SERVICE BULLETIN

OCT. 1967 VOL. 87

INTRODUCTION OF NEW DATSUN SPORTS CAR 1968 MODELS SR(L)311-(U), SP(L)311-(U)

NISSAN

NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

Issued Date: 10th Oct. 1967
Printed in Japan Publication No. 78141 (211302310

SPECIFICATIONS
SP67—011

FOREWORD

The DATSUN SPORTS 2000 and the DATSUN SPORTS 1600 have been, to a great extent, changed with the aim of achieving the ultimate in safety.

The main alternation therefore is made in accordance with the America Safety Standard.

It is suggested that dealers sales and service personnel read this Bulletin so they may be familiar with the design and performance of this car.

These modifications and improvement outlined in this publication have been applied from the following chassis numbers.

SP311 - 03001 -
SPL311 - 17001 -
SR311 - 01001 -
SRL311 - 01001 -

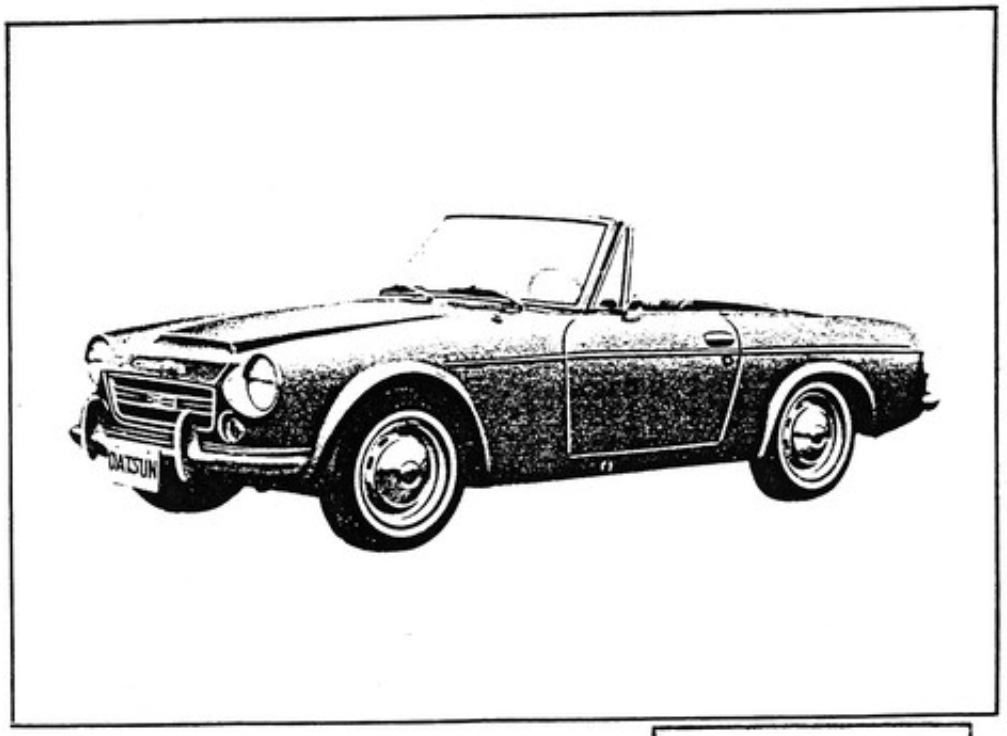


Fig. 1

永久保存

Whenever you order the spare parts, refer to the Spare Parts Bulletin No. S-67-760.

CONTENTS

1. ENGINEERING FEATURES 1

1-1 Series identifications 1

1-2 Styling 1

1-3 Interior and instrument 1

1-4 Other features 3

2. MECHANICAL COMPONENTS 7

2-1 Engine 7

2-2 Chassis 8

2-3 Body 11

3. ENGINE PERFORMANCE CURVES 27

4. RUNNING PERFORMANCE CURVES 29

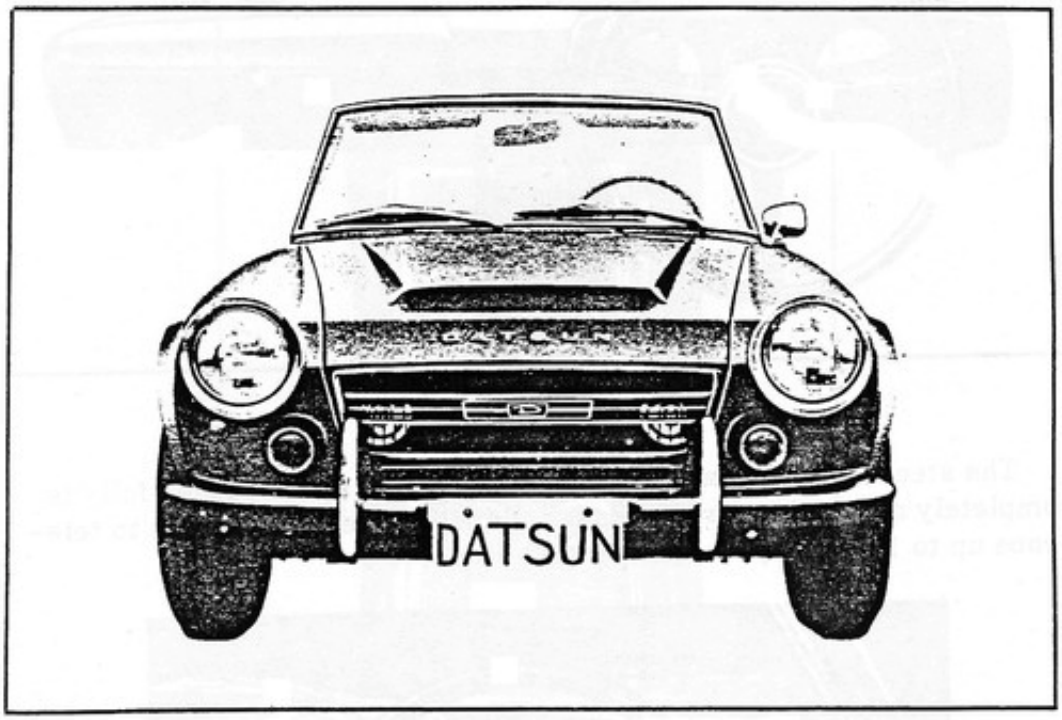
5. SPECIFICATIONS 32

6. WIRING DIAGRAM 39

1. ENGINEERING FEATURES

1-1 Series identifications

The feature of the DATSUN SPORTS 2000 is same to the 1600 except the emblem, front grille and engine.



DATSUN SPORTS 2000
Fig. 2

1-2 Styling

The external view of new DATSUN SPORTS has not been changed. The windshield is however altered the details of which will be described later.

1-3 Interior and instrument

The instrument panel, windshield frame, sunvisor and center console are fully padded with thick and resilient foam.

The instrument panel is completely new and features the recesses, housing instrument, heater control provision and clock.

Large exact-reading instrument and gauges are conveniently grouped and give accurate, at-a-glance readings. Driving controls, switches, instruments and gauges are arranged for maximum control efficiency and convenience.

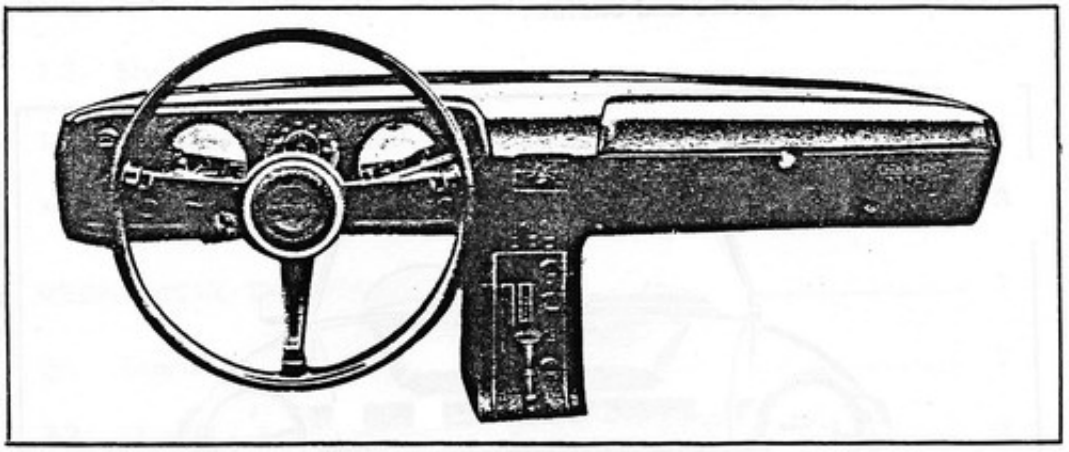


Fig. 3

The steering wheel including horn button and spoke padded fully is completely new and incorporates a collapsible steering column to telescope up to 150 mm (5.9 inches).

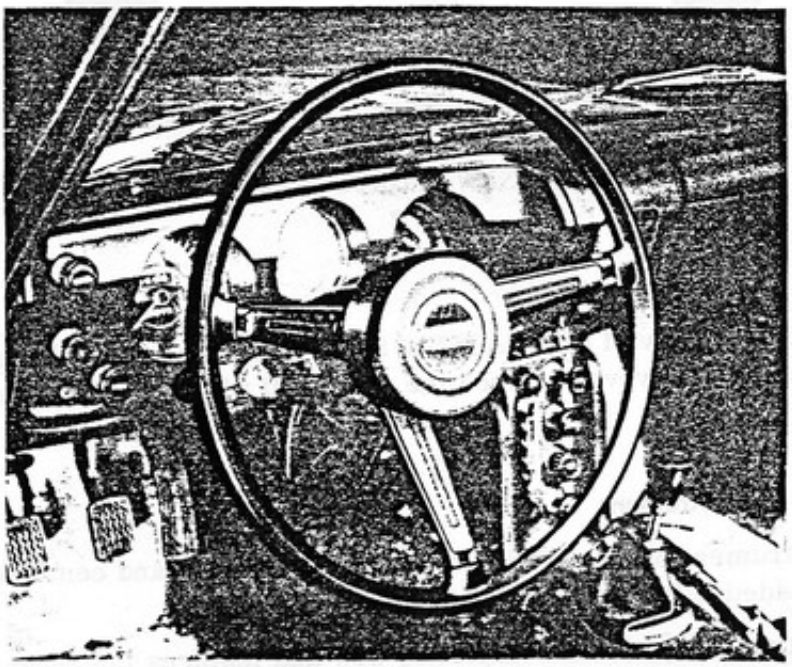


Fig. 4

Separate housing beneath instrument panel contains choke knob, brake safety light check switch, heater switch (optional), hazard warning switch (optional) and radio (optional).

Heater controls are padded with resilient foam. Powerful heater defrosting system according to American Safety Standards gives maximum comfort.

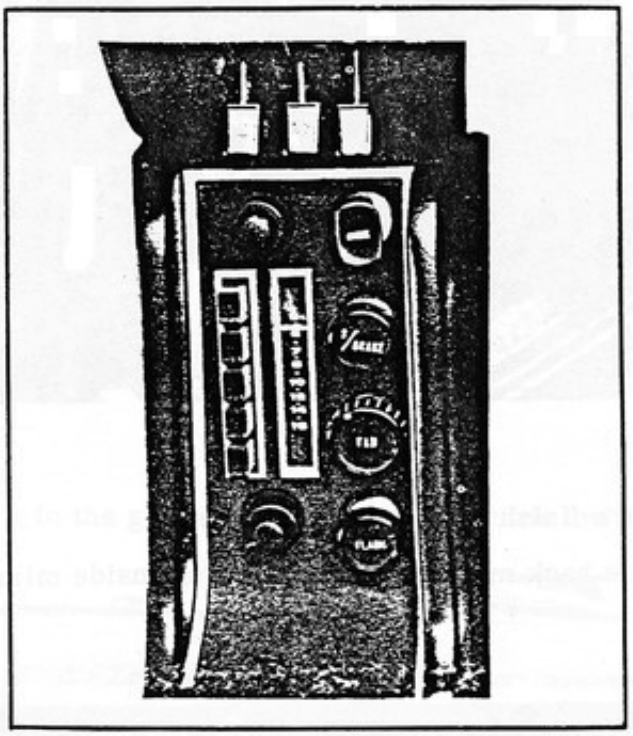


Fig. 5

1-4 Other features

1. Brake safety light switch

The brake safety light is newly adopted as one of safety features in addition to the current dual hydraulic brake system. The brake safety light indicates if there is a drop in pressure in dual master cylinder system.

To check the brake safety light for proper operation, the brake safety light switch is equipped on the center console.

