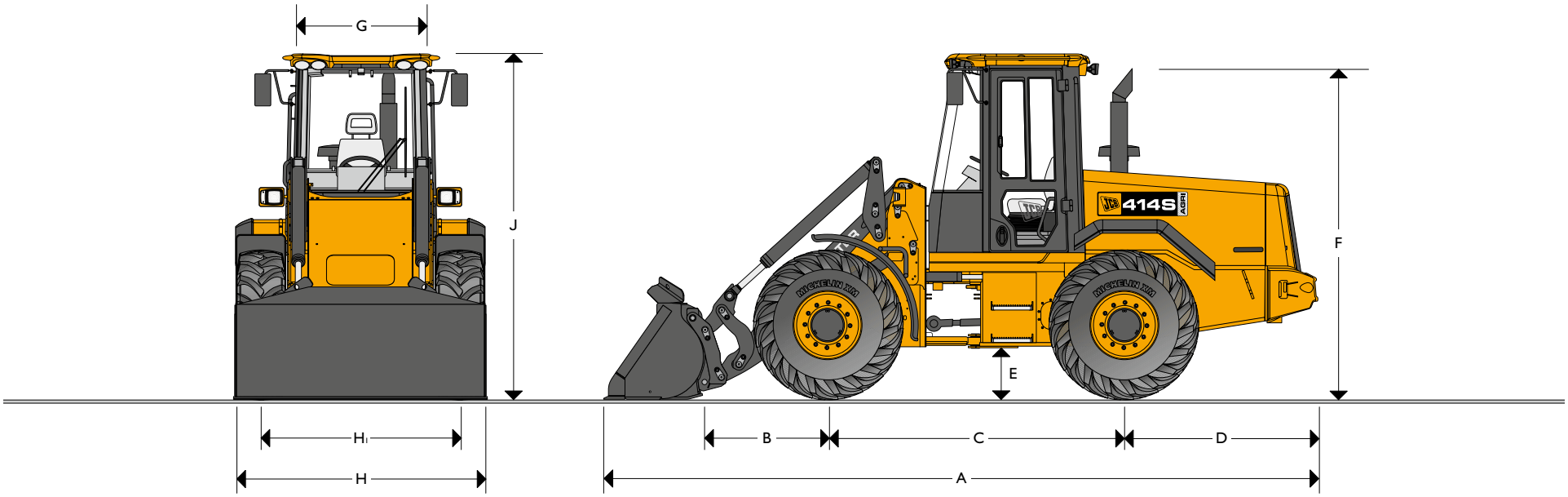
MAX. ENGINE POWER: 119kW (160hp) MAX. OPERATING WEIGHT: 10495kg (23137lb) MAX. LOADER CAPACITY: 2.2m³ (2.9yd³)



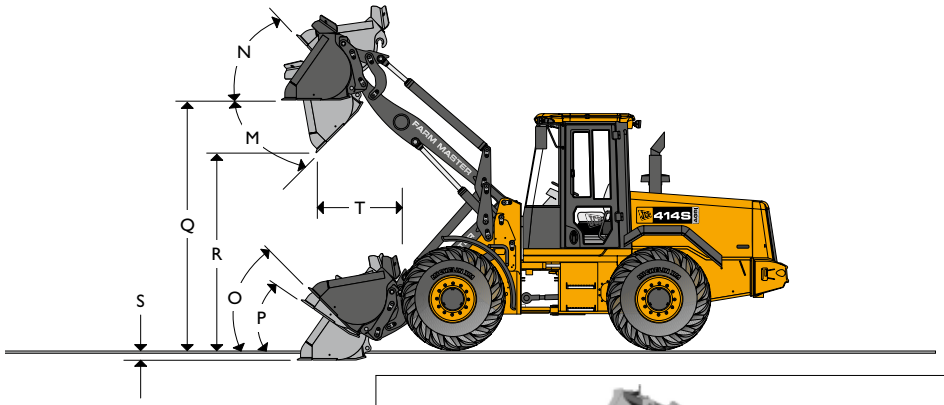
STATIC DIMENSIONS

		mm (ft-in)
A	Overall length with standard bucket	6490 (21-4)
B	Axle to pivot pin	1228 (4-0)
C	Wheel Base	2800 (9-2)
D	Axle to counterweight face	1585 (5-2)
E	Minimum ground clearance	355 (1-2)
F	Height over exhaust	2843 (9-4)
G	Width over cab	1515 (5-0)
H	Width over tyres	2476 (8-1)
H1	Wheel track	1980 (6-6)
J	Height over cab	2994 (9-10)

		mm (ft-in)
Pin height (maximum)		3681 (12-1)
Overall operating height		4769 (15-8)
Front axle weight	kg (lb)	4297 (9473)
Rear axle weight	kg (lb)	4604 (10150)
Total weight	kg (lb)	8901 (19623)
Inside radius		2725 (8-11)
Maximum radius		5610 (18-5)
Articulation angle	degrees	±40°

Data based on machine equipped with a 1.4m³ bucket with bolt-on toeplates and Michelin 500/70 R24 XMCL tyres.

