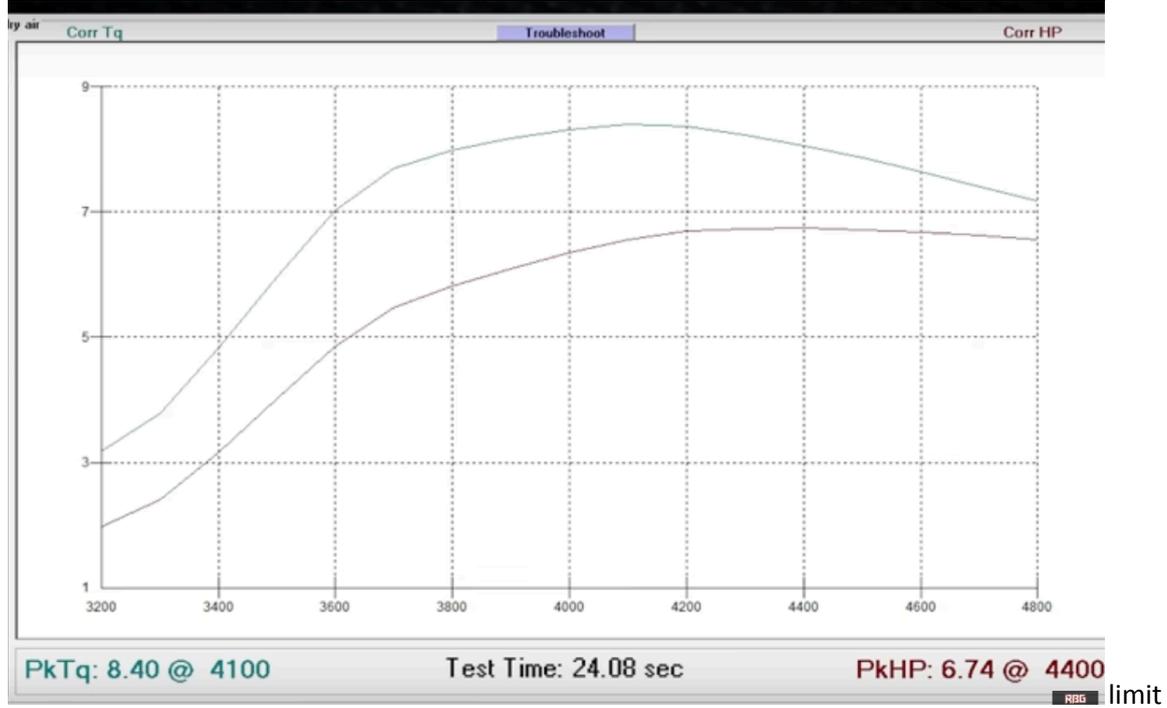


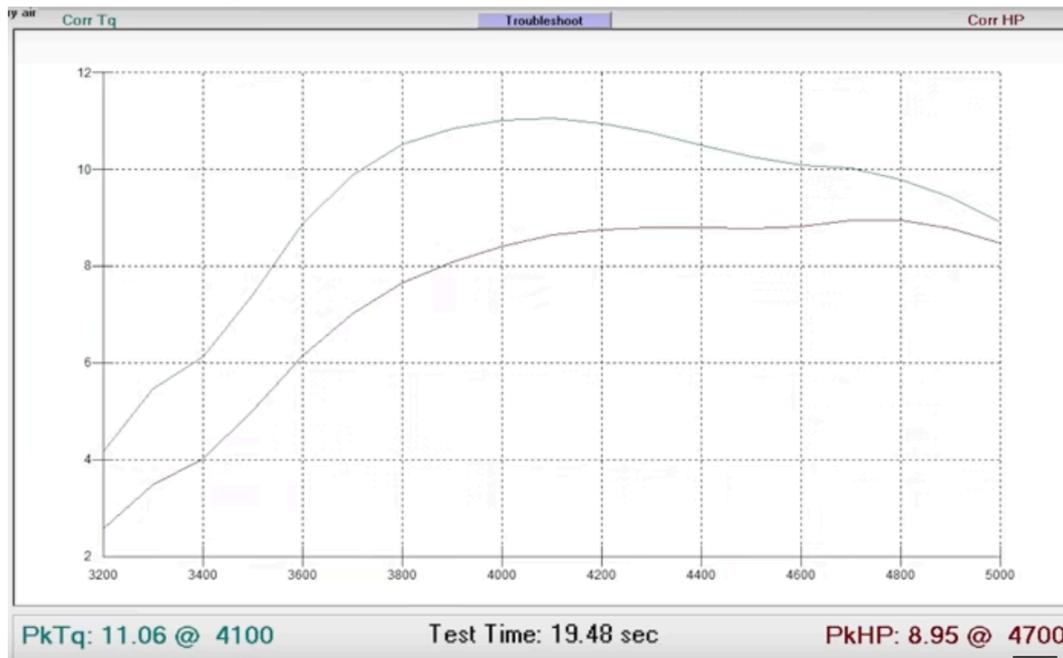
RedBeard's garage, 212cc engine tuning results, cumulative gains, flywheel and springs left on for successive tests.

