News

Next Issue

We publish at the beginning of January, April, July, and October. That means our next issue will be out at the start of April.

Although we've often written all the articles in recent editions, we welcome contributions to the magazine. We try to be as flexible as we can over deadlines and formats, but the sooner you send in any articles, adverts or news, the more likely they are to be included. Our address is 144 The Street, Rushmere St Andrew, IPSWICH, IP5 1DH, and our e-mail is icenicam@pattle.globalnet.co.uk

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Information Library

You may have seen the article by Phil Tooth about last year's EACC Radar Run; it appeared in *Classic Bike Guide* and the French magazine *Mob & Co*. Phil has also contributed some material to the library—on Mobylette, Excelsior Autobyks, Berini M21, Raleigh mopeds, and the VAP57 engine. Thanks go to Keith Eyles for a Norman Nippy MkIII & MkIV brochure. We have also added information on Williams cranks, Puch M50 Grand Prix, VéloSoleX 3800, Mobylette, Teagle Model B, Phillips P39 Gadabout, Winn City Bike, Express Radexi MkIII, and the Cyclemaster liquidation.

Much of the library is downloadable free of charge from our website and since the last magazine we've added quite a bit of stuff that was in the library but wasn't available on-line before.

Calendar

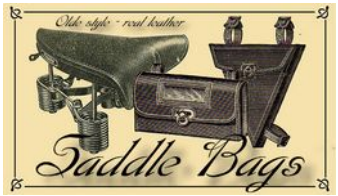
As it's winter there are only a few events to list—unless there are lots of rides that no one is telling us about. Please let us know if you hear of any events that are suitable for cyclemotors, autocycles and mopeds. As we guessed last time, the EACC has its very popular Mince Pie Run at the beginning of January, confirmed as being on Sunday 4th. Please go to the events page on our website for more information on the following events.

4th January	EACC 42nd Mince Pie Run from Orwell Yacht Club, Ipswich. Meet from 9:30am. Details from Danny mark.daniels975@btinternet.com or 01473-716817
14th March	Rickinghall Classic Auto Jumble & Swap Meet on the village hall's playing field. 9:00am to 12:30pm. Info: Dangerous Dave on 07806-437722
11th April	Rickinghall Classic Auto Jumble & Swap Meet on the village hall's playing field. 9:00am to 12:30pm. Info: Dangerous Dave on 07806-437722
12th April	EACC 20th Radar Run and Mopedjumble, from Bromeswell Village Hall to Ramsholt. Jumble opens 9:30am, run sets off at 11am. 01473-716817

Free Trade

Adverts in the *Iceni CAM Magazine* are free! Iincluding ones with a photo or logo. Send your ads to 144 The Street, Rushmere St Andrew, IPSWICH, IP5 1DH or e-mail icenicam@pattle.globalnet.co.uk

Ignition: Moby contact sets £8.50, Cady contact sets £8.50p. Bosch pattern contact sets £7–£8.50 according to type. Wipac Bantamag contact sets £20. Wipac series-90 contact sets £20. Miller W7&BS9 mag contact sets LH £20. Wipac & Miller mag-flywheel nuts 5/16"×22tpi 50p. **New:** Mobylette/Raleigh M11 LH new chrome mushroom-head mag nuts £15**.** Lots of assorted new stock contact points for all manner of old and obsolete machines—see website. External mounting capacitor with bracket, lead, & connector £13. Miller FW17 capacitor £7. Excelsior Wipac 15/72 & Miller W7/BS9 capacitor £8. Suzuki FZ50/TS50/GP100etc D77 contact set £8.50, capacitor £6. Champion 'copper-core' short-reach moped spark plugs L86C £3. Plug cap non-resistive £2. HT lead copper core, 5mm £1.50p/ft, 7mm £2.50p/ft.
Switchgear: Chrome horn button £7. 5-way switch beam/off/dip/horn/cutout £15. 3-way switch beam/dip or off/on + horn £9. 2-way switch beam/dip £7. Brake-light switch £8. Wipac pattern Tricon switch c/w wired lead beam/dip/horn/cutout £15. Miniature pull on/push off lighting switch £3. **Headlamps:** Chromax steel 5"case/4"lens £25. CEV pattern moped black headlamp switched £26. Chrome wire stone guard for Niox/CEV/EB headlamps £7.50p. Headlamp peak chrome 4" to 5" round £8. Headlamp clips pack of 5 for £2. New: Luxor 80 fluted glass domed headlamp lens, fit 65mm rim/69mm glassØ £8. New: Miller plain clear domed glass headlamp lens, fit 90mm rim/95mm glassØ £12. New Soubitez 'V' clear plastic headlamp lens, fit 98mm rim/99mm lensØ £10. Aprilia, Bosch, FB, Hella, Lucas, Luxor, Niox, and other glass lenses—See website. **Tail lamps:** Genuine Old style autocycle & cyclemotor rear lamp units £22 each. Bruchsicker LED rear cycle lamps £2 each or 3 for £5 Lucas 679pattern back lights for NVT Easy Rider £12. Polished cast alloy taillight bracket for Lucas 679 £15. Adaptor plate for Lucas 679 assembly £8. Lucas MT110 & 211pattern rear lamps £15. Lucas 477/1 rear lamps £18. Autocycle/cyclemotor 1" rear lamp £22. Wipac S446 pattern single-contact rear lamp £14. Wipac S446 pattern stop/tail rear lamp £14. Puch pattern oval rear lens £10. ULO232.03 pattern Mobylette rear lens £8. Yamaha FS1E rear lens £5. Yamaha Passola rear lens £4. Puch Luxor type rear lens £4.
6V bulbs: Extensive selection of many difficult to get types, see website for list. **Horns:** 6V AC horns c/w fitted mounting bracket, plated-finish £10 each. Shrinkwrap sleeving box 127pcs in 7 sizes £9.
E-mail: mark.daniels975@btinternet.com
Tel. 01473-716817 (Ipswich)
Website: www.mopedland.co.uk



