



# JAPAN AUTOMOBILE FEDERATION

F.I.A. Recognition N° 1514  
Group : 2 - Touring

## FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Manufacturer **Toyota Motor Co., Ltd.** Cylinder-capacity **1,587** cm<sup>3</sup> 96.9 cu. in.  
 Serial No. of chassis **RT 55 - 10001** Model **RT 55**  
 engine **9R - 10001** Manufacturer **Toyota Motor Co., Ltd.**  
 Recognition is valid from **1st Jan. 1968** Manufacturer **Toyota Motor Co., Ltd.**  
 The manufacturing of the model described in this recognition form was started on **May 1967** and the minimum production of  
**1000** identical cars, in accordance with the specifications of this form was reached on **November 1967**

Photograph A, 3/4 view of car from front



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

### Variants

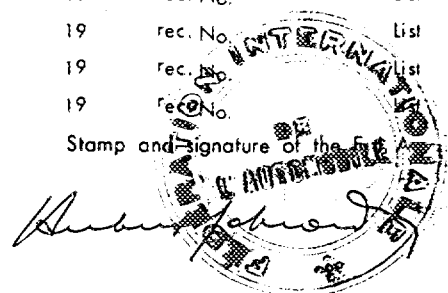
on	19	rec. No.	List
on	19	rec. No.	List
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Stamp and signature of the  
National Sporting Authority

### Normal evolution of the type

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Stamp and signature of the F.I.A.



Make **Toyota**

Model **RT 55**

F. I. A. Rec. No.

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

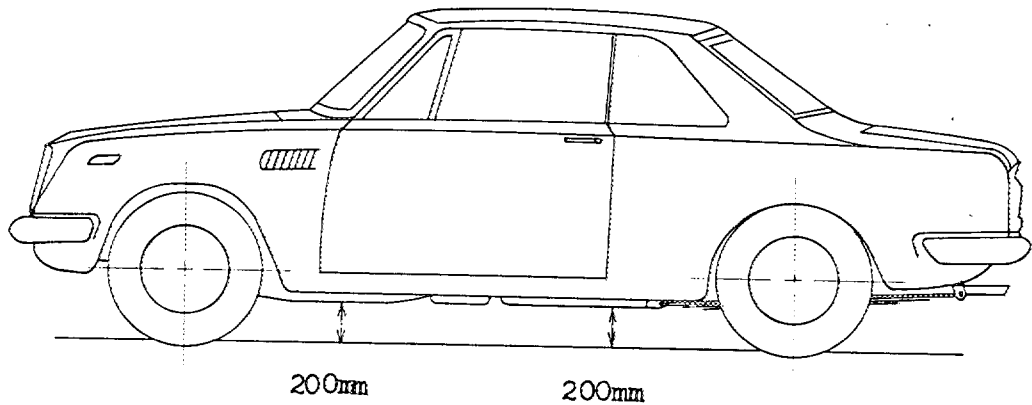
**CAPACITIES AND DIMENSIONS**

1. <u>Wheelbase</u>	2,420	mm	95.3	inches
2. <u>Front track</u>	1,290	mm	50.8	inches *
3. <u>Rear track</u>	1,270	mm	50.0	inches *
4. Overall length of the car		408.5	cm	inches
5. Overall width of the car		156.5	cm	inches
6. Overall height of the car		137.5	cm	inches
7. <u>Capacity of fuel tank</u> (reserve included)			45	ltrs
	11.9	Gallon US		Gallon Imp.
8. Seating capacity	4			
9. <u>Weight</u> , total weight of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools:				
	980	kg	2,160	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.

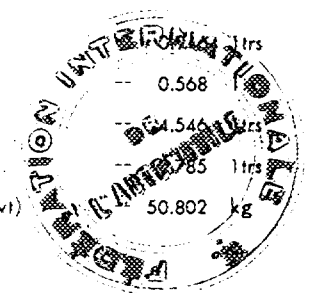
Specify ground clearance in relation to the track and give drawing of two fixed points of the vehicle's structure at which measurements are taken.

