

## News

### This Issue

Well, this edition is later than it should have been, but only by a couple of days ... you might not have noticed if we hadn't mentioned it! If you correctly interpreted all the clues in the last issue, you'll find all the articles you were expecting.

### **Next Issue**

The next edition should be ready by the Coprolite Run on 17<sup>th</sup> September.

Although we've written all the articles in recent editions, we are open to contributions to the magazine. We try to be as flexible as we can over deadlines abd 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@ukfsn.org.

# Copyright

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# Information Library

Researching the articles has led to new stuff on Derbi, Suzuki, Považské strojárne, &ZVL being added to the library. Adittional 'random' items cover diverse subject: the AA, Ambassador, Cyc-Auto, James, Monet–Goyon, Phillips, Raleigh, Royal Enfield, & Zündapp. Much of this is available free of charge on our website.

## Calendar

Every Tues EACC and FMCC evening meeting at the *Falcon*, Walton, Felixstowe.

9<sup>th</sup> July EACC 20th Peninsularis Run from Suffolk Aviation Heritage Museum 01473-716817.
 16<sup>th</sup> July Sammy Miller Museum Scooter & Moped Owners Ride In. No booking is required.

2<sup>nd</sup> August Wednesday 'Wheels Meet' at Horham Community Centre from 5:30pm. Tea & coffee available; bar.

10<sup>th</sup> August EACC SEME Marsh Owlers Run. 11.00am, Dungeness Old Lighthouse/RHDR station. 07771-705627

12<sup>th</sup> August Worlingworth Charity Bike Show at the Community Centre, IP13 7HX. 12 noon–6pm. Music, bar, tea, &c.

13<sup>th</sup> August EACC Wiltshire Whizzers: Peterborough Arms, SN15 4HD 10:00am start. Steve on 07891-251118.

3<sup>rd</sup> September EACC stand at the 31st East Anglian Copdock Bike Show. Trinity Park, Ipswich.

5<sup>th</sup> September EACC SEME Pevensey Levels Run from Horsebridge BN27 4DJ. 11:00am start. 07771-705627

10<sup>th</sup> to 13<sup>th</sup> Sep Three Moors Run, 500 miles, on roads, suited to small capacity machinery. 07739-178988 or 01278-652439.

17<sup>th</sup> September EACC 20th Coprolite Run from Suffolk Aviation Heritage Museum 01473-716817.

26<sup>th</sup> September EACC SEME Mole Valley Run from Haroldslea Drive, Horley, RH6 9DT. 07771-705627.

## Free Trade

Adverts in the Iceni CAM Magazine are free! And that includes ones with a photo or logo. Send your ads to 144 The Street, Rushmere St Andrew, IPSWICH, IP5 1DH or e-mail icenicam@ukfsn.org

### **NSU QUICKLY SPARES**



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www.nsuguicklyspares.co.uk/contactus.html



Circa 20" 1950s' French Ladies cycle frame. Sold as seen. No other bits available. Someone has painted the chrome bits silver. I was going to make this into a single speed bike for my daughter.

£30 collected, but open to any offers.

Please message Sara Bolton on 07951-911007.

Suffolk.

Wanted in Any Condition

# British Motorcycle Chronometric Speedos

Working or not, one or a job lot... it doesn't matter

SMITHS Chronometric Speedos & Rev Counters WANTED

PARTS WANTED



Darren Buckley Call : 07775 998628

email: motorcyclebuyer7788@outlook.com



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,  $7\frac{1}{2}$ " long × 2" diameter ×  $5\frac{1}{2}$  coils × 6mm diameter wire, £8 pair. Trials type upholstered pad seats, 15" long × 10" wide £40. 'Triangular Pad' black vinyl upholstered saddle, 1ft long × 9" wide, with firm 2" high-density foam, solid mounting with %" stem clamp, black sides with red top and white piping £50. 'Extra-comfort' vinyl upholstered  $2\frac{1}{2}$ "deep foam single-saddle with sprung mounting and %" 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 singles-seats in black with 78" stem mounting: 'Std' 101/2" 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 × 81/2" wide × 3" deep £35. New- Profile Standard black unsprung eurathane foam moulded saddle  $10^{1}$ /4" long ×  $8^{1}$ /4" wide ×  $2^{1}$ /2" deep with %" stem mounting £12. New: Raleigh Comfy Classic black saddle with gel & foam pad & compression springing 10<sup>1</sup>/<sub>4</sub>" long × 8<sup>3</sup>/<sub>4</sub>" wide with %" stem mounting £20. New: 'Reptile' Comfort black foam pad saddle with compression springing 93/4" long × 8½"wide + ½" stem mounting £16. **New:** 'Smoothy' economy black cycle saddle with firm foam pad & compression springing 8½" wide × 9¾" long with %" stem mounting £14. New: Wisp saddle cover (black) £15.

Saddle Stems: New: chrome plated saddle stems 1" diameter main stem with %" diameter stem top for saddle clamp fitting  $\times$  12" total length - £6 (can easily be cut down if shorter length required)

Saddlebags: Genuine leather, old-style toolbags suitable for fitting to cyclemotor, autocycle, moped, and cycle saddles. Fixing by ½" wide leather straps, with plated buckles. Typically hold spark plug spanner, spare plugs, pliers, small screwdriver, cycle spanner etc.

Dimensions outside (approx). Cycletool Standard 7"×  $1\frac{1}{2}$ "×4"@ 4"strap ctrs. £30 each.

Cycletool Standard 7"× 1½"×4"@ 4"strap ctrs. £30 each. Autocycle tool Wide/Standard 10"×1.½"×4"@ 5"strap ctrs. £45 (with 2 clips).

### **Triangle Bags**

Large Cyclemotor 8.½"×7"×2" £40 each.
Large Cycle (narrow) 8½"×7"×1½" £40 each.
Small Cycle (narrow) 7"×5½"×1½" £30 each.
Large sizes accommodate all plug spanner styles, narrow widths clear 3-speed gear cable.

**Mercury Frame Bag:** Genuine leather frame bag to fit Mercury Mercette 7<sup>1</sup>/<sub>2</sub>"×3<sup>1</sup>/<sub>2</sub>"×3" £40 each. Small internal capacity for basic maintenance tools only. Press stud fixing, buckle fixing option also available.

All bag types available in black, dark brown or 'Antique' – please specify colour when ordering.

Oxford double pannier sets: Large/semi-rigid panniers 34×30×12cm in Green £30 pair. Top flap with double clip & 2 side pockets + reflective strips.

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

E-mail: mark.daniels975@btinternet.com Website: www.mopedland.co.uk



length. Spare connecting links for 3/16 & 1/8 chains £1. Pedal chain 1/2×1/8×std 112-pins c/w springlink. Ventura Economy £5. Spare springclips pack 12 £1. Link splitters std £14 / H-duty £16 / light cycle £4. Imperial 3/8"cotter pins £2 pair. Continental 9mm cotter pins £2 pair. ISO 13% Freewheels 16T £6, 18T £9, 20T £12, 22T £14, 23T £15, 24T £16. Miniature 14T 1"×20tpi £10. New: Imperial 7/16"×26tpi cycle thread 'plain'fixed cones £7 / 'adjustable' cones £8. Sachs clutch plates, cork insert or bonded types £8 each. Cyclemaster clutch chainwheels with new cork insert set. service-ex £30. Excelsior chainwheels with new cork insert, service-ex £40. Also Villiers Junior/JDL/F-series re-corked chainwheel and clutch plate sets service-ex £30 each. Peugeot102/103 clutch discs £8. Lots more clutch plates for other makes too-see website. Italian block type & Roadster (reflector) pattern pedals £7 pair. 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 band fork rubber buffers £4 each. Ariel-3 front suspension 2-buffer kit £25. NVT Easy Rider fork seals £10 pair. Moby fork gaiters £12 pair. New: Mobylette mudguard stay chrome eyebolt sets 10mm/16mm/22mm £5 each. Moped 4" long black handlegrips, 'Classic' style £4 pair. Autocycle 5" long×%" pair soft rubber 'palm' grips £4 pair. Cycle/Cyclemotor 41/2" long×7/8" pair soft rubber 'palm' grips £4 pair. Ariel-3 toothed drive belts £7.50p. Wide range of most moped drive belts from £6. 19×1.2 Italcerchio Westwood & Endrick pattern 36-H chrome rims £50 each. 19×1.2 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). 26×2×13/4 36-H chrome rims for early autocycle and trade bike £25 each. Special 32-H & 40-H pierce 26×2×13/4 new chrome rims £40 each (Norman Cyclemate, etc). 26×2×13/4×36-H special dimpled&pierced chrome rims for Cyclemaster £60 each. 17×2.25 Takasago Westrick pattern 1.2×36-H Moby M40 chrome rims £24 each. 17×2.50 Takasago Westrick pattern 1.4×36-H Moby 50V/NVT/Honda C50 chrome rims £28 each. Tyres: 26×1.3/8 Vee Roadster pattern 2T&2T £21.

