



Thank you for purchasing the 496 Sport Tube Performance Package!

The relocation kit components in this package are designed to cover the many variations for both, the 496 HO and Mag series. In many cases, brackets and components in the relocation kit may not be required or may need to be positioned differently than illustrated in the instruction manual to work in your specific model year application. *Don't be afraid to modify or re-adjust the components for compatibility that suits your requirement.*

It is Custom Marine's intent to supply everything necessary to make the installation as easy as possible. The relocation kit contains the parts needed to overcome most obstructions. In some applications, modifications to the relocation component may be necessary to accommodate a particular function or clearance issue.

Similarly, for those of you using the diverter adapter version of this kit, the adapters are designed to fit *MOST* versions of Corsa diverters, but in no way accommodates all the variations currently in use.

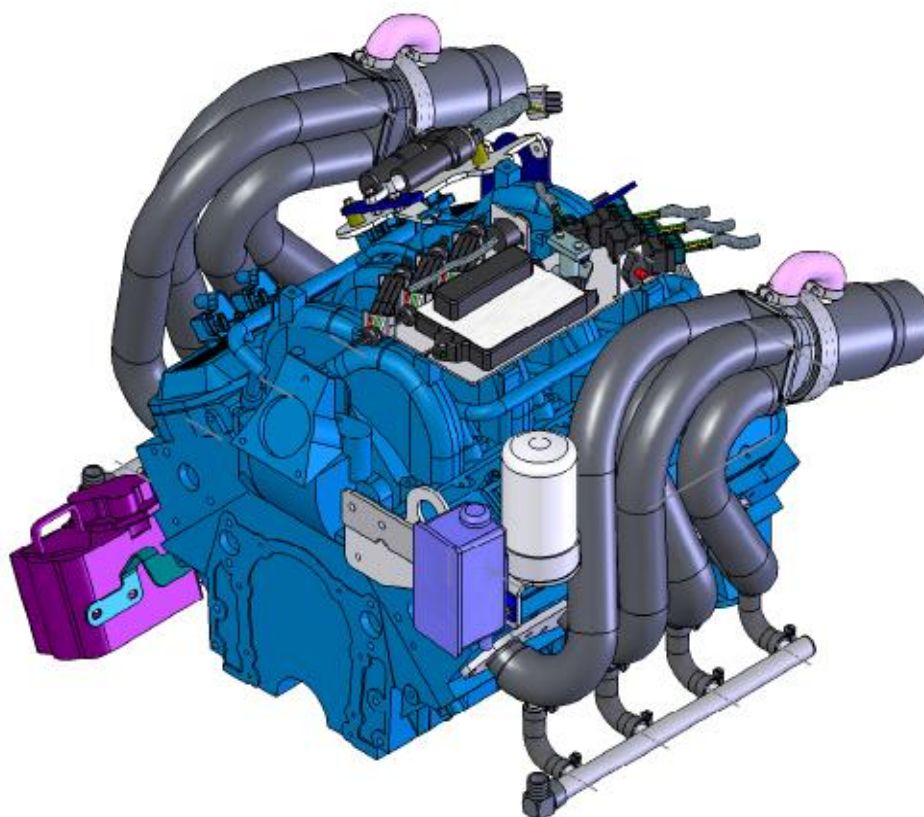
Custom Marine is constantly seeking ways to improve our products to better serve you, our customer. Therefore, as new model year discrepancies emerge we will continue making adjustment to the package.

Please let us know if you encounter any issues during installation.

Thank you again for your patronage.



