

Annexure-A**Details of HSFG Bolts (Gr.8.8)
BRIDGE NO. 16**

Sl. No.	Size	Qty	Unit
1	M16 x 60 HSFG Bolt	210	Sets
2	M20 x 55 HSFG Bolt	988	Sets
3	M20 x 60 HSFG Bolt	11862	Sets
4	M20 x 65 HSFG Bolt	14962	Sets
5	M20 x 70 HSFG Bolt	4518	Sets
6	M22 x 75 HSFG Bolt	738	Sets
7	M20 x 55 HSFG Bolt	1710	Sets
8	M20 x 60 HSFG Bolt	946	Sets
9	M20 x 65 HSFG Bolt	248	Sets
10	M20 x 70 HSFG Bolt	98	Sets
11	M20 x 75 HSFG Bolt	1476	Sets
12	M20 x 85 HSFG Bolt	882	Sets
13	M22 x 60 HSFG Bolt	4244	Sets
14	M22 x 65 HSFG Bolt	43064	Sets
15	M22 x 70 HSFG Bolt	51088	Sets
16	M22 x 75 HSFG Bolt	29290	Sets
17	M22 x 80 HSFG Bolt	49946	Sets
18	M22 x 85 HSFG Bolt	42850	Sets
19	M22 x 90 HSFG Bolt	20934	Sets
20	M22 x 95 HSFG Bolt	6932	Sets
21	M22 x 100 HSFG Bolt	1332	Sets
22	M22 x 105 HSFG Bolt	1510	Sets
23	M22 x 110 HSFG Bolt	1738	Sets
24	M22 x 120 HSFG Bolt	7488	Sets
25	M22 x 125 HSFG Bolt	30190	Sets
26	M22 x 145 HSFG Bolt	1854	Sets
27	M22 x 70 HSFG Bolt [With Taper Washer]	974	Sets
	TOTAL	332072	Sets

** Detailed Specification etc. are available at Annexure - A1, enclosed.

THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD.

(A Govt. of India Enterprise)

HSFG BOLT ORDER LIST FOR SHOP

MADE BY - S.Samanta

CHECKED BY- A.K.SETHI

DATE - 05.02.2026

PROJECT: (1+1)= 2x30.5 M SPAN (WELDED THROUGH TYPE) ,
BR. NO - 16 , GORAKHPUR SITE

SHEET NO.- HSGF/SHOP/2163/30.5M/BR.No.16/02

RDSO'S DRG.NO.- RDSO/B-17161 To 17176

ORDER NO.- 2163

REV.- A

DATE: 05.05.26

Gross Nos. For 2 Nos. Span	Gross Nos. For 1 Nos. Span (Addl.3%)	Net Nos. For 1 No.Span	Bolt Head & Nut Type	Thread Type	Thread Length (IS:3757) (in mm)	Bolt Length Provided (in mm)	REMARKS
HEX. HD. HSFG BOLTS, NUTS, PLAIN WASHER/ TAPER WASHER, DTI WASHER & Extra Plain Washer (2 x 30.5 M SPAN) FOR BR.NO.16							
ORDER QTY.							
210	105	102	HEX.	M16	38	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT.
TOTAL NOS =							
210							
988	494	480	HEX.	M20	45	55	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
706	353	343	HEX.	M20	55	65	
TOTAL NOS =							
1694							

NOTE:-

1. ALL HSFG BOLTS ARE CL-8.8 & NUTS ARE 8 /AS PER RDSO. DRG. NO. B-11760/R1 AND EN 14399-1 To EN 14399-9 .
2. ALL DTI WASHER AS PER EN 14399-9 & PLAIN WASHERS AS PER EN 14399-5 & TAPER WASHER AS PER IS: 5372 & 5374.
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. SURFACE FINISH OF ALL BOLTS, NUTS & WASHERS WITH ZINC FLAKE COATING AS PER ISO 10683 SHOULD BE DONE.
7. PROCUREMENT AS PER NORTH EASTERN RAILWAY'S APPROVED VENDOR LIST DATED 22/01/26 (attached).
 - i) UNBRAKO
 - ii) H R STEEL
 - iii) KARAMTARA

Requisition No:- D/3561

Date: 11/02/2026

hm
05/05/26

THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD.

(A Govt. of India Enterprise)

HSFG BOLT ORDER LIST FOR SITE

MADE BY - S. Samanta

CHECKED BY- A.K. SETHI

DATE - 02.02.2026

PROJECT: (1+1)= 2x30.5 M SPAN (WELDED THROUGH TYPE), BR. NO - 16,
MANJHI-BAKULAHA STATION IN CONNECTION WITH CHHAPARA
BALLIA DOUBLING PROJECT.

