



McGunegill Engine Performance Equalizer Sealed Engine Technical Specifications



Engine Specifications

383 c.i.
GM 11.5:1 CR
FRD 11.5:1 CR (11.2:1 per ASA)
Hydraulic roller cam GM.600 FRD.640
GM 23degree aluminum head (Brodix)
FRD 21degree aluminum head (Dart)
4 Stage dry sump oil system
7600 RPM maximum rev limit
750cfm max gauge legal 4bbl



CONFIDENTIALITY NOTICE This document is for the sole use of the intended recipient(s) and may contain information protected by the attorney-client privilege, the attorney-work-product doctrine or other applicable privileges or confidentiality laws or regulations. If you are not an intended recipient, you may not review, use, copy, disclose or distribute this document or any of the information contained in this document to anyone

Revision 2026

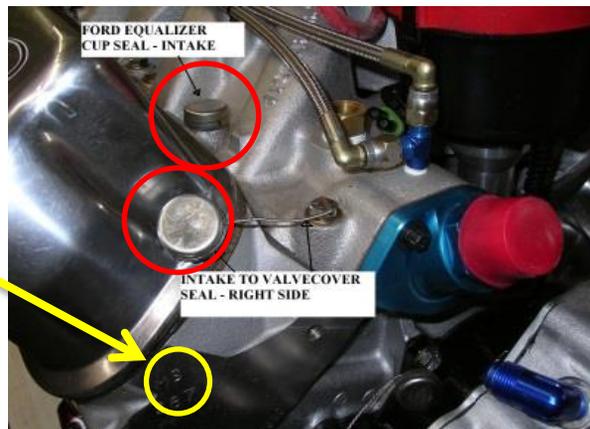


ENGINE NUMBER AND SEAL LOCATION

#1: Engine number (GM) located on right front block deck pad and right front cylinder head. (FORD) on rear of intake manifold and located on right front cylinder head. Sample number MS001

#2: Internal engine seal (GM) from oil pan to timing cover bolt, and left front Intake manifold bolt. (FORD) #1 seal, Right front oil pan bolt to upper timing cover bolt. #2 Additional seal with through bolt on right side of intake manifold

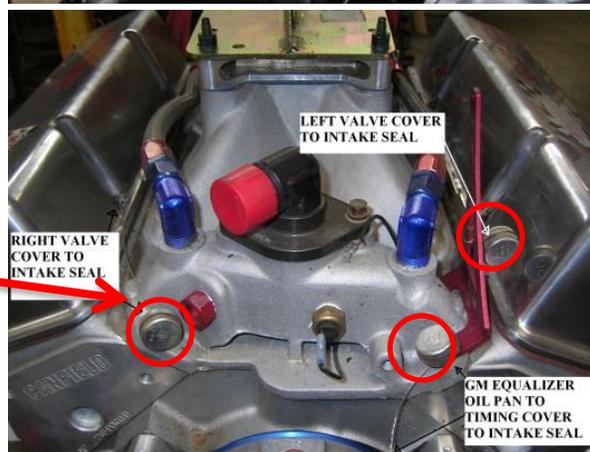
#3: Valve cover seal (G.M & FORD) Located on upper front valve cover bolt tying valve cover and intake together, one on right side and one on left side with safety wire.



SEAL INSPECTION

Sample seal # M E P 427

Match seal number with engine list. Check for tampering of seal wire and backing cap. As of 01/01/2009, matching cup seal numbers are on cup and backing cap.



CARBURETOR SPECIFICATIONS

750 C.F.M . Gauge legal. May use smaller carburetor to reduce horsepower (4412, 390, 650)
1" Spacer Only Allowed (Supplied with 1' 4 hole PBM-HVH super sucker) Spacer reducers allowed to reduce power-1" tall. 2bbl spacer 1" custom canton spacer required by sanction bodies.

REVISED HOLLEY 750 GAGE SPECS.

Holley manufacturing has changed their secondary throttle assembly specs.
Secondary throttle shaft spec. (measured at machined area) .135 - .145 Dia.
Secondary throttle plate spec. .040 - .044 thickness
Gauge spec. for secondary assemble Low limit .175 thickness
Primary throttle assemble gauge specs. (Gauge specs have not been changed)

IGNITION SYSTEM SPECIFICATIONS

7600 Maximum Rev Limit.
May use any standard oval track racing ignition box.
Racers responsibility to have chip that tests 7600 rpm or below.



