

# ***SERVICE BULLETIN***

**SEPT. 1967**

**VOL. 84**

## **SAFETY FEATURES and AIR POLLUTION CONTROL MODEL 510 Series, SP(R)L311-U and L520-TU**



**NISSAN MOTOR CO., LTD.**

**T O K Y O,   J A P A N**

# FOREWORD

Recently, considerable arguments on car safety have been carried on in the U.S.A.; and the federal standard of the 20 items on car safety will become effective on January 1, 1968.

Nissan Motor Company has done considerable research on car safety, since these problems occur within the sphere of human engineering. Every 1968 model has, as a result, been fundamentally redesigned.

Also, the modifications concerned with the federal air pollution control standard have been included in these modification. Owing to these modifications, each model possesses outstanding safety features on the open road or in heavy traffic.

The following is an introduction of the safety features and air pollution control systems which NISSAN MOTOR COMPANY has developed at its own research centers.

# CONTENTS

GENERAL DESCRIPTION .....	1
PERFORMANCE CURVES .....	2
MAIN SPECIFICATION .....	6
SAFETY FEATURES .....	7
AIR POLLUTION CONTROL DEVICE .....	18

## GENERAL DESCRIPTION

The modified parts are concerned with the 20 federal safety standards and air pollution control. The main modifications are:

1. Padded instrument panel and steering wheel spoke
2. Anti-burst open door lock
3. Break-away type inside back mirror
4. Collapsible steering column and transmission remote control linkage
5. Tandem type safety brake system
6. Safety seat belt
7. Shock absorbing type body construction
8. Air pollution control system
9. etc.

DATSUN

# PERFORMANCE CURVE OF THE DATSUN 1600 (MODEL 510 SERIES)

PL510-UA

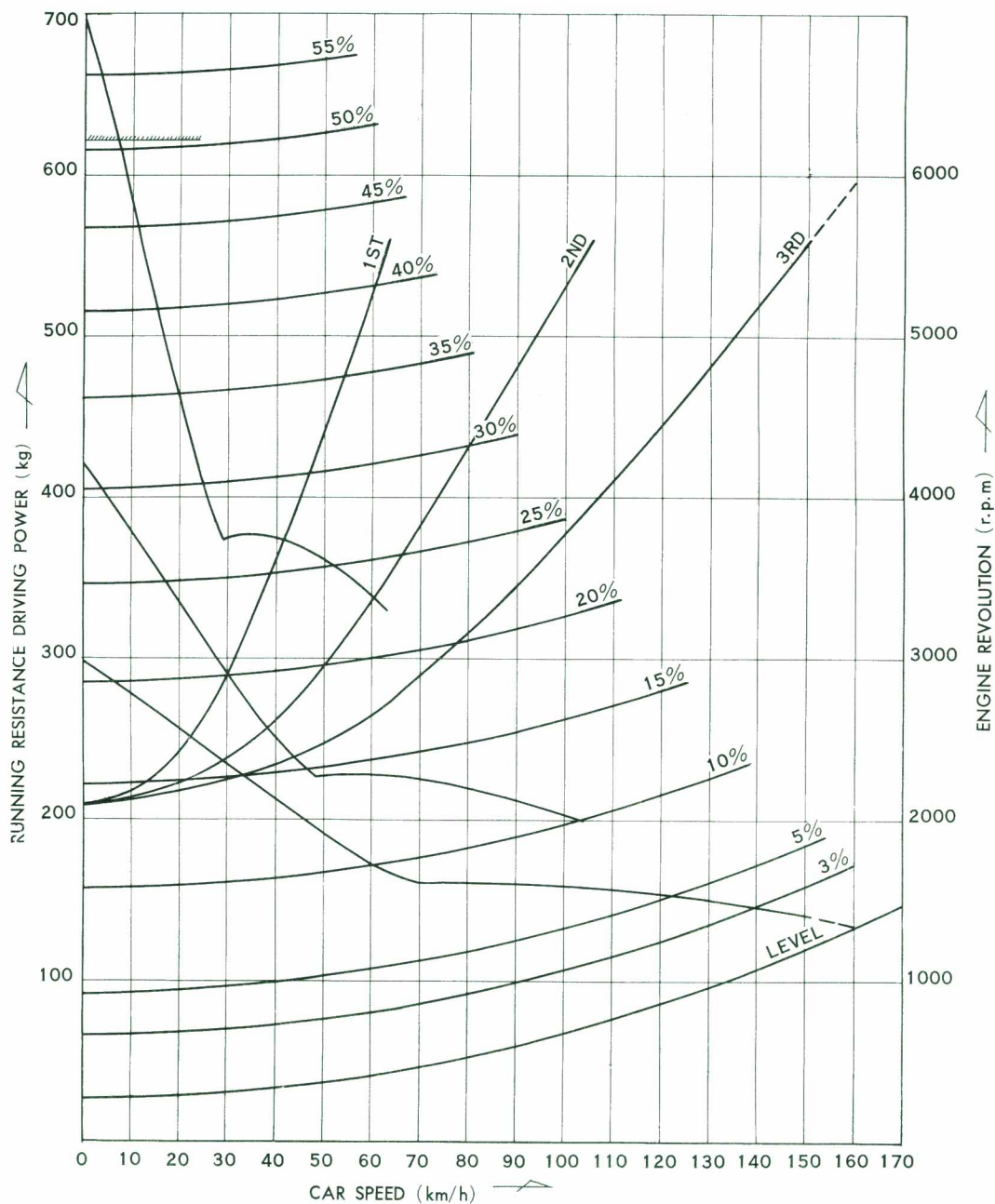


Fig. 1

PERFORMANCE CURVE OF THE DATSUN 1600  
(MODEL 510 SERIES)

