The VeloSoleX 3800

A detailed pictorial model history

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The 3800 arrives in 1966

Its retail price in France is: 373 F

Production starts with engine number 3800001

The frame is identical to that of the 3300

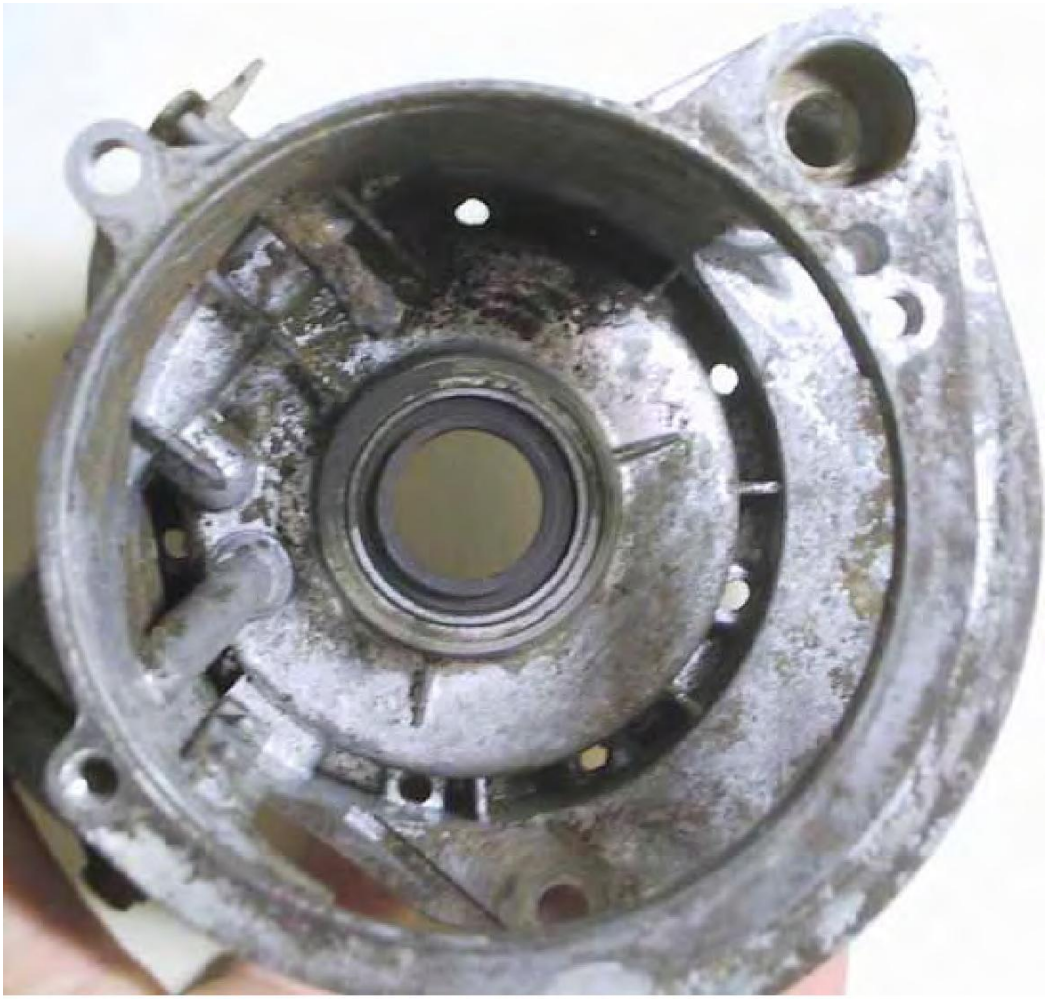
New, more powerful engine thanks to a new cylinder

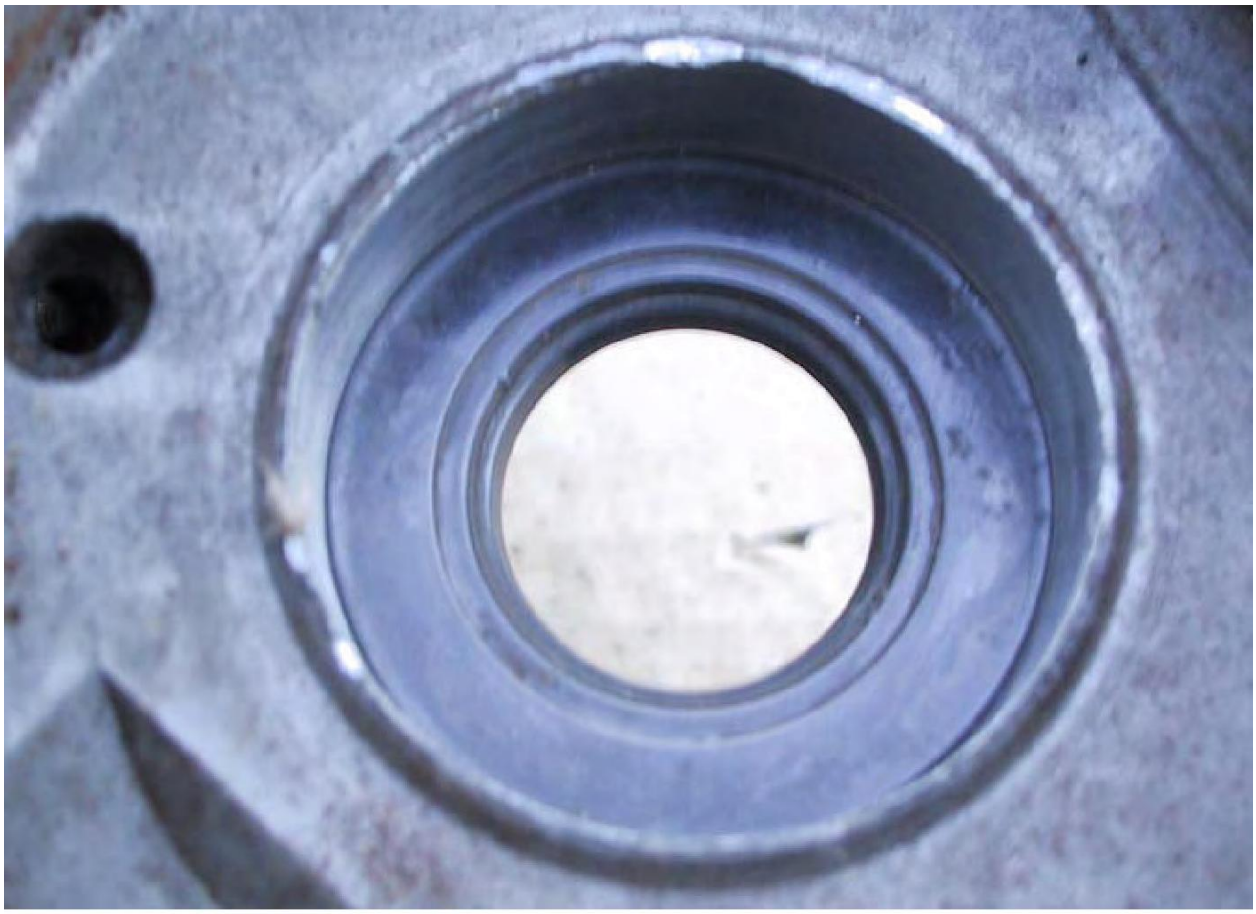
with an inlet port of 8 mm instead of 7 mm

The new engine case is marked “Cyclo moteur 3800”

A new oil seal of 40mm diameter is fitted between the crank end ball bearing

and the friction drive roller.





