

PLAM AIRLESS

Airless paint-spraying unit

TECHNICAL SPECIFICATIONS

- CE-COMPLIANT ELECTRIC MOTOR WITH MOTOR OVERLOAD PROTECTION 1
- POWER: 1.1 kW
- SINGLE-PHASE 230 V 50 Hz
- CE-COMPLIANT NOISE LEVEL (75 dB)
- MAXIMUM PRESSURE: 220 BAR
- FREE FLOW RATE (without nozzle): 5 l/min
- HEAD: 50 m.
- MAX. SPRAY TIP ORIFICE DIAMETER: 0.025"

WARNING

Airless paint sprayers operate at extremely high pressures and, if safety regulations are not followed, there is a risk of injury. For this reason, the unit must not be used by unqualified personnel and must only be operated by suitably trained staff in accordance with current safety requirements. The operator must read the instructions carefully and comply strictly with all the rules listed herein. Failure to observe these safety rules may result in accidents and subsequent injury. In the event of injury, even minor, it is recommended to consult a doctor immediately, informing them precisely of the type of product being used. It is mandatory to connect the unit to an earth and always ensure that the electrical system to which you intend to connect complies with current legislation.



SAFETY REGULATIONS

A key feature of Airless System painting equipment is that it operates at very high pressures. The operator must therefore be properly trained in correct use of the equipment, and should always be advised to follow the safety instructions in this manual carefully and without exception.

Safety rules for the Airless spray system Follow local safety regulations! For the safe use of high-pressure Airless spraying equipment, the following safety rules must be observed.



• Flash point

Only spray coating materials with a flash point of 21° C or above, without additional heating. The flash point is the lowest temperature at which vapours are released from the coating material. These vapours are sufficient to form a flammable mixture with the air in the area where the coating material is located.



• Explosion protection

The equipment must not be used in areas covered by explosion-protection regulations.



• Risk of explosion and fire during spraying in the presence of ignition sources During spraying, there must be no ignition sources present, for example open flames, smoking cigarettes, cigars or pipes, sparks, glowing wires, hot surfaces, etc.



• Risk of injury from the material jet



Warning: risk of injury caused by injection!

Never point the spray gun at yourself, other people or animals.

Never use the spray gun without the guard.

The spray jet must never come into contact with any part of the body. The high spray pressures of airless spray guns can cause extremely dangerous injuries. If the jet makes contact, it can inject material through the skin. Do not treat an injury caused by the gun as a minor cut. In the event of skin injuries caused by paints or solvents, seek medical attention immediately for prompt, professional treatment. Inform the doctor of the type of substance used or the type of solvent used.

- Engage the gun safety catch to prevent accidental operation During nozzle fitting/removal and before any work breaks, always engage the gun safety catch and release the pressure. Before carrying out any work on any part of the equipment, including the gun, always switch off the motor using the dedicated switch and always relieve pressure by operating both the pressure-regulating valve and opening the return tap (see FIG.1). Always engage the gun safety catch even for short pauses (see gun manual).



- **Gun kickback**

If the operating pressure is high, pulling the trigger will cause recoil, which can reach a force of 15 N. If you are not prepared to counter this recoil, your hand may be thrown sharply backwards and you may lose your balance, resulting in potentially serious injury.

- **Respiratory mask to protect against solvent vapours**

Wear a respiratory mask while spray-applying. The operator must be provided with a suitable respiratory mask.

- **Prevention of occupational illnesses**

To protect the skin, safety clothing, gloves and, where necessary, a protective skin cream are required. Follow the instructions provided by the manufacturers of coating materials, solvents and cleaning agents during the preparation, application and cleaning of the equipment.

- **Maximum operating pressure**

The maximum permitted operating pressure for the spray gun, its accessories and the high-pressure hose must not exceed 250 BAR (25 MPa), as stated on the machine's rating plate as the maximum allowable operating pressure. Use only CE-compliant accessories (hoses, guns, fittings, etc.) rated and guaranteed for high-pressure use.



- **Static electricity**

As the product flows through the hose it generates static electricity, so the pump must be connected to earth without exception. Always ensure that the electrical system you intend to connect to complies with current legislation.

