

JONES CRANES ES

JC 850 HC

Mobile port crane



- Maximum capacity 27.7 tonne at 6.1 m
- Elevated cab and boom pivot
- Twin drum for double rope grabbing
- Heavy duty construction

THE JONES NAME FOR CRANES

JONES CRANES **JC 850 HC specification**

CHASSIS

Frame

Fabricated box section construction from high tensile steel plates. Front and rear towing lugs with operator access steps Full chassis decking with non slip surfaces.

Transmission

Hydrostatic transmission powered by variable displacement hydraulic motors with planetary reduction.

Front Axle

Steer axle with hydraulic power assisted steering.

Rear Axle

Drive axle with planetary hub reduction.

Suspension.

Front and rear lateral walking beams

Brakes

Drum type service brakes on all wheels. Dual split air braking system controlled by foot pedal. Negative type parking brake on all wheels controlled by hand valve.

Tyres

14.00 x 24 - 20 ply dual tyres on front axle
14.00 x 24 - 20 ply dual tyres on rear axle.

Outriggers

Four hydraulic single stage telescopic outriggers of box section construction fabricated from high tensile steel each fitted with a vertical hydraulic jacking cylinder and a detachable jack pad. Jacking cylinders fitted with lock valves. Manual outrigger controls in both operator's cab and on the left hand side of the chassis.

SUPERSTRUCTURE

Frame

Fabricated from high tensile steel plates, stress relieved and precision machined.

Slew Bearing

Triple roller bearing with machine cut external teeth and sealed against the ingress of dust and water.

Diesel Engine

Perkins Model 1006 6TW, six cylinder, four stroke, turbo-charged water cooled diesel engine developing 123 kW (165 HP) at 2200 rpm. High capacity oil cooler mounted under engine radiator.

Fuel Tank

250 litre capacity fuel tank with filter, strainer and drain plug.

Electrical System

24 volt, negative earth, system with two 12 volt 140 A/hr batteries connected in series.

Hydraulic System

Closed circuit type system consisting of four variable displacement axial piston pumps and one fixed displacement gear pump. 10 micron oil filters with service indicator on return line. Strainer on supply line. 300 litre capacity oil tank with baffle plates, heat exchanger, drain plug and inspection cover. Hydraulic pumps engine driven through a splitter box.

Hoist Winches

Both the main and auxiliary hoist winches are of equal performance. Each winch is driven by an independent variable displacement hydraulic motor through a planetary reduction gearbox, and fitted with an automatic negative type multiple disc brake and non return sprag clutch.

550 mm pitch diameter hoist drums with helical grooving for 22 mm diameter rope.

Boom Derricking Winch

Operated by one fixed displacement hydraulic motor with planetary reduction, automatic negative type multiple disc brake and non return sprag clutch.

450 mm pitch diameter drum with helical grooving for 18 mm diameter rope with a ratchet and mechanical pawl safety mechanism manually released from operator's cab.

Slew

Operated by one fixed displacement hydraulic motor with planetary reduction, negative type multiple disc brake automatically engaged when spring centred control lever returns to neutral position.

Two position manually engaged slew lock.

Boom & Mast

Basic length 15.25 m (50 ft.) comprising three pin jointed lattice sections of high tensile steel angle construction with seal welded bracing's. Complete with pendant overhoist and deflection rollers. Fixed boom backstops and mechanical angle indicator mounted on base section. Maximum boom length of 24,4 metres (80 ft.)

6,5 m vertical mast fabricated from high tensile steel with boom pivot mounting.

Paint

High gloss paint finish, Grey chassis with yellow superstructure, cab and boom.

Operator's Upper & Lower Cab

Upper cab is of all steel construction with safety glass windows mounted on vertical mast. Operator's eye level 8,5 m. Sound insulated. Upholstered and adjustable operator's seat. Electro-hydraulic crane control system with spring centred joysticks allowing simultaneous operation of crane functions. Windscreen wiper.

Lower cab is of all steel construction with an adjustable operators seat. All crane controls are duplicated together with normal travel controls. Windscreen wiper. Manual controls for outriggers. A safety interlock isolates lower cab controls when operating from the upper cab.

Standard Safety Features

Derrick hoist limit switch. Automatic braking to hoist and derrick motions. Anti two block and load lowering limit switch on main and auxiliary hoist lines. Ratchet and pawl mechanism on boom derrick winch.

Optional Equipment

Electronic Rated Capacity Indicator with visual and audible alarms and function cut-outs.

3,05 m (10 ft.) intermediate boom section.

6,10 m (20 ft.) intermediate boom section.

9,15 m (30 ft.) intermediate boom section.

Level luffing boom system.

4 fall maximum duty hookblock.

Single line cargo hook assembly.

Tagline gear.

Double rope grabs or grapples.

Cab Heater.

Air conditioning.

Boom mounted working lights.

Special painting.

