

Annexure - A**Technical Specification / Material Order List
HSFG BOLT (Gr. 8.8) - BRIDGE NO. 16****SHOP BOLTS**

Sl. No.	Size	Qty	Unit
SH01	SH01-M20 x 60 HSFG Bolt	12880	Sets
SH02	SH02-M20 x 65 HSFG Bolt	2880	Sets
SH03	SH03-M16 x 65 HSFG Bolt	220	Sets
SH04	SH04-M20 x 70 HSFG Bolt	12420	Sets
SH05	SH05-M20 x 75 HSFG Bolt	3870	Sets
SH06	SH06-M22 x 75 HSFG Bolt	900	Sets
SH07	SH07-M20 x 85 HSFG Bolt	990	Sets
SH08	Plain Washer for M20 Bolt	31540	Nos.
SH09	DTI Washer for M20 Bolt	31540	Nos.
SH10	Plain Washer for M22 Bolt	2620	Nos.
SH11	DTI Washer for M22 Bolt	2620	Nos.

SITE BOLTS

ST01	ST01-M20 x 55 HSFG Bolt	1800	Sets
ST02	ST02-M20 x 60 HSFG Bolt	960	Sets
ST03	ST03-M22 x 60 HSFG Bolt	4400	Sets
ST04	ST04-M20 x 65 HSFG Bolt	260	Sets
ST05	ST05-M22 x 65 HSFG Bolt	42320	Sets
ST06	ST06-M20 x 70 HSFG Bolt	100	Sets
ST07	ST07-M22 x 70 HSFG Bolt	50554	Sets
ST08	ST08-M22 x 70 HSFG Bolt with Taper Washer	1160	Sets
ST09	ST09-M20 x 75 HSFG Bolt	1620	Sets
ST10	ST10-M22 x 75 HSFG Bolt	29370	Sets
ST11	ST11-M22 x 80 HSFG Bolt	49550	Sets
ST12	ST12-M20 x 85 HSFG Bolt	1080	Sets
ST13	ST13-M22 x 85 HSFG Bolt	42480	Sets
ST14	ST14-M22 x 90 HSFG Bolt	20750	Sets
ST15	ST15-M22 x 95 HSFG Bolt	7240	Sets
ST16	ST16-M22 x 100 HSFG Bolt	1440	Sets
ST17	ST17-M22 x 105 HSFG Bolt	1840	Sets
ST18	ST18-M22 x 110 HSFG Bolt	1760	Sets
ST19	ST19-M22 x 120 HSFG Bolt	7560	Sets
ST20	ST20-M22 x 125 HSFG Bolt	29860	Sets
ST21	ST21-M22 x 145 HSFG Bolt	1980	Sets
ST22	Plain Washer for M20 Bolt	5820	Nos.
ST23	DTI Washer for M20 Bolt	5820	Nos.
ST24	Plain Washer for M22 Bolt	291104	Nos.
ST25	DTI Washer for M22 Bolt	291104	Nos.
ST26	DTI Washer for M22 Bolt	1160	Nos.

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.S

DATE - 30.01.26

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

GORAKHPUR SITE

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

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

ORDER NO.- 3144

REV.- A

DATE: 11.02.2026

Gross Nos. For 18 Nos. Span	Gross Nos. For 1 Nos. Span	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							
1800	100	92	HEX.	M20	46	55	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT.
1620	90	80	HEX.	M20	46	75	
1080	60	48	HEX.	M20	46	85	
TOTAL NOS =							
4500	250						
4140	230	216	HEX.	M22	50	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
40860	2270	2244	HEX.	M22	50	65	
47754	2653	2605	HEX.	M22	50	70	
28080	1560	1514	HEX.	M22	50	75	
47070	2615	2560	HEX.	M22	50	80	
41580	2310	2264	HEX.	M22	50	85	
20340	1130	1100	HEX.	M22	50	90	
6660	370	344	HEX.	M22	50	95	
1440	80	72	HEX.	M22	50	100	
1800	100	80	HEX.	M22	50	105	
7560	420	404	HEX.	M22	50	120	
29700	1650	1620	HEX.	M22	50	125	
1980	110	100	HEX.	M22	56	145	
TOTAL NOS =							
278964	15498						
1080	60	48	HEX.	M22	50	70	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE TAPER WASHER & ONE HEX. HD. NUT
TOTAL NOS =							
1080	60						
TOTAL NOS =							
4500	250						PLAIN WASHER FOR M20 BOLT
4500	250						DTI WASHER FOR M20 BOLT
278964	15498						PLAIN WASHER FOR M22 BOLT
278964	15498						DTI WASHER FOR M22 BOLT
1080	60						TAPER WASHER FOR M22 BOLT
1080	60						DTI WASHER FOR M22 BOLT