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	--	0.94635	ltrs
1 foot / pied	--	30.4794	cm	1 pint (pt)	--	0.568	ltrs
1 square inch / pouce carré	--	6.452	cm <sup>2</sup>	1 gallon Imp.	--	4.54609	ltrs
1 cubic inch / pouce cube	--	16.387	cm <sup>3</sup>	1 gallon US	--	3.785	ltrs
1 pound / livre (lb)	--	453.593	gr.	1 hundred weight (cwt)	--	50.802	kg



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**CHASSIS AND COACHWORK** (Photographs A, B and C)

20. Chassis/body construction : ~~separate~~ / unitary construction
21. Unitary construction, material (s) **Steel**  
Separate construction
22. Separate Constructions: Material(s) of chassis
23. Material (s) of coachwork
24. Number of doors **2** Material (s) **Steel**
25. Material (s) of bonnet **Steel**
26. Material (s) of boot lid **Steel**
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
31. Sliding system of door windows **Vertical, Manual**
32. Material (s) of rear-quarter light **Glass**

**ACCESSORIES AND UPHOLSTERY**

38. Interior heating : ~~yes~~ - no
39. Air-conditioning : ~~yes~~ - no
40. Ventilation : yes - ~~no~~
41. Front seats, type of seats and upholstery **Separate, Vinyl Leather**
42. Weight of front seat (s), complete with supports and rails, out of the car :  
**14.1kg** **lbs**
43. Rear seats, type of seats and upholstery **Bench, Vinyl Leather**
44. Front bumper, material (s) **Steel** Weight **8.0** **kg** **lbs**
45. Rear bumper, material (s) **Steel** Weight **6.7** **kg** **lbs**

**WHEELS**

50. Type **Pressed Steel**
51. Weight (per wheel, without tyre) **6.7 (4½J - 14)** **kg** **lbs**  
**7.7 (5J - 14)**
52. Method of attachment **4 Nuts**
53. Rim diameter **356** mm **14** inches
54. Rim width **114, 127** mm **4½, 5** inches

**STEERING**

60. Type **Recirculating Ball**
61. Servo-assistance : ~~yes~~ - no
62. Number of turns of steering wheel from lock to lock **3 - 3/4**
63. In case of servo-assistance



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**SUSPENSION**

70. Front suspension (photogr. D), type Independent  
 71. Type of spring Coil  
 72. Stabiliser (if fitted) Torsion Bar  
 73. Number of shockabsorbers 2 74. Type Hydraulic Telescopic  
 78. Rear suspension (photogr. E), type Rigid  
 79. Type of spring Leaf  
 80. Stabiliser (if fitted)  
 81. Number of shockabsorbers 2 82. Type Hydraulic Telescopic

**BRAKES** (photographs F and G)

90. System 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 1-7/8in.		mm 11/16 in.

**Drum brakes**

95. Inside diameter	mm	in.	228.6	mm	in.
96. Length of brake linings	mm	in.	199, 249	mm	in.
97. Width of brake linings	mm	in.	35	mm	in.
98. Number of shoes per brake			2		
99. Total area per brake	mm <sup>2</sup>	sq. in.	157 x 10 <sup>2</sup>	mm <sup>2</sup>	sq. in.

**Disc brakes**

100. Outside diameter	268	mm	in.	mm	in.
101. Thickness of disc	10.4	mm	in.	mm	in.
102. Length of brake linings	54	mm	in.	mm	in.
103. Width of brake linings	47	mm	in.	mm	in.
104. Number of pads per brake	2				
105. Total area per brake	51 x 10 <sup>2</sup>	mm <sup>2</sup>	sq. in.	mm <sup>2</sup>	sq. in.



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**ENGINE** (photographs J and K)

130. Cycle	4	131. Number of cylinders	4		
132. Cylinder arrangement	In Line				
133. Bore	80.5 mm	3.17 in.	134. Stroke	78 mm	3.07 in.
135. Capacity per cylinder		397 cm <sup>3</sup>		24.2 cu. in.	
136. Total cylinder-capacity		1,587 cm <sup>3</sup>		96.8 cu. in.	
137. Material (s) of cylinder block	Cast Iron				
138. Material (s) of sleeves (if fitted)					
139. Cylinder-head, material (s)	Al- <u>Alloy</u>		Number fitted	1	
140. Number of inlet ports	4	141. Number of exhaust ports		4	
142. Compression ratio	9.0				
143. Volume of one combustion chamber	50	cm <sup>3</sup>		cu. in.	
144. Piston, material	Al- <u>Alloy</u>	145. Number of rings		3	
146. Distance from gudgeon pin centre line to highest point of piston crown	55 ± 0.15 mm			inches	
147. Crankshaft : <del>moulded</del> / stamped		148. Type of crankshaft :	integral /		
149. Number of crankshaft main bearings	3				
150. Material of bearing cap	Cast Iron				
151. System of lubrication : <del>dry sump</del> / oil in sump					
152. Capacity, lubricant	3.8 ltrs	pts		quarts US	
153. Oil cooler : <u>yes</u> / no		154. Method of engine cooling	Water		
155. Capacity of cooling system	8.2 ltrs	pints		quarts US	
156. Cooling fan (if fitted), dia.	30 cm	inches			
157. Number of blades of cooling fan	2				