OPERATING AND MAINTENANCE INSTRUCTIONS

- Before proceeding, make sure the mains supply voltage you intend to connect to matches the value shown on the rating plate of the unit's electric motor.
- Any short extension leads must be at least equivalent to the cable supplied with the unit. For longer runs, the conductor cross-section must be larger: in such cases, it is always advisable to seek advice from a qualified electrician. Warning: unsuitable extension leads can cause irreversible damage to the motor!
- Warning!!! This unit is fitted with an earthing system, including the trolley, in accordance with current legislation. Therefore, always ensure that any extension leads used also have a properly connected earth via suitable plugs and sockets. Always ensure that the electrical system you intend to connect to complies with current legislation.

PROCEDURES FOR CORRECT AND SAFE USE OF THE EQUIPMENT

- Connect the material hose to both the spray gun and the pump, tightening the respective fittings with the supplied spanner.
- Connect the suction system to the pump, tightening the relevant fittings very securely.
- Switch on the motor using the dedicated switch.
- Place the suction intake of the suction system into the container holding the product you intend to spray, which should already have been prepared, filtered and diluted as recommended by the manufacturer.
- Allow the pump to draw until the product starts to flow out of the suction system return tube. Once a steady flow is achieved, close the in-line tap on the return tube, slowly turn the pressure regulation valve towards Max, and check the required pressure on the gauge.
- Proceed with spraying, strictly following the safety instructions given in this manual and in the spray-gun manual.

MAINTENANCE

To clean the pump, follow the same method described above, drawing through solvents suitable for the product used, or water if a water-based product has been used.

Thorough cleaning extends the life of the equipment and avoids wasted time when it is used again.

Replace the oil after the first 100 hours of operation, using Q8 HAYDN 32 Hydraulic Oil, or AGIP OSO 32, or equivalent.

Warning: using unsuitable oils can seriously damage the equipment.

Warning: disposal of used oil must be carried out in accordance with current legislation. Subsequent oil changes must be carried out every 500 hours of use.

If the equipment is expected to be out of use for long periods, it is advisable to oil the suction and compression valves with light oils.

CAUSES AND REMEDIES IN THE EVENT OF MALFUNCTION

THE MOTOR WILL NOT START:

- ⇒ no power supply: check the connections and make sure there is power at the socket you are connected to
- ⇒ motor protection has tripped: set the switch to the zero position and press the red motor protection button

• THE MOTOR STOPS:

- ⇒ voltage drop: check the line
- ⇒ motor protection has tripped: proceed as above

• THE PUMP DOES NOT DRAW:

- ⇒ suction hose not fully immersed in the product: add more product
- ⇒ loose suction-hose fitting: tighten fully
- ⇒ damaged suction hose: replace
- ⇒ clogged suction filter: clean or replace
- ⇒ low hydraulic oil level: top up with AGIP OSO 32 hydraulic oil
- ⇒ stuck suction valve: remove the suction-system coupling and free the valve by inserting and pushing with a finger: never use tools for this operation.
- ⇒ stuck compression valve: remove the valve cap and clean the ball, then reassemble everything as originally fitted. Never stretch the spring; if worn, replace it.
- ⇒ missing suction-valve seal: fit a new one

THE PUMP IS DRAWING IN BUT THE PRESSURE DOES NOT RISE: ⇒
return tap open or worn: close it and, if worn, replace it

⇒ pressure regulation valve set to minimum: turn it to the maximum setting ⇒

compression-valve spring faulty or worn: replace spring 5

⇒ faulty suction hose: replace

THE PUMP DRAWS IN, PRESSURE BUILDS UP BUT DROPS IMMEDIATELY AS SOON AS THE GUN IS TRIGGERED:

⇒ nozzle orifice too large or worn: replace it

⇒ filters blocked: clean or replace

⇒ loose suction hose: tighten the relevant fitting fully, ensuring the suction-valve seal is correctly seated ⇒ the product is too heavy or thick: dilute and filter

• THE MATERIAL HOSE VIBRATES EXCESSIVELY:

⇒ the nozzle orifice is too large or worn: replace it

⇒ the compression valve is worn: replace it To stop the hose from vibrating, we recommend fitting the machine with the special "Anti-vibration" hose section to be connected to the pump head outlet. This special hose is supplied on request.

