



# JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No. **1531**  
Group **2 - Touring**

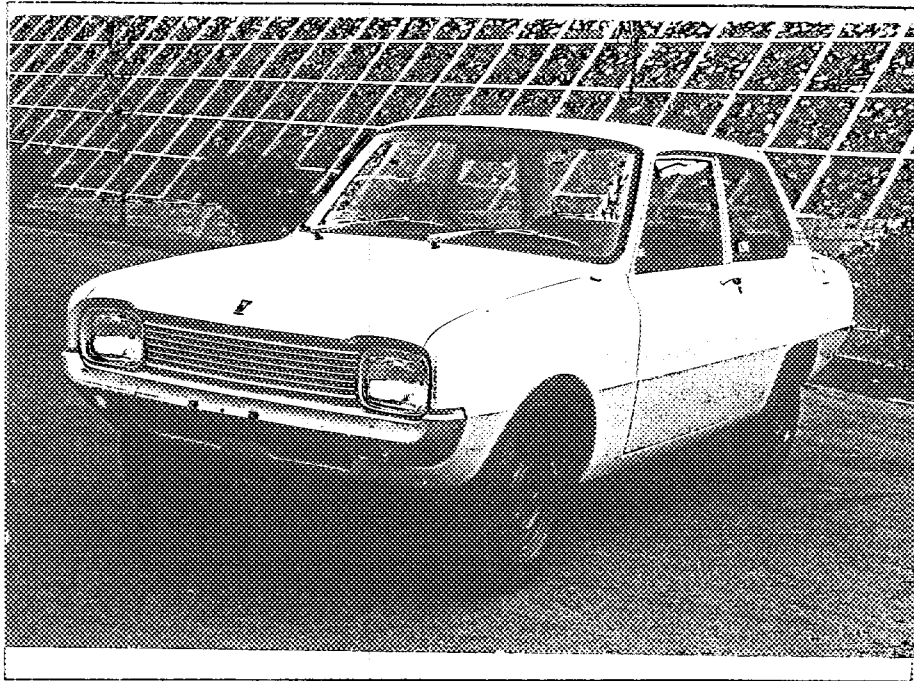
## FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Manufacturer	TOYO KOGYO CO., LTD.	Cylinder-capacity	987	cm <sup>3</sup>	60	cu. in.
Serial No of chassis	SPB-10001	Model	SPB(MAZDA FAMILIA SEDAN)			
Serial No of engine	PB-10001	Manufacturer	TOYO KOGYO			
Recognition is valid from	<b>1st September 1968</b>	Manufacturer	TOYO KOGYO			
		List	<b>1968/9</b>			

The manufacturing of the model described in this recognition form was started on **NOV. 1967** and the minimum production of **1,000** identical cars, in accordance with the specifications of this form was reached on **FEB. 1968**

Photograph A, 3/4 view of car from front



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

Variants

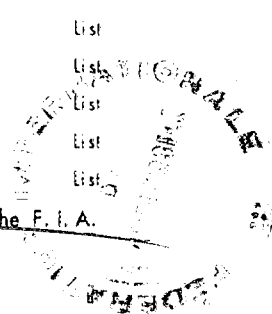
on	19	rec. No.	List
on	19	rec. No.	List
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on	19	rec. No.	List
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Stamp and signature of the  
National Sporting Authority

Normal evolution of the type

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

Stamp and signature of the F. I. A.



Make

TOYO KOGYO

Model

SPB

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.

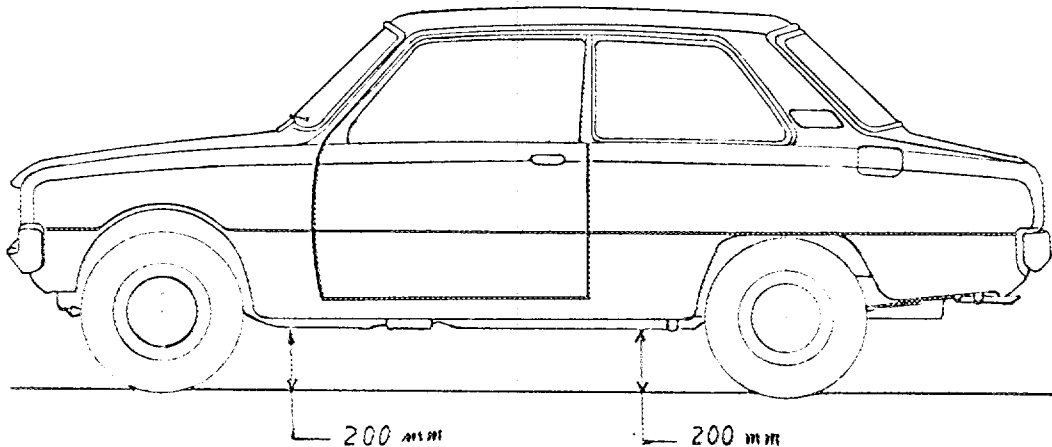
**CAPACITIES AND DIMENSIONS**

1. <u>Wheelbase</u>	2,260	mm	89.0	inches
2. <u>Front track</u>	1,200	mm	47.2	inches *
3. <u>Rear track</u>	1,190	mm	46.9	inches *
4. Overall length of the car		379.5	cm	inches
5. Overall width of the car		148.5	cm	inches
6. Overall height of the car		139.0	cm	inches
7. <u>Capacity of fuel tank</u> (reserve included)			40	lrs
	10.6	Gallon US		Gallon Imp.
8. Seating capacity	5			
9. <u>Weight</u> , total weight of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools:				
	650	kg	1432	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.

