

DATSUN

1961-67 Sedan and Wagon;
1963-70 Sports Car; 1963-71 Pick-Up Truck



TUNE-UP AND WHEEL ALIGNMENT

DNI-1 CYLINDER NUMBERING SEQUENCE



1961-early 1966

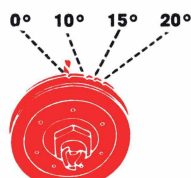


Late 1966-70
except L16 eng.

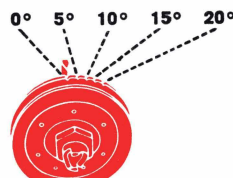


1970-71 L16 eng.

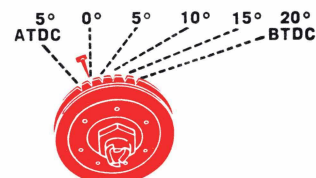
FIRING ORDER: 1 3 4 2



Early model
four-notch pulley



Late model
five-notch pulley
except L16 eng.



1970-71 L16 eng.

ENGINE IDENTIFICATION

Code Location: Prefix to engine number located on upper right side of engine block and on left front inner fender well.

Engine Code										Engine	Horse-power
PL310	PL	PL	PL	SPL310	SRL311	L320	L520	L521			
PL312	WPL-410	WPL-411	WRL-411	SPL311							
E	E1					E1	J		4	1189cc 1V	48
		J							4	1189cc 2V	60
				G					4	1299cc 2V	67
				R					4	1488cc 1V	77
									4	1488cc 2/1V	85
									4	1595cc 2/1V	96
									4	1982cc 2/1V	135
									4	1982cc 2/2V	150
									4	1595cc 2V	96

BATTERY

1961-early 1965: Positive ground
Late 1965-71: Negative ground

	AABM Group No.	Ampere Hours
1961-67	24	40
Optional	24	60
1968-71	24	50

COMPRESSION PRESSURE

(at cranking speed, engine warm, throttle open)

	psi	Maximum Variation
1889, 1299 eng.	165	10
1488, 1595 (R) eng.	182	10
1595 (L-16) eng.	171	10
1982 eng.	166	10

IGNITION SYSTEM

SPARK PLUGS

	Champion	NGK
U-20, L16 eng.	—	BP6ES
Others	N-9Y	B-6E *

* High-speed driving, B-7E.

Gap: 1595 (L-16) eng. .031"-.035"; others .028"-.032"

Torque: All except with L16 eng., 15-22 ft. lb.
L16 eng., 11-15 ft. lb.

IGNITION POINTS

	Gap (inches)	Dwell (degrees)	Max. Dwell Variation (degrees @ rpm)	Spring Tension (ounces)
Hitachi				
All	.018-.022 *	49-55 *	—	18-23

* 1970-71 L521 with L16 eng., data is for each set of points.

CONDENSER

Hitachi Capacity: 1970-71 L16 eng. retard point condenser, .05 mfd, others, .20-.24 mfd

COIL

Hanshin, Nippon Denso

	Current Draw (amperes)
Engine stopped, points closed 3.5	Engine idling: 1970-71 L16 eng., 2.5; others, 2.15

TIMING PROCEDURE

1. Disconnect distributor vacuum line and tape manifold opening.
2. Set octane selector to 0° on the scale.
3. Connect timing light to No. 1 spark plug.
4. Operate engine at recommended rpm for timing setting.
5. Observe timing at crankshaft pulley and turn distributor to obtain recommended setting.
6. Reconnect vacuum line and reset to proper final idle speed.

TIMING SETTING

(Before Top Dead Center unless otherwise specified)

Engine	1961-67	1963-67	1968-70	1970-71
Man. Trans.	15°	17°	0°	10°
Auto. Trans.	15°	17°	—	—

♦ @ 600-620 rpm. ■ @ 700 rpm.

