

Thorix

MANUAL



CONFIGURATION

SERVICE

MAINTENANCE

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Thorix

MANUAL

Prior to operation of this paramotor the pilot should familiarize themselves with this manual. It contains operating instructions and details pertaining to the maintenance of the Thorix model.

The owner needs to become familiar with all aspects of operation and maintenance prior to the use of this motor. The owner needs also to adhere to laws pertaining to their own country regarding flight restrictions and maintenance as well as what is contained in this manual.

Information regarding important updates to this model will be made available via your importer, and published in the relevant national flying magazines under <http://www.fresh-breeze.de/en/service/dfgdfg.html>

Please note:-Do not make any flights in turbulent weather conditions through as a paraglider in principle receives its shape only by the internal pressure. This can be established only when normal air flow conditions prevail. You need to fly with increased caution when thunderstorms are near by or forecasted.

Under no circumstances should a pilot fly too close to the storm front. Land if ever in doubt. Other areas in your country will also have flight restrictions and laws of entry. These include but are not limited to military zones, controlled aircraft areas and populated areas. Seek information about an area before taking flight as well as the appropriate licensing.

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INTRODUCTION

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Place engine on firm flat ground and install the lower half of the cage first, leaving the velcro till later.



Install the upper half of the cage and check all connections are secure.



Fix all 7 velcro tabs and recheck all cage and frame connections are fastened tight.



The starter rope needs to be fitted to the shackle in the upper cage



The 2 part propeller needs to be joined prior to fitting. Prior to mounting to the motor ensure the parts are fitted such that the motors rotation will produce thrust in the correct direction.



The Propeller is assembled with 6 screws and propeller plate at the gearbox.
(M6 x 35;10mm 10Nm)



The engine will be delivered with 2 tank lids. One is with ventilation hole for flight operations. The other is closed for transport. Before each flight, ensure that the ventilation cap is screwed on.

Failure to do so may result in engine failure due to the tank pressure.

Use the closed lid only for transportation. Beware that a closed tank will expand as temperatures rise, as well will shrink as conditions get cooler and deform the fuel tank- check the correct cap is fitted before each flight and the tank is not expanded.

Fuel flows from the fuel tank through a 90° outlet and then through a fuel filter- check before each flight.

After the fuel filter there is the ball pump that allows the fuel to be primed into the carburettor

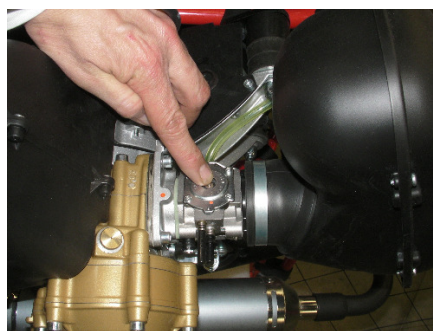
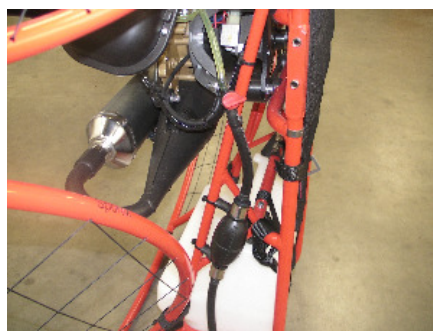
The membrane carburetor has no special choke system. A cold engine needs to be primed.

To prime your engine squeeze the ball pump.

Simultaneously press in the carburetor membrane to allow fuel come into the carburettor.

It is important to release the membrane before releasing the pump. Repeat this until you see fuel enter into the carburettor via the fuel line and your finger feels a little pressure.

Now you have the right amount of gas in your carburetor.



