

457377
2018

Torque specification guide

Front & rear axle nut, hub mount and lug nut torque specifications
for FWD, RWD & 4WD vehicles



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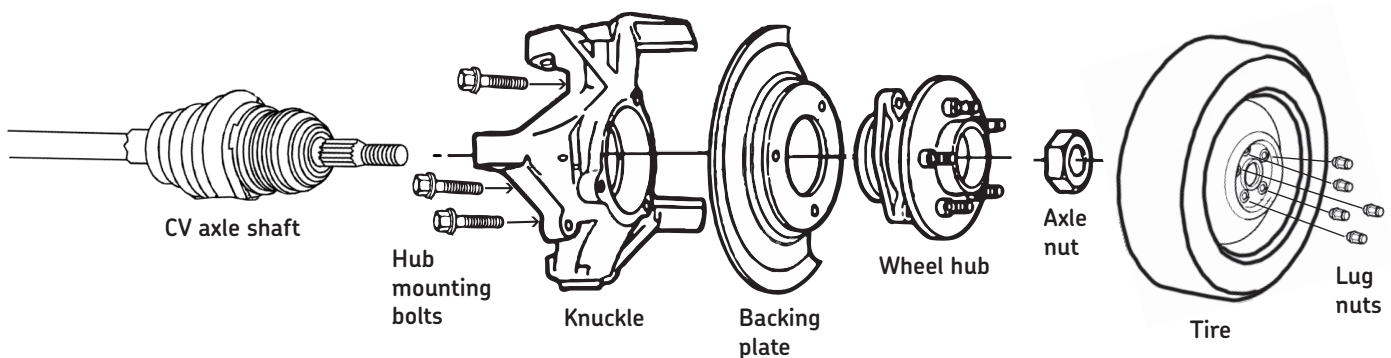
Note:

One of the leading causes of improper fit or premature wheel hub failure is improper torquing of the bolts and nuts that secure the wheel hub and tire. Most drive axle wheel hubs have a center axle nut that must be torqued down onto the axle shaft to a specific torque value. Putting the proper torque on the center axle nut sets the preload for the bearing and keeps the bearing from separating while in operation. The torque specification for this center axle nut is critical to performance and function of the wheel hub.

The wheel hub mounting bolt torque specification also provides a secure fit for the wheel hub and provides proper seating of the wheel hub to knuckle attachment. Improper torque can lead to wheel hub movement and allow potential damage to the wheel hub and surrounding components. Be sure knuckle is clean from rust and debris before hub replacement.

The tire lug nuts should also be properly torqued to secure the wheel to the wheel hub. Improper torque can warp the rotor and adversely affect the surrounding components, including the wheel hub. Potential loss of wheel or broken wheel studs can occur if torque specification is not correct.

For specific mounting instructions, refer to the vehicle manufacturer's service manual for that model.



Section 1
Axle Nut torque

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
ACURA			
1.6EL.....	1997-2000	134/182	—
2.2CL, 2.3CL, 3.0CL.....	1997-1999	181/245	—
2.5TL.....	1995-1998	181/245	—
3.2CL.....	2001-2003	181/245	—
3.2TL.....	1996-2004	181/245	—
	2005-2007	181/245	134/182
3.5RL	1996-2004	181/245	—
	2005-2008	242/328	181/245
ILX 1.5L, 2.0L	2013-2015	133/181 [77]	—
ILX 2.4L.....	2013-2017	181/245 [77]	—
Integra	1986-2001	133/181	—
Legend.....	1986-1990	180/244	—
	1991-1995	242/328	—
MDX.....	2001-2002	181/245	181/245
	2003-2006	210/285	181/245
	2013-2017	242/328 [77]	181/245 [77]
MDX, RDX	2007-2012	242/328 [77]	181/245 [77]
NSX.....	1991-2005	—	242/328
	2017.....	242/328 [77]	290/393 [77]
RDX	2013-2017	242/328 [77]	181/245 [77]
RL	2008-2013	242/328	181/245
RLX.....	2014-2017	242/328 [77]	—
RLX Hybrid	2014.....	242/328 [77]	181/245 [77]
	2016-2017	242/328 [77]	181/245 [77]
RSX ex. Type S.....	2002-2006	134/182	—
RSX Type S	2002-2006	181/245	—
SLX.....	1996-1999	[48]	—
TL.....	2008.....	181/245	—
TL AWD	2009-2014	242/328 [77]	181/245 [77]
TL FWD.....	2009-2014	242/328 [77]	—
TLX AWD	2015-2017	242/328 [77]	181/245 [77]
TLX FWD	2015-2017	242/328 [77]	—
TSX.....	2004-2008	181/245	—
	2009-2014	242/328 [77]	—
Vigor.....	1992-1994	181/245	—
ZDX.....	2010-2013	242/328 [77]	181/245 [77]

ALFA ROMEO

4C.....	2015-2017	—	[99]
Giulia	2017.....	—	52/71 [107] [111]

AM GENERAL

H2.....	2003-2009	173/235	—
H3/H3T	2006-2010	191/260	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
AMERICAN MOTORS			
AMX.....	1980.....	[28]	—
Concord	1980-1983	[28]	—
Pacer	1980.....	[28]	—
Spirit.....	1980-1983	[28]	—

AUDI

80	1988-1991	195/265	—
80 Quattro	1988-1991	195/265	236/320
90	1988-1991	195/265	—
	1992-1995	148/200	[1]
90 Quattro	1988-1991	195/265	236/320
	1992-1995	147/200 [1]	177/240
100.....	1989-1994	147/200 [1]	—
100 Quattro.....	1989-1991	147/200 [1]	147/200 [1]
200.....	1989-1991	147/200 [1]	—
200 Quattro.....	1989-1991	147/200 [1]	147/200 [1]
4000	1980-1987	167/226	—
4000 Quattro.....	1984-1987	206/280	206/280
5000	1980-1988	206/280	—
5000 Quattro.....	1984-1988	206/280	—
A3	2006-2013	[50]	—
	2015-2017	[35]	—
A3 Quattro.....	2006-2013	[50]	[50]
	2015-2017	[35]	[104]
A4, A4 Quattro.....	1996-2005	[2]	85/115 [3]
	2006-2007	[51]	147/200 [3]
	2008-2017	[35]	[35][78]
A5	2010-2014	[35]	—
A5 Quattro.....	2008-2017	[35]	[35]
A6	1995-1997	147/200 [1]	—
	1998-2004	[2]	—
	2005-2006	[35]	—
	2007-2017	[35]	—
A6 Quattro.....	1995-1997	147/200 [1]	147/200 [1]
	1998-2004	[2]	[2]
A6 Quattro.....	2005-2006	[35]	[35]
	2007-2017	[35]	[35]
A7 Quattro.....	2012-2017	[35]	[35]
A8	1997-1999	140/190 [3]	—
A8 Quattro.....	1997-2005	140/190 [3]	140/190 [3]
	2006-2017	[35]	[35]
Allroad.....	2001-2005	[2]	[2]
	2013-2017	[35]	[35]
Cabriolet.....	1994-1998	147/200 [1]	—
Coupe.....	1981-1987	167/226	—
	1990-1991	195/265	—
Q3	2015-2017	[35]	—
Q3 Quattro.....	2015-2017	[35]	[104]
Q5	2009-2017	[35]	[35]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
AUDI - cont.			
Q7	2007-2015	[33]	[33]
	2017	[35]	[35]
R8	2008-2010	[35]	[35]
	2011-2015	[95]	[83]
	2017	[35]	[35]
RS4	2008	[39]	147/200 [36]
RS5	2013-2015	[35]	[35]
RS7	2014-2017	[35]	[35]
S3	2015-2017	[35]	[104]
S4	1992-1994	147/200 [1]	147/200 [1]
	2000-2005	[2]	85/115 [3]
	2007	—	147/200 [3]
	2008-2016	[35]	[35]
S5	2008-2017	[35]	[35]
S6	1995	147/200 [1]	147/200 [1]
	2002-2005	[2]	[2]
	2007-2017	[35]	[35]
S7	2013-2017	[35]	[35]
S8	2001-2005	140/190 [3]	140/190 [3]
	2007-2009	147/200 [3]	147/200 [3]
	2013-2017	[35]	[35]
SQ5	2014-2017	[35]	[35]
TT	2000-2005	[4]	—
	2007-2010	[31]	—
TT Quattro	2000-2005	[4]	[4]
	2007-2014	[50]	[50]
	2015-2017	[35]	[104]
V8 Quattro	1990-1994	147/200 [1]	147/200 [1]

BMW

1 Series	2008-2011	—	[53]
	2012-2013	—	[64]
1M	2011	—	[64]
2 Series AWD	2015-2017	155/210 [1][36]	107/145 [23][36]
2 Series RWD	2014-2017	—	107/145 [23][36]
3 Series AWD	2000-2005	310/420	[5]
	2006-2007	310/420	[6]
	2008-2013	310/420	[53]
3 Series RWD	1985-2005	—	[5]
	2006-2007	—	[6]
	2008-2011	—	[53]
3 Series AWD E92, E93	2012-2013	310/420	[64]
3 Series AWD F30, F31, F34	2012-2017	155/210 [1][36]	107/145 [23][36]
3 Series RWD E92, E93	2012-2013	—	[64]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
BMW - cont.			
3 Series RWD F30, F31, F34	2012-2017	—	107/145 [23][36]
4 Series AWD	2014-2017	155/210 [1][36]	107/145 [23][36]
4 Series RWD	2014-2017	—	107/145 [23][36]
5 Series AWD	2004-2010	310/420	310/420
	2011	155/210 [1]	310/420
	2012-2016	155/210 [1][36]	74/100 [66][77]
5 Series AWD F07	2017	155/210 [1][36]	74/100 [66][77]
5 Series AWD G30	2017	155/210 [1][36]	155/210 [1][36]
5 Series RWD	1997-2003	—	221/300
	2004-2011	—	310/420
	2012-2016	—	74/100 [66][77]
5 Series RWD F07	2017	—	74/100 [66][77]
5 Series RWD G30	2017	—	155/210 [1][36]
6 Series	2004-2010	—	310/420
6 Series AWD	2012-2017	155/210 [1][36]	74/100 [66][77]
6 Series RWD	2012-2017	—	74/100 [66][77]
7 Series AWD	2010-2015	155/210 [1][36]	74/100 [66][77]
	2016-2017	155/210 [1][36]	155/210 [1][36]
7 Series RWD	1995-2001	—	221/300
	2002-2011	—	310/420
	2012-2015	—	74/100 [66]
	2016-2017	—	155/210 [1][36]
Active Hybrid 3	2013-2015	—	107/145 [66][77]
Active Hybrid 5	2013-2016	—	74/100 [66][77]
Active Hybrid 7	2013-2015	—	74/100 [66][77]
i3	2014-2017	—	155/210 [1][36]
i8	2014-2017	155/210 [1][36]	155/210 [1][36]
M Coupe, Roadster	1998-2002	—	[5]
M Roadster	2006	—	221/300
M2	2017	—	221/300 [77]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
BMW - cont.			
M3	1988-1991	—	147/200
	1995-2006	—	[5]
	2008-2012	—	221/300 [77]
	2013	—	[85]
	2015-2017	—	221/300 [77]
M4	2015-2017	—	221/300 [77]
M5	2000-2003	—	221/300
	2006-2010	—	310/420
	2013-2016	—	[85]
M6 Coupe, Convertible	2006-2010	—	310/420
	2013-2017	—	[85]
M235i AWD	2015-2016	155/210	107/145
		[1][36]	[23][36]
M235i RWD	2014-2016	—	107/145
			[23][36]
M240i	2017	—	107/145
			[23][36]
M240xi	2017	155/210	107/145
		[1][36]	[23][36]
M760i	2017	155/210	155/210
		[1][36]	[1][36]
X1	2013-2015	155/210	221/300
		[1][36]	[36]
	2016-2017	155/210	155/210
		[1][36]	[1][36]
X3	2004-2010	310/420	221/300
	2011-2017	155/210	74/100
		[1][36]	[66]
X4	2015-2017	155/210	74/100
		[1][36]	[66]
X5	2000-2017	310/420 [77]	310/420 [77]
X6	2008-2017	310/420 [77]	310/420 [77]
Z3	1997-2002	—	[5]
Z4	2003-2008	—	221/300
	2009-2016	—	184/250 [77]
Z8	2000-2003	—	221/300

BUICK

Allure	2005-2009	118/160	—
Cascada	2016-2017	[56]	—
Century	1982	225/290	—
	1983-1991	185/251	—
	1992-1995	103/140 [7]	—
	1996	107/145	—
	1997	151/205	—
	1998-2000	159/216	—
	2001-2005	118/160	—
Electra	1985-1990	185/251	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
BUICK - cont.			
Encore	2013-2017	37/50	37/50
		[27][107][115]	[27][107]
Enclave AWD	2008-2017	173/235	151/205
Enclave FWD	2008-2017	173/235	—
Envision	2016-2017	[45]	[45]
LaCrosse AWD	2010-2016	[45]	[45]
	2017	[45]	[106]
LaCrosse FWD	2005-2009	118/160	—
	2010-2017	[45]	—
LeSabre	1986-1991	185/251	—
	1992-1997	107/145	—
LeSabre	1998-2005	118/160	—
Lucerne	2006-2011	118/160	—
Park Avenue	1991	185/251	—
	1992-1997	107/145	—
	1998-2005	118/160	—
Rainier	2004-2007	103/140	—
Reatta	1988-1991	180/244	—
Regal AWD	2014-2017	[56]	[56]
Regal FWD	1988-1994	184/250	—
	1995-1997	151/205	—
	1998-2000	159/215	—
	2001-2004	118/160	—
	2011-2017	[56]	—
Rendezvous AWD	2002-2006	192/260	192/260
Rendezvous FWD	2002-2007	192/260	—
Riviera	1980-1985	175/240	—
	1986-1993	183/248	—
	1995-1998	107/145	—
	1999	118/160	—
Skyhawk	1982-1989	185/251	—
Skylark	1980-1982	225/290	—
	1983-1997	185/251	—
	1998	74/100 [8]	—
Somerset	1985-1987	185/251	—
Terraza	2005-2007	118/160	—
Verano	2012-2017	[45]	—

CADILLAC

Allante	1987-1992	183/245	—
	1993	110/145	—
ATS AWD	2013-2017	185/250 [36]	185/250 [36]
ATS RWD	2013-2017	—	185/250 [36]
Cimarron	1982-1988	185/251	—
CT6 AWD	2016-2017	[106]	[106]
CT6 RWD	2016-2017	—	[106]
CTS	2003-2007	—	118/160
	2008-2009	158/215	158/215
CTS AWD	2010-2013	158/215	—
	2016-2017	185/250[107]	185/250[107]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
CADILLAC - cont.			
CTS RWD	2016-2017	—	185/250 [107]
CTS w/o RPO J56	2010-2013	—	170/230
CTS w/RPO J56	2010-2013	—	158/215
CTS Sedan (VIN A)			
AWD	2014-2015	184/250 [107]	184/250 [107]
RWD	2014-2015	—	184/250 [107]
CTS Coupe/Wagon, CTS-V (VIN D)			
Front	2014-2015	158/215	—
Rear w/o RPO J56	2014-2015	—	170/230 [107]
Rear w/RPO J56	2014-2015	—	158/215
DeVille	1985-1991	180/244	—
	1992-1996	107/145	—
	1997-1999	118/160	—
	2000-2005	[57]	[58]
DTS	2006-2007	[9]	[58]
	2008-2011	[57]	—
Eldorado	1980-1985	176/238	—
	1986-1991	180/244	—
	1992-1996	107/145	—
	1997-2002	118/160	—
ELR	2014, 2016	[60]	—
Escalade 4WD	1999-2000	165/224	—
Escalade AWD	2002-2014	177/240	—
	2015-2017	188/255	—
Escalade ESV AWD	2003-2014	177/240	—
	2015-2017	188/255	—
Escalade EXT AWD	2002-2013	177/240	—
Fleetwood	1980-1984	[59]	—
	1985-1991	180/244	—
	1992	107/145	—
	1993-1996	[59]	—
Seville	1980-1985	176/238	—
	1986-1991	180/244	—
	1992-1996	107/145	—
	1997-2004	118/160	—
SRX	2004-2007	118/160	118/160
	2008-2009	159/215	170/230
	2010-2016	184/250	[45]
STS	2005-2006	—	118/160
STS AWD	2007	118/160	118/160
	2008-2009	159/215	170/230
	2010-2011	159/215	159/215
XLR	2004-2007	—	118/160
	2008-2009	—	151/205
XT5	2017	[106]	[106]
XTS AWD	2013-2017	[56][115]	[52][56]
XTS FWD	2013-2017	[56][115]	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
CHEVROLET			
Aveo, Aveo5	2004-2011	221/300	—
Beretta	1987-1996	185/251	—
Bolt	2017	[36][60]	—
Camaro	2010-2011	—	199/270
	2012-2015	—	199/270 [107]
	2016-2017	—	185/250 [107]
Caprice	2012-2013	—	[67]
	2014-2017	—	[87]
Cavalier	1982-1997	185/251	—
	1998-2001	144/195	—
	2002-2005	148/200	—
Celebrity	1982	225/290	—
	1983-1990	185/251	—
Citation	1980-1982	225/290	—
	1983-1985	185/251	—
Cobalt	2005-2008	155/210	—
Cobalt w/LNF & MU3	2009-2010	159/215	—
Cobalt w/o LNF & MU3	2009-2010	155/210	—
Corsica	1987-1996	185/251	—
Corvette	1980-1983	—	100/130
	1984-1996	—	164/223
	1997-2004	—	118/160
	2005-2013	—	151/205
	2014-2017	—	184/250 [52]
Cruze	2011-2017	[60]	—
Cruze Limited	2016	[60]	—
Impala	2000	159/215	—
	2001-2013	155/210	—
	2014-2017	[56]	—
Impala Limited	2014-2016	155/210	—
Lumina	1990-1994	184/250	—
	1995-1997	151/205	—
	1998-2001	159/216	—
Lumina APV	1990-1994	185/251	—
	1995-1996	104/145	—
Malibu	1997-2003	[10]	—
	2004-2012	159/215	—
	2013-2017	[60]	—
Malibu Limited	2016	[56]	—
Malibu Maxx	2004-2007	159/215	—
Metro	1998-2001	129/175	—
Monte Carlo	1995-1997	151/205	—
	1998-2000	159/215	—
	2001-2007	118/160	—
Nova	1985-1988	137/186	—
Prizm	1998-2002	166/225	—
Spark	2013-2015	177/240 [52]	—
	2016-2017	37/50	—
		[27][107]	—
Spark EV	2014-2016	37/50	—
		[27][107]	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
CHEVROLET - cont.			
Spectrum	1985-1988	137/186	—
Sprint	1985-1988	151/205	—
	1989-1991	125/179	—
Sonic	2012-2017	[68]	—
SS	2014-2017	—	[87]
Uplander AWD	2005-2008	118/160	192/260
Uplander FWD	2005-2009	118/160	—
Venture	1997	151/205	—
Venture AWD	2002-2005	118/160	192/260
Venture FWD	1998-2005	118/160	—
Volt	2011-2017	[60]	—

CHEVROLET / GMC TRUCKS

Acadia AWD	2007-2016	173/235	151/205
	2017	[106]	[106]
Acadia FWD	2007-2016	173/235	—
	2017	[106]	—
Acadia Limited AWD	2017	173/235	151/205
Acadia Limited FWD	2017	173/235	—
Astro, Safari 4WD	1990-1995	180/244	—
Astro, Safari AWD	1996-2005	147/200	—
Avalanche 4WD	2002-2013	177/240	—
Blazer, Yukon 4WD	1980-1991	[61]	—
	1992-1994	165/224	—
Blazer, Yukon C/K 4WD	2007	177/240	—
Canyon, Colorado 4WD	2004-2012	191/260	—
	2015-2017	192/260 [52]	—
Captiva Sport AWD	2012-2015	151/205 [52]	151/205 [52]
Captiva Sport FWD	2012-2015	151/205 [52]	—
City Express	2015-2017	96/130	—
Denali 4WD	1999-2000	165/224	—
	2001-2003	155/210	—
	2004-2006	173/235	—
	2007	177/240	—
Envoy 4WD	1999-2009	103/140	—
Equinox	2005-2017	151/205	151/205
H1500, H2500 Van AWD	2003-2014	155/210	—
HHR	2006-2011	155/210	—
K Series 4WD Pickup	1988-1990	173/235	—
	1991-2000	165/224	—
S Blazer, Jimmy 4WD	1982-1985	173/235	—
	1997-2005	103/140	—
S Blazer, Jimmy, Typhoon, Syclone 4WD	1986-1996	181/245	—
S10, S15, Sonoma 4WD	1982-1985	173/235	—
	1986-1996	180/244	—
	1997-2004	103/140	—
Sierra, Silverado 4WD	1999-2009	177/240	—
	2010-2017	188/255	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
CHEVROLET / GMC TRUCKS - cont.			
Suburban 4WD	1992-1999	165/224	—
	2000-2014	177/240	—
	2015-2017	188/255 [52]	—
Tahoe, Yukon, Yukon XL 4WD	1995-1997	165/224	—
	1998-2014	177/240	—
	2015-2017	188/255 [52]	—
Terrain AWD	2010-2017	151/205	151/205
Terrain FWD	2010-2017	151/205	—
Tracker	1998	155/210	—
	1999-2004	159/216	—
TrailBlazer 4WD	2002-2009	103/140	—
Traverse AWD	2009-2017	173/235	151/205
Traverse FWD	2009-2017	173/235	—
Trax AWD	2015-2017	37/50 [27][52]	37/50 [27][52]
Trax RWD	2015-2017	37/50 [27][52]	—

