JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No 172

Group 2 Touring Cars

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Manufacturer: Toyota Motor Co.,Ltd.

Serial No of chassis: MS 41 - 10001

engine: M - 10001

Recognition is valid from: 1st February 1966

Cylinder-capacity: 1988 cm3 121 Inches

Model: MS 41

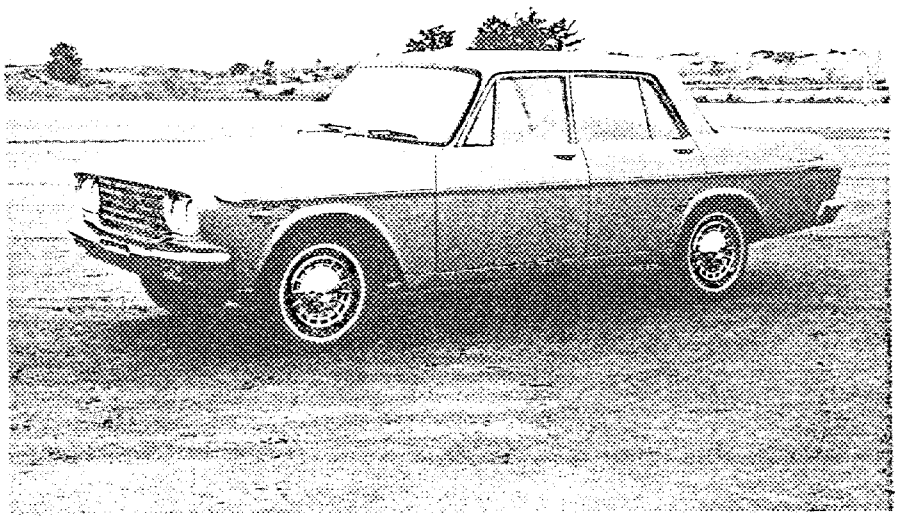
Manufacturer: Toyota Motor Co.,Ltd.

Manufacturer: Toyota Motor Co.,Ltd.

List: 14/2

The manufacturing of the model described in this recognition form was started on August 1965 and the minimum production of 1000 identical cars, in accordance with the specifications of this form was reached on Nov. 1965

Photograph A. 3/4 view of car from front



東京都港区芝公園第三号地一番五
社団法人 日本自動車連盟
機械振興会館内

The vehicle described in this form has been subject to the following amendments :

Amendments

on	19	rec. No	List	
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Normal evolution of the type

on	19	rec. No	List	
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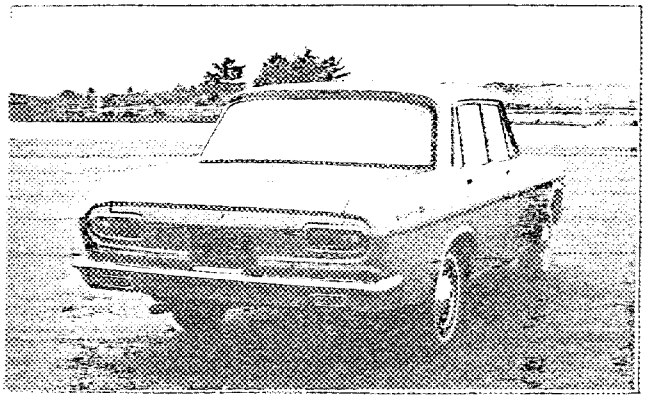
on	19	rec. No	List	