Saddles, seats & covers: Lycett pattern single saddles for light motor cycles 12"×12" new, £40. Lycett pattern light motor cycle new chrome plated saddle springs for rigid frame type seat, 7½" long × 2" diameter × 5½ coils × 6mm diameter wire, £8 pair. Trials type upholstered pad seats, 15" long × 10" wide £40. 'Extra-comfort' vinyl upholstered 2½"deep foam single-saddle with sprung mounting and ⅞" stem clamp, all black £45. BTG Bategu single-saddles with rubber covers in black £85 (as fitted to old Puch and other continental mopeds). Replacement BTG rubber covers in black, grey and cream £40 each. Eurathane foam moulded single-seats in black with ⅞" stem mounting: 'Std' 10½" long × 8" wide × 2½" deep £12. Selle 'Royal' traditional style cycle saddle with dark brown cover on gel foam padding, chrome springs & wire frame, 10" long × 8½" wide × 3" deep £35. New- Profile Standard black unsprung eurathane foam moulded saddle 10¼" long × 8¼" wide × 2½" deep with ⅞" stem mounting £12. New: Raleigh Comfy Classic black saddle with gel & foam pad & compression springing 10¼" long × 8¾" wide with ⅞" stem mounting £20. New: 'Reptile' Comfort black foam pad saddle with compression springing 9¾" long × 8¼"wide + ⅞" stem mounting £16. New: 'Smoothy' economy black cycle saddle with firm foam pad & compression springing 8½" wide × 9¾" long with ⅞" stem mounting £14. New: Wisp saddle cover (black) £15.
Saddle Stems: New: chrome plated saddle stems 1" diameter main stem with ⅞" diameter stem top for saddle clamp fitting × 12" total length - £6 (can easily be cut down if shorter length required)
Triangle Bags: Genuine leather, old-style triangular toolbags suitable for fitting to cyclemotor and cycle frames. Fixing by ½" wide leather straps, with plated buckles.
Large Cyclemotor 8.½"×7"×2" £40 each.
Large Cycle (narrow) 8½"×7"×1½" £40 each.
Small Cycle (narrow) 7"×5½"×1½" £30 each.
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Tools: Brass Bristle 4" miniature spark plug brush £1. Sturmey-Archer 5/8" axle cone spanner £1. 10" black plastic handpump c/w Schrader valve adaptor £3 Typically fit Mobylette etc.
Tel: 01473 716817
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Moped, autocycle HD drive chain ½ × 3/16 eq £10 boxed length. Spare spring clips pack 12 £1. Link splitters std £14, light cycle £4. Imperial ⅜" cotter pins £2 pair. Continental 9mm cotter pins £2 pair. ISO 1⅜ Freewheels 16T-£6, 20T-£12, 22T-£14, 23T-£15, 24T-£16. Miniature14T 1" × 20tpi-£10. New: AV89, RM5 M36 × 1mm × 20T Special freewheel £23. New: Imperial 7/16 × 26tpi cycle thread 'plain' fixed cones £7, 'adjustable' cones £8. Sachs clutch plates, cork insert or bonded types £8 each. Villiers Junior, JDL, F-series re-corked chain-wheel and clutch plate sets service-ex £30 each. Peugeot102, 103 clutch discs £8. Clutch plates for other makes too—see website. New-Heavy-Duty rubber block pedals & reflector block pedals £9.50 pair. New: LH & RH new chrome pedal crank arm sets 5½" centres, 2" offset £20 pair. Excelsior & F–B front fork suspension bands £6 each. Excelsior band fork rubber buffers £4 each. New: Moby, Raleigh RM5 Leading-link front suspension bands 15 × 5mm £7 each. New: Moby, Raleigh RM5 L-L band & bush and rivet kits £7 each (2-per). Ariel-3 front suspension 2-buffer kit £25. NVT Easy Rider fork seals £10 pair. Moby fork gaiters £14 pair. New: Mobylette mudguard stay chrome eye-bolt sets 10mm, 16mm, 22mm £5 each. Autocycle 5" long × ⅞" pair soft rubber 'palm' grips £4 pair. Cycle, Cyclemotor 4½" long × ⅞" pair soft rubber 'palm' grips £4 pair. 19 × ½" Italcerchio Westwood pattern 32-H chrome rims £50 each (for PC50 front). 21 × 2.50 2F-autocycle Radaelli Westwood 36-H chrome rims £46 each. 16 × 2.25 Italcerchio Westwood 36-H chrome rims £48 each (Tomos, Garelli, Batavus, etc). 26 × 2 × 1¾ 36-H chrome rims for early autocycle and trade bike £40 each. Special 32-H pierce 26 × 2 × 1¾ new chrome rims £40 each (JDL autocycle & Norman Cyclemate front etc.) Special 40-H pierce 26 × 2 × 1¾ new chrome rims £40 each (Norman Cyclemate rear, etc.). 26 × 2 × 1¾ × 36-H special dimpled & pierced chrome rims for Cyclemaster £60 each. Tyres: 26 × 1⅜ Vee Roadster pattern 2T & 2T £21. 26 × 2 Continental (Quickly, RM1, etc) £50. 20 × 2 × 1¾ trade bike small front tyre £6. 2.50 × 21 Golden-Boy universal pattern block tread to fit 2F autocycles etc £50, HD tubes £10. 2.00 × 19 Continental black-wall £40, HD tubes £8. 2.25 × 19 Heidenau black-wall £60. 2.25 × 19 Continental black-wall £45. 2.00 × 17 & 2.25 × 17 Vee £18, tubes £5. 2.25 × 17 Mitas Sport white-wall £40. 2.50 × 15, 20 × 2.50 Golden-Boy (BSA Dandy, Ariel Pixie) universal pattern block tread £40. 3.00 ×8 Vee (Honda Stream) £18. Fibreglass moulded panels Raleigh RM1, RM2 side panels £24 each. RM4 side panels LH & RH £22 each, RM4 toolboxes LH & RH £18 each, MobyAV89, Raleigh RM5 side panels £22 each. Runabout side panels LH & RH £18 each. Old Moby side panel 3-set £44, Cady M1, M3 side panels LH & RH £18 each. Moby M40 side panels LH & RH £20 each. Moby AV42, 48 side panels LH & RH £18 each. Moby AV76, 78 side panels LH & RH £22 each. Nippy Mk1, 2 engine covers LH £22 & RH £20. Batavus 50mm & Ariel-3 52mm Encarwi air filter housings £16. Raleigh RM9, +1 chain guard £25. Villiers 1F, 2F front sprocket cover alloy casting £15. Rubber rim tapes 12" £1 each; 16", 17", 18", 19", & 21" £1.50p. Cyclemaster engine mounting rubbers 4 bush kit £12. New: Moby, Raleigh all metalastic engine mounting bush kits, top mounts AV89, RM5, M40, M50, 51V £8 each, top mounts AV48, RM9 £15 each, small bottom mount £6. Selection new Moby pedal shafts £15 each. Chrome bezel red reflector with 5mm stud mounting £7. Tank Badge sets for Raleigh RM4,