CHRYSLER

200	2011-2014	118/160	—
200 AWD	2015-2017	148/200 [52]	129/175 [52]
200 FWD	2015-2017	148/200 [52]	—
300 AWD	2005-2017	157/213	157/213
300 RWD	2005-2017	—	157/213
300M	1999-2000	120/163	—
	2001-2004	105/142	—
Aspen 4WD	2007-2009	185/251	—
Cirrus	1995-1999	180/244	—
	2000	105/142	—
Concorde	1993-1994	80/108	—
	1995-2000	120/163	—
	2001-2004	105/142	—
Crossfire	2004-2008	—	164/220
Daytona	1984-1993	180/244	—
Dynasty	1988-1993	180/244	—
E Class	1983-1984	180/244	—
Fifth Ave	1990-1993	180/244	—
Imperial	1990-1993	180/244	—
Laser	1984-1986	180/244	—
LeBaron	1982-1995	180/244	—
LHS	1994	80/108	—
	1995-2000	120/163	—
	2001	105/142	—
New Yorker	1983-1993	180/244	—
	1994	80/108	—
	1995-1996	120/163	—
Pacifica AWD	2004-2008	180/244	180/244
Pacifica FWD	2004-2008	180/244	—
	2017	120/163 [52]	—
Prowler	2001-2002	—	105/142
PT Cruiser	2001-2010	180/244	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
CHRYSLER - cont.			
Sebring Convertible	1996-1999	180/244	—
	2000	105/142	—
	2001-2006	110/150	—
	2007-2010	118/160	—
Sebring Coupe	1995-2005	167/226	—
Sebring Sedan	2001-2006	110/150	—
	2007-2010	118/160	—
TC	1989-1991	180/244	—
Town & Country	2008-2016	118/160	—
Town & Country AWD	1990-2006	180/244	180/244
Town & Country FWD	1990-2007	180/244	—
Voyager, Grand Voyager			
AWD	2000-2003	180/244	180/244
Voyager, Grand Voyager			
FWD	2000-2003	180/244	—
DAIHATSU			
Charade	1988-1992	148/201	—
Rocky	1990-1993	108/146	108/146
DODGE / PLYMOUTH / RAM			
024, TC3	1980-1982	180/244	—
400	1982-1983	180/244	—
600, Caravelle FWD	1982-1988	180/244	—
Acclaim	1989-1995	180/244	—
Aries	1983-1989	180/244	—
Avenger AWD	2008	97/132	181/245
Avenger FWD	1995-2000	167/226	—
	2008-2011	97/132	—
	2012-2014	118/160	—
Breeze	1996-1999	180/244	—
	2000	105/142	—
Caliber	2009-2012	180/244	—
Caliber AWD	2007-2008	180/244	180/244
Caliber FWD	2007-2008	180/244	—
Caravan, Grand Caravan, Voyager, Grand Voyager			
AWD	1990-2004	180/244	180/244
Caravan, Grand Caravan, Voyager, Grand Voyager			
FWD	1984-2004	180/244	—
Caravan, Grand Caravan	2005-2007	180/244	—
	2008-2017	118/160	—
Cargo Van	2012-2015	118/160	—
Challenger	2008-2014	184/215	157/213
	2015-2016	—	170/230 [52]
	2017	157/213 [52]	170/230 [52]
Champ FWD	1980-1984	167/226	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
DODGE / PLYMOUTH / RAM - cont.			
Charger AWD	2007-2014	157/213	157/213
	2015-2017	157/213 [52]	157/213 [52]
Charger RWD	2006-2014	—	157/213
	2015-2017	—	157/213 [52]
Charger, Turismo	1982-1987	180/244	—
Colt 4WD	1985-1988	167/226	90/125
	1989-1992	167/226	127/175
	1993-1994	167/226	130/180
Colt FWD	1980-1994	167/226	—
Dart	2013-2016	148/200 [107]	—
Daytona	1984-1993	180/244	—
Dynasty	1988-1993	180/244	—
Horizon, Omni	1980-1990	180/244	—
Intrepid	1993-1994	80/108	—
	1995-2000	120/163	—
	2001-2004	105/142	—
Journey AWD	2009-2017	118/160	181/245
Journey FWD	2009-2017	118/160	—
Lancer	1985-1989	180/244	—
Laser 4WD	1990-1994	167/226	138/190
Laser FWD	1990-1994	167/226	—
Magnum AWD	2005-2007	157/213	157/213
	2008	184/250	157/213
Magnum RWD	2005-2008	—	157/213
Monaco	1990-1992	181/245	—
Neon	1995	150/203	—
	1996-1998	135/183	—
	2000-2005	180/244	—
Neon SRT-4	2003-2005	180/244	—
Prowler	1997-2000	—	105/141
Rampage, Scamp	1982-1984	180/244	—
Reliant	1981-1989	180/244	—
Shadow, Sundance	1987-1994	180/244	—
Spirit	1989-1995	180/244	—
Stealth 4WD	1991-1996	166/225	203/280
Stealth FWD	1991-1996	166/225	—
Stratus Coupe	2001-2005	167/226	—
Stratus Sedan	1995-1999	180/244	—
	2000	105/142	—
	2001-2006	110/150	—
Viper	1997-2006	—	190/258
Vista	1992-1994	167/226	166/225
Vista 4WD	1984-1991	165/224	—
Vista FWD	1984-1991	165/224	—
DODGE / PLYMOUTH TRUCKS			
Dakota 4WD	1987-1996	190/258	—
	1997-2011	185/251	—
Durango 4WD	1997-2010	185/251	—
	2011-2017	229/310 [52]	229/310 [52]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
DODGE / PLYMOUTH TRUCKS - cont.			
Nitro 4WD	2007-2011	100/135	—
Promaster	2014-2017	350/475 [52]	—
Promaster City	2015-2017	[97][107]	—
Ram 1500 Pickup 4WD	1994-1995	180/244 [11]	—
	1996-1999	175/237 [11]	—
	2000-2002	180/244 [11]	—
Ram 1500 Pickup	2003-2005		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Indep Susp		—	[34][62]
4WD w/Link/Coil Susp		[12]	[34][62]
4WD w/Indep Susp		185/251	[34][62]
	2006-2007		
2WD w/Link/Coil Susp		—	—
2WD w/Indep Susp		—	—
4WD w/Link/Coil Susp		[12]	—
4WD w/Indep Susp		185/251	—
	2008-2017		
2WD w/Indep Susp		—	—
4WD w/Indep Susp		185/251	—
Ram 2500 Pickup 4WD	1994-1995	180/244 [11]	—
	1996-1999	175/237 [11]	—
	2000-2002	180/244 [11]	—
Ram 2500, 3500 Pickup	2003-2005		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Indep Susp		—	[34][62]
4WD w/Link/Coil Susp		[12]	[34][62]
4WD w/Indep Susp		185/251	[34][62]
	2006-2007		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Indep Susp		—	[34][62]
4WD w/Link/Coil Susp		[12]	[34][62]
4WD w/Indep Susp		185/251	[34][62]
	2008-2009		
2WD w/Indep Susp		—	[34][62]
2WD w/Indep Susp		—	[32][63]
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Link/Coil Susp		—	[32][63]
4WD w/Indep Susp		185/251	[34][62]
4WD w/Indep Susp		185/251	[32][63]
4WD w/Link/Coil Susp		[12]	[34][62]
4WD w/Link/Coil Susp		[12]	[32][63]
	2010		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Link/Coil Susp		—	[32][63]
4WD w/Link/Coil Susp		[69][70]	[34][62]
4WD w/Link/Coil Susp		[69][70]	[32][63]
	2011-2013		
Front		[69][70]	—
10.5", 11.5" or 11.8" ring gear		—	[109]
310 RBI rear axle		—	[63]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
DODGE / PLYMOUTH TRUCKS - cont.			
Ram 2500, 3500	2014-2017		
Front		[70][110]	—
10.5", 11.5" or 11.8" ring gear		—	[109]
310 RBI rear axle		—	[63]
Ram 3500 Pickup 4WD	1994-1995	180/244 [11]	—
	1996-1999	175/237 [11]	—
	2000-2002	180/244 [11]	—
Ram 4500, 5500	2012-2017	[69][70]	—
w/10.5" or 11.5" ring gear		—	[109]
w/302/310 RBI rear axle		—	[63]
Sprinter			
Dual Rear Wheels, Inner Hub Nut	2004-2009	—	[13]
Dual Rear Wheels, Outer Hub Nut	2004-2009	—	184/250
EAGLE			
Premier	1988-1992	181/245	—
Summit AWD	1989-1992	167/226	127/175
	1993-1996	167/226	130/180
Summit FWD	1989-1996	167/226	—
Summit Wagon	1989-1991	165/224	—
	1992-1996	167/226	—
Talon 4WD	1990-1994	167/226	138/190
	1995-1998	167/226	167/226
Talon FWD	1990-1998	167/226	—
Vision	1993-1994	80/108	—
FIAT			
124 Spider	2017	—	[116]
500, 500e, 500L	2012-2017	229/310 [52]	—
500X	2016-2017	148/200 [107]	52/70 [111]
FORD / MERCURY			
Aspire	1994-1997	145/196	—
C-Max	2013-2017	59/80 [1][52]	—
Capri	1992-1994	145/196	—
Contour, Mystique	1995-1997	246/334	—
	1998-2000	199/270	—
Cougar, Thunderbird	1989-1997	—	221/300
Cougar	1999-2002	214/290	—
Crown Victoria, Grand Marquis	1992-2002	221/300	—
Edge AWD	2007-2010	[54]	[44]
	2011-2014	[54]	[54]
	2015-2017	148/200 [103]	148/200 [52]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
FORD / MERCURY - cont.			
Edge FWD	2007-2010	[54]	—
	2011-2014	[54]	—
	2015-2017	148/200 [103]	—
Escort, Lynx, EXP, LN7	1981-1990	190/258	—
Escort, Tracer	1991-2002	205/277	—
Festiva	1989-1993	145/196	—
Fiesta	2011-2017	188/255	—
Five Hundred AWD	2005-2007	258/351 [14]	148/200
Five Hundred FWD	2005-2007	259/351 [14]	—
Flex	2009-2017	[54]	[54]
Focus	2000-2004	233/316	—
	2005-2011	199/270	—
	2012-2017	59/80 [1]	—
Focus EV	2012-2017	59/80 [1]	—
Focus RS	2016-2017	59/80 [1][52]	37/50 [52]
Freestar	2004-2007	111/150	—
Freestyle AWD	2005-2007	259/351 [14]	148/200
Freestyle FWD	2005-2007	259/351 [14]	—
Fusion AWD	2006-2012	189/256	189/256
	2013-2017	148/200	148/200
Fusion FWD	2006-2012	189/256	—
	2013-2017	148/200	—
Milan AWD	2006-2011	189/256	189/256
Milan FWD	2006-2011	189/256	—
Montego AWD	2005-2007	259/351 [14]	148/200
Montego FWD	2005-2007	259/351 [14]	—
Monterey	2005-2007	111/150	—
Mustang	2015-2017	—	98/133 [23][52]
Mustang Cobra	1999-2004	—	240/325
Probe	1989-1997	205/277	—
Sable, Taurus, Taurus Police Sedan	1986-1999	190/258	—
	2000-2007	184/250	—
	2008-2017	[54]	[54]
Tempo, Topaz	1984-1994	190/258	—
Thunderbird	2002-2005	—	302/410
Tracer	1987-1989	145/196	—
Villager	1993-2002	203/275	—
Windstar	1995-1997	194/263	—
	1998-1999	186/252	—
	2000-2003	184/250	—
ZX2	1998-2003	205/277	—
FORD / MERCURY TRUCKS			
Aerostar 4WD	1986-1994	190/260	—
	1995-1997	185/257	—
Escape 4WD	2001-2003	214/290	214/290
	2012	221/300	214/290
	2013-2017	59/80 [1]	98/133

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
FORD / MERCURY TRUCKS - cont.			
Escape FWD	2012	221/300	—
	2013-2017	59/80 [1]	—
Escape, Mariner 4WD	2004-2011	221/300	221/300
Escape, Mariner FWD	2004-2011	221/300	—
Expedition RWD	2003-2008	—	254/345
	2009	—	258/350 [52]
	2010-2017	—	184/250 [52]
Expedition 4WD	1997-2002	221/300	—
	2003-2008	20/27 [52]	254/345
	2009	20/27 [52]	258/350 [52]
	2010-2017	20/27 [52]	184/250 [52]
Explorer 4WD	1995-1996	195/270	—
Explorer Sport & Sport-Trac 4WD	2001-2003	184/250	—
	2004-2005	162/220	—
Explorer Sport Trac 2WD	2007-2010	—	203/275
Explorer Sport Trac 4WD	2007	148/200	203/275
	2008-2010	184/250	203/275
Explorer, Mountaineer 2WD	1997-2010	184/250	203/275
Explorer, Police Utility 2WD	2011-2015	[54]	—
	2016-2017	258/350 [52]	—
4WD	2011-2015	[54]	[54]
	2016-2017	258/350 [52]	258/350 [52]
F150 Pickup 2WD	2004-2008	296/400	—
F150 Pickup 4WD	1997-2003	221/300	—
	2004-2012	20/27 [52]	—
	2013-2017	30/40 [52]	—
F250 LD Pickup 4WD	1997-1998	221/300	—
Ranger 4WD	1998-2000	[16]	—
	2001-2005	162/220	—
	2006-2011	184/250	—
Transit Connect	2010-2013	207/280	—
	2014-2017	59/80 [1][52]	—
GENESIS			
G80 AWD	2017	217/294 [107]	202/275
G80 RWD	2017	[-]	202/275
G90 AWD	2017	232/294 [107]	202/275
G90 RWD	2017	[-]	202/275
GEO			
Metro	1989-1997	129/175	—
Prizm	1989-1992	137/186	—
	1993-1997	159/216	—
Spectrum	1989	137/186	—
Storm	1990-1993	137/186	—
Tracker	1989-1997	155/210	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
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GMC TRUCKS - SEE CHEVROLET / GMC TRUCKS

HONDA

Accord.....	1983-1985	137/190	—
	1986-1989	133/181	—
	1990-2002	181/245	—
	2009-2017	242/328 [77]	—
Accord 2.4L w/A/T.....	2003-2008	133/181	—
Accord 2.4L w/M/T.....	2003-2008	181/245	—
Accord 3.0L.....	2003-2008	181/245	—
Accord Crosstour AWD.....	2010-2015	242/328 [77]	181/245 [77]
Accord Crosstour FWD.....	2010-2015	242/328 [77]	—
Civic FWD.....	1984-2006	133/181	—
Civic 4WD.....	1985-1991	133/181	133/181
Civic ex. Si, 2.4L.....	2007-2015	133/181	—
Civic Si, 2.4L.....	2007-2015	181/245 [77]	—
Civic 1.5L.....	2016-2017	181/245 [77]	—
Civic 2.0L w/A/T.....	2016-2017	133/181 [77]	—
Civic 2.0L w/M/T.....	2016-2017	242/328 [77]	—
Clarity Fuel Cell.....	2017	242/328 [77]	—
CR-V FWD.....	1997-2006	181/245 [77]	—
	2007-2017	242/328 [77]	—
CR-V 4WD.....	1997-2006	181/245	133/181
	2007-2011	242/328	181/245
	2012-2017	242/328 [77]	[65]
CRX.....	1984-1991	133/181	—
CRZ.....	2011-2016	133/181 [77]	—
del Sol.....	1993-1997	133/181	—
Element.....	2003-2011	181/245	133/181
Fit.....	2007-2017	133/181 [77]	—
HR-V.....	2016-2017	242/328 [77]	133/181 [77]
Insight.....	2000-2006	133/181	—
	2010-2014	133/181 [77]	—
Odyssey.....	1995-2004	181/245	—
	2005-2017	242/328 [77]	—
Pilot 4WD.....	2003-2004	181/245	181/245
	2005-2008	210/285	181/245
	2009-2017	242/328 [77]	181/245 [77]
Pilot FWD.....	2003-2004	181/245	—
	2005-2008	210/285	—
	2009-2017	242/328 [77]	—
Prelude.....	1980-1982	108/150	—
	1983-1989	133/181	—
	1990-2001	181/245	—
Ridgeline 4WD.....	2006-2014	242/328 [77]	181/245 [77]
	2017	242/328 [77]	181/245 [77]
Ridgeline FWD.....	2006-2014	242/328 [77]	—
	2017	242/328 [77]	—
S2000.....	2000-2009	—	181/245

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
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HYUNDAI

Accent.....	1995-2000	170/230	—
	2001-2006	175/237	—
	2007-2011	188/260	—
	2012-2017	202/274	—
Azera.....	2006	170/230	—
	2007-2011	207/280	—
	2012-2017	202/274	—
Elantra.....	1992-2006	192/260	—
	2007-2017	202/274	—
Elantra Coupe.....	2013-2016	202/274	—
Elantra GT.....	2013-2014	199/270	—
	2015-2017	202/274	—
Entourage.....	2007-2008	199/275	188/260
Equus.....	2011-2016	—	203/280
Excel.....	1986-1994	170/230	—
Ioniq.....	2017	202/275 [107]	—
Genesis.....	2009-2014	—	202/280 [80]
Genesis Coupe.....	2010-2016	—	188/255 [79]
Genesis AWD.....	2015-2016	217/294	202/275
Genesis RWD.....	2015-2016	—	202/275
Santa Fe 4WD.....	2001-2007	170/230	170/230
	2008-2012	188/255	188/255
	2013-2017	217/294 [77]	217/294 [77]
Santa Fe FWD.....	2001-2007	170/230	—
	2008-2012	188/255	—
	2013-2017	217/294 [77]	—
Scoupe.....	1991-1995	170/230	—
Sonata.....	1989-2001	170/230	—
	2002-2007	177/240	—
	2008-2009	207/280	—
	2011-2014	188/255	—
	2015-2017	217/294 [77]	—
Sonata Hybrid.....	2011-2015	188/255 [77]	—
	2016-2017	217/294 [77]	—
Tiburon.....	1997-2001	170/230	—
Tiburon 2.0L.....	2003-2007	170/230	—
	2008	192/260	—
Tiburon 2.7L.....	2003-2007	177/240	—
	2008	207/280	—
Tuscon 4WD.....	2010-2013	232/314	217/294
	2014-2015	232/314 [77]	217/294 [77]
	2016-2017	232/314 [77]	232/314 [77]
Tuscon 4WD w/2.0L.....	2007	206/280 [40]	206/280 [40]
Tuscon 4WD w/2.0L & 2.7L.....	2005-2006	206/280 [40]	206/280 [40]
Tuscon 4WD w/2.7L.....	2007-2009	[49]	206/280 [40]
Tuscon FWD.....	2010-2013	232/314	—
	2014-2017	232/314 [77]	—
Tuscon FWD w/2.0L.....	2007-2009	206/280 [40]	—
Tuscon FWD w/2.0L & 2.7L.....	2005-2006	206/280 [40]	—
Tuscon FWD w/2.7L.....	2007-2009	[49]	—
Veloster.....	2012-2017	202/274 [77]	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
HYUNDAI - cont.			
Veracruz AWD	2007-2012	202/274	202/274
Veracruz FWD	2007-2012	202/274	—
XG300	2001	192/260	—
XG350	2002-2005	192/260	—
INFINITI			
EX35 AWD	2008-2010	92/125	133/180
	2011-2012	92/125	77/105
EX35 RWD	2008-2010	—	133/180
	2011-2012	—	77/105
EX37	2013	92/125	77/105
FX35, FX45 AWD	2003-2008	203/275	177/240
FX35, FX45 RWD	2003-2008	—	177/240
FX35, FX50 AWD	2009-2010	92/125	133/180
	2011-2012	92/125	77/105
FX35, FX50 RWD	2009-2010	—	133/180
	2011-2012	—	77/105
FX37, FX50	2013	92/125	77/105
G20	1991-1996	203/275	—
	1999-2001	203/275	—
	2002	217/294	—
G25 AWD	2011-2012	92/125	77/105
G25 RWD	2011-2012	—	77/105
G35 AWD	2004-2006	177/240	177/240
G35 AWD Sedan	2007-2008	92/125	129/175
G35 RWD	2003-2006	—	177/240
G35 RWD Coupe	2007-2008	—	177/240
G35 RWD Sedan	2007-2008	—	129/175
G37 AWD	2008-2009	92/125	177/240
	2010-2013	92/125	77/105
G37 RWD	2008-2009	—	177/240
	2010-2013	—	77/105
I30	1996-1999	203/275	—
	2000-2001	217/294	—
I35	2002-2004	203/275	—
J30	1993-1997	217/294	—
JX35	2013	135/182	92/125
M30	1990-1992	—	117/152
M35 AWD	2006-2008	92/125	130/176
	2009-2010	92/125	[47]
M35 RWD	2006-2008	—	130/176
	2009-2010	—	[47]
M35H	2012-2013	—	77/105
M37, M56	2011-2013	92/125	77/105
M45	2003-2004	—	177/240
M45 AWD	2008	92/125	136/185
	2009-2010	92/125	[47]
M45 RWD	2008	—	136/185
	2009-2010	—	[47]
Q40 AWD	2015	92/125	[88]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
INFINITI - cont.			
Q40 RWD	2015	—	[88]
Q45	1990-2006	—	177/240
Q50 AWD	2014-2017	92/125	[88]
Q50 RWD	2014-2017	—	[88]
Q60 AWD	2014-2015	92/125	[88]
	2017	92/125	[117]
Q60 RWD	2014-2015	—	[88]
	2017	—	[117]
Q70 AWD	2014-2017	92/125	[88]
Q70 RWD	2014-2017	—	[88]
QX4	1997-2003	—	181/245
QX30 AWD	2017	[91]	258/350 [107]
QX30 FWD	2017	[91]	—
QX50 AWD	2014-2017	92/125	[88]
QX50 RWD	2014-2017	—	[88]
QX56	2011-2013	90/123	164/223
QX56 AWD	2004-2010	101/137	170/230
QX56 RWD	2004-2010	—	170/230
QX60 AWD	2014-2017	135/183 [52]	92/125
QX60 FWD	2014-2017	135/183 [52]	—
QX70 AWD	2014-2017	92/125	[88]
QX70 RWD	2014-2017	—	[88]
QX80 AWD	2014-2017	[89]	[90]
QX80 RWD	2014-2017	—	[90]
ISUZU			
Ascender 4WD	2003-2008	103/140	—
Axiom 4WD	2002-2004	181/245	—
Hombre 4WD	1996	181/245	—
	1997-2000	103/140	—
i-350, i-370 4WD	2006-2007	191/260	—
I-Mark FWD	1985-1989	137/186	—
Impulse	1990-1993	137/186	—
Oasis	1996-1999	181/245	—
Rodeo 4WD	2003-2004	181/245	—
Stylus	1991-1993	137/186	—
JAGUAR			
F-Pace	2017	[118]	[118]
F-Type	2014-2015	—	[118]
F-Type AWD	2016-2017	[118]	[118]
F-Type RWD	2016-2017	—	[118]
S-Type	2000-2008	—	221/300
X-Type	2002-2008	200/270	200/270
XE AWD	2017	[118]	[118]
XE RWD	2017	—	[118]
XF AWD	2013-2015	[118]	221/300 [52]
	2016-2017	[118]	[118]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
JAGUAR - cont.			
XF RWD	2009-2015	—	221/300 [52]
	2016-2017	—	[118]
XFR, XFR-S	2010-2015	—	221/300 [52]
XJ Series AWD	2013-2017	[118]	221/300 [52]
XJ Series RWD	2004-2017	—	221/300 [52]
XJ8	1998-2003	—	236/320
XK, XKR Series	2004-2015	—	221/300 [52]
XK8	1997-2003	—	236/320

JEEP

Cherokee 4WD	1984-2001	175/237	—
	2014-2017	148/200 [52]	148/200 [52]
Cherokee FWD	2014-2017	148/200 [52]	—
Comanche 4WD	1986-1992	175/237	—
Commander 4WD	2006-2010	100/135	—
Compass, Patriot 4WD	2007-2016	180/244	181/245
Compass, Patriot FWD	2007-2016	180/244	—
Compass (MK) AWD	2017	180/244	181/245
Compass (MK) FWD	2017	180/244	—
Compass (MP) AWD	2017	122/165	52/70
		[52]	[98][107]
Compass (MP) FWD	2017	122/165 [52]	—
Grand Cherokee 4WD	1993-2004	175/237	—
	2005-2010	100/135	—
Grand Cherokee AWD	2011-2017	229/310	229/310
Grand Cherokee RWD	2011-2017	—	229/310
Grand Wagoneer 4WD	1993	175/237	—
Liberty 4WD	2002-2012	100/135	—
Patriot AWD	2017	180/244	181/245
Patriot FWD	2017	180/244	—
Renegade FWD	2015-2017	148/200 [52]	—
Renegade 4WD	2015-2017	148/200	52/71
		[52]	[52][111]
Wagoneer 4WD	1984-1990	175/237	—
Wrangler 4WD	1987-2006	175/237	—
	2007-2017	100/135	—

KIA

Amanti	2004-2007	177/240	—
	2008-2009	207/280	—
Borrego 4WD	2009-2010	199/270	199/270
Borrego RWD	2009-2010	—	199/270
Cadenza	2014-2017	217/294 [77]	—
Forte/Forte Koupe	2010-2013	203/275 [77]	—
	2014-2017	217/294 [77]	—
K900	2015-2017	—	202/274
Niro	2017	217/294 [77]	—
Optima [43]	2001-2006	170/230	—
Optima [42]	2006-2010	206/280	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
KIA - cont.			
Optima [41]	2011-2015	217/294 [77]	—
Optima	2016-2017	217/294 [77]	—
Optima Hybrid	2011-2016	188/255	—
	2017	217/294 [77]	—
Rio	2001-2007	145/200	—
	2008-2011	188/255	—
	2012-2017	202/275 [77]	—
Rio5	2006-2007	145/200	—
	2008-2011	188/255	—
	2012-2014	202/275 [77]	—
Rondo	2007	177/240	—
	2008-2011	202/274	—
Sedona	2002-2007	188/255	—
	2008-2012	199/270	—
	2014	199/270 [77]	—
	2015-2017	232/314 [77]	—
Sephia	1994-1996	177/240	—
	1997-2001	180/244	—
Sorento	2003-2006	192/260	—
	2007-2009	198/270	—
	2011-2013	217/294	159/215
Sorento AWD	2014-2015	217/294 [77]	199/270 [77]
	2016-2017	232/314 [77]	232/314 [77]
Sorento FWD	2014-2015	217/294 [77]	—
	2016-2017	232/314 [77]	—
Soul	2010-2013	199/270 [77]	—
	2014-2017	217/294 [77]	—
Soul EV	2015-2017	217/294 [77]	—
Spectra, Spectra5	2002-2004	205/279	—
	2005-2007	184/250	—
	2008-2009	192/260	188/260
Sportage 4WD	2005-2010	207/280 [40]	207/280 [40]
	2011-2016	202/274	202/274
	2017	232/314 [77]	232/314 [77]
Sportage FWD	2005-2010	207/280 [40]	—
	2011-2016	202/274	—
	2017	232/314 [77]	—

LAND ROVER

Discovery	2017	[100]	[100]
Discovery II	1998-2004	360/490 [18]	—
Discovery Sport	2015-2017	74/100	74/100
		[1][52]	[1][52]
Evoque	2012-2017	74/100	88/120
		[1][52]	[1][52]
Freelander	2002-2005	295/400	295/400
LR2	2008-2015	33/45 [17]	243/330 [22]
LR3	2005-2008	258/350	258/350
	2008	33/45 [17]	243/330 [22]
LR4	2010-2016	169/230 [52]	311/420 [52]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
LAND ROVER - cont.			
Range Rover	2000-2002	192/260 [18]	—
	2003-2012	311/420	311/420
	2013-2017	[100]	[100]
Range Rover Sport	2006-2009	258/350	258/350
	2010-2013	170/230	311/420
	2014-2017	[100]	[100]

