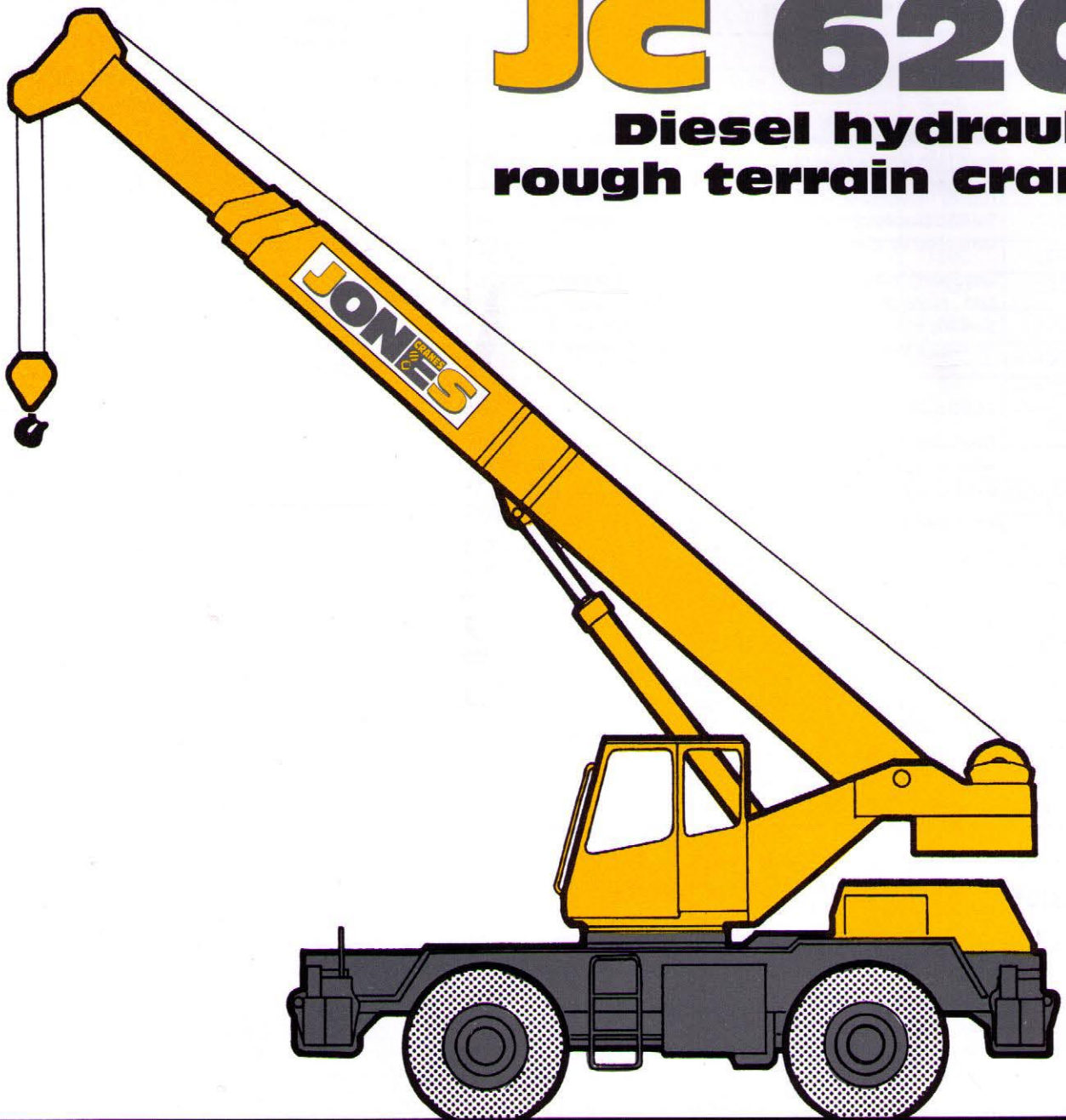


# JONES CRANES ES

## JC 620

**Diesel hydraulic  
rough terrain crane**



- Maximum capacity - 20.000 kg
- Three section boom 8.0 - 19.0 m
- Maximum travel speed -40 km/h
- Maximum tip height - 28.5 m

**THE JONES NAME FOR CRANES**



## Power Unit

- Engine** Cummins 4 cylinder turbocharged water cooled diesel developing 87 kW (116 bhp) at 2500 rpm.
- Transmission** Torque converter with full power shift giving 6 forward and 6 reverse gears.

