



Factory Five Racing, Inc.

Part Number: 33770

Revision: F

Effective Date: 5/10/16

By: J. INGERSLEV

Hot Rod LS Engine

INSTALLATION INSTRUCTIONS

Parts needed

EXHAUST MANIFOLDS



Hooker 8501 LS engine swap manifolds.

BELLOUSING



We suggest the Silversport Transmission 621 Aluminum bellhousing for LS w/o inspection cover. Trans fitment - Chevy TKO.

shiftsst.com - \$249.95

PILOT BEARING



Small bearing (GM# 14061685, Timken 57080, Morosso 41100). It was used in all of the RWD LS V8 cars that GM made from 97-04 in the Y body, 98-02 in the F body and 04-06 in the GTO.

Summit racing \$14.95

FLYWHEEL

168 tooth flywheel

CLUTCH

26 spline clutch

HYDAULIC CLUTCH ACTUATOR



We suggest the American Powertrain Hydramax Hydraulic clutch release systems HMGM01101SR.

Summit racing - \$607.97

TRANSMISSION



GM TKO 500 or 600

Installation



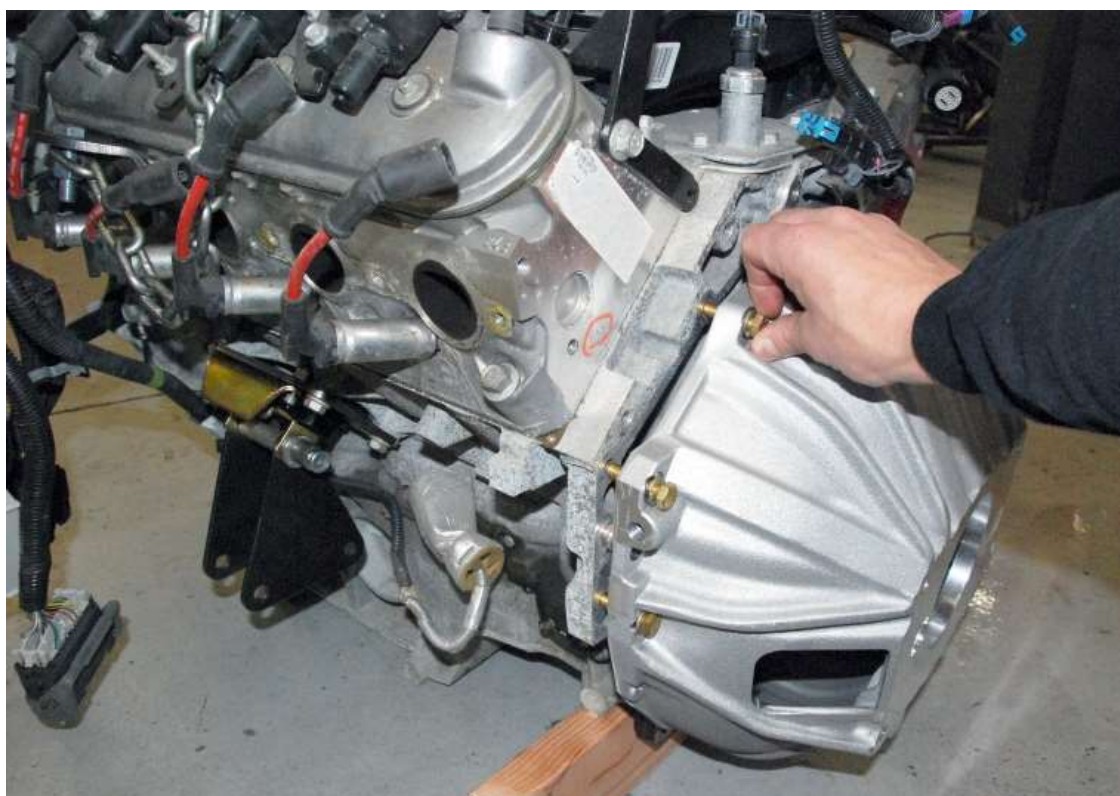
Make sure there is no pilot bearing in the end of the crank shaft already.



