

Mecalac

Backhoe Loaders
Sideshift

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Mecalac



INSPIRING THE NEXT GENERATION

With almost 60 years' expertise in the design, development and manufacture of backhoe loaders, our world-renowned range is designed to deliver durability, versatility and productivity for the operator. Available in both centre mount and side shift variations, we have the perfect model for every application.

The dual functionality of our backhoe loaders combines the power of a wheel loader and the versatility of a compact excavator into one dynamic machine – productive, cost effective and flexible... enough to boost your bottom line!

Manufactured at our state-of-the-art production facility in the UK, we continue to innovate, setting new standards in compact construction.

KEY FEATURES

- High ground clearance to suit tough terrain
- Excellent operator visibility
- Ergonomically-designed controls
- Easy maintenance access
- Powerful hydraulics make light work of tough tasks
- Excellent lift capacity and bucket breakout force
- LED worklight for improved reliability and worksite illumination





THE TLB850: DESIGNED TO GET THE JOB DONE

Whether excavating, re-handling, transporting or driving, the TLB850 is an ideal addition to your backhoe fleet. Powered by a 70kw (94hp) charge air-cooled engine for smooth and efficient operation, the TLB850 balances power with efficiency for the perfect all-in-one machine solution.

Closed centre hydraulics ensure smooth, low effort control, making it ideally suited for both experienced and novice operators alike. Available with Stage IIIB (Tier 4 Interim) or Stage IIIA (Tier 3) engines, dependant on market, there's a perfect model for every application.



KEY MODEL DETAILS

Total operating weight (kg)	8230
Overall width (mm)	2310
Turning circle (mm)	7900
Travel speed (km/h)	40
Engine power (kW/hp)	70 / 94
Pump Flow (l/min)	142
Tearout force / Loader (daN)	4600

Breakout force / Loader (daN)	4650
Lift capacity @ Max Height (kg)	3307
Lift height / Loader (mm)	3615
Max. reach (mm)	6670
Max. depth (mm)	5390
Tear-out force / Excavator (daN)	3540
Break-out force / Excavator (daN)	6070



THE TLB870: EXCEPTIONAL COST EFFECTIVE PERFORMANCE

Modern, efficient and class-leading, the TLB870 has been specifically developed for the rental marketplace. Packed full of modern design features, the affordable loader is ideal for those looking towards a robust and reliable earthmoving solution.

The 55kw (74hp) Stage IIIB (Tier 4 final) engine meets emissions regulations without the use of DPFs or AdBlue, offering smooth power delivery and efficient operation. For non-compliant regions, a 70kw Stage IIIA (Tier 3) engine alternative can be specified.

An intelligent and efficient 'inloader' hydraulic system provides automatic control of the tandem gear pump to provide improvements in fuel efficiency and control, while best-in-class excavator dig depth, reach and dipper tear out finish an incredibly capable machine.



KEY MODEL DETAILS

Total operating weight (kg)	7695
Overall width (mm)	2310
Turning circle (mm)	7960
Travel speed (km/h)	39
Engine power (kW/hp)	55 / 74 (Stage IIIB)
Engine Power (kW/hp)	70 / 94 (Stage IIIA)
Hydraulic System	Open Centre
Pump Flow (l/min)	128

Tearout force / Loader (daN)	4600
Breakout force / Loader (daN)	4200
Lift capacity @ Max Height (kg)	3759
Lift height / Loader (mm)	3509
Max. reach (mm)	6995
Max. depth (mm)	5744
Tearout force / Excavator (daN)	4220
Breakout force / Excavator (daN)	6870



THE TLB890: EXTRA POWER, GREATER FLEXIBILITY

Designed for owner operators, the TLB890 delivers power, performance, an impressive reach and outstanding dig depth. Together, this ensures fast cycle times and greater operation economies.

With high breakout forces and lifting capabilities, the TLB890 backhoe loader is suited to a wide range of applications, including civil engineering, highway construction and maintenance, utilities and agriculture. Available with either a Stage IIIB (Tier 4 Interim) or Stage IIIA (Tier 3) 74.5kw (100hp) engine, the proven model retains a high residual value.



KEY MODEL DETAILS

Total operating weight (kg)	8775
Overall width (mm)	2386
Turning circle (mm)	7900
Travel speed (km/h)	40
Engine power (kW/hp)	74,5 / 100
Hydraulic System	Closed Centre
Pump Flow (l/min)	160
Tearout force / Loader (daN)	5110

Breakout force / Loader (daN)	5540
Lift capacity @ Max Height (kg)	3966
Lift height / Loader (mm)	3615
Max. reach (mm)	6950
Max. depth (mm)	5698
Tearout force / Excavator (daN)	4110
Breakout force / Excavator (daN)	6780



THE TLB990: EXCEPTIONAL COST EFFECTIVE PERFORMANCE

The TLB990 is designed for professionals who demand outstanding performance. Available with either a Stage IIIB (Tier 4 Interim) or Stage IIIA (Tier 3) 74.5kw (100hp) engine, our top-of-the-range loader is innovative, efficient and delivers impressive results.

Packed with new features and additions, including our four-wheel steering system and crab steer mode, the TLB990 has been centred around those in the driving seat, with productivity and ease of operation at the top of the priority list.



KEY MODEL DETAILS

Total operating weight (kg)	8765
Overall width (mm)	2386
Turning circle (mm)	7300
Travel speed (km/h)	39,5
Engine power (kW/hp)	74,5 / 100
Hydraulic System	Closed Centre
Pump Flow (l/min)	160
Tear-out force / Loader (daN)	5110

Break-out force / Loader (daN)	5540
Lift capacity @ Max Height (kg)	3966
Lift height / Loader (mm)	3671
Max. reach (mm)	6950
Max. depth (mm)	5640
Tearout force / Excavator (daN)	4110
Breakout force / Excavator (daN)	6780



THE RIGHT TOOLS FOR THE JOB

Alongside standard fittings, we offer a comprehensive range of attachments to make your backhoe the perfect tool for every job.

PALLET FORKS

- Safe working load at 500mm load centre – 2500kg
- Class 2B 100mm (4in) x 40mm (1.6in)
- Weight 228kg

HIGH-TIP BUCKET

- Heaped capacity of 0.97m³
- Dump height of 4100mm
- Weight 840kg

LOADER QUICK ATTACH

- Simple design
- Mechanical or hydraulic locking
- Picks up standard and 7-in-1 buckets

FARM FORK AND GRAPPLE

- 2290mm wide
- Perfect for handling manure and silage
- Can also be used in recycling applications

BROOM BUCKET

- Bucket capacity 0.58m³
- Max width 2750mm
- Max flow 76L/min
- Maximum pressure 207bar

7-IN-1 BUCKET

- Digging
- Loading
- Dozing
- Scraping
- Spreading
- Grabbing
- Lifting

HYDRAULIC BREAKER

- Powerful performance
- Max energy per blow 1100 Joules
- Blow rate 550-1100 per min
- Simple servicing

EXCAVATOR QUICK ATTACHES

- Hydraulic version enables bucket changing from the cab
- Picks up competitive buckets
- Mechanical version available



→ TECHNICAL DATA TLB850 TIER 3

BACKHOE DIMENSIONS*		Standard Dipper		Deep Dig Dipper	
		Retracted		Extended	
A	Dig depth	Maximum SAE	4371 mm [14'4"]	4371 mm [14'4"]	5390 mm [17'8"]
		2 ft Flat Bottom SAE	4324 mm [14'2"]	4324 mm [14'2"]	5344 mm [17'6"]
B	Reach – ground level to slew		5703 mm [18'9"]	5703 mm [18'9"]	6666 mm [21'10"]
C	Loading reach		2280 mm [7'6"]	2280 mm [7'6"]	3120 mm [10'3"]
D	Operating height		5211 mm [17'1"]	5211 mm [17'1"]	5794 mm [19'0"]
E	Loading height SAE		3615 mm [11'10"]	3635 mm [11'11"]	4215 mm [13'10"]
	Max dumping height		3465 mm [11'4"]	3465 mm [11'4"]	4044 mm [13'3"]
F	Straight wall dig depth		2685 mm [8'10"]	2685 mm [8'10"]	3635 mm [11'11"]
G	Bucket rotation degrees	Speed	194	196	196
		Power	164	166	166
Total sideshift			1178 mm [3'10"]	1178 mm [3'10"]	1178 mm [3'10"]
Stabiliser spread			2115 mm [6'11"]	2115 mm [6'11"]	2115 mm [6'11"]
Max. levelling angle degrees			8	8	8

*Includes standard 600mm HD bucket.

