Tech Dummy

By Riaan Struwig

How to choose your First Power Paraglider

Questions asked by almost every potential pilot and even by some experienced pilots!

It is not a simple and straight forward answer. Factors like altitude, wing size, pilot weight etc. plays a big role. Then the budget is not even mentioned…

Being based in Centurion, South Africa, with a take-off altitude of 4500feet ASL we found that almost every pilot needs a bigger and stronger motor, estimated 25% bigger for the altitude and density. Over the last 18 years, we trained approximately +200 pilots on PPG, PPT, and PPC and found that the average and most successful motor is a 26-28Hp motor for an average pilot weighing 90Kg with a wing size of about 29Sq at an altitude of 4600feet above sea level. A good instructor will be able to assist in choosing your first motor and wing size. It is VERY important to make the correct decision first time!

PPG Motor Types

One of the best answers is to contact your local instructor and ask for his advice. Speak to the local pilots and see what they prefer and what they fly. A good instructor will advise you on the correct size motor for your weight range. Example:

A pilot weighing 90Kg flying at sea level will be able to fly a 125cc motor but at the same time a pilot weighing 90Kg flying at 4500feet (Gauteng) will not be able to fly successfully, he will need a much stronger motor.

Most of our PPG motors come from the Scooter industry, almost every top name and brand is from Italy. All top manufacturers use these motors each with slight modifications on exhaust and electronic systems and reduction ratios.

Over the last year Vittorazi, Polini, and Airconception motors have stood out.

Based on training experience I do prefer to have power in reserve. To fly a motor at 70% power and have power available on demand.

BUT at the same time do not overdo it! It does not help to fly a 280cc (100kg Thrust motor) if you weigh 80kg, it is dangerous!

If you have any questions please post a comment or send an email to riaan@epic-aviation.co.za
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Rule of thumb: (at 4500feet ASL) density alt up to 7500feet:

80Kg pilot to fly a motor with 70Kg thrust (Vittorazi Moster 185, Airconception Nitro)

110Kg pilot to fly a motor with +90Kg thrust (Airconception 280 Tornado)

PPG Harness Types

http://footflyer.com/PPGBibleUpdates/Chapter27Motor/hi-lo/harness.htm

High/Low Hook-in, Weight Shift?

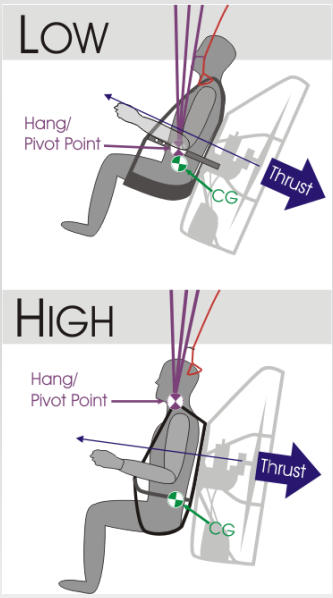
What's better, high or low hook-ins? Again not an easy or straight answer. If you ask me I would say High hook in point. Not that it is necessarily better, but that is the system I was trained on.

I did notice that most pilots with a PG background and training, prefer low attachment with Weight Shift. Weight shift is an essential part of PG flying. As an Instructor, I do prefer to train a pilot on high or mid attachments, especially on larger-size motors. Motors used by us at altitudes of 4500 feed ASL may cause a lot of propeller torque and the effect is increased by low weight shift systems.

So, in most cases, it is a case of preference. There are obvious differences and each has its benefits. Harness Myths, there is a lot to read and to confuse you.

http://www.footflyer.com/Equipment/SuspensionSystems/index.htm

Any new Motor and harness must be set up by your instructor prior to your first flight. It is preferable to let your instructor fly your kit to ensure everything is set up correctly and safely.



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In Short

Contact your local instructor or dealer before you make a decision. He or she (not a lot of female instructors) will ensure the best and correct motor and wing. Also, speak to your local club and pilots.

Ensure you get the best value for your money. New and light is the best!, but good second-hand motors will also help you to get into the sport safely.

An average 200cc Second-hand motor will be in the region of about R60-70K. There is a lot of older type motors now on the market, stay away from them. Spares are a big issue and weight!

Ensure whichever make you buy, you get local support and spares, you do not want to wait weeks, even months for basic spares.

Some basic guidelines on wing selection

How to choose a First Power Paraglider Wing. It is better to fly a smaller glider but within its specified limits. Always keep in mind, you need to take off with the wing, preferably without effort.
Good instructors will always advise you on what to get. Preferably a beginner wing and in some cases an intermediate wing, depending on your skills. (DHV1 or DHV1-2)

- Always start and make sure you fly a certified approved glider
- The wing must be easy to launch
- If possible rather buy an affordable new wing.
- Try to stick to a make and model that your instructor prefers (it should be one he has experience on). Try to stay away from the typical salesman "This is the best on the market.", do your research.
- Do not fall in the trap of trying to buy a more advanced glider. Advanced gliders (DHV2-3) react faster and are not as forgiving as DHV1 gliders. As a student/basic Pilot you can only train in SA on an approved manufactured Student/School glider.
- Paragliding wings are not necessarily unsafe, but Power paragliding wings are designed to handle actual force/power under the wing. You do get hybrid wings designed to be used for either Paragliding or Power paragliding.

Certification Comparison

Organization	Rating Values	Differences
DHV - German	1, 1-2, 2, 2-3, 3	For collapses and other maneuvers, rates based more on recovery than entry resistance. Test pilot makes the ratings.
EN (CEN) - European	A, B, C, D	Combination of entry resistance and ease of recovery.
SHV - Swiss & AFNOR	Standard, Performance, Competition	
DULV	Standard, Advanced, Competition	Concentrates on testing with a motor in those areas more likely to cause problems under power.
DMSV	Standard, Performance, Competition	

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DHV Classifications

http://www.dhv.de/web/en/

Thanks to info Supplied by:

http://www.xplorer.co.za/

http://footflyer.com/

http://www.planetppg.com