



The years of change

By Ian M. Johnston

The decade immediately following the end of World War II, was one of great change and innovation for Australian agriculture.

In NSW and Victoria, vast tracts of low rainfall areas were being transformed into productive green gardens, by the flow of water from the Snowy Mountains being directed out into the western plains. The creation of soldier settler and public ballot 500 acre irrigation blocks meant that hitherto dry areas of 10,000 acres could now support 20 families instead of just one.

The resulting broad range of arable crops included rice, wheat, barley, oats and corn. There was a proliferation of lush orchards bearing juicy citrus and stone fruit. Irrigated lucerne, ryegrass and clover enabled fat lambs and steers to be turned off as prime domestic and export products. Dairy herds flourished along with their associated cheese and butter factories.

Market gardeners, many of them European immigrants, grew bountiful yields of succulent vegetables for the tables of their urban cousins.

Farming activities of this unprecedented magnitude generated a prodigious demand for tractors, which was replicated around the world. Manufacturers in North America and Europe operated their plants day and night, in an endeavour to meet supply.



International Farmall M restored by IMJ.



Massey Harris 203 (Canadian) restored by IMJ.

In Australia one of the top selling tractor makes was the American International Harvester range with its McCormick and Farmall models. In a desperate attempt to fill orders, International tractors were also imported from their British factory. But in the end, the demand was such that a new tractor (and truck) factory was built at Geelong in Victoria.

In 1949 the first Australian made International tractor was driven off the new work's assembly line. Within a few years Geelong tractors were being exported to 92 countries.

AMERICAN IMPORTS

Massey Harris, John Deere, Case, Minneapolis Moline, Allis Chalmers and Oliver were also tractors of American origin that had established strong markets in Australia. It is not widely known that The Oliver Corporation approached the Prime Minister Ben Chifley in 1948 to explore the possibility of establishing a tractor manufacturing plant in this country. Copies of relevant correspondence (in this author's archives) make it clear that, for some difficult to comprehend reason, Mr Chifley was not supportive of the concept and it did not proceed.

Fordson tractors had been entrenched in Australia since around 1919. Their low

purchase price and simplicity of design had encouraged many farmers to pension off the horse team in favour of mechanised agriculture.

The new British made Fordson Major E27N started filtering into the country in 1946. It was a huge improvement over the Model N, its predecessor. By 1950, the Major was the top selling tractor in the new irrigation areas and the one lending authorities encouraged soldier settlers to purchase, on account of its modest purchase price.

The Ferguson invasion commenced in earnest in 1948. By 1951, 16,000 of the little grey tractors, manufactured in England by Standard Cars Ltd. of Coventry, had endeared themselves to a broad spectrum of Australian agriculturists and pastoralists.

Due to the brilliant Harry Ferguson patented design of weight transfer and the three point linkage system, the diminutive tractor was capable of tasks way beyond that of any other 21.6 horse power tractor. Plus a comprehensive range of Ferguson implements, extending from a plough to a cordwood saw bench and everything else in between, rendered it a truly versatile unit on any property.

Yet another top selling British tractor was the sleek David Brown, handsome in its hunting pink livery. The Cropmas-



Case SEX restored by IMJ.



Allis Chalmers B restored by IMJ.



Oliver 88 Diesel restored by IMJ.



Fordson E27N Roadless half track restored by IMJ.



David Brown Cropmaster restored by IMJ.

ter was the model that appealed so much to dairy farmers and orchardists. Unlike other tractors of the period, the Cropmaster had dual seating and both a hand lever and foot pedal to operate the clutch.

The British Motor Corporation executives were fully aware of the global demand for farm tractors and entered the market with the Nuffield Universal. Established rural based Morris car dealers were automatically appointed as Nuffield agents. The orange coloured tractors sold well in pockets, determined by the enthusiasm and ability of the local car salesmen to become involved with tractors.

Other British tractors which arrived on our shores during this era, included the potentially clever but underdeveloped Turner with its rumbling Sanders V4 diesel, plus the excellent Bristol and Ransomes compact crawlers.

The highly respected British aircraft and ship builder Vickers-Armstrongs Ltd. endeavoured to obtain a market in Australia for its Vickers range of Rolls Royce diesel powered crawlers. But surprisingly the engines proved troublesome in the extreme and the crawler track design was more suited to military tanks!

Hardly worthy of mention were the ridiculous and dangerous Ota, Gunsmith, Newman and BMB lightweights. They were the disastrous manifestations of inex-



Nuffield 460 (successor to the Universal) restored by IMJ.



Turner Yeoman of England restored by IMJ.

perienced tractor manufacturers, anxious to leap aboard the tractor shortage bandwagon. They did nothing to enhance the reputation of the British tractor industry and were certainly never a threat to the Ferguson supremacy.

The Canadian giant farm machinery conglomerate Massey Harris built a factory at Kilmarnock in Scotland. This was an initiative aimed at circumventing the Empire Trade Agreement which was in place in the immediate post war years, designed to restrict the importation of non British Commonwealth produced goods into Australia and other Commonwealth nations.

An improved version of the Canadian Massey Harris 44 tractor was produced at the Scottish factory. Sales were targeted particularly towards the British Government's East Africa Groundnut Scheme and the broad acre farmers of Australia.

Designated the 744D, the big red Massey Harris was powered by a Perkins P6 diesel engine developing 40 BHP. The 744D was ideal for the Australian wheat belt and became a major challenger to the dominance of Fordson and International Harvester.