496 HO / MAG PERFORMANCE PACKAGE



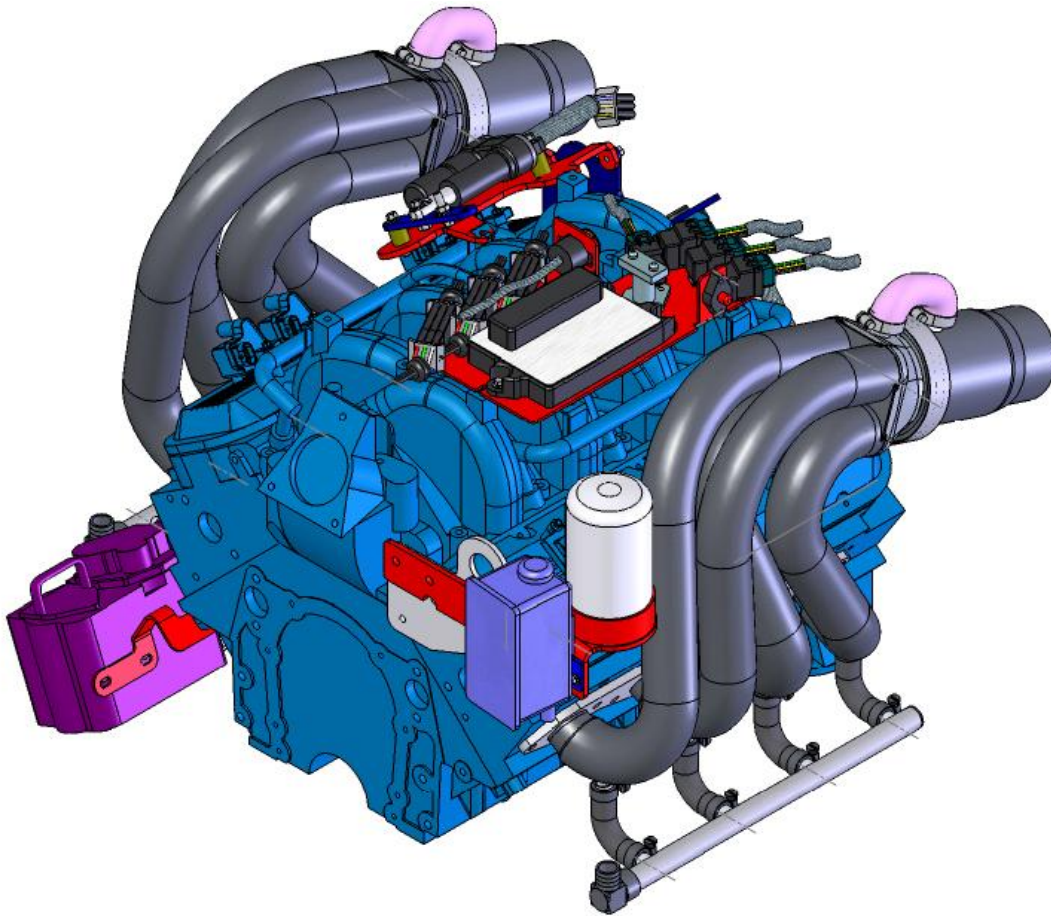
496 HO / MAG RELOCATION KIT

K:\SALES\496 HO-MAG\496 new kit\496 HO (13162) Instructions rev 13.doc
6/15/2012

CMI 13162 - Polish Finish

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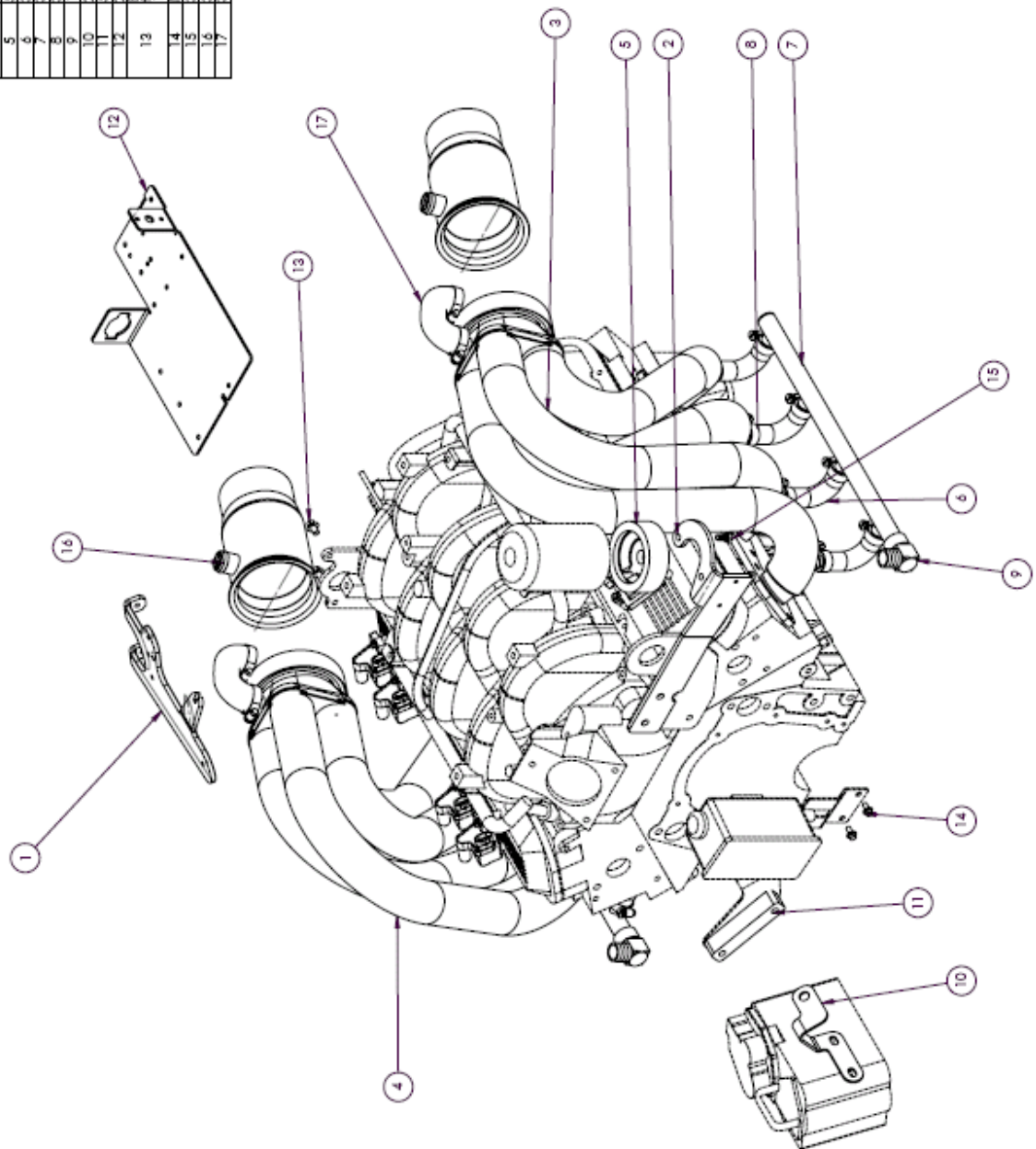
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ABOVE ITEMS HIGHLIGHTED IN **"RED"** ARE FURNISHED BY CUSTOM MARINE INC. TO ALLOW FOR THE STAINLESS STEEL EXHAUST HEADERS. IN SOME CASES, COMPONENTS WILL HAVE ENOUGH CLEARANCE WITHOUT CHANGING OR ADDING BRACKETS DUE TO THE YEAR YOUR ENGINE WAS BUILT.

CMI Supplied Parts Overview

ITEM NO.	PART NUMBER	DESCRIPTION	
1	28954	SWIFTER BRACKET	1
2	28951	OIL FILTER BRACKET	1
3	13153	493 SPORT TUBE HEADER	1
4	13134	493 SPORT TUBE HEADER	1
5	50921	OIL FILTER SPRING	1
6	32030	HOSE JUMPER - 7.5 X 90 DEGREE	2
7	30140	DISTRIBUTION TUBE ASSY	2
8	32020 - 1000 ID	HOSE CLAMP #8	15
9	19580-A	ELBOW 1 x 3/4 NPT HINI 6	2
10	28948	FUEL PUMP BRACKET	1
11	50920	SPACER BAR (1 THK.)	1
12	28953	COMP BRACKET	1
13	51523 3/4" - Hex 1.25" x 12 - 12 1/2"		2
14	M6 x 1.00 x 12mm		2
15	32004	5/16-18 x 0.025 LG HEX HEAD	2
16	32050	SWEEPED TAIL POPE ASSEMBLY	2
17	32270	SWEEPER CLAMP KIT	2



496 Sport Tube Performance Package

Component Index

Port Side Header & Assembly Components in each Box

- (1) (13163) Port Side Down Turned Sport Tube Header
- (1) (19890) Heat Sensor Bungs Installed in the Headers
- (1) (34160) Head Gaskets
- (8) (38490) Metric Header Bolts
- (1) (30140) Stainless Steel Distribution Tubes

Kit Number 41016

- (4) (32030) 3/4" I.D. X 90 degree Hose for Distribution Tubes
- (8) (36020) #8 Hose Clamps
- (1) (36090) #12 Hose Clamps
- (1) (19580) .75 NPT X 1 X 90 Degree Fitting
- (1) (19650) .75 NPT X 1 X Straight Fitting

Starboard Side Header & Assembly Components in each Box

- (1) (13164) Starboard Side Down Turned Sport Tube Header
- (1) (19890) Heat Sensor Bungs Installed in the Headers
- (1) (34160) Head Gaskets
- (8) (38490) Metric Header Bolts
- (1) (30140) Stainless Steel Distribution Tubes
- (4) (32030) 3/4" I.D. X 90 degree Hose for Distribution Tubes

Kit Number 41016

- (8) (36020) #8 Hose Clamps
- (1) (36090) #12 Hose Clamps
- (1) (19580) .75 NPT X 1 X 90 Degree Fitting
- (1) (19650) .75 NPT X 1 X Straight Fitting

Relocation Kit 41041

496 Components Kit 41040

QTY	PART #	DESCRIPTION	MATERIAL
(1)	(28965)	Swifter Bracket	1/4" HRPO / Coated Black
(1)	(28966)	Comp Bracket	10 Ga. HRPO / Coated Black
(1)	(28952)	Oil Filter Bracket	1/4" HRPO / Coated Black
(1)	(50920)	Fuel Pump Spacer	1.00" X 4 3/4" SQ Aluminum
(1)	(28968)	Fuel Pump Bracket	10 Ga. HRPO / Coated Black
(1)	(50921)	Oil Filter Spin-On	Aluminum
(3)	(29980)	Offset Spacer	.50 X .25 Wall CRS Tube 2.625 lg.
(2)	(19892)	3/4" Hose Plugs	3/4" X 3/4" Stainless Steel, Round

496 Hardware Components Kit 41042 (Located in the relocation kit box)

QTY	PART #	DESCRIPTION	MATERIAL
(2)	(38206)	5/16" – 18 X 5/8" Flange Bolt	Carbon Steel
(3)	(38207)	M6 – 1.00 X 10 Flange Bolt	Carbon Steel
(2)	(38208)	M6 – 1.00 Flange Nut	Carbon Steel
(1)	(38209)	M6 – 1.00 X 12 Flange Bolt	Carbon Steel
(3)	(38211)	M6 – 1.00 X 130 SHCS	Zink Plated Carbon
(1)	(38212)	1/4" X 1/2" Roll Pin	Stainless Steel (Assembles into Swifter Bracket)
(2)	(36090)	#12 Hose Clamps	Stainless Steel
(2)	(38495)	Screws, Fuel Pump, M8-1.25 X 50	Carbon Steel
(1)		Assembly Instruction Packet	White Paper Envelope

