

NOTE: FLAG ITEMS ▶  
REFER TO INSTRUCTION DRAWINGS

ITEM NO.	PART NUMBER	DESCRIPTION	
1	MFG20004	LS2/LS3 12v Alternator Relocation LH	1
2	MFC20020	Bracket - AUX Alternator Setup Coil Relocation	1
3	MFG20031	LS2/LS3 12v Alternator Relocation RH	1
4	MFC1819-LS2VE	Power Steering Reservoir Bracket - LS2/3 VE - VF	1
5	MFC2120	Hose - Power Steering - 16mm x 400mm	1
6	MFC20021	LS2/3 VE-VF Power Steering Barb Rotate Adaptor	1
7	MFC651	Spacer 10 x 20 x 51 L P/ST	2
8	6PK2665	Drive Belt - Poly Rib (2665mm)	1
9	16-25-9W2	Hose Clamp - 16 to 25mm	2
10	BT-2270	BOLT - M10 X 1.5 X 80mm - H/T - Z/P	2
11	BT-2130	M6 x 1.25 x 20 - Capture Bolt	3
12	SHCS -2125	SHCS - M6 x 1 x 12mm - SS	1
13	FW-2010	Flat Washer - M10 x 22 x 2mm	2
14	SW-2005	Spring Washer - M10 - S/S	2

INSTRUCTION DRAWINGS

MFK50110-SHT-1  
MFK50110-SHT-2

1: MFG20004

3: MFG20031

A: LS - ACCMOD - 01

B: LS - ACCMOD - 03

C/2: LS - ACCMOD - 05

D: LS - ACCMOD - 09

E: LS - ACCMOD - 11

F: LS - ACCMOD - 13

G: LS - INFO - 02

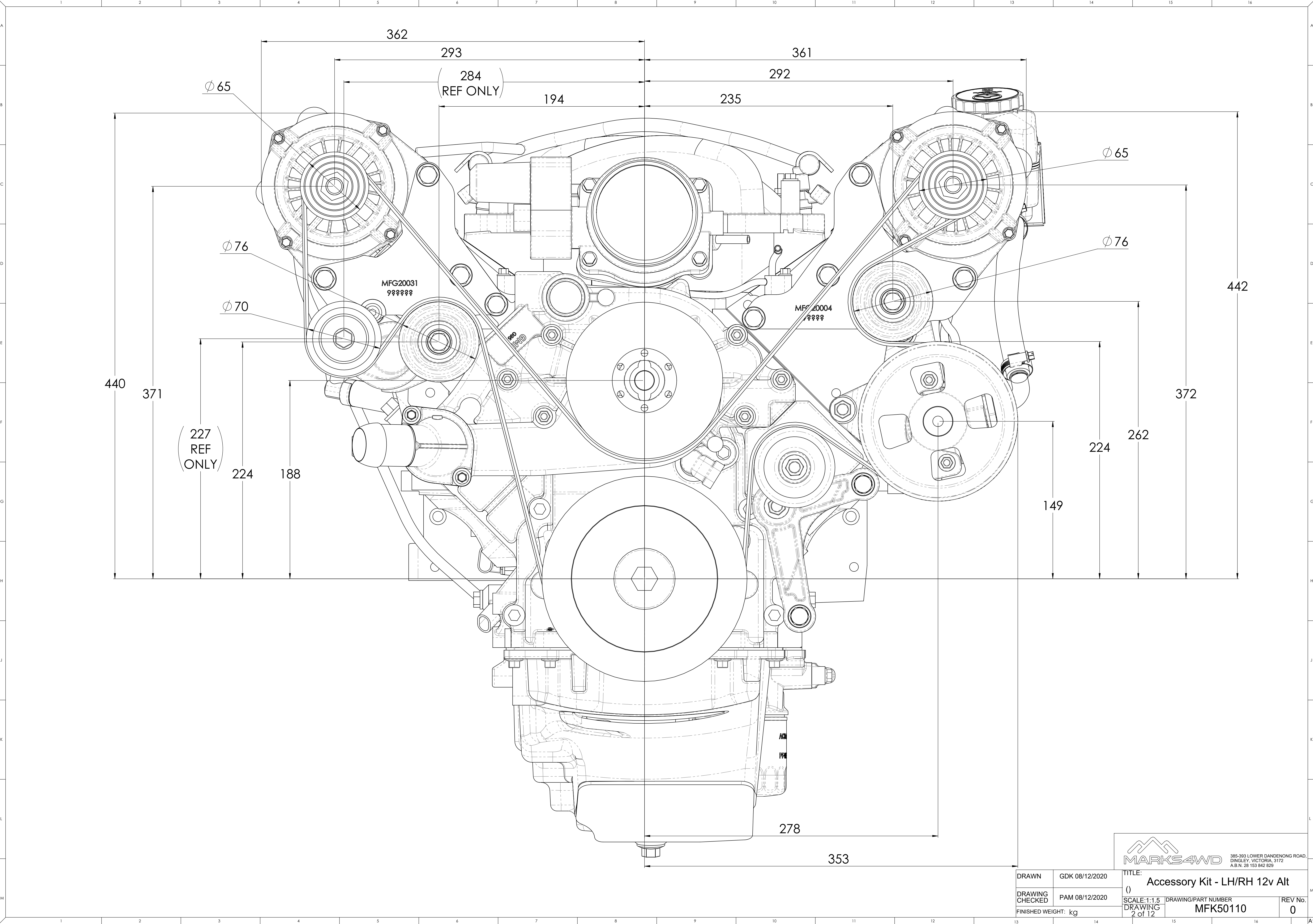
H: LS - INFO - 04

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



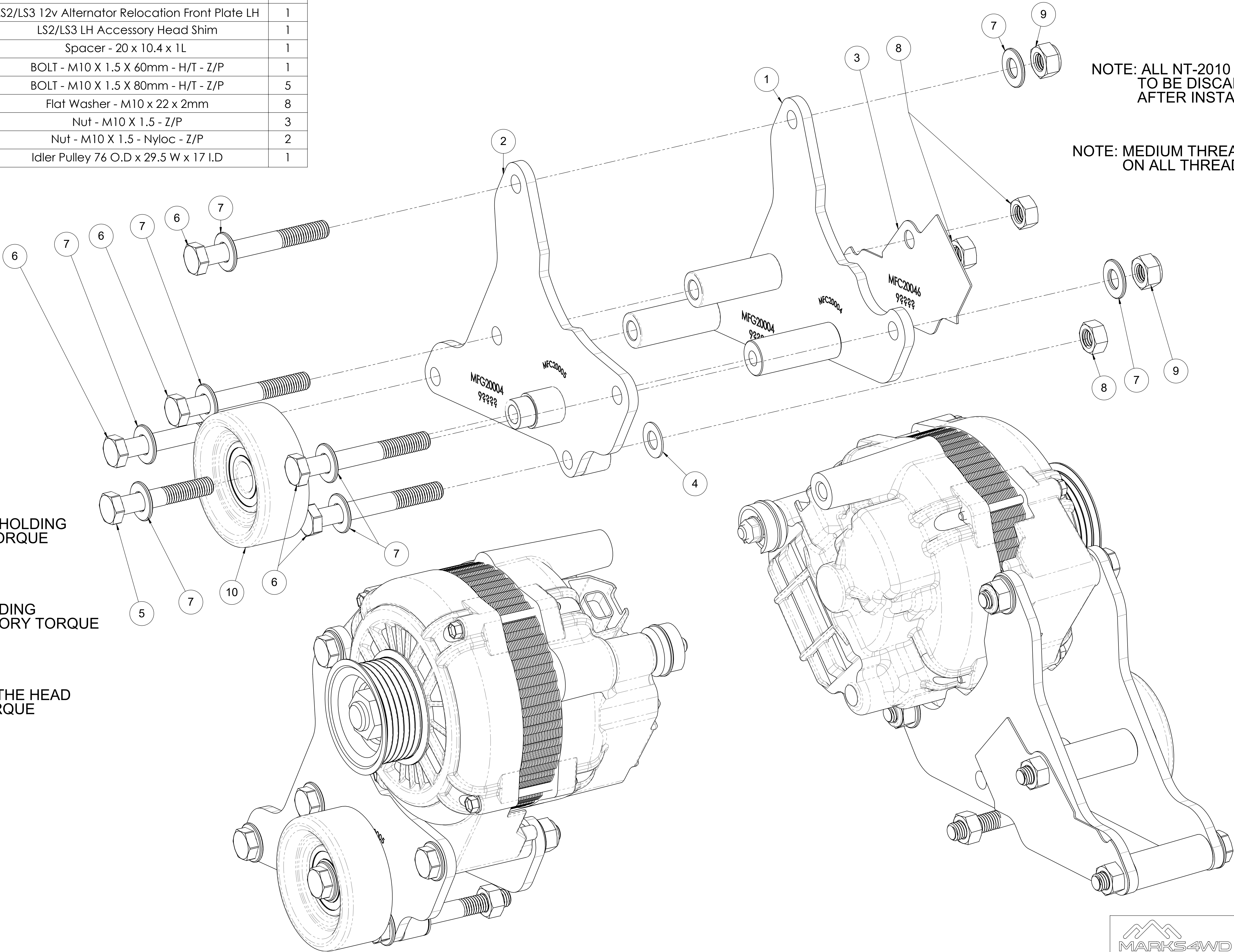
DRAWN	GDK 08/12/2020	TITLE:	Accessory Kit - LH/RH 12v Alt
DRAWING CHECKED	PAM 08/12/2020	SCALE: 1:2.5	DRAWING/PART NUMBER
FINISHED WEIGHT: kg		DRAWING 1 of 12	MFK50110
		REV No.	0





DRAWN	GDK 08/12/2020	TITLE: ( ) Accessory Kit - LH/RH 12v Alt	
DRAWING CHECKED	PAM 08/12/2020	SCALE:1:1.5 DRAWING 2 of 12	DRAWING/PART NUMBER MFK50110
FINISHED WEIGHT: kg			REV No. 0

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MFC20004	LS2/LS3 12v Alternator Base Plate RH	1
2	MFC20005	LS2/LS3 12v Alternator Relocation Front Plate LH	1
3	MFC20046	LS2/LS3 LH Accessory Head Shim	1
4	MFC20048	Spacer - 20 x 10.4 x 1L	1
5	BT-2265	BOLT - M10 X 1.5 X 60mm - H/T - Z/P	1
6	BT-2270	BOLT - M10 X 1.5 X 80mm - H/T - Z/P	5
7	FW-2010	Flat Washer - M10 x 22 x 2mm	8
8	NT-2010	Nut - M10 X 1.5 - Z/P	3
9	NT-2030	Nut - M10 X 1.5 - Nyloc - Z/P	2
10	EP024	Idler Pulley 76 O.D x 29.5 W x 17 I.D	1



ITEM-3 BOLT HOLDING  
THE IDLER TORQUE  
TO 65Nm

2 BOLTS HOLDING  
12 V ACCESSORY TORQUE  
TO 65Nm

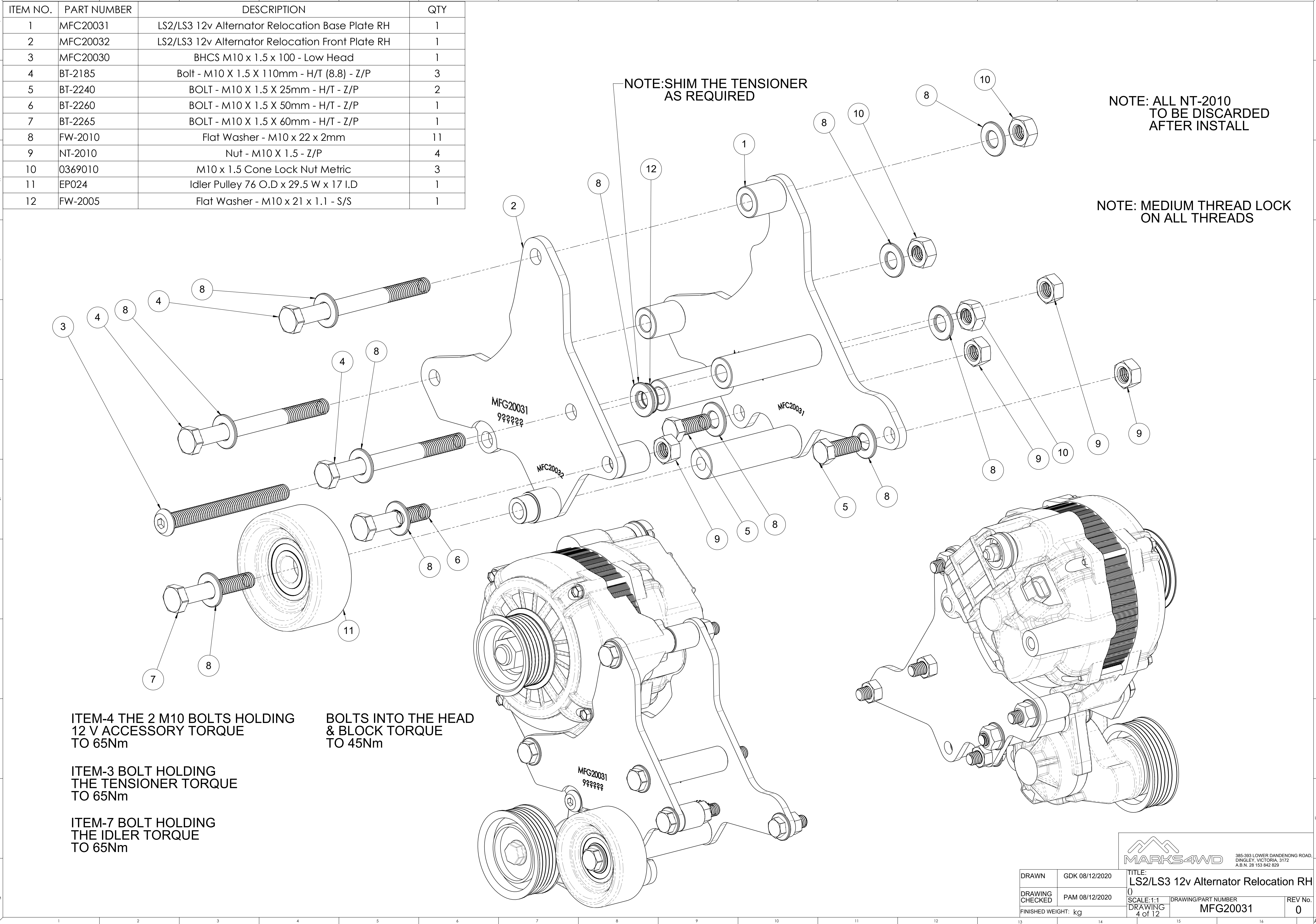
BOLTS INTO THE HEAD  
& BLOCK TORQUE  
TO 45Nm

