

4

3

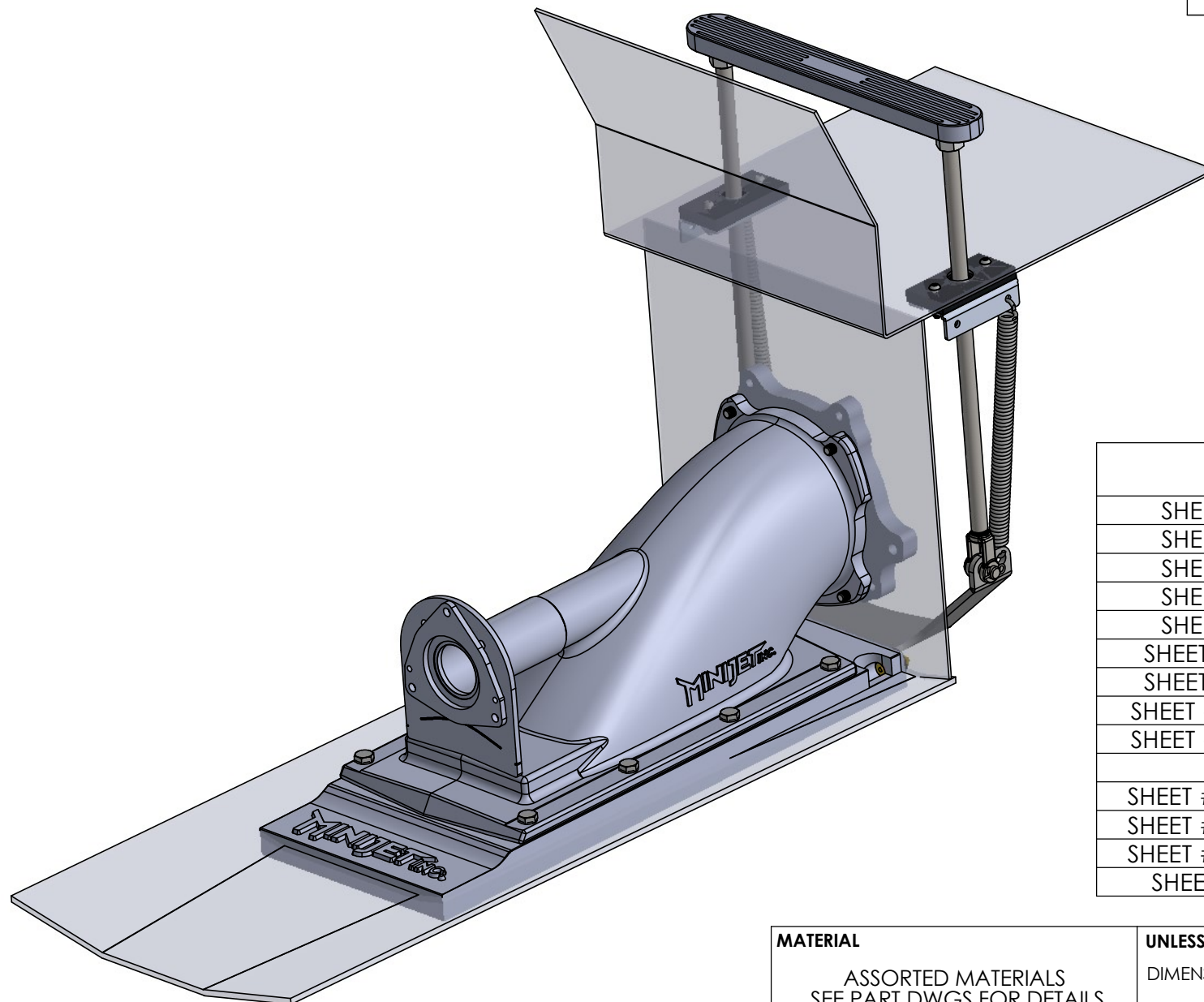
2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

DRAWING PACKAGE SYMBOL LIST	
	CIRCLE MARKER INDICATES ITEM # REFER TO BILL OF MATERIALS ON SHEET
	TRIANGLE MARKER INDICATES NOTE # REFER TO NOTES ON SHEET

ASSEMBLY DRAWING SHEET LIST	
SHEET #1	COVER PAGE
SHEET #2	CONFIGURATION OPTIONS
SHEET #3	MAIN CAST INTAKE BILL OF MATERIALS
SHEET #4	FIXED GRATE BILL OF MATERIALS
SHEET #5	STOMP GRATE BILL OF MATERIALS
SHEET #6 - 7	SEADOO / BOMBARDIER SPECIFIC BILL OF MATERIALS
SHEET #8 - 9	YAMAHA SPECIFIC BILL OF MATERIALS
SHEET #10 - 11	KAWASAKI SPECIFIC BILL OF MATERIALS
SHEET #12 - 13	HONDA SPECIFIC BILL OF MATERIALS
SHEET # 14 - 20	INTAKE INSTALLATION INSTRUCTIONS
SHEET # 21 - 26	ENGINE / PUMP SPECIFIC MODIFICATION INSTRUCTIONS
SHEET # 27 - 30	INTAKE GRATING INSTALLATION INSTRUCTIONS
SHEET # 31	CONTACT INFORMATION



MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± 1.0 TWO PLACE DECIMAL ± 0.005 THREE PLACE DECIMAL ± 0.0005	TITLE: Assembly Drawing		
FINISH NOT APPLICABLE				
THIRD ANGLE PROJECTION	APPROVED :	SIZE B	DWG. NO. Intake Assembly	REV B
	CHECKED :	SCALE: 1:5		WEIGHT:
	DRAWN : Anthony Kita	SHEET 1 OF 31		

4

3

2

1

B

B

A

A

4

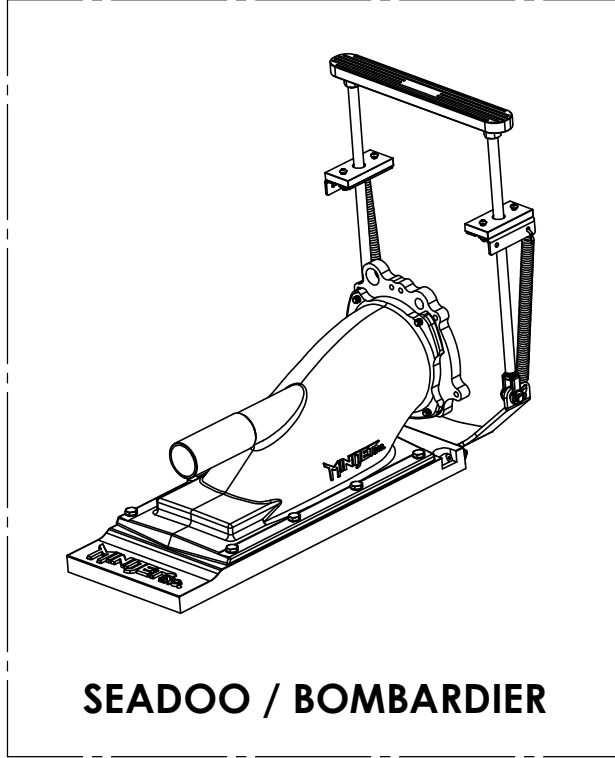
3

2

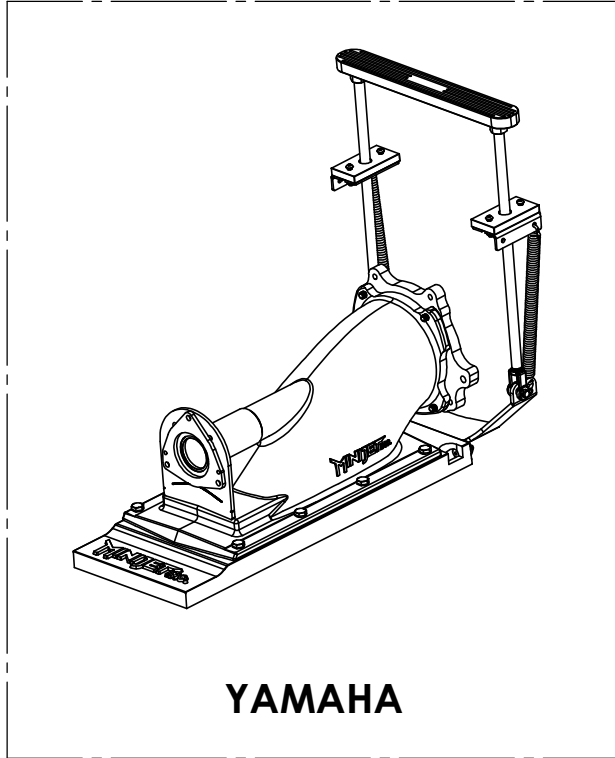
1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

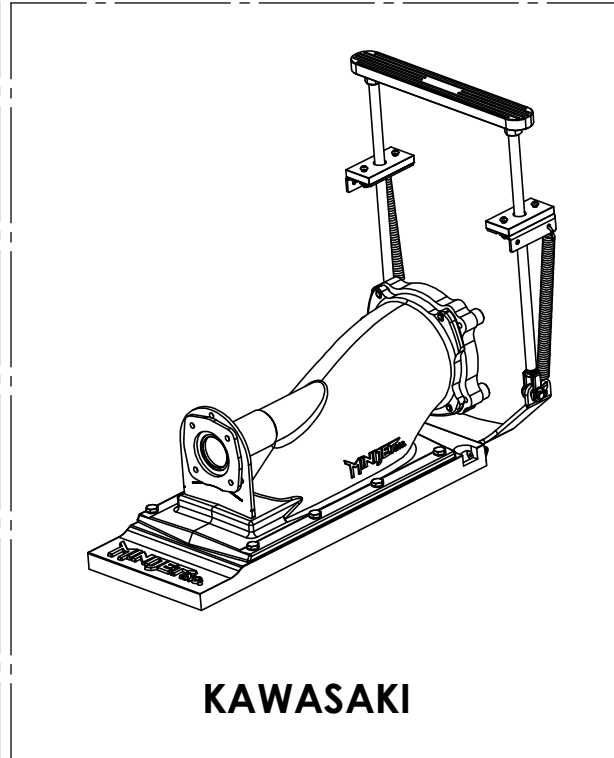
B



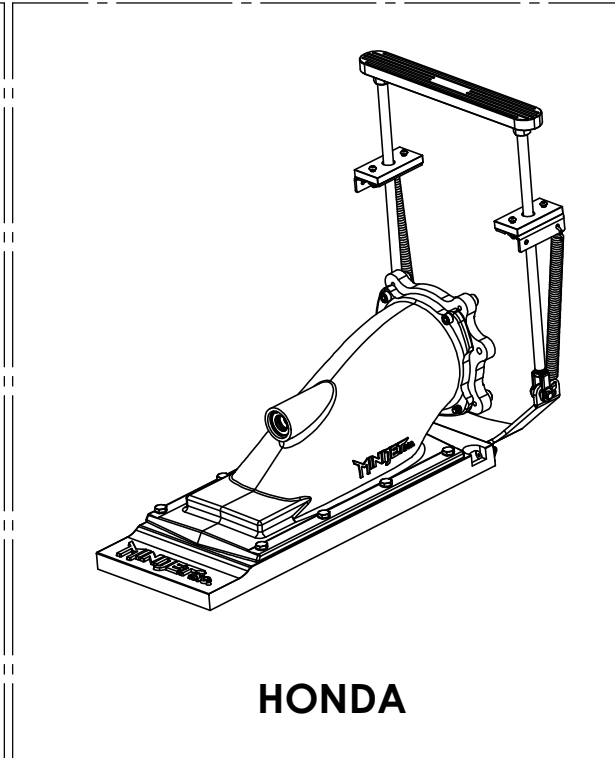
SEADOO / BOMBARDIER



YAMAHA



KAWASAKI



HONDA

B

BILL OF MATERIALS
SHEET # 6 - 7

SEADOO SPECIFIC MODIFICATIONS AND
INSTALLATION INSTRUCTIONS
SHEET # 21-22

BILL OF MATERIALS
SHEET # 8 - 9

YAMAHA SPECIFIC MODIFICATIONS AND
INSTALLATION INSTRUCTIONS
SHEET # 23

BILL OF MATERIALS
SHEET # 10 - 11

KAWASAKI SPECIFIC MODIFICATIONS AND
INSTALLATION INSTRUCTIONS
SHEET # 24

BILL OF MATERIALS
SHEET # 12 - 13

HONDA SPECIFIC MODIFICATIONS AND
INSTALLATION INSTRUCTIONS
SHEET # 25

A

A

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Configuration Options		
FINISH NOT APPLICABLE	APPROVED : CHECKED : DRAWN : Anthony Kita	SIZE B	DWG. NO. Intake Assembly	REV B
THIRD ANGLE PROJECTION		SCALE: 1:10	WEIGHT:	SHEET 2 OF 31

4

3

2

1

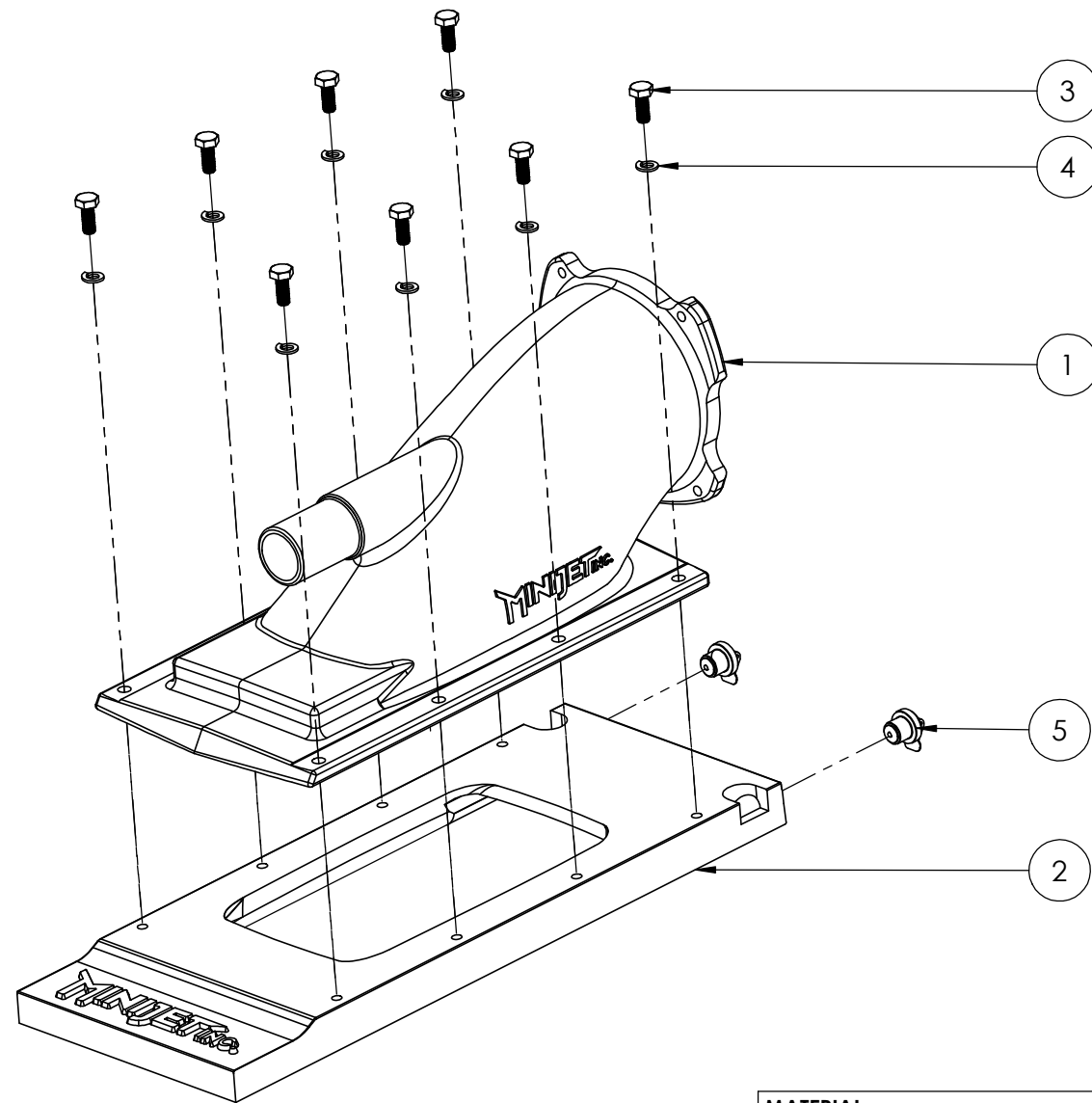
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



BILL OF MATERIALS - CUSTOM FABRICATED PARTS

ITEM NO.	QTY	DESCRIPTION
1	1	CAST INTAKE HOUSING
2	1	CAST INTAKE BASE PLATE

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
3	8	M10x1.5 35L, SS HEX BOLT
4	8	M10, SS SPLIT WASHER
5	2	DRAIN PLUG

MATERIAL A556 SERIES CASTING ALUMINUM	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±
FINISH MIXED CAST AND MACHINED INTERFACE SURFACES	
THIRD ANGLE PROJECTION 	APPROVED : CHECKED : DRAWN : Anthony Kita

TITLE: Cast Intake B.O.M.



