DIFFERENTIAL

030NA–03

SERVICE DATA

B265 (10.5”) type differential

Differential oil	Oil type Recommended oil viscosity Capacity Capacity		Hypoid oil API GL–5 SAE 140 5.0 liters (5.3 US qts, 4.6 lmp.qts)
Differential carrier assy rear	Companion flange vertical runout Companion flange lateral runout Ring gear runout Ring gear backlash Side gear backlash Drive pinion preload Total preload Conical distance	Maximum Maximum Maximum Used bearing New bearing	0.10 mm (0.0039 in.) 0.10 mm (0.0039 in.) 0.10 mm (0.0039 in.) 0.15 – 0.20 mm (0.0059 – 0.0079 in.) 0.02 – 0.20 mm (0.0009 – 0.0079 in.) 0.78 – 1.27 N·m (8 – 13 kgf·cm, 6.9 – 11.3 in.·lbf) 1.86 – 5.39 N·m (19 – 55 kgf·cm, 16.5 – 47.7 in.·lbf) Drive pinion preload+ 0.20 – 0.39 N·m (2 – 4 kgf·cm, 1.7 – 3.5 in.·lbf) 21.5 mm (0.846 in.)
Differential side gear backlash adjustment	Thrust washer thickness		1.55 mm (0.0610 in.) 1.60 mm (0.0630 in.) 1.65 mm (0.0650 in.) 1.70 mm (0.0670 in.) 1.75 mm (0.0689 in.) 1.80 mm (0.0709 in.) 1.85 mm (0.0728 in.) 1.90 mm (0.0748in.) 1.95 mm (0.0768 in.) 2.00 mm (0.0787 in.) 2.05 mm (0.0807 in.) 2.10 mm (0.0827 in.)
Drive pinion preload adjustment	Shim A		1.90 mm (0.0748 in.) 2.00 mm (0.0787 in.) 2.10 mm (0.0827 in.) 2.20 mm (0.0866 in.) 2.30 mm (0.0906 in.) 2.40 mm (0.0945 in.) 2.50 mm (0.0948 in.) 2.60 mm (0.1024 in.) 2.70 mm (0.1063 in.) 2.80 mm (0.1102 in.) 2.90 mm (0.1142 in.) 3.00 mm (0.1181 in.)
	Shim B		1.80 mm (0.0709 in.) 1.81 mm (0.0713 in.) 1.82 mm (0.0717 in.) 1.83 mm (0.0720 in.) 1.84 mm (0.0724 in.) 1.85 mm (0.0728 in.) 1.86 mm (0.0732 in.) 1.87 mm (0.0736 in.) 1.88 mm (0.0740 in.) 1.89 mm (0.0744 in.)

Tooth contact adjustment	Shim	1.050 mm (0.0413 in.) 1.075 mm (0.0423 in.) 1.100 mm (0.0433 in.) 1.125 mm (0.0443 in.) 1.150 mm (0.0453 in.) 1.175 mm (0.0463 in.) 1.200 mm (0.0472 in.) 1.225 mm (0.0482 in.) 1.250 mm (0.0492 in.) 1.275 mm (0.0502 in.) 1.300 mm (0.0512 in.) 1.325 mm (0.0522 in.) 1.350 mm (0.0531 in.) 1.375 mm (0.0541 in.) 1.400 mm (0.0551 in.) 1.425 mm (0.0561 in.) 1.450 mm (0.0571 in.) 1.475 mm (0.0581 in.) 1.500 mm (0.0591 in.) 1.525 mm (0.0600 in.) 1.550 mm (0.0610 in.)