NOTE: ALL NT-2010  
TO BE DISCARDED  
AFTER INSTALL

NOTE: MEDIUM THREAD LOCK  
ON ALL THREADS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MFC20031	LS2/LS3 12v Alternator Relocation Base Plate RH	1
2	MFC20032	LS2/LS3 12v Alternator Relocation Front Plate RH	1
3	MFC20030	BHCS M10 x 1.5 x 100 - Low Head	1
4	BT-2185	Bolt - M10 X 1.5 X 110mm - H/T (8.8) - Z/P	3
5	BT-2240	BOLT - M10 X 1.5 X 25mm - H/T - Z/P	2
6	BT-2260	BOLT - M10 X 1.5 X 50mm - 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	1



NOTE: SHIM THE TENSIONER  
AS REQUIRED

NOTE: ALL NT-2010  
TO BE DISCARDED  
AFTER INSTALL

NOTE: MEDIUM THREAD LOCK  
ON ALL THREADS

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

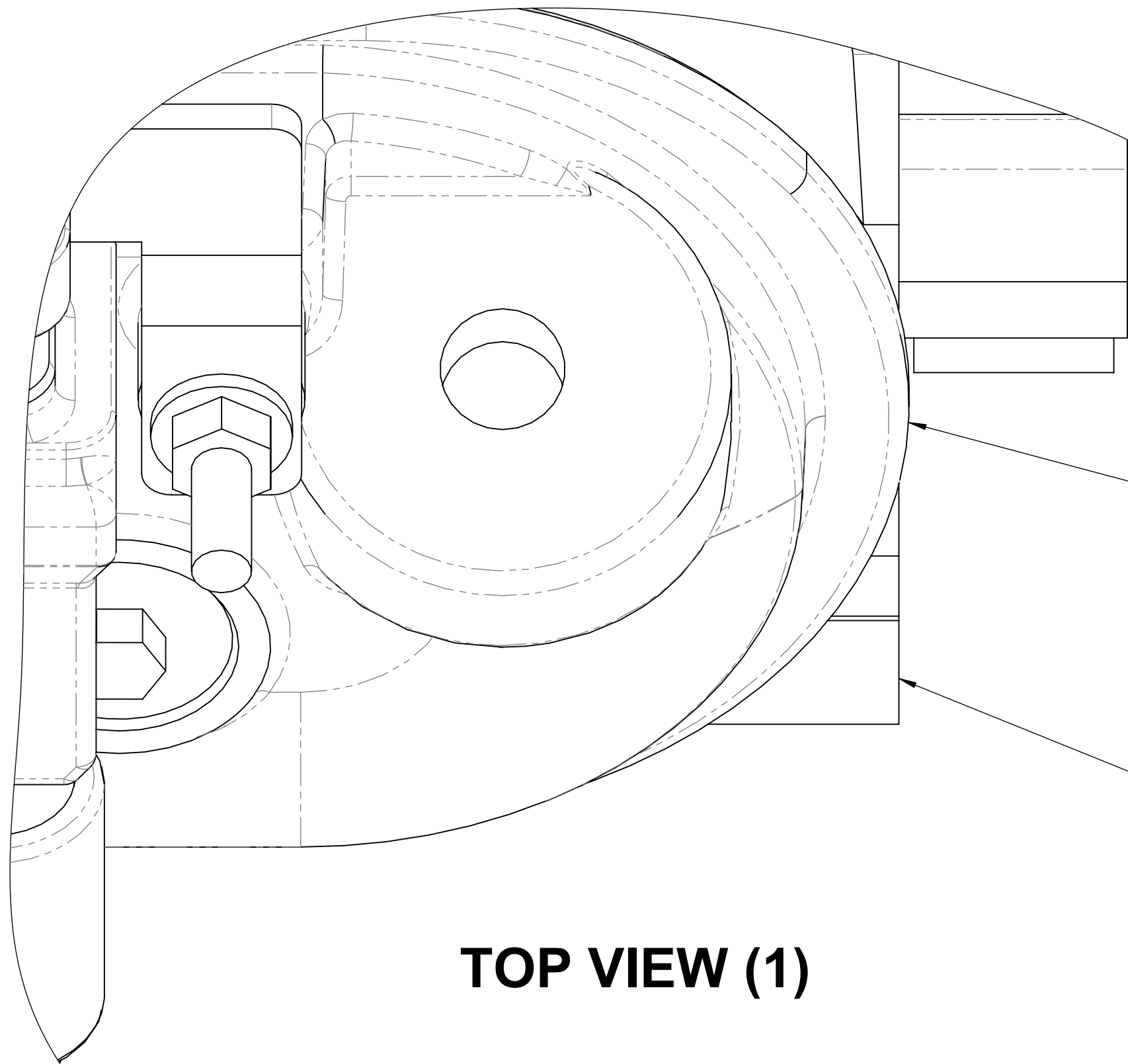
BOLTS INTO THE HEAD  
& BLOCK TORQUE  
TO 45Nm

ITEM-3 BOLT HOLDING  
THE TENSIONER TORQUE  
TO 65Nm

ITEM-7 BOLT HOLDING  
THE IDLER TORQUE  
TO 65Nm

LS - SERIES ROCKER COVER LIP MODIFICATION

STANDARD ROCKER COVER



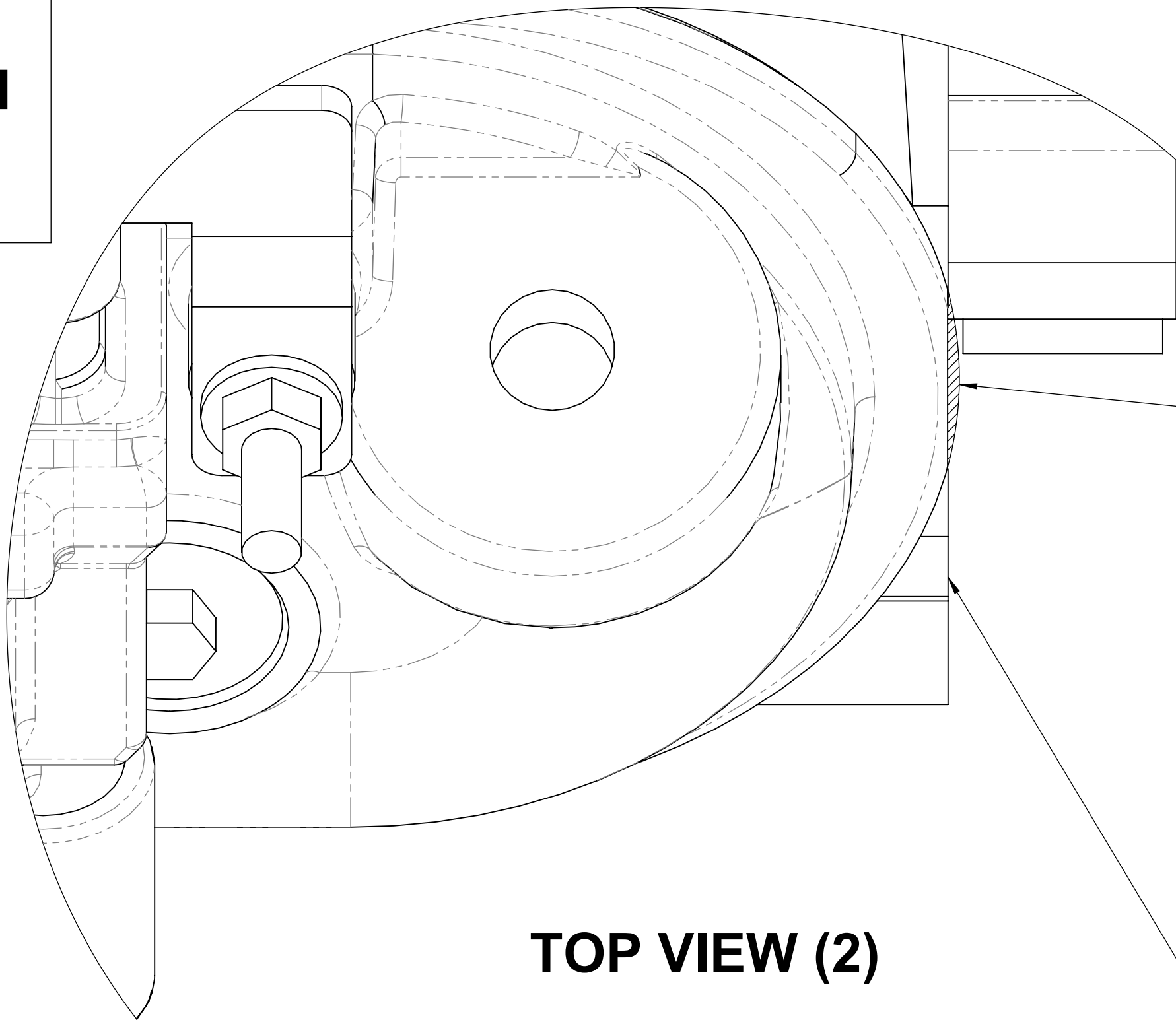
TOP VIEW (1)

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



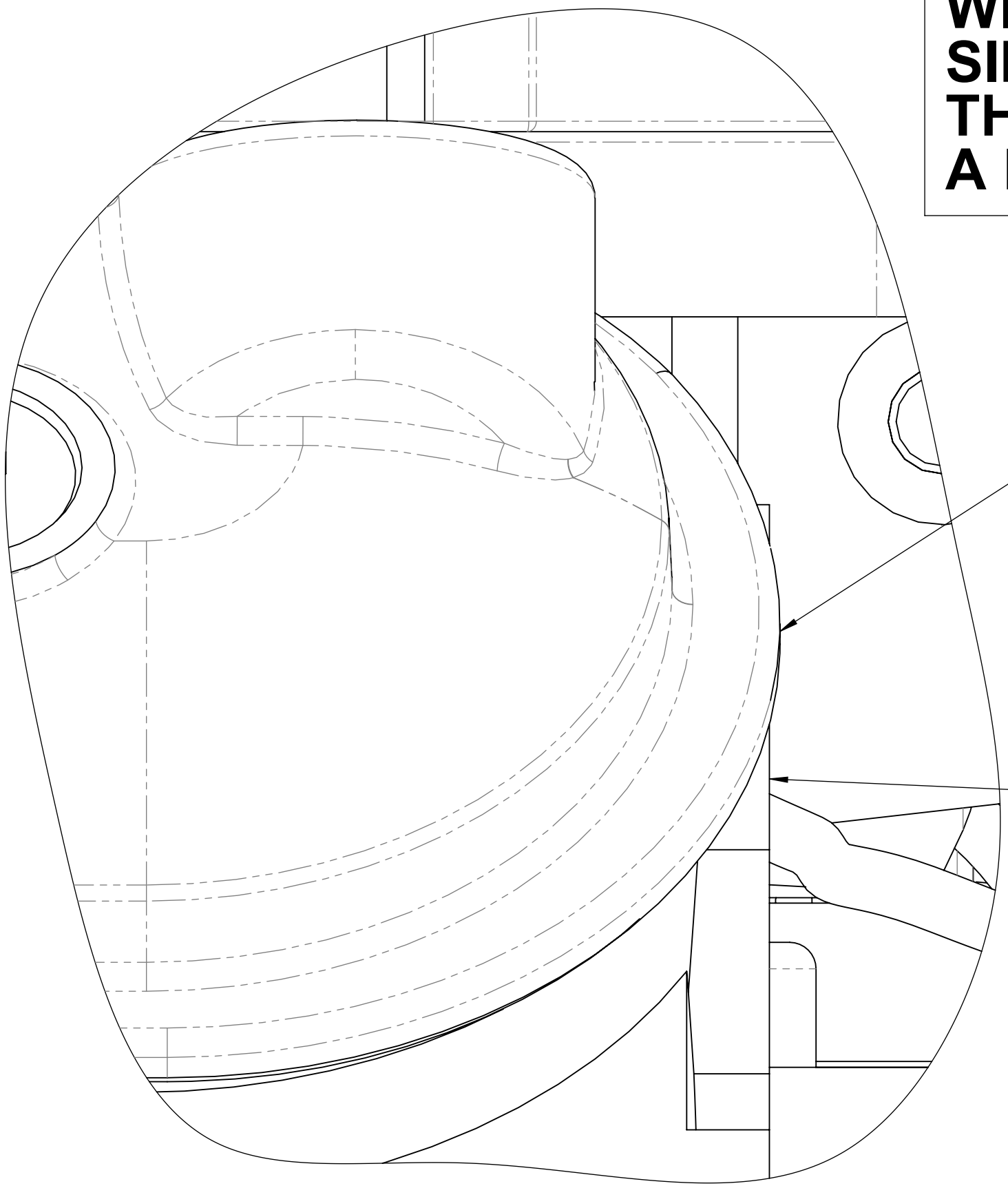
TOP VIEW (2)

