

NEW

457 | WHEELED LOADING SHOVEL



Wheeled Loading Shovel 457

Operating Weight: 19,302kg Gross Engine Power: 250hp (186kW) Full turn tipping load: 12,992kg Standard Shovel Capacity: 3.5m³



WHEELED LOADING SHOVEL 457 CONTENTS

Contents

A quality process pages 4 – 5

Productive performance pages 6 – 7

Efficient by design pages 8 – 9

Comfortably superior pages 10 – 11

Low maintenance, high intervals pages 12 – 13

Drive safely page 14

LiveLink, knowledge is power page 15

Value added page 16

Specification pages 17 – 27





A QUALITY PROCESS

WE KNOW THAT A WHEELED LOADING SHOVEL IS A KEY PART OF THE ON-SITE PROCESS. THAT'S WHY THE JCB 457 IS BUILT ON A FOUNDATION OF QUALITY AND RELIABILITY. THE PROCESSES WE'VE USED TO DESIGN AND MANUFACTURE THE 457 WILL SAFEGUARD YOUR WORKING PROCESS, HOUR AFTER HOUR, DAY AFTER DAY.

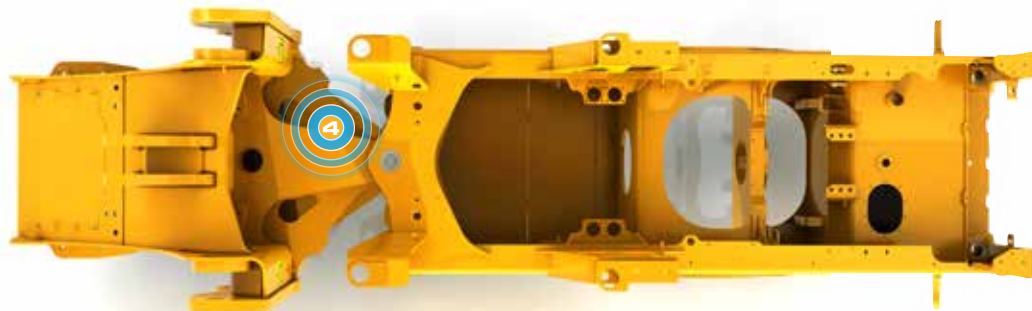
We use state-of-the-art manufacturing processes like robot machining, precision paint technology and innovative assembly techniques to achieve the very highest levels of quality.



Quality built in

- 1 Finite element analysis and rig testing ensure superior structural strength and durability. Cold cell testing guarantees starting performance down to -20°C .
- 2 Precision machining provides high tolerances and accurate location of pins and bushes.
- 3 The 457 can be specified for heavy-duty applications like waste or corrosive material handling.





The articulation joint has a heavy-duty centre pin and oversized bush, as well as twin taper roller bearings on the bottom box joints. This can tolerate both vertical and horizontal loadings for durability and rigidity.

Well articulated

4 The 457's articulation joint has a heavy-duty box section – much stronger than a single plate with a boss. Steering rams are positioned high up and well protected from possible impact and site damage.

5 Hoses are neatly routed and clamped through the 457's articulation joint, well away from any pinch points.



Protecting ancillaries

6 Recessed rear lights are protected within the solid counterweight casting.

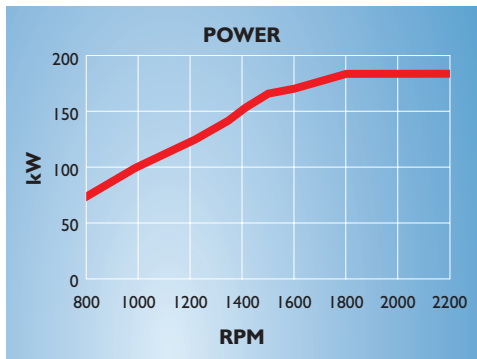
7 The 457's hydraulic tank is positioned high up behind the cab for maximum protection.

8 The rear counterweight and cast quarter pillars protect the cooling pack and the back end of the machine from damage.



PRODUCTIVE PERFORMANCE

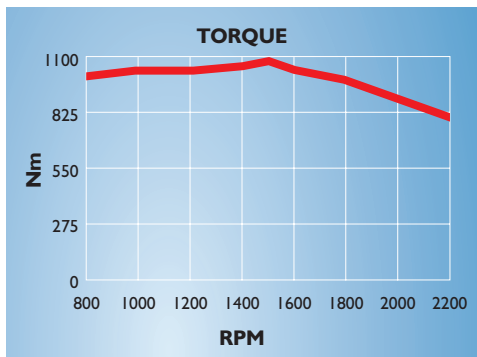
THE JCB 457 CAN PERFORM GREAT FEATS OF PRODUCTIVITY. WITH HIGH BREAKOUT FORCES, IT'S BUCKETLOADS MORE POWERFUL THAN ITS COMPETITORS AND OUR NEW REAR CHASSIS LAYOUT PROVIDES 3.3% EXTRA LIFT CAPACITY THAN THE PREVIOUS MODEL.



Engine productivity

1 The Cummins QSL 8.9 litre engine achieves high power (186kW, a 16% increase) and peak torque (1085NM, an 18% increase) at low revs for excellent response. The engine is Tier 4i/Stage 3b emissions compliant, using an exhaust aftertreatment system with particulate filter and oxidation catalyst.

2 A variable geometry turbocharger provides increased performance at low engine speed for improved cycle times and tractive effort.



Loading productivity

1 JCB's optional quickhitch makes attachment changing on a 457 quick and efficient. The quickhitch is designed to be compatible with aftermarket attachments too.

2 Powerful twin variable displacement piston pump hydraulics can circulate a massive 326 l/min for fast cycles and excellent multi function capability.



Loading productivity (continued)

- 4 You can choose your ideal loader arm on a 457, with z-bar linkage (ZX) for high breakout applications or high torque (HT) for parallel lift and multi-attachment use.
- 5 Choose a ZX high lift or HT super high lift option and you can use a 457 for higher loading height applications (hopper and lorry loading).

Drivetrain productivity

- 5 The 457's optional 5-speed transmission with torque convertor lock-up provides closer ratios for better acceleration, hill climbing and roading performance. The lock-up element eliminates losses from the torque converter for faster cycle times and improved efficiency.
- 7 The 457's innovative electronic management can perform progressive clutch cut-off for efficient, productive loader control. This feature controls tractive effort via the transmission, diverting maximum power to the loader hydraulics and reducing service brake wear and fuel consumption.
- 5 With a range of axle options you can tailor a 457 to any application.
 - > Open differentials are ideal for hard standing ground conditions.
 - > Limited slip differential is perfect for soft, muddy terrain with reduced traction.
 - > Open differentials with an automatic locking front axle differential provide excellent traction in varied ground conditions.



EFFICIENT BY DESIGN

THE JCB 457 IS DESIGNED TO MOVE MORE MATERIAL FOR LESS. TO ACHIEVE THIS, WE'VE DESIGNED THE ENGINE, AXLES, DRIVELINE AND HYDRAULICS TO WORK IN HARMONY WITH EACH OTHER, FOR ULTIMATE EFFICIENCY.

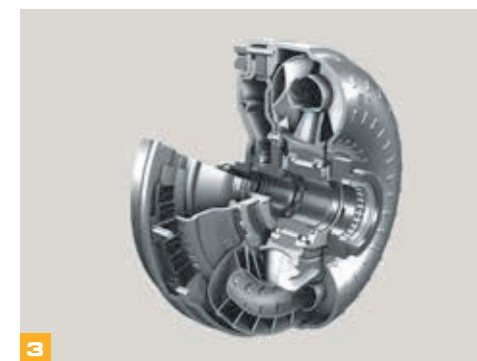
Our engine idle shutdown safely applies the brakes and turns the 457 off after a programmable amount of time.

An efficient engine

- 1 Automatic idle returns the 457's engine to 700rpm after 30 secs of inactivity.
- 2 The 457's Eco mode limits engine speed to 1800rpm and reduces power to 217hp for reduced fuel consumption. Productivity remains formidable.

An efficient driveline

- 3 Our torque lock-up 5 speed transmission option gives 100% efficiency in gears 2 to 5 for improved fuel consumption. Closer gear ratios provide lower engine speed in each gear.
- 4 Wheel speed braking means the brakes on the 457 rotate at the same speed as the wheels for heat and drag reduction, as well as improved fuel economy.



An efficient hydraulic system

Ⓔ A hydraulic cooling fan automatically reacts to ambient temperature and adjusts the 457's fan speed to optimise cooling and reduce fuel consumption. This also lowers noise.

Ⓔ Unloaded spool valves in the valve block mean that arms lower under gravitational, not hydraulic force, reducing fuel consumption.

JCB's innovative variable displacement pumps feed a load-sensing valve block which only consumes power on demand, providing precise, efficient loader control.



COMFORTABLY SUPERIOR

KEEPING OPERATORS FRESH AND ALERT ALL DAY LONG RESULTS IN INCREASED SAFETY AND PRODUCTIVITY. WITH THAT IN MIND, THE 457'S 3M³ CAB IS ROOMY, EASY TO ACCESS, AND QUIET. IT ALSO HAS EXCELLENT VISIBILITY AND INTUITIVE TO USE ERGONOMIC CONTROLS.



In control

- 1 A tilting and telescopic steering column provides easy adjustment for maximum comfort.
- 2 A range of loader controls; multi-lever, joystick, or joystick with proportional auxiliary controls.
- 3 A stylish, modern central dash display combines analogue dials and a colour LCD screen – this can display machine health details, service requirements, operating information and more.



The 457 has a range of seat options: mechanical or air suspension, vinyl or fabric bases, or even our Actimo XXL option. It's heated with air suspension, lumbar support, armrests, backrest extension and a headrest, all with full adjustment.