26×2 Continental (Ouickly, RM1, etc.) Sold out, tubes £4. 20"×2×1% trade bike small front £6. 2.50×21 Golden-Boy universal pattern block tread to fit 2F autocycles, etc £50/tubes £7.50. 19×2 Continental blackwall £45. Whitewall £35 / tubes £6. 19×2 Mitas 'Economy' blackwall £25. 19×2.25 Heidenau blackwall £60. 19×2.25 Continental blackwall £40, Whitewall £40. 18×2.25 Mitas (Moby AV89/Raleigh RM5) blackwall £30. Whitewall £45/tubes £6. 17"×2 & 17"×2.25 Vee £15/tubes £5, 17"×2.25 Mitas Sport blackwall £30/whitewall £40. 16×2.25 Vee(Batavus GoGo, Tomos, etc) £15 / tubes £6. 2.50×15/20×2.50 Golden-Boy (BSA Dandy, Ariel Pixie) universal pattern block tread £40. 14×2.25 Vee (Honda Express, Yam QT, etc.) £15 / tubes £6. 8×3.00 Vee (Honda Stream) £18. Fibreglass moulded panels Raleigh RM1/RM2 sidepanels £24 each. RM4 sidepanels LH & RH £22 each, RM4 toolboxes LH & RH £18each. MobyAV89/Raleigh RM5 sidepanels £22 each. Runabout sidepanels LH&RH £18 each. Old Moby sidepanel 3-set £44, Cady M1/M3 sidepanels LH & RH £18 each. Moby M40 sidepanels LH & RH £20 each. Moby AV42/48 sidepanels LH & RH £18 each. Moby AV76/78 sidepanels LH & RH £22 each. Nippy Mk1/2 engine covers LH £22 & RH £20. Cyclemaster 26 & 32cc (Amal & BEC) carb covers £17 each. Batavus 50mm & Ariel-3 52mm Encarwi air filter housings £16. Raleigh RM9/+1 chainguard £25. Villiers 1F/2F front sprocket cover alloy casting £15. Rubber rim tapes all sizes 14" to 26" £1each, 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 £8 each, top mounts AV48/RM9 £15 each, small bottom mount £6. Selection new Moby pedal shafts £8 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 £18pr 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. Further extended range of kit components to make up your own cables (see website). Petrol pipe clear 5mm light 90p/ft, 5mm HD £1/ft. 6mm HD £1/ft. black neoprene pipe 4mm/5mm/5.5mm black neo £1.20p/ft. RH10×1mm 180° fuel tap £14. RH10×1mm LH 90° fuel tap Mobylette M40/50V/51V) £16. Puch Maxi type 90° fuel tap 12×1mm pitch LH/RH thread £12. Ewarts pattern brass plunger taps 1/8 Gas to tank, 1/4 Gas to tank. Petrol tap corks, barrel & blade types 50p each. New: Chrome fuel cap for Raleigh RM4/Runabout/Wisp/RM11/RM12/Norman Nippy £15. New: 40mm push-in fuel cap light grev £7.50. 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: 21mm Ø Continental handlebar stem 61/2"L £12 / 7/8"Ø Imperial handlebar stem 7"L £8. Handlebars 'North Road' & 'All-Rounder' patterns £10. Chrome blade-end decomp lever £15. Chrome ball-end decomp lever £13. Clutchlock/decomp/choke triggers in

red/cream plastic £3. Removable cable ties, pack 25 for 50p. CBA moned chrome silencers in 30mm & 28mm for Kerry Capitano £75. 28mm round-60mm moped silencer £40. Moby M40 (oval silencer) chrome exhaust pipes £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 30/33/35 o/d £1 each. Honda PC50 complete new chrome exhaust system with heat shield £42. Honda PC50 brake shoes £8 pair. PC50 front susp bush kits £16 set-8. 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 sidepanel/toolbox cover screw £5. PC50 28T rear sprockets £30. PC50. Express & Camino speedo cables £10. Tomos speedo cables £10. Huret speedo cables 55cm £15, 65cm £16, 85cm £18, 85cm with removable end for leading-link fork early AV89/RM5 £20. VDO speedo cables, range of lengths. 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 £3 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 Tel. 01473-716817 (Ipswich),

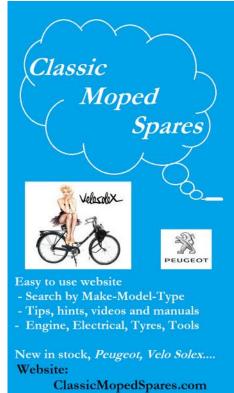
E-mail: mark.daniels975@btinternet.com

For Sale: an old collection of metal mudguards & stays—£20. 07733-993917 (Hull)



1966 Kerry Capitano 49cc Automatic moped. Restored to good working order though probably not 'concours'. Rear wheel replaced. New rear light and headlight. Seat rebuilt and re-covered. Forks, hubs, and handlebars originally chromed now finished in silver paint. Engine in good heart, starts well using handlebar lever to temporarily engage automatic clutch. Once started it runs well as a truly 'twist and go' machine. Reckoned by Club expert to be only the third example of the Automatic known in UK, so quite a rare item! I have a trailer so could deliver a reasonable distance by negotiation. Offers over £1,500.

Richard Rowsell, Wickford, Essex. Mob: 07951-702293.



Tel: 07810870077

Email: classicmopedspares@hotmail.co.uk



50cc (not 38cc) Mosquito Friction Drive Autocycle in lovely proper frame. Fuel cap under the seat and fuel in frame. Cosmetically challenged. Age related reg. Road registered. Was running nicely a few years back. No clutch: decompressor to halt (by design) but suprisingly easy to ride. Will need recommissioning/setting up/a new chain. Number plate and nice period rack and mini metal panniers to fit. Quite rare as 50cc enclosed flywheel version. No clutch (use the decompressor). V5c. SORN. £650 please, but open to any offers. Please message Sara Bolton on 07951-911007. Suffolk





1970 Honda PC50. Sympahetically restored a number of years ago with little use since. Has had few owners and mine since 2008. Many old MoTs and evidence of expenditure over the years to keep in top condition. Included Haynes and original owners manual. Not really getting used so therefore reluctantly have decided to pass her onto a new custodian. £1.195.

Contact Jon 07531-467818, Cottingham, East Yorks E-mail: iillbell 1962@hotmail.co.uk



Ignition: 6V High-energy HT coil 32mm mounting for Mobylette etc £25. Villiers 50mm body HT coil for 1F/2F £25. 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 & RH £20. New: 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. Bosch pattern capacitor 18mm (screw contact) £7. Bosch 18mm solder contact £8. New: CEV pattern capacitor £9. New: Dansi pattern capacitor £8. Honda C50, C70; Mobylette; Raleigh capacitor £7. C90 capacitor £6. Miller FW17 capacitor £7. Excelsior Wipac 15/72 & Miller W7/BS9 capacitor £8. New: Villiers pattern flat package capacitor £9. Suzuki FZ50/TS50/GP100etc D77 contact set £8.50, capacitor £6, 6V regulator/diode/rectifier £5. Champion 'copper-core' short-reach moped spark plugs L82C & L86C £2.50p. NST 18mm Spark plug for Villiers Junior De Luxe engine £5. 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. 2-way switch beam/dip £7. Brakelight switch £8. Wipac pattern Tricon switch c/w wired lead beam/dip/horn/cutout £15. New: miniature pull on/push off lighting switch £3. Toggle switch off/on £3. Lucas pattern U39 switches long&short knob types £15. **Headlamps:** Chromax steel 5"case/4"lens £25. Genuine

original Puch Niox headlamp £20. CEV pattern moped black

headlamp switched £26. Chrome wire stoneguard for Niox/CEV/EB headlamps £7.50p. Headlamp peak chrome 4"

to 5" round £8. Headlamp clips pack of 5 for £2. Taillamps: 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. Luxor pattern-75 chrome case £7. Ariel-3 etc CEV5464 rear lamp unit £20. Wipac S446 pattern single-contact rear lamp: Sold out. 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. 6V×10W DC rated black steel horns £5. Shrinkwrap sleeving box 127pcs in 7 sizes £9.

E-mail: mark.daniels975@btinternet.com Tel. 01473-716817 (lpswich)

Website: www.mopedland.co.uk



# **Workshop Services**

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Tel: 07903 342296 Facebook: Cooks-Workshop-109942727369235

For Sale: Pair of stainless steel wheels, 26×1¾, plus 2 brand new tyres, one new tube, hub dynamo, good condition —£90. 07733-993917 (Hull)



We are a small company selling new and used or reconditioned moped spares with an emphasis on the BSA BEAVER, BSA BRIGAND, BSA BOXER, BSA GT50, BSA EASYRIDER and NVT EASYRIDER machines produced in England between 1976 and 1984. We also endeavour to supply spares for the BSA BOND and BSA FALCON machines made under licence in India. BSA GT50 and Boxer Tank Decals - £15.00 a pair; BSA Boxer Side Panel Decals £10.00 a pair both in vinyl; Postage £2.85 in the UK. Mopedbug Limited, Unit 14, Hardys Road, Cleethorpes, Lincolnshire. Telephone UK 01472 233296 Mopedbug@hotmail.co.uk

## **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: www.Spaven-Engineering.co.uk

E-mail: Fred@Spaven-Engineering.co.uk



**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.

Visit website www.mopedland.co.uk for up-to-date viewing.

24 × 1.75" (1<sup>3</sup>/<sub>4</sub>") new tyres to fit Bianchi Aquilotto 4 only. £25 each. Contact: howard@venning.co.uk



Suppliers of Yamaha FS1E, Puch Maxi, Vespa Ciao/Bravo, and Tomos Spares
Large stock of standard & performance parts. Visit our Website at www.ypvspares.com or e-mail ypvspares@btinternet.com or phone 07778 450415 with your requirements.





# Over 150 models from 1948 to 1992

Open Monday to Friday 9am to 5.30pm and Saturday 9am to 4pm ...we look forward to your visit. Unit 14, Masterlord Industrial Estate, Station Road, Leiston, Suffolk, IP16 4JD



#### Rollerdrive – Machined New Cyclemotor Drive Rollers and Special Extractors

Itom extractor for original composite roller M24×1.5—£15. Itom Tourist all steel drive roller—£65.

Lohmann hard rubber drive rollers—£25.

Bosch 100mm mag flywheel puller NVT etc.M22×1.5—£18. Bosch 115mm mag flywheel puller for both alloy & steel types M26×1.5—£15.

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.

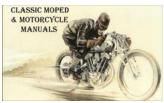
Mobylette/Raleigh clutch drum extractor M24×1—£12. Mobylette/Raleigh points cam extractor M26×1—£15. Mobylette/Raleigh metalastic engine mounting bush extraction/re-fitting tool – SOLD OUT making new stock Moto-Guzzi Stornello 125 flywheel extractor M22×1—£18. Peugeot all models mag flywheel puller M20×1—£15. Raleigh RM1/RM2 Lucas mag flywheel puller M22×1.5—£18. Sachs clutch centre extractor M27×1.25—£15. Simson SR2 Optima & S51 mag puller M27×1.25—£15. Villiers 3K mag flywheel puller 7/8×14-tpi UNF—£15. Scott Cyc-auto Wipac S1233 mag flywheel puller—£20. Wipac Bantamag & Series 90 (un-ported 2BA/3BA) 3-hole mag flywheel puller—£20.

Wipac Series 90 & Miller BS9 (ported 2BA) 4-hole mag flywheel puller—£20

Wipac Series 90 (ported 2BA) 4-hole mag puller—£15 Tel. 01473-659607

E-mail: mark.daniels975@btinternet.com Website: www.mopedland.co.uk

For Sale: Mini-Motor, for spares or repairs—£50. 07733-993917 (Hull)



Quality reproductions that look like the original, at a fraction of the price and without the finger-marks! Here is a selection of our small capacity machine manuals. All prices include UK postage and packing.

