

B**BARKAT HIRING CO.**

FORK-LIFT & CRANE OWNERS

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Mob. : AMAR BEDI - 98200 28580 • PREET BEDI - 98200 22719.

P&H - 790-TC

90 tonne truck crane

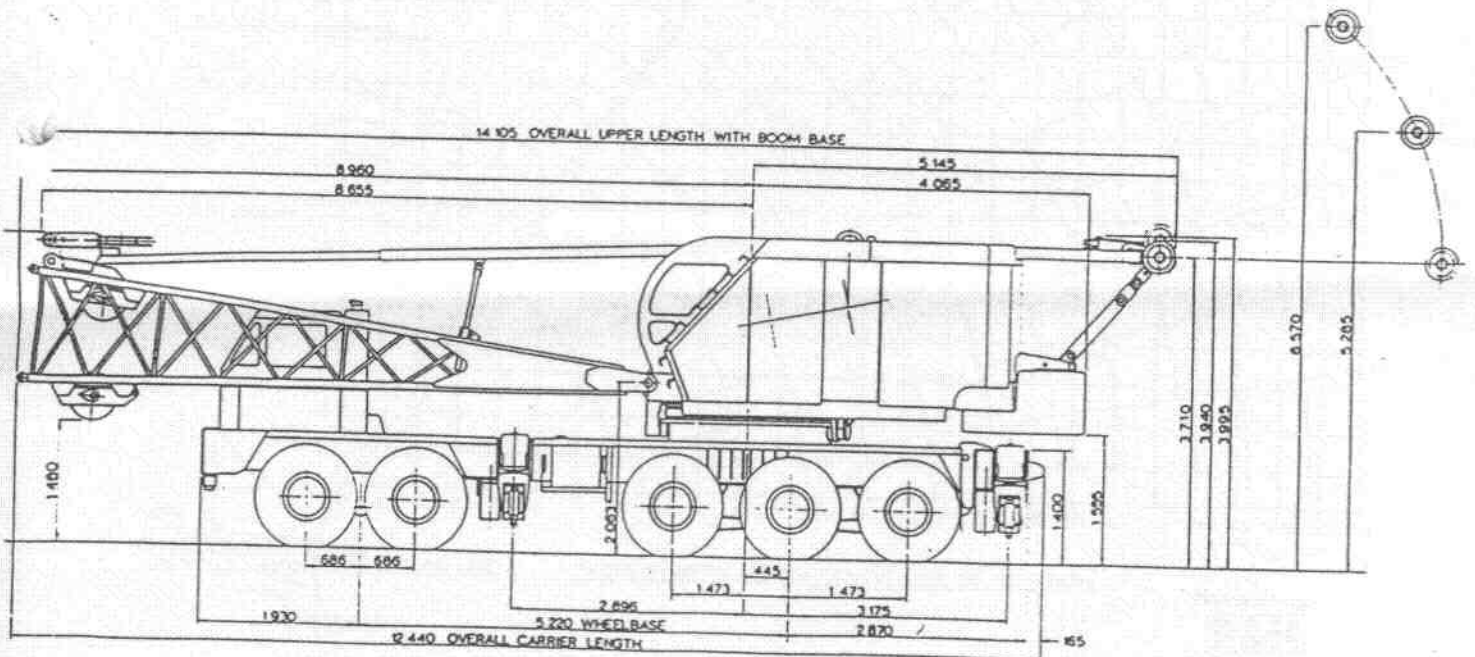
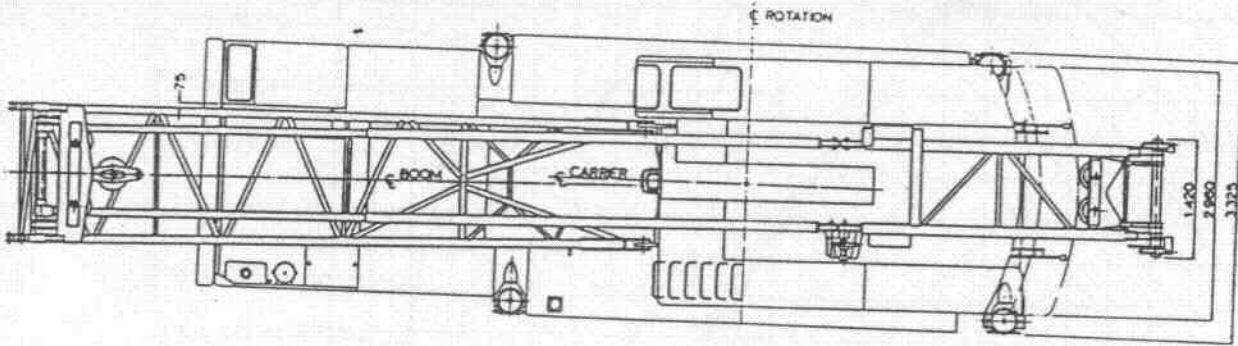
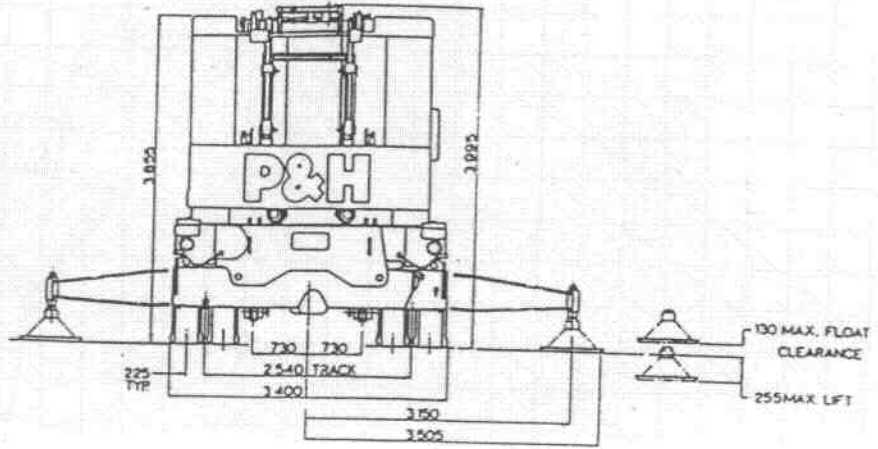
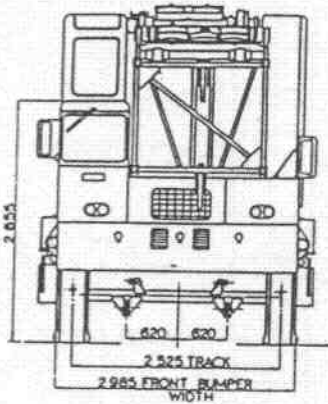
79 metres maximum boom and jib



