



JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No. *1439*

Group *Touring*

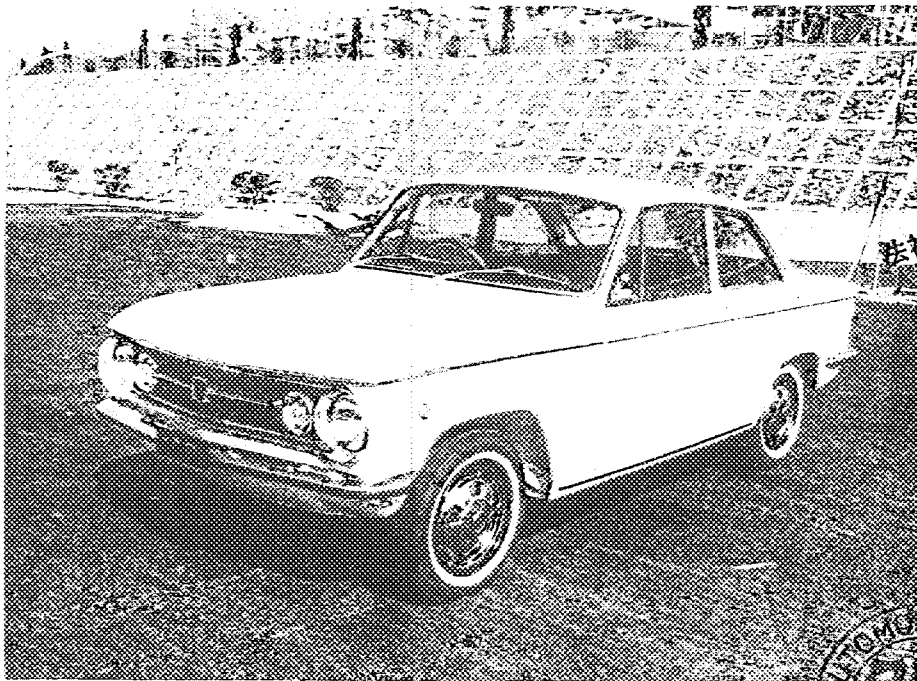
FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Manufacturer	TOYO KOGYO CO., LTD.	Cylinder-capacity	985	cm ³	60	cu. in.
Serial No. of chassis	MPA-10001	Model	MPA (MAZDA FAMILIA COUPE)			
Serial No. of engine	PA-10001	Manufacturer	TOYO KOGYO			
Recognition is valid from	<i>1st August 1966</i>	Manufacturer	TOYO KOGYO			
		List	<i>14/2</i>			

The manufacturing of the model described in this recognition form was started on *October 19 65* and the minimum production of 1,000 identical cars, in accordance with the specifications of this form was reached on *February 1966*

Photograph A, 3/4 view of car from front



東京都港区芝公園第三号地一番五
 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 :

Variants

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

Normal evolution of the type

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

Stamp and signature of the National Sporting Authority

Stamp and signature of the F. I. A.

Handwritten signature

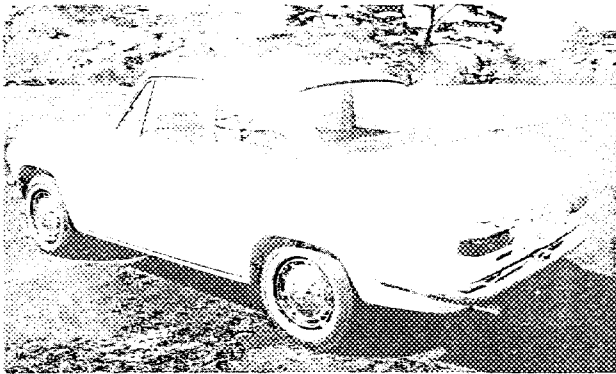
Make TOYO KOBYO

Model 72A

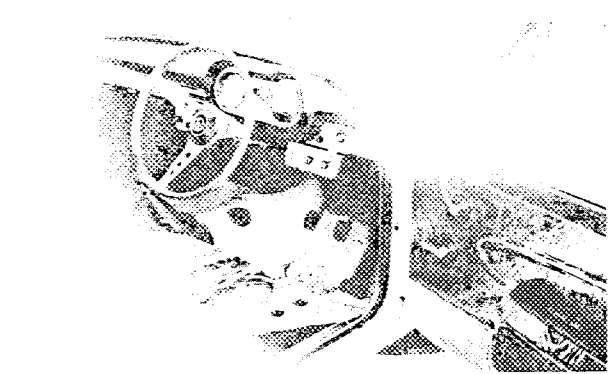
F.I.A. Rec. No.