Stamp and signature of the F.I.A. Authority

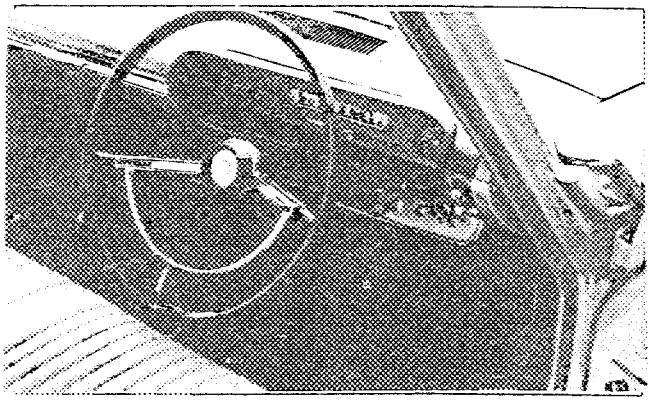
Stamp and signature of the

Make Toyota **Photograph** Model MS 41 F. I. A. Rec. No

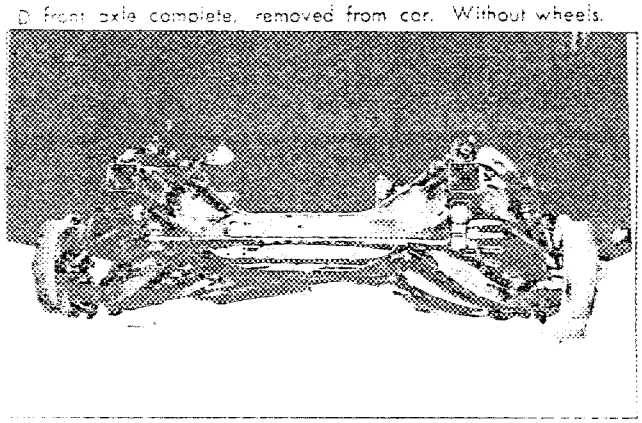
B 3/4 view of car from rear



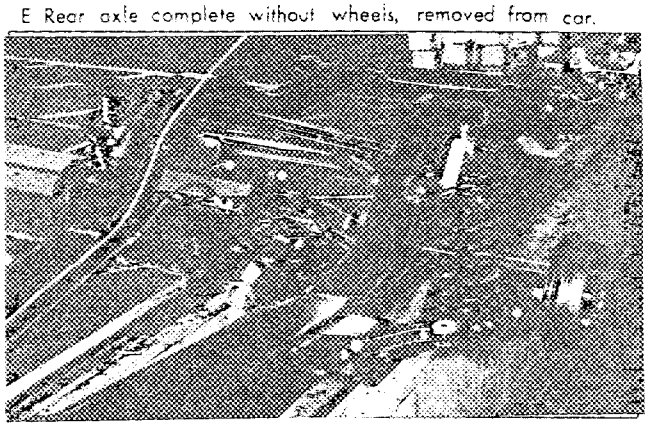
C intererior view of car through driver's door(open or removed)



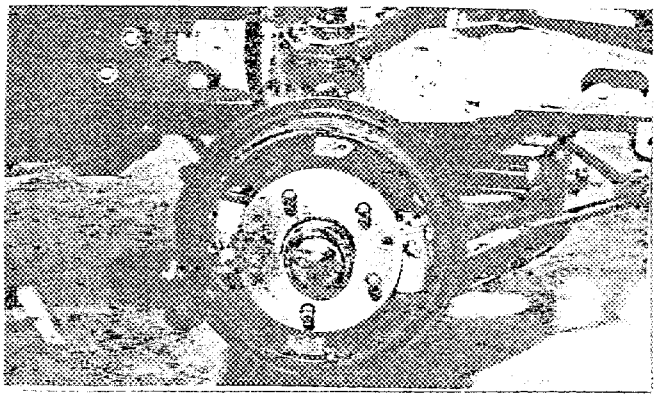
D front axle complete, removed from car. Without wheels.



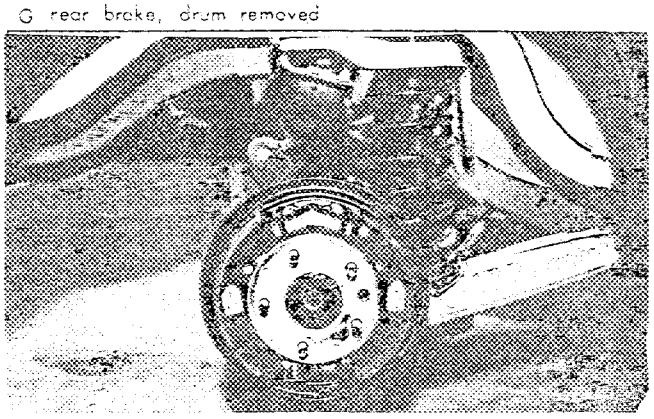
E Rear axle complete without wheels, removed from car.



