

Cam Timing Influence on Corrected Compression Ratio

Numbers in blue can be input
Everything else don't touch!!

| | | |
|------------------------------------|---|--|
| Bore = | 3.875 inches | Stock = 3.750" (88"), 3.875" (95") |
| Stroke = | 4.375 inches | Stock = 4.000" |
| Rod Length = | 7.667 inches | Stock = 7.667" |
| Head Gasket Thickness = | 0.030 inches | Stock = .052" |
| Head Gasket Bore = | 3.920 inches | Stock = 3.850" (88"), 3.950" (95") |
| Head Gasket Volume = | 0.3621 cubic inches or 5.9331 cubic centimeters | Calculated from thickness and bore |
| Cylinder Head Volume = | 85.000 cubic centimeters 5.1870 cubic inches | Stock = 83cc, SE=76cc |
| Deck Height = | 0.005 inches | Negative if piston above cylinder Positive if piston below cylinder Average of the two cylinders |
| Deck Height Volume = | 0.0590 cubic inches or 0.9663 cubic centimeters | Calculated from deck height and bore |
| Cylinder Expansion = | 0.040 inches | Add for hot cylinder growth (.040 is common number used) |
| Cylinder Expansion Volume = | 0.4717 cubic inches or 7.7302 cubic centimeters | |
| Piston Dome Volume = | -1.500 | Positive where dome > reliefs, 110 dome = 8.5cc Negative 1.5 for stock 88, HD and Wiseco |
| Calculated CR (cold) = | 10.0525 :1 | 95" flat-top, -2.0 for KB flat-top |
| Calculated CR (hot) = | 9.3605 :1 | +8.0 for 10.25:1 SE cast 95" +10.6 for 10.5:1 Wiseco |
| Cylinder Displacement = | 51.5954 cubic inches or 845.4945 cubic centimeters | |
| Head Volume Total (cold)= | 5.6996 cubic inches or 93.3994 cubic centimeters | Calculated from cylinder head volume, head gasket volume, deck height volume, piston dome volume and cylinder expansion volume |
| Head Volume Total (hot)= | 6.1713 cubic inches or 101.1296 cubic centimeters | |

K 1.188
Atmospheric 14.696

| Intake Valve Closing ABDC (deg) | Stroke to TDC at Intake Closing (in.) | Displacement at Intake Closing (ci.) | Corrected CR:1 | Cranking | |
|---------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|-------------|-------------|
| | | | | Common Cams | Compression |
| 0 | 4.3750 | 51.5954 | 10.0525 | | 213.29 |
| 1 | 4.3748 | 51.5926 | 10.0520 | | 213.27 |
| 2 | 4.3740 | 51.5842 | 10.0505 | | 213.23 |
| 3 | 4.3729 | 51.5702 | 10.0480 | | 213.17 |
| 4 | 4.3712 | 51.5505 | 10.0446 | | 213.07 |
| 5 | 4.3690 | 51.5252 | 10.0401 | | 212.95 |
| 6 | 4.3664 | 51.4943 | 10.0347 | | 212.81 |
| 7 | 4.3633 | 51.4578 | 10.0283 | | 212.63 |
| 8 | 4.3598 | 51.4157 | 10.0209 | | 212.44 |
| 9 | 4.3557 | 51.3679 | 10.0125 | | 212.21 |
| 10 | 4.3512 | 51.3146 | 10.0032 | | 211.96 |
| 11 | 4.3462 | 51.2556 | 9.9928 | | 211.68 |
| 12 | 4.3407 | 51.1909 | 9.9815 | | 211.37 |
| 13 | 4.3347 | 51.1207 | 9.9692 | | 211.04 |
| 14 | 4.3283 | 51.0448 | 9.9558 | | 210.68 |
| 15 | 4.3214 | 50.9633 | 9.9415 | | 210.30 |
| 16 | 4.3140 | 50.8761 | 9.9263 | | 209.89 |
| 17 | 4.3061 | 50.7833 | 9.9100 | | 209.45 |
| 18 | 4.2978 | 50.6849 | 9.8927 | | 208.99 |
| 19 | 4.2890 | 50.5809 | 9.8745 | | 208.50 |
| 20 | 4.2797 | 50.4712 | 9.8552 | | 207.98 |
| 21 | 4.2699 | 50.3559 | 9.8350 | | 207.44 |
| 22 | 4.2596 | 50.2349 | 9.8138 | | 206.87 |
| 23 | 4.2489 | 50.1083 | 9.7915 | | 206.27 |
| 24 | 4.2377 | 49.9760 | 9.7683 | | 205.65 |
| 25 | 4.2260 | 49.8381 | 9.7441 | | 205.00 |
| 26 | 4.2138 | 49.6946 | 9.7190 | | 204.33 |
| 27 | 4.2012 | 49.5454 | 9.6928 | | 203.63 |
| 28 | 4.1880 | 49.3906 | 9.6656 | | 202.90 |
| 29 | 4.1744 | 49.2301 | 9.6375 | | 202.15 |
| 30 | 4.1603 | 49.0640 | 9.6083 TW21 | | 201.37 |
| 31 | 4.1458 | 48.8922 | 9.5782 JM20 | | 200.56 |
| 32 | 4.1307 | 48.7149 | 9.5471 | | 199.73 |
| 33 | 4.1152 | 48.5319 | 9.5150 HTC300 | | 198.88 |
| 34 | 4.0992 | 48.3432 | 9.4819 Stock EFI cams,se204 | | 197.99 |
| 35 | 4.0828 | 48.1490 | 9.4478 | | 197.09 |
| 36 | 4.0658 | 47.9491 | 9.4127 SE203, HTC310, HQ-0034 &39 | | 196.15 |
| 37 | 4.0484 | 47.7436 | 9.3766 TW26, tw5 | | 195.19 |
| 38 | 4.0305 | 47.5325 | 9.3396 Stock Carb cams, TW37, S&S 510 | | 194.21 |
| 39 | 4.0121 | 47.3158 | 9.3016 | | 193.20 |
| 40 | 3.9933 | 47.0935 | 9.2626 TW6, 570 | | 192.16 |
| 41 | 3.9739 | 46.8657 | 9.2226 TW44, 585, TW555 | | 191.10 |