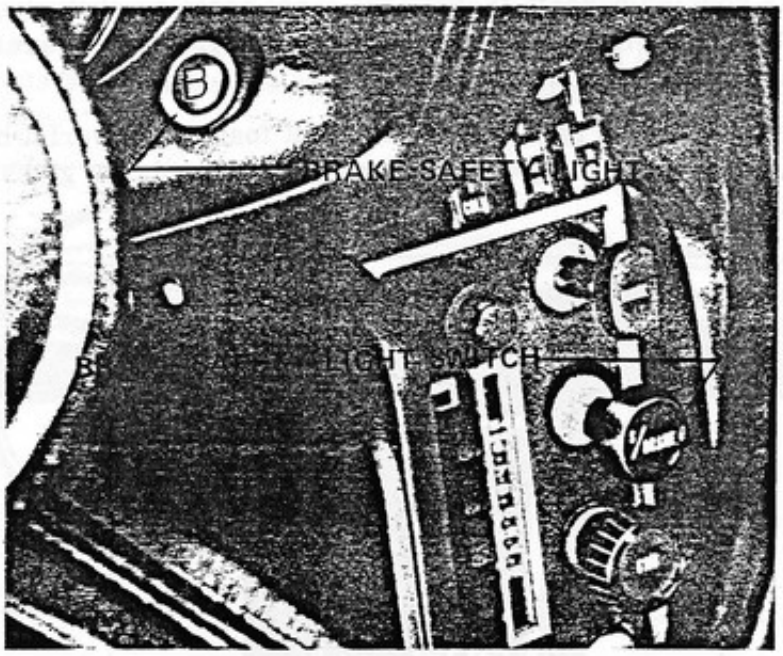


Fig. 6

2. Reduced-glare finish for glazing surfaces.
3. Larger inside back mirror and break-away inside mirror stay.

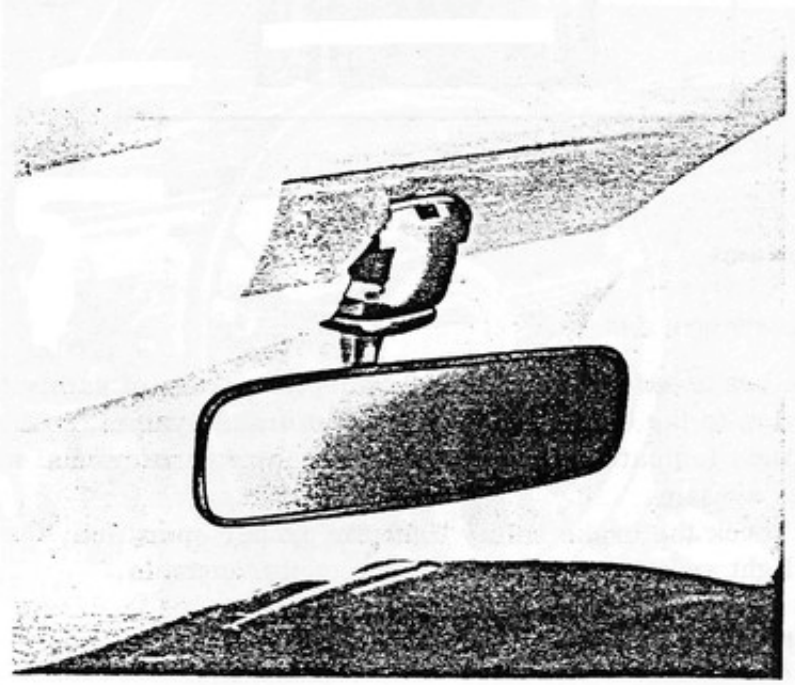


Fig. 7

4. Padded windshield frame.

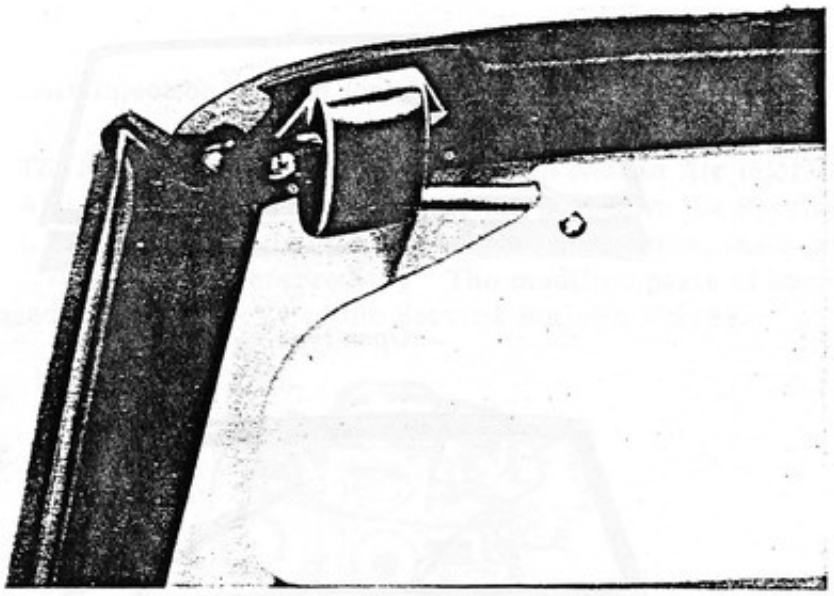


Fig. 8

5. Fuse box in the glove box for easy inspection and replacement.

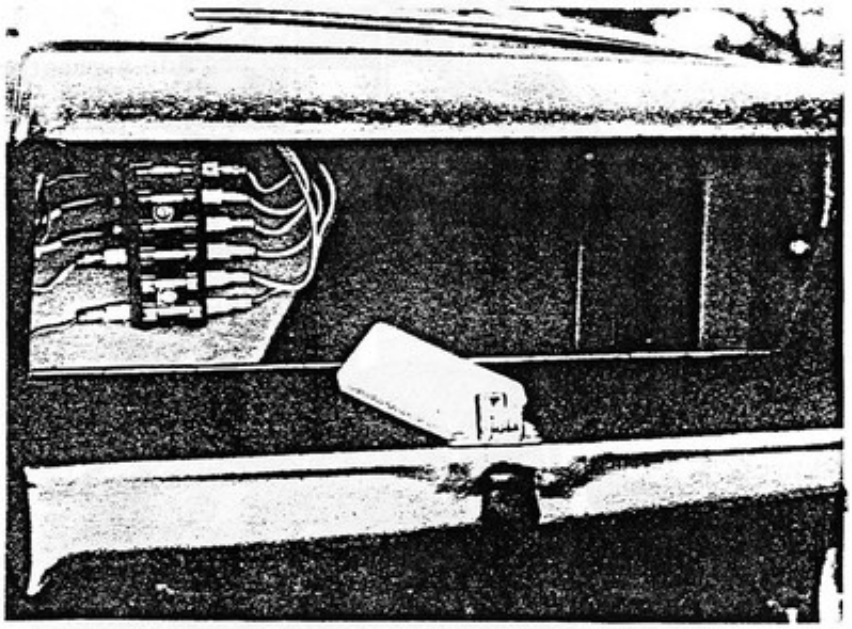
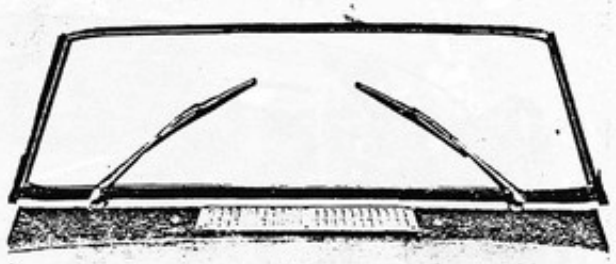
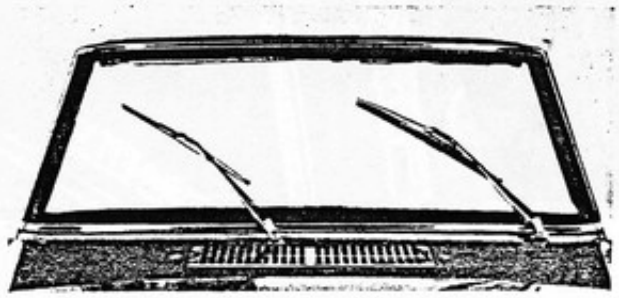


Fig. 9

6. Tandem type two speed windshield wiper.



Open type



Tandem type

Fig. 10

7. Improvement in quality of top canvas to provide a greater durability.
8. Roll bar and headrests are available as optional part.

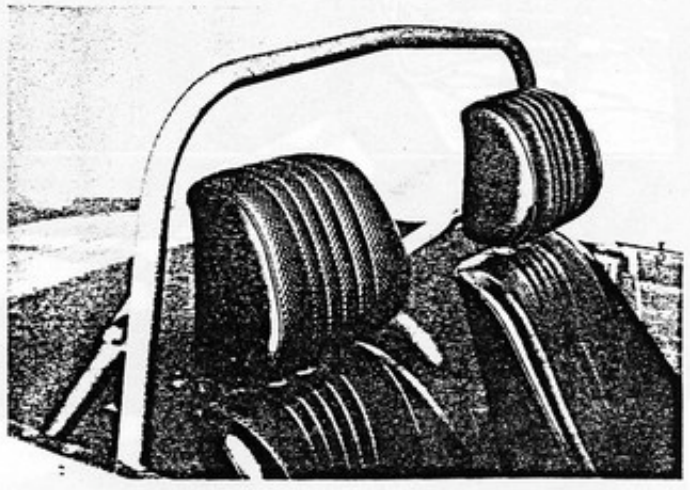


Fig. 11

2. MECHANICAL COMPONENTS

2-1 Engine

Nissan Air Injection System (only to U.S.A.)

The DATSUN SPORTS CAR is equipped with Nissan Air Injection System (N.A.I.S.) which had been already introduced in the Service Bulletin Vol.79. As to the detailed technical information, the Service Bulletin Vol.79 should be referred to. The modified parts of each model are mentioned at page 21 ~ 24 of the Service Bulletin Vol.84.

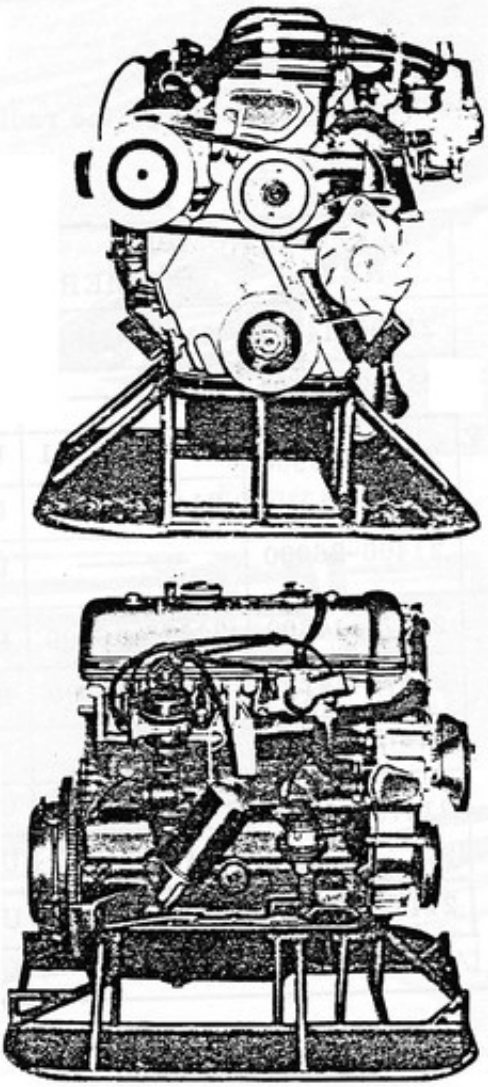


Fig. 12 U20 Engine for SRL311U

2-2 Chassis

1. Fuel tank

To protect the fuel tank movement and damage in the event of the collision, the fuel tank attaching bracket is reinforced and the construction of the fuel tank is changed.

PART NAME	PART NUMBER NEW	PART NUMBER FORMER	INTERCHANGE-ABILITY
ASS'Y-TANK, fuel	17201-25900	17201-14602	No

2. Radiator

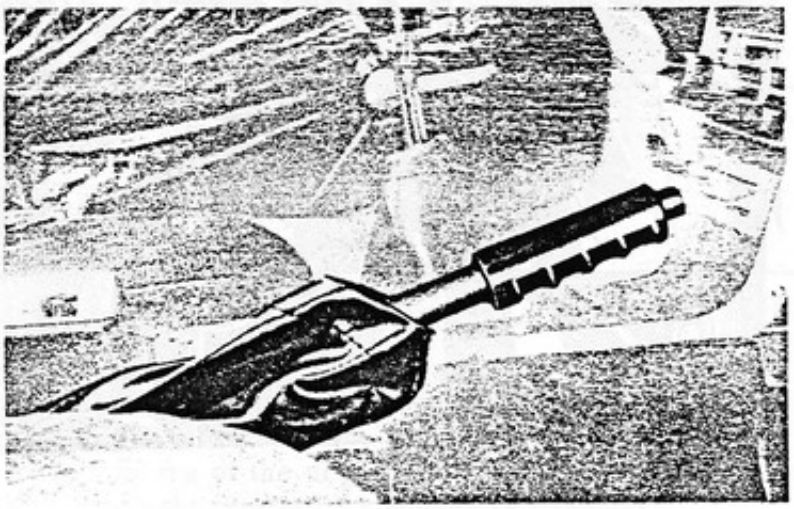
To increase a cooling efficiency, the radiator and shroud have been changed.