Information relevant to cyclekarts: comet TAV30 engages at 3100rpm standard set up.

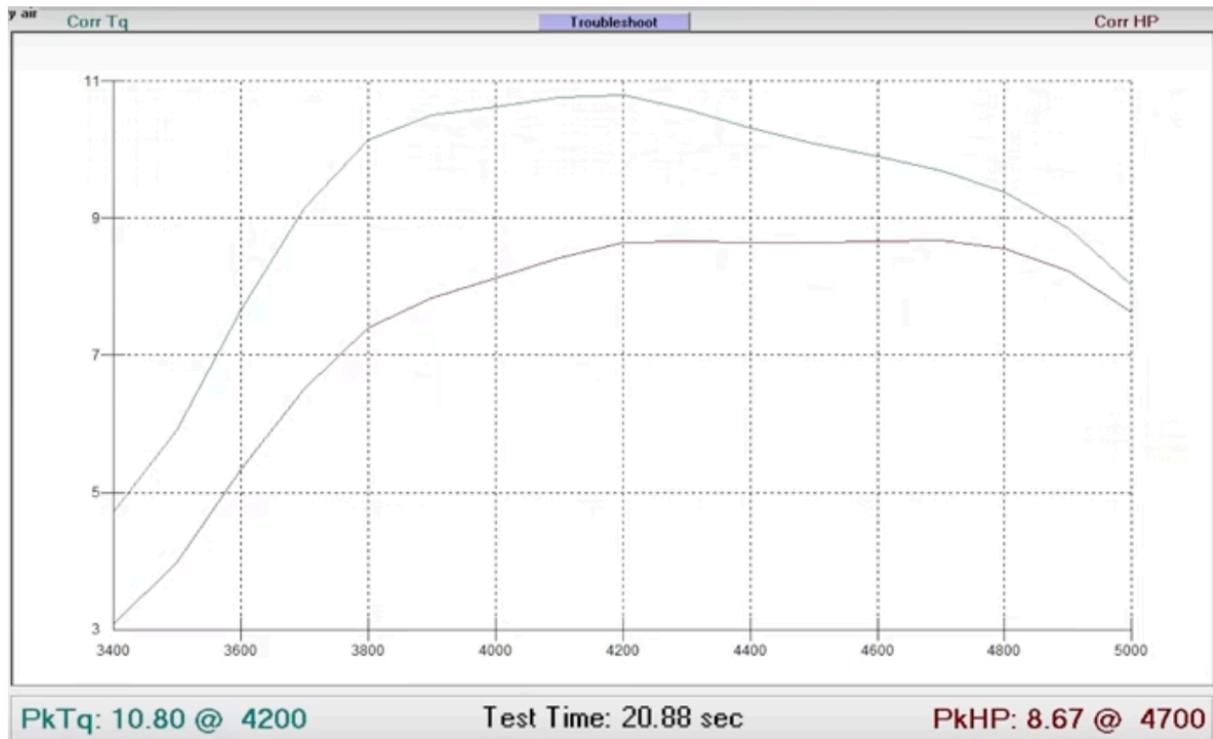
Standard 212cc clone engine, hemispherical head, limit screw removed (box fresh 7hp engine)



