TORQUE SPECIFICATION

030P1-02

Part Tightened	N⋅m	kgf⋅cm	ft·lbf
Cylinder head cover No. 2 x Cylinder head cover sub-assy	7.0	71	62 in.·lbf
Camshaft bearing cap No. 3 x Cylinder head sub-assy	13	133	10
Camshaft bearing cap No. 1 x Cylinder head sub–assy	23	235	17
Camshaft timing gear or sprocket x Camshaft No. 2	54	551	40
Chain tensioner assy No. 1 x Timing chain or belt cover sub-assy	9.0	92	80 in.·lbf
V-ribbed belt tensioner assy x Cylinder head sub-assy	29	296	21
V-ribbed belt tensioner assy x Cylinder block sub-assy	69	704	51
Engine mounting insulator RH x Body	52	530	38
Engine mounting insulator RH x Transverse engine engine mounting bracket	52	530	38
Cylinder head cover sub–assy x Cylinder head sub–assy A	11	112	8
See page 14–5) B	9.0	92	80 in.·lbf
Cylinder head cover sub-assy x Timing chain or belt cover sub-assy	11	112	8
gnition coil assy x Cylinder head cover sub–assy	9.0	92	80 in.·lbf
Engine wire x Cylinder head cover sub-assy	9.0	92	80 in.·lbf
Engine hanger x Cylinder head sub-assy	38	387	28
Radio setting condenser x Cylinder head sub–assy	10	102	7
Engine coolant temperature sensor x Cylinder head sub-assy	20	204	15
Exhaust manifold x Cylinder head sub-assy	37	377	27
Exhaust manifold heat insulator No. 1 x Exhaust manifold	18	184	13
Manifold stay x Exhaust manifold	49	500	36
Manifold stay x Cylinder block sub-assy	49	500	36
Knock sensor x Cylinder block sub–assy	20	204	15
Crankshaft position sensor x Timing chain or belt cover	9.0	92	80 in.·lbf
Camshaft position sensor x Cylinder head sub–assy	9.0	92	80 in.·lbf
Nater inlet x Cylinder block sub–assy	11	112	8
Nater by–pass pipe No. 1 x Cylinder block sub–assy	9.0	92	80 in.·lbf
Nater by–pass pipe No. 1 x Cylinder head sub–assy	9.0	92	80 in.·lbf
Dil level gage guide x Water by–pass pipe No. 1	13	133	10
ntake manifold x Cylinder head sub–assy	30	306	22
Flywheel sub-assy x Crankshaft 1st	49	500	36
(see page 14–27) 2nd	Turn 90°	Turn 90°	Turn 90°
Drive plate & ring gear sub-assy x Crankshaft	88	897	65
Transverse engine engine mounting bracket rear x Transverse engine engine mounting insulator rear			
TMMC, NUMMI made	65	663	48
TAKAOKA, TAL made	87	887	64
Transverse engine engine mounting bracket front x Transverse engine en- gine mounting insulator front	52	530	38
Transverse engine engine mounting bracket LH x Transverse engine engine nounting insulator LH	80	816	59
Transverse engine engine mounting bracket RH x Transverse engine engine nounting insulator RH	52	530	38
Front suspension crossmember sub–assy x Body Front	113	1,152	83
See page 14–27) Rear	157	1,601	116
Engine mounting member sub-assy center x Body	39	398	29
Floor panel brace front x Body	30	306	22
Return tube sub-assy x Body Bolt A	5.0	51	44 in.·lbf
See page 14–27) Bolt B	7.8	80	69 in.∙lbf
Cruise control actuator x Cruise control bracket	6.0	61	53 in.·lbf
Air cleaner case x Body	7.0	71	62 in.∙lbf
Air cleaner case x Transverse engine engine mounting bracket LH	7.0	71	62 in.·lbf

2004 COROLLA (RM1037U)

SERVICE SPECIFICATIONS - ENGINE MECHANICAL

Part Tightened	N⋅m	kgf⋅cm	ft·lbf
Battery carrier x Body	13	133	10
Battery clamp sub–assy x Body	5.0	51	44 in.·lbf
Battery clamp sub-assy x Battery clamp bolt	3.5	36	31 in.·lbf
Radiator support upper x Body	19	194	14
Front wheel RH & LH x Front axle hub sub-assy RH & LH	103	1,050	76
Oil strainer sub-assy x Crankshaft bearing cap sub-assy	9.0	92	80 in. Ibf
Oil pan sub-assy x Crankshaft bearing cap sub-assy	9.0	92	80 in.·lbf
Oil pan drain plug x Oil pan sub–assy	37	377	27
Oil filter union x Crankshaft bearing cap sub–assy	30	306	22
Cylinder head sub–assy x Cylinder block sub–assy 1s	t 49	500	36
(See page 14–45) 2nd		Turn 90°	Turn 90°
Camshaft timing gear assy x Camshaft	54	551	40
Oil control valve filter x Cylinder head sub–assy	30	306	22
Camshaft timing oil control valve assy x Cylinder head sub-assy	9.0	92	80 in. Ibf
Oil pump assy x Cylinder block sub-assy	9.0	92	80 in. Ibf
Chain vibration damper No. 1 x Cylinder head sub-assy	9.0	92	80 in.·lbf
Chain vibration damper No. 1 x Cylinder block sub-assy	9.0	92	80 in.·lbf
Chain tensioner slipper x Cylinder block sub-assy	19	189	14
Stud bolt x Timing chain cover sub-assy	5.0	51	44 in. lbf
Timing chain or belt cover sub-assy x Cylinder head sub-assy	13	133	10
Timing chain or belt cover sub–assy x Cylinder block sub–assy		133	10
(See page 14–45)		189	14
Crankshaft pulley x Crankshaft	138	1,407	102
Water pump assy x Timing chain cover sub–assy	9.0	92	80 in.·lbf
(See page 14–45) E	3 11	112	8
Transverse engine engine mounting bracket x Timing chain or belt cover sub-assy	47	479	35
Spark plug x Cylinder head sub-assy	25	255	18
Ventilation valve sub-assy x Cylinder head cover sub-assy	30	306	22
Stud bolt x Cylinder head sub–assy A, D and E	9.5	97	84 in.·lbf
(See page 14–134) B and C	5.0	51	44 in.·lbf
W/ Head taper screw plug No. 2 x Cylinder head sub-assy	44	449	33
Connecting rod cap x Connecting rod 1s	t 20	204	15
(See page 14–147) 2nd	d Turn 90°	Turn 90°	Turn 90°
Crankshaft bearing cap sub–assy x Cylinder block sub–assy 1s		449	33
(See page 14–147) 2nd		Turn 90°	Turn 90°
Others		194	14
Stud bolt x Cylinder block sub–assy A, C, D and E (See page 14–147)		51 112	44 in. lbf
			8
Cylinder block water drain cock sub-assy x Cylinder block sub-assy	25	255	18

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