F-series

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

Forklift, Logger, Cane Loader

Evolution of a classic
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
F-series | 225F Crank Logger

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 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  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 damper 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
OPERATING POSITION

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.

TRANSPORT POSITION

MACHINE DIMENSIONS

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Operating Position</th>
<th>Transport Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Length - Transport Position with #35 Grab Closed</td>
<td>6 240 mm</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>Height - Transport Position with Grab closed</td>
<td>3 059 mm</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Front Axle Centre to Tailwheel Axle Centre</td>
<td>3 030 mm</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Front Axle Centre to Tailwheel Axle Centre</td>
<td>2 546 mm</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Ground Clearance - Front Axle Box</td>
<td>578 mm</td>
</tr>
<tr>
<td><strong>E1</strong></td>
<td>Front Tyre - Free Radius (Free Diameter)</td>
<td>807.5 mm (Ø1615)</td>
</tr>
<tr>
<td><strong>E2</strong></td>
<td>Front Tyre - Free Radius (Free Diameter)</td>
<td>729 mm (Ø1458)</td>
</tr>
<tr>
<td><strong>E3</strong></td>
<td>Front Tyre - Free Radius (Free Diameter)</td>
<td>774.5 mm (Ø1549)</td>
</tr>
<tr>
<td><strong>E4</strong></td>
<td>Front Tyre - Free Radius (Free Diameter)</td>
<td>837.5 mm (Ø1675)</td>
</tr>
<tr>
<td><strong>E5</strong></td>
<td>Front Tyre - Free Radius (Free Diameter)</td>
<td>729 mm (Ø1458)</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>Front Tyre - Free Radius (Free Diameter)</td>
<td>432 mm (Ø864)</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
<tr>
<td><strong>O</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
<tr>
<td><strong>Q</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #35 Grab</td>
<td>1 545 mm</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>Reach - Grab Pivot @ Ground Level - #43 Grab</td>
<td>1 600 mm</td>
</tr>
</tbody>
</table>

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.

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**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 2
Maximum Flow at Engine Rated Speed
39,4 l/min

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 damper 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
### Dimensions

#### OPERATING POSITION

| A | Length - Transport Position - #35 Grab Closed, Teleboom Retracted | 5 175 mm |
| A | Length - Transport Position - #35 Grab Closed, Teleboom Extended | 6 232 mm |
| A | Length - Transport Position - #43 Grab Closed, Teleboom Retracted | 5 331 mm |
| A | Length - Transport Position - #43 Grab Closed, Teleboom Extended | 6 363 mm |
| B | Height - Transport Position - #35 Grab Closed, Teleboom Retracted | 3 397 mm |
| B | Height - Transport Position - #35 Grab Closed, Teleboom Extended | 3 367 mm |
| B | Height - Transport Position - #43 Grab Closed, Teleboom Retracted | 3 468 mm |
| B | Height - Transport Position - #43 Grab 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 - Grab Pivot @ Ground Level - #35 Grab, Teleboom Retracted | 481 mm |
| G | Reach - Grab Pivot @ Ground Level - #35 Grab, Teleboom Extended | 1 538 mm |
| G | Reach - Grab Pivot @ Ground Level - #43 Grab, Teleboom Retracted | 561 mm |
| G | Reach - Grab Pivot @ Ground Level - #43 Grab, 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 |