screw removed, re jetted standard carb, header, with muffler



limit screw removed, re jetted standard carb, header, **no** muffler (More power + torque with muffler!)



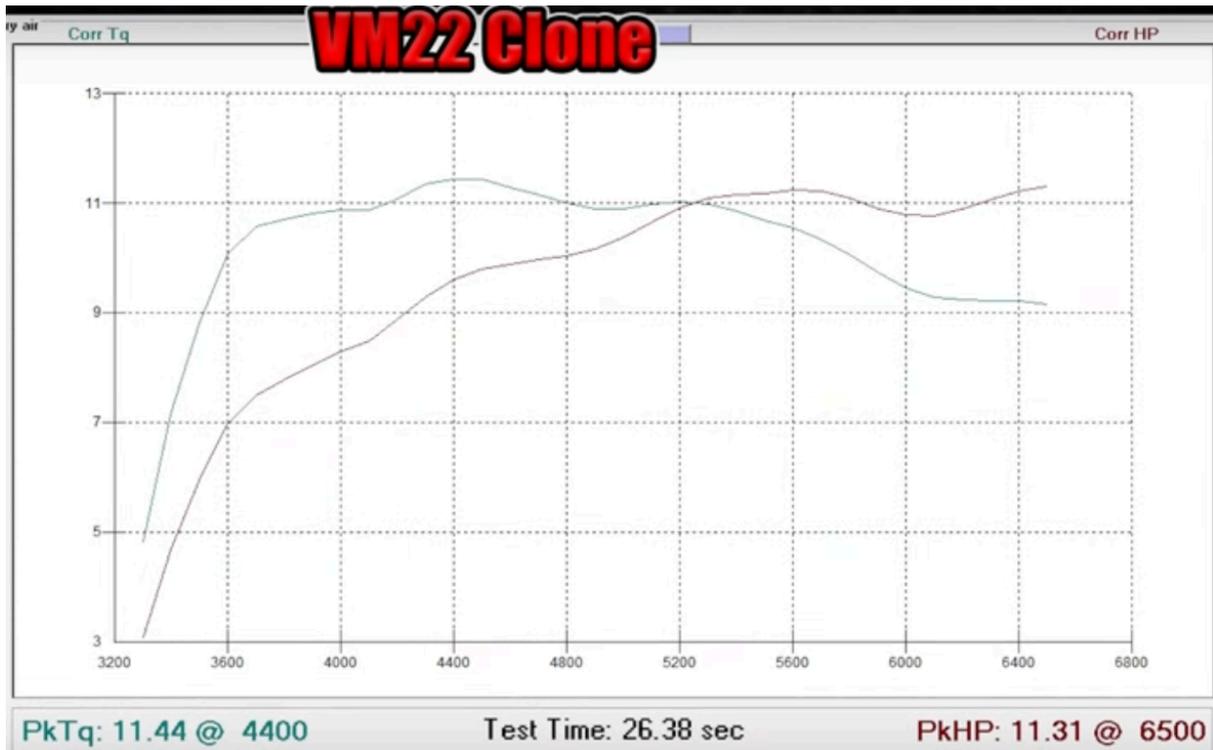
Governor removed, billet flywheel, 8 degrees advance 24Lb valve springs standard cam (power loss!)



