IAME KA100 Reedjet engine info.

You can ask us questions anytime by email ... email us .....

We are an approved supplier of these new engines to Australian karting, located in Brompton , a suburb just near the Adelaide CBD, in South Australia.
With the use of the engines falling to the junior classes that introduce new kids, and their parents, to the sport and to learning about mechanical things
probably for the first time, we will try to pass on the information we gather to help you keep karting.

The initial carburetor settings as suggested by the importers are as follows .....

Tillotson HW-33A Carburettor

- Restricted Format: Low-Jet one turn (60min) and High-Jet one turn (60min)
- Open Format: Low-Jet one turn (60min) and High-Jet one turn and a bit (1.05min).
- Metering Lever Height: Top of the lever should be dead-level with the Carby body.
- Pop Off Pressure: 10psi +or- 1psi.

Tillotson HL-398A Carburettor

KA4 - Restricted (19mm)
LOW JET 1 hour & 45 minutes (1 & 3/4 turn out)
HIGH JET 45 minutes (3/4 turn out)

KA3 - unrestricted
LOW JET 1 hour & 45 to 55 minutes (Just under 2 turns out)
HIGH JET 45 minutes (3/4 turn out)

IDLE SCREW -
Screw the idle JET up to around 2,000 to 2,500 RPM this makes starting very easy.
Pop-Off Pressure: 8 to 10 PSI
Metering Lever: Level with body

The HL-389A Tillotson carburetor is a design that has been around for over 40 years. It is relatively simple but you must prepare it to suit the engine and driver.
The following comes from an early, genuine Tillotson factory service brochure. It still applies today as a great starting point.

Setting up your 2-cycle Tillotson Carburetor.

With today's state of the art motors and stinger type exhaust systems, the following information will help you achieve the desired results that you need from these motors. Before mounting your Tillotson carburetor check the pulse track from the carb mounting surface and make sure that this track through the carb adapter , gaskets and etc is clear and in line with each other.
Set the low speed needle at 1+3/4 turns out and the high speed needle at 3/4 turns out.

Track tuning your Tillotson Carburetor.

If the carburetor settings are too rich (too much fuel) the engine will falter at that section of the track corresponding to that particular range of the carburetor settings. A **spluttering or irregular firing sound** will be heard. This sound is also called **4 stroking**. If this sound occurs at low speed while at full throttle, such as coming out of a tight turn, it is usually due to the Low Speed adjusting needle being turned out too far. If the sound occurs at high speed while at full throttle, such as on a straightaway section of the track, it is due to the High Speed adjusting needle being out too far. In either case, needle adjustments must be made **inwards** gradually, in approximately 1/8 turn increments. It is best to adjust the Low Speed needle first for best overall low speed performance and then follow with the final high speed adjustment.

If the engine does not **4 stroke** or give the **too rich** firing sound, any place on the track, it could be because the engine is running too lean (not enough fuel). This is easily checked by **opening** the needles out in 1/8 turn increments until the engine **4 strokes**. In general, the optimum performance and engine reliability will occur at carburetor settings just slightly leaner than the point where the engine will begin to **4 stroke**.

If you find that the engine will not **chop off clean** or is slow to come back from **high rpm's** when you lift the throttle, this is a sign that the pop-off pressure in the carb is too high. The cure for this is to lower the pop-off pressure. If you experience loading-up problems, this is a sign that the pop-off pressure may be too low. The cure for this is to raise the pop-off pressure. As a general rule of thumb, the pop-off pressure will be from 8 to 12 lbs, and is a tuning factor that you can adjust for the altitude of your racetrack and the type of racing that you do.

GEARING

KA4 - Restricted (19mm)
The engine comes fitted standard with an 11 tooth front sprocket.
So a good starting point is the same rear sprocket as you are currently using on your J engine.
(Example; if you have 12/78 as your J gearing, the KA100 engine would be 11/78)
To work out your appropriate gearing you need to be doing around13,000 RPM + or - 400 RPM, depending on the circuit.
It is just simple trial and error.

KA3 - unrestricted
The engine comes fitted standard with an 11 tooth front sprocket.
So a good starting point is the same rear sprocket as you are currently using on your Clubman engine.
(Example; if you have 10/78 as your Clubman gearing, the KA100 engine would be 11/78)
To work out your appropriate gearing you need to be doing around14,500 RPM + or - 400 RPM, depending on the circuit.
It is just simple trial and error.

OIL RATIO

20:1 is the factory recommended mixing ratio, and always use a good quality 2 stroke oil.

SPARK PLUG

Cold Weather: NGK B9EGV BR9EIX
Hot Weather: NGK B9.5EGV to B10EGV BR10EIX

TYRE PRESSURES for the new Bridgestone YLR slicks and YLP wets as suggested by the importers PFG.

YLR45 front slick 11.6 psi
YLR71 rear slick 11.6 psi

YLP45 front wet 14.5 psi
YLP6 rear wet 14.5 psi

All sugested pressures are listed as a +/- 2 psi variation !!!!!!!!

Good luck with your racing .....