Class 1/2-1600

OPEN WHEEL - Restricted Suspension 1600cc

Competition Numbers 1600-1699

DEFINITION

Single or two seat vehicles limited to 1600cc VW engines and VW Type 1 suspension systems.

GENERAL REGULATIONS

Entrants in this class shall comply with all applicable general regulations.

COMPETITION REGULATIONS

This is a stock production class and all components must remain stock except for those modifications allowed herein. Vehicles that raced SCORE previously, and do not meet current specifications, can possibly be modified and "Grandfathered" into current competition. Contact SCORE Tech Director for information.

NOTE: *The CR abbreviations listed under this class (i.e. CR1 HELMETS) refer to cross reference listings in the front of this book. These cross-referenced listings are part of the class rules. Where a conflict occurs between the cross-referenced listing and a rule contained under this class, the rule contained under this class has precedence.*

SAFETY EQUIPMENT

CR 1 HELMETS
CR 2 PROTECTIVE CLOTHING
CR 3 EYE PROTECTION and DENTURES
CR 4 FIRST AID KIT
CR 5 EMERGENCY SIGNALING DEVICES
CR 6 HORNS
CR 7 REFLECTORS
CR 8 FIRE SUPPRESSION EQUIPMENT
CR 9 SURVIVAL SUPPLIES

SUSPENSION COMPONENTS

Front Suspension

Front suspension is based on VW Type 1 ball joint or link pin style. Any manufacturer's beam of two (2) steel torsion tubes may be used but must remain stock VW width. Front axle torsion tube centers may be cut, rotated and re-welded to increase ground clearance. Torsion adjusters are allowed. Tube center spacing is open. Any manufacturer's torsion bars are allowed.

Front trailing arms (torsion arms) may be reinforced or replaced as long as stock VW width and length are retained. Suspension limiters are allowed. Spindles, link pins, ball joints, and shock mounting locations are open.

Front suspension track width will be measured from wheel mounting face to wheel mounting face; the maximum width is 55.75 inches.

Rear suspension

Rear suspension is based on VW Type 1 IRS or swing axle. IRS swing arms may be modified or replaced for strengthening purposes as long as stock VW IRS swing arm length is retained □1". The stock VW dimension between the centerline of the rear torsion housing to the centerline of the rear stub axle (16.250") must be retained □1". Outboard bus reduction gears are allowed. Any manufacturer's axle assemblies are allowed as long as original VW type suspension is retained, this includes the use of "micro stub hubs". Rear torsion tube may be additionally supported or replaced but must remain steel and retain stock VW width. Torsion adjusters are allowed. A single torsion bar per wheel of any manufacture is allowed. Torsion bars must remain inside the torsion housing. Torsion bars must be connected to the trailing arm with steel spring plates of any manufacture.

Rear suspension track width must not exceed a maximum of 58.250 inches as measured wheel mounting face to wheel mounting face. CV joint mounting face to CV joint mounting face must not exceed 47.375 inches, as measured at ride height. The entire outer CV must remain inboard of the trailing arm inner bearing.

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CR 10 SHOCK ABSORBERS and BUMP STOPS
No limit on the number of shock absorbers and sizes of shock absorbers. No air or coil over shocks allowed.

CR 11 SECONDARY SUSPENSION
No secondary suspension is allowed.

CR 12 WHEELS and TIRES
Any rims allowed that will mount directly on VW drums. No wheel spacers allowed.

CR 13 FASTENERS

STEERING and BRAKE COMPONENTS

CR 14 STEERING
Steering system is open. Any tie rod and tie rod ends are allowed.

CR 15 BRAKES Any type and manufacture brake may be used as long as all other rules are adhered to.

ELECTRICAL SYSTEM

CR 16 IGNITION
Battery ignition only, no magnetos. Six or twelve volt systems may be used. Any manufacturer's distributor may be used. Any VW type alternator or generator system in the stock location may be used.

