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OPERATOR'S MANUAL

MATCH

LP 1
MATCH-PISTOL Kal. 4.5 mm
LP 1P

Operator's Manual

Steyr Match Air Pistol LP 1 / LP 1P

as of production date March 1995

A T T E N T I O N

Before unpacking and using the pistol you are to read this Operator's manual; i will warn against possible dangers that could be caused by misuse that might lead to accidents, and familiarize you with the pistol's function and handling characteristics.

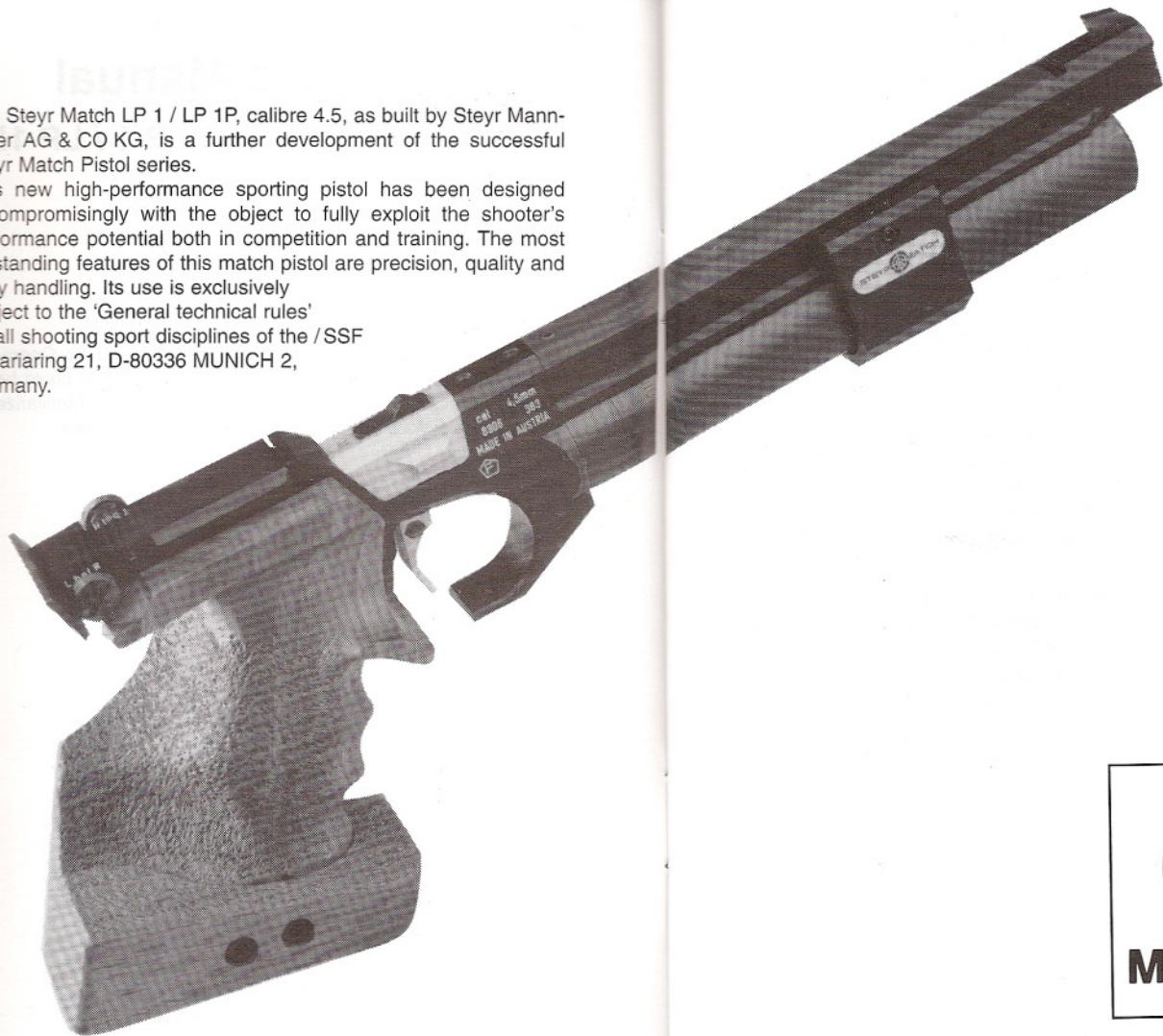
7th edition

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Steyr Mannlicher AG & Co KG
P.O. Box 1000 • A-4400 Steyr

The Steyr Match LP 1 / LP 1P, calibre 4.5, as built by Steyr Mannlicher AG & CO KG, is a further development of the successful Steyr Match Pistol series.

This new high-performance sporting pistol has been designed uncompromisingly with the object to fully exploit the shooter's performance potential both in competition and training. The most outstanding features of this match pistol are precision, quality and easy handling. Its use is exclusively subject to the 'General technical rules' for all shooting sport disciplines of the /SSF Bavariaring 21, D-80336 MUNICH 2, Germany.



Important rules for the handling of firearms

Although it can be assumed that in general the shooters are aware of the following principles they should be stated again for safety's sake.

All firearms are dangerous objects, storage and use of which demand utmost caution.

Always treat an unloaded weapon as if it is loaded. Never put your finger on the trigger, except when actually firing a shot. Always ensure that the weapon is pointing in a safe direction. Only the perfect condition of the weapon guarantees safety.

Improper handling and lack of care may prejudice the operation and the safety of the pistol. Tampering with its mechanism as well as any damages and alterations forcibly caused by third persons, will cancel any guarantee rights towards the manufacturer.

