

*Mike*



1981

# DATSUN 280ZX

SERVICE MANUAL



# DATSUN 280ZX

## Model S130 Series

### FOREWORD

This service manual has been prepared primarily for the purpose of assisting service personnel in providing effective service and maintenance of the 1981 DATSUN 280ZX.

This manual includes procedures for maintenance, adjustments, removal and installation, disassembly and assembly of components, and trouble-shooting.

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication. If your DATSUN model differs from the specifications contained in this manual, consult your NISSAN/DATSUN dealer for information.

The right is reserved to make changes in specifications and methods at any time without notice.

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# HOW TO USE THIS MANUAL

- ▶ This Service Manual is designed as a guide for servicing cars.
- ▶ This manual is divided into **19** sections. The first half of the manual presents sections which concern the engine, and the second half presents sections which deal with the chassis and body.
- ▶ A **QUICK REFERENCE INDEX** is provided on the first page. Refer to this index along with the index of the particular section you wish to consult.
- ▶ The first page of each section lists the contents and gives the page numbers for the respective topics.
- ▶ **SERVICE DATA AND SPECIFICATIONS** are contained in each section.
- ▶ **TROUBLE DIAGNOSES AND CORRECTIONS** are also included in each section. This feature of the manual lists the likely causes of trouble and recommends the appropriate corrective actions to be taken.
- ▶ A list of **SPECIAL SERVICE TOOLS** is included in each section. The special service tools are designed to assist you in performing repair safely, accurately and quickly. For information concerning how to obtain special service tools, write to the following address:
  - Kent-Moore Corporation  
29784 Little Mack  
Roseville, Michigan 48066
  - Kent-Moore of Canada, Ltd.  
2395 Cawthra  
Mississauga, Ontario  
Canada L5A 3P2
- ▶ The measurements given in this manual are primarily expressed with the SI unit (International System of Unit), and alternately expressed in the metric system and in the yard/pound system.
- ▶ The back cover of the manual provides maintenance data for quick reference.
- ▶ In the text, the following abbreviations are used:

S.D.S.:	Service Data and Specifications	L.H., R.H.:	Left Hand, Right Hand
(T):	Tightening Torque	M/T, A/T:	Manual Transmission, Automatic Transmission
- ▶ The captions **CAUTION** and **WARNING** warn you of steps that must be followed to prevent personal injury and/or damage to some part of the car.



# IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the mechanic and the efficient functioning of the car.

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately.

Special service tools have been designed to permit safe and proper performance of service. Be sure to use them.

Service varies with the procedures used, the skills of the mechanic and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first completely satisfy himself that neither his safety nor the car's safety will be jeopardized by the service method selected.

## INCH TO METRIC CONVERSION TABLE

(Rounded-off for automotive use)

inches	mm	inches	mm
.100	2.54	.610	15.49
.110	2.79	.620	15.75
.120	3.05	.630	16.00
.130	3.30	.640	16.26
.140	3.56	.650	16.51
.150	3.81	.660	16.76
.160	4.06	.670	17.02
.170	4.32	.680	17.27
.180	4.57	.690	17.53
.190	4.83	.700	17.78
.200	5.08	.710	18.03
.210	5.33	.720	18.29
.220	5.59	.730	18.54
.230	5.84	.740	18.80
.240	6.10	.750	19.05
.250	6.35	.760	19.30
.260	6.60	.770	19.56
.270	6.86	.780	19.81
.280	7.11	.790	20.07
.290	7.37	.800	20.32
.300	7.62	.810	20.57
.310	7.87	.820	20.83
.320	8.13	.830	21.08
.330	8.38	.840	21.34
.340	8.64	.850	21.59
.350	8.89	.860	21.84
.360	9.14	.870	22.10
.370	9.40	.880	22.35
.380	9.65	.890	22.61
.390	9.91	.900	22.86
.400	10.16	.910	23.11
.410	10.41	.920	23.37
.420	10.67	.930	23.62
.430	10.92	.940	23.88
.440	11.18	.950	24.11
.450	11.43	.960	24.38
.460	11.68	.970	24.64
.470	11.94	.980	24.89
.480	12.19	.990	25.15
.490	12.45	1.000	25.40
.500	12.70	2.000	50.80
.510	12.95	3.000	76.20
.520	13.21	4.000	101.60
.530	13.46	5.000	127.00
.540	13.72	6.000	152.40
.550	13.97	7.000	177.80
.560	14.22	8.000	203.20
.570	14.48	9.000	228.60
.580	14.73	10.000	254.00
.590	14.99	20.000	508.00
.600	15.24		

## METRIC TO INCH CONVERSION TABLE

(Rounded-off for automotive use)

mm	inches	mm	inches
1	.0394	51	2.008
2	.079	52	2.047
3	.118	53	2.087
4	.157	54	2.126
5	.197	55	2.165
6	.236	56	2.205
7	.276	57	2.244
8	.315	58	2.283
9	.354	59	2.323
10	.394	60	2.362
11	.433	61	2.402
12	.472	62	2.441
13	.512	63	2.480
14	.551	64	2.520
15	.591	65	2.559
16	.630	66	2.598
17	.669	67	2.638
18	.709	68	2.677
19	.748	69	2.717
20	.787	70	2.756
21	.827	71	2.795
22	.866	72	2.835
23	.906	73	2.874
24	.945	74	2.913
25	.984	75	2.953
26	1.024	76	2.992
27	1.063	77	3.031
28	1.102	78	3.071
29	1.142	79	3.110
30	1.181	80	3.150
31	1.220	81	3.189
32	1.260	82	3.228
33	1.299	83	3.268
34	1.339	84	3.307
35	1.378	85	3.346
36	1.417	86	3.386
37	1.457	87	3.425
38	1.496	88	3.465
39	1.535	89	3.504
40	1.575	90	3.543
41	1.614	91	3.583
42	1.654	92	3.622
43	1.693	93	3.661
44	1.732	94	3.701
45	1.772	95	3.740
46	1.811	96	3.780
47	1.850	97	3.819
48	1.890	98	3.858
49	1.929	99	3.898
50	1.969	100	3.937

