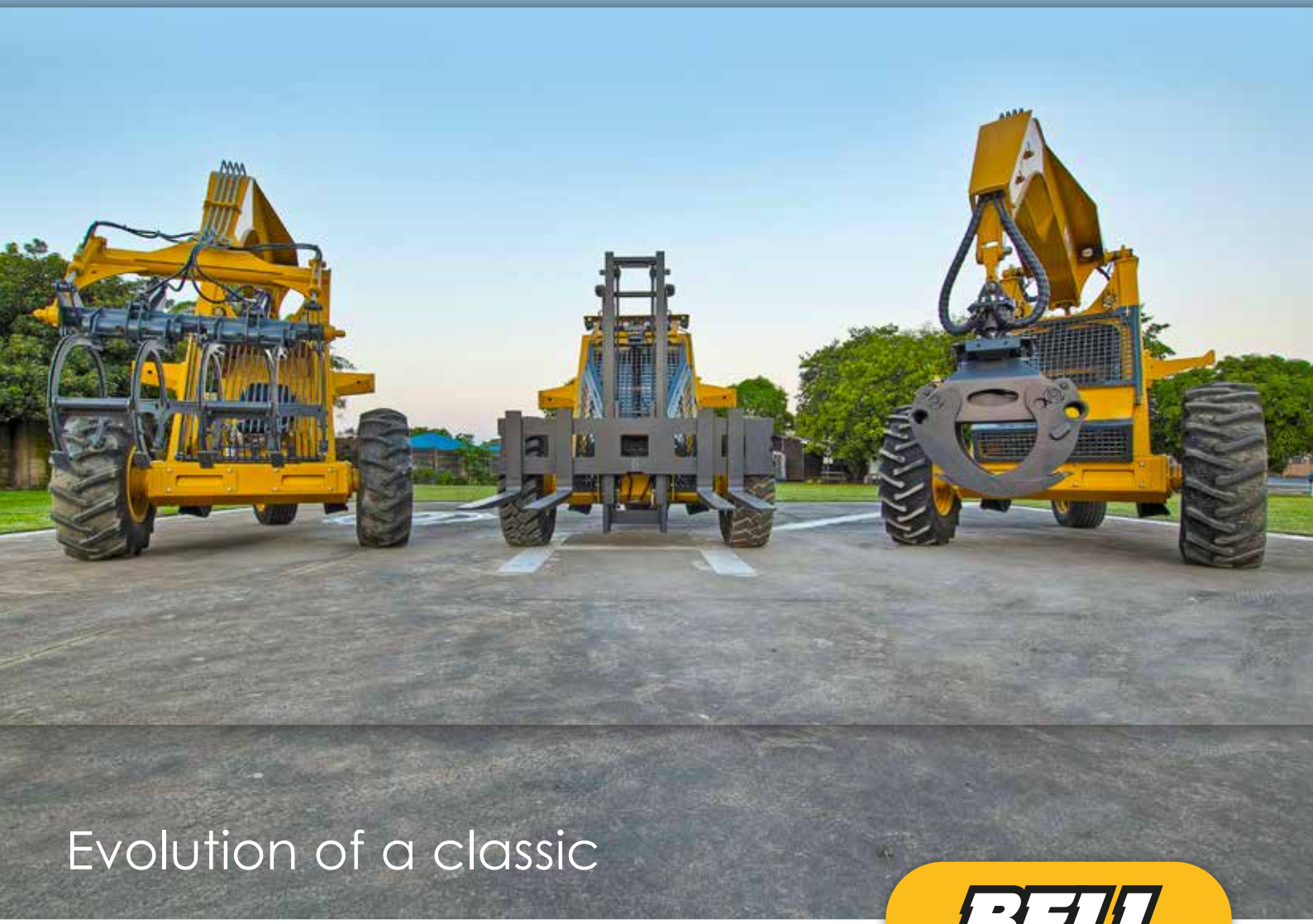
F-series

225F-L | 225F HP-TL | 125F-CL | 225F-F

Logger,
Cane Loader,
Forklift

Tier II Certified



Evolution of a classic

BELL

Evolutionary design

Bell Tri-Wheelers are derived from the successful Bell Cane Loaders and to this day remain the lowest cost solution to sorting, loading and moving both sugar cane and timber.

The Tri-Wheeler's simple design belies the brilliance of the concept and design. Irvine Bell developed the concept in the early 1960s with the intention of designing a machine that would duplicate the motion of a person walking up to a pile and picking it up.

He succeeded in blurring the interface between man and machine. While the concept has remained the same, the product has undergone a number of subtle but important improvements over the years. These improvements have evolved the Bell Tri-Wheeler into a product where beauty is way more than skin deep.

More importantly, the design team associated with the Tri-Wheeler has gained invaluable insights and experience throughout the 50 year journey and they appreciate the understatedness of this 'simple design'. They understand that in order to achieve simplicity in design an enormous amount of effort and mastery is required.

Copying is said to be the highest form of flattery, however, many attempts to copy the Bell Tri-Wheeler have failed. Perhaps it has something to do with failing to understand the essence of this machine?

Bell Equipment has built a solid reputation with this simple machine along with a foundational concept of building **STRONG RELIABLE MACHINES** and ensuring that this philosophy is reinforced by providing our customers with **STRONG RELIABLE SUPPORT**, once the sale is done.

Frame

- ROPS & FOPS certified frame.
- Triangulation forms the basis of the frame structure, to distribute force evenly for durability.
- Ingenuity of design simply integrates the hydraulic tank into the frame of the F-series Tri-Wheelers.
- Layered sophistication allows the product to be built for the application.

Design Philosophy

- Customer input is critical.
- Simplicity remains core.
- Lowest cost per tonne solutions through efficiency.
- Strong, reliable machines.

Robust efficient driveline

Proven hydraulic components carried over from our A-series

Engine

- The F-series engine has transitioned from air-cooled to a water-cooled Yanmar engine.
- Careful selection based on the rugged environment and operating conditions.
- Low fuel burn and low running costs reinforce the focus on lowest cost per tonne operations.
- Water cooled engine provides low noise, cool running operation.

Transmission Pump

- The introduction of a robust cast iron design with a previous evolution means this drive train is proven to be reliable and robust.
- Robust components, chosen with the customer in mind, are tested extensively to protect the customer from unwanted downtime.
- Evolution - new developments that enhance productivity are continuously embraced.
- New developments have provided continuous opportunities to enhance operator productivity and safety.

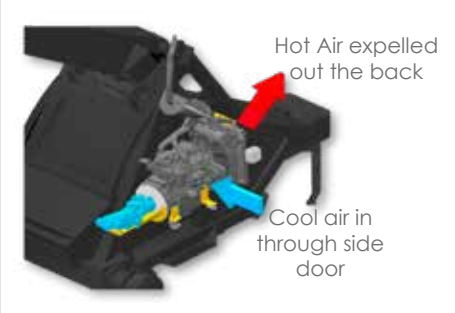
Wheel motors

- No maintenance and components with a high expected life.
- Well proven design combines selected hydraulic motors and braking system coupled to a Bell final drive.
- Fail to safe, spring applied hydraulically released SAHR brakes.

Yanmar water cooled engine

Standard - Yanmar 4TNV98:
- 45 kW @ 2 200 rpm
- 3.319 litre displacement
- Naturally aspirated

Optional - Yanmar 4TNV98T:
- 57 kW @ 2 200 rpm
- 3.319 litre displacement
- Turbo Charged



Cooling system

Engine aluminium core radiator:
- Rubber mounted
- Robust fin design able to be pressure washed

Hydraulic oil cooler:
- Side-by-side with the radiator and cooling fan
- Easy access for cleaning

AC condenser (optional):
- RH engine bay door mounted condenser
- Swing out for easier cleaning

Driveline

Eaton transmission pump:
- Proven reliability on Tri-Wheelers for many years

Bell Wheel motors:
- Rugged design
- Reliable and dependable

ENGINE & ANCILLARIES

Yanmar TNV98

Configuration
4 cylinder

Aspiration
Naturally aspirated

Emission Level
Tier II

Governed Power
45 kW

Governed Speed
2 200 rpm

Displacement
3 319 cc

Fuel Filter Type
In-line water separator with separate spin on fuel filter.

