



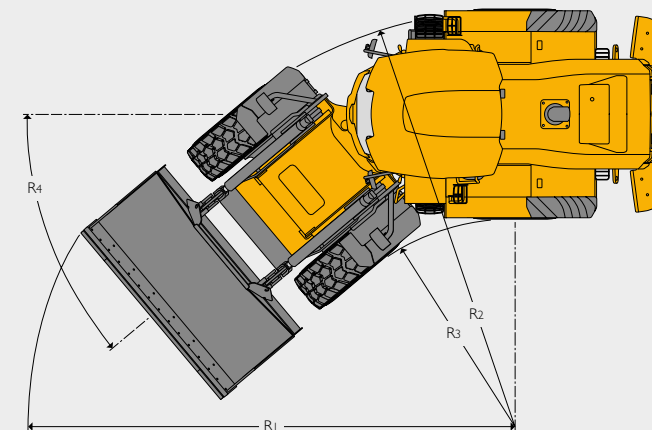
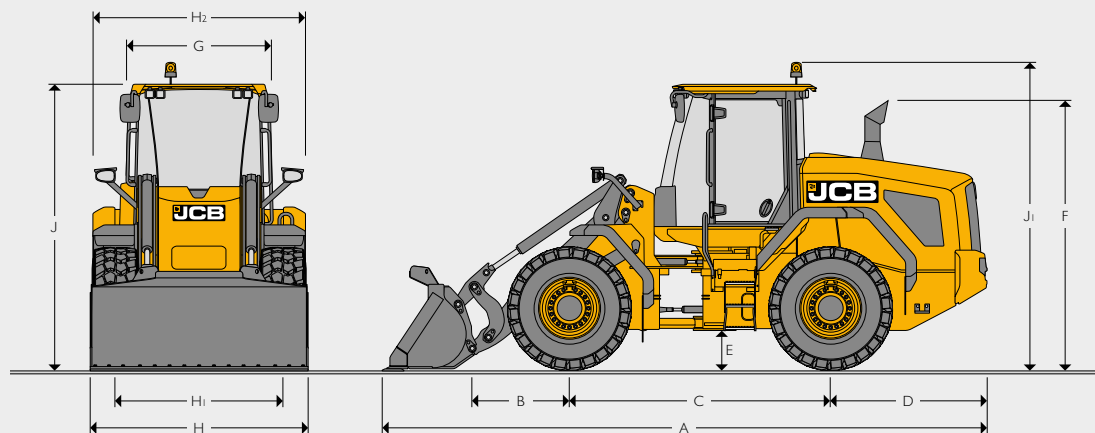
## WHEEL LOADER | 427/437

427 – Gross engine power: 123kW (165hp) Operating weight: 14,418kg Full turn tipping load: 8,603kg Standard shovel capacity: 2.4m<sup>3</sup>

437 – Gross engine power: 145kW (195hp) Operating weight: 15,781kg Full turn tipping load: 9,625kg Standard shovel capacity: 2.7m<sup>3</sup>



STATIC DIMENSIONS



		427HT	427 HT HL	427ZX	437HT	437 HT HL	437 HT SHL	437 ZX	
A	Overall length	mm	7070	7532	7069	7301	7928	8485	7306
B	Axle to pivot pin	mm	1134	1596	1108	1246	1873	2430	1228
C	Wheelbase	mm	3050	3050	3050	3050	3050	3050	3050
D	Axle to counterweight face	mm	1833	1833	1833	1833	1833	1833	1833
E	Minimum ground clearance	mm	472	472	472	472	472	472	472
F	Height over exhaust	mm	3159	3159	3159	3159	3159	3159	3159
G	Width over cab roof	mm	1582	1582	1582	1582	1582	1582	1582
H	Max. width	mm	2583	2583	2583	2598	2598	2598	2598
H <sub>1</sub>	Wheel track	mm	2054	2054	2054	2070	2070	2070	2070
H <sub>2</sub>	Max width over fenders	mm	2556	2556	2556	2556	2556	2556	2556
J	Height over cab roof and lowered beacon	mm	3360	3360	3360	3360	3360	3360	3360
J <sub>1</sub>	Height over raised beacon	mm	3722	3722	3722	3722	3722	3722	3722
	Front axle weight	kg	5852	6076	5944	6456	7230	8269	7078
	Rear axle weight	kg	8139	8106	8187	8652	8652	7756	8360
	Total weight	kg	13991	14182	14131	15108	15881	16024	15438
	Height over engine cover from ground fully open	mm	3611	3611	3611	3611	3611	3611	3611
	Increase in vehicle length with bonnet open (rear grille shut)	mm	+928	+928	+928	+928	+928	+928	+928

