

# SUSPENSION AND AXLE

SS051-07

## SERVICE DATA

Cold tire inflation pressure	P205/75R15 97S	Front Rear	200 kPa (2.0 kgf/cm <sup>2</sup> , 29 psi) 200 kPa (2.0 kgf/cm <sup>2</sup> , 29 psi)
	P235/55R16 96T	Front Rear	200 kPa (2.0 kgf/cm <sup>2</sup> , 29 psi) 220 kPa (2.2 kgf/cm <sup>2</sup> , 32 psi)
	P225/75R15 102S	Front Rear	180 kPa (1.8 kgf/cm <sup>2</sup> , 26 psi) 200 kPa (2.0 kgf/cm <sup>2</sup> , 29 psi)
	P265/70R16 111S	Front Rear	180 kPa (1.8 kgf/cm <sup>2</sup> , 26 psi) 180 kPa (1.8 kgf/cm <sup>2</sup> , 26 psi)
	P265/70R16 111T Except double cab models	Front Rear	180 kPa (1.8 kgf/cm <sup>2</sup> , 26psi) 200 kPa (2.0 kgf/cm <sup>2</sup> , 29psi)
	Double cab models	Front Rear	180 kPa (1.8 kgf/cm <sup>2</sup> , 26psi) 180 kPa (1.8 kgf/cm <sup>2</sup> , 26psi)
Front wheel Alignment (2WD except pre runner)	● Vehicle height		
	RZN140L-TRMDKAB	Front: A*1 – B*2 Rear: C*3 – D*4	26 mm (1.02 in.) 37 mm (1.46 in.)
	RZN140L-TRPDKAB	Front: A*1 – B*2 Rear: C*3 – D*4	28 mm (1.10 in.) 38 mm (1.50 in.)
	RZN150L-CRMDKAB	Front: A*1 – B*2 Rear: C*3 – D*4	25 mm (0.98 in.) 46 mm (1.18 in.)
	RZN150L-CRPDKAB	Front: A*1 – B*2 Rear: C*3 – D*4	27 mm (1.06 in.) 46 mm (1.18 in.)
	VZN150L-CRMDKAB	Front: A*1 – B*2 Rear: C*3 – D*4	35 mm (1.38 in.) 57 mm (2.24 in.)
	● Camber		0°00' ± 45' (0.00° ± 0.75°)
	Right-left error		30' (0.5°) or less
	● Caster		
	Right – left error: 30' (0.5°) or less		
	RZN140L-TRMDKAB	Tire size: P205/75R15 97S Tire size: P235/55R16 96T	0°13' ± 45' (0.22° ± 0.75°) 0°12' ± 45' (0.20° ± 0.75°)
	RZN140L-TRPDKAB	Tire size: P205/75R15 97S Tire size: P235/55R16 96T	0°13' ± 45' (0.21° ± 0.75°) 0°12' ± 45' (0.20° ± 0.75°)
	RZN150L-CRMDKAB	Tire size: P205/75R15 97S Tire size: P235/55R16 96T	0°40' ± 45' (0.67° ± 0.75°) 0°40' ± 45' (0.66° ± 0.75°)
	RZN150L-CRPDKAB	Tire size: P205/75R15 97S Tire size: P235/55R16 96T	0°41' ± 45' (0.68° ± 0.75°) 0°40' ± 45' (0.67° ± 0.75°)
	VZN150L-CRMDKAB		0°55' ± 45' (0.92° ± 0.75°)
● Steering axis inclination		10°00' ± 45' (10.00° ± 0.75°)	
Right-left error		30' (0.5°) or less	

### Measuring point

A\*1: Ground clearance of spindle center

B\*2: Ground clearance of lower suspension arm bolt center

C\*3: Ground clearance of rear axle shaft center

D\*4: Ground clearance of leaf spring front hanger pin bolt center

Front wheel Alignment (2WD except pre runner, cont'd)	● Toe-in (Total)		Rack end length difference: 1.5 mm (0.059 in.) or less
	RZN140L-TRMDKAB		0°09' ± 12' (0.15° ± 0.2°, 1.6 ± 2 mm, 0.06 ± 0.08 in.)
	RZN140L-TRPKAB		0°08' ± 12' (0.13° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.)
	RZN150L-CRMDKAB		0°09' ± 12' (0.15° ± 0.2°, 1.6 ± 2 mm, 0.06 ± 0.08 in.)
	RZN150L-CRPDKAB		0°08' ± 12' (0.14° ± 0.2°, 1.5 ± 2 mm, 0.06 ± 0.08 in.)
	Tire size: P205/75R15 97S Tire size: P235/55R16 96T		0°09' ± 12' (0.14° ± 0.2°, 1.5 ± 2 mm, 0.06 ± 0.08 in.)
	VZN150L-CRMDKAB		0°09' ± 12' (0.16° ± 0.2°, 1.7 ± 2 mm, 0.07 ± 0.08 in.)
● Wheel angle (Max.)	Inside wheel		36° (33° – 36°)
	Outside wheel: Reference		31° (28° – 31°)
Front wheel Alignment (4WD and pre runner)	● Vehicle height		
	RZN161L-TRMDKAB		
	Normal	Front: A*1 – B*2 Rear: C*3 – D*4	42 mm (1.65 in.) -43 mm (-1.69 in.)
	Heavy duty leaf spring		
	Tire size: P225/75R15 102S	Front: A*1 – B*2 Rear: C*3 – D*4	42 mm (1.65 in.) -40 mm (-1.57 in.)
	Tire size: P265/70R16 111S, P265/70R16 111T	Front: A*1 – B*2 Rear: C*3 – D*4	42 mm (1.65 in.) -41 mm (-1.61 in.)
	RZN161L-TRPKAB		
	Normal	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -43 mm (-1.69 in.)
	Heavy-duty leaf spring		
	Tire size: P255/75R15 102S	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -40 mm (-1.57 in.)
	Tire size: P265/70R16 111S, P265/70R16 111T	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -41 mm (-1.61 in.)
	VZN170L-CRMDKAB		
	Normal		
Tire size: P225/75R15 102S, P265/75R15 111T	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -44 mm (-1.73 in.)	
Tire size: P265/75R15 111S	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -45 mm (-1.77 in.)	
Off-road package	Front: A*1 – B*2 Rear: C*3 – D*4	53 mm (2.10 in.) -39 mm (-1.54 in.)	
Heavy-duty leaf spring			
Tire size: P225/75R15 102S, P265/70R16 111S	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -39 mm (-1.54 in.)	
Tire size: P265/70R16 111T	Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -38 mm (-1.50 in.)	

