

Mecalac

TLB880
SIDESHIFT - TECHNICAL DATA



NEW TLB880

BACKHOE LOADERS-SIDESHIFT - TECHNICAL DATA
EU STAGE V / U.S. EPA TIER 4 FINAL

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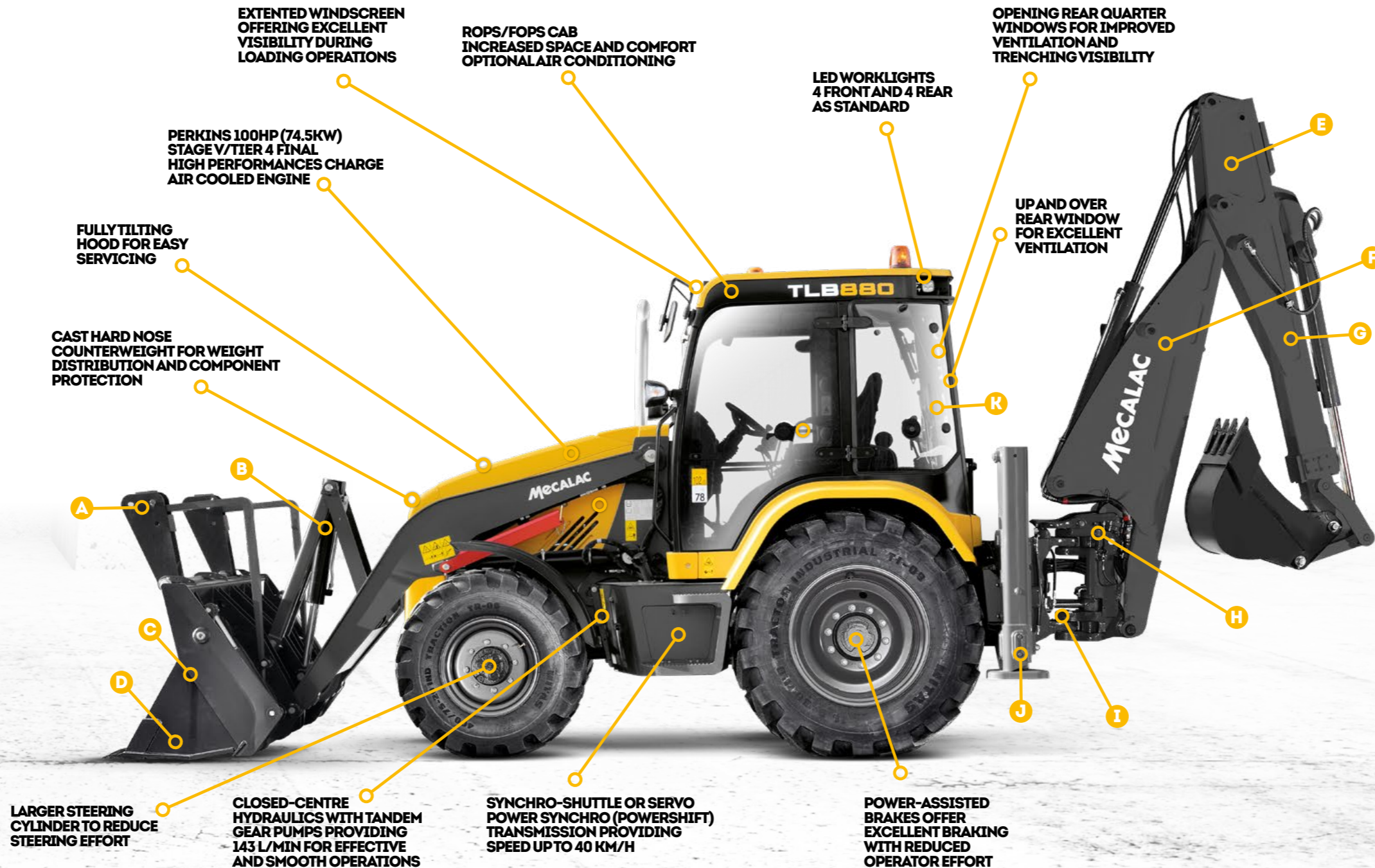