RM5, Norman Nippy Mk5, Lido Mk3, Phillips Panda Mk3, Gadabout Mk4 £18 pair. Mobylette Mobymatic 'shield' tank badge sets £18 pair, Villiers 3K mag cover badge, new £4. RM11, RM12 tank badge, new £4. Some cables for Raleigh RM1, 2, Norman mopeds, Phillips mopeds, Villiers 3K engine. Cut-cable end trims (alloy crimp) 12 for £1. Petrol pipe clear 5mm light £1/ft, 5mm HD £1/ft, 6mm HD £1/ft, black neoprene pipe 5mm, 5.5mm £1.20p/ft. RH10 × 1mm 180°fuel tap £14. RH10 × 1mm LH 90°fuel tap Mobylette M40, 50V, 51V) £16. New: 90°fuel tap 12 × 1mm pitch LH, RH thread £12. New: Chrome fuel cap for Raleigh RM4, Runabout, Wisp, RM11, RM12, Norman Nippy £15. New: 40mm push-in fuel cap light grey £7.50p. Petrol cap seals for Honda PC50 £1. Petrol cap seals for Cyclemaster, Power Pak 90p, for Runabout, Wisp, Mini motor, etc £1. Cylinder black paint 100ml tin £8. New: 21mmØ Continental handlebar stem 6½" long £12, ⅞"Ø Imperial handlebar stem 7" long £8. Handlebars 'All-Rounder' pattern £10. Chrome blade-end decomp lever £15. Chrome ball-end decomp lever £13. Clutchlock, decomp, choke triggers in red plastic £3. Removable cable ties, pack 25 for 50p. CBA LaFranconi pattern moped chrome silencers in 30mm £75. 28mm round-60mm moped silencer £40. Moby M40 chrome exhaust pipes for oval silencer £20. Mobylette, Raleigh chrome exhaust pipe all fixed-engine models £30. Chrome exhaust pipe AV89, SP50, Raleigh RM5, RM11, RM12 £37. New: Moby, Raleigh exhaust nut £4. Exhaust ring gaskets 33, 35 o/d £1 each. Honda PC50 brake shoes £12 pair. PC50 air filter element £4. Honda PC50 carburettor O-ring seal kits for main jet & float bowl £3.50p set. Honda PC50 rubber elbow from air-filter to carb £12. New: PC50: Front brake cable £16, Rear brake cable £18, Throttle cable £10. New: PC50 side panel toolbox cover screw £5. New: PC50 ohc front sprockets 15T, 14T, & 13T £30. PC50, Express speedo cables £10. Tomos speedo cables £10. Huret speedo cables 55cmm £15, 65cm £16, 85cm £18, 85cm with removable end for leading-link fork early AV89, RM5 £20. New front sprockets DKW, Mobylette, Raleigh, Sachs, Parilla, Victoria, HMW + many other odd continentals. New stock of speedo drives VDO, Huret, CEV, Lucia, all £10. NOS speedos, Veglia £20 each. VDO £40 each. Moby SKF main bearings £35 pair, and crank seals £4.50 each. Incredible selection of parts not available anywhere else—because we manufacture lots of them ourselves! Far too much to list it all in this advert. You really need to visit the **Website** **www.mopedland.co.uk**
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1963 Stella Mini-Bike 98cc £3,500

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1951 Bown Standard 98cc £2,500

1940 Rudge Autocycle £2,000

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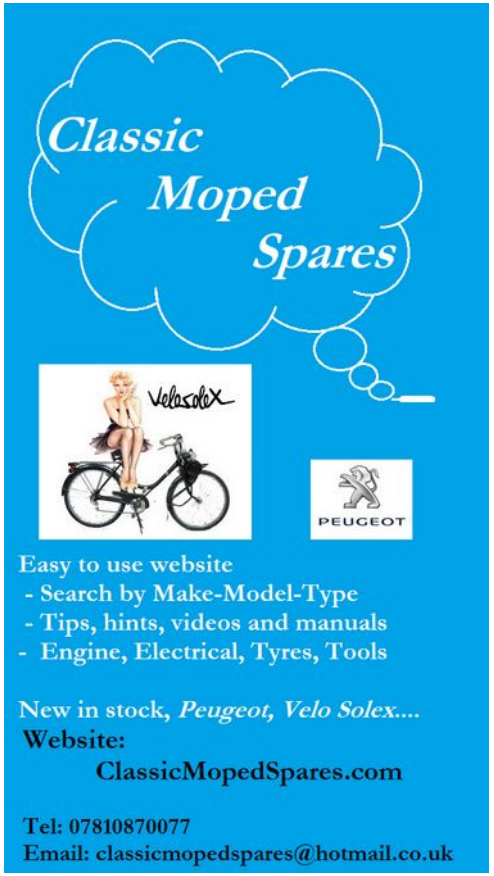

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Mopedland Jumble Parts section, featuring mainly used and NEW/old stock odd parts for various Cyclemotors, Autocycles & Mopeds. This is much like an on-line Autojumble pitch for small bike parts, but also listing complete bikes for sale. New parts are regularly adding as sold items drop off, so there's a constant turnover of new listings.
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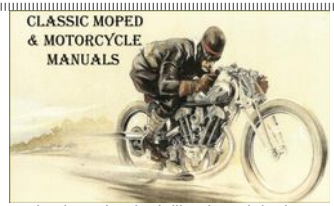

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CEV/Dansi/Kerry mag flywheel puller for 2 & 3 window flywheels M19×1—£15.
Ducati Cucciolo mag flywheel puller M22×1—£18.
Honda P50/PC50 single-end mag flywheel puller M24×1- £12.
Honda P50/PC50/C50,70,90 dual-end mag flywheel puller M24×1RH / M27×1LH—£14.
Lavalette/Paloma/Hercules Corvette mag flywheel puller M22×1—£18.
Manhurin Hobby mag flywheel puller M24×1.5—£15.
Miller Type FW17 mag flywheel puller Phillips, Her-cu-motor, etc. 13/16×26tpi—£16.
Mobylette/Raleigh clutch drum extractor M24×1—£12.
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Villiers 3K mag flywheel puller 7/8×14-tpi UNF—£15.
Scott Cyc-auto Wipac S1233 mag flywheel puller—£20.
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Fred Spaven Engineering

Until recently I have been restoring a wide variety of historic vehicles from 1960's Cooper-Climax racing cars to a 'bitsa 1950's trials AJS but, now back to being a full-time student, I can't take on such long and involved projects. Instead I'm looking for smaller 'evening and weekend' tasks to keep the workshop ticking over. I've got extensive experience of engine and gearbox building, frame & suspension repair/modification/fabrication, welding & machining facilities and close links to local vapour blasters, machinists, painters and so forth. As I don't have the time to take on whole vehicles (even tiny ones!) I would be willing to offer services up to and including engine rebuilds to ensure sensible turnaround times. Some of my old work is on my website:
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Crazy

by Mark Daniels

Sponsored by Tim at Suffolk Italiano 07592 610338 if you might be in the market for this Guazzoni, the Le.Ri in article two, or other Italian bikes.

