

F-series

Logger | Cane Loader | Forklift



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.



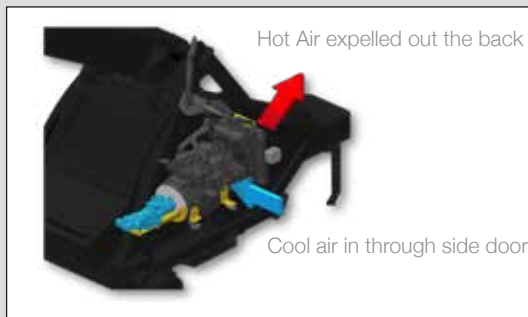
Yanmar Water cooled Engine

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

I Technical Data

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
Cyclonic pre-cleaner continuously vacuum scavenged through the exhaust. Primary filter with second safety filter with dash mounted restriction indicator. Twice the dust holding capacity of conventional air cleaners.

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 1 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	Boom In	Boom Out
Front:	6 356 kg	6 524 kg
Rear:	371 kg	203 kg
Total:	6 727 kg	6 727 kg

Safe Working Load
1 273 kg

Tipping Load
1 400 kg

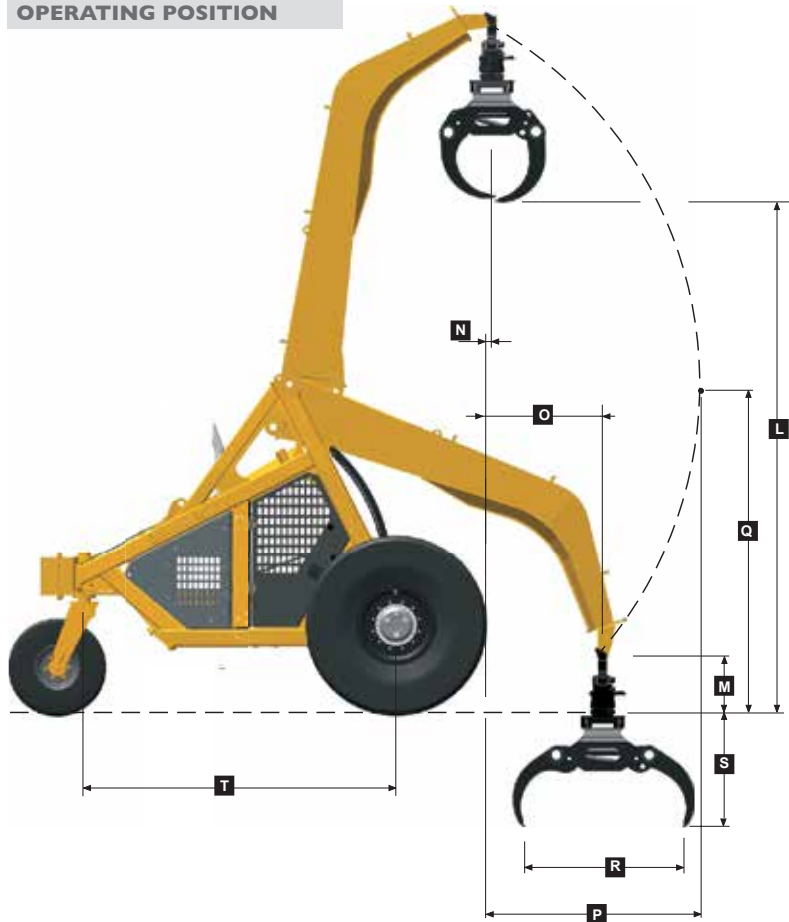
GRAPPLE
#35 with damped link (#43 option)

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

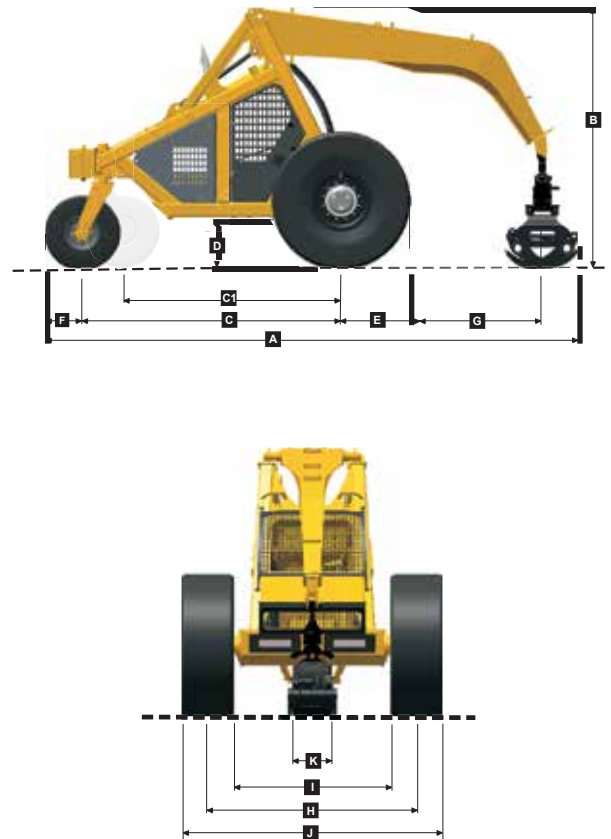
Low capital outlay
Low operating cost due to few working parts
Low fuel consumption
Simple to maintain
Multi-purpose unit
Highly manoeuvrable

