



**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: | Ford | Model: | Falcon XY 500 GT GT HO Phase 3 |
| Period of Original Manufacture: | 1970 to 1971 | | |
| Motorsport Australia Historic Group: | Nc | | |
| Date of Issue of this Document: | 1 January 2024 | | |



Refer to The *Manual*, Historic Appendix, Vehicle Eligibility, General Requirements & Historic Touring Cars Group N Regulations for permitted modifications.

Update Log

| | |
|----------|--|
| 1/1/2024 | Inclusion of kerb and minimum racing weights |
| | |
| | |

SECTION 1 - CHASSIS

1.1. CHASSIS

| | |
|---------------------------------|---|
| Description: | Uni-body four door sedan |
| Period of Manufacture: | 1970-1971 |
| Manufacturer: | Ford Motor Company |
| Chassis Number From: | JG33XXXXXX |
| Chassis Number location: | All XY models had ADR style I/D plate on the left firewall. Early models had body I/D number stamped on the left-hand side of radiator support panel. On later models, body I/D number was stamped on left suspension tower. Original engine number stamped on left suspension tower in early model, right suspension towers in later models. |
| Material: | Steel |
| Comments | None |

1.2. FRONT SUSPENSION

| | | | |
|-------------------------------|--|--------------------|------------------------|
| Description: | Independent - upper wishbone, lower control arm & castor rod | | |
| Spring Medium: | Coil | | |
| Damper Type: | Telescopic | Adjustable: | No |
| Anti-sway bar: | Fitted | Adjustable: | No |
| Suspension adjustable: | Yes | Method: | Caster, camber and toe |
| Comments: | Refer to Appendix A.. | | |

1.3. REAR SUSPENSION

| | | | |
|-------------------------------|----------------------|--------------------|--------------------|
| Description: | Live rear axle | | |
| Spring Medium: | Semi-elliptical leaf | | |
| Damper Type: | Telescopic | Adjustable: | No |
| Anti-sway bar: | No Phase 3 -Yes | Adjustable: | N/A Phase 3 -No |
| Suspension adjustable: | No | Method: | N/A |
| Comments: | Refer to Appendix A | | |

1.4. STEERING

| | | | |
|-----------------|---|--------------|------|
| Type: | Recirculating ball | Make: | Ford |
| Comments | Collapsible steering standard. 500 - 20:1 ratio. Power steering permitted – RAM assist - 16:1 ratio. GT - Power steering – 16:1 ratio. Phase 3 - Power steering – RAM assist– 16:1 ratio | | |

1.5. BRAKES

| | Front | Rear |
|--------------------------------------|------------------------------------|--|
| Type: | Disc, Solid | Drum |
| Dimensions: | 286 mm x 23.9 mm | 500 - 254 mm x 45 mm diameter GT - 254 mm x 57 mm diameter Phase 3 - 254 mm x 63.5 mm diameter |
| Material of drum/disc: | Cast iron | Cast iron |
| No. cylinders/pots per wheel: | One | One |
| Actuation: | Hydraulic | Hydraulic |
| Caliper make: | Kelsey Hayes Ford single piston | |
| Caliper type: | Floating | |
| Material: | Cast iron | |
| Master cylinder make: | PBR | |
| Type: | Tandem | |
| Adjustable bias: | No | |
| Servo Fitted: | Yes | |
| Comments: | None | |

SECTION 2 - ENGINE

2.1. ENGINE

| | | | |
|---------------------------------|---|-------------------------|----------|
| Make: | Ford | | |
| Model: | 500 | Cleveland 351 2V | |
| | GT | Cleveland 351 4V | |
| | Phase 3 | Cleveland 351 4V | |
| No. cylinders: | Eight | Configuration: | Vee |
| Cylinder Block-material: | Cast iron | Two/Four Stroke: | Four |
| Bore - Original: | 101.6 mm | Max allowed: | 103.1 mm |
| Stroke - original: | 89.0 mm | Max allowed: | 89.0 mm |
| Capacity - original: | 5768 cc | Max allowed: | 5940 cc |
| Identifying marks: | Located low on right side of block – most easily sighted from below car on stands. 500 DOAE-6015 – D GT DOAE-6015 – J or G Phase 3 DOAE-6015 – J or G | | |
| Cooling method: | Liquid | | |
| Comments: | ARROW Ford 351 Cleveland Small Block engine block with a rev limit of 7500rpm as a replacement for the original block is approved for use. Logbook endorsed and the engine sealed required. See Appendix A. | | |

