

# LOCKHEED F-104 STARFIGHTER

## F-104 SERVICE

*Manufacturer:* The Lockheed Aircraft Corp., Burbank, California, USA  
(Designed by Lockheed "Skunk" Works)

*Models:* 83, 183, 283, 383, 483, 583, 683, 783

*Designations:* F-104; X-27, CF-104 (RCAF)

*Name:* Starfighter

*First official flight:* XF-104 04 Mar 1954  
*Factory production period:* 1953 – 1966  
1960 – 1979 (Foreign built)  
*Primary service period:* 1958 – 1969  
1959 – 2005 (Foreign service)  
*Last official flight:* F-104D Jul 1975

## F-104 VARIANTS

1954	<b>Model 083-92-01</b>	<b>XF-104</b>	2	
1956	<b>Model 183-93-02</b>	<b>YF-104A</b>	17	<b>Total: 0019</b>
1956	<b>Model 183-92-02</b>	<b>F-104A</b>	153	
1957	<b>Model 283-93-03</b>	<b>F-104B</b>	26	<b>Total: 0179</b>
1958	<b>Model 383-04-05</b>	<b>F-104C</b>	77	
1958	<b>Model 483-04-06</b>	<b>F-104D</b>	21	
1962	<b>Model 583B-10-17</b>	<b>F-104DJ</b>	20	
1959	<b>Model 483-04-08</b>	<b>F-104F</b>	30	
1961	<b>Model 583A-04-15</b>	<b>CF-104D</b>	38	<b>Total: 0186</b>
1960	<b>Model 683/683C / -10-19</b>	<b>F-104G</b>	140	
1962	<b>Model 683C-04-10</b>	<b>RF-104G</b>	40	
1962	<b>Model 583C / D / E / F / G / H / -10-20</b>	<b>TF-104G</b>	220	<b>Total: 0400</b>
1961	<b>Model 683B-07-14</b>	<b>F-104J</b>	3	
1963	<b>Model 683C</b>	<b>F-104N</b>	3	<b>Total: 0006</b>
				<b><u>Total: 0790</u></b>
	<i>Foreign built – Belgium:</i>			
1961	<b>Model 683</b>	<b>F-104G</b>	188	<b>Total: 0188</b>
	<i>Foreign built – Canada:</i>			
1961	<b>Model CL-90</b>	<b>CF-104</b>	200	
1963	<b>Model 683</b>	<b>F-104G</b>	140	<b>Total: 0340</b>
	<i>Foreign built – Italy:</i>			
1964	<b>Model 683</b>	<b>F-104G</b>	164	
1964	<b>Model 683</b>	<b>RF-104G</b>	35	
1968	<b>Model 783</b>	<b>F-104S</b>	246	<b>Total: 0445</b>

	<i>Foreign built – Japan:</i>			
1962	<b>Model 683</b>	<b>F-104J</b>	207	<b>Total: 0207</b>
	<i>Foreign built – The Netherlands:</i>			
1961	<b>Model 683</b>	<b>F-104G</b>	231	
1963	<b>Model 683</b>	<b>RF-104G</b>	119	<b>Total: 0350</b>
	<i>Foreign built – West Germany:</i>			
1960	<b>Model 683</b>	<b>F-104G</b>	260	<b>Total: 0260</b>
				<b>Total: 1790</b>
				<b>Grand Total: 2580</b>

## **F-104 PRODUCTION**

### **XF-104**

*Prototype single seat interceptor fighter.  
produced 1953 – 1954*

Lockheed Burbank, California (LO)

53-7786, 53-7787                      083-1001, 1002                      2                      **Total: 0002**

### **YF-104A**

*As XF-104, lengthened fuselage, engine  
upgrade. Later upgraded to **F-104A** standard.  
produced 1955 – 1956*

Lockheed Burbank, California (LO)

55-2955 / 55-2971                      183-1001 / 1017                      17                      **Total: 0017**

### **F-104A**

*As YF-104A, engine upgrade, ventral  
fin, equipment upgrades.*

*produced 1956 – 1958*

Lockheed Burbank, California (LO)

