

# CAMS

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 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 CAMS Manual of Motor Sport.

**Make of Car:** Volvo **Model:** 164

**Period of Original Manufacture:** .1968 - 1972

**CAMS Historic Group:** Nc

**Date of Issue of this Document:** 25<sup>th</sup> March 2004



## SECTION 1 - CHASSIS

### 1.1 CHASSIS FRAME

<b>Description:</b>	Unitary Construction	<b>Period of Manufacture:</b> 1968/1972
<b>Manufacturer:</b>	AB Volvo	
<b>Chassis no. from:</b>	52790 >>>	
<b>Chassis no. location:</b>	Bulkhead	
<b>Material:</b>	Steel	
<b>Comments:</b>		

### 1.2 FRONT SUSPENSION

<b>Description:</b>	Independent – Wishbone	
<b>Spring medium:</b>	Coil	
<b>Damper Type:</b>	Telescopic	<b>Adjustable:</b> Optional
<b>Anti-sway bar:</b>	Fitted	<b>Adjustable:</b> No
<b>Suspension adjustable:</b>	Yes	<b>Method:</b> Camber /Castor/Toe-In/Out
<b>Comments:</b>	Spring Rates and Ride Height Free	

### 1.3 REAR SUSPENSION

<b>Description:</b>	Live Axle- Trailing Arms	
<b>Spring medium:</b>	Coil	
<b>Damper type:</b>	Telescopic	<b>Adjustable:</b> Optional
<b>Anti-sway bar:</b>	Not Fitted	<b>Adjustable:</b> N/A
<b>Suspension adjustable:</b>	No	<b>Method:</b>
<b>Comments:</b>	Spring Rates & Ride Height Free	

### 1.4 STEERING

<b>Type</b>	Ball & Nut	<b>Make:</b>	Volvo
<b>Comments:</b>	None		

### 1.5 BRAKES

<b>Type:</b>	<b>Front</b>	<b>Rear</b>
<b>Dimensions:</b>	Disc 272 x 24 mm	Disc 295 x 9.6 mm
<b>Material of drum/disc</b>	Cast Iron	Cast Iron
<b>No. cylinders/pots per wheel:</b>	4	2
<b>Actuation:</b>	Hydraulic	Hydraulic
<b>Caliper: Make, Material, Type:</b>	Cast Iron	Cast Iron
<b>Master cylinder make:</b>	<b>Type</b>	Tandem
<b>Adjustable bias:</b>		
<b>Servo Fitted:</b>	Yes	
<b>Comments:</b>	Dual master cylinders permitted	

## SECTION 2 - ENGINE

### 2.1 ENGINE

<b>Make:</b>	Volvo	<b>Configuration:</b>	In Line
<b>Model:</b>	164	<b>Four Stroke</b>	
<b>No. cylinders:</b>	6	<b>Max. allowed:</b>	90.4 mm
<b>Cylinder Block-material:</b>	Cast Iron	<b>Max. allowed:</b>	80 mm
<b>Bore - Original:</b>	88.9 mm	<b>Max. allowed:</b>	3079 cc
<b>Stroke - original:</b>	80 mm		
<b>Capacity - original:</b>	2978 cc		
<b>Cooling method:</b>	Water		
<b>Identifying marks:</b>			
<b>Comments:</b>	None		

### 2.2 CYLINDER HEAD

<b>Make:</b>	Volvo	<b>Inlet:</b>	1	<b>Exhaust:</b>	1
<b>No. of valves/cylinder-</b>		<b>Inlet:</b>	6	<b>Exhaust:</b>	6
<b>No. of ports total:</b>	12	<b>Location:</b>	Block	<b>Drive:</b>	Gear
<b>No. of camshafts:</b>	1				
<b>Valve actuation:</b>	Pushrod				
<b>Spark plugs/cylinder:</b>	1				
<b>Identifying marks:</b>					
<b>Comments:</b>	None				

