<table>
<thead>
<tr>
<th>Section Title / Drawing Number</th>
<th>Current Published</th>
<th>Issued Document Revision Number</th>
</tr>
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<td>Section 20 - Pages 214-1 to 214-6 Ver 2</td>
<td>4-Apr-16</td>
<td>1 2</td>
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Degree symbols in the title boxes are displayed as %D. This does not effect the accuracy of the drawings. This will be resolved in the next revision.
### NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2 mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for free rigging.
6. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-243-14 for Pole Construction
For Maintenance purposes

<table>
<thead>
<tr>
<th>DISTANCE FROM</th>
<th>ORIENTATION</th>
<th>FITTING DESCRIPTION</th>
<th>TUBE LENGTH</th>
<th>FITTING PURPOSE</th>
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<tbody>
<tr>
<td>50 mm</td>
<td>FG</td>
<td>32 OD S/S tube</td>
<td>403</td>
<td>Stiff brace, back plate, erw top bolt (M14)</td>
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<tr>
<td>100 mm</td>
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<td>32 OD S/S tube</td>
<td>404</td>
<td>Stiff brace, back plate, erw top bolt (M14)</td>
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<td>150 mm</td>
<td>FG</td>
<td>32 OD S/S tube</td>
<td>404</td>
<td>Upper stiff, back plate, erw top bolt (M14)</td>
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<tr>
<td>200 mm</td>
<td>FG</td>
<td>32 OD S/S tube</td>
<td>407</td>
<td>Stiff brace, back plate, erw bottom bolt (M14)</td>
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<tr>
<td>250 mm</td>
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<td>32 OD S/S tube</td>
<td>407</td>
<td>Upper stiff, back plate, erw bottom bolt (M14)</td>
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<tr>
<td>300 mm</td>
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<td>32 OD S/S tube</td>
<td>408</td>
<td>Stiff brace, back plate, erw bottom bolt (M14)</td>
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<td>350 mm</td>
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<td>Upper stiff, back plate, erw bottom bolt (M14)</td>
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<td>400 mm</td>
<td>FG</td>
<td>32 OD S/S tube</td>
<td>409</td>
<td>Stiff brace, back plate, erw bottom bolt (M14)</td>
</tr>
</tbody>
</table>

Notes:
1. Orientation is measured clockwise when looking down on pole tip.
2. Backed-up fittings require +/-2 mm tolerance between them and +/-2 mm orientation tolerance
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.
Middle Phase Flanged Eye Bolt (M20) for maintenance purpose
Fall Arrest Bracket and Step bolt to pole
32 OD S/S tube

DESCRIPTION
Fall Arrest Bracket and Step bolt to pole
32 OD S/S tube

ISSUE
Fall Arrest Bracket and Step bolt to pole
M12 earth ferrule (30mm thread)

NOTES
1. Orientation is measured clockwise when looking down on pole tip.
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3. Longitudinal capacities to be less than transverse capacities.
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5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-243-14 for Pole Construction
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.

4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.

3. Additional earthing (in normal soil)

2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.

1. Orientation is measured clockwise when looking down on pole tip.

NOTES

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Refer dwg 5-7-3-2 for Foundations

Refer dwg 5-4-243-14 for Pole Construction
### Notes

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/-2 mm tolerance between them and +/-2 mm orientation tolerance.
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4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

### Table: Fitting Details

<table>
<thead>
<tr>
<th>Distance from Top (mm)</th>
<th>Orientation</th>
<th>Fitting Description</th>
<th>Tube</th>
<th>Fitting Purpose</th>
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<td>32 OD S/S tube</td>
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<td>Stay Brk, backing plate, eyenut top bolt (M24)</td>
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<td>32 OD S/S tube</td>
<td>402</td>
<td>Upper Shelf, backing plate top bolt (M24)</td>
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<td>20900</td>
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<td>32 OD S/S tube</td>
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<td>Stay Brk, backing plate, eyenut bottom bolt (M24)</td>
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<tr>
<td>21200</td>
<td>F</td>
<td>32 OD S/S tube</td>
<td>409</td>
<td>Upper Shelf, backing plate, eyenut bottom bolt (M24)</td>
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<tr>
<td>21500</td>
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<td>21900</td>
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<td>32 OD S/S tube</td>
<td>401</td>
<td>Fall Abrt, Brkt and Step bolt to pole</td>
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<tr>
<td>22000</td>
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<td>32 OD S/S tube</td>
<td>402</td>
<td>Fall Abrt, Brkt and Step bolt to pole</td>
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<td>32 OD S/S tube</td>
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</table>

### Diagram: Pole Construction

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-243-14 for Pole Construction

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**OVERHEAD SUB-TRANSMISSION**

132kV CONCRETE POLE MANUFACTURING DETAILS

SINGLE CIRCUIT RURAL VERTICAL STRAIN

**DRAWING NUMBER:** 5-20-214-5
### NOTES

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2. Bracketed fittings require +/-2 mm tolerance between them and +/-2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. All nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-243-14 for Pole Construction