



TELESCOPIC WHEEL LOADER | TM280 / TM280S / TM320 / TM320S / TM420 / TM420S

Lift capacity: 2,750kg – 4,100kg Gross power: 81kW/109hp – 129kW/173hp Lift height: 4.8m – 5.45m

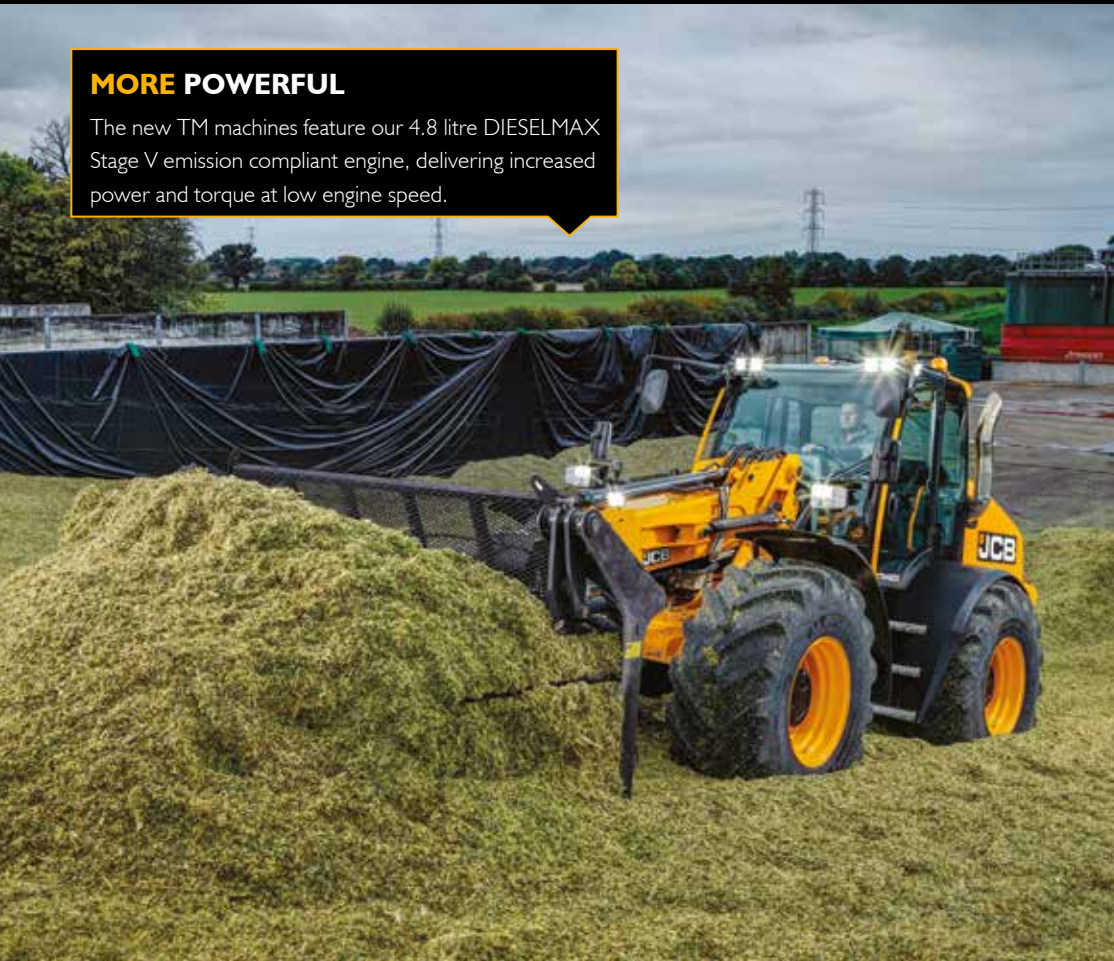


THE ARGUMENT FOR BUYING ONE JUST GOT EVEN MORE POWERFUL

Introducing the all-new JCB TM Stage V machines. With our proven DIESELMAX engine delivering more power and highly efficient transmission types including DualTech VT on the TM280S, they take performance and productivity to another level. With superb visibility, comfort and ease of use plus many innovative fuel-saving features, there's so many reasons to choose the ultimate telescopic wheel loaders.

