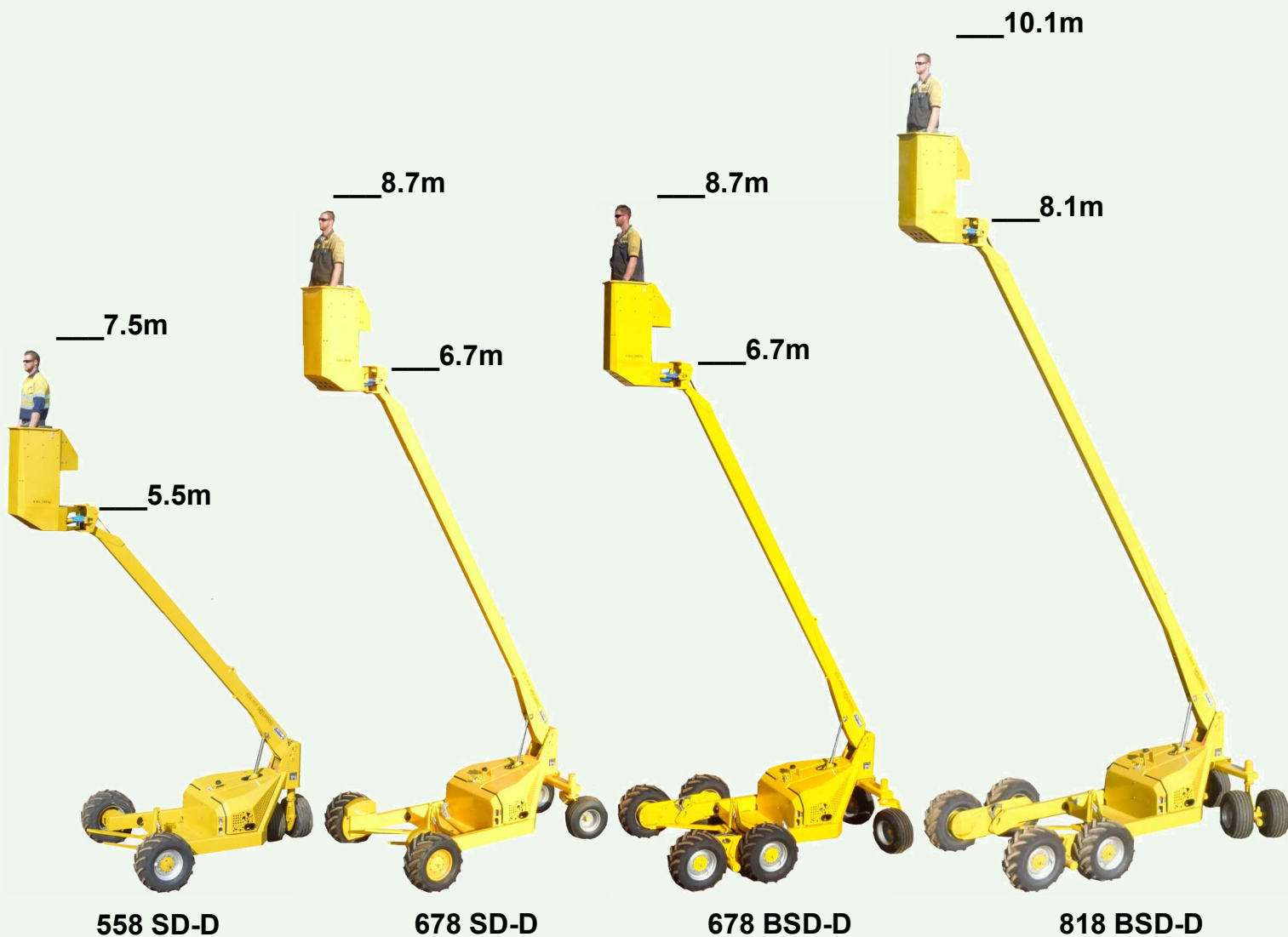




558, 678, 818 Avocado Models

A self-propelled all terrain elevating platform
Raising Safety and Productivity



Avocado Models

Manufacturers and designers of horticultural & viticultural equipment

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- * **SQUIRREL** Elevating platforms
- * **NetWizz** Bird netting applicator
- * **SADIE** Orchard & vineyard sweepers
- * **OliNet** harvesting aid for olives etc
- * **BIN RUNNER** Bin Trailers

SQUIRREL'S unique foot control and smooth hydraulic system increases productivity up to 30% ahead of all other machines.

