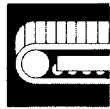


## LOWER MACHINERY

### CAR BODY AND AXLES

Car body all-welded construction.



### LUG & TUMBLER TYPE CRAWLER

Crawler side frames are extendible and retractable by use of hydraulic cylinders to convert from a more stable operating condition to a narrower overall width for travel and transportation. Crawlers designed with quick disconnect feature for individual removal as a unit from axles. Crawler belt tension maintained by hydraulic jack force on track adjusting bearing block. Crawler frames inserted to axles and fastened to lower frame with 4 braces to support 9 lower rollers in each frame.

### CRAWLER DRIVE

Independent hydraulic propel drive built into each crawler side frame. Each drive consists of a hydraulic motor propelling a driving tumbler (wheel) through a planetary gear box. The tumbler exerts force against lugs cast into crawler shoes, thereby propelling machine. Self-contained system eliminates gear and chain drives in car body and shafts.

### CRAWLER BRAKES

Disc type, spring set hydraulically released parking brakes are built into each propel drive.

### STEERING MECHANISM

The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite directions).

### TRACK ROLLERS

Sealed track rollers for maintenance-free operation.

### CRAWLER SHOES

Total number — both sides ..... 116  
Flat cast shoes — standard width ..... 900 mm (35.43")

### TRANS-LIFTER (OPTIONAL)

Trans-lifter system allows quick and easy crawler side frame removal and trailer loading. Four vertical cylinders lift up the basic machine and give road clearance of 1,200 mm (47.24") for self trailer loading. Two horizontal cylinders facilitate side frame removal.

### TRAVEL SPEED

High range (max.) ..... 1.2 km/h (0.74 mph)  
Low range (max.) ..... 0.6 km/h (0.37 mph)

GRADEABILITY ..... 30%

### BASIC JIB (OPTIONAL)

Two piece, open throat tubular lattice type, having a 559 mm (22") deep x 610 mm (24") wide cross section and single jib point sheave, compression strut and guy cables assemblies. Sections are pin connected. High tensile steel chords, all welded. Jib extendible to 18.29 m (60'). For lifts not exceeding 8,000 kg (17,600 lbs.)

Basic length ..... 6.10 m (20')  
Jib base section ..... 3.05 m (10')  
Jib tip section ..... 3.05 m (10')

### JIB INSERT SECTIONS (OPTIONAL)

Jib insert available for extension, with suspension cable assemblies, tubular lattice type, high tensile steel chords, all welded, pin connections.

Available in only 6.10 m (20') long.



### HOOK BLOCKS:

80 metric ton block with five sheaves, swivel hook, safety latch and ten (10) parts hoist line.

56 metric ton block with three sheaves, swivel hook, safety latch and seven (7) parts hoist line — optional

24 metric ton block with single sheave, swivel hook, safety latch and three (3) parts hoist line — optional

8 metric ton weighted ball hook with safety latch for jib — optional

### DIAMETER OF WIRE ROPE

Hoist wire rope ..... 26 mm (1.02")  
Jib hoist wire rope — optional ..... 26 mm (1.02")  
Boom hoist wire rope ..... 18 mm (0.71")  
Boom suspension wire rope (2 parts line) — optional ... 32 mm (1.26")  
Jib suspension wire rope (2 parts line) — optional ..... 20 mm (0.79")  
Intermediate boom suspension wire rope — optional ... 18 mm (0.71")  
[Required when boom length is 51.82 m (170') or longer.]

### BOOM HOIST REEVING

Twelve (12) parts line.

### BOOM BACKSTOP

Telescoping type with spring bumper. Recommended for all boom lengths.

### CABLE GUIDE ROLLERS (OPTIONAL)

Use as required to eliminate wire rope interference. Recommended for all boom lengths.

### WORKING WEIGHT

Working weight ..... Approx. 73,000 kg (160,900 lbs.)  
Including 12.19 m (40') boom, 900 mm (35.4") shoes, 80 metric ton hook block and 19,900 kg (43,900 lbs.) counterweight.

