## THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD. KOLKATA ( A Govt. of India Enterprise ) HSFG BOLT ORDER LIST FOR SITE

MADE BY - G.Sen

PROJECT:

ORDER NO.- HSFG/SITE/2151/18.3/01

**CHECKED BY-** A.K.SAHA

RDSO'S DRG.NO.-

DATE - 25.02.2019

**ORDER NO.-** 2151 50x 18.3 M SPANS 25T LOADING WELDED TRUSS GIRDER BR. NO.- 63D, GADAG- REV.- A DATE: 28/03/2019 HOTGI DOUBLING PROJECT, SOUTH WESTERN RAIL FAY

| Gross<br>os. For<br>0 Nos.<br>Span | Gross<br>Nos. For<br>1 No.<br>Span   | BOLT<br>HEAD &<br>NUT<br>TYPE   | THREAD<br>TYPE                             | GRIP                           | THREAD<br>LENGTH<br>(IS:3757)<br>(in mm)  | Bolt<br>Length<br>Provided<br>(in mm)   | REMARKS  |
|------------------------------------|--------------------------------------|---|--|--------------------------------|---|---|--|
|                                    |                                      | HEX.  | HD. HSFG                                   | BOLTS, NUTS                    | , PLAIN WASH  | ER, DTI WA  | SHER & Extra Plain Washer ( FOR 50 x18.3 M SPANS)  |
| ORDE                               | R QTY                                |   |  |                                |   |   |  |
| WITH 59                            | 6 EXTRA                              |   |  |                                |   |   |  |
| 5445                               | 605                                  | HEX.  | M20  | 136                            | 35  | 175   |  |
| 2718                               | 302                                  | HEX.  | M20  | 60                             | 35  | . 100   |  |
| 4914                               | 546                                  | HEX.  | M20  | 40                             | 35  | . 80  | FACULUSES HEY UP BOLT CONSIST OF ONE DELINACIED ON   |
| 828                                |                                      | HEX.  | M20  | 38                             | 35  | 75  | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ON PLAIN WASHER & ONE HEX. HD. NUT.   |
| 153                                | 17                                   | HEX.  | M20  | 34                             | 35  | 75  | PLAIN WASHER & ONE HEX. HD. NUT.   |
| 450                                | 50                                   | HEX.  | M20  | 24                             | 35  | 65  |  |
| 306                                | 34                                   | HEX.  | M20  | 22                             | 35  | 60  |  |
|                                    |                                      |   |  |                                |   |   |  |
|                                    |                                      |   |  |                                |   |   |  |
|                                    |                                      |   |  |                                |   |   |  |
|                                    | 46                                   |   |  |                                |   |   |  |
| 741                                | Extra 5%                             | PLAIN V   | VASHER F                                   | OR M20 BC                      | LT  |   |  |
|                                    |                                      |   |  |                                |   | 1 12  |  |
|                                    |                                      |   |  |                                |   |   | 1 1 1  |
|                                    |                                      |   |  |                                |   |   | 0  |
|                                    | ORDEE 5445 2718 4914 828 153 306 741 | ORDER QTY  ORDER QTY  WITH 5% EXTRA  5445 605  2718 302  4914 546  828 92  153 17  450 50  306 34  741 Extra 5% | Sepan Span Span Span Span Span Span Span S | No.   Span   HEAD & NUT   TYPE | Sepan | No.   No. | No.   Span   HEAD & NUT   TYPE   Span   HEAD & NUT   TYPE   Span   HEX. HD. HSFG BOLTS, NUTS, PLAIN WASHER, DTI WASHER, DTI WASHER   Span   HEX.   M20   136   35   17 |