LOADER DIMENSIONS – Standard height arm



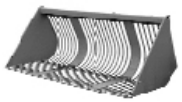
CHANGES TO OPERATING PERFORMANCE AND DIMENSIONS

Tyre size	Manufacturer	Op. Weight kg (lb)	Tipping loads Straight kg (lb)	Dimensions Full Turn kg (lb)	Vertical mm (in)	Width mm (in)
620/70R26 XM27	Michelin	+160 (353)	+98 (216)	+86 (190)	+91 (3.6)	+305 (12)
Additional counterweight (rear)*		+331 (728)	+623 (1374)	+509 (1122)	0	0
Additional counterweight (front)		+328 (723)	+104 (229)	+104 (229)	0	0
411 counterweight (rear)*		+500 (1102)	+941 (2074)	+768 (1693)	0	0

* Not available with the hydraulic towhitch installation.

Changes to operating performance and dimensions: assumes the machine is fitted with 1.4m² quickhitch mounted shovel with toeplates and Michelin 500/70 R24 XMCL tyres.





	Bucket mounting		Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch
	Bucket type		General Purpose	Light Material	Light Material	High Tip (Toe Tip)	High Tip (Toe Tip)	Root basket	Manure/Silage fork	Manure/Silage fork
	Bucket equipment		Reversible toeplate	Reversible toeplate	Reversible toeplate	Reversible toeplate	Reversible toeplate	Reversible toeplate	–	Top grab
	Bucket capacity (SAE heaped)	m³ (yd³)	1.4 (1.8)	1.7 (2.2)	2.2 (2.9)	1.5 (2.0)	1.9 (2.5)	2.1 (2.7)	4.5 (5.9)	2.2 (2.9)
	Bucket capacity (struck)	m³ (yd³)	1.180 (1.542)	1.360 (1.779)	1.700 (2.224)	1.200 (1.570)	1.500 (1.962)	1.680 (2.197)	–	–
	Bucket width	mm (ft-in)	2400 (7-10)	2400 (7-10)	2400 (7-10)	2400 (7-10)	2400 (7-10)	2400 (7-10)	2800* (9-2)	2750 (9-0)
	Bucket weight	kg (lb)	665 (1463)	750 (1653)	900 (1984)	1250 (2755)	1400 (3086)	845 (1863)	1000 (2209)	1150 (2536)
	Maximum material density	kg/m³ (lb/yd³)	1586 (3496)	1147 (2529)	860 (1897)	1147 (2529)	860 (1897)	1147 (2529)	401 (885)	1061 (2339)
	Tipping load straight	kg (lb)	5247 (11568)	4092 (9021)	3971 (8756)	3611 (7960)	3430 (7561)	5054 (11142)	5041 (11113)	4898 (10799)
	Tipping load full turn	kg (lb)	4441 (9792)	3437 (7577)	3336 (7354)	3032 (6685)	2881 (6351)	4245 (9359)	4316 (9515)	4114 (9070)
	Payload	kg (lb)	2221 (4896)	1718 (3788)	1668 (3677)	1516 (3343)	1440 (3176)	2123 (4680)	2158 (4758)	2057 (4535)
	Maximum break out force	kN (lbf)	53.8 (12092)	45.3 (10182)	37.3 (8384)	36.5 (8204)	31.5 (7080)	45.3 (10182)	–	–
M	Dump angle maximum	degrees	48°	48°	48°	43°	43°	48°	48°	48°
N	Roll back angle at full height	degrees	58°	58°	58°	58°	58°	58°	58°	58°
O	Roll back at carry	degrees	47.5°	47.5°	47.5°	47.5°	47.5°	47.5°	47.5°	47.5°
P	Roll back at ground level	degrees	42°	42°	42°	42°	42°	42°	42°	42°
Q	Load over height	mm (ft-in)	3471 (11-4½)	3471 (11-4½)	3471 (11-4½)	3471 (11-4½)	3471 (11-4½)	3471 (11-4½)	3471 (11-4½)	3471 (11-4½)
R	Dump height (45° dump)	mm (ft-in)	2789 (9-2)	2670 (8-9)	2510 (8-3)	4035*** (13-3)	4000*** (13-1)	2510 (8-3)	2238 (7-4)	2456 (8-1)
S	Dig depth	mm (ft-in)	119 (0-4)	119 (0-4)	119 (0-4)	119 (0-4)	119 (0-4)	119 (0-4)	119 (0-4)	119 (0-4)
T	Reach at dump height	mm (ft-in)	957 (3-1)	1076 (3-6)	1236 (4-1)	1525** (5-0)	1676** (5-6)	1076 (3-6)	1508 (4-11)	1290 (4-3)
	Reach maximum (45° dump)	mm (ft-in)	1807 (5-11)	1926 (6-4)	2086 (6-10)	2106 (6-11)	2252 (7-5)	1926 (6-4)	2358 (7-9)	2140 (7-0)
	Operating weight (includes 80kg operator and full fuel tank)	kg (lb)	8901 (19623)	8986 (19811)	9136 (20141)	9486 (20913)	9636 (21244)	9081 (20020)	9236 (20362)	9386 (20693)