LEXUS

CT200H	2011-2017	159/216	—
ES250	1990-1991	137/186	—
ES300	1992-2003	217/294	—
ES300H	2013-2017	217/294	—
ES330	2004-2006	217/294	—
ES350	2007-2017	217/294	—
GS200t, GS Turbo	2016-2017	—	214/290
GS300	1993-1997	—	213/289
GS300, GS400	1998-2000	—	213/289
GS300, GS430 AWD	2001-2006	217/294	213/289
GS300, GS430 RWD	2001-2006	—	213/289
GS350, GS430 AWD	2007-2011	217/294	214/290
GS350, GS430 RWD	2007-2011	—	214/290
GS350 AWD	2013-2017	217/294	214/290
GS350 RWD	2013-2017	—	214/290
GS450H	2007-2011	—	214/290
	2013-2017	—	214/290
GS460 AWD	2007-2011	217/294	214/290
GS460 RWD	2007-2011	—	214/290
GS F	2016-2017	—	214/290
GX460	2010-2017	173/235	—
GX470	2003-2009	173/235	—
HS250H	2010-2012	159/216	—
IS200t, IS Turbo	2016-2017	—	214/290
IS250 AWD	2006-2015	217/294	214/290
IS250 RWD	2006-2015	—	214/290
IS300	2000-2005	—	213/289
	2016-2017	217/294	214/290
IS350 AWD	2011-2017	217/294	214/290
IS350 RWD	2006-2017	—	214/290
IS-F	2008-2014	—	214/290
LS400	1990-1994	—	253/343
	1995-2000	—	213/289
LS430	2001-2006	—	214/290
LS460 AWD	2009-2017	217/294	214/290
LS460 RWD	2007-2017	—	214/290
LS600hL	2008-2016	217/294	214/290
LX570	2008-2011	[37]	—
	2013-2017	[37]	—
NX200t AWD	2015-2017	215/292 [77]	159/216 [77]
NX200t FWD	2015-2017	215/292 [77]	—
NX300h AWD	2015-2017	215/292 [77]	159/216 [77]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
LEXUS - cont.			
NX300h FWD	2015-2017	215/292 [77]	—
RC200t, RC Turbo	2016-2017	—	214/290 [77]
RC300	2016-2017	217/294 [71]	214/290 [77]
RC350 AWD	2015-2017	217/294 [77]	214/290 [77]
RC350 RWD	2015-2017	—	214/290 [77]
RC-F	2015-2017	—	214/290 [77]
RX300 AWD	1999-2003	217/294	159/216
RX300 FWD	1999-2003	217/294	—
RX330 AWD	2004-2006	217/294	217/294
RX330 FWD	2004-2006	217/294	—
RX350 AWD	2007-2017	217/294	217/294
RX350 FWD	2007-2017	217/294	—
RX400h AWD	2007-2009	217/294	217/294
RX400h FWD	2007-2009	217/294	—
RX450h AWD	2010-2017	217/294	217/294
RX450h FWD	2010-2017	217/294	—
SC300, SC400	1992-2000	—	213/289
SC430	2002-2009	—	213/289

LINCOLN

Aviator AWD	2003-2005	184/250	203/275
Aviator RWD	2003-2005	—	203/275
Continental	1988-2002	—	221/300
Continental AWD	2017	148/200 [52]	148/200 [52]
Continental FWD	2017	148/200 [52]	—
LS	2000-2006	—	221-300
Mark LT Pickup 4WD	2006-2008	20/27	—
MKC AWD	2015-2017	59/80 [1][52]	98/133 [52]
MKC FWD	2015-2017	59/80 [1][52]	—
MKS AWD	2009-2016	[54]	[54]
MKS FWD	2009-2016	[54]	—
MKT AWD	2010-2017	[54]	[54]
MKT FWD	2010-2017	[54]	—
MKX AWD	2007-2010	[54]	[44]
	2011-2015	[54]	[54]
	2016-2017	148/200 [52]	148/200 [52]
MKX FWD	2007-2015	[54]	—
	2016-2017	148/200 [52]	—
MKZ AWD	2007-2012	189/256	189/256
	2013-2017	148/200 [52]	148/200 [52]
MKZ FWD	2007-2012	189/256	—
	2013-2017	148/200 [52]	—
Navigator, Navigator L			
RWD	2003-2008	—	254/345
	2009	—	258/350 [52]
	2010-2017	—	184/250 [52]
4WD	1998-2002	221/300	—
	2003-2008	20/27 [52]	254/345
	2009	20/27 [52]	258/350 [52]
	2010-2017	20/27 [52]	184/250 [52]
Zephyr	2006	185/255	—

[] Footnote codes for axle nut torque, see pages 23-26

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
MAZDA			
323.....	1986-1989	144/196	—
	1990-1994	205/277	—
626.....	1983-1987	145/200	—
626, MX-6.....	1988-2002	205/277	—
929.....	1988-1991	—	203/275
929, Serenia	1992-1995	—	203/275
B Series Pickup 4WD.....	1998-2000	[16]	—
	2001-2009	162/220	—
CX-3 AWD	2016-2017	[81]	[81]
CX-3 FWD	2016-2017	[81]	—
CX-5 AWD	2013-2017	[81]	[81]
CX-5 FWD	2013-2017	[81]	—
CX-7 AWD	2007-2012	202/274	202/274
CX-7 FWD	2007-2012	202/274	—
CX-9 AWD	2007-2015	202/274	202/274
	2016-2017	[119]	[81]
CX-9 FWD	2007-2015	202/274	—
	2016-2017	[119]	—
GLC ex. Wagon.....	1981-1985	145/200	—
Mazda 2.....	2011-2014	202/274	—
Mazda 3.....	2007-2013	202/274	—
	2014-2017	[81]	—
Mazda 5.....	2006.....	188/255	—
	2007-2015	202/274	—
Mazda 6 AWD	2006-2007	202/274	235/319
Mazda 6 FWD	2003-2013	202/274	—
	2014-2017	[81]	—
Miata	1990-1997	—	159/217 [52]
	1999-2003	—	235/318
	2004-2015	—	202/275 [82]
	2016-2017	—	[81]
Millenia	1995-2002	205/277	—
MPV.....	2000-2006	205/277	152/206
MPV 4WD	1989-1998	203/275	—
MPV FWD	1989-1998	152/206	—
MX-3, Precidia.....	1992-1995	205/277	—
MX-5.....	2006.....	—	188/255
Protege, Protege5.....	1990-2003	205/277	152/206
RX-7.....	1986-1995	—	203/275
RX-8.....	2004-2006	—	188/255
	2007-2011	—	202/275
Tribute.....	2001-2006	214/290	214/290
	2008-2011	221/300	221/300

MERCEDES-BENZ

AMG GT	2017	—	148/200 [22]
AMG GT S.....	2016-2017	—	148/200 [22]
B Series.....	2015-2017	[91]	—
C Series	1997-2007	—	162/220

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
MERCEDES-BENZ - cont.			
C Series ex. 2015 C300, C63 AMG S.....	2008-2015	—	[72]
C Series 4 Matic ex. 2015 C300, C400.....	2003-2007	81/110 [27]	162/220
	2008-2015	[71]	[72]
C43 AMG.....	2017	[93]	258/350
C63 AMG.....	2016-2017	[93]	258/350
C63 AMG S.....	2015-2017	—	258/350
C300 4 Matic	2015-2017	[93]	258/350
C300 RWD	2015-2017	—	258/350
C350e.....	2016-2017	—	258/350
C400	2015.....	[93]	258/350
C450 AMG	2016.....	[93]	258/350
CL Series.....	2000-2005	236/320	236/320
	2006-2009	—	[73]
	2010-2014	—	[72]
CL Series 4 Matic	2009-2013	[71]	[72]
CL63 AMG.....	2008-2014	—	[72]
CL65 AMG.....	2008-2014	—	[74]
CLA Series AWD.....	2014-2017	[91]	258/350
CLA Series FWD.....	2014-2017	[91]	—
CLK Series	1998-2012	—	162/220
CLK AMG Series	2001-2009	—	162/220
CLK AMG Cabriolet, Black Series.....	2004-2009	—	[73]
CLS Series	2006-2011	—	[72]
	2012-2017	—	258/350
CLS Series 4 Matic	2012-2017	[71]	258/350
E Series	1997-1998	—	162/220
	1999-2003	—	236/320
	2004-2016	—	[72]
E Series 4 Matic	1997-1998	[30]	162/220
	1999-2003	[30]	236/320
	2004-2009	51/70 [1]	[72]
	2010-2016	[71]	[72]
E43 AMG AWD	2017	[93]	258/350
E43 AMG RWD	2017	—	258/350
E300 AWD.....	2017	[93]	258/350
E300 RWD	2017	—	258/350
E400 AWD.....	2017	[93]	258/350
E400 RWD	2017	—	258/350
E550	2017	—	[72]
G Series	2002-2017	133/180	—
GL Series.....	2007-2012	192/260 [23]	—
	2013-2016	[75]	[75]
GLA Series.....	2015-2017	[91]	258/350
GLC Series	2016-2017	—	258/350
GLC Series 4 Matic.....	2016-2017	[93]	258/350
GLE Series	2016-2017	—	[75]
GLE Series 4 Matic	2016-2017	[75]	[75]
GLK Series 4 Matic	2010-2015	[71]	[72]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
MERCEDES-BENZ - cont.			
GLK Series	2010-2015	—	[72]
GLS Series AWD	2017	[75]	[75]
GLS Series RWD	2017	—	[75]
Maybach S550	2017	[93]	258/350 [92]
	2017	[93]	288/390 [102]
Maybach S600	2016-2017	—	258/350 [92]
	2016-2017	—	288/390 [102]
Metris	2016-2017	—	[112]
ML Series	2013-2015	—	[75]
ML Series 4 Matic	1998-2005	361/490	361/490
	2006-2011	192/260 [23]	[76]
	2012-2015	[75]	[75]
R Series	2006-2012	192/260 [23]	[76]
S Series ex. S550	1997-2005	—	236/320
	2006-2014	—	[29][72]
S55 AMG	2001-2006	—	[73]
S63, S65 AMG	2006-2013	—	[74]
S63 AMG	2014-2015	[93]	258/350 [92]
	2014-2015	[93]	288/390 [102]
	2016	[71][113]	[72][113]
	2016-2017	[93][114]	258/350 [114]
S65 AMG	2015-2017	—	258/350 [92]
	2015-2017	—	288/390 [102]
	2015-2016	—	[74][113]
S Series 4Matic	2003-2005	51/70 [1]	236/320
	2006-2013	[71]	[29][72]
S550 4Matic	2014-2017	[93]	258/350 [92]
	2014-2017	[93]	288/390 [102]
S550 RWD	2014-2017	—	258/350 [92]
	2014-2017	—	288/390 [102]
S550e	2016-2017	—	258/350
S600	2015-2017	—	258/350 [92]
	2015-2017	—	288/390 [102]
SL Series	1997-2002	—	162/220
	2003-2005	—	236/320
	2006-2013	—	[72]
	2014-2017	—	258/350
SL 65 AMG	2005-2011	—	[15]
SLC Series	2017	—	258/350
SLK Series	2000-2011	—	162/220
	2012-2016	—	258/350
SLK 55 AMG Series	2002-2016	—	258/350
Sprinter, Dual Rear Wheels			
Front Hub Nut	2015-2017	118/160 [27]	—
Inner Hub Nut	2010-2017	—	[13]
Outer Hub Nut	2010-2017	—	184/250

MERCURY - SEE FORD / MERCURY

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
MINI			
Cooper AWD	2011-2016	134/182 [36]	134/182 [36]
	2017	155/210	155/210
		[1][36]	[1][36]
Cooper FWD			
ex. F54, F55, F56, F57	2002-2016	134/182 [36]	—
F54, F55, F56, F57, F60	2014-2017	155/210	—
		[1][36]	
MITSUBISHI			
3000GT 4WD	1991-1999	166/225	203/280
3000GT FWD	1991-1999	166/225	—
Cordia, Tredia	1983-1988	167/226	—
Diamante	1992-2004	167/226	—
Eclipse	2000-2005	167/226	—
	2006-2012	188/255	—
Eclipse 4WD	1990-1994	167/226	138/190
	1995-1999	167/226	166/225
Eclipse FWD	1990-1999	167/226	—
Endeavor 4WD	2004-2011	188/255	—
Endeavor AWD	2004-2011	188/255	188/255
Expo	1992-1996	167/226	166/225
Galant	1985-2009	167/226	—
	2010-2012	188/255	—
I-MIEV	2012/2014/2016	—	107-129/ 144-176
Lancer	2002-2007	181/245	—
Lancer AWD	2008-2011	129/175	129/175
ex. Evolution	2012-2017	184/250	129/176
Evolution	2012-2014	129/176 [84]	129/176
Lancer FWD	2008-2011	129/175	—
	2012-2017	184/250	—
Mirage	1985-2001	167/226	—
	2014-2015	199/270 [77]	—
	2017	184/250 [77]	—
Mirage G4	2017	184/250 [77]	—
Montero	2001-2003	188/255	188/255
	2004-2006	148/200	188/255
Outlander 2WD	2003-2006	181/245	130/176
	2007-2013	129/175	—
Outlander AWD	2003-2006	181/245	181/245
	2007-2013	129/175	129/175
	2014-2016	199/270 [77]	199/270 [77]
	2017	184/250 [77]	184/250 [77]
Outlander FWD	2014-2016	199/270 [77]	—
	2017	184/250 [77]	—
Outlander Sport 2WD	2011-2012	129/176	—
Outlander Sport 4WD	2011-2012	129/176	129/176
Outlander Sport AWD	2013-2015	199/270 [77]	199/270 [77]
	2016-2017	184/250 [77]	199/270 [77]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
MITSUBISHI - cont.			
Outlander Sport FWD	2013-2015	199/270 [77]	—
	2016-2017	184/250 [77]	—
Precis	1987-1992	167/226	—
	1993-1994	170/230	—
Raider	2006-2009	185/251	—
Sigma	1988-1990	167/226	—

NISSAN

200SX	1995-1998	174/236	—
240SX	1989-1994	—	203/275
	1995-1998	—	178/241
300ZX	1990-1996	—	178/241
350Z	2003-2009	—	177/240
370Z	2010-2011	—	135/183
	2012-2017	—	77/105
Altima	1993-2006	202/275	—
	2007	92/125	—
	2008-2012	129/175	—
	2013-2017	135/182	—
Armada	2005-2011	101/137	170/230
Armada 2WD	2012-2015	—	135/182
	2017	—	[90]
Armada 4WD	2012-2015	101/137	135/182
	2017	[89]	[90]
Axxess 4WD	1990	203/275	203/275
Axxess FWD	1990	203/275	—
Cube	2009-2014	92/125	—
Frontier 2WD	2004	—	206/280
Frontier 4WD	2004	—	206/280
	2005-2017	101/137	—
GT-R	2009-2013	166/225	166/225
	2014-2017	[96]	[96]
Juke 2WD	2011-2017	136/185	—
Juke AWD	2011-2017	136/185	92/125
Leaf	2011-2013	136/185	—
	2014-2017	96/130 [52]	—
Maxima	1985-1999	203/275	—
	2000-2006	217/294	—
	2007-2008	203/275	—
	2009-2013	129/175	—
	2014	135/183	—
	2016-2017	135/183	—
Murano AWD	2003-2007	92/125	92/125
	2009	129/175	129/175
	2011-2012	177/240	129/175
	2013-2014	177/240	92/125
	2015-2017	135/183 [52]	92/125

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
NISSAN - cont.			
Murano FWD	2003-2007	92/125	—
	2009	129/175	—
	2011-2012	177/240	—
	2013-2014	177/240	—
	2015-2017	135/183 [52]	—
NV200	2013-2014	96/130	—
	2015-2017	105/143	—
NV200 Taxi	2014	96/130	—
	2015-2017	104/141	—
NX	1991-1993	174/236	163/221
Pathfinder	2005-2012	101/137	177/240
Pathfinder 2WD	2013-2017	135/183 [52]	—
Pathfinder 4WD	2013-2017	135/182 [52]	92/125
Pickup 4WD	1981-1983	129/175	—
Pulsar	1987-1990	174/236	—
Quest	1993-2002	203/275	—
	2004-2009	92/125	—
	2011-2017	155/211 [52]	—
Rogue AWD	2008-2011	92/125	92/125
	2012-2013	136/185 [52]	92/125 [52]
	2014-2017	188/255 [52]	92/125
Rogue FWD	2008-2011	92/125	—
	2012-2013	136/185 [52]	—
	2014-2017	188/255 [52]	—
Rogue Select AWD	2014-2015	136/185 [52]	92/125
Rogue Select FWD	2014-2015	136/185 [52]	—
Rogue Sport AWD	2017	188/255 [52]	92/125 [52]
Rogue Sport FWD	2017	188/255 [52]	—
Sentra	1987-2001	174/236	—
	2006	145/197	—
	2007-2011	92/125	—
	2012	140/190	—
	2013-2014	96/130	—
	2015-2017	105/143 [52]	—
Sentra 1.8L	2002-2005	174/236	—
Sentra 2.5L	2002-2005	217/294	—
Stanza	1982-1986	174/236	—
	1987-1992	203/275	—
Titan	2004-2015	101/137	—
	2017	101/137 [52]	—
Titan XD	2016-2017	135/183 [52]	—
Versa	2007-2011	83/113	—
Versa Hatchback	2012	140/190	—
Versa Note	2014-2017	183/247 [52]	—
Versa Sedan	2012-2017	183/247 [52]	—
Xterra 4WD	2005-2015	101/137	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
OLDSMOBILE			
88	1986-1991	185/251	—
	1992-1997	107/145	—
	1998-1999	118/160	—
98	1985-1991	185/251	—
	1992-1996	107/145	—
Achieva	1992-1997	185/251	—
	1998	74/100 [8]	—
Alero	1999-2004	[10]	—
Aurora	1995-1997	107/145	—
	1998-2003	118/160	—
Bravada	1991-1996	181/245	—
	1997-2004	103/140	—
Calais	1985-1991	185/251	—
Ciera, Cruiser	1982	225/290	—
	1983-1991	185/251	—
	1992-1995	103/140 [7]	—
	1996	107/145	—
Cutlass FWD	1997-1999	284/385	—
Cutlass Supreme	1988-1995	184/250	—
	1996-1997	151/205	—
Firenza	1982-1988	185/251	—
Intrigue	1998-2000	118/160	—
	2001-2002	159/215	—
LSS	1992-1997	107/145	—
	1998-1999	118/160	—
Omega	1980-1982	225/290	—
	1983-1984	185/251	—
Regency	1997	107/145	—
Silhouette	1990-1994	185/251	—
	1995-1996	104/145	—
	1997	151/205	—
	1998-2001	118/160	—
Silhouette AWD	2002-2004	118/160	192/260
Silhouette FWD	2002-2004	118/160	—
Toronado	1980-1985	175/240	—
	1986-1992	183/248	—
Trofeo	1988-1992	183/248	—

PLYMOUTH - SEE DODGE / PLYMOUTH

PLYMOUTH TRUCKS - SEE DODGE / PLYMOUTH TRUCKS

PONTIAC

2000	1983	185/251	—
6000	1982	225/290	—
	1983-1991	185/251	—
Aztek AWD	2001-2005	192/260	192/260
Aztek FWD	2001-2005	192/260	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
PONTIAC - cont.			
Bonneville	1987-1991	185/251	—
	1992-1997	107/145	—
	1998-2005	118/160	—
Fiero	1984-1988	—	200/270
Firefly	1985-1988	151/210	—
	1989-1997	129/175	—
G3	2009	221/300	—
G5	2007-2008	155/210	—
G5 w/LNF & MU3	2009	159/215	—
G5 w/o LNF & MU3	2009	155/210	—
G6	2005-2010	159/215	—
G8	2008-2009	—	110/150 [19]
Grand Am	1985-1997	185/251	—
	1998	74/100 [8]	—
	1999-2005	[10]	—
Grand Prix	1988-1994	184/250	—
	1995-1997	151/205	—
	1998-2008	118/160	—
GTO	2004-2006	—	221/300
J2000	1982	185/251	—
Montana AWD	2000-2005	118/160	192/260
Montana FWD	1999-2005	118/160	—
Montana SV6 AWD	2005-2006	118/160	192/260
Montana SV6 FWD	2005-2009	118/160	—
Phoenix	1980-1982	225/290	—
	1983-1984	185/251	—
Solstice	2006-2010	—	159/215
Sunbird	1984-1994	185/251	—
Sunburst	1985-1987	137/186	—
Sunfire	1995-1997	185/251	—
	1998-2001	144/195	—
	2002-2005	148/200	—
Sunrunner	1994-1997	155/210	—
Tempest	1987-1991	185/251	—
Torrent	2006-2009	151/205	151/205
Trans Sport	1990-1994	185/251	—
	1995-1996	104/145	—
	1997-1999	118/160	—
Vibe AWD	2003-2010	159/216	159/216
Vibe FWD	2003-2010	159/216	—
Wave	2005-2007	221/300	140/190

PORSCHE

911 AWD	1995-2017	340/460 [36]	340/460 [36]
911 RWD	1995-2017	—	340/460 [20][36]
911 Turbo	2001-2006	340/460	340/460
Boxster	1995-2017	—	340/460 [36]
Cayenne	2003-2010	340/460 [36]	340/460 [36]
	2011-2017	340/460 [36]	[101]

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
PORSCHE - cont.			
Cayman	2006-2017	—	340/460 [36]
Macan	2015-2017	[35]	148/200 [3][36]
Panamera AWD	2010-2017	340/460	340/460
Panamera RWD	2010-2017	—	340/460

SAAB

900	1980-1993	221/300	—
	1994-1998	214/290	—
9000	1986-1998	214/290	—
9-2X	2005-2006	162/220	140/190
9-3 FWD	1999-2002	[21]	—
	2003-2011	170/230	—
9-3X AWD	2008-2011	170/230	170/230
9-5	1999	[21]	—
	2000-2001	125/170 [23]	—
	2002-2006	148/200 [22]	—
	2007-2010	170/230	—
9-7X	2005-2009	103/140	—

SATURN

Astra	2008-2009	[45]	—
Aura	2007-2009	159/215	—
ION	2003	81/110	—
	2004-2007	155/210	—
Outlook AWD	2007-2010	173/235	151/205
Outlook FWD	2007-2010	173/235	—
Relay AWD	2005-2006	118/160	192/260
Relay FWD	2006-2007	118/160	—
S Series	1991-2002	148/200	—
SKY	2007-2010	—	159/215
Vue AWD	2002-2003	151/205	81/110
	2004-2010	151/205	151/205
Vue FWD	2002-2010	151/205	—

SCION

FRS	2013-2016	—	140/190 [52]
iA	2016	[105]	—
iM	2016	159/216 [77]	—
iQ	2012-2015	159/216 [52]	—
tC	2005-2010	159/216 [52]	—
tC w/AT	2011-2016	159/216 [52]	—
tC w/MT	2011-2016	215/292 [52]	—
xA	2004-2006	159/216 [52]	—
xB	2004-2015	159/216 [52]	—
xD	2008-2014	159/216 [52]	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
SMART			
ForTwo	2008-2015	—	33/45 [1]
	2016-2017	—	44/60 [86]
ForTwo Electric	2016	—	33/45 [1]

STERLING

All	1987-1991	215/290	—
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SUBARU

All Others FWD	1987-1994	148/200	—
B9 Tribeca, Tribeca	2006-2014	177/240	177/240
Baja	2003-2006	162/220	177/240
BRZ	2013-2017	—	140/190 [52]
Crosstrek	2016-2017	162/220 [52]	140/190 [52]
Forester	1998-2002	137/186	137/186
	2003-2006	140/190	140/190
	2007-2017	162/220	140/190
Impreza	2003	140/190	140/190
	2004-2016	162/220	140/190
	2017	162/220 [107]	177/240 [107]
Impreza FWD	1993-1995	137/186	—
Impreza AWD	1993-2002	137/186	137/186
Justy	1987-1994	130/177	—
Legacy AWD	1990-1999	137/186	137/186
Legacy FWD	1990-1996	137/186	—
Legacy, Outback	2000	137/186	174/235
	2002-2003	159/216	174/235
	2004-2017	162/220	177/240
Legacy, Outback 2.5L	2001	137/186	174/235
Legacy, Outback 3.0L	2001	159/216	174/235
SVX	1992-1997	137/186	138/187
WRX	2015-2017	162/220 [52]	140/190 [52]
WRX STi	2015-2017	162/220 [52]	140/190 [52]
XV Crosstrek	2013-2016	166/220	140/190

SUZUKI

Aerio, Aerio SX AWD	2002-2007	127/175	127/175
Aerio, Aerio SX FWD	2002-2007	127/175	—
Equator	2009-2012	101/137	—
Esteem	1995-2002	127/175	—
Forenza	2004-2008	221/300	—
Grand Vitara AWD	1999-2006	156/212	—
	2007	145/200	145/200
	2008-2013	160/220	160/220
Grand Vitara RWD	2007	—	145/200
	2008-2013	—	160/220
Kizashi AWD	2010-2013	185/250	185/250
Kizashi FWD	2010-2013	185/250	—
Reno	2006-2008	221/300	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
SUZUKI - cont.			
Sidekick 4WD	1989-1990	119/160	—
	1991-1998	152/210	—
Swift	1989-2001	127/175	—
SX4 4WD	2007-2013	147/200	129/175
SX4 FWD	2008-2013	147/200	—
Verona	2004-2006	236/320	—
Vitara	1999-2004	156/212	—
X-90 4WD	1996-1998	152/210	—
XL-7 4WD	2004-2006	157/216	—
	2007-2009	151/205	151/205

