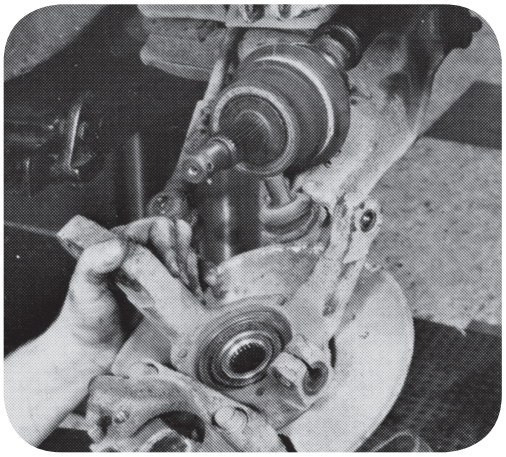
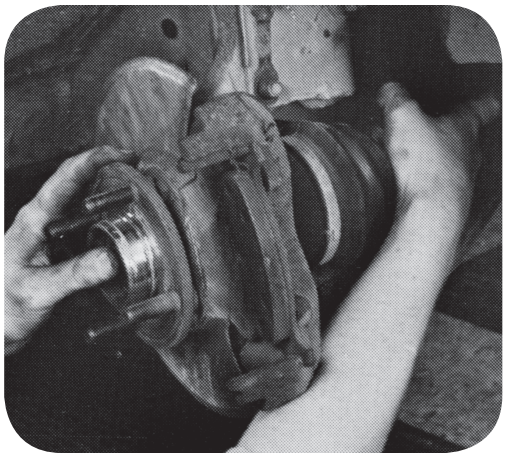
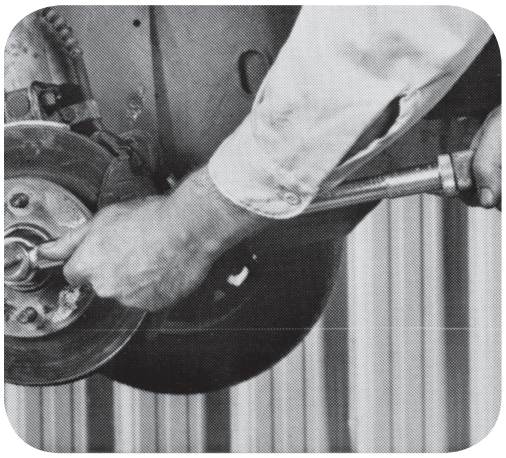
Torque specification guide



Form #457377
April, 2007
Supercedes 457377, Dated October, 2005

Front and rear axle nut torque specifications for FWD, RWD and 4 W/D vehicles

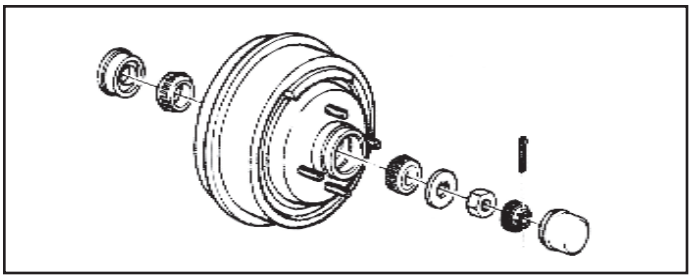




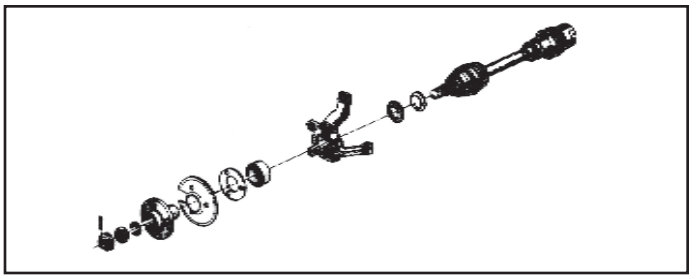
Wheel bearing adjustment procedures and torques

This book provides values to adjust or secure wheel bearings or wheel bearing units. Refer to the following diagrams to determine the type of bearing being serviced and the adjustment procedure or torque.

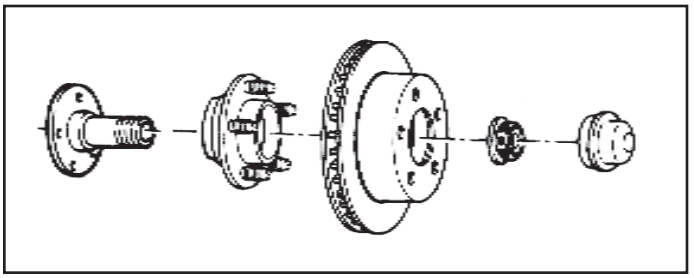
Note: Wheel Bearing adjustment procedures listed for trucks are for models with a full-floating axle only.



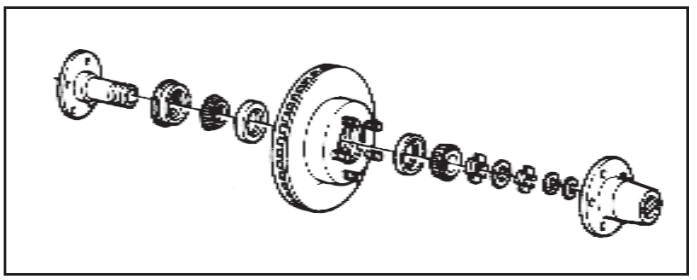
Type 1
This is a typical adjustable tapered roller bearing. If the vehicle you are working on has this type of unit, find the Make, Model, and Year on the chart. Determine the procedure code and then look it up in the Adjustment Procedures table.



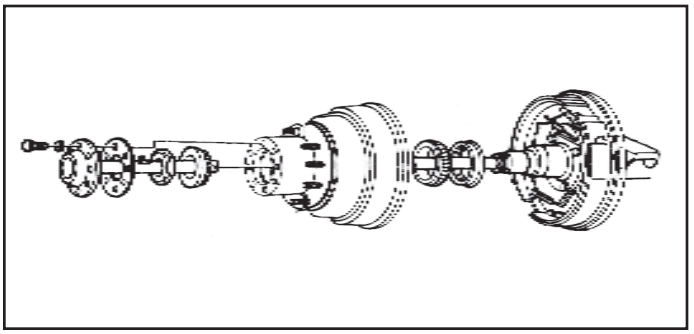
Type 2
This is the most common type of FWD bearing unit and is becoming the most common 4WD bearing unit. The hub nut securing the driveshaft to the front suspension also locks the bearing unit. Find the Make, Model, and Year on the chart. The torque for the hub nut is listed after the application.



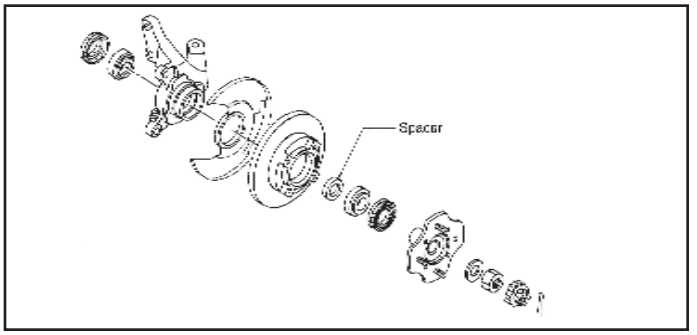
Type 3
This bearing unit is becoming more common on late model vehicles. The hub nut secures the spindle to the bearing unit. Find the Make, Model, and Year on the chart. The torque for the hub nut is listed after the application.



Type 4
This bearing unit is typical of many early model 4WD trucks. The bearing unit in the front spindle is adjustable. Find the Make, Model, and Year on the chart. Determine the procedure code and then look it up in the Adjustment Procedures table.



Type 5
This bearing unit represents the type found on optional full-floating rear truck axles. The bearing unit in the hub is adjustable. Find the Make, Model, and Year of truck on the chart. Determine the procedure code and then look it up in the Adjustment Procedures table.



Type 6
This type of bearing unit is used on some imported cars and is similar to Type 2. However, a spacer is used to provide proper spacing between the inner and outer bearings. Be sure to reuse the spacer if not damaged or replace it using one of the same thickness. Find the Make, Model, and year on the chart and torque the hub nut to the specified value.

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
ACURA			
1999-97	2.2CL, 2.3CL, 3.0CL	181/245	134/181
1998-95	2.5TL	181/245	134/181
2003-01	3.2CL	181/245	134/181
2004-96	3.2TL	181/245	134/181
2007-05	TL	181/245	134/181
2004-96	3.5RL	181/245	181/245
2007-05	RL	242/329	181/245
2001-86	Integra	134/181	134/181
1995-91	Legend	242/335	206/285
1990-86	Legend	180/244	180/244
2002-01	MDX	181/245	181/245
2006-03	MDX	210/285	181/245
2007	MDX, RDX	242/328	181/245
2006-02	RSX	134/181	134/181
2006-02	RSX Type S	181/245	134/181
1999-96	SLX	IUA	—
2007-04	TSX	181/245	—
1994-92	Vigor	181/245	134/181
AMERICAN MOTORS			
1980	AMX	AMB	—
1983-80	Concord	AMB	—
1988-80	Eagle	—	—
1980	Pacer	AMB	—
1983-80	Spirit	AMB	—
AM GENERAL			
2007-03	H2	173/235	—
2007-06	H3	191/260	—
AUDI			
1994-92	100	148/200[30]	AIA
1991-89	100, 200	148/200[30]	AIA
1991-89	100 Quattro	148/200[30]	147/200[30]
	200 Quattro	148/200[30]	147/200[30]
1987-80	4000	167/226	AIA
1987-84	4000 Quattro	203/280	203/280
1988-80	5000	202/280	AIA
1988-84	5000 Quattro	202/280	—
1991-88	80	195/265	AIA
	80 Quattro	195/265	236/320
1995-92	90 FWD	148/200[30]	AIA
	90 AWD	81/110[30]	89/120[30]
1991-88	90	195/265	AIA
1995-92	90 Quattro	148/200[30]	177/240
1991-88	90 Quattro	195/265	236/320
2005-01	Allroad	[31]	[31]
2007-06	A3, A3 Quattro	148/200	133/180 [32]
2005-96	A4	[31]	AIA
	A4 Quattro	[31]	85/115[32]

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
AUDI - continued			
2006-05	A6	133/180[32]	—
	A6 Quattro	133/180[32]	133/180 [32]
2004-98	A6	[31]	—
	A6 Quattro	[31]	[31]
1997-95	A6	148/200[30]	AIA
	A6 Quattro	148/200[30]	148/200[30]
2005-97	A8	140/190[32]	140/190[32]
1998-94	Cabriolet	148/200[30]	AIA
1991-90	Coupe	195/265	AIA
1987-81	Coupe	167/226	AIA
2007	Q7	110/150	369/500
2005-00	S4	[31]	AIA
	S4 Quattro	[31]	85/115[32]
1994-92	S4 FWD	148/200[30]	AIA
	S4 AWD	148/200[30]	147/200[30]
2005-02	S6	[31]	[31]
1995	S6 FWD	148/200[30]	AIA
	S6 AWD	148/200[30]	148/200[30]
2005-01	S8	140/190[32]	140/190[32]
2005-00	TT FWD	[33]	129/175
	TT AWD	[33]	[33]
1994-90	V8 Quattro	148/200[30]	147/200[30]
BMW			
2006	M Roadster	—	221/300
2002-98	M Coupe, Roadster	—	[40]
2006-95	M3	—	[40]
1991-88	M3	—	147/200
2007-06	M5	—	310/420
2003-00	M5	—	221/300
2007-06	M6 Coupe, Convertible	—	310/420
2007-04	X3	310/420	221/300
2007-00	X5	310/420	310/420
2002-97	Z3	—	[40]
2007-03	Z4	—	221/300
2003-00	Z8	—	221/300
2007-06	3 Series AWD	310/420	[46]
2005-00	3 Series AWD	310/420	[40]
1992-85	3 Series AWD	184/250	[40]
2007-06	3 Series RWD	—	[46]
2005-85	3 Series RWD	—	[40]
2007-04	5 Series AWD	310/420	310/420
2007-04	5 Series RWD	—	310/420
2003-97	5 Series RWD	—	221/300
2007-04	6 Series	—	310/420
2007-02	7 Series	—	310/420
2001-95	7 Series	—	221/300

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
BUICK			
2007-05	Allure	118/160	—
2005-98	Century	159/216	—
1997	Century	151/205	—
1996	Century	107/145	—
1995-92	Century	103/140[4]	—
1991-83	Century	185/260	—
1982	Century	225/290	—
1981-80	Century	GMA	—
1990-85	Electra	185/260	—
1984-80	Electra	GMA	—
1990-80	Estate Wagon	GMA	—
2007-05	LaCrosse	118/160	—
2005-98	LeSabre	118/160	—
1997-92	LeSabre	107/145	—
1991-86	LeSabre	185/260	—
1985-80	LeSabre	GMA	—
2007-06	Lucerne	118/160	—
2005-98	Park Avenue	118/160	—
1997-92	Park Avenue	107/145	—
1991	Park Avenue	185/260	—
2007-04	Rainer	103/140	—
1991-88	Reatta	180/244	—
2004-98	Regal	159/215	—
1997-95	Regal	151/205	—
1994-88	Regal	184/250	—
1987-80	Regal	GMA	—
2007	Rendezvous	192/260	—
2006-02	Rendezvous	192/260	192/260
1999	Riviera	118/160	—
1998-95	Riviera	107/145	—
1993-86	Riviera	183/248	—
1985-80	Riviera	175/240	—
1996-91	Roadmaster	GMA	—
1988-82	Skyhawk	185/260	—
1980	Skyhawk	GMA	—
1998	Skylark	74/100[3]	—
1997-83	Skylark	185/260	—
1982-80	Skylark	225/290	—
1987-85	Somerset	185/260	—
2007-05	Terraza	118/160	—
CADILLAC			
1993	Allante	110/145	—
1992-87	Allante	183/245	—
1992-80	Brougham	GMA	—
2001-97	Catera	236/320	—
1988-82	Cimarron	185/260	—
2007-03	CTS	—	118/160
2005-00	Deville	[5]	—
1999-97	Deville	118/160	—
1996-92	Deville	107/145	—
1991-85	Deville	180/244	—
1984-80	Deville	GMA	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
CADILLAC - continued			
2007-06	DTS	[5]	—
2002-97	Eldorado	118/160	—
1996-93	Eldorado	107/145	—
1992	Eldorado	110/145	—
1991-86	Eldorado	180/244	—
1985-80	Eldorado	176/238	—
2007	Escalade 2 W/D	—	—
2006-02	Escalade 2 W/D	177/240	GMQ[15]
2007	Escalade AWD	177/240	—
2006-02	Escalade AWD	177/240	GMQ[15]
2000-99	Escalade 4 W/D	165/225	GMD[15]
2007	Escalade ESV	177/240	—
2006-03	Escalade ESV	177/240	GMQ[15]
2007	Escalade EXT 2 W/D	—	—
2006-02	Escalade EXT 2 W/D	—	GMQ[15]
2007	Escalade EXT 4 W/D	177/240	—
2006-02	Escalade EXT 4 W/D	177/240	GMQ[15]
1996-93	Fleetwood	GMA	—
1992	Fleetwood	107/145	—
1991-85	Fleetwood	180/244	—
1984-80	Fleetwood	GMA	—
1984-80	Limousine	GMA	—
2004-97	Seville	118/160	—
1996-93	Seville	107/145	—
1992	Seville	110/145	—
1991-86	Seville	180/244	—
1985-80	Seville	176/238	—
2007-04	SRX	118/160	118/160
2007	STS AWD	118/160	118/160
2007	STS FWD	118/160	—
2006-05	STS	—	118/160
2007-04	XLR	—	118/160
CHEVROLET			
2007-04	Aveo, Aveo 5	221/300	—
1980	Bel Air	GMA	—
1996-87	Beretta	185/260	—
2002-93	Camaro	—	—
1992-80	Camaro	GMA	—
1996-80	Caprice	GMA	—
2005-02	Cavalier	148/200	—
2001-98	Cavalier	144/195	—
1997-82	Cavalier	185/260	—
1990-83	Celebrity	185/260	—
1982	Celebrity	225/290	—
1987-80	Chevette	GMA	—
1985-83	Citation	185/260	—
1982-80	Citation	225/290	—
2007-05	Cobalt	155/210	
1996-87	Corsica	185/260	—
2007-97	Corvette	—	118/160
1996-84	Corvette	—	164/223
1983-80	Corvette	GMA	100/130