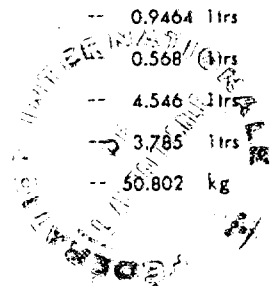
Specify ground clearance in relation to the track and give drawing of two fixed points of the vehicle's structure at which measurements are taken.

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	— 0.9464 lrs
1 foot / pied	— 30.4794 cm	1 pint (pt)	— 0.568 (lrs)
1 square inch / pouce carré	— 6.452 cm <sup>2</sup>	1 gallon imp.	— 4.546 (lrs)
1 cubic inch / pouce cube	— 16.387 cm <sup>3</sup>	1 gallon US	— 3.785 (lrs)
1 pound / livre (lb)	— 453.593 gr.	1 hundred weight (cwt)	— 50.802 kg



Make TOYO KOGYO

Model

SPB

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

- 20. Chassis/body construction : ~~XXXXX~~ / unitary construction
- 21. Unitary construction, material (s) Steel  
Separate construction
- 22. Separate Constructions: Material(s) of chassis
- 23. Material (s) of coachwork Steel
- 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 : ~~XXX~~ - no
- 39. Air-conditioning : ~~XXX~~ - no
- 40. Ventilation : yes - ~~XX~~
- 41. Front seats, type of seats and upholstery Separate Seat & Vinyl Leather
- 42. Weight of front seat (s), complete with supports and rails, out of the car :  

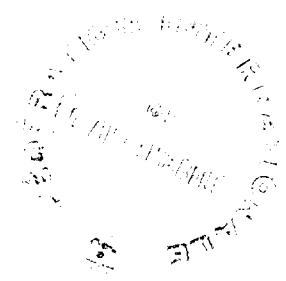
	kg	lbs
13 x 2		
- 43. Rear seats, type of seats and upholstery Bench Seat & Vinyl Leather
- 44. Front bumper, material (s) Steel Weight 4.4 kg lbs
- 45. Rear bumper, material (s) Steel Weight 3.5 kg lbs

**WHEELS**

- 50. Type Pressed Steel
- 51. Weight (per wheel, without tyre) 4.5 (4J) kg 5.3 (4½J) lbs
- 52. Method of attachment 4 Hub-Bolt
- 53. Rim diameter 304 mm 12 inches
- 54. Rim width 102 mm 4 inches
- 114 4½

**STEERING**

- 60. Type Ball and Nuts Type
- 61. Servo-assistance : ~~XXX~~ - no
- 62. Number of turns of steering wheel from lock to lock 3
- 63. in case of servo-assistance



Make TOYO KOGYO

Model SPB

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**SUSPENSION**

70. Front suspension (photogr. D), type  
 71. Type of spring  
 72. Stabiliser (if fitted)  
 73. Number of shockabsorbers 2  
 74. Type  
 78. Rear suspension (photogr. E), type  
 79. Type of spring  
 80. Stabiliser (if fitted)  
 81. Number of shockabsorbers 2  
 82. Type

Independent, Strut Type  
 Coil  
 Torsion Bar  
 Hydraulic, Telescopic  
 Rigid Axle Case, Leaf Spring  
 Semi-Elliptic Leaf Spring  
 Hydraulic, Telescopic

**BRAKES** (photographs F and G)

90. System  
 91. Servo-assistance (if fitted), type  
 92. Number of hydraulic master cylinders

Hydraulic

1

93. Number of cylinders per wheel  
 94. Bore of wheel cylinder (s)

FRONT

REAR

2		1	
22.22 mm	in.	19.05 mm	in.

**Drum brakes**

95. Inside diameter  
 96. Length of brake linings  
 97. Width of brake linings  
 98. Number of shoes per brake  
 99. Total area per brake

200 mm	in.	200 mm	in.
200 mm	in.	200 mm	in.
32 mm	in.	32 mm	in.
2		2	
12800 mm <sup>2</sup>	sq. in.	12800 mm <sup>2</sup>	sq. in.

**Disc brakes**

100. Outside diameter  
 101. Thickness of disc  
 102. Length of brake linings  
 103. Width of brake linings  
 104. Number of pads per brake  
 105. Total area per brake

mm	in.	mm	in.
mm	in.	mm	in.
mm	in.	mm	in.
mm	in.	mm	in.
mm <sup>2</sup>	sq. in.	mm <sup>2</sup>	sq. in.



Make TOYO KOGYO Model SPB F. I. A. Rec. No.

