



## Engine Building Check Lists

### Lower End, Timing Side, List B

Last updated 02/12/04

This check list pertains to reassembling the cam chain, timing the cam, installing the oil pump, etc. after rebuilding the lower end of a Commando motor.

Line No.	Description	Check
1	Clean the timing side of the crank cases if not already done.	.
2	Remove the two oil seals and the pressure release body from the timing cover.	.
3	Clean the timing cover.	.
4	Polish the timing cover (if required).	.
5	Clean out timing cover after polishing.	.
6	Clean out pressure release body.	.
7	Install pressure release with new sealing washers and torque to 25 ft/lbs.	.
8	Install Points oil seal with the spring facing towards the crank cases.	.
9	Install crank oil seal with the spring facing in towards the timing cover and insert the circlip.	.
10	Fit oil sealing disc over the crank shaft.	.
11	Fit cut-away backing washer.	.
12	Fit key and pinion gear with chamfered edge and timing mark facing outward.	.

13	Using a new cam chain, time and fit cam gears. Use Loctite 271 on the cam threads, torque nut to 60 ft/lbs.	.
14	Assemble the chain tensioner using the new rubber faced slipper. Make note: if a pre-MK3 the inner clamping plate is the thin plate. Fitment of the pre-MK3 plates are the inner plate is fitted long end down where the outer plate is fitted long end up. Torque nuts to 15 ft/lbs. Chain movement should be a max of 3/16". Chain movement _____.	.
15	Oil oil pump gasket and fit onto the crank case.	.
16	Prime the oil pump.	.
17	Install the oil pump and worm gear. Worm gear is left hand thread. Torque the worm gear to 15 ft/lbs and the two pump fixing nuts to 12 ft/lbs..	.
18	Install the contact breaker seal alignment tool in the end of the cam and lightly oil.	.
19	Fit the oil pump feed washer to the oil pump.	.
20	Lightly oil the cam chain, gears and sprockets.	.
21	Put gasket sealer on both sides of the timing gasket, the timing cover and the crank case.	.
22	Install the timing cover.	.

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