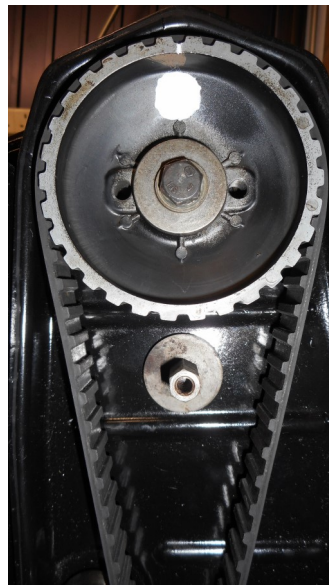




## MOTOR CYCLE, GENERAL PURPOSE, HARLEY - DAVIDSON MT350 TECHNICAL DESCRIPTION

### Rotax 348 Timing Setup



This is intended as a walk through & Guide only to the Setup of the Timing on a Rotax 348 engine.

**This is a guide only please refer to the relevant manuals for full details or ask professional advice if in doubt.**

**This is the writer(s) interpretation of the required steps only and does not take any liability for the accuracy of the information supplied in this publication and it is supplied as is.**



# MT350 TIMING SETUP



## General Tools

13 MM Spanner  
5 & 6 mm Allen Keys  
Torque Wrench 8 to 20 Nm

## Fluids

None

## Specialist Tools

TDC Locking Bolt M8 (P/N 241.965)  
(the crank locking bolt is a M8 bolt with the end of the thread tapered.)



## Required Parts

1x Timing Belt (P/N 280-015) (If Replacing)  
*(Purchase a good quality belt from the usual suppliers cheap belts snap easily)*

**The parts marked \* are the parts that you will need for this procedure.  
Other Parts were changed as general maintenance.**

# MT350 TIMING SETUP



## General Torque Values

Where Torque settings are not detailed the following are a guide.

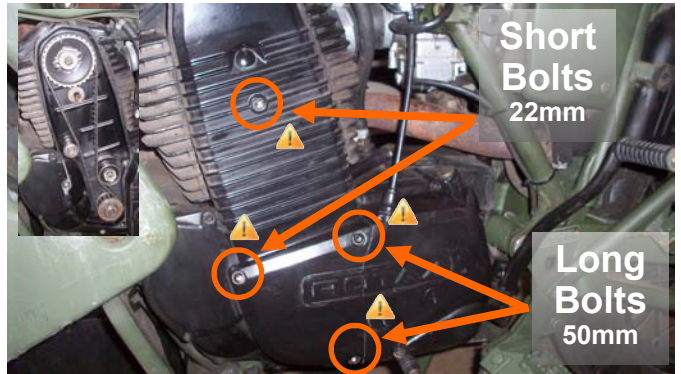
<b>M5</b>	<b>7-8 Nm</b>
<b>M6</b>	<b>11-14 Nm</b>
<b>M8</b>	<b>24-27 Nm</b>
<b>M10</b>	<b>51-54 Nm</b>

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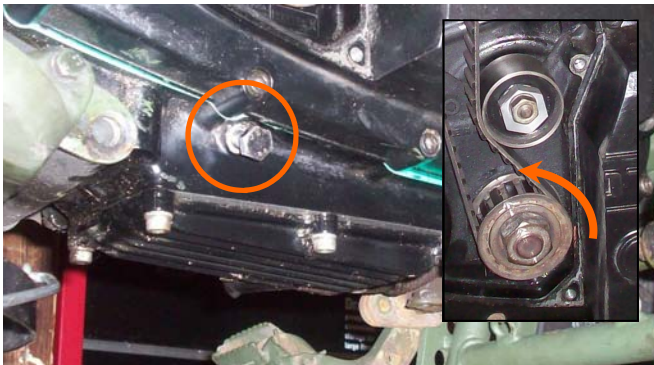
# MT350 TIMING SETUP



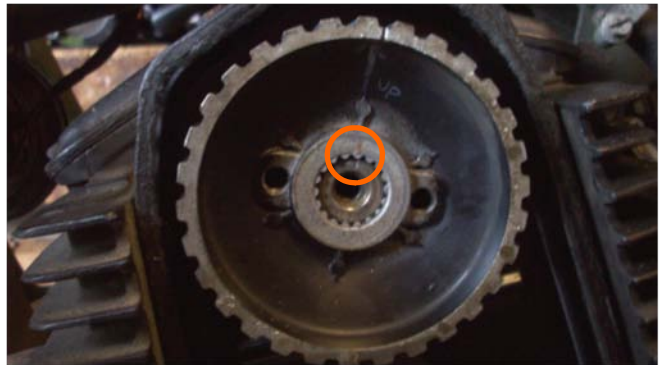
1. Remove the near Side (left) pannier and pannier support bar.