Measuring point

A\*1: Ground clearance of spindle center

B\*2: Ground clearance of front adjusting cam bolt center

C\*3: Ground clearance of rear axle shaft center

D\*4: Ground clearance of leaf spring front hanger pin bolt center

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Front wheel Alignment (4WD and pre runner, cont'd)	VZN170L-CRPDKAB Normal Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S Off-road package Heavy-duty leaf spring Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S	Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4	41 mm (1.61 in.) -44 mm (-1.73 in.) 41 mm (1.61 in.) -45 mm (-1.77 in.) 49 mm (1.93 in.) -39 mm (-1.54 in.) 41 mm (1.61 in.) -38 mm (-1.50 in.) 41 mm (1.61 in.) -39 mm (-1.54 in.)
	VZN170L-PRPKAB Normal Off-road package	Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4	68 mm (2.68 in.) -20 mm (-0.79 in.) 69 mm (2.72 in.) -17 mm (-0.67 in.)
	RZN171L-CRMDKAB Normal Tire size: P225/75R15 102S, P265/70R16 111S Tire size: P265/70R16 111T Off-road package Heavy-duty leaf spring Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S	Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4	39 mm (1.54 in.) -44 mm (-1.73 in.) 39 mm (1.54 in.) -43 mm (-1.69 in.) 52 mm (2.05 in.) -38 mm (-1.50 in.) 39 mm (1.54 in.) -38 mm (-1.50 in.) 39 mm (1.54 in.) -39 mm (-1.54 in.)
	RZN171L-CRPDKAB Normal Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S Heavy-duty leaf spring Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S	Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4 Front: A*1 – B*2 Rear: C*3 – D*4	40 mm (1.57 in.) -43 mm (-1.69 in.) 40 mm (1.57 in.) -44 mm (-1.73 in.) 40 mm (1.57 in.) -38 mm (-1.50 in.) 40 mm (1.57 in.) -39 mm (-1.54 in.)

Measuring point

- A\*1: Ground clearance of spindle center
- B\*2: Ground clearance of front adjusting cam bolt center
- C\*3: Ground clearance of rear axle shaft center
- D\*4: Ground clearance of leaf spring front hanger pin bolt center

Front wheel Alignment (4WD and pre runner, cont'd)	RZN191L-TRPKAB			
	Normal	Front: A*1 – B*2	39 mm (1.54 in.)	
		Rear: C*3 – D*4	-46 mm (-1.18 in.)	
	Heavy-duty leaf spring			
	Tire size: P225/75R15 102S	Front: A*1 – B*2	39 mm (1.54 in.)	
		Rear: C*3 – D*4	-42 mm (-1.65 in.)	
	Tire size: P265/70R16 111S, P265/70R16 111T	Front: A*1 – B*2	39 mm (1.54 in.)	
		Rear: C*3 – D*4	-43 mm (-1.69 in.)	
	VZN195L-CRPKAB			
	Normal	Front: A*1 – B*2	42 mm (1.65 in.)	
		Rear: C*3 – D*4	-46 mm (-1.81 in.)	
	Off-road package	Front: A*1 – B*2	47 mm (1.85 in.)	
	Rear: C*3 – D*4	-41 mm (-1.61 in.)		
Heavy-duty leaf spring				
Tire size: P225/75R15 102S	Front: A*1 – B*2	42 mm (1.65 in.)		
	Rear: C*3 – D*4	-40 mm (-1.57 in.)		
Tire size: P265/70R16 111S, P265/70R16 111T	Front: A*1 – B*2	42 mm (1.65 in.)		
	Rear: C*3 – D*4	-39 mm (-1.54 in.)		
VZN195L-PRPKAB				
Normal	Front: A*1 – B*2	67 mm (2.64 in.)		
	Rear: C*3 – D*4	-23 mm (-0.91 in.)		
Off-road package	Front: A*1 – B*2	68 mm (2.68 in.)		
	Rear: C*3 – D*4	-20 mm (-0.79 in.)		
RZN196L-CRPKAB				
Normal	Front: A*1 – B*2	39 mm (1.54 in.)		
	Rear: C*3 – D*4	-46 mm (-1.81 in.)		
Off-road package	Front: A*1 – B*2	48 mm (1.89 in.)		
	Rear: C*3 – D*4	-41 mm (-1.61 in.)		
Heavy-duty leaf spring				
Tire size: P225/75R15 102S, P265/70R16 111S	Front: A*1 – B*2	39 mm (1.54 in.)		
	Rear: C*3 – D*4	-40 mm (-1.57 in.)		
Tire size: P265/70R16 111T	Front: A*1 – B*2	39 mm (1.54 in.)		
	Rear: C*3 – D*4	-39 mm (-1.54 in.)		
RZN196L-PRPKAB				
Normal	Front: A*1 – B*2	66 mm (2.60 in.)		
	Rear: C*3 – D*4	-23 mm (-0.91 in.)		
Off-road package	Front: A*1 – B*2	77 mm (3.03 in.)		
	Rear: C*3 – D*4	-19 mm (-0.75 in.)		