LOADER DIMENSIONS		Standard / 7in1 Bucket
N	Dump clearance – at 45°	2850 mm [9'4"]
O	Loader height	3369 mm [11'1"]
P	Hinge pin height	3615 mm [11'10"]
Q	Pin forward reach	315 mm [1'0"]
R	Reach at ground	1451 mm [4'9"]
S	Max. reach at full height	1186 mm [3'11"]
T	Reach at full height – at 45°	731 mm [2'5"]
	Dig depth	156 mm [5"]
U	Rollback at ground	50°
	Max. dump angle fully raised	47°
V	Overall operating height	4597 mm [15'0"]

BACKHOE PERFORMANCE		Standard Dipper	Deep Dig Dipper	
			Retracted	Extended
		Standard Bucket HD Bucket	Standard Bucket HD Bucket	Standard Bucket HD Bucket
Max Slew Torque kNm		25.32	25.32	25.32
Dipper tearout kN (lbf)				
[SAE J49 Standard]		35.4 [7961] 35.4 [7961]	35.4 [7961] 35.4 [7961]	26.2 [5892] 26.2 [5892]
Bucket tearout kN (lbf)				
[SAE J49 Standard]		52.9 [11897]	52.9 [11897] 52.9 [11897]	52.9 [11897] 52.9 [11897]
Speed				
Power		–	– 60.1 [12516]	– 60.1 [12516]

LOADER PERFORMANCE		Standard Bucket	7 in 1 Bucket
Bucket breakout kN (lbf)		46.5 [10485]	44.8 [10097]
Arms breakout kN (lbf)		46.0 [10329]	42.3 [9597]
Lift capacity to full height kg (lb)		3307 [7291]	2977 [6563]

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

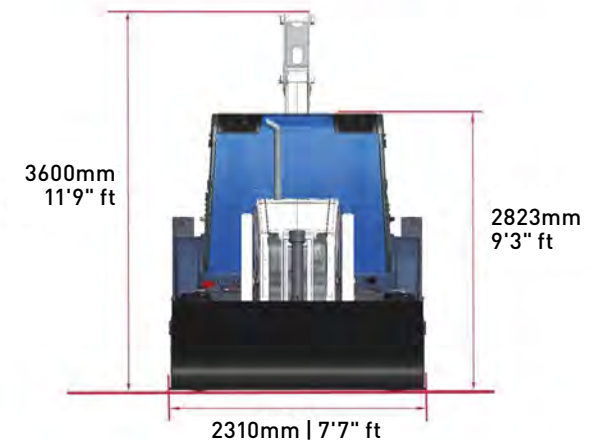


NOTE

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 1104D-44TA (Tier 3) with Wastegate turbocharger and Charge air cooling		Torque rise 31% Mechanical fuel injection Stainless steel muffler and Exhaust Stack 500 hour service period
Cylinders		4
Capacity		4.4 L (269 in³)
Rated speed		2200 rpm
Gross power @ 2200 rpm cert.rating to UN/ECE R120		70 kW (93.8 hp*)
Derived net rating @ 2200 rpm to ISO/80/1269/EC		65.7 kW (88.1 hp*)
Max Torque @ 1400 rpm		
UN/ECE R120		395 Nm (291 lb.ft*)
80/1269/EC		372 Nm (274 lb.ft*)
*Nominal non-certified values.		
ELECTRICAL SYSTEM		
Wiring and connectors meet IP69 standard		
Maintenance free battery		
12 volt negative ground		
Battery isolator		
Jump start posts		
120 amp alternator		
Blade type fuses		
110 A/hr single battery with 920 CCA – EN Standard		
140 A/hr dual batteries with 1260 CCA – EN Standard		
CAPACITIES		Ltrs (gals)
Fuel tank		135 (29.7)
Engine coolant		16.0 (3.5)
Engine oil (including filter)		8.5 (1.9)
Servo power synchro transmission		15.0 (3.3)
Synchro shuttle transmission		15.0 (3.3)
Rear axle (including final drives)		15.5 (3.4)
Front axle (including final drives)		9.5 (2.1)
Hydraulic tank		92.0 (20.4)
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		
Selectable 2 or 4 wheel braking		
Axle Ratings		Max Static Loading
Front kN (lb)		225 (50602)
Rear kN (lb)		187.5 (42169)
		Max Dynamic Loading
		90 (20259)
		75 (16867)
TURNING CIRCLES		
Without brakes m (ft)		Over Tyres 7.9 (25'9")
With brakes m (ft)		Over Bucket 10.6 (34'7")
		7.0 (23'0")
		9.7 (31'10")

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: Rear:	12.5 x 18 18.4 x 26	12.5/80 x 18 16.9 x 28	12.5/80 x 18 16.9 x 28
Travel Speeds	Forward/Reverse Km/h (mph)			
1st		5.7 (3.6)	5.7 (3.5)	5.9 (3.7)
2nd		9.2 (5.7)	9.1 (5.7)	9.6 (5.9)
3rd		20.3 (12.6)	20.0 (12.4)	21.0 (13.0)
4th		40.5 (25.1)	40.0 (24.8)	41.0 (25.6)
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 stall ratio				
Tyres	Front: Rear:	12.5 x 18 18.4 x 26	12.5/80 x 18 16.9 x 28	12.5/80 x 18 16.9 x 28
Travel Speeds	Forward Km/h (mph)			
1st		5.7 (3.6)	5.7 (3.5)	5.9 (3.7)
2nd		9.2 (5.7)	9.1 (5.7)	9.6 (5.9)
3rd		20.3 (12.6)	20.0 (12.4)	21.0 (13.0)
4th		40.5 (25.1)	40.0 (24.8)	41.0 (25.6)
Travel Speeds	Reverse Km/h (mph)			
1st		5.7 (3.6)	5.7 (3.5)	5.9 (3.7)
2nd		9.2 (5.7)	9.1 (5.7)	9.6 (5.9)
3rd		20.3 (12.6)	20.0 (12.4)	21.0 (13.0)
HYDRAULIC SYSTEM				
Tandem gear pumps with unloader valve				
Closed centre control valves				
Automatic or manually activated pump flows				
Power boost to match digging power and speed to application				
External oil level gauge				
Removable oil cooler				
125 micron suction strainer				
10 micron return line filter				
Main pump flow @ 2200 rpm L/min(gpm)				80 (17.7)
Secondary pump flow @ 2200 rpm L/min(gpm)				62 (13.7)
System main relief setting bar (psi)				250 (3625)
Unloader settings bar (psi)				207 (3000)
OPERATING WEIGHTS				
Base Machine Weight*				8050 kg (17747 lbs)
Add/Delete				
7 in 1 multi-purpose				+ 330 kg (728 lbs)
7 in 1 multi-purpose fork kit				+ 150 kg (330 lbs)
Deep dig dipper				+ 265 kg (584 lbs)
Front counterweight				+ 42 kg (92 lbs)
*Base operating weight includes cab, standard loader bucket, standard dipper stick, 600 mm bucket, full fuel tank and 75 kg operator.				