Photograph

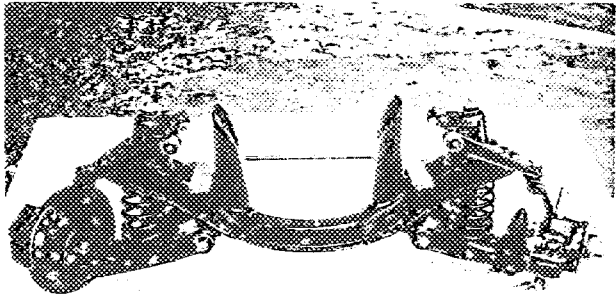
B, 3/4 view of car from rear



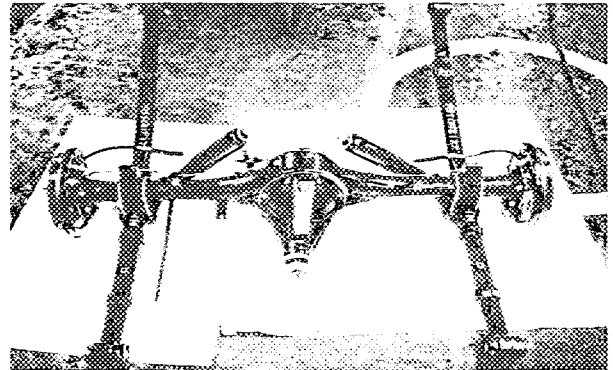
C, interior view of car through driver's door open or removed



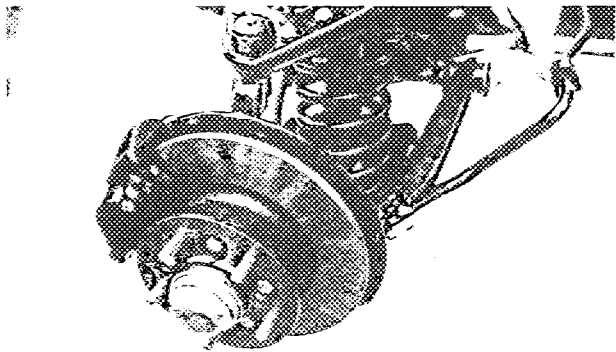
D, front axle complete removed from car, without wheels



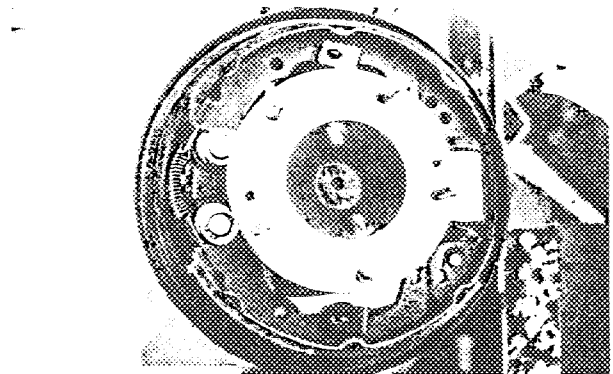
E, Rear axle complete without wheels, removed from car