• THE SPRAY PATTERN IS UNEVEN AND LEAVES STREAKS:

⇒ pressure too low: increase the pressure

⇒ product too thick: dilute

⇒ nozzle too large or worn: replace it

INSTRUCTIONS FOR UNSTICKING THE VALVES – TESTAROSSA SERIES

If the delivery and suction valves need to be freed up—due to inadequate cleaning or the unit having been left unused for a long time—proceed as follows:

• DELIVERY VALVE

Unscrew the cap using the supplied spanner, remove the spring with guide and the ball, clean thoroughly, then refit in the original order.

• SUCTION VALVE

Insert your index finger and push until the valve poppet is released.
Never use tools or anything else.

MAINTENANCE AND SAFETY RULES FOR AIRLESS B500

WARNING!!!! MAX PRESSURE 350 BAR

NEVER EXCEED THE MAXIMUM PRESSURE SET BY THE MANUFACTURER!

The operator must strictly follow all instructions in this manual to ensure correct and safe use.

Warning!!! Failure to comply with these safety rules may result in injury!

Even in the case of minor injuries, seek medical advice immediately.

- When the spray gun is pressurised, never place fingers or hands in front of it and never point it towards yourself or others.
- Even during short work breaks, always lock the trigger using the safety lever, always relieve pressure from the pump (as instructed) and switch off the motor.
- If the spray gun is left unattended, even for short periods, always lock the trigger, always release pressure from the pump and switch off the motor.
- Before carrying out any work on the spray gun, always relieve pressure from the pump and switch off the motor.
- Use only accessories (nozzles, fittings, hoses, etc.) rated for high pressure and compliant with EC directives.
- As the product flows through the hose it generates static electricity, so the pump must be connected to earth. Therefore, always ensure that the electrical system a

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which you intend to connect to, in compliance with current legislation.

- This product is suitable for installation on machinery, provided that it complies with EC directives.

