

Manufacturers Reference No. for Application

W M 2206



F.I.A. Recognition No.

38

# ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

## Federation Internationale de l'Automobile.

Form of Recognition in accordance with  
Appendix J to the  
International Sporting Code.

Manufacturer..... G.S.M. CARS LTD.

Model..... G.S.M. DELTA ..... Year of Manufacture..... 1960

Serial No. of Chassis..... 600601 - 600663.

Engine..... S/191942E - 201516E.

Type of Coachwork..... 2-SEATER SPORTS.

Recognition is valid from..... 10 JUIN 1961 ..... In category..... BT



Photog

front right.



Stamp of F.I.A. to be  
affixed here.

General description of car:

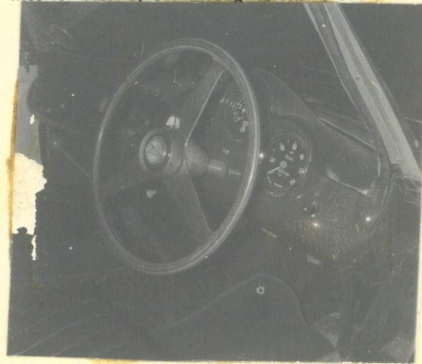
G.S.M Delta is a Production Sports and Grand Turismo car having embodied in its design unit construction in Steel and Fibreglass. The cockpit interior gives a width of 50". A long capacity boot together with door pockets and dashboard glove compartment give ample accommodation. Ample ground clearance with chassis as the lowest point. Ladder type chassis with main tubes of  $3\frac{1}{2}$ " diam. 16'SWG, Left and Right Hand drive.

Photographs to be affixed below.

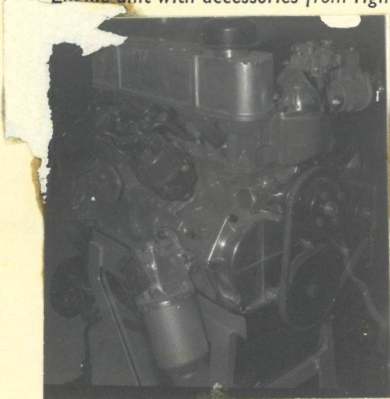
$\frac{3}{4}$  view of car from rear left.



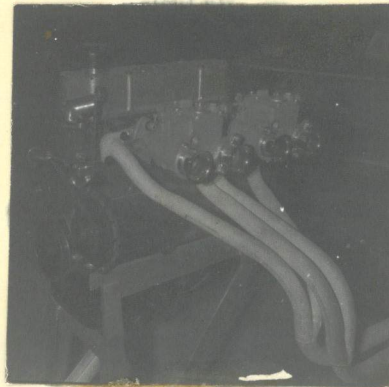
Interior view of car through driver's door.



Engine unit with accessories from right.



Engine unit with accessories from left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



# ENGINE

No. of cylinders 4 in line .....  
~~5~~  
~~opposed~~

Cycle 4 - Stroke Firing order 1 2 4 3

Capacity 997 c.c. Bore 80.963 m.m. Stroke 48.412 m.m.

Maximum rebore 0.75 mm Resultant capacity 1004.2 c.c.

Material of cylinder block Cast Iron Material of sleeves, if fitted .....

Distance from crankshaft centre line to top face of block at centre line of cylinders 181 m.m.

Material of cylinder head Cast Iron Volume of one combustion chamber ..... c.c.

Compression ratio 9.64:1

Material of piston Aluminium Alloy No. of piston rings 3

Distance from gudgeon pin centre line to highest point of piston crown 39.7 m.m.

Bearings { Crankshaft main bearings: Type Thin Wall Dia. 53.97 m.m.  
 Connecting rod big end: Type Thin Wall Dia. 49.21 m.m.

Weights { Flywheel 6.480 kg.  
 Crankshaft 7.495 kg.  
 Connecting rod .625 kg.  
 Piston with rings .397 kg.  
 Gudgeon pin .113 kg.

No. of valves per cylinder 2 Method of valve operation Push Rods & Rockers

No. of camshafts 1 Location of camshafts Side of Crankcase

Type of camshaft drive Roller chain with automatic tensioner

Diameter of valves: Inlet 34.8 m.m. Exhaust 30.3 m.m.

Diameter of port at valve seat: Inlet 32.6 m.m. Exhaust 27.6 m.m.