**Bearings**

158. Crankshaft main, type	Plain	Dia.	58 mm	in.
159. Connecting rod big end,	Plain	Dia.	50 mm	in.

**Weights**

160. Flywheel (clean)	11 kg	lbs
161. Flywheel with clutch (all turning parts)		16 kg
162. Crankshaft	15 kg	lbs
163. Connecting rod		0.39 lbs
164. Piston with rings and pin	0.53 kg	lbs



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**FOUR STROKE ENGINES**

170. Number of camshafts **2** 171. Location **Cylinder Head**  
172. Type of camshaft drive **Duplex Chain**  
173. Type of valve operation **Direct**

**INLET** (see page <sup>8</sup> ~~2~~) \*

180. Material(s) of inlet manifold **Al- Alloy**  
181. Diameter of valves **45** mm **1.77** inches  
182. Max. valve lift **9.0** mm **0.35** in. 183. Number of valve springs **2**  
184. Type of spring **Coil** 185. Numbr of valves per cylinder **1**  
186. Tappet clearance for checking timing (cold) **0.15** mm inches  
187. Valves open at (with tolerance for tappet clearance indicated) **28° BTDC**  
188. Valves close at (with tolerance for tappet clearance indicated) **48° ABDC**  
189. Air filter, type **Dry**

**EXHAUST** (see page <sup>9</sup> ~~2~~)

195. Material (s) of exhaust manifold **Cast Iron**  
196. Diameter of valves **40** mm **1.57** inches  
197. Max. valve lift **9.0** mm **0.35** in. 198. Number of valve springs **2**  
199. Type of spring **Coil** 200. Number of valves per cylinder **1**  
201. Tappet clearance for checking timing (cold) **0.35** mm inches  
202. Valves open at (with tolerance for tappet clearance indicated) **52° BBDC**  
203. Valves close at (with tolerance for tappet clearance indicated) **24° ATDC**

**CARBURETION** (photograph N)

210. Number of carburetors fitted **2** 211. Type **Side Draught**  
212. Make **Mikuni** 213. Model **21100-88201**  
214. Number of mixture passages per carburetor **2** **21100-88202**  
215. Flange hole diameter of exit port(s) of carburetor **40 & 40** mm in.  
216. Minimum dimensions of mixture passage(s) ~~with piston at max height for example SU~~  
**32 & 32** 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 injectors  
225. Minimum diameter of inlet pipe mm inches

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



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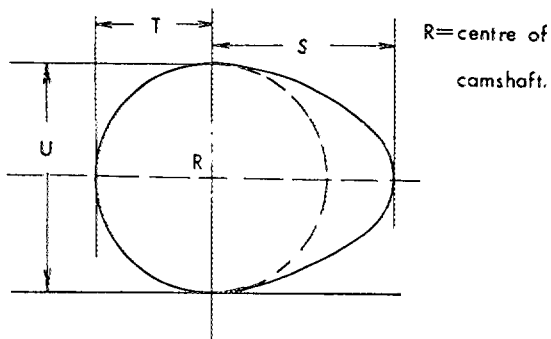
**ENGINE ACCESSORIES**

230. Fuel pump : <del>mechanical</del> / <input checked="" type="checkbox"/> electric	231. No. fitted	1
232. Type of ignition system <b>Make &amp; Break Ignition</b>	233. No. of distributors	1
234. No. of ignition coils	235. No. of spark plugs per cylinder	1
236. Generator, type: <del>dynamo</del> /alternator-number fitted	237. Method of drive	V Belt
238. Voltage of generator	239. Battery, number	1
240. Location		<b>Engine Room</b>
241. Voltage of battery		12 volts

**ENGINE AND CAR PERFORMANCES** (as declared by manufacturer in catalogue)

250. Max. engine output	110 PS (type of horsepower: <b>JIS</b> ) at	6,200 rpm
251. Maximum rpm	6,600	output at that figure
252. Maximum torque	14.0 kg-m	at 5,000 rpm
253. Maximum speed of the car	175 km/hour	miles / hour

255.



