

"Patently successful" is a series of articles presenting a selection of patented Australian engineering inventions that conquered the world but whose Australian origins are not widely known.

Breakthrough for lawn mowing

By Edward Genocchio

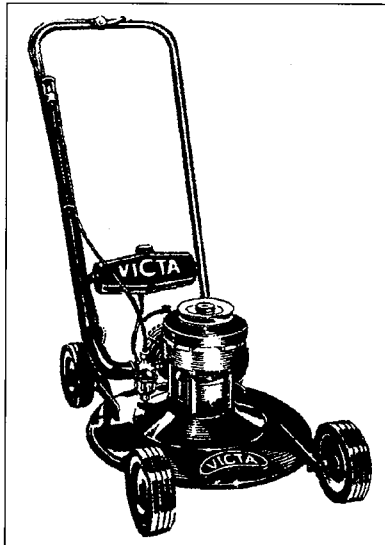
Victa is one of the best known and loved Australian brands of lawn mowers. But not many people know the patented technology that revolutionised the way lawn mowers were constructed.

The first Victa lawn mowers were created by Mervyn Victor Richardson in his garage in Sydney's suburb of Concord in the early 1950s. Richardson had little schooling and trained himself on the job in various engineering businesses.

The original production Victa lawn mowers included the now famous "peach can" look, a new arrangement of blades and cover guard and a lightweight chassis. It was the first mower in Australia to combine a petrol engine with a rotary blade.

Richardson noticed that existing lawn mowers were heavy, clumsy machines that were fuel and energy inefficient, could not cut long grass or reach a fence line and were difficult to operate by an average person. He set about engineering a very simple, reliable lawn mower that anybody could use, that quickly and efficiently cut any type of grass right up to a fence line.

The first advertisement for a Victa mower stated "Victa 18 inch rotary mower. 1hp petrol engine. Cuts to fence and any height grass, weeds etc. Safe for 10 year olds". It's reported that the first Victa showroom was so popular on a Saturday that



The Victa 1955-56 Rotomo 18" Model
1. The drawing is from Patent No 8770/55 filed 2 May 1955.

highway traffic was regularly diverted to allow for customer parking.

Richardson moved the engine to sit on top of the cover guard with a vertically extending engine shaft rotating blades in a horizontal plane. He also introduced a pivoting system.

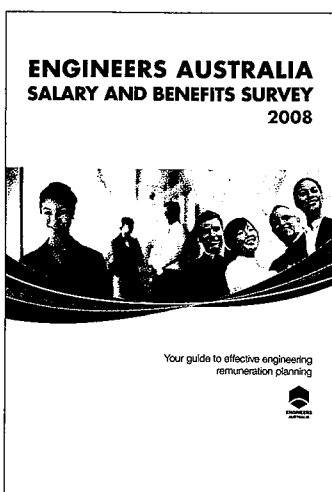
In earlier lawn mowers, if you over-ran rocks the blades would be struck disrupting their rotation, stalling the motor and sending a shock to the engine shaft and up the handle.

Richardson introduced a pair of pivots so that if the blades came into contact with surfaces harder than grass, they would pivot out of the way ensuring a smoother, more reliable and consistent cut while also preventing damage to the engine shaft and blades. This pivoting motion also reduced the shock travelling to the engine shaft and up the handle. Today this design is still being used by many lawn mower manufacturers.

The success of his mower encouraged Richardson to set up the Victa company and go on to design and patent many more innovative lawn mowers, millions of which have now been sold worldwide.

Engineer and patent attorney Edward Genocchio is a principal of patent and trademark attorneys Spruson & Ferguson www.sprusons.com.au.

ENGINEERS AUSTRALIA SALARY AND BENEFITS SURVEY 2008



This publication, now in its 6th year, offers a different perspective on salaries and benefits as the information was derived from employers' HR departments. The online survey was commissioned by Engineers Media, undertaken by New Focus Research Pty Ltd and completed in December 2008.

Compiled with input from 234 engineering employers, employing approximately 67,500 engineers, this publication gives you the latest data on gross base salaries and salary packages by total sector, discipline and grade. Separate tables analyse the data by private and public sectors and by location.

To purchase a copy in pdf format go to www.eabooks.com.au or contact EA Books customer service on 02 9438 5355, fax 02 8823 6526.

Non-member price \$50 plus GST Member price \$35 plus GST

Printed copies are also available:

Non-member price \$65 plus GST Member price \$45.50 plus GST

Plus packaging and handling \$12.00 plus GST = \$13.20.

The publication will be delivered marked Private and Confidential to the person nominated when ordered.

