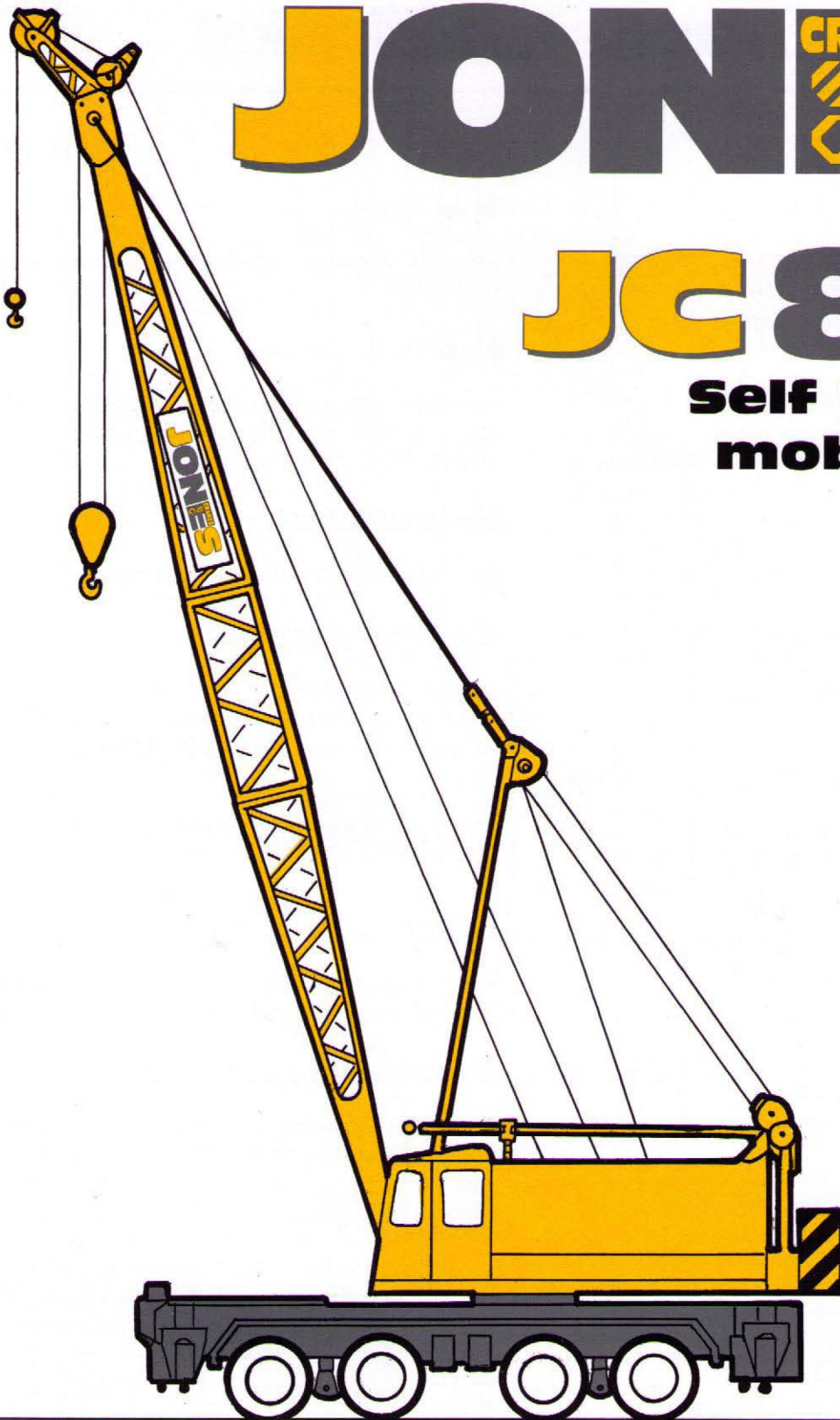


JONES CRANES ES

JC 880

**Self propelled
mobile crane**



- Maximum capacity 80,000 kg
- Maximum boom length 45.75m
- Twin drum for double rope grabbing
- Heavy duty construction

THE JONES NAME FOR CRANES

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 3306T, six cylinder, four stroke, turbo-charged water cooled diesel engine developing 187 kW (250 HP) at 2100 rpm.

Transmission

Powershift transmission providing 3 forward and 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 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.

Fuel Tank

220 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 litres capacity oil tank. Two return line filters.

Electrical System

24 volt, negative earth, system for starting, charging and lighting. Two 12 volt 140 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 3306T, six cylinder, four stroke, turbo-charged water cooled diesel engine developing 187 kW (250 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 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.

360 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.

512 mm pitch diameter hoist drums with Lebus type 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.

404 mm pitch diameter drum with Lebus type grooving for 14 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 two 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.

Additional sections can be supplied to give a maximum boom length of 45.75 metres (150 ft.)

Paint

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

Operator's Cab

All steel construction walk in operator's cab with all round vision through safety glass windows. Sound insulated and isolated from machinery housing. Upholstered and fully adjustable operator's seat. Full instrumentation panel and travel controls. Electric over hydraulic crane control system with spring centred joysticks allowing independent or simultaneous operation of crane functions. Manual controls for outriggers.

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.

1,525 m (5 ft.) single piece goose neck jib integrally mounted to boom head.

10 fall hookblock for maximum duty.

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 126 m/min single line.

Hoist Line Pull Max. 12,200 kg.

Derricking speed Max to min 95 seconds approx.

Slewing Speed 1.7 r.p.m. max.