56-730 / 56-882                      183-1018 / 1170                      153                      **Total: 0153**

*(Model 383-93-04) RF-104A – 1954, reconn. version of F-104A, 18 cancelled.*

*TF-104A – Trainer version of F-104A, cancelled in favour of F-104B.*

### **F-104B**

*As F-104A, 2-seater trainer, larger tail.*

*produced 1956 – 1958*

Lockheed Burbank, California (LO)

56-3719 / 56-3724                      283-5000 / 5005

57-1294 / 57-1313                      283-5006 / 5025                      26                      **Total: 0026**

### **F-104C**

*As F-104A, tactical strike version,  
engine upgrade.*

*produced 1958 – 1959*

Lockheed Burbank, California (LO)

56-883 / 56-938                      383-1171 / 1226

57-910 / 57-930                      383-1227 / 1247                      77                      **Total: 0077**

*363 additional airframes cancelled.*

**F-104D**

*As F-104C, 2-seater trainer.*

*produced 1958 – 1959*

Lockheed Burbank, California (LO)

57-1314 / 57-1334                      483-5026 / 5046

21    **Total: 0021**

*83 additional airframes cancelled.*

**F-104DJ**

*As F-104D, version for Japan. Components built by Lockheed, assembled by Mitsubishi.*

*produced 1962 – 1964*

Lockheed Burbank, California (LO)

(JASDF)

16-5001 / 16-5020                      583B-5401 / 5420

20    **Total: 0020**

*F-104E – Not used.*

**F-104F**

*As F-104D, version for West Germany.*

*produced 1959 – 1960*

Lockheed Burbank, California (LO)

59-4994 / 59-5023                      483-5047 / 5076

30    **Total: 0030**

*All delivered to:*

(West Germany) BB360 / BB389

**CF-104D**

*As F-104D, RCAF designation, version for*

*Canada. Original designation was CF-113.*

*Last 16 delivered as CF-104D Mk. II.*

*Reserialled as 104631 / 104668 in 1970.*

*produced 1961*

Lockheed Burbank, California (LO)

(RCAF) 12631 / 12668                      583A-5301 / 5338

38    **Total: 0038**

**F-104G**

*As F-104C, engine upgrade, various improvements. USAF s/n all delivered to foreign users under MAP.*

*produced 1960 – 1964*

Lockheed Burbank, California (LO)

61-2601 / 61-2623                      683C-4001 / 4023

62-12214 / 62-12231                      683C-4067 / 4084

63-13274                                      683-9001

*- To Belgium, pattern airframe.*

No s/n assigned.                              683-2051

43

*- Static test airframe.*

(Italy)

MM6501                                      683-6501

1

*- Pattern airframe.*

(West Germany)

KF101 / KF150                              683-2001 / 2050

*- 30 operated in US with s/n:*

*63-13230 / 63-13259.*

KF151 / KF196	683-2052 / 2097	96	<b>Total: 0140</b>
- 9 operated in US with s/n:			
63-13260			
63-13262 / 63-13268			
67-14887.			

### RF-104G

As F-104G, reconnaissance version.  
All delivered to foreign users under MAP.  
produced 1962 – 1963

Lockheed Burbank, California (LO)			
61-2624 / 61-2633	683C-4024 / 4033		
62-12232 / 62-12261	mixed 683C-4034 to 4066	40	<b>Total: 0040</b>

### TF-104G

As F-104G, 2-seater trainer. USAF s/n  
all delivered to foreign users under MAP.  
produced 1962 – 1966

Lockheed Burbank, California (LO)			
61-3025 / 61-3030	583C-5501 / 5506		
61-3031 / 61-3084	mixed 583D-5701 to 5755		
62-12262 / 62-12279	583C-5507 / 5524		
63-8452 / 63-8469	mixed 583D-5756 to 5779		
63-12681 / 63-12684	583C-5525 / 5528		
63-12685 / 63-12696	mixed 583D-5767 to 5785		
64-15104 / 64-15106	583D-5786 / 5788		
65-9415	583C-5529		
66-13622 / 66-13631	583F-5933 / 5942	126	
N104L	583D-5702	1	
- To The Netherlands as D-5702. (Belgium)			
FC-04 / FC-12	583G-5101 / 5109	9	
(Italy)			
MM54250 / MM54261	583H-5201 / 5212	12	
(The Netherlands)			
D-5801 / 5817	583E-5801 / 5817	17	
(West Germany)			
KE201 / KE223	583F-5943 / 5965		
KF201 / KF232	583F-5901 / 5932	55	<b>Total: 0220</b>

