NISSAN TRUCK & PATHFINDER

MODEL D21 SERIES

NOTE: See supplement manual for updated information and revised wiring diagrams.

QUICK REFERENCE INDEX

FOREWORD

This manual contains maintenance and repair procedures for the 1994 Nissan TRUCK and PATHFINDER.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle.
The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately.
Service varies with the procedures used, the skills of the technician 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 vehicle's safety will be jeopardized by the service method selected.

NISSAN MOTOR CO., LTD.
Overseas Service Department
Tokyo, Japan

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 : TRUCK & PATHFINDER 1994

ENGINE TUNE-UP DATA — VG30E

Idle speed rpm M/T	750±50		
Idle speed rpm A/T (in "N" position)	750±50		
Ignition timing (B.T.D.C. at idle speed)	15°-2°		
Spark plug (Standard type)	BKR6EY		
Drive belt deflection (Cold) mm (in)	Used belt Limit	Used belt After adjustment	New belt
Alternator	12 (0.47)	6 - 8 (0.24 - 0.31)	5 - 7 (0.20 - 0.28)
Air conditioner compressor	16 (0.63)	9 - 11 (0.35 - 0.43)	7 - 9 (0.28 - 0.35)
Power steering oil pump	17 (0.67)	11 - 13 (0.43 - 0.51)	9 - 11 (0.35 - 0.43)
Applied pushing force N (kg, lb)		98 (10, 22)	

ENGINE TUNE-UP DATA — KA24E

Idle speed rpm M/T	800±50		
Idle speed rpm A/T (in "N" position)	800±50		
Ignition timing (B.T.D.C. at idle speed)	10°±2°		
Spark plug (Standard type)	ZFR5E-11		
Drive belt deflection (Cold) mm (in)	Used belt Limit	Used belt After adjustment	New belt
Alternator	17 (0.67)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Air conditioner compressor	16 (0.63)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Power steering oil pump	15 (0.59)	9 - 11 (0.35 - 0.43)	7 - 9 (0.28 - 0.35)
Applied pushing force N (kg, lb)		98 (10, 22)	

WHEEL ALIGNMENT (Unladen*1)

Applied model		ALLOWABLE LIMIT 2WD Truck	ALLOWABLE LIMIT Except 2WD Truck	ADJUSTING RANGE 2WD Truck	ADJUSTING RANGE Except 2WD Truck
Camber	degree	−0°20′ to 1°10′	−0°05′ to 1°25′	−0°05′ to 0°55′	0°10′ - 1°10′
Caster	degree	−0°23′ to 1°07′	0°33′ - 2°03′	−0°08′ to 0°52′	0°48′ - 1°48′
Kingpin inclination	degree	8°20′ - 9°50′	7°21′ - 8°51′	8°35′ - 9°35′	7°36′ - 8°36′
Toe-in Radial tire					
A B	mm (in)	1 - 5 (0.04 - 0.20)	2 - 6 (0.08 - 0.24)	2 - 4 (0.08 - 0.16)	3 - 5 (0.12 - 0.20)
Total angle 2θ	degree	5′ - 25′	9′ - 29′	10′ - 20′	14′ - 24′

*1: Fuel radiator coolant and engine oil full.
Spare tire, jack, hand tools and mats in designated positions.

CLUTCH PEDAL

Unit: mm (in)

Height	VG30E: 227 - 237 (8.94 - 9.33) KA24E: 236 - 246 (9.29 - 9.69)
Free play	1.0 - 1.5 (0.039 - 0.059)

BRAKE

Unit: mm (in)

Disc brake	
Pad minimum thickness	2.0 (0.079)
Rotor repair limit	
Runout	0.07 (0.0028) or less
Minimum thickness	20.0 (0.787), CL28VA 24.0 (0.945), CL28VD 16.0 (0.630), AD14V8
Drum brake	
Lining minimum thickness	1.5 (0.059)
Drum repair limit	
Maximum inner diameter	261.5 (10.30), LT26B 296.5 (11.67), LT30A 191.0 (7.52), DS19HB
Pedal free height	
M/T model	209 - 219 (8.23 - 8.62)
A/T model	212 - 222 (8.35 - 8.74)
Pedal depressed height*1	120 (4.72) or more

*1: Under force of 490 N (50 kg, 110 lb) with engine running

FRONT WHEEL BEARING

Item	Model: 2WD Truck	Model: Except 2WD Truck		
Tightening torque N-m (kg-m, ft-lb)	34 - 39 (3.5 - 4.0, 25 - 29)	–		
Return angle degree	45° - 60°			
Preload (At hub bolt) N (kg, lb)	New seal: 9.8 - 28.4 (1.0 - 2.9, 2.2 - 6.4)	Wheel bearing lock nut Tightening torque N-m (kg-m, ft-lb)	78 - 98 (8 - 10, 58 - 72)	
		Retightening torque after loosening wheel bearing lock nut N-m (kg-m, ft-lb)	0.5 - 1.5 (0.05 - 0.15, 0.4 - 1.1)	
		Axial end play mm (in)	0 (0)	
	Used seal: 9.8 - 23.5 (1.0 - 2.4, 2.2 - 5.3)	Starting force at wheel hub bolt N (kg, lb)	A	
		Turning angle degree	15° - 30°	
		Starting force at wheel hub bolt N (kg, lb)	B	
		Wheel bearing preload at wheel hub bolt B − A N (kg, lb)	7.06 - 20.99 (0.72 - 2.14, 1.59 - 4.72)	

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