



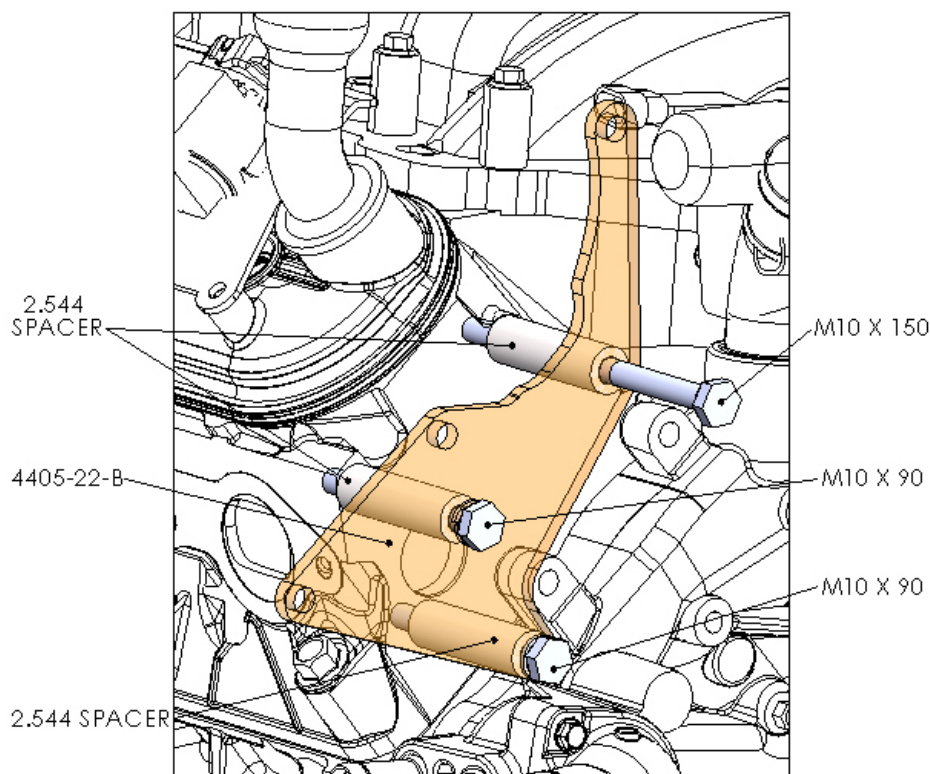
IBEX 4405-20-C GM LS PASSENGER SIDE ALTERNATOR BRACKET

GOAT BUILT PASSENGER ALTERNATOR RELOCATION BRACKET

Thank you for purchasing Goat Built components, before starting your installation, we recommend that you read through these instructions to familiarize yourself with the steps and parts so you can plan and prepare for your install accordingly.

A few notes about the 4405-20-C Alternator bracket:

- These instructions cover two different belt spacing kits. The 4405-20 fits the 2000's truck Vortec 4.8/5.3/6.0 pulley spacing. The 4405-20-F fits the 98-02 Camaro, 98-06 GTO, 98-02 Firebird pulley spacing and water pump. The F-body kit spaces the alternator $\frac{3}{4}$ " closer to the head.
 - The F-body or 99-15 to current GM truck alternators is required.
 - If you are using an F-body water pump with $\frac{3}{4}$ " water pump spacers to run truck spacing, you will need 1.612 spacers between the front bracket and water pump and M10 x 60 bolts.
 - The **belt length** varies based on which alternator you are using and which power steering pump, bracket and pulley diameter you are using.
 - A new belt tensioner is provided with this kit, the spring tensioner is from a 92-02 Chevy Cavalier/Pontiac Sunfire, the Gates version works the best and is p/n 38164.
 - If you want to upgrade to a shouldered pulley for the tensioner, the pulley is a Gates 89003.
 - We also make a manual tensioner kit so you can set your own belt tension. If you use the manual tensioner kit, you may need to drill one of the holes out to $\frac{1}{2}$ " so do that before you install the kit.
1. Loosely install all the brackets, alternator, and bolts before you fully tighten any of the bolts, unless instructed to.
 2. Install the 4405-22 bracket to the head using the two M10 x 90 bolts, lock washers, and M10 x 150 bolt with the 2.544" spacers between the 4405-22 bracket and the head. For F-body spacing, use the M10 x 70 bolts, M10 x 130 bolt and 1.794" spacers.
 3. Tighten the two M10 x 90 or 70 bolts to 40 ft lbs then remove the M10 x 150 or 130 bolt.
 4. If you are installing the manual tensioner kit, drill out the M10 hole for the center of the tensioner to $\frac{1}{2}$ " for the larger $\frac{1}{2}$ " carriage bolt for the manual tensioner. See Figure 2.



