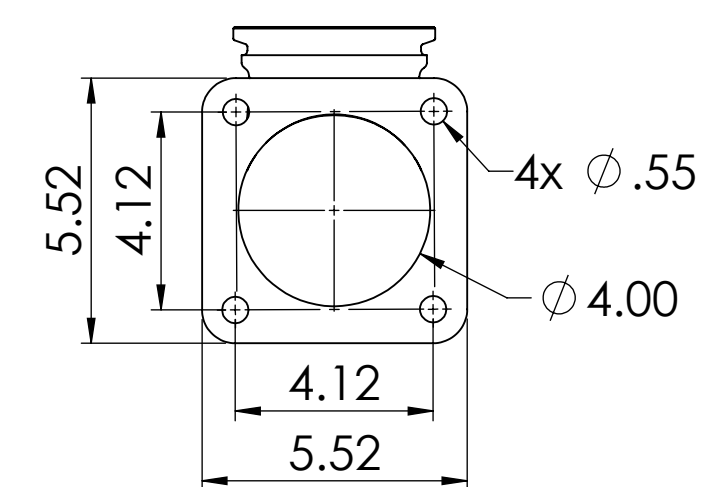


PLAN

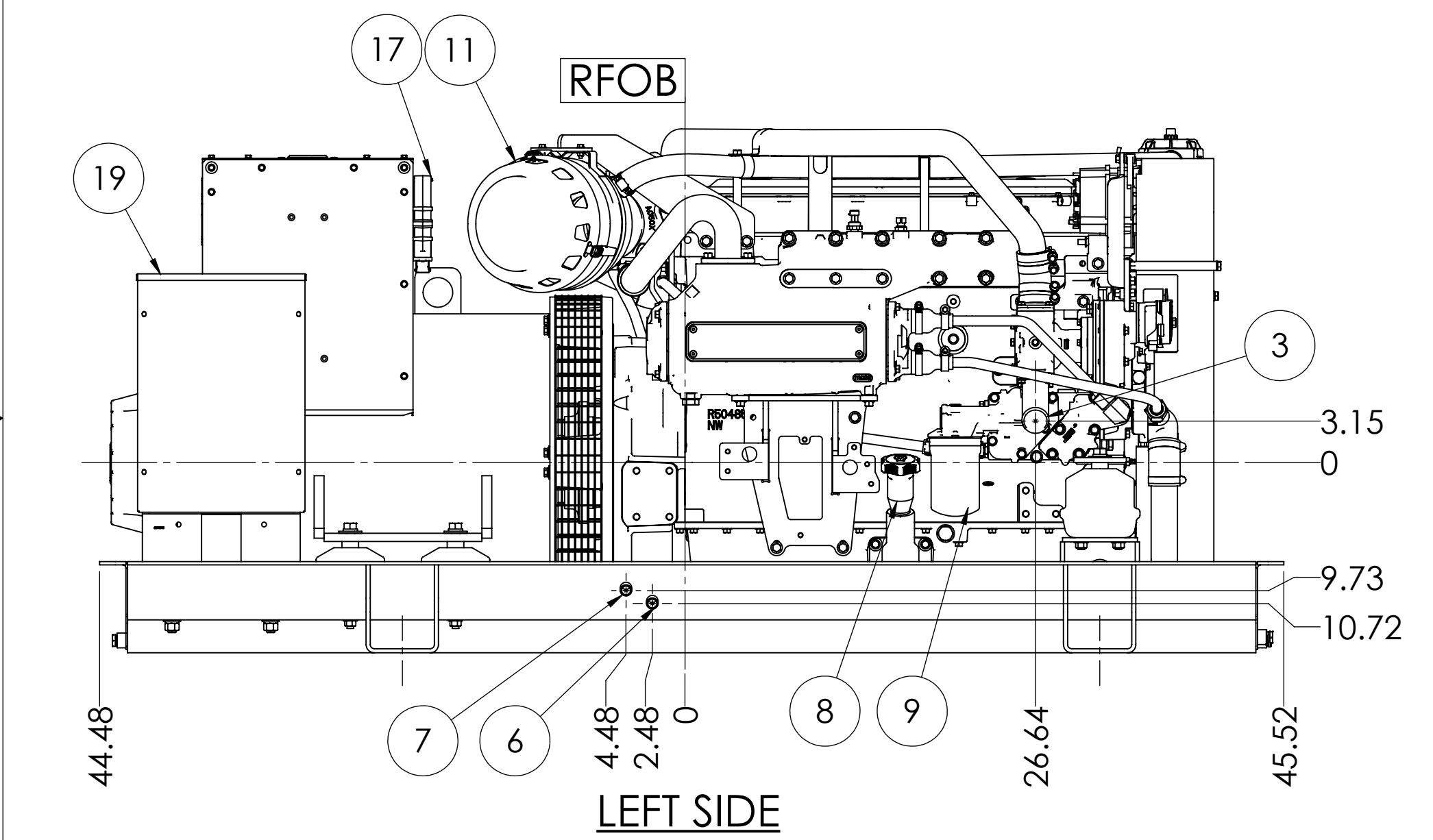
EST. WEIGHT AND C.G.				
MODEL	WEIGHT	C.G.		
	LBS.	X	Y	Z
M150A13.11L (150kW/60Hz)	3500	-.19	-.31	2.26
M150A13.51L (125kW/50Hz)	3645	.90	-.30	2.17