Fuel Filter
5 µm

Coolant Capacity (Engine only)
4 litres

Radiator
Easy access and easy to clean. Agricultural spec fine dust tolerant - wide fin spacing.

Fuel Tank
Secure, lockable ground level filling. Integrated into lower section of the frame to keep a low centre of gravity.

Fuel Tank Capacity
100 litres

Air Cleaner Type
Radial Seal 2-stage primary and secondary filters , both fed by a self cleaning pre-cleaner. The system has a dash mounted restriction indicator.

HYDRAULIC SYSTEM

Hydrostatic Drive System
Servo controlled Variable displacement closed loop system.

Wheel Drive System
Robust, proven Bell planetary hub driven by high displacement radial piston motor with fail to safe spring applied hydraulically released multidisc wet brake.

Wheel Drive Make & Model
Bell #29P

Service Brake
Hydrostatic braking through the closed loop system.

Hydraulic Implement Pump 1 Maximum Flow at Engine Rated Speed
60,9 l/min

Hydraulic Implement Pump 1 Maximum Intermittent Pressure
241 bar

Hydraulic Implement Pump 1 Use
Boom lift & lower

Hydraulic Implement Pump 2 Maximum Flow at Engine Rated Speed
39,4 l/min

Hydraulic Implement Pump 2 Maximum Intermittent Pressure
280 bar

Hydraulic Implement Pump 2 Maximum Continuous Pressure
250 bar

Hydraulic Implement Pump 2 Use
Attachment - Grapple Open/ Close, Tele Ext in/out and Rotator.

Tank
Integrated within the tubular frame

Tank Capacity
140 litres

Tank Breather
Remote to filler cap, 3 micron rating, 0.75 bar pressure.

Hydraulic Cooler Air Fin Spacing
Easy to clean wide fin spacing

ELECTRICAL

System
12 volt system with a single maintenance free battery mounted in the rear of the machine above the tail wheel.

Alternator Output
12 v 80 Amp

Starter Motor Rating
12 v 3,0 kW

Fuse Box
Blade fuses located inside the cabin in the instrumentation box.

Battery
Maintenance free gel filled battery 100 Amp Hour rating.

Battery Isolator
Single pole type with lock out mounted onto the right hand side of the frame.

Work Lights
8 lights in total. 4 Facing forwards, 2 facing rearwards, 1 facing side ways on each side of the frame.

Strobe Light
Mounted on the rear of frame

Interior lights
LED mounted inside the cab and inside the engine bay.

ESTIMATED OPERATING WEIGHTS WITH STANDARD OPTIONS

Unladen

Front:	4 118 kg
Rear:	1 349 kg
Total:	5 467 kg

Laden

Front:	6 365 kg
Rear:	375 kg
Total:	6 740 kg

Working Load Limit
1 273 kg

Tipping Load
1 400 kg

GRAPPLE

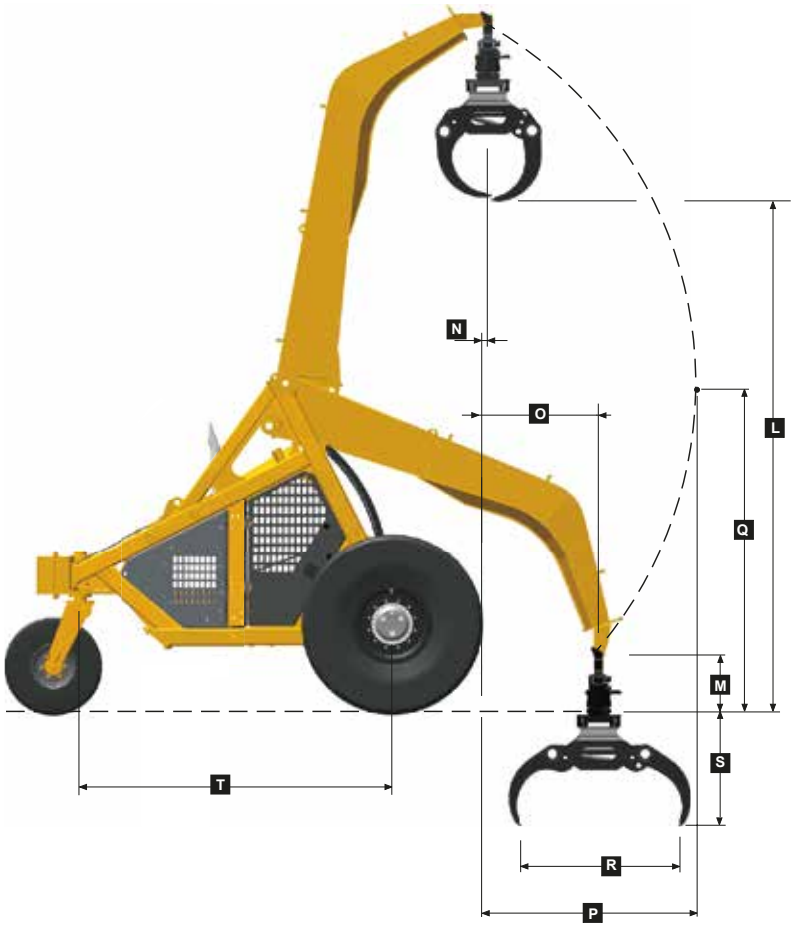
Matriarch LX36
(Matriarch LX42 as an option)

Note: Tyre sizes indicated represent available tyres at printing. Please ensure your choice is available at time of ordering.

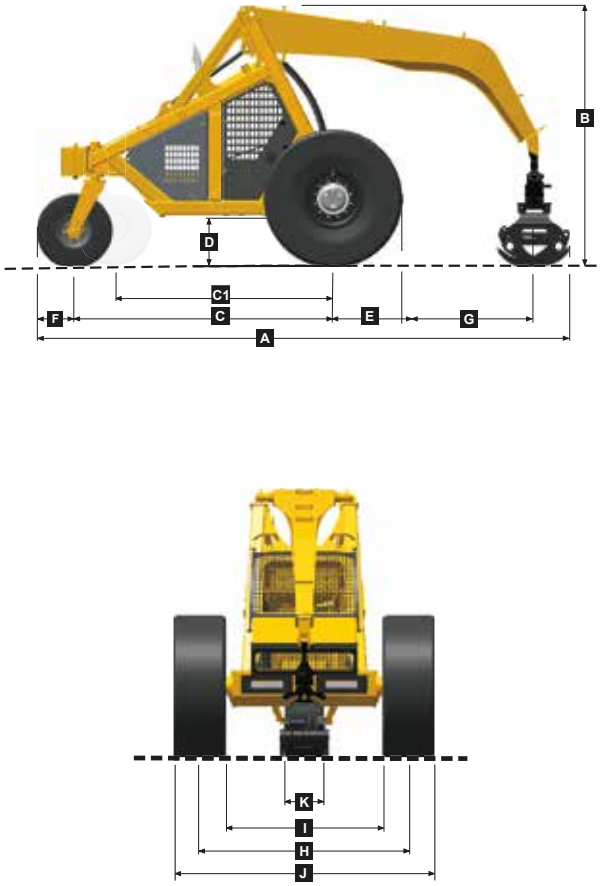
- Low capital outlay
- Low operating cost due to few working parts
- Low fuel consumption
- Simple to maintain
- Multi-purpose unit
- Highly manoeuvrable

