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Introduction

Welcome to GreenMech's catalogue! We are delighted to showcase our range of world-class wood chippers. Back in 2013, GreenMech celebrated the double milestone of 20 years manufacturing wood chippers and Chairman Tony Turner's 50 years in engineering.

Tony formed GreenMech Ltd in 1993 to design, manufacture and market a British range of wood chippers to professional arborists, landscapers, contractors and local authorities across the world. Over the last two decades, GreenMech has successfully developed a unique and innovative range of professional machines which are now exported to over 30 countries. Among many significant achievements are a prestigious Queen's Award for International Trade in 2005 and a second for Innovation in 2009.

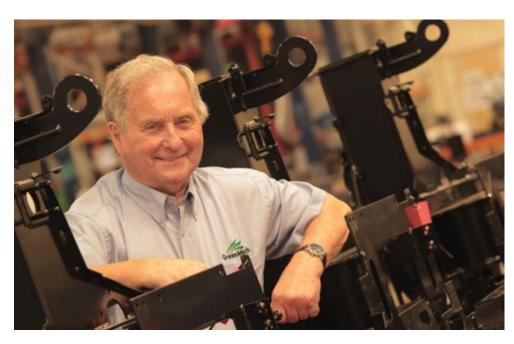
Very much a family-run enterprise, in 2002, GreenMech was joined by Tony's son Jonathan in the role of Managing Director. Following that, Jonathan's cousin David Turner became Operations Director and now Tony's grandchildren, Guilhem and Emma Pages-Turner head up the French side of the company. These two represent the third generation of the Turner family to become involved in this award-winning business.

Since 2007 our Midlands-based factory site has expanded by 50 per cent and we now employ over 85 people including three new engineering apprentices. Export sales have doubled since the financial crash of 2008 and, in tandem with that rise, our world-wide sales and support service, through appointed dealerships across four continents, continues to flourish.

We are passionate supporters of British manufacturing and work proactively with our regional Chamber of Trade & Commerce to lobby the UK government on its behalf. Since 2006 GreenMech have partnered with the UK Health & Safety Executive in their 'Buy Quiet' campaign to reduce workplace noise emissions.

Jonathan Turner says:

"We are proud of our achievements over the last 23 years and are feeling positive and excited about the future. We look forward to improving and developing our products and, above all, heeping our customers happy."





Innovative Engineering

We have a proud heritage of ground-breaking inventions

GreenMech has been creating industry standards for almost 25 years and constantly brings new ideas and improved performance to wood chipper production. Our reputation for innovation goes back for more than fifty years.

From dialogue with customers and dealers, ideas are fed to our design and development team who then turn them into reality. The result of this collaboration has been a number of ground-breaking products that allow for safer, faster and less noisy operation.

From the development of quieter machines to the award-winning SAFE-Trak and the revolutionary Disc Blade cutting system, all have ultimately added value to our customers' and user offerings.

The original SAFE-Trak extension system

In 1999, at the request of several customers, GreenMech produced the UK's first tracked wood chipper. At the time we thought the market would be small, but we were wrong, as UK, European and Australian sales followed.

Designed on a conventional track carrier - similar to that of mini excavators - we soon found out the limitations and frequently found ourselves stuck on top of tree stumps and unable to climb slopes due to either instability or restrictions with oil flows to the engine.

After further years of research and development, the SAFE-Trak was launched in 2002. This brand-new design broke the mould because it was the first chipper that was both tracked and narrow – increasing accessibility – but which could safely operate on slopes and embankments.

Since its introduction into the professional arb world, the SAFE-Trak has become one of the most popular models in the GreenMech range. A particular favourite with de-veg contractors who work to maintain highways, power lines and railway networks, the SAFE-Trak has the capacity to go virtually anywhere. Its innovative patented track-extension system extends each track independently to give up to 550mm ground clearance, enabling it to access the most difficult terrain. By extending only one track, slopes up to 35° can be traversed in complete safety, allowing the chipper to be closer to the job in hand, saving both time and money.



The revolutionary Disc-Blade chipping system

The vulnerability of conventional straight blades, highlighted by rental companies, when contaminants such as soil and nails are inadvertently introduced into the chipper, means that users often find that sharpening and even the replacement of blades become necessary all too frequently.