The locally built KL Bulldog, with its 40 HP single cylinder two stroke semi-diesel engine, for a while replaced the original German Lanz Bulldog, until the German machines came on stream again in the early 1950s. It is generally conceded that the Australian Bulldog did not contain the engineering integrity of the imported machines.

The indigenous McDonald Imperial, built in Victoria, was another of the big thumping single cylinder crude oil burn-



Gunsmith restored by IMJ.



Massey Harris 744D restored by Hedley Shaw.

ing tractors that sold in limited numbers to grain growers. But by the Post War years its outdated 1930s technology was clearly evident.

A small number of HSCS Steelhorse units were imported from communist Hungary. Modelled on the Lanz semi-diesel principle and complete with blowlamp start, they were produced in an outdated factory in Budapest. They earned an unenviable reputation for being inherently difficult to start and conspicuously lacked the superior Lanz standard of quality control.

Britain's contribution to the single cylinder philosophy was the Field Marshall. But unlike the Lanz semi-diesel concept, the Field Marshall utilised a full compression valveless diesel engine that could be started with a shot gun cartridge!

The French offerings managed only a marginal share of the market. The most successful was the Renault 3042 with its petrol fuelled 35 HP side valve engine. Others included the big diesel engined Sift, which was overpriced and under shod, and the range of Nord AND crawlers, which failed to excite Australian farmers or earthmovers due partly to inadequate service back-up.

In addition to the Lanz, other excellent German tractors were imported into Australia. In particular Hanomag and Deutz offered a range of outstanding units. Initially they both featured water cooled diesel engines but later incorporated a range of technically advanced air cooled power plants. Their high price restricted their

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KL Bulldog restored by IMJ.



Nord AND 25 restored by Les Noll.

◁41...CLASSIC TRACTORS

sales, but both tractors attracted a small but dedicated following.

The Italian tractor industry produced an extensive varying range of well designed farm tractors in the post war years, but only a few had made it to this country by the early 1950s. The volume selling Fiat 411R had not yet arrived, but a few technically interesting Ansaldo crawlers, powered by a highly complex Alfa Romeo diesel engine, were available in limited numbers.

Also from Italy came a handful of cumbersome Breda single cylinder tractors. These were mounted on crawler tracks, but were no competition for the Caterpillar, Allis Chalmers and International crawlers being imported from America, or Fowler and County track machines from Britain.

Vender of Milan was another Italian manufacturer of crawlers that failed to gain more than a toe hold in Australia. The importing agent simply could not provide the standard of field back-up service to which Australian farmers and earthmovers were accustomed.

The Steyr-Daimler-Puch Models 80 and 180 were technically interesting lightweight tractors sourced from Austria. Powered respectively by a single and twin cylinder liquid cooled four stroke diesel engine, they were immensely rugged, totally reliable and easy to service. Unfortunately they were expensive and a farmer would have problems investing in a Steyr-Daimler when he could buy a Ferguson, with all its versatility, for a much lesser price.

MAJOR TRACTOR REVOLUTION

But a major tractor revolution in Australia commenced in March 1946, when the first prototype indigenous Chamberlain 40K was submitted for testing at the University of Melbourne Agricultural Engineering section of The School of Agriculture. The tractor was the inspiration of (largely) Bob Chamberlain who had conceived the idea back in the 1930s, but the war years



Steyr-Daimler restored by Trevor Payne.



Breda, owned by J&M Payne.

had put a hold on its development.

The 40K was a big bold tractor aimed squarely at capturing a major slice of the broadacre market. At complete odds with established and emerging engine designs, the Chamberlain featured a four stroke two cylinder horizontally opposed kerosene fuelled engine, with the cylinders protruding from each side of the block. In addition, at a time when most tractors had either four or six forward gears, the 40K had nine, thus providing the perfect work-in-gear speed for all applications.

Following a period of seemingly endless political and commercial negotiating and planning, a factory was established at Welshpool in Western Australia with the aid of financial assistance from the WA Government. In 1949, the newly incorporated Chamberlain Industries Pty Ltd commenced production of the Chamberlain 40K.

Australian farmers were quick to embrace this new home grown tractor. Over the next few years and with successive models, Chamberlain dominated the broadacre tractor scene in Australia. But keeping manufacturing costs under control proved to be the company's Achilles heel.

A tumultuous two decades of inspired but desperate recapitalisation followed, but despite producing excellent world class tractors along the way, the firm was subsequently acquired in 1980 by Deere and Company of Moline, USA.

Not all the tractors available to Australian farmers during the immediate post war years have been mentioned in this article. There were some that were introduced speculatively that failed to leave an imprint.



Chamberlain 40KA restored by Mark Puls.

However it is fascinating to reflect upon the number and variety of tractors that were available during this era. The choice could be daunting. The heavyweights ranged from the big crude but powerful single cylinder semi-diesel two strokes from Europe to the sophisticated multi-cylinder machines from North America and Britain.

Buyers of light tractors could choose from an extensive selection that embraced the no frills Allis Chalmers B and Farmall A, right across the spectrum to the highly innovative Ferguson.

Then it was a question of petrol, kerosene or diesel!

Finally, at a rough estimate, including all makes, models and variations, in 1950 there were in excess of 200 different tractors on offer to Australian farmers. ■

IAN'S MYSTERY TRACTOR QUIZ

QUESTION: What is this thing that looks like a cross between an old fashioned hay rake and a mobile fish and chip shop?

CLUE: It is neither an old fashioned hay rake or a mobile fish and chip shop.

DEGREE OF DIFFICULTY: Dead easy — if you farmed in Germany in the 1930s.

ANSWER: See page 44.

