

संदर्भ/Ref : CC-ENGG-C2021001-1001422-T14221-BM DD AUX X-ARM

Date : 26/12/2025

From : NITESH KUMAR SINHA
Senior DGM**To :** SKIPPER LTD.
3A loudon Street Kolkata 700017
700017**Cc :** ER**Subject :** Tower Package-TW01 for Indian Portion of New Butwal-Gorakhpur 400kV D/C (Quad) line
LOA Ref : 5002002333/CONSULTANCY GIVEN/DOM/A04-CC CS-5/NOA-I/01,NOA-II/02 Dated 13/06/2023

Please find enclosed following drawings/ documents for necessary action at your end.

Vendor Drg. No. :**Orgn. Drg. No. :** C2021001-1001422-T14221-BM DD AUX X-ARM**Revision No. :** 00**Drg. Title :** BILL OF MATERIALS FOR DD TYPE BASIC BODY WITH AUXILIARY
ARM FOR 400 kV D/C WZ-5 (ACSR MOOSE) TL**App. Category :** CAT-I**Release Date :** 26/12/2025

Scan to verify

Comments : Ok**अनुमोदित श्रेणी/App. Category:**

- I. फेब्रिकेशन/निर्माण/टाइप टेस्टिंग हेतु जारी।
Approved/released for fabrication/construction.
- II. फेब्रिकेशन/निर्माण/टाइप टेस्टिंग हेतु अनुमोदित/जारी बशर्ते दिए गए टिप्पणियाँ एवं आशोधनों की सम्मिलित किया जाये। कृपया रिवाइज्ड दस्तावेज अनुमोदनार्थ प्रस्तुत करें।
Approved/released for fabrication/ construction subject to incorporation of comments and modification as noted. Revised drawing required for approval.
- III. टिप्पणियाँ सम्मिलित करने के उपरांत दस्तावेज को अनुमोदनार्थ प्रस्तुत करें।
To be resubmitted for approval after incorporating the comments.
- IV. सूचनार्थ एवं रिकार्ड हेतु।
For information and record.
- CATREL/ निर्माण हेतु जारी।
REL-CON **Released for construction.**

नोट/Note:

1. Approval/Comments conveyed herein neither relieve the contractor of his contractual obligations and his responsibilities, weights, quantities, design details assemble fits, performance particulars and conformity of the supplies with the Indian Statutory Laws as may be applicable, nor does it limits the purchaser's right under the contract.
2. The approval conveyed vide this letter does not cover the approval of make for sub-vendor items.

BOM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

NO. OF SHEET : 27

POWER GRID CORPORATION OF INDIA LTD.

(A Government of India Enterprise)

BILL OF MATERIALSINITIAL / FINAL
(GALVANIZED)

STRUCTURE UNIT : 400KV D/C "DD(0°-60°)/DE(0°-15°)"-MKD"G507 DD"

PART : BASIC BODY WITH AUXILIARY X-ARM (RIGHT TURN)

REF.DRG.NO. : C:ENGG:TL:4524-4ACSR-M-P-03 (SHEET 1 TO 8)
C:ENGG:TL:4524-4ACSR-M-P-03-AUX (SHEET 1 TO 6)

NOA No. : 5002002333/CONSULTANCY GIVEN/DOM/ A04-CC CS -5/NOA-I/01 Dated 13.06.2023 (Supply) &
5002002333/CONSULTANCY GIVEN/DOM/A04-CC-CS -5/NOA-II/02 Dated 13.06.2023 (Service)

LINE NAME : Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal -
Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

NOTE FOR PREFIX	
SP4BDD XXX	FOR M.S
SP4BDD XXXH	FOR H.T

THIS BILL OF MATERIAL IS APPLICABLE FOR MANUFACTURE OF TOWERS
AT FACTORY OF SKIPPER LIMITED, HOWRAH

SUMMARY OF WEIGHTS

SL.NO.	DESCRIPTION	WEIGHT OF BASIC BODY WITH AUXILIARY X-ARM (RIGHT TURN)	
1	WT.OF ALL (HT) MEMBERS IN KGS.	28958.07	
2	WT.OF ALL (MS) MEMBERS IN KGS.(INCL. PACK WASHERS)	5456.69	
3	WT.OF BOLT & NUTS IN KGS.	1679.88	
	TOTAL WT. OF STRUCTURES IN KGS.	36094.64	
A	PROTO CORRECTED	18.12.2025	BKL
REV. No.	DESCRIPTION	DATE	INITIAL
PREPARED BY:	CHECKED BY:	VERIFIED BY:	CONTRACTOR
P.KOLE	B.K.LAHA	S.B	SKIPPER LIMITED KOLKATA

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

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" **BILL OF MATERIALS**

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.	SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
BODY AND CAGE PART									
1	SP4BDD	10H	HL150X150X14		6000	31.60	189.60	2	379.20
2	SP4BDD	11H	HL150X150X14		6000	31.60	189.60	2	379.20
3	SP4BDD	12H	HL150X150X14		6000	31.60	189.60	4	758.40
4	SP4BDD	13H	HL150X150X12		470	27.29	12.83	8	102.64
5	SP4BDD	14H	HL150X150X12		470	27.29	12.83	8	102.64
6	SP4BDD	15H	H14 THK.	316	470	109.90	16.32	4	65.28
7	SP4BDD	16H	H14 THK.	115	470	109.90	5.94	8	47.52
8	SP4BDD	17	2 THK.	105	225	15.70	0.37	16	5.92
9	SP4BDD	18H	HL150X150X14		6032	31.60	190.61	2	381.22
10	SP4BDD	19H	HL150X150X14		6032	31.60	190.61	2	381.22
11	SP4BDD	20H	HL150X150X14		6006	31.60	189.79	2	379.58
12	SP4BDD	21H	HL150X150X14		6006	31.60	189.79	2	379.58
13	SP4BDD	22H	HL150X150X12		470	27.29	12.83	8	102.64
14	SP4BDD	23H	HL150X150X12		470	27.29	12.83	8	102.64
15	SP4BDD	24H	H14 THK.	316	470	109.90	16.32	4	65.28
16	SP4BDD	25H	H14 THK.	125	470	109.90	6.46	8	51.68
17	SP4BDD	26H	HL130X130X9		7300	17.82	130.09	2	260.18
18	SP4BDD	27H	HL130X130X9		5917	17.82	105.44	2	210.88
19	SP4BDD	28H	HL110X110X8		466	13.40	6.24	2	12.48
20	SP4BDD	29H	H6 THK.	100	466	47.10	2.19	4	8.76
21	SP4BDD	30H	H14 THK.	271	590	109.90	17.57	4	70.28
22	SP4BDD	31H	HL180X180X15		629	41.09	25.85	4	103.40
23	SP4BDD	32H	HL180X180X15		629	41.09	25.85	4	103.40
24	SP4BDD	33H	H14 THK.	489	629	109.90	33.80	4	135.20
25	SP4BDD	34H	H14 THK.	263	629	109.90	18.18	4	72.72
26	SP4BDD	35H	H14 THK.	150	629	109.90	10.37	4	41.48
27	SP4BDD	36H	HL110X110X9		5500	14.95	82.23	2	164.46
28	SP4BDD	37H	HL110X110X9		5502	14.95	82.25	2	164.50
29	SP4BDD	38H	HL110X110X9		5502	14.95	82.25	2	164.50
30	SP4BDD	39H	HL110X110X9		5500	14.95	82.23	2	164.46
31	SP4BDD	40H	HL110X110X9		5185	14.95	77.52	2	155.04
32	SP4BDD	41H	HL110X110X9		5185	14.95	77.52	2	155.04
33	SP4BDD	42H	HL110X110X9		4438	14.95	66.35	2	132.70
34	SP4BDD	43H	HL110X110X9		4438	14.95	66.35	2	132.70
35	SP4BDD	44H	HL110X110X8		4591	13.40	61.52	2	123.04
36	SP4BDD	45H	HL110X110X8		4591	13.40	61.52	2	123.04
37	SP4BDD	46H	HL110X110X8		5194	13.40	69.60	2	139.20
38	SP4BDD	47H	HL110X110X8		5194	13.40	69.60	2	139.20
39	SP4BDD	48H	HL90X90X7		346	9.60	3.32	8	26.56
40	SP4BDD	49H	HL90X90X7		346	9.60	3.32	4	13.28
41	SP4BDD	50H	H20 THK.	90	346	157.00	4.89	8	39.12