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
CHEVROLET - continued			
1987-80	El Camino	GMA	—
2007-01	Impala	118/160	—
2000	Impala	159/215	—
1996-80	Impala	GMA	—
2001-98	Lumina	159/216	—
1997-95	Lumina	151/205	—
1994-90	Lumina	184/250	—
1996-95	Lumina APV	104/145	—
1994-90	Lumina APV	185/260	—
2007-04	Malibu	159/215	—
2003-97	Malibu	[34]	—
1983-80	Malibu	GMA	—
2007-04	Malibu Maxx	159/215	—
2001-98	Metro	129/175	—
2007-01	Monte Carlo	118/160	—
2000-98	Monte Carlo	159/215	—
1997-95	Monte Carlo	151/205	—
1988-80	Monte Carlo	GMA	—
1980	Monza	GMA	—
1988-85	Nova	137/186	90/123
2002-98	Prizm	166/225	—
1988-85	Spectrum	137/186	IUC
1991-89	Sprint	125/179	125/179
1988-85	Sprint	151/210	62/100
2007-05	Uplander	118/160	192/260
2005-02	Venture	118/160	192/260
2001-98	Venture	118/160	—
1997	Venture	151/205	—
CHEVROLET/GMC TRUCKS			
2007	Acadia FWD	151/205	—
	Acadia AWD	151/205	118/160
2005-03	Astro, Safari 2 W/D	—	—
2005-96	Astro, Safari AWD	147/200	—
2002-90	Astro, Safari 2 W/D	GMA	—
1995-90	Astro, Safari 4 W/D	180/244	—
1989-85	Astro, Safari	GMA	—
2007-02	Avalanche 2 W/D	—	GMQ[15]
	Avalanche 4 W/D	177/240	GMQ[15]
1994-92	Blazer, Yukon C/K 2 W/D	GMA	—
	Blazer, Yukon C/K 4 W/D	165/225	—
1991-88	R/V Blazer, Jimmy R/V 2 W/D	GMA	—
	Blazer, Jimmy R/V 4 W/D	GMM[12] GML[13]	—
1987-80	Blazer, Jimmy C/K 4 W/D	GMM[12] GML[13]	—
1987-80	Blazer, Jimmy C/K 2 W/D	GMA	—
2007-04	Canyon 2 W/D	—	—
	Canyon 4 W/D	191/260	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
CHEVROLET/GMC TRUCKS - continued			
2000-97	C1500 2 W/D Pickup	GMA	—
1996-88	C1500 2 W/D Pickup	GMA	—
1986-80	C10, C1500 2 W/D Pickup	GMA	—
2000-97	C2500 2 W/D Pickup	GMA	GMD
1996-88	C2500 2 W/D Pickup	GMA	GMF
1986-80	C20, C2500 2 W/D Pickup	GMA	GMI[15] GMJ[11]
2000-97	C3500 2 W/D Pickup	GMA	GMD[15] GME[14]
1996-94	C3500 2 W/D Pickup	GMA	GMF[15] GME[14]
1993-91	C3500 2 W/D Pickup	GMA	GMF[15] GMG[7]
1990-88	C3500 2 W/D Pickup	GMA	GMF[15] GMG[7]
1986-80	C30, C3500 2 W/D Pickup	GMA	GMI[15] GMJ[11]
2007-04	Colorado 2 W/D	—	—
	Colorado 4 W/D	191/260	—
2007	Denali	177/240	—
2006-04	Denali	173/235	GMQ[15]
2003-01	Denali 2 W/D	—	GMQ[15]
	Denali 4 W/D	155/210	GMQ[15]
2000-99	Denali 2 W/D	GMA	GMD[15]
	Denali 4 W/D	165/225	GMD[15]
1987-80	El Camino, Caballero	GMA	—
2007-02	Envoy 2 W/D	103/140	—
	Envoy 4 W/D	103/140	—
2001-99	Envoy 4 W/D	103/140	—
2007	Equinox	151/205	151/205
2006-05	Equinox	151/205	81/110
2007-03	G1500 Van 2 W/D	—	—
2007	G1500 Van AWD	155/210	—
2006-03	G1500 Van AWD	173/235	—
2002-01	G1500 Van	GMA	—
2000-98	G1500 Van	GMA	—
1997-96	G1500 Van	GMA	—
1996-92	G10, G1500 Van	GMA	—
1991-88	G10, G1500 Van	GMA	—
1987-80	G10, G1500 Van	GMA	—
2007-03	G2500 Van	—	GMQ[15]
2002-01	G2500 Van	GMA	GMQ[15]
2000-98	G2500 Van	GMA	GMD
1997-96	G2500 Van	GMA	GMF
1996-92	G20, G2500 Van	GMA	—
1991-88	G20, G2500 Van	GMA	—
1987-80	G20, G2500 Van	GMA	—
2007-03	G3500 Van	—	GMQ[15]
2002-01	G3500 Van	GMA	GMQ[15]
2000-98	G3500 Van	GMA	GMD
1997-96	G3500 Van	GMA	GMF
1996-92	G30, G3500 Van	GMA	GMF

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
CHEVROLET/GMC TRUCKS - continued			
1991-88	G30, G3500 Van	GMA	GMG[7] GMI[8]
1987-83	G30, G3500 Van	GMA	GMI[15] GMG[7] GMJ[11]
1982-80	G30, G3500 Van	GMA	GMJ[15] GMH[7] GMJ[11]
2007-06	HHR	155/210	—
2000-97	K1500 4 W/D Pickup	165/225	—
1996-91	K1500 4 W/D Pickup	165/225	—
1990-88	K1500 4 W/D Pickup	175/235	—
1986-80	K10, K1500 4 W/D Pickup	GMM[12] GML[13]	—
2000-97	K2500 4 W/D Pickup	165/225	GMD
1996-91	K2500 4 W/D Pickup	165/225	GMF
1990-88	K2500 4 W/D Pickup	175/235	GMF
1986-80	K20, K2500 4 W/D Pickup	GMM[12] GML[13]	GMI[15] GMJ[11]
2000-97	K3500 4 W/D Pickup	165/225	GMD[15] GME[14]
1996-94	K3500 4 W/D Pickup	165/225	GMF[15] GME[14]
1993-91	K3500 4 W/D Pickup	165/225	GMF[15] GME[14]
1990-88	K3500 4 W/D Pickup	175/235	GMF[15] GME[14]
1986-83	K30, K3500 4 W/D Pickup	GMM[12] GML[13]	GMI[15] GMG[7] GMJ[11]
1982-80	K30, K3500 4 W/D Pickup	GMM[12] GML[13]	GMI[15] GMH[7] GMJ[11]
1982-80	LUV Pickup 2 W/D	GMA	—
1982-80	LUV Pickup 4 W/D	—	—
1991-87	R10, R1500 2 W/D Pickup	GMA	GMI
1991-87	R20, R2500 2 W/D Pickup	GMA	GMI
1991-87	R30, R3500 2 W/D Pickup	GMA	GMG[7] GMI[8]
2003-82	S Blazer, Jimmy 2 W/D	GMA	—
2005-97	S Blazer, Jimmy 4 W/D	103/140	—
1996-86	S Blazer, Jimmy, Typhoon, Syclone 4 W/D	181/245	—
1985-82	S Blazer, Jimmy 4 W/D	174/235	—
2007-99	Sierra, Silverado 2 W/D Sierra, Silverado 4 W/D	— 177/240	GMQ[15] GMQ[15]
2004-82	S10, Sonoma, S15 2 W/D	GMA	—
CHEVROLET/GMC TRUCKS - continued			
2004-97	S10, Sonoma, S15 4 W/D	103/140	—
1996-86	S10, Sonoma, S15 4 W/D	180/244	—
1985-82	S10, Sonoma, S15 4 W/D	174/235	—
2006-04	SSR	—	—
2007-00	Suburban 2 W/D Suburban 4 W/D	— 177/240	GMQ[15] GMQ[15]
1999-97	Suburban 2 W/D Suburban 4 W/D	GMA 165/225	GMD GMD
1996-92	Suburban 2 W/D Suburban 4 W/D	GMA 165/225	GMF GMF
1991-88	Suburban 2 W/D Suburban 4 W/D	GMA GMM[12] GML[13]	GMI GMI
1987-80	Suburban 4 W/D	GMM[12] GMM[13]	GMI[15] GMJ[11]
1987-80	Suburban 2 W/D	GMA	GMI[15] GMJ[11]
2007-98	Tahoe, Yukon 2 W/D Tahoe, Yukon 4 W/D	— 177/240	GMQ[15] GMQ[15]
1997	Tahoe, Yukon, 2 W/D Tahoe, Yukon 4 W/D	GMA 165/225	— —
1996-95	Tahoe, Yukon 2 W/D Tahoe, Yukon 4 W/D	GMA 165/225	— —
2004-99	Tracker	159/216	—
1998	Tracker	155/210	—
2007-02	TrailBlazer 2 W/D TrailBlazer 4 W/D	— 103/140	— —
1991-87	V10, V1500 4 W/D Pickup	GMM[12] GML[13]	GMI
1991-87	V20, V2500 4 W/D Pickup	GMM[12] GML[13]	GMI
1991-87	V30, V3500 4 W/D Pickup	GMM[12] GMM[13]	GMG[7] GMI[8]
2007-01	Yukon XL 2 W/D Yukon XL 4 W/D	— 177/240	GMQ[15] GMQ[15]
2000	Yukon XL 2 W/D Yukon XL 4 W/D	— 177/240	GMD GMD
CHRYSLER			
2007	Aspen 2 W/D Aspen 4 W/D	— 185/251	— —
2000	Cirrus	105/142	185/250
1999-95	Cirrus	180/244	185/250
2004-01	Concorde	105/142	124/168
2000-95	Concorde	120/163	124/168
1994-93	Concorde	80/108	125/170
1989-87	Conquest	CRB	—
1983-82	Cordoba	CRA	—
2007-04	Crossfire	—	164/220
1993-84	Daytona	180/244	CRC

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
CHRYSLER - continued			
1993-88	Dynasty	180/244	CRC
1984-83	E Class	180/244	CRC
1993-90	Fifth Ave	180/244	CRC
1989-82	Fifth Ave	CRA	—
1993-90	Imperial	180/244	CRC
1983-82	Imperial	CRA	—
1986-84	Laser	180/244	CRC
1995-82	LeBaron	180/244	CRC
2001	LHS	105/142	124/168
2000-95	LHS	120/163	124/168
1994	LHS	80/108	125/170
1996-95	New Yorker	120/163	124/168
1994	New Yorker	80/108	125/170
1993-83	New Yorker	180/244	CRC
1982	New Yorker	CRA	—
1987-82	Newport	CRA	—
2007-04	Pacifica	180/244	180/244
2007-01	PT Cruiser	180/244	160/217
2002-01	Prowler	—	105/141
2006-01	Sebring Convertible	110/150	185/250
2000	Sebring Convertible	105/142	185/250
1999-96	Sebring Convertible	180/244	185/250
2005-95	Sebring Coupe	167/226	—
2007	Sebring Sedan	97/132	—
2006-01	Sebring Sedan	110/150	185/250
1991-89	TC	180/244	—
2007	Town & Country FWD	180/244	—
2006-99	Town & Country AWD	180/244	180/244
	Town & Country FWD	180/244	—
1998-90	Town & Country AWD	180/244	—
	Town & Country FWD	180/244	CRC
2006-01	Voyager AWD	180/244	180//244
	Voyager FWD	180/244	—
2007-05	300 AWD	157/213	157/213
	300 RWD	184/250	157/213
2004-01	300M	105/142	124/168
2000-99	300M	120/163	124/168
1981-80	All	CRA	—
DAEWOO			
2002-00	Lanos	DAA	DAB
1999	Lanos	DAA	DAC
2002-01	Leganza	DAE	207/280
2000-99	Leganza	DAA	210/285
2002-01	Nubira	DAA	DAD
2000-99	Nubira	DAA	DAD
DAIHATSU			
1992-88	Charade	148/201	144/106
1992-90	Rocky	DHA	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
DODGE/PLYMOUTH			
1982-80	024, TC3	180/244	CRC
1983-82	400	180/244	CRC
1988-82	600, Caravelle FWD	180/244	CRC
1989-81	Aries, Reliant	180/244	CRC
1980	Aspen, Volare	CRA	—
2000-95	Avenger	167/226	—
2000	Breeze	105/142	185/250
1999-96	Breeze	180/244	185/250
2007	Caliber AWD	181/245	181/245
	Caliber FWD	181/245	-
2007	Caravan FWD	180/244	-
2006-99	Caravan, Voyager AWD	180/244	180/244
	Caravan, Voyager FWD	180/244	—
1998-90	Caravan, Voyager AWD	180/244	—
	Caravan, Voyager FWD	180/244	CRC
1989-84	Caravan, Voyager	180/244	CRC
1983-80	Challenger, Saporro	CRB	—
2007	Charger AWD	157/213	157/213
2007-06	Charger RWD	184/250	157/213
1987-82	Charger, Turismo	180/244	CRC
1994-93	Colt	167/226	130/180
1992-89	Colt	167/226	127/175
1988-85	Colt	167/226	90/125
1984-80	Colt, Champ FWD	167/226	CRB
1980	Colt RWD, Arrow	CRB	—
1986-84	Conquest	CRB	—
1993-84	Daytona	180/244	CRC
1989-80	Diplomat, Grand Fury	CRA	—
1993-88	Dynasty	180/244	CRC
2004-01	Intrepid	105/142	124/168
2000-95	Intrepid	120/163	124/168
1994-93	Intrepid	80/108	125/170
1989-85	Lancer	180/244	CRC
2007-05	Magnum AWD	157/213	157/213
	Magnum RWD	184/250	157/213
1983-80	Mirada	CRA	-
1992-90	Monaco	181/245	123/167
2005-00	Neon	180/244	160/217
1998-96	Neon	135/183	160/217
1995	Neon	150/203	160/217
2005-03	Neon SRT-4	180/244	160/217
1990-80	Omni, Horizon	180/244	CRC
2000-97	Prowler	—	105/141
1984-82	Rampage, Scamp	180/244	—
1994-87	Shadow, Sundance	180/244	CRC
1995-89	Spirit, Acclaim	180/244	CRC
1981-80	St. Regis	CRA	—
1996-91	Stealth 4 W/D	166/225	203/280
	Stealth FWD	166/225	166/225
2005-01	Stratus Coupe	167/226	—