I Dimensions

OPERATING POSITION



TRANSPORT POSITION



MACHINE DIMENSIONS

A	Length-Transport Position with #35 Grab Closed	6 240 mm	I2	18.4-26 (Option 1)	1 813 mm
A	Length-Transport Position with #43 Grab Closed	6 370 mm	I3	18.4/15-30 (Option 2)	1 846 mm
B	Height-Transport Position with Grab closed	3 059 mm	I4	18.4-34 (Option 3)	1 851 mm
C	Front Axle Centre to Tailwheel Axle Centre	3 030 mm	I5	18.4-26 (Option 4-Dual Wheelset)	1 687 mm
C1	Front Axle Centre to Tailwheel Axle Centre	2 546 mm	J	Width over Tyres-Front	
D	Ground Clearance-Front Axle Box	578 mm	J1	23.1-26 (Std Wheelset)	2 982 mm
E	Front Tyre-Free Radius (Free Diameter)		J2	18.4-26 (Option 1)	2 746 mm
E1	23.1-26 (Std Wheelset)	807.5 mm (ø1615)	J3	18.4/15-30 (Option 2)	2 778 mm
E2	18.4-26 (Option 1)	729 mm (ø1458)	J4	18.4-34 (Option 3)	2 787 mm
E3	18.4/15-30 (Option 2)	774.5 mm (ø1549)	J5	18.4-26 (Option 4-Dual Wheelset)	3 675 mm
E4	18.4-34 (Option 3)	837.5 mm (ø1675)	K	Tyre Width-Tailwheel	
E5	18.4-26 (Option 4-Dual Wheelset)	729 mm (ø1458)	K1	400-15.5 (Std Wheelset)	385 mm
F	Tailwheel-Free Radius (Free Diameter)		K2	18-15.5 (Option 1)	450 mm
F1	400-15.5 (Std Wheelset)	432 mm (ø864)	L	Load Over Height - #35 Grab	4 586 mm
F2	18-15.5 (Option 1)	490 mm (ø980)	L	Load Over Height - #43 Grab	4 480 mm
G	Reach-Grab Pivot @ Ground Level - #35 Grab	1 545 mm	M	Grab Pivot Height-Boom Down Position	529 mm
G	Reach-Grab Pivot @ Ground Level - #43 Grab	1 600 mm	N	Reach-Grab Pivot-Boom Up Position	44 mm
H	Track Width-Front		O	Reach-Grab Pivot-Boom Down Position	1 036 mm
H1	23.1-26 (Std Wheelset)	2 382 mm	P	Maximum Reach-Grab Pivot	1 948 mm
H2	18.4-26 (Option 1)	2 279.5 mm	Q	Height-Grab Pivot @ Maximum Reach	2 964 mm
H3	18.4/15-30 (Option 2)	2 312 mm	R	Grab Open - #35	1 414 mm
H4	18.4-34 (Option 3)	2 319 mm	R	Grab Open - #43	1 577 mm
H5	18.4-26 (Option 4-Dual Wheelset)	2 681 mm	S	Maximum Reach-Below Ground - #35 Grab	1 001 mm
I	Inside Tyre Width-Front		S	Maximum Reach-Below Ground - #43 Grab	1 054 mm
I1	23.1-26 (Std Wheelset)	1 782 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 Grab with Damper U.O.N. Negative (-) dimension value denotes position below ground level or behind front of wheel, whichever is applicable.

I Technical Data

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
Cyclonic pre-cleaner continuously vacuum scavenged through the exhaust. Primary filter with second safety filter with dash mounted restriction indicator. Twice the dust holding capacity of conventional air cleaners.

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 1 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

