

| Part no.                                                            | Section (mm)                | Quantity | Working Drawing<br>(Dimension in mm) | Length<br>Single/pc<br>mm | total<br>m | Weight<br>kg/pc<br>total<br>kg | Surface to be painted<br>m <sup>2</sup> /pc<br>total<br>m <sup>2</sup> | Total weight (finished)<br>Galvanized<br>kg | Remarks |        |                                         |
|---------------------------------------------------------------------|-----------------------------|----------|--------------------------------------|---------------------------|------------|--------------------------------|------------------------------------------------------------------------|---------------------------------------------|---------|--------|-----------------------------------------|
| a                                                                   | Flat 80 / 8<br>ℓ = 500      | 8        |                                      | 500                       | 4.00       | 2.46                           | 19.68                                                                  | 0.08                                        | 0.64    | 20.07  |                                         |
| b                                                                   | Flat 160 / 10<br>ℓ = 1100   | 16       |                                      | 1100                      | 17.60      | 13.34                          | 213.44                                                                 | 0.36                                        | 5.76    | 216.95 | Gas cutting prohibited for part no. 1b. |
| c                                                                   | IS Square bar 80<br>ℓ = 150 | 8        |                                      | 150                       | 1.20       | 4.90                           | 39.20                                                                  | 0.04                                        | 0.32    | 39.39  |                                         |
| d                                                                   | Rod 10<br>ℓ = 110           | 16       |                                      | 110                       | 1.76       | 0.07                           | 1.12                                                                   | —                                           | —       | 1.15   |                                         |
| e                                                                   | Rod 45<br>ℓ = 1000          | 8        |                                      | 1000                      | 8.00       | 11.52                          | 92.16                                                                  | 0.05                                        | 0.40    | 92.51  |                                         |
| f                                                                   | Hexagonal nut M 45          | 8        |                                      | —                         | —          | 0.77                           | 6.16                                                                   | Galvanized                                  | —       | —      |                                         |
| Part nos. 1 (a-f) to be welded together as shown in welding detail. |                             |          |                                      |                           |            |                                |                                                                        |                                             |         |        |                                         |
| 2                                                                   | Flat 40 / 6<br>ℓ = 460      | 8        |                                      | 460                       | 3.68       | 0.84                           | 6.72                                                                   | —                                           | —       | —      |                                         |
| a                                                                   | Channel ISMC 200-500        | 8        |                                      | 500                       | 4.00       | 10.71                          | 85.68                                                                  | 0.25                                        | 2.00    | 86.96  |                                         |
| b                                                                   | Plate 183/60/10             | 16       |                                      | —                         | —          | 0.79                           | 12.64                                                                  | 0.03                                        | 0.48    | 12.93  |                                         |
| c                                                                   | Plate 480/180/8             | 8        |                                      | —                         | —          | 5.03                           | 40.24                                                                  | 0.08                                        | 0.64    | 40.63  |                                         |
| d                                                                   | Plate 200/66/10             | 16       |                                      | —                         | —          | 1.04                           | 16.64                                                                  | 0.03                                        | 0.48    | 16.93  |                                         |
| e                                                                   | Plate 220/100/12            | 16       |                                      | —                         | —          | 1.72                           | 27.52                                                                  | 0.03                                        | 0.48    | 27.81  |                                         |
| Part nos. 3 (a-e) to be welded together as shown in welding detail. |                             |          |                                      |                           |            |                                |                                                                        |                                             |         |        |                                         |
| 4                                                                   | Pin 90<br>ℓ = 180           | 4        |                                      | 180                       | 0.72       | 8.88                           | 35.52                                                                  | Apply grease only                           | —       | 35.68  |                                         |
| 5                                                                   | Split pin 8<br>ℓ = 150      | 8        |                                      | —                         | —          | 0.06                           | 0.48                                                                   | Bright steel                                | —       | —      |                                         |
| a                                                                   | Channel ISMC 125-1000       | 16       |                                      | 1000                      | 16.00      | 12.61                          | 201.76                                                                 | —                                           | —       | —      |                                         |
| b                                                                   | Plate 120/120/6             | 16       |                                      | —                         | —          | 0.64                           | 10.24                                                                  | —                                           | —       | —      |                                         |
| Part nos. 6 (a-b) to be welded together as shown in welding detail. |                             |          |                                      |                           |            |                                |                                                                        |                                             |         |        |                                         |
| 7                                                                   | Flat 40/6<br>ℓ = 1160       | 8        |                                      | 1160                      | 9.28       | 2.17                           | 17.36                                                                  | —                                           | —       | —      |                                         |
| 8                                                                   | Angle 50/50/6<br>ℓ = 630    | 8        |                                      | 630                       | 5.04       | 2.79                           | 22.32                                                                  | —                                           | —       | —      |                                         |