Born in 1908, Aldo Guazzoni went to work as a mechanic for a Milanese motor cycle dealer, before developing his own motor cycle using a 500cc Calthorpe single-cylinder four-stroke engine from England, and establishing his own *Moto Guazzoni* company in 1935. The motor cycle, however, found little interest in the Italian market, so Aldo switched to building more popular three-wheeler transport machines instead.

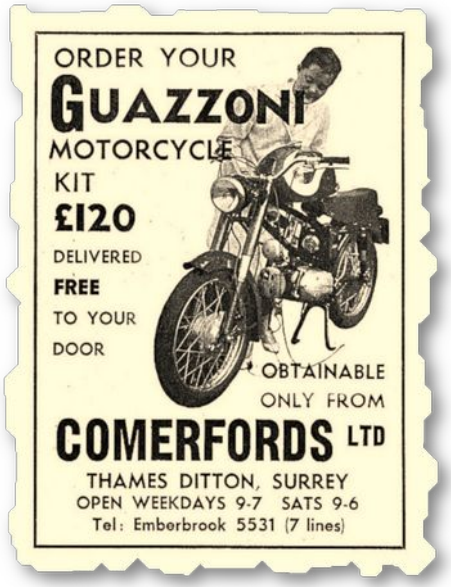
Following World War II, Guazzoni established a Milanese dealership for the Moto Morini company, and returned to motor cycle building activities in 1950 using an FBM 250cc two-stroke single from the newly formed *Fabbrica Bolognese Motori* company in Bologna. This enabled Guazzoni to establish its motor cycle assembly lines during 1951, to bring a 150cc FBM two-stroke single 'Grifo' lightweight to market in 1952 as Tourer, Sport and Premium Sport models; this achieved immediate sales success, and won its class in the 24-hour Belgian Enduro of Warsage. Following this victory as fastest bike of its category, with 10.5 HP and 125–130km/h, a new Guazzoni 'Bol d'Or' 175cc model was introduced.

For 1953 the company presented another new 150cc two-stroke model called the 'Snout'; its name was a reference to the engine, which had a horizontal cylinder.

In 1955 Guazzoni created a 200cc single-cylinder SOHC four-stroke motor cycle as a change from its usual two-strokes while, over the two-year period 1955–56, a Guazzoni 'Torpedo' 50cc two-stroke took 30 world records at the Monza race circuit.

In the later 1950s, many Italian motor cycle manufacturers were entering a financial depression through falling sales, which was made worse for Guazzoni because of its involvement in the Argentine market. Following the revolutionary fall of the Juan Domingo Perón administration in 1957, restoration of the 1853 Constitution, and addition of the protectionist *article 14 bis*, which froze foreign businesses out from being paid for delivered goods, and further prevented them from recovering their assets. Guazzoni consequently lost some 1,000 motor cycles that had already been delivered to dealers. This was a serious economic blow for the small Milan factory, and left Aldo in such a serious financial position that he was forced to restructure the company.

The Dot company of Manchester began factoring Guazzoni 98cc and 175cc 'Sport' two-stroke singles with horizontal cylinders priced at £169-18s-0d in 1960, but by 1962 Dot had already de-listed the machines as Comerfords Ltd of Thames Ditton had seemingly 'pinched' the business and were advertising apparently the same Guazzoni 175 model 'delivered to your door' in kit form for £120.



In 1961 Aldo relocated his company to an old mill in Via Altaguardia, where he continued production of an early model Guazzoni Sport 50cc using the FBM engine, and other moped models, but also diversified into machine tools and disc-valve induction engines for other applications such as outboard motors and go-karts.

1965 introduced a new Guazzoni Sports 50cc called Matta, which became the very first Italian motor cycle with disc-valve induction, and offering more performance due to the improved intake porting control that the system offers over the limitations of conventional piston ported designs. The initial 'Export' version was rated 6bhp for 100kmh.

The Matta name was chosen to advertise the performance and versatility of the motor, and became readily adopted by younger riders because of its engine power and flexibility—Matta translates into English as 'Crazy'.

The two-stroke rotary disc-valve originated from a German DKW RadMeister engine design, which first found its way into the Cyclemaster and Berini M13 cyclemotors of the 1950s, during which time MZ in East Germany was further developing the principle for racing engines—and was achieving results! However, Ernst Degner's 1961 defection and escape to Suzuki meant the MZ two-stroke design secrets slipped away to Japan along with him and his family.

It wasn't long before Suzuki was joined by Bridgestone, Yamaha, and Kawasaki in producing road going disc-valve motor cycles. The MZ-RE50 disc-valve racer, 1962 Suzuki RM62 disc-valve racer, and subsequent RM63 and RM64 racers are probably what inspired the Guazzoni Matta because you can certainly see a number of shared aspects in the designs.

The Guazzoni Matta was a new generation of Sports 50 with models for on-road, off-road, and on the racetrack in the form of a production racer delivered to the public in 1965. Though never produced as a series or long run model, its slender and sleek appearance led some comparison to anorexia gone mad!

c1968 Guazzoni Matta

The production racer, fitted with its 17mm carburettor and engine of 41mm bore × 37.5mm stroke for 49.5cc, developing 13bhp at 13,500rpm, for a top speed in the region of 180km/h—err, that's 112mph!

Suspension at both ends was Ceriani, with either 28mm or 30mm fork stanchions, and later racers developed with a six-speed gearbox and could reportedly pull up to 15,000 revs!

There was also a Cadetti model with 45mm bore and the same 37.5mm stroke for a 60cc engine size.

Earlier Matta racer models could be fitted with an Italfreno front hub, while later versions might be equipped with a magnesium 180mm Fontana hub and the Matta 'Racer' could cost twice the price of a 'Sport' model, though carrying the same fuel tank and seat with a very similar frame.

It all sounds quite confusing, and to identify the respective models probably requires a knowledgeable specialist, and we're not that, so how might we be able to figure out quite what specification our feature bike is?

Here it is, beautiful, spectacular, and maybe a little menacing—because if it is the whole ticket, would you be ready to try doing over 110mph on a miniature 50cc racer? We don't really know which Guazzoni version we have at this point, it looks like a racer, but might just be a 'stylised' lower powered Matta road version.