5. Install the 4406-21 bracket to the head using the M10 x 150 bolt with the 2.010" spacer between the brackets into the head. Install the M10 x 90 bolt with the 2.010" spacer between the brackets with a flat washer and lock nut on the back. Do not use any washers under the heads of these two bolts. If you are using the spring tensioner, do not tighten the M10 x 90 bolt yet. For F-body spacing, use the M10 x 130 bolt instead of the M10 x 150 bolt.
6. Install the two M10 x 80 bolts thru the 4405-21 bracket, 2.326" spacers and into the water pump. For F-body spacing use the 1.546" spacers and M10 x 70 bolts.
7. Install the grooved idler with the spacer to the 4420-21 bracket using the ½ flange bolt and lock nut, torque to 60 ft-lbs.
8. If you are using the spring tensioner, install the tensioner to the 4405-21 bracket with the 4405-23 spacer and M10 x 80 bolt.
9. If you are using the manual tensioner kit, install the manual tensioner arm to the back of the 4405-21 bracket using figure 2 as a guide. You may need to drill the hole for the ½ x 1-½ carriage bolt out from M10 to ½". The manual tensioner arm pivots on the ½ x 1.5" carriage bolt, the ½ x 2.5" carriage bolt will go thru the end of the arm, thru the slot in the 4405-21 bracket, thru the idler spacer and idler puller and secured with the flanged lock nut.
10. Install the M10 x 90 bolts thru the 4405-23 idler spacer, 4405-21 front bracket, 2.010 spacer, 4405-22 rear bracket. Refer to figure1 as a guide. If you are using the manual tensioner, you will not have the 4405-23 idler spacer.

11. Install the alternator between the 4405-21 and 4405-22 brackets using an M10x80 bolt and nylock nut, use a flat washer under the nut.
12. Torque the 10 MM bolts to 40 ft-lbs, Torque the tensioner bolts to 60 ft-lbs

