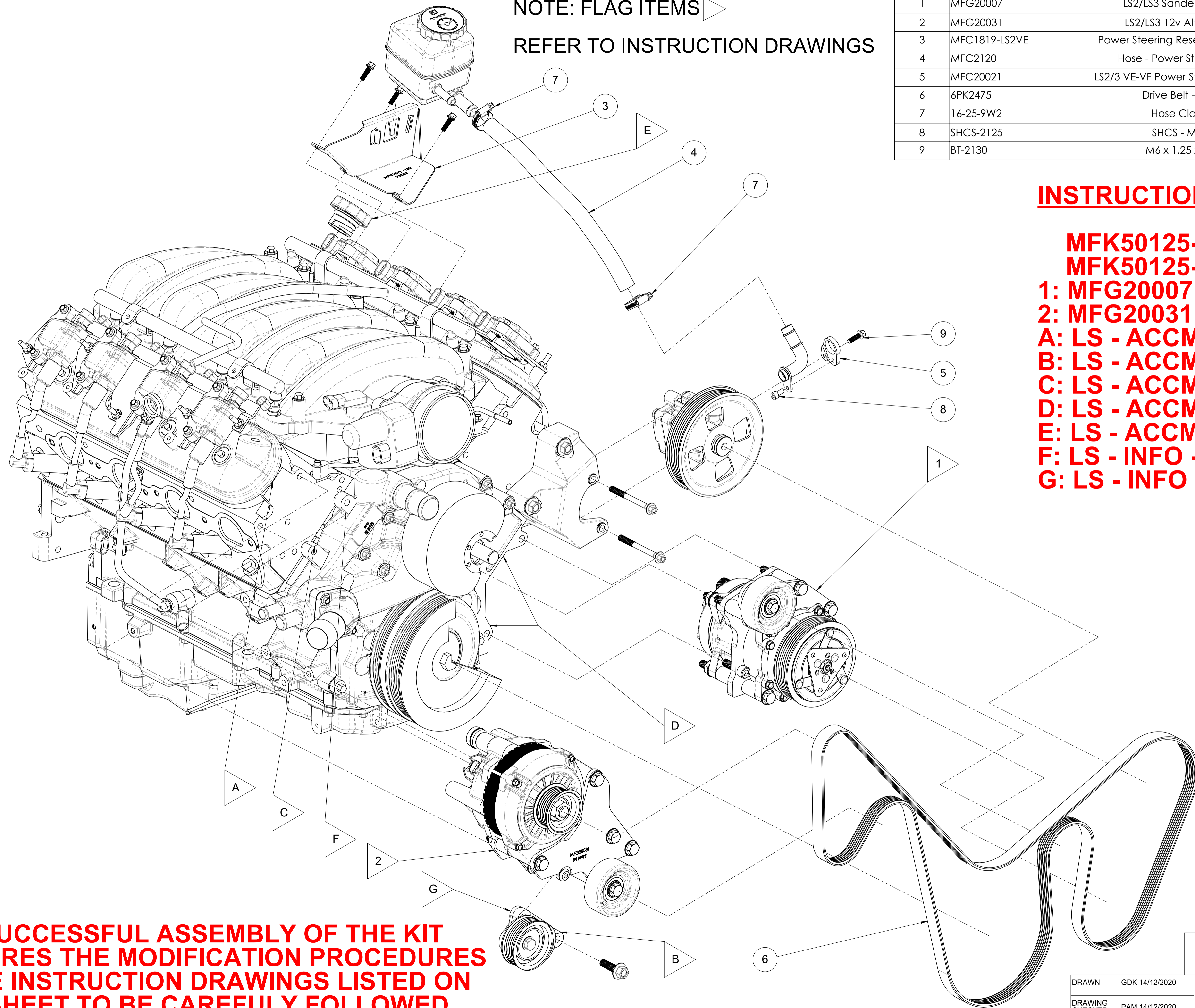


NOTE: FLAG ITEMS
REFER TO INSTRUCTION DRAWINGS

ITEM NO.	PART NUMBER	DESCRIPTION	
1	MFG20007	LS2/LS3 Sanden Compressor (Low LH)	1
2	MFG20031	LS2/LS3 12v Alternator Relocation RH	1
3	MFC1819-LS2VE	Power Steering Reservoir Bracket - LS2/3 VE - VF	1
4	MFC2120	Hose - Power Steering - 16mm x 400mm	1
5	MFC20021	LS2/3 VE-VF Power Steering Barb Rotate Adaptor	1
6	6PK2475	Drive Belt - Poly Rib (2475mm)	1
7	16-25-9W2	Hose Clamp - 16 to 25mm	2
8	SHCS-2125	SHCS - M6 x 1 x 12mm - SS	1
9	BT-2130	M6 x 1.25 x 20 - Capture Bolt	1

INSTRUCTION DRAWINGS

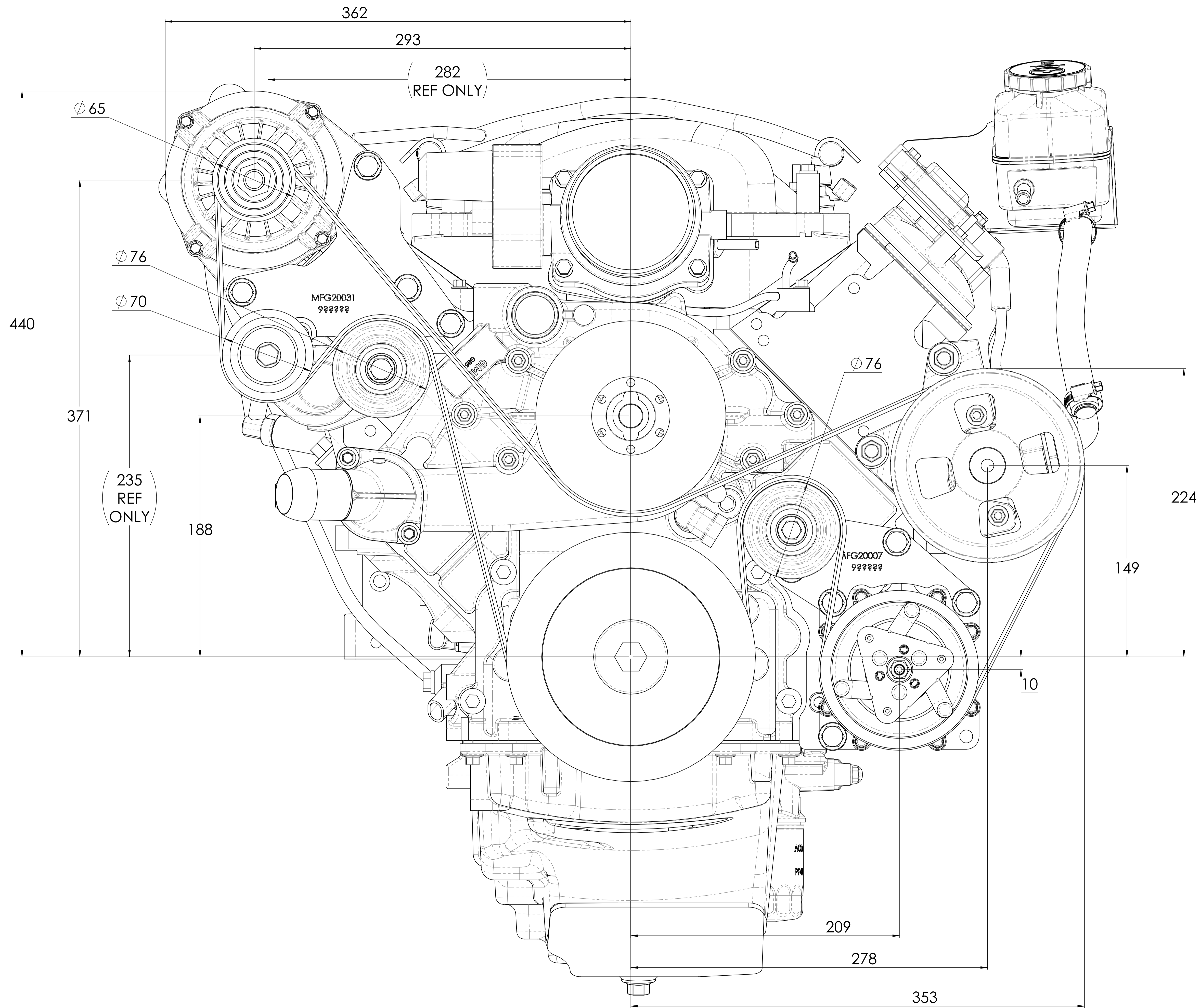
- MFK50125-SHT-1**
MFK50125-SHT-2
1: MFG20007
2: MFG20031
A: LS - ACCMOD - 01
B: LS - ACCMOD - 09
C: LS - ACCMOD - 11
D: LS - ACCMOD - 12
E: LS - ACCMOD - 13
F: LS - INFO - 02
G: LS - INFO - 04



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

DRAWN	GDK 14/12/2020	TITLE:	Accessory Kit - RH 12v Alt & Low LH Comp
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:2.5	DRAWING/PART NUMBER
FINISHED WEIGHT: kg		DRAWING	MFK50125
		1 of 11	REV No. 0