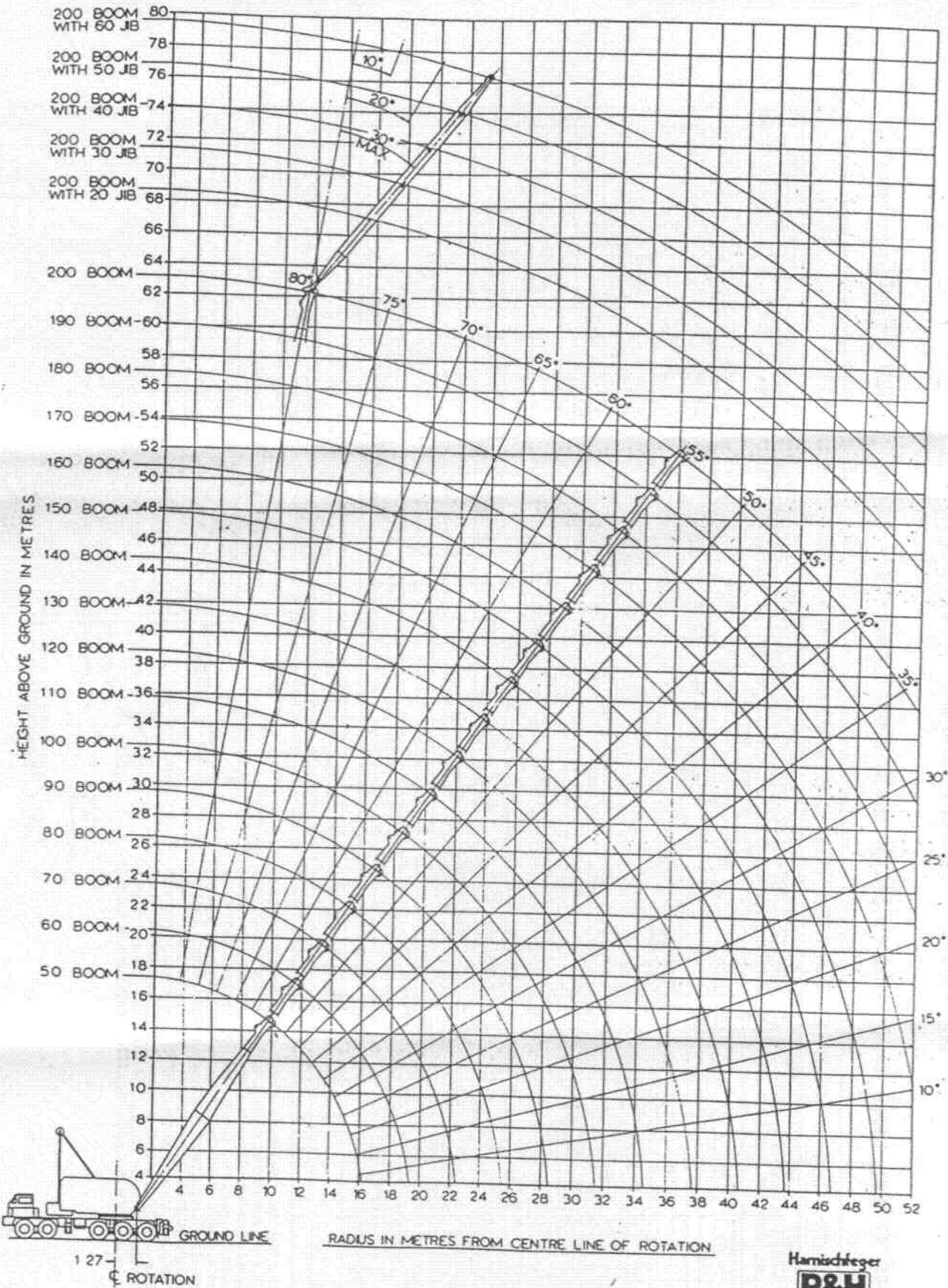
P&H

general dimensions

ALL DIMENSIONS IN MILLIMETRES



range diagram



lifting capacities — metric

Harnischkeger **P&H** MODEL 90 T.C. - 82 TONNE TRUCK CRANE (CLASS 4 - 264) WITH FRONT BUMPER COUNTERWEIGHT

RATED CRANE LOADS IN KILOGRAMS MAIN BOOM OVER REAR WORK AREA WITH OUTRIGGERS FULLY EXTENDED & SET.

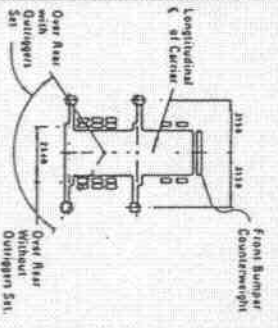
Jib No.	Jib Type	50 Boom		60 Boom		70 Boom		80 Boom		90 Boom		100 Boom		110 Boom		120 Boom		130 Boom		140 Boom		150 Boom		160 Boom		170 Boom		180 Boom		190 Boom		200 Boom	
		Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.
1	1	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00

WARNING
WHEN BOOM IS EQUIPPED WITH JIB MAIN HOOK RATINGS MUST BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.

JIB
No. 20 30 40 50 60
PRODUCT 700 800 950 1150 1400

RATED CRANE LOADS OVER REAR WITHOUT OUTRIGGERS

Jib No.	Jib Type	50 Boom		60 Boom		70 Boom		80 Boom		90 Boom		100 Boom		110 Boom		120 Boom		130 Boom		140 Boom		150 Boom		160 Boom		170 Boom		180 Boom		190 Boom		200 Boom	
		Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	Beam Rating M.E.L. M.	
1	1	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	