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. BRAND OF HSFG BOLT IS UNBRAKO AS PER MINUTES OF KICK OFF MEETING DT, 20.01.2026

Requisition No:- D/ 2357

Date: 03/02/2026

W
11/02/26

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.S

DATE - 29.01.26

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

ORDER NO.- HSF/SHOP/2163/61M/Br No.16/01

RDSO'S DRG.NO.-

ORDER NO.- 2163

REV.- A

DATE: 11.02.2026

Gross Nos. For 18 Nos. Span	Gross Nos. For 1 Nos. Span	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								
11880	660	640	HEX.	M20	46	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT.	
540	30	24	HEX.	M20	46	65		
2340	130	119	HEX.	M20	46	65		
2340	130	114	HEX.	M20	46	70		
9360	520	512	HEX.	M20	46	70		
540	30	24	HEX.	M20	46	75		
3330	185	172	HEX.	M20	46	75		
990	55	48	HEX.	M20	46	85		
TOTAL NOS =								
31320	1740							
TOTAL NOS =								
900	50	40	HEX.	M22	50	75	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT	
TOTAL NOS =								
31320	1740	PLAIN WASHER FOR M20 BOLT						
31320	1740	DTI WASHER FOR M20 BOLT						
900	50	PLAIN WASHER FOR M22 BOLT						
900	50	DTI WASHER FOR M22 BOLT						

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. BRAND OF HSFG BOLT IS UNBRAKO AS PER MINUTES OF KICK OFF MEETING DT, 20.01.2026

Requisition No:- D/ 2357

Date: 03/02/2026

Handwritten signature and date: 11/02/26

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

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

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

ORDER NO.- 2163

REV.-

DATE:

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

Gross Nos. For 2 Nos. Span	Gross Nos. For 1 No. Span	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. HSF BOLTS, DTI WASHER, PLAIN WASHER/ TAPER WASHER & NUTS FOR (2 x 30.5 M SPAN)							
ORDER QTY.							
960	480	460	HEX.	20	46	60	EACH HSF HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
260	130	120	HEX.	20	46	65	
100	50	48	HEX.	20	46	70	
TOTAL NOS =							
1320	660						
260	130	120	HEX.	22	50	60	EACH HSF HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
1460	730	712	HEX.	22	50	65	
2800	1400	1356	HEX.	22	50	70	
1290	645	596	HEX.	22	50	75	
2480	1240	1204	HEX.	22	50	80	
900	450	424	HEX.	22	50	85	
410	205	192	HEX.	22	50	90	
580	290	272	HEX.	22	50	95	
40	20	16	HEX.	22	50	105	
1760	880	844	HEX.	22	50	110	
160	80	72	HEX.	22	50	125	
TOTAL NOS =							
12140	6070						
80	40	36	HEX.	22	50	70	EACH HSF HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE TAPER WASHER & ONE HEX. HD. NUT
TOTAL NOS =							
80	40						
TOTAL NOS =							
1320	660						PLAIN WASHER FOR M20 BOLT
1320	660						DTI WASHER FOR M20 BOLT
12140	6070						PLAIN WASHER FOR M22 BOLT
12140	6070						DTI WASHER FOR M22 BOLT
80	40						TAPER WASHER FOR M22 BOLT
80	40						DTI WASHER FOR M22 BOLT

NOTE:-

- ALL HSF 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 HSF 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.
- BRAND OF HSF BOLT IS UNBRAKO AS PER MINUTES OF KICK OFF MEETING DT. 20.01.2026

Requisition No:-D/3561

Date: 11/02/2026

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 - 02.02.2026

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

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

ORDER NO.- 2163

REV.-

DATE:

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

Gross Nos. For 2 Nos. Span	Gross Nos. For 1 No. Span	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.
220	110	102	HEX.	M16	38	65	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT.
TOTAL NOS =							
220	110						
1000	500	480	HEX.	M20	46	60	EACH HSFG HEX. HD. BOLT CONSIST OF ONE DTI WASHER , ONE PLAIN WASHER & ONE HEX. HD. NUT
720	360	343	HEX.	M20	46	70	
TOTAL NOS =							
1720	860						
TOTAL NOS =							
220	110						PLAIN WASHER FOR M16 BOLT
220	110						DTI WASHER FOR M16 BOLT
1720	860						PLAIN WASHER FOR M20 BOLT
1720	860						DTI WASHER FOR M20 BOLT

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. BRAND OF HSFG BOLT IS UNBRAKO AS PER MINUTES OF KICK OFF MEETING DT, 20.01.2026

Requisition No:- D/3561

Date: 11/02/2026