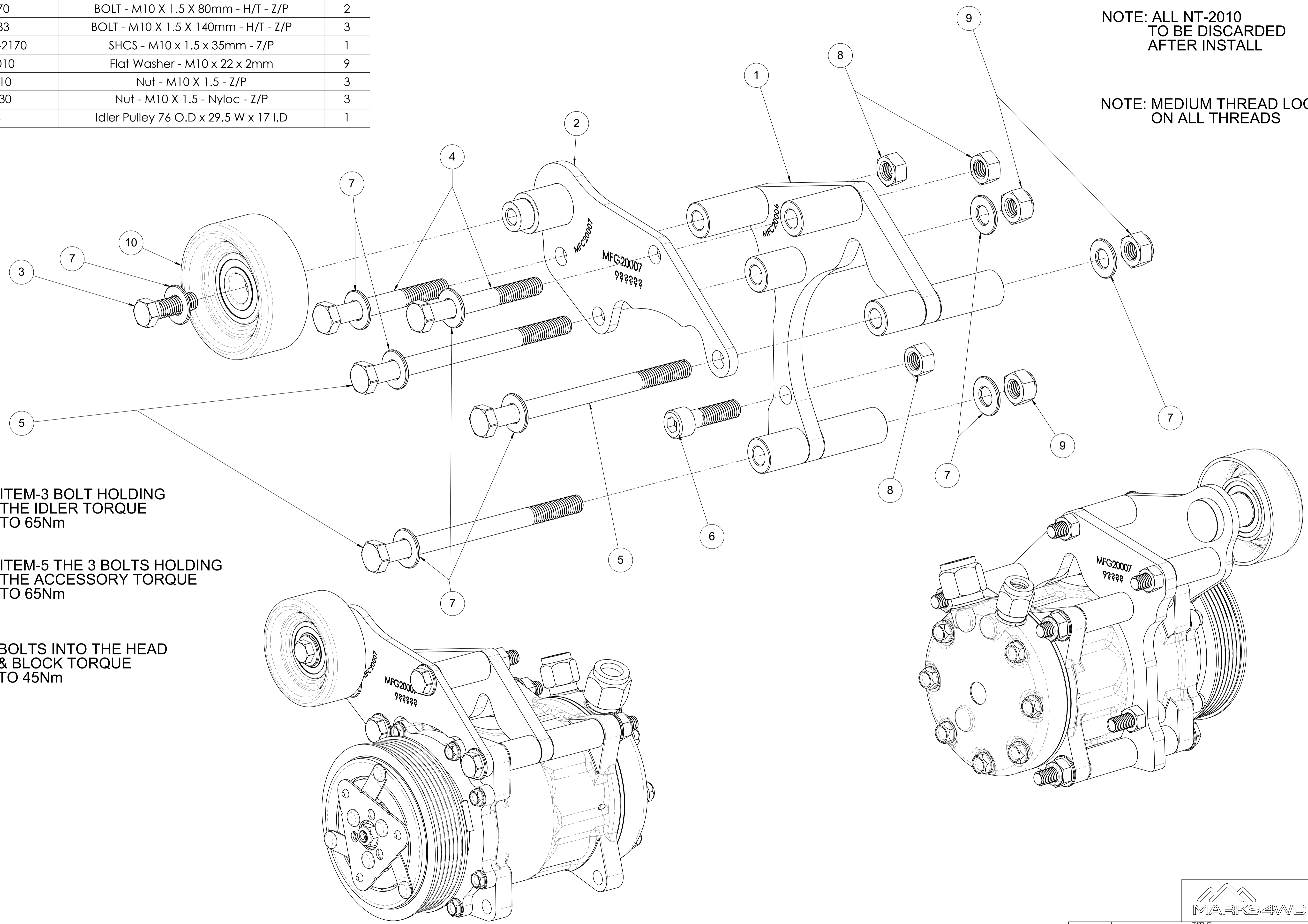

 365-393 LOWER DANDENONG ROAD,
 DINGLEY, VICTORIA, 3172
 A.B.N. 28 153 842 829

DRAWN	GDK 14/12/2020	TITLE:	Accessory Kit - RH 12v Alt & Low LH Comp	
DRAWING CHECKED	PAM 14/12/2020	SCALE:	1:1.5	DRAWING/PART NUMBER
FINISHED WEIGHT:	kg	DRAWING	2 of 11	REV No. 0
			MFK50125	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MFC20006	LS Sanden Compressor Base Plate	1
2	MFC20007	LS2/LS3 Sanden Compressor Front Plate	1
3	BT-2245	Bolt - M10 x 1.5 x 30mm - H/T - Z/P	1
4	BT-2270	BOLT - M10 X 1.5 X 80mm - H/T - Z/P	2
5	BT-2283	BOLT - M10 X 1.5 X 140mm - H/T - Z/P	3
6	SHCS-2170	SHCS - M10 x 1.5 x 35mm - Z/P	1
7	FW-2010	Flat Washer - M10 x 22 x 2mm	9
8	NT-2010	Nut - M10 X 1.5 - Z/P	3
9	NT-2030	Nut - M10 X 1.5 - Nyloc - Z/P	3
10	EP024	Idler Pulley 76 O.D x 29.5 W x 17 I.D	1

NOTE: ALL NT-2010
TO BE DISCARDED
AFTER INSTALL

NOTE: MEDIUM THREAD LOCK
ON ALL THREADS



ITEM-3 BOLT HOLDING
THE IDLER TORQUE
TO 65Nm

ITEM-5 THE 3 BOLTS HOLDING
THE ACCESSORY TORQUE
TO 65Nm

BOLTS INTO THE HEAD
& BLOCK TORQUE
TO 45Nm



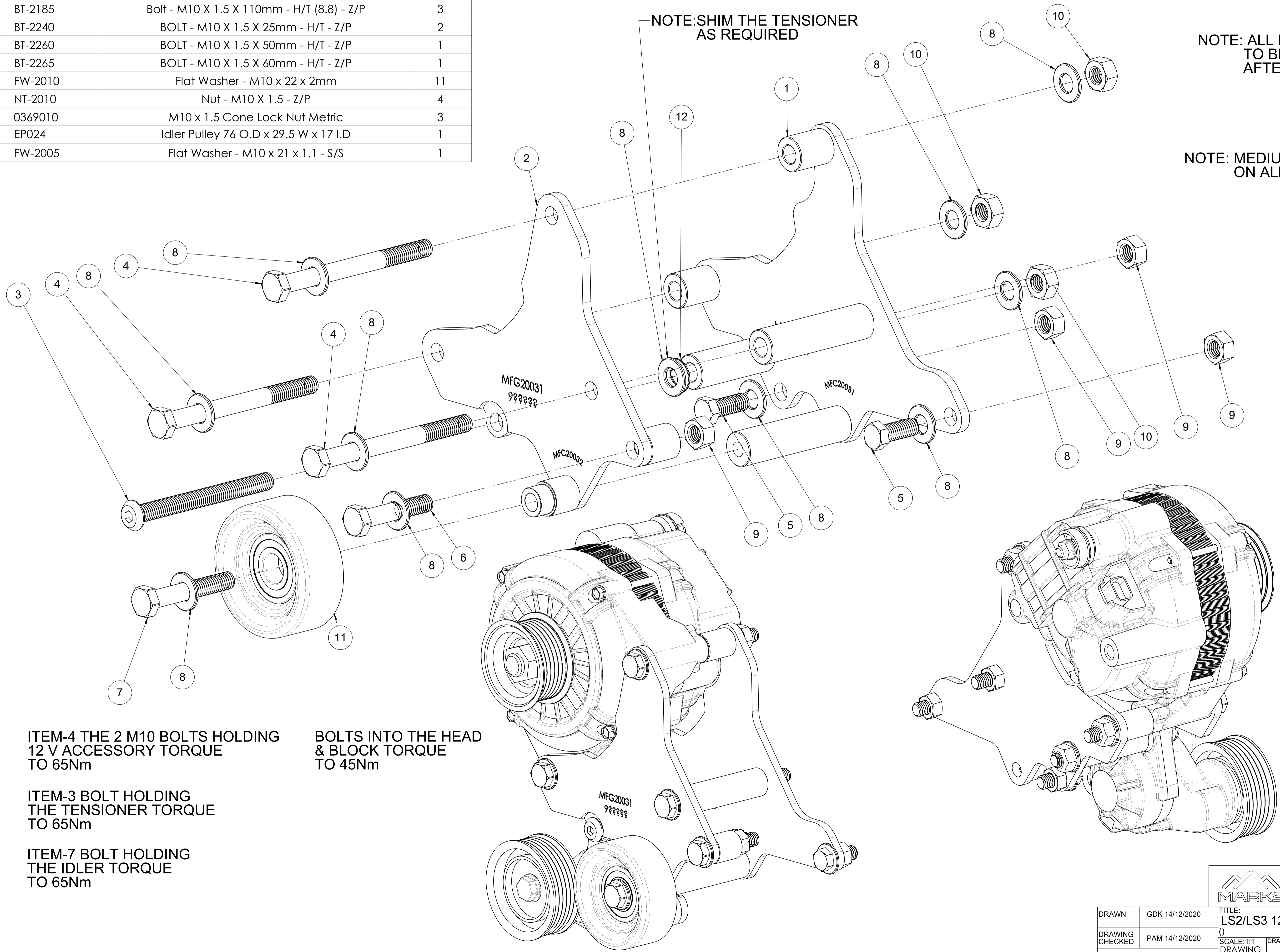
DRAWN	GDK 14/12/2020	TITLE	LS2/LS3 Sanden Compressor (Low LH)	
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 3 of 11	MFG20007	0

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	EPO24	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

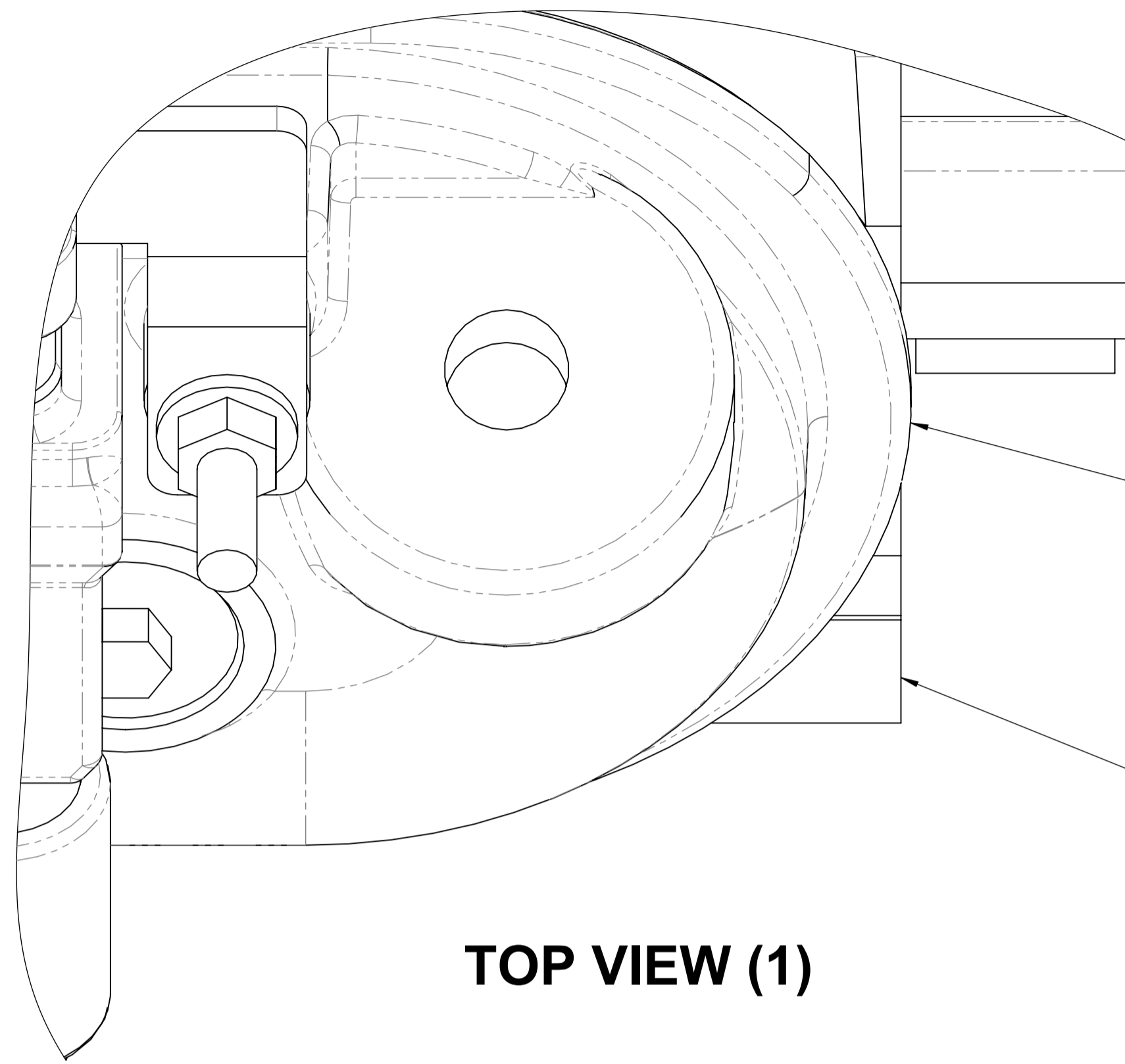
ITEM-7 BOLT HOLDING THE IDLER TORQUE TO 65Nm



DRAWN	GDK 14/12/2020	TITLE:	LS2/LS3 12v Alternator Relocation RH
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:1	DRAWING/PART NUMBER
FINISHED WEIGHT: kg		DRAWING 4 of 11	REV No. 0
		MFG20031	