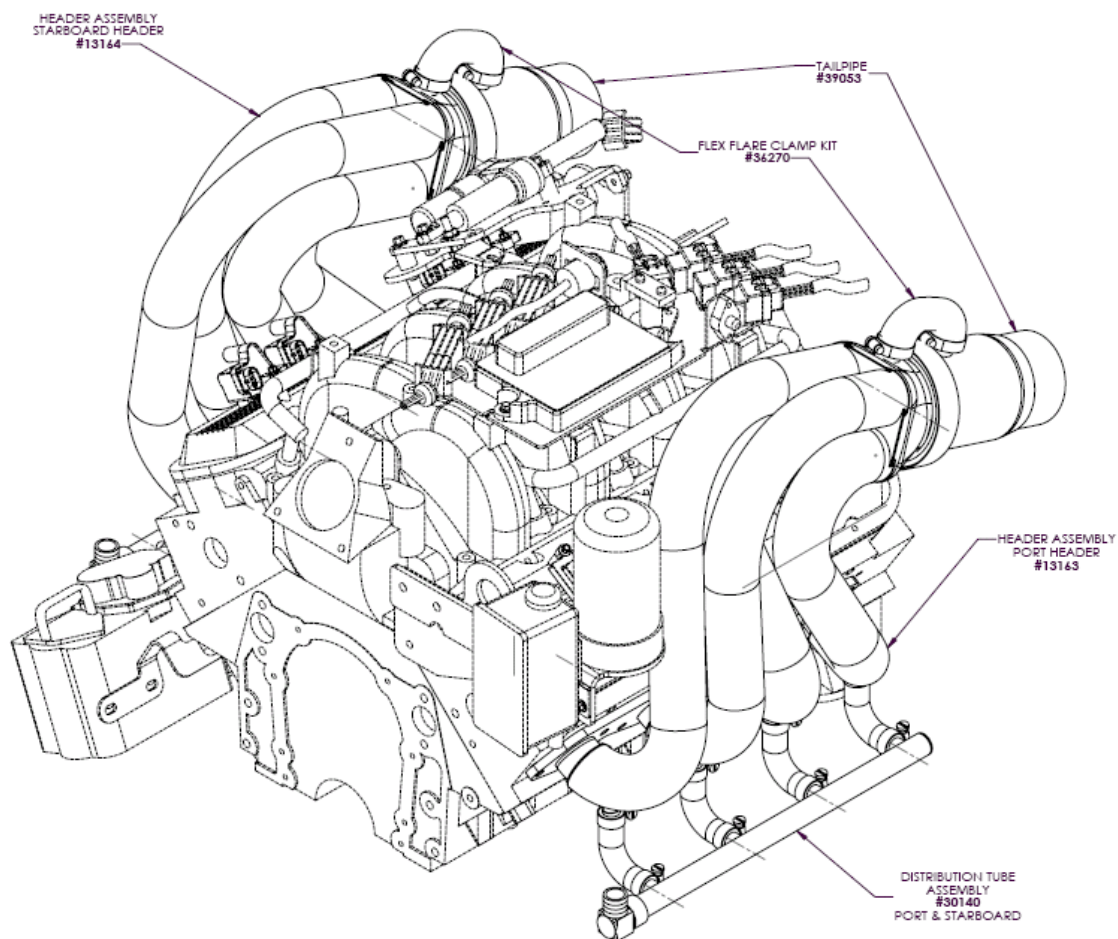
Tailpipes 39053 (Located in the relocation kit box)

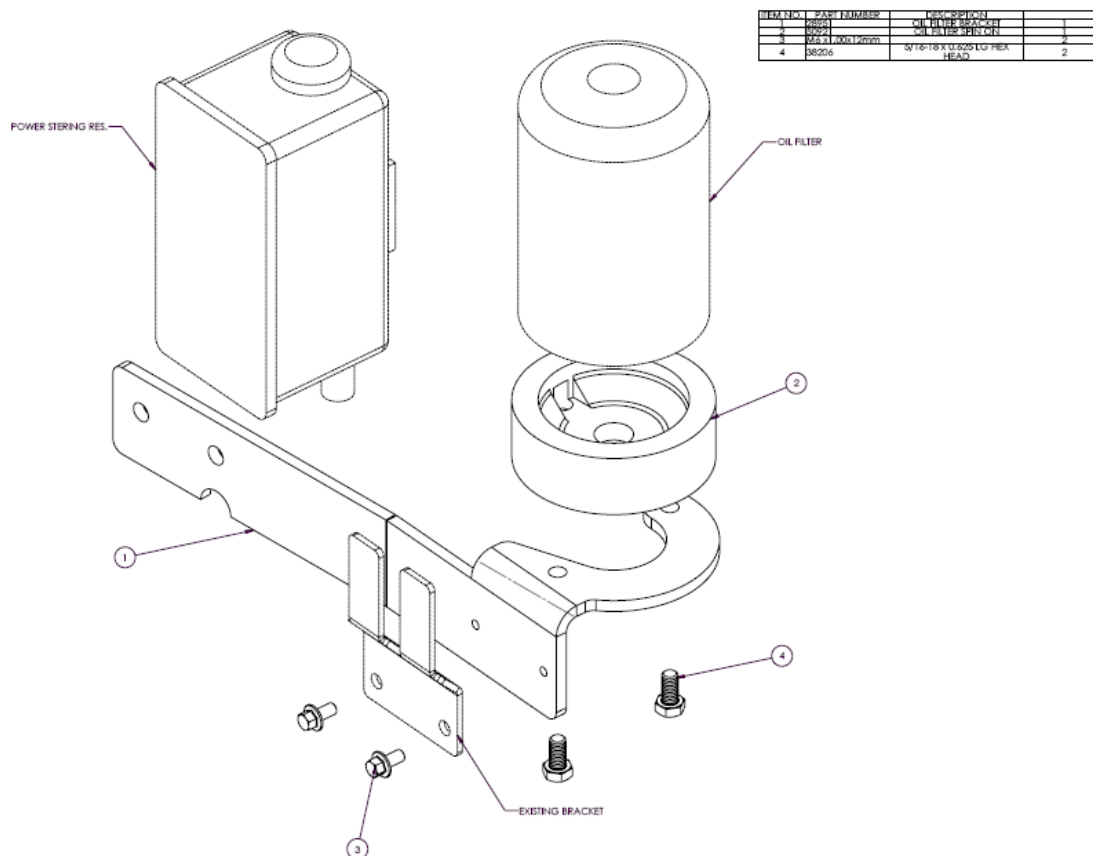
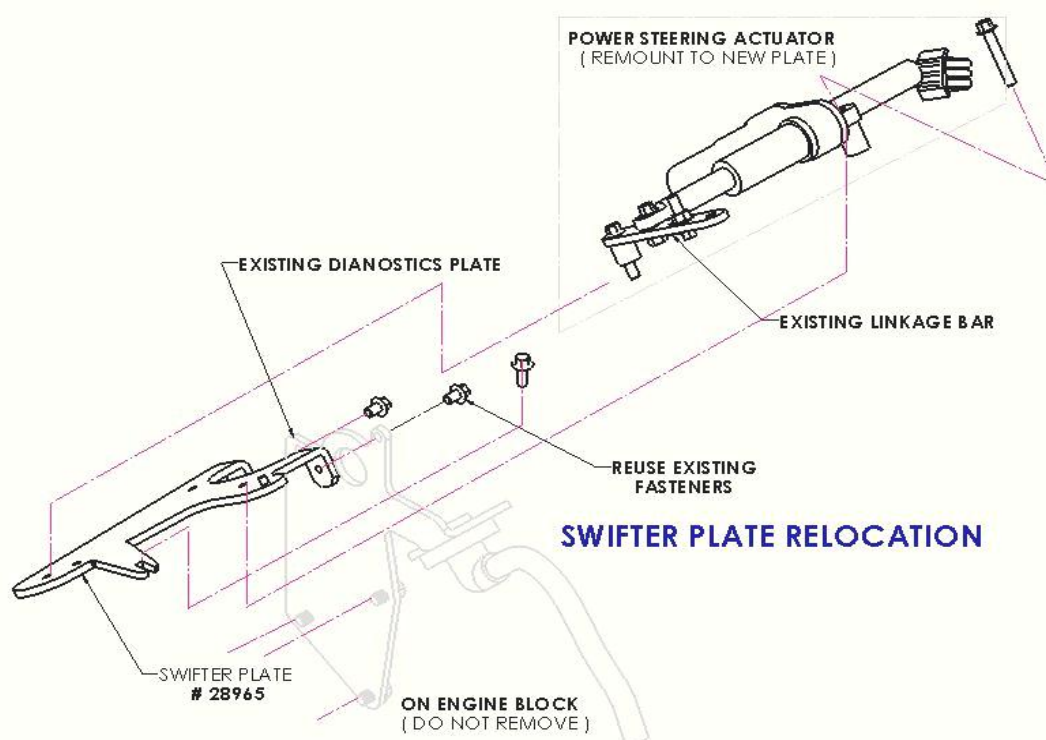
QTY	PART #	DESCRIPTION
(2)		Special 496 Tailpipe

