

# BSA GUNS



## Spitfire

**PRE-CHARGED AIR RIFLE (HIGH FILL)**

### **Owner's Instruction Manual**

#### **IMPORTANT**

Please read these instructions thoroughly before using your air rifle.

[www.bsaguns.com](http://www.bsaguns.com)



## **WARNING**

This air rifle is not a toy and requires adult supervision if used by a person under the age of 17 years. It is more powerful than conventional air rifles and the compressed air supply requires far stricter safety control. Misuse or careless handling may result in serious injury or death.

## **AIRGUN SAFETY CODE**

- Treat every rifle as though it was loaded. When handling any rifle or gun don't take anyone's word that it's unloaded, check it yourself.
- Never under any circumstances point your rifle at anyone.
- Never shoot on land without permission from the owner.
- Always ensure it's safe to shoot and be certain of your target before you squeeze the trigger.
- Be sure that there is a safe area behind the target or a backstop to catch your pellets. If in doubt, don't shoot.
- Beware of ricochets - do not shoot at water or other smooth surfaces that may deflect the pellet in a new direction.
- Make sure your rifle is unloaded when carrying it, or taking it indoors or into a car.
- Always unload your rifle before climbing fences or other obstacles.
- Never leave your rifle unattended, even if it's unloaded.
- After use unload, clean, dry and lubricate your rifle before locking it away safely and out of reach of children. Store your pellets separately.
- Always follow the safety instructions in this booklet.

## **THE LAW**

It is illegal:

- to give an airgun to anyone under the age of 17 years;
- for anyone under 17 to be in possession an airgun, unless supervised by someone at least 21 years old\*
- to carry a loaded air weapon in a public place;
- to trespass on private land, or enter property without the owner's consent, with an air weapon;
- to kill or injure any bird or protected animal unless you are authorised to do so under the Wildlife and Countryside Act 1981; and
- to fire an air weapon within 15 metres (50 feet) of a road or street.

\* Persons over the age of 14 can use an airgun unsupervised only at an approved shooting club or on private land with the landowner's consent.

# BSA Spitfire

## PRE-CHARGED AIR RIFLE

Outwardly resembling a standard break-barrel airgun, the BSA Spitfire is a pre-charged pneumatic air rifle that combines a smooth recoilless action and superb accuracy.

It has an easy-to-use break-barrel cocking system and contains its own air reservoir in the body of the cylinder, which is re-filled in seconds using an air tank or hand pump. The Spitfire is specified with a high capacity High Fill (HF) system.



Both the standard rifle barrel or shorter length carbine models are available with either .177, .22 or .25 calibre options.

- Recoilless pneumatic action
- Patented in-line valve mechanism for superb consistency between shots
- Fast High Fill charging system for greater capacity
- Up to 70 shots per fill
- Maxi-grip scope rail

## TECHNICAL INFORMATION

	Overall length	Barrel length	Weight
Rifle	103cm 40 in	45cm 17 in	3.25Kg 7.2lbs
Carbine	97cm 39 in	36cm 14 in	3.3Kg 7.25lbs

All BSA airguns are made to the highest standards at our factory in Birmingham. BSA barrels are cold hammered and rifled with 12 groove 1:19in rifling and crowned for optimum accuracy. The carbine version has a shorter barrel and is factory fitted with a BSA volumetric silencer.

Working pressure 232 bar (3365psi)

	Shots per fill *		
	.177 (4.5mm)	.22 (5.5mm)	.25 (6.35mm)
Rifle	50	70	75
Carbine	35	55	-

\*Approximate only

Figures shown are for guidance only. Actual velocity will depend on the weight and type of pellet used.

## GETTING STARTED

Your new BSA Spitfire rifle is packed fully assembled and ready to fire. Before attempting to fire the rifle first read the safety notes at the front of this booklet and make sure you understand the following operating instructions.

