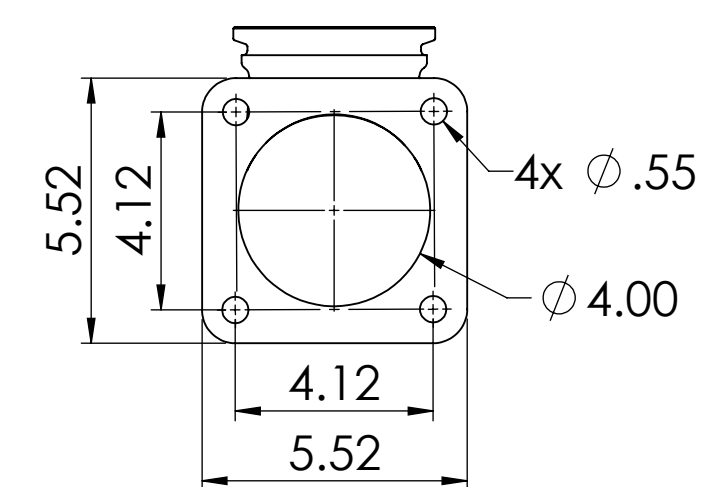


PLAN

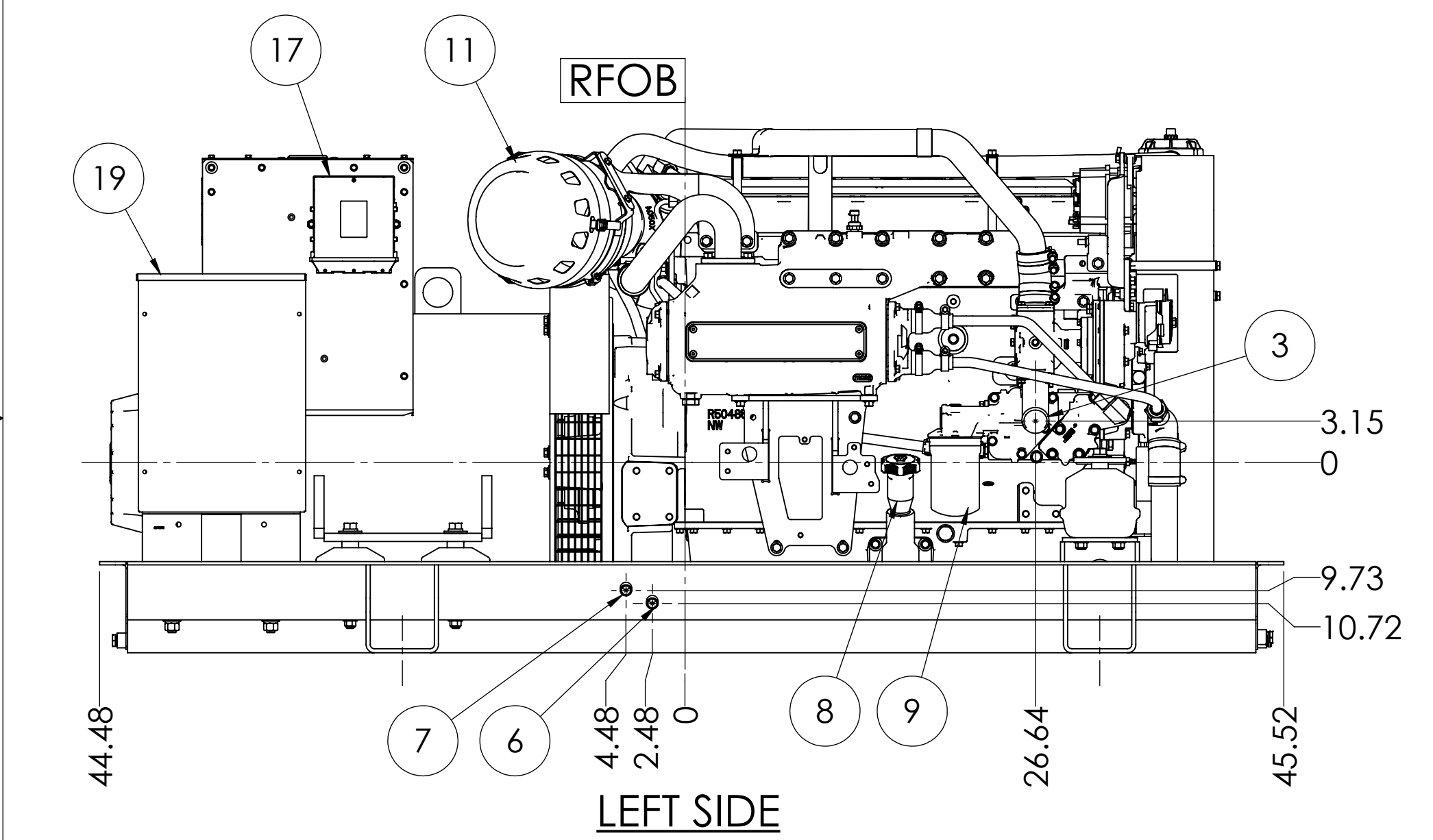
EST. WEIGHT AND C.G.				
MODEL	WEIGHT	C.G.		
	LBS.	X	Y	Z
M150A13.11L (150kW/60Hz)	3500	-.19	-.31	2.26
M150A13.51L (125kW/50Hz)	3645	.90	-.30	2.17

