

MSG425 Fan Bracket and Support Bracket Install

This instruction set is on how to remove the original fan bracket from the MSG425 engine and replace it with a new version with a support bracket.

**Hardware List Kit part # 132277A**

Part #	Description	Qty
132277	New Fan Bracket	1
4060170	Lower Support Bracket	1
161822	Support Bracket to Main Bracket (M8x1.25x20)	2
161830	Longer Pulley Replacement Bolt (M8x1.25x80)	1

**Torque Values**

Item	Bolt Size	Torque
Fan Bracket to Front Cover	M12 x 1.75	57.7 Nm (42.5 lb-ft)
Lower Support to Fan Bracket	M8x1.25x20	25 Nm (18.4 ib-ft)
Lower Support to Idler	M8x1.25x80	25 Nm (18.4 ib-ft)
Bearing assembly to fan bracket	M8 x 1.25	28.55 Nm (21 lb-ft)
Fan to Spacer	M8 x 1.25	28.55 Nm (21 lb-ft)

1. Use a 13mm socket to remove the 4 bolts on the front of the fan



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2. Use a 13mm socket to remove the 2 bolts on the front of the fan bearing bracket

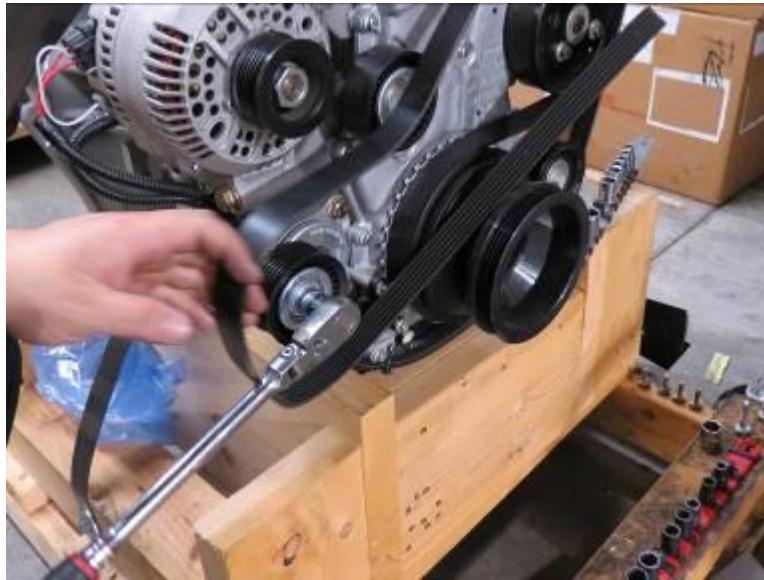


3. Use a 16mm socket to remove the 2 bolts on top of the bracket and remove bracket

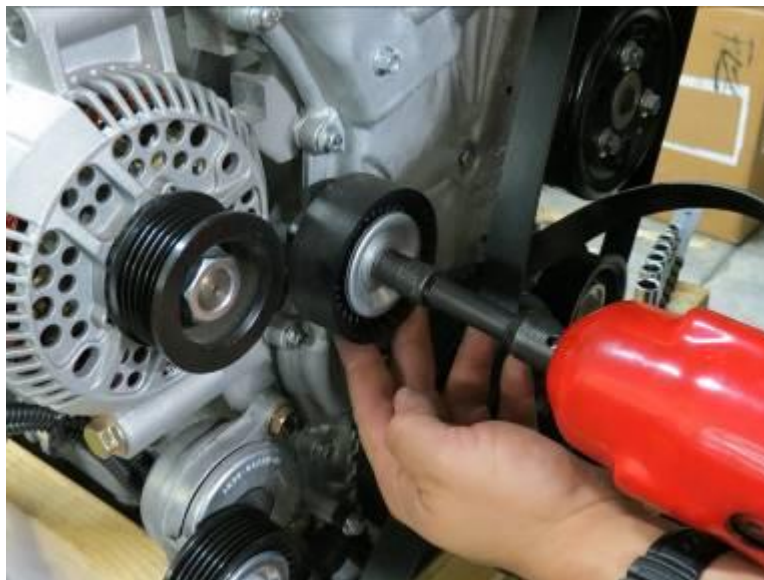


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4. Using a 15mm socket turn the tensioner (the lower left pulley) to take the tension off of the belt and remove belt off of the tensioner.



5. Using a 10mm socket, remove the idler pulley located next to the alternator



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6. Remove the plastic retainer on the back side of the idler



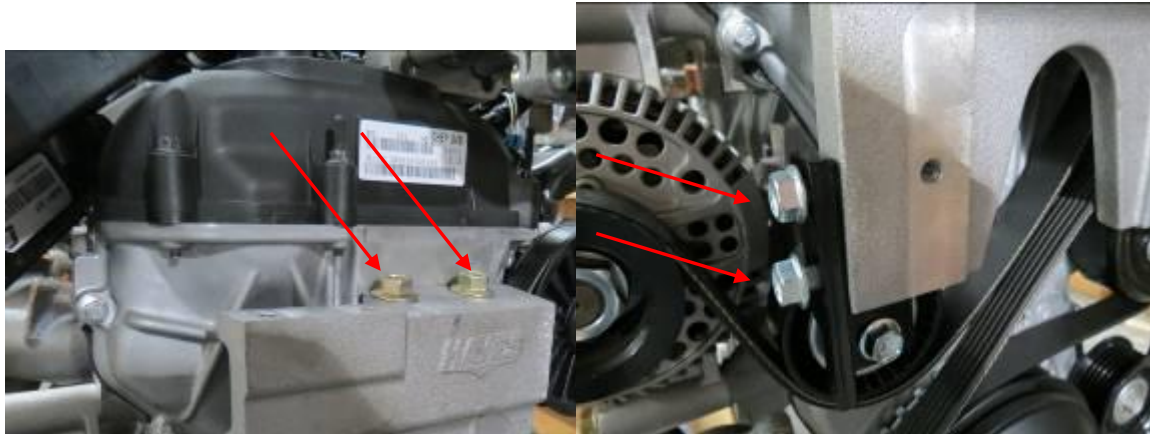
7. Take out the original bolt and place the lower support to idler on the front of the idler (making sure the circular extruded part is against the idler)
8. Take the plastic retainer and insert the new M8 by 80mm length bolt included in the kit.
9. Install back idler onto engine and get hand tight. **Do NOT torque yet.**



