

A few words of warning!

- It is extremely easy to upset the fine balance of settings that control the overall performance of the rifle. Consistency is dependent upon the right balance between spring pressures, valve openings, striker travel and transfer port size. Alterations to any one of these without consideration for the others will make the rifle effectively unusable.
- It is a very serious offence to be in possession of a firearm without an appropriate licence. In the eyes of the law an air rifle 1 ft/lb over the limit is a firearm and no different to a full blown high powered weapon capable of considerably higher muzzle energies.

To make adjustments:—

Remove action from stock (the trigger guard must be removed first).

Remove blanking plug (1095) and locking screw (1121). Using same allen key turn adjuster clockwise to increase and anti-clockwise to reduce pellet velocity.

There should never be need to move the adjuster more than half a turn either way to get the desired results. More than this will likely upset the balance mentioned in note (a).

Replace the locking screw and check the velocity throughout the charge.

A tip!, if you fill the rifle to approx. 125 bar and set the velocity to 5–10 fps below the limit for the pellet you wish to use, the setting should not be too far out.

2.4 BARREL ALIGNMENT

The barrel should be parallel to the cylinder.

Adjustment can be made as follows:—

Loosen the two screws (1020) securing the front clamp and carefully turn it in the desired direction before re-tightening.

To check alignment:— A flat surface and two parallels approx. 25mm high will be required.

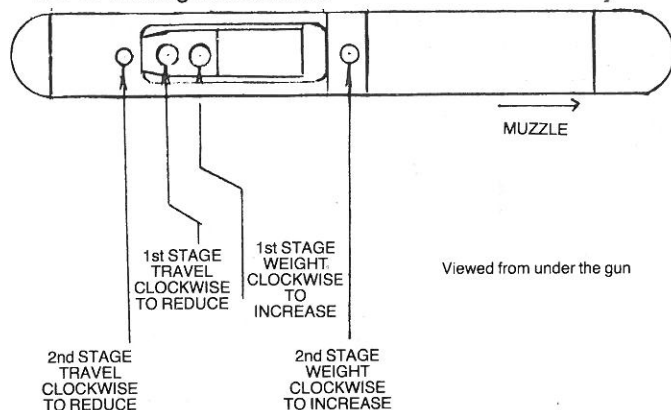
A laminated kitchen worktop and two pieces of broom handle will just about do the job if more suitable equipment is not available.

Remove the action from the stock, place the parallels under both the barrel and cylinder just behind the front clamp and in front of the bolt housing. Barrel and cylinder should touch each parallel.

TRIGGER ADJUSTMENT

The trigger has adjustment for travel and weight on both stages (see diagram). Sear engagement is determined by 2nd stage travel. Too much or too little weight applied to the second state will cause the operation to be intermittent, this obviously should be avoided.

Extremely small 2nd stage travel may cause the rifle to fire at the slightest touch.



A reasonable starting point is to cock the mechanism (without a pellet) and adjust the 2nd stage travel screw, clockwise, very slowly until the rifle fires. Now adjust anti-clockwise one turn.

The 1st stage travel can be adjusted out completely if desired, this in effect will give a single stage trigger.

It is possible to increase the weight of 1st stage and decrease the weight of the 2nd stage to a point where the 1st stage will overcome the 2nd stage.

FILLING INSTRUCTIONS

If for some reason the rifle reservoir is completely empty the rifle has to be cocked to enable filling.



- Connect the filling pipe to the gun. Do not overtighten.
- Make sure bleed valve on clamp body is shut.
- Open main valve on filling cylinder slowly.
- Close the valve when gauge indicates the pressure stated on the front page of this handbook.
- Open bleed valve smartly.
- Detach filling pipe.

Do not bend the filling pipe too tightly or reduced operating life will result.

The number of shots each fill will produce and the number of refills the air bottle will provide is dependent upon several variables. The following can be generally accepted.

Each fill should provide 50–60 usable shots between the recommended filling pressure and refilling pressure.

