

# SERVICE MANUAL

# NISSAN PATROL

MODEL  
**60** SERIES



**NISSAN MOTOR CO., LTD.**  
TOKYO, JAPAN

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## NISSAN PATROL MODEL 60 SERIES



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## FOREWORD

The information in this Service Manual covers a brief description of construction, and through data on operation, care, specifications, and overhaul of the Nissan Patrol Model 60.

This Manual should be kept in a place handy for quick reference. Properly used, you will be able to better service Nissan Patrol, building an enviable reputation for outstanding service in your locality.

It is emphasised that only genuine Nissan Spare Parts should be used as replacements.

A "Service News Reference" memoranda space has been provided at the end of each section so you may note any additional service information received during the current period following publication of the Manual. Certain helpful service information will be given as "Service Bulletin" and "Service Journal".

# GENERAL

## 1. MAJOR SPECIFICATION

### MODEL

|                       |                        |
|-----------------------|------------------------|
| Model .....           | 80                     |
| Year .....            | 1960                   |
| Kind of vehicle ..... | 4-wheel-drive          |
| Name of vehicle ..... | Nissan Patrol          |
| Maker.....            | Nissan Motor Co., Ltd. |
| Location .....        | Yokohama, Japan        |

### CAR DIMENSIONS

|   |   |
|---|---|
| Overall length (approx. mm).....                    | 3770  |
| Overall width (approx. mm) .....                    | 1693  |
| Overall height (approx. mm) .....                   | 1980  |
| Wheel base (mm) .....                               | 2200  |
| Tread-Front (mm) .....                              | 1386  |
| -rear (mm) .....                                    | 1404  |
| Road clearance (mm) .....                           | 222   |
| Rear Floor height at rear end<br>(no load mm) ..... | 725   |
| Rear overhang (mm) .....                            | 730<br>(Rear axle center to rear end of body) |

### CAR WEIGHT

|   |        |
|---|--------|
| Weight of B chassis (kg) .....            | 1310   |
| Distribution - Front (kg) .....           | 814    |
| - Rear (kg) .....                         | 496    |
| Weight of vehicle (kg) .....              | 1565   |
| Distribution - Front (kg) .....           | 825    |
| - Rear (kg) .....                         | 740    |
| Height of gravitational center (mm) ..... | 640    |
| Maximum over turn angle                   |        |
| - Right (deg.) .....                      | 47°    |
| - Left (deg.) .....                       | 47°    |
| Maximum pay load (kg) .....               | 400 kg |
| Seating capacity                          |        |
| - with load (persons) .....               | 2      |
| - without load (persons) .....            | 6      |
| Gross vehicle weight with load (kg) ..... | 2075   |
| Distribution-Front (kg) .....             | 845    |
| -Rear (kg) .....                          | 1230   |

### PERFORMANCE

|                                     |      |
|-------------------------------------|------|
| Maximum speed (km/hr) .....         | 117  |
| Fuel consumption (km/ltr) .....     | 9.0  |
| (on paved road)                     |      |
| Grade ability (sin $\theta$ ) ..... | 0.6  |
| Minimum turning radius (m) .....    | 5.5  |
| Brake stopping distance (m) .....   | 14.0 |
| (at 50 km/hr)                       |      |

## ENGINE

|   |                                   |
|---|-----------------------------------|
| Model .....   | P                                 |
| Cylinder number and arrangement .....                       | 6 cylinder, in-line               |
| Cycle .....   | 4 cycle                           |
| Valve arrangement .....                                     | 1 type over head valve            |
| Bore x stroke (mm) .....                                    | 85.7 x 114.3 (3-3/8x4-1/2 ins)    |
| Total piston displacement (cc) .....                        | 3,956 (242 cu.ins.)               |
| Compression ratio .....                                     | 7:6                               |
| Max. power/rpm .....  | 145 hp/3800rpm.                   |
| Max. torque/rpm .....                                       | 235ft-lbs/2000 r.p.m.             |
| Length x width x height(mm)<br>(without transmission) ..... | (S.A.E.rating)<br>904 x 671 x 938 |
| Weight (kg) (without transmission)...                       | 295                               |
| Firing order .....  | 1-5-3-6-2-4                       |

## IGNITION SYSTEM

|                         |                             |
|-------------------------|-----------------------------|
| Ignition system .....   | 12V battery and coil        |
| Ignition timing .....   | 10deg. B.T.D.C.             |
| Ignition coil .....     | Hitachi CIZ-01              |
| Distributor .....       | Hitachi D617-01             |
| Automatic advance ..... | Centrifugal and vacuum type |
| Spark plugs .....       | NGK B-54E or B-6E (14 mm)   |
| Spark plug gap .....    | 0.6 - 0.7 mm                |