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
DODGE/PLYMOUTH - continued			
2006-01	Stratus Sedan	110/150	185/250
2000	Stratus Sedan	105/142	185/250
1999-95	Stratus Sedan	180/244	185/250
1994-90	Laser 4 W/D	167/226	138/190
	Laser FWD	167/226	166/225
2006-97	Viper	—	190/258
1994-92	Vista	167/226	166/225
1991-84	Vista 4 W/D	165/224	—
	Vista FWD	165/224	CRB
DODGE/PLYMOUTH TRUCKS			
1980	B100 Van	DTB	DTE[17] DTD[18]
1993-85	B150 Van	DTB	DTD
1984-81	B150 Van	DTB	DTE[17] DTD[18]
2003-02	B1500 Van	DTK	DTC
2001-94	B1500 Van	DTB	DTC
1980	B200 Van	DTB	DTE[17] DTD[18]
1993-85	B250 Van	DTB	DTD
1984-81	B250 Van	DTB	DTE[17] DTD[18]
2003-02	B2500 Van	DTK	DTC
2001-94	B2500 Van	DTB	DTC
1998-94	B2500 Van	DTB	DTC
1980	B300 Van	DTB	DTE[17] DTD[18]
1993-85	B350 Van	DTB	DTD
1984-81	B350 Van	DTB	DTE[17] DTD[18]
2003-02	B3500 Van	DTK	DTC
2001-94	B3500 Van	DTB	DTC
1997-94	B3500 Van	DTB	DTC
1993-85	D100, D150 2 W/D Pickup	DTB	DTD
1984-80	D100, D150 2 W/D Pickup	DTB	DTE[17] DTD[18]
1980	D200 2 W/D Pickup	DTB	DTE[17] DTD[18]
1993-85	D250 2 W/D Pickup	DTB	DTD[18]
1984-81	D250 2 W/D Pickup	DTB	DTE[17] DTD[18]
1980	D300 2 W/D Pickup	DTB	DTE[17] DTD[18]
1993-85	D350 2 W/D Pickup	DTB	DTD
1984-81	D350 2 W/D Pickup	DTB	DTD DTE
1981-80	Arrow, D50 Pickup 2 W/D	CRD	—
1981-80	Arrow, D50 Pickup 4 W/D	DTF	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
DODGE/PLYMOUTH TRUCKS - continued			
2007-97	Dakota 2 W/D	—	—
	Dakota 4 W/D	185/251	—
1996-87	Dakota 2 W/D	DTB	—
	Dakota 4 W/D	190/258	—
2007-97	Durango 2 W/D	—	—
	Durango 4 W/D	185/251	—
2007	Nitro 2 W/D	—	—
	Nitro 4 W/D	100/135	—
1989-87	Raider	DTF	—
2007-02	Ram 1500 Pickup 2 W/D	—	—
	Ram 1500 Pickup 4 W/D	185/251	—
2001-00	Ram 1500 Pickup 2 W/D	185/251	DTC
	Ram 1500 Pickup 4 W/D	180/244[16]	DTC
1999-96	Ram 1500 Pickup 2 W/D	DTA	DTC
	Ram 1500 Pickup 4 W/D	175/237[16]	DTC
1995-94	Ram 1500 Pickup 2 W/D	DTA	DTC
	Ram 1500 Pickup 4 W/D	180/244[16]	DTC
2007-03	Ram 2500 Pickup 2 W/D	—	DTL
	Ram 2500 Pickup 4 W/D	[38]	DTL
2002-00	Ram 2500 Pickup 2 W/D	280/380	DTC
	Ram 2500 Pickup 4 W/D	180/244[16]	DTC
1999-96	Ram 2500 Pickup 2 W/D	DTA	DTC
	Ram 2500 Pickup 4 W/D	175/237[16]	DTC
1995-94	Ram 2500 Pickup 2 W/D	DTA	DTC
	Ram 2500 Pickup 4 W/D	180/244[16]	DTC
2007-03	Ram 3500 Pickup 2 W/D	—	DTL
	Ram 3500 Pickup 4 W/D	[38]	DTL
2002-00	Ram 3500 Pickup 2 W/D	280/380	DTC
	Ram 3500 Pickup 4 W/D	180/244[16]	DTC
1999-96	Ram 3500 Pickup 2 W/D	DTA	DTC
	Ram 3500 Pickup 4 W/D	175/237[16]	DTC

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
DODGE/PLYMOUTH TRUCKS - continued			
1995-94	Ram 3500 Pickup 2 W/D	DTA	DTC
	Ram 3500 Pickup 4 W/D	180/244[16]	DTC
1993-81	Ram 50 Pickup 2 W/D	CRD	—
	Ram 50 Pickup 4 W/D	DTF	—
1993-80	Ramcharger, Trailduster 4 W/D	DTG	—
1993-80	Ramcharger, Trailduster 2 W/D	DTB	—
2006-04	Sprinter, Dual Rear Wheels, Inner Hub Nut	—	[41]
	Sprinter, Dual Rear Wheels, Outer Hub Nut	—	184/250
	Sprinter, Single Rear Wheels	—	—
1993-85	W100, W150 4 W/D Pickup	DTG	DTD
1984-80	W100, W150 4 W/D Pickup	DTG	DTE[17] DTD[18]
1980	W200 HD 4 W/D Pickup	DTI	DTE[17] DTD[18]
1980	W200 LD 4 W/D Pickup	DTG	DTE[17] DTD[18]
1993-85	W250 HD 4 W/D Pickup	DTG	DTD
1984-81	W250 HD 4 W/D Pickup	DTG	DTE[17] DTD[18]
1993-92	W250 LD 4 W/D Pickup	DTH	DTD
1991-85	W250 LD 4 W/D Pickup	DTI	DTD
1984-81	W250 LD 4 W/D Pickup	DTI	DTE[17] DTD[18]
1980	W300 4 W/D Pickup	DTI	DTE[17] DTD[18]
1993-92	W350 4 W/D Pickup	DTH	DTD
1991-85	W350 4 W/D Pickup	DTI	DTD
1984-81	W350 4 W/D Pickup	DTI	DTE[17] DTD[18]
EAGLE			
1988	Eagle Wagon	—	—
1989-88	Medallion	—	—
1992-88	Premier	181/245	123/167
1996-93	Summit	167/226	130/180
1992-89	Summit	167/226	127/175
1996-92	Summit Wagon	167/226	166/225
1991-89	Summit Wagon 4 W/D	165/224	CRB
	Summit Wagon FWD	165/224	CRB
1998-95	Talon 4 W/D	167/226	167/226
	Talon FWD	167/226	—
1994-90	Talon 4 W/D	167/226	138/190
	Talon FWD	167/226	167/226
1997-95	Vision	120/163	124/168
1994-93	Vision	80/108	125/170

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
FORD/MERCURY			
1997-94	Aspire	145/196	75/105
1994-92	Capri	145/196	FDC
2000-98	Contour, Mystique	199/270	210/290
1997-95	Contour, Mystique	246/334	210/290
2002-99	Cougar	214/290	214/290
1991-81	Country Squire, Colony Park	FDA	—
2007-03	Crown Victoria, Grand Marquis, Marauder	—	—
2002-92	Crown Victoria, Grand Marquis	221/300	—
1991-83	Crown Victoria, Grand Marquis	FDA	—
2007	Edge 4 W/D	203/275	166/225
	Edge FWD	203/275	—
2002-00	Escort	205/277	152/206
1999-91	Escort, Tracer	205/277	152/206
1990-81	Escort, Lynx, EXP, LN7	190/255	FDA
1980	Fairlane	FDA	—
1983-81	Fairmont, Zephyr	FDA	—
1993-89	Festiva	145/196	FDB
2007	Five Hundred 2 W/D	259/350[42]	—
	Five Hundred 4 W/D	259/350[42]	148/200
2006-05	Five Hundred	258/350[42]	148/200
2007-05	Focus	199/270	173/235
2004-00	Focus	233/316	173/235
2007-04	Freestar	111/150	—
2007	Freestar 2 W/D	259/350[42]	—
	Freestar 4 W/D	259/350[42]	148/200
2006-05	Freestar	259/360[42]	148/200
2007-06	Fusion	189/255	189/255
1982-81	Granada, Cougar	FDA	—
1986-81	LTD, Marquis	FDA	—
2007-06	Milan	189/255	189/255
2007	Montego 2 W/D	259/350[42]	—
	Montego 4 W/D	259/350[42]	148/200
2006-05	Montego	259/360[42]	148/200
2007-05	Monterey	111/150	—
2007-05	Mustang	221/300	—
2004-99	Mustang Cobra	258/350	240/325
2004-94	Mustang	258/350	—
1993-81	Mustang, Capri	FDA	—
1997-93	Probe	205/277	154/206
1992-89	Probe	205/277	100/136
2007-00	Taurus, Sable	184/250	221/300
1999-86	Taurus, Sable	190/258	221/300
1994-84	Tempo, Topaz	190/255	FDA
2005-02	Thunderbird	—	302/410
1997-89	Thunderbird, Cougar	221/300	221/300
1988-81	Thunderbird, Cougar XR7	FDA	—
1989-87	Tracer	145/196	—
2002-93	Villager	203/275	178/240
2003-00	Windstar	184/250	221/300

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
FORD/MERCURY - continued			
1999-98	Windstar	186/252	221/300
1997-95	Windstar	194/263	FDD
2003-98	ZX2	205/277	152/206
FORD/MERCURY TRUCKS			
1997-95	Aerostar 2 W/D	FTA	—
	Aerostar 4 W/D	185/257	—
1994-86	Aerostar 2 W/D	FTA	—
	Aerostar 4 W/D	190/260	—
1996-95	Bronco	FTM[20]	—
	Bronco	FTQ[21]	—
1994-86	Bronco	FTL[20]	—
	Bronco	FTO[21]	—
1985-81	Bronco	FTJ	—
1980	Bronco	FTE	—
1990-83	Bronco II 2 W/D	FTA	—
	Bronco II 4 W/D	FTU[20]	—
		FTV[21]	—
1982-80	Courier	FTD	—
2007	E150 Van	FTY	—
2006-04	E150 Van	[39]	—
2003-98	E150 Van	FTY	—
1997-80	E150 Van	FTB	—
2007	E250 Van	FTY	—
2006-04	E250 Van	[39]	—
2003-98	E250 Van	FTY	—
1997-87	E250 Van	FTB	FTT[23]
			FTS[24]
1986-80	E250 Van	FTB	FTH
2007	E350 Van	FTY	—
2006-04	E350 Van	[39]	—
2003-98	E350 Van	FTY	FTZ[24]
1997-87	E350 Van	FTB	FTT[23]
			FTS[24]
1986-80	E350 Van	FTB	FTH
2003-98	E450 Van	FTY	FTZ[24]
2003	E550 Van	—	FTZ[24]
2007	Escape, Mariner 2 W/D	221/300	—
	Escape, Mariner 4 W/D	221/300	214/290
2007-04	Escape, Mariner	221/300	222/300
2003-01	Escape	214/290	214/290
2005-00	Excursion	FTY	FT1[23]
			FTZ[24]
2007	Expedition 2 W/D	—	254/345
	Expedition 4 W/D	20/27	254/345
2006-03	Expedition 2 W/D	-	250/338
	Expedition 4 W/D	20/27	250/338
2002-97	Expedition 2 W/D	FTN	—
	Expedition 4 W/D	221/300	—
2007-06	Explorer, Mountaineer 2 W/D	—	203/275
	Explorer, Mountaineer 4 W/D	148/200	203/275