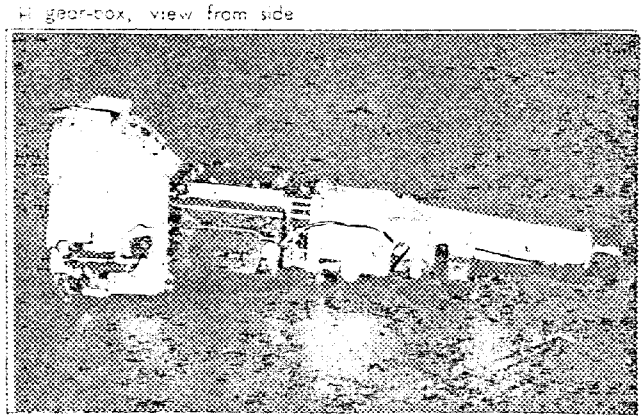
F front brake, drum removed



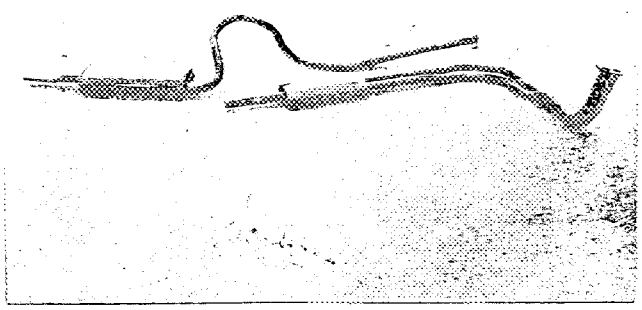
G rear brake, drum removed



H gear-box, view from side



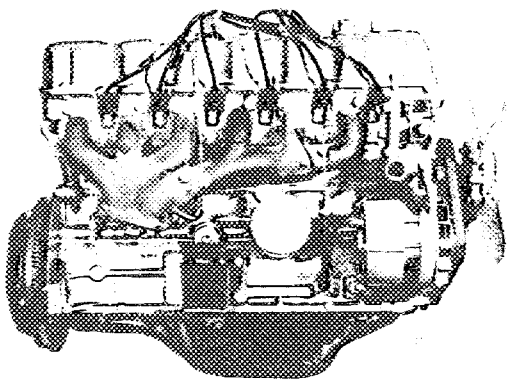
I silencer + exhaust pipes after exhaust manifold.



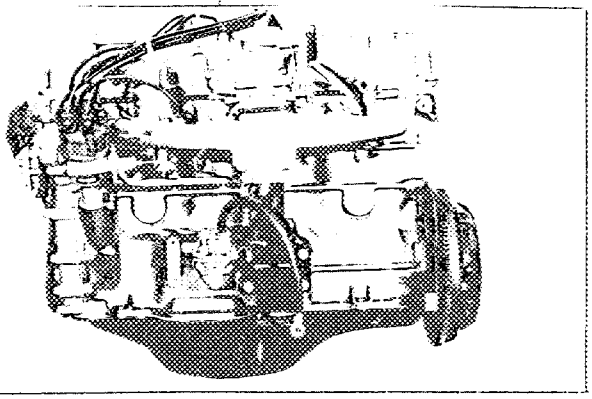
Toyota

Photograph Model MS 41 F. I. A. Rec. No

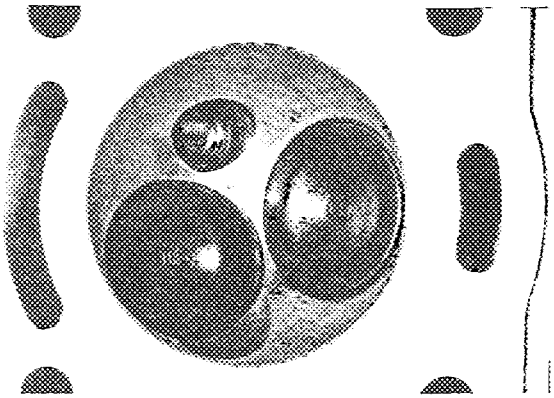
J engine unit out of car, from right. With clutch and accessories but without air filter nor gear-box.



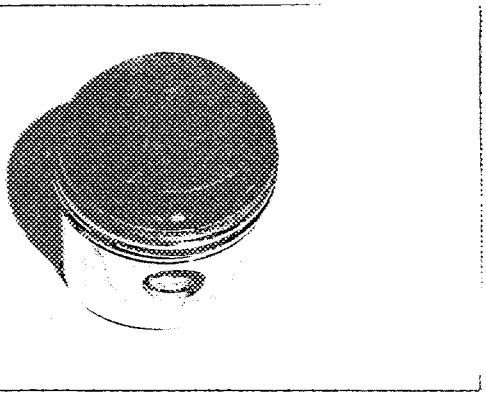
K Engine unit out of car, from left. With clutch and accessories but without gear-box nor air filter.