## FUEL SYSTEM

|                          |                           |
|--------------------------|---------------------------|
| Carburetor .....         | Hitachi VC-42-4A          |
| Fuel tank capacity ..... | 50 ltr (13 U.S gal)       |
| Fuel strainer .....      | Glass bowl type           |
| Fuel pump .....          | Mechanical diaphragm type |
| Air cleaner .....        | Oil bath type             |

## LUBRICATION SYSTEM

|                          |   |
|--------------------------|---|
| Lubrication method ..... | Pressure-feed and splash<br>lubrication |
| Oil pump .....           | Gear type                               |
| Oil filter .....         | Filter-paper, by-pass type              |
| Oil capacity .....       | 6.7 ltr (1.8 U.S gal)                   |

## COOLING SYSTEM

|                              |  |
|------------------------------|--|
| Cooling method .....         | Water-cooling, forced circula-<br>tion |
| Radiator .....               | Fin and tube, pressurised type         |
| Cooling water capacity ..... | 17.5 ltr. (4.6 U.S. gal)               |
| Water pump .....             | Centrifugal type, belt driven          |
| Thermostat .....             | Bellows type                           |

## BATTERY

|                         |                    |
|-------------------------|--------------------|
| Model .....             | 25MC               |
| Voltage .....           | 12 V               |
| Capacity .....          | 60 AH (20 hr rate) |
| Terminal grounded ..... | positive           |

## GENERATOR

Model ..... Hitachi G 115-11  
Generating system ..... Shunt winding  
Voltage ..... 12V  
Capacity ..... 200W  
Voltage-current regulator ..... Hitachi carbon-pile type

## STARTER MOTOR

Model ..... Hitachi  
Voltage and power ..... 12 V. 1.4 hp

## CLUTCH

Type ..... Dry single-plate type  
Operating system ..... Mechanical  
Facing Dimension (mm) ..... 275 x 175 - 3.5 mm

## TRANSMISSION

Type ..... Three forward speeds and one reverse, synchromesh on 2nd and top gear, water protect type

| Gear ratio                          | T/M                      | Aux. Trans. | Range     |
|-------------------------------------|--------------------------|-------------|-----------|
| 1st speed                           | 2.900:1                  | High        | Low       |
| 2nd "                               | 1.562:1                  | 1 : 1       | 2.264 : 1 |
| 3rd "                               | 1.000:1                  |             |           |
| Reverse                             | 3.015:1                  |             |           |
| Oil capacity Transmission           | 2 ltr. (0.52 U.S gal)    |             |           |
| Oil capacity Auxiliary transmission | 3.4 ltr. (0.90 U.S. gal) |             |           |

## PROPELLER SHAFT

Type ..... Steel bar and steel tube  
Universal joint ..... Spicer type

## REAR AXLE

Type ..... Semi-floating  
Gear ratio ..... 4.10 (41T:10T)  
Drive system ..... Hypoid bevel gear  
Oil capacity ..... 1.2 ltr. (0.32 U.S gal)

## STEERING SYSTEM

Gear mechanism ..... Worm and roller  
Gear ratio ..... 23.6:1  
Steering angle-inside ..... 28°  
-outside..... 25°32'

## FRONT AXLE

Type ..... Tracta joint type  
Toe-in ..... 3 - 4 mm  
Camber ..... 1°30'  
Caster ..... 1°30'  
Knuckle flange inclination..... 7°30'

## **BRAKE SYSTEM**

Type ..... Foot brake ..... Hydraulic, internal expansion  
2-shoes type.  
Drum dia ..... 11.5"  
Hand brake ..... Mechanical, external clamping  
type  
Drum dia ..... 5.9 in.

## **SPRING AND SHOCK ABSORBERS**

Front springs ..... Parallel semi-elliptic leaf  
springs  
Dimension and number of leaves ..... 1100 x 70 x 6.5mm-3  
1100 x 60 x 6.0mm-1  
Rear springs ..... Parallel semi-elliptic leaf  
springs  
Dimensions and number of leaves ..... 1300 x 70 x 7.5 mm - 5  
Shock absorbers  
Type ..... Telescopic, double acting  
front & rear.  
Stabilizer ..... Torsion bar type, front and  
rear

## **FRAME**

Type ..... Pressed steel box section  
ladder type all parts welded.