7

A comfortable environment

4 The 457 has air conditioning and automatic climate control options to create perfect working temperatures.

Internal noise is just 70dbA.



4

Exterior comforts

5 3 or 4 spool hydraulics and a quickhitch enable many attachments to be used easily for extra versatility.

6 The 457's selectable loader arm detents mean operators can set loader arm height limitations, return to dig and float functions for improved safety and productivity.

7 JCB Smoothride load suspension limits shock loadings and therefore reduces material spillage and structural stress, as well as increasing operator comfort.

8 A 3-piece laminated front screen provides excellent visibility while interior mirrors, heated exterior mirrors, an optional reverse camera and a sloping rear bonnet give good rearward views.



8



5



6

LOW MAINTENANCE LONG INTERVALS

A WHEELED LOADING SHOVEL NEEDS TO SPEND THE MAXIMUM AMOUNT OF TIME HARD AT WORK. WE'VE DESIGNED THE 457 TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.



Access all areas

- 1 Gain access to the engine bay and cooling pack areas easily with wide-opening gullwing doors.
- 2 The 457 has a large single faced cooling package for unrivalled quick, easy and safe cleaning
- 3 Ground level daily check and grease point access makes life easier and safer.

Looking after itself

- 4 A 457's electronic monitoring system relays machine condition giving real time alerts, safeguarding the machine and operator.
- 5 With the optional auto lubrication kit your 457 will take care of its own greasing requirements.
- 6 The optional widecore cooling pack and reversing fan will ensure cooling efficiency in environments with large amounts of airborne debris.



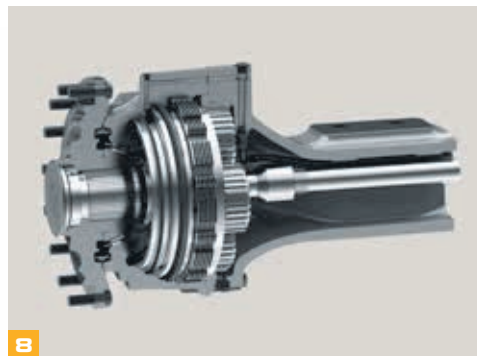
Green = standard operation Blue = reverse operation

Quality built in

7 By using top components in the 457 (Cummins engine, ZF transmissions and axles, Rexroth pumps and Parker valve blocks), we've built in long service life as standard.

8 Full hydraulic dual circuit braking with multiple oil immersed disks gives the 457's braking system a virtually maintenance-free lifespan.

9 Check brake, steering and hydraulic system pressures easily on a 457 with group test ports.

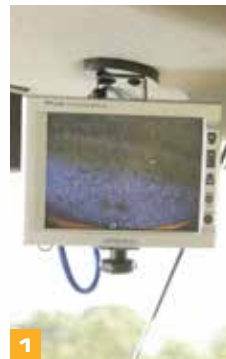


DRIVE SAFELY

THE 457 IS DESIGNED TO KEEP THE OPERATOR SAFE AT ALL TIMES. GREAT VISIBILITY, NON-SLIP SURFACES AND AIR FILTRATION IS JUST THE START.

Safety first

- 1 Our optional rear-view camera displays an unobstructed rear view on an in-cab colour monitor.
- 2 Access steps are inclined and equally spaced, complemented by well positioned grab handles for three points of contact at all times.
- 3 The 457 has interior mirrors, heated exterior mirrors and bonnet mirrors for superb all round visibility.
- 4 Non-slip walkways and additional grab handle options allow for safe moving around the machine.
- 5 The 457's cab is isolator-mounted, compliant with ROPS/FOPS standards, and positively pressurised against dust. You can choose from fresh air, carbon and P3 – HEPA recirculation filters as well.



LIVELINK, KNOWLEDGE IS POWER

JCB LIVELINK IS AN INNOVATIVE SOFTWARE SYSTEM THAT LETS YOU MONITOR AND MANAGE YOUR MACHINES REMOTELY – ONLINE, BY EMAIL OR BY MOBILE PHONE. LIVELINK GIVES YOU ACCESS TO A WHOLE HOST OF USEFUL DATA, INCLUDING MACHINE ALERTS, FUEL REPORTS* AND EVENT HISTORY INFORMATION. ALL YOUR MACHINE INFORMATION IS HANDLED AT A SECURE DATA CENTRE FOR YOUR PEACE OF MIND.



Productivity and cost benefits

For ultimate productivity and cost-saving, JCB LiveLink provides information like idle time monitoring* and machine fuel consumption* to help reduce your fuel usage. Machine location information can improve fleet efficiency and you may even enjoy reduced insurance costs courtesy of the added security that LiveLink brings.

* These features require an electronic engine.



Maintenance benefits

JCB LiveLink makes it easy to manage machine maintenance. Accurate hours monitoring and service alerts improve maintenance planning, and real-time location data helps you manage your fleet. You'll also have access to critical machine alerts and maintenance history records.



Security benefits

Keep your machine operating safely with JCB LiveLink. Real-time geofencing alerts tell you when machines move out of predetermined operating zones, and real-time curfew alerts inform you if machines are being used when they're not supposed to be. Real time location information helps you store your machines in the safest places.



VALUE ADDED

JCB'S WORLDWIDE CUSTOMER SUPPORT IS FIRST CLASS. WHATEVER YOU NEED AND WHEREVER YOU ARE, WE'LL BE AVAILABLE QUICKLY AND EFFICIENTLY TO HELP MAKE SURE YOUR MACHINERY IS PERFORMING TO ITS FULL POTENTIAL.



1

1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.

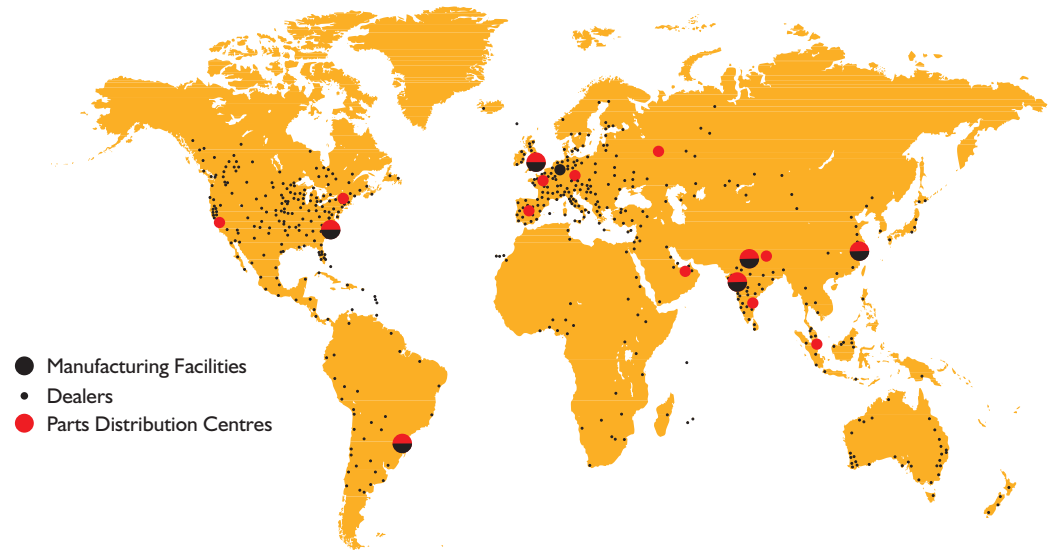


3

3 The global network of JCB Parts Centres is another model of efficiency; with 16 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.

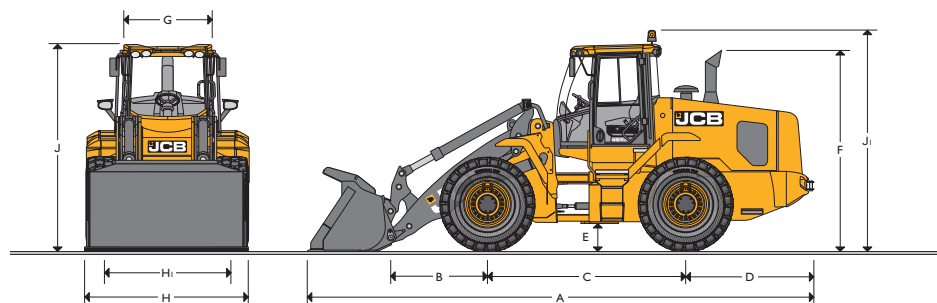


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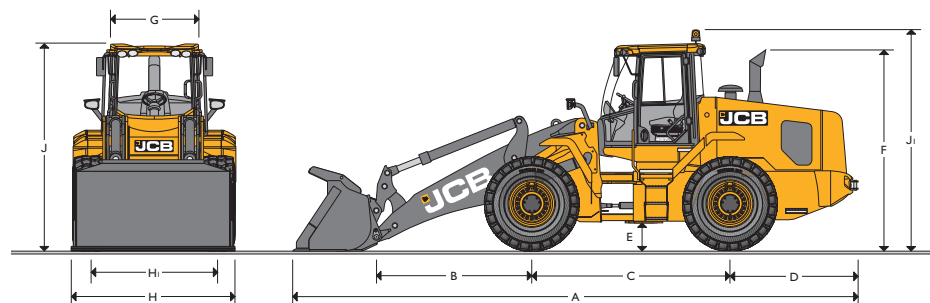


Note: JCB LIVELINK and JCB ASSETCARE may not be available in your region, so please check with your local dealer.

