

### **CLASS 1-1600 & 2-1600 Ver.1.0**

A limited 4-wheeled vehicle utilizing a Type 1 1600 cc VW air-cooled engine run with one or two persons during racing.

#### **ALL ACR'S APPLY FRONT END SUSPENSION: ALLOWED:**

1. Type 1 VW suspension only. Front suspension track width must not exceed 56" from wheel mounting surface to wheel mounting surface.
2. Any manufactured parts as long as stock measurements are maintained.
3. Reinforcing of stock parts.
4. Front axle torsion tubes may be cut, rotated and re-welded to increase ground clearance. Tubes may be reinforced or replaced.
5. Torsion adjuster.
6. Ball joints or king pins.
7. Any tie rod or tie rod ends.
8. Shock towers may be strengthened; extended or replaced, but must remain attached to the front beam
9. Trailing arms may be reinforced or replaced. Stock measurements must be retained.
10. Lower shock mounting stud may be enlarged or relocated.
11. Spindles may be reinforced or replaced.
12. Any manufacturer torsion bars.
13. Sway bars may be removed.

#### **NOT ALLOWED:**

1. Secondary suspension.
2. Aluminum front axle beams.

#### **REAR SUSPENSION: ALLOWED:**

1. Type 1 IRS or swing axle only. Rear suspension track width must not exceed 58.75" from wheel mounting surface to wheel mounting surface.
2. Any manufactured IRS swing arm is permitted as long as stock dimensions are retained plus (+) or minus (-) 1". Stock dimensions: Centerline of rear torsion housing to center of rear stub axle (+) plus or (-) minus 1" is 16.25". Maximum measurement is 17.25" and no more.
3. Torsion adjusters.
4. Outboard bus reduction gears.
5. Any manufactured rear torsion bars and axles as long as original type suspension are retained.
6. Any manufacturer spring plates with additional retainer's straps.
7. Rear torsion tubes may be strengthened or replace. Type 1 stock width is 40.5"
8. Adaptor plate allowed only to convert from small bolt pattern micro stub hubs to VW bolt pattern, no wheel spacers from VW to VW

#### **NOT ALLOWED:**

1. Secondary Suspensions.

**WHEELBASE:** Open

**WEIGHT:** Minimum 1300lbs single seat, 1350lbs two seat.

**SHOCK ABSORBERS: ALLOWED:**

1. Any size or number
2. Cooling fins.

**NOT ALLOWED:**

1. Air or coil over shocks.

**WHEEL AND TIRES:**

Any wheel and tire that will mount directly to a VW.

**STEERING:** Open

**BRAKES:**

Disc allowed. Must operate on all 4 wheels, turning brakes allowed.

**IGNITION: ALLOWED:**

1. Battery 6 or 12 volts.
2. Any manufacturer distributor.
3. Any VW type alternator or generator in stock location.

**NOT ALLOWED:**

1. Magnetos
2. Crankfire

**FUEL TANK:** Fuel cell mandatory. Must be commercially manufactured.

**TRANSMISSION: ALLOWED:**

1. Stock VW Type 1 or 2 transaxle housing.
2. Four forward gears.
3. Internal modifications.
4. Any gear combination.
5. Only VW type (helical cut) gears.
6. After market side covers.

**NOT ALLOWED:**

1. External case modifications
2. Gears others than VW type.

**OIL COOLERS: ALLOWED:**

1. Any manufactured full flow system
2. Location optional but must not be in the driver's compartment.

**NOT ALLOWED:**

1. Deep or dry sump.

**WEIGHT: ALLOWED:**

1. Single seat minimum 1300 pounds.
2. Two seat minimum 1350 pounds
3. These are wet weights.
4. Ballast's to make weight if needed. If this is used a 1/8" hole for wiring from the ballast to the frame so as to make removal impossible is mandatory.

**BUMPERS:** Adequate for safety front and rear.

**ENGINE:** Must be Volkswagen type "1", 1600 CC US spec, as received from the factory. Maximum engine displacement will be 1600CC-85.5 MM bore diameter X 69-MM stroke plus or minus 0.15 stroke. Maximum stroke allowed is 2.7465. No titanium or composite parts material allowed in engine.

**CASE: ALLOWED:**

1. Any type 1, 2, 3 or universal case.
2. Align bore.
3. Drilled and/or tapped for oil pressure and/or temperature sending unit.
4. Machined or push in crank pulley seal.
5. Case savers.
6. Seating surface for cylinders may be machined.
7. Oil galleries on the early cases may be enlarged to 10 MM the same as universal case.
8. All oil gallery plugs may be removed and threaded.
9. Oil bypass pistons and springs-open.
10. Windage trays.
11. Internal de-burring.

