



# L&T Construction

Power Transmission & Distribution

CLIENT :



**BIHAR STATE POWER TRANSMISSION CO.LTD., PATNA**

PROJECT :

**PACKAGE - NIT 77 UNDER STATE PLAN [80:20], CONSTRUCTION OF :**  
 (I) LILO OF BARH-PATNA 400 KV D/C ( QUAD) TL AT BAKHTIYARPUR (LINE LENGTH 10RKM),  
 (II) 220 KV D/C BAKHTIYARPUR - SHEIKHPURA TL (ACSR ZEBRA) (LINE LENGTH - 51 RKM),  
 (III) 220 KV D/C BAKHTIYARPUR -HATHIDAH TL (ACSR ZEBRA) (LINE LENGTH -52 RKM) AND  
 (IV) 220 KV D/C BAKHTIYARPUR – FATHUA TL (ACSR ZEBRA) (LINE LENGTH - 28 RKM)

Spec. No. : **NIT no. 77/PR/BSPTCL/2018**

DRG. No. : **O18089-T-TL-8D-GA-0205**

BOM No. : **BOM/LE19D023/4DB/005**

NO OF SHEETS: **8**

## BILL OF MATERIAL

### +3M BODY EXTN. (ATT. TO BB) FOR TOWER TYPE - "4DB"

### 400KV D/C QUAD ACSR MOOSE (WZ-4)

| WEIGHT OF STRUCTURE                                                                                                   |                    |
|-----------------------------------------------------------------------------------------------------------------------|--------------------|
| HT MEMBERS:<br>BOM/LE19D023/PQB3E                                                                                     | 4827.332           |
| MS MEMBERS INCLUDING PACK WASHERS AND ACCESSORIES ECT.<br>BOM/LE19D023/PQB3E = 2380.800<br>BOM/LE19D023/PQB3W = 9.408 | 2390.208           |
| WEIGHT OF BOLTS & NUTS, SPRING WASHERS AND STEP BOLTS<br>BOM/LE19D023/PQB3B                                           | 266.720            |
| <b>TOTAL WEIGHT OF STRUCTURE:</b>                                                                                     | <b>7484.26 Kgs</b> |

**APPROVED**

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

*22/10/19*  
**Electrical Superintending Engineer**  
**(Planning and Engineering)**  
 Bihar State Power Transmission Company Limited

|             |      |                                     |             |             |          |        |       |
|-------------|------|-------------------------------------|-------------|-------------|----------|--------|-------|
| REV.        | DATE | SUBMISSION FOR APPROVAL AFTER PROTO |             |             | PU       | BSR    | CSR   |
| PREPARED BY |      | CHECKED BY                          | REVIEWED BY | APPROVED BY | CHKD.    | REVED. | APPD. |
| MBR         |      | PU                                  | BSR         | CSR         | DATE     |        |       |
|             |      |                                     |             |             | 09.09.19 |        |       |

THIS IS PROPRIETARY ITEM AND DESIGN RIGHT IS STRICTLY RESERVED WITH BSPTCL UNDER NO CIRCUMSTANCES THIS DRAWING SHALL BE USED BY ANYBODY WITHOUT PRIOR PERMISSION FROM BSPTCL IN WRITING.



LARSEN & TOUBRO LIMITED, CONSTRUCTION.,  
979, Mount-Poonamallee Road, Manapakkam,  
Tamilnadu-600089, PHONE : 044-22526000, FAX : 044-22526059

Date: 09-Sep-2019

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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3E