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
42	SP4BDD	51H	H6 THK.	220	346	47.10	3.59	8	28.72	
43	SP4BDD	52H	H20 THK.	420	473	157.00	31.19	2	62.38	
44	SP4BDD	52AH	H18 THK.	420	473	141.30	28.07	2	56.14	
45	SP4BDD	52B	2 THK.	83	225	15.70	0.29	4	1.16	
46	SP4BDD	52C	2 THK.	93	225	15.70	0.33	4	1.32	
47	SP4BDD	53H	HL55X55X4		1122	3.40	3.81	4	15.24	
48	SP4BDD	54H	HL55X55X4		1122	3.40	3.81	4	15.24	
49	SP4BDD	55H	HL60X60X4		2106	3.71	7.81	4	31.24	
50	SP4BDD	56H	HL60X60X4		2106	3.71	7.81	4	31.24	
51	SP4BDD	57H	HL65X65X5		2260	4.98	11.25	4	45.00	
52	SP4BDD	58H	HL65X65X5		2260	4.98	11.25	4	45.00	
53	SP4BDD	59H	H5 THK.	143	229	39.25	1.29	8	10.32	
54	SP4BDD	60H	HL65X65X5		2676	4.98	13.33	4	53.32	
55	SP4BDD	61H	HL65X65X5		2676	4.98	13.33	4	53.32	
56	SP4BDD	62	L50X50X4		2936	3.08	9.04	4	36.16	
57	SP4BDD	63	L50X50X4		2936	3.08	9.04	4	36.16	
58	SP4BDD	64H	HL65X65X4		2195	4.03	8.85	4	35.40	
59	SP4BDD	65H	HL65X65X4		2195	4.03	8.85	4	35.40	
60	SP4BDD	66H	H5 THK.	105	180	39.25	0.74	8	5.92	
61	SP4BDD	67H	HL60X60X5		3536	4.58	16.19	4	64.76	
62	SP4BDD	68H	HL60X60X5		3536	4.58	16.19	4	64.76	
63	SP4BDD	69H	H5 THK.	126	143	39.25	0.71	8	5.68	
64	SP4BDD	70	L55X55X4		3246	3.40	11.04	4	44.16	
65	SP4BDD	70A	L55X55X4		3246	3.40	11.04	4	44.16	
66	SP4BDD	71H	H5 THK.	165	210	39.25	1.36	8	10.88	
67	SP4BDD	72H	HL60X60X5		3498	4.58	16.02	4	64.08	
68	SP4BDD	73H	HL60X60X5		3498	4.58	16.02	4	64.08	
69	SP4BDD	74H	H5 THK.	105	190	39.25	0.78	8	6.24	
70	SP4BDD	75H	HL55X55X4		1796	3.40	6.11	4	24.44	
71	SP4BDD	76H	HL55X55X4		1796	3.40	6.11	4	24.44	
72	SP4BDD	77	L45X45X4		1947	2.75	5.35	4	21.40	
73	SP4BDD	78	L45X45X4		1947	2.75	5.35	4	21.40	
74	SP4BDD	79H	HL55X55X4		1702	3.40	5.79	4	23.16	
75	SP4BDD	80H	HL55X55X4		1702	3.40	5.79	4	23.16	
76	SP4BDD	81H	H5 THK.	165	210	39.25	1.36	8	10.88	
77	SP4BDD	82	14 THK.	83	120	109.90	1.09	8	8.72	
78	SP4BDD	83H	HL80X80X6		6916	7.36	50.90	2	101.80	
79	SP4BDD	84H	HL80X80X6		6922	7.36	50.95	1	50.95	
80	SP4BDD	N84H	HL80X80X6		6922	7.36	50.95	1	50.95	
81	SP4BDD	85H	H5 THK.	115	159	39.25	0.72	4	2.88	
82	SP4BDD	86H	H14 THK.	508	729	109.90	40.70	1	40.70	
83	SP4BDD	86AH	H14 THK.	508	729	109.90	40.70	1	40.70	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
84	SP4BDD	87H	H14 THK.	508	729	109.90	40.70	1	40.70	
85	SP4BDD	87AH	H14 THK.	508	729	109.90	40.70	1	40.70	
86	SP4BDD	88H	HL150X150X10		198	22.93	4.54	2	9.08	
87	SP4BDD	88AH	HL150X150X10		198	22.93	4.54	2	9.08	
88	SP4BDD	89H	HL150X150X10		198	22.93	4.54	2	9.08	
89	SP4BDD	89AH	HL150X150X10		198	22.93	4.54	2	9.08	
90	SP4BDD	90H	HL150X150X10		247	22.93	5.66	4	22.64	
91	SP4BDD	91H	HL150X150X10		247	22.93	5.66	4	22.64	
92	SP4BDD	92H	H14 THK.	67	316	109.90	2.33	4	9.32	
93	SP4BDD	93H	H14 THK.	100	316	109.90	3.47	40	138.80	
94	SP4BDD	94H	H14 THK.	126	316	109.90	4.38	4	17.52	
95	SP4BDD	95H	H14 THK.	159	316	109.90	5.52	4	22.08	
96	SP4BDD	96H	H14 THK.	126	316	109.90	4.38	4	17.52	
97	SP4BDD	97H	H14 THK.	151	316	109.90	5.24	4	20.96	
98	SP4BDD	98H	HL45X45X4		1441	2.75	3.96	4	15.84	
99	SP4BDD	99	L50X50X4		3309	3.08	10.19	4	40.76	
100	SP4BDD	100	L50X50X4		3309	3.08	10.19	4	40.76	
101	SP4BDD	101	L55X55X4		4565	3.40	15.52	4	62.08	
102	SP4BDD	102	L55X55X4		4565	3.40	15.52	4	62.08	
103	SP4BDD	103	L65X65X4		5761	4.03	23.22	4	92.88	
104	SP4BDD	104	L65X65X4		5761	4.03	23.22	4	92.88	
105	SP4BDD	105H	H8 THK.	120	180	62.80	1.36	8	10.88	
106	SP4BDD	105AH	H8 THK.	120	207	62.80	1.56	8	12.48	
107	SP4BDD	106H	H5 THK.	120	290	39.25	1.37	8	10.96	
108	SP4BDD	107	5 THK.	120	339	39.25	1.60	4	6.40	
109	SP4BDD	108	5 THK.	120	339	39.25	1.60	4	6.40	
110	SP4BDD	109	5 THK.	143	359	39.25	2.01	4	8.04	
111	SP4BDD	110	5 THK.	143	359	39.25	2.01	4	8.04	
112	SP4BDD	111	5 THK.	120	332	39.25	1.56	4	6.24	
113	SP4BDD	112	5 THK.	120	332	39.25	1.56	4	6.24	
114	SP4BDD	113H	HL50X50X4		2196	3.08	6.76	4	27.04	
115	SP4BDD	114	L50X50X4		3560	3.08	10.96	4	43.84	
116	SP4BDD	115	L50X50X4		3560	3.08	10.96	4	43.84	
117	SP4BDD	116	L55X55X4		5169	3.40	17.57	4	70.28	
118	SP4BDD	117	L55X55X4		5169	3.40	17.57	4	70.28	
119	SP4BDD	118	L45X30X4		1035	2.27	2.35	4	9.40	
120	SP4BDD	119	L45X30X4		1035	2.27	2.35	4	9.40	
121	SP4BDD	120H	H8 THK.	120	190	62.80	1.43	8	11.44	
122	SP4BDD	121H	H5 THK.	120	300	39.25	1.41	8	11.28	
123	SP4BDD	122	5 THK.	120	386	39.25	1.82	4	7.28	
124	SP4BDD	123	5 THK.	120	386	39.25	1.82	4	7.28	
125	SP4BDD	124	5 THK.	120	332	39.25	1.56	4	6.24	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
126	SP4BDD	125	5 THK.	120	332	39.25	1.56	4	6.24	
127	SP4BDD	140H	HL150X150X10		7300	22.93	167.39	2	334.78	
128	SP4BDD	141H	HL150X150X10		5917	22.93	135.68	2	271.36	
129	SP4BDD	142H	HL130X130X9		466	17.82	8.30	2	16.60	
130	SP4BDD	143H	H6 THK.		466	47.10	2.63	4	10.52	
131	SP4BDD	144H	HL110X110X10		5500	16.58	91.19	2	182.38	
132	SP4BDD	145H	HL110X110X10		5502	16.58	91.22	2	182.44	
133	SP4BDD	146H	HL110X110X10		5502	16.58	91.22	2	182.44	
134	SP4BDD	147H	HL110X110X10		5500	16.58	91.19	2	182.38	
135	SP4BDD	148H	HL110X110X10		5185	16.58	85.97	2	171.94	
136	SP4BDD	149H	HL110X110X10	90	5185	16.58	85.97	2	171.94	
137	SP4BDD	150H	HL110X110X10		4438	16.58	73.58	2	147.16	
138	SP4BDD	151H	HL110X110X10		4438	16.58	73.58	2	147.16	
139	SP4BDD	152H	HL100X100X7		346	10.73	3.71	4	14.84	
140	SP4BDD	153H	HL100X100X7		346	10.73	3.71	4	14.84	
141	SP4BDD	154H	H20 THK.		346	157.00	4.89	8	39.12	
142	SP4BDD	155H	H6 THK.		346	47.10	3.59	8	28.72	
143	SP4BDD	156H	HL120X120X8		4591	14.66	67.30	2	134.60	
144	SP4BDD	157H	HL120X120X8		4591	14.66	67.30	2	134.60	
145	SP4BDD	158H	HL120X120X8	220	5195	14.66	76.16	2	152.32	
146	SP4BDD	159H	HL120X120X8		5195	14.66	76.16	2	152.32	
147	SP4BDD	160H	HL100X100X7		346	10.73	3.71	4	14.84	
148	SP4BDD	161H	H20 THK.		346	157.00	4.89	4	19.56	
149	SP4BDD	162H	H6 THK.		346	47.10	3.59	4	14.36	
150	SP4BDD	163	2 THK.		170	15.70	0.24	8	1.92	
151	SP4BDD	164H	HL90X90X6		6916	8.32	57.54	1	57.54	
152	SP4BDD	165H	HL90X90X6		6916	8.32	57.54	1	57.54	
153	SP4BDD	166H	H14 THK.		363	508	109.90	2	40.54	
154	SP4BDD	167H	H14 THK.		363	508	109.90	2	40.54	
155	SP4BDD	168H	H14 THK.	188	476	109.90	9.83	1	9.83	
156	SP4BDD	169H	H14 THK.		476	109.90	9.83	1	9.83	
157	SP4BDD	170H	HL80X80X5		7367	6.10	44.94	4	179.76	
158	SP4BDD	171H	HL80X80X5		7367	6.10	44.94	4	179.76	
159	SP4BDD	172H	HL80X80X6		433	7.36	3.19	4	12.76	
160	SP4BDD	173H	HL65X65X5		4444	4.98	22.13	4	88.52	
161	SP4BDD	174	L45X45X4		1134	2.75	3.12	4	12.48	
162	SP4BDD	175	L45X45X4		832	2.75	2.29	4	9.16	
163	SP4BDD	176	L45X45X4		832	2.75	2.29	4	9.16	
164	SP4BDD	177	L45X45X4		1259	2.75	3.46	4	13.84	
165	SP4BDD	178	L45X45X4	188	1259	2.75	3.46	4	13.84	
166	SP4BDD	179H	HL45X45X4		1592	2.75	4.38	4	17.52	
167	SP4BDD	180H	HL45X45X4		1592	2.75	4.38	4	17.52	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
168	SP4BDD	181H	HL50X50X4		2213	3.08	6.82	4	27.28	
169	SP4BDD	182H	HL50X50X4		2213	3.08	6.82	4	27.28	
170	SP4BDD	183H	HL50X50X4		2277	3.08	7.01	4	28.04	
171	SP4BDD	184H	HL80X80X5		546	6.10	3.33	4	13.32	
172	SP4BDD	200H	HL150X150X14		4075	31.60	128.77	2	257.54	
173	SP4BDD	201H	HL150X150X14		4075	31.60	128.77	2	257.54	
174	SP4BDD	202H	HL150X150X14		3800	31.60	120.08	2	240.16	
175	SP4BDD	203H	HL150X150X14		3800	31.60	120.08	2	240.16	
176	SP4BDD	204H	HL150X150X12		470	27.29	12.83	8	102.64	
177	SP4BDD	205H	HL150X150X12		470	27.29	12.83	8	102.64	
178	SP4BDD	206H	H14 THK.	316	470	109.90	16.32	4	65.28	
179	SP4BDD	207H	H14 THK.	125	470	109.90	6.46	8	51.68	
180	SP4BDD	208H	HL180X180X16		5100	43.21	220.37	2	440.74	
181	SP4BDD	209H	HL180X180X16		5100	43.21	220.37	2	440.74	
182	SP4BDD	210H	HL180X180X15		540	41.09	22.19	8	177.52	
183	SP4BDD	211H	HL180X180X15		540	41.09	22.19	4	88.76	
184	SP4BDD	212H	H14 THK.	316	540	109.90	18.75	4	75.00	
185	SP4BDD	213H	H14 THK.	145	540	109.90	8.61	8	68.88	
186	SP4BDD	214	2 THK.	115	265	15.70	0.48	8	3.84	
187	SP4BDD	215H	HL100X100X7		7556	10.73	81.08	2	162.16	
188	SP4BDD	216H	HL100X100X7		7559	10.73	81.11	2	162.22	
189	SP4BDD	217H	HL100X100X7		3839	10.73	41.19	2	82.38	
190	SP4BDD	218H	HL100X100X7		3837	10.73	41.17	2	82.34	
191	SP4BDD	219H	HL100X100X7		3517	10.73	37.74	2	75.48	
192	SP4BDD	220H	HL100X100X7		3516	10.73	37.73	2	75.46	
193	SP4BDD	221H	H14 THK.		342	628	109.90	23.60	2	47.20
194	SP4BDD	222H	HL55X55X4		2039	3.40	6.93	2	13.86	
195	SP4BDD	223H	HL55X55X4		2039	3.40	6.93	2	13.86	
196	SP4BDD	224	L45X45X4		1038	2.75	2.85	2	5.70	
197	SP4BDD	225	L45X45X4	1038	2.75	2.85	2	5.70		
198	SP4BDD	226H	HL55X55X4		1715	3.40	5.83	2	11.66	
199	SP4BDD	227H	HL55X55X4		1715	3.40	5.83	2	11.66	
200	SP4BDD	228H	H6 THK.		194	47.10	1.74	4	6.96	
201	SP4BDD	229	L45X45X4		1941	2.75	5.34	2	10.68	
202	SP4BDD	230	L45X30X4		909	2.27	2.06	2	4.12	
203	SP4BDD	230A	L45X30X4		909	2.27	2.06	2	4.12	
204	SP4BDD	231H	HL90X90X6		3135	8.32	26.08	2	52.16	
205	SP4BDD	232H	HL90X90X6		3135	8.32	26.08	2	52.16	
206	SP4BDD	233	L45X30X4		983	2.27	2.23	2	4.46	
207	SP4BDD	233A	L45X30X4		983	2.27	2.23	2	4.46	
208	SP4BDD	234H	HL60X60X4		1914	3.71	7.10	2	14.20	
209	SP4BDD	235H	HL60X60X4		1914	3.71	7.10	2	14.20	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
210	SP4BDD	236H	H14 THK.	292	610	109.90	19.58	1	19.58	
211	SP4BDD	237H	H14 THK.	292	610	109.90	19.58	1	19.58	
212	SP4BDD	238H	H14 THK.	292	645	109.90	20.70	1	20.70	
213	SP4BDD	239H	H14 THK.	292	645	109.90	20.70	1	20.70	
214	SP4BDD	240H	HL150X150X10		285	22.93	6.54	4	26.16	
215	SP4BDD	241H	HL150X150X10		285	22.93	6.54	4	26.16	
216	SP4BDD	242H	H14 THK.	411	442	109.90	19.96	4	79.84	
217	SP4BDD	243H	H14 THK.	100	316	109.90	3.47	4	13.88	
218	SP4BDD	244H	HL100X100X6		4500	9.26	41.67	2	83.34	
219	SP4BDD	245H	HL100X100X6		4502	9.26	41.69	2	83.38	
220	SP4BDD	246H	HL100X100X6		3839	9.26	35.55	2	71.10	
221	SP4BDD	247H	HL100X100X6		3837	9.26	35.53	2	71.06	
222	SP4BDD	248H	HL90X90X6		3050	8.32	25.38	2	50.76	
223	SP4BDD	249H	HL90X90X6		3051	8.32	25.38	2	50.76	
224	SP4BDD	250H	HL90X90X6		3517	8.32	29.26	2	58.52	
225	SP4BDD	251H	HL90X90X6		3516	8.32	29.25	2	58.50	
226	SP4BDD	252H	HL80X80X6		286	7.36	2.10	4	8.40	
227	SP4BDD	253H	H12 THK.	80	286	94.20	2.16	4	8.64	
228	SP4BDD	254H	H6 THK.	194	286	47.10	2.61	4	10.44	
229	SP4BDD	255H	H12 THK.	293	528	94.20	14.57	2	29.14	
230	SP4BDD	256	L45X45X4		1941	2.75	5.34	2	10.68	
231	SP4BDD	257H	HL55X55X4		1715	3.40	5.83	2	11.66	
232	SP4BDD	258H	HL55X55X4		1715	3.40	5.83	2	11.66	
233	SP4BDD	259	L45X30X4		909	2.27	2.06	2	4.12	
234	SP4BDD	260	L45X30X4		909	2.27	2.06	2	4.12	
235	SP4BDD	261H	H5 THK.	159	190	39.25	1.19	4	4.76	
236	SP4BDD	262H	HL90X90X6		3135	8.32	26.08	2	52.16	
237	SP4BDD	263H	HL90X90X6		3135	8.32	26.08	2	52.16	
238	SP4BDD	264H	HL60X60X4		1914	3.71	7.10	2	14.20	
239	SP4BDD	265H	HL60X60X4		1914	3.71	7.10	2	14.20	
240	SP4BDD	266	L45X30X4		983	2.27	2.23	2	4.46	
241	SP4BDD	267	L45X30X4		983	2.27	2.23	2	4.46	
242	SP4BDD	268H	H14 THK.	135	285	109.90	4.23	6	25.38	
243	SP4BDD	269H	H14 THK.	135	355	109.90	5.27	4	21.08	
244	SP4BDD	270H	H14 THK.	215	355	109.90	8.39	4	33.56	
245	SP4BDD	271H	HL100X100X10		4700	15.04	70.69	2	141.38	
246	SP4BDD	272H	HL100X100X10		4700	15.04	70.69	2	141.38	
247	SP4BDD	273H	HL100X100X10		4055	15.04	60.99	2	121.98	
248	SP4BDD	274H	HL100X100X10		4055	15.04	60.99	2	121.98	
249	SP4BDD	275H	HL100X100X10		3029	15.04	45.56	2	91.12	
250	SP4BDD	276H	HL100X100X10		3030	15.04	45.57	2	91.14	
251	SP4BDD	277H	HL100X100X10		3544	15.04	53.30	2	106.60	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" **BILL OF MATERIALS**