*RTF-104G1 – Proposed reconn. version for Luftwaffe, cancelled.*

*F-104H – Proposed upgrade of F-104C, cancelled.*

*TF-104H – Proposed trainer version, cancelled.*

*F-104I – Not used.*

### F-104J

As F-104G, version for Japan.  
produced 1961

Lockheed Burbank, California (LO)			
(JASDF)			
26-8501 / 26-8503	683B-3001 / 3003	3	<b>Total: 0003</b>

*F-104K / L / M – Not used.*

**F-104N**

*As F-104G, version for NASA as chase aircraft. 8 other F-104 also converted for NASA duties.*

*produced 1963*

Lockheed Burbank, California (LO)

(NASA) 811 / 813                      683C-4045, 4053, 4058                      3                      **Total: 0003**

*(Model CL-1200)*

*X-27 Lancer – Proposed development of F-104G, cancelled.*

**Total: 0790**

*Foreign built – Belgium:*

**F-104G**

*License built version of the F-104G.*

*produced*

Societe Anonyme Belge De Constructions Aeronautiques (SABCA), Gosselies, Belgium

63-13275 / 63-13278                      9002 / 9005                      4

*- 4 to West Germany.*

*(Belgium)*

FX-1 / FX-39                      *mixed 9016 to 9079*

FX-27                      9082

*- Duplicated s/n due to loss.*

FX-40 / FX-100                      *mixed 9083 to 9176*                      101

*(West Germany)*

KH106 / KH188                      *mixed 9006 to 9189*                      83                      **Total: 0188**

*Foreign built – Canada:*

**CF-104**

*License built version of the F-104G.*

*F-104A(56-0770), converted as prototype with RCAF s/n: 12700, later 104700.*

*Original designation was CF-111.*

*Reserialled as 104701 / 104900 in 1970.*

*produced 1961 – 1963*

Canadair Ltd., Cartierville, Montreal, Quebec, Canada

(RCAF) 12701 / 12900                      1001 / 1200                      200

**F-104G**

*License built version of the F-104G.*

*All delivered to foreign users under MAP.*

*produced 1963 – 1964*

Canadair Ltd., Cartierville, Montreal, Quebec, Canada

62-12302 / 62-12349                      6001 / 6048

62-12697 / 62-12734                      6049 / 6086

63-13638 / 63-13647                      6087 / 6096

64-17752 / 64-17795                      6097 / 6140                      140                      **Total: 0340**

*Foreign built – Italy:*

**F-104G**

*License built version of the F-104G.  
Fiat Aircraft Group became Aeritalia in 1969,  
then Alenia Aeronautica in 1990.*

*produced*

Societa Per Azioni Fiat, Turin, Italy  
(Italy)

*mixed* MM6502 to MM6660 *mixed* 6502 to 6660 124  
(The Netherlands)

*mixed* D-6652 to D-6700 *mixed* 6652 to 6700 25  
(West Germany)

KC101 / KC115 *mixed* 6600 to 6620 15

**RF-104G**

*License built version of the RF-104G.*

*produced*

Societa Per Azioni Fiat, Turin, Italy  
(West Germany)

KC116 / KC150 *mixed* 6621 to 6693 35

**F-104S**

*As F-104G, engine / armament upgrade.  
2 Fiat F-104G converted as prototypes,  
first flown in 1966.*

*produced 1968 – 1979*

Societa Per Azioni Fiat, Turin, Italy  
(Italy)

MM6701 / MM6850 783-1001 / 1150

MM6869 / MM6881 783-1169 / 1181

MM6886, MM6887 783-1186, 1187

MM6890 783-1190

MM6907 / MM6946 783-1207 / 1246 206

(Turkey)

