

# PREVOST

## Instruction Sheet

## IS-19907






### BOSCH TO DELCO REMY ALTERNATOR INSTALLATION, VOLVO 9700

#### MATERIAL

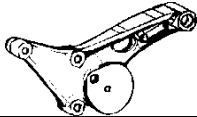

Order Main Kit **IS19907**, which contains

Part No.	Description	Qty
<b>0610086</b>	Alternator Mechanical Kit, Right	1
<b>0610088</b>	Adaptation Kit, Right, Volvo 9700	1
<b>IS-19907</b>	Instruction Sheet	1
<b>FI-19907</b>	Feuille d'instructions	1

0610086 Alternator Mechanical Kit, Right

Part No.	Description		Qty
560720	Alternator Remy 55SI 24V-250A PadMount		1
069892	Pulley 8PK, 83 DOB		1
069894	Bracket, Alternator Remy		1
506065	Belt Poly V 8PK1435 EPDM QT+Aramide		2
5001308	SCR CAP HEXF N500 M10-1.5X40 G10.9		4
5002091	SCR CAP HEXF N500 M10-1.5X120 G10.9		4
5001137	WSH FL SS .203X.438X.06 (M5,#10)		2
5001180	NUT HEX NYRT SS 10-24		2
500411	WSH FL SS .260X.697X.05 (M6,1/4)		1
5001341	WSH FL SS 8.4X17X1.6 (M8,5/16)		1
500685	NUT HEX NYRT 5/16-18 SS		1

0610088 Adaptation Kit, Volvo 9700

Part No.	Description		Qty
012656	TENSIONNER SUPPORT, (NEEDS MINOR MODIFICATION)		1
5001801	SCR CAP HEXF N500 M10-1.5X55 G10.9		2
500796	SCR CAP HEXF N500 M8 X 50 CL10.9		1
994445	FLANGE SCREW M8x16		1
560082	RING TERMINAL #10 / 16-14 / INSULATED		2












Other parts not provided in the kit; shop supplies

Part No.	Description		Qty
504016	CABLE TIE, 5/16" X 14"1/2		A/R
507664	CABLE TIE, DOUBLE LOOP		A/R
509491	CABLE TIE, WIDE 13MM x 383MM		A/R
504637	CABLE TIE / 3/16" x 13"		A/R
684013	COLOR GUARD RUBBER COATING, 14.5 OZ CAN		A/R
680038	LOCTITE 243, BLUE, 50ml		A/R
680100	LOCTITE 271, RED, 250ml		A/R
-	Brake cleaner		A/R

**NOTE**

Material can be obtained through regular channels.

## TOOLS

<p><b>15/16" THIN WALL CROWFOOT ADAPTER.</b></p> 	<p><b>METRIC OPEN END WRENCH SET</b></p> 	<p><b>RATCHET AND SOCKET SET - METRIC</b></p> 
<p><b>HEX BIT SOCKET SET - METRIC</b></p> 	<p><b>TORQUE WRENCH</b></p> 	<p><b>SOFT FACED HAMMER</b></p> 
<p><b>1 5/8" OPEN END WRENCH</b></p> 	<p><b>BELT TENSION GAUGE</b></p> 	<p><b>1/2" SQUARE DRIVE BREAKER BAR</b></p> 
<p><b>VOLTMETER / MULTIMETER</b></p> 	<p><b>CUTTING PLIERS</b></p> 	

Preliminary version Jan 31, 2015

## PROCEDURE



### DANGER

Park vehicle safely, apply parking brake, stop engine. Prior to working on the vehicle, set the ignition switch to the OFF position and trip the main circuit breakers equipped with a trip button. On Commuter type vehicles, set the battery master switch (master cut-out) to the OFF position. Apply vehicle lockout procedures according to local policies.

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## OVERVIEW

The procedure involves removing the existing Bosch alternators, their corresponding brackets and harnesses and replacing them with a DelcoRemy 55SI alternator.

The alternators require new brackets and harnesses.

