

संदर्भ/Ref : CC-ENGG-C2021001-1001422-T14221-4524-BMDD+3BE

Date : 24/06/2024

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-T14221-4524-BMDD+3BE**Revision No. :** 01**Drg. Title :** BILL OF MATERIAL FOR TT DD +3M BE FOR 400 kV D/C WZ-5 (ACSR
MOOSE) TL**App. Category :** CAT-I**Release Date :** 24/06/2024

Scan to verify

Comments : Generally in order**अनुमोदित श्रेणी/App. Category:**

- फेब्रिकेशन/निर्माण/टाइप टेस्टिंग हेतु जारी।
Approved/released for fabrication/construction.
 - 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.
 - टिप्पणियाँ सम्मिलित करने के उपरांत दस्तावेज को अनुमोदनार्थ प्रस्तुत करें।
To be resubmitted for approval after incorporating the comments.
 - सूचनार्थ एवं रिकार्ड हेतु।
For information and record.
- CATREL/ निर्माण हेतु जारी।
REL-CON **Released for construction.**

नोट/Note:

- 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.
- 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/+3MBE

NO. OF SHEET : 5

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 : +3M BODY EXTENSION (ATTACHED TO BASIC BODY)

REF.DRG.NO. : C:ENGG:TL:4524-4ACSR-M-P-10 (SHEET 1 & 2)

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)

TOWER COMBINATION :

DD+3M TOWER BASIC TOWER (+) +3M BE

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 +3M BODY EXTENSION (ATTACHED TO BASIC BODY)	
1	WT.OF ALL (HT) MEMBERS IN KGS.	12103.36	
2	WT.OF ALL (MS) MEMBERS IN KGS.(INCL. PACK WASHERS)	1306.84	
3	WT.OF BOLT & NUTS IN KGS.	464.65	
	TOTAL WT. OF STRUCTURES IN KGS.	13874.85	
1	UPDATED UNIT WEIGHT AS PER PGCIL COMENTS	24.06.2024	BKL
0	PROTO CORRECTED	19.06.2024	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)