MORE POWERFUL

The new TM machines feature our 4.8 litre DIESELMAX Stage V emission compliant engine, delivering increased power and torque at low engine speed.



GREATER PRODUCTIVITY

The TM's variable flow auxiliary hydraulics are easy to use and maximise productivity, allowing multiple functions to be performed at the same time, reducing cycle times.

GREATER COMFORT

The JCB TM CommandPlus cab has been designed for operator comfort, with a spacious working environment and plenty of storage space.



SUPERB VISIBILITY

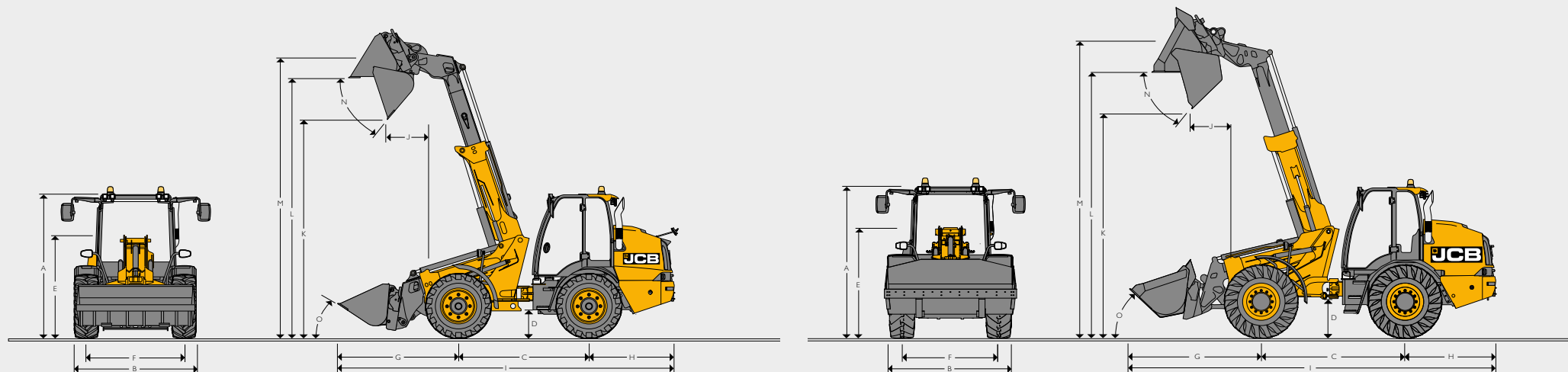
The multi-curve glazing increases front and upward visibility when operating at height.

SAFER WORKING

Superb visibility in dark conditions is guaranteed with our high intensity 11x LED work lighting package, providing 360-degree illumination.



STATIC DIMENSIONS



Machine model		TM280	TM280S	TM320	TM320S	TM420	TM420S
A	Height over cab (no wiper)	mm	2590	2721	2721	2856	2856
A	Height over cab (inc wiper)	mm	2677	2791	2791	2926	2926
B	Overall width (over tyres)	mm	2100	2350	2350	2350	2350
C	Wheelbase	mm	2425	2550	2550	2758	2758
D	Ground clearance to bottom of axle	mm	339	420	420	466	466
E	Height to top of boom pivot	mm	1874	1835	1835	1975	1975
F	Wheel track	mm	1667	1870	1870	1860	1860
G	Front axle to shovel toe plate	mm	2365	2143	2143	2532	2532
H	Rear axle to counterweight face	mm	1612	1627	1627	1721	1721
I	Total length (GP shovel at carry)*	mm	6403	6322	6322	7011	7011
J	Dump reach at full height	mm	846	933	933	735	735
K	Dump height	mm	3867	4511	4511	4411	4411
L	Load over height	mm	4658	5182	5182	5064	5064
M	Pin height	mm	5045	5367	5367	5661	5661
N	Max dump angle at full height	degrees	42	39	39	39	39
O	Roll back angle at carry	degrees	36	41	41	43	43
	Total length to front of hitch	mm	5615	5886	5886	5829	5829
	Inside turning radius to tyres	mm	2070	2001	2001	3880	3880
	Outside turning radius over tyres	mm	4180	4350	4350	5060	5060
	Outside turning radius over shovel	mm	4870	4633	4633	5680	5680
	Articulation angle	degrees	±43	±43	±43	±40	±40
	Operating weight (Ref tyre, hitch)	kg	7440 [†]	8142	8142	9779	9779
	Front axle weight	kg	2838 [†]	2352	2352	3048	3048
	Rear axle weight	kg	4602 [†]	5790	5790	6731	6731
	Tyres used for specifications		425/75R20	460/70R24	460/70R24	480/80R26	480/80R26
	Shovel used for specifications		1.0m3 Q-Fit	1.0m3 Q-Fit	1.0m3 Q-Fit	1.6m3 Q-Fit	1.6m3 Q-Fit
	Hitch used for specifications		Q-Fit	Q-Fit	Q-Fit	Q-Fit	Q-Fit

