



**INTERNATIONAL
MOTOR SPORTS
ASSOCIATION, Inc.**

P.O. Box 805
Fairfield, Conn 06430
(203) 259-5232

IMSA Homologation No. _____

In accordance with Appendix "J" of the International Sporting Code

Cylinder Capacity 2,292 cm³ 140 in³

Manufacturer TOYO KOGYO CO., LTD.

Model SA22C, MAZDA SPORTS CAR

Serial # Chassis SA22C - 500025

Manufacturer TOYO KOGYO CO., LTD.

Serial # Engine 12AV - 98000

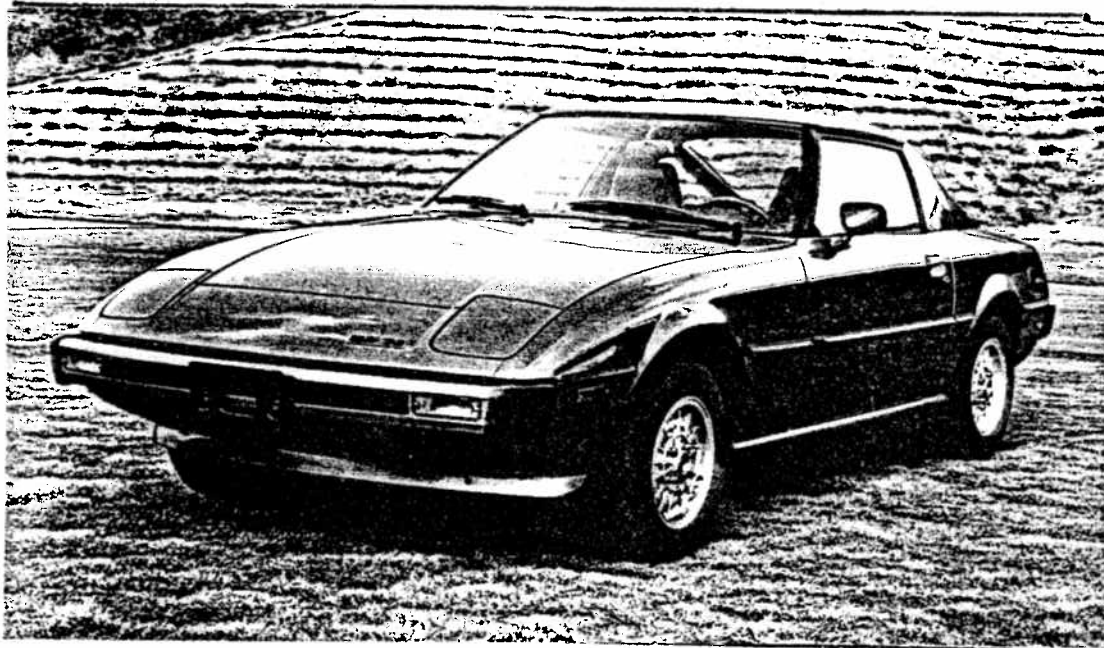
Manufacturer TOYO KOGYO CO., LTD.

Recognition valid from _____

List _____

The manufacturing of the model described in this recognition form was started on 1st March, 1978 and the minimum production of 8000 identical cars, in accordance with the specifications of this form, was reached on April 1978

A 3/4 Front View Car *



The following amendments apply to the vehicle identified above:

Variants
on 19 Rec # list
on 19 Rec # list
on 19 Rec # list

Normal Evolution of the Type
on 19 Rec # list
on 19 Rec # list
on 19 Rec # list

K. Sakashita
Authorized Signature
Kazushi Sakashita (Doctor of Engineering)
Manager, Development Administration Div.

Signature of
the I.M.S.A.

MAKE TOYO KOGYO

MODEL SA22C

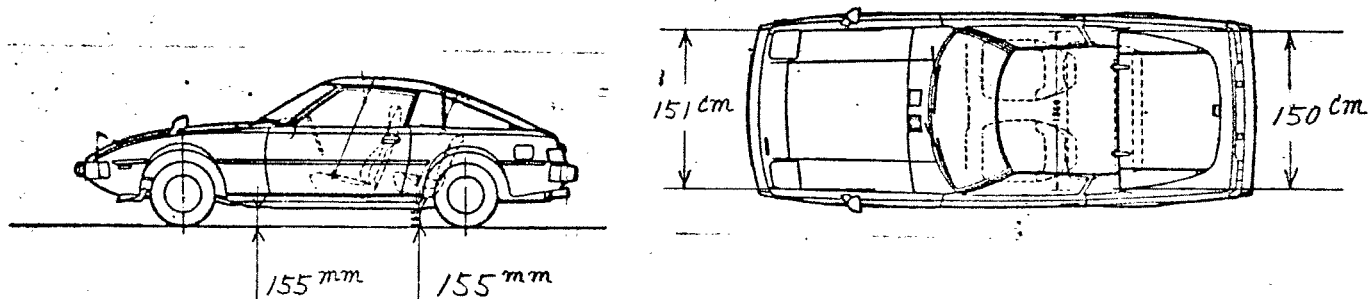
REC # _____

IMPORTANT - Underlined items must be filled in, in both metric and English values.
See Conversion Table below. SEE PAGE 10 FOR EXPLANATION OF SYMBOLS.