→ TECHNICAL DATA TLB850 TIER 3

TYRES

Front – Tractor Industrial 12.5/80 x 18 12 Ply Tubeless
 Rear – Tractor Industrial 16.9 x 28 12 Ply Tubeless
 Front – Super Traction Loader 12.5 x 18 10 Ply Tubeless
 Rear – Tractor Industrial 16.9 x 30 14 Ply Tubeless
 Front – Agricultural 12.5 x 18 10 Ply Tubeless
 Rear – Agricultural 18.4 x 26 12 Ply Tubeless
 Front – Industrial 16/70 x 20 14 Ply Tubeless
 Rear – Industrial 16.9 x 30 14 Ply Tubeless
 Front – Agricultural 405/70 x 20 14 Ply Tubeless
 Rear – Agricultural 18.4 x 26 12 Ply Tubeless

PALLET FORKS

Standard / 7in1 Bucket

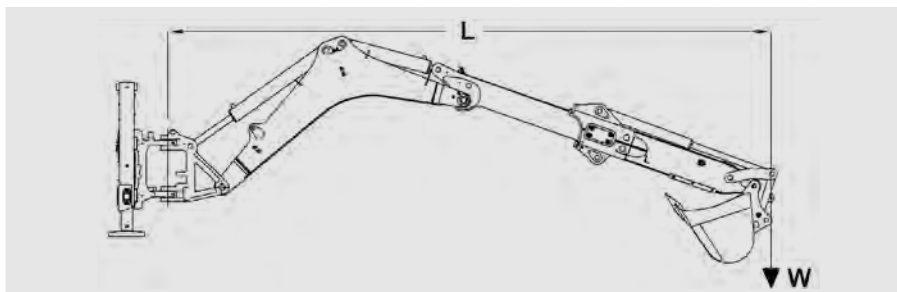
Fork length	1067 mm [3'6"]
Section width	80 mm [3"]
Assembly weight kg (lb)	150 [330]
Max. operating height	3097 mm [10'2"]
Reach at ground level	2660 mm [8'9"]
Reach at full height	2251 mm [7'5"]
S.W.L. at 500mm load centre kg (lb)	1000 [2204]

SIDESHIFT BACKHOE

(Load chart for Extending Dipperstick using boom cylinder for lifting)

2.8 m 3.7 m 4.3 m 4.8 m 5.2 m 5.8 m

	1159kg	969kg	947kg	942kg	889kg	797kg
	1159kg	866kg	595kg	467kg	397kg	334kg
	889kg	537kg	366kg	281kg	234kg	195kg



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]
Trapezoidal	1800 [72]	0.317 [11.2]	204 [450]
	1200 [48]	0.258 [9.1]	146 [322]

LOADER BUCKETS

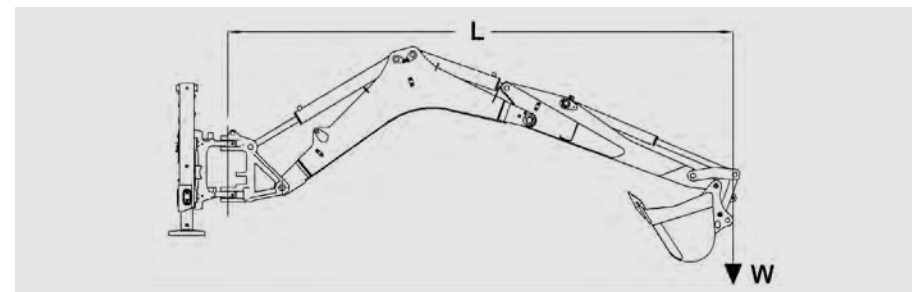
	Standard Bucket	7 in 1 Bucket
Width	2311 mm [7'7"]	2311 mm [7'7"]
Capacity m³ (yd³)	1.0 [1.32]	1.0 [1.32]
Weight kg (lbs)	400 [880]	730 [1606]

SIDESHIFT BACKHOE

(Load Chart for Standard Dipperstick using boom cylinder for lifting)

2.8 m 3.6 m 4.1 m 4.4 m 4.8 m

	1369kg	1335kg	1235kg	1130kg	1048kg
	1369kg	878kg	685kg	592kg	530kg
	877kg	577kg	457kg	398kg	360kg



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

Engine
Perkins 1104D-44TA (Tier 3)
Wastegate turbo and charge air cooled
Electric fuel pump
Mechanical fuel injection
4 Glow plug starting aid
Horizontal spin on oil filter
Primary fuel filter with water separator
Vertical element secondary fuel filter
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 expansion bottle
Alternator and fan drive by dual V belt
Gear driven water pump
Puller type 9 bladed cooling fan
Dual element Powercore air cleaner
Stainless steel muffler and exhaust stack

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
Servo power synchro transmission 4F/3R speeds
Column mounted rotational control lever
Automatic up and down shifting
Auto change down 4/3 and back
Kick down 2/1 and Kick up 1/2
Torque Convertor stall ratio 3.01:1
Easy clean 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 (289mm dia) per side
• Total friction area per side 1238cm² (192in²)
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 in all gears
Selectable 2 and 4WD

CAB AND CANOPY

ROPS/FOPS conform to ISO 3471/3449
Access from both sides
Self cleaning footsteps and large grab handles
Anti slip floor mat (canopy)
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 (51mm) retractable seat belt
Vinyl seat with mechanical suspension (canopy)
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
Heater (7.37kW)
Lockable chilled storage box
Digital clock
Cell phone holder with power plug
Pre installation of wiring for radio
Internal noise level 78 dB(a)
12 audible and visual warning lamps
Engine hour meter
4 front and 4 rear LED worklights
3 Gauges for engine oil temperature, fuel and rpm
2 external power sockets for beacon

CAB OPTIONS

Air conditioning (7.6 kW cooling)
Premium high back seat, heated with air suspension
3 in seat belt
Speedometer

CANOPY OPTIONS

Windscreen with wiper
Lockable vandal covers

LOADER

Mechanical - Hydraulic Anti-spill
Control lever with transmission and pump unload buttons
Single bucket cylinder
Bucket cylinder cushioning
Return to dig
Float position with positive hold
Bucket level indicator
Integral Loader arm safety bar
Standard bucket 1m³ (1.32yd³) with lifting eye
7in 1 bucket 1m³ (1.32yd³) with lifting eye
Bucket teeth or bolt on reversible cutting edge
7in1 bucket control lever with dual function

OPTIONS

Pallet forks with safe working load of 1000kgs
3rd hydraulic line with standard bucket
Hose burst valves
Ride control
Bucket tooth guard
Mechanical or hydraulic quick attach

BACKHOE

Curved style boom
Standard dipperstick
Outer slide "Deep Dig" dipperstick
Externally adjustable lubrication free wear pads (11)
Thumb cylinder mounting bracket incorporated
Replaceable serrated clamping plates
Electro/hydraulic dual transport lock
Externally adjustable stabiliser wear pads

SAE/ISO/Diagonal 2 lever controls
Standard trenching buckets with reversible side cutters

OPTIONS

Stabiliser lock out valves
Boom and Dipper hose burst valves
Hydraulic and Mechanical quick attach
Two auxilliary circuits with single and double acting operation
HD buckets with power and speed positions
Object handling kit
Quick release rubber street pads

GENERAL POINTS

Heavy duty chassis construction
Lockable side mounted toolbox
Fully tilting engine hood
Front hard nose counterweight
Lifting eyes and Tie downs (2 front and rear)

OPTIONS

Reverse warning alarm
Front fenders
2 extra front counterweights 42 kg (92lbs) each.

→ TECHNICAL DATA TLB870 TIER 3

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"]
		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		5182 mm [17'0"]	5182 mm [17'0"]	5782 mm [18'12"]
E	Loading height SAE		3963 mm [13'0"]	3963 mm [13'0"]	4939 mm [16'2"]
F	Max dumping height		3884 mm [12'9"]	3884 mm [12'9"]	4859 mm [15'11"]
G	Straight wall dig depth		2557 mm [8'5"]	2557 mm [8'5"]	3714 mm [12'2"]
	Bucket rotation degrees	Speed	194	194	194
	Stabiliser spread		2290 mm [7'6"]	2290 mm [7'6"]	2290 mm [7'6"]
	Max. levelling angle degrees		6.2	6.2	6.2

*Includes standard 600mm HD bucket.

