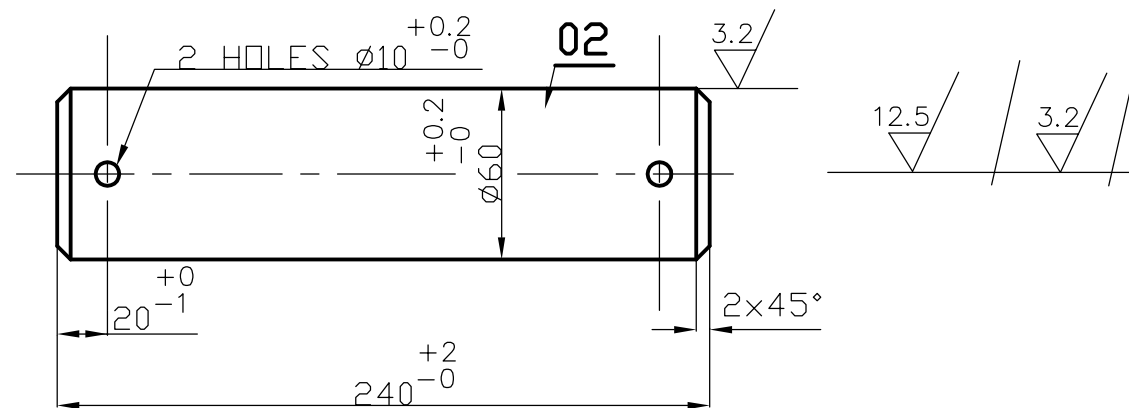
**SIZE A3**

DRAWING NO.



STANDARD |

|         |          |                        |                |         |                 |   |             |
|---------|----------|------------------------|----------------|---------|-----------------|---|-------------|
|         |          |                        |                |         |                 |   |             |
|         |          |                        |                |         |                 |   |             |
|         | 04       | SPLIT PIN 10x80        | 41704 10080    |         | 41704.10080.00  |   | 0.031       |
|         |          |                        |                |         |                 |   | 2           |
|         | 03       | PUNCHED WASHER A61(ID) | 41408 56000    |         | 41408.00056.00  |   | 0.405       |
|         |          |                        |                |         |                 |   | 2           |
|         | 02       | PIN D60 L240           | 3-80-999-97666 |         | 15.339.143.0000 | C | 5.300       |
|         |          |                        |                |         | SA105           |   | 1           |
|         | 01       | WELD ON CLEVIS         | 3-80-999-97665 |         | -               | C | 12.880      |
|         |          |                        |                |         | SA105           |   | 1           |
| VAR NO. | ITEM NO. | DESCRIPTION            | DRAWING NUMBER | ITEM NO | MATERIAL CODE   | A | UNIT WEIGHT |
|         |          |                        |                | VAR NO  | MATERIAL SPECN  | C | QUANTITY    |



PIN (ITEM NO.02) SHALL BE ELECTRO GALVANISED TO A DEPTH OF 15 MICRONS AND THEN YELLOW CHROMOTISED. BAKE AT 200°C BEFORE YELLOW CHROMOTISING.



BHARAT HEAVY ELECTRICALS LTD.,  
PIPING CENTRE, CHENNAI, 600 017

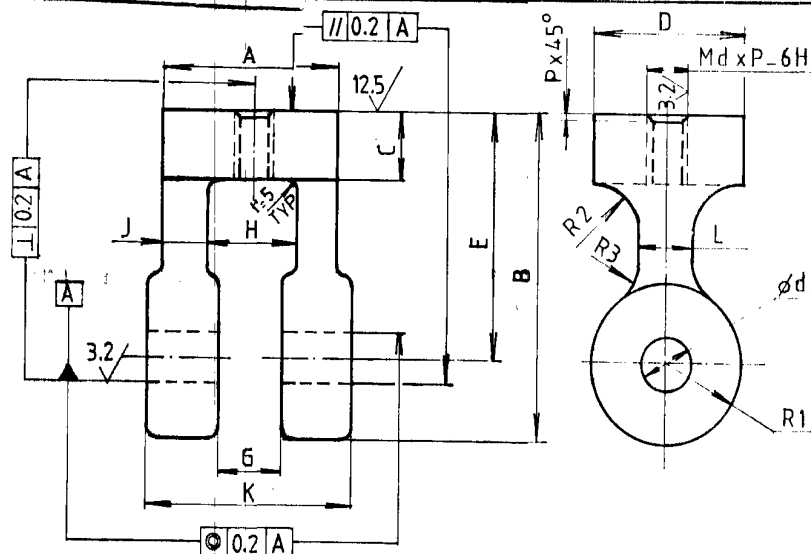
|      | NAME          | SIGN | DATE     |
|------|---------------|------|----------|
| DRN  | R.ANANTH      |      | 21.06.07 |
| CHD  | R.ANANTH      |      | 21.06.07 |
| APPD | M.N.VASUDEVAN |      | 21.06.07 |

