Class 11

PRODUCTION – Stock VW Sedans

Competition Numbers 1100-1199

DEFINITION

Vehicles must be a stock VW Type 1 Sedan

GENERAL REGULATIONS

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

COMPETITION REGULATIONS

Any questions concerning chassis combinations will be decided by referring to VW factory parts manuals and/or VW of America booklet. 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 Competition Regulation section on this website. 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 axle torsion tube centers may be cut, rotated, re-welded to increase ground clearance or front torsion adjusters may be used. Original seams may be welded (not reinforced) on front beam. Shock tower may be additionally supported by the adding of a single gusset to each tower. Stock front spindles may be replaced with ANY aftermarket spindle. MUST keep stock wheel travel and track width. Stock LENGTH trailing arms only. Sway bars may be removed.

Filling of speedometer hole is permitted. Steering arm on spindle may be reinforced by welding a .25" gusset from the top of the spindle to the end of the steering arm.

Front snubbers may be of any manufacture but must retain stock VW dimension and mounting methods. Suspension limiters allowed.

Rear suspension

Rear suspension torsion bars may be of any origin. Rear suspension spring plates may be of any origin. Torsion bar adjusters are allowed. Torsion bar grommets may be of any manufacturer but must retain stock VW dimensions.

Rear torsion bars may be additionally supported only by the attachment of a terminal end (support member) of the roll cage. Rear shock tower may be removed to body mounting bolthole. Lower rear shock mounts may be removed and or replaced. Rear shocks may be relocated, but must bolt directly to rear trailing arm or swing axle. No remote mounted shocks. Rear trailing arms must remain stock, shape, size and configuration, but may be reinforced by adding material.

CR 10 SHOCK ABSORBERS and BUMP STOPS

Only one shock per wheel is allowed. Stock front shock mounts must be utilized. Stock shock tower may be supported by tubing from one side to the other and added support material. Front tie rods may be made of chromoly and may have an option of heim joints. Front beam may be reinforced by adding material and welding all seams. Shock mounting bolts may be changed to a maximum of 0.5" in diameter. Any manufacture shock allowed with 2" maximum outside diameter. Rear shock must not have an extended length longer than 18 inches, center of mounting hole to center of mounting hole. Cooling fins and/or reservoirs allowed, and must be mounted inside body. No air shocks or coilover shocks are allowed. No hydraulic bump stops allowed. No bypass shocks allowed.

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CR11 SECONDARY SUSPENSION

No secondary suspension is allowed.

CR 12 WHEELS and TIRES

Any VW steel 4”x15” wheel or 4.5”x15” may be used.

Bolted hubs may be replaced with studded hubs.

Any manufacturers tire and size allowed up to 31” tall and 10” wide as mounted and inflated on a 4” or 4.5” wide stock VW steel with 18 lbs. of air. Spare tire is mandatory but may be mounted within body shell or trunk.

CR 13 FASTENERS

STEERING AND BRAKE COMPONENTS

CR 14 STEERING

Any manufacturers steering wheel may be used. Steering box must be original design. Shims may be used between pitman arm and box. Steering components such as ball joints, steering arms and tie rods must remain stock. Steering column OPEN. Replacing the stock steering column is allowed (with any material).

CR 15 BRAKES

Brakes are OPEN. Any manufacture stock master cylinder is allowed. Only drum brakes are allowed. Emergency brake is optional but if removed the resulting opening must be covered.

ELECTRICAL SYSTEM

CR 16 IGNITION

Battery ignition only, no magnetos. Six or twelve volt systems may be used regardless of year model. Any manufacturers distributor may be used. Any VW type alternator or generator system in the stock location may be used.

CR 17 BATTERIES

Battery can be relocated in vehicle

CR 18 LIGHTS - REAR FACING BLUE LIGHT IS REQUIRED

Additional lighting is permitted. Headlights are optional for short-course only. Stock headlights may be replaced with any brand so long as original mounting position is used. Pre-1967 model headlight lenses may be removed.

Tail and stoplights must remain functional. Front and rear turn indicators are optional.