Inlet cam

S =	25.9	mm	1.01	inches
T =	16.5	mm	0.65	inches
U =	33.1	mm	1.30	inches

Exhaust cam

S =	25.9	mm	1.01	inches
T =	16.5	mm	0.65	inches
U =	33.1	mm	1.30	inches

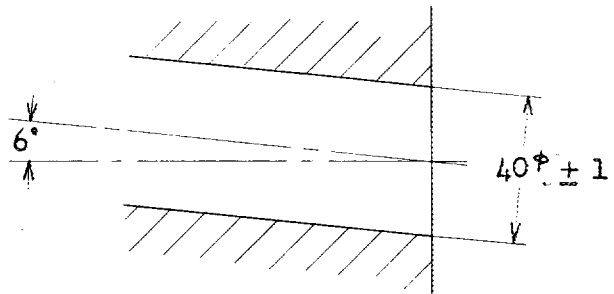


Make Toyota

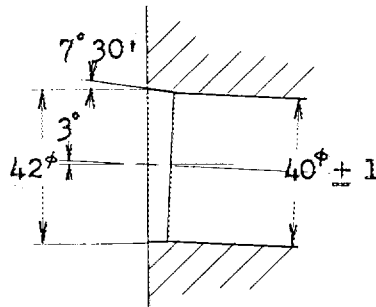
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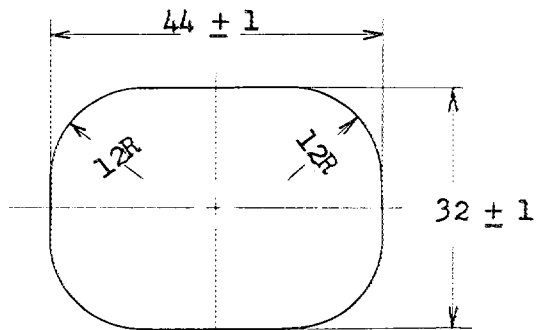
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



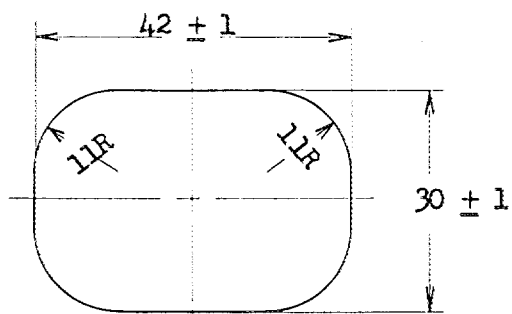
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



Drawing exhaust manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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



Unit ; mm





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**DRIVE TRAIN**

**CLUTCH**

- 260. Type of clutch **Dry Single Plate Friction** 261. No. of plates **1**
- 262. Dia. of clutch plates **20.5** cm inches
- 263. Dia. of linings, inside **14.0** cm in. outside **20.0** cm in.
- 264. Method of operating clutch **Hydraulic**

**GEAR BOX** (photograph H)

- 270. Manual type, make **Toyota** Method of operation **Mechanical**
- 271. No. of gear-box ratios forward **4 & 5** 272. Synchronized forward ratios **1, 2, 3, & 4**
- 273. Location of gear-shift **Floor** **1, 2, 3, 4, & 5**
- 274. Automatic, make type
- 275. No. of forward ratios 276. Location of gear-shift

277.	Manual		Automatic		Ratio	Alternative manual/automatic		No. teeth
	Ratio	No. teeth	Ratio	No. teeth		Ratio	No. teeth	
1	3.673	$\frac{31}{18} \times \frac{32}{15}$			3.337	$\frac{31}{18} \times \frac{31}{16}$	3.143	$\frac{28}{21} \times \frac{33}{14}$
2	2.114	$\frac{31}{18} \times \frac{27}{22}$			1.948	$\frac{31}{18} \times \frac{26}{23}$	1.636	$\frac{28}{21} \times \frac{27}{22}$
3	1.403	$\frac{31}{18} \times \frac{22}{27}$			1.340	$\frac{31}{18} \times \frac{21}{27}$	1.179	$\frac{28}{21} \times \frac{23}{26}$
4	1.0				1.0		1.0	
5							0.844	$\frac{28}{21} \times \frac{19}{30}$
6								
reverse	4.183	$\frac{31}{18} \times \frac{34}{14}$			4.183	$\frac{31}{18} \times \frac{34}{14}$	3.238	$\frac{28}{21} \times \frac{34}{14}$