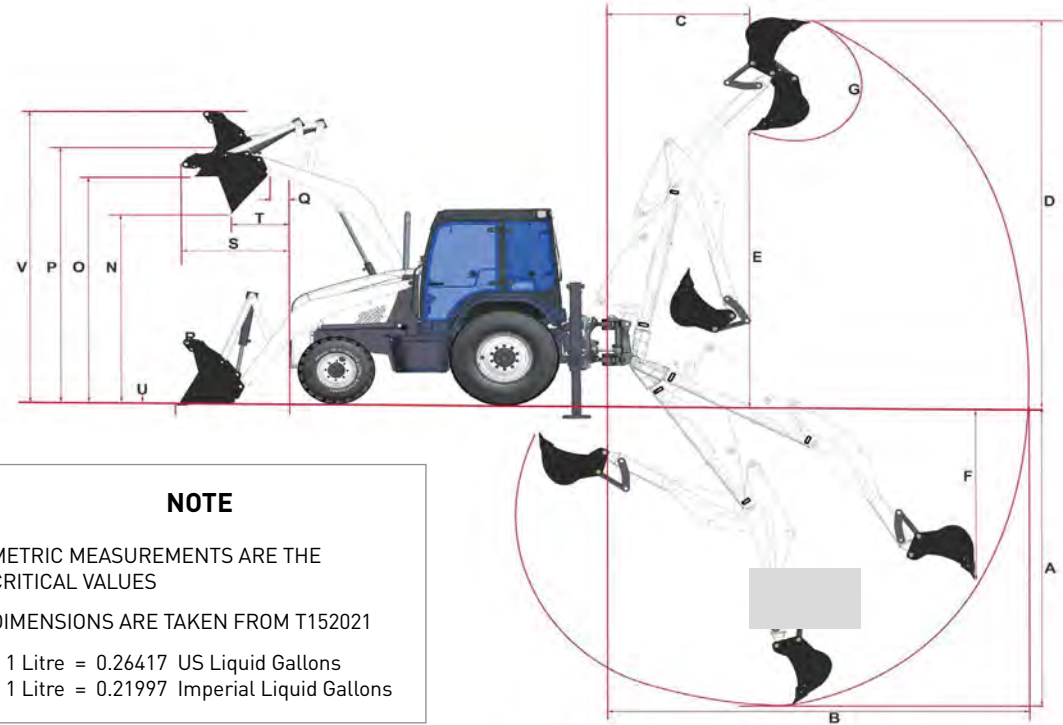
LOADER DIMENSIONS		Standard / 7in1 Bucket
N	Dump clearance – at 45°	2722 mm [8'11"]
O	Loader height	3262 mm [10'8"]
P	Hinge pin height	3509 mm [11'6"]
Q	Pin forward reach	385 mm [1'3"]
R	Reach at ground	1454 mm [4'9"]
S	Max. reach at full height	1214 mm [3'12"]
T	Reach at full height – at 45°	732 mm [2'5"]
	Dig depth	134 mm [0'5"]
U	Rollback at ground	42.4°
	Max. dump angle fully raised	49.6°
V	Overall operating height	4412 mm [14'6"]

BACKHOE PERFORMANCE		Standard Dipper		Deep Dig Dipper	
				Retracted	Extended
		Standard Bucket HD Bucket		Standard Bucket HD Bucket	Standard Bucket HD Bucket
Max slew torque kNm [lbf-ft]		20.7 (15267)		20.7 (15267)	
Dipper tearout kN [lbf] [SAE J49 Standard]		42.2 (9487) 42.2 (9487)		42.2 (9487) 42.2 (9487)	
Bucket tearout kN [lbf]		60 (13489) 60 (13489)		60 (13489) 60 (13489)	
		N/A 68.7 (15444)		N/A 68.7 (15444)	
				47 (10566) 47 (10566)	
				54 (12140) 54 (12140)	

LOADER PERFORMANCE		Standard Bucket
Bucket breakout* kN [lbf]		42 (9441.98)
Arms breakout* kN [lbf]		46(10341.2)
Lift capacity to full height** kN [lbf]		3759.34 kg [8288]
Rated operating capacity** kN [lbs]		2813.55 kg [6203]

*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.

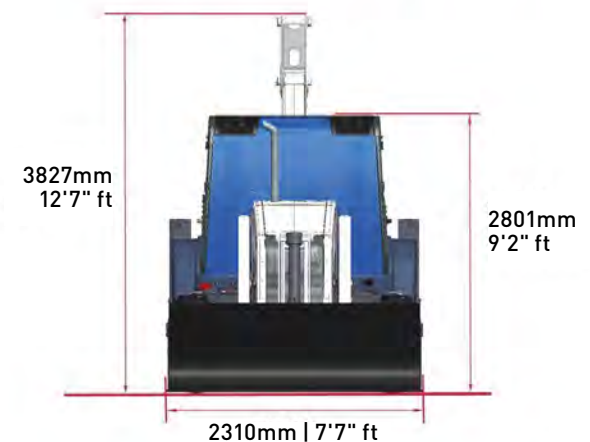


NOTE

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 1104D-44T (T3)	Torque Rise 29% Mechanical fuel injection
Cylinders	4
Capacity	4.4 L (269 in³)
Rated speed	2200 rpm
Gross power @ 2200rpm Cert. rating to ISO 14396:2002	70 kW (93.9 hp)
Derived net rating @ 2200 rpm	65.7 kW* (88.1 hp*)
Max Torque @ 1400 rpm	
ISO 14396:2002	392 Nm (289.1 lbf)

*Nominal non-certified values.

ELECTRICAL SYSTEM

External wiring and connectors meet IP69k standard
Maintenance free battery
12 volt negative ground
Battery isolator
100 amp alternator
Blade type fuses
100 A/hr single battery with 830 CCA-EN Standard

CAPACITIES

	Ltrs [gals US / gals]
Fuel tank	140 (30.8 / 37.0)
Engine coolant	16 (4.2 / 3.6)
Engine oil (including filter)	9.6 (2.5 / 2.1)
Synchro shuttle transmission	20 (5.3 / 4.4)
Rear axle (including final drives)	15.5 (4.1 / 3.4)
Front axle (including final drives)	9.1 (2.4 / 2.0)
Hydraulic tank	52 (13.7 / 11.4)

AXLES AND BRAKES

Outboard planetary drives for easier servicing		
Foot operated differential lock with 100% lockup		
16° front axle oscillation to maintain maximum ground contact to aid traction		
Power boosted inboard wet disc brakes		
Self equalizing and self adjusting brakes		
Selectable 2 or 4 wheel braking		
Axle Ratings	Max Static Loading	Max Dynamic Loading
Front kN (lbf)	225 [50582]	90 [20233]
Rear kN (lbf)	187.5 [42152]	75 [16861]

TURNING CIRCLES

	Over Tyres	Over Bucket
Without brakes m (ft)	7.96 (26'11")	10.86 (35'8")
With brakes m (ft)	7.26 (23'10")	10.07 (33'0")

TRANSMISSION

4 Speed synchro shuttle gearbox		
Modulated forward and reverse clutch packs enable smooth direction changes		
De-clutch button on gear 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		6 (4)
2nd		9.6 (6)
3rd		20.4 (13)
4th		38.47 (24)

HYDRAULIC SYSTEM

Tandem gear pumps with inloader valve	
Open centre valves	
External oil level gauge	
125 micron suction strainer	
10 micron return line filter	
10 micron filler breather	
Main pump flow @ 2200 rpm L/min(gpm US / gpm)	83 (22 / 18)
Secondary pump flow @ 2200 rpm L/min(gpm US / gpm)	45 (12 / 10)
System main relief setting bar (psi)	250 (3626)

OPERATING WEIGHTS

Base Machine Weight*	7655 kg (16876 lbs)
Add/Delete	
Deep dig dipper	+ 217 kg (478 lbs)
ROPS frame	- 128 kg (282 lbs)
7 in 1 multi-purpose	+ 330 kg (728 lbs)
7 in 1 multi-purpose fork kit	+ 150 kg (330 lbs)
Front counterweight	+ 42 kg (92 lbs)

*Base operating weight includes cab, standard loader bucket, standard dipper sticker, 24 in | 600 mm bucket, full fuel tank, 75 kg operator.

→ TECHNICAL DATA TLB870 TIER 3

TYRES

Front – 16/70-20 14PR – Semi-industrial
Rear – 16.9-30 14PR – Semi-industrial

PALLET FORKS

Standard / 7in1 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)

2.8m 4.1m 4.7m 5.2m 5.8m 6.1m



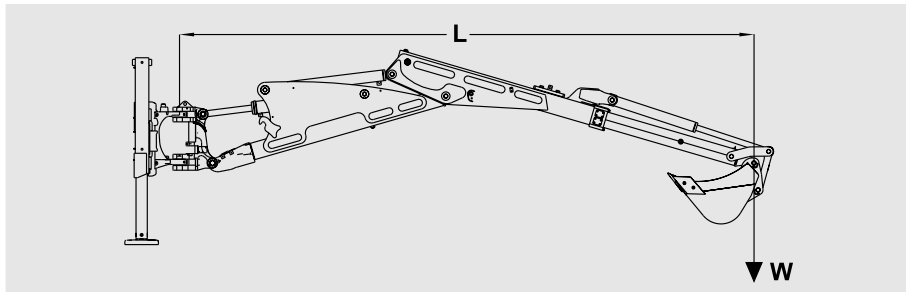
1269kg 1163kg 829kg 846kg 743kg 578kg



1076kg 1163kg 829kg 334kg 265kg 562kg



801kg 974kg 762kg 610kg 524kg 416kg



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	2311 mm (7'7")	2311 mm (7'7")
Capacity m³ (yd³)	1.0 (1.32)	1.0 (1.32)
Weight kg (lbs)	400 (880)	730 (1606)