Safe Working Load
1 568 kg 1 051 kg

Tipping Load
1 725 kg 1 157 kg

GRAPPLE

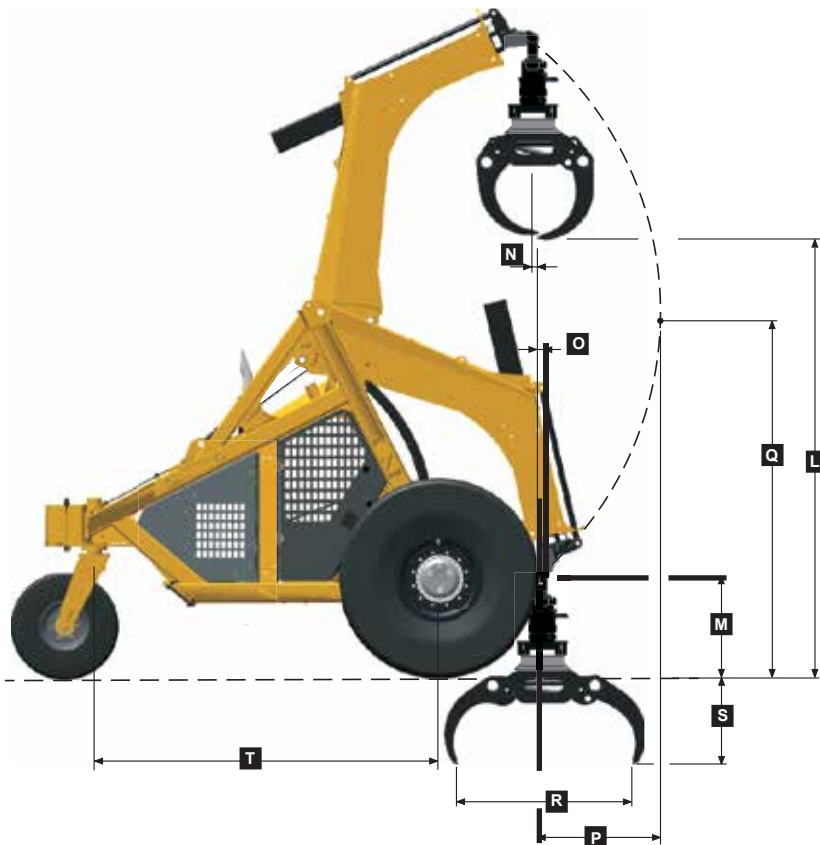
#43 without damped link (#35 option)

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

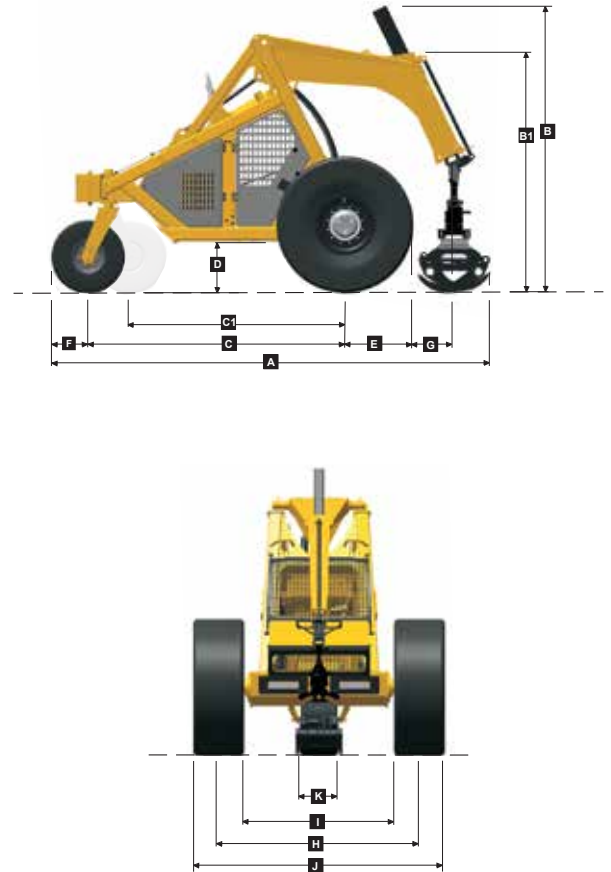
Low capital outlay
Low operating cost due to few working parts
Low fuel consumption
Simple to maintain
Highly manoeuvrable