* Please note total length: machine fitted with standard bucket – boom fully down, shovel crowded fully back. [†]Machine weights calculated without GP shovel attached.

ENGINE							
Machine model		TM280	TM280S	TM320	TM320S	TM420	TM420S
Manufacturer		JCB					
Model		DIESELMAX					
Capacity	litres	4.8					
Aspiration		Turbocharged, Intercooled					
Number of cylinders		4					
Power rating							
Gross power	kW (hp)	81 (109)	97 (130)	97 (130)	112 (150)	112 (150)	129 (173)
Torque rating							
Gross torque	Nm	516	550	550	600	600	690

TRANSMISSION								
Machine model		TM280 (30kph)	TM280S (40kph)	TM320 (40kph)	TM320S (40kph)	TM320S (50kph)	TM420 (40kph)	TM420S (50kph)
Type		Hydrostatic	DualTech VT	Powershift	Powershift	Powershift	Powershift	Powershift
Manufacturer		JCB	JCB	JCB	JCB	JCB	JCB	JCB
Model		HG1541	HM1542	PS900	PS900	PS900	PS900	PS900
Fwd / rev ratios		F -Variable R - Variable	F -Variable + 1 Mech R - Variable	8 / 4	8 / 4	8 / 4	8 / 4	8 / 4
Torque lock		N/A	N/A	Fwd gears 5 - 8	Fwd gears 1 - 8, Rev gears 1 - 4	Fwd gears 1 - 8, Rev gears 1 - 4	Fwd gears 5 - 8	Fwd gears 1 - 8, Rev gears 1 - 4
Max. travel speed	kph	30	40	40	40	50	40	50
Engine rpm at max travel speed	rpm	Load dependent	2200	1900	1900	2380	1900	2380

AXLES & BRAKES								
Machine model		TM280 (30kph)	TM280S (40kph)	TM320 (40kph)	TM320S (40kph)	TM320S (50kph)	TM420 (40kph)	TM420S (50kph)
Type		Epicyclic hub reduction	Epicyclic hub reduction	Epicyclic hub reduction	Epicyclic hub reduction	Epicyclic hub reduction	Epicyclic hub reduction	Epicyclic hub reduction
Manufacturer		JCB	JCB	JCB	JCB	JCB	JCB	JCB
Model		PD70	PD70	PD70	PD70	PD70	PD87	PD87
Overall axle ratio		10.46	10.46	12.49	12.49	12.49	13.875	13.875
Chassis oscillation angle	degrees	± 10°	± 10°	± 10°	± 10°	± 10°	± 10°	± 10°
Inboard oil immersed brakes		Front axle	Front axle	Front axle	Front axle	Front & rear axle	Front & rear axle	Front & rear axle
Brake system		Single Circuit	Single Circuit	Single circuit	Single circuit	Dual circuit	Single circuit	Dual circuit
Park brake		Mechanical lever / Electric switch	Electric switch	Mechanical lever	Mechanical lever	Electric switch	Mechanical lever	Electric switch