### Using compressed air

#### **CAUTION!**

Only dry divers' air should be used in this gun. Do not attempt to fill the buddy bottle with oxygen or any other gas. This can cause a serious explosion.

High pressure compressed air can be used safely with the Spitfire, provided strict safety codes are followed. The High Fill system is designed to be filled from a SCUBA tank or via a BSA hand pump, using the adaptor supplied.

When using a hand pump care must be taken to open the water trap at regular intervals to release moisture. The BSA hand pump, manufactured by Hills of Sheffield incorporates a patented 'Dry-pac' moisture extraction system and is highly recommended.



Under no circumstances should the Spitfire rifle be filled with air when in a partially assembled state.

#### **CAUTION!**

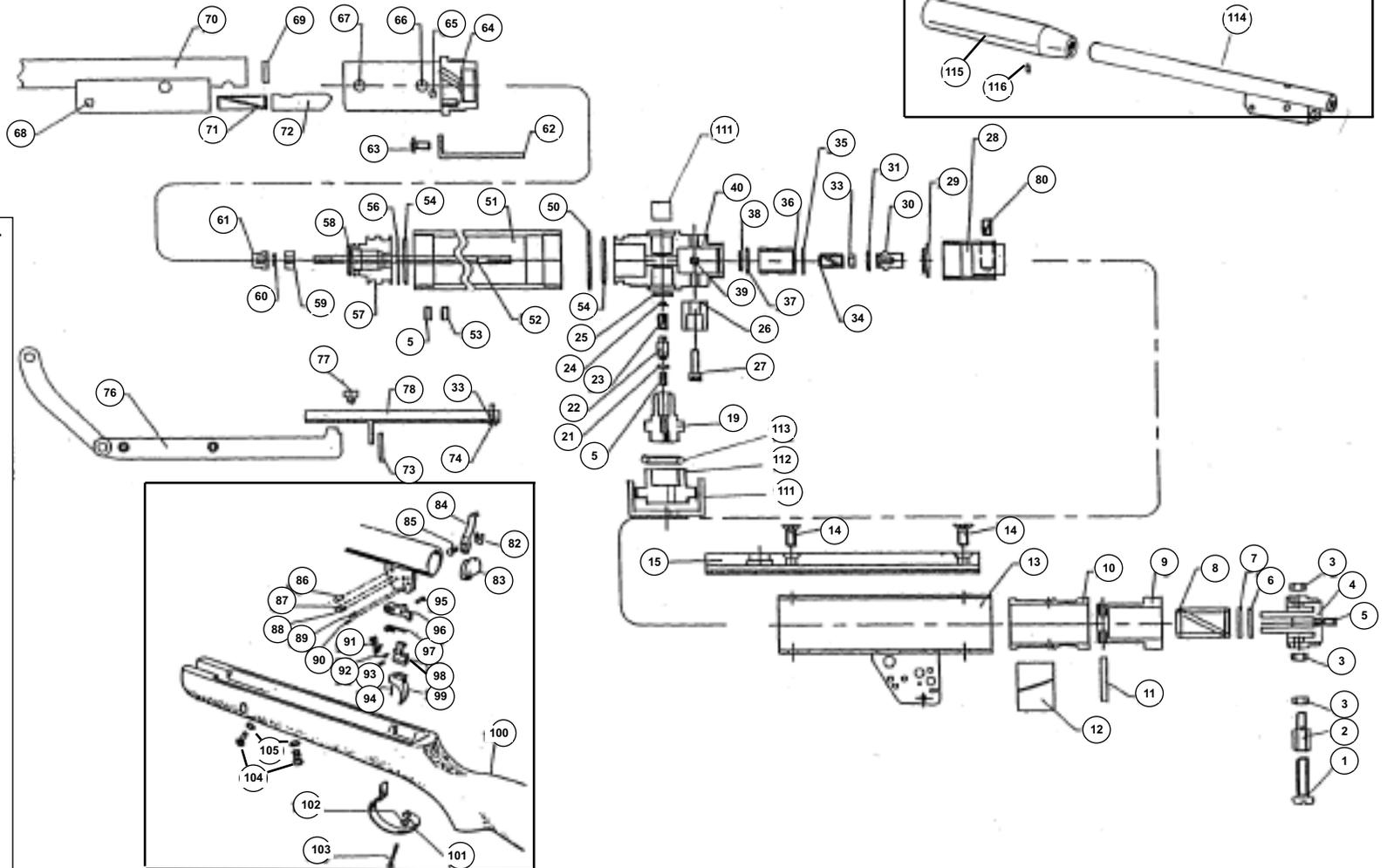
Use only Molykote 111 grease on the air cylinder or connection. Automotive mineral oils and grease can cause an explosion if used with high-pressure air.