Install the small pilot bearing so that it is flush with the stepped area.



Install your flywheel and clutch.



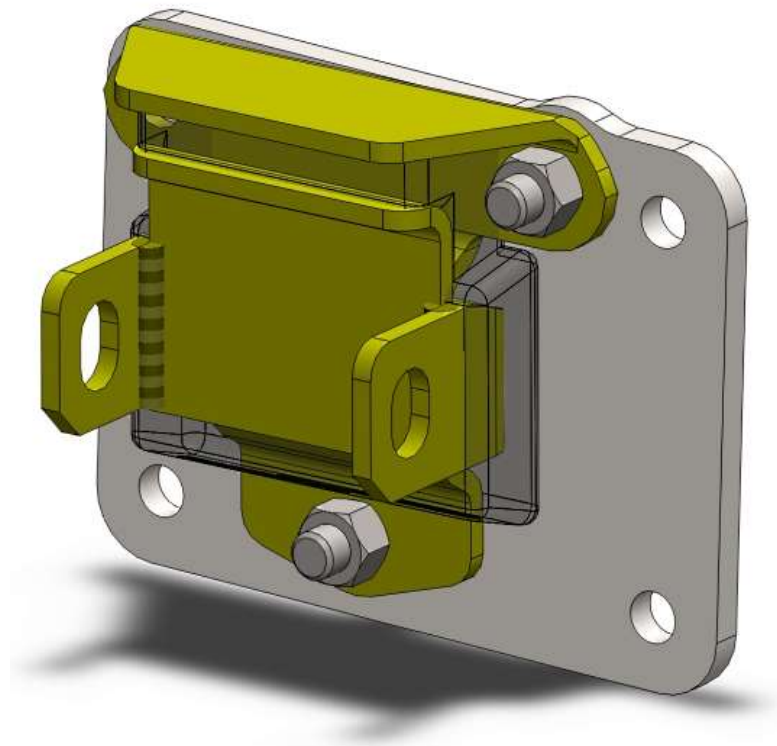
Attach the bellhousing to the engine. Keep in mind, not all of the bolts holes on the engine will be used.

Attach the transmission to the engine.

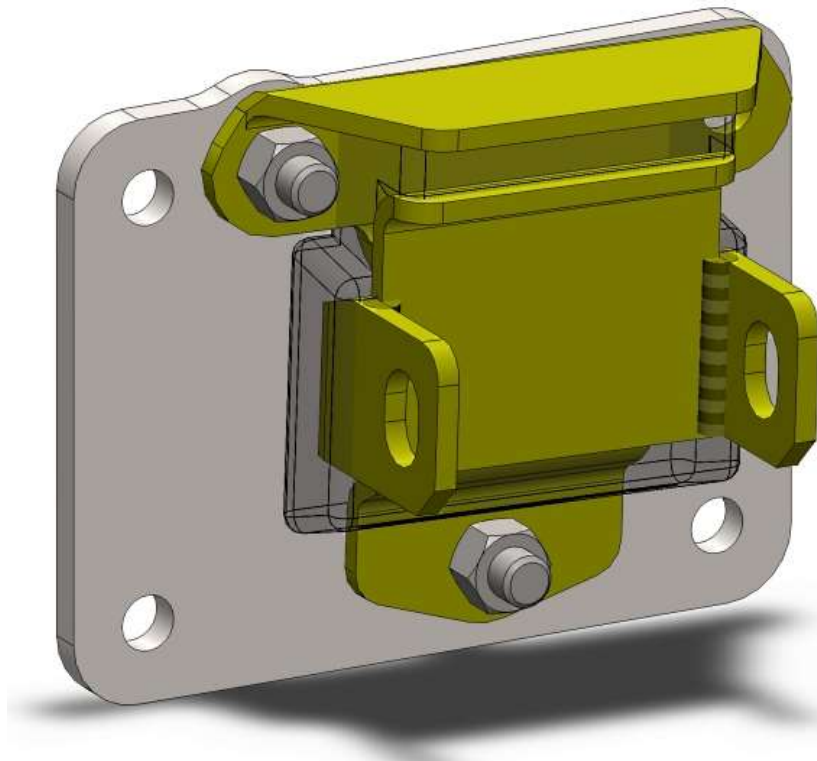
Attach the polyurethane engine mount to the 1/4" plate using a 3/8"x 1" bolt provided.