PART NAME	PART NUMBER NEW	PART NUMBER FORMER	REMARKS
RADIATOR ASS'Y	21400-14602	21400-14601	R-engine
	21400-14701	———	R-engine For U.S.A.
	21400-25900	21400-25501	U20-engine R.H.D.
		21400-25600	U20-engine L.H.D.
	21400-26000	———	U20-engine For U.S.A.
SHROUD ASS'Y	21475-14600	21475-16300	R-engine R.H.D.
	21475-14701	21475-14700	R-engine L.H.D.
	21475-14702	———	R-engine For U.S.A.
	21475-25901	21475-25501	U20-engine R.H.D.
		21475-25600	U20-engine L.H.D.
	21475-26000	———	U20-engine For U.S.A.
INTERCHANGEABILITY : No			

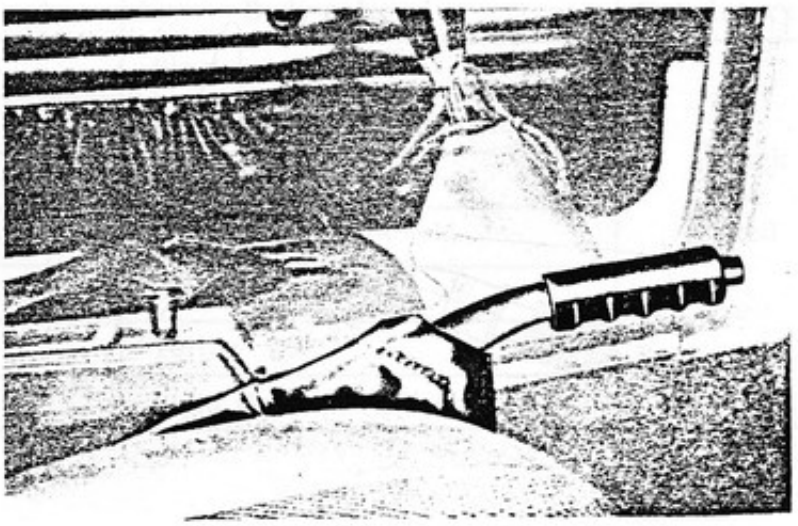
3. Hand brake

The shape of the hand brake lever has been changed for the safety.

PART NAME	PART NUMBER		INTERCHANGE-ABILITY
	NEW	FORMER	
ASS'Y-CONTROL, hand brake	36010-25900	36010-25500	No



Former type



New type

Fig. 13

4. Steering column

Collapsible steering column has been newly adopted for the safety and it telescopes up to 150 mm (5.9 inches) under severe impact.

As regards the details, refer to Service Manual "EMISSION CONTROL SYSTEM AND SAFETY DEVICE".

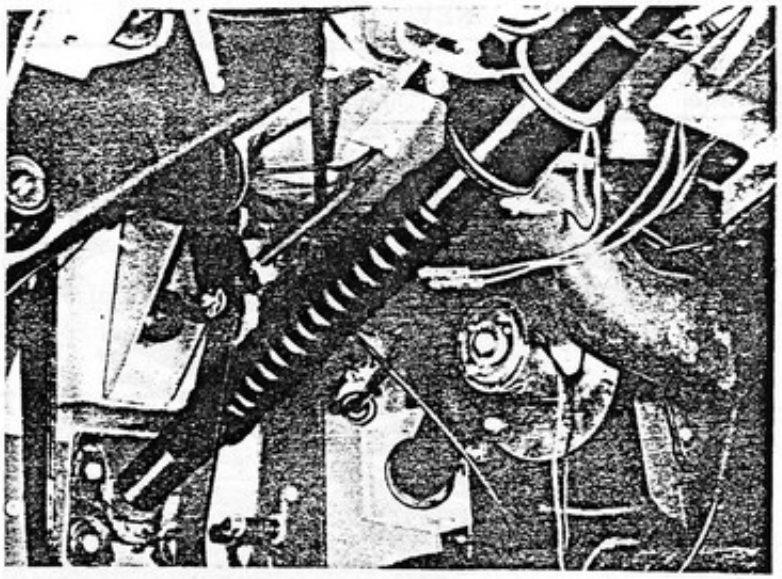


Fig. 14

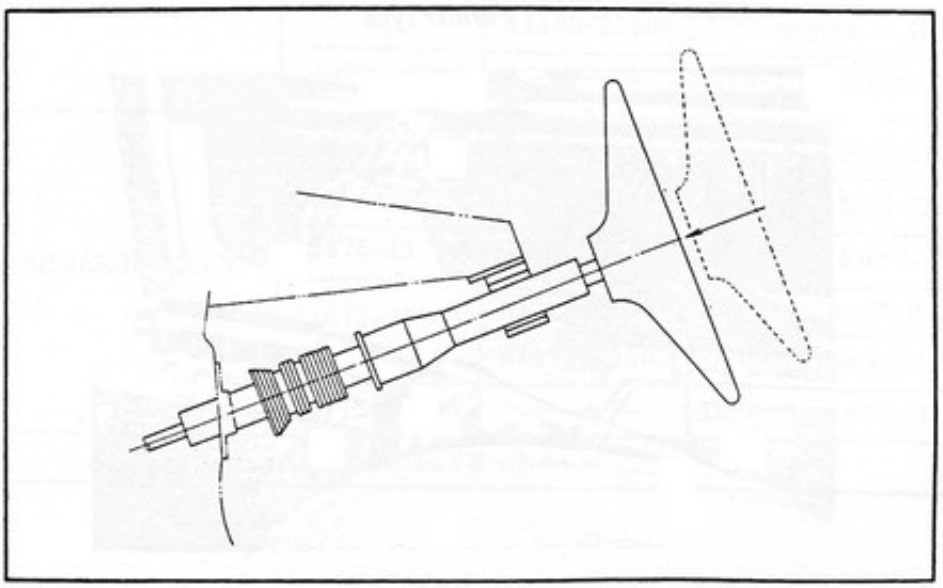


Fig. 15

2-3 Body

1. Body construction

To absorb large amounts of energy in the event of a collision, the frame and body construction has been modified, whereby the passenger compartment will be protected.

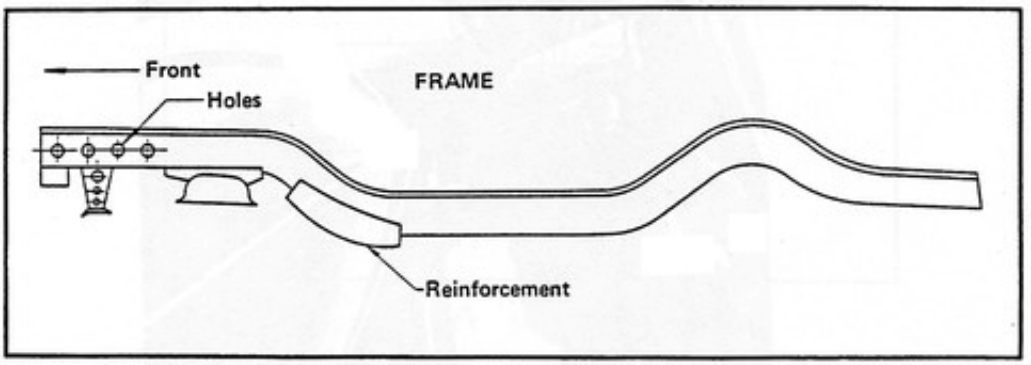


Fig. 16

2. Body color

The body colors of the new DATSUN SPORTS CAR have not been changed. The seat trimming however is changed.

Color code	Body color	Upholstery color
505	Black	Black or Red
531	Yellowish Gray (metallic)	
563	Sky Blue	
655	White	
664	Red	
665	Yellow	
666	Light Gray (metallic)	

3. Instrument panel

The instrument panel is fully padded with thick and resilient foam. Every metal parts located before the driver's eye have non-glare surfaces in order to avoid adversely the driver's ability to see.

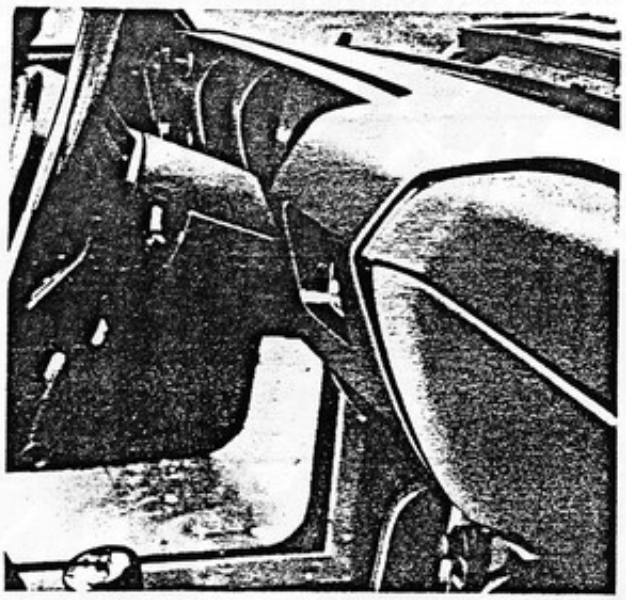


Fig. 17

To identify the location of the switch knob, the name of the electric unit which is connected to each switch has been marked on every knob.

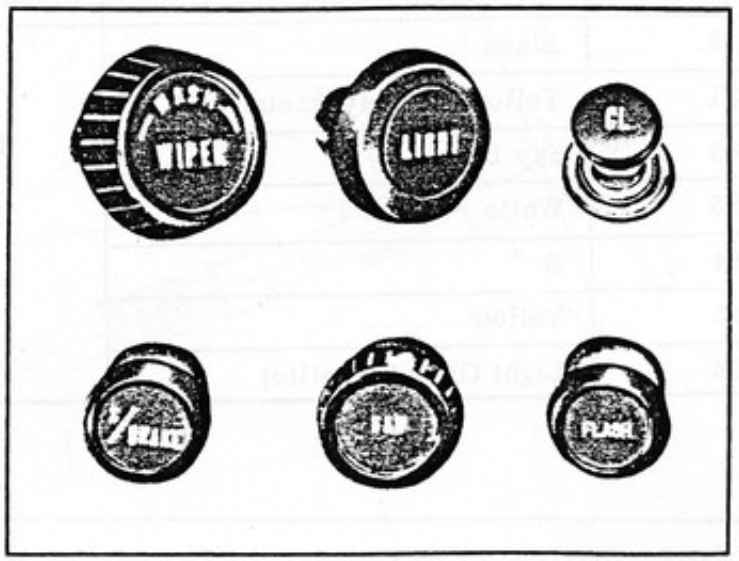
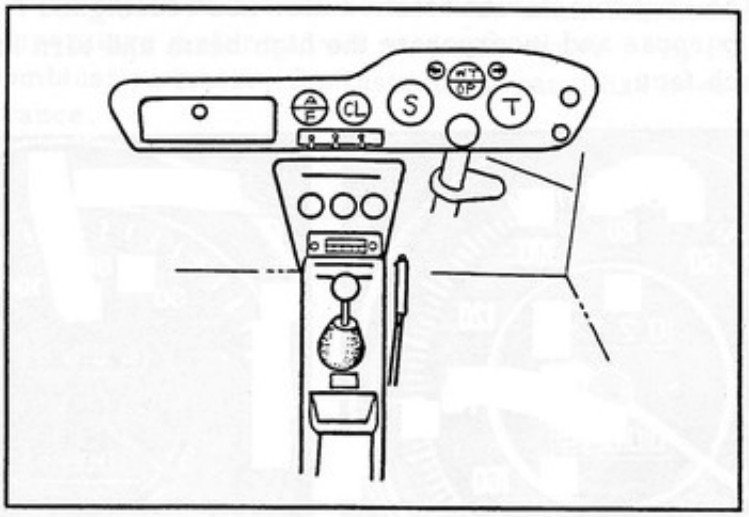
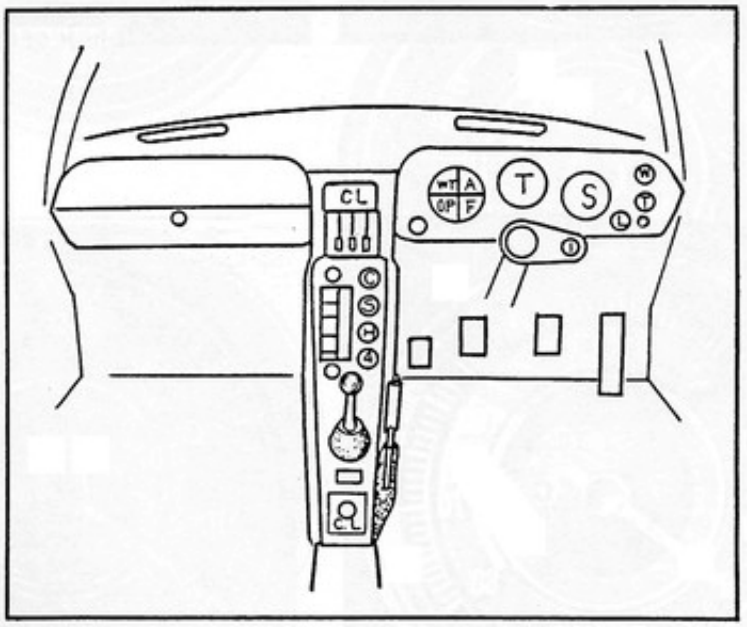


Fig. 18

The control switch and meter are realigned for easy operation and exact reading.



