

HITACHI

SuperEX **EX1800**

■ Rated Engine HP (gross) ... 746 kW (1 000 HP)

■ Operating Weight EX1800-3

Loading Shovel: 180 000 kg (397 000 lb)

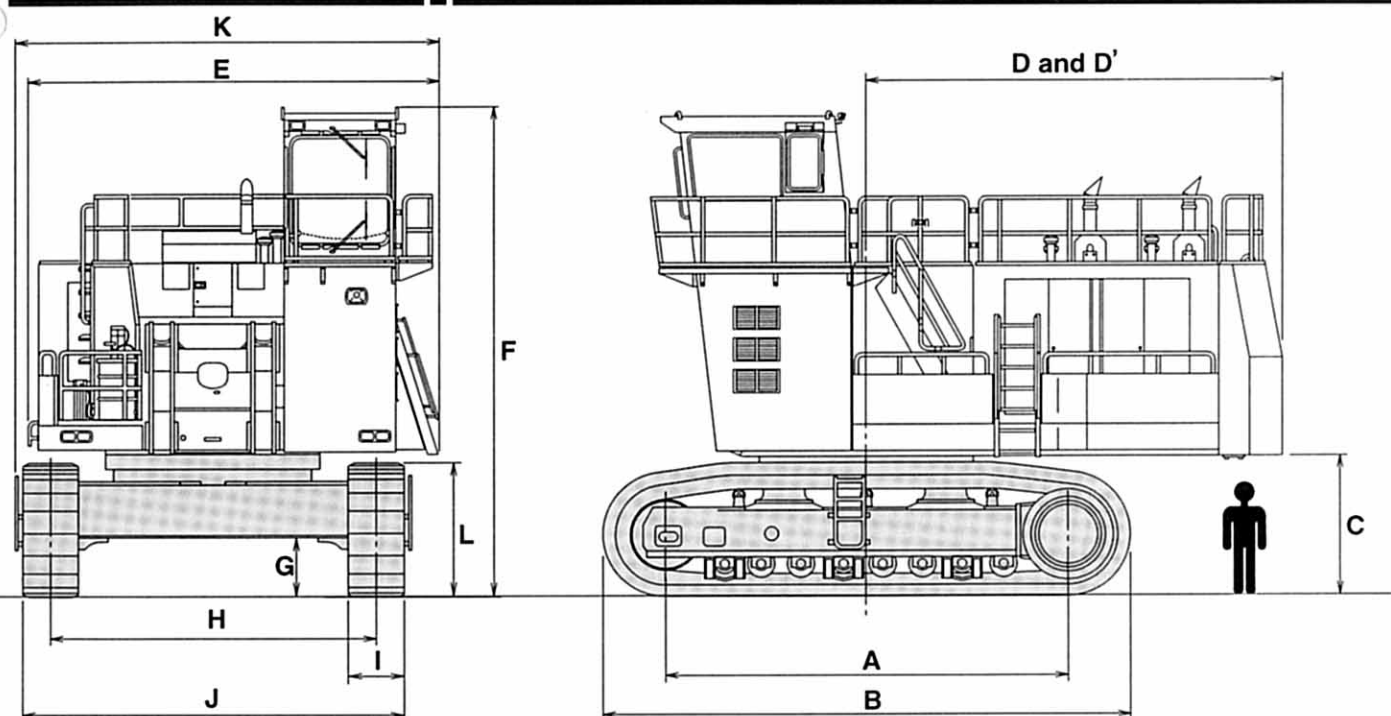
Backhoe: 180 000 kg (397 000 lb)

■ Loading Shovel Bucket PCSA Heaped: 10.5–14.5m³
(13.7–19.0 yd³)

■ Backhoe Bucket PCSA Heaped: 4.4–14.0m³
(5.8–18.3 yd³)

CECE Heaped: 3.8–12.5m³

Specifications



A	Distance between tumblers	5 780 mm (19' 0")
B	Undercarriage length	7 500 mm (24' 7")
C	Counterweight clearance	2 000 mm (6' 7")
D	Rear-end swing radius	6 010 mm (19' 9")
D'	Rear-end length	5 950 mm (19' 6")
E	Overall width of upperstructure	6 040 mm (19' 10")
F	Overall height of cab (with headguard)	6 910 mm (22' 8")
G	Min. ground clearance	795 mm (2' 7")
H	Track gauge	4 600 mm (15' 1")
I	Track shoe width	800 mm (31")
J	Undercarriage width	5 400 mm (17' 9")
K	Overall width	6 200 mm (20' 4")
L	Track height	1 900 mm (6' 3")

ENGINE

Model	Cummins QSK19C
Type	Water-cooled, 4-cycle, 6-cylinder in line, turbo-charged and after-cooled, direct injection chamber-type diesel engine
Rated flywheel horsepower (DIN 6271, net)	2×336 kW (2×456 PS) at 1 800 min ⁻¹ (rpm)
Rated flywheel horsepower (SAE J1349, net)	2×336 kW (2×450 HP) at 1 800 min ⁻¹ (rpm)
Maximum flywheel horsepower (SAE J1995, gross)	2×447 kW (2×600 HP) at 2 100 min ⁻¹ (2 100 rpm)
Maximum torque	2×2 240 N·m (228 kgf·m, 1 650 lbf·ft) at 1 400 min ⁻¹ (rpm)
Piston displacement	2×18.9L (2×1 150 in ³)
Bore and stroke	159 mm×159 mm (6.3"×6.3")
Starting system	24 V electric motor
Batteries	4×12 V, 4×220 AH
Cold starting	Ether aided

HYDRAULIC SYSTEM

- E-P Control (Computer-aided Engine-Pump Control system) Main pumps regulated by electronic engine-speed sensing control system. Optimum operation mode selectable among 4 power modes depending on type of job.
- OHS (Optimum Hydraulic System) 4 main pumps, 2 independent swing pumps and travel flow-in valve system enable both independent and combined operations of all functions.
- FPS (Fuel-saving Pump System) minimizes energy loss with superior performance in fine control.
- Auto-idling system for saving fuel and reducing noise.
- RMS (Relief-oil Minimizing System) reduces energy losses with minimum oil flow.
- Forced-lubrication and forced-cooling pump drive system.
- TIG (Tungsten Inert Gas) welding pipings.

Main pumps	4 variable-displacement, piston pumps for front attachment and travel
Pressure setting	29.4 MPa (300 kgf/cm ² , 4 270 psi)
Max. oil flow	4×500 L/min (4×132.1 US gpm, 4×110.0 Imp gpm)
Swing pumps	2 variable-displacement, axis piston pumps for swinging
Pressure setting	29.4 MPa (300 kgf/cm ² , 4 270 psi)
Max. oil flow	2×334 L/min (2×90.9 US gpm, 2×75.7 Imp gpm)
Pilot pumps	2 gear pumps
Pressure setting	4.3 MPa (44 kgf/cm ² , 626 psi)
Max. oil flow	2×35 L/min (2×9.25 US gpm, 2×7.70 Imp gpm)

Relief Valve Settings

Boom/arm/bucket circuit	29.4 MPa (300 kgf/cm ² , 4 270 psi)
Travel circuit	29.4 MPa (300 kgf/cm ² , 4 270 psi)
Swing circuit	29.4 MPa (300 kgf/cm ² , 4 270 psi)
Pilot circuit	4.3 MPa (44 kgf/cm ² , 626 psi)

Hydraulic Cylinders

High-strength piston rods and tubes adopted. Cylinder cushion mechanisms are provided for boom, arm, bucket and dump (for loading shovel) cylinders. Boom cylinder ends use self-alignment spherical bearings to avoid bending force. Bucket cylinder of loading shovel is provided with protector.