Clamp Kit 36270 (Located in the relocation kit box)

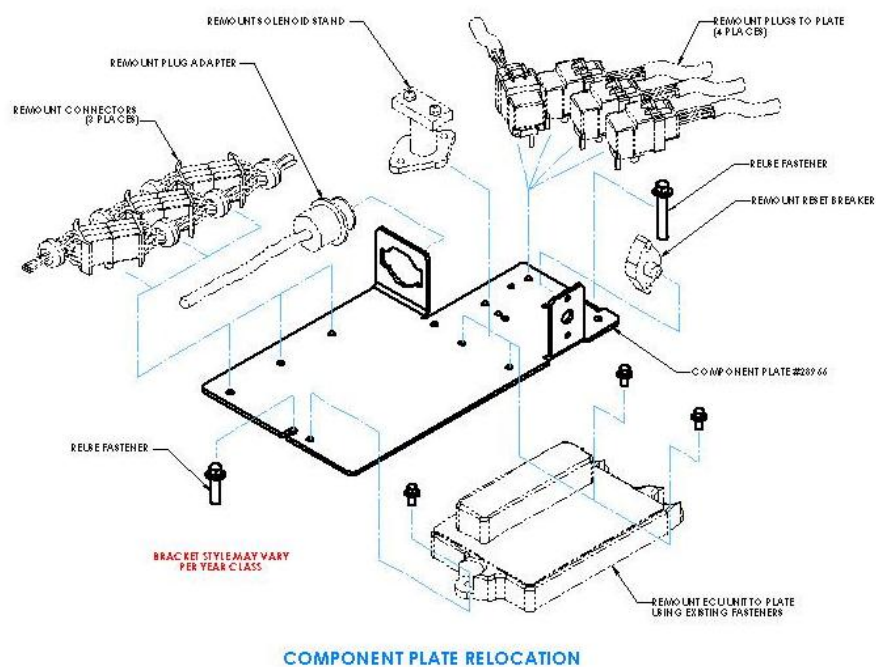
QTY	PART #	DESCRIPTION
(2)	(36270)	Sweeper Flex Flare Clamp Kits (hoses, clamps, gaskets)

HEADERS, TAILPIPES, CLAMPS, & DIST. TUBES – ILLUSTRATION A-2

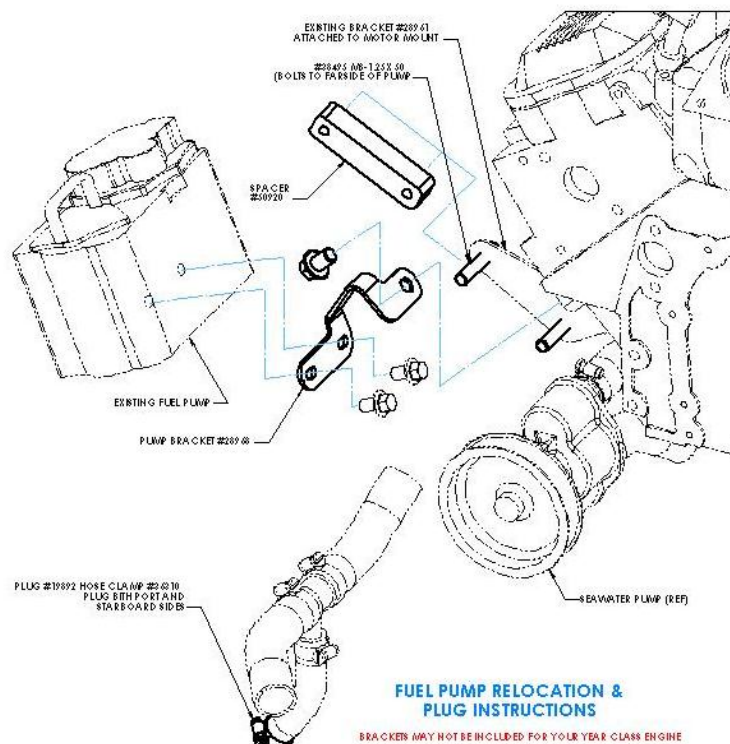


OIL FILTER BRACKET – ILLUSTRATION A-3**SWIFTER PLATE - ILLUSTRATION A-4**

COMPONENT PLATE – ILLUSTRATION A-5



FUEL PUMP & PLUG – ILLUSTRATION A-6



STEP BY STEP COMPONENT REMOVAL AND INSTALLATION

STEP 1) REMOVE ENGINE COVER.

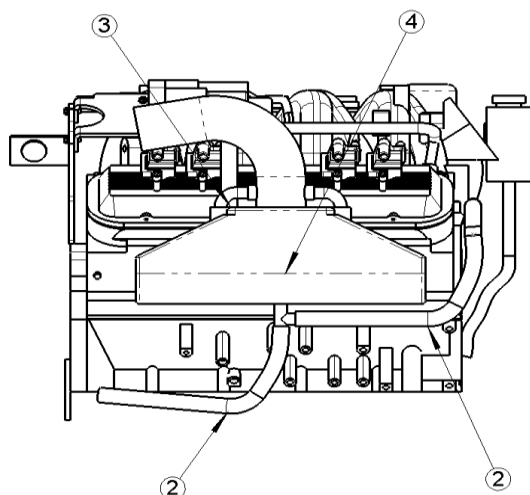
STEP 2) REMOVE (2) COOLANT HOSES FROM BOTTOM OF LOG MANIFOLD. PLUG LOWER HOSE AND CLAMP AS SHOWN IN PICTURE P1.



Picture P1

STEP 3) REMOVE (1) SHIFT BRACKET BOLT FROM TOP OF LOG MANIFOLD ON STARBOARD SIDE.

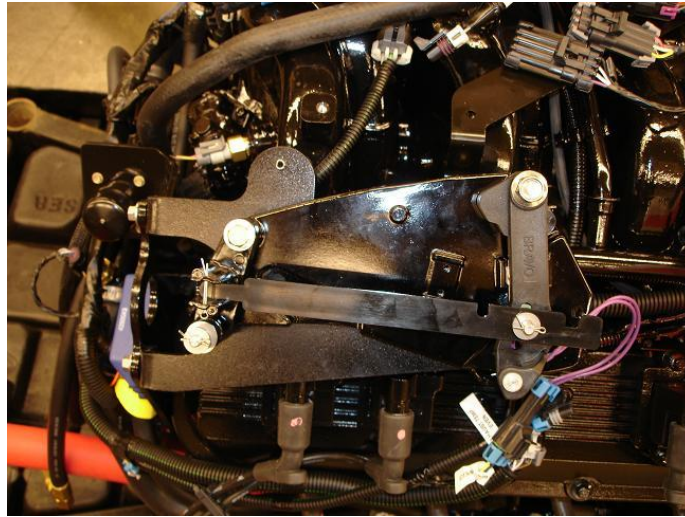
STEP 4) IMPORTANT! REMOVE HEAT SENSORS ON BOTH MANIFOLDS FIRST, REMOVE (8) LOG MANIFOLD BOLTS. REMOVE LOG MANIFOLD, WHILE BEING CAREFUL NOT TO BREAK SPARK PLUGS OR RUBBER BOOTS. CLEAN GASKET SURFACE ON MOTOR.



