NISSAN TRUCK MODEL D21 SERIES

| QUICK REFERENCE INDEX | |
|---|-----|
| GENERAL INFORMATION —————————— | GI |
| MAINTENANCE | MA |
| ENGINE MECHANICAL ————— | EM |
| ENGINE LUBRICATION & COOLING SYSTEMS | LC |
| ENGINE CONTROL SYSTEM — | EC |
| ACCELERATOR CONTROL, FUEL & EXHAUST SYSTEMS | FE |
| CLUTCH | CL |
| MANUAL TRANSMISSION — | MT |
| AUTOMATIC TRANSMISSION | AT |
| TRANSFER | TF |
| PROPELLER SHAFT & DIFFERENTIAL CARRIER | PD |
| FRONT AXLE & FRONT SUSPENSION | FA |
| REAR AXLE & REAR SUSPENSION ———— | RA |
| BRAKE SYSTEM | BR |
| STEERING SYSTEM — | ST |
| RESTRAINT SYSTEM | RS |
| BODY & TRIM | ВТ |
| HEATER & AIR CONDITIONER ———— | НА |
| ELECTRICAL SYSTEM | EL |
| ALPHABETICAL INDEX — | IDX |

FOREWORD

This manual contains maintenance and repair procedures for the 1996 Nissan TRUCK.

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 be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.



QUICK REFERENCE CHART: TRUCK ______1996

ENGINE TUNE-UP DATA

| Engine model | KA24E | | | | |
|---|---|--|--------------------------|-------------------------|--|
| Firing order | 1-3-4-2 | | | | |
| Idle speed | rpm | | | | |
| M/T | 800 ± 50 | | | | |
| A/T (in "N" position) | | 800 + 50 | | | |
| Ignition timing' (degree B.T.D.C. at idle speed) | 10° ± 2° | | | | |
| CO% at idle | Idle mixtu | ZFR5E-11 ZFR6E-11 ZFR4E-11 -1.1 (0.039 - 0.043) bolt Deflection after of | | | |
| Spark plug | | | | | |
| Standard | | ZFR5E-11 | | | |
| Туре | Cold | ZFR6E-11 | | | |
| | Hot | ZFR4E-11 | | | |
| Gap | mm (in) | 1.0 - 1.1 (0.039 - 0.043) | | | |
| Drive belt deflection (Cold) | mm (in) | in) Used belt | | | |
| | | Limit | | | |
| Generator | | 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 pressed force | N (kg, lb) | | 98 (10, 22) | | |
| Radiator cap relief pressure kPa | (kg/cm ² , psi) | 78 - 98 (0.8 - 1.0, 11 - 14) | | | |
| Cooling system leakage testing pi kPa | ressure a (kg/cm ² , psi) | 157 (1.6, 23) | | | |
| Compression pressure | Standard | 1,324 (13.5, 192)/300 | | | |
| kPa (kg/cm2, psi)/rpm | Minimum | 981 (10, 142)/300 | | | |
| Tightening torque | | N∙m | kg·m | ft-lb | |
| Spark plug | | 20 - 29 | 2.0 - 3.0 | 14 - 22 | |
| Oil pan drain plug | 29 - 39 | 3.0 - 4.0 | 22 - 29 | | |

FRONT WHEEL ALIGNMENT (Unladen*1)

| | | ALLOWABLE LIMIT | | ADJUSTING RANGE | |
|---|------------------------------------|---|---|--|--|
| Applied model | | 2WD | 4WD | 2WD | 4WD |
| Camber | degree | -0°20' - 1°10' | -0°05' - 1°25' | -0°05' - 0°55' | 0°10' ~ 1°10' |
| (Decid | nal degree) | (-0.33° - 7.17°) | (-0.08° - 1.42°) | (-0.08° - 0.92°) | (0.17° ~ 1.17°) |
| Caster | degree | -0°23° - 1°07° | 0°33' - 2°03' | -0°08' - 0°52' | 0°48' - 1°48' |
| (Decir | mal degree) | (-0.38° - 1.12°) | (0.55° - 2.05°) | (-0.13° - 0.87°) | (0.80° - 1.80°) |
| Kingpin inclination (Deci | degree | 8°20' - 9°50' | 7°21' - 8°51' | 8°35' - 9°35' | 7°36' - 8°36' |
| | nal degree) | (8.33° - 9.83°) | (7.35' - 8.85°) | (8.58° - 9.58°) | (7.60° - 8.60°) |
| Toe-in Radial tire A - B Total angle 2 (Decir | mm (in) e degree nal degree) | 1 - 5 (0.04 - 0.20) 5' - 25' (0.08° - 0.42°) | 2 - 6 (0.08 - 0.24) 9' - 29' (0.15^ - 0.48^) | 2 - 4 (0.08 - 0.16) 10' - 20' (0.17° - 0.33°) | 3 - 5 (0.12 - 0.20) 14' - 24' (0.23° - 0.40°) |
| | gree minute | 34°00' - 38°00' | 31°00' - 35°00' | 36°00° - 38°00° | 33°00' - 35°00 |
| | mal degree) | (34.00° - 38.00°) | (31.00° - 35.00°) | (36.00° - 38.00°) | (33.00° - 35.00° |
| | gree minute nal degree) | 31°00' - 35°00' (31.00° - 35.00°) | 29°00' - 33°00' (29.00° - 33.00°) | 33°00' - 35°00' (33.00" - 35.00") | |