457 HT – STATIC DIMENSIONS – Standard height arm



457 HT – STATIC DIMENSIONS – Super high lift arm



457 HT – STATIC DIMENSIONS – Standard height arm

		mm (ft-in)
A	Overall length	8524 (28-0)
B	Axle to pivot pin	1713 (5-7)
C	Wheel base	3300 (10-10)
D	Axle to counterweight face	1974 (6-6)
E	Minimum ground clearance	470 (1-7)
F	Height over exhaust	3318 (10-11)
G	Width over cab	1400 (4-7)
H	Width over tyres	2702 (8-10)
Hi	Wheel track	2100 (6-10)
J	Height over cab	3370 (11-1)
J ₁	Overall Height (to top of fixed beacon)	3714 (12-2)
	Pin height (maximum)	4304 (14-1)
	Overall operating height	5768 (18-9)
	Front axle weight	kg (lb) 8687 (19152)
	Rear axle weight	kg (lb) 11994 (26442)
	Total weight	kg (lb) 20681 (45594)
	Inside radius	3182 (10-5)
	Maximum radius	6630 (21-9)
	Articulation angle	± 40°

457 HT – STATIC DIMENSIONS – Super high lift arm

		mm (ft-in)
A	Overall length	9454 (31-0)
B	Axle to pivot pin	2727 (8-11)
C	Wheel base	3300 (10-10)
D	Axle to counterweight face	1974 (6-6)
E	Minimum ground clearance	470 (1-7)
F	Height over exhaust	3318 (10-11)
G	Width over cab	1400 (4-7)
H	Width over tyres	2702 (8-10)
Hi	Wheel track	2100 (6-10)
J	Height over cab	3370 (11-1)
J ₁	Overall Height (to top of fixed beacon)	3714 (12-2)
	Pin height (maximum)	5270 (17-3)
	Overall operating height	6733 (22-1)
	Front axle weight	kg (lb) 10485 (23115)
	Rear axle weight	kg (lb) 11096 (24462)
	Total weight	kg (lb) 21581 (47578)
	Inside radius	3182 (10-5)
	Maximum radius	7121 (23-4)
	Articulation angle	± 40°

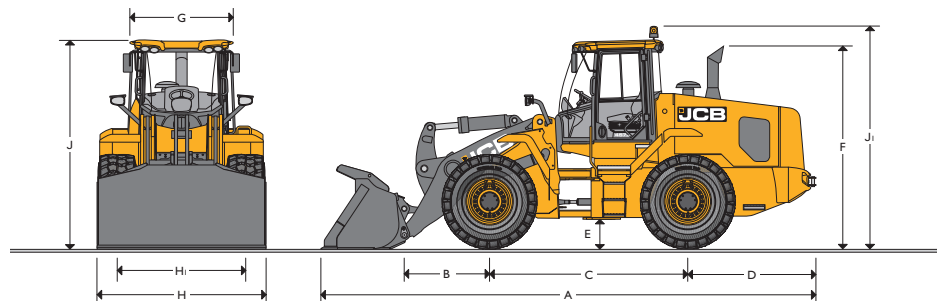
Data based on machine equipped with quickhitch mounted 3.5m³ bucket with toe plate and 23.5 R25 Michelin XHA (L3) radial tyres.

Data based on machine equipped with quickhitch mounted 3.5m³ bucket with toe plate and 23.5 R25 Michelin XHA (L3) radial tyres.

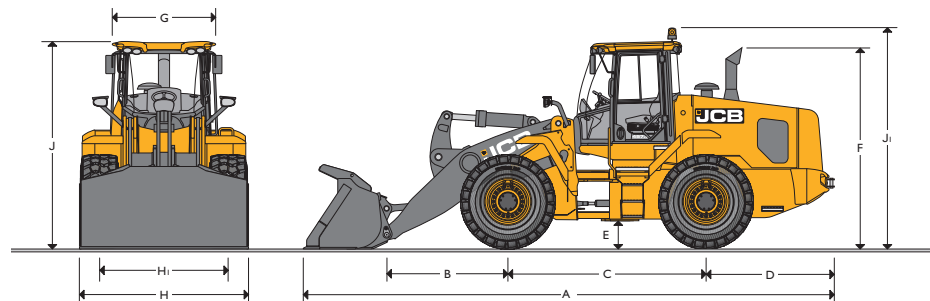
SPECIFICATION

MAX. ENGINE POWER: 186kW (250hp) MAX. OPERATING WEIGHT: 21645kg (47719lb) MAX. LOADER CAPACITY: 3.5m³ (4.6yd³)

457 ZX – STATIC DIMENSIONS – Standard height arm



457 ZX – STATIC DIMENSIONS – High lift arm



457 ZX – STATIC DIMENSIONS – Standard height arm

		mm (ft-in)
A	Overall length	7964 (26-2)
B	Axle to pivot pin	1622 (5-4)
C	Wheel base	3300 (10-10)
D	Axle to counterweight face	1974 (6-6)
E	Minimum ground clearance	470 (1-7)
F	Height over exhaust	3318 (10-11)
G	Width over cab	1400 (4-9)
H	Width over tyres	2702 (8-10)
H ₁	Wheel track	2100 (6-10)
J	Height over cab	3370 (11-1)
J ₁	Overall Height (to top of fixed beacon)	3714 (12-2)
	Pin height (maximum)	4107 (13-5)
	Overall operating height	5571 (18-3)
	Front axle weight	kg (lb) 8129 (17921)
	Rear axle weight	kg (lb) 11053 (24368)
	Total weight	kg (lb) 19182 (42289)
	Inside radius	3182 (10-5)
	Maximum radius	6554 (21-6)
	Articulation angle	± 40°

Data based on machine equipped with pin mounted 3.3m³ bucket with teeth and 23.5 R25 Michelin XHA (L3) radial tyres.

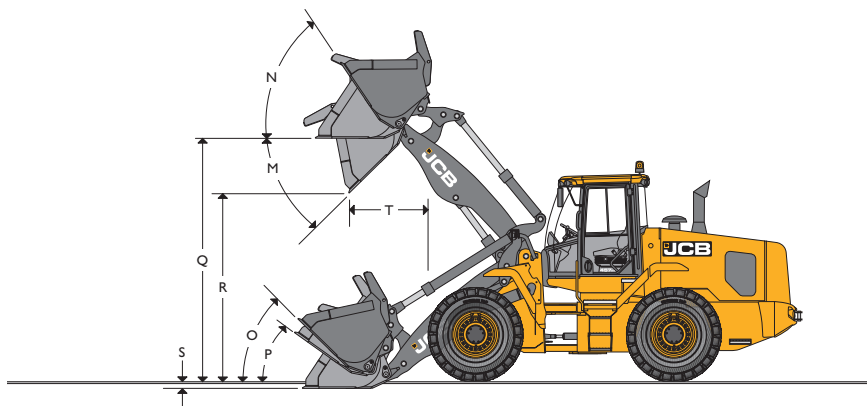
457 ZX – STATIC DIMENSIONS – High lift arm

		mm (ft-in)
A	Overall length	8524 (28-0)
B	Axle to pivot pin	2182 (7-2)
C	Wheel base	3300 (10-10)
D	Axle to counterweight face	1974 (6-6)
E	Minimum ground clearance	470 (1-7)
F	Height over exhaust	3318 (10-11)
G	Width over cab	1400 (4-9)
H	Width over tyres	2702 (8-10)
H ₁	Wheel track	2100 (6-10)
J	Height over cab	3370 (11-1)
J ₁	Overall Height (to top of fixed beacon)	3714 (12-2)
	Pin height (maximum)	4677 (15-4)
	Overall operating height	6140 (20-2)
	Front axle weight	kg (lb) 8426 (18576)
	Rear axle weight	kg (lb) 11167 (24619)
	Total weight	kg (lb) 19593 (43195)
	Inside radius	3182 (10-5)
	Maximum radius	6770 (22-2)
	Articulation angle	± 40°

Data based on machine equipped with pin mounted 3.3m³ bucket with teeth and 23.5 R25 Michelin XHA (L3) radial tyres.

457 HT – LOADER DIMENSIONS – Standard height arm

CHANGES TO OPERATING PERFORMANCE AND DIMENSIONS – Standard height arm



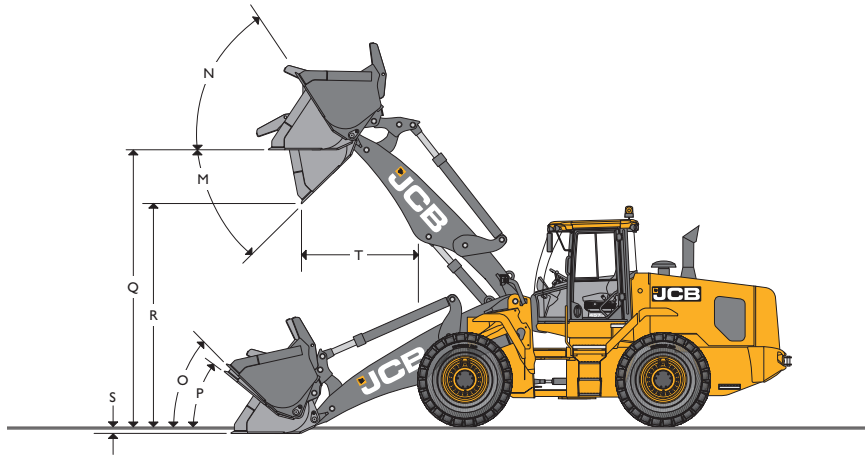
Tyre size	Manufacturer	Type	Rating	Op. weight kg (lb)	Tipping loads		Dimensions	
					Straight kg (lb)	Full turn kg (lb)	Vertical mm (in)	Width mm (in)
23.5R25 (radial)	Michelin	XTLA	L2	-100 (-220)	-66 (-146)	-57 (-125)	-2 (-0.08)	0
23.5R25 (radial)	Goodyear	TL-3A+	L3	324 (714)	215 (474)	184 (406)	19 (0.75)	0
23.5R25 (radial)	Goodyear	RT-3B	L3	176 (388)	117 (258)	100 (220)	10 (0.39)	0
23.5-25 (crossply)	Goodyear	HRL-3A	L3	-100 (-220)	-66 (-146)	-57 (-125)	15 (0.59)	0
23.5-25 (crossply)	Earthmover	20ply	L3	-152 (-335)	-101 (-222)	-86 (-190)	6 (0.24)	0
23.5R25 (radial)	Earthmover		L3	0 (0)	0 (0)	0 (0)	4 (0.16)	0
23.5R25 (radial)	Goodyear	GP - 4B	L4	380 (838)	252 (556)	216 (476)	35 (1.38)	0
23.5R25 (radial)	Michelin	XLDD2A	L5	572 (1261)	380 (837)	325 (716)	36 (1.42)	0
23.5R25 (radial)	Michelin	XMINE D2	L5	808 (1781)	536 (1183)	459 (1012)	36 (1.42)	0
23.5R25 (radial)	Goodyear	RI - 5K	L5	704 (1552)	467 (1030)	400 (881)	36 (1.42)	0
23.5-25 (Solid cushion)*	SG Revolution	SE	-	2324 (5124)	0 (0)	0 (0)	30 (1.18)	0
23.5-25 (Solid cushion)*	SG Revolution	DWL	-	2324 (5124)	0 (0)	0 (0)	30 (1.18)	0