If the 12 ltr. **AIR ARMS** bottle charged to 232 bar is used then 40–50 refills should be obtainable.

LOADING INSTRUCTIONS

- Turn loading bolt anti-clockwise 90°.
- Draw backwards until trigger clicks into engagement. (When you draw the bolt back the first part of travel is free, the second part under spring pressure).
- Load pellet into barrel.
- Push bolt fully forward.
- Turn bolt clockwise 90° into locked position.

ADDITIONAL INFORMATION

To release air from rifle, screw air release nut onto thread at front of rifle. The first few threads will turn easily, once resistance is felt turn slowly and air will start to release. It is best not to allow the air to be released too rapidly.

All Shamals are fitted with choked barrels, we therefore advise that plastic skirted pellets should not be used.

The .22 barrel is best suited to 5.5 mm diameter pellets.

Muzzle energy is calculated from velocity using the following formula:—

$$\text{muzzle energy in ft/lbs} = \frac{V^2 \times W}{450240}$$

where V = velocity in ft/sec.

W = weight of pellet in grains.

1 gram = 15.432 grains.

The current legal muzzle energy limit is 12 ft/lbs. for air rifles.

In the interests of product improvement the Manufacturers reserve the right to alter specifications without prior notice.



AIR ARMS

USERS HANDBOOK

Pneumatic

Sporting & Target Rifles

Congratulations — you are now the owner of one of the **Air Arms** range of fine air rifles.

Treated with the care that any precision instrument warrants, this air rifle will give you good sport and service over many thousands of shots.

Please read this manual before you use your new gun, it contains information to help you keep your gun in top condition.

Always be aware that your actions will be under the scrutiny of other members of the public who may not share your enthusiasm for air rifles. Bad practices promote bad publicity

— remember the Safety Code.

SAFETY CODE

- Treat all air-weapons as if loaded.
- Never point an air-rifle at anyone, even if it is unloaded.
- Never leave your rifle cocked or loaded.
- Always be sure what lies beyond your target.
- Always conduct yourself in a sportsmanlike manner.

Warning — unauthorised disassembly of your gun will invalidate the warranty.

CAUTION

THE AIR RESERVOIR IS A HIGHLY PRESSURISED UNIT, DO NOT ATTEMPT TO MODIFY OR MACHINE IN ANY WAY.

DO NOT RECHARGE IF THERE ARE LARGE ABRASIONS OR DENTS IN ITS SURFACE.

DO NOT STORE THE RIFLE IN PLACES SUBJECT TO EXCESSIVE HEAT.

DO NOT ATTEMPT TO DISMANTLE WHEN PRESSURISED. SEVERE PERSONAL INJURY MAY RESULT.

ANY UNAUTHORISED DISMANTLING OR MODIFICATION WILL INVALIDATE YOUR GUARANTEE.

DO NOT RECHARGE BEYOND 206 bar. ONLY USE CLEAN FILTERED AIR, i.e. FOR DIVING/BREATHING APPARATUS.

NEVER USE COMPRESSED OXYGEN.

THIS INFORMATION IS IMPORTANT FOR ANY FUTURE CORRESPONDENCE REGARDING YOUR RIFLE. PLEASE KEEP IN SAFE PLACE.

THE RIFLE No. MUST BE QUOTED WHEN ORDERING SPARE PARTS OR REQUESTING INFORMATION.

RIFLE No. ASSEMBLED BY

RIFLE FILLING PRESSURE BAR TESTED BY

REFILLING PRESSURE BAR PELLET USED FOR SETTING & TESTS

1.0 LUBRICATION

Lubrication of any piece of precision equipment is essential for a long and trouble free life. AIR ARMS air rifles are no exception to this rule.

Due to its configuration the Shamal has relatively light loadings applied to contact areas, this means that the lubrication required is minimal. Over lubrication will actually reduce the performance of the gun.