BOM NO. SI/PGCIL/400KV/BUTW-GRKH/DD/+3MBE

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

PART : +3M BODY EXTENSION (ATT. TO BASIC BODY) BILL OF MATERIALS

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
1	SP4BDD	1670H	HL180X180X16		4500	43.50	195.75	2	391.50	
2	SP4BDD	1671H	HL180X180X16		4500	43.50	195.75	2	391.50	
3	SP4BDD	1672H	HL180X180X16		4500	43.50	195.75	4	783.00	
4	SP4BDD	1673H	HL180X180X16		5100	43.50	221.85	2	443.70	
5	SP4BDD	1674H	HL180X180X16		5100	43.50	221.85	2	443.70	
6	SP4BDD	1675H	HL180X180X16		5100	43.50	221.85	4	887.40	
7	SP4BDD	1676H	HL180X180X16		5122	43.50	222.81	2	445.62	
8	SP4BDD	1677H	HL180X180X16		5122	43.50	222.81	2	445.62	
9	SP4BDD	1678H	HL180X180X16		5122	43.50	222.81	4	891.24	
10	SP4BDD	1679H	HL200X200X12		610	36.85	22.48	8	179.84	
11	SP4BDD	1680H	HL200X200X12		610	36.85	22.48	8	179.84	
12	SP4BDD	1681H	H14 THK.	346	610	109.90	23.20	4	92.80	
13	SP4BDD	1682H	H14 THK.	150	610	109.90	10.06	8	80.48	
14	SP4BDD	1683H	HL200X200X12		610	36.85	22.48	16	359.68	
15	SP4BDD	1684H	HL200X200X12		610	36.85	22.48	16	359.68	
16	SP4BDD	1685H	H14 THK.	346	610	109.90	23.20	8	185.60	
17	SP4BDD	1686H	H14 THK.	150	610	109.90	10.06	16	160.96	
18	SP4BDD	1687H	HL110X110X7		6200	11.80	73.16	2	146.32	
19	SP4BDD	1688H	HL110X110X7		6202	11.80	73.18	2	146.36	
20	SP4BDD	1689H	HL110X110X7		6202	11.80	73.18	2	146.36	
21	SP4BDD	1690H	HL110X110X7		6200	11.80	73.16	2	146.32	
22	SP4BDD	1691H	HL110X110X6		6200	10.20	63.24	2	126.48	
23	SP4BDD	1692H	HL110X110X6		6202	10.20	63.26	2	126.52	
24	SP4BDD	1693H	HL110X110X6		6202	10.20	63.26	2	126.52	
25	SP4BDD	1694H	HL110X110X6		6200	10.20	63.24	2	126.48	
26	SP4BDD	1695H	HL110X110X7		6000	11.80	70.80	2	141.60	
27	SP4BDD	1696H	HL110X110X7		6000	11.80	70.80	2	141.60	
28	SP4BDD	1697H	HL110X110X7		6000	11.80	70.80	2	141.60	
29	SP4BDD	1698H	HL110X110X7		6000	11.80	70.80	2	141.60	
30	SP4BDD	1699H	HL110X110X6		6000	10.20	61.20	2	122.40	
31	SP4BDD	1700H	HL110X110X6		6000	10.20	61.20	2	122.40	
32	SP4BDD	1701H	HL110X110X6		6000	10.20	61.20	2	122.40	
33	SP4BDD	1702H	HL110X110X6		6000	10.20	61.20	2	122.40	
34	SP4BDD	1703H	HL110X110X7		5460	11.80	64.43	2	128.86	
35	SP4BDD	1704H	HL110X110X7		5460	11.80	64.43	2	128.86	
36	SP4BDD	1705H	HL110X110X7		5460	11.80	64.43	2	128.86	
37	SP4BDD	1706H	HL110X110X7		5460	11.80	64.43	2	128.86	
38	SP4BDD	1707H	HL110X110X6		5460	10.20	55.69	2	111.38	
39	SP4BDD	1708H	HL110X110X6		5460	10.20	55.69	2	111.38	
40	SP4BDD	1709H	HL110X110X6		5460	10.20	55.69	2	111.38	
41	SP4BDD	1710H	HL110X110X6		5460	10.20	55.69	2	111.38	
42	SP4BDD	1711H	HL90X90X6		306	8.32	2.55	8	20.40	
43	SP4BDD	1712H	HL90X90X6		306	8.32	2.55	8	20.40	
44	SP4BDD	1713H	HL90X90X6		306	8.32	2.55	8	20.40	

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)

