

2025

MSA RECOGNITION FORM "A"

Technical Regulations – Polo Cup Only



Version 2 28 March 2025

REVIEW AND AMENDMENTS

Amendments and updates to the rules will be recorded in the Amendment Record, detailing the updated version, date of approval of the amendment and a short summary of the amendment.

AMENDMENT RECORD

Modified SSR / ART	Date applicable	Date of Publication	Clarifications
ART 15.1	28.03.2025		Part number change
ART 15.2	28.03.2025		Part number change
ART 15.3	28.03.2025		Updated dimensions
ART 20.1	28.03.2025		Part number and picture updated
ART 45	28.03.2025		Decal layout updated

RECOGNITION FORM "A" (Technical Regulations) 2025

FOR POLO CUP AND POLO CUP MASTERS ONLY

This document specifies items, which affect the eligibility of a vehicle for entry in the above categories of Motor Sport competition, and non-conformity therewith in any single respect will render the vehicle ineligible to compete. It is the responsibility of the competitor or entrant to insure compliance of the Recognition Form A. Competitors purchasing "used" cars must check that the cars comply with all rules.

No options are allowed except where stated herein or which are authorized by the specific regulations issued by MSA for the above categories, and any changes in the information contained herein for whatever reason, must be advised to MSA immediately they occur.

MSA reserves the right to accept or reject such amendments as being permissible changes to this document, or to request that they be incorporated in separate, revised Recognition form for the vehicle.

The original signed and stamped version of this document is retained by MSA as proof of acceptance and homologation of the vehicle.

The appropriate registration fee must accompany this document when applying to MSA for acceptance, and failure in this regard will result in delay in registration.

It should also be noted that where modifications are allowed in terms of the Regulations, such modifications may not be carried out if they affect any other specification or component which it is not permitted to modify.

Unless specifically permitted in the Regulations, any alteration, change or modification to a vehicle competing in any of the stated categories is not allowed.

Where alternatives are referred to in the items listed in this document, it is sufficient to delete the one(s) not applicable, i.e. YES/NO, AS CAST/FETTLED/MACHINED/AS FABRICATED.

Where standard Volkswagen part numbers are indicated, it must be noted that the last suffixes after the part number may vary. Example: 2Q0 415 627 A (The A might be different.)

MANUFACTURER: VOLKSWAGEN OF SOUTH AFRICA (PTY) LTD (Trading as Motorsport Department)

MODEL: VOLKSWAGEN POLO ENGINE: Engine capacity 1984 cm³

MANUFACTURING COMMENCED: 2018 MANUFACTURING CEASED: ONGOING

CHASSIS AND COACH WORK

1. MATERIAL AND CONSTRUCTION

- 1.1. Detail and panels not of steel:
- 1.2. Excise Mass: 1215 kg (including driver)

2. VEHICLE DIMENSIONS

- 2.1. Wheelbase (nominal): 2550mm ± 5mm
- 2.2. Overall length (nominal): 4085mm (Bumper to Bumper)
- 2.3. Front track (nominal): 1555mm ± 3mm (measured between tyre centres on the ground car unladen)
- 2.4. Rear track (nominal): 1492mm ± 3mm

3. INTERIOR HEATER

3.1. Fitted: No

4. SAFETY CAGE and BODY

- 4.1. Seat belts and Seats to be mounted in accordance with FIA 2006 regulations.
- 4.2. Only bodies prepared with a safety cage by Volkswagen Motorsport or an approved body builder are permitted.
- 4.3. Only the rear spoiler supplied by VWM is permitted.
- 4.4. Door protection Design 2 allowed on rollcage.



Door cross – Design 2 as per FiA Homologation Regulations – Safety Cages. Drawing SC-11b

5. WHEELS

5.1. Material of wheel rim: Aluminium Alloy

5.2. Material of wheel centre: Aluminium Alloy

5.3. Rim code: VW199 (6RR 601 025 A)

5.4. Rim width: 7.5J

5.5. Rim diameter: 18"

5.6. Offset from mounting face to inner extremity of rim: ET51mm

5.7. Mass without tyres: 10.3kg

5.8. Number of BOLTS: 5 (FIVE) x 100 PCD

5.9. 20mm Spacers as supplied by VW Motorsport must be fitted to the front wheels.