TOYOTA

4-Runner 4WD	1996-2017	173/235	—
86	2017	—	140/190 [77]
Avalon	1995-2017	217/294 [77]	—
Camry FWD	1983-1991	137/186	—
	1992-2017	217/294 [77]	—
Camry 4WD	1988-1991	137/186	137/187
Camry Solara	1999-2009	217/294	—
Celica FWD	1986-1991	137/186	—
	1992-1993	166/226	—
	1994-2005	159/216	—
Celica 4WD	1988-1991	137/186	137/186
	1992-1993	166/226	166/226
Corolla	1988-1990	137/186	—
	1991-1992	152/206	—
	1993-1997	159/216	—
	1998-2002	166/225	—
	2003-2017	159/216 [77]	—
Corolla iM	2017	159/216 [77]	—
Cressida	1989-1992	—	203/275
Echo	2000-2005	159/216	—
FJ Cruiser 4WD	2007-2014	173/235	—
Highlander 4WD	2001-2017	217/294	217/294
Highlander FWD	2001-2017	217/294	—
Land Cruiser	2008-2011	[37]	—
	2013-2017	[37]	—
Matrix 4WD	2003-2013	159/216	159/216
Matrix FWD	2003-2013	159/216	—
Mirai	2016-2017	215/292 [107]	—
MR2	1985-1989	—	137/186
	2000-2005	—	159/216
MR2 ex. Turbo	1991-1992	—	137/186
	1993-1995	—	159/216
MR2 Turbo	1991-1995	—	217/294
Paseo	1992-1993	166/226	—
	1994-1997	159/216	—
Previa	1991-1997	147/199	—
Prius	2001-2017	159/216	—
Prius C	2012-2017	159/216	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
TOYOTA - cont.			
Prius PHV	2012-2015	159/216 [77]	—
Prius Prime	2017	159/216 [77]	—
Prius V	2012-2017	159/216	—
RAV4 2WD	1996-2006	159/216	—
RAV4 4WD	1996-2006	159/216	159/216
RAV4 w/2.4L 2WD	2007-2012	159/216	—
RAV4 w/2.4L 4WD	2007-2012	159/216	159/216
RAV4 w/3.5L 2WD	2007-2012	215/292	—
RAV4 w/3.5L 4WD	2007-2012	215/292	159/216
RAV4 AWD	2013-2017	215/292	159/216
RAV4 FWD	2013-2017	215/292	—
Sequoia	2001-2007	173/235	—
Sequoia 4WD	2008-2017	249/338	251/340
Sienna FWD	1998-2017	217/294	—
Sienna AWD	2004-2006	217/294	217/294
	2007-2010	217/294	159/216
	2011-2017	217/294	217/294
Supra	1982-1985	—	100/137
	1987-1992	—	203/275
	1993-1998	—	213/289
Supra 2.8L	1986	—	100/137
Supra 3.0L	1986	—	203/275
Tacoma 4WD	1997-2017	173/235	—
Tercel	1980-1982	90/127	—
	1983-1991	137/186	—
	1992-1993	166/226	—
	1994-1999	159/216	—
Tundra 4WD	2000-2006	173/235	—
	2007-2017	249/338	—
Venza AWD	2009-2015	217/294	217/294
Venza FWD	2009-2015	217/294	—
Yaris	2007-2017	160/216	—
Yaris iA	2017	[105]	—

VOLKSWAGEN

Cabrio	1995-2002	195/265	—
Cabriolet	1985-1992	174/240	—
CC AWD	2009-2016	[50]	[50]
CC FWD	2009-2017	[50]	—
Corrado	1990-1994	195/265	—
e-Golf	2015-2017	[26]	—
EOS	2007-2011	[38]	—
	2012	[55]	—
	2013-2016	[50]	—
EuroVan	1993-1996	148/200	—
EuroVan AWD	1997-2003	111/150 [1]	111/150 [1]
EuroVan FWD	1997-2003	111/150 [1]	—
Fox	1987-1993	170/230	—
GLI	2008	147/200 [3]	—
	2009	[38]	—

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
VOLKSWAGON - cont.			
Golf AWD.....	2012-2017	[50]	[50]
Golf FWD.....	2010-2017	[50]	—
Golf w/Base Suspension ...	1985-1998	195/265	—
GTI	2006-2010	[38]	—
	2011-2017	[50]	—
GTI w/Base Suspension.....	1985-1998	195/265	—
Jetta	1980-1984	174/240	—
	2007-2008	147/200 [3]	133/180 [23]
	2009-2010	[38]	—
	2011-2017	[50]	—
Jetta w/Base Suspension.....	1985-1998	195/265	—
New Beetle.....	2008-2010	[24]	—
	2012-2017	[26]	—
Passat.....	2007-2008	147/200 [3]	—
	2009-2010	[38]	—
	2012-2017	[50]	—
Passat AWD	1998-2006	[2]	85/115
Passat CC.....	2009.....	52/70 [1]	147/200 [3]
Passat ex. Synchro.....	1990-1994	195/265	—
Passat FWD	1998-2006	[2]	—
Passat Synchro	1990-1994	195/265	170/230
Passat w/Base Suspension 4WD	1995-1997	195/265	66/90 [23]
Passat w/Base Suspension FWD	1995-1997	195/265	—
Passat w/Plus Suspension 4WD.....	1995-1997	66/90 [23]	—
Passat w/Plus Suspension FWD	1995-1997	66/90 [23]	—
Phaeton.....	2004-2006	—	148/200 [3]
Pickup	1980-1984	174/240	—
Quantum ex. Synchro	1982-1988	170/230	—
Quantum Synchro.....	1982-1988	170/230	170/230
Rabbit.....	2006-2010	[38]	—
Routan	2009-2011	118/160	—
Scirocco	1985-1989	195/265	—
Tiguan AWD	2009-2017	[50]	[50]
Tiguan FWD	2009-2017	[50]	—
Touareg w/16 wheels.....	2004-2011	148/200 [52]	148/200 [52]
Touareg w/17, 18, 19 wheels.....	2004-2011	369/500 [52]	369/500 [52]
	2012-2017	[46]	[46]
Vanagon	1980-1983	—	253/350
Vanagon ex. Synchro.....	1984-1991	—	253/350
Vanagon Synchro	1984-1991	258/350	253/350

Make/ Model	Year	Axle nut Front torque ft-lbs/Nm	Axle nut Rear torque ft-lbs/Nm
VOLVO			
740 w/integral hub disc	1982-1987	[25]	—
740 w/separate hub disc...	1982-1992	74/100 [23]	—
760.....	1988-1990	—	102/140 [27]
780.....	1987-1990	—	102/140 [27]
850.....	1993-1997	89/120 [27]	—
940.....	1991-1995	—	102/140 [27]
960.....	1992-1997	—	102/140 [27]
C30.....	2009-2013	26/35 [1]	—
C70.....	1998-2006	89/120 [27]	—
	2007-2013	26/35 [1]	—
Coupe.....	1991.....	—	102/140 [27]
S40, V40 AWD.....	2003.....	89/120 [27]	89/120 [27]
	2004-2011	26/35 [1]	37/50
S40, V40 FWD	2003.....	89/120 [27]	—
	2004-2011	26/35 [1]	—
S60 AWD	2001-2009	26/35 [1]	37/50
	2011-2017	26/35 [1]	26/35 [1]
S60 FWD	2001-2010	26/35 [1]	—
	2011-2017	26/35 [1]	—
S60 Cross Country.....	2016-2017	26/35 [1]	26/35 [1]
S70, V70	1998-2000	89/120 [27]	—
S80.....	1999-2000	37/50	—
	2001-2006	26/35 [1]	—
S80 AWD	2007-2015	26/35 [1]	26/35
S80 FWD	2007-2016	26/35 [1]	—
S90, V90	1998-1999	—	102/140 [27]
S90 AWD	2017	33/45 [1][36]	33/45 [1][36]
S90 FWD	2017	33/45 [1][36]	—
V50 AWD	2005-2010	26/35 [1]	37/50
V50 FWD	2005-2011	26/35 [1]	—
V60 AWD	2015-2017	26/35 [1]	26/35 [1]
V60 FWD	2015-2017	26/35 [1]	—
V60 Cross Country.....	2015-2017	26/35 [1]	26/35 [1]
V70 AWD	2001-2007	26/35 [1]	37/50
V70 FWD	2001-2007	26/35 [1]	—
V90.....	2017	33/45 [1][36]	33/45 [1][36]
XC60	2010-2017	26/35 [1]	26/35 [1]
XC70	2006-2007	26/35 [1]	37/50
	2008-2016	26/35 [1]	26/35 [1]
XC90	2003-2014	26/35 [94]	37/50
	2016-2017	33/45 [1][36]	33/45 [1][36]
YUGO			
All.....	1985-1991	160/215	—

Axle nut footnote codes

- [1] After tightening to this value, turn an additional 90°.
- [2] 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°.
- [3] After tightening to this value, turn an additional 180°.
- [4] Use new bolt or nut. Bolt: Tighten bolt to 177 ft-lbs/240 Nm, loosen 90°, 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 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°.
- [5] 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.
- [6] M27 nut, tighten to 310 ft-lbs/420 Nm; M24 nut, tighten to 184 ft-lbs/ 250 Nm.
- [7] After tightening to this value, turn an additional 20°.
- [8] After tightening to this value, turn an additional 40°.
- [9] Soft ride & sport suspension, 118 ft-lbs/160 Nm; heavy duty suspension, 170 ft-lbs/230 Nm.
- [10] First design nut (Pac-style nut painted black), 284 ft-lbs/385 Nm; second design nut (solid gray nut), 173 ft-lbs/235 Nm.
- [11] Tighten nut to specified value and tighten further to align cotter pin with hole.
- [12] 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.
- [13] 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.
- [14] 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.
- [15] Tighten with code P99 to 380 Nm/280 ft-lbs; without code P99 150 Nm/ 110 ft-lbs, plus an additional 45°.
- [16] The wheel hub and bearing are not serviceable or adjustable. If the bearing retaining nut is removed, the hub and bearing must be replaced.
- [17] After tightening to specification, turn an additional 80°.
- [18] Driveshaft nut.
- [19] Loosen -180° then tighten to 313 ft-lbs/425 Nm.
- [20] Additional lock nut on 911 Carrera RS, 147 ft-lbs/200 Nm.
- [21] Nut less top groove, 214 ft-lbs/290 Nm; nut with top groove, 125 ft-lbs/ 170 Nm, and then turn an additional 45°.
- [22] After tightening to this value, turn an additional 30°.
- [23] After tightening to specification, turn an additional 45°.
- [24] Tighten 12 point nut to 200 Nm and release a half rotation. Rotate wheel hub 180°, then rotate further to 50 Nm +60°.
- [25] Torque to 42 ft-lbs/57 Nm. Turn the wheel while tightening. Loosen the nut half a turn and re-tighten to 1.1 ft-lbs/1.5 Nm (finger tight). Insert the cotter pin. If the holes do not line up, tighten nut to align.
- [26] With vehicle on ground, loosen 90 degrees. With vehicle off the ground and brakes applied, remove bolt. With 12-point bolt, tighten new bolt 148 ft-lbs/200 Nm. Lower vehicle onto its wheels and tighten an additional 180 degrees.
- [27] After tightening to specification, turn an additional 60°.
- [28] 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 cage nut and cotter pin.
- [29] Model 221 with code Z07 or Z19, tighten 273 ft-lbs/390 Nm.
- [30] Bolt, 199 ft-lbs/270 Nm; Nut 206 ft-lbs/280 Nm.
- [31] Drive Axle Hex combination bolt, tighten to 148 ft-lbs/200 Nm. With vehicle off the ground, lower vehicle onto its wheels and tighten an additional 180°. With 12 point bolt, tighten to 52 ft-lbs/70 Nm. With vehicle off the ground, lower vehicle onto its wheels and tighten an additional 90°.
- [32] With 302RBI rear axle.
- [33] Tighten to 110 ft-lbs/150 Nm with vehicle off ground. Install wheels and tighten to 368 ft-lbs/500 Nm. Always replace nut after removal.
- [34] With 10.5 or 11.5 rear Axle.
- [35] Tighten to 147 ft-lbs/200 Nm, with vehicle raised. Then turn an additional 180° when vehicle is on floor. Always replace after removal.
- [36] Always replace nut/bolt after removal.
- [37] 1st: 148 ft-lbs/200 Nm, 2nd: loosen axle nut, 3rd: 251 ft-lbs/340 Nm.
- [38] M16 Bolt Hex head 148 ft-lbs/200 Nm, then an additional 180°. M16 Bolt 12 point 52 ft-lbs/70 Nm, then an additional 90°.
- [39] Hex bolt M 14: 85 ft-lbs/115 Nm with vehicle off the ground, then lower vehicle onto its wheels and tighten an additional 180°. Hex bolt M16: 148 ft-lbs/200 Nm with vehicle off the ground, then lower vehicle onto its wheels and tighten an additional 180°.

Axle nut footnote codes

- [40] Maximum value shown. Torques value varies from 147.5-206.5 ft-lbs/ 200-280 Nm.
- [41] Kia Optima model code 'TF'.
- [42] Kia Optima model code 'MG'.
- [43] Kia Optima model code 'MS'.
- [44] Inner nut torque, 203 ft-lbs/275 Nm; outer nut torque, 129 ft-lbs/175 Nm.
- [45] 1st: 111 ft-lbs/150 Nm. 2nd: Loosen 45°. 3rd: 185 ft-lbs/250 Nm.
- [46] With vehicle on ground, loosen axle nut 90°. With vehicle on the ground, remove bolt. Tighten new bolt to 111 ft-lbs/150 Nm. Lower vehicle onto wheels and tighten to 369 ft-lbs/500 Nm.
- [47] Without adjustment cap and washer, tighten 136 ft-lbs/185 Nm. With adjustment cap and washer, tighten 77 ft-lbs/105 Nm.
- [48] Tighten the hub nut to 22 ft-lbs/29 Nm, and 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; 2.5-4.0 lbs/ 1.2-1.8 kg for a used bearing and seal.
- [49] Tighten the hub bearing nut by the following procedures. Hub bearing nut must be fastened with a torque of 202 ft-lbs/274 Nm and front hub must be rotated 3 times as shown below enough for secure placement of hub bearing. Unfasten hub bearing nut until its tightening torque is 0 ft-lbs/0 Nm. Hub bearing nut must be fastened again with torque 144 ft-lbs/196 Nm. Assemble split pin. If the direction of split pin is not in line with the hole of knuckle unfasten hub bearing nut within 30° and assemble split pin.
- [50] Use special tool XZN18-T10162. 12 point bolt without ribs, tighten new bolt 148 ft-lbs/200 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 180 degrees. 12 point bolt with ribs, tighten new bolt 52 ft-lbs/70 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 90 degrees. Hex bolt: Tighten bolt to 148 ft-lbs/200 Nm. Lower vehicle onto wheels and tighten an additional 180 degrees.
- [51] With M14 bolt, tighten to 85 ft-lbs/115 Nm; with M16 bolt, tighten to 147 ft-lbs/200 Nm, if vehicle is raised. Only turn an additional 180° when vehicle is on floor. Always replace nut after removal.
- [52] Use new original equipment nut.
- [53] With M27, tighten thread to 310 ft-lbs/420 Nm; with M24, tighten thread to 185 ft-lbs/250 Nm.
- [54] Tighten old wheel hub, adjusting nut to 258 ft-lbs/350 Nm to seat the halfshaft. Remove and discard the old wheel hub nut. With the vehicle raised up, apply the brake so the halfshaft will not rotate, and install a new wheel hub nut. Tighten nut to 258 ft-lbs/350 Nm. Do not attempt to tighten the nut with the vehicle on the ground or the wheel bearing will be damaged. Tighten the new wheel hub nut to specification within 5 minutes of starting it on treads. Always install a new wheel hub nut after loosening or when not tightening in the specified time.
- [55] With hex head bolt: With vehicle on ground, loosen 90 degrees. With vehicle off the ground and brakes applied, remove bolt. Tighten new bolt 148 ft-lbs/200 Nm. Lower vehicle onto its wheels and tighten an additional 180 degrees. With 12 point bolt: Use special tool XZN18-T10162. 12 point bolt without ribs, tighten new bolt 148 ft-lbs/200 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 180 degrees. 12 point bolt with ribs, tighten new bolt 52 ft-lbs/70 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 90 degrees.
- [56] Tighten to 111 ft-lbs/150 Nm. Back off 45 degrees and retighten to 184 ft-lbs/250 Nm.
- [57] With RPO Codes FE1 or FE3, 118 ft-lbs/160 Nm; with RPO Code FE7, 170 ft-lbs/230 Nm.
- [58] Models with FE7 suspension 147 ft-lbs/200 Nm.
- [59] Tighten hub nut to 12 ft-lbs/16 Nm while rotating wheel. Back off and finger tighten. Back off slightly to install cotter pin.
- [60] Tighten in three steps: First, 111 ft-lbs/150 Nm; second, loosen 45 degrees; last, tighten 185 ft-lbs/250 Nm.
- [61] With manual locking hubs: 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 tighten 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". With automatic locking hubs 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 tighten 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".
- [62] Tighten hub bearing adjustment nut to 22 ft-lbs/ 30 Nm while turning hub. Loosen nut approximately 30 degrees and align hub nut with axle tube key slot. Install locking key. Endplay should be .001-.010 inch.
- [63] Tighten hub nut to 95 Nm (70 ft-lbs.) while rotating the hub. Then back off nut 90 degrees and retighten nut to 41 Nm (30 ft-lbs.). NOTE: This will set hub to zero end-play.
- [64] With M27 thread, tighten to 310 ft-lbs/420 Nm; with M24 thread, tighten to 106 ft-lbs/145 Nm, then turn additional 45°. Always replace nut after removal.
- [65] Rear spindle nut with dual pump system, 245 Nm/181 ft-lbs; with real time AWD system, 181 Nm/133 ft-lbs.
- [66] After tightening to specification, turn an additional 45°. Always replace nut/bolt after removal.
- [67] Tighten to 111 ft-lbs/150 Nm. Loosen 180°, then tighten to 313 ft-lbs/425 Nm. Always replace nut after removal.

Axle nut footnote codes

- [68] There are two types of wheel drive shaft nuts, both of which have different tightening torque specifications. Check the style nut that is on the vehicle when staking the nut. Style 1 nut has the thin collar (1.5 mm) thickness. Style 2 nut has the thick collar (2.7 mm) thickness. For Style 1, 244 ft-lbs/330 Nm. For Style 2, First Pass: 37 ft-lbs/50 Nm; Final Pass: plus 60°. Stake style one nut and make sure not to fracture the nut. Stake style two nut and evenly split nut and ensure it is fully staked. Each side of the stake should be in contact approximately 45° to each side of the slot.
- [69] For 9 1/4" Front axle, tighten axle nut to 132 ft-lbs/179 Nm. (Rotate axle 5-10 times to seat wheel bearing for wheel bearing replacement). Final torque of 263 ft-lbs/356 Nm. Align nut to next cotter pin hole and install new cotter pin.
- [70] For 275FBI Front Axle, install hub nut and tighten to 243 ft-lbs/330 Nm. Bend axle shaft hub nut collar into axle key way with a hammer and punch.
- [71] Tighten 160 Nm/118 ft-lbs, back off nut, tighten 120 Nm/88 ft-lbs, final torque additional 90°.
- [72] Tighten self locking 350 Nm/258 ft-lbs; without self locking, 170 Nm/ 125 ft-lbs then tighten additional 45°.
- [73] Tighten self locking 350 Nm/258 ft-lbs; without self locking 320 Nm/236 ft-lbs.
- [74] Tighten 150 Nm/110 ft-lbs plus additional 45°.
- [75] Tighten 250 Nm/184 ft-lbs, loosen 180°, 200 Nm/147 ft-lbs plus additional 30°.
- [76] Tighten 250 Nm/184 ft-lbs plus additional 45°.
- [77] Use new nut. After installing nut, stake nut shoulder against spindle. The nut must be replaced if it splits or cracks.
- [78] Quattro only.
- [79] Tighten to 144-188 ft-lbs/196-255 Nm.
- [80] Tighten to 144-202 ft-lbs/200-280 Nm.
- [81] Tighten drive nut to 74-110 ft-lbs/100-150 Nm, loosen 180°, then tighten to 175-202 ft-lbs/236-274 Nm.
- [82] Maximum value shown; torque varies from 174-202 ft-lbs/236-275 Nm.
- [83] Collar bolt: With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, tighten new bolt to 147 ft-lbs/200 Nm. Install wheels and lower the vehicle onto its wheels. Tighten the axle shaft bolt an additional 180°. Always replace bolt after removal. 12 point nut: With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, tighten new nut to 110 ft-lbs/150 Nm. Install wheels and lower the vehicle onto its wheels. Tighten the axle shaft nut to 368 ft-lbs/500 Nm. Always replace nut after removal.
- [84] Front axle: torque with castle nut, 129 ft-lbs/176 Nm; torque with flange nut, 184 ft-lbs/250 Nm.
- [85] Tighten to 37 ft-lbs/50 Nm, then an additional 155°. Replace collar bolt and springs.
- [86] Turn an additional 70°.
- [87] Tighten to 258 ft-lbs/350 Nm. Loosen 180°, then tighten to 273 ft-lbs/ 370 Nm. Always use a new nut. Stake new nut.
- [88] Tighten to 74-77 ft-lbs/100-105 Nm. Stake the new wheel hub locknut (Q50 models and Q70 Hybrid only). Always use a new wheel hub lock nut.
- [89] Tighten to 87-90 ft-lbs/118-123 Nm.
- [90] Tighten to 161-164 ft-lbs/218-223 Nm.
- [91] Tighten to 88 ft-lbs/120 Nm, loosen, tighten to 110 ft-lbs/150 Nm, then turn an additional 45°.
- [92] Except Code Z07.
- [93] Tighten to 118 ft-lbs/160 Nm, loosen 90°. Tighten to 162 ft-lbs/220 Nm. Turn an additional 45°.
- [94] Turn an additional 120°.
- [95] With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, tighten new bolt to 147 ft-lbs/200 Nm. Install wheels and lower the vehicle onto its wheels. Tighten the axle shaft bolt an additional 180°. Always replace bolt after removal.
- [96] Use new spring washer and nut. Tighten nut to 166 ft-lbs/225 Nm, loosen the nut, then tighten to 258 ft-lbs/350 Nm.
- [97] Tighten to 111 ft-lbs/150 Nm, then loosen 90°. Tighten to 52 ft-lbs/70 Nm then turn an additional 63°.
- [98] Turn an additional 63°.
- [99] Pre-tighten the nut to 52 ft-lbs/70 Nm, then turn an additional 61-65°. Apply a final torque of 247 ft-lbs/335 Nm. After final torque, stake nut.
- [100] Torque the old axle nut to 214 ft-lbs/290 Nm. Remove and discard axle nut. Torque new axle nut to 88 ft-lbs/120 Nm, then an additional 60°.
- [101] Always replace nut after removal. Before wheel bearing housing is installed, tighten nut to 96 ft-lbs/130 Nm. When the wheel bearing housing is fitted, tighten nut to 340 ft-lbs/460 Nm.
- [102] Model 222 with code Z07.
- [103] Remove and discard the old wheel hub nut. With the vehicle raised up, apply the brake so the halfshaft will not rotate and install a new hub nut. Do not attempt to tighten the nut with the vehicle on the ground or the wheel bearing will be damaged.

Axle nut footnote codes

- [104] Tighten to 147 ft-lbs/200 Nm. Lower vehicle onto its wheels. With black bolt, turn an additional 180°. With silver bolt, turn an additional 90°. Always replace after removal.
- [105] Use new nut. Tighten to 92 ft-lbs/125 Nm. Loosen 180° then retighten to 188 ft-lbs/255 Nm.
- [106] Use new nut. Tighten to 111 ft-lbs/150 Nm. Loosen 45° then retighten to 199 ft-lbs/270 Nm.
- [107] Use new nut. After installation, stake nut.
- [108] Use new nut. Tighten to 37 ft-lbs/50 Nm. Loosen 45° then retighten to 199 ft-lbs/270 Nm.
- [109] Tighten hub bearing nut to 37 ft-lbs/50 Nm while rotating hub. Back off nut about 50° and align hub nut key slot with axle tube key slot and install locking key. Hub endplay should be .001-.010 inch.
- [110] For 9 1/4" front axle, tighten axle nut to 132 ft-lbs/179 Nm. Rotate the axle 5 to 10 times to seat the wheel bearing. Tighten the axle nut to 263 ft-lbs/356 Nm.
- [111] Turn an additional 47°.
- [112] Tighten to 184 ft-lbs/250 Nm, then loosen 180° and tighten to 148 ft-lbs/200 Nm.
- [113] Model 221.
- [114] Model 217 and 222.
- [115] Replace washer on driveshaft with a new one.
- [116] Use new nut. Torque to 92 ft-lbs/125 Nm. Turn an additional 180°. Torque to 188 ft-lbs/255 Nm.
- [117] Tighten to 74-77 ft-lbs/100-105 Nm. Stake the new wheel hub locknut. Always use a new wheel hub locknut.
- [118] Tighten to 111 ft-lbs/150 Nm. Loosen 90°. Tighten to 59 ft-lbs/80 Nm. Turn an additional 60°. Use new nut.
- [119] Tighten to 74-110 ft-lbs/100-150 Nm. Loosen 180°. Tighten to 192-221 ft-lbs/260-300 Nm.