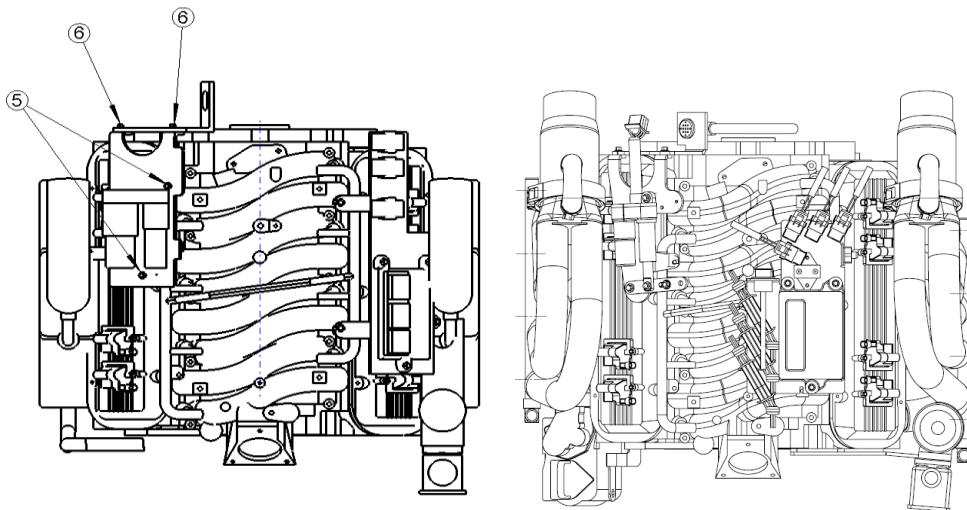
STEP 5) REMOVE SHIFTER BRACKET MOUNTING BOLTS. **DO NOT** REMOVE SHIFT CABLE OR WIRE HARNESS CONNECTOR. BE CAREFUL NOT TO DROP SPACERS. REMOVE BRACKET.

STEP 6) REMOVE (2) SHIFT PLATE MOUNTING BOLTS FROM BRACKET ON REAR OF ENGINE. AND REMOVE BRACKET.

STEP 7) INSTALL CMI SHIFT PLATE REUSING REAR MOUNTING BOLTS. USE SUPPLIED SHOULDER NUT TO MOUNT TO STUD ON INTAKE MANIFOLD. REMOUNT SHIFTER BRACKET WITH ATTACHED CABLES, REUSING SAME HARDWARE AS WAS USED ON STOCK SHIFT PLATE. MOUNT AS SHOWN IN PICTURE P2.



Picture P2



REMOTE OIL FILTER & ECU BRACKET REMOVAL / INSTALLATION **- PORT SIDE -**

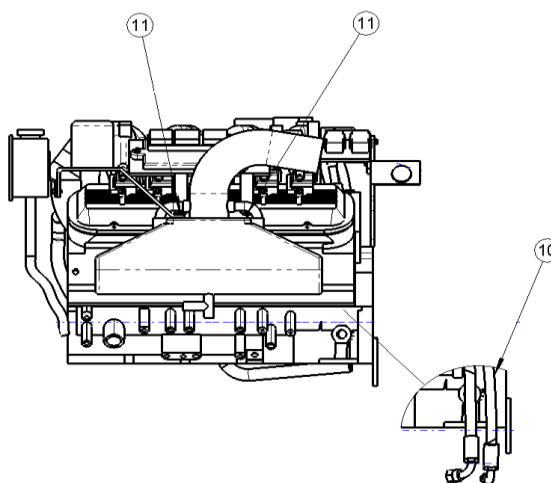
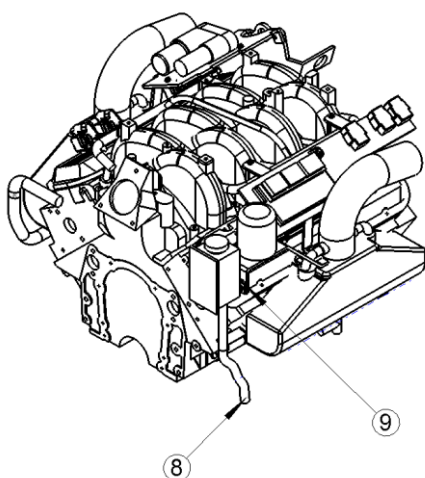
STEP 8) REMOVE (3) RESERVOIR BRACKET BOLTS & REMOVE FORK BRACKET & “T” STRAP. FORK BRACKET WILL BE REUSED. AS SHOWN IN PICTURE P3.



Picture P3

STEP 9) DISCONNECT OIL FILTER LINES AT FILTER HOUSING. USE CONTAINER TO CAPTURE OIL.

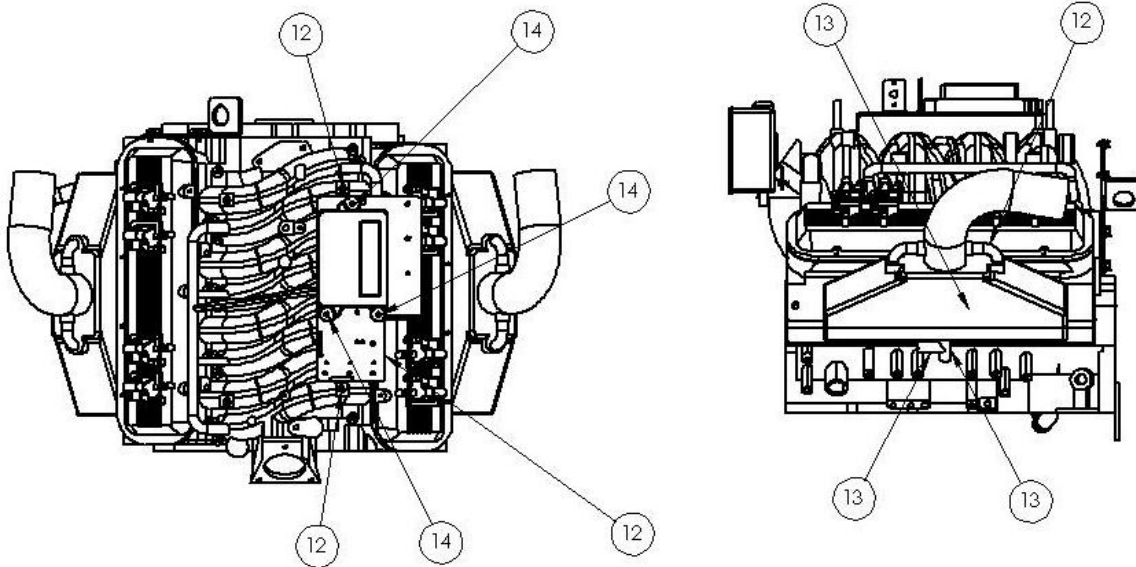
STEP 10) REMOVE (4) NUTS FROM STUDS THAT SECURE ECU BRACKET TO INTAKE & EXHAUST MANIFOLD.



STEP 11) LIFT BRACKET FROM STUDS TO PROVIDE FOR LOG MANIFOLD REMOVAL.