**ENGINE** (photographs J and K)

130. Cycle	4	131. Number of cylinders	4
132. Cylinder arrangement	In Line		
133. <u>Bore</u> 68 mm	2.68 in.	134. <u>Stroke</u> 68 mm	2.68 in.
135. <u>Capacity per cylinder</u>	247	cm <sup>3</sup>	15.1 cu. in.
136. <u>Total cylinder-capacity</u>	987	cm <sup>3</sup>	60.2 cu. in.
137. Material (s) of cylinder block	Al-Alloy		
138. Material (s) of sleeves (if fitted)	Cast Iron		
139. Cylinder-head, material (s)	Al-Alloy	Number fitted	1
140. Number of inlet ports	4	141. Number of exhaust ports	4
142. Compression ratio	8.6		
143. Volume of one combustion chamber		38.6 cm <sup>3</sup>	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	41.7 mm		
			inches
147. Crankshaft : moulded / <del>xxxxxxx</del>		148. Type of crankshaft :	integral /
149. Number of crankshaft main bearings	5		
150. Material of bearing cap	Al-Alloy		
151. System of lubrication : <del>xxxxxxx</del> / oil in sump			
152. Capacity, lubricant 3 ltrs		pts	quarts US
153. Oil cooler : <del>yes</del> / no		154. Method of engine cooling	Water
155. Capacity of cooling system 3.7 ltrs		pints	quarts US
156. Cooling fan (if fitted), dia. 32.0 cm		inches	
157. Number of blades of cooling fan	4		

**Bearings**

158. Crankshaft main, type	Plain	Dia.	56 mm	in.
159. Connecting rod big end,	Plain	Dia.	45 mm	in.

**Weights**

160. Flywheel (clean) 8.44 kg	lbs		
161. Flywheel with clutch (all turning parts)	12.44 kg		lbs
162. Crankshaft 12.0 kg	lbs	163. Connecting rod 0.5 kg	lbs
164. Piston with rings and pin 0.41 kg	lbs		



Make

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Model

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**FOUR STROKE ENGINES**

170. Number of camshafts 1 171. Location  
 172. Type of camshaft drive Chain  
 173. Type of valve operation Push Rod

Cylinder Block

**INLET** (see page 8) \*

180. Material(s) of inlet manifold Al-Cast  
 181. Diameter of valves 32.0 mm 1.26 inches  
 182. Max. valve lift 8 mm 0.31 in.  
 183. Number of valve springs 1  
 184. Type of spring Coil  
 185. Number of valves per cylinder 1  
 186. Tappet clearance for checking timing (cold) 0.3 mm inches  
 187. Valves open at (with tolerance for tappet clearance indicated) 16° BTDC  $\pm 7^\circ$   
 188. Valves close at (with tolerance for tappet clearance indicated) 48° ABDC  $\pm 7^\circ$   
 189. Air filter, type Dry

**EXHAUST** (see page 8)

195. Material (s) of exhaust manifold Steel  
 196. Diameter of valves 27.5 mm 1.08 inches  
 197. Max. valve lift 8 mm 0.31 in.  
 198. Number of valve springs 1  
 199. Type of spring Coil  
 200. Number of valves per cylinder 1  
 201. Tappet clearance for checking timing (cold) 0.3 mm inches  
 202. Valves open at (with tolerance for tappet clearance indicated) 52° BBDC  $\pm 7^\circ$   
 203. Valves close at (with tolerance for tappet clearance indicated) 12° ATDC  $\pm 7^\circ$

**CARBURETION** (photograph N)

210. Number of carburetors fitted 1 211. Type Down Draft  
 212. Make HITACHI 213. Model DTB-1  
 214. Number of mixture passages per carburetor 2  
 215. Flange hold diameter of exit port(s) of carburetor 26 & 28 mm in.  
 216. Minimum dimensions of mixture passage (s) ~~with respect to cross-section~~  
 19 & 25 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.



Make TOYO KOGYO Model SPB F.I.A. Rec. No.

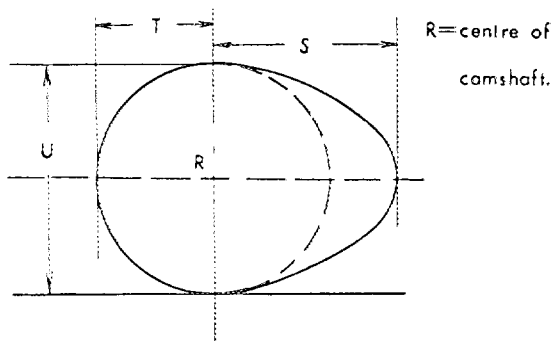
**ENGINE ACCESSORIES**

230. Fuel pump : mechanical <del>and electric</del>	231. No. fitted	1
232. Type of ignition system Make & Break Ignition	233. No. of distributors	1
234. No. of ignition coils 1	235. No. of spark plugs per cylinder	1
236. Generator, type: <del>dynamo</del> /alternator-number fitted 1	237. Method of drive	V-Belt
238. Voltage of generator 14 volts	239. Battery, number	1
240. Location Engine Room		
241. Voltage of battery 12 volts		

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

250. Max. engine output 58 PS (type of horsepower: JIS ) at 6,000 rpm
251. Maximum rpm 6,000 rpm output at that figure 58 PS
252. Maximum torque 7.9 kg-m at 3,500 rpm
253. Maximum speed of the car 135 km/hour miles / hour

255.



