

NOTE: FLAG ITEMS
REFER TO INSTRUCTION DRAWINGS

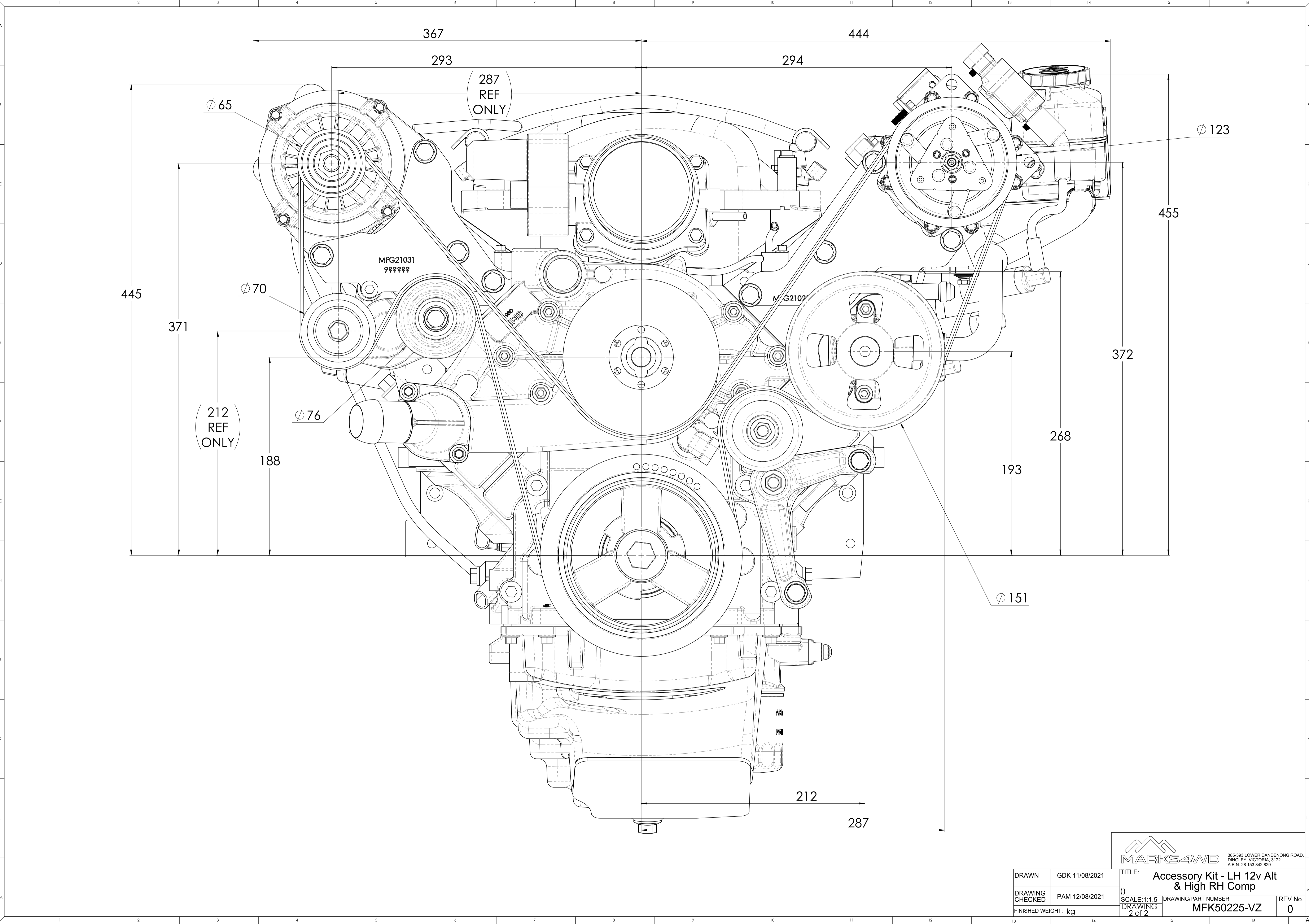
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MFG21022	LS1/LS2 Sanden Compressor (High LH)	1
2	MFG21031	LS1/LS2 12v Alternator Relocation RH	1
3	MFC20028	Bracket - High Mount Sanden Setup Coil Relocation	1
4	MFC20029	Power Steering Reservoir Bracket - LS2/3	1
5	UBH16 - 300 x 500N	90° 16 x 300 x 500 Universal Hose Bend - Fuel & Oil	1
6	MFC651	Spacer 10 x 20 x 51 L P/ST	2
7	6PK2540	Drive Belt - Poly Rib (2540mm)	1
8	16-25-9W2	Hose Clamp - 16 to 25mm	2
9	BT-2270	BOLT - M10 X 1.5 X 80mm - H/T - Z/P	2
10	BT-2130	M6 x 1.25 x 20 - Capture Bolt	22
11	FW-2010	Flat Washer - M10 x 22 x 2mm	3
12	SW-2005	Spring Washer - M10 - S/S	2
13	SHCS-2125	SHCS - M6 x 1 x 12mm - SS	1
14	MFC21007	VE Power Steering Pump Hose Barb	1

INSTRUCTION DRAWINGS
MFK50225-VZ-SHT-1
MFK50225-VZ-SHT-2
1: MFG21022
2: MFG21031
A: LS - ACCMOD - 01
B: LS - ACCMOD - 02
C/3/10: LS - ACCMOD - 06
D: LS - ACCMOD - 10
E: LS - ACCMOD - 11
F: LS - INFO - 02
G: LS - INFO - 06

THE SUCCESSFUL ASSEMBLY OF THE KIT
REQUIRES THE MODIFICATION PROCEDURES
IN THE INSTRUCTION DRAWINGS LISTED ON
THIS SHEET TO BE CAREFULLY FOLLOWED

DRAWN	GDK 11/08/2021	TITLE:	Accessory Kit - LH 12v Alt & High RH Comp
DRAWING CHECKED	PAM 12/08/2021	SCALE:1:2.5	DRAWING/PART NUMBER
FINISHED WEIGHT: kg		DRAWING 1 of 2	MFK50225-VZ
		REV No.	0

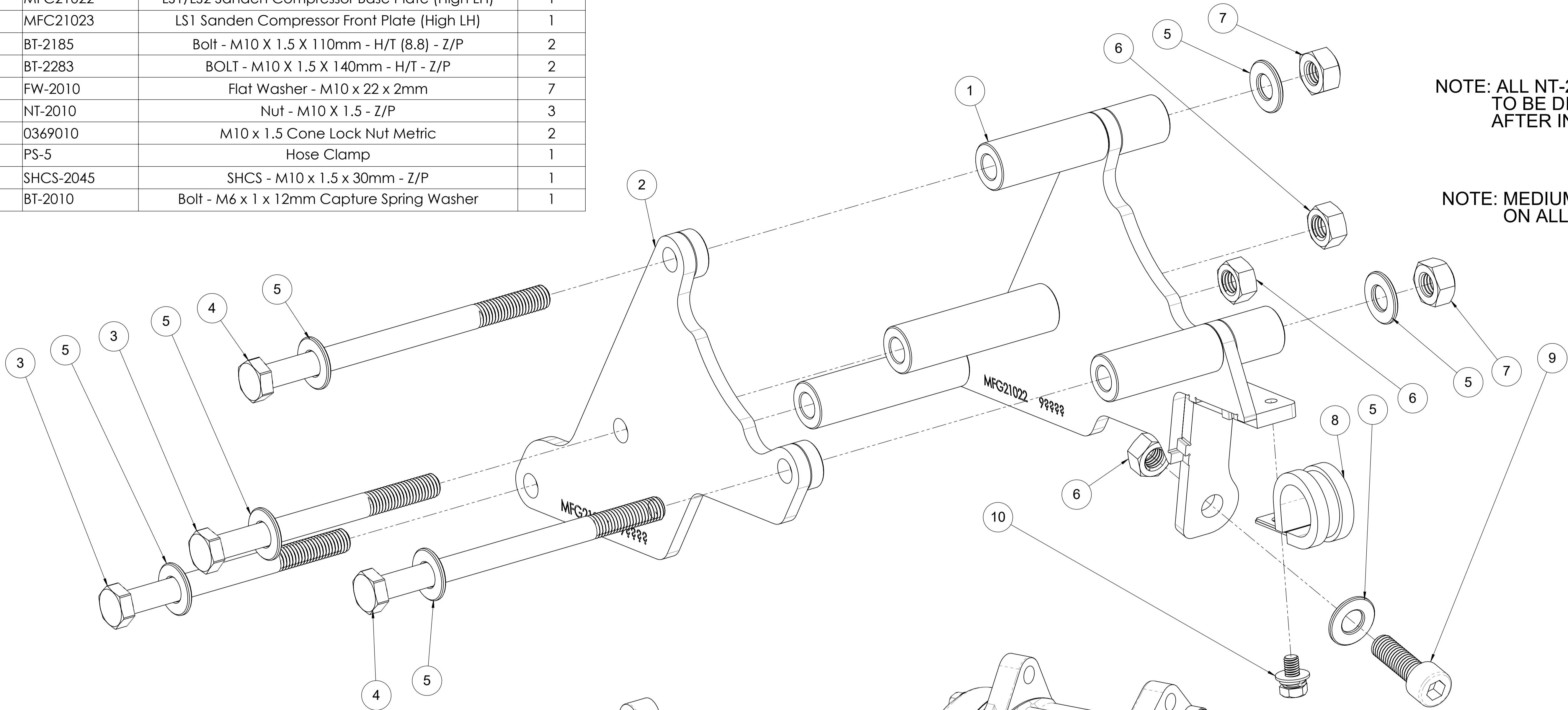
MARKS4WD
385-393 LOWER DANDENONG ROAD,
DINGLEY VICTORIA, 3172
A.B.N. 28 153 842 829



MARKS4WD
385-393 LOWER DANDENONG ROAD,
DINGLEY, VICTORIA, 3172
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DRAWN	GDK 11/08/2021	TITLE: Accessory Kit - LH 12v Alt & High RH Comp		
DRAWING CHECKED	PAM 12/08/2021	SCALE: 1:1.5	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 2 of 2	MFK50225-VZ	0

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MFC21022	LS1/LS2 Sanden Compressor Base Plate (High LH)	1
2	MFC21023	LS1 Sanden Compressor Front Plate (High LH)	1
3	BT-2185	Bolt - M10 X 1.5 X 110mm - H/T (8.8) - Z/P	2
4	BT-2283	BOLT - M10 X 1.5 X 140mm - H/T - Z/P	2
5	FW-2010	Flat Washer - M10 x 22 x 2mm	7
6	NT-2010	Nut - M10 X 1.5 - Z/P	3
7	0369010	M10 x 1.5 Cone Lock Nut Metric	2
8	PS-5	Hose Clamp	1
9	SHCS-2045	SHCS - M10 x 1.5 x 30mm - Z/P	1
10	BT-2010	Bolt - M6 x 1 x 12mm Capture Spring Washer	1