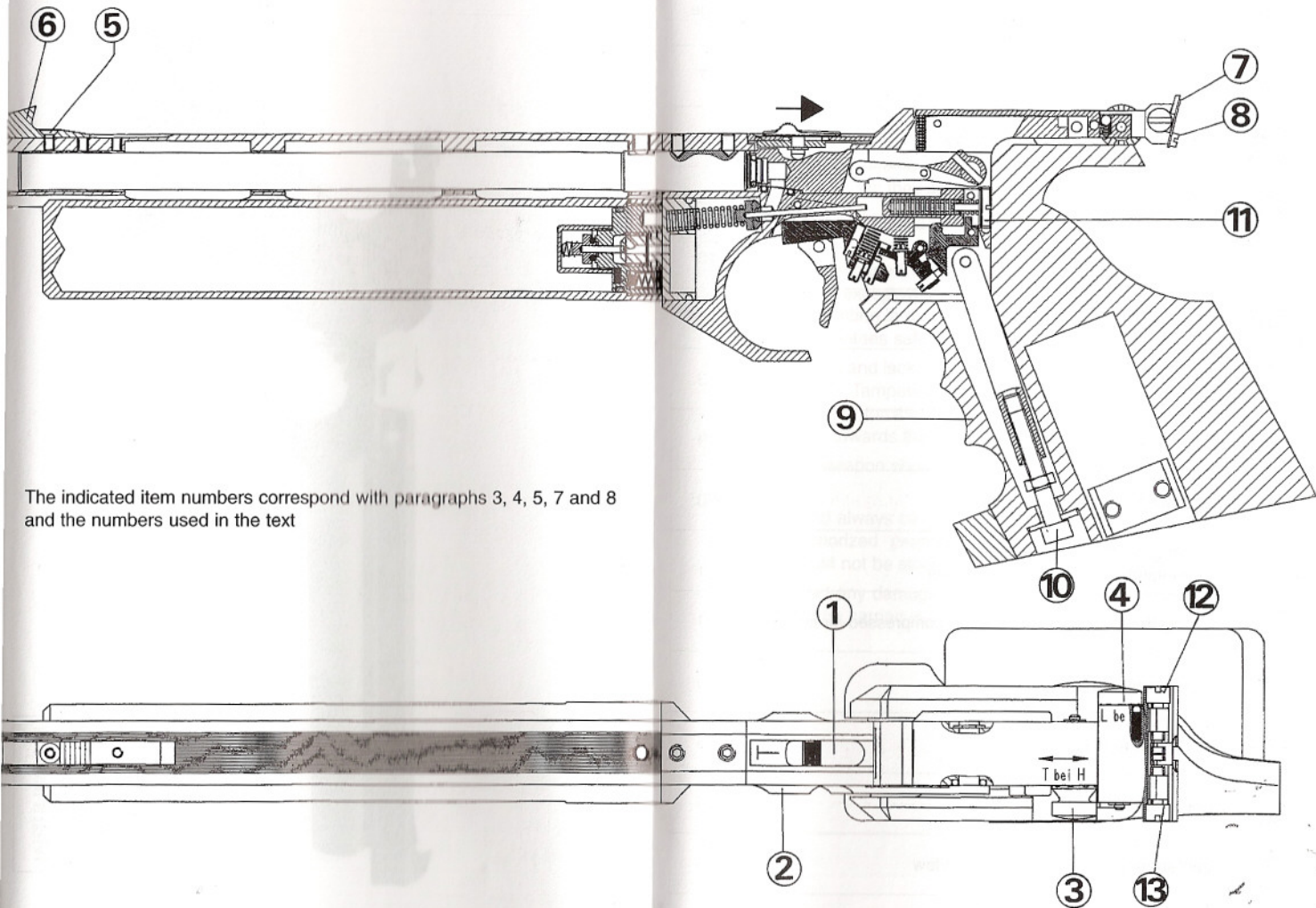
Repairs on the weapon should be carried out by authorized specialists only.

Weapons should always be stored in such a way that they are inaccessible to unauthorized persons, particularly children and juveniles. Ammunition must not be stored with the weapon.

In order to avoid any damage to the weapon during transportation the weapon should be carried in its original packing or in a pistol case.

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The indicated item numbers correspond with paragraphs 3, 4, 5, 7 and 8 and the numbers used in the text

1 Technical data

This single shot pistol uses Diabolo bullets cal. 4.5 mm (.177). Dehumidified compressed air or carbone dioxide is used as the propellant.

Its design corresponds to the latest trends in shooting and was developed in cooperation with renowned top shooters.

Calibre	4,5 mm (.177)
Overall height	138 mm
Overall length	390 mm
Overall width	50 mm
Sight length	adjustable from 316 to 336 mm
Barrel length	233 mm
Rear sight width and rear sight depth continuously adjustable	
Front sight	4,5 mm

Trigger pull weight is set by the manufacturer, 500g (adjustable) (corresponding to ISSF shooting rules)

Total weight with filled steel cylinder (length 185 mm) 1110 g.

Number of shots with compressed-air: app. 150 shots.

Number of shots with carbon dioxide:

With a steel cylinder 187.5 mm – approximately 200 shots depending on velocity adjustment.

With a steel cylinder 157.5 mm – approximately 150 shots depending on velocity adjustment.