Performance Data

Hoist & lowering speed Up to 143 m/min single line.

Hoist Line Pull Max. 11,500 kg.

Derricking speed Max to min 95 seconds approx.

Slewing speed 2.5 r.p.m. max.

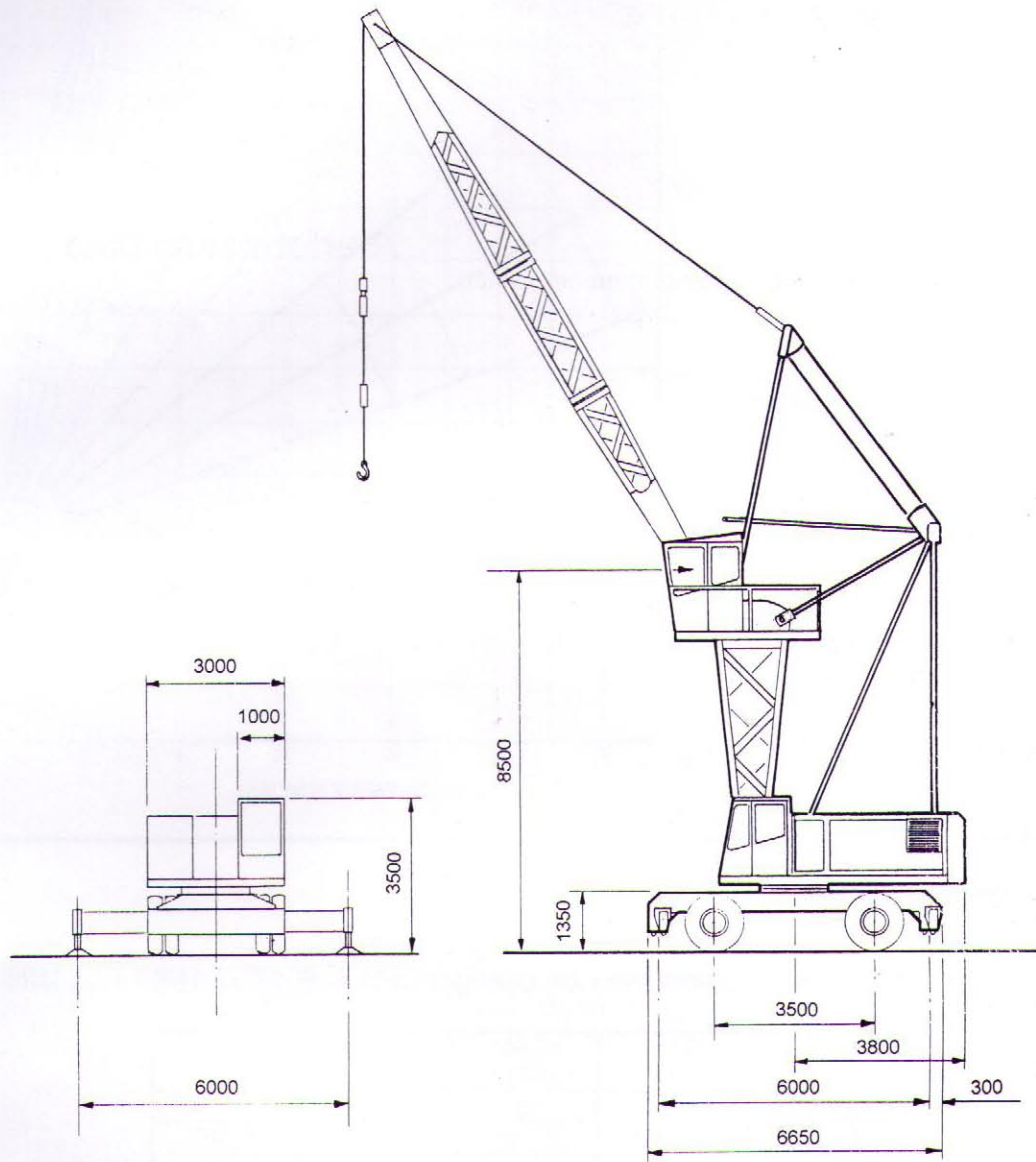
Travelling speed 11.6 km/h on firm level ground.

Gradeability Up to 10% on firm surface.

Turning Radius 9.0 m to outside edge of crane chassis.

Double Rope Grab 6,000 kg maximum grab and contents.