RATINGS SHOWN ARE BASED ON TYRE LOADINGS AND MACHINE STABILITY AND NOT EXCEED 75% OF TIPPING LOAD AS DETERMINED BY S.A.A. CRANE CODE C.B.G. AMDT. 1, 2 & 3. RATINGS SHOWN ARE BASED ON MACHINE COUNTERWEIGHT OF 11100 KG. AND FRONT BUMPER COUNTERWEIGHT OF 6300KG. STANDARD BOOM HOIST REEL IS TO PART LINE. GANTRY MUST BE IN RAISED POSITION FOR ALL OPERATING CONDITIONS. LOW GEAR OPERATION MAY BE REQUIRED WHEN HOIST OR DIGGING DR OPERATED ON 6th OR 7th LAYER OF CABLE. MACHINE MUST BE ON A FIRM LEVEL ORTING SURFACE. ALL TYRES MUST BE EVENLY INFLATED TO 855 kPa (125 PSI). MUST BE RESTRAINED FROM SWINGING DURING TRAVEL. MAXIMUM APPROVED TR SPEED WITH LIFTED LOAD IS 2.5 km/h. MAXIMUM APPROVED TRAVEL SPEED FRONT BUMPER COUNTERWEIGHT INSTALLED IS 10km/h.

Harnischfeger P&H MODEL 90 T.C. - 80 TONNE TRUCK CRANE (CLASS 4 - 197).

RATED CRANE LOADS IN KILOGRAMS - MAIN BOOM OVER SIDE AND OVER REAR WORK AREA WITH OUTRIGGERS FULLY EXTENDED & SET.

JIB DIMS	50 Boom		60 Boom		70 Boom		80 Boom		90 Boom		100 Boom		110 Boom		120 Boom		130 Boom		140 Boom		150 Boom		160 Boom		170 Boom		180 Boom		190 Boom		200 Boom			
	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.	Beam Rating Ph. El.	kg.				
1	4	180	5	225	6	270	7	315	8	360	9	405	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900
2	5	225	6	270	7	315	8	360	9	405	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945
3	6	270	7	315	8	360	9	405	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990
4	7	315	8	360	9	405	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035
5	8	360	9	405	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080
6	9	405	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125
7	10	450	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170
8	11	495	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215
9	12	540	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260
10	13	585	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305
11	14	630	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350
12	15	675	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395
13	16	720	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440
14	17	765	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485
15	18	810	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530
16	19	855	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575
17	20	900	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620
18	21	945	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665
19	22	990	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710
20	23	1035	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755
21	24	1080	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800
22	25	1125	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845
23	26	1170	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890
24	27	1215	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935
25	28	1260	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980
26	29	1305	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980	45	2025
27	30	1350	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980	45	2025	46	2070
28	31	1395	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980	45	2025	46	2070	47	2115
29	32	1440	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980	45	2025	46	2070	47	2115	48	2160
30	33	1485	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980	45	2025	46	2070	47	2115	48	2160	49	2205
31	34	1530	35	1575	36	1620	37	1665	38	1710	39	1755	40	1800	41	1845	42	1890	43	1935	44	1980	45	2025	46	2070	47	2115	48	2160	49	2205	50	2250

WARNING.
WHEN BOOM IS EQUIPPED WITH JIB MAIN HOOK,
RATINGS MUST BE REDUCED TO COMPENSATE FOR
JIB ATTACHMENT WEIGHT.

JIB DIMS	20	30	40	50	60
1	700	800	950	1150	1400
2	700	800	950	1150	1400
3	700	800	950	1150	1400
4	700	800	950	1150	1400
5	700	800	950	1150	1400
6	700	800	950	1150	1400
7	700	800	950	1150	1400
8	700	800	950	1150	1400
9	700	800	950	1150	1400
10	700	800	950	1150	1400
11	700	800	950	1150	1400
12	700	800	950	1150	1400
13	700	800	950	1150	1400
14	700	800	950	1150	1400
15	700	800	950	1150	1400
16	700	800	950	1150	1400
17	700	800	950	1150	1400
18	700	800	950	1150	1400
19	700	800	950	1150	1400
20	700	800	950	1150	1400

RATED CRANE LOADS IN KILOGRAMS. MAIN BOOMS WITHOUT OUTRIGGERS. TYRES AT 655 kPa (95 PSI)

JIB DIMS	50 Boom		60 Boom		70 Boom		80 Boom		90 Boom		100 Boom		110 Boom		120 Boom		130 Boom		140 Boom		150 Boom		160 Boom		170 Boom		180 Boom		190 Boom		200 Boom	
	Beam Rating Ph. El.	kg.																														