WHEEL ALIGNMENT

	Caster (degrees)	Camber (degrees)	Toe-In (inches)	Toe-Out on Turns (degrees)	Steering Axis Inclination (degrees @ degree camber)
1961-70 PL310, -311, -312; SPL310, -311; SRL311 sports car					
Low			3/4		
Ideal	+ 1 1/2	+ 1 1/2	1/8	28 1/3	36 1/4
High					6 3/4 @ 1 1/2
1963-71 L320, -520, -521 pick-up					
Low			3/4		
Ideal	+ 1 1/2	+ 1 1/4	1/8	31	36
High					6 1/4 @ 1 1/4
1964-67 PL, WPL410, -411; RL, WRL411					
Low			1/8		
Ideal	+ 1 1/2	+ 1 1/2	1/8	28 3/5	36
High	1/4				6 1/4 @ 1 3/4

FUEL SYSTEM

FUEL PUMP

Nissan, Showa, Kyosan Nikki

Pressure: All except 1970-71 L16 eng. and U-20, 2.3-2.7 lb.; 1970-71 L16 eng., 2.5-3.5 lb. U-20 eng., 3 1/2-4 1/2 lb. All @ idle rpm

Volume: 1 quart minimum per minute @ idle rpm except 1970-71 L16 eng. @ 1000 rpm

CARBURETOR ADJUSTMENT

	Idle Mixture (initial turns)
Hitachi (S.U.) 2/1V	2-3
Hitachi 2V	*
Mikuni (Solex) 2/2V	1 1/2
Nikki 2V	1 1/2

* CO level at idle speed. 1968-69, 1.8-2.4% w/pump connected (if equipped); 1970-71, 2.0-4.0% w/pump disconnected.

ENGINE IDLE SPEED

	Man. Trans.	Auto. Trans.
1189, 1299 eng.	600	—
1488 eng.	650-700	—
1595 (R) eng.	750	650 D
1595 (L16) eng.	700 *	—
1982 eng.	700	—

* Set engine idle rpm and mixture for best idle (smoothest idle) at 750 rpm. Turn mixture screw clockwise until 700 rpm is obtained.

CHARGING SYSTEM

BELT TENSION

A belt in operation for 20 minutes is considered a used belt.

Deflection method: Fractions of an inch of deflection at midpoint of belt segment under thumb pressure.

	Generator	Air Pump
Used and New	1/2	1/2

GENERATOR

Output (amperes @ — rpm)	Field Current Draw (amperes @ — V)	Cutout Relay Closing (volts)	Cutout Relay Opening (reverse amperes)	Current Regulator (amperes)
20	—	12.7-13.3	4	20

GENERATOR REGULATOR

	Voltage Limiter Setting (volts)
Ambient Air Temperature °F.	70
Voltage	15.0-16.0

ALTERNATOR

	Output (amperes @ 2500 rpm)	Field Current Draw (amperes @ 12.0 V)
1970-71	30 *	2.0
Others	24.5 *	2.0

* Special test connections required when making full output test.

ALTERNATOR REGULATOR

	Voltage Limiter Setting (volts)
Ambient Air Temperature °F.	70
Voltage: 1970-71	13.5-14.5
Others	14.0-15.0
Field Relay Closing (volts)	4.0-5.0

VALVE CLEARANCES

(engine hot, not running)

	Intake (inches)	Exhaust (inches)
1189, 1299 eng.	.014	.014
1488, 1595 (R) eng.	.017	.017
1595 (L16) eng.	.010	.012
1982 eng.	.008	.012

TIRE PRESSURE

	NORMAL LOAD		HIGH SPEEDS	
	Front	Rear	Front	Rear
5.60-13: PL310, -311, -312	22	24	28	28
PL, WPL410, -411; RL, WRL411	22	22	26	26
5.60-13, 5.60-14 SPL310, -311; SRL311	21	21	21 **	21 **
6.00-14 6-ply L320, -520, -521	24	30-36 *	—	—

* Full load, increase rear pressure up to 60-pound maximum.