5.10. 5mm Spacers as supplied by VW Motorsport must be fitted to the rear wheels

5.11. Wheel studs are compulsory: Front length = 85mm Rear length = 75mm

(Studs may be shortened)

6. TYRES

6.1. Refer to Items 28 & 29 of the Polo Cup Sporting Regulations.

7. FRONT and REAR WHEEL ALIGMENT

7.1. Front Camber angle: 4.50 degrees, maximum

7.2. Measure with driver seated in the car within an area designated by VW Motorsport Technical Consultants and published on the official notice board of the race meeting.

7.3. Method of adjustment: Slider with 4 x M6 Bolts

7.4. Castor angle: N / A degrees Fixed

7.5. Method of adjustment: N / A

7.6. Reference: GCR 226

7.7. Rear Wheel Alignment adjustment can be achieved by shimming of the stub axle.

8. STEERING GEAR

8.1. Type: Rack and Pinion

8.2. Power assisted: Yes

8.3. Type: Electrical Column

9. BRAKE SYSTEM

9.1. Dual line

9.2. Separate circuits front and rear: Yes

9.3. Number of master cylinders: 2(two) Tilton 76-Series

Front Piston Diameter: ¾ (19.10mm)

Rear Piston Diameter: 7/8 (22.20mm)

9.4. Servo assisted: No

9.5. Number of servo units: NA

9.6. Number of circuits on which servo assistance operates: NA

9.7. Type of servo unit(s) - specify manufacture's model number of other reference: NA

9.8. Brake pressure regulator fitted: Yes (Tilton – Cable type)

9.9. Location, if fitted: Inside Vehicle

9.10. Only brake lines supplied by Volkswagen Motorsport will be permitted.

10. The brake lines must be connected so that the front and rear operate on separate lines.

10.1 Brake Cooling Kit:



11. BRAKE ASSEMBLIES - DISC AND CALLIPER TYPE

11.1. Disc material - Front: Steel Rear: Steel

11.2. Caliper material - Front: Steel Rear: Steel

11.3. Ventilated disc - Front: Yes Rear: No

11.4. O/D of disc - Front: 312 x 25 Rear: 272 x 10

11.5. Disc part # - Front: PC7 615 301 Rear - 2Q0 615 601 G

11.6. No. of wheel cylinders per wheel - Front: 1(one) Rear: 1 (one)

11.7. No. of pads per wheel - Front: 2 (two) Rear: 2 (two)

11.8. Size of piston, Front - Ø 57.14mm

11.9. Front Caliper

VW Part #: 2Q0 615 105 D & 106 D

11.10. Size of piston, Rear - Ø 36.95mm

VW Part #: 2Q0 615 405 Q & 406 Q

11.11. Brake pads part # - Front: FCP 4433 Z (Ferodo) Racing pad

- Rear: 2Q0 415 E (Ferodo) OE pad





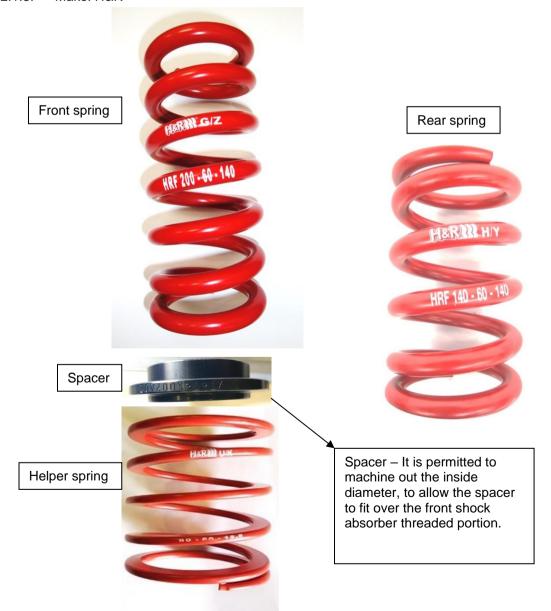


<u>Note</u>: Heat shields as supplied by VW Motorsport to protect the wheel speed sensor and lower balljoints must be fitted at all times, on the front assemblies.