#### TRANSPORT POSITION

| J | 18.4/15 x 30 (Option 2) | 1 846 mm |
| J4 | 18.4 x 34 (Option 3) | 1 687 mm |
| J5 | 18.4 x 26 (Option 4-Dual Wheelset) | 1 687 mm |
| J1 | 23.1 x 26 (Std Wheelset) | 2 982 mm |
| J2 | 18.4 x 26 (Option 1) | 2 746 mm |
| J3 | 18.4 x 34 (Option 2) | 2 778 mm |
| J4 | 18.4 x 34 (Option 3) | 2 787 mm |
| J5 | 18.4 x 26 (Option 4-Dual Wheelset) | 3 075 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 - #35 Grab, Teleboom Retracted | 3 547 mm |
| L | Load Over Height - #35 Grab, Teleboom Extended | 3 965 mm |
| L | Load Over Height - #43 Grab, Teleboom Retracted | 3 441 mm |
| L | Load Over Height - #43 Grab, Teleboom Extended | 3 849 mm |
| M | Grab Pivot Height - Boom Down Position, Teleboom Retracted | 816 mm |
| M | Grab Pivot Height - Boom Down Position, Teleboom Extended | 142 mm |
| N | Reach-Grab Pivot - Boom Up Position, Teleboom Retracted | 27 mm |
| N | Reach-Grab Pivot - Boom Up Position, Teleboom Extended | 896 mm |
| O | Reach-Grab Pivot - Boom Down Position, Teleboom Retracted | 39 mm |
| O | Reach-Grab Pivot - Boom Down Position, Teleboom Extended | 255 mm |
| P | Maximum Reach - Grab Pivot, Teleboom Retracted | 1 042 mm |
| P | Maximum Reach - Grab Pivot, Teleboom Extended | 1 942 mm |
| Q | Height - Grab Pivot @ Maximum Reach, Teleboom Retracted | 2 964 mm |
| Q | Height - Grab Pivot @ Maximum Reach, Teleboom Extended | 2 964 mm |
| R | Grab Open - #35 | 1 414 mm |
| R | Grab Open - #43 | 1 577 mm |
| S | Maximum Reach - Below Ground - #35 Grab, Teleboom Retracted | 714 mm |
| S | Maximum Reach - Below Ground - #35 Grab, Teleboom Extended | 1 672 mm |
| S | Maximum Reach - Below Ground - #43 Grab, Teleboom Retracted | 768 mm |
| S | Maximum Reach - Below Ground - #43 Grab, 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 Grab with Damper U.O.N.

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

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## ENGINE & ANCILLARIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yanmar TNV98</td>
<td>45 kW</td>
</tr>
<tr>
<td>Configuration</td>
<td>Naturally aspirated</td>
</tr>
<tr>
<td>Emission Level</td>
<td>Tier II</td>
</tr>
<tr>
<td>Governing Power</td>
<td>4200rpm</td>
</tr>
<tr>
<td>Displacement</td>
<td>3319 cc</td>
</tr>
<tr>
<td>Fuel Filter Type</td>
<td>In-line water separator with separate spin on fuel filter.</td>
</tr>
<tr>
<td>Coolant Capacity (Engine only)</td>
<td>4 litres</td>
</tr>
<tr>
<td>Radiator</td>
<td>Easy access and easy to clean. Agricultural spec fine dust tolerant - wide fin spacing.</td>
</tr>
<tr>
<td>Fuel Tank</td>
<td>Secure, lockable ground level filling. Integrated into lower section of the frame to keep a low centre of gravity.</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>100 litres</td>
</tr>
</tbody>
</table>

## HYDRAULIC SYSTEM

- 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 Implement Pump 1: Maximum Flow at Engine Rated Speed 60.9 l/min
- Hydraulic Implement Pump 2: Maximum Flow at Engine Rated Speed 39.4 l/min
- Hydraulic Implement Pump 3: Maximum Continuous Pressure 250 bar
- 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.

## ESTIMATED OPERATING WEIGHTS WITH STANDARD OPTIONS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Unladen</th>
<th>Laden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>3 764 kg</td>
<td>5 529 kg</td>
</tr>
<tr>
<td>Rear</td>
<td>1 206 kg</td>
<td>533 kg</td>
</tr>
<tr>
<td>Total</td>
<td>4 970 kg</td>
<td>6 062 kg</td>
</tr>
<tr>
<td>Boom In</td>
<td>5 784 kg</td>
<td>5 784 kg</td>
</tr>
<tr>
<td>Boom Out</td>
<td>278 kg</td>
<td>278 kg</td>
</tr>
</tbody>
</table>