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
FORD/MERCURY TRUCKS - continued			
2005-02	Explorer, Mountaineer 2 W/D	—	203/275
	Explorer, Mountaineer 4 W/D	184/250	203/275
2001	Explorer, Mountaineer 2 W/D	—	—
	Explorer, Mountaineer 4 W/D	184/250	—
2000-97	Explorer, Mountaineer 2 W/D	FT2	—
	Explorer, Mountaineer 4 W/D	184/250	—
1996-95	Explorer 2 W/D	FTA	—
	Explorer 4 W/D	195/270	—
1994-93	Explorer 4 W/D	FTW[20]	—
		FTX[21]	
1994-91	Explorer 2 W/D	FTA	—
1992-91	Explorer 4 W/D	FTU[20]	—
		FTV[21]	
2007	Explorer Sport Trac 2 W/D	—	203/275
	Explorer Sport Trac 4 W/D	148/200	203/275
2005-04	Explorer Sport & Sport-Trac 4 W/D	162/220	—
2003-01	Explorer Sport & Sport-Trac 2 W/D	FT2	—
	Explorer Sport & Sport-Trac 4 W/D	184/250	—
1983-81	F100 Pickup 4 W/D	FTJ	—
1983-80	F100 Pickup 2 W/D	FTB	—
1980	F100 Pickup 4 W/D	FTE	—
2007	F150 Pickup 2 W/D	296/400	—
	F150 Pickup 4 W/D	20/27	—
2006-04	F150 Pickup 2 W/D	FTY	—
2006-04	F150 Pickup 4 W/D	20/27	—
2003-97	F150 Pickup 2 W/D	FTY	—
1996-80	F150 Pickup 2 W/D	FTB	—
2003-97	F150 Pickup 4 W/D	221/300	—
1996	F150 Pickup 4 W/D	FTM[20]	—
		FTR[21]	
1995	F150 Pickup 4 W/D	FTM[20]	—
		FTQ[21]	
1994	F150 Pickup 4 W/D	FTQ[21]	—
		FTL[20]	
1993-86	F150 Pickup 4 W/D	FTL[20]	—
		FTO[21]	
1985-81	F150 Pickup 4 W/D	FTJ	—
1980	F150 Pickup 4 W/D	FTE	—
1998-97	F250 LD Pickup 4 W/D	221/300	—
1996	F250 LD Pickup 4 W/D	FTM[20]	—
		FTR[21]	
1995	F250 LD Pickup 4 W/D	FTM[20]	—
		FTQ[21]	

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
FORD/MERCURY TRUCKS - continued			
1994	F250 LD Pickup 4 W/D	FTL[20] FTQ[21]	—
1993-86	F250 LD Pickup 4 W/D	FTL[20] FT0[21]	—
1985-81	F250 LD Pickup 4 W/D	FTJ[19] FTK[22]	—
1980	F250 LD Pickup 4 W/D	FTE	—
1998-97	F250 LD Pickup 2 W/D	FTP	—
1996-80	F250 LD Pickup 2 W/D	FTB	—
1997-87	F250 HD Pickup 2 W/D	FTB	FTT[23] FTS[24]
1986-81	F250 HD Pickup 2 W/D	FTB	FTH
1980	F250 HD Pickup 2 W/D	FTB	FTG
1997-96	F250 HD Pickup 4 W/D	FTM[20] FTR[21]	FTT[23] FTS[24]
1995	F250 HD Pickup 4 W/D	FTM[20] FTQ[21]	FTT[23] FTS[24]
1994	F250 HD Pickup 4 W/D	FTL[20] FTQ[21]	FTT[23] FTS[24]
1993-87	F250 HD Pickup 4 W/D	FTL[20] FT0[21]	FTT[23] FTS[24]
1986	F250 HD Pickup 4 W/D	FTL[20] FT0[21]	FTH
1985-81	F250 HD Pickup 4 W/D	FTJ[19] FTK[22]	FTH
1980	F250 HD Pickup 4 W/D	FTE	FTG
1997-88	F350 Pickup 2 W/D	FTB	FTT[23] FTS[24]
1987	F350 Pickup 2 W/D	FTB	FTT[23] FTS[24]
1986-81	F350 Pickup 2 W/D	FTB	FTH
1980	F350 Pickup 2 W/D	FTB	FTG
1997-96	F350 Pickup 4 W/D	FTR	FTT[23] FTS[24]
1995-94	F350 Pickup 4 W/D	FTQ	FTT[23] FTS[24]
1993-87	F350 Pickup 4 W/D	FT0	FTT[23] FTS[24]
1986	F350 Pickup 4 W/D	FT0	FTH
1985-81	F350 Pickup 4 W/D	FTK	FTH
1980	F350 Pickup 4 W/D	FTE	FTG
2007	F Super Duty 250-550	FT3	FT1 [23] FTZ [24]
2006-99	F Super Duty 250-550	FTY	FT1[23] FTZ[24]
2007	Ranger 2 W/D	FT2	—
	Ranger 4 W/D	162/220	—
2006	Ranger 2 W/D	FT2	—
	Ranger 4 W/D	184/250	—
2005-01	Ranger 2 W/D	FT2	—
	Ranger 4 W/D	162/220	—
2000-98	Ranger 2 W/D	FTA	—
	Ranger 4 W/D	[25]	
1997-95	Ranger 2 W/D	FTA	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
FORD/MERCURY TRUCKS - continued			
1994-83	Ranger 2 W/D	FTA	—
1997-93	Ranger 4 W/D	FTW[20] FTX[21]	—
1992-83	Ranger 4 W/D	FTU[20] FTV[21]	—
GEO			
1997-89	Metro	129/175	129/175
1997-93	Prizm	159/216	—
1992-89	Prizm	137/186	90/123
1989	Spectrum	137/186	IUC
1993-90	Storm	137/186	—
1997-89	Tracker	155/210	—
GMC TRUCKS-See CHEVROLET/GMC TRUCKS			
HONDA			
2007-03	Accord 2.4L A/T	134/181	134/181
2007-03	Accord 2.4L M/T	181/245	134/181
	Accord 3.0L	181/245	134/181
2002-90	Accord	181/245	134/181
1989-86	Accord	134/181	134/181
1985-83	Accord	137/190	HAA
1982-80	Accord	108/150	HAA
2007	Civic SI	181/245	—
	Civic Exc. SI	134/181	—
2006-84	Civic	134/181	134/181
1983-80	Civic	108/150	HAA
2007	CR-V	242/328	181/245
2006-97	CR-V	181/245	134/181
1991-84	CRX	134/181	134/181
1997-93	del Sol	134/181	134/181
2007-03	Element	181/245	134/181
2007	Fit	134/181	134/181
2006-00	Insight	134/181	119/162
2004-95	Odyssey	181/245	181/245
2002-94	Passport 2 W/D & 4 W/D	IUA	—
2007-05	Pilot	210/285	181/245
2004-03	Pilot	181/245	181/245
2001-92	Prelude	181/245	134/181
1991-90	Prelude	181/245	181/245
1989-83	Prelude	134/181	HAA
1982-80	Prelude	108/150	HAA
2007-06	Ridgeline	242/328	181/245
2007-00	S2000	242/329	181/245
HYUNDAI			
2007	Accent	188/260	—
2006	Accent	175/237	—
2005-01	Accent	175/237	147/200

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
HYUNDAI - continued			
2000-95	Accent	170/230	147/200
2007	Azera	207/280	—
2006	Azera	170/230	—
2007	Elantra	170/230	—
2006-01	Elantra	170/230	170/230
2000-98	Elantra	170/230	158/215
1997-96	Elantra	170/230	148/200
1995-92	Elantra	170/230	129/175
2007	Entourage	199/275	188/260
1994-90	Excel	170/230	129/175
1989-86	Excel	170/230	HIA
2007-01	Santa Fe	170/230	170/230
1995-91	Scoupe	170/230	127/175
2007-02	Sonata	177/240	177/240
2001-95	Sonata	170/230	167/226
1994-92	Sonata	170/230	196/270
1991-89	Sonata	170/230	HIA
2007-03	Tiburon 2.0L	170/230	170/230
	Tiburon 2.7L	177/240	170/230
2001-97	Tiburon	170/230	158/215
2007	Tucson 2 W/D	170/230	170/230
	Tucson 4 W/D	170/230	190/258
2006-05	Tucson	170/230	170/230
2001	XG300	192/260	170/230
2005-02	XG350	192/260	170/230
INFINITI			
2007-04	FX35, FX45 AWD	203/275	177/240
2002	G20	217/294	163/221
2001-99	G20	203/275	156/210
1996-91	G20	203/275	163/221
2007	G35 Coupe	—	177/240
2007	G35 Sedan 2 W/D	—	129/175
	G35 Sedan AWD	92/125	129/175
2006-03	G35	177/240	177/240
2001-00	I30	217/294	163/221
1999-96	I30	203/275	163/221
2004-02	I35	203/275	163/221
1997-93	J30	217/294	178/241
1992-90	M30	—	117/152
2007-06	M35, M45	92/125	130/175
2004-03	M45	181/245	177/240
2006-90	Q45	181/245	177/240
2003-97	QX4	NDG	181/245
2007-04	QX56	101/137	170/230
ISUZU			
2000-98	Amigo	IUA	—
1994-89	Amigo 2 W/D	IUB	—
	Amigo 4 W/D	IUA	—
2007-03	Ascender 2 W/D	—	—
	Ascender 4 W/D	103/140	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
ISUZU - continued			
2002	Axiom	IUA	—
2000-97	Hombre 2 W/D	GMA	—
	Hombre 4 W/D	103/140	—
1996	Hombre 2 W/D	GMA	—
	Hombre 4 W/D	181/245	—
1989-86	I-Mark	137/186	IUC
1985	I-Mark FWD	137/186	IUC
	I-Mark RWD	IUC	—
1984-81	I-Mark	IUC	—
1993-90	Impulse	137/186	—
1989-83	Impulse	IUD	—
2007-06	i-280, i-290, i-350, i-370 2 W/D	—	—
	i-280, i-290, i-350, i-370 4 W/D	191/260	—
1999-96	Oasis	181/245	134/185
1995-88	Pickup 2 W/D	IUB	—
	Pickup 4 W/D	IUA	—
1987-81	Pickup 2 W/D	IUE	—
	Pickup 4 W/D	IUF	—
2002-91	Rodeo	IUA	—
2002-01	Rodeo Sport	IUA	—
1993-91	Stylus	137/186	—
2002-92	Trooper	IUA	—
1991-84	Trooper	IUF	—
JAGUAR			
1987-80	All	JGB	—
1997-88	XJ6, XJ12 & XJS	JGA	—
2007-00	S-Type	—	221/300
2007-02	X-Type	200/270	200/270
2007-04	XJ Series	—	221/300
2003-98	XJ8	—	236/320
2007-04	XK Series	—	221/300
2003-97	XK8	—	236/320
JEEP TRUCKS			
2001-96	Cherokee	175/237	—
1995-84	Cherokee 2 W/D	JPA	—
	Cherokee 4 W/D	175/237	—
1983-80	Cherokee	JPB	—
1983-80	CJ-5	JPB	—
1986-80	CJ-7	JPB	—
1992-86	Comanche 2 W/D	JPA	—
	Comanche 4 W/D	175/237	—
2007-06	Commander	100/135	—
2007	Compass, Patriot	181/245	180/244
2007-05	Grand Cherokee	100/135	—
2004-93	Grand Cherokee	175/237	—
1993	Grand Wagoneer	175/237	—
1991-84	Grand Wagoneer	JPB	—
1987-80	J10 Pickup	JPB	—
1987-80	J20 Pickup	JPB	—
2007-02	Liberty 4 W/D	100/135	—

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
JEEP TRUCKS - continued			
1985-82	Scrambler	JPB	—
1990-84	Wagoneer 2 W/D	JPA	—
	Wagoneer 4 W/D	175/237	—
1983-80	Wagoneer	JPB	—
2007	Wrangler	100/136	—
2006-87	Wrangler	175/237	—
KIA			
2007-04	Amanti	177/240	—
2007-01	Optima	170/230	—
2007	Rio	145/200	—
2006-01	Rio	145/200	KIB
2007-06	Rio5	145/200	—
2007	Rondo	177/240	—
2007-02	Sedona	188/255	188/255
2001-97	Sephia	180/244	180/244
1996-94	Sephia	177/240	[35]
2006-03	Sorento	192/260	—
2007-01	Spectra, Spectra5	180/244	180/244
2007-05	Sportage	170/230	170/230
2002-95	Sportage	KIA	—
LAND ROVER			
1995-93	Defender	LRB	—
1997	Defender	LRC	—
1997-95	Discovery	LRA	—
2004-98	Discovery II	360/490[6]	—
2005-02	Freelander	295/400	295/400
2007-05	LR3	258/350	258/350
1997-95	Range Rover	LRA	—
2002-00	Range Rover	192/260[6]	—
2007-03	Range Rover	311/420	311/420
2007-06	Range Rover Sport	258/350	258/350
LEXUS			
1991-90	ES250	137/186	90/123
2007	ES350	217/294	—
2006-04	ES330	217/294	—
2003-92	ES300	217/294	—
2007	GS350, GS430	217/294	214/290
2006-01	GS300, GS430	217/294	213/289
2000-98	GS300, GS400	147/199	213/289
1997-93	GS300	147/199	213/289
2007	GS450H	—	214/290
2007-03	GX470	173/235	—
2007-06	IS250 FWD	217/294	—
2007-06	IS250 AWD	217/294	214/290
2007-06	IS350	—	214/290
2006	IS250, IS350	217/294	214/290
2005-00	IS300	108/147	213/289
2000	LS400	—	213/289

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
LEXUS - continued			
1999-95	LS400	147/199	213/289
1994-90	LS400	147/199	253/343
2006-01	LS430	—	214/290
2007	LS460	—	214/290
1997-96	LX450	TAA	—
2007-98	LX470	TAH	—
2007	RX350 2 W/D	217/294	—
	RX350 4 W/D	217/294	217/294
2007	RX400H 2 W/D	217/294	—
	RX400H 4 W/D	217/294	217/294
2003-99	RX300 2 W/D	217/294	—
2003-99	RX300 4 W/D	217/294	159/216
2006-04	RX330 2 W/D	217/294	—
	RX330 4 W/D	217/294	217/294
2007-01	SC430	147/199	213/289
2000-92	SC300, SC400	147/199	213/289
LINCOLN			
2005-03	Aviator	184/250	203/275
2002	Blackwood	FTY	—
2002-99	Continental	184/250	221/300
1998-88	Continental	190/258	221/300
2006-00	LS	—	221/300
1992-88	Mark VII	FDA	—
1998-93	Mark VIII	221/300	—
2007	Mark LT Pickup 2 W/D	296/400	—
	Mark LT Pickup 4 W/D	20/27	—
2006	Mark LT Pickup 2 W/D	FTY	—
	Mark LT Pickup 4 W/D	20/27	—
2007	MKX FWD	203/275	—
	MKX 4 W/D	203/275	166/225
2007	MKZ	189/255	189/255
2007	Navigator 2 W/D	—	254/345
	Navigator 4 W/D	20/27	254/345
2006-03	Navigator 2 W/D	—	221/300
	Navigator 4 W/D	20/27	221/300
2002-98	Navigator 2 W/D	FTN	—
	Navigator 4 W/D	221/300	—
2007-03	Town Car	—	—
2002-91	Town Car	221/300	—
1990-88	Town Car	FDA	—
2006	Zephyr	185/255	185/255
MAZDA			
1987-80	All	FDA	—
1994-90	323	205/277	152/206
1989-86	323	144/196	MAA
2002-93	626, MX-6	205/277	152/206
1992-88	626, MX-6	205/277	102/138
1987-83	626	145/200	MAA
1982-80	626	MAB	—
1995-92	929, Serenia	152/206	203/275