** Various pressures recommended for speeds above 95 mph. Consult individual owner's manuals or tire manufacturers.

DATSUN

1961-67 Sedan and Wagon;
1963-70 Sports Car; 1963-71 Pick-Up Truck

1963-70
SPL310, -311; SRL311

1962-63
PL310, -311, -312

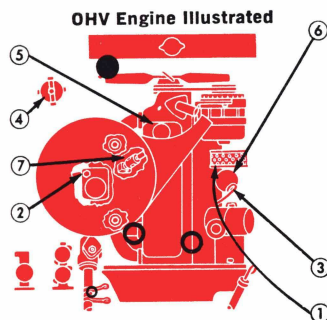
1961
PL310, -311

SERVICE AT TIME OR MILEAGE — WHICHEVER COMES FIRST

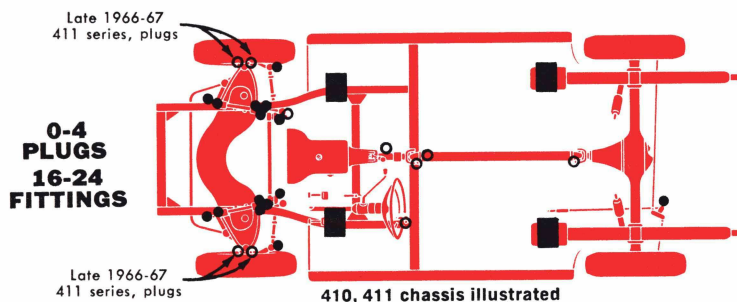
DNI-1A

HOOD RELEASE: Inside

DNI-1A



- ① Air injection pump filter
- ② Carburetor fuel inlet screen
- ③ Crankcase dipstick
- ④ Fuel filter and sediment bowl
- ⑤ Oil fill cap
- ⑥ Oil filter
- ⑦ PCV valve
1970-71 L521, valve located rear of carburetor



**0-4 PLUGS
16-24 FITTINGS**



- Lift adapter position
- Fitting
- Fitting, some models

- Cooling system drain
- Cooling system drain, some models

EVERY 3,000 MILES

Crankcasechange oil
For long engine life, **TEXACO** recommends **AT LEAST EVERY 3 months or 3,000 miles**
Differentialcheck level
Front suspension and steering linkage **18 fittings MG**
1970-71 L521
Transmission, manualcheck level
1961-63 models, dipstick on top
Brake and clutch master cylinders... **HB**
Check level, remove cap, do not check externally thru plastic reservoir
Carburetor dashpots **10W MO**
Some models only
Exhaust emissioncheck
Check and adjust, as required: Idle speed, fuel mixture, ignition timing, spark plugs, distributor dwell and points. Models with air injection system, check air pump belt tension
Oil fill capclean and oil **MO**
Late models, sealed cap, no service
Transmission, automaticcheck level
Fluid warm, engine idling, in **PARK**

EVERY 6,000 MILES

Clutch and brake pedals**MO**
Front suspension and steering linkage... **18-19 fittings MG**
All except 1970-71 L521
Gearshift lever pivot**MO**
Models with floor shift. Lift rubber boot
Hand brake balance lever **fitting MG**
Also lubricate all pivots and guides with **MG**
Hand brake cable **fitting MG**
On models with dash-mounted handle
Tiresrotate
Universal joints 1961-65... **2 fittings MG**
Air cleaner paper elementclean
Air cleaner polyurethane element **20-20W,30 MO**
Clean and reoil
Air injection pump filterclean
1968-70 SPL311, SRL311
Carburetor fuel inlet screenclean
Twin carburetor models, 2 screens
Fuel filter and sediment bowl...inspect
1961-67 models
Gearshift levers **fitting MG**
1961-63 models with column shift
Oil filterreplace
Starter motor**MO**
PL310, -311, -312 only
Steering gearcheck level **90 GX**

EVERY 12 MONTHS OR 12,000 MILES

Front suspension ball joints **4 plugs MG**
Late 1966-67 411 series
Front wheel bearings .clean & repack **MG**
With hub spinning, torque 20-30 ft. lb.; back-off adjusting nut 1/4 turn. Desired end play, .000"-.003"
Transmission, automatic...change fluid

EVERY 12,000 MILES

Air injection pump filterservice
Replace filter on 1968-70 SPL311, SRL311
All models, check condition and operation of emission control equipment
Brake systemchange fluid
RL411, WRL411 only
Distributor
Cam bearing under rotor**MO**
Advance mechanism**MO**
Lubricate thru hole around cam
Enginemajor tune-up
PCV valve 1968-71...inspect and clean
Also inspect and clean hoses
1970-71 L521, valve located rear of carburetor