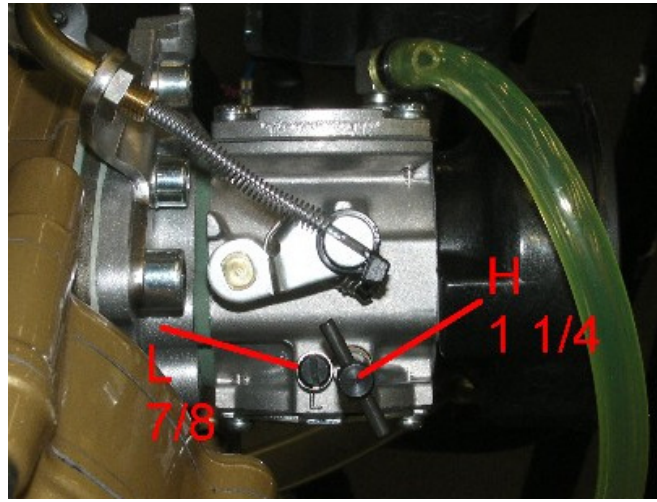
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FUEL AND OIL

PAGE 6

Basic adjustment for WB 37 on ThoriX
Close the both mixture screws L and H

Open the screw L $7/8$
Open the screw H $1\ 1/4$



Make sure the area you start the motor is clear from people. The preferred method is to put the motor on your back. You can reach for the starter handle over your shoulder. The throttle lever should be in your hands while pulling the cord. Identify the kill switch in case you need to stop the motor.

After a tough pull the engine should start within the first 5 attempts. Normally a small amount of throttle needs to be used while pull starting. If the engine doesn't start then repeat the steps to prime the motor with ball pump and membrane on the carburetor as already described. If the engine is "flooded", you may have to use larger amounts of throttle. Beware that a motor starting on full throttle has significant risks.

**THE ENGINE RUNS WITH A 1:50 FUEL/OIL MIXTURE
(2% 2T CASTROL SUPER WITH 95 OCTANE FUEL).**



**!WARNING! !DO NOT START ENGINE ON THE GROUND-THERE IS A
HIGH INJURIE HAZARD!**

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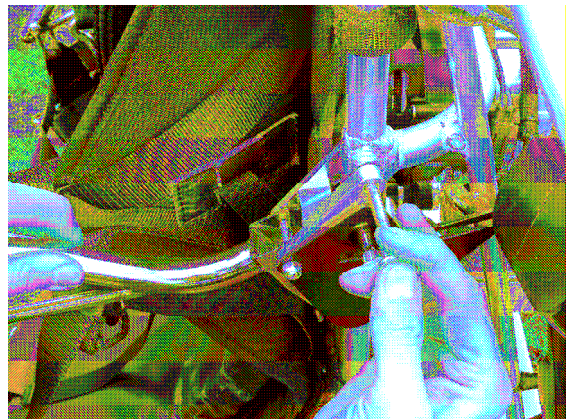
START THE ENGINE

PAGE 7

The harness is mounted on top of the backframe. Ensure the velcro is doubled over and secure.