Backup lighting may not be directed towards the engine compartment or function in any gear but reverse.

Additional rear brake lights may be installed inside rear opening in roof. Brake and amber lights on the outside of roof are not allowed. Rear facing collision amber light may be installed inside of the body. No wings or light housings on roof. NO REAR FACING LIGHTS ON ROOF TOP!

CR 19 STARTERS

FUEL SYSTEM

CR 20 FUEL

Fuel is restricted to automotive pump gasoline only. Automotive pump gasoline will be considered gasoline that is sold to the general public for use in domestic cars.

CR 21 FUEL TANKS

Fuel cells are mandatory. Fuel cells may be bladder type, or of hard rubber construction. Cells may be located anywhere inside vehicle, and have any capacity.

Any type fuel shut-off valve allowed.

Electric fuel pump can be used. Stock fuel pump may be used as a backup and routed through the stock system. Fuel regulator is optional.

CR 22 FUEL FILLERS LINES, VENTS, and CAPS

Fuel fillers may penetrate and extend through hood but must have a drain/catch boot or grommet system to prevent fuel spillage in front compartment.

Fuel cell filler may be located in center of tank and have a maximum of a 2.25” internal diameter neck.

ENGINE, TRANSMISSION 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.

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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 align bored and machined for cam bearing
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 for cylinder head studs.
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 allowed.

Oil Pump

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

Fuel Pump

Stock fuel pump must be used. Electric fuel pump may be used but must be used as a backup and routed through the stock system.

Any fuel fillers and fuel pressure regulators of any type may be used.

Pistons

Pistons must be stock three-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 resizing is limited to .030” undersize. No polishing or lightening of crankshaft is allowed. No offset grinding 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. Any VW flywheel may be lightened and balanced. Flywheels may be eight dowel pinned and any gland nut and washer. No aluminium 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.

Heads

Heads may be U.S. sedan stock single port or dual-port or their equivalent. Heads may be fly cut for clean-up. No porting or polishing is allowed. Only dual port heads from Brazil, part number 040 101 375 2 or 040 101 375 19, or stock OEM heads will be allowed.

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 weld two-inches below carburettor 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 30mm carburettor adapter must be used. The only carburettor adapter that is allowed is the EMPI part number

98-1293-B.

Camshaft, Valves, Lifters and Rocker Arm(s)

Any camshaft, camshaft gear, valve spring retainers, valve springs and lifters are allowed. Valve spring seat diameter, in head, must remain stock VW. Valves must be stock 45-degrees. One-piece valve are allowed. No polishing or profiling of valves allowed. Valve guides may be steel, bronze or cast iron. Valve guide seats 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 allowed. 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 valve washers may be of any origin. Clips on rocker arms may be wire tied. Rocker assemblies subject to post race examination.

Fan Shroud

Must use stock fan shrouds. Heater tubes are optional.

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Class 11

Carburettor

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 carburettor. Stock VW carburettors pict 1, 2 and 3 or the Solex H-30-PIC replacement must be used. Maximum venturi size of carburettor is 24.10mm. No internal modifications in the carburettor venturi or throttle blade are allowed. This includes no removing of parts, no grinding or polishing, or filing. Intake manifolds must be stock VW. The cutting of the manifold to compensate for head milling is allowed but rewilding will not be allowed. Those manifolds, which have been cut and rewelded, must be cut again and assembled by use of rubber hose and clamps or by some other suitable method so that the interior of the manifold can be inspected during postrace technical inspection. No chemical milling of manifold or carburettors. 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.

CR 24 ENGINE REPLACEMENT

CR 25 TRANSMISSION

Transaxles are to be Type 1 4-speed with reverse sedan type only. Any manufacture of gears may be used. Gears are restricted to be 2% different than stock ratio and may not exceed the 2% difference. Any aftermarket main shaft is allowed (must be stock gear ratio). Gear shifter must use the stock VW mounting holes. Any aftermarket ring and pinion are allowed, open ratio.

Axle over tubes are not permitted.