*Additional counterweight removed when solid tyres are fitted.

Assumes the fitment of Michelin 23.5R25 XHA (L3) tyres.

Bucket mounting		Direct	Direct	Direct	Direct	Direct	Direct	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch
Bucket type		General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose
Bucket equipment		Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments	Tipped teeth & toeplate segments	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments	Tipped teeth & toeplate segments
Bucket capacity (SAE heaped)	m ³ (yd ³)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)	3.5 (4.6)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)	3.5 (4.6)
Bucket capacity (struck)	m ³ (yd ³)	2.497 (3.266)	2.687 (3.517)	2.648 (3.464)	2.844 (3.720)	2.648 (3.464)	2.844 (3.720)	2.497 (3.266)	2.687 (3.515)	2.648 (3.464)	2.844 (3.720)	2.648 (3.464)	2.844 (3.720)
Bucket width	mm (ft-in)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)
Bucket weight with wearparts	kg (lb)	1508 (3325)	1554 (3427)	1623 (3579)	1669 (3680)	1623 (3579)	1669 (3680)	1380 (3043)	1416 (3122)	1495 (3296)	1531 (3376)	1495 (3296)	1531 (3376)
Maximum material density	kg/m ³ (lb/yd ³)	2099 (3538)	1958 (3300)	1950 (3287)	1825 (3077)	1950 (3287)	1825 (3077)	1989 (3352)	1855 (3127)	1846 (3111)	1728 (2913)	1846 (3111)	1728 (2913)
Tipping load straight	kg (lb)	15118 (33329)	15014 (33099)	14971 (33006)	14867 (32776)	14971 (33006)	14867 (32776)	14346 (31628)	14256 (31430)	14200 (31305)	14104 (31093)	14200 (31305)	14104 (31093)
Tipping load full turn	kg (lb)	13017 (28697)	12921 (28485)	12873 (28381)	12776 (28167)	12873 (28381)	12776 (28167)	12327 (27176)	12244 (26994)	12184 (26862)	12094 (26663)	12184 (26862)	12094 (26663)
Payload at 50% FTTL	kg (lb)	6509 (14350)	6460 (14243)	6437 (14190)	6388 (14083)	6437 (14190)	6388 (14083)	6164 (13589)	6122 (13496)	6092 (13430)	6047 (13332)	6092 (13430)	6047 (13332)
Maximum break out force	kN (lbf)	161 (36193)	153 (34394)	150 (33720)	143 (32146)	150 (33720)	143 (32146)	144 (31022)	138 (31022)	135 (30348)	130 (29224)	135 (30348)	130 (29224)
M Dump angle maximum	degrees	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°
N Roll back angle at full height	degrees	57°	57°	57°	57°	57°	57°	57°	57°	57°	57°	57°	57°
O Roll back at carry	degrees	52°	52°	52°	52°	52°	52°	52°	52°	52°	52°	52°	52°
P Roll back at ground level	degrees	46°	46°	46°	46°	46°	46°	46°	46°	46°	46°	46°	46°
Q Load over height	mm (ft-in)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)	4028 (13-3)
R Dump height (45° dump)	mm (ft-in)	2930 (9-7)	2888 (9-6)	3069 (10-1)	3027 (9-11)	2930 (9-7)	2888 (9-6)	2824 (9-3)	2782 (9-2)	2963 (9-9)	2921 (9-7)	2824 (9-3)	2782 (9-2)
S Dig depth	mm (ft-in)	109 (0-4)	109 (0-4)	91 (0-4)	91 (0-4)	109 (0-4)	109 (0-4)	109 (0-4)	109 (0-4)	91 (0-4)	91 (0-4)	109 (0-4)	109 (0-4)
T Reach at dump height	mm (ft-in)	1334 (4-5)	1375 (4-6)	1220 (4-0)	1261 (4-2)	1334 (4-5)	1375 (4-6)	1440 (4-9)	1482 (4-10)	1326 (4-4)	1368 (4-6)	1440 (4-9)	1482 (4-10)
Reach maximum (45° dump)	mm (ft-in)	2310 (7-7)	2352 (7-9)	2196 (7-2)	2238 (7-4)	2310 (7-7)	2352 (7-9)	2416 (7-11)	2458 (8-1)	2302 (7-7)	2344 (7-8)	2416 (7-11)	2458 (8-1)
Operating weight (includes 80kg operator and full fuel tank)	kg (lb)	20338 (44838)	20384 (44939)	20453 (45091)	20499 (45193)	20453 (45091)	20499 (45193)	20530 (45261)	20566 (45340)	20645 (45514)	20681 (45594)	20645 (45514)	20681 (45594)

457 HT – LOADER DIMENSIONS – Super high lift arm



CHANGES TO OPERATING PERFORMANCE AND DIMENSIONS – Super high lift arm

Tyre size	Manufacturer	Type	Rating	Op. weight kg (lb)	Tipping loads		Dimensions	
					Straight kg (lb)	Full turn kg (lb)	Vertical mm (in)	Width mm (in)
23.5R25 (radial)	Michelin	XTLA	L2	-100 (-220)	-50 (-110)	-43 (-94)	-2 (-0.08)	0
23.5R25 (radial)	Goodyear	TL-3A+	L3	324 (714)	161 (355)	138 (304)	19 (0.75)	0
23.5R25 (radial)	Goodyear	RT-3B	L3	176 (388)	88 (193)	75 (165)	10 (0.39)	0
23.5-25 (crossply)	Goodyear	HRL-3A	L3	-100 (-220)	-50 (-110)	-43 (-94)	15 (0.59)	0
23.5-25 (crossply)	Earthmover	20ply	L3	-152 (-335)	-76 (-167)	-65 (-143)	6 (0.24)	0
23.5R25 (radial)	Earthmover		L3	0 (0)	0 (0)	0 (0)	4 (0.16)	0
23.5R25 (radial)	Goodyear	GP - 4B	L4	380 (838)	189 (417)	162 (356)	35 (1.38)	0
23.5R25 (radial)	Michelin	XLDD2A	L5	572 (1261)	284 (627)	243 (536)	36 (1.42)	0
23.5R25 (radial)	Michelin	XMINE D2	L5	808 (1781)	402 (886)	344 (758)	36 (1.42)	0
23.5R25 (radial)	Goodyear	RI - 5K	L5	704 (1552)	350 (772)	299 (660)	36 (1.42)	0
23.5-25 (Solid cushion)*	SG Revolution	SE	-	2324 (5124)	-1085 (-2392)	-895 (-1973)	30 (1.18)	0
23.5-25 (Solid cushion)*	SG Revolution	DWL	-	2324 (5124)	-1085 (-2392)	-895 (-1973)	30 (1.18)	0

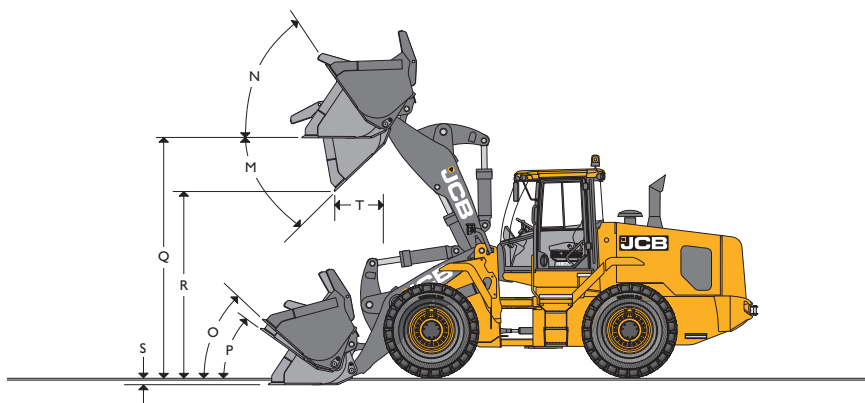
*Additional counterweight removed when solid tyres are fitted.

Assumes the fitment of Michelin 23.5R25 XHA (L3) tyres.