Order Ref: REF/LE19D023

| Sl.No                                                              | Part Code         | Raw Material       | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt | Per Piece<br>Ass.Wt |
|--------------------------------------------------------------------|-------------------|--------------------|------------------------|--------------------|------------|-----------------|----------|---------------------|
| <b>BOM OF +3M BODY EXTN. FOR TOWER TYPE-"4DB" (400kV D/C QUAD)</b> |                   |                    |                        |                    |            |                 |          |                     |
| 1                                                                  | 77B4DB3000SH      | L200X200X15H-E350A | 7000.00                | 45.600             | 2          | 319.200         | 638.400  |                     |
| 2                                                                  | 77B4DB3001H       | L200X200X15H-E350A | 7000.00                | 45.600             | 2          | 319.200         | 638.400  |                     |
| 3                                                                  | 77B4DB3002SH      | L200X200X15H-E350A | 5484.00                | 45.600             | 2          | 250.070         | 500.140  |                     |
| 4                                                                  | 77B4DB3003H       | L200X200X15H-E350A | 5484.00                | 45.600             | 2          | 250.070         | 500.140  |                     |
| 5                                                                  | 77B4DB3004H       | L150X150X12H-E350A | 606.00                 | 27.300             | 8          | 16.544          | 132.352  |                     |
| 6                                                                  | 77B4DB3005H       | 12MM PLATE H-E350A | 150.00 X 606.00        | 94.200             | 16         | 8.563           | 137.008  |                     |
| 7                                                                  | 77B4DB3006LH      | L75X75X5H-E350A    | 4700.00                | 5.700              | 2          | 26.790          | 53.580   |                     |
| 8                                                                  | 77B4DB3006RH      | L75X75X5H-E350A    | 4700.00                | 5.700              | 2          | 26.790          | 53.580   |                     |
| 9                                                                  | 77B4DB3006AL<br>H | L75X75X6H-E350A    | 4700.00                | 6.800              | 2          | 31.960          | 63.920   |                     |
| 10                                                                 | 77B4DB3006AR<br>H | L75X75X6H-E350A    | 4700.00                | 6.800              | 2          | 31.960          | 63.920   |                     |
| 11                                                                 | 77B4DB3007LH      | L75X75X5H-E350A    | 4701.00                | 5.700              | 2          | 26.796          | 53.592   |                     |
| 12                                                                 | 77B4DB3007RH      | L75X75X5H-E350A    | 4701.00                | 5.700              | 2          | 26.796          | 53.592   |                     |
| 13                                                                 | 77B4DB3007AL<br>H | L75X75X6H-E350A    | 4701.00                | 6.800              | 2          | 31.967          | 63.934   |                     |
| 14                                                                 | 77B4DB3007AR<br>H | L75X75X6H-E350A    | 4701.00                | 6.800              | 2          | 31.967          | 63.934   |                     |
| 15                                                                 | 77B4DB3008LH      | L75X75X5H-E350A    | 4350.00                | 5.700              | 2          | 24.795          | 49.590   |                     |
| 16                                                                 | 77B4DB3008RH      | L75X75X5H-E350A    | 4350.00                | 5.700              | 2          | 24.795          | 49.590   |                     |
| 17                                                                 | 77B4DB3008AL<br>H | L75X75X6H-E350A    | 4350.00                | 6.800              | 2          | 29.580          | 59.160   |                     |
| 18                                                                 | 77B4DB3008AR<br>H | L75X75X6H-E350A    | 4350.00                | 6.800              | 2          | 29.580          | 59.160   |                     |
| 19                                                                 | 77B4DB3009LH      | L75X75X5H-E350A    | 4350.00                | 5.700              | 2          | 24.795          | 49.590   |                     |
| 20                                                                 | 77B4DB3009RH      | L75X75X5H-E350A    | 4350.00                | 5.700              | 2          | 24.795          | 49.590   |                     |
| 21                                                                 | 77B4DB3009AL<br>H | L75X75X6H-E350A    | 4350.00                | 6.800              | 2          | 29.580          | 59.160   |                     |
| 22                                                                 | 77B4DB3009AR<br>H | L75X75X6H-E350A    | 4350.00                | 6.800              | 2          | 29.580          | 59.160   |                     |
| 23                                                                 | 77B4DB3010LH      | L75X75X5H-E350A    | 6071.00                | 5.700              | 2          | 34.605          | 69.210   |                     |
| 24                                                                 | 77B4DB3010RH      | L75X75X5H-E350A    | 6071.00                | 5.700              | 2          | 34.605          | 69.210   |                     |
| 25                                                                 | 77B4DB3010AL<br>H | L75X75X6H-E350A    | 6071.00                | 6.800              | 2          | 41.283          | 82.566   |                     |
| 26                                                                 | 77B4DB3010AR<br>H | L75X75X6H-E350A    | 6071.00                | 6.800              | 2          | 41.283          | 82.566   |                     |
| 27                                                                 | 77B4DB3011LH      | L75X75X5H-E350A    | 6071.00                | 5.700              | 2          | 34.605          | 69.210   |                     |
| 28                                                                 | 77B4DB3011RH      | L75X75X5H-E350A    | 6071.00                | 5.700              | 2          | 34.605          | 69.210   |                     |
| 29                                                                 | 77B4DB3011AL<br>H | L75X75X6H-E350A    | 6071.00                | 6.800              | 2          | 41.283          | 82.566   |                     |

**APPROVED**

\*\* -- Item Welded with another item  
\*\*\* -- Item Assembled with another item

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supplied under specification

Electrical Superintending Engineer  
(Planning and Engineering)