Dimensions

OPERATING POSITION



TRANSPORT POSITION



MACHINE DIMENSIONS

A	Length - Transport Position with LX36 Grapple Closed	6 240 mm
A	Length - Transport Position with LX42 Grapple Closed	6 370 mm
B	Height - Transport Position with Grapple closed	3 059 mm
C	Front Axle Centre to Tailwheel Axle Centre	3 030 mm
C1	Front Axle Centre to Tailwheel Axle Centre	2 546 mm
D	Ground Clearance - Front Axle Box	578 mm
E	Front Tyre - Free Radius (Free Diameter)	
E1	18.4 x 30 (Std Wheelset)	807.5 mm (ø1615)
E2	18.4 x 26 (Option 1)	729 mm (ø1458)
E3	18.4/15 x 30 (Option 2)	774,5 mm (ø1549)
E4	18.4 x 34 (Option 3)	837,5 mm (ø1675)
E5	18.4 x 26 (Option 4-Dual Wheelset)	729 mm (ø1458)
F	Tailwheel - Free Radius (Free Diameter)	
F1	400 x15.5 (Std Wheelset)	432 mm (ø864)
F2	18 x 15.5 (Option 1)	490 mm (ø980)
G	Reach - Grapple Pivot @ Ground Leve l - LX36 Grapple	1 545 mm
G	Reach - Grapple Pivot @ Ground Level - LX42 Grapple	1 600 mm
H	Track Width - Front	
H1	18.4 x 30 (Std Wheelset)	2 382 mm
H2	18.4 x 26 (Option 1)	2 279,5 mm
H3	18.4/15 x 30 (Option 2)	2 312 mm
H4	18.4 x 34 (Option 3)	2 319 mm
H5	18.4 x 26 (Option 4-Dual Wheelset)	2 681 mm
I	Inside Tyre Width - Front	
I1	18.4 x 30 (Std Wheelset)	1 782 mm
I2	18.4 x 26 (Option 1)	1 813 mm
I3	18.4/15 x 30 (Option 2)	1 846 mm
I4	18.4 x 34 (Option 3)	1 851 mm
I5	18.4 x 26 (Option 4-Dual Wheelset)	1 687 mm
J	Width over Tyres - Front	
J1	18.4 x 30 (Std Wheelset)	2 982 mm
J2	18.4 x 26 (Option 1)	2 746 mm
J3	18.4/15 x 30 (Option 2)	2 778 mm
J4	18.4 x 34 (Option 3)	2 787 mm
J5	18.4 x 26 (Option 4-Dual Wheelset)	3 675 mm
K	Tyre Width - Tailwheel	
K1	400 x 15.5 (Std Wheelset)	385 mm
K2	18 x 15.5 (Option 1)	450 mm
L	Load Over Height - LX36 Grapple	4 586 mm
L	Load Over Height - LX42 Grapple	4 480 mm
M	Grapple Pivot Height - Boom Down Position	529 mm
N	Reach-Grapple Pivot - Boom Up Position	44 mm
O	Reach-Grapple Pivot - Boom Down Position	1 036 mm
P	Maximum Reach - Grapple Pivot	1 948 mm
Q	Height - Grapple Pivot @ Maximum Reach	2 964 mm
R	LX36 Grapple Open	1 414 mm
R	LX42 Grapple Open	1 577 mm
S	Maximum Reach - Below Ground - LX36 Grapple	1 001 mm
S	Maximum Reach - Below Ground - LX42 Grapple	1 054 mm
T	Front Axle Centre to Tailwheel Pivot Centre	2 788 mm

NOTE: Please refer to 225F HP for Tele Logger option dimensions.
All dimensions are Unladen values based on the Standard Wheelsets and Grapple U.O.N.
Negative (-) dimension value denotes position below ground level or behind front of wheel, whichever is applicable.

ENGINE & ANCILLARIES

Yanmar TNV98T

Configuration
4 cylinder

Aspiration
Turbo Charged

Emission Level
Tier II

Governed Power
57 kW

Governed Speed
2 200 rpm

Displacement
3 319 cc

Fuel Filter Type
In-line water separator with separate spin on fuel filter.

Fuel Filter
5 µm

Coolant Capacity (Engine only)
4 litres

Radiator
Easy access and easy to clean. Agricultural spec fine dust tolerant - wide fin spacing.

Fuel Tank
Secure, lockable ground level filling. Integrated into lower section of the frame to keep a low centre of gravity.

Fuel Tank Capacity
100 litres

Air Cleaner Type
Radial Seal 2-stage primary and secondary filters , both fed by a self cleaning pre-cleaner. The system has a dash mounted restriction indicator.

HYDRAULIC SYSTEM

Hydrostatic Drive System
Servo controlled Variable displacement closed loop system.

Wheel Drive System
Robust, proven Bell planetary hub driven by high displacement radial piston motor with fail to safe spring applied hydraulically released multidisc wet brake.

Wheel Drive Make & Model
Bell #29P

Service Brake
Hydrostatic braking through the closed loop system.

Hydraulic Implement Pump 1 Maximum Flow at Engine Rated Speed
60,9 l/min

Hydraulic Implement Pump 1 Maximum Intermittent Pressure
241 bar

Hydraulic Implement Pump 1 Use
Boom lift & lower

Hydraulic Implement Pump 2 Maximum Flow at Engine Rated Speed
39,4 l/min

Hydraulic Implement Pump 2 Maximum Intermittent Pressure
280 bar

Hydraulic Implement Pump 2 Maximum Continuous Pressure
250 bar

Hydraulic Implement Pump 2 Use
Attachment - Grapple Open/ Close, Tele Ext in/out and Rotator.

Tank
Integrated within the tubular frame

Tank Capacity
140 litres

Tank Breather
Remote to filler cap, 3 micron rating, 0.75 bar pressure.

Hydraulic Cooler Air Fin Spacing
Easy to clean wide fin spacing

ELECTRICAL

System
12 volt system with a single maintenance free battery mounted in the rear of the machine above the tail wheel.

Alternator Output
12 v 80 Amp

Starter Motor Rating
12 v 3,0 kW

Fuse Box
Blade fuses located inside the cabin in the instrumentation box.

Battery
Maintenance free gel filled battery 100 Amp Hour rating.

Battery Isolator
Single pole type with lock out mounted onto the right hand side of the frame.

Work Lights
8 lights in total. 4 Facing forwards, 2 facing rearwards, 1 facing side ways on each side of the frame.

Strobe Light
Mounted on the rear of frame

Interior lights
LED mounted inside the cab and inside the engine bay.