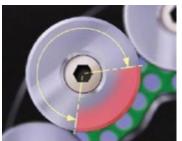
Following the introduction of the GreenMech Disc Blade system in 1995, the once, time-consuming, frequent sharpening of dulled straight blades has been greatly reduced. As a result, these pioneering round blades are now the preferred choice with many contractors. Unless requested, all GreenMech hydraulic machines are fitted with Disc-Blades as standard.

Reasons to choose Disc-Blades over conventional blades

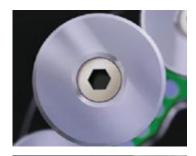
- Significant cost savings
- 600% more blade life
- Reduction in noise emissions
- Less power requirement
- Less maintenance



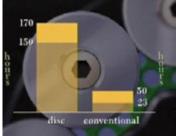
The Disc-Blade system, with its slicing action as opposed to chopping, is 1.5dB quieter than conventional straight blades, according to data obtained from the recognised standard noise test for wood chippers. It is worth noting that for every 3dB reduction in noise emissions the sound pressure on the ears is reduced by a massive 50 per cent.



When the Disc-Blades are used, only 30 per cent of their circumferences come into contact with the woody material, hence the blades can be turned to the next sharp section when the edge has worn. This allows the blades to be turned twice before they need to be re-sharpened, in essence giving you three blades in one.



By loosening the retaining bolt, the Disc-Blades can be rotated in either direction. If damage occurs to the blade through insertion of contaminants such as stones or nails, the damaged section can simply be positioned away from the cutting area.



Conventional straight blades are more susceptible to damage and therefore will need to be replaced more frequently for optimal performance. When sharpened and refitted, the distance between the anvil and blade also needs to be adjusted. This does not apply to Disc-Blades, as they are sharpened from the rear so the front face does not alter and the gap remains constant.

Manufacturing Process

Choosing GreenMech means investing in British engineering and skills

Over the last two decades GreenMech has revolutionised the world of wood chippers with numerous innovations in design and technology. In order to do this we have consistently invested in the most up-to-date manufacturing processes to bring a superlative range of quality and value-for-money products to the chipper market.

From a CAD design system, through to the precision of a laser cutting and powder coating system, this investment has allowed our design and manufacturing team to further develop innovative and performance enhancing features. We also take customer feedback into consideration and turn field experience and their requirements into functional reality.

We are passionate about British engineering and proud to produce the vast majority of component parts at our manufacturing headquarters based in the Midlands. Through fabrication to assembly, from the discharge chute to the steel chassis, a GreenMech wood chipper is created supporting British jobs and British manufacturing.

We are proud of our growth and expansion over the last two decades, and are secure in the knowledge that we are one of the largest chipper manufacturers in Europe. Engineering has been the backbone of the Midlands' economy for more than a century and at GreenMech we are confident that our innovative approach and willingness to invest in both our people and our facilities, will ensure a long term outcome for our marketplace.

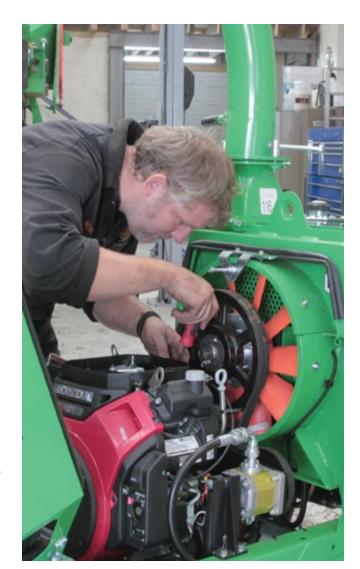


ISO9001 accreditation

GreenMech are proud to be an ISO9001accredited company giving you the knowledge that the machines you buy are manufactured by a British company to a high-quality international standard.

Environmental credentials

GreenMech prides itself on engineering for a greener environment. Our wood chippers are designed to help keep as much green waste as possible out of landfill by turning woody waste into a usable asset. As a manufacturing company we are conscious of re-using as many resources as possible, so all our metal off-cuts, waste oil, cardboard and paper are recycled.



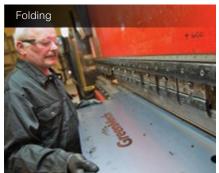








All metal components manufactured in-house go through a vigorous three-stage paint process which involves shot blasting, powder prime and powder coating. Each part is then subject to oven curing, which exceeds the industry-accepted 1000-hour salt spray test.











Standard Features List

Wide infeed chute

All models come with a large infeed chute for easy disposal of awkward bushy brash.