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

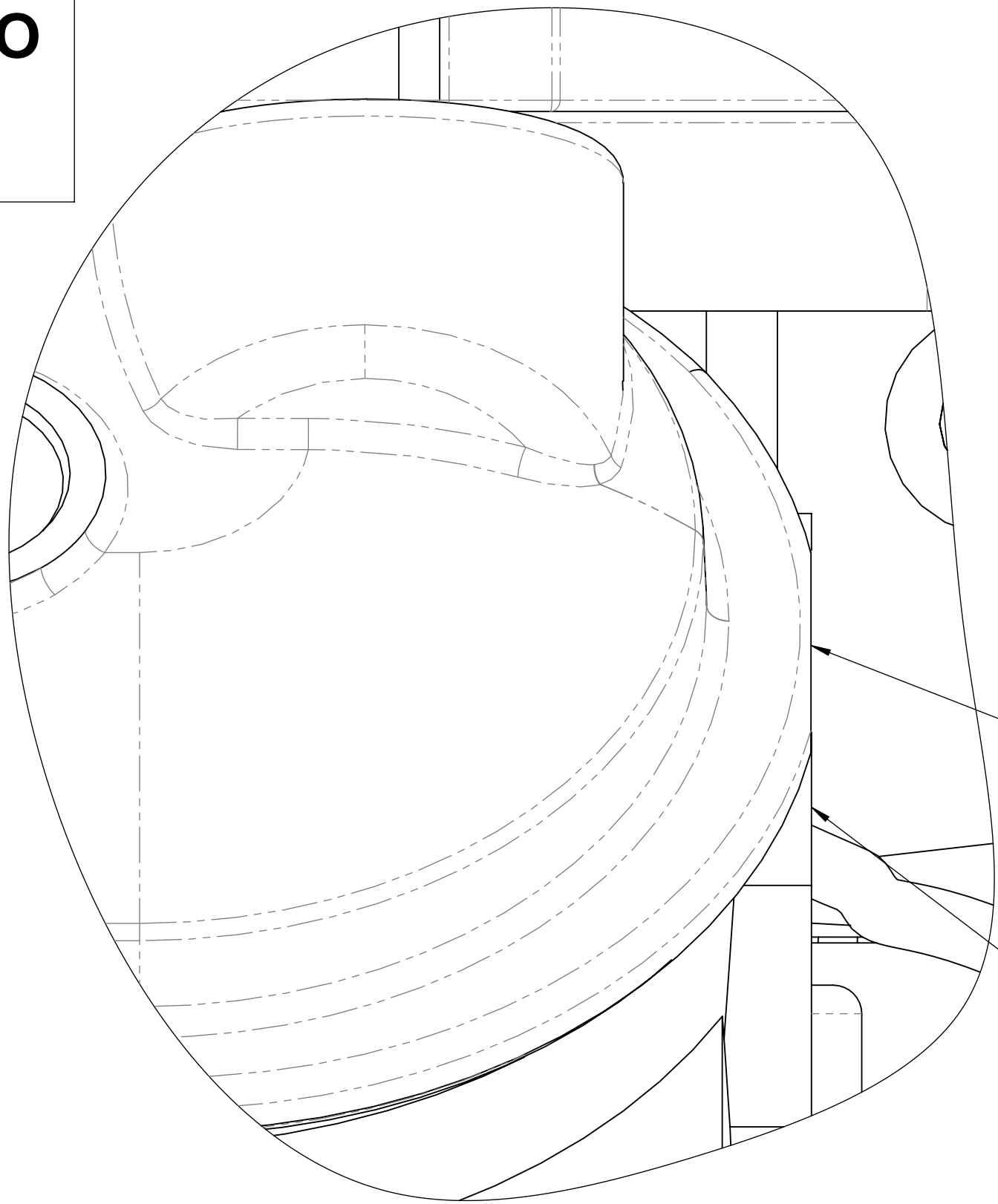
THE ROCKER COVER LIP MODIFICATION WILL ALSO BE REQUIRED FOR THE DRIVER SIDE ROCKER COVER WHEN IT IS FITTED TO THE PASSENGER SIDE CYLINDER HEAD IF A LH ACCESSORY KIT IS TO BE FITTED



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

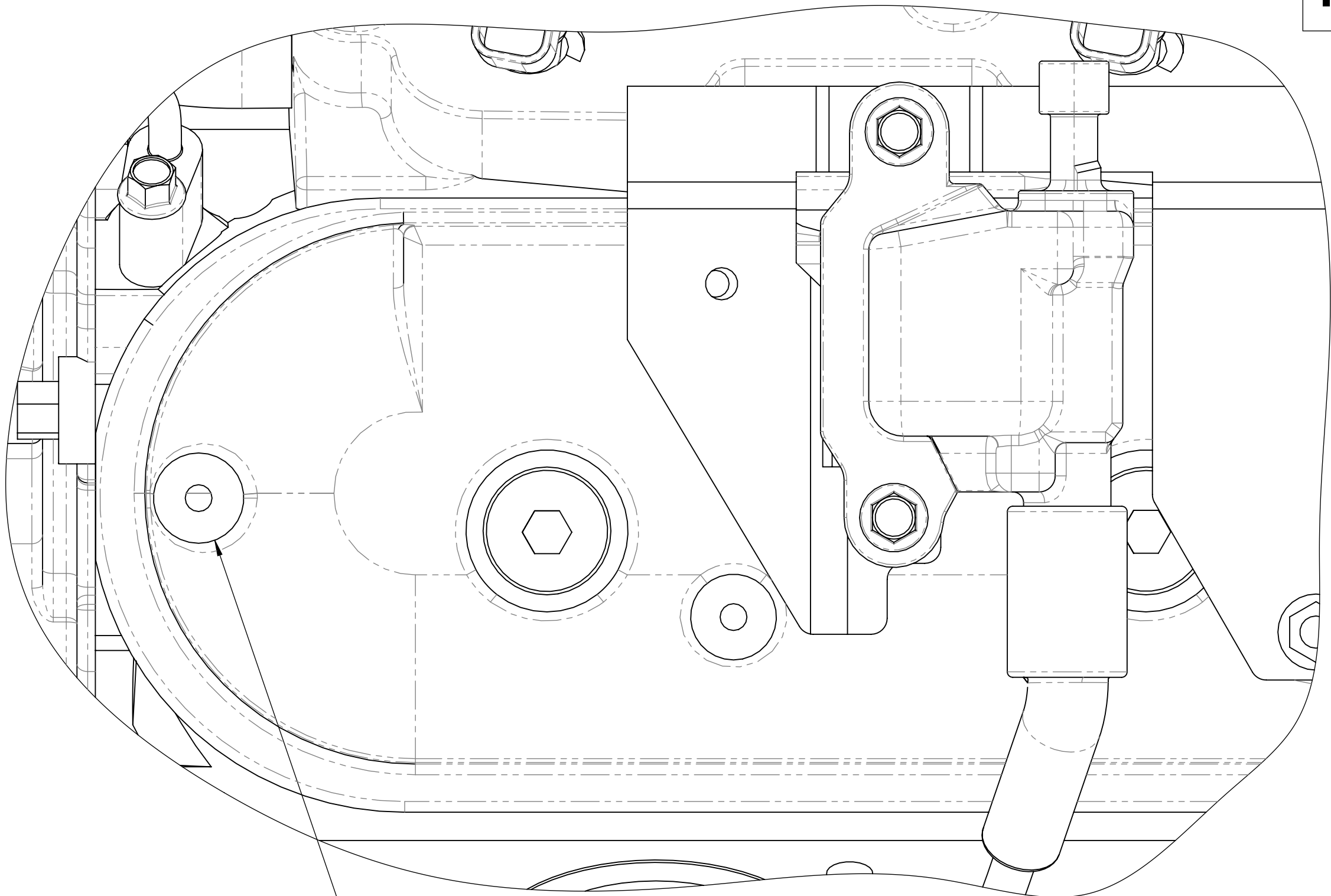
PASSENGER SIDE ROCKER COVER LIP SHAVED

DRIVER SIDE CYLINDER HEAD FACE SHOWN

DRAWN	GDK 08/12/2020	TITLE: LS - Series Rocker Cover Lip Modification		
DRAWING CHECKED	PAM 08/12/2020	SCALE:2:1 DRAWING 1 of 1	DRAWING/PART NUMBER LS - ACCMOD - 01	REV No. 0
FINISHED WEIGHT: kg				

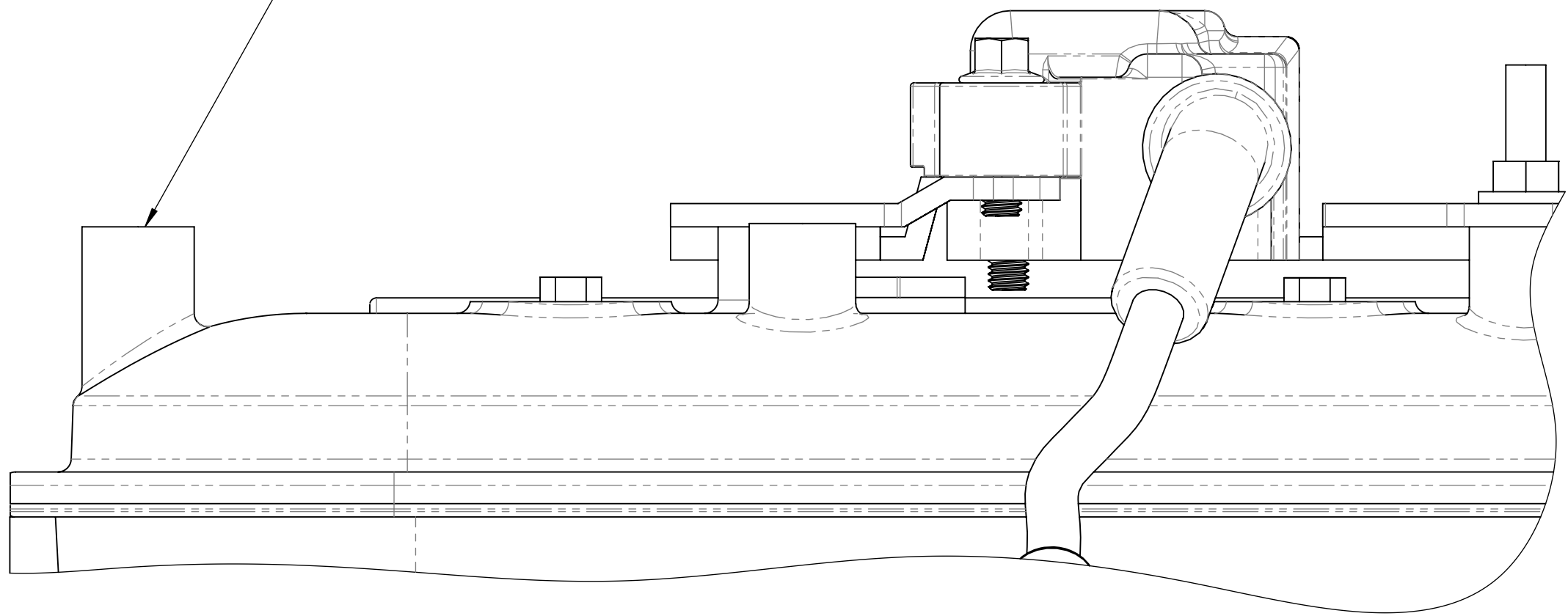
LS - SERIES ROCKER COVER COIL BOSS MODIFICATION  
(ROCKER COVER SWAP)

STANDARD ROCKER COVER



TOP VIEW (1)