SIDESHIFT BACKHOE

(Load Chart for Standard Dipperstick using boom cylinder for lifting)

3.2m 3.8m 4.3m 4.6m 5.0m

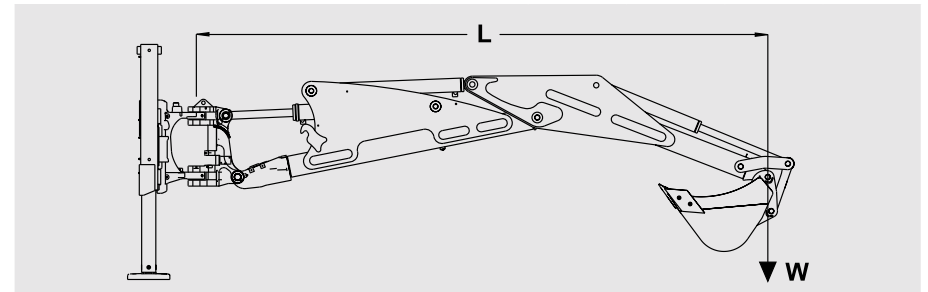


1117kg 1319kg 1153kg 1058kg 979kg



1151kg 1335kg 1207kg 1067kg 956kg

803kg 981kg 819kg 732kg 665kg



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

Perkins 1104D-44TA (Tier 3)
Wastegate turbo charger
Electric fuel pump
Mechanical fuel injection
4 glow plug starting aid
Horizontal spin on oil filter
Primary fuel filter with water separator
Vertical element secondary fuel filter
500hr service period
oil to water internal plate type oil cooler
Engine gradeability fore/aft and side/side of 30°
Anti-freeze rated to -37°C
Coolant expansion bottle
Alternator, Fan drive by dual V Belt
Gear driven water pump
Puller type 6 blade cooling fan
Dual element powercore air cleaner
Stainless steel muffler and exhaust stack

DRIVE LINE

Synchro shuttle transmission 4F/4R speeds
Direction control with neutral safety interlock
Transmission de-clutch on gear and loader controls
Torque converter stall ratio 3.01:1
Easy clean 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 - 3 kevlar friction discs per side
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 - Laden 1:2.5
Hydrostatic steering with emergency manual operation
4wd standard
Selectable 2 and 4 wheel braking in all gears
Selectable 2 and 4wd

CAB AND CANOPY

Cab with 2 door access
ROPS/FOPS conform to ISO3471/3449
Access from both sides
Self cleaning footsteps and large grab handles
Internal rear view mirror
Folding external rear view mirrors
2 cup holders
Coat hook
Tilt adjustable steering wheel
Side console mounted horn switch
Seat storage for operators manual
2in (51mm) retractable seat belt
1 auxiliary 12 volt outlet
Opening rear quarter windows with internal operation
Full depth up and over rear window
Laminated windscreen
Tinted toughened safety glass
Front and rear screen washer and wipers
Fabric seat with mechanical suspension
Cab heater (7.37kw)
Front side lights with direction indicators
Internal noise level 78dB (a)
Digital gauge for warning lights, fuel level, engine temperature, RPM and machine hours.
4 front and 4 rear worklights
2 external power points for beacons

CAB OPTIONS

3inch seat belt
Steering wheel spinner
Air conditioning (7.6kw cooling)

LOADER

Hydro-Mechanical Self leveling
Control lever with transmission disconnect button
Single bucket cylinder
Bucket cylinder cushioning
Return to dig
Float position with positive hold
Bucket level indicator
Integral loader arm safety bar
Standard 1m3 bucket with lifting eye
Bucket teeth or bolt on reversible cutting edge

OPTIONS

7in1 1m³ bucket with lifting eye
3rd hydraulic line with standard bucket
Pallet forks with safe working load of 1000kg
Ride control
Loader bucket return to dig
Bucket tooth guard
Hose burst valves
Mechanical Quick Attach

BACKHOE

Straight Style Boom
Standard dipperstick
Inner slide "deep dig" dipperstick
Externally adjustable lubrication free wear pads
Dual transport lock - Cable operated
Servo Excavator Controls
ISO/SAE pattern change switch

OPTIONS

Mechanical quick attach
Auxiliary hydraulics with single and double acting operation
Stab leg lock out valves
Boom and Dipper hose burst valves
Object Handling Kit
Standard trenching buckets with reversible side cutters
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)
18" front and 28" rear Mitas Tyres
Tandem gear pump with 'Inloader' hydraulic system

OPTIONS

Front Fenders
Cold start kit
Reverse Alarm
Front hard nose counterweight

→ TECHNICAL DATA TLB890 TIER 3

BACKHOE DIMENSIONS*			Standard Dipper		Deep Dig Dipper	
			Retracted		Extended	
A	Dig depth	Maximum SAE	4498 mm (14'9")	4498 mm (14'9")	5698 mm (18'8")	
		2 ft Flat Bottom SAE	4448 mm (14'7")	4448 mm (14'7")	5612 mm (18'5")	
B	Reach – ground level to slew		5877 mm (19'3")	5877 mm (19'3")	6950 mm (22'10")	
C	Loading reach		2274 mm (7'6")	2274 mm (7'6")	3293 mm (10'10")	
D	Operating height		5509 mm (18'1")	5509 mm (18'1")	6143 mm (20'2")	
E	Loading height SAE		3855 mm (12'8")	3855 mm (12'8")	4489 mm (14'9")	
	Max dumping height		3791 mm (12'5")	3791 mm (12'5")	4424 mm (14'6")	
F	Bucket rotation degrees	Speed	197	197	197	
		Power	166	166	166	
Total sideshift			1178 mm (3'10")	1178 mm (3'10")	1178 mm (3'10")	
Stabiliser spread			2115 mm (6'11")	2115 mm (6'11")	2115 mm (6'11")	
Max. levelling angle degrees			8	8	8	

LOADER DIMENSIONS		Standard / 7in1 Bucket
N	Dump clearance – at 45°	2850 mm [9'4"]
O	Loader height	3369 mm [11'1"]
P	Hinge pin height	3615 mm [11'10"]
Q	Pin forward reach	315 mm [1'0"]
R	Reach at ground	1451 mm [4'9"]
S	Max. reach at full height	1186 mm [3'11"]
T	Reach at full height – at 45°	731 mm [2'5"]
U	Dig depth	156 mm [6"]
	Rollback at ground	50°
V	Max. dump angle fully raised	47°
	Overall operating height	4682 mm [15'4"]

BACKHOE PERFORMANCE		Standard Dipper		Deep Dig Dipper	
		Retracted		Extended	
		Standard Bucket HD Bucket	Standard Bucket HD Bucket	Standard Bucket HD Bucket	Standard Bucket HD Bucket
Max Slew Torque kNm		27.8		27.8	
Dipper tearout kN [lbf] (SAE J49 Standard)		41.1 [9240] 41.1 [9240]		29 [6519] 29 [6519]	
Bucket tearout kN [lbf] (SAE J49 Standard)		Speed Power	60.3 [13556] 60.3 [13556] – 67.8 [15242]	60.3 [13556] 60.3 [13556] – 67.8 [15242]	60.3 [13556] 60.3 [13556] – 67.8 [15242]

LOADER PERFORMANCE		Standard Bucket	7 in 1 Bucket
Bucket breakout kN [lbf]		55.4 [12454]	53.7 [12072]
Arms breakout kN [lbf]		51.1 [11487]	47.8 [10746]
Rated operating capacity (ISO 14397) kg [lb]		3503 [7722]	3166 [6980]
Full height kg [lb]		3966 [8744]	3629 [8000]

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

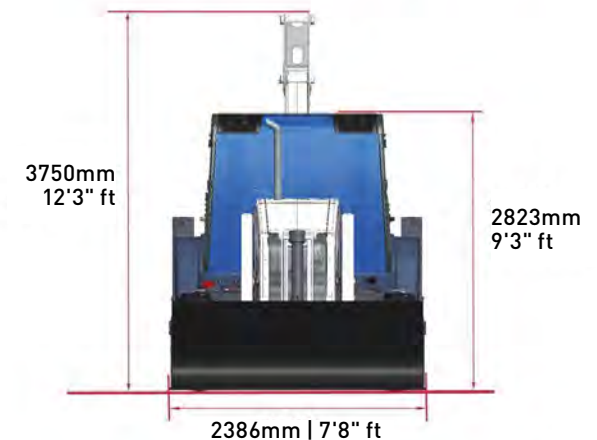


NOTE

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 1104D-44TA (Tier 3) with Wastegate turbocharger and Charge air cooling	Torque rise 23% Mechanical fuel injection Stainless steel muffler and Exhaust Stack 500 hour service period
Cylinders	4
Capacity	4.4 L (269 in ³)
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	69.9 kW (93.7 hp*)
Max Torque @ 1400 rpm UN/ECE R120 ISO 80/1269/EC	400 Nm (295 lb.ft*) 377 Nm (278 lb.ft*)

*Nominal non-certified values.