Please unfold double page

Special features and advantages

- The dry firing mechanism works exactly like live firing, and allows the shooter to do dry firing training at any time.
- A newly developed safety valve is fitted to the steel cylinder. This safety valve protects the steel cylinder at a pressure increase beyond the test pressure. The safety valve is always ready for action no matter whether the steel cylinder is on or off the weapon.*
- The steel cylinder which is available in different sizes, is easily replaceable without the use of a tool.*
- The bullet velocity is adjustable.
- Trigger release errors are reduced because of the favourable positioning of the trigger.
- Various grip sizes are available for female and male, right or left handers.
- The grip is adjustable for height and the angle at which it is fitted to the pistol can be altered.
- The palm shelf of the grip is height-adjustable.
- The fixing bracket of the hand rest is designed as a grip weight.
- Rear sight carrier and sight adjusting plate are mounted on springs and will always return to the position adjusted by the setcrews.
- With the barrel weights of 25 g and 50 g, available as accessories, and a grip weight of 50 g the shooter can always obtain the weight distribution desired.

* For variant with propellant gas.

Note:

The encircled item numbers shown in the following paragraphs 3 to 8 correspond with the sectional drawing of the pistol on page 6.

Dry fire mechanism

NOTE: When the dry firing mechanism is engaged the cocking lever will not fully close.

The dry firing mechanism enables the shooter to carry out at any time genuine dry training. The dry firing mechanism may be engaged with cocked or uncocked system. As soon as slide ① is pulled backwards on the cocking lever ② the letter 'T' appears, the dry firing mechanism is ready for action.

Pulling the slide ① backwards, exposing the letter T, locks the striking lever and no compressed-air or CO₂ gas escapes when the trigger is operated.

The trigger characteristic remains unchanged and even the trigger release noise is audible.

4 Cocking, loading and shooting

Pull back the cocking lever ② to the stop, this cocks the pistol and opens the loading port.

Insert a Diabolo pellet into the barrel and close the leaf.

WARNING!

The pistol is ready for firing

Before pulling the trigger, always ensure that the weapon is pointed towards your target area. Never aim in a direction where you could cause damage or endanger lives.

Note

When firing, use ear protection as well as safety shooting glasses.

Before starting the competition, make sure that propellant or compressed-air cylinder is complete filled. (See engraved total weight on propellant cylinder).

Maximum precision is obtained by allowing approximately 30 seconds between shots.

If after trying the pistol it is necessary to make adjustments a large number of possibilities are available which are described in the following sections 5 to 8.

5 Sight adjustment

Careful firing tests have been carried out with the pistol at the manufacturers. Nevertheless the sight adjustment may not fully suit your eyes or stance and individual adjustments may be made as follows:

- High hit – Turn elevation screw ③ in direction H
- Low hit – Turn elevation screw ③ in direction T

1 notch of the elevation screw changes the impact position by 1,2 mm at a target distance of 10 m.

- Right hit – Turn windage screw ④ in direction R
- Left hit – Turn windage screw ④ in direction L.

One notch of the windage screw changes the impact position by 1,2 mm at a target distance of 10 m.

5.1 Moving the front sight

After loosening the countersunk screw ⑤ the front sight may be moved lengthwise. Three positions are available. This allows you to lengthen or shorten the sighting line as well as altering the light gap between the rear sight and front sight.

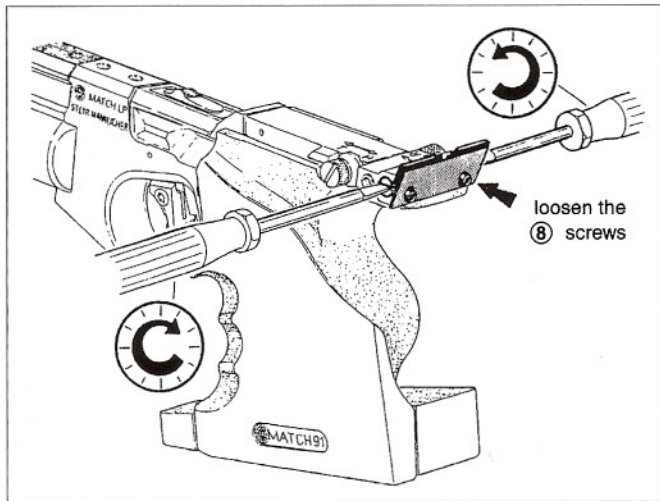
The latter may also be obtained by adjusting the rear sight width, using screws ⑫ or ⑬.

5.2 Adjusting rear sight

The Steyr LP is equipped with an adjustable rear sight, this enables a continuous width adjustment from 0 to 7 mm.

Turning screw ⑫ clockwise or turning screw ⑬ anticlockwise increases the rear sight width. Turning screw ⑫ anticlockwise or turning screw ⑬ clockwise reduces the rear sight width.

The depth of the rear sight is adjustable from 1.5 mm to 3.2 mm to do this, loosen the cover plate screws ⑧, slide cover plate ⑦ into desired position and then retighten screws ⑧.



5.3 Checking precision

To check precision with a clamped weapon, you must clamp the pistol within the area of the trigger guard. Shot intervals of 30 sec minimum must be maintained.

6 Trigger adjustment

In the factory the trigger adjustments are set in such a way that the trigger pull force corresponds to the UIT shooting rules and a uniform pulling functions is ensured. An individual adaption of the trigger action is possible for optimum individual performance.