CAPACITIES AND DIMENSIONS

- * 1. Wheelbase: 2,420 mm 95.3 inches
- * 2. Front track: 1,510 mm 59.5 inches (1)
- * 3. Rear track: 1,500 mm 59.1 inches (1)
- 4. Overall length of car 428.5 cm 168.7 inches
- 5. Overall width of car (at widest point) 165 cm 65 inches
- 5a Overall width of car (at vertical plane through front wheels) 164.4 cm 64.7 in
- 5b Overall width of car (at vertical plane through rear wheels) 164.8 cm 64.9 in
- 6. Overall height of car 126.0 cm 49.6 inches
- * 7. Capacity of fuel tank (reserve included) 55 Litres 14.5 U.S.Gals.
- 8. Seating capacity: 2
- * 9. Weight - Total weight of vehicle with normal equipment described on homologation sheet, all required lubricants and coolants and one spare wheel and tire, but without fuel or repair tools
1009 kg 2225 lbs

(1) Specify ground clearance Front and Rear corresponding to Front and Rear track measurements shown above. Indicate by sketch below reference points on chassis or suspension where these dimensions are checked. These specifications are for the purpose of checking the track with specified wheel rim size with the suspension at reference setting. Differences in track resulting from use of different rim widths must be shown with suspension at reference setting. A sketch showing the rim widths superimposed is desirable.



Camber Angle: 1° at Front Wheel

TABLE OF CONVERSIONS

1 inch -----	2.54 cm	1 pound -----	453.593 gr
1 foot -----	30.4794 cm	1 quart U.S. -----	0.9464 ltrs
1 square inch -----	6.452 cm ²	1 pint U.S. -----	0.473 ltrs
1 cubic inch -----	16.387 cm ³	1 gallon U.S. -----	3.785 ltrs

MAKE TOYO KOGYO

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REC #

CHASSIS AND BODYWORK (Photos A, B and C)

- * 20. Chassis/body construction: (~~separate~~) (unit construction)
- * 21. Unit construction: material Steel
- * 22. Separate construction: material of chassis Steel
- * 23. Material of body: Steel
- * 24. Number of doors: 2 Material: Steel
- * 25. Material of hood: Steel
- * 26. Material of trunk lid: Glass
- 27. Material of rear window: Glass
- 28. Material of windshield: Glass (LAMINATED)
- 29. Material of front door windows: Glass
- 30. Material of rear door windows: xxxxxx
- 31. Windows, actuating system: Vertical Manual
- 32. Material of rear quarter window: Glass

ACCESSORIES AND UPHOLSTERY

- 38. Heating, interior: (yes) (~~no~~)
- 39. Air conditioning: (~~yes~~) (no)
- 40. Ventilation: (yes) (~~no~~)
- (SP) 41. Seats, front: Type of seat and upholstery Separate, Cloth
- 42. Seats, front: Weight (complete with supports and rails out of car) 12.8x2 kg 28.2x2lbs
Check: Bench Bucket Yes Console included Yes
- 43. Seats, rear: Type of seat and upholstery xxxxxx
- 44. Bumper, front: Material: Steel Weight: 16.8 kg 37.0 lbs
- 45. Bumper, rear: Material: Steel Weight: 15.7 kg 34.6 lbs

WHEELS

- 50. Type: Pressed Steel
- 51. Weight: (per wheel, without tire) 7.5 kg 16.5 lbs
- 52. Method of attachment: 4 Bolts
- 53. Rim diameter: 330.2 mm 13 inches
- 54. Rim width: 127 mm 5 inches

STEERING

- 60. Type: Recirculating Ball
- 61. Servo-assistance: (~~yes~~) (no)
- 62. Number of turns of steering wheel from lock to lock: 2.39
- 63. In case of servo-assistance: xxxxxx

MAKE TOYO KOGYO

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REC #

SUSPENSION

- * 70. Front suspension (Photo D) type: Mcpherson
- * 71. Type of spring: Coil
- (SP)72. Stabilizer (if fitted): Torsion Bar
- 73. Number of shock absorbers: 2
- 74. Type: Hydraulic Telescopic

- * 78. Rear suspension (Photo E) type: Four Trailing Links with Watt Link
- * 79. Type of spring: Coil
- (SP)80. Stabilizer (if fitted): Torsion Bar
- 81. Number of shock absorbers: 2
- 82. Type: Hydraulic Telescopic

BRAKES (Photos F and G)

- * 90. Method of operation: Hydraulic
- (SP)91. Power assisted (if fitted,) type: Vacuum
- 92. Number of master cylinders: 1

