

Moto Guzzi Le

A Moto Guzzi Le Mans is the archetypal Seventies Italian superbike. These days they're a reliable classic bargain too

Words and pics, Mac McDiarmid

1 The 90-degree V-twin engine came from a tracked military vehicle. Ruggedness and simplicity comes from one-piece crankcase, plain main bearings and big-ends. Pistons, con-rods and big-ends can be removed with engine in situ.

2 Twin 36mm Dell'Orto slide carburettors (40mm from MkIII) with accelerator pumps and open bellmouths only on MkI/II - fit filters if you value your bores.

3 Clutch has twin friction plates driven by heavy ring gear on rear of crankshaft. Heavy action but largely trouble-free - a stripdown requires engine removal.

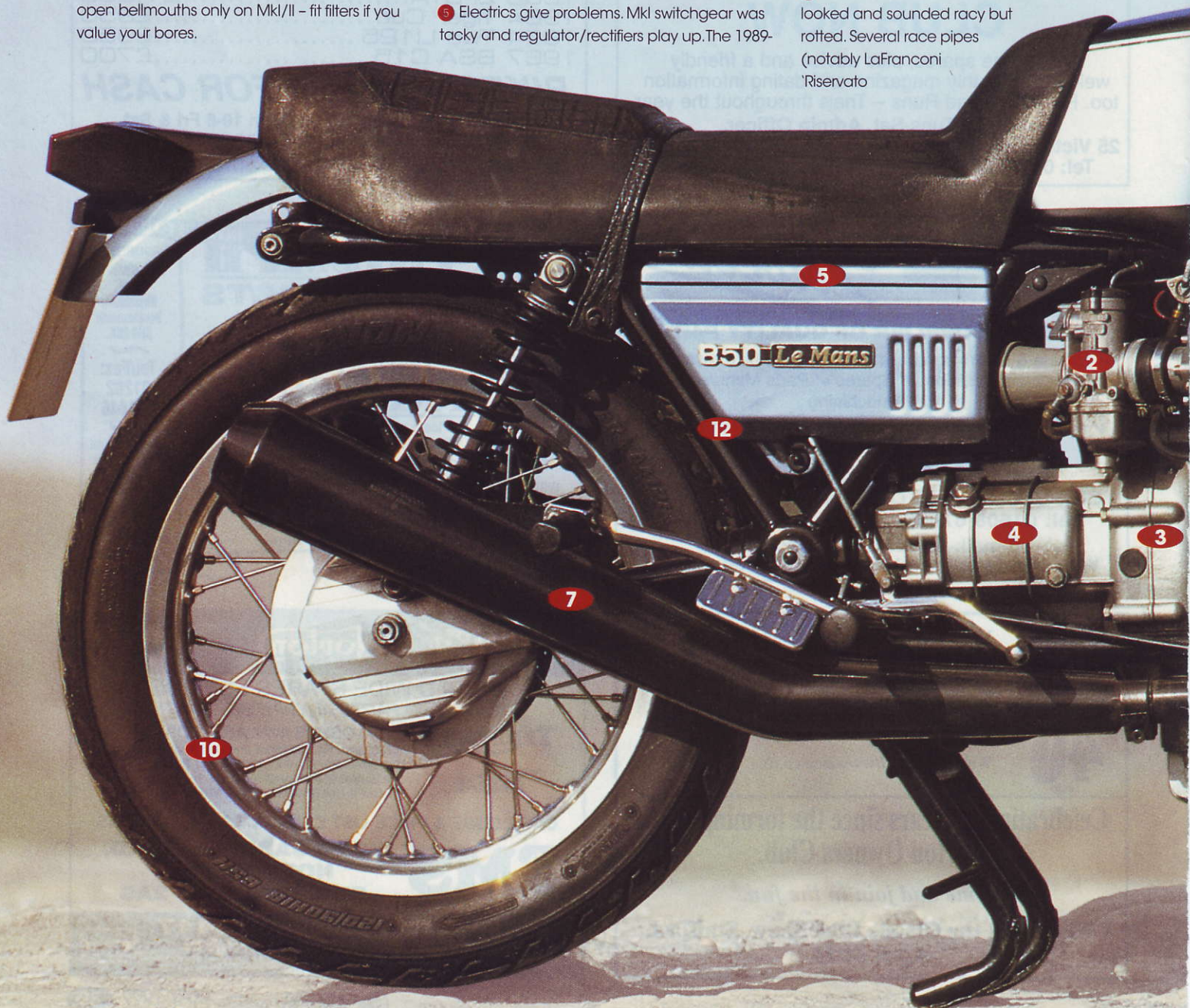
4 Five-speed gearbox with constant mesh helical gears running in their own oil. Shaft final drive makes gearchanges fairly slow. Lightening the flywheel helps.

