**Dispatch No. 1** 

# FAL Rifles in Libya

A Guide to Data Gathering



Security Assessment in North Africa



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## Introduction

After Kalashnikov-pattern rifles, Fusil Automatique Léger (FAL) rifles were among the most frequently sighted firearms during the 2011 armed conflict in Libya.<sup>1</sup> A number of FAL rifles used during the conflict were subsequently re-circulated throughout the broader sub-region. Indeed, between 2011 and 2013 FAL rifles reportedly smuggled from Libya were seized or documented in several countries, including Algeria, Lebanon, Niger, Syria, and Tunisia.<sup>2</sup>

Although factory markings, serial numbers, and technical characteristics do not provide conclusive proof of the age or end users of Belgian FAL rifles used in the Libyan conflict, they do allow useful inferences to be drawn. This report discusses the basis of such inferences and offers guidance on data gathering with a view to advancing our general knowledge of the use and circulation of Belgian FAL rifles and encouraging relevant authorities to step up tracing efforts.

# **Countries of origin**

Designed and manufactured at the Fabrique Nationale d'Armes de Guerre Herstal (FN Herstal), in Belgium, the FAL rifle officially received its name in March 1954. Dubbed 'the right arm of the free world' during the cold war, it underwent several modifications and was adopted by a number of countries, some of which also manufactured it under licence. By 1981, seven countries other than Belgium produced FAL rifles: Argentina, Austria, Brazil, Canada, South Africa, the United Kingdom, and Venezuela (Stevens and Rutten, 1981, pp. 299, 368).

Evidence suggests that most of the FAL rifles used in Libya in the 2011 conflict were FALs of Belgian production (FN FALs). Belgian records document authorized exports of 46,260 FN FAL rifles to Libya from 1969 to 1988,<sup>3</sup> though the actual number of rifles exported may be lower. In addition to direct sales from Belgium, re-exports of FN FALs from other countries to Libya may have occurred before or during the 2011 conflict.<sup>4</sup> Illicit sales of FALs to actors in Libya through underground arms merchants may also account for a portion of the rifles used during the 2011 conflict.

# Markings

## **Factory markings**

Although factory markings on the right side of FN FAL rifles do not explicitly refer to the weapons' date of manufacture, they do provide relevant information. Research conducted in the Belgian National Archives shows that between November and December 1971, FN Herstal amended its name from Fabrique Nationale d'Armes de Guerre Herstal Belgique to Fabrique Nationale Herstal Belgique or, alternatively, Fabrique Nationale Herstal Belgium.<sup>5</sup> Factory markings referring to the former would thus indicate a date of manufacture preceding that change (see Picture 1). Factory markings with the amended name, on the other hand, would indicate a manufacturing date after November–December 1971 (see Picture 2).

#### Picture 1 Factory marking reflecting manufacture before November–December 1971



Picture 2 Factory marking reflecting manufacture after November–December 1971



According to the available documentation, most FN FAL rifles exported from Belgium to Libya were produced after 1971; Belgian records contain authorization for export of only ten rifles prior to 1971, while the bulk of authorized exports occurred between December 1971 and November 1985 (see Annexe 1). Indeed, Belgian records indicate that Libya accounted for almost half the turnover of FN Herstal in 1977 (see Annexe 2).

## **Serial numbers**

Serial numbers on FN FAL rifles are found on one or both sides of the receiver. They generally appear on the upper rather than on the lower receiver (see Pictures 3 and 4).



Picture 3 Serial number on the right-hand side of the upper receiver of a FN FAL rifle

#### Picture 4 Serial numbers on left-hand side of the upper and lower receivers of a FN FAL rifle\*



\*Note: When two numbers are visible on the left side of the rifle, they should be identical. Different numbers suggest that the upper and lower receivers were assembled from two different rifles.

Rifles produced before 1972 all appear to bear a single serial number on the left side (Stevens and Rutten, 1981, p. 300). This number refers to the number of FN FALs manufactured for a particular client country. For example, an FN FAL rifle marked with serial number 123456 on the left side can be identified as the 123,456th rifle manufactured for the purchasing country. As a result of this marking system, some rifles made for different countries carry the same serial number. The Belgian authorities expressed concern about the duplication of serial numbers in 1972 (Stevens and Rutten, 1981, p. 300). To address this problem, FN Herstal introduced a new serial number on the right side of the rifle to reflect the total FN FAL production. Thus, on rifles produced as of 1972, the serial number on the left-hand side indicates the rifle's numerical place in a country-specific numbering scheme, while the serial number on the right-hand side designates the rifle's place within the total production of FN Herstal.

