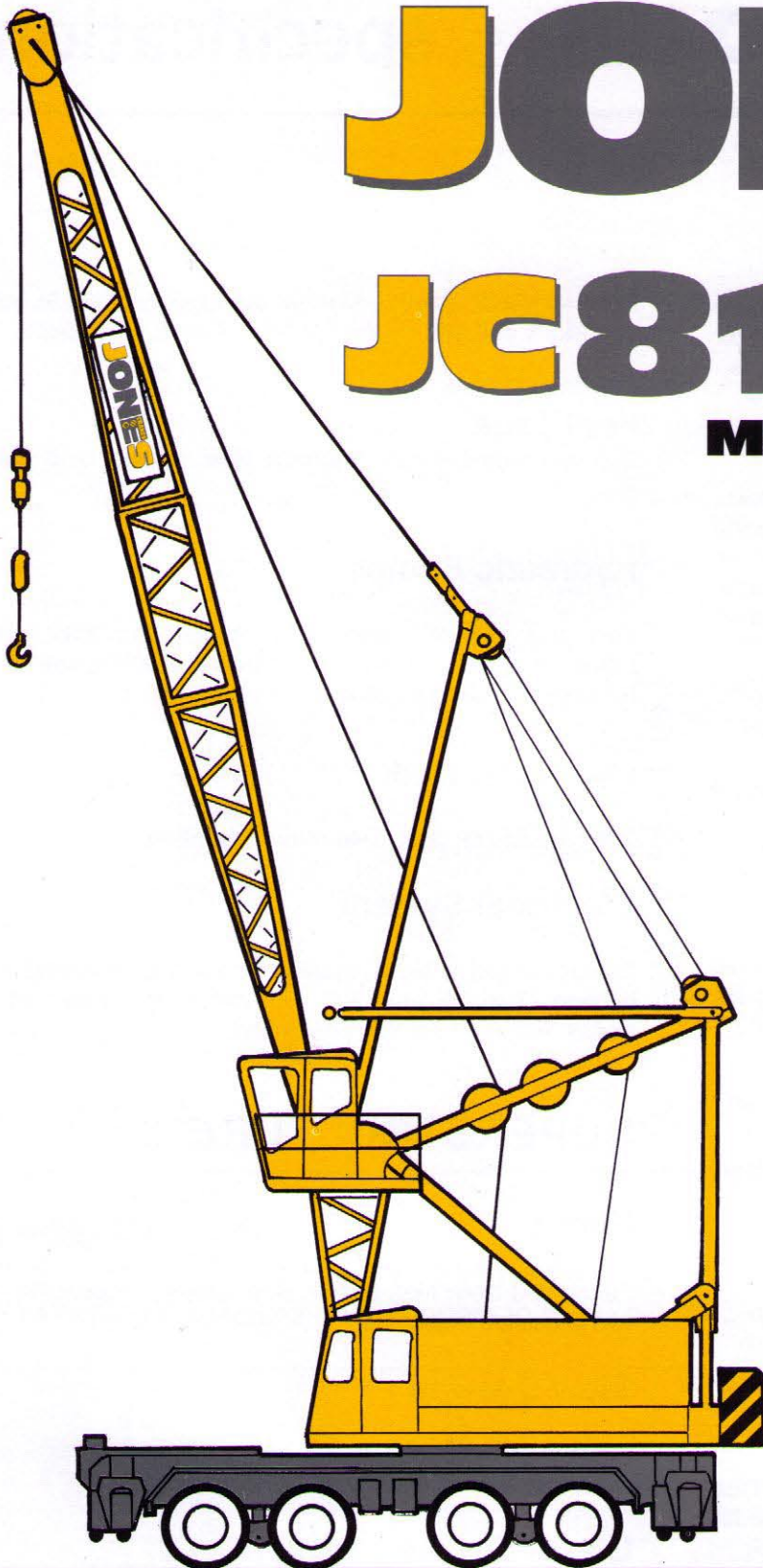


JONES CRANES ES

JC8100HC

Mobile port crane



- Maximum capacity 61 tonnes at 6 m
- Elevated cab and boom pivot
- Twin drum for double rope grabbing
- Heavy duty construction

THE JONES NAME FOR CRANES

JONES CRANES JC 8100 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.