5 Electrics give problems. MkI switchgear was tacky and regulator/rectifiers play up. The 1989-

on kit is a good retro-fit. Electronic ignition is money well spent.

6 The duplex steel cradle frame is heavy but strong and stiff. Both lower rails detach to aid engine removal (you actually lift the bike off the engine). Taper-roller swinging arm bearings are a bonus as a result of shaft drive.

7 Matt black exhaust of Le Mans MkIII looked and sounded racy but rotted. Several race pipes (notably LaFranconi 'Riservato



Mans

Competizioni') and aftermarket systems are available. Many dispense with the original MkI/II front balance pipe.

8 Early 35mm forks were puny, and the pressed steel cartridge dampers even worse. Spares GB sell damper kits that improve them but later 38mm Marzocchis or MkV 40mm Bi-Tubos are better. Original rear shocks were adequate. Most bikes now wear Konis.

9 Three Brembo discs (one front linked with the rear) were good in 1975, and still not

bad today - providing decent pads are fitted.

10 The original 18 x 2.15in (WM3) rims wore 100/90 front and 110/90 rear tyres. Tyre companies now suggest a 120/90 rear. A 2.50in rear rim appeared on the MkIV,

as did the unloved 16in front wheel.

11 Bodywork is partly glassfibre, partly plastic. Breakages around the sidepanel fastening plugs are common, and the solenoid cover often falls off. Early injection moulded seats fell to bits and are rare.

12 Early semi-matt frame paint was thin. What little chrome the bike had was often not much better and quality didn't improve much over the models.

Specification (MkI)

Engine: 844cc ohv aircooled transverse 90-degree V-twin, bore x stroke 83 x 78mm, 10.2:1 compression ratio, 2 x 36mm Dell'Orto carburettors, twin plate dry clutch, five-speed gearbox, 12v electrics with points and coil ignition, electric start.

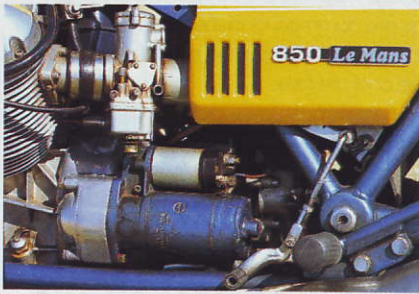
Chassis: tubular steel duplex cradle, 35mm telescopic front forks, rear swinging arm with twin shocks. Tyre sizes: front 3.50 (or 100/90) x 18in, rear 4.10 (or 110/90) x 18in. Brakes: front 300mm twin disc, rear 242mm disc (linked).

Dimensions: dry weight 437lb (198kg), wheelbase 58.4in (148.5cm), seat height 29.5in (74.9cm), fuel capacity 5 gallons (23 litres).

Performance: claimed power 81bhp @ 7600rpm, torque 56.4lb-ft @ 6600rpm, top speed 130mph, SS¼-mile 13s @ 105mph, fuel consumption 38mpg.



History



Big carbs, big cylinders, Heath Robinson gear linkage - that'll be a Guzzi then.

