

This data is intended as a guide only. It's the result of thousands of dyno runs and street testing with our company Ford, Mazda, Dodge, GM, Buick and Syclyone/Typhoon vehicles.

1 psi boost = .5 point CR (effective CR)

1 point CR = 2 psi boost (CYLINDER PRESSURE)

1 point CR = 2% HP

1 psi boost requires 1.5 octane (minimum)

1 psi boost = 12-15HP after kit is installed

1 point CR = 3 - 5 octane

1 AF ratio = 2 octane

1° advance = 1/2 - 3/4 octane point

10° engine coolant (160° -180° range) = 1 octane

20° ambient = 1 octane

32oz Torco octane booster in 20 gal fuel = 7 octane

1000' altitude = -1 octane point

1000' altitude = .5 psi (2" Hg)

6°F temp change = 1% air density

30% humidity = 1 octane

10° air charge temperature = 1% HP

20° charge temp reduction through intercooling = .5 psi additional boost with same octane

RAM PSI = $\frac{Ad \times V^2}{4287}$ Ad = atmos. density .076 lbs/cu ft at sea level
V = speed in mph

ENGINE CFM = $\frac{CID \times RPM \times VE^*}{2 \times 1728}$ *70% for the average engine 90% racing engines

10% HP increase = 7% AF ratio (based on 70% VE) or 10% AF ratio with 100% VE

10 psi fuel pressure = 8% AF ratio: 5 psi = 4% AF ratio

3/4 PSI DROP = 5% pressure (5% x 14.7 = .75 psi)

HP = CFM (int @ 28") x .257 x no. cylinders

10HP = .1 sec / 1 mph 1/4 mile

100 lbs = .1 sec / 1 mph 1/4 mile

LOWER FUEL OCTANE LOSSES

A CASE FOR THE KENNE BELL BOOST-A-PUMP The Latest Fuel Tip

Problem: If at all possible, avoid fuels that use alcohol as an additive to increase fuel octane. We understand that Mobil doesn't use alcohol in most states. Alcohol, being more volatile than gasoline, tends to evaporate and lower fuel octane. Large in tank or in line pumps "re-circulate" excess fuel at idle, part throttle and cruise. This results in hotter fuel and increased alcohol evaporation (octane reduction) from not only the "re-circulation" but the continuous pressurizing and depressurizing of the fuel. Why do you think Ford has gone to returnless (no return) fuel systems? One reason was to reduce fuel octane losses.

Return System: Use the Kenne Bell BOOST-A-PUMP to increase fuel pump delivery. It activates ONLY at wide open throttle thereby minimizing "re-circulated," heated and depressurized fuel. The fuel supply will be cooler with higher octane and the engine will be less prone to detonation (pinging).

Returnless System: The Kenne Bell BOOST-A-PUMP™ actually increases pump life as the pump doesn't work as hard at the higher voltage.

LEAST KNOWN FUEL TEMPERATURE FACT:

Did you know that gasoline begins to boil at 95°F?
Always keep fuel as cool as possible.

OCTANE BOOSTER - The best we've ever tested is Torco. 32oz in 20 gallons increases octane by 7 full octane i.e. 91-98 or 93-100. We buy it in 5 gal can \$138 (610oz) .44/oz or only \$7 per tankful. 610oz ÷ 32oz per tank = 19 tanks x 20 gal = 380 gals x 15 mpg = 5,700 miles for only \$138. Available from jbsblownc5.net. Note: Can label does not match lab tests we conducted. Our tests say 7 octane with 32oz in 20, 10 or 5 gallons or no gain beyond 7 octane. 16oz in 20 gal is 3 octane. Lucas Octane Booster is good for 3 octane in 20 gallons and 1-1/2 octane in 10 gallons. This is the only MMT booster we recommend.