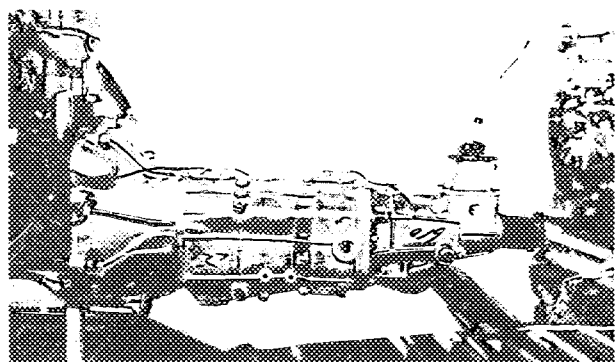
F, front brake, drum removed



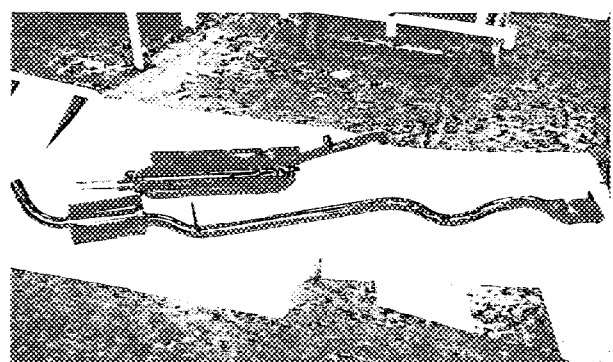
G, rear brake, drum removed



H, gear-box, view from side

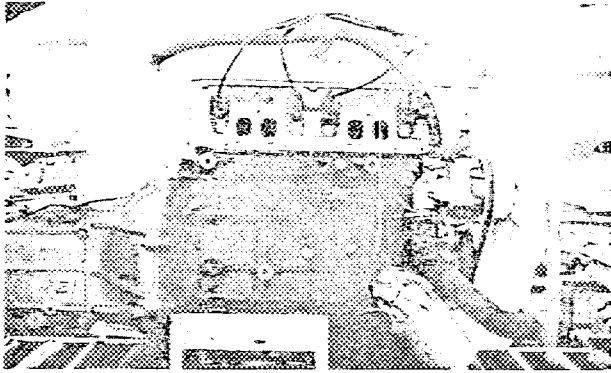


I, silencer in exhaust pipes after exhaust manifold

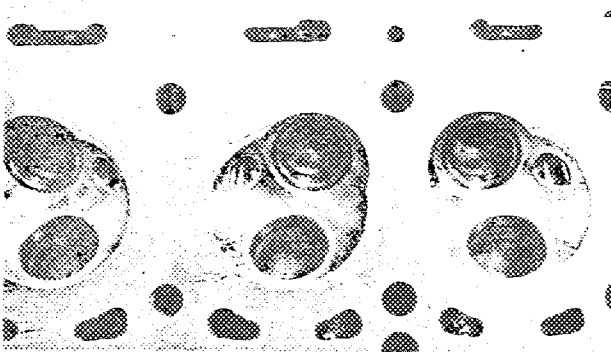


Make TOYO KOGYO

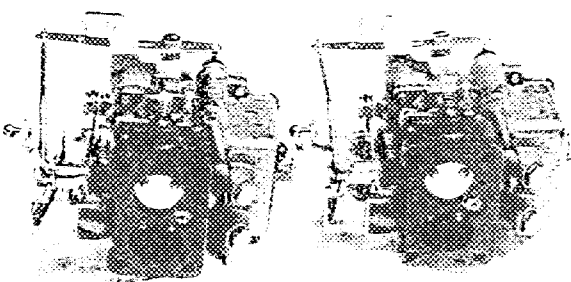
J. Engine unit out of car, from right. With clutch and accessories, but without air filter nor gear-box.



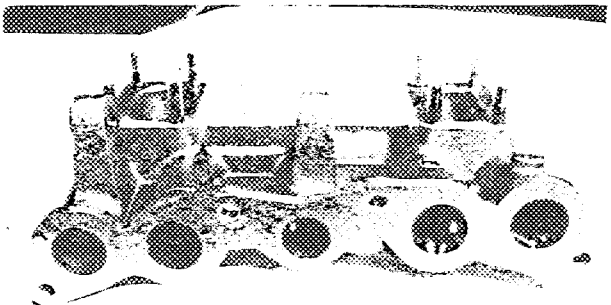
L. Combustion chamber



N. Carburettor (view from side of manifold)



P. Inlet manifold

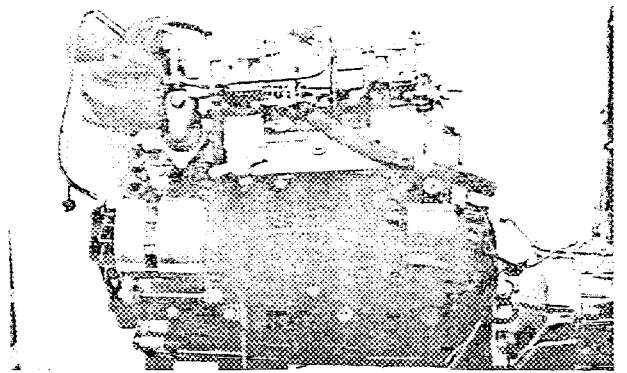


Model MEA

F.I.A. Rec. No.

