Cane Loaders

I 125A 3 cylinder I 125A 4 cylinder I 125A 4 cylinder (Regulated) I 220A 4 cylinder









Bell Cane Loaders represent the first production machine produced by Bell and are a symbol of our proud heritage in the Sugar industry.

Since its inception in 1964, the Bell Cane Loader has been used with great success in many industries throughout the world. Found in the field, on transloading zones and at the sugar mill, it is in the world sugar market where it has truly found its place as a low cost per ton sugar cane handling solution. Our products range from the lighter, more agile 125A through to the heavier 220A zone loading machines.

The unique combination of foot pedal control for travel and direction and hand operated controls for the boom and grab make the Bell Cane Loader a highly efficient tool for loading cane.

Available in both 3 cylinder and 4 cylinder engine configurations, the 125A Cane Loader is used extensively for loading directly into trailers in field to a lesser extent for zone loading, where the larger capacity 220A comes into its own.

These lightweight, agile machines have very low ground pressures and are ideal for in-field operations.

The 125A Cane Loader is able to load to a maximum height of 5 440 mm, thereby allowing the machine to easily load any trailer or transport vehicle. The grab can safely carry up to 600 kg per bite. The machine's typical fuel consumption for the 3 cylinder is 4-5 litres per hour, the 4 cylinder is 5-6 litres per hour, make these an extremely cost effective selection to loading sugar cane.

Loading rates are dependent on field conditions and carry distances. Loading Rates vary from 20 tons per hour to 40 tons per hour with the lighter cane loader, but can be as 50 tons per hour with the 220A Cane Loader in ideal conditions.

The 4 cylinder 220A is a larger, heavier unit with slightly higher lifting capacity which makes it ideal for zone loading.

Shorter carry distances, flatter slopes and increased lifting capacity increase the loading rates of these machines on the zone, but the agility of the 125 makes it more suitable in field.

Like all Bell machines, the tri wheeled crop handler is designed to meet the rigours of harsh applications such as sugar cane loading head on.

Unique characteristics	Simple and cost effective to maintain
High strength micro-alloyed steel	Optimum fuel-energy conversion
Hydrostatically driven	Superb manoeuvrability
Simple to operate	

Specifications - I25A Cane Loader (3 cylinder)

ENGINE

Model Deutz F3L912

Configuration
3 cylinder, in-line, air cooled with integrated blower fan

Governed Power 33 kW

Max Torque 163 Nm @ 1600 rpm

Governed Full Power Engine Speed 2 150 rpm

AspirationNaturally aspirated

Displacement 2 827 cc

Fuel Filtration

Two stage. Spin-on water separator primary, replaceable spin-on secondary

EXHAUST

Type

Engine manifold mounted mild steel silencer with short side-pointing tail nine

Cooling fin hot air outlet Open sided gridded engine covers

AIR CLEANER

Type

Dual (primary & safety) paper element cyclonic canister type with restriction visual indicator

Pre Cleaner Type
Cyclonic dust bowl. Daily emptying
requirement

FUEL INLET SYSTEM

Water Separator Primary Filter- spin-on Engine mounted, 5 microns

Secondary Filter- spin-on Engine mounted, 5 microns

ENGINE/TRANS. COUPLING

Type

Bell nylon gear coupling

HYDROSTATIC TRANSMISSION

Туре

Variable displacement closed loop manual control axial piston tandem pump, Closed Loop motor circuit with remote charge pump, filtered charge pressure with non-filtered direct-return to tank.

