CAMS

5TH CATEGORY - HISTORIC RACING

GROUP Nb

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:	**Ford**	**Model:**	**Lotus Cortina Mk 1***
Period of Original Manufacture:	**1963 - March 1965***		
CAMS Historic Group:	**Group Nb**		
Date of Issue of this Document:	**January 1999**		

*NOTE: This specification sheet relates to the “Coil over/A Frame” rear suspension cars using both the early body and the ‘Aeroflow Ventilation’ model introduced in September 1964.
This specification is the only one acceptable for Group Nb: these cars would also be eligible for classification as Group Nc.

SECTION 1 - CHASSIS

1.1 CHASSIS FRAME

Description:	Unitary construction	**Period of Manufacture:**	
Manufacturer:	Ford Motor Company Ltd./Lotus Cars, Cheshunt, England		
Chassis no. from:	Z74C002368K (not applicable for "specification only" cars)		
Chassis no. location:	On I/D plate in engine compartment		
Material:	Steel with aluminium-alloy skinned swinging panels		

1.2 FRONT SUSPENSION

Description:	Independent McPherson strut, combined with torque reactor and stabiliser bar.		
Spring medium:	Coil.		
Damper Type:	Telescopic double acting integrated with McPherson strut tube.	**Adjustable:**	Original - no
Anti-sway bar:	Yes	**Adjustable:**	No
Suspension adjustable:		**Method:**	

1.3 REAR SUSPENSION

Description:	Live axle located by upper trailing arms and lower A-frame.		
Spring medium:	Coil over damper units. Alteration of ride height is allowed by methods employed in the period.		
Damper type:	Telescopic double acting	**Adjustable:**	Original - yes
Anti-sway bar:	No	**Adjustable:**	
Suspension adjustable:	No	**Method:**	

1.4 STEERING

Type:	Recirculating ball 2.5 turns lock to lock	**Make:**	

1.5 BRAKES

	Front	**Rear**
Type:	Disc	Drum
Dimensions:	244 x 12.7 mm	229 x 44.5 mm
Material of drum/disc	Cast iron	Cast iron
No. cylinders/pots per wheel:	2	1
Actuation:		
Caliper: Make, Material, Type:	Girling, cast iron, two pot	
Master cylinder make:	Girling	**Type:** Hydraulic
Adjustable bias	Original, no	
Servo Fitted	Yes	

SECTION 2 - ENGINE

2.1 ENGINE

Make:	Lotus Ford		
Model:	Twin Cam		
No. cylinders:	4	**Configuration:**	In-line
Cylinder Block-material:	Cast Iron	**Four Stroke**	
Bore - Original:	82.55 mm	**Max. allowed:**	N/A
Stroke - original:	72.75 (some books say 72.82)	**Max. allowed:**	72.75/72.82
Capacity - original:	1558 cc	**Max. allowed:**	1600cc
Cooling method:	Water and fan		
Identifying marks:	Cylinder block designated 120E-6015 at lower left rear.		

Comments: Cylinder blocks designated 120E must be used.

2.2 CYLINDER HEAD

Make:	Lotus Ford				
No. of valves/cylinder-	2	**Inlet:**	1	**Exhaust:**	1
No. of ports total:	8	**Inlet:**	4	**Exhaust:**	4
No. of camshafts:	2	**Location:**	Overhead	**Drive:**	Chain
Valve actuation:	Direct from camshaft via buckets				
Spark plugs/cylinder:	1				

Comments: Lotus part number A26E311 & foundry batch number (eg WM9403 - the William Mills Foundry cast the heads) adjoin the gasket surface on the exhaust side (visible on an assembled engine using a mirror).

The cylinder head manufactured by SAS Engineering may be used to replace original Lotus heads. Modified original or replacement aftermarket timing chests incorporating a removable water pump are acceptable.

Comments: The Group Nb regulations allow the use of any original production Lotus twin cam cylinder head, including those manufactured for the Escort Twin Cam (renamed Escort GT 1600 in Australia *circa 1970*).

2.3 LUBRICATION

Method: Wet sump, external oil pump driven off idler cam located in cylinder block. **Oil tank location:** N/A

Oil cooler standard: No **Location:** N/A

2.4 IGNITION

Type:	Battery, coil and distributor
Make:	N/A

2.5 FUEL FEED

Carburettor: Make:	Weber	**Model:**	Original - 40DCOE	**No:**	2	**Size:**	
Fuel injection Make:	N/A		**Type:**				
Supercharged:	No		**Type:**				
Make:							

Comments: Dellorto carburettors are not acceptable as they were not available pre 1965.

SECTION 3 - TRANSMISSION

3.1 CLUTCH

Make:		**Type:**	Dry plate	**Diameter:**	203 mm
No. of Plates:	1				
Actuation:	Hydraulic				

3.2 TRANSMISSION

Type:
Make: Ford **Model:** Ford 118E/Lotus
No. forward speeds: 4 **Gearbox location**: Attached to engine with alloy bell housing
Gear change type and location: Central remote lever
Case material: Cast iron Identifying marks:

3.3 FINAL DRIVE

Make: Ford **Model:**
Wheel drive method: Rear drive - live rear axle with differential.
Ratios: Original 3.9 or 4.4:1
Differential: Semi floating hypoid **Type:** Free / open

3.4 TRANSMISSION SHAFTS (EXPOSED)

Number: 1 **Location:** Transmission output shaft to rear axle.
Description: Both single piece and two piece tubular steel tailshafts with Hardy-Spicer universals were used during the period.

3.5 WHEELS & TYRES

Wheel type: **Original:** Pressed disc **Material:** **Original:** Steel
Allowed: Period alloy **Allowed:** Alloy
Fixture method: Studs **No. studs:** 4

	FRONT	**REAR**
Wheel dia. & rim width		
Original:	5.5J	5.5J
Allowed	6.0' max	6.0' max
Tyre section:		
Aspect ratio - minimum:	60%	

SECTION 4 - GENERAL

4.1 FUEL SYSTEM

Tank Location: Floor of boot **Capacity:** 36.4 litres
Fuel pump, type and location: Mechanical **Make:**
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4.2 ELECTRICAL SYSTEM

Voltage: 12
Battery Location: Originally on right side of luggage compartment.

4.3 BODYWORW

Type: Unitary construction **Material:** Steel / swinging panels aluminium skinned.
No. of seats: 4 **No. of doors:** 2
Comments: Interior and exterior trim must be present in its entirety. For safety purposes, a fire wall of aluminium sheet is required between the luggage compartment and the passenger compartment, including access via the rear pillars**.**

4.4 DIMENSIONS

Track - Front: 1310 +/-25 mm **Rear:** 1275 +/-25 mm
Wheelbase: 2499 +/-22 mm **Overall length:** 4275 mm
Dry weight: Original 850 kg (with water, oil and spare wheel)

4.5 SAFETY EQUIPMENT

As required by the CAMS Manual of Motor Sports