Bucket mounting		Direct	Direct	Direct	Direct	Direct	Direct	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch
Bucket type		General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose
Bucket equipment		Tipped teeth	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments	Tipped teeth & toeplate segments	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments
Bucket capacity AE heaped	m ³ (yd ³)	2.8 (3.7)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)	3.5 (4.6)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)
Bucket capacity (struck)	m ³ (yd ³)	2.210 (2.891)	2.497 (3.266)	2.687 (3.517)	2.648 (3.464)	2.844 (3.720)	2.648 (3.464)	2.844 (3.720)	2.497 (3.266)	2.687 (3.515)	2.648 (3.464)	2.844 (3.720)	2.648 (3.464)
Bucket width	mm (ft-in)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)
Bucket weight with wearparts	kg (lb)	1436 (3166)	1508 (3325)	1554 (3427)	1623 (3579)	1669 (3680)	1623 (3579)	1669 (3680)	1380 (3043)	1416 (3122)	1495 (3296)	1531 (3376)	1495 (3296)
Maximum material density	kg/m ³ (lb/yd ³)	1516 (2556)	1354 (2283)	1262 (2128)	1258 (2121)	1178 (1985)	1258 (2121)	1178 (1985)	1282 (2161)	1196 (2016)	1191 (2008)	1115 (1879)	1191 (2008)
Tipping load straight	kg (lb)	10008 (22063)	9903 (21833)	9834 (21681)	9806 (21619)	9738 (21469)	9806 (21619)	9738 (21469)	9397 (20717)	9042 (19934)	9301 (20505)	9237 (20364)	9301 (20505)
Tipping load full turn	kg (lb)	8492 (18722)	8396 (18510)	8333 (18372)	8303 (18306)	8241 (18169)	8303 (18306)	8241 (18169)	7951 (17529)	7897 (17411)	7859 (17326)	7800 (17196)	7859 (17326)
Payload at 50% FTTL	kg (lb)	4247 (9362)	4198 (9255)	4167 (9187)	4152 (9153)	4121 (9084)	4152 (9153)	4121 (9084)	3975 (8763)	3948 (8704)	3930 (8663)	3901 (8599)	3930 (8663)
Maximum break out force	kN (lbf)	175 (39340)	163 (36642)	155 (34844)	152 (34170)	145 (32596)	152 (34170)	145 (32596)	146 (32821)	140 (31472)	137 (30798)	132 (29674)	137 (30798)
M Dump angle maximum	degrees	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°
N Roll back angle at full height	degrees	58°	58°	58°	58°	58°	58°	58°	58°	58°	58°	58°	58°
O Roll back at carry	degrees	54°	54°	54°	54°	54°	54°	54°	54°	54°	54°	54°	54°
P Roll back at ground level	degrees	46°	46°	46°	46°	46°	46°	46°	46°	46°	46°	46°	46°
Q Load over height	mm (ft-in)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)	4994 (16-5)
R Dump height (45° dump)	mm (ft-in)	3960 (13-0)	3896 (12-9)	3854 (12-8)	4034 (13-3)	3993 (13-1)	3896 (12-9)	3790 (12-5)	3790 (12-5)	3748 (12-4)	3929 (12-11)	3887 (12-9)	3790 (12-5)
S Dig depth	mm (ft-in)	109 (0-4)	109 (0-4)	109 (0-4)	91 (0-4)	91 (0-4)	109 (0-4)	109 (0-4)	109 (0-4)	109 (0-4)	91 (0-4)	91 (0-4)	109 (0-4)
T Reach at dump height	mm (ft-in)	1327 (4-4)	1393 (4-7)	1432 (4-8)	1277 (4-2)	1318 (4-4)	1393 (4-7)	1432 (4-8)	1497 (4-11)	1539 (5-1)	1383 (4-6)	1425 (4-8)	1497 (4-11)
Reach maximum (45° dump)	mm (ft-in)	3046 (10-0)	3110 (10-2)	3152 (10-4)	2996 (9-10)	3038 (10-0)	3110 (10-2)	3152 (10-4)	3216 (10-7)	3258 (10-8)	3102 (10-2)	3144 (10-4)	3216 (10-7)
Operating weight (includes 80kg operator and full fuel tank)	kg (lb)	21166 (46663)	21238 (46822)	21284 (46923)	21353 (47075)	21399 (47177)	21353 (47075)	21399 (47177)	21430 (47245)	21466 (47324)	21545 (47499)	21581 (47578)	21545 (47499)

457 ZX – LOADER DIMENSIONS – Standard height arm

CHANGES TO OPERATING PERFORMANCE AND DIMENSIONS – Standard height arm



Tyre size	Manufacturer	Type	Rating	Op. weight kg (lb)	Tipping loads		Dimensions	
					Straight kg (lb)	Full turn kg (lb)	Vertical mm (in)	Width mm (in)
23.5R25 (radial)	Michelin	XTLA	L2	-100 (-220)	-71 (-156)	-61 (-134)	-2 (-0.08)	0
23.5R25 (radial)	Goodyear	TL-3A+	L3	324 (714)	230 (506)	196 (433)	19 (0.75)	0
23.5R25 (radial)	Goodyear	RT-3B	L3	176 (388)	125 (275)	107 (235)	10 (0.39)	0
23.5-25 (crossply)	Goodyear	HRL-3A	L3	-100 (-220)	-71 (-156)	-61 (-134)	15 (0.59)	0
23.5-25 (crossply)	Earthmover	20ply	L3	-152 (-335)	-108 (-237)	-92 (-203)	6 (0.24)	0
23.5R25 (radial)	Earthmover		L3	0 (0)	0 (0)	0 (0)	4 (0.16)	0
23.5R25 (radial)	Goodyear	GP - 4B	L4	380 (838)	269 (593)	230 (508)	35 (1.38)	0
23.5R25 (radial)	Michelin	XLDD2A	L5	572 (1261)	405 (893)	347 (764)	36 (1.42)	0
23.5R25 (radial)	Michelin	XMINE D2	L5	808 (1781)	572 (1262)	490 (1079)	36 (1.42)	0
23.5R25 (radial)	Goodyear	RI - 5K	L5	704 (1552)	499 (1099)	427 (941)	36 (1.42)	0
23.5-25 (Solid cushion)*	SG Revolution	SE	-	3124 (6887)	467 (1030)	400 (882)	30 (1.18)	0
23.5-25 (Solid cushion)*	SG Revolution	DWL	-	3124 (6887)	467 (1030)	400 (882)	30 (1.18)	0
Optional extra counterweight	-	-	-	800 (1764)	1546 (3407)	1275 (2812)	0	0

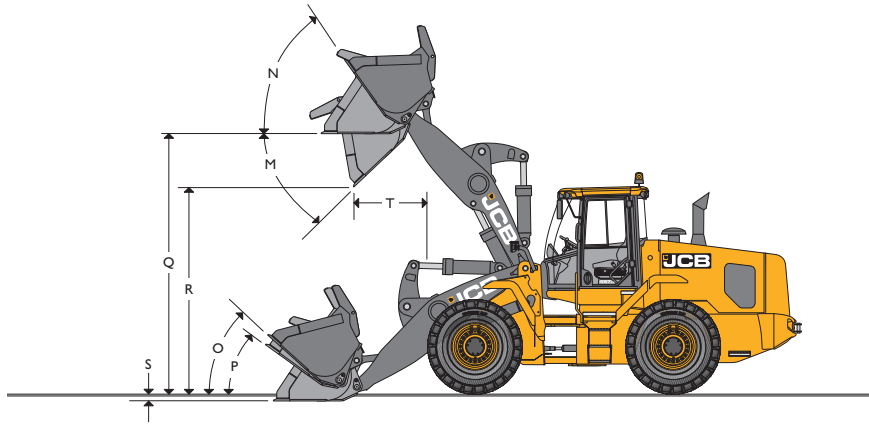
*Optional extra counterweights is not available when solid tyres are fitted.

Assumes the fitment of Michelin 23.5R25 XHA (L3) tyres.