POWER PLANT:

DESCRIPTION	STANDARD
Engine make	Cummins
Model number	NTF - 365
Type	Diesel
No. cylinders	6
Bore x stroke	139.7 mm x 152.4 mm
Displacement	14 013 cubic centimetre
Cycle	Four
Air induction	Turbocharged
Cooling	Liquid
Starting	24 volt
Charging	12 volt 75 amp alternator
Compressor, air	6230 cubic centimetre / sec.
Governor, air	724 to 827 kPa.
Power output, gross	272 kilowatt at 2300 r.p.m.

CLUTCH: Lipe rollway 14 - 2 DLB

TRANSMISSION AND PROP. SHAFTS: Fuller model R.T.O. 9509 B.S. progressive forward speeds, 2 reverse. 1810 series shaft yoke - Dana Spicer. Prop. shafts Hardy Spicer. Front and intermediate shafts 1810 series. Interaxle shafts 1700 series.

STEERING: Ross - worm and roller steering gear 28.0 to 1.0 ratio 533 mm diameter steering wheel.

FRONT AXLES: Shuler model FTCS-34-L tubular front axles in tandem. 2359 mm king pin centres.

REAR AXLES: Clark: TD 85000 planetary drive tridem axles with interaxle differentials. 2540 mm track total ratio 11.547:1

BRAKES: Service - dual air brake circuit with front and rear brakes on separate circuits. Front linings 438 mm dia. x 102 mm wide. 3226 square centimetre total front lining area. 103 square centimetre air chambers. Rear linings 419 mm dia. x 178 mm wide. Square centimetre total rear lining area. 232 square centimetre air chambers. Total brake lining area.

SUSPENSION: Rear:unsprung box section tridem with torque rods. Self aligning bearings on suspension beams. Front:unsprung box section bogie with torque rods. Self aligning bearings on both ends of bogie beams.

WHEELS / RIMS: Front 14.00 x 20 rims. Rear 14.00 x 20 rims and spacers

TYRES: Seventeen (17) 14.00 x 20 - 18 ply tyres complete with tube and flap non-directional.

FUEL TANK: 284 litre capacity

RADIATOR: Liquid type, rubber mounted, vertical tube and fin type core. Thermostat temperature control. Dearthion baffle in top of tank.

CAB: 812 mm wide one-man cab offset to right side of engine compartment, all windows are safety glass, electric windshield wiper and windshield washer, removable dash with (speedometer, air pressure gauge, voltmeter, coolant temperature gauge, engine oil pressure gauge, fuel level gauge and switches.) electric horn, dome light, seat assembly, west coast mirrors - one on right side of cab - one on left side of carrier, crank down door window, slide - by left side windows. Air vent on right side.

LIGHTING: Four headlights with foot operated dimmer switch. Stop, tail, directional, clearance and rear licence plate lights. Two weather proof sockets provided for upper lighting during transit. In cab - dome light, illuminated gauges, indicator lights for hi-beam lights, directional lights, emergency flasher lights and low air pressure warning light.

CAB AND BODY: Cab, engine hood, front and side panels, front skirts, equipment boxes, dirt shields and body floor plates formed from sheet steel.

MISCELLANEOUS EQUIPMENT - STD: Tyre inflation valve and hose, four (4) aluminium outrigger floats and tool kit

OPTIONS: Front "fifth" jack float for 360° operation, 6350 kilogram counterweight, backup warning device, 1220 mm x 1220 mm aluminium outrigger floats and low silhouette floats.

vehicle weights

FOR TRAVEL CONDITIONS

Machine less counterweight, rear frame, Boom Point.

1/ BOOM OVER FRONT OF CARRIER

FRONT BOGIE	REAR BOGIE	G.V.W.
Kg 10,260	Kg 34,000	Kg 44,260

2/ BOOM OVER REAR

FRONT BOGIE	REAR BOGIE	G.V.W.
Kg 14,130	Kg 30,130	Kg 44,260