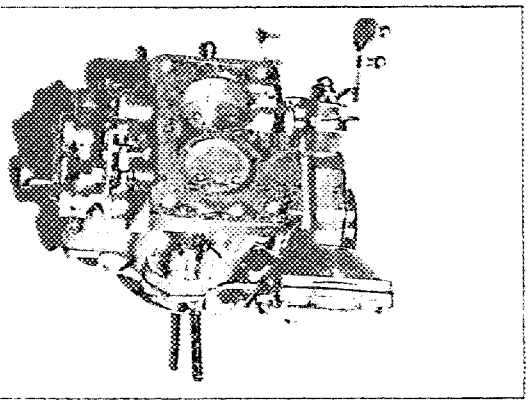
L combustion chamber



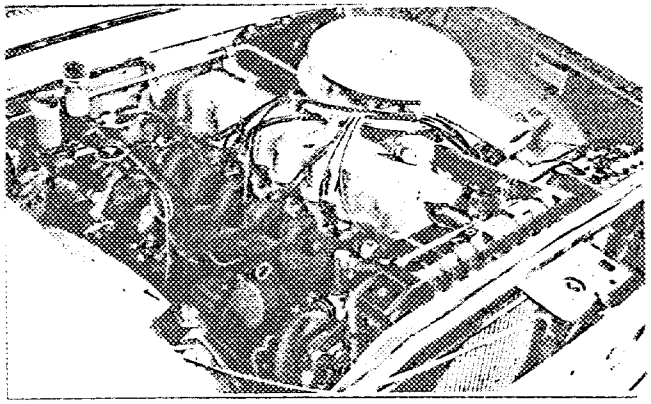
M piston crown



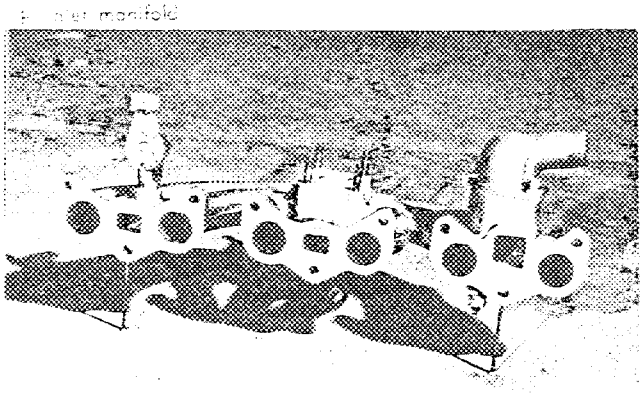
N Carburetor (view from side of manifold)



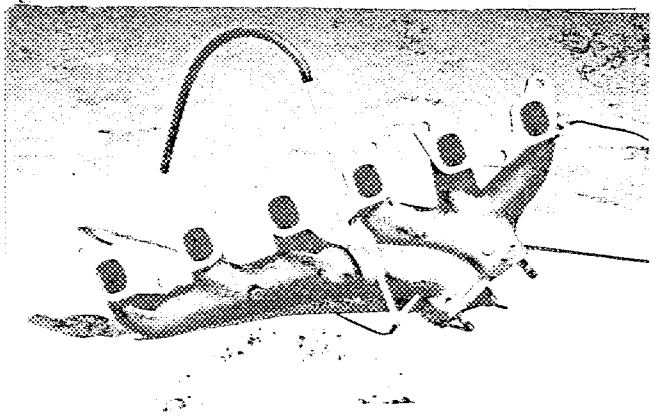
O engine in car with all accessories, bonnet open or removed.