| Cable<br>Ø mm | Bulldog grips<br>for one cable | Weight (kg/pc) |         |
|---------------|--------------------------------|----------------|---------|
|               |                                | Thimble        | B. grip |
| 32            | 6                              | 1.85           | 1.30    |
| 36            | 7                              | 2.75           | 1.85    |
| 40            | 8                              | 3.20           | 2.40    |

|                                |                      |                                              |
|--------------------------------|----------------------|----------------------------------------------|
| Steel parts to be Galvanized : | 604.24 Kg            | Hot Dip Galvanization : IS 2629, IS 2633     |
| Steel parts to be Painted :    | 11.28 m <sup>2</sup> | Weight of Zinc Coat : 0.61 kg/m <sup>2</sup> |

| Part no.         | Section (mm)                           | Quantity | Working Drawing<br>(Dimension in mm)  | Length<br>Single/pc<br>mm | total<br>m | Weight<br>kg/pc<br>total<br>kg | Surface to be painted<br>m <sup>2</sup> /pc<br>total<br>m <sup>2</sup> | Total weight (finished)<br>Galvanized<br>kg | Remarks |                                    |                                                       |
|------------------|----------------------------------------|----------|---------------------------------------|---------------------------|------------|--------------------------------|------------------------------------------------------------------------|---------------------------------------------|---------|------------------------------------|-------------------------------------------------------|
| 9                | Flat 100/10<br>l = 1700                | 32       |                                       | 1700                      | 54.40      | 13.20                          | 422.40                                                                 | —                                           | —       | —                                  |                                                       |
| 10               | Angle 50/50/6<br>l = 1500              | 2        |                                       | 1500                      | 3.00       | 6.71                           | 13.42                                                                  | —                                           | —       | —                                  |                                                       |
| 11               | Angle 50/50/6<br>l = 1920              | 2        |                                       | 1920                      | 3.84       | 8.19                           | 16.38                                                                  | —                                           | —       | —                                  |                                                       |
| 12               | Angle 50/50/6<br>l = 1730              | 2        |                                       | 1730                      | 3.46       | 7.36                           | 14.72                                                                  | —                                           | —       | —                                  |                                                       |
| 13               | Hexagonal nut<br>M 45                  | 25       | This part is identical to part no. 1f | —                         | —          | 0.77                           | 19.25                                                                  | —                                           | —       | 1 pc. extra.                       |                                                       |
| 14               | Hexagonal bolt<br>M 12 x 40<br>IS 1363 | 130      |                                       | —                         | —          | 0.049                          | 6.37                                                                   | Galvanized                                  | —       | 6 pcs. extra<br>Ref: IS 1363-1967  |                                                       |
| 15               | Hexagonal bolt<br>M 16 x 60<br>IS 1363 | 200      |                                       | —                         | —          | 0.12                           | 24.00                                                                  | Galvanized                                  | —       | 8 pcs. extra.<br>Ref: IS 1363-1967 |                                                       |
| 16               | Hexagonal nut<br>M 12 IS 1363          | 130      |                                       | —                         | —          | 0.018                          | 2.34                                                                   | Galvanized                                  | —       | 6 pcs. extra.<br>Ref: IS 1363-1967 |                                                       |
| 17               | Hexagonal nut<br>M 16 IS 1363          | 200      |                                       | —                         | —          | 0.032                          | 6.40                                                                   | Galvanized                                  | —       | 8 pcs. extra<br>Ref: IS 1363-1967  |                                                       |
| 18               | Plain washer 17<br>thickness = 4       | 200      |                                       | —                         | —          | 0.015                          | 3.00                                                                   | Galvanized                                  | —       | 8 pcs. extra.                      |                                                       |
| 19               | Rod 25<br>l = 2650                     | 2        |                                       | 2650                      | 5.30       | 10.20                          | 20.40                                                                  | 0.04<br>(Partly painted)                    | 0.08    | 20.66                              | Used for fixing<br>Tiffin Machine<br>during erection. |
| TOTAL (1 - 19) = |                                        |          |                                       | 1' 397.56 kg              |            | 11.28 m <sup>2</sup>           |                                                                        | 611.67 kg                                   |         |                                    |                                                       |

