

5TH CATEGORY - HISTORIC RACING GROUP N APPROVED VEHICLE SPECIFICATION

This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with an Historic Log Book, cars need to comply with these specifications, the physical appearance shown in the illustrations and the general historic rules as detailed in the current Motorsport Australia Manual.

| Make of Car:                         | BMW   | Model: | 1600-2 & 1602            |
|--------------------------------------|---|--------|--------------------------|
| Period of Original Manufacture:      | 1600-2 - Import late 1967 – 1971 (circular tail lights) |        | 1 (circular tail lights) |
|                                      | 1602 - from July 1971 - 1973                            |        |                          |
| Motorsport Australia Historic Group: | Nc  |        |                          |
| Date of Issue of this Document:      | September 2021  |        |                          |



Refer to Motorsport Australia Manual of Motor Sport, Vehicle Eligibility, Historic Touring Cars, General Requirements & Nc Regulations for permitted modifications.

### Update Log

| 1.1. CHASSIS             |  |
|--------------------------|--|
| Description:             | Uni body two door coupe  |
| Period of Manufacture:   | Import late 1967 – 1971 (circular tail lights)                               |
|                          | 1602 from July 1971 - 1973   |
| Manufacturer:            | BMW  |
| Chassis Number From:     | 930 001 (1600-2) – April 1964 to April 1966                                  |
|                          | 1500 001 (1602_ 0 March 1966 to October 1975                                 |
| Chassis Number location: | RHS inner guard  |
| Material:                | Steel  |
| Comments                 | Round/Circular tail light models only. Square tail light model not eligible. |

## **1.2. FRONT SUSPENSION**

| Description:           | Independent - upper & lower wishbones |            |  |             |  |
|------------------------|---------------------------------------|------------|--|-------------|--|
| Spring Medium:         | Coil                                  | Coil       |  |             |  |
| Damper Type:           | Telescopic                            | Telescopic |  | Yes         |  |
| Anti-sway bar:         | Fitted                                | Fitted     |  | No          |  |
| Suspension adjustable: | No                                    | No Method: |  | per and toe |  |
| Comments:              | Refer to Appendix A                   | Ą          |  |             |  |

# 1.3. REAR SUSPENSION

| Description:           | Independen  | Independent - semi-trailing arms |  |     |  |  |
|------------------------|-------------|----------------------------------|--|-----|--|--|
| Spring Medium:         | Coil        | Coil                             |  |     |  |  |
| Damper Type:           | Telescopic  | Telescopic                       |  | Yes |  |  |
| Anti-sway bar:         | Fitted      | Fitted                           |  | No  |  |  |
| Suspension adjustable: | Yes         | Yes Method:                      |  | toe |  |  |
| Comments:              | Refer to Ap | Refer to Appendix A              |  |     |  |  |

# 1.4. STEERING

| Туре:    | Worm and Roller | Make: | BMW ZF |
|----------|-----------------|-------|--------|
| Comments | None            |       |        |

# 1.5. BRAKES

|  | Front          | Rear                       |
|--|----------------|----------------------------|
| Туре:                                  | Disc, solid    | Drum                       |
| Dimensions – 1600 -2:                  | 240 mm x 10 mm | 200 mm diameter x 46.50 mm |
| Dimensions - 1602:                     | 240 mm x 13 mm | 200 mm diameter x 46.50 mm |
| Material of drum/disc:                 | Cast Iron      | Cast Iron                  |
| No. cylinders/pots per wheel – 1600-2: | Two            | Тwo                        |
| No. cylinders/pots per wheel - 1602:   | Four           | Тwo                        |
| Actuation:                             | Hydraulic      | Hydraulic                  |
| Caliper make:                          | BMW ATE        |                            |
| Caliper type:                          | Fixed          |                            |
| Material:                              | Cast Iron      |                            |
| Master cylinder make:                  | BMW ATE        |                            |
| Туре:                                  | Tandem         |                            |
| Adjustable bias:                       | No             |                            |
| Servo Fitted:                          | Yes            |                            |
| Comments:                              | None           |                            |

## 2.1. ENGINE

| Make:                    | BMW                  | BMW                               |                     |  |  |  |
|--------------------------|----------------------|-----------------------------------|---------------------|--|--|--|
| Model:                   | Type 118             | Туре 118                          |                     |  |  |  |
| No. cylinders:           | Four                 | Configuration:                    | In-line             |  |  |  |
| Cylinder Block-material: | Cast Iron            | Two/Four Stroke:                  | Four                |  |  |  |
| Bore - Original:         | 84 mm                | Max allowed:                      | 85.5 mm             |  |  |  |
| Stroke - original:       | 71 mm                | Max allowed:                      | 71 mm               |  |  |  |
| Capacity - original:     | 1573 cc              | Max allowed:                      | 1630 cc             |  |  |  |
| Identifying marks:       | Located on a flat ed | ge of the engine block, just abov | e where the starter |  |  |  |
|                          | motor mounts.        |                                   |                     |  |  |  |
| Cooling method:          | Liquid               |                                   |                     |  |  |  |
| Comments:                | None                 |                                   |                     |  |  |  |