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
252	SP4BDD	278H	HL100X100X10		3543	15.04	53.29	2	106.58	
253	SP4BDD	279H	HL100X100X7		316	10.73	3.39	4	13.56	
254	SP4BDD	280H	H20 THK.	80	316	157.00	3.97	4	15.88	
255	SP4BDD	281H	H6 THK.	220	316	47.10	3.27	4	13.08	
256	SP4BDD	282H	H20 THK.	413	490	157.00	31.77	2	63.54	
257	SP4BDD	283	L50X50X4		1393	3.08	4.29	2	8.58	
258	SP4BDD	284	L50X50X4		1393	3.08	4.29	2	8.58	
259	SP4BDD	285	5 THK.	161	204	39.25	1.29	4	5.16	
260	SP4BDD	286	L55X55X4		2366	3.40	8.04	2	16.08	
261	SP4BDD	286A	L55X55X4		2366	3.40	8.04	2	16.08	
262	SP4BDD	287	L45X45X4		2508	2.75	6.90	2	13.80	
263	SP4BDD	288	L45X45X4		2508	2.75	6.90	2	13.80	
264	SP4BDD	289	L50X50X4		1598	3.08	4.92	2	9.84	
265	SP4BDD	290	L50X50X4		1598	3.08	4.92	2	9.84	
266	SP4BDD	291H	HL120X120X8		5464	14.66	80.10	2	160.20	
267	SP4BDD	292H	H16 THK.	271	636	125.60	21.65	4	86.60	
268	SP4BDD	293H	HL90X90X7		7671	9.60	73.64	2	147.28	
269	SP4BDD	294H	HL90X90X7		7672	9.60	73.65	2	147.30	
270	SP4BDD	295H	HL90X90X7		4019	9.60	38.58	2	77.16	
271	SP4BDD	296H	HL90X90X7		4019	9.60	38.58	2	77.16	
272	SP4BDD	297H	HL90X90X7		3525	9.60	33.84	2	67.68	
273	SP4BDD	298H	HL90X90X7		3524	9.60	33.83	2	67.66	
274	SP4BDD	299H	H14 THK.	319	404	109.90	14.16	2	28.32	
275	SP4BDD	300	L50X50X4		1407	3.08	4.33	2	8.66	
276	SP4BDD	301	L50X50X4		1407	3.08	4.33	2	8.66	
277	SP4BDD	302	5 THK.	155	204	39.25	1.24	4	4.96	
278	SP4BDD	303	L55X55X4		2399	3.40	8.16	2	16.32	
279	SP4BDD	304	L55X55X4		2399	3.40	8.16	2	16.32	
280	SP4BDD	305	L45X45X4		2427	2.75	6.67	2	13.34	
281	SP4BDD	306	L45X45X4		2427	2.75	6.67	2	13.34	
282	SP4BDD	307	L50X50X4		1583	3.08	4.88	2	9.76	
283	SP4BDD	308	L50X50X4		1583	3.08	4.88	2	9.76	
284	SP4BDD	309	5 THK.	102	125	39.25	0.50	4	2.00	
285	SP4BDD	N310	L100X100X6		5985	9.26	55.42	1	55.42	
286	SP4BDD	N311	L100X100X6		5994	9.26	55.50	1	55.50	
287	SP4BDD	312H	H14 THK.	200	498	109.90	10.95	4	43.80	
288	SP4BDD	313H	HL50X50X4		2305	3.08	7.10	4	28.40	
289	SP4BDD	314	L50X50X4		3356	3.08	10.34	4	41.36	
290	SP4BDD	314A	L50X50X4		3356	3.08	10.34	4	41.36	
291	SP4BDD	315	5 THK.	120	164	39.25	0.77	8	6.16	
292	SP4BDD	316H	H5 THK.	120	312	39.25	1.47	4	5.88	
293	SP4BDD	316AH	H5 THK.	120	312	39.25	1.47	4	5.88	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" **BILL OF MATERIALS**

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
294	SP4BDD	317	5 THK.	120	293	39.25	1.38	4	5.52	
295	SP4BDD	317A	5 THK.	120	293	39.25	1.38	4	5.52	
296	SP4BDD	318H	HL50X50X4		2183	3.08	6.72	4	26.88	
297	SP4BDD	319	5 THK.	120	162	39.25	0.76	4	3.04	
298	SP4BDD	319A	5 THK.	120	164	39.25	0.77	4	3.08	
299	SP4BDD	320H	H5 THK.	120	267	39.25	1.26	4	5.04	
300	SP4BDD	320AH	H5 THK.	120	269	39.25	1.27	4	5.08	
301	SP4BDD	321H	HL50X50X4		2073	3.08	6.38	2	12.76	
302	SP4BDD	322	L45X45X4		3113	2.75	8.56	2	17.12	
303	SP4BDD	322A	L45X45X4		3123	2.75	8.59	2	17.18	
304	SP4BDD	323	5 THK.	120	154	39.25	0.73	2	1.46	
305	SP4BDD	323A	5 THK.	120	170	39.25	0.80	2	1.60	
306	SP4BDD	324H	H5 THK.	120	299	39.25	1.41	2	2.82	
307	SP4BDD	324AH	H5 THK.	120	320	39.25	1.51	2	3.02	
308	SP4BDD	325	5 THK.	120	280	39.25	1.32	2	2.64	
309	SP4BDD	325A	5 THK.	120	300	39.25	1.41	2	2.82	
310	SP4BDD	326H	HL50X50X4		2073	3.08	6.38	2	12.76	
311	SP4BDD	327	L45X45X4		3123	2.75	8.59	2	17.18	
312	SP4BDD	327A	L45X45X4		3113	2.75	8.56	2	17.12	
313	SP4BDD	328	5 THK.	120	170	39.25	0.80	2	1.60	
314	SP4BDD	328A	5 THK.	120	154	39.25	0.73	2	1.46	
315	SP4BDD	329H	H5 THK.	120	320	39.25	1.51	2	3.02	
316	SP4BDD	329AH	H5 THK.	120	299	39.25	1.41	2	2.82	
317	SP4BDD	330	5 THK.	120	300	39.25	1.41	2	2.82	
318	SP4BDD	330A	5 THK.	120	280	39.25	1.32	2	2.64	
319	SP4BDD	331H	HL45X45X4		1965	2.75	5.40	2	10.80	
320	SP4BDD	332	5 THK.	120	154	39.25	0.73	2	1.46	
321	SP4BDD	332A	5 THK.	120	170	39.25	0.80	2	1.60	
322	SP4BDD	333H	H5 THK.	120	254	39.25	1.20	2	2.40	
323	SP4BDD	333AH	H5 THK.	120	275	39.25	1.30	2	2.60	
324	SP4BDD	334H	HL45X45X4		1965	2.75	5.40	2	10.80	
325	SP4BDD	335	5 THK.	120	170	39.25	0.80	2	1.60	
326	SP4BDD	335A	5 THK.	120	154	39.25	0.73	2	1.46	
327	SP4BDD	336H	H5 THK.	120	275	39.25	1.30	2	2.60	
328	SP4BDD	336AH	H5 THK.	120	254	39.25	1.20	2	2.40	
329	SP4BDD	340H	HL130X130X15		4000	28.90	115.60	2	231.20	
330	SP4BDD	341H	HL130X130X15		4000	28.90	115.60	2	231.20	
331	SP4BDD	342H	HL130X130X14		386	27.15	10.48	4	41.92	
332	SP4BDD	343H	H10 THK.	105	386	78.50	3.18	8	25.44	
333	SP4BDD	344H	HL120X120X10		6403	18.15	116.21	2	232.42	
334	SP4BDD	345H	HL120X120X10		6403	18.15	116.21	2	232.42	
335	SP4BDD	346H	H8 THK.	179	319	62.80	3.59	2	7.18	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
336	SP4BDD	347H	HL90X90X5		2725	6.97	18.99	2	37.98	
337	SP4BDD	348H	HL90X90X5		2725	6.97	18.99	2	37.98	
338	SP4BDD	349	L45X45X4		2082	2.75	5.73	2	11.46	
339	SP4BDD	350	L45X45X4		1193	2.75	3.28	2	6.56	
340	SP4BDD	351	L45X45X4		1193	2.75	3.28	2	6.56	
341	SP4BDD	352	L45X45X4		1499	2.75	4.12	2	8.24	
342	SP4BDD	353	L45X45X4		1499	2.75	4.12	2	8.24	
343	SP4BDD	354H	H8 THK.	276	427	62.80	7.40	1	7.40	
344	SP4BDD	355H	H8 THK.	276	427	62.80	7.40	1	7.40	
345	SP4BDD	356H	H8 THK.	276	467	62.80	8.09	1	8.09	
346	SP4BDD	357H	H8 THK.	276	467	62.80	8.09	1	8.09	
347	SP4BDD	358	L45X45X4		1536	2.75	4.22	2	8.44	
348	SP4BDD	359	L45X45X4		1536	2.75	4.22	2	8.44	
349	SP4BDD	360	L45X30X4		985	2.27	2.24	2	4.48	
350	SP4BDD	361	L45X30X4		985	2.27	2.24	2	4.48	
351	SP4BDD	362	L45X45X4		1388	2.75	3.82	2	7.64	
352	SP4BDD	363	L45X45X4		1388	2.75	3.82	2	7.64	
353	SP4BDD	364H	H12 THK.	225	608	94.20	12.89	4	51.56	
354	SP4BDD	365	10 THK.	90	218	78.50	1.54	2	3.08	
355	SP4BDD	366	5 THK.	90	218	39.25	0.77	2	1.54	
356	SP4BDD	367	10 THK.	100	132	78.50	1.04	2	2.08	
357	SP4BDD	368	5 THK.	100	132	39.25	0.52	2	1.04	
358	SP4BDD	369H	HL110X110X10		3900	16.58	64.66	2	129.32	
359	SP4BDD	370H	HL110X110X10		3900	16.58	64.66	2	129.32	
360	SP4BDD	371H	HL120X120X8		2585	14.66	37.90	2	75.80	
361	SP4BDD	372H	HL120X120X8		2585	14.66	37.90	2	75.80	
362	SP4BDD	373H	HL100X100X8		306	12.18	3.73	4	14.92	
363	SP4BDD	374H	H6 THK.	90	306	47.10	1.30	8	10.40	
364	SP4BDD	375	2 THK.	90	150	15.70	0.21	8	1.68	
365	SP4BDD	376	6 THK.	116	161	47.10	0.88	2	1.76	
366	SP4BDD	377H	HL75X75X6		2623	6.86	17.99	2	35.98	
367	SP4BDD	378H	HL75X75X6		2623	6.86	17.99	2	35.98	
368	SP4BDD	379	L45X45X4		2016	2.75	5.54	2	11.08	
369	SP4BDD	380	L45X45X4		1248	2.75	3.43	2	6.86	
370	SP4BDD	380A	L45X45X4		1248	2.75	3.43	2	6.86	
371	SP4BDD	381	L45X45X4		1556	2.75	4.28	2	8.56	
372	SP4BDD	382	L45X45X4		1556	2.75	4.28	2	8.56	
373	SP4BDD	383	L45X45X4		1545	2.75	4.25	2	8.50	
374	SP4BDD	384	L45X45X4		1545	2.75	4.25	2	8.50	
375	SP4BDD	385	L45X30X4		972	2.27	2.21	2	4.42	
376	SP4BDD	386	L45X30X4		972	2.27	2.21	2	4.42	
377	SP4BDD	387	L45X45X4		1337	2.75	3.68	2	7.36	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
378	SP4BDD	388	L45X45X4	185	1337	2.75	3.68	2	7.36	
379	SP4BDD	389H	H10 THK.		451	78.50	6.55	4	26.20	
380	SP4BDD	390H	HL110X110X9		6416	14.95	95.92	2	191.84	
381	SP4BDD	391H	HL110X110X9		6416	14.95	95.92	2	191.84	
382	SP4BDD	392H	HL100X100X7	95	346	10.73	3.71	4	14.84	
383	SP4BDD	393H	H6 THK.		346	47.10	1.55	8	12.40	
384	SP4BDD	394	6 THK.		170	47.10	0.68	8	5.44	
385	SP4BDD	395H	HL150X150X12		6720	27.29	183.39	2	366.78	
386	SP4BDD	396H	HL150X150X12	85	6720	27.29	183.39	2	366.78	
387	SP4BDD	397H	HL45X45X4		1161	2.75	3.19	2	6.38	
388	SP4BDD	398H	HL45X45X4		1161	2.75	3.19	2	6.38	
389	SP4BDD	399	L45X45X4		2276	2.75	6.26	2	12.52	
390	SP4BDD	400	L45X45X4	344	2276	2.75	6.26	2	12.52	
391	SP4BDD	401	L45X45X4		2595	2.75	7.14	2	14.28	
392	SP4BDD	402	L45X45X4		2595	2.75	7.14	2	14.28	
393	SP4BDD	403	L45X30X4		1298	2.27	2.95	2	5.90	
394	SP4BDD	404	L45X30X4	90	1298	2.27	2.95	2	5.90	
395	SP4BDD	405H	HL110X110X9		4027	14.95	60.20	2	120.40	
396	SP4BDD	406H	H12 THK.		620	94.20	20.09	4	80.36	
397	SP4BDD	407	8 THK.		250	62.80	1.41	4	5.64	
398	SP4BDD	408	8 THK.	90	185	62.80	1.05	2	2.10	
399	SP4BDD	409H	HL50X50X5		1073	3.79	4.07	2	8.14	
400	SP4BDD	410H	HL70X70X5		4250	5.38	22.87	2	45.74	
401	SP4BDD	411H	HL70X70X5		4250	5.38	22.87	2	45.74	
402	SP4BDD	412	L45X30X4	424	1027	2.27	2.33	2	4.66	
403	SP4BDD	413	L45X30X4		1027	2.27	2.33	2	4.66	
404	SP4BDD	414	L45X30X4		1155	2.27	2.62	2	5.24	
405	SP4BDD	415	L45X30X4		1155	2.27	2.62	2	5.24	
406	SP4BDD	416	L45X30X4	424	912	2.27	2.07	4	8.28	
407	SP4BDD	417H	HL50X50X5		988	3.79	3.74	2	7.48	
408	SP4BDD	418H	HL90X90X5		3710	6.97	25.86	2	51.72	
409	SP4BDD	419H	H8 THK.		451	62.80	12.01	1	12.01	
410	SP4BDD	420H	H8 THK.	432	451	62.80	12.01	1	12.01	
411	SP4BDD	421H	H8 THK.		451	62.80	12.24	1	12.24	
412	SP4BDD	422H	H8 THK.		451	62.80	12.24	1	12.24	
413	SP4BDD	423H	HL120X120X10		6660	18.15	120.88	2	241.76	
414	SP4BDD	424H	HL120X120X10	432	6660	18.15	120.88	2	241.76	
415	SP4BDD	425H	HL45X45X4		1166	2.75	3.21	2	6.42	
416	SP4BDD	426H	HL45X45X4		1166	2.75	3.21	2	6.42	
417	SP4BDD	427	L45X45X4		2319	2.75	6.38	2	12.76	
418	SP4BDD	428	L45X45X4	432	2319	2.75	6.38	2	12.76	
419	SP4BDD	429	L45X45X4		2530	2.75	6.96	2	13.92	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" **BILL OF MATERIALS**