BOM NO. SI/PGCIL/400KV/BUTW-GRKH/DD/+3MBE

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

PART : +3M BODY EXTENSION (ATT. TO BASIC BODY) BILL OF MATERIALS

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
45	SP4BDD	1714H	HL90X90X6		306	8.32	2.55	8	20.40	
46	SP4BDD	1715H	H14 THK.	80	306	109.90	2.69	16	43.04	
47	SP4BDD	1716H	H6 THK.	204	306	47.10	2.94	16	47.04	
48	SP4BDD	1717H	H14 THK.	72	356	109.90	2.82	4	11.28	
49	SP4BDD	1718H	H14 THK.	100	356	109.90	3.91	36	140.76	
50	SP4BDD	1719H	H14 THK.	147	356	109.90	5.75	4	23.00	
51	SP4BDD	1720H	H14 THK.	145	356	109.90	5.67	4	22.68	
52	SP4BDD	1721H	H14 THK.	161	356	109.90	6.30	4	25.20	
53	SP4BDD	1722H	H14 THK.	137	356	109.90	5.36	4	21.44	
54	SP4BDD	1723H	HL60X60X4		1083	3.71	4.02	4	16.08	
55	SP4BDD	1724H	HL60X60X4		1083	3.71	4.02	4	16.08	
56	SP4BDD	1725H	HL70X70X5		2503	5.38	13.47	4	53.88	
57	SP4BDD	1726H	HL70X70X5		2503	5.38	13.47	4	53.88	
58	SP4BDD	1727AH	HL70X70X5		2191	5.38	11.79	1	11.79	
59	SP4BDD	1727H	HL70X70X5		2191	5.38	11.79	3	35.37	
60	SP4BDD	1728AH	HL70X70X5		2191	5.38	11.79	1	11.79	
61	SP4BDD	1728H	HL70X70X5		2191	5.38	11.79	3	35.37	
62	SP4BDD	1729AH	HL75X75X5		2893	5.77	16.69	1	16.69	
63	SP4BDD	1729H	HL75X75X5		2893	5.77	16.69	3	50.07	
64	SP4BDD	1730AH	HL75X75X5		2893	5.77	16.69	1	16.69	
65	SP4BDD	1730H	HL75X75X5		2893	5.77	16.69	3	50.07	
66	SP4BDD	1731H	HL90X90X6		3299	8.32	27.45	4	109.80	
67	SP4BDD	1732H	HL90X90X6		3299	8.32	27.45	4	109.80	
68	SP4BDD	1733H	HL80X80X6		3601	7.36	26.50	4	106.00	
69	SP4BDD	1734H	HL80X80X6		3601	7.36	26.50	4	106.00	
70	SP4BDD	1735H	HL75X75X6		4408	6.86	30.24	4	120.96	
71	SP4BDD	1736H	HL75X75X6		4408	6.86	30.24	4	120.96	
72	SP4BDD	1737H	H5 THK.	110	185	39.25	0.80	8	6.40	
73	SP4BDD	1738H	HL75X75X5		2913	5.77	16.81	4	67.24	
74	SP4BDD	1739H	HL75X75X5		2913	5.77	16.81	4	67.24	
75	SP4BDD	1740	L55X55X4		2742	3.40	9.32	4	37.28	
76	SP4BDD	1741	L55X55X4		2742	3.40	9.32	4	37.28	
77	SP4BDD	1742	L50X50X4		2648	3.08	8.16	4	32.64	
78	SP4BDD	1743	L50X50X4		2648	3.08	8.16	4	32.64	
79	SP4BDD	1744H	HL90X90X6		5516	8.32	45.89	4	183.56	
80	SP4BDD	1745H	HL90X90X6		5516	8.32	45.89	4	183.56	
81	SP4BDD	1746H	H5 THK.	120	180	39.25	0.85	8	6.80	
82	SP4BDD	1747	5 THK.	120	181	39.25	0.85	8	6.80	
83	SP4BDD	1748	5 THK.	145	252	39.25	1.43	8	11.44	
84	SP4BDD	1749H	HL70X70X5		2628	5.38	14.14	4	56.56	
85	SP4BDD	1750H	HL70X70X5		2628	5.38	14.14	4	56.56	
86	SP4BDD	1751	L60X60X4		3221	3.71	11.95	4	47.80	
87	SP4BDD	1752	L60X60X4		3221	3.71	11.95	4	47.80	
88	SP4BDD	1753	L50X50X4		2915	3.08	8.98	4	35.92	

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)