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#### BSA BOXER / GT50 Classic Bike

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Send me a message with any questions, no time wasters please—serious enquiries only.

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Late '70s/Early '80s Holdsworth Specialized Racer. Frame size approx 22.5". One down from the top of the range frame-set. Campagnolo spec large flange Record hubs. GS Chainset and brakes. Campagnolo front & rear mech and shifters. Mavic rims and Sakae Japanese 250 pedals. Nice 700–28C tyres. Set up for touring but will provide Campagnolo original handlebar levers if you want to convert to original. It's very nice to ride and worth the asking price of £400 in bits alone, but open to any offers. Please message Sara Bolton on 07951-911007. Suffolk.



**1956 Phillips Gadabout P39.** Rex engine, 2-speed gears. Cylinder re-bored with new piston, new main bearing and crankshaft seals. Good Bosch magdynamo, good spark, new switches and lights work. New tyre and tube. Saddle needs recovering. New V5c just issued. £795.

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Rex piston sets: Kolbenschmidt, Mahle, Vertex, range of oversizes for 1-speed, 2-speed, & 3-speed Rex. Rings, clutch parts and plates for all models, front sprockets, cables. Range of parts for most models - Gadabout, 2sp/3sp individual cylinder head gaskets £3 and base gaskets £2. 2-speed & 3-speed full range of front sprockets. Some engine parts: Rex 1-speed, 2-speed & 3-speed. Some cables for all Panda & Gadabout models. New 50mm air filters £9, for 12 & 14mm Bing carburetter Panda/Motorised Cycle.

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Complete boxed set of top quality Campagnolo Chorus cycle pedals with plates, toe clips, etc, as seen in photos. I don't think these have ever been fitted. Would look great on top quality 80s'/90s' EROICA restored bike. They are not cheap at £160, but open to any offers. Please message Sara Bolton on 07951-911007.



A comprehensive set of parts to build your own Cucciolo autocycle. A COMPLETE REBUILT (by Mark Daniels) engine. Includes bottom bracket mount, carb, and clutch & gear change mechanism. It also comes with a new remanufactured external starting ring and extended crank and a gear change lever. Webb forks complete with brake actuators. Suitable tank also, if needed. Trying to find these parts separately is very difficult! Save yourself the trouble! £1,600 altogether, but open to any offers. Please message Sara Bolton on 07951-911007. Suffolk.



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Pashley Picador Adult Tricycle. Small wheel. Twin brakes. 3-speed hub gears and twin front brakes. Leather sprung saddle. Good overall condition. A little surface rust. Working condition. Come and take a look. Pick up only. £140, but open to any offers. Please message Sara Bolton on 07951-911007. Suffolk.



**1985 Puch Maxi SKA Executive**, mine since 2012, used every year since. New rings, bearings, & seals; MoT to 29-09-2023. £680. Comes with many useable parts. Geoff Daw: 01787-378484



For Sale: 1982 Honda Melody De Luxe, rare bike, rare colour, excellent condition, MoT although now not required, V5c, Haynes manual. Owners handbook in original wallet, spares, advertising literature, original Honda wire basket, top box. Not used by me so it will probably need a new battery. £1,350. 07491-884288 (Essex)



For Sale: Spare parts for Cymota clip-on engine. 2 mags, carburettor, engine plates, barrel, plus damaged engine block
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Sponsored by Robert Csernak, USA: thanks for the donation.

Our story starts on 23<sup>rd</sup> January 1878, with the birth of František Janeček at Klaster nad Dedinou, one of the smallest villages in East Bohemia. He grew up with engineering interests and studied mechanical engineering at the State Technical School in Prague, progressing through Berlin's Technical University, then taking up employment with the Schuckert Electrical Engineering Co.

He soon returned to Prague for a new job at Kolben, one of the largest electro-technical manufacturers in Bohemia. In 1901, František was appointed to manage a newly constructed plant in the Netherlands where he also furthered his studies at the Delft Technical University and came up with the idea of a new method of current supply for tramways, which was purchased by the English for £2,000. In 1905 František was recalled to Prague for promotion to manager of Kolben mechanical workshops.

In 1907, František travelled abroad of his own accord to gather experience of German and English companies, returning again to Prague in 1908 to start his own mechanical engineering laboratory and workshop business using capital from the sale of two arc lamp device patents, which were bought by two German establishments for the sum of 70,000 Marks. The lab and workshop with 13 employees was Janeček's way to realise many of his ideas, which he offered to various companies.

As World War I fell like a dark cloud across Europe, Janeček served a short active service on the Italian front, then returned to his drawing board and, within a short time, had registered sixty patent applications, including several military-related devices. The best was a hand grenade with safe detonator and, after the war, he started his own grenade manufacture at Zizkov in Prague, then in 1920 established a further production facility of precision instruments and tools at the town of Mnichovo Hradiste, 60km north of Prague.

In 1922 Janeček bought a decrepit former Sachs shoemaking workshop at Prague-Nusle, called 'Green Fox' after its origin as a historic roadside inn and, by the following year, the site was rebuilt as a new Zbrojovka Ing. F. Janeček (munition factory) to transfer manufacturing from Mnichovo Hradiste, with the project being funded by orders from the Czechoslovakian Ministry of National Defence for the restoration of Schwarzlose machine guns from the former Austro-Hungarian Empire.

Further armaments orders resulted in an extension to the plant, specialised and updated equipment, and employment of professional personnel. Despite the investments, Janeček grenade production came to an end in 1926 as demand for some armaments began to wane as peace was again settling across Europe. The Schwarzlose machine gun design became obsolete when the Československá Zbrojovka (munition factory) at Brno came up with a new ZB26 machine gun model in 1928. By this time Janeček was considering other products to substitute for the shrinking market for his munitions. While considering the manufacture of

various products from typewriters to sewing machines, his final decision fell in favour of motor cycles.

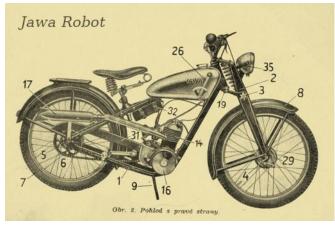
While Janeček was contemplating what to do next, there were 21 motor cycle manufacturers active in Czechoslovakia at the time, among the leading brands being Cechie, Itar, Terrot, Orion, with Premier and Praga heading the list, though production was generally just small batch manufacture. Even Praga as the largest, built only several hundred units each year. Czechoslovak makes represented an insignificant minority of the home market, since motor cycle sales were primarily dominated by foreign-made brands. While there was patriotic interest in national products, domestic finance for large-scale production was lacking—but Janeček had funds at his disposal—his decision was not to develop a machine of his own, but to start licensed production of an established machine, as he purchased a licence to produce the Wanderer 500 OHV motor cycle.

Wanderer was an established German make from Chemnitz that had been manufacturing motor cycles since 1902, but while Wanderer had built its name on quality and advanced design, its crown had become usurped by BMW. The latest Wanderer 500cc motor cycle was a new and imaginative design by Alexander von Novikoff, and only first built in 1927, with a triangular pressed steel fabricated frame and shaft drive.

Because Wanderer had produced the bike in a hurry, and not adequately tested it, it proved unreliable and suffered many teething troubles requiring extensive rectification, and the many guarantee repairs had already caused a financial loss. Wanderer not only licensed Janeček's production of the bike, but also gave him all their unfinished parts and the complete suite of manufacturing tooling—so it may be no surprise that while Zbrojovka Ing. F. Janeček was preparing its new licensed motor cycle for market in 1929, Wanderer Chemnitz was in the process of dumping the project and winding up its own motor cycle production.

A trademarked brand name was needed for the new motor cycle, and they came up with the idea of connecting the two first letters in the names Janeček and Wanderer, to result in a simple and memorable easy word to pronounce, and created an attractive trademark. Further, since W was a non-existent letter in the Czech language, it added a degree of foreign intrigue to the name for domestic sales.





Zbrojovka Ing. F. Janeček registered the new Jawa trademark at 10.30am on 17<sup>th</sup> August 1929, at the Patent Office under number 37-525/Prague, before the bike made its autumn debut at the Prague Motor and Motor Cycle Show, which opened on October 23, 1929.

The first Jawa differed from the original Wanderer in several details, the most

obvious being its large drop-shaped tank. It was priced at 14,890 crowns—but it soon became obvious that an expensive 500cc motor cycle may not have been the best starting choice; furthermore, the front fork frequently fractured, which resulted in a pressed-steel fork redesign for the second series model in 1930, listed at the reduced price of 14,000 crowns. The third series in 1931 introduced a new fishtail silencer style, optional four-speed gearbox, and oval Jawa emblem on the fuel tank, while the price was further dropped to 12,000 crowns.

In 1931, profit from armaments sales was double that of the motor cycle sales, though this was also happening through the middle of the Great Depression, which effectively started on Black Thursday October 24<sup>th</sup> 1929 when American stock market crashed 11% at the opening bell (the very day after Jawa's new 500 motor cycle was launched in Prague). While only 1,016 motorcycle units were reportedly manufactured up to 1931, it's not so bad considering the times, however Janeček's dreams of motor cycle mass production had to be postponed.

Janeček was not the only Czech armaments manufacturer that had started looking toward alternative products following the downturn in weapons sales after World War I, and in 1929 Československá Zbrojovka a spol at Brno acquired a cycle parts manufacturing plant in Kralupy nad Vltavou, from which it expanded bicycle exports into several European countries, Asia, Africa, and South America. This was followed by motorised cycles in 1932, and finally motor cycles built at its Strakonice plant in 1935.

With the world still gripped in the clutch of the Great Depression, Janeček realised the times would be more suited to utility motor cycles, so Jawa purchased Villiers 175cc engines, starting to build them into its own frames in 1932, and also using Villiers gearboxes, carburettors, chains, wheel hubs, brakes, magnetos and headlamps. Presented at the Prague Spring Motor and Motor Cycle Show, the 'one-seventy-five' was advertised as the 'Better machine for less money', and at a price of 4,650 crowns was a third cheaper than its competitors. It was the right bike at the right time, and this time, Jawa hit the jackpot! In just its first year over 3,000 Villiers 175s were manufactured, almost three times as many as the number of 500s produced over three years!