TLB880

THE NEW SIDESHIFT BACKHOE LOADER

LOADER SIDE

- A** High Breakout force (42kN / 9442lbf) and tear-out force (46kN / 10341lbf), exceptional lifting capacity (3700kg / 8157lbs) to full height
- B** Unique single centrally located bucket cylinder to provide the best amplitude and breakout force over the market with minimal maintenance
- C** 1M³ (1.3 yd³) or 1.2M³ (1.57 yd³) bucket available in standard or 7-in-1 form
- D** Optional Ride Control loader suspension to improve safety and comfort at high speed



BACKHOE SIDE

- Exceptional performances:
Tearout force up to 42kN (9442lbf)
E Break-out force up to 69kN (15512lbf)
Digging reach up to 7m (22'11")
Digging depth up to 5.7m (18'10")
- F** Robust straight boom type to ensure a clear view when trenching
 - G** Externally adjustable dipperstick wear pads for easy servicing and replacement
 - H** Dual transport lock of the boom and slew functions from inside the cab to ensure safety on road
 - I** New slew system provides high torque for easier backfilling and slewing uphill
 - J** Externally adjustable stabiliser wear pads for easy servicing and replacement
 - K** Standard Mechanical controls of the backhoe with the choice of SAE, ISO and diagonal drive mode

→ TECHNICAL DATA TLB880 – STAGE V / TIER 4 FINAL

BACKHOE DIMENSIONS*		Standard Dipper		Deep Dig Dipper	
		Retracted		Extended	
A	Dig depth	Maximum SAE	4401 mm (14'5")	4401 mm (14'5")	5744 mm (18'10")
	60 cm (2 ft) Flat Bottom SAE		4388 mm (14'4")	4388 mm (14'4")	5731 mm (18'8")
B	Reach – ground level to slew		5725 mm (18'9")	5725 mm (18'9")	6995 mm (22'11")
C	Loading reach		1740 mm (5'8")	1740 mm (5'8")	2672 mm (8'9")
D	Operating height		5623 mm (18'5")	5323 mm (17'6")	6606 mm (21'8")
E	Loading height SAE		3963 mm (13')	3963 mm (13')	4939 mm (16'2")
	Max dumping height		3884 mm (12'9")	3884 mm (12'9")	4859 mm (15'11")
F	Straight wall dig depth		2557 mm (8'5")	2557 mm (8'5")	3714 mm (12'2")
G	Bucket rotation degrees	Speed	194	194	194
		Power	163	163	163
Stabiliser spread			2290 mm (7'6")	2290 mm (7'6")	2290 mm (7'6")
Maximum levelling angle degrees			6	6	6

*Includes standard 600 mm (2') HD bucket.

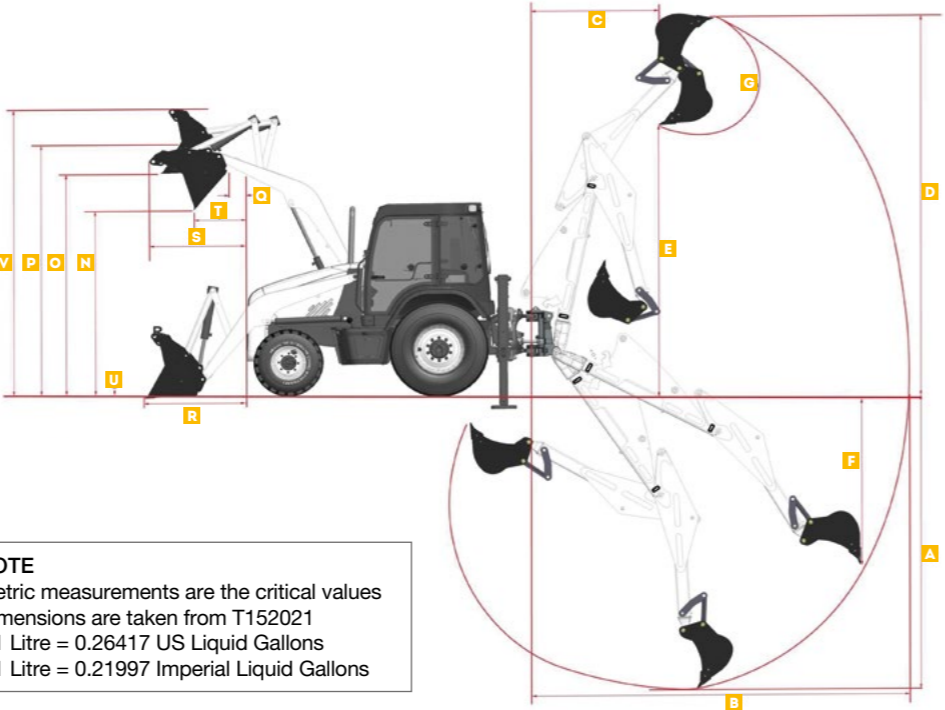
LOADER DIMENSIONS		Standard / 7 in 1 Bucket	
N	Dump clearance – at 45°		2722 mm (8'11")
O	Loader height		3262 mm (10'8")
P	Hinge pin height		3510 mm (11'6")
Q	Pin forward reach		385 mm (1'3")
R	Reach at ground		1454 mm (4'9")
S	Max. reach at full height		1214 mm (3'12")
T	Reach at full height – at 45°		732 mm (2'5")
	Dig depth		134 mm (0'5")
U	Rollback at ground		42.4°
	Maximum dump angle fully raised		49.6°
V	Overall operating height		4412 mm (14'6")