Cylinder Dimensions

Loading shovel

	Qty.	Bore	Rod diameter
Boom	2	280 mm (11.0")	200 mm (7.9")
Arm	1	240 mm (9.4")	180 mm (7.1")
Bucket	2	225 mm (8.9")	170 mm (6.7")
Dump	2	190 mm (7.5")	110 mm (4.3")
Level	1	280 mm (11.0")	200 mm (7.9")

Backhoe

	Qty.	Bore	Rod diameter
Boom	2	280 mm (11.0")	200 mm (7.9")
Arm	2	250 mm (9.8")	170 mm (6.7")
Bucket	2	200 mm (7.9")	150 mm (5.9")

Hydraulic Filters

All hydraulic circuits have high-quality hydraulic filters for protection against oil contamination and longer life of hydraulic components.

	Qty.
Full flow filter	6 10 μm
High pressure strainer (In main pump delivery line)	4 80 meshes
Drain filter (For all plunger type pumps & motors)	1 10 μm
Pilot filter	1 10 μm

These filters are centralized in arrangement for facilitating maintenance.

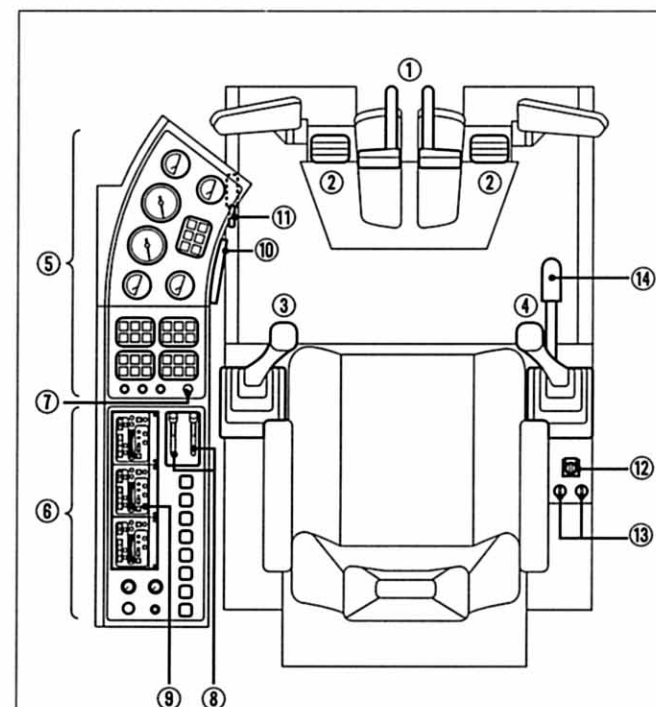
CONTROLS

2 Implement Levers

Remote-controlled joystick hydraulic servo system. Right lever is for boom and bucket control, left lever for swing and arm control. For loading shovel, 2 pedals provided for opening/closing the bottom dump bucket.

2 Travel Levers with Pedals

Remote-controlled hydraulic servo system. Independent drive at each track allows counterrotation of tracks.



- ① Travel Levers with Pedals
- ② Bucket Open/Close Pedals (Loading Shovel)
- ③ Swing/Arm Control Lever
- ④ Boom/Bucket Control Lever
- ⑤ Monitor Panel and Switch Panel
- ⑥ Switch Panel
- ⑦ Dimmer Switch
- ⑧ Engine Speed Control Lever
- ⑨ Air Conditioner Panel
- ⑩ AM-FM Radio
- ⑪ Emergency Evacuation Hammer
- ⑫ Emergency Engine Stop Switch
- ⑬ Engine Starter Switch
- ⑭ Pilot Control Shut-off Lever

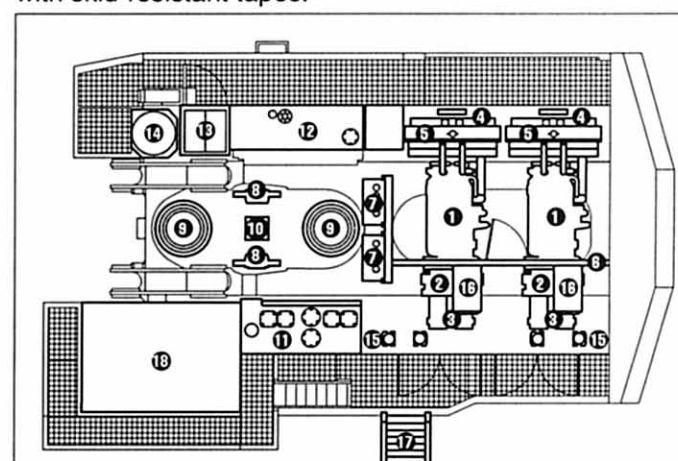
UPPERSTRUCTURE

Revolving Frame

A deep, full-reinforced box section. Heavy-gauge steel plates used for ruggedness.

Deck Machinery

Maintenance accessibility is the major feature in the layout of deck machinery. Sidewalk provide easy access to engines, hydraulic and electrical components. ISO-met stairs and handrails. Sidewalks and stairs are provided with skid-resistant tapes.



- ① Diesel Engine × 2
- ② Pump Drive Unit × 2
- ③ Hydraulic Pump × 6
- ④ Hydraulic Oil Cooler × 2
- ⑤ Engine Radiator
- ⑥ Engine-Pump Bulkhead
- ⑦ Main Control Valve × 2
- ⑧ Swing Control Valve × 2
- ⑨ Swing Device × 2
- ⑩ Center Joint
- ⑪ Hydraulic Oil Tank
- ⑫ Fuel Tank
- ⑬ Battery × 4
- ⑭ Lubricator
- ⑮ High-Pressure Filter × 6
- ⑯ Air Filter × 2 (Outer/Inner)
- ⑰ Retractable-Type Ladder
- ⑱ Cab

Swing Mechanism

2 high-torque, axial-piston motors with two-stage planetary gear run in oil. Diametrically-opposed, well-balanced arrangement of 2 swing device. Swing circle with dirt seals is a heavy-duty, single-row, sheer-type ball bearing. Induction-hardened internal swing circle gear and pinion immersed in lubricant. Parking brake of spring-set/hydraulic-released disc type. This parking brake is manually releasable.

Swing speed 4.8 min⁻¹ (rpm)

Operator's Cab

Steel construction with integrated, falling-object-protective structure meeting SAE FOPS. Independent, pressurized, 1 600 mm (5' 3") wide, 2 150 mm (7' 1") high, roomy 6.6 m³ (8.6 yd³) cab with tinted-glass windows features all-round visibility.

Spring-suspension-type, fully-adjustable reclining seat with armrests; movable with or without front & swing control levers by slide. Instrument and control panel is built in cab wall in easy range of the operator. 3 air conditioner system.

Noise level 75 dB(A) in the cab; on max. engine speed under no-load condition.

Eye level height 6 100 mm (20' 0")

UNDERCARRIAGE

Tracks
Tractor-type undercarriage. Dual-flanged-type bolt linkage for side frame and X-form center frame assures durability. Heavy-duty track frame of all-welded, stress-relieved structure. Top-grade materials used for toughness. Lifetime-lubricated induction-hardened track rollers, idlers and sprockets with floating seals. Track shoes of durable box-type cast steel with triple grousers. Durable strut-reinforced track links with track guards. Hydraulic track adjuster provided with N₂ gas accumulator with relief valve. Track adjuster provided with protection device against abnormal tension. Travel motion alarm device.

Tractor-type Undercarriage
Triple grouser track shoes of induction-hardened cast steel
Shoe width..... 800 mm (31")

Numbers of Rollers and Shoes on Each Side
Upper rollers..... 3
Lower rollers..... 8
Track shoes..... 49

Traction Device
Each track driven by a high-torque, axial piston motor, allowing counterrotation of tracks. 2-stage planetary gear plus spur gears reduction device. Parking brake of spring-set/hydraulic-released disc type. This parking brake is manually releasable.
Travel speeds..... High: 0 to 2.8 km/h (1.7 mph)
Low: 0 to 2.1 km/h (1.3 mph)
Maximum traction force..... 941.5 kN
(96 000 kgf, 212 000 lbf)
Gradeability..... 30° (60%) max.