DRIVE PUMPS

Туре

Axial piston, closed loop, manual control swash plate

Control
Direct control, foot linkage

DRIVE MOTORS

Type

Axial piston, closed loop

TRANSMISSION CHARGE CIRCUIT

Туре

Gear, Open centre

WHEEL DRIVE SYSTEM

Drive Motor Series #24

DRIVE WHEELS

Drive Tyre Type

All Traction Field & Road - 8 ply with inner tube

Drive Tyre Size 18.4 x 26

Drive Wheel Rim 16 x 26, 1 piece

Drive Wheel Inflation Pressure 1,5 bar

Unladen Ground Pressure Rear 0.44 bar

TAIL WHEEL

Tail Wheel Tyre Type
High Flotation Implement, 10 Ply
with inner tube

Tail Wheel Tyre Size 400×15.5

Tail Wheel Rim 13 x 15.5, 1 piece

Tail Wheel Inflation Pressure

Unladen Ground Pressure Rear 0.68 bar

BRAKES

Service Brake Type Closed loop hydrostatic wheel retardation.

Park Brake Type Spring applied, hydraulic release wet multi disc

ATTACHMENT

Type

Bell Series 36 Cane

Capacity 0,36 m²

BOOM/MAST

Type

Welded yoke crankboom

HYDRAULIC COOLER

Type

Frame/Tank

HYD./ENG COOLER SYSTEM

Type

Heat radiation to ambient via high surface area of frame structure

HYDRAULIC TANK

Type

Integral with tubular frame

Oil Type

Rando HDZ 68 hydraulic fluid

Capacity

120 I (130 I for system)

Breather

Remote to filler cap, 3 Micron, 0,75 bar pressurised

Cleaning

Cleaning via bolt on hydraulic filter housings

IMPLEMENT HYD SYSTEM

Boom Hydraulic Function Pump Type

Gear, open centre, Transmission pomp thru-drive

Grapple/Rotator/Tele Hyd. functions
Pump Type

Gear, open centre, engine geartrain drive

FUEL TANK

Type

Remote to frame, rear mounted

Capacity 76 l

ELECTRICAL SYSTEM

Voltage 12 V

Starter motor rating 2,7 kW

Alternator rating 14V/55A

Battery Rating 100 Ah

Fuse box

Inside cabin- instrumentation box, on firewall and on battery bositive terminal

Overload Protection
Main line circuit breaker
300A at battery terminal, 60A on
Firewall

Battery Isolator Switch Single pole type, accessible alongside seat

Ignition Solenoid 130A

Lights

Relay switching, 30 Amp circuit breaker

STEERING SYSTEM

Type

Front wheel hydraulic skid steer via foot operated treadle control system.

CABIN

Type

Integral with steel frame. No doors.

Guarding

HD windscreen guard. Rear engine bay doors

Ventilation Open Cabin

SAFETY/ERGONOMICS

Seat Plate

Lockable over-centre lock-down latches x2 to prevent accidental seat plate tip-up

Seat

Low profile padded seat with lap strap seat belt

WARNING/CUTOFF SYSTEMS

Alternator, no charge light "D" terminal switch

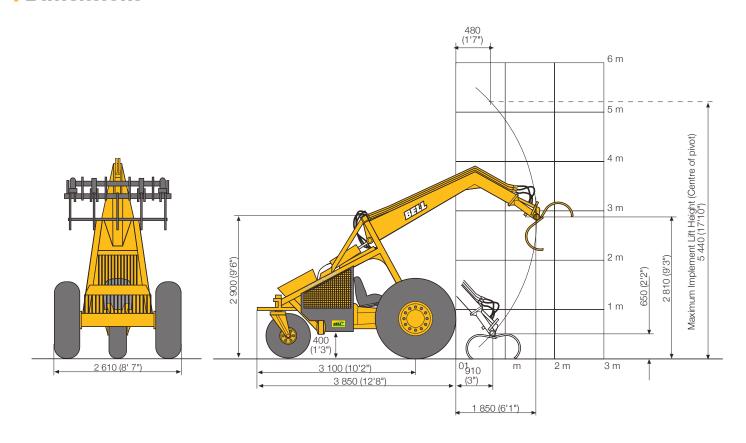
Blower Fan Belt-Breakage warning Mechanical auto cut-off

