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# USER MANUAL

Manuel référence :  
**BRG-ALTP-02**

Document ref :  
**UM-ETSO**

## USER MANUAL For all ETSO Wheels and Brakes

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| Rev. | Date        | Subject :       | Name         | Signature |
|------|-------------|-----------------|--------------|-----------|
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|      |             |                 |              |           |

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## 1. 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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## 2. DESCRIPTION OF THE EQUIPMENT

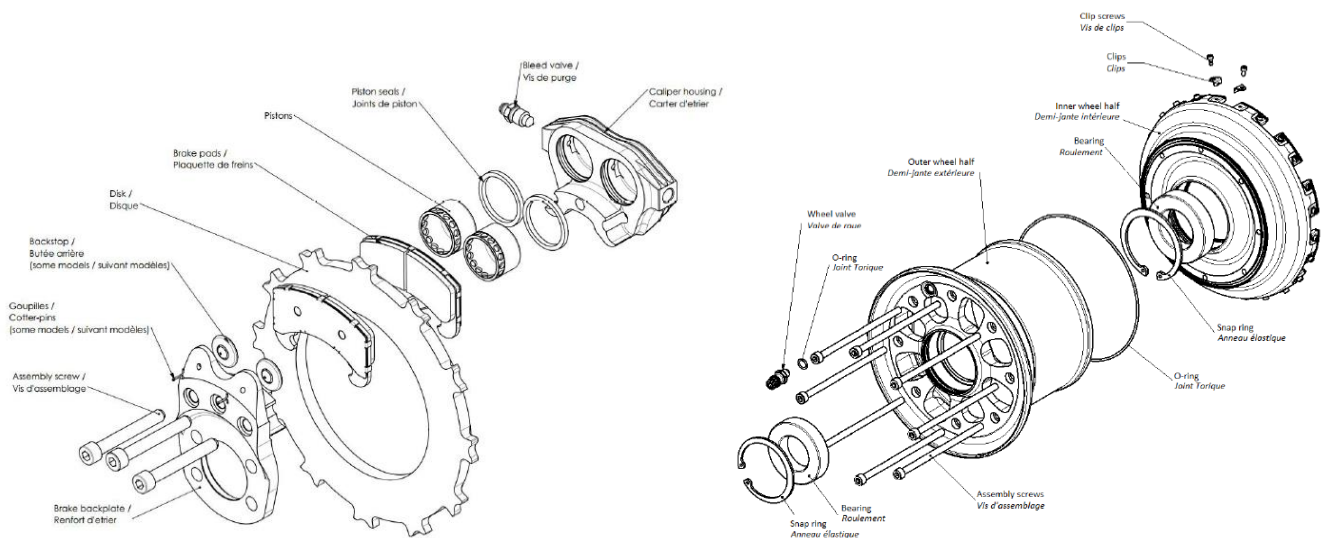
### 2.1 Illustrated Part Catalog (IPC)

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: [www.beringer-aero.com/Support](http://www.beringer-aero.com/Support)  
Go to Support section.



**CAUTION:** 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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## 2.2 Specifications for quick reference

| Wheel  | Type     | Tire Size             | Max. Inflation pressure |
|--|----------|-----------------------|-------------------------|
| RA-005(-)*<br>RF-006(-)*                       | Tubeless | 15x6.00-6             | 112 PSI                 |
|  |          | 6.00-6                | 55 PSI                  |
|  |          | 7.00-6                | 38 PSI                  |
|  |          | 8.00-6                | 35 PSI                  |
|  |          | 8.50-6                | 30 PSI                  |
| RA-002<br>RF-005                               | Tubeless | 5.00-5                | 90 PSI                  |
|  |          | 15x6.00-5             | 80 PSI                  |
| RA-008   | Tubeless | 8.90-12.5             | 30 PSI                  |
| RF-010   | Tubeless | 18x5.5                | 105 PSI                 |
| RA-013*<br>RF-017*<br>RF-017.2*                | Tubeless | 15x6.00-6             | 112 PSI                 |
|  |          | 6.00-6                | 70 PSI                  |
|  |          | 17.5x6.25-6           | 70 PSI                  |
|  |          | 7.00-6                | 54 PSI                  |
|  |          | 8.00-6                | 35 PSI                  |
|  |          | 8.50-6                | 30 PSI                  |
| RA-014<br>RF-018                               | Tubeless | 5.00-5                | 88 PSI                  |
|  |          | 15x6.00-5             | 80 PSI                  |
| RF-015.1*<br>RF-015.2*<br>RA-016*<br>RA-016.1* | 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                  |
|  |          | 8.50-6                | 25 PSI                  |
|  |          | 26x10.5-6"            | 25 PSI                  |
|  |          | 26x12-6"<br>Bushwheel | 20 PSI                  |
|  |          | 31x13-6" Airstreak    | 12 PSI                  |
|  |          | 29x13-6"<br>Bushwheel | 20 PSI                  |
|  |          | 29x13-6" Airstreak    | 12 PSI                  |
|  |          | 31x13-6"              | 20 PSI                  |
| RF-024*  | Tubeless | 8.5x10 – 8 ply        | 55 Psi / 3.8 bar        |
|  |          | 8.5x10 – 10 ply       | 70 Psi / 4.8 bar        |
|  |          | 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                  |