With respect to rifles produced after 1972, the right-hand side serial number is potentially the most important for official tracing requests, as it should enable FN Herstal and Belgian authorities to determine the year of manufacture as well as the authorized end user of the rifle. The serial number can also provide a rough idea of the year in which the rifle was manufactured, given known FN FAL production counts (see Table 1).

1953	0	1967	785,620
1954	14,284	1968	835,614
1955	78,562	1969	849,898
1956	214,260	1970	871,324
1957	257,112	1971	907,034
1958	314,248	1972	949,886
1959	357,100	1973	1,042,732
1960	428,520	1974	1,164,146
1961	528,508	1975	1,256,992
1962	557,076	1976	1,364,122
1963	578,502	1977	1,421,258
1964	642,780	1978	1,499,820
1965	692,774	1979	1,514,104
1966	699,916	1980	1,535,530

#### Table 1 FN FAL production, 1953–80

Source: Small Arms Survey elaboration of information presented in Stevens and Rutten (1981, p. 146)

It is important to note that most FAL parts are interchangeable. Markings on the receiver, or the absence of such, are strong indicators of a weapon's country of manufacture. However, other markings, such as proof markings or stamps on the barrel, can assist in the identification of a rifle's origin and can allow authorities to trace the weapons with a higher degree of accuracy. Since those markings are on the barrel of the FAL rifle, they can only be accessed if the handguard is disassembled, which may be a dangerous, difficult, or suspicious-looking process.<sup>6</sup>

## **Technical features**

## **FAL rifle types**

More than 90 countries have added the FN FAL rifle to their arsenals since 1953 (Gander, 2001, p. 9). Some countries have produced their own version of the rifle under licence, while other countries requested that FN Herstal make modifications to the original pattern. As a result, many FAL variants can be found in the field, and their main components are interchangeable.

The most frequently encountered type of FN FAL rifle, both in general and in Libya, is the 50.00, which exists in many configurations. Less common, but also seen in Libya, are the FN FAL 50.41 (also known as FALO and featuring a nylon buttstock, a heavy barrel, and distinctive muzzles and handguards) and the FN FAL 50.61 (also known as Para and featuring a standard 533 mm barrel and a folding stock) (Stevens and Rutten, 1981, p. 300; see Pictures 5 and 6).

## Picture 5 FN FALO, Misrata, Libya, June 2012Picture



### 6 FN FAL 50.61, Benghazi, February 2012



# **Types of receivers**

The FN FAL's upper receiver is the physical component that, along with the serial number, can provide the most information on the rifle's period of manufacture. FN Herstal developed three main types of upper receivers for the FN FAL rifle, each of which has distinctive features.

The production of FN FALs began with Type I around 1953–54 and may have extended to 1962 (Stevens and Rutten, 1981, p. 303). The type is characterized by two bevelled lightening cuts along the bottom edge of the lower receiver behind the magazine well (see Picture 7).



#### Picture 7 Type I receiver near Ra's Lanuf, Libya, March 2011

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In the early 1960s, FN Herstal identified an area of possible weakness in the receiver and reinforced it by truncating the lightening cuts. The resulting Type II receiver was introduced in 1962 and was probably in production through 1973 (Stevens and Rutten, 1981, p. 303; see Picture 8).

### Picture 8 Type II receiver, Misrata, Libya, June 2012



Facing the need to reduce production costs, FN Herstal introduced the Type III receiver in 1973. Single, meanwidth planes replaced the earlier lightening cuts (see Picture 9). Just prior to the introduction of the Type III receiver, FN Herstal had produced one million FAL rifles (Stevens and Rutten, 1981, pp. 146, 303).

Picture 9 Type III receiver, Misrata, Libya, June 2012



# **Conclusion: documenting FN FALs in Libya**

Table 2 identifies the receiver type and serial numbers found on the seven FN FAL rifles examined by the author in Libya in 2012. The age of each rifle can be estimated based on this information. In two cases, the estimated age ranges were confirmed by information contained in the report of the UN Panel of Experts on Libya (UNSC, 2013, paras. 99–100). The dates of manufacture and end users of the five remaining rifles are uncertain. Based on available Belgian export records, it seems likely that they were part of authorized Belgian exports to Libya in the 1960s and 1970s—a finding only an official tracing request could fully confirm.

