



GRÉGOIRE
BESSON

VOYAGER

SEMI-MOUNTED PLOUGH



PROUDLY DISTRIBUTED BY

WARINGA





Premium Cultivation & Tillage Equipment

Combining simplicity and durability, with exclusive features and technology, the Grégoire Besson premium cultivation and tillage equipment range is known for its reliability, versatility, and high level of performance.



GRÉGOIRE BESSON EQUIPMENT RANGE

Grégoire Besson is a brand of the GB Group based in France, with a history spanning over 180 years in manufacturing high-quality cultivation, tillage, and soil preparation equipment. Grégoire Besson's mission is to improve soil productivity both effectively and sustainably.

Waringa Distribution is the proud distributor of the Grégoire Besson premium equipment range in Australia. The range includes the *Voyager* Semi-mounted Plough, the *Normandie* Speed Tiller, and the *Discordon* One-Pass Finisher. The *Explor* Disc Harrow and *Helios Duo* Mounted Sub-Soiler are also distributed by Waringa.

Waringa works closely with their manufacturers to develop and adapt products for unique Australian conditions, and plays a key role in the testing and development of all their distributed products to ensure their customers' expectations are continually exceeded.



THE UNIQUE BENEFITS OF PLOUGHING

Ploughing brings a multitude of benefits to the soil in one pass for effective seed bed preparation, whilst limiting the use of chemicals, and improving the soil structure.



Improves soil structure by turning and loosening the soil, allowing air and water to circulate.



An effective step in seedbed preparation allowing organic fertilisers to penetrate the soil.



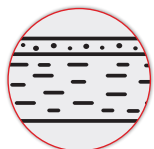
Limits water retention by circulating within the intermediate and deep layers.



Buries weed seeds deep so that they do not germinate and compete with the crop.



Nitrogen becomes trapped in the soil which accelerates mineralisation.



Prevents erosion of the nutrient-rich soil surface.

VOYAGER SEMI-MOUNTED PLOUGHS

The Voyager is available in two frame configurations, single wheel (S models) and carriage (C models), for precise ploughing over a range of working widths, suited to a variety of paddock sizes and topographies.

VOYAGER SINGLE WHEEL MODELS (S)

Suitable for smaller paddocks with challenging contours, and combines flexibility over a range of working widths.

VOYAGER S60

5 to 7 bodies

Working width: 1.50m to 3.5m

Tractors: 125hp to 220hp

VOYAGER S70

5 to 9 bodies

Working width: 1.5m to 4.5m

Tractors: 210hp to 400hp



VOYAGER CARRIAGE MODELS (C)

Suitable for larger paddocks and sloped land, with a range of wider working widths and more bodies.

VOYAGER C60

6 to 10 bodies

Working width: 1.5m to 5m

Tractors: 125hp to 260 hp

VOYAGER C80

7 to 14 bodies

Working width: 2.1m to 7.1m

Tractors: 210hp to 600hp



Increase Your Soil Productivity

The Voyager offers a variety of options to suit your specific soil needs for maximum configurability.

Grégoire Besson's exclusive hardened mouldboard technology is standard on all Voyager Ploughs providing superior strength and durability, improving fuel efficiency and productivity, and reducing the wear of the mouldboards.



INNOVATIVE MOULDBOARD TECHNOLOGY

The Voyager Plough includes Grégoire Besson's exclusive hardened mouldboard technology for superior strength and durability, as standard.

The exclusive case hardening, heat treatment process prolongs the life of the mouldboard for regular wear. The steel has a higher carbon content over its entire surface and also at the core, providing superior hardness with better wear resistance.

This further results in less sticking and friction, lowering the overall tractor power required for ploughing, to improve fuel efficiency and productivity.