|                                               |                        |                                                                                       |        |              |                        |
|-----------------------------------------------|------------------------|---------------------------------------------------------------------------------------|--------|--------------|------------------------|
| DEPT.                                         | GRADE OF<br>UN TOL DIM |  | SCALE  | WEIGHT (Kg). | REF.TO ASSY / OLD DRG. |
| CODE                                          | C/M/F                  |                                                                                       | N.T.S. | 19.052       |                        |
| TITLE                                         |                        |                                                                                       |        | CARD<br>CODE | DRAWING No.            |
| CLEVIS WITH BOLT ASSEMBLY<br>(CWA-9) (FORGED) |                        |                                                                                       |        | U 01         | 3-80-999-97666         |
|                                               |                        |                                                                                       |        |              | REV<br>00              |

E0 / 0E166-666-08-E

DRAWING NO.

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)



12.5 / 3.2 / 2

| VAR.NO | TYPE  | A     | B     | C <sup>+1</sup> <sub>-0</sub> | D <sup>+1</sup> <sub>-0</sub> | E <sup>±1</sup> | G <sup>±1</sup> | H <sup>±1</sup> | J <sup>+0.5</sup> <sub>-0</sub> | L <sup>+1</sup> <sub>-0</sub> | R1   | R2   | R3 | K   | Ød1 <sup>+0.2</sup> <sub>-0</sub> | Md x P      |  | BIN.CODE   | WT(Kg) | REMARKS |
|--------|-------|-------|-------|-------------------------------|-------------------------------|-----------------|-----------------|-----------------|---------------------------------|-------------------------------|------|------|----|-----|-----------------------------------|-------------|--|------------|--------|---------|
| 01.    | CWB_1 | 32.5  | 82    | 15                            | 24                            | 70              | 12              | 16.5            | 3                               | 12                            | 12   | 6    | 3  | 34  | 12.5                              | M.12 x 1.75 |  | 92_821_349 | 0.18   |         |
| 02.    | CWB_2 | 42.0  | 96    | 20                            | 32                            | 80              | 17              | 20              | 1                               | 15                            | 16   | 8.5  | 4  | 44  | 16.5                              | M.16 x 2.0  |  | 92_821_350 | 0.38   |         |
| 03.    | CWB_3 | 55.0  | 113   | 25                            | 46                            | 90              | 20              | 23              | 6                               | 21                            | 23   | 12.5 | 6  | 57  | 20.5                              | M.20 x 2.5  |  | 92_821_351 | 0.97   |         |
| 04.    | CWB_4 | 65.0  | 136.5 | 30                            | 53                            | 110             | 22              | 27              | 9                               | 25                            | 26.5 | 14   | 7  | 68  | 24.5                              | M.24 x 3.0  |  | 92_821_352 | 1.60   |         |
| 05.    | CWB_5 | 72.0  | 162   | 35                            | 64                            | 130             | 27              | 34              | 9                               | 29                            | 32   | 17.5 | 8  | 80  | 33.5                              | M.30 x 3.5  |  | 92_821_353 | 2.29   |         |
| 06.    | CWB_6 | 84.0  | 190   | 40                            | 80                            | 150             | 32              | 40              | 12                              | 36                            | 40   | 22   | 10 | 93  | 40.5                              | M.36 x 4.0  |  | 92_821_354 | 3.95   |         |
| 07.    | CWB_7 | 101.0 | 215   | 50                            | 90                            | 170             | 37              | 47              | 17                              | 40                            | 45   | 25   | 10 | 111 | 45.5                              | M.42 x 4.5  |  | 92_821_355 | 6.29   |         |

## NOTE:

01. MATERIAL: IS 961-540 WHT OR SA-105 OR EQUIVALENT.
02. AFTER MACHINING/THREADING THE CLEVIS SHALL BE ELECTRO GALVANISED TO A DEPTH OF 15 µm AND THEN YELLOW CHROMATISED.
03. AFTER GALVANISING THREAD SHALL CONFORM TO IS 4218, (PART 3,5 & 6) WHEN CHECKED WITH CORRESPONDING PLUG GAUGES FOR THE TOLERANCE CLASS OF 6H.