Letterbox opening

A letterbox throat enables heavily forked branches and brash to be easily processed, resulting in a significant reduction in the number of chainsaw cuts per day and making the job safer whilst saving you time and money.



Greenhech - Setting a new standard

Outstanding Disc-Blade system**

As standard our professional wood chipper range comes fitted with our patented, Disc-Blade system which can give up to 120 hours chipping before re-sharpening and up to 900 hours before replacement.







No-Stress control and hydraulic feed rollers**

GreenMech offer either twin vertical or twin horizontal hydraulic feed rollers to powerfully crush woody material. These are governed by the advanced No-Stress control system, giving effective throughput management which helps prevent blockages.



Powerful engine

A varied choice of world-class engine makes such as Kubota, Briggs & Stratton and Honda, provides flexibility for each end-user to have a power source and fuel type that matches each application and budget.



Versatile discharge chute**

A 280-degree rotation on the discharge chute allows it to be positioned to discharge in the safest place and then be repositioned for transportation.





Homologation**

All of GreenMech's road tow wood chippers come with a Certificate of Conformity to show they are fully homologated and compliant with the European Whole Vehicle Type Approval (ECWVTA) legislation.



Outstanding paint quality

All metal components manufactured in-house by GreenMech go through a vigorous three-stage paint technique which we are proud to state exceeds the 1000-hour salt spray test. To achieve this exacting benchmark we shot blast, powder prime and powder coat each metal panel which is then subjected to oven curing at 200°.

This process enhances the build quality and helps keep the machine looking good and retain a good resale value for years to come.





** does not apply to CS 100



Why it's good to Buy Quiet



Wood chippers are some of the noisiest machines working in the urban environment and because of this, GreenMech have long been at the forefront of the technological drive to engineer quieter machines. For several years we have also been keen supporters of the UK Health & Safety Executive's *Buy Quiet* campaign to highlight issues around noise-induced hearing loss in the workplace.

As a result of our ongoing mission, we have produced probably the quietest chippers on the market, achieved in part thanks to the Disc-Blades, the insulated steel chassis that protects the engine, and a novel means of extracting the hot air and exhaust heat from the acoustic engine housing via the chipper chamber.

All new products developed by GreenMech since 2006 have incorporated significant noise reduction features but the noise level on the latest Arborist range is 115dB offering a significant reduction on comparative models.

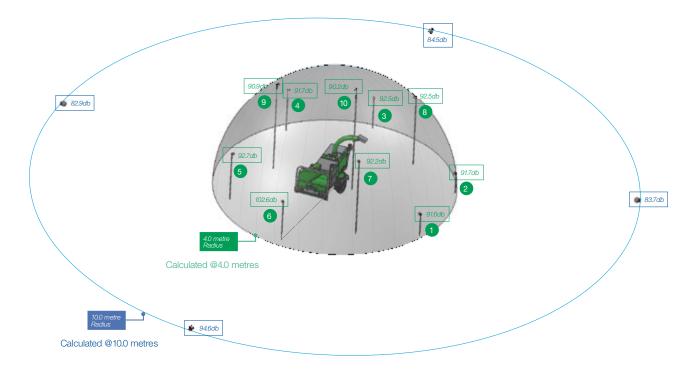
Tony says:

"Greentech will continue to implement design features that will lower noise emissions and ensure that correct and clear noise emission data is available in our sales and technical literature. We expect to achieve further reductions in the future."

Wood chipper sound levels are required by EU safety sandards

Sound measurements taken chipping 2.0m lengths of pine 8-10cm in diameter

10 microphones arranged in a sphere around an Arborist 150, measuring sound levels simultaneously, produced a total Sound Power of Lw(A) 115dB.



Noise is measured in decibels (dB)

0 dB is the quietest sound the human ear can detect 10 dB is a 10 times increase in sound energy 60 dB is a million times higher than 0 dB Lw(A) dB is the total Sound Power in dB radiating from the source. Note: Every 3 dB reduction halves the Sound Power Every 3 dB increase doubles the Sound Power

Quick Reference Guide

Which machine works best for you?