Photograph

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



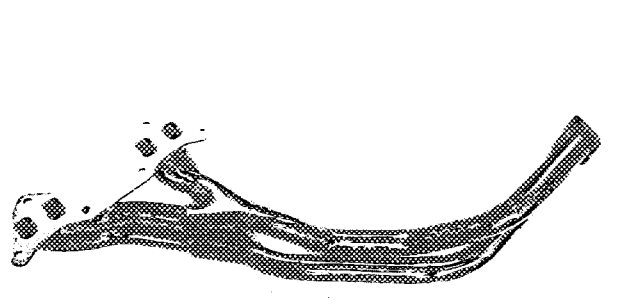
M. Piston crown



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



Q. Exhaust manifold

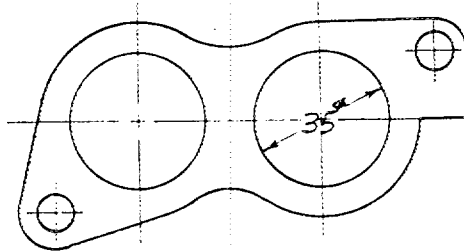


Make TOYO KOGYO

Model MPA

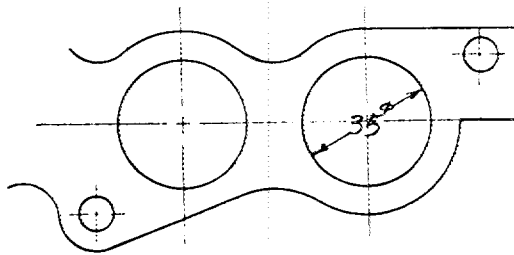
F.I.A. Rec. No.

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

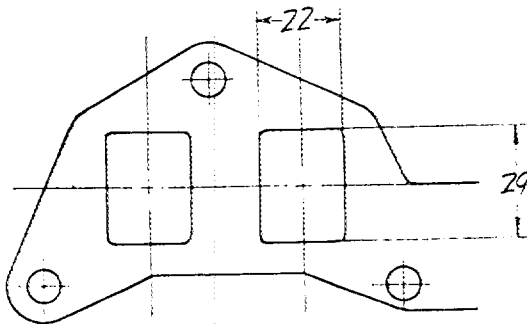


Dimension: m/m
Tolerance: ± 1.2
(Note: There are applicable to drawing of this sheet.)

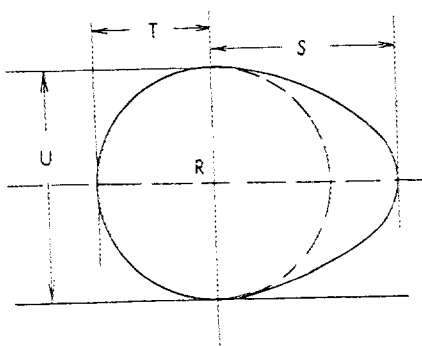
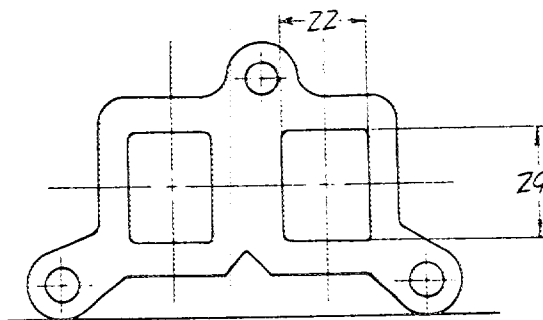
Drawing of entrance to inlet part of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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



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



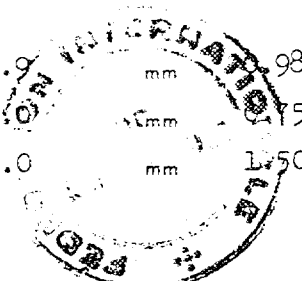
R=centre of camshaft.