Bucket mounting		Direct	Direct	Direct	Direct	Direct	Direct	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch
Bucket type		General Purpose	General Purpose	Penetration	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose
Bucket equipment		Tipped teeth	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments	Tipped teeth & toeplate segments	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments
Bucket capacity (SAE heaped)	m ³ (yd ³)	3.1 (4.1)	3.3 (4.3)	3.1 (4.1)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)	3.5 (4.6)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)
Bucket capacity (struck)	m ³ (yd ³)	2.791 (3.651)	2.991 (3.912)	2.791 (3.651)	2.933 (3.836)	3.137 (4.103)	2.933 (3.836)	3.137 (4.103)	2.497 (3.266)	2.687 (3.515)	2.648 (3.464)	2.844 (3.720)	2.648 (3.464)
Bucket width	mm (ft-in)	2837 (9-4)	2837 (9-4)	2811 (9-3)	2800 (9-2)	2800 (9-2)	2800 (9-2)	2800 (9-2)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)
Bucket weight with wearparts	kg (lb)	1602 (3532)	1645 (3627)	1612 (3554)	1722 (3797)	1765 (3892)	1722 (3797)	1765 (3892)	1380 (3043)	1416 (3122)	1495 (3296)	1531 (3376)	1495 (3296)
Maximum material density	kg/m ³ (lb/yd ³)	2132 (3594)	1989 (3352)	2129 (3589)	1983 (3343)	1856 (3129)	1983 (3343)	1856 (3129)	1936 (3263)	1806 (3044)	1801 (3035)	1685 (2840)	1801 (3035)
Tipping load straight	kg (lb)	15846 (34935)	15738 (34696)	15823 (34885)	15713 (34641)	15604 (34402)	15713 (34641)	15604 (34402)	14436 (31826)	14338 (31610)	14314 (31558)	14216 (31341)	14314 (31558)
Tipping load full turn	kg (lb)	13219 (29144)	13122 (28929)	13198 (29096)	13090 (28859)	12992 (28643)	13090 (28859)	12992 (28643)	12003 (26463)	11915 (26267)	11886 (26203)	11796 (26005)	11886 (26203)
Payload at 50% FTTL	kg (lb)	6610 (14573)	6562 (14466)	6599 (14548)	6545 (14429)	6496 (14320)	6545 (14429)	6496 (14320)	6002 (13232)	5957 (13134)	5943 (13102)	5898 (13004)	5943 (13102)
Maximum break out force	kN (lbf)	172 (38666)	165 (37092)	172 (38666)	161 (36193)	154 (34619)	161 (36193)	154 (34619)	153 (34394)	147 (33046)	143 (32146)	137 (30798)	143 (32146)
M Dump angle maximum	degrees	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°
N Roll back angle at full height	degrees	67°	67°	67°	67°	67°	67°	67°	67°	67°	67°	67°	67°
O Roll back at carry	degrees	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°
P Roll back at ground level	degrees	39°	39°	39°	39°	39°	39°	39°	39°	39°	39°	39°	39°
Q Load over height	mm (ft-in)	3822 (12-6)	3822 (12-6)	3856 (12-3)	3831 (12-6)	3831 (12-6)	3822 (12-6)	3822 (12-6)	3822 (12-6)	3702 (12-2)	3831 (12-6)	3711 (12-2)	3822 (12-6)
R Dump height (45° dump)	mm (ft-in)	2741 (9-0)	2699 (8-10)	2765 (9-1)	2887 (9-6)	2845 (9-4)	2741 (9-0)	2699 (8-10)	2621 (8-7)	2559 (8-5)	2767 (9-1)	2725 (8-11)	2621 (8-7)
S Dig depth	mm (ft-in)	74 (0-3)	74 (0-3)	74 (0-3)	91 (0-4)	91 (0-4)	109 (0-4)	109 (0-4)	74 (0-3)	74 (0-3)	91 (0-4)	91 (0-4)	109 (0-4)
T Reach at dump height	mm (ft-in)	1183 (3-11)	1135 (3-9)	1207 (4-0)	1085 (3-7)	1039 (3-5)	1183 (3-11)	1135 (3-9)	1301 (4-3)	1255 (4-1)	1205 (3-11)	1159 (3-10)	1301 (4-3)
Reach maximum (45° dump)	mm (ft-in)	2140 (7-0)	2182 (7-2)	2164 (7-1)	2032 (6-8)	2074 (6-10)	2140 (7-0)	2182 (7-2)	2260 (7-5)	2302 (7-7)	2152 (7-1)	2194 (7-2)	2260 (7-5)
Operating weight (includes 80kg operator and full fuel tank)	kg (lb)	19133 (42181)	19182 (42289)	19143 (42203)	19253 (42446)	19302 (42554)	19253 (42446)	19302 (42554)	19457 (42895)	19506 (43003)	19577 (43160)	19626 (43268)	19577 (43160)

457 ZX – LOADER DIMENSIONS – High lift arm

CHANGES TO OPERATING PERFORMANCE AND DIMENSIONS – High lift arm



Tyre size	Manufacturer	Type	Rating	Op. weight kg (lb)	Tipping loads			Dimensions	
					Straight kg (lb)	Full turn kg (lb)	Vertical mm (in)	Width mm (in)	
23.5R25 (radial)	Michelin	XTLA	L2	-100 (-220)	-58 (-129)	-50 (-110)	-2 (-0.08)	0	
23.5R25 (radial)	Goodyear	TL-3A+	L3	324 (714)	189 (417)	162 (357)	19 (0.75)	0	
23.5R25 (radial)	Goodyear	RT-3B	L3	176 (388)	103 (227)	88 (194)	10 (0.39)	0	
23.5-25 (crossply)	Goodyear	HRL-3A	L3	-100 (-220)	-58 (-129)	-50 (-110)	15 (0.59)	0	
23.5-25 (crossply)	Earthmover	20ply	L3	-152 (-335)	-89 (-196)	-76 (-167)	6 (0.24)	0	
23.5R25 (radial)	Earthmover		L3	0 (0)	0 (0)	0 (0)	4 (0.16)	0	
23.5R25 (radial)	Goodyear	GP - 4B	L4	380 (838)	222 (489)	190 (418)	35 (1.38)	0	
23.5R25 (radial)	Michelin	XLDD2A	L5	572 (1261)	334 (736)	286 (630)	36 (1.42)	0	
23.5R25 (radial)	Michelin	XMINE D2	L5	808 (1781)	472 (1040)	404 (890)	36 (1.42)	0	
23.5R25 (radial)	Goodyear	RI - 5K	L5	704 (1552)	411 (906)	352 (775)	36 (1.42)	0	
23.5-25 (Solid cushion)*	SG Revolution	SE	-	3124 (6887)	1824 (4021)	1560 (3440)	30 (1.18)	0	
23.5-25 (Solid cushion)*	SG Revolution	DWL	-	3124 (6887)	1824 (4021)	1560 (3440)	30 (1.18)	0	
Optional extra counterweight	-	-	-	800 (1764)	1274 (2808)	1051 (2317)	0	0	

*Optional extra counterweights is not available when solid tyres are fitted.

Assumes the fitment of Michelin 23.5R25 XHA (L3) tyres.

Bucket mounting		Direct	Direct	Direct	Direct	Direct	Direct	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch	Quickhitch
Bucket type		General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose	General Purpose
Bucket equipment		Tipped teeth	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments	Tipped teeth & toeplate segments	Tipped teeth	Tipped teeth	Reversible toeplate	Reversible toeplate	Tipped teeth & toeplate segments
Bucket capacity (SAE heaped)	m ³ (yd ³)	2.8 (3.7)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.3 (4.3)	3.5 (4.6)	3.1 (4.1)	3.3 (4.3)	3.3 (4.3)	3.5 (4.6)	3.5 (4.6)
Bucket capacity (struck)	m ³ (yd ³)	2.497 (3.266)	2.791 (3.651)	2.991 (3.912)	2.933 (3.836)	3.137 (4.103)	2.933 (3.836)	3.137 (4.103)	2.497 (3.266)	2.687 (3.515)	2.648 (3.464)	2.844 (3.720)	2.648 (3.464)
Bucket width	mm (ft-in)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2800 (9-2)	2800 (9-2)	2800 (9-2)	2800 (9-2)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)	2837 (9-4)
Bucket weight with wearparts	kg (lb)	1529 (3371)	1602 (3532)	1645 (3627)	1722 (3797)	1765 (3892)	1722 (3797)	1765 (3892)	1380 (3043)	1416 (3122)	1495 (3296)	1531 (3376)	1495 (3296)
Maximum material density	kg/m ³ (lb/yd ³)	1770 (2983)	1591 (2681)	1483 (2500)	1479 (2493)	1384 (2333)	1479 (2493)	1384 (2333)	1457 (2455)	1358 (2290)	1355 (2284)	1269 (2138)	1355 (2284)
Tipping load straight	kg (lb)	11976 (26402)	11917 (26272)	11834 (26090)	11815 (26049)	11735 (25871)	11815 (26049)	11735 (25871)	10963 (24170)	10888 (24004)	10871 (23967)	10797 (23803)	10871 (23967)
Tipping load full turn	kg (lb)	9910 (21847)	9861 (21740)	9789 (21580)	9765 (21528)	9692 (21366)	9765 (21528)	9692 (21366)	9033 (19913)	8966 (19768)	8945 (19720)	8878 (19572)	8945 (19720)
Payload at 50% FTTL	kg (lb)	4955 (10925)	4931 (10870)	4894 (10790)	4883 (10765)	4846 (10683)	4883 (10765)	4846 (10683)	4516 (9957)	4483 (9884)	4473 (9861)	4439 (9786)	4473 (9861)
Maximum break out force	kN (lbf)	164 (36867)	151 (33945)	145 (32596)	142 (31922)	136 (30573)	142 (31922)	136 (30573)	134 (30123)	129 (28999)	126 (28325)	121 (27201)	126 (28325)
M Dump angle maximum	degrees	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°
N Roll back angle at full height	degrees	53°	53°	53°	53°	53°	53°	53°	53°	53°	53°	53°	53°
O Roll back at carry	degrees	52°	52°	52°	52°	52°	52°	52°	52°	52°	52°	52°	52°
P Roll back at ground level	degrees	44°	44°	44°	44°	44°	44°	44°	44°	44°	44°	44°	44°
Q Load over height	mm (ft-in)	4393 (14-5)	4393 (14-5)	4393 (14-5)	4402 (14-5)	4402 (14-5)	4393 (14-5)	4393 (14-5)	4393 (14-5)	4273 (14-0)	4402 (14-5)	4282 (14-1)	4393 (14-5)
R Dump height (45° dump)	mm (ft-in)	3376 (11-1)	3312 (10-10)	3270 (10-9)	3458 (11-4)	3416 (11-2)	3312 (10-10)	3270 (10-9)	3192 (10-6)	3130 (10-3)	3338 (10-11)	3296 (10-10)	3192 (10-6)
S Dig depth	mm (ft-in)	75 (0-3)	75 (0-3)	75 (0-3)	91 (0-4)	91 (0-4)	109 (0-4)	109 (0-4)	75 (0-3)	75 (0-3)	91 (0-4)	91 (0-4)	109 (0-4)
T Reach at dump height	mm (ft-in)	1099 (3-7)	1259 (4-2)	1213 (4-0)	1162 (3-10)	1117 (3-8)	1259 (4-2)	1213 (4-0)	1379 (4-6)	1333 (4-5)	1283 (4-3)	1237 (4-1)	1379 (4-6)
Reach maximum (45° dump)	mm (ft-in)	2553 (8-5)	2617 (8-7)	2659 (8-9)	2509 (8-3)	2551 (8-4)	2617 (8-7)	2659 (8-9)	2737 (9-0)	2779 (9-1)	2629 (8-8)	2617 (8-9)	2737 (9-0)
Operating weight (includes 80kg operator and full fuel tank)	kg (lb)	19471 (42926)	19544 (43087)	19593 (43195)	19664 (43352)	19713 (43460)	19664 (43352)	19713 (43460)	19867 (43799)	19917 (43909)	19988 (44066)	20037 (44174)	19988 (44066)

LOADER

The pin, bush and sealing design on all pivot points provide extended maintenance intervals.