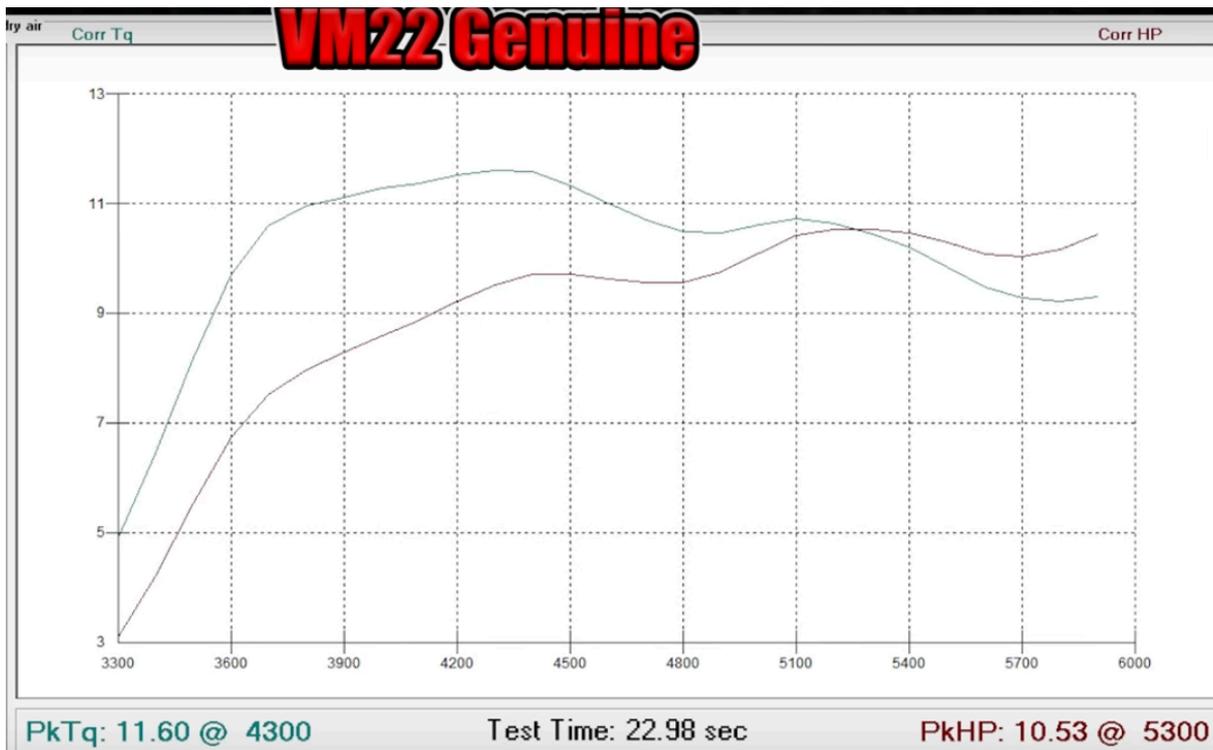
Stock style aftermarket carb, re-jetted, governor removed, soft cam... (Early torque)