Inlet cam

S =	24.9	mm	0.98	inches
T =	19.0	mm	0.75	inches
U =	38.0	mm	1.50	inches

Exhaust cam

S =	24.9	mm	0.98	inches
T =	19.0	mm	0.75	inches
U =	38.0	mm	1.50	inches



Make

TOYO KOGYO

Model

MPA

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>	2,190	mm	86.2	inches
2. <u>Front track</u>	1,200	mm	47.2	inches *
3. <u>Rear track</u>	1,190	mm	46.8	inches *
4. Overall length of the car		370.0	cm	inches
5. Overall width of the car		146.5	cm	inches
6. Overall height of the car		134.5	cm	inches
7. <u>Capacity of fuel tank</u> (reserve included)			40	ltrs
	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.				
	760	kg	1,674	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 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 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 (cwt)	--	90.7185 kg



Make

TOYO KOGYO

Model

MPA

F. I. A. Rec. No.

CHASSIS AND COACHWORK (Photographs A, B and C)

- 20. Chassis/body construction : ~~separate~~ / unitary construction
- 21. Unitary construction, material (s) : **Steel**
Separate construction
- 22. 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 - ~~yes~~
- 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 :

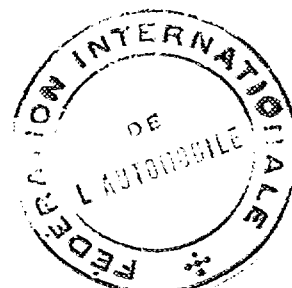
13 x 2	kg	lbs
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- 43. Rear seats, type of seats and upholstery : **Bench Seat & Vinyl Leather**
- 44. Front bumper, material (s) : **Steel** Weight : **3.9** kg lbs
- 45. Rear bumper, material (s) : **Steel** Weight : **5.3** kg lbs

WHEELS

- 50. Type : **Pressed Steel**
- 51. Weight (per wheel, without tyre) : **5.0** kg lbs
- 52. Method of attachment : **5 Hub-Bolt & Nuts**
- 53. Rim diameter : **330** mm **13** inches
- 54. Rim width : **102** mm **4** inches

STEERING

- 60. Type : **Ball and Nuts Type**
- 61. Servo-assistance : ~~yes~~ - no
- 62. Number of turns of steering wheel from lock to lock : **2 1/4**
- 63. In case of servo-assistance



Make TOYO KOGYO

Model MPA

F.I.A. Rec. No.

SUSPENSION

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

74. Type

82. Type

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

BRAKES (photographs F and G)

- 90. Method of operation
- 91. Servo-assistance (if fitted), type
- 92. Number of hydraulic master cylinders
- 93. Number of cylinders per wheel
- 94. Bore of wheel cylinder (s)

Hydraulic

1

FRONT

REAR

2

1

50.8	mm	in.	15.9	mm	in.
------	----	-----	------	----	-----

	mm	in.	220	mm	in.
--	----	-----	-----	----	-----

	mm	in.	220	mm	in.
--	----	-----	-----	----	-----

	mm	in.	30	mm	in.
--	----	-----	----	----	-----

			2		
--	--	--	---	--	--

	mm ²	sq. in.	12000	mm ²	sq. in.
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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

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

338	mm	in.		mm	in.
-----	----	-----	--	----	-----

8	mm	in.		mm	in.
---	----	-----	--	----	-----

52	mm	in.		mm	in.
----	----	-----	--	----	-----

39	mm	in.		mm	in.
----	----	-----	--	----	-----

2					
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4056	mm ²	sq. in.		mm ²	sq. in.
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Make TOYO KOGYO

Model MPA

F.I.A. Rec. No.