ELECTRICAL SYSTEM

Wiring and connectors meet IP69 standard
Maintenance free battery
12 volt negative ground
Battery isolator
Jump start posts
120 amp alternator
Blade type fuses
110 A/hr single battery with 920 CCA – EN Standard
140 A/hr dual batteries with 1260 CCA – EN Standard

CAPACITIES

Ltrs (gals)

Fuel tank	135 (29.7)
Engine coolant	16.0 (3.5)
Engine oil (including filter)	8.5 (1.9)
Servo power synchro transmission	15.0 (3.3)
Synchro shuttle transmission	15.0 (3.3)
Rear axle (including final drives)	15.5 (3.4)
Front axle (including final drives)	9.5 (2.1)
Hydraulic tank	92.0 (20.4)

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

	Over Tyres	Over Bucket
Without brakes m (ft)	7.9 (25'9")	10.6 (34'7")
With brakes m (ft)	7.0 (23'0")	9.7 (31'10")

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:	16/70 x 12 18.4 x 26	16/70 x 12 16.9 x 28	16/70 x 12 16.9 x 30
Travel Speeds		Forward/Reverse Km/h (mph)		
1st		5.7 (3.6)	5.7 (3.5)	5.9 (3.7)
2nd		9.2 (5.7)	9.1 (5.7)	9.6 (5.9)
3rd		20.3 (12.6)	20.0 (12.4)	21.0 (13.0)
4th		40.5 (25.1)	40.0 (24.8)	41.0 (25.6)

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 stall ratio

Tyres	Front:	16/70 x 12 18.4 x 26	116/70 x 12 18.4 x 26	16/70 x 12 16.9 x 30
Travel Speeds		Forward Km/h (mph)		
1st		5.7 (3.6)	5.7 (3.5)	5.9 (3.7)
2nd		9.2 (5.7)	9.1 (5.7)	9.6 (5.9)
3rd		20.3 (12.6)	20.0 (12.4)	21.0 (13.0)
4th		40.5 (25.1)	40.0 (24.8)	41.0 (25.6)
Travel Speeds		Reverse Km/h (mph)		
1st		5.7 (3.6)	5.7 (3.5)	5.9 (3.7)
2nd		9.2 (5.7)	9.1 (5.7)	9.6 (5.9)
3rd		20.3 (12.6)	20.0 (12.4)	21.0 (13.0)

HYDRAULIC SYSTEM

Tandem Gear Pumps with unloader valve on mechanical excavator control
Variable piston pump on servo excavator control
Closed centre control valves
Automatic or manually activated pump flows
Power Boost to match digging power and speed to application
External oil level gauge
Removable oil cooler
125 micron suction strainer
10 micron return line filter
Main pump flow @ 2200 rpm L/min(gpm)
Secondary pump flow @ 2200 rpm L/min(gpm)
Single variable piston pump @ 2200 rpm L/min(gpm)
System main relief setting bar (psi)
Unloader settings bar (psi)

OPERATING WEIGHTS

Base Machine Weight*	8433 kg (18592 lbs)
Add/Delete	
7 in 1 multi-purpose (1.2 m ³)	+ 337 kg (743 lbs)
7 in 1 multi-purpose fork kit	+ 150 kg (330 lbs)
Deep dig dipper	+ 235 kg (518 lbs)

*Base operating weight includes cab, standard loader bucket, standard dipper stick, 600 mm bucket, full fuel tank and 75 kg operator.

→ TECHNICAL DATA TLB890 TIER 3

TYRES

Front – 16/70-20 14PR – Semi-industrial
 Rear – 16.9-30 14PR – Semi-industrial
 Front – 405/70 20 14PR – Semi-agricultural
 Rear – 18.4-26 12PR – Semi-agricultural
 Front – 400/70-20 TL 149A8 – Multi-purpose
 Rear – 420/80-30 TL 155A8 – Multi-purpose
 Front – 400/70-20 TL 149A8 – Multi-purpose
 Rear – 480/80-26 TL 160A8 – Multi-purpose
 Front – 400/70-20 TL 149A8 – Multi-purpose
 Rear – 440/80-28 TL 156A8 – Multi-purpose

PALLET FORKS

Standard / 7in1 Bucket

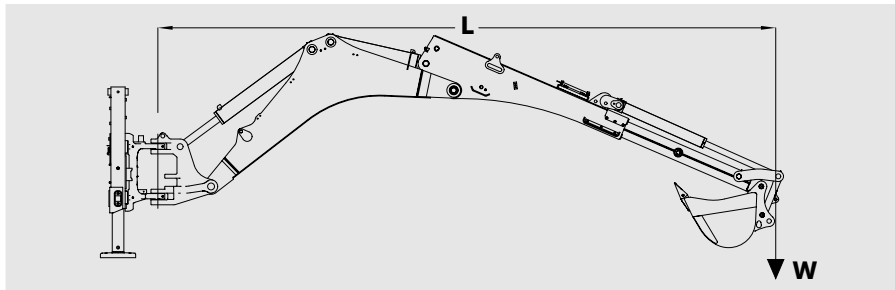
Fork length	1067 mm [3'6"]
Section width	80 mm [3"]
Assembly weight kg [lb]	150 [330]
Max. operating height	3097 mm [10'2"]
Reach at ground level	2660 mm [8'9"]
Reach at full height	2251 mm [7'5"]
S.W.L. at 500mm load centre kg [lb]	1000 [2204]

SIDESHIFT BACKHOE

(Load chart for Extending Dipperstick using boom cylinder for lifting)

3.2 m 4.1 m 4.7 m 5.2 m 5.8 m 6.1 m

	1106kg	1033kg	931kg	846kg	743kg	717kg
	1038kg	578kg	417kg	334kg	265kg	255kg
	442kg	213kg	127kg	83kg	50kg	48kg



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]
Trapezoidal	1800 [72]	0.317 [11.2]	204 [450]
	1200 [48]	0.258 [9.1]	146 [322]

LOADER BUCKETS

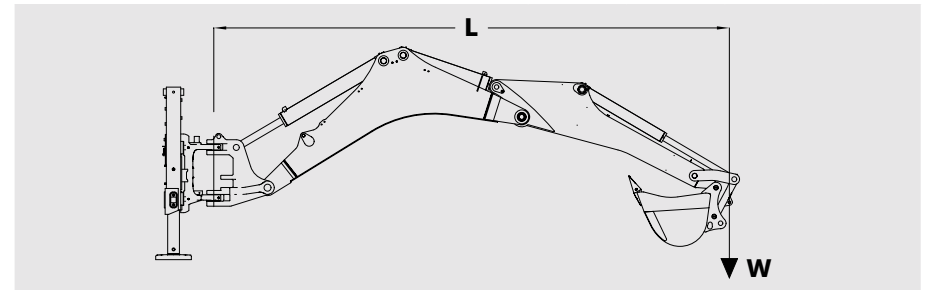
	Standard Bucket	7 in 1 Bucket
Width	2386 mm [7'8"]	2386 mm [7'8"]
Capacity m³ [yd³]	1.2 [1.57]	1.2 [1.57]
Weight kg [lbs]	430 [948]	430 [948]

SIDESHIFT BACKHOE

(Load Chart for Standard Dipperstick using boom cylinder for lifting)

3.2 m 3.8 m 4.3 m 4.6 m 5.0 m

	1368kg	1366kg	1221kg	1126kg	1052kg
	1214kg	820kg	658kg	576kg	524kg
	614kg	414kg	327kg	284kg	262kg