BACKHOE PERFORMANCE		Standard Dipper		Deep Dig Dipper	
		Standard Bucket HD Bucket		Retracted	
		20.7 (15267)		20.7 (15267)	
		Standard Bucket HD Bucket		Extended	
		20.7 (15267)		20.7 (15267)	
Max slew torque kNm (lbf-ft)		20.7 (15267)		20.7 (15267)	
Dipper tearout kN (lbf)		42.2 (9487) 42.2 (9487)		42.2 (9487) 42.2 (9487)	
(SAE J49 Standard)				28.7 (6452) 28.7 (6452)	
Bucket tearout kN (lbf)		60 (13489) 60 (13489)		60 (13489) 60 (13489)	
Speed		60 (13489) 60 (13489)		60 (13489) 60 (13489)	
Power		N/A 68.7 (15444)		N/A 68.7 (15444)	

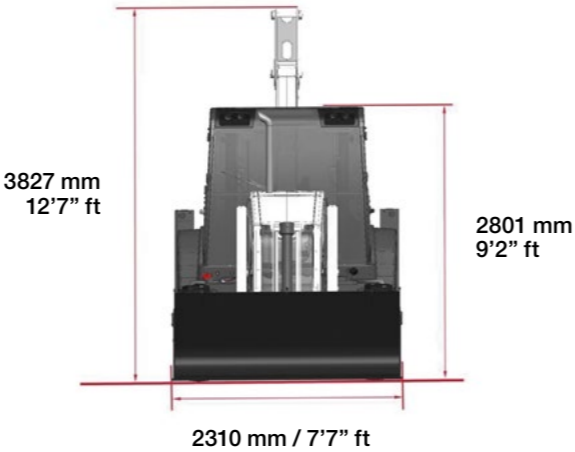
LOADER PERFORMANCE		Standard Bucket		7 in 1 Bucket	
Bucket breakout* kN (lbf)		42.0 (9442)		41.8 (9397)	
Arms breakout* kN (lbf)		45.4 (10206)		41.6 (9352)	
Lift capacity to full height** kg (lbs)		Hydraulic Limited		3249 (7163)	
Rated operating capacity ISO 14397		Stability Limited		2559 (5641)	

*Loader specifications are stated in accordance with ISO 14397 and EN474 Part 4.

**Based on basic machine configuration; cab, standard loader bucket, standard dipper stick, 24 in | 600 mm bucket, full fuel tank.



