

## ***IAG ADJUSTABLE TIMING IDLER KIT FOR EJ20/EJ25 WRX, STI, LGT, FXT***



Step 1/10

### **IAG-ENG-5120 Adjustable Timing Idler Kit for EJ20/EJ25 Subaru WRX, STI, LGT, FXT**

**Part#** IAG-ENG-5120

**Tools Required:** Ratchet, Torque Wrench

**Sockets:** 14mm

**Wrenches:** 10mm

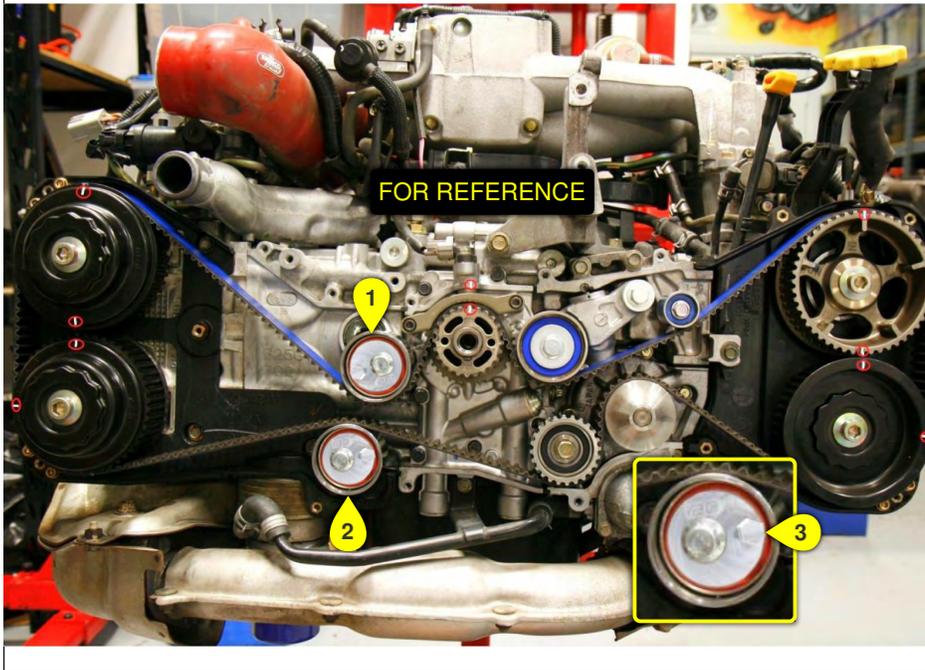
Congratulations on the purchase of your Adjustable Timing Idler Kit and thank you for choosing IAG Performance. This installation manual is intended to guide you through the modification of the factory timing system and the installation of the IAG Adjustable Timing Idler Kit. This installation assumes that you are familiar with the factory timing procedure. If you are not familiar with this procedure please consult the factory service manual for your vehicle. If you do not own the factory service manual you may purchase temporary access at [https://techinfo.subaru.com/stis/#/purchase\\_subscription](https://techinfo.subaru.com/stis/#/purchase_subscription) to aid in your installation.

**Step 2/10****WARNING**

Installation by a certified mechanic, specifically someone well versed in understanding Subaru motor builds, is highly recommended when using this product. At no point in time should these idlers ever be maxed out and used as a means to suffice a poor quality block/heads that have been machined down too far. These idlers should never be used for timing components that are more than 1 tooth out of alignment. A motor that is off by more than 1 tooth has other underlining issues. In addition, inspection of threaded areas that the old idlers came off from is essential. Catastrophic failure can result from performing this job improperly.

**Step 3/10****IMPORTANT INFORMATION**

These parts are designed for long blocks that have been narrowed down from resurfacing the heads during a rebuild or decking the block and/or both. When that process is done it effectively retards the timing, this is because the belt has not changed length and something needs to make up that difference in the slack (the tensioner can only do so much), and likewise if you have different thickness head gaskets, these are perfect in conjunction with that, as the same issue is present (just vice versa, which is a lengthened block). This is what the IAG adjustable timing idlers were designed for, and is only recommended to bring your cams back into proper alignment.