P inlet manifold



Q exhaust manifold

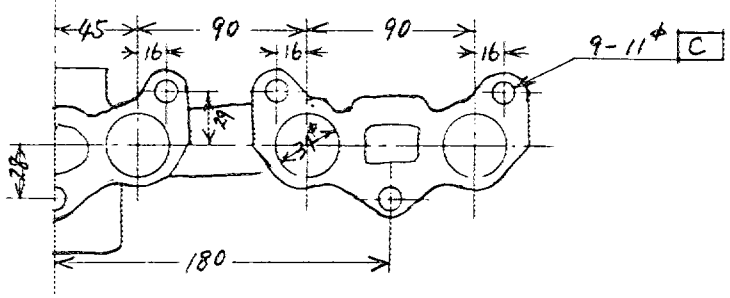


Make Toyota Model MS 41 F. I. A. Rec. No

Drawing inlet manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

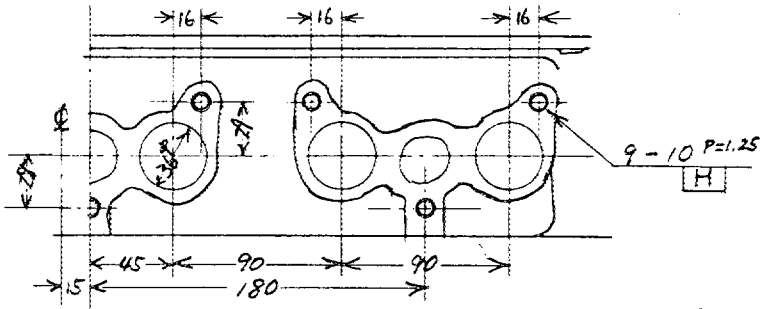
Relative true position of [C] holes is 0.4DIA.

General Tolerance of casting is ± 1.



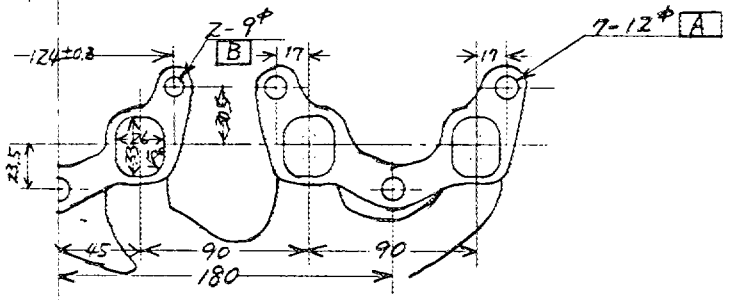
Drawing of entrance to inlet port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

Relative true position of [H] holes is 0.5 DIA.



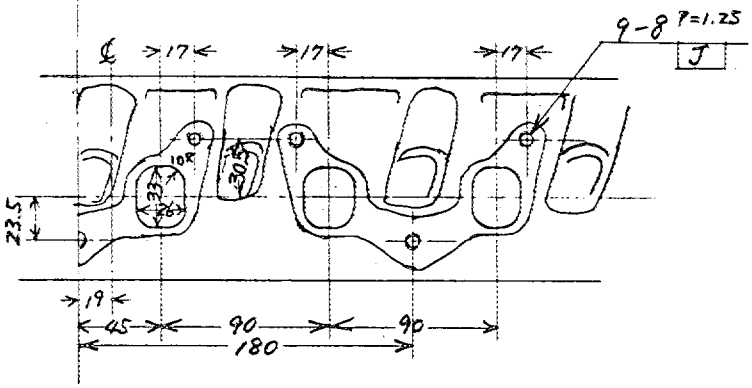
Drawing exhaust manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

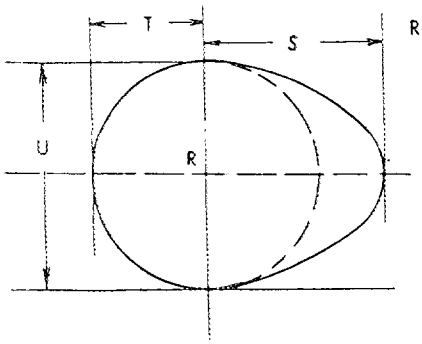
True position of [A] holes against [B] holes is 0.4 DIA.



Drawing of exit to exhaust port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

Relative true position of [J] holes is 0.5 DIA.





R=centre of camshaft.

Inlet cam

S =	23.7	mm	0.934	inches
T =	15.7	mm	0.619	inches
U =	31.4	mm	1.24	inches

Exhaust cam

S =	22.8	mm	0.898	inches
T =	15.6	mm	0.615	inches
U =	31.3	mm	1.24	inches

Make Toyota Model MS 41 F. I. A. Rec. Rec. No

IMPORTANT the underlined items must be stated in two measuring systems, one of which must be the metric system, See coversion table here-after.

CAPACITIES AND DIMENSIONS

1. Wheelbase	2690	mm	106	inches		
2. Front track	1360	mm	53.5	inches *		
3. Rear track	1380	mm	54.4	inches *		
4. Overall length of the car	463.5	cm				inches
5. Overall width of the car	169.5	cm				inches
6. Overall height of the car	146	cm				inches
7. Capacity of fuel tank (reserve included)			50	l trs		
13.2 Gallon US				Gallon Imp.		
8. Seating capacity	6					
9. Weight, total weight of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools :						
1240	kg		2740	lbs		cwt

*) Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned.

Specify ground clearance in relation to the track and give drawing of two easily recognizable points at front and rear at wihch measurements are taken.

