

## Extra power - greater flexibility

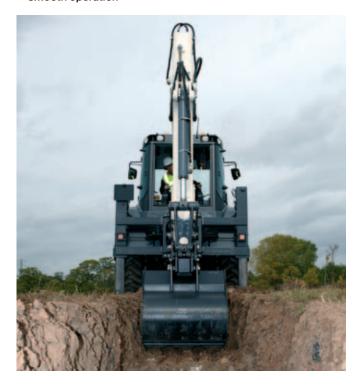
Designed around the needs of the owner operator, the TLB890 backhoe loader is a powerhouse of productivity delivering impressive levels of reach and dig depth with fast cycle times and greater economy.

A heavyweight in terms of productivity with high breakout forces and lifting capabilities, the TLB890 backhoe loader is ideally suited to the widest range of applications including civil engineering, highway construction & maintenance, utilities and agriculture.

Delivering faster cycle times and greater economy while returning a high residual value, the TLB890 backhoe loader helps your business increase its return on investment.

#### What this means for you

- ▶ Higher hydraulic flow rates to power attachments
- New slew system provides high torque for easier backfilling and slewing uphill
- New servo power synchro transmission ensures smooth operation



## In a league of its own

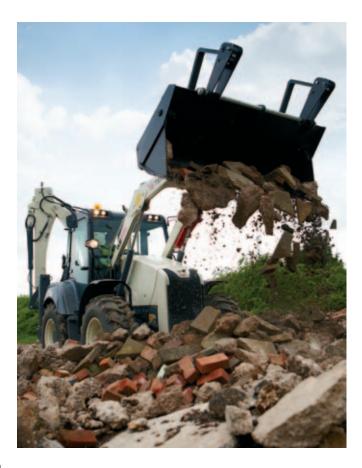
The TLB990 backhoe loader is designed for professionals who demand the highest performance and cost effective operation all-year-round with an excellent return on investment.

The four wheel steering system combined with four wheel drive provides excellent traction that allows the TLB990 to keep working in conditions where other backhoes simply cannot.

The crab steer mode allows the TLB990 backhoe loader to operate in the tightest of spaces reducing the need for additional machines. You can select between two, four and crab steering modes with the flick of a switch.

#### What this means for you

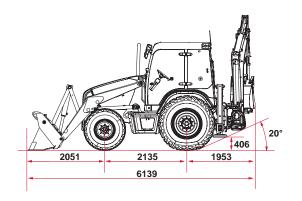
- Four wheel steering provides a turning circle of only 7.3m
- Identical size wheels all around for higher flotation
- Crab steer mode allows access into tight areas

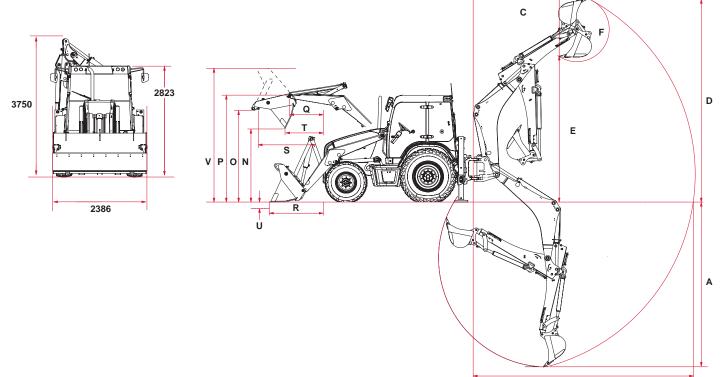




# **LOADER DIMENSIONS**

	Standard / 7 in 1 Bucket mm (ft)
N. Dump Clearance – at 45°	2850 (9'4")
O. Loadover Height	3369 (11'1")
P. Hinge Pin Height	3615 (11'10")
Q. Pin Forward Reach	315 (1'0")
R. Reach at Ground	1451 (4'9")
S. Max. Reach at Full Height	1186 (3'11")
T. Reach at Full Height – at 45°	731 (2'5")
U. Dig Depth Rollback at Ground Max. Dump Angle Fully Raised	156 (6") 50° 47°
V. Overall Operating Height	4682 (15'4")