AIRLESS SAFETY DEVICE

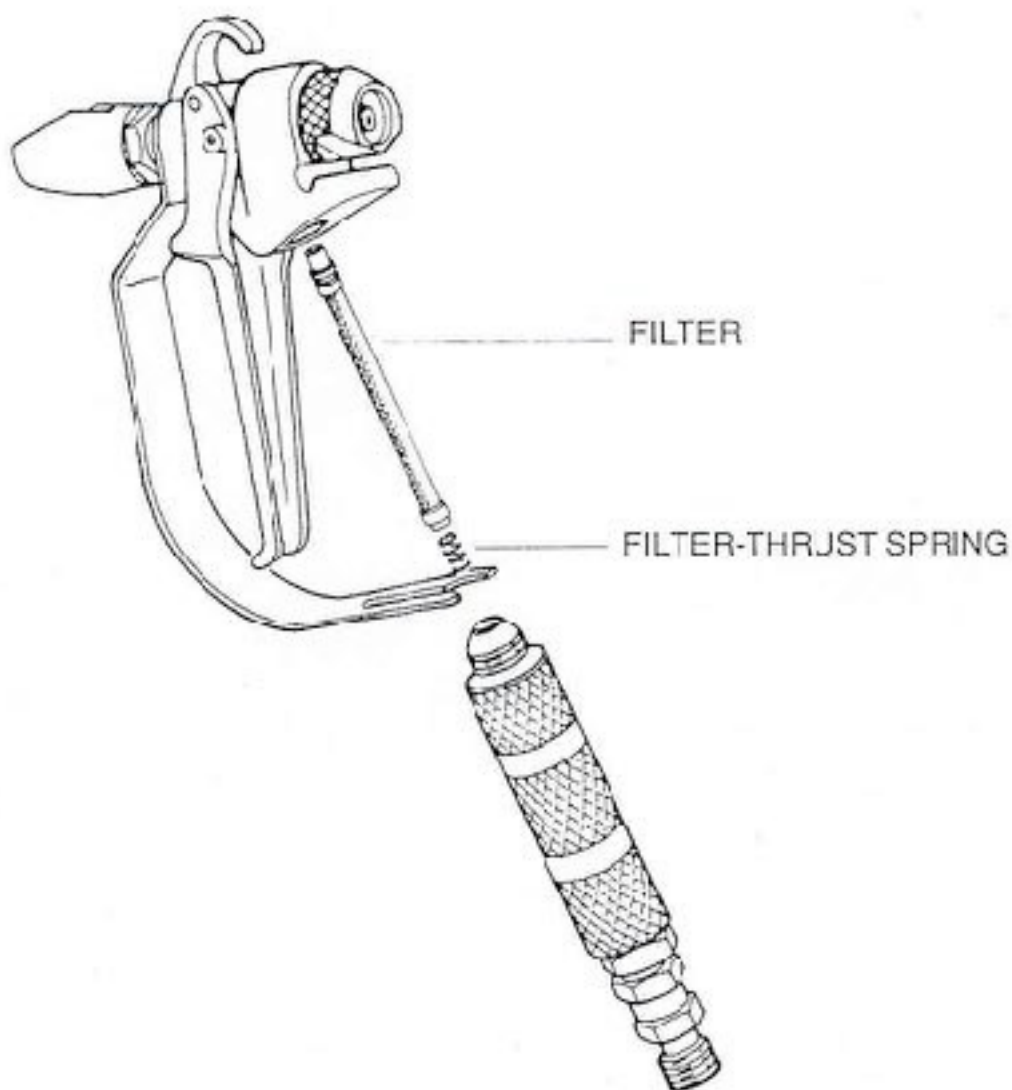


SAFETY ON, TRIGGER LOCKED



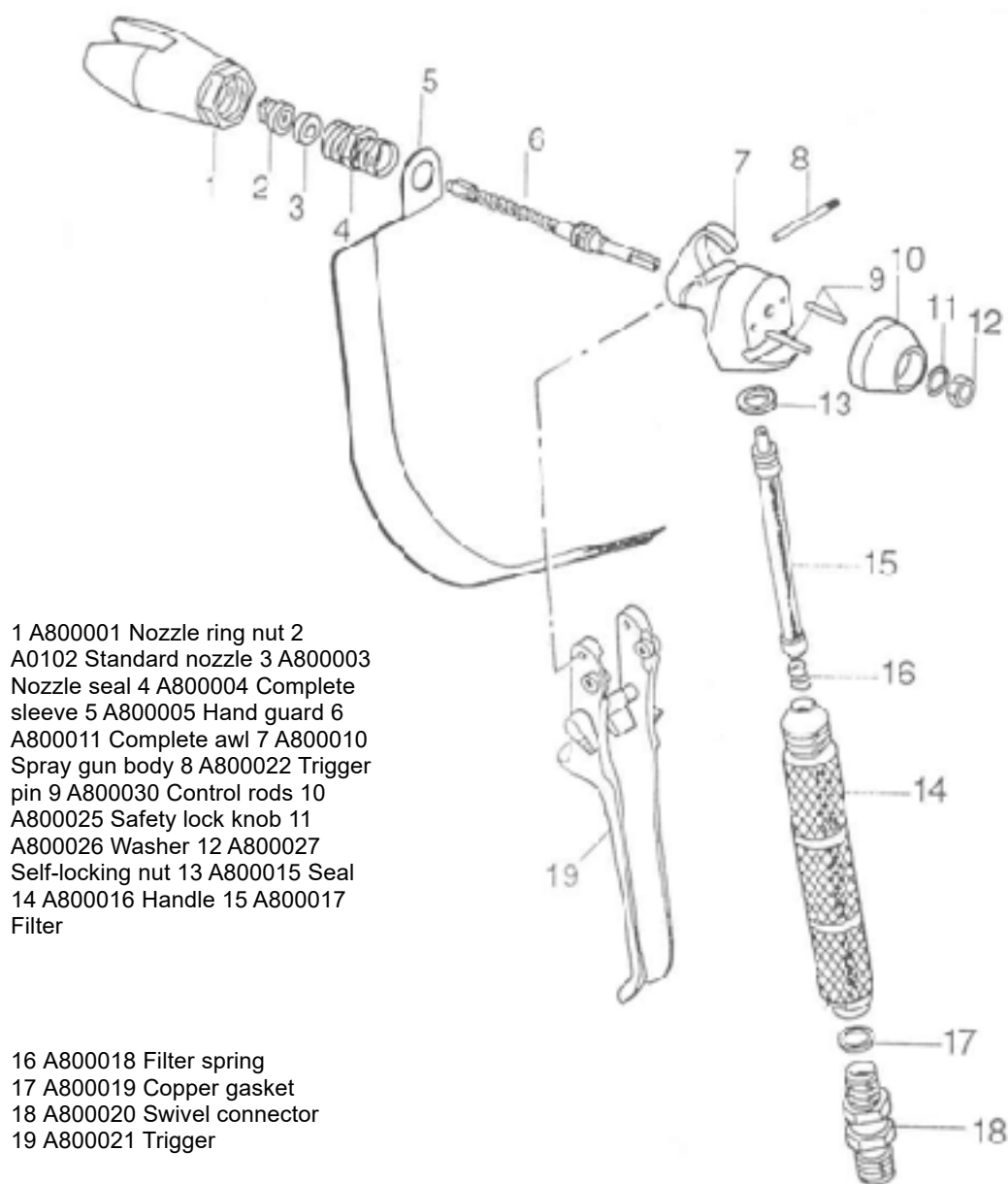
SAFETY OFF, TRIGGER FREE

INSTRUCTIONS FOR MAINTAINING OR REPLACING THE FILTER LOCATED IN THE SPRAY GUN HANDLE



WARNING!!!! Before carrying out any work on the spray gun, always relieve the pressure from the pump (as per the instructions) and switch off the motor.
To access the filter located in the spray gun handle, unscrew the handle and remove the filter, then clean it or replace it as required.
When reassembling, make sure the filter is correctly positioned and check that the filter spring is in place.
The filter should be inspected and cleaned very frequently, at least twice during a day's use.