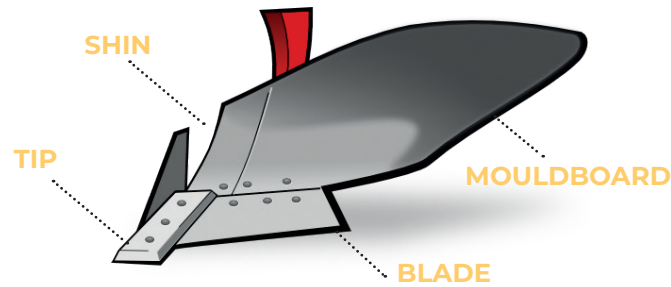


BODIES WITH BOLT ON POINTS

Ploughs include bodies with bolt on points with helicoidal shaped mouldboards for moulded, deep, high furrow ploughing.

The helicoidal mouldboard shape enables ploughing from 18cm to 30cm deep, even in clayey soils, with a cutting width from 18" to 22".

Helicoidal mouldboards also allows for water and oxygen to easily penetrate the soil, and has a better capacity to bury organic matter while maintaining the structure on the soil surface.



The mouldboard plough blade features 3 holes and can be turned up to 4 times.

The share slices the deepest part of the furrow at a specific angle to optimise traction power and penetration capacity.

The mouldboard shin cuts the furrow wall and guides the soil towards the mouldboard so that it can be turned.

INTER-BODY CLEARANCE



The Voyager Plough has an inter-body spacing of 1,000mm between each element, as standard.

This spacing allows the plough to work in paddocks with high levels of plant residue without the risk of clogging.

For special applications and complex field work, an option of a larger 1,114mm inter-body clearance is available.

The choice to add or remove an element is also available as a factory option upon request to adapt to specific conditions.

IN-FURROW OR ON-LAND OFFSET OPTIONS

The Voyager is available with the choice of in-furrow or on-land ploughing options.

IN-FURROW

Suitable for small to medium tractors, in-furrow ploughs provide good grip and traction, especially in wet conditions. The tractor wheels sit in the furrow which guides the tractor.

The in-furrow calliper gauge offset enables work with tractor tyre spacings between 1.2m and 1.6m, depending on the model, with continuous adjustments as required.

It is also possible to remove the first body element if required.



ON-LAND

The Voyager on-land plough option allows for the choice of either in-furrow or on-land ploughing.

On-land Voyager Ploughs are suited to high power tractors. The on-land option enables work with dual or track-laying tractors up to 4.7m wide, depending on the plough model, and by working on-land, tyre wear is reduced.



Key Features & Options

The Voyager Plough can be configured for all farming operations and varying paddock conditions. Grégoire Besson offer two exclusive systems for adjusting working widths, and for turning and positioning the plough.

Additionally, a hydraulic auto-reset safety system ensures any foreign objects pass are dealt with safely to protect the plough bodies from damage.



WORKING WIDTH & DEPTH ADJUSTMENTS

The Voyager has two working width adjustment systems for varying conditions.

Working widths can be adjusted from 12" to 20" with standard inter-body clearance, or 14" to 22" for the larger clearance option. The working depth can be changed simply via the tractor lift at the front, stop screws on the carriage models or using the depth wheels, depending on the model.

MULTI-POSITION MECHANICAL ADJUSTMENTS



Mechanical adjustments are performed by changing the angle of each element using the screws. Additional equipment such as skimmers and coulter also adapt to the desired working width as the ploughing elements.

VARIO HYDRAULIC ADJUSTMENTS



The working width is hydraulically adjusted from within the tractor cab. Grégoire Besson use extremely durable materials for the bearings and pivot pins, fitted with weatherproof seals for durability.

NON-STOP HYDRAULIC SAFETY SYSTEM

The hydraulic auto-reset system allows for non-stop ploughing in varying soil conditions. If a foreign object is hit, the ploughing element rises up to 85 cm to pass the object. The element returns to its position using a safety cylinder.

The system is mounted on 4 ball joints to allow for vertical and lateral travel without constraint, and is suitable for clayey or rocky soils to provide leveled ploughing.

There is a choice of 3 cylinder diameters for varying soil densities, and the hydraulic safety can be also be configured using either 100 or 150 bar pressure accumulators.