Standard features on all SQUIRRELS include.

- **Free Wheeling Hubs and Towing Draw-bar**
- **Fail Safe Hydraulic brakes incorporating Auto Hill Descent Wet Brakes**
- **Large Wide Drive & Caster Wheels**
- **Electric Hydraulic Three Speed**
- **Planetary Drive 8:1 Wheel Hubs**
- **Best back up and Spare parts**
- **Large 100 It Steel Fuel Tank**
- **Triple Hydraulic Pump**
- **Safety Throughout**
- **Bin Forks 600 kg**
- **Side Swing Cage**
- **Electric Throttle**
- **Enclosed Cage**

Three speed is a standard feature which operates independently from the variable engine rpm, enabling the operator to select a wide range of speeds for safe and faster operation. There is a toggle stick in the cage to change speeds, which can be done while driving.

A safety height sensor switches gear 3 off and reverts to gear 2 when the cage is raised above 1/3rd height.

Gear 1 slow speed steady work at heights.

Gear 2 steady to fast work speed.

Gear 3 travelling speed.



CAGE is enclosed on three sides, safely protecting the operator from branches. Also sited in the cage is (L-R) electric throttle, E-Stop, start, bin forks and electric hydraulic three speed. All switches are rated IP67 and sealed in an aluminium box.

Side Swing Cage

The cage rotates hydraulically 110° left through to right by using the left foot pedal. Cage swing is constant at all heights making the SQUIRREL ideal for a range of applications. This cage swing allows the operator to reach a greater area instantly without moving the base of the machine.



Left Foot Pedal

Toe down raises the cage.
Heel down lowers the cage.
Twist foot left and cage swings left.
Twist foot right and cage swings right.

Right Foot Pedal

Toe down drives forward.
Heel down drives in reverse.
Twist foot right to turn right.
Twist foot left to turn left.

All controls: lift, side swing, drive left & right can be easily operated at the same time giving three dimensional movement, this dramatically increases operator productivity.

Safe In & Out of Cage

The SQUIRRELS Cage: is safe and easy to enter and exit - no bending and twisting under hand rails. It is sprung closed and latched with 2 separate latches. As the rear seat belt is attached, getting in and out is safe and fast. To un-latch it requires 2 fingers to lift two latches, then push back. The latch handles are recessed in the back inside corner. There is a switch on the cage gate that stops the engine if the gate is open

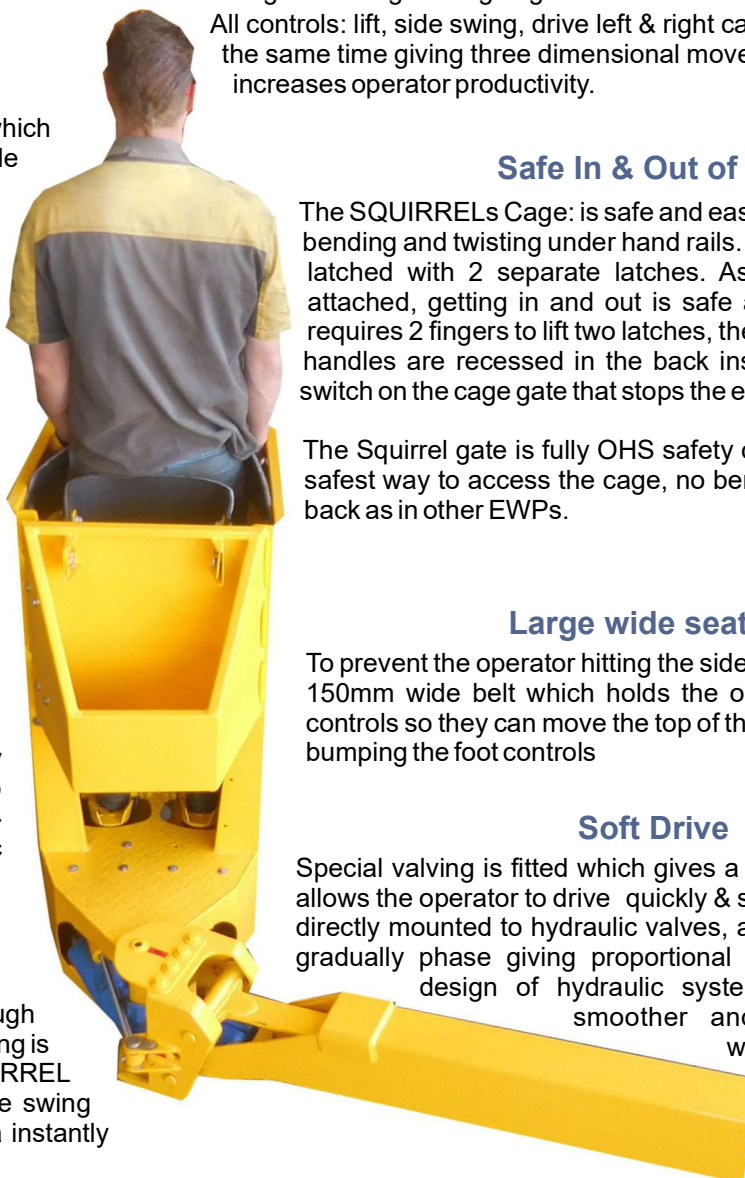
The Squirrel gate is fully OHS safety compliant providing the safest way to access the cage, no bending and twisting your back as in other EWPs.