Factory marking	Receiver type	Serial numbers			Implied period of
		Pre-1972 manufacture	1972 manufacture or later (one or two numbers)		manufacture
		(unique number on the left side)	Left side (customer serial number)	Right side (total production serial number)	
Fabrique Nationale d'Armes de Guerre Herstal Belgique	Type II	21595			Between 1962 and 1971.
Fabrique Nationale Herstal Belgium	Туре II	41805			Between 1971 and 1972.

#### Table 2 FN FAL rifles documented in Libya, 2012

Factory marking	Receiver type	Serial numbers			Implied period of
		Pre-1972 manufacture (unique number on the left side)	1972 manufacture or later (one or two numbers)		manufacture
			Left side (customer serial number)	Right side (total production serial number)	
Fabrique Nationale Herstal Belgium	Type II	46380			Between 1971 and 1972.
Fabrique Nationale Herstal Belgique	Type III		75250	1008183	Between 1973 and 1974.
Fabrique Nationale Herstal Belgique	Type III		162074	1274975	Between 1975 and 1976.
Fabrique Nationale Herstal Belgique	Type III		No serial present	1461404	Between 1977 and 1978.
Fabrique Nationale Herstal Belgique	Type III		Document- ation prevented	1514944	Between 1979 and 1980. Confirmed delivery in 1979; the authorized end user was the United Arab Emirates (UNSC, 2013, para. 99).
Fabrique Nationale Herstal Belgique	Type III		Document- ation prevented	1731984	After 1980. Confirmed delivery in 1991; the authorized end user was the United Arab Emirates (UNSC, 2013, para. 100).

By documenting serial numbers, receiver types, and other information about FAL rifles, researchers and practitioners can only help augment the existing knowledge base, and help to enhance our understanding of small arms proliferation dynamics in current and future conflict zones. This research may also trigger the release of additional official information.

## Annexes

**Annexe 1:** 'Selected Belgian Licences for the Export of FN FAL Rifles to Libya, 1969–88.' Archives Générales du Royaume, Belgique (Belgian National Archives). Accessed in 2012–13 in Brussels, Belgium. <a href="http://www.smallarmssurvey.org/fileadmin/docs/R-SANA/SANA-Dispatch1-Annexe1-export-licenses.pdf">http://www.smallarmssurvey.org/fileadmin/docs/R-SANA/SANA-Dispatch1-Annexe1-export-licenses.pdf</a>>

**Annexe 2:** 'Internal Briefing Note of the Belgian Ministry of Foreign Affairs, Foreign Trade, and Development Cooperation, 6 December 1977.' Archives Diplomatiques–Ministère des Affaires Etrangères, Belgique (Belgian Diplomatic Archive). Accessed in 2012–13 at the Belgian Ministry of Foreign Affairs, Brussels, Belgium. <http://www.smallarmssurvey.org/ fileadmin/docs/R-SANA/SANA-Dispatch1-Annexe2-internal-briefing.pdf>

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<sup>1</sup> See, for instance, Spleeters (2011).

<sup>2</sup> See Tunisian MOI (2013) and UNSC (2012, para. 113; 2013, para. 192, annexes XI, XIII).

<sup>3</sup> Belgium authorized ten FN FAL rifles for export to Libya in March 1969; 10,000 units in December 1971; 30,000 units in July 1973 (licence renewed in January and August 1974); 4,250 units in October 1974; and 2,000 units in November 1985 (see Annexe 1). Belgian arms export licences delivered before 1969 and in 1975–79 were not available.

<sup>4</sup> There are documented cases of FN FAL rifles arriving in Libya either via re-exportation or illicit sales. The UN Panel of Experts on Libya, for example, traced two FN FAL rifles in Libya and found that both had originally been exported by Belgium to the United Arab Emirates, one in 1979 and the other in 1991 (UNSC, 2013, paras. 99–100).

<sup>5</sup> Punctuation and precise wording varies.

<sup>6</sup> See, for example, Bevan (2008, ch. 6.3).