		427HT	427 HT HL	427ZX	437 HT	437 HT HL	437 HT SHL	437 ZX	
R <sub>1</sub>	Maximum turn radius over shovel	mm	5902	6035	5933	6021	6286	6626	6041
R <sub>2</sub>	Maximum turn radius over tyre	mm	4350	4350	4350	4350	4350	4350	4350
R <sub>3</sub>	Inside turn radius	mm	2892	2892	2892	2896	2896	2896	2896
R <sub>4</sub>	Articulation angle	degrees	40	40	40	40	40	40	40

427 HT based on a machine equipped with Michelin 20.5 R25 XHA2 (L3) radial tyres & direct mount 1.9m<sup>3</sup> shovel and toe plates & standard counterweight.

437 HT based on a machine equipped with Michelin 20.5 R25 XHA2 (L3) radial tyres & direct mount 2.3m<sup>3</sup> shovel and toe plates & standard counterweight.

ENGINE		427	437
Manufacturer		Cummins	
Model		B Series	
Capacity	litres	6.7	
Aspiration		Turbo Charged	
Cylinders		6	
Max gross power to SAE J1995/ISO 14396	kW (hp)	123 (165) @ 1800rpm	145 (195) @ 2000rpm
Rated gross power to SAE J1995/ISO 14396	kW (hp)	116 (156) @ 2200rpm	129 (173) @ 2200rpm
Nett power to ISO 9249	kW (hp)	114 (153) @ 2200rpm	127 (170) @ 2200rpm
Max torque	Nm	746 @ 1300rpm	881 @ 1300rpm
Valves per cylinder		4	
Air cleaner		Cyclonic pre filter with cooling fan scavenge system	
Fan drive type		Hydraulically driven cooling fan	
Emissions		EU Stage V, US EPA Tier 4F	

TRANSMISSION									
		427							
Type		ZF 5WG160				ZF 5WG160 LUC			
Gear		Forward Dynamic Mode	Reverse Dynamic Mode	Forward Comfort Mode	Reverse Comfort Mode	Forward Dynamic Mode	Reverse Dynamic Mode	Forward Comfort Mode	Reverse Comfort Mode
1	kph	6.09	6.44	5.57	5.88	6.12	6.46	5.59	5.90
2	kph	12.15	12.79	11.13	11.71	12.50	13.18	11.21	12.12
3	kph	18.37	27.84	16.79	25.24	19.21	30.18	16.99	27.81
4	kph	26.57		24.10		28.65		24.70	
5	kph	38.46		34.66		40.00*		35.62	
		437							
Type		ZF 5WG190				ZF 5WG190 LUC			
Gear		Forward Dynamic Mode	Reverse Dynamic Mode	Forward Comfort Mode	Reverse Comfort Mode	Forward Dynamic Mode	Reverse Dynamic Mode	Forward Comfort Mode	Reverse Comfort Mode
1	kph	7.00	7.39	6.10	6.45	7.00	7.40	6.11	6.46
2	kph	12.59	13.25	10.97	11.52	12.96	13.67	11.43	12.05
3	kph	18.81	29.10	16.22	24.62	19.83	32.21	17.47	28.31
4	kph	27.83		23.62		30.61		26.90	
5	kph	39.44		32.58		40.00*		40.00*	

Please note the above data is based on XHA tyres, figures may vary depending on tyres fitted.

\* Speed limited to 40kph maximum.

AXLES		
	427	437
Model		
Type	Standard	
Make and model	ZF MT-L 3085 II (front), ZF MT-L 3075 II (rear)	ZF MT-L 3085 II (front), ZF MT-L 3085 II (rear)
Overall axle ratio	20.182 : 1	21.53 : 1
Rear axle oscillation	+/- 10.5 Degrees	