BOM NO. SL/PGCIL/400KV/BUTW-GRKH/DD/+3MBE

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

PART : +3M BODY EXTENSION (ATT. TO BASIC BODY) BILL OF MATERIALS

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
89	SP4BDD	1754	L50X50X4		2915	3.08	8.98	4	35.92	
90	SP4BDD	1755	L50X50X4		2409	3.08	7.42	4	29.68	
91	SP4BDD	1756	L50X50X4		2409	3.08	7.42	4	29.68	
92	SP4BDD	1757	5 THK.	175	342	39.25	2.35	8	18.80	
93	SP4BDD	1758	5 THK.	121	175	39.25	0.83	8	6.64	
94	SP4BDD	1759	5 THK.	120	160	39.25	0.75	4	3.00	
95	SP4BDD	1770H	HL45X45X4		1385	2.75	3.81	4	15.24	
96	SP4BDD	1771	L45X45X4		3634	2.75	9.99	4	39.96	
97	SP4BDD	1772	L45X45X4		3634	2.75	9.99	4	39.96	
98	SP4BDD	1773	L50X50X4		4735	3.08	14.58	4	58.32	
99	SP4BDD	1774	L50X50X4		4735	3.08	14.58	4	58.32	
100	SP4BDD	1775	L60X60X4		6022	3.71	22.34	4	89.36	
101	SP4BDD	1776	L60X60X4		6022	3.71	22.34	4	89.36	
102	SP4BDD	1777H	HL70X70X5		6105	5.38	32.84	4	131.36	
103	SP4BDD	1778	5 THK.	110	285	39.25	1.23	4	4.92	
104	SP4BDD	1779	L55X55X4		4778	3.40	16.25	4	65.00	
105	SP4BDD	1780	L55X55X4		4778	3.40	16.25	4	65.00	
106	SP4BDD	1781	L45X45X4		1859	2.75	5.11	4	20.44	
107	SP4BDD	1782	L45X45X4		1859	2.75	5.11	4	20.44	
108	SP4BDD	1783	L55X55X4		4440	3.40	15.10	4	60.40	
109	SP4BDD	1784	L55X55X4		4440	3.40	15.10	4	60.40	
110	SP4BDD	1785	L55X55X4		3077	3.40	10.46	4	41.84	
111	SP4BDD	1786	L55X55X4		3077	3.40	10.46	4	41.84	
112	SP4BDD	1787	5 THK.	105	110	39.25	0.45	8	3.60	
113	SP4BDD	1788	5 THK.	140	170	39.25	0.93	4	3.72	
114	SP4BDD	1789H	H8 THK.	120	174	62.80	1.31	8	10.48	
115	SP4BDD	1790H	H5 THK.	120	328	39.25	1.54	4	6.16	
116	SP4BDD	1791H	H5 THK.	120	328	39.25	1.54	4	6.16	
117	SP4BDD	1792	5 THK.	130	328	39.25	1.67	4	6.68	
118	SP4BDD	1793	5 THK.	130	328	39.25	1.67	4	6.68	
119	SP4BDD	1794	5 THK.	130	337	39.25	1.72	4	6.88	
120	SP4BDD	1795	5 THK.	130	337	39.25	1.72	4	6.88	
121	SP4BDD	1796H	H5 THK.	170	341	39.25	2.28	4	9.12	
122	SP4BDD	1797H	H5 THK.	170	341	39.25	2.28	4	9.12	
123	SP4BDD	1798	5 THK.	120	311	39.25	1.46	4	5.84	
124	SP4BDD	1799	5 THK.	120	311	39.25	1.46	4	5.84	
125	SP4BDD	1800	5 THK.	120	328	39.25	1.54	4	6.16	
126	SP4BDD	1801	5 THK.	120	328	39.25	1.54	4	6.16	
127	SP4BDD	1802	5 THK.	120	322	39.25	1.52	4	6.08	
128	SP4BDD	1803	5 THK.	120	322	39.25	1.52	4	6.08	
129	SP4BDD	1804	L65X65X4		3106	4.03	12.52	4	50.08	
130	SP4BDD	1805	5 THK.	162	162	39.25	1.03	4	4.12	
TOTAL WT=									13397.04	

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)

BOM NO. SI/PGCIL/400KV/BUTW-GRKH/DD/+3MBE

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

PART : +3M BODY EXTENSION (ATT. TO BASIC BODY) BILL OF MATERIALS

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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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	0	0.00	
5 THK. PACK WASHERS (For 16 Ø Bolt)	0.018	28	0.50	
6 THK. PACK WASHERS (For 16 Ø Bolt)	0.021	240	5.04	
8 THK. PACK WASHERS (For 16 Ø Bolt)	0.028	272	7.62	
TOTAL WT.	13.16	Kgs		

WEIGHT OF STEEL MEMBERS

<u>A) TOTAL WT. OF HT STEEL FAB. MEMBER</u>	=	12103.36	Kgs
<u>B) TOTAL WT. OF MILD STEEL FAB. MEMBER</u>	=	1293.68	Kgs
<u>C) TOTAL WT. OF PACK WASHERS</u>	=	13.16	Kgs
GRAND TOTAL WT. OF FAB. MEMBER WITH PACK WASHERS (A+B+C)	=	13410.20	Kgs