First time users should read the procedure before starting work on a vehicle. Best viewed in color.

## ELECTRICAL SCHEMATICS

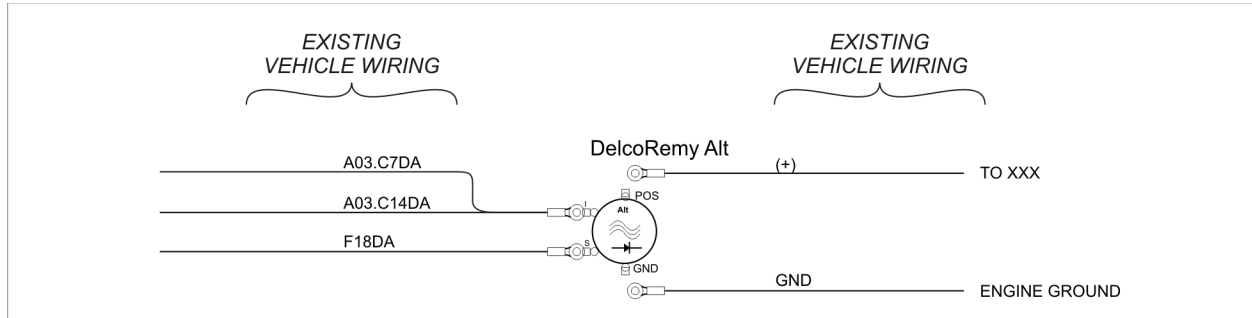


FIGURE 1: ALTERNATOR CONNECTIONS

Preliminary version Jan 31, 2019

## ALTERNATOR REMOVAL AND INSTALLATION



### WARNING

There should not be electrical power to the alternator terminals. Using a multimeter, probe the alternator **B1+** terminal and the ground terminal. Make sure that the voltage reading is 0 volt prior disconnecting the alternator cables.