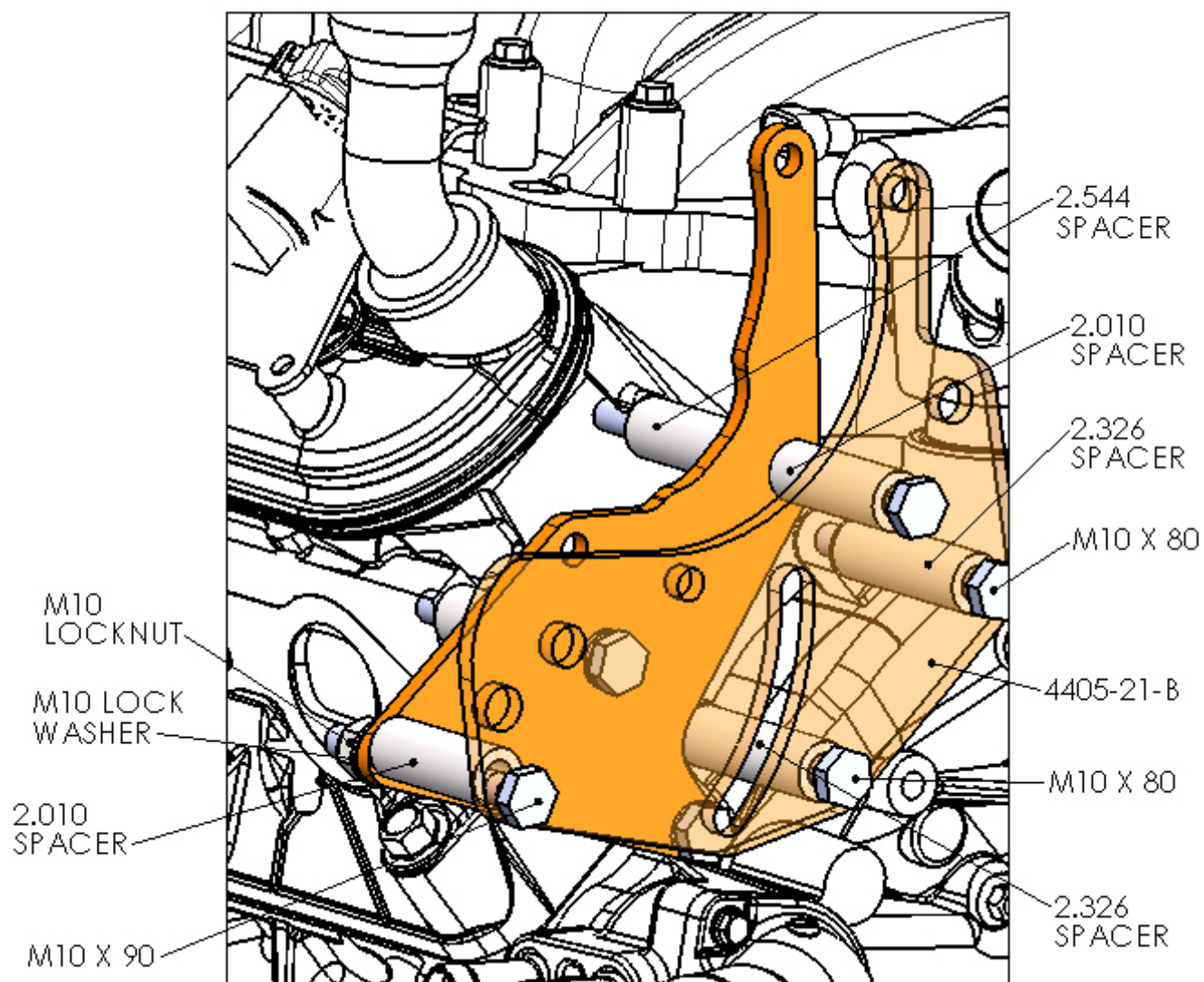


Figure 1

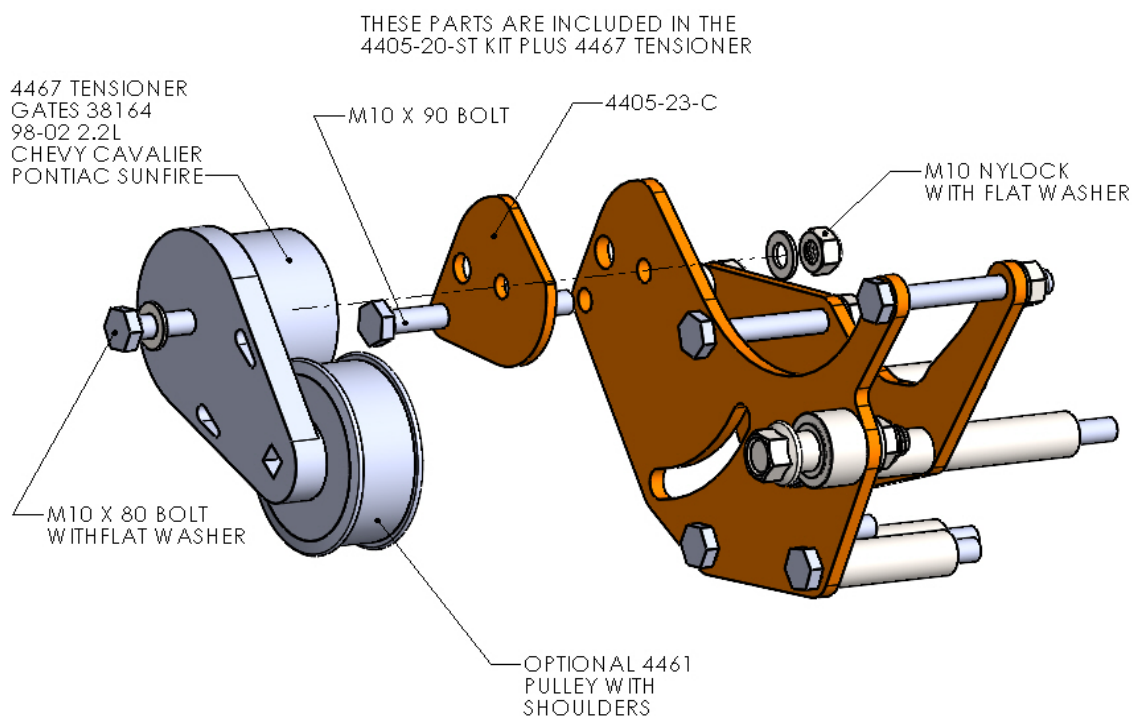