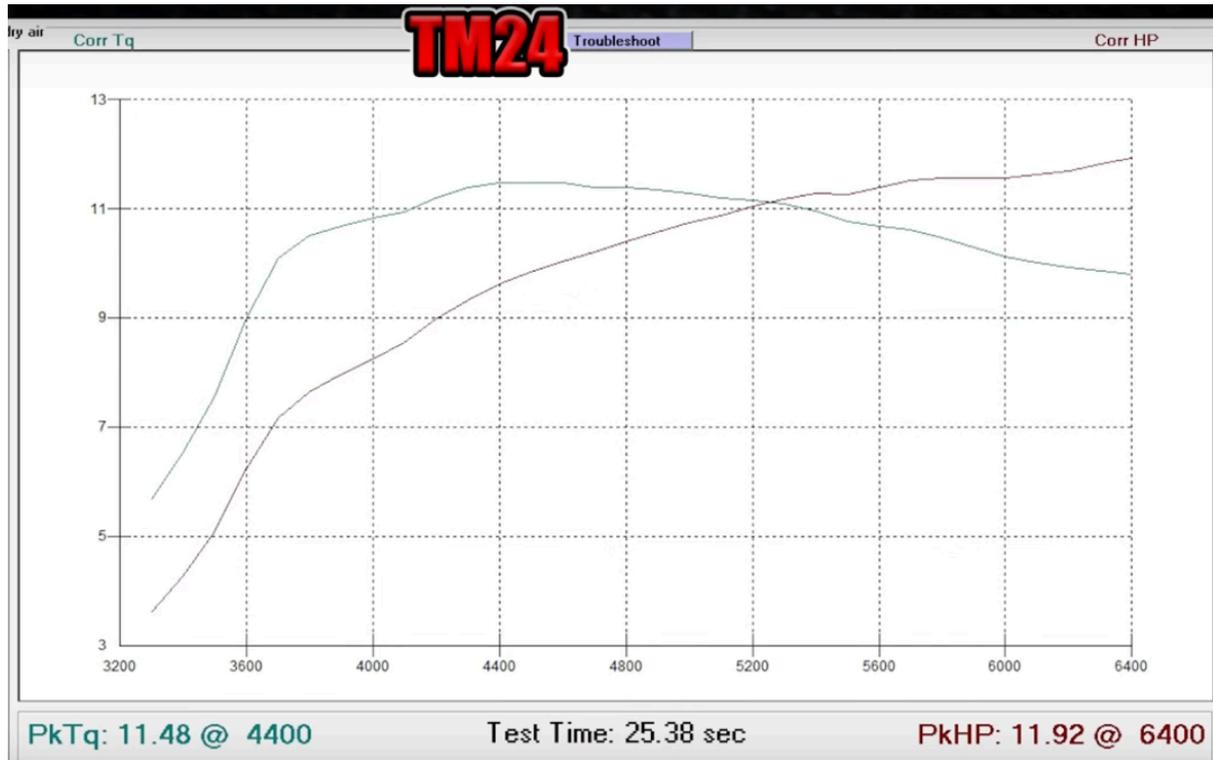
VM22 clone governor removed, soft cam – Early torque, but peak power at shaft above 10hp (advanced timing from flywheel? And 24lb springs?)



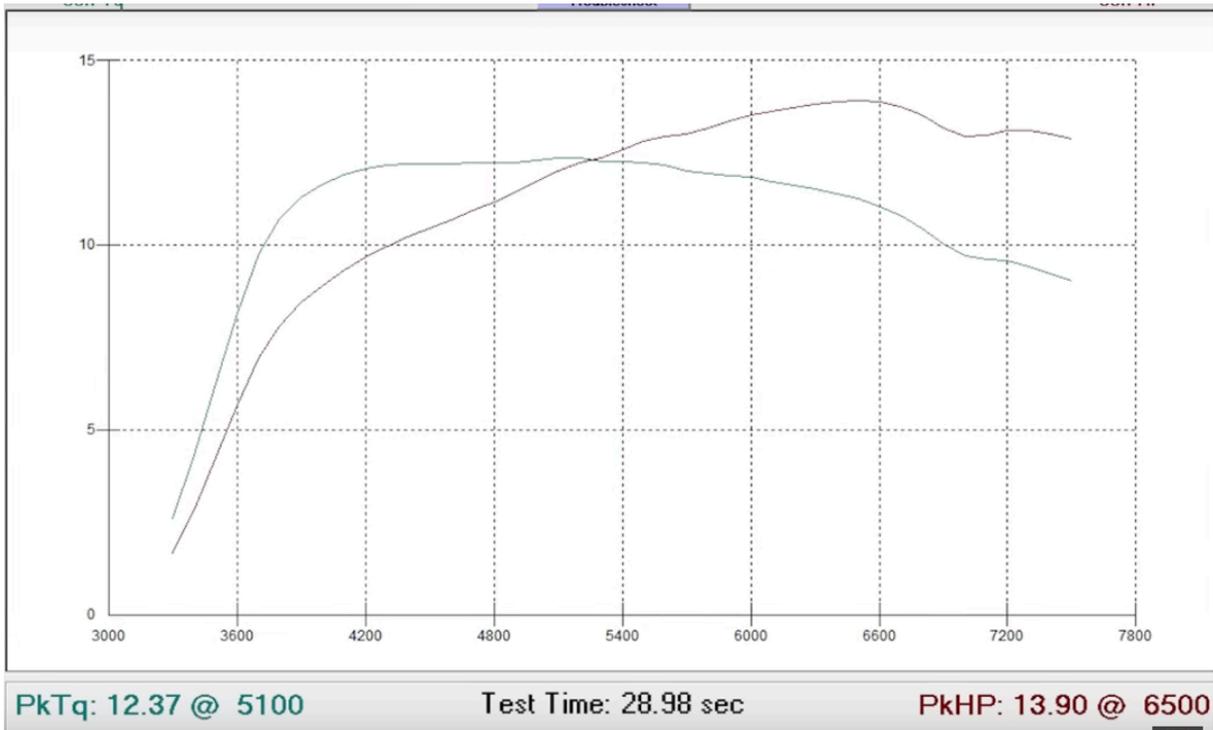
Genuine VM22 governor removed, soft cam, not as good as the clone above, still over power.