These ground clearance dimensions are only for information when checking the track and can in no way affect the eligibility of the car.

CONVERSION TABLE

1 inch / pouce	—	2.54 cm	1 quart US	—	0.9464 ltrs
1 foot / pied	—	30.4794 cm	1 pint (pt)	—	0.568 ltrs
1 square inch / pouce carré	—	6.452 cm^2	1 gallon Imp.	—	4.546 ltrs
1 cubic inch / pouce cube	—	16.387 cm^3	1 gallon US	—	3.785 ltrs
1 pound / livre (lb)	—	453.593 gr.	1 hundred weight	—	50.802 kg

Make Toyota Model MS 41 F. I. A. Rec. No

CHASSIS AND COACHWORK (Photographs A, B and C)

20 Chassis / body construruction : separate / [redacted]

21. Unitary construction, material (s)

Separate construction

22 Material (s) of chassis Steel

23. Material (s) of coachwork Steel Plate

24. Number of doors 4 Material (s) Steel Plate

25. Material (s) of bonnet Steel Plate

26 Material (s) of boot lid Steel Plate

27. Material (s) of rear-window Glass

28. Material (s) of windscreen Glass

29. Material (s) of front-door windows Glass

30. Material (s) of rear-door windows Glass

31. Sliding system of door windows Vertical, Manual

32. Material (s) of rear-quarter light Glass

ACCESSORIES AND UPHOLSTERY

38. Interior heating : [redacted] - no

39. Air-conditioning : [redacted] - no

40. Ventilation : yes - [redacted]

41. Front seats, type of seat and upholstery Bench, Fabric

42. Weight of front seat (s), complete with supports and rails, out of the car :

32 kg lbs

43. Rear seats, type of seat and upholstery Bench, Fabric

44. Front bumper, material (s) Steel Plate Weight 8.7 kg inches

45. Rear bumper, material (s) Steel Plate Weight 8.7 kg inches

WHEELS

50. Type Pressed Disc Wheel

51. Weight (per wheel, without tyre) 6.7 (5J-13), 7.6(5J-14) lbs

52. Method of attachment 5 Hub Bolts and Nuts

53. Rim diameter 330, 356 mm 13, 14 inches

54. Rim width 127 mm 5 inches

STEERING

60. Type Worm and Sector Roller, Recirculating Ball (for Export)

61. Servo-assistance : [redacted] - no

62. Number of turns of steering wheel from lock to lock 4-1/6

63. In case of servo-assistance -

Make Toyota Model MS 41 F. I. A. Rec. No

SUSPENSION

70. Front suspension (photogr. D), type	Independent by Double Wishbones	
71. Type of spring	Coil Spring	
72. Stabiliser (if fitted)	Torsion Bar	
73. Number of shockabsorbers 2	74. Type	Hydraulic Telescopic Double Action
78. Rear suspension (photogr. E), type	Rigid Axle and Four Links	
79. Type of spring	Coil Spring	
80. Stabiliser (if fitted)	-	
81. Number of shockabsorbers 2	82. Type	Hydraulic Telescopic Double Action

BRAKES (photographs F and G)

90. Method of operation	Hydraulic	
91. Servo-assistance (if fitted), type	-	
92. Number of hydraulic master cylinders	1	

	FRONT			REAR		
93. Number of cylinders per wheel	2			1		
94. Bore of wheel cylinder (s)	mm 1-1/8		in.	mm 3/4		in.
Drum brakes						
95. Inside diameter	230	mm	in.	230	mm	in.
96. Length of brake linings	221	mm	in.	191 221	mm	in.
97. Width of brake linings	50	mm	in.	50	mm	in.
98. Number of shoes per brake	2			2		
99. Total area per brake	221 x 10^2	mm^2	sq. in.	206x10^2	mm^2	sq. in.
Disc brakes						
100. Outside diameter		mm	in.		mm	in.
101. Thickness of disc		mm	in.		mm	in.
102. Length of brake linings		mm	in.		mm	in.
103. Width of brake linings		mm	in.		mm	in.
104. Number of pads per brake						
105. Total area per brake		mm^2	sq. in.		mm^2	sq. in.

Make Toyota Model MD 41 T.I.M. Rec. No.

