



## SwedeTech Pavesi Engine Break-In

### Engine Break-In

Start by increasing the main jet by one to two sizes from what you have determined to be the optimal jetting, taking weather, altitude and track size into consideration. Always warm-up the engine on the stand (in 1<sup>st</sup> gear) and do a walk around of the engine and kart...

- Check for loose nuts and bolts.
- Check the water level and add tape to the front side of the radiator.
- Warm-up engine – Remove the radiator cap, to check for proper water flow.

Check to make sure that the clutch lever has  $\frac{3}{4}$ " to 1" of play. And, that the clutch lever, cable and actuator arm retract properly. The clutch lever action should have a light and free feel to it (We offer an easy-to-use cable lubrication device, to achieve this).

Break-in water temperature should be 135 to 140 degrees, with the normal running water temperature at around 125 degrees (RC20 recommended additive). You can take the temperature reading anywhere between the cylinder head outlet and the radiator.

Out on the track, run at reduced lap times of 15% to 20% below normal (On a 30 second track, slow the pace by 4 to 5 seconds per lap.). Go through the gears as normal, modulating the throttle and shifting at approximately 13,000 RPMs... Blip the throttle, when going into corners and / or if you are coasting. Towards the end of the break-in, gradually increase the pace by approximately 1 second per lap. Once you're up to speed, you don't have to come in and let it cool down... Just run it!

- New engine break-in – 15 to 20 laps.
- New top end break-in – 8 to 10 laps.

## **Oil**

Please call us for recommendations on 2-stroke oil... Be prepared to advise us what race series that you are participating in and what the "spec oil" is for the series. Note: For most sprint racing applications, we recommend a 24:1 mix ratio.

For the transmission, we recommend that you use 16oz / 450ml of a brand-name 2-stroke gearbox oil if your engine is brand new or freshly rebuilt... Use 50ml less, for routine oil changes (every 5 to 6 hours).

For the clutch, we recommend that you use 8oz / 225ml of a brand-name 2-stroke gearbox oil if your engine is brand new or freshly rebuilt... Use 25ml less, for routine oil changes (every 5 to 6 hours). Note: After every 2<sup>nd</sup> or 3<sup>rd</sup> oil change, clean and inspect the entire clutch area and assembly (using brake, contact or carburetor cleaner), replacing any discs that are warped and / or below recommended tolerances.

## **Spark Plugs**

Use any of the following NGK spark plugs...

- NGK BR10EG
- NGK BR10EGV (Discontinued)
- NGK BR10EV
- NGK BR10EIX
- NGK R7376-10

## **Top End**

- Pavesi piston kit - #1.029.30

## **Jetting – Dellorto VSH 30 CS**

Normal range of jets for a Dellorto VSH 30 CS carburetor, when used in conjunction with a SwedeTech blueprinted Pavesi...

120 - 145 main  
B45 – B50 inner pilot  
60 outer pilot  
DQ266-268 nozzle  
K22 needle (1<sup>st</sup> or 2<sup>nd</sup> clip position from the top)

Note: Even larger jets may be applicable for road racing.

## Reeds

Carbon-fiber SwedeTech Pavesi

**Cooling System** – Water flows from the bottom of the radiator to the center of the water pump (into the face of the impeller). Water then flows out of the pump to the bottom of the engine case and through the engine. Finally, the water flows out of the cylinder head to the top of the radiator... No other routing is correct.

**Lower-End Maintenance** – Pavesi Italy recommends replacement of the lower rod bearing and thrust washers (stock ICC Pavesi 125cc engine), after each 10 gallons of fuel that is run through the engine. Under optimal conditions, SwedeTech has been able to extend the life of the lower rod bearing to 10 to 12 hours or 20 to 25 gallons of fuel (SwedeTech blueprinted ICC Pavesi, using recommended oil). \*

**Top-End Maintenance** – Pavesi Italy recommends replacement of the top-end parts (stock ICC Pavesi 125cc engine), after each 10 gallons of fuel that is run through the engine. For optimum performance and reliability, SwedeTech recommends replacing the top-end (piston, ring, wristpin, upper rod bearing and circlips), every 2 to 3-hours of run time, or 5 to 8 gallons of fuel. When doing a top-end rebuild, check the squish between the piston and the cylinder head, using 0.040" solder (optimum desired squish 0.028" – 0.030"). \*

**2004 Exhaust System** – Stepped SwedeTech u-bend and stock 2004 Pegaso carbon fiber silencer.

**2003 Exhaust System** – "XXS" marked aluminum silencer with a sleeved dual stage u-bend.

\* It is important to remember that the rebuild numbers listed above are only recommendations. And, when dealing with high performance racing engines, there are no absolutes or guarantees.

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