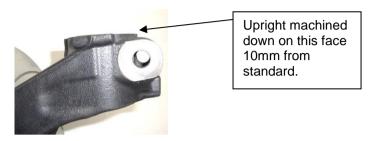
12. SUSPENSION

12.1. Front Suspension

- 12.1.1. Type: MacPherson strut
- 12.1.2. Description of control arms and locating members:
 - LF Part # PC7 407 151 ASS
 - RF Part # PC7 407 152 ASS
- 12.1.3. Dimensions of springing medium: 200(spring) + 5(spring spacer) + 80(helper) = 285mm
- 12.1.4. Helper spring: Must be fitted at the bottom and main spring on top.
- 12.1.5. Spring stiffness: 140 N/mm
- 12.1.6. Coils: Number: Spring 7 & 1/4, Helper 5 & 3/4
- 12.1.7. Diameter of wire: Spring Ø13.6, Helper 4.2x10mm (Rectangle)
- 12.1.8. Make: H&R



- 12.1.9. Torsion bars: Not fitted
- 12.1.10. Front stabilizer rod diameter: Not fitted
- 12.1.11. Upright: VW Part number: PC7 407 255/256 L (Modified)



12.1.12. Camber adjustment by means of a slider system (4.5deg max)



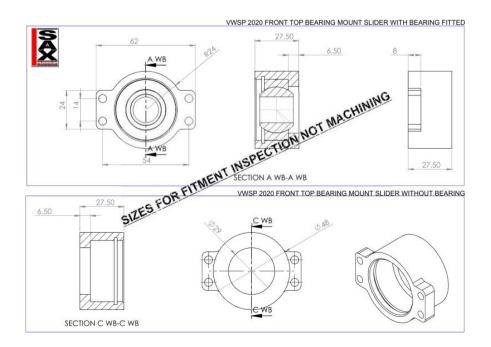
Camber plate mounted on top of body strut mount.

Caster is built into plate and the offset is towards the rear/inside of the vehicle.



BOTTOM VIEW (Mounted)





12.2. Rear Suspension

- 12.2.1. Type: Beam axle
- 12.2.2. Description of control and locating members: N/A
- 12.2.3. Dimensions of springing medium: L=140mm, NO HELPER SPRING AT REAR
- 12.2.4. Spring stiffness: 140 N/mm
- 12.2.5. Spring holder/adjuster dimension: Length 80mm, Thread 53.0mm
- 12.2.6. Coils Number: 5 & 1/2
- 12.2.7. Diameter of wire: Ø12.5mm
- 12.2.8. Make: H&R
- 12.2.9. Torsion bars: Not fitted
- 12.2.10. Rear stabilizer rod diameter: Not fitted
- 12.2.11. Rear spring rubber (2Q0 512 149)

12.3. **SPRINGS**

The front springs may only be used at the front and the rear springs only be used at the rear.

12.4. Shock Absorbers

- 12.4.1. Only the SAX suspension units as supplied by VW Motorsport may be used.
- 12.4.2. Compressed and extended dimensions of the shocks are as shown below, Front Shock: Full In 367mm & Full Out 502mm

 Rear Shock: Full In 375mm & Full Out 580mm
- 12.4.3. At the discretion of the Technical Consultant competitors may be required to surrender their shock absorbers. They will then be issued with replacement units.
- 12.4.4. Please note that only the supplier (Pole Position) and Volkswagen Motorsport may service these shock absorbers.
- 12.4.5. Shock absorber procedure in-case servicing is required on a shock absorber or a shock absorber that needs to be replaced on a racing weekend:
 - 1) Shock absorber supplied to VW Motorsport
 - 2) VW Motorsport will supply a replacement unit
 - 3) Shock absorber will be serviced and run on the shock dyno
 - 4) If shock absorber is in-spec, a locking seal will be installed and the shock absorber will go back into spares package.
- 12.4.6. Dampers are sealed and may not be reworked.





WARNING:

Shockabsorbers are under pressure and must not be opened unless the seal is removed and the pressure released.