### NOTE:-

- 1. ALL BOLTS ARE HSFG BOLTS OF CL-8.8 (AS PER RDSO. DRG. NO. B-11760/R.) CONFORMING TO IS:4000 (1992), IS: 3757(1985) (REAFFIRMED 2003).
  2. ALL NUTS ARE CONFORMING TO IS:6623(2004) & IS:1367(PART-6) AND PLAIN/TAPER WASHERS (for ISMC) ARE CONFORMING TO IS:6649.
- 3. EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN/TAPER WASHER (As Required) & ONE HEX. HD. NUT.
- 4. ALL BOLTS, NUTS & WASHERS MUST HAVE IDENTIFICATION MARK & MANUFACTURER'S SYMBOL & PROPERTY CLASS.
- 5. ALL BOLTS, NUTS & WASHERS MUST HAVE MANUFACTURER'S TEST CERTIFICATE IN ADDITION THREE SETS OF RANDOM SAMPLE CONSISTING OF 1 NO. Hex. HD. BOLT+Hex. HD. NUT+PLAIN WASHER/TAPER FROM EACH LOT TO BE SENT TO REPUTED INDEPENDENT NABL ACCREDITED LABORATORY.
- 6. ALL BOLTS, NUTS & WASHERS SHOULD HAVE COATING OF ZINC PHOSPHATE AS PER IS 1367 (PART-XII).
- 7. BOLT LENGTH WITH RESPECT TO GRIP & OTHER ALL DIMENSIONAL DETAILS TO BE VERIFIED BY THE PARTY PRIOR TO APPROVAL OF MANUFACTURING.
- 8. DIMENSIONAL DETAILS TO BE PROVIDED BY THE PARTY FOR PRIOR APPROVAL BEFORE MANUFACTURE.

REV: Dimension 75 was 70

Requisition No:- D/2810 Date: 28/02/2019

## THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD. KOLKATA ( A Govt. of India Enterprise )

HSFG BOLT ORDER LIST FOR SITE

MADE BY - G Sen **CHECKED BY-** A.K.SAHA DATE - 25.02.2019

ORDER NO.- HSFG/SITE/3132/45.7/01

RDSO'S DRG.NO.-

**ORDER NO.-** 3132

PROJECT: 9 x 45.7 M SPANS 25T LOADING WELDED TRUSS GIRDER BR. NO.- 63D, GADAG- REV.- A DATE: 28/03/2019

|          |                                     | HOTGI D                            | OUBLING                       | PROJECT        | , SOUTH WES    | TERN RAIL                                | EAY                                   |  |
|----------|-------------------------------------|------------------------------------|-------------------------------|----------------|----------------|--|---------------------------------------|--|
|          | Gross<br>Nos. For<br>9 Nos.<br>Span | Gross<br>Nos. For<br>1 No.<br>Span | BOLT<br>HEAD &<br>NUT<br>TYPE | THREAD<br>TYPE | GRIP           | THREAD<br>LENGTH<br>(IS:3757)<br>(in mm) | Bolt<br>Length<br>Provided<br>(in mm) | REMARKS  |
|          |                                     |                                    | X. HD. HSF                    | G BOLTS,       | NUTS, PLAIN W  | ASHER/ TAP                               | ER WASHER                             | , DTI WASHER & Extra Plain Washer ( FOR 9 x 45.7 M SPANS)  |
| 77, 21,  |                                     | R QTY                              |                               |                |                |  |                                       |  |
| Con No.  |                                     | WITH 5% EXTRA                      |                               |                |                |  |                                       |  |
| -        | 10755                               |                                    | HEX.                          | M20            | 20,22          | 35                                       | 60                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ON  |
|          | 990                                 |                                    | HEX.                          | M20            | 26             | 35                                       | 65                                    | PLAIN WASHER & ONE HEX. HD. NUT.   |
| 2/15     | 1134                                | 126                                | HEX.                          | M20            | 30             | 35                                       | 70                                    | T I WANTED A SILE NEXT TEXT TO THE   |
|          | 1512                                | 168                                | HEX.                          | M22            | 19             | 40                                       | 60                                    |  |
| 111      | 3636                                |                                    | HEX.                          | M22            | 20, 22         | 40                                       | 65                                    |  |
|          | 22230                               |                                    |                               | M22            | 26, 28         | 40                                       | 70                                    |  |
|          | 24840                               |                                    |                               | M22            | 30, 32, 34     | 40                                       | 75                                    |  |
|          | 6651                                | 739                                |                               | M22            | 35, 36,38      | 40                                       | 80                                    | 8  |
| -        | 9072                                |                                    |                               | M22            | 40, 42, 44     | 40                                       | 85                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ON  |
|          | 9135                                | 1,51,51,51                         |                               | M22            | 45, 46, 48     | 40                                       | 90                                    | PLAIN WASHER & ONE HEX. HD. NUT  |
|          | 1215                                |                                    |                               | M22            | 52, 54         | 40                                       | 95                                    |  |
| 100.000  | 675                                 | 1.00.00.000                        |                               | M22            | 55             | 40                                       | 100                                   |  |
|          | 918                                 |                                    |                               | M22            | 62             | 40                                       | 105                                   |  |
|          | 3591                                |                                    |                               | M22            | 76             | 40                                       | 120                                   |  |
|          |                                     |                                    |                               |                |                |  |                                       |  |
|          | 450                                 | 50                                 | HEX.                          | M22            | 25             | 45                                       | 70                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONI<br>TAPER WASHER & ONE HEX. HD. NUT  |
| (i-1i-)i | 1 11 111                            | 11-11-11                           | 1 1                           | 1-31           | -3-05-E1-06-E- | 1 11 21                                  | E1 2 8 E                              | <del></del>  |
|          | 644                                 | Extra 5%                           | PLAIN V                       | VASHER I       | FOR M20 BOI    | _T                                       |                                       |  |
|          | 644                                 | Extra 5%                           | DTI WA                        | SHER FOR       | R M20 BOLT     |  |                                       |  |
|          | 4174                                | Extra 5%                           | PLAIN V                       | VASHER F       | FOR M22 BOI    | _T                                       |                                       |  |
|          |                                     |                                    |                               |                | R M22 BOLT     |  |                                       |  |
|          |                                     |                                    |                               |                | FOR M22 BO     | LT                                       | 1111                                  | TITE OF THE PROPERTY OF THE PR |
|          |                                     |                                    |                               |                |                |  |                                       |  |
| 77.1     |                                     | 1 11 1 1 1                         |                               |                |                |  |                                       | to the state of the total state of the state |