## Step 4/10

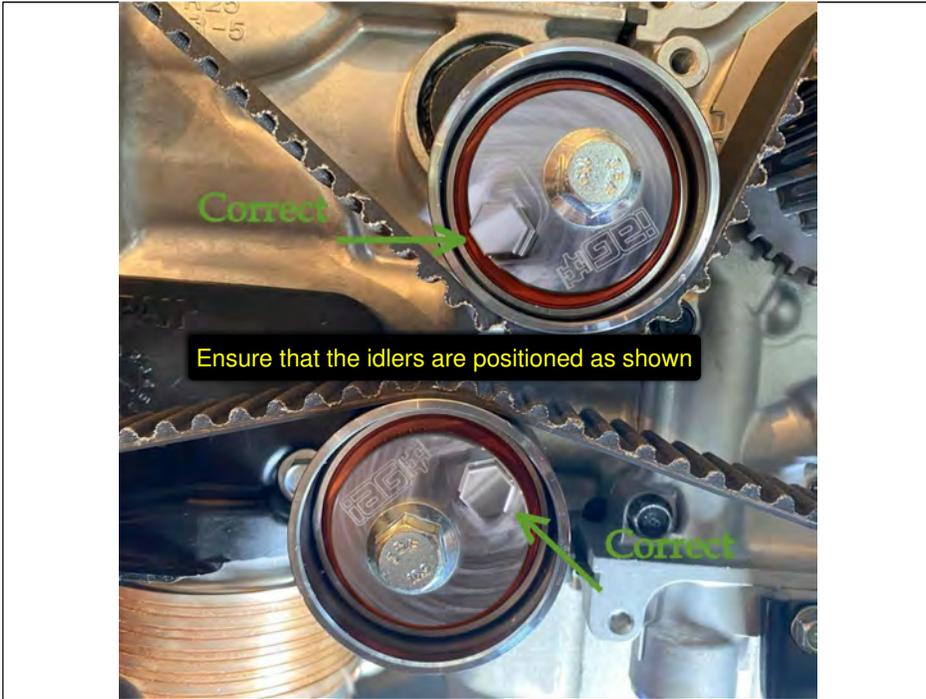
Numbered annotations (3)

- 1 Upper Idler: This upper idler when adjusted effects the RIGHT (Passenger side) intake/exhaust cams.
- 2 Lower Idler: This lower idler when adjusted effects the LEFT (Driver side) intake/exhaust cams.
- 3 10mm Hex: Is there to maintain proper alignment while tightening bolt.

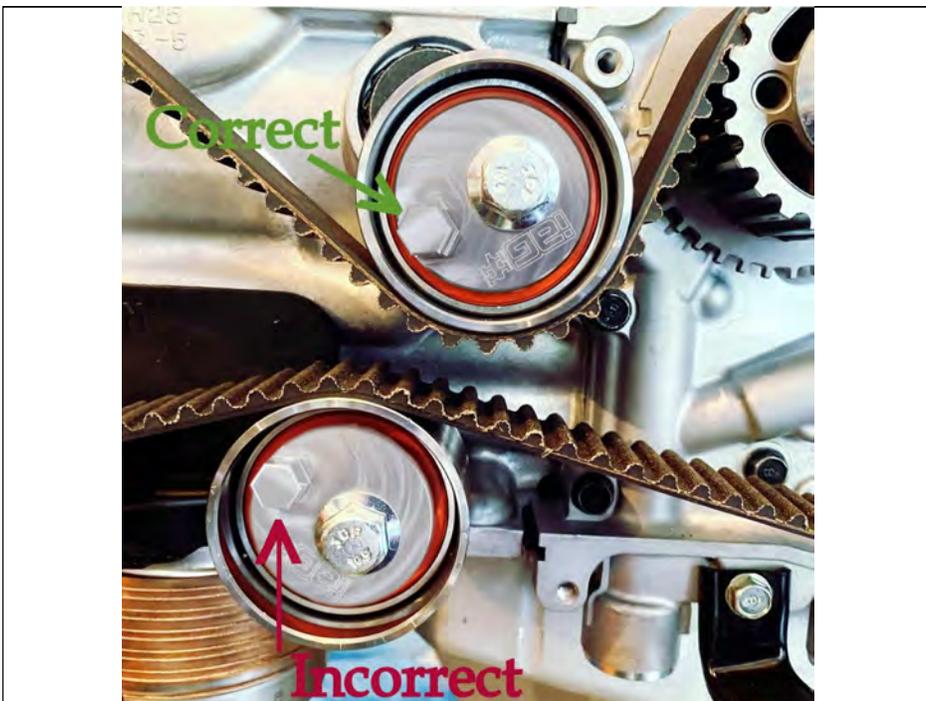
**Install the timing belt per the factory timing procedure. Be careful not turn the cams in the wrong direction of valve damage will occur. If you do not have the factory service manual you may purchase temporary access at <http://techinfo.subaru.com>.**