Large wide seat belt

To prevent the operator hitting the sides of the cage we have a 150mm wide belt which holds the operator above the foot controls so they can move the top of their body around without bumping the foot controls

Soft Drive

Special valving is fitted which gives a soft start and stop and allows the operator to drive quickly & safely. Foot controls are directly mounted to hydraulic valves, allowing the operator to gradually phase giving proportional movements. The new design of hydraulic system & foot valves are smoother and lighter to operate without sticking or oil leaks.



Increases productivity up to 30% ahead of all other machines.

For this we must make the Squirrel: **Very safe, Smooth riding, Simple controls, Three speeds, Large picking bag.**

The operator must feel safe with simple smooth controls and will keep the Squirrel moving so that the fruit is within easy reach, the same as if they were picking on the ground, always moving as they operate. As they trust the Squirrel they will operate in gear 2 instead of gear 1 and using gear 3 for travelling to the bin. The operator can adjust the engine RPM to get their ideal speed. With a large picking bag needing only 4-5 bags to fill a bin the operator is more efficient.

The operator can maintain a higher speed only if they have a smooth ride. This is achieved by large load sharing wheels, our unique "Soft Drive" which reduces any sudden stopping and proportional hydraulic control valves so that the operator can phase the controls.



With large drive & caster wheel, more grip, less bogging, smother ride = increasing productivity

Drive wheels Ø790mm x 380mm wide 8 ply and Caster wheels Ø620mm x 300mm (above right in each picture) are standard. The larger wider wheels make driving over large branches, wheel ruts and soft ground a lot easier and smoother, enabling the operator to continue driving and picking efficiently. On the left side of each picture is what most other makes of EWPs use.

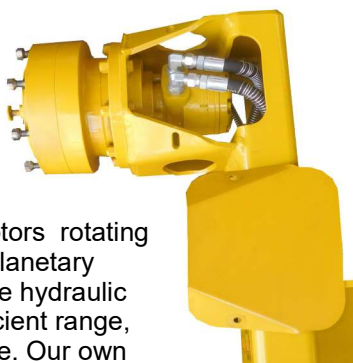
High performance Hydraulic Motor & Planetary wheel hub

Picture right has motor cover removed

To get the best high performance drive we need high performance hydraulic motors rotating at a high RPM, by using a 8:1 planetary reduction gear box. We keep the hydraulic motor operating at it's most efficient range, giving a high torque and long life. Our own design of very heavy duty 8:1 planetary reduction gearbox with an integrated powerful industrial hydraulic motor and incorporated fail safe multi-disc wet brakes eliminate wheel creep, and auto brakes smoothly when driving down a slope. No jerky movements and brake springs can be changed to alter stopping speeds.

The high torque "BMSY" hydraulic motors are fitted with high pressure shaft seals and with case drains to give long life.

Hubs are standard with quick disengage freewheeling. This is the most powerful efficient drive giving maximum torque to the drive wheels up to twice of other makes of EWPs.



Cage bottom guard

Foot Controls are protected by a bottom guard, to clean just remove 2 clips and this will swing down cleaning itself. This is standard on all cages.



Easy Adjust Foot Stops

New foot stops are larger and can now be adjusted without tools, rotate up 70° and slide to next hole then rotate down 70°. They cannot be removed from the pedal unless a nyloc nut is undone. New foot pedals are bigger with more gap around sides to allow fruit to fall through.

Best back up and spare parts

Crendon Machinery is a small family company priding itself on the very best back up and spare parts. The team can provide you with the best service in person or over the phone.