Inlet cam

S =	21.5	mm	0.85	inches
T =	15.0	mm	0.59	inches
U =	30.0	mm	1.18	inches

Exhaust cam

S =	21.5	mm	0.85	inches
T =	15.0	mm	0.59	inches
U =	30.0	mm	1.18	inches



Make

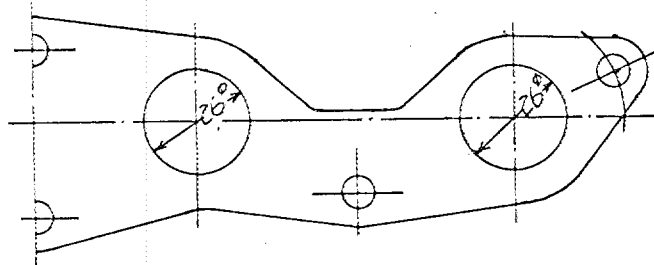
TOYO KOGYO

Model

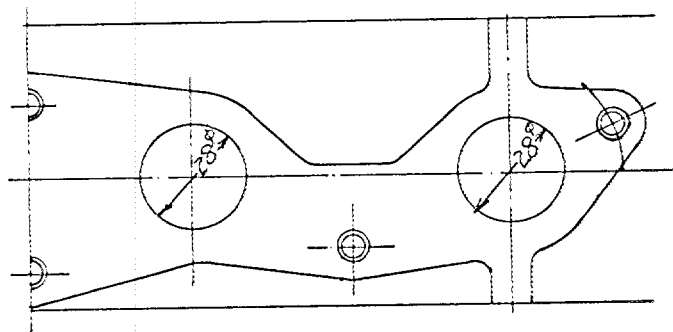
SPB

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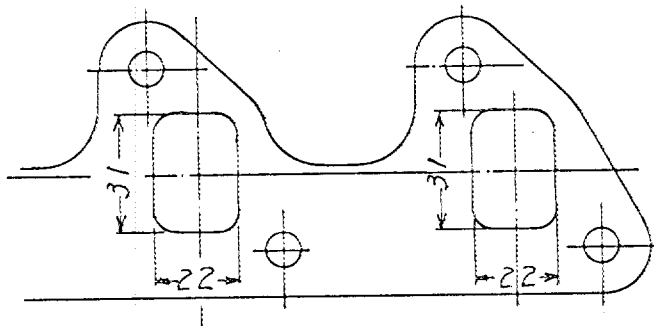
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



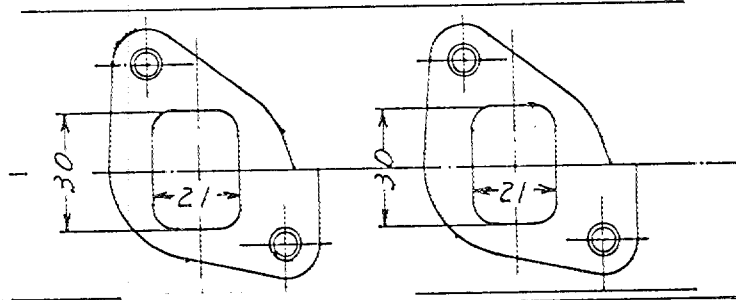
Drawing of entrance to inlet part of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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

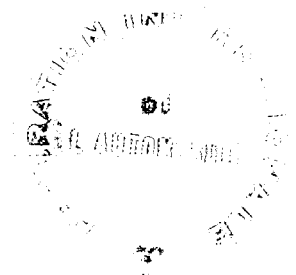


Drawing of exit to exhaust port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



Unit; mm

Tolerance;  $\pm 1.5$





Make

TOYO KOGYO

Model

SPB

F. I. A. Rec. No.

DRIVE TRAIN

CLUTCH

260. Type of clutch Dry Plate 261. No. of plates 1

262. Dia. of clutch plates 16.7 cm inches

263. Dia. of linings, inside 12.7 cm in. outside 18.4 cm in.

264. Method of operating clutch Hydraulic

GEAR BOX (photograph H)

270. Manual type, make TOYO KOGYO Method of operation Mechanical

271. No. of gear-box ratios forward 4 or 5 272. Synchronized forward ratios 1,2,3&4

273. Location of gear-shift Floor or Column or 1,2,3,4&5

274. Automatic, make type

275. No. of forward ratios 276. Location of gear-shift

277.	Manual			Manual			Manual			Manual		
	Ratio	No.	teeth	Ratio	No.	teeth	Ratio	No.	teeth	Ratio	No.	teeth
1	4.013	$\frac{31}{16}$	$\frac{29}{14}$	3.337	$\frac{29}{18}$	$\frac{29}{14}$	3.305	$\frac{29}{17}$	$\frac{31}{16}$			
2	2.399	$\frac{31}{16}$	$\frac{26}{21}$	1.995	$\frac{29}{18}$	$\frac{26}{21}$	2.218	$\frac{29}{17}$	$\frac{26}{20}$			
3	1.435	$\frac{31}{16}$	$\frac{20}{27}$	1.301	$\frac{29}{18}$	$\frac{21}{26}$	1.564	$\frac{29}{17}$	$\frac{22}{24}$			
4	1.000			1.000			1.200	$\frac{29}{17}$	$\frac{19}{27}$			
5							1.000					
6												
reverse	4.013	$\frac{31}{16}$	$\frac{29}{14}$	3.337	$\frac{29}{18}$	$\frac{29}{14}$	3.398	$\frac{29}{17}$	$\frac{15}{16}$	$\frac{34}{16}$		

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)