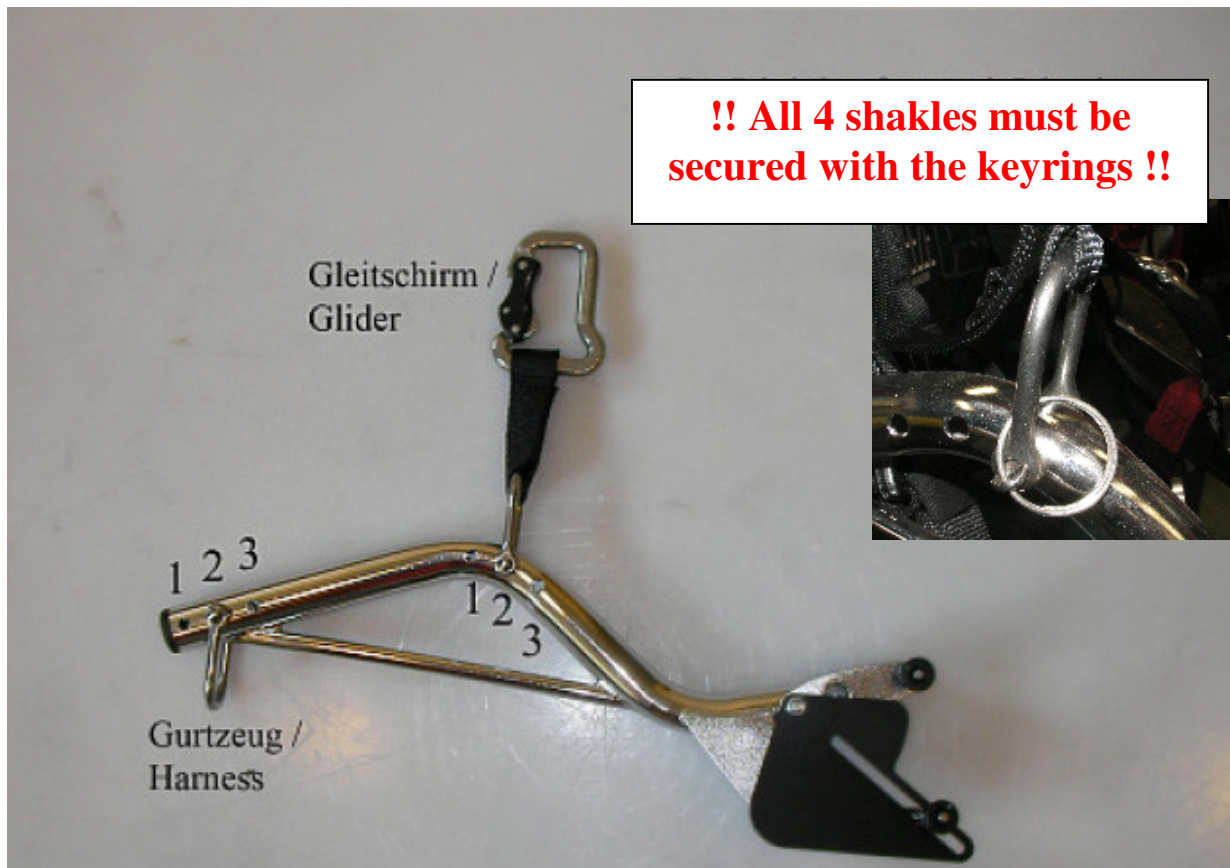
The pushrods are mounted via the quickpins. It is easier if you always leave the quickpins in the pusrods. Mount the lower one first and be sure to include the plastic cover plate . Secure the upper pushrod to the frame last.



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PILOT SUSPENSION AND HARNESS

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As people weights vary it is important to set up your motor to ensure your weight will result in a safe and comfortable flight. Test hang your motor to simulate the in-flight position and re test hang after each adjustment. The aim is to have a safe thrust line position as well as a comfortable position to fly in. Use another person preferably an instructor to help you adjust this tilt angle. Aim for between 5-20 deg. A 5 degree thrust line means the thrust is pointing 5 degrees down. The higher the angle the more tilt back. Beware this may result in more difficulty getting out into hang for landing. Higher tilt back angle may also result in premature sitting down on launch.

Factory settings on the low hang bars are the the middle position in both holes, test hang in this position first. As a general rule.

Heavy pilots should use the glider position hole **1** and the harness position **3**
Lighter pilots use position **3** for Glider shackle and pos **1** for the harness shackle.

Before you change both settings at once, try one change at a time, as this may produce the results required.

Always reassure yourself, that all shackles are screwed in all the way and are secured with the keyrings (small picture)

The carryingstraps need to be latched to the lower part of the frame (as shown in picture). You can hear a click when they are attached. Check both sides when completed.



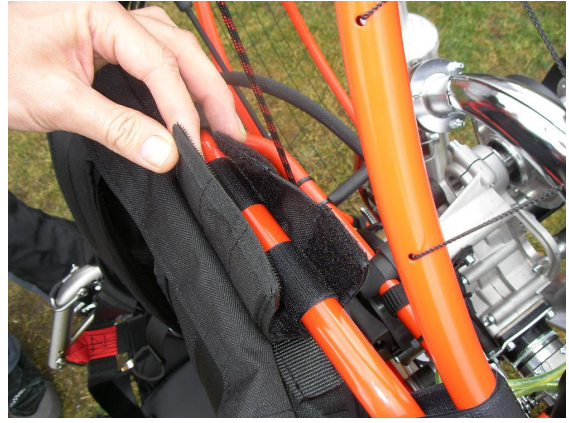
The built in rescue system is integrated in to the side of the harness and offers usability and comfort. It is however very important that the reserve bridle runs outside of the low attachment bars. (See picture). Each time the low bars are fitted to the frame this needs to be checked.