6851 / 6868 783-1151 / 1168

6882 / 6885 783-1182 / 1185

6888, 6889 783-1188, 1189

6891 / 6906 783-1191 / 1206 40

**Total: 0445**

*Foreign built – Japan:*

**F-104J**

*License built version of the F-104G.*

*produced 1962 – 1967*

Mitsubishi Heavy Industries Ltd.,  
Nagoya, Japan

(JASDF)

26-8504 / 26-8507 683B-3004 / 3007

36-8508 / 36-8563 683B-3008 / 3063

46-8564 / 46-8658 683B-3064 / 3158

56-8659 / 56-8680 683B-3159 / 3180

76-8681 / 76-8710 683B-3181 / 3210 207

**Total: 0207**

*Foreign built – The Netherlands:*

**F-104G**

*License built version of the F-104G.*

*produced*

Fokker Aircraft Co., Amsterdam, The Netherlands

(The Netherlands)

*mixed D-8013 to D-8343      mixed 8013 to 8343      77*

(West Germany)

*mixed KG101 to KG450      mixed 8101 to 8350      154*

*- 12 operated in US with s/n:*

*63-13229, 63-13261*

*63-13269 / 63-13273*

*63-13690, 63-13691*

*65-12746*

*65-12749 / 64-12754*

*67-14893.*

**RF-104G**

*License built version of the RF-104G.*

*produced*

Fokker Aircraft Co., Amsterdam, The Netherlands

(The Netherlands)

*mixed D-8101 to D-8119      mixed 8101 to 8119      18*

(West Germany)

*mixed KG185 to KG376      mixed 8085 to 8276      101*

*- 4 operated in US with s/n:*

*67-14890 / 67-14892*

*67-22517.*

**Total: 0350**

*Foreign built – West Germany:*

**F-104G**

*License built version of the F-104G.*

*Manufacturer became MBB in 1969.*

*produced*

Messerschmitt-Bolkow GmbH,

Augsburg, West Germany

(West Germany)

*KE301 / KE510      7001 / 7210      210*

*- 10 operated in US with s/n:*

*65-12745*

*65-12747, 65-12748*

*66-13524 / 66-13526*

*67-14885, 67-14886*

*67-14888, 67-14889.*

Messerschmitt-Bolkow-Blohm (MBB),

Augsburg, West Germany

(West Germany)

*2641 / 2654      7301 / 7314*

*2655 / 2690      7401 / 7436*

**50      Total: 0260**

**Total: 1790**

## **F-104 CONVERSIONS & TRANSFERS**

### **USAF**

<b>NF-104A</b>	<b>3</b>	F-104A (56-756, 56-760, 56-762), 1963-1971, aux. rocket engine fitted, used in astronaut training.
QF-104A	24	F-104A, 1960-1972, radio-controlled target drones.
(JQF-104A)	1	QF-104A, temporary conversion for test duties.

### **Foreign Conversions**

F / TF-104S ASA (F / TF-104S ASA-M)	153 64	F / TF-104S, 1986, armament / avionics upgrades for Italy. 49 F-104S / 15 TF-104S, 1997-2005, avionics upgrades for Italy.
QF-104J	31	F-104J, 1987-1992, ex-JASDF radio-controlled target drones.
C.8	18	F-104G, 1965-1972, designation for the Spanish F-104. Assigned s/n: C.8-1 / C.8-18.
CE.8	3	TF-104G, 1965-1972, designation for the Spanish TF-104. Assigned s/n: CE.8-1 / CE.8-3.
RF-104G(T)	8	RF-104G, reconn. upgrade with longer nose for Taiwan.

### **FOREIGN MILITARY / CIVILIAN SERVICE**

- *F-104 Starfighters served in military service with Belgium, Canada, Denmark, Greece, Italy, Japan, Jordan, The Netherlands, Norway, Pakistan, Spain, Taiwan, Turkey and West Germany.*
- ***F-104RB**, 1976, test pilot Darryl Greenamyer built an F-104 from spare parts with the help of American Jet Industries Inc., California, to set new speed records. May have been built from static test airframe c/n: 683-2051.*