

FLIGHT MANUAL SUPPLEMENT S04

OXYGEN CYLINDER MOUNTING FOR THE POWERED GLIDER STEMME S10, MODEL S12



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SIGNATURE

AIRFRAME TYPE : STEMME S12
TYPE CERTIFICATE :
SERIAL NUMBER : 12-
REGISTRATION :

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This powered sailplane must be operated in compliance with the instructions and limitations contained in the associated Aircraft Flight Manual and this Supplement.

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0.1 RECORD OF AMENDMENTS

The following table documents all amendment for the supplement S04 to the Flight Manual for the aircraft STEMME S10, model S12.


Minor revisions to the S12 Aircraft Flight Manual are approved and countersigned by Design Organization DOA EASA.21J.250 based on its privilege.

All other amendments are approved by the agency stating the EASA approval number (countersigned by DOA EASA.21J.250).

In the table hereafter only the last approved revision must be countersigned.

New or corrected text sections of the revised page(s) will be marked by a vertical line on the outer side of the page. The newest revision number of all revisions on the page is mentioned in the footnote-section of the page, along with the date of the newest revision.

Compliance with the following information and the corresponding aircraft is documented by the signature of the correcting person in the table below.

Am. No.	Re-moved Pages	Inserted Pages	Date of Amendment	Reference	Approval	Date of Insertion	Signature
00	--	ALL	NOV 11, 2016	P061-2016-084	21 MAR 2017 		

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0.2 LIST OF EFFECTIVE PAGES

This list is valid only for the supplement in hand.

PAGE	APPR.	AM. NO.	DATE
CHAPTER 0			
0-1		00	NOV 11, 2016
0-2		00	NOV 11, 2016
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Chapter 3			
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3-3	X	00	NOV 11, 2016
CHAPTER 4			
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1. GENERAL

This supplement contains information and instructions for the STEMME S12 optional equipped with an oxygen cylinder mounting. It gives any additional information to pilots and instructors that is necessary for safe and efficient operation of the powered sailplane, as well as any information required by the JAR-22/CS-22 airworthiness requirements.

For sections not included, no specific information is needed related to the operation with the solar panel system. In this case, the standard text of the pertinent basic S12 Aircraft Flight Manual is applicable.

1.5 CERTIFICATION BASIS

The oxygen cylinder mounting has been certificated in a Supplemental Type Certification for all models derived from the type STEMME S10. The certification has been followed through on the certification basis as applied during the original approval of the type STEMME S10.

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2. LIMITATIONS

2.14 OTHER LIMITATIONS

Each oxygen cylinder mounting is certificated for a maximum mass of 9 kg/20 lb.

 **WARNING**

The mass of a complete and filled oxygen cylinder must not exceed 9 kg/20 lb per mounting!

2.15 COCKPIT PLACARDS

PLACARD	LOCATION/REMARKS
Oxygen Cylinder Mounting: max. 9 kg / 20 lb per bottle	The cockpit placard must be placed below the standard placard for upper baggage compartment. (Position 5 in the S12 Aircraft Flight Manual).

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As soon as a sufficient low altitude has been reached, rotate carefully, retract airbrakes and recover normal flight. In powered configuration, observe engine temperatures and if necessary establish normal operating temperatures at low power settings.

⚠ WARNING

The maximum limit speed according to the flight situation must not to be exceeded! Observe the change in V_{NE} with flight altitude, section 4.5.7, High Altitude Flight, as well as the maximum speed V_{RA} in rough air.

NOTICE

With the airbrakes fully extended, landing gear retracted, closed nose-cone, and indicated airspeeds of about V_{NE} , a sink rate of approx. 2500 m/min/8000 ft/min can be expected. With opened nose-cone the sink rate will be increased in addition.

2. Possibilities to increase sink rate in excess of certified limits:

If the sink rate according to item 1 within limit speeds (V_{NE} and V_{RA} , resp.) is insufficient for attaining sufficient low altitude in time, for priority rescue the additional extending of the landing gear is proposed, in acceptance of damages on the powered glider. In addition, a windmilling propeller increases the sink rate significantly.

In addition to the tasks described at item 1, depending on further conditions:

- Landing Gear DOWN with no regard of V_{LO}
- Propeller UNFOLD
without engine (activate starter. ignition OFF).

⚠ WARNING

At speeds clearly exceeding $V_{LO} = 140 \text{ km/h/76 kt}$, the landing gear will probably be damaged. This should be considered during the following landing. Especially a reliable retraction and extension as well as the function of the emergency gear extension is not granted. Therefore, it is strongly advised against retraction of the landing gear after clearly exceeding V_{LO} , unless for reasons justifying a wheels up landing.

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4. NORMAL OPERATING PROCEDURES

CAUTION

The operation of the oxygen system installed is not the responsibility of the aircraft manufacturer. The instructions of the respective manufacturer must be observed.

4.4.1

In addition to the instructions in the S12 Aircraft Flight Manual, during the Pre-Flight-Inspection:

- CHECK condition and firm assembly of the oxygen cylinder mountings.
- CHECK condition and tight fit of the oxygen cylinders, if installed.

WARNING

For operation and inspection of condition and function of the oxygen system itself, the instructions for operation and inspection from the oxygen system manufacturer must be observed.

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5. PERFORMANCE

- No change to the basic S12 Aircraft Flight Manual. -

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6. WEIGHT AND BALANCE

When onboard the aircraft, the Oxygen Bottle and other System Components must be included as 'payload' when computing weight and balance.

The Oxygen Cylinder Parts for mounting are negligible.

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7. SYSTEM DESCRIPTION OF THE S12 AND ITS EQUIPMENT

7.9 LUGGAGE COMPARTMENT

One or maximum two oxygen cylinder mountings for one oxygen cylinder each are installed in the upper baggage compartment. The mountings are designed for oxygen cylinders type KF-022 (Kevlar-reinforced) from the manufacturer Mountain High, USA, but suitable as well for oxygen cylinders from various manufacturers.

The diameter has to be within a minimum of 0.132 m/5.2 in through a maximum of approx. 0.140 m/5.5 in.

The total length including regulator has to be within a minimum of approx. 0.450 m/17.7 in through a maximum of 0.520 m/20.5 in.

For each mounting a maximum weight of the oxygen cylinder of 9 kg/20 lbs is approved.

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8. HANDLING, MAINTENANCE AND SERVICE

- No change to the basic S12 Aircraft Flight Manual. -

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