SIZE B	DWG. NO. Intake Assembly	REV B
SCALE: 1:5	WEIGHT:	SHEET 3 OF 31

4

3

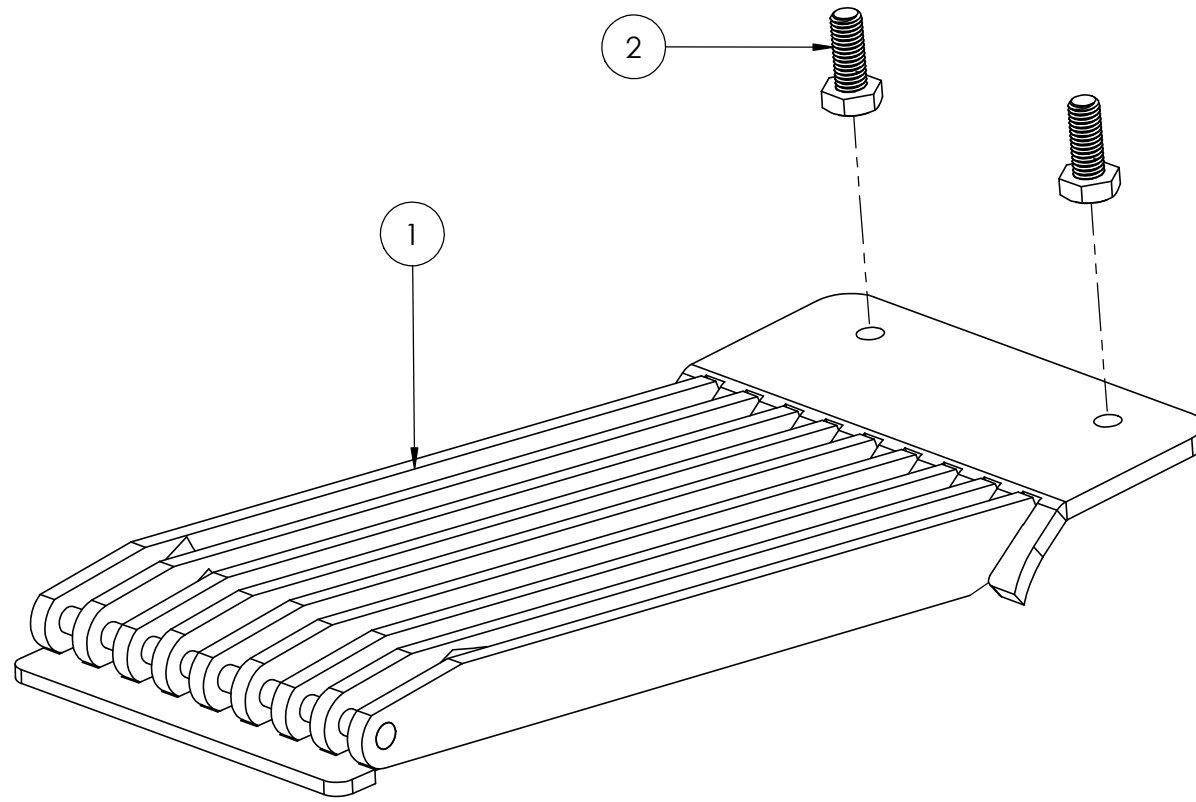
2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

B

B



BILL OF MATERIALS - CUSTOM FABRICATED PARTS

ITEM NO.	QTY	DESCRIPTION
1	1	FIXED INTAKE GRATE

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
2	2	5/16"-18 UNF 1" LONG SS HEX BOLT

A

A

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Fixed Grate B.O.M.		
FINISH NOT APPLICABLE				
THIRD ANGLE PROJECTION 	APPROVED : CHECKED : DRAWN : Anthony Kita	SIZE B	DWG. NO. Intake Assembly	REV B
		SCALE: 1:2	WEIGHT:	SHEET 4 OF 31

4

3

2

1

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

BILL OF MATERIALS - CUSTOM FABRICATED PARTS

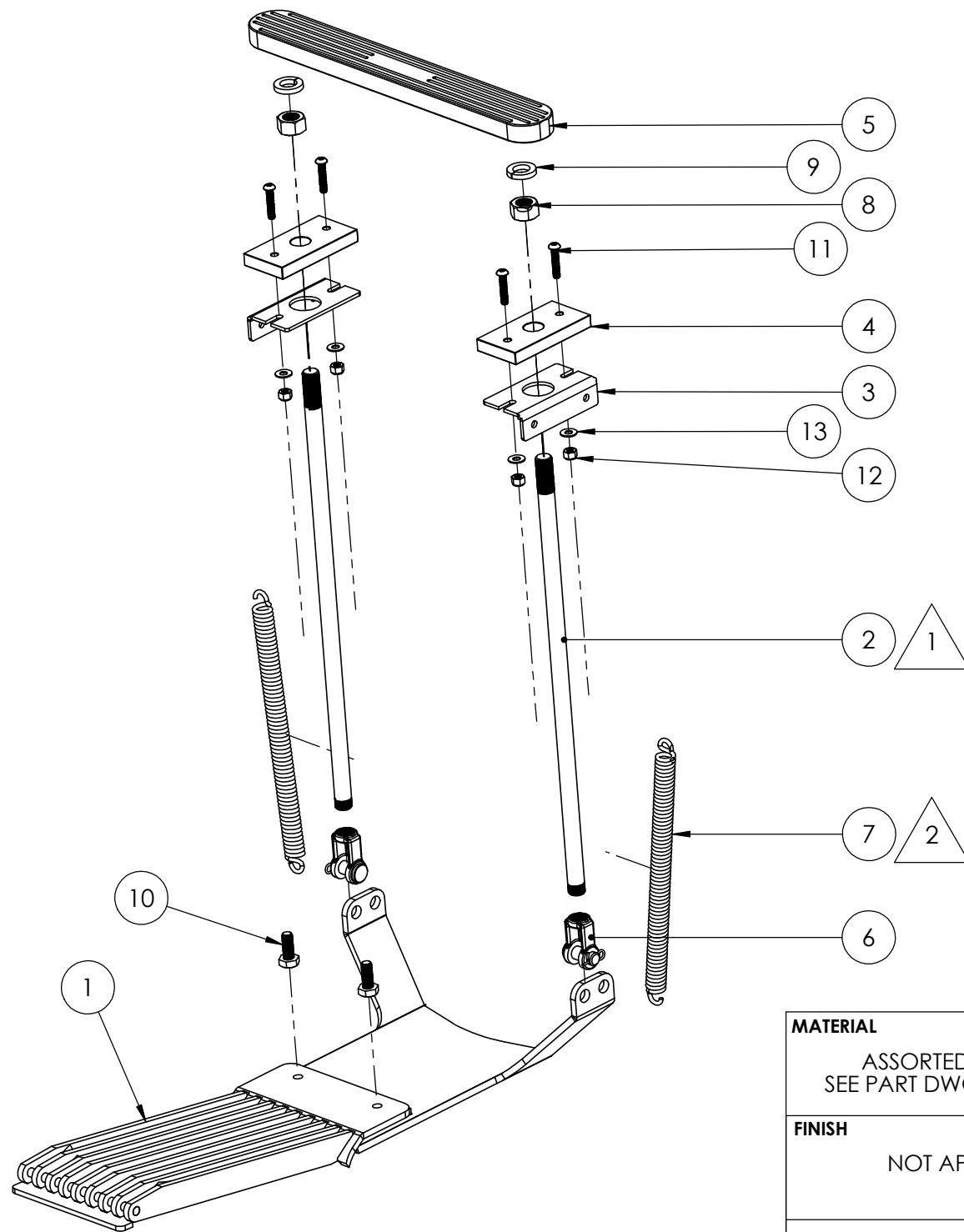
ITEM NO.	QTY	DESCRIPTION
1	1	HINGED STOMP GRATE
2	2	STOMP GRATE ACTUATOR ROD
3	2	STOMP GRATE SPRING MOUNT
4	2	STOMP GRATE UHMW SLIDER
5	1	STOMP GRATE FOOT BAR

NOTE #1 - STOMP GRATE ACTUATOR ROD IS AVAILABLE IN DIFFERENT LENGTHS (18", 20", 22", 24" AND 26").

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
6	2	HALDEX CF2 THREADED CLEVIS
7	2	STOMP GRATE SPRING
8	2	5/8"-18 UNF SS JAM NUT
9	2	5/8" SS SPLIT LOCK WASHER
10	2	5/16"-18 UNF 1" LONG SS HEX BOLT
11	4	1/4"-20 UNC 1.25" LONG SS BUTTON HEAD CAP SCREW
12	4	1/4"-20 UNC SS LOCKING NUT
13	4	1/4" SS FLAT WASHER

NOTE #2 - STOMP GRATE SPRING AVAILABLE IN VARIOUS LENGTHS TO SUIT DIFFERENT STOMP GRATE ACTUATOR ROD LENGTHS.



MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Stomp Grate B.O.M.		
FINISH NOT APPLICABLE	APPROVED : CHECKED : DRAWN : Anthony Kita	SIZE B	DWG. NO. Intake Assembly	REV B
THIRD ANGLE PROJECTION		SCALE: 1:5	WEIGHT:	SHEET 5 OF 31

4

3

2

1

B

B

A

A

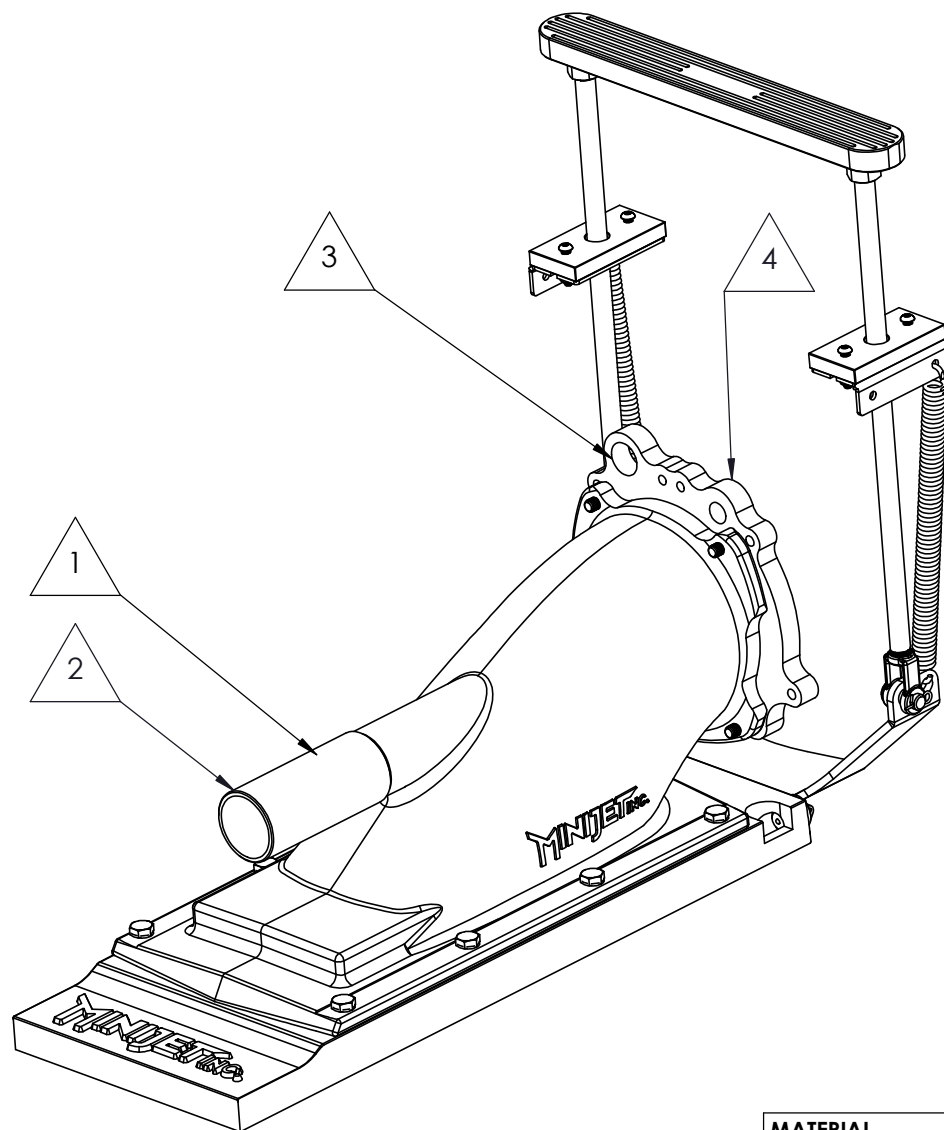
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



NOTES:

NOTE #1 - DRIVESHAFT INTERFACE MUST BE CUT TO SUIT SEADOO SHAFT SEAL AND CARBON SLIP RING. SEE INSTALLATION AND MODIFICATION INSTRUCTIONS ON SHEET #21 - 22

NOTE #2 - REFER TO SEADOO SHOP MAINTENANCE MANUALS FOR SEAL AND CARBON SLIP RING INSTALLATION INSTRUCTIONS

NOTE #3 - ONE SIZE SEADOO PUMP ADAPTER FITS ALL PUMP SIZES, 155mm TO 161mm

NOTE #4 - 155mm SEADOO PUMPS MAY REQUIRE COOLANT PASSAGE ADAPTER. SEE INSTALLATION INSTRUCTIONS ON SHEET #7 FOR MORE DETAIL.

MATERIAL
ASSORTED MATERIALS
SEE PART DWGS FOR DETAILS

FINISH
NOT APPLICABLE

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ±
BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

APPROVED :
CHECKED :
DRAWN : Anthony Kita

TITLE:
Seadoo Intake B.O.M.



SIZE B	DWG. NO. Intake Assembly	REV B
SCALE: 1:5	WEIGHT:	SHEET 6 OF 31

4

3

2

1

B

B

A

A

4

3

2

1

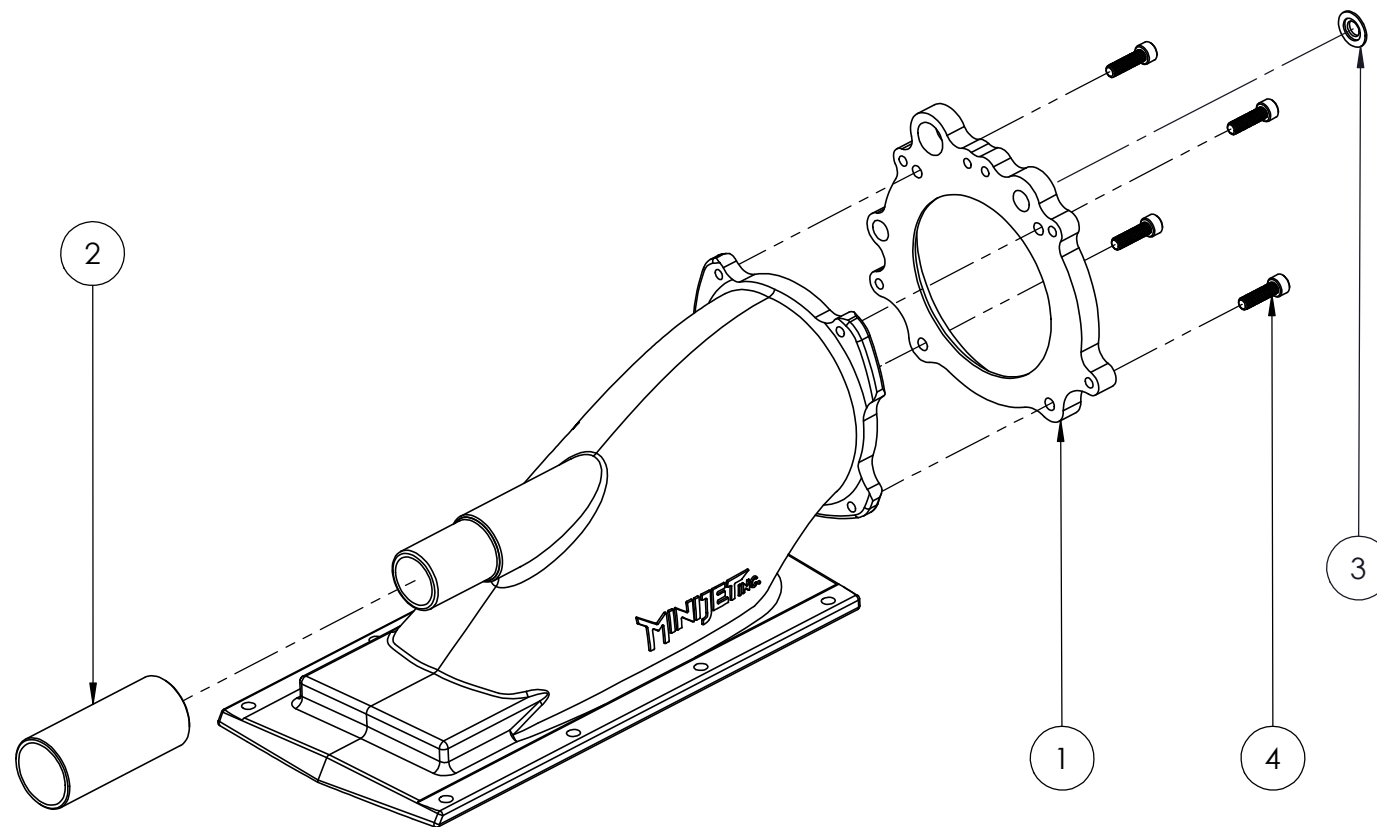
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



NOTES:

MINIJET SEADOO PUMP ADAPTER IS MACHINED TO ACCEPT STANDARD YELLOW AND ORANGE COOLANT INLET ORIFICE PLATES FOUND IN SEADOO PUMP ASSEMBLIES.

FOR CERTAIN 155mm PUMPS THAT ARE EQUIPPED WITH A SINGLE SEALING O-RING INSTEAD OF THE STANDARD ORIFICE PLATE, MINIJET CAN PROVIDE A MACHINED COOLANT ADAPTER / O-RING RETAINER (SEE ITEM #3).



BILL OF MATERIALS - CUSTOM FABRICATED PARTS

ITEM NO.	QTY	DESCRIPTION
1	1	SEADOO PUMP ADAPTER
2	1	INTAKE SUPPORT EXTENSION TUBE
3	1	SEADOO COOLANT ADAPTER

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
4	4	M10 x 1.5 35L SS SOCKET HEAD CAP SCREW

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Seadoo Intake B.O.M.			
FINISH NOT APPLICABLE	THIRD ANGLE PROJECTION 	APPROVED :	SIZE B	DWG. NO. Intake Assembly	REV B
CHECKED :		SCALE: 1:5	WEIGHT:	SHEET 7 OF 31	
DRAWN : Anthony Kita					

4

3

2

1

B

B

A

A

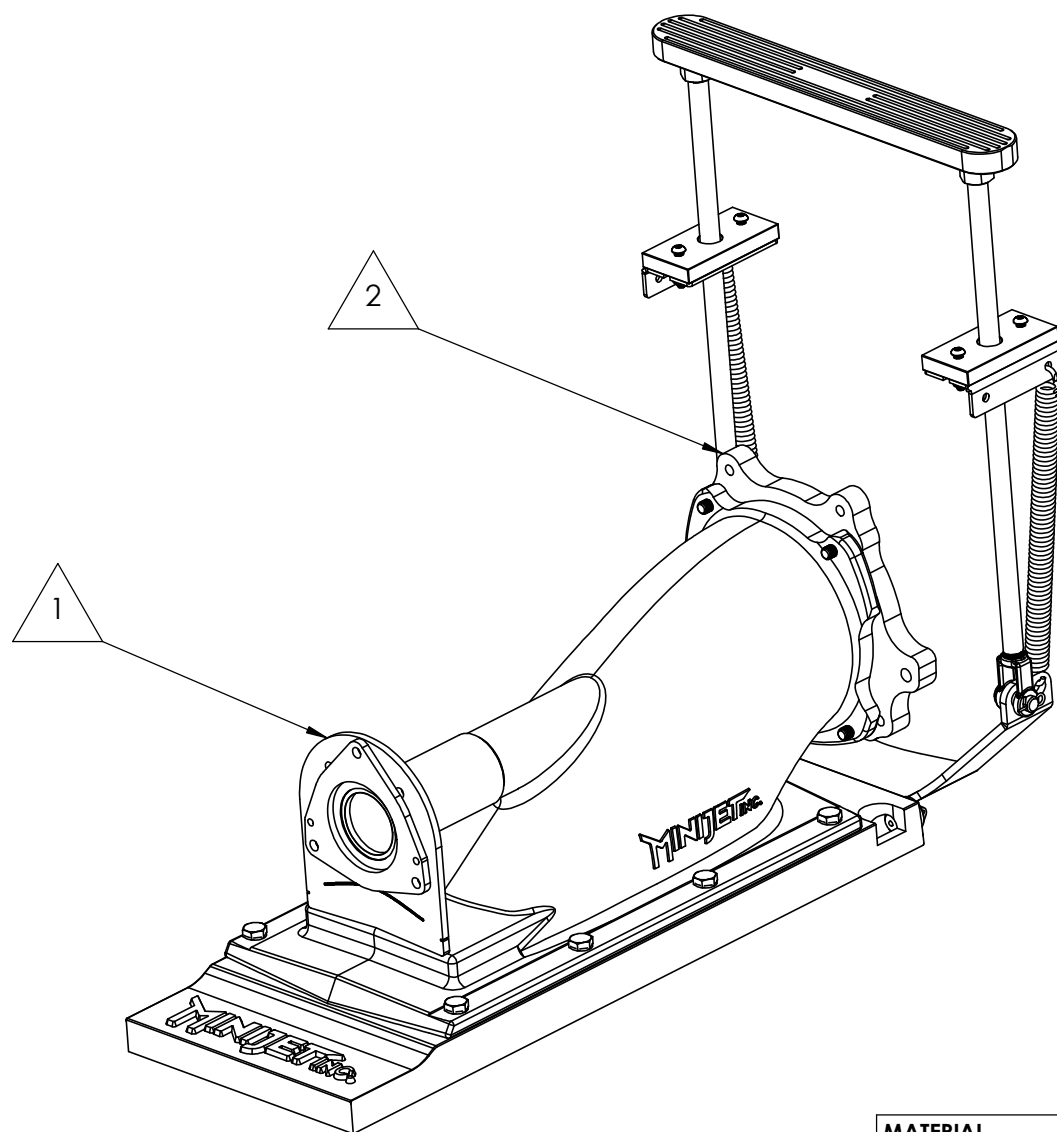
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

**NOTES:**

NOTE #1 - YAMAHA NOSE BEARING SUPPORT PLATE LOCATION DEPENDS ON DRIVESHAFT LENGTH. SEE INSTALLATION AND MODIFICATION INSTRUCTIONS ON SHEET #23

NOTE #2 - YAMAHA PUMP ADAPTERS ARE AVAILABLE TO SUIT THE FOLLOWING PUMP SIZES.

