PROJECT	:	PROPOSED CONSTRUCTION OF PHASE 1 DATA CENTRE BUILDINGS 1 BLOK BANGUNAN PUSAT DATA 2 TINGKAT, 2.1 BLOK BANGUNAN PEJABAT 4 TINGKAT BESERTA KEMUDAHAN, 3.1 UNIT PONDOK PENGAWAL, 4.1 BLOK BANGUNAN SUIS KONSUMER 3 TINGKAT
CLIENT	:	DARIA DATA CENTER MALAYSIA SDN BHD
MAIN CONTRACTOR	:	CCIE ENGINEERING (M) SDN BHD
PROJECT ADDRESS	:	DI ATAS PLOT 17 (PT 48528) DAN PLOT 18 (PT 48529), PERSIARAN RIMBA PERMAI,CYBERJAYA 9 , BANDAR CYBERJAYA 9 , BANDAR PENAWAR , MUKIM DENGKIL, DAERAH SEPANG , SELANGOR DARUL EHSAN
DOCUMENT TITLE	:	LIFTING PLAN BOOM LIFT USING 250T CRAWLER CRANE

	PREPARED BY	VERIFIED BY	REVIEWED BY	APPROVED BY
SIGN				
NAME	SALAM			
DATE	1/07/2026			

DOCUMENT ISSUE RECORD

Issue	Description	Issue Date
0	ISSUED FOR APPROVAL	7/07/2026

CLIENT	MAIN CONTRACTOR	Project Doc No:
DAMAC DIGITAL — DARIA DATA CENTRE MALAYSIA SDN BHD	CCIE ENGINEERING (M) SDN BHD	CCIE-250T-LP-005

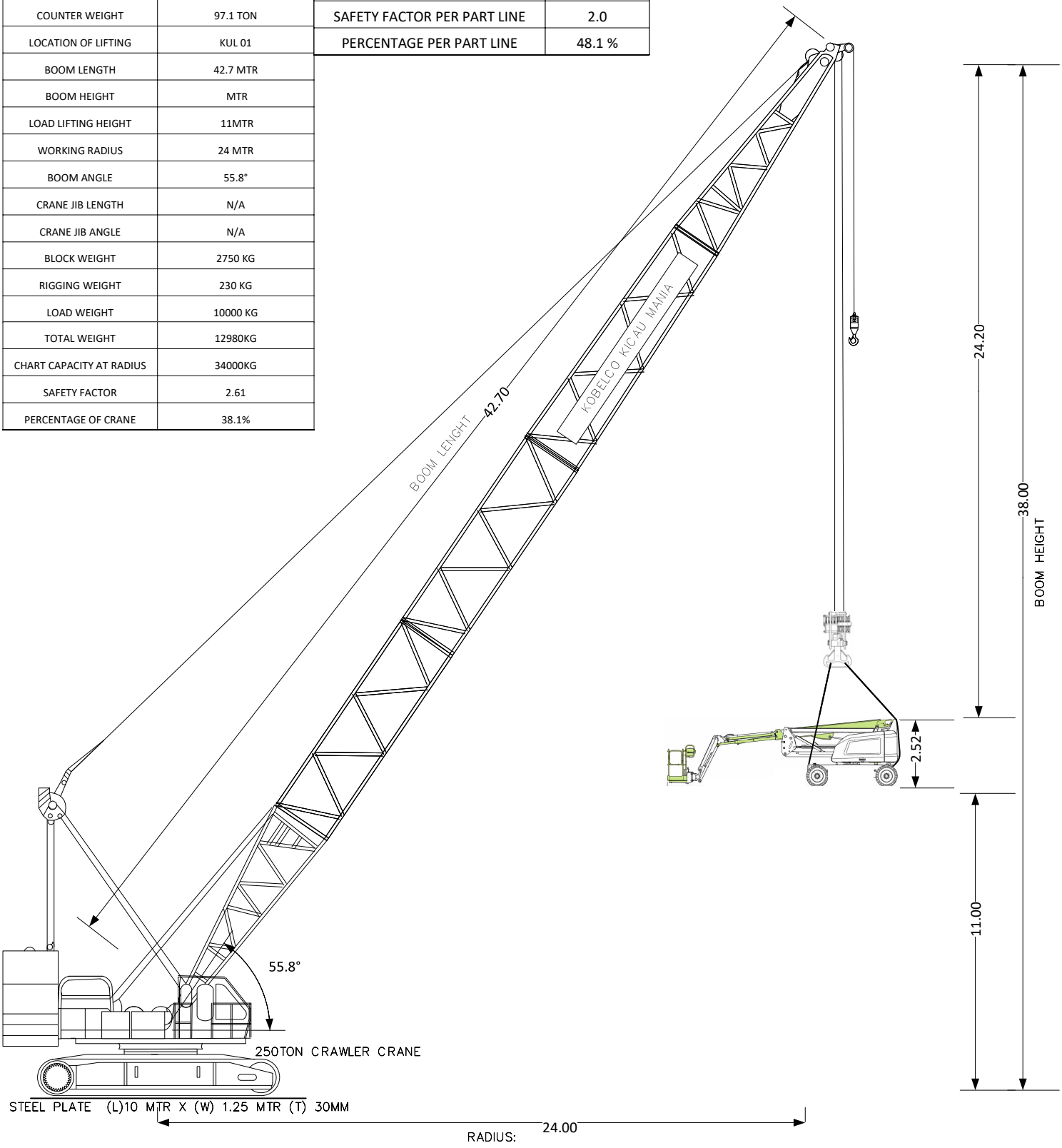
PROPOSED CONSTRUCTION OF PHASE 1 DATA CENTRE BUILDINGS
1 BLOK BANGUNAN PUSAT DATA 2 TINGKAT, 2.1 BLOK BANGUNAN PEJABAT 4 TINGKAT BESERTA KEMUDAHAN, 3.1 UNIT PONDOK PENGAWAL, 4.1 BLOK BANGUNAN SUIS KONSUMER 3 TINGKAT