LS - SERIES ROCKER COVER LIP MODIFICATION

STANDARD ROCKER COVER



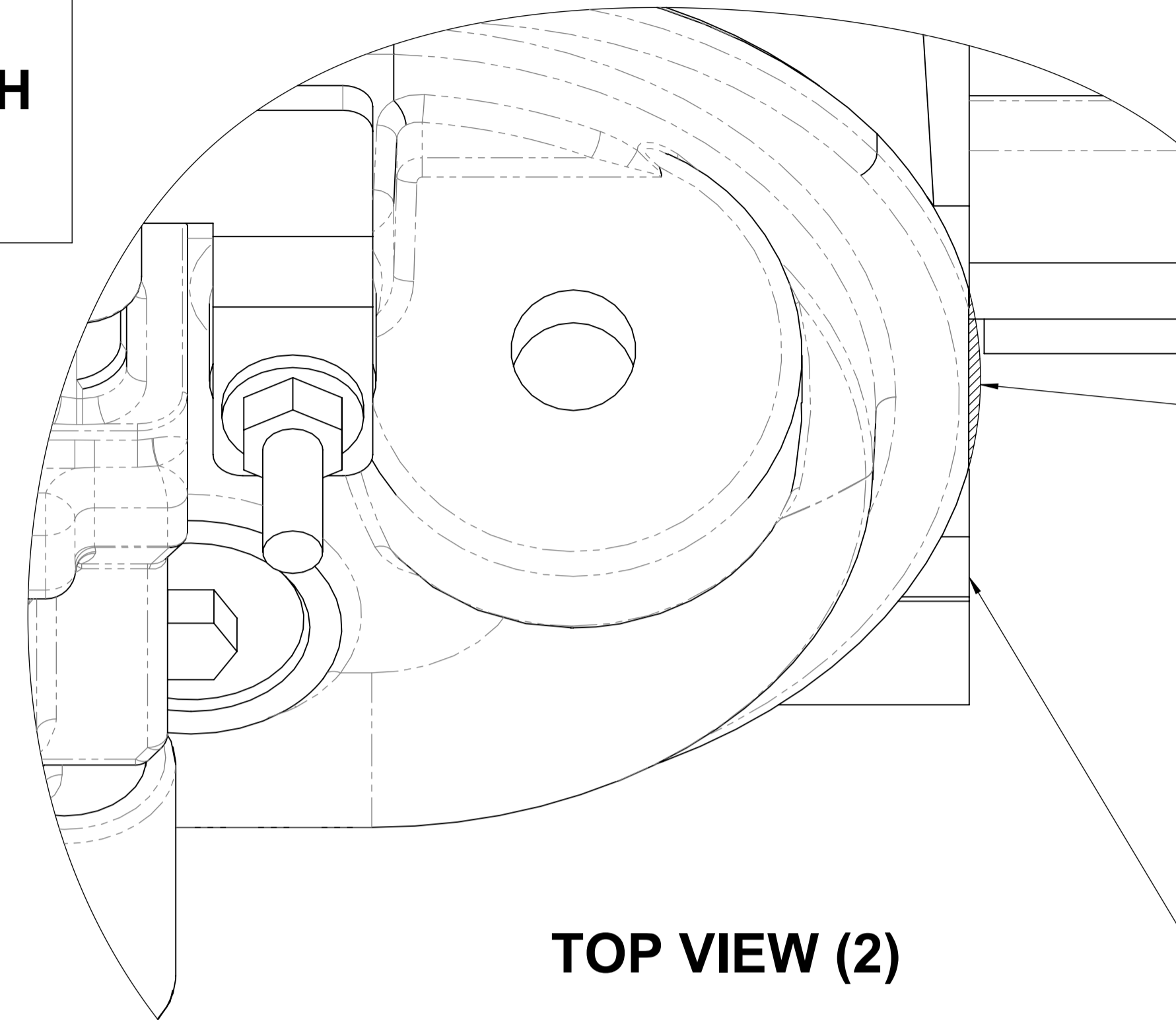
TOP VIEW (1)

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



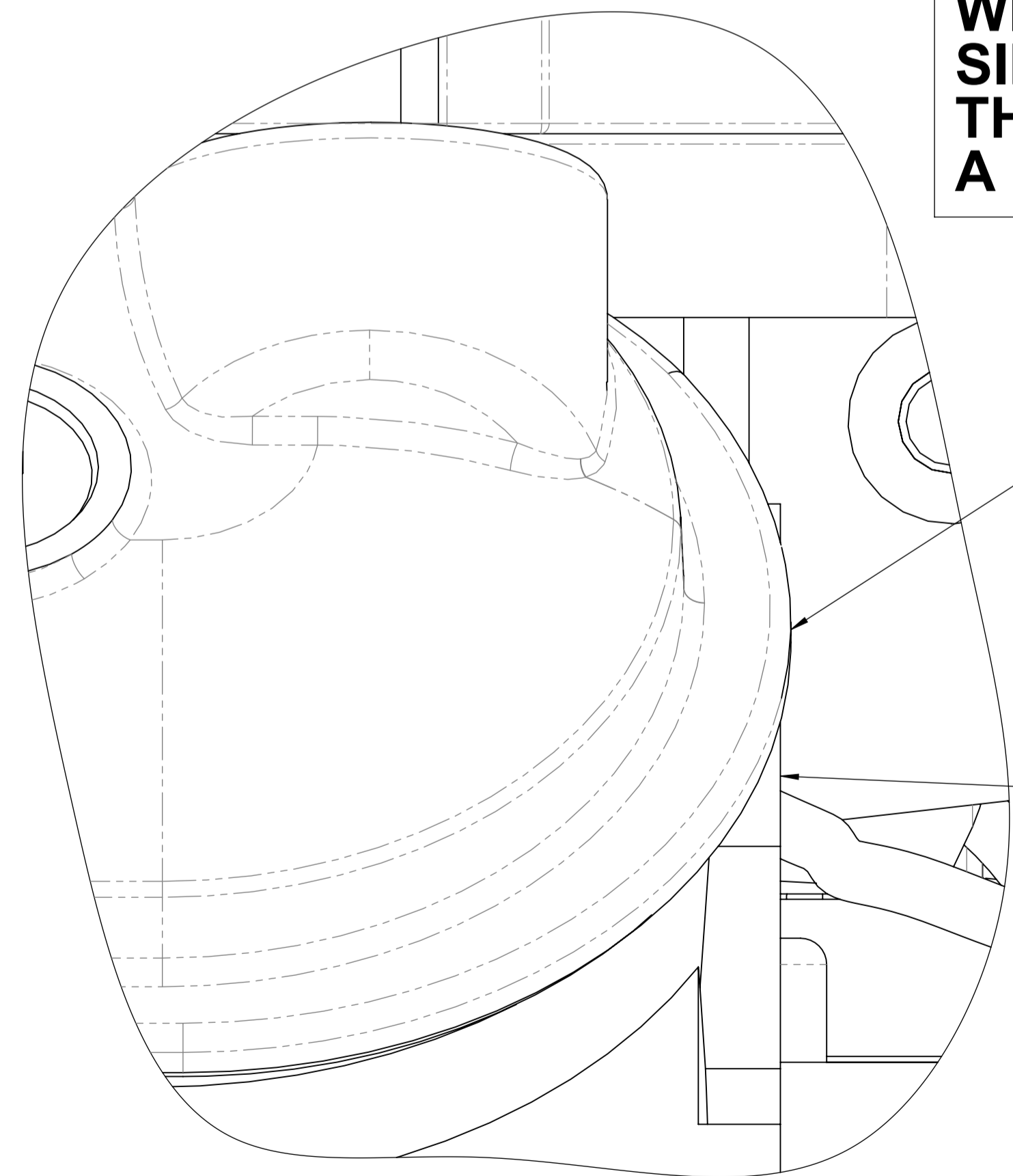
TOP VIEW (2)

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

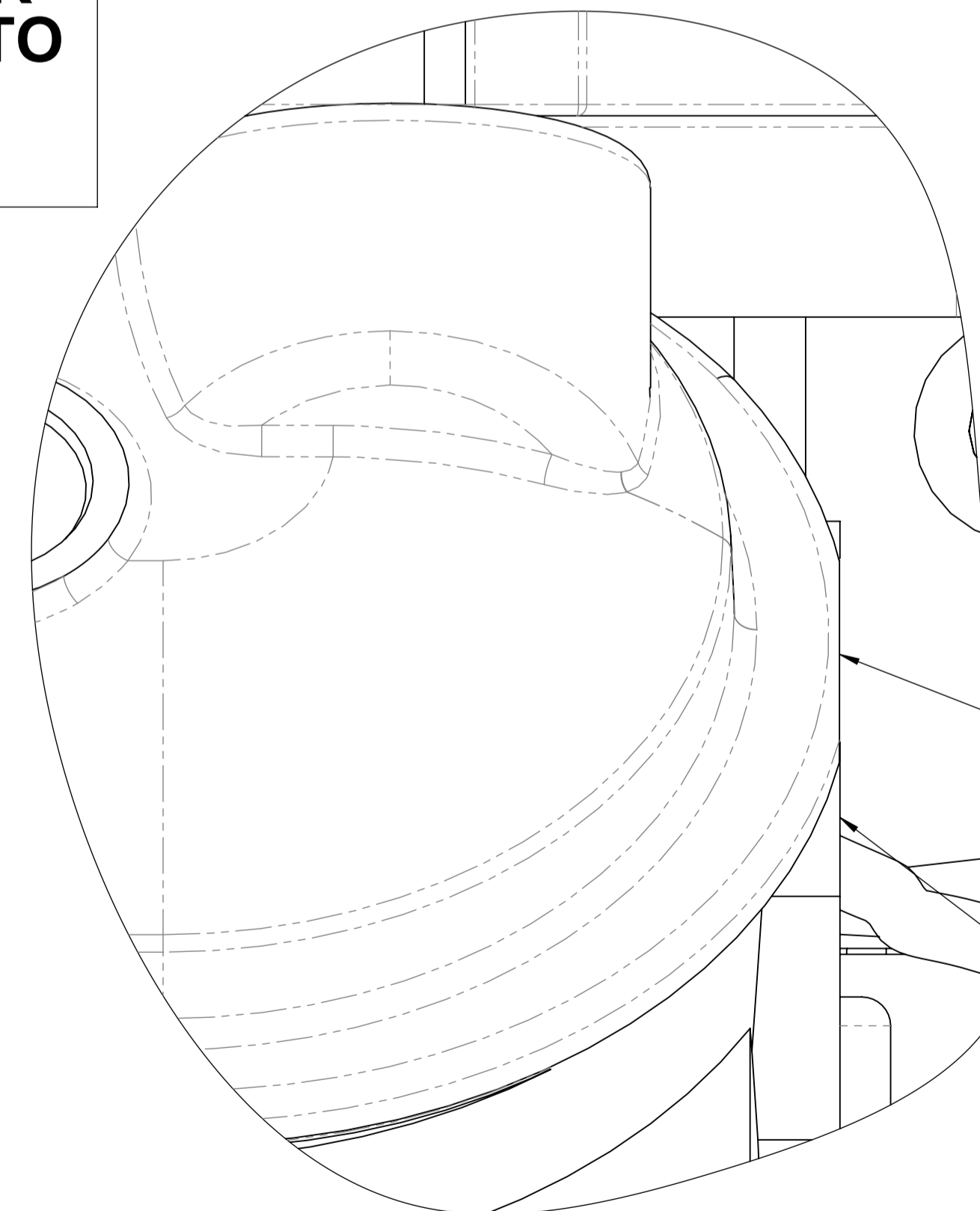
THE ROCKER COVER LIP MODIFICATION WILL ALSO BE REQUIRED FOR THE DRIVER SIDE ROCKER COVER WHEN IT IS FITTED TO THE PASSENGER SIDE CYLINDER HEAD IF A LH ACCESSORY KIT IS TO BE FITTED



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 & ENCR OACH INTO THE O RING GROOVE