WEIGHTS AND GROUND PRESSURE

Loading Shovel
Equipped with 10.5 m³ (13.7 yd³; PCSA heaped) bottom dump bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grousers	800 mm (31")	180 000 kg (397 000 lb)	172 kPa (1.76 kgf/cm ² , 25.0 psi)

Backhoe
Equipped with 8.70 m (28' 7") boom, 4.00 m (13' 1") arm, and 9.6 m³ (12.6 yd³; PCSA heaped) bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grousers	800 mm (31")	180 000 kg (397 000 lb)	172 kPa (1.76 kgf/cm ² , 25.0 psi)

SERVICE REFILL CAPACITIES

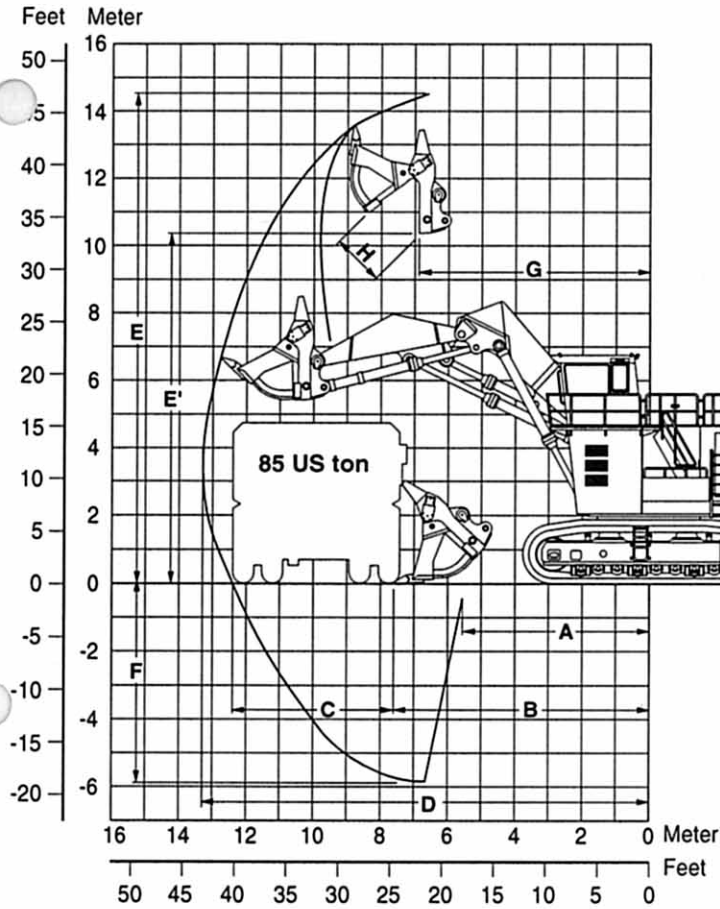
	liters	US gal	Imp gal
Fuel tank	2 725	720	600
Engine coolant..... (per engine)	130	34.3	28.6
Engine oil	55	14.5	12.1
Pump drive	21	5.5	4.6
Swing drive device	2×67	2×17.7	2×14.7
Travel drive device	90	23.8	19.8
Hydraulic system..... (including hydraulic tank)	2 200	580	484
Hydraulic tank	1 200	317	264

LOADING SHOVEL ATTACHMENTS

Boom and arm are of all-welded, low-stress, high-tensile strength steel full-box section design. Efficient, automatic level crowding achieved by one-lever control because parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant. (Auto-Leveling Crowd Mechanism)

- 110 kgf/mm² (156 000 psi) tensile strength steel bucket bottom plate
- Both circular arc retracting and horizontal retracting are possible (loading shovel)
- Dual-support-type boom/arm/bucket pin linkage
- Pin seals (in all portions) plus O-ring at arm top

WORKING RANGES



Unit: mm (ft in)		
A	Min. digging distance	5 510 (18' 1")
B	Min. level crowding distance	7 610 (25' 0")
C	Level crowding distance	4 820 (15' 10")
D	Max. digging reach	13 400 (44' 0")
E	Max. cutting height	14 540 (47' 8")
E'	Max. dumping height	10 400 (34' 1")
F	Max. digging depth	5 930 (19' 5")
G	Working radius at max. dumping height	6 880 (22' 7")
H	Max. bucket opening width	2 100 (6' 11")
Crowding force	ISO	10.5 m ³ (13.7 yd ³) 716 (73 000, 161 000)
	kN SAE:PCSA (kgf, lbf)	14.5 m ³ (19.0 yd ³) 667 (68 000, 150 000)
Breakout force	ISO	10.5 m ³ (13.7 yd ³) 667 (68 000, 150 000)
	kN SAE:PCSA (kgf, lbf)	14.5 m ³ (19.0 yd ³) 628 (64 000, 141 000)

Data in [] are those of the Coal bottom dump type bucket.

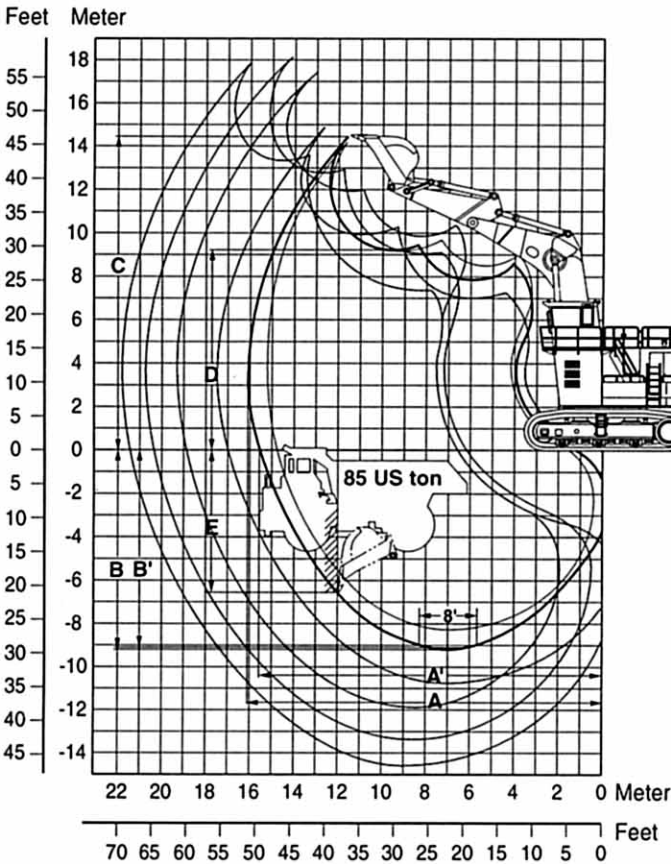
Buckets (PCSA heaped)

Capacity	Width	No. of teeth	Weight	Type
10.5 m ³ (13.7 yd ³)	3 440 mm (11' 3")	6	15 030 kg (33 140 lb)	Bottom dump type general purpose bucket
14.5 m ³ (19.0 yd ³)	4 340 mm (14' 3")	6	15 500 kg (34 200 lb)	Bottom dump type coal handling bucket

BACKHOE ATTACHMENTS

Boom and arm are of all-welded, low-stress, full-box section design. Bucket of all-welded, high-strength steel structure.