Revision: 0

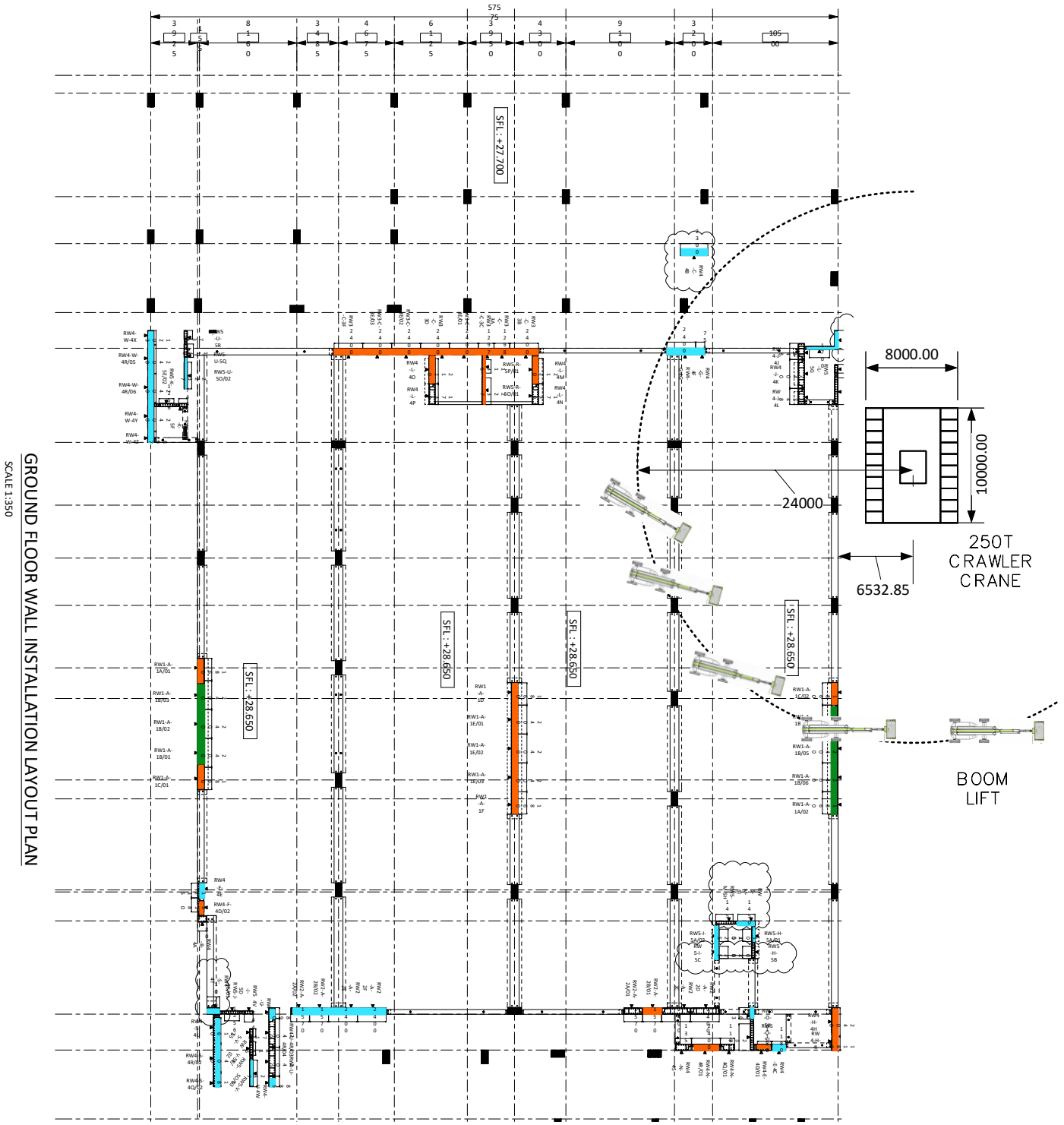
CRANE DETAILS	
TYPE OF CRANE	CRAWLER CRANE
BRAND NAME	KOBELCO
MODEL	7250 S
COUNTER WEIGHT	97.1 TON
LOCATION OF LIFTING	KUL 01
BOOM LENGTH	42.7 MTR
BOOM HEIGHT	MTR
LOAD LIFTING HEIGHT	11MTR
WORKING RADIUS	24 MTR
BOOM ANGLE	55.8°
CRANE JIB LENGTH	N/A
CRANE JIB ANGLE	N/A
BLOCK WEIGHT	2750 KG
RIGGING WEIGHT	230 KG
LOAD WEIGHT	10000 KG
TOTAL WEIGHT	12980KG
CHART CAPACITY AT RADIUS	34000KG
SAFETY FACTOR	2.61
PERCENTAGE OF CRANE	38.1%