*\*Not suitable for amphibious aircraft*

**Note:** For 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).

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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.

**2.3 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:

| Service Manual Reference | Product Type    | Product Reference |
|--------------------------|-----------------|-------------------|
| <b>SM-01</b>             | Brake Assembly  | EA-xxx            |
| <b>SM-02</b>             | Nose/Tail wheel | RA-xxx            |
| <b>SM-02</b>             | Main wheel      | RF-xxx            |

All documents are available on:



BERINGER website: [www.beringer-aero.com/Support](http://www.beringer-aero.com/Support)  
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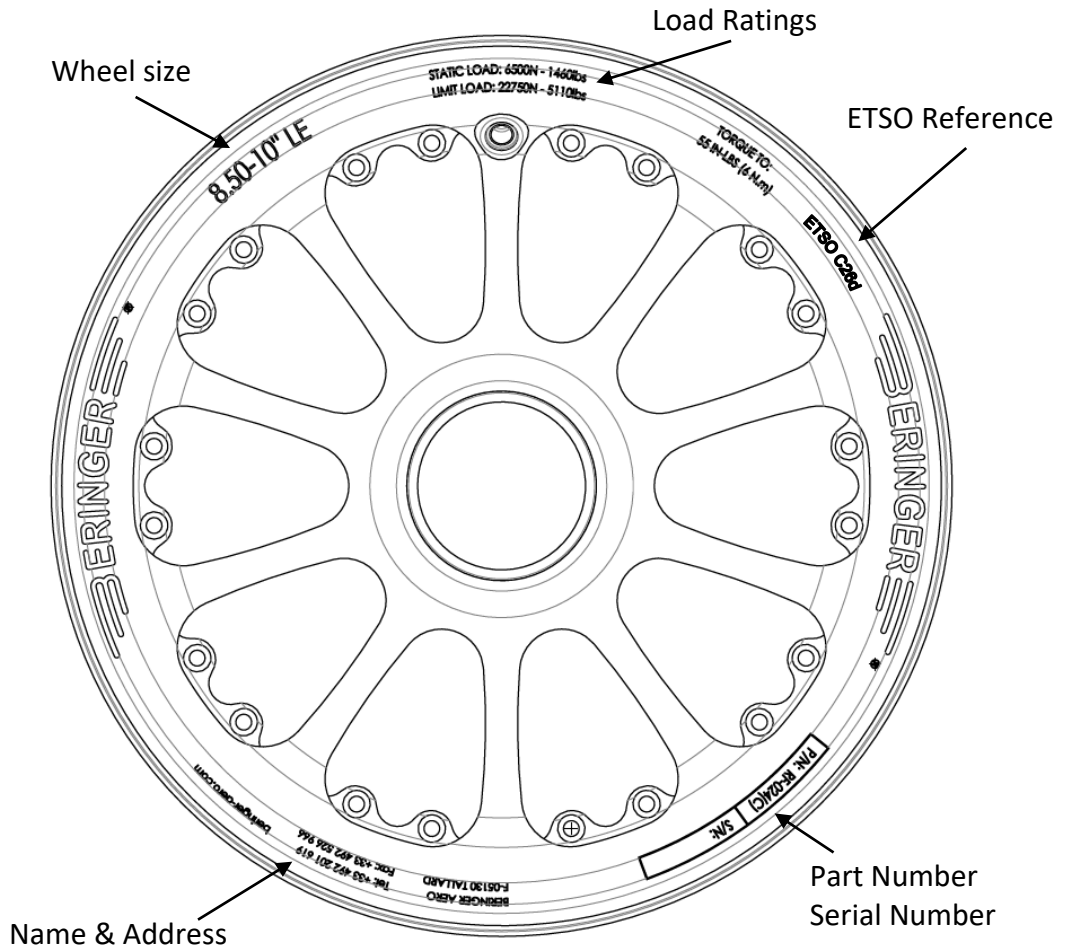
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## 2.4 Marking





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