- 278. Overdrive, type
- 279. Forward gears on which overdrive can be selected
- 280. Overdrive ratio

**FINAL DRIVE**

- 290. Type of final drive **Hypoid Gear**
- 291. Type of differential **Bevel Gear**
- 292. Type of limited slip differential (if fitted) **Friction**
- 293. Final drive ratio **3.90, 4.11, 4.375, 4.625, 4.875, 5.286**
- Number of teeth **39/10, 37/9, 35/8, 37/8, 39/8, 37/7**



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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, 184, 186, 187, 188, 189, 199, 201, 202, 203, 212, 213, 215, 216, 222, 225, 230, 250, 251, 252, 253, and photographs I, M and N.

During the scrutineering of cars 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 equipment affecting preceding information. This to be stated together with reference number.

7. Capacity of fuel tank

90 litres

23.8 Gallon US

91. Servo-assistance type

Vacuum Servo

277.	Alternative manual			
1	2.148	$\frac{28}{21} \times \frac{29}{18}$	3.143	$\frac{28}{21} \times \frac{33}{14}$
2	1.449	$\frac{28}{21} \times \frac{25}{23}$	1.636	$\frac{28}{21} \times \frac{27}{22}$
3	1.179	$\frac{28}{21} \times \frac{23}{26}$	1.231	$\frac{28}{21} \times \frac{24}{26}$
4	1.0		1.0	
5	0.873	$\frac{28}{21} \times \frac{19}{29}$	0.844	$\frac{28}{21} \times \frac{19}{30}$
6				
reverse	3.238	$\frac{28}{21} \times \frac{34}{14}$	3.238	$\frac{28}{21} \times \frac{34}{14}$

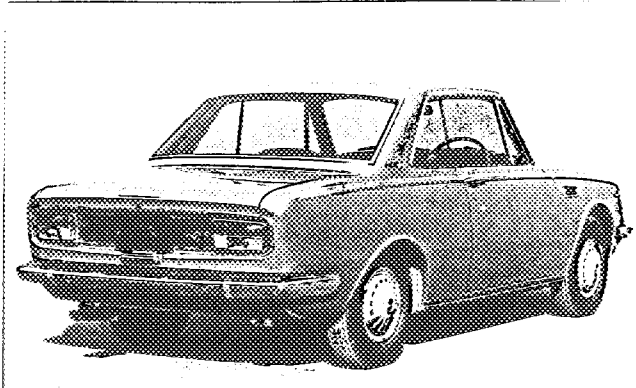


Make Toyota

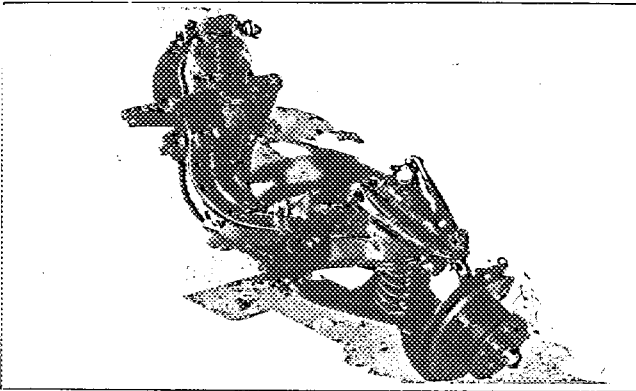
Model RT 55

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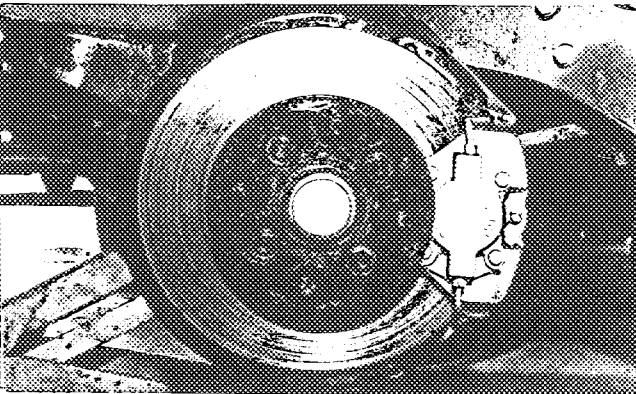
B, 3/4 view of car from rear



