

# ***POLARIS MOTOR SRL***



## ***the am-FIB kit*** (transforming FIB in an amphibious)

Designing the am-FIB kit Polaris Motor focused on several key criteria:

- 1) A customer can easily mount the kit on his Flying Inflatable Boat with simple, ready available tools.
- 2) The am-FIB kit is relatively lightweight, so as not to harm the performance of the FIB. The kit cannot compromise the maximum weight limit required by the FIB
- 3) The am-FIB kit is simple



Total weight of the kit 44lb (23kg)



The kit is made in Titanium alloy Ti GR5



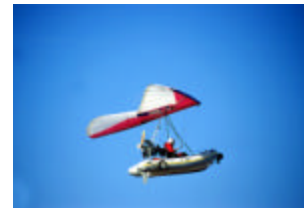
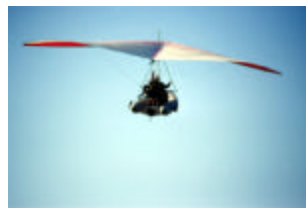
For safety and ease of use, Polaris uses Titanium alloy for the rear axle and other parts. This material, and the design, provides the following benefits:

- 1) Allows the axle extra strength,
- 2) Good resistance to salt water corrosion
- 3) Light weight.

The Titanium alloy axle also serves as a torsion bar, eliminating the requirement for a shock absorber in the rear of the Flying Inflatable Boat.

In the front of the FIB, we use the inflatable part of the boat and double wheels to absorb part of the landing shock. In the rear of the FIB, the axle of the am-FIB kit goes through the inflatable part, from one side of the boat to the other. As a result, Polaris attaches the rear axle to one of the strongest part of the boat: the transom. This simple yet ingenious system is patent pending.

To turn the FIB on land, the kit uses only the rear brakes, which are connected to the existing rudder system. This simplifies the maintenance, operation and mounting of the am-FIB kit,



To pull up (to retract) the landing wheels, we use ropes, tackle and automatic clam-cleats commonly found on sailboats. Over decades, these lightweight yet tough sailboat parts have proven dependable and practical in

sea conditions. FIB owners can easily inspect these sailboat parts for wear and tear, and for proper function. The landing wheels are lowered by gravity.

For safety reasons Polaris keeps separate the forward and back pulling system. When landing in the water, the front wheel must be firmly up to avoid a possible ground loop. (The back wheels could theoretically stay down, resulting only in increased drag.) In the an-Fib, the pilot can visually verify that the wheels are in the up position. Polaris conducted wheel up landing tests on a "prepared" grass strip to simulate pilot error or unlikely system malfunctions. No damage to the FIB or pilot were experienced. In emergency landings on unprepared landing areas, Polaris suggests a "wheels up" landing.

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