TM24 Makuni flat slide governor removed, soft cam – Later torque and power- above usable range without serious gearing?



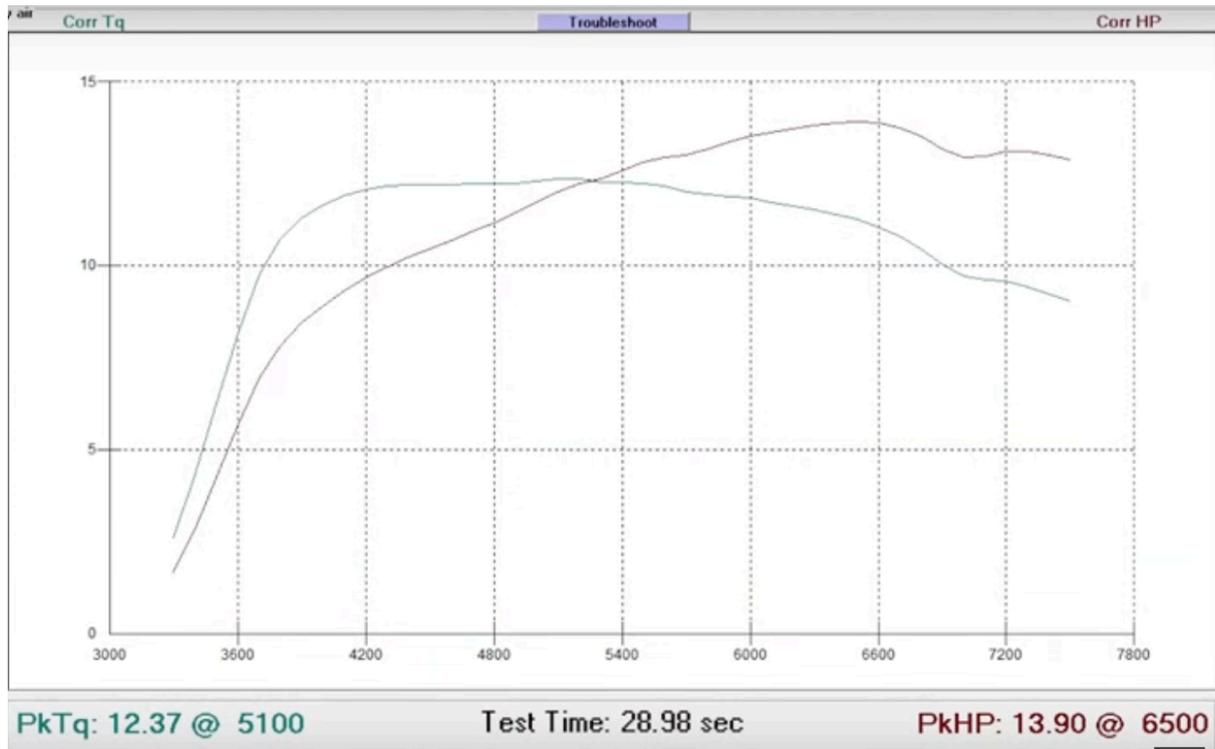
Billet rod hot cam 0.265" and thin head gasket 26lb valve springs (after run in) – beyond what we need.