PASSENGER SIDE ROCKER COVER LIP SHAVED

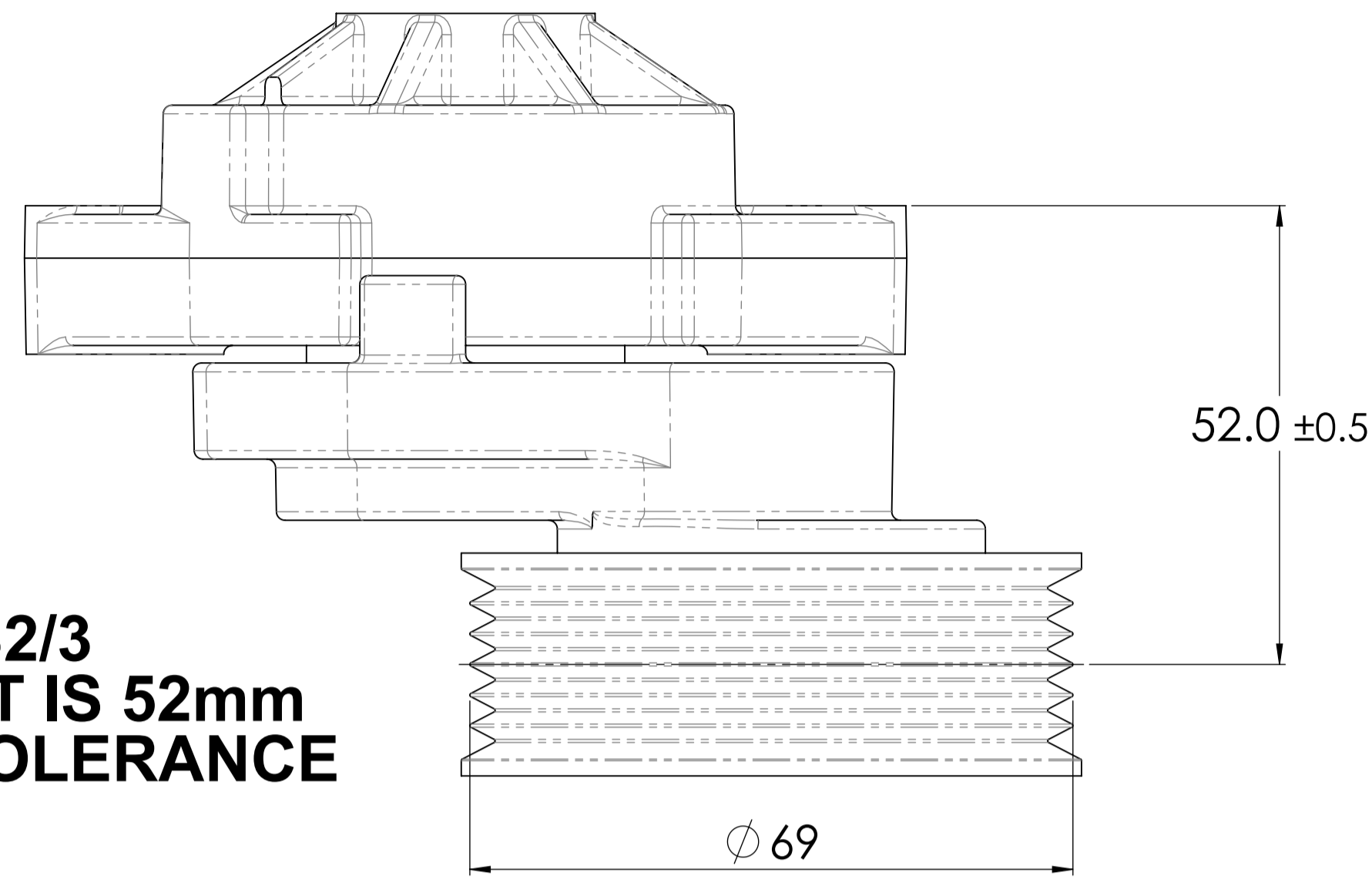
DRIVER SIDE CYLINDER HEAD FACE SHOWN



DRAWN	GDK 14/12/2020	TITLE:	LS - Series Rocker Cover Lip Modification	
DRAWING CHECKED	PAM 14/12/2020	()	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		SCALE:2:1 DRAWING 1 of 1	LS - ACCMOD - 01	0

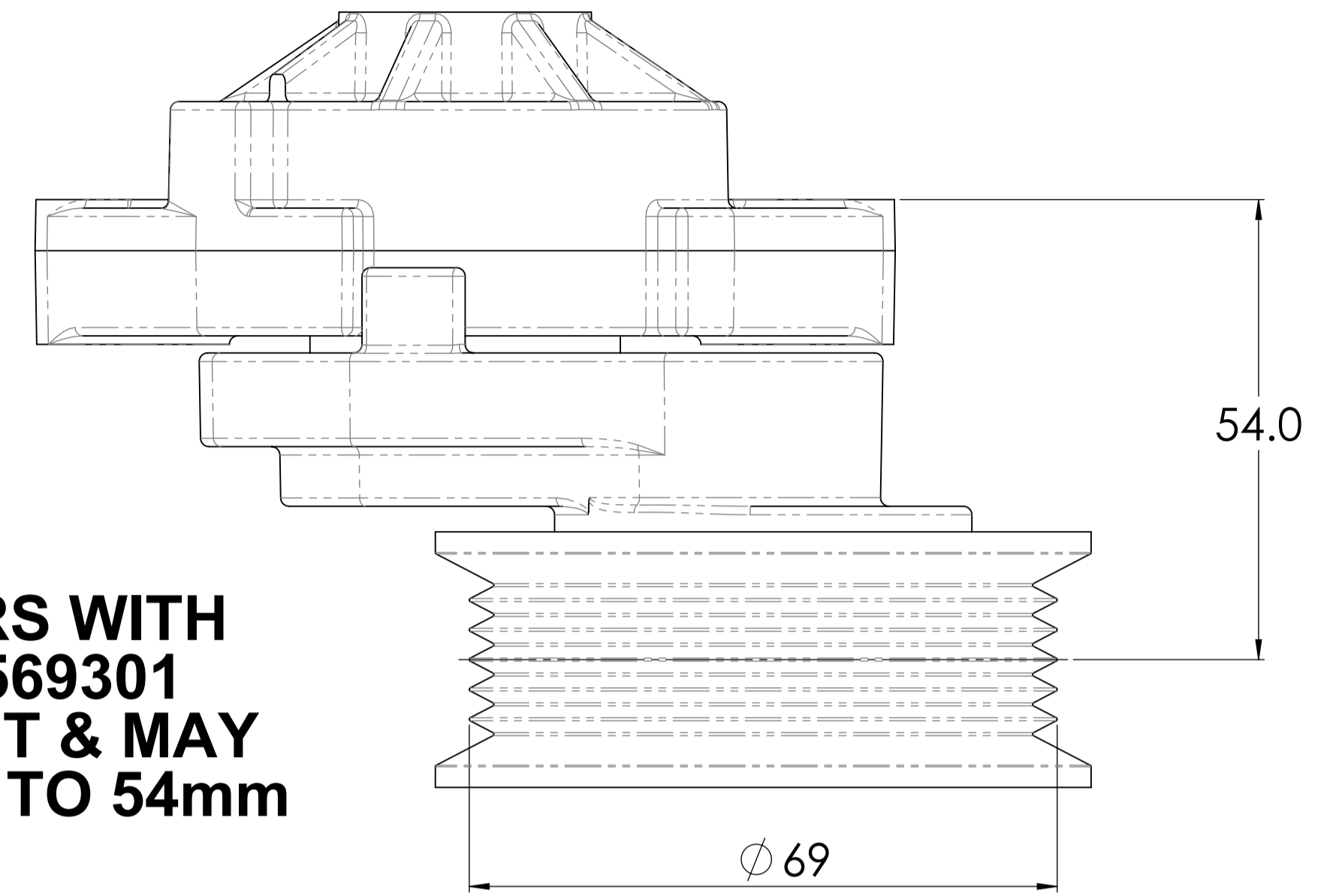
LS2/3 TENSIONER PULLEY OFFSETS

CORRECT OFFSET



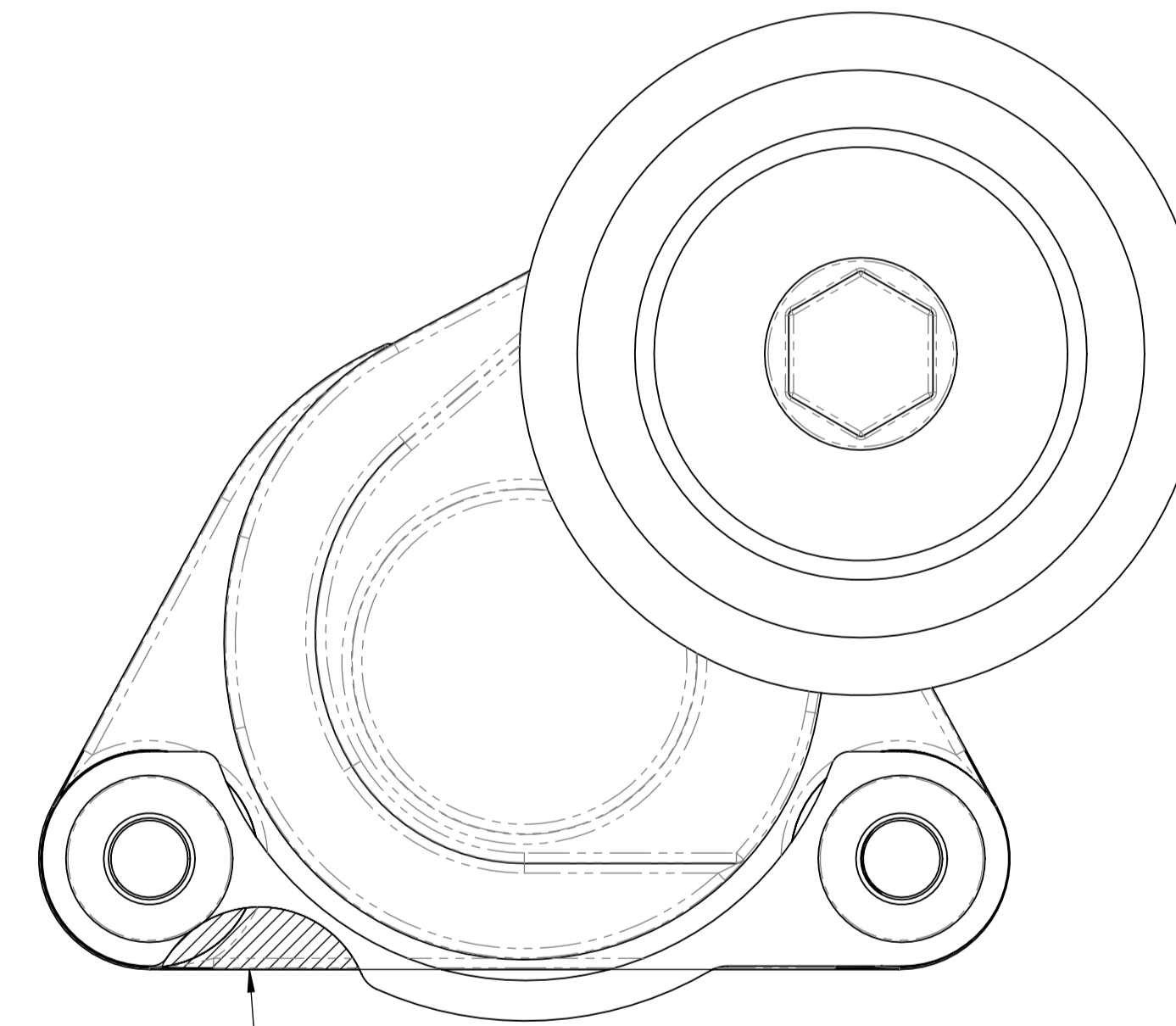
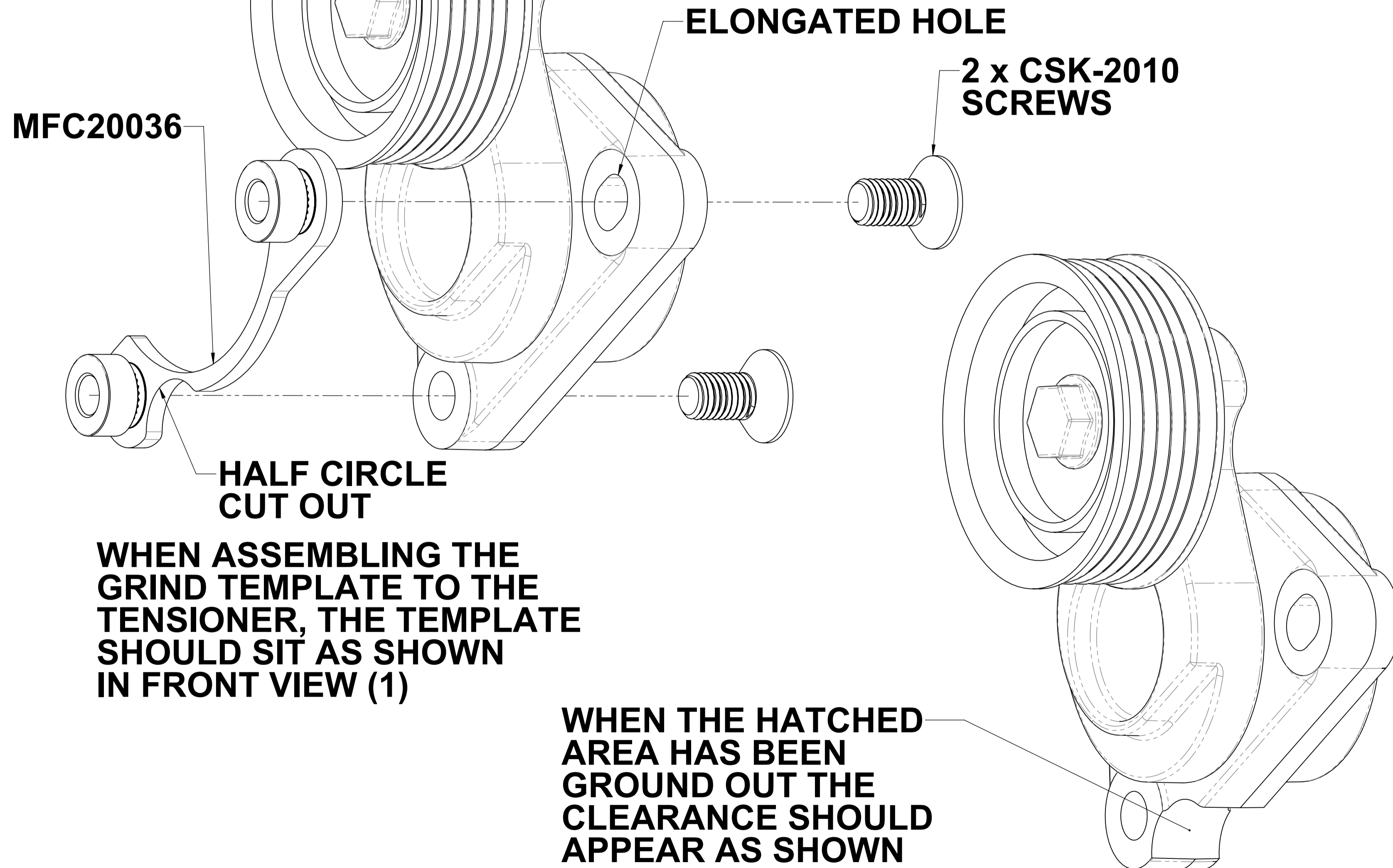
STANDARD OEM LS2/3 TENSIONER OFFSET IS 52mm WITHIN +/- 0.5mm TOLERANCE