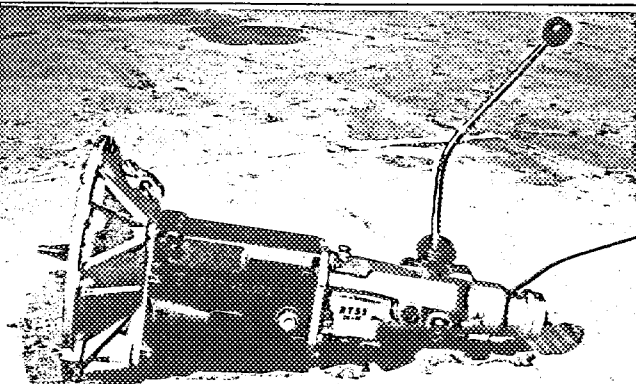
D, front axle complete, removed from car. Without wheels.



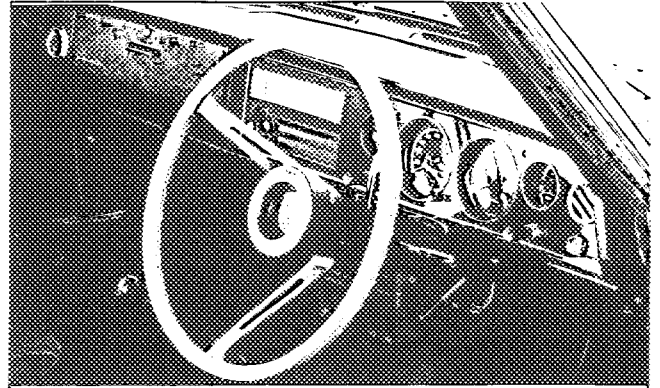
F, front brake. drum removed or disc with calipers



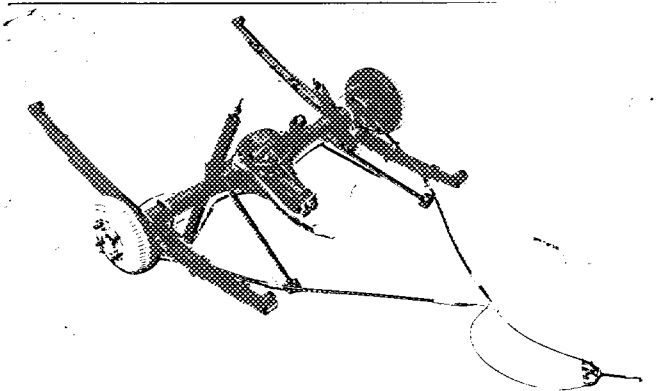
H, gear-box, view from side



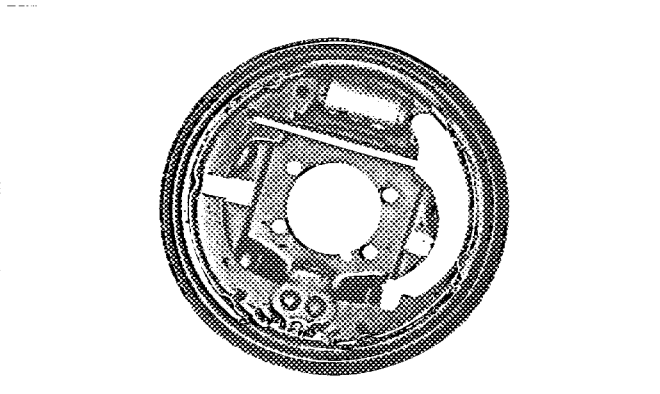
C, interior view of car through driver's door (open or removed) with dashboard



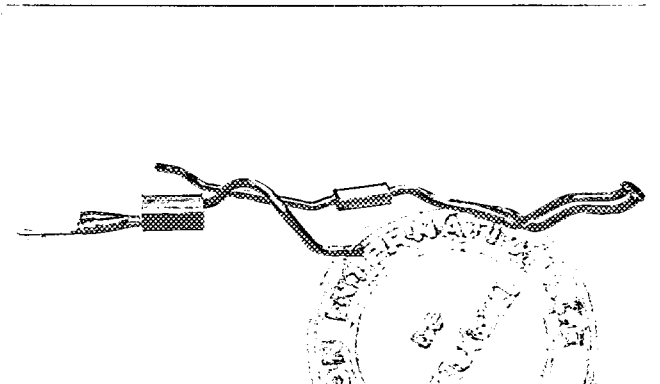
E, Rear axle complete without wheels, removed from car.