ENGINE (photographs J and K)

130. Cycle 4

131. Number of cylinders 6

132. Cylinder arrangement In Line

133. Bore 75 mm 2.95 in.

134. Stroke 75 mm 2.95 in.

135. Capacity per cylinder 331 cm³ 20.2 cu. in.

136. Total cylinder-capacity 1988 cm³ 121 cu. in.

137. Material (s) of cylinder block Cast Iron

138. Material (s) of sleeves (if fitted) -

139. Cylinder-head, material (s) Al-Alloy Number fitted 1

140. Number of inlet ports 6

141. Number of exhaust ports 6

142. Compression ratio 8.8

143. Volume of one combustion chamber 42 cm³ cu. in.

144. Piston, material Al-Alloy

145. Number of rings 3

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

50 mm inches

147. Crankshaft : [redacted] / stamped

148. Type of crankshaft : integral / [redacted]

149. Number of crankshaft main bearings 7

150. Material of bearing cap Cast Iron

151. System of lubrication : [redacted] / oil in sump

152. Capacity, lubricant 4.4 ltrs pts quarts US

153. Oil cooler : [redacted] / no

154. Method of engine cooling Forced Water Circulation

155. Capacity of cooling system 8.9 ltrs [redacted] quarts US

156. Cooling (if fitted), dia. 36 cm inches

157. Number of blades of cooling fan 4

Bearings

158. Crankshaft main, type Plain Bearing, Two Halves Dia. 60 mm in.

159. Connecting rod big end, type Plain Bearing, Two Halves Dia. 52 mm in.

Weights

160. Flywheel (clean) 8 kg lbs

161. Flywheel with clutch (all turning parts) 19 kg lbs

162. Crankshaft 20.0 kg lbs 163. Connecting rod 0.65 kg lbs

164. Piston with rings and pin 0.48 kg lbs

Make Toyota Model MS 41 F.I.A. Rec. No

FOUR STROKE ENGINES

170. Number of camshafts 1 171 Location Cylinder Head

172. Type of camshaft drive Chain

173. Type of valve operation Rocker

INLET (see page 4) *

180. Material(s) of inlet manifold Al-Alloy

181. Diameter of valves 40 mm 1.58 inches

182. Max. valve lift 9 mm 0.35 in. 183. Number of valve springs 2

184. Type of spring Coil Spring 185. Numbdr of valves per cylinder 1

186. Tappet clearance for checking timing (cold) 0.10 mm inches

187. Valves open at (With tolerance for tappet clearance indicated) B.T.D.C. 10° ± 2°

188. Valves close at (with tolerance for tappet clearance indicated) A.B.D.C. 54° ± 2°

189. Air filter, type Dry

EXHAUST (see page 4)

195. Material (s) of exhaust manifold Cast Iron

196. Diameter of valves 34 mm 1.34 inches

197. Max. valve lift 8 mm 0.32 in. 198. Number of valve springs 2

199. Type of spring Coil Spring 200. Number of valves per cylinder 1

201. Tappet clearance for checking timing (cold) 0.18 mm inches

202. Valves open at (with tolerance for tappet clearance indicated) B.B.D.C. 50° ± 2°

203. Valves close at (with tolerance for tappet clearance indicated) A.T.D.C. 14° ± 2°

CARBURETION (photograph N)

210. Number of carburettors fitted 1 211. Type Down Draught, 2 Barrel

212. Make Aisan 213. Model 21100 - 41010

214. Number of mixture passages per caburettor 2

215. Flange hold diameter of exit port(s) of carburetteor 35 & 35 mm in.

216. Minimum diameter of venturi / [redacted] 24 & 29 mm inches

INJECTION (if fitted)

220. Make of pump 221. Number of plungers

222. Model or type of pump 223. Total number of injectors

224. Location of injecters

225. Minimum diameter of inlet pipe mm inches

*) for additional information concerning two-stroke engines and super-charged engines see page 13.

Make Toyota Model MS 41 F. I. A. Rec. No.

ENGINE ACCESSORIES

230. Fuel pump : mechanical [redacted] 231. No fitted 1

232. Type of ignition system Make and Break Ignition 233. No of distributors 1

234. No of ignition coils 1 235. No of spark plugs per cylinder 1

236. Generator, type: [redacted]/alternator - number fitted 1 237. Method of drive V Belt

238. Voltage of generator 12 volts 239. Battery, number 1

240. Location Engine Compartment

241. Voltage of battery 12 volts

ENGINE AND CAR RERFORMANCES (as declared by manufacturer in catalogue)

