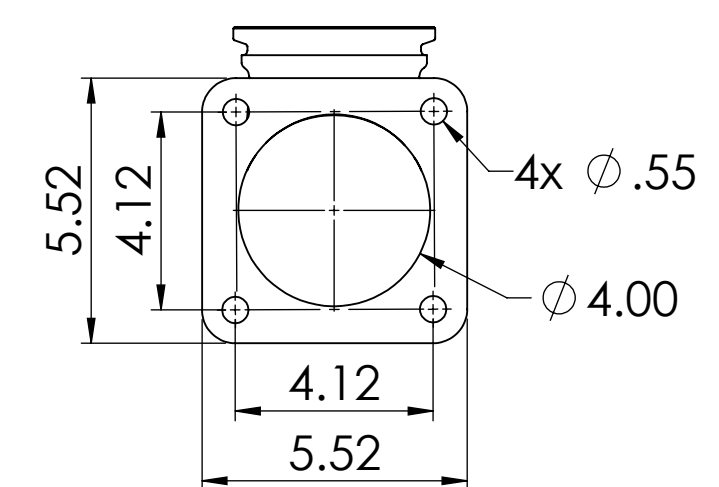


PLAN

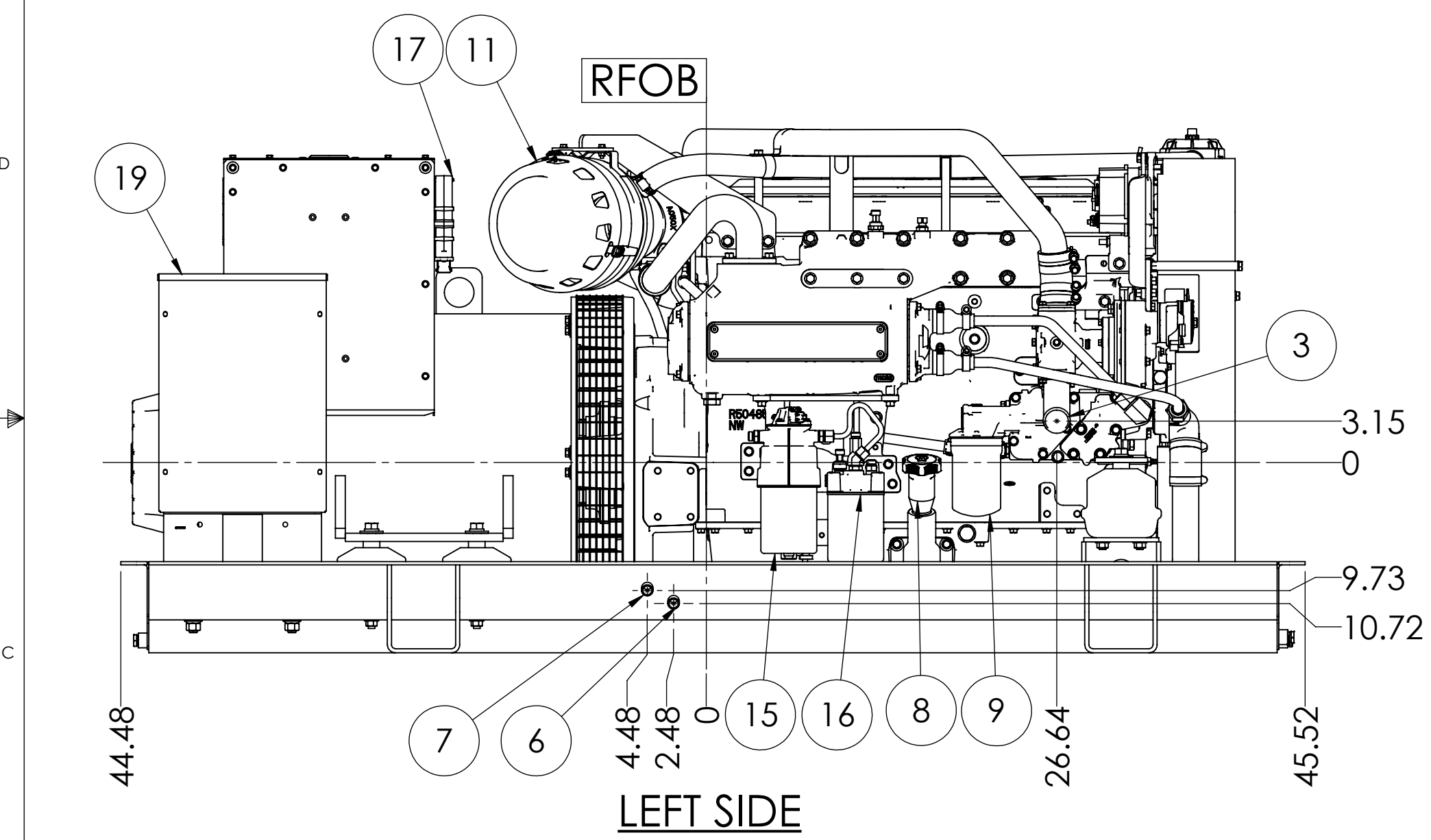
EST. WEIGHT AND C.G.				
MODEL	WEIGHT	C.G.		
	LBS.	X	Y	Z
M116A13.11L (116kW/60Hz)	3500	-.19	-.31	2.26
M116A13.51L (116kW/50Hz)	3645	.90	-.30	2.17