### GROUND PRESSURE

Machine w/900 mm (35.4") shoes ..... Aver. 0.71 kg/cm<sup>2</sup> (10.1 psi)

## CRANE ATTACHMENTS



### BASIC BOOM

Two piece, open throat lattice type tubular boom consisting of a tapered base section and a tapered tip section having five offset boom point sheaves 613 mm (24.13") pitch dia. with antifriction bearings. Sections are pin connected, have a 1,575 mm (62") deep x 1,575 mm (62") wide cross section and complete with suspension cable assemblies. High tensile steel chords all welded. Boom extendible to 54.86 m (180').

Basic length ..... 12.19 m (40')  
Boom base section ..... 6.10 m (20')  
Boom tip section ..... 6.10 m (20')

### BOOM INSERT SECTIONS (OPTIONAL)

Boom insert available for extension, with suspension cable assemblies, tubular lattice type, high tensile steel chords, all welded, pin connections.

Available in 3.05 m (10'), 6.10 m (20') and 9.14 m (30') long.

## DRUM WORKING DATA

		Front Drum	Rear Drum	Boom Hoist Drum	
Function		Main hoist line	Jib hoist line	Boom hoist line	
Pitch dia.	mm (in.)	520 (20.47)	520 (20.47)	360 (14.17)	
Drum length	mm (in.)	403 (15.87)	403 (15.87)	212 (8.35)	
Wire rope dia.	mm (in.)	26 (1.02)	26 (1.02)	18 (0.71)	
Capacity — Total		m (ft.)	287 (942)	287 (942)	149 (489)
* Line speed	Hoisting	m/min (fpm)	60/36 (197/118)	60/36 (197/118)	41/25 (135/82)
	Lowering	m/min (fpm)	35/21 (115/69)	35/21 (115/69)	27/16 (89/52)
* Line pull		kg (lbs.)	12,000 (26,500)	12,000 (26,500)	—

Line speed and line pull marked with \* are based on single line and 1st layer of wire rope.

## TOWER CRANE ATTACHMENTS



### TOWER BOOM

Lattice type tubular boom consisting of a tapered base section, two inserts and a cap section, pin connected with suspension cable assemblies and strut. High tensile steel chords, all welded. Tower boom extendible to

42.67 m (140')

Length in four sections .....	21.34 m (70')
Base section .....	6.10 m (20')
1—insert .....	3.05 m (10')
1—insert .....	6.10 m (20')
Cap section .....	6.10 m (20')

### TOWER INSERT SECTIONS (OPTIONAL)

Tower insert available for extension, with suspension cable assemblies, tubular lattice type, high tensile steel chords, all welded pin connections.

Available in 3.05 m (10') and 9.14 m (30') long.

### BASIC JIB

Three piece, open throat lattice type tubular jib consisting of a tapered base section; an insert section and a tapered tip section with single point sheave, pin connected with suspension cable assemblies. High tensile steel chords, all welded. Jib extendible to 18.29 m (60') jib.

Length in three sections .....	18.29 m (60')
Base section .....	4.57 m (15')
1—insert .....	9.14 m (30')
Cap section .....	4.57 m (15')

### JIB INSERT SECTIONS (OPTIONAL)

Jib insert available for extension, with suspension cable assemblies, tubular lattice type, high tensile steel chords, all welded, pin connection.

Available in 3.05 m (10') and 6.10 m (20') long.

### HOOK BLOCK

24 metric ton block with single sheave, swivel hook safety latch and two (2) parts hoist line.

### DIAMETER OF WIRE ROPE

Hoist wire rope .....	26 mm (1.02")
Tower hoist wire rope .....	18 mm (0.71")
Jib hoist wire rope .....	26 mm (1.02")
Tower suspension wire rope (2 parts line) .....	32 mm (1.26")
Jib suspension wire rope (upper) .....	28 mm (1.10")
Jib suspension wire rope (lower) .....	30 mm (1.18")

### BOOM HOIST REEVING

Tower: Twelve (12) parts line. Jib: Nine (9) parts line.

### TOWER BOOM BACKSTOP

Telescoping type with spring bumper.

### WORKING WEIGHT

Working weight ..... Approx. 76,000 kg (167,500 lbs.)  
Including 21.34 m (70') tower boom, 18.29 m (60') jib, 900 mm (35.4") shoes, 24 metric ton hook block and 19,900 kg (43,900 lbs.) counterweights.