Just for reference, we put the bike on the scales, 4st 9lb front & 4st 12lb rear = total 9st 7lb (133lb); and we measure a 48" wheelbase, with total length 71", and a saddle height of 26". The clip-on handlebar ends are closed with aluminium plugs, then furnished with a Tommaselli throttle control and alloy lever sets, and that clutch feels to have a surprisingly light action!

The twin down-tube cradle frame is installed with very nice Ceriani forks with alloy yokes and alloy bottom legs on 30mm stanchions, and a rear swing-arm with Ceriani rear shock units.

There's a Grimeca alloy rear hub with a 90mm brake and fitted with what looks like a new alloy rear sprocket. We don't know the make, but the very impressive half-width alloy front hub sports a radially finned brake ring, with 160mm cast alloy single-leading brake-plate with air-scoop. The hubs are laced into deep-gulley alloy rims, and though we couldn't find any indication of the make, they're very nice rims. The front wheel is fitted with a Michelin 2.00 – 18 radial rib tyre, with a Michelin Rapido 2¼ – 18 moped tyre on the rear, which would be a bit of a worry if this is a full race spec Matta, because we absolutely wouldn't want to be doing 100mph+ on this tyre!

The tank is a particularly elegant fibreglass moulding, though it probably has a small capacity as, when we lift the cap to refuel, it seems as if the bottom of the tank is right beneath the filler! An external HT coil is located under the fuel tank and powered from a mag-set of unknown make, which obviously has a low-tension output coil, but also seems to have a second (presumably lighting generator) coil—though there's no electrical set, which could suggest that this is may not be a race spec motor.

The 'fastback' saddle is another stylish match to blend with the tank, but again we can't identify whether it's a recovered original.

There are no pillion footrests on this Guazzoni, and though it might look as if it this could be a dual-seat, it's really just a single saddle. The footrests are a rear-set linkage, with a cable-operated footbrake on the left, and a four-speed change on the right: 1-up, 3-down. The saddle height of 26", but just 16" height from the rear-set footrests to the top of the saddle, means your legs are folded in the riding position, and you're stretched out across the tank to reach the clip-on bars on the fork stanchions.

Rachel demonstrates a stationary 'head-up' riding position with one foot still down, so the scale and normal riding position might be easier to appreciate—there really is no space for a passenger.

We are probably twice the weight of Rachel and the minute contortionists that used to ride these 50cc racers, so at best we're probably going to find it 'uncomfortable' to even sit in the riding position, and it's likely going to be even more difficult to operate the foot controls…

The Guazzoni motor looks like a very serious piece of equipment, with a most substantially built crankcase. For a 50cc engine, it has imposing fin arrangements on the iron cylinder and radial-fin alloy head, and though we don't know the actual compression ratio on our bike, we've seen figures up to 17:1 quoted for the race engines! The motor really needs these big fins to disperse the generated heat, particularly as the Matta is built with a rear facing port with the exhaust pipe exiting straight out the back of the cylinder through a race expansion

system. This layout is notorious for heat dispersal issues, which is why it's rarely seen, but temptingly promises more efficient exhaust gas scavenging … and it looks spectacular.

The other exceptional engine feature as a result of the disc-valve, is the carburettor mounted out the left side of the motor at 90º with a direct open intake! The Guazzoni really looks amazing.

While the engines were known to be originally fitted with 17mm, or later MA18B carburettors, this motor is fitted with a Dell'orto 20mm UB20S, which is likely not original, and is a pretty big carb for any 50!

Our bike might be a racer-styled standard spec Matta, but there's also some prospect that it still may also be a race version, we still don't know, and we're somewhat apprehensive about trying to ride a 50 maybe capable of 110+mph on moped tyres!

Our Guazzoni is road registered and street legal, but has no means of standing up on its own, and generally resides on a paddock stand, so has to be lifted off when you want to use it. This is a bit inconvenient since you can't carry the paddock stand with you, so would have to lean the bike against walls if you stop anywhere—though not such an issue on a racetrack.

There are fuel taps off–on–res under both sides of the tank, so take your pick.

The Dell'orto has a choke and flood button, and during our initial debugging of the bike, both methods seemed equally effective for starting the motor. First efforts found the gear selection was stiff, which was resolved by topping up the low transmission oil level and lubricating the rear-set linkage.

The second trial run found the un-silenced expansion box wasn't overly loud, but a slipping clutch limited capability to 30mph. Adjustments resolved the problem, so our third attempt became the official paced run.

Like any proper race bike, our Guazzoni has no kickstart, so just like a racer we have to do a push-start. Having done a couple of these already, we find selecting second works best, pull in the clutch, sit on the saddle, scoot the bike down the drive, drop the clutch and keep scooting. The motor readily and easily starts. Only low throttle is required, so just pull in the clutch and shift back to neutral to warm the motor.

The surprisingly light action clutch lever only starts to bite toward the end of its release, while first gear feels to be quite high when pulling off, making us wonder if it might be a close ratio RRT box, still the motor readily pulls though, and shift down into second. The motor presses up to speed in the urban limit, though fourth at 30 feels too high so we drop back to third and carry on cruising to out of town. Entering the open limits, we stay in third for the uphill section and open the throttle to accelerate up the shallow gradient, then switch up into fourth along the flat to work heat into the motor for the return run.

Accelerating into the first short downhill section and switching into top doesn't result in the speed accumulation we expected, so dropping back to third we open full throttle along the following flat (paced at 37mph), then switch into top and open up full again on the longer downhill section—but there's still not enough gravity to increase the speed beyond 38mph!

We're now convinced that this bike is over-geared for the power output of the motor. It completely fails to pull top gear, which is just one step beyond the capabilities of this engine. Fourth is an overdrive. Either the gearing wants reducing by a larger rear sprocket or smaller front sprocket, or the engine power needs to be increased.

Considering the low clip-on riding posture and tortuous seating position, the general handling, suspension and brakes were really good—and it still looks fantastic!

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Guazzoni continued building classy lightweight on-road and off-road sports bikes and production racers throughout the 1960s and 1970s, mostly with 50, 98, 125 and 150cc engines. A 250cc Gran Turismo was advertised but may not have seen production.

Manufacturing at the Guazzoni factory ceased during the early months of 1976, following a serious illness that struck Aldo and subsequently led to his death in 1978.

In English language, crazy is just crazy … but in Italian, Matto = Crazy in the male tense, while Matta = Crazy in the female tense. Both versions translate as Crazy, but in the female tense, then technically, maybe Matta reads as 'Crazy Woman' … ?

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Next: We're booked to collect a 1950s' 48cc French cyclemotor for our next main feature, but some of the dimensions we're given are causing concern? The wheelbase is over 6½ feet, and total length is given as nearly 8ft! Surely this can't be right? What is this thing?…

A What?

by Mark Daniels

Sponsored by
Michael Neden, Manchester

Occasionally a really obscure machine turns up, but that invariably means there's little information to be found about the maker. In this case there is practically nothing to find.