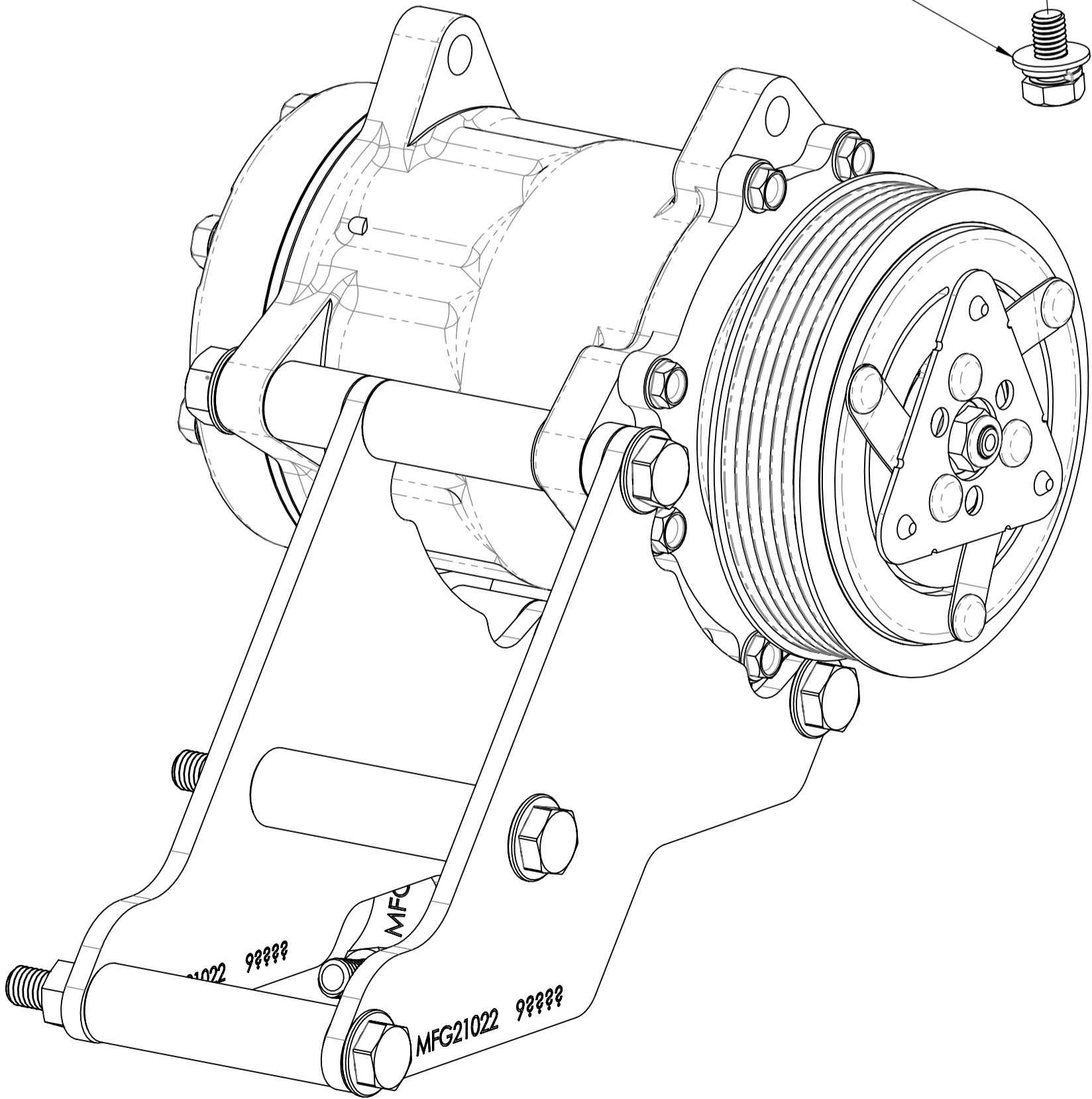
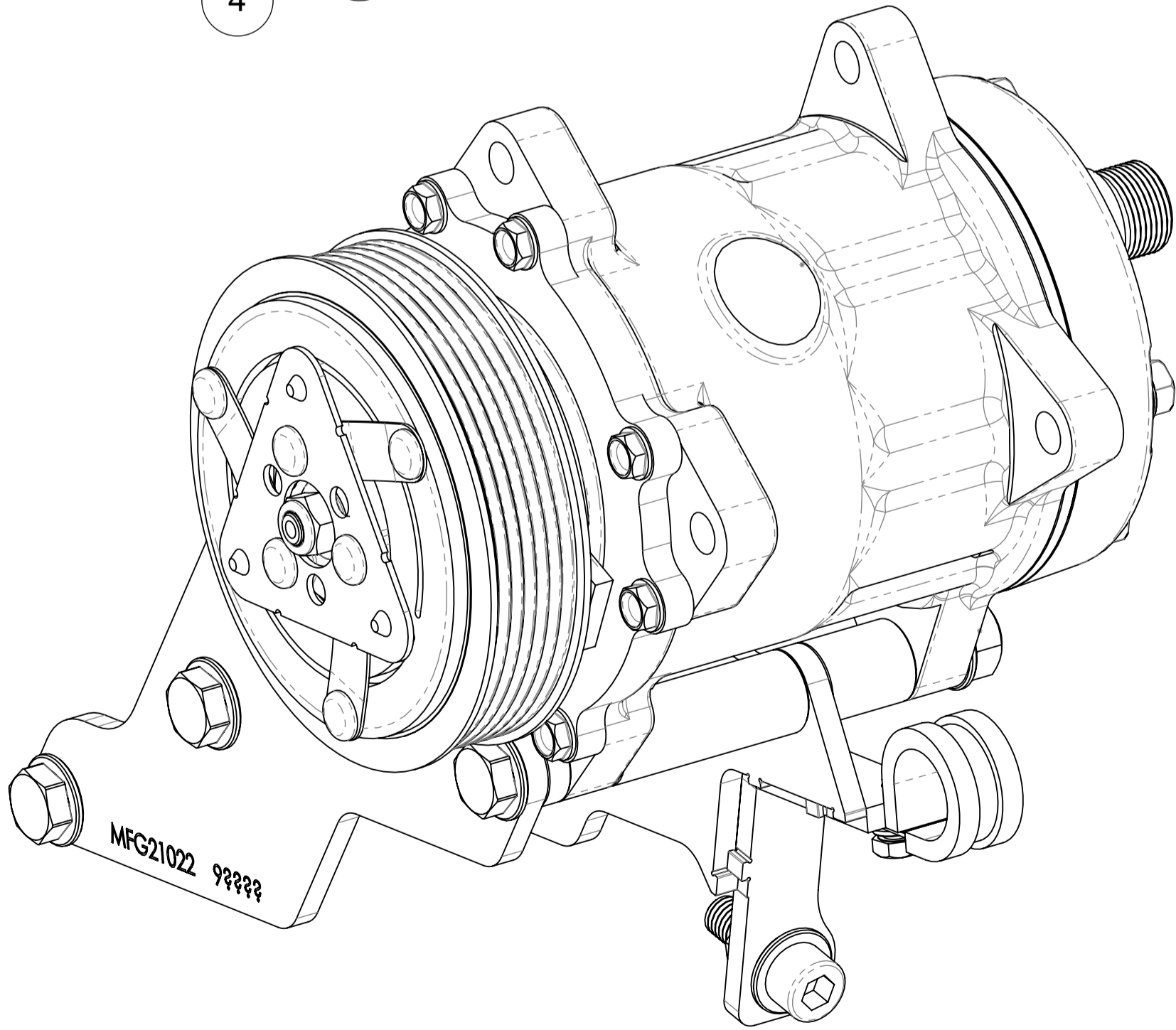


NOTE: ALL NT-2010
TO BE DISCARDED
AFTER INSTALL

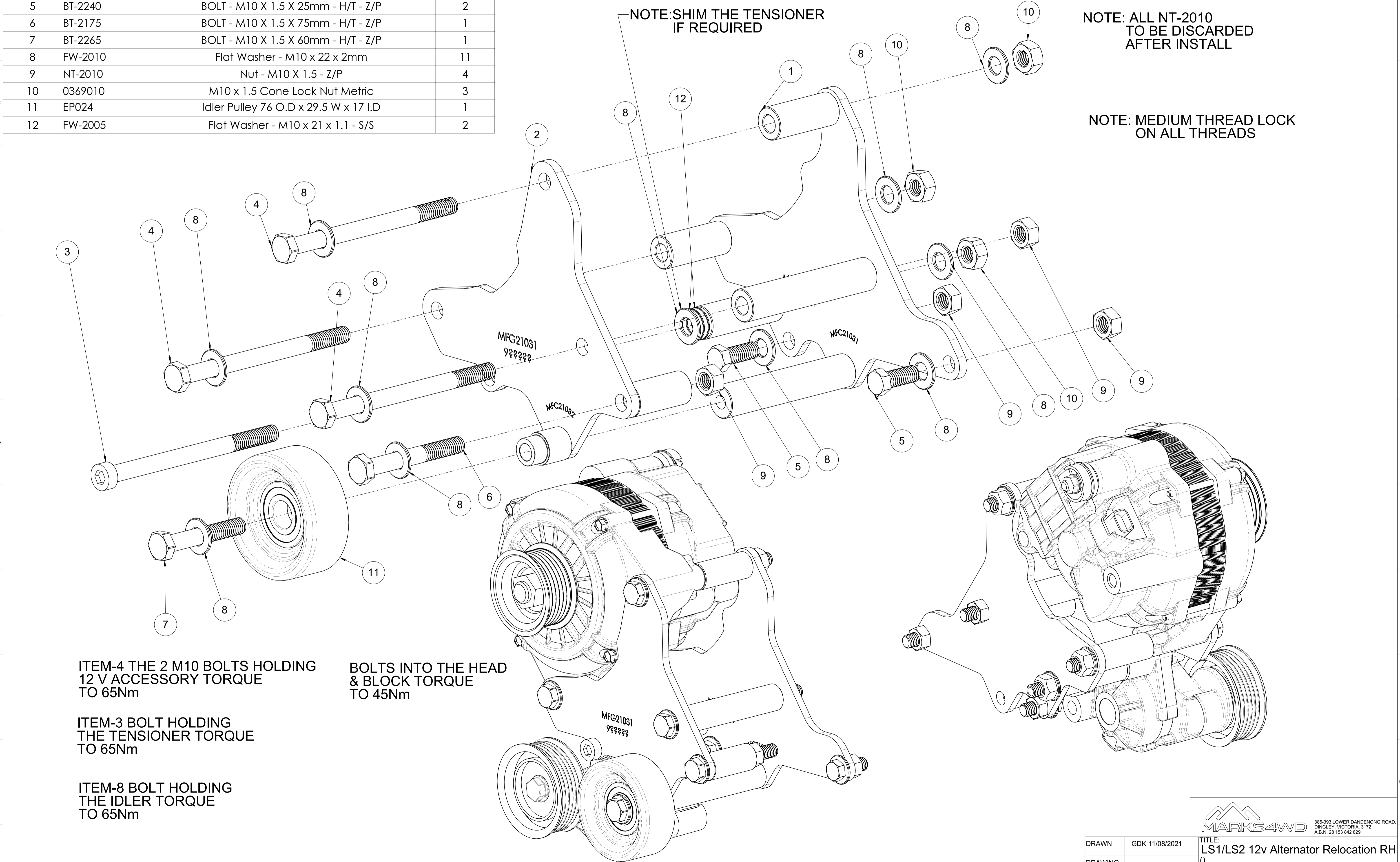
NOTE: MEDIUM THREAD LOCK
ON ALL THREADS

BOLTS INTO THE HEAD
& BLOCK TORQUE
TO 45Nm

ITEM-5 BOLTS HOLDING
THE ACCESSORY TORQUE
TO 65Nm



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MFC21031	LS1/LS2 12v Alternator Relocation Base Plate RH	1
2	MFC21032	LS1/LS2 12v Alternator Relocation Front Plate RH	1
3	MFC21030	SHCS M10 x 1.5 x 130 - Low Head	1
4	BT-2282	BOLT - M10 X 1.5 X 130mm - H/T - Z/P	3
5	BT-2240	BOLT - M10 X 1.5 X 25mm - H/T - Z/P	2
6	BT-2175	BOLT - M10 X 1.5 X 75mm - H/T - Z/P	1
7	BT-2265	BOLT - M10 X 1.5 X 60mm - H/T - Z/P	1
8	FW-2010	Flat Washer - M10 x 22 x 2mm	11
9	NT-2010	Nut - M10 X 1.5 - Z/P	4
10	0369010	M10 x 1.5 Cone Lock Nut Metric	3
11	EP024	Idler Pulley 76 O.D x 29.5 W x 17 I.D	1
12	FW-2005	Flat Washer - M10 x 21 x 1.1 - S/S	2