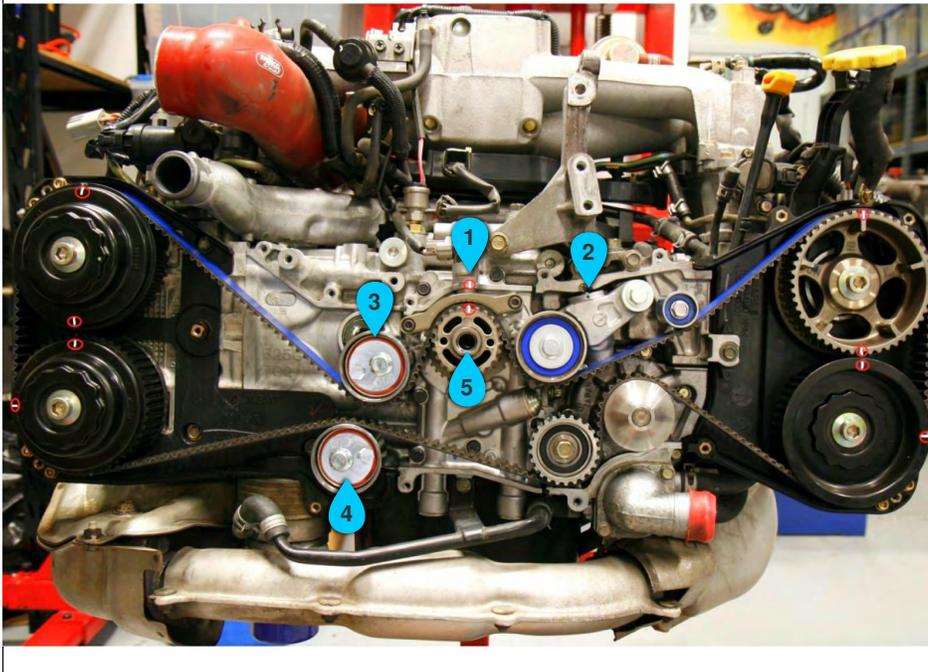
## Step 5/10

Step 6/10



Step 7/10

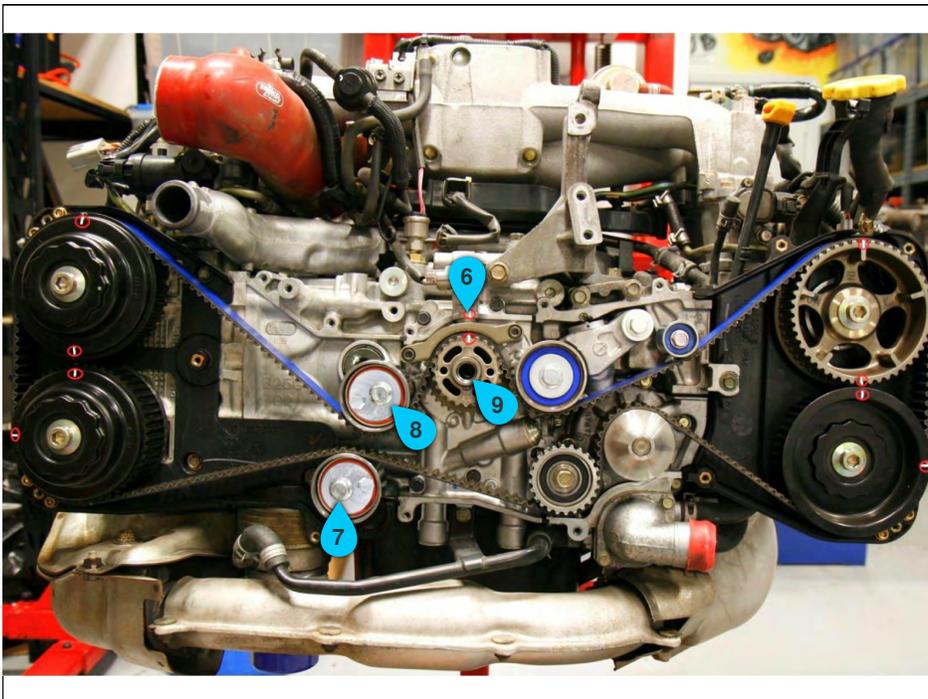




### Step 8/10

Numbered annotations (5)

- 1 Step 1- Crank must always be in proper alignment (this is reference point)
- 2 Step 2- Once proper alignment is confirmed, pull pin on tensioner.
- 3 Step 3- Use a 10mm wrench to adjust upper Idler to align right side cams, snug 14mm bolt.
- 4 Step 4- Use a 10mm wrench to adjust lower idler to align left side cams, snug 14mm bolt.
- 5 Step 5- Rotate crank two full revolutions (clockwise.)



### Step 9/10

Numbered annotations (4)

- 6 Step 6- Stop at crank timing mark, confirm proper alignment. (if cams are not aligned properly, adjust idlers as necessary until proper alignment is obtained.
- 7 Step 7- Torque adjustable idler to 45 ft. lbs.
- 8 Step 7- Torque adjustable idler to 45 ft. lbs.
- 9 Step 8- Confirm accurate timing marks by turning the engine two full revolutions before installing timing covers.

## NOTES:

- **These pulleys are a single roller bearing design**
- **Street cars should replace every 60k miles**
- **Race/Track cars should replace yearly and/or each engine teardown**

## Step 10/10