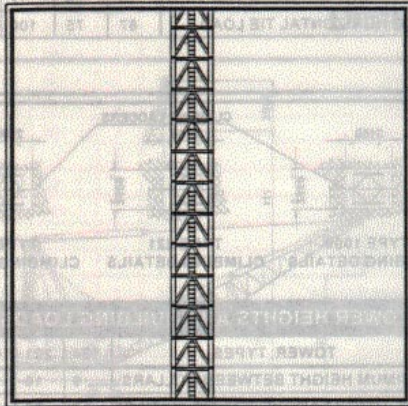


# 120RX CONSTRUCTION TOWER CRANE

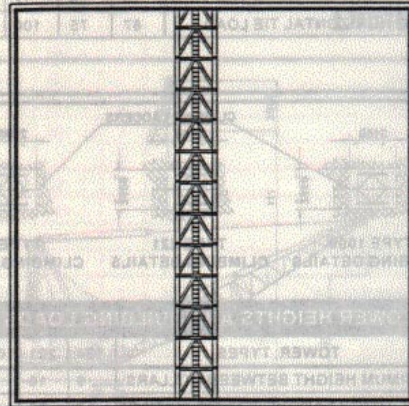
# 120RX CONSTRUCTION TOWER CRANE



## Technical Data



A subsidiary of Muhibbah Engineering (M) BHD



## Technical Data



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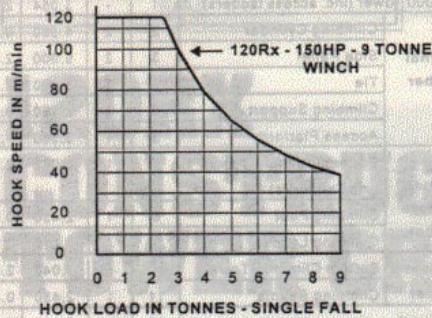
RADIUS & CAPACITY

BOOM LENGTH (m)	MINIMUM RADIUS (m)	MAX RADIUS FOR 18T	RADIUS (METRES) & CAPACITY (TONNES) (9 TONNE WINCH)																
			10.0 (m)	12.5 (m)	15.0 (m)	17.5 (m)	20.0 (m)	22.5 (m)	25.0 (m)	27.5 (m)	30.0 (m)	32.5 (m)	35.0 (m)	37.5 (m)	40.0 (m)	42.5 (m)	45.0 (m)	47.5 (m)	50.0 (m)
51.7	4.7	-	9.0	9.0	9.0	9.0	9.0	8.7	7.4	6.4	5.5	4.9	4.2	3.7	3.3	2.8	2.6	2.3	2.0
47.0	4.3	-	13.0	13.0	13.0	12.4	10.4	8.9	7.6	6.6	5.7	5.0	4.4	3.9	3.4	3.0	2.7		
42.3	3.9	13.2	18.0	18.0	15.3	12.7	10.7	9.1	7.9	6.9	6.0	5.3	4.7	4.2	3.7				
37.6	3.5	13.4	18.0	18.0	15.7	13.0	11.2	9.4	8.2	7.2	6.3	5.6	5.0						
32.9	3.3	13.6	18.0	18.0	15.9	13.2	11.5	9.7	8.5	7.5	6.6								
28.2	3.2	13.8	18.0	18.0	16.1	13.4	11.7	9.9	8.7										
23.5	3.1	14.0	18.0	18.0	16.3	13.6	11.9												

SPEEDS

(Alternative Speed Configurations Available on Request)

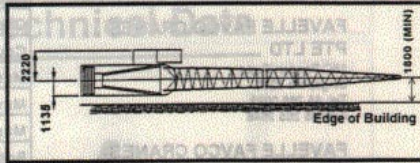
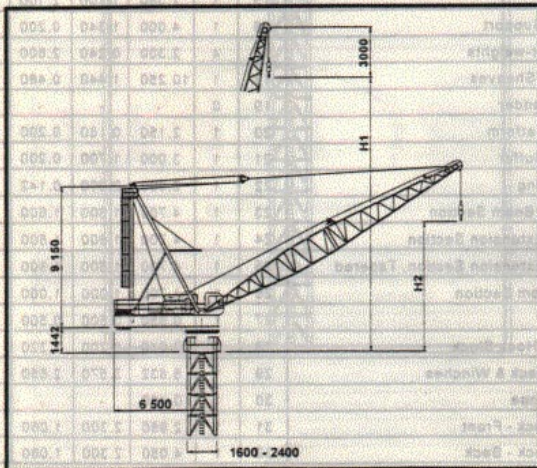
120RX HOIST SPEED CURVE