A continuous pressure adjusting valve is available as an option, for very uneven soil structures, which allows the cylinders to be adjusted directly from the tractor cab.



SMOOTH TURNING & POSITIONING

Grégoire Besson has two systems to efficiently manoeuvre the plough. With both systems, turnover is smooth, even at the tipping point, and the process can be reversed at any time to assist in accurately guiding and positioning the plough.



RACK & PINION SYSTEM

Exclusively designed, the rack and pinion system ensures a constant, smooth speed during turnover. The hydraulic load transfer system is available with this system to shift weight to the rear of the tractor and optimise traction.

DOUBLE CYLINDER TURNOVER

A simple and efficient option which gives the operator maximum flexibility during the manoeuvring phases. It is possible to reverse the plough turning process without any jolting.

REAR SECTION ARTICULATION ON CARRIAGE MODELS

Carriage models are equipped with an innovative rear articulation system which allows for the lifting and lowering of the rear section. This system also enables horizontal manoeuvring to aid in precise positioning of the plough.

Rear articulation enables optimal ground following and uniform working depth along the entire plough length, particularly in sloping land, and is available in either mechanical or hydraulic options for operation.



INTEGRATED ANDPAK ROLLERS

Andpak rollers can be mounted to the Voyager Plough to provide a complete soil consolidation solution in a single pass.

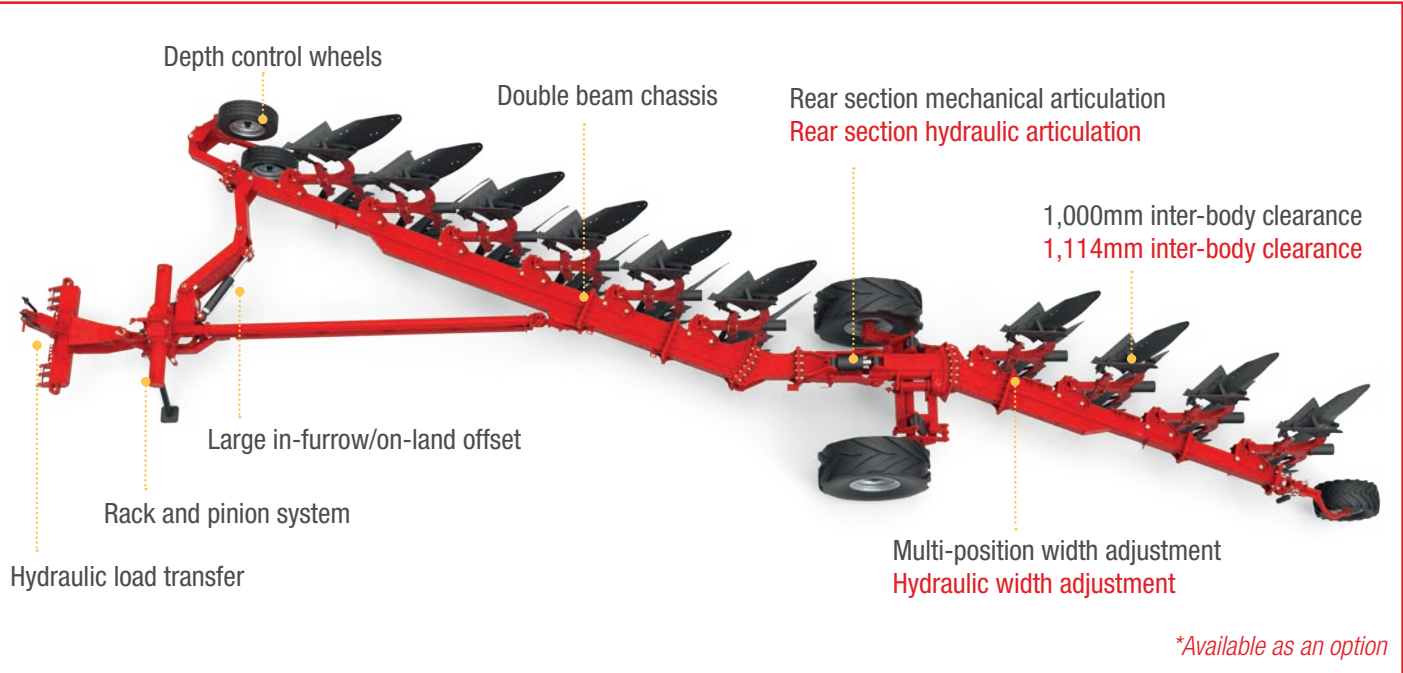
The integrated system is extremely manoeuvrable and compact, and the rollers are compatible with the hydraulic auto-reset safety system. The working width of the rollers adapts to the working width of the plough.