|                   |                                     |   |                                                          |      |      |                |      |            |   |   |                                                                                              |
|-------------------|-------------------------------------|---|----------------------------------------------------------|------|------|----------------|------|------------|---|---|----------------------------------------------------------------------------------------------|
| 20                | Rod 25<br>l = 250                   | 1 |                                                          | 250  | 0.05 | 0.10           | 0.20 | —          | — | — | Ribbed for steel.<br>Cold bending required.                                                  |
| 21                | Plate 240/220/16                    | 1 |                                                          | —    | —    | 6.34           | 0.12 | —          | — | — | Weight (finished) Galvanized<br>(0.61 kg/m <sup>2</sup> x Surface Area +<br>Wt. of steel) kg |
| 22                | Hexagonal bolt M 16 x 60<br>IS 1363 | 1 | Identical to part no. 15                                 | —    | —    | 0.12           | —    | Galvanized | — | — | Ref: IS 1363-1967                                                                            |
| 23                | Plain washer 17<br>thickness = 4    | 1 | Identical to part no. 18                                 | —    | —    | 0.015          | —    | Galvanized | — | — |                                                                                              |
| 24                | Hexagonal nut M 16 IS 1363          | 1 | Identical to part no. 17                                 | —    | —    | 0.032          | —    | Galvanized | — | — | Ref: IS 1363-1967                                                                            |
| 25                | Taper washer 18<br>IS 5372          | 1 | Taper washer nominal hole size 18 as per ISI             | —    | —    | 0.035          | —    | Galvanized | — | — | Ref: IS 5372-1975                                                                            |
| 26                | Flat 100/10<br>l = 1545             | 1 |                                                          | 1545 | —    | 11.91          | —    | —          | — | — | Use for extending the length of part no. 9.<br>(Deadman anchorage)                           |
| 27                | Mortar container Sheet 1 = 0.5      | 1 |                                                          | 1400 | —    | 0.21           | —    | —          | — | — | Two units per anchor bar (20)                                                                |
| TOTAL (20 - 27) = |                                     |   |                                                          | kg   |      | m <sup>2</sup> |      | kg         |   |   |                                                                                              |
| 28                | Open thimble                        | 4 | Thimble to ISI standard for cable 32 mm                  | —    | —    | —              | —    | Galvanized | — | — | Ref: IS 2315-1970                                                                            |
| 29                | Bulldog grip                        | 4 | M.S. forged bulldog grip to ISI standard for cable 32 mm | —    | —    | —              | —    | Galvanized | — | — | Ref: IS 2361-1978                                                                            |
| GRAND TOTAL =     |                                     |   |                                                          | kg   |      | m <sup>2</sup> |      | kg         |   |   |                                                                                              |

## WELDING DETAIL OF PART 6