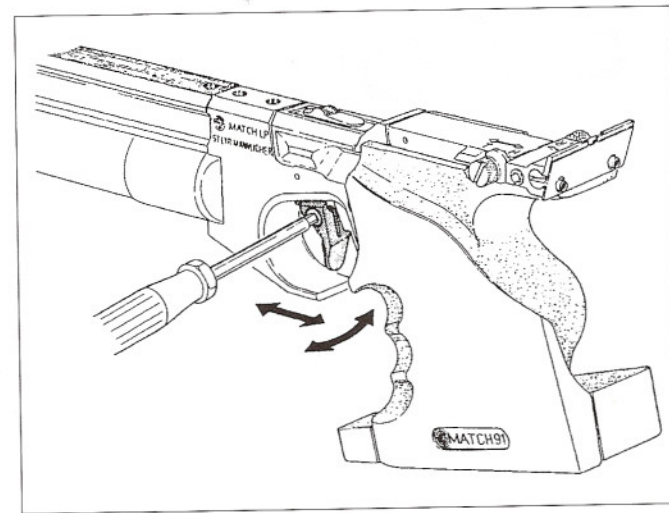
It is possible to make all adjustments with dry fire mechanism engaged.

WARNING!

Before making any alterations to the trigger, ensure the pistol is unloaded and be sure to read this operator's manual carefully.

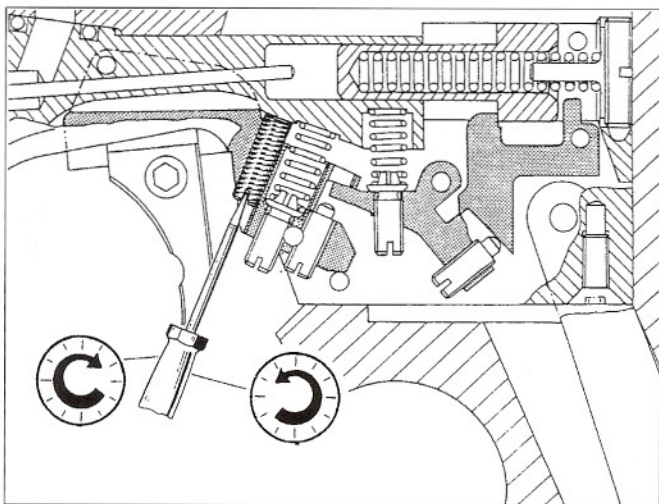
6.1 Trigger blade adjustment

First loosen countersunk screw. The trigger blade may be turned either to the left or to the right and shifted in a longitudinal direction. The position of the trigger finger toward the trigger blade can be altered by adjusting the grip. This will be described in paragraph 7.

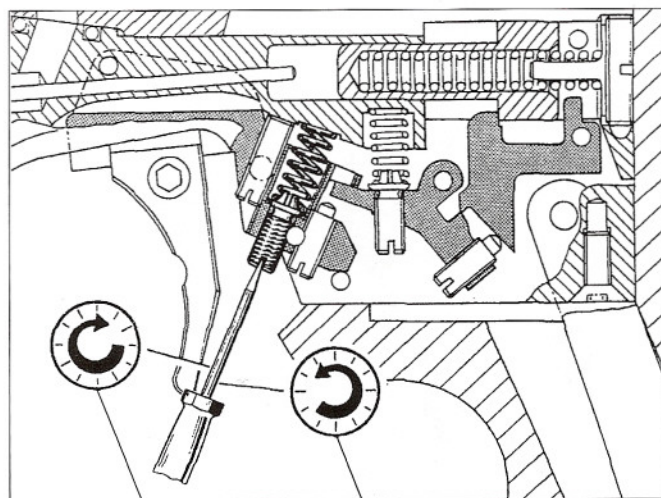


6.2 Trigger stop adjustment

Turning the screw clockwise shortens the 'aftertravel' of the trigger blade after shot release. Turning the screw anticlockwise lengthens the 'aftertravel' after shot release.



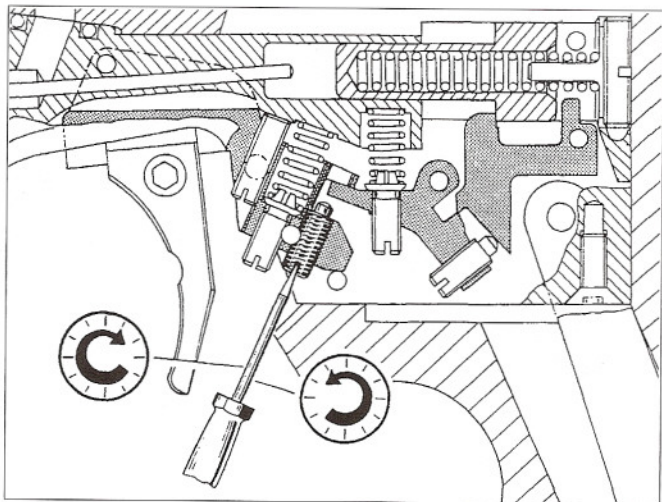
6.3 First stage pressure adjustment



Turning the screw clockwise increases the first stage pressure.

Turning the screw anticlockwise decreases the first stage pressure.

6.4 First stage travel adjustment



To shorten the first stage travel, first loosen the triggerstop screw anticlockwise a few turns (see 6.2).