# BSA Spitfire

## PRE-CHARGED AIR RIFLE

PLEASE QUOTE MODEL PREFIX LETTERS AND  
PART NUMBER (NOT ITEM NUMBERS)

ITEM	DESCRIPTION	PART No.
1	M5X20 Button Head Screw	16-6358
2	Stock Stand Off	16-6363
3	M5 Nut (2)	16-6354
4	Endcap Location Plug	16-6353
5	Adjusting Washer Grubscrew (3)	16-6357
6	Adjusting Washer	16-6356
7	Adjusting Washer	16-6349
8	Main Spring	16-6345
9	Striker Inner Body	16-6324
10	Striker Outer Body (Piston)	16-6325
11	Striker Pin	16-6326
12	Split Bearing	16-6355
13	Rear Tube	16-6302
14	Rail Screws (2)	16-6351
15	Rail	16-6348
19	Bottle Control	16-6318
21	Plunger O-ring	16-6323
22	Brass Plunger	16-6322
23	Bottle Control Spring	16-6319
25	Bottle Control Seal (2)	16-6320
26	Inlet Valve Location	16-6346
27	Inlet Valve Location Screw	16-6347
28	Anti-bounce Assembly	16-6369
29	Anti-bounce Top Hat	16-6426
30	Hammer	16-6427
31	PTFE Rod Seal	16-6441
33	M4 Hammer Locknut	16-6335
34	K/O Valve Spring	16-6334
35	Honed Tube Circlip	16-6306
36	Honed Tube Insert	16-6429
37	Honed Part O-ring	16-6382
38	Honed Tube Plastic Washer	16-6307
39	Honed Tube Grubscrew	16-6339
40	Pressure Reservoir Body	16-6305
50	Take-up Gap Between Tubes	16-6310
51	Front Tube	16-6301
52	K/O Valve Stem	16-6400
53	Dog Point Socket Screw (3)	16-6367
54	O-ring	16-6375
56	Backing Ring	16-6381
57	Valve Seating	16-6431
58	Valve Seating O-ring (small)	16-6337
59	K/O Valve	16-6327
60	K/O Valve and Retainer Seal	16-6442
61	K/O Valve Retainer	16-6428
62	Body Connector	16-6403
63	Breech Bearin	16-6404
64	Rotating Breech	16-6406
65	Thumb Piece	16-6410
66	Breech Housing	16-6405
67	Barrel Location Screws	16-6020
68	Springball Plunger	16-6408



ITEM	DESCRIPTION	PART No.
69	Barrel Seal	16-1050
70	.177 Barrel	16-6387
	22 Barrel	16-6412
71	Hinge Pin	16-5211
72	Handle Plate	16-6407
73	Cocking Stop Pad	16-6359
74	Cocking Plate Bol	16-6341
75	Cocking Link Pin	16-3832
76	Cocking Link Assembly	16-4846
77	Cocking Plate Bearing	16-6360
78	Cocking Plate	16-6340
79	Ball Catch Pin	16-5587
80	Anti-bounce Spring	16-6368
81	Cocking Handle Bolt	16-6409
82	Retaining Clip	16-4866
83	Cylinder End Cap	16-3560
84	Safety Catch Lever	16-4865
85	Safety Catch Axis Pin	16-4864