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
MAZDA - continued			
1991-88	929	100/138	203/275
1987-80	B2000 Pickup	MAC	—
1993-82	B2200 Pickup	MAC	—
2007-01	B2300 Pickup 2 W/D	FT2	—
	B2300 Pickup 4 W/D	162/220	
1997-94	B2300 Pickup 2 W/D	FTA	—
	B2300 Pickup 4 W/D	FTW[20]	—
		FTX[21]	
2001	B2500 Pickup 2 W/D	FTP	—
	B2500 Pickup 4 W/D	162/220	
2000-98	B2500 Pickup 2 W/D	FTA	—
	B2500 Pickup 2 W/D	[25]	
1993-87	B2600 Pickup 2 W/D	MAC	—
	B2600 Pickup 4 W/D	MAD	—
2007-01	B3000 Pickup 2 W/D	FT2	—
	B3000 Pickup 4 W/D	162/220	
2000-98	B3000 Pickup 2 W/D	FTA	—
	B3000 Pickup 4 W/D	[25]	
1997-94	B3000 Pickup 2 W/D	FTA	—
	B3000 Pickup 4 W/D	FTW[20]	—
		FTX[21]	
2007-01	B4000 Pickup 2 W/D	FT2	—
	B4000 Pickup 4 W/D	162/220	—
2000-98	B4000 Pickup 2 W/D	FTA	—
	B4000 Pickup 4 W/D	[25]	
1997-94	B4000 Pickup 2 W/D	FTA	—
	B4000 Pickup 4 W/D	FTW[20]	—
		FTX[21]	
1985-81	GLC Exc. Wagon	145/200	MAB
1983-81	GLC Wagon	MAB	—
1980	GLC	MAB	—
2006-01	Tribute	214/290	214/290
2006-04	Mazda 3	MA3	—
2006	Mazda 5	188/255	—
2006-03	Mazda 6	188/255	152/206
2005-99	Miata	141/191	205/277
1997-90	Miata	141/191	—
2002-95	Millenia	205/277	152/206
2006-00	MPV	205/277	152/206
1998-89	MPV 2 W/D	152/206	—
	MPV 4 W/D	203/275	—
1995-92	MX-3, Precidia	205/277	152/206
2006	MX-5	—	188/255
1994-91	Navajo 2 W/D	FTA	—
1994-93	Navajo 4 W/D	FTW[20]	—
		FTX[21]	—
1992-91	Navajo 4 W/D	FTU[20]	—
		FTV[21]	—
2003-90	Protege	205/277	152/206
1995-93	RX-7	152/206	203/275
1992-86	RX-7	MAB	203/275
1985-80	RX-7	MAB	—
2006-04	RX-8	—	188/255

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
MERCURY - See FORD/MERCURY			
MINI			
2005-02	Cooper	134/182	—
MITSUBISHI			
1999-91	3000GT 4 W/D	166/225	203/280
	3000GT FWD	166/225	166/225
1988-83	Cordia, Tredia	167/226	MIA
2004-97	Diamante	167/226	—
1996-92	Diamante	167/226	166/225
2007-00	Eclipse	167/226	-
1999-95	Eclipse 4 W/D	167/226	166/225
	Eclipse FWD	167/226	—
1994-90	Eclipse 4 W/D	167/226	138/190
	Eclipse FWD	167/226	166/225
2007-04	Endeavor	167/226	167/226
1996-92	Expo	167/226	166/225
2007-94	Galant	167/226	—
1993-89	Galant 4 W/D	167/226	MIA
1993-89	Galant FWD	167/226	MIA
1988-85	Galant	167/226	MIA
2006-02	Lancer	181/245	130/175
2001-93	Mirage	167/226	130/180
1992-89	Mirage	167/226	127/175
1988-85	Mirage	167/226	90/125
2006-04	Montero	148/200	188/255
2003-01	Montero	188/255	188/255
2000-83	Montero	DTF	—
2004-97	Montero Sport 2 W/D	DTJ	—
	Montero Sport 4 W/D	DTJ	—
2007	Outlander 2 W/D	129/176	—
	Outlander 4 W/D	129/176	129/176
2006-03	Outlander 2 W/D	181/245	130/175
	Outlander AWD	181/245	181/245
1996-83	Pickup 2 W/D	CRD	—
	Pickup 4 W/D	DTF	—
1994-93	Precis	170/230	127/175
1992-90	Precis	167/226	127/175
1989-87	Precis	167/226	HIA
2007-06	Raider	185/251	—
1990-88	Sigma	167/226	MIA
1989-84	Starion	CRB	—
1990-87	Van	CRD	—
NISSAN/DATSUN			
1998-95	200SX	174/236	163/221
1988-80	200SX	NDB	—
1982-80	210	NDE	—
1998-95	240SX	181/245	178/241
1994-89	240SX	134/182	203/275
1983-80	280ZX	NDB	—
1996-90	300ZX	181/245	178/241

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
NISSAN/DATSUN - continued			
1989-84	300ZX	NDB	—
1982-80	310	—	NDC
2007-03	350Z	—	177/240
1981-80	510	NDE	—
1983-80	810	NDB	—
2007	Altima	92/125	—
2006-02	Altima	202/275	—
2001-93	Altima	203/275	163/221
2007-04	Armada	101/137	170/230
1990	Axxess 4 W/D	203/275	203/275
1990	Axxess FWD	203/275	163/221
2007-05	Frontier 2 W/D	—	—
	Frontier 4 W/D	101/137	—
2004	Frontier 2 W/D	NDA	206/280
	Frontier 4 W/D	NDG	206/280
2003-98	Frontier 2 W/D	NDA	—
	Frontier 4 W/D	NDG	—
2007	Maxima	203/275	—
2006-04	Maxima	217/294	—
2003-00	Maxima	217/294	163/221
1999-89	Maxima	203/275	163/221
1988-85	Maxima	203/275	—
1984-83	Maxima	NDB	—
2007-03	Murano FWD	92/125	—
	Murano AWD	92/125	92/125
1993-91	NX	174/236	163/221
2007-05	Pathfinder	101/137	177/240
2004-96	Pathfinder	NDG	—
1995-87	Pathfinder 2 W/D	NDD	—
	Pathfinder 4 W/D	NDG	—
1997-81	Pickup 2 W/D	NDD	—
1997-87	Pickup 4 W/D	NDG	—
1986	Pickup 4 W/D, 720	NDH	—
	Pickup 4 W/D, D21	NDG	—
1985-84	Pickup 4 W/D	NDH	—
1983	Pickup 4 W/D, Early	126/175	—
	Pickup 4 W/D, Late	NDH	—
1982-81	Pickup 4 W/D	126/175	—
1980	Pickup	NDE	—
1990-87	Pulsar	174/236	163/221
1986-83	Pulsar	—	NDC
2007-04	Quest	92/125	—
2002-93	Quest	203/275	178/240
2007	Sentra	92/125	—
2006	Sentra	145/197	163/221
2005-02	Sentra 1.8L	174/236	163/221
2005-02	Sentra 2.5L	217/294	163/221
2001-87	Sentra	174/236	163/221
1986-82	Sentra	—	NDC
2003-02	SE-R 2.5L	217/294	163/221
1992-87	Stanza	203/275	—
1986-82	Stanza	174/236	NDC
2007-04	Titan	101/137	—
2007	Versa	83/113	—
2007-05	Xterra	101/137	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
NISSAN/DATSUN - continued			
2004-00	Xterra 2 W/D	NDA	—
2004-00	Xterra 4 W/D	NDG	—
OLDSMOBILE			
1999-98	88	118/160	—
1997-92	88	107/145	—
1991-86	88	185/260	—
1985-80	88	GMA	—
1996-92	98	107/145	—
1991-85	98	185/260	—
1984-80	98	GMA	—
1998	Achieva	74/100[3]	—
1997-92	Achieva	185/260	—
2004-99	Alero	[34]	
2003-01	Aurora	118/160	—
1999-98	Aurora	118/160	—
1997-95	Aurora	107/145	—
2004-97	Bravada	103/140	—
1996-91	Bravada	181/245	—
1991-85	Calais	185/260	—
1996	Ciera, Cruiser	107/145	—
1995-92	Ciera, Cruiser	103/140[4]	—
1991-83	Ciera, Cruiser	185/260	—
1982	Ciera, Cruiser	225/290	—
1992-80	Custom Cruiser	GMA	—
1999-97	Cutlass FWD	284/385	—
1997-96	Cutlass Supreme	151/205	—
1995-88	Cutlass Supreme	184/250	—
1988	Cutlass Supreme Classic RWD	GMA	—
1987-80	Cutlass RWD	GMA	—
1988-82	Firenza	185/260	—
2002-01	Intrigue	159/215	—
2000-98	Intrigue	118/160	—
1999-98	LSS	118/160	—
1997-92	LSS	107/145	—
1984-83	Omega	185/260	—
1982-80	Omega	225/290	—
1997	Regency	107/145	—
2004-02	Silhouette	118/160	192/260
2001-98	Silhouette	118/160	—
1997	Silhouette	151/205	
1996-95	Silhouette	104/145	—
1994-90	Silhouette	185/260	—
1980	Starfire	GMA	—
1992-86	Toronado	183/248	—
1985-80	Toronado	175/240	—
1992-88	Trofeo	183/248	—
PLYMOUTH - See DODGE/PLYMOUTH			
PLYMOUTH TRUCKS - See DODGE/ PLYMOUTH TRUCKS			

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
PONTIAC			
1987-83	1000	GMA	—
1983	2000	185/260	—
1991-83	6000	185/260	—
1982	6000	225/290	—
1987-80	Acadian	GMA	—
2006-01	Aztec	192/260	192/260
2005-98	Bonneville	118/160	—
1997-92	Bonneville	107/145	—
1991-87	Bonneville	185/260	—
1986-80	Bonneville, Catalina	GMA	—
1988	Fiero	220/280	200/270
1987-84	Fiero	195/267	200/270
2002-93	Firebird	—	—
1992-80	Firebird	GMA	—
1997-89	Firefly	129/175	129/175
1988-85	Firefly	151/210	62/100
2005-99	Grand Am	[34]	—
1998	Grand Am	74/100[3]	—
1997-85	Grand Am	185/260	—
1981-80	Grand Am	GMA	—
2007-98	Grand Prix	118/160	—
1997-95	Grand Prix	151/205	—
1994-88	Grand Prix	184/250	—
1987-80	Grand Prix	GMA	—
2006-04	GTO	—	221/300
2007	G5	155/210	—
2007-05	G6	159/215	—
1982	J2000	185/260	—
1981-80	Laurentian	GMA	—
1993-88	LeMans	GMR	—
1981-80	LeMans	GMA	—
2007	Montana SV6	118/160	—
2006-02	Montana, Montana SV6	118/160	192/260
2001-99	Montana	118/160	—
1986-80	Parisienne	GMA	—
1984-83	Phoenix	185/260	—
1982-80	Phoenix	225/290	—
1989-80	Safari Wagon	GMA	—
2007-06	Solstice	—	159/215
1994-84	Sunbird	185/260	—
1980	Sunbird	GMA	—
1987-85	Sunburst	137/186	IUC
2005-02	Sunfire	148/200	—
2001-98	Sunfire	144/195	—
1997-95	Sunfire	185/260	—
1997-94	Sunrunner	155/210	—
1982-81	T1000	GMA	—
1991-87	Tempest	185/260	—
2007	Torrent	151/205	151/205
2006	Torrent	151/205	81/110
1999-97	Trans Sport	118/160	—
1996-95	Trans Sport	104/145	—
1994-90	Trans Sport	185/260	—
2007-03	Vibe	159/216	—

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
PORSCHE			
1994-80	All	POA	—
1995	Except 911	POA	—
2006-01	911 Turbo	340/460	340/460
2007-99	911	[29]	340/460
1998-95	911	[29]	340/460[1]
2007-95	Boxster	[29]	340/460
2007-06	Cayman	[29]	340/460
2006-04	Cayenne	—	—
SAAB			
2006-05	9-2	162/220	140/190
2007-03	9-3	170/230	—
2002-99	9-3	[36]	—
2007	9-5	170/230	—
2006-02	9-5	148/200[37]	—
2001-00	9-5	125/170[27]	—
1999	9-5	[36]	—
2007-06	9-7X	103/140	—
1998-94	900	214/290	—
1993-80	900	222/300	222/300
1998-86	9000	214/290	—
SATURN			
2007	Aura	159/215	—
2007-04	ION	155/210	—
2003	ION	81/110	—
2005-00	L Series	SNA	—
2007	Outlook FWD	151/205	—
	Outlook AWD	151/205	118/160
2006	Relay AWD	118/160	192/260
2007-06	Relay FWD	118/160	—
2002-91	S Series	148/200	—
2007	SKY	—	159/215
2007-02	Vue FWD	151/205	—
2007	Vue AWD	151/205	63/85[43]
2006-02	Vue AWD	151/205	81/110
SCION			
2007-05	tC	159/216	—
2006-04	xA	159/216	—
2006-04	xB	159/216	—
STERLING			
1991-87	All	215/290	—
SUBARU			
2006-04	Baja	162/220	177/240