## Measuring point

A\*1: Ground clearance of spindle center

B\*2: Ground clearance of front adjusting cam bolt center

C\*3: Ground clearance of rear axle shaft center

D\*4: Ground clearance of leaf spring front hanger pin bolt center

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Front wheel Alignment (4WD and pre runner, cont'd)	● Camber <span style="float: right;">Right – left error: 30' (0.5°) or less</span>	
	RZN161L models	0° 18' ± 45' (0.3° ± 0.75°)
	VZN170L models Except double cab models	
	Normal	0° 18' ± 45' (0.3° ± 0.75°)
	Off-road package	0° 06' ± 45' (0.1° ± 0.75°)
	Double cab models	
	Normal	-0° 12' ± 45' (-0.2° ± 0.75°)
	Off-road package	-0° 18' ± 45' (-0.3° ± 0.75°)
	RZN171L models	
	Normal	0° 18' ± 45' (0.3° ± 0.75°)
	Off-road package	0° 06' ± 45' (0.1° ± 0.75°)
	RZN191L models	0° 18' ± 45' (0.3° ± 0.75°)
	VZN195L models Except double cab models	0° 12' ± 45' (0.2° ± 0.75°)
	Double cab models	
	Normal	-0° 12' ± 45' (-0.2° ± 0.75°)
Off-road package	-0° 18' ± 45' (-0.3° ± 0.75°)	
VZN196L models Except double cab models		
Normal	0° 18' ± 45' (0.3° ± 0.75°)	
Off-road package	0° 12' ± 45' (0.2° ± 0.75°)	
Double cab models		
Normal	-0° 12' ± 45' (-0.2° ± 0.75°)	
Off-road package	-0° 30' ± 45' (-0.5° ± 0.75°)	
● Caster <span style="float: right;">Right-left error: 30' (0.5°) or less</span>		
RZN161L-TRMDKAB		
Normal		
Tire size: P225/75R15 102S	1° 37' ± 45' (1.62° ± 0.75°)	
Tire size: P265/70R16 111S	1° 38' ± 45' (1.63° ± 0.75°)	
Tire size: P265/70R16 111T	1° 37' ± 45' (1.61° ± 0.75°)	
Heavy-duty leaf spring		
Tire size: P225/75R15 102S	1° 41' ± 45' (1.69° ± 0.75°)	
Tire size: P265/70R16 111S	1° 43' ± 45' (1.71° ± 0.75°)	
Tire size: P265/70R16 111T	1° 41' ± 45' (1.68° ± 0.75°)	
RZN161L-TRPDKAB		
Normal		
Tire size: P225/75R15 102S	1° 37' ± 45' (1.62° ± 0.75°)	
Tire size: P265/70R16 111S	1° 38' ± 45' (1.64° ± 0.75°)	
Tire size: P265/70R16 111T	1° 37' ± 45' (1.61° ± 0.75°)	
Heavy-duty leaf spring		
Tire size: P225/75R15 102S	1° 42' ± 45' (1.70° ± 0.75°)	
Tire size: P265/70R16 111S	1° 43' ± 45' (1.71° ± 0.75°)	
Tire size: P265/70R16 111T	1° 41' ± 45' (1.69° ± 0.75°)	
VZN170L-CRMDKAB		
Normal		
Tire size: P225/75R15 102S	1° 42' ± 45' (1.70° ± 0.75°)	
Tire size: P265/70R16 111S	1° 43' ± 45' (1.72° ± 0.75°)	
Tire size: P265/70R16 111T	1° 41' ± 45' (1.69° ± 0.75°)	
Off-road package	2° 02' ± 45' (2.03° ± 0.75°)	
Heavy-duty leaf spring		
Tire size: P225/75R15 102S	1° 50' ± 45' (1.83° ± 0.75°)	
Tire size: P265/70R16 111S	1° 51' ± 45' (1.85° ± 0.75°)	
Tire size: P265/70R16 111T	1° 49' ± 45' (1.82° ± 0.75°)	