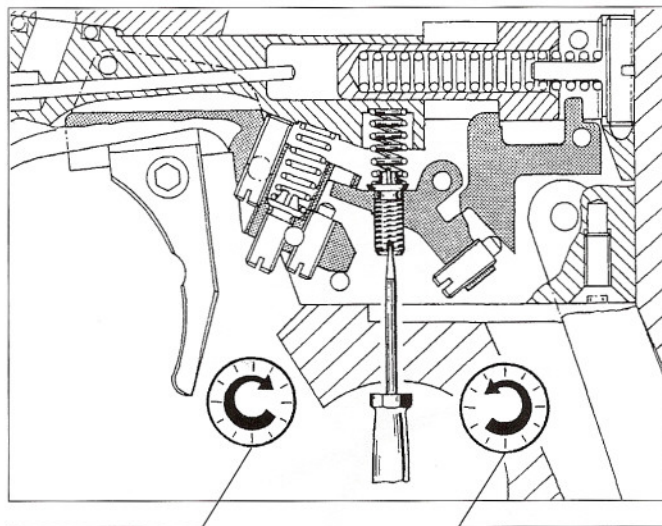
Turning the screw clockwise shortens the first stage travel.

Turning the screw anticlockwise extends the first stage travel.

Re-adjust the triggerstop after adjusting the first stage travel (see 6.2).

6.5 Second stage pressure adjustment

Remove the grip by loosening screw ⑩ with socket wrench 4.

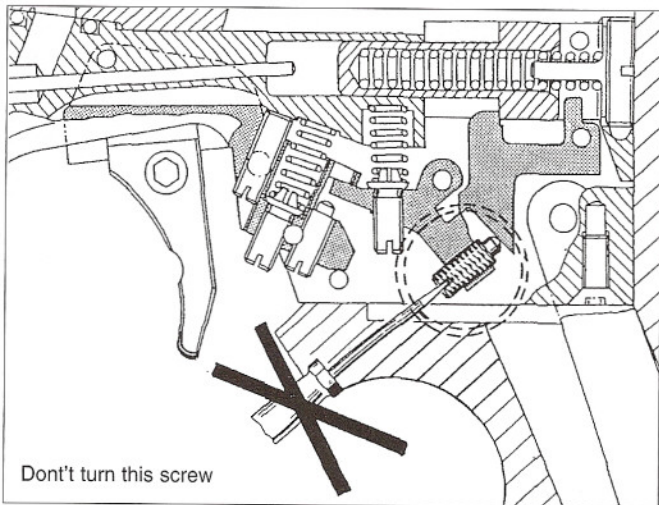


Turning screw clockwise increases the second stage pressure.

Turning screw anticlockwise decreases the second stage pressure.

6.6 Sear adjustment

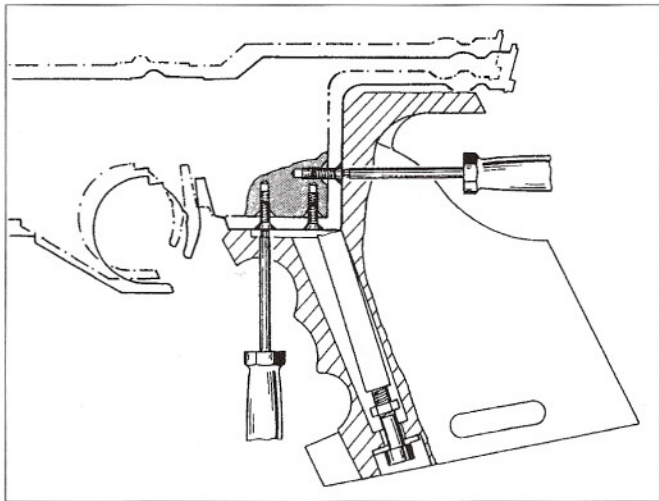
The bridging of the sear between trigger sear and trigger lever is exactly adjusted by the factory and must not be changed.



7 Grip adjustment

The grip ⑨ is adjustable and pivotable to the weapon system in all directions and may be widely adapted to the posture of the shooter. For this purpose the grip ⑨ has to be taken off by removing screw ⑩.

Adjustment is achieved by means of the six countersunk screws located at the bottom and the rear of the casing (wrench opening SW2 – hexagon socket).



When adjusting these screws only move in 1/4 of a turn increments. Then replace grip and see if enough adjustment has been made.

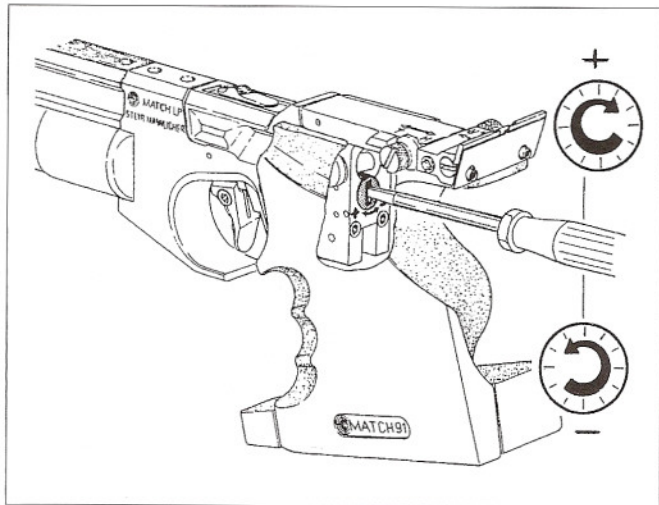
8 Regulating the pellet velocity

Disassemble the palm shelf.

This is achieved with the setscrew (11) located at the rear of the casing.

Turning clockwise increases the pellet velocity.

Turning anticlockwise decreases the pellet velocity.



9 Replacing the propellant cylinder (for variant with propellant gas)

Two steel cylinders are supplied with each pistol.

The steel cylinder may be unscrewed and removed at any time without being emptied. If barrel weights are mounted on the pistol, the steel cylinder must be tightened with a hexagonal screwdriver.