EVERY 24 MONTHS OR 24,000 MILES

Cooling systemchange coolant **EC**
CAPACITY, quarts with heater SPL310, 6 3/4; SPL311, 8 3/4; SRL311, 9; RL411, 7; 1970-71 L521, 7 1/4; others, 5 3/4
Pressure, 4-6 pounds except 1970-71 L521, 13 pounds

EVERY 24,000 MILES

Air cleaner elementreplace
Fuel filter assemblyreplace
1968-71 models
Speedometer cablecoat **MG**

EVERY 30,000 MILES

Differentialchange lubricant
Transmission, manual...change lubricant
Universal joints 1966-71....repack **MG**

SERVICE AS REQUIRED

Batterycheck level



KEY TO LUBRICANTS

- AF** Texaco Texamatic Fluid
- EC** Texaco Anti-Freeze Coolant
Mix with water to desired freeze protection
- GX** Texaco Multigear Lubricant EP
- HB** Texaco Super Heavy Duty Motor Vehicle Brake Fluid except Disc brakes: Use Special Disc Brake Fluid
- MG** Texaco Marfak All Purpose
- MO** Havoline Super Premium, Havoline or Texaco Motor Oil
- SD** Havoline Super Premium or Havoline Motor Oil

COOLING SYSTEM

For maximum protection, Texaco recommends coolant change every 12 months after initial drain

CRANKCASE.....3 1/4 quarts SD
except SPL310, -311, RL411, **4 quarts;**
SRL311 with S.U.-type carburetors **4 quarts;**
with Solex (Mikuni) carburetors **7 1/2 quarts;**
1970-71 L521 (pick-up truck), **4 1/4 quarts**
Add extra 1/2 quart oil when replacing oil filter except 1970-71 L521, add extra 3/4 quart

Above +90°.....	30,40,10W-40,20W-50
Above +10° to +90°	20-20W,30,10W-40,20W-50
Below +10°.....	10W,20-20W,5W-30,10W-40,20W-50

TRANSMISSION, Automatic.....AF

CAPACITY, quarts	Initial Refill	Total Refill
All models.....	2	approx. 2 1/2

To drain, remove 1 oil pan drain plug

TRANSMISSION, Manual.....GX

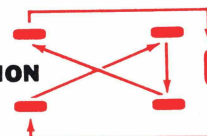
Above +90°, 140; +10° to +90°, 90; below +10°, 80
CAPACITY, pints SRL311, 5 1/2; others: floor shift 4.6; column shift, 3.6

DIFFERENTIAL.....GX

Above +90°, 140; +10° to +90°, 90; below +10°, 80
CAPACITY 2 pints

GAS TANK.....gallons

PL310, -311, -312.....	8
PL410, -411; RL411.....	10 3/4
SPL310, -311; SRL311.....	11 3/4
L320.....	9 1/4
L520, -521.....	10 3/4



TIRE ROTATION

BRAKES

SPL-, SRL311; RL411: Self-adjusting disc brakes on front. Replace pads when lining is worn to 3/16" thickness. SPL-, SRL311 only, interchanging inner and outer pads approximately every 3,000 miles is permitted. Adjust rear brakes as shown below

Before adjusting brakes, make sure parking brake is completely released. Adjust brakes as follows:
Front drum brakes, 1964-71: Two hex-head adjusters are provided on each front backing plate

- 1 Turn one adjuster until drum is locked and cannot be turned by hand
 - 2 Back off adjuster until drum turns freely without drag
 - 3 Repeat steps 1 and 2 for second adjuster
 - 4 Repeat procedure at other front brake
- Front drum brakes, 1961-63: One adjustment opening is provided on each front backing plate
- 1 Using a suitable tool, turn star wheel adjuster to expand shoes until drum is locked
 - 2 Back off adjuster 12 notches
 - 3 Repeat steps 1 and 2 at other front brake
- Rear brakes, 1961-71: One square-head adjuster on each rear backing plate
- 1 Turn adjuster until a slight drag is felt when revolving drum
 - 2 Back off adjuster 1 click. Drum must turn freely without drag
 - 3 Repeat steps 1 and 2 at other rear brake
- Bleeding sequence: 311, 410, 411 series, bleed master cylinder valves first, then wheels **LR, RR, RF, LF**