- CURRENT / LATE MODEL 155mm PUMP ADAPTER - Y155
- CURRENT / LATE MODEL 160mm PUMP ADAPTER - Y160
- EARLY / OLDER MODEL 155mm PUMP ADAPTER - YO155

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Yamaha Intake B.O.M.		
FINISH NOT APPLICABLE				
THIRD ANGLE PROJECTION	APPROVED :	SIZE B	DWG. NO. Intake Assembly	REV B
	CHECKED :	SCALE: 1:5		WEIGHT:
	DRAWN : Anthony Kita			SHEET 8 OF 31

4

3

2

1

4

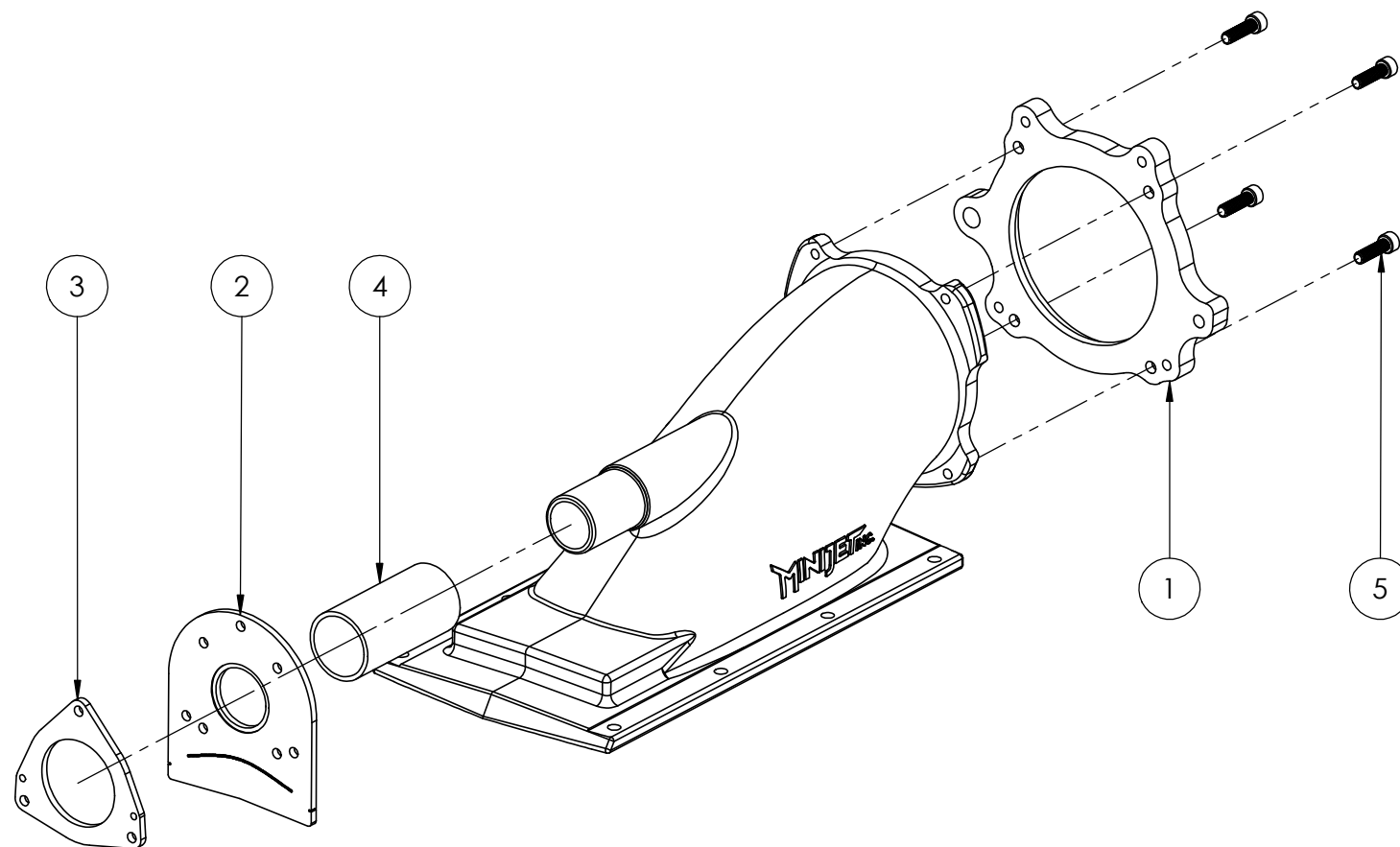
3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

B



BILL OF MATERIALS - CUSTOM FABRICATED PARTS

ITEM NO.	QTY	DESCRIPTION
1	1	YAMAHA PUMP ADAPTER
2	1	YAMAHA INTAKE NOSE BEARING REAR SUPPORT PLATE
3	1	YAMAHA INTAKE NOSE BEARING FRONT SUPPORT PLATE
4	1	INTAKE SUPPORT EXTENSION TUBE

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
5	4	M10 x 1.5 35L SS SOCKET HEAD CAP SCREW

A

A

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Yamaha Intake B.O.M.			
FINISH NOT APPLICABLE	THIRD ANGLE PROJECTION 	APPROVED :	SIZE B	DWG. NO. Intake Assembly	REV B
		CHECKED :	SCALE: 1:5	WEIGHT:	SHEET 9 OF 31
		DRAWN : Anthony Kita			

4

3

2

1

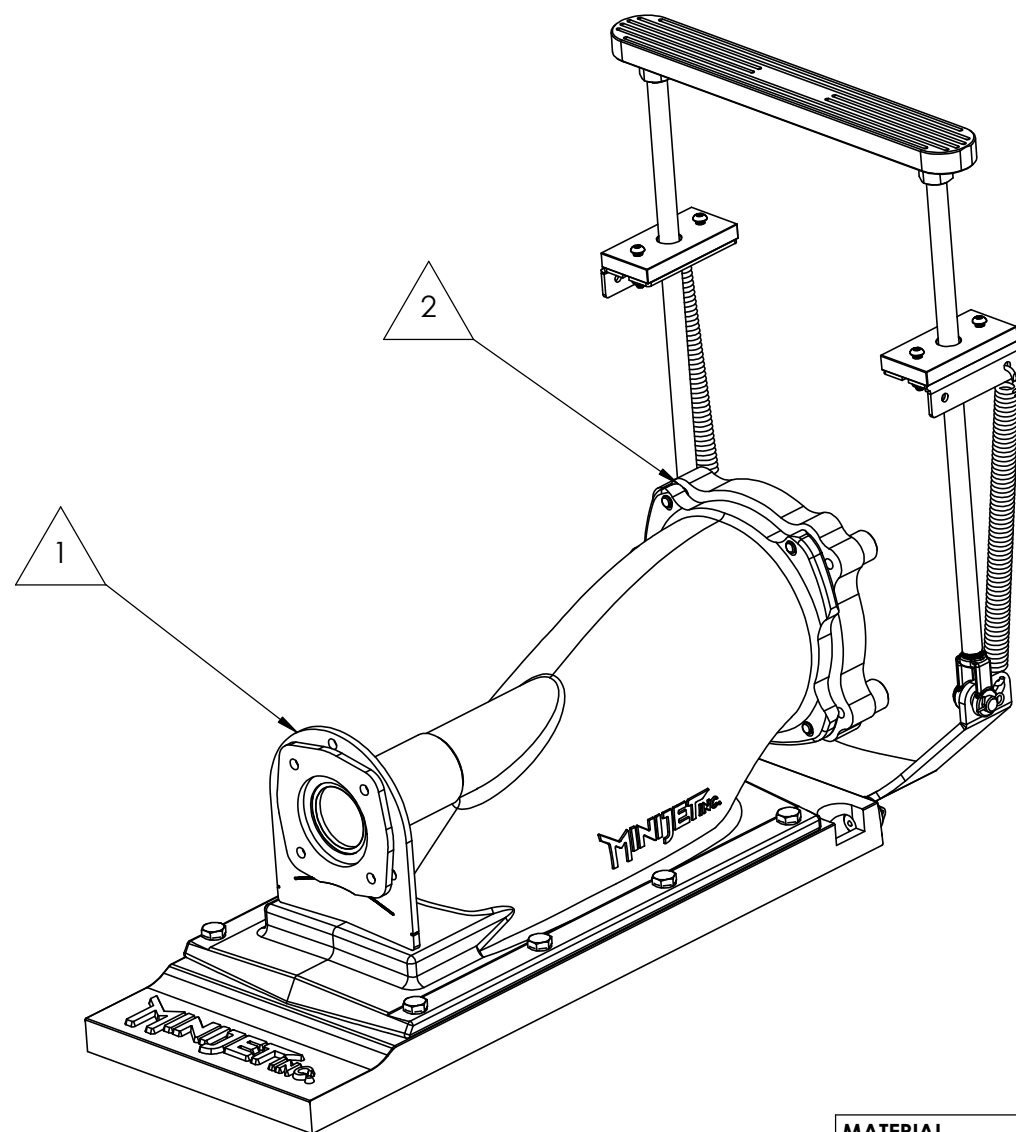
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



NOTES:

NOTE #1 - KAWASAKI NOSE BEARING SUPPORT PLATE LOCATION DEPENDS ON DRIVESHAFT LENGTH. SEE INSTALLATION AND MODIFICATION INSTRUCTIONS ON SHEET #24

NOTE #2 - KAWASAKI PUMP ADAPTERS ARE AVAILABLE TO SUIT THE FOLLOWING PUMP SIZES.

- KAWASAKI 148mm PUMP ADAPTER - K148
- KAWASAKI 155mm PUMP ADAPTER - K155
- KAWASAKI 160mm PUMP ADAPTER - K160

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Kawasaki Intake B.O.M.		
FINISH NOT APPLICABLE				
THIRD ANGLE PROJECTION	APPROVED :	SIZE B	DWG. NO. Intake Assembly	REV B
	CHECKED :	SCALE: 1:5		WEIGHT:
	DRAWN : Anthony Kita	SHEET 10 OF 31		

4

3

2

1

B

B

A

A

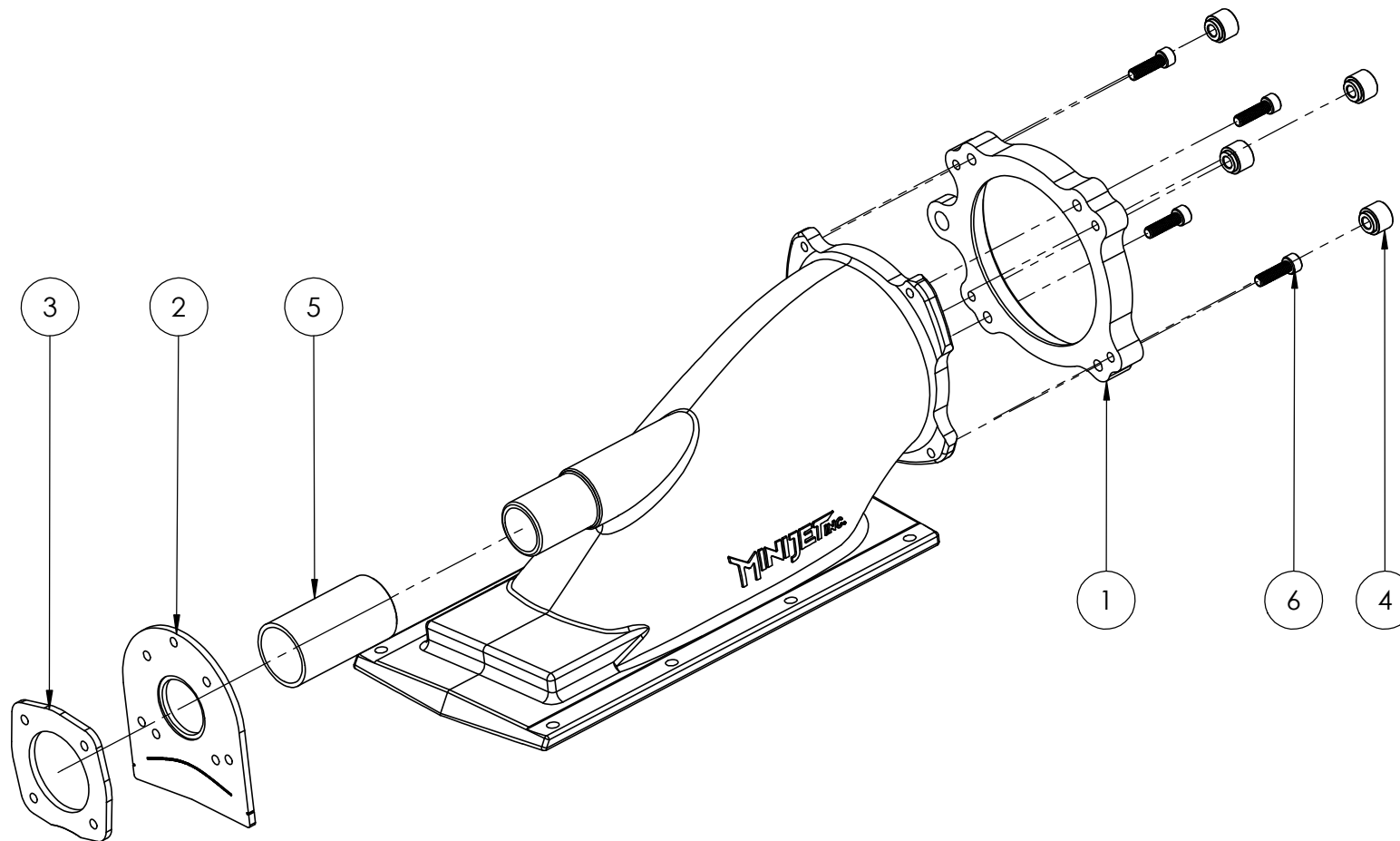
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



BILL OF MATERIALS - CUSTOM FABRICATED PARTS

ITEM NO.	QTY	DESCRIPTION
1	1	KAWASAKI PUMP ADAPTER
2	1	KAWASAKI INTAKE NOSE BEARING REAR SUPPORT PLATE
3	1	KAWASAKI INTAKE NOSE BEARING FRONT SUPPORT PLATE
4	4	KAWASAKI PUMP SPACER
5	1	INTAKE SUPPORT EXTENSION TUBE

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
6	4	M10 x 1.5 35L SS SOCKET HEAD CAP SCREW

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Kawasaki Intake B.O.M.	
FINISH NOT APPLICABLE			
THIRD ANGLE PROJECTION 	APPROVED : CHECKED : DRAWN : Anthony Kita	SIZE B	DWG. NO. Intake Assembly
		SCALE: 1:5	REVISIONS: REV B WEIGHT: SHEET 11 OF 31

4

3

2

1

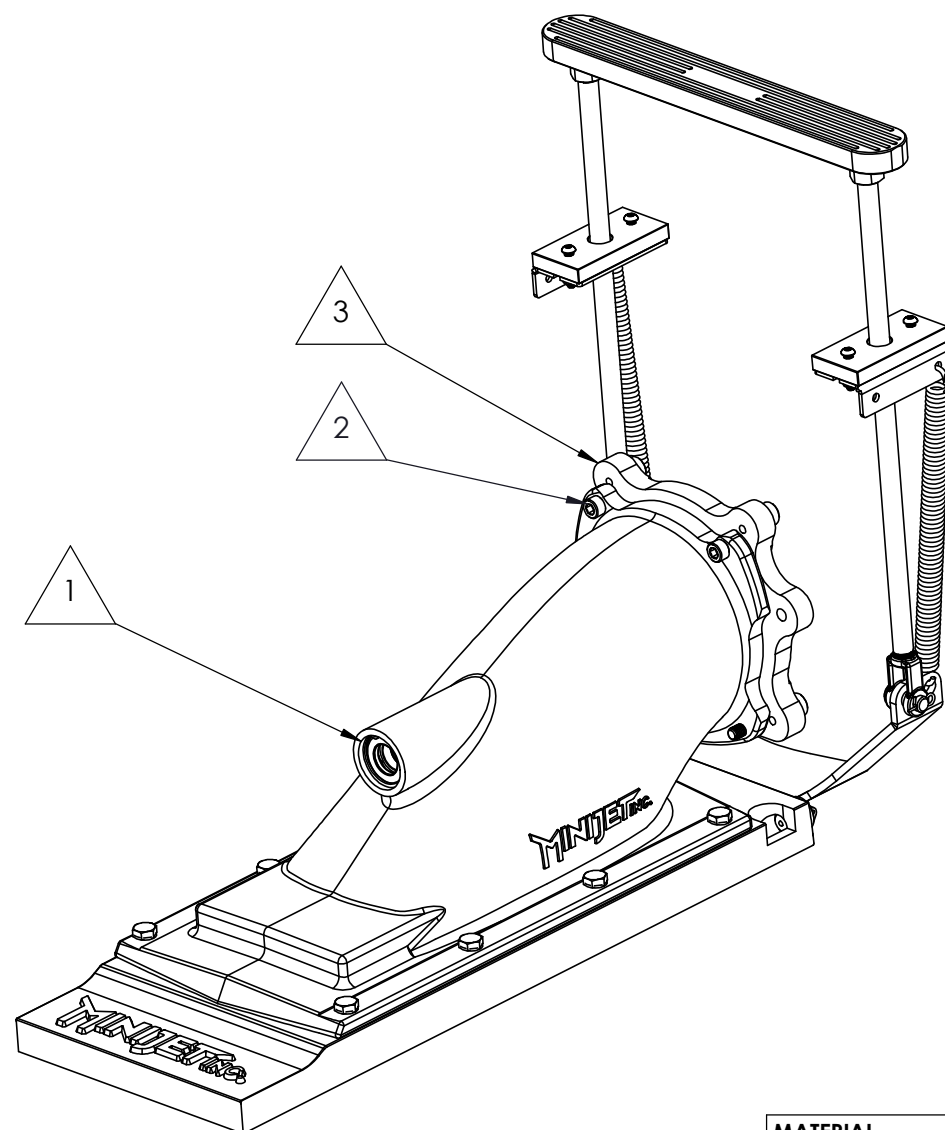
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

**NOTES:**

NOTE #1 - HONDA NOSE BEARING ASSEMBLY IS SUPPLIED PRE-MACHINED AND INSTALLED BY MINIJET.