# **BACKHOE DIMENSIONS**

Standard Dipper – mm (ft)		Deep Dig Dipper – mm (ft)		
			Retracted	Extended
A. Dig Depth	Maximum SAE 2ft Flat Bottom SAE	4498 (14'9") 4448 (14'7")	4498 (14'9") 4448 (14'7")	5698 (18'8") 5612 (18'5")
B. Reach - Ground Level to s	lew	5877 (19'3")	5877 (19'3")	6950 (22'10")
C. Loading Reach		2274 (7'6")	2274 (7'6")	3293 ( 10'10")
D. Operating Height		5509 (18'1")	5509 (18'1")	6143 (20'2")
E. Loading Height SAE Max Dumping Height		3855 (12'8") 3791 (12'5")	3855 (12'8") 3791 ( 12'5")	4489 ( 14'9") 4424 (14'6")
F. Bucket Rotation Degrees	Speed Power	197 166	197 166	197 166
Total Sideshift		1178 (3'10")	1178 (3'10")	1178 (3'10")
Stabiliser Spread		2115 (6'11")	2115 (6'11")	2115 (6'11")
Max. Levelling Angle Degree	S	8	8	8

# **SPECIFICATIONS**

## **BACKHOE PERFORMANCE**

		Standard Dipper			Deep Dig	Dipper	
				Retracte	d	Extende	d
		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) (SAE J49 Standard)		41.1 (9240)	41.1 (9240)	41.1 (9240)	41.1 (9240)	29 (6519)	29 (6519)
Bucket Tearout kN (lbf) (SAE J49 Standard)	Speed Dig	60.3 (13556)	60.3 (13556)	60.3 (13556)	60.3 (13556)	60.3 (13556)	60.3 (13556)
	Power Dig	-	67.8 (15242)	-	67.8 (15242)	-	67.8 (15242)

## **LOADER PERFORMANCE**

Standard Bucket	7 in 1 Bucket
55.4 (12454)	53.7 (12072)
51.1 (11487)	47.8 (10746)
3503 kg (7722)	3166 kg (6980)
3966 kg (8744)	3629 kg (8000)
	55.4 (12454) 51.1 (11487) 3503 kg (7722)

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

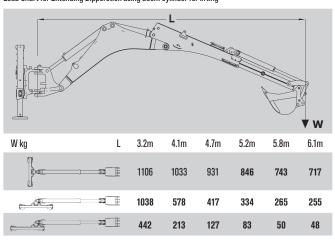
#### **PALLET FORKS**

#### (Standard / 7 in 1 buckets)

Fork Length	mm (ft)	1067 (3'6")
Section Width	mm (ins)	80 (3")
Assembly Weight	kg (lb)	150 (330)
Max. Operating Height	mm (ft)	3097 (10'2")
Reach At Ground Level	mm (ft)	2660 (8'9")
Reach At Full Height	mm (ft)	2251 (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



#### **Backhoe Configuration (Top to Bottom)**

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

#### Note

- Standard 600mm (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

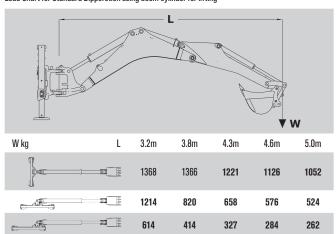
## **BACKHOE BUCKETS**

Bucket	Width mm (ins)	Capacity m³ (ft³)	Weight Kg (lbs)
	305 (12)	0.074 (2.62)	99 (218)
Standard Trenching	450 (18)	0.120 (4.25)	114 (251)
_	600 (24)	0.177 (6.26)	136 (300)
	750 (30)	0.236 (8.32)	157 (346)
	900 (36)	0.296 (10.44)	178 (392)
Heavy Duty	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)
	900 (36)	0.330 (11.66)	198 (436)
Ditch Cleaning	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	mm (ft)	2386 (7'8")	2386 (7'8")
Capacity	m³ (yd³)	1.2 (1.57 )	1.2 (1.57)
Weight	Kg (lbs)	430 (948 )	767 (1691)

Load Chart for Standard Dipperstick using boom cylinder for lifting



# **STANDARD AND OPTIONAL EQUIPMENT**

NOTE: Standard and Optional equipment can vary by territory

#### **ENGINE**

Perkins 1204E-E44TA (Stage IIIB/Tier 4i)

