



European Aviation Safety Agency

EASA

**TYPE-CERTIFICATE
DATA SHEET**

EASA.IM.A.055

WACO YMF Series

Type Certificate Holder:
The Waco Aircraft Company
(see Administrative Section, Note II)

For models: YMF Model F5
YMF Model F5C

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SECTION A: YMF F5

A.I. General

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| 1. Data Sheet No.: | EASA.IM.A.055 |
| 2. a) Type: | YMF |
| b) Model: | YMF F5 |
| 3. Airworthiness Category: | Normal |
| 4. Type Certificate Holder: | The Waco Aircraft Company
(see Administrative section, Note II) |
| 5. Manufacturer: | WACO Classic Aircraft Corp.
15955 South Airport Rd.
Battle Creek, MI 49015 |
| 6. Certification Application Date: | 10 th March 1985 |
| 7. FAA Certification Date | 28 th January 1988 |
| 8. EASA Type Certificate Date: | 17 th June 2004 |

A.II. EASA Certification Basis

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| 1. Reference Date for determining the applicable requirements: | Prior to September 30, 1939 |
| 2. Airworthiness Requirements: | US Department of Commerce Aeronautics Branch
Aeronautics Bulletin 7A, effective as amended
January 1, 1933 |
| 3...Special Conditions: | None |
| 4. Exemptions: | None |
| 5. Equivalent Safety Findings: | None |
| 6. Environmental Standards: | ICAO, Annex 16, Volume 1, Chapter 6 and 10 |

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Waco Classic Drawing List F5DL
2. Description: Single radial engine, tail wheel biplane with metal covered steel tube fuselage and fabric covered wooden wings.
3. Equipment: Refer to Airplane Flight Manual
4. Dimensions:

Span	9.14 m
Length	7.11 m
Height	2.59 m
Wing Area	21.69 m ²
5. Engine:
 - 5.1.1 Model: Jacobs R-755B2M or R-755B2
 - 5.1.2 Limitations: Max allowable rotational speed 2200 r.p.m
For other engine limits refer to AFM
6. (Reserved):
7. Propeller:
 - 7.1 Model:
 - a) Sensenich W90T6JA-72, W90T6JB-72, W90T6JA-70, W90T6JB-70, W96JA4-68 or W96JB-4-68
 - b) MT-Propeller MT 233R150-6AJ
 - 7.2 Settings: Fixed pitch
 - 7.3 Diameter: Various
8. Fluids:
 - 8.1 Fuel: Minimum 80 Octane
 - 8.2 Oil: SAE50, W80 or W100
9. Fluid capacities:
 - 9.1 Fuel: Standard: 49 US Gallons (48 US Gallons usable)
Optional: 2 x 12.3 US Gallons (24 US Gallons usable)
 - 9.2 Oil: Standard: 4 US Gallons
With Optional Fuel Tanks: 5 US Gallons
10. Air Speeds: Never exceed speed V_{NE} : 214 mph IAS
11. Maximum Operating Altitude: Not defined

12. Allweather Operations Capability: Day/Night-VFR/IFR
13. Maximum Weights: Take-off 1256 kg (2770 lb)
14. Centre of Gravity Range: Forward limit: 77 inches aft of datum
Rear limit: 81 inches aft of datum
15. Datum: 88.2 inches ahead of lower wing leading edge
16. (Reserved)
17. Levelling Means: Top of upper longerons in rear cockpit or top longeron under stabilizer
18. Minimum Flight Crew: 1 (Pilot)
19. Maximum Passenger Seating Capacity: 2
20. Baggage/Cargo Compartments:
- | Location | Max. allowable Load |
|---------------------|---------------------|
| Forward Compartment | 25 lb |
| Aft Compartment | 75 lb |
21. Wheels and Tyres: Tail Wheel Tyre Size 10x3.4 4ply
Main Wheel Tyre Size 750x10 6ply

A.IV. Operating and Service Instructions

1. Flight Manual: Report No. 86-AFM1
2. Maintenance Manual: Waco Classic Aircraft Corporation Service Manual for YMF

A.V. Notes:

1. This certification applies to serial number F5010 through F5039

SECTION B: YMF F5C

B.I. General

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| 1. Data Sheet No.: | EASA.IM.A.055 |
| 2. a) Type: | YMF |
| b) Model: | YMF F5C |
| 3. Airworthiness Category: | Normal |
| 4. Type Certificate Holder: | The Waco Aircraft Company
(see Administrative section, Note II) |
| 5. Manufacturer: | WACO Classic Aircraft Corp.
15955 South Airport Rd.
Battle Creek, MI 49015 |
| 6. Certification Application Date: | 12 th January 1991 |
| 7. FAA Certification Date | 24 th June 1991 |
| 8. EASA Type Certificate Date: | 10 th May 2005 |

B.II. EASA Certification Basis

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| 1. Reference Date for determining the applicable requirements: | Prior to September 30, 1939 |
| 2. Airworthiness Requirements: | US Department of Commerce Aeronautics Branch
Aeronautics Bulletin 7A, effective as amended
January 1, 1933 |
| 2. Special Conditions: | None |
| 4. Exemptions: | None |
| 5. Equivalent Safety Findings: | None |
| 6. Environmental Standards: | ICAO, Annex 16, Volume 1, Chapter 6 and 10 |