	<u>Front</u>		<u>Rear</u>	
93. Number of cylinders per wheel:	1		1	
94. Bore of wheel cylinder:	<u>50.8 mm</u>	<u>2.0 in</u>	<u>17.5 mm</u>	<u>0.7 in</u>
(SP) <u>Drum Brakes:</u>				
95. Inside diameter:	<u>xxx mm</u>	<u>xxx in</u>	<u>200 mm</u>	<u>7.9 in</u>
96. Length of brake linings:	<u>xxx mm</u>	<u>xxx in</u>	<u>200 mm</u>	<u>7.9 in</u>
97. Width of brake linings:	<u>xxx mm</u>	<u>xxx in</u>	<u>32 mm</u>	<u>1.3 in</u>
98. Number of shoes per brake: 2				
99. Total area per brake:	<u>xxx mm²</u>	<u>xxx in²</u>	<u>8400 mm²</u>	<u>13.0 in²</u>
(SP) <u>Disc Brakes:</u>				
100. Outside diameter	<u>228.5 mm</u>	<u>9 in</u>	<u>xxx mm</u>	<u>xxx in</u>
101. Thickness of disc:	<u>18 mm</u>	<u>0.7 in</u>	<u>xxx mm</u>	<u>xxx in</u>
102. Length of brake linings:	<u>97 mm</u>	<u>3.8 in</u>	<u>xxx mm</u>	<u>xxx in</u>
103. Width of brake linings:	<u>97 mm</u>	<u>3.8 in</u>	<u>xxx mm</u>	<u>xxx in</u>
104. Number of pads per brake: 2				
105. Total area per brake:	<u>7950 mm²</u>	<u>12.3 in²</u>	<u>xxx mm²</u>	<u>xxx in²</u>

MAKE TOYO KOGYO

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REC #

FOUR CYCLE ENGINES See page 15.

- * 170. Number of camshafts:
- * 171. Location of camshaft:
- * 172. Type of camshaft drive:
- * 173. Type of valve operation:

INLET (see Photo P) +

- 180. Material of inlet manifold:
- 181. Overall diameter of valves: _____ mm _____ inches
- (SP)182. Maximum valve lift: _____ mm _____ inches
- 183. Number of valve springs:
- 184. Type of spring:
- * 185. Number of valves per cylinder:
- (SP)186. Tappet clearance for checking timing (cold) _____ mm _____ inches
- (SP)187. Valves open at (with tolerance for tappet clearance indicated):
- (SP)188. Valves close at (with tolerance for tappet clearance indicated):
- (SP)189. Air filter: (~~wet~~) (dry) Cartridge type: (yes) (no)

EXHAUST (see Photo Q)

- 195. Material of exhaust manifold:
- 196. Overall diameter of valves: _____ mm _____ inches
- (SP)197. Maximum valve lift: _____ mm _____ inches
- 198. Number of valve springs:
- 199. Type of spring:
- * 200. Number of valves per cylinder:
- (SP)201. Tappet clearance for checking timing (cold) _____ mm _____ inches
- (SP)202. Valves open at (with tolerance for tappet clearance indicated):
- (SP)203. Valves close at (with tolerance for tappet clearance indicated):
- (SP)204. Inside diameter of exhaust manifold outlet: $41 \phi \pm 0.7 \text{ mm}$

CARBURETION (see Photo N)

- 210. Number of carburetors fitted: 1
- (SP)211. Type: Down Draft
- (SP)212. Make: NIKKI
- (SP)213. Model: 210284-551 & 210284-531
- 214. Number of mixture passages per carburetor: 4
- (SP)215. Flange hole diameter of exit port of carburetor: 28 & 34 mm 1.1 & 1.3 inches
- (SP)216. Depending on type of carburetor, indicate: diameter at throat of venturi/s at the plane of maximum restriction. Dimension of mixture passage at the point of maximum restriction with the piston in its maximum open position (example SU type): _____ mm _____ inches

+ For additional information concerning two-stroke engines and supercharged engines, add supplementary page

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REC #

INJECTION (if fitted)

- 220. Make of pump:
- (SP)222. Model or type of pump:
- 224. Location of injectors:
- (SP)225. Minimum diameter of inlet pipe: mm inches
- 221. Number of plungers:
- 223. Total number of injectors:

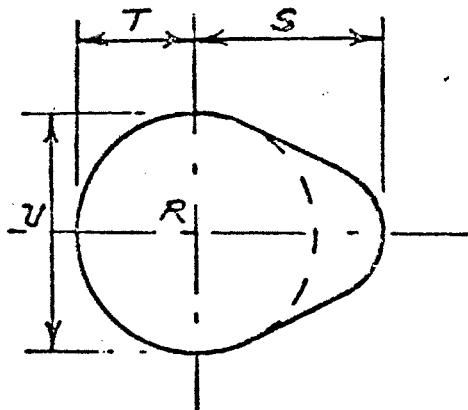
ENGINE ACCESSORIES

- (SP)230. Fuel pump: ~~mechanical~~ and/or electrical
- 231. Number fitted: 1
- 232. Type of ignition system: Make & Break
- 233. Number of distributors: 1
- 234. Number of ignition coils: 2
- 235. Number of spark plugs per cylinder: 2
- (SP)236. Generator type: (~~generator~~) (alternator) Number: 1
- 237. Method of drive: V-belt
- 238. Voltage of generator: 12 Volts
- 239. Battery, number: 1
- 240. Location of battery: Under hood
- 241. Voltage of battery: 12 volts

ENGINE & CAR PERFORMANCE (as declared by manufacturer in catalog)

