# E 350 Inspection Sheet (REVISED 4/2020)

**Regatta: Date: Boat #**

* **Length**: (Min: 16’, Max: 21’)
* **Width**: (Max: 11’)
* **Weight**: (Min:1525 lbs.)

# Fuel Type

* + Specific Gravity (0.715-0.765 @60ºF)
  + Digatron Reading (Must be negative)
* **Compression Ratio** (9.19:1 (+0.1 or 9.29:1 Max)
  + Whistler reading:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Carburetor** | **Venturi** | **Throttle bore** | **Measured (V)** | **Measured (TB)** |
| **0-4412, HP 0-80583-1** | **1.375”** | **1.687”** |  |  |

Notes:

* Choke plate may be removed but no removal of choke housing.
* No other visible modifications allowed on or inside the carburetor.
* Standard boosters only and must be tightly mounted. No annular boosters. Epoxying or safety wiring of boosters recommended.
* No vacuum leaks. No turtles or other induction performance enhancing devices. No other systems allowed.
* The use of two return springs is mandatory. An over-center throttle stop is recommended.
* Carburetor adapter (Spacer) Bicknell #376 (Max.1.00”) only, no modification allowed to adapter.
  + **Measured**:
* Maximum size thickness straight bore spacer of 1.00”. Maximum of 3 gaskets for a total thickness of 0.266” allowed.
  + **Measured**:

# Intake Manifold – Edelbrock 7101 dual plane aluminum

* + Cooling bleed lines allowed.
  + Any evidence of sanding, polishing, relieving, grinding, porting, chemical treating, abrasive blasting, ceramic work, addition of material or any alteration and modification of the original form is prohibited.

# Block:

* + Stock cast iron production GM V-8 style block Identification numbers may not be removed. No grinding or lighting allowed on stock block or optional Dart block.
  + A maximum of three cylinder bores and/or a maximum of seven lifter bores may be sleeved. (No indexing lifter bores)
  + Optional Aftermarket engine block permitted: Dart SHP P/N: 31161111.
  + **Block type**:
  + Bore: 4.00” +0.040 maximum, **Measurement: ”**
* **Ignition:** Any factory stock HEI type ignition only. No crank triggers. No external super coils. No aftermarket multiple spark discharge control boxes. Firing order must remain stock GM: 1.8.4.3.6.5.7.2.

# Cam Profiles:

**Procedure: Rotate engine in normal direction until the lifter is on the heel of the camshaft lobe. Set dial indicator on valve spring retainer being sure it is parallel to the valve stem. Adjust valve lash until dial indicator reads .001. Set dial indicator back to zero. Rotate engine in normal direction until indicator reads .050 stop. Set degree wheel to zero degrees or TDC mark on degree wheel. Rotate engine in normal direction and check every .050 thousandths lift. Read degrees on degree wheel and note below.**

* EXHAUST COMP ACHA INTAKE COMP ACHA
* .050 0 0 .050 0 0
* .100 6 5.5 .100 6 5
* .150 11 10.5 .150 11 10
* .200 16 15.5 .200 16 15
* .250 21 20 .250 20.5 19.5
* .300 26 25 .300 25.5 24.5
* .350 31 30.5 .350 30.5 30.5
* .400 37 37 .400 37 37.5
* .450 44.5 47 .450 45 49.5
* .488 51 .471 59.5 .477 51 .458 57.5
* .450 77 72 .450 73 66
* .400 85 81 .400 81 77.5
* .350 91 87.5 .350 87.5 84
* .300 96 93 .300 92.5 89.5
* .250 101 98 .250 97 94.5
* .200 105.5 103 .200 102 99
* .150 110.5 108 .150 107 104
* .100 115.5 113 .100 112 109
* .050 122 119 .050 118.5 114.5

\*Max Intake lift Comp .477” , **Measured:**

\*Max Exhaust lift Comp .488”, **Measured:**

\*\*Max Intake Lift ACHA .458” , **Measured \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

\*\*Max Exhaust Lift ACHA .471” **Measured \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lobe Center Measurement Comp 110\***

**Lobe Center Measurement ACHA 112\***

# Engine

* + **Pistons**
    - No portion of the piston may protrude above the top of the block (measurement excludes head gaskets). **Measurement: ”**

# Head:

* + - Only allowable head is Dart Part #:10021070 Dart Iron Eagle S/S 165
    - **Gasket/Port Matching** It shall be permissible to perform a minor port match on the intake ports of the heads and intake manifold at the flange mating surface of each if a minimum hull weight of 1,700lbs with driver is met. The heads shall meet rule 45.3.10 in its entirety other than this modification. The intake shall meet rule 45.3.12 in its entirety other than this modification. Dimensions shall be as follows:

Maximum width to the outside wall of both ports shall be 2.70”

Maximum width of each port wall to wall shall be 1.25” each

Minimum width of port dividing wall shall be .200”

Maximum height of each port shall be 1.975”

Maximum port intrusion measured from the flange face of heads/intake shall be .625” Maximum Intake port volume will be 178cc

There will be no tolerance to the above max/min measurements

* + - Check for evidence of illegal modifications to ports/chambers
    - Minimum combustion chamber volume, **64cc: Measurement \_\_\_\_\_\_\_\_\_**
    - Intake runner volume **175cc ±2cc Measurement:\_\_\_\_\_\_\_\_\_\_\_**
    - Exhaust runner volume **70cc ±2cc Measurement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

# Valves:

# Valve Modification - It shall be permissible to back cut valves that meet rule 45.3.11 above in its entirety if a minimum hull weight of 1,700lbs with driver is met. The maximum distance of the required 45\* seat angle and the back cut may not exceed more than .250” as measured from the edge of the valve.

* + - Intake: Max. 1.940”
      * No back cutting allowed
      * Valve stem diameter: Min. .340”\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Exhaust: Max. 1.500”
    - * No back cutting allowed
      * Valve stem diameter: Min. 0.340”
    - Seats/Valve Face: 45°
      * Intake
      * Exhaust
    - Valve Springs:
      * O.D. 1.250” ±0.010””
      * Retainer: Must be steel
  + **Lifters & Misc**:
    - Stock sized push rods only 0.3125”:
    - Rocker arms ratio 1.5 only:
    - Stroke 3.48”
    - No shaft rockers, stud girdles allowed
    - Double roller timing chains allowed, no gear drives

NOTES:

* Check all parts for any grinding, polishing and any other alterations from the furnished stock configuration
* The above procedure **DOES NOT** override a complete dismantle of the engine to check weights of rotating/reciprocating parts, and other necessary measurements needed for a record or protest

Chief Inspector/APBA # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inspector/APBA # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Referee/APBA# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inboard Commissioner/APBA# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Boat Owner’s signature /APBA#\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_