HT: Widely spaced four ram geometry.

ZX: Heavy-duty three ram geometry.

ENGINE

6-cylinder variable geometry turbo-charged and charge air cooled 8.9l diesel engine.

Manufacturer		Cummins
Model		QSL9
Displacement	ltr (in ³)	8.9 (543)
Bore	mm (in)	114 (4.49)
Stroke	mm (in)	145 (5.69)
Aspiration		Variable Geometry Turbocharger
No. of Cylinders		6
Max. Gross Power to SAE J1995/ISO 14396	kW (hp) @ 1800rpm	186 (250)
Rated Gross Power to SAE J1995/ISO 14396	kW (hp) @ 2200rpm	186 (250)
Nett Power to SAE J1349	kW (hp) @ 2100rpm	184 (247)
Gross Torque at 1500rpm	Nm (lb-ft) @1500rpm	1085 (800)
Economic Working Range	rpm	800 - 1800
Torque Rise	%	34.1
Valves per Cylinder		4
Wet Weight	kg	708
Air Cleaner		Cyclonic pre filter with scavenge system
Fan Drive Type		Hydraulic
Emissions:		US EPA Tier 4i, EU Stage IIIB

TRANSMISSION

Type		4 speed non-lock up converter	5 speed with lock up torque converter
Make		ZF	ZF
Model		4WG210 (standard)	5WG210 with lock-up (option)
Forward speed 1	kph (mph)	7.0 (4.3)	7.1 (4.4)
Forward speed 2	kph (mph)	13.7 (8.5)	12.6 (7.8)
Forward speed 3	kph (mph)	26.1 (16.2)	19.1 (11.9)
Forward speed 4	kph (mph)	41.5 (25.8)	29.1 (18.1)
Forward speed 5	kph (mph)		42.7 (26.6)
Reverse 1	kph (mph)	7.3 (4.6)	7.5 (4.7)
Reverse 2	kph (mph)	14.4 (9.0)	13.3 (8.3)
Reverse 3	kph (mph)	27.4 (17.0)	30.6 (19.0)

AXLES

3 axles options available; Torque proportioning differentials, Limited slip differentials or Open differentials with automatic differential locking. All axle options feature wheel speed braking for lower heat build up and longer service life.

Type	Open Differential	Limited Slip Differential	Open Differential with auto-locking front
Make and Model	ZF MT-L 3095 MK 2 (front and rear)	ZF MT-L 3095 MK 2 (front and rear)	ZF MT-L 3095 MK 2 (front and rear)
Overall Axle ratio	23.334:1	23.334:1	23.334:1
Rear Axle Oscillation	± 12.5°	± 12.5°	± 12.5°
Bias Ratio	12%	30%	100% (when locked)

ELECTRICAL SYSTEM

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

Connectors to IP67 standard.

STEERING

Priority steer hydraulic system with emergency steering. Steering angle $\pm 40^\circ$. Steer rams fitted with end rod damping to provide cushioned steering at full articulation.

BRAKES

Hydraulic power braking on all wheels, operating pressure 80 bar (1160psi). Dual circuit with accumulator back-up provide maximum safety under all conditions. Oil immersed, multi-plate disc brakes with sintered linings reduce heat build up. Wheel speed braking improves performance and reduce wear. Parking brake, electro-hydraulic disc type operating on transmission output shaft.

SERVICE FILL CAPACITIES

Hydraulic System	litres (UK gal)	135 (29.7)
Fuel System	litres (UK gal)	309 (68.0)
Engine Oil (includes filter)	litres (UK gal)	19 (4.2)
Engine Coolant	litres (UK gal)	40 (8.8)
Axles	litres (UK gal)	34 (7.5)
Transmission	litres (UK gal)	41 (9.0)

CAB

Resiliently mounted ROPS/FOPS structure (tested in accordance with EN3471:2008/EN3449: 2008 (Level 2). Instrumentation analogue/digital display gauges along with full colour LCD screen including selectable machine and operator menus along with service and diagnostic screens. Heating/ventilation provides temperature control, with air conditioning and climate control system as options. Provision of speakers and antenna for radio fitment (radio/CD not included). The cab environment is positively pressurised preventing the ingress of dust including in-cab recirculation filter. Fuse box positioned at rear for access to fuses, relays and diagnostic connectors. In cab noise levels 70dba.

TYRES

A variety of tyre options are available including:
 23.5R25 XTLA (L2), 23.5R25 XHA (L3), 23.5R25 TL-3A+ (L3), 23.5R25 RT-3B (L3), 23.5x25x20 ply HRL (L3), 23.5x25x20 ply (L3), 23.5R25 JCB (L3), 23.5R25 XMINE (L5), 23.5R25 XLDD2 (L5), 23.5R25 RL-5K (L5), 23.5R25 DWL (Solid Cushion), 23.5R25 SE (Solid Cushion)

ATTACHMENTS

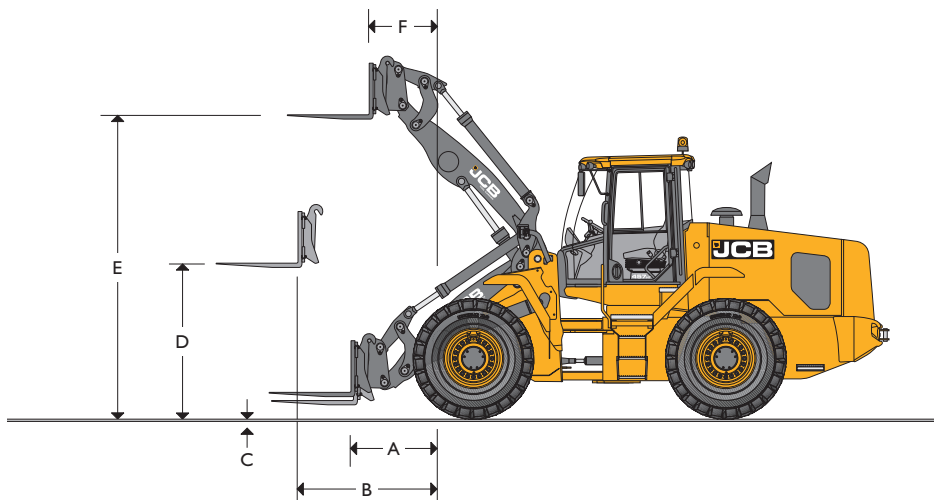
An extensive range of attachments are available to fit directly or via the JCB quickhitch mounting.

LOADER HYDRAULICS

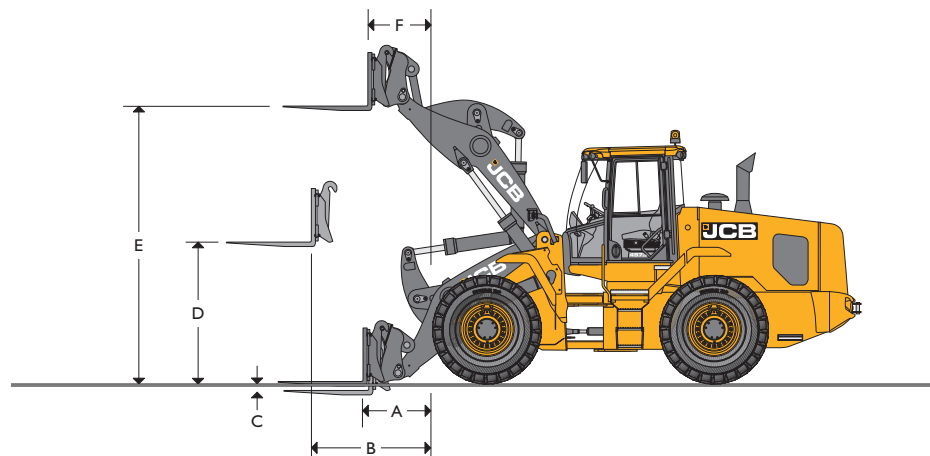
Variable displacement piston pump feed a "load sensing" system providing a fuel efficient and responsive distribution of power as required. Main services are servo actuated from a single lever (joystick) loader control. Auxiliary circuits controlled via additional lever or joystick mounted electrical buttons. Accumulator back-up is available to control loader in the event of loss of pump pressure.