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Date: 09-Sep-2019

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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3E

Order Ref: REF/LE19D023

| Sl.No | Part Code      | Raw Material       | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt | Per Piece<br>Ass.Wt |
|-------|----------------|--------------------|------------------------|--------------------|------------|-----------------|----------|---------------------|
| 30    | 77B4DB3011AR H | L75X75X6H-E350A    | 6071.00                | 6.800              | 2          | 41.283          | 82.566   |                     |
| 31    | 77B4DB3012LH   | L60X60X5H-E350A    | 286.00                 | 4.500              | 8          | 1.287           | 10.296   |                     |
| 32    | 77B4DB3012RH   | L60X60X5H-E350A    | 286.00                 | 4.500              | 8          | 1.287           | 10.296   |                     |
| 33    | 77B4DB3012AL H | L60X60X5H-E350A    | 286.00                 | 4.500              | 8          | 1.287           | 10.296   |                     |
| 34    | 77B4DB3012AR H | L60X60X5H-E350A    | 286.00                 | 4.500              | 8          | 1.287           | 10.296   |                     |
| 35    | 77B4DB3013AH   | 6MM PLATE H-E350A  | 144.00 X 286.00        | 47.100             | 16         | 1.940           | 31.040   |                     |
| 36    | 77B4DB3013H    | 12MM PLATE H-E350A | 60.00 X 286.00         | 94.200             | 16         | 1.616           | 25.856   |                     |
| 37    | 77B4DB3014L    | L45X45X4-E250A     | 928.00                 | 2.700              | 4          | 2.506           | 10.024   |                     |
| 38    | 77B4DB3014R    | L45X45X4-E250A     | 928.00                 | 2.700              | 4          | 2.506           | 10.024   |                     |
| 39    | 77B4DB3015     | 5MM PLATE-E250A    | 105.00 X 109.00        | 39.250             | 8          | 0.449           | 3.592    |                     |
| 40    | 77B4DB3015A    | 6MM PLATE-E250A    | 50.00 X 109.00         | 47.100             | 8          | 0.257           | 2.056    |                     |
| 41    | 77B4DB3016L    | L50X50X4-E250A     | 1847.00                | 3.000              | 4          | 5.541           | 22.164   |                     |
| 42    | 77B4DB3016R    | L50X50X4-E250A     | 1847.00                | 3.000              | 4          | 5.541           | 22.164   |                     |
| 43    | 77B4DB3017L    | L60X60X4-E250A     | 1807.00                | 3.700              | 3          | 6.686           | 20.058   |                     |
| 44    | 77B4DB3017R    | L60X60X4-E250A     | 1807.00                | 3.700              | 3          | 6.686           | 20.058   |                     |
| 45    | 77B4DB3017AL   | L60X60X4-E250A     | 1807.00                | 3.700              | 1          | 6.686           | 6.686    |                     |
| 46    | 77B4DB3017AR   | L60X60X4-E250A     | 1807.00                | 3.700              | 1          | 6.686           | 6.686    |                     |
| 47    | 77B4DB3018     | 5MM PLATE-E250A    | 123.00 X 173.00        | 39.250             | 8          | 0.835           | 6.680    |                     |
| 48    | 77B4DB3018A    | 6MM PLATE-E250A    | 50.00 X 173.00         | 47.100             | 8          | 0.407           | 3.256    |                     |
| 49    | 77B4DB3019L    | L55X55X4-E250A     | 2243.00                | 3.300              | 3          | 7.402           | 22.206   |                     |
| 50    | 77B4DB3019R    | L55X55X4-E250A     | 2243.00                | 3.300              | 3          | 7.402           | 22.206   |                     |
| 51    | 77B4DB3019AL   | L55X55X4-E250A     | 2243.00                | 3.300              | 1          | 7.402           | 7.402    |                     |
| 52    | 77B4DB3019AR   | L55X55X4-E250A     | 2243.00                | 3.300              | 1          | 7.402           | 7.402    |                     |
| 53    | 77B4DB3020L    | L65X65X5-E250A     | 2685.00                | 4.900              | 4          | 13.157          | 52.628   |                     |
| 54    | 77B4DB3020R    | L65X65X5-E250A     | 2685.00                | 4.900              | 4          | 13.157          | 52.628   |                     |
| 55    | 77B4DB3021     | 6MM PLATE-E250A    | 156.00 X 273.00        | 47.100             | 8          | 2.006           | 16.048   |                     |
| 56    | 77B4DB3021A    | 6MM PLATE-E250A    | 50.00 X 273.00         | 47.100             | 8          | 0.643           | 5.144    |                     |
| 57    | 77B4DB3022L    | L65X65X5-E250A     | 2867.00                | 4.900              | 4          | 14.048          | 56.192   |                     |
| 58    | 77B4DB3022R    | L65X65X5-E250A     | 2867.00                | 4.900              | 4          | 14.048          | 56.192   |                     |
| 59    | 77B4DB3023L    | L50X50X4-E250A     | 2616.00                | 3.000              | 4          | 7.848           | 31.392   |                     |
| 60    | 77B4DB3023R    | L50X50X4-E250A     | 2616.00                | 3.000              | 4          | 7.848           | 31.392   |                     |
| 61    | 77B4DB3024L    | L60X60X4-E250A     | 2199.00                | 3.700              | 4          | 8.136           | 32.544   |                     |
| 62    | 77B4DB3024R    | L60X60X4-E250A     | 2199.00                | 3.700              | 4          | 8.136           | 32.544   |                     |