ITEM-4 THE 2 M10 BOLTS HOLDING
12 V ACCESSORY TORQUE
TO 65Nm

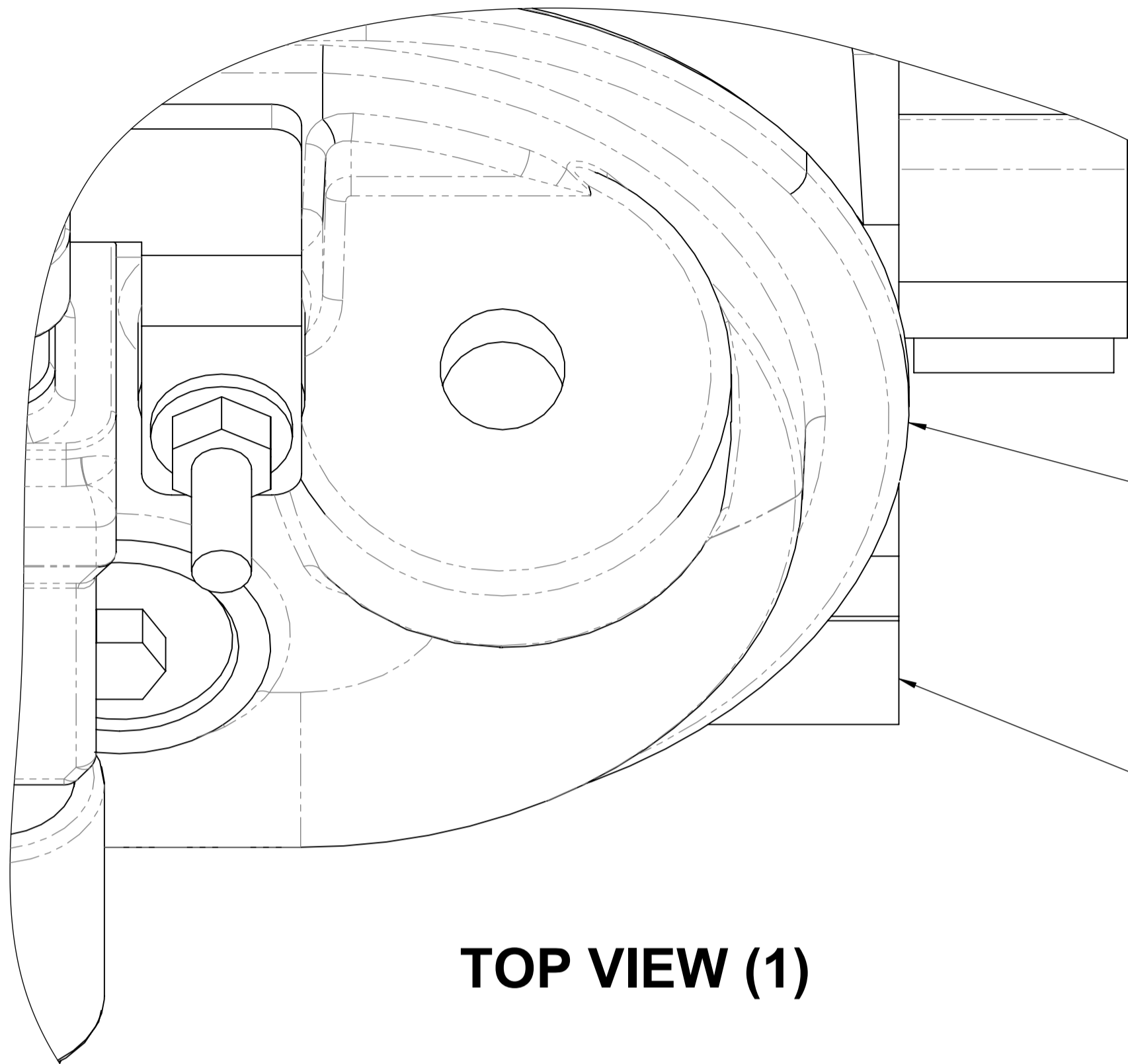
ITEM-3 BOLT HOLDING
THE TENSIONER TORQUE
TO 65Nm

ITEM-8 BOLT HOLDING
THE IDLER TORQUE
TO 65Nm

BOLTS INTO THE HEAD
& BLOCK TORQUE
TO 45Nm

LS - SERIES ROCKER COVER LIP MODIFICATION

STANDARD ROCKER COVER



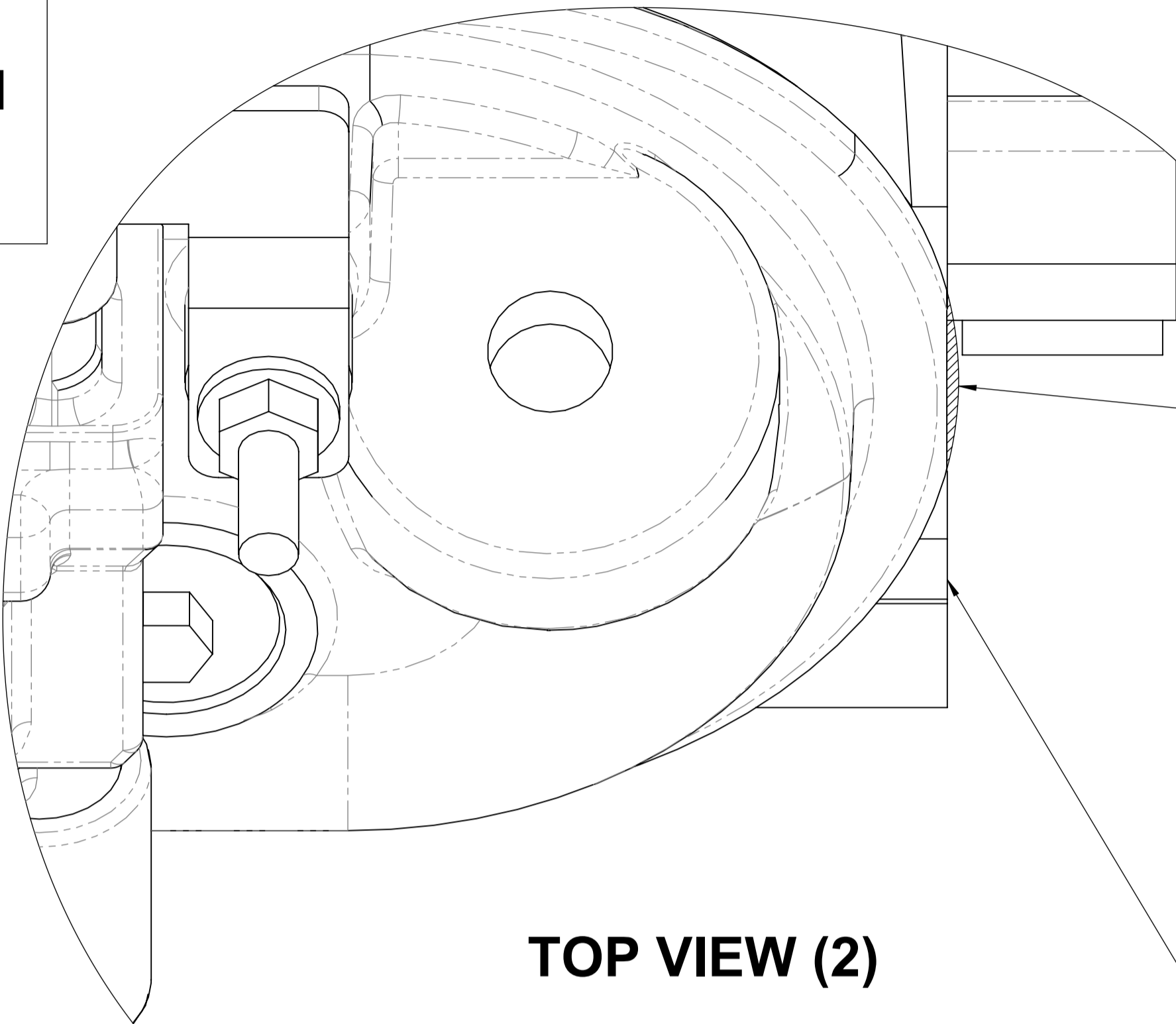
TOP VIEW (1)

THE LIP MODIFICATION SHOWS THE DRIVER SIDE CYLINDER HEAD FITTED WITH THE PASSENGER SIDE ROCKER COVER

PASSENGER SIDE ROCKER COVER LIP SITS ABOVE THE CYLINDER HEAD

DRIVER SIDE CYLINDER HEAD FACE SHOWN

MODIFIED ROCKER COVER



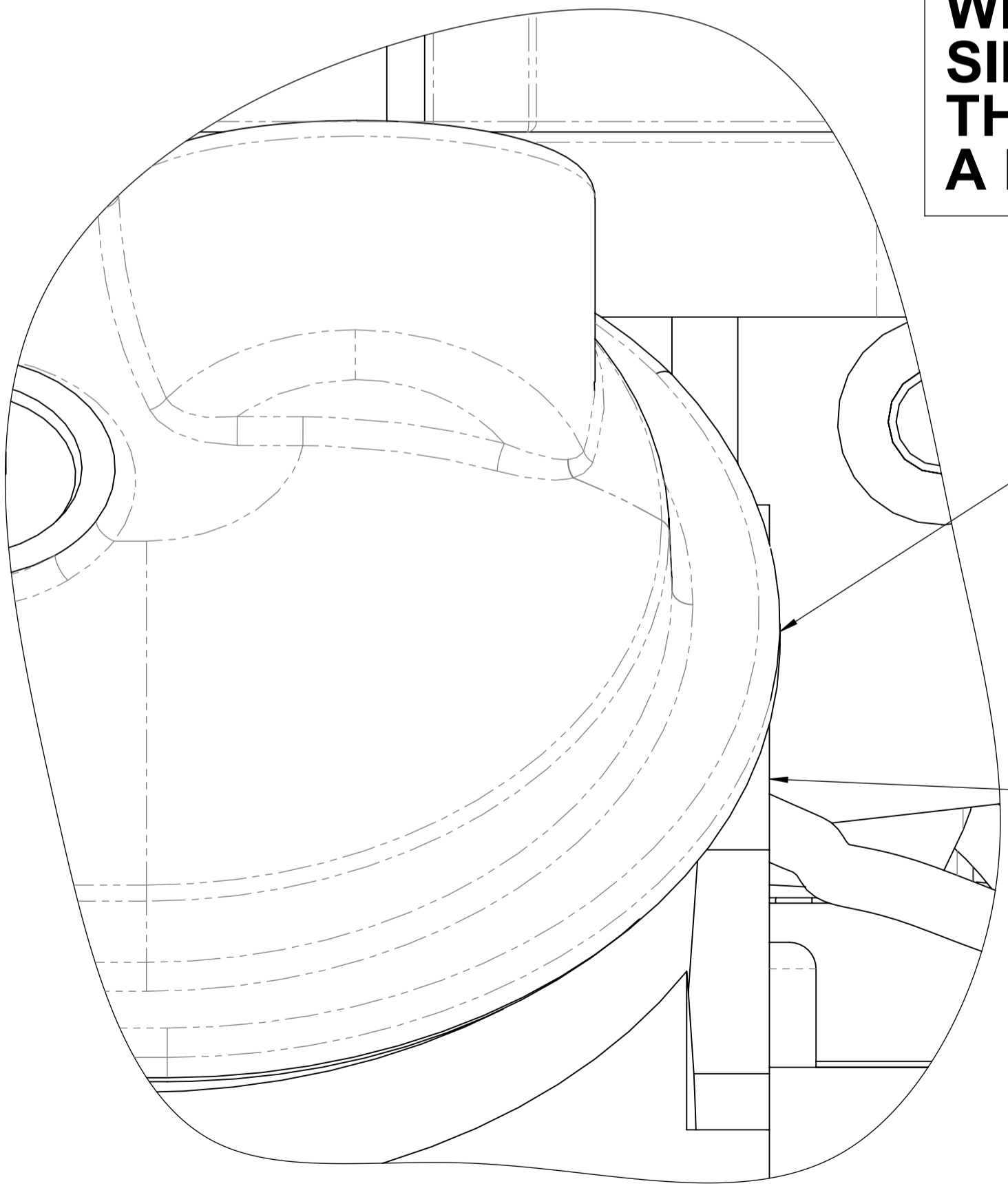
TOP VIEW (2)