# QUICK REFERENCE CHART - 280ZX   1981

## ENGINE TUNE-UP DATA

	California	Non-California		
		For U.S.A.	For Canada	
Engine model		L28E		
Firing order		1-5-3-6-2-4		
Idle speed <sup>1</sup> rpm	M/T	700 ± 100		
	A/T	700 ± 100 (in "D" position)		
Ignition timing <sup>1</sup> (degree BT D.C. at idle speed)		8 ± 2°	10 ± 2°	
"CO" % at idle	%	Idle mixture screw is preset and sealed at factory.	5.0 ± 1.0 (With full enrichment)	
B.C.D.D. operating pressure [At sea level]	kPa (mmHg, inHg)	-76.0 ± 2.7 (-570 ± 20, -22.44 ± 0.79)	-74.6 ± 2.7 (-560 ± 20, -22.05 ± 0.79)	
Valve clearance (Hot)	Intake	0.25 (0.010)		
	Exhaust	0.30 (0.012)		
Drive belt deflection [Applied pressed force 98N (10 kg, 22 lb)]	mm (in)	8 - 12 (0.31 - 0.47)		
Radiator cap relief pressure	kPa (kg/cm <sup>2</sup> , psi)	88 (0.9, 13)		
Cooling system leakage testing pressure	kPa (kg/cm <sup>2</sup> , psi)	157 (1.6, 23)		
Compression pressure kPa (kg/cm <sup>2</sup> , psi)/rpm	Standard	1,177 (12.0, 171)/350		
	Minimum	883 (9.0, 128)/350		
High tension cable resistance	kΩ	Less than 30		
Spark plug	Type	BP6ES-11	BPR6ES-11	
	Gap mm (in)	1.0 - 1.1 (0.039 - 0.043)		
Battery	Type	N60MF	N70Z	
	Capacity	12 - 60	12 - 70	
	Full charging specific gravity	1.28		
Distributor	Vacuum advance [Maximum distributor degree/distributor kPa (mmHg, inHg)]	M/T 15°/40.0 (300, 11.81)	A/T 12.5°/46.7 (350, 13.78)	
	Centrifugal advance [Maximum distributor degree/distributor rpm]	8.5°/1,400		
Tightening torque	N-m	kg-m	ft-lb	
	Fuel hose clamp	1.0 - 1.5	0.10 - 0.15	0.7 - 1.1
Cylinder head	63 - 83	7.0 - 8.5	51 - 61	
Rocker cover bolt	10 - 16	1.0 - 1.6	7 - 12	
Manifold bolt and nut	M8 bolt	15 - 25	1.5 - 2.5	11 - 18
	M10 bolt	34 - 44	3.5 - 4.5	25 - 33
	M8 nut	12 - 16	1.2 - 1.6	9 - 12

\*: On U.S.A. models, ignition timing should be checked with distributor vacuum hose disconnected and plugged up.

## BRAKE

Unit: mm (in)

Disc brake	Front	Rear
	Pad minimum thickness	2.0 (0.079)
Rotor repair limit		
Runout	Less than 0.10 (0.0039)	Less than 0.15 (0.0059)
Parallelism circumferential direction	Less than 0.03 (0.0012)	
Minimum thickness	18.0 (0.709)	8.6 (0.339)

## CLUTCH PEDAL

Unit: mm (in)

Height	203 (7.99)
Free play	1 - 5 (0.04 - 0.20)

## WHEEL ALIGNMENT (Unladen)\*

Camber	degree	-35' - 55'	
Caster	degree	4°10' - 5°40'	
Toe-in	mm (in)	1 - 3 (0.04 - 0.12)	
	degree	6' - 16' (On both sides)	
Turning angle	degree	Power steering model	Manual steering model
	Toe-out - turns (Inside/Outside)	20°/18.1°	20°/18.7°
	Inside	32° - 36°	33½° - 37½°
	Outside	24½° - 28½°	29° - 33°

\*: Tankful of fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools, mats in designed position.

## FRONT WHEEL BEARING

Tightening torque	N-m (kg-m, ft-lb)	25 - 29 (2.5 - 3.0, 18 - 22)
Return angle	degree	60°

## WHEEL AND TIRE

Tire size	195/70HR-14	C78-14 *1
Inflation pressure *2	Car speed km/h (MPH)	Under 160 (100) Over 160 (100)
	Pressure psi (kPa)	28 (200) 32 (230) 28 (200)
Wheel nut tightening torque	N-m (kg-m, ft-lb) 78 - 99 (8 - 10, 58 - 72)	

\*1: Space Saver Spare tire or Foldable Spare tire.

\*2: Tire pressure should be checked when tires are cold.

## REFILL CAPACITIES

Unit	Liter	US measure
Fuel tank	80	21-1/8 gal
Coolant	With reservoir	10.5
	Without reservoir	9.7
Engine oil	With oil filter	4.5
	Without oil filter	4.0
Transmission	M/T	2.0
	A/T	5.5
Differential carrier	R200	1.3
	R180	1.0
Power steering system	1.1	1-1/8 qt
Windshield washer tank	2.8	3 qt
Headlight cleaner washer tank	2.0	2-1/8 qt
Air conditioning system	Compressor oil	150 ml
	Refrigerant	0.9 - 1.1 kg

EXPORT SERVICE DEPARTMENT  
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