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\*\* -- Item Welded with another item  
\*\*\* -- Item Assembled with another item

Electrical Superintending Engineer  
(Planning and Engineering)  
Tamil Nadu State Power Transmission Company Limited



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Date: 09-Sep-2019

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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3E

Order Ref: REF/LE19D023

| Sl.No | Part Code    | Raw Material       | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt | Per Piece<br>Ass.Wt |
|-------|--------------|--------------------|------------------------|--------------------|------------|-----------------|----------|---------------------|
| 63    | 77B4DB3025L  | L60X60X4-E250A     | 3599.00                | 3.700              | 4          | 13.316          | 53.264   |                     |
| 64    | 77B4DB3025R  | L60X60X4-E250A     | 3599.00                | 3.700              | 4          | 13.316          | 53.264   |                     |
| 65    | 77B4DB3026   | 5MM PLATE-E250A    | 116.00 X 168.00        | 39.250             | 8          | 0.765           | 6.120    |                     |
| 66    | 77B4DB3026A  | 6MM PLATE-E250A    | 50.00 X 168.00         | 47.100             | 8          | 0.396           | 3.168    |                     |
| 67    | 77B4DB3027L  | L50X50X4-E250A     | 2745.00                | 3.000              | 4          | 8.235           | 32.940   |                     |
| 68    | 77B4DB3027R  | L50X50X4-E250A     | 2745.00                | 3.000              | 4          | 8.235           | 32.940   |                     |
| 69    | 77B4DB3028L  | L65X65X5-E250A     | 2607.00                | 4.900              | 4          | 12.774          | 51.096   |                     |
| 70    | 77B4DB3028R  | L65X65X5-E250A     | 2607.00                | 4.900              | 4          | 12.774          | 51.096   |                     |
| 71    | 77B4DB3029L  | L65X65X5-E250A     | 4387.00                | 4.900              | 4          | 21.496          | 85.984   |                     |
| 72    | 77B4DB3029R  | L65X65X5-E250A     | 4387.00                | 4.900              | 4          | 21.496          | 85.984   |                     |
| 73    | 77B4DB3029A  | 5MM PLATE-E250A    | 105.00 X 107.00        | 39.250             | 8          | 0.441           | 3.528    |                     |
| 74    | 77B4DB3029B  | 6MM PLATE-E250A    | 50.00 X 107.00         | 47.100             | 8          | 0.252           | 2.016    |                     |
| 75    | 77B4DB3030L  | L65X65X4-E250A     | 3915.00                | 4.000              | 4          | 15.660          | 62.640   |                     |
| 76    | 77B4DB3030R  | L65X65X4-E250A     | 3915.00                | 4.000              | 4          | 15.660          | 62.640   |                     |
| 77    | 77B4DB3031AL | L45X45X4-E250A     | 943.00                 | 2.700              | 4          | 2.546           | 10.184   |                     |
| 78    | 77B4DB3031AR | L45X45X4-E250A     | 943.00                 | 2.700              | 4          | 2.546           | 10.184   |                     |
| 79    | 77B4DB3031L  | L50X50X4-E250A     | 1596.00                | 3.000              | 4          | 4.788           | 19.152   |                     |
| 80    | 77B4DB3031R  | L50X50X4-E250A     | 1596.00                | 3.000              | 4          | 4.788           | 19.152   |                     |
| 81    | 77B4DB3032L  | L45X45X4-E250A     | 3551.00                | 2.700              | 4          | 9.588           | 38.352   |                     |
| 82    | 77B4DB3032R  | L45X45X4-E250A     | 3551.00                | 2.700              | 4          | 9.588           | 38.352   |                     |
| 83    | 77B4DB3033LH | L45X45X4H-E350A    | 1567.00                | 2.700              | 4          | 4.231           | 16.924   |                     |
| 84    | 77B4DB3033RH | L45X45X4H-E350A    | 1567.00                | 2.700              | 4          | 4.231           | 16.924   |                     |
| 85    | 77B4DB3034L  | L45X45X4-E250A     | 2451.00                | 2.700              | 4          | 6.618           | 26.472   |                     |
| 86    | 77B4DB3034R  | L45X45X4-E250A     | 2451.00                | 2.700              | 4          | 6.618           | 26.472   |                     |
| 87    | 77B4DB3035H  | 12MM PLATE H-E350A | 301.00 X 500.00        | 94.200             | 4          | 14.177          | 56.708   |                     |
| 88    | 77B4DB3036   | L80X80X6-E250A     | 5700.00                | 7.300              | 4          | 41.610          | 166.440  |                     |
| 89    | 77B4DB3037   | L80X80X6-E250A     | 6642.00                | 7.300              | 4          | 48.487          | 193.948  |                     |
| 90    | 77B4DB3038   | L65X65X5-E250A     | 286.00                 | 4.900              | 4          | 1.401           | 5.604    |                     |
| 91    | 77B4DB3039   | 6MM PLATE-E250A    | 60.00 X 286.00         | 47.100             | 8          | 0.808           | 6.464    |                     |
| 92    | 77B4DB3040   | 5MM PLATE-E250A    | 109.00 X 110.00        | 39.250             | 8          | 0.471           | 3.768    |                     |
| 93    | 77B4DB3041   | L45X45X4-E250A     | 1252.00                | 2.700              | 4          | 3.380           | 13.520   |                     |
| 94    | 77B4DB3042   | L45X45X4-E250A     | 2813.00                | 2.700              | 4          | 7.595           | 30.380   |                     |
| 95    | 77B4DB3042X  | L45X45X4-E250A     | 2813.00                | 2.700              | 4          | 7.595           | 30.380   |                     |
| 96    | 77B4DB3043   | L45X45X4-E250A     | 3752.00                | 2.700              | 8          | 10.130          | 81.040   |                     |