DRIVER SIDE ROCKER COVER LIP REMOVE THE HATCHED AREA AS SHOWN

SHAVED ROCKER LIP SHOULD LOOK LIKE THE SIDE VIEW (2) BELOW

DRIVER SIDE CYLINDER HEAD FACE SHOWN

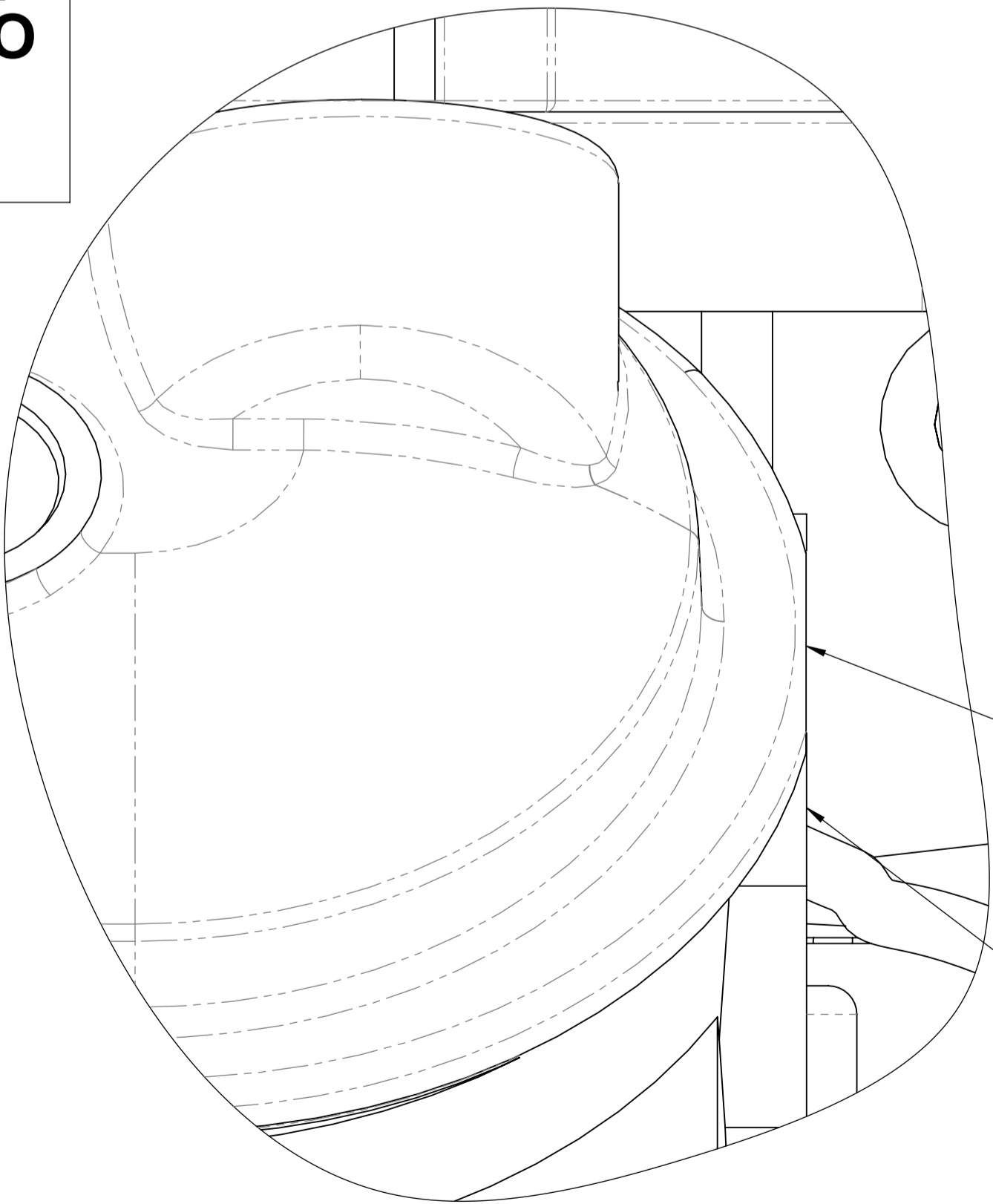
THE ROCKER COVER LIP MODIFICATION WILL ALSO BE REQUIRED FOR THE DRIVER SIDE ROCKER COVER WHEN IT IS FITTED TO THE PASSENGER SIDE CYLINDER HEAD IF A LH ACCESSORY KIT IS TO BE FITTED



SIDE VIEW (1)

PASSENGER SIDE ROCKER COVER LIP SITS ABOVE THE CYLINDER HEAD

DRIVER SIDE CYLINDER HEAD FACE SHOWN



SIDE VIEW (2)

THE LIP OVER HANG MUST BE SHAVED BACK TO THE CYLINDER HEAD FACE

CAUTION: DO NOT SHAVE PAST THE CYLINDER HEAD & ENCROACH INTO THE O RING GROOVE

PASSENGER SIDE ROCKER COVER LIP SHAVED

DRIVER SIDE CYLINDER HEAD FACE SHOWN

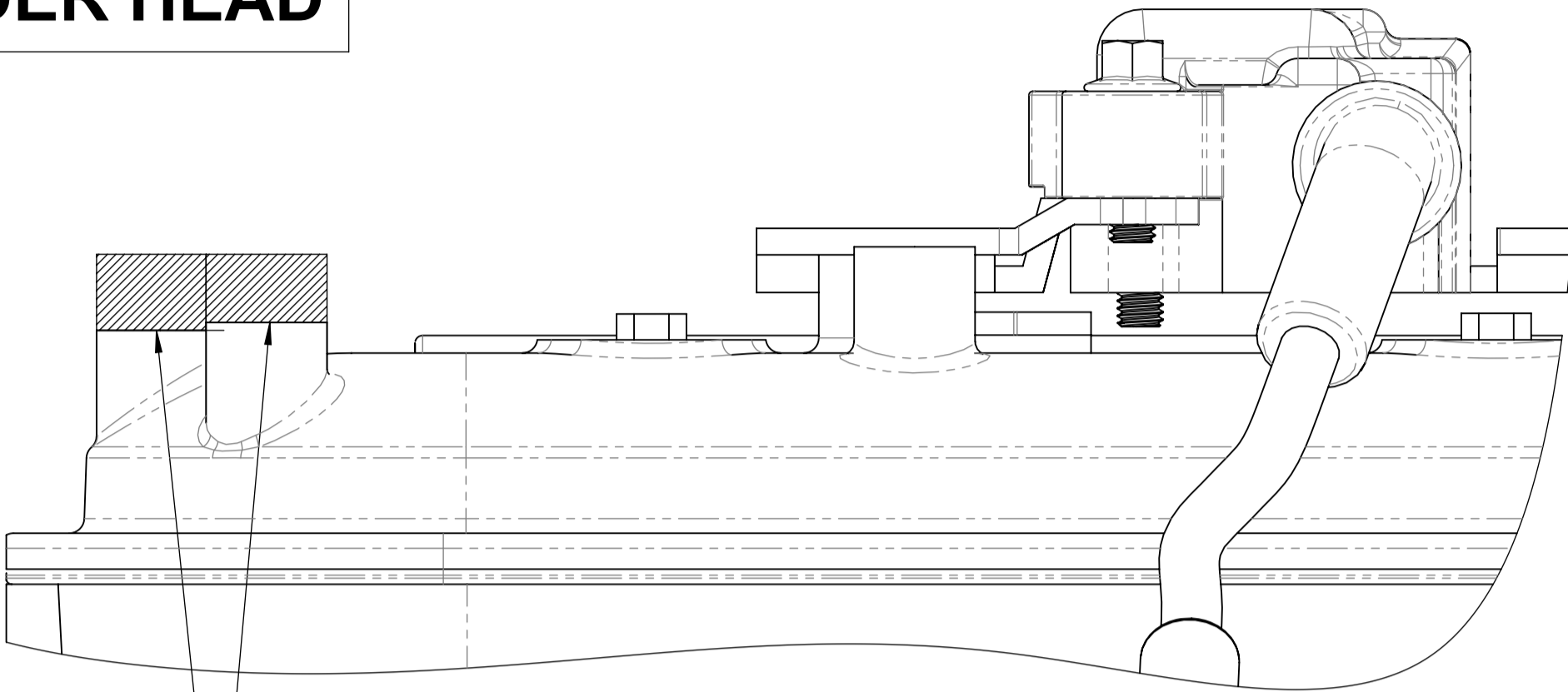
DRAWN	GDK 11/08/2021	TITLE: LS - Series Rocker Cover Lip Modification		
DRAWING CHECKED	PAM 12/08/2021	SCALE:2:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 1 of 1	LS - ACCMOD - 01	0

LS - SERIES ROCKER COVER COIL BOSS MODIFICATION
(ROCKER COVERS IN FACTORY POSITION)

STANDARD ROCKER COVER

THE BOSS MODIFICATION
SHOWS THE PASSENGER SIDE
ROCKER COVER ON THE
PASSENGER SIDE CYLINDER HEAD

MODIFIED ROCKER COVER
(OPTION-1)



SIDE VIEW (2)

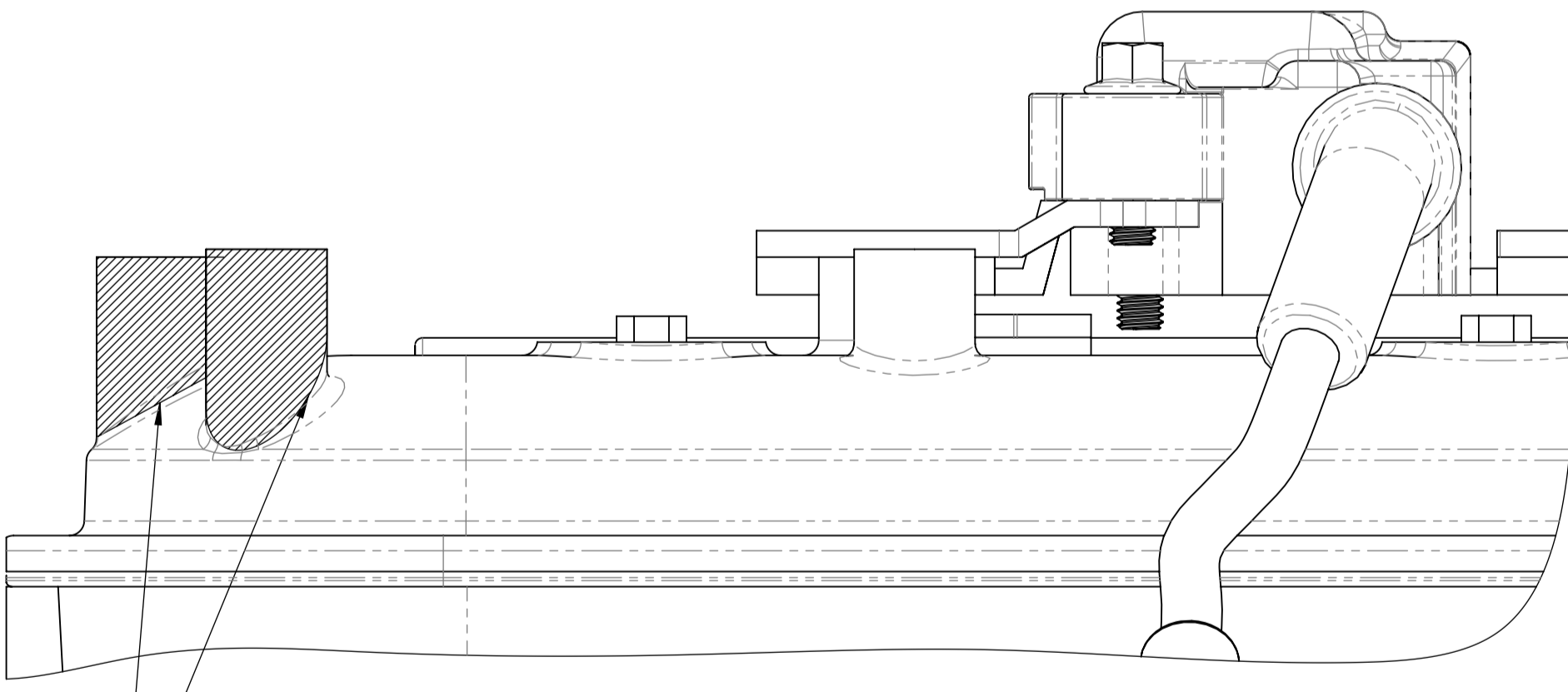
PASSENGER SIDE ROCKER COVER

REMOVE THE HATCHED AREA
AS SHOWN ABOVE UNTIL THE
CLEARANCE FOR THE ACCESSORY
KIT IS ACHIEVED

THE STANDARD HEIGHT OF THE
2 MOUNTING BOSSES NEED TO BE
MODIFIED

DECIDE FROM EITHER
(OPTION-1) OR (OPTION-2)