WARNING!

For refilling the steel cylinder the following 'Filling Instruction' must be exactly adhered to!

Replacing the compressed-air cylinder (for variant with compressed-air)

Two compressed-air cylinders are supplied with each pistol.

The compressed-air cylinder may be unscrewed and removed at any time without being emptied. If barrel weights are mounted on the pistol, the compressed-air cylinder must be tightened with a hexagonal screwdriver.

WARNING!

For refilling the compressed-air cylinder the following 'Filling Instruction' must be exactly adhered to!

10 Refilling the propellant cylinder (for variant with propellant gas)

GENERAL:

The legal dispositions and rules of the respective country must be adhered to.

Refilling bottles containing 1,500 g of CO₂ are available from Steyr. Refilling bottles provided with a rising pipe are recommended. They are marked with the letter "T".

WARNING!

Do not tamper with steel cylinder and valve. Only persons familiar with the function and operation of the steel cylinder including the valve and also with the valid safety regulations and accident prevention rules, are permitted to repair or service the steel cylinder.

In case of non-compliance the guarantee is invalidated.

When refilling, two points should be given attention in order to avoid a partial emptying of the steel cylinder:

- a) The refilled steel cylinder should never be exposed to a temperature above +50° C!
- b) Note the engraved maximum total weight. Never overfill the steel cylinder. If the steel cylinder is overfilled, the safety valve reacts and CO₂ escapes. The filling weight must be checked.

REFILLING

WARNING!

Safety gloves are to be worn due to cold temperatures involved in changing cylinders.

The steel cylinder should be filled with carbon dioxide to the maximum capacity engraved on the cylinder*:

1. Allow steel cylinder to cool down for about 10 minutes in the freezer compartment of a refrigerator. When refilling, the temperature difference between refilling cylinder and steel cylinder must be a **minimum** 20° C.

Example: At a room temperature of + 20° C the steel cylinder must be cooled down to a minimum of 0° C.

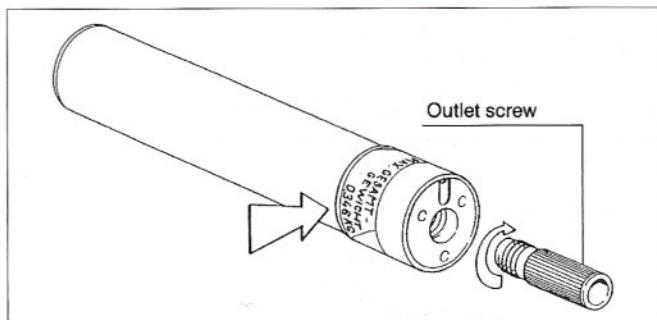
2. Screw filler adaptor on to refilling cylinder and tighten with a wrench (wrench opening 27).
3. Screw cooled-down steel cylinder on to the adaptor.
4. Open cylinder valve of refilling cylinder and CO₂ will flow from refilling bottle into steel cylinder.
5. Shut refilling cylinder valve.
6. Remove steel cylinder from adaptor.
7. Check engraved maximum total weight** (results from adding TARA WEIGHT und CO₂ filling quantity) using scales. Note: the scales used must be accurate and measure in 1 or 2 gramme intervals.



WARNING!

When bleeding off excess gas ensure bleed outlet is pointing in a safe direction and safety gloves are worn.

If weighting shows an excess weight, bleed off excess CO₂ immediately using the outlet screw until the maximum gross weight is reached.



If the total weight is not attained at the first filling, repeat the filling procedure (points 2 to 7).

* CO₂ filling quantity = with steel cylinder length 157,5 mm = 0,043 kg
with steel cylinder length 187,5 mm = 0,053 kg

** Maximum total weight = with length 157,5 mm = 0,346 kg
(resulting from TARA + with length 187,5 mm = 0,393 kg
filling quantity)

Refilling the compressed-air cylinder (for variant with compressed-air)

GENERAL:

The legal dispositions and rules of the respective country must be adhered to.

WARNING!

Do not tamper with compressed-air cylinder and valve. Only persons familiar with the function and operation of the compressed-

air cylinder including the valve and also with the valid safety regulations and accident prevention rules, are permitted to repair or service the compressed-air cylinder.

In case of non-compliance the guarantee is invalidated.

The compressed-air cylinder is to be charged with a maximum filling pressure of 200 bar. This charge will suffice for app. 150 rounds.

With maximum charge, the pressure indicator of the compressed-air cylinder will protrude by app. 4,5 mm.

With decreasing pressure the pressure indicator will gradually retract into the cylinder. If no more than the red marking of the indicator is visible, the pressure is insufficient for competitions and the cylinder must be recharged.

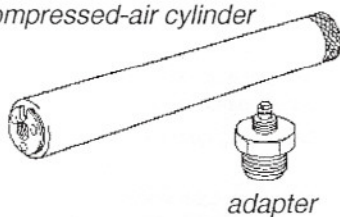
For **recharging** the cylinder proceed as follows:

1. Dismount cylinder from weapon.
2. Mount adapter on recharge cylinder (standardized thread) and tighten using a wrench size 27.
3. Mount compressed-air cylinder on adapter by hand (make sure to use only cylinders with a maximum filling pressure of 200 bar).
4. Open valve of recharge cylinder to charge the compressed-air cylinder with compressed-air (make sure to use only dehumidified compressed-air).

Close valve of recharge cylinder and dismount compressed-air cylinder from adapter.

CAUTION: Since weapon is also functional with low filling pressure, adequate caution should be exercised!!!