TYPE OF PRODUCT

OR NAME OF

CUSTOMER /PROJECT

STANDARD



Bharat Heavy Electricals Ltd.,  
PIPING CENTRE  
MADRAS 600 017

| DESIGN   | NAME          | DATE    | No. OF |
|----------|---------------|---------|--------|
| DESIGNED | R. SRINIVASAN | 19/2/20 | VAR.   |
| CHECKED  | R. ANANTH     |         |        |
| APPROVED | S. JAYAKUMAR  |         |        |

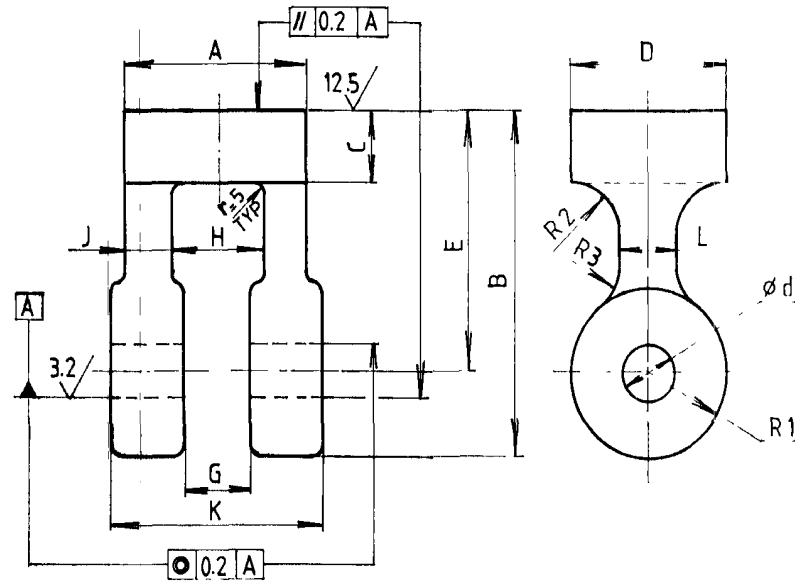
| REV                                      | DATE | ALTERED | REV               | DATE     | ALTERED                                  | REV                                                              | DATE     | ALTERED                                 |
|------------------------------------------|------|---------|-------------------|----------|------------------------------------------|------------------------------------------------------------------|----------|-----------------------------------------|
|                                          |      |         | 03                | 17.02.90 | R. SRINIVASAN.<br>CHECKED: S. JAYAKUMAR. | 02                                                               | 13.04.89 | R. SRINIVASAN.<br>CHECKED: V. K. RAMAN. |
| DRG REDRAWN TO HAVE INDIVIDUAL FORGINGS. |      |         | NOTES REVISED.    |          |                                          | REV 01 08.02.89 ALTERED: R. SRINIVASAN.<br>CHECKED: V. K. RAMAN. |          |                                         |
|                                          |      |         | BIN CODE REVISED. |          |                                          |                                                                  |          |                                         |

| DEPT.             | GRADE OF             | SCALE | WEIGHT (KG)     | ITEM |
|-------------------|----------------------|-------|-----------------|------|
| CODE              | UNTOL. DIM.<br>G/M/F | NTS   | REFERTABLE      | FIG. |
| TITLE             |                      |       | DRAWING No.     | REV. |
| CLEVIS WITH BOLT. |                      |       | 3-80-999-99130. | 03   |

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

70 / 1E166-666-08-E

DRAWING No.