G, rear brake. drum removed or disc with calipers

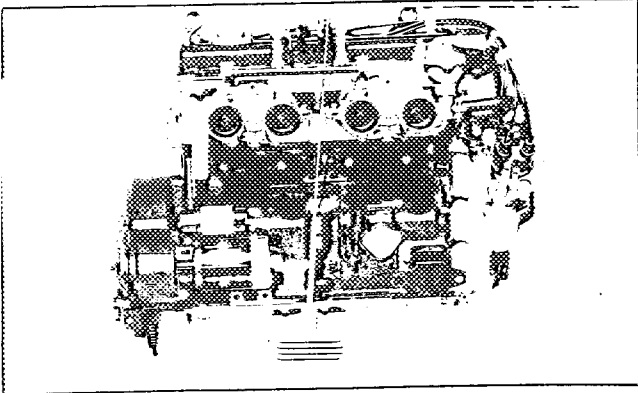


I, silencer + exhaust pipes after exhaust manifold.



Make Toyota

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

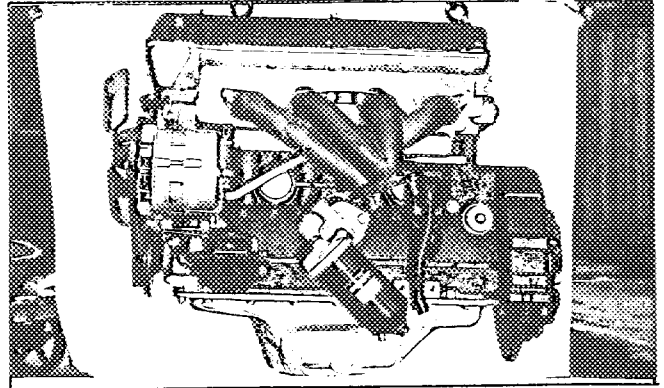


Model RT 55

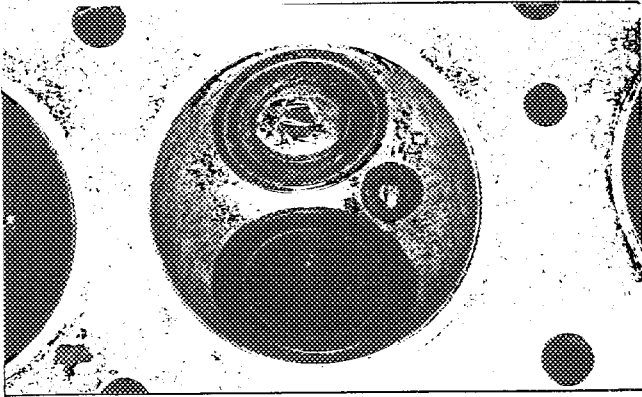
F.I.A. Rec. No

Photograph

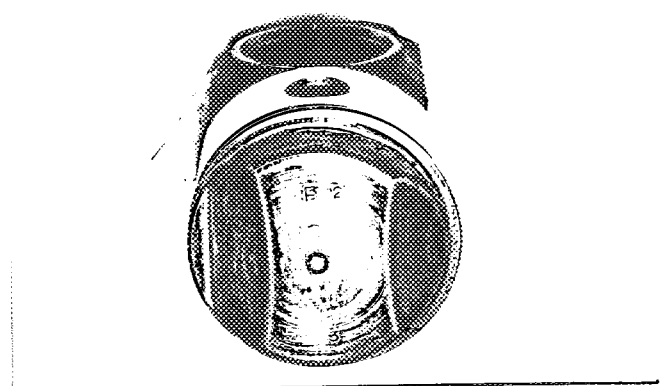
Engine unit out of car, from left. With clutch and accessories but without gear-box nor air filter.