By the mid-1930s, Jawa already dominated its home market for motor cycles, but ČZ was unrivalled in the popular under-100cc category, with its 73cc and 98cc models.

In Czechoslovakia, autocycles could be ridden from the age of 14, requiring no driving licence, no registration, no road tax, or third party insurance, so almost the same as a bicycle! It's easy to see why they were so popular.

Jawa subsequently presented its new '100' at the 1937 Prague Sample Fair, where the factory publicity department staged a competition for visitors to propose a name for the autocycle. Within three weeks visitors had written over 15,000 suggestions on lottery tickets for the 2,500 crowns prize, and 'Robot' was chosen, as proposed by 68 competitors.

As its first small capacity production, the Robot was a particularly significant machine for Jawa. Powered by a single-cylinder, air-cooled two-stroke engine of 47mm bore × 57mm stroke for 98.8cc, rated 2.6bhp@3,750rpm at 5.7:1 compression. The three-speed gearbox was in unit with the engine, with lever shift by a gate on the tank. The engine could be started by pedals from standing, or by pushing, and an in-built freewheel in the gearbox allowed the rear wheel to be driven by the engine or pedals.

The frame and front forks were assembled from lightweight pressed steel sections, and wheels shod with  $2.25 \times 19$  tyres. Robot was a lightweight, weighing just 49kg (7st 10lb) for a given maximum speed of 65km/h (40mph), and completely made by Jawa, except for the Gratzin carburettor. Jawa effectively produced 12,000 Robots up to the close of motor cycle production in 1940.

Pre-war, Jawa's range had extended to 175 & 250cc two-strokes, 350 side-valve & OHV motor cycles, 700cc 2-stroke-twin cars in 1934, and 615cc 2-stroke Minor-I cars from November 1937; it also gained a number of trials, sprint, and racing results in competition.

On 15<sup>th</sup> March 1939, Nazi Germany invaded Czechoslovakia, changing everything. By April, the factory was directed to take up transferred military production of some parts for the aircraft industry, bomb carriers and small stationary engines for generator sets.

Production of motor cycles was stopped in 1940.

On June 4<sup>th</sup> 1941, František Janeček's famous last words were reportedly, 'Carry on, I'm leaving...' and shortly after 8am, he died of lung cancer. Following his death, the firm became a family joint stock company, as provided by Janeček in his will, drawn up in April 1940.

Following World War II, production of pre-war models immediately resumed, built from huge stocks of parts that had been squirrelled away from the Germans, and work started towards the production of other models which had been secretly prototyped during the war, developed and even tested under the noses of the occupying forces by painting them in Khaki military camouflage, with fake military number plates, and BMW badges—the brazen cheek of it!

While Jawa resumed with motor cycles and cars after World War II, Czechoslovakia reestablished as an independent country again, but on 27<sup>th</sup> October 1945, the entire Brno Armoury was declared nationalized. On 7<sup>th</sup> March 1946 a separate company, Považské Strojárne np, was established in Považská Bystrica, and all ties to Brno Zbrojovka were disrupted. During this period, the company turned to the manufacture of various unlikely products, including furniture, and was looking for new applications for its machinery in peacetime. Also in 1946, a government contract orders came to an end, stopping the production of the Jawa Robot and ČZ 98 lightweight motor cycles in the Prague and ČZ Strakonice factories.

This was seen as an opportunity for the now independent factory in Považská Bystrica, and in a short time the Bystrica design team had created a small motor cycle they called Manet M90, its name being derived from the nearby Manín mountain, which was within sight of the Považská Bystrica factory. The new Manet motor cycles were introduced to the public at the 28<sup>th</sup> International Automobile Exhibition in Prague in October 1947 and went into mass production by the end of 1947. Jawa and ČZ motor cycles now had Manet as a new competitor.

Following a coup in 1948, Czechoslovakia became a totalitarian one-party socialist state under a communist administration, the country was now part of the Soviet-led Eastern Block, and all manufacturing fell under the control of Czechoslovakian nationalised industry.

Manet motor cycles were constructed at Považská Bystrica up to 1951, when assembly was discontinued due to the Korean War favouring a return to ammunition manufacture and production of vz52 rifles.

A government directive on 9<sup>th</sup> May 1953 charged Jawa Prague's chief designer Josef Jozíf and engineer Jan Křivka with the development of a utilitarian pedal-assisted motor cycle of less than 100cc, to be a simple and economic transport that would not require a licence, and would be suitable for use by a wide range of general workers. After the end of the Korean War on 27<sup>th</sup> July 1953, three workers from Považská Bystrica helped with the development work and preparation of production documentation and, by 1954, the first prototypes were moved to Považské Strojárne.

There was, however, an amendment to the regulations before its introduction, which meant that the machines no longer required pedals, but were regulated by engine capacity, power output and maximum speed instead. The engineers responded in time to create a revised version that returned the Považská Bystrica factory to motor cycle production in July 1955, though it was no longer a machine of its own design or Manet branding. The new model was the Jawa 550 Pionýr, with a kick-start, air-cooled, two-stroke, single cylinder engine of 49.9cc, three-speed gearbox, and step-through pressed-steel frame. This soon acquired the nickname of Pařez (stump) because of the shape of the frame's seat section. Manufacture ended in mid-1958 after over 106,000 had been produced.

Other prototype motor cycles were being jointly worked on in parallel developments at Jawa Prague and Považská Bystrica and, although presented as the new 50cc model Jawa 555 at

exhibitions and in the professional press, the machine actually went into production in Slovakia, and took over as an updated version of the discontinued Jawa 550 Pionýr. Jawa 555 manufacturing began in July 1958 and by the end of production in 1962, a total of over 327,000 units had been produced, though Považská Bystrica was charged a small licence fee for the privilege of building each machine for Jawa Prague!

With Manet/Tatran S125 scooters coming to an end by 1968, designs were begun for new basic rigid-frame mopeds, as a Type-28 export model with large 23" wheels, which was subsequently dropped. A second version with smaller 16" wheels went into production in 1970 as the Jawa M-228 Babetta, which was named after a popular song of the time: 'Babetta went to the world'. The lightweight moped was a simple single-speed automatic rated for 40km/h (26mph) but designed for performance variations to suit different export markets, and was claimed to have the world's first 'Tranzimo' contactless transistorised ignition system.

By order of PZO Motokov, Považská Bystrica-built Babetta mopeds had to be branded as Jawa for commercial reasons, and Považské Strojírny paid Jawa 100,000 crowns a year for its licensed use, while Manet branding seems to have been mothballed. The M-228 Babetta ran up to 1973, when it was replaced by the M-207 Babetta model.

Production of engines for the M-207 took place at a branch plant in Rajec from 1973, while Babetta moped assembly was transferred to the plant at Kolárovo in the south of Slovakia from 1976. Production of M-207 Babetta mopeds in the main plant of Považské Strojírny ceased as it switched over to the manufacture of aircraft engines, though it retained constructional development and control of moped production in the branch plants.

A new M-210 two-speed automatic Babetta succeeded the 207 in 1983, and was joined by a single-speed automatic version produced from 1985. The Jawa coding of 210:130 = model 210 and 130 is single-speed 30mph; 210:120 = model 210 and 120 is single speed 20mph; 210:230 = model 210 and 2-speed 30mph. We're doubtful that they made 2-speed 20mph versions restricted with a 9mm carburettor, because what would be the point?

Under the complicated communist administration, the various manufacturing plants fell under the management of a vast ball-bearing manufacturer in Slovakia called ZVL, who were now directed with a the task of producing further military aircraft engines. More space was needed to fulfil this order, so moped production would have to move.

By the end of 1985, ZVL restructured its locations into independent branches, ending motor cycle development in Považské Strojírny, while the production licence for the Babetta M-210 would transfer from Považská Bystrica (Manet) to ZVL Kolárovo and its new auxiliary plant in Čalovo, close to the Hungarian border.

In 1986, production of the M-210 moped range moved to the new Kolarovo/Čalovo factories, which had no experience of this model's construction, and received all the transferred production equipment, test equipment and technical documentation from Manet. The sudden transfer went as well as you might imagine, and support from Manet was required until the end of the year.

At this point we encounter a couple of road test machines, both dated 1988.

### 00000

Our first example is branded as 'Jawa' and 'Economy' on the fuel tank, 'Jawa 130' on the toolbox sides, and 'Jawa' moulded onto the clutch cover, so a 210.130 automatic single speed model, silver in colour. Weight is given in Imperial as 112.4lbs. It has a 40mph speedo (illuminated by internal bulb), is fitted with an electric horn, and was clearly imported as a British market machine.

The engine is specified as 39mm bore × 41mm stroke, 49cc, 9:1 compression and rated



2.38bhp@5,000rpm. The frame has telescopic forks, twin-shock swing-arm rear suspension, with cast alloy hub brakes, and wheels mounting 2½ × 16 tyres.

Fuel turns off-on-offreserve at the bottom left of the tank, with the lever set into a small porthole in the left-hand plastic frame trim. Click the choke on by pushing a rod at the bottom left of the 12mm Jikov 2912 carb/air filter; this will automatically release when the throttle is opened. On the stand to spin the pedals, the motor turns over and fires up quite readily, but immediately impresses with high engine noise. Its last road tax expired in 2015, and its subsequent storage for eight years in a damp allotment shed has obviously resulted in

corroded main bearings. It runs, but rumbles badly, and a brief test ride shows poor acceleration with a reluctant best indicted of 25mph (which is unsurprising considering the decayed main bearings), so we didn't consider it worthwhile performing a formal paced test.

There's an empty steering lock socket on the headstock, which shows no signs of any lock ever being fitted, so was that an extra?

Removing a plastic cap on the back end of the frame finds an original hand pump still in the rear frame tube.

To switch to pedal mode, pull the cap over the front sprocket, and turn 90-degrees to disengage the motor for pedalling.

The CEV indicator set is an optional extra, with a battery tie-wrapped behind the saddle stem (the battery is normally fitted in a box under the right-hand toolbox). The battery is charged from the generator set. Indicators are switched L-off-R on the right-hand handlebar switch, and still work when the engine isn't running, so are clearly wired from the battery. The winker relay is located in the right-hand toolbox; the left-hand one is just toolbox. The rear basket is original and came with the bike, but has to be removed by a wing-nut clamp to be able to remove the right & left toolbox lids.