I Dimensions

OPERATING POSITION



TRANSPORT POSITION



MACHINE DIMENSIONS

A	Length-Transport Position with #35 Grab Closed - Teleboom Retracted	5 175 mm	I3	18.4/15-30 (Option 2)	1 846 mm
A	Length-Transport Position with #35 Grab Closed - Teleboom Extended	6 232 mm	I4	18.4-34 (Option 3)	1 851 mm
A	Length-Transport Position with #43 Grab Closed - Teleboom Retracted	5 331 mm	I5	18.4-26 (Option 4-Dual Wheelset)	1 687 mm
A	Length-Transport Position with #43 Grab Closed - Teleboom Extended	6 363 mm	J	Width over Tyres-Front	
B	Height-Transport Position with #35 Grab Closed - Teleboom Retracted	3 397 mm	J1	23.1-26 (Std Wheelset)	2 982 mm
B1	Height-Transport Position with #35 Grab Closed - Teleboom Extended	3 367 mm	J2	18.4-26 (Option 1)	2 746 mm
B	Height-Transport Position with #43 Grab Closed - Teleboom Retracted	3 468 mm	J3	18.4/15-30 (Option 2)	2 778 mm
B1	Height-Transport Position with #43 Grab Closed - Teleboom Extended	3 426 mm	J4	18.4-34 (Option 3)	2 787 mm
C	Front Axle Centre to Tailwheel Axle Centre	3 030 mm	J5	18.4-26 (Option 4-Dual Wheelset)	3 675 mm
C1	Front Axle Centre to Tailwheel Axle Centre	2 546 mm	K	Tyre Width-Tailwheel	
D	Ground Clearance-Front Axle Box	578 mm	K1	400-15.5 (Std Wheelset)	385 mm
E	Front Tyre-Free Radius (Free Diameter)		K2	18-15.5 (Option 1)	450 mm
E1	23.1-26 (Std Wheelset)	807.5 mm (ø1 615)	L	Load Over Height - #35 Grab with Teleboom Retracted	3 547 mm
E2	18.4-26 (Option 1)	729 mm (ø1 458)	L	Load Over Height - #35 Grab with Teleboom Extended	3 955 mm
E3	18.4/15-30 (Option 2)	774.5 mm (ø1 549)	L	Load Over Height - #43 Grab with Teleboom Retracted	3 441 mm
E4	18.4-34 (Option 3)	837.5 mm (ø1 675)	L	Load Over Height - #43 Grab with Teleboom Extended	3 849 mm
E5	18.4-26 (Option 4-Dual Wheelset)	729 mm (ø1 458)	M	Grab Pivot Height-Boom Down Position with Teleboom Retracted	816 mm
F	Tailwheel-Free Radius (Free Diameter)		M	Grab Pivot Height-Boom Down Position with Teleboom Extended	142 mm
F1	400-15.5 (Std Wheelset)	432 mm (ø864)	N	Reach-Grab Pivot-Boom Up Position with Teleboom Retracted	27 mm
F2	18-15.5 (Option 1)	490 mm (ø980)	N	Reach-Grab Pivot-Boom Up Position with Teleboom Extended	866 mm
G	Reach-Grab Pivot @ Ground Level I - #35 Grab with Teleboom Retracted	481 mm	O	Reach-Grab Pivot-Boom Down Position with Teleboom Retracted	39 mm
G	Reach-Grab Pivot @ Ground Level I - #35 Grab with Teleboom Extended	1 538 mm	O	Reach-Grab Pivot-Boom Down Position with Teleboom Extended	255 mm
G	Reach-Grab Pivot @ Ground Level I - #43 Grab with Teleboom Retracted	561 mm	P	Maximum Reach-Grab Pivot with Teleboom Retracted	1 042 mm
G	Reach-Grab Pivot @ Ground Level I - #43 Grab with Teleboom Extended	1 593 mm	P	Maximum Reach-Grab Pivot with Teleboom Extended	1 942 mm
H	Track Width-Front		Q	Height-Grab Pivot @ Maximum Reach with Teleboom Retracted	2 964 mm
H1	23.1-26 (Std Wheelset)	2 382 mm	Q	Height-Grab Pivot @ Maximum Reach with Teleboom Extended	2 964 mm
H2	18.4-26 (Option 1)	2 279.5 mm	R	Grab Open - #35	1 414 mm
H3	18.4/15-30 (Option 2)	2 312 mm	R	Grab Open - #43	1 577 mm
H4	18.4-34 (Option 3)	2 319 mm	S	Maximum Reach-Below Ground - #35 Grab with Teleboom Retracted	714 mm
H5	18.4-26 (Option 4-Dual Wheelset)	2 681 mm	S	Maximum Reach-Below Ground - #35 Grab with Teleboom Extended	1 672 mm
I	Inside Tyre Width-Front		S	Maximum Reach-Below Ground - #43 Grab with Teleboom Retracted	768 mm
I1	23.1-26 (Std Wheelset)	1 782 mm	S	Maximum Reach-Below Ground - #43 Grab with Teleboom Extended	1 725 mm
I2	18.4-26 (Option 1)	1 813 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 Grab with Damper U.O.N.

Negative (-) dimension value denotes position below ground level or behind front of wheel, whichever is applicable.

I Technical Data

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

Cyclonic pre cleaner continuously vacuum scavenged through the exhaust. Primary filter with second safety filter with dash mounted restriction indicator. Twice the dust holding capacity of conventional air cleaners.

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 #24P

Service Brake

Hydrostatic braking through the closed loop system.

