

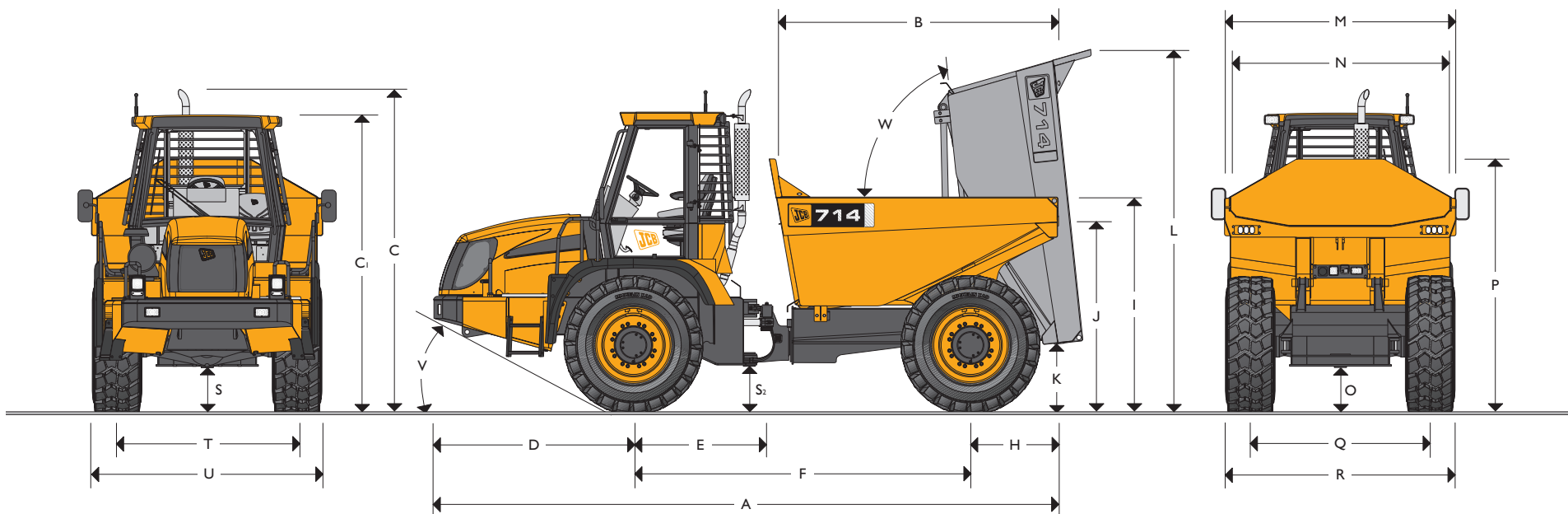


# JCB ARTICULATED DUMP TRUCK | 714



MAX. OPERATING WEIGHT: 23.14 tonnes (51015lb)

MAX. HORSEPOWER: 116 kW (156hp)



## STATIC DIMENSIONS

	mm (ft-in)
A Overall length	6784 (22-3)
B Body length	3122 (10-2)
C Max. height	3425 (11-2)
C <sub>i</sub> Height to top of cab	3180 (10-5)
D Front axle to front bumper	2174 (7-1)
E Front axle to rear of front unit	1250 (4-1)
F Wheelbase (front axle to rear axle)	3650 (12-0)
H Rear axle to rear bumper	960 (3-2)
I Height to top of body	2270 (7-5)
J Height to lip of body	1965 (6-5)
K Min. height to body when tipped	680 (2-2)
L Max. height to body when tipped	3862 (12-7)
M Max. external body width	2502 (8-2)

	mm (ft-in)
N Max. internal body width	2370 (7-8)
O Max. ground clearance (rear diff)	490 (1-6)
P Max. body height to spill guard	2682 (8-8)
Q Wheel track (rear)	1955 (6-4)
R Overall width (rear)	2500 (8-2)
S Max. ground clearance (front diff)	460 (1-5)
S <sub>2</sub> Ground clearance	430 (1-4)
T Wheel track (front)	1955 (6-4)
U Overall width	2500 (8-2)
V Departure angle (front)	degrees 30
W Body tip angle	degrees 84
Load capacity	tonnes/lb 13.14 (28969)
Body – heaped	m <sup>3</sup> (yd <sup>3</sup> ) 7.35 (9.6)

Overall dimensions based on an unladen machine equipped with Michelin 20.5 R25 XADN tyres.