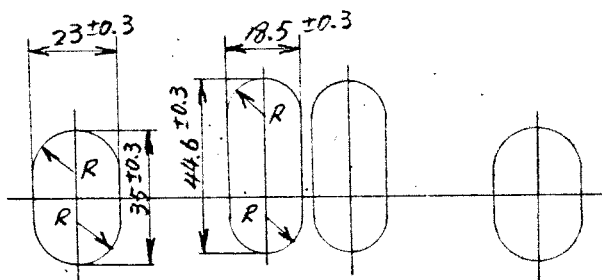
- (SP)250. Horsepower, maximum engine output: 105 PS at: 6000 rpm
(indicate ~~S&S~~ or DIN)
- (SP)251. Maximum rpm: 7000 (SP) Output at that figure:
- (SP)252. Maximum torque: 15 kgm at: 4000 rpm
- (SP)253. Maximum speed: 193 km/hour 120 miles/hour

255. CAM

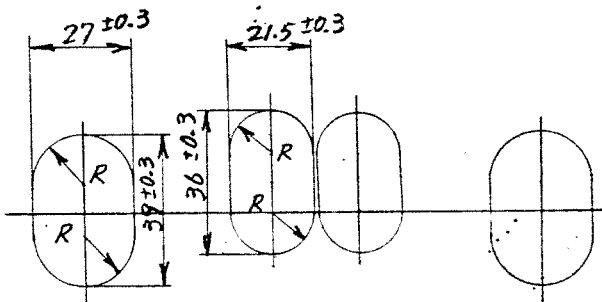


- (SP) Inlet cam
- S = mm inches
- T = mm inches
- U = mm inches
- (SP) Exhaust cam
- S = mm inches
- T = mm inches
- U = mm inches

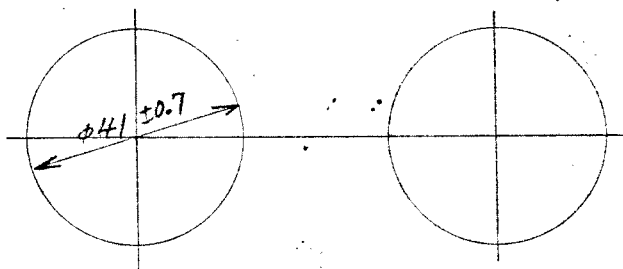
Drawing inlet manifold ports, side of cylinder head. Indicate scale or dimensions and manufacturing tolerance.



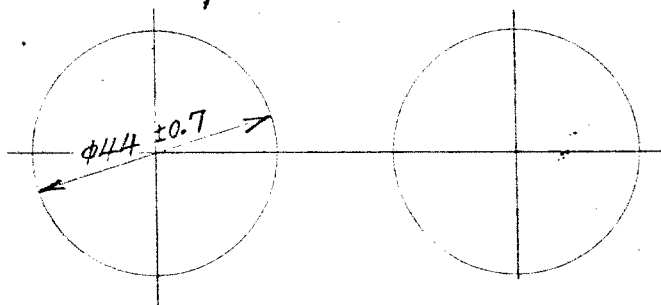
Drawing of entrance to inlet port of cylinder head. Indicate scale or dimensions and manufacturing tolerance.



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



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



Unit: mm

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REC # _____

DRIVE TRAIN

Clutch

- 260. Type of clutch: Dry Plate
- 262. Diameter of clutch plates:
- 263. Inside diameter of lining:
- Outside diameter of lining:
- 264. Method of operation: Hydraulic

- 261. Number of plates: 1
- 270 mm 10.6 inches
- 150 mm 5.9 inches
- 215 mm 8.5 inches

Gear Box (Photo H)

- * 270. Manual type, make: TOYO KOGYO Method of operation: Mechanical
- * 271. Number of gear box forward ratios: 5
- 272. Synchronized forward ratios: 1, 2, 3, 4 & 5
- 273. Location of gear-shift: Floor
- * 274. Automatic, make: JATCO Type: R3A
- * 275. Number of forward ratios: 3
- 276. Location of gear-shift: Floor

277.	Manual		Automatic		Alternative Manual/Automatic			
	Ratio	No. Teeth	Ratio	No. Teeth	Ratio	No. Teeth	Ratio	No. Teeth
1	3.67	$\frac{29}{17} \times \frac{28}{13}$	2.45		2.34	$\frac{24}{22} \times \frac{28}{13}$		
2	2.21	$\frac{29}{17} \times \frac{26}{20}$	1.45		1.69	$\frac{24}{22} \times \frac{28}{18}$		
3	1.43	$\frac{29}{17} \times \frac{21}{25}$	1.00		1.28	$\frac{24}{22} \times \frac{26}{22}$		
4	1.00				1.00			
5	0.82	$\frac{29}{17} \times \frac{15}{31}$			0.88	$\frac{24}{22} \times \frac{21}{26}$		
6								
Reverse	3.54	$\frac{29}{17} \times \frac{27}{13}$	2.18		2.26	$\frac{24}{22} \times \frac{27}{13}$		

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

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: 3.63 3.72 3.90 4.10 4.37 4.44 4.62 4.87
- Number of teeth: 40/11 41/11 43/11 41/10 35/8 40/9 37/8 39/8

MAKE TOYO KOGYO

MODEL SA22C

REC. # _____

IMPORTANT - For cars engaged in Group 2 (Special Touring) and Group 4 (Special Grand Touring) conformity with characteristics identified by symbol (SP) and entire page 8 IS NOT REQUIRED.