Hydraulic Imp. Pump 1

Maximum Flow at Eng. Rated Speed

60.9 l/min

Hydraulic Impl. Pump 1

Maximum Intermittent Pressure

241 bar

Hydraulic Impl. Pump 1 Use

Mast lift & lower

Hydraulic Impl. Pump 1

Maximum Flow at Eng. Rated Speed

39.4 l/min

Hydraulic Impl. Pump 2

Maximum Intermittent Pressure
280 bar

Hydraulic Impl. Pump 2

Maximum Continuous Pressure Pressure
250 bar

Hydraulic Impl. 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

Safe Working Load

1 100 kg

Tipping Load

1 210 kg

GRAB

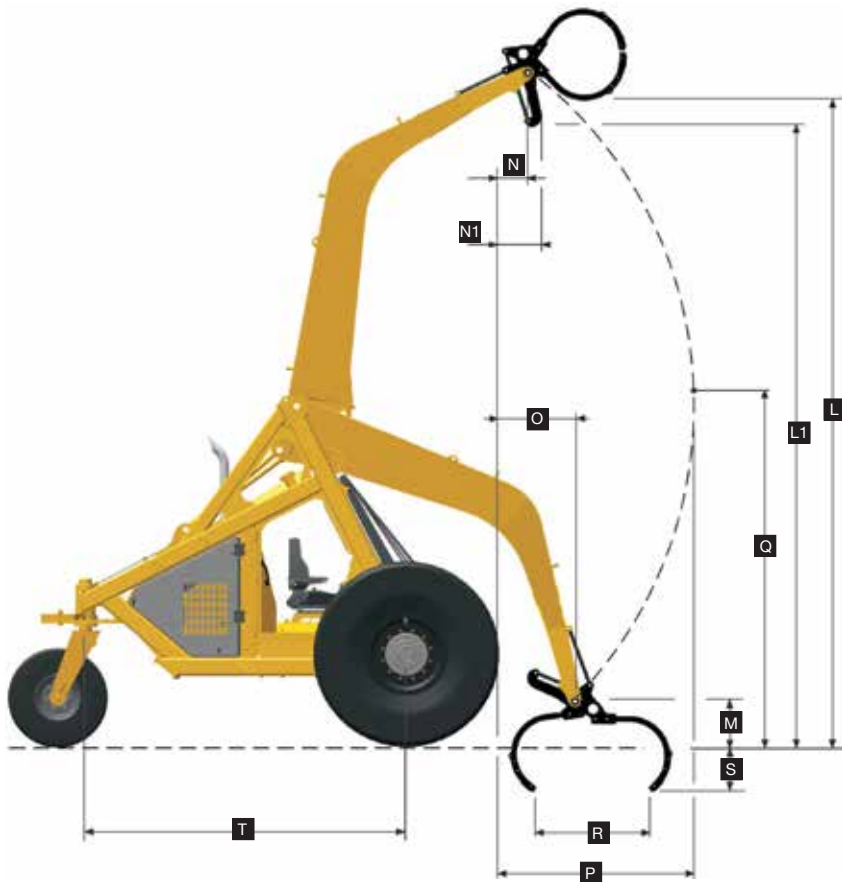
0,36 m² grab

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

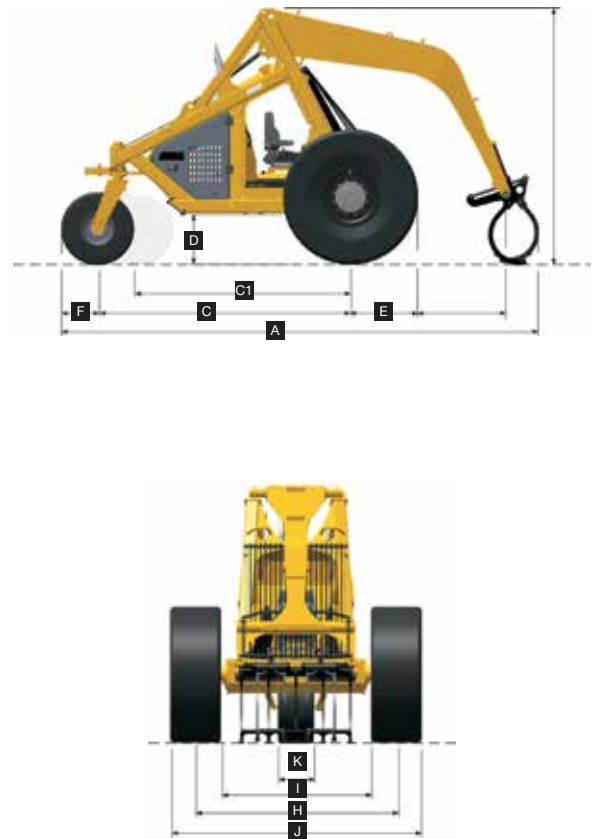
Lowest cost per tonne solutions
Low fuel consumption
Low maintenance
Designed for field and zone loading operations
Efficient and productive loading

I Dimensions

OPERATING POSITION



TRANSPORT POSITION



MACHINE DIMENSIONS

A	Length - Transport Position with Grab Closed	5 720 mm	I3	18.4/15-30 (option 2)	1 846 mm
B	Height - Transport Position with Grab Closed	3 064 mm	I4	18.4-34 (Option 3)	1 851 mm
C	Front Axle Centre to Tailwheel Axle Centre	3 030 mm	I5	18.4-26 (Option 4 Dual Wheelset)	1 687 mm
C1	Front Axle Centre to Tailwheel Axle Centre	2 546 mm	J	Width over Tyres - Front	
D	Ground Clearance - Front Axle Box	582 mm	J1	23.1-26 (Std Wheelset)	2 982 mm
E	Front Tyre - Free Radius (Free Diameter)		J2	18.4-26 (Option 1)	2 746 mm
E1	23.1-26 (Std Wheelset)	807.5 mm (ø1 615)	J3	18.4/15-30 (Option 2)	2 778 mm
E2	18.4-26 (Option 1)	729 mm (ø1 458)	J4	18.4-34 (Option 3)	2 787 mm
E3	18.4/15-30 (option 2)	774.5 mm (ø1 549)	J5	18.4-26 (Option 4 Dual Wheelset)	3 675 mm
E4	18.4-34 (Option 3)	837.5 mm (ø1 675)	K	Tyre Width - Tailwheel	
E5	18.4-26 (Option 4 Dual Wheelset)	729 mm (ø1 458)	K1	400-15.5 (Std Wheelset)	385 mm
F	Tailwheel - Free Radius (Free Diameter)		K2	18-15.5 (Option 1)	450 mm
F1	400-15.5 (Std Wheelset)	432 mm (ø864)	L	Load Over Height - Cane Grab Tines	5 629 mm
F2	18-15.5 (Option 1)	490 mm (ø980)	L1	Load Over Height	5 399 mm
G	Reach-Grab Pivot @ Ground Level	1 061 mm	M	Grab Pivot Height - Boom Down Position	406 mm
H	Track Width - Front		N	Reach - Grab Pivot - Boom Up Position	245 mm
H1	23.1-26 (Std Wheelset)	2 382 mm	N1	Reach - Grab Boom Up Position	368 mm
H2	18.4-26 (Option 1)	2 279.5 mm	O	Reach - Grab Pivot - Boom Down Position	665 mm
H3	18.4/15-30 (Option 2)	2 312 mm	P	Maximum Reach - Grab Pivot	1 768 mm
H4	18.4-34 (Option 3)	2 319 mm	Q	Height - Grab Pivot @ Maximum Reach	2 969 mm
H5	18.4-26 (Option 4 Dual Wheelset)	2 681 mm	R	Grab Open	972 mm
I	Inside Tyre Width - Front		S	Maximum Reach - Below Ground	379 mm
I1	23.1-26 (Std Wheelset)	1 782 mm	T	Front Axle Centre to Tailwheel Pivot Centre	2 788 mm
I2	18.4-26 (Option 1)	1 813 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.