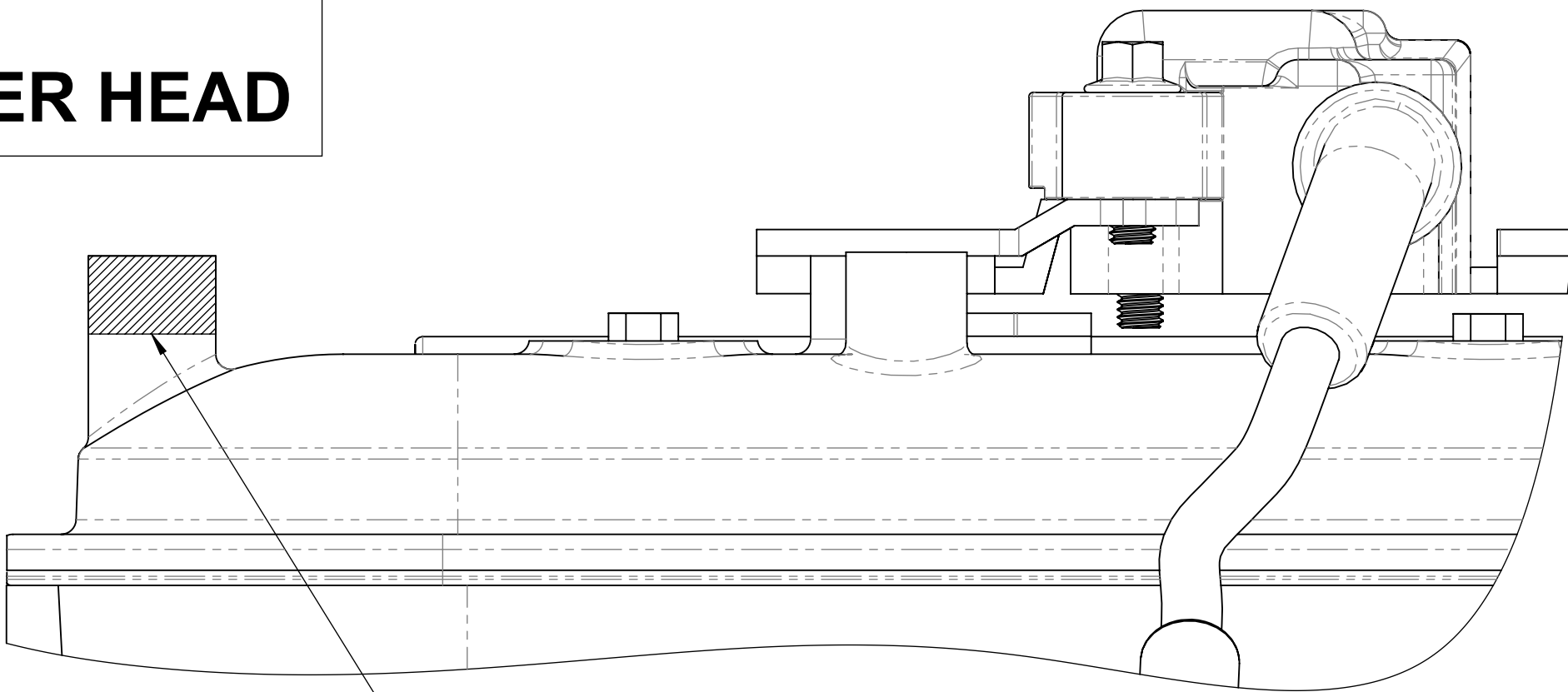
MOUNTING  
BOSS TO  
BE MODIFIED



SIDE VIEW (1)

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

MODIFIED ROCKER COVER  
(OPTION-1)



SIDE VIEW (2)

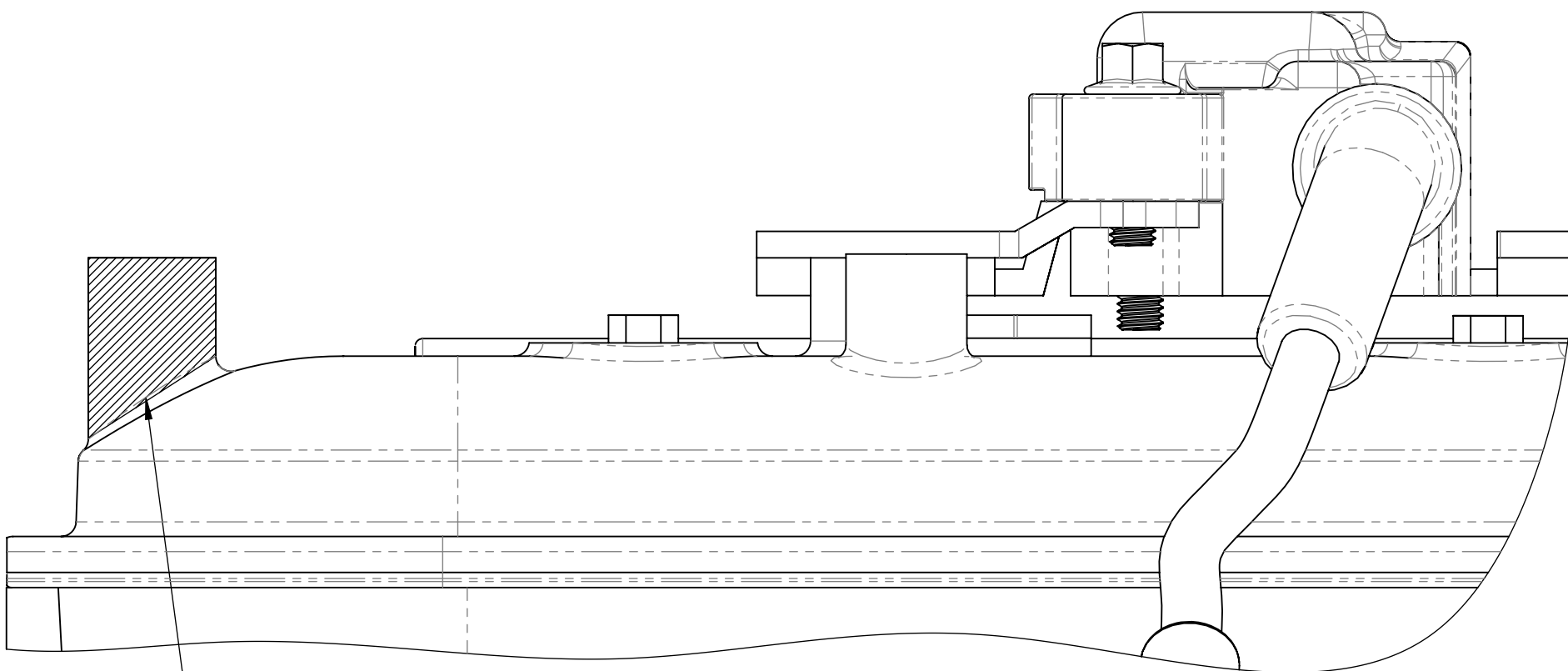
PASSENGER SIDE ROCKER COVER

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

THE STANDARD HEIGHT OF THE  
MOUNTING BOSS WILL 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



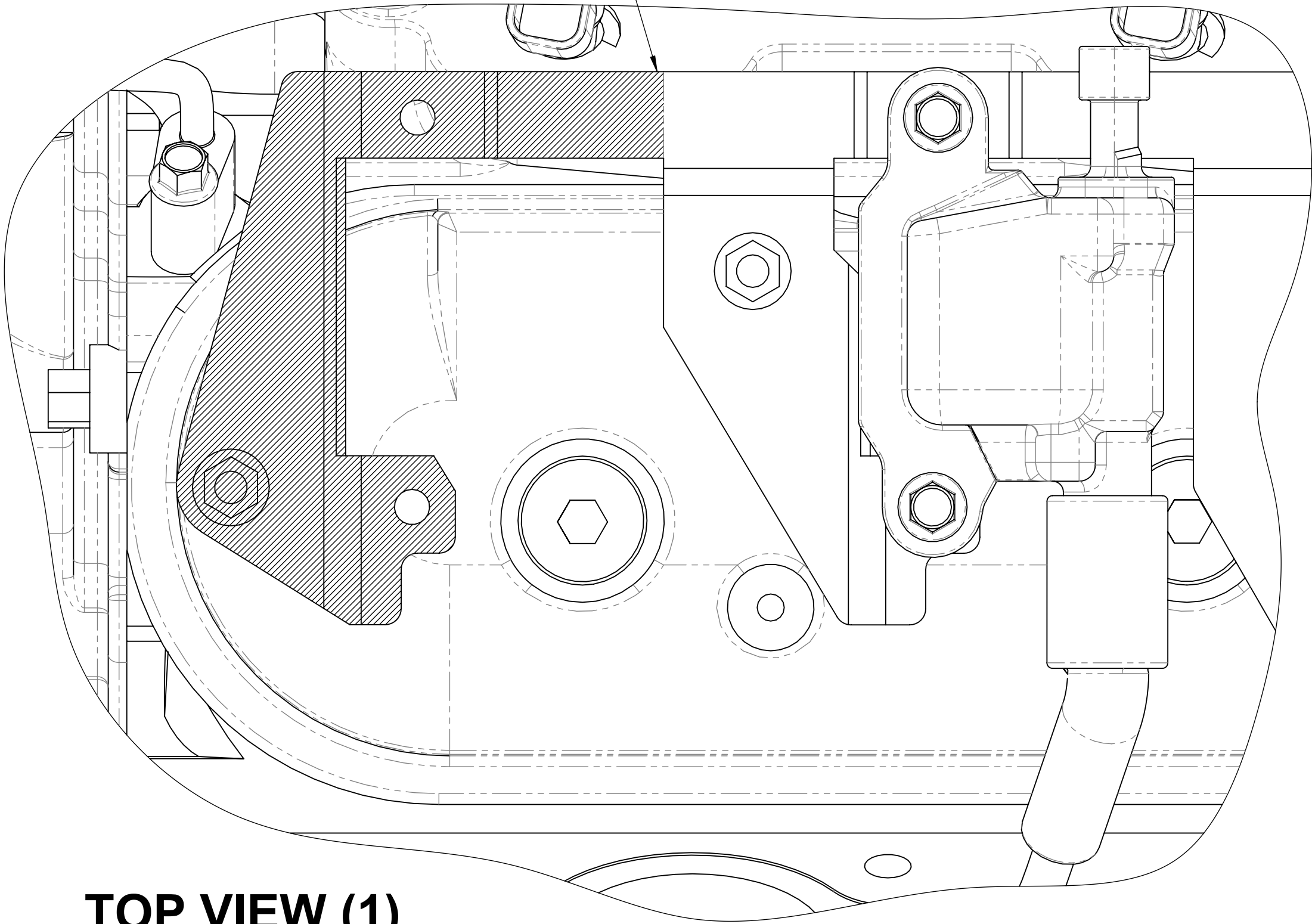
DRAWN	GDK 08/12/2020	TITLE: LS - Series Rocker Cover Coil Boss Modification		
DRAWING CHECKED	PAM 08/12/2020	SCALE:1.2:1 DRAWING 1 of 1	DRAWING/PART NUMBER LS - ACCMOD - 03	REV No. 0
FINISHED WEIGHT: kg				



LS - SERIES PASSENGER SIDE COIL BRACKET MODIFICATION  
FOR COIL RELOCATION BRACKET MFC20020  
(ROCKER COVER SWAP)

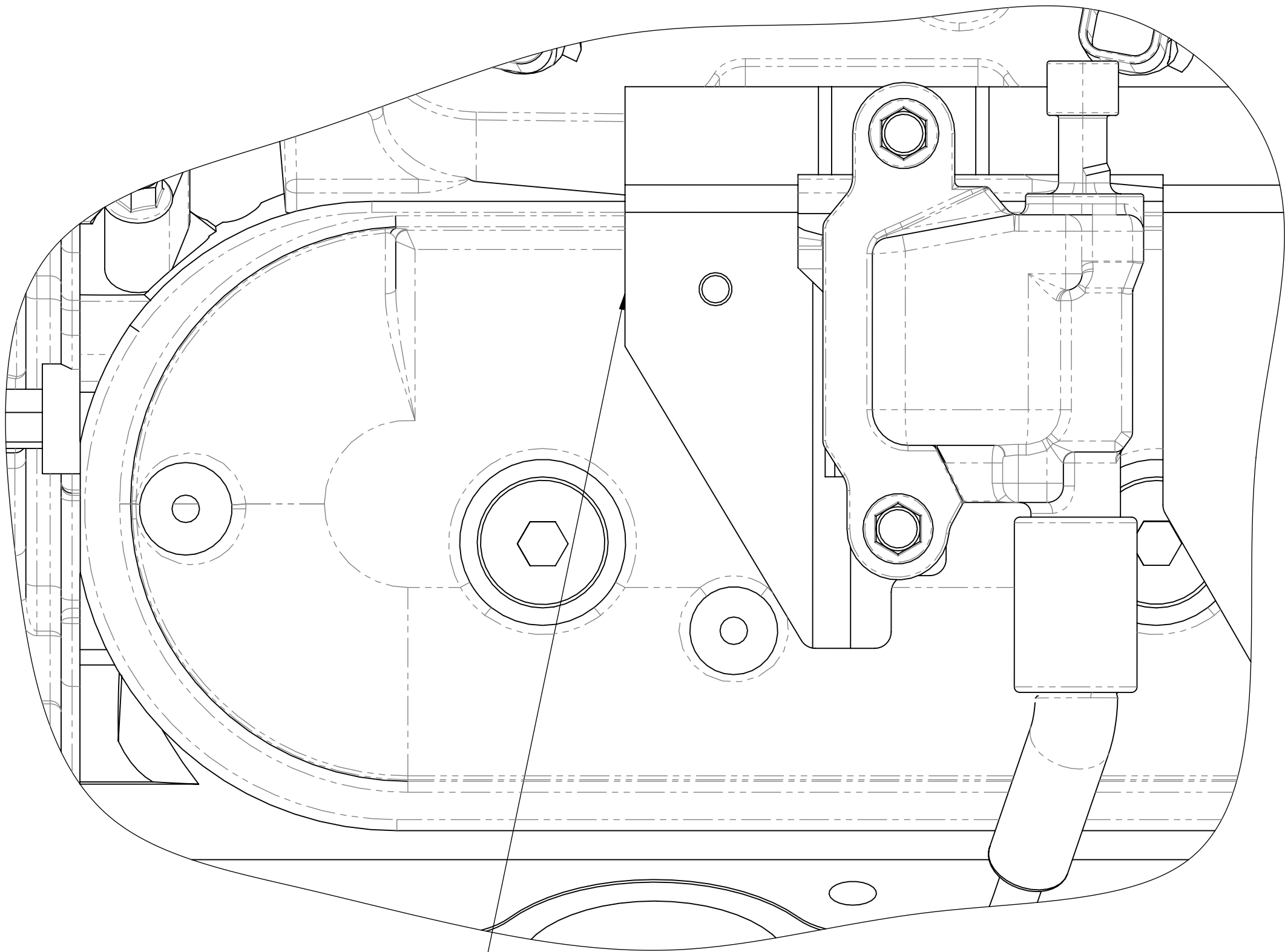
REMOVE THE HATCHED AREA  
AS SHOWN TO ALLOW  
FITMENT OF THE COIL  
RELOCATION BRACKET