# 2.2. CYLINDER HEAD

| Make:                   | BMW  |           |      |          |       |
|-------------------------|--|-----------|------|----------|-------|
| No. of valves/cylinder: | Two  | Inlet:    | One  | Exhaust: | One   |
| No. of ports total:     | Eight  | Inlet:    | Four | Exhaust: | Four  |
| No. of camshafts:       | One  | Location: | SOHC | Drive:   | Chain |
| Valve actuation:        | Rocker   |           |      |          |       |
| Spark plugs/cylinder:   | One  |           |      |          |       |
| Identifying marks:      | Number of nubs surrounding a two-digit year, all within a circle.<br>Both the head type and casting date are cast into the left side of each head. |           |      |          |       |
| Comments:               | Type 12  | 1         |      |          |       |

### 2.3. LUBRICATION

| Method:              | Wet sump   | Oil tank location: | N/A             |
|----------------------|------------|--------------------|-----------------|
| Dry sump pump type:  | Mechanical | Location:          | Bottom of motor |
| Oil cooler standard: | No         | Location:          | N/A             |
| Comments:            | None       |                    |                 |

### 2.4. IGNITION SYSTEM

| Туре:    | Points, distributor & coil                |
|----------|---|
| Make:    | Bosch                                     |
| Comments | Breakerless electronic ignition permitted |

# 2.5. FUEL SYSTEM

| Carburettor Make:    | Solex            | Model: | 40 PHH |  |
|----------------------|------------------|--------|--------|--|
| Carburettor Number:  | One (Ti has two) |        |        |  |
| Size:                | Various          |        |        |  |
| Fuel injection Make: | N/A              | Туре:  | N/A    |  |
| Supercharged:        | No               | Type:  | N/A    |  |
| Comments:            | None             |        |        |  |

### 3.1. CLUTCH

| Make:          | BMW                      |
|----------------|--------------------------|
| Туре:          | Spring and Diaphragm     |
| Diameter:      | 200 mm                   |
| No. of Plates: | One                      |
| Actuation:     | Hydraulic and mechanical |
| Comments:      | None                     |

### 3.2. TRANSMISSION

| Туре:                         | Synchromesh                      |  |  |
|-------------------------------|----------------------------------|--|--|
| Make:                         | Getrag – 232 (four speed)        |  |  |
|                               | Getrag 235 (four and five speed) |  |  |
| Gearbox location:             | Behind engine                    |  |  |
| No. forward speeds:           | Four or five                     |  |  |
| Gearchange type and location: | H pattern floor mounted.         |  |  |
| Case material:                | Aluminium                        |  |  |
| Identifying marks:            | N/A                              |  |  |
| Comments:                     | Model 245 not approved.          |  |  |

# 3.3. FINAL DRIVE

| Make:              | BMW         | Model: | 232-235 |
|--------------------|-------------|--------|---------|
| Туре:              | Sprung unit |        |         |
| Ratios:            | Various     |        |         |
| Differential type: | Free/Open   |        |         |
| Comments:          | None        |        |         |

# 3.4. TRANSMISSION SHAFTS (EXPOSED)

| Number:      | Three                         |
|--------------|-------------------------------|
| Location:    | Gearbox to final drive        |
| Description: | Open tail shaft & half shafts |
| Comments:    | None                          |

#### 3.5. WHEELS & TYRES

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| Wheel type - Original:  | Disc                      | Material - Original: |            | Steel                |
|-------------------------|---------------------------|----------------------|------------|----------------------|
| Wheel type - Allowed:   | Alloy (period style)      | Materia              | - Allowed: | Alloy (period style) |
| Fixture method:         | Nuts                      | No. stud             | s:         | Four                 |
| Wheel dia. & rim width  | FRONT                     | FRONT REAR           |            | REAR                 |
| Original:               | 4.5" x 13"                |                      | 4.5″ x 13″ |                      |
| Allowed                 | 7" x 13"                  |                      | 7" x 13"   |                      |
| Tyre Section:           |                           |                      |            |                      |
| Allowed:                | Refer approved tyre list. |                      |            |                      |
| Aspect ratio - minimum: | 60% minimum aspect ratio. |                      |            |                      |
| Comments:               | None                      |                      |            |                      |

#### SECTION 4 GENERAL

#### 4.1. FUEL SYSTEM

| Tank Location:   | In boot    | Capacity: | 46 litres |
|------------------|------------|-----------|-----------|
| Fuel pump, type: | Mechanical | Make:     | BMW       |
| Comments:        | None       |           |           |

#### 4.2. ELECTRICAL SYSTEM

| Voltage:          | 12         | Alternator fitted: | Alternator |
|-------------------|------------|--------------------|------------|
| Battery Location: | Engine bay |                    |            |
| Comments:         | None       |                    |            |

#### 4.3. BODYWORK

| Туре:         | Coupe | Material:  | Steel |
|---------------|-------|------------|-------|
| No. of seats: | Four  | No. doors: | Two   |
| Comments:     | None  |            |       |

## 4.4. DIMENSIONS

| Track - Front: | 1320 mm | Rear:           | 1320 mm |
|----------------|---------|-----------------|---------|
| Wheelbase:     | 2450 mm | Overall length: | 4500 mm |
| Dry weight:    | 912 kg  |                 |         |
| Comments:      | None    |                 |         |

## 4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

# Appendix A

# Suspension

# Front

Spring height adjustment permitted.

# Rear

Spring height adjustment permitted.