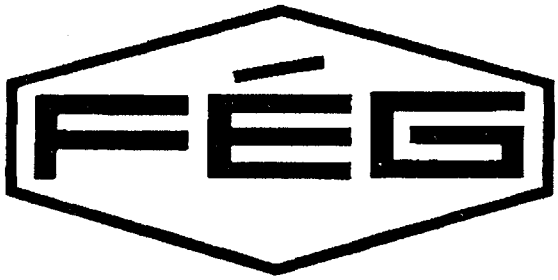


.177 cal. AIR PISTOL (CO^2)

MODEL GPM-02. MATCH

OPERATING MANUAL

CONGRATULATIONS !

You have just purchased an excellent competition air pistol produced by FEG in Hungary. This CO2 target pistol is the result of the desire and desire by experienced shooters and engineers to produce a simple but accurate and reliable air pistol at an affordable price. The FEG pistol fulfils this criteria.

ENJOY IT SAFELY !

IMPORTANT SAFETY RULES:

- This pistol is for use by experienced and sensible shooters and is intended for competition use on appropriate shooting ranges. Never allow any inexperienced person/s - especially children - to have access to or use the pistol without proper supervision. This pistol is not a toy and careless use may result in serious injury. It is the duty of the owner and user to obey all laws and regulations governing the use of firearms.
- Don't point the pistol at anything you don't intend to shoot. Always point the pistol towards the target or in a safe direction.
- When not in use, lock the pistol in the appropriate safe or storage place.
- Don't put the pistol away loaded or cocked. Always check and make sure that it is unloaded.
- Do NOT keep the pistol in your car - particularly in summer - and keep it away from excessive heat. CO^2 gas pressures increase dramatically when subjected to high temperatures.
- Be sure that you have a safe and appropriate backstop and target.
- Always treat the pistol - or any firearm - as if it was loaded. " Unloaded " guns cause accidents.
- Keep your hands away from escaping CO^2 gas.
- When shooting, wear eye protection.
- The above safety rules apply to use of ALL guns.

GOOD SHOOTING !

PLEASE NOTE:

This pistol is the **NEW - IMPROVED - MODEL GPM 2.**
It is now supplied with a COMPENSATOR which reduces recoil inherent in all CO2 pistols. It also aids accuracy.

The adjustment system of the trigger mechanism is also improved and a feeding ramp was added to make loading easier.

There are many other small changes and improvements that will make this pistol enjoyable to use.

FUNCTIONING: The propelling energy is provided by CO^2 gas stored in the rechargeable steel cylinder attached to the pistol. The gas is contained in and released from, the cylinder by the simple ball valve system incorporated in the cylinder.

Lifting the loading arm (17) cocks the firing mechanism and opens the loading gate (the loading pin (10) slides backward and the rifle is put into safety mode). One pellet may be placed on the loading ramp in the opened loading gate.

Lowering the loading arm will close the loading gate and the loading pin pushes the pellet into the barrel and closes the chamber. Pulling the trigger (15) will cause the sear (13) to slide away from under the hammer (8) and the firing pin (46) under the released pressure of the firing spring (47) will strike the ball valve containing the gas in the steel cylinder. Upon being hit, the ball valve will bounce open for a fraction of a second, allowing a small quantity of gas to escape, propelling the pellet through the barrel.

The design of the valve and firing mechanism assure relatively constant pellet velocities despite the gradually diminishing gas pressure in the cylinder.

FEG -MODEL GPM 02. - CO2. OPERATED TARGET AIR PISTOL

TECHNICAL DESCRIPTION.

The FEG Air Pistol complies with the appropriate UIS Regulations governing the use of Air Pistol.

Calibre;	:	4.5 mm. (.177 cal.)	**Barrel length**	:	220 mm.
Total length	:	385 mm.	**Sight radius**	:	320 mm.
Weight	:	1115 gr.(operational)	**Sights**	:	Adjustable.R/S. (2mm/ click at 10 m.)