A new crankshaft with a longer thread is fitted for the clutch securing nut.

New crank end bearing: a 6203 is secured by interference fit (pressed in).

The friction roller runs on 2 bronze bushes and has a smaller diameter:

42 mm (45 mm in the 3300)

The clutch drum is secured to the friction roller with an octagonal nut of 37 mm across the flats (AF).

There are now 8 slots in the base of the clutch drum.

A 21mm AF (across flats) nut and a shim allow a small amount of clearance for the friction roller.

A pressed metal cover with oil seal protects the clutch from any grease that might escape from the bearing.

A second 21mm AF nut secures the centrifugal clutch mechanism to the crankshaft in the 3800 engine. It's secured between the two nuts.

In the 2200 engine this was clamped between a single nut and several bushes and the clutch end bearing against a step in the crankshaft.

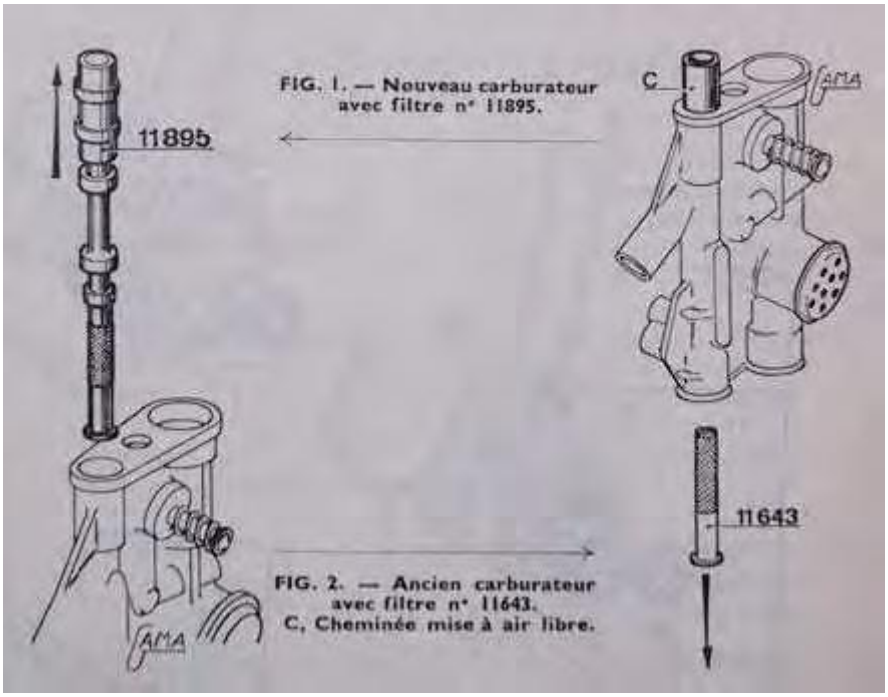
A new headlight cover is marked with the characters S3800 coloured white.

A red and white sticker is fixed to the air cleaner cover.

A new carburettor is installed: the new fuel filter is now fitted from the top instead of the previous brass tube.

A new idle air intake grill now has 7 holes instead of the previous 3 slots.

Comparison of the old (right) and the new carburettor (left).



A new fuel pump:

The front cover is now glued in for a more reliable seal.

The four corners are now of identical thickness.

The pump is mounted with 4 identical bolts instead of the previous 2 brass screws at the top.

A soft seat cover with brand “Pryma Tansat” is available with a new dot pattern.

Soft:

The older seat cover branded “Brown” with a line-type grain surface continues to be fitted as standard.

Hard:

A few months later, the new plastic tank arrives.

October 1966

New, wider, more strongly rounded mud guards are fitted with a flute along the edges.

The front mudguard is extended and forms a protective shield between the exhaust gases and the mud flap.

The right edge of the guard is flattened out to accept the mounting strip of the muffler between it and the mud flap.

New shorter mud flap with only two mounting holes.

The metal mud flap fixing strip is shorter, no longer has any folded edges and is cut with semi-circular ends.

New read mudguard stays. The bent ends are several mm longer.

Visible in the photo in the centre in black.

A few more mm longer beyond the mounting hole.

new  **old**

From 1967 they are screwed to the inside of the mudguard.

New and longer taillight cable covers.

New luggage carrier: the two mounting holes for the rear stays have been moved forward by 8 mm.

November 1966

New bell

The throttle cable roll no longer has a collar

A reinforced version of the pedal crank drive is fitted.

New pedal sprocket with 34 teeth, the chain is now 83 links long.

New brake handles: the Bowden cable inner is no longer clamped by a screw, but used a nipple.

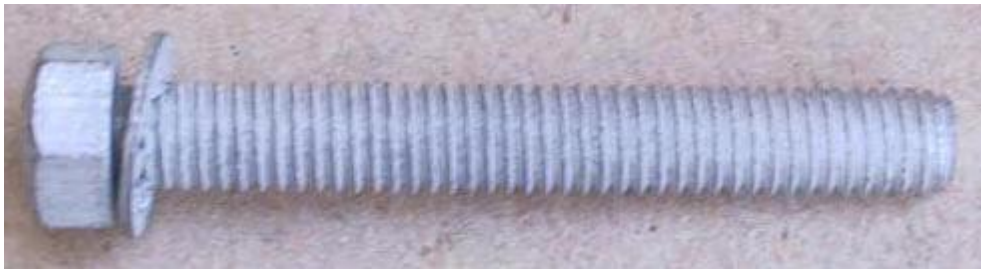
Left and right handles are identical.

These parts have been fitted as standard at the factory at Tours since November 1966.

New longerons: the cut-outs for fitting the footplate are deleted. New stator bolts with non-removable serrated washers and full length threads.

They replace the cylinder head–type bolts with spring washers.

They are used exclusive as the inside bolts.



A new air cleaner cover is fitted with the stamped-in lettering “DÉPART” and “START”

The crank case now has a slot which is used to secure a spring hook-end on the Micron.

The logo S3800 on the headlight cover is now silver coloured.

July 1967

New cylinder: the exhaust port is drilled through at a different angle which is designed to reduce the carbon build-up in that area.

From No. 4.101.356 a 14mm AF flywheel nut is fitted as standard.

To extract the flywheel, a simple extractor disc can now be used without having to exchange the nut.

Previous extractor kit.

Washers are also fitted under all wheel nuts from now on.

March 1968

The plastic tank is now fitted to all production models.

May 1968

Price: 393 F

Introduction of the throttle grip.

It allows going slowly without using the front brake.

A small follower runs along a plastic cam which pulls on the throttle cable.

The throttle cable cam

A new handlebars – only the right hand side has changed.

The little indentation which held the old handle in place is gone. A cut-out in the bottom of the tube allows the movement of the cam.

The locating bolt is now at the bottom.

There are two exit ports for the Bowden cables.