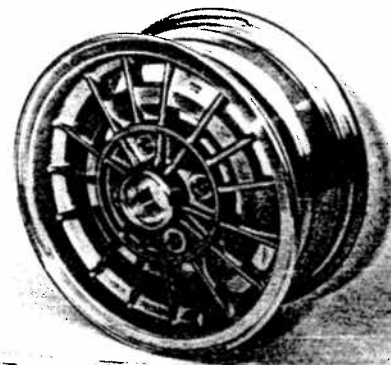
For cars engaged in Group 5 (Sport) only the characteristics identified by asterisks (*) need be verified.

EQUIPMENT AND ACCESSORIES available as options or production installed must indicate the part number of the option and the item number affected.

WHEELS

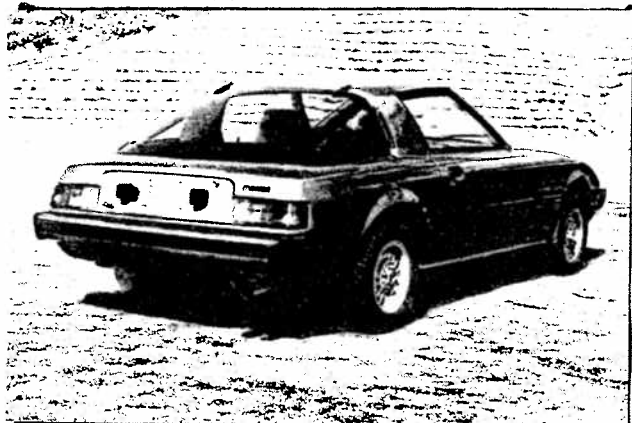
- 50. Type: Aluminum
- 51. Weight: (per wheel, without tire) 6.0 kg 13.2 lbs.
- 52. Method of Attachment: 4 Bolts
- 53. Rim Diameter: 330.2 mm 13 inches
- 54. Rim Width: 140 mm 5 1/2 inches

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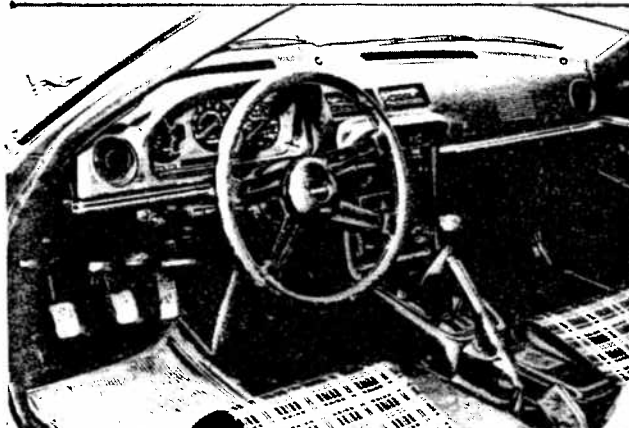