Former type

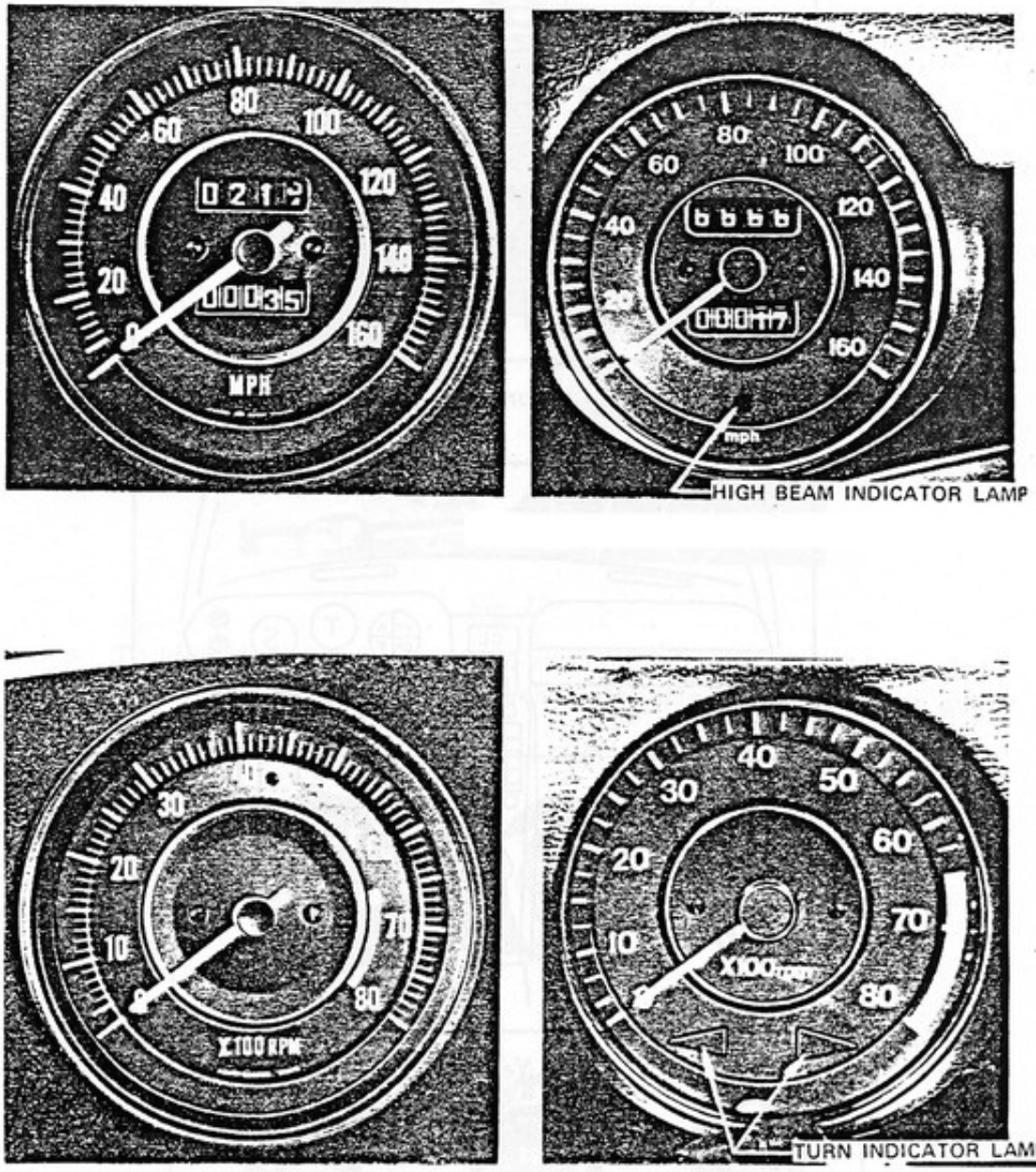


New type

Fig. 19

4. Speedometer

The speedometer and tachometer are redesigned for easy-to-read purpose and incorporate the high beam and turn indicator lamp on each face.

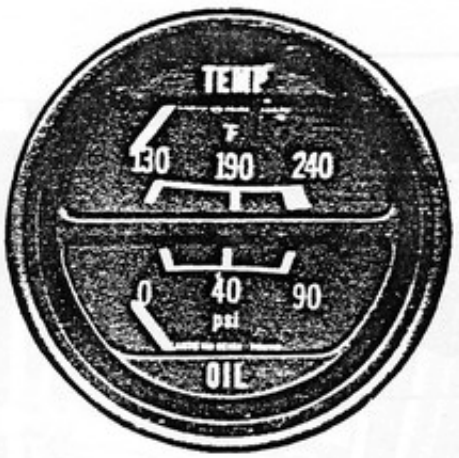


Former type *New type*

Fig. 20

5. Combination meter

The combination meter consists of the ammeter, fuel meter, water temperature meter and oil pressure meter. By the adoption of this combination meter, the instrument panel has been refreshed in appearance.



Former type

New type

Fig. 21

6. Brake safety light

The brake safety light which is newly adopted, indicates if there is a drop in pressure in dual master cylinder brake system. To check the brake safety light for proper operation, the brake safety light switch is equipped on the center console. (see Fig. 6)

7. Ignition switch

The ACC terminal has been newly incorporated into the ignition switch.

Fig. 22

8. Audible flasher

The audible flasher has been newly adopted for the safety.

9. Tail lamps

The tail lamps incorporated into the turn signal lamps have been newly adopted.

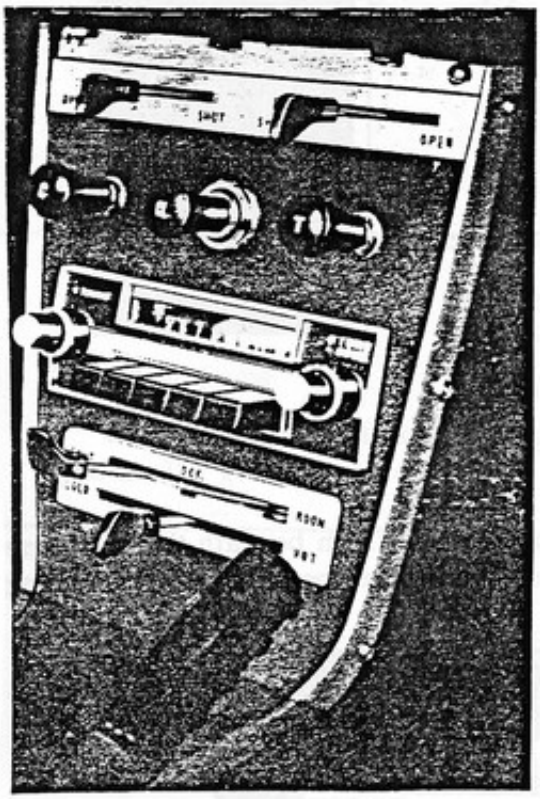
Fig. 23

10. Fuse box

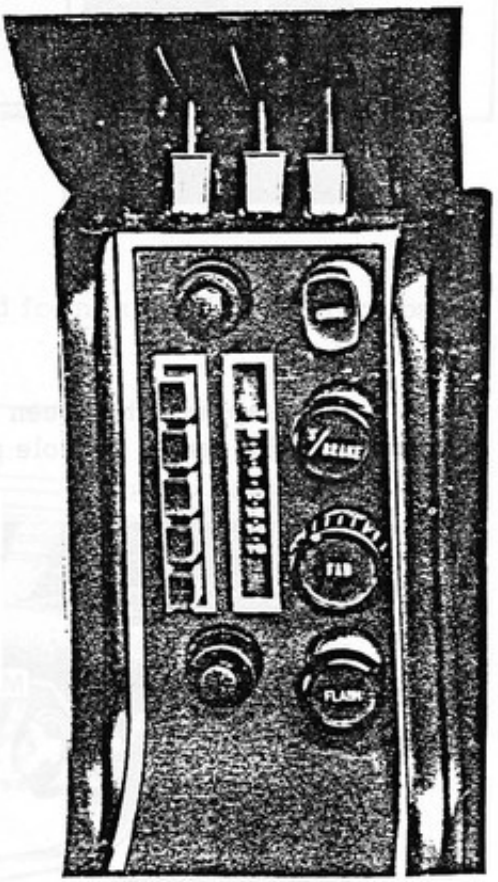
It is easy to inspect and replace fuse because the fuse box is set in the glove box. (see Fig. 9)

11. Separate housing

The separate housing has been completely changed as shown in the figure.



Former type



New type

Fig. 24

12. Cigarette lighter

The cigarette lighter is combined with the ash tray on the floor console.

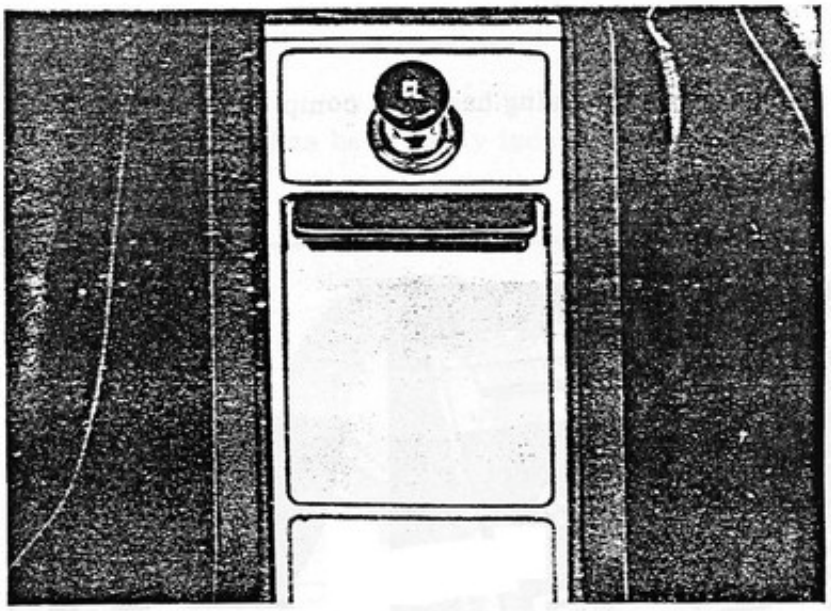


Fig. 25

13. Map lamp

The map lamp has been transferred from beneath the instrument panel to the center console panel and it can be operated by pushing the map lamp lens.

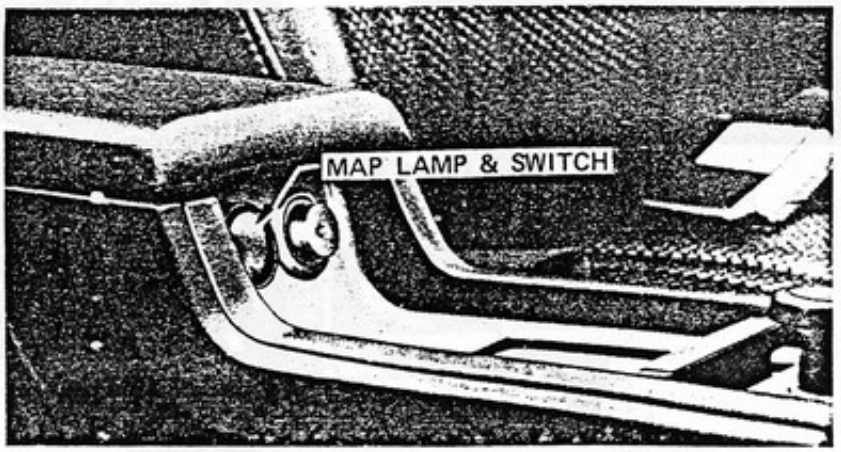


Fig. 26

14. Windshield glass

The windshield glass is enlarged 25 mm (0.98 inch) in height for more satisfactory view.