ESTIMATED OPERATING WEIGHTS WITH STANDARD OPTIONS

Unladen

Front:	4 309 kg
Rear:	1 656 kg
Total:	5 965 kg

Laden	Boom In	Boom Out
Front:	6 562 kg	6 293 kg
Rear:	955 kg	712 kg
Total:	7 517 kg	7 005 kg

Working Load Limit

1 568 kg	1 051 kg

Tipping Load

1 725 kg	1 157 kg

GRAPPLE

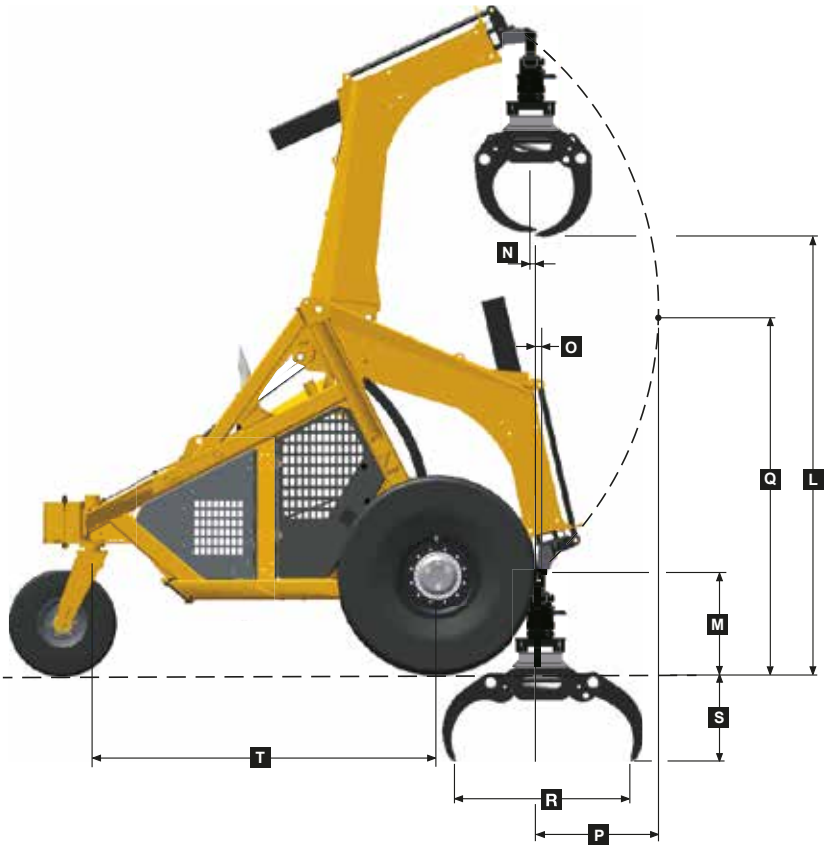
Matriarch LX42
(Matriarch LX36 as an option)

Note: Tyre sizes indicated represent available tyres at printing. Please ensure your choice is available at time of ordering.

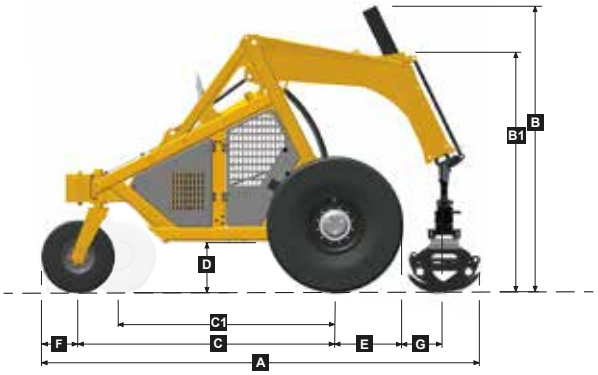
- Low capital outlay
- Low operating cost due to few working parts
- Low fuel consumption
- Simple to maintain
- Multi-purpose unit
- Highly manoeuvrable

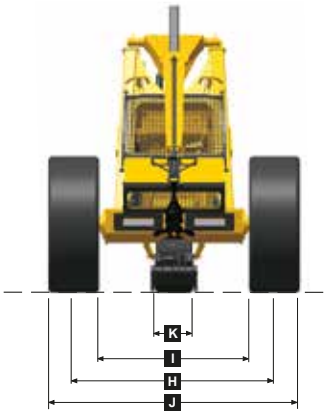
Dimensions

OPERATING POSITION



TRANSPORT POSITION





MACHINE DIMENSIONS

A	Length - Transport - LX36 Grapple Closed, Teleboom Retracted	5 175 mm
A	Length - Transport - LX36 Grapple Closed, Teleboom Extended	6 232 mm
A	Length - Transport - LX42 Grapple Closed, Teleboom Retracted	5 331 mm
A	Length - Transport - LX42 Grapple Closed, Teleboom Extended	6 363 mm
B	Height - Transport - LX36 Grapple Closed, Teleboom Retracted	3 397 mm
B1	Height - Transport - LX36 Grapple Closed, Teleboom Extended	3 367 mm
B	Height - Transport - LX42 Grapple Closed, Teleboom Retracted	3 468 mm
B1	Height - Transport - LX42 Grapple Closed, Teleboom Extended	3 426 mm
C	Front Axle Centre to Tailwheel Axle Centre	3 030 mm
C1	Front Axle Centre to Tailwheel Axle Centre	2 546 mm
D	Ground Clearance - Front Axle Box	578 mm
E	Front Tyre - Free Radius (Free Diameter)	
E1	23.1 x 26 (Std Wheelset)	807,5 mm (ø1 615)
E2	18.4 x 26 (Option 1)	729 mm (ø1 458)
E3	18.4/15 x 30 (Option 2)	774,5 mm (ø1 549)
E4	18.4 x 34 (Option 3)	837,5 mm (ø1 675)
E5	18.4 x 26 (Option 4-Dual Wheelset)	729 mm (ø1 458)
F	Tailwheel - Free Radius (Free Diameter)	
F1	400 x 15.5 (Std Wheelset)	432 mm (ø864)
F2	18 x 15.5 (Option 1)	490 mm (ø980)
G	Reach - Grapple Pivot @ Ground Level - LX36, Teleboom Retracted	481 mm
G	Reach - Grapple Pivot @ Ground Level - LX36, Teleboom Extended	1 538 mm
G	Reach - Grapple Pivot @ Ground Level - LX42, Teleboom Retracted	561 mm
G	Reach - Grapple Pivot @ Ground Level - LX42, Teleboom Extended	1 593 mm
H	Track Width - Front	
H1	23.1 x 26 (Std Wheelset)	2 382 mm
H2	18.4 x 26 (Option 1)	2 279,5 mm
H3	18.4/15 x 30 (Option 2)	2 312 mm
H4	18.4 x 34 (Option 3)	2 319 mm
H5	18.4 x 26 (Option 4-Dual Wheelset)	2 681 mm
I	Inside Tyre Width - Front	
I1	23.1 x 26 (Std Wheelset)	1 782 mm
I2	18.4 x 26 (Option 1)	1 813 mm
I3	18.4/15 x 30 (Option 2)	1 846 mm
I4	18.4 x 34 (Option 3)	1 851 mm
I5	18.4 x 26 (Option 4-Dual Wheelset)	1 687 mm
J	Width over Tyres-Front	
J1	23.1 x 26 (Std Wheelset)	2 982 mm
J2	18.4 x 26 (Option 1)	2 746 mm
J3	18.4/15 x 30 (Option 2)	2 778 mm
J4	18.4 x 34 (Option 3)	2 787 mm
J5	18.4 x 26 (Option 4-Dual Wheelset)	3 675 mm
K	Tyre Width - Tailwheel	
K1	400 x 15.5 (Std Wheelset)	385 mm
K2	18 x 15.5 (Option 1)	450 mm
L	Load Over Height - LX36 Grapple, Teleboom Retracted	3 547 mm
L	Load Over Height - LX36 Grapple, Teleboom Extended	3 955 mm
L	Load Over Height - LX42 Grapple, Teleboom Retracted	3 441 mm
L	Load Over Height - LX42 Grapple, Teleboom Extended	3 849 mm
M	Grapple Pivot Height - Boom Down Position, Teleboom Retracted	816 mm
M	Grapple Pivot Height - Boom Down Position, Teleboom Extended	142 mm
N	Reach-Grapple Pivot - Boom Up Position, Teleboom Retracted	27 mm
N	Reach-Grapple Pivot - Boom Up Position, Teleboom Extended	866 mm
O	Reach-Grapple Pivot - Boom Down Position, Teleboom Retracted	39 mm
O	Reach-Grapple Pivot - Boom Down Position, Teleboom Extended	255 mm
P	Maximum Reach - Grapple Pivot, Teleboom Retracted	1 042 mm
P	Maximum Reach - Grapple Pivot, Teleboom Extended	1 942 mm
Q	Height - Grapple Pivot @ Maximum Reach, Teleboom Retracted	2 964 mm
Q	Height - Grapple Pivot @ Maximum Reach, Teleboom Extended	2 964 mm
R	LX36 Grapple Open	1 414 mm
R	LX42 Grapple Open	1 577 mm
S	Maximum Reach - Below Ground - LX36 Grapple, Teleboom Retracted	714 mm
S	Maximum Reach - Below Ground - LX36 Grapple, Teleboom Extended	1 672 mm
S	Maximum Reach - Below Ground - LX42 Grapple, Teleboom Retracted	768 mm
S	Maximum Reach - Below Ground - LX42 Grapple, Teleboom Extended	1 725 mm
T	Front Axle Centre to Tailwheel Pivot Centre	2 788 mm

NOTE: Please refer to 225F for Crank option dimensions.
All dimensions are Unladen values based on the Standard Wheelsets and Grapple U.O.N.
Negative (-) dimension value denotes position below ground level or behind front of wheel, whichever is applicable.