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
420	SP4BDD	430	L45X45X4		2530	2.75	6.96	2	13.92	
421	SP4BDD	431	L45X30X4		1256	2.27	2.85	2	5.70	
422	SP4BDD	432	L45X30X4		1256	2.27	2.85	2	5.70	
423	SP4BDD	N433H	HL75X75X5		4515	5.77	26.05	1	26.05	
424	SP4BDD	N434H	HL75X75X5		4529	5.77	26.13	1	26.13	
425	SP4BDD	435H	H10 THK.	200	468	78.50	7.35	4	29.40	
426	SP4BDD	436	8 THK.	105	147	62.80	0.97	2	1.94	
427	SP4BDD	437H	HL75X75X5		4318	5.77	24.91	2	49.82	
428	SP4BDD	438H	HL75X75X5		4318	5.77	24.91	2	49.82	
429	SP4BDD	439H	HL50X50X5		1018	3.79	3.86	2	7.72	
430	SP4BDD	440	L45X30X4		1068	2.27	2.42	2	4.84	
431	SP4BDD	441	L45X30X4		1068	2.27	2.42	2	4.84	
432	SP4BDD	442	L45X30X4		1142	2.27	2.59	2	5.18	
433	SP4BDD	443	L45X30X4		1142	2.27	2.59	2	5.18	
434	SP4BDD	444	L45X30X4		979	2.27	2.22	4	8.88	
435	SP4BDD	445H	HL50X50X5		1051	3.79	3.98	2	7.96	
436	SP4BDD	446	L90X90X5		3710	6.90	25.60	1	25.60	
437	SP4BDD	446A	L90X90X5		3710	6.90	25.60	1	25.60	
438	SP4BDD	447H	H8 THK.	149	400	62.80	3.74	1	3.74	
439	SP4BDD	447AH	H8 THK.	149	400	62.80	3.74	1	3.74	
440	SP4BDD	448H	H8 THK.	149	400	62.80	3.74	1	3.74	
441	SP4BDD	448AH	H8 THK.	149	400	62.80	3.74	1	3.74	
442	SP4BDD	449H	HL90X90X5		4909	6.97	34.22	1	34.22	
443	SP4BDD	450H	HL90X90X5		4909	6.97	34.22	1	34.22	
444	SP4BDD	451H	H6 THK.	120	425	47.10	2.40	4	9.60	
445	SP4BDD	452H	HL45X45X4		1839	2.75	5.06	2	10.12	
446	SP4BDD	453H	H5 THK.	120	160	39.25	0.75	2	1.50	
447	SP4BDD	454H	H5 THK.	120	165	39.25	0.78	2	1.56	
448	SP4BDD	455H	HL45X45X4		1815	2.75	4.99	2	9.98	
449	SP4BDD	456H	H5 THK.	120	165	39.25	0.78	2	1.56	
450	SP4BDD	457H	H5 THK.	120	160	39.25	0.75	2	1.50	
451	SP4BDD	458H	HL45X45X4		1881	2.75	5.17	2	10.34	
452	SP4BDD	459H	H5 THK.	120	165	39.25	0.78	2	1.56	
453	SP4BDD	460H	H5 THK.	120	165	39.25	0.78	2	1.56	
454	SP4BDD	461H	HL45X45X4		1880	2.75	5.17	2	10.34	
455	SP4BDD	462H	H5 THK.	120	165	39.25	0.78	2	1.56	
456	SP4BDD	463H	H5 THK.	120	165	39.25	0.78	2	1.56	
457	SP4BDD	464H	HL45X45X4		1786	2.75	4.91	2	9.82	
458	SP4BDD	465H	H5 THK.	120	165	39.25	0.78	2	1.56	
459	SP4BDD	466H	H5 THK.	120	180	39.25	0.85	2	1.70	
460	SP4BDD	467H	HL45X45X4		1761	2.75	4.84	2	9.68	
461	SP4BDD	468H	H5 THK.	120	180	39.25	0.85	2	1.70	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
462	SP4BDD	469H	H5 THK.	120	165	39.25	0.78	2	1.56	
463	SP4BDD	470H	HL45X45X4		1551	2.75	4.27	2	8.54	
464	SP4BDD	471H	H5 THK.	120	165	39.25	0.78	2	1.56	
465	SP4BDD	472H	H5 THK.	120	180	39.25	0.85	2	1.70	
466	SP4BDD	473H	HL45X45X4		1583	2.75	4.35	2	8.70	
467	SP4BDD	474H	H5 THK.	120	180	39.25	0.85	2	1.70	
468	SP4BDD	475H	H5 THK.	120	165	39.25	0.78	2	1.56	
BOTTOM CROSS ARM (WITH AUX CROSS ARM - RIGHT TURN)										
469	SP4BDD	N500H	HL120X120X10	299	6184	18.15	112.24	2	224.48	
470	SP4BDD	N501H	HL120X120X10		6184	18.15	112.24	2	224.48	
471	SP4BDD	N502H	HL90X90X5		6478	6.97	45.15	2	90.30	
472	SP4BDD	N503H	HL90X90X5		6478	6.97	45.15	2	90.30	
473	SP4BDD	504H	HL90X90X5		170	6.97	1.18	2	2.36	
474	SP4BDD	505H	HL90X90X5		170	6.97	1.18	2	2.36	
475	SP4BDD	506	L45X45X4		1863	2.75	5.12	4	20.48	
476	SP4BDD	507X	L45X30X4		1512	2.27	3.43	2	6.86	
477	SP4BDD	507	L45X30X4		1512	2.27	3.43	2	6.86	
478	SP4BDD	508X	L45X45X4		1807	2.75	4.97	2	9.94	
479	SP4BDD	508	L45X45X4		1807	2.75	4.97	2	9.94	
480	SP4BDD	509X	L45X30X4		1020	2.27	2.32	2	4.64	
481	SP4BDD	509	L45X30X4		1020	2.27	2.32	2	4.64	
482	SP4BDD	510	L45X45X4		1631	2.75	4.49	2	8.98	
483	SP4BDD	510X	L45X45X4		1631	2.75	4.49	2	8.98	
484	SP4BDD	511X	L45X30X4		528	2.27	1.20	2	2.40	
485	SP4BDD	511	L45X30X4		528	2.27	1.20	2	2.40	
486	SP4BDD	512H	H10 THK.		381	78.50	8.94	2	17.88	
487	SP4BDD	513H	HL90X90X6		300	8.32	2.50	2	5.00	
488	SP4BDD	514H	HL90X90X6		300	8.32	2.50	2	5.00	
489	SP4BDD	515H	HL120X120X10		290	18.15	5.26	2	10.52	
490	SP4BDD	516H	HL120X120X10		290	18.15	5.26	2	10.52	
491	SP4BDD	517	L110X110X10		9006	16.58	149.32	2	298.64	
492	SP4BDD	518	L110X110X10		9006	16.58	149.32	2	298.64	
493	SP4BDD	519H	HL45X45X4		1923	2.75	5.29	2	10.58	
494	SP4BDD	520H	HL45X45X4		1923	2.75	5.29	2	10.58	
495	SP4BDD	521H	HL50X50X4		2452	3.08	7.55	2	15.10	
496	SP4BDD	522H	HL50X50X4		2452	3.08	7.55	2	15.10	
497	SP4BDD	523H	HL60X60X4		3581	3.71	13.29	2	26.58	
498	SP4BDD	524H	HL60X60X4		3581	3.71	13.29	2	26.58	
499	SP4BDD	525H	HL50X50X4		2320	3.08	7.15	4	28.60	
500	SP4BDD	526H	HL45X45X4		1755	2.75	4.83	4	19.32	
501	SP4BDD	527H	HL45X45X4		1139	2.75	3.13	4	12.52	
502	SP4BDD	528H	HL45X45X4		864	2.75	2.38	4	9.52	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
503	SP4BDD	N531H	HL110X110X6		7750	10.20	79.05	1	79.05	
504	SP4BDD	N531AH	HL110X110X6		7750	10.20	79.05	1	79.05	
505	SP4BDD	N531XH	HL110X110X6		7750	10.20	79.05	1	79.05	
506	SP4BDD	N531AXH	HL110X110X6		7750	10.20	79.05	1	79.05	
507	SP4BDD	532H	H6 THK.	120	300	47.10	1.70	2	3.40	
508	SP4BDD	533	5 THK.	50	130	39.25	0.26	16	4.16	
509	SP4BDD	534	32 THK.	415	430	251.20	44.83	2	89.66	
510	SP4BDD	N534	32 THK.	270	430	251.20	29.16	2	58.32	
511	SP4BDD	535	L100X100X6		5200	9.26	48.15	1	48.15	
512	SP4BDD	536	L100X100X6		5200	9.26	48.15	2	96.30	
513	SP4BDD	537	L100X100X6		3995	9.26	36.99	2	73.98	
514	SP4BDD	538	L100X100X6		3995	9.26	36.99	2	73.98	
515	SP4BDD	539	L80X80X6		306	7.36	2.25	4	9.00	
516	SP4BDD	540	6 THK.	80	306	47.10	1.15	8	9.20	
517	SP4BDD	541	L45X45X4		2450	2.75	6.74	2	13.48	
518	SP4BDD	542	L45X45X4		2450	2.75	6.74	2	13.48	
519	SP4BDD	543H	HL60X60X4		3465	3.71	12.86	2	25.72	
520	SP4BDD	544H	HL60X60X4		3465	3.71	12.86	2	25.72	
521	SP4BDD	545H	HL60X60X4		3917	3.71	14.53	2	29.06	
522	SP4BDD	546	L55X55X4		2465	3.40	8.38	2	16.76	
523	SP4BDD	547	L55X55X4		2465	3.40	8.38	2	16.76	
524	SP4BDD	548	8 THK.	124	125	62.80	0.97	4	3.88	
525	SP4BDD	549	8 THK.	155	216	62.80	2.10	4	8.40	
526	SP4BDD	550H	H5 THK.	115	179	39.25	0.81	4	3.24	
527	SP4BDD	551	L45X30X4		296	2.27	0.67	4	2.68	
528	SP4BDD	AU1H	HL110X110X6		2673	10.20	27.26	1	27.26	
529	SP4BDD	AU1AH	HL110X110X6		2673	10.20	27.26	1	27.26	
530	SP4BDD	AU1XH	HL110X110X6		2673	10.20	27.26	1	27.26	
531	SP4BDD	AU1AXH	HL110X110X6		2673	10.20	27.26	1	27.26	
532	SP4BDD	AU2H	HL110X110X6		256	10.20	2.61	2	5.22	
533	SP4BDD	AU2XH	HL110X110X6		256	10.20	2.61	2	5.22	
534	SP4BDD	AU3H	H6 THK.	220	256	47.10	2.65	2	5.30	
535	SP4BDD	AU4H	H8 THK.	188	220	62.80	2.60	2	5.20	
536	SP4BDD	AU5H	HL75X75X5		3400	5.77	19.62	1	19.62	
537	SP4BDD	AU5XH	HL75X75X5		3400	5.77	19.62	1	19.62	
538	SP4BDD	AU6	L45X45X4		1499	2.75	4.12	1	4.12	
539	SP4BDD	AU6X	L45X45X4		1499	2.75	4.12	1	4.12	
540	SP4BDD	AU7	L45X45X4		1177	2.75	3.24	1	3.24	
541	SP4BDD	AU7X	L45X45X4		1177	2.75	3.24	1	3.24	
542	SP4BDD	AU8	L45X45X4		1207	2.75	3.32	1	3.32	
543	SP4BDD	AU8X	L45X45X4		1207	2.75	3.32	1	3.32	
544	SP4BDD	AU9	L45X45X4		649	2.75	1.78	1	1.78	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
545	SP4BDD	AU9X	L45X45X4	209	649	2.75	1.78	1	1.78	
546	SP4BDD	AU10H	H6 THK.		190	47.10	1.87	2	3.74	
547	SP4BDD	AU11H	HL75X75X5		3467	5.77	20.00	1	20.00	
548	SP4BDD	AU11XH	HL75X75X5		3467	5.77	20.00	1	20.00	
549	SP4BDD	AU12	L45X45X4		1157	2.75	3.18	2	6.36	
550	SP4BDD	AU13	L45X45X4	100	398	2.75	1.09	2	2.18	
551	SP4BDD	AU14	L45X45X4		1088	2.75	2.99	2	5.98	
552	SP4BDD	AU15	L45X45X4		265	2.75	0.73	2	1.46	
553	SP4BDD	AU16H	H6 THK.		141	47.10	0.66	2	1.32	
554	SP4BDD	AU17H	H6 THK.	140	192	47.10	1.27	1	1.27	
555	SP4BDD	AU17XH	H6 THK.	140	192	47.10	1.27	1	1.27	
556	SP4BDD	N168H	H14 THK.	457	477	109.90	23.96	1	23.96	
557	SP4BDD	N169H	H14 THK.	457	477	109.90	23.96	1	23.96	
558	SP4BDD	N236H	H14 THK.	285	341	109.90	10.68	1	10.68	
559	SP4BDD	N237H	H14 THK.	285	341	109.90	10.68	1	10.68	
560	SP4BDD	552	L45X30X4		378	2.27	0.86	1	0.86	
561	SP4BDD	552X	L45X30X4		378	2.27	0.86	1	0.86	
562	SP4BDD	553H	HL120X120X10		7186	18.15	130.43	1	130.43	
563	SP4BDD	554H	HL120X120X10		7186	18.15	130.43	1	130.43	
564	SP4BDD	555H	HL110X110X6		7366	10.20	75.13	1	75.13	
565	SP4BDD	556H	HL110X110X6		7366	10.20	75.13	1	75.13	
566	SP4BDD	557	L60X60X4		2510	3.71	9.31	1	9.31	
567	SP4BDD	557X	L60X60X4		2510	3.71	9.31	1	9.31	
568	SP4BDD	558	L45X30X4		1351	2.27	3.07	1	3.07	
569	SP4BDD	558X	L45X30X4		1351	2.27	3.07	1	3.07	
570	SP4BDD	559	L55X55X4	185	2544	3.40	8.65	1	8.65	
571	SP4BDD	559X	L55X55X4		2544	3.40	8.65	1	8.65	
572	SP4BDD	560	L45X45X4		692	2.75	1.90	1	1.90	
573	SP4BDD	560X	L45X45X4		692	2.75	1.90	1	1.90	
574	SP4BDD	561H	H10 THK.		255	78.50	3.70	2	7.40	
575	SP4BDD	562H	HL120X120X10		290	18.15	5.26	1	5.26	
576	SP4BDD	563H	HL120X120X10		290	18.15	5.26	1	5.26	
577	SP4BDD	564H	HL60X60X4		3203	3.71	11.88	1	11.88	
578	SP4BDD	565H	HL60X60X4		3203	3.71	11.88	1	11.88	
579	SP4BDD	566H	HL60X60X4		4113	3.71	15.26	1	15.26	
580	SP4BDD	567H	HL60X60X4		4113	3.71	15.26	1	15.26	
581	SP4BDD	568H	HL55X55X4		2259	3.40	7.68	1	7.68	
582	SP4BDD	571H	HL90X90X6		1000	8.32	8.32	1	8.32	
583	SP4BDD	572	32 THK.	510	530	251.20	67.90	1	67.90	
584	SP4BDD	573	6 THK.	130	165	47.10	1.01	1	1.01	
585	SP4BDD	574	6 THK.	130	165	47.10	1.01	1	1.01	
586	SP4BDD	575	L55X55X4		3002	3.40	10.21	1	10.21	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
587	SP4BDD	576	L55X55X4	80	3002	3.40	10.21	1	10.21	
588	SP4BDD	577	L50X50X4		4194	3.08	12.92	1	12.92	
589	SP4BDD	578	L50X50X4		4194	3.08	12.92	1	12.92	
590	SP4BDD	579H	HL50X50X4		2256	3.08	6.95	1	6.95	
591	SP4BDD	582	L45X45X4		373	2.75	1.03	1	1.03	
592	SP4BDD	583	L100X100X6		5300	9.26	49.08	1	49.08	
593	SP4BDD	584	L100X100X6		5300	9.26	49.08	1	49.08	
594	SP4BDD	585	L100X100X6		4214	9.26	39.02	1	39.02	
595	SP4BDD	586	L100X100X6		4214	9.26	39.02	1	39.02	
596	SP4BDD	587	L80X80X6		306	7.36	2.25	2	4.50	
597	SP4BDD	588	6 THK.	301	306	47.10	1.15	4	4.60	
598	SP4BDD	589H	HL75X75X5		4940	5.77	28.50	2	57.00	
599	SP4BDD	590H	HL75X75X5		4940	5.77	28.50	2	57.00	
600	SP4BDD	591	8 THK.		301	62.80	5.69	4	22.76	
601	SP4BDD	592H	HL45X45X4		1754	2.75	4.82	2	9.64	
602	SP4BDD	593H	HL45X45X4		1754	2.75	4.82	2	9.64	
603	SP4BDD	594H	HL45X45X4		1874	2.75	5.15	1	5.15	
604	SP4BDD	594AH	HL45X45X4		1874	2.75	5.15	1	5.15	
605	SP4BDD	595H	HL45X45X4		1874	2.75	5.15	1	5.15	
606	SP4BDD	595AH	HL45X45X4		1874	2.75	5.15	1	5.15	
607	SP4BDD	596	5 THK.	100	142	39.25	0.56	4	2.24	
608	SP4BDD	597	5 THK.	50	142	39.25	0.28	6	1.68	
609	SP4BDD	598H	H8 THK.	175	200	62.80	2.20	1	2.20	
610	SP4BDD	599H	H8 THK.	200	200	62.80	2.51	1	2.51	