Diesel Engine

Caterpillar model 3306TA, six cylinder, four stroke, turbocharged and aftercooled water cooled diesel engine developing 224 kW (300 HP) at 2100 rpm. Dry type air cleaner with replaceable cartridge and service indicator. Donaldson exhaust mounted under chassis frame. Tropicalised coolant system.

Transmission

Powershift transmission providing 4 forward and 4 reverse gears.

Front Axles

Two non drive steer axles with hydraulic power assisted steering. Emergency electrical pump for steering in the event of engine failure.

Rear Axles

Non steering drive axles with planetary hub reduction, differential and interaxle differential.

Suspension.

Front and rear lateral walking beams

Brakes

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

Tyres

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

Outriggers

Four hydraulic telescopic outriggers 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.

Fuel Tank

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

Hydraulic Pumps

Two gear pumps mounted on torque converter. One pump servicing outriggers and power steering and one for engine cooling system.

Hydraulic Tank

225 capacity oil tank. Two return line filters.

Electrical System

24 volt, negative earth, system for starting, charging and lighting. Two 12 volt 200 A/hr batteries connected in series. Full road lighting equipment.

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

Caterpillar model 3306TA, six cylinder, four stroke, turbocharged and aftercooled water cooled diesel engine developing 224 kW (300 HP) at 2100 rpm. High capacity oil cooler mounted under engine radiator.

Fuel Tank

250 litre capacity fuel tank with filter, strainer and drain plug mounted under operator's cab.

Electrical System

24 volt, negative earth, system with two 12 volt 200 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. 600 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.

500 mm pitch diameter hoist drums with Lebus type grooving for 24 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.

500 mm pitch diameter drum with Lebus type grooving for 24 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

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

Additional sections can be supplied to give a maximum boom length of 33.55 metres (110 ft.)

100 mm 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 all round vision through safety glass windows. Operator's eye level 11 m. Sound insulated. Upholstered and adjustable operator's seat. Electro-hydraulic crane control system with spring centred joysticks allowing independent or simultaneous operation of crane functions. Windscreen wiper.

Lower cab is of all steel construction. Sound insulated from machinery housing. Upholstered and adjustable operator's seat. Windscreen wipers. Full instrumentation. Joystick crane controls and full travel controls. Manual controls for outriggers. A safety interlock isolates lower cab controls when operating from 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.

6 fall hookblock.

Single line cargo hook assembly.

Tagline gear.

Double rope grabs or grapples.

Cab Heater.

Air conditioning.