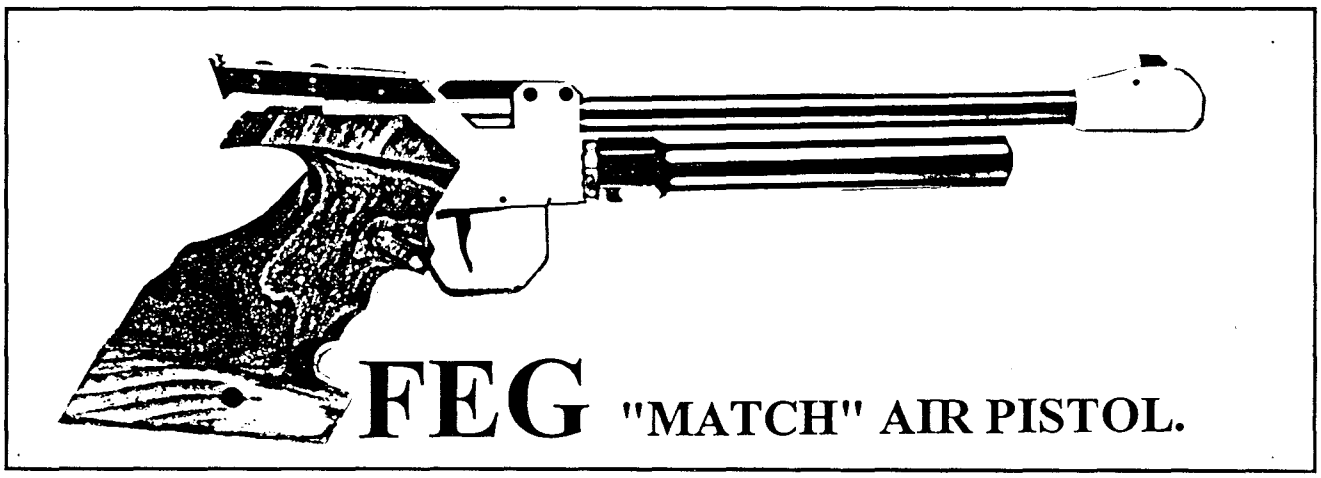
Trigger pull : 500 gr. Adjustable for position and weight & length.

Velocity : approx 400 ft/sec. (subject to pellet type and weight. Velocity is adjustable but is factory set at approx 400 ft/sec. as it is considered the optimum for accuracy, number of shots per cylinder, recoil etc.)

Number of shots per cylinder: 110 - 150 (subject to velocity. It is advised that velocity set screw position should not be changed.)

Grips : Adjustable, anatomical type target grips with non slip surface.

The pistol is under continuous development and the factory reserves the right to technical changes.



PRECISION HANDGUN SUPPLIES PTY. LTD.
IMPORTERS, SUPPLIERS AND MANUFACTURERS OF GUNS, TARGET AND RELOADING EQUIPMENT.
P.O. Box 62. Elsternwick. Vic. 3185. Australia. Phone: (03) 528 1937 or 328 1480. Fax: 329 2291.

Sole Australian Agent for: Steyr Match Air Pistols and Air Rifles, Morini Target Pistols and Grips. Feg Air Pistols and Rifles, Edelmann Targets and Patches, Patro .22 cal Standard Pistol, Star Pistols, PHS Universal Progressive Reloading Press, SK Ammunition, Nygord Air Gun Compensators and products. Kuti Shooting Glasses, etc. *Also Factory Agents for:* Safariland competition and Duty Products, Wilson Accessories, Uberti Rifles and Pistols, etc.

OPERATING INSTRUCTIONS

The FEG Mod. GPM 2 air pistol is a single shot target pistol, using CO^2 gas as propellant. The gas is contained in a detachable cylinder beneath the barrel. It holds - depending on adjustment and temperature - holds sufficient CO^2 for approx 110 - 150 shots. The cylinder may be removed from the pistol at any time, even if only partially empty. There will be a slight gas escape when doing so.

1. CHARGING THE PISTOL WITH CO^2 GAS.

When refilling, it is important that the full quantity of CO^2 is transferred (30 grams) is transferred to the cylinder, from the large filling bottle. To achieve this, the temperature of the pistol cylinder must be lower than that of the large CO^2 bottle. from which we refill. To cool the cylinder, place it in a refrigerator for a few minutes.

REFILLING PROCEDURES.