Key: Standard ✓ Option O		Engine					Cutting Blade		Feed				
			Petrol			Diesel			Туре		Mechanism		
Capacity	Model	Туре	16hp	18hp	23hp	26hp	34hp	45hp	48hp	Disc	Straight*	Hydraulic	Gravity
100mm	CS 100	Pedestrian	0	0							1		✓
150mm	Arborist 130	Road Tow			4					4		4	
150mm	Arborist 150	Road Tow					4			1		4	
200mm	Arborist 200	Road Tow						1		1		4	
190mm	SAFE-Trak 19-28	Tracked							4	4		*	

^{*} Straight Blades are reversible

Icon Key





Disc Blade

Straight Blade





Capacity

Throat Dimension





Noise Values

Safe-Trak





Ground Clearance

Weight

CS 100

Key features

- 100mm chipping capacity
- 16hp or 18hp Briggs & Stratton Vanguard V-Twin petrol engine
- Twin reversible chipping blades
- Adjustable discharge chute
- Optional dedicated trailer
- From 195kg weight













Powerful, effective & value for money

The compact gravity feed chipper that copes with all tasks

Designed with the professional Landscaper, Arborist or Parks Manager in mind, the CS 100 makes easy work of a wide range of wood waste and vegetation. Compact and easy to move, this powerful workhorse combines versatility with economy making it the ideal chipper for big jobs in small spaces.

Its impressive chipping ability for timber up to 100mm in diameter is provided by twin long-life reversible blades made of high grade steel that can be easily re-sharpened, thus helping to ensure low running costs.

The wide, open design of the infeed chute enables large volumes of bushy material to be processed with minimal snedding/reducing, saving you time and money. A powerful centrifugal force with the help of a deflector plate ejects the wood chip out of the discharge chute. Three positions on the discharge head along with the adjustable deflector allow the operator to chip into the required direction and up to 5m.

The CS 100 has the option of being transported in the back of a van. At only 760mm wide it easily gets into tight spaces and through restricted access such as back gardens, making it perfect for 'on-the-spot' chipping.

Fabricated from sheet steel at our Warwickshire manufacturing headquarters, this robust chipper is unquestionably built to last. Our exacting engineering standards coupled with top quality paint finish ensure it will stand up to the rigours of daily use and keep its looks and value for years to come.















Arborist 130

Key features

- 150mm chipping capacity
- 23hp Honda Petrol engine
- Disc-blade chipping technology
- Twin hydraulic feed rollers
- No-Stress power control
- Bottom-bar safety mechanism
- Standard parking and trailer braking
- LED lights
- Hitch lock as standard
- 670kg weight













Compact without compromise

The low cost entry point for a hydraulic chipper

The compact Arborist 130 is a simple-to-use and costeffective road tow chipper designed in traditional in-line format. A member of the popular Arborist range, it has been specifically engineered for disposal of waste brash, as over the last few years an increase in the market for firewood means that useable wood is kept for log production.

With a 23hp Honda petrol engine, the Arborist 130 is 'integrity-engineered' for quality, performance and economy. Fabricated with a deep-beam high tensile steel chassis construction for strength, the engine is protected by insulated steel panels giving robustness and lower noise emissions. These panels are designed to be easily removed, enabling good access for routine care and maintenance.

A generous 970mm x 790mm infeed hopper which aids bushy brash reduction, coupled with a 150cm x 230cm letterbox-style throat enables heavily forked branches to be fed in easily.

This reduces the number

hundreds per day, and thereby increases output.

of chainsaw cuts by

The twin vertical hydraulic rollers efficiently crush the material with minimal lateral movement. The electronically controlled No-Stress feed system reverses the feed rollers to relieve the chipper blades, allowing the rotor speed to recover quickly, once again increasing output.

As standard the Arborist 130 comes fitted with our patented Disc-Blade system which gives up to 150 hours of chipping before requiring re-sharpening. The Arborist 130 is fitted as 'standard' with its own parking brake and fully roadlegal, braking system. Arborist 130













Arborist 150

Key features

- 150mm chipping capacity
- 34hp Kubota diesel engine
- Disc-blade chipping technology
- Twin hydraulic feed rollers
- No-Stress power control
- Bottom-bar safety mechanism
- LED lights
- Hitch lock as standard
- Sub 750kg weight













The everyday chipper that ticks all the boxes

Integrity-engineered for strength, reliability, performance and economy

The popular Arborist 150 is a simple-to-use and cost-effective road tow chipper designed in a traditional in-line format. Part of GreenMech's much-admired Arborist range, the Arborist 150 has been particularly designed for disposal of waste brash, as an increase in the market for firewood means that usable wood is kept for log production.