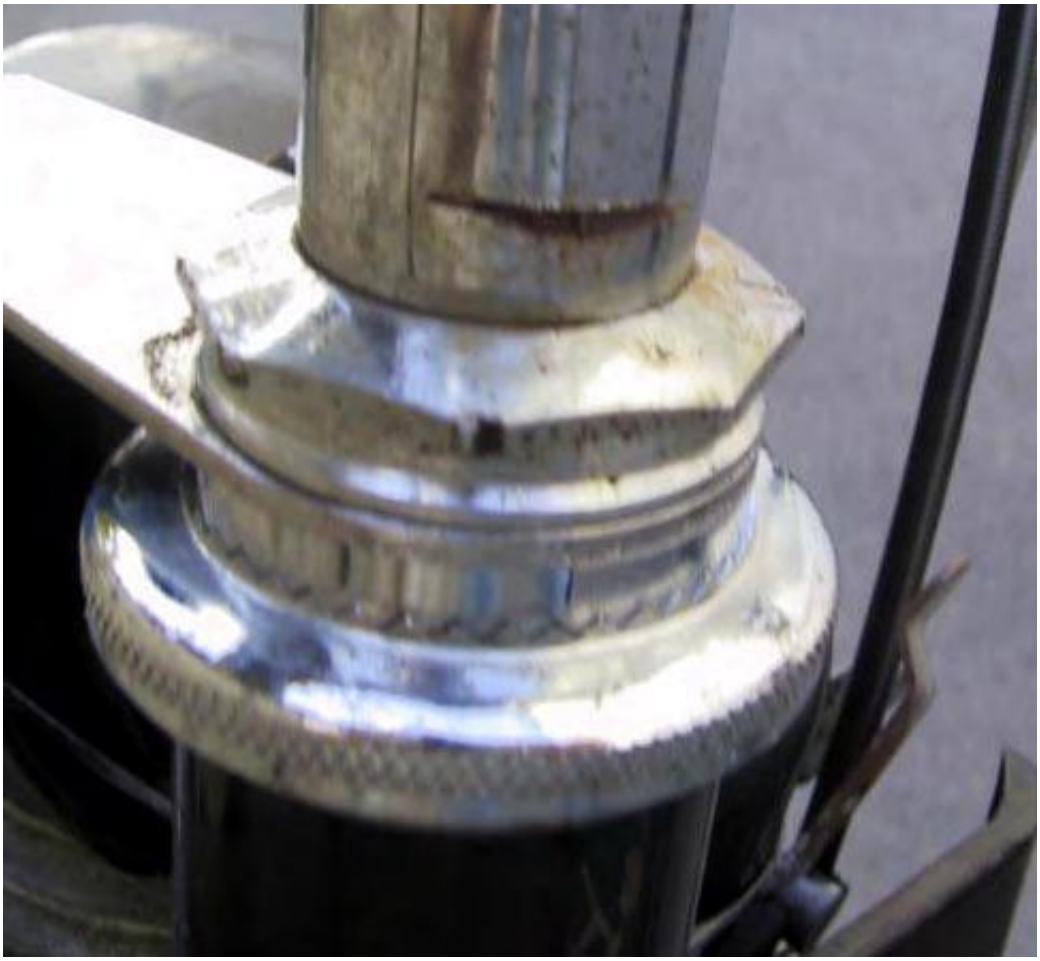
The cable covers are now metallic grey.

A new fixing bolt with a thicker hexagon head is fitted just for the right side grip.

The new throttle cable drum remains grey.

The edge is reduced from 1.8mm to 1mm to clamp the new thinner throttle cable.

The headstem bearing nut looses its serrations, the wavy spring washer disappears and the octagonal nut is now taller.
These new parts are fitted at the Tours factory from November 1966 and are generally fitted from April 1968.



before

after.

A new bearing cone and a new fork-T without machined step.

old

new

A new tank cap is used with smaller handles.

The 3800 is going into production in colour.

It uses the colours of the Micron: red and blue.

Seat cover, handle grips, footplate, flywheel cover and tank are made from light grey plastic.

The headlight shells are made from red or blue plastic.

The mud flap is metallic grey.

The engine lift arm and air cleaner cover are painted light grey.

The engine mounting plates are painted either black or light grey.

The entire frame and sheet metal parts are painted red or blue – even the stand and the seat frame.

The tyres remain black.

The engine numbers for the coloured bikes are mixed in with the black ones.

There is now a longer and skinnier ignition coil.

It is mounted using 2 shorter bolts, the same size as those in the fuel pump and the lighting coil.

new coil at the right

The ignition cable gets an extension and a small white rubber sealing ring.

November 1968

A series of Solex are produced using the earlier throttle cable drum with the 1.8mm edge.

To clamp the throttle cable, it has to be wound around the clamp screw.

Around 1968

The tyre pump is manufactured from black plastic, replacing the aluminium version.

1969

Price: 420 F in black, 447 F in colours.

New left brake handle is as on the Flash which enables the brake cable to roll over. The fixing bolt is now fitted from below. The handle bars are changed to suit.

The brake handle bases for the left and the right are now identical.

The grips change to dark grey.

A little later, a new bell is fitted but the holes in the handlebars remain.

The seat covers – soft and hard – are made in dark grey, as is the foot plate.

The colour schemes of the 3800 are changed:

A red or blue ’Luxe’ version is made with stainless steel mud guards and white wall tyres.

Their grips, seat cover and footplates are also dark grey – coloured versions with light grey plastics.

The engine lift arm is chromed and sports a black ball end.

Production of a new engine case is commenced, but it isn't generally fitted until later.

The crank end bearing seat is shallower.

It saves about 1.5mm in width and a new oil seal can be fitted with a diameter of 31mm.

This seal can be removed from the friction roller side without disturbing the bearing.

New smaller seal: 31mm OD in place of the older 40mm OD one.

March 1969

A new decompression valve is trialled without a slotted top, to make its adjustment during production easier and quicker – by not having to line up the lever with the slot.

This solution was dropped soon however, due to many problems with adjustments changing by the nut rotating from vibrations in service.

A new white throttle disk is fitted to the carburettor: it sports an angled groove on its reverse side to allow tucking in the free end of the Bowden cable.

To enable machine installation of the manifold, a Phillips head slot is used in its bolt heads.

The new front engine mudguard is stamped with a ‘buttonhole’.

The mounting holes are open slots to make removal easier.

The front edge gets a pressed-in rib.

Its anchor point in the engine casing is also made longer to provide better stability.