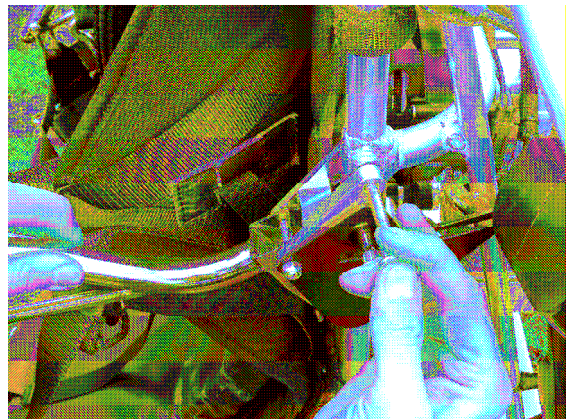
From there the reserve bridle splits apart and runs over your shoulder to the carabiners.



The harness is mounted on top of the backframe. Ensure the velcro is doubled over and secure.



The pushrods are mounted via the quickpins. It is easier if you always leave the quickpins in the pushrods. Mount the lower one first and be sure to include the plastic cover plate. Secure the upper pushrod to the frame last.

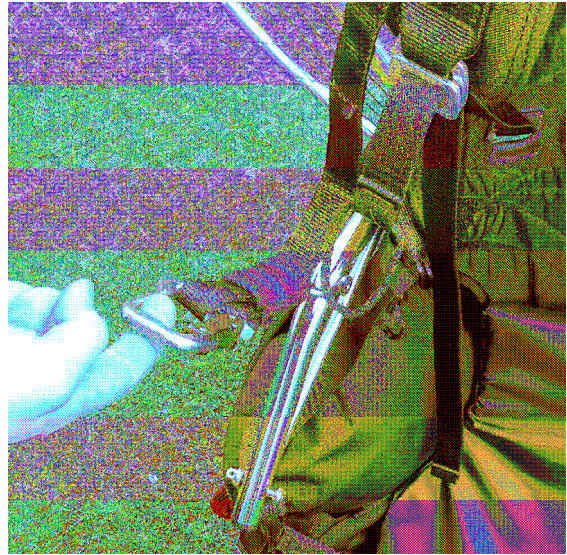


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PILOT SUSPENSION AND HARNESS

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The end of the V-lines are mounted on the carabiners. Check this.



The cushion of the harness is designed to give you optimum support and comfort. It elevates you a few centimeter higher and can be removed as shown if you find the harness too small. The cushion is mounted via velcros on the harness.

The harness comes in Medium and Large sizes.



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PILOTSUSPENISON AND HARNESS

Seat position while flight



Landing position



Hint:

After launching it is recommended to use the kick strap provided to easily slip into the harness. Push your lower back into the back of the harness stretching your legs to gain flying position. This needs to be tested prior to your first flight as the length of the kick strap will depend on your leg length.

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PILOTSUSPENSION AND HARNESS

PAGE 13

The throttle lever is secured in your hand via the hand strap. Secure the throttle lever prior to flight. As some methods for launch set up involve taking the brakes first, refer to your instructors advice for the best sequence for launching..



While doing a forward inflation ensure the A-lines don't get caught on the cruise control. Adjust this knob for the optimum position to avoid this getting caught. If you ordered you throttle lever upside down there is less chance for this to occur.



Consult your instructor for the best method for inflation.

Shown in this picture the set up of a powered forward inflation.



Now you're ready to start, remember always fly safe!

THE FOLLOWING POINTS SHOULD BE CARRIED OUT BEFORE
EVERY START!