NOTE #2 - UPPER TWO PUMP ADAPTER MOUNTING BOLTS ARE INVERTED IN HONDA ASSEMBLY. BOLTS PASS THROUGH CLEARANCE HOLES ON INTAKE HOUSING AND THREAD INTO PUMP ADAPTER

NOTE #3 - HONDA PUMP ADAPTERS ARE AVAILABLE TO SUIT THE FOLLOWING PUMP SIZES.

- HONDA 155mm PUMP ADAPTER FOR 1200CC ENGINE ONLY
- HONDA 155mm PUMP ADAPTER FOR 1500CC ENGINES ARE AVAILABLE UPON REQUEST.

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Honda Intake B.O.M.		
FINISH NOT APPLICABLE				
THIRD ANGLE PROJECTION 	APPROVED : CHECKED : DRAWN : Anthony Kita	SIZE B	DWG. NO. Intake Assembly	REV B
		SCALE: 1:5	WEIGHT:	SHEET 12 OF 31

4

3

2

1

4

3

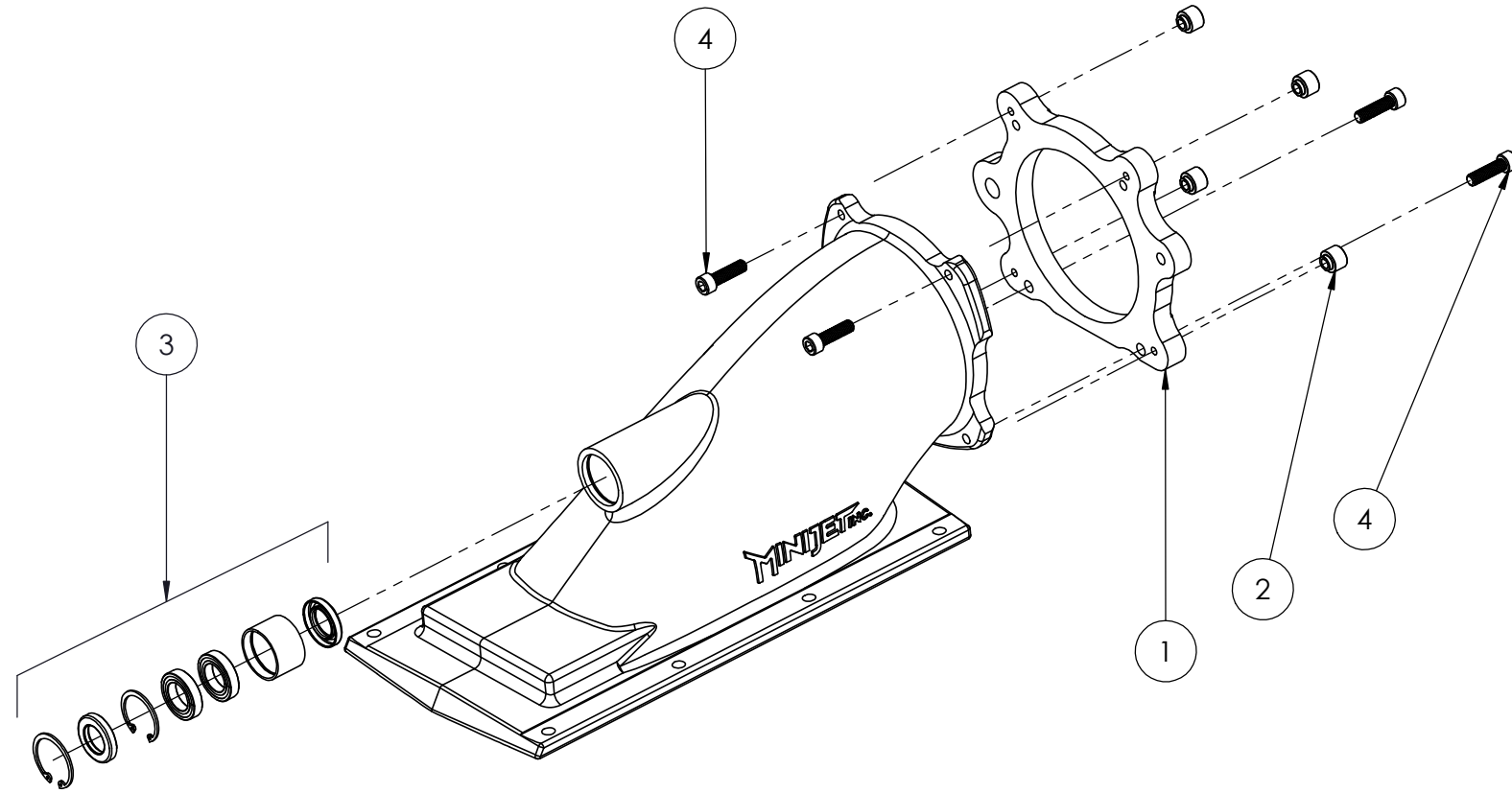
2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

B

B



BILL OF MATERIALS - CUSTOM FABRICATED PARTS

ITEM NO.	QTY	DESCRIPTION
1	1	HONDA PUMP ADAPTER
2	4	HONDA PUMP SPACER
3	1	HONDA SHAFT BEARING CARRIER

BILL OF MATERIALS - STANDARD HARDWARE

ITEM NO.	QTY	DESCRIPTION
4	4	M10 x 1.5, 35L SS SOCKET HEAD CAP SCREW

A

A

MATERIAL ASSORTED MATERIALS SEE PART DWGS FOR DETAILS	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	TITLE: Honda Intake B.O.M.			
FINISH NOT APPLICABLE	THIRD ANGLE PROJECTION 	APPROVED :	SIZE B	DWG. NO. Intake Assembly	REV B
		CHECKED :	SCALE: 1:5	WEIGHT:	SHEET 13 OF 31
		DRAWN : Anthony Kita			

4

3

2

1

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

RECOMMENDED TOOLING / EQUIPMENT LIST:

- GTAW (TIG) OR GMAW (MIG) WELDING EQUIPMENT SUITABLE FOR ALUMINUM
 - 4043 SERIES FILLER MATERIAL
- TAPE MEASURE OR SIMILAR DEVICE FOR CONFIRMING MEASUREMENTS
- ANGLE GRINDER WITH CUTTING AND SANDING DISCS
- HAND DRILL & ASSORTED SIZES OF DRILL BITS
 - 10 mm DRILL BIT FOR HOLES BETWEEN PUMP ADAPTER PLATE AND CAST INTAKE
 - VARIOUS DRILL SIZES FOR VARIOUS CABLE FITTING HOLES (ENGINE SPECIFIC).
- TAPPING SET FOR 5/16"-18 UNF BOLTS
 - SIZE "F" DRILL BIT (0.2570") FOR PRE-TAPPED HOLE
 - 5/16"-18 UNF TAPS
- STANDARD SOCKET SETS FOR METRIC AND IMPERIAL HARDWARE
 - 17 mm SOCKET OR WRENCHES FOR M10 HEX HEAD BOLTS
 - 1/2" SOCKET OR WRENCHES FOR 5/16" HEX HEAD BOLTS
- STANDARD ALLEN KEYS OR ALLEN SOCKETS FOR METRIC AND IMPERIAL HARDWARE
 - 8 mm ALLEN KEY FOR M10 SOCKET HEAD CAP SCREWS
 - 3/16" ALLEN KEY FOR 1/4" SOCKET HEAD CAP SCREWS
- SIKA 291 GREY MARINE SEALANT (SUPPLIED BY MINIJET)
- MEDIUM STRENGTH THREADLOCKER (BLUE LOCTITE 242 OR SIMILAR)

DRAWING PACKAGE SYMBOL LIST

#

CIRCLE MARKER INDICATES ITEM #
REFER TO BILL OF MATERIALS ON SHEET


#

TRIANGLE MARKER INDICATES NOTE #
REFER TO NOTES ON SHEET

INTAKE INSTALLATION INSTRUCTION SHEET LIST	
SHEET #14	SUMMARY LIST & NOTES
SHEET #15	PLAN INTAKE ALIGNMENT & ENGINE PLACEMENT
SHEET #16	CUT AND FIT INTAKE BASE TO HULL BOTTOM
SHEET #17	CUT & FIT INTAKE BASE TO TRANSOM
SHEET #18	PREPARE INTAKE BASE & HULL FOR WELDING
SHEET #19	CUT & FIT HARDWARE & PUMP HOLES IN TRANSOM
SHEET #20	WELD INTAKE BASE PLATE TO HULL
SHEET #21 - 25	MEASURE AND PLAN ENGINE SPECIFIC MODIFICATIONS
SHEET # 21-22	- SEADOO MODIFICATIONS
SHEET # 23	- YAMAHA MODIFICATIONS
SHEET # 24	- KAWASAKI MODIFICATIONS
SHEET # 25	- HONDA MODIFICATIONS
SHEET # 26	FINAL INTAKE INSTALLATION WITH SEALANT
SHEET #27 - 30	INSTALL INTAKE GRATING
SHEET # 27-28	- FIXED & HINGED INTAKE GRATE INSTALLATION
SHEET # 29-30	- STOMP GRATE ACTUATOR INSTALLATION
SHEET # 31	INSTALL PUMP, NOZZLE, CABLES, ETC.

NOTES / WARNINGS:

- PAY CAREFUL ATTENTION TO DIFFERENT MATERIALS WHEN WELDING
 - MINIJET HULL BOTTOM PANELS ARE 6061 SERIES ALUMINUM, THICKNESS WILL DEPEND ON KIT AND SPECIFICATION
 - MINIJET TRANSOM PANELS ARE 5052 SERIES ALUMINUM. 0.125" THICKNESS
 - CAST INTAKE COMPONENTS ARE A556 SERIES CASTING ALUMINUM
- THICKER CAST COMPONENTS WILL REQUIRE MORE HEAT INPUT WHEN WELDING COMPARED TO THINNER SHEET COMPONENTS.
- MINIJET RECOMMENDS USING 4043 SERIES FILLER MATERIAL FOR ALL WELDS TO CAST COMPONENTS
- DOUBLE & TRIPLE CHECK ALL DIMENSIONS AND INTERFACES PRIOR TO CUTTING AND WELDING, YOUR INSTALLATION MAY DIFFER FROM THE DIMENSIONS AND INSTRUCTIONS INCLUDED IN THE FOLLOWING SHEETS.
- YOUR HULL, DONOR DRIVETRAIN, ENGINE, INTAKE, PUMP UNIT, ETC, MAY DIFFER FROM THESE INSTRUCTIONS. MEASURE YOUR DONOR INSTALLATION AS MUCH AS POSSIBLE PRIOR TO DISASSEMBLY, AND USE THESE MEASUREMENTS TO INFORM YOUR NEW INSTALLATION.

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO: Intake Assembly		REV B
CHECKED :				
DRAWN : Anthony Kita	SCALE: N/A	WEIGHT:	SHEET 14 OF 31	

4

3

2

1

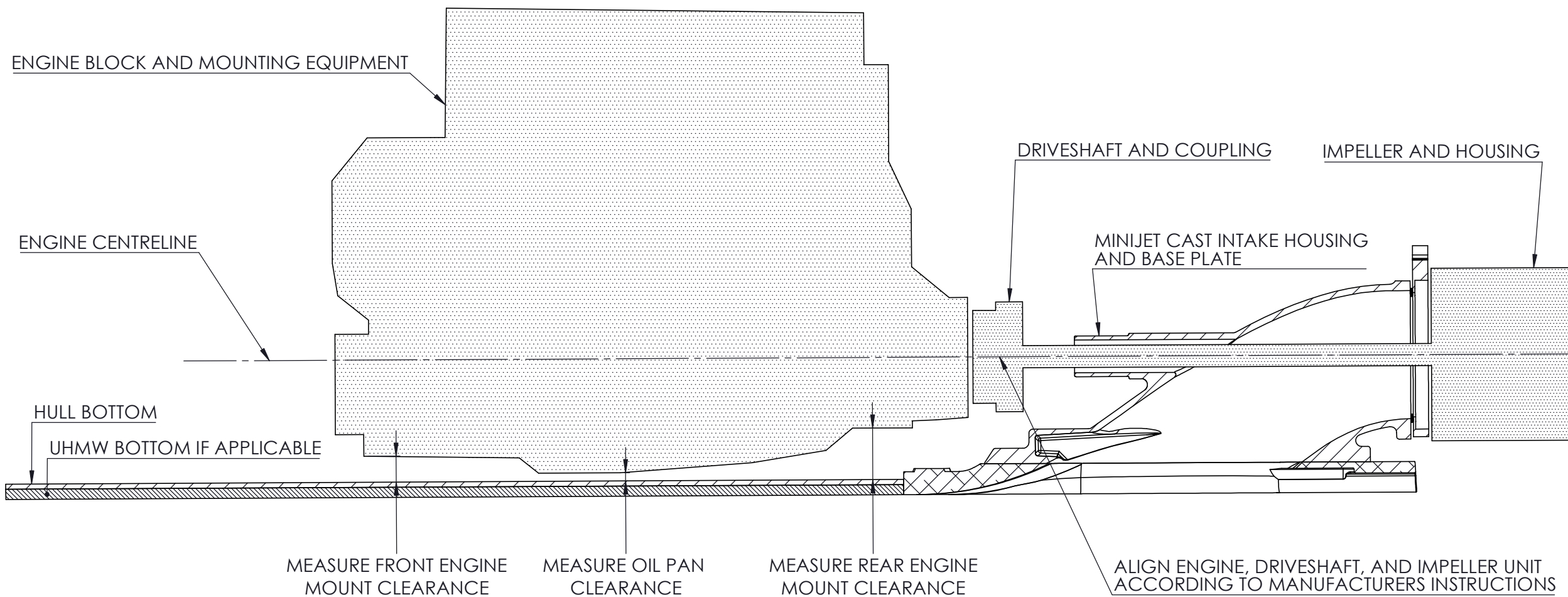
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	




PLACE THE INTAKE ASSEMBLY ON A BENCH OR WORK SURFACE, MOCK UP AND ALIGN THE ENGINE, DRIVESHAFT, INTAKE ASSEMBLY, JET PUMP UNIT & IMPELLER:

DIFFERENT DONOR ENGINES AND DRIVETRAINS MAY REQUIRE SPECIAL ENGINE MOUNTING SOLUTIONS, OR MODIFIED INTAKE INSTALLATION STEPS BASED ON THE AVAILABLE CLEARANCE BETWEEN THE INSIDE SURFACE OF THE HULL, AND THE BOTTOM OF THE ENGINE OILPAN.

- MEASURE THE AVAILABLE SPACE OF ENGINE MOUNTS.
- MEASURE THE AVAILABLE CLEARANCE BELOW THE OIL PAN IF APPLICABLE.

USE THIS OPPORTUNITY TO TEST FIT YOUR ENGINE, INTAKE, AND DRIVETRAIN ON A WORK BENCH.

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B			
CHECKED :		SCALE: 1:15	WEIGHT:	SHEET 15 OF 31
DRAWN : Anthony Kita				

4

3

2

1

4

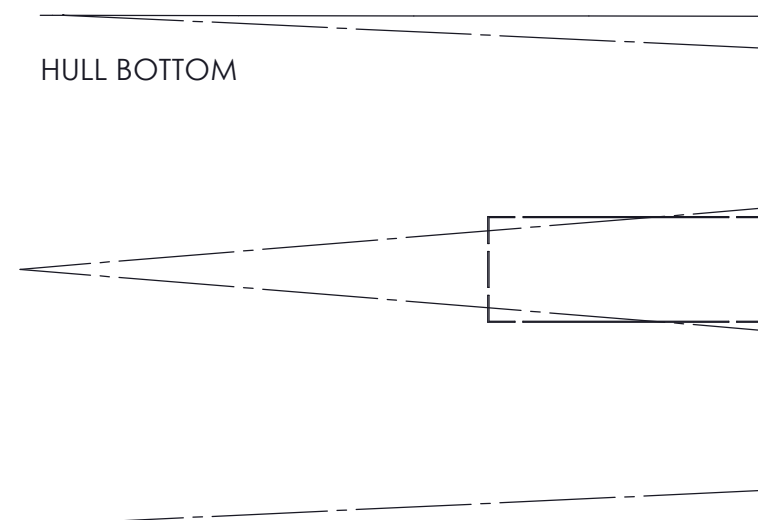
3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

HULL BOTTOM



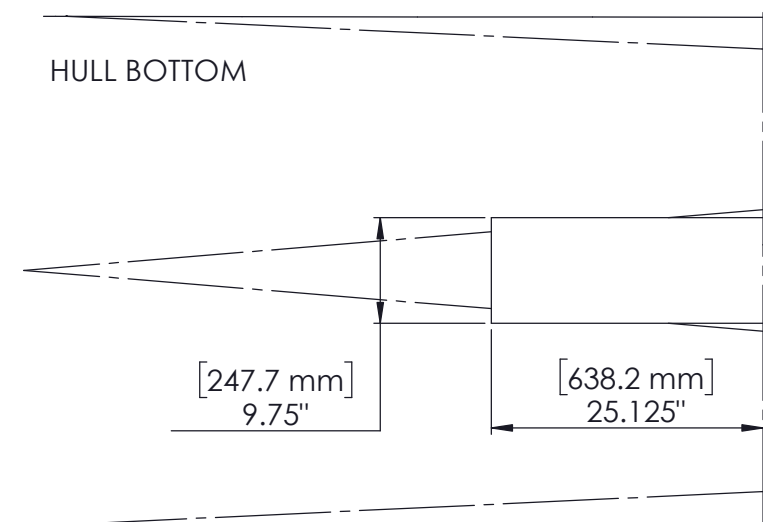
CUT TABS AND REMOVE THIS SECTION

CUT AND FIT INTAKE BASE TO BOTTOM OF HULL:

MINIJET HULL KITS ARE SUPPLIED WITH PRE-CUT INTAKE OPENING

- USE ANGLE GRINDER TO CUT OUT SIX RETENTION TABS
- SMOOTH AND REFINE OPENING TO FIT INTAKE BASE


HULL BOTTOM

REAR FACE
OF TRANSOM**FOR HULLS AND KITS NOT EQUIPPED WITH PRE-CUT INTAKE OPENING:**

- FIND AND MARK HULL CENTRELINE
- MEASURE AND MARK PRELIMINARY INTAKE OPENING ACCORDING TO DIMENSIONS SHOWN TO THE LEFT.
- CONFIRM INTAKE BASE POSITION RELATIVE TO REAR FACE OF TRANSOM PRIOR TO CUTTING INTAKE OPENING.
- UPPER REAR CORNERS OF INTAKE BASE CASTING SHOULD BE FLUSH WITH THE REAR OUTSIDE FACE OF THE TRANSOM.
- USE ANGLE GRINDER AND SANDING DISCS TO CUT OPENING AND FIT INTAKE BASE