### GROUND PRESSURE

Machine w/900 mm (35.4") shoes ..... 0.75 kg/cm<sup>2</sup> (10.7 psi)

## DRUM WORKING DATA

		Front Drum	Rear Drum	Boom Hoist Drum
<b>Function</b>		Load line	Jib hoist line	Tower hoist line
Pitch dia.	mm (in.)	520 (20.47)	520 (20.47)	360 (14.17)
Drum length	mm (in.)	403 (15.87)	403 (15.87)	212 (8.35)
Wire rope dia.	mm (in.)	26 (1.02)	26 (1.02)	18 (0.71)
Capacity — Total		287 (942)	287 (942)	149 (489)
* Line speed	Hoisting	m/min (fpm)	60/36 (197/118)	60/36 (197/118)
	Lowering	m/min (fpm)	35/21 (115/69)	35/21 (115/69)
* Line pull		kg (lbs.)	12,000 (26,500)	12,000 (26,500)

Line speed and line pull marked with \* are based on single line and 1st layer of wire rope.

## CLAMSHELL ATTACHMENTS



### BASIC BOOM

Two piece, open throat lattice type tubular boom consisting of a tapered base section and a tapered tip section having five offset boom point sheaves 613 mm (24.13") pitch dia. with antifriction bearings. Sections are pin connected, have a 1,575 mm (62") deep x 1,575 mm (62") wide cross section and complete with suspension cable assemblies. High tensile steel chords all welded. Boom extendible to 21.34 m (70').

Basic length .....	12.19 m (40')
Boom base section .....	6.10 m (20')
Boom tip section .....	6.10 m (20')

### BOOM INSERT SECTIONS (OPTIONAL)

Boom insert available for extension, with suspension cable assemblies, tubular lattice type, high tensile steel chords, all welded, pin connections.

Available in 3.05 m (10') and 6.10 m (20') long.

### DIAMETER OF WIRE ROPE

Boom hoist wire rope .....	18 mm (0.71")
Holding wire rope .....	26 mm (1.02")
Closing wire rope .....	26 mm (1.02")
Boom suspension wire rope .....	32 mm (1.26")

### BOOM HOIST REEVING

Twelve (12) parts line.

### BOOM BACKSTOP

Telescoping type with spring bumper.

### TAGLINE WINDER

Spring type.

### BUCKET

Max. allowable bucket capacity ..... 2.0 m<sup>3</sup> (2.62 cu. yd.)  
Max. allowable bucket weight ..... Approx. 4,500 kg (9,900 lbs.)

### WORKING WEIGHT

Working weight ..... Approx. 76,000 kg (167,500 lbs.)  
Including 12.19 m (40') boom, 900 mm (35.4") shoes, 2.0 m<sup>3</sup> (2.62 cu. yd.) bucket and 19,900 kg (43,900 lbs.) counterweight.

### GROUND PRESSURE

Machine w/900 mm (35.4") shoes ..... 0.75 kg/cm<sup>2</sup> (10.7 psi.)

## DRUM WORKING DATA

		Front Drum	Rear Drum	Boom Hoist Drum
<b>Function</b>		Closing line	Holding line	Boom hoist line
Pitch dia.	mm (in.)	520 (20.47)	520 (20.47)	360 (14.17)
Drum length	mm (in.)	403 (15.87)	403 (15.87)	212 (8.35)
Wire rope dia.	mm (in.)	26 (1.02)	26 (1.02)	18 (0.71)
Capacity — Total		287 (942)	287 (942)	149 (489)
* Line speed	Hoisting	m/min (fpm)	60/36 (197/118)	60/36 (197/118)
	Lowering	m/min (fpm)	35/21 (115/69)	35/21 (115/69)
* Line pull		kg (lbs.)	12,000 (26,500)	12,000 (26,500)

Line speed and line pull marked with \* are based on single line and 1st layer of wire rope.