2. Remove the 4 timing cover bolts with a 5mm Allen Key. (**Note:** Screws are Different Lengths)

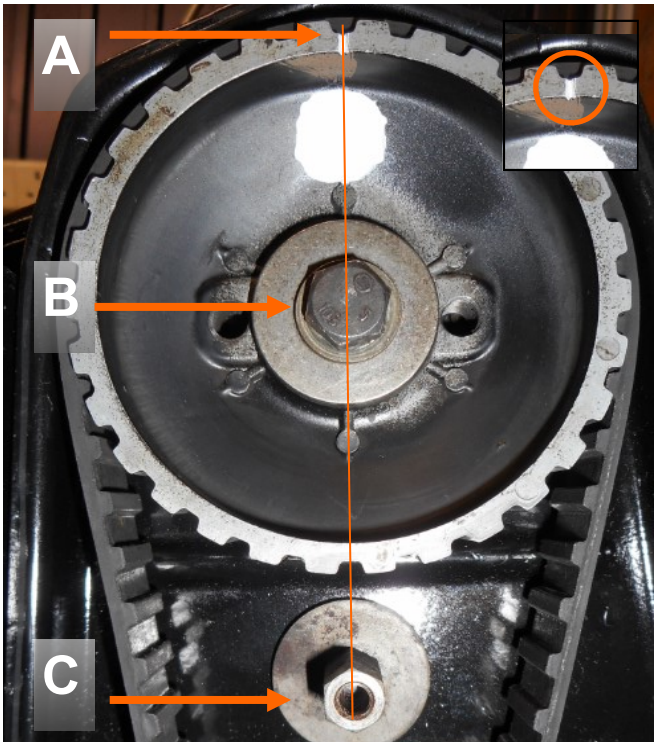


3. Remove the bolt circled above using a 6mm Allen Key . Locate the V in the fly wheel through the hole using a torch (*Put the bike in neutral and use a spanner on the bottom pulley to turn the engine*) and screw in the crank locking bolt.

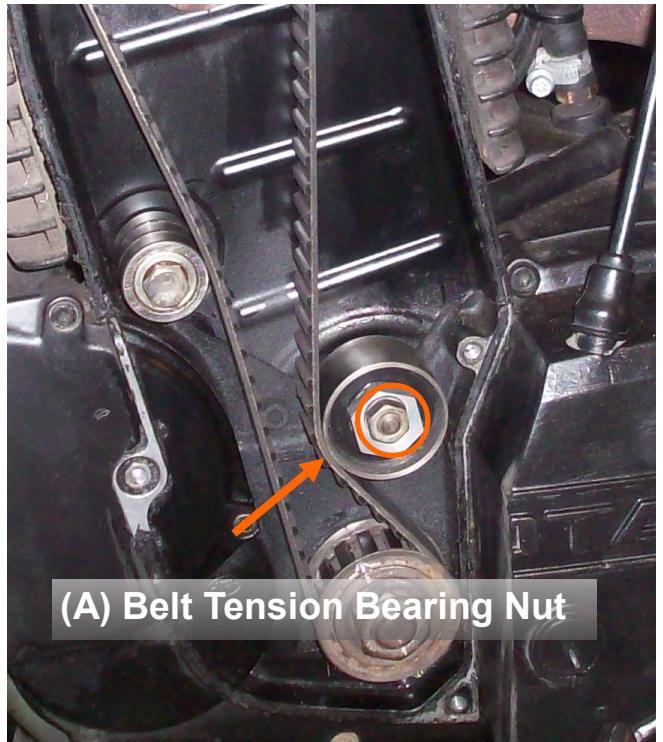


### A1~A3 Additional Visual Check (if required)

There are timing marks on the cam shaft and top pulley. see appendix A for the optional procedure for visual check.



4. Check the alignment of the following;  
The top pulley mark (A),  
Centre of the top pulley bolt (B) and  
Centre of the cover nut (C)



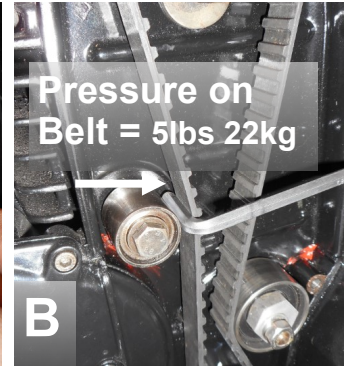
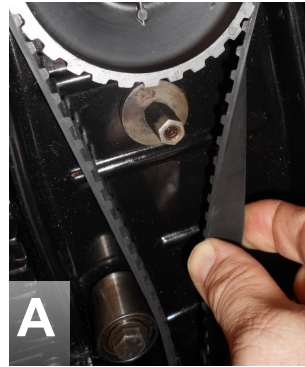
### (A) Belt Tension Bearing Nut

5 If the alignment is out then loosen the timing belt tension bearing Nut (A), slide the belt off the top pulley, align the top pulley and slide the belt back on. (*At this point fit a new belt if required*)