Note: 1.0m³ = 1.308yd³ = 35.32ft³. 1kg = 2.205lb. 1kg/m³ = 1.686lb/yd³ = 0.062lb/ft³.

** Side extensions available giving overall width of 3500mm (11ft 6in). *** Carriage rolled fully back, bucket fully dumped.

LOADER

Widely spaced four ram geometry provides the combination of excellent visibility with high bucket torque characteristics throughout the working arc. The pin, bush and sealing design on all pivot points provide extended maintenance intervals.

ENGINE

6-cylinder wastegated turbo-charged, liquid cooled, direct injection diesel. Air-to-air charge-air cooling ensure low emissions and provides minimum fuel consumption. A remote sump oil drain facility simplifies servicing.

Type		4 stroke direct injection
Model		QSB
Capacity	litres (in³)	6.7 (409)
Bore	mm (in)	107 (4.2)
Stroke	mm (in)	124 (4.9)
Aspiration		Turbo charged
Cylinders		6
Max gross power to SAE J1995/ISO 14396	kW (hp) @ 2000rpm	123 (165)
Rated gross power to SAE J1995/ISO 14396	kW (hp) @ 2200rpm	119 (160)
Nett power to SAE J1349/EEC 80/1269	kW (hp) @ 2200rpm	116 (156)
Max torque	Nm (lbf.ft) @ 1400rpm	732 (540)

Emissions standards:- US EPA Tier 3, CARB Tier 3, EU Stage III.

TRANSMISSION

4 wheel drive, automatic smooth shift transmission electrically operated selector and gear change incorporating a speed inhibitor and modulation for smooth, responsive on-the-move direction and ratio changes. Single stage integral torque converter 6 forward and 3 reverse gears.

Type		Smooth shift powershift	
Make & model		ZF 6WG 160	
Torque converter stall ratio		2.3 : 1	
Speeds for 500/70R24 XMCL tyres		**Forward**	**Reverse**
1st gear	kph (mph)	5.2 (3.2)	5.4 (3.4)
2nd gear	kph (mph)	7.9 (4.9)	12.4 (7.7)
3rd gear	kph (mph)	12.2 (7.6)	26.8 (16.7)
4th gear	kph (mph)	18.3 (11.4)	–
5th gear	kph (mph)	25.4 (15.8)	–
6th gear	kph (mph)	38.0 (23.6)	–
Speeds for 620/70R26 XM27 tyres		**Forward**	**Reverse**
1st gear	kph (mph)	6.0 (3.7)	6.1 (3.8)
2nd gear	kph (mph)	9.1 (5.6)	14.2 (8.8)
3rd gear	kph (mph)	14.0 (8.7)	30.7 (19.1)
4th gear	kph (mph)	21.0 (13.0)	–
5th gear	kph (mph)	29.1 (18.0)	–
6th gear	kph (mph)	43.5 (27.0)	–

AXLES

Type	Limited slip differentials with epicyclic hub reduction
Make & model	JCB PD90
Overall axle ratio	20.18 : 1
Rear axle oscillation	25°

STEERING

Priority steer hydraulic system with emergency steering. Gear pump meters flow through steer valve @ 220 bar (3190 lb/in²) to provide smooth low effort response. Steering angle ± 40°. Steer rams located high in the chassis fabrication to provide protection from damage. Adjustable steering column.

BRAKES

Hydraulic power braking on all wheels, operating pressure 50 bar (725psi). Dual circuit with accumulator back-up provide maximum safety under all conditions. In-board mounted, oil immersed, multi-plate disc brakes with organic brake linings are environmentally acceptable. Parking brake, mechanical disc type operating on transmission output shaft.

