

**TLB830** 



# **OPERATOR CONTROLS**

Any operator can become instantly familiar with the controls of our backhoe loader, with servo excavator controls as standard the ISO/SAE switch can be used to easily switch between Excavator or Backhoe control patterns.



# BACKHOE

The curved boom design provides greater clearance when working over obstacles and the ability to load closer into trucks, increasing versatility. Dig depths of up to 17'10" (5.44m) and ground level reach of up to 22' (6.7m) can be achieved with the optional "Deep Dig" dipper stick.

## TRANSMISSION

The synchro shuttle transmission provides smooth shifting between all 4 gears and transport speeds of up to 23mph (38kph). Power assisted brakes and selectable 4 wheel braking ensure high braking forces with low operator effort.

### **ENGINE**

The powerful 94hp (70kw) engine with 289lbf (392Nm) of torque provides smooth and economical operation. A full opening rear hinged bonnet ensures ground level daily checks both with the loader raised or lowered.







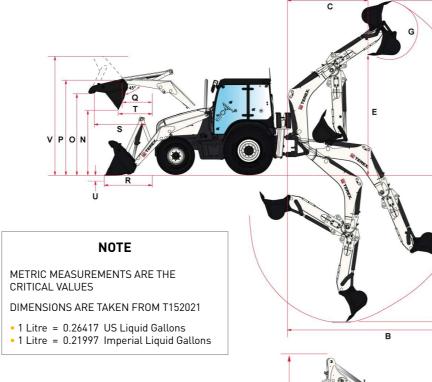
**TLB830** 

# → TECHNICAL DATA

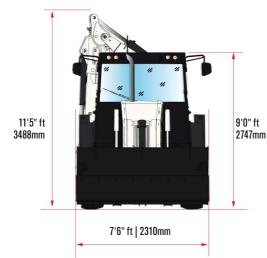
BACKHOE DIMENSIONS*		Standard Dipper	Deep Dig Dipper		
				Retracted	Extended
A	Dig depth	Maximum SAE 2 ft Flat Bottom SAE	<b>14'6</b> " (4411mm) <b>14'3</b> " (4337mm)	14'6" (4411mm) 14'3" (4337mm)	<b>17'10</b> " (5438mm) <b>17'7</b> " (5364mm)
В	Reach - ground level to	slew	18'8" (5695 mm)	18'8" (5695 mm)	18'8" (5695 mm)
С	Loading reach		<b>7'7"</b> (2302 mm)	7'7" (2302 mm)	10'4" (3156 mm)
D	Operating height		17'0" (5182 mm)	17'0" (5182 mm)	18'12" (5782 mm)
E	Loading height SAE Max dumping height		11'9" (3569 mm) 11'4" (3446 mm)	11'9" (3569 mm) 11'4" (3446 mm)	13'8" (4168 mm) 13'3" (4046 mm)
F	Straight wall dig depth		7'6" (2298 mm)	7'6" (2298 mm)	10'6" (3210 mm)
G	Bucket rotation degrees	Speed Power	194 164	194 164	194 164
Stab	oiliser spread		9'9" (2980 mm)	9'9" (2980 mm)	9'9" (2980 mm)
Мах	. levelling angle degrees		12	12	12

<sup>\*</sup>Includes standard 600mm HD bucket.

L	OADER DIMENSIONS	Standard / 7in1 Bucket
N	Dump clearance – at 45°	<b>8'7"</b> (2609 mm)
0	Loader height	<b>10'4"</b> (3145 mm)
P	Hinge pin height	<b>11'2"</b> (3401 mm)
Q	Pin forward reach	<b>1'5"</b> (430 mm)
R	Reach at ground	<b>5'0"</b> (1525 mm)
S	Max. reach at full height	<b>2'7"</b> (776 mm)
T	Reach at full height – at 45°	<b>2'5"</b> (732 mm)
	Dig depth	<b>0'10"</b> (251 mm)
U	Rollback at ground	40°
	Max. dump angle fully raised	50°
V	Overall operating height	<b>14'1"</b> [4304 mm]



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)		<b>21</b> (15488.8)	<b>21</b> [15488.8]	<b>21</b> [15488.8]
Dipper tearout kN (lbf) (SAE J49 Standard)		<b>35.4</b> (7958)   <b>35.4</b> (7958)	<b>35.4</b> (7958)   <b>35.4</b> (7958)	<b>26</b> (5845)   <b>26</b> (5845)
Bucket tearout kN (lbf)	Speed Power	<b>47</b> (10566)   <b>47</b> (10566) <b>54</b> (12140)   <b>54</b> (12140)	<b>47</b> (10566)   <b>47</b> (10566) <b>54</b> (12140)   <b>54</b> (12140)	<b>47</b> (10566)   <b>47</b> (10566) <b>54</b> (12140)   <b>54</b> (12140)