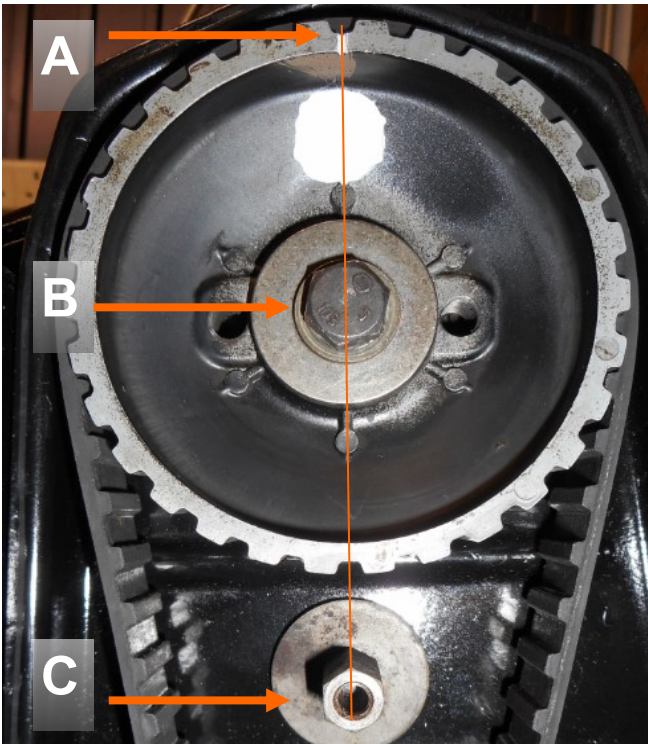
# MT350 TIMING SETUP



7. Apply "**Medium thread lock**" and lightly tighten the nut  
 Adjust the tension of the belt using a spanner on the adjuster while checking the tension (see step 8).  
 When correct, torque up the nut to 18Nm



8. There are two tests I use for the belt tension.  
**A.** Belt can be twisted through 90 Deg between the top pulley and tension bearing.  
**B.** There is a 6mm gap when applying A pressure of 5lbs 22kg against the belt a 6 mm allen key can be used as a gauge.



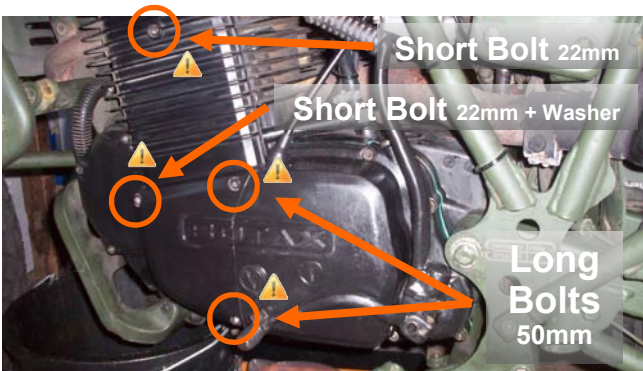
9. Check the alignment one last time;  
 The top pulley mark (A),  
 Centre of the top pulley bolt (B) and  
 Centre of the cover nut (C)



10. Mark the bottom pulley and engine case to allow easy alignment without the locking bolt...



11. **Remove the Fly Wheel Locking Bolt** and replace with the original bolt & Copper Washer.



12. Re fit the Timing Belt cover and tighten the four Allen bolts.



13. Refit the near Side (left) pannier support bar. and pannier



**END OF PROCEDURE**

# MT350 TIMING SETUP

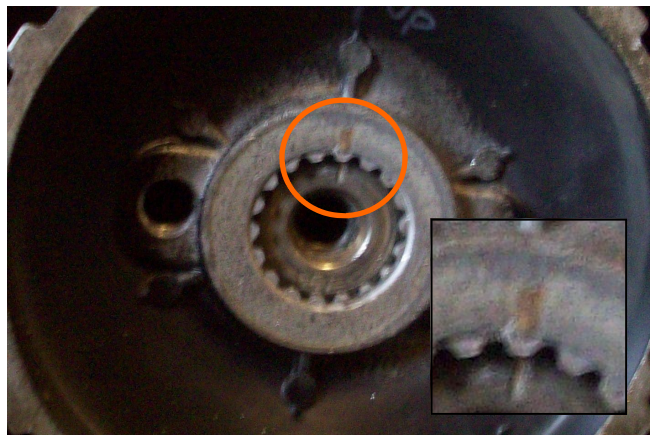


## APPENDIX A

There are alignment marks behind the top pulley bolt & washer to align the pulley with the cam shaft. To check the alignment remove the bolt and carry out a visual inspection.



A1. Remove the Bolt and washers on the top pulley.



A2. Visual inspection to check the two marks line up.



A3. Install the Large Washer, Lock Washer and Nut on the Top Pulley. Note : Put the Timing belt on temporarily to assist in Torquing the Bolt.

**Note: See Slide 5  
for realigning the Top Pulley.**



35 Nm  
26 ft-lb



# MT350 TIMING SETUP



## APPENDIX B

Timing components and alignment.