B305 (12”) type differential

Differential oil	Oil type Recommended oil viscosity Capacity Capacity		Hypoid oil API GL–5 SAE 140 5.2 liters (5.5 US qts, 4.8 Imp.qts)
Differential carrier assy rear	Companion flange vertical runout	Maximum	0.10 mm (0.0039 in.)
	Companion flange lateral runout	Maximum	0.10 mm (0.0039 in.)
	Ring gear runout	Maximum	0.10 mm (0.0039 in.)
	Ring gear backlash		0.15 – 0.20 mm (0.0059 – 0.0079 in.)
	Side gear backlash		0.02 – 0.20 mm (0.0009 – 0.0079 in.)
	Drive pinion preload	Used bearing	0.78 – 1.27 N·m (8 – 13 kgf·cm, 6.9 – 11.3 in.·lbf)
		New bearing	1.47 – 5.00 N·m (15 – 51 kgf·cm, 13 – 44 in.·lbf)
	Total preload (10.5” 12” type)		Drive pinion preload+ 0.20 – 0.39 N·m (2 – 4 kgf·cm, 1.7 – 3.5 in.·lbf)
	Conical distance		21.5 mm (0.846 in.)
Differential side gear backlash adjustment	Thrust washer thickness		1.40 mm (0.0551 in.) 1.50 mm (0.0591 in.) 1.60 mm (0.0630 in.) 1.70 mm (0.0699 in.)
Drive pinion preload adjustment	Shim A		1.90 mm (0.0748 in.) 2.00 mm (0.0787 in.) 2.10 mm (0.0827 in.) 2.20 mm (0.0866 in.) 2.30 mm (0.0906 in.) 2.40 mm (0.0945 in.) 2.50 mm (0.0948 in.) 2.60 mm (0.1024 in.) 2.70 mm (0.1063 in.) 2.80 mm (0.1102 in.) 2.90 mm (0.1142 in.) 3.00 mm (0.1181 in.) 3.10 mm (0.1220 in.) 3.20 mm (0.1260 in.) 3.30 mm (0.1299 in.)

Drive pinion preload adjustment	Shim B	1.80 mm (0.0709 in.) 1.81 mm (0.0713 in.) 1.82 mm (0.0717 in.) 1.83 mm (0.0720 in.) 1.84 mm (0.0724 in.) 1.85 mm (0.0728 in.) 1.86 mm (0.0732 in.) 1.87 mm (0.0736 in.) 1.88 mm (0.0740 in.) 1.89 mm (0.0744 in.)
Tooth contact adjustment	Shim	0.10 mm (0.0039 in.) 0.15 mm (0.0059 in.) 0.25 mm (0.0098 in.) 0.45 mm ((0.0177 in.)

SH13 (13.5”) type differential

Differential oil	Oil type Recommended oil viscosity Capacity Capacity		Hypoid oil API GL–5 SAE 140 3.7 liters (3.9 US qts, 3.3 lmp.qts)
Differential carrier assy rear	Companion flange vertical runout Companion flange lateral runout Ring gear runout Ring gear backlash Side gear backlash Drive pinion preload Total preload Conical distance	Maximum Maximum Maximum Used bearing New bearing	0.10 mm (0.0039 in.) 0.10 mm (0.0039 in.) 0.10 mm (0.0039 in.) 0.20 – 0.28 mm (0.0079 – 0.0110 in.) 0.2 – 0.6 mm (0.0079 – 0.0236 in.) 1.48 – 2.45 N·m (15 – 25 kgf·cm, 13 – 22 in.·lbf) 1.97 – 2.94 N·m (20 – 30 kgf·cm, 17 – 26 in.·lbf) Drive pinion preload+ 0.3 – 0.5 N·m (3 – 5.1 kgf·cm, 2.6 – 4.4 in.·lbf) 21.5 mm (0.846 in.)
Drive pinion preload adjustment	Spacer		13.900 mm (0.547 in.) 13.925 mm (0.548 in.) 13.950 mm (0.549 in.) 13.975 mm (0.550 in.) 14.000 mm (0.551 in.) 14.025 mm (0.552 in.) 14.050 mm (0.553 in.) 14.075 mm (0.554 in.) 14.100 mm (0.555 in.) 14.125 mm (0.556 in.) 14.150 mm (0.557 in.) 14.175 mm (0.558 in.) 14.200 mm (0.559 in.) 14.225 mm (0.560 in.) 14.250 mm (0.561 in.) 14.275 mm (0.562 in.) 14.300 mm (0.563 in.) 14.325 mm (0.564 in.) 14.350 mm (0.565 in.) 14.375 mm (0.566 in.)
Tooth contact adjustment	Shim		0.30 mm (0.0118 in.) 0.40 mm (0.0157 in.) 0.45 mm (0.0177 in.) 0.50 mm ((0.0197 in.)