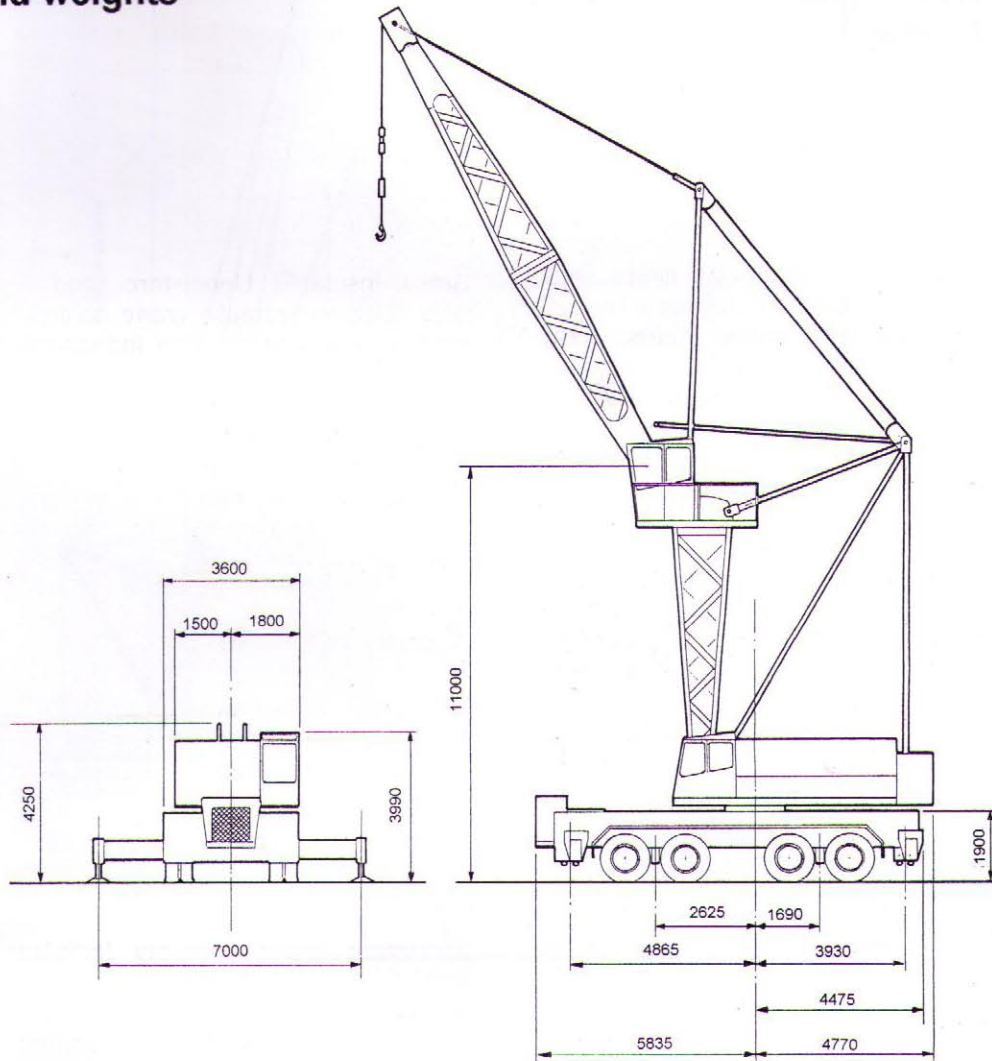
Boom mounted working lights.

Special painting.

Performance Data

Hoist & lowering speed	Up to 151 m/min single line.
Hoist Line Pull Max.	16,200 kg.
Derricking speed	Max to min 85 seconds approx.
Slewing speed	1.7 r.p.m. max.
Travelling speed	6 km/h on firm level ground.
Gradeability	Up to 10% on firm surface.
Turning Radius	12,5 m to outside edge of crane chassis.
Double Rope Grab	8,000 kg maximum grab and contents.

Dimensions and weights



Total weight :- 79,200 kg. for crane with basic boom

Axle loads :- Front axles 5,700 kg each
Rear axles 33,900 kg each.

Transport weight

Axle loads :-

51,360 kg crane less boom, mast and counterweight.