Large HDPE bushes on zinc shafts

The boom, stabiliser bar, caster wheel, bogie rocker & lift ram all have replaceable HDPE (high density polyethylene) bushes with a 10mm flange fitted to zinc plated shaft. This gives safe long wear free pivot life.



Caster wheel and bogie rocker pivots are Ø75mm shaft.
Boom pivots are Ø50mm shaft.
Boom lift ram pins are Ø40mm shaft.
Stabiliser Bar & Cage Side Swing pivots are Ø30mm shaft.

Grease nipples are recessed into the end of the pins and grease extrudes to the centre gallery so it is almost self greasing.

Fully Enclosed Engine

The bonnets are made from heavy steel and will not break with fallen or overhanging branches.

With a very heavy frame & RHS, the frame is built to last and able to work on steep slopes.

A v-twin cylinder 32hp petrol engine is standard on these Squirrels. Optional extra of a Kubota 3 cylinder water cooled 23hp diesel is available. The exhaust is extended and piped low down to the rear of the Squirrel away from workers. The engine base is supported on springs to eliminate vibration making it very comfortable standing in the cage.

E-Stop and Start switch, Boom Emergency decent are accessible without lifting the bonnet.

A sealed enclosure protects all the electrical components. All external electrical connections are rated at IP67.



Powerful Three Hydraulic Pump System

Hydraulics have the capacity to handle steep and adverse conditions. The system is protected by a very large 20 micron suction filter and smaller 5 micron return filter. Three hydraulic pumps are fitted - 1 pump for boom lift & side swing, 2 pumps for drive wheels. This 3 pump system keeps the pressure low. Three hydraulic oil tanks in the frame keep the oil cool.

All hydraulic rams are fitted with safety lock-out valves preventing any creep or movement when not operated.

Low back & Compact length

The 008 Squirrels have a low back and low profile bonnet all with large rounded edges to deflect branches

The 008 models are short in design about 0.5m - 1m shorter than other EWP's in the market and makes it a lot more manoeuvrable in the rows.



Easy to service

Bonnets swing up with stainless steel gas strut to give easy access for servicing. Engine compartment has lots of space for easy servicing. For security, the bonnets are lockable

90 lt fuel tank

The SQUIRREL engine is fitted with a mechanical fuel pump, fuel filter and has a 190 litre steel fuel tank to allow for up to 4-5 days use.



Large storage area

There is a large storage area in front of the engine bay 1.2m x 0.6m for mango wash tank or storage box for wet weather gear, safety harness etc.



Bin Forks

Bin Forks with a maximum load of 600kg are standard on all 4 models and is operated from the cage.

SQUIRREL 558 SD-D

7.5m Reach 5.5m Platform height

This new 558 SD-D "Soft Drive Deluxe" Squirrel has been developed to incorporate all the latest features and experience gained from manufacturing over the past 50 years.

This model is ideal for low avocado trees, harvesting and pruning. Standard features include side swing cage, hydraulic electric three speed, large drive wheels with planetary drive hubs with fail-safe brakes, allowing the operator to work at maximum capacity of 200KG SWL on steep slopes.



Side Swing Cage

This cage swing allows the operator to reach a greater area instantly without moving the base of the machine.



Wide Twin Caster Wheels

Two independent caster wheels with an additional horizontal pivot provides a very smooth ride over uneven terrain or ruts. As one wheel falls into a rut the other stays at the original level. Effectively the depth of the rut is halved. This allows the operator to comfortably work safely and quickly. Most other makes of EWP's caster wheel assembly is rigid, so the Squirrel is much more manoeuvrable in mounded or terraced rows.



Low back and Compact length

The Squirrel 558 has a low back and low profile bonnets. Cage, bonnets and frame back have large rounded corners so overhanging branches easily deflect.

The 558 is short in design (about .5m shorter than other machines the same height in the market) so this makes it more manoeuvrable in the rows.



Wide drive tyres

The 558 comes standard with 790mm Ø , 390mm wide wheels which give good traction and a smooth ride.

- Genuine foot controls SD (Soft Drive)
- Fully enclosed spacious engine compartment
- Powerful three hydraulic pump system
- Self lubricating replaceable bushes
- Planetary 8:1 wheel drive hubs
- Wide drive tyres standard 790mm Ø x 380mm wide
- 200KG SWL with 12°-15 side ways angle & 15° forwards angle at full height
- Best back up and spare parts
- Electric hydraulic three speed
- Towing & free wheeling standard
- Two caster flotation wheels 620 Ø x 300mm wide
- Large self closing cage gate
- Safety throughout
- Side swing cage
- Electric throttle
- Enclosed cage
- Compact length
- True all-terrain
- 100 lt fuel tank
- Bin forks
- Low back

SQUIRREL 678 SD-D

8.7m Reach 6.7 Platform height

This new 678 SD-D “Soft Drive Deluxe” Squirrel has been developed to incorporate all the latest features and experience gained from manufacturing over the past 50 years.