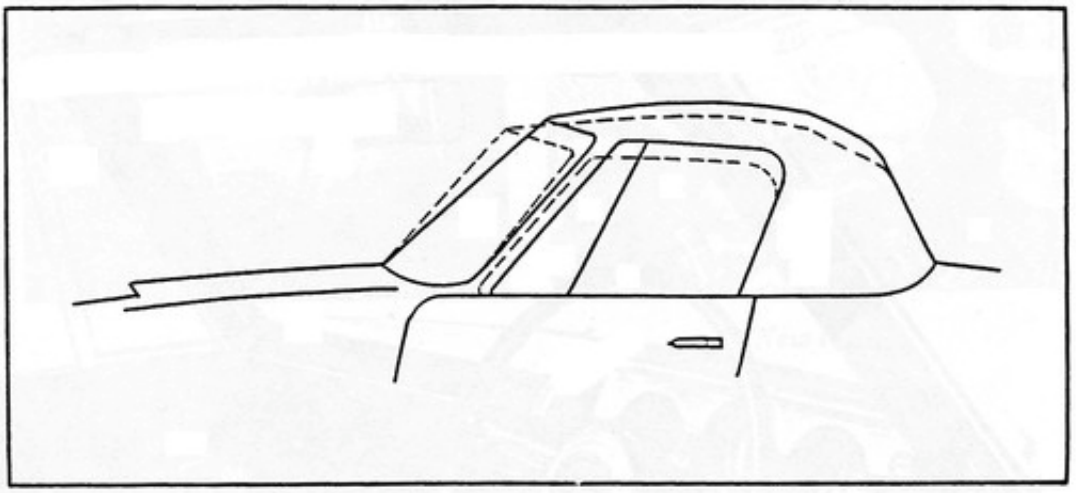


Fig. 27

15. Windshield frame

The windshield frame is changed from the sash type to the panel type having greater rigidity.

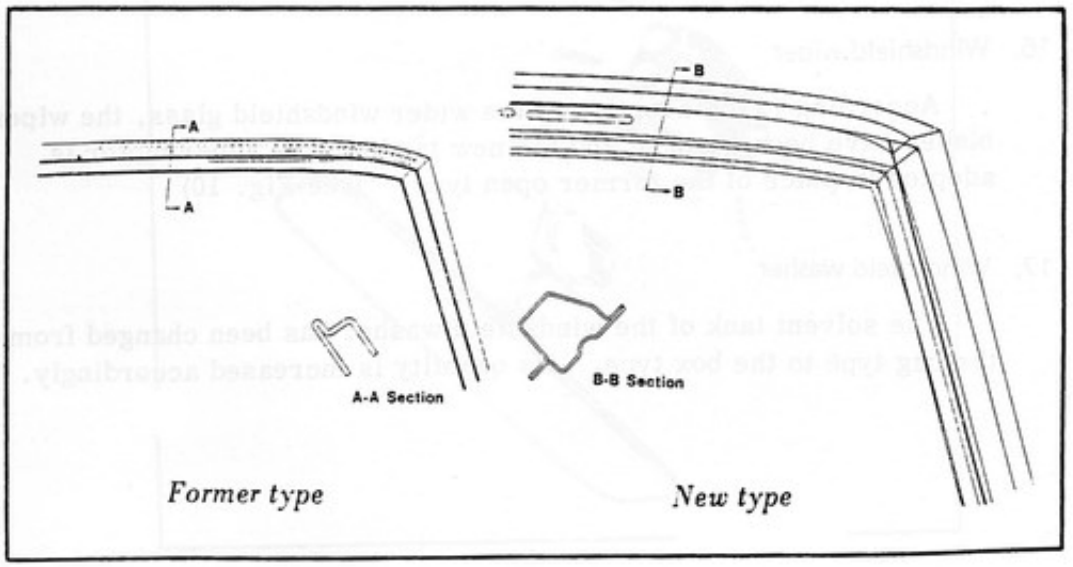


Fig. 28

Also the soft resilient foam is padded as the front pillar and windshield trimming.

Fig. 29

16. Windshield wiper

According to the adoption of the wider windshield glass, the wiper blades have been changed and the new tandem type wiper motor is adopted in place of the former open type. (see Fig. 10)

17. Windshield washer

The solvent tank of the windshield washer has been changed from the bag type to the box type. Its quantity is increased accordingly.

Former type

New type

Fig. 30

18. Rear view mirror

To secure a good rear view, the size of inside mirror has been widened about 30 percent and the shape of outside mirror is changed

A special break-away type mirror has been adopted at the windshield frame as the inside rear view mirror.

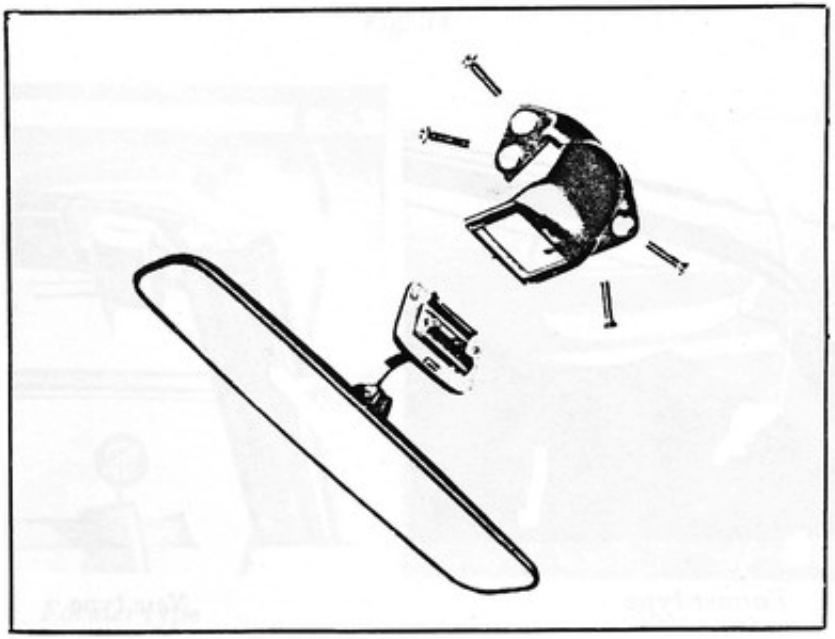
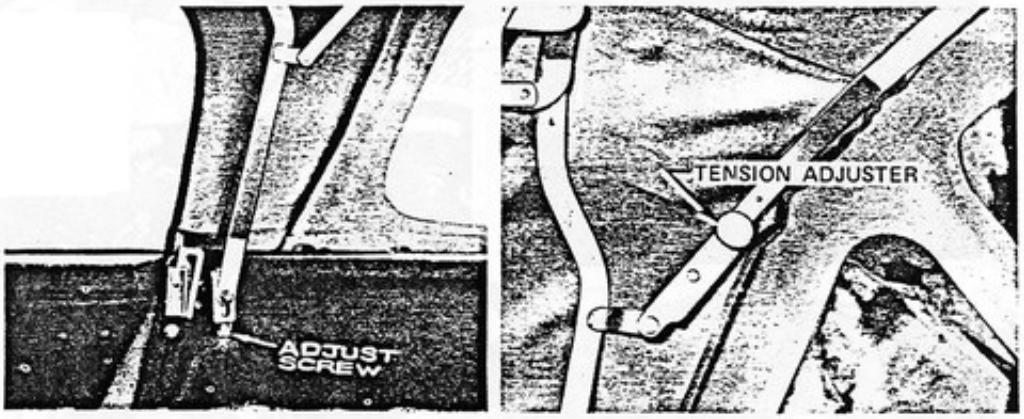


Fig. 31

19. Soft top

To provide a greater durability, the material of the soft top is changed from cloth to the vinyl chloride canvas.

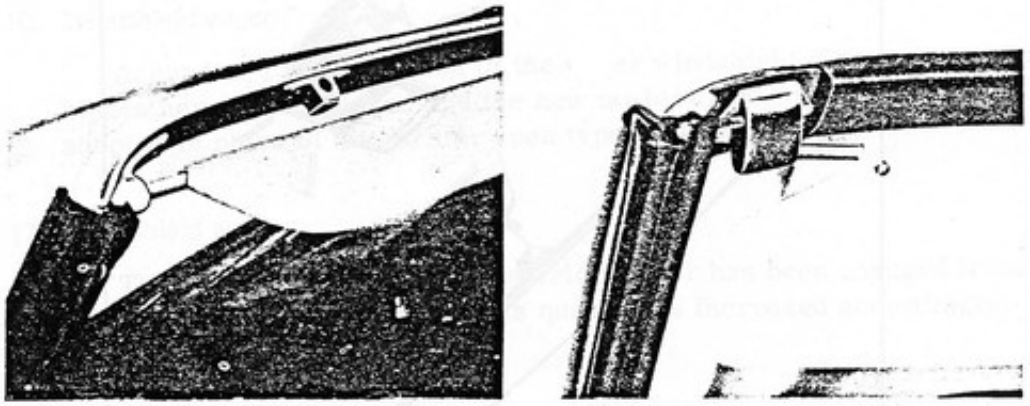
The tension adjuster is also changed as shown in the figure. Its function however is almost same as the former type.



Former type *Fig. 32* *New type*

20. Soft top jaw fastener

According to the car safety arguments in the U.S.A., the soft top jaw fastener is also changed as shown in the figure.



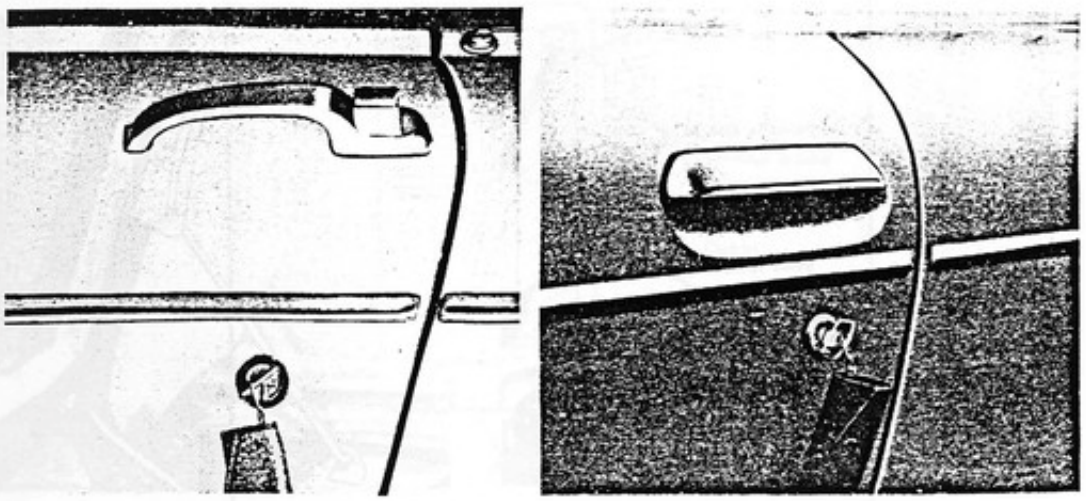
Former type *New type*

Fig. 33

21. Door handle

The inside and outside handles of the door have been changed. The inside pull handles are padded with leather touch resin. The rubber knob has been adopted in the inside regulator handle. The outside handle has also been changed from the push type to the pull type.

Fig. 34



Former type *New type*

Fig. 35

22. Door ventilator

As one of the safety features, the door ventilator has been abolished. The air flow capacity of the cowl ventilator has been increased and it ventilates the car interior with enough fresh air by controling the cowl ventilator lever.

Fig. 36

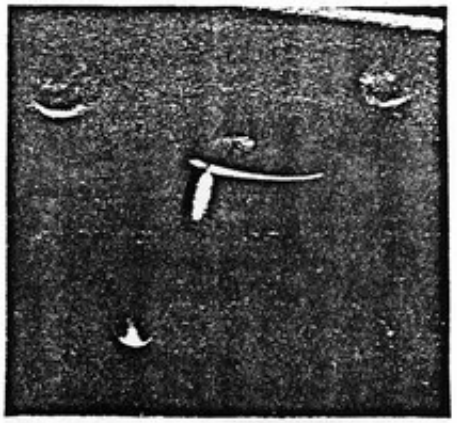
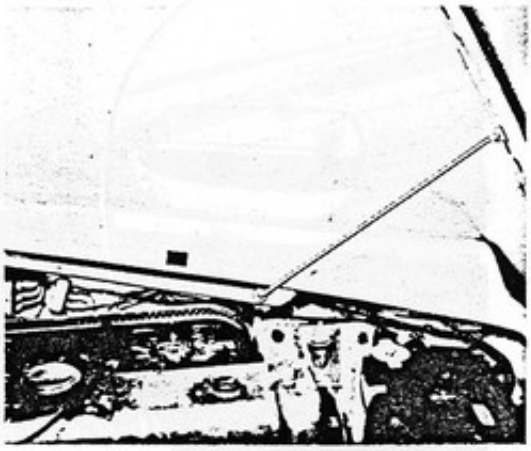


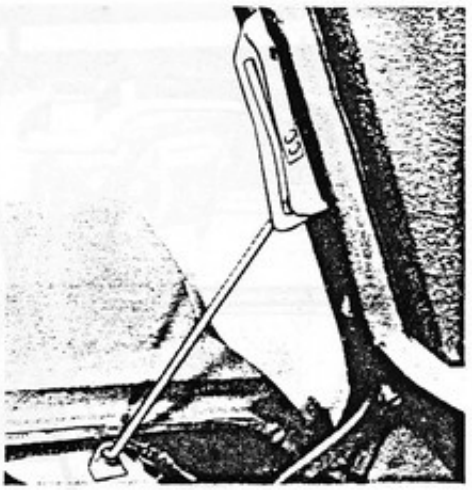
Fig. 37

23. Engine hood

The engine hood support guide has been changed as shown in the figure whereby the air cleaner and the other parts can be easily inspected.