## **WHEELS**

Type ..... Steel disc

## **TIRES**

Type ..... - Front ..... 6.50-16-6P  
- Rear ..... 6.50-16-6P  
Max. load, long distance  
driving  
Air pressure ... Front ... 22 lbs/sq.in 24 lbs/sq.in.  
Rear .... 30 lbs/sq.in 36 lbs/sq.in.

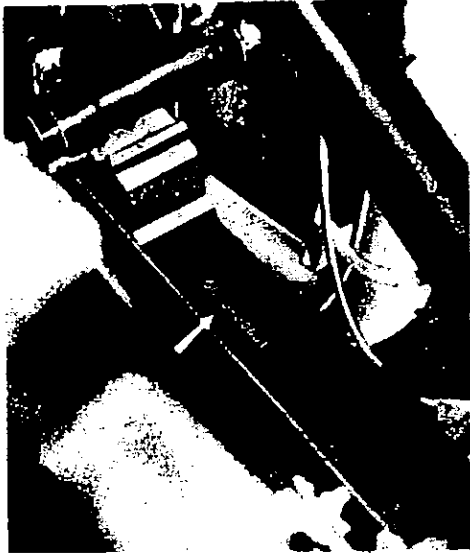
P.T.O-device (optional)... Power to front, center or rear

**CAUTION:** Refer to the paragraph "EXPLANATION OF DIFFERENCES  
BETWEEN MODEL 60 AND G60H"

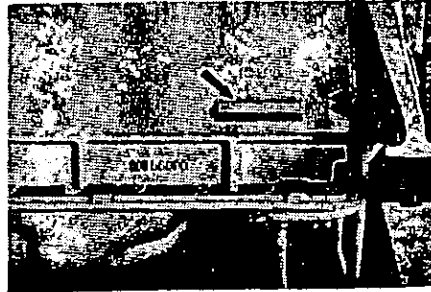
## 2. IDENTIFICATION NUMBER

The manufacturers chassis serial number is stamped on the right frame side member at the front end, and the engine serial number is stamped on the right side of the cylinder block, front lower corner.

Both of the above serial numbers are stamped on a name plate at engine room side of dash panel under hood.



Location of chassis serial number stamped



Location of engine serial number stamped

## 3. GENERAL LUBRICATION

### (3-1) UNIT CAPACITIES

|               |                           |
|---------------|---------------------------|
| Engine        | 6.7 ltr. (1.8 U.S. Gal.)  |
| Transmission  | 2.0 ltr. (0.52 U.S. Gal.) |
| Transfer case | 3.4 ltr. (0.90 U.S. Gal.) |
| Front axle    | 1.2 ltr. (0.31 U.S. Gal.) |
| Rear axle     | 1.2 ltr. (0.31 U.S. Gal.) |

The selection of the proper lubricant and its correct application at regular intervals does much to increase the life and operation of all moving parts of the vehicle. Consequently it is important that the correct grade of oil or grease, as noted in the following descriptions, be used.



## (3-2) ENGINE LUBRICATION

Proper selection of the oil to be used will add much to the performance, reliability, economy and long life of the engine.

### (A) OIL PRESSURE GAUGE

When starting a cold engine, it will be noted that the oil gauge on the instrument panel registers a high oil pressure. As the engine warms up, the pressure will drop until it reaches a point where changes to higher speeds will raise the pressure very little, if at all.

If the oil pressure registers abnormally high after the engine is thoroughly warmed up, an inspection should be made to ascertain if the oil lines and passages are "plugged" up.

### (B) LUBRICATION

The oil should be selected to give the best performance under the climatic and driving conditions, in the territory in which the vehicle is driven.

When the crankcase is drained and refilled, the oil should be selected, not on the basis of the existing temperature at the time of the change, but on the lowest or highest temperature anticipated for the period during the oil is to be used.

The grades best suited for use in an engine at the various temperatures are shown in the following table.

| Temperature  | Under 10°F<br>-12°C | 10°F—90°F<br>-12°C—32°C | Over 90°F<br>32°C |
|--------------|---------------------|-------------------------|-------------------|
| Grade of oil | SAE 10W<br>MS       | SAE 20W/20<br>MS        | SAE 30<br>MS      |

### (C) MAINTAINING OIL LEVEL

The oil level gauge is marked "MAX" and "MIN". The oil level should be maintained between these two lines; neither going above the "MAX" line nor under the "MIN." line.

