

CLIP-STEP BOLT


## CLIP



| $\#$ | 4 | 5 |  |
| :---: | :---: | :---: | :---: |
| 1 | DESCRIPTION (Optional Grade) | QTY | Weight (lb/ kg) |
| 2 | Step Bolt - M20x2.5 x 225mm - A449 (GR 8.8) HDG | ${ }^{*} 1$ | $0.88 / 0.64$ |
| 3 | Heavy Hex Nut, M20x2.5 - A563 GR DH (GR 8.8) HDG | ${ }^{*} 2$ | $0.224 / 0.11$ |

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## Fabrication Notes

1. *The number of Clips/ Step Bolts will vary based on height of pole and shall be
equally spaced between the upper and lower cable mount brackets (see pg. 2)
2. All plate material shall shall have a minimum yield strength of $345 \mathrm{MPa}(50 \mathrm{ksi})$
3. All welding shall conform to the minimum requirements of AWS DI
4. All welding shall be done by welders qualified under AWS specifications,
using E70XX, low hydrogen electrodes
5. Hot Dip Galvanized in accordance with ASTM A123
6. Debur all sharp edges

## Installation Steps:

Outside nut shall be turned to end of step bolt threads prior to installation
2. Step bolt shall be turned through inside nut until bolt makes snug contact with pole
3. Outside nut shall be snugged against clip then tightened $1 / 4$ to $1 / 2$ turn to achieve proper step bolt preload.
CLIP-STEP BOLT SPACING


| Total Weight <br> $3.1 \mathrm{lbs}(1.41 \mathrm{~kg})$ | CAD-generated drawing do not manually update |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | APPROVALS | DATE | Step Bolt/ Clip |  |
|  | $\begin{aligned} & \text { DRAWN MGC } \\ & \text { CHECKED } \end{aligned}$ | 10/12/20 |  |  |
| MATERIAL See Notes | RESP ENG |  |  |  |
| MINISH See | megeng |  | Det sor sown on this drawing not he tound in cAD fie. |  |



Cable Guide Bracket


Align mounting holes with center line of pole


## Fabrication Notes:

1. *The number of cable guides will vary based on height of pole and shall be equally spaced between the upper and lower cable mount brackets.
2. All plate material shall shall have a minimum yield strength of 345 MPa ( 50 ksi )
3. All welding shall conform to the minimum requirements of AWS DI.l
4. All welding shall be done by welders qualified under AWS specifications, using E70XX, low hydrogen electrodes
5. Hot Dip Galvanized in accordance with ASTM A123
6. Debur all sharp edges

| $\#$ | DESCRIPTION (Optional Grade) | QTY | Weight lb/ kg |
| :---: | :---: | :---: | :---: |
| 1 | Cable Mount Bracket-ASTM A572 GR 50 (Q345 or Q355) | 2 | $1.85 / 0.84$ |
| 2 | Cable Guide Bracket-ASTM A572 GR 50 (Q345 or Q355) | *1 or more | $0.51 / 0.23$ |



Part \#