This model is ideal for low to high avocado trees, harvesting and pruning. Standard features include side swing cage, hydraulic electric three speed, large drive wheels with planetary drive hubs with fail-safe brakes, allowing the operator to work at maximum capacity of 200KG SWL on steep slopes.

Low back and Compact length

The Squirrel 678 has a low back and low profile bonnets. Cage, bonnets and frame back have large rounded corners so overhanging branches easily deflect.

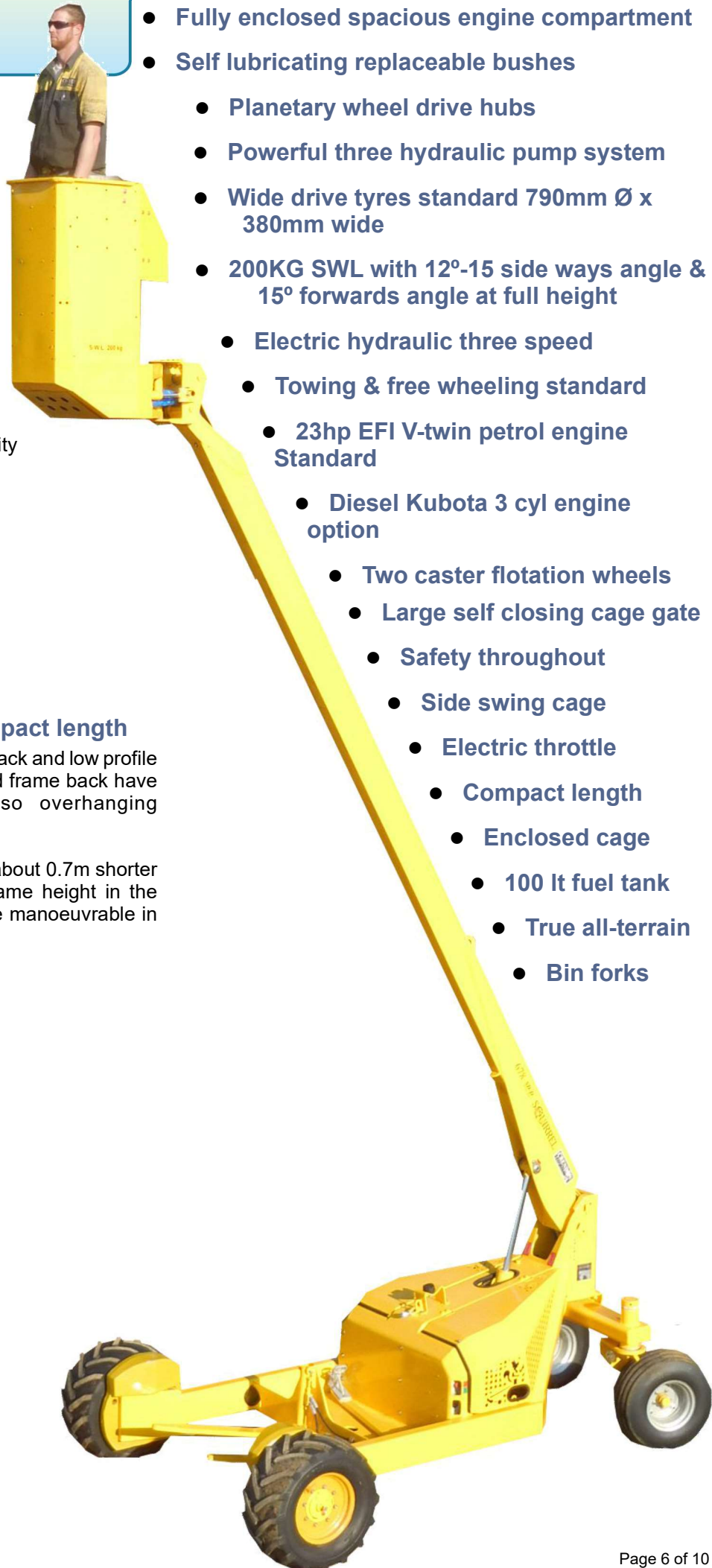
The 678 is short in design (about 0.7m shorter than other machines the same height in the market) making it a lot more manoeuvrable in the rows.