WARNING: Do not expose the cylinders at temperatures above 60 degrees centigrade.



11 Accessories

The following standard accessories are supplied with the pistol:

- 2 propellant cylinder or compressed-air cylinder
- 1 set of screwdrivers
- 1 filler adapter piece
- 1 outlet screw for propellant cylinders*
- 1 O-ring mounting aid*
- 2 O-rings 6 x 2

*) for variant with propellant gas

At extra cost barrel weights of 25 g as well as a grip weight of 50 g are available (25 g standard grip weight is mounted in the grip).

The barrel weights may be mounted on the barrel casing for regulating the center of gravity.

For shifting the barrel weight notches in distances of 9 mm are provided on the barrel casing. The grip weight (which is already fitted in the hand rest) may be exchanged after loosening the two lateral head cap socket screws.

12 Cleaning and care

The only maintenance required is to slightly grease (acid-free silicone grease) the O-ring on the threaded pin which holds the steel cylinder, after every 1000 shots. This increases the service life of the O-ring. It is also useful to slightly grease the sliding surface between the casing and sight carrier.

In addition, it is recommended to wipe the pistol after use with a soft cloth. The visible metal parts may be slightly oiled from time to time with a good gun oil. For cleaning the barrel shoot some dry felt pellets through the barrel.

These guarantee clauses do not apply to the USA.

If within one year from the day of purchase any defects due to material or manufacturing errors should appear, we undertake to repair those defects free of charge, except breakage or cracking of the stock / pistol grip.

The Steyr Mannlicher guarantee may be claimed by the first owner and under the following conditions only:

Guarantee will be given by either replacing or repairing the weapon or parts of it at our sole discretion. Any costs for material and/or working time shall be borne by us. Neither cancellation nor reduction may be claimed.

If during the period of guarantee any defects or improper weapon function should occur, any possible guarantee claims have to be submitted without delay, at the latest however within a period of one month.

The first owner is requested to return to us the fully completed Steyr Mannlicher guarantee claim card (Annex 1 of the operator's manual) within ten (10) days after purchasing the weapon.

In case of a guarantee claim the completed Steyr Mannlicher guarantee card (Annex 2 of the operator's manual) must be submitted along with the defective weapon.

Only authorized Steyr Mannlicher dealers, authorized Steyr Mannlicher service workshops and the Steyr Mannlicher AG & Co KG may accept guarantee claims.

The customer shall bear any costs and the risk of loss or damage of the weapon on the way to the agency authorized to accept guarantee claims. The costs for returning the repaired weapon or parts thereof to the customers shall be borne by the Steyr Mannlicher AG & Co KG.

No guarantee claims will be accepted by the Steyr Mannlicher AG & Co KG or their agencies:

- a.) if the weapon has been damaged or destroyed by force majeure or environmental influences;
- b.) in case damages/defects have been caused by improper treatment, or handling or by lack of care;
- c.) if the weapon has been repaired, machined or altered by any person or workshop other than an authorized Steyr Mannlicher workshop;

- d.) in case of consequential damages or poor shooting results which are due to the improper mounting of a telescope or any other than the genuine sighting device in as much as mounting had not been done by an authorized Steyr Mannlicher workshop or are caused by any such aiming devices respectively;
- e.) if the weapon shows signs of mechanical damages of any kind;
- f.) for any other aiming devices than the genuine sights;
- g.) if reloaded or not CIP-or SAAMI-asmitted ammunition is used (not applicable for Steyr-Match air rifles and air pistols).

Claims for damages and product liability

- No claims for direct or indirect damages will be accepted.
- Liability for material damages resulting from the product liability law, BGBL. (Federal Law Journal) 99/1988, as well as any product liability claims that could be derived from other provisions are excluded.
- The object of purchase warrants only that type of safety which may be expected in accordance with the homologation rules (test-firing law), service manual, manufacturer's instructions as to the treatment of the supplied object (operating manual) as well as any other pertinent information received.

The above provisions govern the full relationship with our company. Any additional claims, in particular for any kind of damages or losses caused by the weapon or its use, are excluded. Any claims against the Steyr Mannlicher dealers as seller are excluded, if and to the extent as we give satisfaction.

Steyr Mannlicher scope-mount guarantee

We suggest the use of original Steyr Mannlicher scope mounts and guarantee their safe and reliable function provided that installation has been conducted by an authorized an Steyr Mannlicher workshop.

Guaranteed Steyr Mannlicher accuracy

Steyr Mannlicher barrels are made from high quality barrel steel and are produced according to the latest findings in barrel production technology.

Our weapons are well known for their outstanding accuracy. However, the accuracy of a weapon depends on several factors; one of the most important factors is the ammunition used. Not every ammuni-

the most important factors is the ammunition used. Not every ammunition „fits“ every barrel equally good. Even ammunition from the same manufacturer and of the same brand may show different accuracy results from production lot to production lot and when fired from different weapons.

Therefore we suggest to test several kinds of ammunition, or to use the type of ammunition stated in the operator's manual respectively on the test fire target that is delivered along with your individual weapon the referred ammunition is the ammunition your weapon has been tested with at our facilities. If you follow our suggestion, we guarantee that you will achieve outstanding accuracy results with your new product from Steyr Mannlicher AG & Co KG.

Claims regarding insufficient accuracy must be reported to us in written within 20 (twenty) days after purchasing the weapon. Should accuracy test, including shipping costs will be charged to the claimant.

14 Maintenance service – Exploded view

Your sport weapon has been thoroughly tested before delivery in order to make sure that it meets the requirements of our technical specifications and standards.