An offset roller arm is also available as an option for single wheel models, enquire for more information.



C - CARRIAGE MODELS

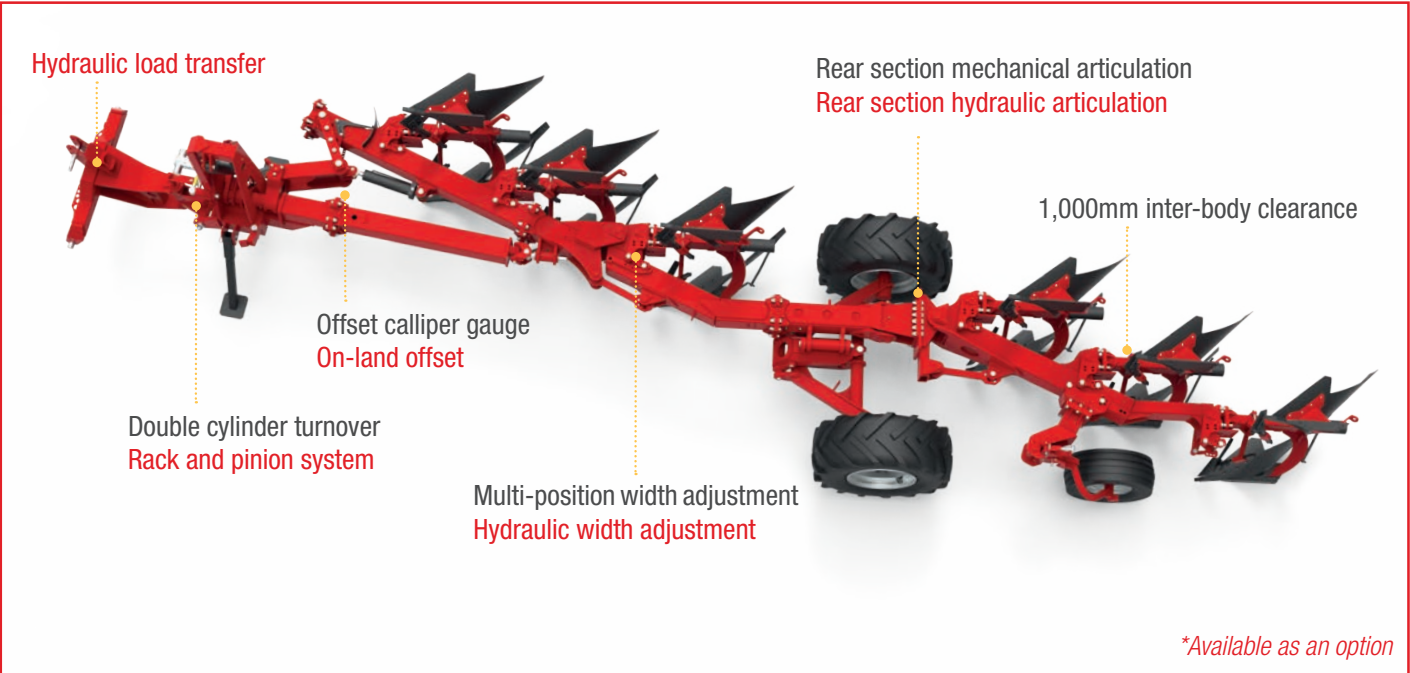
Product Specifications



VOYAGER C80 PLOUGH 7-14 BODIES · TRACTORS: 210-600HP · WORKING WIDTH: 2.1-7.1M

- **Depth control wheels** (for on-land work) maintains tilt for even ploughing over the entire working depth.
- **Double beam chassis frame** ensures strength and durability of the plough, designed for high traction power.
- **In-furrow offset** allows for work with tractors with a tyre spacing between 1.3-1.6m with continuous adjustments.
- **On-land offset option** allows for work with dual wheel tractors up to 4.7m wide or with track-laying tractors.