Section 2
Hub Mounting torque

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
ACURA			
3.5RL	2005-08	72/98	72/98
ILX	2013-17	—	47/64
MD-X	2007-13	72/98	72/98
	2014-17	—	72/98
NSX	2000-05	47/64	47/64
	2017	72/98	72/98
RDX	2007-17	—	72/98
RL	2009-12	72/98	72/98
RLX	2014-17	—	72/98
TL	2009-14	—	76/103
TLX	2015-17	—	76/103
TSX	2004-09	—	47/64
	2010-14	—	72/98
ZDX	2010-13	72/98	72/98

ALFA ROMEO

Giulia	2017	74/100	74/100
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AM GENERAL

Hummer H2	2003-09	133/180	—
Hummer H3	2006-10	133/180	—
Hummer H3T	2009-10	133/180	—

AUDI

A3	2006-13	52/70 [1][29]	—
	2015-17	52/70 [1][29]	—
A3 Quattro	2006-13	52/70 [1][29]	52/70 [1][29]
	2015-17	52/70 [1][29]	59/80 [1][29]
A4	2006-16	59/80 [1][29]	59/80 [1][29]
	2017	59/80 [1][29]	—
A4 Quattro	2006-17	59/80 [1][29]	59/80 [1][29]
A5	2010-14	59/80 [1][29]	59/80 [1][29]
A5 Quattro	2008-17	59/80 [1][29]	59/80 [1][29]
A6	2002-17	59/80 [1][29]	—
A6 Quattro	2005-17	59/80 [1][29]	59/80 [1][29]
A7 Quattro	2012-17	59/80 [1][29]	59/80 [1][29]
A8 Quattro	2000-17	59/80 [1][29]	59/80 [1][29]
Allroad Quattro	2013-17	59/80 [1][29]	59/80 [1][29]
Q3	2015-17	52/70 [1][29]	—
Q3 Quattro	2015-17	52/70 [1][29]	52/70 [1][29]
Q5	2009-17	59/80 [1][29]	59/80 [1][29]
Q7	2017	59/80 [1][29]	59/80 [1][29]
R8	2008-15, 2017	59/80 [1][29]	59/80 [1][29]
RS4	2007-08	59/80 [1][29]	59/80 [1][29]
RS5	2013-15	59/80 [1][29]	59/80 [1][29]
RS7	2014-17	59/80 [1][29]	59/80 [1][29]
S3	2015-17	52/70 [1][29]	59/80 [1][29]
S4	2002-16	59/80 [1][29]	59/80 [1][29]

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
AUDI - cont.			
S5	2008-17	59/80 [1][29]	59/80 [1][29]
S6	2007-17	59/80 [1][29]	59/80 [1][29]
S7	2013-17	59/80 [1][29]	59/80 [1][29]
S8	2009	37/50 [1][29]	—
	2013-17	59/80 [1][29]	59/80 [1][29]
SQ5	2014-17	59/80 [1][29]	59/80 [1][29]
TT	2008-09	52/70 [1][29]	—
TT Quattro	2008-14	52/70 [1][29]	52/70 [1][29]
	2015-17	52/70 [1][29]	59/80 [1][29]

BMW

1M	2011	81/110	—
128i	2008-13	81/110 [29]	—
135i, 135is	2008-13	81/110 [29]	—
228i, 228xi Coupe	2014-16	59/80 [1][29]	—
230i, 230xi	2017	59/80 [1][29]	—
320i, 320xi	2013-17	59/80 [1][29]	—
328d Sedan, xDrive	2014-17	59/80 [1][29]	—
328i	2008-11	81/110 [29]	—
328i Coupe/Conv	2012-13	81/110 [29]	—
328i Sedan	2012-16	59/80 [1][29]	—
328xi Sedan	2013-16	59/80 [1][29]	—
328xi	2008-12	—	—
330e, 330i, 330xi	2016-17	59/80 [1][29]	—
335D	2009-11	81/110 [29]	—
335i	2008-11	81/110 [29]	—
335i Coupe/Conv	2012	81/110 [29]	—
335i Sedan	2012-15	59/80 [1][29]	—
335is	2011-13	81/110 [29]	—
335xi	2008-16	59/80 [1][29]	—
340i/xi	2016-17	59/80 [1][29]	—
428i, ixDrive	2014-16	59/80 [1][29]	—
430i, 430xi	2017	59/80 [1][29]	—
435i/xi	2014-16	59/80 [1][29]	—
440i, 440xi	2017	59/80 [1][29]	—
528i	2008-10	81/110 [29]	22/30 [13][29]
	2011-16	59/80	74/100 [29]
		[1][29][39]	
528xi	2008-10	81/110 [29]	22/30 [13][29]
	2012-16	59/80	74/100 [29]
		[1][29][39]	
530i	2007	81/110 [29]	22/30 [13][29]
	2017	89/120 [1][29]	89/120 [1][29]
530xi	2007	81/110 [29]	22/30 [13][29]
	2017	89/120 [1][29]	89/120 [1][29]
535d, ixDrive	2014-16	59/80	74/100 [29]
		[1][29][39]	
535i	2008-09	81/110 [29]	22/30 [13][29]
	2011-16	59/80	74/100 [29]
		[1][29][39]	

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
BMW - cont.			
535xi Wagon	2008-09	81/110 [29]	74/100 [29]
535xi	2011-17	59/80 [1][29][39]	74/100 [29]
540i, 540xi	2017	89/120 [1][29]	89/120 [1][29]
550i	2007-09	81/110 [29]	22/30 [13][29]
	2011-16	59/80 [1][29][39]	74/100 [29]
550xi	2011-17	59/80 [1][29][39]	74/100 [29]
640i	2012-17	59/80 [1][29][39]	74/100 [29]
640i xDrive	2014-17	58/80 [1][29][39]	74/100 [29]
650i	2007-09	81/110 [29]	74/100 [29]
	2012-17	59/80 [1][29][39]	74/100 [29]
650xi	2012-17	59/80 [1][29][39]	74/100 [29]
740e	2017	89/120 [1][29]	89/120 [1][29]
740i	2011-15	59/80 [1][29][39]	74/100 [29]
	2016-17	89/120 [1][29]	89/120 [1][29]
740LD	2015	59/80 [1][29][39]	74/100 [29]
740Li	2011-15	59/80 [1][29][39]	74/100 [29]
740Li xDrive	2014-15	58/80 [1][29][39]	74/100 [29]
740xi	2013	59/80 [1][29][39]	74/100 [29]
	2017	89/120 [1][29]	89/120 [1][29]
745i	2002-05	—	74/100 [29]
745Li	2002-05	—	74/100 [29]
750i	2006-09	81/110 [29]	74/100 [29]
	2010-15	59/80 [1][29][39]	74/100 [29]
	2016-17	89/120 [1][29]	89/120 [1][29]
750Li	2007-09	81/110 [29]	74/100 [29]
	2010-15	59/80 [1][29][39]	74/100 [29]
750Li xDrive	2014-15	58/80 [1][29][39]	74/100 [29]
750xi	2012-14	59/80 [1][29][39]	74/100 [29]
	2016-17	89/120 [1][29]	89/120 [1][29]
760i	2004-06	81/110 [29]	74/100 [29]
760Li	2003-08	81/110 [29]	74/100 [29]
	2010-15	59/80 [1][29][39]	74/100 [29]

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
BMW - cont.			
Active Hybrid 3	2013-15	59/80 [1][29]	—
Active Hybrid 5	2013-16	59/80 [1][29][39]	74/100 [29]
Active Hybrid 7	2013-15	59/80 [1][29][39]	74/100 [29]
i3	2014-17	59/80 [1][29]	[62]
i8	2014-17	[62]	[62]
M2	2016-17	[62]	59/80 [1][29]
M3	2008-13	81/110 [29]	—
	2015-17	[62]	59/80 [1][29]
M4	2015-17	[62]	59/80 [1][29]
M5	2006-10	81/110 [29]	22/30 [13][29]
	2013-16	59/80 [1][29]	74/100 [29]
M6	2007	81/110 [29]	22/30 [13][29]
	2008-09	81/110 [29]	74/100 [29]
	2012-17	59/80 [1][29][39]	74/100 [29]
M235i, M235xi	2014-16	58/80 [1][29]	—
M240i, M240xi	2017	59/80 [1][29]	—
M760i	2017	89/120 [1][29]	89/120 [1][29]
X1	2013-15	59/80 [1][29]	22/30 [13]
	2016-17	88/120 [1][29]	74/100 [1][29]
X3	2011-17	59/80 [1][29]	74/100 [29]
X4	2015-17	59/80 [1][29]	74/100 [29]
X5	2000-06	—	74/100 [29]
	2007	59/80 [1][29]	—
X5	2008-14	59/80 [1][29]	74/100 [29]
	2015-17	59/80 [1][29]	74/100 [3][29]
X6	2008-14	59/80 [1][29]	74/100 [29]
	2015-17	59/80 [1][29]	74/100 [3][29]
Z4	2009-16	81/110 [29]	—

BUICK

Allure	2005-09	96/130	55/75
Cascada	2016-17	66/90 [46]	37/50 [31][47]
Century	2000-05	96/130	55/75
Enclave	2008	103/140	103/140
	2009-17	89/121	96/130
Encore	2013-17	—	43/58
Envision			
w/GNA Suspension	2016-17	[48]	[48]
w/GNB Suspension	2016-17	[48]	[48]
Lacrosse	2005-09	96/130	55/75
	2017	—	74/100 [32]
w/GNA Suspension	2010-17	74/100 [29][46]	—
w/GNB Suspension	2010-17	74/100 [29][46]	—
w/GNC Suspension	2010-16	—	66/90 [12][29]
w/GNE Suspension	2010-16	—	66/90 [12][29]
LeSabre	2000-05	70/95	52/71
Lucerne	2006-11	96/130	50/68

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
BUICK - cont.			
Park Avenue	2000-05	70/95	52/71
Rainier	2004-07	77/104	—
Regal	2000-04	96/130	55/75
	2011	74/100 [12]	66/89 [12]
w/GNA	2012-17	74/100 [29][46]	66/89 [12][29]
w/GNB	2012-17	74/100 [29][46]	66/89 [12][29]
Rendezvous	2002-07	96/130 [7]	[21]
Terraza	2005	96/130	96/130 [10]
	2006-07	96/130	[11]
Verano	2012-13	[24]	37/50 [5]
	2014-16	74/100 [33]	37/50 [9]
	2017	[24]	37/50 [47]

CADILLAC

ATS RWD	2013-15	87/118	96/130
	2016-17	87/118	96/130
ATS AWD	2013-15	96/130	96/130
ATS AWD	2016-17	96/130	96/130
ATS V-Series	2016-17	74/100 [49]	96/130
Catera	2000-01	—	221/300
CT6 AWD	2016-17	92/125	92/125
CT6 RWD	2016-17	92/125	92/125
CTS	2003-07	100/136	92/125
	2008	100/136	100/136
	2009-13	100/136	103/140
CTS RWD	2016-17	87/118	96/130
CTS AWD	2016-17	96/130	96/130
CTS V-Series	2016-17	74/100 [49]	96/130
CTS Sedan AWD	2014-15	96/130	96/130
CTS Sedan RWD	2014-15	87/118	96/130
CTS Coupe, Sport Wagon, CTS-V	2014	100/135	103/140
Deville w/FE1, FE3	2000-05	96/130	50/68
Deville w/FE7	2000-05	112/152	87/118
DTS w/FE1, FE3	2006-11	96/130	50/68
DTS w/FE7	2006-11	112/152	112/152
Eldorado	2000-02	70/95	52/71
ELR	2014	74/100 [32]	37/50 [9]
	2016	74/100 [32]	37/50 [9]
Escalade	2000-17	133/180	—
Escalade ESV	2003-17	133/180	—
Escalade EXT	2002-13	133/180	—
Seville	2000-04	96/130	50/68
SRX	2004-09	100/136	92/125
	2010-11	81/110	81/110
	2012-14	125/170	125/170
	2015-16	125/170	89/120 [9]
STS	2005-11	100/136	92/125
XLR	2004-09	96/130	96/130
XT5	2016-17	74/100 [32]	74/100 [32]

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
CADILLAC - cont.			
XTS			
w/GNB Susp	2013-17	74/100 [29][46]	—
w/GNA Susp	2013-17	74/100 [29][46]	—
FWD	2013-16	—	66/90 [12][29]
AWD	2013-16	—	66/90 [12][29]
	2017	—	66/90 [46]

CHEVROLET

Aveo	2004-11	—	30/41
Aveo5	2007-11	—	30/41
Bolt	2017	48/65 [9]	43/58
Camaro	2000	70/95	—
	2001-02	63/85	—
w/V-6	2010-15	85/115	85/115
w/V-8	2010-15	74/100 [30]	85/115
	2016-17	74/100 [32][45]	96/130 [45]
Caprice	2012-13	79/107	—
Police Model	2012-13	74/100 [30]	—
	2014-17	74/100 [33]	—
Cavalier	2000-05	70/95	44/60
Classic	2004-05	70/95	62/84
Cobalt	2005-10	85/115	33/45 [6]
Corvette	2000-17	96/130 [45]	96/130 [45]
Corvette ZR-1	2009-13	96/130	96/130 [19]
Cruze	2011-13	66/90 [24]	37/50 [5]
	2014-15	74/100 [33]	37/50 [9]
Old Body Style	2016	74/100 [33]	37/50 [9]
New Body Style	2016	66/90 [29][46]	37/50 [50]
	2017	74/100 [9][29]	37/50 [9][29]
HHR	2006-11	85/115	33/45 [6]
Impala	2000-13	96/130	55/75
	2014-17	74/100 [46]	66/90 [12]
Impala Limited	2014-16	96/130 [29]	55/75
Lumina	2000-01	52/71	52/71
Malibu	2000-03	70/95	62/84
	2004-12	85/115	47/64
	2013-15	74/100 [29][46]	66/90 [12]
	2016	74/100 [32][45]	74/100 [32]
	2017	74/100	74/100
		[29][46]	[29][32]
Malibu Limited	2016	74/100 [29][45]	66/90 [12]
Malibu Maxx	2004-07	85/115	47/64
Monte Carlo	2000-07	96/130	55/75
Orlando	2013-14	66/90 [24]	37/50 [5]
Prizm	2000-02	—	59/80
Sonic	2012-17	—	43/58
Spark	2013-15	—	59/80
	2016-17	—	43/58
Spark EV	2014-16	—	43/58
SS	2014-17	74/100 [33]	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
CHEVROLET - cont.			
Uplander.....	2005.....	96/130	96/130 [10]
	2006-09.....	96/130	59/80
Venture Mini-Van.....	2000.....	96/130 [7]	63/85
2WD.....	2001-05.....	96/130 [7]	59/80
4WD.....	2001-05.....	96/130 [7]	96/130
Volt.....	2011-17.....	74/100 [32]	37/50 [9]

CHEVROLET TRUCKS

Astro Van 4WD.....	2000-02.....	66/89	—
Astro Van.....	2003-05.....	133/180	—
Avalanche.....	2002-13.....	133/180	—
Captiva Sport.....	2012-15.....	96/130	55/75
City Express.....	2015-17.....	65/88	125/169
Colorado.....	2004-08.....	81/110	—
	2009-12.....	96/130	—
	2015-17.....	96/130	—
Equinox.....	2005-06.....	96/130	62/84
	2007-09.....	96/130	55/75
	2010-17.....	74/100	52/71
G1500 Van.....	2003-14.....	133/180	—
G2500 Van.....	2003-17.....	133/180	—
G3500 Van.....	2003-17.....	133/180	—
G4500.....	2012-16.....	133/180	—
H1500 Van.....	2003-14.....	133/180	—
H2500 Van.....	2003-05.....	133/180	—
K3500 4WD.....	2000.....	133/180	—
S Series Blazer			
2WD.....	2001-03.....	95/129	—
4WD.....	2000-05.....	77/104	—
S10 Pickup 4WD.....	2000-04.....	77/104	—
Silverado 1500.....	2000-17.....	133/180	—
Silverado 2500.....	2000-17.....	133/180	—
Silverado 3500.....	2001-17.....	133/180	—
SSR.....	2003-06.....	77/104	—
Suburban.....	2000-17.....	133/180	—
Tahoe.....	2000-17.....	133/180	—
Tracker.....	2000-04.....	159/216	—
Trailblazer.....	2002-09.....	77/104	—
Traverse.....	2009-17.....	89/121	96/130
Trax.....	2015-17.....	-	43/58

CHRYSLER

200.....	2011-14.....	35/48	77/105
200 AWD.....	2015-17.....	70/95 [29]	70/95 [29]
200 FWD.....	2015-17.....	70/95 [29]	—
300 AWD.....	2005-14.....	50/68	50/68
	2015-17.....	41/55	44/60

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
CHRYSLER - cont.			
300 RWD.....	2005-14.....	—	50/68
	2015-16.....	41/55	44/60
	2017.....	74/100	44/60
300M.....	2000-04.....	81/110	—
Aspen.....	2007-09.....	120/163	—
Concorde.....	2000-04.....	81/110	—
Crossfire.....	2004-08.....	8/11	—
Grand Voyager.....	2000.....	45/61	—
Intrepid.....	2000-04.....	81/110	—
LHS.....	2000-01.....	81/110	—
Pacifica.....	2004-08.....	45/61	60/81
	2017.....	44/57 [29]	59/80
Prowler.....	2001-02.....	45/61	80/108
Sebring			
Convertible.....	2000-05.....	65/88	—
	2006.....	80/108	—
	2007.....	65/88	77/104
	2008-10.....	60/81	77/104
Sebring Coupe			
2 Door.....	2000.....	65/88	60/81
	2001-05.....	65/88	53/72
Sebring Sedan			
4 Door.....	2001-06.....	80/108	—
	2007-10.....	60/81	77/104
Town & Country.....	2000-07.....	45/61	95/129
	2008-16.....	37/50	41/56
Voyager.....	2000-03.....	45/61	95/129

DODGE

Avenger.....	2000.....	65/88	65/88
	2008-14.....	35/48	77/104
Caliber.....	2007-12.....	—	77/104
Caliber SRT-4.....	2008-09.....	60/81	77/104
Caravan.....	2000-07.....	45/61	95/129
Challenger.....	2008-14.....	—	50/68
	2015-16.....	41/55	44/60
Challenger AWD.....	2017.....	41/55	44/60
Challenger RWD.....	2017.....	74/100	44/60
Charger AWD.....	2006-14.....	50/68	50/68
	2015-17.....	41/55	44/60
Charger RWD.....	2006-14.....	—	50/68
	2015-16.....	41/55	44/60
	2017.....	74/100	44/60
Dart.....	2013-16.....	70/95	—
Grand Caravan.....	2000-07.....	45/61	95/129
	2008-17.....	37/50	41/56
Intrepid.....	2000-04.....	81/110	—
Journey.....	2009-10.....	35/48	44/60
	2011-17.....	35/48	45/61

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
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DODGE - cont.

Magnum AWD	2005-08	50/68	50/68
Magnum RWD	2005-08	—	50/68
Stratus	2000	80/108	—
Stratus Coupe			
2 Door	2001-05	65/88	53/72
Stratus Sedan			
4 Door	2001-06	80/108	—

DODGE / RAM TRUCKS

Cargo Van	2012-15	37/50	41/56
Dakota 2WD	2000-03	185/251	—
Dakota 4WD	2000-03	123/167	—
Dakota	2004-11	120/163	—
Durango 2WD	2000-03	185/251	—
Durango 4WD	2000-03	123/167	—
Durango	2004-09	120/163	—
	2011-16	78/106	—
	2017	74/100	—
Nitro	2007-11	96/130	—
Promaster	2014-17	—	—
Promaster City	2015-17	—	207/280
Ram 1500 Pickup	2000		
w/IFS		185/251	—
w/Link & Coil		122/166	—
	2001		
w/4W ABS		185/251	—
w/o 4W ABS		122/166	—
	2002		
w/4WD or 2WD		120/163	—
	2003-04		
4WD w/IFS		120/163	—
2WD w/IFS		120/163	—
4WD w/Link & Coil		149/202	—
	2005-07		
2WD LD w/IFS		130/176	—
2WD HD w/IFS		120/163	—
4WD w/IFS		120/163	—
4WD w/Link & Coil		149/202	—
	2008		
2WD LD w/IFS		130/176	—
2WD HD w/IFS		120/163	—
4WD w/IFS		120/163	—
	2009-15		
2WD w/IFS		120/163	—
4WD w/IFS		120/163	—
	2016-17		
2WD w/IFS		134/182	—
4WD w/IFS		134/182	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
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DODGE / RAM TRUCKS - cont.

Ram 2500 Pickup	2000		
w/IFS		280/380	—
w/Link & Coil		122/166	—
	2001		
w/4 wheel ABS		208/380	—
4WD		122/166	—
	2003		
2WD w/IFS		280/380	—
4WD w/Link/Coil		122/166	—
	2004		
2WD w/IFS		130/176	—
4WD w/IFS		120/163	—
Link & Coil		149/202	—
	2005-08		
2WD HD w/IFS		130/176	—
2WD LD w/IFS		120/163	—
4WD w/IFS		120/163	—
4WD w/Link & Coil		149/202	—
	2009-12		
2WD w/IFS		128/174	—
4WD w/Link & Coil		149/202	—
	2013-17		
4WD w/Link Coil		149/202	—
Ram 3500 Pickup	2000-02		
2WD		280/380	—
4WD		122/166	—
	2003-04		
2WD w/IFS		120/163	—
4WD w/IFS		120/163	—
4WD w/Link & Coil		149/202	—
	2005-08		
2WD w/IFS		130/176	—
4WD w/IFS		120/163	—
4WD Link & Coil		149/202	—
	2009-12		
2WD w/IFS		128/174	—
4WD Link & Coil		149/202	—
	2013-17		
4WD w/Link Coil		149/202	—
Ram 4500, 5500	2008-12		
2WD w/IFS Light Duty		120/163	—
2WD w/IFS Heavy Duty		130/176	—
4WD w/IFS		120/163	—
4WD w/Link & Coil		149/202	—
Ram 4500, 5500 Pickup	2013		
4WD w/Link Coil		149/202	—
	2014-17	134/182	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
FIAT			
124 Spider.....	2017.....	96/130	96/130
500X.....	2016-17.....	77/105 [59]	77/105 [59]
FORD			
C-Max.....	2013-17.....	—	81/110
Crown Victoria.....	2003-06.....	74/100	—
	2007-11.....	89/121	—
Edge.....	2007-10.....	—	98/133
	2011-14.....	—	85/115
	2015-17.....	98/133	98/133
Fiesta ex. 1.6L EcoBoost.....	2011-17.....	—	[25]
Fiesta w/ 1.6L EcoBoost.....	2014-17.....	—	[34]
Five Hundred.....	2005-07.....	81/110	89/121
Flex.....	2009-17.....	98/133	98/133
Focus.....	2012-17.....	—	81/110
Freestar.....	2004-05.....	96/130	85/115
	2006-07.....	96/130	52/71
Freestyle.....	2005-07.....	81/110	89/121
Fusion.....	2013-17.....	98/133	98/133
Mustang.....	2015-17.....	98/133 [29]	98/133 [29]
Taurus.....	2000.....	75/102	—
	2001-07.....	70/95	—
	2008.....	81/110	89/121
	2009-10.....	98/133	89/121
Taurus, Police Sedan.....	2011-17.....	98/133	98/133
Taurus X FWD.....	2008.....	81/110	—
	2009.....	98/133	—
Thunderbird.....	2002.....	41/56	—
	2003-05.....	66/89	—
Windstar.....	2000-03.....	85/115	52/71

FORD TRUCKS

Escape.....	2013-17.....	—	81/110 [29]
Excursion 4WD.....	2001-05.....	55/75	—
Expedition 4WD.....	2000-02.....	148/201	—
Expedition 2WD.....	2003-06.....	148/201	136/185
Expedition 4WD.....	2003-06.....	148/201	136/185
Expedition 2WD.....	2007-08.....	129/175	136/185
Expedition 4WD.....	2007-08.....	129/175	136/185
Expedition 2WD.....	2009-17.....	129/175	129/175
Expedition 4WD.....	2009-17.....	129/175	129/175
Explorer 4WD.....	2000-01.....	96/130	—
Explorer.....	2002-05.....	83/113	—
	2006-10.....	90/122	—
	2011-17.....	122/165	122/165
Explorer Police.....	2013-17.....	122/165	122/165
Explorer Sport Trac 4WD.....	2001.....	96/130	—
	2002-05.....	85/115	—
Explorer Sport Trac.....	2007-10.....	90/122	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
FORD TRUCKS - cont.			
F150 Pickup 4WD.....	2000.....	130/176	—
	2001-08.....	148/201	—
F150 Pickup 2WD.....	2007-08.....	148/201	—
F150 Pickup.....	2009-17.....	129/175	—
F250 HD Pickup.....	2000-17.....	133/180	—
F350 Pickup.....	2000-17.....	133/180	—
F450 Pickup.....	2000-17.....	133/180	—
F550 Pickup.....	2000-17.....	133/180	—
Ranger 4WD.....	2000-11.....	85/115	—
Sport 4WD.....	2001.....	96/130	—
	2002.....	85/115	—
Transit.....	2015-17.....	[35]	—
Transit Connect.....	2014-17.....	—	81/110 [29]