Former type

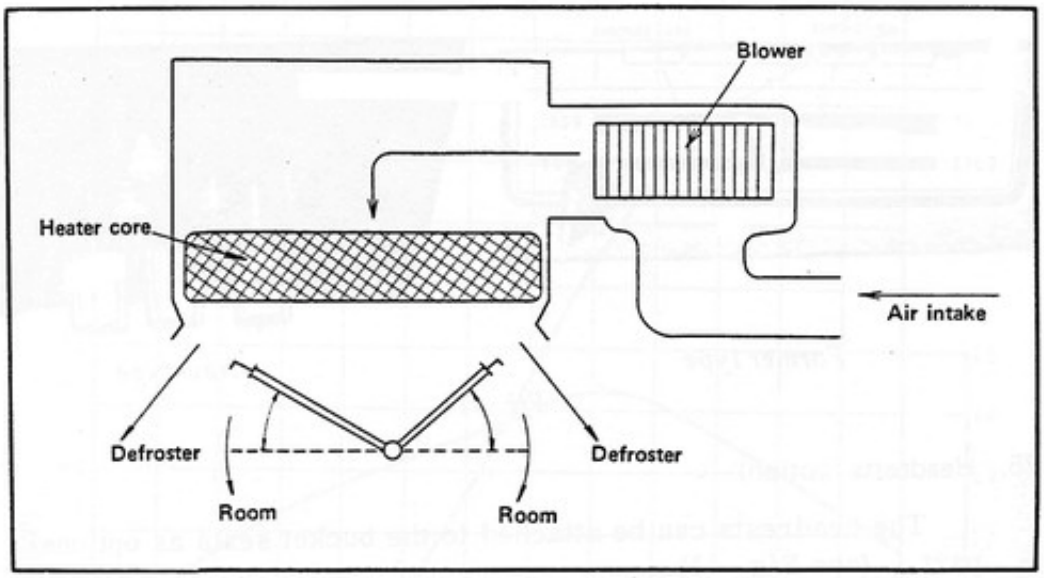


New type

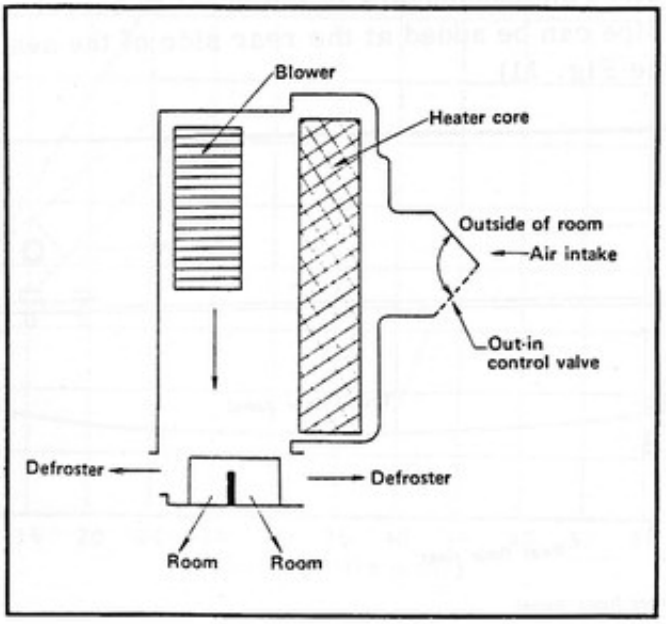
Fig. 38

24. Heater

The arrangement of the blower and core is changed as follows.

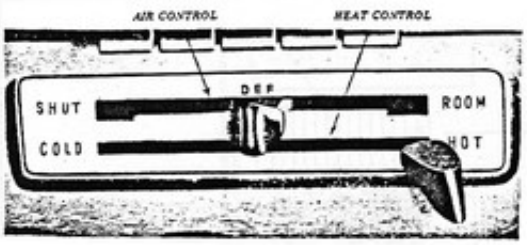


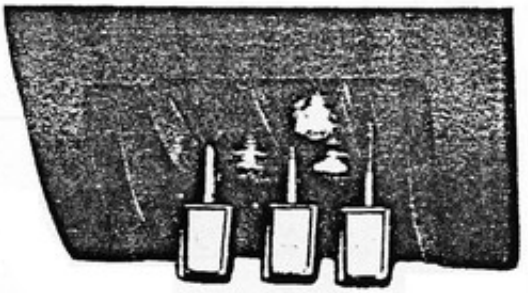
Former type
Fig. 39



New type
Fig. 40

The OUT-IN control valve has been newly adopted for the purpose of getting a better heating efficiency.





Former type *New type*

Fig. 41

25. Headrests (option)

The headrests can be attached to the bucket seats as optional part. (see Fig. 11)

26. Roll bar (option)

To protect the passengers in the event of barrel roll of the car, the steel pipe can be added at the rear side of the seats as optional part. (See Fig. 11)

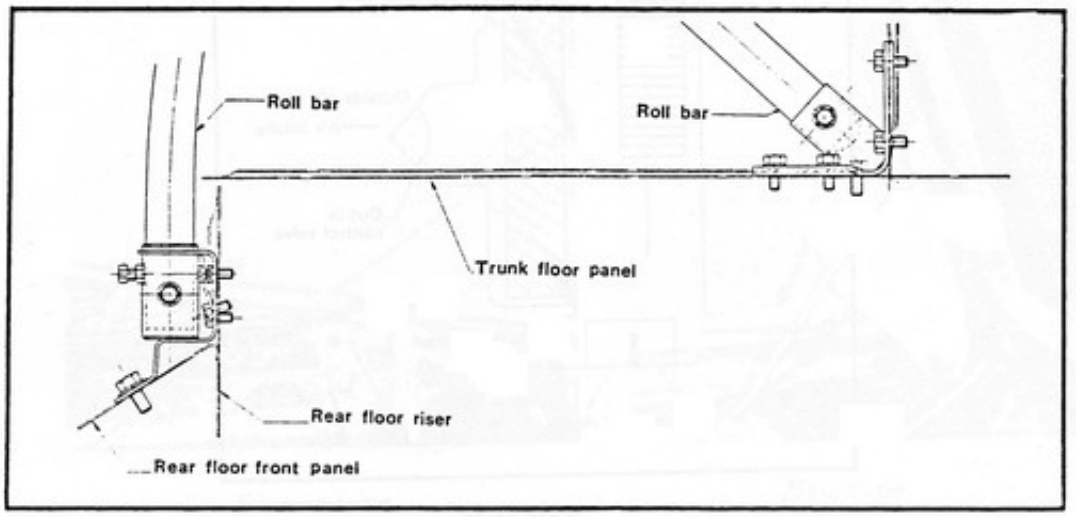


Fig. 42

3. ENGINE PERFORMANCE CURVES

MODEL R ENGINE PERFOPMANCE CURVE

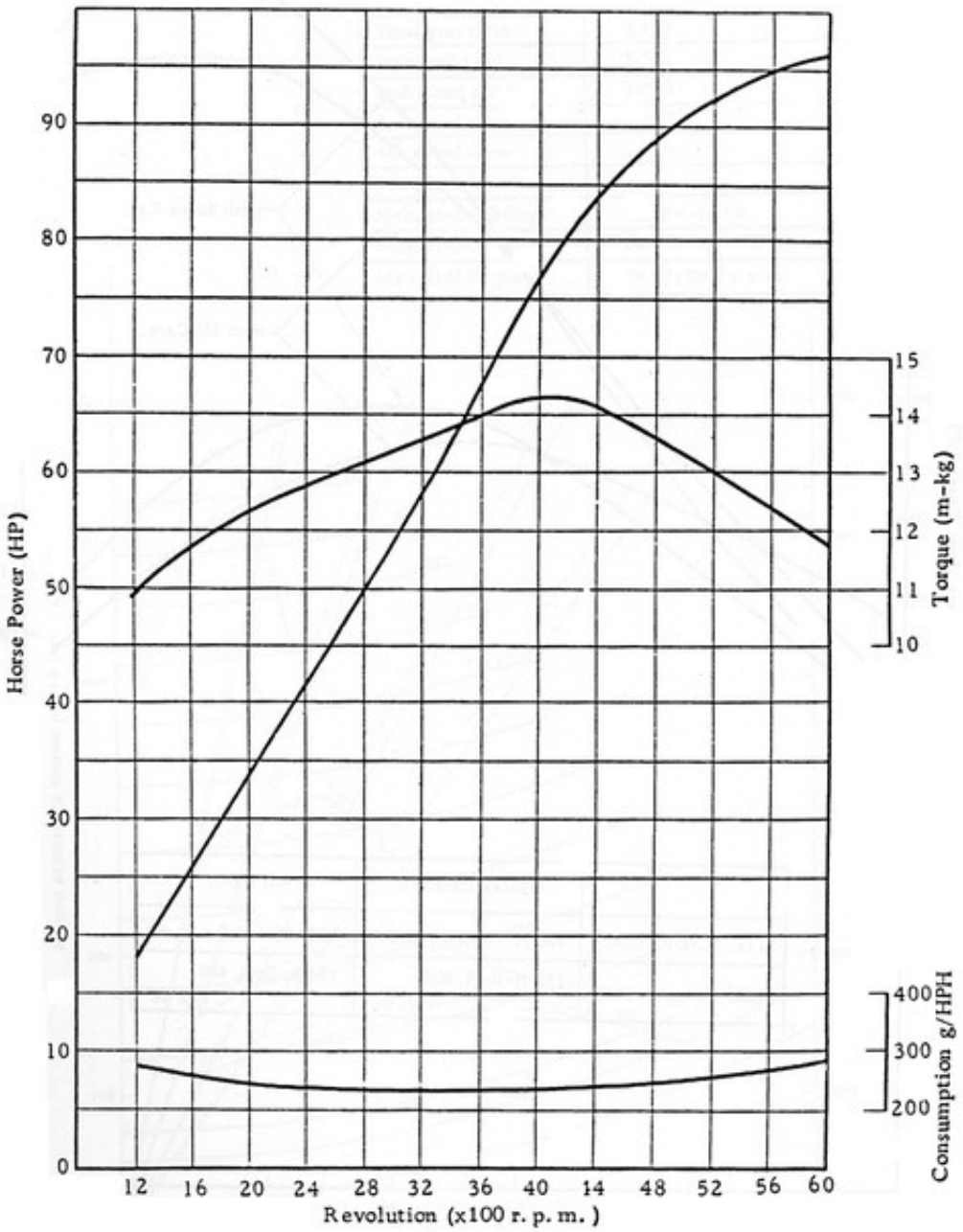
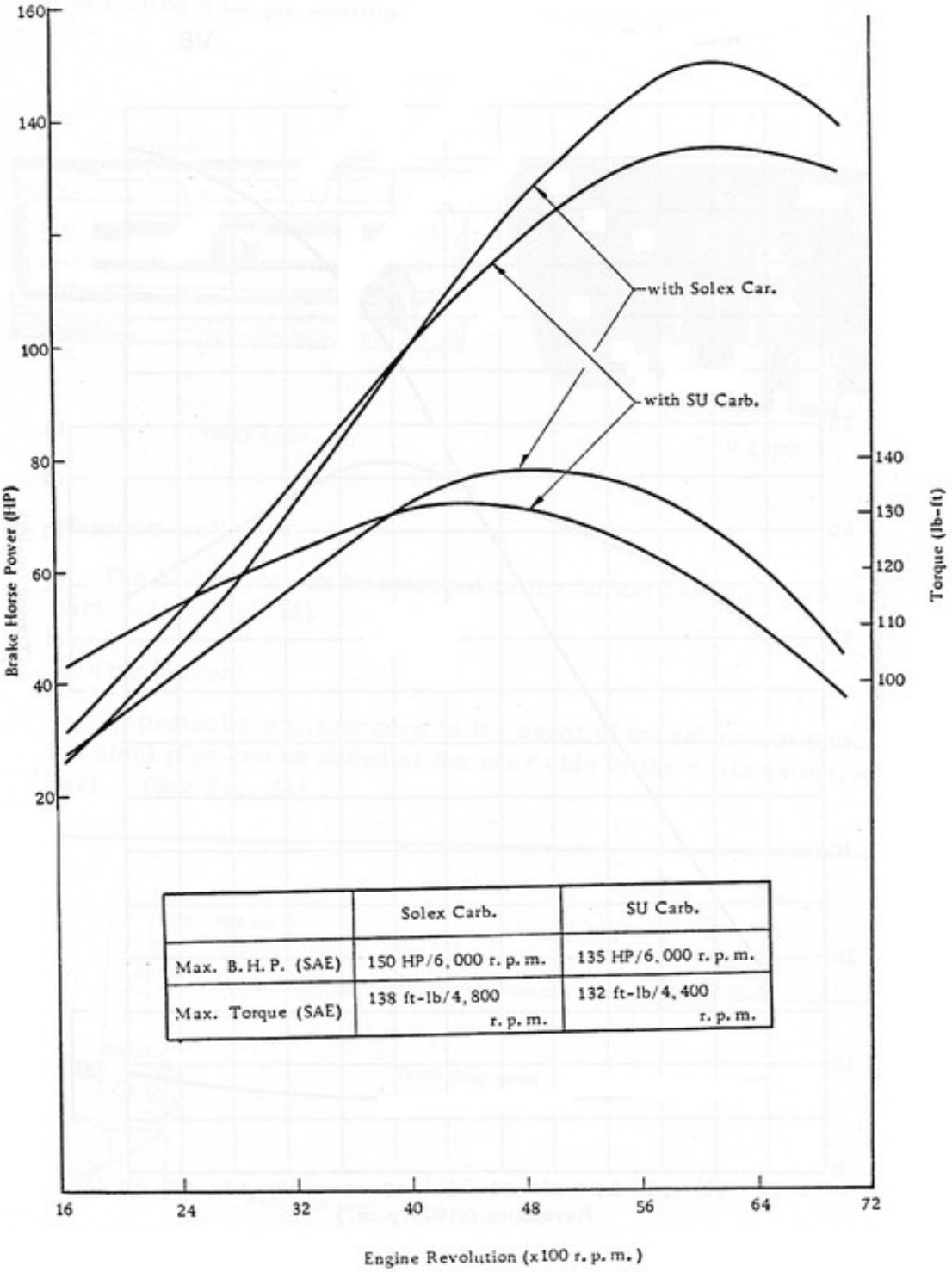