# 80-M ton Crawler Crane

80 metric ton Crane Load

54.86m Boom

45.72m Boom + 18.29m Jib

## Working Ranges

45.72m (150') boom  
+ 18.29m (60') jib

48.77m (160') boom  
+ 12.19m (40') jib

48.77m (160') boom  
+ 6.10m (20') jib

54.86m (180') boom

51.82m (170') boom

48.77m (160') boom

45.72m (150') boom

42.67m (140') boom

39.62m (130') boom

36.58m (120') boom

33.53m (110') boom

30.48m (100') boom

27.43m (90') boom

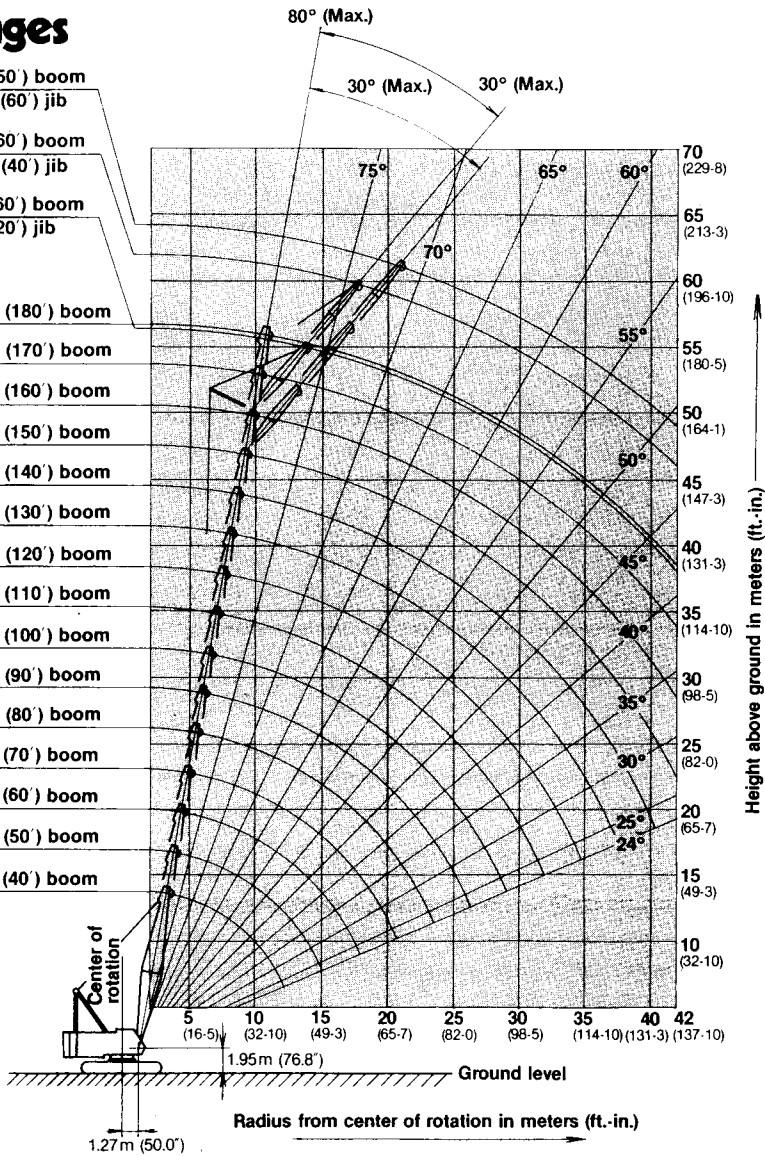
24.38m (80') boom

21.34m (70') boom

18.29m (60') boom

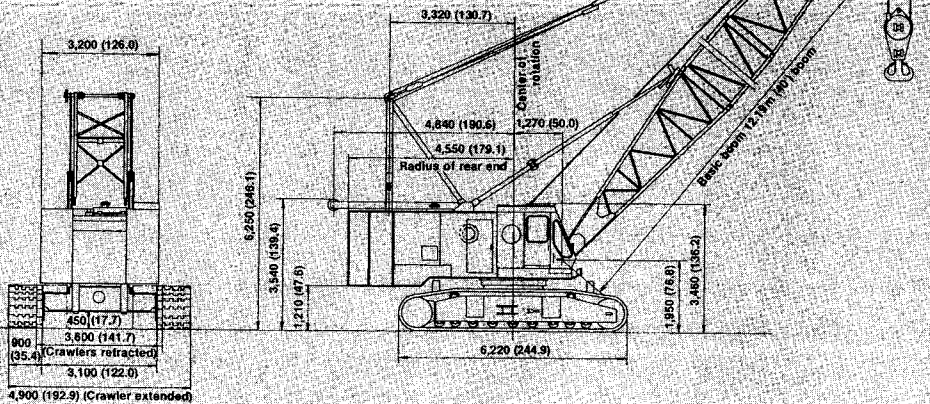
15.24m (50') boom

12.19m (40') boom



## General Dimensions

Unit: mm (in.)