VOYAGER C80 TECHNICAL SPECIFICATIONS															
NUMBER OF BODIES	7	8			9		10		11		12		13		14
	4/3	4+1/3	5/3	4/3+1	4+1/3+1	5/3+1	5+1/3+1	6/3+1	6+1/3+1	7/3+1	7+1/3+1	8/3+1	7+1/4+1	8/4+1	8+1/4+1
TRACTOR POWER (HP)	210 250	240 300			270 350		300 400		330 450		360 500		390 550		420 600
TURNOVER	Rack and pinion														
WIDTH ADJUST-MENT	Mechanical Optional Hydraulic 12" 14" 16" 18" 20"														
OFFSET	In-furrow Optional on-land														
HITCH TYPE (CAT.)	Standard 3N - 3 - 4N Optional 3 - 4														
FRAME (MM)	180 x 180 + 260 x 180														
HEIGHT WIDTH (MM) POINT TO POINT	1700 1000 Optional 1800 1140														
CARRIAGE WHEEL DEPTH WHEEL	Enquire for tyre options and sizes														



VOYAGER C60 PLOUGH 6-10 BODIES · TRACTORS: 125-260HP · WORKING WIDTH: 1.5-5.0M

- **Offset by calliper gauge** enables work with tractor tyre spacings between 1.2-1.6m with continuous adjustments.
- **On-land offset option** allows for work with dual tractors 3.5m wide or with track-laying tractors.

VOYAGER C60 TECHNICAL SPECIFICATIONS								
NUMBER OF BODIES	6	7		8			9	10
	3/3	3+1/3	4/2+1	4+1/3	4/2+1+1	5/2+1	5/2+1+1	6/2+1+1
TRACTOR POWER (HP)	125 180	165 200		185 220			205 240	225 260
TURNOVER	Double cylinders		Rack and pinion	Double cylinders				
WIDTH ADJUSTMENT 12" 14" 16" 18" 20"	Mechanical		Hydraulic	Mechanical	Hydraulic			
OFFSET	In-furrow		In-furrow Option- al on-land	In-furrow	In-furrow Optional on-land			
HITCH TYPE (CAT.)	Standard 3N - 3 - 4N Optional 3 - 4							
FRAME (MM)	180 x 180							
HEIGHT WIDTH (MM) POINT TO POINT	1700 1000 Optional 1800 1000							
CARRIAGE WHEEL DEPTH WHEEL	400/70 x 20 (Ø 1150 mm) RJR side, enquire for size options							

S - SINGLE WHEEL MODELS

Product Specifications

Large in-furrow/on-land offset

Hydraulic load transfer

1,000mm inter-body clearance
1,114mm inter-body clearance

Transport and handling wheel

Rack and pinion system

Multi-position width adjustment
Hydraulic width adjustment

Z-shaped frame

**Available as an option*

VOYAGER S70 PLOUGH 5-9 BODIES · TRACTORS: 210-400HP · WORKING WIDTH: 1.5-4.5M

- **The Z-shaped frame** on single wheel Voyager models means that the wheel passage is covered by the last body. This beam allows the chassis to pass close to the wheel when turning with a safe, lowered centre of gravity for manoeuvring.
- **Large in-furrow offset** allows for work with tractors with a tyre spacing between 1.3-1.6 m with continuous adjustments.
- **On-land offset option** allows for work with dual wheel tractors up to 3.5m wide or with track-laying tractors.