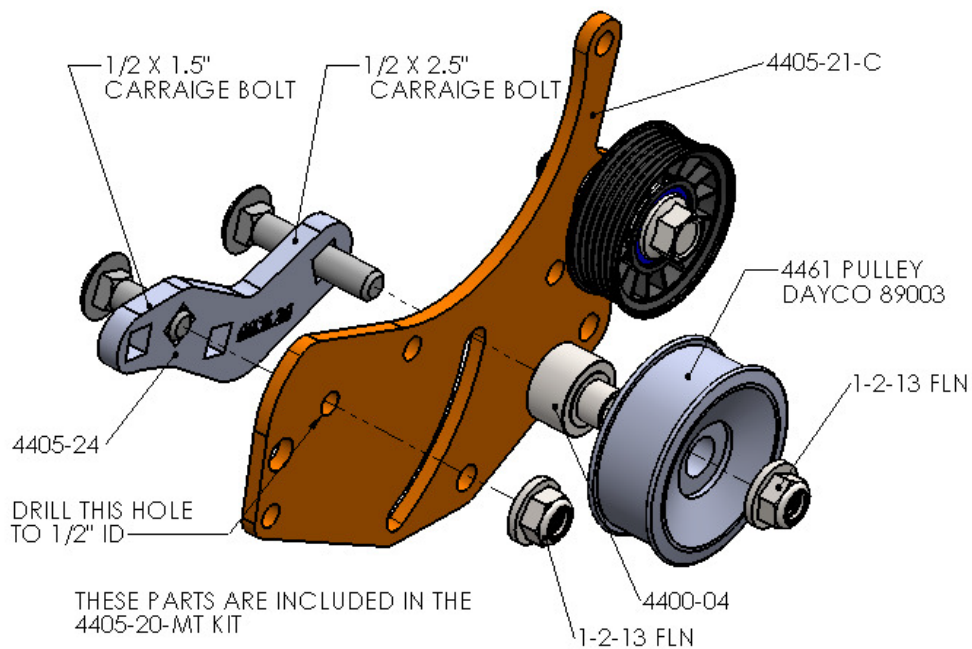
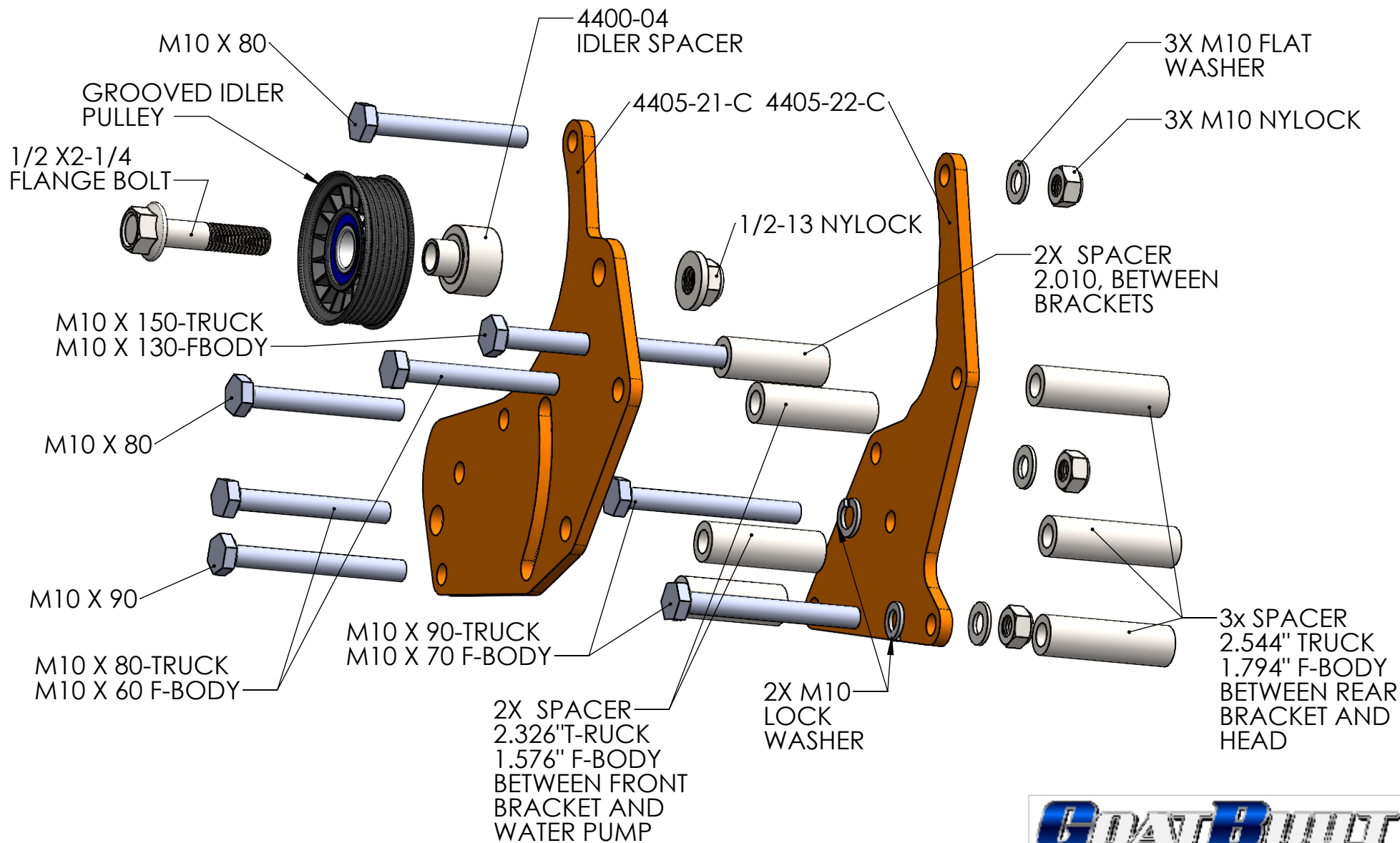