MOTO GUZZI'S 850 LE MANS DEBUTED at the 1975 Milan Show. Available in ice blue metallic or bright red, the long, low 'Lemon' was a sensation. With a claimed 81bhp, bags of torque, great brakes and racy styling, the Guzzi's so-so finish, shaft drive and 'Italian' electrics were necessary evils to most owners. The 130mph top speed from a pushrod twin and impeccable high-speed handling made up for most failings. For 1977 the Le Mans got optional white paint, a less stepped, more durable seat, and new rear light.

Although it sold well, Guzzi launched the altogether less sexy MkII in 1978. In bright blue or red, it had the Spada's clocks, a brake fluid warning light, and the front calipers were mounted behind the (black painted) fork sliders. Internally, it was little changed. Later examples had a bigger 32Ah battery and, later still, Nigusil liners, Paioli shocks and air assisted forks. There was also a UK only black/gold version built for Coburn and Hughes.

The 1981 Le Mans MkIII was more angular with the now familiar 'square barrel' top end. There was a half fairing, new seat and 5.5 gallon (25 litre) tank, better air filtration and a chrome-plated exhaust. Compression ratio dropped to 9.8:1, but claimed power rose 3bhp. Aluminium rocker supports allegedly reduced the bike's notorious tappet noise. Colours were white, silver or red.

The MkIV Le Mans 1000 of 1984 had the 948.8cc Spada engine fitted with a 'B10' production racer cam, bigger valves, and 40mm carbs. It made a claimed 85bhp. Chassis changes included 270mm discs all round, a longer, braced headstock and kicked up rear frame. The swinging arm had wider tubing, was 20mm longer, and held a wider 2.50in rear rim. The exhaust was now black chrome and styling resembled the V65 Lario. A trendy 16in front wheel made cornering interesting. It was dumped in 1987 for an 18in item. That year saw the black-engined Special Edition, sold in the USA as the Le Mans V. The red and white SE had close ratio gears and 40mm 'Bi-Tubo' forks. Le Mans production ended 1991 with the arrival of the four-valve Daytona.



On the road with a Moto Guzzi L

IN ITS DAY THE 850 LE MANS WAS astonishingly quick. It still is thanks to a superbly punchy, long-legged lump that's never happier than towing a glorious wall of V-twin sound at six grand plus in top gear.

And then there's the chassis - as massively reassuring through high-speed sweepers as it is cumbersome around hairpins. But riding one slowly is simply bad form anyway.

One thing that slows the Le Mans down is the gearchange, exceeded in stickiness only by the latest BMW Boxers. But at least the Beemer boasts working rear suspension which, by most definitions, the Guzzi doesn't.

Perhaps the most telling fault the Guzzi has is

weight - over 480lb with its generous five gallon tank fully fuelled. This is a big lump to throw around. Fortunately, much of the weight is carried quite low (at 29½ inches the seat must be the lowest on any superbike), but brisk changes of direction are not a Le Mans' forte.

Ergonomically, the Le Mans is slightly strange. Footpeg-to-seat layout suits short riders, while seat-to-handlebars dimensions favour taller specimens. It was designed, in other words, for a speed loving orangutan with a back problem.

The Guzzi's two other idiosyncrasies relate to its linked brakes and its shaft final drive. The brake lever operates one front disc, the pedal does the other and the rear disc. They're still

Living with a Le Mans

Adam Smallman "One hundred miles per hour standing still is the cliché, but it's wrong. Mine indicates 14mph when it's parked," insists Adam. "And I'm about to tell the magistrates how fantastically unreliable the speedo is. That's my defence".

Adam, 38-year-old editor of *Playstation* magazine, paid £2400 for his Mk1 Le Mans last year. "I bought in Edinburgh from a bloke who was fed up with the ridiculous side stand letting

go on Edinburgh's cobbles. It's storming to ride and it hasn't let me down yet in a serious way."

Most of the non-serious ways were due to a corroded wiring loom which belied the patently untrue 17,000 miles on the clock and needed replacing. "Apart from a dodgy kill switch, the main problem is the breather area. A sump extension might be a good idea," says Adam. "My example is used but clean. It's very original apart from the seat and an unknown brand of

What the experts say about the Le Mans

Amedeo Castellani

of Raceco UK, Suffolk, considers the Le Mans "inherently reliable, although I always fit electronic ignition," he says.