Two caster flotation wheels

Two independent wide caster flotation wheels on a pivoting cross axle assists with a smooth ride over difficult terrain. The cross axle rocks 15° each way. Most other makes of EWP's cross axle is only rocked by less than 3°-5° so this makes the Squirrel much more manoeuvrable in mounded or terraced rows.

- Genuine foot controls SD (Soft Drive)
- Fully enclosed spacious engine compartment
- Self lubricating replaceable bushes
 - Planetary wheel drive hubs
 - Powerful three hydraulic pump system
 - Wide drive tyres standard 790mm Ø x 380mm wide
 - 200KG SWL with 12°-15 side ways angle & 15° forwards angle at full height
- Electric hydraulic three speed
- Towing & free wheeling standard
- 23hp EFI V-twin petrol engine Standard
 - Diesel Kubota 3 cyl engine option
- Two caster flotation wheels
- Large self closing cage gate
- Safety throughout
- Side swing cage
- Electric throttle
- Compact length
- Enclosed cage
- 100 lt fuel tank
- True all-terrain
- Bin forks





8.7m Reach

65 8 BSD-D

6.7 Platform height

This new 678 BSD-D "Bogie Soft Drive Deluxe" Squirrel has been developed to incorporate all the latest features and experience gained from manufacturing over the past 50 years.

This model is ideal for low to high avocado trees, harvesting and pruning on steep ground. Standard features include side swing cage, hydraulic electric three speed, large drive wheels with planetary drive hubs with fail-safe brakes, allowing the operator to work at maximum capacity of 200KG SWL on steep slopes.



Two caster flotation wheels

Two wide independent caster flotation wheels on a pivoting cross axle assists with a smooth ride over difficult terrain. The cross axle rocks 15° each way. Most other makes of EWP's cross axle is only rocked by less than 3°-5° or no pivot at all, so the Squirrel is much more manoeuvrable in mounded or terraced rows.



Wide tyres standard (790mm Ø x 350mm wide)

The 678 BSD-D comes standard with bogie drive 15" wheels on walking beam, planetary 8:1 gearbox with hydraulic motor for each wheel, fail-safe brakes. The 15" wheels give the Squirrel superior traction and smooth ride over difficult terrain without bogging. Rims are hot dip galvanised for long life.

- Genuine foot controls SD (Soft Drive)
- Fully enclosed spacious engine compartment
- Self lubricating replaceable bushes
- Planetary four wheel drive hubs
- Wide bogie drive tyres Std. 790mm Ø x 380mm wide
- Powerful three hydraulic pump system
- 200KG SWL with 12°-15 side ways angle & 15° forwards angle at full height
- Electric hydraulic three speed
- Towing & free wheeling standard
- 23hp EFI V-twin petrol engine standard
- Diesel Kubota 3 cyl engine option
- Two caster flotation wheels
- Large self closing cage gate
- Safety throughout
- Side swing cage
- Electric throttle
- Compact length
- Enclosed cage
- True all-terrain
- 100 lt fuel tank
- Bin forks
- Low back

Low back and Compact length

The Squirrel 678 has a low back and low profile bonnets. Cage, bonnets and frame back have large rounded corners so overhanging branches easily deflect.

The 678 is shorter in design (about 0.7m shorter than other machines the same height in the market) making it a lot more manoeuvrable in the rows.



SQUIRREL 818 BSD-D

10.1m Reach 8.1 Platform height

This new 818 BSD-D "Bogie Soft Drive Deluxe" Squirrel has been developed to incorporate all the latest features and experience gained from manufacturing over the past 50 years.

This model is ideal for high avocado trees, harvesting and pruning on steep ground. Standard features include side swing cage, hydraulic electric three speed, large drive wheels with planetary drive hubs with fail-safe brakes, allowing the operator to work at maximum capacity of 200KG SWL on steep slopes.



Four caster flotation wheels

Four wide independent caster flotation wheels on a pivoting cross axle assists with a smooth ride over difficult terrain. The main cross axle rocks 15° each way and each caster wheel assemble also rocks 15° each way. With other makes of EWPs their main cross axle is only rocked by less than 3°-5° or no pivot at all and their caster wheel assemble is also rigid, so this makes the Squirrel much more manoeuvrable in mounded or terraced rows.