DIMENSIONS PROVIDED ARE INTENTIONALLY UNDERSIZED
TO ALLOW FOR FITTING AND TRIMMING

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:15	WEIGHT:	SHEET 16 OF 31	

4

3

2

1

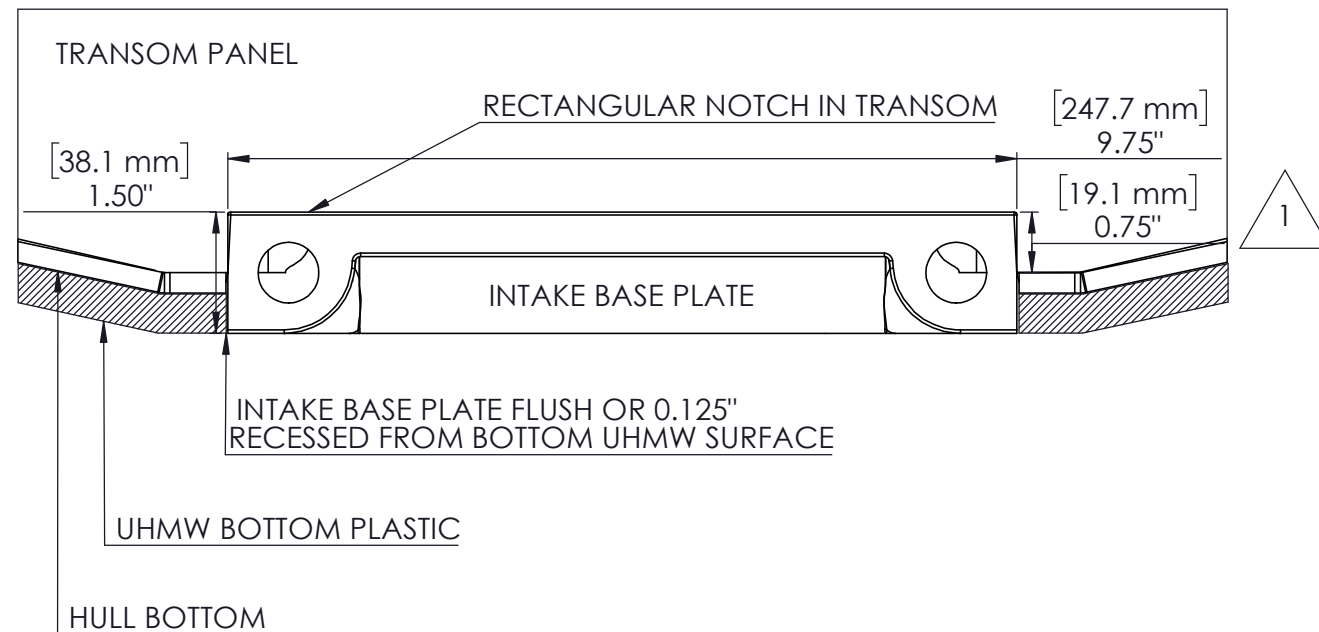
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



CUT AND FIT INTAKE BASE TO TRANSOM:

THE TRANSOM PANEL MUST BE NOTCHED TO FIT INTAKE BASE HEIGHT.

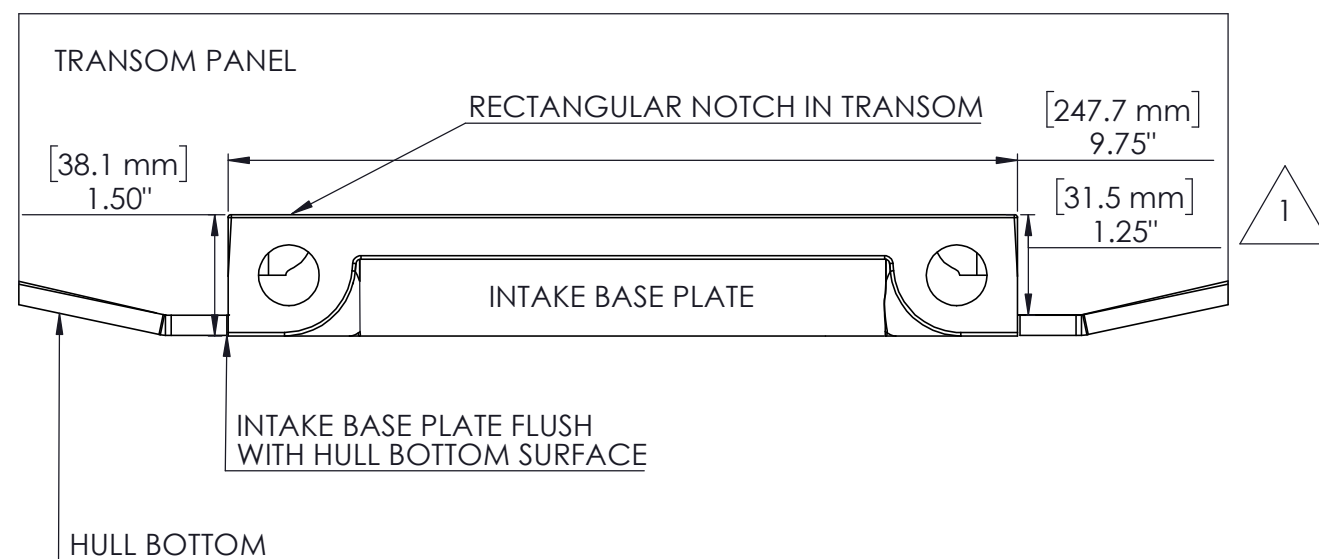
- IF UHMW BOTTOM PLASTIC WILL BE INSTALLED ON THE HULL, THE BASE OF THE INTAKE SHOULD BE INSTALLED PROTRUDING FROM THE BOTTOM OF THE HULL TO ALIGN FLUSH WITH THE FINAL UHMW MATERIAL.

- MEASURE THE THICKNESS OF YOUR UHMW MATERIAL PRIOR TO CUTTING THE TRANSOM NOTCH. ADJUST THESE DIMENSIONS TO SUIT YOUR UHMW MATERIAL IF REQUIRED.

NOTES:

1 NOTE #1 - INTAKE BASE HEIGHT ABOVE THE HULL BOTTOM IS PROVIDED FOR REFERENCE, THIS HEIGHT WILL CHANGE WITH DIFFERENT HULL BOTTOM THICKNESS OR UHMW THICKNESS

2 NOTE #2 - ALL DIMENSIONS PROVIDED ARE INTENTIONALLY UNDERSIZED TO ALLOW FOR FITTING AND TRIMMING



- IF UHMW BOTTOM PLASTIC WILL NOT BE INSTALLED ON THE HULL, THE BASE OF THE INTAKE SHOULD BE FIT FLUSH WITH THE BOTTOM OF THE HULL AT THE TRANSOM.

NOTES:

1 NOTE #1 - INTAKE BASE HEIGHT ABOVE THE HULL BOTTOM IS PROVIDED FOR REFERENCE, THIS HEIGHT WILL CHANGE WITH DIFFERENT HULL BOTTOM THICKNESS OR UHMW THICKNESS

2 NOTE #2 - ALL DIMENSIONS PROVIDED ARE INTENTIONALLY UNDERSIZED TO ALLOW FOR FITTING AND TRIMMING

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :	Intake Assembly			
DRAWN : Anthony Kita	SCALE: 1:2	WEIGHT:	SHEET 17 OF 31	

4

3

2

1

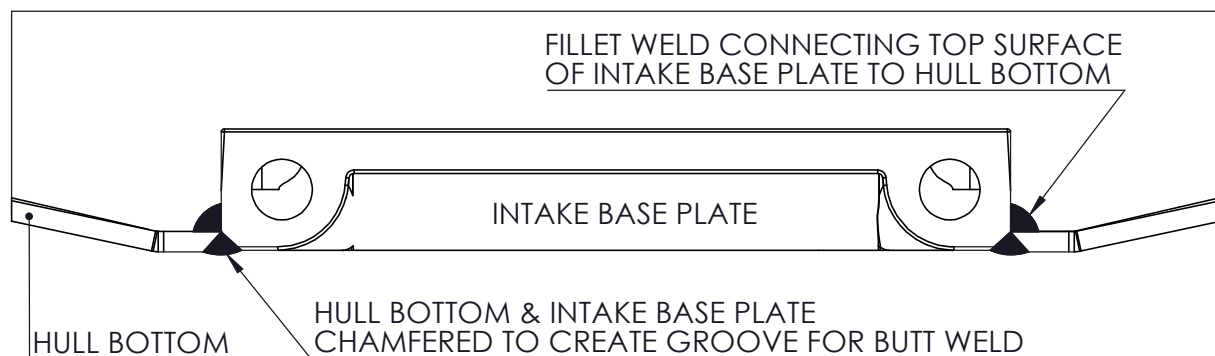
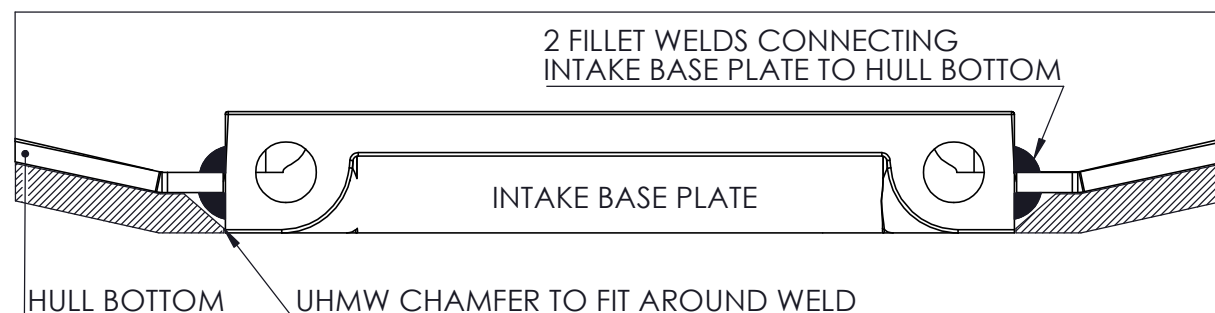
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



PREPARE INTAKE BASE PLATE AND HULL BOTTOM FOR WELDING:

WITH UHMW:

- IF UHMW BOTTOM PLASTIC WILL BE INSTALLED ON THE HULL, CLEAN AND PREP SURFACES FOR TWO LARGE FILLET WELDS ON THE TOP AND BOTTOM SURFACES OF THE HULL AND INTAKE BASE PLATE.

- UHMW MATERIAL WILL ALSO REQUIRE A CHAMFER ALONG THE INNER CORNERS FOR CLEARANCE AROUND FILLET WELDS.

WITHOUT UHMW:

- IF NO UHMW BOTTOM PLASTIC WILL BE INSTALLED, THE BOTTOM EDGE OF THE HULL AND INTAKE BASE PLATE SHOULD BE CHAMFERED TO CREATE A RECESSED GROOVE FOR A BUTT WELD JOINT ON THE BOTTOM SURFACE OF THE HULL.

- CLEAN AND PREP SURFACES FOR ONE LARGE FILLET WELD ON THE TOP SURFACES OF THE HULL AND INTAKE BASE PLATE.

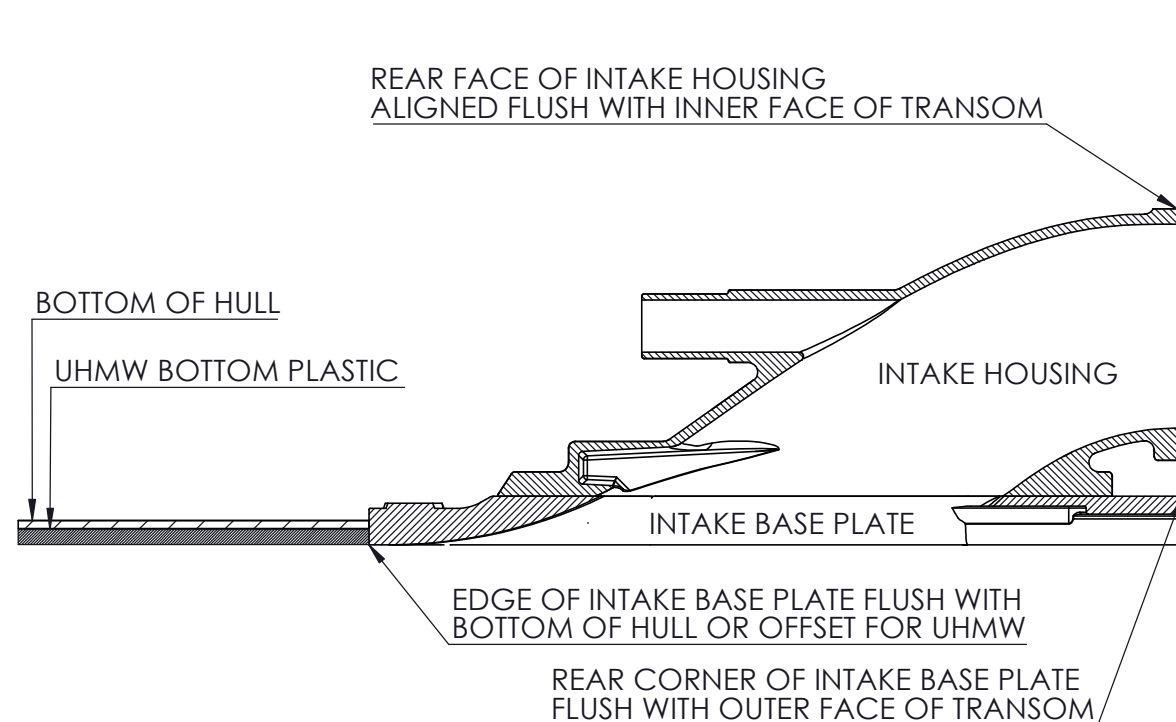
SET INTAKE POSITION, TACK WELD INTAKE BASE TO HULL:


- TEMPORARILY FASTEN THE CAST INTAKE HOUSING ONTO THE INTAKE BASE PLATE USING THE SUPPLIED M10 HARDWARE.

- POSITION THE INTAKE HOUSING AND INTAKE BASE PLATE INTO THE HULL OPENING. ENSURE THAT THE REAR FACE OF THE INTAKE HOUSING IS ALIGNED WITH THE INSIDE FACE OF THE TRANSOM.

- CONFIRM THE POSITION AND ALIGNMENT OF INTAKE BASE PLATE WITH RESPECT TO THE OPENING IN THE BOTTOM OF THE HULL AND THE RECTANGULAR CUTOUT IN THE TRANSOM.

- TACK WELD THE INTAKE BASE PLATE TO BOTTOM OF THE HULL. DO NOT FULLY WELD THE INTAKE BASE PLATE AT THIS TIME



TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:5	WEIGHT:	SHEET 18 OF 31	

4

3

2

1

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

ENGINE SPECIFIC
PUMP ADAPTER

INTAKE HOUSING

INTAKE BASE PLATE

MARK, DRILL, CUT AND REFINE PUMP INTERFACE HOLES IN TRANSOM:

- USE A PUNCH OR MARKER TO TRANSFER THE LOCATION OF THE FOUR PUMP ADAPTER MOUNTING HOLES FROM THE REAR FACE OF THE INTAKE HOUSING ONTO THE INNER FACE OF THE TRANSOM.

- REMOVE THE INTAKE HOUSING, THEN DRILL EACH MARKED LOCATION WITH A 10MM CLEARANCE HOLE FOR THE PUMP ADAPTER MOUNTING BOLTS.

- TEMPORARILY RE-INSTALL THE INTAKE HOUSING ONTO INTAKE BASE PLATE.

- TEMPORARILY INSTALL THE PUMP ADAPTER PLATE ON OUTSIDE OF TRANSOM USING THE SUPPLIED M10 SOCKET HEAD CAP SCREWS.

- USING THE PUMP ADAPTER AS A GUIDE, MARK THE LOCATION OF THE ENGINE SPECIFIC HOLES AND INTERFACES ON THE OUTER FACE OF THE TRANSOM PANEL.

- THESE INTERFACES INCLUDE THE LARGE INTAKE OPENING, STEERING CABLE HOLES, REVERSE AND TRIM CABLE HOLES, COOLING WATER CONNECTIONS, ETC.

- REMOVE THE PUMP ADAPTER AND INTAKE HOUSING, CUT AND DRILL ALL INTERFACE HOLES IN THE TRANSOM

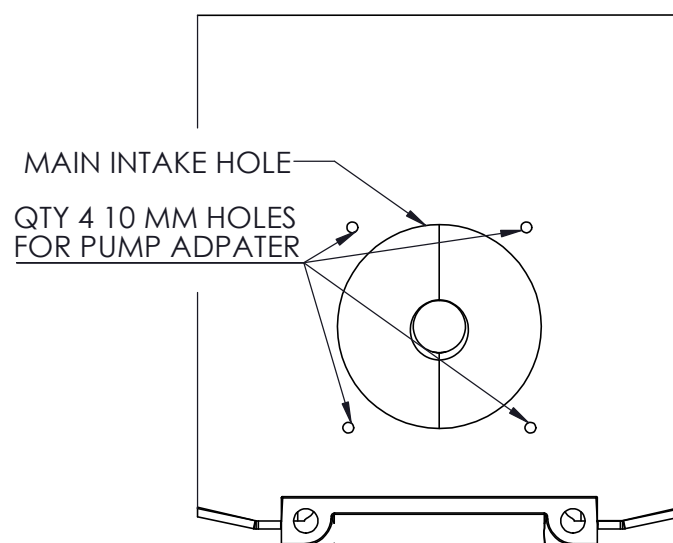
- TEMPORARILY RE-INSTALL INTAKE HOUSING AND PUMP ADAPTER, CHECK THAT ALL INTERFACE HOLES ARE COMPLETE.

- ONCE COMPLETE, TACK WELD THE JOINT BETWEEN THE TRANSOM AND THE INTAKE BASE PLATE. DO NOT FULLY WELD THIS JOINT AT THIS TIME.

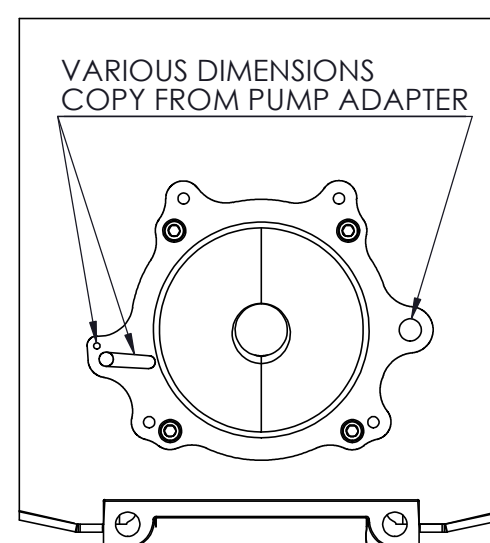
TEMPORARILY INSTALL JET PUMP UNIT, ENGINE, ETC.