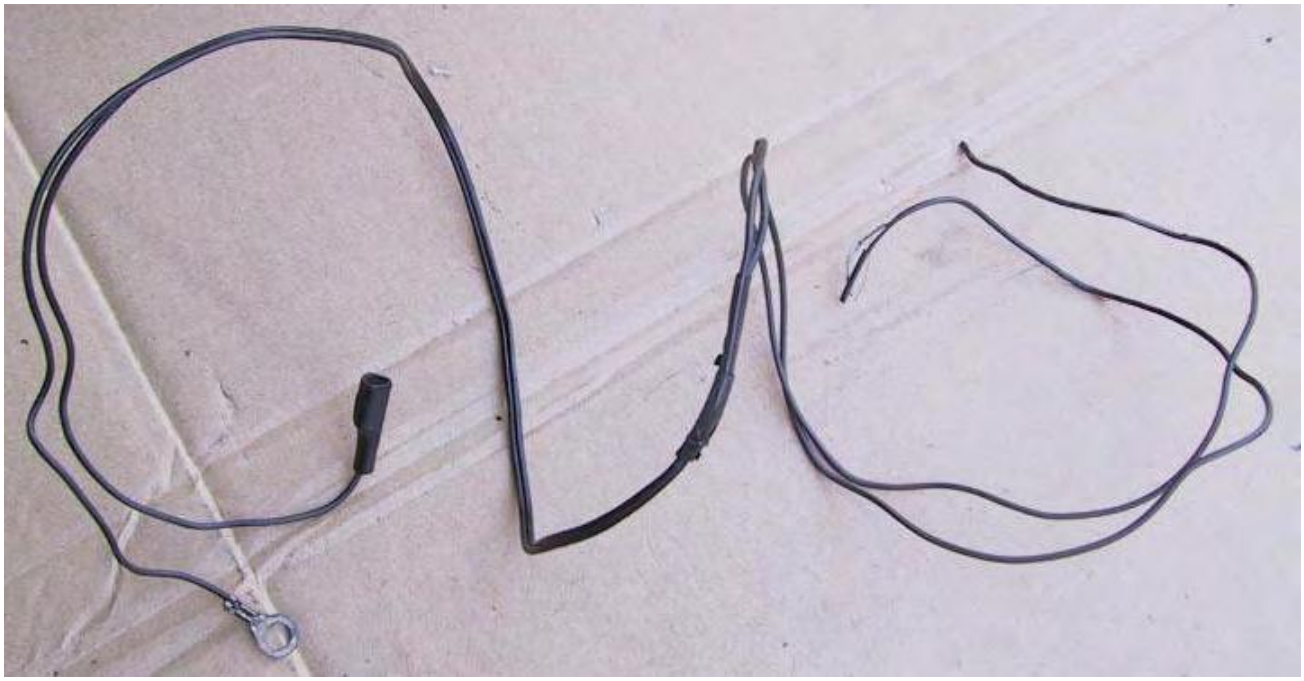
The friction roller flange is now ribbed to reduce wear of the tire.

A new muffler is fitted.

The exhaust pipe is shorter, the large S-bend has been replaced with an almost straight section which is meant to reduce ‘4-stroking’.

The new version of the decompression lever now has 3 holes at the control end and the control rod is lengthened by 6mm and by default fitted to the bottom hole.

On the red versions a ground cable is fitted for the taillight as the paint used is a better insulator. The taillight cable section is therefore doubled. The cable runs between the rear brake adjuster and the taillight base.



1970

The black Solex 3800 costs 439 F.

The 3800 Super Luxe is 489 F.

A white-framed version is sold with stainless steel mudguards, metallic grey mud flap, chromed exhaust and white wall tyres.

The engine cover and head light is white with a black switch knob.

The engine lift handle is grey, the engine mounting brackets are black, seat cover, foot plate and handlebar grips are all dark grey.

A few months later the flywheel cover, tank, light switch and air cleaner cover are produced in white too.

The engine lift handle is chromed while the ball end remains black or grey.


3800


3800

There is a new crank bracket with the bearing tube welded in.

1969/70

A new red ignition coil is used. It’s core can be separated into two parts.

1971

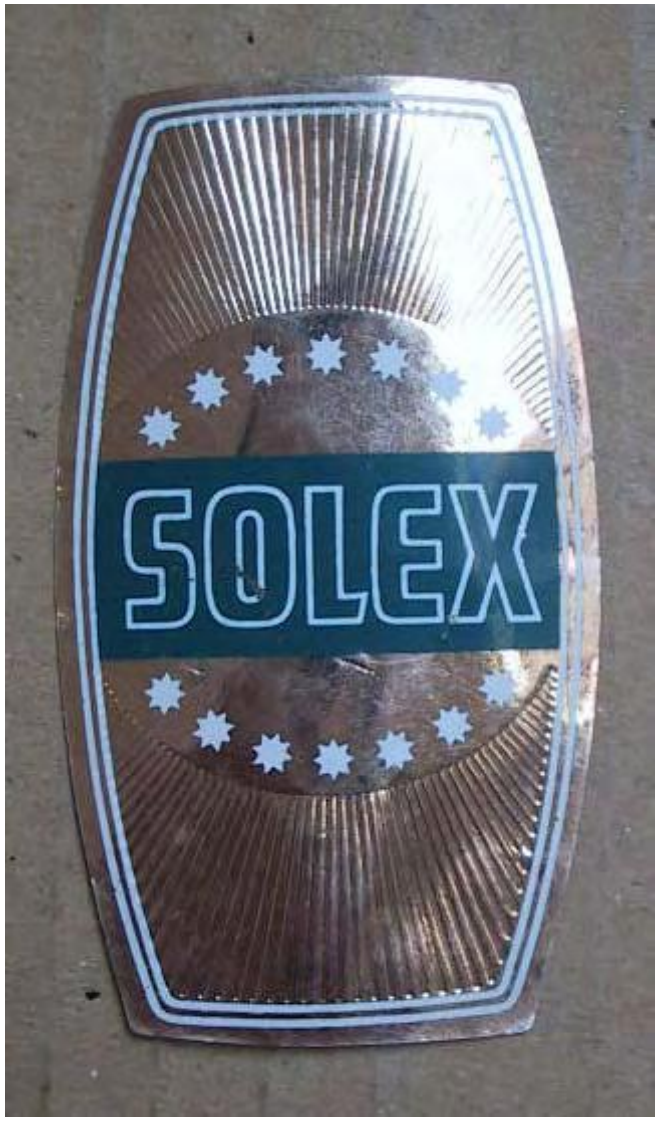
The Solex 5000 is released.

Production of the coloured 3800s ceases.

The remaining stainless steel mudguards are painted black and used up by fitting them on black 3800s.

Later on that year: the red stripe on the air cleaner cover disappears.

The 5000 company logo sticker is attached to the head stem tube.



The lower frame bolts are increased from 8mm to 9.5mm (with the French M9x1.25mm thread) and the frame member and centre stand bracket holes are drilled to 9.5mm to accommodate them.

The rear brake from the 5000 is now fitted in the 3800 wheels.

1972 or 1973

The rotor is modified and it's dust cover is reduced from 77 to 75.5mm diameter.