TYRES

500/70 R24 XMCL. 620/70R26 XM27.

LOADER HYDRAULICS

Twin gear pumps with automaic unloader valve giving combination of speed and power on demand, making efficient use of engine power available. Main services are servo actuated from a single lever (joystick) loader control. Auxiliary circuits controlled via additional lever or joystick mounted electrical buttons. Accumulator back-up is available to control loader in the event of loss of pump pressure.

Pump type		Twin gear pumps
Pump 1 max. flow	l/min (UK gal/min)	90 (19.8)
Pump 1 max. pressure	bar (lb/in²)	240 (3480)
Pump 2 max. flow	l/min (UK gal/min)	64 (14.7)
Pmp 2 max. pressure	bar (lb/in²)	190 (2755)
Hydraulic cycle times at full engine revs		**seconds**
Arms raise (full bucket)		4.6
Bucket dump (full bucket)		1.4
Arms lower (empty bucket)		3.0
Total cycle		9.0

Ram dimensions		**Bore**	**Rod**	**Closed centres**	**Stroke**
Bucket ram x2	mm (in)	80 (3.1)	50 (2)	1502 (59.1)	928 (36.5)
Lift ram x2	mm (in)	90 (3.5)	50 (2)	1107 (43.6)	742 (29.2)
Steer ram x2	mm (in)	80 (3.1)	40 (1.6)	621 (24.4)	312 (12.3)

ELECTRICAL SYSTEM

24 volt negative ground system, 50 Amp alternator with 2 x 110 Amp hour low maintenance batteries. Isolator located in rear of machine. Ignition key start/stop and pre-heat cold start. Primary fuse box. Other electrical equipment includes quartz halogen, twin filament working lights, front/rear wash/wipe, heated rear screen, full road going lights, clock, gauge and warning light monitoring. In cab 24V to 12V converter for radio feed, cigar lighter plus spare feed. Connectors to IP67 standard.

System voltage	Volt	24
Alternator output	Amp	70
Battery capacity	Amp hour	2 x 110

CAB

Resiliently mounted ROPS/FOPS structure (tested in accordance with ISO 3471-1 : 1986 / ISO 3449 : 1984). De-luxe operator environment combines ergonomically located controls with a high level of appointment and low internal noise levels. Entry/exit is via large rear hinged door and anti-slip steps. Excellent forward visibility is provided by a 3 section curved, laminated windscreen and low waistline. Extensive instrumentation includes electronic monitoring panel and display (EMS). Heating / ventilation provides balanced and filtered air distribution throughout the cab via a powerful 11 kW capacity heater. The unitary construction allows easy sealing and prevents ingress of dust. A transmission lock on the selector prevents inadvertent engagement and the loader controls can be isolated for safe road travel.
Noise level measured in accordance with 86/662/EEC, amendment 95/27/EC
Interior pressure level : 74 Lp (A)
Exterior power level : 105 Lw (A)

ATTACHMENTS

An extensive range of attachments is available to users, covering the job requirements.

SERVICE FILL CAPACITIES

	litres (UK gal)
Hydraulic system	130 (28.6)
Fuel tank	140 (30.8)
Engine oil sump	14 (3.1)
Transmission oil system	27.5 (6.1)
Axle oil (front)	23 (5.1)
Axle oil (rear)	23 (5.1)
Engine coolant system	21.5 (4.7)

STANDARD EQUIPMENT

Loader: Bucket reset mechanism, loader arm kickout mechanism, loader control isolator, single lever servo control, high torque geometry combines with excellent visibility between the arms.

Engine: Air cleaner – 2 stage dry type – cyclonic with primary and safety elements, stainless steel silencer and exhaust stack, sedimenter, twin bowl fuel filters, fan guards.

Transmission: Single lever shift control, speed inhibitor, neutral start, disconnect on footbrake and loader lever, disconnect isolator switch, direction changes and kickdown on gear selector and loader control lever.

Axles: Limited slip differentials, front and rear, epicyclic wheel hub reduction, fixed front, oscillating rear.

Brakes: Multi-plate wet disc brakes, organic linings, dual circuit hydraulic power assisted. Parking disc brake on transmission output shaft.

Hydraulics: Gear pumps with priority steer, emergency steer back-up, 2 spool loader circuit with accumulator support, 3rd spool auxiliary hydraulic circuit as standard. Hydraulic tank located in the rear chassis fabrication.

Steering: Adjustable steering column, "soft feel" steering wheel 5 turns lock to lock, resilient stops on max lock.