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
SUBARU - continued			
2007-06	B9 Tribeca	177/240	177/240
2006-04	Forester	162/220	—
2007	Forester AWD	162/220	140/190
2006-03	Forester AWD	140/190	140/190
2002-98	Forester AWD	137/186	137/186
2007-04	Impreza	162/220	140/190
2003	Impreza	140/190	140/190
2002-93	Impreza AWD	137/186	137/186
1995-93	Impreza FWD	137/186	SUA
1994-87	Justy	130/177	SUA
2007-04	Legacy, Outback	162/220	177/240
2003-02	Legacy, Outback	159/216	174/235
2001	Legacy, Outback 2.5L	137/186	174/235
	Legacy, Outback 3.0L	159/216	174/235
2000	Legacy, Outback	137/186	174/235
1999-90	Legacy AWD	137/186	137/186
1996-90	Legacy FWD	137/186	SUA
1997-92	SVX	137/186	138/187
1994-80	All Others 4 W/D	148/200	145/196
	All Others FWD	148/200	SUA
SUZUKI			
2007-02	Aerio	127/175	127/175
2002-95	Esteem	127/175	127/175
2007-04	Forenza	221/300	—
2007	Grand Vitara FWD	145/200	—
	Grand Vitara 4 W/D	145/200	145/200
2006-99	Grand Vitara	156/216	—
2007-06	Reno	221/300	—
1995-89	Samari	SZA	—
1998-91	Sidekick	152/210	—
1990-89	Sidekick	119/160	
2001-89	Swift	127/175	[28]
2007	SX4 FWD	145/200	—
	SX4 4 W/D	145/200	127/175
2006-04	Verona	236/320	—
2004-99	Vitara	156/216	—
2007	XL-7	151/205	—
2006-04	XL-7	157/216	—
1998-96	X-90	152/210	—
TOYOTA			
2007	4-Runner 2 W/D	—	—
	4-Runner 4 W/D	217/294	—
2006-96	4-Runner 2 W/D	—	—
	4-Runner 4 W/D	174/235	—
1995-86	4-Runner 2 W/D	TAD	—
	4-Runner 4 W/D	TAB	—
1985-84	4-Runner 2 W/D	TAD	—
	4-Runner 4 W/D	TAC	—
2007-95	Avalon w/ABS	217/294	—
	Avalon w/o ABS	217/294	90/123

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
TOYOTA - continued			
2007-92	Camry w/ABS	217/294	—
	Camry w/o ABS	217/294	90/123
1991-87	Camry 4 W/D	137/186	137/187
	Camry FWD	137/186	90/123
1986-83	Camry	137/186	90/123
2007-99	Camry Solara	217/294	—
2005-94	Celica	159/216	—
1993-92	Celica 4 W/D	166/226	166/226
	Celica FWD	166/226	90/123
1991-88	Celica 4 W/D	137/186	137/186
	Celica FWD	137/186	90/123
1987-86	Celica	137/186	90/123
1985-80	Celica	TAE	—
2007-03	Corolla	159/216	—
2002-98	Corolla	166/225	—
1997-93	Corolla	159/216	—
1992-91	Corolla	152/206	90/123
1990-88	Corolla	137/186	90/123
1987-84	Corolla FWD	137/186	90/123
	Corolla RWD	TAE	—
1983-80	Corolla	TAE	—
1982-80	Corona	TAE	—
1992-89	Cressida	108/147	203/275
1988-80	Cressida	TAE	—
2005-00	Echo	159/216	—
2007	FJ Cruiser 2 W/D	—	—
	FJ Cruiser 4 W/D	174/235	—
2007-01	Highlander FWD	217/294	—
	Highlander 4 W/D	217/294	217/294
2007-98	Land Cruiser	TAH	—
1997-81	Land Cruiser	TAA	—
1980	Land Cruiser	—	—
2007-03	Matrix FWD	159/216	—
2006-03	Matrix 4 W/D	159/216	159/216
2005-00	MR2	—	159/216
1995-93	MR2 Turbo	90/123	217/294
	MR2 Exc. Turbo	90/123	159/216
1992-91	MR2 Turbo	90/123	217/294
	MR2 Exc. Turbo	90/123	137/186
1989-85	MR2	90/123	137/186
1997-94	Paseo	159/216	TAF
1993-92	Paseo	166/226	TAF
1995-86	Pickup 2 W/D	TAD	—
	Pickup 4 W/D	TAB	—
1985-80	Pickup 2 W/D	TAD	—
	Pickup 4 W/D	TAC	—
1997-91	Previa	147/199	—
2007-01	Prius	159/216	—
2007	RAV4 w/2.4L 2 W/D	159/216	—
	RAV4 w/3.5L 2 W/D	215/292	—
	RAV4 w/2.4L 4 W/D	159/216	159/216
	RAV4 w/3.5L 4 W/D	215/292	159/216
2006-98	RAV4 2 W/D	159/216	—
2006-98	RAV4 4 W/D	159/216	159/216

FWD, RWD & 4 W/D front axle nut torque specifications

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
TOYOTA - continued			
1997	RAV4 4 W/D, 2 W/D w/ABS	159/216	159/216
1996	RAV4	159/216	152/206
2007-01	Sequoia	173/235	—
2007	Sienna AWD	217/294	159/216
2006-04	Sienna AWD	217/294	217/294
2007-98	Sienna FWD	217/294	—
1984-81	Starlet	TAE	—
1998-93	Supra	147/199	213/289
1992-87	Supra	147/199	203/275
1986	Supra 2.8L	100/137	100/137
1986	Supra 3.0L	147/199	203/275
1985-82	Supra	100/137	100/137
1981-80	Supra	TAE	—
1998-93	T100 Pickup 2 W/D	TAD	—
	T100 Pickup 4 W/D	TAB	—
2007	Tacoma 2 W/D	—	—
	Tacoma 4 W/D	173/235	—
2006-97	Tacoma 2 W/D	TAD	—
	Tacoma 4 W/D	174/235	—
1998-95	Tacoma 2 W/D	TAD	—
	Tacoma 4 W/D	TAB	—
1999-94	Tercel	159/216	TAF
1993-92	Tercel	166/226	TAF
1991-89	Tercel	137/186	TAF
1988-83	Tercel	137/186	TAF
1982-80	Tercel	90/127	TAF
2007	Tundra 2 W/D	—	—
	Tundra 4 W/D	249/338	—
2006-00	Tundra 2 W/D	—	—
	Tundra 4 W/D	173/235	—
1989-84	Van 2 W/D	TAE	—
1989-84	Van 4 W/D	TAG	—
2007	Yaris	160/216	—
VOLKSWAGEN			
1998-95	Cabrio	195/265	VWB
1992-85	Cabriolet	174/240	VWB
1994-90	Corrado	195/265	VWB
2003-97	EuroVan FWD	111/150[30]	—
	EuroVan AWD	111/150[30]	111/150[30]
1996-93	EuroVan	148/200	VWB
2007	Eos	VWE	148/200[45]
1993-87	Fox	170/230	VWB
2006-99	Golf	VWC	129/175
1998-85	Golf w/Base Suspension	195/265	VWB
	Golf w/Plus Suspension	VWD	VWB
2007	GTI, Rabbit	VWE	148/200[45]
1998-85	GTI w/Base Suspension	195/265	VWB
	GTI w/Plus Suspension	VWD	VWB
1984-83	GTI	174/240	VWB
2006-99	Jetta	VWC	129/175
1998-85	Jetta w/Base Suspension	195/265	VWB
	Jetta w/Plus Suspension	VWD	VWB
1984-80	Jetta	174/240	VWB

Make year	Model	Front proc. or torque ft-lbs/Nm	Rear proc. or torque ft-lbs/Nm
VOLKSWAGEN - continued			
2006-98	New Beetle	VWC	129/175
2006-98	Passat FWD	[31]	AIA
	Passat AWD	[31]	85/115
1997-95	Passat w/Base Suspension FWD	195/265	VWB
	Passat w/Plus Suspension FWD	66/90[27]	66/90[27]
	Passat w/Base Suspension 4 W/D	195/265	66/90[27]
	Passat w/Plus Suspension 4 W/D	66/90[27]	VWB
1994-90	Passat Synchro	195/265	170/230
	Passat Exc. Synchro	195/265	VWB
2006-04	Phaeton	—	148/200[45]
1984-80	Pickup	174/240	VWB
1988-82	Quantum Synchro	170/230	170/230
	Quantum Exc. Synchro	170/230	VWB
1984-80	Rabbit	174/240	VWB
1989-85	Scirocco	195/265	VWB
1984-80	Scirocco	174/240	VWB
2006-04	Touareg w/17, 18, 19 Wheels	369/500	—
1991-84	Vanagon Synchro	258/350	253/350
	Vanagon Exc. Synchro	VWB	253/350
1983-80	Vanagon	VWB	253/350
VOLVO			
1993-80	240, 260 Series	VOA	—
1990-85	740	VOA	—
1990-88	760	VOA	102/140[26]
1987-83	760	VOA	-
1990-87	780	VOA	102/140[26]
1997-93	850	89/120[26]	—
1995-91	940	VOA	102/140[26]
1997-92	960	VOA	102/140[26]
2007	C70	26/35 [44]	—
2006-98	C70	89/120[26]	—
2007	S40, V40	26/35 [44]	—
2006-00	S40, V40	89/120[26]	89/120[26]
2006-01	S60	37/50	—
2000-98	S70, V70	89/120[26]	—
2007-05	V50	26/35 [44]	—
2006-01	V70	26/35[30]	—
2000-99	S80	37/50	—
2007	S80	33/45 [47]	26/35
2006-01	S80	26/35[30]	—
1991	Coupe	VOA	102/140[26]
1984-80	DL, GL, GLE, GLT	VOA	—
1999-98	S90, V90	VOA	102/140[26]
2006-03	XC90	26/35[30]	—
YUGO			
1991-85	All	160/215	—

Footnote Codes

[1] Additional lock nut on 911 Carrera RS, 147 ft-lbs/200 Nm.

[2] Models with stake nut, tighten to 210 ft-lbs/290 Nm.

[3] After tightening to this value, turn an additional 40°.

[4] After tightening to this value, turn an additional 20°.

[5] Soft ride & sport suspension, 118 ft-lbs/160 Nm; heavy duty suspension, 170 ft-lbs/230 Nm.

[6] Driveshaft nut.

[7] With Rockwell 12 or 12 1/4 ring gear.

[8] With 9 3/4 or 10 1/2 ring gear.

[9] 9 3/4 or 10 1/2 ring gear; 5500 lb. GVW.

[10] With 9 3/4 or 10 1/2 ring gear; 5200 lb. or 7200 lb. GVW.

[11] With 9 3/4 ring gear.

[12] With manual locking hubs.

[13] With automatic locking hubs.

[14] With 11 ring gear (Dana 80 with rear disc brakes).

[15] With 10 1/2 or 12 1/2 ring gear.

[16] Tighten nut to specified value and tighten further to align cotter pin with hole.

[17] With double nut type bearing unit.

[18] With wedge nut type bearing unit.

[19] With Dana 44 axle.

[20] With manual locking hubs.

[21] With automatic locking hubs.

[22] With Dana 50 axle.

[23] With Ford axle.

[24] With Dana axle.

[25] The wheel hub and bearing are not serviceable or adjustable. If the bearing retaining nut is removed, the hub and bearing must be replaced.

[26] After tightening to specification, turn an additional 60°.

[27] After tightening to specification, turn an additional 45°.

[28] Less wheel hub, 73 ft-lbs/100 Nm. With wheel hub, 127 ft-lbs/175 Nm.

[29] Wheel hub to wheel carrier, 340 ft-lbs/460 Nm.

[30] After tightening to this value, turn an additional 90°.

[31] M14 bolt, tighten to 85 ft-lbs/115 Nm, then turn an additional 180°. M16 bolt, tighten to 140 ft-lbs/190 Nm, then turn an additional 180°.

[32] After tightening to this value, turn an additional 180°.

[33] Use new bolt or nut. **Bolt:** Tighten bolt to 177 ft-lbs/240 Nm, loosen 90°, tighten bolt to 177 ft-lbs/240 Nm, then advance bolt an additional 90°. **Nut:** Older adhered type hub stamped 8N0 615, apply Audi locking fluid D185 400 A2, or equivalent, tighten nut to 195 ft-lbs/235 Nm. Newer greased type hub stamped 8N0 615A or B, apply grease G052 142 A2, or equivalent, tighten nut to 140 ft-lbs/190 Nm, then turn an additional 90°.

[34] First design nut (Pac-style nut painted black) 284 ft-lbs/385 Nm; second design nut (solid gray nut), 173 ft-lbs/235 Nm.

[35] Rear disc brake, 131-173 ft-lbs/177-235 Nm; rear drum brake 154-200 ft-lbs/209-279 Nm.

[36] Nut less top groove, 214 ft-lbs/290 Nm; nut with top groove, 125 ft-lbs/170 Nm, then turn an additional 45°.

[37] After tightening to this value, turn an additional 30°.

[38] Tighten axle nut to 132 ft-lbs/179 Nm, rotate axle 5 to 10 times to seat hub bearings, tighten axle nut to 263 ft-lbs/356 Nm. Align axle nut to next forward cotter pin hole and install cotter pin.

[39] With Dana 70 axles tighten bolts to 105 ft-lbs/143 Nm loosen 90°, tighten to 70 ft-lbs/95 Nm loosen 90°, tighten 18 ft-lbs/24 Nm. With Dana 135 axles tighten bolts to 99 ft-lbs/133 Nm loosen 90°, tighten to 70 ft-lbs/95 Nm loosen 90°, tighten 18 ft-lbs/24 Nm.

[40] M22 nut, tighten to 147 ft-lbs/200 Nm; M24 nut, tighten to 184 ft-lbs/250 Nm; M27 nut, 221 ft-lbs/300 Nm.

[41] Tighten inner hub nut 221 ft-lbs/300 Nm while spinning wheel hub constantly. Turn back inner nut and then tighten until it touches thrust washer without play. Then tighten 1/8 turn.

[42] Install and tighten new front axle wheel end nut to specification in a continuous rotation. Stopping the rotation during installation will cause the nylon lock to seat incorrectly.

[43] Then turn additional 36°.

[44] Then turn additional 90°.

[45] Then turn additional 180°.

[46] M27 nut, tighten to 310 ft-lbs/420 Nm; M24 nut, tighten to 184 ft-lbs/250 Nm.

[47] Then turn additional 80°.

Adjustment Procedures

AIA Tighten the hub nut gradually while turning the thrust washer with a screwdriver tip. Do not bend or pry with the screwdriver. Tighten the hub nut to the point where the washer cannot be turned and back off slightly. Install the locknut and cotter pin.

AMA Tighten hub nut to 20 ft-lbs/27 Nm then back off 1/3 turn. Tighten to 12 in-lbs/1.5 Nm while turning wheel. Install the cage nut and cotter pin.

AMB Tighten hub nut to 25 ft-lbs/33 Nm then back off 1/3 turn. Tighten to 6 in-lbs/1 Nm while turning wheel. Install the cage nut and cotter pin.

AMC Tighten hub nut to 22 ft-lbs/30 Nm then back off 1/3 turn. Tighten to 6 in-lbs/1 Nm while turning wheel. Install the cage nut and cotter pin.

AMD Tighten hub nut to 20-25 ft-lbs/27-33 Nm then back off 1/3 turn. Tighten to 2-10 in-lbs/1 Nm while turning wheel. Install the cage nut and cotter pin.