End 1972

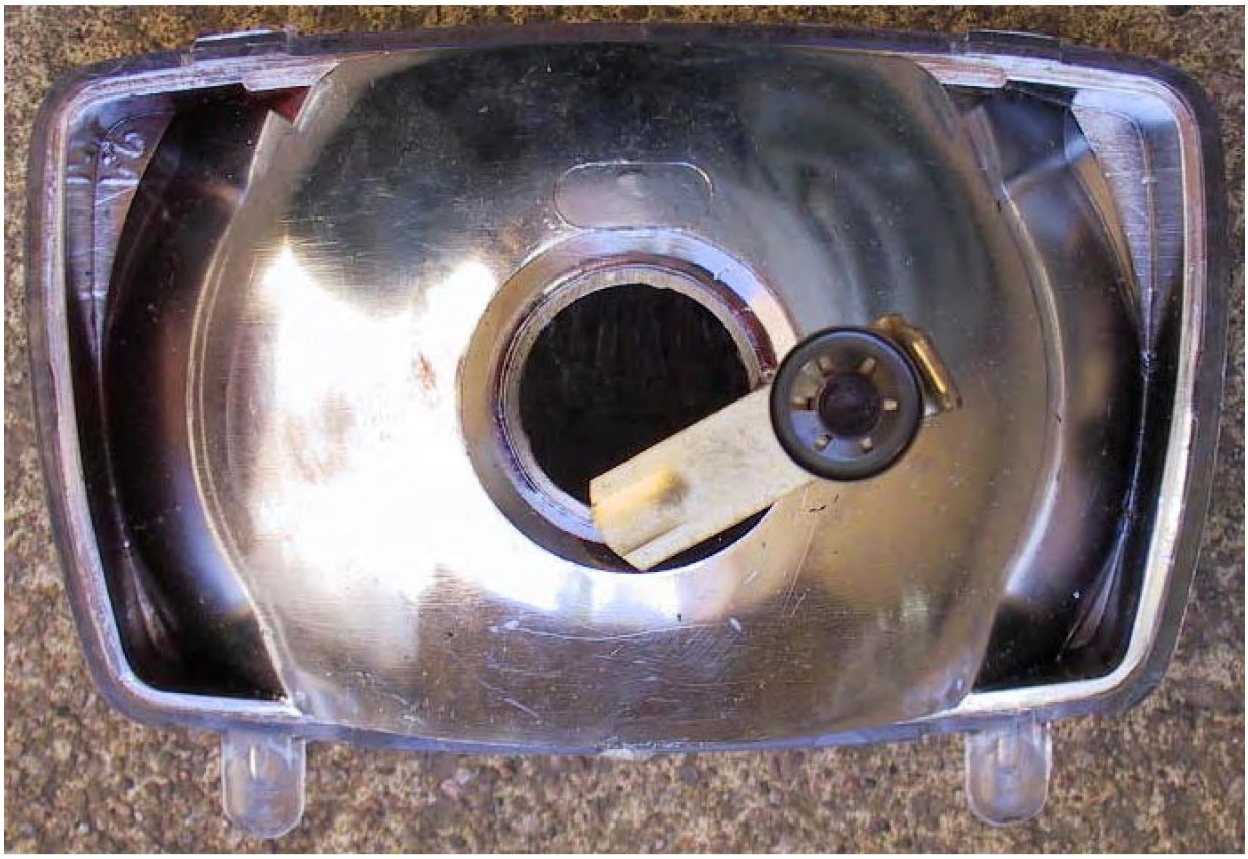
Between the engine numbers 4804xxx and 4807xxx a small series of a new clutch design is tested.

March 1973

No. 4 813 951

A ground cable connects the headlight socket to one of the fuel pump bolts. It replaces the copper finger that used to be screwed to the pump body.

The headlight globe socket is fitted with a flat male connector to suit.



Nr. 4 816 301

A limited series of 50,000 brake handle bolts with plastic coated threads are tested on the 3800, 5000 and 6000 to prevent loosening from vibrations.

Nr. 4 816 423

The torque of the 8 crankcase bolts is re- checked at the factories after initial run-up of the engines in the test stand, to reduce the loss of bolts and damage to the gasket. This replaces the dealers' check of these bolts at the free first service – avoiding the need to remove the tank at that time.

Nr. 4 816 501

The hole for the bell disappears from the handle bars.

Nr. 4 820 151

As part of standardisation, the 14mm AF bolts on the engine mounting are replaced with 13mm AF which are already used on the 5000.

Replacement of the 13mm AF Brake studs and their nuts with those from the 5000 of 12mm AF.

The 14mm AF Bolts on the forks are also replaced with 13mm AF ones from the 5000.

Nr. 4 827 994

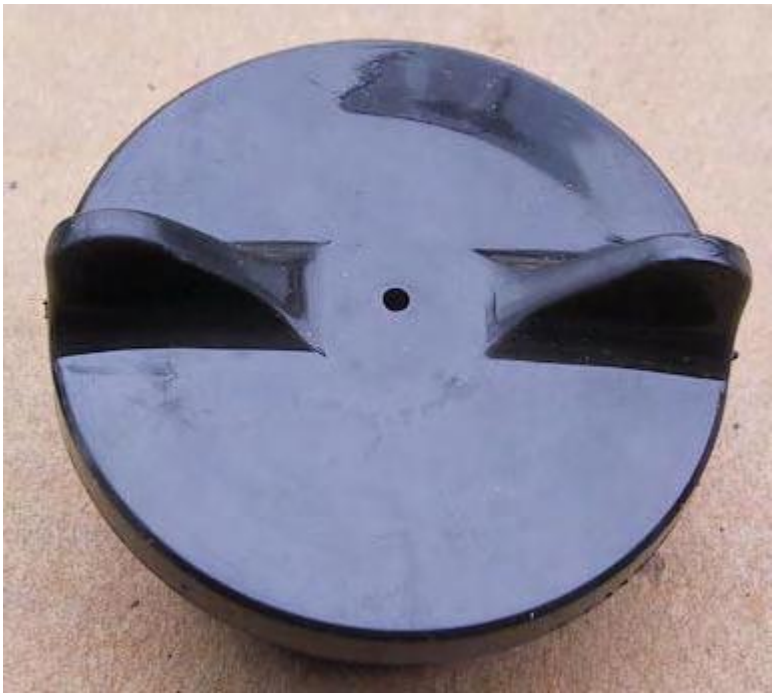
New rear brake cable adjusters fitted next to the centre stand fitting.

New air cleaner housing: the bolt holes are increased to 8mm to simplify assembly.

The tank lid gets a ventilation hole on both the 5000 and 3800.

Initially available as a spare part, it is soon used in production.

It is no longer used as an oil measuring cup. An insert prevents splashing of fuel.



June 1973 : Nr. 4 843 419

Price: 540F

The new simple clutch with loose friction pads in fitted as standard.

July 1973

An arrow is now cast in the plastic engine cover showing the direction to switch on the light. The switch boss is also improved.

Nr. 4 849 301

The production of the simplified clutch stops and production of the previous version is restarted.

February 1974

Nr. 4 861 620

Price 578F

New contact breakers are fitted without the ventilation hole.

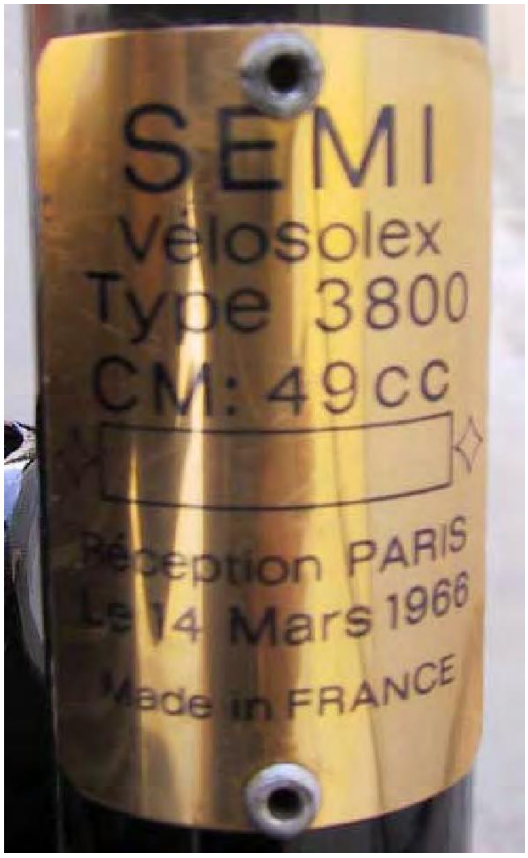
Later on:

Die-cast brake handles are produced in a new shape and with flatter ends.

The engine cover is now fixed with a special bolt that also removes the dirt from the friction roller space, in order to make the light switch more reliable.

The carburettor guard is now sourced from the 5000. It has two mounting holes – one 6mm and one 8mm.

A type plate is now riveted to the head stem bearing either SINFAC or SEMI labels.