Check the oil level frequently and add oil when necessary. Always be sure the crankcase is full before starting on a long drive.

### (D) WHEN TO CHANGE ENGINE OIL

Some oils have been greatly improved, driving conditions have changed, and improvements in engines have greatly lengthened the life of good lubricating oils. However, to insure continuation of best performance, low maintenance cost and long engine life, it is necessary to change the engine oil whenever it becomes contaminated with harmful foreign materials. Under normal driving conditions draining the

crankcase and replacing with fresh oil every 3,000 Km (2,000 Miles) is recommended. Under the adverse driving conditions described in the following paragraphs, it may become necessary to change the engine oil more frequently.

Driving over dusty roads or through dust storms introduces abrasive material into the engine. Carburetor Air Cleaners decrease the amount of dust that may enter the crankcase. The frequency of changing depends upon severity of dust conditions and no definite draining periods can be recommended.

Short runs in cold weather, such as city driving, do not permit thorough warming up of the engine and water may accumulate in the crankcase from condensation of moisture produced by the burning of gasoline. Water, in the crankcase, may freeze and interfere with proper oil circulation. It also promotes rusting and may cause clogging of oil screens and passages. Under normal driving conditions this water is removed in the form of vapor by the crankcase ventilator. But if water accumulates, due to short runs in cold weather, it should be removed by the changing the engine oil as frequently as may be required.

It is always advisable to drain the engine oil only after the engine has become thoroughly warmed up or reached normal operating temperature. The benefit of draining is, to large extent, lost if the crankcase is drained when the engine is cold, as some of the suspended foreign material will cling to the sides of the oil pan and will not drain out readily with the cold, slower moving oil.

#### **(E) CRANKCASE DILUTION**

A phase of engine oil deterioration, probably the most serious of all, is that of crankcase dilution.

By crankcase dilution, we mean a thinning of the oil due to certain portions of the gasoline leaking past the pistons and rings and mixing with the oil.

Leakage of gasoline, or gasoline vapors, into the oil reservoir mostly occurs during the "warming up" period when the gasoline is not thoroughly vaporized and burned.

#### **(F) AUTOMATIC CONTROL DEVICES TO MINIMIZE CRANKCASE DILUTION**

The Nissan Model "P" engine is equipped with automatic devices which aid greatly in minimizing the danger of crankcase dilution.

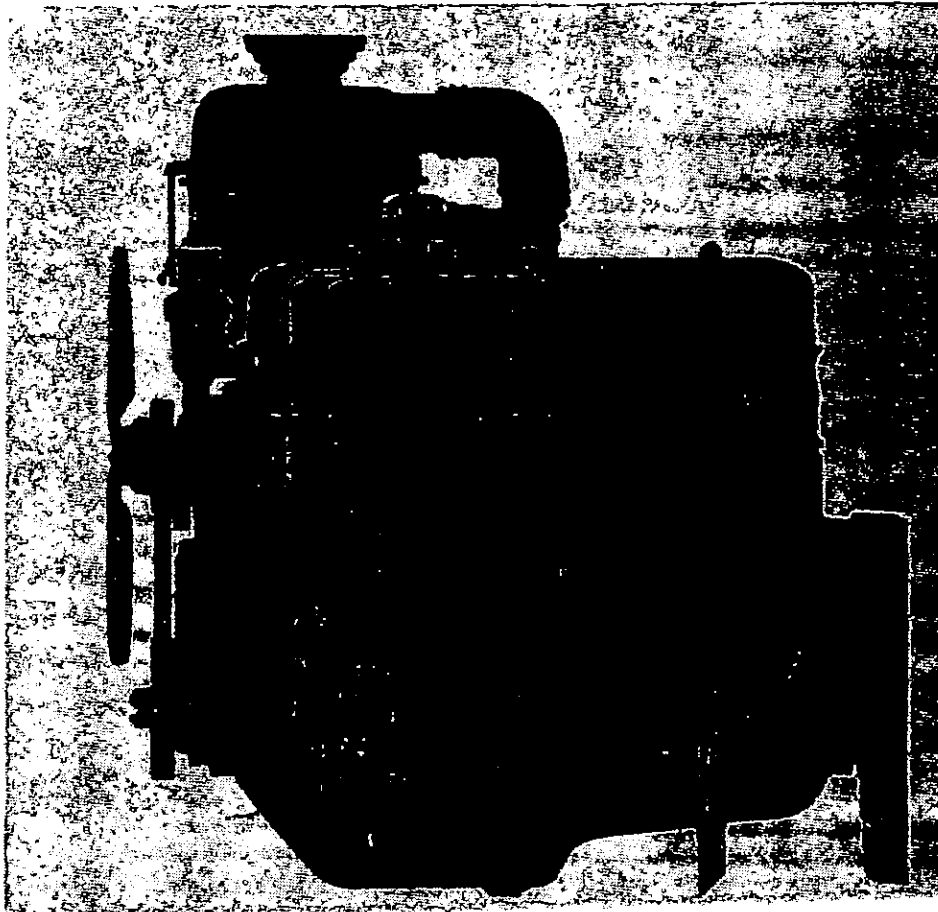
Rapid warming up of the engine is aided by the thermostatic water temperature control, which automatically prevents circulation of the