CR 17 BATTERIES
CR 18 LIGHTS
CR 19 STARTERS

FUEL SYSTEM

CR 20 FUEL
CR 21 FUEL TANKS Safety fuel cells are required.
CR 22 FUEL FILLER LINES, VENTS, and CAPS

ENGINE, TRANSMISSIONS and DRIVELINES

CR 23 ENGINE and ENGINE DISPLACEMENT
Engine must utilize VW series type 1, 1600cc, U.S. Model sedan components and dimensions. The maximum allowable Engine displacement is 1600cc as delivered from the factory.

Option: Low compression 1600 c.c. engine with maximum 8.0 to 1 ratio. May use a Weber 40 or 44 cfm carburetor. Carburetor inserts are 24mm for single seat and 25mm for two-seat vehicles. Inserts can be purchased from SCORE Tech (619) 572-8245

Engine Case

Any VW type 1,2,3 or "universal" case is allowed. The following modifications may be made to the stock case:

(A) The case may be alignment bored.
(B) The case may be drilled and tapped for oil pressure and/or temperature sending units.
(C) The case may be machined to allow the installation of a crank pulley seal.
(D) Case savers may be installed.
(E) Cylinder seating surface may be machined.
(F) Early case oil galleries (8mm) may be enlarged to the dimensions of the universal case (10mm).
(G) Threaded oil gallery plugs are allowed.

Oil Pump

Any manufacturers oil pump is allowed. No deep sumps, dry sumps, remote sumps, or sump alterations. Windage trays are allowed. The use of any oil-bypass pistons and springs are allowed.

Fuel Pump

Any combination of stock fuel pump or electric pump may be used.
Any fuel filters and fuel pressure regulators may be used.

Pistons

Pistons must be stock 3 ring only. Pistons and cylinders may be any manufacture as long as original stock dimensions are maintained. Any type wrist pin retainers. Piston assemblies may be statically balanced to the equivalent weight in grams of the lightest original non-balanced piston, wrist pin, etc.

Crankshaft

Crankshaft must be stock VW. Crankshaft may be balanced. Crankshaft maximum journal re-sizing is limited to .030" undersize. No polishing or lightening of crankshaft is allowed. Any crankshaft gear is allowed. Any manufacturers engine bearing may be used as long as the stock dimensions are maintained. Power pulleys are allowed. Pulleys may be balanced. Sand seals may be used.

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Crankshaft - *cont'd*

Any VW flywheel may be lightened and balanced. Flywheels may be eight dowel pinned and any gland nut and washer may be used. No aluminum flywheels are allowed. Any manufacturers clutch disc or pressure plate allowed but must retain original stock VW diameter. Clutch and pressure plate may be balanced. Connecting rods may be statically balanced, but not polished or profiled. Balanced weight of the connecting rods in grams should be equivalent to the lightest original non-balanced stock rod. Connecting rods may be of any manufacture but must retain stock dimensions. Minimum rod weight is 580 grams.

Heads

Heads may be U.S. sedan stock single port or dual port or their equivalent. Heads may be flycut for clean-up. No porting or polishing is allowed. Only dual port heads from Brazil, part number 040 101 375 2, 040 101 375 13, 040 101 375 19, or stock OEM heads will be allowed. EMPI and MOFOCO heads are also SCORE approved

Intake manifold is restricted to a stock 34mm original equipment center section or its replacement. A 1½-inch (1.500) long by half-inch (.500) diameter tube may be welded two inches below carburetor flange. A maximum of a ¼ inch (.250) may be removed from each end of the center section for clearance. A slip tube with a 1 5/8 inch (1.625) diameter, two inches (2.000) long may be welded to the end of the runners to allow the use of a better hose connection. No porting or polishing.

End castings must be original equipment VW, with VW logo and part numbers. No porting, polishing, or matching of ports allowed. Balancing slot may be welded close. Vacuum hole may be plugged. A 34mm to 30 mm carburetor adapter must be used. The only carburetor adapter that is allowed is the EMPI part number 98-1293-B. **Option:** Low compression 1600 c.c. engine with maximum 8.0 to 1 ratio. May use a Weber 40 or 44 cfm carburetor. Carburetor 26 mm inserts can be purchased from SCORE Tech (702) 210-7785.