Cock the pistol and leave the cocking lever in the open position prior to fitting or removing the CO^2 cylinder from the pistol. After removing the gas cylinder, the magnetic valve stem (46) may fall out. If this happens, after carefully cleaning the pin, reinsert it with the magnetic end first.

Caution; Pulling the trigger while the cylinder is off the pistol, will fire out the pin and it may get lost.

a. Attach the refilling connector to the larger filling bottle. (Spanner tight)

b, Attach the cooled gas cylinder of the pistol to the outlet end of the refilling connector already attached to the larger bottle. (Finger tight only , no need to use spanners)

c. Open the valve of the large CO^2 supply bottle and wait a few seconds (20 - 40 seconds should be sufficient).

d. Close the valve and remove the cylinder from the refiling connector.

e. Check the weight of the full pistol gas cylinder. *NEVER* exceed the recommended gas capacity of 30 grams as this could create over pressure.

f. Screw the cylinder on the pistol. *Be sure that the there is no pellet in the barrel,* but that the pistol is COCKED before attaching the cylinder to the pistol.)

g. Allow it to reach ambient temperature and discharge 4-6 blank shots to stabilise pressure. The pistol is now ready to fire aimed shots.

The weight of the empty cylinders may vary slightly from cylinder to cylinder. At the front end of the cylinder you will find some numbers stamped. **The three digit number is the full weight that particular cylinder should weigh in grams when filled with the correct amount of CO^2. (30 grams)** (That is; the loaded cylinder should be 30 grams heavier than the empty cylinder) This weight must NOT be exceeded. **Cylinders should never be charged without weighing them.** Suitable electronic or mechanical scales are available relatively inexpensively.

Excess gas should be bled off by the use of the gas coupler fitted with the brass bleeder attachment, which - when screwed on the end of the cylinder will release excess gas, by pushing the ball valve open slightly, for the necessary short time period.

CAUTION !!

Keep hands away from escaping gas, it can cause frostbite if allowed to come into contact with your skin To prevent injury do not turn gas escape hole toward your face, or better; **wear eye protection.**

Do NOT expose full cylinders to extreme heat, store in cool area, out of direct sunlight.

Do NOT keep your pistol or cylinder in the boot of your car in warm conditions.

In very hot conditions, it may be necessary to fill the cylinder to a LOWER WEIGHT than recommended, as in hot conditions CO^2 gas pressure increases maybe to such degree that the firing pin is unable to open the ball valve, or the opening will be insufficient to allow the release of an adequate amount of gas, resulting of lower then desirable velocities.

2. GENERAL DIRECTIONS FOR USE.

As practical advice, we suggest that you hire a suitable size CO^2 cylinder from CIG/BOC and use this as the only source for refilling the cylinder of your pistol. There are different grades of CO^2 available. (Industrial, Food and Medical grade)
We suggest that you use at least FOOD grade CO^2. It's purity and low humidity content will protect your gun from damage, at very little extra cost. Most shooters find that the "D"(size) "E" type (siphon tube inside) "FOOD GRADE" (quality) CO^2 bottle is a good choice to keep. Its hire and subsequent refilling is inexpensive and will allow you to refill your cylinders many times, for thousands of shots to be fired from them. (The costs of hire and refill may be shared by several of your Club members.) Bottles without siphon tubes must be tilted downward at an angle of at least 30 degrees.

If the pistol is not to be used for extended periods, it is suggested that the CO^2 should be released from the cylinder and stored empty.

PLEASE NOTE

The cylinder is equipped (inside) with a silicon rubber "O" ring which has two important roles; besides of providing a seal between the steel body of the cylinder and the brass valve housing, it acts as a simple but effective "safety " valve. Should the pressure inside the cylinder raise too high, this "O " ring is designed to " blow ", thereby releasing the CO2 gas The penalty for this simple, effective and important arrangement is that - due to the relatively soft ring used - there may be a constant, very slow loss of gas around and through the ring, releasing approx. 1/2 grams of gas per day through the small hole in the cylinder housing. *This is a normal design feature and one more good reason why you should weigh the cylinder prior to competing.*

NOTE TO COMPETITORS:

Filling the gas cylinder incorrectly or using a cylinder that has developed a leak may cause a shortage of CO^2 during a competition. *We suggest that you always weigh your cylinder just prior to starting a match to be sure that there is sufficient CO^2 for the event.* This advice also applies to any other CO^2 or pre compressed air/gas pistols.