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\*\*\* -- Item Assembled with another item

Electrical Superintending Engineer  
(Planning and Engineering)  
Khar State Power Transmission Company Limited  
Viduth Bhaw. 2002-200221



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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3E

Order Ref: REF/LE19D023

| Sl.No | Part Code    | Raw Material      | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt | Per Piece<br>Ass.Wt |
|-------|--------------|-------------------|------------------------|--------------------|------------|-----------------|----------|---------------------|
| 97    | 77B4DB3044   | L50X50X4-E250A    | 6439.00                | 3.000              | 8          | 19.317          | 154.536  |                     |
| 98    | 77B4DB3045H  | L55X55X4H-E350A   | 2534.00                | 3.300              | 8          | 8.362           | 66.896   |                     |
| 99    | 77B4DB3046   | L45X30X4-E250A    | 1237.00                | 2.200              | 8          | 2.721           | 21.768   |                     |
| 100   | 77B4DB3047L  | L60X60X4-E250A    | 4665.00                | 3.700              | 4          | 17.261          | 69.044   |                     |
| 101   | 77B4DB3047R  | L60X60X4-E250A    | 4665.00                | 3.700              | 4          | 17.261          | 69.044   |                     |
| 102   | 77B4DB3048LH | L50X50X4H-E350A   | 2312.00                | 3.000              | 4          | 6.936           | 27.744   |                     |
| 103   | 77B4DB3048RH | L50X50X4H-E350A   | 2312.00                | 3.000              | 4          | 6.936           | 27.744   |                     |
| 104   | 77B4DB3049   | L45X30X4-E250A    | 1154.00                | 2.200              | 8          | 2.539           | 20.312   |                     |
| 105   | 77B4DB3050L  | L45X45X4-E250A    | 3570.00                | 2.700              | 4          | 9.639           | 38.556   |                     |
| 106   | 77B4DB3050R  | L45X45X4-E250A    | 3570.00                | 2.700              | 4          | 9.639           | 38.556   |                     |
| 107   | 77B4DB3051   | 6MM PLATE-E250A   | 130.00 X 171.00        | 47.100             | 4          | 1.047           | 4.188    |                     |
| 108   | 77B4DB3052   | 6MM PLATE-E250A   | 110.00 X 154.00        | 47.100             | 8          | 0.798           | 6.384    |                     |
| 109   | 77B4DB3053   | 6MM PLATE-E250A   | 110.00 X 239.00        | 47.100             | 16         | 1.238           | 19.808   |                     |
| 110   | 77B4DB3053AL | 6MM PLATE-E250A   | 118.00 X 270.00        | 47.100             | 4          | 1.501           | 6.004    |                     |
| 111   | 77B4DB3053AR | 6MM PLATE-E250A   | 118.00 X 270.00        | 47.100             | 4          | 1.501           | 6.004    |                     |
| 112   | 77B4DB3054H  | 6MM PLATE H-E350A | 110.00 X 239.00        | 47.100             | 8          | 1.238           | 9.904    |                     |
| 113   | 77B4DB3055L  | 6MM PLATE-E250A   | 114.00 X 261.00        | 47.100             | 4          | 1.401           | 5.604    |                     |
| 114   | 77B4DB3055R  | 6MM PLATE-E250A   | 114.00 X 261.00        | 47.100             | 4          | 1.401           | 5.604    |                     |
| 115   | 77B4DB3056   | 6MM PLATE-E250A   | 110.00 X 239.00        | 47.100             | 8          | 1.238           | 9.904    |                     |
| 116   | 77B4DB3057H  | 6MM PLATE H-E350A | 110.00 X 239.00        | 47.100             | 8          | 1.238           | 9.904    |                     |