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### ENGINE

Type	4 stroke direct injection	
Model	6BTAA	
Capacity	litres (in³)	5.9 (360)
Bore	mm (in)	102 (4)
Stroke	mm (in)	120 (4.75)
Aspiration	Turbo charged/charge cooled	
Cylinders	6	
<b>Power rating</b>		
Max. power	kW (HP) @ 1900rpm	116 (156)
Gross power to SAE J1995/ISO 14396	kW (HP) @ 2200rpm	112 (150)
Net power to SAE J1995/ISO 14396	kW (HP) @ 2200rpm	107.3 (143.5)
<b>Torque rating</b>		
Max. torque	Nm (lbf ft) @ 1500rpm	630 (465)
Net torque	Nm (lbf ft) @ 1500rpm	611 (451)

### TRANSMISSION

<b>Transmission</b>	Type	Smoothshift
	Make	ZF
	Model	6WG160
<b>Torque converter</b>	Type	Single stage
	Torque converter ratio	1.91:1

### AXLES

Type	Epicyclic hub reduction
Make	Graziano
Model	PR12
Overall axle ratio	20.197:1

### TRAVEL SPEEDS

Assumes fitment of Michelin 20.5 R25 tyres		<b>kph (mph)</b>
<b>Forward</b>	First	6.2 (3.8)
	Second	9.4 (5.8)
	Third	14.1 (8.7)
	Fourth	20.6 (12.8)
	Fifth	27.4 (17.0)
	Sixth	40.0 (24.8)
<b>Reverse</b>	First	6.5 (4.0)
	Second	14.6 (9.0)
	Third	27.7 (17.2)

### HYDRAULICS

<b>Steering and tipping</b>	Pump type	Gear
	Pump: max flow @ 2200rpm	l/min (UK gal/min)
	Pump: max pressure	bar (psi)
<b>Braking</b>	Pump type	Gear
	Pump: max flow @ 2200rpm	l/min (UK gal/min)
	Pump: max pressure	bar (psi)

### SERVICE FILL CAPACITIES

	<b>litres (UK gal)</b>
Hydraulic system	88 (15.3)
Fuel tank	200 (44)
Engine oil sump	16.3 (3.58)
Transmission system	35 (7.7)
Axle oil (front)	33 (7.26)
Axle oil (rear)	33 (7.26)
Engine coolant system	30 (6.6)

### ELECTRICAL SYSTEM

System voltage	Volt	24
Alternator output	Amp hour	70
Battery capacity	Amp hour	2 x 115

### BODY

Tipping angle	degrees	84
Body plate thickness (front)	mm (ft-in)	6 (0-2)
Body plate thickness (side)	mm (ft-in)	6 (0-2)
Body plate thickness (bottom/chute)	mm (ft-in)	6 (0-2)
Yield strength	N/mm <sup>2</sup> (psi)	1000 (145000)
Tensile strength	N/mm <sup>2</sup> (psi)	1245 (181000)
Hardness (min)	HB	400
Body raise (laden)	seconds	9.7
Body lower (laden)	seconds	10.0
Scow angle	degrees	25.0



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## STANDARD EQUIPMENT

**Engine:** 6 cylinder, direct injection diesel engine. Wastegate turbocharger charged cooler for maximum torque and minimum exhaust smoke. 3 stage dry type-cyclonic air cleaner with primary and safety elements. Stainless steel exhaust system, fuel sedimenter, twin bowl fuel filters.

**Transmission:** 6 forward and 3 reverse speed remote mount smoothshift transmission with integral torque converter. Manual or automatic selection. Electrical 2/4 wheel drive selection.

**Axles:** Pad mounted to the chassis. Limited Slip Differential in both axles. Planetary wheel hub reduction.

**Steering:** Double acting hydrostatic system. Priority steer valve. Emergency steering via a ground driven pump.

**Brakes:** Dual circuit, hydraulic power dry disc type with braking on all four wheels. Electrically operated dry disc parking brakes on the driveline, spring applied and hydraulically released. Brake disc guards fitted as standard.

**Hydraulics:** Twin gear pump system comprising main pump for priority steer and body tip, and a second pump for braking. Emergency steer via a ground driven pump.

**Cab:** ROPS and FOPS safety structure. Fully adjustable air suspension seat. Adjustable steering column. Air conditioning. Laminated safety glass. Electronic monitoring panel with LCD message display which includes body up warning light. Front & rear screen wash / wipe. 3 speed heater / demisting with replaceable air filter. LH & RH opening doors. Single lever transmission selector. Single lever hydraulic tip control. Combination stalk controls for lights, wipers, horn, direction indicators. Separate side consul for auxiliary switches. Cigar lighter, ashtrays, interior light, sun visor, external rear view mirrors, and operator's storage facilities.