Engine Oil Pressure Light Pressure sensor switch-on point: 0,25+ .1 bar

OPERATING MASSES

Unladen Front 3 045 kg
Unladen Rear 1 220 kg
Unladen Total 4 265 kg
Shortest Wheelbase 2 458 kg
Load distance

ahead of front axle 2 600 mm Outstretched Tipping load 1 153 kg SWL - Payload 650 kg



LOWEST COST per ton solutions

LOW fuel consumption

LOW maintenance

DESIGNED for field loading operations

Where agility and a light foot print are REQUIREMENTS

Specifications - 125A Cane Loader (4 cylinder)

ENGINE

Model Deutz F4L912

Configuration

4 cylinder, in-line, air cooled with integrated blower fan

Governed Power 46 kW

Max Torque 230 Nm @ 1500 rpm

Governed Full Power Engine Speed 2 000 rpm

Aspiration Naturally aspirated

Displacement 3 770 cc

Fuel Filtration

Two stage. Spin-on water separator primary, replaceable spin-on secondary

EXHAUST

Type

Rubber frame mounted stainless steel vertical silencer with short stack pipe outlet.

Cooling fin hot air outlet
Open sided gridded engine covers

AIR CLEANER

Type

Dual (primary & safety) paper element cyclonic canister type with restriction visual indicator.

Pre Cleaner Type
Cyclonic dust bowl. Daily emptying requirement.

FUEL INLET SYSTEM

Water Separator Primary Filter- spin-on Engine mounted, 5 microns

Secondary Filter- spin-on Engine mounted, 5 microns

ENGINE/TRANS. COUPLING

Type

Bell nylon gear coupling

HYDROSTATIC TRANSMISSION

Туре

Variable displacement closed loop manual control axial piston tandem pump, Closed Loop motor circuit with remote charge pump, filtered charge pressure with non-filtered directreturn to tank.

DRIVE PUMPS

Туре

Axial piston, closed loop, manual control swash plate

ControlDirect control, foot linkage

DRIVE MOTORS

Type

Axial piston, closed loop

TRANSMISSION CHARGE CIRCUIT

Туре

Gear, Open centre

WHEEL DRIVE SYSTEM

Drive Motor Series #27

DRIVE WHEELS

Drive Tyre Type

All Traction Field & Road - 8 ply with inner tube

Drive Tyre Size 18.4 x 30

Drive Wheel Rim 15 x 30, 1 piece

Drive Wheel Inflation Pressure 1,5 bar

Unladen Ground Pressure Rear 0.41 bar

TAIL WHEEL

Tail Wheel Tyre Type
High Flotation Implement, 10 Ply
with inner tube

Tail Wheel Tyre Size 400×15.5

Tail Wheel Rim 13 x 15.5, 1 piece

Tail Wheel Inflation Pressure

Unladen Ground Pressure Rear 0,70 bar

BRAKES

Service Brake Type Closed loop hydrostatic wheel retardation.

Park Brake Type Spring applied, hydraulic release wet multi disc

ATTACHMENT

Type

Bell Series 36 Cane

Capacity 0,36 m²

BOOM/MAST

Туре

Welded yoke crankboom

HYDRAULIC COOLER

Туре

Frame/Tank

HYD./ENG COOLER SYSTEM

Type

Heat radiation to ambient via high surface area of frame structure

HYDRAULIC TANK

Type

Integral with tubular frame

Oil Type

Rando HDZ 68 hydraulic fluid

Capacity

140 | (150 | for system)

Breather

Remote to filler cap, 3 Micron, 0,75 bar pressurised

Cleaning

Cleaning via bolt on hydraulic filter housings

IMPLEMENT HYD SYSTEM

Boom Hydraulic Function Pump Type

Gear, open centre, Transmission pomp thru-drive

Grapple/Rotator/Tele Hyd. functionsPump Type

Gear, open centre, engine geartrain drive

FUEL TANK

Type

Remote to frame, rear mounted

Capacity 76 l

ELECTRICAL SYSTEM

Voltage

12 V

Starter motor rating 2,7 kW

Alternator rating 14V/55A

Battery Rating 100 Ah

Fuse box

Inside cabin- instrumentation box, on firewall and on battery bositive terminal

Overload Protection
Main line circuit breaker
300A at battery terminal, 60A on
Firewall