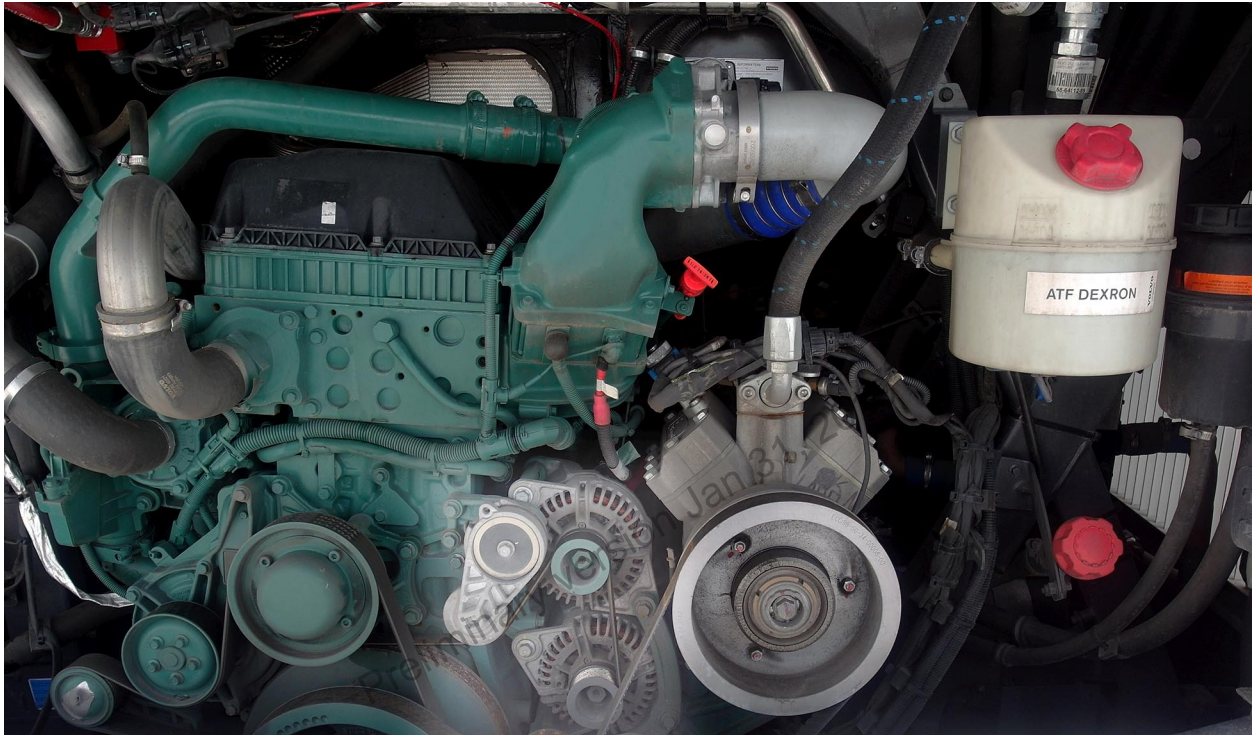


FIGURE 2: BOSCH ALTERNATORS ON ENGINE

1. Remove the tensioner and mounting bracket.  
Keep hardware and tensioner for re-use.  
Discard bracket.

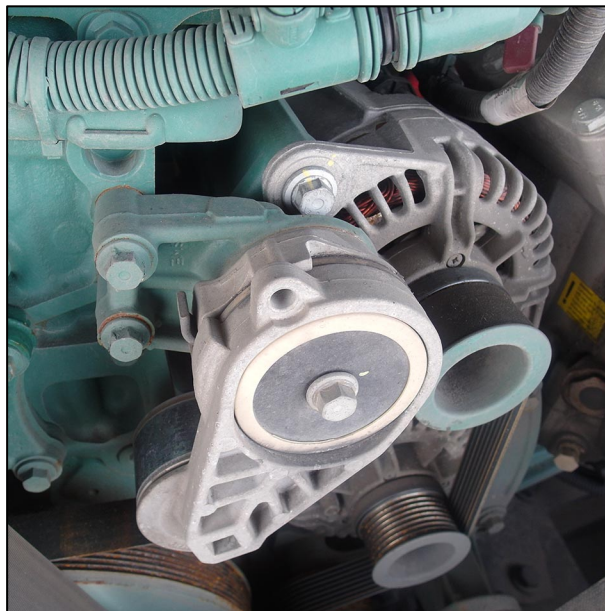


FIGURE 3

2. Remove the existing alternators. To do so, unscrew the four (4) mounting bolts identified on. Discard bolts and alternators.
3. Also remove the idler at the bottom. Discard idler and hardware.