ITEM	DESCRIPTION	PART No.
86	Sear Axis Pin	16-1021
87	Sear Spring and Trigger Pin	16-1022
88	Trigger Spring Pin	16-4853
89	Trigger Stop Pin	16-4854
90	Sear Spring and Trigger Pin	16-1022
91	Trigger Spring	16-4859
92	Trigger Strut Safety Pin	16-4860
93	Trigger Adjusting Screw Plug	16-4861
94	Trigger Adjusting Screw	16-4863
95	Sear Spring Support Pin	16-4856
96	Sear	16-3841
97	Sear Spring	16-6350
98	Trigger Strut	16-4858
99	Trigger Grip	16-4862
100	Stock	16-6411
101	Trigger Guard	16-3842
102	Rear Screw Washer	16-1047
103	Stock Rear Screw	16-6358

ITEM	DESCRIPTION	PART No.
104	Fore-end Screw (2)	16-3038
105	Nylon Bush (2)	16-5130
106	Handle Assembly	16-6418
107	Plate to Rotate Breech Assembly	16-6419
108	Filler Cap	16-6379
109	Spring First Pressure	16-4888
110	Brass Rotator	16-6435
111	Quick Refill Receive	16-6436
112	Plug	16-6445
113	O-ring	16-6090
<b>CARBINE</b>		
114	.177 Carbine Barrel	16-6384
	.22 Carbine Barrel	16-6383
115	Volumetric Silencer	642
116	Silencer Grub Screw	16-6152

## Charging the Spitfire

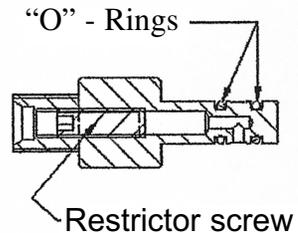
To fill, rotate the brass cover underneath the fore end of the stock to expose the filler port. Push the adaptor on the supply tank tube fully home into the inlet valve beneath the fore end of the stock and slowly turn on the air supply valve.



Do not overfill. The maximum fill pressure for the Spitfire HF is 232 bar or 3365 psi.

After filling, bleed off the tank supply tube, carefully remove the adaptor from the rifle and slide back the protective cover.

The adaptor has a restricter screw fitted which must be left screwed tightly in place when using a large pressure bottle to fill the gun, or the rifle will be damaged. If a hand pump is used the restricter screw should be loosened or removed using the allen key provided.



Before inserting into the rifle, the probes “O”- Rings should be carefully examined (if any damage is evident the “O”- Ring must be changed before continuing), and ensure a small amount of molycote 111 grease is applied to “O”- Rings

### **CAUTION!**

Always wear protective glasses when shooting and make certain that persons close to you are similarly protected. Serious injuries can be caused by ricochets and debris flying off the target or backstop.

## **CAUTION!**

Like all mechanical devices, safety mechanisms can be adversely affected by wear, abuse, dirt or corrosion. Never assume that it is a foolproof way of preventing accidental discharge and always follow the safety code when handling an air rifle.

### **Loading and firing**

Ensure you have the correct calibre and type of pellet for your rifle. BSA manufacture a range of recommended pellets suitable for target shooting or hunting under varying conditions.

Engage the safety catch by pulling the lever backwards to the 'S' position. This is the 'safety' position, which locks the trigger to prevent the rifle firing.

*Note: The Spitfire air rifle is not cocked in the same manner as a standard main-spring air gun. The barrel opens with very little movement and requires only a light pressure to cock the trigger.*

With your fingers clear of the trigger area, hold the rifle pointing upwards and forwards with arms extended. Tap the end of the barrel with the flat of your hand to release the latch and gently pull down the barrel to an angle of about 30° until you feel the trigger engage.