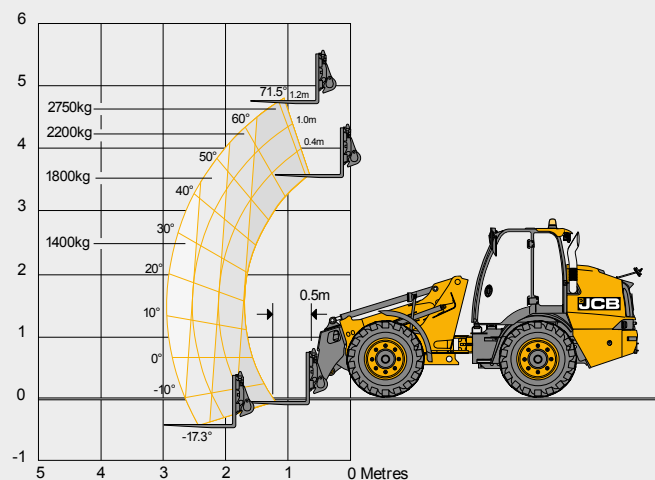
NOISE AND VIBRATION				
			Uncertainty	Measurement conditions
Noise at the operator station	LpA	72 dB	± 1 dB	Determined in accordance with the method defined in ISO 6396 and the dynamic test conditions defined on 2000/14/EC.
Noise emission from the machine	LWA	103 dB	N/A	Guaranteed equivalent sound power (external noise) determined in accordance with the dynamic test conditions defined in 2000/14/EC.
Whole body vibration	m/s ²	1.04	50%	ISO 2631-1:1997 normalised to an 8h reference period and based upon a test cycle comprising of loader work (soil).
Hand-arm vibration	m/s ²	<2.5	N/A	ISO 5349-2:2001 dynamic test conditions

LOADER PERFORMANCE - FORK FRAME WITH FORKS

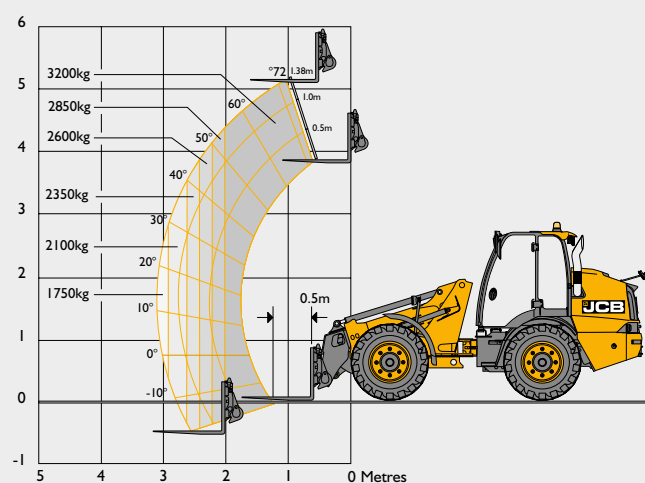
Machine model		TM280	TM280S	TM320	TM320S	TM420	TM420S
Lift capacity to full height forks ^{††}	kg	2750	2750	3200	3200	4100	4100
Lift capacity at full reach ^{††}	kg	1400	1400	1750	1750	2250	2250
Lift height - forks	mm	4800	4800	5200	5200	5450	5450
Max forward reach - forks at 500mm	mm	2905	2905	2950	2950	3050	3050
Straight tipping load forks at 500mm load centre*	kg	4630	4630	5262	5262	6670	6670
FTTL forks at 500mm load centre*	kg	3210**	3210**	4052**	4052**	5200**	5200**
FTTL payload forks at 80% of FTTL	kg	2568**	2568**	3242**	3242**	4160**	4160**
FTTL payload forks at 60% of FTTL	kg	1926**	1926**	2431**	2431**	3120**	3120**
Breakout force - Shovel	kg	6260	6260	6260	6260	7200	7200

^{††} to EN1459 ** Straight and Full Turn Tipping Load with forks and direct mount to Pin and Cone carriage to EN474 (ISO 14397)