WORKING RANGES



Unit:mm(ft in)						
Boom length	8.30 m (27'3")	8.70 m (28'7")	11.80 m (38'9")			
Arm length	3.60 m (11'10")	4.00 m (13'1")	5.50 m (18'1")	4.00 m (13'1")	5.50 m (18'1")	7.00 m (23'0")
A Max. digging reach	15 240 (50'0")	16 070 (52'9")	17 500 (57'5")	19 390 (63'7")	20 860 (68'5")	21 850 (71'8")
A' Max. digging reach (on ground)	14 780 (48'6")	15 640 (51'4")	17 100 (56'1")	19 030 (62'5")	20 530 (67'4")	21 530 (70'8")
B Max. digging depth	8 220 (27'0")	9 270 (30'5")	10 770 (35'4")	11 820 (38'9")	13 320 (43'8")	14 470 (47'6")
B' Max. digging depth (8' level)	8 100 (26'7")	9 160 (30'1")	10 680 (35'1")	11 710 (38'5")	13 230 (43'5")	14 390 (47'3")
C Max. cutting height	14 280 (46'10")	14 440 (47'5")	14 970 (49'1")	17 340 (56'11")	18 100 (59'5")	17 860 (58'7")
D Max. dumping height	9 020 (29'7")	9 160 (30'1")	9 770 (32'1")	11 780 (38'8")	12 620 (41'5")	13 180 (43'3")
E Max. vertical wall	5 540 (18'2")	6 670 (21'11")	7 470 (24'6")	10 090 (33'1")	11 050 (36'3")	11 300 (37'1")
Bucket digging force	ISO 648 (66 100, 145 800)	649 (66 200, 146 000)	651 (66 400, 146 400)	649 (66 200, 146 000)	663 (67 600, 149 100)	489 (49 900, 110 000)
	SAE:PCSA 588 (60 000, 132 300)	588 (60 000, 132 300)	588 (60 000, 132 300)	588 (60 000, 132 300)	588 (60 000, 132 300)	435 (44 300, 97 700)
Arm cylinder force	ISO 629 (64 100, 141 300)	575 (58 600, 129 200)	545 (55 600, 122 600)	575 (58 600, 129 200)	546 (55 700, 122 800)	425 (43 300, 95 500)
	SAE:PCSA 610 (62 200, 137 200)	559 (57 000, 125 700)	534 (54 400, 120 000)	559 (57 000, 125 700)	534 (54 400, 120 000)	416 (42 400, 93 500)

Buckets

Capacity		Width		No. of teeth	Weight	Recommendation					
PCSA heaped	CECE heaped	Without side cutters	With side cutters			8.30 m (27'3") boom	8.70 m (28'7") boom	11.80 m (38'9") boom			
						3.60 m (11'10") arm	4.00 m (13'1") arm	5.50 m (18'1") arm	4.00 m (13'1") arm	5.50 m (18'1") arm	7.00 m (23'0") arm
4.4 m³ (5.8 yd³)	3.8 m³ (5.0 yd³)	2 070 mm (6'10")	—	5	4 830 kg (10 650 lb)						○
4.8 m³ (6.3 yd³)	4.2 m³ (5.5 yd³)	1 650 mm (5'5")	—	5	5 180 kg (11 420 lb)					○	
6.0 m³ (7.9 yd³)	5.3 m³ (6.9 yd³)	1 950 mm (6'5")	—	5	6 390 kg (14 090 lb)				○		
8.0 m³ (10.5 yd³)	7.0 m³ (9.2 yd³)	2 325 mm (7'8")	—	5	7 430 kg (16 380 lb)			○			
9.6 m³ (12.6 yd³)	8.4 m³ (11.0 yd³)	2 710 mm (8'11")	—	5	8 080 kg (17 820 lb)		○				
11.3 m³ (14.8 yd³)	10.0 m³ (13.1 yd³)	3 060 mm (10'0")	—	5	9 130 kg (20 130 lb)	○					
14.0 m³ (18.3 yd³)	12.5 m³ (16.4 yd³)	3 170 mm (10'5")	—	5	8 710 kg (19 200 lb)	○					

○ General purpose for materials with density of 1 800 kg/m³ (3 030 lb/yd³) or less
○ Suitable for materials with density of 1 100 kg/m³ (1 850 lb/yd³) or less

STANDARD EQUIPMENT Standard equipment may vary by country, so please consult your Hitachi dealer for details.

ENGINE

- 75 A alternator×2
- Dry-type air filter with clean dust cup
- Combination full-flow/bypass oil filter
- Cartridge-type fuel filter
- Water filter
- Radiator
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Emergency engine stop system

HYDRAULIC SYSTEM

- E-P control system
- OHS (Optimum Hydraulic System)
- FPS (Fuel-saving Pump System)
- RMS (Relief-oil Minimizing System)
- Forced-lubrication and forced cooling pump drive system
- Control valve with main relief valve
- Suction filter
- Full-flow filter
- Pilot filter
- Drain filter
- High-pressure strainer

CAB

All-weather sound-suppressed steel Integrated cab(meeting SAE,FOPS),lam-

inated glass windshield, reinforced/tinted (bronze color) glass side and rear windows, parallel-link-type intermittent wiper, front window washer, adjustable reclining seat with adjustable armrests, footrest, electric double horn, auto-tuning AM-FM radio with digital clock, seat belt(retractable), storage spaces, floor mat, air conditioner with defloster, rearview mirror, evacuation hammer, emergency rope, and pilot control shut-off lever.

MONITOR SYSTEM

- Meters: Hourmeter, Fuel, Hyd. oil temp., Engine coolant temp., Tachometer.
- Pilot lamps (Green): Engine oil level, Engine coolant level, Hydraulic oil level, Travel mood (slow), Travel mood (fast), Auto idle, Engine room light, Entrance light.
- Warning lamps (Red): Alternator charge, Pump transmission oil pressure, Hydraulic oil level, Fuel, Auto-lubrication, Air cleaner restriction, Pump contamination, Engine stop, Engine diagnostic lamps, Ladder position.
- Alarm buzzers: Pump transmission oil pressure, Hydraulic oil level, Engine protection.

MISCELLANEOUS

- Standard tool kit
- ISO-meeted stairs and handrails
- Recirculation air filter
- Ventilation air filter
- 12 V power terminal board
- Stop valve for transport and reassembly

LIGHTS

- 6 working lights, entrance light, 2 engine room lights, 2 cab lights

UPPERSTRUCTURE

- Lockable machine covers
- 25 400 kg (56 000 lb) counterweight
- Hydraulic drive grease gun with hose reel
- Retractable-type ladder with spring-type balancer
- Swing parking brake

UNDERCARRIAGE

- Travel parking brake
- Travel motion alarm device
- Hydraulic track adjuster with N₂ gas accumulator with relief valve
- 800 mm (31") triple grouser shoes