USE THIS OPPORTUNITY TO PLAN ENGINE MOUNTS, DRIVESHAFT LENGTHS, DRIVESHAFT SEALS, ETC.

SEE FOLLOWING PAGES FOR ENGINE SPECIFIC INTAKE HOUSING MODIFICATIONS.

INTERFACE HOLES COMMON TO ALL ENGINE CONFIGURATIONS**ENGINE SPECIFIC INTERFACE HOLES (STEERING, COOLING, MOUNTING, ETC)**

REAR VIEW OF TRANSOM

VARIOUS DIMENSIONS
COPY FROM PUMP ADAPTER

TITLE:

INTAKE INSTALLATION
INSTRUCTIONS

APPROVED :

CHECKED :

DRAWN : Anthony Kita

SIZE

B

DWG. NO.:

Intake Assembly

REV

B

SCALE: 1:5

WEIGHT:

SHEET 19 OF 31

4

3

2

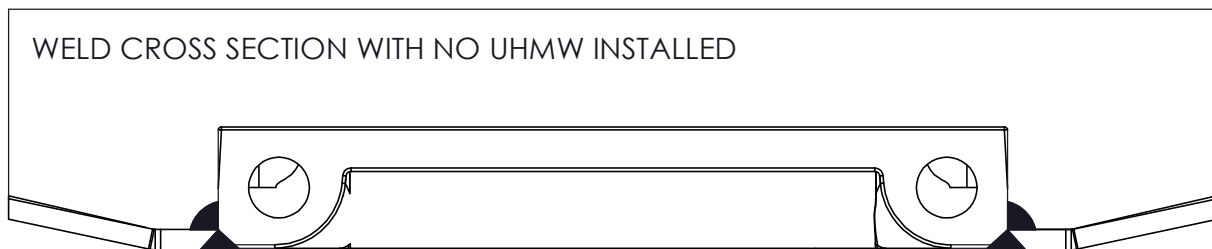
1

4

3

2

1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

FULLY WELD INTAKE BASE PLATE INTO HULL.

- KEEP THE INTAKE HOUSING AND PUMP ADAPTER IN POSITION WHILE WELDING THE INTAKE BASE PLATE TO THE HULL BOTTOM. THE INTAKE HOUSING AND PUMP ADAPTER WILL HELP TO KEEP THE HULL AND TRANSOM IN POSITION AND REDUCE MATERIAL WARPING DURING WELDING.

- FOLLOW WELD CROSS SECTION DETAILS SHOWN TO THE LEFT.

WELD #1 - FULLY WELD THE FRONT EDGE OF INTAKE BASE PLATE TO HULL.

WELD #2 & #3 - FULLY WELD THE LEFT AND RIGHT SIDE OF INTAKE BASE PLATE TO HULL.

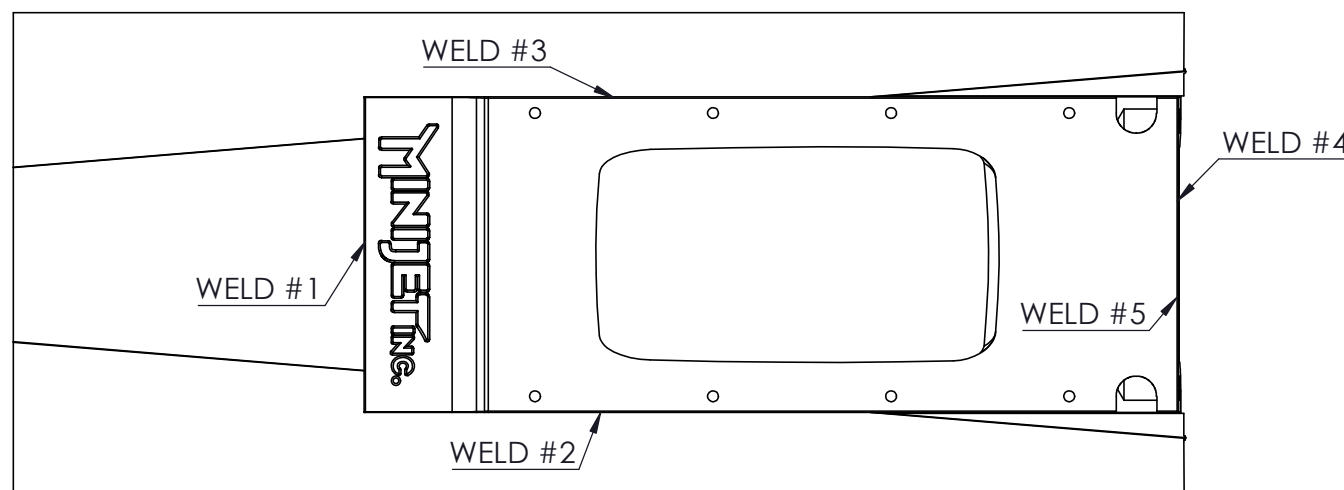
WELD #4 - FULLY WELD THE JOINT BETWEEN THE EXTERIOR SURFACE OF THE TRANSOM AND THE INTAKE BASE PLATE.


WELD #5 - REMOVE THE PUMP ADAPTER AND INTAKE HOUSING FROM INTAKE BASE PLATE TO PROVIDE BETTER ACCESS TO INTERIOR FACE OF THE TRANSOM. FULLY WELD INSIDE CORNER BETWEEN INTAKE BASE PLATE AND TRANSOM.

NOTES:



THIN TRANSOM MATERIAL IS LIKELY TO WARP WHILE COMPLETING WELDS #4 AND #5. STITCH WELD SLOWLY, LIMIT HEAT INPUT, AND BEWARE OF WARPING.



TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:5	WEIGHT:	SHEET 20 OF 31	

4

3

2

1

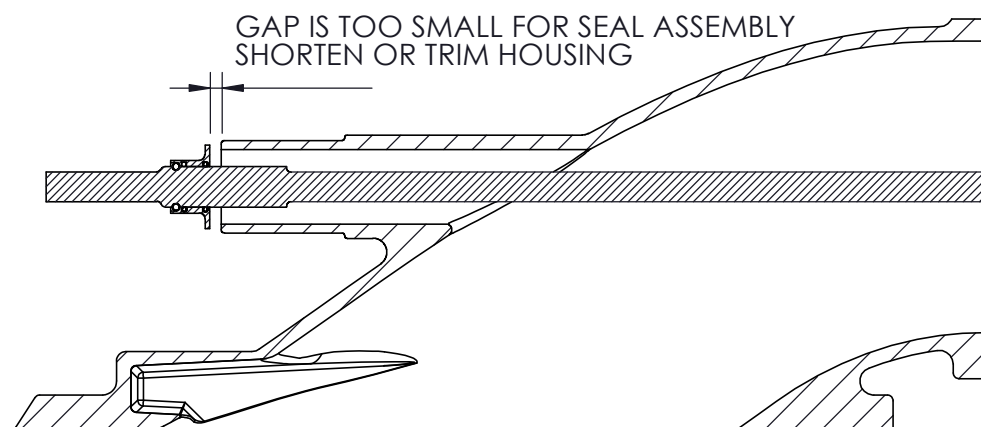
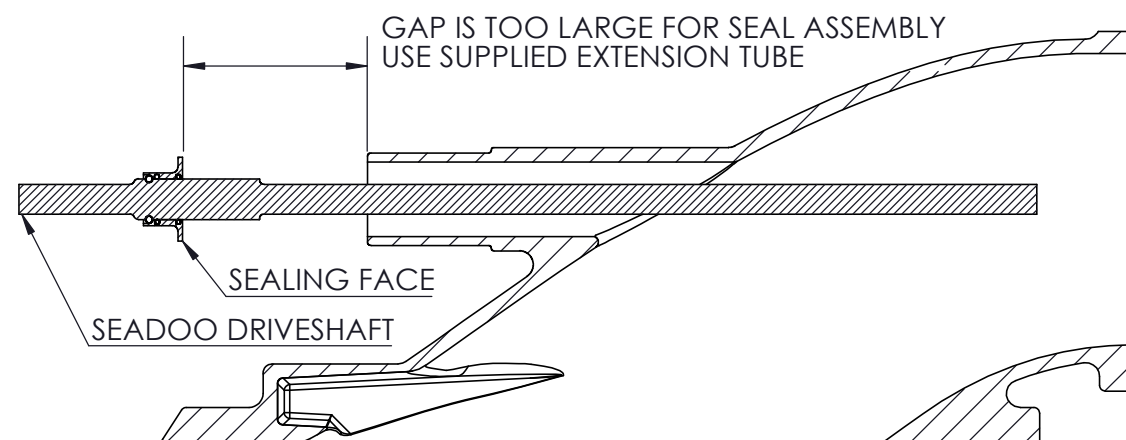
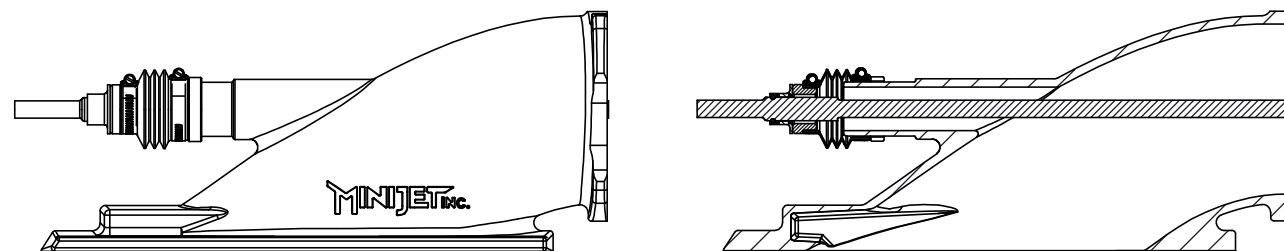
4

3

2

1

SEADOO COMPRESSION / CARBON SLIP RING SEAL CONFIGURATION



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

SEADOO SPECIFIC INTAKE MODIFICATIONS

THE DRIVESHAFT TUBE OF THE CAST INTAKE HOUSING IS DESIGNED TO FIT THE RUBBER COMPRESSION BOOT AND CARBON SLIP RING SEAL ASSEMBLY FOUND ON MOST SEADOO DRIVETRAINS.


MODIFICATIONS ARE DEPENDANT ON THE MODEL OF SEADOO DRIVETRAIN, AND THE AXIAL LOCATION OF THE CARBON SLIP RING SEAL ALONG THE DRIVESHAFT. DUE TO THE LARGE NUMBER OF MODEL VARIATIONS, WE RECOMMEND THAT YOU MEASURE THE DRIVETRAIN INTERFACES FROM YOUR DONOR SEADOO FOR REFERENCE.

SEALING PRESSURE IS ACHIEVED BY PRE-COMPRESSING THE RUBBER BOOT DURING ASSEMBLY. BOOT COMPRESSION IS CRITICAL FOR SEAL FUNCTION.

FOR MORE INFORMATION ABOUT SEADOO SEAL PARTS, INSTALLATION AND MAINTENANCE TIPS, REFER TO SEADOO SHOP MAINTENANCE MANUAL FOR YOUR DONOR.

INSTRUCTIONS:

- TEMPORARILY INSTALL THE INTAKE HOUSING, PUMP ADAPTER, AND JET PUMP UNIT INTO YOUR HULL.
- WITH THE JET PUMP UNIT INSTALLED, INSERT THE DRIVESHAFT THROUGH THE INTAKE HOUSING AND INTO THE SPLINES OF THE IMPELLER. NOTE THE LOCATION OF THE FLOATING RING SEALING FACE ON THE DRIVESHAFT.
- IF THE SEALING FACE ON THE FLOATING RING IS TOO FAR FORWARD OF THE CAST INTAKE DRIVESHAFT TUBE, THE TUBE CAN BE EXTENDED BY WELDING ON A PORTION OF THE SUPPLIED EXTENSION TUBE.
- IF THE SEALING FACE ON THE FLOATING RING IS TOO CLOSE TO THE CAST INTAKE DRIVESHAFT TUBE, OR IS INTERFERING WITH IT, THE TUBE MUST BE SHORTENED OR TRIMMED TO AN APPROPRIATE LENGTH FOR YOUR SPECIFIC SEAL ASSEMBLY.
- THE SPECIFIC AMOUNT OF MATERIAL TO BE ADDED OR REMOVED DEPENDS ON THE SPECIFIC SEALING FACE LOCATION AND SPECIFIC SEAL ASSEMBLY FROM YOUR DONOR SEADOO.

TITLE: SEADOO SPECIFIC INTAKE MODIFICATIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:6	WEIGHT:	SHEET 21 OF 31	

4

3

2

1

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

UNCOMPRESSED SEAL LENGTH
(MEASURE DONOR COMPONENTS)
X.XX"

0.5

SEADOO
DRIVESHAFT

HOG RING
RETAINING CLIP

SEALING O-RINGS

FLOATING RING

COMPRESSED SEAL LENGTH
(UNCOMPRESSED LENGTH - 0.5")
 $X.XX" - 0.5" = X.XX"$

HOSE CLAMPS

SEADOO
DRIVESHAFT

HOG RING
RETAINING CLIP

SEALING O-RINGS

FLOATING RING

CARBON SLIP RING

RUBBER COMPRESSION BOOT


STITCH WELD THIS JOINT

RING PIECE USED
AS RETAINER FOR
RUBBER BOOT**SEADOO COMPRESSION SEAL ASSEMBLY:**

- MEASURE THE TOTAL UNCOMPRESSED LENGTH OF YOUR CARBON SLIP RING AND RUBBER COMPRESSION BOOT.
- USING THIS UNCOMPRESSED LENGTH, MEASURE BACKWARDS FROM THE SEALING FACE OF THE FLOATING RING ALONG THE INTAKE DRIVESHAFT TUBE. MARK THIS MEASURED LOCATION ALONG THE OUTSIDE OF THE INTAKE DRIVESHAFT TUBE.
- SEADOO INSTALLATION INSTRUCTIONS TYPICALLY RECOMMEND THAT THE RUBBER BOOT IS COMPRESSED BY 0.5" WHEN INSTALLED. TO ACCOMPLISH THIS, SUBTRACT 0.5" FROM THE PREVIOUS MEASUREMENT AND MARK A SECOND POINT ON THE OUTSIDE OF THE INTAKE DRIVESHAFT TUBE. THIS MARKS THE LOCATION FOR THE REAR FACE OF THE RUBBER BOOT WHEN INSTALLED AND COMPRESSED.
- CUT A 0.5" LONG RING PIECE FROM THE SUPPLIED EXTENSION TUBE. SLIDE THIS RING OVER THE INTAKE DRIVESHAFT TUBE AND ALIGN IT BETWEEN THE TWO MARKS ON THE DRIVESHAFT TUBE. THIS PIECE OF TUBING WILL ACT AS A RETAINER OR SHOULDER TO KEEP THE RUBBER BOOT IN POSITION.
- STITCH WELD THE TUBING RING PIECE IN POSITION.
- ANY WELDS TO THE INTAKE DRIVESHAFT TUBE, OR DRIVESHAFT EXTENSION TUBE MUST BE WATER TIGHT.

NOTES:

- ! CARBON SLIP RING AND RUBBER COMPRESSION BOOTS ARE WEAR ITEMS. INSPECT THESE COMPONENTS CAREFULLY AND CONSIDER PURCHASING NEW REPLACEMENT PARTS IF NECESSARY. REFER TO SEADOO SHOP MAINTENANCE MANUALS FOR WEAR LIMIT INFORMATION.
- ! DIFFERENT SEADOO MODELS HAVE DIFFERENT DRIVESHAFT AND SEAL CONFIGURATIONS, REFER TO SEADOO SHOP MANUAL FOR INSTRUCTIONS THAT ARE SPECIFIC TO YOUR DONOR.

TITLE: SEADOO SPECIFIC INTAKE MODIFICATIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:1	WEIGHT:	SHEET 22 OF 31	

4

3

2

1

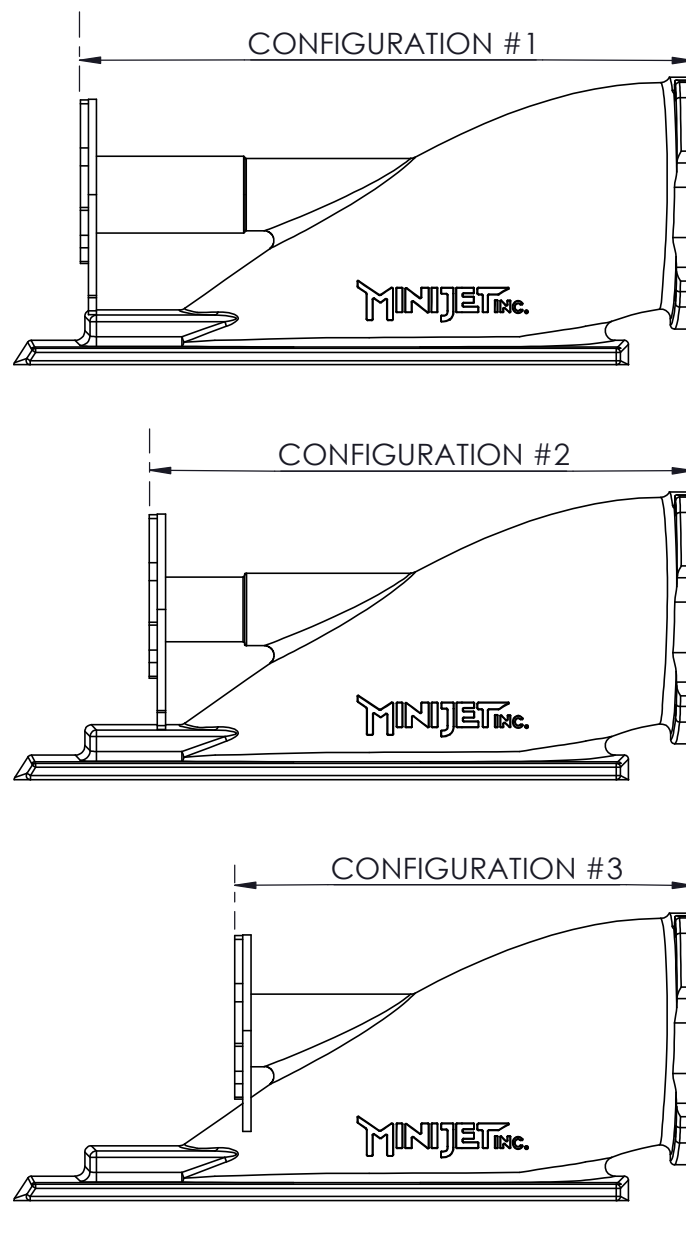
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



CONFIGURATION #1 - FULL LENGTH

USE THE INTAKE SUPPORT EXTENSION TUBE TO MOUNT THE BEARING SUPPORT PLATES AS FAR FORWARD ON THE INTAKE HOUSING AS POSSIBLE.

CONFIGURATION #1 FITS SOME FULL LENGTH UN-MODIFIED DRIVESHAFTS.