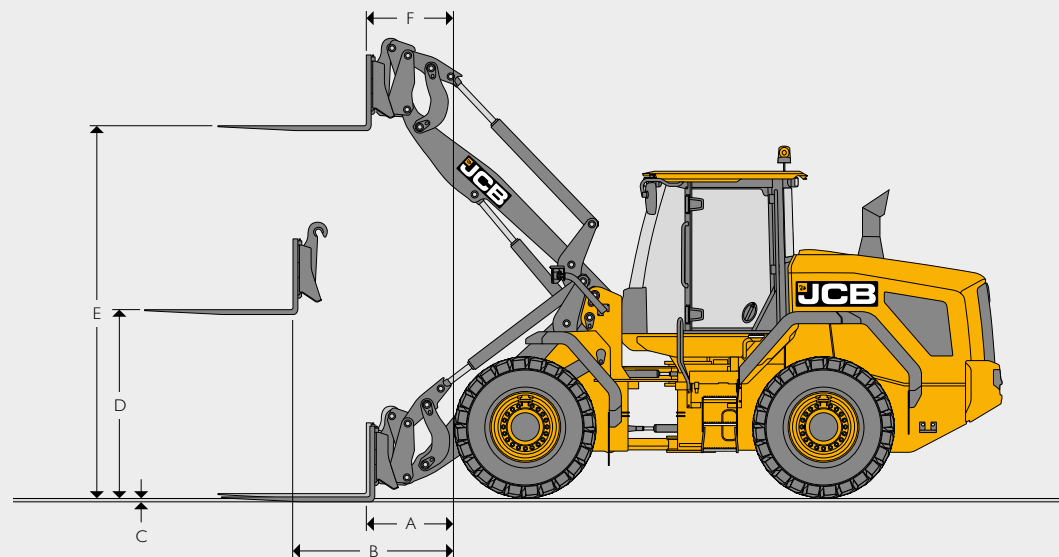
All available with open differential, Limited slip differential, Open differential with auto-locking front

ELECTRICAL SYSTEM		
System voltage	Amps	24
Alternator output	Amps	120
Battery capacity	Amp hour	110

HYDRAULICS		
	427	437
Pump type	Variable displacement	
Pump 1 max. flow	l/min	126
Pump 1 max. pressure	bar	250
Pump 2 max. flow	l/min	126
Pump 2 max. pressure	bar	160
Hydraulic cycle times at full engine revs		
Arms raise (full bucket)	Seconds	5.08
Shovel dump (full bucket)	Seconds	1.41
Arms lower (empty bucket)	Seconds	3.3
Total cycle	Seconds	9.79
		12.83

SERVICE FILL CAPACITIES		
	427	437
Hydraulic system	litres	210
Fuel tank	litres	290
DEF Tank	litres	75




**LOADER DIMENSIONS WITH FORKS**

		427HT	427HT HL	427ZX	437HT	437HT HL	437 HT SHL	437ZX
Fork carriage width	mm	1500	1500	1500	1500	1500	1500	1500
Length of tines	mm	1220	1220	1220	1220	1220	1220	1220
A Reach at ground level	mm	769	1238	769	882	1518	2079	882
B Reach at arms horizontal	mm	1546	1895	1546	1636	2126	2596	1636
C Top of tine above ground with arms down	mm	-52	11	-52	8	3	-11	8
D Arms, horizontal height	mm	1906	1906	1906	1946	1946	1936	1946
E Arms, maximum height	mm	3718	4148	3718	3828	4482	5035	3828
F Reach at maximum height	mm	802	848	801	873	875	907	873
Tipping load straight	kg	8177	7097	7944	8210	6836	5718	7895
Tipping load full turn (40°)	kg	6992	6045	6789	6993	5794	4806	6704
Payload*	kg	5593	4836	5431	5594	4635	3845	5363
Attachment weight	kg	430	430	430	430	430	430	430
Operating weight (includes 80Kg operator and full fuel and Urea tanks)	kg	13921	15015	14116	14753	15141	15670	15484

\* At the centre of gravity distance 600mm. Based on 80% of FTTL as defined in ISO 8313. Manual fork spacing's at 50mm increments. Class 4A forks (section 150mm x 60mm). HT machines have parallel lift loader end. ZX machines do not. Assume the fitment of Michelin 23.5R25 XHA2 tyres.



**ONE COMPANY, OVER 300 MACHINES.**

**Wheel Loader 427/437**

427 – Gross engine power: 123kW (165hp) Operating weight: 14,418kg  
 Full turn tipping load: 8,603kg Standard shovel capacity: 2.4m<sup>3</sup>  
 437 – Gross engine power: 145kW (195hp) Operating weight: 15,781kg  
 Full turn tipping load: 9,625kg Standard shovel capacity: 2.7m<sup>3</sup>

Your nearest JCB dealer

9999/6106 en-GB 07/19 Issue 1

JCB Sales Limited, Rokester, Staffordshire, United Kingdom ST14 5JP.  
 Tel: +44 (0)1889 590312 Email: salesinfo@jcb.com  
 Download the very latest information on this product range at: [www.jcb.com](http://www.jcb.com)

©2009 JCB Sales. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying or otherwise, without prior permission from JCB Sales. All references in this publication to operating weights, sizes, capacities and other performance measurements are provided for guidance only and may vary dependant upon the exact specification of machine. They should not therefore be relied upon in relation to suitability for a particular application. Guidance and advice should always be sought from your JCB Dealer. JCB reserves the right to change specifications without notice. Illustrations and specifications shown may include optional equipment and accessories. The JCB logo is a registered trademark of J C Bamford Excavators Ltd.