MIDDLE CROSS ARM (WITH AUX CROSS ARM - RIGHT TURN)

611	SP4BDD	N620H	HL110X110X10		5484	16.58	90.92	1	90.92	
612	SP4BDD	N621H	HL110X110X10		5484	16.58	90.92	1	90.92	
613	SP4BDD	N622H	HL80X80X5		5575	6.10	34.01	1	34.01	
614	SP4BDD	N623H	HL80X80X5		5575	6.10	34.01	1	34.01	
615	SP4BDD	624H	HL90X90X5		155	6.97	1.08	1	1.08	
616	SP4BDD	625H	HL90X90X5		155	6.97	1.08	1	1.08	
617	SP4BDD	626	L45X45X4		1896	2.75	5.21	1	5.21	
618	SP4BDD	626X	L45X45X4		1896	2.75	5.21	1	5.21	
619	SP4BDD	627	L45X45X4		1592	2.75	4.38	2	8.76	
620	SP4BDD	628	L45X45X4		1616	2.75	4.44	1	4.44	
621	SP4BDD	628X	L45X45X4	250	1616	2.75	4.44	1	4.44	
622	SP4BDD	629	L45X30X4		1075	2.27	2.44	2	4.88	
623	SP4BDD	630X	L45X30X4		1378	2.27	3.13	1	3.13	
624	SP4BDD	630	L45X30X4		1378	2.27	3.13	1	3.13	
625	SP4BDD	631	L45X30X4		558	2.27	1.27	1	1.27	
626	SP4BDD	631X	L45X30X4		558	2.27	1.27	1	1.27	
627	SP4BDD	632H	H10 THK.		290	78.50	5.69	1	5.69	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
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OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" **BILL OF MATERIALS**