### 2.3 LUBRICATION

<b>Wet / Dry Sump</b>	Wet Sump	<b>Oil tank location:</b>	N/A
<b>Dry sump pump type:</b>	N/A	<b>Location:</b>	N/A
<b>Oil cooler standard?</b>	No	<b>Location:</b>	N/A
<b>Comments:</b>	Oil Cooler Permitted		

### 2.4 IGNITION SYSTEM

<b>Type:</b>	Coil & Distributor
<b>Make:</b>	Bosch
<b>Comments:</b>	Modifications permitted. Refer Art. 4.5 Group Nc Regulations

### 2.5 FUEL SYSTEM

<b>Carburettor: Make:</b>	SU	<b>Model:</b>	HS6
<b>Fuel Injection Make:</b>	N/A	<b>Type:</b>	N/A
<b>Supercharged:</b>	No	<b>Type:</b>	N/A
<b>Comments</b>	Modifications permitted . Refer Art. 5 Group Nc Regulations		



## SECTION 3 - TRANSMISSION

### 3.1 CLUTCH

**Make:** Volvo                      **Type** Diaphragm                      **Diameter:** 240 mm  
**No. of Plates:** 1  
**Actuation:** Cable  
**Comments:** Clutch & method of actuation free

### 3.2 TRANSMISSION

**Type:** 4 Speed Synchromesh  
**Make:** Volvo                      M400  
  
**No. forward speeds:** 4                      **Gearbox location:** Behind Engine  
**Gearchange type and location:** Floor Remote  
**Case material:**                      **Identifying marks:**  
**Comments:** Ratios Free

### 3.3 FINAL DRIVE

**Make:** Volvo                      **Model:** 164  
**Wheel drive method:** Rear  
**Ratios:** Various  
**Differential:** Free- Hypoid                      **Type:**  
**Comments:** Limited slip differential permitted

### 3.4 TRANSMISSION SHAFTS (EXPOSED)

**Number:** 1                      **Location:** Gearbox to Final Drive  
  
**Description:** Tailshaft with Universal Joints  
**Comments:** None

### 3.5 WHEELS & TYRES

<b>Wheel type:</b>	<b>Original:</b> Pressed Steel	<b>Material:</b>
	<b>Allowed:</b> Period Alloy	<b>Original:</b> Steel
<b>Fixture method:</b>	Bolt On	<b>Allowed:</b> Steel or Alloy
		<b>No. studs:</b> 5
	<b>FRONT</b>	<b>REAR</b>
<b>Wheel dia. &amp; rim width</b>		
<b>Original:</b>	5.5 x 15	5.5 x 15
<b>Allowed</b>	7 x 15	7 x 15
<b>Tyre Section:</b>		
<b>Original:</b>	185 x 15	185 x 15
<b>Allowed</b>		
<b>Aspect ratio - minimum:</b>	60%	60%
<b>Comments:</b>		

## SECTION 4 - GENERAL

### 4.1 FUEL SYSTEM

**Tank Location:** Rear **Capacity:** 58 Litres  
**Fuel pump, type and location:** Mechanical **Make:** Volvo  
**Comments:** Fuel pump/s free

### 4.2 ELECTRICAL SYSTEM

**Voltage:** 12 **Alternator fitted**  
**Battery Location:** Engine Bay  
**Comments:** None

### 4.3 BODYWORK

**Type:** 4 Door Sedan **Material:** Steel  
**No. of seats:** 5 **No. doors:** 4  
**Comments:** None

### 4.4 DIMENSIONS

**Track - Front:** 1350 mm **Rear:** 1350 mm  
**Wheelbase:** 2720 mm **Overall length:** 4700 mm  
**Dry weight:** 1370 Kg  
**Comments:**

### 4.5 SAFETY EQUIPMENT

**Fire extinguisher: required** Refer Schedule H  
**Seat belt: required** Refer Schedule I  
**Rollbar :required** Refer Schedule J & Group  
Nc Regulations  
**Elect. cut off switch: required**  
**Safety fuel tank: optional**