It is impossible to lay down set rules for lubrication quantities and frequencies because of the varied usages and operating conditions. The most important ingredient is common sense. If the 'feel' of the cocking and firing sequence changes or if the performance suddenly deviates from the norm, this could indicate the need for lubrication.

SPECIFIC LUBRICATION POINTS

1.1 STRIKER ASSEMBLY

The free movement of the striker in the valve body tube is vital to the overall performance and consistency of the rifle. This free movement can be effected by over lubrication, use of an oil that is too thick, surface corrosion on the striker and/or tube wall and ingress of dust or foreign particles.

The striker is coated with a PTFE based film which reduces the need for lubrication almost entirely. However it is important to prevent corrosion and so a minimum amount of oil should be occasionally applied. It is essential that the oil used is thin and of a type that will not thicken in use. JENOLITE GUN OIL is used at the factory, but only a light smear. In our experience synthetic oils and those containing silicon are *NOT* suitable.

Access for oiling the striker is gained by removing the blanking plug (1275). Lay the rifle on its side, insert oil then turn rifle upright, tilting the barrel end up at approx. 45°. Allow a few moments for the oil to flow. One or two drops of oil should be sufficient, every 5000 shots. However as stated earlier there can be no hard and fast rules. If you use the rifle a lot and/or in unfavourable conditions i.e. dampness etc., more frequent lubrication may be necessary.

1.2 LOADING BOLT

The most important indication for lubrication of the loading bolt is the 'feel' of its operation and its appearance. If the operation of the bolt stiffens or feels rough this is a sure sign, as is a very dry appearance.

Lubricate by moving the bolt repeatedly from closed to open positions putting a drop of oil on each end of the bolt stem.

It is not advisable to insert oil into the open end of the bolt housing or through the blanking plug hole as any excess oil will find its way down onto the striker and possibly effect its free travel.

The type and thickness of oil used is not so important as that used for the striker, but a thicker oil will make the operation stiffer. We recommend JENOLITE GUN OIL or similar. Very occasionally put a small drop of oil on the barrel seals (1320, 1325, 1330).

1.3 CHASSIS/TRIGGER HOUSING

The sensitivity of the trigger operation can depend on the amount and type of lubrication applied.

A thick oil will make the action sluggish and in the extreme mask the action of the first stage.

Too much oil will eventually run down onto the trigger blade.

Apply the oil by turning the rifle upside down and putting a small drop on each side and to the front edge of the trigger. Allow a few moments for the oil to run into the chassis. If excessive amounts are applied it could find its way onto the striker and effect performance.

1.4 GENERAL

To preserve the polished finish on the external surfaces, lightly wipe over with a soft rag soaked in oil. This should be done immediately after each time the rifle is used. If the use is infrequent or if it is to be stored away, a much heavier film should be applied. Avoid storing the rifle in a gun bag. Any dampness present will be sealed in and accelerate corrosion.

2.0 MAINTENANCE

Apart from lubrication procedures the maintenance required is minimal.

2.1 BARREL SEALS

Occasionally inspect the barrel seals for damage. Should replacement be needed, carefully cut through them with a stanley knife and replace, fitting the large seal first followed by the small seal.

2.2 FIXING SCREWS

Check the tightness of all fixing bolts and screws. *DO NOT OVERTIGHTEN*. Unlike a spring rifle, threads do not have to be tightened to account for recoil.

2.3 MUZZLE ENERGY

The muzzle energy has been set to conform to statutory requirements using the pellets stated on the front page of this handbook. If any other pellets are used the settings may have to be altered.

Pellets vary so much, not only between manufacturers but even types from the same manufacturer, that it is impossible to guarantee that all of the pellets available on the market will result in the legal use of this rifle.

It is therefore essential to check the muzzle energy if it is intended to use any other than the stated pellet.

Adjustment is provided should it be found to be necessary.

If adjustments are made the rifle must be checked throughout its entire range using a reliable chronograph, over several charges.

continued over/...