MOTION SPEEDS



DIMENSIONS



MAXIMUM RADIUS (m)	BOOM LENGTH (m)	HOOK HEIGHT	
		H1 (m)	H2 (m)
50.0	51.7	51.5	14.1
45.0	47.0	46.8	13.6
40.0	42.3	42.1	13.8
35.0	37.6	37.5	13.8
30.0	32.9	32.8	13.6
25.0	28.2	29.0	13.1
20.0	23.5	23.3	12.4

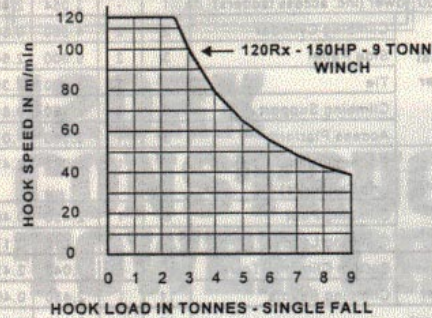
RADIUS & CAPACITY

BOOM LENGTH (m)	MINIMUM RADIUS (m)	MAX RADIUS FOR 18T	RADIUS (METRES) & CAPACITY (TONNES) (9 TONNE WINCH)																
			10.0 (m)	12.5 (m)	15.0 (m)	17.5 (m)	20.0 (m)	22.5 (m)	25.0 (m)	27.5 (m)	30.0 (m)	32.5 (m)	35.0 (m)	37.5 (m)	40.0 (m)	42.5 (m)	45.0 (m)	47.5 (m)	50.0 (m)
51.7	4.7	-	9.0	9.0	9.0	9.0	9.0	8.7	7.4	6.4	5.5	4.9	4.2	3.7	3.3	2.8	2.6	2.3	2.0
47.0	4.3	-	13.0	13.0	13.0	12.4	10.4	8.9	7.6	6.6	5.7	5.0	4.4	3.9	3.4	3.0	2.7		
42.3	3.9	13.2	18.0	18.0	15.3	12.7	10.7	9.1	7.9	6.9	6.0	5.3	4.7	4.2	3.7				
37.6	3.5	13.4	18.0	18.0	15.7	13.0	11.2	9.4	8.2	7.2	6.3	5.6	5.0						
32.9	3.3	13.6	18.0	18.0	15.9	13.2	11.5	9.7	8.5	7.5	6.6								
28.2	3.2	13.8	18.0	18.0	16.1	13.4	11.7	9.9	8.7										
23.5	3.1	14.0	18.0	18.0	16.3	13.6	11.9												

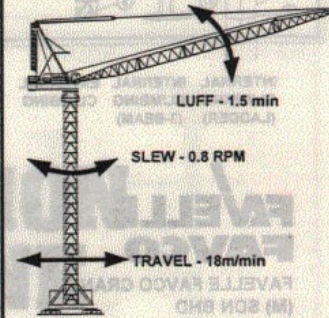
SPEEDS

(Alternative Speed Configurations Available on Request)

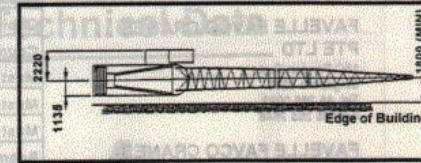
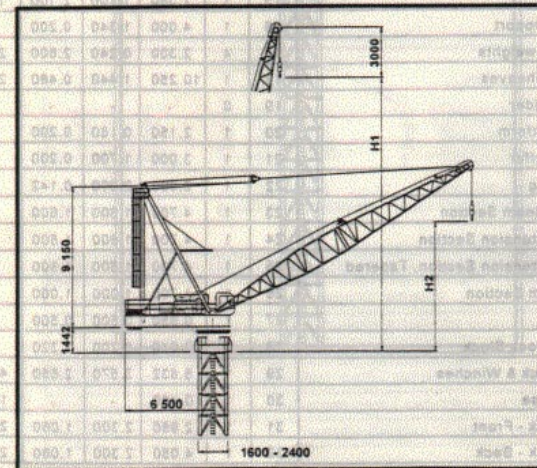
120RX HOIST SPEED CURVE