MODIFIED ROCKER COVER
(OPTION-2)



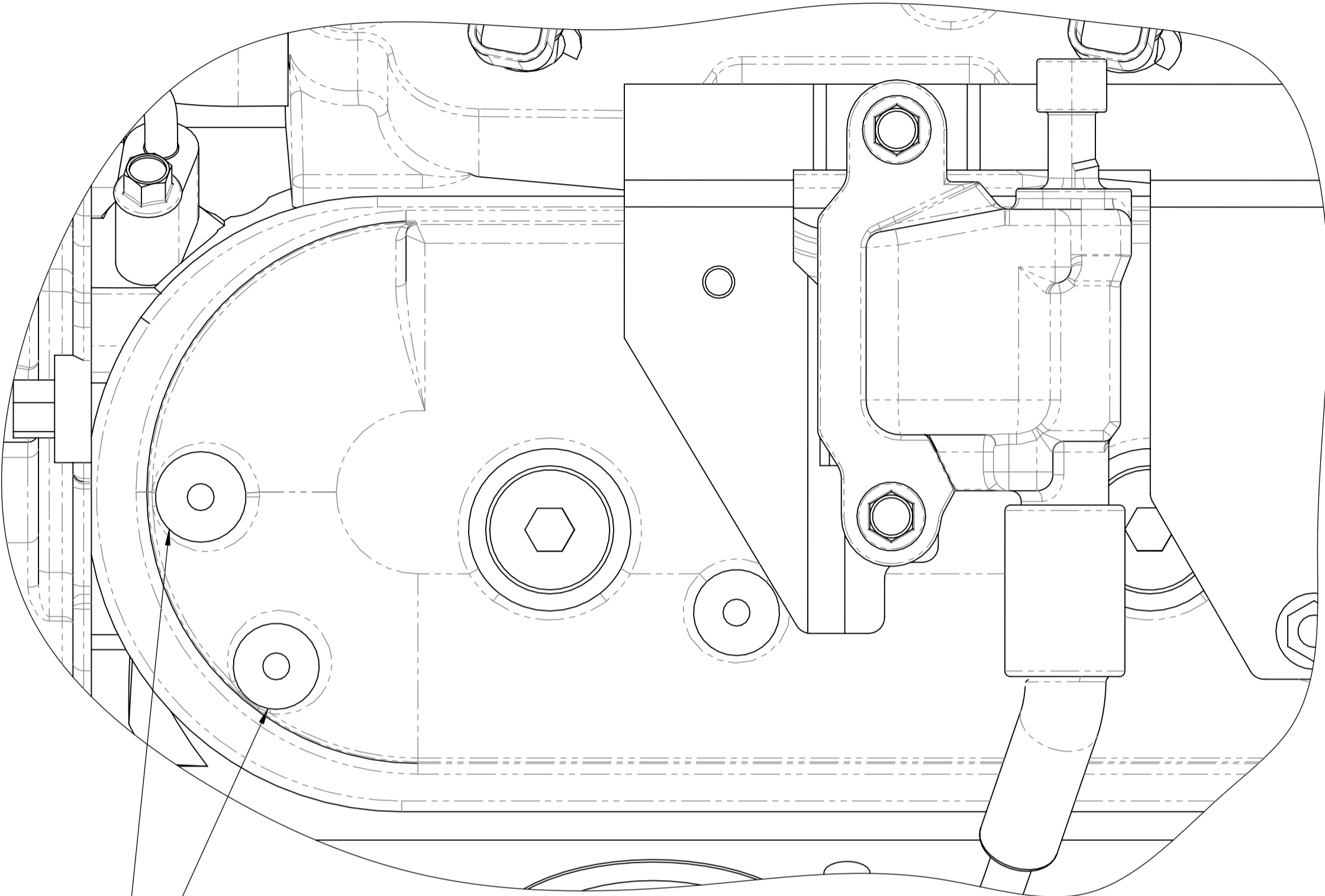
SIDE VIEW (3)

PASSENGER SIDE ROCKER COVER

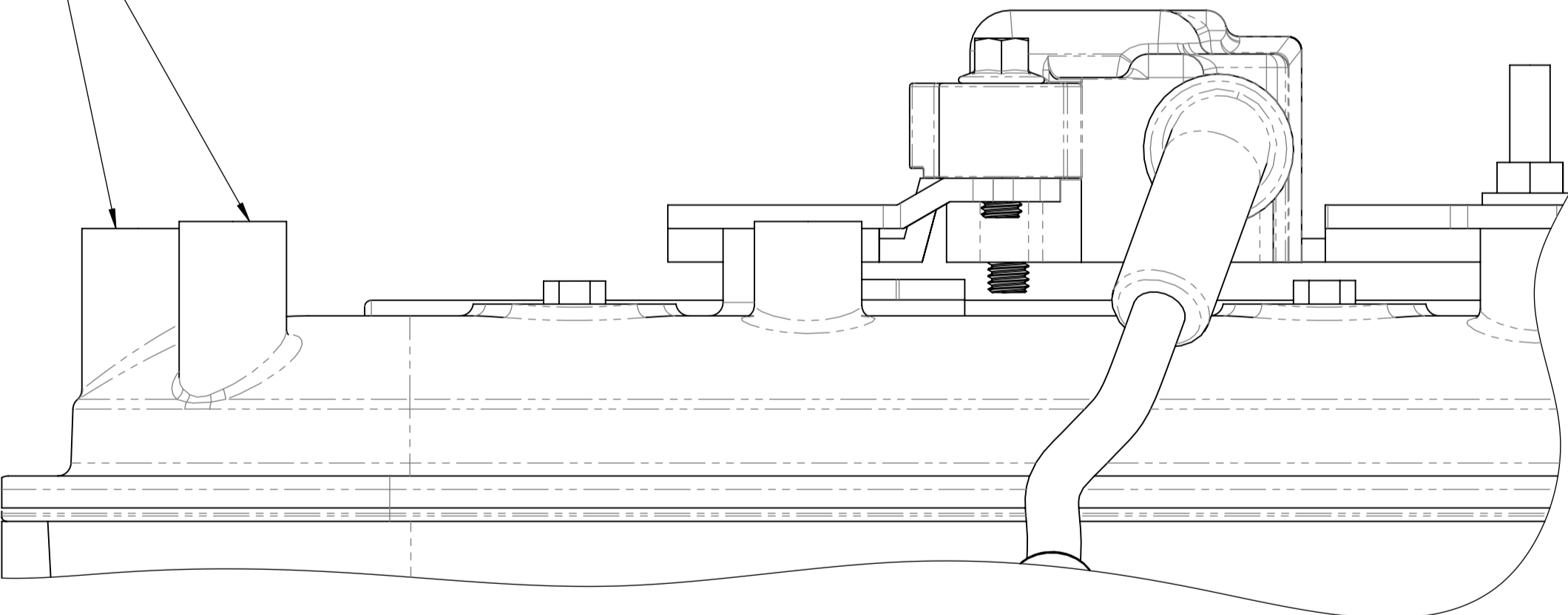
REMOVE THE HATCHED AREA
AS SHOWN ABOVE & SMOOTH OFF
TO MATCH SHAPE OF COVER

MOUNTING
BOSSES TO
BE MODIFIED

TOP VIEW (1)



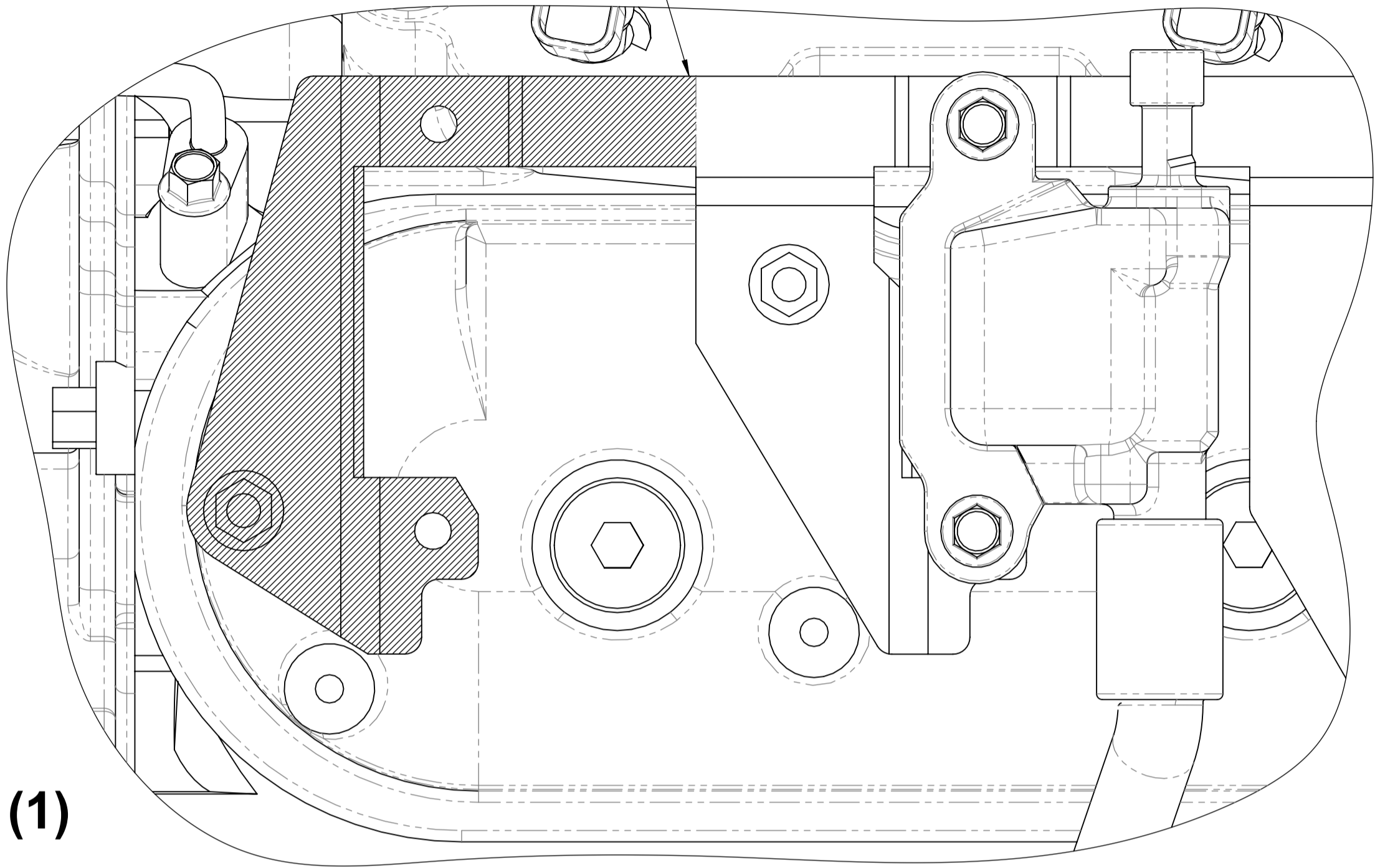
SIDE VIEW (1)



LS - SERIES PASSENGER SIDE COIL BRACKET MODIFICATION
FOR COIL RELOCATION BRAKET MFC20028
(ROCKER COVERS IN FACTORY POSITION)