I Technical Data

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

Cyclonic pre cleaner continuously vacuum scavenged through the exhaust. Primary filter with second safety filter with dash mounted restriction indicator. Twice the dust holding capacity of conventional air cleaners.

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 #24P

Service Brake

Hydrostatic braking through the closed loop system.

Hydraulic Imp. Pump 1

Maximum Flow at Eng. Rated Speed

60.9 l/min

Hydraulic Impl. Pump 1

Maximum Intermittent Pressure

241 bar

Hydraulic Impl. Pump 1

Maximum Flow at Eng. Rated Speed

39.4 l/min

Hydraulic Impl. Pump 2

Maximum Intermittent Pressure

280 bar

Hydraulic Impl. Pump 2

Maximum Continuous Pressure

250 bar

Hydraulic Impl. 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

Safe Working Load

3 500 kg

FORKS

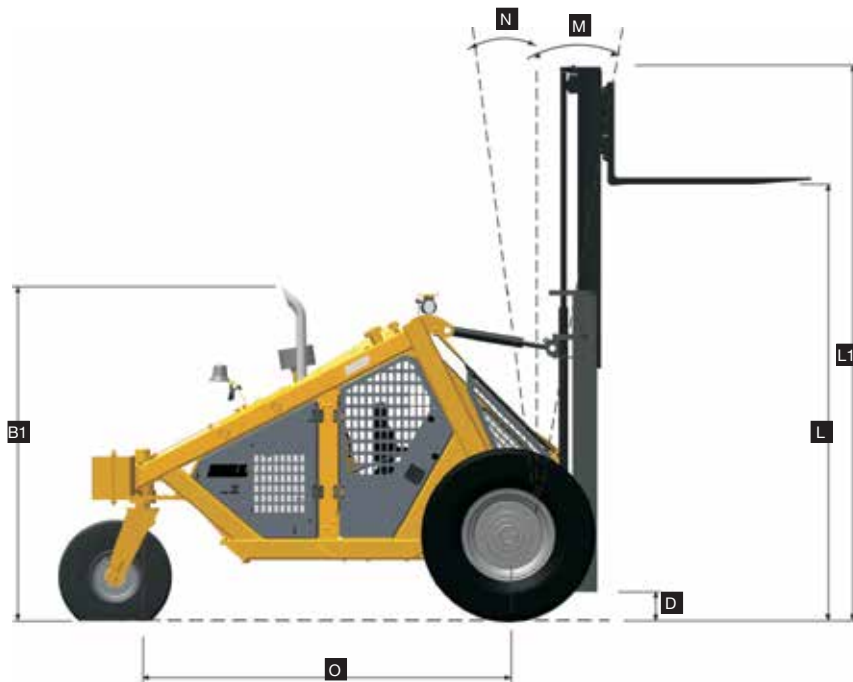
Carriage 1,2 m wide 2,5 m wide (option)