MOTION SPEEDS

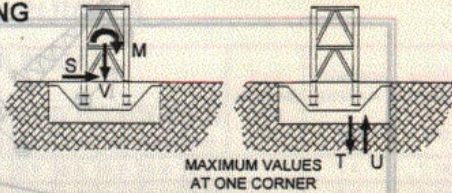
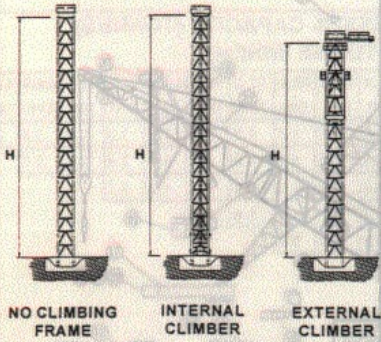


DIMENSIONS



MAXIMUM RADIUS (m)	BOOM LENGTH (m)	HOOK HEIGHT	
		H1 (m)	H2 (m)
50.0	51.7	51.5	14.1
45.0	47.0	46.8	13.6
40.0	42.3	42.1	13.8
35.0	37.6	37.5	13.8
30.0	32.9	32.8	13.6
25.0	28.2	29.0	13.1
20.0	23.5	23.3	12.4

CRANE ON BASE - FREE STANDING



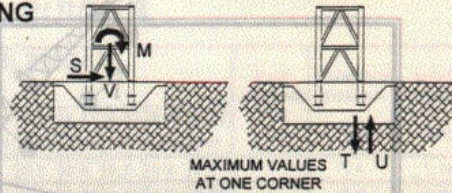
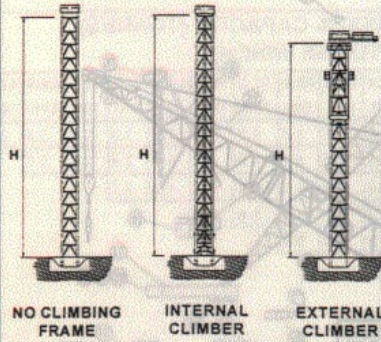
FREESTANDING TOWER HEIGHTS AND FOUNDATION REACTIONS

	NO CLIMBING FRAME		INTERNAL CLIMBING FRAME		EXTERNAL CLIMBING FRAME		UNITS
TOWER	124	221 1000	124 221 1000	221 750 1000	1000		
H	18	40 33	18 40 33	36 15 30			(m)
M	379	766 640	379 766 640	798 386 674			(mT)
V	56	82 65	60 86 70	83 61 76			(T)
S	12	20 20	12 20 23	16 21			(T)
T	192	338 210	193 339 210	352 130 220			(T)
U	169	302 180	168 301 175	316 104 187			(T)

In-service wind speeds up to 20 m/s & out-of-service wind speeds up to 42 m/s.

Alternatives available upon request.

CRANE ON BASE - FREE STANDING



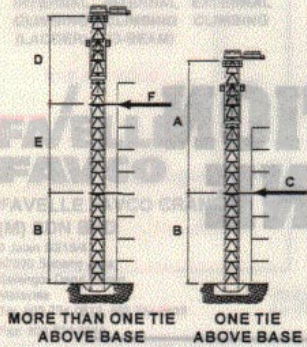
FREESTANDING TOWER HEIGHTS AND FOUNDATION REACTIONS

	NO CLIMBING FRAME		INTERNAL CLIMBING FRAME		EXTERNAL CLIMBING FRAME		UNITS
TOWER	124	221 1000	124 221 1000	221 750 1000	1000		
H	18	40 33	18 40 33	36 15 30			(m)
M	379	766 640	379 766 640	798 386 674			(mT)
V	56	82 65	60 86 70	83 61 76			(T)
S	12	20 20	12 20 23	16 21			(T)
T	192	338 210	193 339 210	352 130 220			(T)
U	169	302 180	168 301 175	316 104 187			(T)

In-service wind speeds up to 20 m/s & out-of-service wind speeds up to 42 m/s.

Alternatives available upon request.