293. Final drive ratio 4.111 4.375 4.625 4.875 5.125 5.375

Number of teeth 37/9 35/8 37/8 39/8 41/8 43/8



Make

TOYO KOGYO

Model

SPB

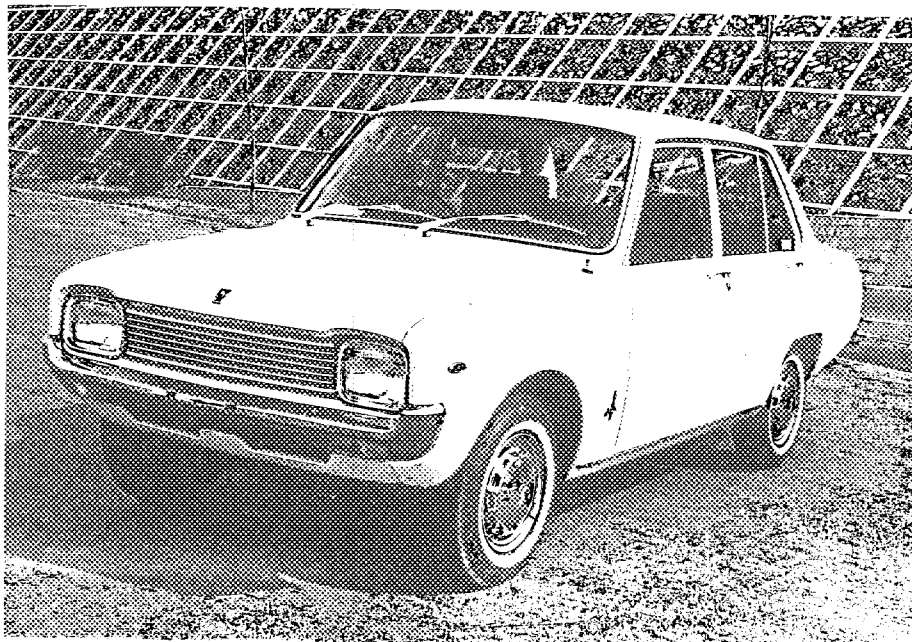
F.I.A. Rec. No.

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, 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.

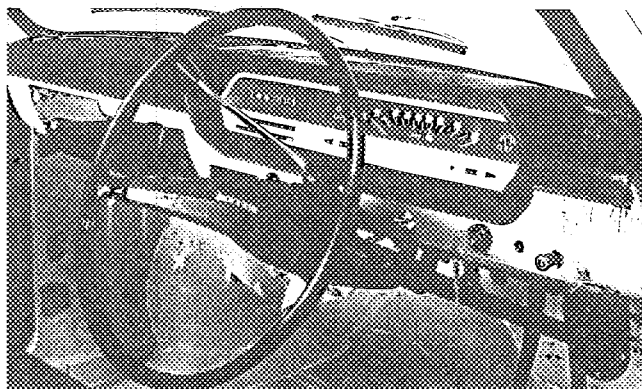
Optional equipment affecting preceding information. This to be stated together with reference number.

4-door type



273 location of gear-shift

Column



Make

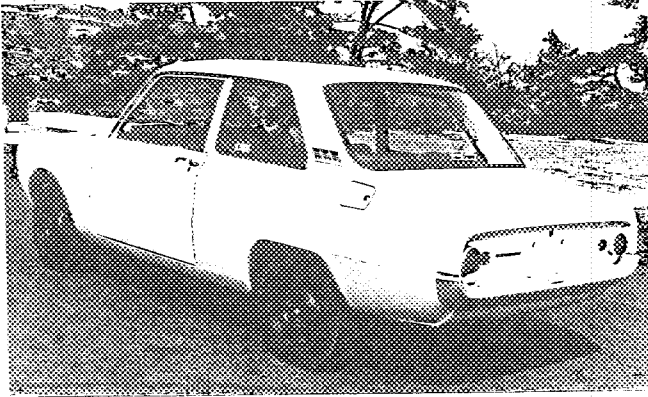
TOYO ROGGYO

Model SP3

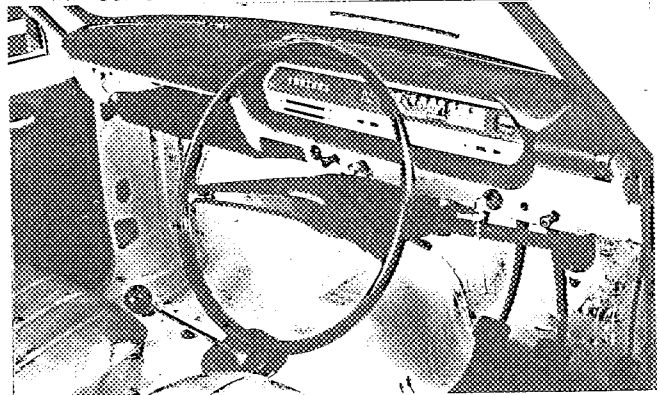
F.I.A. Rec. No.