Do not use the yellow zinc engine mount backing plates that comes with the polyurethane mounts.

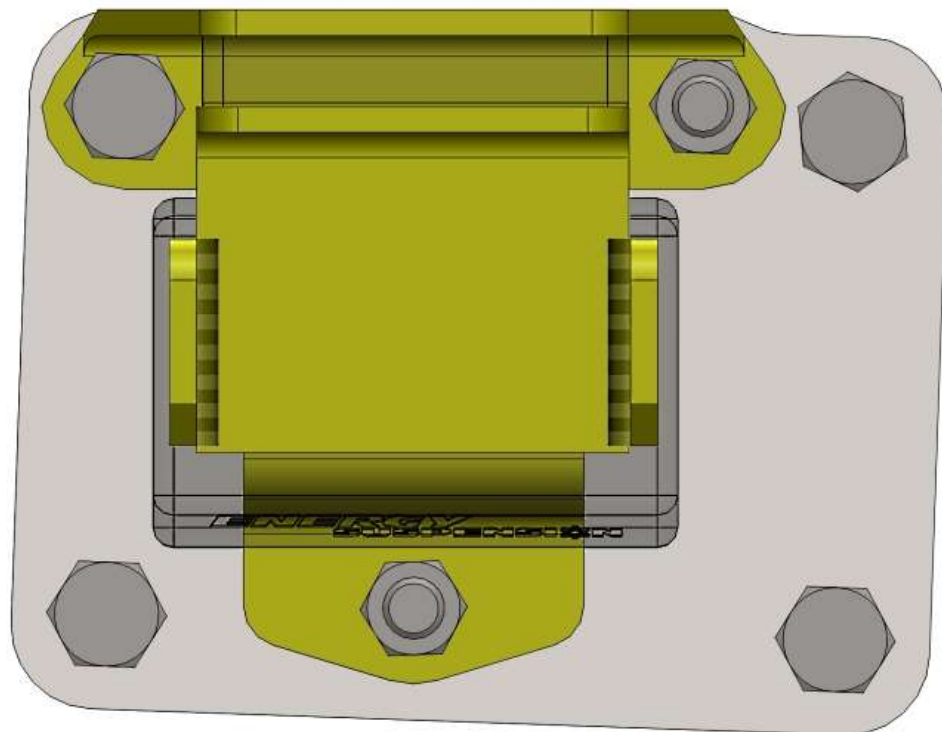


Left Side.