PL510-UT

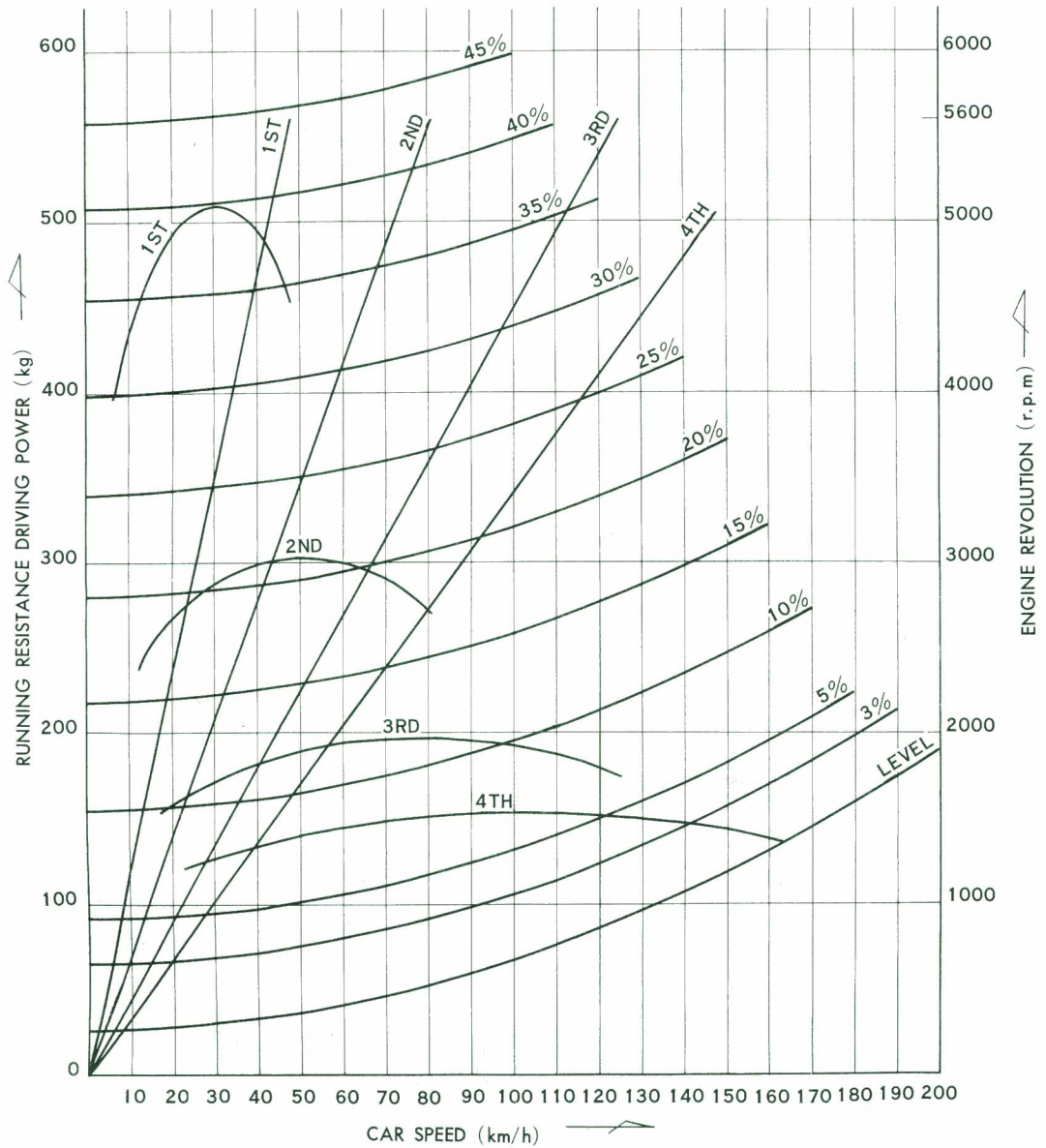


Fig. 2

WPL510-UT

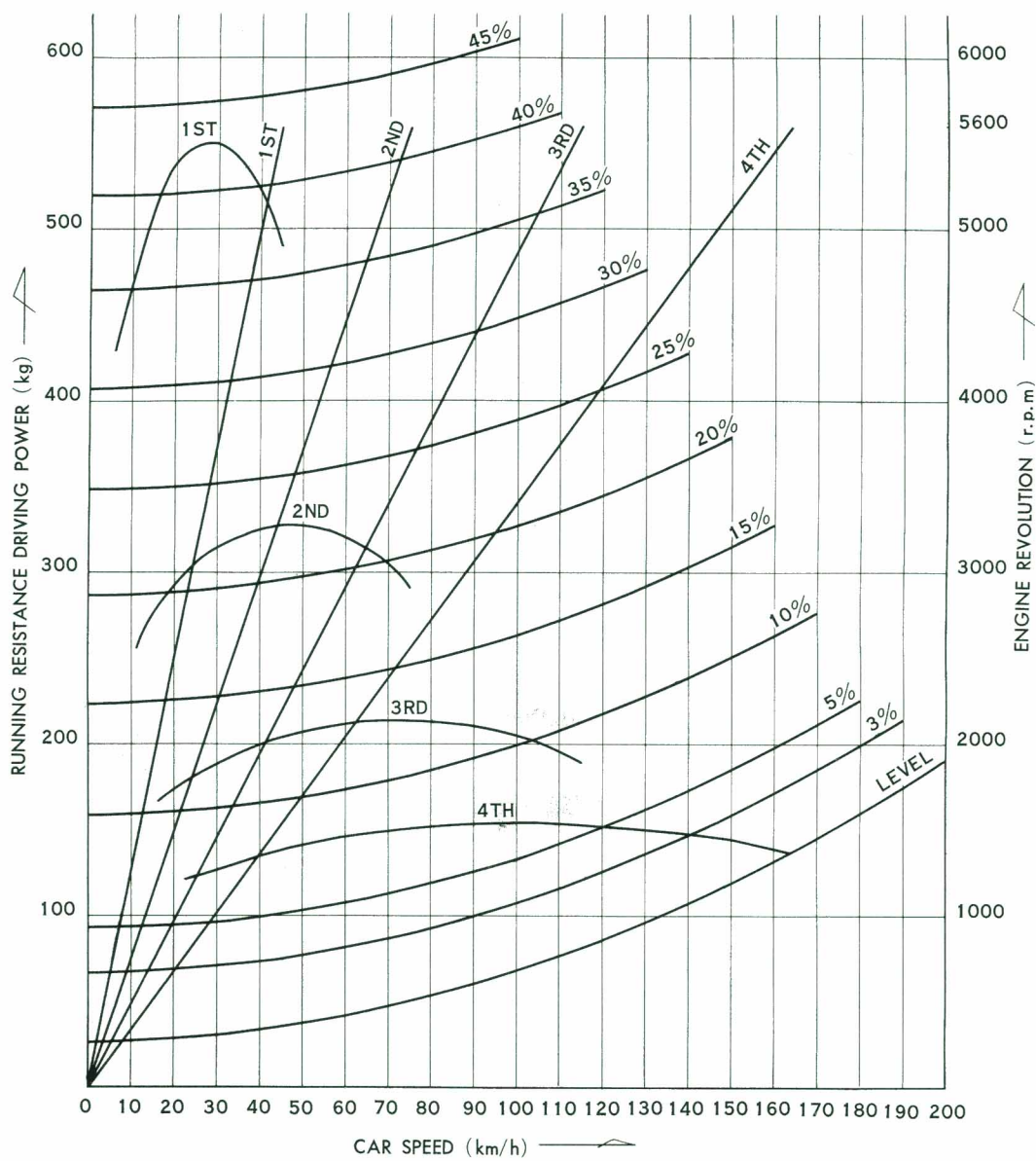


Fig. 3

PERFORMANCE CURVE OF THE DATSUN 1600  
(MODEL 510 SERIES)