Wastegate turbo and charge air cooled

Electric fuel pump

Electronic fuel injection

Auto Idle

4 Glow plug starting aid

Horizontal spin on oil filter

Primary fuel filter with water separator

Vertical element secondary fuel filter

In line 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 header tank

Alternator and fan drive by polygroove belt

Gear driven water pump

Puller type 9 bladed cooling fan

Dual element Powercore air cleaner

Stainless steel aftertreatment and exhaust stack

OPTION: Fan guard

### **DRIVELINE**

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 1238cm<sup>2</sup> (192in<sup>2</sup>)

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 2WD and 4WD

#### CAB

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

Rotary hand throttle incorporating auto idle

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

Multifunctional control lever

Single bucket cylinder

**Bucket cylinder cushioning** 

Return to dig

Float position with positive hold

Bucket level indicator

Integral Loader arm safety bar

Standard bucket 1.2m3 with lifting eye

7 in 1 bucket 1.2m3 with lifting eye

Bucket teeth or bolt on reversible cutting edge

7 in 1 bucket operation by thumb slider control

#### 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

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 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)

Tandem gear pump hydraulics with mechanically operated Backhoe controls

Variable f ow hydraulics with pilot operated Backhoe controls

Pilot controls with constant f ow feature

#### OPTIONS:

- Reverse Warning Alarm
- Front Fenders
- Premium Brand Tyres

# **SPECIFICATIONS**

#### **ENGINE**

Perkins 1204E-E44TA (Stage IIIB/Tier 4i) with Wastegate turbocharger and Charge air cooling

- Torque rise 39%
- Electronic fuel injection
- Stainless steel aftertreatment and Exhaust Stack
- 500 hour service period

Cylinders	4
Capacity	4.4L (269in³)
Rated Speed	2200 rpm
Gross Power @ 2200rpm Cert. Rating to UN/ECE R120	74.5kW (100hp*)
Derived Net Rating @ 2200 rpm to ISO/80/1269/EC	69.9kW* (93.7hp*)
Max Torque @ 1400 rpm UN/ECE R120 ISO 80/1269/EC	450 Nm (332 lbf.ft*) 423 Nm (312 lbf.ft*)

<sup>\*</sup> Nominal Non-certified Values

#### **ELECTRICS**

	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
	170 A/hr dual batteries with 1600 CCA - EN Standard

#### CAPACITIES

CAPACITIES	Ltrs (gals)
Fuel Tank	140 (30.8)
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

Axle Ratings	Max Static Loading	Max Dynamic Loading
Front kN (lb)	225 (50582)	90 (20233)
Rear kN (lb)	275 (61822)	105 (23605)

## OPERATING WEIGHTS

Base Machine Weight (8428 Kg)

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)
ROPS Frame	- 150 kg (330 lbs)

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

#### 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: Rear:	16.9 x 24 16.9 x 24
Travel Speeds Forward 1st 2nd 3rd 4th	Km/h (mph) Km/h (mph) Km/h (mph) Km/h (mph)	6.2 (3.8) 10.0 (6.2) 21.7 (13.5) 39.5 (27.1)
Reverse 1st 2nd 3rd	Km/h (mph) Km/h (mph) Km/h (mph)	6.2 (3.8) 10.0 (6.2) 21.7 (13.5)

## **TURNING CIRCLES**

	Over Tyres	Over Bucket
2 Wheel Steer	11.4m	13.1m
4 Wheel Steer	7.3m	9.3m
With Brake	6.7m	8.8m

#### **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 x24 12P TI-04 IND

## **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 fows
- Power Boost to match digging power and speed to application
- Removable oil level gauge
- Removable oil cooler
- 125 micron suction strainer
- 10 micron return line filter

Main Pump Flow @ 2200rpm L/min(gpm)	80 (17.7)
Secondary Pump Flow @ 2200rpm L/min(gpm)	80 (17.7)
Single variable piston pump @ 2200rpm L/min(gpm)	152 (33.4)
System Main relief Setting bar (psi)	250 (3625)
Unloader Settings bar (psi) (Gear pump only)	207 (3000)