| 117   | 77B4DB3058L  | 6MM PLATE-E250A   | 113.00 X 262.00        | 47.100             | 4          | 1.394           | 5.576    |                     |
| 118   | 77B4DB3058R  | 6MM PLATE-E250A   | 113.00 X 262.00        | 47.100             | 4          | 1.394           | 5.576    |                     |
| 119   | 77B4DB3059H  | L60X60X5H-E350A   | 353.00                 | 4.500              | 4          | 1.589           | 6.356    |                     |
| 120   | 77B4DB3060H  | L60X60X4H-E350A   | 2809.00                | 3.700              | 4          | 10.393          | 41.572   |                     |
| 121   | 77B4DB3061H  | L50X50X4H-E350A   | 2174.00                | 3.000              | 4          | 6.522           | 26.088   |                     |
| 122   | 77B4DB3061XH | L50X50X4H-E350A   | 2174.00                | 3.000              | 4          | 6.522           | 26.088   |                     |
| 123   | 77B4DB3062H  | L65X65X5H-E350A   | 4980.00                | 4.900              | 4          | 24.402          | 97.608   |                     |
| 124   | 77B4DB3062XH | L65X65X5H-E350A   | 4980.00                | 4.900              | 4          | 24.402          | 97.608   |                     |
| 125   | 77B4DB3063H  | L70X70X5H-E350A   | 461.00                 | 5.300              | 4          | 2.443           | 9.772    |                     |
| 126   | 77B4DB3064H  | L45X45X4H-E350A   | 1480.00                | 2.700              | 4          | 3.996           | 15.984   |                     |
| 127   | 77B4DB3064AH | L45X45X4H-E350A   | 1203.00                | 2.700              | 4          | 3.248           | 12.992   |                     |
| 128   | 77B4DB3064B  | L45X45X4-E250A    | 775.00                 | 2.700              | 4          | 2.093           | 8.372    |                     |
| 129   | 77B4DB3065H  | L45X45X4H-E350A   | 1480.00                | 2.700              | 4          | 3.996           | 15.984   |                     |

**APPROVED**

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supplied as per specification

\*\* -- Item Welded with another item

\*\*\* -- Item Assembled with another item

Electrical Superintending Engineer  
(Planning and Engineering)

Bihar State Power Transmission Company Limited

vidyut Bhawan Patna-800021



LARSEN & TOUBRO LIMITED, CONSTRUCTION.,  
979, Mount-Poonamallee Road, Manapakkam,  
Tamilnadu-600089, PHONE :044-22526000, FAX :044-22526059

Date: 09-Sep-2019

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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3E

Order Ref: REF/LE19D023

| Sl.No                 | Part Code    | Raw Material    | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt        | Per Piece<br>Ass.Wt |
|-----------------------|--------------|-----------------|------------------------|--------------------|------------|-----------------|-----------------|---------------------|
| 130                   | 77B4DB3065AH | L45X45X4H-E350A | 1203.00                | 2.700              | 4          | 3.248           | 12.992          |                     |
| 131                   | 77B4DB3065B  | L45X45X4-E250A  | 775.00                 | 2.700              | 4          | 2.093           | 8.372           |                     |
| 132                   | 77B4DB3066H  | L60X60X5H-E350A | 4159.00                | 4.500              | 4          | 18.716          | 74.864          |                     |
| 133                   | 77B4DB3067   | L45X45X4-E250A  | 1081.00                | 2.700              | 4          | 2.919           | 11.676          |                     |
| <b>Total Weight :</b> |              |                 |                        |                    |            |                 | <b>7208.132</b> |                     |