Blocks: GM: GM10066034/Dart31161111 Deck Height: min. 8.990
 Ford: BOSS35192/Dart31375135 Cut to 9.200 Deck Height: min. 9.180

Crankshaft: Bore Max 4.050
 GM:Manley190150/CAL SAJ113-CS Main Dia. 2.450
 Ford:PBM#85077 (SCAT 4-351S-3750-6000R) Main Dia. 2.750
 min 49lb 3.750 stroke
 Rod Dia 2.099 Max .020 regrind
 Internal balance front/rear

Balancer GM:PB1012-SS, ATI917781
 Ford: PB-1479-SS, ATI917511

RODS: GM:Manley14054R/Callies CSA6000DS2A2AH min 580 grams
 6.000" midweight molnar
 Ford:Callies CSA6200DS2A2AH min 580 grams
 6.200" midweight molnar ARP Cap Bolt

PISTON: Mahle 2 valve relief coated Mahle name cast inside piston
 Pin Dia. .927 Pin weight approx 128 grams
 GM:Mahle#SBC125030F05HD (30,40) new Mahle# 930200630HD (30,40,50)
 Weight approx 400 grams Number stamped on top
 Ford:Mahle#SBF165030F06HD (30,40) new Mahle# 930173130HD (30,40,50)
 Weight approx 390 grams Number stamped on top
 1mm, 1mm, 2mm mahle total seal gas ported top ring

OIL SYSTEM: 4 Stage Stock car Products Dry sump pump SCP-204/SCP204A-1059





CAMSHAFT: Hydraulic Roller
GM:Comp#CS-13064s-13065s-HR108 Lift Int-.600 Ex-.600
Duration @.050-254/259 Lobe separation 108degrees
Ford:Comp#FW-13065f-13065f-HR108 Lift Int-.640 Ex-.640
Duration @.050-259/259 Lobe separation 108degrees
*note +/- .005" all dimensions and +/- 5 degrees angularity

LIFTER: Hydraulic Roller Tie Bar
GM: PBMRL934/ISKY 2077HYRT
Ford: PBMRL966/ISKY3877HYRT

GEAR SET: GM: Cloyes 9-3100A
Ford: Cloyes 9-3535x9

ROCKER ARM: Steel roller stud mount
GM: Comp 1604-16 Ratio 1.52
Ford: Comp 1632-16 Ratio 1.6

INTAKE: Aluminum hand ported – water return line on intake
GM:Professional Products 52031/Speedmaster 1-147-052
Ford:Edelbrock 2980





CYLINDER HEADS:

Aluminum CNC Ported

GM: Brodix TRACK1

23degree

227cc max . IN

Ford: Dart13072040

21degree

227cc max . IN

Combustion Chambers min 62cc

no angle milling

*note all dimensions +/- 4cc

GM head 2018 changed CNC program for allowed RPM increase

INTAKE VALVE:

GM: Ferrea F1009P

2.080 stainless steel

VALVE:

Ford: Ferrea F1008P

2.080 stainless steel

EXHAUST VALVE:

GM: Ferrea F1476P

1.600 stainless steel

VALVE:

Ford: Ferrea F1148PQ

1.600 stainless steel

SPRINGS:

PSILS1516ML

Beehive spring

RETAINERS:

Xceldyne custom

Titanium/Steel



Notes

- **Other Ferrea valve numbers with same dimensions may be substituted due to lack of availability**
- **Per Rick Davis – approval of gas ported top piston ring for longevity**
- **Previous generation cam specs are**

GM:Comp#CS-3116-3116-HR108	Lift Int-.600 Ex-.600
Duration @.050-252/252	Lobe separation 108degrees
Ford:Comp#FW-3116-3116-HR108	Lift Int-.640 Ex-.640
Duration @.050-252/252	Lobe separation 108degrees

***note +/- .005" all dimensions and +/- 5 degrees angularity**

The following is a list of components that were removed from the build list being that they were replaced because of either durability or availability, and have not been in service for 10+ years.

- GM- Rods- Scat 2-350-6000-2100, 2-350-6000-2100-HPS
Blocks- GM .010, .036 blocks before Dart SHP was available
Crankshaft- Scat 4-350-3750-5700
Cylinder head- Canfield went out of business
Lifters- Comp 853-16 PBM RL934
Valve spring- PBM3850S
- Ford- Rods- Scat 2-350-620-2100
Blocks- Ford M6010-(B,C,G,F,R)351 all the same blocks different generations of ford manufacturing. Dart 31355135, 31385135
Lifters- Comp 8934 Crane 36532 PBM RL966
Valve spring- PBM3850S

Oil pans- Kevko Steel pan dimensions have changed many times over the years to fit constantly changing chassis interference. Less than 5 Champ pans have been used due to supply problems or chassis fitment.