water in the cooling system until it reaches a pre-determined temperature.

Thermostatic heat control on the exhaust manifold which during the warming up period, automatically directs the hot exhaust gases against the center of the intake manifold, greatly aids the proper vaporization of the gasoline.

The down-draft carburetor is an aid to easy starting, thereby minimizing the use of the choke. Sparing use of the choke reduces danger of raw, or unvaporized, gasoline entering the combustion chamber and leaking into the oil pan or crankcase.

An efficient crankcase ventilating system drives off gasoline and other vapors and aids in the evaporation of the raw gasoline and water which may find its way into the oil pan or crankcase.



Crankcase Ventilation

## **(G) CONTROL BY OWNER UNDER NORMAL CONDITIONS**

Ordinarily the above automatic control devices will minimize, or eliminate, the danger of crankcase dilution.

However, there are abnormal conditions of service when the owner must aid in the control of crankcase dilution.

Short runs in cold weather, such as city driving, do not permit the thorough warming up of the engine nor the efficient operation of automatic control devices. It is recommended that the oil be changed more often when the car is subject to this type of operation.

The car should be kept in good mechanical condition. Poor mechanical condition of the engine, such as scored cylinders, poor ring fit, "sloppy" or loose pistons, faulty valves, poor ignition and incomplete combustion will increase dilution. A good grade of gasoline should be used. Poor gasoline which contain portions hard to ignite and slow to burn will increase crankcase dilution.

## **(H) WATER IN CRANKCASE**

Serious lubrication troubles may result in cold weather by an accumulation of water in the oil pan. This condition is, as a rule, little understood by the car owner. To demonstrate the chief cause of water in the oil pan, hold a piece of cold metal near the end of the exhaust pipe of the engine and note the rapid condensation and collection of drops of water on it. The exhaust gases are charged with water vapor and the moment these gases strike a cold surface, will condense, forming drops of water.

A slight amount of these gases passes the pistons and rings, even under the most favorable conditions, and causes the formation of water in the oil pan, in a greater or less degree, until the engine becomes warm. When the engine becomes thoroughly warm, the crankcase and oil pan will longer act as a condenser and all of these gases will pass out through the crankcase ventilator system.

Short runs in cold weather, such as city driving, will aggravate this water-forming condition.

## **(I) CORROSION**

Practically all present-day gasolines contain a small amount of sulphur which, in the state in which it is found, is harmless; but this sulphur on burning, forms certain gases, a small portion of which is likely to leak past the pistons and rings and reacting with water, when present in the oil pan, form very corrosive acids. The more sulphur in the gasoline, the greater the danger from this

type of corrosion. This is a condition which can not wholly be avoided, but it may be reduced to a minimum by proper care of the engine.

As long as the gases and the internal walls of the crankcase are hot enough to keep water vapor from condensing, no harm will result; but when an engine is run in low temperatures, moisture will collect and unite with the gases formed by combustion: thus, acid will be formed and is likely to cause serious etching or pitting. This etching, pitting or corrosion, when using gasoline containing considerable sulphur, manifests itself in excessively rapid wear on piston pins, camshaft bearings and other moving parts of the engine, oftentimes causing the owner to blame the car manufacturer or lubricating oil when in reality the trouble may be traced back to the character of gasoline used, or the condition of the engine, such as excessive blowbys or improper carburetor adjustment.

#### **(J) WATER PUMP LUBRICATION**

Every 600 Km (or 400 miles), supply water pump grease to the bearing. But remember that lubrication to this part should be rather moderate than to other parts. Otherwise, the drain hole for the leaked cooling water will be clogged. That is why it is requested keenly to lubricate water pump periodically.

Wipe off the excessive grease around the nipple to avoid slip of the fan belt.