WPL510-UA

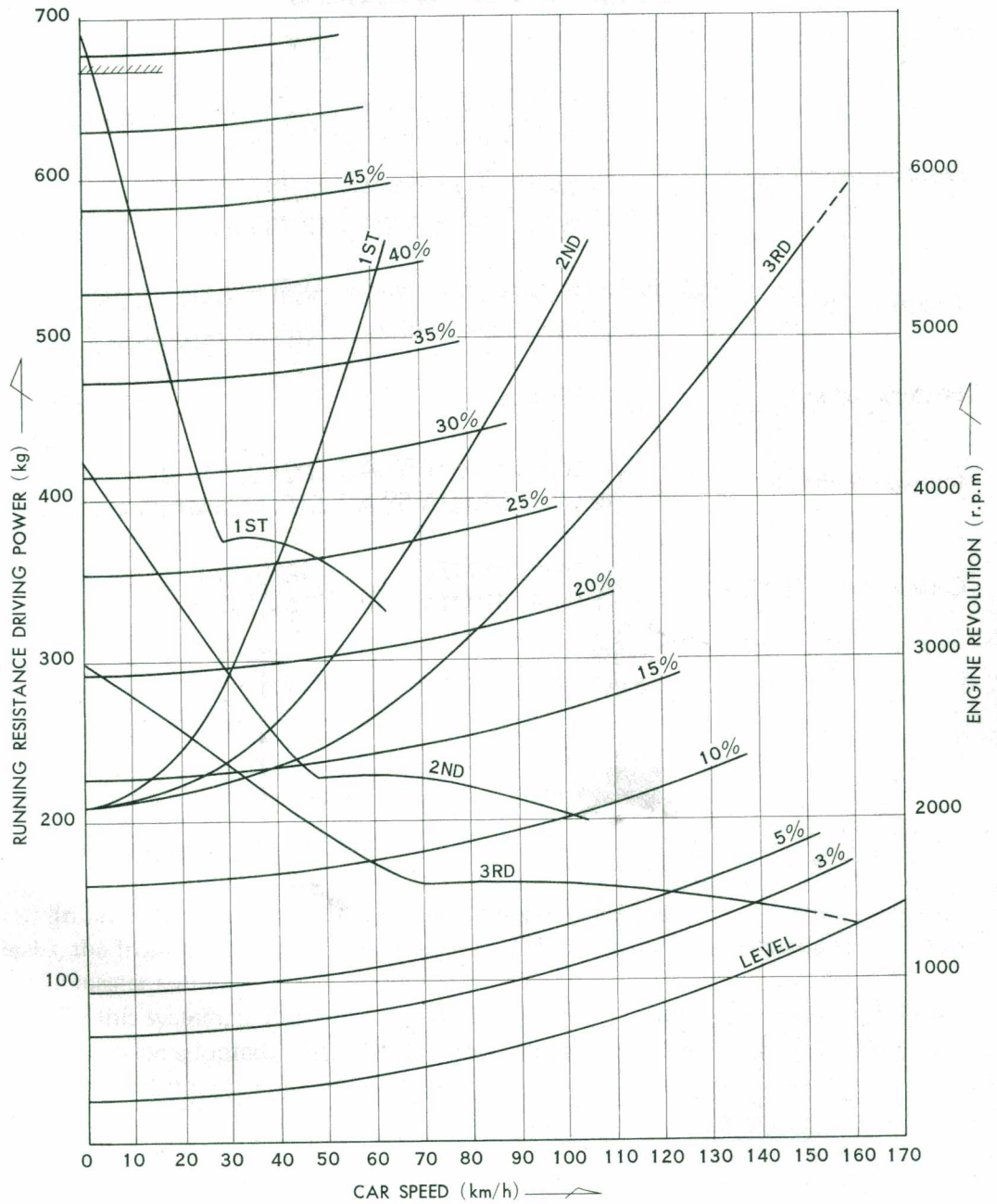


Fig. 4

## MAIN SPECIFICATION OF THE 510 SERIES

Vehicle weight	PL510-UT	926 kg	(2,041 lb)
	PL510-UA	959 kg	(2,114 lb)
	WPL510-UT	965 kg	(2,127 lb)
	WPL510-UA	990 kg	(2,183 lb)
Grade ability	PL510-UT	0.374	WPL510-UT 0.396
	PL510-UA	0.452	WPL510-UA 0.472
Battery capacity	50 A.H.		
Ignition timing	(W)PL510-UT 5° A.T.D.C. at 700 r.p.m.		
	(W)PL510-UA 5° A.T.D.C. at 650 r.p.m.		
Carburetor (HITACHI)	(W)PL510-UT	DAF-328-5	
	(W)PL510-UA	DAF 328-7	

## **SAFETY FEATURES**

A number of three figures means the item number of the Federal Safety Standard.

### **101 Control location and identification**

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.

### **102 Transmission shift lever sequence, starter interlock, braking effect.**

#### **510 SERIES ONLY**

Borg-Warner automatic transmission mounted on the 510 series satisfies this item completely.

The shift sequence is marked on the grip of the shift lever of the manual transmission.

### **103 Windshield defrosting and defogging**

The DATSUN 1600 and DATSUN SPORTS is equipped with a heater. As for DATSUN SPORTS, the performance of the heater has been improved and the defrosting nozzle has been redesigned.

### **105 Hydraulic service brake and parking brake systems**

#### **510 SERIES**

In order to make front brakes effective even when rear brakes suffer hydraulic leaks, the front brake line has been separated from the rear brakes and a tandem type brake master cylinder has been adopted.

On this system, a detector for brake line pressure difference and warning light have also been adopted. The effectiveness of the warning light can be checked by pushing a button.