Torque Rise 29% Perkins 1104D-44T (T3) Mechanical fuel injection Cylinders Capacity 4.4 L [269 in<sup>3</sup>] 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)

Vominal	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)
Fuel tank	140 (37.0)
Engine coolant	17 (4.5)
Engine oil (including filter)	8 (2.11)
Synchro shuttle transmission	20 (5.3)
Rear axle (including final drives)	17.1 (4.5)
Front axle (including final drives)	6.9 (1.52)
Hydraulic tank 52	[13.7]

AXLES AND BRAKES					
Outboard planetary drives for easier servicing					
Foot operated differential lock with 100% lockup					
16° front axle oscillation to maintain m	naximum ground contact to 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)	175 (39342)	70 (15737)			
Rear kN (lbf)	187.5 (42152)	75 (16861)			

TURNING CIRCLES		
	Over Tyres	Over Bucket
Without brakes m (ft)	7.9 (25'11")	10.9 (35'9")
With brakes m (ft)	7 (22'12")	10 (32'10")

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: Rear:	12 x 16.5 12 PR SKS XTRA 19.5 x 24 12 PR SLA R4
Travel Speeds	Forwa	ard/Reverse Km/h (mph)
1st		5 (3)
2nd		8 (5)
3rd		19 (12)
4th		38 (24)

YDRAULIC SYSTEM	
andem gear pumps with inloader valve	
pen centre valves	
kternal oil level gauge	
25 micron suction strainer	
) micron return line filter	
) micron filler breather	
ain pump flow @ 2200 rpm L/min(gpm US / gpm)	83 (22 / 18)
econdary pump flow @ 2200 rpm L/min(gpm US / gpm)	45 (12 / 10)
stem main relief setting bar (psi)	250 (3626)

OPERATING WEIGHTS	
Base Machine Weight*	7215 kg (15906 lbs
Add/Delete	
Deep dig dipper	+ 295 kg (650 lbs
ROPS frame	- 185 kg (408 lbs

<sup>\*</sup>Base operating weight includes cab, standard loader bucket, standard dipper stick, 24 in | 600 mm bucket, full fuel tank, standard counter weight 407.85 lbs | 182Kg and 165 lbs | 75Kg operator.

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 (2336)
Rated operating capacity** kN (lbs)	2813.55 kg (1748)

<sup>\*</sup>Loader specifications are stated in accordance with ISO 14397 and EN474 Part 4.

NOTE: IMAGE IS FOR REFERENCE PURPOSE ONLY

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



#### **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

Fan Guard

#### **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

Inboard planetary final drive axles

Large capacity inboard 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 4wdi

#### **CAB AND CANOPY**

ROPS/FOPS conform to ISO3471/3449

Access from both sides

Self cleaning footsteps and large grab handles

Anti slip floor mat (Canopy)

Internal rear view mirror

2 Cup holders

Coat hook

Tilt adjustable steering wheel

Side console mounted horn switch

Seat storage for operators manual

2in (51mm) retractable seat belt

Vinyl seat with mechanical suspension (canopy)

1 Auxiliary 12 volt outlet

Cab with 2 door access

Opening rear guarter 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) with Air conditioning (7.6kw cooling)

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

#### **CANOPY OPTIONS**

Windscreen with wiper

Lockable vandal covers

#### **CAB OPTIONS**

3inch seat belt

Folding external rear view mirrors

Steering wheel spinner

#### 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

#### **BACKHOE**

Curved style boom

Standard dippestick

Outer slide "deep dig" dipperstick

Externally adjustable lubrication free wear pads

Thumb cylinder mounting bracket incorporated

Replaceable serrated clamping plates

Dual transport lock - cable operated

Servo excavator controls

ISO/SAE pattern change switch

24" Heavy duty excavator bucket

Stab leg lock out valves

#### **OPTIONS**

Mechanical quick attach

Auxiliary hydraulics with single and double

#### **GENERAL POINTS**

Heavy duty chassis construction

Lockable side mounted toolbox

Fully tilting engine hood

Front hard nose counter weight

Lifting eyes and tie downs (2 front and rear)

12.5" Front and 24" rear Mitas tyres

#### **OPTIONS**

Front fenders

Cold start kit