Photograph

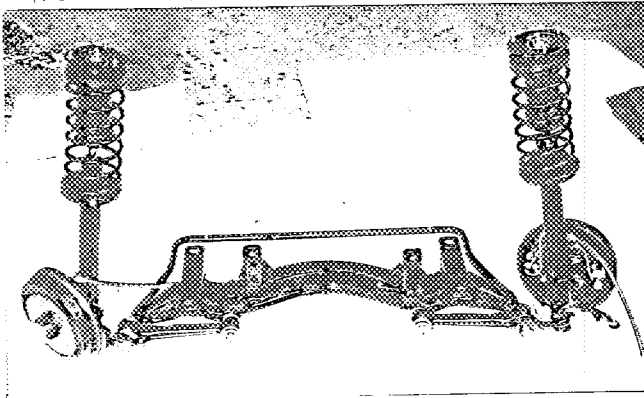
B, 3/4 view of car from rear



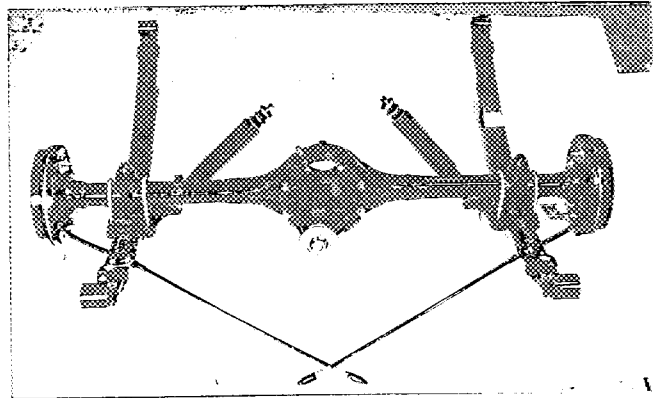
C, interior view of car through driver's door (open or removed) with dashboard



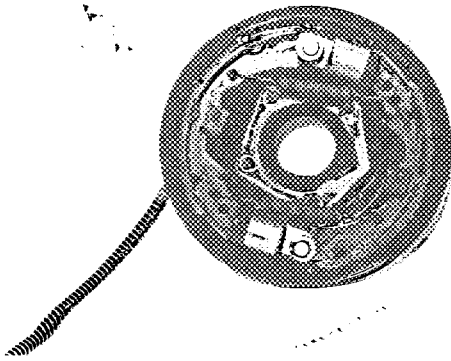
D, front axle complete, removed from car. Without wheels



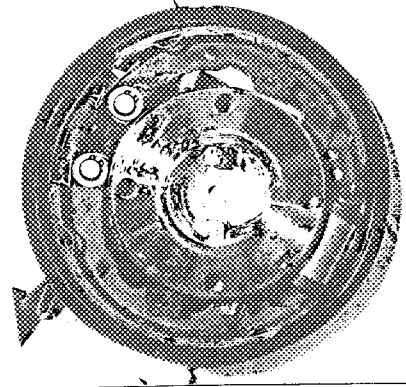
E, Rear axle complete without wheels, removed from car.



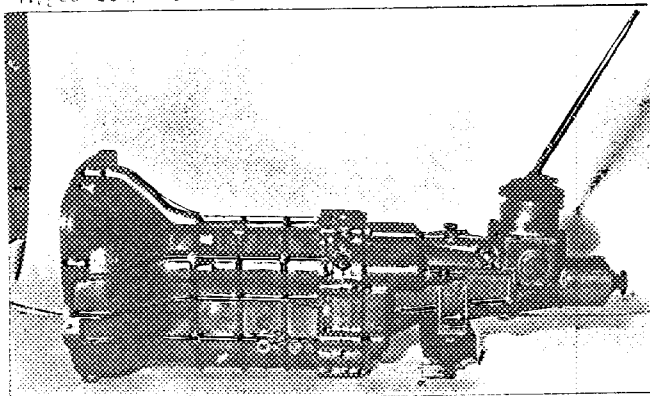
F, front brake, drum removed or disc with caliper(s)



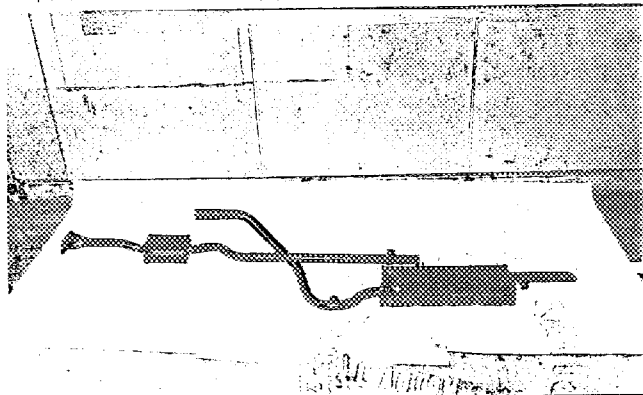
G, rear brake, drum removed or disc with caliper(s)



H, gear-box, view from side



I, silencer + exhaust pipes after exhaust manifold.