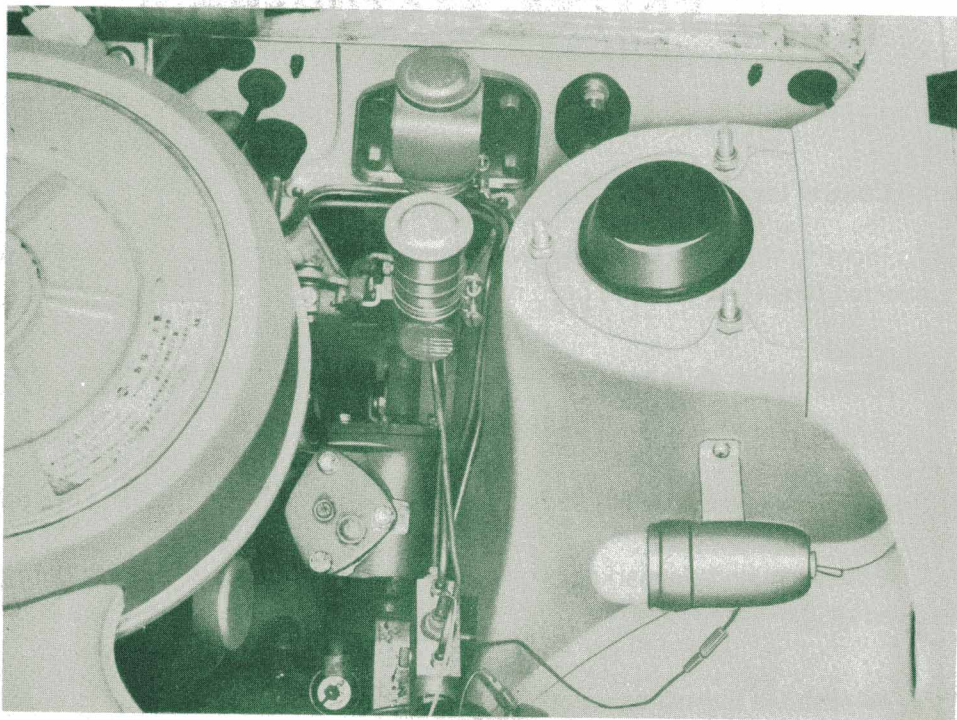


Fig. 5 Tandem type brake master cylinder of the 510



Fig. 6 Brake safety light and check button of the 510

### DATSUN SPORTS

The tandem type brake master cylinder had been adopted previously; this time a detector for brake line pressure difference and warning light have been adopted. This device is of the same construction as the DATSUN 1600's device, but the check switch is a pulling knob type.



Fig. 7 Brake safety light and check knob of the DATSUN SPORTS

#### 106 Hydraulic brake hoses (manufacturing standards)

The brake hoses adopted on all models meet this standard completely.

#### 107 Reflecting surfaces (affecting driver's vision)

Every metal part located before the driver's eye have nonglare surfaces in order to avoid adversely the driver's ability to see.

#### 109 New pneumatic tires (test methods and standards)

The tire used on each model meets the standard completely.

### 111 Rear view mirrors (field of view, etc.)

To secure a good rear view, the size of both inside and outside mirrors have been widened.

A special break-away type inside mirror has been adopted.

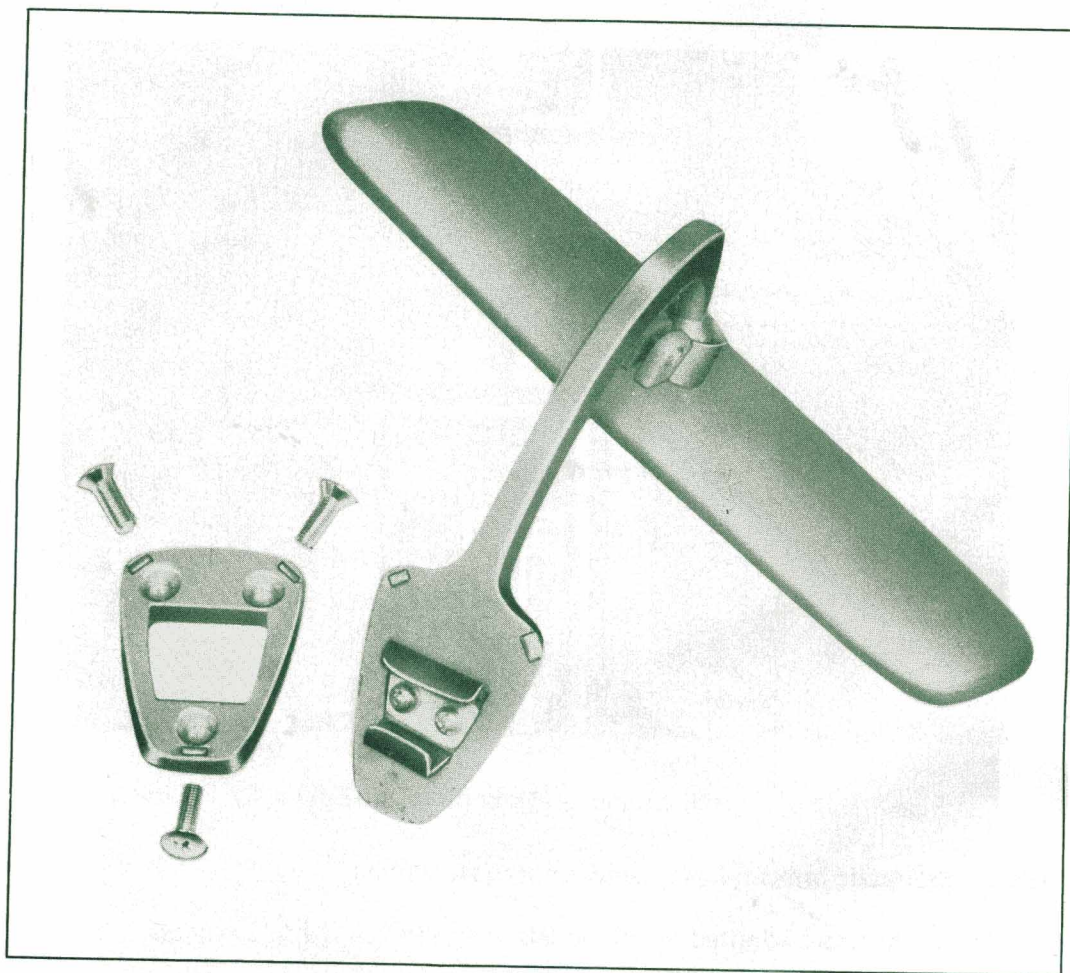


Fig. 8 Break-away type inside rear view mirror

### 201 Occupant protection in interior upon impact (Padding etc.)

To protect the occupants from interior impact upon collision, following modifications have been made on each DATSUN 1600 and DATSUN SPORTS model.

- 1) Instrument panel has been thickly padded.