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

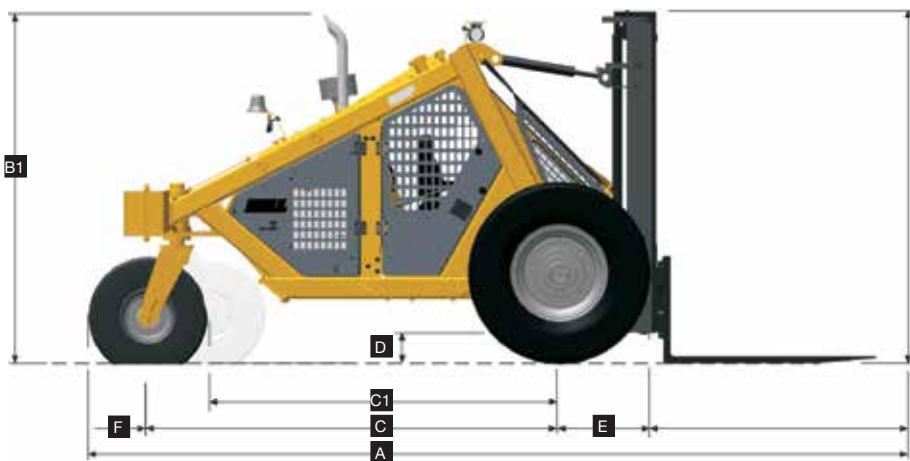
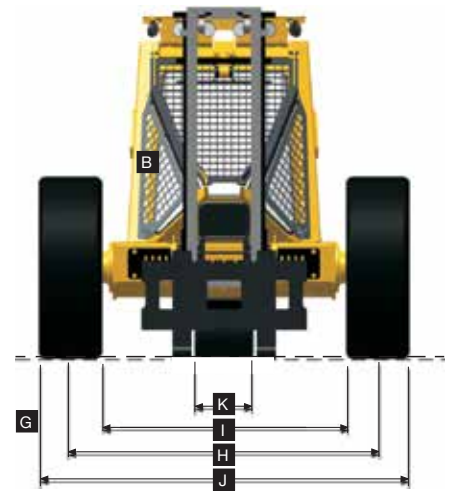
3.5 ton capacity
Lowest cost per tonne solutions
Low fuel consumption
Low maintenance
Designed for rough terrain operations
Where agility and productivity are requirements

I Dimensions

OPERATING POSITION



TRANSPORT POSITION



MACHINE DIMENSIONS

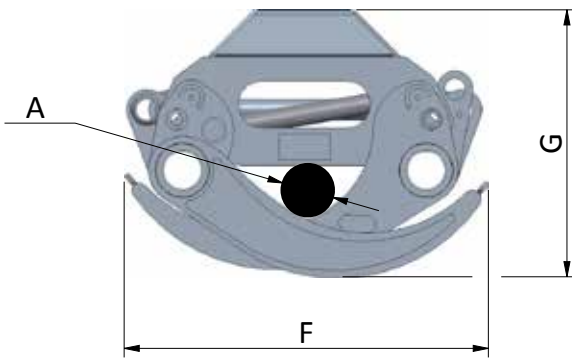
A	Length-Transport Position - Standard Carriage	5 739 mm	G	Reach-Wide Carriage	1 693 mm
A	Length-Transport Position - Wide Carriage	5 789 mm	H	Track Width-Front: 17.5-25	2 249 mm
B	Height - Mast- Transport Position	2 569 mm	I	Inside Tyre Width-Front: 17.5-25	1 787 mm
B1	Height - Exhaust - Transport Position	2 563 mm	J	Width over Tyres-Front: 17.5-25	2 711 mm
C	Front Axle Centre to Tailwheel Axle Centre	2 998 mm	K	Tyre Width-Tailwheel: 400-15.5	385 mm
C1	Front Axle Centre to Tailwheel Axle Centre	2 577 mm	L	Height - Fork Tines @ Maximum Reach	3 342 mm
D	Ground Clearance-Mast	231 mm	L1	Height - Mast @ Maximum Reach	4 238 mm
E	Front Tyre 17.5-25-Free Radius (Free Diameter)	674 mm (1 348)	M	Maximum Forward Tilt Angle	10°
F	Tailwheel: 400-15.5-Free Radius (Free Diameter)	432 mm (864)	N	Maximum Rearward Tilt Angle	7.5°
G	Reach-Standard Carriage	1 643 mm	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

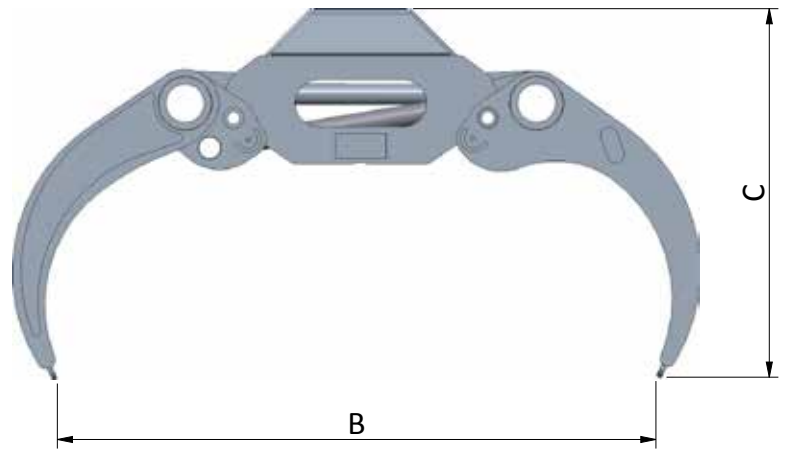
Grab Dimensions & Operating Weights

Bell Grab Dimensions			
Dimensions in millimetres U.O.N			
		#35	#43
	Weight - No Damper	255 kg	282 kg
	Weight - with Damper	307 kg	334 kg
	Approx. Tip to Tip Area	0.35 m ²	0.43 m ²
A	Min. Closed Diameter	121	142
B	Grab Open	1 424	1 577
C	Grab Height - Open - No Damper	870	920
C	Grab Height - Open - with Damper	995	1 045
D	Grab Tip to Tip	938	1 036
E	Grab Height - Tip to Tip - No Damper	965	1 070
E	Grab Height - Tip to Tip - with Damper	1 090	1 195
F	Grab Closed	860	1 020
G	Grab Height - Closed - No Damper	630	735
G	Grab Height - Closed - with Damper	755	860
H	Width Outer Tines	544	544
I	Width Inner Tines	410	410