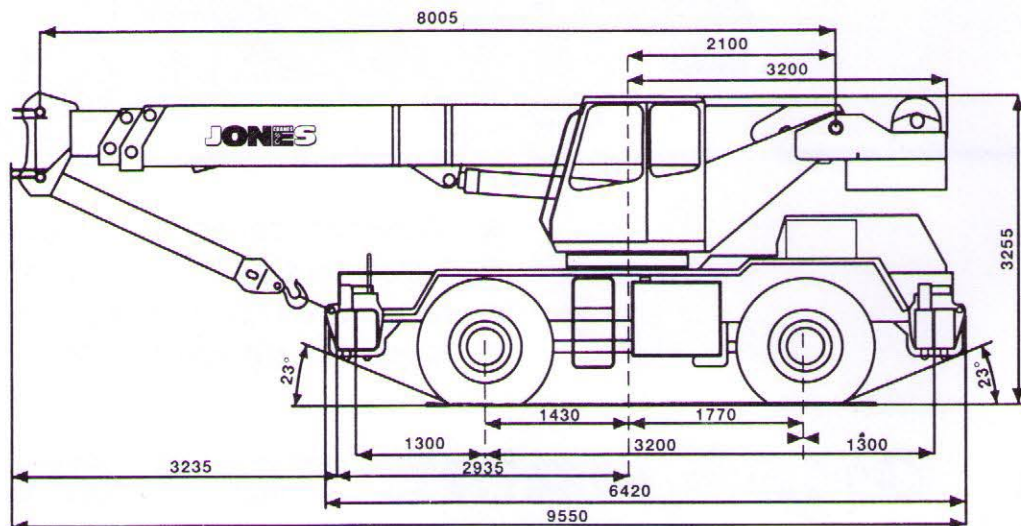
## Chassis

- Drive** 4 x 4 x 4
- Construction** Purpose designed box type section frame fabricated from high tensile steel plate.
- Front Axle** Rigidly mounted drive/steer axle with central differential and planetary reduction hubs. Full power steering controlled by steering wheel in driver's cab.
- Rear Axle** Oscillating drive/steer axle with central differential and planetary reduction hubs. Hydraulic power steering with rear wheel steer indicator. Steering lock for road travel. Automatically operated rear axle lock out.
- Tyres** 14,00 x 24 Earthmover type.
- Brakes** Dual circuit air over hydraulic service brakes to all wheels. Spring applied air released parking brake to front wheels.
- Fuel Tank** 140 Litres ( 31 Gallons )
- Hydraulic Pumps** Three gear type hydraulic pump system. One 2 section pump and one single section. Total capacity 230 litres/min. Hydraulic oil cooler.
- Hydraulic Oil** Tank capacity 290 litres ( 64 Gallons )
- Outriggers** Four horizontal beam type outriggers with vertical jacking cylinders hydraulically operated from the driver's cab

## Crane Superstructure

- Superstructure Frame** Fabricated high tensile steel structure onto which is mounted the telescopic jib, hoist unit, derricking cylinder and counterweight. The superstructure is capable of unlimited slewing in either direction and rotates on a slew bearing that is sealed against the ingress of dust and water.
- Control Valves** Two valve bank units allowing simultaneous operation of the crane functions operated by joystick levers in Driver's cab
- Hoist Motion** Two speed hydraulic motor driven double reduction gear unit with 'fail safe' spring applied disc brake and counterbalance valve.
- Derrick Motion** Double acting hydraulic cylinder with lock valve allowing Boom elevation from  $-2^{\circ}$  to  $+75^{\circ}$ .
- Slew Motion** Hydraulic driven slew pinion through planetary double reduction gearbox. Multidisc type slew brake with hand operated positive slew lock operated from driver's cab.
- Boom Telescoping** Double acting hydraulic cylinder with lock valve mounted within the jib structure.
- Main Boom** Three section boom of box type construction comprising base section and two fully powered automatically synchronised sections extending from 8.0 m to 19,0 m.
- Hoist Rope** 12 mm diameter x 150 m non spin.
- Hook Block** Five sheave hook block for maximum duty
- Electrical System** 24 Volt Electrical starting and charging circuits. Full road lighting to EEC requirements.

## Dimensions



## Driver's Cab

<b>Construction</b>	Fully enclosed all steel construction Driver's cab rubber mounted on Crane Superstructure giving maximum all round vision through safety glass windows.
<b>Fittings</b>	Fully upholstered driver's seat with hydraulic damper, adjustable for height rake and leg length. Cab front screen wiper and rear view mirrors.
<b>Instruments</b>	Full cab instrumentation for engine and transmission oil pressures and temperature, air pressures, fuel and travel speeds, battery charging, road lighting and direction indicators.
<b>Controls</b>	Normal automotive road controls including steering wheel for front axle and control switch for rear axle steer, transmission gear selection and forward/reverse shift, high low speeds and 2/4 wheel drive. Crane controls for all functions are mounted in the driver's cab.