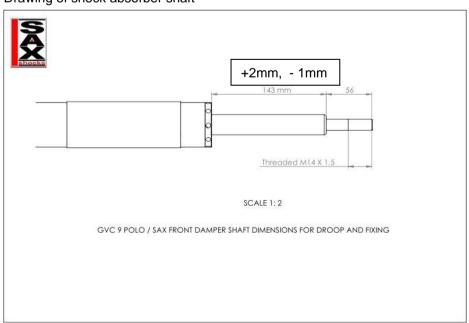
- 12.4.7. Any shockabsorber found without a seal during a technical inspection will result in exclusion.
- 12.4.8. A ride height spacer must be fitted, at all times, on both front shock absorbers. The spacers must be as supplied.



L = 50 mm Inside Diameter = 57.8 mm Outside diameter = 63 mm



12.4.9. Drawing of shock absorber shaft



13. ENGINE - 4 STROKE PISTON TYPE

Only sealed engines supplied by VW Motorsport may be used. Refer also Sporting Regulations Item 24.

13.1. Minimum mass of crankshaft flywheel complete with ring gear: 7.20 kg ±0.05

13.2. Part number: PC7 105 269





Note: Weight was done without bolts

14. INLET MANIFOLD

- 14.1. Material: Plastic
- 14.2. Only inlet manifolds supplied by Volkswagen Motorsport parts department may be used.
- 14.3. Finish: As supplied Standard part
- 14.4. Throttle Body: Standard part as supplied with the engine 06K133062AK / M

15. TURBO

- 15.1. Turbo part number: 06Q 145 703 H
- 15.2. Wastegate throttle valve control element: 06Q 145 655 B
- 15.3. Dumpvalve link arm length must be 171mm ±2mm (overall) see dimensions below.

Measured hot or cold



16. BRANCH MANIFOLD

16.1. Material: Stainless steel

Flange: Stainless steel

16.2. Fastening method: Clamp as supplied by VW Motorsport

16.3. Dimension and weight: 4.0 KG

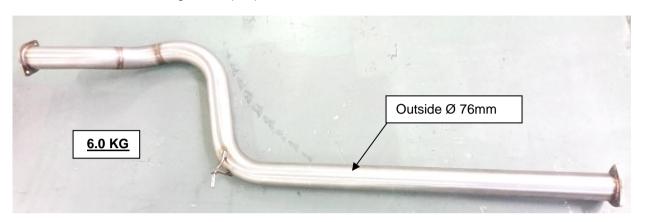


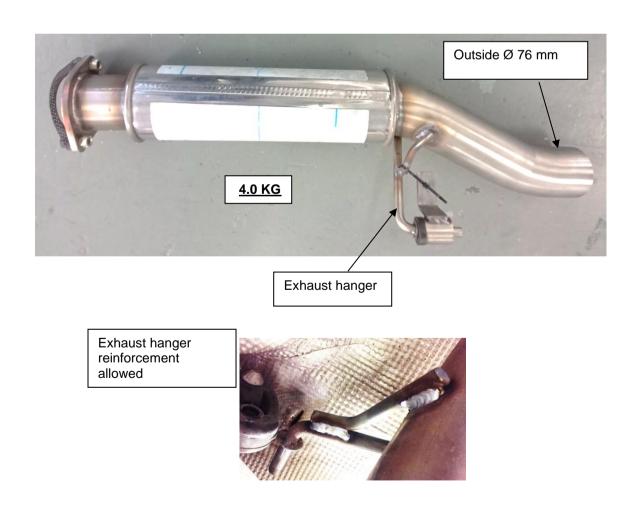
NOTE: Upgrade exhaust system is shown in this document.

The 2024 Level exhaust will be used for Round 1 only.

17. EXHAUST SYSTEM AND TAILPIECE

- Number of silencers / resonators: 1 (one) as supplied by VW Motorsport 17.1.
- 17.2. Length of silencer box: 345 mm
- Exhaust centre pipe, weight 6.0 KG Exhaust tailpiece weight 4.0 KG 17.3.
- 17.4.
- Number of hangers 2 (two) 17.5.





18. COOLING SYSTEM

18.1.1. Radiator (Part No. 5WA 121 251 H)

Location: In front of car, in its standard position

18.1.2. Intercooler (Part No. 5Q0 145 803 T/AD)

Location: In front of radiator, in its standard position.



No spraying of additional water or any other liquids are allowed onto radiator and intercooler systems.

18.1.3. Front end stiffner

Stiffner cut-out for intercooler to fit.



Same part used on VW Supa Cup cars. Splitterboard bobbins will be visible on this part.