#### Associated Parts

| Part Code | Type of Association | Associated with | Total Weight |
|-----------|---------------------|-----------------|--------------|
|-----------|---------------------|-----------------|--------------|

No Association Part

| Raw Material Involved                                              | Standard Material | Total Weight ( In Kg) |
|--------------------------------------------------------------------|-------------------|-----------------------|
| <b>BOM OF +3M BODY EXTN. FOR TOWER TYPE-"4DB" (400kv D/C QUAD)</b> |                   |                       |
| 12MM PLATE H-E350A                                                 | HT                | 219.572               |
| 5MM PLATE-E250A                                                    | MS                | 23.688                |
| 6MM PLATE H-E350A                                                  | HT                | 50.848                |
| 6MM PLATE-E250A                                                    | MS                | 112.804               |
| L150X150X12H-E350A                                                 | HT                | 132.352               |
| L200X200X15H-E350A                                                 | HT                | 2277.080              |
| L45X30X4-E250A                                                     | MS                | 42.080                |
| L45X45X4-E250A                                                     | MS                | 430.916               |
| L45X45X4H-E350A                                                    | HT                | 91.800                |
| L50X50X4-E250A                                                     | MS                | 365.832               |
| L50X50X4H-E350A                                                    | HT                | 107.664               |
| L55X55X4-E250A                                                     | MS                | 59.216                |
| L55X55X4H-E350A                                                    | HT                | 66.896                |
| L60X60X4-E250A                                                     | MS                | 363.192               |
| L60X60X4H-E350A                                                    | HT                | 41.572                |
| L60X60X5H-E350A                                                    | HT                | 122.404               |
| L65X65X4-E250A                                                     | MS                | 125.280               |
| L65X65X5-E250A                                                     | MS                | 497.404               |
| L65X65X5H-E350A                                                    | HT                | 195.216               |
| L70X70X5H-E350A                                                    | HT                | 9.772                 |
| L75X75X5H-E350A                                                    | HT                | 689.544               |
| L75X75X6H-E350A                                                    | HT                | 822.612               |

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\*\*\* -- Item Assembled with another item

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979, Mount-Poonamallee Road, Manapakkam,  
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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3E

Order Ref: REF/LE19D023

|                |              |                 |
|----------------|--------------|-----------------|
| L80X80X6-E250A | MS           | 360.388         |
|                | <b>Total</b> | <b>7208.132</b> |
|                | HT           | <b>4827.332</b> |
|                | MS           | <b>2380.800</b> |

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Vidyut Bhawan, Patna-800021

SK  
22.10.19



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Date: 09-Sep-2019

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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3B

Order Ref: REF/LE19D023

| Sl.No                                                                                                  | Part Code | Raw Material                         | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt       | Per Piece<br>Ass.Wt |
|--------------------------------------------------------------------------------------------------------|-----------|--------------------------------------|------------------------|--------------------|------------|-----------------|----------------|---------------------|
| <b>BOLTS &amp; NUTS OF +3M BODY EXTN. (ATT. TO BASIC BODY) FOR TOWER TYPE - "4DB" (400kV D/C QUAD)</b> |           |                                      |                        |                    |            |                 |                |                     |
| 1                                                                                                      | PQB3B1    | M16X35MM LONG<br>(IS:12427)          |                        | 0.119              | 504        | 0.119           | 59.976         |                     |
| 2                                                                                                      | PQB3B2    | M16X40MM LONG<br>(IS:12427)          |                        | 0.126              | 172        | 0.126           | 21.672         |                     |
| 3                                                                                                      | PQB3B3    | M16X45MM LONG<br>(IS:12427)          |                        | 0.134              | 484        | 0.134           | 64.856         |                     |
| 4                                                                                                      | PQB3B4    | M16X50MM LONG<br>(IS:12427)          |                        | 0.142              | 172        | 0.142           | 24.424         |                     |
| 5                                                                                                      | PQB3B5    | M16X55MM LONG<br>(IS:12427)          |                        | 0.150              | 40         | 0.150           | 6.000          |                     |
| 6                                                                                                      | PQB3B6    | M16X60MM LONG<br>(IS:12427)          |                        | 0.158              | 100        | 0.158           | 15.800         |                     |
| 7                                                                                                      | PQB3B7    | M16X65MM LONG<br>(IS:12427)          |                        | 0.164              | 256        | 0.164           | 41.984         |                     |
| 8                                                                                                      | PQB3B8    | M16x3.5MM SPRING -<br>WASHER IS3063  |                        | 0.009              | 1728       | 0.009           | 15.552         |                     |
| 9                                                                                                      | PQB3B9    | M16x175LG STEP BOLT<br>(350D) 2N+1SP |                        | 0.374              | 44         | 0.374           | 16.456         |                     |
| <b>Total Weight :</b>                                                                                  |           |                                      |                        |                    |            |                 | <b>266.720</b> |                     |