"You must empty the sludge trap every 60,000 miles. Do that, use a good semi-synthetic oil and it'll last for ever. Customers bring their bikes back every 60,000 miles for a re-ringing and new big-end shells if necessary. I don't expect to see them again for another 60,000."

Among the host of goodies Raceco sells, the 950cc Gilardoni conversion, comprising Nikasil barrels with cast Aso pistons, is one of the most popular for the 850 Le Mans. Raceco have sold "a lot of these, and we've never had



one back. Ever. With an SS cam [£180] and a few other bits, this will take genuine rear wheel power from 55 to around 70bhp."

Roy Armstrong

Avon Roadrunner/Bike Production champion, 1977, now boss of Ducati specialists Italsport in Bury, Lancashire, Roy always raced with the brakes delinked, but concedes that some of his opponents were fast with the standard set-up. "The linked set-up was especially good in the wet," he recalls.

The shaft, too, could be a blessing. "You had to get used to the way the rear end rose on acceleration and 'ride round it'. But you could use this to increase ground clearance, so it was useful, too," he says.

Less helpful were the standard 35mm cartridge forks. "Useless. And as for those skinny 'bicycle pumps' inside, they were even worse."

Dealers...

Brian Wilson

Wessons Motorcycles, Brighton. Brian has no illusions about the 'Mandello tractors', but he almost looked shocked when I asked about their major weaknesses.

"They don't really have any - not like the V50.



You can write pages on their faults. On the big twins the cranks and big-ends go on forever."

Sheer ruggedness no doubt accounts for the popularity of Guzzis as truly practical classics. Yet even that is changing.

"Over the last couple of years, more people are looking for completely original Le Mans, especially the MkI. You even get people after original rubber brake hoses. Examples still with linked brake systems are desirable for originality, even though some people hate 'em."

Prices and guide to buying

Condition, authenticity and completeness govern prices. Originality is more important than mileage (within reason) because of the model's mechanical durability.

MkIs command top dollar - up to £5500 in mint condition dropping to £2000 for a ratty one. MkIIs are less sought after, and are often converted to MkI replicas. Pay £2000 - £3500.

MkIII prices are similar to the MkII.

Both 1000cc models go for between £1750 and £3000. Deduct £300 for a 16in front wheel.

Frame numbers: MkI: VE11111-VE13040.

MkII: VE13041-VE24086. MkIII: VF11111-

VF20700. Le Mans 1000: VV11111-on.

VD prefix is T3 frame, identical to the Le Mans.

Engine and frame numbers never match.

Useful contacts

Baines Racing rebuilds, unleaded conversions and tuning. 01327 858510. Fax: 01327 858250

Cobb & Jagger Shipley. Tel: 01274 591017

Corsa Italiana: spares, rebuilds and used Guzzis. 0181 239 7012. Fax: 0181 239 6987

Motomecca new spares and accessories.

01202 823454. Fax: 01202 826844. e-mail:

motomecca@dial.pipex.com

Motori di Marino used classic Guzzi specialist,

rebuilds and restorations, hard-to-get parts.

01798 813260. Fax: 01798 812810

NBS (Nigel Billingsley) Guzzi parts, stainless

pattern parts, and rebuilds. 0958 584889

Raceco tuning goodies, engine builds, lead-

free conversions, big bore kits and more. 01728

602101. Fax: 01728 602103

Spares GB (Bernie's) huge stock of genuine

Guzzi parts and aftermarket items. 0181 540

7155. Fax: 0181 288 0048

Wessons Motorcycles Guzzi used bikes and

spares emporium, and new stuff, too. 01273

621392. Fax: 01273 625145

Contact Developments Dell'Orto spares. 0118

943 180. Fax: 0118 943 1190

Loads of MKIs are converted MKIIs - just like this one on sale at Cobb and Jagger in Shipley (01274 591017). £3500 to you sir including the original cast wheels.