ENGINE (photographs J and K)

130. Cycle	4	131. Number of cylinders	4
132. Cylinder arrangement	In Line		
133. Bore	70 mm	134. Stroke	64 mm
	2.75 in.		2.52 in.
135. Capacity per cylinder		246 cm ³	15.0 cu. in.
136. Total cylinder-capacity		985 cm ³	60.0 cu. in.
137. Material (s) of cylinder block		Cast Iron	
138. Material (s) of sieves (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	10.0		
143. Volume of one combustion chamber		35.6 cm ³	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	48.4 mm		
			inches
147. Crankshaft : rough / stamped		148. Type of crankshaft : integral / XXXXXXXXXXXX	
149. Number of crankshaft main bearings	5		
150. Material of bearing cap	Cast Iron		
151. System of lubrication : dry sump / oil in sump			
152. Capacity, lubricant	3.5 ltrs		quarts US
			pts
153. Oil cooler : yes / no		154. Method of engine cooling	Water
155. Capacity of cooling system	6.0 ltrs		quarts US
			pints
156. Cooling fan (if fitted), dia.	30 cm		inches
157. Number of blades of cooling fan	4		

Bearings

158. Crankshaft main, type	Plain	Dia.	63 mm	in.
159. Connecting rod big end,	Plain	Dia.	45 mm	in.

Weights

160. Flywheel (clean)	4.5 kg		lbs
161. Flywheel with clutch (all turning parts)		7.3 kg	lbs
162. Crankshaft	10.3 kg	163. Connecting rod	0.5 kg
164. Piston with rings and pin	0.26 kg		lbs



Make TOYO KOGYO

Model MPA

F. I. A. Rec. No.

FOUR STROKE ENGINES

170. Number of camshafts 1 171. Location Over Head
 172. Type of camshaft drive Chain
 173. Type of valve operation Rocker Arm

INLET (see page 4) *

180. Material(s) of inlet manifold Al-Cast
 181. Diameter of valves 33 mm 1.3 inches
 182. Max. valve lift 7.5 mm 0.3 in. 183. Number of valve springs 2
 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) 25° BTDC +5°
 188. Valves close at (with tolerance for tappet clearance indicated) 45° ABDC +5°
 189. Air filter, type Dry

EXHAUST (see page 4)

195. Material (s) of exhaust manifold Steel pipe, Welding
 196. Diameter of valves 29 mm 1.2 inches
 197. Max. valve lift 7.5 mm 0.3 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) 0.3 mm inches
 202. Valves open at (with tolerance for tappet clearance indicated) 55° BBDC +5°
 203. Valves close at (with tolerance for tappet clearance indicated) 15° ATDC +5°

CARBURETION (photograph N)

210. Number of carburetors fitted 2 211. Type Down Draft
 212. Make Hitachi 213. Model DTBW F1/R1
 214. Number of mixture passages per carburetor 2
 215. Flange hold diameter of exit port(s) of carburetor 26 & 28 mm in.
 216. Minimum diameter of venturi ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
 18 & 24 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

MPA

F. I. A. Rec. No.

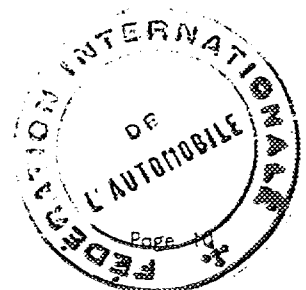
ENGINE ACCESSORIES

230. Fuel pump : ~~Mechanical~~ electric
232. Type of ignition system Make & Break Ignition
234. No. of ignition coils
236. Generator, type: ~~Cyclo~~ alternator-number fitted 1
238. Voltage of generator 12 volts
240. Location Engine Room
241. Voltage of battery 12 volts

231. No. fitted 1
233. No. of distributors 1
235. No. of spark plugs per cylinder 1
237. Method of drive V-Belt
239. Battery, number 1

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

250. Max. engine output 68 PS (type of horsepower: JIS) at 6,500 rpm
251. Maximum rpm 7,000 rpm output at that figure 66 PS
252. Maximum torque 8.1 kg-m at 4,600 rpm
253. Maximum speed of the car 145 km/hour miles / hour



Make TOYO KOGYO

Model MPA

F. I. A. Rec. No.

DRIVE TRAIN

CLUTCH

- 260. Type of clutch Dry Plate
- 261. No. of plates 1
- 262. Dia. of clutch plates 18.7 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)