Battery Isolator Switch Single pole type, accessible alongside seat

Ignition Solenoid 130A

Lights

Relay switching, 30 Amp circuit breaker

STEERING SYSTEM

Type

Front wheel hydraulic skid steer via foot operated treadle control system.

CABIN

Type

Integral with steel frame. No doors.

Guarding

HD windscreen guard. Rear engine bay doors

Ventilation Open Cabin

SAFETY/ERGONOMICS

Seat Plate

Lockable over-centre lock-down latches x2 to prevent accidental seat plate tip-up

Spat

Low profile padded seat with lap strap seat belt

Rearview Mirrors
Frame mounted rear view mirrors
with HD steel housings

WARNING/CUTOFF SYSTEMS

Alternator, no charge light "D" terminal switch

Blower Fan Belt-Breakage warning Mechanical auto cut-off

Engine Oil Pressure Light Pressure sensor switch-on point: 0,25+ .1 bar

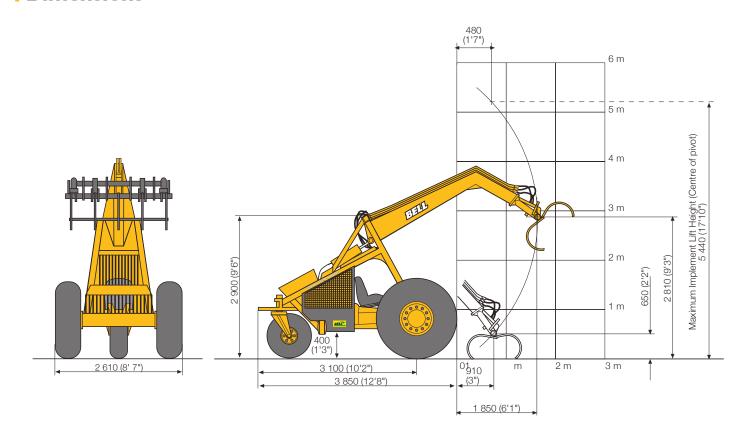
OPERATING MASSES

Unladen Front 3 070 kg Unladen Rear 1 250 kg Unladen Total 4 320 kg Shortest Wheelbase 2 458 kg

750 kg

Load distance ahead of front axle 2 600 mm Outstretched Tipping load 1 182 kg

SWL - Payload



LOWEST COST per ton solutions

LOW fuel consumption

LOW maintenance

DESIGNED for field loading operations

Where agility and a light foot print are REQUIREMENTS

Specifications (Regulated) - 125A Cane Loader (4 cylinder)

ENGINE

Model Deutz F4L912

Configuration

4 cylinder, in-line, air cooled with integrated blower fan

Governed Power 46 kW

Max Torque 230 Nm @ 1500 rpm

Governed Full Power Engine Speed 2 000 rpm

AspirationNaturally aspirated

Displacement 3 770 cc

Fuel Filtration

Two stage. Spin-on water separator primary, replaceable spin-on secondary

EXHAUST

Type

Rubber frame mounted stainless steel vertical silencer with short stack pipe outlet.

Cooling fin hot air outlet Open sided gridded engine covers

AIR CLEANER

Type

Dual (primary & safety) paper element cyclonic canister type with restriction visual indicator.

Pre Cleaner Type Cyclonic dust bowl. Daily emptying requirement.