5 1/2-JJ x 13

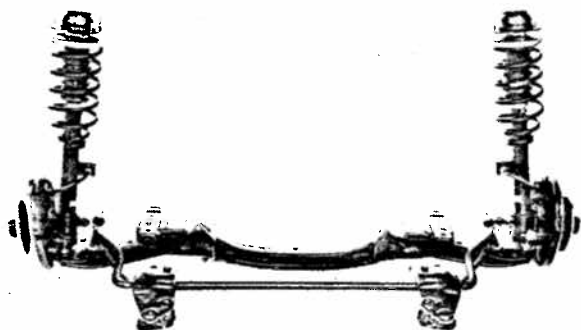
B 3/4 REAR CAR *



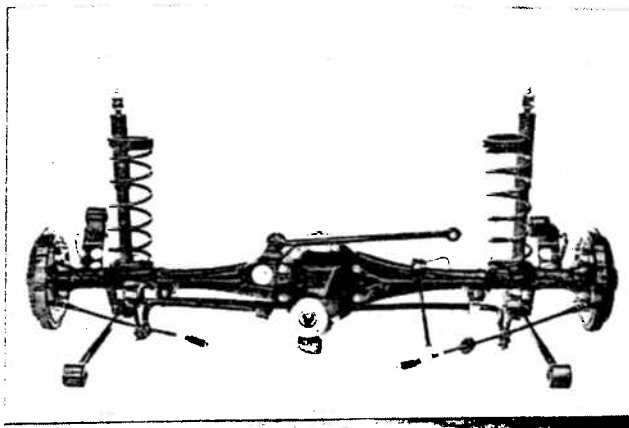
C INTERIOR CAR



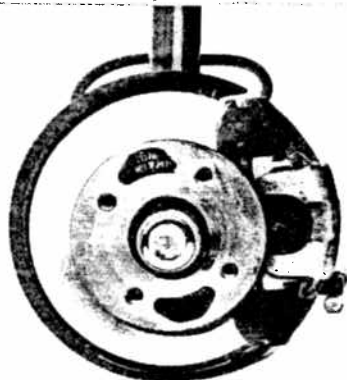
D FRONT AXLE *



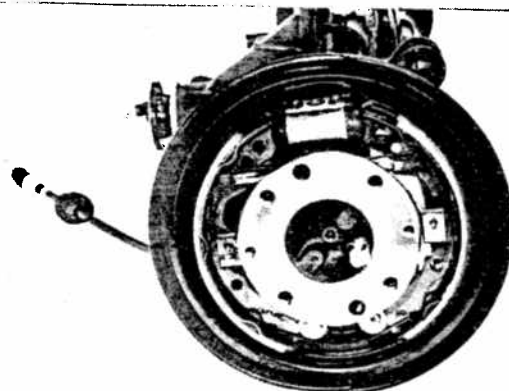
E REAR AXLE *



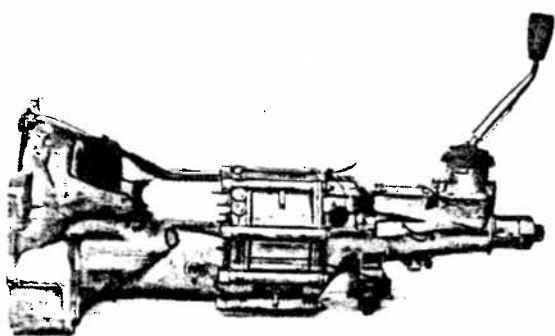
F BRAKE, FRONT *



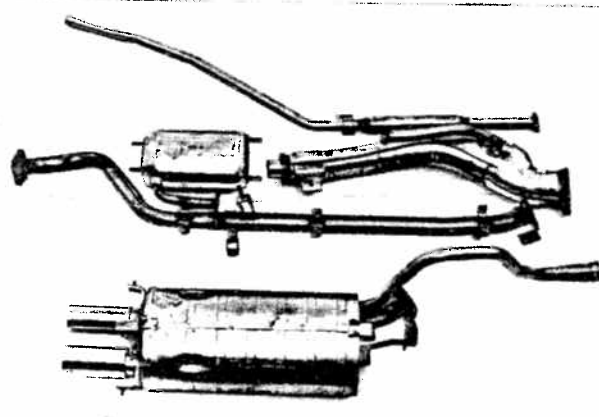
G BRAKE, REAR *



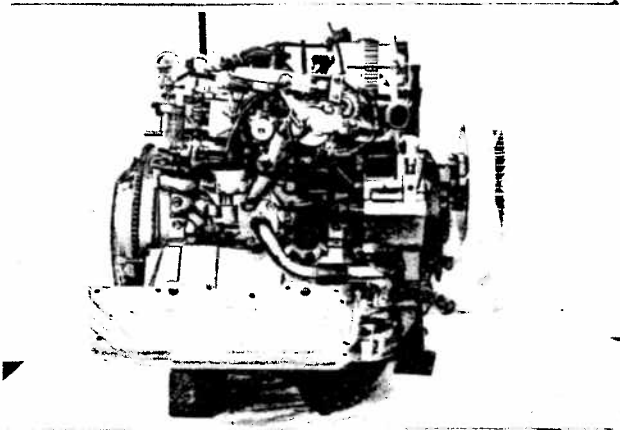
H GEAR BOX *



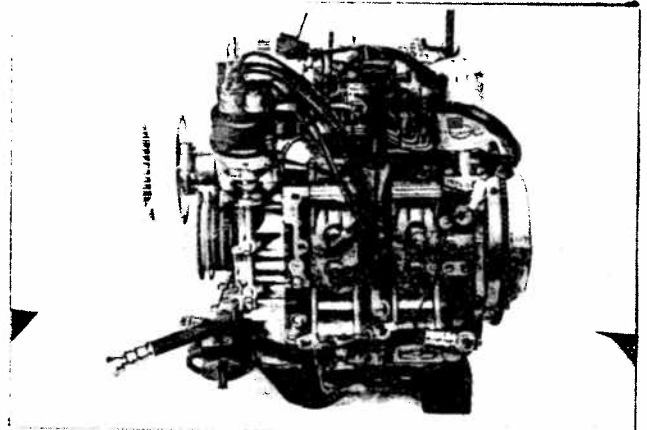
I EXHAUST SYSTEM



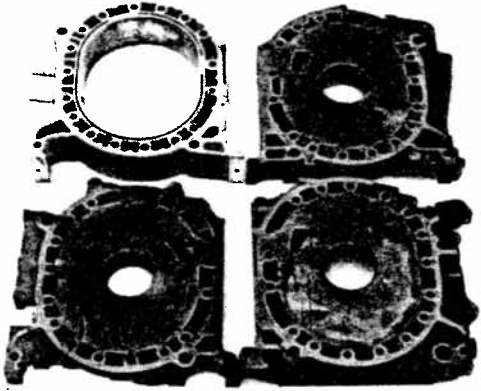
J ENGINE RIGHT *



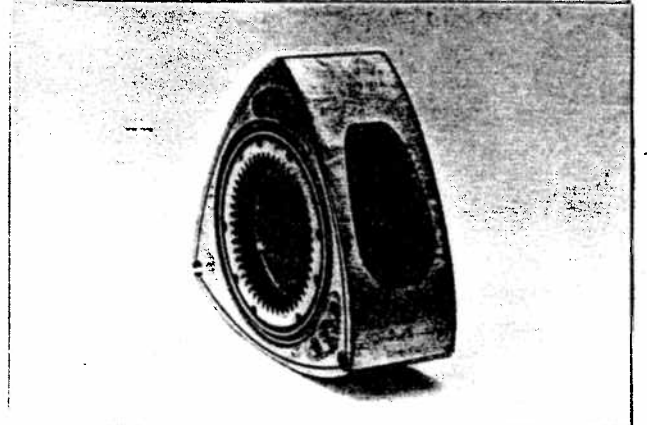
K ENGINE LEFT *



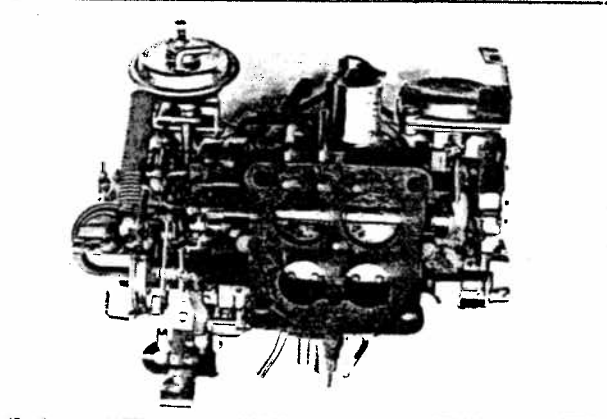
L COMBUSTION CHAMBER



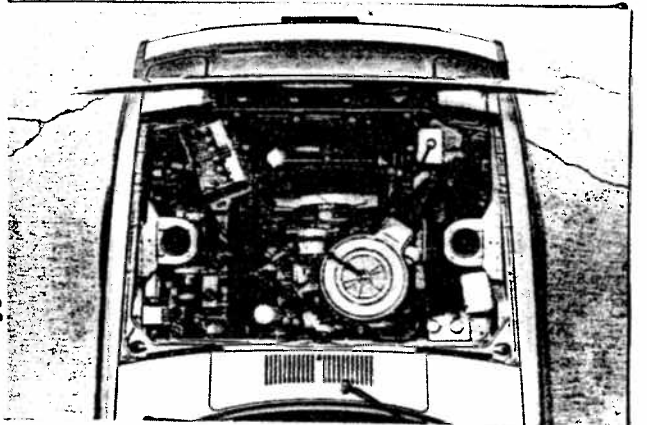
M PISTON TOP



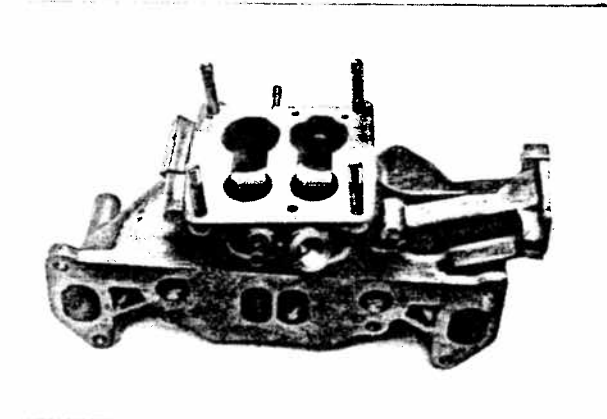
N CARBURETOR



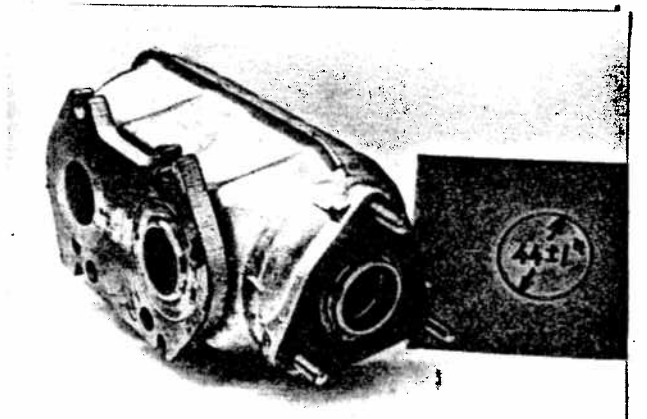
O ENGINE IN PLACE *

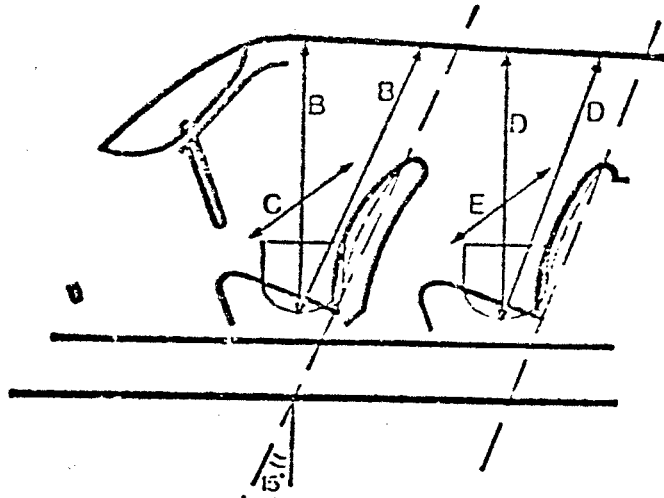


P MANIFOLD INLET

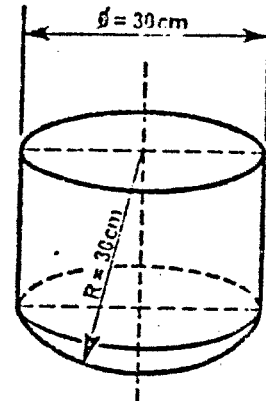


Q MANIFOLD EXHAUST





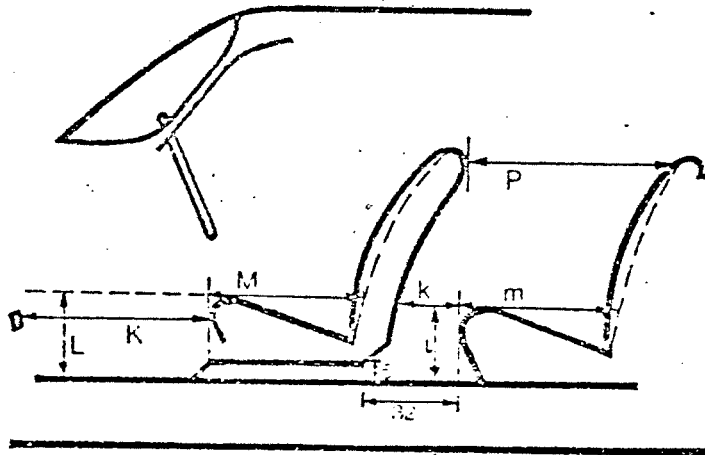
Dessin drawing No. 1



Weight/tare 60 kgs ± 200 grms.

Dessin drawing No. 2