There is also a button on top of the right-hand switch: an ignition cut-out button.

Lights are switched off or on by a rocker switch on the back of the headlamp shell, with a second switch on the left-hand bar for beam—dip and electric horn, and a brake light operates from switches under the brake levers.



Our second example is branded on the fuel tank as 'Jawa', 'Shopper', 'Automatic 2-Speed E', being a two-speed automatic (210.230), and 'Jawa' moulded onto the clutch cover. It's silver in colour, with 12mm Jikov 2912 carb. On the frame serial plate, weight is given in Imperial: 112.4lbs. It has a 40mph speedo (illuminated by internal bulb), is fitted with an electric horn, and clearly was imported as a British market machine.

Pulling away is different from the single-speed versions, as revs increase notably more quickly in the lower drive ratio. Accelerating in first ratio can gently change up to second at 15mph on light throttle, or it can be held in first longer if you keep the throttle full open up to maximum revs at an indicated 20mph, at which the shift finally 'lurches in' with a protest at such abuse.

Best on flat once hot indicated 32–33mph, and long light downhill indicated 34–35mph, but best paced clocked 30–31mph.

The single-speed motors have two clutches, one for starting and the second for drive, both within the primary clutch drum. The two-speed motors have the same two clutches in the same primary clutch drum, but also have a third clutch built into the centre of the primary synchronous belt driven pulley. This two-speed drive pulley is recognised by a stainless steel



disc cover in the centre of the pulley, where the single-speed pulley is just plain with two holes in it. The singlespeed and twospeed versions both have the same final drive ratio, so we would expect the same top speed. Holding onto full throttle in first gave some impression that it might actually be slowing down this

phase, so we decided to settle the matter with a drag race between our two-speed silver 'Shopper' and our 1991 blue/green single-speed model ... tension mounts as the lights flash down from red, through the amber sequence to green, and go!



The two-speed model pulls ahead straight away due to its lower first stage ratio, but fades as its revs increase past its point of maximum torque, and holds onto first until it revs out at 20mph, where our blue single-speed momentarily overtakes, the two-speed switches into second and chases the single-speed down the track, but is unable to overtake.

On our second run the two-speed employs the trick of throttling back at the moment of optimum revs to encourage an quicker change up into second at around 15mph, but the action drops just enough speed for the single-speed to draw back level, after which the bikes run down the strip side by side.

Generally the single-speed version will win the drag race, because the two-speed requires perfectly timing the change just to maintain a draw. The only real advantage of the two-speed is that the lower ratio allows better steep hill climbing abilities.

Again the CEV indicator set is an optional extra, with the battery located in its original box positioned under the right-hand toolbox. All other aspects are the same as the single-speed version, including the same empty steering lock socket.

The November 1989 'Velvet Revolution' against the single-party government of the Communist Party of Czechoslovakia initiated a number of political and economic changes after the collapse of the socialist economies in 1990.

During the period of communist Czechoslovakia, the PZO Motokov foreign trade company had controlled the distribution of mopeds under the Jawa brand. After the revolution, mopeds were still produced at the behest of Motokov, but no longer compelled the use of Jawa branding, and the M-210 became sold under the name of 'Babetta'.

ZVL Kolárovo was now facing up to essentials of privatisation: the need to make a profit, and the lack of state funding. The cost of materials and energy increased, while formerly secure markets of other former communist states were opening up to new eastern and western products, and now spurning traditional Soviet brands.

The two-speed transmission system was discontinued due to reported 'unreliability issues' of its operation.

### 00000

Our third example, dated 1991, is simply labelled on the tank as 'Babetta', further on the toolbox sides as 'Automatic', and 'ZVL' moulded onto the clutch cover'. The frame has metallic light blue—green paint. It's a 210.130 single-speed machine with its dry weight on the frame plate now given in metric as 51kg. This bike features a 60km/h speedometer illuminated with a bulb, and best indicated speedo reading on flat 45km/h (paced 30mph). We tried a crouch position on a long light downhill run, and managed to tease the speedo needle past the 45km/h marker ... 46, maybe even 47, though our pacer insisted it was still just 30mph.

It has the same 12mm Jikov 2912 carburettor as the 1988 models.



The headlamp is just a single filament 6V/15W, and switched off & on by a rocker switch in the back of the headlamp shell, while the tail light is 6V/3W. There is no beam–dip, no brake light switching, and no indicators or battery.

No electric horn or horn button had ever been fitted, and this bike came equipped with just a cycle bell, which was not admissible for the UK MoT test, so a bugle hooter was substituted. Blank steering lock socket welded to the headstock, but no lock kit ever appears to have been fitted.

#### 00000

Our fourth example in red paintwork is dated 1991, was an incomplete machine and only acquired for useful spares, missing the fuel tank and frame trim panels. Fitting a small lawnmower

fuel tank and with a little maintenance and service, we got the bike running. Since there is no original fuel tank, we presume this would have originally been Babetta-branded; it's labelled 'Automatic' on the toolbox sides and has 'Jawa' moulded onto the clutch cover. It's a 210.130 single-speed machine with its dry weight on the frame plate now given in metric as 51kg. This bike features a 60km/h speedometer illuminated with a bulb, and red paintwork. No indicators and a single filament lighting circuit switched by a rocker switch on the back of the headlamp.

Setting out for our road test, we immediately noted the speedometer didn't work, the brakes were terrible, and though the lights and cut-out button worked, no horn or horn button ever seemed to have been fitted (like the blue bike, which was only fitted with a cycle bell). Again a blank steering lock socket was welded to the headstock, but no lock kit ever appears to have been fitted—it looks as though the steering lock must have been an extra.

'Red' seemed to run and accelerate pretty well, though the following road test paced the bike completely revving out at just 25mph, which seemed a bit odd? Counting only 12 teeth on the front sprocket compared to the 14-tooth front on the other three test models accounted for this difference in top speed, but we have no idea why it was fitted with a 15% lower drive

ratio as it's clearly a fairly worn and original sprocket.

'Issues' began arising in the 1990s as decrepit production machinery compromised quality, and falling sales initiated a reduction in the workforce, with short time



working, and even some temporary closures of the factory. In 1993, Czechoslovakia split into two separate counties, as the Czech Republic and Slovakia, so the Kolárovo factory building Babetta mopeds in Slovakia suddenly found its supplies of many primary components from the Czech Republic now involved importation from another county. Motokov, as the sole Babetta distributor, was Czech-based, so Kolárovo decided to set up its own international marketing, but didn't really know how to do that, so it didn't go so well. The production department became Babetta AS, while the marketing department was re-formed as a separate company called Mopedy sro, but subsequently had a major falling out and split from its own factory; meanwhile production quality hit rock bottom.

The 210 engine evolved into a new 225 engine, which looked much the same, though now with a kick-start replacing the pedal starter mechanism. A subsequent deal supplied the Kolárovo 225 engine to the Riga moped factory in Latvia, in a barter exchange for Riga Stella frames. This resulted in the unfortunate Babetta 134 model, with such appalling quality from the Riga factory that Kolárovo had to re-weld all the frames joints, which were prone to fracture.

It only delayed the inevitable. In late 1997, the Kolárovo factory was closed.

Pre World War II, the structure of the various factories seemed simpler, in that various manufacturing plants were differentiated by the different owners, branding, products made, and where the respective ČZ, Jawa and Manet factories were based.

Following the post war nationalisation of everything, and throughout the period of Soviet influence, brand names were applied under direction of PZO Motokov marketing of vehicle products or parts that could be made, or part made, in any of the factories under the ZVL blanket. The original brands effectively lost connection with their identity, though it's

probably little different from many international brands today, which are often no longer even made in their country of origin.

New Jawa motor cycles are still available today, as four-stroke singles with twin exhaust, in differently styled models 'Jawa' (295cc), 'Forty-two' (295cc), '42' (295cc), '42 Bobber' (334cc), and 'Perak' (334cc). These bikes wear the same famous 'Jawa grenade' badge, but share a stronger link with India than František Janeček or Czechoslovakian history. In much the same way as Royal Enfield licensed production in India, Jawa also licensed production of its models to former import agents Irani in 1961, who sold them under Yezdi branding until the company ceased in 1996.

In January 2022, Yezdi re-launched in India as Jawa Motorcycles by Mahindra through its Classic Legends subsidiary, with a licensing deal from the original Czech Jawa Moto company.

Further models are sold under 'Yezdi' branding as 'Roadster' (334cc), 'Scrambler' (334cc), and 'Adventure' (334cc).

Everything has changed, only the badge remains the same.

### 00000

**Next**: You might presume these two bikes are the same thing, but really they're as alike as 'Chalk and Cheese'.

# Suzy, Love, and the Roadie

by Mark Daniel

Sponsored by Thomas Stoddart.

With the changing of moped specifications to footrest, kick-start, and limited to 30mph, Honda, Suzuki, and Yamaha almost simultaneously started embracing new 50cc designs without pedals, and the first concepts of mini-scooters in the early 1980s.



Suzuki's first effort was the unfortunately styled FS50
Scooterette from May 1980, which seemed to have quietly been dumped by 1982, suggesting it had been something of a failure, but these were early days, and the other manufacturers were also having some 'bad moment designs' as everyone was still trying to figure out which way to go at this time. (For the FS50, see our article 'Evolution' from Jan 2015.)

Suzuki's second attempt was the CS50D 'Roadie' and CS50DD 'Roadie' models, which came in two formats, kickstart only (D-model with 6V electrics), and electric start (DD-model with 12V electrics, and also with kickstart).

The Roadie models were presented to the market from 1982, and also sold as the CS50 Gemma in Asia,

and licensed for sale as a Puch Lido in Austria. A further 80cc CS80CD Roadie followed with its introduction in June 1983

Our featured CS50DD Roadie is dated 1983 and its most remarkable feature that we're quite looking forward to trying out, is that it's a three-speed mechanical automatic!

The engine cylinder is almost upright, but just slightly tilted back, with 41mm bore × 37.4mm stroke, a 7.2:1 compression ratio, Mikuni VM14SH carburettor, and rated 3.5bhp@5,500rpm (assumed the same as Love/Suzy Mk2).

There's reed-valve induction feeding into the forward crankcase, so the carburettor is fitted at the front of the engine, and forced-air cooling is driven from a fan on the electronic mag flywheel, which powers the sparks.