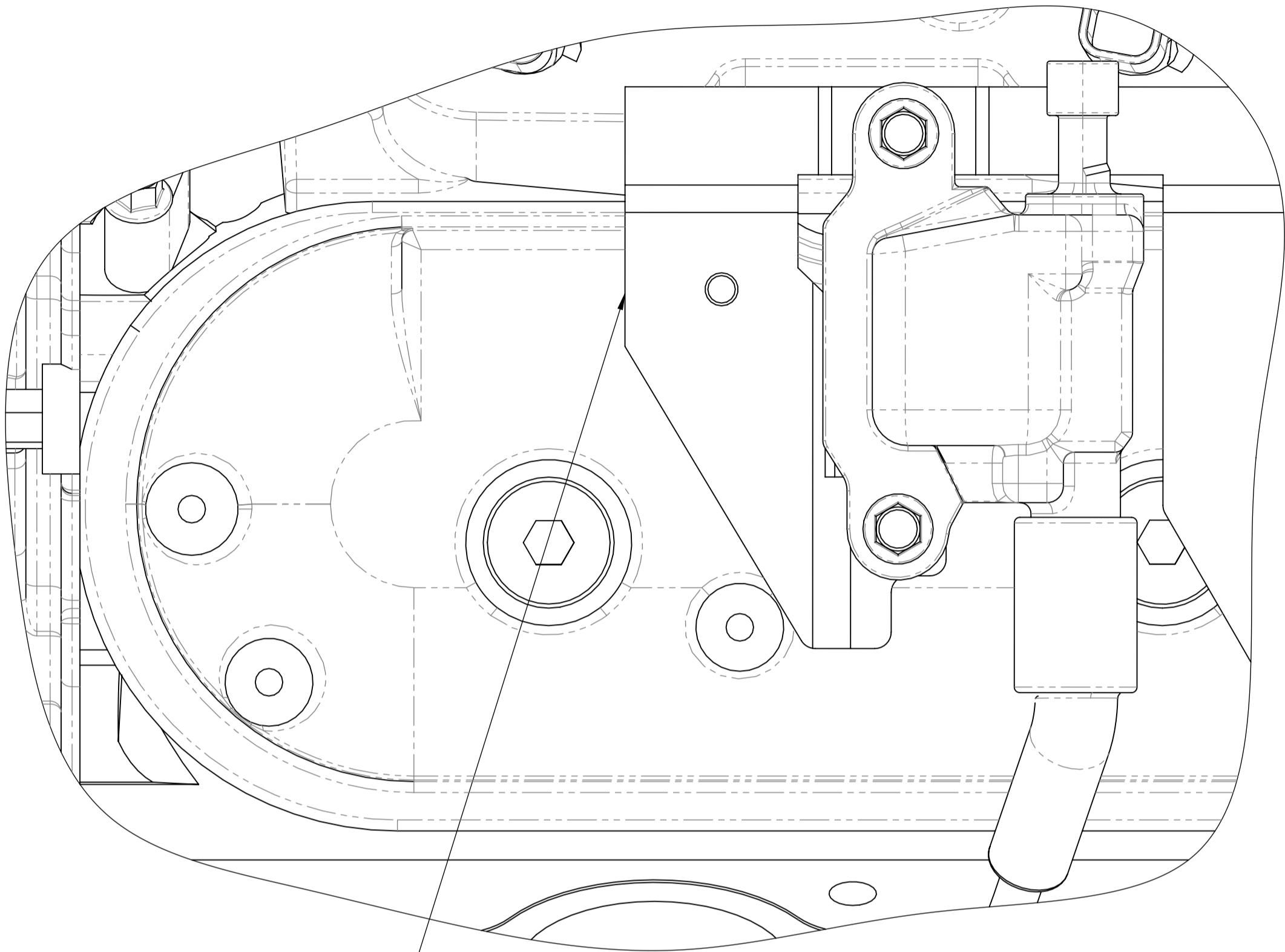
REMOVE THE HATCHED AREA
AS SHOWN TO ALLOW
FITMENT OF THE COIL
RELOCATION BRACKET

STANDARD PASSENGER SIDE
COIL BRACKET



TOP VIEW (1)

MODIFIED PASSENGER SIDE
COIL BRACKET



TOP VIEW (2)

MODIFIED PASSENGER SIDE
COIL BRACKET AS SHOWN IN
TOP VIEW (2) & SIDE VIEW (2)

USE SUPPLIED
2 x M6 x 20
FLANGED BOLTS
BT-2130

MFC20028

REASSEMBLE THE LS COILS TO
MFC20028 IN THE ORIENTATION
SHOWN THEN FASTEN MFC20028
TO THE MODIFIED COIL BRACKET
ON THE ROCKER COVER AS SHOWN
IN THE EXPLODED VIEW