Dimension	Inches	MM
B =	35.8	910
C =	52.8	1340
D =	_____	_____
E =	_____	_____



Dessin drawing No. 3

Dimension	Inches	MM	Dimension	Inches	MM
L =	11.2	285	l =	_____	_____
M =	20.1	510	m =	_____	_____
K =	16.3	413	k =	_____	_____
P =	_____	_____			

STAMP

STAMP

会社名
Make TOYO KOGYO型式
Model SA22C

FIA Rec. No.

バンケルロータリーエンジンの項目
INFORMATIONS FOR WANKEL ROTARY ENGINE:

- *130, 400) 形式及びサイクル
Type & cycle 2 node 3 lobe type, 4 stroke otto cycle
- *131, 401) ローターの数
No. of rotors 2
- 402) ローターの配列
Rotor arrangement In line
- *136, 403) トロコイド長軸長さ
Trochoid, length of major Axis 120.0 mm 4.7 inches
- *135, 404) トロコイド短軸長さ
Trochoid, length of minor Axis 90.0 mm 3.5 inches
- *137, 405) トロコイドの幅
Trochoid, width 70.0 mm 2.7 inches
- *132, *134 406) トロコイドの創成半径 (平行移動量を含む)
Trochoid, generating radius (Containing equidistance) 105.0 mm 4.1 inches
- *133, 407) 偏心率
Eccentricity 15.0 mm 0.59 inches
- *139, 408) 総排気量
Total capacity 1,146 cm³ 70 inches³
- 409) 換算総排気量 (J項252条による)
Equivalent total capacity (by App. J Art. 252) 2,292 cm³ 140 inches³
- 410) 偏心軸
Eccentric shaft: ~~鍛造~~ / 鍛造
~~casted~~ / stamped