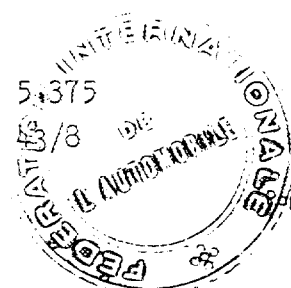
- 270. Manual type, make TOYO KOGYO CO., LTD.
- 271. No. of gear-box ratios forward 4
- 272. Synchronized forward ratios 4 forward 1, 2, 3, 4
- 273. Location of gear-shift Floor
- 274. Automatic, make type
- 275. No. of forward ratios
- 276. Location of gear-shift

277.	Manual		XXXXXX			XXXXXXXXXXXXXXXXXXXX			XXXXXXXXXXXXXXXXXXXX		
	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	
1	3.655	$\frac{30}{17} \cdot \frac{29}{14}$	4.013	$\frac{31}{16} \cdot \frac{29}{14}$	3.3 ³⁷	$\frac{29}{18} \cdot \frac{29}{14}$	2.374	$\frac{28}{19} \cdot \frac{29}{18}$			
2	2.185	$\frac{30}{17} \cdot \frac{26}{21}$	2.399	$\frac{31}{16} \cdot \frac{26}{21}$	1.995	$\frac{29}{18} \cdot \frac{26}{21}$	1.608	$\frac{28}{19} \cdot \frac{24}{22}$			
3	1.425	$\frac{30}{17} \cdot \frac{21}{26}$	1.435	$\frac{31}{16} \cdot \frac{20}{27}$	1.301	$\frac{29}{18} \cdot \frac{21}{26}$	1.238	$\frac{28}{19} \cdot \frac{21}{25}$			
4	1.000		1.000		1.000		1.000				
5											
6											
reverse	3.655	$\frac{30}{17} \cdot \frac{29}{14}$	4.013	$\frac{31}{16} \cdot \frac{29}{14}$	3.3 ³⁷	$\frac{29}{18} \cdot \frac{29}{14}$	3.052	$\frac{28}{19} \cdot \frac{29}{14}$			

- 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) Mechanical
- 293. Final drive ratio 4.111 4.625 4.375 5.125
- Number of teeth 37/9 37/8 35/8 41/8



Make TOYO KOGYO

Model MPA

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.

WHEELS

50. Type	Pressed Steel		
51. Weight (per wheel, without type)	4.9 kg		lbs
52. Method of attachment	5 Hub-Bolt & Nuts		
53. <u>Rim diameter</u>	330 mm		13 inches
54. <u>Rim width</u>	114 mm		4 1/2 inches



Make TOYO KOGYO

Model MPA

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. <u>Drawing of cylinder ports.</u>			

330. Supercharging—state full details hereafter :

JAPAN AUTOMOBILE FEDERATION

Chairman

of Technical Subcommission

Osamu Hira

Osamu Hira o





JAPAN AUTOMOBILE FEDERATION F.I.A. Homol. No 1439

A/V

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Make TOYO KOGYO Model MPA (MAZDA FAMILIA COUPE)

Modification's application starts with serial No. chassis engine

Application of this amendment started the

Commercial denomination after application of modifications

The modifications are to be considered as: Variant / ~~XXXXX~~

Date amendment is valid from 1 Nov '67 list 16/6

Description of amendment

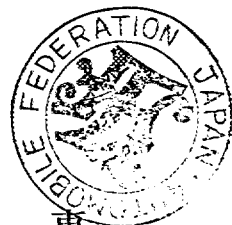
The gear box of 5 forwards is added to Optional equipments.

This is to be stated together with reference numbers.

GEAR BOX

270	Manual Type, make	TOYO KOGYO CO., LTD
271	No. of gear-box ratios forward	5
272	Synchronized forward ratios	5 forward 1, 2, 3, 4, 5
273	Location of gear-shift	Floor

277	Ratio	Manual No. teeth
1	3.305	29/17 · 31/16
2	2.218	29/17 · 26/20
3	1.564	29/17 · 22/24
4	1.200	29/17 · 19/27
5	1.000	-
rev.	3.398	29/17 · 15/16 · 34/16



東京港区芝公園第三号地一番五
機械振興会館内
法人 日本自動車連盟

Stamp and signature of National Sporting Authority

Stamp and signature F.I.A.

JAPAN AUTOMOBILE FEDERATION

[Handwritten signature]

Kazunari Komotori

[Handwritten signature]

