Cylinder Head

Cylinder Head - Might want to add a head, what do I do with your clutch kit?
Answer)If you are going to just go with a head, usually you can add a ½ gram. From what I have seen on the inertia dyno that a head does not necessarily make more peak hp, rather it makes more average hp across an rpm range.

Say an 800ptec for example, the addition of a head will enhance the torque values, raising them between rpms of 6300 and 7600 rpms. That kind of torque increase will allow the engine to recover rpms quicker when you cycle the throttle.

More engine torque will allow you to run, varying the throttle position and observing a tighter feel between the throttle and the ground - like a stronger burst of energy every time you quickly apply throttle.

A head usually makes a real fun enhancement for guys who do technical driving in snow that use a lot of throttle control.

Knock sensor & code on dash
I am out of ideas. Sled worked fine last season. Put XX XXX 14:1 head on and now I am having knock issues, I also get a code going off on the dash.

Engine sounds like it is detonating throughout mid range and frequently at WOT. Prolonged WOT will set off detonation sensor.
Pulled head and there is no sign of detonation. No pitting and appears to be rich.

Thanks, Tim

Joe writes) From the files of Freddie Klies (Supertuner @ ECP)
The technical aspect of detonation is;
1)the rising internal cylinder pressure from the piston thrusting up to TDC.
2)combustion chamber pressures raise to the point where the air/fuel mixture in the perimeter of the combustion chamber automatically ignites aka "The uncontrolled secondary flame"
3)The spark plug fires making the "controlled ignition primary flame"
4)The two flames rush toward each other
5)The secondary flame collides with the primary flame from the controlled-ignition-point started by the sparkplug.
6)The collision of the two explosions have enough force creating a sound either pinging or knocking noise.

To stop the The uncontrolled secondary flame, the squish area has to be enlarged by either increasing squish angle, reducing squish band width or increasing the squish/piston gap.

Probably the easiest thing to do would be to know what base gasket thickness you currently have and install a thicker one to increase the area from the head to the piston.
If that doesn't work then again, get the next thicker base gasket.
When we go outside the realm of stock engine sometimes this is what happens; you have to fine tune the engine because you recalibrated it.