- Safe Working Load: 1 100 kg
- Tipping Load: 1 210 kg
- GRAB: 0.36 m³ grab

---

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

### Key Features

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

**OPERATING POSITION**

- 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): 729 mm
  - E2 23.1 x 26 (Option 1): 729 mm
  - E3 18.4/15 x 30 (Option 2): 837.5 mm
  - E4 18.4 x 34 (Option 3): 729 mm
  - E5 18.4 x 26 (Option 4 Dual Wheelset): 729 mm
- F Tailwheel - Free Radius (Free Diameter)
  - F1 400 x 15.5 (Std Wheelset): 432 mm
  - F2 18 x 15.5 (Option 1): 490 mm
- G Reach-Grab Pivot @ Ground Level: 1 061 mm
- H Track Width - Front
  - H1 18.4 x 26 (Std Wheelset): 2 795.5 mm
  - H2 23.1 x 26 (Option 1): 2 795.5 mm
  - H3 18.4/15 x 30 (Option 2): 2 319 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

**TRANSPORT POSITION**

- 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
- D Ground Clearance - Front Axle Box: 582 mm
- E Front Tyre - Free Radius (Free Diameter)
  - E1 18.4 x 26 (Std Wheelset): 729 mm
  - E2 23.1 x 26 (Option 1): 729 mm
  - E3 18.4/15 x 30 (Option 2): 837.5 mm
  - E4 18.4 x 34 (Option 3): 729 mm
  - E5 18.4 x 26 (Option 4 Dual Wheelset): 729 mm
- F Tailwheel - Free Radius (Free Diameter)
  - F1 400 x 15.5 (Std Wheelset): 432 mm
  - F2 18 x 15.5 (Option 1): 490 mm
- G Reach-Grab Pivot @ Ground Level: 1 061 mm
- H Track Width - Front
  - H1 18.4 x 26 (Std Wheelset): 2 795.5 mm
  - H2 23.1 x 26 (Option 1): 2 795.5 mm
  - H3 18.4/15 x 30 (Option 2): 2 319 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

**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): 729 mm
  - E2 23.1 x 26 (Option 1): 729 mm
  - E3 18.4/15 x 30 (Option 2): 837.5 mm
  - E4 18.4 x 34 (Option 3): 729 mm
  - E5 18.4 x 26 (Option 4 Dual Wheelset): 729 mm
- F Tailwheel - Free Radius (Free Diameter)
  - F1 400 x 15.5 (Std Wheelset): 432 mm
  - F2 18 x 15.5 (Option 1): 490 mm
- G Reach-Grab Pivot @ Ground Level: 1 061 mm
- H Track Width - Front
  - H1 18.4 x 26 (Std Wheelset): 2 795.5 mm
  - H2 23.1 x 26 (Option 1): 2 795.5 mm
  - H3 18.4/15 x 30 (Option 2): 2 319 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

**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.
### 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.
- 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 Implement Pump 1
  - Maximum Flow at Engine Rated Speed: 60,9 l/min
  - Maximum Intermittent Pressure 241 bar
  - Use: Mast lift & lower
- Hydraulic Implement Pump 2
  - Maximum Flow at Engine Rated Speed: 39,4 l/min
- 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.

#### ELECTRICAL

- 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.

#### ESTIMATED OPERATING WEIGHTS WITH STANDARD OPTIONS

<table>
<thead>
<tr>
<th></th>
<th>Unladen</th>
<th>Laden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front:</td>
<td>4 567 kg</td>
<td>9 814 kg</td>
</tr>
<tr>
<td>Rear:</td>
<td>2 211 kg</td>
<td>464 kg</td>
</tr>
<tr>
<td>Total:</td>
<td>6 778 kg</td>
<td>10 278 kg</td>
</tr>
</tbody>
</table>

#### 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.
### Dimensions

#### OPERATING POSITION

[Diagram of operating position]