Tappet clearance for checking timing: Inlet .5 m.m. Exhaust .5 m.m.

Valves open: Inlet 28 degrees BTC Exhaust 68 BBC

Valves close: Inlet 77 degrees ABC Exhaust 28 degrees ATC

Maximum valve lift: Inlet 9.5 m.m. Exhaust 9.5 m.m.

Degrees of crankshaft rotation from zero to—  
 Maximum lift: Inlet 143 degrees Exhaust 138 degrees  
 $\frac{3}{4}$  Maximum lift: Inlet 103 degrees Exhaust 98 degrees

Valve springs: Inlet Exhaust  
 Type Coil Coil  
 No. per valve 2 2

Carburettor: Type Horizontal No. fitted 2  
 (up or down draft, horizontal)

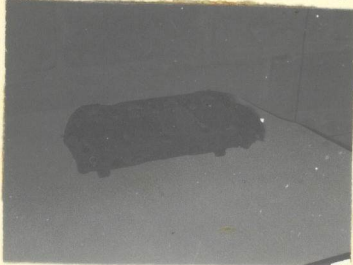
Make Weber Model 40 DCOE

Flange hole diameter 40 m.m. Choke diameter 30 m.m.

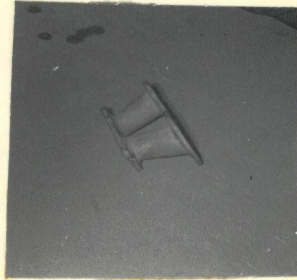
Main jet identification No. 130

Air filter: Type None No. fitted ---  
 Inlet manifold:  
 Diameter of flange hole at carburettor 40 m.m.  
 Diameter of flange hole at port 28.5 m.m.

Photograph of combustion chamber to be affixed here.



Photograph of inlet manifold to be affixed here.



Exhaust manifold:  
 Diameter of flange hole at port 26 m.m.  
 Diameter of flange hole at connection to silencer inlet pipe 38 m.m.

Photograph of piston showing crown to be affixed here.



Photograph of exhaust manifold to be affixed here.



### ENGINE ACCESSORIES

Make of fuel pump S.U. No. fitted 2  
 Method of operation Electric  
 Type of ignition system Single distributor with H.T. coil of magneto XXXXXX  
 Make of ignition Bosch Model VJ4BL28  
 Method of advance and retard Automatic  
 Make of ignition coil Bosch Model "Super Coil"  
 No. of ignition coils 1 Voltage 12  
 Make of dynamo Lucas Model C40/L-0  
 Voltage of dynamo 12 Maximum output 40 amps.  
 Make of starter motor Lucas Model M35H/CW90  
 Battery: No. fitted 1 Voltage 12 Capacity 36 amp. hour

Make G.S.M. Model Delta F.I.A. Recognition No. ....  
 Manufacturers Reference No. of Application .....

**TRANSMISSION**

Make of clutch Ford Type Single Dry plate  
 Diameter of clutch plate 185 mm No. of plates 1  
 Method of operating clutch Hydraulic  
 Make of gearbox Ford Type 105E/G.S.M  
 No. of gearbox ratios 4  
 Method of operating gearshift Ball-mounted lever  
 Location of gearshift Centrally on floor  
 Is overdrive fitted? No  
 Method of controlling overdrive, if fitted .....

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	2.916	16-35	4-118	16-35				
2.	1.7	22-28	2.396	22-28				
3.	1.28	25-24	1.412	28-21				
4.	Direct		Direct					
5.	Const. Ratio		Const. Ratio					
	21-28		17-32					

Type of final drive Spiral Bevel  
 Type of differential Star plus Bevel  
 Final drive ratio 4.44 Alternatives 4.125 - 3.875  
 No. of teeth 40 - 9  
 Overdrive ratio, if fitted --

**WHEELS**

Type Pressed steel Weight 4.98 kg.  
 Method of attachment 4 Studs  
 Rim diameter 330 m.m. Rim width 88.8 m.m.  
 Type size: Front 5.25 x 13 Rear 5.25 x 13

**BRAKES**

Method of operation Hydraulic  
 Is servo assistance fitted? No  
 Type of servo, if fitted --  
 No. of hydraulic master cylinders 1 Bore 15.87 m.m.