NOTE
Metric measurements are the critical values
Dimensions are taken from T152021
• 1 Litre = 0.26417 US Liquid Gallons
• 1 Litre = 0.21997 Imperial Liquid Gallons



Note: image is for reference purpose only

ENGINE	
Perkins 904J-E36TA	
EU Stage V / U.S. EPA Tier 4 Final*	
Wastegate turbocharger with charge air cooling	
Torque rise 38%	
Electronic fuel injection	
Stainless steel muffler and Exhaust Stack (DOC, SCR & DPF Exhaust System)	
500 hours service period	
Cylinders	4
Capacity	3.6 L (221 in³)
Rated speed	2200 rpm
Gross power @ 2200 rpm cert. rating to UN/ECE R120	74.5 kW (100 hp)
Derived net rating @ 2200 rpm to ISO/80/1269/EC	68.8 kW** (94 hp**)
Max Torque @ 1500 rpm	
UN/ECE R120	430 Nm (317 lb.ft)
Derived NET Torque	403 Nm (297 lb.ft)

*Depending on your Local Legislation - Environmental Protection Agency (EPA) - **Nominal non-certified values.

ELECTRICAL SYSTEM	
Wiring and connectors meet IP69 standard	
Maintenance free battery	
12 volt negative ground	
Battery isolator	
Jump start posts	
85 amp alternator	
Blade type fuses	
110 A/hr single battery with 920 CCA – EN Standard	

CAPACITIES		Ltrs (gals)
Fuel tank		135.0 (29.6)
Adblue Tank		19.0 (4.2)
Engine coolant		14.0 (3.7)
Engine oil (including filter)		9.0 (2.0)
Servo power synchro transmission		18.0 (4.0)
Synchro shuttle transmission		18.0 (4.0)
Rear axle (including final drives)		15.5 (3.4)
Front axle (including final drives)		9.5 (2.1)
Hydraulic tank		87.5 (19.2)

AXLES AND BRAKES		
Outboard planetary final drives for easier servicing		
Foot operated differential lock with 100% lockup		
16° front axle oscillation to maintain maximum ground contact and traction		
High capacity outboard mounted wet disc brakes		
Self equalizing and self adjusting		
Internal wet disc parking brake		
Selectable 2 or 4 wheel braking		
Axle Ratings	Max Static Loading	Max Dynamic Loading
Front kN (lb)	225 (50582)	90 (20259)
Rear kN (lb)	187.5 (42152)	75 (16867)

TURNING CIRCLES		
Without brakes m (ft)	Over Tyres	Over Bucket
	7.9 (26')	10.8 (35'8")
With brakes m (ft)	7.0 (23')	10.0 (33')

TRANSMISSION		
4 speed synchro shuttle gearbox		
Modulated forward and reverse clutch packs enable smooth direction changes		
De-clutch button on shift lever		
Direction control with neutral safety interlock		
Single stage torque converter with 3.01:1 stall ratio		
Tyres	Front:	12.5/80 x 18 12 PR TR-09 IND
	Rear:	16.9 x 28 12 PR TI-06 IND
Travel Speeds		Forward/Reverse Km/h (mph)
1st		5.9 (4)
2nd		9.5 (6)
3rd		20.2 (13)
4th		40 (25)

4 speed servo power synchro		
Automatic and manual shifting		
Push button kickdown and kick up in 1st and 2nd gear		
Automatic shifting between 4th, 3rd and 2nd		
Single stage torque convertor with 3.01:1 (Standard SPS)		
Tyres	Front:	12.5/80 x 18 12 PR TR-09 IND
	Rear:	16.9 x 28 12 PR TI-06 IND
Travel Speeds		Forward Km/h (mph)
1st		5.9 (4)
2nd		9.5 (6)
3rd		20.2 (13)
4th		40 (25)
Travel Speeds		Reverse Km/h (mph)
1st		5.9 (4)
2nd		9.5 (6)
3rd		20.2 (13)

HYDRAULIC SYSTEM	
Tandem gear pumps with unloader valve	
Closed centre control valves	
External oil level gauge	
125 micron suction strainer	
10 micron return line filter	
10 micron fittler breather	
Main pump flow @ 2200 rpm l/min (gpm US/gpm)	85 (22/19)
Secondary pump flow @ 2200 rpm l/min (gpm US/gpm)	58 (15/13)
System main relief setting bar (psi)	250 (3626)

OPERATING WEIGHTS	
Base Machine Weight* kg (lb)	8060 (17769)
7in1 Multipurpose Bucket (1.2m³) kg (lb)	+337 (743)
Loader Bucket Fork Kit kg (lb)	+153 (337)
Deep Dig Dipper kg (lb)	+217 (478)
ROPS Frame kg (lb)	-128 (282)