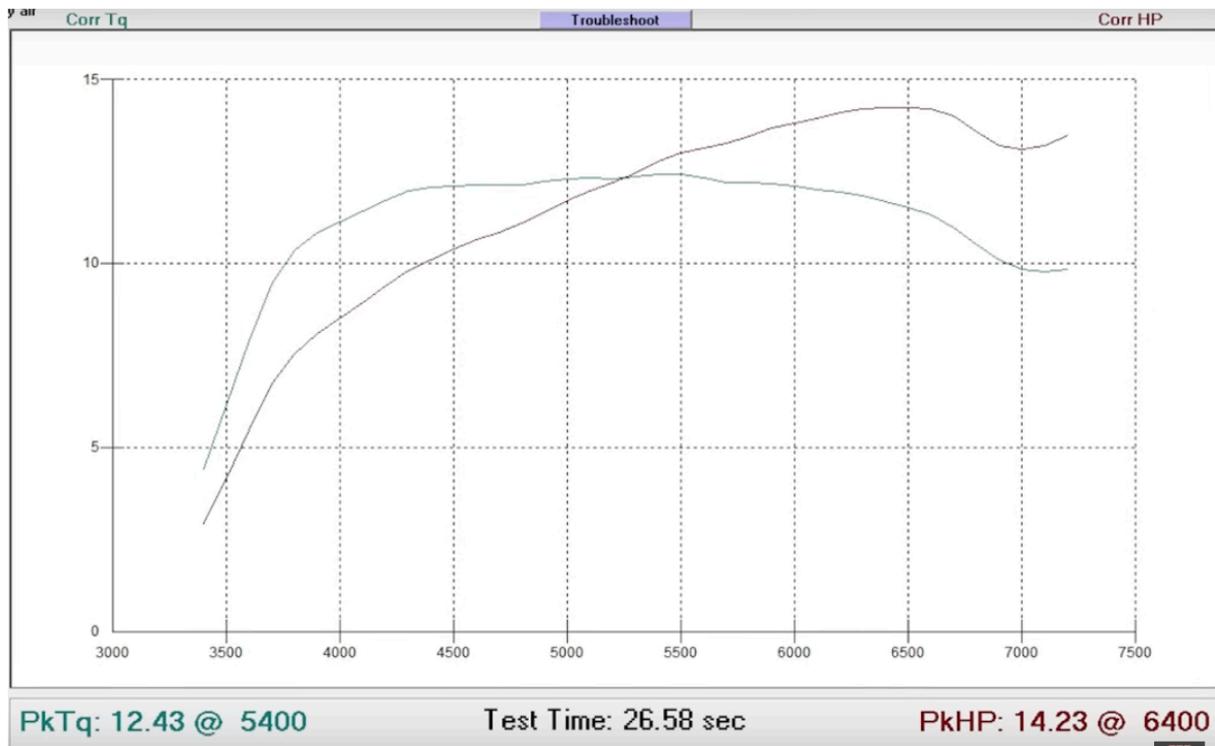
For comparison: Box fresh predator ghost 212cc, not the same engine, (see below for continuation) comparison for vm22 clone carb above, similar early power, rev limiter kicks in at about 6000 – should not threaten the standard flywheel.