2.2. CYLINDER HEAD

| | | | |
|--------------------------------|--|------------------------|----------------------------|
| Make: | Ford | | |
| No. of valves/cylinder: | Two | Inlet: One | Exhaust: One |
| No. of ports total: | Sixteen | Inlet: Eight | Exhaust: Eight |
| No. of camshafts: | One | Location: Block | Drive: Roller chain |
| Valve actuation: | Pushrod and rocker | | |
| Spark plugs/cylinder: | One | | |
| Identifying marks: | DOAE 6090 H or R Located on unmachined area adjacent to the head gasket surface (visible only with head removed). | | |
| Comments: | Note that inlet valves are not in the same plain, being “canted” in US language. | | |

2.3. LUBRICATION

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

2.4. IGNITION SYSTEM

| | | | |
|------------------|---|--|--|
| Type: | Points, coil & distributor | | |
| Make: | Autolite | | |
| Comments: | Breakerless electronic ignition permitted | | |

2.5. FUEL SYSTEM

| | | | |
|-----------------------------|----------|---------------|-----------|
| Carburettor Make: | | | |
| 500: | Autolite | Model: | 2100 D2V |
| GT: | Autolite | Model: | 4300 – 4V |
| GT HO Phase 3 | Holley | Model: | 4150 – 4V |
| Carburettor Number: | One | | |
| Size: | Various | | |
| Fuel injection Make: | N/A | Type: | N/A |
| Supercharged: | No | Type: | N/A |
| Comments: | None | | |

SECTION 3 - TRANSMISSION

3.1. CLUTCH

| | |
|-----------------------|-----------|
| Make: | Ford |
| Type: | Diaphragm |
| Diameter: | 241.5 mm |
| No. of Plates: | Two |
| Actuation: | Hydraulic |
| Comments: | None |

3.2. TRANSMISSION

| | |
|--------------------------------------|--|
| Type: | Synchromesh |
| Make: | Ford Top loader |
| Model: | 500 Close ratio, 28 spline output shaft. GT Close ratio, 28 spline output shaft. Phase 3 31 spline output shaft (approx. 105 mm longer, allowing tailshaft to be shortened by corresponding amount). |
| Gearbox location: | Behind engine |
| No. forward speeds: | Four |
| Gearchange type and location: | Remote floor lever |
| Case material: | Cast iron |
| Identifying marks: | N/A |
| Comments: | The correct type of gearbox must be used according to the model car |

3.3. FINAL DRIVE

| | | | |
|---------------------------|--|---------------|--------|
| Make: | Ford | Model: | 9 inch |
| Type: | Live axle | | |
| Ratios: | 3.25 or 3.5 to 1 | | |
| Differential type: | 500 Open or LSD, GT Traction-lok GT HO Ph 3 Detroit locker | | |
| Comments: | The correct assembly must be used according to the model car. 500 and GT Axle to be 28 splines (with Traction-Lok) GT HO Phase 3 Axle to be 31 splines (with Detroit locker) | | |

3.4. TRANSMISSION SHAFTS (EXPOSED)

| | |
|---------------------|-------------------------------------|
| Number: | One |
| Location: | Gearbox to final drive |
| Description: | Open tailshaft with twin uni joints |
| Comments: | Steel |