Fig. 43

MODEL U20 ENGINE PERFORMANCE CURVE



	Solex Carb.	SU Carb.
Max. B. H. P. (SAE)	150 HP/6,000 r. p. m.	135 HP/6,000 r. p. m.
Max. Torque (SAE)	138 ft-lb/4,800 r. p. m.	132 ft-lb/4,400 r. p. m.

Fig. 44

4. RUNNING PERFORMANCE CURVES

MODEL SP(L)311 RUNNING PERFORMANCE CURVES
(R Engine with SU Carburetor)

Final gear ratio	3.889
1st speed ratio	3.382
2nd speed ratio	2.013
3rd speed ratio	1.312
4th speed ratio	1.000
5th speed ratio	
Max. grade ability	tan θ = 0.558
Max. torque (SAE)	14.3 m-kg/4000 r.p.m.
Max. B.H.P. (SAE)	96 HP/6000 r.p.m.

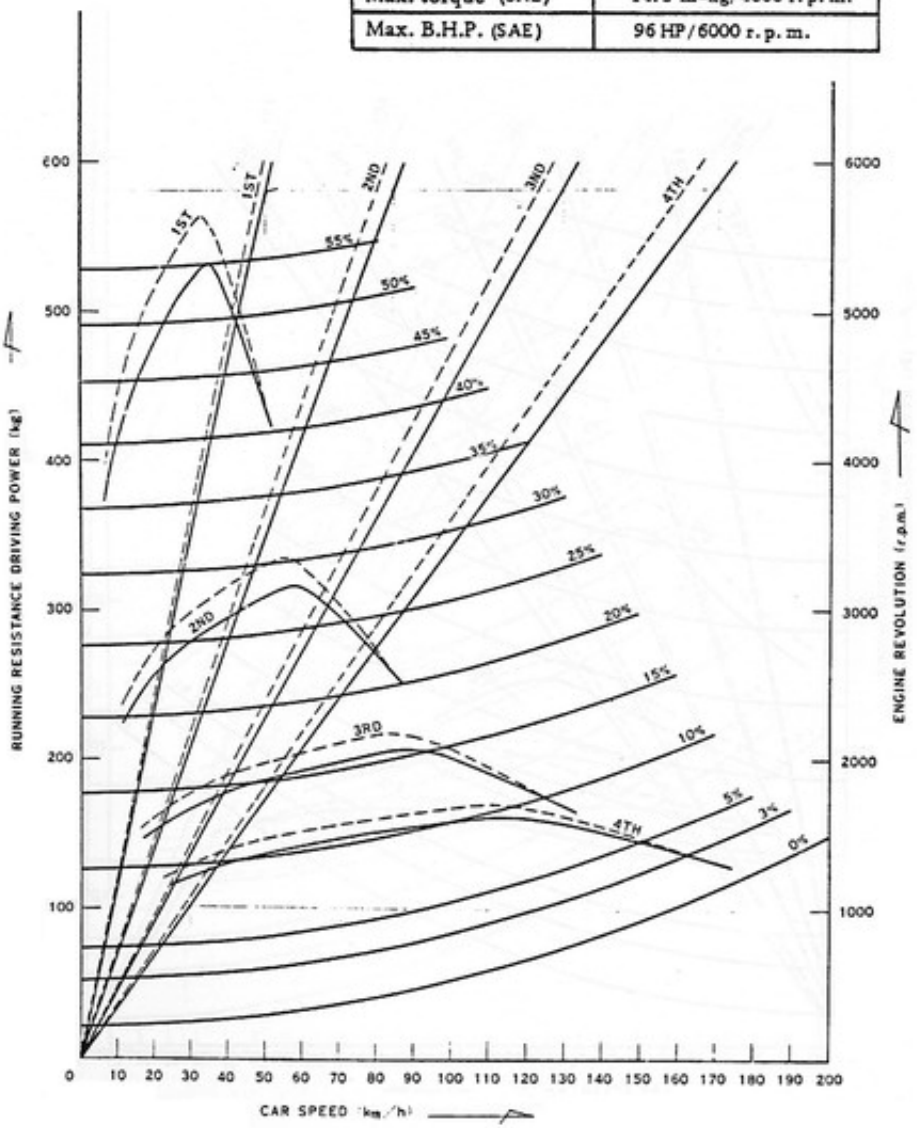


Fig. 45

MODEL SR(L)311 RUNNING PERFORMANCE CRUVES
(U20 Engine with SU Carburetor)

Final gear ratio	3.700
1st speed ratio	2.957
2nd speed ratio	1.858
3rd speed ratio	1.311
4th speed ratio	1.000
5th speed ratio	0.852
Max. grade ability	tan θ = 0.587
Max. torque (SAE)	18.2 m-kg/4400 r.p.m.
Max. B.H.P. (SAE)	135 HP/6000 r.p.m.

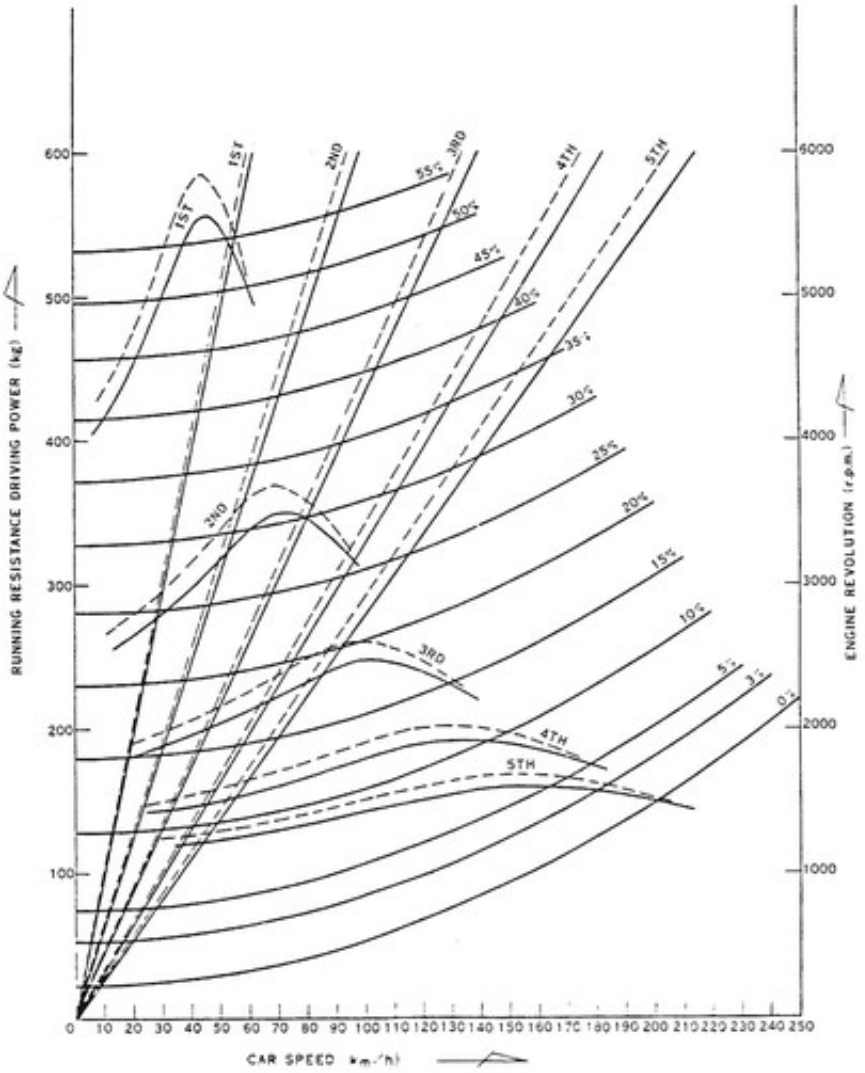


Fig. 46

MODEL SR(L)311 RUNNING PERFORMANCE CURVES
(U20 Engine with Solex Carburetor)

Final gear ratio	3.700
1st speed ratio	2.957
2nd speed ratio	1.858
3rd speed ratio	1.311
4th speed ratio	1.000
5th speed ratio	0.852
Max. grade ability	tan θ = 0.637
Max. torque (SAE)	19.1 m-kg/4800 r.p.m.
Max. B.H.P. (SAE)	150 HP/6000 r.p.m.