In 1898 Giovanni Rinaldi founded a bicycle factory in Bagnolo, nearr Nogarole Rocca, Veneto.

In 1923 his son Leopoldo moved the bicycle production to Cinisello Balsamo, in northern Milan, where he also began building motor cycles under the branding of *Le.Ri* (Leopoldo Rinaldi), and further introduced *Mirella* branded cycles (meaning 'wonderful', or 'worthy of admiration').

Le.Ri produced mopeds in the 1950s and possibly into the 1960s.

With very little to find in terms of general research into Le.Ri, analysis of our 1957 sports moped becomes particularly important.

Your eye is immediately drawn to the unusual and eye-catching LeRi cast aluminium winged badge bolted the front mudguard, which is a feature that a number of period makes employed (NSU on its Quickly, etc).

We start by measuring the length as 72" tip to tail, with a 47" wheelbase, and a 30" saddle height. Front weight is 3st 9lb and rear weight 4st 9lb, so total weight 8st 4lb (53kg, 116lb: the same as a Norman Super Lido), so seemingly there was little economy of materials in its construction.

This sports moped frame is quite unique; we've never seen anything like it. It has a single spine frame, but with twin front down-tubes from the headstock, which continue on straight beneath the engine, to end at the rear footrests just a couple of inches ahead of the rear suspension bottom mounts! The footrest extensions are firmly braced by a formed tube welded above the primary tube on each side, which is why you see the doubled-up tubes to the rear footrests. Extraordinary!

Though the bike has a dual seat, we suspect that the rear footrests are not wholly intended for a pillion passenger—we think they're also intended for the rider to sit back in a low profile crouch.

In front of the saddle, there's a clip-on upholstered pad to act as a cushion against the back of the fuel tank, and a strap clipped onto brackets under the middle of the saddle frame. This strap obviously doubles-up for passenger use when clipped over the saddle, but also clips beneath the seat to be out of the way for the rider to readily slide back into a solo sports stance when required.

The frame has twin-shock swing-arm rear suspension with telescopic forks, and 'Ace' pattern handlebars mounted in elegantly styled brackets to lift the bars 2½" above the top yoke, and maximise a sporting though comfortable riding position.

While studying the extraordinary engineering of the slim and elegant cast-steel front (right-hand) brake lever, we are further amazed that there are three cables connected to the lever! Having never before seen a triple-linked brake arrangement, we track the middle cable to the rear brake, and both side cables to the two double-sided, single-leading front brakes, and all three brake hubs look to be 100mm diameter, all operated at the same time by just the one hand lever! That single lever is likely to feel very heavy to operate with just one hand having to pull on three brakes, and you're absolutely going to need a grip like a gorilla to expect much useful braking effect.

The full-width hubs are laced into old style gully pattern alloy rims, which look very aged and original … and you'd think were 19", but those tyres seem skinny and odd? Looking closer at the Pirelli tyres, they're marked 2 × 20! Yes, that's 20" rims, and you can bet that Pirelli doesn't mould that size today … does anybody?

Both mudguards, however, are not made in the expected minimalist sports style, they're heavily built steel guards with effective weatherproof side valances! So Le.Ri is not a stripped-to-the-bone lightweight racetrack machine, and maybe appears more as a road-going 50cc sports endurance machine for all-weather use.

The fuel tank appears to be the same as was fitted to the Victoria Avanti, and is even finished in the same paint scheme, but branded with obviously original old Le.Ri decals.

There's a Veigel (German) 100km speedometer in the Aprilia headlamp shell, which is fitted with a larger Bosch BA20 bulb for a better light, but because of the double-sided front brake-plates preventing a speedo drive being fitted, the speedo drive is unusually relocated onto the drive side of the rear wheel! Unfortunately there is no speedo cable fitted, though it'd probably be difficult to find a suitable cable of the required length.

This isn't a standard machine either, because there are several historical 'tailored' adaptations to our bike, as there are three switch sets on the handlebars, and all apparently wired! We don't at this stage know what (if anything) the circuits may operate, but beyond the magdyno generator is an (empty) improvised battery carrier on the right-hand side of the bike. This is screwed to the back of the toolbox mounted on the right-hand side, though apparently no longer wired, but suggests it was previously used with a battery supported lighting system. Intriguing!

Le.Ri is fitted with a three-speed Demm hand-changed two-stroke 3M engine dated on the engine plate as 1957, with spec given as 40mm bore × 39mm stroke for 49cc with a low compression ratio of 6:1 producing 1.5bhp @ 5,200rpm. The three-speed hand-changer with twin control cables is marked with a Demm logo, so obviously made and sold as part of the engine kit.

While examining the engine we notice an odd knob on top of the gearbox, and after a bit of investigation and twiddling we find that switching it through 180º seems to change over the transmission from engine to pedal. The carburettor is a 14/12 Dellorto, so has a 12mm venturi, and looks similar to the carb fitted on the period Minarelli motor. The mag-set is an Autorotor, and no, we've never encountered one of these before.

So what's the story on Demm?

In 1919 Giacomo Daldi and Luigi Matteucci started their first engineering workshop, which was formally registered in Milan in 1920 as *Società Anonima F.lli Daldi and Matteucci*.

On 15 April 1928, the business name was simplified to DEMM, as a simpler acronym for Daldi E Matteucci Milan, manufacturer of gears, machine tools, and measuring instruments.

Construction on the new Demm Porretta Terme plant started in 1938, and the 12,000m² facility was opened in 1939 with around 1,000 employees. During wartime, facilities were temporarily moved to Intra (Verbania) on Lake Maggiore in 1942, and production of precision measuring instruments began.

In producing components and gears for aeronautics during World War II, Demm became included on the Allied list as a 'supplier of war materials', following which, on 6 July 1944, the Porretta Terme plant was bombed and almost completely destroyed.

At the end of World War II the reconstruction of the Porretta Terme plant began, and was completed in 1947, when Demm's production of measurement instruments and machine tools was resumed.

Demm built its first Diesel engine for tractors in 1952, and began production of own-branded motor cycles in 1953, from which the company became involved in competition events, setting 24 world speed records in the 50cc class in 1956. The company also progressed to building a proprietary 125cc two-stroke engine for selling to other motor cycle manufacturers, before launching its first complete Demm Dick-Dick moped in 1956, and further selling the two-speed & three-speed versions of the moped engines to Legnano and Testi during the late 1950s. A four-stroke 50cc engine model was also produced.