STEP 12) REMOVE (2) COOLANT HOSES FROM BOTTOM OF LOG MANIFOLD AND PLUG LOWER LINE AS SHOWN IN PICTURE P1. REMOVE (8) LOG MANIFOLD ATTACHING BOLTS. REMOVE LOG MANIFOLD BEING CAREFUL NOT TO BREAK SPARK PLUGS OR WIRE BOOTS.

STEP 13) REMOVE & SAVE (3) ECU MOUNTING BOLTS.



STEP 14) PLACE ECU ASIDE ON TOP OF INTAKE MANIFOLD, TO LOCATION SHOWN. CAREFULLY REMOVE (3) ELECTRICAL RELAYS FROM BRACKET WITH FLAT BLADE SCREWDRIVER. FLIP BRACKET OVER TO REMOVE RESET BREAKER & SOLENOID, SAVING HARDWARE FOR REUSE. POSITION ALL PREVIOUSLY REMOVED ELECTRICAL COMPONENTS DOWN TO PROVIDE FOR INSTALLATION OF CMI ECU BRACKET.

STEP 15) MOUNT CMI ECU BRACKET, REUSING SHOULDER NUT ON PREVIOUSLY USED STUD, LOCATED ON REAR OF INTAKE MANIFOLD. USE SUPPLIED BOLT TO MOUNT BRACKET TO FRONT OF INTAKE MANIFOLD. AS SHOWN IN PICTURE P4

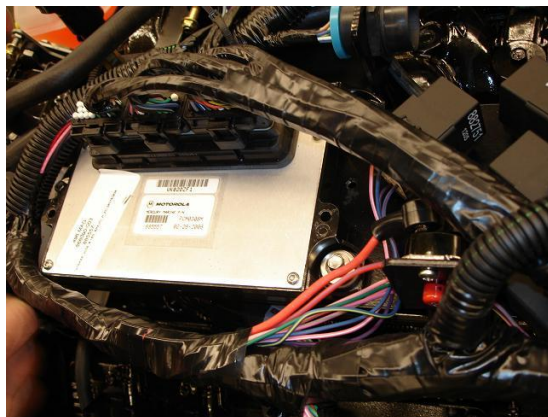
STEP 16) FLIP ECU OVER & MOUNT TO CMI BRACKET, REUSING MOUNTING BOLTS FROM STOCK PLATE. MOUNT RESET BREAKER, USING SAVED HARDWARE. MOUNT SOLENOID USING SUPPLIED HARDWARE. AS SHOWN IN PICTURE P5.

STEP 17) MOUNT (3) ELECTRONIC RELAYS BY CAREFULLY PRESSING INTO AS SHOWN IN PICTURE P5.

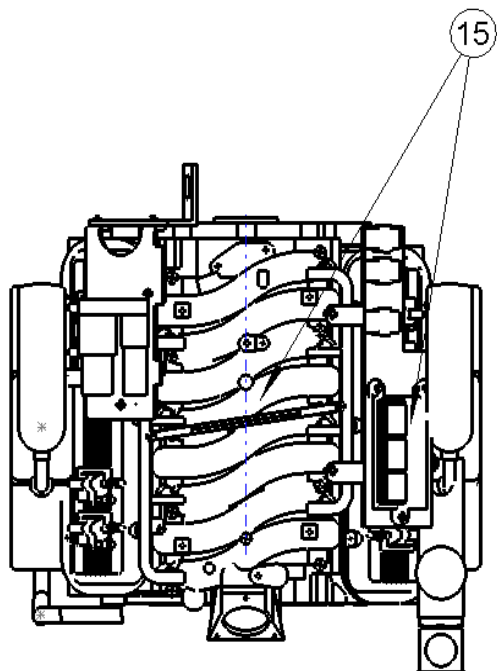
**NOTE: WIRE HARNES MAY NEED TO BE CUT BACK AND RE-TAPED
CAUTION: BE CAREFUL NOT TO CUT EXPOSED WIRES**