BWA Tighten hub nut to 22-24 ft-lbs/29-32 Nm while rotating wheel. Back off and retighten to 2 ft-lbs/3 Nm. Back off slightly and install cotter pin.

CRA Tighten hub nut to 20-25 ft-lbs/25-29 Nm while rotating wheel. Back off 90° and finger tighten. Install cotter pin.

CRB Tighten hub nut to 14 ft-lbs/20 Nm. Back off and retighten to 4 ft-lbs/6 Nm. Install cotter pin.

CRC Tighten hub nut to 20-27 ft-lbs/27-34 Nm while rotating wheel. Back off and finger tighten. Install cotter pin.

CRD Tighten hub nut to 22 ft-lbs/29 Nm. Back off and retighten to 4 ft-lbs/6 Nm. Install cotter pin.

DAA Tighten nut to 133 ft-lbs/181 Nm, loosen, tighten to 37 ft-lbs then turn nut an additional 60°.

DAB While spinning wheel, tighten nut to 18 ft-lbs/ 25 Nm, loosen 180°, tighten to 18 in-lbs/2 Nm.

DAC While spinning wheel, tighten nut to 15 ft-lbs/ 20 Nm, loosen 180°, tighten to 9 in-lbs/1 Nm.

DAD While spinning wheel, tighten nut to 18 ft-lbs/ 25 Nm, loosen 180°, tighten to 9 in-lbs/1 Nm.

DAE Using a new caulking nut, tighten to 133 ft-lbs/181 Nm, then loosen nut. Tighten the nut 50 degrees, then advance nut an additional 60 degrees.

DHA Tighten hub nut to 72-109 ft-lbs/98-147 Nm. Back off nut 1/6 turn. Turn hub 2 to 3 turns. Adjust lock nut so that starting torque is 3.1-7.9 lbs/1.4-3.6 kg when measured with a spring scale attached to the hub wheel stud. Models w/manual hubs, install lock washer and lock nut and tighten to 72-109 ft-lbs/98-147 Nm. Install cotter pin. Recheck staring torque with spring scale.

DTA Tighten hub nut 30-40 ft-lbs/37-50 Nm while rotating wheel. Back off and finger tighten. Install cotter pin. Freeplay is measured at wheel .001-.002".

DTB Tighten hub nut to 30-40 ft-lbs/37-50 Nm while rotating wheel. Back off and finger tighten. Install cotter pin.

DTC Tighten hub bearing adjustment nut to 120-140 ft-lbs/163-190 Nm while turning hub. Loosen 1/8 to 1/3 turn to provide .001-.009" endplay. Tap locking wedge into spindle keyway and adjusting nut.

DTD Tighten adjusting nut to 120-140 ft-lbs/163-190 Nm while turning hub. Loosen 1/3 turn to provide .001-.008" endplay. Tap locking wedge into spindle keyway and adjusting nut.

DTE Rotate wheel and tighten locknut until drag is felt at wheel. Back off 1/6 turn to zero or just perceptible endplay. Install lock washer and jambnut. Without turning locknut, tighten jambnut to 35-65 ft-lbs/41-88 Nm. Bend tabs of lock washer over both locknut and jambnut.

DTF Tighten locknut to 120 ft-lbs/165 Nm. Back off to 0/0 then retighten to 18 ft-lbs/25 Nm. Back off 30-40° so that the hub turning resistance is 2.6-11.3 lbs/0.3-1.3 kg on a spring scale. Install lock washer and loosen locknut slightly to align holes.

DTG Tighten adjusting nut to 50 ft-lbs/68 Nm and then loosen. Retorque to 30-40 ft-lbs/41-54 Nm while rotating hub and rotor. Back off 135-150°. Install lock washer by aligning hole on washer with pin on nut. Install outer locknut and torque to 50 ft-lbs/68Nm.

DTH Tighten adjusting nut to 50 ft-lbs/68 Nm and then loosen. Retorque to 30-40 ft-lbs/41-54 Nm while rotating hub and rotor. Back off 135-150°. Install lock washer by aligning hole on washer with pin on nut. Install outer locknut and torque to 160-205 ft-lbs/217-278 Nm.

DTI Tighten adjusting nut to 50 ft-lbs/68 Nm and then loosen. Retorque to 30-40 ft-lbs/41-54 Nm while rotating hub and rotor. Back off 135-150°. Install tabbed washer and locknut. Without turning adjusting nut, tighten locknut to 65 ft-lbs/88 Nm. Then bend tabs on washer over inner and outer nuts.

DTJ Tighten locknut to 120 ft-lbs/165 Nm. Back off to 0/0 then retighten to 18 ft-lbs/25 Nm. Back off 30° so that the hub turning resistance is .9-4.3 lbs/4-9 N on a spring scale. Install lock washer and loosen locknut slightly to align holes.

DTK Tighten hub nut to 35 ft-lbs/48 Nm while rotating wheel. Back off nut. Tighten nut to 25 in-lbs/3 Nm. Install cotter pin. Endplay should be .001-.003".

Adjustment Procedures

DTL Tighten hub bearing adjustment nut to 22 ft-lbs/30 Nm while turning hub. Loosen nut approximately 30° and align hub nut with axle tube key slot. Install locking key. Endplay should be .001-.010".

FDA Tighten hub nut to 17-25 ft-lbs/22-29 Nm while rotating wheel. Back off 1/2 turn and re-tighten to 10-15 lbs/1-2 kg. Install FDA cotter pin.

FDB Tighten hub nut to 18-22 ft-lbs/22-27 Nm while rotating wheel. Back off and retighten until 6-22 in-lbs/0.5-2 Nm of drag is measured at drum with a pull scale.

FDC Tighten to 18-21 ft-lbs/25-29 Nm, loosen. Using in-lbs torque wrench on wheel stud, measure seal drag. Add amount of seal drag to 1.3-4.3 in-lbs to determine bearing preload. Tighten nut slightly until specified preload is reached.

FDD While rotating hub, tighten to 18-23 ft-lbs/24-31 Nm, back-off 2-3 turn, tighten to 18 in-lbs/2 Nm.

FTA Tighten hub nut to 17-25 ft-lbs/22-29 Nm while turning wheel. Back off 1/2 turn and tighten to 18-20 in-lbs/2-3 Nm.

FTB Tighten hub nut to 22-25 ft-lbs/25-29 Nm while rotating hub in opposite direction. Back off 1/8 turn and install locknut and cotter pin.

FTC Tighten hub nut to 17-25 ft-lbs/22-29 Nm while rotating hub. Install locknut and back off two slots of the nut. Install cotter pin.

FTD Tighten hub nut to 17-25 ft-lbs/22-29 Nm while rotating hub. Back off 1/4 turn and install cotter pin.

FTE Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off 90°. Install lock ring and align nearest hole with pin on adjusting nut. Tighten locknut to 65 ft-lbs/88 Nm. Endplay should be .001-.010".

FTF Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off and retighten to 35 ft-lbs/47 Nm while rotating hub. Back off 1/2 turn. Assemble lock washer hole to pin on adjusting nut. Tighten locknut to 50 ft-lbs/68 Nm. Endplay should be .001-.010".

FTG Tighten adjusting nut to 65 ft-lbs/88 Nm while rotating hub. Back off 3/8 turn. Install lock washer with smooth side out. Tighten locknut to 100 ft-lbs/139 Nm. Bend two tabs of lock washer over adjusting nut and locknut.

FTH Tighten adjusting nut to 130 ft-lbs/180 Nm while rotating hub. Back off enough to get .001-.010" endplay, usually 1/8-1/4 turn. Insert locking wedge in keyway slot. Tap in easily. Do not bottom out against shoulder of adjusting nut. Wedge must cut a new groove in nut or both must be replaced.

FTI Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off 90°. Install lock ring and align nearest hole with pin on adjusting nut. Tighten locknut to 90 ft-lbs/127 Nm. Endplay should be .001-.010."

FTJ Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off 45°. Align lock washer hole with pin on adjusting nut. Tighten locknut to 150 ft-lbs/203 Nm. Endplay should be .001-.006".

FTK Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off to 0. Retighten adjusting nut to 48 ft-lbs/66 Nm and then back off 135-150° while rotating hub. Insert washer and tighten locknut to 65 ft-lbs/88 Nm. Bend washer tab over adjusting nut and locknut.

FTL Using Spanner Locknut Wrench special tool, tighten adjusting nut to 70 ft-lbs/95 Nm. After 70 ft-lbs/95 Nm, nut will ratchet. Apply inward pressure on Spanner to disengage adjusting locknut splines and back off 180°. Tighten adjusting nut to 15 ft-lbs/20 Nm and remove Spanner. Endplay should be 0-.006".

FTM Using Spanner Locknut Wrench special tool, tighten adjusting nut to 70 ft-lbs/95 Nm. After 70 ft-lbs/95 Nm, nut will ratchet. Apply inward pressure on Spanner to disengage adjusting locknut splines and back off 90°. Tighten adjusting nut to 15 ft-lbs/20 Nm and remove Spanner. Endplay should be 0.

FTN Tighten hub nut to 30 ft-lbs/40 Nm while turning wheel. Back off 2 turns and tighten to 17-24 ft-lbs/23-24 Nm. Loosen nut 180°. Tighten nut to 17 in-lbs/2 Nm.

FTO Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off to 0. Tighten adjusting nut to 35 ft-lbs/48 Nm and back off 135-150°. Align lock washer with keyway and pin on adjusting nut. Tighten locknut to 182 ft-lbs/247 Nm. Endplay should be 0-.006.

FTP Tighten hub nut to 17-24 ft-lbs/22-34 Nm while turning wheel. Loosen nut 180° and tighten to 17 in-lbs/2 Nm.

FTQ Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off 90°. Align lock washer with keyway and pin on adjusting nut. Tighten locknut to 182 ft-lbs/247 Nm.

FTR Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off 90°. Tighten wheel retaining nut to 16 in-lbs/1.8 Nm. Install key into spindle keyway by inserting the short leg into the aligned slot in nut. Press in until curved portion of retaining key is seated into counterbore of nut. Install cam assembly. Install: metal washer, plastic washer, then splined washer. Install C clip or lock ring.

Adjustment Procedures

FTS Using Spanner Locknut Wrench special tool, tighten adjusting nut to 70 ft-lbs/95 Nm. Hub will ratchet as torque is applied. Ratchet back 90° and retighten to 15-20 ft-lbs/18-25 Nm.

FTT Using Spanner Locknut Wrench special tool, tighten adjusting nut to 60 ft-lbs/82 Nm. Hub will ratchet as torque is applied. Ratchet nut back 5 clicks (used bearing) or 8 clicks (new bearing).

FTU Tighten the adjusting nut to 35 ft-lbs/47 Nm while turning hub. Back off 90°. Retighten the adjusting nut to 16 in-lbs/1.8 Nm. Install lock washer so that the pin on the adjusting nut aligns with a hole on the washer. Torque locknut to 150 ft-lbs/203 Nm. Install bearing thrust spacer, needle thrust bearing, and axle shaft spacer. Clip snap ring to spindle.

FTV Tighten adjusting nut to 35 ft-lbs/47 Nm while turning hub. Back off 90°. Retighten the adjusting nut to 16 in-lbs/1.8 Nm. Align the closest lug in the wheel bearing adjusting nut with the center of the spindle keyway slot. Advance nut to next lug as needed. Install the separate lock key in the spindle keyway under the adjusting nut. Install locknut needle bearing and thrust washer. Push cam assembly onto the locknut by lining up the key in the cam with the spindle keyway. Caution! Do not damage the separate lock key when aligning the spindle nut adjustment lug with the center of the spindle keyway slot. Also, do not damage the fixed cam when aligning the cam key with the spindle keyway.

FTW Tighten the adjusting nut to 35 ft-lbs/47 Nm while turning hub. Back off 90°. Retighten the adjusting nut to 16 in-lbs/1.8 Nm. Install lock washer and tighten locknut to 150 ft-lbs/203 Nm. Endplay should be 0-.003". Install axle shaft spacer and clip the snap ring to the end of the shaft.

FTX Tighten adjusting nut to 35 ft-lbs/47 Nm while turning hub. Back off 90°. Retighten the adjusting nut to 16 in-lbs/1.8 Nm. Align the closest lug in the wheel bearing adjusting nut with the center of the spindle keyway slot. Advance nut to next lug as needed. Install the separate lock key in the spindle keyway under the adjusting nut. Install the two-thrust spacer and push or press the cam assembly onto the locknut by lining up the key in the cam with the spindle keyway. Caution! Do not damage the separate lock key when aligning the spindle nut adjustment lug with the center of the spindle keyway slot. Also, do not damage the fixed cam when aligning the cam key with the spindle keyway.

FTY Tighten hub nut to 30 ft-lbs/40 Nm while turning wheel. Back off 2 turns. While rotating brake disc, tighten to 17-24 ft-lbs/22-34 Nm. loosen nut 175°. Tighten nut to 17 in-lbs/2 Nm.

FTZ Using Spanner Locknut Wrench special tool, tighten adjusting nut to 70 ft-lbs/95 Nm. After 70 ft-lbs/95 Nm, nut will ratchet. Apply inward pressure on Spanner to disengage adjusting locknut splines and back off 90°. Tighten adjusting nut to 18 ft-lbs/24 Nm and remove Spanner. Final bearing adjustment has zero end play. Maximum torque to rotate bearing is 20 in-lbs/2.3 Nm.

FT1 Using Spanner Locknut Wrench special tool, tighten adjusting nut to 60 ft-lbs/82 Nm. Hub will ratchet as torque is applied. Ratchet nut back 5 clicks (used bearing) or 7 clicks (new bearing).

FT2 Tighten hub nut to 17-24 ft-lbs/22-34 Nm while turning wheel. Loosen nut 175° and tighten to 17 in-lbs/2 Nm.

FT3 Tighten hub nut to 21 ft-lbs/28 Nm while turning wheel clockwise. Back off 180°. While rotating brake disc, tighten to 17 in-lbs/2 Nm.

GMA Tighten hub nut to 12 ft-lbs/16 Nm while rotating wheel. Back off and finger tighten. Back off slightly to install cotter pin.

GMB Snug hub nut while rotating wheel. Back off 1/4-1/2 turn and finger tighten. Install cotter pin.

GMC Tighten hub nut to 15 ft-lbs/18 Nm while rotating wheel. Back off and finger tighten. Back off slightly to install cotter pin.