INCORRECT OFFSET



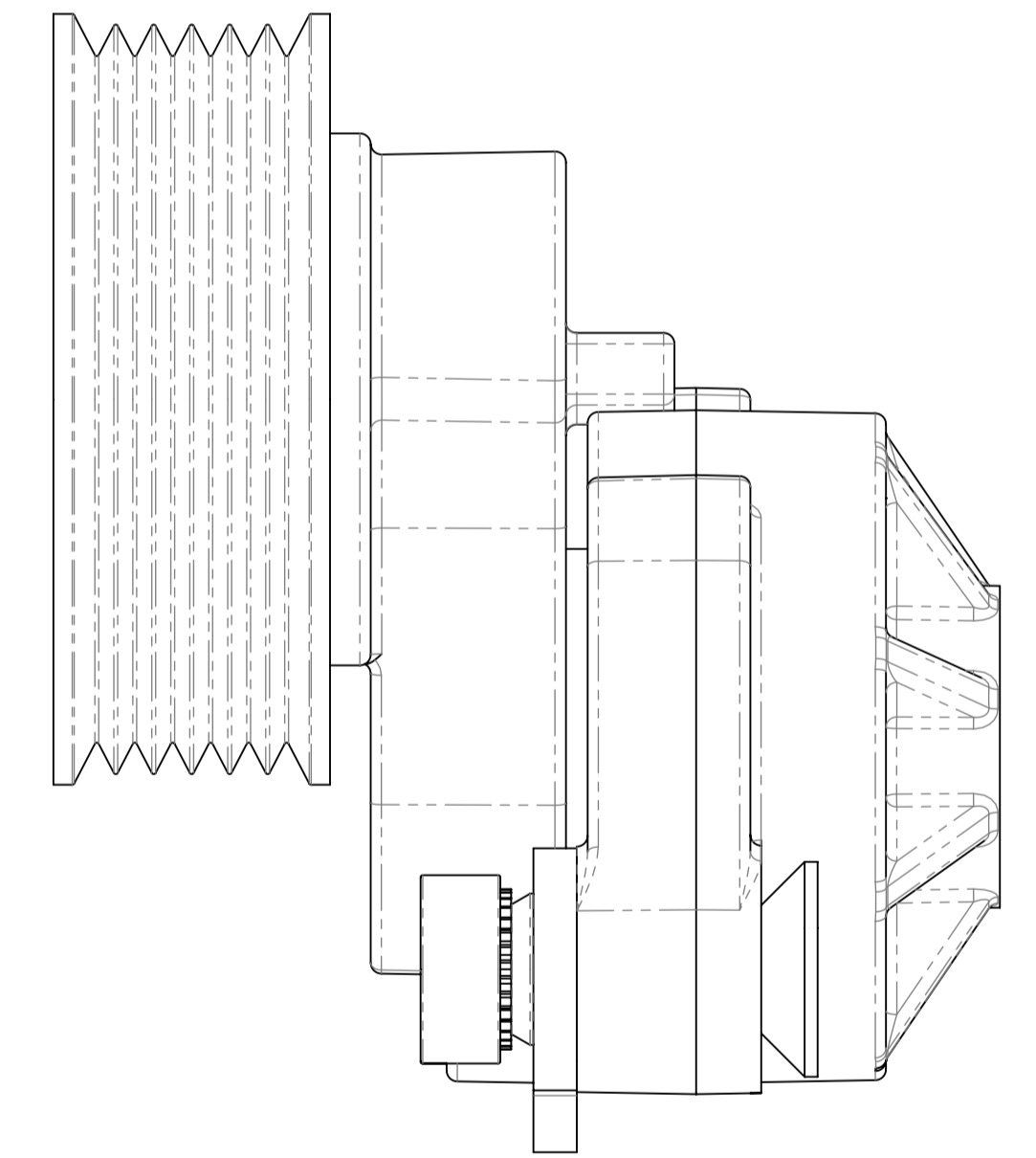
SOME LS2/3 TENSIONERS WITH THE SAME PART No. 12569301 HAVE A LARGER OFFSET & MAY RANGE FROM 52mm UP TO 54mm

LS2/3 TENSIONER GRIND TEMPLATE



REMOVE THE HATCHED AREA AS SHOWN

FRONT VIEW (1)



SIDE VIEW (1)

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

REMOVE THE HATCHED AREA AS SHOWN

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

FRONT VIEW (1)

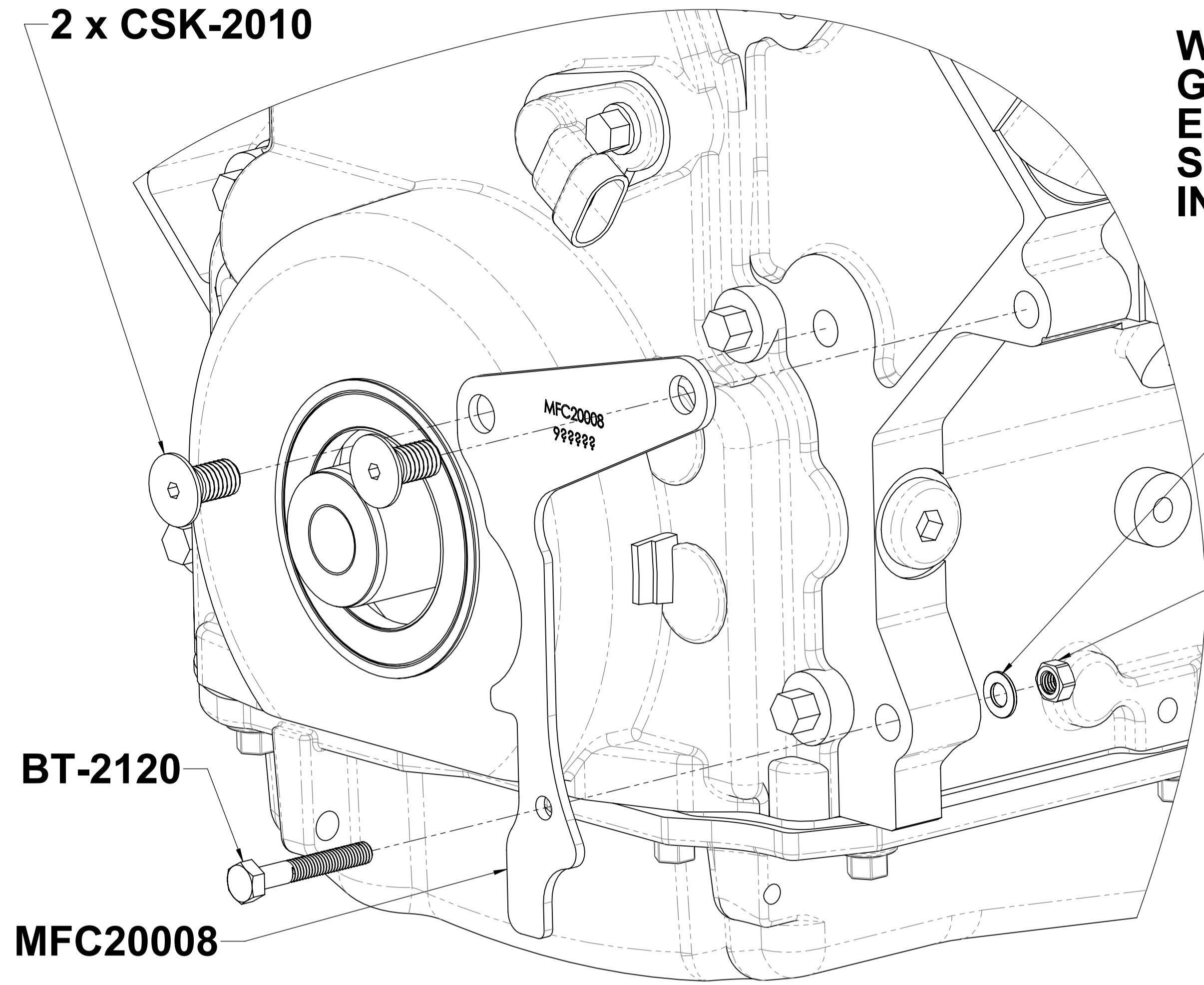


DRAWN	GDK 14/12/2020	TITLE	LS1/2/3 Water Pump Grind Template	
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 1 of 1	LS - ACCMOD - 11	0