3. TRIGGER ADJUSTMENT.

The trigger pull of the pistol is set at the factory to 500 grams, to comply with the UIT regulations. Should it need readjustment, proceed in the following manner;

All adjustments are controlled by 5 screws. (a) to (e). *See diagram 2.*

First Stage Travel: to shorten, turn screw (a) clockwise.
to lengthen, turn screw (a) anti clockwise.

Trigger position: to move trigger to front or to the rear, loosen screw (d) and slide trigger along the trigger base ramp, then re tighten screw (d).

Trigger pull weight: to increase weight, turn screw (e) clockwise.
to decrease weight, turn screw (e) anti-clockwise.

After correctly adjusted, it may be worth considering placing a small amount of nail polish on each adjustment screw, to "lock " them in the correct adjustment position and prevent them from vibrating loose in the course of using the pistol and thereby unintentionally changing the correct trigger adjustment. (This bit of practical advice is also applicable using any other pistols)

CORRECT OPERATIONAL ADJUSTMENT:

The trigger mechanism has been set at the factory for correct functioning. Should it need adjustment - however - follow these procedures exactly. It will put it back to correct factory adjustment.

1. With the rifle cocked, turn screw (c) gradually *anti-clockwise*, until the pistol cannot be fired.

2. With the pistol cocked, hold the trigger pulled back fully, and turn screw (b) slowly *clockwise,* until the pistol fires, then turn this screw 1/8 turn *anti-clockwise.*

3. At this stage, the pistol cannot be fired. Check this by re-cocking.

4. Again, the trigger should be pulled back fully and held in this position. Turn screw (c) slowly *clockwise,* until the pistol fires. After the pistol fired turn screw (c) a further 1/8 turn *clockwise.*

5. *The trigger is now correctly set.* Weight adjustment - using screw (e) may now be necessary. To increase weight, turn screw (e) *clockwise,* - to decrease, turn it *anti-clockwise.*

WARNING !!

Extreme outward adjustment of screws (b) and (c) may cause internal parts to fall out of alignment, thereby creating operational problems.

Excessive adjustment of velocity screw ((12) - diagram 1.) may damage seals and cause erratic performance. Accuracy may deteriorate and the number of shots per cylinder may decrease.

Frequent firing of the pistol without gas pressure may damage the valve spring (49) and seal.

4. MAINTENANCE OF THE PISTOL.

After use, wipe the rifle with a cloth, moistened slightly with some light industrial or gun oil. Prior to long storage, clean the barrel with an oily rag, use a lightly oiled jag for coating the bore as well.

When sight adjustments are necessary, to aid vertical adjustment of the rear sight, press on the front part of the rear sight base, or raise the rear sight section with your fingers, to release spring tension.

CAUTION !!

Before making any types of adjustment to your pistol, make sure it is not loaded and remove the CO^2 cylinder so there will be no danger of accidental discharge.

Do not continue forcing the sight adjustment screws once the extreme adjustment position is reached as the knurled ends may become loose.

REPAIR SERVICE:

Should your pistol need to be repaired, it should be returned to your gun dealer, or directly to the Australian agent;

PRECISION HANDGUN SUPPLIES Pty. Ltd.
P.O. Box 62. Elsternwick. Victoria 3185.
Phone: 03 9528 1937. Fax; 03 9329 2291.

While the rifle is a simple and straightforward design, we suggest that you should not attempt to disassemble and try to repair your rifle yourself.