Cut-out allowed as per previous (old) level part.

17.1.4 Front end cradle

Front end cradle cut-out for intercooler to fit is allowed.





18.2. Cooling Fan

18.2.1. Fan – Part No. 2Q0 121 203 L No. of blades: 9 Diameter: 430mm

18.2.2. Coupling: Electric

18.2.3. Thermostatically controlled: Yes

18.2.4. Thermostat: Original <u>06L 121 111 P</u>

18.2.5. Fixing Method – Original mounting brackets





Intercooler sprayer kit



Number of spray nozzles: 8

Spray nozzle hole size: Diameter 0.75 mm is the biggest size allowed.





Water tank fitted to passenger side, on the floor.

19. FUEL SYSTEM

19.1. Fuel Tank (Part No. 2Q0 201 021 ET – complete with fuel pump)

19.1.1. Capacity: 45 litres (with another ±7 litres available if expansion volume is filled)

19.1.2. Location: Under boot floor

19.2. Fuel Pump (Part no. 2Q0 919 051 B)

19.2.1. Type: Rolling element

19.2.2. Location: In tank

20. INDUCTION SYSTEM

20.1. **Airbox**

20.1.1. Part nr: 5WA 129 601

20.1.2. Standard airbox as supplied by Volkswagen Motorsport



20.2. Air intake duct

20.2.1. Part nr: 2Q0 129 509 A

20.2.2. Standard part: Airflow flap must be closed with cable ties



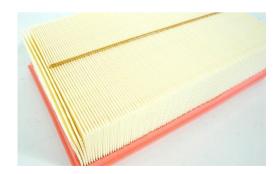
20.3. Air Filter

20.3.1. Part nr: 5Q0 129 620 D

20.3.2. Filter medium: Paper

20.3.3. The air filter must remain in its original position as supplied





21. FUEL INJECTION

21.1. Make: MoTec

21.2. Type: M142

21.3. Injector Part #: 06G 906 036 B

21.4. Location of injectors: Inlet manifold

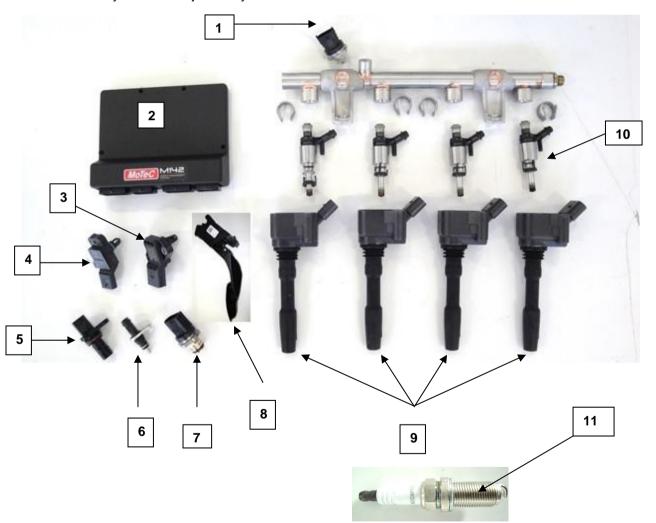
21.5. Injector pump type: Type of fuel metering: Electronic, mapped

21.6. Area of flap valve: N / A

21.7. Plenum chamber material: Part of inlet manifold

21.8. Throttle Bodies: x1 per engine

21.9. Layout of fuel injection system:



Item #	Part #	Description	
1	06L 906 054 C	Pressure sensor - Fuel	
2	M142	Electronic Control Unit	
3	03G 906 051 E / M	Pressure sensor - Boost	
4	06L 906 051 C / L	Inlet Manifold Temperature Sensor	
	038 906 051 T		
5	06H 906 433 D	Crank sensor	
6	079 919 523 B	Water temperature sensor	
7	06H 906 051 J	Pressure sensor - Fuel	
8	2Q2 723 503	TPS – Throttle position sensor	
9	06H 905 110 G	Coil	
10	06G 906 036 B	Fuel injector – Cylinder head (x4)	
	06L 906 031 A	Fuel injector – Manifold (x4)	
11	KEC4PYPB or 06K905601 B/L Spark plug (Champion) or VW		