#### **(K) STARTING MOTOR AND GENERATOR LUBRICATION**

Every 600 Km (or 400 miles), lubricate the starting motor and generator by putting a few drops of light oil, or engine oil, in the oil cup.

#### **(L) CLUTCH RELEASE BEARING LUBRICATION**

The clutch release bearing is of the thrust ball bearing type and is lubricated at the time of manufacture. The bearing requires no further lubrication.

#### **(M) DISTRIBUTOR LUBRICATION**

The ignition distributor is equipped with a grease cup. Fill this cup with chassis lubricant, or equivalent soft, smooth grease and turn one or two turns down every 600 Km (or 400 miles).

To lubricate the rotor and the cam surface; apply one or two drops of light machine oil on the felt under the rotor, and also on the cam surface lubricate with cup grease which should not be over-saturated.

### (3-3) FRONT AXLE, REAR AXLE AND TRANSMISSION LUBRICATION

#### (A) LUBRICANTS FOR AXLES AND TRANSMISSION

The axles and transmission, as delivered from the factory, are filled with SAE MP90 as the "Year-around" lubricant.

However, when extremely low temperatures are encountered for long periods of time during winter months, SAE MP80 grade may be used.

And also, during the summer months, or when the weather is extremely warm or the vehicle is the subject to other severe working conditions, a heavier grade of lubricant, such as SAE MP140, may be used in axles and transmission.

The following table shows the recommended oil grade in different temperature.

| Temperature | Under 10°F<br>-12°C | 10 F — 90°F<br>-12 C — 32°C | Over 90°F<br>32°C |
|-------------|---------------------|-----------------------------|-------------------|
| Gear oil    | SAE 80<br>MP        | SAE 90<br>MP                | SAE 140<br>MP     |

"MP" - multi purpose

#### (B) LUBRICANT ADDITIONS

The lubricant level in the axle and transmission case should be checked periodically.

It is recommended that any additions required to bring up the lubricant level, be made using the same type lubricant as in the housing or case.

The level of the lubricant under normal temperature should be just to the bottom of the filler plug opening.

#### (C) LUBRICANT CHANGES

While seasonal changes of the lubricant are not required, it is recommended that the housing and case be drained and refilled with the recommended lubricant at least twice a year, or every 10,000 Km (or 6,000 miles).

It may be necessary and desirable to drain axles and transmission in the vehicles in subject to severe service more frequently than recommended above.

**CAUTION:** Use a light flushing oil to flush out the housings when draining. Do not use water, steam, kerosene, gasoline, alcohol, ETC.

### **(3-4) UNIVERSAL JOINT LUBRICATION**

The universal joint of front and rear propeller shaft is of the needle bearing type equipped with the lubrication fittings and should be lubricated with chassis grease recommended in the table which is shown at the end of this information.

The lubrication should be done every 600 Km (or 400 miles).

### **(3-5) FRONT WHEEL LUBRICATION**

It is necessary to remove the wheels and drive flanges to lubricate the ball bearings which is used on front axle.

The bearing assemblies should be cleaned, and the bearing ball retainer packed with a high melting point front wheel bearing grease recommended in the following table.

In mounting the front wheels, great care must be taken to properly adjust the bearings, an operation that requires mechanical skill, which is described in the Front Axle Section.

The lubrication to the front wheel bearing is required at least twice a year, or every 10,000 Km (or 6,000 miles).

### **(3-6) REAR WHEEL LUBRICATION**

It is requested to remove rear axle shaft and hub to lubricate the rear wheel bearings.

In mounting the rear axle, great care should be taken to properly treat the oil seals. The lips of oil seal should be coated with bearing grease.

The bearing should be lubricated at least twice a year, or 10,000 Km (or 6,000 miles) with a high melting point bearing grease recommended in the following table.

### **(3-7) SPRING SHACKLES**

The spring shackles on Nissan Patrol are equipped with lubrication fittings, and should be lubricated with the chassis grease recommended in following table, every 600 Km (or 400 miles).

On the front eye of front and rear spring, rubber bushings must not be lubricated or sprayed with oil.

### **(3-8) STEERING GEAR LUBRICATION**

The steering gear is filled at the factory with a all-season lubricant. Seasonal change of this lubricant is unnecessary and the housing should not be drained. Whenever required, additions should be made using a lubricant which, at low temperature, is fluid and will not "channel" or cause "hard steering" and which will provide satisfactory lubrication under extreme summer conditions.