## Safety equipment

<b>Standard</b>	Overhoist and overlowering limit switches. Lock valves on all hydraulic cylinders with overload valve on all systems.
<b>Optional</b>	Audible and visual rated capacity indicator.
<b>Paint</b>	High gloss finish Yellow superstructure and operator's cab with grey chassis.

## Performance Data.

### OPERATING

<b>Line Pull</b>	3000 kg. ( 29 kN )
<b>Line Speed</b>	
- Normal	0 - 66 m/min.
- Fast	0 - 90 m/min
<b>Boom Derrick Up</b>	18 seconds
<b>Boom Derrick Down</b>	18 seconds
<b>Boom extension speed</b>	24 m/min
<b>Slew Speed</b>	Up to 2,0 r.p.m.
<b>Travel Speed</b>	40 km/h max. ( 24.8 m.p.h.)
<b>Turning Radius</b>	
- 2 wheel steer	8,80 m between kerbs
- 4 wheel steer	5,34 m between kerbs

### GENERAL

Weight with crane in normal travelling order.

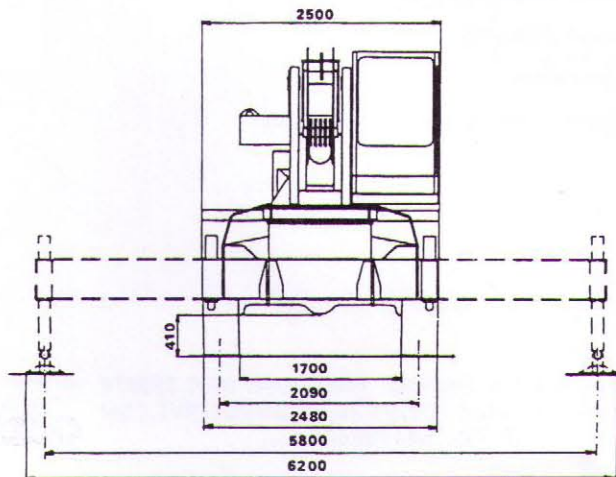
### Axle Loads

- Front axle	8,900 kg. ( 19625 lbs. )
- Rear axle	9,000 kg. ( 19845 lbs. )
- Total weight	17,900 kg. ( 39470 lbs. )

### Maximum gradient

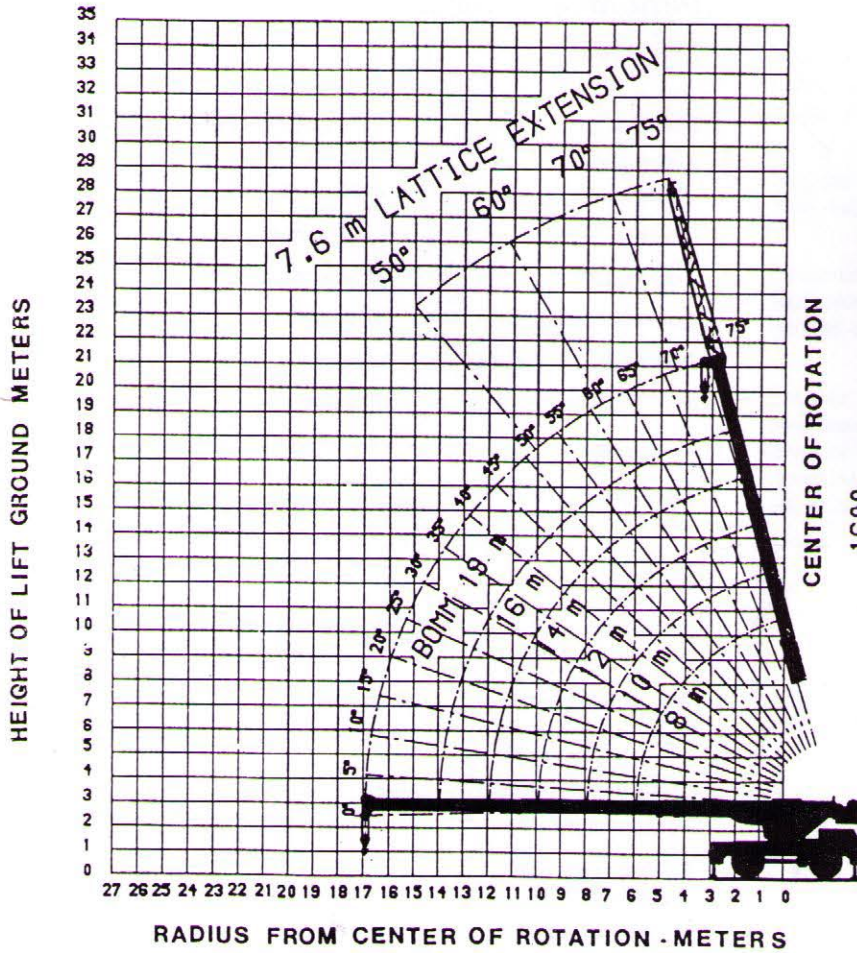
- unladen	40%.
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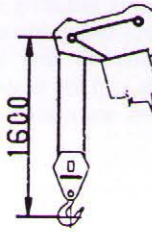
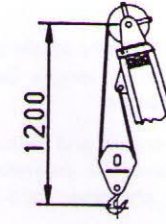