ENGINE & ANCILLARIES

Yanmar TNV98

Configuration
4 cylinder

Aspiration
Naturally aspirated

Emission Level
Tier II

Governed Power
45 kW

Governed Speed
2 200 rpm

Displacement
3 319 cc

Fuel Filter Type
In-line water separator with separate spin on fuel filter.

Fuel Filter
5 µm

Coolant Capacity (Engine only)
4 litres

Radiator
Easy access and easy to clean. Agricultural spec fine dust tolerant - wide fin spacing.

Fuel Tank
Secure, lockable ground level filling. Integrated into lower section of the frame to keep a low centre of gravity.

Fuel Tank Capacity
100 litres

Air Cleaner Type
Radial Seal 2-stage primary and secondary filters , both fed by a self cleaning pre-cleaner. The system has a dash mounted restriction indicator.

HYDRAULIC SYSTEM

Hydrostatic Drive System
Servo controlled Variable displacement closed loop system.

Wheel Drive System
Robust, proven Bell planetery hub driven by high displacement radial piston motor with fail to safe spring applied hydraulically released multidisc wet brake.

Wheel Drive Make & Model
Bell #24P

Service Brake
Hydrostatic braking through the closed loop system.

Hydraulic Implement Pump 1 Maximum Flow at Engine Rated Speed
60,9 l/min

Hydraulic Implement Pump 1 Maximum Intermittent Pressure
241 bar

Hydraulic Implement Pump 1 Use
Mast lift & lower

Hydraulic Implement Pump 2 Maximum Flow at Engine Rated Speed
39,4 l/min

Hydraulic Implement Pump 2 Maximum Intermittent Pressure
280 bar

Hydraulic Implement Pump 2 Maximum Continuous Pressure
250 bar

Hydraulic Implement Pump 2 Use
Attachment - Grab open/close and tilt.

Tank
Integrated within the tubular frame

Tank Capacity
140 litres

Tank Breather
Remote to filler cap, 3 micron rating, 0.75 bar pressure.

Hydraulic Cooler Air Fin Spacing
Easy to clean wide fin spacing.

ELECTRICAL

System
12 volt system with a single maintenance free battery mounted in the rear of the machine above the tail wheel.

Alternator Output
12 v 80 Amp

Starter Motor Rating
12 v 3,0 kW

Fuse Box
Blade fuses located inside the cabin in the instrumentation box.

Battery
Maintenance free gel filled battery 100 Amp Hour rating.

Battery Isolator
Single pole type with lock out mounted onto the right hand side of the frame.

Work Lights
8 lights in total. 4 Facing forwards, 2 facing rearwards, 1 facing side ways on each side of the frame.

Strobe Light
Mounted on the rear of frame

Interior lights
LED mounted inside the cab and inside the engine bay.

ESTIMATED OPERATING WEIGHTS WITH STANDARD OPTIONS

Unladen

Front:	3 764 kg
Rear:	1 206 kg
Total:	4 970 kg

Laden	Boom In	Boom Out
Front:	5 529 kg	5 784 kg
Rear:	533 kg	278 kg
Total:	6 062 kg	6 062 kg

Working Load Limit
1 100 kg

Tipping Load
1 210 kg

GRAB

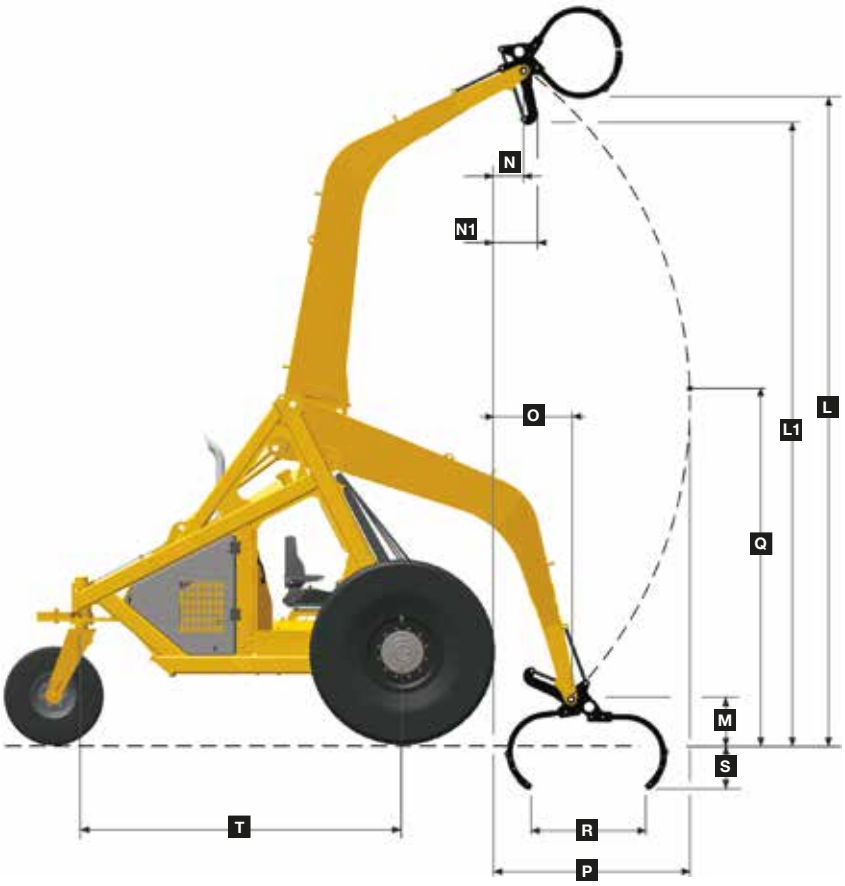
0,36 m^2 grab

Note: Tyre sizes indicated represent available tyres at printing. Please ensure your choice is available at time of ordering.