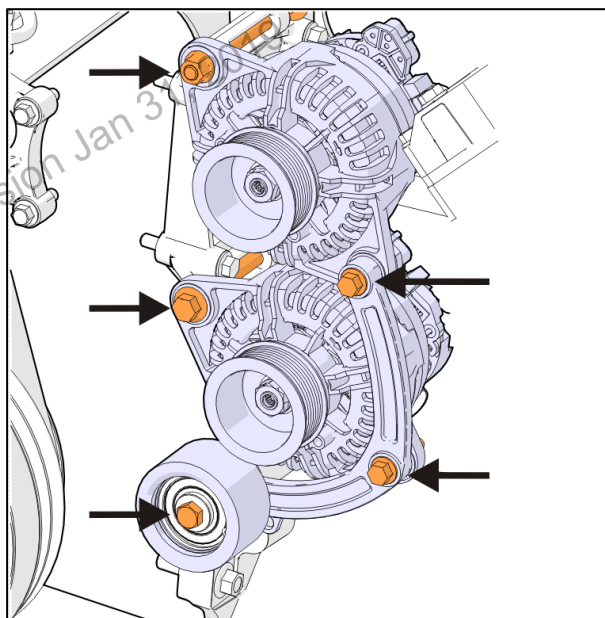


FIGURE 4

4. Remove the alternator support bolted on the engine. Discard support and bolts.

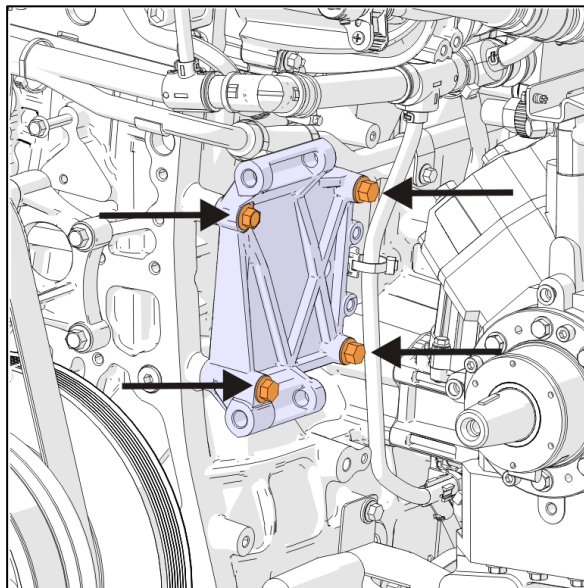


FIGURE 5

5. Installing the alternator pulley.

Place 560720 alternator flat on a bench with the shaft horizontal.

Required tools:

- 15-16" crowfoot adapter
- 8mm hex bit

Clean shaft and pulley with brake cleaner.

Slide pulley 069892 on shaft by hand.

Hand thread nut on shaft until snug.

Using 15/16" adapter and 8mm hex bit to block shaft rotation, tighten to **70-80 lb-ft.**

Apply torque seal

**Never use power tools to install pulley and nut.**

**Note:** Do not apply any pressure to end of the shaft. Internal damage may occur if the shaft is pushed back and turned.

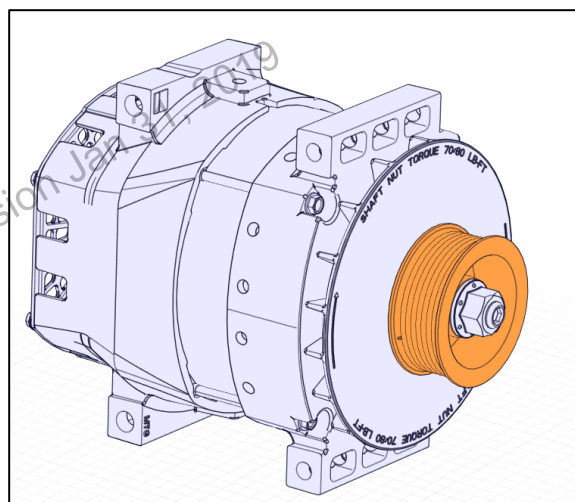


FIGURE 6

6. Install bracket 069894 on engine with four (4) 5001308 M10x40 bolts.  
Apply blue Loctite 680038  
Tighten to **35 lb-ft.**  
Apply torque seal.

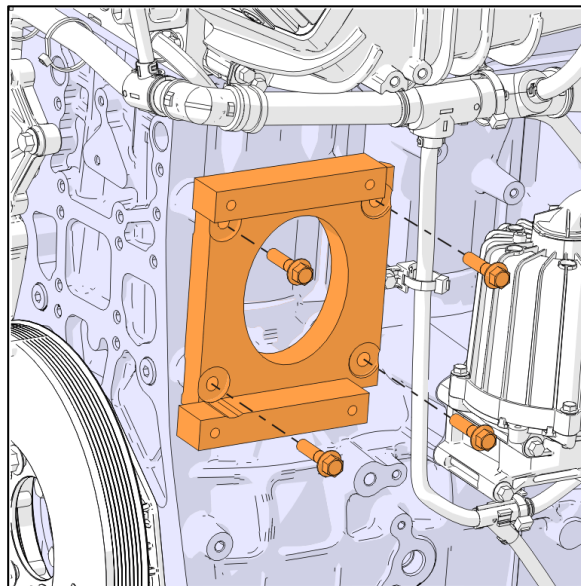


FIGURE 7

7. Install alternator on engine with four (4) 5002091 M10x120 bolts.  
Apply blue Loctite 680038  
Tighten to **48 lb-ft**  
Apply torque seal.