# Lifting Capacities

## RATED CRANE LOADS IN KGS (LBS.)—MAIN BOOM IN 360° WORK AREAS

Operating Radius in Meters (Ft.-In.)	12.19 m (40') Boom	15.24 m (50') Boom	18.29 m (60') Boom	21.34 m (70') Boom	24.38 m (80') Boom	27.43 m (90') Boom	30.48 m (100') Boom	33.53 m (110') Boom	Operating Radius in Meters (Ft.-In.)
4.0 (13-1)	80,000 (176,400)								4.0 (13-1)
4.5 (14-9)	68,900 (151,900)	68,800 (151,700)							4.5 (14-9)
5.0 (16-5)	57,200 (126,100)	5,700 (125,700)	56,900 (125,400)						5.0 (16-5)
5.5 (18-1)	48,800 (107,600)	48,600 (107,100)	48,500 (106,900)	48,500 (106,900)					5.5 (18-1)
6.0 (19-8)	42,500 (93,700)	42,300 (93,300)	42,200 (93,000)	42,200 (93,000)	42,100 (92,800)				6.0 (19-8)
7.0 (23-0)	33,700 (74,300)	33,600 (74,100)	33,400 (73,600)	33,400 (73,600)	33,300 (73,400)	33,200 (73,200)			7.0 (23-0)
8.0 (26-3)	27,800 (61,300)	27,700 (61,100)	27,500 (60,600)	27,500 (60,600)	27,400 (60,400)	27,400 (60,400)	27,100 (59,700)	27,100 (59,700)	8.0 (26-3)
9.0 (29-6)	23,600 (52,000)	23,500 (51,800)	23,300 (51,400)	23,300 (51,400)	23,200 (51,100)	23,200 (51,100)	22,900 (50,500)	22,900 (50,500)	9.0 (29-6)
10.0 (32-10)	20,500 (45,290)	20,400 (45,000)	20,200 (44,500)	20,200 (44,500)	20,100 (44,300)	20,100 (44,100)	19,800 (43,700)	19,700 (43,400)	10.0 (32-10)
11.5 (37-9)	17,000 (37,500)	—	—	—	—	—	—	—	11.5 (37-9)
12.0 (39-4)		16,000 (35,300)	15,800 (34,800)	15,800 (34,800)	15,700 (34,600)	15,600 (34,400)	15,400 (34,000)	15,300 (33,700)	12.0 (39-4)
14.0 (45-11)		13,100 (28,900)	12,900 (28,400)	12,900 (28,400)	12,800 (28,200)	12,700 (28,000)	12,500 (27,600)	12,400 (27,300)	14.0 (45-11)
16.0 (52-6)			10,800 (23,800)	10,800 (23,800)	10,700 (23,600)	10,600 (23,400)	10,400 (22,900)	10,300 (22,700)	16.0 (52-6)
18.0 (59-1)			9,200 (20,300)	9,200 (20,300)	9,100 (20,100)	9,000 (19,800)	8,800 (19,400)	8,700 (19,200)	18.0 (59-1)
20.0 (65-7)				8,000 (17,600)	7,900 (17,400)	7,800 (17,200)	7,600 (16,800)	7,500 (16,500)	20.0 (65-7)
22.0 (72-2)					6,900 (15,200)	6,800 (15,000)	6,600 (14,600)	6,600 (14,600)	22.0 (72-2)
24.0 (78-9)						6,000 (13,200)	5,800 (12,800)	5,800 (12,800)	24.0 (78-9)
26.0 (85-4)							5,200 (11,500)	5,100 (11,200)	26.0 (85-4)
28.0 (91-10)							4,600 (10,100)	4,600 (10,100)	28.0 (91-10)
30.0 (98-5)								4,100 (9,000)	30.0 (98-5)
