

## USER MANUAL

Manuel référence : BRG-ALTP-02

Document ref : UM-ETSO

# USER MANUAL For all ETSO Wheels and Brakes

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			Name	Signature
Rev.	Date	Subject :		
00	11 Jan 2021	Initial edition	C. BERTELOOT	
01	09 Aug 2023	Addition of RF-022	G.MASSON	
02	03 Oct 2023	Addition of RF-032	C.BERTELOOT	
03	21 May 2024	Addition of RF-033 and RF-010.5	C.BERTELOOT	
04	24 Jul 2024	Addition of RA-018	G.MASSON	G. S

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## GENERAL

This document is designed to provide information regarding all BERINGER ETSO certified products.

All ETSO certified wheels and brakes have been designed and qualified under next certification standards:

- ETSO C26 (revision C or D)
- TSO C26d dated from 14, October 2004

The existence of TSO/ETSO approval of the article, does not automatically constitute the authority to install and use the article on an airplane. The conditions and tests required for TSO/ETSO approval of this article are minimum performance standards. It is the responsibility of those desiring to install this article either on or within a specific type or class of airplane to determine that the airplane operating conditions are within the capacity of the article demonstrated in accordance with the TSO/ETSO standards. The article may be installed only if further evaluation by the user/installer documents an acceptable installation, and the installation is approved by the administrator.

Additional requirements may be imposed based on airplane specifications, wheel and brake design, and quality control specifications.

In service maintenance, modifications and use of replacement components must be compliant to the performance standards of its TSO/ETSO, as well as any additional specific airplane requirements.





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## **1. DESCRIPTION OF THE EQUIPMENT**

### 1.1 Illustrated Part Catalog (IPC)

For detailed composition of wheel and brake assemblies, please refer to BERINGER Illustrated Part Catalogue (IPC) available on BERINGER Website.

- MM-01-001 Brake System Description and IPC
- MM-02-001 Wheels system description and IPC



BERINGER website: <u>www.beringer-aero.com/Support</u> Go to Support section.



**<u>CAUTION</u>**: Substitution of parts by other than originally certified parts may cause failure of brake system. BERINGER quality process assures that replacement parts are produced and controlled with the same quality level as originally certified.







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### 1.2 Specifications for quick reference

Whool	Туре	Tire Size	Max. Inflation
WIICCI			pressure
	Tubeless	15x6.00-6	112 PSI
		6.00-6	55 PSI
RA-005(-)" PE-006(-)*		7.00-6	38 PSI
KF-000(-)		8.00-6	35 PSI
		8.50-6	30 PSI
RA-002	Tubalaaa	5.00-5	90 PSI
RF-005	Tubeless	15x6.00-5	80 PSI
RA-008	Tubeless	8.90-12.5	30 PSI
RF-010 RF-010.3 RF-010.5	Tubeless	18x5.5	105 PSI
	Tubeless	15x6.00-6	112 PSI
DA 042*		6.00-6	70 PSI
RA-013" DE-017*		17.5x6.25-6	70 PSI
RF-017 2*		7.00-6	54 PSI
NI -017.2		8.00-6	35 PSI
		8.50-6	30 PSI
RA-014	Tubolooo	5.00-5	88 PSI
RF-018	TUDEIESS	15x6.00-5	80 PSI
	Tubeless	15x6.00-6	60 PSI
		6.00-6	45 PSI
		17.5x6.25-6	45 PSI
		7.00-6	38 PSI
		8.00-6	34 PSI
RF-015.1*		8.50-6	25 PSI
RF-015.2*		26x10.5-6"	25 PSI
RA-016*		26x12-6"	20 PSI
RA-016.1*		Bushwheel	201 31
		31x13-6" Airstreak	12 PSI
		29x13-6"	20 PSI
		Bushwheel	201 01
		29x13-6" Airstreak	12 PSI
		31x13-6"	20 PSI
	Tubeless	8.5x10 – 8 ply	55 Psi / 3.8 bar
		8.5x10 – 10 ply	70 Psi / 4.8 bar
RF-024*		29x11-10	21 Psi / 1.4 bar
		31x11-10	21 Psi / 1.4 bar
		35x15x10	6 Psi / 0.4 bar
RA-015*	Tubeless	11x4.00-5"	159 PSI
		5.00-5"	88 PSI
RF-022*	Tubeless	5.00-5"	88PSI
	Tubeless	15X6.00-5	
		6.50-10	100 PSI / 6,9 bars
RF-032*		22x0.5-10	100 PSI / 6,9 bars
		22X6.75-10	100 PSI / 6,9 bars
	Tubelses	22X7.75-10	100 PSI / 6,9 bars
RF-033*	IUDéléss	16X4.4-8 / K8	185 PSI / 12,8 bars
RA-018*	Tubeless	5.00-5"	88 PSI
		15-6.00-5″	80 PSI

\*Not suitable for amphibious aircraft





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Note: ETSO used for STC application, refer to the BERINGER installation manual (ICA-STC-xxx) for max tire pressure value.

The tire inflation pressure has an influence on the strength of the wheel. The bottoming of tire must not appear otherwise the wheel may be damaged (bottoming is when the tire is fully deformed, like a flat tire).

The minimum and maximum inflation pressure must be respected. Each tire has a maximum inflation pressure that must not be exceeded.

Please make sure that the tire and rim loads are in conformity with aircraft load ratings.

#### Hydraulic fluid:

Fire resistant brake fluid is recommended like MIL-PRF-87257 or equivalent. MIL-H-5606 fluid is not recommended because it is highly flammable and less resistant to high temperatures. Maximum parking pressure can be applied without interruption for 48h maximum.

#### **1.3 Servicing and Maintenance instructions**

All instructions for servicing and maintenance work on certified products are available on BERINGER Website.

Refer to the maintenance guide **SM-00** and to the following manuals:

Servicing Manual Reference	Product Type	Product Reference
SM-01	Brake Assembly	EA-xxx
SM-02	Nose/Tail wheel	RA-xxx
SM-02	Main wheel	RF-xxx

#### All documents are available on:

BERINGER website: <u>www.beringer-aero.com/Support</u> Go to Support section.





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#### 1.4 Marking









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