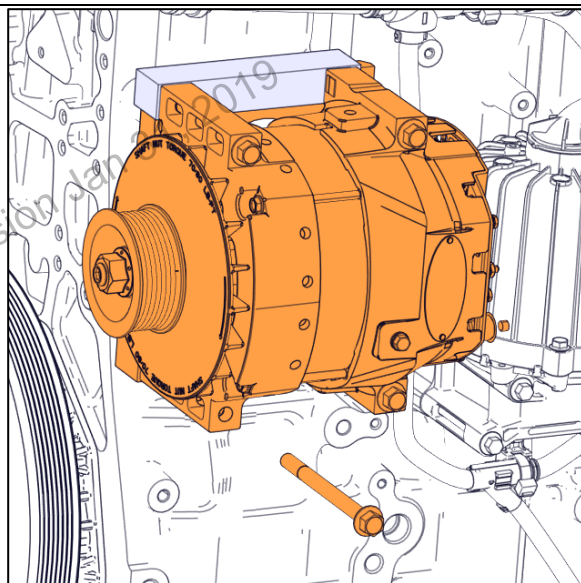


FIGURE 8

## ALTERNATOR CONNECTIONS

8. Locate the former Bosch alternator connectors G03 and G02.  
Some wires will be used on the new installation. The other wires should be *sealed* with double wall heat shrink. Refer to ELECTRICAL SCHEMATICS.

Original Connector : Pin	Wire	Action
G02:2	A03.C7DA	Cut; Crimp 560082 ring terminal together with wire A03.C14DA using 560082
G02:3	F18DA	Cut; Crimp 560082 ring terminal
G02:4	R4	Cut; Heat shrink seal
G03:2	A03.C14DA	Cut; See G02:2 Crimp along with A03.C7DA
G03:3	F18DA	Cut; Crimp 560082 ring terminal.
G03:4	R4	Cut; Heat shrink seal

9. Connect control wires.  
Refer to ELECTRICAL SCHEMATICS.  
Connect F18DA to *Sense*.  
Connect A03.C7DA/A03.C14DA to *Indicator*.  
Use 5001180 10-24 Nylon lock nuts and 5001137 washers.  
Tighten to the following torque values:  
Sense: **25-45 lb-in (3.0 5.0 N-m)**  
Indicator: **25-45 lb-in (3.0 5.0 N-m)**  
Apply color guard 684013 on connections.

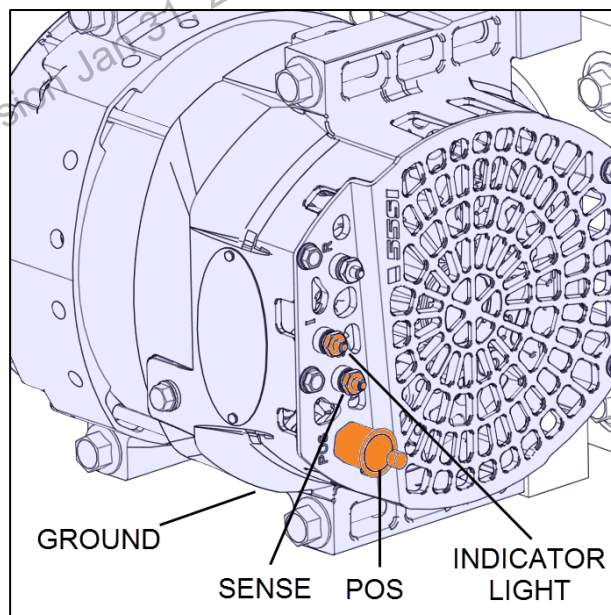


FIGURE 9

10. Install power cable on alternator. Reuse the existing cable. (Figure 61)

Use 500685, 5/16-18 nylon lock nut and 5001341, 8.4x17.0x1.6 SS washer.