It is recommended that the same grade of gear oil which is used on axles and transmission, should be used on steering gear. (according to the temperature)

### **(3-9) BRAKE AND CLUTCH PEDAL LUBRICATION**

The pedals should be lubricated with a few drops of light motor oil, every 1,000 Km (or 600 miles)

### **(3-10) CHASSIS LUBRICATION**

For the chassis lubrication, consult the lubrication instruction. That shows the points to be lubricated and how often the lubricant should be supplied.

The recommended lubricants are shown in the following tables.



## RECOMMENDED LUBRICANTS

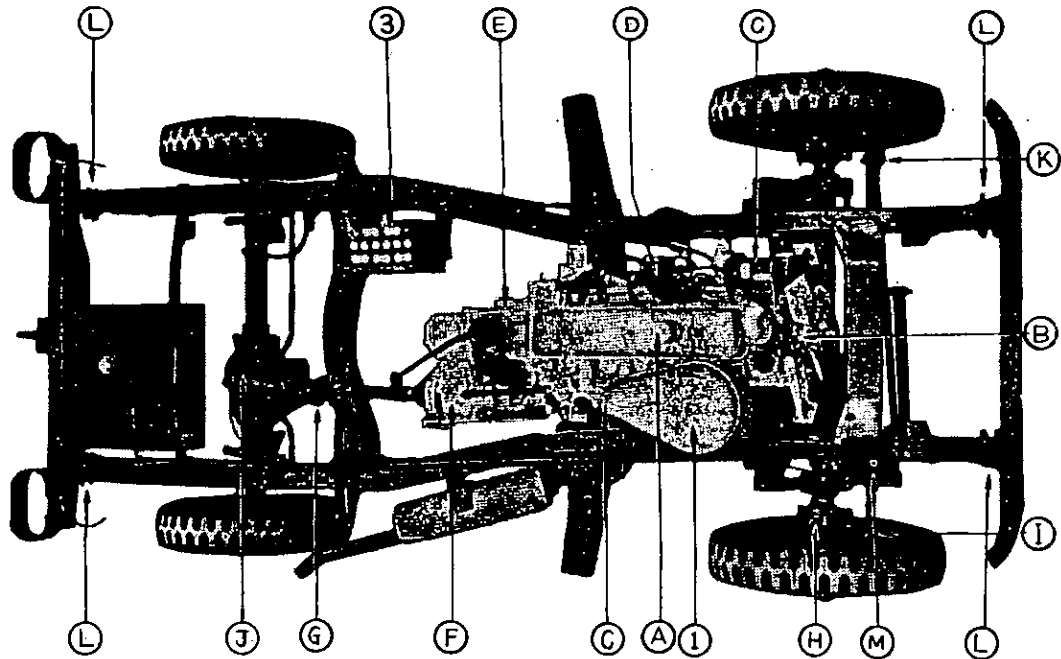
| Recommended<br>Lub. Oil<br>Classification | Nippon<br>Oil                    | Standard<br>Vacuum<br>Oil             | Shell<br>Oil                     | Castrol                      | Gulf<br>Oil                       | California<br>Standard<br>Oil |
|---|----------------------------------|---------------------------------------|----------------------------------|------------------------------|-----------------------------------|-------------------------------|
| Engine<br>oil                             | Elephant<br>Motor<br>Oil         | Mobile Oil<br>or<br>Mobile<br>Special | Shellx<br>100<br>Multi-<br>grade | Castrolite                   | Gulf<br>Price HD                  | R.P.M.<br>Motor Oil<br>H P    |
| Gear Oil                                  | MP 90                            | Mobilube<br>G x 90                    | Spirax<br>90 E P                 | Castrol<br>Hypoy             | Multipur-<br>pos Gear-<br>lube 90 | Universal<br>Gearlube<br>90   |
| Chassis<br>Grease                         | Chassis<br>Grease<br>No.0        | Mobile<br>Grease<br>No.2              | Retinax<br>A or C                | Castro-<br>lease<br>Cl       | Gulflex<br>A                      | Marfak<br>No.0 or 1           |
| Universal<br>Joint<br>Grease              | Chassis<br>Grease<br>No.0        | Mobile<br>Grease<br>MP                | Retinax<br>A or C                | Castro-<br>lease<br>Unijoint | Gulflex<br>A                      | Marfak<br>No.0 or 1           |
| Wheel Bearing<br>Grease                   | Wheel<br>bear.<br>Grease<br>No.2 | Mobile<br>Grease<br>No.5              | Retinax<br>H                     | Castro-<br>lease<br>Heavy    | Gulflex<br>A                      | Marfak<br>No.2 HD             |