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
628	SP4BDD	633H	HL110X110X8		7292	13.40	97.71	1	97.71	
629	SP4BDD	634H	HL110X110X8		7292	13.40	97.71	1	97.71	
630	SP4BDD	635H	HL45X45X4		1398	2.75	3.84	1	3.84	
631	SP4BDD	636H	HL45X45X4		1398	2.75	3.84	1	3.84	
632	SP4BDD	637H	HL45X45X4		1868	2.75	5.14	1	5.14	
633	SP4BDD	638H	HL45X45X4		1868	2.75	5.14	1	5.14	
634	SP4BDD	639H	HL60X60X4		2866	3.71	10.63	1	10.63	
635	SP4BDD	640H	HL60X60X4		2866	3.71	10.63	1	10.63	
636	SP4BDD	641H	HL45X45X4		1910	2.75	5.25	2	10.50	
637	SP4BDD	642H	HL45X45X4		1454	2.75	4.00	2	8.00	
638	SP4BDD	643	L45X45X4		925	2.75	2.54	2	5.08	
639	SP4BDD	644	L45X30X4		309	2.27	0.70	2	1.40	
640	SP4BDD	647	6 THK.	120	240	47.10	1.36	2	2.72	
641	SP4BDD	648	5 THK.	50	140	39.25	0.27	12	3.24	
642	SP4BDD	649	32 THK.	390	425	251.20	41.64	1	41.64	
643	SP4BDD	650H	HL90X90X5		7579	6.97	52.83	1	52.83	
644	SP4BDD	651H	HL90X90X5		7579	6.97	52.83	1	52.83	
645	SP4BDD	652	L45X45X4		2033	2.75	5.59	1	5.59	
646	SP4BDD	653	L45X45X4		2033	2.75	5.59	1	5.59	
647	SP4BDD	654H	HL55X55X4		2737	3.40	9.31	1	9.31	
648	SP4BDD	655H	HL55X55X4		2737	3.40	9.31	1	9.31	
649	SP4BDD	656H	HL60X60X4		2821	3.71	10.47	1	10.47	
650	SP4BDD	657	L45X45X4		2042	2.75	5.62	1	5.62	
651	SP4BDD	658	L45X45X4		2042	2.75	5.62	1	5.62	
652	SP4BDD	659H	H6 THK.	121	125	47.10	0.71	2	1.42	
653	SP4BDD	660H	H6 THK.	170	188	47.10	1.51	2	3.02	
654	SP4BDD	AU18H	HL90X90X5		7864	6.97	54.81	1	54.81	
655	SP4BDD	AU19H	HL90X90X5		7864	6.97	54.81	1	54.81	
656	SP4BDD	AU20	32 THK.	270	390	251.20	26.45	1	26.45	
657	SP4BDD	AU21H	H10 THK.	443	490	78.50	17.04	1	17.04	
658	SP4BDD	AU22H	HL75X75X5		2272	5.77	13.11	1	13.11	
659	SP4BDD	AU22XH	HL75X75X5		2272	5.77	13.11	1	13.11	
660	SP4BDD	AU23	L45X45X4		1120	2.75	3.08	1	3.08	
661	SP4BDD	AU23X	L45X45X4		1120	2.75	3.08	1	3.08	
662	SP4BDD	AU24	L45X45X4		913	2.75	2.51	1	2.51	
663	SP4BDD	AU24X	L45X45X4		913	2.75	2.51	1	2.51	
664	SP4BDD	AU25	L45X45X4		778	2.75	2.14	1	2.14	
665	SP4BDD	AU25X	L45X45X4		778	2.75	2.14	1	2.14	
666	SP4BDD	AU26	L45X45X4		521	2.75	1.43	1	1.43	
667	SP4BDD	AU26X	L45X45X4		521	2.75	1.43	1	1.43	
668	SP4BDD	AU27H	H8 THK.	140	196	62.80	1.72	2	3.44	
669	SP4BDD	AU28H	H6 THK.	173	180	47.10	1.47	2	2.94	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
670	SP4BDD	AU29H	HL75X75X5	100	2359	5.77	13.61	1	13.61	
671	SP4BDD	AU29XH	HL75X75X5		2359	5.77	13.61	1	13.61	
672	SP4BDD	AU30	L45X45X4		789	2.75	2.17	2	4.34	
673	SP4BDD	AU31	L45X45X4		397	2.75	1.09	2	2.18	
674	SP4BDD	AU32	L45X45X4		704	2.75	1.94	2	3.88	
675	SP4BDD	AU33	L45X45X4		271	2.75	0.75	2	1.50	
676	SP4BDD	AU34H	H6 THK.		144	47.10	0.68	2	1.36	
677	SP4BDD	AU35H	H6 THK.		178	47.10	1.17	1	1.17	
678	SP4BDD	AU35XH	H6 THK.		178	47.10	1.17	1	1.17	
679	SP4BDD	AU36H	HL110X110X10		5242	16.58	86.91	1	86.91	
680	SP4BDD	AU37H	HL110X110X10	289	5242	16.58	86.91	1	86.91	
681	SP4BDD	AU38H	HL80X80X5		5755	6.10	35.11	1	35.11	
682	SP4BDD	AU39H	HL80X80X5		5755	6.10	35.11	1	35.11	
683	SP4BDD	AU40H	HL180X180X16		280	43.21	12.10	1	12.10	
684	SP4BDD	AU41H	HL180X180X16		280	43.21	12.10	1	12.10	
685	SP4BDD	AU42H	H14 THK.		329	109.90	10.45	2	20.90	
686	SP4BDD	AU43H	HL180X180X16		276	43.21	11.93	1	11.93	
687	SP4BDD	AU44H	HL180X180X16		276	43.21	11.93	1	11.93	
688	SP4BDD	AU45H	HL90X90X5		178	6.97	1.24	1	1.24	
689	SP4BDD	AU46H	HL90X90X5		178	6.97	1.24	1	1.24	
690	SP4BDD	AU47	L45X45X4		1753	2.75	4.82	1	4.82	
691	SP4BDD	AU47X	L45X45X4		1753	2.75	4.82	1	4.82	
692	SP4BDD	AU48	L45X45X4		1599	2.75	4.40	2	8.80	
693	SP4BDD	AU49	L45X45X4		1655	2.75	4.55	1	4.55	
694	SP4BDD	AU49X	L45X45X4		1655	2.75	4.55	1	4.55	
695	SP4BDD	AU50	L45X30X4		1080	2.27	2.45	2	4.90	
696	SP4BDD	AU51	L45X30X4		1425	2.27	3.23	1	3.23	
697	SP4BDD	AU51X	L45X30X4		1425	2.27	3.23	1	3.23	
698	SP4BDD	AU52	L45X30X4		561	2.27	1.27	1	1.27	
699	SP4BDD	AU52X	L45X30X4		561	2.27	1.27	1	1.27	
700	SP4BDD	AU53	L45X30X4		301	2.27	0.68	2	1.36	
701	SP4BDD	AU54H	HL110X110X8		7422	13.40	99.45	1	99.45	
702	SP4BDD	AU55H	HL110X110X8		7422	13.40	99.45	1	99.45	
703	SP4BDD	AU56H	HL45X45X4		1395	2.75	3.84	1	3.84	
704	SP4BDD	AU57H	HL45X45X4		1395	2.75	3.84	1	3.84	
705	SP4BDD	AU58H	HL45X45X4		1944	2.75	5.35	1	5.35	
706	SP4BDD	AU59H	HL45X45X4		1944	2.75	5.35	1	5.35	
707	SP4BDD	AU60H	HL60X60X4		2866	3.71	10.63	1	10.63	
708	SP4BDD	AU61H	HL60X60X4		2866	3.71	10.63	1	10.63	
709	SP4BDD	AU62H	HL45X45X4		1899	2.75	5.22	2	10.44	
710	SP4BDD	AU63H	HL45X45X4		1395	2.75	3.84	2	7.68	
711	SP4BDD	AU64	L45X45X4		904	2.75	2.49	2	4.98	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
712	SP4BDD	AU65	32 THK.	390	425	251.20	41.64	1	41.64	
713	SP4BDD	AU66	32 THK.	270	390	251.20	26.45	1	26.45	
714	SP4BDD	AU67H	HL90X90X5		7864	6.97	54.81	1	54.81	
715	SP4BDD	AU68H	HL90X90X5		7864	6.97	54.81	1	54.81	
716	SP4BDD	AU69H	H10 THK.	373	460	78.50	13.47	1	13.47	
717	SP4BDD	AU70H	HL90X90X5		7744	6.97	53.98	1	53.98	
718	SP4BDD	AU71H	HL90X90X5		7744	6.97	53.98	1	53.98	
719	SP4BDD	AU72H	HL55X55X4		2724	3.40	9.26	1	9.26	
720	SP4BDD	AU73H	HL55X55X4		2724	3.40	9.26	1	9.26	
721	SP4BDD	AU74	L45X45X4		1959	2.75	5.39	1	5.39	
722	SP4BDD	AU75	L45X45X4		1959	2.75	5.39	1	5.39	
723	SP4BDD	AU76H	HL60X60X4		2768	3.71	10.27	1	10.27	
724	SP4BDD	AU77	L45X45X4		2042	2.75	5.62	1	5.62	
725	SP4BDD	AU78	L45X45X4		2042	2.75	5.62	1	5.62	
726	SP4BDD	AU79H	H6 THK.	170	182	47.10	1.46	2	2.92	
727	SP4BDD	AU80H	H6 THK.	123	125	47.10	0.72	2	1.44	
728	SP4BDD	645	L45X30X4		395	2.27	0.90	1	0.90	
729	SP4BDD	645X	L45X30X4		395	2.27	0.90	1	0.90	
730	SP4BDD	663H	HL110X110X10		6515	16.58	108.02	1	108.02	
731	SP4BDD	N664H	HL110X110X10		6515	16.58	108.02	1	108.02	
732	SP4BDD	665H	HL100X100X6		6450	9.26	59.73	1	59.73	
733	SP4BDD	666H	HL100X100X6		6450	9.26	59.73	1	59.73	
734	SP4BDD	667	L50X50X4		2372	3.08	7.31	1	7.31	
735	SP4BDD	667X	L50X50X4		2372	3.08	7.31	1	7.31	
736	SP4BDD	668	L45X45X4		1419	2.75	3.90	1	3.90	
737	SP4BDD	668X	L45X45X4		1419	2.75	3.90	1	3.90	
738	SP4BDD	669	L45X45X4		2182	2.75	6.00	1	6.00	
739	SP4BDD	669X	L45X45X4		2182	2.75	6.00	1	6.00	
740	SP4BDD	670	L45X45X4		726	2.75	2.00	1	2.00	
741	SP4BDD	670X	L45X45X4		726	2.75	2.00	1	2.00	
742	SP4BDD	671H	H10 THK.	180	247	78.50	3.49	1	3.49	
743	SP4BDD	672H	HL55X55X4		2523	3.40	8.58	1	8.58	
744	SP4BDD	673H	HL55X55X4		2523	3.40	8.58	1	8.58	
745	SP4BDD	674H	HL50X50X4		3334	3.08	10.27	1	10.27	
746	SP4BDD	675H	HL50X50X4		3334	3.08	10.27	1	10.27	
747	SP4BDD	676H	HL45X45X4		1800	2.75	4.95	1	4.95	
748	SP4BDD	680H	HL90X90X6		912	8.32	7.59	1	7.59	
749	SP4BDD	681	32 THK.	460	530	251.20	61.24	1	61.24	
750	SP4BDD	682	8 THK.	130	165	62.80	1.35	1	1.35	
751	SP4BDD	683	8 THK.	130	165	62.80	1.35	1	1.35	
752	SP4BDD	684	L45X45X4		2522	2.75	6.94	1	6.94	
753	SP4BDD	685	L45X45X4		2522	2.75	6.94	1	6.94	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
754	SP4BDD	686	L45X45X4		3355	2.75	9.23	1	9.23	
755	SP4BDD	687	L45X45X4		3355	2.75	9.23	1	9.23	
756	SP4BDD	688H	HL45X45X4		1798	2.75	4.94	1	4.94	
757	SP4BDD	691	L45X45X4		340	2.75	0.94	1	0.94	
758	SP4BDD	692	L80X80X5		7675	6.17	47.35	1	47.35	
759	SP4BDD	692X	L80X80X5		7675	6.17	47.35	1	47.35	
760	SP4BDD	693H	HL65X65X5		3908	4.98	19.46	2	38.92	
761	SP4BDD	694H	HL65X65X5		3908	4.98	19.46	2	38.92	
762	SP4BDD	695H	HL45X45X4		1389	2.75	3.82	4	15.28	
763	SP4BDD	696H	H6 THK.	140	168	47.10	1.11	1	1.11	
764	SP4BDD	697H	H6 THK.	140	263	47.10	1.73	1	1.73	
765	SP4BDD	698H	HL75X75X5		140	5.77	0.81	2	1.62	

TOP CROSS ARM (WITH AUX CROSS ARM - RIGHT TURN)