**NOT ALLOWED:**

1. Any other modifications.

**BEARINGS: ALLOWED:**

1. Any brand manufactured as long as stock dimensions are maintained.

**PISTON ASSEMBLIES AND CYLINDERS: ALLOWED:**

1. Any manufactured flat top pistons but stock dimensions must be retained 85.5 MM.
2. Three ring pistons only.
3. Wrist pin retainer may be of any style.
4. Volkswagen # 311 B rods only, minimum length 5.395 plus or minus .010.
5. Balancing of rod and pistons is allowed.
6. Minimum rod weight is 565 grams.
7. Minimum piston weight of 310 grams.
8. Cylinders can be machined for proper deck height.
9. Piston skirts may be drilled 3-1/8 inch diameter holes per side. A total of 6 holes.

**NOT ALLOWED:**

1. Slipper skirts.
1. Volkswagen "A" rods. I.D. rod bolts.
2. Polishing and profiling.
3. Dished or domed pistons.
4. Machine notching for valves.
5. Cutting of the piston top other than 90 degrees.

**CAMSHAFT AND CAMSHAFT GEAR:** Any manufacturer.

**OIL PUMP SYSTEM: ALLOWED:**

1. Any manufacturer.

**NOT ALLOWED:**

1. Deep and/or dry sumps.
2. Sump alterations.

**CRANKSHAFT: ALLOWED:**

1. Stock Volkswagen type "1" 1600 CC only.
2. Any gears.
3. Any size power pulley.
4. Sand seals.
5. 030 undersize.
6. Balancing

**NOT ALLOWED:**

1. Polishing, knifing, and/or lightening.
2. Counterweights.

**CLUTCH AND PRESSURE PLATE: ALLOWED:**

1. Stock diameter only.
2. Balancing

**FLYWHEEL: ALLOWED:**

1. Stock Volkswagen type 1 design only.
2. Lightening and balancing.
3. Stock diameter.
4. Eight doweled.
5. Any gland nut and washer.

**NOT ALLOWED:**

1. Aluminum

**CYLINDER HEADS: ALLOWED:  
SINGLE PORTS**

1. U.S. sedan sock single port design.
2. Fly cutting for compression.
3. Combustion chamber volume open.
4. Three-angle valve jobs only, 15-45-75 only.
5. Welding of the cylinder head-may not be welded 360 degrees in the cylinder seating surfaces.
6. Welding for repairs only.

**CYLINDER HEADS: ALLOWED:  
DUAL PORTS**

1. U.S. sedan sock dual port design.
2. Fly cutting for clean up then shimmed to stock compression
3. 44cc Combustion chamber
4. Three-angle valve jobs only, 15-45-75 only.
5. Welding of the cylinder head-may not be welded 360 degrees in the cylinder seating surfaces.
6. Welding for repairs only.

**NOT ALLOWED:**

1. Grinding, polishing or porting in any area of the head.
2. Angle cutting of the head.

**VALVES: ALLOWED:**

1. One-piece valve of any manufacturer, stock sizes must be maintained.
2. Intake 35.5MM., exhausts 32.0MM.
3. Stainless steel.
4. Single 45-degree angle.
5. Valve guide may be bronze, cast iron or steel of any, manufacture and length.
6. Valve guide's seal.
7. Any manufacture of valve springs, spring retainers and lifters.

8. Stock valve spring seat diameter in the head-inner and outer must be maintained.
9. Swirl polished valves allowed.

**NOT ALLOWED:**

1. Grinding, polishing, blending or porting of any kind.
2. Titanium valves or any other exotic materials.

**ROCKER SHAFTS AND ARMS: ALLOWED:**

1. Any shaft that permits the use of stock Volkswagen type "1" 1600 CC 1.1 to 1 rocker arms only.
2. Any manufactures push rods and tubes.
3. Resurfacing on the adjusting screw end. To permit the use of swivel feet adjusters.

**NOT ALLOWED:**

1. Any other modifications.
2. No needle or roller bearings permitted.

**CARBURETOR: ALLOWED:  
SINGLE PORTS**

1. Stock Volkswagen 30 pict 1,2, and 3 only.
2. Maximum Ventura size 24.10 MM.
3. Removing of automatic choke housing, choke plate and shaft.
4. Stock float bowl vent may be removed and plugged, external float vent allowed.
5. Any fuel pump stock or electrical, any fuel pressure regulator.
6. Any manufacture air/fuel filter and any location allowed.
7. Velocity stacks.

**CARBURETOR: ALLOWED:  
DUAL PORTS**

1. Stock Volkswagen pict 34
2. Stock Ventura
3. Removing of automatic choke housing, choke plate and shaft.
4. Stock float bowl vent may be removed and plugged, external float vent allowed.
5. Any fuel pump stock or electrical, any fuel pressure regulator.
6. Any manufacture air/fuel filter and any location allowed.
7. Velocity stacks.

**NOT ALLOWED:**

1. Carburetor listed as a pic 30. This carburetor has no choke housing and no numbers.

2. No bonding or welding of velocity stack to the carburetor.
3. No internal modifications.
4. No polishing or filing.
5. No chemical milling.
6. Removal of any parts from the throat area.

**INTAKE MANIFOLD: ALLOWED:**

1. Stock single port only. May be cut and spliced for proper fit .
2. Heater tubes removed.
3. Stock dual port intakes

**NOT ALLOWED:**

1. Any modifications. Chemical milling.