STANDARD PASSENGER SIDE  
COIL BRACKET



TOP VIEW (1)

MODIFIED PASSENGER SIDE  
COIL BRACKET



TOP VIEW (2)

REUSE FACTORY BOLTS

REASSEMBLE THE LS COIL TO  
MFC20020 IN THE ORIENTATION  
SHOWN THEN FASTEN MFC20020  
TO THE MODIFIED COIL BRACKET  
& MOUNTING BOSS ON THE ROCKER  
COVER AS SHOWN IN THE  
EXPLODED VIEW

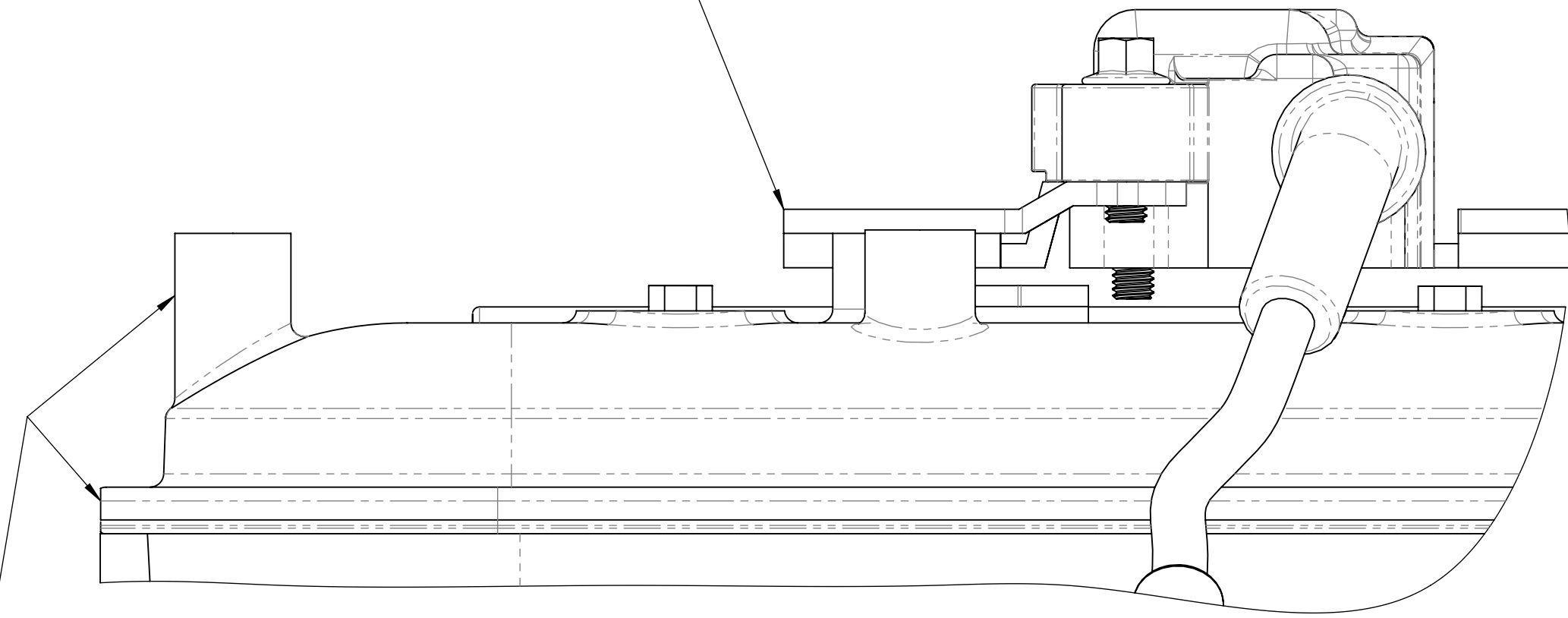
ROCKER COVER  
MODIFICATION  
IS REQUIRED BEFORE  
COIL RELOCATION

REFER TO DRAWING:-

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

(LS - ACCMOD - 03)  
LS - SERIES ROCKER COVER  
COIL BOSS MODIFICATION

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



SIDE VIEW (2)

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

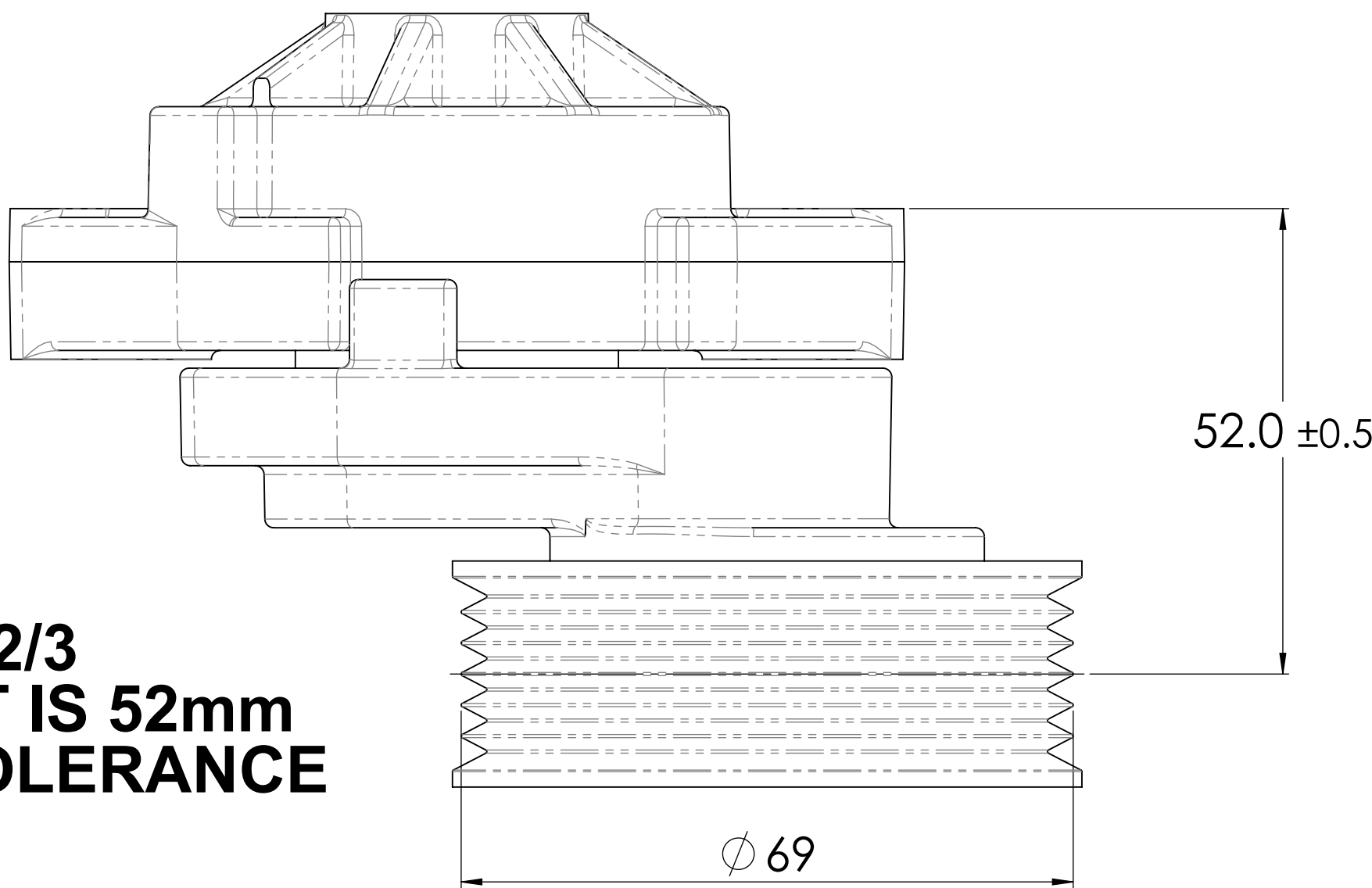
MFC20020

EXPLODE VIEW

DRAWN	GDK 08/12/2020	TITLE:	LS - Series Passenger Side Coil Bracket Modification
DRAWING CHECKED	PAM 08/12/2020	SCALE:1:2:1	DRAWING/PART NUMBER
FINISHED WEIGHT: kg		DRAWING 1 of 1	LS - ACCMOD - 05
			REV No. 0