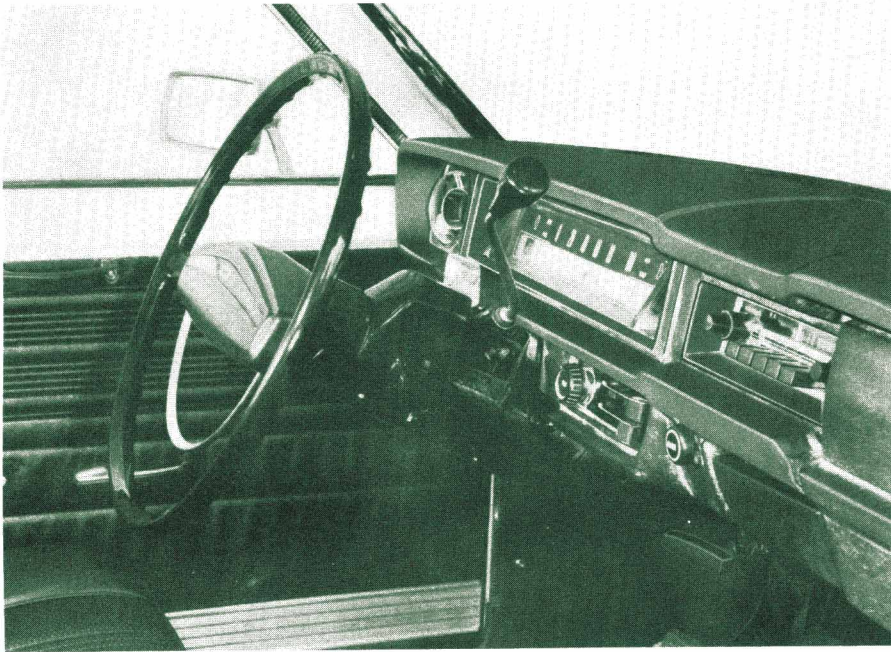


Fig. 9 Thickly padded instrument panel of the 510

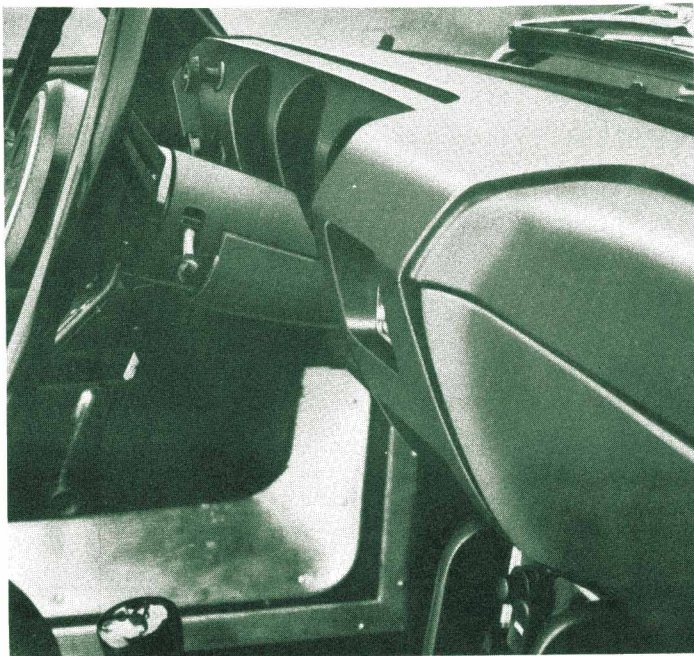


Fig. 10 Thickly padded instrument panel of the DATSUN SPORTS

## DATSUN

- 2) Every switch knob on the instrument panel has been enlarged in diameter.
- 3) The method of heater control has been modified and the location has been changed.



Fig. 11 Heater control of the 510

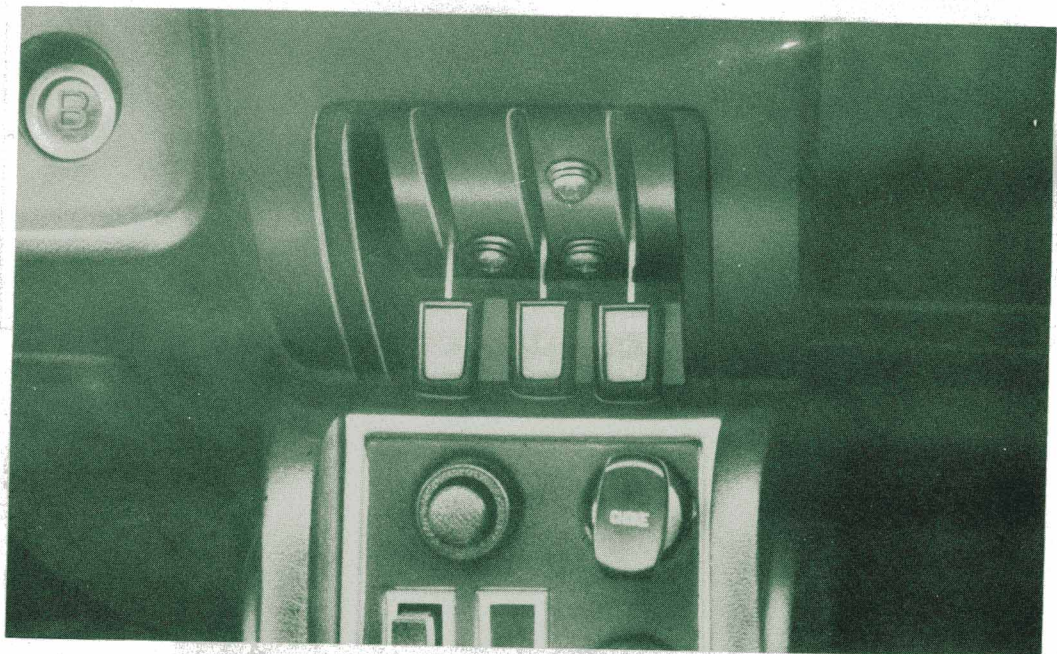


Fig. 12 Heater control of the DATSUN SPORTS

- 4) Break-away type ash tray has been adopted.



Fig. 13 Ash tray on the 510

- 5) Transmission shift lever knob has been modified so as to absorb impact shock. (For the 510 series)
- 6) The inside handles of the door have been padded. (DATSUN SPORTS only)



Fig. 14 Padded door handle of the DATSUN SPORTS

## DATSUN

---

- 8) The room light has been moved from the center door pillar to the center of roof (510 series). As for the DATSUN SPORTS the location of the map light has been moved to the floor console box.