The Arborist 150 is 'integrity-engineered' for quality, strength, performance and economy. Designed with a deep-beam high tensile steel chassis construction for strength, the Kubota engine is protected by insulated steel panels providing robustness and lower noise emissions. These panels are designed to be easily removable enabling good access for routine maintenance.

A generous 970mm x 790mm infeed hopper which aids bushy brash reduction, coupled with a 150mm x 230mm letterbox -style infeed throat opening enables heavily forked branches to be fed in easily. This has the effect of reducing the number of chainsaw cuts by hundreds per day and thereby increases output.

The twin vertical hydraulic rollers efficiently crush woody material with minimal lateral movement. The electronically controlled No-Stress feed system reverses the feed rollers to relieve the chipper blades, allowing the rotor speed to recover quickly, once again increasing output.

As standard, the Arborist 150 chipper comes fitted with our patented Disc-Blade system, giving up to 150 hours of chipping before requiring re-sharpening.













Arborist 200

Key features

- 200mm chipping capacity
- 45hp Kubota turbo diesel engine
- Disc-Blade chipping technology
- Twin horizontal, hydraulic feed rollers
- Bottom-bar Safety Mechanism
- No-Stress power control
- LED lighting
- Hitch lock as standard
- 1260kg weight













Generous chipping capacity and aggressive output

Big brother to the established Arborist 150

The cost-effective and simple-to-use Arborist 200 is the newest introduction to our traditional in-line format road-tow chipper range. It is built from deep beam high tensile steel to give a strong chassis construction. Part of GreenMech's much-admired Arborist range - all 'integrity-engineered' for quality, strength, performance and economy - the Arborist 200 takes up where the Arborist 150 leaves off. A generous 1200mm x 840mm in-feed hopper aids bushy brash reduction and leads to a generous 200mm x 280mm letterbox-style in-feed throat opening.

As the material passes through horizontal, hydraulically powered feed rollers, the patented electronically controlled No-Stress system automatically manages the throughput of material to maximise chipping efficiency. The Arborist 200 comes with a Bottom-bar safety mechanism.

As standard, this model comes fitted with our patented Disc-Blade system, giving up to 150 hours of chipping before requiring re-sharpening.

Owing to an increase in the market for firewood, the Arborist 200 has been designed for rapid disposal of the waste brash stripped from usable wood destined for log production. Heavily forked branches can easily be fed in, reducing the number of chainsaw cuts by hundreds per day and thereby increasing output, while minimising labour costs.

The twin horizontal, hydraulic rollers, powered by a 45hp Kubota turbo diesel engine, efficiently and aggressively crush woody material with

minimal lateral movement. The engine is protected by

insulated steel panels, easily removed for routine maintenance, to provide robustness as well as lower noise emissions.











SAFE-Trak 19-28

Key features

- 190mm chipping capacity
- 48hp Kubota diesel engine
- Disc-Blade chipping technology
- Twin hydraulic feed rollers
- No-Stress power control
- Patented SAFE-Trak system
- 2000kg weight
- Many optional extras available

















For safe working across banks up to 35°

The ultimate tracked chipper for highways and railway cuttings

The SAFE-Trak 19-28 is designed with GreenMech's award-winning patented track extension system, allowing massive ground clearance of up to 550mm enabling access across the most difficult terrain. This pioneering feature makes it a popular machine for de-veg contractors working on power line and railway track maintenance.

Also, by extending only one track at a time, embankments up to 35° can be traversed in complete safety, allowing the chipper to get to the material to be chipped. In addition, a twin pump system, delivering a flow of 90 litres per minute, gives swift tracking speeds of up to 6km per hour.

Fitted with a 48hp Kubota diesel engine and a 4 Disc-Bladed flywheel, the SAFE-Trak 19-28 is an impressive work-horse and comes with all the standard features expected of a GreenMech chipper. These include a 190mm x 280mm letterbox-style infeed throat and powerful twin hydraulic feed rollers that drag even the most awkward forked material effortlessly to the chipping system. In total, this gives the

SAFE-Trak 19-28 a performance far in excess of a comparative chipper.

Our guys love this machine! It's very reliable and relentlessly tachles all tashs.

Yvonne Hayes, MD, Hayes Forestry Ltd, UK

This ground-breaking machine is engineered with an all-electric control system including a reset button at the driving end of the machine for user comfort. For security, this can be hidden by the driving platform when the machine is not is use. This feature also allows for remote throttle control at the working end.