NOTE: WEIGHTS INCLUDE OIL, NO COOLANT.

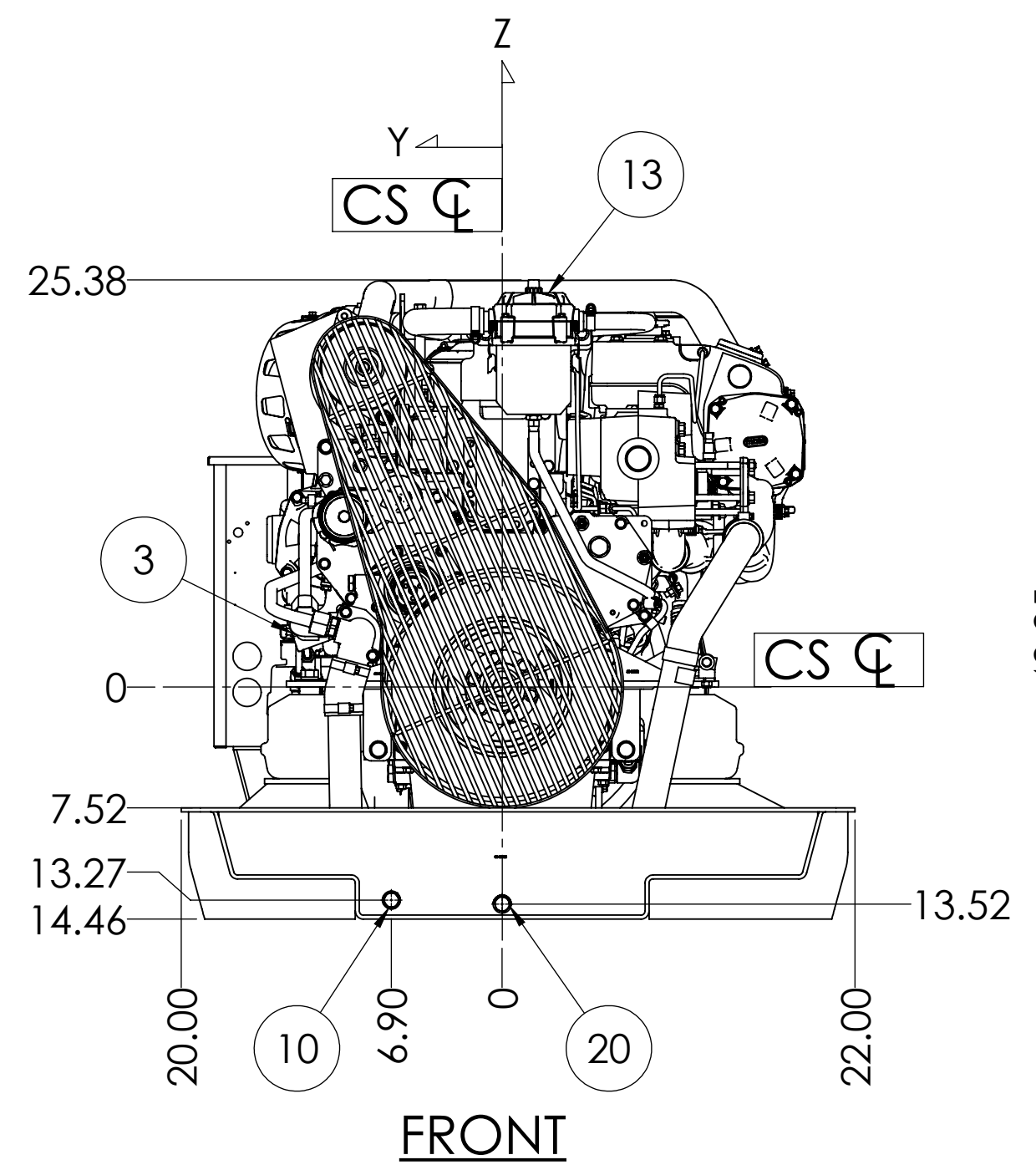


OPTIONAL DRY EXHAUST ELBOW
SCALE 1:4

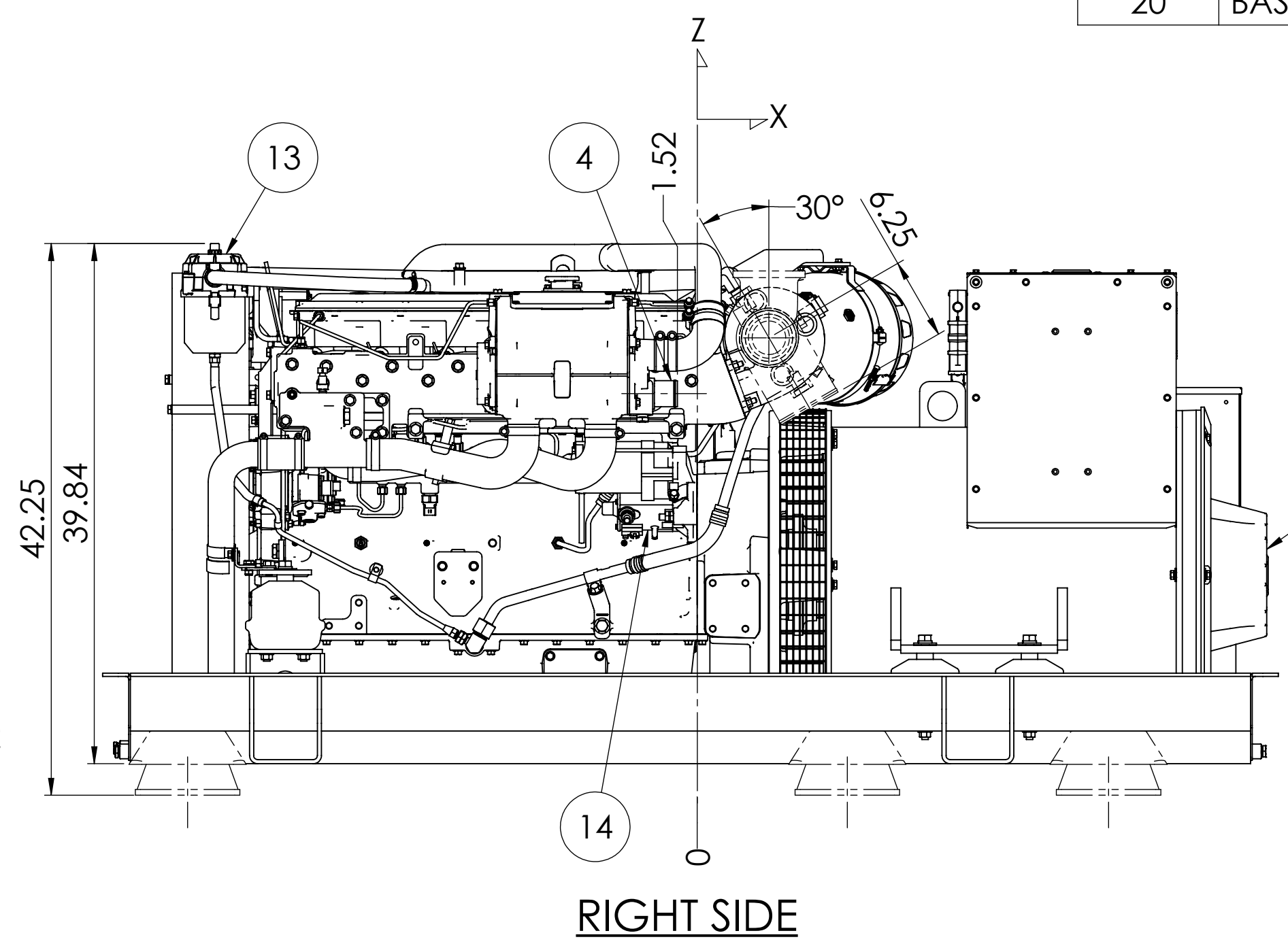
ITEM	DESCRIPTION
1	EXPANSION TANK
2	COOLANT FILL
3	SEAWATER INLET - Ø2.0 H.B.
4	SEAWATER OUTLET (DRY EXHAUST) - Ø2.0 H.B.
5	OPTIONAL WET EXHAUST ELBOW - Ø6.0 H.B.
6	FUEL SUPPLY - 3/8 NPT
7	FUEL RETURN - 3/8 NPT
8	CRANKCASE OIL FILL/DIPSTICK
9	CRANKCASE OIL FILTER
10	ENGINE OIL DRAIN - 1/2 NPT
11	AIR 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