GMD Tighten adjustment nut to 50 ft-lbs/68 Nm while rotating hub and drum. Back off 1/4 turn and tighten to 13 ft-lbs/17 Nm. Align nut slot with closest keyway. Insert key, retaining ring, and axle. Endplay should be .001-.010".

GME Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub and disc. Back off and retighten to 35 ft-lbs/47 Nm. Back off 135-150°. Insert lock washer and bend one tab over adjusting nut. Install locknut and tighten to 65 ft-lbs/88 Nm. Bend tab of washer over locknut. Endplay should be .001-.010".

GMF Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub and drum. Back off nut to "just loose" (not more than one slot of lock or axle spindle) to align with keyway. Install key, retaining ring, and axle.

GMG Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off 1/8 turn while rotating hub. Insert lock washer and bend one tab over adjusting nut. Install locknut and tighten to 250 ft-lbs/339 Nm. Bend tab of washer over locknut. Endplay should be "just loose."

GMH Tighten adjusting nut to 90 ft-lbs/120 Nm while rotating hub. Back off 1/8 turn while rotating hub. Insert lock washer and bend one tab over adjusting nut. Install locknut and tighten to 250 ft-lbs/339 Nm. Bend tab of washer over locknut. Endplay should be "just loose."

Adjustment Procedures

GMI Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off to "just loose." Torque on nut when contacting bearing must be 0 or finger tight. Insert key into nut through slot or back off slightly. Install snap ring and axle shaft.

GMJ Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off and retighten to 35 ft-lbs/47 Nm. Back off 1/4 turn and insert washer. Install locknut and tighten to 65 ft-lbs/88 Nm. Endplay should be .025-.250".

GMK Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Back off 1/8 turn and insert washer. Install locknut and tighten to 175 ft-lbs/235 Nm.

GML Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off and retighten to 35 ft-lbs/47 Nm. Back off 3/8 turn. Install ring and torque locknut to 160 ft-lbs/217 Nm minimum. Tang on ring must press through slot on spindle. Hole in pin must align with locknut, turn adjusting nut to align. Endplay should be .001-.010".

GMM Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off and retighten to 50 ft-lbs/68 Nm. Back off to 0. Install ring and torque locknut to 160 ft-lbs/217 Nm minimum. Tang on ring must press through slot on spindle. Hole in pin must align with locknut, turn adjusting nut to align. Endplay should be .001-.010".

GMN Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off and retighten to 35 ft-lbs/47 Nm. Back off 3/8 max. Align nearest hole in adjusting nut lock with adjusting nut pin. Tighten locknut to 80 ft-lbs/108 Nm. Endplay should be .001-.010.

GMO Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off and retighten to 35 ft-lbs/47 Nm. Back off 3/8 max. Insert lock washer and tighten locknut to 65 ft-lbs/88 Nm. Bend one tab over adjusting nut and one over locknut. Endplay is .001-.010.

GMP Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off and retighten to 35 ft-lbs/47 Nm. Back off 1/4 max. Holes in washer must align with tang in slot in spindle. Tighten locknut to 50 ft-lbs/68 Nm. Endplay should be .001-.010".

GMQ Tighten adjustment nut to 52 ft-lbs/70 Nm while rotating hub and drum. Loosen nut. Tighten nut until it contacts bearing cone. Torque on nut must be zero to finger tight. Back off nut, if necessary, to align nut slot with closest keyway. Do not back off more than one slot to align keyway. Insert key, retaining ring, and axle shaft.

GMR Tighten to 74 ft-lbs/100 Nm, loosen, tighten to 15 ft-lbs/20 Nm, turn an additional 90°.

HAA Tighten hub nut to 22 ft-lbs/30 Nm. Back off and retighten to 4 ft-lbs/6 Nm.

HIA Tighten hub nut to 15 ft-lbs/20 Nm. Back off and retighten to 4 ft-lbs/6 Nm.

IUA Tighten the hub nut to 22 ft-lbs/29 Nm then fully loosen. Install a spring scale to one of the wheel nut studs. Tighten the hub nut until the scale reads: 4.5-5.5 lbs/2-2.5 kg for new bearing and seal; or 2.5-4.0 lbs/1.2-1.8 kg for a used bearing and seal.

IUB Tighten the hub nut to 22 ft-lbs/29 Nm, then fully loosen. Install a spring scale to one of the wheel nut studs. Tighten the hub nut until the scale reads: 1.8-2.2 lbs/20-25 kg.

IUC Tighten the hub nut to 22 ft-lbs/30 Nm, then fully loosen. Tighten nut finger tight and install cotter pin.

IUD Tighten the hub nut until 1.1-3.3 lbs/0.5-1.5 kg of force is required to turn the hub with a spring scale attached to a lug nut stud.

IUE Tighten the hub nut to 22 ft-lbs/29 Nm. Turn the hub 2-3 times and loosen the nut. Finger tighten the nut. Tighten the nut further until 2.2 lbs/1.0 kg of force is required to turn the hub with a spring scale attached to a lug stud.

IUF Tighten the hub nut to 22 ft-lbs/29 Nm. Turn the hub 2-3 times and loosen the nut. Finger tighten the nut. Tighten the nut further until 3.3 lbs/1.5 kg of force is required to turn the hub with a spring scale attached to a lug stud. Align the holes in the lock washer with the nut. Turn the nut slightly if needed.

JGA Tighten hub nut to eliminate endplay. Back off nut slightly to provide endplay of .001-.003".

JGB Tighten hub nut to eliminate endplay. Back off nut slightly to provide endplay of .002-.005".

JPA Tighten the hub nut to 21 ft-lbs/28 Nm while rotating the wheel. Back off 1/2 turn and tighten to 19 in-lbs/1.5 Nm.

JPB Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating hub. Repeat several times. Loosen the adjusting nut 1/6 turn while rotating hub. Install lock washer. Align one of the holes with the peg on the adjusting nut. Install the locknut and tighten to 50 ft-lbs/68 Nm. Endplay should be 0.

JPC Tighten adjusting nut while rotating hub. Repeat several times. After tightening nut, back off 1/6-1/4 turn. Install washer and locknut. Bend one tab of the washer over the locknut.

KIA Tighten lock nut against hub to set bearing preload. Use spring scale on hub wheel stud to measure bearing preload which should be 10 in-lbs/1-3 Nm.

Adjustment Procedures

KIB Tighten lock nut to 20 ft-lbs/27 Nm. Loosen nut slightly until it can be turned by hand. Use spring scale on hub wheel stud to measure bearing grease seal drag. Add grease seal drag reading to value of .6-1.9 lbs/2.6-8.5 N. Turn adjusting nut slowly until specified preload is obtained. After preload adjustment, stake nut in position.

LRA Tighten the hub nut to 50 ft-lbs/61 Nm, then back off 90°. Tighten the hub nut 3 ft-lbs/4 Nm. Endplay should be .004:. Install lock nut and tighten to 50 ft-lbs/61 Nm.

LRB While slowly rotating hub, tighten the hub nut until all endplay is removed, then back off 180°. Tighten the hub nut 13-15 in-lbs. Endplay should be .0005-.004". Install lock nut and tighten to 70-80 ft-lbs/95-108 Nm.

LRC Tighten the hub nut to 37 ft-lbs/50 Nm, then back off 90°. Tighten the hub nut 7 ft-lbs/10 Nm. Endplay should be .0004". Install lock nut and tighten to 37 ft-lbs/50 Nm.

MAA Tighten locknut to 18-22 ft-lbs/25-29 Nm. Turn the hub 2-3 times. Loosen the locknut and finger tighten. Turn the locknut until torque to turn hub with a spring scale attached to a lug stud is 1.3-4.3 in-lbs/.15-.50 kg. Stake locknut.

MAB Tighten locknut to 14-18 ft-lbs/20-25 Nm. Turn the hub 2-3 times. Loosen the locknut and finger tighten. Turn the locknut until force to turn hub with a spring scale attached to a lug stud is .77-1.92 lbs/.35-.87 kg.

MAC Tighten locknut to 14-22 ft-lbs/20-29 Nm. Turn the hub 2-3 times. Loosen the locknut and finger tighten. Turn the locknut until force to turn hub with a spring scale attached to a lug stud is 1.3-2.4 lbs/.60-1.1 kg.

MAD Tighten locknut. Turn the hub 2-3 times. Loosen the locknut and finger tighten. Turn the locknut until force to turn hub with a spring scale attached to a lug stud is 1.3-2.6 lbs/.60-1.2 kg. Install bearing set plate and bolts; spacer, then snap ring.

MA3 Tighten locknut to 23-29 ft-lbs/32-39 Nm. Mark lockbolt at one point and tighten it further until marking has moved 85-95°.

MIA Tighten hub nut to 14 ft-lbs/20 Nm, rotate wheel 2-3 turns and back off nut. Tighten hub nut to 7 ft-lbs/10 Nm, rotate wheel, retorque to 7 ft-lbs/10 Nm.

NDA Tighten hub nut to 25-29 ft-lbs/30-34 Nm. Turn hub several times in each direction to seat bearings, then tighten again to 25-29 ft-lbs/30-34 Nm. Back off 45° and install cotter pin.

NDB Tighten hub nut to 18-22 ft-lbs/22-26 Nm. Back off and tighten again. Back off up to 60° and install cotter pin.

NDC Tighten hub nut to 29-33 ft-lbs/34-40 Nm. Back off and tighten again. Back off up to 90° and install cotter pin.

NDD Tighten hub nut to 25-29 ft-lbs/30-34 Nm. Back off and tighten again. Back off up to 45° and install cotter pin.

NDE Tighten hub nut to 22-25 ft-lbs/25-29 Nm. Back off and tighten again. Back off up to 90° and install cotter pin.

NDF Tighten hub nut to 16-17 ft-lbs/19-21 Nm. Back off and tighten again. Back off up to 40-70° and install cotter pin.

NDG Tighten adjusting nut to 58-72 ft-lbs/78-98 Nm while turning hub. Back off to 0. Tighten adjusting nut to 4.3-13 in-lbs/0.5-1.5 Nm.

NDH Tighten adjusting nut to 58-72 ft-lbs/78-98 Nm while turning hub. Back off to 0. Tighten adjusting nut until force to turn hub with a spring scale attached to a lug stud is 1.6-4.7 lbs/0.7-2.1 kg.

POA While turning wheel tighten adjusting nut slightly. Back off adjusting nut until brake disc can just be moved using finger pressure on a screwdriver. Tighten adjusting nut retaining screw to 11 ft-lbs.

SNA Tighten nut to 74-118 ft-lbs/100-160 Nm, loosen, tighten to 15 ft-lbs/20 Nm, turn an additional 90°.

SUA Tighten adjusting nut while turning wheel. Back off 1/8 turn and finger tighten.

SZA Tighten adjusting nut while turning wheel to 58 ft-lbs/80 Nm. Loosen nut. Tighten nut to 9 ft-lbs/12.5 Nm.

TAA Tighten adjusting nut to 43 ft-lbs/60 Nm. Turn the hub right and left several times and retighten to 43 ft-lbs/60 Nm. Loosen the nut and finger tighten. Tighten adjusting nut to 4 ft-lbs/6 Nm. Force to turn hub with a spring scale attached to a lug stud should be 6.4-12.6 lbs/2.9-5.7 kg. Insert lock washer. Tighten locknut to 47 ft-lbs/64 Nm. Recheck turning torque with the spring scale.

TAB Tighten adjusting nut to 43 ft-lbs/60 Nm. Turn the hub right and left several times and loosen the adjusting nut. Retighten to 18 ft-lbs/25 Nm. Force to turn hub with a spring scale attached to a lug stud should be 6.4-12.6 lbs/2.9-5.7 kg. Install washer and locknut. Tighten to 35 ft-lbs/47 Nm. Axial play should be 0.

TAC Tighten adjusting nut to 43 ft-lbs/60 Nm. Turn the hub right and left several times and loosen the adjusting nut. Retighten to 35-60 in-lbs/4-6 Nm. Force to turn hub with a spring scale attached to a lug stud should be 2.2-8.6 lbs/1.0-3.9 kg. Install washer and locknut. Tighten to 65 ft-lbs/90 Nm.

TAD Tighten adjusting nut to 25 ft-lbs/34 Nm while rotating hub. Back off to 0. Tighten adjusting nut until 1.3-4 lbs/0.6-1.8 kg of force is required to turn hub with a spring scale attached to a lug stud.

TAE Tighten adjusting nut to 21 ft-lbs/28 Nm while rotating wheel. Back off and finger tighten. Tighten slightly to install cotter pin. Axial endplay should be .002".

TAF Tighten adjusting nut to 22 ft-lbs/29 Nm while rotating wheel. Back off to 0. Tighten adjusting nut until 0-2.6 lbs/0-1.2 kg of force is required to turn hub with a spring scale attached to a lug stud.

TAG Tighten adjusting nut to 43 ft-lbs/59 Nm while turning wheel. Back off to 0. Tighten adjusting nut to 11 ft-lbs/15 Nm. Force to turn hub with a spring scale attached to a lug stud should be 4.6-7.9 lbs/2.1-3.6 kg. Install washer and torque locknut to 35 ft-lbs/47 Nm.

TAH Tighten adjusting nut to 43 ft-lbs./59 Nm while turning wheel. Back off to 0. Tighten adjusting nut to 38-57 in-lbs/4.3-6.5 Nm. Force to turn hub with a spring scale attached to a lug stud should be 9.5-15 lbs/42-67 N. Install washer and tighten locknut to 47 ft-lbs/64 Nm.

VOA Tighten adjusting nut to 50 ft-lbs/68 Nm while rotating wheel. Back off 1/3 turn. Loosen slightly and install cotter pin.

VOB Tighten adjusting nut to 15 ft-lbs/20, then 33 ft-lbs/45 Nm. Tighten an additional 60°.

VWA Tighten adjusting nut to 7 ft-lbs/10 Nm. Back off and finger tighten. Install cotter pin.

VWB Tighten the hub nut gradually while turning the thrust washer with a screwdriver tip. Do not bend or pry with the screwdriver. Tighten the hub nut to the point where the washer cannot be turned and back off slightly. Install the locknut and cotter pin.

VWC Tighten to 148 ft-lbs/200 Nm. Loosen. Tighten to 37 ft-lbs/50 Nm, then turn nut an additional 60°.

VWD Tighten to 148 ft-lbs/200 Nm. Loosen. Tighten to 37 ft-lbs/50 Nm, then turn nut an additional 30°.

VWE With hex head bolt, 148 ft-lbs/200 Nm. Then turn nut an additional 180°. With 12 point bolt, 52 ft-lbs/70 Nm. Then turn nut an additional 90°.

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