(The 14th of March 1966 is the type certification date, not the year of manufacture)

The paint is now applied thicker, less glossy and when rust develops, it peels off in sheets – just like on the 5000.

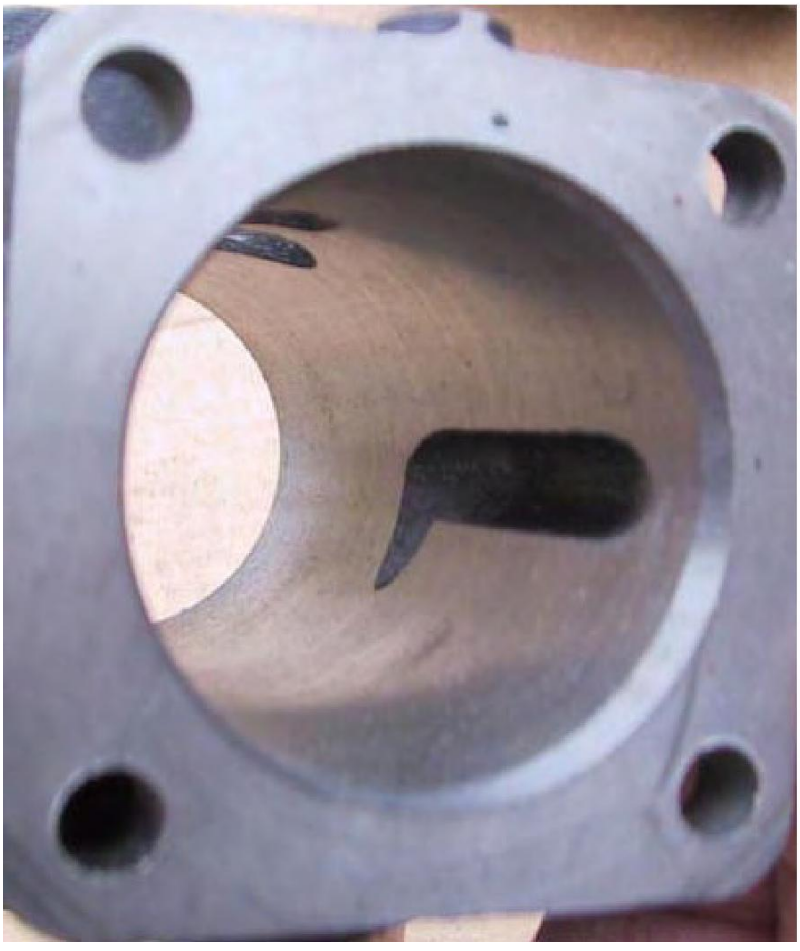
The gold pinstripe disappears from the mud guards.

The new rear wheel is interchangeable with the older ones, but gets a new hub with a reduced brake drum diameter from 883mm to 80mm.

The new brake baking plate bears the maker's name LELEU, doesn't have a return spring and the cam is no longer removable.

The new brake shoes for 80mm diameter.

A new cylinder is fitted with open transfer ports. The inlet is now 8.5mm and the exhaust port is freed up. It is marked TUM 80A CM6.5



The pistons now have a shorter skirt.

A new cylinder head is produced with a larger gasket face. The shape in no longer the same as that of the gasket around the decompression valve.

The new exhaust pipe is a little bigger.

A new luggage rack has the rear tyre pump spike moved forward by 3cm. The pumps are reduced to 25cm like those on the 5000.