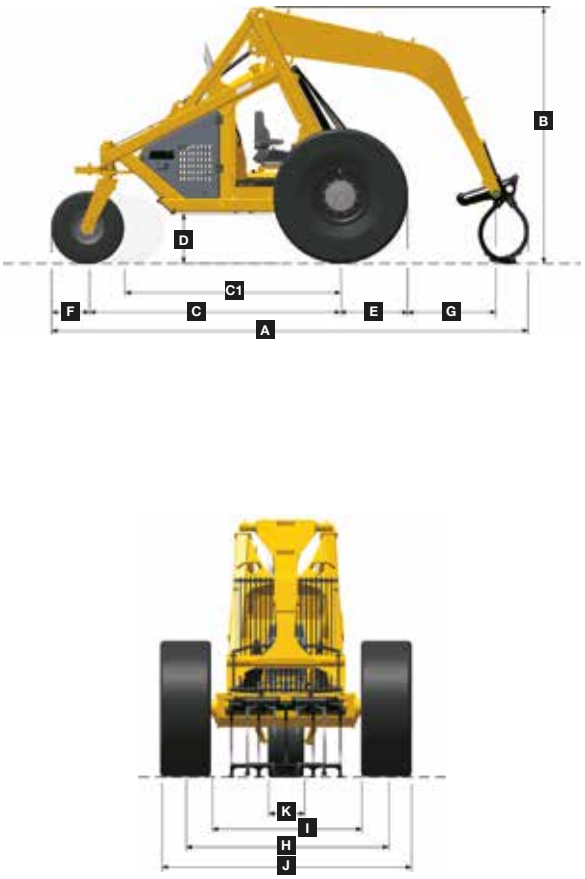
- Lowest cost per tonne solutions
- Low fuel consumption
- Low maintenance
- Designed for field and zone loading operations
- Efficient and productive loading

Dimensions

OPERATING POSITION



TRANSPORT POSITION



MACHINE DIMENSIONS

A	Length - Transport Position with Grab Closed		5 720 mm
B	Height - Transport Position with Grab Closed		3 064 mm
C	Front Axle Centre to Tailwheel Axle Centre		3 030 mm
C1	Front Axle Centre to Tailwheel Axle Centre		2 546 mm
D	Ground Clearance - Front Axle Box		582 mm
E	Front Tyre - Free Radius (Free Diameter)		
E1	18.4 x 26 (Std Wheelset)	(ø1 458)	729 mm
E2	23.1 x 26 (Option 1)	(ø1 458)	729 mm
E3	18.4/15 x 30 (Option 2)	(ø1 549)	774.5 mm
E4	18.4 x 34 (Option 3)	(ø1 675)	837.5 mm
E5	18.4 x 26 (Option 4 Dual Wheelset)	(ø1 458)	729 mm
F	Tailwheel - Free Radius (Free Diameter)		
F1	400 x 15.5 (Std Wheelset)	(ø864)	432 mm
F2	18 x 15.5 (Option 1)	(ø980)	490 mm
G	Reach-Grab Pivot @ Ground Level		1 061 mm
H	Track Width - Front		
H1	18.4 x 26 (Std Wheelset)		2 279.5 mm
H2	23.1 x 26 (Option 1)		2 279.5 mm
H3	18.4/15 x 30 (Option 2)		2 312 mm
H4	18.4 x 34 (Option 3)		2 319 mm
H5	18.4 x 26 (Option 4 Dual Wheelset)		2 681 mm
I	Inside Tyre Width - Front		
I1	18.4 x 26 (Std Wheelset)		1 813 mm
I2	23.1 x 26 (Option 1)		1 813 mm
I3	18.4/15 x 30 (option 2)		1 846 mm
I4	18.4 x 34 (Option 3)		1 851 mm
I5	18.4 x 26 (Option 4 Dual Wheelset		1 687 mm
J	Width over Tyres - Front		
J1	18.4 x 26 (Std Wheelset)		2 746 mm
J2	23.1 x 26 (Option 1)		2 746 mm
J3	18.4/15 x 30 (Option 2)		2 778 mm
J4	18.4 x 34 (Option 3)		2 787 mm
J5	18.4 x 26 (Option 4 Dual Wheelset)		3 675 mm
K	Tyre Width - Tailwheel		
K1	400 x 15.5 (Std Wheelset)		385 mm
K2	18 x 15.5 (Option 1)		450 mm
L	Load Over Height - Cane Grab Tines		5 629 mm
L1	Load Over Height		5 399 mm
M	Grab Pivot Height - Boom Down Position		406 mm
N	Reach - Grab Pivot - Boom Up Position		245 mm
N1	Reach - Grab Boom Up Position		368 mm
O	Reach - Grab Pivot - Boom Down Position		665 mm
P	Maximum Reach - Grab Pivot		1 768 mm
Q	Height - Grab Pivot @ Maximum Reach		2 969 mm
R	Grab Open		972 mm
S	Maximum Reach - Below Ground		379 mm
T	Front Axle Centre to Tailwheel Pivot Centre		2 788 mm

NOTE: All dimensions are unladen values based on the Standard Wheelsets U.O.N
Negative(-) dimension value denotes position below ground level or behind front of wheel, whichever is applicable.

ENGINE & ANCILLARIES

Yanmar TNV98

Configuration
4 cylinder

Aspiration
Naturally aspirated

Emission Level
Tier II

Governed Power
45 kW

Governed Speed
2 200 rpm

Displacement
3 319 cc

Fuel Filter Type
In-line water separator with separate spin on fuel filter.

Fuel Filter
5 µm

Coolant Capacity (Engine only)
4 litres

Radiator
Easy access and easy to clean. Agricultural spec fine dust tolerant - wide fin spacing.

Fuel Tank
Secure, lockable ground level filling. Integrated into lower section of the frame to keep a low centre of gravity.

Fuel Tank Capacity
100 litres

Air Cleaner Type
Radial Seal 2-stage primary and secondary filters , both fed by a self cleaning pre-cleaner. The system has a dash mounted restriction indicator.

HYDRAULIC SYSTEM

Hydrostatic Drive System
Servo controlled Variable displacement closed loop system.

Wheel Drive System
Robust, proven Bell planetery hub driven by high displacement radial piston motor with fail to safe spring applied hydraulically released multidisc wet brake.

Wheel Drive Make & Model
Bell #24P

Service Brake
Hydrostatic braking through the closed loop system.

Hydraulic Implement Pump 1 Maximum Flow at Engine Rated Speed
60,9 l/min

Hydraulic Implement Pump 1 Maximum Intermittent Pressure
241 bar

Hydraulic Implement Pump 1 Use
Mast lift & lower

Hydraulic Implement Pump 2 Maximum Flow at Engine Rated Speed
39,4 l/min

Hydraulic Implement Pump 2 Maximum Intermittent Pressure
280 bar

Hydraulic Implement Pump 2 Maximum Continuous Pressure
250 bar

Hydraulic Implement Pump 2 Use
Attachment - Mast tilt

Tank
Integrated within the tubular frame

Tank Capacity
140 litres

Tank Breather
Remote to filler cap, 3 micron rating, 0.75 bar pressure.

Hydraulic Cooler Air Fin Spacing
Easy to clean wide fin spacing.

ELECTRICAL

System
12 volt system with a single maintenance free battery mounted in the rear of the machine above the tail wheel.

Alternator Output
12 v 80 Amp

Starter Motor Rating
12 v 3,0 kW

Fuse Box
Blade fuses located inside the cabin in the instrumentation box.

Battery
Maintenance free gel filled battery 100 Amp Hour rating.

Battery Isolator
Single pole type with lock out mounted onto the right hand side of the frame.

Work Lights
8 lights in total. 4 Facing forwards, 2 facing rearwards, 1 facing side ways on each side of the frame.

Strobe Light
Mounted on the rear of frame

Interior lights
LED mounted inside the cab and inside the engine bay.

ESTIMATED OPERATING WEIGHTS WITH STANDARD OPTIONS

Unladen

Front:	4 567 kg
Rear:	2 211 kg
Total:	6 778 kg

Laden

Front:	9 814 kg
Rear:	464 kg
Total:	10 278 kg

Working Load Limit
3 500 kg

FORKS

Carriage
1,2 m wide
2,5 m wide (option)

Note: Tyre sizes indicated represent available tyres at printing. Please ensure your choice is available at time of ordering.