- *150, 411) 偏心軸の形式:
Type of eccentric shaft: 一体式 /
integral /
- *151, 412) メインベアリングの数
Number of eccentric shaft main bearings 2
- *154, 413) 潤滑方式
System of lubrication: ~~ドロップ~~ / ウェットサンプ
~~drop~~ / oil in sump
- *166, 414) 吸気ポート方式
Inlet port system: Lateral 吸気ポートの位置 (総数)
Location of inlet ports (number fitted): Side housing (4)
- *173, 415) 排気ポート方式
Exhaust port system: Peripheric 排気ポートの位置 (総数)
Location of exhausts (number fitted): Rotor housing (2)
- 416) ディストリビューターの数
Number of distributors 1
- *235, 417) 1ローター当りのプラグの数
Number of spark plug per rotor 2
- *142, 70) Material of Rotor Housing: Aluminum Alloy
- *149, 72) Type of Eccentric Shaft: Stamped
- *153, 75) Rotor Bearing Type: Plain Diameter: 74 mm
- 81) Number of Oil Pumps: 1
- *157) Method of Engine Cooling: Liquid - ~~air~~
- *160) Cooling Fan: Type of Drive V belt
- *170) Inlet Port: Maximum Width 23 mm
- *177) Exhaust Port: Maximum Width 41 mm
- *179) Diameter of Exhaust Manifold Outlet: 44 mm
- *180) Length of exhaust between the trochoid and the muffler: 2650 mm

Note: Numbers with "*" correspond to the FIA Bulletin No. 119.