22. LUBRICATION SYSTEM

22.1. Type: Wet sump

22.2. Crankcase capacity: 5,5 litres Nominal

22.3. Oil filter type: Paper element: Full-flow, Part no. 06L 115 562 B

22.4. Oil pump type: Chain Drive

22.5. Location: In sump

22.6. Any Synthetic oil of a viscosity of 5w40 may be used.

23. IGNITION SYSTEM

23.1. Description: MoTec M142

23.2. Alternator 140A: Part #: 06K 903 024 A

23.3. Rev limiter is at 6200rpm

24. COIL PACK (Part No. 06H 905 110 G)

24.1. Make: ELDOR

24.2. Quantity: x4 per engine

24.3. Means of timing adjustment: None

25. CLUTCH PLATE (Part No. 04L 141 031 A)

25.1. Type: Standard part as supplied by VW Motorsport

25.2. Type 240.0 mm

25.3. No. of plates: 1 (one)

25.4. Weight: 1.10 kg



26. STANDARD PRESSURE PLATE (Part No 06K 141 025 A)

26.1. Mass (nominal): $4,95 \pm 0.05 \text{ kg}$





27. GEARBOX

27.1. Make: Part No: 02Q 300 050 P / 052 L

Gearbox codes: SQZ

27.2. Type: 6-Speed Manual MQ350

27.3. Ratios:

TOOTH COUNT

 FIRST GEAR
 49:13

 SECOND GEAR
 48:23

 THRID GEAR
 47:32

 FOURTH GEAR
 38:33

 FIFTH GEAR
 35:30

 SIXTH GEAR
 32:33

REVERSE GEAR 36:13/23:14

FINAL DRIVE 69:20

- 27.4. Gearbox is sealed and may only be opened after consulting with the TC.
- 27.5. All gearbox levers and links remain standard as supplied except for modifications below:

INTERNAL

Brass end cap installed on selector fork ends.

Replaces plastic end caps.





Swing arm weight – cut off





- 27.6. Gearbox oil recommendation: GL-4
- 27.7. Gearbox oil change: At least after ever 3 events
- 27.8. Oil volume: 2.2 liter (After an oil drain)

28. FINAL DRIVE FRONT

28.1. Make: VW

28.2. Type of diff: Conventional, Mechanical

28.3. Limited slip: No

28.4. Ratio of diff: 3.45

28.5. No. of teeth on crown wheel: 69

28.6. No. of teeth on pinion: 20

29. DRIVESHAFT

29.1. LHS Part #: 2Q0 407 271 BG29.2. RHS Part #: 2Q0 407 272 BN



30. INTERIOR

- 30.1. Inside covers and trim remain as supplied by VW Motorsport.
- 30.2. Door panel top lip maybe be rounded shape. Evolution change.

31. GENERAL

31.1 **VENTS IN FRONT BUMPER**

As per the below picture.





31.2 A stone protector for fitment to the lower bumper grille to protect the radiator is available from the VW Motorsport parts truck. Only this item is permitted and must be fitted.



31.3 The front grill area around the front VW Badge must get the mesh as supplied from the VW Motorsport parts truck. Only this item is permitted and must be fitted.



31.4





31.5 Rear bumper insert for exhaust tailpiece.



31.6. The sump protector must be fitted at all times.



31.7. Front wheelarch covers must be fitted as supplied by VW Motorsport.



31.8. Front Headlight reinforcement brackets as supplied by VW Motorsport may be fixed to the headlight mounting brackets.







32. ENGINE AND GEARBOX MOUNTINGS

Mountings are reinforced and supplied only by VW Motorsport.











33. BATTERY

33.1. The recommended battery is the KARIBA <u>646K</u> and <u>643K</u> that must be obtained from VW Motorsport. The batteries are available in two shapes. (depends on supplier stock)





33.2 Location: The battery is situated inside the battery box which is mounted in the boot/spare wheel well area.

Two types of battery boxes allowed – Fibreglass and Plastic as supplied by VW Motorsport.



34. SUBFRAME AND WHISHBONES

34.1.1. The only subframe allowed is the modified part from VW Motorsport

34.1.2. The only wishbones allowed is the modified part from VW Motorsport



35. REAR AXLE

35.1.1. The rear axle hanger brackets are sealed to the chassis and may only be removed after consulting the TC.



Part number has not changed but the stiffness has. (Stiffer axle) Only the stiffer axle is available but the previous axle may be used.