GENESIS

G80.....	2017.....	80/108	[36]
G90.....	2017.....	72/98	72/98

GMC TRUCKS

Acadia.....	2007-08.....	103/140	103/140
	2009-16.....	89/121	96/130
	2017.....	74/100 [57]	74/100 [32]
Acadia Limited.....	2017.....	89/120	96/130
Canyon.....	2004-08.....	81/110	—
	2009-12.....	96/130	—
	2015-17.....	96/130	—
Envoy.....	2002-09.....	77/104	—
G1500 Van.....	2003-14.....	133/180	—
G2500 Van.....	2003-17.....	133/180	—
G3500 Van.....	2003-17.....	133/180	—
G4500.....	2009-16.....	133/180	—
H1500 Van.....	2003-14.....	133/180	—
H2500 Van.....	2003-05.....	133/180	—
K2500 4WD.....	2000.....	133/180	—
K3500 4WD.....	2000.....	133/180	—
Safari Van AWD.....	2000-02.....	66/89	—
Safari Van.....	2003-05.....	133/180	—
Sierra 1500 Pickup.....	2000-17.....	133/180	—
Sierra 2500 Pickup.....	2001-17.....	133/180	—
Sierra 3500 Pickup.....	2000-17.....	133/180	—
Sonoma 4WD.....	2000-04.....	77/104	—
S Series Jimmy			
4WD.....	2000.....	95/129	—
2WD.....	2001-02.....	95/129	—
4WD.....	2001-02.....	77/104	—
Terrain.....	2010-17.....	74/100	52/71
Yukon.....	2000-17.....	133/180	—
Yukon Denali.....	2000-06.....	133/180	—
Yukon XL.....	2000-17.....	133/180	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
HONDA			
Accord	2008-17	—	72/98
Accord Crosstour	2010-15	—	72/98
Civic	2006-15	—	47/64
	2016-17	—	72/98
CR-V	2000-01	—	76/103
	2007-17	—	72/98
CR-Z	2011-16	—	—
Element	2003-11	—	[20]
Fit	2015-17	—	47/64
Fit EV	2013-14	—	72/98
HR-V	2016-17	—	47/64
Insight	2000-06	43/58	—
	2011-14	—	—
Odyssey	2005-10	—	72/98
	2011-17	72/98	72/98
Passport	2000-02	76/103	—
Pilot	2009-17	72/98	72/98
Prelude	2000-01	—	33/45
Ridgeline	2006-14	—	—
	2017	—	72/98
HYUNDAI			
Accent	2006-17	—	43/58
Azera	2006-11	—	52/71
	2012-17	—	65/88
Elantra	2007-10	—	50/68
	2011-16	—	43/58
	2017	43/58	43/58
Elantra Coupe	2013-15	—	43/58
Elantra GT	2013-17	—	43/58
Elantra Touring	2009-12	—	65/88
Equus	2011-16	72/98	65/88
Genesis	2009-14	72/98	65/88
	2015-16	79/108	[36]
Genesis Coupe	2010-16	72/98	65/88
Ioniq	2017	79/108	43/58
Santa Fe	2007-17	72/98	65/88
Sonata	2000-14	—	65/88
Sonata ex. Hybrid	2015-17	72/98	51/69
Sonata Hybrid	2015	—	65/88
	2016-17	72/98	51/69
Tucson	2011-15	—	65/88
	2016-17	72/98	43/58
Veloster	2012-17	—	43/58
Veracruz	2007-12	72/98	65/88
INFINITI			
EX35	2008-12	65/88	65/88
EX37	2013	65/88	65/88

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
INFINITI - cont.			
FX35	2003-08	77/104	64/87
	2009-12	65/88	65/88
FX37	2013	65/88	65/88
FX45	2003-08	77/104	64/87
FX50	2009-13	65/88	65/88
G25	2011-12	65/88	65/88
G35	2003-06	72/98	69/94
	2007-08	65/88	65/88
G37	2008-13	65/88	65/88
JX35	2013	65/88	65/88
M35	2006-11	65/88	65/88
M35H	2012-13	65/88	65/88
M37	2011-13	65/88	65/88
M45	2006-11	65/88	65/88
M56	2011-13	65/88	65/88
Q40	2015	65/88	65/88
Q45	2002-06	—	72/98
Q50	2014-17	65/88	65/88
Q60	2014-15	65/88	65/88
	2017	65/88	65/88
Q70, Q70L	2014-17	65/88	65/88
QX30	2017	—	74/100
QX50	2014-17	65/88	65/88
QX56	2004-08	155/210	111/150
	2009-10	107/145	111/150
	2011-13	90/122	90/122
QX60	2014-17	65/88	65/88
QX70	2014-17	65/88	65/88
QX80	2014-17	90/122	90/122
ISUZU			
Ascender	2003-08	77/104	—
Axiom	2002-04	76/103	—
Hombre	2000	77/104	—
I-280	2006	133/180	—
I-290	2007-08	81/110	—
I-350	2006	133/180	—
I-370	2007-08	81/110	—
Rodeo	2002-04	76/103	—
Rodeo Sport	2002-03	76/103	—
JAGUAR			
F-Pace AWD	2017	[29][59]	—
F-Pace RWD	2017	[29][60]	—
F-Type	2014-15	66/90 [29]	—
F-Type AWD	2016-17	[51]	—
F-Type RWD	2016-17	66/60 [29]	—
S-Type	2000-08	66/89	—
XE	2016	[29][61]	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
JAGUAR - cont.			
XE AWD	2017	[29][59]	—
XE RWD	2017	[29][59]	—
XF AWD	2013-15	66/90 [29]	—
	2016	[51]	—
	2017	[51]	—
XF RWD	2009-15	66/90 [29]	—
	2016	[51]	—
	2017	[51]	—
XFR	2010-15	66/90 [29]	—
XFR-S	2013-15	66/90 [29]	—
XJ AWD	2013-17	—	—
XJ RWD	2010-17	66/90 [29]	—
XJ8	2005-09	66/90	—
XJR	2004-09	66/90	—
	2014-17	66/90 [29]	—
XK	2007-08	66/90	52/71
	2009-15	66/90 [29]	52/71
XKR	2007-08	66/90	52/71
	2009-15	66/90 [29]	52/71
XKRS	2012-15	66/90 [29]	52/71
X-Type	2002-03	—	52/71
	2004-08	—	46/62

JEEP

Cherokee	2014-16	70/95	70/95
	2017	30/40 [58]	70/95
Cherokee 4WD	2000	75/102	—
Cherokee	2001	75/102	—
Commander	2006-10	85/115	—
Compass	2007-17	—	77/105
Grand Cherokee	2000-04	75/102	—
	2005	100/136	—
	2006-10	85/115	—
	2011-15	78/106	—
	2016-17	74/100	—
Liberty	2002-12	96/130	—
Patriot	2007-17	—	77/105
Renegade	2015-17	77/105	77/105
TJ (Canada)	2000-06	75/102	—
Wrangler	2000-17	75/102	—

KIA

Amanti	2004-06	—	74/100
	2007-09	—	52/71
Borrego	2009	—	65/88
Cadenza	2014-16	—	65/88
	2017	65/88	50/69
Forte, Forte Koup, Forte5	2010-13	—	80/108
	2014-17	—	51/69

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
KIA - cont.			
K900	2015-17	72/98	72/98
Niro	2017	80/108	80/108
Optima	2001-05	—	66/89
	2006-10	—	40/54
	2011-15	—	65/88
	2016-17	72/98	51/69
Rio	2005-17	—	43/58
Rio5	2007-13	—	43/58
Rondo	2007-10	—	51/69
Sedona	2006-14	177/240	—
	2015-17	72/98	72/98
Sorento	2011-13	87/118	65/88
	2014-17	72/98	65/88
Soul	2010-13	—	65/88
	2014-17	—	43/58
Soul EV	2015-17	—	43/58
Sportage	2017	—	—
Sportage FWD	2011-16	—	65/88
Sportage AWD	2011-16	—	—

LAND ROVER

Discovery	2000-02	74/100	—
Discovery Sport	2015-17	—	—
LR4	2010-16	85/115	—
Range Rover	2000-01	100/136	48/65
Range Rover Sport	2008-13	85/115	—

LEXUS

CT200H	2011-17	30/41	66/89
ES300H	2013-17	—	44/60
ES350	2007-12	—	59/80
	2013-17	—	44/60
GS200t	2016-17	51/69	55/75
GS350	2007-11	51/69	52/71
	2013-17	51/69	55/75
GS430	2007	51/69	52/71
GS450H	2007-11	51/69	52/71
	2013-17	51/69	55/75
GS460	2008-11	51/69	52/71
GS F	2016-17	51/69	55/75
GX460	2010-17	59/80	44/60
GX470	2003-09	59/80	—
HS250h	2010-12	71/96	66/89
IS200t	2016	51/69	55/75
IS250	2006-13	51/69	52/70
	2014-15	51/69	55/75
IS300	2016-17	51/69	55/75
IS350	2006-13	51/69	52/70
	2014-17	51/69	55/75

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
LEXUS - cont.			
IS-F	2008	[17]	52/71
	2009-10	51/69 [18]	52/71
IS-F w/ SST	2011-14	37/50	52/71
IS-F w/o SST	2011-14	51/69	52/71
LS430	2001-06	51/69	48/65
LS460	2007-17	48/65	72/98
LS600hL	2008-16	48/65	72/98
LX570	2008-17	73/99	44/60
NX200T	2015-17	71/96	66/90
NX300H	2015-17	71/96	66/90
RC200t	2016-17	51/69	55/75
RC300	2016-17	51/69	55/75
RC350	2015-17	51/69	55/75
RCF	2015-17	51/69	55/75
RX350	2007-08	—	55/75
RX350	2009	—	55/75
	2010-17	—	92/125
RX400H	2006-08	—	55/75
RX450H	2010-17	—	92/125

LINCOLN

Aviator	2003-05	83/113	—
Continental	2000-02	79/107	—
	2017	98/133	98/133
LS	2000-06	66/89	—
Mark LT 4WD	2006-08	148/201	—
MKC	2015-17	—	81/110
MKS	2009-16	98/133	98/133
MKT	2010-17	98/133	98/133
MKX	2007-10	—	98/133
	2011-15	—	85/115
	2016-17	98/133	98/133
MKZ	2013-17	98/133	98/133
Navigator 4WD	2000-02	148/201	—
Navigator 2WD	2003-06	148/201	136/185
Navigator 4WD	2003-06	148/201	136/185
Navigator 2WD	2007-08	129/175	136/185
Navigator 4WD	2007-08	129/175	136/185
Navigator 2WD	2009-17	129/175	129/175
Navigator 4WD	2009-17	129/175	129/175
Navigator L 2WD	2007-08	129/175	136/185
Navigator L 4WD	2007-08	129/175	136/185
Navigator L 2WD	2009-17	129/175	129/175
Navigator L 4WD	2009-17	129/175	129/175
Town Car	2003-06	74/100	—
	2007-11	89/121	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
MAZDA			
B2300 4WD	2001-09	85/115	—
B2500 4WD	2000	85/115	—
B4000 4WD	2000-09	85/115	—
CX-3	2016-17	100/136	75/102
CX-5	2013-15	[37]	[37]
	2016-17	75/102	75/102
CX-7	2007-12	—	88/119
CX-9	2007-15	—	97/132
	2016-17	75/102	75/102
Mazda2	2011-14	—	49/66
Mazda3			
All	2004-09	—	48/65
w/Torquex Screw	2010-13	—	47/64
w/Hex Nut	2010-13	—	32/43
All	2014-17	75/102	75/102
Mazda5	2006-10	—	48/65
	2012-15	—	47/63
Mazda6	2009-14	—	72/98
	2015-17	75/102	75/102
Miata	2006-15	44/60	—
	2016-17	100/136	100/136
RX-8	2004-11	44/60	—

MERCEDES-BENZ

AMG GT	2017	59/80 [3]	44/60 [3]
AMG GT S	2016-17	59/80 [3]	44/60 [3]
B-Class	2015-17	—	74/100
C Series			
ex. C63 AMG,			
2015-17 C300, C350e,			
2015 C400 4 Matic	2008-17	—	52/70
C43 AMG, C63 AMG,			
C63 AMG S	2008-14	59/80	52/70
	2015-17	59/80 [3]	[52]
C300,			
2015 C400 4 Matic	2015-17	59/80 [3]	52/70
C450 AMG	2016-17	59/80 [3]	52/70
CL Series	2001-14	—	52/70
CLA Series	2014-17	—	74/100
CLS Series	2012-17	—	52/70
E Series	2004-17	—	52/70
G Series	2002-17	—	368/500
GL Series	2013-16	59/80 [3]	—
GLA Series	2015-17	—	74/100
GLC Series	2016-17	59/80 [3]	52/70
GLE, GLS Series	2016-17	59/80 [3]	—
GLK Series	2010-15	—	52/70
Maybach S550, S600	2016-17	59/80 [3]	52/70
ML Series	2012-15	59/80 [3]	—

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
MERCEDES-BENZ - cont.			
S Series			
S350	2012-13	—	52/70
S400	2010-13	—	52/70
S550, S600, S65 AMG	2007-13	—	52/70
S550	2014-17	—	52/70
S550 4MATIC	2014-17	59/80 [3]	52/70
S550e	2016-17	59/80 [3]	52/70
S600, S65 AMG	2015-17	—	52/70
S63 AMG	2008-17	—	52/70
SL Series			
ex. 2009 SL65			
w/P99 Code	2000-12	—	52/70
SL Series	2013-17	59/80	52/70
SLC Series	2017	—	52/70
SLK Series	2012-16	—	52/70

MERCURY

Grand Marquis	2003-06	74/100	—
	2007-11	89/121	—
Marauder	2003-04	74/100	—
Montego	2005	81/110	89/121
	2006-07	81/110	—
Monterey	2004-05	96/130	85/115
	2006-07	96/130	52/71
Mountaineer 4WD	2000	85/115	—
	2001	96/130	—
Mountaineer	2002-05	83/113	—
	2006-10	90/122	—
Sable	2000	75/102	—
	2001-05	70/95	—
Sable FWD	2008	81/110	—
	2009	98/133	—

MINI

Cooper	2007-09	[16]	41/56
	2010	[16]	—
Cooper ex. F54, F55, F56, F57, F60, R60, R61	2011-16	[16][29]	41/56
Cooper F54, F55, F56, F57, F60	2014-17	[29][62]	74/100 [1][29]
Cooper R60, R61	2011-16	[28][29]	74/100 [31]

MITSUBISHI

Diamante	2000-04	—	65/88
Eclipse	2000-05	65/88	53/72
	2006-12	67/91	54/73

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
MITSUBISHI - cont.			
Endeavor	2004-05	67/91	49/66
	2006-11	67/91	67/91
Galant	2000-03	65/88	58/79
	2004-12	67/91	54/73
Lancer Turbo	2003-06	65/88	53/72
Lancer	2008-09	—	70/95
	2010-14	59/80	70/95
Lancer ex.			
Evolution	2015-17	—	70/95
Mirage	2014-15	—	—
Mirage, Mirage G4	2017	—	—
Montero	2001-02	65/88	60/81
	2003-06	65/88	98/133
Outlander	2007-17	—	70/95
Outlander Sport	2011-17	—	70/95
Raider	2006-09	120/163	—

NISSAN / DATSUN

350Z	2003-05	—	69/94
	2006-09	—	65/88
370Z	2009-17	65/88	65/88
Altima	2002-04	—	72/98
	2005-06	—	68/92
	2007-08	44/60	65/88
	2009-17	65/88	65/88
Armada	2005-07	155/210	111/150
	2008-15	107/145	111/150
Cube	2009-14	65/88	70/95
Frontier	2005-17	44/60	—
GT-R	2009-17	65/88	65/88
Juke	2011-17	65/88	65/88
Leaf	2011-17	65/88	65/88
Maxima	2008	—	63/85
	2009-14	65/88	65/88
	2016-17	65/88	65/88
Murano	2003-06	51/69	51/69
	2007	65/88	44/60
	2009-17	65/88	65/88
NV 200	2013-17	65/88	125/169
NV Vans	2012-17	87/118	—
Pathfinder	2005-12	44/60	44/60
	2013-17	65/88	65/88
Pathfinder Armada	2004	155/210	111/150
Quest	2004-09	44/60	44/60
	2011-17	65/88	65/88
Rogue, Rogue Select	2008-17	65/88	65/88
Sentra	2007-12	65/88	65/88
	2013-16	65/88	[38]

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
NISSAN / DATSUN - cont.			
Titan	2004-07	155/210	—
	2008-15	107/145	—
	2016	87/118	—
Titan ex. XD	2017	107/145	—
Titan XD	2017	87/118	—
Versa	2008-11	65/88	70/95
Sedan	2012-17	—	62/83
Hatchback	2012	65/88	70/94
Versa Note	2014-17	—	62/83
Xterra	2005-15	44/60	—
OLDSMOBILE			
Alero	2000-04	70/95	62/84
Aurora	2001-03	70/95	52/71
Bravada	2000-04	77/104	—
Intrigue	2000	52/71	52/71
	2001-02	96/130	55/75
Silhouette Van	2000	133/180	59/80
	2001	96/130 [7]	59/80
	2002-04	96/130 [7]	96/130
PLYMOUTH			
Breeze	2000	80/108	70/95
Grand Voyager	2000	45/61	95/129
Voyager	2000	45/61	95/129
PONTIAC			
Aztek w/Disc	2001-05	96/130 [7]	96/130 [7]
Aztek w/Drum	2001-05	96/130 [7]	63/85
Bonneville	2000-05	70/95	52/71
Firebird	2000-02	63/85	—
G5	2007-09	85/115	33/45 [6]
G6	2005-10	85/115	47/64
G8	2008-09	79/107	—
Grand Am	2000-05	70/95	62/84
Grand Prix	2000-08	96/130	55/75
GTO	2004-06	80/108	—
Montana SV6 AWD	2006	96/130 [7]	96/130 [7]
Montana SV6 FWD	2006-07	96/130 [7]	59/80
Montana Van AWD	2002-05	96/130 [7]	96/130 [7]
Montana Van FWD	2000-05	96/130 [7]	59/80 [7]
Pursuit	2005-06	—	33/45 [6]
Solstice	2006-09	85/115	85/115
Sunfire	2000-05	70/95	44/60
Torrent	2006	96/130	62/84
	2007-09	96/130	55/75
Vibe AWD	2003-06	—	41/56

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
PONTIAC - cont.			
Vibe FWD	2003-08	—	45/61
Vibe AWD	2009-10	—	41/56
Vibe FWD	2009-10	—	74/100
Wave	2005-07	—	30/41
PORSCHE			
911 ex. 2014-16 GT3	1995-16	27/37 [44]	27/37 [44]
	2017	27/37 [44]	—
911 GT3	2014-16	[53]	[53]
Boxster	1995-16	27/37 [44]	27/37 [44]
	2017	27/37 [44]	—
Cayenne	2011-17	[53]	[53]
Cayman	2006-16	27/37 [44]	27/37 [44]
	2017	27/37 [44]	—
Cayman GT4	2016	[53]	[53]
Macan	2015-17	[54]	[54]
Panamera	2010-16	27/37 [29][44]	27/37 [29][44]
	2017	15/20 [1][44]	15/20 [1][44]
SAAB			
9-3	2003-11	66/89 [3]	40/54 [6]
9-3X	2010-11	66/89 [3]	40/54 [6]
9-5	2002-09	66/89 [1]	40/54 [6]
9-5 AWD	2010-11	74/100 [22]	[24]
9-5 FWD	2010-11	74/100 [22]	—
9-7X	2005-09	77/104	—
SATURN			
Astra	2008-09	[14]	[15]
Aura	2007-09	85/115	47/64
Coupe	2000-02	—	63/85
Ion	2003	85/115	37/50 [6]
	2004-07	85/115	33/45 [6]
L Series	2000	—	63/85
	2001-03	—	37/50
	2004-05	—	37/50 [9]
Outlook	2007-08	103/140	103/140
	2009-10	89/121	96/130
Relay	2005-07	96/130	96/130 [11]
Sedan	2000	—	63/85
Sky	2007-10	85/115	85/115
Vue	2002-07	96/130	62/84
	2008-09	96/130	55/75
Wagon	2000-01	—	63/85

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
SCION			
FR-S.....	2013-16.....	48/65	48/65
IA.....	2016.....	69/93	57/77
IM.....	2016.....	71/96	66/90
iQ.....	2012-15.....	—	66/90
tC.....	2005-10.....	—	[23]
	2011-16.....	71/96	66/89
xA.....	2004-06.....	—	46/62
xB.....	2004-06.....	—	46/62
	2008-15.....	71/96	67/91
xD.....	2008-14.....	—	67/91
SMART			
Fortwo	2008-15.....	—	48/65
ex. Electric	2016-17.....	—	46/62
Electric.....	2016.....	—	48/65
	2017.....	—	46/62
SUBARU			
B9 Tribeca.....	2006-07.....	48/65	48/65
BRZ.....	2013-17.....	48/65	48/65
Crosstrek	2016-17.....	48/65	48/65
Forester	2009-17.....	48/65	48/65
Impreza	2005-07.....	48/65	—
	2008-17.....	48/65	48/65
Legacy.....	2005-17.....	48/65	48/65
Outback.....	2005-17.....	48/65	48/65
Tribeca	2008-14.....	48/65	48/65
WRX, WRX STI.....	2015-17.....	48/65	48/65
XV Crosstrek	2013-15.....	48/65	48/65
SUZUKI			
Equator.....	2009-12.....	44/60	—
Forenza.....	2004-08.....	—	48/65
Grand Vitara	2006-13.....	37/50	37/50
Kizashi.....	2010-13.....	52/71	56/76
Reno.....	2005-08.....	—	48/65
SX4.....	2007-10.....	—	53/72
	2011-13.....	—	61/83
Verona	2004-06.....	70/95	48/65
XL 7.....	2007.....	96/130	52/71
	2008-09.....	96/130	—
TOYOTA			
4-Runner.....	2004-17.....	59/80	44/60
86	2017.....	48/65	48/65
Avalon.....	2000-12.....	—	59/80
Avalon, Avalon Hybrid.....	2013-17.....	—	44/60

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
TOYOTA - cont.			
Camry, Camry Hybrid	2000-11.....	—	59/80
	2012-17.....	—	44/60
Celica.....	2000-05.....	—	41/56
Corolla, Corolla iM	2000-02.....	—	59/80
	2003-08.....	—	45/61
	2009-17.....	—	74/100
Echo.....	2000-05.....	—	38/52
FJ Cruiser.....	2007-14.....	59/80	89/120
Highlander.....	2008-13.....	—	55/75
	2014-17.....	—	92/125
Land Cruiser.....	2006-07.....	—	91/123
	2008-17.....	73/99	44/60
Matrix.....	2003-07.....	—	41/56 [8]
	2008.....	—	45/61
	2009-13.....	—	41/56
Mirai	2016-17.....	71/96	66/90
MR2.....	2000-05.....	41/56	—
Prius.....	2001-03.....	—	38/52
	2004-09.....	41/56	45/61
	2010-14.....	30/41	66/90
	2015-17.....	96/130	66/90
Prius C	2012-17.....	—	66/90
Prius PHV	2012-15.....	30/41	66/90
Prius Prime.....	2017.....	96/130	66/90
Prius V.....	2012-17.....	71/96	66/90
RAV4.....	2000-05.....	—	38/52
	2006-09.....	71/96	68/92
	2010-17.....	71/96	66/90
Sequoia.....	2008-17.....	73/99	64/87
Sienna Van.....	2000-03.....	—	59/80
	2004-08.....	—	41/56
	2009-10.....	—	49/66
	2011-17.....	—	66/90
Solara.....	2000-08.....	—	59/80
Tacoma 2WD	2009-15.....	147/199	27/36
	2016-17.....	203/275	33/45
Tacoma 4WD	2009-15.....	59/80	27/36
	2016-17.....	59/80	33/45
Tundra.....	2007-17.....	73/99	44/60
Venza	2009-17.....	—	59/80
Yaris, Yaris iA.....	2007-17.....	—	67/91
VOLKSWAGEN			
CC AWD	2009-16.....	52/70 [1][29]	52/70 [1][29]
CC FWD	2009-17.....	52/70 [1][29]	—
e-Golf.....	2015-17.....	52/70 [1][29]	22/30 [1][29]
Eos.....	2007-16.....	52/70 [1][29]	—
GLI	2008-09.....	52/71 [1][29]	—
Golf AWD.....	2010-14.....	52/71 [1][29]	52/71[1][29]
	2015-17.....	52/70 [1][29]	[40]

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
VOLKSWAGEN - cont.			
Golf FWD	2010-14	52/71 [1][29]	—
	2015-17	52/70 [1][29]	[41]
	2015-17	52/70 [1][29]	[42]
GTI	2006-14	52/71 [1][29]	—
	2014-17	52/70 [1][29]	[41]
	2014-17	52/70 [1][29]	[42]
Jetta	2005-17	52/71 [1][29]	—
New Beetle	2012-16	52/70 [1][29]	22/30 [1][29]
	2017	52/70 [1][29]	—
Passat AWD	2003-05	—	59/80 [1][29]
Passat FWD	2003-05	—	44/60 [1][29]
Passat	2006-10	52/71 [1][29]	52/71 [1][29]
	2012-17	52/70 [1][29]	—
Phaeton	2006	59/80 [1][29]	—
Rabbit	2006-09	52/71 [1][29]	—
Routan	2009-11	45/61	41/56
Tiguan AWD	2009-17	52/71 [1][29]	52/71 [1][29]
Tiguan FWD	2009-17	52/71 [1][29]	—
Touareg	2011-17	[27]	[27]