01. CHECK ALL PARTS FOR TIGHTNESS, CHECK ALL FASTENERS!
02. VISUAL INSPECTION OF CAGE AND FRAME FOR FRACTURES!
03. PROPELLER HUB WITHOUT CLEARANCE?
04. EXHAUST SPRINGS OK?
05. EXAMINATION OF EXHAUST RUBBER ELEMENTS!
06. PETROL FILTER NOT SOILED?
07. MOTOR, CARBURETTOR AND TANK LEAK-PROOF?
08. SUFFICIENT SUPPLY OF PETROL?
09. PILOT SUSPENSION UNDAMAGED?
10. CANOPY UNDAMAGED?
11. GAS LEVER POSITION?
12. TRAVELLING LOCK RELEASED?
13. FUEL TAP OPEN?
14. VENTILATED TANK LID ON TANK?
15. PROPELLER CLEAR – START MOTOR!
16. CARRY OUT A TEST AT FULL THROTTLE!
17. TEST THE OFF-SWITCH FUNCTION
18. PILOT PROPERLY HOOKED IN?
19. WIND DIRECTION AND WIND FORCE?
20. TAKE-OFF STRETCH CLEAR?
21. FUEL TANK IS FIXED AND THE GAP BETWEEN EXHAUST-FUEL TANK ASSURED

EVERYTHING O.K.? CLEAR FOR TAKE-OFF!

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Start check

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CHECK BEFORE EACH FLIGHT

- CAGE SECURED ON THE FRAME
- CAGE IN GOOD SHAPE
- PROPELLER-CLEARANCE
- PROPELLER WITHOUT FREE SPACE
- PROPELLER WITHOUT DAMAGE
- KILLSWITCH O.K.
- FUEL MIN.98 OCTANE OR HIGHER
- FUEL TANK LEAKY
- PILOT SUSPENSION AND STRAP WITHOUT STRESSMARKS
- SPARKING PLUG AND WIRE WELL FIXED
- TANK-LID WITH TUBE ON THE TANK
- PROOF GLIDER,LINES AND RISER FOR STRESSMARKS OR DAMAGE´S.
- INTAKESILENCER AND IT´S FIRMNESS
- FULL RPM MIN 8000 U/MIN

CHECK ALL 10 HOURS

- FUEL FILTER
- CLEAN THE CARBCHAMBER
- BELTS IN GENERALL
- EXHAUST INCL. THE SELAINGRINGS AND THE SCREWS.
- ALL CONNECTION FROM THE WIRES
- EXHAUSTCONNECTOR AND SPRINGS
- FUNKTION OF CARRINGSTRAPS

CHECK ALL 50 HOURS

- METAL-WIRE FROM THROTTLE
- REPLACE THE SPARKING PLUG AND THE CONNECTOR
- REPLACE ALL RUBBERJOINT FROM EXHAUSTSYSTEM
- REPLACE THE SEALINGRINGS AND THE SCREWS
- CHECK ALL SCREWS
- ALL WIRES WITH IT´S CONNECTIONS
- TANK
- REPLACE STARTERFINGER
- CHECK PROPELLERBALANCE

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Check list

CHECK ALL 100 HOURS

- CLEANING THE DECOMPRESSIONHOLE INSIDE THE CYLINDER
- PISTONRINGS
- REPLACE PROPELLERBEARINGS
- REPLACE INTAKE DIAPHRAGM
- REPLACE KARABINER FROM PILOTSUSPNSION
- REPLACE DIAPHRAGM SETS OF THE CARBURETTOR
- GENERAL MAINTENANCE IN FACTORY

CHECK ALL 300 HOURS

- THE ENGINE AND HIS COMPONENTS SHOULD SEND TO THE MANUFACTURING FOR
- GENERAL MAINTENANCE

GLIDER

- THE GLIDER SHOULD BE CHECKED ALL 2 YEARS.SEND TO THE MANUFACTURER

MOTOR

- THE ENGINE SHOULD BE CHECKED EACH YEAR ALIKE HOW MUCH HOURS IT'S USED

!!!