Should it become necessary to replace parts or to carry out repairs on the weapon please contact out authorized Steyr Mannlicher dealer.

We wish you success with your new weapon.

GOOD SHOOTING!

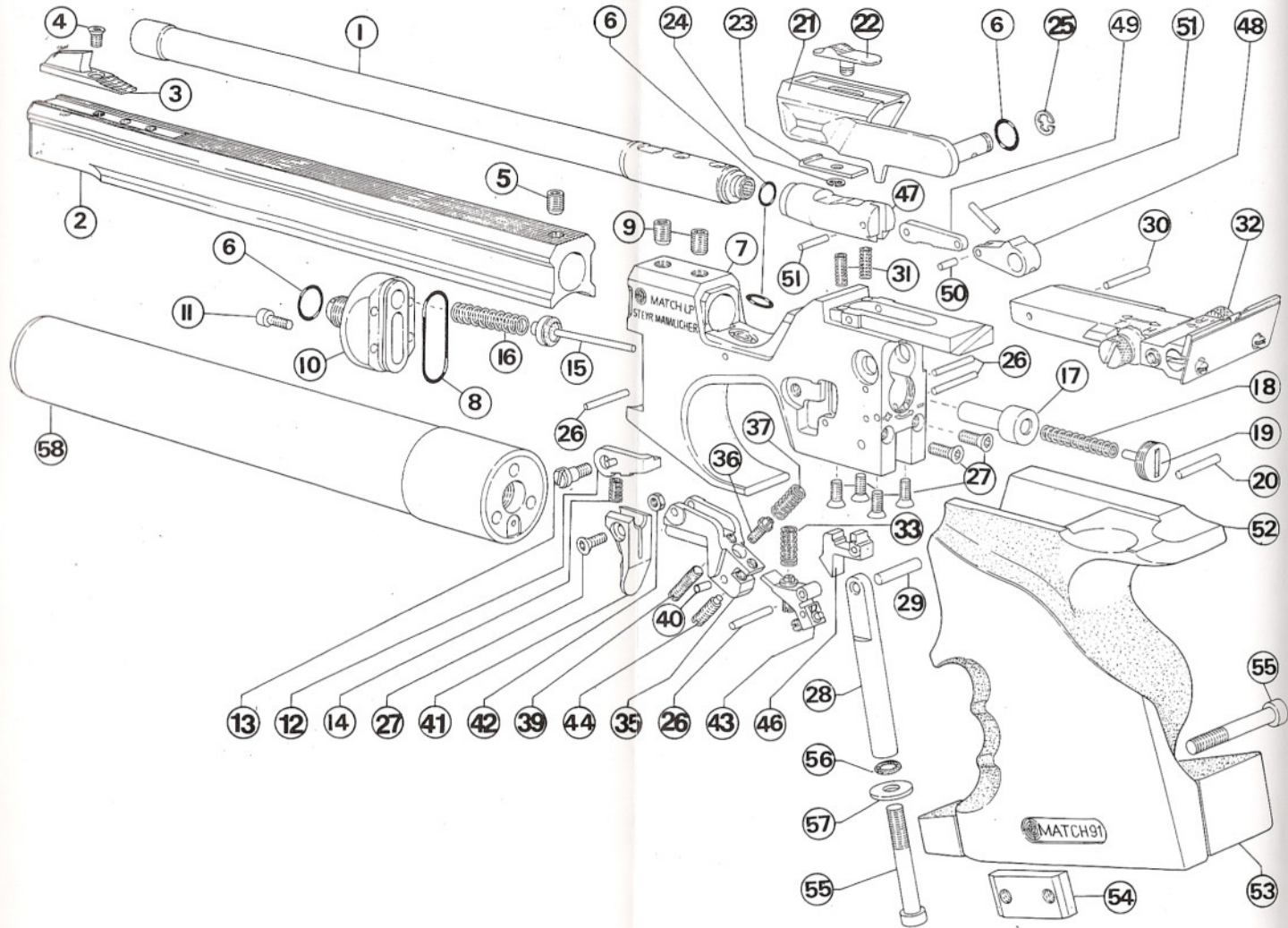


Fig.No.	Nomenclature	Fig.No.	Nomenclature
1	Barrel	29	Parallel pin
2	Barrel casing	30	Parallel pin
3	Fore sight	31	Sight spring
4	Countersunk screw	32	Rear sight, sub assembled
5	Hexagon socket set screw	33	Spring
6	O-Ring	35	Trigger blade carrier
7	Casing	36	First stage pressure adjusting screw
8	O-Ring	37	First stage pressure spring
9	Hexagon socket screw	39	Set screw
10	Cylinder fitting	40	Screw locking
11	Screw	41	Trigger blade
12	Cam	42	Hexagon nut
13	Cam screw	43	Trigger lever complete
14	Spring	44	Set screw
15	Valve complete	46	Trigger sear
16	Valve spring	47	Bolt
17	Hammer	48	Lever
18	Hammer spring	49	Link
19	Set screw	50	Parallel pin
20	Screw locking	51	Parallel pin
21	Cocking lever	52	Grip complete
22	Slide	53	Palm shelf
23	Slide notch	54	Grip weight
24	Lock washer	55	Hexagon socket screw
25	Lock washer	56	O-Ring
26	Parallel pin	57	Washer
27	Counter sunk screw	58	Propellant cylinder - compressed-air cylinder
28	Grip locking rod		

Subject to technical modifications and extent of supply!

Steyr Mannlicher AG & Co KG · A-4400 STEYR