LS2/3 SANDEN LOW GRIND TEMPLATE

EXPLODED VIEW

2 x CSK-2010



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

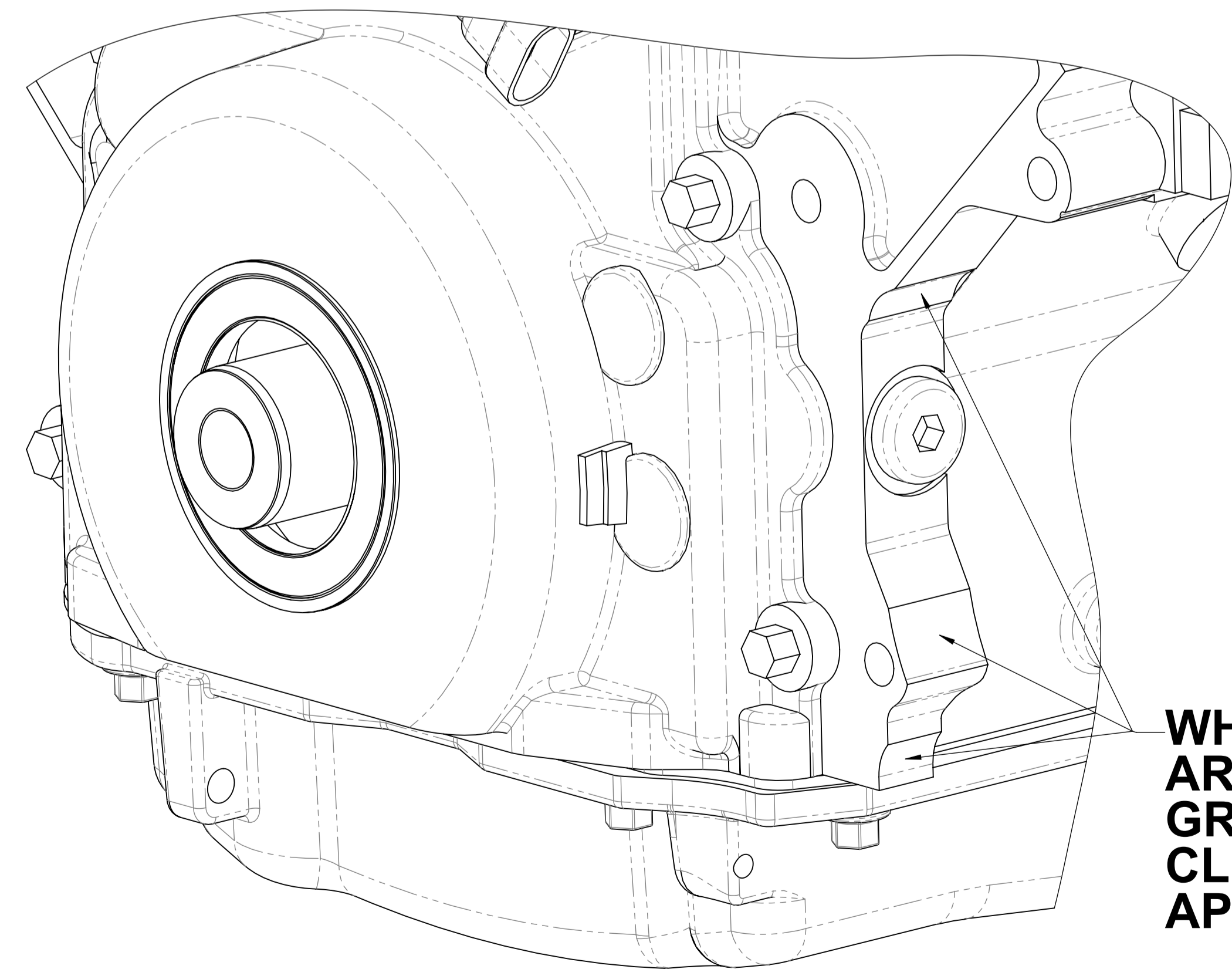
FW-2045

NT-2090

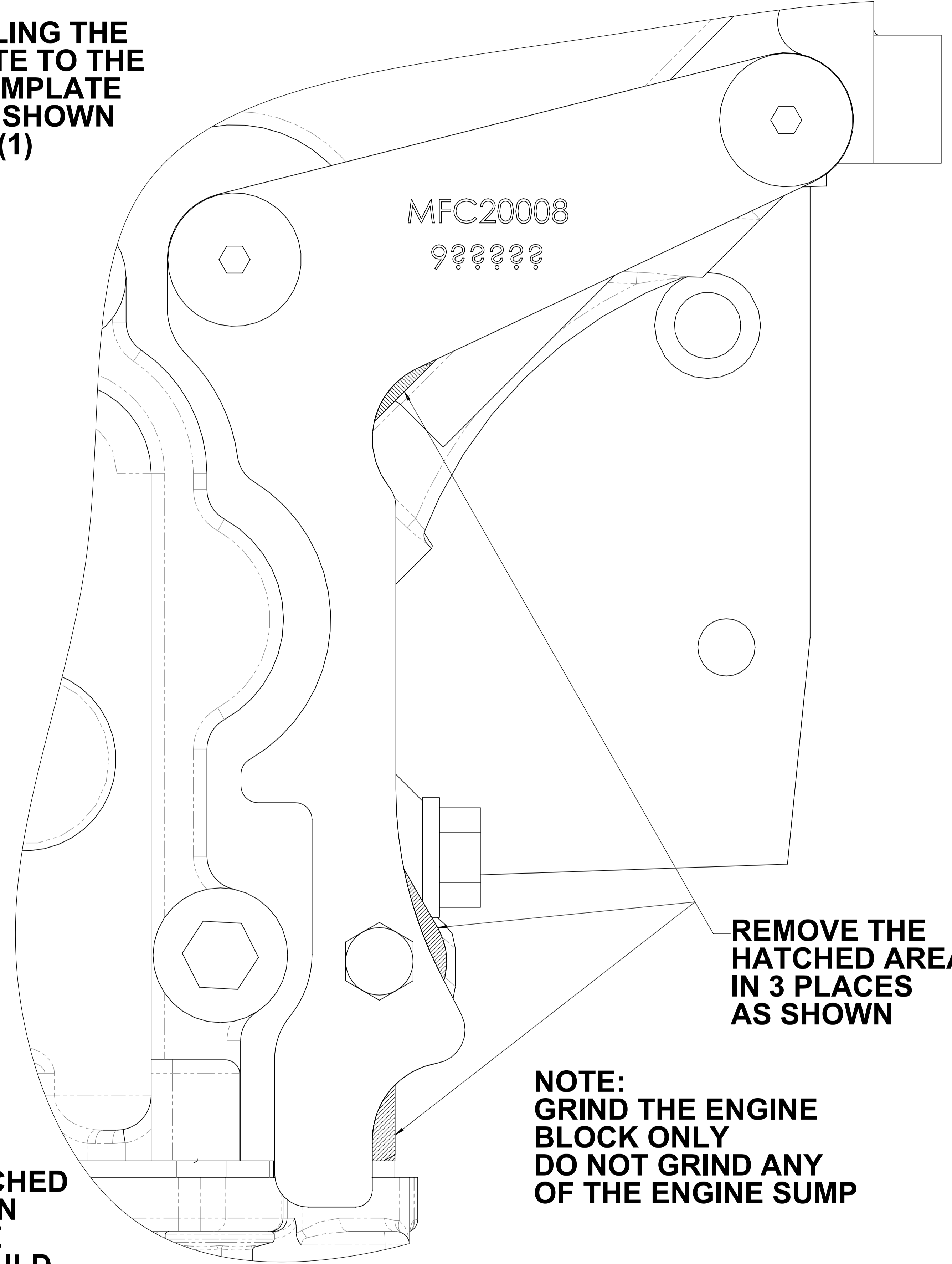
BT-2120

MFC20008

MFC20008
9??????



WHEN THE 3 HATCHED AREAS HAVE BEEN GROUND OUT THE CLEARANCE SHOULD APPEAR AS SHOWN



REMOVE THE HATCHED AREAS IN 3 PLACES AS SHOWN

NOTE:
GRIND THE ENGINE BLOCK ONLY
DO NOT GRIND ANY OF THE ENGINE SUMP

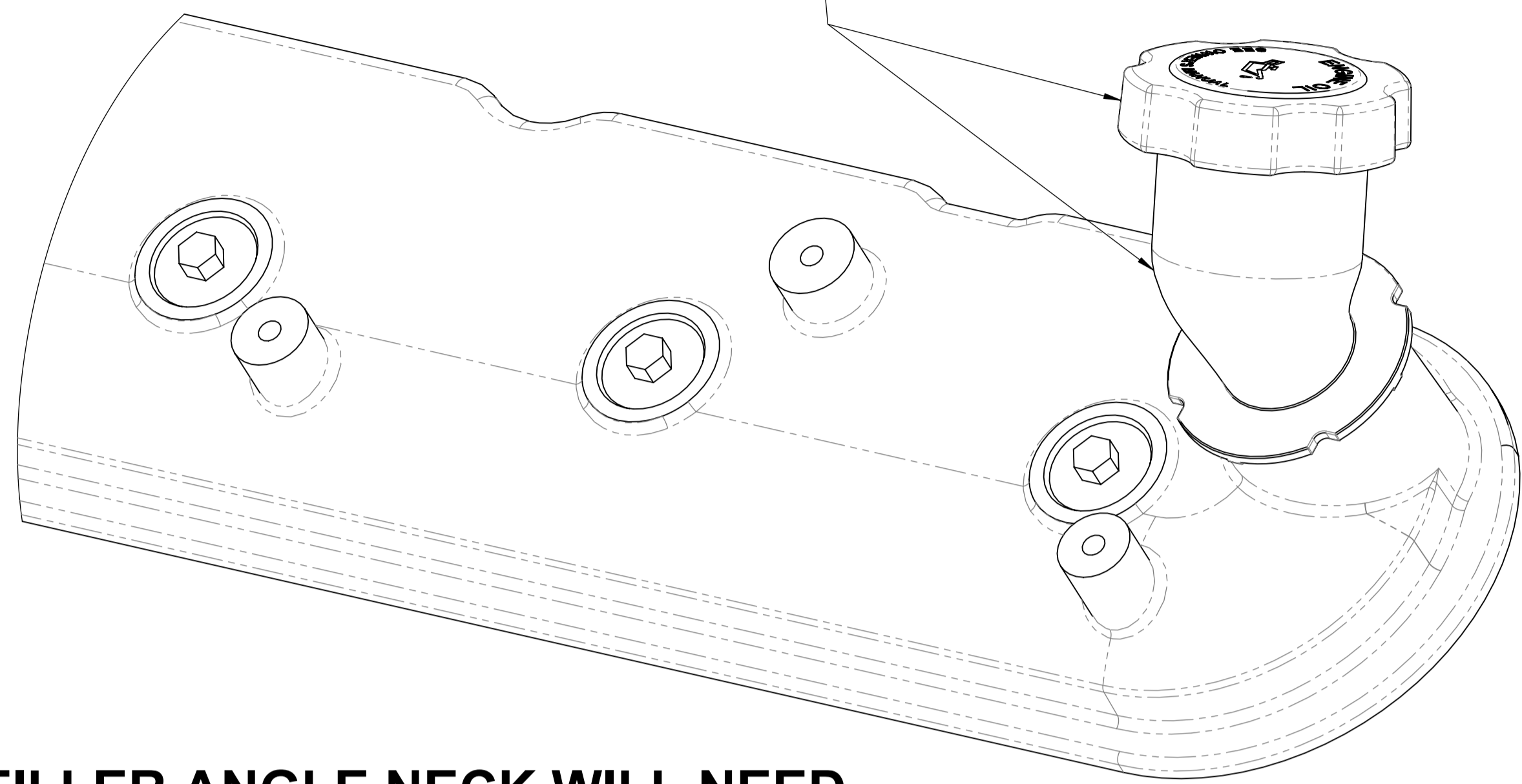
FRONT VIEW (1)



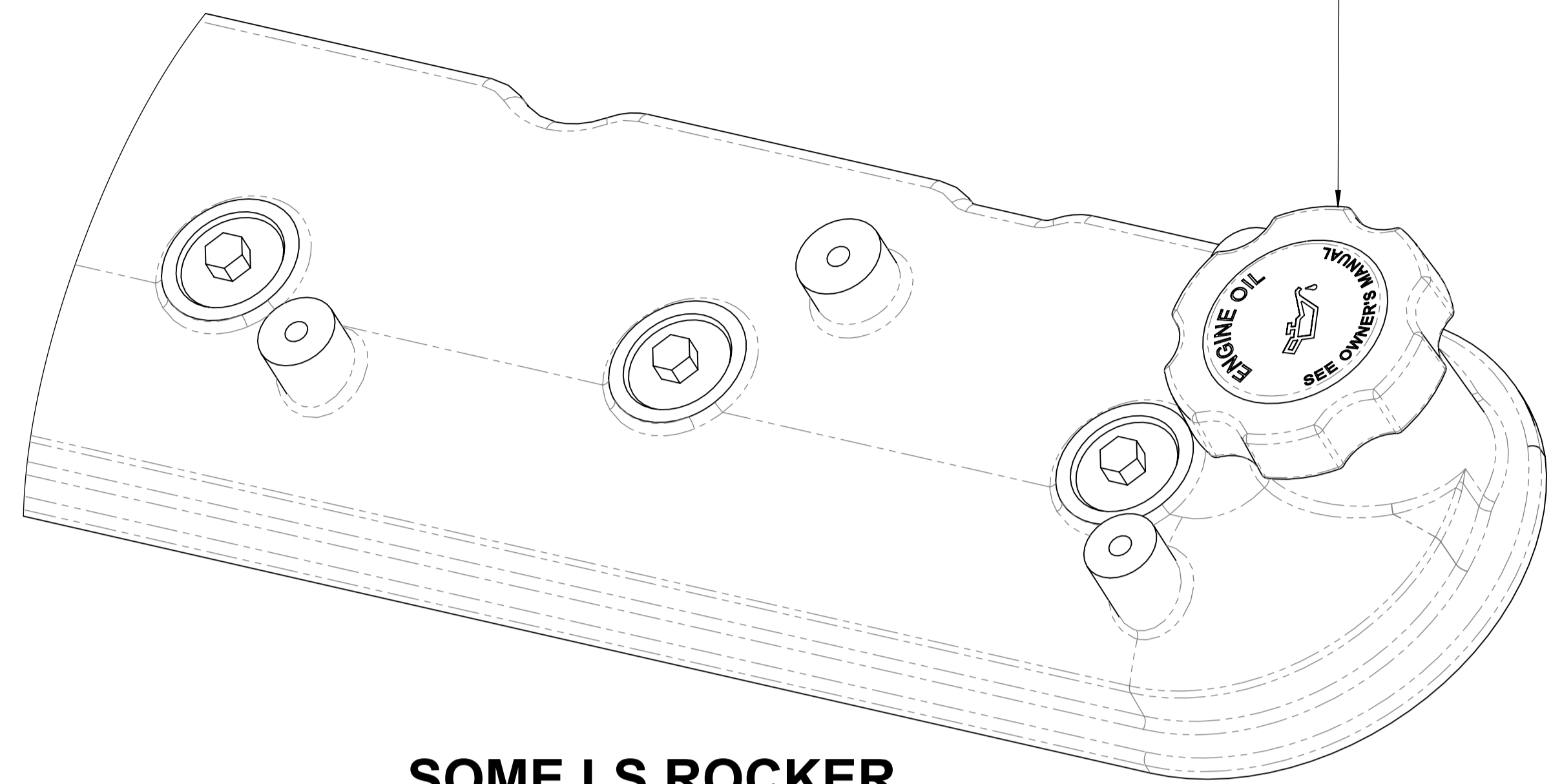
DRAWN	GDK 14/12/2020	TITLE:	LS2/3 Sanden Low Grind Template	
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 1 of 1	LS - ACCMOD - 12	0