## Heights of lift



### Hookblocks

Load kgs.	No. of Sheaves	No. of Lines	Weight Kgs
20000	5	10	250
4000	1	2	80
2000	Single Fall	1	80



## Optional equipment

8,0 m to 24,5 m four section boom with two fully powered sections and onepower positioned 5,5 m boom section

7.6 m lattice boom extension

8.0 m to 14,8 m double length lattice extension

1/2 fall hookblock ( 5 tonne capacity )

Single hook and pearweight ( 3 tonne capacity )

2 tonne capacity auxiliary hoist with cable

Spare wheel & tyre

Motion cut out equipment

Audible and visual rated capacity indicator

Jib working lights

Hazard warning lights

Tropical Glazing

Cab heater

Special painting to customers livery

**JONES** CRANES  
THE ONE NAME FOR CRANES

**Jones Cranes Limited**

P.O. Box 13, Letchworth, Herts, SG6 1LX, England. Freephone: 0800 393974  
Tel: +44 (0)1403 700555 • Fax: +44 (0)1403 700552 • Telex: 82112 Jones G • E-mail 106253.204@COMPUSERVE.COM  
Parts Department Fax: +44 (0)1403 700455 • V.A.T. No. 644783606

**Jones**  
cranes



## Lifting capacities

Lifting capacities in kilogrammes to BS 1757 : 1986 and DIN 15019.2

Working Radius ( m )	360° LIFTING CAPACITIES ON OUTRIGGERS					
	Main Boom Length					
	8,00	10,00	12,00	14,00	16,00	19,00
3	20000	18000	17000	16000		
3,5	17100	15500	15000	14500		
4	15000	13500	13500	13500	13000	
4,5	13300	13300	13000	12500	11000	9500
5	12000	12000	12000	11000	10000	8500
6		10000	10000	9600	9000	7700
7		8500	8500	7700	7700	6900
8			6800	6800	6500	6200
9			5400	5400	5400	5300
10				4400	4400	4300
11				3700	3700	3700
12					3200	3200
13					2700	2700
14						2300
15						2000
16						1700

FREE ON WHEEL CAPACITIES			
Working Radius ( m )	Main boom length	Static 360°	Over front 3 km/h
3	8,0	7500	12100
3,5	8,0	6000	9000
4	8,0	4500	7500
4,5	8,0	3700	6300
5	8,0	2900	5300
6	10,0	2000	3800
7	10,0	1500	2800
8	12,0	1000	2200
9	12,0	800	1700
10	14,0	550	1300
11	14,0		1000
12	14,0		850

360° CAPACITIES ON OUTRIGGERS	
7,6 LATTICE EXTENSION	
Boom Angle	Capacity
75°	4000
70°	3300
60°	2500
50°	1500

- 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.
- The capacities are in accordance with clause 9.1.3c '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.
- 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.
- When determining the suspended load, the weights of hookblock, slings and any lifting attachment must be added to the weight to be lifted.
- When working with Lattice extension stowed main boom capacities must be reduced by 180 kg. Lattice extension erected in working position 620 kg.
- Free on wheels capacities depend on correct tyre pressure, type and condition.
- Radius is measured with the load suspended
- 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.
- Under normal circumstances it is permissible to attempt to telescope the boom in or out with a load suspended, providing the load/radius is within the capacity shown in the duty chart at all times.
- Capacities over the front apply only within 2,5° either side of the crane centre line.
- Suspended loads may be transported at speeds up to 3 km/h. Loads should be carried over the front of the crane whenever possible. Axle locks must be engaged before lifting free-on-wheels except over the front within 2,5° either side of the crane centre line.
- The boom 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.

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