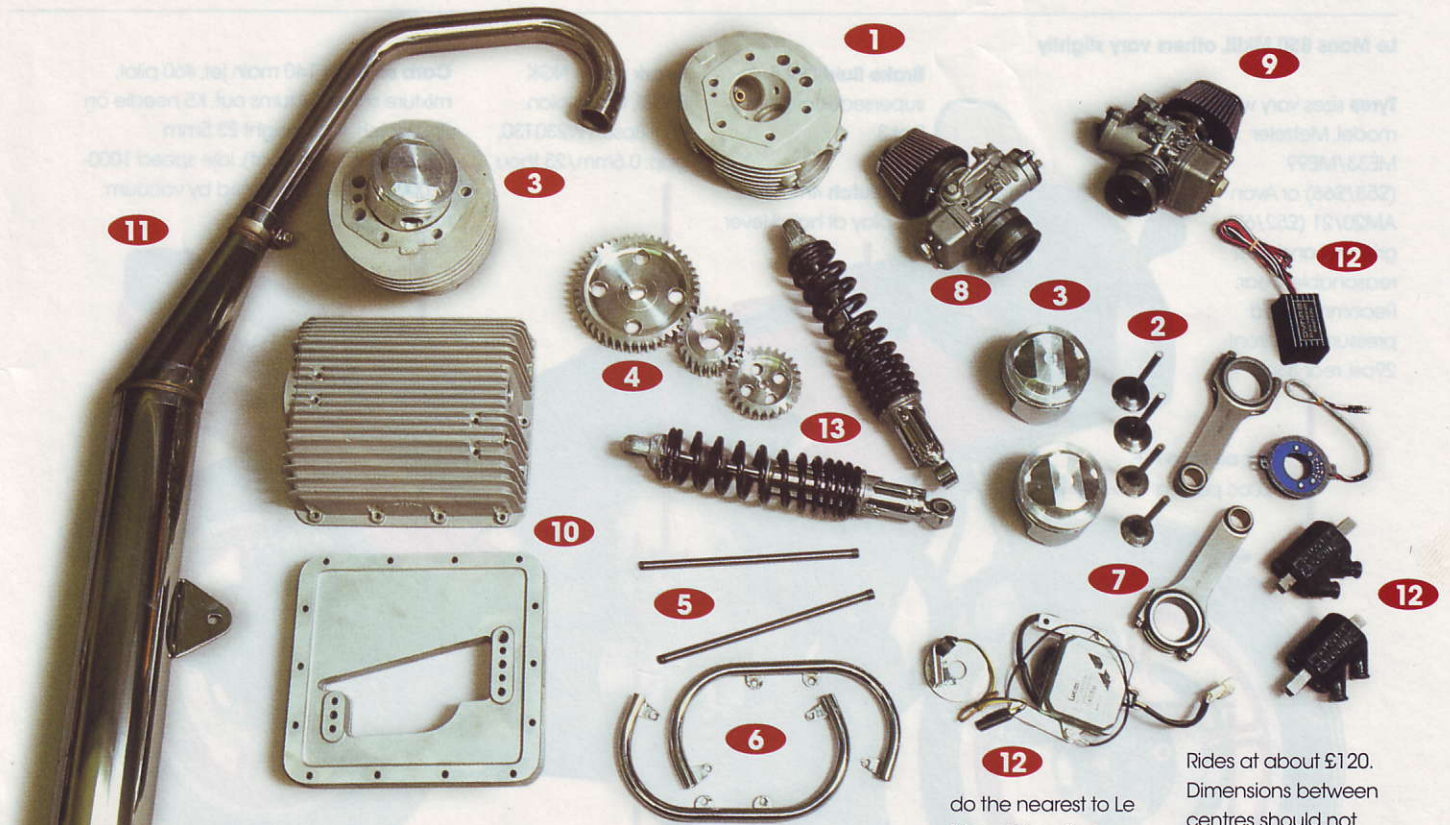
Le Mans

good and with the right choice of pads they can do anything the tyres can handle. Most riders either love them or hate them. Magazine test riders, who jump almost daily from machine to machine, tend to fall into the latter category. Long-term owners are more forgiving. It's the same with the shaft drive. Changing down four gears as you charge into racetrack hairpins has the big twin nodding at the trackside marshals with every blip of the throttle. Even riding rapidly on the road, you have to take account of the bike rising on the throttle and rolling as the revs change against the longitudinal crank. Ride within its constraints, and the Guzzi's happy. Fight it, and it might just bite back.

rearsets. I delinked the surprisingly good brakes which I now regret. A Piranha electronic ignition is the best mod I've made. I still can't get over how skinny the tyres are."