LS2/3 OIL FILLER NECK MODIFICATION

OIL FILLER ANGLE NECK & CAP AS SHOWN IN FACTORY POSITION



OIL FILLER CAP AFTER MODIFICATION

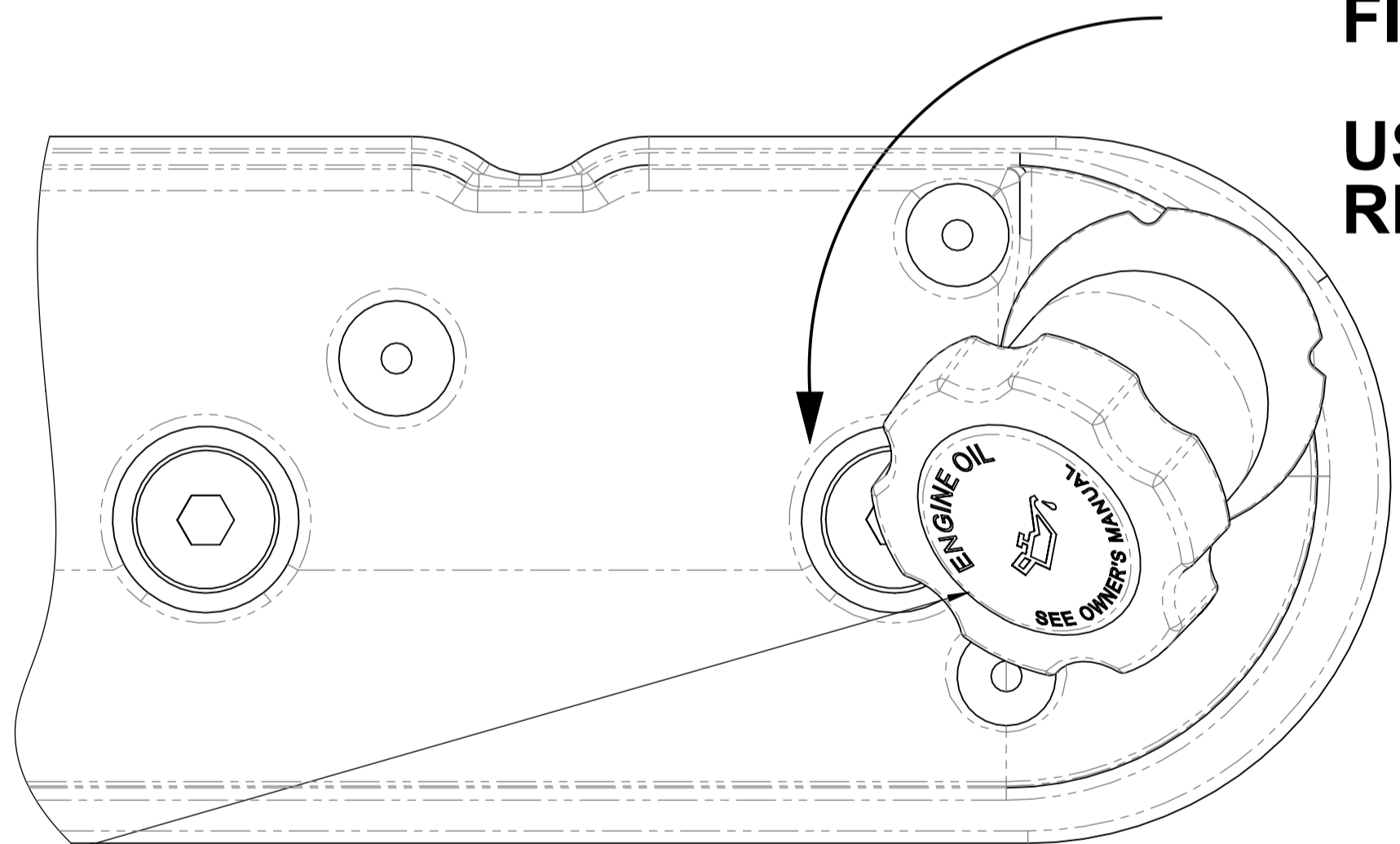
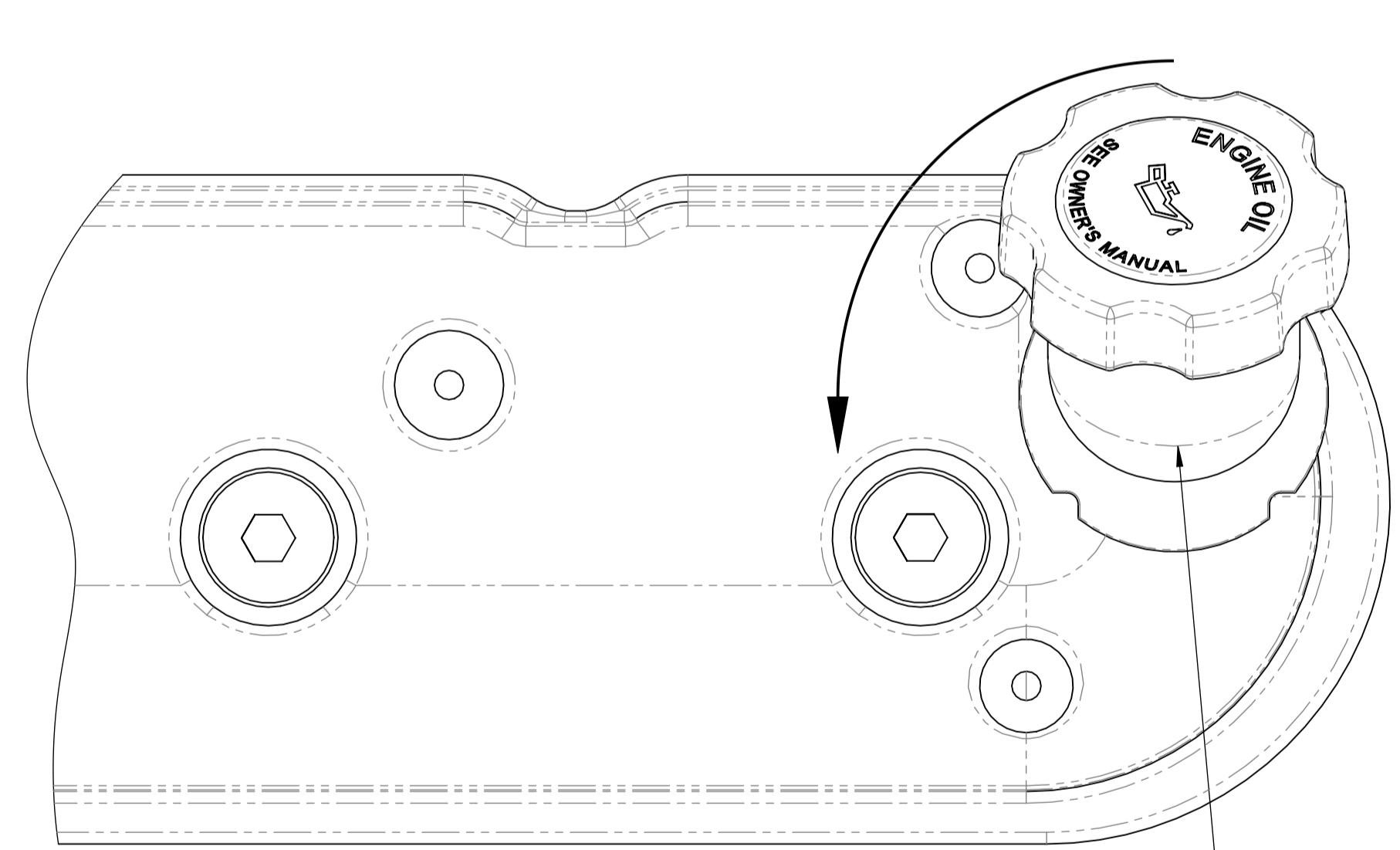


THE OIL FILLER ANGLE NECK WILL NEED TO BE REMOVED AS IN SOME CARS THE NECK SITS IN FRONT OF THE HEATER HOSE OUTLET/INLET

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

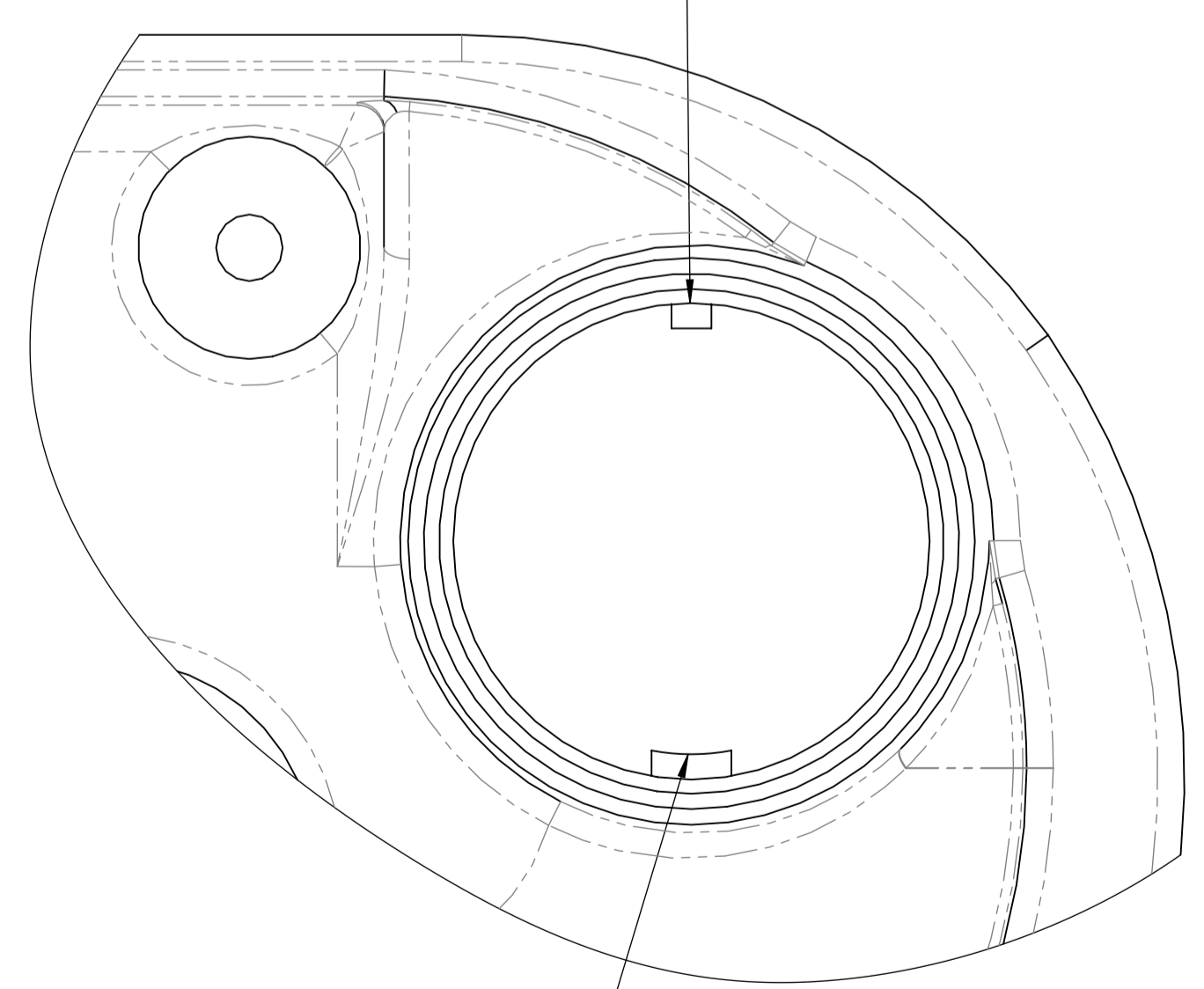
VERY IMPORTANT:
BEFORE FILING THIS TAB REMOVE THE COVER FROM THE ENGINE TO PREVENT METAL CHIPS ENTERING THE ENGINE