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Test for a spark—yes, that looks fine. After flushing out the fuel tank and welding up a tiny pinhole, clear the completely blocked fuel tap, then clean out the carb. Fit a new fuel pipe (because it didn't even have one), and we must conclude that this bike hasn't been meaningfully run for quite some time. Now we finally have a reliable fuel supply, we top up the engine oil, pump up the tyres, and we're ready to give it a try.

The Dell'orto 14/12 carb has no choke or strangler but relies on a sprung plunger on the float chamber top, but doesn't push the float down and just pushes down a sprung piston beside the float chamber, so don't expect it to flood the float chamber. It's presumed that the piston pumps a small shot of fuel somewhere into the fuel system.

Tread down on a pedal a couple of times, and surprise—the motor fires up! Just blip the throttle a little and the motor readily settles to a steady tickover, and actually sounds pretty good! We try all the switches for lights, horn, and cut-out, but no electrics appear to work, so that's another job for later.

Leaving the bike ticking over we grab a helmet to attempt a brief run to see how it goes, but the hand-change selection seems a bit confusing as we fail to find the gears in the indicated positions. Stalling out the motor we then rock the bike backwards and forwards to 'feel' the actual gear and neutral locations, which all prove to be there, just in completely wrong positions in relation to the change indicator, so the changer cables are completely maladjusted. Never mind, we can find the gears now anyway, so restart the engine, engage first, and pull away, to find that bottom gear feels surprisingly high! The Demm motor, however, appears to deliver unexpected torque, which easily pulls the ratio from low revs, and really wasn't at all what we expected from a sports-50!

Second locates easily enough (when you know where to find it), and proves a suitably middle ratio, which again the motor torque easily pulls at low revs, then again in third. We don't know what speed we're doing since the speedo doesn't work, but cruising leisurely through

the flashing 'speed-check' sign along the street at 24mph and still at low revs, makes us wonder about what other surprises this bike might be keeping secret? We spin in the road to return to base because we left without gloves, so it's feeling very cold already, while the evening is approaching and we have no working lights.

This was also the point of appreciation that having the three brakes connected to the single right-hand lever was utterly useless, no matter how hard you try to pull it on, there is no effective braking. That at least was predictable…

Following the interruption of a couple of wet and windy days, we prepare the bike again for the official paced road test. Our pacer is already waiting while we start the Demm engine, which readily fires up after a couple of presses on the carb 'primer', then we leave it running a while to warm the engine otherwise it fades on throttle if tried prematurely. Mount up and easily pull away again at low revs, the motor again displaying its torque. Trickle down the drive and onto the road, then ease back down in second to turn at the roundabout instead of expecting much help from the braking capabilities. The engine pulls gently and smoothly in second gear, which feels docile and capable for about town use into the low 20s, and you generally find the natural change-up point to third around 25mph.

Top gear gives the impression that it's a high ratio, because winding back the throttle creates a muffled intake draw through the air filter, though the speed only gradually creeps up to a paced maximum of 32mph on the flat in still air. This performance isn't really a surprise considering the low power rating of 1.5bhp with a low 6:1 compression ratio. Typically, similar period Italian three-speed models tended to be over-geared in top in relation to their

motor power, and generally only obtained their top speeds on a downhill run or with a strong tailwind, but a three-speed Minarelli engine would produce over twice the power, so we're really not expecting our Demm motor to be comparable in performance.

Covering several on-flat sections only returns the same 30–32 results again, but running into the first short downhill section the speed picks up to a paced 34mph, though also drops away again against the following light incline. On the next longer light downhill section, it manages a paced 35mph, but our 68-year-old Demm engine obviously has nothing more to give, so might be getting due for an overhaul to perk it up again.

The suspension at both ends worked fine, though the steering did prove light and twitchy while glancing over your shoulder to look behind. The Le.Ri was an interesting and unusual bike to ride, which could have been improved by a more powerful engine and more effective braking.

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The Le.Ri business moved to Muggio in Monza and Brianza Province in 1958, where sons John & Rosina continued selling the handcrafted production of bicycles and expanded the range of products with a selection of cycle accessories.

The company began selling internationally with deliveries of racing cycles to America in 1970, and further began production of compact folding cycles. In the 1980s, both mountain bikes and BMX acrobatic bikes were introduced, boldly finished in all sorts of vivid colours.

In 1992 and 2001, the daughters Paola and Roberta joined the company to make the fourth generation engaged in the family business. In 1998 Le.Ri celebrated 100 years of trading by inviting regular clients to a special exhibition event.

Le.Ri bicycles were featured in the film 'Call me by your name' by Luca Guadagnino, which won an Oscar for best-adapted screenplay in 2018.

Now, after 128 years, the company still continues selling bicycles, electric bikes, and accessories from Via Varese, 2 . 20835 Muggio (MB) Italy. Website: www.leribiciclette.it

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Next: The famous cyclemotor boom of the 1950s was over and done by 1960, but that wasn't the end of the cyclemotor! During the early 1970s, and fuelled by the period fuel crisis, there was another brief resurgence of second generation cyclemotors in the USA. Frozen in a time bubble we find a brand new cyclemotor, still in its original box! Claims of the period are that 'using the instructions, you can assemble one of these motors to a bicycle within just a couple of hours' …. OK, we have a suitable bicycle, so where are the instructions? Ah, maybe here in this packet … but they're all in Japanese! Well, we've got three months, maybe we can figure it out in time … or maybe we can't … deadlines can be tough!

Mission Impossible

by Mark Daniels

Sponsored Sandy Ross, EACC, Hertfordshire

Any owner of a Motobécane X1 very probably finds its motor performance somewhat lacking, so one might ask how it can be improved? Since the bike employs a unique design of Cady engine, it involves a correspondingly unique frame to mount it, so no other motor type can be readily employed without significant adaptation.

To provide any answer, we need to appreciate the problem, which may lie in the text of our 'Micro Solution' article back in January 2012.

> 'A Motobécane Cady motor lies at X1's beating heart—an interesting choice of engine offering miserable performance with wretched serviceability issues to the ignition set, and presumably selected on the basis that the model was probably never intended for speed …
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> 'X1's biggest let-down has to be the miserable Cady Isodyne engine, which pathetic output restricted its performance to the 20mph category. This may be considered adequate as a micro-compact for camper site use, but not really effective as a proper moped since it wholly lacked the capability to keep up with general 30mph town traffic pace.
>
> 'X1's performance would prove a practical limitation to its sales capability, which Motobécane addressed to some degree in the later X7 version, installed with a 2bhp M-series motor. The X-series, however, proved more novelty than longevity and, as is often the way with these flighty mini-bikes, its customers moved on to new novelties. After just 5 years' listing, the models were discontinued in 1976.'