Improving a Le Mans



Cylinder head

1 A lead-free conversions' hardened exhaust seats save money on fuel and hold their profiles far longer. Shop around for the best price.

Twin-plug heads improve combustion, bottom-end performance and fuel economy (£110 from Raceco, including 10mm plugs but different coils/HT leads may also be needed). Most electronic ignitions are compatible

Valves

2 Raceco's Austenitic competition valves at £22 apiece are hard tipped, Tuffrided and cheaper than the original items.

Pistons/bore

3 A 950cc Gilardoni Nikasil kit (Raceco,

£325) costs little more than a rebores and original pistons. Other kits offer capacities up to 1162cc with stroked cranks, or even more for a Le Mans 1000. Tricker still are Wiseco forged pistons. 90mm gives 992cc for £295, plus £100 for exchange barrels.

Cam drive

4 Spares GB's automatic camchain tensioner is much better than standard at just £20.56. Better still at reducing valve and ignition timing flutter are straight-cut aluminium cam gears (Raceco, £150).

Pushrods

5 Stiffer than standard, high-grade chromoly rods (£100, Raceco) allow smaller tappet clearances, recommended for highly tuned engines. Aerospace spec alloy

rods (£70 exchange) are a cheaper alternative.

Crashbars

6 Rocker cover crashbars are cheaper than new cylinder heads, and less ungainly than full bars. £24-plus, several suppliers

Carrillo con-rods

7 These American-made rods are overkill for standard engines, but they're lighter than stock and significantly cheaper, too, at £315 pair.

Carburetors

8 40mm Dell'Orto pumpers are standard on 1000 Le Mans and unnecessary on a stock 850, but can improve breathing on highly tuned examples - £300-plus. Shop around. And you don't have to endure Guzzi's

endemically heavy throttle. Lighter slide springs are available.

Air cleaners

9 If it's unfiltered, K&N filters (around £33) will reduce bore wear and can make the carbs easier to set up

Sump extension

10 A sump extension (£79, fitted as standard from MkIII on), doesn't increase oil volume. Giving more air space it reduces crankcase pressure and allows early models to run cooler. Raceco's ventilated extensions (pictured, £98) further improve cooling on highly-tuned engines

Exhausts

11 Stainless systems (various suppliers, £350-plus) usually cost less than original, and what you lose in originality you'll gain in longevity. Wessons

do the nearest to Le Mans I/II replica systems at £410 (£436 with balance pipe). Matt black is either £5 worth of nasty paint, or 'Stayblack' high-tech military coating from Ionic Surface Treatments (0121 558 2951) at around £60.

Ignition

12 Electronic ignition (Piranha £70; Lucas Rita £89; Dyna £120) offers more dependable sparks, improved running and almost zero maintenance. 1989-on bikes have solid-state, brushless Saprisa AC generators with combined voltage control. Can be retrofitted to early bikes for £185.

Shock absorbers

13 A wide range is available, from budget R&Rs at around £60, through gas-assisted Hagon's at £86 to Koni Dial-a-

Rides at about £120. Dimensions between centres should not exceed 330mm.

Camshaft

14 Raceco SS2 cam (£125 exchange) improves top end without crippling torque. Dr John cams (£260) are more radical and come in street or race profiles.



Miscellaneous

Flywheel lightening improves throttle response and gearchange for £140 (Raceco). Tarrozi rearsets (£133, Spares GB) increase comfort as does a better seat (£127, Spares GB). Braided brake hoses (from £45) improve power but at expense of feel.

