



5TH CATEGORY - HISTORIC RACING  
**GROUP Nc**  
 APPROVED VEHICLE SPECIFICATION

This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with a Historic Logbook, 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.

<b>Make of Car:</b>	Holden Torana	<b>Model:</b>	LJ GTR XU1
<b>Period of Original Manufacture:</b>	1/1972 - 1973		
<b>Motorsport Australia Historic Group:</b>	Nc		
<b>Date of issue of this document:</b>	August 2019		



<b>Update Log</b>	
June 2018	Ian Moodie Cylinder Head permitted

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

## SECTION 1 - CHASSIS

<b>1.1 CHASSIS FRAME</b>	
<b>Description:</b>	Unitary construction
<b>Period of Manufacture:</b>	1/1972 – 1973
<b>Manufacturer:</b>	Holden
<b>Chassis no. from:</b>	LJ00001S*
<b>VIN</b>	82911JH100001
<b>Chassis no. location:</b>	Passenger side Inner front guard
<b>Material:</b>	Steel
<b>Comment:</b>	<b>VIN</b> - 82911 prefix indicates that it is a GTR, J is for LJ and H1 is the plant code then it is the sequence number

<b>1.2 FRONT SUSPENSION</b>			
<b>Description:</b>	Double wishbone		
<b>Spring Medium:</b>	Coil		
<b>Damper Type:</b>	Telescopic	<b>Adjustable:</b>	No
<b>Anti-sway bar:</b>	Fitted	<b>Adjustable:</b>	No
<b>Suspension adjustable:</b>	No		
<b>Comment:</b>			

<b>1.3 REAR SUSPENSION</b>			
<b>Description:</b>	Live axle with trailing arms		
<b>Spring medium:</b>	Coil		
<b>Damper type:</b>	Telescopic	<b>Adjustable:</b>	No
<b>Anti-sway bar:</b>	None	<b>Adjustable:</b>	N/A
<b>Suspension adjustable:</b>	No		
<b>Comment:</b>			

<b>1.4 STEERING</b>			
<b>Type:</b>	Rack & pinion	<b>Make:</b>	GMH
<b>Comment:</b>			

<b>1.5 BRAKES</b>			
	<b>Front</b>	<b>Rear</b>	
<b>Type:</b>	Disc	Drum	
<b>Dimensions:</b>	254 x 15 mm	228 mm dia.	
<b>Material:</b>	Cast iron	Cast iron	
<b>No. cylinders/pots per wheel:</b>	Two	One	
<b>Actuation:</b>	Hydraulic	Hydraulic	
<b>Caliper Make:</b>	Girlock		
<b>Caliper Type:</b>	Split		
<b>Caliper Material:</b>	Cast iron		
<b>Master cylinder make:</b>	PBR	<b>Type:</b>	Tandem
<b>Adjustable bias:</b>	None		
<b>Servo Fitted:</b>	Yes		
<b>Comment:</b>			

## SECTION 2 - ENGINE

<b>2.1 ENGINE</b>			
<b>Make:</b>	GMH		
<b>Model:</b>	Red 202		
<b>No. cylinders:</b>	Six	<b>Configuration:</b>	In line
<b>Cylinder block material:</b>	Cast iron	<b>Two/Four Stroke:</b>	Four
<b>Bore - Original:</b>	92.07 mm	<b>Max. allowed:</b>	93.57 mm
<b>Stroke - original:</b>	82.55 mm		
<b>Capacity - original:</b>	3298 cc	<b>Max. allowed:</b>	3406 cc
<b>Cooling method:</b>	Liquid	<b>C/R:</b>	N/A
<b>Identifying marks:</b>	JP1001 or Q1001		
<b>Comment:</b>	The later model 3.3 red block is allowed.		

<b>2.2 CYLINDER HEAD</b>					
<b>Make:</b>	GMH				
<b>No. of valves/cylinder:</b>	Two	<b>Inlet:</b>	One	<b>Exhaust:</b>	One
<b>No. of ports total:</b>	Nine	<b>Inlet:</b>	Three	<b>Exhaust:</b>	Six
<b>No. of camshafts:</b>	One	<b>Location:</b>	Block	<b>Drive:</b>	Gear
<b>Valve actuation:</b>	Pushrod and rocker				
<b>Spark plugs/cylinder:</b>	One				
<b>Identifying marks:</b>	N/A				
<b>Comment:</b>	Following on from the LC with the 173cu in head with larger valves & stronger springs. Any Holden 9 port rounded shoulder cylinder head may be used. Alternate cylinder head see Appendix A				

<b>2.3 LUBRICATION</b>			
<b>Method:</b>	Wet sump		
<b>Oil cooler standard:</b>	No		
<b>Comment:</b>	External oil line to the main bearings fitted in some early versions		