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

#### TRANSPORT POSITION

[Diagram of transport position]

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>5 739 mm</td>
<td>Length - Transport Position - Standard Carriage</td>
</tr>
<tr>
<td>L</td>
<td>5 789 mm</td>
<td>Length - Transport Position - Wide Carriage</td>
</tr>
<tr>
<td>B1</td>
<td>2 569 mm</td>
<td>Height - Mast - Transport Position</td>
</tr>
<tr>
<td>B1</td>
<td>2 563 mm</td>
<td>Height - Exhaust - Transport Position</td>
</tr>
<tr>
<td>C</td>
<td>2 998 mm</td>
<td>Front Axle Centre to Tailwheel Axle Centre</td>
</tr>
<tr>
<td>C1</td>
<td>2 577 mm</td>
<td>Front Axle Centre to Tailwheel Axle Centre</td>
</tr>
<tr>
<td>D</td>
<td>231 mm</td>
<td>Ground Clearance - Mast</td>
</tr>
<tr>
<td>E</td>
<td>674 mm</td>
<td>Front Tyre 17.5 x 25 - Free Radius (Free Diameter) (1 348)</td>
</tr>
<tr>
<td>F</td>
<td>432 mm</td>
<td>Tailwheel - 400 x 15.5 - Free Radius (Free Diameter) (864)</td>
</tr>
<tr>
<td>G</td>
<td>1 643 mm</td>
<td>Reach - Standard Carriage</td>
</tr>
</tbody>
</table>

### MACHINE DIMENSIONS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5 739 mm</td>
<td>Length - Transport Position - Standard Carriage</td>
</tr>
<tr>
<td>A</td>
<td>5 789 mm</td>
<td>Length - Transport Position - Wide Carriage</td>
</tr>
<tr>
<td>B</td>
<td>2 569 mm</td>
<td>Height - Mast - Transport Position</td>
</tr>
<tr>
<td>B1</td>
<td>2 563 mm</td>
<td>Height - Exhaust - Transport Position</td>
</tr>
<tr>
<td>C</td>
<td>2 998 mm</td>
<td>Front Axle Centre to Tailwheel Axle Centre</td>
</tr>
<tr>
<td>C1</td>
<td>2 577 mm</td>
<td>Front Axle Centre to Tailwheel Axle Centre</td>
</tr>
<tr>
<td>D</td>
<td>231 mm</td>
<td>Ground Clearance - Mast</td>
</tr>
<tr>
<td>E</td>
<td>674 mm</td>
<td>Front Tyre 17.5 x 25 - Free Radius (Free Diameter) (1 348)</td>
</tr>
<tr>
<td>F</td>
<td>432 mm</td>
<td>Tailwheel - 400 x 15.5 - Free Radius (Free Diameter) (864)</td>
</tr>
<tr>
<td>G</td>
<td>1 643 mm</td>
<td>Reach - Standard Carriage</td>
</tr>
<tr>
<td>G</td>
<td>1 693 mm</td>
<td>Reach - Wide Carriage</td>
</tr>
<tr>
<td>H</td>
<td>2 249 mm</td>
<td>Track Width - Front: 17.5 x 25</td>
</tr>
<tr>
<td>I</td>
<td>1 787 mm</td>
<td>Inside Tyre Width - Front: 17.5 x 25</td>
</tr>
<tr>
<td>J</td>
<td>2 711 mm</td>
<td>Width over Tyres - Front: 17.5 x 25</td>
</tr>
<tr>
<td>K</td>
<td>385 mm</td>
<td>Tyre Width - Tailwheel: 400 x 15.5</td>
</tr>
<tr>
<td>L</td>
<td>3 342 mm</td>
<td>Height - Fork Tines @ Maximum Reach</td>
</tr>
<tr>
<td>L1</td>
<td>4 238 mm</td>
<td>Height - Mast @ Maximum Reach</td>
</tr>
<tr>
<td>M</td>
<td>10°</td>
<td>Maximum Forward Tilt Angle</td>
</tr>
<tr>
<td>N</td>
<td>7.5°</td>
<td>Maximum Rearward Tilt Angle</td>
</tr>
<tr>
<td>O</td>
<td>2 788 mm</td>
<td>Front Axle Centre to Tailwheel Pivot Centre</td>
</tr>
</tbody>
</table>