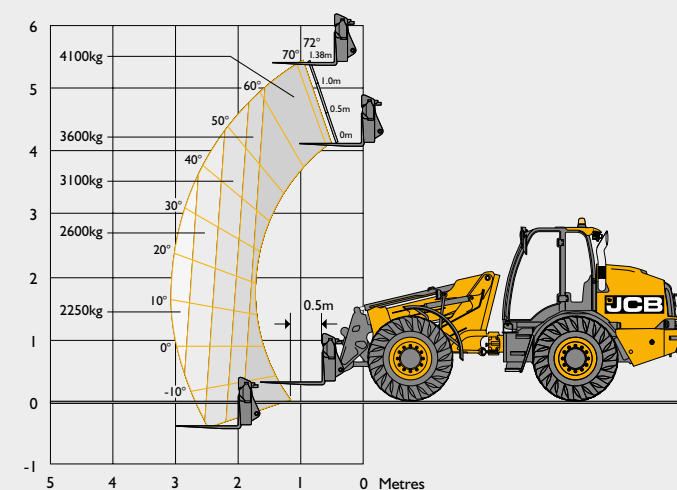
TM280 / TM280S



TM320 / TM320S



TM420 / TM420S



ELECTRICAL SYSTEM

Machine model		TM280	TM280S	TM320	TM320S	TM420	TM420S
System voltage	Volt	12					
Alternator output	Amp Hour	170					
Battery type		Twin batteries					
Battery capacity	Amp Hour	2 x 610CCA, 62Ah					

HYDRAULICS							
Machine model		TM280	TM280S	TM320	TM320S	TM420	TM420S
Pump type		Variable displacement piston pump					Twin variable displacement piston pump
Pump capacity	l/min	54cc/rev	54cc/rev	63cc/rev	72cc/rev	72cc/rev	100cc/rev
Max flow	l/min	140	140	140	160	160	160
Engine rpm req. for max flow	rpm	2250	2250	2380	2380	2380	1700
max pressure	bar	240	240	230	230	260	260
Aux circuit rated flow	l/min	90	90	90	90	100	100
Engine rpm req. for Aux rated flow	rpm	1384	1384	1600	1600	1700	1200
Hydraulic cycle times							
Raise	seconds	5.1	5.1	5.9	5.5	5.1	5.1
Lower	seconds	3.9	3.9	6	6	4.7	4.7
Extend	seconds	3.2	3.2	3.4	3.4	3.6	3.6
Retract	seconds	3.3	3.3	2.6	2.6	3.5	3.5
Dump	seconds	2.4	2.4	2.8	2.8	2.9	2.9
Crowd	seconds	2.6	2.6	2.8	2.8	3.4	3.4

FLUID CAPACITIES					
Machine model		TM280	TM280S	TM320 / TM320S	TM420 / TM420S
Hydraulic tank	litres	105	105	97	97
Fuel tank	litres	130	130	160	160
Engine sump	litres	14	14	14	14
Front axle	litres	20	20	20	25
Rear Axle	litres	20	20	20	25
Drop box	litres	N/A	N/A	1.3	1.3
DEF	litres	29	29	29	29
Transmission	litres	4.6	6.1	19	19

TM280 / TM280S TYRE OPTIONS					
Manufacturer	Size	Type	Application	Dimensional changes	
				Overall height (mm)	Width over tyres (mm)
Mitas	425/75R20	AC70G	AG	0	0
Alliance	500/60R22.5	FLOTATION 331	AG	+4mm	0
Alliance	600/50R22.5	FLOTATION 331	AG	+10mm	+190mm

TM320 / TM320S TYRE OPTIONS					
Manufacturer	Size	Type	Application	Dimensional changes	
				Overall height (mm)	Width over tyres (mm)
Mitas	445/70R24	AC70G MPT	AG	-1	-22
Michelin	440/80R24	XMCL	AG	+30	-82
Michelin	460/70R24	XMCL	AG	0	0
Michelin	500/70R24	XMCL	AG	+24	+38
Michelin	15.5R25	XHA	EM	-5	-86
Michelin	15.5R25	XTLA	EM	-9	-86
Michelin	460/70R24	BIBLOAD	AG/EM	-4	0
Michelin	500/70R24	BIBLOAD	AG/EM	+19	+54
Alliance	460/70R24	AGRO-INDUSTRIAL R-4	AG	+5	-61
Alliance	500/70R24	AGRO-INDUSTRIAL R-4	AG	+32	+48

TM420 / TM420S TYRE OPTIONS					
Manufacturer	Size	Type	Application	Dimensional changes	
				Overall height (mm)	Width over tyres (mm)
Michelin	480/80R26	XMCL	AG	0	0
Michelin	480/80R26	BIBLOAD	AG/EM	+8	0
Michelin	620/70R26	CEREXBIB	AG	+7	+201
Michelin	17.5R25	XHA	EM	-54	-19
Michelin	17.5R25	XSNPLUS	EM	-60	-19
Nokian	17.5R25	LOADER GRIP TL	EM	-42	-20
JCB	17.5R25	EARTHMOVER	EM	-23	-22
Mitas	425/75R20	AC70G	AG	0	0
Alliance	500/60R22.5	Flotation 331	AG	+4mm	0
Alliance	600/50R22.5	Flotation 331	AG	+10mm	+190mm