	Front		Rear	
No. of wheel cylinders	4	.....	2	.....
Bore of wheel cylinders	19	m.m.	19	m.m.
Inside diameter of brake drums	203.2	m.m.	203.2	m.m.
No. of shoes per brake	2	.....	2	.....
Outside diameter of brake discs	-	m.m.	-	m.m.
No. of pads per brake	-	.....	-	.....
Dimensions of brake linings per shoe or pad (if all shoes or pads in each brake are not of same dimensions, specify each)				

	Front		Rear	
Length	200	m.m.	200	m.m.
		m.m.		m.m.
Width	31.75	m.m.	31.75	m.m.
Total area per brake	12,700	m.m. <sup>2</sup>	12,700	m.m. <sup>2</sup>

### SUSPENSION

	Front		Rear	
Type	Independent	.....	Live Axle	.....
Type of spring	Transverse Leaf	.....	Coil	.....
Is stabiliser fitted?	Yes	.....	No	.....
Type of shock absorber	Telescopic	.....	Telescopic	.....
No. of shock absorbers	2	.....	2	.....

### STEERING

Type of steering gear	Burman: Worm plus Nut with Recirc. Ball		
Turning circle of car	10.5	.....	m., approx.
No. of turns of steering wheel from lock to lock	2½	.....	

### CAPACITIES AND DIMENSIONS

Fuel tank	31	litres	Sump	4.5	litres
Radiator	9.3	litres			
Overall length of car	378.3	cm.	Overall width of car	153.7	cm.
Overall height of car, unladen (with hood up, if appropriate)	117	cm.	with hood	121.5	
Distance from floor to top of windscreen:					
Highest point	87	cm.	Lowest point	82	cm.
Width of windscreen:					
Maximum width	131	cm.	Minimum width	110	cm.
*Interior width of car	124	cm.			
No. of seats	2				
Track: Front	124	cm.	Rear	121	cm.
Wheelbase	241	cm.	Ground clearance	177	m.m.

\*(To be measured at the immediate rear of the steering wheel, and the width quoted to be maintained in a vertical plane of not less than 25 cms.)

Overall weight with water, oil and spare wheel, but without fuel
 491 | kgs. |

**Additional information for cars fitted with two-cycle engines**

System of cylinder scavenging.....

Type of lubrication.....

**Size of inlet port:**

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.<sup>2</sup>

**Size of exhaust port:**

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.<sup>2</sup>

**Size of transfer port:**

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.<sup>2</sup>

**Size of piston port:**

Length measured around piston.....m.m.

Height.....m.m. Area.....m.m.<sup>2</sup>

Method of pre-compression.....

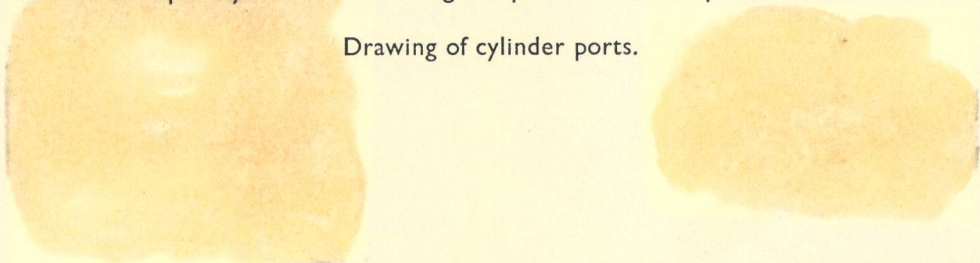
Bore and stroke of pre-compression cylinder, if fitted.....m.m.

Distance from top of cylinder block to lowest point of inlet port.....m.m.

Distance from top of cylinder block to highest point of exhaust port.....m.m.

Distance from top of cylinder block to highest point of transfer port.....m.m.

Drawing of cylinder ports.



**Supercharger, if fitted**

Make..... Model or Type No.....

Type of drive..... Ratio of drive.....

**Fuel injection, if fitted**

Make of pump..... Model or Type No.....

Make of injectors..... Model or Type No.....

Location of injectors.....

Optional equipment affecting preceding information:—

Twin choke down draft 36 DCD Weber.

Low compression, smaller valves and ports, with less lift and overlap of valve timing so that inferior fuels can be used with a flexible top gear performance.

The alternative gear box ratios, listed, are fitted with this modified engine.