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

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Bell Grab Dimensions
Dimensions in millimeters U.O.N

<table>
<thead>
<tr>
<th></th>
<th>#35</th>
<th>#43</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Min. Closed Diameter</td>
<td>121</td>
</tr>
<tr>
<td>B</td>
<td>Grab Open</td>
<td>1 424</td>
</tr>
<tr>
<td>C</td>
<td>Grab Height - Open - No Damper</td>
<td>870</td>
</tr>
<tr>
<td>C</td>
<td>Grab Height - Open - with Damper</td>
<td>995</td>
</tr>
<tr>
<td>D</td>
<td>Grab Tip to Tip</td>
<td>938</td>
</tr>
<tr>
<td>E</td>
<td>Grab Height - Tip to Tip - No Damper</td>
<td>965</td>
</tr>
<tr>
<td>E</td>
<td>Grab Height - Tip to Tip - with Damper</td>
<td>1 090</td>
</tr>
<tr>
<td>F</td>
<td>Grab Closed</td>
<td>860</td>
</tr>
<tr>
<td>G</td>
<td>Grab Height - Closed - No Damper</td>
<td>630</td>
</tr>
<tr>
<td>G</td>
<td>Grab Height - Closed - with Damper</td>
<td>755</td>
</tr>
<tr>
<td>H</td>
<td>Width Outer Tines</td>
<td>544</td>
</tr>
<tr>
<td>I</td>
<td>Width Inner Tines</td>
<td>410</td>
</tr>
</tbody>
</table>

Operating Weights

<table>
<thead>
<tr>
<th>Model</th>
<th>Safe Working Load</th>
<th>Tipping Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>225F Crank Logger</td>
<td>1 273 kg</td>
<td>1 400 kg</td>
</tr>
<tr>
<td>225F HP Tele Logger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boom In</td>
<td>1 568 kg</td>
<td>1 725 kg</td>
</tr>
<tr>
<td>Boom Out</td>
<td>1 051 kg</td>
<td>1 157 kg</td>
</tr>
<tr>
<td>125F Cane Loader</td>
<td>1 100 kg</td>
<td>1 210 kg</td>
</tr>
<tr>
<td>225F Forklift</td>
<td>3 500 kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Approximate Tip to Tip Area

- Weight - No Damper: 0.35 m²
- Weight - with Damper: 0.43 m²
Cab Options

**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)**

**STANDARD**

- **OPTION**
- **NOT AVAILABLE**
- **INCLUDED**
- **NOT INCLUDED**
**Features and Options**

### FRONT WHEELSETS
- 18.4 x 26 10 Ply Logger
- 18.4 x 26 10 Ply Logger Dual Wheel
- 18.4 x 30 10 Ply Logger
- 18.4 x 34 10 Ply Forestry Special
- 23.1 x 26 LS2 16 Ply General
- 23.1 x 26 LS2 16 Ply SEHA
- 23.1 x 26 LS2 16 Ply Trelleborg T418
- 17.5 x 23 L3

### REAR WHEELSETS
- 400 x 15.5 10 Ply
- 18.00 x 15.5 12 Ply
- 400 x 15.5 10 Ply Dual Wheel

### SEAT
- Unsuspended Lap Belt
- Unsuspended 4 Point Harness
- Suspended

### ATTACHMENT
- #35 with damper link
- #35 without damper link
- #43 with damper link
- #43 without damper link
- Cane Grab
- Fork-lift with 1.2, Wide Carriage
- Fork-lift with 2.5, Wide Carriage
- Fork-lift with Brick Clamp
- 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

### 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

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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.