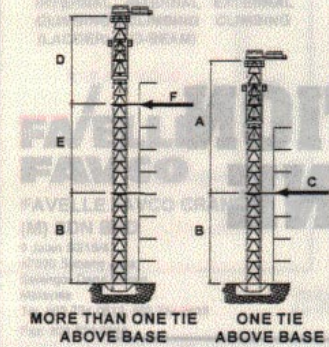
EXTERNAL CLIMBING



TOWER HEIGHTS AND BUILDING LOADS

TOWER TYPES:	221	750	1000	UNITS
ONE TIE ABOVE BASE				
A MAX. HEIGHT ABOVE FIRST TIE	36	15	27	(m)
B MIN HEIGHT TO FIRST TIE	20	9	12	(m)
C MAX. HORIZONTAL TIE LOAD	83	85	100	(T)
MORE THAN ONE TIE ABOVE BASE				
D MAX. HEIGHT ABOVE TOP TIE	36	15	27	(m)
E MIN HEIGHT BETWEEN TOP TIES	16	9	12	(m)
F MAX. HORIZONTAL TIE LOAD	87	75	100	(T)

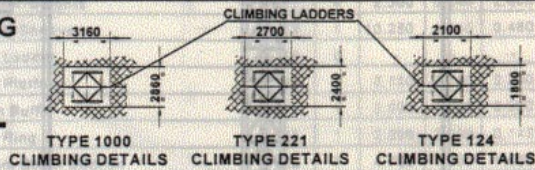
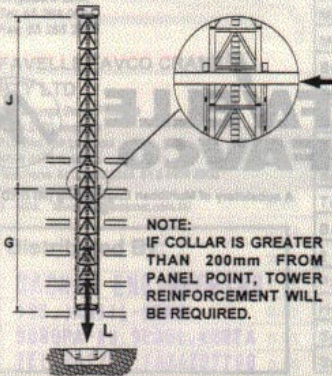
EXTERNAL CLIMBING



TOWER HEIGHTS AND BUILDING LOADS

TOWER TYPES:	221	750	1000	UNITS
ONE TIE ABOVE BASE				
A MAX. HEIGHT ABOVE FIRST TIE	36	15	27	(m)
B MIN HEIGHT TO FIRST TIE	20	9	12	(m)
C MAX. HORIZONTAL TIE LOAD	83	85	100	(T)
MORE THAN ONE TIE ABOVE BASE				
D MAX. HEIGHT ABOVE TOP TIE	36	15	27	(m)
E MIN HEIGHT BETWEEN TOP TIES	16	9	12	(m)
F MAX. HORIZONTAL TIE LOAD	87	75	100	(T)

INTERNAL LADDER CLIMBING

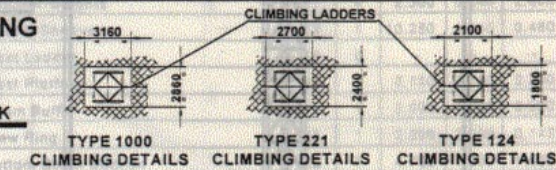
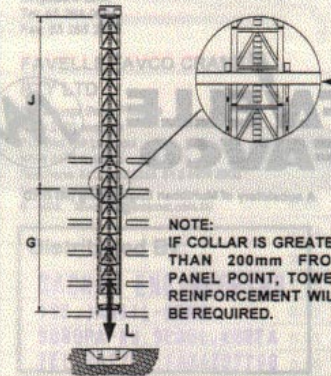


TOWER HEIGHTS AND BUILDING LOADS

TOWER TYPES	124	221	1000	
G MINIMUM HEIGHT BETWEEN COLLARS	9	10	9	(m)
J MAX. HEIGHT ABOVE TOP TIE (WITH G)	12	30	24	(m)
K MAX. HORIZONTAL LOAD (WITH G+J)	45	74	70	(T)
L TOTAL VERTICAL LOAD (WITH H)	70	87	70	(T)
H MAX FREE-STANDING HEIGHT	21	40	33	(m)

NOTE: IF COLLAR IS GREATER THAN 200mm FROM PANEL POINT, TOWER REINFORCEMENT WILL BE REQUIRED.