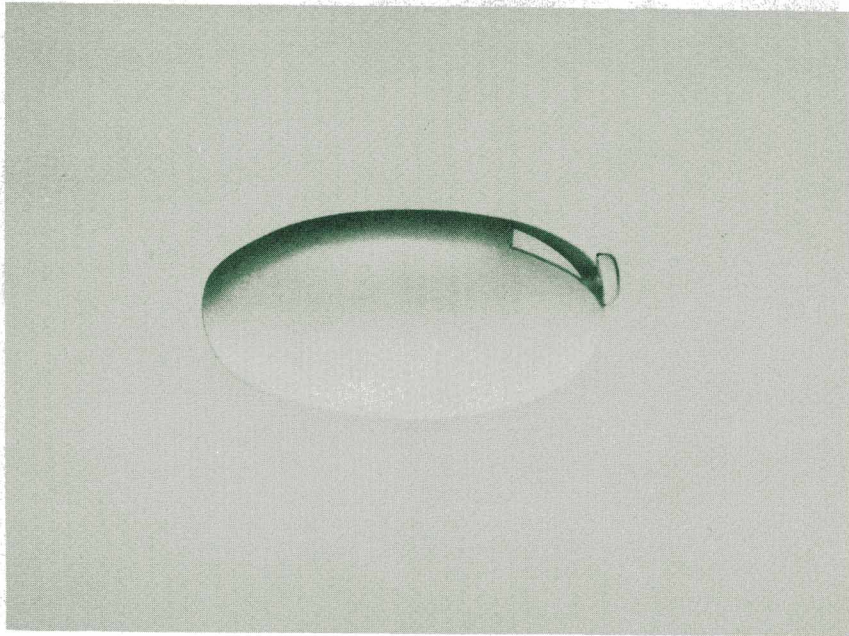


Fig. 15 Room light of the 510

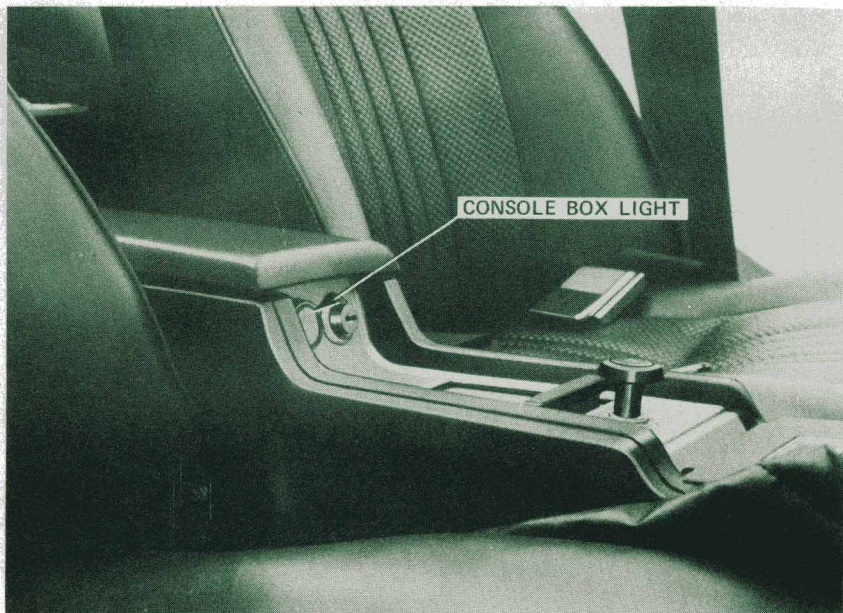


Fig. 16 Map light of the DATSUN SPORTS

9) Seat

The construction of the seat has been reinforced to absorb impact force. Therefore, separate reclining seats are not available on the 510 series from this year.

10) The back of the front seat of the 510 has been thickly padded.

### **203 Impact protection for driver in steering control (Collapsible columns, etc.)**

Collapsible steering column and transmission control linkage have been adopted and the steering wheel spoke has been thickly padded.