Make

TOYO KOVIO

Model

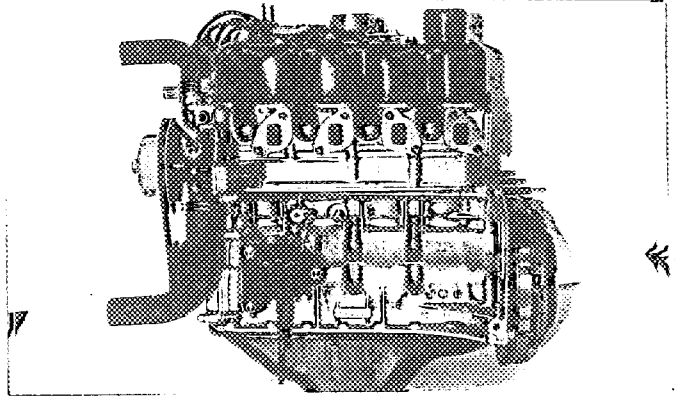
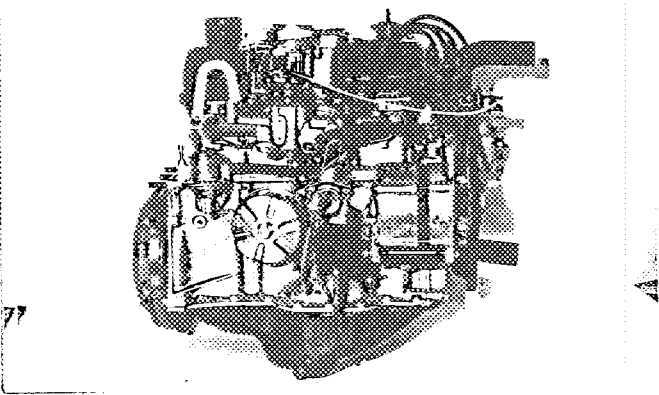
3PB

F.I.A. Rec. No

Photograph

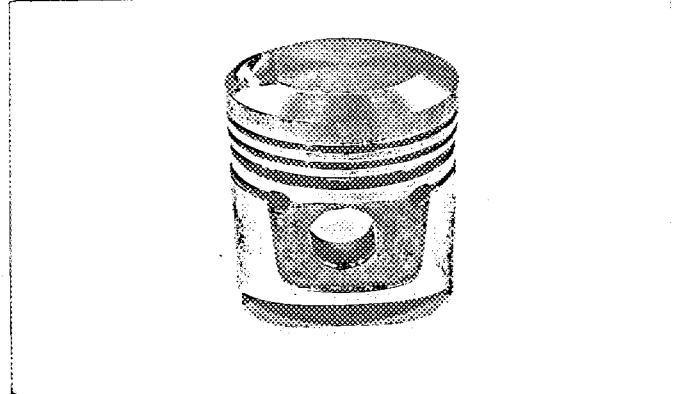
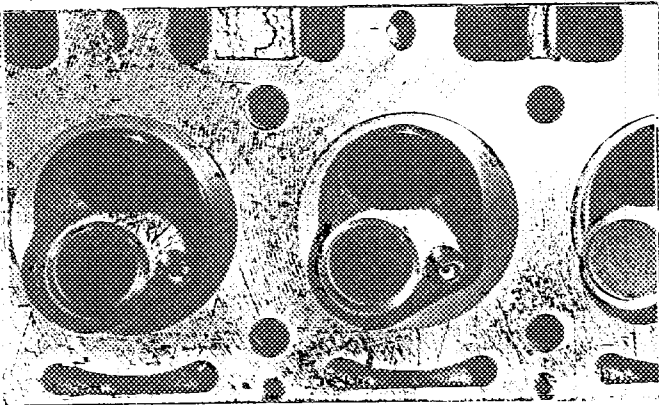
engine unit out of car, from right. With clutch and accessories but without air filter nor gear-box.

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



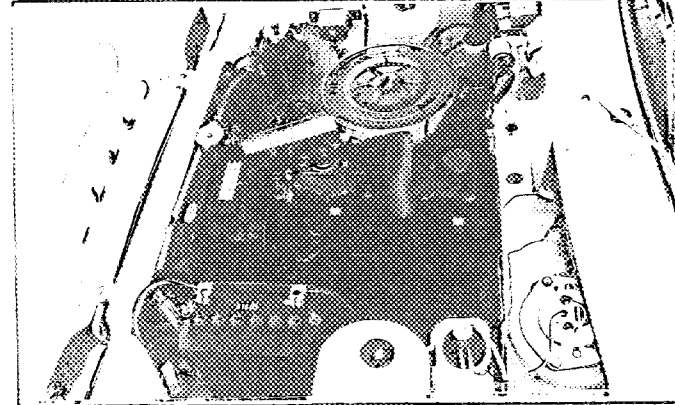
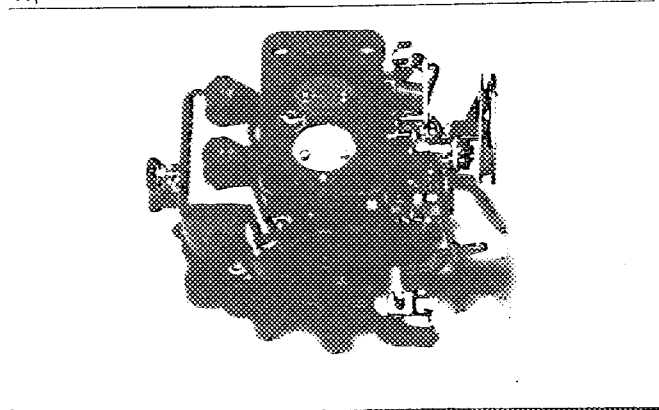
L, combustion chamber