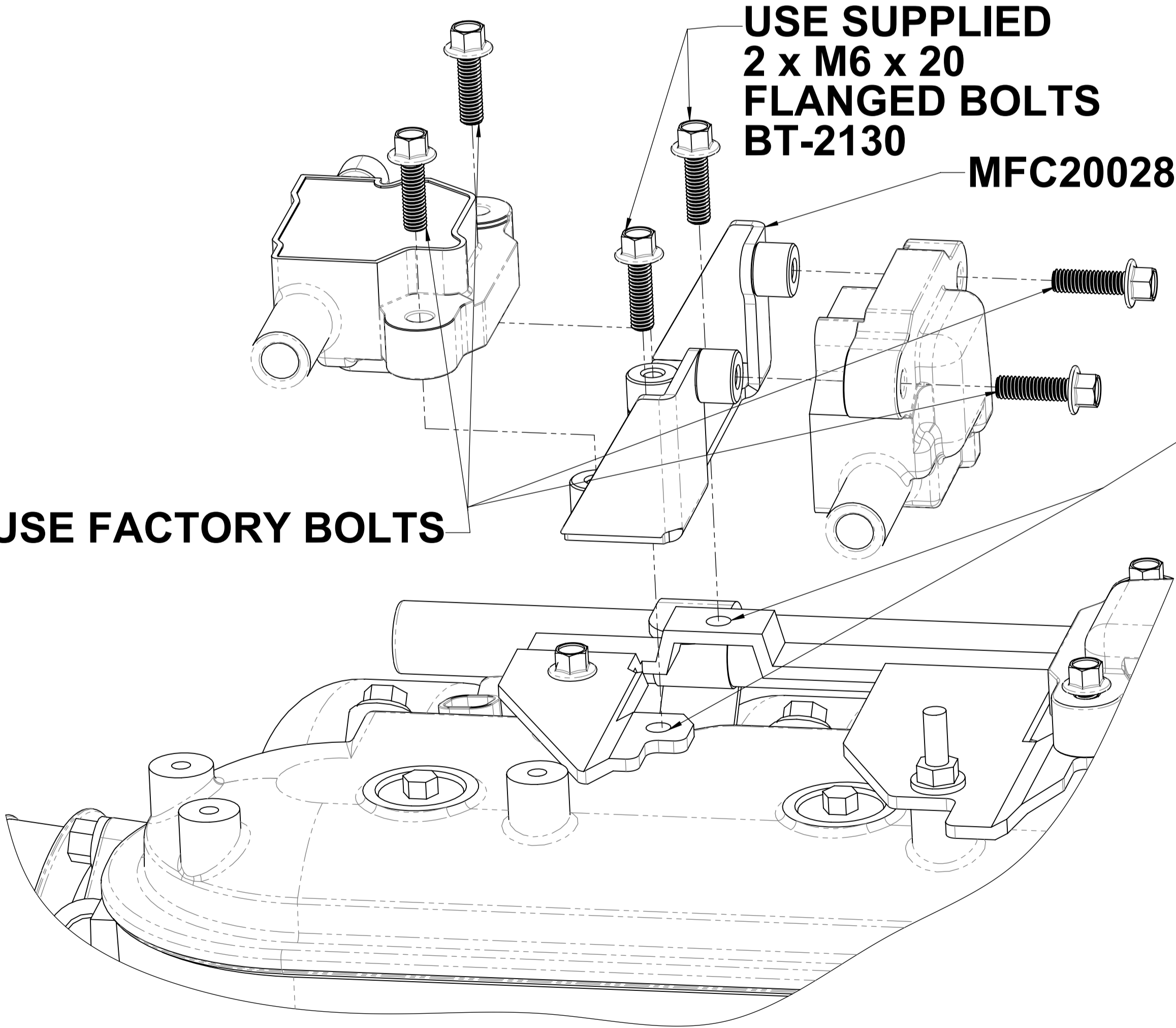
REUSE FACTORY BOLTS

ROCKER COVER
MODIFICATION
IS REQUIRED BEFORE
COIL RELOCATION

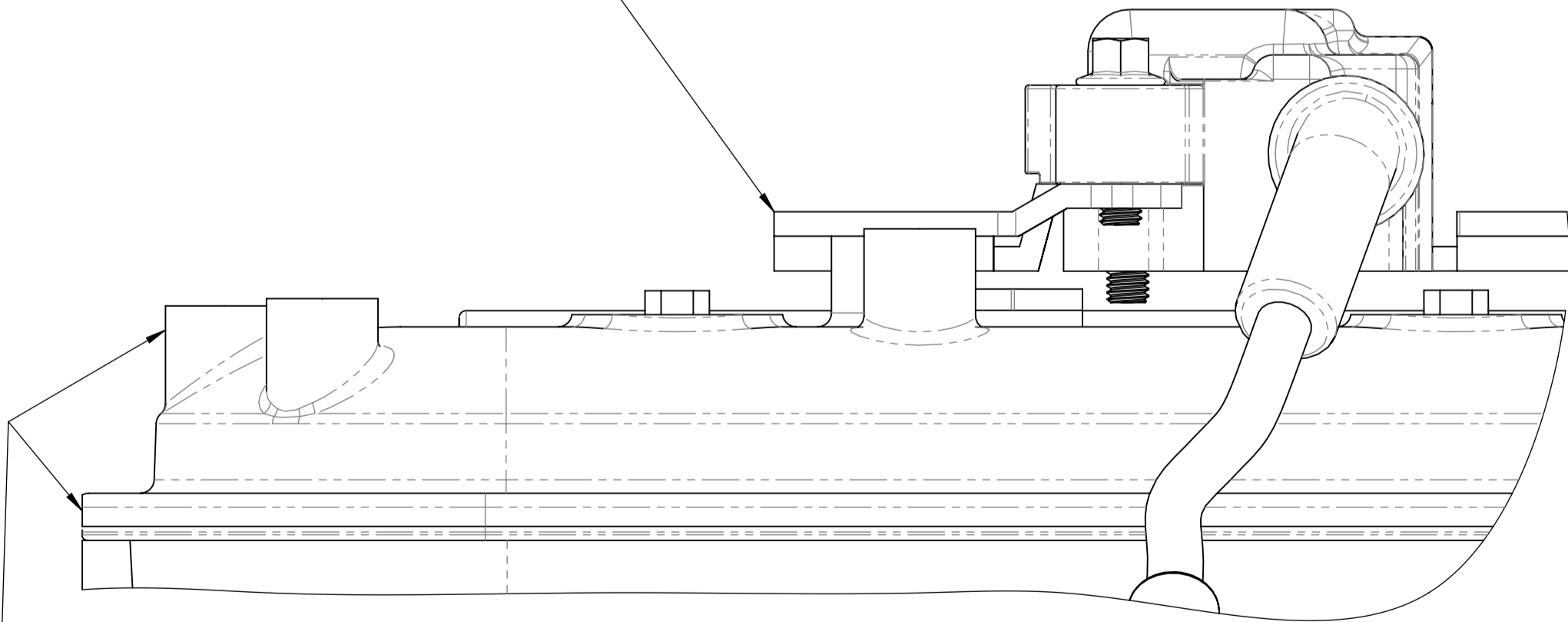
REFER TO DRAWINGS:-

(LS - ACCMOD - 01)
LS - SERIES ROCKER COVER
LIP MODIFICATION

(LS - ACCMOD - 02)
LS - SERIES ROCKER COVER
COIL BOSS MODIFICATION



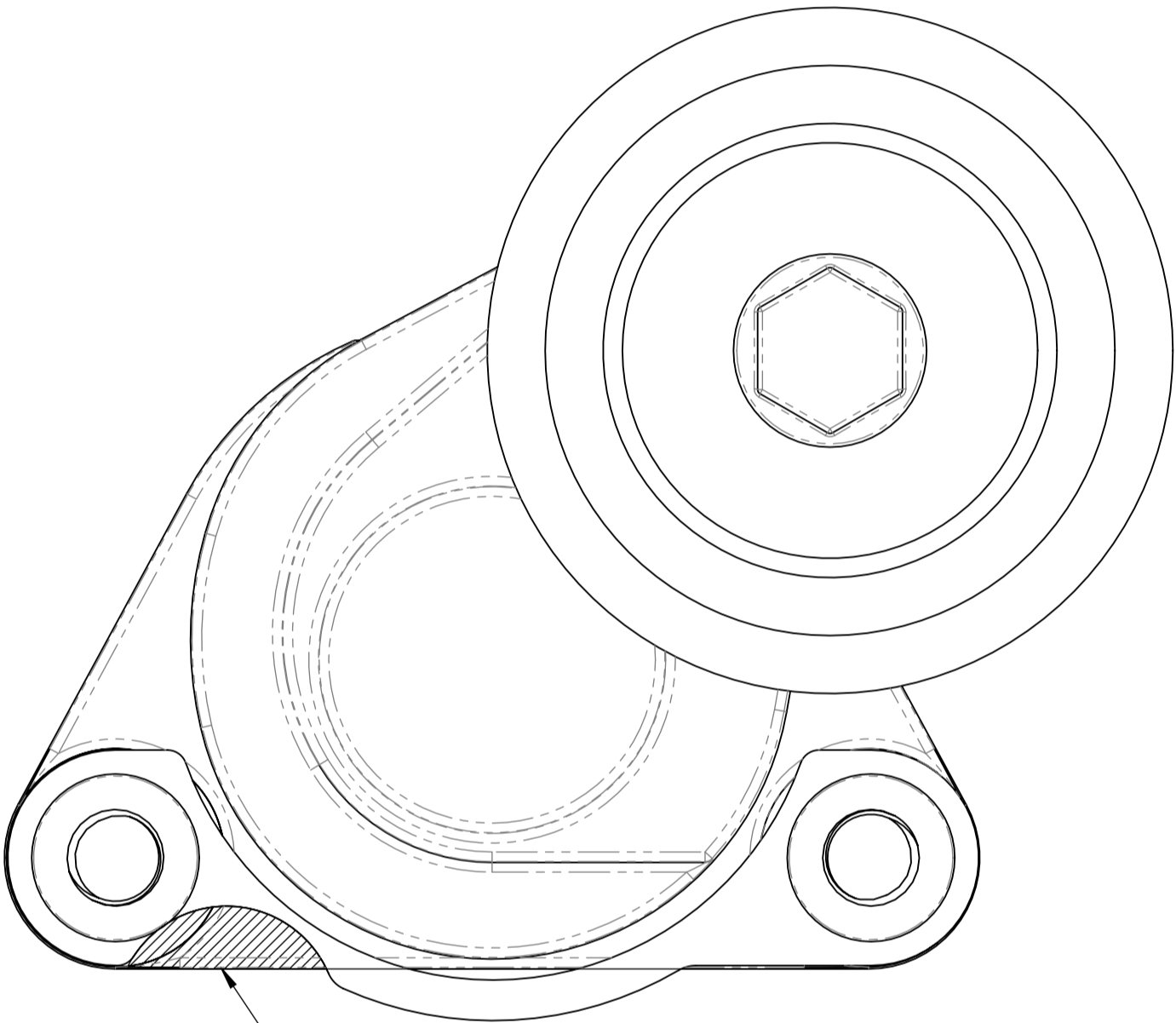
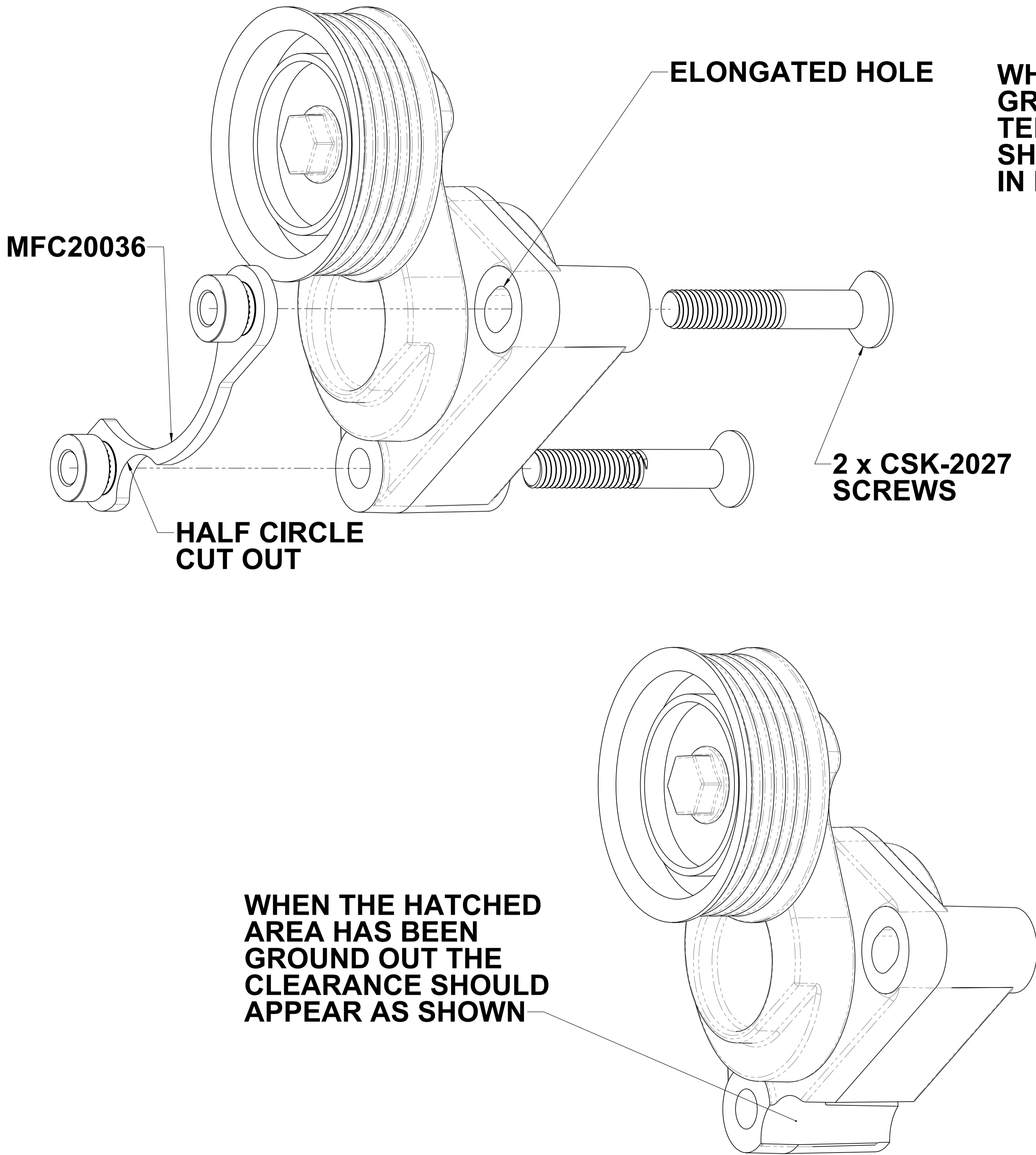
EXPLODE VIEW



SIDE VIEW (2)

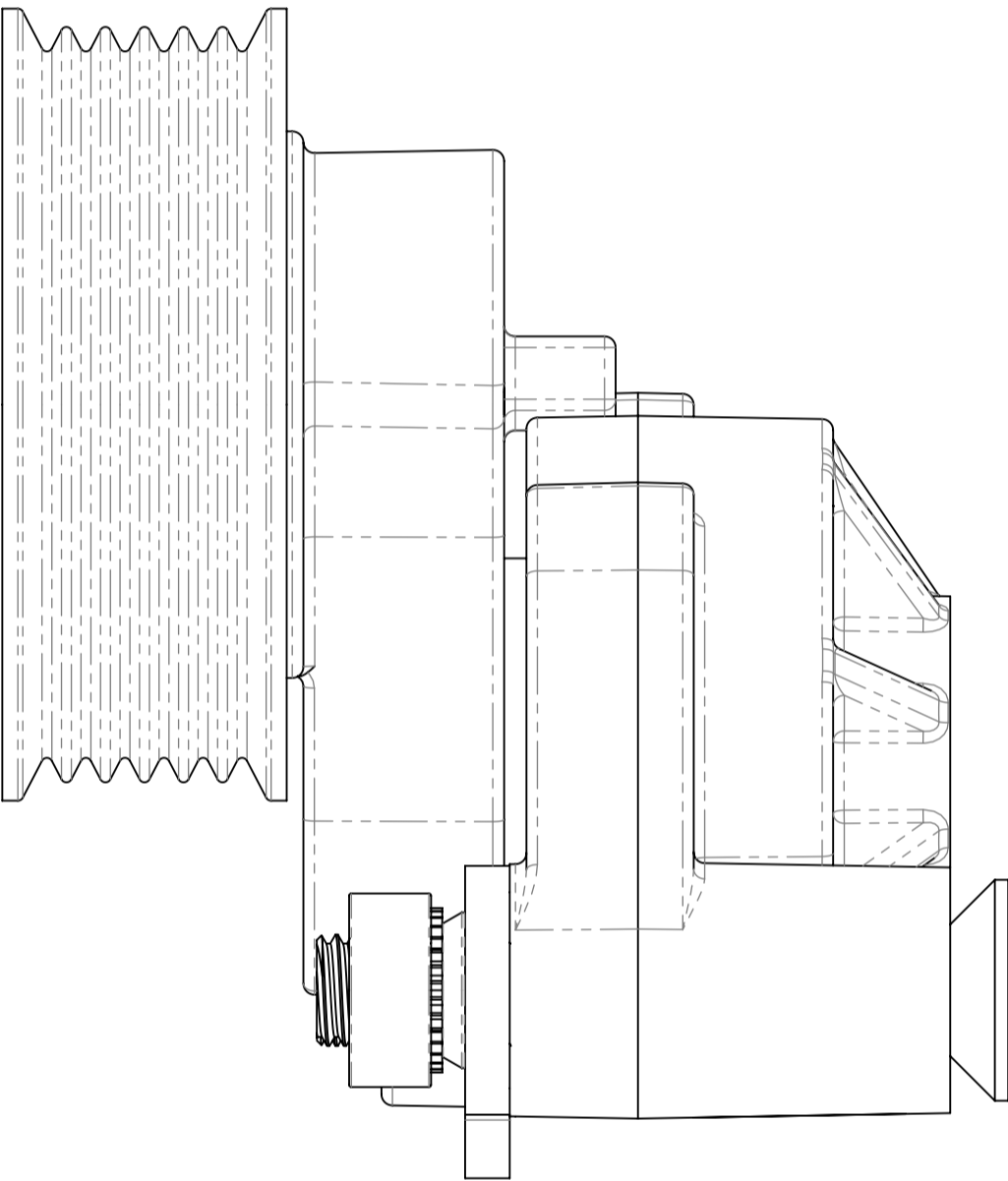
LS1 TENSIONER GRIND TEMPLATE

WHEN ASSEMBLING THE GRIND TEMPLATE TO THE TENSIONER, THE TEMPLATE SHOULD SIT AS SHOWN IN FRONT VIEW (1)




REMOVE THE HATCHED AREA AS SHOWN

FRONT VIEW (1)



SIDE VIEW (1)

				385-393 LOWER DANDENONG ROAD DINGLEY, VICTORIA, 3172 A.B.N. 28 153 842 829	
DRAWN		GDK 11/08/2021		TITLE: () LS1 Tensioner Grind Template	
DRAWING CHECKED		PAM 12/08/2021		SCALE: 1.5:1 DRAWING 1 of 1	
FINISHED WEIGHT: kg				DRAWING/PART NUMBER LS - ACCMOD - 10	
				REV No. 0	
3	14	15	16	A	