Pump type	Twin variable displacement piston pump				
Pump 1 max. flow	l/min (UK gal/min)	163 (36)			
Pump 1 max. pressure	bar (lb/in ²)	250 (3625)			
Pump 2 max. flow	l/min (UK gal/min)	163 (36)			
Pump 2 max. pressure	bar (lb/in ²)	160 (2320)			
Hydraulic cycle times at full engine revs		seconds			
Arms raise (full bucket)		5.8			
Bucket dump (full bucket)		1.2			
Arms lower (empty bucket)		4.1			
Total cycle		11.1			
HT					
Ram dimensions		Bore	Rod	Closed centres	Stroke
Bucket ram x2	mm (in)	130 (5.1)	75 (3.0)	1845 (72.6)	1270 (50.0)
Lift ram x2	mm (in)	160 (6.3)	80 (3.1)	1290 (50.8)	744 (29.3)
Steer ram x2	mm (in)	90 (3.5)	50 (2.0)	621 (24.4)	312 (12.3)
ZX					
Ram dimensions		Bore	Rod	Closed centres	Stroke
Bucket ram x1	mm (in)	180 (7.1)	90 (3.5)	1080 (42.5)	570 (22.4)
Lift ram x2	mm (in)	160 (6.3)	80 (3.1)	1290 (50.8)	744 (29.3)
Steer ram x2	mm (in)	90 (3.5)	50 (2.0)	621 (24.4)	312 (12.3)

457 HT – LOADER DIMENSIONS – FORK FRAME WITH FORKS



457 ZX – LOADER DIMENSIONS – FORK FRAME WITH FORKS



457 HT – LOADER DIMENSIONS – FORK FRAME WITH FORKS

		Standard height arm	Super high lift arm
		mm (ft-in)	mm (ft-in)
Fork carriage width		1500 (4-11)	1500 (4-11)
Length of tines		1220 (4-0)	1220 (4-0)
A Reach at ground level		1175 (3-10)	2143 (7-0)
B Reach at arms horizontal		1851 (6-1)	2650 (8-8)
C Tine surface to ground level		50 (0-2)	50 (0-2)
D Arms horizontal height		1975 (6-6)	1975 (6-6)
E Arms maximum height		4194 (13-9)	5160 (16-11)
F Reach at maximum height		874 (2-10)	931 (3-1)
Payload **	kg (lb)	8000 (17637)	5945 (13106)
Tipping load straight	kg (lb)	11653 (25691)	8588 (18934)
Tipping load full turn (40°)	kg (lb)	10082 (22227)	7430 (16381)
Attachment weight	kg (lb)	590 (1301)	590 (1301)

Assumes the machine is fitted with Michelin 23.5R25 XHA (L3) tyres.
 ** At a centre of gravity distance of 600mm (2-0).
 Based on 80 % of full turn tipping load as defined by ISO 8313.
 Manual fork spacings at 50mm increments.
 Class 4A fork section 60 mm x 150 mm (2.4 x 6 inches).

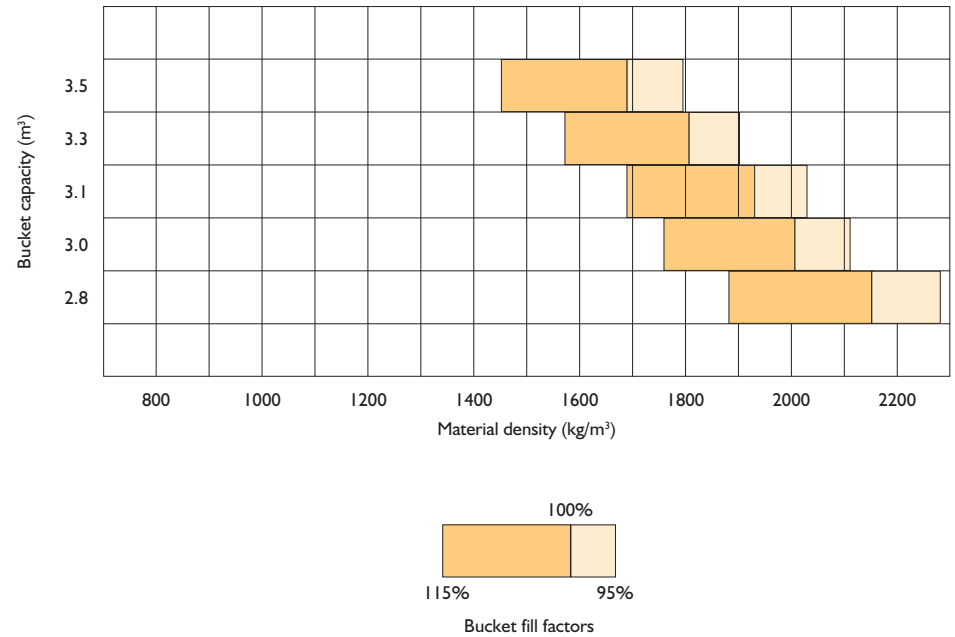
457 ZX – LOADER DIMENSIONS – FORK FRAME WITH FORKS

		Standard arm	High lift arm
Assumes the fitment of Michelin 23.5R25 XHA (L3) tyres			
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)	1084 (3-7)	1644 (5-5)
B Reach at arms horizontal	mm (ft-in)	1695 (5-7)	2172 (7-2)
C Below ground level	mm (ft-in)	16 (0-1)	16 (0-1)
D Arms, horizontal height	mm (ft-in)	1975 (6-6)	1975 (6-6)
E Arms, maximum height	mm (ft-in)	3997 (13-1)	4567 (15-0)
F Reach at maximum height	mm (ft-in)	735 (2-5)	813 (2-8)
Payload*	kg (lb)	8000 (17637)	6074 (13391)
Tipping load straight	kg (lb)	12202 (26900)	9175 (20228)
Tipping load full turn (40°)	kg (lb)	10178 (22439)	7594 (16741)
Attachment weight	kg (lb)	590 (1301)	590 (1301)

*At the centre-of-gravity distance 600mm (2ft-0in). Based on 80% of full turn tipping load as defined by ISO 8313.
 Manual fork spacings at 50mm (2in) increments. Class 4A Fork section 150mm x 60mm (6in x 2.4in).

BUCKET SELECTOR

Material	Loose density		Fill factor %
	kg/m ³	lb/yd ³	
Snow (fresh)	200	337	110
Peat (dry)	400	674	100
Sugar beet	530	894	100
Coke (loose)	570	961	85
Barley	600	1012	85
Petroleum coke	680	1146	85
Wheat	730	1231	85
Coal bituminous	765	1290	100
Fertiliser (mixed)	1030	1737	85
Coal anthracite	1046	1764	100
Earth (dry) (loose)	1150	1939	100
Nitrate fertiliser	1250	2180	85
Sodium chloride (dry) (salt)	1300	2192	85
Cement Portland	1440	2428	100
Limestone (crushed)	1530	2580	100
Sand (dry)	1550	2613	100
Asphalt	1600	2698	100
Gravel (dry)	1650	2782	85
Clay (wet)	1680	2832	110
Sand (wet)	1890	3187	110
Fire clay	2080	3507	100
Copper (concentrate)	2300	3878	85
Slate	2800	4721	100
Magnetite	3204	5402	100



STANDARD EQUIPMENT

HT Loader: Bucket reset mechanism (selectable), loader arm kickout mechanism (selectable), loader control isolator, single lever or multi lever servo control, high torque geometry combines with excellent visibility between arms.

ZX Loader: Bucket reset mechanism (selectable), loader arm kickout mechanism (selectable), loader control isolator, single lever or multi lever servo control, high breakout forces with excellent loading characteristics.

Engine: Air cleaner – cyclonic pre filter with scavenge system. Variable geometry turbocharger, cooled exhaust gas recirculation, diesel particulate filter, isolated cooling package with hydraulically driven cooling fan. Selectable ECO mode (217hp)

Transmission: Single lever shift control, neutral start, 'Power-Inch' Intelligent clutch cut off on footbrake (selectable), direction changes and kickdown on gear selector and loader control lever.

Axles: Epicyclic wheel hub reduction, fixed front, oscillating rear.

Brakes: Mult-plate wet disc brakes, sintered brake pads, dual circuit hydraulic power, wheel speed braking. Parking disc brake on transmission output shaft.

Hydraulics: Twin piston pumps with priority steer, emergency steer back-up, 2 spool loader circuit with accumulator support, 3rd and 4th spool auxiliary hydraulic circuits available as an option.

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

Cab: ROPS/FOPS safety structure, interior light, centre mounted master warning light. Electronic monitoring panel with full colour LCD 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, RH opening windows, sun visor, internal rear view mirror, heated external mirrors, adjustable suspension seat with belt and headrest, operator stowage, laminated windscreen, heated rear screen, loader control isolator, horn, adjustable armrest.

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, mesh air intake screens, flexible bottom step, full width rear counterweight, recovery hitch, lifting lugs.

OPTIONAL EQUIPMENT

Loader: High lift loader end (ZX loader only), Super high lift loader end (HT loader only), Smoothride system (SRS), hydraulic quickhitch with in-cab pin isolation, parallel lift links (HT loader only – recommended for pallet forks), safety strut, replaceable bucket wear parts.

Engine: Widecore radiator, epoxy coated radiator / coolers, automatically reversing cooling fan, engine block heater

Transmission: 5 speed transmission with Lock-up torque converter, transmission cooler bypass

Axles: Limited slip differentials front and rear, Open differential with automatic differential locking -100% (front axle only)

Hydraulics: ARV kit, 3rd hydraulic spool (ZX only, standard on HT), 4th hydraulic spool

Cab: Canopy cab, wastemaster cab, air conditioning, Climate control, joystick or multi-lever hydraulic controls, auxiliary hydraulic control on separate lever or joystick mounted (proportional), 24V to 12V in cab converter, cab screen guards, heated air suspension seat, Grammer Actimo XXL seat, front and rear blinds, P3 cab air filter, Carbon cab air filter

Electrical: Reversing camera (colour), additional front and rear work lights, sealed electrics, non-heated mirrors

Bodywork: Full rear fenders, light guards, number plate light kit, white noise reverse alarm, smart reverse alarm, basic belly guard kits

Miscellaneous options: Automatic greasing system, Biodegradable hydraulic oil, fire extinguisher, grease gun and cartridge

Wastemaster package: Includes front and rear light guards, widecore radiator, carbon cab air filter, front screen guard, full belly guarding, Wastemaster decal.



Wheeled Loading Shovel 457

Gross Engine Power: 250hp (186kW)

Operating Weight: 19,302kg

Full Turn Tipping Load: 12,992kg

Standard Bucket Capacity: 3.5m³

Your nearest JCB dealer