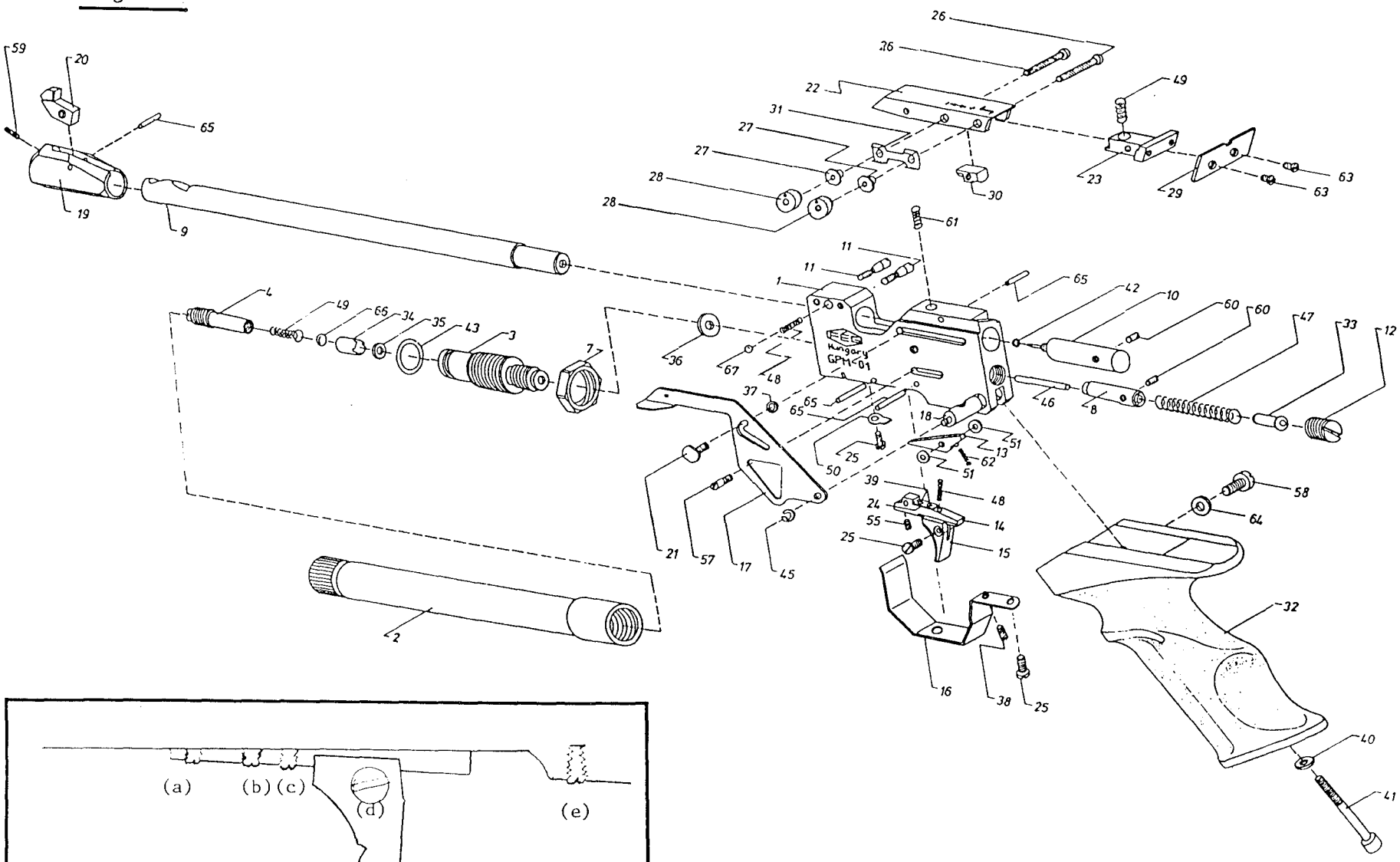
The pistol should be sent complete, in one piece, with all parts.

It must be well packed and sent by security mail or by other safe means.

Please enclose accurate description of problem, your return address and a copy of your licence.

MODEL GPM - 02.

Diagram 1.