NOTE: WEIGHTS INCLUDE OIL, NO COOLANT.

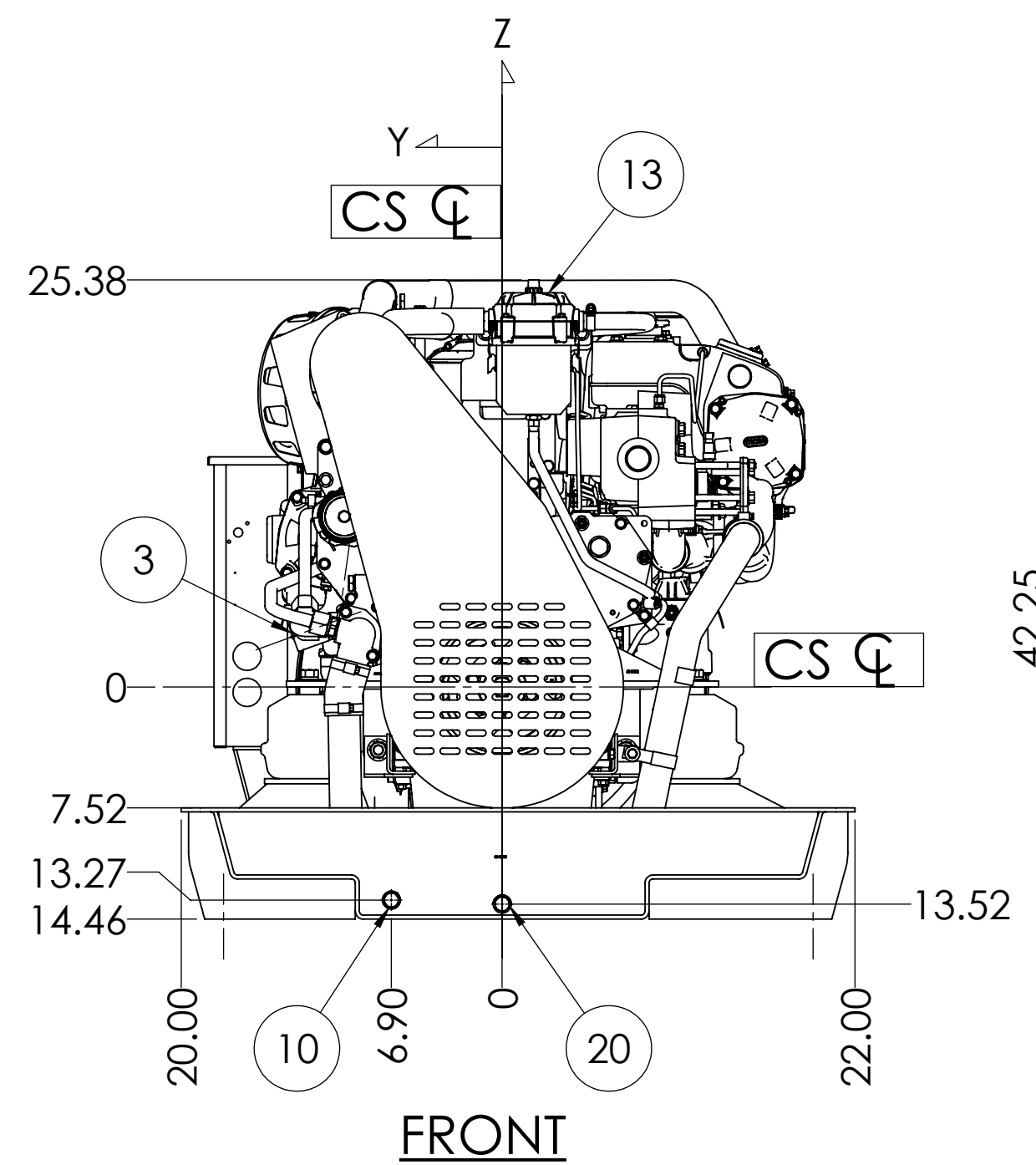


OPTIONAL DRY EXHAUST ELBOW  
SCALE 1:4

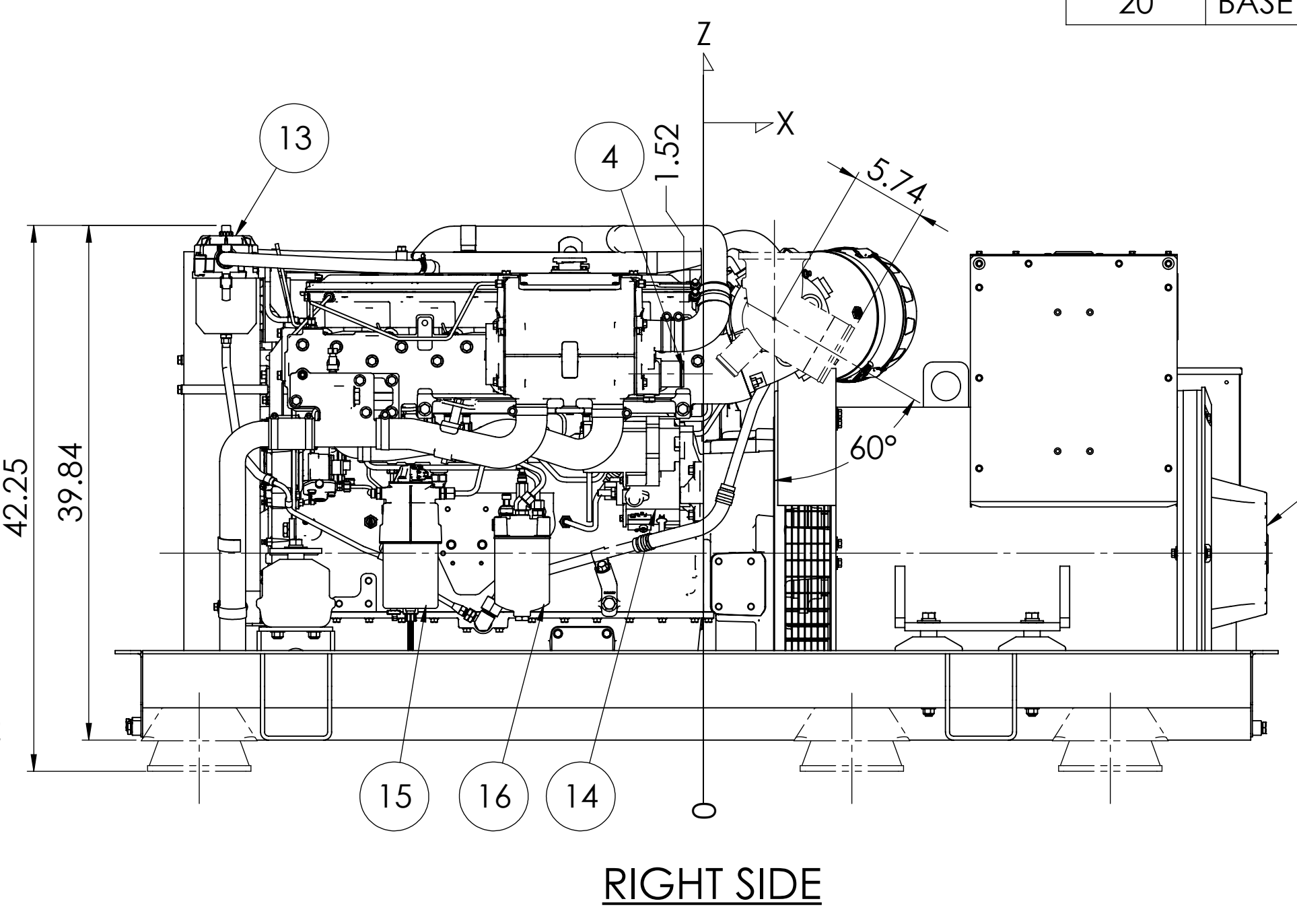
ITEM	DESCRIPTION
1	EXPANSION TANK
2	COOLANT FILL
3	SEAWATER INLET - Ø2.0 H.B.
4	SEAWATER OUTLET (DRY EXHAUST) - Ø2.0 H.B.
5	OPTIONAL WET EXHAUST ELBOW - Ø6.0 H.B.
6	FUEL SUPPLY - 3/8 NPT
7	FUEL RETURN - 3/8 NPT
8	CRANKCASE OIL FILL/DIPSTICK
9	CRANKCASE OIL FILTER
10	ENGINE OIL DRAIN - 1/2 NPT
11	AIR INLET FILTER
12	OPTIONAL DRY EXHAUST ELBOW - SEE DETAIL
13	CLOSED CRANKCASE VENTILATION SYSTEM
14	ELECTRIC STARTER
15	PRIMARY FUEL FILTER
16	FINAL FUEL FILTER
17	ENGINE CONTROL UNIT
18	PMG
19	D.C. JUNCTION BOX
20	BASE PAN DRAIN - 1/2 NPT