BLOCK DETAILS	
NUMBER OF PART LINE	4
RATED CAPACITY PER PART LINE	13500 KG
ACTUAL LOAD PER PART LINE	6505 KG
SAFETY FACTOR PER PART LINE	2.0
PERCENTAGE PER PART LINE	48.1 %

TITLE : SIDE VIEW



TITLE : TOP VIEW



GROUND FLOOR WALL INSTALLATION LAYOUT PLAN

SCALE 1:350

TITLE : RIGGING CALCULATION & ARRANGMENT

WIRE SLING 18T X 2 NOS
BASKET HITCH SAFETY FACTOR 2.0
18T X 2 = 36T

WIRE SLING 13.5 TON X 6MTR X 4NOS

ANGLE FACTOR CAN BE CALCULATE BY SIN (66°) = 0.913
DIRECT HITCH FACTOR IS = 1.0

SLING REDUCTION CALCULATION
SLING SWL X ANGLE FACTOR X HITCH FACTOR
18T X 0.913 X 1.0 = 16434KG PER SLING

SLING TENSION CALCULATION
LOAD WEIGHT / NUMBER OFF SLING /ANGLE FACTOR / HITCH FACTOR
10120KG / 2 / 0.913/1.0 = 5542 KG PER SLING

SLING UTLIZATION
5542 KG X 100 /16434 KG = 33% PER SLING

SLING SAFETY FACTOR
16434 / 5542 = 2.96

SLING HORIZONTAL ANGLE CALCULATION

LENGTH : 252MM/2 = 1.26M
WIDTH : 246MM/2 = 1.23M

HORIZONTAL OFFSET FROM COG TO LIFTING POINT

√(1.26M² + 123M²)
√(1.5876 + 1.5129)
√3.1005
1760 MM IS LIFTING POINT TO COG

THE SLING IS 4,320 MM LONG AND INCLINES INWARD TOWARD THE CRANE HOOK POSITIONED DIRECTLY ABOVE THE LOAD'S COG.
COS−1(1760/4320)
= 66°