250. Max. engine output 105 PS (type of horsepower: JIS) at 5200 rpm

251. Maximum rpm 6000 output at that figure 99 PS

252. Maximum torque 16 kg-m at 3600 rpm

253. Maximum speed of the car 155 km / hour miles / hour

Make Toyota Model MS 41 F.I.A. Rec. No

DRIVE TRAIN

CLUTCH

260. Type of clutch: Dry Single Plate Friction — 261. No. of plates: 1

262. Dia. of clutch plates: 22.7 cm — inches

263. Dia. of linings, inside: 16 cm — in. outside: 22.4 cm — in.

264. Method of operating clutch: Hydraulic

GEAR BOX (photograph H)

270. ~~Method of operation~~ Manual Type, make: Toyota, Remote, Direct

271. No. of gear-box ratios forward: 3 and 4 — 272. Synchronized forward ratios: All

273. Location of gear-shift: Steering Column or Floor

274. Automatic, make: Toyota — type: Hydraulic Operating

275. No. of forward ratios: 2 — 276. Location of gear-shift: Steering Column or Floor

277.	Manual Ratio	Manual No. teeth	Automatic Ratio	Automatic No. teeth	~~Alternative~~ manual/~~automatic~~ Ratio	~~Alternative~~ manual/~~automatic~~ No. teeth	Ratio	No. teeth
1	3.059	$\frac{30}{19} \cdot \frac{31}{16}$	1.82	$\frac{23+28}{28}$	3.673	$\frac{31}{18} \cdot \frac{32}{15}$		
2	1.645	$\frac{30}{19} \cdot \frac{25}{24}$	1		2.114	$\frac{31}{18} \cdot \frac{27}{22}$		
3	1.00				1.403	$\frac{31}{18} \quad \frac{22}{27}$		
4					1.			
5								
6								
reverse	4.079	$\frac{30}{19} \cdot \frac{31}{12}$	1.82	$\frac{23+28}{28}$	4.183	$\frac{31}{18} \cdot \frac{34}{14}$		

278. Overdrive, type: Planetary Gear

279. Forward gears on which overdrive can be selected: 2nd & 3rd

280. Overdrive ratio: 0.700

FINAL DRIVE

290. Type of final drive: Hypoid Gear

291. Type of differential: Bevel Gear

292. Type of limited slip differential (if fitted): -

293. Final drive ratio: 4.875 , 4.375

Number of teeth: $39/_8$, $35/_8$

Make Toyota Model MS 41 F. I. A. Rec. No

IMPORTANT- The conformity of the car with the following items of the present recognition form is to be disregarded during the scrutineering, when the vehicle has been entered in group 2 (Touring cars) or 3 (Grand Touring cars) . 41, 72, 80, 91, 142, 143, 144, 145, 146, 153, 156, 157, 160, 161, 162, 163, 164, 182, 186, 187, 188, 189, 201, 202, 203, 212, 213, 215, 216, 222, 225, 230, 236, 250, 251, 252, 253, 255 page 4. and photographs I, M and N.

During the scrutineering of entered in group 4 (Sportscars) only the following items of the present recognition form are to be taken into consideration : 1, 2, 3, 9, 20, 21, 22, 23, 24, 25, 26, 70, 71, 78, 79, 90, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 147, 148, 149, 150, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 and photographs A, B, D, E, F, G, H, J, K, and O.

Optional equipement affecting preceeding information. This to be stated together with reference number.

Brake Drum with Fin

Make Toyota Model MS 41 F. I. A. Rec. No.

TWO STROKE ENGINES

300. System of cylinder scavenging

301. Type of lubrication

302. Inlet ports, length measured around cylinder wall mm inches

303. Height inlet port mm in. 304. Area mm^2 sq. in.

305. Exhaust ports, length measured around cylinder wall mm inches

306. Height exhaust port mm in. 307. Area mm^2 sq. in.

308. Transfer port, length measured around cylinder wall mm inches

309. Height transfer port mm in. 310. Area. mm^2 sq. in.

311. Piston ports, length measured around piston mm inches

312. Height piston port mm in. 313. Area mm^2 sq. in.

314. Method of precompression 315. Precompression cyl.: yes /no

316. Bore mm inches 317. Stroke mm inches

318. Distance from top of cyl. block to highest point of exhaust port : mm inches

319. Distance from top of cyl. block to lowest point of inlet port : mm inches

320. Distance from top of cyl. block to highest point of transfer port : mm inches

321. Drawing of cylinder ports.

330. Supercharging—state full details hereafter :

JAPAN AUTOMOBILE FEDERATION

Chairman

of Technical Subcommission

Osamu Hirao