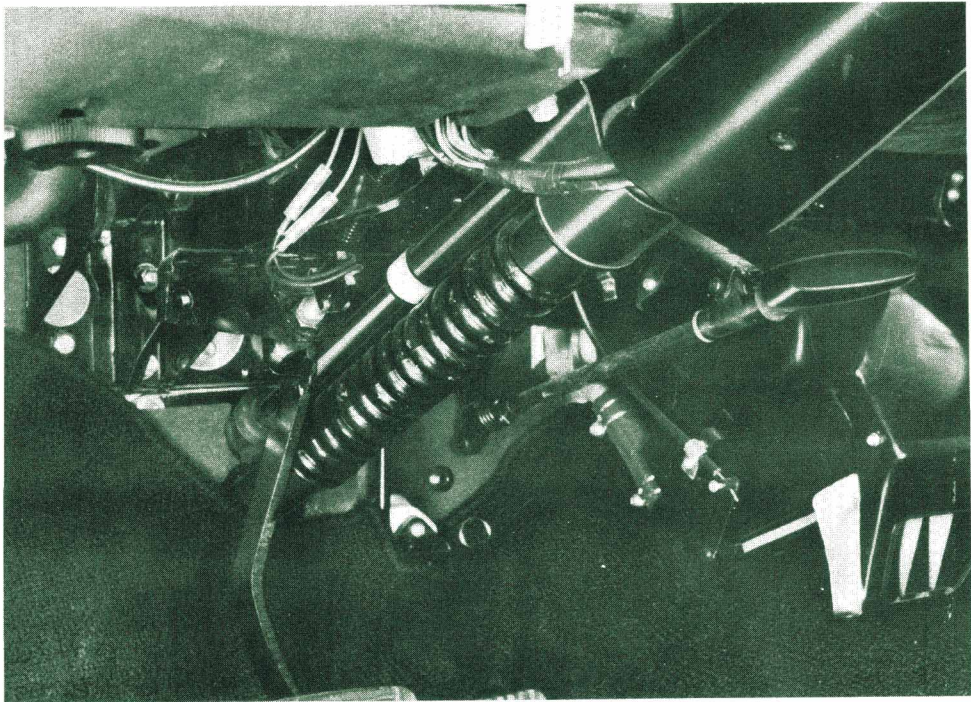


Fig. 17 Collapsible steering column of the 510

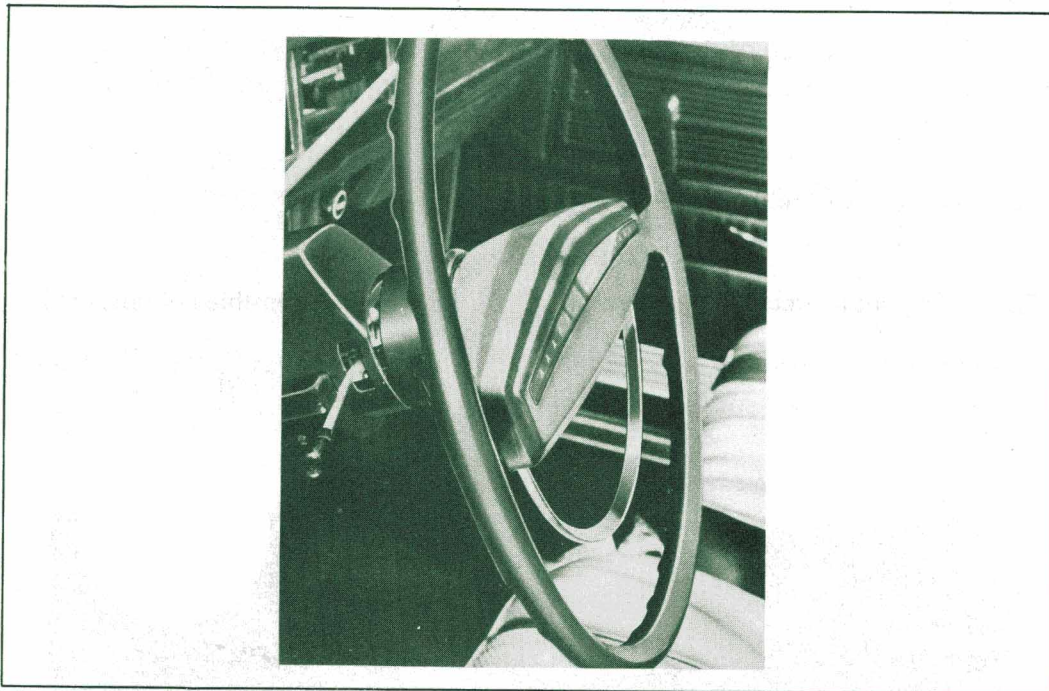


Fig. 18 Thickly padded steering wheel spoke of the 510



Fig. 19 Thickly padded steering wheel center of the DATSUN SPORTS

- 204     Steering control rearward displacement (limits rearwards movement of column under frontal impact).**

**DATSUN SPORTS**

In order to meet item 204, body structure has been reinforced.

**510 SERIES**

The body structure of the 510 Series has been designed to prevent the rearward displacement of the steering control by reinforcing the installing portion of the steering gear housing.

- 205     Glazing materials (Strength and breakage characters of windshield and windows).**

Laminated glass of 0.76 mm (0.030 in) membrane has been adopted.

- 206     Door latches and supports (strength of latches and hinges).**

The door lock is the ATWOOD type which does not release even in collision and the strength of door hinges meet the standards.

- 207     Anchorage of seats (strength of seat mounts).**

The strength of the seat anchorages designed to meet the standard sufficiently.

- 208     Seat belt installations (number and location of seat belts and shoulder harnesses)**

**510 SERIES**

Two 3-point safety belts have been equipped for the front seat, and two 2-point safety belts have been equipped for the rear seat.

**DATSUN SPORTS**

Two 3-point safety belts have been equipped.

## **DATSUN**

---

### **209     Seat belt assemblies (seat belt and shoulder harness construction)**

The seat belt has been constructed so as to meet the federal standards.

### **210     Seat belt assembly anchorages (strength of anchorages)**

The strength of the seat belt anchorages meets the federal standards.

### **211     Wheel nuts, discs, hubcaps (limits projection)**

These parts have been designed so as not to project too much.

### **301     Fuel tank, filler pipes, tank connections (leakage resistance under impact).**

The fuel tank of each model has been designed to resist leakage under impact.

## **AIR POLLUTION CONTROL DEVICE**

There are two types of air pollution control devices which Nissan Motor Co., Ltd. has adopted. The detailed information on these devices have been described in Nissan Service Bulletin Vol. 79.

Therefore we would like to inform you only of the modified parts of each model.

# AIR POLLUTION CONTROL DEVICE

## DATSUN TRUCK

PARTS NAME	PART NO.	NOTE
Piston ring oil	12046 13210	-RIK VENT
	12046 13220	-NIFLEX
Intake valve	13201 20600	Hard chrome plated stem
Exhaust valve	13202 20600	Hard chrome plated stem
Valve oil seal	13207 20300	Lip seal
Intake manifold	14003 20600	Enlarged heating area for de-icing
Exhaust manifold	14004 20600	Enlarged heating area for de-icing
Air cleaner	16500 20610	Equipped with defroster
Air cleaner support F	16575 20600	Modification of type
R	16573 20600	
Hose-R/Cover to A/C	16571 20600	
Duct-Cover to A/C	16530 20600	Taking hot air
Carburetor	16010 20610	HITACHI make with magnetic valve and accelerator switch (DCA306-4)
Vacuum switch	16328 20600	For coasting cut-off (VS37-1)
Vacuum tube	16329 20600	Piping for vacuum switch
Vacuum connector	14875 23000	Piping for vacuum switch
Tube-F/Pump to carburetor	17522 24000	Owing to the modification of carburetor heights
Tube-F/Strainer to F/Pump	16518 28200	Modification of length
Distributor	22100 20600	Modifying governor character (D415-59)
Spark plug	22401 75500	BP-6E
Cooling fan	21060 23000	Outer diameter 330 mm (13.0 in)
Water pump	21010 24000	Pulley & clutch ass'y
Fuel pump	17010 16700	Modification of out-let
Fuel strainer F	16400 28000	Throw away type
R	16400 28200	
Cover-Exhaust Manifold	16590 20600	With hot air adaptor for air cleaner
Radiator shroud	21475 28200	For 330 mm (13.0 in) diameter fan
Clutch pedal	46540 28200	
Clutch switch	25320 73001 (SH27)	Clutch pedal must be modified at the same time
Accel pedal	18100 28200	
Accel wire	18200 28205	Modification for wiring damage
Accel wire bell crank	18300 28200	
Accel wire bracket	18205 28200	Modified for HITACHI carburetor
Instrument	24013 28220	
Wiring harness Engine room	24012 28220	For wiring each switch
Chassis	24014 20501	
Dash air box	67110 28000	For installing vacuum switch
Neutral switch	32005 21100	Same as back up light switch
T/M extension	32131 28210	With neutral switch installing boss
T/M striking rod	32890 28210	Modification for neutral switch