For additional user friendliness, GreenMech has included in the design a support leg to aid track belt replacement, a jerry can for emergency fuel and vibration isolation on the stand-on platform. This model also













Technical Specification Guide

Explore your options...

	CS 100	Arborist 130	Arborist 150	Arborist 200	SAFE-Trak 19-28
Capacity	100mm	150mm	150mm	200mm	190mm
Engine Make	Briggs & Stratton	Honda	Kubota	Kubota	Kubota
Engine	16hp/18hp	23hp	34hp	45hp	48hp
Fuel	Petrol	Petrol	Diesel	Diesel	Diesel
Tractor Required	n/a	n/a	n/a	n/a	n/a
Chipping Flywheel	Drum Type	Disc Type	Disc Type	Disc Blade	Disc Type
Flywheel Speed	n/a	1800rpm	1700rpm	1500rpm	1400rpm
Blades	2	4	4	4	4
Hydraulic Feed Rollers	n/a	Twin Vertical	Twin Vertical	Twin , Horizontal, Hydraulic	Spring Tensioned Twin
Turntable	n/a	n/a	n/a	n/a	n/a
Power Control	n/a	No-Stress	No-Stress	No-Stress	No-Stress
Fuel Capacity (engine)	7.5 L	27 L	27 L	27 L	60 L
Tyre Size (towed)	n/a	155/80/R13	155/80/R13	175R13C	n/a
Spare Wheel	n/a	Optional	Optional	Optional	n/a
Tonnes per hour	2	3	3.75	7	7
Infeed Chute Aperture	600mm x 450mm	970mm x 790mm	970mm x 790mm	1200mm x 840mm	1200mm x 840mm
Infeed Throat Size	160mm x 315mm	150mm x 230mm	150mm x 230mm	200mm x 280mm	190mm x 280mm
Discharge Chute	Adjustable	280° Rotation	280° Rotation	280° Rotation	280° Rotation
Hydraulic Oil Capacity	n/a	30 L	30 L	27 L	50 L
Clutch	n/a	n/a	n/a	Optional	n/a
Hour Meter	n/a	Standard	Standard	On RDS control box	Standard
Length (transport)	1725mm	3556mm	3556mm	3990mm	3346mm
Width (transport)	760mm	1290mm	1290mm	1440mm	1450mm
Height	1468mm	2335mm	2335mm	2695mm	2571mm
Weight	195kg	670kg	750kg	1260kg	2000kg
Sound Power LWA	120dB(A)	116dB(A)	115dB(A)	116dB(A)	120dB(A)
Sound Pressure LPA	96dB(A)	92dB(A)	92dB(A)	92dB(A)	96dB(A)

GreenMech Training Hydraulics Allere green and the green and gre



Service & Support

World-wide dealer network

With abundant dealer locations around the world, the everexpanding GreenMech network offers an unrivalled quality of service and expertise for the purchase of both new and pre-owned models, as well as second-to-none after sales.

Many of our dealers and hire companies have a range of machines to hire so please get in touch to find out your nearest outlet who can offer rental machines.

Toro Customer Service 1800 356 372 toro.com.au

Training

Comprehensive and integrated training facilities are run from the main manufacturing centre, providing in-depth instruction on maintenance and field performance parameters for all GreenMech machinery. Dealer technicians and support staff undergo thorough product training programmes to ensure that our customers receive the very best in after-sales service Australia-wide.

GreenMech sales and support

Our UK-based sales and support team works in partnership with our appointed dealer network to ensure that you have all the support you need when it comes to purchasing and owning a GreenMech machine. From arranging demonstrations, to technical back-up, you can rest assured that all queries will be handled swiftly and efficiently on your behalf.

Warranty

We are pleased to be able to offer a 'three-year unlimited, no quibble warranty' on all GreenMech products*. In order that we can uphold our guarantee, please ensure that register your new GreenMech machinery through your local Toro-appointed GreenMech dealer.





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toro.com.au Toro Customer Service 1800 356 372

Toro Australia Head Office 53 Howards Road Beverley SA 5009 Ph: +61 8 8300 3633 Fax: +61 8 8243 2940

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Many of the products you will find in certified Toro dealers' stores come with a warranty or guarantee from GreenMech Ltd. In addition, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Full details of your consumer rights may be found at www. consumerlaw.gov.au

^See your local dealer for warranty details.