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

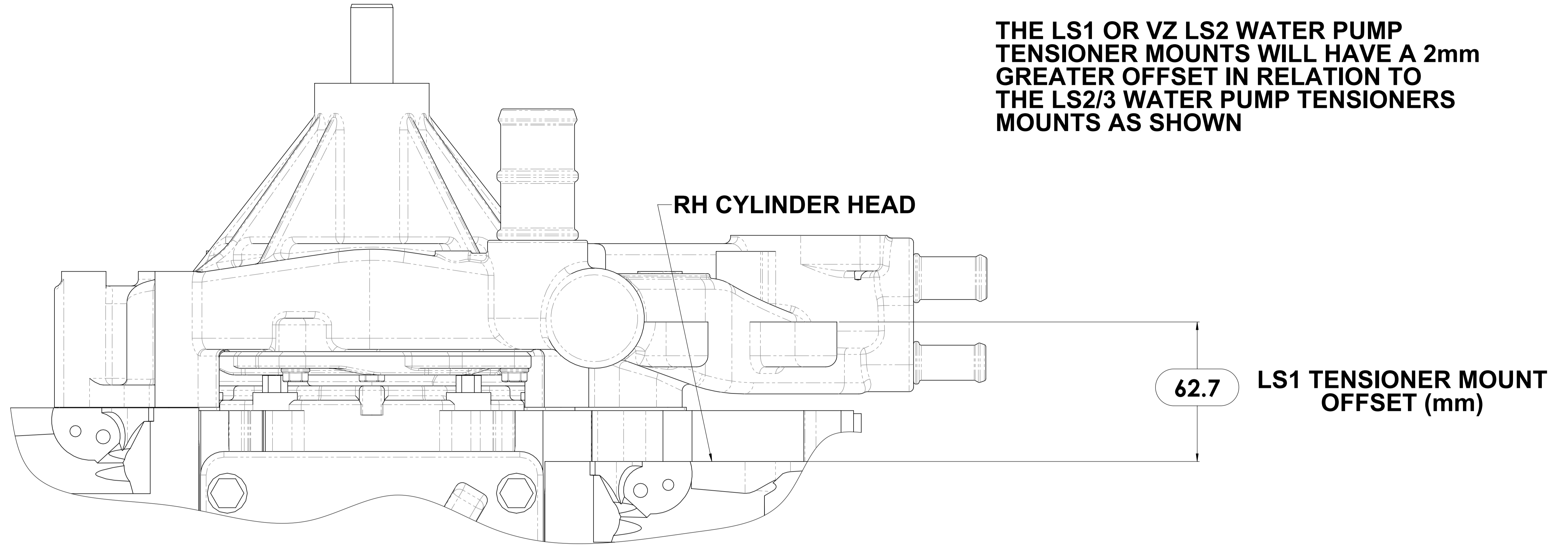
DO NOT REMOVE THIS TAB



DRAWN	GDK 14/12/2020	TITLE:	LS2/3 Oil Filler Neck Modification	
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 1 of 1	LS - ACCMOD - 13	0

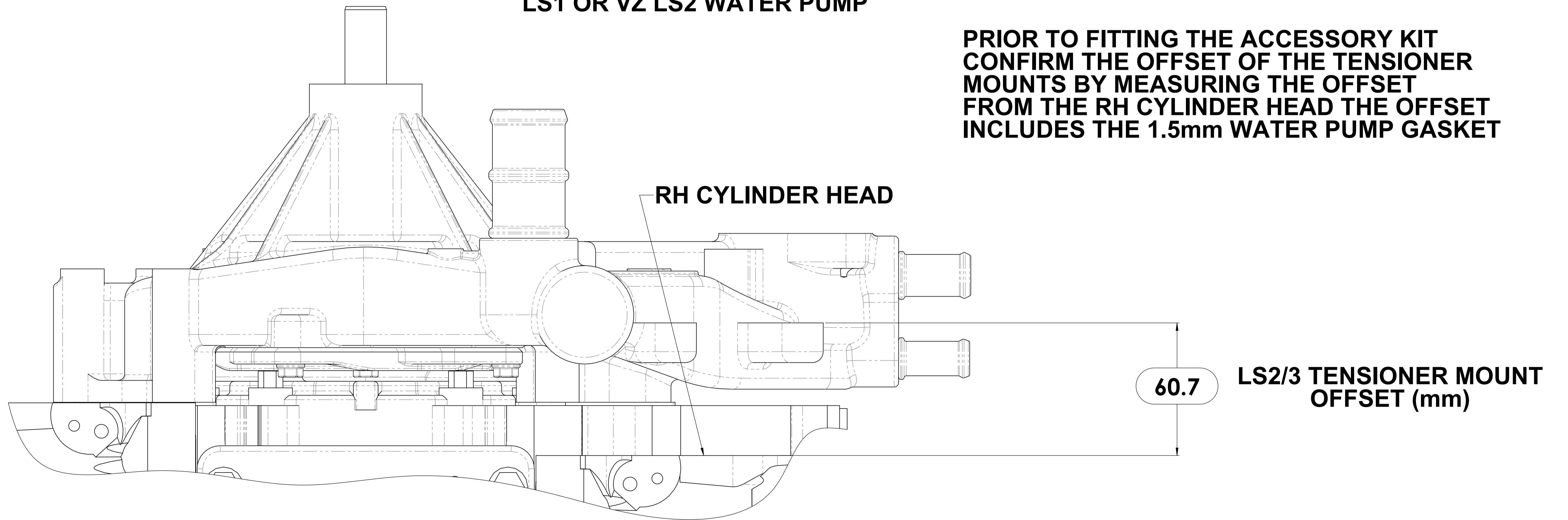
LS WATER PUMP TENSIONER MOUNT OFFSETS

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



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



LS2/3 WATER PUMP



DRAWN	GDK 14/12/2020	TITLE	LS Water Pump Tensioner Mount Offsets	
DRAWING CHECKED	PAM 14/12/2020	SCALE: 1:1	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		DRAWING 1 of 1	LS - INFO - 02	0

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

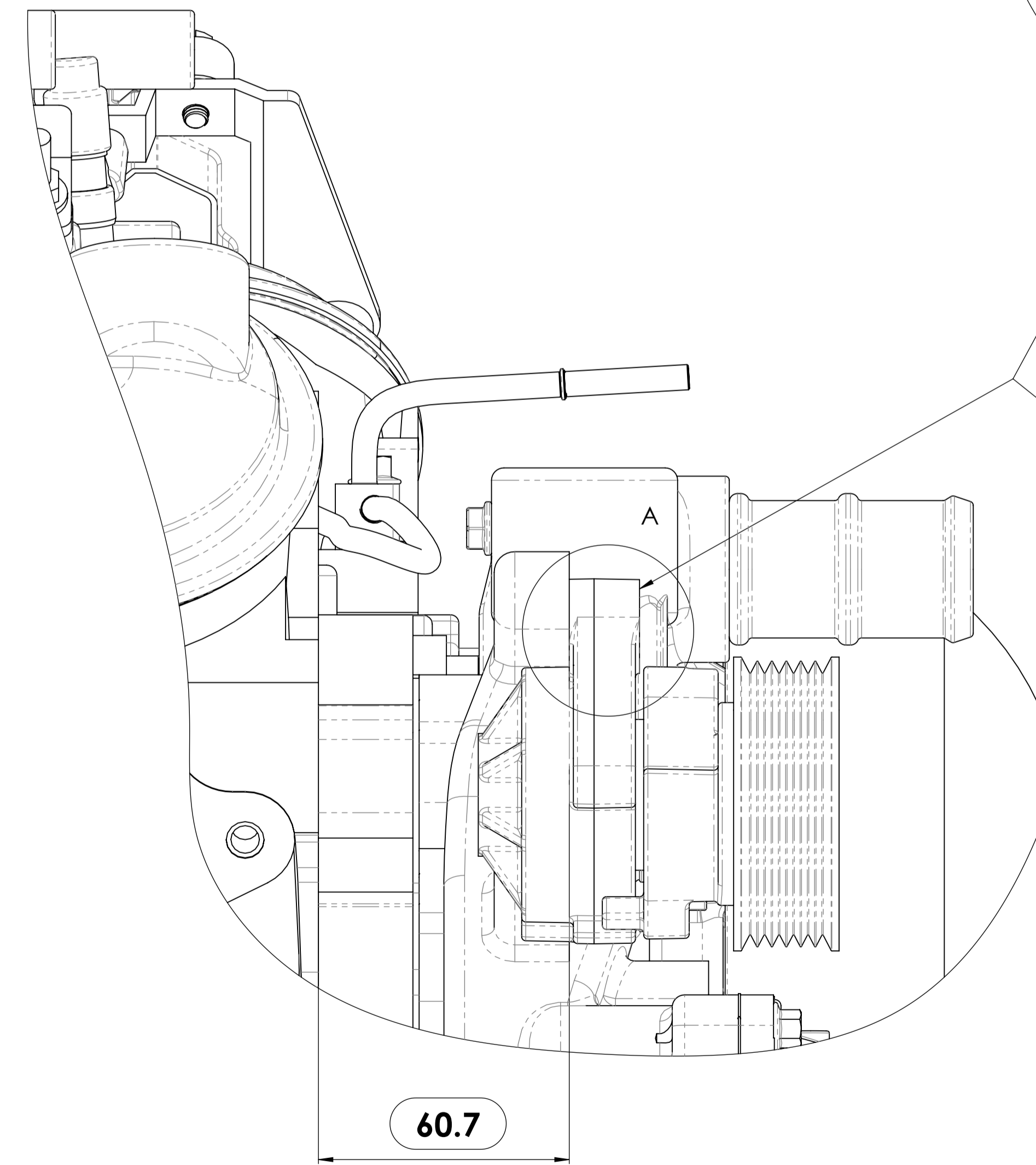
1:- GRIND CLEARANCE (LS - ACCMOD - 11)

LS2/3 TENSIONER ASSEMBLY FOR RH KIT

THE PROCEDURES 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

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

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



ELONGATED SLOT OF THE TENSIONER

DETAIL A
SCALE 3 : 1



DRAWN	GDK 14/12/2020	TITLE:	LS2/3 Tensioner Assembly For RH Kit	
DRAWING CHECKED	PAM 14/12/2020	()	DRAWING/PART NUMBER	REV No.
FINISHED WEIGHT: kg		SCALE:1:1 DRAWING 1 of 1	LS - INFO - 04	0