Oil Viscosity which is recommended for various temperature

| Temperature | F | Under 10°     | 10----90°        | Over 90°      |
|-------------|---|---------------|------------------|---------------|
|             | C | Under -12°    | -12----32°       | Over 32°      |
| Engine oil  |   | SAE 10W<br>MS | SAE 20W/20<br>MS | SAE 30<br>MS  |
| Gear oil    |   | SAE 80<br>MP  | SAE 90<br>MP     | SAE 140<br>MP |

**REMARKS:** MS - Motor Service  
MP - Multi Purpose

## LUBRICATION INSTRUCTION (CHASSIS)



|   | Description   | Lubricant         | every  | every    | every    | every     |
|---|---|-------------------|--------|----------|----------|-----------|
|   |   |                   | 600 Km | 1,500 Km | 3,000 Km | 10,000 Km |
| Lubrication                             | A Engine oil (drain and refill 6.7 ltr).....                                  | motor oil         |        |          |          |           |
|   | B Water pump bearings (lubricate slight) .....                                | Water pump grease | ○      |          |          |           |
|   | C Starter motor, Generator (feed 2-3 drops of oil).....                       | motor oil         | ○      |          |          |           |
|   | D Distributer (lubricate shaft) .....   | — + —             | ○      |          |          |           |
|   | Clutch and brake pedal (lubricate) .....                                      | light motor oil   |        |          |          |           |
|   | Clutch release yoke shaft (lubricate) .....                                   | chassis grease    |        | ○        |          |           |
|   | E Transmission (drain and refill 2 ltr) .....                                 | gear oil          |        |          |          |           |
|   | F Transfer ( 3.4 ltr).....  | — + —             |        |          |          |           |
|   | G Propeller shaft (lubricate joints) .....                                    | chassis grease    | ○      |          |          |           |
|   | H Knuckle flange bearing (lubricate) .....                                    | bearing grease    | ○      |          |          |           |
|   | I Tie rod (lubricate end of rod) .....  | chassis grease    | ○      |          |          |           |
|   | J Front and rear axle differential case (drain and refill 1.2 ltr each) ..... | gear oil          |        |          |          | ○         |
|   | K Drag link (lubricate joint) .....   | chassis grease    | ○      |          |          |           |
| L Spring shackle .....                  | — + —   | ○                 |        |          |          |           |
| M Steering gear box (check level) ..... | gear oil  | ○                 |        |          |          |           |
| Fluid                                   | 1 Air cleaner (drain and refill) .....  | motor oil         |        |          | ○        |           |
|   | 2 Radiator (clean) .....  |                   |        | ○        |          |           |
|   | 3 Battery (check and top up) .....  | distilled water   | ○      |          |          |           |

**CAUTION:** The air cleaner used under dusty condition, must be drained and refilled more often than above-mentioned.

### SERVICE NEWS REFERENCE

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## EXPLANATION OF DIFFERENCES BETWEEN VARIOUS MODELS OF 60 SERIES

### 1. EXPLANATION OF MODEL NUMBERS

This manual is described based upon the construction of model 60 which is the standard model of 60 series. However, there are many variations in model 60 series, and it is essential to understand that the model itself, the meaning of model numbers, and the differences between these various models, in order to give proper service to the vehicle, and to give the proper order of spare parts. The following table will give you the rough idia as to these questions.

| Model No. | Description   |
|-----------|---|
| 60        | Standard model<br>wheel base: 2,200 mm<br>carrying capacity: 2 persons + 400 Kg<br>Four wheel drive |
| G60       | Long wheel base: 2,500 mm<br>carrying capacity: 2 persons + 400 Kg<br>Four wheel drive              |
| G60H      | Long wheel base: 2,500 mm<br>Carrying capacity: 2 persons + 750 Kg<br>Four wheel drive              |
| N60       | Short wheel base: 2,200 mm<br>Carrying capacity: 2 persons + 400 Kg<br>Two wheel drive              |

If the vehicle is of the left hand drive type, its model number must have "L" on the head of the model number, such as L60, LH60, LG60H and LN60.

Another letters on the head of model numbers, such as "D", "W", "V", "K" and "F", indicate the type of body. "D" means the seat arrangement is different from the standard one. "W" means the station wagon type. "V" means the delivery van type. "K" means the hard top model. "F" means the fire engine model.