- 1. ALL BOLTS ARE HSFG BOLTS OF CL-8.8 (AS PER RDSO. DRG. NO. B-11760/R.) CONFORMING TO IS:4000 (1992), IS: 3757(1985) (REAFFIRMED 2003).
  2. ALL NUTS ARE CONFORMING TO IS:6623(2004) & IS:1367(PART-6) AND PLAIN/TAPER WASHERS (for ISMC) ARE CONFORMING TO IS:6649.
- 3. EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN/TAPER WASHER (AS Required) & ONE HEX. HD. NUT.
- 4. ALL BOLTS, NUTS & WASHERS MUST HAVE IDENTIFICATION MARK & MANUFACTURER'S SYMBOL & PROPERTY CLASS.
- 5. ALL BOLTS, NUTS & WASHERS MUST HAVE MANUFACTURER'S TEST CERTIFICATE IN ADDITION THREE SETS OF RANDOM SAMPLE CONSISTING OF 1 NO. Hex. HD. BOLT+Hex. HD. NUT+PLAIN WASHER/TAPER FROM EACH LOT TO BE SENT TO REPUTED INDEPENDENT NABL ACCREDITED LABORATORY.
- 6. ALL BOLTS, NUTS & WASHERS SHOULD HAVE COATING OF ZINC PHOSPHATE AS PER IS 1367 (PART-XII).
- 7. BOLT LENGTH WITH RESPECT TO GRIP & OTHER ALL DIMENSIONAL DETAILS TO BE VERIFIED BY THE PARTY PRIOR TO APPROVAL OF MANUFACTURING,
- 8. DIMENSIONAL DETAILS TO BE PROVIDED BY THE PARTY FOR PRIOR APPROVAL BEFORE MANUFACTURE.

REV:- Dimension 45 was 40

Requisition No:- D/2810 Date: 28/02/2019

# THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD. KOLKATA ( A Govt. of India Enterprise )

HSFG BOLT ORDER LIST FOR SHOP

SHOP

MADE BY - G.Sen

ORDER NO.- HSFG/SITE/2151/45.7/01

CHECKED BY- A.K.SAHA

RDSO'S DRG.NO.-

DATE - 25.02.2019

**ORDER NO.-** 2151

PROJECT: 9

9 x 45.7 M SPANS 25T LOADING WELDED TRUSS GIRDER BR. NO.- 63D, GADAG- REV.- A HOTGI DOUBLING PROJECT. SOUTH WESTERN RAILEAY