766	SP4BDD	N710H	HL120X120X9		5457	16.50	90.04	1	90.04	
767	SP4BDD	N711H	HL120X120X9		5457	16.50	90.04	1	90.04	
768	SP4BDD	N712H	HL90X90X5		5462	6.97	38.07	1	38.07	
769	SP4BDD	N713H	HL90X90X5		5462	6.97	38.07	1	38.07	
770	SP4BDD	714H	HL90X90X5		170	6.97	1.18	1	1.18	
771	SP4BDD	715H	HL90X90X5		170	6.97	1.18	1	1.18	
772	SP4BDD	716X	L45X45X4		1827	2.75	5.02	1	5.02	
773	SP4BDD	716	L45X45X4		1827	2.75	5.02	1	5.02	
774	SP4BDD	717	L45X45X4		1512	2.75	4.16	2	8.32	
775	SP4BDD	718X	L45X45X4		1567	2.75	4.31	1	4.31	
776	SP4BDD	718	L45X45X4	227	1567	2.75	4.31	1	4.31	
777	SP4BDD	719	L45X30X4		1020	2.27	2.32	2	4.64	
778	SP4BDD	720X	L45X30X4		1349	2.27	3.06	1	3.06	
779	SP4BDD	720	L45X30X4		1349	2.27	3.06	1	3.06	
780	SP4BDD	721X	L45X30X4		528	2.27	1.20	1	1.20	
781	SP4BDD	721	L45X30X4		528	2.27	1.20	1	1.20	
782	SP4BDD	722H	H10 THK.		295	78.50	5.26	1	5.26	
783	SP4BDD	723H	HL110X110X8		6262	13.40	83.91	1	83.91	
784	SP4BDD	724H	HL110X110X8		6262	13.40	83.91	1	83.91	
785	SP4BDD	725	L45X45X4		1090	2.75	3.00	1	3.00	
786	SP4BDD	726	L45X45X4		1090	2.75	3.00	1	3.00	
787	SP4BDD	727H	HL45X45X4		1617	2.75	4.45	1	4.45	
788	SP4BDD	728H	HL45X45X4		1617	2.75	4.45	1	4.45	
789	SP4BDD	729H	HL50X50X4		2147	3.08	6.61	1	6.61	
790	SP4BDD	730H	HL50X50X4		2147	3.08	6.61	1	6.61	
791	SP4BDD	731H	HL45X45X4		1631	2.75	4.49	2	8.98	
792	SP4BDD	732	L45X45X4		1110	2.75	3.05	2	6.10	
793	SP4BDD	733	L45X45X4		815	2.75	2.24	2	4.48	
794	SP4BDD	734	L45X30X4		296	2.27	0.67	2	1.34	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
795	SP4BDD	737	6 THK.	120	215	47.10	1.22	2	2.44	
796	SP4BDD	738	5 THK.	50	130	39.25	0.26	8	2.08	
797	SP4BDD	739	32 THK.	355	415	251.20	37.01	1	37.01	
798	SP4BDD	740H	HL90X90X5		6489	6.97	45.23	1	45.23	
799	SP4BDD	741H	HL90X90X5		6489	6.97	45.23	1	45.23	
800	SP4BDD	742	L45X45X4		1759	2.75	4.84	1	4.84	
801	SP4BDD	743	L45X45X4		1759	2.75	4.84	1	4.84	
802	SP4BDD	744H	HL45X45X4		2019	2.75	5.55	1	5.55	
803	SP4BDD	745H	HL45X45X4		2019	2.75	5.55	1	5.55	
804	SP4BDD	746H	HL45X45X4		2049	2.75	5.63	1	5.63	
805	SP4BDD	747	L45X45X4		1798	2.75	4.94	1	4.94	
806	SP4BDD	748	L45X45X4		1798	2.75	4.94	1	4.94	
807	SP4BDD	749H	H6 THK.	125	125	47.10	0.74	2	1.48	
808	SP4BDD	750H	H6 THK.	155	215	47.10	1.57	2	3.14	
809	SP4BDD	AU85H	HL70X70X5		6094	5.38	32.79	1	32.79	
810	SP4BDD	AU86H	HL70X70X5		6094	5.38	32.79	1	32.79	
811	SP4BDD	AU87	32 THK.	270	355	251.20	24.08	1	24.08	
812	SP4BDD	AU88H	H10 THK.	431	480	78.50	16.24	1	16.24	
813	SP4BDD	AU89H	H10 THK.	366	454	78.50	13.04	1	13.04	
814	SP4BDD	AU89PH	H8 THK.	140	232	62.80	2.04	2	4.08	
815	SP4BDD	AU90H	HL75X75X5		2024	5.77	11.68	1	11.68	
816	SP4BDD	AU90XH	HL75X75X5		2024	5.77	11.68	1	11.68	
817	SP4BDD	AU91	L45X45X4		1065	2.75	2.93	1	2.93	
818	SP4BDD	AU91X	L45X45X4		1065	2.75	2.93	1	2.93	
819	SP4BDD	AU92	L45X45X4		934	2.75	2.57	1	2.57	
820	SP4BDD	AU92X	L45X45X4		934	2.75	2.57	1	2.57	
821	SP4BDD	AU93	L45X45X4		733	2.75	2.02	1	2.02	
822	SP4BDD	AU93X	L45X45X4		733	2.75	2.02	1	2.02	
823	SP4BDD	AU94	L45X45X4		564	2.75	1.55	1	1.55	
824	SP4BDD	AU94X	L45X45X4		564	2.75	1.55	1	1.55	
825	SP4BDD	AU95H	H6 THK.	188	190	47.10	1.68	2	3.36	
826	SP4BDD	AU96H	HL75X75X5		2112	5.77	12.19	1	12.19	
827	SP4BDD	AU96XH	HL75X75X5		2112	5.77	12.19	1	12.19	
828	SP4BDD	AU97	L45X45X4		711	2.75	1.96	1	1.96	
829	SP4BDD	AU97X	L45X45X4		700	2.75	1.93	1	1.93	
830	SP4BDD	AU98	L45X45X4		383	2.75	1.05	1	1.05	
831	SP4BDD	AU98X	L45X45X4		353	2.75	0.97	1	0.97	
832	SP4BDD	AU99	L45X45X4		625	2.75	1.72	1	1.72	
833	SP4BDD	AU99X	L45X45X4		625	2.75	1.72	1	1.72	
834	SP4BDD	AU100	L45X45X4		264	2.75	0.73	1	0.73	
835	SP4BDD	AU100X	L45X45X4		245	2.75	0.67	1	0.67	
836	SP4BDD	AU101H	H6 THK.	100	144	47.10	0.68	2	1.36	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
837	SP4BDD	AU102H	H6 THK.	149	188	47.10	1.32	1	1.32	
838	SP4BDD	AU102XH	H6 THK.	149	188	47.10	1.32	1	1.32	
839	SP4BDD	AU103H	HL70X70X5		6094	5.38	32.79	1	32.79	
840	SP4BDD	AU104H	HL70X70X5		6094	5.38	32.79	1	32.79	
841	SP4BDD	AU103AH	HL120X120X9		5967	16.50	98.46	1	98.46	
842	SP4BDD	AU104AH	HL120X120X9		5967	16.50	98.46	1	98.46	
843	SP4BDD	AU105	32 THK.	355	415	251.20	37.01	1	37.01	
844	SP4BDD	AU106	32 THK.	270	355	251.20	24.08	1	24.08	
845	SP4BDD	AU105AH	HL90X90X5		6435	6.97	44.85	1	44.85	
846	SP4BDD	AU106AH	HL90X90X5		6435	6.97	44.85	1	44.85	
847	SP4BDD	AU107H	HL110X110X9		155	14.95	2.32	1	2.32	
848	SP4BDD	AU108H	HL110X110X9		155	14.95	2.32	1	2.32	
849	SP4BDD	AU109H	H10 THK.	266	303	78.50	6.33	2	12.66	
850	SP4BDD	AU110H	HL110X110X9		269	14.95	4.02	1	4.02	
851	SP4BDD	AU111H	HL110X110X9		269	14.95	4.02	1	4.02	
852	SP4BDD	AU112H	H8 THK.	186	225	62.80	2.63	2	5.26	
853	SP4BDD	AU113H	HL90X90X5		185	6.97	1.29	1	1.29	
854	SP4BDD	AU114H	HL90X90X5		185	6.97	1.29	1	1.29	
855	SP4BDD	AU115	L45X45X4		1851	2.75	5.09	1	5.09	
856	SP4BDD	AU115X	L45X45X4		1851	2.75	5.09	1	5.09	
857	SP4BDD	AU116	L45X45X4		1513	2.75	4.16	2	8.32	
858	SP4BDD	AU117	L45X45X4		1767	2.75	4.86	1	4.86	
859	SP4BDD	AU117X	L45X45X4		1767	2.75	4.86	1	4.86	
860	SP4BDD	AU118	L45X30X4		1021	2.27	2.32	2	4.64	
861	SP4BDD	AU119	L45X30X4		1587	2.27	3.60	1	3.60	
862	SP4BDD	AU119X	L45X30X4		1587	2.27	3.60	1	3.60	
863	SP4BDD	AU120	L45X30X4		528	2.27	1.20	1	1.20	
864	SP4BDD	AU120X	L45X30X4		528	2.27	1.20	1	1.20	
865	SP4BDD	AU121	L45X30X4		282	2.27	0.64	2	1.28	
866	SP4BDD	AU122H	HL90X90X5		7291	6.97	50.82	1	50.82	
867	SP4BDD	AU123H	HL90X90X5		7291	6.97	50.82	1	50.82	
868	SP4BDD	AU124H	H6 THK.	125	139	47.10	0.82	2	1.64	
869	SP4BDD	AU125H	H6 THK.	155	210	47.10	1.53	2	3.06	
870	SP4BDD	AU126	L45X45X4		1954	2.75	5.37	1	5.37	
871	SP4BDD	AU127	L45X45X4		1954	2.75	5.37	1	5.37	
872	SP4BDD	AU128H	HL45X45X4		2023	2.75	5.56	1	5.56	
873	SP4BDD	AU129H	HL45X45X4		2023	2.75	5.56	1	5.56	
874	SP4BDD	AU130H	HL45X45X4		2038	2.75	5.60	1	5.60	
875	SP4BDD	AU131	L45X45X4		1982	2.75	5.45	1	5.45	
876	SP4BDD	AU132	L45X45X4		1982	2.75	5.45	1	5.45	
877	SP4BDD	AU133H	HL110X110X8		7014	13.40	93.99	1	93.99	
878	SP4BDD	AU134H	HL110X110X8		7014	13.40	93.99	1	93.99	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
879	SP4BDD	AU135	L45X45X4	162	1131	2.75	3.11	1	3.11	
880	SP4BDD	AU136	L45X45X4		1131	2.75	3.11	1	3.11	
881	SP4BDD	AU137H	HL45X45X4		1808	2.75	4.97	1	4.97	
882	SP4BDD	AU138H	HL45X45X4		1808	2.75	4.97	1	4.97	
883	SP4BDD	AU139H	HL50X50X4		2151	3.08	6.63	1	6.63	
884	SP4BDD	AU140H	HL50X50X4		2151	3.08	6.63	1	6.63	
885	SP4BDD	AU141H	HL45X45X4		1811	2.75	4.98	2	9.96	
886	SP4BDD	AU142	L45X45X4		1131	2.75	3.11	2	6.22	
887	SP4BDD	AU143	L45X45X4		917	2.75	2.52	2	5.04	
888	SP4BDD	735	L45X30X4		378	2.27	0.86	1	0.86	
889	SP4BDD	735X	L45X30X4		378	2.27	0.86	1	0.86	
890	SP4BDD	753H	HL120X120X10		6253	18.15	113.49	1	113.49	
891	SP4BDD	N754H	HL120X120X10		6253	18.15	113.49	1	113.49	
892	SP4BDD	755H	HL110X110X8		6140	13.40	82.28	1	82.28	
893	SP4BDD	756H	HL110X110X8		6140	13.40	82.28	1	82.28	
894	SP4BDD	757	L50X50X4		2240	3.08	6.90	1	6.90	
895	SP4BDD	758	L50X50X4		2240	3.08	6.90	1	6.90	
896	SP4BDD	759	L45X45X4		1352	2.75	3.72	1	3.72	
897	SP4BDD	759X	L45X45X4		1352	2.75	3.72	1	3.72	
898	SP4BDD	760	L45X45X4		2060	2.75	5.67	1	5.67	
899	SP4BDD	761	L45X45X4		2060	2.75	5.67	1	5.67	
900	SP4BDD	762	L45X30X4		693	2.27	1.57	1	1.57	
901	SP4BDD	763	L45X30X4		693	2.27	1.57	1	1.57	
902	SP4BDD	764H	H10 THK.	460	255	78.50	3.24	1	3.24	
903	SP4BDD	765H	HL50X50X4		2207	3.08	6.80	1	6.80	
904	SP4BDD	766H	HL50X50X4		2207	3.08	6.80	1	6.80	
905	SP4BDD	767H	HL45X45X4		2753	2.75	7.57	1	7.57	
906	SP4BDD	768H	HL45X45X4		2753	2.75	7.57	1	7.57	
907	SP4BDD	769	L45X45X4		1359	2.75	3.74	1	3.74	
908	SP4BDD	773H	HL90X90X6		737	8.32	6.13	1	6.13	
909	SP4BDD	774	32 THK.		530	251.20	61.24	1	61.24	
910	SP4BDD	775	6 THK.		210	47.10	1.88	1	1.88	
911	SP4BDD	776	L45X45X4		2305	2.75	6.34	1	6.34	
912	SP4BDD	777	L45X45X4	139	2305	2.75	6.34	1	6.34	
913	SP4BDD	778	L45X45X4		2781	2.75	7.65	1	7.65	
914	SP4BDD	779	L45X45X4		2781	2.75	7.65	1	7.65	
915	SP4BDD	780	L45X45X4		1327	2.75	3.65	1	3.65	
916	SP4BDD	783	L45X45X4		288	2.75	0.79	1	0.79	
917	SP4BDD	784X	L70X70X5		5639	5.38	30.34	1	30.34	
918	SP4BDD	784	L70X70X5		5639	5.38	30.34	1	30.34	
919	SP4BDD	785	6 THK.		140	47.10	0.92	4	3.68	
920	SP4BDD	786X	L60X60X5		2879	4.58	13.19	2	26.38	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
921	SP4BDD	786	L60X60X5		2879	4.58	13.19	2	26.38	
922	SP4BDD	787	L45X45X4		1032	2.75	2.84	4	11.36	
923	SP4BDD	788	6 THK.	140	162	47.10	1.07	1	1.07	
924	SP4BDD	789H	H6 THK.	140	234	47.10	1.54	1	1.54	
925	SP4BDD	790H	HL75X75X5		140	5.77	0.81	2	1.62	
PEAK										
926	SP4BDD	800	L70X70X5		6238	5.38	33.56	1	33.56	
927	SP4BDD	801	L70X70X5		6238	5.38	33.56	1	33.56	
928	SP4BDD	802	L70X70X5		6418	5.38	34.53	1	34.53	
929	SP4BDD	803	L70X70X5		6418	5.38	34.53	1	34.53	
930	SP4BDD	804	L70X70X5		5902	5.38	31.75	1	31.75	
931	SP4BDD	805	L70X70X5		5902	5.38	31.75	1	31.75	
932	SP4BDD	806	L70X70X5		6204	5.38	33.38	1	33.38	
933	SP4BDD	807	L70X70X5		6204	5.38	33.38	1	33.38	
934	SP4BDD	808H	HL100X100X7		257	10.73	2.76	2	5.52	
935	SP4BDD	809H	H8 THK.	282	343	62.80	6.07	2	12.14	
936	SP4BDD	810H	HL70X70X5		2486	5.38	13.37	2	26.74	
937	SP4BDD	810XH	HL70X70X5		2486	5.38	13.37	2	26.74	
938	SP4BDD	811H	HL45X45X4		2492	2.75	6.85	1	6.85	
939	SP4BDD	812H	HL45X45X4		2492	2.75	6.85	1	6.85	
940	SP4BDD	813	L45X30X4		1155	2.27	2.62	2	5.24	
941	SP4BDD	814	L45X45X4		2017	2.75	5.55	1	5.55	
942	SP4BDD	815	L45X45X4		2017	2.75	5.55	1	5.55	
943	SP4BDD	816	5 THK.	105	124	39.25	0.51	2	1.02	
944	SP4BDD	817	L45X45X4		2342	2.75	6.44	1	6.44	
945	SP4BDD	817X	L45X45X4		2342	2.75	6.44	1	6.44	
946	SP4BDD	818	5 THK.	105	151	39.25	0.62	2	1.24	
947	SP4BDD	819	L45X30X4		1379	2.27	3.13	1	3.13	
948	SP4BDD	820	L45X30X4		1379	2.27	3.13	1	3.13	
949	SP4BDD	821	L45X45X4		1787	2.75	4.91	1	4.91	
950	SP4BDD	821X	L45X45X4		1787	2.75	4.91	1	4.91	
951	SP4BDD	822	L45X30X4		742	2.27	1.68	1	1.68	
952	SP4BDD	823	L45X30X4		742	2.27	1.68	1	1.68	
953	SP4BDD	824H	H8 THK.	247	448	62.80	6.95	1	6.95	
954	SP4BDD	825H	H12 THK.	225	360	94.20	7.63	2	15.26	
955	SP4BDD	826H	HL45X45X4		2580	2.75	7.10	1	7.10	
956	SP4BDD	827H	HL45X45X4		2580	2.75	7.10	1	7.10	
957	SP4BDD	828	L45X30X4		1170	2.27	2.66	2	5.32	
958	SP4BDD	829	L45X45X4		2017	2.75	5.55	1	5.55	
959	SP4BDD	830	L45X45X4		2017	2.75	5.55	1	5.55	
960	SP4BDD	831	5 THK.	105	123	39.25	0.51	2	1.02	
961	SP4BDD	832	L45X45X4		2333	2.75	6.42	1	6.42	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD" BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
962	SP4BDD	832X	L45X45X4	105	2333	2.75	6.42	1	6.42	
963	SP4BDD	833	5 THK.		151	39.25	0.62	2	1.24	
964	SP4BDD	834	L45X30X4		1379	2.27	3.13	1	3.13	
965	SP4BDD	835	L45X30X4		1379	2.27	3.13	1	3.13	
966	SP4BDD	836	L45X45X4		1878	2.75	5.16	1	5.16	
967	SP4BDD	836X	L45X45X4		1878	2.75	5.16	1	5.16	
968	SP4BDD	837	L45X30X4		742	2.27	1.68	1	1.68	
969	SP4BDD	838	L45X30X4		742	2.27	1.68	1	1.68	
970	SP4BDD	839H	H8 THK.	249	448	62.80	7.01	1	7.01	
971	SP4BDD	840H	HL90X90X5		2543	6.97	17.72	1	17.72	
972	SP4BDD	841	L70X70X5		3669	5.38	19.74	2	39.48	
973	SP4BDD	842	L70X70X5		3669	5.38	19.74	2	39.48	
974	SP4BDD	843	L45X30X4		781	2.27	1.77	2	3.54	
975	SP4BDD	844	L45X30X4		781	2.27	1.77	2	3.54	
976	SP4BDD	845H	HL45X45X4		1575	2.75	4.33	2	8.66	
977	SP4BDD	846H	HL45X45X4		1575	2.75	4.33	2	8.66	
978	SP4BDD	847	5 THK.	105	150	39.25	0.62	4	2.48	
979	SP4BDD	848	5 THK.	105	110	39.25	0.45	4	1.80	
980	SP4BDD	849	L45X45X4	158	3934	2.75	10.82	1	10.82	
981	SP4BDD	850	L45X45X4		3934	2.75	10.82	1	10.82	
982	SP4BDD	851	L45X30X4		655	2.27	1.49	1	1.49	
983	SP4BDD	852	L45X30X4		655	2.27	1.49	1	1.49	
984	SP4BDD	853H	HL45X45X4		1501	2.75	4.13	1	4.13	
985	SP4BDD	854H	HL45X45X4		1501	2.75	4.13	1	4.13	
986	SP4BDD	855	L45X45X4		2099	2.75	5.77	1	5.77	
987	SP4BDD	856	L45X45X4		2099	2.75	5.77	1	5.77	
988	SP4BDD	857	L45X45X4	157	974	2.75	2.68	1	2.68	
989	SP4BDD	857X	L45X45X4		550	2.75	1.51	1	1.51	
990	SP4BDD	858	6 THK.		185	47.10	1.38	1	1.38	
991	SP4BDD	859	L45X45X4		4000	2.75	11.00	1	11.00	
992	SP4BDD	860	L45X45X4		4000	2.75	11.00	1	11.00	
993	SP4BDD	861	L45X45X4		662	2.75	1.82	1	1.82	
994	SP4BDD	862	L45X45X4		662	2.75	1.82	1	1.82	
995	SP4BDD	863	L45X45X4		1507	2.75	4.14	1	4.14	
996	SP4BDD	864	L45X45X4	157	1507	2.75	4.14	1	4.14	
997	SP4BDD	865	L45X45X4		2135	2.75	5.87	1	5.87	
998	SP4BDD	866	L45X45X4		2135	2.75	5.87	1	5.87	
999	SP4BDD	867	L45X45X4		976	2.75	2.68	1	2.68	
1000	SP4BDD	867X	L45X45X4		551	2.75	1.52	1	1.52	
1001	SP4BDD	868	6 THK.		185	47.10	1.37	1	1.37	
1002	SP4BDD	869	L50X50X4		2542	3.08	7.83	1	7.83	
1003	SP4BDD	870	L50X50X4		2542	3.08	7.83	1	7.83	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.		SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS	
1004	SP4BDD	871	L45X45X4	150	2219	2.75	6.10	1	6.10		
1005	SP4BDD	872	L45X45X4		2219	2.75	6.10	1	6.10		
1006	SP4BDD	873	L45X45X4		1791	2.75	4.93	1	4.93		
1007	SP4BDD	874	L45X45X4		1791	2.75	4.93	1	4.93		
1008	SP4BDD	875	L45X30X4		697	2.27	1.58	1	1.58		
1009	SP4BDD	875X	L45X45X4		412	2.75	1.13	1	1.13		
1010	SP4BDD	876	6 THK.		185	47.10	1.31	1	1.31		
1011	SP4BDD	877	L45X45X4		2579	2.75	7.09	1	7.09		
1012	SP4BDD	878	L45X45X4		2579	2.75	7.09	1	7.09		
1013	SP4BDD	879	L45X45X4		2269	2.75	6.24	1	6.24		
1014	SP4BDD	880	L45X45X4	2269	2.75	6.24	1	6.24			
1015	SP4BDD	881	L45X45X4	1856	2.75	5.10	1	5.10			
1016	SP4BDD	882	L45X45X4	1856	2.75	5.10	1	5.10			
1017	SP4BDD	883	L45X30X4	699	2.27	1.59	1	1.59			
1018	SP4BDD	883X	L45X45X4	413	2.75	1.14	1	1.14			
1019	SP4BDD	884	6 THK.	150	185	47.10	1.31	1	1.31		
1020	SP4BDD	885	6 THK.	105	156	47.10	0.77	2	1.54		
1021	SP4BDD	886	6 THK.	103	105	47.10	0.51	2	1.02		
1022	SP4BDD	887	6 THK.	105	156	47.10	0.77	2	1.54		
1023	SP4BDD	888	6 THK.	103	105	47.10	0.51	2	1.02		
							TOTAL WT=		34366.15		