Insert one pellet nose first into the exposed barrel chamber. *Attempting to fire darts, balls or anything other than the recommended lead pellet may damage the rifle and will invalidate the warranty.* Return the barrel to the closed position, making sure it clicks securely into place.



When you are ready to fire, move the safety catch forward towards the 'F' position. Return the safety catch to the 'S' position after firing.

**Note:** Avoid prolonged 'dry firing' of your rifle (cycling and firing with an empty chamber) as this may cause damage to airway seals.

## THE SILENCER

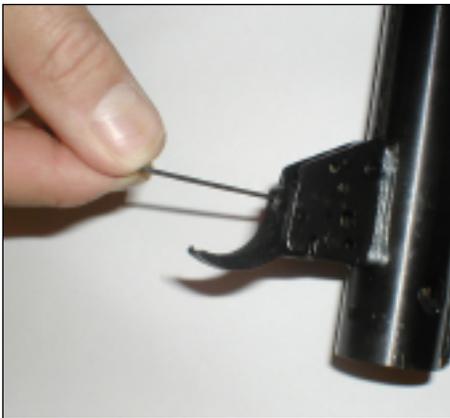
The carbine version of the Spitfire is fitted with a BSA volumetric silencer as standard.

The rifle version is not supplied with a silencer, but a volumetric silencer can be fitted directly to the barrel. Alternatively, a BSA SAS silencer can be fitted using an adaptor (Part No. 16-6617).

## TELESCOPIC SIGHTS

The BSA Spitfire has a Maxigrip scope rail designed to accept a standard range of scope mounts. Ring mounts are available in three heights, to accommodate the diameter of the scope's objective lens.

It is recommended you use double screw mounts. Refer to the scope manufacturer's instructions on fitting and adjusting.



## TRIGGER ADJUSTMENTS

The trigger has a two-stage operating mechanism and the second stage can be adjusted for preference. Using an Allen key, turn the adjustment screw clockwise to increase the trigger weight or anti-clockwise to lighten it. The rifle must not be cocked or loaded when carrying out this adjustment. In the interests of safety, take care not to over-lighten the trigger weight.

## **CAUTION!**

Dismantling and repair of this rifle should only be carried out by a competent gunsmith.

## **CARE AND MAINTENANCE**

Your rifle has been designed and manufactured for optimum performance. Tampering with the components, or any modifications and alterations, may make the rifle unsafe to use and could invalidate the warranty.

All air rifles require periodic maintenance and inspection. Breakages, improper functioning, undue wear or corrosion of components may not always be apparent from external examination. So, even if everything seems to be in good working order, have your air rifle checked annually by a competent gunsmith.

If you notice ANY mechanical malfunction, perhaps as a result of dropping the air rifle, you should not continue to use it. Unload the air rifle and arrange for it to be professionally repaired. Failure to keep your air rifle in proper working order can be potentially dangerous.

You should always have the power of your air rifle re-checked following any maintenance or repair work. The smallest of repairs or adjustments can have an effect on the power. It is your responsibility to make sure the air rifle remains below the legal limit of 12 ft.lbs. **YOU ARE LEGALLY RESPONSIBLE TO OBSERVE THIS LIMIT.**

After each use, check that your rifle is unloaded and wipe the metal and wood-work surfaces with a lightly oiled cloth. Pay special attention to the metal finishes as they are not fully rustproof and are vulnerable to damp and particularly perspiration.

### **NOTE: DAMAGE CAUSED BY LACK OF PROPER CARE AND MAINTENANCE IS NOT COVERED BY THE WARRANTY**

*Do not use oils containing SILICON as this can cause damage to metal surfaces and particularly to the trigger mechanism.*

The rifle should not be oiled or greased except as directed above or when overhauled by a gunsmith. Incorrect application of oil and grease can often do more harm than good. Use only Molykote 111 grease where necessary.



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