



# The Italian Affair – Part 2

By Ian M. Johnston

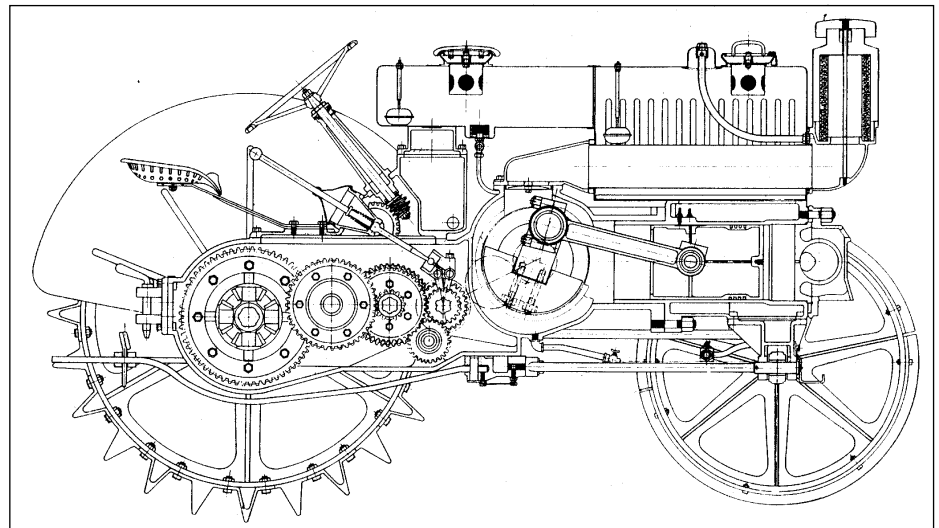
Ian concludes the account of his visit in 1997 to the village of Fabbrico in the rural heartland of the Italian region of Emilia, where in 1884 Giovanni Landini commenced business as a blacksmith and agricultural machinery engineer.

## THE FACTORY

Doctor Barioni, the aristocratic supremo of the Landini manufacturing plant, personally escorted us around the factory. In his articulate and seductively engaging Italian accent, he explained in intimate detail each facet of the tractor manufacturing process. Margery and I were equally impressed with his obvious engineering astuteness, indicating that this chief executive was not simply an administrator or glorified accountant.

He explained that upon return from the lunch break, each factory worker became engaged in a different task to which they were employed during the morning shift. This practice prevented monotony and mindlessness from creeping in to the job. It had the additional benefit, Doctor Barioni further explained, of ensuring that each employee on the factory floor was capable of undertaking a diversity of jobs, which reduced complications during absences caused by sickness or vacations.

An indication of the engineering integrity that prevailed throughout the plant, were rows of Perkins diesel engines newly arrived from Peterborough in England. These would be partially dismantled and



A schematic drawing of a 1932 Landini 40 HP. (IMJ Archives)

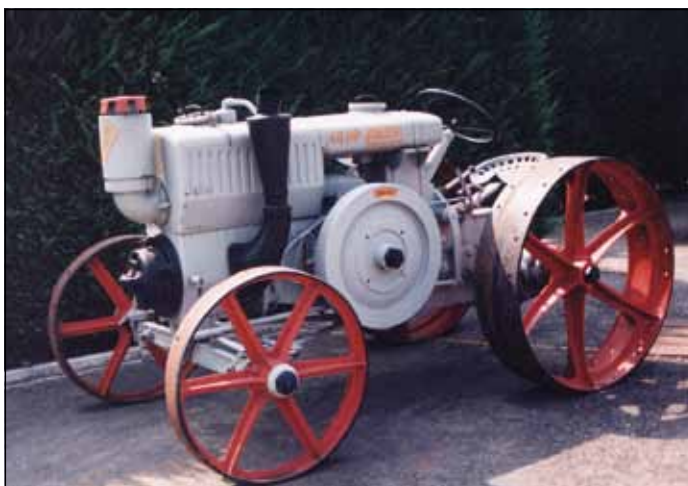
components (including cylinder heads) further machined to exacting Landini standards, prior to being fitted to the tractors. I gathered this did not in any way indicate an adverse reflection of the highly regarded Perkins engines, but rather a desire for excellence of quality control on behalf of the Landini design engineers.

At the time of my visit to Fabbrico, Landini still retained a decade long financial and licensing association with Massey Ferguson Ltd, so both Landini and MF tractors were being manufactured at the plant. Accordingly, some models of Massey Ferguson tractors were in fact re-badged Landini units. Conversely, some Landini models had an obvious correlation

with their Massey Ferguson equivalents.