#### Associated Parts

| Part Code | Type of Association | Associated with | Total Weight |
|-----------|---------------------|-----------------|--------------|
|-----------|---------------------|-----------------|--------------|

No Association Part

| Raw Material Involved                                                                                  | Standard Material | Total Weight ( In Kg) |
|--------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| <b>BOLTS &amp; NUTS OF +3M BODY EXTN. (ATT. TO BASIC BODY) FOR TOWER TYPE - "4DB" (400kV D/C QUAD)</b> |                   |                       |
| M16x175LG STEP BOLT(350D) 2N+1SP                                                                       |                   | 16.456                |
| M16x3.5MM SPRING WASHER IS3063                                                                         |                   | 15.552                |
| M16X35MM LONG (IS:12427)                                                                               |                   | 59.976                |
| M16X40MM LONG (IS:12427)                                                                               |                   | 21.672                |
| M16X45MM LONG (IS:12427)                                                                               |                   | 64.856                |
| M16X50MM LONG (IS:12427)                                                                               |                   | 24.424                |
| M16X55MM LONG (IS:12427)                                                                               |                   | 6.000                 |
| M16X60MM LONG (IS:12427)                                                                               |                   | 15.800                |
| M16X65MM LONG (IS:12427)                                                                               |                   | 41.984                |
| <b>Total</b>                                                                                           |                   | <b>266.720</b>        |

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SK 12/19



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### BILL OF MATERIAL

Order No : LE19D023 - Intra Kanchi R- TL -BSPTCL NIT-77

Bom No : BOM/LE19D023/PQB3W

Order Ref: REF/LE19D023

| Sl.No                                                                                                  | Part Code | Raw Material                        | Length Size<br>(In MM) | Unit Wt<br>(In KG) | Req<br>Qty | Per piece<br>wt | Total Wt     | Per Piece<br>Ass.Wt |
|--------------------------------------------------------------------------------------------------------|-----------|-------------------------------------|------------------------|--------------------|------------|-----------------|--------------|---------------------|
| <b>PACK WASHERS OF +3M BODY EXTN. (ATT. TO BASIC BODY) FOR TOWER TYPE - "4DB"<br/>(400kV D/C QUAD)</b> |           |                                     |                        |                    |            |                 |              |                     |
| 1                                                                                                      | PQB3W1    | M16x4MM ROUND PACK<br>WASHER IS2016 |                        | 0.014              | 12         | 0.014           | 0.168        |                     |
| 2                                                                                                      | PQB3W2    | M16x5MM ROUND PACK<br>WASHER IS2016 |                        | 0.018              | 56         | 0.018           | 1.008        |                     |
| 3                                                                                                      | PQB3W3    | M16x6MM ROUND PACK<br>WASHER IS2016 |                        | 0.021              | 392        | 0.021           | 8.232        |                     |
| <b>Total Weight :</b>                                                                                  |           |                                     |                        |                    |            |                 | <b>9.408</b> |                     |

#### Associated Parts

| Part Code | Type of Association | Associated with | Total Weight |
|-----------|---------------------|-----------------|--------------|
|-----------|---------------------|-----------------|--------------|

No Association Part

| Raw Material Involved                                                                                  | Standard Material | Total Weight ( In Kg) |
|--------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| <b>PACK WASHERS OF +3M BODY EXTN. (ATT. TO BASIC BODY)<br/>FOR TOWER TYPE - "4DB" (400kV D/C QUAD)</b> |                   |                       |
| M16x4MM ROUND PACK WASHER IS2016                                                                       |                   | 0.168                 |
| M16x5MM ROUND PACK WASHER IS2016                                                                       |                   | 1.008                 |
| M16x6MM ROUND PACK WASHER IS2016                                                                       |                   | 8.232                 |
| <b>Total</b>                                                                                           |                   | <b>9.408</b>          |

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