The exhaust port is located in the back of the cylinder, and the



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exhaust pipe exits in the front of the rear wheel arch, so is prone to getting sprayed by everything the rear tyre throws at it.

The wheels are pressed steel, and fitted with  $3.00 \times 10$  tyres front and rear.

Viewed from the front, Roadie isn't pretty, with (trying to be kind) 'unfortunate' styling of leg-shield centre, and a lop-sided front mudguard to cover the single-sided front suspension, while the back of the bike is really lame. This wasn't just a stylist's bad-hair-day, it was almost as if the Suzuki design department was infiltrated by a technical saboteur from one of its rivals! The best angle shot is taken from forward/right side front, which was the picture used on the front of the Haynes manual, otherwise it's something of a photogenic horror.

The ignition switch is located inside the leg-shield and halfway down the steering head, which will turn to lock position, or off, both with the key removable, or ignition on (key secured), and a fourth position: parking light with key removable—a surprising feature for the 1980s!

Turning on the ignition, the oil lamp appears to blink and go out, which is presumably indicating the Pozi-force oil level is OK. With a vacuum operated petrol tap and a thermal automatic choke, it looks like just pushing the start button, though you have to pull either brake on to enable the button. The starter motor sounds to be spinning, but struggles to turn the motor, so we presume the battery is past its better days.

OK, so switching to plan B and resorting to the kickstart requires the left brake lever pulling in firmly to enable the mechanism, then just one kick immediately starts the motor with a typically distinctive scooterish pop-pop-pop ... just on a smaller 50cc scale.

It's a cold February day, and it needs to run a while before it seems to clear the choke, though it still splutters a bit when we pull off, and it takes a little longer on throttle before the engine clears to respond.

First gear switches up to second between indicated 10–13mph and second changes up to third between indicated 17–20mph according to throttle and load against the drive system. On light throttle & low load the change occurs at the lower speeds, but if the throttle is wide open and the bike under maximum acceleration then the shifts hold on till the slightly higher speeds.

The 'Roadie' is unusual in being the only three-speed mechanical automatic that we've ever tested, and we don't know of any other comparable three-speed mechanical automatics.

This seems to be the same motor unit as fitted into the two-speed CL50 Love & Suzy MkII models, but Roadie's three-speed version has a much wider transmission case to house the triple gear/clutch train.

Opening above three-quarters throttle tends to noticeably amplify the exhaust note, which is a typical pop-pop scooter tone at low speed, and becomes a tiring wail above 30mph.

Best indicated was 36–37mph downhill, though it turned out that the speedo was indicating low, since our pacer clocked Roadie hitting 40mph downhill, and consistently running at 35–36mph along the flat.

Roadie's 0–40 speedometer is lit by an orange glow when the lights are on, and somewhat resembles a period Hi-Fi VU meter. The red oil lamp also doubles-up as an indicator flasher warning, though blinks out of flash sequence to the indicators, which seems a little odd? Nothing unusual about the blue high beam indicator, but the fuel gauge is a bit of a mystery?

Most of the preceding Honda, Suzuki. & Yamaha Japanese mini-scooters employed much the same level indicator gauge in the top of their tanks, which you had to lift the seat to see, and most of the time you couldn't make out what it was telling you anyway—so pretty useless really. The CL50 Love/Suzy has one of these, but Roadie has an electrical fuel gauge in with the speedo set. The odd thing about the gauge is that it continues to indicate the level even when the ignition is off. More intriguing is that when you're filling the tank, the needle doesn't move, until you turn on the ignition again, when it moves up to indicate the new level.

The right-hand switch cluster has the electric starter button below a slide switch for lights off-on, with a five-position sort of game controller switch on the left-hand cluster with dual-function for up beam/down dip & left indicator/middle off/right indicator, with horn button below.

There is no side-stand, only a centre-stand, which is both difficult and clumsy to lift the bike onto using a handhold beneath the saddle on the left-hand side. The handhold 'pocket' is too small to grasp if you're wearing gloves, so you have to take your gloves off to lift the bike on and off the stand, and the handhold pocket also features a lock set in it to also operate as a helmet lock. The left-hand side handhold is for right-handed use, but there is no handhold on the right-hand side for left-handed use, so how a 'leftie' might ever manage to get a Roadie on the centre-stand might seem impossible, because there's nothing else to handle the bike by.

In common with the majority of these period Japanese mini-scooters, handling of the Roadie is typically dreadful. Its rear spring unit is overly bouncy from the back (the damper is absolutely partied-out), and the single sided trailing-link proves twitchy at the front, so you're best advised to either slow for bumpy bends, or hang on for grim death! A large proportioned rider will discover the rear spring is underrated as soon as they sit on the saddle, and any tall folks are going to find the cockpit quite claustrophobic. It seems like another bike designed for dainty Japanese girlies ... and while the scooter may look like a two-seater, the saddle is more of a  $1\frac{1}{2}$  seat, and may not work out so easily with a pillion since there appear no practical places for a passenger to securely put their feet.

The seat is secured by a lock at the back and springs up from a pivot at the front to reveal the fuel tank, battery, and Pozi-force oil tank. The seat base is made from pressed steel, so typically prone to rusting out and splitting, and this one has experienced extensive welding repairs.

As you work on the Roadie, you begin to discover some 'peculiar' aspects of its design...

1. Like, if you want to access the carb ... that sure looks very difficult to get at? The pressed-steel section of the rear frame assembly effectively blocks access, so only with great difficulty can you just about get to the fuel and vacuum pipes, and twiddle with the tickover screw through an access port, but how to remove the carb for service seems a tricky puzzle? Let's see what the manual says: 'To take off the carburettor requires the engine to be removed from the frame'—yes, really! It's probably no surprise that when we had to clean the carb, we rather opted for just flushing petrol through the float chamber and out of the bowl drain. It worked, so that was a relief.

So, you may ask, why did we need to flush out the carb? Good question – because the float chamber was completely full of Pozi-force oil! How was that you may ask ... and, another good question.

Well, we'd found that the engine wouldn't turn over when its loose spark plug was tightened up, because the engine hydraulic locked with Pozi-force oil since the crankcase had filled up until it overflowed through the reed-valve and subsequently filled the carb!

Since modern engines don't have any crankcase drain, the only way to clear the crankcase was by removing the exhaust and spark plug, then turning over the engine with a drill driver on the mag flywheel nut to 'pump' the oil out of the exhaust port.

2. OK, so having cleared all the oil out of the motor, we have to wonder how it got there, so maybe have a look at the oil pump? But where is the oil pump? Pozi-force pumps are more usually driven by the engine and feed into the carb or inlet manifold, but look around the carb and motor and there's no sign of anything?

Pozi-force pumps are invariably connected by a secondary link to the throttle cable, so when the throttle is opened the pump is actuated to increase oil delivery to motor ... but there's no spur cable on the throttle cable route.

So where is the pump?

It's not until we've cleaned down the back of the engine caked with oily dirt, that we note a small diameter pipe leading to a connection in the back of the crankcase. The other end of the pipe seems to disappear behind the back tyre, so remove the rear wheel and follow the pipe back to an alloy cover which shields the oil pump at the back of the transmission case! This means the Pozi-force pump is driven off the transmission, so the pump will only deliver at a constant rate when the bike is actually moving! If you're stationary in traffic with the engine ticking over, the pump wouldn't be delivering at all.

In the olden days of mineral oil, this may not have been a good idea, but less of an issue with the advent of synthetic and semi-synthetic oils, which are squeezed out of vaporised fuel in the bottom-end of the engine during the under-case compression phase, then drawn into the bearings where they are held by capillary action. So even when the Pozi-force pump isn't delivering, oil still remains where it needs to be.

A number of two-speed automatic mopeds were built that predate the Japanese miniscooters, but Suzuki's threespeed mechanical automatic transmission was rather exceptional, and makes the Roadie a particularly interesting



machine to ride, especially compared to the flat monotony of modern CVT systems. The Roadie has a lot going on inside its transmission case, with three separate gear trains and three separate clutches to respectively operate each gear as the engine automatically switches up and down its ratios.

There's a lot of components and engineering going into both two-speed and three-speed mechanical automatic transmissions, and it's easy to see how the CVT won out on simplicity and cost.

While the 6V CS50D Roadie was de-listed in March 1985, the 12V CS50DD Roadie E continued into 1988.

The Suzuki CL50 'Love' scooter was reportedly first presented for the Japanese home market in 1982, with a 50cc four-stroke engine, and specifically marketed toward the female market since it was a small automatic mini-scooter. Other 1982 data seems to suggest that a further version with a two-stroke motor and belt CVT transmission was listed.

The following year the CL50 was introduced to Europe, but now fitted with a 50cc two-stroke engine with the established two-speed mechanical automatic transmission as proven in other Suzuki models. This was the specification of our featured model.

The engine cylinder is almost upright, but just slightly tilted back, of 41mm bore × 37.4mm stroke with a 7.2:1 compression ratio, Mikuni VM14SH carburettor, and rated 3.5bhp@5,500rpm.

There's reed-valve induction feeding direct into the forward crankcase, so the carburettor is fitted at the front of the engine, though the Love frame appears different from the Roadie, and

looks as if the smart metallic mid-blue plastic body panels would be removable to allow normal access to the carburettor. Forced-air cooling is driven from a fan on the electronic mag flywheel, which powers the sparks.

There's the usual scooter-style single-sided rear suspension unit, but despite the exhaust pipe exiting from the back of the cylinder and into the wheel arch and prone to getting sprayed by everything the rear tyre throws at it, the pipe carries on down to the silencer, which is ideally placed to obstruct access to the rear wheel spindle, so you still have to remove the exhaust to take off the rear wheel. This seems to be the same basic motor unit that was also employed in the CS50 Roadie, but CL50 is a two-speed version with a narrower transmission case.

The CL50 'Love' was introduced to the UK in March 1983, but listed as 'Suzy MkII' instead, and came in two formats as kickstart only (D-model) with 6V electrics, and 12V electric start (DD-model), also with kickstart.

The Suzuki FZ50N model from 1978 often seemed to have been called 'Suzy' in the UK, and after the CL50D & DD were introduced in March 1983, the FZ50N became formally redesignated as FZ50X 'Suzy' in August 1983, and continued as FZ50Z 'Suzy' from 1984 until de-listed in March 1986. Presumably that's why the CL50 was called 'Suzy MkII'.