Moto Guzzi Le Mans service chart

Le Mans 850 MkIII, others vary slightly

Tyres sizes vary with model. Metzeler ME33/ME99 (£53/£66) or Avon AM20/21 (£52/£62) grip well and offer reasonable wear. Recommended pressures are front 29psi, rear 33psi



Brake fluid Dot 4 supersedes original Dot 3

Clutch 4mm free play at hand lever

Spark plugs NGK BP6ES, Champion N9Y, Bosch W230T30, gap: 0.6mm/23 thou

Carb settings 140 main jet, #60 pilot, mixture screw 1½ turns out, K5 needle on 2nd notch, float height 23.5mm (24.5mm if 14gm float), idle speed 1000-12000rpm. Best balanced by vacuum tube or gauge

Fork oil type ATF, 120cc per leg

Ignition timing 8 deg btdc retarded, 34 deg advanced

Mark I Model: Points gap 0.37 - 0.43mm (14 - 17 thou)

Brake wear limits pads 6mm, front discs n/a, rear disc 5.8mm

Engine oil 10W/50 or 20W/50, three litres. Change every 2000 miles. Change filter every 4000.

Tappets (both) 0.22mm (8.5 thou), cold. The most accessible tappets in motorcycling

Gearbox oil SAE90 or EP90 gear oil, 0.75 litre. Change every 6000 miles. Bevel box SAE90 or EP90, 230cc, plus 20cc moly disulphide additive. Change every 6000 miles

What to check

Wiring is the big problem, but neglect is just as bad. Crankcase and gearbox seals fail, Nigusil can flake-off bores, and inlet rubbers crack.

Transmission UJs cost £150, rear bevel drives wear out at very high mileages - NBS offers a reconditioning service for £100.

Clutch slip is usually plates or a leaking rear crankcase seal (the brown Viton ones are best) or notching of the clutch flywheel.

Aftermarket electronic ignitions are better than the Motoplat unit fitted to later bikes. If a stock bike isn't charging, the regulator (around £50) is usually at fault.

The fluorescent fairing stripe was worn by some MkIs and not others, apparently at random. Its absence doesn't necessarily warrant suspicion. Such is the ease of converting a MkII to a MkI there are probably more MkIs around now than were ever built.

Common superficial faults include cracked seat hinges and broken side panel lugs.

Spares prices

Almost every part is available new from Motomecca or Spares GB. Scarce items are seats, front mudguards (a MkIII guard can be cut down to look the same), switchgear (no great loss - the original stuff is bizarre), and heads (but T3 heads can be reworked to the same spec for around £600). Motori di Marino in West Sussex is a priceless source of the rarest parts.

Prices supplied by Motomecca.

Valve (inlet)	£25.51
Piston (complete)	£95.08
Silencers (pair)	£261.81
Gasket set	£35.25
Brake pads (pair)	£9.63-plus
Oil filter	£5.89
Main wiring loom (Mk II/III)	£81.26
Side panel (painted)	£46.00
Clutch cable	£8.64
Clutch friction plate	£50.76
Points set	£9.40

Clubs

Moto Guzzi Club GB Polly Foyle, Tel: 01203 730678

Italian Owners' Club R Marston, 14 Rufford Close, Barton Seagrave, Northants NN15 6RF

Publications

Reprints of factory handbooks and parts catalogues are available from most Guzzi spares suppliers.

Moto Guzzi V-Twins, Owners Workshop Manual Haynes. ISBN 0-85696-339-9

Moto Guzzi, (The Bible) Mario Colombo Vimodrome, Milan. ISBN 88-7911-039-X

Moto Guzzi Twins — Restoration Mick Walker. Osprey Books. ISBN 1-85532-679-5 (due out September 1999)

Moto Guzzi V-Twins, The Complete Story Mick Walker. Crowood Press. ISBN 1-86126-180-2

The Moto Guzzi Story Ian Falloon. Haynes. ISBN 1-85960-414-5 (due out June 1999)