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

Perkins 1104D-44TA (Tier 3)
Wastegate turbo and charge air cooled
Electric fuel pump
Mechanical fuel injection
4 Glow plug starting aid
Horizontal spin on oil filter
Primary fuel filter with water separator
Vertical element secondary fuel filter
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 (-35° F)
Coolant expansion bottle
Alternator and fan drive by dual V belt
Gear driven water pump
Puller type 9 bladed cooling fan
Dual element Powercore air cleaner
Stainless steel muffler and exhaust stack

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
Servo power synchro transmission 4F/3R speeds
Column mounted rotational control lever
Automatic up and down shifting
Auto change down 4/3 and back
Kick down 2/1 and Kick up 1/2
Torque Converter stall ratio 3.01:1
Easy clean 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 (289mm dia) per side - Total friction area per side 1238cm² (192in²)
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 in all gears
Selectable 2 and 4WD

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
51 mm (2 in) 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
Heater (7.37kW)
Lockable chilled storage box
Digital clock
Cell phone holder with power plug
Pre installation of wiring for radio
Internal noise level 78 dB(A)
12 audible and visual warning lamps
Engine hour meter
4 rear work lights
3 Gauges for engine oil temperature, fuel 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 seat belt
Speedometer

LOADER

Hydro-Mechanical self levelling
Control lever with transmission and pump unload buttons
Single bucket cylinder
Bucket cylinder cushioning
Return to dig
Float position with positive hold
Bucket level indicator
Integral Loader arm safety bar
Standard bucket 1.2m ³ (1.57 yd ³) with lifting eye
7in1 bucket 1.2m ³ (1.57 yd ³) with lifting eye
Bucket teeth or bolt on reversible cutting edge
7in1 bucket control lever with dual function

OPTIONS

Pallet forks with safe working load of 1000kgs
3rd hydraulic line with standard bucket
Hose burst valves
Ride control
Bucket tooth guard
Mechanical quick attach

BACKHOE

Curved style boom
Standard dipperstick
Inner slide "Deep Dig" dipperstick
Externally adjustable lubrication free wear pads (8)
Electro/hydraulic dual transport lock
Externally adjustable stabiliser wear pads
SAE/ISO/Diagonal 2 lever controls
Standard trenching buckets with reversible side cutters

OPTIONS

Stabiliser lock out valves
Boom and Dipper hose burst valves
Hydraulic and Mechanical quick attach
Two auxiliary circuits with single and double acting operation
HD buckets with power and speed positions
Object handling kit
Quick release rubber street pads

GENERAL POINTS

Heavy duty chassis construction
Lockable side mounted toolbox
Fully tilting engine hood
Front hard nose counterweight
Lifting eyes and Tie downs (2 front and rear)
Tandem gear pump hydraulics with mechanically operated
Backhoe controls
Variable flow hydraulics with pilot operated
Backhoe controls

OPTIONS

Reverse Warning Alarm
Front Fenders
Premium Brand Tyres

→ TECHNICAL DATA TLB990 STAGE TIER 3

BACKHOE DIMENSIONS*		Standard Dipper		Deep Dig Dipper	
		Retracted		Extended	
A	Dig depth	Maximum SAE	4442 mm (14'7")	4442 mm (14'7")	5642 mm (18'6")
		2 ft Flat Bottom SAE	4392 mm (14'5")	4392 mm (14'5")	5556 mm (18'3")
B	Reach – ground level to slew		5877 mm (19'3")	5877 mm (19'3")	6950 mm (22'10")
C	Loading reach		2274 mm (7'6")	2274 mm (7'6")	3293 mm (10'10")
D	Operating height		5509 mm (18'3")	5509 mm (18'3")	6199 mm (20'4")
E	Loading height SAE		3911 mm (12'10")	3911 mm (12'10")	4545 mm (14'11")
	Max dumping height		3847 mm (12'7")	3847 mm (12'7")	4480 mm (14'8")
F	Bucket rotation degrees	Speed	197	197	197
		Power	166	166	166
Total sideshift			1178 mm (3'10")	1178 mm (3'10")	1178 mm (3'10")
Stabiliser spread			2115 mm (6'11")	2115 mm (6'11")	2115 mm (6'11")
Max. levelling angle degrees			8	8	8

LOADER DIMENSIONS		Standard / 7in1 Bucket
N	Dump clearance – at 45°	2906 mm (9'6")
O	Loader height	3425 mm (11'3")
P	Hinge pin height	3671 mm (12'0")
Q	Pin forward reach	315 mm (1'0")
R	Reach at ground	1451 mm (4'9")
S	Max. reach at full height	1186 mm (3'11")
T	Reach at full height – at 45°	731 mm (2'5")
	Dig depth	100 mm (4")
U	Rollback at ground	50°
	Max. dump angle fully raised	47°
V	Overall operating height	4738 mm (15'6")

BACKHOE PERFORMANCE		Standard Dipper	Deep Dig Dipper	
			Retracted	Extended
		Standard Bucket HD Bucket	Standard Bucket HD Bucket	Standard Bucket HD Bucket
Max Slew Torque kNm		27.8	27.8	27.8
Dipper tearout kN (lbf)		41.1 (9240) 41.1 (9240)	41.1 (9240) 41.1 (9240)	29 (6519) 29 (6519)
Bucket tearout kN (lbf)		60.3 (13556) 60.3 (13556)	60.3 (13556) 60.3 (13556)	60.3 (13556) 60.3 (13556)
(SAE J49 Standard)		– 67.8 (15242)	– 67.8 (15242)	– 67.8 (15242)

LOADER PERFORMANCE		Standard Bucket	7 in 1 Bucket
Bucket breakout kN (lbf)		55.4 (12454)	53.7 (12072)
Arms breakout kN (lbf)		51.1 (11487)	47.8 (10746)
Rated operating capacity (ISO 14397) kg (lb)		3503 (7722)	3166 (6980)
Full height kg (lb)		3966 (8744)	3629 (8000)

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

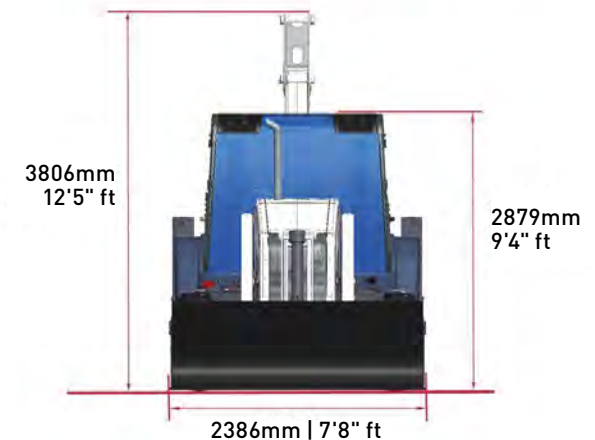


NOTE

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 1104D-44TA (Tier 3) with Wastegate turbocharger and Charge air cooling		Torque rise 23% Mechanical fuel injection Stainless steel muffler and Exhaust Stack 500 hour service period	
Cylinders			4
Capacity			4.4 L (269 in ³)
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			69.9 kW (93.7 hp*)
Max Torque @ 1400 rpm			
UN/ECE R120			400 Nm (295 lb.ft*)
ISO 80/1269/EC			377 Nm (278 lb.ft*)
*Nominal non-certified values.			
ELECTRICAL SYSTEM			
Wiring and connectors meet IP69 standard			
Maintenance free battery			
12 volt negative ground			
Battery Isolator			
Jump start posts			
120 amp alternator			
Blade type fuses			
110 A/hr single battery with 920 CCA - EN Standard			
140 A/hr dual batteries with 1260 CCA - EN Standard			
CAPACITIES		Ltrs (gals)	
Fuel tank			135 (29.7)
Engine coolant			16.0 (3.5)
Engine oil (including filter)			8.5 (1.9)
Servo power synchro transmission			15.0 (3.3)
Rear axle (including final drives)			14.5 (3.19)
Front axle (including final drives)			7.5 (1.65)
Rear reduction axle (each)			1.5 (0.33)
Front reduction axle (each)			1.0 (0.22)
Hydraulic tank			92.0 (20.4)
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			
Self equalizing and self adjusting			
Internal wet disc parking brake			
Selectable 2 or 4 wheel braking			
Selectable 2 or 4 wheel braking			
Axle Ratings	Max Static Loading	Max Dynamic Loading	
Front kN (lb)	225 (50582)	90 (20233)	
Rear kN (lb)	275 (61822)	105 (23605)	