Figure 2





TITLE: ALTERNATOR BRACKET
PASS SIDE, TRUCK &
F-BODY SPACING

SIZE DWG. NO.
A 4405-20-C

SCALE: 1:1 WEIGHT: SHEET 1 OF 4

ITEM NO.	PART NUMBER	DESCRIPTION	4405/QTY.	4405-20-F/QTY.
1	4405-21-C	FRONT BRACKET	1	1
2	4405-22-C	REAR BRACKET	1	1
3	M10-LW	M10-LW	2	2
4	M10-FW	M10-FLAT WASHER	3	3
5	M10-LN	M10 LOCK NUT	3	3
6	M10 X 60	M10 X 60 BOLT	-	2
7	M10 X 70	M10 X 70 BOLT	-	2
8	M10 X 80	M10 X 80 BOLT	4	2
9	M10 X 90	M10 X 90 BOLT	3	1
10	M10 X 130	M10 X 130 BOLT	-	1
11	M10 X 150	M10 X 150 BOLT	1	-
12	4400-1576	1.576" SPACER	-	2
13	4400-1794	1.794" SPACER	-	3
14	4400-2010	2.010" SPACER	2	2
15	4400-2326	2.326" SPACER	2	-
16	4400-2544	2.544" SPACER	3	-
17	1-2-2.25-FB	1/2 X 2-1/4 FLANGE BOLT	1	1
18	1-2-13FLN	1/2-13 IDLER NUT	1	1
19	4400-04	IDLER SPACER, .73"	1	1
20	4464	GROOVED PULLEY, 38008	1	1



TITLE: ALTERNATOR BRACKET
PASS SIDE, TRUCK &
F-BODY SPACING

SIZE DWG. NO.
A 4405-20-C

SCALE: 1:1 WEIGHT: SHEET 2 OF 4