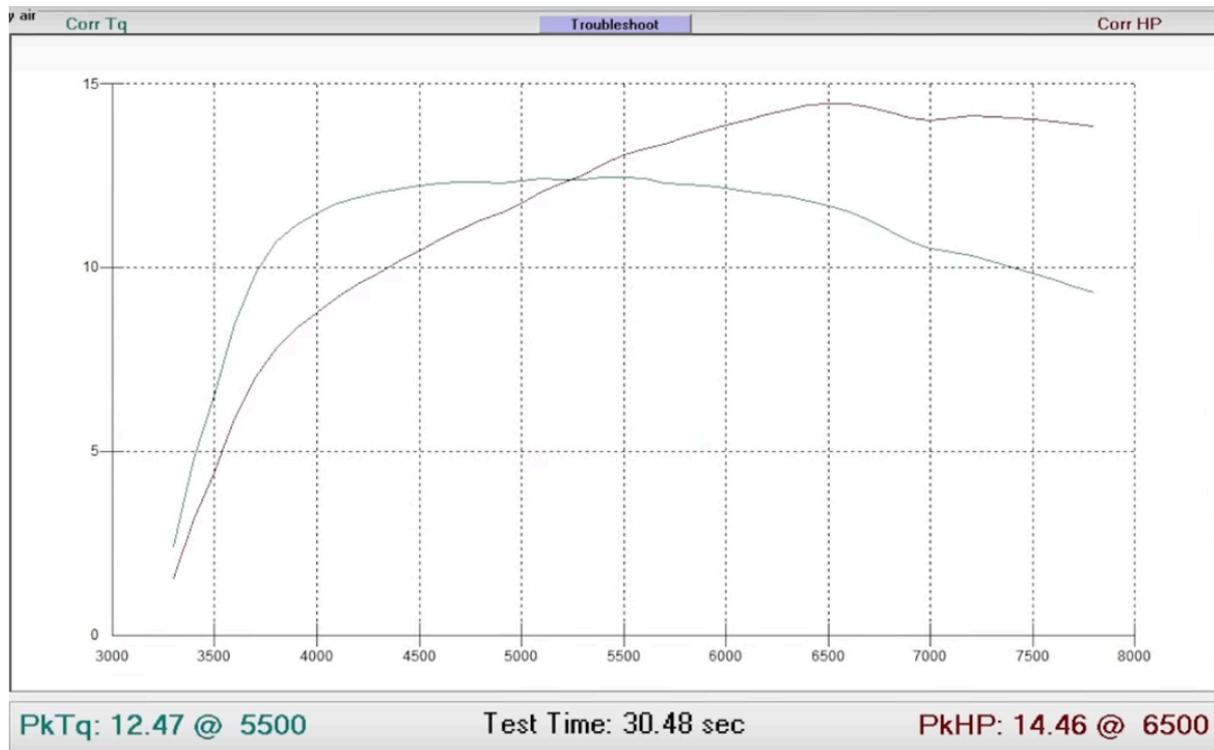
Standard as above (not ghost) before rockers... Billet rod hot cam 0.265" and thin head gasket 26lb valve springs (after run in)



As above but with 1.2 ratio rockers and smaller air filter... Power and torque move up the rev range to start with (less torque on take off) (could be an advantage with less advance timing?)



As above but with large air filter... again power late on good, but perhaps not utilised in a cyclekart?
Too much power.



The series continues but the data above is probably enough to inform cyclekart club members of the modifications that are useful within our 10HP limit.

You can modify the TAV30 to engage later with alternate spring positions, spring colours and weights to take advantage of later power and torque but the gearing ratio stays the same.

Looking at the set up most of us run, I think early power and torque are the goal with as much area under each graph line as possible up to 5000 revs.