Dimensions and weights



Total weight :- 49,100 kg for crane with basic boom

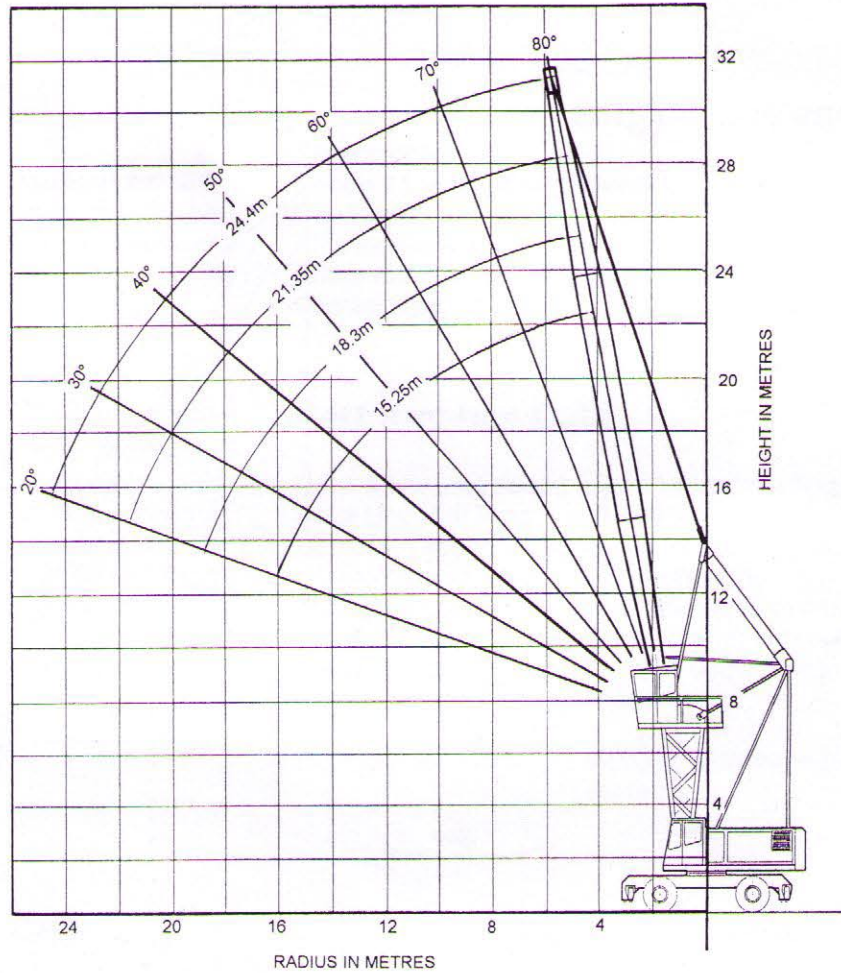
Axle loads :- Front axle 17,000 kg each
Rear axle 32,100 kg each.

Hookblock

Capacities and weights.

Type	CAPACITIES AND ROPE FALLS				Weight kg
	4 kg	3 kg	2 kg	1 kg	
Main	27,700	21,000	15,000	8,000	450
Auxiliary	27,700	21,000	15,000	8,000	450
Single line				8,000	150

Heights of lift



Lifting Capacities

360° Lifting Capacities on outriggers to B.S.1757:1986 and DIN 15019.2)

Boom Length (m)	15,25 (50')	18,30 (60')	21,35 (70')	24,40 (80')
Radius (m)	kg	kg	kg	kg
6,0	27,700	27,700	27,700	27,700
7,0	23,200	23,200	23,200	23,200
8,0	19,900	19,900	19,900	19,900
9,0	17,300	17,300	17,300	17,300
10,0	15,200	15,200	15,200	15,200
12,0	12,100	12,100	12,100	12,100
14,0	9,900	9,900	9,900	9,900
16,0	8,200	8,200	8,100	7,900
18,0		6,800	6,600	6,500
20,0			5,600	5,500
22,0				4,600
24,0				3,900

MAXIMUM OUTRIGGER LOADS. = 36,000 kg
 Crane fitted with standard 6,5 m mast and 15,25 m boom
 Load freely suspended over the corner of the chassis.
 Area of outrigger pad = 0.49 m²

Important Notes

- 1 Specified capacities relate **ONLY** to the machine as originally manufactured and equipped and used in accordance with CP 3010 'Safe use of cranes'. Any modification invalidates this information.
- 2 The capacities are in accordance with clause 9 'Stability' of BS1757:1986 'Power Driven Mobile Cranes' with wind forces to tables 5A and 6A of BS 2573, and also comply with DIN 15019.2.
- 3 Capacities are the gross maximum loads which may be freely suspended from the boom head with the crane standing on a firm level supporting surface.
- 4 When determining the suspended load, the weights of hookblock, slings and any lifting attachment must be added to the weight to be lifted.
- 5 Radius is measured with the load suspended.
- 6 Capacities shown above the bold line are based on factors other than stability. For this reason stability must not be relied upon to indicate capacity.
- 7 The crane should not be operated even without a load, at any combination of length or radius where there is no lifting capacity indicated on the chart. To do so may result in loss of machine stability.

To meet manufacturing conditions and development in design, the illustrations and information contained in this brochure are subject to modification without notice. The information contained in this specification should not be incorporated in any contractual documentation without the prior written agreement of Jones Cranes Limited.



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