ANGLE FACTOR CAN BE CALCULATE BY SIN (72°) = 0.951
DIRECT HITCH FACTOR IS = 1.0

SLING REDUCTION CALCULATION
SLING SWL X ANGLE FACTOR X HITCH FACTOR
18T X 0.951 X 1.0 = 17.118T PER SLING

SLING TENSION CALCULATION
LOAD WEIGHT / NUMBER OFF SLING /ANGLE FACTOR / HITCH FACTOR
10120KG / 2 / 0.951/1.0 = 5320 KG PER SLING

SLING UTLIZATION
2660 KG X 100 /17118 KG = 31% PER SLING

SLING SAFETY FACTOR
17118 / 5320 = 3.21

MASTERLINK 25T X 2 NOS

SLING HORIZONTAL ANGLE CALCULATION

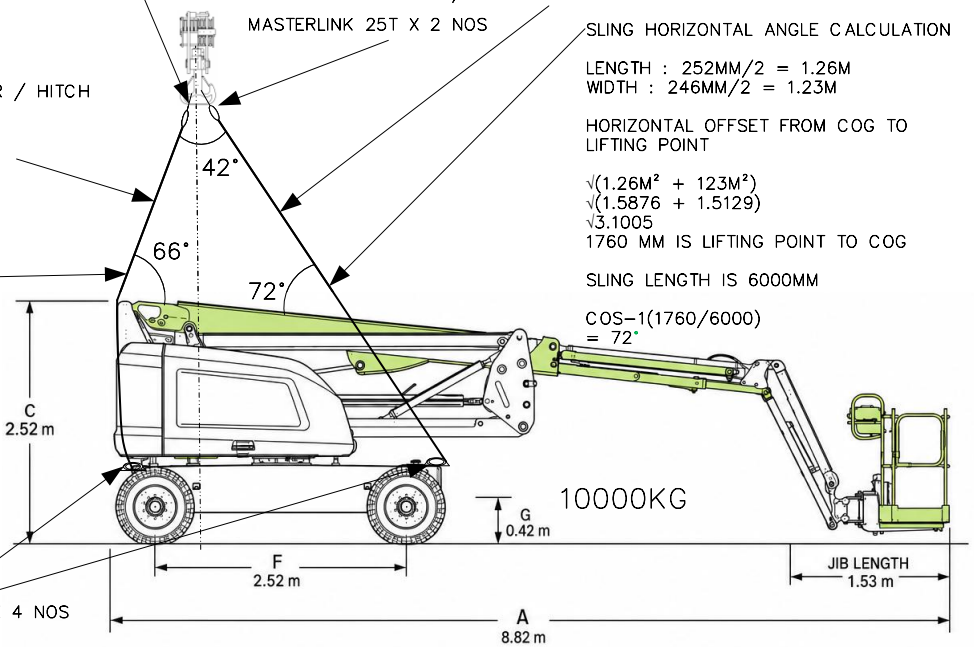
LENGTH : 252MM/2 = 1.26M
WIDTH : 246MM/2 = 1.23M