3.5. WHEELS & TYRES

| | | | |
|-----------------------------------|-------------------------------|-----------------------------|-------------------------------|
| Wheel type - Original: | Pressed disc or alloy | Material - Original: | Steel or alloy |
| Wheel type - Allowed: | Cast | Material - Allowed: | Steel or alloy |
| Fixture method: | Studs | No. studs: | Five |
| Wheel dia. & rim width | FRONT | | REAR |
| Original: | 6" x 14" 7" x 14" in alloy | | 6" x 14" 7" x 14" in alloy |
| Allowed | 8" x 15" | | 8" x 15" |
| 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: | Boot floor | Capacity: | 500 GT GT HO Ph 3 | 73 litres 164 litres 164 litres |
| Fuel pump, type: | Mechanical, left side of engine block. | Make: | Ford | |
| Comments: | None | | | |

4.2. ELECTRICAL SYSTEM

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

4.3. BODYWORK

| | | | | |
|----------------------|---|-------------------|-------|--|
| Type: | Sedan | Material: | Steel | |
| No. of seats: | Five | No. doors: | Four | |
| Comments: | It is essential that detail of external bodywork and interior trim correspond with original production form of model concerned. See Appendix B | | | |

4.4. DIMENSIONS

| | | | | |
|---|--|------------------------|--|--|
| Track - Front: | 1510 mm on 14" wheels 1534 mm on 15" wheels | Rear: | 1510 mm on 14" wheels 1534 mm on 15" wheels | |
| Wheelbase: | 2820 mm | Overall length: | 4690 mm | |
| Approved Manufacturer's kerb weight: | 1524 kgs | | | |
| Approved minimum racing weight: | 1494 kgs | | | |
| Comments: | None | | | |

4.5. SAFETY EQUIPMENT

| |
|------------------------------------|
| Refer applicable Group Regulations |
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Appendix A

Suspension

Front

Ride height and spring rate may be changed by variation of coil springs; Change of sway bar diameter permitted; dampers free subject to original mountings being used and period technology limitation. Spring height adjustment permitted.

Rear

Spring height adjustment permitted.

Engine

Cylinder Block

Cleveland Block

ARROW Ford 351 Cleveland Small Block engine block is approved for use, in conjunction with MSD Soft Touch rev Limiter Part no 8728 with a 7500 RPM limit. The limiter will be subject to testing at race meetings, and will be located in an easily accessible position within the engine bay.

Appendix B

Bodywork – 500

- Front air dam, driving lights, bayonet, locks, “shaker” air intake, stainless capping on rear window, weather seal and “GT” strip across boot are not permitted.
- Rear wing is optional.
- Internally, “full” instrumentation including 6000 RPM tacho is required.
- Door trims were shorter leaving a metal sill some 100 mm wide below window glass and “standard instruments were speedo, fuel and temp gauges; however, the 500 could be ordered with the following options:
- “Fairmont” level trim – material of door trims comes up to window level and there are two courtesy lights on “C” pillar in addition to roof light;
- Additional decorative strips around wheel arches;
- GS Rally Pack – offered full instrumentation. Tacho was 6000 RPM instrument.

Bodywork – GT

- Must have driving lights, bonnet locking pins of ‘hairpin’ type with pins attached by Bowden cable, “shaker” air intake, stainless capping on rear window, weather seal and “GT” strip across boot.
- Rear wing is optional.
- Internally, “full” instrumentation including 6000 RPM tacho is required.
- Trim must be “Fairmont” level – material of door trims comes up to window level and there are two courtesy lights on “C” pillar in addition to roof light.

Bodywork – Phase 3

- Must have the front air dam, driving lights, bonnet locking pins of ‘hairpin’ type with pins attached by Bowden cable, “shaker” air intake, stainless capping on rear window, weather seal and “GT” strip across boot.
- Rear wing is optional.
- Internally, “full” instrumentation including 8000 RPM tacho is required.
- Trim must be “Fairmont” level – material of door trims comes up to window level and there are two courtesy lights on “C” pillar in addition to roof light.