The range of tractors I witnessed being assembled was frankly staggering. Included were crawlers, two-wheel drives, four-wheel drives, row croppers, high clearance units, orchard tractors, broadacre muscle machines and lightweight small acre units. The majority of these were available in either Landini blue and grey, or MF red and grey, yet with their technical heterogeneous differences rendering the Landini product not precisely identical to the MF.

I assumed that in a Landini dealer's showroom a salesman would be able to state quite piously that his tractor was indeed not identical to an MF, leaving him space to add that it was superior. A similar



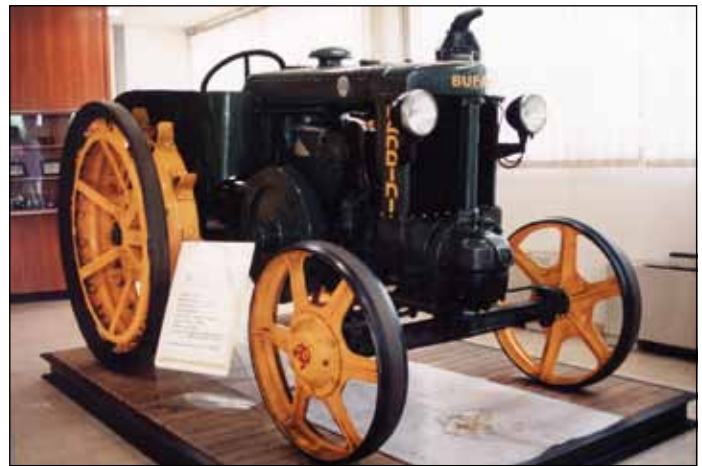
The Landini 40 HP was released in 1933 at the Fiera di Milano (Milan Trade Fair). (Photo IMJ)



Guido Rondini at the wheel of an 8.5 litre Super Landini which developed 48 HP at 620 RPM. The Super model was produced from 1934 until 1951. (Photo IMJ)



An archival photo of a Super Landini involved in a tug-of-war contest against a group of factory strongmen. (Courtesy Landini)



The Landini Bufalo was produced between 1941 and 1947. Weighing close to three tonnes it proved a highly capable unit, with a pulling power much greater than its 40 HP would suggest. (Photo IMJ)

argument would undoubtedly be put forward by a Massey Ferguson salesman.

To add to the complexity of the manufacturing operation, instead of a run of the same model, the tractors emerging from the assembly line on their way to the paint shop, could be any one of the comprehensive range.

I was quite amazed to observe that in the paint shop the robots attacked each tractor as it was presented and were able

to identify if it was a crawler, wheel tractor or whatever and if it was to receive the Landini or MF livery. No human was involved in this paint process, which I was able to observe through glass walls that completely enveloped the paint shop. Also, quite remarkably, despite the tractors being only around five metres from the glass, the glass remained totally free from paint over-spray! Doctor Barioni muttered something about negative and

positive ions, which was all beyond my limited grasp of such things.

But time was rolling on!

### THE LANDINI ALADDIN'S CAVE

A 10 minute's brisk stroll from the rear of the factory complex, with Margery and I hurrying along in the wake of Doctor Barioni's lengthy strides, took us to an ancient stone building, which gave the appearance of having been originally a coach house.

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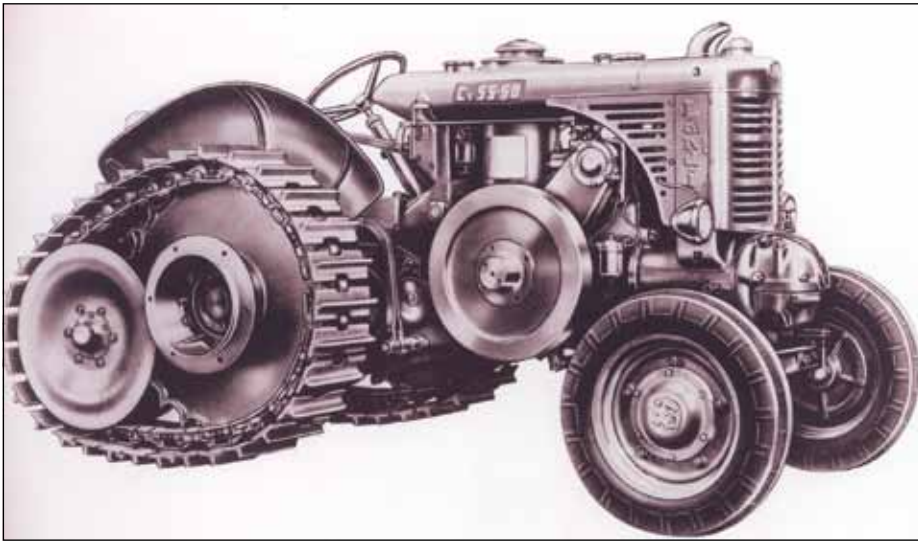
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**This 1955 Cv 55-60 was the last and best of the single cylinder Landini tractors. The picture shows an example equipped with crawler half-tracks, supplied by the British company Roadless of Hounslow. (Courtesy Landini).**

### <39...CLASSIC TRACTORS

Today, within its rustic walls is housed The Landini Museum. Upon our arrival at its portals, Doctor Barioni introduced us to the waiting Guido Rondini, a retired long serving Landini engineer who enthusiastically embraced his retirement appointment as museum curator.