For MILD STEEL : (As Per IS : 2062, Designated Y.S. 250Mpa)

For HIGH TENSILE STEEL : (As Per IS:2062, Designated Y.S. 350Mpa)

LIST OF PACK WASHERS

4 THK. PACK WASHERS (For 16 Ø Bolt)	0.014	12	0.17	
5 THK. PACK WASHERS (For 16 Ø Bolt)	0.018	242	4.36	
6 THK. PACK WASHERS (For 16 Ø Bolt)	0.021	279	5.86	
8 THK. PACK WASHERS (For 16 Ø Bolt)	0.028	298	8.34	
10 THK. PACK WASHERS (For 16 Ø Bolt)	0.036	720	25.92	
12 THK. PACK WASHERS (For 16 Ø Bolt)	0.043	92	3.96	
TOTAL WT.			48.61	Kgs

WEIGHT OF STEEL MEMBERS

<u>A) TOTAL WT. OF HT STEEL FAB. MEMBER</u>	=	28958.07	Kgs
<u>B) TOTAL WT. OF MILD STEEL FAB. MEMBER</u>	=	5408.08	Kgs
<u>C) TOTAL WT. OF PACK WASHERS</u>	=	48.61	Kgs
GRAND TOTAL WT. OF FAB. MEMBER WITH PACK WASHERS (A+B+C)	=	34414.76	Kgs

				SKIPPER LIMITED
REV. No	REVISION	DATE	INITIAL	

Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)

OM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BILL OF MATERIALS

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SL.No.	MARK No.	SECTION / PLATE THICKNESS (mm)	PLATE WIDTH (mm)	LENGTH (mm)	UNIT WT (kg/m)	WEIGHT/PC (kg)	PIECES / STRUCT.	TOTAL WT. (kg)	REMARKS
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LIST OF BOLTS & NUTS CONFORMING TO IS:12427 WITH MECHANICAL PROPERTIES
CONFORMING TO PROPERTY CLASS 5.6 FOR BOLTS AND CLASS 5.0 FOR NUTS.
LIST OF SPRING WASHERS (TYPE-B) AS PER IS:3063-1994, ELECTRO GALVD.

BOLT & NUTS

HRH BOLT / NUT FOR M16X35	0.119		1878	223.48
HRH BOLT / NUT FOR M16X40	0.126		1987	250.36
HRH BOLT / NUT FOR M16X45	0.134		1032	138.29
HRH BOLT / NUT FOR M16X50	0.142		868	123.26
HRH BOLT / NUT FOR M16X55	0.150		949	142.35
HRH BOLT / NUT FOR M16X60	0.158		481	76.00
HRH BOLT / NUT FOR M16X65	0.164		1376	225.66
HRH BOLT / NUT FOR M16X70	0.173		652	112.80
HRH BOLT / NUT FOR M16X75	0.180		192	34.56
HRH BOLT / NUT FOR M16X80	0.185		852	157.62
HRH BOLT / NUT FOR M16X85	0.193		140	27.02
HRH BOLT / NUT FOR M16X90	0.199		72	14.33
MS STD. SPR. WASHERS FOR M16 BOLTS	0.009		10479	94.31
STEP BOLTS OF 16X175MM DIA WITH 2 NUTS 1 S.W	0.374		160	59.84
TOTAL WT. OF HEXAGONAL BOLTS / NUTS , SPRING WASHERS STEP BOLT			=	1679.88

Kgs

SUMMARY OF WEIGHTS

A) WT. OF MS MEMBERS	=	5408.08	Kgs
B) WT. OF PACK WASHERS	=	48.61	Kgs
C) WT. OF HT MEMBERS	=	28958.07	Kgs
D) WT. OF FAB MEMBERS (A+B+C)	=	34414.76	Kgs
E) WT. OF BOLT & NUTS	=	1679.88	Kgs
F) TOTAL	=	36094.64	Kgs

REV. No	REVISION	DATE	INITIAL

SKIPPER LIMITED

**Tower Package TW0I for India Portion of 400 KV D/C (Quad Moose) New Butwal - Gorakhpur Transmission Line.
(Specification No. 5002002333/ CONSULTANCY GIVEN/DOM/A04-CC CS-5)**

STRUCTURE : 400KV D/C "DD(0°-60°) / DE(0°-15°)"-MKD"G507 DD"

BOM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/BB-AUX

PART : BASIC BODY WITH AUXULARY CROSS ARM (RIGHT TURN)

SECTION ABSTRACT

MILD STEEL	WEIGHT (Kg)	HIGH TENSILE	WEIGHT (Kg)	MS. PLATE	WEIGHT
L40X40X3		HL180X180X15	473.08	2 THK.	15.84
L40X40X4		HL180X180X16	929.54	3 THK.	
L40X40X5		HL45X45X4	515.98	4 THK.	
L40X40X6		HL45X45X5		5 THK.	151.78
L45X30X4	299.51	HL50X50X4	316.81	6 THK.	45.30
L45X30X5		HL50X50X5	31.30	8 THK.	47.42
L45X45X4	1281.28	HL55X55X4	262.02	10 THK.	5.16
L45X45X3		HL55X55X5		14 THK.	8.72
L45X45X5		HL60X60X4	370.48	32 THK.	596.72
L45X45X6		HL60X60X5	257.68	20 THK.	
L50X50X3		HL60X60X6		22 THK.	
L50X50X4	467.84	HL65X65X4	70.80		
L50X50X5		HL65X65X5	363.00	TOTAL MS PLT.	870.94
L50X50X6		HL65X65X6			
L55X55X4	489.08	HL70X70X5	276.12	HT. PLATE	WEIGHT
L55X55X5		HL70X70X6		H6 THK.	206.76
L55X55X6		HL75X75X5	449.48	H5 THK.	152.00
L55X55X8		HL75X75X6	71.96	H8 THK.	185.21
L60X60X4	18.62	HL80X80X6	224.86	H10 THK.	196.45
L60X60X5	52.76	HL80X80X5	511.08	H12 THK.	184.96
L60X60X6		HL90X90X6	574.30	H14 THK.	1763.82
L65X65X4	185.76	HL90X90X7	624.08	H16 THK.	86.60
L65X65X5		HL90X90X5	1199.54	H20 THK.	239.60
L65X65X6		HL100X100X6	428.34	H18 THK.	56.14
L80X80X5	94.70	HL100X100X7	718.48		
L70X70X5	406.08	HL100X100X8	14.92	TOTAL HT PLT.	3071.54
L70X70X6		HL100X100X10	922.16		
L75X75X5		HL110X110X8	1451.64		
L75X75X6		HL110X110X10	2198.18		
L80X80X6	13.50	HL110X110X9	1750.16		
L90X90X5	51.20	HL120X120X8	885.64		
L90X90X7		HL120X120X10	1916.72		
L90X90X8		HL120X120X9	377.00		
L100X100X6	579.53	HL130X130X14	41.92		
L100X100X7		HL130X130X12			
L110X110X10	597.28	HL150X150X10	740.06		
L150X150X15		HL130X130X15	462.40		
L150X150X16		HL130X130X9	487.66		
L150X150X20		HL150X150X12	1349.40		
L200X200X16		HL150X150X14	4033.80		
L200X200X20		HL110X110X6	585.94		
		HL110X110X7			
		HL120X120X7			
		HL200X200X12			
		HL200X200X15			
TOTAL	4537.14	TOTAL	25886.53		
		GRAND TOTAL =	34366.15		