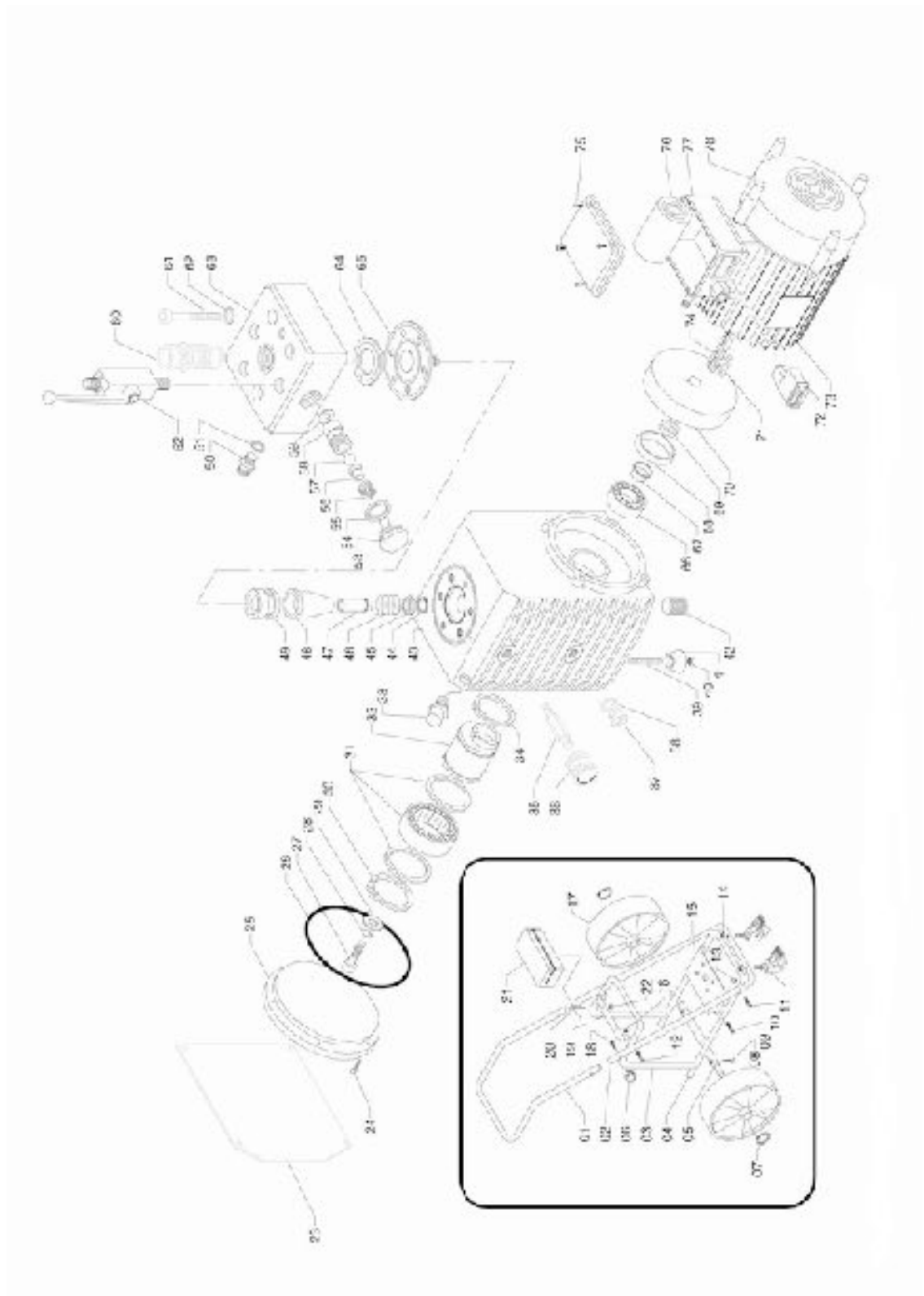
AIRLESS SPRAY GUN



1 A800001 Nozzle ring nut 2
A0102 Standard nozzle 3 A800003
Nozzle seal 4 A800004 Complete
sleeve 5 A800005 Hand guard 6
A800011 Complete awl 7 A800010
Spray gun body 8 A800022 Trigger
pin 9 A800030 Control rods 10
A800025 Safety lock knob 11
A800026 Washer 12 A800027
Self-locking nut 13 A800015 Seal
14 A800016 Handle 15 A800017
Filter

16 A800018 Filter spring
17 A800019 Copper gasket
18 A800020 Swivel connector
19 A800021 Trigger

PLAM AIRLESS AIRLESS MODEL – EXPLODED VIEW



POS. CODE DESCRIPTION

1 CA10000 Complete trolley
 23 CA5775 Nameplate
 24 CA4209 Bolt
 25 A05105 Oil chamber cover
 26 CA5106 O-ring
 27 A04375 Bolt
 28 A04476 Washer
 29 CA4205 Cam retaining washer
 30 CA4232 Circlip
 31 CA4204 Cam bearing
 32 A04203 Camshaft
 33 CA429 Oil filler cap
 34 CA4232 Circlip
 35 CA4214-15 Pressure regulating valve
 36 CA4215 Knob
 3 CA4213 Oil level indicator
 39 CA10120 Bolt
 40 CA10070 Self-locking nut
 41 S110730 Rubber grommets
 42 CA4211 Oil drain plug
 43 A05104 Hydraulic body
 44 CA5112 Circlip
 45 A05113 Washer
 46 A05114 Piston spring
 47 A05111 Piston
 48 A05109 Cylinder
 49 A05118 Filling
 50 CA420 Head outlet nipple
 51 CA423 Washer
 52 CA5123 HP tap
 53 CA410 Compression valve cap
 54 CA411 Copper gasket
 55 CA412 Calibrated spring
 56 CA413 Guide ring
 57 CA414 Ball Ø11
 58 CA415 Ball seat union
 59 CA416 Ball seat gasket
 60 CA4217 Suction valve
 61 CA5119 Bolt
 62 CA4216 Snoor washer
 63 A05116 Bare cylinder head
 64 A05115 Complete diaphragm
 65 A05116 Diaphragm spacer
 6 CA4202 Bearing
 68 CA4201 Oil seal
 69 CA4200 Spacer
 70 A05103 Flywheel
 71 CA4724 Key
 72 CA428/S5 Electrical switch
 73+74+78 A05100 Electric motor
 75-77 CA428BOX Switch holder box
 76 A5102 Capacitor