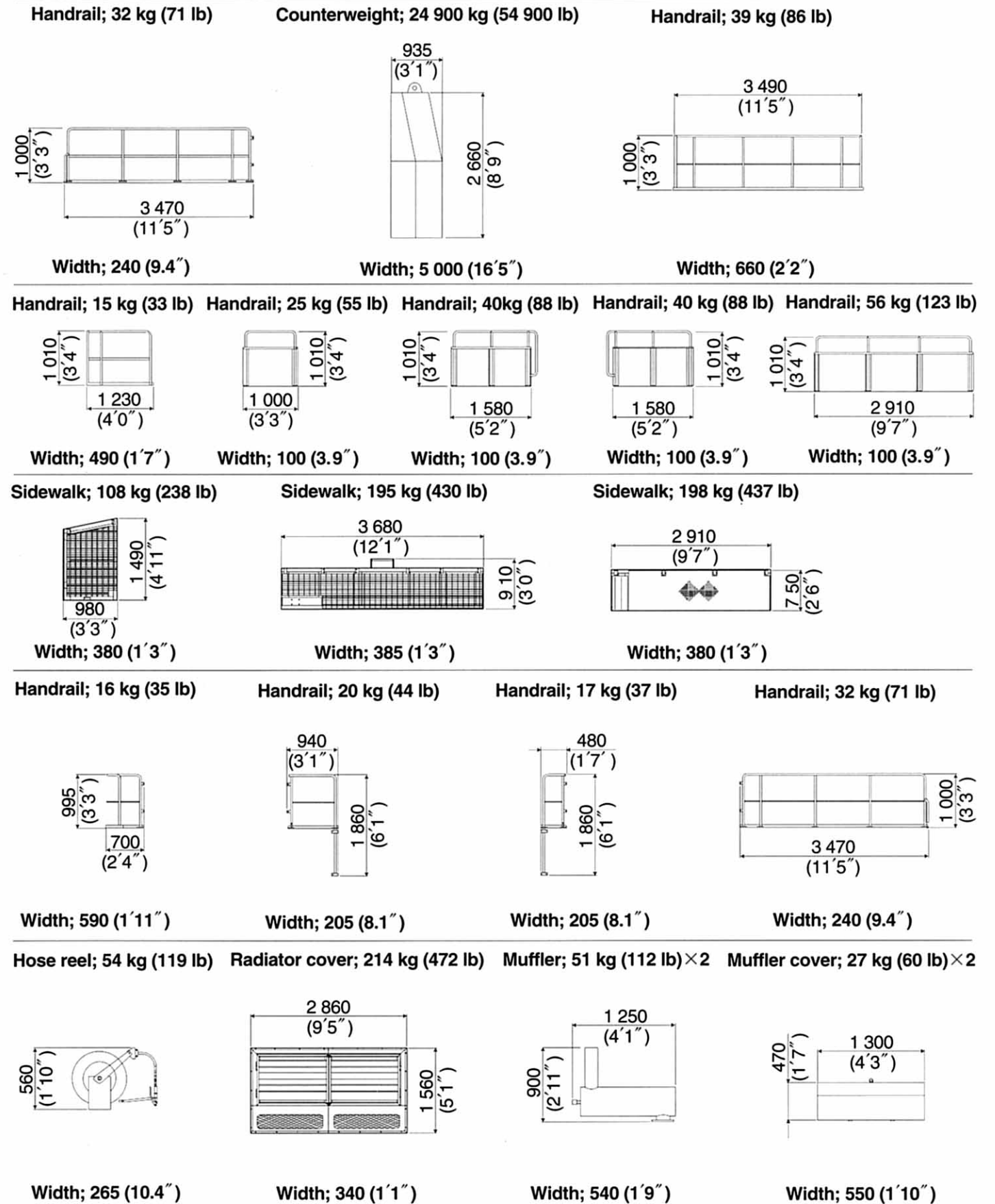
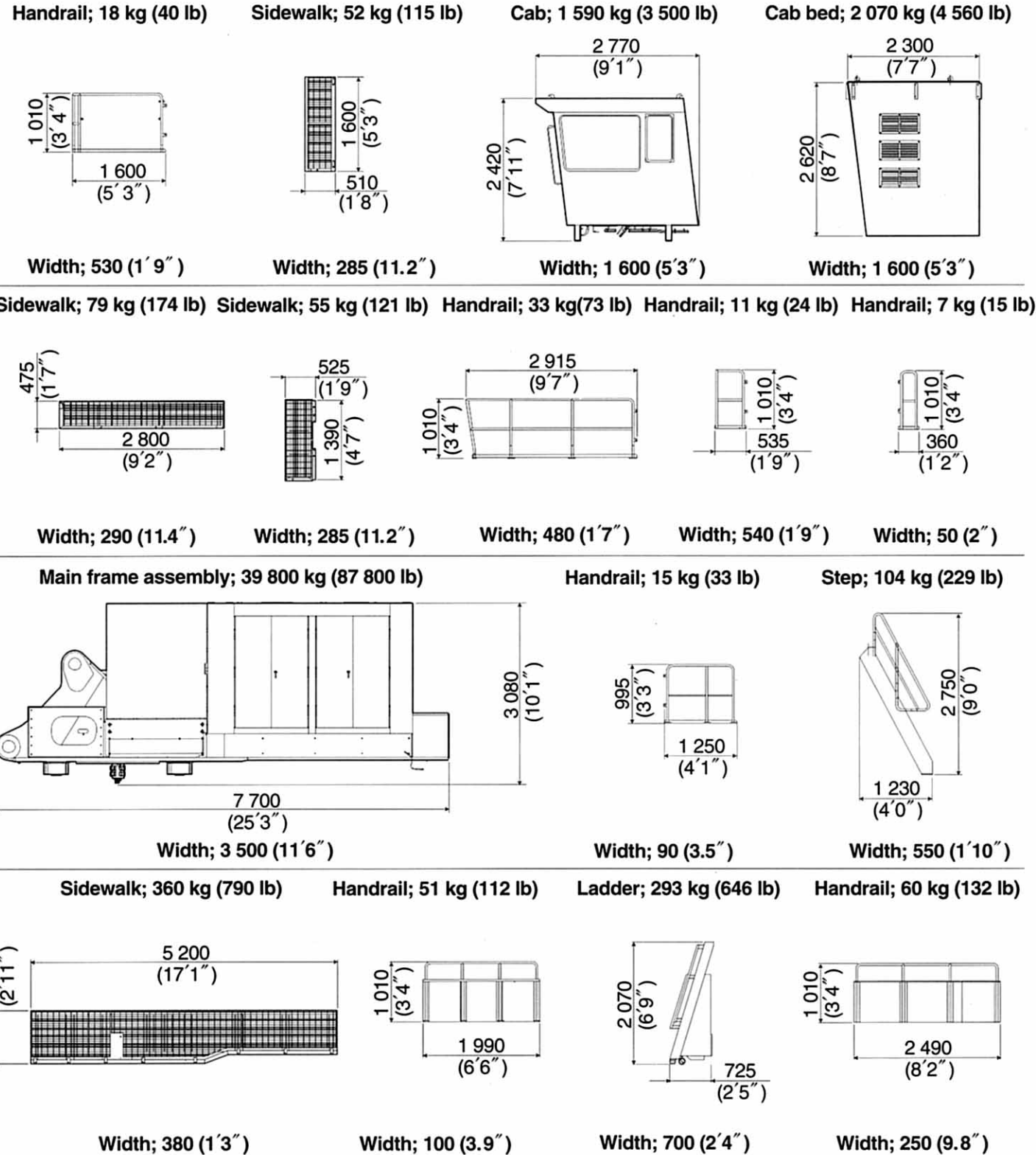
OPTIONAL EQUIPMENT Optional equipment may vary by country, so please consult your Hitachi dealer for details.

- Auto-lubrication system (Lincoln)

- Easily assembled owing to local assembling system requiring no welding.
- Overall width of below 3 500 mm (11'6") during transportation.

UPPERSTRUCTURE

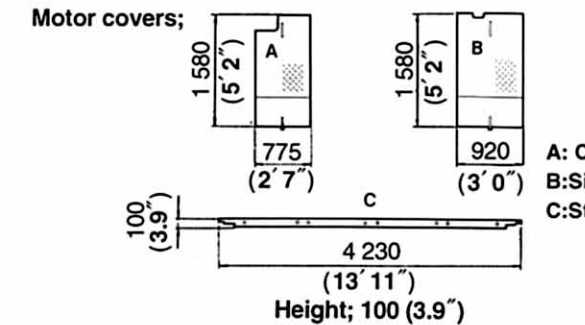
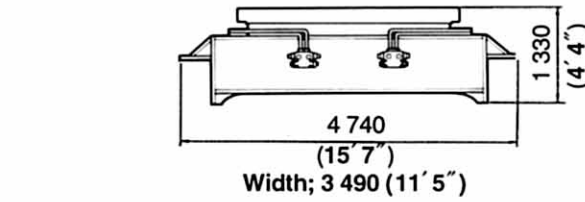
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UNDERCARRIAGE

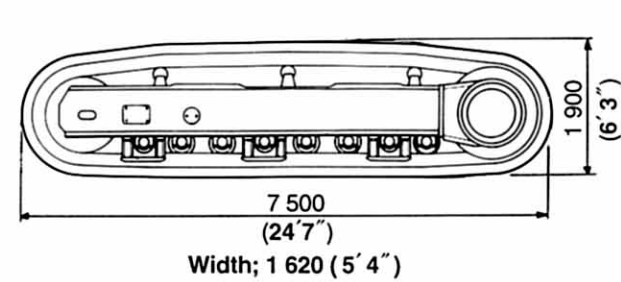
Unit: mm (ft in)

Track center frame assembly; 17 100 kg (37 700 lb)