VOYAGER S70 TECHNICAL SPECIFICATIONS									
NUMBER OF BODIES	5	6		7		8		9	
	5	5+1	6	6+1	7	7+1	8	8+1	1+7+1
TRACTOR POWER (HP)	210 250	240 290		280 330		320 370		360 400	
TURNOVER	Rack and pinion								
WIDTH ADJUSTMENT	Mechanical Optional Hydraulic 12" 14" 16" 18" 20"								Hydraulic
OFFSET	In-furrow Optional on-land								
HITCH TYPE (CAT.)	Standard 3N - 3 - 4N Optional 3 - 4								
FRAME (MM)	180 x 180								
HEIGHT WIDTH (MM) POINT TO POINT	1700 1000 Optional 1800 1140								
WHEEL	17.5/R24 (Ø 1 220 mm) Optional 400/70 x 20 (Ø 1 150 mm) Adjustable screw mechanism								

Offset calliper gauge

Screw tilt adjustment

1,000mm inter-body clearance

Transport and handling wheel

Double cylinder turnover

Multi-position width adjustment
Hydraulic width adjustment

Z-shaped frame

**Available as an option*

VOYAGER S60 PLOUGH 5-7 BODIES · TRACTORS: 125-220HP · WORKING WIDTH: 1.5-3.5M

- **Screw tilt adjustment** to mechanically adjust the tilt of the plough. Two screws on each side of the turnover system are used for this operation with the lock nuts preventing any loosening.
- **Offset calliper gauge** allows for work with tractors with a tyre spacing between 1.2-1.6 m with continuous adjustments.
- **Transport and handling wheel** integrated into the shape of the plough to optimise load transfer, provide stability for transport and handling, and provides traction in wet conditions. The wheel has a width of 400mm and 980mm diameter.

VOYAGER S60 TECHNICAL SPECIFICATIONS					
NUMBER OF BODIES	5	6		7	
	2+3	2+1+3	3+3	3+1+3	4+3
TRACTOR POWER (HP)	125 160	155 190		185 220	
TURNOVER	Double cylinders				
WIDTH ADJUSTMENT	Mechanical Optional Hydraulic 12" 14" 16" 18" 20"				
OFFSET	In-furrow, Hydraulic				
HITCH TYPE (CAT.)	Standard 3N - 3 - 4N Optional 3 - 4				
FRAME (MM)	160 x 160				
HEIGHT WIDTH (MM) POINT TO POINT	1700 1000 Optional 1800 1000				
WHEEL	400/55 x 22.5 (Ø 980 mm) Adjustable screw mechanism				



SUPPLEMENTARY EQUIPMENT

Grégoire Besson offers a variety of supplementary equipment options to suit varying soil needs. Additional equipment such as skimmers and coulters, uniquely adapt to the working width of the ploughing elements when adjusted.

SKIMMERS



The combination of the short coulter and mouldboard makes this skimmer very versatile and suitable for 80% of applications.

TRASHBOARDS



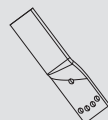
The use of trash boards whilst ploughing positions the residues of large plants vertically to improve water infiltration.

DISC COULTERS - SPRING MOUNTED OR BOLTED



Suitable for rocky soils, the spring mounted disc coulters cut plants and soil 10 cm in front of the body to create a clean furrow base and wall. Bolted disc coulters are available.

MOULDBOARD EXTENSIONS



The mouldboard extension positions the earth for precise finishing and minimises the wear of the end of the mouldboard.

ADDITIONAL OPTIONS

- **Control box with a hydraulic switch** is available as an option to centralise several functions on the same valve and limit the number of hydraulic connections for ease of use in the cab.
- **Trailed Lifter** serves as a rear lift developed for tractors without lift or with poor position control. It enhances the load balance and optimises traction, particularly on single track tractors.

PROUDLY DISTRIBUTED BY

WARINGA

Global Brands, Premium Products

INFO@WARINGA.COM.AU

08 6154 5999

WARINGA.COM.AU

Your Local Grégoire Besson Dealer