WITHOUT THESE CHECK'S NO WARRENTY OR OTHER CLAIMS!
PLEASE USE ONLY FRESH BREEZE GENUINE SPARPARTS.THIS WILL TAKEN POSSESSION
ALL SAFETY AND STIFFNESS WHICH IS REQUIERED FROM DULV.

!!!

BE SURE TO FOLLOW THIS SAFETY ADVICE EVERY TIME YOU USE
FRESH BREEZE MOTORS !

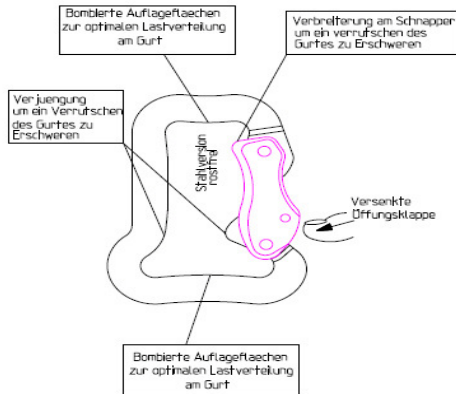
- USE YOUR ENGINE CAREFULLY. DISREGARDING ANY SAFETY ADVICES AND INCAUTIOUS BEHAVIOUR MAY LEAD TO SERIOUS INJURIES.
- NEVER COME CLOSE OR GRAP INTO THE SPINNING PROPELLER. HIGH RISK OF SERIOUS INJURIES.
- THE ENGINE MAY NOT BE STARTED WHEN IT IS STANDING ON THE GROUND. HIGH RISK OF SERIOUS INJURIES.
- NEVER TOUCH HOT PARTS (ENGINE, EXHAUST). HIGH RISK OF BURNING.

- Unexperienced pilot's should have minimum 80 kg (176 lbs).Otherwise you risk a stall or twist in while of full throttle

AustriAlpin Powerfly Karabiner sind zur Verwendung als Gurtkarabiner bestimmt. Die am Karabiner angegebenen Festigkeitswerte gelten zur Verwendung für Gurte: (schmale Seite: 20mm/ breite Seite: 45mm)
Die Kennzeichnung auf dem Karabiner hat folgende Bedeutung (Dieses Kennzeichnungsbeispiel dient nur zur Erklärung. Gültigkeit haben nur die eingepprägten Werte auf dem Karabiner)

KN175 10 MONO + BI
| A | B | C | D |

Klammer A: Festigkeit in der Hauptachse des Karabiners in KN
Klammer B: Festigkeit bei offenem Schnapper in KN
Klammer C: Tauglichkeit für Einzelpilotenaufhängung (min 18 KN)
Klammer D: Tauglichkeit für Tandempilotenaufhängung (min 24 KN)



Fliegen und weitere Aktivitäten in der Höhe sind gefährlich und können zu schweren Verletzungen und sogar zum Tod führen. Jede Person, die diese Produkte verwendet, ist persönlich dafür verantwortlich, diese nur mit entsprechender Ausbildung und mit dem nötigen technischen Wissen zu benutzen und übernimmt alle Risiken und akzeptiert alle daraus entstehenden Schäden und Verletzungen jeglicher Art.

Gebrauchsanleitung

Vor jedem Start muss der Schnapper:

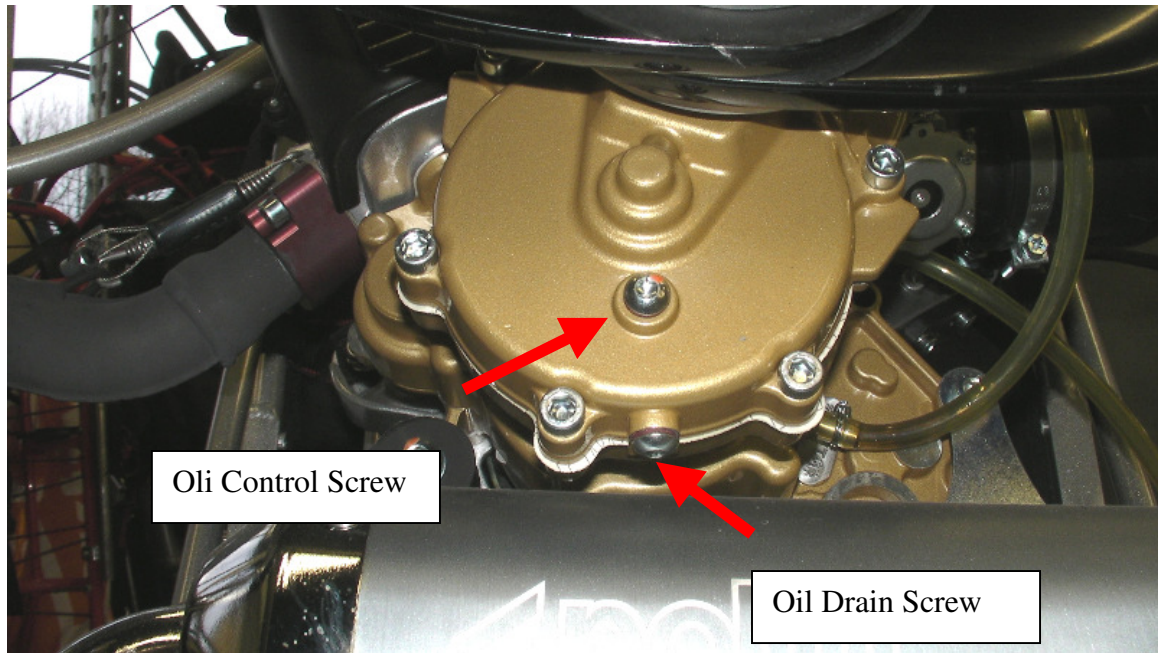
- 1) geschlossen und verriegelt sein
- 2) Verschluss und Verriegelung kontrolliert werden

Kontrollieren Sie vor jedem Gebrauch ob der Karabiner unbeschädigt ist und ob alle Teile einwandfrei funktionieren. Bei jedem Zweifel über die Sicherheit darf dieser nicht mehr verwendet werden. Beachten Sie, dass nur bei fachgerechtem Einsatz die angegebenen Festigkeitswerte erreicht werden, und eine sichere Funktion gewährleistet ist. Beim Einsatz in Gleitschirmen bzw. Gurtzeugen ist darauf zu achten, dass der Karabiner in die dafür vorgesehenen Schlaufen eingehängt wird, da nur diese die nötige Festigkeit aufweisen und für optimales Verhalten des Schirmes konzipiert sind. Der Öffnungsmechanismus ist so konstruiert, dass eine unbeabsichtigte Öffnung weitgehend ausgeschlossen wird. Trotzdem muss darauf geachtet werden, dass kein Gegenstand (Gurt, Leine, Band usw.) die Öffnungsklappe berühren oder betätigen kann. Der Anwender sollte genauestens über die Geräte, die er verwendet Bescheid wissen sowie über die nötige Erfahrung verfügen, um diese fachgerecht einzusetzen. Sollten Produkte von mehreren Personen verwendet werden (z.B. Flugschulen, Trainingszentren usw.) empfehlen wir eine systematische Überprüfung. Es ist darauf zu achten, dass AustriAlpin bei nicht sachgemäßer Verwendung, keine wie auch immer geartete Verantwortung und Haftung übernimmt.

Reinigung, Wartung, Pflege:

Reinigen Sie den Karabiner mit reinem Wasser. Für eine möglichst lange Funktionsdauer ist es notwendig, alle Gleiteile an ihren Gelenken mit einem Tropfen Öl zu schmieren. Die Aufbewahrung sollte in gereinigtem und trockenem Zustand, in trockener Umgebung auf nicht metallischem Untergrund erfolgen. Chemische Einflüsse bzw. Temperaturen über 150°C sind unbedingt zu vermeiden.

Oil Control and Drain Screw



Specification: API GL 4

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Oilcontrol