12.5 / 3.2 / 0.2

| VAR.NO | TYPE  | A     | B     | C <sup>+1/-0</sup> | D <sup>+1/-0</sup> | E <sup>+1/-0</sup> | G <sup>+1/-0</sup> | H <sup>+1/-0</sup> | J <sup>+0.5/-0</sup> | L <sup>+1/-0</sup> | R1   | R2   | R3 | K   | Ød1 <sup>+0.2/-0</sup> |  |  | BIN.CODE   | WT(Kg) | REMARKS |
|--------|-------|-------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|--------------------|------|------|----|-----|------------------------|--|--|------------|--------|---------|
| 01.    | WCA_1 | 32.5  | 82    | 15                 | 24                 | 70                 | 12                 | 16.5               | 8                    | 12                 | 12   | 6    | 3  | 34  | 12.5                   |  |  | 92.821_349 | 0.20   |         |
| 02.    | WCA_2 | 42.0  | 96    | 20                 | 32                 | 80                 | 17                 | 20                 | 11                   | 15                 | 16   | 8.5  | 4  | 44  | 16.5                   |  |  | 92.821_350 | 0.41   |         |
| 03.    | WCA_3 | 55.0  | 113   | 25                 | 46                 | 90                 | 20                 | 23                 | 16                   | 21                 | 23   | 12.5 | 6  | 57  | 20.5                   |  |  | 92.821_351 | 1.03   |         |
| 04.    | WCA_4 | 65.0  | 136.5 | 30                 | 53                 | 110                | 22                 | 27                 | 19                   | 25                 | 26.5 | 14   | 7  | 68  | 24.5                   |  |  | 92.821_352 | 1.69   |         |
| 05.    | WCA_5 | 72.0  | 162   | 35                 | 64                 | 130                | 27                 | 34                 | 19                   | 29                 | 32   | 17.5 | 8  | 80  | 33.5                   |  |  | 92.821_353 | 2.46   |         |
| 06.    | WCA_6 | 84.0  | 190   | 40                 | 80                 | 150                | 32                 | 40                 | 22                   | 36                 | 40   | 22   | 10 | 93  | 40.5                   |  |  | 92.821_354 | 4.23   |         |
| 07.    | WCA_7 | 101.0 | 215   | 50                 | 90                 | 170                | 37                 | 47                 | 27                   | 40                 | 45   | 25   | 10 | 111 | 45.5                   |  |  | 92.821_355 | 6.78   |         |

## NOTE:

01. MATERIAL: IS 961.540 WHT OR SA.105 OR EQUIVALENT
02. CLEVIS SHALL BE SHOT BLASTED AND ZINC DUST PRIMER COATED TO A DEPTH OF 40µm.

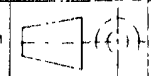
 TYPE OF PRODUCT  
 OR NAME OF  
 CUSTOMER / PROJECT

STANDARD


 Bharat Heavy Electricals Ltd.  
 P.O. BOX 1111  
 MADRAS 600 017

| DRN          | NAME          | DATE    | No. OF VAR |
|--------------|---------------|---------|------------|
| R SRINIVASAN | R. Srinivasan |         |            |
| R ANANTH     | R. Ananth     |         |            |
| S JAYAKUMAR  | S. Jayakumar  | 19/2/91 |            |

| REV                                      | DATE     | ALTERED R.SRINIVASAN. |
|------------------------------------------|----------|-----------------------|
| 02                                       | 17.02.90 | CHECKED S.JAYAKUMAR.  |
| DRG REDRAWN TO HAVE INDIVIDUAL FORGINGS. |          |                       |
| REV                                      | DATE     | ALTERED R.SRINIVASAN. |
| 01                                       | 08.02.89 | CHECKED: V.K.RAMAN.   |
| BIN.CODE REVISED.                        |          |                       |

 DEPT  
 CODE  
 GRADE OF  
 UNOL DIM  
 C/M/F


NTS

 WEIGHT IN  
 REFER TABLE

REF TO ASSY OLD DRG

ITEM No

TITLE

WELD ON CLEVIS.

DRAWING No

3.80.999-99131.