Our featured machine is a CL50DD version, 'C' registered in 1986, and clearly displays 'Love' graphics on the side-panels, but we have no idea why that is?

The centre-stand is invisible from the left-hand side, where no more than a toe-tag pokes out from under the middle of the transmission case, and a tiny little side-stand (only  $5\frac{1}{4}$ "/130mm) mounted off the back left-hand side of the footplate.



It wears pressed steel wheels with  $2.75 \times 10$  tyres, and has telescopic front suspension, though with only about an inch of travel, which is a typical engineering limitation of the low bottom yoke and short legs. The chrome plated rear carrier is basically an inclusive and integral part of the back-end body assembly, since the rear indicators

mount from it.

The speedo is graduated 0–40mph, with 0 at the 9 o'clock position, 30 at 12 o'clock, and 40 at 1 o'clock.

The 'low oil' warning lamp on the speedo doubles up its function to flash when the indicators blink. Presumably it just stays on when the oil is low? There is also a high beam warning lamp.

The single-seat has a lockable catch at the back, which uses the ignition key to release, but is difficult to get into the lock because a bar on the rack obstructs access. We're told seat lock access is actually impossible if you have a rear carrier box fitted, in which case you'd presumably have to remove the catch from the lock? The seat folds up from the front, which we note has a plastic base, so that at least that can't go rusty.

The petrol tank is located at the front beneath the seat, and has a built-in fuel level indicator. A 12V battery sits in the middle, and a Pozi-lube reservoir at the back.

Nice and traditional bright polished alloy levers and control brackets contain switches



for lights on–off and electric start button on the right-hand throttle twist-grip side. Lights dip Hi–Lo on the left-hand lever bracket, and are operated by a rocker switch which sits on the top, but looks like it might be a possible route for letting rainwater into the switch box. Indicators operate by left–off–right switching only (there's no push-button cancel), and a horn button below.

Love has a starter enable, electrically operated from the brake light circuit, so requires either brake lever pulling to effect the electric start. It might feel as if the kick-starter doesn't engage, but its operation requires the back brake lever pulling in to effect the ratchet (a system that was common to the earlier FZ50, and other derivatives of the mechanical 2-speed auto system).

Located down the right-hand side of the steering head, and inside the leg-shield, the ignition

switch will turn to lock or off with the key removable, or ignition on. With a vacuum operated petrol tap, and a automatic thermal choke, there isn't anything to starting other that pushing the button, and twisting the throttle back a little to get the engine to fire ... so easy!

Open the throttle and there's a fair degree of induction draw resonating from the air box, though little discernable sound from the exhaust. The first gear is effective to take the bike up to 15mph, then switches ratio with a bit of a 'lump' as it changes up to second.

There's generally a smooth power delivery, which doesn't feel particularly urgent, though pulls up hills surprisingly capably, and still delivers against general inclines at only a little less than its top speed. The only brief impressions of power are felt at initial acceleration in the lower phase, and during the 'surge' as the ratio shifts up to second.

Suzy/Love was sat-nav paced to a best on flat of 32mph, and 35 downhill, with the speedometer displaying accurate readings.

The general engine specifications of the Love/Suzy MkII appear to be much the same as the Roadie, though their actual performances seemed to be different. Trying to find specification details isn't so easy, and we remain unable to confirm the final drive ratio of the Love, or power rating of the Roadie motor, though presume it to be the same 3.5bhp? Certainly the

exhausts were completely different, and it seemed that some performance differential might be attributable to different drive ratios between the two-speed and three-speed transmission (final drive ratio 3.487:1).

While Roadie could claim a technical advantage of three-speed transmission, Love also holds a merit of its own, as it was famously promoted by Michael Jackson! Printed adverts and filmed material can be easily found by an internet search on 'Suzuki CL50 Love Michael Jackson advert'.

The CL50 Suzy MkII D 6V kickstart and DD 12V electric-start models were both discontinued in Feb 1987. There was a CX50D Love III model with CVT transmission and 6hp rated engine listed from 1984, but not available in the UK.



**Next**: What 16er wouldn't daydream to be cool like Peter Fonda as Wyatt and Dennis Hopper as Billy, cruising their choppers from Los Angeles to New Orleans in the Easy Rider film? You might think our next feature could so easily be a Fantic Chopper, but maybe not, though it could be the next best thing ... like a Japanese factory custom that's just as good ... or is it?

# Derbi Day

Derbi's origins began in 1922 from a small bicycle workshop in the village of Mollet near Barcelona, founded by Simeó Rabasa I Singla (1901–88). The focus remained the repair and hire of bicycles until May 1944 when Rabasa formed a limited liability company named Bicicletas Rabasa together with his brother Josep and a group of small investors, with the aim of moving into manufacturing his own bicycles, and the old workshop was expanded with new bays to cover the production requirements.

Bicycle manufacturing proved commercially successful so, in 1946 and supported by its profits, work began on the development of a motorised cycle prototype with telescopic forks and a rigid frame.

As a back-story link, Fiat director Óscar Ravá fled to Spain from Italy to escape the fascists during World War II, and established a Lancia dealership in Barcelona, where he also marketed Rabasa bicycles.

In 1948 Óscar established an arrangement with Moto Guzzi to enable his firm to manufacture the Italian motor cycles in Spain. He outsourced component manufacture to several reputable Spanish firms, including the well-established ISA (Industry Subsidiaries Aviation) in Seville, and Rabasa Mollet (Barcelona) for frames, forks and sheet metal parts. With the participation of these two companies the first 65cc Moto Guzzi Hispania appeared in August 1949, with some differences from the Italian model. In March 1950 the contract with Rabasa for the first 1,000 units came to an end, and Rabasa was replaced by EMTISA (Estampados de

by Mark Daniels

Sponsored by Justin Saint

Metal Tis, Sociedad Anonima = Tis Metal Stampings Company Limited) the sourcing difference only being indicated the by frame number.

In 1949, production of the new SRS series mopeds began with rigid frame Type-1, and followed with a further plunger rear suspension Type-2, and so called from the initials of Simeó Rabasa i Singla.

Rabasa chose an already established proprietary IRESA (Industrias Reunidas Espanolas SA) 48cc two-stroke engine, rated 1.5bhp@4,500rpm, with a 5.5:1 compression ratio. The engine featured gear primary transmission, clutched to a manual two-speed gearbox controlled by a lever located on the right-hand side of the fuel tank, and final chain drive. Its maximum speed was given at 35km/h (22mph) and consumption at 1.5 litres per 100 kilometres. The SRS frame carried a single cycle-style saddle, with a motor cycle top-tank, exhaust routed straight backwards from the rear-facing cylinder, and drum brakes.

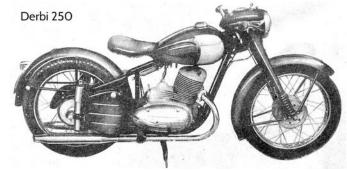
The SRS achieved popular success in post-war Spain, with many different models released over the following years, including with engines up to 65cc and increased speeds up to 45km/h (28mph).

Sales of the SRS proved successful enough to initiate a change in the company's direction, and at the June 1950 Barcelona International Trade Fair, the company unveiled its first prototype motor cycle, now presented as a Derbi 250! The Derbi name was taken from an

amalgamation of the Catalan phrase Derivats de Bicicletes (derivatives of bicycles), as an acknowledgement of the company's history and its location. The new Derbi 250 was a licensed version of the Jawa 250 two-stroke single with some 'developments', where the original gear lever control on the left-hand side was replaced by a heel & toe rocking pedal switched to the right, with rear brake lever transposed to the left. The kickstart remained on the left side, while ribbed side casings replaced the smooth castings on the Czechoslovakian model. The frame was identical to the original Jawa, though the front fork slightly changed. It offered the same innovative manual and semi-automatic Jawa slick-shift clutch, and a gimmicky set of lights in the headlamp nacelle for speed indication. The new Derbi model however, wasn't destined to become available for sale for a while.

On November 11th 1950, Rabasa Company changed its trading name to Nacional Motor SA.

In 1951 the SRS moped underwent changes of the cycle frame, to which twin shock swingarm rear suspension and larger fuel tank was added, and further to the IRESA engine that was uprated to 53cc for 2bhp and 48 km/h (30mph) as maximum speed. The SRS moped was discontinued at the end of 1953, and the SRS brand disappeared with it.



The initial Derbi 250 model became available for sale in its first series form from the beginning of 1952, with engine spec 65mm bore × 75mm stroke for an exact displacement of 248.87cc, compression ratio of 6.3:1 for 9bhp@4000rpm, and quoted a top speed of 100 km/h (62mph).

At the Barcelona International Trade Fair in 1952, Derbi presented an interesting 90cc prototype light motor cycle, which subsequently developed with its capacity increased to 95cc in April 1953, and completed for market sale September 1953. The Derbi 95 was a two-stroke split-single, with 2 × 32mm pistons × 59mm stroke into a common 7:1 compression chamber, rated 1.4bhp@ 4,500rpm, with three-speed foot-change gearbox for a given top speed of 70km/h (44mph). Its single cradle frame with twin shock swing-arm rear and telescopic fork front established it as a popular machine, and large numbers were produced.

A 'Super' second series of the 250 evolved in 1954 characterised by fitment of a larger fin, flattop, higher compression 7:1 cylinder head for 12bhp@4,200rpm, and changes to the front fork. A slightly remodelled 95 was shown at the Barcelona International Trade Fair in 1954, and shared the stage with a further two new Derbi prototypes, though neither of these would be manufactured in their display format. One was a scooter with 98cc engine, and a 'Super CC 125' with Hispano Villiers engine. The scooter with faired motor cycle cradle frame, twin shock swing-arm and telescopic forks, did actually reach production in 1955, though with a

home built Rabasa two-stroke motor of  $125cc\ 54\times54$  'square' bore and stroke for 5.5bhp@4,500rpm, three-speed box. In place of the Super CC appeared a 125 Turismo using the same engine as the scooter in the same frame but without scooter fairing, while the Hispano Villiers engine was left on the shelf. The Super CC reappeared in 1956, now under the title of Derbi 125, which was basically the Turismo with different front and rear suspension (which would subsequently be replaced by more conventional telescopic forks and rear suspension).

A third series came in 1958 when the 250 adopted aspects of the 350 twin to create a restyled model.