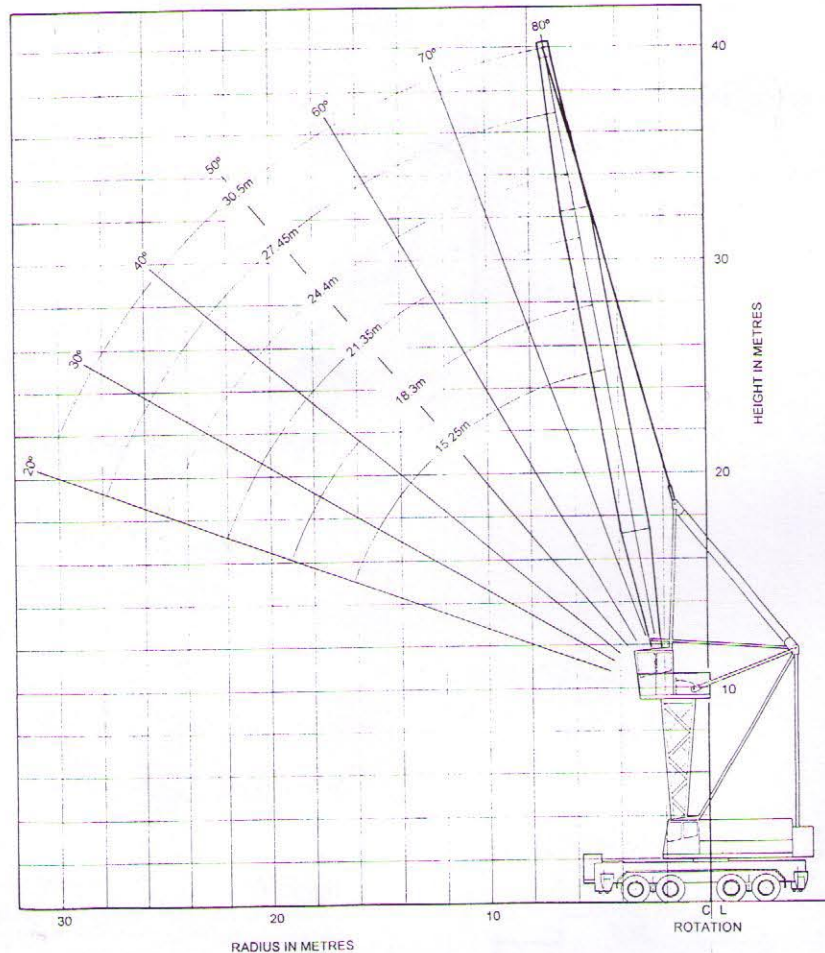
Front axle 7,300 kg
Rear axle 18,380 kg

Hookblock

Capacities and weights

Type	CAPACITIES AND ROPE FALLS					Weight kg
	6 kg	4 kg	3 kg	2 kg	1 kg	
Main	61,000	39,000	28,000	19,000	10,000	550
Auxiliary	61,000	39,000	28,000	19,000	10,000	550
Single Line					10,000	180

Heights of lift



Lifting Capacities

360° Lifting Capacities on outriggers to BS 1757:1986 and DIN 15019.2

Boom Length	15.25 m (50')	18.30 m (60')	21.35 m (70')	24.40 m (80')	27.45 m (90')	30.50 m (100')	33.55 m (110')
Radius (m)	kg	kg	kg	kg	kg	kg	kg
6	61000	61000					
7	51700	51700	51700	51700			
8	44850	44850	44850	44850	44850		
9	40000	40000	39550	39550	39550	37750	
10	33450	33450	33450	33450	33450	33450	32700
12	25000	25000	25000	25000	25000	25000	24900
14	19650	19650	19650	19650	19650	19650	19650
16		16100	16100	16100	16100	16100	16100
18			13500	13500	13500	13500	13500
20			11500	11500	11500	11500	11500
22				10100	10100	10100	10100
24				8700	8700	8700	8700
26					7700	7700	7700
28						6750	6750
30						6000	6000
32							5400

- 1 Specified capacities relate **ONLY** to the machine as originally manufactured and equipped. Any modification invalidates this information.
- 2 The above capacities are in accordance with clause 9 'STABILITY' of BS1757:1986 'Power Driven Mobile Cranes' with wind forces to tables 5A and 6A of BS2573 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 level on a firm 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 free-on-wheels depend on correct tyre pressure, type, capacity and condition.
- 7 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.
- 8 Suspended loads may be transported at speeds up to 2 km/h. Loads should be carried over the rear whenever possible.
- 9 This crane is not approved for use on pile driving or extraction operations.
- 10 The crane should not be operated even without a load, at any combination of boom length or radius where there is no lifting capacity indicated on the chart. To do so may result in the 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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