Front wheel Alignment (4WD and pre runner, cont'd)	VZN170L-CRPDKAB Normal Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S Off-road package Heavy-duty leaf spring Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S	1°41' ± 45' (1.69° ± 0.75°) 1°43' ± 45' (1.71° ± 0.75°) 1°58' ± 45' (1.96° ± 0.75°) 1°49' ± 45' (1.82° ± 0.75°) 1°50' ± 45' (1.84° ± 0.75°)
	VZN170L-PRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Off-road package	2°36' ± 45' (2.60° ± 0.75°) 2°36' ± 45' (2.61° ± 0.75°) 2°35' ± 45' (2.59° ± 0.75°) 2°39' ± 45' (2.66° ± 0.75°)
	VZN171L-CRMDKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Off-road package Heavy-duty leaf spring Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T	1°44' ± 45' (1.74° ± 0.75°) 1°45' ± 45' (1.75° ± 0.75°) 1°44' ± 45' (1.73° ± 0.75°) 2°02' ± 45' (2.03° ± 0.75°) 1°52' ± 45' (1.86° ± 0.75°) 1°52' ± 45' (1.87° ± 0.75°) 1°51' ± 45' (1.85° ± 0.75°)
	RZN171L-CRPDKAB Normal Tire size: P225/75R15 102S, P265/70R16 111T Tire size: P265/70R16 111S Heavy-duty leaf spring Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T	1°44' ± 45' (1.73° ± 0.75°) 1°45' ± 45' (1.75° ± 0.75°) 1°52' ± 45' (1.86° ± 0.75°) 1°52' ± 45' (1.87° ± 0.75°) 1°51' ± 45' (1.85° ± 0.75°)
	RZN191L-TRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Heavy-duty leaf spring Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T	1°37' ± 45' (1.62° ± 0.75°) 1°38' ± 45' (1.63° ± 0.75°) 1°37' ± 45' (1.61° ± 0.75°) 1°43' ± 45' (1.72° ± 0.75°) 1°44' ± 45' (1.73° ± 0.75°) 1°43' ± 45' (1.71° ± 0.75°)
	VZN195L-CRPDKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Off-road package Heavy-duty leaf spring Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T	1°43' ± 45' (1.71° ± 0.75°) 1°44' ± 45' (1.73° ± 0.75°) 1°42' ± 45' (1.70° ± 0.75°) 1°56' ± 45' (1.93° ± 0.75°) 1°52' ± 45' (1.86° ± 0.75°) 1°53' ± 45' (1.88° ± 0.75°) 1°51' ± 45' (1.85° ± 0.75°)

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Front wheel Alignment (4WD and pre runner, cont'd)	VZN195L-PRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Off-road package	2°31' ± 45' (2.53° ± 0.75°) 2°35' ± 45' (2.59° ± 0.75°) 2°33' ± 45' (2.56° ± 0.75°) 2°39' ± 45' (2.66° ± 0.75°)
	RZN196L-CRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Off-road package Heavy-duty leaf spring Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T	1°43' ± 45' (1.72° ± 0.75°) 1°44' ± 45' (1.73° ± 0.75°) 1°43' ± 45' (1.71° ± 0.75°) 1°56' ± 45' (1.94° ± 0.75°) 1°52' ± 45' (1.86° ± 0.75°) 1°52' ± 45' (1.87° ± 0.75°) 1°51' ± 45' (1.85° ± 0.75°)
	RZN196L-PRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S Tire size: P265/70R16 111T Off-road package	2°34' ± 45' (2.58° ± 0.75°) 2°35' ± 45' (2.59° ± 0.75°) 2°33' ± 45' (2.56° ± 0.75°) 2°45' ± 45' (2.75° ± 0.75°)
	● Steering axis inclination <span style="float:right">Right – left error: 30' (0.5°) or less</span>	
	RZN161L models	10°30' ± 45' (10.5° ± 0.75°)
	VZN170L-CRMDKAB Except off-road package Off-road package	10°30' ± 45' (10.5° ± 0.75°) 10°42' ± 45' (10.7° ± 0.75°)
	VZN170L-CRPKAB Except off-road package Off-road package	10°30' ± 45' (10.5° ± 0.75°) 10°36' ± 45' (10.6° ± 0.75°)
	VZN170L-PRPKAB	11°00' ± 45' (11.0° ± 0.75°)
	RZN171L-CRMDKAB Except off-road package Off-road package	10°24' ± 45' (10.4° ± 0.75°) 10°49' ± 45' (10.7° ± 0.75°)
	RZN171L-CRPKAB	10°30' ± 45' (10.5° ± 0.75°)
	RZN191L-TRPKAB	10°24' ± 45' (10.4° ± 0.75°)
	VZN195L-CRPKAB Except off-road package Off-road package	10°30' ± 45' (10.5° ± 0.75°) 10°36' ± 45' (10.6° ± 0.75°)
	VZN195L-PRPKAB	11°00' ± 45' (11.0° ± 0.75°)
	VZN196L-CRPKAB Except off-road package Off-road package	10°24' ± 45' (10.4° ± 0.75°) 10°36' ± 45' (10.6° ± 0.75°)
	VZN196L-PRPKAB Normal Off-road package	10°54' ± 45' (10.9° ± 0.75°) 11°12' ± 45' (11.2° ± 0.75°)