REV

08266-666-08-E

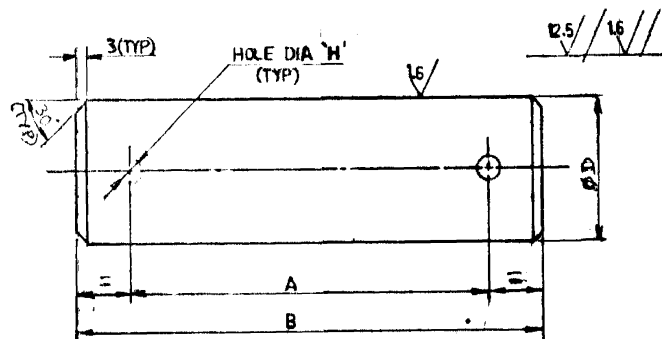
Rev. 0.001 VMD

| VAR. NO. | $\phi D - f8$<br>NOTE-05 | HOLE DIA<br>H | A   | B   | WT(Kg) | MATL CODE  |
|----------|--------------------------|---------------|-----|-----|--------|------------|
| 01       | -0.016<br>12-0.043       | 4             | 42  | 56  | 0.050  | 15.039.115 |
| 02       | -0.016<br>15-0.043       | 4             | 52  | 66  | 0.092  | 15.039.115 |
| 03       | -0.020<br>20-0.053       | 5             | 61  | 76  | 0.188  | 15.039.086 |
| 04       | -0.020<br>25-0.053       | 6.3           | 75  | 90  | 0.347  | 15.039.087 |
| 05       | -0.020<br>30-0.053       | 8             | 88  | 106 | 0.588  | 15.039.087 |
| 06       | -0.025<br>40-0.064       | 8             | 118 | 136 | 1.342  | 15.039.197 |
| 07       | -0.025<br>50-0.064       | 10            | 140 | 160 | 2.466  | 15.039.118 |
| 08       | -0.030<br>60-0.076       | 10            | 159 | 179 | 3.973  | 15.039.118 |
| 09       |                          |               |     |     |        |            |
| 10       |                          |               |     |     |        |            |

MATERIAL: SA-193 B-7

NOTES:

01. MATERIAL EQUIVALENT: BS.970 EN.19 (BS.970 PART.2 709 M.40)
02. VARIANT NO. OF THE PIN SHALL BE PUNCHED ON ANY ONE OF THE ENDS OF THE PIN.
03. AFTER MACHINING THE PIN SHALL BE HEAT TREATED TO MAINTAIN A HARDNESS OF 255 TO 300 BHN.
04. THE MACHINED PIN SHALL BE CHROME PLATED FOR AN UNIFORM THICKNESS OF 25 MICRONS.
05. THE FINISHED DIAMETER AFTER CHROME PLATING SHALL BE  $\phi D. f8$  AS INDICATED IN THE TABLE.



TYPE OF PRODUCT  
OR NAME OF  
CUSTOMER PROJECT

STANDARD

|                         |                  |             |             |
|-------------------------|------------------|-------------|-------------|
| DESIGNED BY             | DRN P. SAKTHIVEL | APPROVED BY | APP J. JUDE |
| CHECKED BY              | CHKD M. M. MANI  | DATE        | 11-04-89    |
| MADRAS ENGINEERING LTD. |                  |             |             |

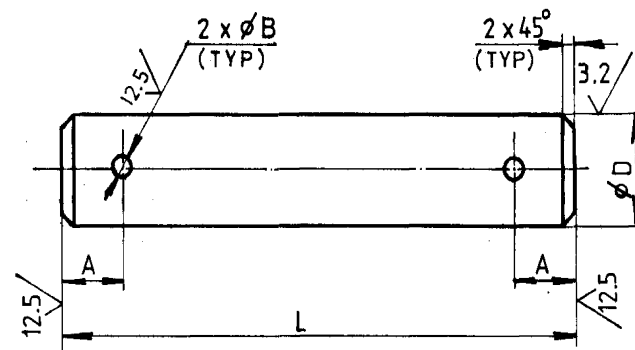
| REV. | DATE    | ALTD | R. SRINIVASAN. |
|------|---------|------|----------------|
| 01   | 20.5.89 | CHKD | R. ANANTH      |

DIMENSIONS A, B AND  
WEIGHT REVISED. HOLE DIA  
'H' ALTERED.

|                      |                              |       |                |
|----------------------|------------------------------|-------|----------------|
| QUANTITY             | 1000                         | DATE  | 11-04-89       |
| DESCRIPTION          | PIN<br>(FOR WELD ON BRACKET) |       |                |
| REF. TO ASSIGNED Dwg | 3.80.999.99228               |       |                |
| DATE                 | 0005                         | U. 01 | 3-80-999-99230 |
| REV. NO.             | REV. 01                      |       |                |

DRAWING NO.