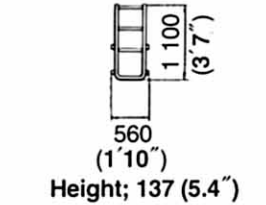


A: Center cover.....32 kg (71 lb) × 2
B:Side cover..... 44 kg (97 lb) × 2
C:Stay..... 78 kg (172 lb)

Track side frame assembly; 22 400 kg (49 400 lb) × 2



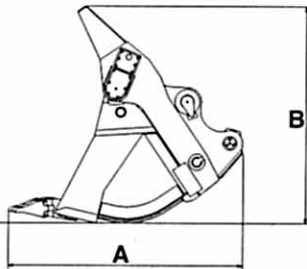
Ladder; 18 kg (40 lb) × 2



LOADING SHOVEL ATTACHMENT

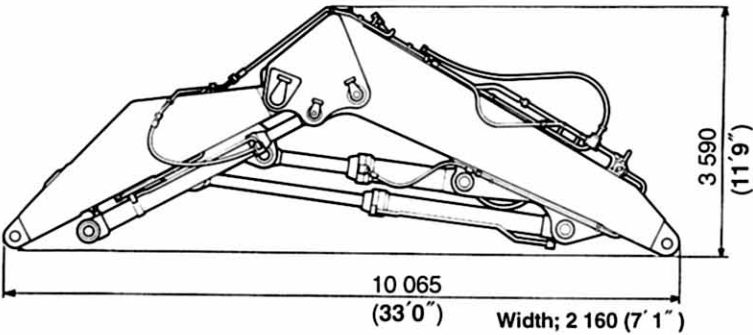
Unit: mm (ft in)

Bucket

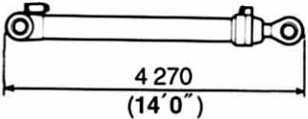


Bucket Capacity	A	B	Width	Weight
10.5 m³ (13.7 yd³)	3 310 mm (10'10")	3 070 mm (10'1")	3 440 mm (11'3")	15 030 kg (33 140 lb)
14.5 m³ (19.0 yd³)	3 510 mm (11'6")	3 150 mm (10'4")	4 340 mm (14'3")	15 500 kg (34 200 lb)

Boom & arm assembly; 25 000 kg (55 100 lb)



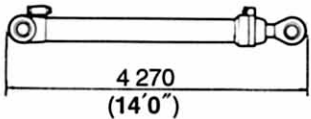
Boom Cylinders; 2 275 kg (5 020 lb) × 2



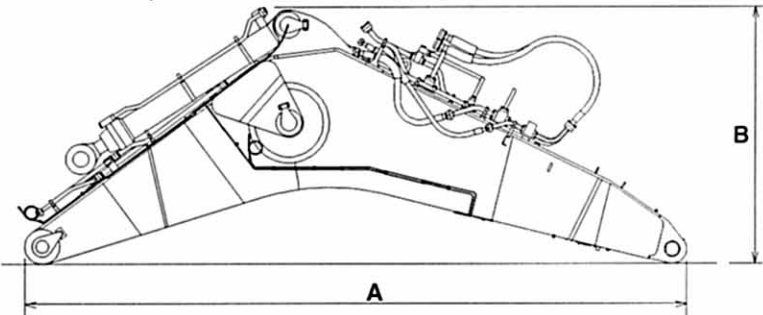
BACKHOE ATTACHMENT

Unit: mm (ft in)

Boom cylinders; 2 275 kg (5 020 lb) × 2

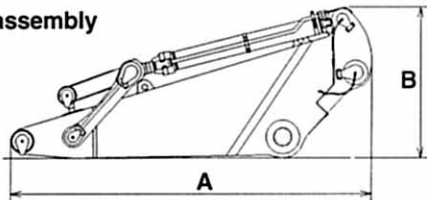


Boom assembly



Boom length	A	B	Width	Weight
8.30 m (27'3")	8 720 mm (28'7")	3 400 mm (11'2")	2 050 mm (6'9")	18 600 kg (41 000 lb)
8.70 m (28'7")	9 120 mm (29'11")	3 500 mm (11'6")	2 050 mm (6'9")	19 100 kg (42 100 lb)
11.80 m (38'9")	12 220 mm (40'1")	3 700 mm (12'2")	2 050 mm (6'9")	22 700 kg (50 000 lb)

Arm assembly



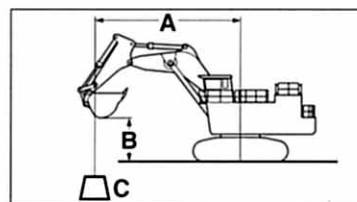
Arm length	A	B	Width	Weight
3.60 m (11'10")	4 980 mm (16'4")	2 080 mm (6'10")	1 720 mm (5'8")	10 400 kg (22 900 lb)
4.00 m (13'1")	5 280 mm (17'4")	1 950 mm (6'5")	1 720 mm (5'8")	10 500 kg (23 200 lb)
5.50 m (18'1")	6 780 mm (22'3")	1 700 mm (5'7")	1 720 mm (5'8")	11 500 kg (25 400 lb)
7.00 m (23'0")	8 370 mm (27'6")	2 140 mm (7'0")	1 780 mm (5'10")	10 900 kg (24 000 lb)

Bucket capacity		A	B	Width	Weight (with bucket pins)
PCSA heaped	CECE heaped				
4.4 m³ (5.8 yd³)	3.8 m³ (5.0 yd³)	2 630 mm (8'8")	2 180 mm (7'2")	2 070 mm (6'10")	4 830 kg (10 650 lb)
4.8 m³ (6.3 yd³)	4.2 m³ (5.5 yd³)	2 950 mm (9'8")	2 470 mm (8'1")	1 650 mm (5'5")	5 180 kg (11 420 lb)
6.0 m³ (7.9 yd³)	5.3 m³ (6.9 yd³)	2 950 mm (9'8")	2 470 mm (8'1")	1 950 mm (6'5")	6 390 kg (14 090 lb)
8.0 m³ (10.5 yd³)	7.0 m³ (9.2 yd³)	3 090 mm (10'2")	2 480 mm (8'2")	2 325 mm (7'8")	7 430 kg (16 380 lb)
9.6 m³ (12.6 yd³)	8.4 m³ (11.0 yd³)	3 090 mm (10'2")	2 480 mm (8'2")	2 710 mm (8'11")	8 080 kg (17 820 lb)
11.3 m³ (14.8 yd³)	10.0 m³ (13.1 yd³)	3 200 mm (10'6")	2 470 mm (8'1")	3 060 mm (10'0")	9 130 kg (20 130 lb)
14.0 m³ (18.3 yd³)	12.5 m³ (16.4 yd³)	3 310 mm (10'10")	2 700 mm (8'10")	3 170 mm (10'5")	8 710 kg (19 200 lb)