Front wheel Alignment (4WD and pre runner, cont'd)	● Toe – in (Total)	Rack end length difference : 1.5 mm (0.059 in.) or less
	RZN161L–TRMDKAB Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T	0°07' ± 12' (0.12° ± 0.2°, 1.3 ± 2 mm, 0.05 ± 0.08 in.) 0°07' ± 12' (0.11° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.)
	RZN161L–TRPKAB Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T	0°07' ± 12' (0.12° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.) 0°07' ± 12' (0.12° ± 0.2°, 1.5 ± 2 mm, 0.06 ± 0.08 in.)
	VZN170L–CRMDKAB Except off–road package Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°07' ± 12' (0.12° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.) 0°07' ± 12' (0.12° ± 0.2°, 1.5 ± 2 mm, 0.06 ± 0.08 in.) 0°02' ± 12' (0.03° ± 0.2°, 0.4 ± 2 mm, 0.02 ± 0.08 in.)
	VZN170L–CRPKAB Except off–road package Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°07' ± 12' (0.12° ± 0.2°, 1.3 ± 2 mm, 0.05 ± 0.08 in.) 0°07' ± 12' (0.11° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.) 0°03' ± 12' (0.06° ± 0.2°, 0.7 ± 2 mm, 0.03 ± 0.08 in.)
	VZN170L–PRPKAB Except off–road package Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°04' ± 12' (0.07° ± 0.2°, 0.8 ± 2 mm, 0.03 ± 0.08 in.) 0°04' ± 12' (0.07° ± 0.2°, 0.9 ± 2 mm, 0.04 ± 0.08 in.) 0°03' ± 12' (0.06° ± 0.2°, 0.8 ± 2 mm, 0.03 ± 0.08 in.)
	RZN171L–CRMDKAB Except off–road package Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°07' ± 12' (0.12° ± 0.2°, 1.4 ± 2 mm, 0.05 ± 0.08 in.) 0°08' ± 12' (0.13° ± 0.2°, 1.6 ± 2 mm, 0.06 ± 0.08 in.) 0°02' ± 12' (0.04° ± 0.2°, 0.5 ± 2 mm, 0.02 ± 0.08 in.)
	RZN171L–CRPKAB Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T	0°07' ± 12' (0.12° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.) 0°07' ± 12' (0.12° ± 0.2°, 1.5 ± 2 mm, 0.06 ± 0.08 in.)
	RZN191L–TRPKAB Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T	0°07' ± 12' (0.12° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.) 0°08' ± 12' (0.13° ± 0.2°, 1.6 ± 2 mm, 0.06 ± 0.08 in.)
	VZN195L–CRPKAB Except off–road package Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°06' ± 12' (0.10° ± 0.2°, 1.1 ± 2 mm, 0.04 ± 0.08 in.) 0°06' ± 12' (0.10° ± 0.2°, 1.2 ± 2 mm, 0.05 ± 0.08 in.) 0°04' ± 12' (0.07° ± 0.2°, 0.8 ± 2 mm, 0.03 ± 0.08 in.)
	VZN195L–PRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°04' ± 12' (0.07° ± 0.2°, 0.9 ± 2 mm, 0.04 ± 0.08 in.) 0°04' ± 12' (0.07° ± 0.2°, 1.0 ± 2 mm, 0.04 ± 0.08 in.) 0°03' ± 12' (0.06° ± 0.2°, 0.8 ± 2 mm, 0.03 ± 0.08 in.)
	RZN196L–CRPKAB Except off–road package Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°07' ± 12' (0.12° ± 0.2°, 1.4 ± 2 mm, 0.06 ± 0.08 in.) 0°08' ± 12' (0.13° ± 0.2°, 1.6 ± 2 mm, 0.06 ± 0.08 in.) 0°04' ± 12' (0.07° ± 0.2°, 0.8 ± 2 mm, 0.03 ± 0.08 in.)
	RZN196L–PRPKAB Normal Tire size: P225/75R15 102S Tire size: P265/70R16 111S, P265/70R16 111T Off–road package	0°04' ± 12' (0.07° ± 0.2°, 1.0 ± 2 mm, 0.04 ± 0.08 in.) 0°05' ± 12' (0.08° ± 0.2°, 1.1 ± 2 mm, 0.04 ± 0.08 in.) 0°00' ± 12' (0° ± 0.2°, 0 ± 2 mm, 0 ± 0.08 in.)
	● Wheel angle (max.)	Inside wheel 35°05' – 38°05' (35.08° – 38.08°) Outside wheel: Reference 32°20' (32.33°)



## SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Front axle (2WD except pre runner)	Axle hub bearing backlash	Max.	0.05 mm (0.0020 in.)	
	Axle hub preload (at starting)		Frictional force plus 6 – 18 N (0.6 – 1.8 kgf, 1.3 – 4.0 lbf)	
Front drive shaft	Front drive shaft length		436.2 ± 2.0 mm (17.173 ± 0.079 in.)	
Front suspension (2WD except pre runner)	Upper ball joint turning torque		0.5 – 3.5 N·m (5 – 35 kgf·cm, 4 – 30 in.·lbf)	
	Lower ball joint turning torque		0.1 – 3.45 N·m (1 – 35 kgf·cm, 0.8 – 30 in.·lbf)	
	Lower ball joint excessive play	Max.	0.5 mm (0.020 in.)	
Front suspension (4WD and pre runner)	Upper ball joint turning torque		0.7 – 4.4 N·m (7 – 45 kgf·cm, 6 – 39 in.·lbf)	
	Lower ball joint turning torque		0.1 – 2.5 N·m (1 – 25 kgf·cm, 1 – 22 in.·lbf)	
	Lower ball joint excessive play	Max.	0.5 mm (0.020 in.)	
	Stabilizer bar link ball joint turning torque		0.05 – 2.0 N·m (0.5 – 20 kgf·cm, 0.4 – 17 in.·lbf)	
Rear axle shaft	Axle shaft bearing backlash	Max.	0.7 mm (0.028 in.)	
	Axle shaft deviation	Max.	0.1 mm (0.0039 in.)	
	Shaft runout	Max.	2.0 mm (0.079 in.)	
	Flange runout	Max.	0.1 mm (0.004 in.)	
Front differential	Companion flange vertical runout	Max.	0.10 mm (0.0039 in.)	
	Companion flange horizontal runout	Max.	0.10 mm (0.0039 in.)	
	Drive pinion preload (at starting)	New bearing Reused bearing	1.2 – 1.9 N·m (12 – 19 kgf·cm, 10.4 – 16.5 in.·lbf) 0.6 – 1.0 N·m (6 – 10 kgf·cm, 5.2 – 8.7 in.·lbf)	
	Total preload (at starting)		Drive pinion preload plus 0.4 – 0.6 N·m (4 – 6 kgf·cm, 3.5 – 5.2 in.·lbf)	
	Drive pinion to ring gear backlash		0.13 – 0.18 mm (0.0051 – 0.0071 in.)	
	Side gear backlash		0 – 0.20 mm (0 – 0.0079 in.)	
	Rear oil seal drive in depth		4.5 ± 0.3 mm (0.177 ± 0.012 in.)	
	Side oil seal drive in depth		0 mm (0 in.)	
	Side tube oil seal drive in depth		5.5 ± 0.3 mm (0.217 ± 0.012 in.)	
	Side gear thrust washer thickness			0.96 – 1.04 mm (0.0378 – 0.0409 in.)
				1.06 – 1.14 mm (0.0417 – 0.0449 in.)
			1.16 – 1.24 mm (0.0457 – 0.0488 in.)	
			1.26 – 1.34 mm (0.0496 – 0.0528 in.)	