Wide tyres standard (790mm Ø x 350mm wide)

The 818 BSD-D comes standard with bogie drive 15" wheels on walking beam, planetary 8:1 gearbox with hydraulic motor for each wheel, fail-safe brakes. The 15" wheels give the Squirrel superior traction and smooth ride over difficult terrain without bogging. Rims are hot dip galvanised for long life.

- Genuine foot controls SD (Soft Drive)
- Fully enclosed spacious engine compartment
- Self lubricating replaceable bushes
- Planetary four wheel drive hubs
- Wide Bogie drive tyres standard 790mm Ø x 380mm wide
- Powerful three hydraulic pump system
- 200KG SWL with 12°-15 side ways angle & 15° forwards angle at full height
- Electric hydraulic three speed
- Towing & free wheeling standard
- 23hp EFI V-twin petrol engine standard
- Diesel Kubota 3 cyl engine option
- Two caster flotation wheels
- Large self closing cage gate
- Safety throughout
- Side swing cage
- Electric throttle
- Compact length
- Enclosed cage
- True all-terrain
- 100 lt fuel tank
- Bin forks
- Low back

Low back and Compact length

The Squirrel 818 has a low back and low profile bonnets. Cage, bonnets and frame back have large rounded corners so overhanging branches easily deflect.

The 818 is short in design (about 1m shorter than other machines the same height in the market) making it a lot more manoeuvrable in the rows.





Picking Bag - Standard

The Standard picking bag is fully padded with multiple filling stages and a drawstring to eliminate bruising - only requiring four bags to fill one bin.



Picking Bag - Deluxe

The Deluxe picking bag is double lined with padded inside with four filling stages, and offers added protection from limbs by a steel cover which eliminates all bruising - requiring 5-6 bags to fill one bin.



Bird netting installing trays

Three trays bolted to the cage (left for plastic clips, front for all tools, right for long wire splices).



Tail-lights

Tail-lights on both sides are fully protected from prunings and wired to a round 7 pin plug. This may be required if working on the roadside or towing on public roads.



Engine chain saw rack

Solid Nylon with slots to take chain saw and hedge trimmers.



Hydraulic tool outlets

Hydraulic tool outlets in cage with on/off & safety valve 25-45 l/pm 1,700 psi.



Amber flashing light

Amber flashing light is fully protected from falling prunings. This option is recommended if working on the roadside or industrial sites. Some applications may require two flashing lights.



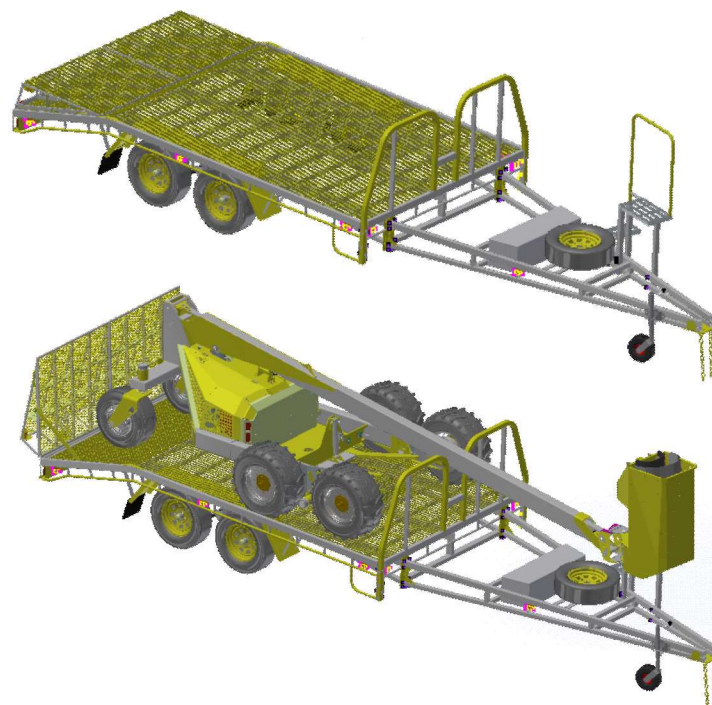
One man cage, Joy stick drive & foot control

Single man cage with hand joystick drive controls. The cage has a 100mm longer floor so that the operator has room to move without bumping the pedals. This is ideal for hire fleets and industrial applications. The cage still rotates 60° left and 60° right.



Kubota diesel engine 23hp 3 cyl water cooled

The Kubota D902 3 cylinder water cooled diesel engine provides a quiet, very reliable, efficient alternative to petrol for heavy duty applications, has low oil pressure and high water auto shut down large diesel filter with hand pump.