INSTRUCTIONS:

- MEASURE AND TRIM THE INTAKE SUPPORT EXTENSION TUBE TO LENGTH.
- WELD THE SUPPORT TUBE AND REAR BEARING SUPPORT PLATE TO INTAKE HOUSING. WELDS MUST BE WATER TIGHT.
- BOND THE FRONT BEARING SUPPORT PLATE TO THE REAR BEARING SUPPORT PLATE USING SIKAFLEX MARINE SEALANT.

CONFIGURATION #2 - MEDIUM LENGTH

MOUNT THE BEARING SUPPORT PLATES DIRECTLY TO END OF INTAKE HOUSING DRIVESHAFT TUBE. TRIM THE END OF DRIVESHAFT TUBE IF NEEDED.

CONFIGURATION #2 FITS MANY DIFFERENT DRIVESHAFT LENGTHS.

INSTRUCTIONS:

- MEASURE AND TRIM THE INTAKE HOUSING DRIVESHAFT TUBE IF REQUIRED.
- WELD THE REAR BEARING SUPPORT PLATE TO THE INTAKE HOUSING. WELD MUST BE WATER TIGHT.
- BOND THE FRONT BEARING SUPPORT PLATE TO THE REAR BEARING SUPPORT PLATE USING SIKAFLEX MARINE SEALANT.

CONFIGURATION #3 - SHORTEST LENGTH

TRIM INTAKE HOUSING AND SUPPORT PLATES, MOUNTING THEM AS FAR REARWARD ON THE INTAKE HOUSING AS POSSIBLE.

CONFIGURATION #3 FITS SHORTEST MODIFIED DRIVESHAFTS.

INSTRUCTIONS:

- TRIM THE INTAKE DRIVESHAFT TUBE TO REQUIRED LENGTH.
- CUT THE REAR BEARING SUPPORT PLATE TO MATCH THE INTAKE CASTING, FILE AND REFINE FIT AS REQUIRED.
- WELD THE REAR BEARING SUPPORT PLATE TO THE INTAKE HOUSING. WELD MUST BE WATER TIGHT.
- BOND THE FRONT BEARING SUPPORT PLATE TO THE REAR BEARING SUPPORT PLATE USING SIKAFLEX MARINE SEALANT.


NOTES:



YAMAHA NOSE BEARING SUPPORT LOCATION DEPENDS ON DRIVESHAFT LENGTH. THE INTAKE HOUSING CAN BE CONFIGURED IN THREE DIFFERENT ARRANGEMENTS TO SUIT VARIOUS DRIVESHAFT LENGTHS.



MEASURE YOUR SPECIFIC ENGINE AND PUMP INSTALLATION PRIOR TO MODIFYING YOUR DRIVESHAFT OR INTAKE COMPONENTS.

TITLE: YAMAHA SPECIFIC INTAKE MODIFICATIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:5	WEIGHT:	SHEET 23 OF 31	

4

3

2

1

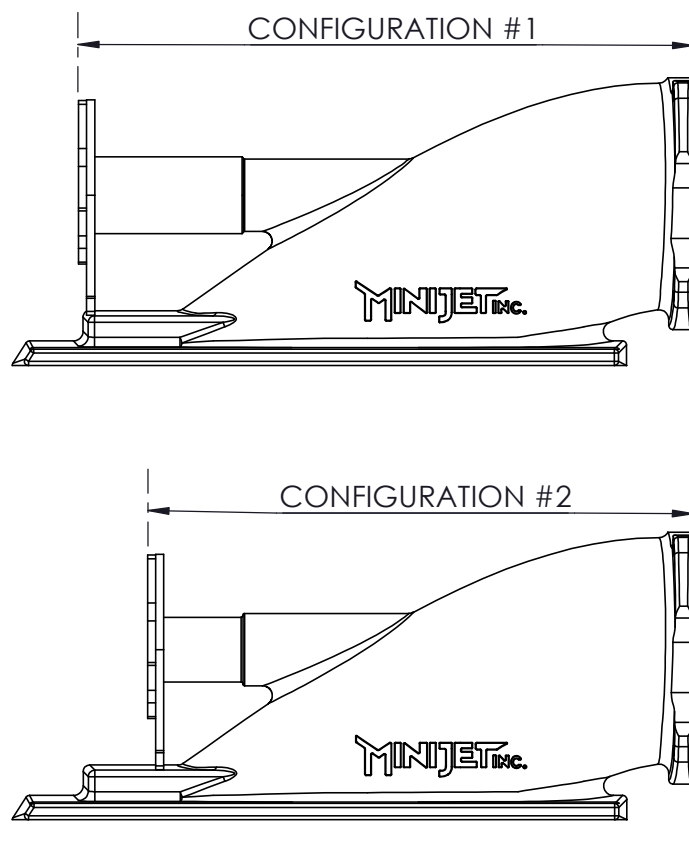
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	



CONFIGURATION #1 - FULL LENGTH

USE THE INTAKE SUPPORT EXTENSION TUBE TO MOUNT THE BEARING SUPPORT PLATES AS FAR FORWARD ON THE INTAKE HOUSING AS POSSIBLE.

INSTRUCTIONS:

- MEASURE AND TRIM THE INTAKE SUPPORT EXTENSION TUBE TO LENGTH.
- WELD THE SUPPORT TUBE AND THE REAR BEARING SUPPORT PLATES TO THE INTAKE HOUSING. WELDS MUST BE WATER TIGHT.
- BOND THE FRONT BEARING SUPPORT PLATE TO THE REAR BEARING SUPPORT PLATE USING SIKAFLEX MARINE SEALANT. BOLT BOTH PLATES TOGETHER WHILE SEALANT HARDENS

CONFIGURATION #2 - MEDIUM LENGTH

MOUNT THE BEARING SUPPORT PLATES DIRECTLY TO END OF INTAKE HOUSING DRIVESHAFT TUBE. TRIM END OF DRIVESHAFT TUBE IF NEEDED.

INSTRUCTIONS:

- MEASURE AND TRIM THE INTAKE HOUSING DRIVESHAFT TUBE IF REQUIRED.
- WELD THE REAR BEARING SUPPORT PLATES TO THE INTAKE HOUSING. WELD MUST BE WATER TIGHT.
- BOND THE FRONT BEARING SUPPORT PLATE TO THE REAR BEARING SUPPORT PLATE USING SIKAFLEX MARINE SEALANT. BOLT BOTH PLATES TOGETHER WHILE SEALANT HARDENS

NOTES:




KAWASAKI DRIVESHAFTS CANNOT BE SHORTENED



KAWASAKI NOSE BEARING SUPPORT LOCATION DEPENDS ON DRIVESHAFT LENGTH. THE INTAKE HOUSING CAN BE CONFIGURED IN TWO DIFFERENT ARRANGEMENTS TO SUIT VARIOUS DIFFERENT LENGTHS.



MEASURE YOUR SPECIFIC ENGINE AND PUMP INSTALLATION PRIOR TO MODIFYING YOUR INTAKE COMPONENTS.

TITLE: KAWASAKI SPECIFIC INTAKE MODIFICATIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :	Intake Assembly			
DRAWN : Anthony Kita	SCALE: 1:5	WEIGHT:	SHEET 24 OF 31	

4

3

2

1

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

INTAKE DRIVESHAFT TUBE
MODIFIED AND MACHINED TO FIT
HONDA BEARING CARRIER ASSEMBLY

HONDA BEARING
CARRIER ASSEMBLY

REAR COMPRESSION SEAL

CUSTOM BEARING BLOCK

DRIVESHAFT SUPPORT BEARINGS

BEARING RETENTION SNAP RING

FRONT COMPRESSION SEAL

ASSEMBLY RETENTION SNAP RING

HONDA SPECIFIC INTAKE MODIFICATIONS:

THE REARWARD POSITION OF THE DRIVESHAFT SUPPORT BEARING USED IN HONDA DRIVETRAINS REQUIRE SPECIAL MACHINING AND BEARING INSTALLATIONS IN THE MINIJET CAST INTAKE HOUSING.

ALL MACHINING AND BEARING INSTALLATION IS COMPLETED BY MINIJET PRIOR TO DELIVERY.

THE HONDA BEARING CARRIER IS SUPPLIED AS A COMPLETE UNIT BY MINIJET. INDIVIDUAL REPLACEMENT PARTS ARE AVAILABLE UPON REQUEST.

TITLE:
HONDA SPECIFIC
INTAKE MODIFICATIONS



APPROVED :

CHECKED :

DRAWN : Anthony Kita

SIZE
B

DWG. NO:
Intake Assembly

REV
B

SCALE: 1:5

WEIGHT:

SHEET 25 OF 31

4

3

2

1

4

3

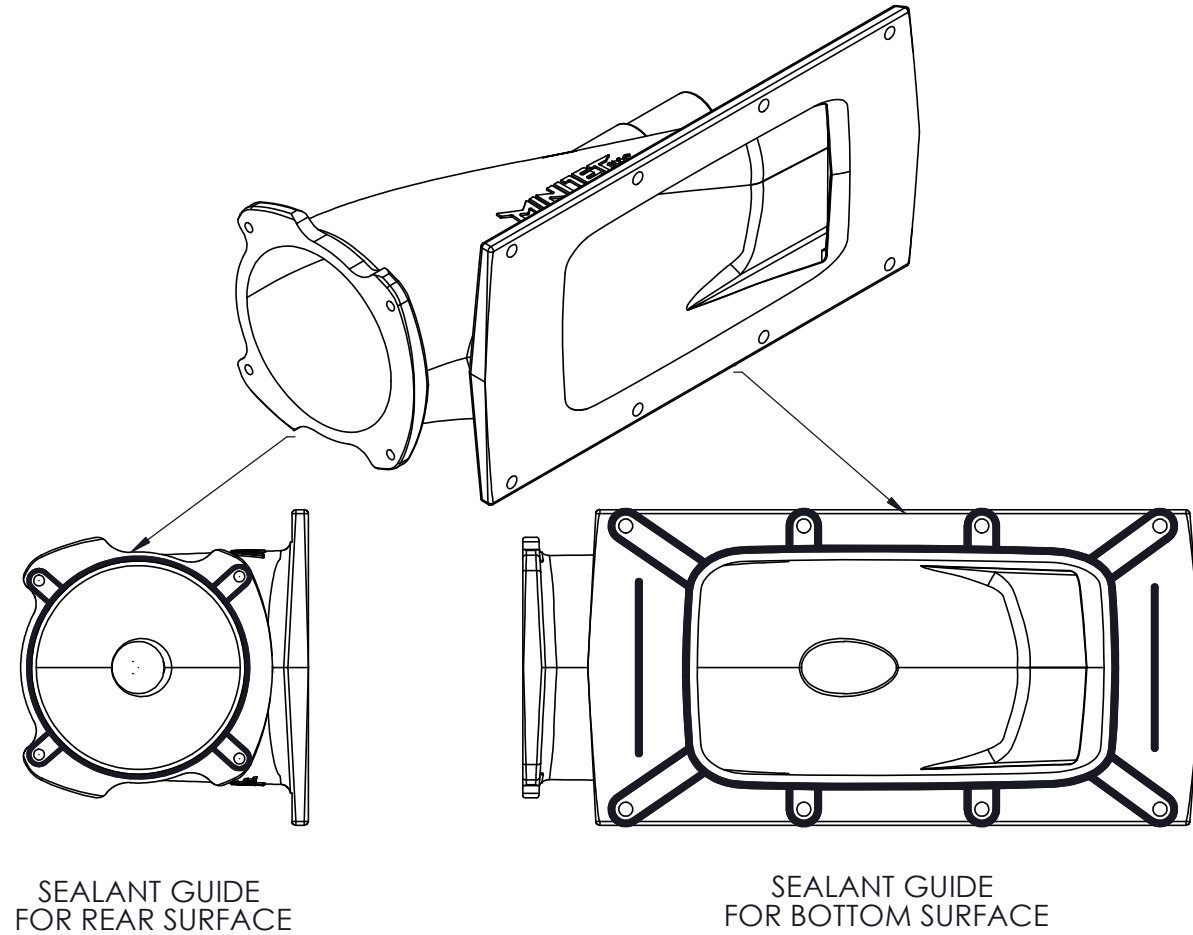
2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

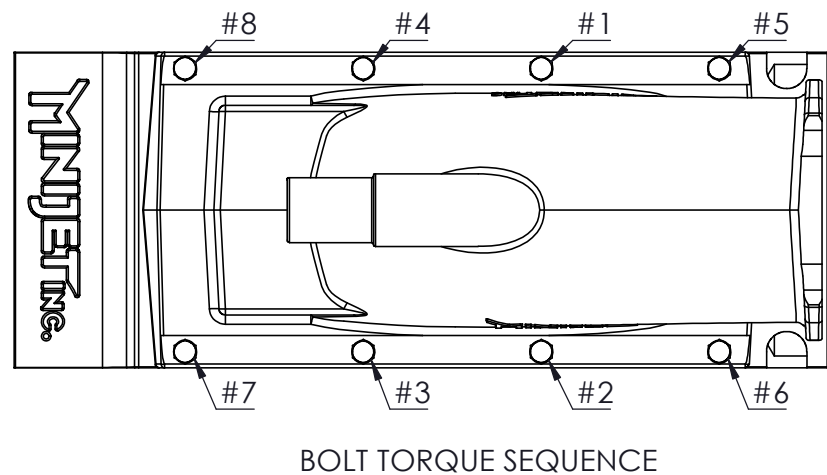
**AFTER COMPLETING ENGINE SPECIFIC INTAKE MODIFICATIONS
COMPLETE FINAL INSTALLATION OF INTAKE HOUSING INTO HULL :**


- CLEAN ALL MATING SURFACES ON THE INTAKE HOUSING, AND HULL.
- APPLY SIKA 291 GREY SEALANT TO BOTTOM AND REAR FACES OF THE INTAKE HOUSING ACCORDING TO THE SKETCHES SHOWN TO THE LEFT.
- THE BOTTOM SURFACE REQUIRES ONE BEAD OF SEALANT AROUND THE MAIN INTAKE OPENING, ADDITIONAL BEADS OF SEALANT AROUND EACH BOLT HOLE, AND ONE LINE OF ADDITIONAL SEALANT ON THE LARGER OPEN SURFACES AT THE FRONT AND REAR.
- THE REAR SURFACE REQUIRES ONE SMALL BEAD OF SEALANT AROUND THE INNER OPENING TO SEAL WITH TRANSOM, AND ADDITIONAL BEADS OF SEALANT AROUND EACH BOLT HOLE.
- FASTEN INTAKE HOUSING TO BASE PLATE USING THE SUPPLIED HARDWARE.
- EVENLY TIGHTEN AND TORQUE HARDWARE ACCORDING TO THE NUMBERED SEQUENCE SHOWN BELOW. APPLY TORQUE IN THREE EQUAL STEPS TO REACH THE FINAL 40 ft*lbs (54 Nm).
 - STEP #1 - TORQUE TO 13 ft*lbs (18 Nm)
 - STEP #2 - TORQUE TO 26 ft*lbs (36 Nm)
 - STEP #3 - TORQUE TO FINAL 40 ft*lbs (54 Nm).



COMPLETE FINAL INSTALLATION OF THE PUMP ADAPTER PLATE

- SEALANT IS NOT TYPICALLY REQUIRED BETWEEN THE PUMP ADAPTER AND THE OUTER FACE OF THE TRANSOM, HOWEVER A THIN BEAD CAN BE ADDED AROUND THE INNER LIP OF THE PUMP ADAPTER PLATE IF DESIRED.
- INSTALL AND FASTEN PUMP ADAPTER TO INTAKE HOUSING USING SUPPLIED HARDWARE. EVENLY TIGHTEN AND TORQUE FASTENERS TO 20 ft*lbs (27 Nm).
- ANY SEALANT THAT HAS SQUEEZED OUT OF THE INTAKE JOINTS SHOULD BE LEFT FOR 24 HRS TO HARDEN AND CURE. ONCE CURED IT CAN BE SCORED WITH A RAZOR BLADE AND EASILY REMOVED.



TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:5	WEIGHT:	SHEET 26 OF 31	

4

3

2

1

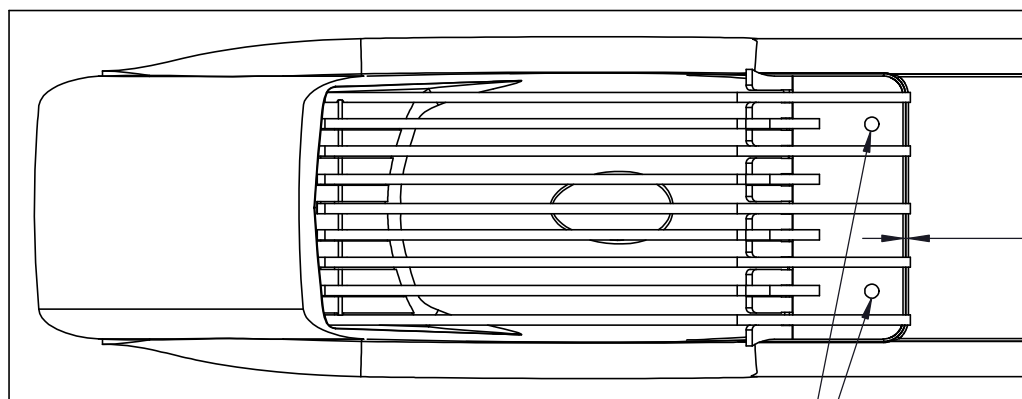
4

3

2

1

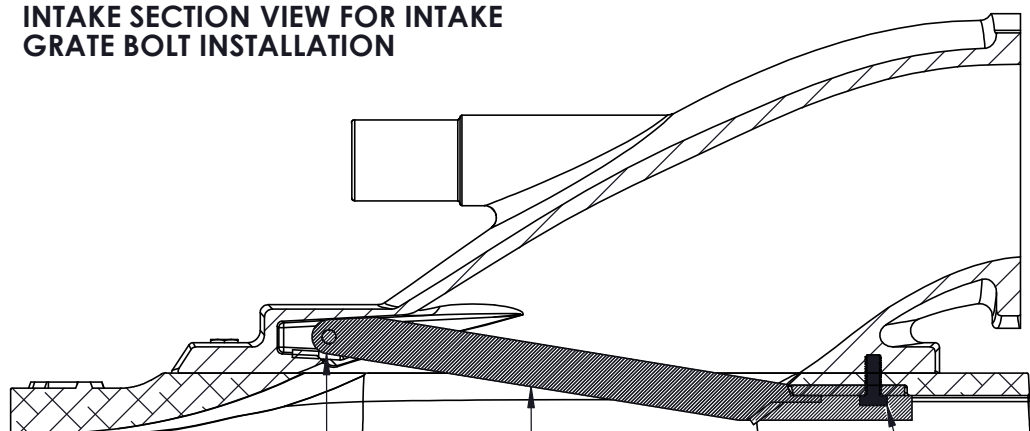
INTAKE VIEWED FROM BOTTOM FOR INTAKE GRATE INSTALLATION



GRATING FIT AS
FAR REARWARD
IN BASE POCKET
AS POSSIBLE

TRANSFER HOLE LOCATIONS FROM
REAR PLATE OF INTAKE GRATING TO INTAKE BASE PLATE.