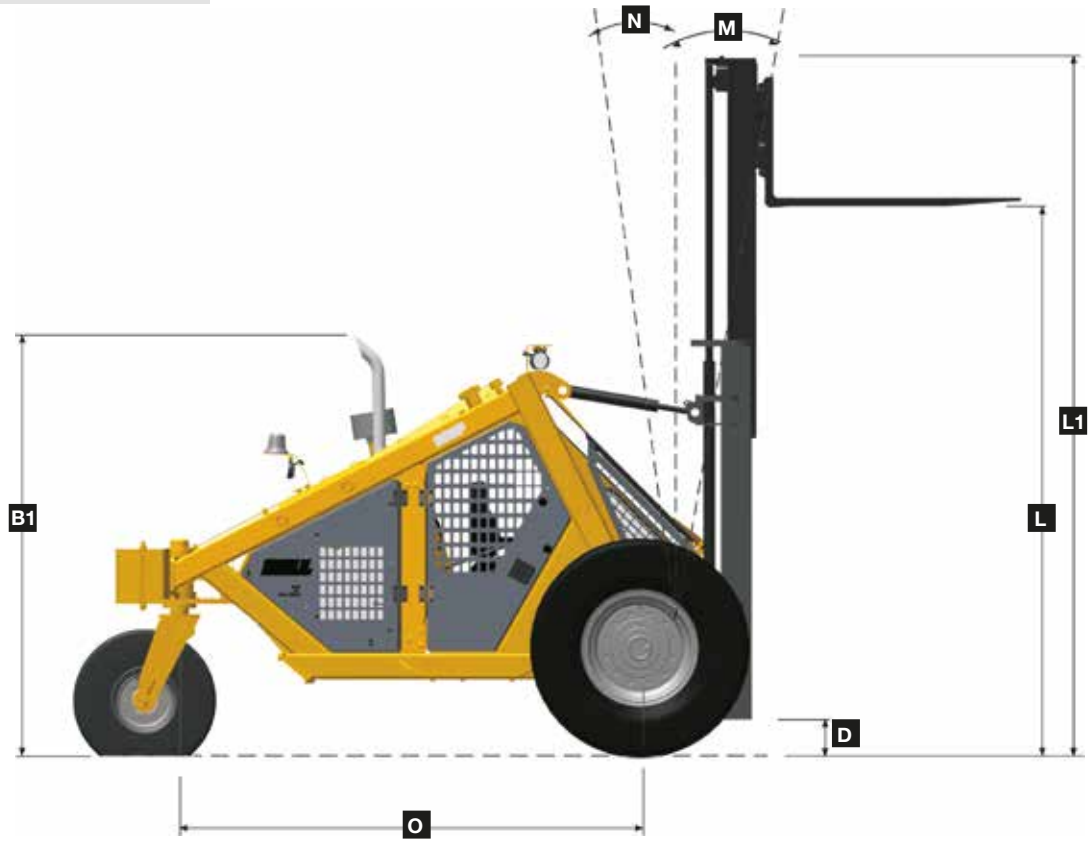
- 3.5 ton capacity
- Lowest cost per tonne solutions
- Low fuel consumption

Low maintenance

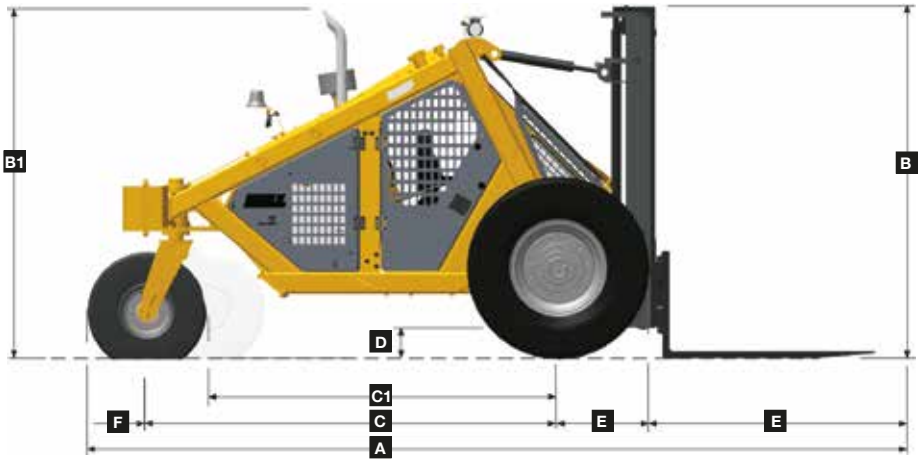
- Designed for rough terrain operations
- Where agility and productivity are requirements

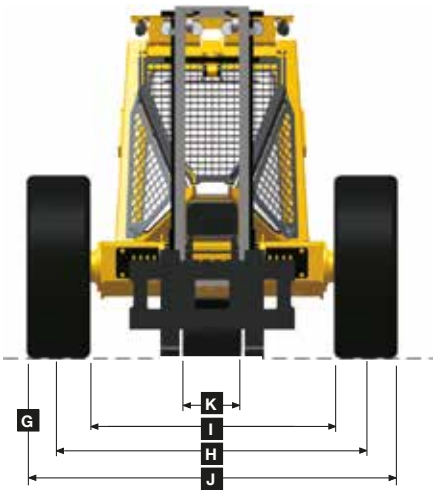
Dimensions

OPERATING POSITION



TRANSPORT POSITION





MACHINE DIMENSIONS

A	Length-Transport Position - Standard Carriage		5 739 mm
A	Length-Transport Position - Wide Carriage		5 789 mm
B	Height - Mast - Transport Position		2 569 mm
B1	Height - Exhaust - Transport Position		2 563 mm
C	Front Axle Centre to Tailwheel Axle Centre		2 998 mm
C1	Front Axle Centre to Tailwheel Axle Centre		2 577 mm
D	Ground Clearance - Mast		231 mm
E	Front Tyre 17.5 x 25 - Free Radius (Free Diameter)	(1 348)	674 mm
F	Tailwheel: 400 x 15.5 - Free Radius (Free Diameter)	(864)	432 mm
G	Reach-Standard Carriage		1 643 mm

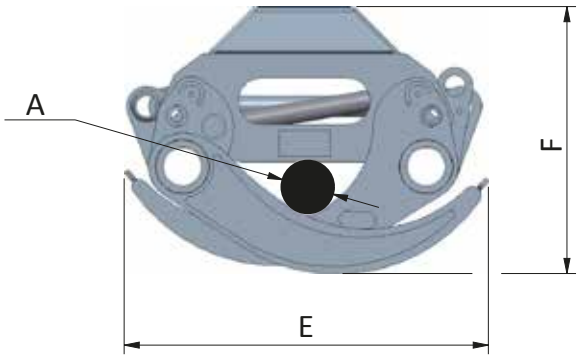
G	Reach - Wide Carriage	1 693 mm
H	Track Width - Front: 17.5 x 25	2 249 mm
I	Inside Tyre Width - Front: 17.5 x 25	1 787 mm
J	Width over Tyres - Front: 17.5 x 25	2 711 mm
K	Tyre Width - Tailwheel: 400 x 15.5	385 mm
L	Height - Fork Tines @ Maximum Reach	3 342 mm
L1	Height - Mast @ Maximum Reach	4 238 mm
M	Maximum Forward Tilt Angle	10°
N	Maximum Rearward Tilt Angle	7.5°
O	Front Axle Centre to Tailwheel Pivot Centre	2 788 mm