^{&#}x27;1: Fuel, radiator coolant and engine oil full.

Spare tire, jack, hand tools and mats in designated positions.

CLUTCH PEDAL

| | Unit: mm (in) |
|-----------------|-------------------------|
| Pedal height | 226 - 236 (8.90 - 9.29) |
| Pedal free play | 9 - 16 (0.35 - 0.63) |

BRAKE

| | Unit: mm (i | | |
|---|---|--|--|
| 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 | | |
| Drum brake | | | |
| Lining minimum thickness | 1.5 (0.059) | | |
| Drum repair limit Maximum inner diameter | 261.5 (10.30), LT26B 296.5. (11.67), LT30B | | |
| Parking brake | | | |
| Number of notches*1 | 10 - 12 | | |

^{&#}x27;1: At pulling force: 196 N (20 kg, 44 lb)

FRONT WHEEL BEARING

| · · · · · · · · · · · · · · · · · · · | | Model | | | |
|---------------------------------------|--|---|--|--|--|
| Item | 5MD | 4WD | | | |
| Tightening torque N·m (kg·m, ft·lb | 34 - 39 (3.5 - 4.0, 25 - | 29) - | | | |
| Return angle degree | 45° - 60° | | | | |
| | | Wheel bearing lock nut 78 - 98 Tightening torque (8 - 10, N-m (kg·m, ft-lb) 58 - 72) | | | |
| | 9.8 - 28.4 New seal : (1.0 - 2.9, 2.2 - | Retightening torque after loosening wheel bearing look nut (0.05 - 0.15, N·m (kg·m, ft-lb) Axial end play mm (in) 0 (0) | | | |
| Preioad (At hub bolt) N (kg, lb) | | Start force at wheel hub boit A N (kg, lb) | | | |
| | 9.8 - 23.5 Used seal (1.0 - 2.4, 2.2 - | Turning angle degree 15° - 30° Starting force at wheel hub bott B N (kg, lb) | | | |
| | | Wheel bearing preload at wheel hub boit (0.72 - 2.14, B - A N (kg, ib) 1.59 - 4.72) | | | |

REFILL CAPACITIES

| | Unit | | Liter | US measure |
|--------------------------|------|--------------------|-------------|----------------|
| Fuel tank | | | 60 | 15.9 gal |
| Coolant (with reservoir) | | 2WD | 8.1 | 8-5/8 qt |
| | | 4WD | 9.0 | 9-1/2 qt |
| Engine | ONE | With oil filter | 3.9 | 4-1/8 qt |
| | 2WD | Without oil fifter | 3.5 | 3-3/4 qt |
| g | | With oil filter | 4.1 | 4-3/8 qt |
| | 4WD | Without oil filter | 3.8 | 4 qt |
| | | 2WD | 2.0 | 4-1/4 pt |
| Transaxle | M/T | 4WD | 4.9 | 10-3/8 pt |
| | A/T | _ | 7.9 | 8-3/8 qt |
| Transfer | • | 4WD | 2.2 | 2-3/8 qt |
| Final drive | 2WD | H190A | 1.5 | 3-1/8 pt |
| | | C200 | 1.3 | 2-3/4 pt |
| | 4WD | R180A | 1.3 | 2-3/4 pt |
| | | H233B | 2.8 | 5-7/8 pt |
| Manual steering system | | | 0.62 | 1-3/8 pt |
| Power steering system | | PB485 | 0.9 | 1 qt |
| | | PB59K | 1.0 | 1-1/8 qt |
| Air conditioner system | | Lubricant | 0.2 | 6.8 fl oz |
| | | Refrigerant* | 0.75 - 0.85 | 1.65 - 1.87 lb |

^{*}R-134a