Only a dedicated tractor historian could conceivably comprehend my emotions when I gazed upon the priceless array of ancient Landini tractors, that was there for me to behold. OK. So I didn't actually faint, but I certainly went weak at the knees.

There was one problem however. The good Doctor wandered off somewhere in deep conversation with Margery, leaving me alone with Guido Rondini who spoke no English and I spoke no Italian! But we did share a common denominator – our

passion for old tractors. So we had this instant bond which seemingly transcended our need for a common language. Margery relates how when she eventually joined us during the inspection of the tractor artefacts, Guido was talking to me animatedly in Italian and I was responding fervently in English, as if we each knew perfectly what the other was saying! And in a strange way, we did.

"It's what is known as – the magic of old tractors" I explained to Margery.

I could not estimate how many stationary engines, steamers and tractors were in the museum, and Guido could only approximate. But it was obvious that here was a breathtaking living history of over a century of Landini engineering masterpieces produced right here in the village of Fabbrico. The fact that they were crammed into the centuries old stone building, leav-

ing little or no space between, only added to the sense of discovery and revelation.

Early Landini tractors were without exception powered by massively rugged low compression crude-oil burning single cylinder two-stroke valveless water cooled engines, incorporating the scavenging design of air intake and combustion.

In laymen's terms – the air was sucked in through a filter and then on through a non-return valve into the crankcase. This occurred due to the vacuum created by the forward movement of the piston. The air was then pressurised in the crankcase by the returning power/exhaust stroke of the piston, which finally exposed a port permitting the pressurised air in the crankcase to escape into the combustion chamber. There it was compressed to a degree of 5 to 1 and received an injection of fuel. At this juncture the pre-heated hot bulb section of the cylinder head, plus the heat created by the compression of the air, caused the injected fuel/air to detonate and of course drove the piston on its power stroke.

Phew! When I read that back, it seems fairly complex stuff! But it's not! (I recommend a perusal of the adjacent schematic line drawing to assist with an understanding of the two-stroke scavenging system.) In actual fact it was the basic simplicity of the design that rendered these tractors, built to battleship standards, so utterly reliable.

(It is worth pointing out that the German Lanz Bulldog tractors were equipped with a similar engine, as were the Australian McDonalds.)

The final model of the single cylinder Landini range was the Cv 55-60 which entered the market in 1954. Its production run ended in 1956 with only 449 units made. The short manufacturing run was

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The Cv 25-30, produced in the early 1950s was equipped with 3 point linkage and sold strongly to small acre farmers in various parts of the world. The unit pictured is on display in the Fabbrico Landini Museum. (Photo IMJ)



This 1998 Landini 8860 is the author's farm workhorse and is powered by a Perkins 80 HP diesel. It is provided with 24 forward and 12 rear gear ratios. An almost identical tractor was manufactured by Landini at Fabbrico for Massey Ferguson and was marketed as the MF 393 (see text). (Photo IMJ)

due to the fact that by the mid-1950s the era of the big semi-diesels was coming to a close. Farmers had become weary of their bouncing vibrations and belching smoke. Emerging multi-cylinder diesels were thoroughly reliable, fuel efficient and very much more pleasant to operate.

For three hours I clambered over and under these great tractor treasures, which included practically every model of the

single cylinder units, ranging from the 30 HP of 1925 through to the Cv 55-60 of 1956. Utter bliss!

But then Margery reminded me that we had to be in Venice the next morning and it was time to acknowledge our appreciation and bid a fond farewell to Doctor Barioni and Guido Rondini. Not that we

expected to find old tractors in Venice, but – well, it could have other attractions. But of course nothing to compare with those in the old coach house in Fabbrico!

**FOOTNOTE:** Landini today is part of the industrial conglomerate Argo Tractors S.p.A. which also produces McCormick and Valpadana tractors.

## IAN'S MYSTERY TRACTOR QUIZ

**Question:** Can you identify this fine tractor?

**Clue:** There is an association between it, meat pies and Holden cars.

**Degree of Difficulty:** In view of the above clue, dead easy to any self respecting classic tractor enthusiast.

**Answer:** See page 56.



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