STANDARD/OPTIONAL EQUIPMENT

Machine model	TM280	TM280S	TM320	TM320S	TM420	TM420S
ENGINE AND COOLING						
109hp JCB DIESELMAX Engine	•	–	–	–	–	–
130hp JCB DIESELMAX Engine	–	•	•	–	–	–
150hp JCB DIESELMAX Engine	–	–	–	•	•	–
173hp JCB DIESELMAX Engine	–	–	–	–	–	•
Cyclonic air filter	•	•	•	•	•	•
Air intake scavenge system	•	•	•	•	•	•
Widcore cooling pack	•	•	•	•	•	•
Auto reversing fan	+	+	+	+	+	+
TRANSMISSION / AXLES						
8 speed Powershift transmission	–	–	•	•	•	•
Hydrostatic transmission	•	–	–	–	–	–
Dualtech VT transmission	–	•	–	–	–	–
Lock-up torque converter in gears 1 - 8	–	–	–	•	–	•
Lock-up torque converter in gears 5 - 8	–	–	•	–	•	–
30kph travel speed	•	–	–	–	–	–
40kph travel speed	–	•	•	•	•	+
50kph travel speed	–	–	–	+	–	•
Transmission disconnect on footbrake	•	•	•	•	•	•
Forward / reverse controls on joystick	•	•	•	•	•	•
Column mounted transmission selector	•	•	•	•	•	•
In board oil immersed disc brakes	•	•	•	•	•	•
Limited slip differentials front and rear	•	•	•	•	•	•
Creep speed & hand throttle	•	•	–	–	–	–
HYDRAULICS						
Servo controls	•	•	•	•	•	•
Flow sharing hydraulics	•	•	•	•	•	•
Proportional boom and auxiliary controls	•	•	•	•	•	•
Adjustable constant flow hydraulics	•	•	•	•	•	•
Variable displacement piston pump	•	•	•	•	•	•
Priority steer valve	•	•	•	•	•	•
Hose burst check valves	•	•	•	•	•	•
JCB Adaptive Load Control	•	•	•	•	•	•
Single auxiliary service	•	•	•	•	•	•
Double auxiliary service	+	+	+	+	+	+
JCB Smoothride system	+	+	+	+	+	+
Biodegradable hydraulic oil	+	+	+	+	+	+

STANDARD •

OPTIONAL +

NOT AVAILABLE –

NB. Regional variations may apply to standard and optional equipment

Machine model	TM280	TM280S	TM320	TM320S	TM420	TM420S
CAB						
ROPS/FOPS safety structure	•	•	•	•	•	•
B-post mounted membrane switches	•	•	•	•	•	•
Fully adjustable mechanical seat	•	•	•	•	•	•
Air suspension seat	+	+	+	+	+	+
Super deluxe heated air suspension half leather seat	+	+	+	+	+	+
LED Interior lights	•	•	•	•	•	•
Tilt and telescopic steering column	•	•	•	•	•	•
Adjustable joystick control console and armrest	•	•	•	•	•	•
Front and rear wash / wipe	•	•	•	•	•	•
3 speed heater fan	•	•	•	•	•	•
Air conditioning	+	•	•	•	•	•
RH opening window with lock back	•	•	•	•	•	•
LH opening door with door lock back	•	•	•	•	•	•
LH Sliding window	+	+	+	+	+	+
Single lever joystick controls	•	•	•	•	•	•
Loader control isolator	•	•	•	•	•	•
External rear view mirrors	•	•	•	•	•	•
Front and roof screen blinds	•	•	•	•	•	•
Fire extinguisher	+	+	+	+	+	+
Additional storage box	+	+	+	+	+	+
Mechanical park brake	•	–	•	•	•	–
Electric park brake	+	•	–	+	–	•
Mobile phone cradle	+	+	+	+	+	+
Heated rear windscreen	•	•	•	•	•	•
Heated front windscreen	+	+	+	+	+	+