Operating Radius in Meters (Ft.-In.)	36.58 m (120') Boom	39.62 m (130') Boom	42.67 m (140') Boom	45.72 m (150') Boom	48.77 m (160') Boom	51.82 m (170') Boom	54.86 m (180') Boom	Operating Radius in Meters (Ft.-In.)	
9.0 (29-6)	22,800 (50,300)	22,700 (50,000)						9.0 (29-6)	
10.0 (32-10)	19,600 (43,200)	19,600 (43,200)	19,500 (43,000)	19,500 (43,000)				10.0 (32-10)	
12.0 (39-4)	15,200 (33,500)	15,200 (33,500)	15,100 (33,300)	15,100 (33,300)	14,800 (32,600)	14,700 (32,400)	14,700 (32,400)	12.0 (39-4)	
14.0 (45-11)	12,200 (26,900)	12,200 (26,900)	12,200 (26,900)	12,100 (26,700)	11,800 (26,000)	11,800 (26,000)	11,800 (26,000)	14.0 (45-11)	
16.0 (52-6)	10,200 (22,500)	10,100 (22,300)	10,100 (22,300)	10,000 (22,000)	9,800 (21,600)	9,800 (21,600)	9,700 (21,400)	16.0 (52-6)	
18.0 (59-1)	8,600 (19,000)	8,600 (19,000)	8,500 (18,700)	8,400 (18,500)	8,200 (18,100)	8,200 (18,100)	8,000 (17,600)	18.0 (59-1)	
20.0 (65-7)	7,400 (16,300)	7,400 (16,300)	7,300 (16,100)	7,200 (15,900)	7,000 (15,400)	6,850 (15,100)	6,800 (15,000)	20.0 (65-7)	
22.0 (72-2)	6,500 (14,300)	6,400 (14,100)	6,300 (13,900)	6,200 (13,700)	6,000 (13,200)	6,000 (13,200)	5,800 (12,800)	22.0 (72-2)	
24.0 (78-9)	5,700 (12,600)	5,600 (12,300)	5,500 (12,100)	5,400 (11,900)	5,200 (11,500)	5,100 (11,200)	4,900 (10,800)	24.0 (78-9)	
26.0 (85-4)	5,000 (11,000)	4,900 (10,800)	4,800 (10,600)	4,700 (10,400)	4,500 (9,900)	4,400 (9,700)	4,200 (9,300)	26.0 (85-4)	
28.0 (91-10)	4,400 (9,700)	4,400 (9,700)	4,300 (9,500)	4,100 (9,000)	3,900 (8,600)	3,800 (8,400)	3,600 (7,900)	28.0 (91-10)	
30.0 (98-5)	4,000 (8,800)	3,900 (8,600)	3,800 (8,400)	3,600 (7,900)	3,400 (7,500)	3,300 (7,300)	3,000 (6,600)	30.0 (98-5)	
32.0 (105-0)	3,600 (7,900)	3,500 (7,700)	3,400 (7,500)	3,200 (7,100)	3,000 (6,600)	2,800 (6,200)	2,600 (5,700)	32.0 (105-0)	
34.0 (111-7)		3,100 (6,800)	3,000 (6,600)	2,800 (6,200)	2,600 (5,700)	2,400 (5,300)	2,200 (4,900)	34.0 (111-7)	
36.0 (118-1)		2,800 (6,200)	2,700 (6,000)	2,500 (5,500)	2,300 (5,100)	2,000 (4,400)	1,800 (4,000)	36.0 (118-1)	
38.0 (124-8)			2,400 (5,300)	2,200 (4,900)	2,000 (4,400)	1,700 (3,700)	1,500 (3,300)	38.0 (124-8)	
40.0 (131-3)				1,900 (4,200)	1,700 (3,700)	1,400 (3,100)	1,200 (2,600)	40.0 (131-3)	

NOTE: Ratings inside of box are limited by strength of materials.