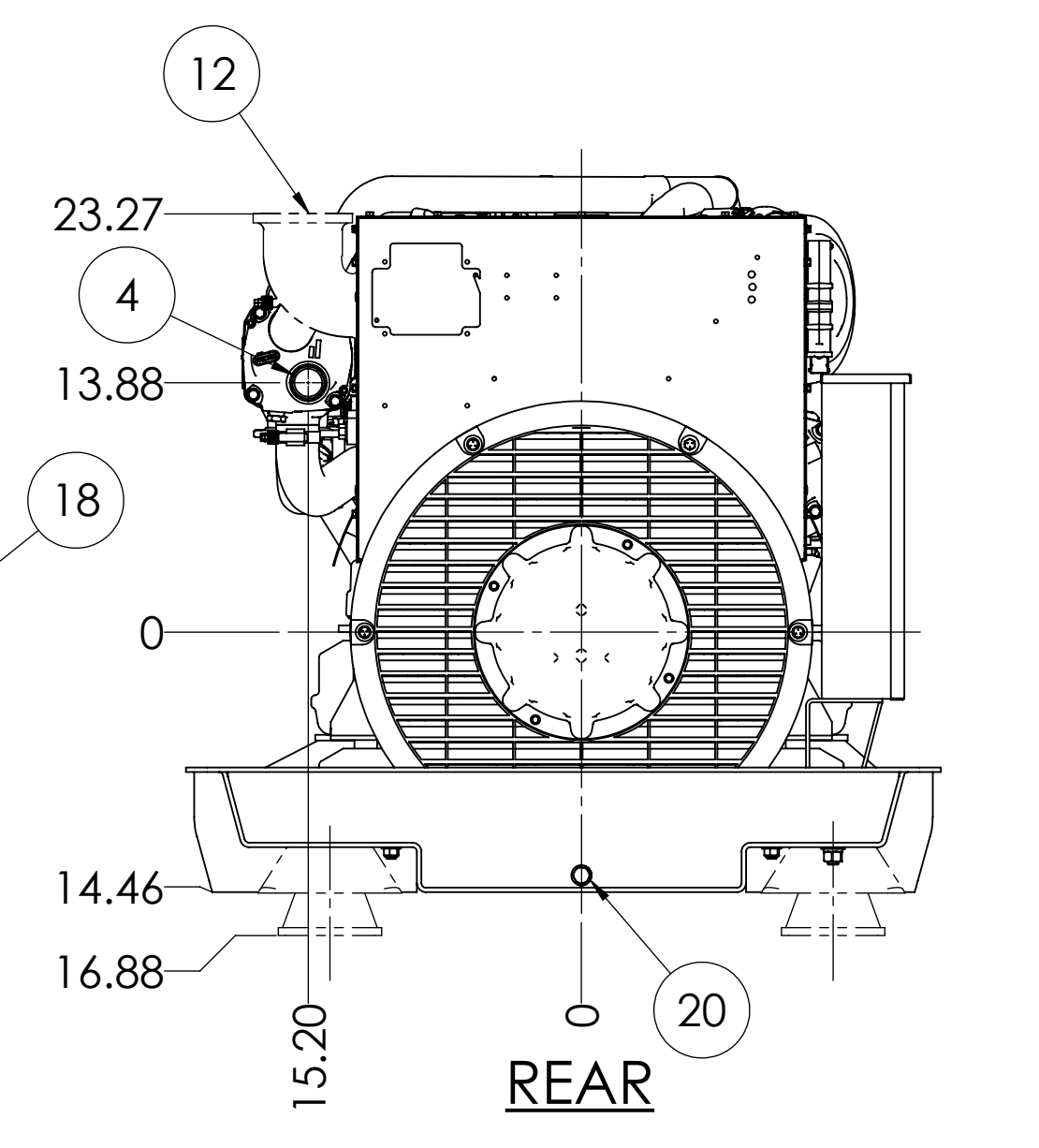
LEFT SIDE



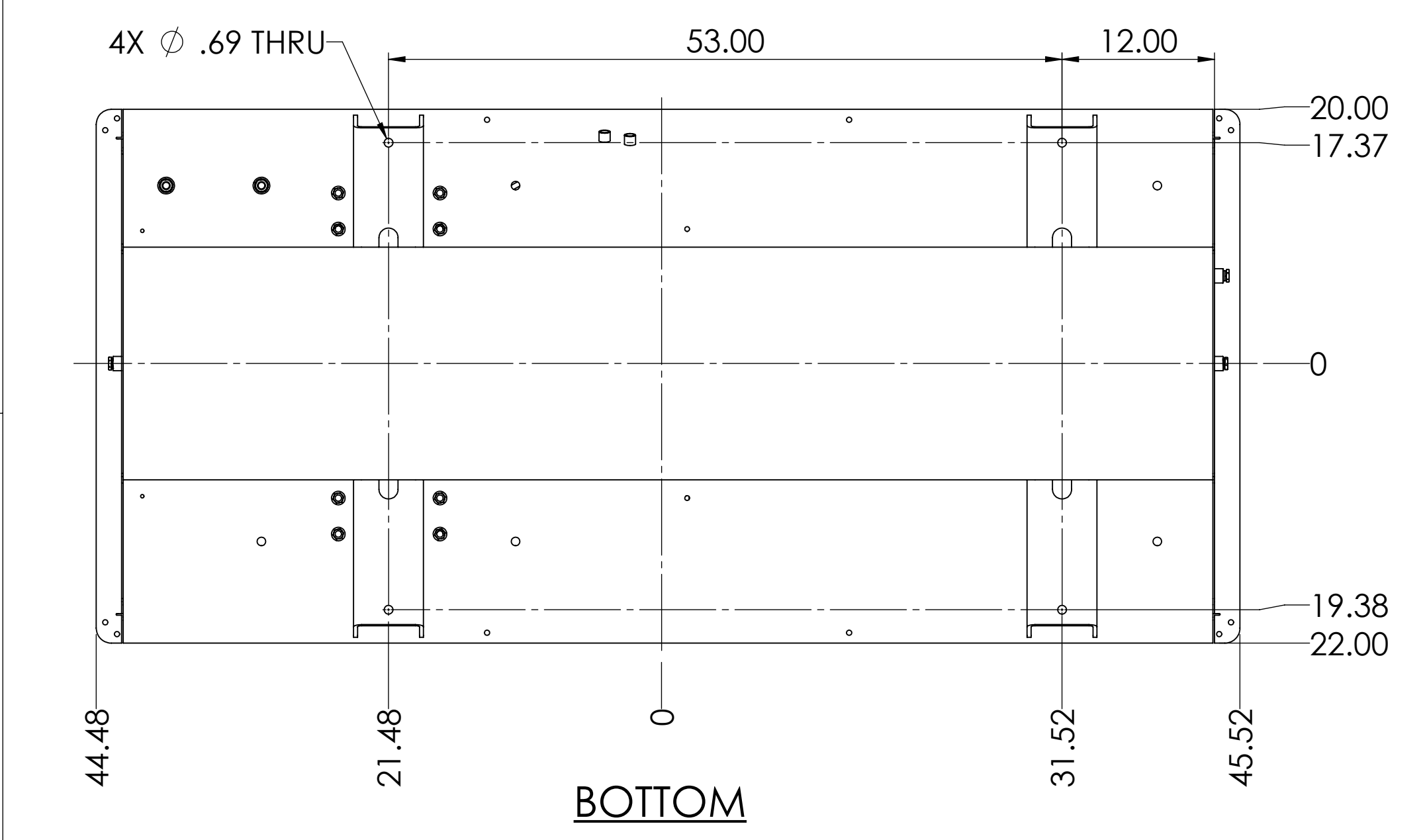
FRONT



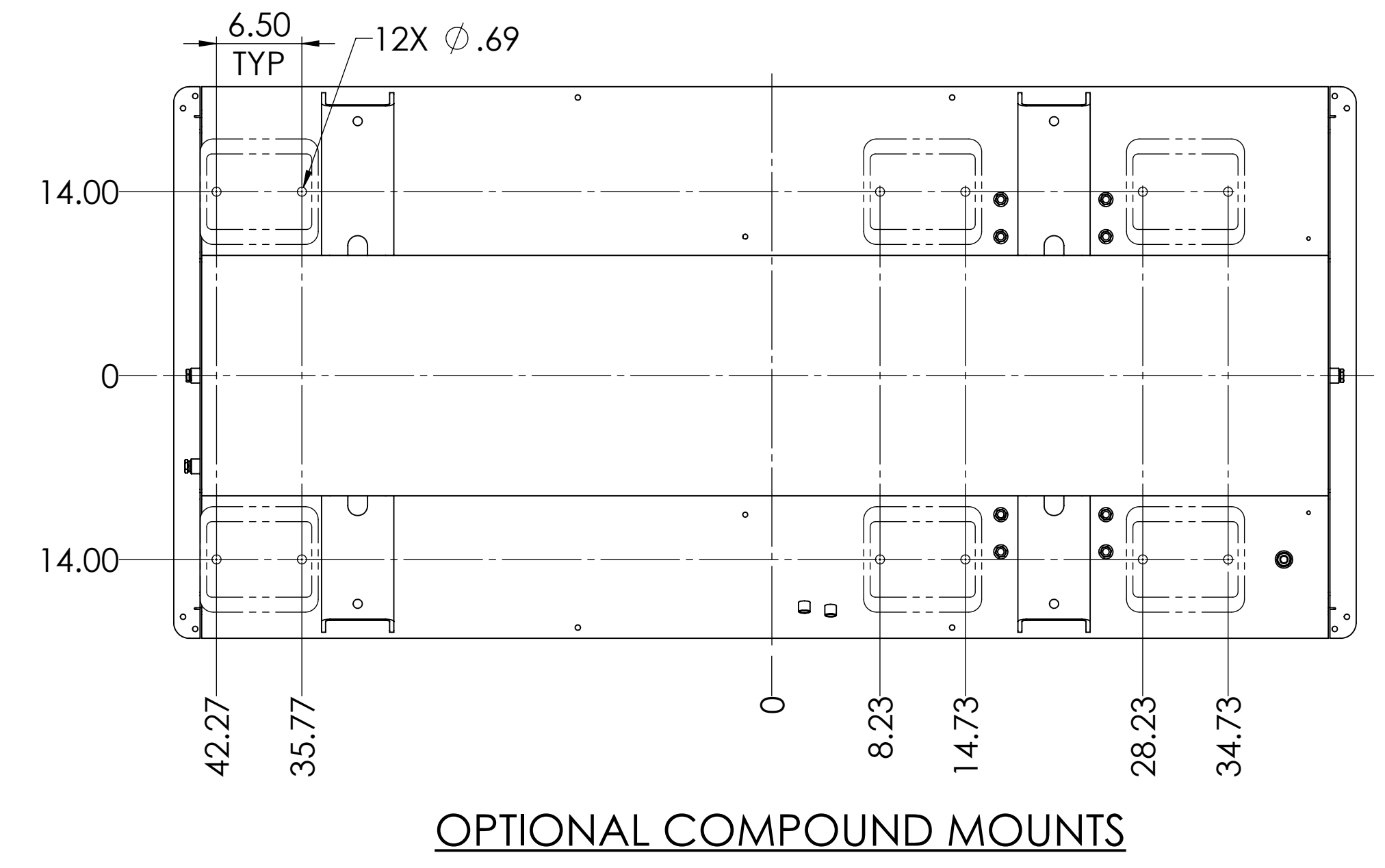
RIGHT SIDE



REAR

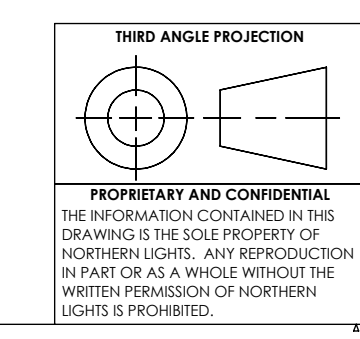


BOTTOM



OPTIONAL COMPOUND MOUNTS

THE DIMENSIONS ON THIS DRAWING ARE SUBJECT TO CHANGE. PLEASE CONTACT NLI TO BE SURE YOU HAVE THE MOST CURRENT REVISION.



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		MG	06/22/17
TOLERANCES:		CHECKED	TAH
ANGULAR: 0.5°		ENG APPR.	
X ± 0.1		MEG APPR.	
XX ± 0.06		G.A.	
XXX ± 0.005		COMMENTS:	
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M			
MATERIAL:			
FINISH:			
DO NOT SCALE			

**NORTHERN LIGHTS**  
4420 14th AVE. N.W.  
Seattle, WA 98107  
(206) 789-3880  
www.northern-lights.com

TITLE: **INSTALLATION DIMENSIONS**  
M150A13L HEAT EXCHANGER COOLED

SIZE	PART NO.	DWG. NO.	REV
<b>D</b>		<b>D-5020</b>	-

SCALE: 1:10      WEIGHT: LBS.      SHEET 1 OF 1

REV D D-5020