

# LIGHT AUTOMATIC RIFLE



CAL. 7.62 mm

**FABRIQUE NATIONALE HERSTAL**  
**Société Anonyme**

**H 12**

**B-4400 HERSTAL (BELGIUM)**



## I. INTRODUCTION

The FN Light Automatic Rifle, calibre 7.62 mm NATO, usually known as the "F. A. L." or "L. A. R.", has resulted from prolonged research and competitive trials made in various countries and under all types of climatic conditions.

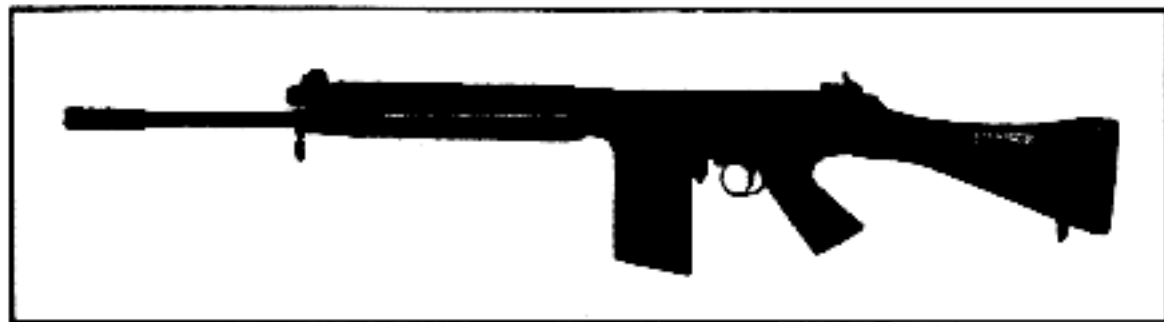


Fig. 1

This rifle, which has been adopted by many countries both within and outside NATO, was designed and made by FN to give the user a rifle which would combine all the essential qualities needed under modern fighting conditions, to a hitherto unequalled degree.

This booklet is neither for the armourer nor the specialised officer: its purpose is to familiarise the user with a weapon which is new to him and to put sufficient knowledge at his disposal to enable him to use it with maximum efficiency.

## II. CHARACTERISTICS AND TECHNICAL DETAILS

The FN Light Automatic Rifle is an automatic weapon, calibre 7.62 mm NATO, gas-operated and with a breech block which is mechanically locked before firing can take place.

### Rifle

- Weights
  - Rifle without magazine: 4.325 kgs (approx. 9.53 lbs)
  - Magazine (steel) empty: 250 g ( $8\frac{1}{2}$  ozs)
  - Magazine (steel) filled 20 rounds Ball Ammn.: 730 g (1 lb  $9\frac{3}{4}$  ozs)
  - Barrel. approx. 800 g (1 lb  $12\frac{1}{4}$  ozs)
- Measurements
  - Overall length . 1,090 mm (approx. 40")
  - Barrel length . 533 mm (approx. 21")
  - Sight radius . 553 mm (approx.  $21\frac{3}{4}$ " )
- System of operation: gas, with regulator and piston.
- Method of feed: 20-round magazine.
- Magazine housing: underneath the receiver.
- Ejection opening: right side of receiver.

- Cocking handle: left side of receiver.
- Change lever: left side of trigger frame.
- Sights: adjustable, backsight graduated from 200-600 metres, scaled by 100 m.
- Rifling of barrel: 4 grooves, direction—right, pitch—1 in 305 mm (1 in 12")
- Cyclic rate of fire: 650-700 rpm.
- Operational rate of fire, semi-automatic: up to 60 rpm.

### Cartridge

- Calibre: 7.62 mm NATO (Fig. 2).
- Weight of cartridge: (for ordinary ball round "SS 77") approx. 24 g (0.86 oz).
- Length of cartridge: 71 mm (2.8").
- Weight of ordinary bullet: "FN SS 77": 9.30 g (0.33 oz).
- Powder charge: approx. 3 g (0.1 oz).
- Initial Velocity (V0) in the "F. A. L.": 840 m/sec (2,754 ft/sec).
- Muzzle Energy (E0) in the "F. A. L.": 335 kgm (2,422 ft.lbs).
- Remaining Kinetic Energy at 600 metres (656 yds): 100 kgm (723 ft.lbs).

**N. B.** For further technical information and ballistical characteristics, also firing tables, refer

to FN booklet for Ammunition calibre 7.62 mm NATO, or other handbook on the subject.



Fig. 2

FN 7.62 mm NATO cartridge with SS 77 bullet

### III. FUNCTIONING

#### 1. COCKING

Before firing, the breech block mechanism is forward, with the safety applied (change lever set at "S").

Insert a filled magazine obliquely in the housing under the receiver, swing it from front to rear and push fully home: the magazine is then secured in the rifle at both front and rear.

Pull the cocking handle, on the left side of the receiver, fully to the rear, then let it go forward: a cartridge is thus introduced into the chamber; the rifle is loaded and cocked.

To fire, set the change lever either at "R" for semi-automatic fire, or at "A" for automatic fire.

#### 2. REAR MOVEMENT OF THE MECHANISM

Pressing the trigger fires the shot.

When the bullet passes the gas port in the barrel, part of the combustion gases penetrate the regulator and thence into the gas cylinder. The piston is projected to the rear, strikes the breech-block slide, which is also driven rearwards. After recoiling a few millimetres, the ramps of the slide force the rear part of the breech block to rise, thus lifting it out of engagement with its locking