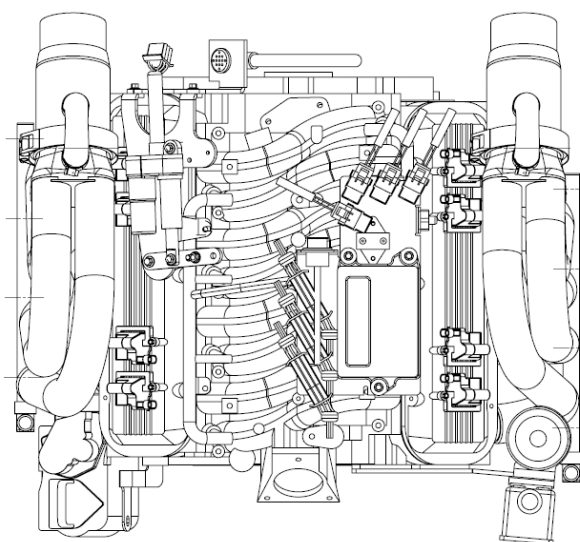
Picture P4



Picture P5



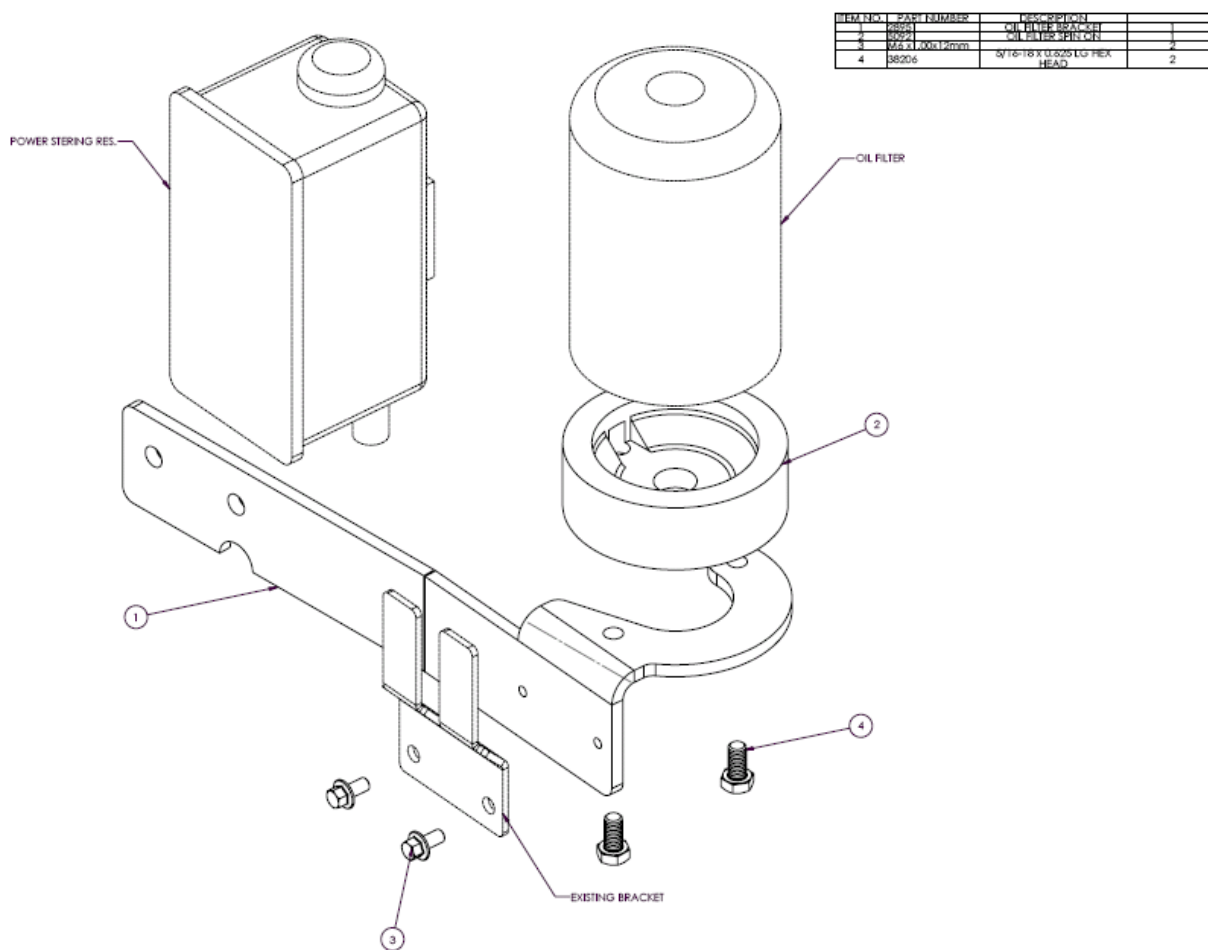
BEFORE



AFTER

REMOTE OIL FILTER ASSEMBLY

- A) RE-USE OLD O-RING AND FITTING. LUBRICATE FLAT "O" RING WITH MOTOR OIL, AND INSTALL IN RECESSED AREA IN OIL FILTER. ADAPTOR WITH THREADED LINE FITTING AS SHOWN. **IMPORTANT!** FLAT "O" RING MUST BE PROPERLY SEATED IN OIL FILTER HOUSING TO PREVENT LEAKS. INSPECT TO ENSURE ALL HOSES ARE PROPERLY SEATED
- B) MOUNT OIL FILTER HOUSING TO BRACKET WITH (2) PROVIDED BOLTS. MOUNT THE CLIP BRACKET TO MAIN BRACKET USING THE (2) SCREWS REMOVED FROM THE ORIGINAL.

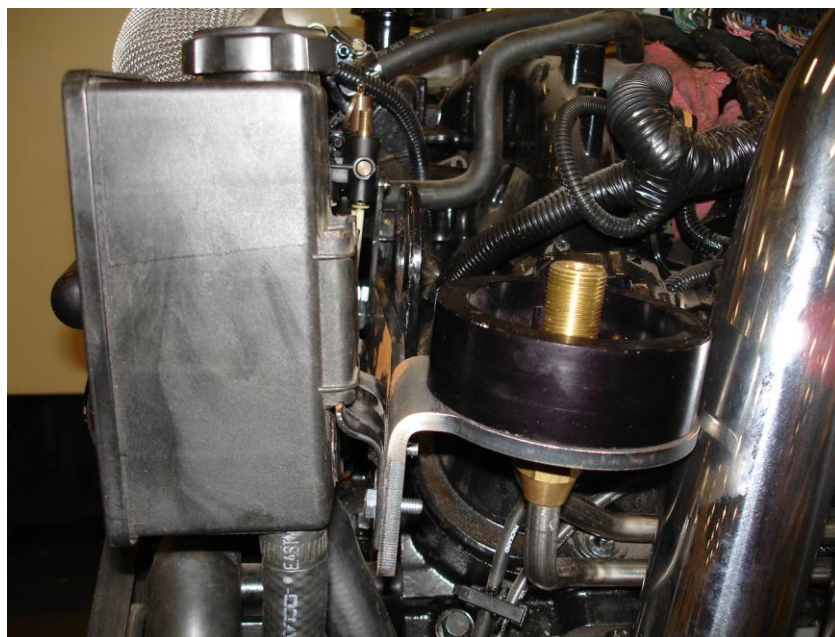


STEP 18) REMOVE AIR CONTROL BRACKET BY REMOVING (2) NYLOCK NUTS FROM STUDS ON FRONT OF ENGINE. INSTALL REMOTE OIL FILTER BRACKET ON THESE STUDS, FOLLOWED BY THE AIR CONTROL BRACKET & (2) NYLOCK NUTS. AS SHOWN IN PICTURE P6 AND P7



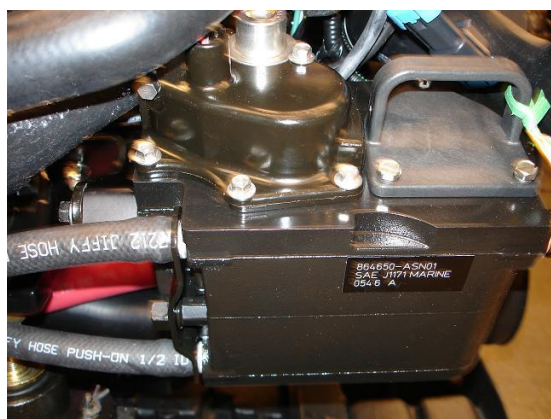
Picture P6

STEP19) REINSTALL RESERVOIR ON FORK BRACKET & REATTACH HOSE AT BOTTOM. AS SHOWN IN PICTURE P7



Picture P7

STEP 20) REMOVE FUEL PUMP AND REINSTALL WITH NEW BRACKET 28968 AND SPACER 50920. AS SHOWN IN PICTURE P8



Picture P8

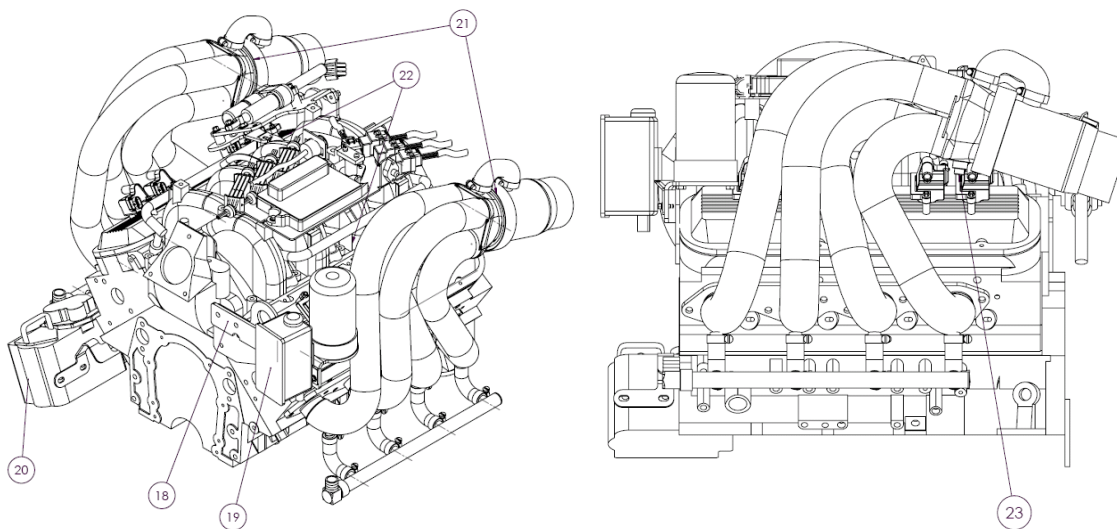
STEP 21) INSTALL CMI HEADERS PER MERCURY RACING SERVICE MANUAL PROTOCOL. ADJUST LENGTH OF COOLING HOSES TO FIT DISTRIBUTION TUBE ON HEADERS. SEE PICTURES P9 AND P10 FOR HEADER INSTALL REFERENCE..