*Base operating weight includes cab, standard bucket, standard dipper, 600 mm (24") bucket, full tank of fuel and a 75kg (165 lb) operator

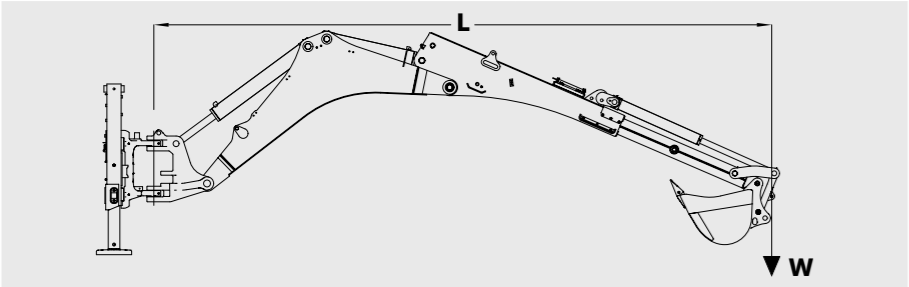
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TYRES
Mitas 18" Front - 28" Rear
Mitas 18" Front - 26" Rear
Mitas 20" Front - 26" Rear (Industrial)
Mitas 20" Front - 30" Rear (Industrial)
Michelin 20" Front - 28" Rear (Semi-industrial)
Michelin 20" Front - 30" Rear (Semi-industrial)
Michelin 18" Front - 28" Rear
Michelin 18" Front - 26" Rear

PALLET FORKS	Standard / 7 in 1 Bucket
Fork length	1067 mm (3'6")
Section width	80 mm (3")
Assembly weight kg (lb)	150 (330)
Max. operating height	3097 mm (10'2")
Reach at ground level	2660 mm (8'9")
Reach at full height	2251 mm (7'5")
S.W.L. at 500mm load centre kg (lb)	1000 (2204)

SIDESHIFT BACKHOE (Load chart for Extending Dipperstick using boom cylinder for lifting)	3.2 m (10'6")	4.1 m (13'5")	4.7 m (15'5")	5.2 m (17'1")	5.8 m (19')	6.1 m (20')
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	1269 kg (2798 lbs)	1163 kg (2564 lbs)	829 kg (1828 lbs)	846 kg (1865 lbs)	743 kg (1638 lbs)	578 kg (1274 lbs)
	1076 kg (2372 lbs)	1163 kg (2564 lbs)	829 kg (1828 lbs)	334 kg (736 lbs)	265 kg (584 lbs)	562 kg (1239 lbs)
	801 kg (1766 lbs)	974 kg (2147 lbs)	762 kg (1680 lbs)	610 kg (1345 lbs)	524 kg (1155 lbs)	416 kg (917 lbs)






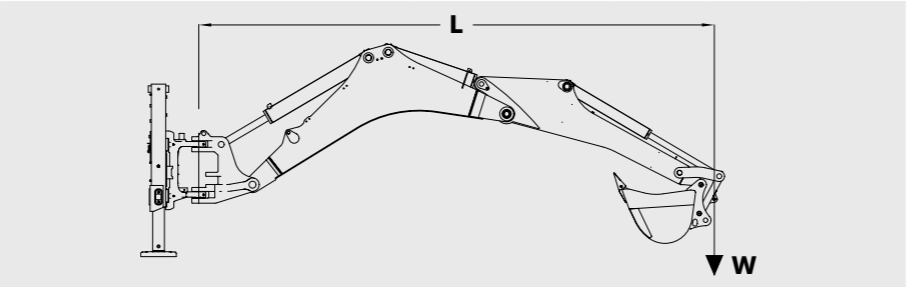
- Backhoe Configuration (Top to Bottom)
- Centrally located 'over end' lift capacity (within 45° either side of the machine centreline)
 - Centrally located lift capacity through the full swing arc
 - Fully offset lift capacity through the full swing arc