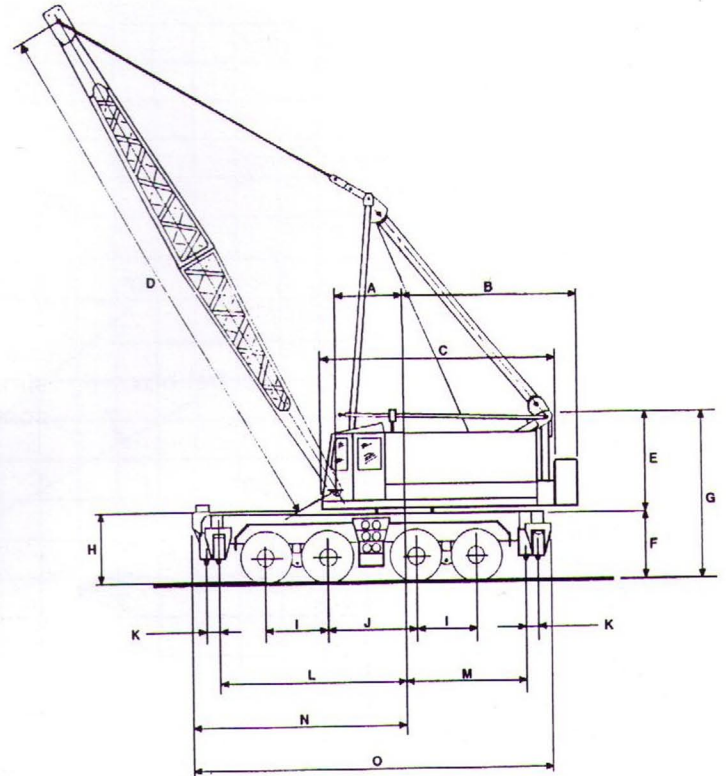
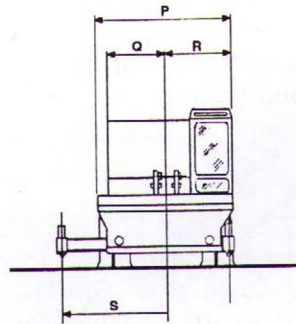
Travelling speed 10 km/h on firm level ground.

Gradeability Up to 10% on firm surface.

Turning Radius 11.2 m to outside edge of crane chassis.

Double Rope Grab 10,000 kg maximum grab and contents

Dimensions and weights



	mm	
A =	1397	Axis of rotation to boom foot pivot
B =	4580	Counterweight tailswing
C =	6020	Upper machinery cab length
D =	15250	Basic boom length
E =	2625	Upper cab height from carrier deck
F =	1800	Carrier rear deck height
G =	4425	Upper cab height for transport
H =	2600	Carrier engine housing height
I =	1620	Interaxle distance

	mm	
J =	2295	Interaxle from 2nd to 3rd axles
K =	330	Outrigger offset left and right sides
L =	4860	Axis of rotation to front left outrigger
M =	3535	Axis of rotation to rear right outrigger
N =	5550	Axis of rotation to front of carrier
O =	9440	Carrier overall length
P =	3600	Carrier overall width
Q =	1250	Carrier centerline to upper cab RH side
R =	1800	Carrier centerline to upper cab LH side
S =	7500	Outrigger spread

Total weight :- 69,500 kg. for crane with basic boom

Transport weight

51,360 kg crane less boom mast and counterweight.

Axle loads :- Front axles 4,950 kg each
Rear axles 29,800 kg each.

Axle loads :-

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

Hookblock

Capacities and weights

Type	CAPACITIES AND ROPE FALLS							Weight kg
	10 kg	8 kg	6 kg	4 kg	3 kg	2 kg	1 kg	
Main	80,000	70,000	55,000	37,000	27,000	18,000	10,000	900
Auxiliary			55,000	37,000	27,000	18,000	10,000	550
Single Line							10,000	180

Lifting Capacities

Lifting Free on Wheels over rear 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')
Radius (m)	kg	kg	kg	kg	kg	kg
3.55	24,150					
3.96	20,850					
4.27	19,900					
4.57	19,150	19,000				
4.88	18,300	18,250				
5.18	17,500	17,500	17,250			
5.49	17,000	16,800	16,600	16,500		
5.79	16,400	16,250	16,100	15,800		
6.10	15,750	15,650	15,500	15,300	15,150	
7.62	12,750	12,750	12,700	12,600	12,400	
9.15	10,150	9,750	9,750	9,750	9,600	9,400
10.67	7,900	7,900	7,900	7,900	7,750	7,600
12.20	6,400	6,400	6,400	6,400	6,250	6,100
15.25	4,900	4,900	4,900	4,900	4,750	4,600
18.30		3,750	3,750	3,500	3,500	3,300
21.35			2,750	2,750	2,600	2,400
24.40				2,250	2,100	1,900
27.45					1,650	1,250
30.50						850

- Specified capacities relate ONLY to the machine as originally manufactured and equipped. Any modification invalidates this information.
- 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.
- Capacities are the gross maximum loads which may be freely suspended from the boom head with the crane standing level on a firm level supporting surface.
- When determining the suspended load, the weights of hookblock, slings and any lifting attachment must be added to the weight to be lifted.
- Radius is measured with the load suspended.
- Capacities free-on-wheels depend on correct tyre pressure, type, capacity and condition.
- 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.
- Suspended loads may be transported at speeds up to 2km/h. Loads should be carried over the rear whenever possible.
- This crane is not approved for use on pile driving or extraction operations.
- 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 Crane Limited.



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