Tighten to **80-125 lb-in (9.0-14.0 N-m)**

**Apply color guard 684013 on connections.**

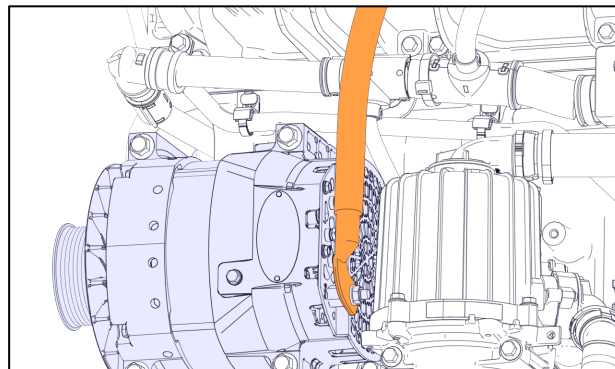


FIGURE 10

11. Prepare the alternator belt tensioner bracket 012656 by creating a relief on the back of the tensioner mounting pad to clear the alternator fan.

See image for dimensions.

Aim for a smooth surface finish and contour.

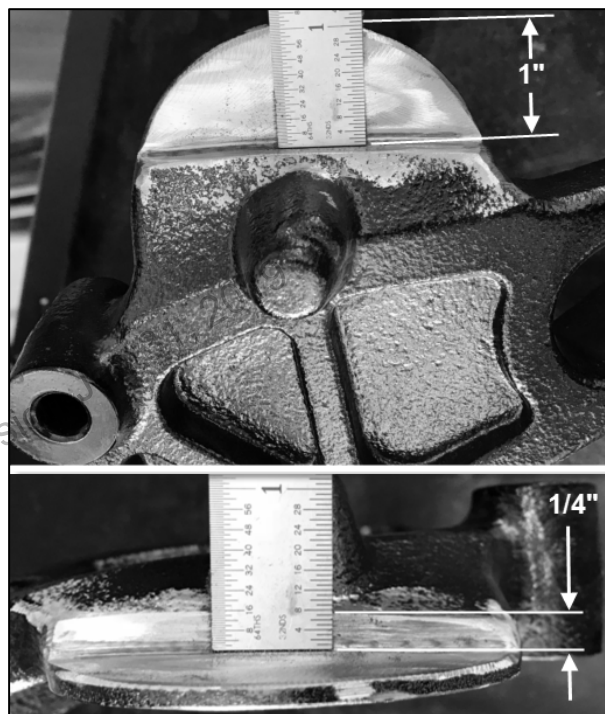
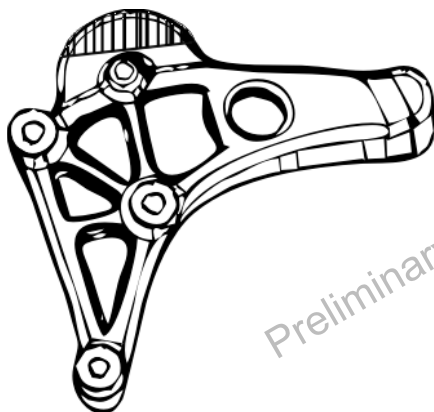


FIGURE 11

12. Install bracket on engine.

A: 500796, M8-1.25x50: **22 lb-ft**

B: 5001801, M10-1.5x55 (2x): **43 lb-ft**



FIGURE 12

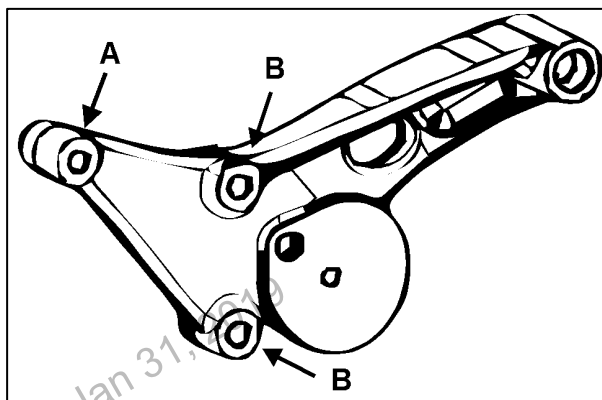


FIGURE 13

13. Install ground cable on alternator upper ground pad. Reuse the existing cable.

Add 500411.260x.697x.050 SS washer.