July 1974

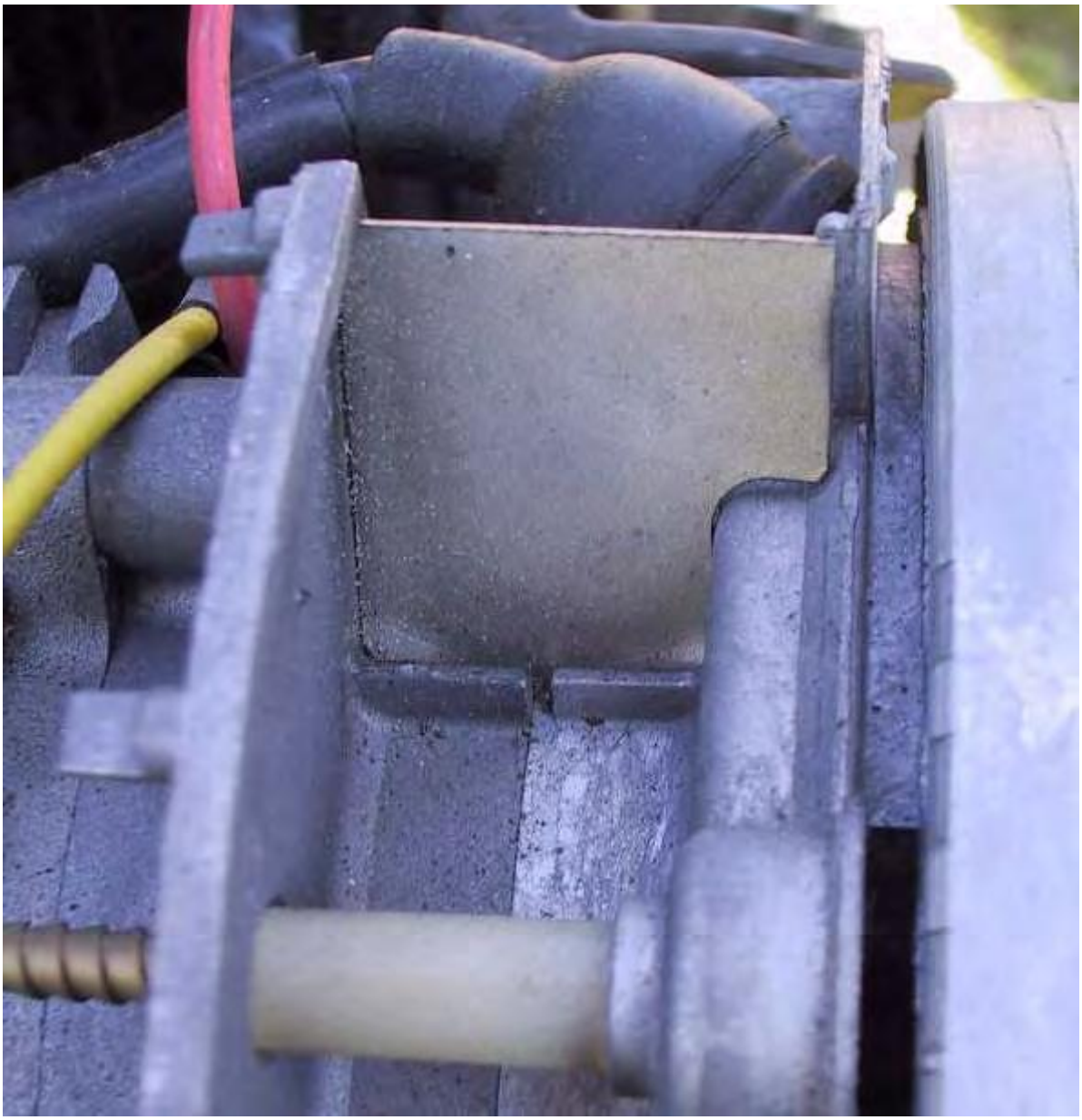
Price 629F

May 1975

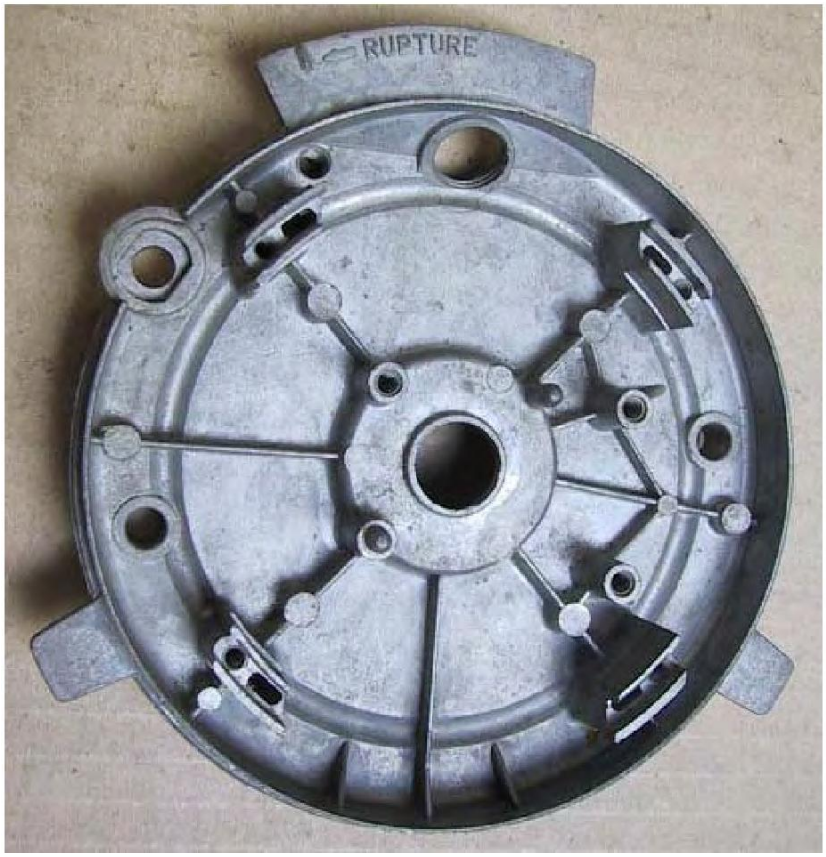
Price: 713 F

Later that year:

The ribs between the friction roller flange and the stator base is replaced with a sheet metal piece.



The stator is modified: there are now to small ribs near the bottom and one under the condenser.



October 1976

Nr. 9 007 451 parallel to the 5000

A new hexagonal taillight is fitted in common with other Motobecane bicycles.

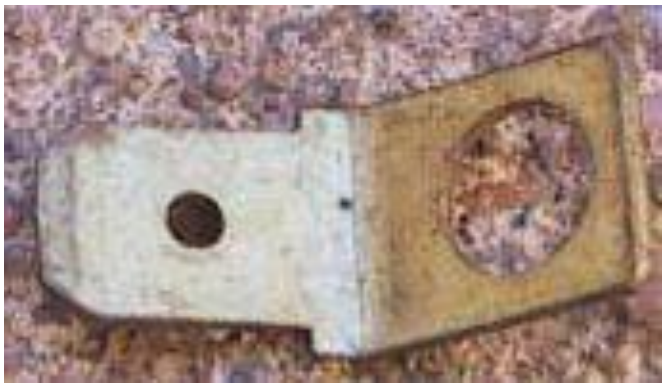
The globe is a bayonet fitting.

The rear mudguard is alt4ered to suit the new mounting holes required.

The rear edge is folded inwards.

The cables no longer fit into the rolled edge of the guards and now runs through a rubber grommet and is held on the inside by 3 spot welded clips.

A ground cable for the taillight now runs from a flat connector from the fuel pump. It is black in its front segment and brown at the rear.



New paint produces a higher gloss. It is sprayed over a white base coat.

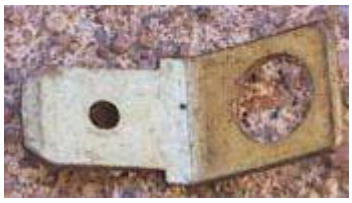
Handle grips are now black.

A new crank spindle is reduced from 16mm diameter to 12.5mm along with new crank wedge pins.

February 1977

Nr. 9 015 840

A green-yellow ground cable now connects the taillight to the fuel pump.



The two cables are joined under the foot plate with new 3mm flat connectors.

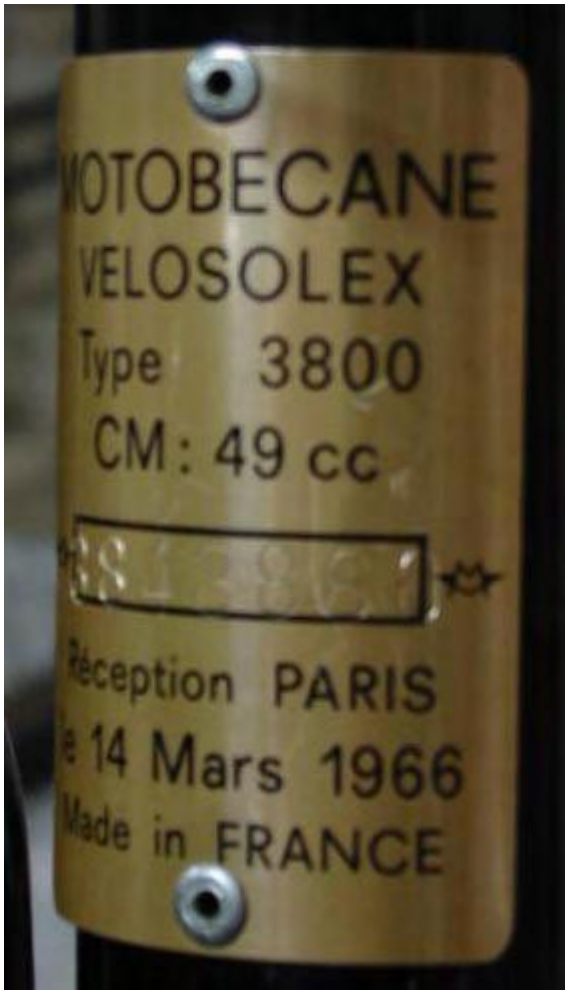
Later:

White Motobecane stickers are attached to both sides of the frame down tube.

The seat frame also has a Sticker with the Motobecane Logo.

The riveted type plate now also has the title MOTOBECANE.

A frame number is now stamped in as well.



The engine numbers are now stamped onto a small aluminium label with is riveted to the crank case.

The wheel nuts now get the thick washer of the 5000.

The 1980s

The frame down tubes of the 5000 are used on the 3800 model as well. The empty pedal crank hole (for the 5000) is around 25mm diameter and the upper bolt hole for the 5000 is closed with a rubber plug.

1983

The 3800 export model is also sold in France now. It sports the handle bars of the 5000.

The brake levers get black rubber balls fitted to their ends.

The CEV head lights are fitted to the handle bars, held on a V-shaped mounting plate.

The engine cover is black with a ’3800’ sticker in black and orange.

The engine is lifted with a crank spindle like on the 5000. A retaining plate is bolted to each of the fork legs.

The seat spring is zinc plated as on the 5000.