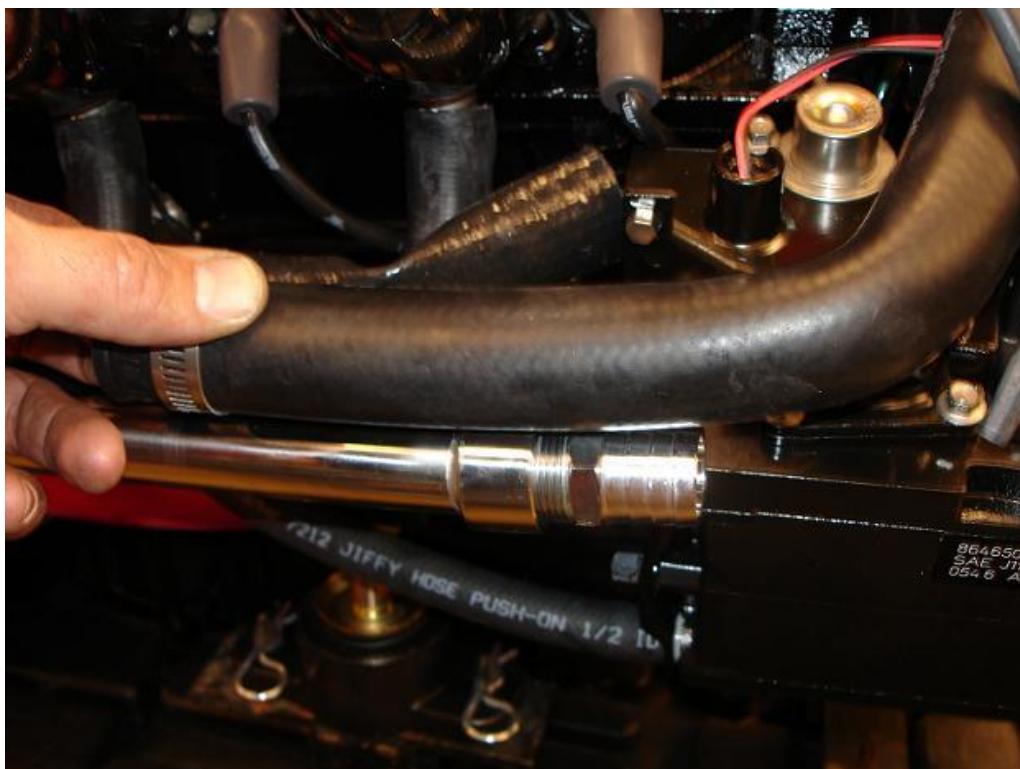
STEP 22) INSTALL INTAKE MANIFOLD COVER USING (3) SPACERS & LONGER SCREWS PROVIDED.

STEP 23) INSTALL HEAT SENSORS (2) IN HEADER COLLECTOR BUNG.

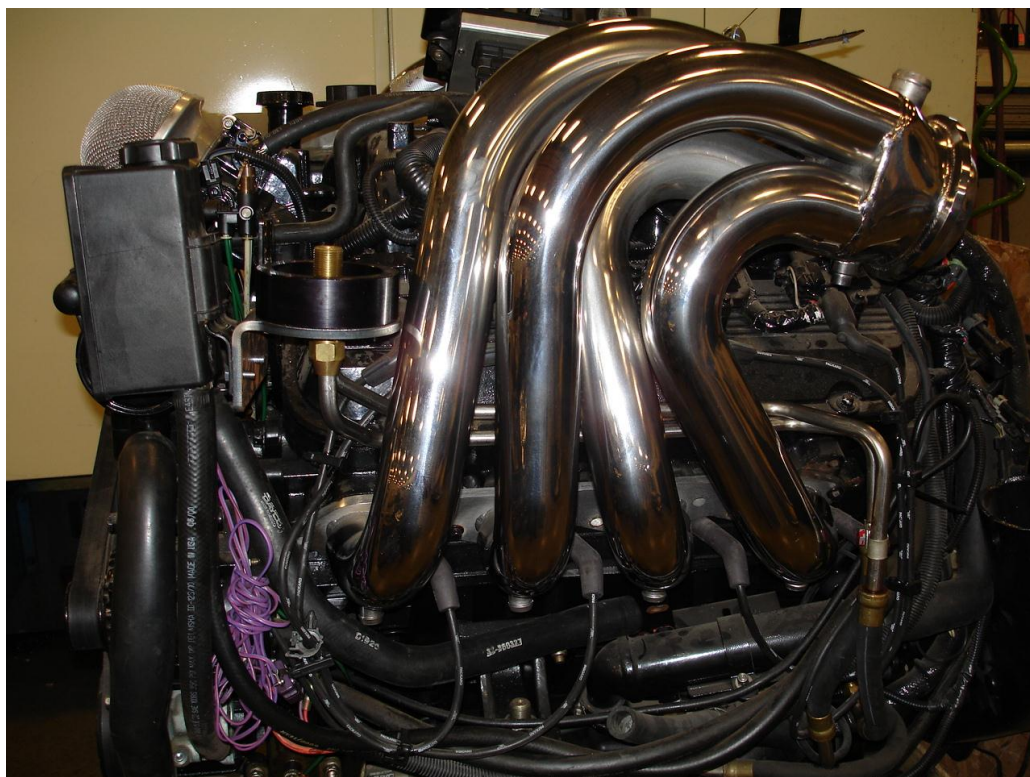
STEP 24) INSTALL TAILPIPES WITH CLAMP AND GASKETS. INSTALL JUMPER HOSES BETWEEN HEADER AND TAILPIPES WITH CLAMPS.

STEP 25) ATTACHED TAILPIPES WITH CUSTOMER SUPPLIED HOSE AND CLAMPS TO TRANSOM TIPS.





Picture 9



Picture 10

IMPORTANT!

**START ENGINE AND CHECK ALL
HOSE CONNECTIONS FOR
POSSIBLE LEAKS BEFORE USING.**

IMPORTANT!

FIRST RUN FOR 10 MINUTES.

ALLOW ENGINE TO COOL.

**CHECK HEADER BOLTS FOR
TIGHTNESS.**

496 HO / MAG DIVERTER ADAPTER KIT

CMI Diverter Installation with CMI 496 Performance Package

After removal of stock exhaust, and installation of your new CMI 496 Performance Package headers, continue as follows for diverter installation.

- 1) Layout your CMI diverter adapter items to verify that all necessary hardware is included. Note: Diversers are customer supplied and not included in kit.

2 Metal Adapter Rings
4 O-Rings
4 Band Clamps
2 Adapters



Picture 1

- 2) Pre-assembly of the adapter kit and the diverter.
 - a. Apply lubricant such as dish soap to diverter and slide on metal ring as shown in picture (2A)
 - b. Slide O-ring on as shown in picture (2B)



Picture 2A



Picture 2B

- c. Install band clamp around the metal ring and o-ring but do not tighten.
 - d. Slide CMI adapter into place as shown in picture (2D) making sure clamp is completely capturing metal ring, o-ring, and CMI adapter.



Picture 2C



Picture 2D

- 3) Install header band clamp and gasket into place as shown in picture (3). Do not tighten.
- 4) Slide rubber bull horn hose all the way down as in picture (4) note you must loosen clamps. If necessary remove completely and put soap around bull horn and reassemble. Insert preassembly onto bull horn as in picture (4)



Picture 3



Picture 4

- 5) Push adapter end of preassembly into header clamp, see picture (5). Note sometimes it may be necessary to loosen header clamp screw completely.
- 6) Slide rubber bull horn hose onto diverter, see picture (6) and tighten per factory specifications.



Picture 5

Picture 6

- 7) Tighten band clamp between header and adapter then tighten band clamp between the diverter and adapter. Tighten per factory specifications.
- 8) Install rubber jumper hose and tighten clamps, see picture (7)



Picture (7)

- 9) Attach diverter to the transom tip as previously installed.
- 10) Repeat the same steps for the opposite side.

IMPORTANT!

START ENGINE AND CHECK ALL

HOSE CONNECTIONS FOR

POSSIBLE LEAKS BEFORE USING.

IMPORTANT!

FIRST RUN FOR 10 MINUTES.

ALLOW ENGINE TO COOL.

CHECK HEADER BOLTS FOR

TIGHTNESS.