HORIZONTAL OFFSET FROM COG TO LIFTING POINT

√(1.26M² + 123M²)
√(1.5876 + 1.5129)
√3.1005
1760 MM IS LIFTING POINT TO COG

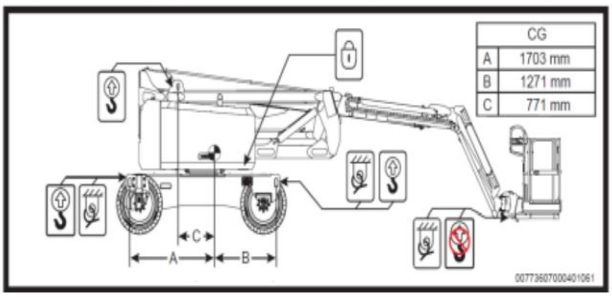
SLING LENGTH IS 6000MM

COS−1(1760/6000)
= 72°



SHACKLE 12.5T X 4 NOS

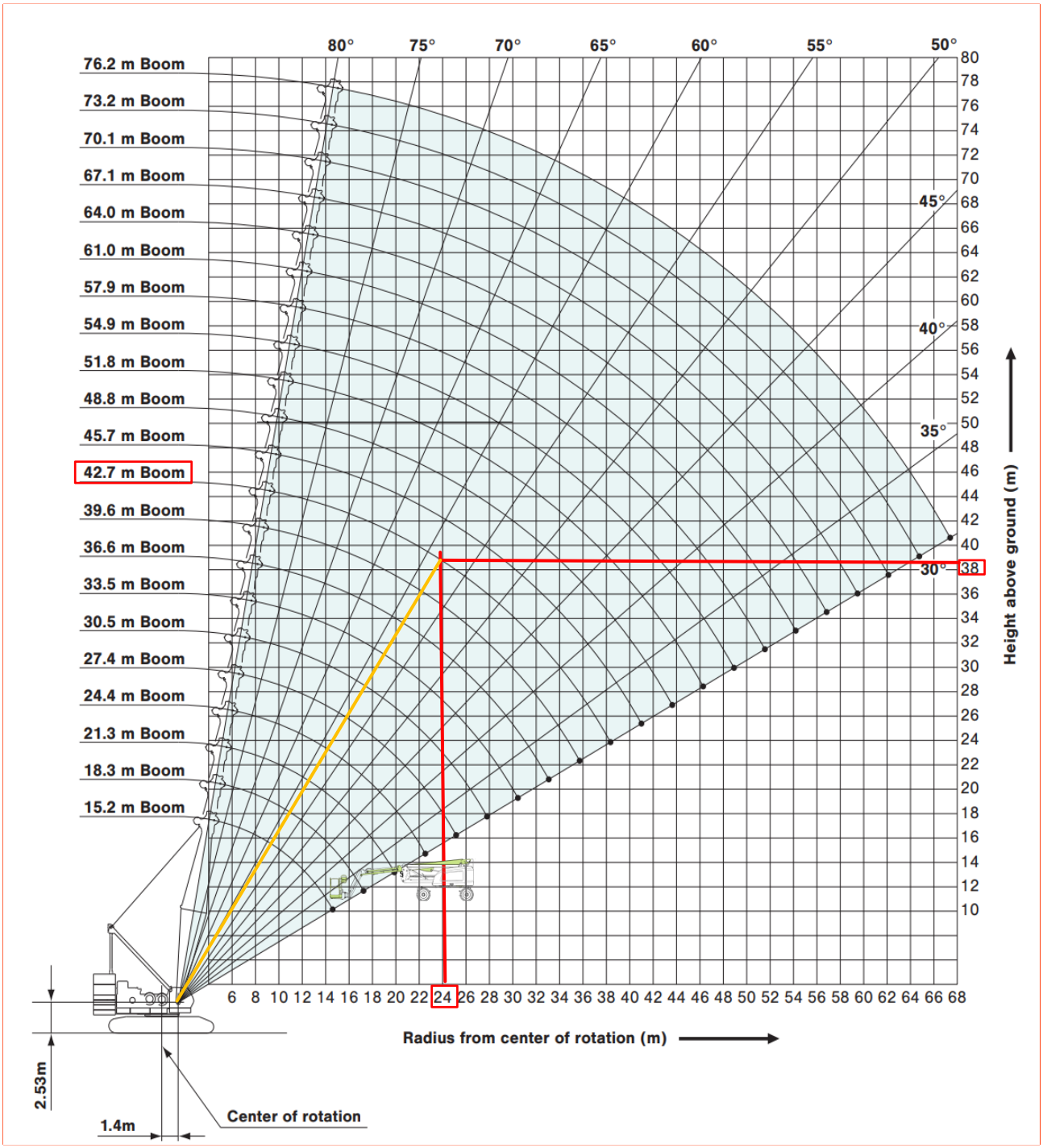
GENERAL NOTES:
THE LIFTING SLINGS SHALL BE ATTACHED ONLY TO THE DESIGNATED LIFTING POINTS SPECIFIED BY THE ZOOMLION MANUFACTURER
MODEL : ZA20J
DEMENSION : 8.82M (L) X 2.46M (W) X 2.52M (H)
THIS CALCULATION ONLY USE 2 SLING FOR MAJOR TENSION. ANOTHER 2 SLING ONLY FOR BALANCING DUE TO IRREGULAR LOAD