M, piston crown



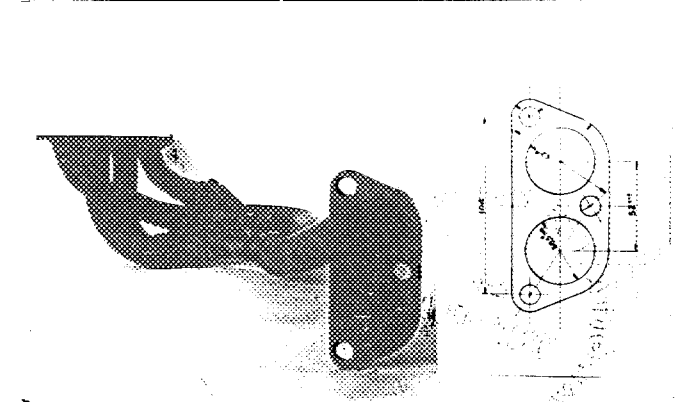
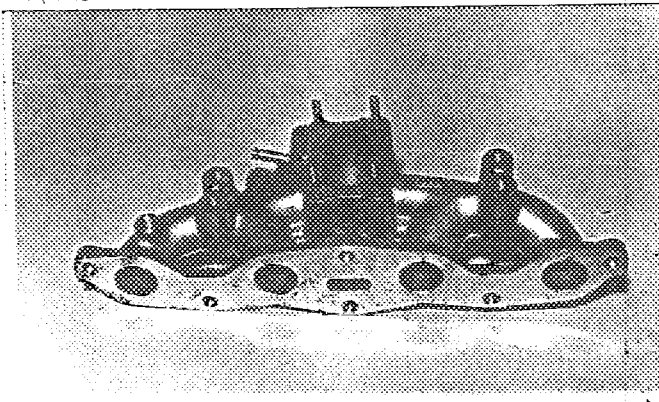
N, Carburettor (view from side of manifold)

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



P, inlet manifold

Q, exhaust manifold



Make

TOYO KOGYO

Model

SPB

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

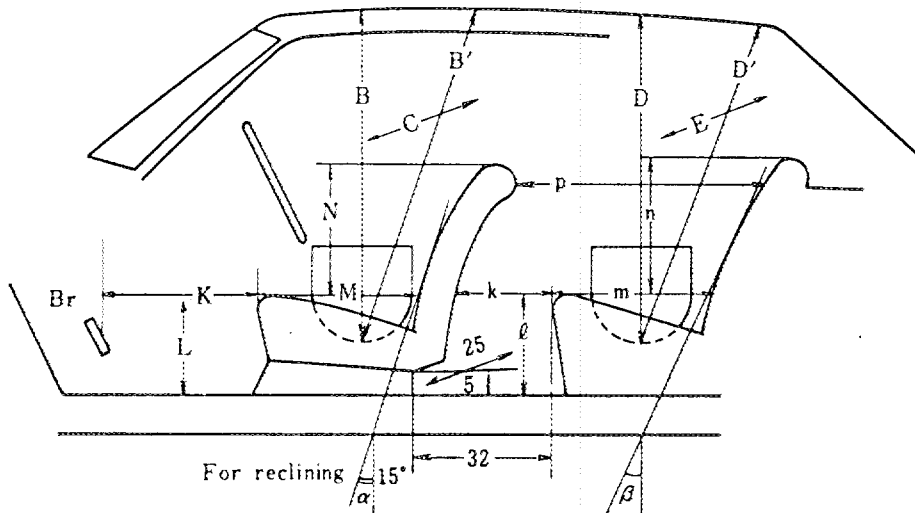
難波清治

Naruharu Nanba



**DIMENSIONS OF INTERIOR**  
(Conform to Art. 253 b of Appendix J)

For four seaters :



Minimum Dimensions (cm)							
B	B'	$\alpha$	C	D	D'	$\beta$	E
92	97	$16^\circ$	123	91	90	$21^\circ$	123

Minimum Dimensions (cm)										
L	$\ell$	M	m	N	n	k+m	p	k	k+l+m	K+L+M
29	29.5	46.5	45	39	41.5	67	62	22	96.5	120
0.9L = 26		0.85M = 39.5		0.8N = 31		0.8(k+m) = 53.6		(15)	(95)	(120)





JAPAN AUTOMOBILE FEDERATION F.I.A. Homol. No

1531/1/IV

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Make TOYO KOGYO Model SPB (MAZDA FAMILIA SEDAN)
Modification's application starts with serial No. chassis SPB-10001 engine PB-10001
Application of this amendment started the
Commercial denomination after application of modifications MAZDA FAMILIA SEDAN
The modifications are to be considered as: Variant /
Date amendment is valid from 1st Jan '69 list 1969/1

Description of amendment

Wheels

51 Weight (per wheel without tyre) 4.5 kg (4J) 4.7 kg (4.5J)

52 Method of attachment 4 Hub-Bolts

53 Rim Diameter 330 mm 13 inches

54 Rim width 102 mm 4.0 inches 114 mm 4.5 inches

Capacities and Dimensions

7 Capacity of fuel tank (reserve included)

60 ltrs 15.9 gallon US. 70 ltrs 18.5 gallon US.

Stamp and signature of National Sporting Authority

Stamp and signature of F.I.A.

JAPAN AUTOMOBILE FEDERATION

Handwritten signature of Yasuharu Nanba

Yasuharu Nanba

Handwritten signature of F.I.A.