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		524	62.36
HRH BOLT / NUT FOR M16X40	0.126		160	20.16
HRH BOLT / NUT FOR M16X45	0.134		272	36.45
HRH BOLT / NUT FOR M16X50	0.142		108	15.34
HRH BOLT / NUT FOR M16X55	0.150		488	73.20
HRH BOLT / NUT FOR M16X60	0.158		76	12.01
HRH BOLT / NUT FOR M16X65	0.164		120	19.68
HRH BOLT / NUT FOR M16X70	0.173		152	26.30
HRH BOLT / NUT FOR M16X75	0.180		0	0.00
HRH BOLT / NUT FOR M16X80	0.185		544	100.64
HRH BOLT / NUT FOR M16X85	0.193		264	50.95
HRH BOLT / NUT FOR M16X90	0.199		0	0.00
MS STD. SPR. WASHERS FOR M16 BOLTS	0.009		2708	24.37
STEP BOLTS OF 16X175MM DIA WITH 2 NUTS 1 S.W	0.374		62	23.19
TOTAL WT. OF HEXAGONAL BOLTS / NUTS , SPRING WASHERS STEP BOLT		=	464.65	Kgs

SUMMARY OF WEIGHTS

A) WT. OF MS MEMBERS	=	1293.68	Kgs
B) WT. OF PACK WASHERS	=	13.16	Kgs
C) WT. OF HT MEMBERS	=	12103.36	Kgs
D) WT. OF FAB MEMBERS (A+B+C)	=	13410.20	Kgs
E) WT. OF BOLT & NUTS	=	464.65	Kgs
F) TOTAL	=	13874.85	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)

STRUCTURE : 400KV D/C "DD(0°-60°)/DE(0°-15°)"-MKD"G507 DD"
PART : +3M BODY EXTENSION (ATT. TO BASIC BODY)

BOM NO. SI/PGCIL/400KV/BUTW-GRKH/DD/+3MBE

SECTION ABSTRACT

MILD STEEL	WEIGHT (Kg)	HIGH TENSILE	WEIGHT (Kg)	MS. PLATE	WEIGHT
L40X40X3		HL180X180X15		2 THK.	
L40X40X4		HL180X180X16	5123.28	3 THK.	
L40X40X5		HL45X45X4	15.24	4 THK.	
L40X40X6		HL45X45X5		5 THK.	126.32
L45X30X4		HL50X50X4		6 THK.	
L45X30X5		HL50X50X5		8 THK.	
L45X45X4	120.80	HL55X55X4		10 THK.	
L45X45X3		HL55X55X5		14 THK.	
L45X45X5		HL60X60X4	32.16	32 THK.	
L45X45X6		HL60X60X5		20 THK.	
L50X50X3		HL60X60X6		22 THK.	
L50X50X4	313.12	HL65X65X4			
L50X50X5		HL65X65X5		TOTAL MS PLT.	126.32
L50X50X6		HL65X65X6			
L55X55X4	409.04	HL70X70X5	446.56	HT. PLATE	WEIGHT
L55X55X5		HL70X70X6		H6 THK.	47.04
L55X55X6		HL75X75X5	268.00	H5 THK.	43.76
L55X55X8		HL75X75X6	241.92	H8 THK.	10.48
L60X60X4	274.32	HL80X80X6	212.00	H10 THK.	
L60X60X5		HL80X80X5		H12 THK.	
L60X60X6		HL90X90X6	668.32	H14 THK.	807.24
L65X65X4	50.08	HL90X90X7		H16 THK.	
L65X65X5		HL90X90X5		H20 THK.	
L65X65X6		HL100X100X6		H18 THK.	
L80X80X5		HL100X100X7			
L70X70X5		HL100X100X8		TOTAL HT PLT.	908.52
L70X70X6		HL100X100X10			
L75X75X5		HL110X110X8			
L75X75X6		HL110X110X10			
L80X80X6		HL110X110X9			
L80X80X8					
L90X90X5		HL120X120X8			
L90X90X7		HL120X120X10			
L90X90X8		HL120X120X9			
L100X100X6		HL130X130X14			
L100X100X7		HL130X130X12			
L110X110X10		HL150X150X10			
L150X150X15		HL130X130X15			
L150X150X16		HL130X130X9			
L150X150X20		HL150X150X12			
L200X200X16		HL150X150X14			
L200X200X20		HL110X110X6	1441.12		
		HL110X110X7	1667.20		
		HL120X120X7			
		HL200X200X12	1079.04		
		HL200X200X15			
TOTAL	1167.36	TOTAL	11194.84		
		GRAND TOTAL =	13397.04		