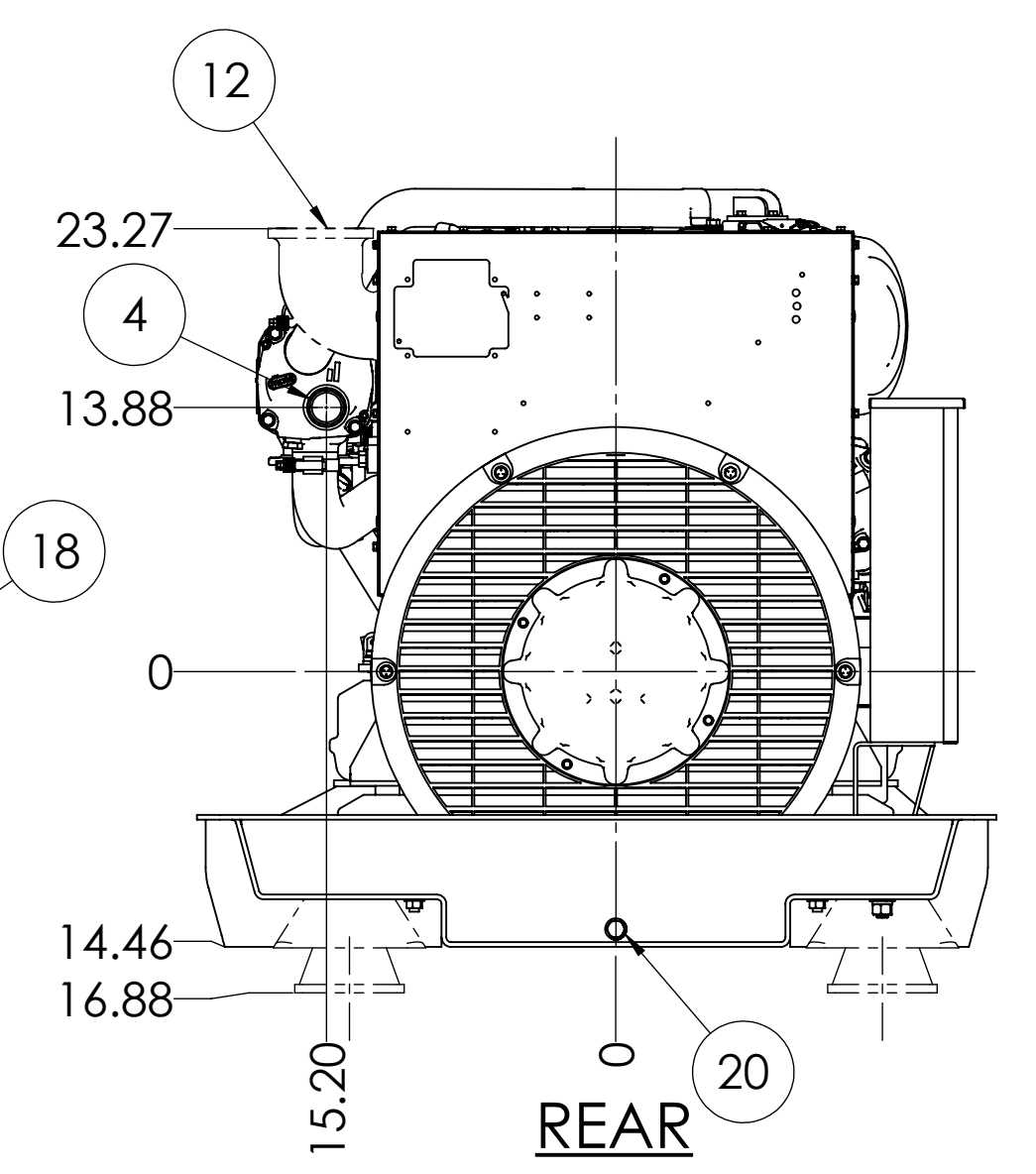
LEFT SIDE



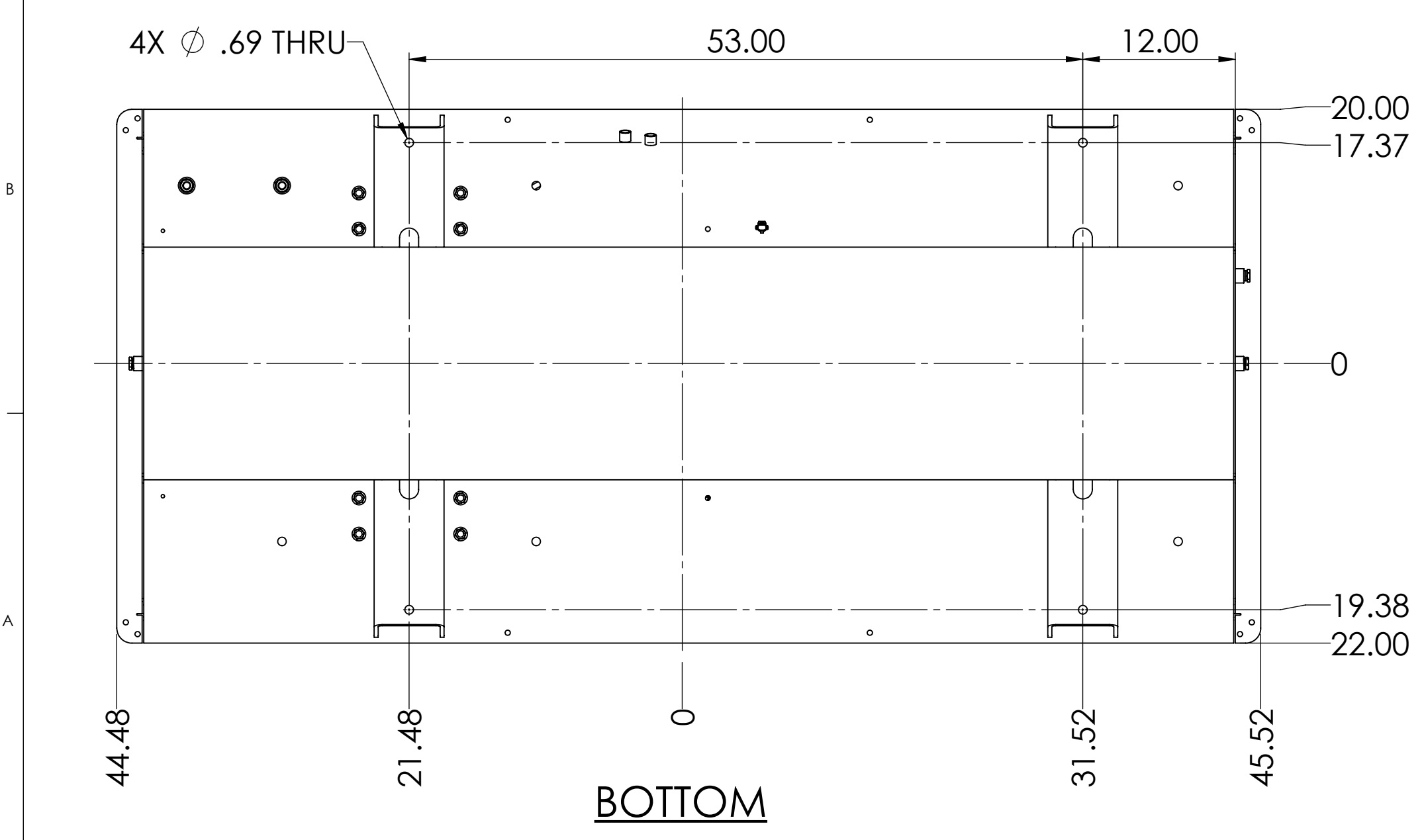
FRONT



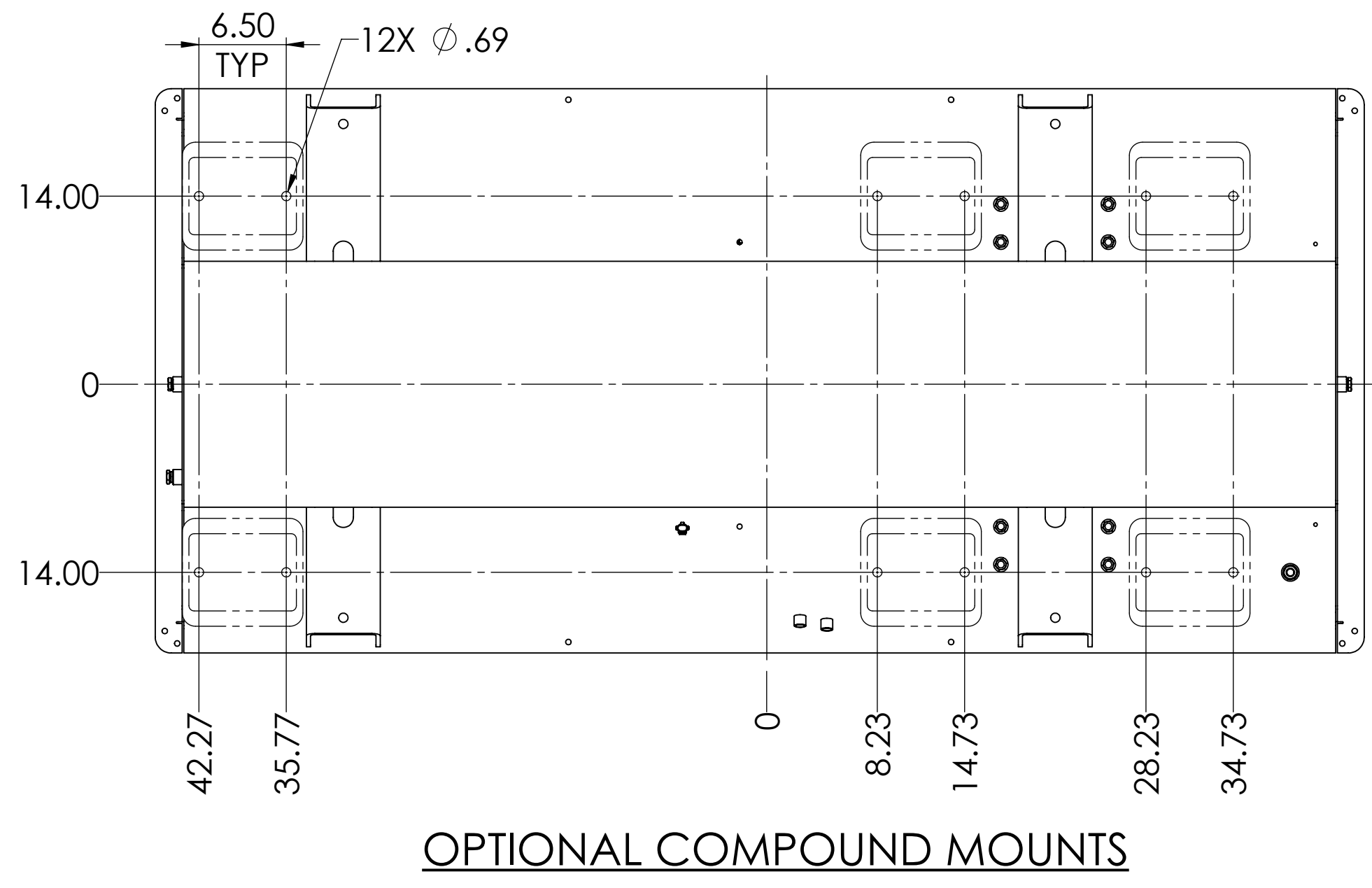
RIGHT SIDE



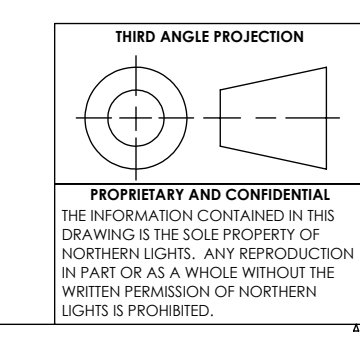
REAR



BOTTOM



OPTIONAL COMPOUND MOUNTS



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		MG	10/02/19
TOLERANCES:		CHECKED	LTP
ANGULAR: 0.5°		ENG APPR.	
X ± 0.1		MEG APPR.	
XX ± 0.03		Q.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**
M116A13L HEAT EXCHANGER COOLED

SIZE	PART NO.	DWG. NO.	REV
D		D-5189	-

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

D-5189