Ground: **50-60 lb-in (5.6-6.8 N-m)**

Apply color guard 684013 on connections.



FIGURE 14

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14. Place ground cable on the tensioner bracket.

Tighten to **240 lb-in.**

Apply color guard 684013 on connections.



FIGURE 15

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15. Install the alternator belt tensioner with hardware reserved earlier.

Tighten to **48 lb-ft.**

Apply torque seal

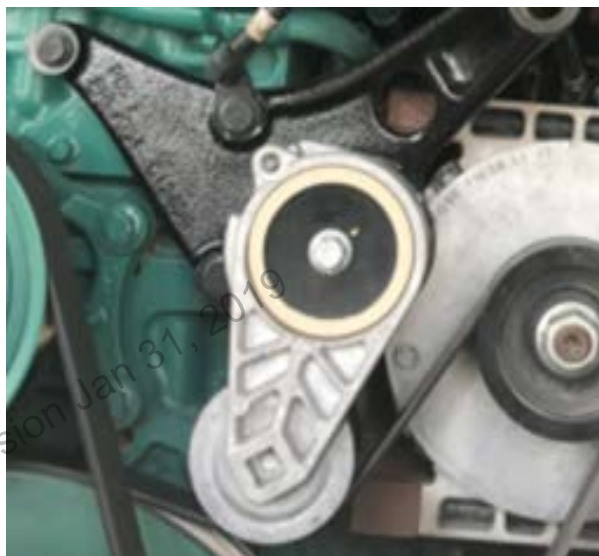


FIGURE 16

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16. Install alternator belt. To do so, rotate the automatic belt tensioner using a ½ square drive breaker bar

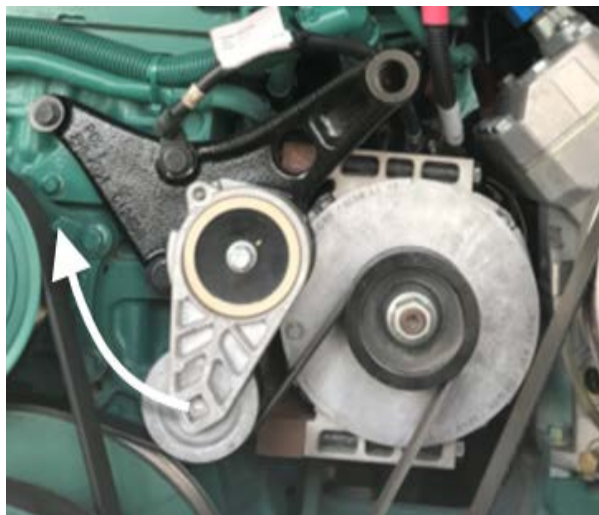


FIGURE 17

## FUNCTIONAL TESTING

17. Reset main circuit breakers if applicable. Set the battery master switch (master cut-out) to the ON position and start the engine. Make sure that the charging system is working normally.

On the instruments cluster, the alternator telltale  illuminates if the alternators are not charging.

## LABOR REFERENCE TABLE

*Table for reference only.*

*Actual times will vary depending on vehicle condition.*

	<i>Operation</i>	<i>Approximate labor (hours)</i>
Step 1	BOSCH ALTERNATORS REMOVAL, RIGHT HAND SIDE	1h
Step 2	INSTALLING THE RIGHT HAND ALTERNATOR. (includes wiring)	2h
Step 3	FUNCTIONAL TESTING	0.5h
	Total	3.5 hours

### PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)