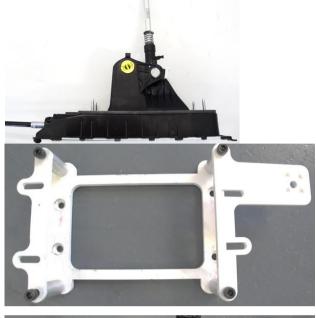


36. GEARSHIFTER AND MIXER





Cut-out made in tunnel for gearshift cables to pass through.



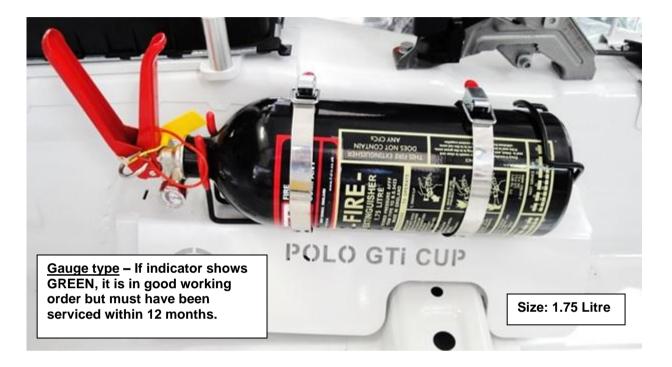




Gearshift may be cut 40mm or the gear knob inside may be drilled to lower the knob position for driver comfort.

37. FIRE EXTINGUISHER

- 37.1 The fire extinguisher is available in two colours, BLACK or RED and must comply too GCR257.
- 37.2 Recommended service for gauge type is, 1 years (12 months)



38. STEERING WHEEL

- 38.1.1. The original supplied "push-to-pass" button must be fitted. The positioning on the steering wheel can be for driver comfort.
- 38.1.2. Steering boss extension is allowed and/or clip-on steering mechanism



39. ELECTRONICS



- 39.1. Wheelspeedsensors (x4), one per wheel, must be connected at all times.
- 39.2. Camera In car camera/camera's type is FREE.

The recommended camera is the MoTec Model V2. Garmin and GoPro cameras are allowed.

40. WEIGHT PLATES

40.1. Only weight plates supplied by VW Motorsport may be used and must be installed in area provided behind driver seat on the floor.





41. TAILGATE



Rear wing mount welded onto tailgate.

42. REAR WING AND BRACKETS



Tolerance of 3mm allowed





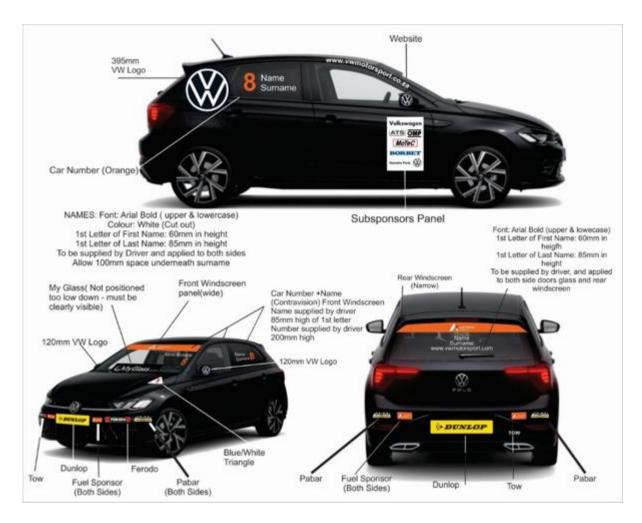
43. FRONT SPLITTER



44. BONNET STAY

Standard bonnet stay may be used or the gas shock stay option.

45. DECALS



DECLARATION

In submitting this model for registration and homologation, I confirm that to the best to my knowledge and belief the data and information listed in this document are truly representative of a normal production unit.

SIGNED: Michael Rowe

FULL NAMES: MICHAEL ROWE

DESIGNATION: MOTORSPORT MANAGER

REPRESENTING: VOLKSWAGEN MOTORSPORT

DATE: 26.03.2025

DATA CHECKED BY: COBUS BARNARD