DATE: 28/03/2019

| Gross<br>Nos. For<br>9 Nos.<br>Span | Gross<br>Nos. For<br>1 No.<br>Span | BOLT<br>HEAD &<br>NUT<br>TYPE | THREAD<br>TYPE | GRIP         | THREAD<br>LENGTH<br>(IS:3757)<br>(in mm) | Bolt<br>Length<br>Provided<br>(in mm) | REMARKS  |
|-------------------------------------|------------------------------------|-------------------------------|----------------|--------------|--|---------------------------------------|--|
| OPDE                                | HE<br>R QTY                        | X. HD. HSF                    | G BOLTS, N     | UTS, PLAIN V | VASHER/ TAP                              | ER WASHER                             | , DTI WASHER & Extra Plain Washer ( FOR 9 x 45.7 M SPANS)                              |
|                                     | % EXTRA                            |                               |                |              |  |                                       |  |
| 855                                 |                                    | HEX.                          | M20            | 20           | 35                                       | 60                                    |  |
| 3402                                | 378                                | HEX.                          | M20            | 30           | 35                                       | 70                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ON                                  |
| 6048                                |                                    | HEX.                          | M20            | 40           | 35                                       | 80                                    | PLAIN WASHER & ONE HEX. HD. NUT.   |
| 6048                                | 672                                | пел.                          | IVIZU          | 40           | 35                                       | 80                                    | 1  |
| 954                                 | 106                                | HEX.                          | M16            | 30           | 35                                       | 65                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ON PLAIN WASHER & ONE HEX. HD. NUT |
| 1                                   |                                    | -1                            |                |              |  |                                       |  |
| 515                                 | Evtra 5%                           | DI AIN V                      | VASHED F       | OR M20 BC    | N.T.                                     |                                       |  |
|                                     |                                    |                               |                | M20 BOLT     |  |                                       |  |
| 48 Extra 5%                         |                                    |                               |                |              |  |                                       |  |
| 1 49                                | Extra 5%                           | DTI WAS                       | SHER FOR       | M16 BOLT     |  | 1                                     |  |

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REV:- Dimension 35 was 40

Requisition No:- D/2810 Date: 28/02/2019

29/03/19

## THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD.

( A Govt. of India Enterprise ) HSFG BOLT ORDER LIST FOR SHOP

MADE BY - G.Sen

CHECKED BY- A.K.SAHA

ORDER NO.- HSFG/SHOP/2151/30.5/01

DATE - 30.11.2018

RDSO'S DRG.NO.-

PROJECT:

**ORDER NO.- 2151** 12 x 30.5 M SPAN 25T LOADING WELDED TRUSS GIRDER AT GADAG-HOTGI REV.-

DATE:

| Gross<br>Nos. For<br>12 Nos.<br>Span | Gross<br>Nos. For<br>1 No.<br>Span | BOLT<br>HEAD &<br>NUT<br>TYPE | THREAD<br>TYPE | GRIP (in<br>mm) | THREAD<br>LENGTH<br>(IS:3757)<br>(in mm) | Bolt<br>Length<br>Provided<br>(in mm) | REMARKS  |
|--------------------------------------|------------------------------------|-------------------------------|----------------|-----------------|--|---------------------------------------|--|
| Н                                    | EX. HD. H                          | SFG BOLTS                     | S, NUTS, PI    | AIN WASI        | HER, TAPE                                | R WASHER,                             | DTI WASHER & Extra Plain Washer ( FOR 12 x. 30.5 M. SPAN)                              |
| ORDE                                 | RQTY                               |                               |                |                 |  |                                       | TOTAL TERMINATION OF AIT   |
| WITH 59                              | % EXTRA                            |                               |                |                 |  |                                       |  |
| 4180                                 | 110                                | HEX.                          | M16            | 30              | 35                                       | 65                                    |  |
| 12388                                | 326                                | HEX.                          | M20            | 30              | 35                                       | 65                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER ONE PLAIN WASHER & ONE HEX. HD. NUT. |
| 19152                                | 504                                | HEX.                          | M20            | 20              | 35                                       | 55                                    | ONE PEAN WASHER & ONE HEA. HD. NOT.  |
|                                      |                                    |                               |                |                 |  |                                       |  |
| 209                                  | Extra 5%                           | PLAIN W                       | ASHER F        | OR M16          | BOLT                                     |                                       |  |
|                                      |                                    |                               | ASHER F        |                 |  |                                       |  |

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Requisition No:- D/2863 Date: 26/03/2019

## THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD.

## ( A Govt. of India Enterprise ) HSFG BOLT ORDER LIST FOR SITE

MADE BY - G.Sen CHECKED BY- A.K.SAHA DATE - 30 11 2018

ORDER NO.- HSFG/SITE/3132/30.5/01

RDSO'S DRG.NO .-

**ORDER NO.-** 3132

PROJECT:

12 x 30.5 M SPAN 25T LOADING WELDED TRUSS GIRDER AT GADAG- HOTGI DOUBLING PROJECT, BRIDGE NO- 08, S.W. RAILWAY

DATE:

| Gross Nos.<br>For 12 Nos.<br>Span | Gross<br>Nos. For 1<br>No. Span | BOLT HEAD<br>& NUT TYPE | THREAD<br>TYPE | GRIP<br>(in mm) | THREAD<br>LENGTH<br>(IS:3757)<br>(in mm) | Bolt<br>Length<br>Provided<br>(in mm) | REMARKS   |
|-----------------------------------|---------------------------------|-------------------------|----------------|-----------------|--|---------------------------------------|---|
| HEX. HD. HS                       | FG BOLTS                        | NUTS, PLAI              | N WASHE        | R/TAPER W       | ASHER, D                                 | TI WASHE                              | R ( FOR 12 x. 30.5 M. SPAN)   |
| ORDER                             | RQTY                            |                         |                |                 |  |                                       |   |
| With                              | With                            |                         |                |                 |  |                                       | Remarks   |
| 5% Extra                          | 5% Extra                        |                         |                |                 |  |                                       | TARILLIAND DOLLA CONCICT OF ONE DELWACHED ONE DI AIA                                    |
| 432                               | 36                              | HEX.                    | M16            | 30              | 35                                       | 60                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN WASHER & ONE HEX. HD. NUT. |
| 900                               | 75                              | HEX.                    | M20            | 26, 30          | 35                                       | 65                                    |   |
| 144                               | -                               | HEX.                    | M20            | 22              | 35                                       | 60                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN                            |
| 7908                              |                                 | HEX.                    | M20            | 20              | 35                                       | 55                                    | WASHER & ONE HEX. HD. NUT.  |
| 7300                              | 000                             | TIEA.                   | IVIZO          | 20              |  | -                                     |   |
|                                   |                                 |                         |                |                 | <u></u>                                  |                                       | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE TAPER                            |
| 480                               | 40                              | HEX.                    | M22            | 24              | 45                                       | 70                                    | WASHER & ONE HEX. HD. NUT.  |
| 10152                             | 846                             | HEX.                    | M22            | 18, 20          | 40                                       | 60                                    |   |
| 16080                             |                                 | HEX.                    | M22            | 26              | 40                                       | 65                                    |   |
| 11724                             | -                               | HEX.                    | M22            | 28, 30          | 40                                       | 70                                    |   |
| 13068                             |                                 |                         | M22            | 32, 36          | 40                                       | 75                                    |   |
| 240                               | _                               |                         | M22            | 38              | 40                                       | 80                                    | EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN                            |
| 6192                              |                                 |                         | M22            | 42, 46          | 40                                       | 85                                    | WASHER & ONE HEX. HD. NUT.  |
| 2016                              |                                 |                         | M22            | 52              | 40                                       | 90                                    |   |
| 3720                              |                                 |                         | M22            | 62              | 40                                       | 105                                   |   |
| 4608                              |                                 | HEX.                    | M22            | 68              | 40                                       | 110                                   |   |
| 660                               | 55                              | HEX.                    | M22            | 84              | 40                                       | 125                                   |   |
|                                   |                                 |                         |                |                 |  |                                       |   |
| 22                                | Extra 5%                        | PLAIN WAS               | HER FOR        | M16 BOL         | Т  |                                       |   |
| 448                               | Extra 5%                        | PLAIN WAS               | HER FOR        | M20 BOL         | Т  |                                       |   |
| 3423                              | Extra 5%                        | PLAIN WAS               | HER FOR        | M22 BOL         | T  |                                       |   |
| 24                                | Extra 5%                        | TAPER WA                | SHER FO        | R M22 BOL       | _T                                       |                                       |   |

## NOTE:-

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- 3. EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN/TAPER WASHER (As Required) & ONE HEX. HD. NUT.
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- 7. DOLT LENGTH WITH DESDECT TO GRID & OTHER ALL DIMENSIONAL DETAILS TO BE VERIGIED BY THE PARTY PRIOR TO APPROVAL REFORE MANUFACTURING

| 1. DOL | LEINOTTIVATIO | TICLOI LOT | 10 ordi d ori | ILIT MEL D | INILIAOIOIALE | DETAILO TO | DE VEIGNIE | D DI THE FACT FAIGHT OF THE NOVIE DE CHE HIS TO FEET THE |
|--------|---------------|------------|---------------|------------|---------------|------------|------------|--|
|        |               |            |               |            |               |            |            |  |
|        |               |            |               |            |               |            |            |  |
| _      |               |            |               |            |               |            |            |  |
|        |               |            |               |            |               |            |            |  |
|        |               |            |               |            |               |            |            |  |

Requisition No:- D/2663 Date: 26/03/2019