Make/ Model	Year	Hub mount Front torque ft-lbs/Nm	Hub mount Rear torque ft-lbs/Nm
VOLVO			
C30	2008-13	—	48/65
C70	2000	34/46 [2]	88/119 [6]
	2004	48/65	—
	2006-13	—	48/65
S60	2004-05	48/65 [2]	48/65 [2]
	2006	48/65 [2]	48/65 [2]
	2007-09	48/65 [2]	[26]
	2011-17	—	81/110
S60 Cross Country	2016-17	—	81/110
S60R	2004-05	48/65 [2]	48/65
S70	2000	34/46 [2]	88/119 [6]
S80	2000	34/46 [2]	34/46 [2]
	2001-06	[4]	[4]
	2007-16	—	81/110
S90	2017	110/150 [29]	110/150 [29]
V50	2006-11	—	41/55
V60	2015-17	—	81/110
V60 Cross Country	2015-17	—	81/110
V70	2000	34/46 [2]	—
	2002-05	48/65 [2]	48/65 [2]
	2006	48/65 [2]	48/65 [2]
V70R	2004-07	48/65 [2]	48/65 [2]
XC60	2010-17	—	81/110
XC70	2003-05	—	48/65
	2006	33/45 [2]	—
	2008-16	—	81/110
XC90	2003-14	[26]	[26]
	2016-17	110/150 [29]	110/150 [29]

Hub mounting footnote codes

- [1] After tightening to specification, turn an additional 90°.
- [2] After tightening to specification, turn an additional 60°.
- [3] After tightening to specification, turn an additional 45°.
- [4] Tighten in three steps: 15 ft-lbs (20 Nm), 48 ft-lbs (65 Nm), then turn an additional 60°.
- [5] After tightening to specification, turn an additional 40°.
- [6] After tightening to specification, turn an additional 30°.
- [7] Use new bolts and nuts only.
- [8] With disc brakes, tighten to 45 ft-lbs/61 Nm.
- [9] After tightening to specification, turn an additional 30° to 45°.
- [10] With rear with drum brakes, tighten to 58 ft-lbs/80 Nm.
- [11] With independent suspension, tighten to 96 ft-lbs/130 Nm.
- [12] After tightening to specification, turn an additional 75°.
- [13] After tightening to specification, turn an additional 110°.
- [14] Tighten in three steps: 67 ft-lbs/90 Nm, turn 30° and then an additional 15°.
- [15] Tighten in three steps: 37 ft-lbs/50 Nm, turn 30° and then an additional 15°.
- [16] Tighten to 14 ft-lbs/ 20 Nm, then turn an additional 90°.
- [17] Tighten wheel hub bearing to 51 ft-lbs/69 Nm; with Sport Shift Transmission, tighten to 37 ft-lbs/51 Nm.
- [18] With Sport Shift Transmission.
- [19] For the ZR1 2009-13 (RPO SSC), identify the short lower bolt (black coated) used to mount the rear wheel bearing to knuckle. This fastener must be used in this location in order to have enough clearance so that the wheel stud will not come in contact with this fastener.
- [20] With rear hub bolts 10x1.25, tighten to 52 Nm (38ft-lbs). With Rear nuts 10x1.25, tighten to 38 Nm (28 ft-lbs). With Nuts 16x1.5, tighten to 140 Nm (103 ft-lbs).
- [21] With rear drums, torque is 63 ft-lbs/85 Nm; with disc, 96 ft-lbs/130 Nm.
- [22] After tightening to specification, tighten an additional 75° and then loosen 90°.
- [23] Tightening torque for bolts, 41 ft-lbs (56 Nm). Tightening torque for nut, 103 ft-lbs (140 Nm).
- [24] Tighten in three steps: 66 ft-lbs (90 Nm), turn another 60°, then turn an additional 15°.
- [25] Tighten bolts in three steps: 48 ft-lbs (65 Nm), loosen 90°, then torque an additional 48 ft-lbs (65 Nm).
- [26] Tighten in three steps: 15 ft-lbs (20 Nm), 33 ft-lbs (45 Nm), then turn an additional 60°.
- [27] With 18"/19" suspension, 59 ft-lbs/80 Nm plus 120°. Always replace if removed.
- [28] Jointing torque, 22 ft-lbs/30 Nm; final torque, 89 ft-lbs/120 Nm.
- [29] Replace bolts.
- [30] Then turn an additional 28°.
- [31] Tighten in a criss-cross pattern.
- [32] After tightening to specification, turn an additional 15° to 30°.
- [33] After tightening to specification, turn an additional 20° to 35°.
- [34] Tighten all bolts in a crisscross pattern to 18 ft-lbs/25 Nm, loosen 90°, then tighten to 18 ft-lbs/25 Nm, plus an additional 50°.
- [35] With single rear wheel remove the 5 torx wheel bearing and hub bolts replace bolts tighten in a star cross pattern to 46 ft-lbs/63 Nm. Remove and replace the 5 disc brake bolts an separate the brake disc from the wheel bearing and wheel hub assembly replace bolts tighten in two steps; 22 ft-lbs/30 Nm, then torque an additional 90°. With dual rear wheels, remove the 5 torx wheel bearing and hub bolts. Replace bolts, then tighten to 81 ft-lbs/110 Nm.
- [36] Tighten the four inner bolts 72 ft-lbs/98 Nm, and the two outer bolts to 47 ft-lbs/64 Nm.
- [37] With pink bolt, 24-24 ft-lbs/32-34 Nm; then torque an additional 57°-63°. With green bolt, 63-75 ft-lbs/85-102 Nm.
- [38] With drum brakes 67 ft-lbs/91 Nm, with disc brakes 70 ft-lbs/94 Nm.
- [39] If equipped with M12/1.25x45 bolts, tighten in these steps: 14.7 ft-lbs/20 Nm, 88 ft-lbs/120 Nm, then final torque an additional 90°.
- [40] Models with rear Multi-Link suspension, tighten 52 ft-lbs/70 Nm, and then turn an additional 90 degrees. Use new original equipment bolt.
- [41] Models with rear Torsion Beam Axle, tighten 22 ft-lbs/30 Nm, and then turn an additional 90 degrees. Use new original equipment bolt.
- [42] FWD models with Multi-Link rear Suspension; do not have hub mounting bolts.
- [43] Wheel bearing assembly to wheel carrier, 59 ft-lbs/ 80 Nm.
- [44] Bolt torque for wheel bearing plate (lid).
- [45] After removing hub mounting bolts, clean thread locker from the threads. Apply new thread locker to the bolt threads before installation.

Hub mounting footnote codes

- [46] Install new bolts; tighten an additional 60-75°.
- [47] Install new bolts; tighten an additional 40°.
- [48] Tighten in three steps: first, 74 ft-lbs/100 Nm; second, 20°; final, 35°.
- [49] Tighten an additional 15-30°.
- [50] Apply thread locking adhesive to the fasteners; tighten an additional 30-45°.
- [51] Install new bolts: tighten in crisscross pattern in first step, 7 ft-lbs/10 Nm; second, 85 ft-lbs/115 Nm.
- [52] With M12x30 w/cone 59 ft-lbs/80 Nm plus an additional 45°. With M12x35 w/o cone 44 ft-lbs/60 Nm plus an additional 45°.
- [53] Install new bolts to wheel bearing assembly to wheel carrier; 59 ft-lbs/80 Nm plus an additional 120°.
- [54] Install new bolts to wheel bearing assembly to wheel carrier; 59 ft-lbs/80 Nm plus an additional 90°.
- [55] Tighten an additional 70°.
- [56] Replace nut.
- [57] Tighten an additional 65-70 degrees.
- [58] Tighten an additional 65 degrees.
- [59] Tighten 7 ft-lbs/10 Nm. Tighten an additional 81 ft-lbs/110 Nm.
- [60] Tighten 7 ft-lbs/10 Nm. Tighten an additional 66 ft-lbs/90 Nm. Tighten an additional 60 degrees.
- [61] Tighten an additional 66 ft-lbs/90 Nm. Tighten an additional 60 degrees.
- [62] With M12x1.5 bolts, tighten to 59 ft-lbs/80 Nm, then turn an additional 90°. With M12x1.25 bolts, tighten to 89 ft-lbs/120 Nm, then turn an additional 90°.

Section 3
Lug Nut torque

Make/ Model	Year	Lug nut torque ft-lbs
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ACURA

All.....	2001-04.....	80
3.2TL.....	2005-07.....	80
3.5RL.....	2005-07.....	94
ILX.....	2013-17.....	80
MDX.....	2005-06.....	80
	2007-13.....	94
	2014-16.....	80
	2017.....	94
NSX.....	2005.....	80
	2017.....	125
RDX.....	2007-17.....	80
RL.....	2008-12.....	94
RLX.....	2014-17.....	94
RSX.....	2005-06.....	80
TL.....	2008.....	80
	2009-14.....	94
TLX.....	2015-17.....	80
TSX.....	2005-14.....	80
ZDX.....	2010-13.....	94

ALFA ROMEO

4C.....	2015-17.....	72
Giulia.....	2017.....	89

AM GENERAL

All.....	2003-05.....	140
	2010.....	103
Hummer H2.....	2006-09.....	140
Hummer H3/H3T.....	2006-09.....	103

AUDI

A3 Sportback E-Tron.....	2016-17.....	89
A3/A3 Quattro.....	2006-13.....	89
	2015-17.....	89
A4/A4 Quattro.....	2001-17.....	89
A5.....	2010-14.....	89
A5 Quattro.....	2008-17.....	89
A6.....	2001-04.....	89
	2006-15.....	89
	2017.....	89
A6 Quattro.....	2001-17.....	89
A7 Quattro.....	2012-17.....	89
A8 Quattro.....	2001-17.....	89
Allroad Quattro.....	2001-05.....	89
	2013-17.....	89
Q3/Q3 Quattro.....	2015-17.....	89

Make/ Model	Year	Lug nut torque ft-lbs
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AUDI - cont.

Q5.....	2009.....	89
	2010-17.....	103
Q7.....	2007-15.....	118
	2017.....	118
R8.....	2008-12.....	89
	2014-15.....	89
	2017.....	89
RS4.....	2007-08.....	89
RS5.....	2013-15.....	89
RS6.....	2003-04.....	89
RS7.....	2014-17.....	89
S3.....	2015-17.....	89
S4.....	2001-02.....	89
	2004-16.....	89
S5.....	2008-17.....	89
S6.....	2007-11.....	89
	2013-17.....	89
S6 Quattro.....	2002-03.....	89
S7.....	2013-17.....	89
S8.....	2001-03.....	89
	2007-09.....	89
	2013-17.....	89
SQ5.....	2014-17.....	103
TT.....	2008-09.....	89
TT Quattro.....	2008-17.....	89
TT/TT Quattro.....	2001-06.....	89

BMW

1 Series M.....	2011.....	89
1 Series.....	2008-13.....	89
2 Series.....	2014-17.....	103
320i/320xi.....	2013-17.....	103
325Ci.....	2001-04.....	81-96
325Ci/325i.....	2005-06.....	78-98
325i/325xi.....	2001-04.....	81-96
325xi.....	2005.....	78-98
	2006.....	88
328d/328xd.....	2014-17.....	103
328i.....	2009-11.....	89
328i (w/4-Cyl).....	2012.....	103
328i (w/6-Cyl).....	2012.....	89
328i/328xi.....	2007.....	88
	2008.....	78
(Coupe).....	2013.....	89
(Sedan).....	2013.....	103
	2014-16.....	103
328xi.....	2009-12.....	89
330Ci.....	2001-04.....	81-96
330Ci/330i.....	2005-06.....	78-98
330E.....	2016-17.....	103

Make/ Model	Year	Lug nut torque ft-lbs
BMW - cont.		
330i/330xi	2001-04	81-96
	2017	103
330xi	2005	78-98
	2006	88
335D	2009-11	89
335i	2007	78-98
335i/335xi	2008	78
	2009-13	89
	2014-16	103
335is	2011-13	89
335xi	2007	89
340i/340i Xdrive	2016-17	103
4 Series	2014-17	103
525i	2001-04	81-96
	2005-07	78-98
525xi	2006-07	78-98
528i	2008-10	81-96
528i/528xi	2011-16	103
528xi	2008	78-98
	2009-10	81-96
530i	2001-04	81-96
	2005-07	78-98
	2017	103
530xi	2006-07	78-98
	2017	103
535d/535xd	2014-16	103
535i/535xi	2008	78-98
	2009-10	81-96
	2011-17	103
540i	2001-03	81-96
	2017	103
540xi	2017	103
545i	2004	81-96
	2005	78-98
550i	2006-07	81-96
	2008	78-98
	2009-10	81-96
	2011-16	103
550xi	2010-17	103
640i/640xi	2012-17	103
645Ci	2004	81-96
	2005	78-98
650i	2006-08	78-98
	2009-10	81-96
650i/650xi	2012-17	103
740e	2017	103
740i/740iL	2001	81-96
740i/740xi	2011-17	103
740ld Xdrive	2015	103
740Li	2011-15	103

Make/ Model	Year	Lug nut torque ft-lbs
BMW - cont.		
745i/745Li	2002-04	96-111
	2005	93-113
750i/750Li	2006-08	96-110
750i/750xi	2009-17	103
750iL	2001	81-96
750Li	2009-15	103
760i	2004	96-111
	2006	96-110
760i/760Li	2005	93-113
760Li	2003-04	96-111
	2006-08	96-110
	2010	81-96
	2011-15	103
Activehybrid 3	2013-15	103
Activehybrid 5	2012-16	103
Activehybrid 7	2013-15	103
i3	2014-17	103
i8	2014-17	103
M Coupe	2001-02	81-96
M Roadster	2001-02	81-96
M2	2016	103
M3	2001-04	81-96
	2005-06	78-98
	2008	78-98
M3	2009-10	81-96
	2011-13	89
	2015-16	103
M4	2015-16	103
M5	2001-03	81-96
	2006	81-96
	2007-08	78-98
	2009-10	81-96
	2013-16	103
M6	2006	81-96
	2007-08	78-98
	2009-10	81-96
	2012-17	103
M235i/M235xi	2014-16	103
M240i/M240xi	2017	103
M760ix	2017	103
X1	2013-15	89
	2016-17	103
X3	2004-08	96-110
	2009-10	96-111
	2011-17	103
X4	2015-17	103
X5	2001-04	96-111
	2005-06	93-113
	2007-17	103
X6	2008-17	103

Make/ Model	Year	Lug nut torque ft-lbs
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BMW - cont.

Z3.....	2001-02.....	81-96
Z4.....	2003-08.....	81-96
	2009.....	89
	2010.....	86
	2011-16.....	89
Z8.....	2001-03.....	81-96

BUICK

All.....	2001-03.....	100
Allure.....	2005-09.....	100
Cascada.....	2016-17.....	100
Century.....	2004-05.....	100
Enclave.....	2008-17.....	140
Encore.....	2013-17.....	100
Envision.....	2016-17.....	100
Lacrosse.....	2005-09.....	100
	2010-16.....	110
	2017.....	100
Lesabre.....	2004-05.....	100
Lucerne.....	2006-11.....	100
Park Avenue.....	2004-05.....	100
Rainier.....	2004-07.....	100
Regal.....	2004.....	100
	2011-17.....	110
Rendezvous.....	2004-07.....	100
Terraza.....	2005-07.....	100
Verano.....	2012-17.....	100

CADILLAC

ATS.....	2013-15.....	103
ATS (w/V-Series).....	2016.....	110
	2017.....	140
ATS (w/o V-Series).....	2016-17.....	100
Catera.....	2001.....	80
CT6.....	2016-17.....	110
CTS.....	2003-08.....	100
	2009-13.....	140
	2016.....	110
	2017.....	140
(Coupe).....	2014-15.....	122
(Sedan).....	2014-15.....	103
Deville.....	2001-05.....	100
DTS.....	2006-08.....	100
	2009-11.....	103
Eldorado.....	2001-02.....	100
ELR.....	2014-16.....	103
Escalade.....	2002-17.....	140
Escalade ESV.....	2003-17.....	140
Escalade EXT.....	2002-13.....	140

Make/ Model	Year	Lug nut torque ft-lbs
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CADILLAC - cont.

Seville.....	2001-04.....	100
SRX.....	2004-09.....	100
	2010-12.....	110
(w/blue cone seats).....	2013.....	110
(w/silver cone seats).....	2013.....	140
	2014-16.....	140
STS.....	2005-11.....	100
XLR.....	2004-09.....	100
XT5.....	2017.....	140
XTS.....	2013-17.....	111

CHEVROLET

All.....	2003.....	100
Aveo.....	2004-10.....	81
	2011.....	100
Aveo5.....	2007-10.....	81
	2011.....	100
Bolt EV.....	2017.....	100
Camaro.....	2001-02.....	100
	2010-11.....	140
	2014-15.....	122
	2016-17.....	140
(w/blue cone seats).....	2012-13.....	111
(w/silver cone seats).....	2012-13.....	140
(w/Steel wheels).....	2012-13.....	122
Caprice.....	2011-17.....	140
Cavalier.....	2001-02.....	100
	2004-05.....	100
Classic.....	2004-05.....	100
Cobalt.....	2005-10.....	100
Corvette.....	2001-17.....	100
Cruze.....	2011-17.....	100
Cruze Limited.....	2016.....	100
Epica.....	2004-06.....	81
HHR.....	2006-11.....	100
Impala.....	2001-02.....	100
	2004-13.....	100
	2014-17.....	110
Impala Limited.....	2014-16.....	100
Lumina.....	2001.....	100
Malibu.....	2001-02.....	100
	2004-12.....	100
	2013-15.....	110
	2016-17.....	100
Malibu Limited.....	2016.....	110
Malibu Maxx.....	2004-07.....	100
Metro.....	2001.....	45
Monte Carlo.....	2001-02.....	100
	2004-07.....	100
Optra.....	2004-07.....	81

Make/ Model	Year	Lug nut torque ft-lbs
CHEVROLET - cont.		
Prizm.....	2001-02	76
Sonic	2012-17	100
Spark.....	2013-17	100
Spark EV.....	2014-15	92
	2016	100
SS	2014-17	140
Uplander.....	2005-09	100
Venture Mini-van	2001-02	100
	2004-05	100
Volt.....	2011-17	100
CHEVROLET TRUCKS		
Astro Van	2001-02	100
	2003-05	140
Avalanche.....	2002-13	140
C3500HD.....	2001-02	140
Captiva Sport.....	2012-15	100
City Express	2015-17	83
Colorado	2004-12	100
	2015-17	140
Equinox.....	2005-09	100
	2010-17	140
Express		
1500/2500/		
3500/4500	2001-17	140
G1500 Van.....	2001-02	140
S Series Blazer	2001-05	100
S10 Pickup	2001-04	100
Silverado		
1500/2500	2001-17	140
Silverado 3500	2001-17	140
SSR.....	2003-06	100
Suburban 3500 HD	2016-17	140
Suburban/Tahoe.....	2001-17	140
Tracker	2001-03	69
	2004	74
Trailblazer.....	2002-09	100
Traverse.....	2009-17	140
Trax.....	2015-17	100
CHRYSLER		
200.....	2011-17	100
300.....	2005-14	110
(SRT).....	2015-16	111
(Others).....	2015-16	130
	2017	130
300M.....	2001-04	100
Aspen.....	2007-09	125-145
Concorde.....	2001-04	100

Make/ Model	Year	Lug nut torque ft-lbs
CHRYSLER - cont.		
Crossfire.....	2004-08	81
Intrepid	2001-04	100
LHS	2001	100
Pacifica.....	2004-08	100
	2017	100
Prowler	2001-02	100
Pt Cruiser	2001-09	100
Sebring	2001-06	100
	2008-10	100
Sebring Convertible..	2006	100
Sebring Coupe		
2 Door	2001-05	66-80
Sebring Sedan		
4 Door	2001	100
	2003-08	100
Town & Country.....	2001-16	100
Voyager.....	2001-03	100
DAEWOO		
Lanos	2001-02	88
Leganza	2001-02	81
Nubira.....	2001-02	88
DODGE		
All.....	2001-02	100
Avenger	2008-14	100
Caliber.....	2007-12	100
Caravan.....	2003-07	100
Challenger.....	2008-15	110
(SRT).....	2016-17	111
(Others).....	2016-17	130
Charger.....	2006-09	110
(Police).....	2010-14	140
(Others).....	2010-14	110
(SRT).....	2015-17	111
(Others).....	2015-17	130
Dart	2013-16	100
Grand Caravan	2003-17	100
Intrepid	2003-04	100
Journey.....	2009-17	100
Magnum.....	2005-08	110
Neon	2003-05	100
Stratus.....	2004	100
Stratus Coupe		
2 Door	2003-05	66-80
Stratus Sedan		
4 Door	2003-06	100

Make/ Model	Year	Lug nut torque ft-lbs
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DODGE TRUCKS

B1500/2500/3500.....		
(5 lug).....	2001-03.....	80-110
(8 lug).....	2001-03.....	120-150
Dakota.....	2001-04.....	85-115
	2005-10.....	125-145
Durango.....	2001-03.....	85-115
	2004-09.....	125-145
	2011-16.....	85-115
	2017.....	130
Nitro.....	2007-09.....	100
	2010-12.....	85-115
Ram 1500.....	2001.....	95
	2002-08.....	135
	2009-10.....	130
Ram 2500/3500.....		
(Dual Rear wheels)..	2001-08.....	145
(Single Rear wheels).	2001-08.....	135
(Dual Rear wheels)..	2009-10.....	145
(Single Rear wheels).	2009-10.....	140
Ram 4500/5500.....	2008-10.....	148
Sprinter 2500.....	2003-06.....	167-187
Sprinter 2500/3500		
(w/Aluminum		
wheels).....	2007.....	130
(w/Steel wheels).....	2007.....	177
	2008-09.....	148
Sprinter 3500.....	2003-06.....	130-150

FIAT

124 Spider.....	2017.....	94
500/500L		
(w/Aluminum		
wheels).....	2012-17.....	75
(w/Steel wheels).....	2012-17.....	63
500X.....	2016-17.....	89

FORD

All.....	2012.....	100
C-Max.....	2013-17.....	100
Crown Victoria.....	2001-02.....	85-105
	2003-11.....	100
Edge.....	2007-11.....	100
	2013-14.....	100
	2015-17.....	162
Escort		
(w/Aluminum		
wheels).....	2001-02.....	74-100
(w/Steel wheels).....	2001-02.....	66-87

Make/ Model	Year	Lug nut torque ft-lbs
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FORD - cont.

Fiesta.....	2011.....	100
	2013-17.....	100
Five Hundred.....	2005-07.....	100
Flex.....	2009-11.....	98
	2013-17.....	100
Focus.....	2001-11.....	94
	2013-17.....	100
Freestar.....	2004-07.....	100
Freestyle.....	2005-07.....	100
Fusion.....	2006-09.....	98
	2010.....	100
	2011.....	98
	2013-16.....	100
(w/2.7L).....	2017.....	150
(w/o 2.7L).....	2017.....	100
Mustang.....	2001-05.....	95
	2006-10.....	98
	2011.....	100
	2013-14.....	100
	2015-17.....	150
Police Interceptor		
Sedan.....	2013-17.....	110
Special Service		
Police SE.....	2014-17.....	110
Taurus.....	2001-07.....	95
	2010-11.....	100
	2013-17.....	100
Taurus/Taurus X.....	2008-09.....	98
Thunderbird.....	2002-05.....	100
Windstar.....	2001-03.....	100
Zx2 (Escort Coupe)		
(w/Aluminum		
wheels).....	2001-03.....	74-100
(w/Steel wheels).....	2001-03.....	66-87

FORD TRUCKS

E150.....	2001-06.....	100
	2007.....	140
E250.....	2001-07.....	140
E350.....	2001-07.....	140
E450.....	2001-07.....	140
E550.....	2002.....	150-165
E150/250/350/450		
Conical lug nut.....	2008-15.....	150
	2016.....	148
Two piece lug nut...	2008-17.....	140
Escape.....	2001-07.....	98
	2008-17.....	100
Excursion.....	2001-04.....	150-165
	2005.....	150

Make/ Model	Year	Lug nut torque ft-lbs
FORD TRUCKS - cont.		
Expedition		
(w/12mm).....	2001-02	100
(w/14mm).....	2001-02	150
	2003-17	150
Explorer	2001-17	100
Explorer Sport Trac	2001-10	100
F150		
(w/14mm lugs).....	2001-04	150
(w/12 mm lugs).....	2001-04	100
	2005-17	150
F250/350/450/550	2001-04	150-165
	2005-08	150
	2009-17	165
Police Interceptor		
Utility	2013-17	110
Ranger	2001-11	100
Transit Connect.....	2010	66
	2011-17	100
Transit-150/250/350	2015-17	148
GENESIS		
G80.....	2017	65-79
G90.....	2017	79-94
GMC TRUCKS		
All.....	2013-17	140
Acadia	2007-12	140
C3500HD.....	2001-02	140
Canyon.....	2004-12	100
Envoy	2002-09	100
G1500 Van.....	2001-02	140
Jimmy	2005	100
Safari Van.....	2001-02	100
	2003-05	140
Savana 1500/2500/ 3500/4500	2001-12	140
Sierra 1500/2500	2001-12	140
Sierra 3500	2001-12	140
Sonoma.....	2001-04	100
S-Series Jimmy.....	2001-04	100
Terrain.....	2010-12	140
Yukon/Yukon XL.....	2001-12	140
HONDA		
Accord	2001-17	80
Accord Crosstour	2010-15	80
Civic	2001-17	80
CR-V.....	2001-17	80

Make/ Model	Year	Lug nut torque ft-lbs
HONDA - cont.		
CR-Z.....	2011-17	80
Element.....	2003-11	80
Fit.....	2007-17	80
HR-V.....	2016-17	80
Insight	2001-06	80
	2010-14	80
Odyssey	2001-04	80
	2005-17	94
Passport	2001-02	87
Pilot	2003-08	80
	2009-17	94
Prelude	2001	80
Ridgeline.....	2006-14	94
	2017	94
S2000.....	2001-09	80
HYUNDAI		
All.....	2001	65-80
	2010-16	65-80
Accent	2002-09	65-80
	2017	65-80
Azera	2006-09	65-80
	2017	65-80
Elantra	2002-09	65-80
	2017	79-94
Elantra GT.....	2017	65-80
Entourage	2007-08	65-80
Genesis	2009	65-80
Santa Fe.....	2002-09	65-80
	2017	65-80
Sonata	2002-09	65-80
	2017	65-80
Tiburon.....	2003-08	65-80
Tucson.....	2005-09	65-80
	2017	79-94
Veloster.....	2017	65-80
Veracruz	2007-09	65-80
XG350	2002-05	65-80
INFINITI		
EX35	2008-12	80
EX37	2013	80
FX35.....	2003-12	80
FX37.....	2013	80
FX45.....	2003-08	80
FX50.....	2009-13	80
G20.....	2001	72-87
	2002	80
G25.....	2011-12	80

Make/ Model	Year	Lug nut torque ft-lbs
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INFINITI - cont.