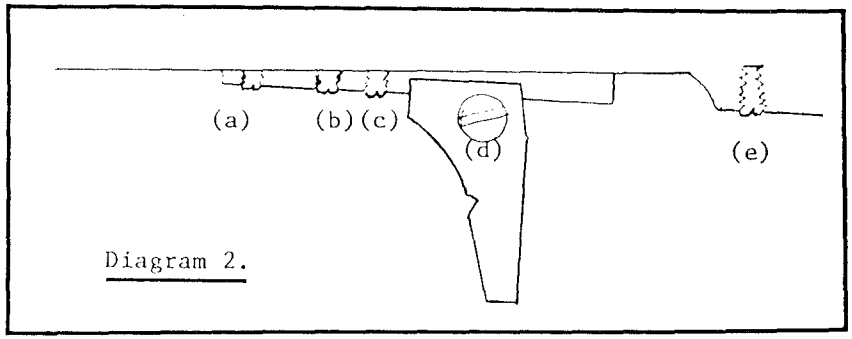
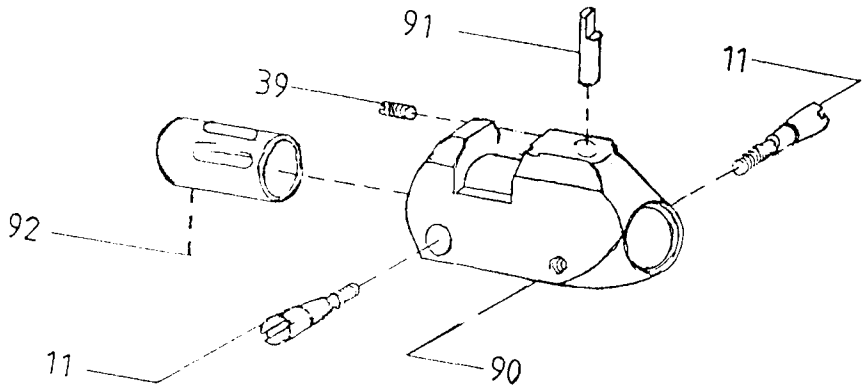
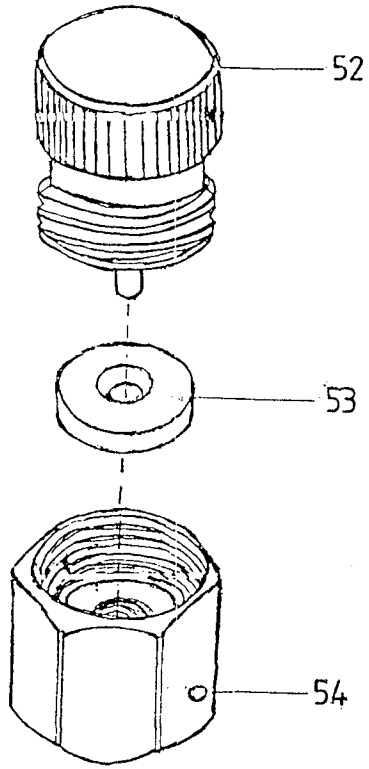


Diagram 2.

COMPENSATOR



FILLER-COUPLER



PARTS LIST FOR **FEG MOD. GPM 02** AIR PISTOL

1.	Action block
2.	CO2 Cylinder
3.	Valve housing
4.	Valve fixing screw
7.	Nut
8.	Firing hammer
9.	Barrel
10.	Loading pin.
11.	Conical screw
12.	Grub screw.
13.	Stopper
14.	Trigger base ramp.
15.	Trigger
16.	Trigger guard.
17.	Cocking lever.
18.	Pin nut.
19.	Front sight housing
20.	Front sight (Mod.1.)
21.	Cocking lever retention screw
22.	Rear sight base
23.	Rear sight support
24.	Screw locking unit
25.	Locking screw
26.	Setting spindles
27.	Lock nut.
28.	Knurled knob
29.	Rear sight blade
30.	Lifting block
31.	Lock nut securing spring
32.	Grip
33.	Spring guide
34.	Gas control housing
35.	Sealing ring 1.
36.	Sealing ring 2.
37.	Washer
38.	Conical grub screw
39.	Conical grub screw
40.	Washer
41.	Socket head screw
42.	Precision "O "ring
43.	Precision "O "ring
45.	Fixing clip
46.	Valve stem
47.	Main spring
48.	Ball pressing spring
49.	Valve spring
50.	Washer
51.	Washer
52. 53. 54.	Brass Filling Unit parts
55.	Grub screw
57.	Loading pin stopper
58.	Grip fixing screw
59.	Front sight fixing screw
60.	Grub screw
61.	Rear sight spring
62.	Stopper spring
63.	Rear sight blade screw.
64.	Serrated washer
65.	Needle roller
66.	Valve ball
67.	Lever retaining ball
90.	Compensator body
91.	Comp. front sight
92.	Compensator tube