

**Growlers' BRM Timing Belt Checklist - rev.1**

1	Loosen Rt side front lug bolts	15	line up TDC and cam lock hole and lock crank	27	replace water pump	38	check tensioner position, if OK then remove locks, if not, repeat steps 33-38	48	install serp belt tensioner
2	Jack up and support car with stand	16	install cam lock		<b>(3x 11 ft-lb)</b>		<b>(add 1/8 turn to tensioner nut) (double check snug tight on cam bolts)</b>		<b>(2x 15 ft-lb)</b>
3	remove wheel	17	remove filter holding bracket	28	install tensioner. use 6mm allen to install locking pin. then with pin installed, turn tensioner counter clockwise to loosen. snug tensioner nut to hold it in this position.	39	reinstall middle & lower timing belt covers	49	route serp belt, unpin tensioner
4	remove engine cover	18	support engine from above or below. lift up on motor to remove weight from mount	29	cam pulley hole toward left of opening. route new belt around crank, then WP, then cam.	40	install motor mount bracket	50	install fuel filter mount bracket, reposition filter
5	remove upper intake charge pipe	19	remove motor mount plate	30	cam pulley hole slightly to the left		<b>(3x 33 ft-lb)</b>	51	mix coolant, refill system
6	move fuel filter out of way	20	remove motor mount	31	make sure tensioner tab is in slot	41	reinstall harmonic balancer	52	reinstall top charge piping
7	remove serp belt. pin tensioner	21	remove motor mount bracket (raise & lower motor)	32	reinstall lower roller		<b>(4x 18 ft-lb)</b>	53	double check coolant level. Start car.
8	remove serp belt tensioner	22	loosen tensioner nut. loosen tensioner		<b>(1x 19 ft-lb)</b>	42	install top mount to bracket	54	check torsion value in vcds.engine, meas blk, grp 4 range is (-2.5 - +2.5) shoot for zero to -1.0
9	remove washer fluid res bolt and bend out of way	23	remove idler pulley	33	loosen tensioner nut, remove pin. use 6mm allen to set tensioner.		<b>(2x 74 ft-lb)</b>	55	if adjustment needed, turn off car, loosen 3x cam bolts, rotate big cam bolt clockwise to raise, counterclockwise to lower.
10	cap coolant res and remove	24	remove timing belt		<b>(1x 15 ft-lb)</b>	43	install top mount to car		<b>(resnug cam bolts) then repeat step 54-55 as needed</b>
11	remove belly pan and wheel well liner	25	remove tensioner	34	snug cam pulley bolts		<b>(2x 30 ft-lb + 1/4)</b>	56	reinstall upper TB cover, reinstall charge pipe if needed
12	remove harmonic balancer. 4x 10mm triple square	26	loosen camshaft pulley bolts	35	remove cam lock and crank lock	44	install mount plate	57	install wheel well liner, belly pan, then wheel
13	remove lower timing belt covers			36	rotate engine by 19mm 12-pt on crank bolt 2x around to set belt on pulleys and check for interference		<b>(2x 15 ft-lb + 1/4)</b>	58	lower car then tighten lug bolts
14	remove upper timing belt cover			37	reinsert cam lock and crank lock (loosen cam bolts to line up crank if needed, then snug up cam bolts)	45	remove motor support apparatus		<b>(5x 89 ft-lb)</b>
						46	install coolant bottle and reconnect	59	check coolant level, then install engine cover.
						47	reattach washer bottle neck		<b>DONE!</b>