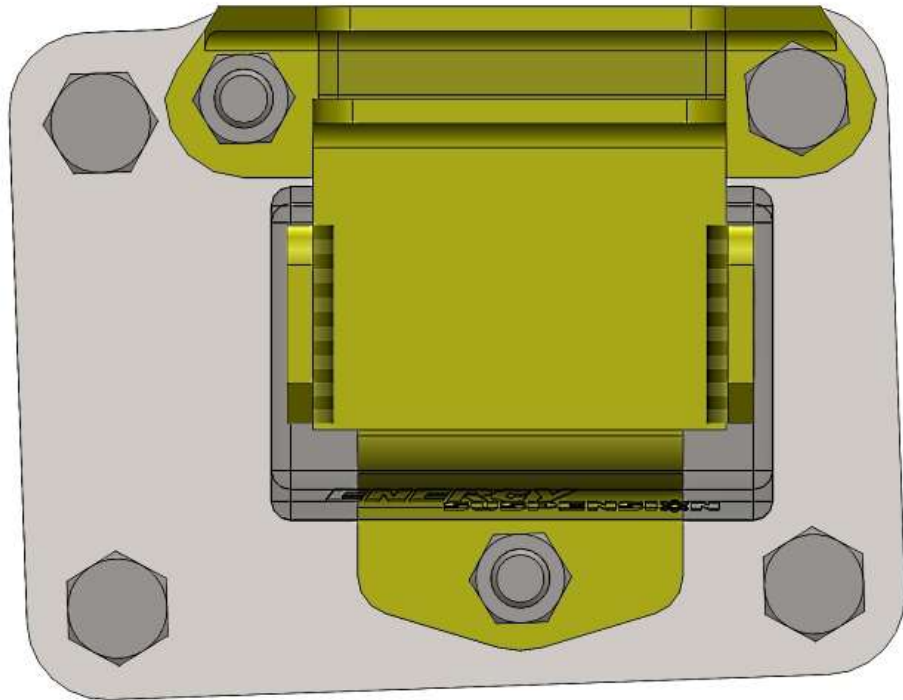


Right Side

Attach the 1/4" engine mount plate and polyurethane engine mount to the engine using the M10 x 25mm bolts provided.



Left Side



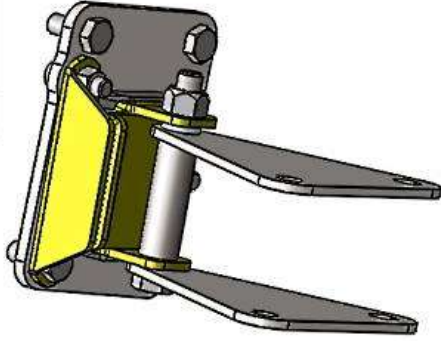
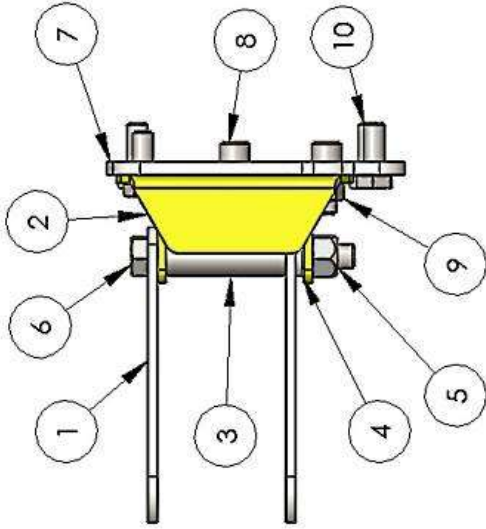
Right Side

Use the following diagrams to attach the engine mount side plates and spacers to the engine.

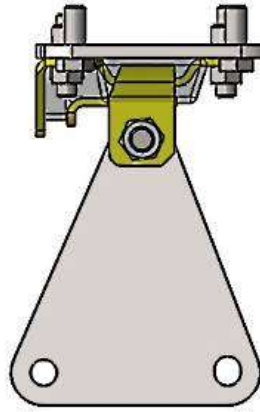


- The engine bolt hole is offset one direction; make the side plates so the slotted hole is on the bottom
- Leave the long bolt slightly loose to allow movement and easier alignment when installing the engine.