NOTE: WEIGHTS INCLUDE OIL, NO COOLANT.

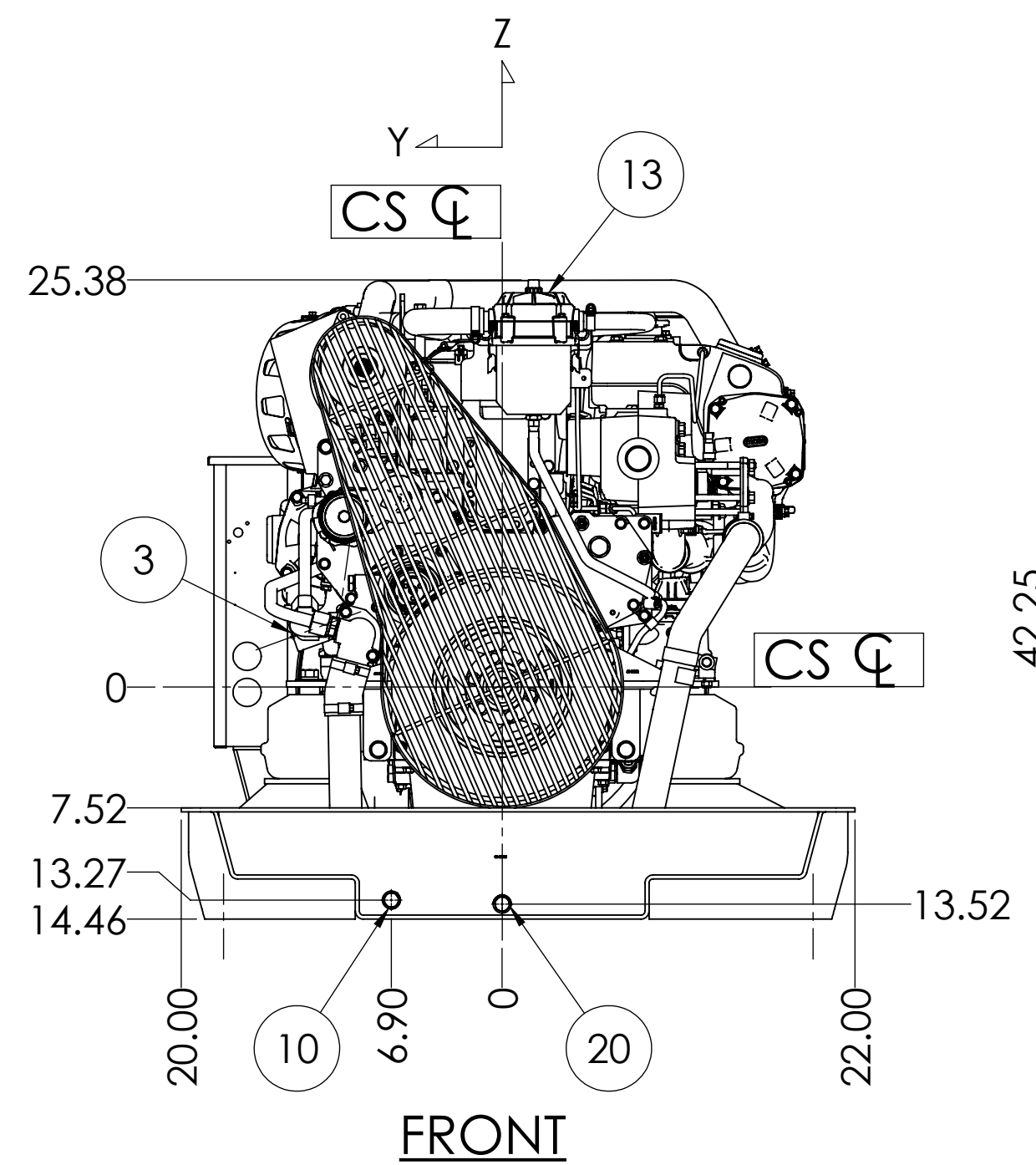


OPTIONAL DRY EXHAUST ELBOW  
SCALE 1:4

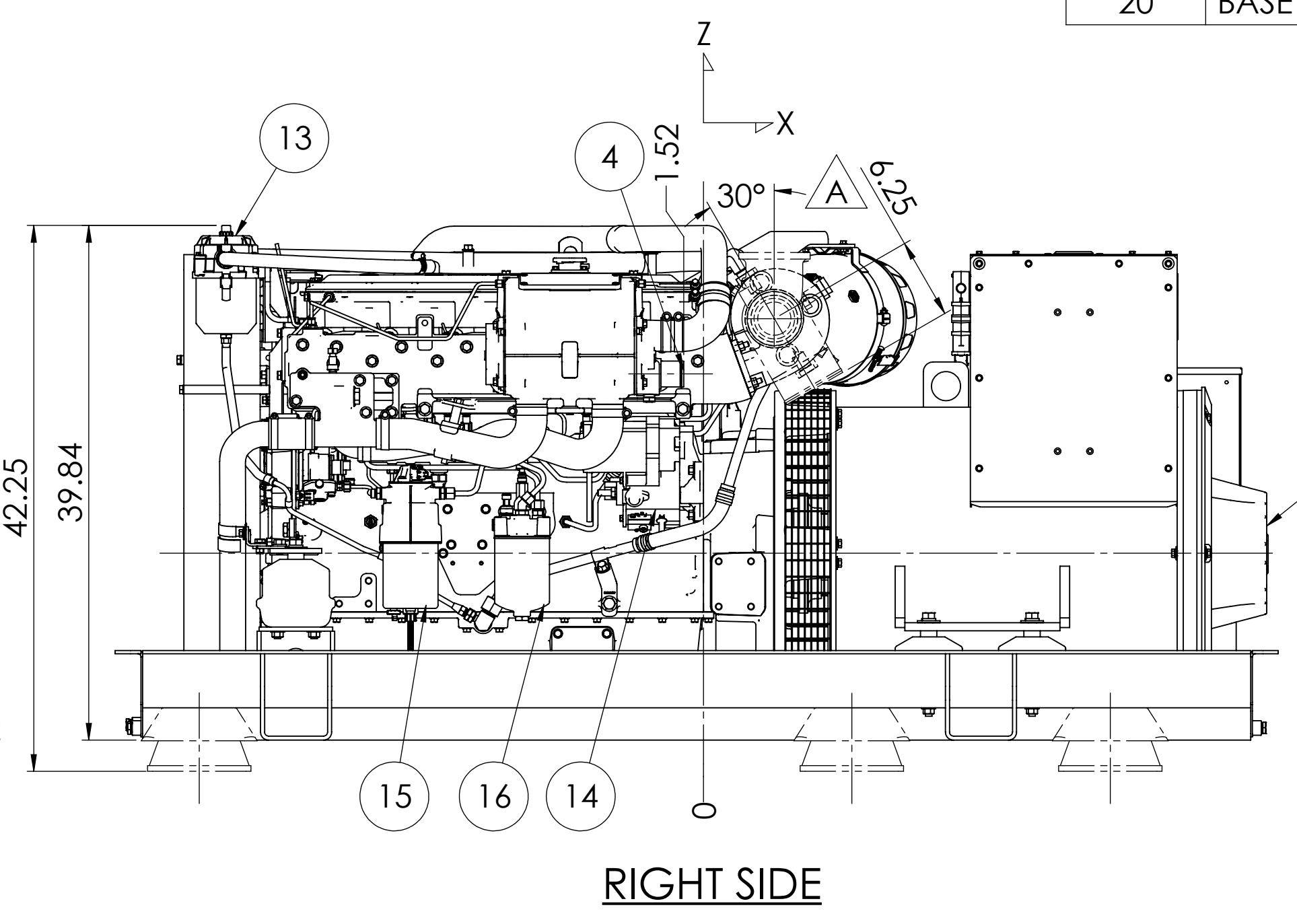
ITEM	DESCRIPTION
1	EXPANSION TANK
2	COOLANT FILL
3	SEAWATER INLET - Ø2.0 H.B.
4	SEAWATER OUTLET (DRY EXHAUST) - Ø2.0 H.B.
5	OPTIONAL WET EXHAUST ELBOW - Ø6.0 H.B.
6	FUEL SUPPLY - 3/8 NPT
7	FUEL RETURN - 3/8 NPT
8	CRANKCASE OIL FILL/DIPSTICK
9	CRANKCASE OIL FILTER
10	ENGINE OIL DRAIN - 1/2 NPT
11	AIR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