NOTE: All dimensions are Unladen values based on the Standard Wheelsets U.O.N

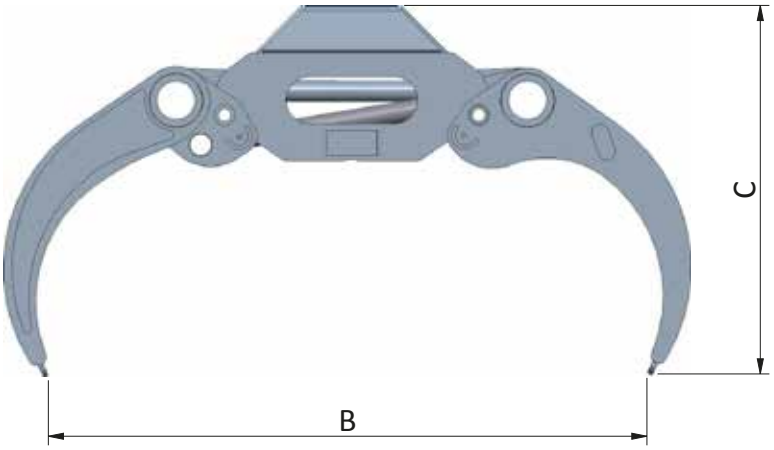
Grapple Dimensions & Operating Weights

Bell Grapple Dimensions Dimensions in millimeters U.O.N			
		Matriarch LX36	Matriarch LX42
A	Min. Closed Diameter	106	111
B	Grapple Open	1 630	1 783
C	Grapple Height - Open	823	893
D	Grapple Height - Tip to Tip	983	1 066
E	Grapple Closed	948	1 040
F	Grapple Height - Closed	625	669
G	Width Outer Tines	448	448
	Tip to Tip Area	0.36 m^2	0.42 m^2
	Weight - No Damper	222 kg	247 kg

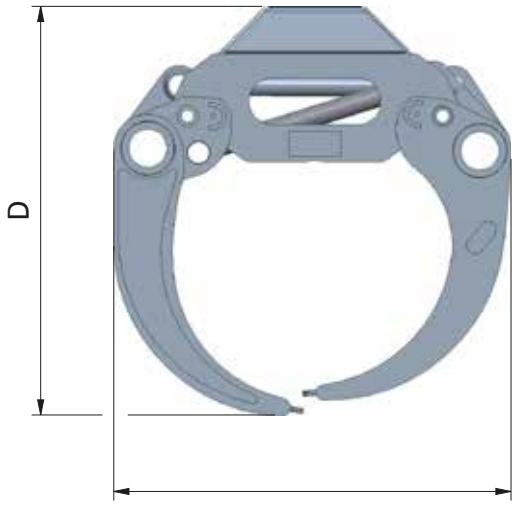
Operating Weights		
	Working Load Limit	Tipping Load
225F Crank Logger	1 273 kg	1 400 kg
225F HP Tele Logger Boom In Boom Out	 1 568 kg 1 051 kg	 1 725 kg 1 157 kg
125F Cane Loader	1 100 kg	1 210 kg
225F Forklift	3 500 kg	-



GRAPPLE CLOSED POSITION



GRAPPLE OPEN POSITION



GRAPPLE TIP TO TIP POSITION

Cab Options

225F Crank Logger	225F HP Tele Logger	125F Cane Loader	225F Forklift	CAB TRIM	Engine Doors	Cab Doors	Windscreen	Cab Door Glass	Roof Lining	Sound Kit <85dB	Air Conditioning
●	▲	●	▲	Basic option	✔	✕	✕	✕	✕	✕	✕
▲	▲	▲	●	Cab doors (no glazing)	✔	✔	✕	✕	✕	✕	✕
▲	▲	-	▲	Windscreen & wiper/washer	✔	✕	✔	✕	✕	✕	✕
▲	▲	-	▲	Windscreen & wiper/washer with cab doors (no glazing in doors)	✔	✔	✔	✕	✕		
▲	●	-	▲	Full Deluxe (full glazing)	✔	✔	✔	✔	✔	✔	✔

● STANDARD
▲ OPTION
- NOT AVAILABLE
✔ INCLUDED
✕ NOT INCLUDED

Features and Options

● STANDARD ▲ OPTION - NOT AVAILABLE

225F Crank Logger	225F HP Tele Logger	125F Cane Loader	225F Forklift	
				FRONT WHEELSETS
●	▲	▲	▲	460/85-30 T410
▲	▲	●	●	18.4 x 26 12 Ply
▲	▲	▲	-	Dual, 18.4 x 26 12 Ply
▲	●	-	-	23.1-26 T418FS
				REAR WHEELSETS
●	▲	●	▲	400/60-15.5 T404
▲	●	▲	-	18.0 x 15.5 EcoAgri
-	-	-	●	400/60-15.5 BKT TR822 14Ply
				SEAT
●	▲	●	●	Unsuspended Lap Belt
▲	●	▲	▲	Suspended
▲	▲	▲	▲	Unsuspended 4 Point Harness
				ATTACHMENT
-	▲	-	-	Matriarch LX36
▲	●	-	-	Matriarch LX42
-	-	●	-	Cane Grab
-	-	-	●	Fork-lift with 1.2, Wide Carriage
-	-	-	▲	Fork-lift with 2.5, Wide Carriage
-	-	-	POA	Fork-lift with Brick Clamp
-	-	-	POA	Fork-lift with Tyre Clamp
				WORK LIGHTS
●	●	●	●	Halogen Lights
▲	▲	▲	▲	LED 1800L
▲	▲	▲	▲	LED 3500L
				BOOM
-	-	●	-	Cane Boom
●	▲	-	-	Crank Boom
▲	●	-	-	Tele Boom
▲	▲	-	-	Ext Tele Boom
				COUNTER WEIGHT
▲	▲	●	▲	1 Weight
●	▲	▲	▲	4 Weights
▲	●	▲	▲	6 Weights
▲	▲	▲	●	7 Weights
				MISCELLANEOUS
●	▲	●	●	Rear View Side Mirrors *(Note: not available if Log Rest Option is selected)*
▲	▲	-	▲	Door Proximity Switches
▲	●	-	-	Log Rest
▲	▲	▲	▲	Fire Extinguisher Bracket

225F Crank Logger	225F HP Tele Logger	125F Cane Loader	225F Forklift	
				WARNING LIGHTS/INSTRUMENTATION
●	●	●	●	Hydraulic charge filter bypass
●	●	●	●	Engine oil pressure
●	●	●	●	Engine coolant temperature high
●	●	●	●	Hydraulic oil temperature high
●	●	●	●	Air cleaner blocked
●	●	●	●	Low fuel
●	●	●	●	Battery charge
●	●	●	●	Cold start
●	●	●	●	Park brake active
▲	▲	▲	▲	Reverse Camera
▲	▲	▲	▲	Fleetm@tic®
				SWITCHES
●	●	●	●	Ignition (key)
●	●	●	●	Hour metre
●	●	●	●	Park brake
●	●	●	●	Horn
●	●	●	●	Interior lights
●	●	●	●	Cold start aid
●	●	●	●	Battery isolator
				SENSORS
●	●	●	●	Low fuel level
▲	▲	▲	▲	Door open proximity switch (if doors are fitted)
●	●	●	●	Air cleaner blocked
●	●	●	●	Hydraulic charge filter bypass
●	●	●	●	Engine oil pressure
●	●	●	●	Engine coolant temp
●	●	●	●	Hydraulic oil temperature
▲	▲	▲	▲	Reverse alarm
				CAB *(see page 15 for details)*
●	▲	●	▲	Basic option
▲	▲	▲	●	Cab doors (no glazing)
▲	▲	-	▲	Windscreen and wiper/washer
▲	▲	-	▲	Windscreen and wiper/washer with cab doors (no glazing in doors)
▲	●	-	▲	Full deluxe (full glazing)
				LANGUAGE
●	▲	●	●	English
▲	▲	▲	▲	French
▲	●	▲	▲	Spanish

BELL INTERNATIONAL: Tel: +27 (0)35 907 9431
E-mail: marketing@bellequipment.com Web: www.bellequipment.com

Tel: +61 (0)8 9355 2442
Tel: +49 (0)663 191 130
Tel: +27 (0)11 928 9700
Tel: +44 (0)1283 712 862
Tel: +33 (0)5 55 892 356
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