Doesn't sound very encouraging, but what did the actual road test report?

> 'We open the throttle to pull away…Not quite what you might ordinarily describe as acceleration…
>
> 'To be honest, it's pretty pathetic, and you really do need to give a little pedal assistance or you might be at the kerb all day! The clutch locking shoes seem to engage somewhat prematurely, and the feeble Cady motor just labours in vain at low revs.

'Pedal assistance also needs to be something for cautious consideration, since the pedal arc takes them fairly close to the ground, there's not much free clearance, so you might be in danger of hitting your feet—that can really hurt, and cause a further painful spill.

'Once you've got underway, there's a brief illusionary moment where you optimistically think "maybe it's picking up now"—no it isn't! That's all there is!

'Along the flat and according to wind conditions, the Cady will generally grovel up to 15–18mph, maybe even touch 19 or 20 with a decent tailwind on a good day. Even gentle gradients just seem too much effort for the indolent motor, which readily fades down to 13mph in a general performance that seems more comparable with ancient and primitive cyclemotors of the 1950s.

'Turning back the way we came, the same light downhill run gave our absolute best-paced reading of 22mph, at which there's a lot of vibration being created by the overhung crankshaft motor. This is an engine design that particularly doesn't like to rev.

'From the riding position, and looking down on the retro '70s missile bodywork may conjure some rocket jockey image, but the reality of Cady's engine performance is a sobering illusion—not for nothing was the white X1 more commonly known as "The Albino Slug".

'Anyone getting on an X1 is generally going to be thinking there's something rather wrong with its motor, but no, everything is normal; that's just how the Cady engine is. The "blank" right hand crankcase cover pretty much gives away that the motor has an overhung crank. The drive journal on the left-hand side runs a smaller version of the usual Dimoby automatic clutch, with inboard pulley and belt guarded by a snap-fit plastic cover. The mag-set, however, is mounted between drive pulley and the engine, which means you have to remove the clutch in order to simply adjust the contact points—which rather tends to be a bit of a service issue!

'The exhaust pipe exits to the right-hand side front of the cylinder, while the inlet manifold enters to left-hand side front of the cylinder, with the pipe snaking its way back around the cylinder, where a 10mm Gurtner carb mounts at the back right-hand side. An 11-inch (270mm) long intake manifold on a two-stroke is obviously not going to help its performance, when nearly half of the induction volume of each stroke is lost in the inlet manifold.

'The engine configuration is generally summed up as "why on Earth did they do that?"

'There didn't appear to be much ready reference at the time to actual power outputs, but both the M1 Cady and X1 models using the Isodyne motor quoted a maximum design speed of 33km/h (about 20mph).'

None of these references seems particularly encouraging, and it already seems like Mission Impossible, so why are we here?

Well, there's a customer's X1 in the workshops with a really sick engine. It's been smartened up in the past with a 'reverse pattern' paint job, but just stood around for many years as an unused fashion accessory, so the engine has 'frozen up' with a seized piston in the bore, condensated main bearings, big-end and small-end bearings, and is basically completely kaput.

Can we fix the engine? Err, it's really not actually worth the cost of fixing, and we don't have the parts… but we do have a later Super-Isodyne engine that would fit, and might even be a little better…

So it came to be that maybe for the first time ever, a Super Isodyne engine was destined to be fitted into an X1, not particularly because it was intended to improve the performance, but just because it's what we had, and would go straight in.

The new 'Super-Isodyne' engine arrived on the UK market with the introduction of the Cady M3 models in April 1974, and though the X1 continued on listings to March 1976, it was never fitted with the new motor.

We road tested a couple of M3 Cady models with Super-

Isodyne engines in October 2016; they averaged around 27mph on the flat in an upright stance, which seems some improvement on the 20mph expectation of the M1 and X1 Isodyne motor. The new 'Super' engine type was apparently rated as exactly the same 1bhp@3,600rpm general specification as the previous Isodyne engine, and differed only in replacement of the original overhung crank design with a conventional twin-flywheel configuration crank supported by a short journal and bearing on the crankcase cover side.

But are the gearing ratios compatible?

Looking at the comparative drive ratios:

- X1 = 9 ××x 2.5 tyre = 14" diameter with 25T sprocket
- M3 = 16 × 2.25 tyre = 20.5" diameter with 36T sprocket.

Surprisingly, both divide out to 0.56, so they're both the same drive ratio, while all other technical aspects are the same.

The only difference observed between the M1 Cady/X1 Isodyne tests, and the M3 Super-Isodyne tests was that the Super versions experienced less vibration, and vibration can equate to lost power.

Now the installation is done, could it actually make any difference? Maybe fitting a Super-Isodyne motor might just make the X1 go a little better?

Our Super-Isodyne X1 is quite distinctive with its reverse colour scheme of red background with a white stripe, instead of the original white panels with a red stripe.

Neither the Cady Isodyne or Super-Isodyne engines produce any meaningful power, and when power is the operative word, no Cady motor has that.

Pull-off is still poor since the single-speed clutch shoes lock in at low revs, and same low-power 1bhp motor still struggles to labour up to higher revs.

The whole X1 riding position is really horrible. You're perched atop a poorly sprung saddle with a nasty plastic cover, on a mini-bike with no suspension and awful narrow pull-back handlebars that make the bike feel terribly unstable over bumps and around corners. The X1 really isn't anything you'd feel confident about even trying to go faster on.

Our Super X1 paces around 20–22mph on flat, with a best of 25mph on a light downhill run, so generally paces just 2–3mph higher than the Isodyne X1. The only appreciable improvement seemed to be some reduction in the level of vibration: though it does still vibrate, the vibes just come in a little later.

The Super-Isodyne M3 Cady models also vibrated, though a little further up the rev range, and managed a better performance than the Super X1 with the same engine and the same final drive ratio. The only other factor influencing when the rev range affects these different machines would be the frames, the suggestion being that the X1 frame/engine installation might be more susceptible to vibration than the Cady frames.

Was it worth the trouble for just a couple more mph? Probably not…

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Next: Something will turn up.

Iceni CAM Magazine is produced by Andrew Pattle and Mark Daniels. Mark rides the bikes and writes the articles; Andrew calls himself the editor, putting the magazine together and printing it.

You can contact us by e-mail at icenicam@pattle.globalnet.co.uk (that goes to Andrew), by post at 144 The Street, Rushmere St Andrew, IPSWICH, IP5 1DH, GB (that goes to Mark), or by 'phone at +44 (0)7798 696433 (Andrew) or +44 (0)1473 716817 (Mark).