LIFTING CAPACITIES

SuperEX

METRIC MEASURE



A:Load radius
B:Load point height
C:Lifting capacity

Rating over-side or 360 degrees
Rating over-front
Unit: 1 000 kg

Conditions	Load point height m	Load radius																At max.reach		
		6 m		8 m		10 m		12 m		14 m		16 m		18 m		20 m		At max.reach		@m
		Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	@m
Boom 8.30 m Arm 3.60 m Bucket PCSA: 11.3 m' CECE: 10.0 m' Shoes 800 mm	10																	*10.8	*10.8	13.5
	8																	*10.7	*10.7	14.2
	6																	*11.0	*11.0	14.6
	4																	*11.7	*11.7	14.6
	2																	*13.0	*13.0	14.3
	0 (ground)																	*15.0	*15.0	13.6
	-2																	*10.3	*10.3	12.4
	-4	*53.2	*53.2	*43.2	*43.2	*32.4	*32.4													
	-6			*31.1	*31.1															
Boom 8.70 m Arm 4.00 m Bucket PCSA: 9.6 m' CECE: 8.4 m' Shoes 800 mm	10																	*9.84	*9.84	14.4
	8																	*9.69	*9.69	15.1
	6																	*9.90	*9.90	15.4
	4																	*10.4	*10.4	15.5
	2																	*11.4	*11.4	15.2
	0 (ground)																	*13.0	*13.0	14.5
	-2																	*14.9	*14.9	13.4
	-4	*48.6	*48.6	*45.4	*45.4	*33.7	*33.7	*25.0	*25.0											
	-6	*46.7	*46.7	*36.8	*36.8	*26.8	*26.8													
Boom 8.70 m Arm 5.50 m Bucket PCSA: 8.0 m' CECE: 7.0 m' Shoes 800 mm	10																	*10.1	*10.1	15.9
	8																	*10.0	*10.0	16.6
	6																	*10.2	*10.2	16.9
	4																	*10.8	*10.8	16.9
	2																	*11.7	*11.7	16.6
	0 (ground)																	*13.1	*13.1	16.0
	-2	*52.3	*52.3	*48.7	*48.7	*33.5	*33.5	*24.5	*24.5	*18.5	*18.5							*15.4	*15.4	15.1
	-4	*56.4	*56.4	*48.2	*48.2	*32.9	*32.9	*24.1	*24.1									*14.1	*14.1	13.7
	-6	*58.3	*58.3	*43.3	*43.3	*32.5	*32.5	*23.5	*23.5											

Notes: 1. Ratings are based on SAE J1097.
2. Lifting capacity of the EX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook (not standard equipment) loaded on the back of the bucket.
4. *Indicates load limited by hydraulic capacity.

METRIC MEASURE

Rating over-side or 360 degrees
Rating over-front
Unit: 1000 kg

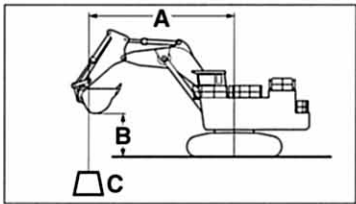
Conditions	Load point height m	Load radius																At max.reach		
		6 m		8 m		10 m		12 m		14 m		16 m		18 m		20 m		At max.reach		@m
		Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	@m
Boom 11.80 m Arm 4.00 m Bucket PCSA: 6.0 m' CECE: 5.3 m' Shoes 800 mm	12																	*12.3	*12.3	17.0
	10																	*12.1	*12.1	17.9
	8																	11.3	*11.9	18.5
	6																	10.5	*11.9	18.8
	4																	10.1	*12.1	18.8
	2																	10.2	*12.5	18.6
	0 (ground)																	10.7	*13.2	18.1
	-2																	12.0	*13.8	17.3
	-4																	*13.6	*13.6	16.2
Boom 11.80 m Arm 5.50 m Bucket PCSA: 4.8 m' CECE: 4.2 m' Shoes 800 mm	14																	*10.0	*10.0	17.6
	12																	*9.91	*9.91	18.7
	10																	*9.93	*9.93	19.5
	8																	*10.0	*10.0	20.0
	6																	9.39	*10.2	20.2
	4																	9.05	*10.5	20.3
	2																	9.08	*10.8	20.1
	0 (ground)																	9.49	*11.1	19.6
	-2																	10.3	*11.3	18.9
Boom 11.80 m Arm 7.00 m Bucket PCSA: 4.4 m' CECE: 3.8 m' Shoes 800 mm	14																	*8.11	*8.11	18.8
	12																	*7.68	*7.68	19.8
	10																	*7.44	*7.44	20.5
	8																	*7.37	*7.37	21.0
	6																	*7.45	*7.45	21.3
	4																	*7.68	*7.68	21.3
	2																	*8.07	*8.07	21.1
	0 (ground)																	*8.64	*8.64	20.8
	-2																	*9.46	*9.46	20.1

LIFTING CAPACITIES

SuperEX

ENGLISH MEASURE

ENGLISH MEASURE



A:Load radius
B:Load point height
C:Lifting capacity

Rating over-side or 360 degrees Rating over-front
Unit: 1000 lb

Conditions	Load point height ft	Load radius																At max.reach		
		25 ft		30 ft		35 ft		40 ft		45 ft		50 ft		55 ft		60 ft				
																				@ft in
Boom 27'3" Arm 11'10" Bucket PCSA: 14.8 yd' Shoes 31"	35					*33.3	*33.3											*24.2	*24.2	43'3"
	30					*49.1	*49.1											*23.6	*23.6	45'8"
	25					*56.7	*56.7	*40.2	*40.2									*23.7	*23.7	47'3"
	20			*68.6	*68.6	*60.3	*60.3	*55.3	*55.3									*24.2	*24.2	48'1"
	15			*77.2	*77.2	*65.1	*65.1	*57.5	*57.5									*25.3	*25.3	48'3"
	10			*85.4	*85.4	*70.0	*70.0	57.8	*60.2									*27.0	*27.0	47'9"
	5			*91.4	*91.4	70.9	*74.0	55.8	*62.3									*29.5	*29.5	46'7"
	0 (ground)			88.8	*94.1	68.6	*76.0	54.3	*62.9									*33.0	*33.0	44'8"
	-5	*116	*116	87.4	*92.9	67.4	*75.1	53.7	*60.9									*25.7	*25.7	41'10"
	-10	*108	*108	87.3	*87.5	67.4	*70.3													
-15	*94.0	*94.0	*76.2	*76.2	*57.9	*57.9														
Boom 28'7" Arm 13'1" Bucket PCSA: 12.6 yd' Shoes 31"	35																	*22.0	*22.0	46'3"
	30							*40.9	*40.9									*21.4	*21.4	48'6"
	25							*48.4	*48.4									*21.4	*21.4	50'0"
	20					*55.5	*55.5	*50.5	*50.5									*21.8	*21.8	50'10"
	15			*72.9	*72.9	*61.1	*61.1	*53.7	*53.7	*46.1	*46.1							*22.6	*22.6	51'0"
	10			*82.0	*82.0	*66.8	*66.8	*57.2	*57.2	46.0	*50.9							*24.0	*24.0	50'7"
	5			*88.8	*88.8	70.8	*71.5	56.0	*60.2	44.7	*52.2							*25.9	*25.9	49'6"
	0 (ground)	118	*119	88.1	*92.5	68.3	*74.5	54.2	*62.1	43.7	*49.4							*28.7	*28.7	47'9"
	-5	*117	*117	86.5	*92.9	66.8	*75.2	53.2	*62.0									*32.6	*32.6	45'2"
	-10	*111	*111	86.2	*89.7	66.4	*72.8	53.2	*58.8									*26.8	*26.8	41'8"
-15	*100	*100	*82.2	*82.2	*65.9	*65.9														
-20	*84.1	*84.1	*67.7	*67.7																
Boom 28'7" Arm 18'1" Bucket PCSA: 10.5 yd' Shoes 31"	40																	*23.7	*23.7	48'9"
	35																	*22.7	*22.7	51'6"
	30									*39.0	*39.0							*22.2	*22.2	53'5"
	25									*38.8	*38.8							*22.2	*22.2	54'9"
	20							*42.6	*42.6	*40.3	*40.3							*22.6	*22.6	55'6"
	15					*52.4	*52.4	*46.6	*46.6	*42.6	*42.6	38.5	*39.7					*23.4	*23.4	55'8"
	10			*71.4	*71.4	*59.0	*59.0	*50.9	*50.9	*45.4	*45.4	37.4	*41.6					*24.7	*24.7	55'4"
	5	*105	*105	*80.5	*80.5	*65.2	*65.2	*55.0	*55.0	45.5	*48.0	36.2	*42.8					*26.5	*26.5	54'4"
	0 (ground)	*113	*113	*87.1	*87.1	69.5	*70.0	54.8	*58.4	43.8	*50.0	35.3	*41.0					*29.0	*29.0	52'10"
	-5	*117	*117	86.7	*90.7	66.9	*73.0	53.0	*60.4	42.6	*51.0							*32.6	*32.6	50'7"
	-10	*115	*115	85.0	*91.1	65.4	*73.6	51.9	*60.5	42.1	*49.8							*36.0	*36.0	47'6"
	-15	*110	*110	84.6	*88.0	65.1	*71.1	51.8	*57.7											
	-20	*100	*100	*80.4	*80.4	*64.3	*64.3	*49.0	*49.0											
	-25	*82.8	*82.8	*65.7	*65.7	*48.5	*48.5													

Notes: 1. Ratings are based on SAE J1097.
2. Lifting capacity of the EX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook (not standard equipment) loaded on the back of the bucket.
4. *Indicates load limited by hydraulic capacity.