**DATSUN**
**510 SERIES**

PART NAME	PART NO.	NOTE
Manifold-intake	14003 23001	Machined for air injection nozzle
Manifold-exhaust	14004 23000	Machined for air injection nozzle
Carburetor	16010 23100	For manual transmission (DAF328-5)
	16010 23200	For automatic transmission (DAF328-7)
Ignition-Distributor	22100 23100	Having characteristics for air pollution controlled engine (D420-51)
Tube-vacuum control	22318 23100	Steel tube
Ignition coil	22433 14600	Improved starting ability for engine
Alternator	23100 23000	12V-33A (LT133-01)
Valve-intake	13201 23002	Chrome plated stem
Valve-exhaust	13202 23001	Stellite laid
Pulley-crankshaft	12303 23100	Two stage pulley for air pump drive
Ass'y-air cleaner	16500 23010	With a connector for air pump suction
Ass'y-air pump	14810 23000	ECP200
Ass'y-silencer air pump	14855 23000	Muffler type
Anti-backfire valve	14830 23001	AMC type
Bracket-air pump	14840 23000	
Bar adjusting-air pump	14841 23000	
Pulley-air pump	14850 23000	
Bolt-air pump bracket	14842 23000	
Pipe-air gallery	14820 23000	
Nozzle-air injection	14825 23000	SANDVIK 15REE10 equivalent to SVS42
Belt-air pump	14853 23001	Periphery length - 715 mm (28.15 in)
Orifice-A.B. valve	14889 23000	5 mm (0.1969 in) diameter for improvement of driving ability
Hose-air cleaner to air pump	14860 23002	
Hose-air pump to check valve	14861 23002	
Hose-air pump to A.B. valve	14862 23002	
Hose-A.B. valve to connector	14056 12200	
Tube-vacuum manifold	14866 23000	Length = 300 mm (11.81 in)
Connector-vacuum tube	14875 23000	
Connector-intake manifold	14008 23002	
Cooling fan	21060 23000	330 mm (12.99 in) diameter, spider type
Ass'y-water pump	21010 23000	With fan clutch ON $65 \pm 4.5^{\circ}\text{C}$ , OFF $54 \pm 4^{\circ}\text{C}$
Pulley-fan and water pump		Assembled in fan clutch, pulley ratio 1.21
Fan shroud	21475 21000	
Fan belt	11720 23100	Owing to the modification of pulley ratio

# AIR POLLUTION CONTROL DEVICE

## SRL311-U

PARTS NAME	PART NO.	NOTE
Cylinder head	11042 25601	Machined for air injection nozzle
Manifold-intake	14003 25601	Machined for air injection nozzle
Manifold-exhaust	14060 25600	The shape has been modified owing to the movement of the alternator
Carburetor	16010 25610	Modified for distributor vacuum tube
Ignition distributor	22100 25600	Having the characteristic for air pollution controlled engine (D417-56)
Spark plug	22401 75500	BP-6E
Bracket-alternator	11710 25602	Moved from the right side to the left side of the engine
Bar adjusting-alternator	11715 25600	
Belt-fan	11720 25600	Periphery length = 870 mm (34.25 in)
Ass'y-air pump	14810 23000	ECP200
Ass'y-silencer air pump	14855 23000	Muffler type
Anti-backfire valve	14835 25600	Gulp type
Check valve	14830 23001	A.M.C. type
Bracket-air pump	14840 25601	
Bar adjusting air pump	14841 25601	
Pulley-air pump	14850 25600	
Bolt-air pump bracket	14842 25600	
Bolt-air pump	14815 23000	
Support-air pump	14843 25600	
Pipe-air gallery	14820 25600	
Nozzle-air injection	14825 25600	SANDVIK 15RE10 equivalent to SVS42
Seat-air injection	14826 25600	
Air cleaner-air pump	14880 25600	
Belt-air pump	14853 25600	Periphery length = 735 mm (28.94 in)
Orifice-A.B. valve	14889 25600	6 mm (0.2362 in) diameter improved for driving ability
Hose-air cleaner to air pump	14860 25601	HB21
Hose-air pump to check valve	14861 25602	HB21
Hose-three way	14869 25600	HB21
Hose-A.B. valve to connector	14863 25601	HC10
Hose-connector to intake manifold front	14864 25601	HC10
Hose-connector to intake manifold rear	14865 25601	HC10
Hose-vacuum manifold	14866 25600	
Connector-air pump to check valve	14868 25600	
Connector-three way	14874 25600	
Connector-hose manifold	14875 25600	
Connector-vacuum manifold	14875 25605	
Cooling fan	21060 25600	Nylon fan 350 mm (13.78 in) diameter having seven blades

**DATSUN**

Water pump	21010 25600	With fan clutch, ON $62 \pm 3^{\circ}\text{C}$ , OFF $50 \pm 2.5^{\circ}\text{C}$
Thermal modulator	14890 25601	Same to GM's Buick and Olds (Part No. for GM 3014342), ON $104.4 \pm 1.7^{\circ}\text{C}$
Connector-fuel return	16111 25610	Operating fuel temperature $55^{\circ}\text{C}$
Ass'y-radiator	21400 26000	48CF 1.8CuR
Ass'y-shroud	21475 26000	
Outlet-water	11060 25600	Screwed in thermal modulator

# AIR POLLUTION CONTROL DEVICE

## SPL311-U

PART NAME	PART NO.	NOTE
Cylinder head	11042 14700	Machined for air injection nozzle
Manifold-intake	14003 14700	Machined for air injection nozzle
Manifold-exhaust	14060 14064	Having no relation with air pollution control, but owing to the unification of exhaust tube diameter to the SRL311-U
Ignition-distributor	22100 14700	Having the characteristic for air pollution controlled engine (D417-57)
Spark plug	22401 75500	BP-6E
Bracket-alternator	11710 25602	Owing to the movement of the alternator position
Bar adjusting-alternator	11715 14700	
Belt-fan	11720 25600	
Ass'y-air pump	14810 23000	ECP200
Ass'y-silencer air pump	14855 23000	Muffler type
Anti-backfire valve	14835 25600	Gulp type, operating time 1.6 sec/500 mmHg
Check valve	14830 23001	A.M.C. type
Bracket air pump	14840 25601	
Bar adjusting-air pump	14841 25601	
Bracket-air pump adjusting bar	21230 14700	
Pulley-air pump	14850 14700	
Bolt-air pump bracket	14842 25600	
Bolt-air pump	14815 23000	
Support-air pump	14843 25600	
Pipe-air gallery	14820 14700	
Nozzle-air injection	14825 14700	
Seat-air injection	14826 25600	
Air cleaner-air pump	14880 25600	
Belt-air pump	14853 25600	Periphery length = 735 mm (28.94 in)
Orifice-A.B. valve	14889 25600	6 mm (0.2362 in) diameter
Hose-air cleaner to air pump	14860 25601	HB21
Hose-air pump to check valve	14861 14701	HB21
Hose-three way	14869 14700	HB21
Hose-A.B. valve to connector	14863 14700	HC10
Hose-connector to intake manifold front	14864 14700	HC10
Hose-connector to intake manifold rear	14865 14700	HC10
Hose-vacuum manifold	14866 14700	
Connector-air pump to check valve	14868 25600	
Connector-three way	14875 25600	
Connector-hose manifold	14875 25600	
Connector-vacuum manifold	14875 25605	

**DATSUN**

Cooling fan	21060 25600	Nylon fan 350 mm (13.78 in) diameter with seven blades
Water pump	21000 14700	With fan clutch, ON $62 \pm 3^{\circ}\text{C}$ , OFF $50 \pm 2.5^{\circ}\text{C}$
Ass'y-radiator	21400 26000	48CF 1.8CuR
Ass'y-shroud	21475 26000	