B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Waco Classic Drawing List F5DL
2. Description: Single radial engine, tail wheel biplane with metal covered steel tube fuselage and fabric covered wooden wings.
3. Equipment: Refer to Airplane Flight Manual
4. Dimensions:

Span	9.14 m
Length	7.26 m
Height	2.59 m
Wing Area	21.69 m ²
5. Engine:
 - 5.1.1 Model: Jacobs R-755B2M or R-755B2
Jacobs R-755A2M or R-755A2 (see Note 4)
 - 5.1.2 Limitations: Max allowable rotational speed 2200 r.p.m
For other engine limits refer to AFM
6. (Reserved):
7. Propeller (see Notes 2 and 3):
 - 7.1 Model:
 - a) Sensenich W90T6JA-72, W90T6JB-72,
W90T6JA-70, W90T6JB-70, W96JA4-68
or W96JB-4-68
 - b) MT-Propeller MT 233R150-6AJ
 - c) Hamilton Standard 2B20/6135-15"
 - 7.2 Settings: Fixed pitch
 - 7.3 Diameter: Various
8. Fluids:
 - 8.1 Fuel: Minimum 80 Octane
 - 8.2 Oil: SAE50, W80 or W100
9. Fluid capacities:
 - 9.1 Fuel: Standard: 49 US Gallons (48 US Gallons usable)
Optional: 2 x 12.3 US Gallons (24 US Gallons usable)
 - 9.2 Oil: Standard: 5 US Gallons
10. Air Speeds: Never exceed speed V_{NE} : 214 mph IAS

11. Maximum Operating Altitude: Not defined
12. Allweather Operations Capability: Day/Night-VFR/IFR
13. Maximum Weights: Take-off 1338 kg (2950 lb)
14. Centre of Gravity Range: Forward limit: 78 inches aft of datum
Rear limit: 82,5 inches aft of datum
15. Datum: 88.2 inches ahead of lower wing leading edge
16. (Reserved)
17. Levelling Means: a) top of upper longerons in rear cockpit or
b) top longeron under stabilizer
c) levelling screws under left stabilizer for s/n F5C121 and up
18. Minimum Flight Crew: 1 (Pilot)
19. Maximum Passenger Seating Capacity: 2
20. Baggage/Cargo Compartments: Location Max. allowable Load
Forward Compartment 25 lb
Aft Compartment 75 lb
21. Wheels and Tyres: Tail Wheel Tyre Size 10x3.4 4ply
Main Wheel Tyre Size 750x10 6ply

B.IV. Operating and Service Instructions

1. Flight Manual: Report No. 91-AFM1, Rev. J, dated November 4, 2012 or later FAA approved revisions
2. Maintenance Manual: YMFAMM-1, Rev. E, dated October 10, 2010 or later approved revisions

B.V. Notes:

1. This certification applies to Serial number F5C040 and subsequent

2. Fixed pitch wooden Sensenich models: W90T6JA-72, W90T6JB-72, W90T6JA-70, W90T6JB-70, W96JA-4-68 or W96JB-04-68, all eligible for the R755B2/B2M only;
MT-Propeller model: MT 233 R 150-6AJ for all engines.
Hamilton Standard propeller for R755A2/A2M engines only.
3. Optional propeller and propeller accessories:
Hamilton Standard constant speed installation to Classic Aircraft Corporation drawing number 50670.
 - (a) Hub 2B20, blades 6135-15”
Pitch settings at 42 inch station: Low 9° - 12°, high 24° - 27°
(Propeller to be indexed with blades in line with crank throw - 0° or 180° position)
Diameter: Not over 93 inches, not under 91-1/8 inches
 - (b) Governor, Hamilton Standard - 1A4G5
 - (c) Spinner installation per Classic Aircraft Corporation Drawing number 50765 is optional for use with Hamilton Standard Propeller installation per Drawing 50670.
4. Serial numbers having the R755A2 (300 HP) engine installed have a “-8-“ in the serial number (such as F5C-8-125)

ADMINISTRATIVE SECTION

I. General Notes

II. Type Certificate Holder Record

- U.S. Department of Commerce approved Type Certificate No. 542 was cancelled 30 September 1939. Prior to that date, all YMF Model airplanes were manufactured by The Waco Aircraft Company.
- The Waco Aircraft Company ceased to exist surrendering all data to the public domain at that time.
- The FAA Type Certificate was reinstated in 1986 with the issuance of FAA TCDS ATC 542 defining the Waco F5 as modified by WACO Classic Aircraft Corporation (WACO Classics) under Supplemental Type Certificate SA1000GL and later revised to include the WACO F5C under the same STC.
- The basic (original) YMF aircraft is no longer being manufactured. This type is excluded from this TCDS and is not EASA approved.
- WACO Classic holds FAA Production Certificate No. 328CE approving production of the YMF F5 and F5C (as recorded in FAA TCDS No. ATC 542, Sections II, and III).

III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	23 September 2005	Initial issue	23 September 2005
Issue 02	05 October 2012	Sections A.III. & B.III.: Additional Propeller, oil quantity and levelling means specified; wheel type corrected in tail wheel; Administrative section: TC holder ship information.	-
Issue 03	04 November 2013	Section B.III.: new engine models added, Section B.V.: Note 2 added; Noise levels removed.	-
Issue 04	28 August 2014	Section B.III: new propeller and Note 3 added.	-