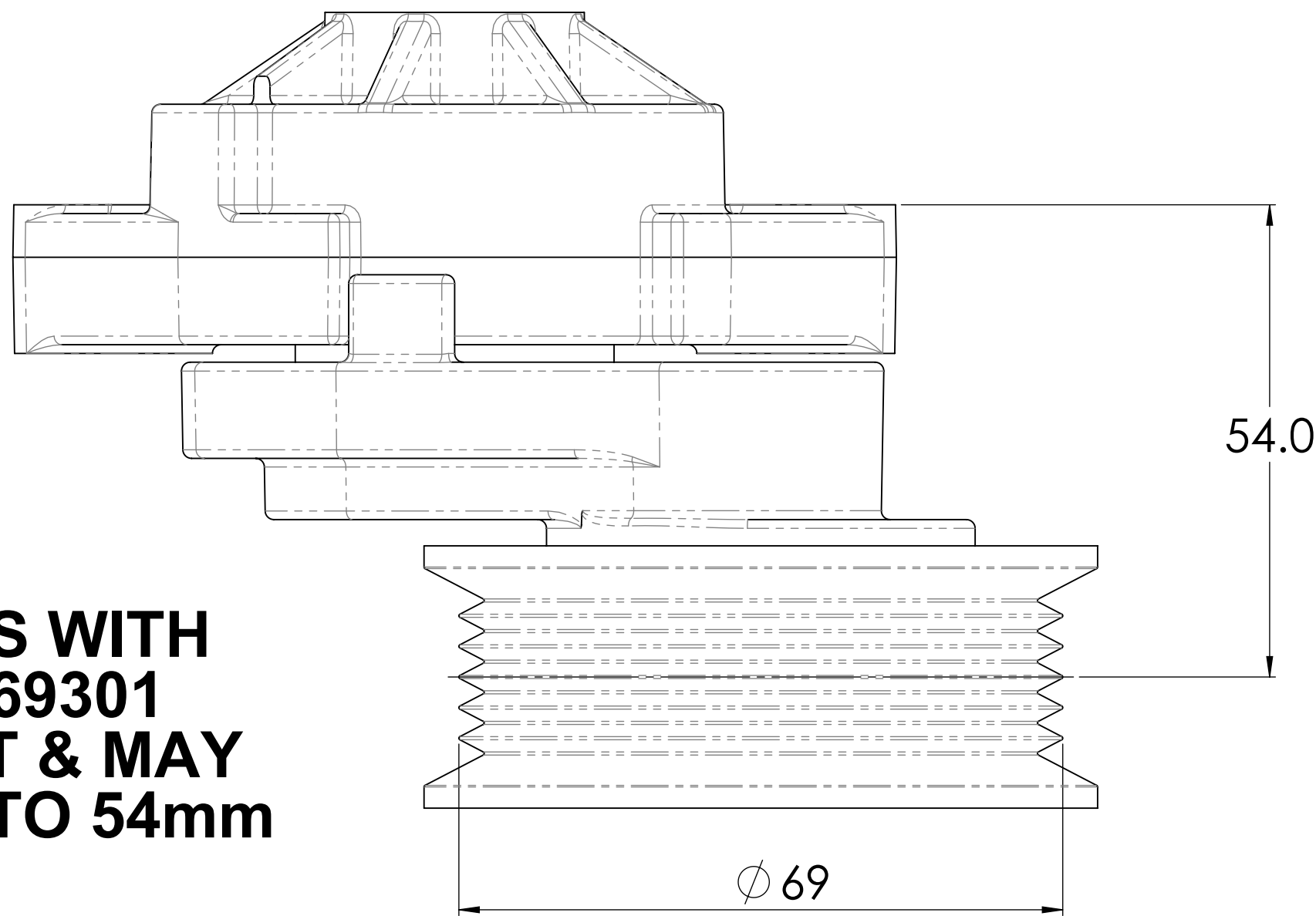
LS2/3 TENSIONER PULLEY OFFSETS

CORRECT OFFSET



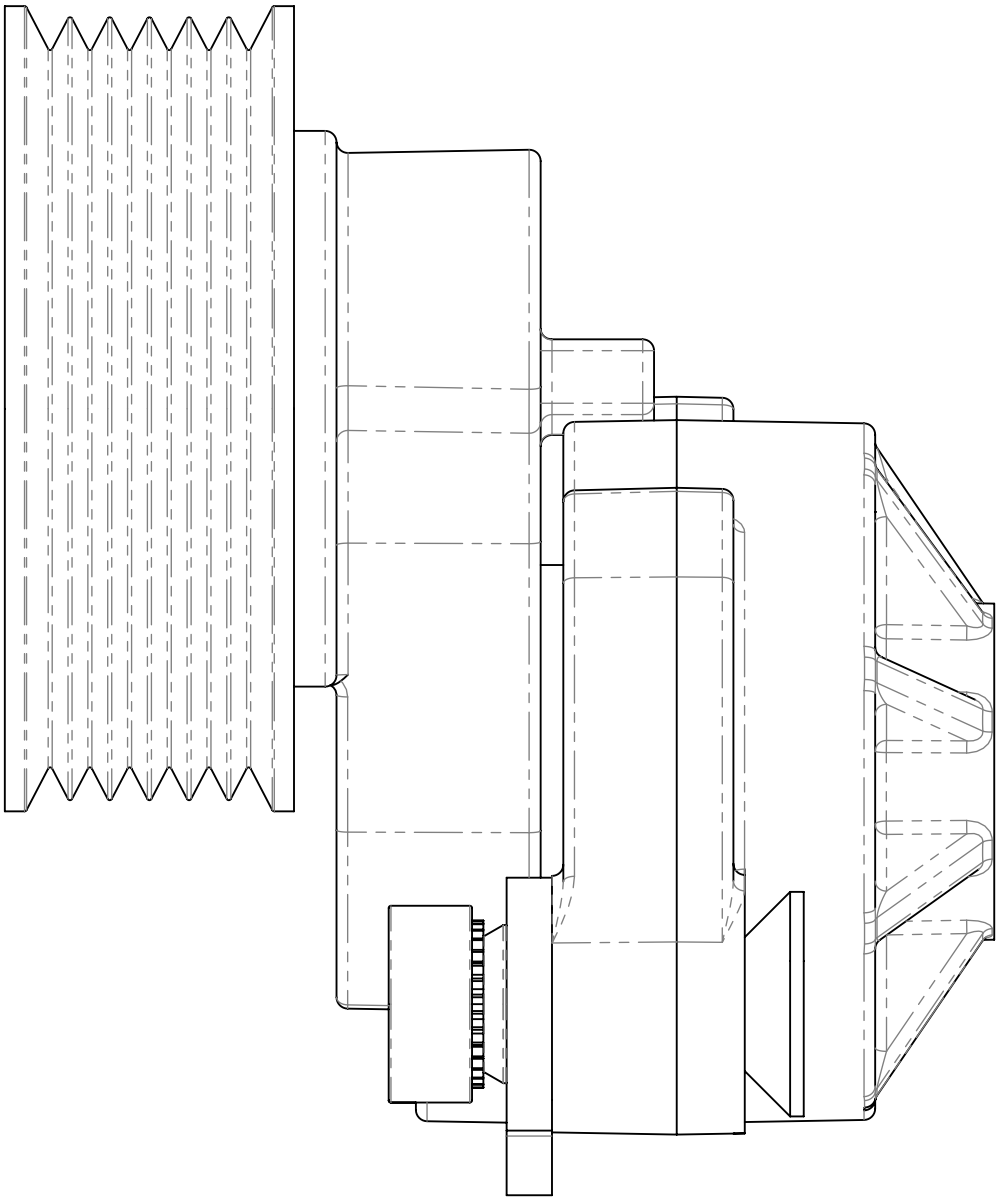
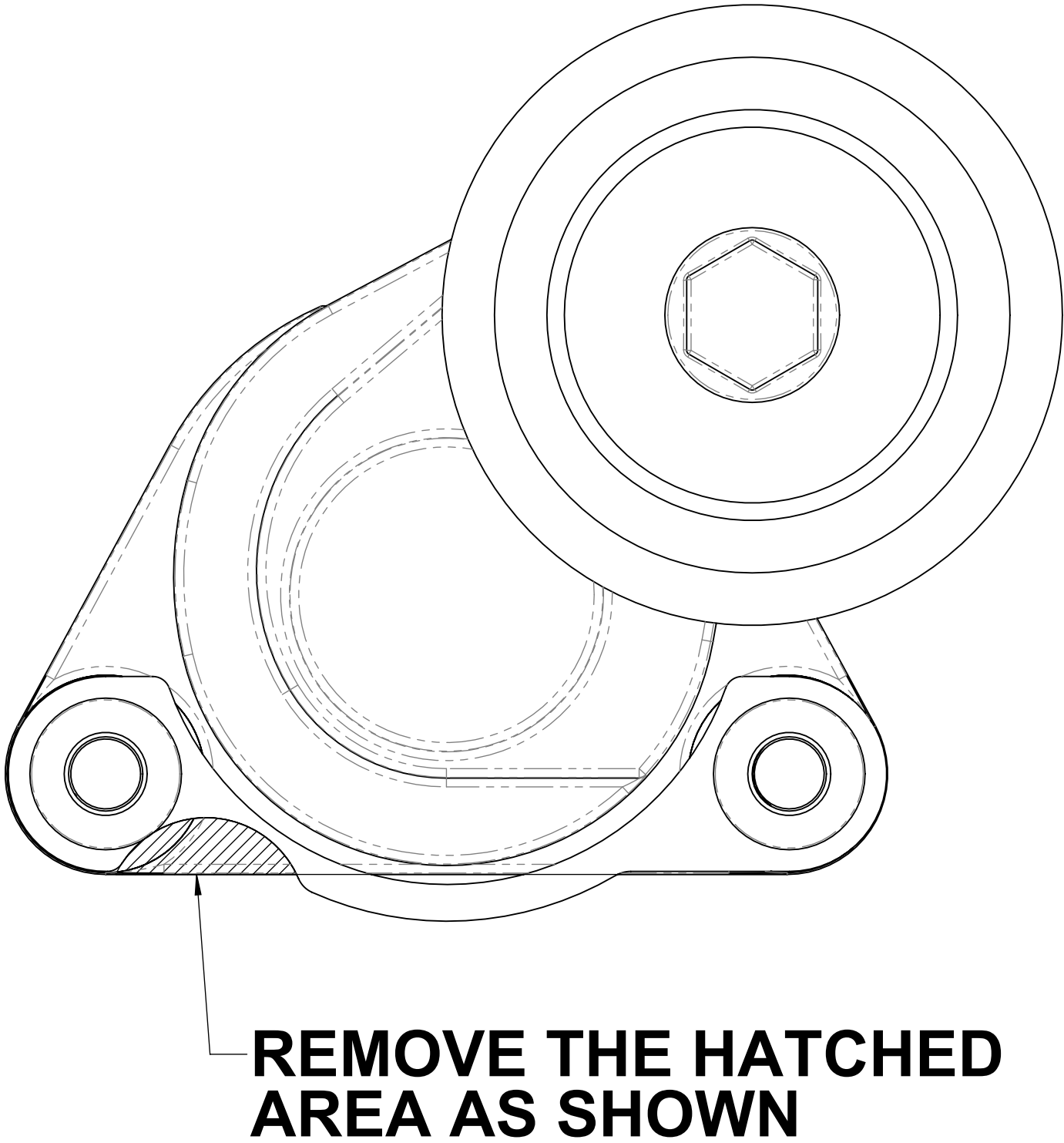
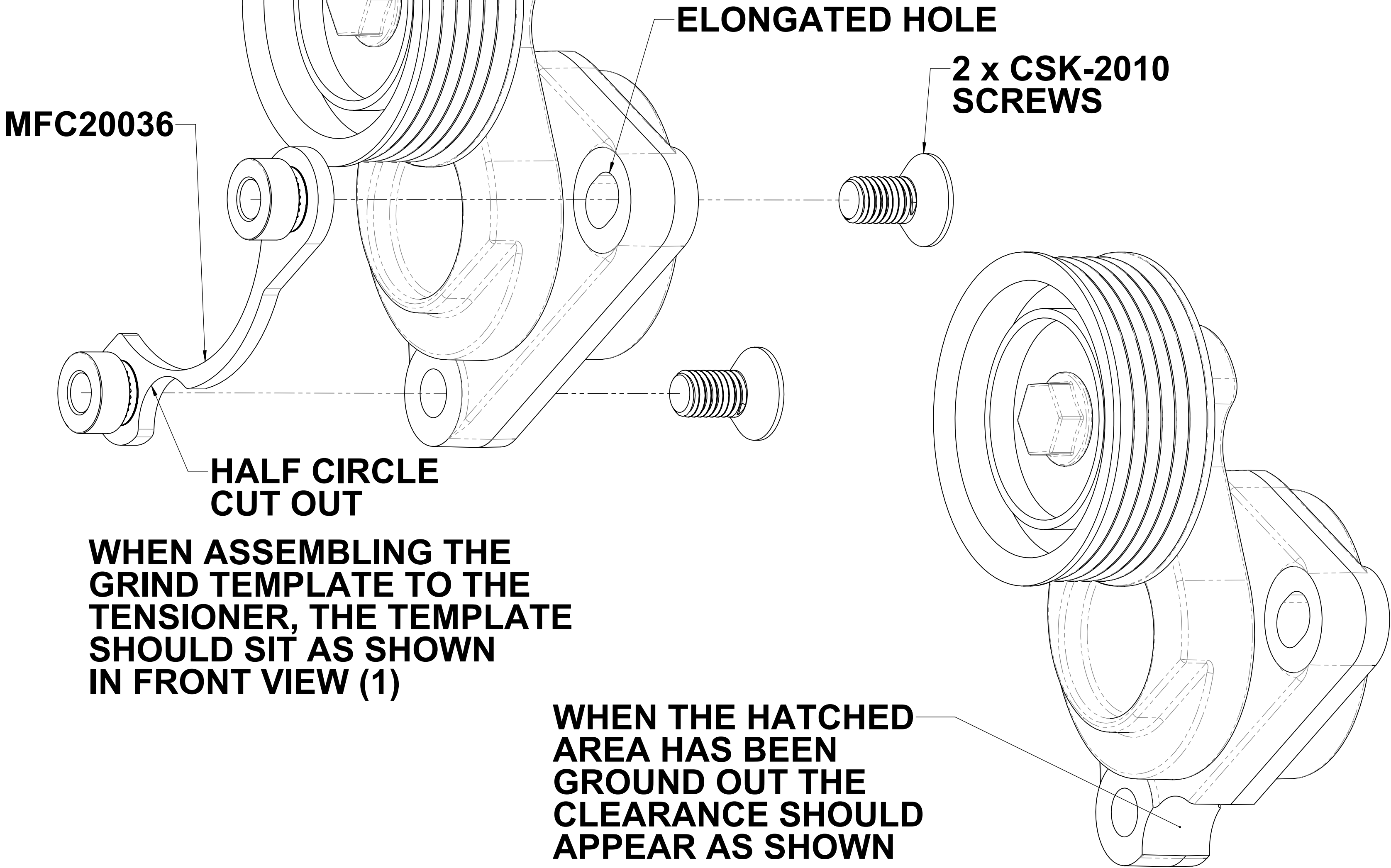
STANDARD OEM LS2/3  
TENSIONER OFFSET IS 52mm  
WITHIN +/- 0.5mm TOLERANCE

INCORRECT OFFSET



SOME LS2/3 TENSIONERS WITH  
THE SAME PART No. 12569301  
HAVE A LARGER OFFSET & MAY  
RANGE FROM 52mm UP TO 54mm

LS2/3 TENSIONER GRIND TEMPLATE





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

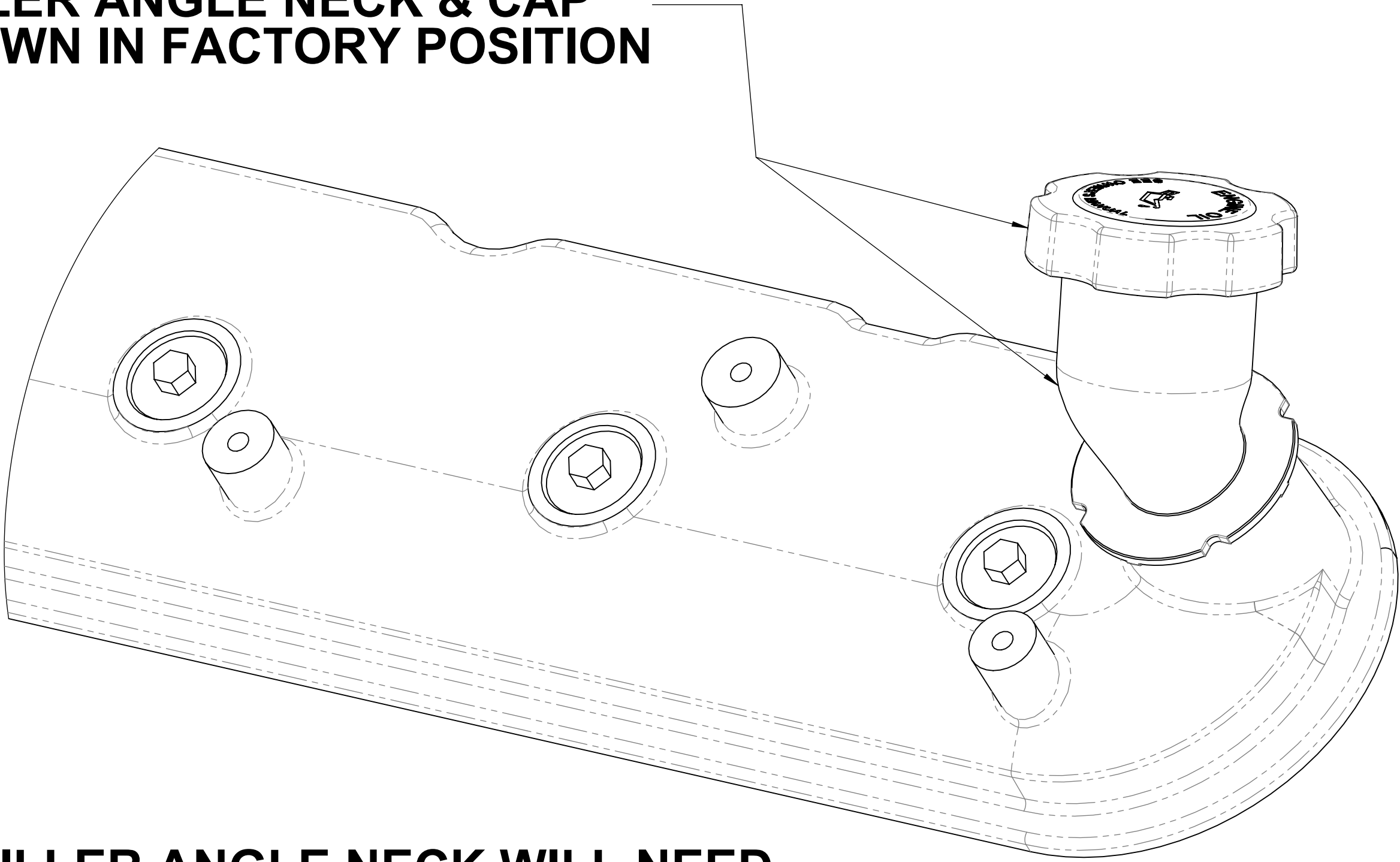
REMOVE THE HATCHED AREA AS SHOWN

FRONT VIEW (1)