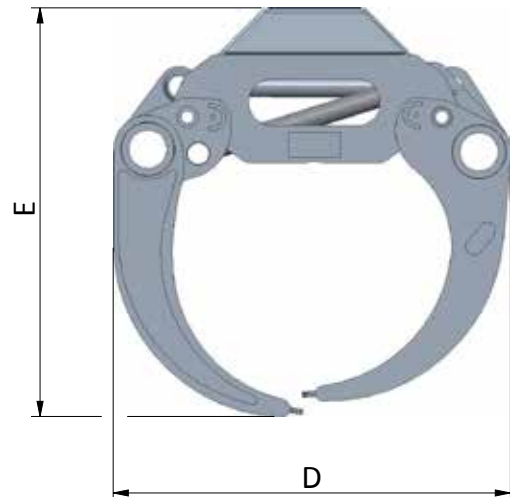
Operating Weights			
	Safe Working Load	Tipping Load	
225F Crank Logger	1 273 kg	1 400 kg	
225F HP Tele Logger	Boom In	1 568 kg	1 725 kg
	Boom Out	1 051 kg	1 157 kg
125F Cane Loader	1 100 kg	1 210 kg	
225F Forklift	3 500 kg	-	



GRAB CLOSED POSITION



GRAB OPEN POSITION



GRAB TIP TO TIP POSITION

Cab Options



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

- STANDARD
- ▲ OPTION
- NOT AVAILABLE
- ✓ INCLUDED
- ✗ NOT INCLUDED

225F Crank Logger	225F HP Tele Logger	125F Cane Loader	225F Forklift	
▲	▲	●	-	FRONT WHEELSETS
▲	▲	▲	-	18.4x26 10Ply Logger
▲	▲	▲	-	18.4x26 10Ply Logger Dual Wheel
●	▲	▲	-	18.4x30 10Ply Logger
▲	▲	▲	-	18.4x34 10Ply Forestry Special
▲	●	▲	-	23.1x26 LS2 16Ply General
▲	▲	▲	-	23.1x26 LS2 16Ply SEHA
▲	▲	▲	-	23.1x26 LS2 16Ply Trelleborg T418
-	-	-	●	17.5x23 L3
				REAR WHEELSETS
●	●	●	●	400x15.5 10Ply
▲	-	▲	▲	18.00x15.5 12Ply
-	-	▲	▲	400x15.5 10Ply Dual Wheel
				SEAT
●	▲	●	●	Unsuspended Lap Belt
▲	▲	▲	▲	Unsuspended 4 Point Harness
▲	●	▲	▲	Suspended
				ATTACHMENT
●	▲	-	-	#35 with damped link
▲	▲	-	-	#35 without damped link
▲	▲	-	-	#43 with damped link
▲	●	-	-	#43 without damped link
-	-	●	-	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 Lights (1800 Lum)
▲	▲	▲	▲	LED Lights (3500 Lum)
				BOOM
-	-	●	-	Cane Boom
●	▲	-	-	Crank Boom
▲	●	-	-	Tele Boom
▲	▲	-	-	Ext Tele Boom
				LANGUAGE
●	▲	●	●	English
▲	▲	▲	▲	French
▲	●	▲	▲	Spanish

225F Crank Logger	225F HP Tele Logger	125F Cane Loader	225F Forklift	
▲	▲	●	▲	COUNTER WEIGHT
●	●	▲	▲	1 Weight
-	-	-	●	4 Weights
				6 Weights
				MISCELLANEOUS
●	▲	●	●	Rear View Side Mirrors
▲	▲	-	▲	(Note: not available if Log Rest Option is selected)
▲	●	-	-	Door Proximity Switches
▲	●	▲	▲	Log Rest
▲	●	▲	●	Fire Extinguisher
				Back up alarm
				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
●	●	●	●	Air cleaner blocked
●	●	●	●	Hydraulic charge filter bypass
●	●	●	●	Engine oil pressure
●	●	●	●	Engine coolant temp
●	●	●	●	Hydraulic oil temperature
▲	●	▲	▲	Reverse alarm


Please note that all information supplied in this brochure is intended to assist the customer in understanding the general applications of Bell Equipment's F-series machines.


Performance information is intended for estimating purposes only. Due to the many variables unique to individual operations such as weather, terrain, ground conditions, operator productivity, etc neither Bell Equipment Company nor its Dealers warrant that the machines described will perform as estimated.


Due to Bell Equipment's policy of constant product improvement, specifications are subject to change without notice.


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Strong Reliable Support**

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