CHASSIS AND BODYWORK

Articulated steering	•	•	•	•	•	•
Centre pivot oscillation	•	•	•	•	•	•
Plastic front and rear fenders	•	•	•	•	•	•
Recovery hitch	•	•	•	•	•	•
Prop shaft guard	•	•	•	•	•	•
Grease gun and cartridge	+	+	+	+	+	+
Deluxe exterior mirrors	+	•	+	•	•	•
Roadlight mirrors	+	+	+	+	+	+
Hydraulic tow hitch (8000kg)	+	+	+	+	+	+
Rockinger hitch (15000kg)	+	+	+	+	+	+
Rear electrics	+	+	+	+	+	+
Trailer braking single line	+	+	+	+	+	+
Trailer braking twin line	+	+	+	+	+	+
Rear auxiliary	+	+	+	+	+	+
Rear belly guards	+	+	+	+	+	+

SPECIFICATION

TM280 / TM280S / TM320 / TM320S / TM420 / TM420S TELESCOPIC WHEEL LOADER

STANDARD/OPTIONAL EQUIPMENT

Machine model	TM280	TM280S	TM320	TM320S	TM420	TM420S
ELECTRICAL						
LED road lights rear	•	•	•	•	•	•
LED road lights front	+	+	+	+	+	+
Reverse lights	•	•	•	•	•	•
Battery isolator	•	•	•	•	•	•
Direction indicators	•	•	•	•	•	•
Rotating beacon	+	+	+	+	+	+
Twin beacons	+	+	+	+	+	+
LED front and rear worklights	+	+	+	+	+	+
LED boom worklights	+	+	+	+	+	+
Twin reverse light kit	+	+	+	+	+	+
Reverse fog light kit*	+	+	+	+	+	+
LiveLink telematics	•	•	•	•	•	•
LED 360 degree worklights	+	+	+	+	+	+
LED tow hitch light	+	+	+	+	+	+
12v in-cab power socket	•	•	•	•	•	•
Reverse camera with colour screen	•	•	•	•	•	•
Auxiliary venting	•	•	•	•	•	•
Reverse alarm	•	•	•	•	•	•
White noise reverse alarm	+	+	+	+	+	+
Multi-media port (USB and 3.5mm)	•	•	•	•	•	•
Bluetooth radio	+	+	+	+	+	+
Roof wiper	+	+	+	+	+	+
Step lighting	•	•	•	•	•	•
Walk-me-home lighting	•	•	•	•	•	•
Heated front screen*	+	+	+	+	+	+
Programmable smart key	•	•	•	•	•	•
12V electric socket at the boom nose	+	+	–	–	–	–
Automatic boom worklights	+	+	+	+	+	+
Automatic rear worklights	•	•	•	•	•	•
Automatic tow hitch light	+	+	+	+	+	+
240V Block heater	+	+	+	+	+	+
Immobiliser key	+	+	+	+	+	+
*Not Tractor Homologated						

Machine model	TM280	TM280S	TM320	TM320S	TM420	TM420S
LOADER						
Centre mounted single stage telescopic boom	•	•	•	•	•	•
Parallel lift	•	•	•	•	•	•
End damping on boom lower, extend and retract	•	•	•	•	•	•
Pin and Cone Quickhitch	+	+	+	+	+	+
JCB Q-fit Quickhitch	+	+	+	+	+	+
Euro 8 Quickhitch	+	+	–	–	–	–
Industrial Quickhitch	–	–	+	+	+	+
Electrical in cab quickhitch pin isolation	•	•	•	•	•	•
3/4" Auxiliary couplers	–	–	–	–	+	+

ATTACHMENTS

Grain shovel 4.0m ³	–	–	–	–	+	+
Grain shovel 2.7m ³	–	–	+	+	+	+
Muck grab 2.4m ³	+	+	+	+	+	+
GP shovel 1.0m ³	+	+	+	+	–	–
GP shovel 1.6m ³	–	–	–	–	+	+
Pallet forks 1067mm	+	+	+	+	+	+
Pallet forks 1200mm	+	+	+	+	+	+

MISCELLANEOUS

Tractor Homologation	+	+	+	+	+	+
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STANDARD •
OPTIONAL +
NOT AVAILABLE –

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ONE COMPANY, OVER 300 MACHINES.

Your nearest JCB dealer

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