

The drama of 'the drive' plus a history lesson

By Ian M. Johnston



THE DRIVE

Funny how things work out! Back in June, we had so much rain here on the coast (OK, I know — and I'm not trying to rub it in) that the gravel drive up to our house from the front gate contained numerous wash-aways and was becoming fit for only off road vehicles. A visiting friend arrived with a gleaming new Jaguar. He took one look at the drive and saw the wisdom of leaving his car at the gate and walking up the hill, rather than have its bottom (the Jag that is) damaged by the deep ruts.

Some major road reconstruction was suddenly elevated to the top of my priority list.

A telephone call to our friendly sand and gravel man resulted in a procession of heaped gravel trucks arriving the following day. Their loads were duly tipped along the length of the drive.

Now it was time to fire up the Landini, our farm work horse which is equipped with a heavy duty front-end-loader. With one eye on a threatening build-up of storm clouds in the southern sky, I roughly spread the gravel heaps, an easy task for the four-wheel-drive Landini.

So far so good. I then hitched the grader blade behind our vintage BMC Mini tractor and proceeded to level and grade the gravel. The three-point linkage of this brilliant little lightweight tractor is amazingly sensitive, thanks to the Harry Ferguson designed hydraulics. In fact, the diminutive orange tractor is the perfect machine for operating a rear grader.

By late afternoon the job was done. I stood back and admired my handy work. The gentle contours sweeping up the hill and around the curve had an almost sensual appeal and I was certain the unequivocal silky smooth surface could have served as an inspiration to our local council engineers.

At precisely 6.00 pm the rain started. Within five minutes the heavens had erupted and a torrential downpour shook the house, accompanied by a noise resembling a runaway locomotive.

But torrential downpours are supposed to last only a few minutes. This one continued to screech and hammer all through a sleepless night and only started to ease around mid morning.

After breakfast, clad in my wellies and rain gear, I ventured out to survey the damage. First, a squelchy crossing to the rain gauge. My mind at first would not accept the mathematics.

Slowly it registered that, without any question of doubt, 12½ inches of rain had fallen from the sky overnight, and it was still absolutely pouring! But everyone else thinks in millimetres. So get my brain into gear — wow, that is 317 mm.

The house, sheds and cattle yards are all on top of a hill. Accordingly, apart from utter saturation everywhere, there was no damage. But then I went to survey the drive.

As a youth in Scotland I can recall opening the furrows for the planting of potatoes. This was achieved with a deep digging single furrow mouldboard plough mounted behind a David Brown Cropmaster. The depth required was 14 inches.

Upon gazing with shock over the panorama of the remnants of my hitherto manicured drive, I experienced an immediate recall of a Scottish potato field. Because that is exactly what it resembled. Deep furrows gouged everywhere.

Of the tonnes of gravel there was little evidence, until I slithered down to the bottom of the hill where I discovered a great mountain of the stuff, completely blocking the gate.

It took me all the next day with the Landini to shift the gravel back onto the drive and reshape it again with the stalwart little BMC Mini tractor. But I certainly was not complaining. Anyone who has been around the bush for as many years as I, knows never to bellyache about too much rain. Thing is, one never knows when it will rain again. Give me mud over dust any day!

THE HISTORY LESSON

In a contemplative mood, I have been thinking about what a truly remarkable tractor the BMC Mini really is. Few people, and here I include classic tractor enthusiasts, appreciate the fact that despite being a BMC product (British Motor Corporation and later British Leyland) it was totally designed by Harry Ferguson (Research) Ltd. That is, apart from the diesel engine which was a derivative of the BMC Series 1 petrol engine as fitted to the Morris Minor 1000 and so on.

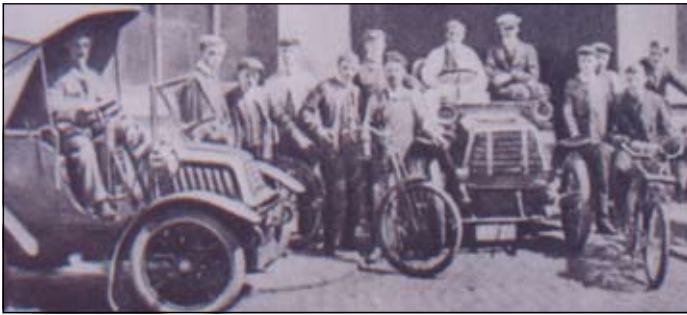
Still in my contemplative mood, it occurs to me that the name of Harry Ferguson may not mean much to many of today's younger farmers. Obviously anyone connected with agriculture is familiar



The Landini 8860, a superb tractor manufactured in Italy. (Photo IMJ)



The vintage BMC Mini tractor fitted with a Berends rear grader blade. (Photo IMJ)



A 1905 photo of the premises and staff of J.B. Ferguson & Co., Belfast. Harry Ferguson is astride the motorcycle in the foreground on the right of the picture. (IMJ archives)



Harry Ferguson (on left) posing beside his monoplane prior to its first flight in 1909 at Hillsborough, Northern Ireland. (IMJ archives)

with the name Massey Ferguson. But who was Massey and who was Ferguson ?

In a nutshell, Daniel Massey created a farm machinery manufacturing business in 1847 at Ontario, Canada. In 1891 his firm merged with its main competitor, A Harris, Son & Company, also of Ontario. Within two decades of spectacular growth, Massey Harris Limited had become the world's largest producer of agricultural machinery.

Harry Ferguson, an Ulsterman born and raised on a farm at Growell near Belfast, became a legend in the tractor world, culminating with the success of his innovative Ferguson tractor and the revolutionary design of the Ferguson three point linkage system. His method of attaching imple-

ments to tractors has been adopted by virtually every modern tractor manufacturer.

