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# NISSAN ROGUE MODEL S35 SERIES

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| <b>E SUSPENSION</b>                                        | <b>FSU Front Suspension</b>                             |
|                                                            | <b>RSU Rear Suspension</b>                              |
|                                                            |                                                         |
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|                                                            |                                                         |
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|                                                            |                                                         |
|                                                            | <b>SR SRS Airbag</b>                                    |
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|                                                            |                                                         |
| <b>J BODY INTERIOR</b>                                     | <b>INT Interior</b>                                     |
|                                                            | <b>IP Instrument Panel</b>                              |
|                                                            | <b>SE Seat</b>                                          |
|                                                            |                                                         |
| <b>K BODY EXTERIOR, DOORS, ROOF &amp; VEHICLE SECURITY</b> | <b>DLK Door &amp; Lock</b>                              |
|                                                            | <b>SEC Security Control System</b>                      |
|                                                            | <b>GW Glass &amp; Window System</b>                     |
|                                                            | <b>PWC Power Window Control System</b>                  |
|                                                            | <b>RF Roof</b>                                          |
|                                                            |                                                         |
|                                                            | <b>EXT Exterior</b>                                     |
| <b>L DRIVER CONTROLS</b>                                   | <b>BRM Body Repair</b>                                  |
|                                                            | <b>MIR Mirrors</b>                                      |
|                                                            | <b>EXL Exterior Lighting System</b>                     |
|                                                            | <b>INL Interior Lighting System</b>                     |
|                                                            | <b>WW Wiper &amp; Washer</b>                            |
|                                                            | <b>DEF Defogger</b>                                     |
|                                                            | <b>HRN Horn</b>                                         |
|                                                            |                                                         |
| <b>M ELECTRICAL &amp; POWER CONTROL</b>                    | <b>PWO Power Outlet</b>                                 |
|                                                            | <b>BCS Body Control System</b>                          |
|                                                            | <b>LAN LAN System</b>                                   |
|                                                            | <b>PCS Power Control System</b>                         |
|                                                            | <b>CHG Charging System</b>                              |
|                                                            | <b>PG Power Supply, Ground &amp; Circuit Elements</b>   |
|                                                            | <b>MWI Meter, Warning Lamp &amp; Indicator</b>          |
|                                                            | <b>WCS Warning Chime System</b>                         |
| <b>N DRIVER INFORMATION &amp; MULTIMEDIA</b>               | <b>SN Sonar System</b>                                  |
|                                                            | <b>AV Audio, Visual &amp; Navigation System</b>         |
|                                                            | <b>CCS Cruise Control System</b>                        |
|                                                            |                                                         |
|                                                            |                                                         |
| <b>O CRUISE CONTROL &amp; DRIVER ASSISTANCE</b>            |                                                         |
|                                                            |                                                         |
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|                                                            |                                                         |

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# FOREWORD

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This manual contains maintenance and repair procedure for the 2011 NISSAN ROGUE.

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

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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.

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QUICK REFERENCE CHART ROGUE

PFP:00000

ENGINE TUNE-UP DATA (QR25DE)

ELS0003W

|                                            |                                    |                        |
|--------------------------------------------|------------------------------------|------------------------|
| Engine model                               | QR25DE                             |                        |
| Firing order                               | 1 - 3 - 4 - 2                      |                        |
| Idle speed<br>CVT (In "P" or "N" position) | rpm                                | 700 ± 50               |
| Ignition timing<br>(BTDC at idle speed)    | 10° ± 5°                           |                        |
| Tensions of drive belts                    | Auto adjustment by auto tensioner  |                        |
| Radiator cap relief pressure               | kPa (kg/cm <sup>2</sup> , psi)     |                        |
| Standard                                   | 78.4 - 98.0 (0.8 - 1.0, 11 - 14)   |                        |
| Limit                                      | 59 (0.6, 9)                        |                        |
| Cooling system leakage testing pressure    | kPa (kg/cm <sup>2</sup> , psi)     | 157 (1.60, 22.8)       |
| Compression pressure                       | kPa (kg/cm <sup>2</sup> , psi)/rpm |                        |
| Standard                                   | 1,412 (14.4, 204.7)/250            |                        |
| Minimum                                    | 1,216 (12.4, 176.3)/250            |                        |
| Differential limit between cylinders       | 100 (1.0, 14.5)/250                |                        |
| Spark plug<br>(Iridium-tipped type)        | Make                               | NGK                    |
|                                            | Standard type                      | DILKAR6A-11            |
|                                            | Gap (Nominal)                      | mm (in)<br>1.1 (0.043) |