RIGGING TOOL CONFIGURATION

NAME OF GEARS	SWL	DIMENSION	NOS	TOTAL WEIGHT
SLING WIRE	18T	2 MTR X 38MM DIA	2	70 KG
SLING WIRE	18T	6 MTR X 38MM DIA	4	100 KG
MASTERLINK	25T	300MM X 32MM	2	40 KG
BOW SHACKLE	12.5T	L 145MM X W 105MM X DIA 35MM	4	20KG
SWIVEL LIFTING CLUTCH	N/A	L 458 MM X W 229 MM H 124 MM	N/A	
		TOTAL LIFTING GEAR WEIGHT		230 KG

TITLE : LIFTING HEIGHT



TITLE : LOAD CHART

LIFTING CAPACITIES

Crane Boom Lifting Capacities

Counterweight: 97.1 t
Carbody Weight: 23.1 t

Unit: metric ton

Working radius (m) \ Boom length (m)	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7	48.8	Boom length (m) \ Working radius (m)
4.6	4.6m/250.0												4.6
5.0	230.7	5.0m/219.0	5.5m/197.6										5.0
6.0	191.5	191.5	191.1	6.1m/175.6	6.6m/156.0								6.0
7.0	165.9	165.6	165.2	165.0	154.4	7.1m/141.7	7.7m/128.5						7.0
8.0	146.1	145.8	145.4	145.2	144.9	137.3	127.0	8.2m/117.3	8.7m/107.1				8.0
9.0	130.4	130.1	129.8	129.6	129.2	129.0	122.9	114.4	106.2	9.2m/98.6	9.8m/90.4		9.0
10.0	117.7	117.4	117.1	116.9	116.5	116.3	116.0	111.2	103.3	96.6	89.9	10.3m/81.0	10.0
12.0	90.5	90.3	90.1	90.0	89.8	89.8	89.5	89.5	89.4	89.2	85.1	79.8	12.0
14.0	69.0	72.7	72.4	72.3	72.1	72.0	71.8	71.8	71.6	71.4	71.2	71.2	14.0
16.0	14.8m/60.9	60.6	60.3	60.2	60.0	59.9	59.6	59.6	59.4	59.2	59.0	59.0	16.0
18.0		17.5m/52.2	51.6	51.4	51.2	51.1	50.8	50.8	50.5	50.3	50.1	50.1	18.0
20.0			45.0	44.8	44.5	44.4	44.0	44.0	43.8	43.6	43.4	43.3	20.0
22.0			20.1m/44.8	39.6	39.3	39.1	38.8	38.8	38.5	38.3	38.1	38.0	22.0
24.0				22.7m/38.0	35.1	34.9	34.5	34.5	34.2	34.0	33.8	33.7	24.0
26.0					25.4m/32.6	31.4	31.0	31.0	30.7	30.5	30.3	30.2	26.0
28.0						28.0m/28.5	28.1	28.1	27.8	27.5	27.3	27.3	28.0
30.0							25.7	25.7	25.3	25.1	24.8	24.8	30.0
32.0							30.7m/25.0	23.5	23.2	22.9	22.7	22.6	32.0
34.0								33.3m/22.3	21.4	21.1	20.8	20.7	34.0
36.0									35.9m/19.8	19.5	19.2	19.1	36.0
38.0										18.1	17.8	17.7	38.0
40.0										38.6m/17.7	16.5	16.4	40.0
42.0											41.2m/15.8	15.3	42.0
44.0												43.9m/14.3	44.0
Reeves	22	18	16	14	12	11	10	9	8	8	7	6	Reeves

<Reference Information>

Main hoist loads

No. of Parts of Line	1	2	3	4	5
Maximum Loads (kN)	132	265	397	530	662
Maximum Loads (t)	13.5	27.0	40.5	54.0	67.5

No. of Parts of Line	6	7	8	9	10
Maximum Loads (kN)	794	927	1,059	1,192	1,324
Maximum Loads (t)	81.0	94.5	108.0	121.5	135.0

No. of Parts of Line	11	12	14	16	18
Maximum Loads (kN)	1,456	1,530	1,785	1,961	2,206
Maximum Loads (t)	148.5	156.0	182.0	200.0	225.0

No. of Parts of Line	22
Maximum Loads (kN)	2,452
Maximum Loads (t)	250.0

Auxiliary hoist loads

No. of Parts of Line	1
Maximum Loads (kN)	132
Maximum Loads (t)	13.5

Weight of hook block					
Hook Block	250 t	150 t	70 t	35 t	Ball Hook
Weight (t)	4.2	2.3	1.2	0.9	0.45