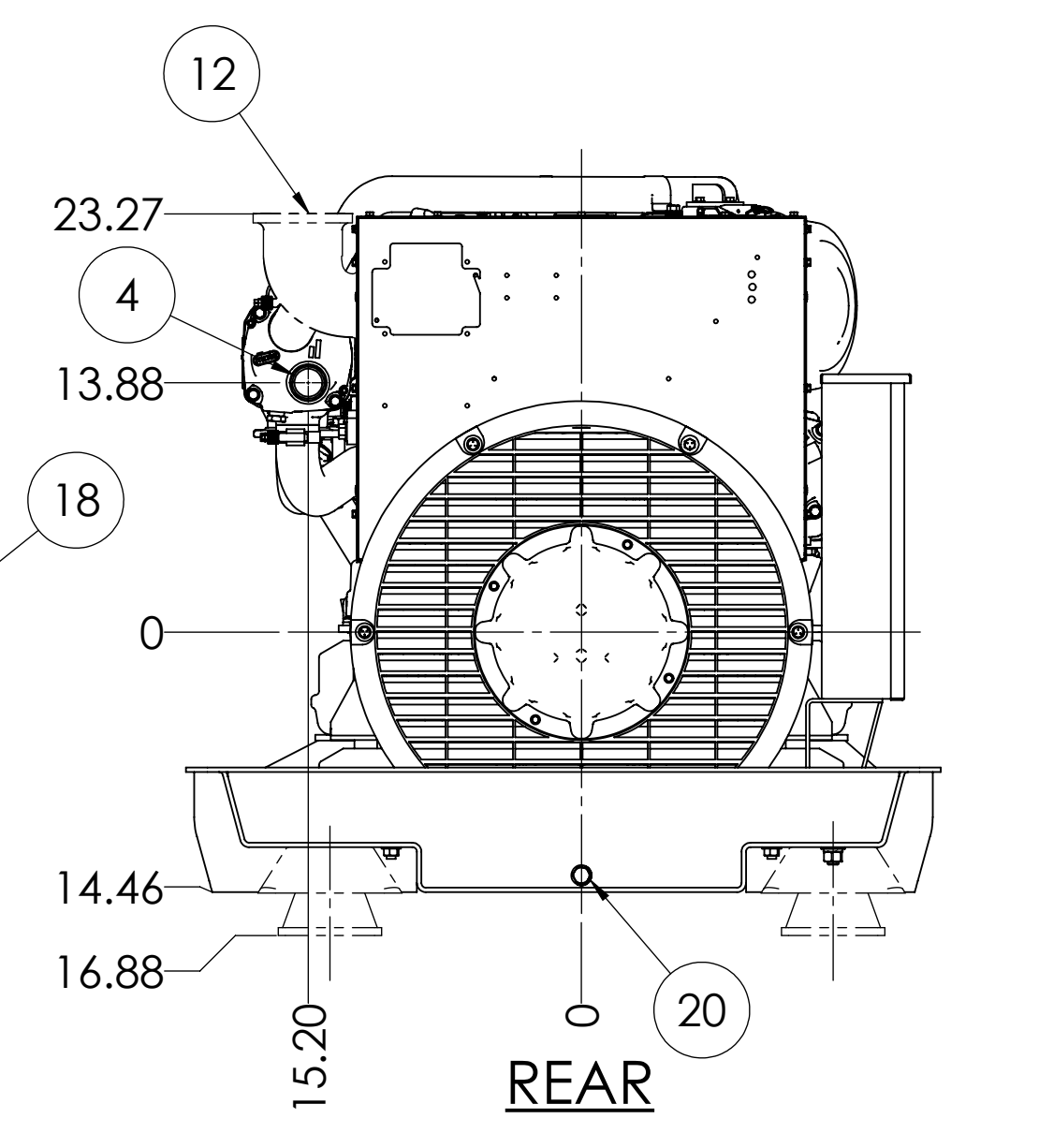
LEFT SIDE



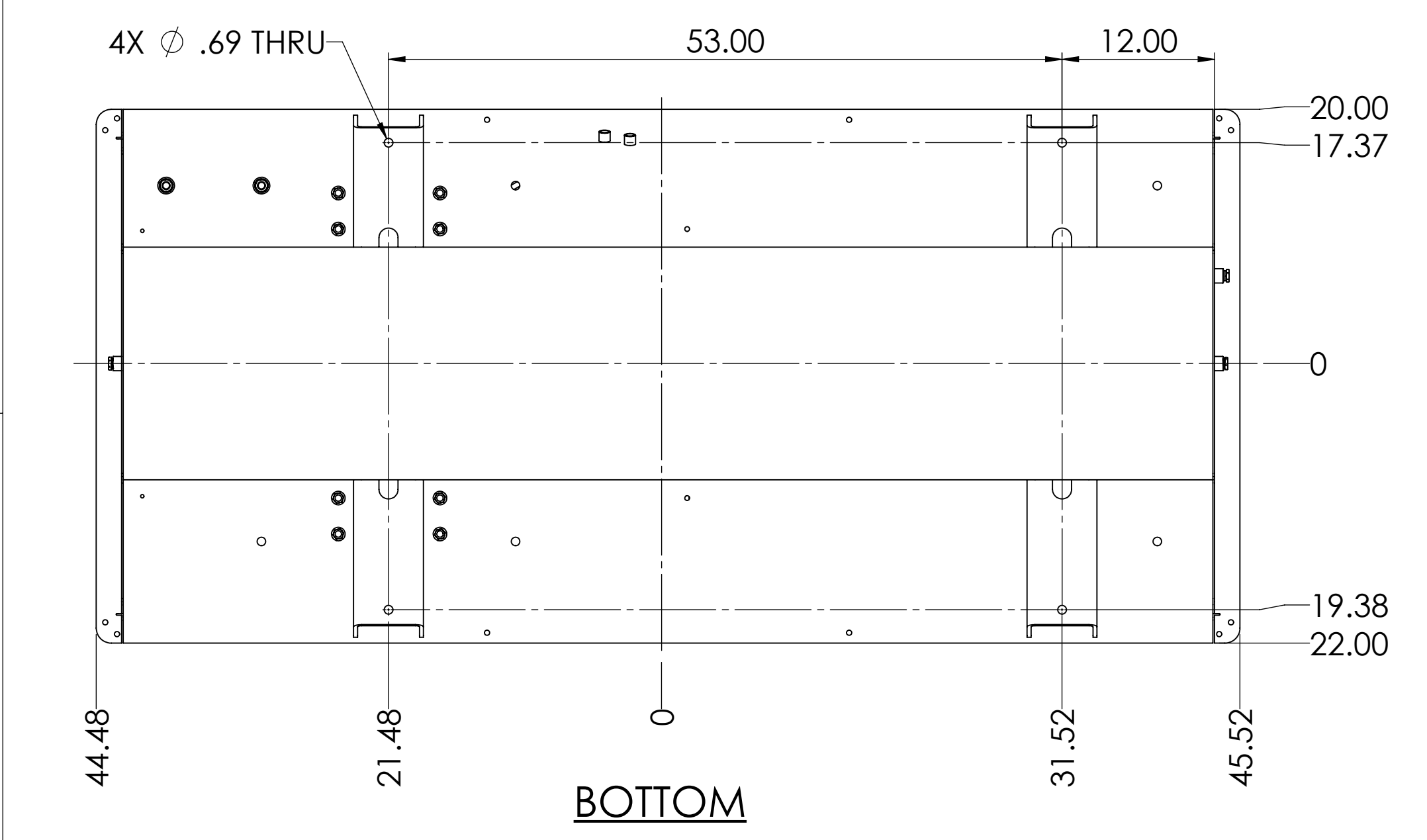
FRONT



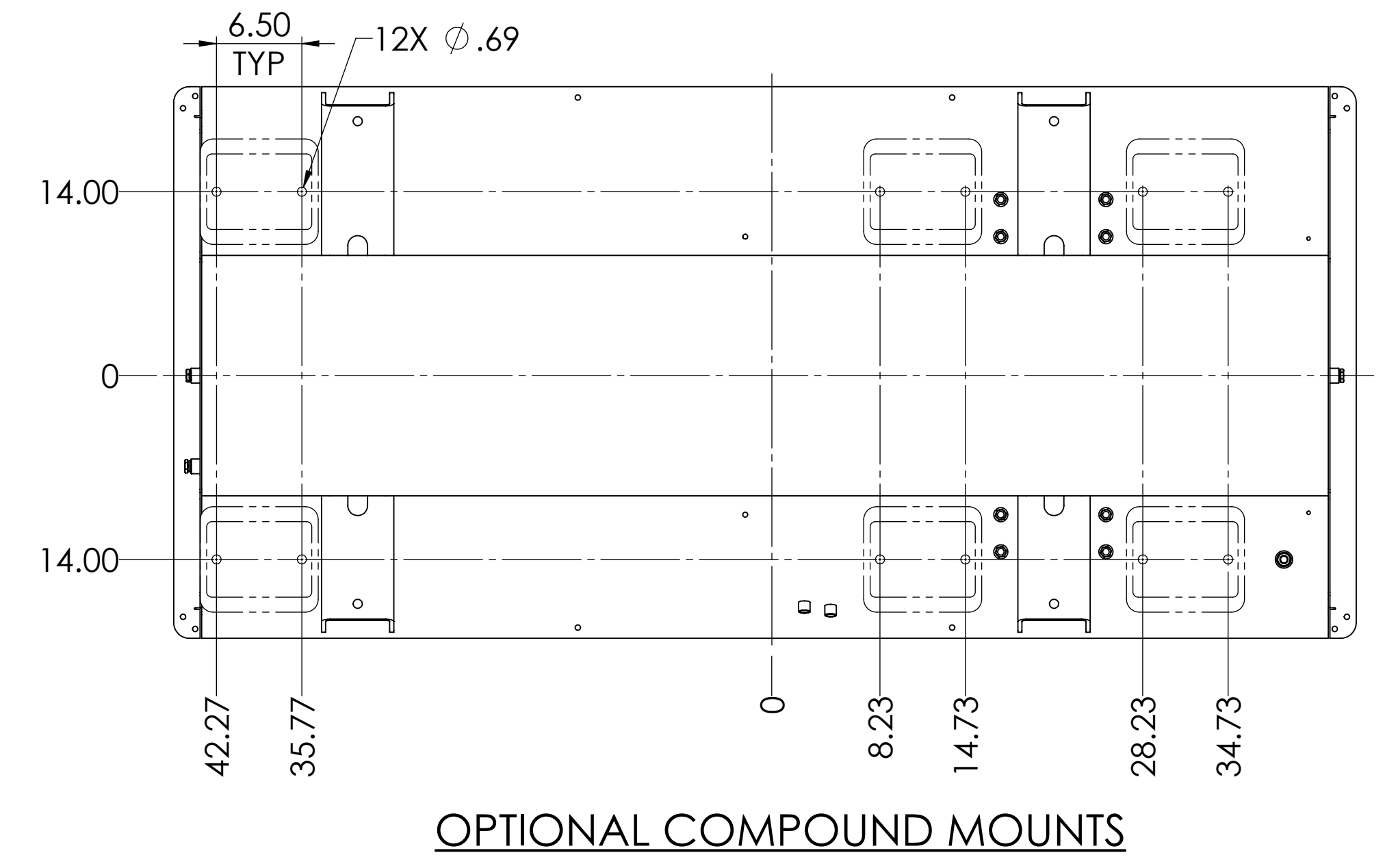
RIGHT SIDE



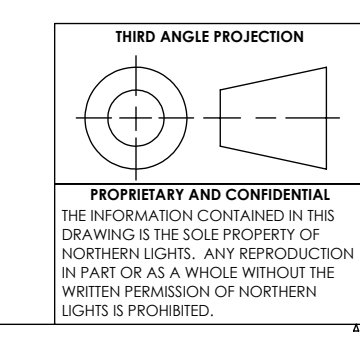
REAR



BOTTOM



OPTIONAL COMPOUND MOUNTS



REV. A	CHANGED WET EXHAUST ELBOW ANGLE AND LENGTH. UPDATED BELT GUARD. ECN 6234	10/2/2019	MG	LTP
REV.	DESCRIPTION	DATE	BY	CHECKED

REVISIONS			
NO.	NAME	DATE	
1	MG	06/22/17	
2	TAH	06/28/17	

UNLESS OTHERWISE SPECIFIED:	DRAWN	MG	06/22/17
DIMENSIONS ARE IN INCHES	CHECKED	TAH	06/28/17
TOLERANCES:	ENG APPR.		
ANGULAR: 0.5°	MEG APPR.		
X ± 0.1	G.A.		
XX ± 0.03	COMMENTS:		
XXX ± 0.005			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M			
MATERIAL:			
FINISH:			
DO NOT SCALE			

		4420 14th AVE. N.W. Seattle, WA 98107 (206) 789-3880 www.northern-lights.com
<b>TITLE: INSTALLATION DIMENSIONS M150A13L HEAT EXCHANGER COOLED</b>		
SIZE	PART NO.	DWG. NO.
<b>D</b>		<b>D-5020</b>
SCALE: 1:10	WEIGHT: LBS.	SHEET 1 OF 1