FRONT WHEEL ALIGNMENT

| Item                                                  |                                |            | Standard               |                |         |         |         |         |
|-------------------------------------------------------|--------------------------------|------------|------------------------|----------------|---------|---------|---------|---------|
| Axle type                                             |                                |            | 2WD                    |                |         | AWD     |         |         |
| Wheel size                                            |                                |            | 16 inch                | 17 inch        | 18 inch | 16 inch | 17 inch | 18 inch |
| Camber<br>Degree minute (Decimal degree)              | Mini-<br>mum                   | Left side  | −1° 00′ (−1.00°)       |                |         |         |         |         |
|                                                       |                                | Right side | −1° 15′ (−1.25°)       |                |         |         |         |         |
|                                                       | Nomi-<br>nal                   | Left side  | −0° 15′ (−0.25°)       |                |         |         |         |         |
|                                                       |                                | Right side | −0° 30′ (−0.50°)       |                |         |         |         |         |
|                                                       | Maxi-<br>mum                   | Left side  | 0° 30′ (0.50°)         |                |         |         |         |         |
|                                                       |                                | Right side | 0° 15′ (0.25°)         |                |         |         |         |         |
|                                                       | Left and right differ-<br>ence |            | 0° 33′ (0.55°) or less |                |         |         |         |         |
| Caster<br>Degree minute (Decimal degree)              | Minimum                        |            | 3° 55′ (3.92°)         | 4° 00′ (4.00°) |         |         |         |         |
|                                                       | Nominal                        |            | 4° 40′ (4.67°)         | 4° 45′ (4.75°) |         |         |         |         |
|                                                       | Maximum                        |            | 5° 25′ (5.41°)         | 5° 30′ (5.50°) |         |         |         |         |
|                                                       | Left and right differ-<br>ence |            | 0° 36′ (0.60°) or less |                |         |         |         |         |
| Kingpin inclination<br>Degree minute (Decimal degree) | Minimum                        |            | 9° 45′ (9.75°)         |                |         |         |         |         |
|                                                       | Nominal                        |            | 10° 30′ (10.50°)       |                |         |         |         |         |
|                                                       | Maximum                        |            | 11° 15′ (11.25°)       |                |         |         |         |         |

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| Item      |                                                                         |         | Standard              |     |
|-----------|-------------------------------------------------------------------------|---------|-----------------------|-----|
| Axle type |                                                                         |         | 2WD                   | AWD |
| Toe-in    | Total toe-in Distance                                                   | Minimum | In 1 mm (0.04 in)     |     |
|           |                                                                         | Nominal | In 2 mm (0.08 in)     |     |
|           |                                                                         | Maximum | In 3 mm (0.12 in)     |     |
|           | Toe angle (left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum | In 0° 02' 30" (0.05°) |     |
|           |                                                                         | Nominal | In 0° 05' (0.08°)     |     |
|           |                                                                         | Maximum | In 0° 07' 30" (0.12°) |     |

Measure value under unladen\* conditions.

\*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

## REAR WHEEL ALIGNMENT

ELS0003Y

|                                          |                                                                         |         |                   |
|------------------------------------------|-------------------------------------------------------------------------|---------|-------------------|
| Camber<br>Degree minute (Decimal degree) |                                                                         | Minimum | -1° 25' (-1.42°)  |
|                                          |                                                                         | Nominal | -0° 55' (-0.92°)  |
|                                          |                                                                         | Maximum | -0° 25' (-0.42°)  |
| Toe-in                                   | Total toe-in Distance                                                   | Minimum | 0 mm (0 in)       |
|                                          |                                                                         | Nominal | In 2 mm (0.08 in) |
|                                          |                                                                         | Maximum | In 4 mm (0.16 in) |
|                                          | Toe angle (Left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum | 0° 00' (0.00°)    |
|                                          |                                                                         | Nominal | In 0° 05' (0.08°) |
|                                          |                                                                         | Maximum | In 0° 10' (0.16°) |

Measure value under unladen\* conditions.

\*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

## BRAKE PEDAL

Unit: mm (in)

|                                                                                                   |                             |
|---------------------------------------------------------------------------------------------------|-----------------------------|
| Depressed brake pedal height (H1)                                                                 | 183.7 - 193.7 (7.23 - 7.63) |
| Brake pedal reserve height (H2)<br>[Depressing 490 N (50 kg, 110 lb) while turning the engine ON] | 65 (2.56) or more           |

## FRONT DISK BRAKE

Unit: mm (in)

|            |                      |              |
|------------|----------------------|--------------|
| Brake pad  | Wear limit thickness | 2.0 (0.079)  |
| Disc rotor | Wear limit thickness | 24.0 (0.945) |

## REAR DISK BRAKE

Unit: mm (in)

|            |                      |              |
|------------|----------------------|--------------|
| Brake pad  | Wear limit thickness | 1.5 (0.059)  |
| Disc rotor | Wear limit thickness | 14.0 (0.551) |

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## REFILL CAPACITIES

ELS00040

| UNIT                                                |                           |     |                      | Liter   | US measure |
|-----------------------------------------------------|---------------------------|-----|----------------------|---------|------------|
| Fuel tank                                           |                           |     | TYPE1                | 60      | 15-7/8 gal |
|                                                     |                           |     | TYPE2                | 65      | 17-1/8 gal |
| Engine Coolant ( With reservoir tank ) at MAX level |                           |     |                      | 7.3     | 7-3/4 qt   |
| Engine oil                                          | Drain and refill          |     |                      |         |            |
|                                                     | With oil filter change    |     |                      | 4.6     | 4-7/8 qt   |
|                                                     | Without oil filter change |     |                      | 4.3     | 4-1/2 qt   |
| Dry engine (Overhaul)                               |                           |     |                      | 5.4     | 5-3/4 qt   |
| Transaxle                                           | CVT                       | 2WD | Without fluid cooler | 7.3     | 7-3/4 qt   |
|                                                     |                           |     | With fluid cooler    | 7.5     | 7-7/8 qt   |
|                                                     |                           | AWD | Without fluid cooler | 8.3     | 8-3/4 qt   |
|                                                     |                           |     | With fluid cooler    | 8.5     | 9 qt       |
| Transfer                                            |                           |     |                      | 0.36    | 3/4 pt     |
| Final drive                                         |                           |     |                      | 0.55    | 1-1/8 pt   |
| Air conditioning system                             | Compressor oil            |     |                      | 0.15    | 5.07 fl oz |
|                                                     | Refrigerant               |     |                      | 0.50 kg | 1.10 lb    |