Other internal modifications are optional.

Rear transaxle mounts may be supported by a maximum of two (2) vertical straps of 0.25”x1” dimension. Adjustable straps are optional.

Any gearshift lever allowed.

May use any manufacturers Type 1, 2 or 181 stub axle.

May use any VW CV joint. Oversized bolts allowed.

DIFFERENTIALS

CR 26 THROTTLES

Throttle pedals are OPEN. Any manufacture of pedal is allowed.

CR 27 EXHAUST

Any exhaust system may be used.

CR 28 DRIVE SHAFTS

CR 29 FLYWHEEL SHIELDS

CR 30 FLUID COOLERS

Any manufacturers oil cooler is allowed with the location optional. Full flow systems are allowed. No deep sumps or dry sumps will be allowed. Late model housing is approved.

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

Any manufacturers seat is allowed but must remain the approximate stock location. If stock seat mounts are used they must be reinforced using at least two U-bolts per seat runner.

GENERAL VEHICLE COMPONENTS

CR 37 DRIVERS COMPARTMENT

Rear seat, upholstered panels, headliners and carpets may be removed. Removal of dash and firewalls is prohibited. Stock dash may be covered with sheet metal, aluminum or carbon fiber to facilitate the installation of additional engine instrumentation.

Pedals must remain in stock fore and aft location. Clutch pedal may be reinforced but not relocated or removed. May use replacement roller pedal or stock pedal cluster. May use any manufacture throttle cable.

Air cleaner hose and oil lines may pierce firewall. Any holes drilled in the firewall for oil lines, etc. may not leave a gap larger than 0.125”.

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Class 11

CR 38 DOORS AND LATCHES

Doors must remain functional and in original stock location. Doors may have original hinges with a workable latch. Secondary positive latching devices are mandatory.

CR 39 FIREWALLS - Must remain stock.

CR 40 BALLAST

CR 41 WEIGHT

CR 42 FLOORBOARDS

Serial number required on floor pan. No alterations to floor pan are allowed. Original seams may be rewelded. Undercoating may be removed.

1965 or earlier model car belly pans may be interchanged. 1966-1968 belly pans may be interchanged. 1969 or later may be interchanged. All must maintain original suspension type.

CR 43 BUMPERS AND HAZARDOUS PROTRUSIONS

Original stock bumpers and over-riders must be retained. Stock VW bumper stiffeners are allowed. Brush guards may be added to stock bumpers.

CR 44 MIRRORS

CR 45 SKID PLATES

Any type front or rear skid plate may be used. Front skid plate may be attached to lower torsion bar tube with a maximum of two (2) 0.375" U-bolts or two (2) U clamps with a maximum width of 1.5" attached to the skid plate. Skid plate may be extended forward and upward to but not above the top of the front bumper.

CR 46 STORAGE

CR 47 FENDERS

Fender lips on the underside may be flattened to prevent cutting of tires. A rod of 0.25" maximum diameter may be welded under the outside edge for additional strengthening. The bottom rear edge of the front fenders may be cut, and/or rolled as to bring it to the same level as the body pan. Front fenders may be trimmed to body and belly pan line but cannot exceed these lines.

CR 48 CHASSIS and BODY

The vehicle must retain full stock chassis and body with no modifications allowed with the exception of fabrication allowed to the rear lid to allow for the air box on low compression motors; the lid may be extended out, or the lid may be cut to allow full closure of the rear lid. Rear apron may be removable to facilitate engine removal, but must retain stock external appearance. Body must be VW Type 1 bug or suntop bug. No convertibles, Ghias, 181's (VW things), variants or super beetles.

Running boards may be removed.

Front and rear hood latches may be modified or replaced.

Hinges must remain stock.

Front, rear and side glass optional.

Chrome strips, outside mirrors, antennas may be removed.

A hole no larger than one (1) inch in diameter larger than the shock O.D. may be cut in the rear fender well to allow clearance for the rear shock.

Sand traction devices (Maxxtrax type) may be mounted on outside of vehicle.

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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