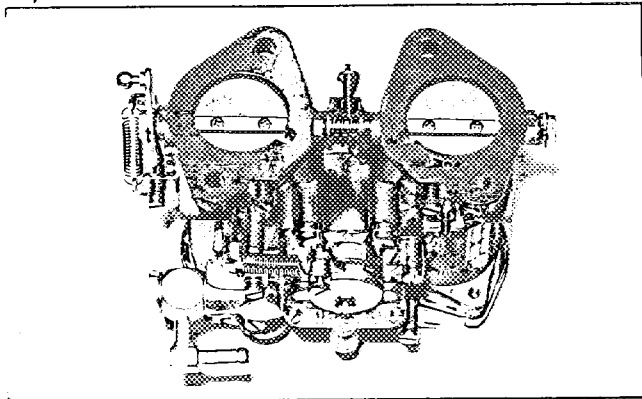
L, combustion chamber



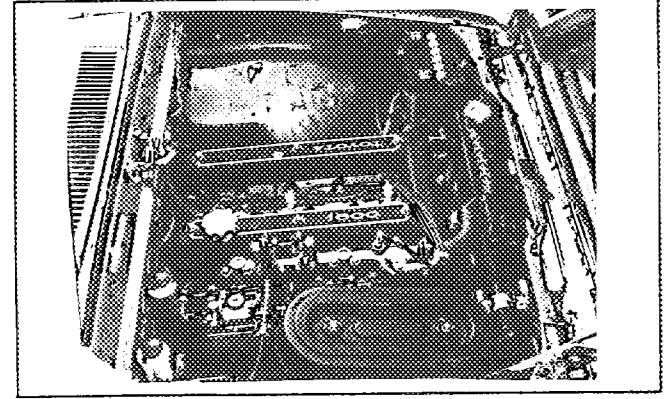
M, piston crown



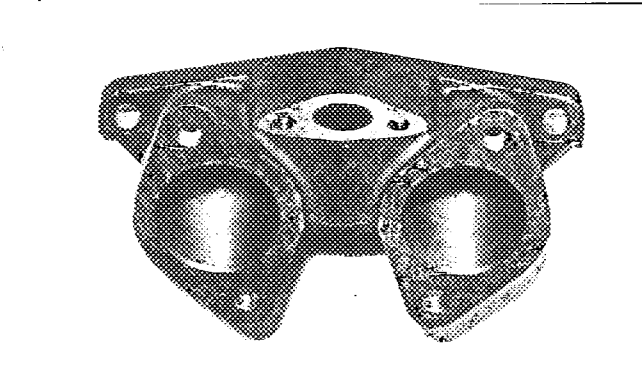
N, Carburettor (view from side of manifold)



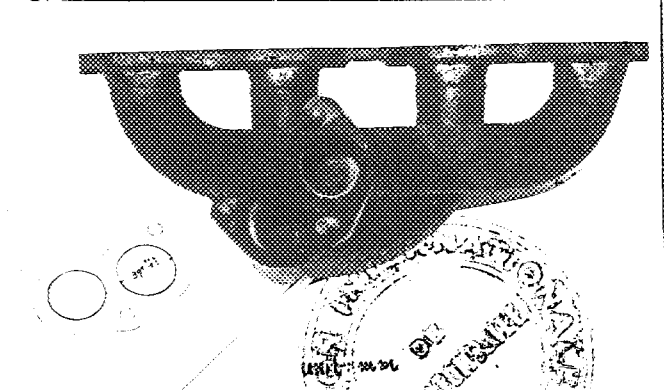
O, engine in car with all accessories, bonnet open or removed.



P, inlet manifold



Q, exhaust manifold



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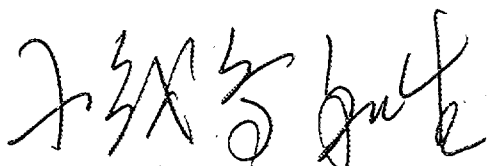
F. I. A. Rec. No.

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<sup>2</sup> sq. in.
305. Exhaust ports, length measured around cylinder wall mm inches
306. Height exhaust port mm in. 307. Area mm<sup>2</sup> sq. in.
308. Transfer port, length measured around cylinder wall mm inches
309. Height transfer port mm in. 310. Area mm<sup>2</sup> sq. in.
311. Piston ports, length measured around piston mm inches
312. Height piston port mm in. 313. Area mm<sup>2</sup> 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



Kazunari Komotori