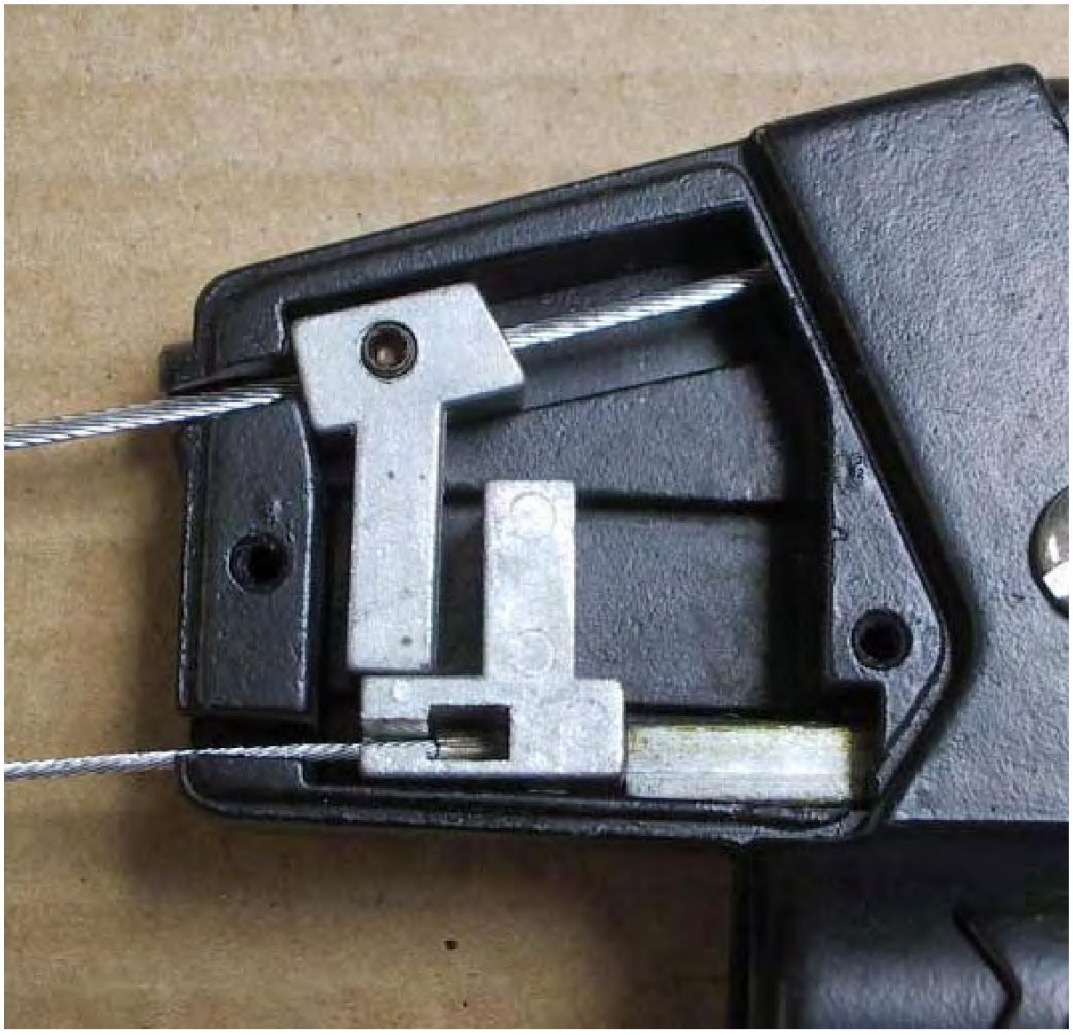
1986

The first release of this version is produced on March 10, 1986.

The coloured models return in white, metallic blue and red – the same colours as on the Motobecane bicycles.

The new handlebars are 22mm diameter with new grips and black painted or anodised aluminium brake levers and brackets – now pivoting inboard.

A steering stop is now welded to the front of the steering stem.



A SOLEX sticker is fixed to the down tube sides in white on the black, red and metallic blue models and in black on the white ones.

The Logo on the seat tube is omitted.

The CEV headlight lens is now made from glass and the globe is a 6V 15W version with larger socket.


W3-15W

A new engine lift lever is fitted to enable mounting of the decompression lever on the left. The decompression lever of the 5000 is used from now on.

Another change of the motor cover: A flat cable connector 5mm wide for the taillight connection is fitted to the light switch blade instead of on the globe socket as was the version by Cibié.

Internal ribs stiffen the light mounting to compensate for the additional weight of the glass lens.

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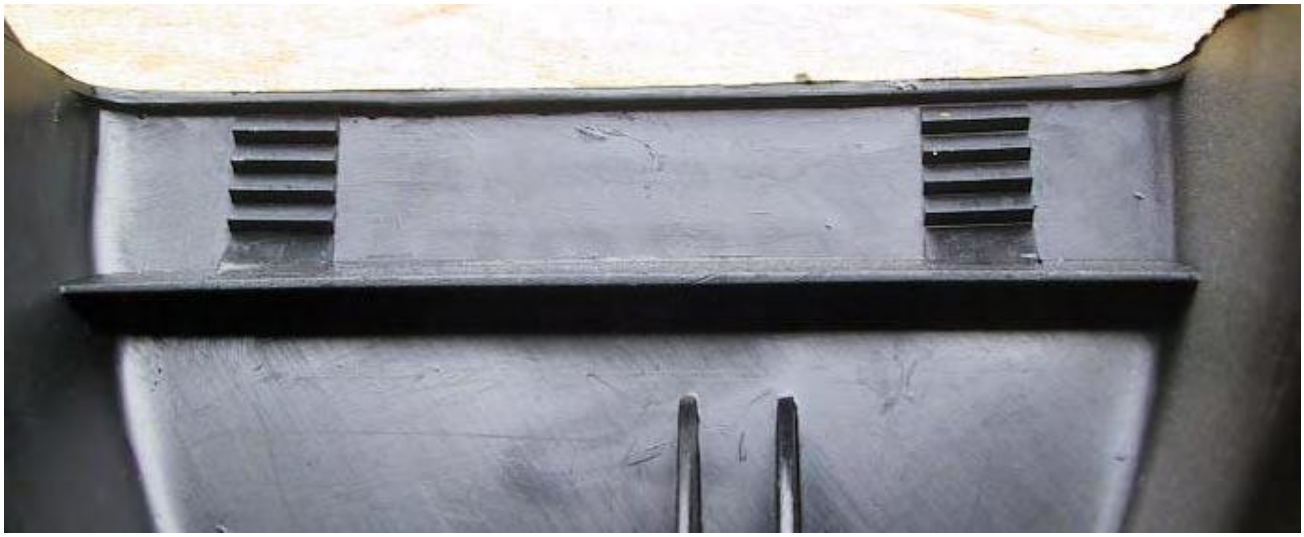

The taillight connector.

The high tension lead grommet now gets a rubber cap for additional protection.

Smaller black pedals are fitted branded UNION.

Four reflectors branded „LUXOR“ are glued to the fork legs and the side stays.

The wheel nots are changed to 16mm AF and the relevant spanner in the toolbox is changed form 14 – 21 to 16 – 21.

Towards the end of 1988

The surface of the engine castings changes to a rougher finish with the cast in logo „M“ next to the labels „CYCLO MOTEUR 38800“. The same finish on the friction roller mount. This gives a darker and less shiny appearance than previously.

The M logo is also pressed into the carburettor and the air cleaner cover.

Final Limited Edition

A numbered limited edition model called ‘Nostalgie’ is produced for the final 100 examples at the end of 1988.

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