Front differential (cont'd)	Side gear bearing adjusting washer thickness	2.00 – 2.02 mm (0.0787 – 0.0795 in.)
		2.03 – 2.05 mm (0.0799 – 0.0807 in.)
		2.06 – 2.08 mm (0.0811 – 0.0819 in.)
		2.09 – 2.11 mm (0.0823 – 0.0831 in.)
		2.12 – 2.14 mm (0.0835 – 0.0843 in.)
		2.15 – 2.17 mm (0.0846 – 0.0854 in.)
		2.18 – 2.20 mm (0.0858 – 0.0866 in.)
		2.21 – 2.23 mm (0.0870 – 0.0878 in.)
		2.24 – 2.26 mm (0.0882 – 0.0890 in.)
		2.27 – 2.29 mm (0.0894 – 0.0902 in.)
		2.30 – 2.32 mm (0.0906 – 0.0913 in.)
		2.33 – 2.35 mm (0.0917 – 0.0925 in.)
		2.36 – 2.38 mm (0.0929 – 0.0937 in.)
		2.39 – 2.41 mm (0.0941 – 0.0949 in.)
		2.42 – 2.44 mm (0.0953 – 0.0961 in.)
		2.45 – 2.47 mm (0.0965 – 0.0972 in.)
		2.48 – 2.50 mm (0.0976 – 0.0984 in.)
		2.51 – 2.53 mm (0.0988 – 0.0996 in.)
		2.54 – 2.56 mm (0.1000 – 0.1008 in.)
		2.57 – 2.59 mm (0.1012 – 0.1020 in.)
		2.60 – 2.62 mm (0.1024 – 0.1031 in.)
		2.63 – 2.65 mm (0.1035 – 0.1043 in.)
		2.66 – 2.68 mm (0.1047 – 0.1055 in.)
		2.69 – 2.71 mm (0.1059 – 0.1067 in.)
		2.72 – 2.74 mm (0.1071 – 0.1079 in.)
		2.75 – 2.77 mm (0.1083 – 0.1091 in.)
		2.78 – 2.80 mm (0.1094 – 0.1102 in.)
		Drive pinion bearing adjusting washer thickness
	1.72 – 1.74 mm (0.0677 – 0.0685 in.)	
	1.75 – 1.77 mm (0.0689 – 0.0697 in.)	
	1.78 – 1.80 mm (0.0701 – 0.0709 in.)	
	1.81 – 1.83 mm (0.0713 – 0.0720 in.)	
	1.84 – 1.86 mm (0.0724 – 0.0732 in.)	
	1.87 – 1.89 mm (0.0736 – 0.0744 in.)	
1.90 – 1.92 mm (0.0748 – 0.0756 in.)		
1.93 – 1.95 mm (0.0760 – 0.0768 in.)		
1.96 – 1.98 mm (0.0772 – 0.0780 in.)		
1.99 – 2.01 mm (0.0783 – 0.0791 in.)		
2.02 – 2.04 mm (0.0795 – 0.0803 in.)		