SHEET NO.- HSGF/SITE/3144/30.5M/BR.No. 16/02

RDSO'S DRG.NO.- RDSO/B-17161 To 17176

ORDER NO.- 2163

REV.- A

DATE: 05.05.26

Gross Nos. For 2 Nos. Span	Gross Nos. For 1 Nos. Span (Addl.3%)	Net Nos. For 1 No. Span	Bolt Head & Nut Type	Thread Type	Thread Length (IS:3757) (in mm)	Bolt Length Provided (in mm)	REMARKS
HEX. HD. HSFG BOLTS, DTI WASHER, PLAIN WASHER/ TAPER WASHER & NUTS FOR (2 x 30.5 M SPAN)							
ORDER QTY.							
946	473	460	HEX.	20	46	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
248	124	120	HEX.	20	46	65	
98	49	48	HEX.	20	46	70	
TOTAL NOS =							
1292							
248	124	120	HEX.	22	50	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
1466	733	712	HEX.	22	50	65	
2794	1397	1356	HEX.	22	50	70	
1228	614	596	HEX.	22	50	75	
2480	1240	1204	HEX.	22	50	80	
874	437	424	HEX.	22	50	85	
396	198	192	HEX.	22	50	90	
560	280	272	HEX.	22	50	95	
34	17	16	HEX.	22	50	105	
1738	869	844	HEX.	22	50	110	
148	74	72	HEX.	22	50	125	
TOTAL NOS =							
11966							
74	37	36	HEX.	22	50	70	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE TAPER WASHER & ONE HEX. HD. NUT
TOTAL NOS =							
74							

NOTE:-

1. ALL HSFG BOLTS ARE CL-8.8 & NUTS ARE 8 /AS PER RDSO. DRG. NO. B-11760/R1 AND EN 14399-1 To EN 14399-9 .
2. ALL DTI WASHER AS PER EN 14399-9 & PLAIN WASHERS AS PER EN 14399-5 & TAPER WASHER AS PER IS: 5372 & 5374.
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. SURFACE FINISH OF ALL BOLTS, NUTS & WASHERS WITH ZINC FLAKE COATING AS PER ISO 10683 SHOULD BE DONE.
7. PROCUREMENT AS PER NORTH EASTERN RAILWAY'S APPROVED VENDOR LIST DATED 22/01/26 (attached).
 - i) UNBRAKO
 - ii) H R STEEL
 - iii) KARAMTARA

Requisition No:-D/3561

Date: 11/02/2026

hms
05/05/26

THE BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD.

(A Govt. of India Enterprise)

HSFG BOLT ORDER LIST FOR SITE

MADE BY - S.Samanta

ORDER NO.- HSFG/SITE/3144/61M/BR.No. 16/01

CHECKED BY- A.K.S

RDSO'S DRG.NO.-RDSO/B-17182/R To RDSO/B-17182/15

DATE - 30.01.26

ORDER NO.- 3144

PROJECT: (14+18+17) X 61.0 M SPAN (WELDED THROUGH TYPE) , BR. NO - 50,16,391

REV.- A

DATE: 05.05.26

GORAKHPUR SITE

Gross Nos. For 18 Nos. Span	Gross Nos. For 1 Nos. Span (Addl.3%)	Net Nos. For 1 No. Span	BOLT HEAD & NUT TYPE	THREAD TYPE	THREAD LENGTH (IS:3757) (in mm)	Bolt Length Provided (in mm)	REMARKS
HEX. HD. HSFG BOLTS, NUTS, PLAIN WASHER/ TAPER WASHER, DTI WASHER & Extra Plain Washer (18 x 61.0 M SPANS) FOR BR. NO. 16							
ORDER QTY							
1710	95	92	HEX.	M20	46	55	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT.
1476	82	80	HEX.	M20	46	75	
882	49	48	HEX.	M20	46	85	
TOTAL NOS =							
4068	226	220					
3996	222	216	HEX.	M22	50	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
41598	2311	2244	HEX.	M22	50	65	
48294	2683	2605	HEX.	M22	50	70	
28062	1559	1514	HEX.	M22	50	75	
47466	2637	2560	HEX.	M22	50	80	
41976	2332	2264	HEX.	M22	50	85	
20538	1141	1108	HEX.	M22	50	90	
6372	354	344	HEX.	M22	50	95	
1332	74	72	HEX.	M22	50	100	
1476	82	80	HEX.	M22	50	105	
7488	416	404	HEX.	M22	50	120	
30042	1669	1620	HEX.	M22	50	125	
1854	103	100	HEX.	M22	56	145	
TOTAL NOS =							
280494	15583	15131					
TOTAL NOS =							
900	50	48	HEX.	M22	50	70	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE TAPER WASHER & ONE HEX. HD. NUT

NOTE:-

- ALL HSFG BOLTS ARE CL-8.8 & NUTS ARE 8 /AS PER RDSO. DRG. NO. B-11760/R1 AND EN 14399-1 To EN 14399-9 .
- ALL DTI WASHER AS PER EN 14399-9 & PLAIN WASHERS AS PER EN 14399-5 & TAPER WASHER AS PER IS: 5372 & 5374.
- EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER, ONE PLAIN/TAPER WASHER (As Required) & ONE HEX. HD. NUT.
- ALL BOLTS, NUTS & WASHERS MUST HAVE IDENTIFICATION MARK & MANUFACTURER'S SYMBOL & PROPERTY CLASS.
- 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.
- SURFACE FINISH OF ALL BOLTS, NUTS & WASHERS WITH ZINC FLAKE COATING AS PER ISO 10683 SHOULD BE DONE.
- PROCUREMENT AS PER NORTH EASTERN RAILWAY'S APPROVED VENDOR LIST DATED 22/01/26 (attached).

- UNBRAKO
- H R STEEL
- KARAMTARA

Requisition No:- DI/2357

Date: 03/02/2026

hw
05/05/26