BACKHOE BUCKETS	Width mm (ins)	Capacity m³ (ft³)	Weight Kg (lbs)
Standard trenching	305 (12)	0.074 (2.62)	99 (218)
	450 (18)	0.120 (4.25)	114 (251)
	600 (24)	0.177 (6.26)	136 (300)
Heavy duty	750 (30)	0.236 (8.32)	157 (346)
	900 (36)	0.296 (10.44)	178 (392)
	305 (12)	0.084 (2.96)	112 (247)
	450 (18)	0.140 (4.96)	128 (282)
	600 (24)	0.203 (7.15)	152 (335)
	750 (30)	0.266 (9.38)	174 (383)
Ditch cleaning	900 (36)	0.330 (11.66)	198 (436)
	1500 (60)	0.262 (9.2)	180 (397)
	1800 (72)	0.317 (11.2)	204 (450)
Trapezoidal	1200 (48)	0.258 (9.1)	146 (322)

LOADER BUCKETS	Standard Bucket	7 in 1 Bucket
Width	2386 mm (7'8")	2386 mm (7'8")
Capacity m³ (yd³)	1.2 (1.57)	1.2 (1.57)
Weight kg (lbs)	430 (948)	430 (948)

SIDESHIFT BACKHOE (Load Chart for Standard Dipperstick using boom cylinder for lifting)	3.2 m (10'6")	3.8 m (12'6")	4.3 m (14'1")	4.6 m (15'1")	5.0 m (16'5")
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	1117 kg (2463 lbs)	1319 kg (2908 lbs)	1153 kg (2542 lbs)	1058 kg (2332 lbs)	979 kg (2158 lbs)
	1151 kg (2538 lbs)	1335 kg (2943 lbs)	1207 kg (2661 lbs)	1067 kg (2352 lbs)	956 kg (2108 lbs)
	803 kg (1770 lbs)	981 kg (2163 lbs)	819 kg (1806 lbs)	732 kg (1614 lbs)	665 kg (1466 lbs)



- Note
- Standard 600 mm (24") bucket fitted, for larger buckets subtract difference in weight from stated lift capacity
 - Figures stated are rated capacities, and are the lower of either the rated hydraulic lift capacity, or rated tipping load
 - Figures in bold print are stability limited figures

➔ STANDARD AND OPTIONAL EQUIPMENT

ENGINE (EU STAGE V / U.S. EPA TIER 4 FINAL*)

- Perkins 904J-E36TA
- Wastegate turbo and charge air cooled
- Electric fuel pump
- Electronic fuel injection
- Auto Idle
- 4 Glow plug starting aid
- Vertical spin on oil filter
- Primary fuel filter with water separator
- 500 hour service period
- Oil to water internal plate oil cooler

Engine gradeability fore/aft and side/side: 30°

Anti-freeze rated to -37° C

Coolant header tank

Alternator and fan drive by polygroove belt with auto tensioner

Gear driven water pump

Puller type 9 bladed cooling fan

Dual element Powercore air cleaner

Stainless steel muffler and Exhaust Stack (DOC, SCR & DPF Exhaust System)

ENGINE OPTIONS

Fan guard

DRIVE LINE

- Synchro shuttle transmission 4F/4R speeds
- Direction control with neutral safety interlock
- Transmission de-clutch on gear and loader controls
- Removable transmission oil cooler
- Vertical element oil filter
- Foot operated electro/hydraulic differential lock
- Outboard Planetary final drive axles
- Large capacity outboard oil immersed disc brakes
 - 2 Kevlar friction discs (289 mm dia) per side
 - Total friction area per side 1238 cm² (192 in²)
- Brakes self adjusting and self equalising
- Dual brake pedals with combined or independent use
- Internal wet disc parking brake
 - Max Parking Slope (unladen) 1:2
 - Max Parking Slope (laden) 1:2.5

- Hydrostatic steering with emergency manual operation
- 4WD standard
- Selectable 2 and 4 wheel braking

DRIVE LINE OPTIONS

- Servo power synchro (SPS) transmission 4F/3R speeds
- Column mounted rotational control lever
- Automatic shifting between 4th, 3rd and 2nd
- Kick down 2/1 and Kick up 1/2
- Torque Convertor stall ratio 3.01:1 (Standard SPS)