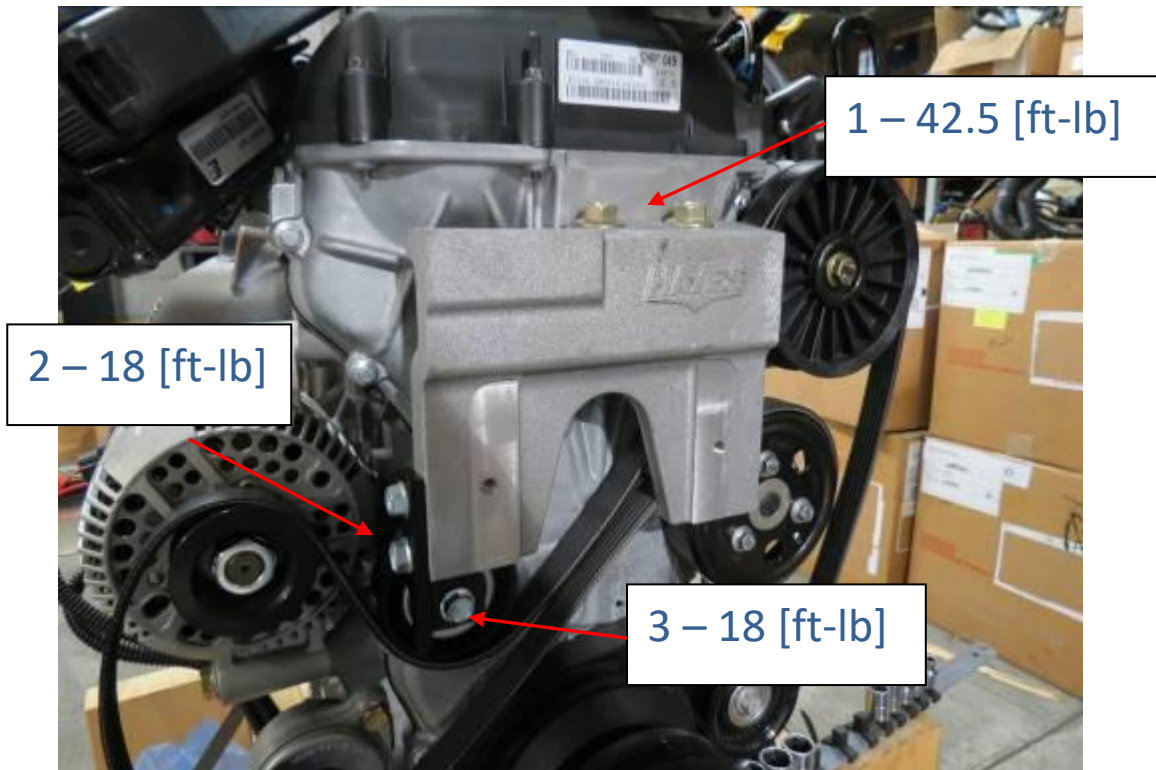
10. Take new 132277 bracket and install onto the engine front cover. Reuse top bolts and get hand tight.

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11. Install the support bracket bolt, M8 by 20mm length to the new bracket. Line the front surface of the support bracket with the front surface of the main fan bracket. These should be relatively flush. When flush the two M8 mounting holes will be centered with the support bracket.

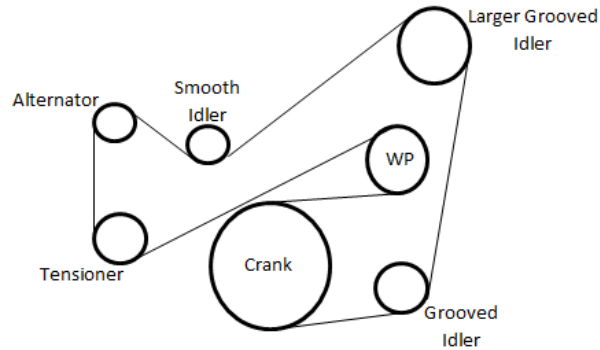


12. Torque the bolts as follows, follow the order listed directly below.



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13. Reinstall main front end drive belt via the tensioner.



14. Place bearing assembly onto the bracket with the original bolts and belt. Get hand tight.

15. Use a breaker bar and screw driver or other breaker bar, if room allows, pressing up against the bottom of the bearing assembly and applying tension to the fan belt. With help from a 2<sup>nd</sup> person have them tighten the bearing assembly bolts. Torque the bearing assembly to the bracket 21 [ft-lbs].



16. Use the original four bolts for the fan and reinstall the fan to the spacer. Torque 21 [ft-lbs].

**Revision 1:** Step 11 modified to add the additional step of ensuring support bracket and main fan bracket alignment.