LS1/2/3 WATER PUMP GRIND TEMPLATE

WHEN ASSEMBLING THE GRIND TEMPLATE TO THE WATER PUMP, THE TEMPLATE SHOULD SIT AS SHOWN IN FRONT VIEW (1)

HALF CIRCLE CUT OUT


MFC20037

2 x CSK-2010 SCREWS

WHEN THE HATCHED AREA HAS BEEN GROUND OUT THE CLEARANCE SHOULD APPEAR AS SHOWN

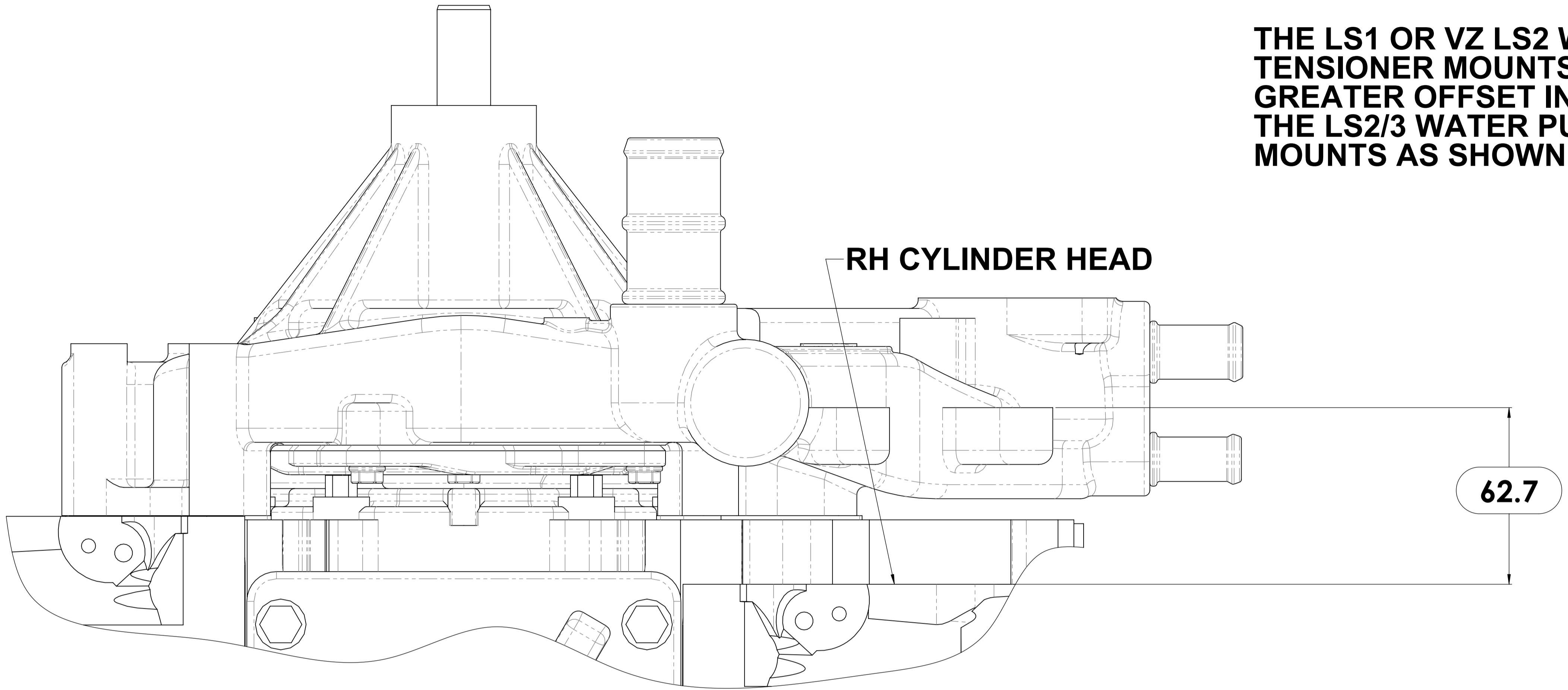
REMOVE THE HATCHED AREA AS SHOWN

FRONT VIEW (1)

		 <div>385-393 LOWER DANDENONG ROAD, DINGLEY, VICTORIA, 3172 A.B.N. 28 153 842 829</div>		
DRAWN	GDK 11/08/2021	TITLE: LS1/2/3 Water Pump Grind Template		
DRAWING CHECKED	PAM 12/08/2021	()		
		SCALE:1:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 1 of 1		

LS WATER PUMP TENSIONER MOUNT OFFSETS

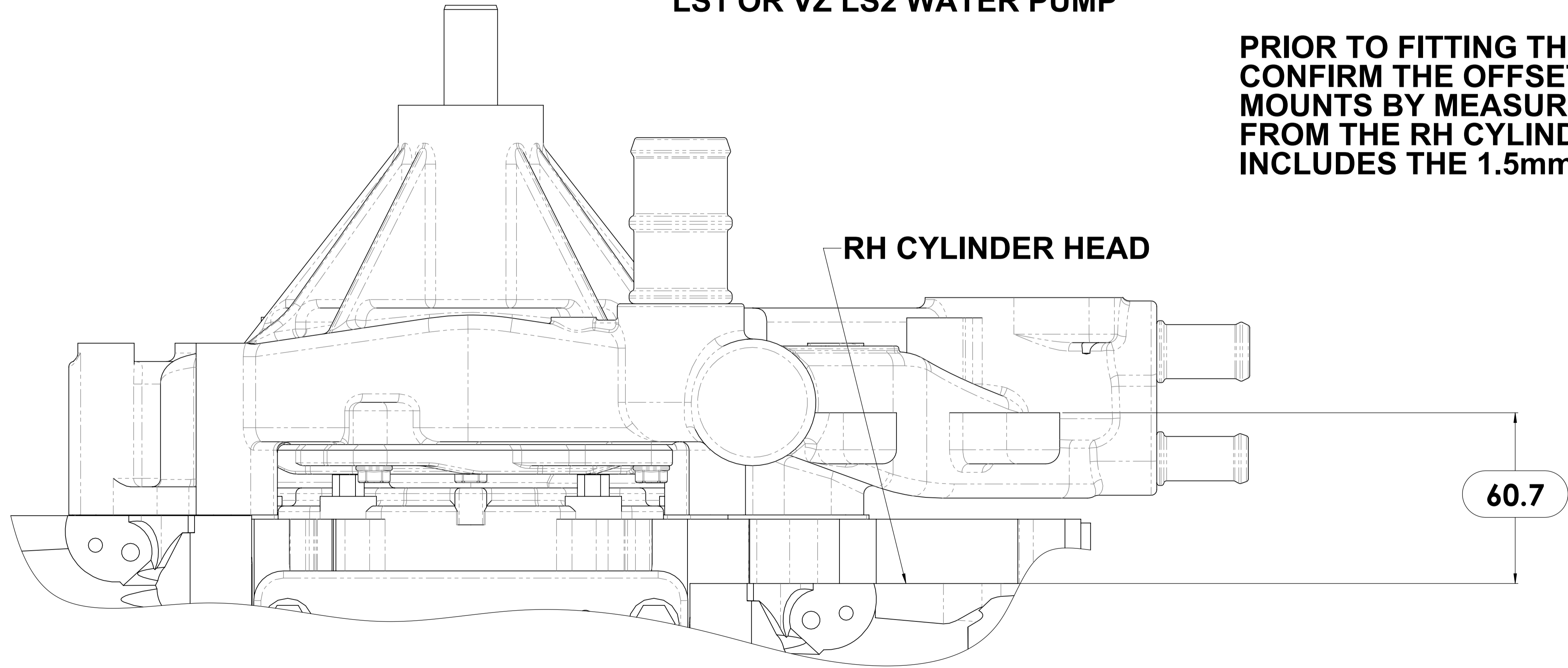
THE LS1 OR VZ LS2 WATER PUMP TENSIONER MOUNTS WILL HAVE A 2mm GREATER OFFSET IN RELATION TO THE LS2/3 WATER PUMP TENSIONERS MOUNTS AS SHOWN



62.7 LS1 TENSIONER MOUNT OFFSET (mm)

LS1 OR VZ LS2 WATER PUMP

PRIOR TO FITTING THE ACCESSORY KIT CONFIRM THE OFFSET OF THE TENSIONER MOUNTS BY MEASURING THE OFFSET FROM THE RH CYLINDER HEAD THE OFFSET INCLUDES THE 1.5mm WATER PUMP GASKET



60.7 LS2/3 TENSIONER MOUNT OFFSET (mm)

LS2/3 WATER PUMP

DRAWN	GDK 11/08/2021	TITLE: () LS Water Pump Tensioner Mount Offsets		
DRAWING CHECKED	PAM 12/08/2021	SCALE:1:1 DRAWING 1 of 1	DRAWING/PART NUMBER LS - INFO - 02	REV No. 0
FINISHED WEIGHT: kg				

MARKS 4WD LS WATER PUMP

1:- THE GRIND CLEARANCE FOR THE LS1/ VZ LS2 TENSIONER & TENSIONER OFFSET MUST BE DONE PRIOR TO ASSEMBLING THE KIT

2:- ONCE THE GRIND CLEARANCE IS DONE MOUNT THE RH BASE PLATE OF THE KIT TO THE RH CYLINDER HEAD WITH THE SUPPLIED BOLTS

3:- MOUNT THE TENSIONER & MFC21085 SPACER (ORIENT AS SHOWN) TO THE MOUNTING FACE OF THE WATER PUMP USING AN OEM BOLT (M10x1.5x65) BEFORE ASSEMBLING THE KIT

ELONGATED SLOT OF THE TENSIONER

MOUNTING FACE

FW-2010

MOUNTING FACE

MFC21085

1:- GRIND CLEARANCE (LS - ACCMOD - 10)

1:- TENSIONER OFFSET 62.7 (LS - INFO - 02) IS IN (mm)

FW-2010

MARKS 4WD LS WATER PUMP

MFC21085

SIDE VIEW (1)

LS1/ VZ LS2 TENSIONER ASSEMBLY FOR RH KIT

FOLLOW STEPS 1,2,3,4,5 IN THAT ORDER

4:- THE ELONGATED SLOT OF THE TENSIONER WILL SIT DIRECTLY ONTO THE RH BASE PLATE SPACER OF THE KIT (NO SHIM REQUIRED)

5:- FW-2010 IS HELD CAPTIVE TO THE MOUNTING FACE OF THE WATER PUMP BY THE RH FRONT PLATE SPACER OF THE KIT WHEN ASSEMBLED

THE SUPPLIED SPACERS MFC21085 & FW2010 ARE 2mm THICK & SIT DIRECTLY ON THE MOUNTING FACES OF THE MARKS 4WD LS WATER PUMP AND FIX THE CORRECT OFFSET @ 62.7mm AS SHOWN IN SIDE VIEW (1)

1:- THE GRIND CLEARANCE FOR THE WATER PUMP & LS1/ VZ LS2 TENSIONER & TENSIONER MOUNT OFFSET MUST BE DONE PRIOR TO ASSEMBLING THE KIT

2:- ONCE THE GRIND CLEARANCE IS DONE MOUNT THE RH BASE PLATE OF THE KIT TO THE RH CYLINDER HEAD WITH THE SUPPLIED BOLTS

3:- MOUNT THE TENSIONER (ORIENT AS SHOWN) DIRECTLY TO THE MOUNTING FACE OF THE WATER PUMP USING AN OEM BOLT (M10x1.5x65) BEFORE ASSEMBLING THE KIT

ELONGATED SLOT OF THE TENSIONER

MOUNTING FACE

MOUNTING FACE

1:- GRIND CLEARANCE (LS - ACCMOD - 10)

1:- TENSIONER OFFSET 62.7 (LS - INFO - 02) IS IN (mm)

1:- GRIND CLEARANCE (LS - ACCMOD - 11)

LS1/ VZ LS2 WATER PUMP

SIDE VIEW (2)

VERIFY THE CORRECT OEM OFFSET FOR THE LS1 WATER PUMP IS @ 62.7mm AS SHOWN IN SIDE VIEW (2)