REVISIONS		DATE	APPROVED
REV:	DESCRIPTION		
A	INITIAL RELEASE	5/10/11	



ITEM NO.	PART NUMBER	DESCRIPTION	LEFT SIDE/QTY.
1	30752	LS ENGINE MOUNT SIDE PLATE	2
2	3.1114		1
3	33753	ENGINE MOUNT SPACER	1
4	13210		1
5	93795A250		1
6	B18.2.3.5M - Hex bolt M12 x 1.75 x 100 --30N		1
7	33754	ENGINE PLATE	1
8	HX-SHCS 0.375-16x1x1-N		2
9	HNUT 0.3750-16-D-N		2
10	B18.2.3.1M - Hex cap screw, M10 x 1.5 x 25 --25N		4



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LEFT SIDE ASSEMBLY

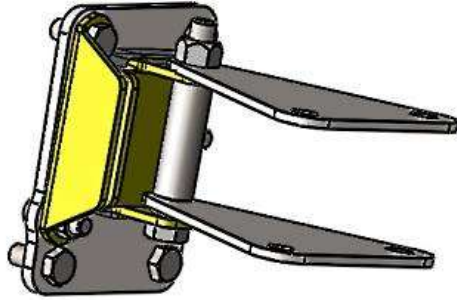
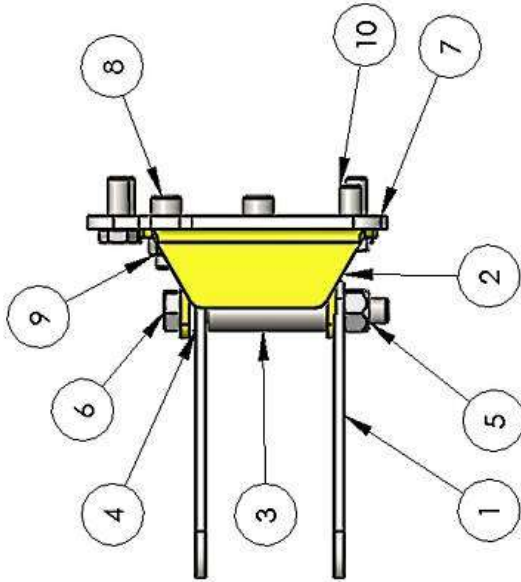
SIZE DWG. NO. **A 33755** REV **A**

SCALE: 1:3 WEIGHT: SHEET 1 OF 4

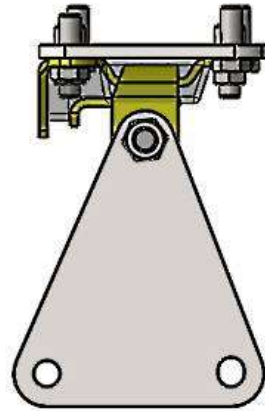
HOT ROD	NAME	DATE
	JI	3/21/11
	UNLESS OTHERWISE SPECIFIED:	
	DIMENSIONS ARE IN INCHES	
	TOLERANCES:	
	TWO PLACE DECIMAL ±0.01	
	THREE PLACE DECIMAL ±0.005	
	FOUR PLACE DECIMAL ±0.001	
	COMMENTS:	
	DO NOT USE YELLOW ZINC	
	ENGINE MOUNT BACKING PLATE	
	TITLE:	
	MATERIAL:	
	FINISH:	
USED ON	PRINTED	1/19/2012
APPLICATION	LS ENGINE	

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REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/10/11	



ITEM NO.	PART NUMBER	DESCRIPTION	RIGHT SIDE/QTY.
1	33752	LS ENGINE MOUNT SIDE PLATE	2
2	3.1114		1
3	33753	ENGINE MOUNT SPACER	1
4	13210		1
5	93795A250		1
6	818.2.3.5M - Hex bolt M12 x 1.75 x 100 --30N		1
7	33754	ENGINE PLATE	1
8	HX-SHCS 0.375-16x1x1-N		2
9	HNUT 0.3750-16-D-N		2
10	818.2.3.1M - Hex cap screw, M10 x 1.5 x 25 --25N		4



UNLESS OTHERWISE SPECIFIED:

DRAWN: JI DATE: 3/21/11

NAME: **Factory Five Racing, Inc.**

DIMENSIONS ARE IN INCHES

TOLERANCES:

TWO PLACE DECIMAL ±0.01

THREE PLACE DECIMAL ±0.005

FOUR PLACE DECIMAL ±0.001

MATERIAL:

FINISH:

USED ON:

APPLICATION: LS ENGINE

HOT ROD

COMMENTS: DO NOT USE YELLOW ZINC ENGINE MOUNT BACKING PLATE

TITLE: **RIGHT SIDE ASSEMBLY**

SIZE: **A** DWG. NO.: **33755** REV: **A**

PRINTED: 1/19/2012 SCALE: 1:3 WEIGHT: SHEET 3 OF 4

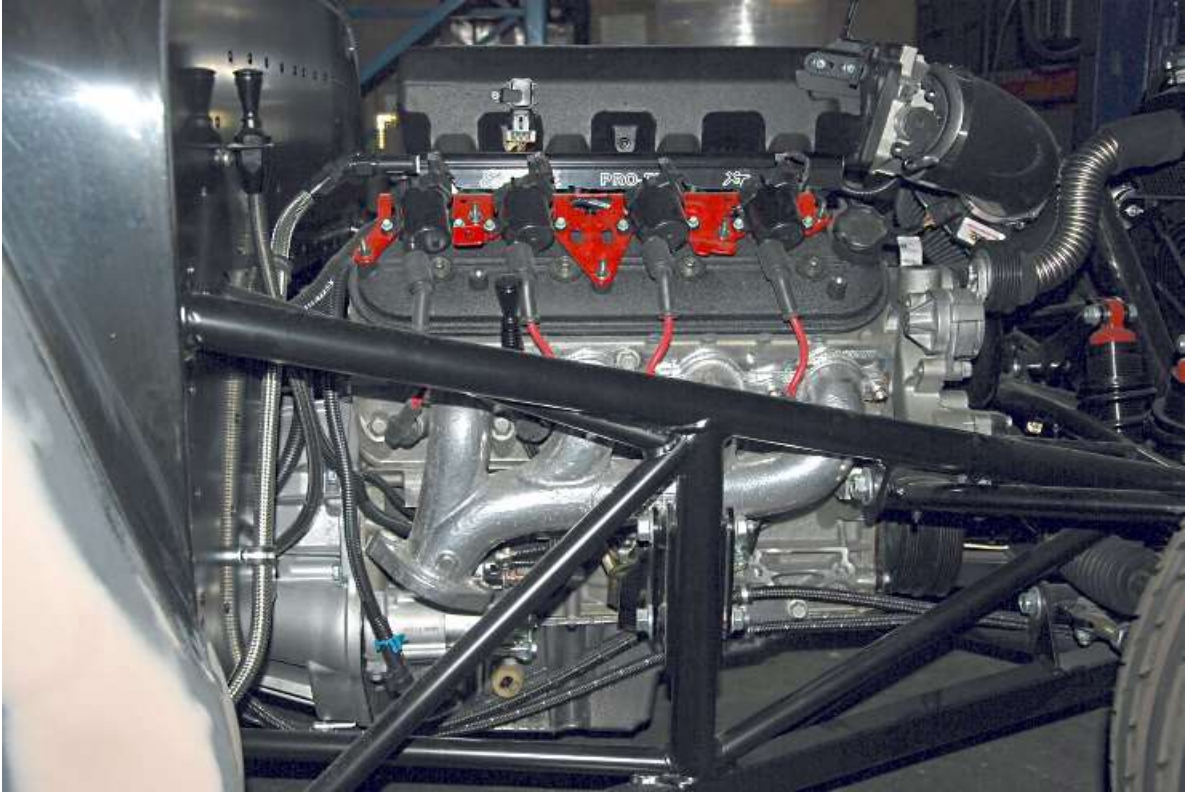
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Install the engine and transmission.



Attach the engine side plates to the frame using the bolts provided.



Attach the headers to the engine.



Attach the connector pipes to the kit exhaust system.