In 1957 Derbi introduced its largest capacity motor cycle, being another licensed Jawa, with twin-cylinder 350cc 16bhp motor, and again fitted with special higher compression cylinder heads and other compatible changes applied to the 250. The 350 twin was mass-produced by Derbi, with production rising to 4,200 units a year, and the number of employees increasing to 280.

Derbi manufactured the 250 model for a little over ten years, ending in 1962.

In the early 1960s Derbi started building its own 49cc and 74cc engines based on a Sachs licensed design, and soon started to develop a number of racing models.

In 1965 Spain introduced new moped legislation requiring pedals to be fitted, and a maximum speed on flat not exceeding 40km/h (25mph), and during the year the Antorcha (Torch) 49 was introduced. These early models fitted a licence-built Sachs three-speed engine with pedals, but also had footrests and a footbrake, telescopic forks, round sculpted tank and cylindrical toolbox.

Different Antorcha models followed with fork & lower mudguard stay trims, a round unsculptured tank, a moulded toolbox, and the pedal shaft relocated to the rear swing-arm spindle.

Derbi's first competition win came in 1968 with Barry Smith at the IoM TT races, from which Derbi went on to win the 50cc world championships in 1969, 1970, and 1972, and 125cc Grand Prix world championships in 1971 and 1972.

Our featured bike, dated 1972, is apparently a Derbi Antorcha Super 49 Olimpica Campeona E3 (yes, that's a grand and flamboyant title. Olimpica Campeona = Olympic Champion).

To comply with the Spanish moped law of the time, the Antorcha is an 'original' sports moped with pedals, but the way that Derbi engineered this was a little unconventional. It has everything that a motor cycle has, but also has everything a moped has too!

It has footrests with foot-changed gears on the left-hand side, and a kick-start on the right.

If you want to pedal it like a moped (as if anyone would ever want to do that), the pedal set is just an add-on token to meet regulatory requirements, and its operation would never have been seriously expected to assist the machine in the manner of a traditional pedal moped. To



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ght-hand thread for mounting
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ly seem to have had their

Because the Derbi motor has a kick-start, you'd normally expect the engine to be kickstarted, but this isn't so easy

because the kick-start fouls the right-hand footrest. You can fold up the footrest, but the kick-start still fouls the right-hand pedal arm, so the kick-starter is only effective for half its stroke, which rarely seems enough to start the engine. Generally it's easier to just put the bike in gear and bump start.

The back brake is foot pedal operated by rod linkage on the right-hand side.

Ideal light switching is controlled from the left-hand handlebar off-dip-beam beneath the grip, while a red button on the top is cut-out, and black button for horn. The left-hand clutch and right-hand front brake lever brackets are welded to the handlebars, which bolt through mounting brackets by the fork top nuts. The alloy levers are stylish and slender, with a cursor twist-grip throttle control and choke lever on the right. This gives a super clean and tidy handlebar set, which looks really neat and uncluttered.

The headlamp shell doesn't have any speedometer, no socket to fit a speedo, and no obvious way to even fit a speedo drive to the front hub. The horn mounts underneath and behind the headlamp shell, and out of sight. There is a steering lock fitted into the steering head, but no key (there never is). Petrol tap switches reserve–off–main under the left-hand side of the tank.

Since we're going for the easier bump start option, shift the gear lever up into first, pull in the clutch, then simply scoot the bike out of the garage and drop the clutch. Keeping the engine turning while teasing the choke trigger delivers an instant result and the engine starts right up, then tweak the choke trigger as required if the motor starts to die out. It doesn't take long before the motor runs clear, and we do a few turns up and down the drive to get a feel of the clutch and gear-change. Instant impression is how narrow the bike feels to sit on, and how high the footrests are, so your legs are quite folded, and you have to lift your foot off the left-hand footrest to shift gear, both up and down. While the gear lever position isn't in the optimum setting, because of the long arm movement it may not actually be possible to set the gear lever to operate from the footrest and simply just toe up or down. Though E4 four-speed

versions were also available, our E3 model has a three-speed gearbox one-up, two-down with neutral between first and second. The lever has a very light action with no click location feel, and a long arm movement. Selection is fine going up or down, but has no 'feel' to find neutral, which is usually pretty difficult to locate.

First gear feels quite low since it runs up its revs very quickly, while switching into second contrasts with a big ratio jump, though the power produced by the motor has no trouble pulling through the gear. With the revs building up, it's time for third (top), which the motor again has no trouble pulling through an easy cruising speed at 30mph (paced). A two-way run along the straight topped out at 35mph both ways, and peaked at 36 on a long light downhill (all paced). The motor was clearly revving out and would undoubtedly pull a higher drive ratio. Derbi seemed to list 13 tooth and 14 tooth front sprockets to fit the Antorcha, so our guess is that this machine is probably fitted with the 13 tooth. Fitting a 14 tooth front sprocket suggests 39mph would be expected, which the power of the motor would easily pull, and if there's room to fit a 15 tooth one, then 42mph could be achievable.

The side panels fold up on hinges for carb access, and underneath the panels we find a Spanish licensed Dell'orto SHA14/14 made by Arbeo Bilbao, which has a cable operated

shutter choke, and a special cranked flood button to clear the left-hand head mounting bracket, so was clearly a special carb made for this Derbi installation.

Even in its seemingly standard form, our bike is clearly way faster than the



expected Spanish moped regulation 40km/h (25mph), and the fitment of a 14mm carb was also a surprise. UK market versions with a 14mm carb and 9:1 compression cylinder head (which our bike also has) quoted 4.5bhp@ 5,700rpm, while Spanish specification Antorchas list fitment of a 10mm carburettor and quote power 2.2bhp@5,000rpm, and may well have had a lower compression cylinder head.

The same hubs and brake plates are used for front and rear by fitting a sprocket for back, and a blanking plate for the front. Brake hubs are 105mm, and laced into 18-inch 'no-brand' chrome rims shod with 2.25 tyres.

There are nice alloy fork legs, but plastic headlamp brackets and lower shrouds, though cast aluminium headlamp brackets became available for later models. The original Ideal rear suspension units feel quite firm, as do the front forks, and there's no missing the immediate impression that the Derbi delivers a hard ride.

The bike is widely adorned by logos with 'Derbi Rabasa' on both engine side casings, 'Derbi' pressed into the footbrake pedal, front brake lever and clutch lever, on the tank badges (missing), imprinted in the seat cover and on a decal on the back of the rear mudguard,

'Derbi' printed on the back of the seat with 'Campeona del Mundo' (Champion of the World). 'Antorcha Super 49cc' decals on the side panels, 'Antorcha Olimpica Campeona' (Olympic Champion) decals on the toolbox covers, and a Derbi 'world' decal on the front mudguard, 'dos veces sub Campeona del Mundo 50cc 1967/1968', and if you're still in any doubt, the petrol cap is embossed 'Derbi Campeona del Mundo'—so modest!

The Derbi centre-stand proves to be quite irritating, as most people generally handle a bike from its left-hand side, and access to the stand is obstructed since it hides behind the silencer. Since there is no tag on the stand to tease it out with your right foot, it requires leaning over the right-hand side of the bike to push the stand down enough so you can catch it with your right foot before you can lift the bike onto the stand. Fine if that works, but it's a fly-back stand, so if it slips off your foot, then it springs back up to hide behind the silencer again. Alternatively, you can handle the bike from the right-hand side, then you can access the stand with your left foot, but that may not be natural to most right-handed people.

Overall it's an interesting and unusual sports moped, of which six models were listed in the UK from 1975–77 by Derbi Concessionaires Ltd, Bremar House, 27 Sale Place, London W2 1PT, but only seemed to have sold in very limited numbers since it's hard to find magazine references to them, and we've never seen a UK market example.

Following the death of General Francisco Franco in November 1975, Spain began the challenging transfer process from a fascist dictatorship towards a democratic economy. During 1977 the Spanish motor cycling sector underwent a period of sales crisis. Bultaco, Mototrans and Ossa disappeared from the market. Suzuki took over Abell, Honda took over Montesa, and Yamaha took over Sanglas, while Derbi seemed better placed to adapt to the national transition (la Transición española).

In 1982 Derbi presented a new engine with cylinder options from 50–80cc, and designed for 4, 5, and 6-speed gearbox options according to the requirements of countries it was planned to be sold into, and a new mass produced scooter (named Scoot) was presented at the Paris Exhibition Hall in September because, unlike Spain, the French specification did not now require mopeds to have pedals.

When the 50cc class was increased to an 80cc displacement in 1984, Derbi took four consecutive world championships between 1986 and 1989, before the 80cc class was dropped in Grand Prix competition. Derbi also scored further racing successes in 125cc Grand Prix competitions, winning world championships in 1988, 2008, and 2010.

Simeó Rabasa I Singla died in 1988, though the

company continued, and launched a new Vamos scooter in 1992.

By 1997 Derbi had begun a major investment to expand their stake in the increasingly popular scooter market, with an update of the

existing range, and introduction of a new generation Hunter model.

1999 introduced the new competitively priced twostroke Atlantis scooter, followed in 2000 by the new Senda-R and



Supermotard sports trail motor cycles, with 50cc two-stroke liquid-cooled engine, 16.5:1 compression ratio and rated 9bhp, with a six-speed gearbox, and a remarkable 60mph performance.

Now there's good news and bad news—in 2001 Derbi boosted its sports models range, hurray! News in July—we've just been bought out by Piaggio Group ... Ahhh!

Derbi pressed on regardless, and continued introducing new motor cycle and scooter models from 50cc to 150cc and, in 2006, introduced the Derbi Mulhacen 659, powered by a 659cc single-cylinder and also a Mulhacen 125 café racer with a new four-stroke, twin-cam, liquid-cooled, 15bhp engine.

Further racing World Championship titles in the 125 class followed in 2008, and its ninth constructor title in 2010, followed by a second place in the last 125cc two-stroke class World Championships in 2011.

At the March 2011 presentation of Piaggio Group results for 2010 it was announced that production from the Derbi factory at Martorelles near Barcellona was to be transferred to Italy and the Far East.

At 11pm on 22nd March 2013 the factory closed, and though Piaggio still continues to market products under the brand, Derbi is no longer made in Spain. Over 500,000 various Derbi Antorcha models were reportedly made before production ended around 1980.

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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.

Next: The commercial situation is getting tough for a French giant, bankruptcy looms, and the shadow of a Japanese predator looms overhead—could the M80E the 'Last Roll of the Dice'?