TURNING CIRCLES			
		Over Tyres	Over Bucket
2 wheel steer		11.4 (37'4")	13.1 (42'10")
4 wheel steer		7.3 (23'10")	9.3 (30'5")
With brakes m (ft)		6.7 (21'10")	8.8 (28'9")
TRANSMISSION			
4 speed Servo Power Synchro			
Automatic and manual shifting in all 4 gears			
Push button kickdown and kick up in 1st and 2nd gear			
Auto drop down from 4th to 3rd and back			
Single stage torque convertor with 3.01:1 stall ratio			
Tyres	Front:	16.9 x 24	
	Rear:	16.9 x 24	
Travel Speeds		Forward Km/h (mph)	
1st		6.2 (3.8)	
2nd		10.0 (6.2)	
3rd		21.7 (13.5)	
4th		39.5 (27.1)	
Travel Speeds		Reverse Km/h (mph)	
1st		6.2 (3.8)	
2nd		10.0 (6.2)	
3rd		21.7 (13.5)	
HYDRAULIC SYSTEM			
Tandem Gear Pumps with unloader valve on mechanical excavator control			
Variable piston pump on servo excavator control			
Closed centre control valves			
Automatic or manually activated pump flows			
Power Boost to match digging power and speed to application			
External oil level gauge			
Removable oil cooler			
125 micron suction strainer			
10 micron return line filter			
Main pump flow @ 2200 rpm L/min(gpm)		80 (17.7)	
Secondary pump flow @ 2200 rpm L/min(gpm)		80 (17.7)	
Single variable piston pump @ 2200 rpm L/min(gpm)		152 (33.4)	
System main relief setting bar (psi)		250 (3625)	
Unloader settings bar (psi) (Gear pump only)		207 (3000)	
OPERATING WEIGHTS			
Base Machine Weight*		8428 kg (18581 lbs)	
Add/Delete			
7 in 1 multi-purpose (1.2m³)		+ 337 kg (743 lbs)	
7 in 1 multi-purpose fork kit		+ 150 kg (330 lbs)	
Deep dig dipper		+ 235 kg (584 lbs)	

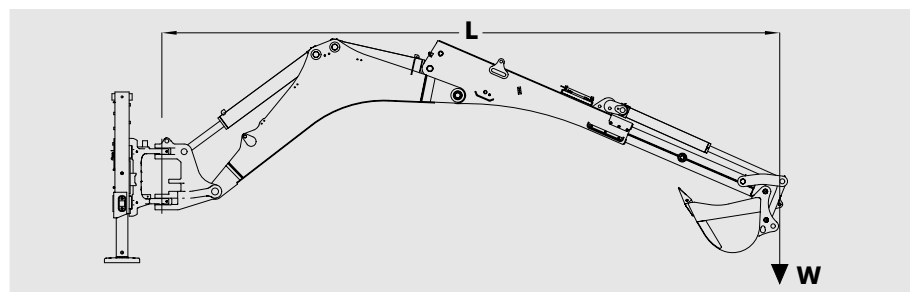
* Base operating weight includes cab, standard loader bucket, standard dipper stick, 600 mm bucket, full fuel tank and 75 kg operator.

→ TECHNICAL DATA TLB990 TIER 3

TYRES	
Michelin 440/80 R24 TL 161A8/161B IND XMCL	
Michelin 440/80-24 TL 168A8 Power CL	
Goodyear 440/80 R24 IND R4 IT530 Radial	
Nokian 440/80 R24	
Continental 445/70 R24 MPT70	
Mitas 16.9 x 24 12P TI-04 IND	
PALLET FORKS	
	Standard / 7in1 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	4.1 m	4.7 m	5.2 m	5.8 m	6.1 m
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	1106kg	1033kg	931kg	846kg	743kg	717kg
	1038kg	578kg	417kg	334kg	265kg	255kg
	442kg	213kg	127kg	83kg	50kg	48kg



Backhoe Configuration (Top to Bottom)

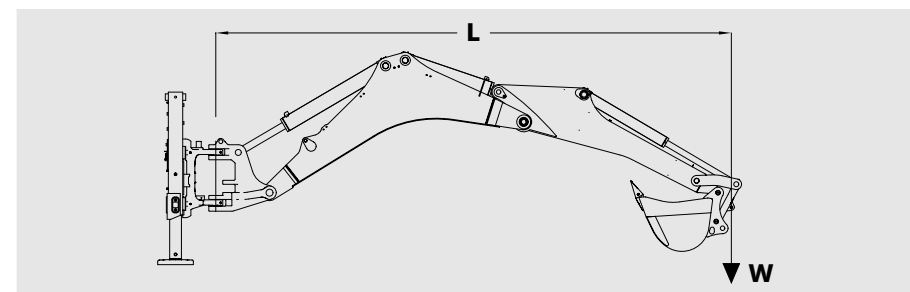
- Centrally located 'over end' lift capacity (within 45° either side of the machine centreline)
- Centrally located lift capacity through the full swing arc
- Fully offset lift capacity through the full swing arc

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)	767 (1691)

SIDESHIFT BACKHOE (Load Chart for Standard Dipperstick using boom cylinder for lifting)	3.2 m	3.8 m	4.3 m	4.6 m	5.0 m
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	1368kg	1366kg	1221kg	1126kg	1052kg
	1214kg	820kg	658kg	576kg	524kg
	614kg	414kg	327kg	284kg	262kg



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 (STAGE IIIB/TIER 4I)

Perkins 1104D-44TA (Tier 3)
Wastegate turbo and charge air cooled
Electric fuel pump
Mechanical fuel injection
4 Glow plug starting aid
Horizontal spin on oil filter
Primary fuel filter with water separator
Vertical element secondary fuel filter
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 expansion bottle
Alternator and fan drive by dual V belt
Gear driven water pump
Puller type 9 bladed cooling fan
Dual element Powercore air cleaner
Stainless steel muffler and exhaust stack

ENGINE OPTIONS

Fan guard

DRIVE LINE

Direction control with neutral safety interlock
Servo power synchro transmission 4F/3R speeds
Column mounted rotational control lever
Automatic up and down shifting
Auto change down 4/3 and back
Kick down 2/1 and Kick up 1/2
Torque Converter stall ratio 3.01:1
Easy clean transmission oil cooler
Vertical element oil filter
Foot operated electro/hydraulic differential lock
Outboard Planetary final drive axles
Large capacity inboard oil immersed disc brakes
3 Kevlar friction discs (222mm dia) per side - Total friction area per side 1070cm² (166in²)
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 in all gears
Selectable 2 and 4WD
2 wheel steering
4 wheel steering
Crab steering

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 (51mm) 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
Heater (7.37kW)
Lockable chilled storage box
Digital clock
Cell phone holder with power plug
Pre installation of wiring for radio
Internal noise level 78 dB(a)
12 audible and visual warning lamps
Engine hour meter
4 front and 4 rear LED worklights
3 Gauges for engine oil temperature, fuel 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 seat belt
Speedometer

LOADER

Mechanical - Hydraulic Anti-spill
Control lever with transmission and pump unload buttons
Single bucket cylinder
Bucket cylinder cushioning
Return to dig
Float position with positive hold
Bucket level indicator
Integral Loader arm safety bar
Standard bucket 1.2m ³ with lifting eye
7 in 1 bucket 1.2m ³ with lifting eye
Bucket teeth or bolt on reversible cutting edge
7 in 1 bucket control lever with dual function

OPTIONS

Pallet forks with safe working load of 1000kgs
3rd hydraulic line with standard bucket
Hose burst valves
Ride control
Bucket tooth guard
Mechanical quick attach

BACKHOE

Curved style boom
Standard dipperstick
Inner slide "Deep Dig" dipperstick
Externally adjustable lubrication free wear pads (8)
Electro/hydraulic dual transport lock
Externally adjustable stabiliser wear pads
SAE/ISO/Diagonal 2 lever controls
Standard trenching buckets with reversible side cutters

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Boom and Dipper hose burst valves
Hydraulic and Mechanical quick attach
Two auxiliary circuits with single and double acting operation
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Object handling kit
Quick release rubber street pads

GENERAL POINTS

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Lockable side mounted toolbox
Fully tilting engine hood
Front hard nose counterweight
Lifting eyes and Tie downs (2 front and rear)
Tandem gear pump hydraulics with mechanically operated
Backhoe controls
Variable flow hydraulics with pilot operated
Backhoe controls

OPTIONS

Reverse Warning Alarm
Front Fenders
Premium Brand Tyres



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