Squirrel beaver-tail / flat top trailer

A range of trailers are available. For the orchards we have a beaver-tail / flat top model. When transporting Squirrels or any other wheeled machine it is a beaver-tail with swing down ramps. These ramps are pinned vertically, the ramps can also swing right over to make a flat top Trailer, with a tray size of 2.45m x 4.45m. Ramps are powered by gas struts & springs for easy positioning. Floor is 8mm expanded mesh all hot dip galvanised lights are all LED. Wheels 15" Landcruiser, hubs, electric brakes & axle all rated to 4.5 tonne, Trailer rated for 3.5 tonne. Different drawbars bolt on to suit your requirements. Comes with spare wheel, tool box, cage platform, steps & hand rails for safe Squirrel cage access. Head board can be unbolted.

Separate Squirrel trailer brochure available with information and detailed specifications.

SQUIRREL 558, 678, 818 Specifications

558. 678 & 818 Squirrel Specifications, self-propelled all terrain elevating work platform 2-2023

Squirrel Models	558 SD-D	678 SD-D	678 BSD-D	818 BSD-D
Model type	Soft Drive Deluxe	Soft Drive Deluxe	Bogie Soft Drive Deluxe	Bogie Soft Drive Deluxe
Main Application	Avocado & mango, low trees	Avocado & mango, medium trees, gentle terrain	Avocado & mango, medium trees, rough terrain	Avocado & mango, very tall trees, rough terrain
Max. Cage platform height	5.5m	6.7m		8.1m
SWL	200kg			
Cage Side Swing	Standard 110°, 55° right - 55° left			
Fail-safe brakes, hill descent brakes, freel wheeling, tow bar with 50mm ball hitch	Standard			
Total Length when boom fully lowered	5.56m	7.04m	6.9m	8.72m
Cage overhang when Down / Full Height	2.58m / 0.52m	3.73m / 0.83m	3.43m / 0.56m	4.51m / 0.76m
Width outside tyres wheels in / wheels out	2.3m / (2.65m spin wheels around)	2.3m / (2.65m spin wheels around)	2.37m / (2.8m spin wheels around)	
Rear machine height	1.55m			
Ground clearance	0.3m			
Tray size in front of engine bay	1.21m x 0.61m			
Total Weight approx.	2.1 tonne	2.8 tonne	3.1 tonne	3.4 tonne
Maximum slope sideways, wheels in / wheels out	12.5° at full height (wheels at std) 15° at full height (wheels at wide setting)			
Maximum slope forwards, wheels in / wheels out	15° at full height			
Hydraulic 3 speed Ground Speeds km/hr Three Speed Gear 1, 2, 3	gear 1; 0-1.5, gear 2; 1-2.5, gear 3; 1-5, km/hr	gear 1; 0-2, gear 2; 1-2.5, gear 3; 1-4.5, km/hr		gear 1; 0-1.5, gear 2; 1-2.5, gear 3; 1-4, km/hr
Wheel torque (Max)	4,990 Nm	5700 Nm		5,680 Nm
Standard Drive wheel tyre	Single wheel drive 2 x 31x15.5x15, 8 ply, (790 Ø x 380 wide) tractor grip		bogie wheel drive 4 x 31x15.5x15, 8 ply, (790 Ø x 380 wide) tractor grip	
Caster wheel tyre	2 x 26x12x12, 12 ply (620 Ø x 300 wide)			4 x 26x12x12, 12 ply (620 Ø x 300 wide)
Engine	18 HP, Vanguard, V twin, OHV, Petrol		23 HP, Vanguard, EFI, V twin, OHV, Petrol	
Squirrel Models	558 SD-D	678 SD-D	678 BSD-D	818 BSD-D
Optional extra				
Low voltage Insulation	Optional			
Bogie Drive wheels	Not required		Standard	
Diesel Engine Option extra	Optional; 23hp Kubota D902 3 cyl water cooled			
One Man Cage Hand & Foot Control	Optional			
Cage trays, chain saw holders, trays for netting erection (clips, wire rope splices, etc).	Optional			
Picking Bags: Standard or Deluxe	Optional; Standard 4-5 bags per bin, Deluxe 5-6 bags per bin			
Hydraulic Outlets in Cage	Optional			

Available through your local dealer

Warranty 12 month from date of delivery.

Disclaimer : The pictures and information in this brochure are a guide only. Specifications are subject to change without notice and without liability expressed or implied.