FUEL INLET SYSTEM

Water Separator Primary Filter- spin-on Engine mounted, 5 microns

Secondary Filter- spin-on Engine mounted, 5 microns

ENGINE/TRANS. COUPLING

Type

Bell nylon gear coupling

HYDROSTATIC TRANSMISSION

Туре

Variable displacement closed loop manual control axial piston tandem pump, Closed Loop motor circuit with remote charge pump, filtered charge pressure with non-filtered directreturn to tank.

DRIVE PUMPS

Туре

Axial piston, closed loop, manual control swash plate

Control
Direct control, foot linkage

DRIVE MOTORS

Type

Axial piston, closed loop

TRANSMISSION CHARGE CIRCUIT

Туре

Gear, Open centre

WHEEL DRIVE SYSTEM

Drive Motor Series #27

DRIVE WHEELS

Drive Tyre Type

All Traction Field & Road - 8 ply with inner tube

Drive Tyre Size 18.4 x 30

Drive Wheel Rim 15 x 30, 1 piece

Drive Wheel Inflation Pressure

Unladen Ground Pressure Rear 0.41 bar

TAIL WHEEL

Tail Wheel Tyre Type
High Flotation Implement, 10 Ply
with inner tube

Tail Wheel Tyre Size 400×15.5

Tail Wheel Rim 13 x 15.5, 1 piece

Tail Wheel Inflation Pressure

Unladen Ground Pressure Rear 0.88 bar

BRAKES

Service Brake Type Closed loop hydrostatic wheel retardation.

Park Brake Type Spring applied, hydraulic release wet multi disc

ATTACHMENT

Type

Bell Series 36 Cane

Capacity 0,36 m²

BOOM/MAST

Туре

Welded yoke crankboom

HYDRAULIC COOLER

Туре

Frame/Tank

HYD./ENG COOLER SYSTEM

Type

Heat radiation to ambient via high surface area of frame structure

HYDRAULIC TANK

Type

Integral with tubular frame

Oil Type

Rando HDZ 68 hydraulic fluid

Capacity

140 I (150 I for system)

Breather

Remote to filler cap, 3 Micron, 0,75 bar pressurised

Cleaning

Cleaning via bolt on hydraulic filter housings

IMPLEMENT HYD SYSTEM

Boom Hydraulic Function Pump Type

Gear, open centre, Transmission pomp thru-drive

Grapple/Rotator/Tele Hyd. functions
Pump Type

Gear, open centre, engine geartrain drive

FUEL TANK

Type

Remote to frame, rear mounted

Capacity

76 I

ELECTRICAL SYSTEM

Voltage 12 V

Starter motor rating 2,7 kW

Alternator rating 14V/55A

Battery Rating 100 Ah

Fuse box

Inside cabin- instrumentation box, on firewall and on battery bositive terminal

Overload Protection
Main line circuit breaker
300A at battery terminal, 60A on
Firewall

Battery Isolator Switch Single pole type, accessible alongside seat

Ignition Solenoid 130A

Lights

Relay switching, 30 Amp circuit breaker

STEERING SYSTEM

Type

Front wheel hydraulic skid steer via foot operated treadle control system.

CABIN

Type

Integral with steel frame. No doors.

Guarding

HD windscreen guard. Rear engine bay doors

Ventilation Open Cabin

SAFETY/ERGONOMICS

Lockable over-centre lock-down latches x2 to prevent accidental seat plate tip-up; Low profile padded seat with lap strap seat belt; 3 kg Fire extinguisher holder, sealed and insulated firewall, Frame mounted rear view mirrors with HD steel housings

REGULATED SPECIFICATIONS

Options

- Revearse Alarm
- Mirrors and Guards
- Inclinometer
- Exhaust guard
- Dual counter weights
- Groundlevel greasing for all points
- Lockable engine bay
- Hose burst protection on boom cylinder supply