In 1953 Massey Harris purchased the Harry Ferguson empire and for just over three years the new conglomerate traded as Massey Harris Ferguson. In 1957 the name of Harris was dropped and thus the name Massey Ferguson came into being.

THE SPEED

Having dealt with the boring bit, I would now like to introduce another element into this narrative — and that is speed and how it led ultimately to the formation of Harry Ferguson (Research) Limited. (This will take us back to the BMC Mini tractor. Trust me).

Harry Ferguson's obsession with speed

first occurred in his youth in 1902 when, at the age of 18, he commenced his engineering apprenticeship with the Belfast firm of Hamilton & Ferguson. A year later, his elder brother Joe who was a partner in the business, branched out on his own, trading as J B Ferguson & Co., taking Harry with him.

In order to publicise the fledgling company, Harry enthusiastically embraced the new dare-devil sport of motorcycle racing. In these early days motorcycles were dangerous contraptions. (So what's changed?) They were usually equipped with only one ineffective rear wheel brake, belt drive, oil lamps and unsprung girder forks.

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The initial flight suffered a “hard” landing. A somewhat philosophical Harry Ferguson stands beside the wreck. (IMJ archives)



In 1910, flying his new designed monoplane, Ferguson won the £100 prize for the first flying machine in Ireland to complete a three mile course. INSET: Harry Ferguson 1884–1960. (IMJ archives)

<56...CLASSIC TRACTORS

Around 1906 Harry’s brother acquired the franchise for the outstanding range of Argyll cars, manufactured in Scotland. These technically advanced vehicles were powered by an almost totally silent sleeve valve engine, designed by a Scotsman named Bert McCollum. Interestingly, McCollum also designed the sleeve valve engines fitted to some of the first production Glasgow tractors in 1919.

Harry Ferguson made the switch from motorcycle to car racing and in 1908, driving an Argyll, took first place in the Bangor Hill Climb and a second place in the arduous Irish Reliability Trial.

In 1909 Harry Ferguson’s obsession with speed saw him gravitating to the world of aviation. In the attic above his brother’s garage he constructed the wings and fuselage of a monoplane aircraft. It is questionable if at this stage he had ever even sighted an aircraft and my research suggests that the sum of his knowledge had been obtained from grainy photographs and newspaper cuttings.

Remarkably therefore, his prototype ash frame and canvas skinned flying machine actually flew on December 31, 1909. Certainly it was only for a short duration, but an improved model won for him a £100 prize for the first aircraft in Ireland to successfully fly a three mile course. He was



A reconstruction of Harry Ferguson’s monoplane is on view at the Ulster Transport Museum, located a half hour drive south of Belfast. (Photo IMJ)

also the first Britisher to design and fly his own aircraft.

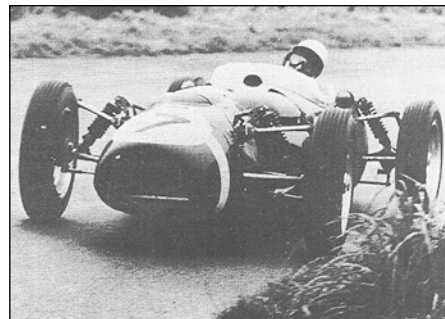
A few years later Harry Ferguson’s innovative mind turned to tractors and his unprecedented success in this realm was widely known and respected by farmers around the world. But in addition to his awakened interest in tractors, he always made time for further involvement with motor vehicle racing.

He successfully lobbied the Ulster Government to introduce the Road Races Act 1922. This opened the way for the initiation of the legendary Ulster Grand Prix and Ulster Tourist Trophy races, both of which became major events on the European road racing calendar.

Years later, in 1956, having sold his tractor interests to Massey Harris, Harry Ferguson (Research) Ltd. was launched. Its purpose was three fold:

- The continuance of research into tractor hydraulics;
- The fulfilment of a contract with BMC to design a lightweight tractor; and,
- To further develop work that had been commenced by the celebrated racing driver Freddie Dixon, into the research of a four-wheel-drive transmission for race cars.

Harry Ferguson personally supervised the work on the four-wheel-drive designs. The British car industry was amazed when an experimental Ferguson saloon car, fitted with a constant four-wheel-drive sys-



The Ferguson designed Formula 1 race car being driven to victory at Oulton Park, by Stirling Moss. (IMJ archives)

tem, was demonstrated in early 1957. The styling of the vehicle loosely followed the lines adopted by Triumph in the 1950s, obviously a legacy of Ferguson’s earlier association with Standard/Triumph cars.

In 1966 a significant motoring milestone was reached when the Ferguson P99, the world’s first four-wheel-drive Formula One race car, was driven to victory on a rain deluged track by Stirling Moss at Oulton Park.

The first production road car to be equipped with the Ferguson constant four-wheel-drive system was the high performance Jensen Interceptor FF. Later Audi and Mazda acquired manufacturing rites and today the Ferguson concept has been widely adopted by car manufactureRs around the world.

Testimony indeed to the engineering brilliance of a man who is largely remembered only for the little grey Ferguson tractor — and by me for the clever BMC Mini tractor that fixed my drive!

IAN’S MYSTERY TRACTOR

QUESTION: Can you name the tractor to which this four cylinder petrol engine belongs ?

CLUE: The company was mainly noted for its motor cars.

DEGREE OF DIFFICULTY: Difficult — good for a day’s contemplation whilst doing a 12 hour stint on a tractor.

ANSWER: See page 64