12.5 ✓ 3.2 ✓



01. MATERIAL : SA-105 (C) MATERIAL : EN-8 & IS-1875 CL-III  
ARE ACCEPTABLE.
02. PIN SHALL BE ELECTRO GALVANISED TO A DEPTH OF 15 MICRONS  
AND THEN YELLOW CHROMOTISED.
03. BAKE AT 200°C BEFORE YELLOW CHROMOTISING.

STANDARD

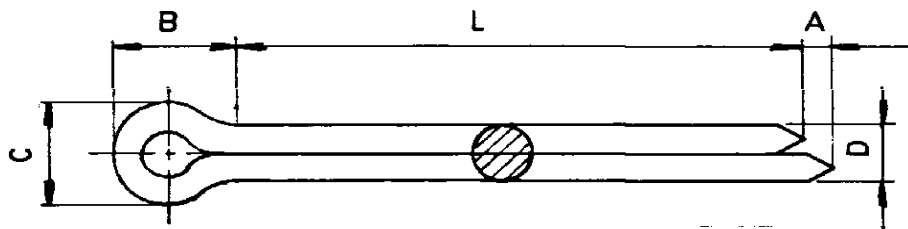
|     |        |                        |
|-----|--------|------------------------|
| REV | DATE   | ALTERED R. SRINIVASAN. |
| 01  | 251090 | CHECKED <i>PA</i>      |

TOLERANCE ADDED FOR ALL  
DIMENSIONS  
SURFACE FINISH ALTD.

| REV | DATE | ALTERED | REV | DATE | ALTERED |
|-----|------|---------|-----|------|---------|
| O 1 |      | CHECKED | O 2 |      | CHECKED |
|     |      |         |     |      |         |

**NOTE:-**

1. MATERIAL STEEL WIRE OF HALF ROUND SECTION RADIUS CORNERS.
2. THE END OF EACH LEG SHALL BE BEVELLED & FREE FROM BURRS.



|          |          |        |      |        |                           |            |
|----------|----------|--------|------|--------|---------------------------|------------|
| 07       | 6 x 50   | 4      | 12.5 | 12     | 15-004-197<br>BMC 20      | 0.016      |
| 06       | 4 x 36   | 4      | 8    | 7.4    | 15-004-197<br>BMC 20      | 0.005      |
| 05       | 10 X 125 | 6.3    | 20   | 19     | 15-004-042<br>BMC-20      | 0.080      |
| 04       | 10 X 100 | 6.3    | 20   | 19     | "<br>"                    | 0.070      |
| 03       | 10 X 90  | 6.3    | 20   | 19     | "<br>"                    | 0.060      |
| 02       | 8 X 80   | 4.0    | 16   | 15     | 15-004-197<br>BMC-20      | 0.032      |
| 01       | 8 X 63   | 4.0    | 16   | 15     | "<br>"                    | 0.027      |
| VAR. NO. | ØD X L   | A MAX. | B ≈  | C MAX. | MATL. CODE<br>MATL. SPEC. | WEIGHT(Kg) |

| VARIANT No. | DESCRIPTION | STD | MATL CODE | MATL SPEC | UNIT | QTY. |
|-------------|-------------|-----|-----------|-----------|------|------|
|             |             |     |           |           |      |      |

**BHARAT HEAVY ELECTRICALS LTD.**

BOILER PLANT UNIT

TIRUCHIRAPALLI-620 014.

| DRN.  | NAME                  | SIGN.            | DATE   |
|-------|-----------------------|------------------|--------|
| CHD.  | T. K. Das             | <i>T. K. Das</i> | 2-3-87 |
| APPD. | <i>M. Varadachari</i> |                  | 2-3-   |

| DEPT. | GRADE OF UNTOOL DIM C/M/F | SCALE | WEIGHT (Kg)    | REF TO ASSY. OLD DRG       | ITEM No. |
|-------|---------------------------|-------|----------------|----------------------------|----------|
| CODE  |                           | NTS   | /              |                            |          |
| TITLE | SPLIT PIN                 |       | CARD CODE U 01 | DRAWING No. 4-80-999-99029 | REV.     |