SWL 500 kg

Noise Level 93 dB @ operator seat

WARNING/CUTOFF SYSTEMS

Alternator, no charge light "D" terminal switch

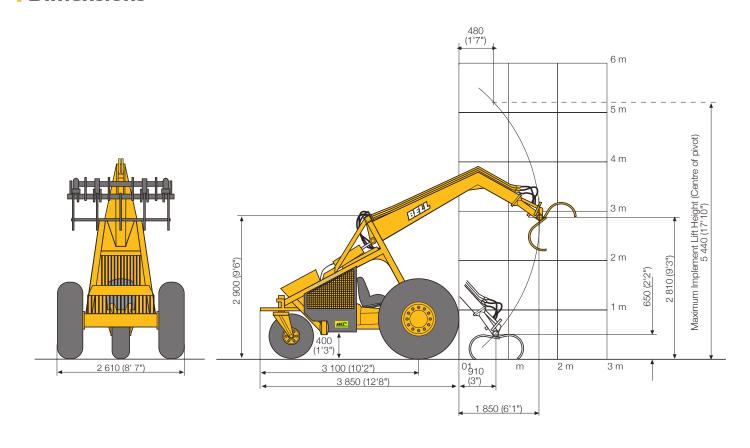
Blower Fan Belt-Breakage warning Mechanical auto cut-off

Engine Oil Pressure Light Pressure sensor switch-on point: 0,25+ .1 bar

OPERATING MASSES

Unladen Front 3 070 kg
Unladen Rear 1 564 kg
Unladen Total 4 634 kg
Shortest Wheelbase 2 458 kg
Load distance

ahead of front axle 2 600 mm Outstretched Tipping load 1 479 kg SWL - Payload 750 kg



LOWEST COST per ton solutions

LOW fuel consumption

LOW maintenance

DESIGNED for field loading operations

Where agility and a light foot print are REQUIREMENTS

Specifications - 220A Cane Loader

ENGINE

Model Deutz F4L912

Configuration

4 cylinder, in-line, air cooled with integrated blower fan

Governed Power 46 kW

Max Torque 230 Nm @ 1500 rpm

Governed Full Power Engine Speed 2 150 rpm

Aspiration Naturally aspirated

Displacement 3 770 cc

Fuel Filtration

Two stage. Spin-on water separator primary, replaceable spin-on secondary

EXHAUST

Rubber frame mounted stainless steel vertical silencer with short stack pipe outlet.

Cooling fin hot air outlet Open sided gridded engine covers

AIR CLEANER

Type

Dual (primary & safety) paper element cyclonic canister type with restriction visual indicator.

Pre Cleaner Type Cyclonic dust bowl. Daily emptying requirement.

FUEL INLET SYSTEM

Water Separator Primary Filter- spin-on Engine mounted, 5 microns

Secondary Filter- spin-on Engine mounted, 5 microns

ENGINE/TRANS. COUPLING

Bell nylon gear coupling

HYDROSTATIC TRANSMISSION

Variable displacement closed loop manual control axial piston tandem pump, Closed Loop motor circuit with remote charge pump, filtered charge pressure with non-filtered directreturn to tank.

DRIVE PUMPS

Axial piston, closed loop, manual control swash plate

Control Direct control, foot linkage

DRIVE MOTORS

Type

Axial piston, closed loop

TRANSMISSION CHARGE CIRCUIT

Туре

Gear, Open centre

WHEEL DRIVE SYSTEM

Drive Motor Series

DRIVE WHEELS

Drive Tyre Type

All Traction Field & Road - 8 ply with inner tube

Drive Tyre Size 18.4 x 30

Drive Wheel Rim 15 x 30, 1 piece

Drive Wheel Inflation Pressure

Unladen Ground Pressure Rear 0.43 bar

TAIL WHEEL

Tail Wheel Tyre Type High Flotation Implement, 10 Ply with inner tube

Tail Wheel Tyre Size 400 x 15.5

Tail Wheel Rim 13 x 15.5, 1 piece

Tail Wheel Inflation Pressure

Unladen Ground Pressure Rear 0.95 bar

BRAKES

Service Brake Type Closed loop hydrostatic wheel retardation.