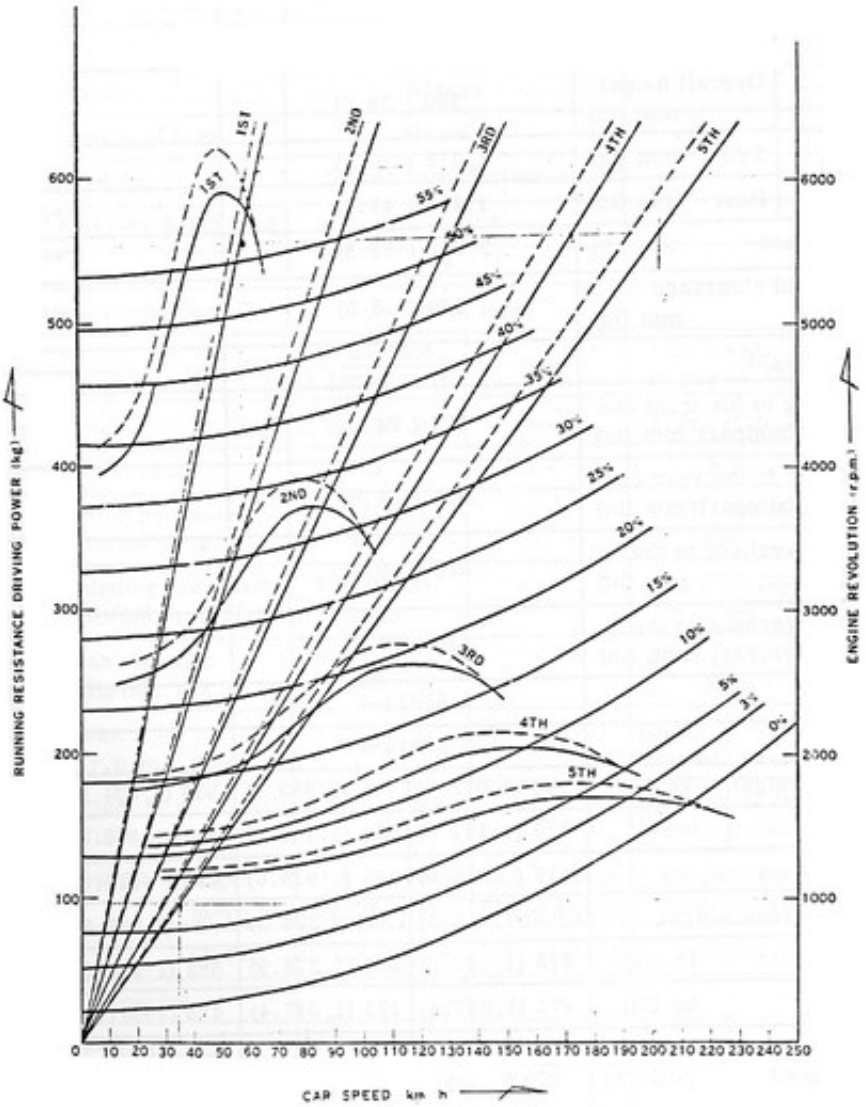


Fig. 47

5. SPECIFICATIONS

Item \ Model			SP311-U SPL311	SPL311-U	SR311-U SRL311		SRL311-U
Dimensions	Vehicle overall length mm (in)		3,955 (155.7)		←		
	Vehicle overall width mm (in)		1,495 (58.9)		←		
	Vehicle overall height mm (in)		1,325 (52.2)		←		
	Interior size of cargo space	Overall length mm (in)	750 (29.5)		←		
		Overall width mm (in)	1,275 (50.2)		←		
		Overall height mm (in)	990 (39.0)		←		
	Tread	Front mm (in)	1,275 (50.2)		←		
		Rear mm (in)	1,200 (47.2)		←		
	Wheel base mm (in)		2,280 (89.8)		←		
	Min. road clearance mm (in)		140 (5.5)		←		
	Floor height		———		———		
	Overhang to the front end (without bumper) mm (in)		620 (24.4)		←		
	Overhang to the rear end (without bumper) mm (in)		885 (34.8)		←		
	Frame overhang to the front end mm (in)		525 (20.7)		←		
	Frame overhang to the rear end mm (in)		830 (32.7)		←		
Tire Size	Front		5.60S14-4		←		
	Rear		5.60S14-4		←		
Weight	Vehicle weight kg (lb)		940 (2,072.7)	945 (2,083.7)	950 (2,094.8)		960 (2,116.8)
	Front		525 (1,157.6)	530 (1,168.7)	535 (1,179.7)		545 (1,201.7)
	Rear		415 (915.0)	415 (915.0)	415 (915.0)		415 (915.0)
	Vehicle gross weight		1,050(2,315.3)	1,055(2,326.3)	1,060(2,337.3)		1,070(2,359.4)
	Front kg (lb)		575 (1,267.9)	580 (1,278.9)	585 (1,289.9)		595 (1,312.0)
	Rear kg (lb)		475 (1,047.4)	475 (1,047.4)	475 (1,047.4)		475 (1,047.4)
Performance	Max. speed	km/h (Mile/h)	170 (105.6)	165 (102.5)	SOLEX CARB 200 (124.3)	SU CARB 190 (118.0)	SU CARB 190 (118.0)

Item \ Model			SP311-U SPL311	SPL311-U	SR311-U SRL311		SRL311-U
Performance	Acceleration	0 ~ 400 m (1/4 mile) sec.	17.9	18.5	16.0	16.9	17.0
		0 ~ 80 km/h (50 mile/h) sec.	——	——	6.4	8.2	8.5
	Grade ability (sin θ)		0.487	0.485	0.537	0.506	0.501
	Min. truning radius m (ft)		4.9 (16.08)		←		
	Seating capacity		2		←		
	Brake stopping distance (50 km/h)		13.5 (44.3)		←		
Engine	Model		R	←	U20		←
	Manufacturer		Nissan		←		
	Classification of fuel		Gasoline		←		
	Cooling system		Water forced circulation		←		
	No. of cylinder & arrange		4 in line		←		
	Cycle		4		←		
	Combustion chamber		Wadge type		←		
	Bore × stroke mm (in)		87.2×66.8 (3.433×2.630)	←	87.2×83 (3.433×3.267)		←
	Displacement (cu.in)		1,595 (97.32)	←	1,982 (120.92)		←
	Compression ratio		9.0	←	9.5		←
	Compression pressure kg/cm² (lb/in²)/r.p.m.		12.7 (180.6)/ 320	←	11.7 (166.02)/ 350		←
	Max. exploding pressure kg/cm² (lb/in²)/r.p.m.		50 (711.2)/ 4000	←	54 (766.26)/ 5600		←
	Max. mean effective kg/cm² (lb/in²)/r.p.m.		10.6 (150.8)/ 4000	←	11.5 (163.1)/ 4800		←
	Max. power B.H.P./r.p.m. (SAE)		96/6000	←	SOLEX 150/6000	SU 135/6000	SU 135/6000
	Max. torque m-kg(ft-lb)/r.p.m. (SAE)		14.3 (103)/ 4000	←	19.1(138) /4800	18.2(132) /4400	18.2 (132)/ 4400
	Length × width × height mm (in)		635×650×623 (25×25.6×24.5)	666×644×623 (26×25.4×24.5)	692×641×678 (27.2×25.2×26.7)		681×668×678 (26.8×26×26.7)
	Weight kg (lb)		150 (330.8)	157 (346.2)	160 (352.3)		167 (368.2)
	Position of engine		Front		←		
	Type of piston		Auto thermic type		←		
	Material of piston		LO-EX		←		
	No. of piston ring	Pressure	2		←		
		Oil	1		←		

Item			Model: SP311-U SPL311	SPL311-U	SR311-U SRL311		SRL311-U
Engine	Valve Timing	Intake open B.T.D.C.	20°	←	SOLEX CARB. 30°	SU CARB. 18°	SU CARB. 18°
		Intake close A.B.D.C.	56°	←	70°	58°	58°
		Exhaust open B.B.D.C.	58°	←	70°	58°	58°
		Exhaust close A.T.D.C.	18°	←	30°	18°	18°
	Valve Clearance	Intake mm (in)	0.43 (0.0169)	←	0.2 (0.007874)		←
		Exhaust mm (in)	0.43 (0.0169)	←	0.3 (0.011811)		←
Ignition System	Starting method		Magnetic starting system		←		
	Ignition method		Battery coil type		←		
	Ignition timing B.T.D.C./r.p.m.		16°/600	0°/700	SOLEX CARB. 20°/700	SU CARB. 16°/700	SU CARB. 0°/700
	Firing order		1-3-4-2		←		
	Ignition Coil	Type	Coil : Resistor C6R-50 : 5650R-1500 (HV-13Y : RA-16)		←		
		Manufacturer	HITACHI (HANSHIN)		←		
	Distributor	Type	D407-51	D417-57	D407-52		D417-56
		Manufacturer	HITACHI		←		
		Ignition timing advance system	Vacuum and governor		←		
	Spark Plug	Type	B-6E (L-45)	BP-6E	B-6E (L-45)		BP-6E
		Manufacturer	Nihon tokushu togyo (HITACHI)		←		
		Thread mm (in)	14 (0.551)		←		
		Gap mm (in)	0.7 ~ 0.8 (0.027 ~ 0.031)		←		
Fuel System	Carburetor	Type	HJB38W-3A	HJB38W-5	44PHH-2	HJG46W -1A	HJG46W-5
		Manufacturer	HITACHI	←	MIKUNI	HITACHI	HITACHI
		Throttle valve bore mm (in)	38	←	44	46	46
		Venturi size mm (in)	Variable	←	OUTER 37 INNER 10	Variable	Variable
		Main jet			#180		
		Pilot jet			# 60		
		Pump jet mm (in)			0.30 (0.0118)		

Item		Model	SP311-U SPL311	SPL311-U	SR311-U SRL311	SRL311-U
Fuel System	Air Cleaner	Type & No.	Paper type		←	
		Manufacturer	TSUCHIYA		←	
	Fuel Pump	Type	Diaphragm		←	
		Manufacturer	Showa, kyosan		←	
	Fuel Tank	Capacity of fuel tank ℓ	43 (11.36 U.S.gal.)		←	
Lubricating System		Lubricating method	Forced pressure type		←	
		Oil pump type	Gear type		←	
		Oil filter	Full flow type		←	
		Oil pan capacity ℓ (U.S.gal.)	4.1 (1.083)	←	SOLEX CARB. 7.2 (1.902) SU CARB. 7.2 (1.902)	SU CARB. 7.2 (1.902)
Cooling System		Type	Water cooling closed type		←	
		Radiator	Corugated fin & tube type		←	
		Capacity of cooling water ℓ (U.S.gal.)	8 (2.11)	←	8.5 (2.245)	←
		Type of water pump	Centrifugal type		←	
		Thermostat	Pellet type		←	
Battery		Type	2SMB or corvair		←	
		Voltage V	12	←	←	←
		Capacity A.H.	50 (40...For R/H Car)	←	50	←
Generator		Type	AC300/12×2R	←	AS2030A2	←
		Manufacturer	MITSUBISHI		←	
		Generating method	Alternator		←	
		Voltage V	12		←	
		Capacity Kw	0.3		←	
		Voltage regulator	RL2220B$_5$		←	
Starter		Type	S114-91	←	ME-Y$_2$R	←
		Manufacturer	HITACHI	←	MITSUBISHI	←
		Voltage & power V-HP	12-1.4		←	
Transmitting Device	Clutch	Type	Single dry disc hydraulic operation		←	
		Number of plate	(Facing)2		←	
		Outdia.×India.× Thickness mm (in)	200 × 130 × 3.5 (7.87 × 5.12 × 0.138)		←	

Item			Model	SP311-U SPL311	SPL311-U	SR311-U SRL311	SRL311-U
Transmitting Device	Clutch	Total friction area cm^2 (in^2)		364 (56.42)		←	
	Transmission	Type		F4C63L	←	FS5C71A	←
		Operating method		Direct floor shift		←	
		Gear ratio	1st	3.382	←	2.957	←
			2nd	2.013	←	1.858	←
			3rd	1.312	←	1.311	←
			4th	1.000	←	1.000	←
			5th			0.852	←
			Reverse	3.365	←	2.922	←
		Oil capacity (ℓ)		2.2	←	2.6	←
Propeller Shaft	Length × outdia × thickness mm (in)			760×63×59.8 (29.92×2.48×2.35)	←	838×63.5×1.6 (32.99×24.99×0.06299)	←
	Type of universal joint			63H	←	←	←
Final Gear	First Gear	Type of gear		Hypoid		←	
		Gear ratio		3.889 (Option 4.111)	←	3.700	←
		Speedometer		16/5 (17/5)	←	18/6	←
Diff. Gear	Housing type			Banjo		←	
	Type and number of gear			Straight bevel pinion 2 each		←	
Steering System	Type of gear			Cam and lever		←	
	Gear ratio			14.8		←	
	Steering angle In and Out.			36°16', 28°20'		←	
	Steering wheel dia. (in)			400 (15.75)		←	
Running Device	Wheel arrangement			2 front, 2 rear		←	
	Front axle			Wishbone ball joint type		←	
	Toe-in mm			2 ~ 3		←	
	Camber			1°25'		←	
	Caster			1°30'		←	
	Inclination angle of king pin			6°35'		←	
	Type of rear axle			Semi-floating type		←	

Item \ Model				SP311-U SPL2	SPL311-U	SR311-U SRL311	SRL311-U
System of the Brake	Master Brake	Type	Front	Disc		←	
			Rear	Leading trailing		←	
		Lining dimension (front) mm (in)		47.5 × 16.7 × 53.98 (1.87 × 0.66 × 2.125)		←	
		Lining dimension (rear) mm (in)		40 × 4.5 × 215 (1.57 × 0.18 × 8.46)		←	
		Total braking area (front) cm^2 (in^2)		102.6 (15.9)		←	
		Total braking area (rear) cm^2 (in^2)		351 (54.4)		←	
		Dia. of disc (front) mm (in)		284 (11.18)		←	
		Dia. of drum (rear) mm (in)		228.6 (90)		←	
	Oil Brake	Inner dia. of master cylinder mm (in)		19.05 (0.75)		←	
		In dia. of wheel cyl. (front) mm (in)		53.98 (2.125)		←	
		In dia. of wheel cyl. (rear) mm (in)		19.05 (0.75)		←	
		Max. oil pressure (lb/in^2)kg/cm^2		137 (1948.6)		←	
		Type		Mechanical for rear wheel		←	
		Lining dimension mm		40 × 4.5 × 215		←	
		Total braking area cm^2 (in^2)		351 (54.4)		←	
		In dia. of drum mm (in)		228.6 (90)		←	
Suspension	Front			Independent coil spring		←	
	Coil spring size wire dia.×In.dia.of coil× free length-No. mm (in)			12.7 × 87.5 × 290-6 (0.499 × 3.44 × 11.41-6)		←	
	Rear			Parallel semi elliptic		←	
	Spring size Length × width ×thickness-No. mm (in)			$1200 \times 60 \times \begin{matrix}6\text{-}2\\5\text{-}2\end{matrix}$ (47.2 × 2.36 × 0.23)		←	
	Shock absorber (front)			Telescopic double action		←	
	Shock absorber (rear)			Telescopic double action		←	
	Stabilizer (front)			Torsion bar type		←	
	Stabilizer (rear)			———		———	

Item \ Model		SP311-U SPL311	SPL311-U	SR311-U SRL311	SRL311-U
Frame	Type	X member		←	
	Section	Box type		←	
	Dimension height × width × thickness mm	Upper 75 × 100 × 1.6 Lower 25 × 100 × 2.3		←	

6. WIRING DIAGRAM