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Front differential (cont'd)	Drive pinion bearing adjusting washer thickness		2.11 – 2.13 mm (0.0831 – 0.0839 in.)	
			2.14 – 2.16 mm (0.0843 – 0.0850 in.)	
			2.17 – 2.19 mm (0.0854 – 0.0862 in.)	
			2.20 – 2.22 mm (0.0866 – 0.0874 in.)	
			2.23 – 2.25 mm (0.0878 – 0.0886 in.)	
			2.26 – 2.28 mm (0.0890 – 0.0898 in.)	
			2.29 – 2.31 mm (0.0902 – 0.0909 in.)	
			2.32 – 2.34 mm (0.0913 – 0.0921 in.)	
	A.D.D. sleeve fork to clutch sleeve clearance		0.35 mm (0.0138 in.) or less	
	Differential case needle bearing press in depth		0.3 ± 0.3 mm (0.012 ± 0.012 in.)	
Rear differential (2RZ-FE)	Companion flange vertical runout	Max.	0.10 mm (0.0039 in.)	
	Companion flange lateral runout	Max.	0.10 mm (0.0039 in.)	
	Drive pinion preload (at starting)	New bearing Reused bearing	1.4 – 2.1 N·m (14 – 21 kgf·cm, 12.2 – 18.3 in.·lbf) 0.6 – 1.0 N·m (6 – 10 kgf·cm, 5.2 – 8.7 in.·lbf)	
	Total preload (at starting)		Drive pinion preload plus 0.4 – 0.6 N·m (4 – 6 kgf·cm, 3.5 – 5.2 in.·lbf)	
	Drive pinion to ring gear backlash		0.13 – 0.18 mm (0.0051 – 0.0071 in.)	
	Side gear backlash		0.05 – 0.20 mm (0.0020 – 0.0079 in.)	
	Ring gear runout	Max.	0.07 mm (0.0028 in.)	
	Differential case runout	Max.	0.07 mm (0.0028 in.)	
	Drive pinion oil seal drive in depth		1.5 mm (0.059 in.)	
	Side gear thrust washer thickness			1.0 mm (0.039 in.)
				1.1 mm (0.043 in.)
				1.2 mm (0.047 in.)
				1.3 mm (0.051 in.)
	Drive pinion bearing washer thickness			2.24 mm (0.0882 in.)
				2.27 mm (0.0894 in.)
				2.30 mm (0.0906 in.)
				2.33 mm (0.0917 in.)
				2.36 mm (0.0929 in.)
			2.39 mm (0.0941 in.)	
			2.42 mm (0.0953 in.)	
			2.45 mm (0.0965 in.)	
			2.48 mm (0.0976 in.)	
			2.51 mm (0.0988 in.)	
			2.54 mm (0.1000 in.)	
			2.57 mm (0.1012 in.)	
			2.60 mm (0.1024 in.)	
			2.63 mm (0.1035 in.)	
		2.66 mm (0.1047 in.)		
		2.69 mm (0.1059 in.)		
		2.72 mm (0.1071 in.)		
Rear differential (3RZ-FE, 5VZ-FE w/o Diff. lock)	Companion flange vertical runout	Max.	0.09 mm (0.0035 in.)	
	Companion flange lateral runout	Max.	0.09 mm (0.0035 in.)	

Rear differential (3RZ-FE, 5VZ-FE w/o Diff. lock, cont'd)	Drive pinion preload (at starting)	New bearing Reused bearing	1.1 – 1.7 N·m (12 – 18 kgf·cm, 10.0 – 15.2 in.·lbf) 0.6 – 0.9 N·m (7 – 10 kgf·cm, 5.7 – 8.3 in.·lbf)	
	Total preload (at starting)		Drive pinion preload plus 0.4 – 0.6 N·m (4 – 6 kgf·cm, 3.5 – 5.2 in.·lbf)	
	Drive pinion to ring gear backlash		0.13 – 0.18 mm (0.0051 – 0.0071 in.)	
	Side gear backlash		0.05 – 0.20 mm (0.0020 – 0.0079 in.)	
	Ring gear runout	Max.	0.05 mm (0.0020 in.)	
	Differential case runout	Max.	0.04 mm (0.0016 in.)	
	Drive pinion oil seal drive in depth		0.5 mm (0.020 in.)	
	Side gear thrust washer thickness			1.50 mm (0.0590 in.)
				1.55 mm (0.0610 in.)
				1.60 mm (0.0630 in.)
				1.65 mm (0.0650 in.)
				1.70 mm (0.0669 in.)
				1.75 mm (0.0689 in.)
			1.80 mm (0.0709 in.)	
		1.85 mm (0.0728 in.)		
		1.90 mm (0.0748 in.)		

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Rear differential (3RZ-FE, 5VZ-FE w/o Diff. lock, cont'd)	Side bearing adjusting washer thickness	58	2.58 mm (0.1015 in.)
		60	2.60 mm (0.1024 in.)
		62	2.62 mm (0.1031 in.)
		64	2.64 mm (0.1039 in.)
		66	2.66 mm (0.1047 in.)
		68	2.68 mm (0.1055 in.)
		70	2.70 mm (0.1063 in.)
		72	2.72 mm (0.1071 in.)
		74	2.74 mm (0.1079 in.)
		76	2.76 mm (0.1087 in.)
		78	2.78 mm (0.1094 in.)
		80	2.80 mm (0.1102 in.)
		82	2.82 mm (0.1110 in.)
		84	2.84 mm (0.1118 in.)
		86	2.86 mm (0.1126 in.)
		88	2.88 mm (0.1134 in.)
		90	2.90 mm (0.1142 in.)
		92	2.92 mm (0.1150 in.)
		94	2.94 mm (0.1157 in.)
		96	2.96 mm (0.1165 in.)
		98	2.98 mm (0.1173 in.)
		00	3.00 mm (0.1181 in.)
		02	3.02 mm (0.1189 in.)
		04	3.04 mm (0.1197 in.)
		06	3.06 mm (0.1205 in.)
		08	3.08 mm (0.1213 in.)
		10	3.10 mm (0.1220 in.)
		12	3.12 mm (0.1228 in.)
		14	3.14 mm (0.1236 in.)
		16	3.16 mm (0.1244 in.)
		18	3.18 mm (0.1252 in.)
		20	3.20 mm (0.1260 in.)
		22	3.22 mm (0.1268 in.)
		24	3.24 mm (0.1276 in.)
		26	3.26 mm (0.1283 in.)
		28	3.28 mm (0.1291 in.)
		30	3.30 mm (0.1299 in.)
		32	3.32 mm (0.1307 in.)
		34	3.34 mm (0.1315 in.)
		36	3.36 mm (0.1323 in.)
		38	3.38 mm (0.1331 in.)
40	3.40 mm (0.1339 in.)		
42	3.42 mm (0.1346 in.)		
44	3.44 mm (0.1354 in.)		
46	3.46 mm (0.1362 in.)		
48	3.48 mm (0.1370 in.)		