<b>2.4 IGNITION SYSTEM</b>	
<b>Type:</b>	Coil, points, and distributor
<b>Make:</b>	Delco Remy
<b>Comment:</b>	

<b>2.5 FUEL SYSTEM</b>			
<b>Carburettor Make:</b>	Zenith Stromberg	<b>Model:</b>	175 CD – 2S
<b>Carburettor number:</b>	Three	<b>Size:</b>	1.75 inch
<b>Comment:</b>			

### SECTION 3 - TRANSMISSION

<b>3.1 CLUTCH</b>			
<b>Make:</b>	GMH		
<b>Type:</b>	Diaphragm		
<b>Diameter:</b>	219 mm	<b>No. of Plates:</b>	One
<b>Actuation:</b>	Mechanical		
<b>Comment:</b>			

<b>3.2 TRANSMISSION</b>			
<b>Type:</b>	Synchromesh		
<b>Make:</b>	GMH M20		
<b>No. forward speeds:</b>	Four	<b>Gearbox location:</b>	Behind engine
<b>Gear change type and location:</b>	Remote lever, Floor		
<b>Case material:</b>	Cast iron	<b>Identifying marks:</b>	N/A
<b>Comment:</b>			

<b>3.3 FINAL DRIVE</b>			
<b>Make:</b>	GMH	<b>Model:</b>	N/A
<b>Type:</b>	N/A		
<b>Wheel drive method:</b>	Rear		
<b>Ratios:</b>	Various		
<b>Differential type:</b>	Free / open		
<b>Comment:</b>			

<b>3.4 TRANSMISSION SHAFTS (EXPOSED)</b>	
<b>Number:</b>	One
<b>Description:</b>	Open tail shaft with two Cardan type joints
<b>Comment:</b>	

<b>3.5 WHEELS &amp; TYRES</b>			
<b>Wheel type - Original:</b>	Pressed disc	<b>Material - Original:</b>	Steel
<b>Allowed:</b>	Cast	<b>Allowed:</b>	Aluminium
<b>Fixture method:</b>	Studs	<b>No. studs:</b>	Five
<b>Wheel dia. &amp; rim width:</b>	<b>FRONT</b>		<b>REAR</b>
<b>Original:</b>	5.5 or 6 x 13 inch		5.5 or 6 x 13 inch
<b>Allowed:</b>	7 x 13		7 x 13
<b>Tyres allowed:</b>	60% minimum aspect ratio, refer approved tyre list.		
<b>Comment:</b>			

## SECTION 4 - GENERAL

<b>4.1 FUEL SYSTEM</b>			
<b>Tank Location:</b>	Boot	<b>Capacity:</b>	77 litres
<b>Fuel pump type and location:</b>	Mechanical, engine block	<b>Make:</b>	AC
<b>Comment:</b>	Two Torana lower fuel tank sections were welded together to achieve this capacity. An alternate filler mounted through the Gauge hole should be strongly recommended as fuel surge under acceleration produces leakage through the standard filler.		

<b>4.2 ELECTRICAL SYSTEM</b>			
<b>Voltage:</b>	12	<b>Generator or Alternator:</b>	Alternator
<b>Battery Location:</b>	Engine compartment		
<b>Comment:</b>			

<b>4.3 BODYWORK</b>			
<b>Type:</b>	Closed touring	<b>Material:</b>	Steel
<b>No. of seats:</b>	Four	<b>No. doors:</b>	Two
<b>Comment:</b>	See Appendix B		

<b>4.4 DIMENSIONS</b>			
<b>Track - Front:</b>	1372 mm	<b>Rear:</b>	1323 mm
<b>Wheelbase:</b>	2540 mm	<b>Overall length:</b>	4386 mm
<b>Dry weight:</b>	1048 Kg		
<b>Comment:</b>	Front track varied with fitment of Globe Sprint master wheels and spacers used in late 1972.		

<b>4.5 SAFETY EQUIPMENT</b>			
<b>Refer applicable Group Regulations</b>			

## ***Appendix A***

### ***Alternate Cylinder Head***

#### ***Ian Moodie Cylinder head***

- The Ian Moodie XU1 Cylinder Head casting No 2815843 is allowed.
- The cylinder head may be modified as permitted in the Group N regulations.
- The Ian Moodie Cylinder head requires the use of a MSD Soft Touch rev limiter Part No 8728 with a 7500 RPM limit. The limiter will be subject to testing at race meetings. The limiter will be located in an easily accessible position within the engine bay.

## ***Appendix B***

- Metal front spoiler & rear spoiler as per LC Torana XU1.
- Dash panel revised & crash pad straightened out.
- Collapsible steering column & lock fitted with ignition key on steering column.
- Floor console around gear stick.
- High back seats with adjustable head restraints fitted.