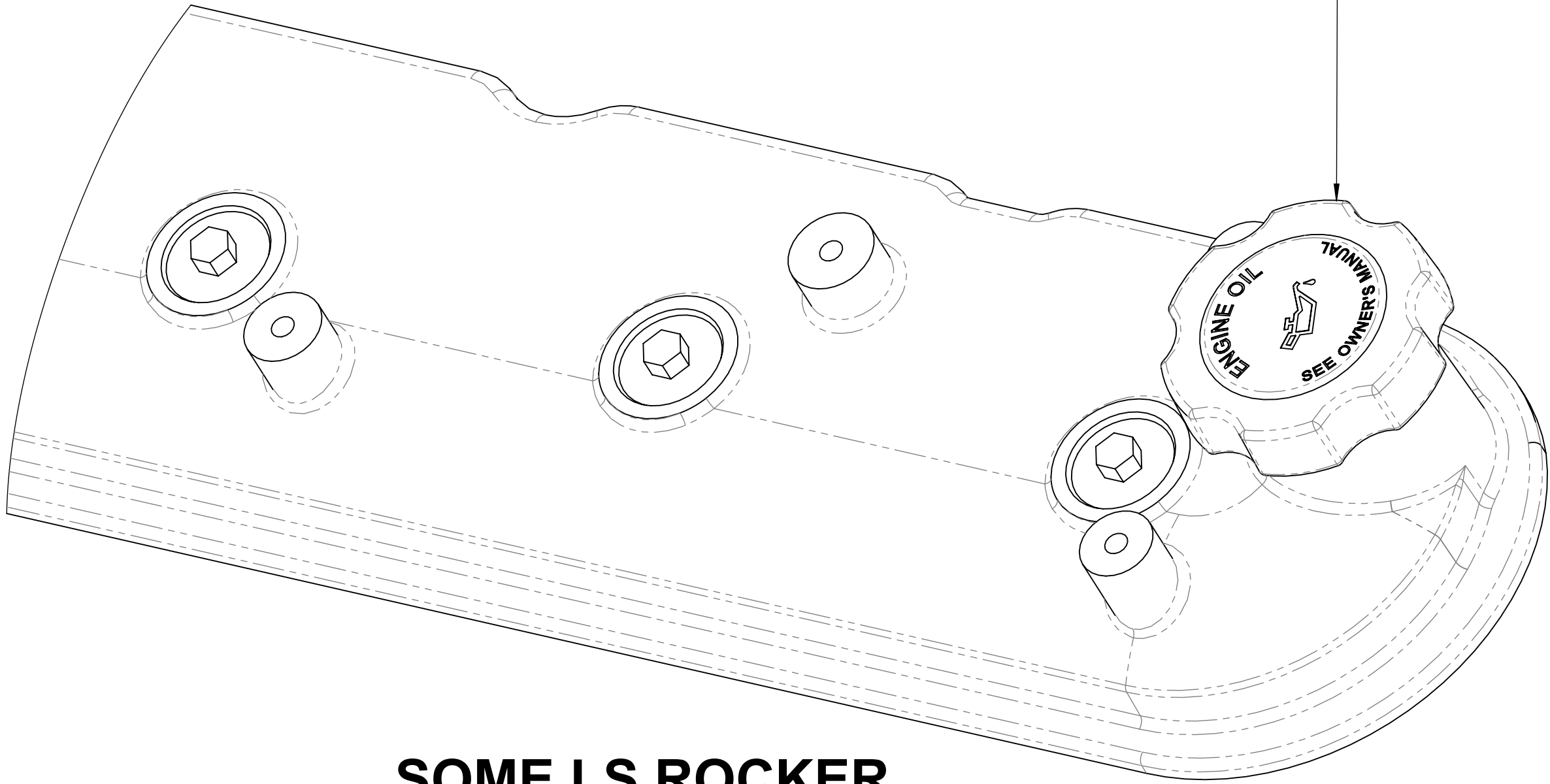
DRAWN		GDK 08/12/2020	TITLE:		LS1/2/3 Water Pump Grind Template	
DRAWING CHECKED		PAM 08/12/2020	SCALE:1:1		DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg			DRAWING 1 of 1		LS - ACCMOD - 11	0

LS2/3 OIL FILLER NECK MODIFICATION

OIL FILLER ANGLE NECK & CAP  
AS SHOWN IN FACTORY POSITION



OIL FILLER CAP AFTER  
MODIFICATION



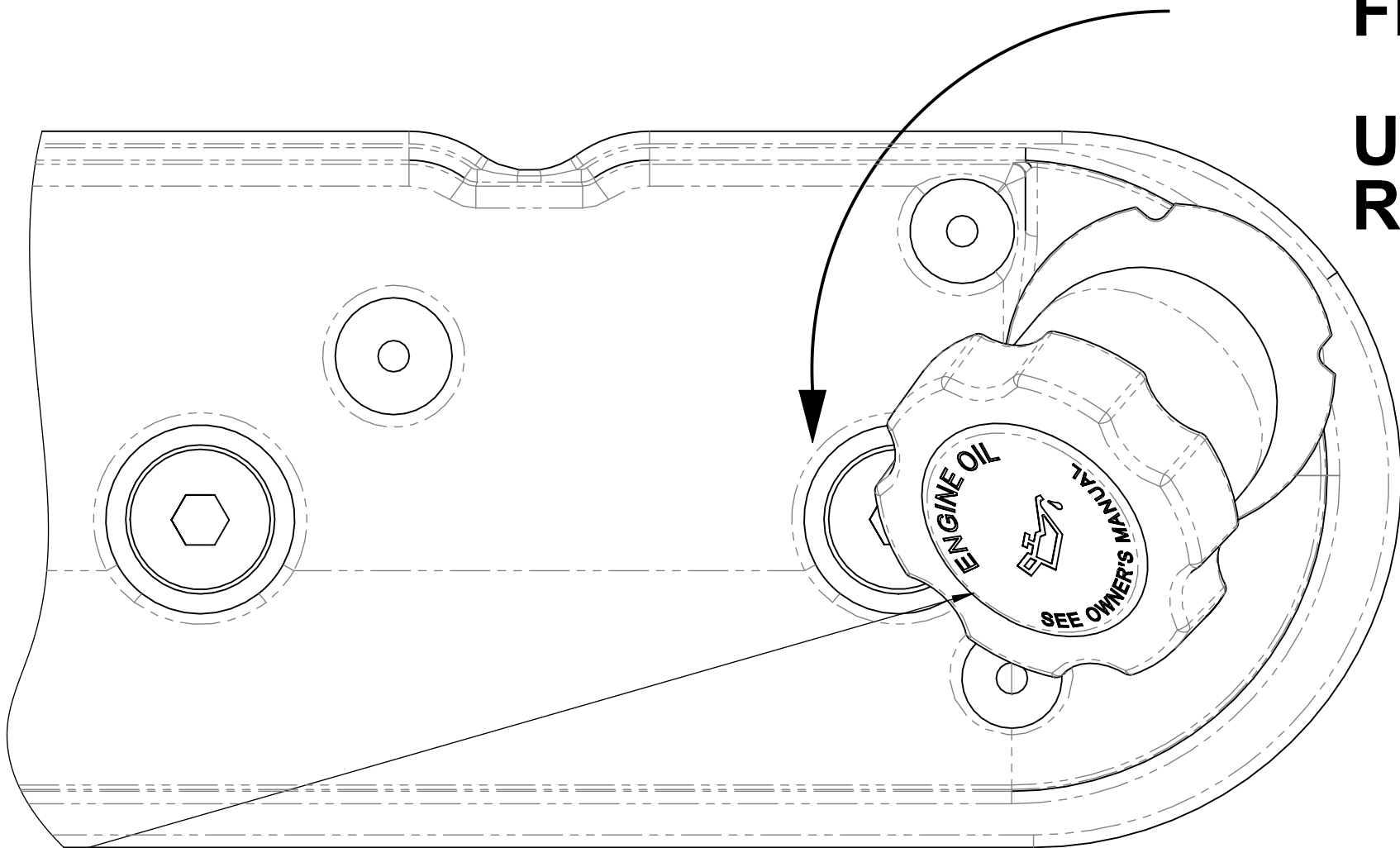
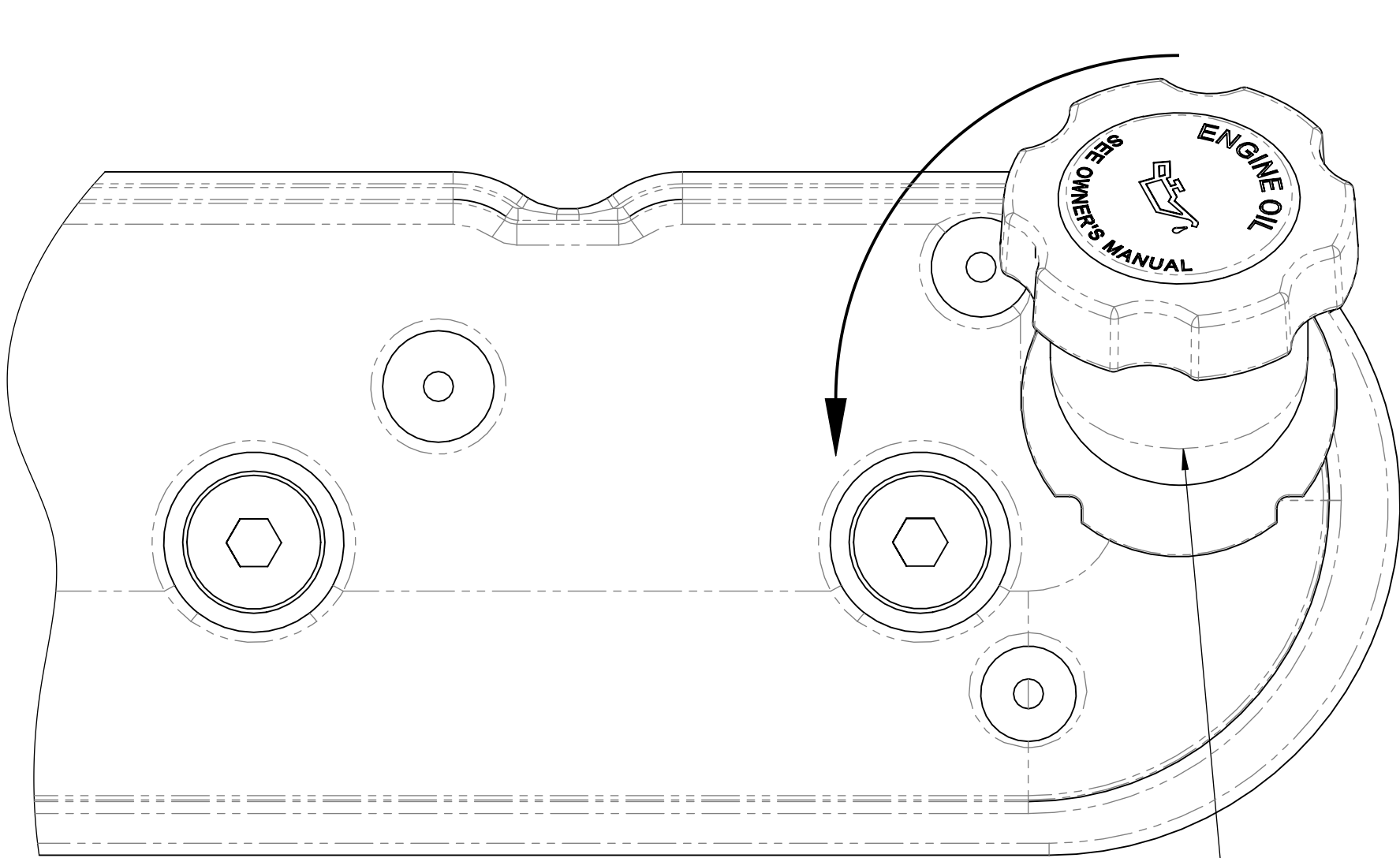
THE OIL FILLER ANGLE NECK WILL NEED  
TO BE REMOVED AS IN SOME CARS THE  
NECK SITS IN FRONT OF THE HEATER  
HOSE OUTLET/INLET

SOME LS ROCKER  
COVERS HAVE AN  
EXTRA TAB INSIDE  
THE FILLER NECK  
HOLE WHICH CAN  
MAKE IT HARDER  
AGAIN TO TWIST THE  
FILLER NECK OFF

VERY IMPORTANT:

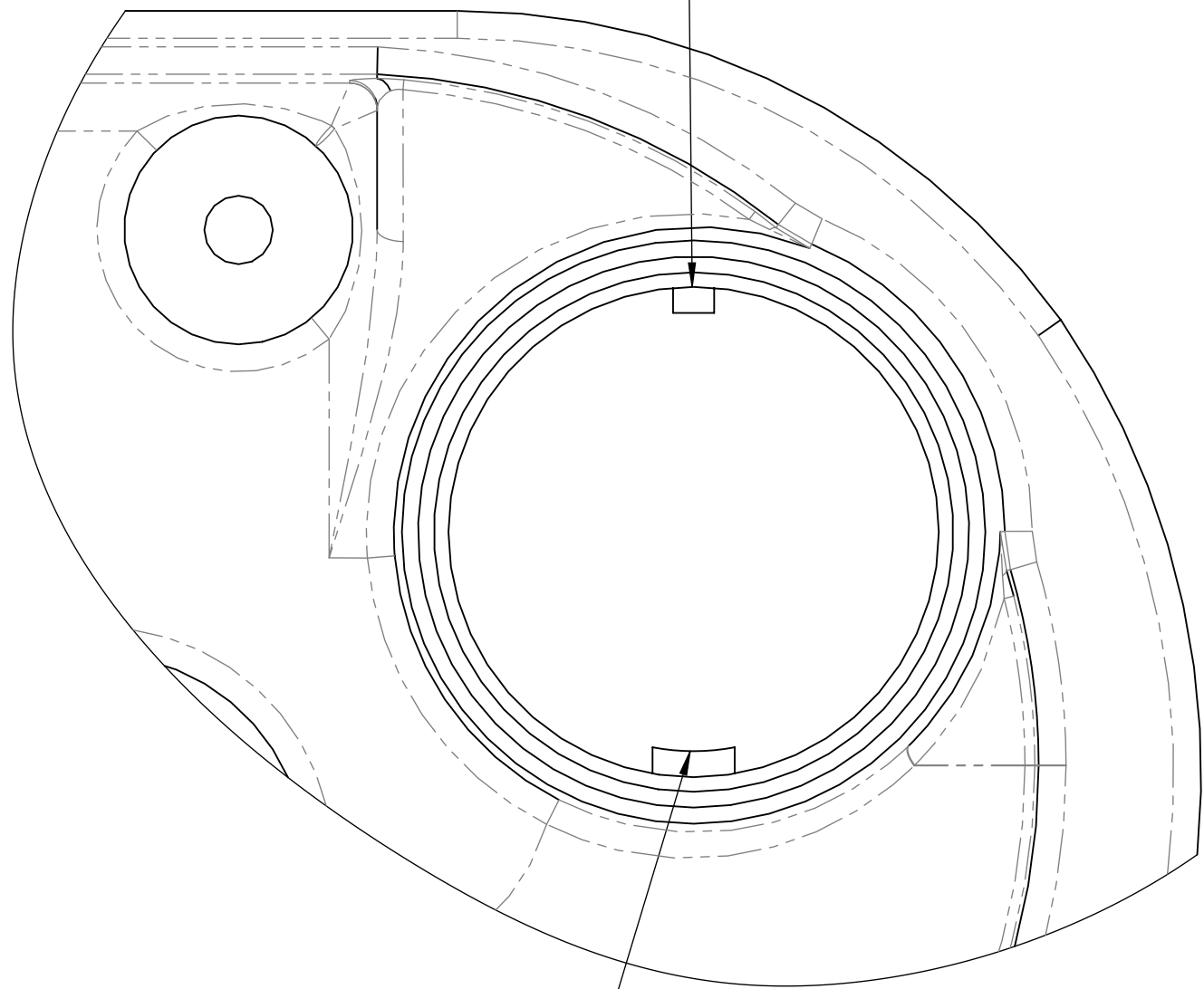
BEFORE FILING THIS TAB  
REMOVE THE COVER  
FROM THE ENGINE TO  
PREVENT METAL CHIPS  
ENTERING THE ENGINE

USE A CONCAVE FILE TO  
REMOVE THIS TAB ONLY



TWIST THE NECK ANTI-CLOCKWISE  
THE NECK MAY BE TIGHT TO TWIST  
THEREFORE A FIRM ROTATION IS  
REQUIRED TO REMOVE

DO NOT REMOVE  
THIS TAB

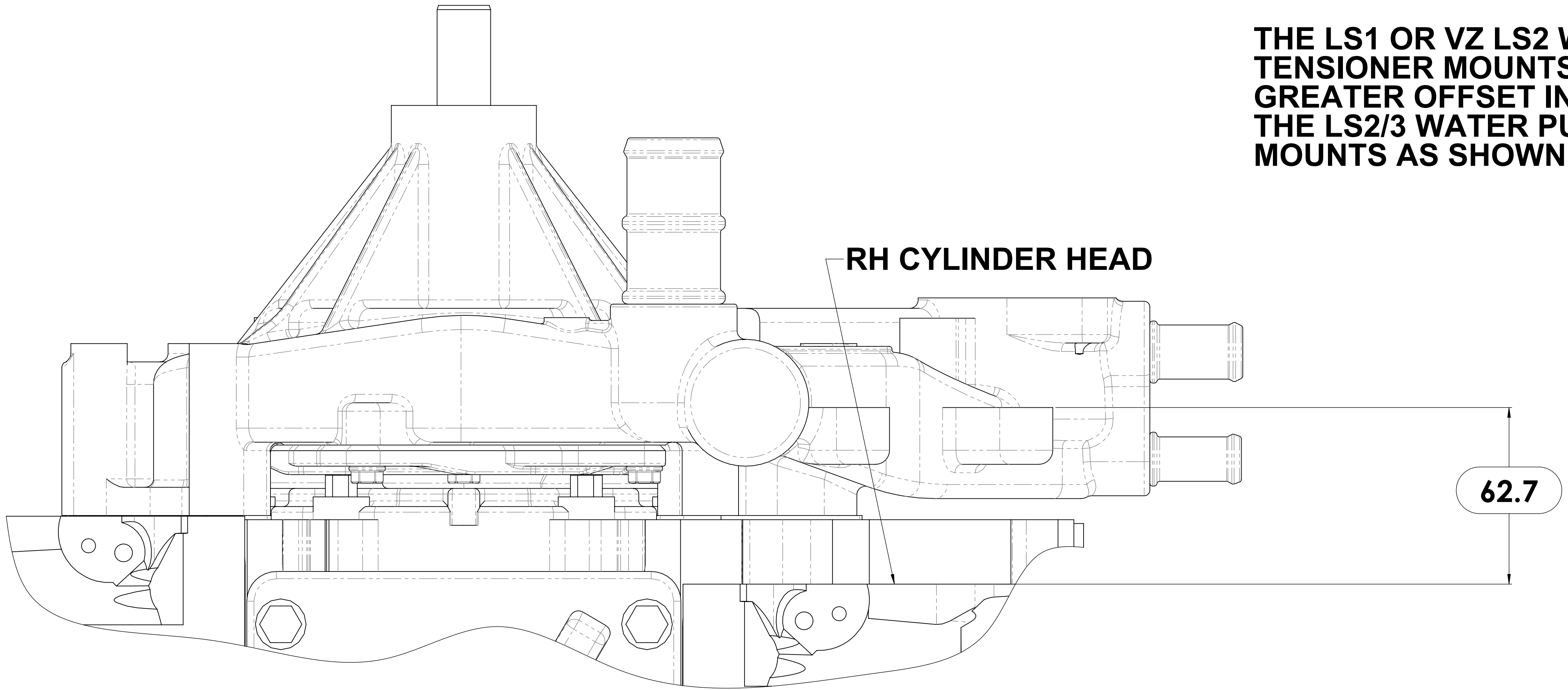


DRAWN	GDK 08/12/2020	TITLE: ( ) LS2/3 Oil Filler Neck Modification		
DRAWING CHECKED	PAM 08/12/2020	SCALE:1:1 DRAWING 1 of 1	DRAWING/PART NUMBER LS - ACCMOD - 13	REV No. 0
FINISHED WEIGHT: kg				



LS WATER PUMP TENSIONER MOUNT OFFSETS

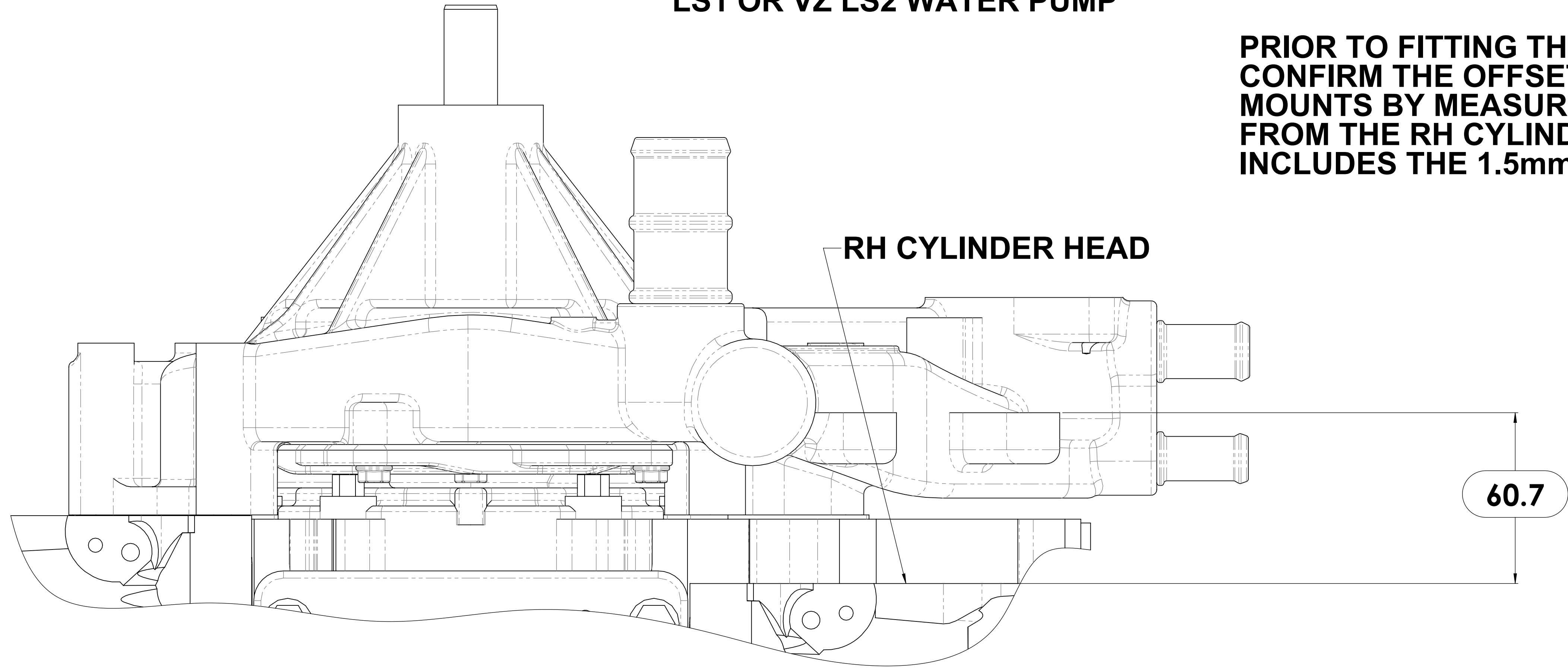
THE LS1 OR VZ LS2 WATER PUMP TENSIONER MOUNTS WILL HAVE A 2mm GREATER OFFSET IN RELATION TO THE LS2/3 WATER PUMP TENSIONERS MOUNTS AS SHOWN



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



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

DRAWN	GDK 08/12/2020	TITLE: ( ) LS Water Pump Tensioner Mount Offsets		
DRAWING CHECKED	PAM 08/12/2020	SCALE:1:1 DRAWING 1 of 1	DRAWING/PART NUMBER LS - INFO - 02	REV No. 0
FINISHED WEIGHT: kg				

1:-THE GRIND CLEARANCE FOR THE WATER PUMP & LS2/LS3 TENSIONER & MOUNT OFFSET MUST BE DONE PRIOR TO ASSEMBLING THE ACCESSORY KIT

2:- IF USING OEM LS2/LS3 WATER PUMP GO TO STEP 3:-

IF USING THE MARKS 4WD LS WATER PUMP DISCARD THE SPACERS SUPPLIED

THESE ARE ONLY FOR THE LS1/ VZ LS2 APPLICATION

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

4:- MOUNT THE TENSIONER (ORIENT AS SHOWN) TO THE MOUNTING FACE OF THE WATER PUMP USING AN OEM (M10x1.5x35) BOLT BEFORE ASSEMBLING THE KIT

ELONGATED SLOT OF THE TENSIONER

1:- GRIND CLEARANCE (LS - ACCMOD - 09)

MOUNTING FACE

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

LS2/3 TENSIONER ASSEMBLY FOR RH KIT

THE PROCEEDURES OUTLINED WILL APPLY TO THE OEM LS2/LS3 WATER PUMP & THE MARKS 4WD LS WATER PUMP FOLLOW STEPS 1,2,3,4,5,6 IN THAT ORDER

6:- ONCE THE KIT IS ASSEMBLED SHIM ANY GAP BETWEEN THE FRONT PLATE OF THE KIT & THE TENSIONER

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

DETAIL A SCALE 3 : 1

ELONGATED SLOT OF THE TENSIONER

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

DRAWN	GDK 08/12/2020	TITLE: LS2/3 Tensioner Assembly For Rh Kit	
DRAWING CHECKED	PAM 08/12/2020	SCALE:1:1 DRAWING 1 of 1	DRAWING/PART NUMBER LS - INFO - 04
FINISHED WEIGHT: kg		REV No.	0