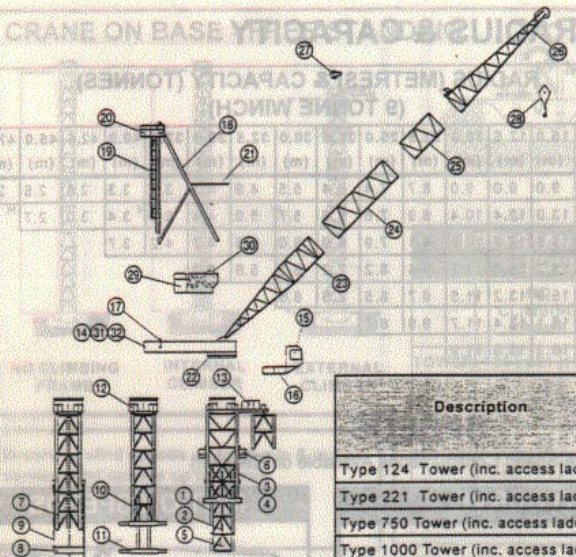
INTERNAL LADDER CLIMBING



TOWER HEIGHTS AND BUILDING LOADS

TOWER TYPES	124	221	1000	
G MINIMUM HEIGHT BETWEEN COLLARS	9	10	9	(m)
J MAX. HEIGHT ABOVE TOP TIE (WITH G)	12	30	24	(m)
K MAX. HORIZONTAL LOAD (WITH G+J)	45	74	70	(T)
L TOTAL VERTICAL LOAD (WITH H)	70	87	70	(T)
H MAX FREE-STANDING HEIGHT	21	40	33	(m)

NOTE: IF COLLAR IS GREATER THAN 200mm FROM PANEL POINT, TOWER REINFORCEMENT WILL BE REQUIRED.



INTERNAL CLIMBING (LADDER)    INTERNAL CLIMBING (3-BEAM)    EXTERNAL CLIMBING

**FAVELLE  
FAVCO**

**FAVELLE FAVCO CRANES (M) SDN BHD**  
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47500 Subang Jaya  
Selangor Darul Ehsan  
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Fax: 603 734 0610

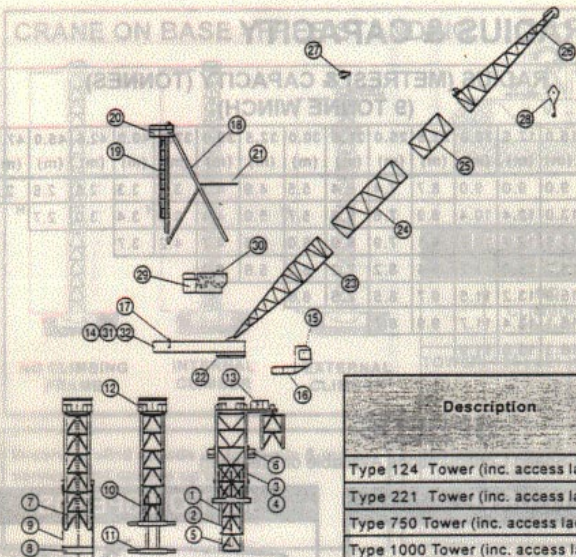
**FAVELLE FAVCO CRANES PTE LTD**  
15C Pandan Road  
Singapore 2260  
Tel: 65 258 0095  
Fax: 65 265 2646

**FAVELLE FAVCO CRANES PTY LTD**  
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NSW 2170 Australia  
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NSW 2170 Australia  
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E-MAIL: favcosyd@entelnet.com.au

Distributed By:

**BACKAM ENGINEERING**  
199, JAMSIL-DONG,  
SONGPA-KU, SEOUL, KOREA  
TEL 4207791 - FAX 4207790

Description		Item	Qty	L Length (m)	W Width (m)	H Height (m)	Weight per-item (kg)
Type 124 Tower (inc. access ladders)		1	-	8.110	1.600	1.600	3665
Type 221 Tower (inc. access ladders)		1	-	4.000	2.004	1.997	3930
Type 750 Tower (inc. access ladders)		1	-	3.048	2.438	2.438	2100
Type 1000 Tower (inc. access ladders)		1	-	3.054	2.464	2.464	2400
External Climber	Climbing Cylinder	2	2	4.860	0.300	0.300	1800
	Side Panel	3	2	9.000	2.640	0.300	4100
	Tie	4	2	3.090	2.390	0.400	1600
	Climbing Support	5	2	2.160	0.810	0.330	300
	Access Platform	6	1	3.550	1.073	1.235	200
Internal Ladder Climber	Bottom Climbing Tower (inc Cylinders)	7	1	3.048	2.470	2.470	3500
	Climbing Foot	8	1	2.450	0.460	0.770	1100
	Climbing Ladder	9	-	0.210	0.170	8.000	525
3 - Beam Climber	Bottom Climbing Tower	10	1	3.048	2.470	2.470	3000
	Climbing Beams	11	1	2.450	0.460	0.770	1100
Slew Mount		12	1	3.110	2.660	1.440	3500
Monorail Beam & Trolley (Ext Climb)		13	1	5.800	0.620	0.580	1500
Machinery Deck (one piece)		14	1	7.000	2.300	1.060	4800
Cabin		15	1	1.380	1.100	2.100	1200
Cabin Support		16	1	4.000	1.340	0.200	320
Counter-weights		17	4	2.300	0.240	2.800	2500
Mast & Sheaves		18	1	10.250	1.440	0.480	2160
Mast Ladder		19	0	-	-	-	-
Mast Platform		20	1	2.150	0.180	0.200	290
Boom Buffer		21	1	3.000	1.700	0.200	255
Slew Ring		22	1	2.090	2.090	0.142	860
Bottom Boom Section		23	1	4.700	1.600	1.600	650
Boom Extension Section		24	1	4.700	1.600	1.600	620
Boom Extension Section, Tapered		25	1	4.700	1.600	1.600	600
Top Boom Section		26	1	4.700	1.000	1.000	650
Bride		27	1	0.850	0.500	0.500	210
2 - Fall Hook Block		28	1	0.640	0.200	1.320	400
Powerpack & Winches		29	1	5.832	3.570	2.650	4920
Hoist Rope		30	1	0.480	-	-	1300
Split Deck - Front		31	1	2.950	2.300	1.060	2800
Split Deck - Back		32	1	4.050	2.300	1.060	2000



INTERNAL CLIMBING (LADDER)    INTERNAL CLIMBING (3-BEAM)    EXTERNAL CLIMBING

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Description		Item	Qty	L Length (m)	W Width (m)	H Height (m)	Weight per-item (kg)
Type 124 Tower (inc. access ladders)		1	-	8.110	1.600	1.600	3665
Type 221 Tower (inc. access ladders)		1	-	4.000	2.004	1.997	3930
Type 750 Tower (inc. access ladders)		1	-	3.048	2.438	2.438	2100
Type 1000 Tower (inc. access ladders)		1	-	3.054	2.464	2.464	2400
External Climber	Climbing Cylinder	2	2	4.860	0.300	0.300	1800
	Side Panel	3	2	9.000	2.640	0.300	4100
	Tie	4	2	3.090	2.390	0.400	1600
	Climbing Support	5	2	2.160	0.810	0.330	300
	Access Platform	6	1	3.550	1.073	1.235	200
Internal Ladder Climber	Bottom Climbing Tower (inc Cylinders)	7	1	3.048	2.470	2.470	3500
	Climbing Foot	8	1	2.450	0.460	0.770	1100
	Climbing Ladder	9	-	0.210	0.170	8.000	525
3 - Beam Climber	Bottom Climbing Tower	10	1	3.048	2.470	2.470	3000
	Climbing Beams	11	1	2.450	0.460	0.770	1100
Slew Mount		12	1	3.110	2.660	1.440	3500
Monorail Beam & Trolley (Ext Climb)		13	1	5.800	0.620	0.580	1500
Machinery Deck (one piece)		14	1	7.000	2.300	1.060	4800
Cabin		15	1	1.380	1.100	2.100	1200
Cabin Support		16	1	4.000	1.340	0.200	320
Counter-weights		17	4	2.300	0.240	2.800	2500
Mast & Sheaves		18	1	10.250	1.440	0.480	2160
Mast Ladder		19	0	-	-	-	-
Mast Platform		20	1	2.150	0.180	0.200	290
Boom Buffer		21	1	3.000	1.700	0.200	255
Slew Ring		22	1	2.090	2.090	0.142	860
Bottom Boom Section		23	1	4.700	1.600	1.600	650
Boom Extension Section		24	1	4.700	1.600	1.600	620
Boom Extension Section, Tapered		25	1	4.700	1.600	1.600	600
Top Boom Section		26	1	4.700	1.000	1.000	650
Bride		27	1	0.850	0.500	0.500	210
2 - Fall Hook Block		28	1	0.640	0.200	1.320	400
Powerpack & Winches		29	1	5.832	3.570	2.650	4920
Hoist Rope		30	1	0.480	-	-	1300
Split Deck - Front		31	1	2.950	2.300	1.060	2800
Split Deck - Back		32	1	4.050	2.300	1.060	2000