Park Brake Type Spring applied, hydraulic release wet multi disc

ATTACHMENT

Bell Series 42 Cane

Capacity 0.42 m²

BOOM/MAST

Bolted yoke crankboom

HYDRAULIC COOLER

Type Frame

HYD./ENG COOLER SYSTEM

Heat radiation to ambient via high surface area of frame structure

HYDRAULIC TANK

Type

Integral with tubular frame

Oil Type

Rando HDZ 68 hydraulic fluid

Capacity

140 | (150 | for system)

Breather

Remote to filler cap, 3 Micron, 0,75 bar pressurised

Cleaning

Cleaning via bolt on hydraulic filter housings

IMPLEMENT HYD SYSTEM

Boom Hydraulic Function Pump Type

Gear, open centre, Transmission pomp thru-drive

Grapple/Rotator/Tele Hyd. functions Pump Type

Gear, open centre, engine geartrain drive

FUEL TANK

Remote to frame, rear mounted

Capacity

ELECTRICAL SYSTEM

Voltage 12 V

Starter motor rating 2,7 kW

Alternator rating 14V/55A

Battery Rating 100 Ah

Fuse box Inside cabin- instrumentation box

Overload Protection Main line circuit breaker 300A at battery terminal, 60A on Firewall

Battery Isolator Switch Single pole type, accessible alongside seat

Ignition Solenoid 130A

Relay switching, 30 Amp circuit breaker

STEERING SYSTEM

Front wheel hydraulic skid steer via foot operated treadle control system.

CABIN

Type

Integral with steel frame. No doors.

Guarding

HD windscreen guard. Rear engine bay doors

Ventilation Open Cabin

SAFETY/ERGONOMICS

Seat Plate

Lockable over-centre lock-down latches x2 to prevent accidental seat plate tip-up

Low profile padded seat with lap strap seat belt

WARNING/CUTOFF **SYSTEMS**

Alternator, no charge light "D" terminal switch

Blower Fan Belt-Breakage warning Mechanical auto cut-off

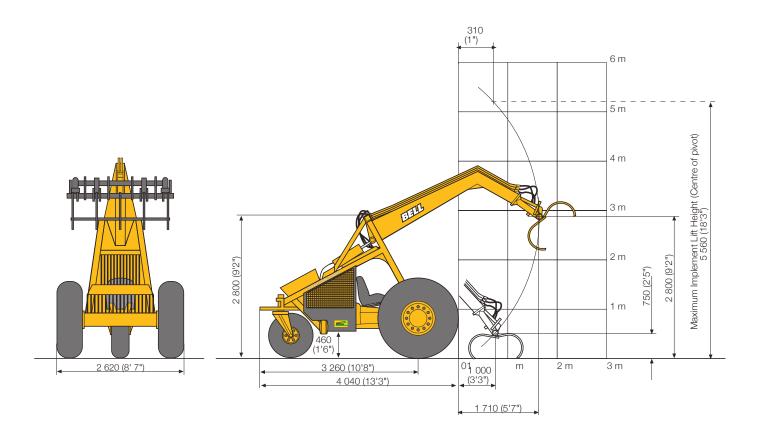
Engine Oil Pressure Light Pressure sensor switch-on point: 0,25+ .1 bar

OPERATING MASSES

3 230 kg Unladen Front 1 700 kg Unladen Rear Unladen Total 4 930 kg Shortest Wheelbase 2 458 kg

Load distance

ahead of front axle 2 500 mm Outstretched Tipping load 1 671 kg SWL - Payload 950 kg



LOWEST COST per ton solutions

HIGH power

LOW maintenance

DESIGNED for zone loading, where HIGH power and capacity make for HIGH effeciency



Please note that all information supplied in this manual is intended to assist the customer in understanding the general applications of the Bell Equipment sugarcane handling range of 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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