**Electrical:** Road lights front and rear, front working lights, reversing alarm and light, rear fog lights, horn, battery isolator, beacon, radio fittings, 70 amp alternator, 24-12 volt in cab converter.

**Bodywork:** Flexible front steps, non-slip walkways, recovery hitch, lifting lugs, engine access cover. Rear cab mounted spill guard. Cast 360 deg centre hitch.

**Body:** Constructed from high strength steel with large box section stiffeners and a Hardox floor. Large target area and load retention. Two single stage double acting cylinders located within rear chassis.

## OPTIONAL EQUIPMENT

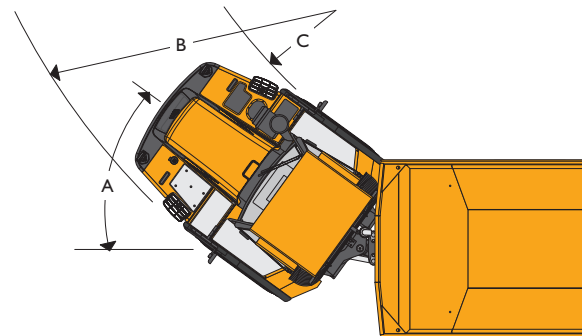
Reversing camera; Heated seat and mirrors; Biodegradable hydraulic oil; Smart reverse alarm; 3" seat belt; Mechanical tail gate; Greedy boards; Window etching; Spacetrac.

## OPERATING WEIGHTS

		Laden	Unladen
Front	tonnes (lb)	8.97 (19775)	6.37 (14043)
Rear	tonnes (lb)	14.17 (31240)	3.77 (8311)
Total	tonnes (lb)	23.14 (51015)	10.14 (22355)
Payload	tonnes (lb)	13.00 (28660)	—

Includes operator (80kg) and a full fuel tank.

## TURNING CIRCLE



		mm (ft-in)
A	Articulation angle	degrees
B	Clearance radius	7100 (23-3)
C	Turning radius	4175 (13-7)

## CHANGES TO GROUND BEARING PRESSURES

Manufacturer	Tyre Size	Type	Laden		Unladen		Tyre Pressure	
			Front	Rear	Front	Rear	Front	Rear
			kPa (PSI)	kPa (PSI)	kPa (PSI)	kPa (PSI)	kPa (PSI)	kPa (PSI)
Michelin	20.5 R25	XADN	110 (16)	179 (26)	83 (12)	48 (7)	214 (31)	345 (50)
Bridgestone	20.5 R25	VLT	110 (16)	179 (26)	83 (12)	48 (7)	207 (30)	407 (59)
Michelin	650/65 R25	XAD	97 (14)	152 (22)	69 (10)	41 (6)	214 (31)	345 (50)
Nokian	750/55 R25	TRS LS-2	83 (12)	124 (18)	55 (8)	34 (5)	152 (22)	276 (40)

Ground bearing pressure @ 15% sinkage.

## CHANGES TO OPERATING DIMENSIONS

Manufacturer	Tyre Size	Type	Dimensional changes				Operating weight
			U	T	R	Q	
			mm (in)	mm (in)	mm (in)	mm (in)	kg (lb)
Michelin	20.5 R25	XADN	0	0	0	0	0
Bridgestone	20.5 R25	VLT	0	0	0	0	+112 (246)
Michelin	650/65 R25	XAD	0	-85 (-3.3)	0	-85 (3.3)	+608 (1338)
Nokian	750/55 R25	TRS LS-2	+245 (9.6)	0	+245 (9.6)	0	-232 (510)

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### A GLOBAL COMMITMENT TO QUALITY

JCB's total commitment to its products and customers has helped it grow from a one-man business into Britain's largest privately owned manufacturer of backhoe loaders, crawler excavators, wheeled excavators, telescopic handlers, wheeled loaders, dump trucks, rough terrain fork lifts, industrial fork lifts, mini/midi excavators, skid steer loaders and tractors.

By making constant and massive investments in the latest production technology, the JCB factories have become some of the most advanced in Europe.

By leading the field in innovative research and design, extensive testing and stringent quality control, JCB machines have become renowned all over the world for performance, value and reliability.

And with a global sales and service network of over 400 distributors and agents, the company exports over 70% of its production to all five continents.

Through setting the standards by which others are judged, JCB has become one of Britain's most impressive success stories.



JCB cares for the environment. This paper has been produced without the use of elemental chlorine chemicals in the bleaching process.

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