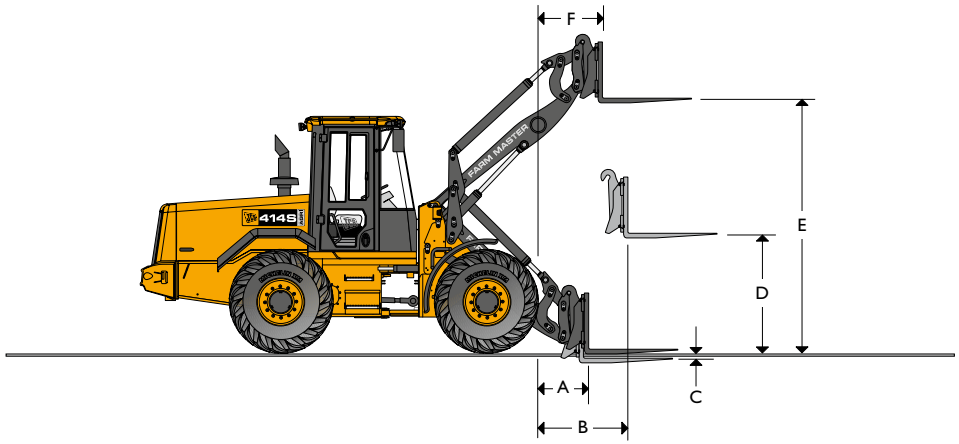
Cab: ROPS/FOPS safety structure, ashtray, interior reading light, centre mounted master warning light. Electronic monitoring panel with LCD message display. Two speed intermittent front windscreen wipe/wash and self park, single speed rear windscreen wipe/wash and self park. 3 speed heater/demisting with replaceable air filter, LH and RH opening windows, sun visor, sun blind, internal rear view mirror, heated external mirrors, adjustable suspension seat with belt and headrest, operator storage facilities, laminated windscreen, heated rear screen, loader control isolator, horn, 24V to 12V in cab converter.

Electrical: Road lights front and rear, parking lights, front and rear working lights, reverse alarm and light, rear fog light, battery isolator, radio wiring and speakers, 70 amp alternator, rotating beacon.

Bodywork: Front and rear fenders, side and rear access panels, flexible bottom step, recovery hitch, lifting lugs.

OPTIONAL EQUIPMENT

Auxiliary 4th spool hydraulic service, air conditioning, additional counterweight, oil bath air cleaner, turbo 2 pre-cleaner, visibowl pre-cleaner, tooth guard, replaceable bucket wearparts, sealed alternator, epoxy coated radiator/coolers, stainless steel brake pipes, Smooth ride system (SRS), hydraulic quickhitch, reversing camera (colour), auto greasing system, auxiliary control buttons on joystick, multi lever controls, spark arrestor, bolt on 110L (24.2 UK gal) auxiliary fuel tank, hydraulic towhitch, 12V or 24V trailer electrics, trailer braking, fire extinguisher, number plate light kit, additional front and rear worklights, grease gun.



LOADER DIMENSIONS – FORK FRAME WITH FORKS

			Parallel fork	Non parallel fork
	Fork carriage width	mm (ft-in)	1500 (4-11)	1500 (4-11)
	Length of tines	mm (ft-in)	1220 (4-0)	1220 (4-0)
A	Reach at ground level	mm (ft-in)	733 (2-5)	740 (2-5)
B	Reach at arms horizontal	mm (ft-in)	1941 (6-4)	1948 (6-5)
C	Below ground level	mm (ft-in)	31.5 (0-1¼)	41.5 (0-1½)
D	Arms, horizontal height	mm (ft-in)	1783 (5-10)	1773 (5-10)
E	Arms, maximum height	mm (ft-in)	3514 (11-6)	3504 (11-6)
F	Reach at maximum height	mm (ft-in)	815 (2-8)	822 (2-8)
	Payload*	kg (lb)	2847 (6277)	2847 (6277)
	Tipping load straight	kg (lb)	4204 (9268)	4204 (9268)
	Tipping load full turn (40°)	kg (lb)	3558 (7844)	3558 (7844)
	Attachment weight	kg (lb)	440 (970)	440 (970)

Assumes the machine is fitted with Michelin 500/70 R24 XMCL tyres and the industrial quickhitch is used.

*At the centre-of-gravity distance 500mm (1ft-5½in). Based on 80% of full turn tipping load as defined by ISO 8313.
Manual fork spacings at 50mm (2in) increments. Fork section 100mm x 50mm (4in x 2in).

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, tractors and compaction equipment.

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

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 more than 650 dealers and agents, we aim to deliver the best customer support in the industry.

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

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