G35.....	2003-08.....	80
G37.....	2008-13.....	80
I30.....	2001.....	72-87
I35.....	2002-04.....	80
JX35.....	2013.....	83
M35.....	2006-10.....	83
M35h.....	2012-13.....	80
M37.....	2011-13.....	80
M45.....	2003-10.....	80
M56.....	2011-13.....	80
Q40.....	2015.....	80
Q45.....	2001-06.....	80
Q50.....	2014-17.....	80
Q60.....	2014-15.....	80
	2017.....	80
Q70/Q70L.....	2014-17.....	80
QX4.....	2001-03.....	98
QX30.....	2017.....	96
QX50.....	2014-17.....	80
QX56.....	2004-13.....	98
QX60.....	2014-17.....	83
QX70.....	2014-17.....	80
QX80.....	2014-17.....	98

ISUZU

All.....	2005-08.....	103
Ascender.....	2003-04.....	103
Axiom/Rodeo/ Rodeo Sport (w/Aluminum wheels).....	2001-04.....	87
(w/Steel wheels).....	2001-04.....	65
Trooper.....	2001-02.....	87
Vehicross.....	2001.....	87

JAGUAR

All.....	2001.....	94
	2009.....	92
	2011-13.....	92
F-Pace (Stage 1).....	2017.....	3
(Stage 2).....	2017.....	52
(Stage 3).....	2017.....	92
F-Type (Stage 1).....	2014-17.....	3
(Stage 2).....	2014-17.....	52
(Stage 3).....	2014-17.....	92
S-Type.....	2002-08.....	94

Make/ Model	Year	Lug nut torque ft-lbs
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JAGUAR - cont.

X-Type (w/Aluminum wheels).....	2002-08.....	76
(w/Steel wheels).....	2002-08.....	59
XE (Stage 1).....	2017.....	3
(Stage 2).....	2017.....	52
(Stage 3).....	2017.....	92
XF (Stage 1).....	2016-17.....	3
(Stage 2).....	2016-17.....	52
(Stage 3).....	2016-17.....	92
XF/XFR.....	2010.....	85-100
XF/XFR/XFR-S.....	2014-15.....	92
XJ.....	2010.....	92
XJ/XJR.....	2014-17.....	92
XJ8/XJR.....	2002-03.....	65-75
	2004-08.....	92
XK.....	2010.....	92
XK/XKR.....	2007-08.....	92
XK/XKR/XKR-S.....	2014-15.....	92
XK8/XKR.....	2002-06.....	75
XKR.....	2010.....	85-100

JEEP

All.....	2001-06.....	85-115
Cherokee.....	2014-17.....	100
Commander.....	2007-10.....	85-115
Compass/Patriot.....	2007-17.....	100
Grand Cherokee.....	2007-10.....	85-115
	2011-13.....	110
	2014.....	130
Non SRT models.....	2015-17.....	130
SRT models.....	2015-17.....	110
Liberty.....	2007-12.....	85-115
Renegade.....	2015-17.....	89
Wrangler.....	2007-13.....	95
	2014-17.....	100

KIA

All.....	2010-16.....	65-80
Amanti.....	2004-06.....	65-86
	2007-09.....	65-80
Borrego.....	2009.....	65-80
Cadenza.....	2017.....	65-80
Forte/Forte5.....	2017.....	65-80
K900.....	2017.....	65-80
Niro.....	2017.....	80-94

Make/ Model	Year	Lug nut torque ft-lbs
KIA - cont.		
Optima.....	2001-05	65-80
	2006	67-81
	2007-09	65-80
	2017	65-80
Rio.....	2001-05	65-87
	2006-08	65-79
	2009	65-80
	2017	65-80
Rio Cinco.....	2002-05	65-87
Rio5.....	2006-09	65-80
Rondo.....	2007-09	65-80
Sedona	2002-06	65-79
	2007-09	65-80
	2017	65-80
Sephia.....	2001	65-87
Sorento.....	2003-09	65-86
	2017	65-80
Soul/Soul EV	2017	65-80
Spectra		
(w/1.8L).....	2001-04	65-87
(w/2.0L).....	2004-09	65-80
Spectra5.....	2005-07	65-80
	2008-09	65-86
Sportage	2001-02	76
	2005	81
	2006-09	65-80
	2017	65-80

LAND ROVER

All.....	2006-07	103
Discovery.....	2001-04	103
Discovery Sport.....	2015-17	98
Freelander.....	2002-05	85
LR2.....	2008-15	98
LR3.....	2005	103
	2008-09	103
LR4.....	2010-16	103
Range Rover.....	2001-02	80
	2003-05	103
Range Rover Evoque .	2012-17	98
Range Rover/ Range Rover Sport.	2008-17	103

LEXUS

CT200h.....	2011-17	76
ES300.....	2001-03	76
ES300h.....	2013-17	76
ES330.....	2004-06	76
ES350.....	2007-17	76

Make/ Model	Year	Lug nut torque ft-lbs
LEXUS - cont.		
GS F.....	2016-17	76
GS200t/GS Turbo.....	2016-17	76
GS300	2001-06	76
GS350	2007-11	76
	2013-17	76
GS430	2001-07	76
GS450h.....	2007-11	76
	2013-17	76
GS460	2008-11	76
GX460.....	2010	83
	2011	82
	2012-13	83
	2014-15	82
	2016-17	76
GX470.....	2003-09	83
HS250h.....	2010-12	76
IS200t/IS Turbo.....	2016-17	76
IS250	2006-15	76
IS300	2001-05	76
	2016-17	76
IS300		
SPORTCROSS.....	2002-04	76
IS350	2006-17	76
IS-F	2008-14	76
LS430.....	2001-06	76
LS460.....	2007-17	103
LS600h	2016	103
LS600h L.....	2008-09	100
	2010-15	103
LX470.....	2001-07	97
LX570.....	2008-11	97
	2013-17	97
NX200t.....	2015-17	76
NX300h.....	2015-17	76
RC F.....	2015-17	76
RC200t.....	2016-17	76
RC300	2016-17	76
RC350	2015-17	76
RX300	2001-03	76
RX330	2004-06	76
RX350	2007-17	76
RX400h.....	2006-08	76
RX450h.....	2010-17	76
SC430.....	2002-10	76

LINCOLN

Aviator.....	2003-05	100
Blackwood	2002	148
Continental	2001-02	95
	2017	162

Make/ Model	Year	Lug nut torque ft-lbs
LINCOLN - cont.		
LS.....	2001-06	100
Mark LT.....	2006-08	150
MKC.....	2015-17	100
MKS.....	2009-11	98
	2012-16	100
MKT.....	2010-12	100
(Limo Body).....	2013-17	150
(Standard Body)	2013-17	100
MKX.....	2007-15	100
	2016-17	162
MKZ.....	2007-09	98
	2010	100
	2011	98
	2012-16	100
	2017	150
Navigator		
(w/12mm).....	2001-02	100
(w/14mm).....	2001-02	150
	2003-17	150
Navigator L	2007	100
	2008-15	150
Town Car	2001-04	85-105
	2005-11	100
Zephyr.....	2006	98

MAZDA

All.....	2016-17	80-108
626.....	2001-02	65-87
B2300/2500/		
3000/4000	2001-09	100
CX-5.....	2013-15	80-108
CX-7.....	2007-12	65-87
CX-9.....	2007-15	80-108
Mazda2.....	2011-14	65-87
Mazda3.....	2004-13	65-87
	2014-15	80-108
Mazda5.....	2006-10	65-87
	2012-15	65-87
Mazda6.....	2003-13	65-87
	2014-15	80-108
Miata	2001-15	65-87
Millenia	2001	65-94
	2002	65-87
MPV.....	2001-06	80-108
Protege/Protege5.....	2001-03	66-88
RX-8.....	2004-11	65-87
Tribute.....	2001-08	98
	2009-11	100

Make/ Model	Year	Lug nut torque ft-lbs
MERCEDES-BENZ		
AMG GT/S.....	2016-17	133
B Electric Drive	2014-15	96
B250e.....	2016-17	96
C32 AMG.....	2002-04	81
C43 AMG.....	2017	96
C55 AMG.....	2005-06	81
C63 AMG/S.....	2008-17	96
C230	2002-07	81
C240	2001-05	81
C250	2012	96
(w/Code 98).....	2013-15	133
(w/o Code 98).....	2013-15	96
C280	2006-07	81
C300	2008-12	96
(w/Code 98).....	2013-14	133
(w/o Code 98).....	2013-14	96
	2015-17	96
C320	2001-05	81
C350	2006-07	81
	2008-15	96
C350e.....	2016-17	96
C400	2015	96
C450 AMG	2016	96
CL55 AMG.....	2001-06	110
CL63 AMG.....	2008-14	110
CL65 AMG.....	2005-06	110
	2008-14	110
CL500.....	2001-06	110
CL550.....	2007-14	110
CL600.....	2001-14	110
CLA Class	2014-17	96
CLK55 AMG	2001-06	81
CLK63 AMG	2007-08	81
	2009	80
CLK320	2001-05	81
CLK350	2006-09	81
CLK430	2001-03	81
CLK500	2003-06	81
CLK550	2007-09	81
CLS55 AMG	2006	95
CLS63 AMG	2007-09	95
	2010-14	96
CLS63 AMG S	2014-17	96
CLS400	2015-17	96
CLS500	2006	96
CLS550	2007-09	95
	2010-17	96
E43 AMG.....	2017	111
E55 AMG.....	2001-02	81
	2003-06	95
E63 AMG.....	2007-11	95

Make/ Model	Year	Lug nut torque ft-lbs
MERCEDES-BENZ - cont.		
E63 AMG/S.....	2012-17	96
E250	2014-16	96
E300	2017	111
E320		
(Wagon 4Matic).....	2001-03	81
(Sedan).....	2003	95
	2004-05	95
	2007-09	95
E320 CDI.....	2005-06	95
E350	2006-11	95
	2012-16	96
E400	2013-17	96
E430	2001-02	81
E500	2003-06	95
E550	2007-11	95
	2012-17	96
G55		
(Alloy wheels).....	2003-05	96
(Steel wheels).....	2003-05	132
	2006-11	96
G63 AMG.....	2013-17	96
G65 AMG.....	2016-17	96
G500		
(Alloy wheels).....	2002-05	96
(Steel wheels).....	2002-05	132
	2006	96
	2007-08	96
G550	2009-17	96
GL Class.....	2007-16	110
GLA Class	2015-17	96
GLC Class.....	2016-17	111
GLE Class	2016-17	111
GLK250	2013-15	96
GLK350	2010-15	110
GLS Class	2017	111
Maybach S550		
(w/Code Z07).....	2017	133
(w/o Code Z07)	2017	111
Maybach S600	2016-17	110
Metris		
(w/Aluminum		
wheels).....	2016-17	133
(w/Steel wheels).....	2016-17	148
ML Class	2001-15	110
R Class	2006-12	110
S55 AMG.....	2001-06	110
S63 AMG.....	2008-17	110
S65 AMG.....	2006-13	110
	2015-17	110
S350	2006	110
	2012-13	110

Make/ Model	Year	Lug nut torque ft-lbs
MERCEDES-BENZ - cont.		
S400	2010-13	110
S430	2001-06	110
S500	2001-06	110
S550	2007-17	110
S550E		
(w/Code Z07).....	2015-17	133
(w/o Code Z07)	2015-17	111
S600	2001-13	110
	2015-17	110
SL55	2003-08	95
SL63 AMG.....	2009	95
	2011-17	96
SL65 AMG.....	2005-09	95
	2011	96
	2013-17	96
SL400.....	2015-16	96
SL450.....	2017	96
SL500.....	2001-02	81
	2003-06	95
SL550.....	2007-09	95
	2011-17	96
SL600.....	2001-02	81
	2004-09	95
SLC43 AMG	2017	96
SLC300	2017	96
SLK32 AMG	2002-04	81
SLK55 AMG.....	2005	80
	2006-10	81
	2012-16	96
SLK230	2001-04	81
SLK250	2012-15	96
SLK280	2006-08	81
SLK300	2009	110
	2010-11	81
	2016	96
SLK320	2001-04	81
SLK350	2005	80
	2006-08	81
	2009	110
	2010-11	81
	2012-16	96
Sprinter 2500		
(Alloy wheels).....	2010	133
(Steel wheels).....	2010	177
Sprinter 2500/3500	2011-12	177
(w/Aluminum		
wheels)	2013-17	133
(w/Steel wheels).....	2013-17	177
Sprinter 3500.....	2010	133

Make/ Model	Year	Lug nut torque ft-lbs
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MERCURY

All.....	2010	100
Cougar	2001-02	94
Grand Marquis.....	2001-02	85-105
	2003-11	100
Marauder	2003-04	100
Mariner.....	2005-07	98
	2008-09	100
	2011	100
Milan	2006-09	98
	2011	98
Montego	2005-07	100
Monterey.....	2004-07	100
Mountaineer.....	2001-09	100
Sable	2001-05	95
	2008-09	98
Villager.....	2001-02	80

MINI

Cooper	2002	72
	2003-06	89
	2007-17	103
Cooper Clubman	2016-17	103
Cooper Countryman.....	2011-13	103
	2014-16	96-111
	2017	103
Cooper Paceman.....	2013	103
	2014-16	96-111

MITSUBISHI

All.....	2010-13	66-80
	2016	66-80
Diamante	2001-04	65-80
Eclipse.....	2001-09	66-80
Endeavor.....	2004-08	66-80
Galant.....	2001-02	66-81
	2003-09	66-80
I-MIEV.....	2014	66-80
	2017	66-80
Lancer.....	2002-09	66-80
	2014-15	66-80
	2017	66-80
Mirage.....	2001-02	65-80
	2014-15	65-79
Mirage/Mirage G4	2017	65-79
Montero.....	2001-06	72-87
Montero Sport.....	2001-04	72-87
Outlander	2003-09	66-80

Make/ Model	Year	Lug nut torque ft-lbs
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MITSUBISHI - cont.

Outlander/ Outlander Sport.....	2014-15	66-80
	2017	66-80
Raider.....	2006-09	125-145

NISSAN / DATSUN

350Z.....	2003-05	73-93
	2006-09	80
370Z.....	2009-17	80
Altima.....	2001	73-86
	2002-06	80
	2007-17	83
Armada.....	2005-15	98
	2017	98
Cube.....	2009-14	80
Frontier.....	2001-04	87-108
	2005-17	98
GT-R (NISMO).....	2015-17	114
GT-R Non NISMO	2009-17	97
Juke.....	2011-17	80
Leaf.....	2011-17	80
Maxima.....	2001-08	80
	2009-14	83
	2016-17	83
Murano.....	2003-07	80
	2009-17	80
NV200.....	2013-17	83
NV1500/2500/3500.....	2012-17	138
Pathfinder	2001-04	87-108
	2005-12	98
	2013-17	83
Pathfinder Armada....	2004	98
Quest.....	2001-02	72-87
	2004-09	83
	2011-17	80
Rogue.....	2008-13	80
	2014-17	83
Rogue Select	2014-15	83
Sentra	2001	73-86
	2002-10	80
	2011-17	83
Titan.....	2004-15	98
	2017	98
TITAN XD.....	2016-17	131
Versa/Versa Note	2007-17	83
Xterra	2001-04	87-108
	2005-15	98
X-trail.....	2005-06	83

Make/ Model	Year	Lug nut torque ft-lbs
OLDSMOBILE		
All.....	2001-02	100
Alero.....	2003-04	100
Aurora.....	2003	100
Bravada.....	2003-04	100
Silhouette Van.....	2003-04	100
PLYMOUTH		
Neon.....	2001	100
Prowler.....	2001	100
PONTIAC		
All.....	2001-02	100
Aztek.....	2003-05	100
Bonneville.....	2003-05	100
G3.....	2009-10	88
G5.....	2007-09	100
G6.....	2005-10	100
G8.....	2008-09	125
Grand Am.....	2003-05	100
Grand Prix.....	2003-08	100
GTO.....	2004-06	100
Montana.....	2003-05	100
Montana SV6.....	2005-09	100
Pursuit.....	2005-06	100
Solstice.....	2006-09	100
Sunfire.....	2003-05	100
Torrent.....	2006-09	100
Vibe.....	2003-10	76
Wave.....	2005-07	81
PORSCHE		
All.....	2001-02	96
	2007	96
718 Boxster.....	2017	118
718 Cayman.....	2017	118
911.....	2003-06	96
	2008-11	96
	2012-17	118
Boxster.....	2003-06	96
	2008-11	96
	2012-16	118
Cayenne.....	2003-06	118
	2008-10	118
	2011	—
	2012-13	118
	2014-17	133

Make/ Model	Year	Lug nut torque ft-lbs
PORSCHE - cont.		
Cayman.....	2006	96
	2008-11	96
	2012	118
	2014-16	118
Macan.....	2015-17	118
Panamera.....	2010-16	133
	2017	118
RAM TRUCKS		
1500 Pickup.....	2011	130
	2012-15	135
(Cone style nut).....	2016-17	130
(Flanged style nut).	2016-17	140
2500 Pickup		
Front.....	2011	130
Rear.....	2011	140
Front.....	2012-17	135
Rear.....	2012-17	150
3500 Pickup		
Front.....	2011	130
Single Rear.....	2011	140
Dual Rear.....	2011	145
Front.....	2012-17	135
Single Rear.....	2012-17	150
Dual Rear.....	2012-17	145
4500/5500 Pickup ..	2011-17	145
Cargo Van.....	2012-15	100
Dakota.....	2011	125-145
Promaster		
1500/2500/3500..	2014-17	146
Promaster City		
(w/Aluminum		
wheels).....	2015-17	89
(w/Steel wheels).....	2015-17	64
SAAB		
9-2x.....	2005-06	65.7
9-3.....	2001-08	81
	2009	80
9-3/9-3x.....	2010-11	81
9-4x.....	2011	110
9-5.....	2001-09	80
	2010-11	110
9-7x.....	2005	100
	2006-09	103

Make/ Model	Year	Lug nut torque ft-lbs
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SATURN

All.....	2006	100
Astra.....	2008-09	81
Aura.....	2007-10	100
Ion.....	2003-05	100
	2007	100
L 100/200/ 300 Series.....	2001-05	92
Outlook.....	2007	125
	2008-10	140
Relay.....	2005	100
	2007	100
S-Series	2001-02	103
Sky.....	2007-10	100
Vue.....	2002-05	100
	2007-10	100
Wagon.....	2001	100

SCION

All.....	2004-12	76
FR-S.....	2013-16	89
IA.....	2016	76
IM.....	2016	76
iQ.....	2013-15	76
TC.....	2013-16	76
xB.....	2013-15	76
xD.....	2013-14	76

SMART

All.....	2008-15	81
	2017	77
Fortwo (Electric Model).....	2016	81
Fortwo (Gas Model) ..	2016	77

SUBARU

All.....	2001-02	58-72
B9 Tribeca.....	2006-07	81
Baja	2003-06	80
BRZ.....	2013-17	89
Crosstrek	2016-17	89
Forester	2003	58-72
	2004-09	65
	2010-13	74
	2014-15	89
	2016-17	89

Make/ Model	Year	Lug nut torque ft-lbs
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SUBARU - cont.

Impreza	2003	58-72
	2004-06	65
	2007-12	74
	2013-14	89
	2015-17	89
Legacy.....	2003	58-72
	2004-05	65
	2006	81
Legacy/Outback.....	2007-17	89
Outback	2003	58-72
	2004-05	65
	2006	81
Tribeca (Chrome Plated wheels)	2008-10	89-111
(w/Aluminum wheels)	2008-10	74-89
	2011-12	81
(w/Chrome wheels). 2013-14		111
(w/o Chrome wheels) 2013-14		88.5
WRX/WRX STi.....	2015-17	89
XV Crosstrek.....	2013-16	89

SUZUKI

Aerio.....	2002-07	61.5
Aerio SX.....	2002-06	61.5
Equator.....	2009-12	98
Esteem.....	2001-02	61.5
Forenza.....	2004	74
	2005-08	88
Grand Vitara	2001-13	72.5
Kizashi.....	2010-13	103.5
Reno.....	2005-08	88
Swift.....	2001	47
SX4.....	2007-13	61.5
Verona	2004-06	81
Vitara.....	2001-04	72.5
XL 7	2001-06	72.5
	2007-08	100
	2009	72.5

TOYOTA

4-Runner	2001-11	83
	2012-15	81
(w/Aluminum wheels)	2016-17	76
(w/o Aluminum wheels)	2016-17	83
86	2017	89

Make/ Model	Year	Lug nut torque ft-lbs
TOYOTA - cont.		
Avalon.....	2001-17	76
Camry.....	2001-17	76
Celica.....	2001-05	76
Corolla.....	2001-17	76
Corolla IM.....	2017	76
Echo.....	2001-05	76
FJ Cruiser.....	2007-10	85
	2011-14	82
Highlander	2001-17	76
Land Cruiser	2001-07	97
(w/Aluminum wheels).....	2008-10	97
(w/Steel wheels).....	2008-10	154
	2011	97
	2013-17	97
Matrix.....	2003-14	76
Mirai	2016-17	76
MR2.....	2001-05	76
Prius.....	2001-17	76
Prius C.....	2012-17	76
Prius Plug-in.....	2012-15	76
Prius Prime.....	2017	76
Prius V.....	2012-17	76
RAV4.....	2001-17	76
Sequoia.....	2001-07	83
(w/Aluminum wheels).....	2008-17	97
(w/Steel wheels).....	2008-17	154
Sienna Van.....	2001-09	77
	2010-17	76
Solara.....	2001-08	76
Tacoma.....	2001-04	83
	2005-10	85
	2011-17	83
Tundra.....	2001-06	83
(w/Aluminum wheels).....	2007-17	97
(w/Steel wheels).....	2007-17	154
Venza	2009-15	76
Yaris.....	2006-17	76
Yaris IA.....	2017	94
VOLKSWAGEN		
Beetle.....	2001-10	89
	2012-17	103
Cabrio.....	2001-02	89
CC.....	2009-17	89
E-Golf.....	2015-16	89
Eos.....	2007-16	89
Eurovan	2001-03	125

Make/ Model	Year	Lug nut torque ft-lbs
VOLKSWAGEN - cont.		
GLI.....	2008-09	89
Golf.....	2001-06	89
	2010-17	89
Golf Alltrack.....	2017	89
Golf Sportwagen	2015-17	89
GTI.....	2001-17	89
Jetta	2001-17	89
Passat.....	2001-10	89
	2012-17	103
Phaeton.....	2004-06	89
R32.....	2004	89
	2008	89
Rabbit.....	2006-09	89
Routan.....	2009-12	100
Tiguan (AWD).....	2009-17	89
Tiguan (FWD).....	2009-17	103
Touareg.....	2004-17	133
VOLVO		
C30.....	2008	96
	2010-11	81
	2012	96
	2013	81
C30/C70 (w/Recessed flange). 2009		96
(w/o Recessed flange).....	2009	81
C70.....	2001-04	81
	2006-08	96
	2010-11	81
	2012	96
	2013	81
Cross Country.....	2001-02	100
S40.....	2001-07	81
	2008	96
(w/Recessed flange). 2009		96
(w/o Recessed flange).....	2009	81
	2010-11	81
S60.....	2001-09	103
S60/S60 Cross Country (Stage 1).....	2011-17	15
(Stage 2)	2011-17	103
S60R.....	2004-07	103
S80.....	2001-06	103
(Stage 1)	2007-16	15
(Stage 2)	2007-16	103

Make/ Model	Year	Lug nut torque ft-lbs
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Make/ Model	Year	Lug nut torque ft-lbs
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VOLVO - cont.

S90/V90		
(Stage 1).....	2017	3
(Stage 2).....	2017	37
(Stage 3).....	2017	103
V40.....	2001-02	103
	2003-04	81
V50.....	2005-07	81
	2008	96
(w/Recessed flange).	2009	96
(w/o Recessed flange).....	2009	81
	2010-11	81
V60/V60		
Cross Country		
(Stage 1).....	2015-17	15
(Stage 2)	2015-17	103
V70.....	2001-07	103
(Stage 1).....	2008-10	15
(Stage 2).....	2008-10	103
V70R.....	2004-07	103
XC60		
(Stage 1).....	2010-17	15
(Stage 2)	2010-17	103
XC70	2003-07	103
(Stage 1).....	2008-16	15
(Stage 2)	2008-16	103
XC90	2003-14	103
	2016-17	103

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