Camshaft, Valves, Lifters, and Rocker Arm(s)

Any camshaft, camshaft gear, valve spring retainers, valve springs or lifters are allowed. Valve spring seat diameter, in head, must remain stock VW. Valves must be stock 45 degrees. One-piece valve are allowed. Valve guides may be steel, bronze or cast iron. Valve guide seals are allowed. No grinding or polishing in the port including valve guides. Any camshaft may be used which will allow the use of the standard stock VW 1600cc rocker arm(s). The rocker arm(s) may be resurfaced to permit the use of swivel feet or similar devices. No other grinding or changes to the rocker arm(s) are permitted. No roller or needle bearings will be allowed as part of the camshaft or as an interface between the rocker arm(s) and the camshaft. Push rods and push rod tubes may be of any manufacturer. Rocker arm valve adjustment screws and wave washers may be of any origin. Clips on rocker arms may be wire tied. Valve covers may be of any manufacture.

Fan Shroud

After market fan shrouds are allowed. Heater tubes are optional.

Carburetor

Air cleaner location is optional and may be of any manufacture. Velocity stacks may be used as long as they are not welded or bonded to the carburetor. Stock VW carburetors 30 PICT 1, 2, or 3 or the Solex® H-30-PIC replacement must be used. Maximum venturi size of carburetor is 24mm for single seat and 25mm for two seat vehicles. No internal modifications in the carburetor venturi or throttle blade area are allowed. This includes no removing of parts, no grinding, polishing, or filing. Intake manifolds must be stock VW. Intake manifolds may be cut to allow for head modifications. No chemical milling of manifold or carburetors. Automatic choke housing may be removed. Choke plate and shaft may be removed. Electric needle valves are optional. The stock float bowl vent may be moved and/or plugged. An external float bowl vent may be incorporated. Any air and main jet may be used.

Restrictor plates

Single seat restrictor plates are 21.5mm. Two (2) seat restrictor plates are 24.0mm. Carburetor stud must be drilled to allow wiring of restrictor plate. SCORE restrictor plates only may be used and can be the only item installed between the carburetor and the intake manifold or adaptor. Provisions for safety wiring the carburetor and the intake manifold to prevent removal of the restrictor plate must be provided. All restrictor plates are sized, numbered, and anodized and may not be altered or tampered with in any way. Plates are available from SCORE Tech (702) 210-7785

CR 24 ENGINE REPLACEMENT

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CR 25 TRANSMISSION
Must be stock VW type 1 or 2 transaxle housing. Any internal or external modifications to housing are allowed. No more than four (4) forward speeds are allowed. Any gear ratio combinations but only VW type gears (helical cut gears) may be used. Any internal modifications are allowed. May use aftermarket side covers.

CR 26 THROTTLES

CR 27 EXHAUST

CR 30 FLUID COOLERS
Any manufacturer's oil cooler is allowed. Location is optional. Full flow systems allowed. No deep sumps or dry sumps will be allowed.

CR 31 AUXILIARY EQUIPMENT

CR 32 SUPERCHARGERS and TURBOCHARGERS

VEHICLE SAFETY EQUIPMENT

CR 33 ROLL CAGES
CR 34 SAFETY HARNESS
CR 35 SAFETY NETS
CR 36 SEATING

GENERAL VEHICLE COMPONENTS

CR 37 DRIVERS COMPARTMENT
CR 38 DOORS and LATCHES
CR 39 FIREWALLS

CR 40 BALLAST
Vehicles utilizing ballast to make minimum weight must have a .125" hole drilled in ballast in such a manner that it can be attached and sealed to a main structural member where removal is impossible without breaking sealing wire.

Number of Seats	Minimum Weight
1	1550 lbs.
2	1550 lbs.

CR 41 WEIGHT
CR 42 FLOORBOARDS
CR 43 BUMPERS and HAZARDOUS PROTRUSIONS
CR 44 MIRRORS
CR 45 SKID PLATES
CR 46 STORAGE
CR 48 CHASSIS and BODY - Wheelbase is open.
CR 49 HOSES
CR 50 IDENTIFICATION MARKINGS
CR 51 ADVERTISING on VEHICLES
CR 52 RADIO EQUIPMENT
CR 53 WORKMANSHIP
CR 54 TRACKING DEVICE

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