CAB AND CANOPY

- ROPS/FOPS conform to ISO 3471/3449
- Self cleaning footsteps and large grab handles

Internal rear view mirror

Folding external rear view mirrors

2 cup holders

Coat hook

Tilt and Telescopic steering wheel

Front and rear horn

Seat storage for operators manual

2 in (51 mm) retractable seat belt

3 auxiliary 12 volt outlets

Cab with 2 door access

Partial door locking

Opening rear quarter windows with internal operation

Full depth up and over rear window

Laminated windscreen

Tinted toughened safety glass

Front and rear screen washers and wipers

Standard fabric seat with mechanical suspension

Rotary hand throttle incorporating auto idle

Heater (7.37 kW)

Lockable chilled storage box

Digital clock

Cell phone holder with power plug

Pre installation of wiring for radio

Internal noise level 78 dB(a)

37 warnings either visual or audible

Engine hour meter

- 4 front and 4 rear LED worklights
- 4 Gauges for fuel level, engine coolant temperature, adblue level and rpm
- 2 external power sockets for beacon

CAB OPTIONS

- Air conditioning (7.6 kW cooling)
- Automatic Temperature Control
- Premium high back seat, heated with air suspension
- 3 in 1 seat belt
- Speedometer
- Radio kit

LOADER

- Mechanical - Hydraulic Anti-spill
- Control lever with transmission disconnect and pump
- dump buttons
- Single bucket cylinder
- Bucket cylinder cushioning
- Return to dig
- Integral Loader arm safety bar
- Standard bucket 1 m³ with lifting eye
- 7 in 1 bucket 1 m³ with lifting eye
- Bucket teeth or bolt on reversible cutting edge
- 7 in 1 bucket operation by thumb slider control

LOADER OPTIONS

- Standard bucket 1.2 m³ with lifting eye
- 7 in 1 bucket 1.2 m³ with lifting eye
- Pallet forks with safe working load of 1000 kgs
- 3rd hydraulic line with standard bucket
- Hose burst valves
- Ride control
- Bucket tooth guard
- Mechanical or hydraulic quick attach

BACKHOE

- Straight style boom
- Standard dipperstick
- Externally adjustable lubrication free wear pads (8)
- Cable operated dual transport lock
- Externally adjustable stabiliser wear pads
- SAE/ISO/Diagonal lever controls
- Standard trenching buckets with reversible side cutters

BACKHOE OPTIONS

- Inner slide extendable dipperstick
- Stabiliser lock out valves
- Boom and Dipper hose burst valves
- Hydraulic and Mechanical quick attach
- Auxiliary circuit with single and double acting operation
- HD buckets with power and speed positions
- Quick release rubber street pads

GENERAL POINTS

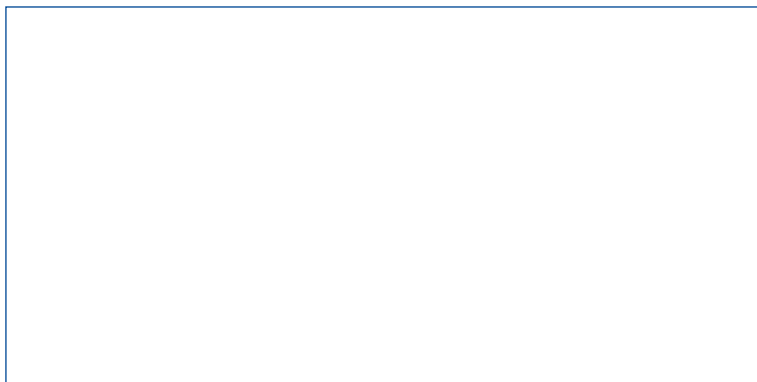
- Heavy duty chassis construction
- Lockable side mounted toolbox
- Fully tilting engine hood
- Lifting eyes and Tie downs (2 front and rear)
- Tandem gear pump hydraulics with mechanically operated backhoe controls

OPTIONS

- Reverse Warning Alarm
- Front Fenders
- Premium Brand Tyres
- Front hard nose counterweight

* Environmental Protection Agency (EPA) - Depending on your Local Legislation

Standard and optional equipment may vary. Consult your Mecalc dealer for details.

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