Rating over-side or 360 degrees Rating over-front
Unit: 1000 lb

Conditions	Load point height ft	Load radius																At max.reach				
		25 ft		30 ft		35 ft		40 ft		45 ft		50 ft		55 ft		60 ft						
																				@ft in		
Boom 38'9" Arm 13'1" Bucket PCSA: 7.9 yd' Shoes 31"	45									*31.3	*31.3								*27.7	*27.7	52'8"	
	40									*30.2	*30.2								*27.3	*27.3	55'9"	
	35									*30.0	*30.0	*29.9	*29.9						*27.0	*27.0	58'1"	
	30									*31.1	*31.1	*29.6	*29.6						*26.5	*26.5	59'10"	
	25					*43.8	*43.8	*37.3	*37.3	*33.1	*33.1	*30.5	*30.5						24.5	*26.2	61'0"	
	20							*41.2	*41.2	*35.7	*35.7	*32.1	*32.1	29.9	*30.2				23.2	*26.2	61'8"	
	15							*45.2	*45.2	*38.4	*38.4	*33.9	*33.9	29.0	*31.1				22.4	*26.5	61'11"	
	10							*48.9	*48.9	*41.0	*41.0	34.3	*35.7	28.0	*32.1				22.3	*27.1	61'7"	
	5							48.6	*51.8	39.9	*43.2	32.9	*37.3	27.1	*33.1				22.7	*28.0	60'10"	
	0 (ground)							47.0	*53.7	38.6	*44.9	31.9	*38.5	26.5	*33.8				23.8	*29.3	59'6"	
	-5							46.2	*54.5	37.8	*45.8	31.3	*39.1	26.5	*33.6				25.6	*30.3	57'7"	
	-10					58.1	*64.9	46.1	*54.2	37.6	*45.7	31.3	*38.7						28.6	*30.3	55'1"	
	-15			*73.8	*73.8	58.9	*62.5	46.6	*52.6	38.0	*44.3	32.1	*36.6						*29.7	*29.7	51'10"	
-20	*74.1	*74.1	*68.6	*68.6	*58.5	*58.5	47.8	*49.3	39.3	*40.8								*27.9	*27.9	47'8"		
-25	*69.8	*69.8	*61.1	*61.1	*52.0	*52.0	*43.0	*43.0														
-30			*49.5	*49.5	*40.8	*40.8																
Boom 38'9" Arm 18'1" Bucket PCSA: 6.3 yd' Shoes 31"	45											*24.7	*24.7						*22.1	*22.1	58'5"	
	40											*23.3	*23.3						*21.8	*21.8	61'2"	
	35											*23.1	*23.1	*23.5	*23.5				*21.8	*21.8	63'3"	
	30											*23.8	*23.8	*23.2	*23.2				*22.0	*22.0	64'10"	
	25									*27.6	*27.6	*25.2	*25.2	*23.8	*23.8				21.9	*22.2	65'11"	
	20							*34.8	*34.8	*30.2	*30.2	*27.0	*27.0	*24.9	*24.9	*24.0	*24.0	20.7	*22.6	66'7"		
	15							*39.0	*39.0	*33.1	*33.1	*29.1	*29.1	*26.3	*26.3	*24.7	*24.7	20.0	*23.0	66'9"		
	10							*43.0	*43.0	*36.1	*36.1	*31.2	*31.2	*27.8	*27.8	24.8	*25.5	19.8	*23.5	66'5"		
	5							*46.5	*46.5	*38.7	*38.7	*33.2	*33.2	*29.2	*29.2	24.0	*26.4	20.1	*24.0	65'9"		
	0 (ground)							*49.3	*49.3	*41.0	*41.0	34.2	*34.9	28.2	*30.5	23.3	*27.1	20.9	*24.5	64'6"		
	-5					60.9	*62.8	49.0	*51.1	40.1	*42.6	33.1	*36.2	27.5	*31.3	23.1	*27.2	22.3	*25.0	62'10"		
	-10					60.3	*63.3	48.2	*52.0	39.3	*43.4	32.5	*36.8	27.2	*31.5			24.4	*25.2	60'7"		
	-15			*76.0	*76.0	60.4	*62.4	48.0	*51.7	39.1	*43.3	32.5	*36.5	27.5	*30.5			*25.2	*25.2	57'8"		
-20	*87.4	*87.4	*72.5	*72.5	*60.2	*60.2	48.5	*50.1	39.6	*41.9	33.1	*34.8					*24.6	*24.6	54'1"			
-25	*80.4	*80.4	*67.3	*67.3	*56.2	*56.2	*46.8	*46.8	*38.6	*38.6	*29.7	*29.7					*22.8	*22.8	49'6"			
-30	*70.4	*70.4	*59.4	*59.4	*49.6	*49.6	*40.6	*40.6	*30.8	*30.8												
Boom 38'9" Arm 23'0" Bucket PCSA: 5.8 yd' Shoes 31"	45													*23.2	*23.2				*17.7	*17.7	62'3"	
	40													*21.6	*21.6				*17.0	*17.0	64'9"	
	35													*21.5	*21.5	*22.3	*22.3	*16.5	*16.5	66'9"		
	30													*22.2	*22.2	*22.1	*22.1	*16.3	*16.3	68'3"		
	25											*24.6	*24.6	*23.3	*23.3	*22.6	*22.6	*16.2	*16.2	69'4"		
	20									*29.5	*29.5	*26.7	*26.7	*24.8	*24.8	*23.6	*23.6	*16.4	*16.4	69'11"		
	15							*37.7	*37.7	*32.7	*32.7	*29.1	*29.1	*26.5	*26.5	*24.7	*24.7	*16.7	*16.7	70'2"		
	10							*42.2	*42.2	*36.0	*36.0	*31.6	*31.6	*28.4	*28.4	*26.0	*26.0	*17.3	*17.3	69'11"		
	5							*46.4	*46.4	*39.1	*39.1	*34.0	*34.0	*30.2	*30.2	*27.4	*27.4	*18.0	*18.0	69'4"		
	0 (ground)							*49.9	*49.9	*41.9	*41.9	*36.1	*36.1	*31.8	*31.8	26.6	*28.5	*19.0	*19.0	68'3"		
	-5					*64.3	*64.3	*52.6	*52.6	43.9	*44.2	36.6	*38.0	30.7	*33.2	25.8	*29.5	*20.3	*20.3	66'9"		
	-10							63.9	*66.1	51.7	*54.5	42.6	*45.8	35.6	*39.2	30.0	*34.1	25.4	*29.9	*22.1	*22.1	64'9"
	-15			81.4	*81.8	63.2	*66.6	50.9	*55.3	41.9	*46.6	35.0	*39.8	29.6	*34.4	25.4	*29.5	*24.3	*24.3	62'2"		
	-20	*68.2	*68.2	*80.0	*80.0	63.3	*65.8	50.8	*54.9	41.8	*46.4	35.0	*39.5	29.8	*33.6			*26.6	*26.6	59'0"		
	-25	*76.5	*76.5	*76.6	*76.6	*63.5	*63.5	51.4	*53.2	42.3	*44.9	35.6	*37.8	*30.7	*30.7			*26.4	*26.4	55'1"		
-30	*84.5	*84.5	*71.1	*71.1	*59.3	*59.3	*49.7	*49.7	*41.4	*41.4	*33.3	*33.3										
-35	*75.2	*75.2	*62.7	*62.7	*52.3	*52.3	*43.1	*43.1	*33.9	*33.9												

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These specification are subject to change without notice