Rear differential (3RZ-FE, 5VZ-FE w/o Diff. lock, cont'd)	Drive pinion bearing adjusting washer thickness	87	1.87 mm (0.0736 in.)
		88	1.88 mm (0.0740 in.)
		89	1.89 mm (0.0744 in.)
		90	1.90 mm (0.0748 in.)
		91	1.91 mm (0.0752 in.)
		92	1.92 mm (0.0756 in.)
		93	1.93 mm (0.0760 in.)
		94	1.94 mm (0.0764 in.)
		95	1.95 mm (0.0768 in.)
		96	1.96 mm (0.0772 in.)
		97	1.97 mm (0.0776 in.)
		98	1.98 mm (0.0780 in.)
		99	1.99 mm (0.0783 in.)
		00	2.00 mm (0.0787 in.)
		01	2.01 mm (0.0791 in.)
		02	2.02 mm (0.0795 in.)
		03	2.03 mm (0.0799 in.)
		04	2.04 mm (0.0803 in.)
		05	2.05 mm (0.0807 in.)
		06	2.06 mm (0.0811 in.)
		07	2.07 mm (0.0815 in.)
		08	2.08 mm (0.0819 in.)
		09	2.09 mm (0.0823 in.)
		10	2.10 mm (0.0827 in.)
		11	2.11 mm (0.0831 in.)
		12	2.12 mm (0.0835 in.)
		13	2.13 mm (0.0839 in.)
		14	2.14 mm (0.0843 in.)
15	2.15 mm (0.0846 in.)		
16	2.16 mm (0.0850 in.)		
17	2.17 mm (0.0854 in.)		
18	2.18 mm (0.0858 in.)		
19	2.19 mm (0.0862 in.)		
20	2.20 mm (0.0866 in.)		
21	2.21 mm (0.0870 in.)		
22	2.22 mm (0.0874 in.)		
23	2.23 mm (0.0878 in.)		
24	2.24 mm (0.0882 in.)		
25	2.25 mm (0.0886 in.)		
26	2.26 mm (0.0890 in.)		
27	2.27 mm (0.0894 in.)		
28	2.28 mm (0.0898 in.)		

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Rear differential (3RZ-FE, 5VZ-FE w/ Diff. lock)	Companion flange vertical runout	Max.	0.10 mm (0.0039 in.)	
	Companion horizontal lateral runout	Max.	0.10 mm (0.0039 in.)	
	Drive pinion preload (at starting)	New bearing		0.9 – 1.6 N·m (10 – 16 kgf·cm, 8.7 – 13.9 in.·lbf)
		Reused bearing		0.5 – 0.8 N·m (5 – 8 kgf·cm, 4.3 – 6.9 in.·lbf)
	Total preload (at starting)		Drive pinion preload plus 0.4 – 0.6 N·m (4 – 6 kgf·cm, 3.5 – 5.2 in.·lbf)	
	Drive pinion to ring gear backlash		0.13 – 0.18 mm (0.0051 – 0.0071 in.)	
	Side gear backlash		0.05 – 0.20 mm (0.0020 – 0.0079 in.)	
	Ring gear runout	Max.	0.10 mm (0.0039 in.)	
	Differential case runout	Max.	0.07 mm (0.0028 in.)	
	Drive pinion oil seal drive in depth		1.0 mm (0.039 in.)	
	Diff. lock shift fork to sleeve clearance		0.15 – 0.35 mm (0.006 – 0.014 in.)	
	Side gear thrust washer thickness			0.9 mm (0.035 in.)
				1.0 mm (0.039 in.)
				1.1 mm (0.043 in.)
				1.2 mm (0.047 in.)
	Drive pinion bearing adjusting washer thickness			1.3 mm (0.051 in.)
				1.70 mm (0.0669 in.)
				1.73 mm (0.0681 in.)
				1.76 mm (0.0693 in.)
				1.79 mm (0.0705 in.)
				1.82 mm (0.0717 in.)
				1.85 mm (0.0728 in.)
				1.88 mm (0.0740 in.)
				1.91 mm (0.0752 in.)
				1.94 mm (0.0764 in.)
				1.97 mm (0.0776 in.)
				2.00 mm (0.0787 in.)
				2.03 mm (0.0799 in.)
			2.06 mm (0.0811 in.)	
		2.09 mm (0.0823 in.)		
		2.12 mm (0.0835 in.)		
		2.15 mm (0.0846 in.)		
		2.18 mm (0.0858 in.)		
		2.21 mm (0.0870 in.)		
		2.24 mm (0.0882 in.)		
		2.27 mm (0.0894 in.)		
		2.30 mm (0.0906 in.)		
		2.33 mm (0.0917 in.)		