INTAKE SECTION VIEW FOR INTAKE GRATE BOLT INSTALLATION



INTAKE GRATING

DRILL AND TAP HOLES FOR
MOUNTING BOLTS


FRONT EDGE OF INTAKE GRATING POSITIONED
INSIDE INTAKE HOUSING RECESS

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

DRILL MOUNTING HOLE FOR FIXED INTAKE GRATING / HINGED STOMP GRATING

THE FOLLOWING INSTRUCTIONS APPLY TO FIXED INTAKE GRATES, OR HINGED STOMP GRATE ASSEMBLIES.

- POSITION THE FRONT EDGE OF THE INTAKE GRATING INTO THE RECESS FOUND ON THE INSIDE OF THE INTAKE HOUSING.
- ALIGN THE INTAKE GRATING IN CENTRE OF INTAKE OPENING, AND THE CENTRE OF THE POCKET IN THE INTAKE BASE PLATE.
- ENSURE THAT THE REAR MOST EDGE OF THE INTAKE GRATE IS FIT AS FAR REARWARD IN THE POCKET OF THE CAST INTAKE BASE AS POSSIBLE.
- USE THE TWO HOLES IN THE REAR PLATE OF THE INTAKE GRATING TO MARK TWO SPOTS ON THE INTAKE BASE PLATE FOR THE MOUNTING BOLTS
- WHEN INSTALLING A HINGED STOMP GRATE, THE GRATE WILL NEED TO BE HINGED OPEN TO PROVIDE ACCESS TO THE BOLT HOLE LOCATIONS. ENSURE THAT THE GRATING IS FIRMLY HELD IN THE INTAKE RECESS WHILE OPENING AND MARKING THE HOLE LOCATIONS.
- ONCE BOTH HOLE LOCATIONS ARE MARKED REMOVE THE INTAKE GRATING.
- DRILL AND TAP THE TWO HOLE LOCATIONS IN THE INTAKE BASE PLATE TO ACCEPT THE TWO SUPPLIED 5/16"-18UNF BOLTS.
 - USE SIZE "F" (0.2570") TAP DRILL TO FORM AN INITIAL HOLE.
 - DRILL INITIAL HOLE TO A DEPTH OF 1.00"
 - THIS HOLE WILL PASS THRU THE BASE PLATE AND INTO THE CAST INTAKE HOUSING.
 - USE 5/16"-18UNF TAP TO THREAD HOLE.
 - THREADS SHOULD EXTEND A MINIMUM OF 0.875" INTO HOLE.
 - USE A BOTTOMING TAP IF NECESSARY.

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO: Intake Assembly	REV B	
CHECKED :				
DRAWN : Anthony Kita	SCALE: 1:4	WEIGHT:	SHEET 27 OF 31	

4

3

2

1

4

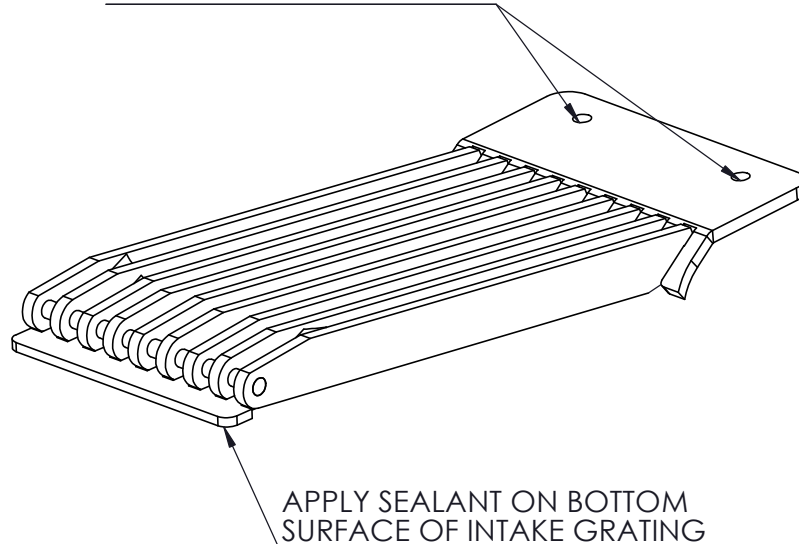
3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

APPLY SEALANT
AROUND BOTH BOLT HOLES



APPLY SEALANT ON BOTTOM
SURFACE OF INTAKE GRATING

INSTALL FIXED INTAKE GRATING / HINGED STOMP GRATING

THE FOLLOWING INSTRUCTIONS APPLY TO FIXED INTAKE GRATES, OR HINGED STOMP GRATE ASSEMBLIES.

- BEFORE INSTALLING THE INTAKE GRATING, APPLY A THIN BEAD OF SIKA 291 GREY SEALANT TO THE TOP SURFACE OF THE INTAKE GRATING AROUND EACH BOLT HOLE. THIS WILL HELP SEAL AND PROTECT THE BOLTS AND THREADS.

- APPLY AN ADDITIONAL BEAD OF SEALANT ALONG THE LOWER FRONT EDGE OF THE INTAKE GRATING WHERE IT MAKES CONTACT WITH THE RECESSED AREA OF THE CAST INTAKE HOUSING. THIS WILL HELP TO PREVENT UNWANTED VIBRATION OR WEAR IN THIS AREA.

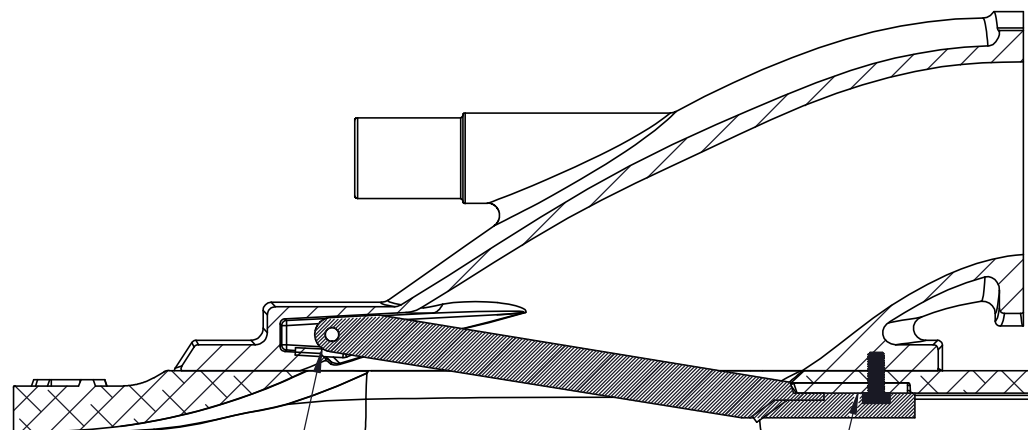
- AFTER APPLYING THE SEALANT, RE-INSTALL THE INTAKE GRATING AND FASTEN IT IN POSITION WITH THE SUPPLIED HARDWARE. EVENLY TIGHTEN AND TORQUE FASTENERS TO 20 FT*LBS (27 Nm).

B

B

A

A



SEALANT PROTECTS
INTAKE RECESS INTERFACE


SEALANT PROTECTS BOLT HOLES
AND THREADED FASTENERS

4

3

2

1

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :	Intake Assembly			
DRAWN : Anthony Kita	SCALE: 1:4	WEIGHT:	SHEET 28 OF 31	

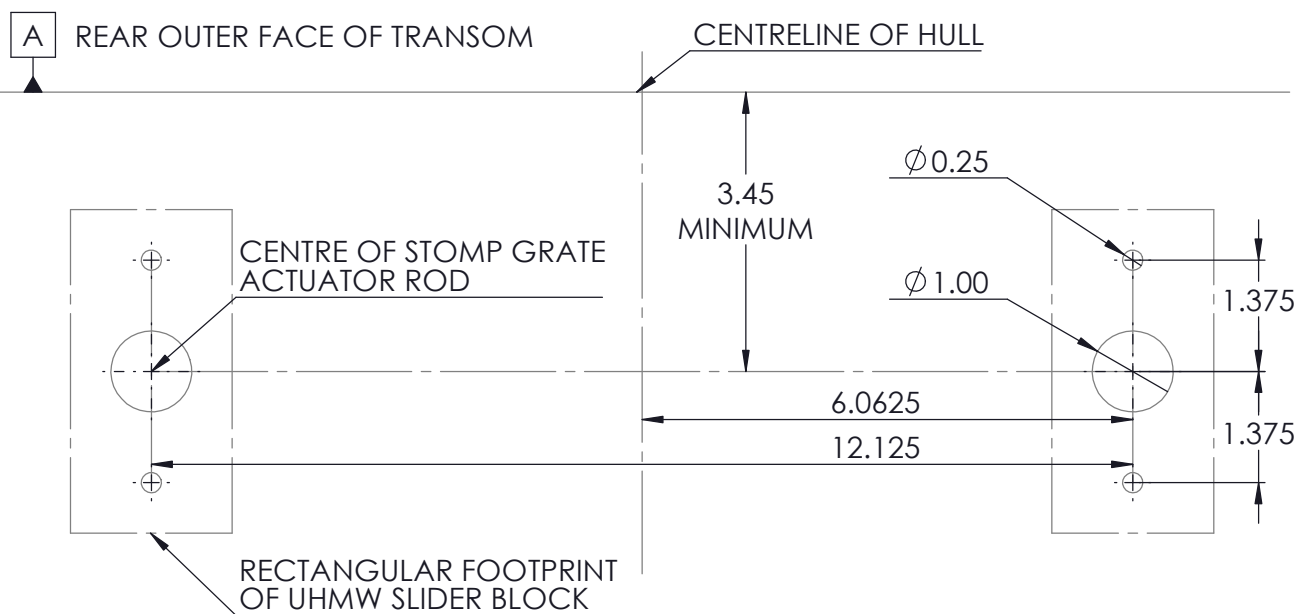
4

3

2

1

DIMENSIONS FOR STOMP GRATE ACTUATOR HOLES IN SWIM DECK



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	FIRST RELEASE VARIOUS UPDATES & CORRECTIONS	2021-11-12	

INSTALL STOMP GRATE ACTUATOR RODS AND STOMP BAR

- MARK HULL CENTRELINE ON THE BOTTOM SURFACE OF THE SWIMDECK.
- MARK THE LOCATION FOR THE STOMP GRATE ACTUATOR ROD HOLES AND SPRING MOUNTS ACCORDING TO THE DIMENSIONS SHOWN TO THE LEFT.
- ENSURE THAT HOLES ARE POSITIONED REARWARD OF THE TRANSOM SUCH THAT THE STOMP GRATE ACTUATOR RODS WILL BE VERTICAL OR ANGLED SLIGHTLY REARWARD ONCE INSTALLED. THIS ENSURES PROPER ACTUATOR ROD TRAVEL WHEN THE STOMP GRATE IS USED.
- MARK AND DRILL MATCHING HOLES IN THE SUPPLIED STOMP GRATE UHMW SLIDER BLOCKS.
- INSTALL SPRING MOUNTS AND UHMW SLIDER BLOCKS TO THE UNDERSIDE OF THE SWIM DECK USING THE SUPPLIED 1/4" HARDWARE.

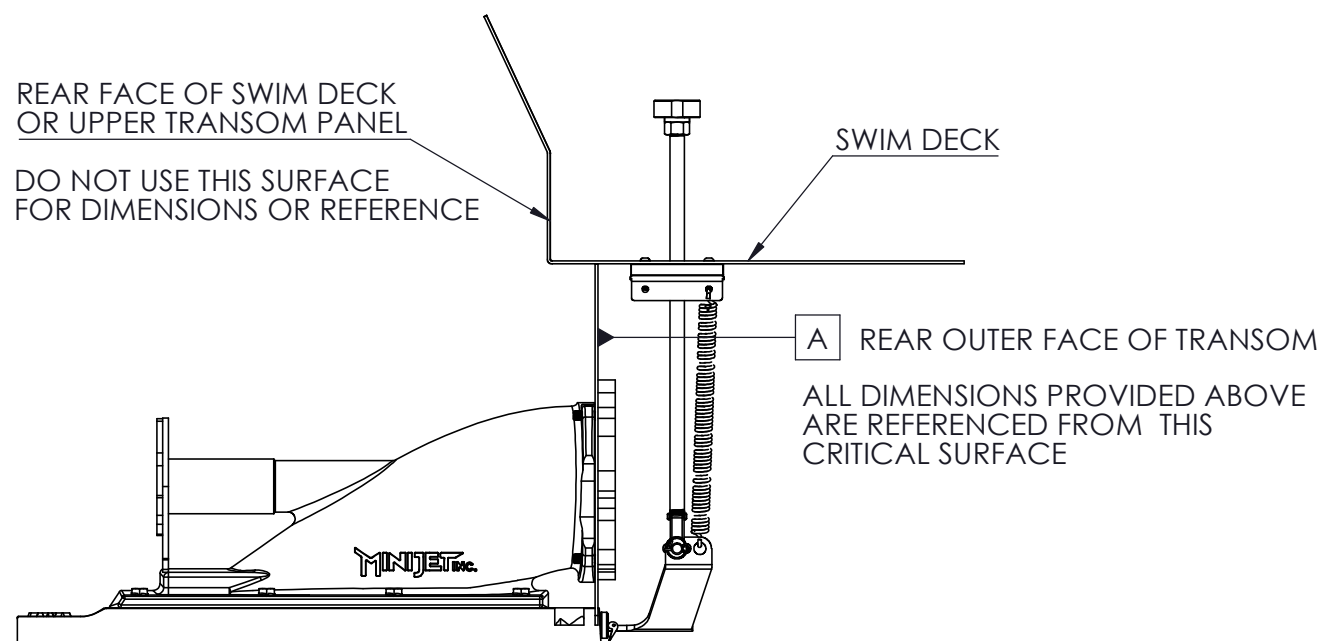
NOTES:



SOME HULL DESIGNS USE AN OFFSET TRANSOM, WHERE PANELS ABOVE AND BELOW THE SWIM DECK ARE NOT COPLANAR. THIS INCLUDES ALL AVENGER MODELS FROM MINIJET.



WHEN INSTALLING A STOMP GRATE ASSEMBLY IT IS IMPORTANT TO LOCATE THE STOMP GRATE HOLES RELATIVE TO THE REAR OUTER FACE OF THE LOWER TRANSOM PANEL.



TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO:	REV B	
CHECKED :		Intake Assembly		
DRAWN : Anthony Kita	SCALE: 1:2	WEIGHT:	SHEET 29 OF 31	

4

3

2

1

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

INSTALL STOMP GRATE ACTUATOR RODS AND STOMP BAR

- ATTACH EACH THREADED CLEVIS TO THE END OF EACH STOMP GRATE ACTUATOR ROD. APPLY LOCTITE TO THESE THREADS IF DESIRED. BOTTOM OUT THREADS ON CLEVIS, TIGHTENING AS MUCH AS POSSIBLE.

- INSERT THE ACTUATOR ROD AND CELVIS ASSEMBLIES UP THROUGH THE HOLES IN THE BOTTOM OF THE SPRING MOUNTS AND SWIMDECK. INSTALL THE SUPPLIED NUT AND LOCKING WASHER ON THE TOP OF EACH ROD, AND THEN THREAD EACH ROD INTO THE BOTTOM OF THE STOMP GRATE FOOT BAR.

- ADJUST THE CLEVIS ENDS TO ALIGN WITH THE FRONT SET OF HOLES IN THE STOMP GRATE ARMS. REMOVE THE CLEVIS PINS AND RE-INSERT THEM THROUGH THE FRONT HOLES IN THE STOMP GRATE ARMS.

- WITH THE STOMP GRATE IN THE RAISED POSITION, CHECK THAT THE STOMP GRATE FOOT BAR IS VISUALLY LEVEL RELATIVE TO THE SURFACE OF THE SWIM DECK.

- IF THE STOMP GRATE FOOT BAR IS NOT LEVEL, REMOVE ONE OF THE CLEVIS PINS AND ROTATE THE CLEVIS AND ACTUATOR ROD TO ADJUST THE THREADS ENGAGED IN THE STOMP GRATE FOOT BAR. REATTACH THE CLEVIS TO THE STOMP GRATE ARM AND CHECK LEVEL AGAIN.

- ONCE THE STOMP GRATE FOOT BAR IS LEVEL TIGHTEN THE TOP NUTS AGAINST THE UNDERSIDE OF THE FOOT BAR TO LOCK THE FOOT BAR AND ACTUATOR RODS IN POSITION.

- INSERT THE COTTER PINS INTO EACH CLEVIS PIN, FOLDING THE ENDS AROUND THE PIN TO LOCK THEM IN POSITION.

- CONNECT SPRINGS TO THE REAR HOLES ON THE STOMP GRATE ARMS AND REAR HOLES ON THE SPRING MOUNTS BELOW THE SWIMDECK.

STOMP GRATE FOOT BAR

UHMW SLIDER BLOCK

SPRING MOUNT

STOMP GRATE SPRINGS

STOMP GRATE ACTUATOR ROD

THREADED CLEVIS

STOMP GRATE ARMS

TITLE:

INTAKE INSTALLATION
INSTRUCTIONS

APPROVED :

CHECKED :

DRAWN : Anthony Kita

SIZE

B

DWG. NO.:

Intake Assembly

REV

B

SCALE: 1:5

WEIGHT:

SHEET 30 OF 31

4

3

2

1

B

B

A

A

4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	VARIOUS UPDATES & CORRECTIONS	2021-11-12	

INSTALL ENGINE, JET PUMP UNIT, DRIVESHAFTS, STEERING, TRIM, AND REVERSE CABLES.

- ENSURE THAT THE JET PUMP ADAPTER AND ENGINE SPECIFIC PUMP SPACERS ARE INSTALLED CORRECTLY. REFER TO THE APPROPRIATE INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR YOUR DONOR EQUIPMENT.
- CHECK ALL CABLES AND ENGINE COOLANT INTERFACES ARE PROPERLY MOUNTED THROUGH JET PUMP ADAPTER.
- ENSURE THAT THE ENGINE, DRIVESHAFT, AND JET PUMP IMPELLER ARE CORRECTLY ALIGNED ACCORDING TO MANUFACTURERS INSTRUCTIONS.

ONCE COMPLETE, PUT YOUR BOAT IN THE WATER AND GET BOATING!

FOR QUESTIONS AND INQUIRIES ABOUT PARTS, OR INSTALLATION STEPS PLEASE CONTACT MINIJET INC.


EMAIL: Sales@Minijet.ca or Anthony.Kita@Minijet.ca

PHONE: +1 - 613 - 605 - BOAT (2628) MONDAY TO FRIDAY 7:00AM - 3:00PM (EASTERN STANDARD TIME, GMT-5)

WEBSITE: www.Minijet.ca

ONLINE CONTACT FORM: www.Minijet.ca/contact

MAILING ADDRESS: 2317 COUNTY ROAD 12, BERWICK, ONTARIO, CANADA, K0C 1G0

TITLE: INTAKE INSTALLATION INSTRUCTIONS				
APPROVED :	SIZE B	DWG. NO.: Intake Assembly	REV B	
CHECKED :				
DRAWN : Anthony Kita	SCALE: 1:5	WEIGHT:	SHEET 31 OF 31	

4

3

2

1

B

B

A

A