



4080D-150S



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TRACKING NUMBER: 2459255.31311.9		

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DESIGN INFORMATION			
		TYPE: FIRETUBE	MAX TEMP: 400 °F
CERTIFIED BY W&D	SIZE: 80 HP	MAWP: 150 PSI	HS: 400 SQ.FT.
YEAR BUILT: 2021	MDSC: 2,760 LB/HR	# OF PASSES: 4	CORROSION ALLOWANCE: VAR

US CUSTOMARY UNITS UNLESS OTHERWISE NOTED		
TOLERANCE:		
FRACTION	±1/16	
DEC 0.12	±0.03	
DEC 0.123	±0.010	
ANGLE	±1.00'	

Williams & Davis Boilers		
2044 S. 145 P.O. BOX 539 HUTCHINS, TX 75141		
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www.WDBoiler.com		
APPROVAL: (SIGN & DATE)	MFG APPROVED BY	PROJECT NO.
		81770
	MFG APPROVED DATE	SCALE
		PER VIEW


DWG. NO.:	REVISION:	DWG BY:	DWG DATE:	CHECKED BY:	DATE:
4080D-150S-81770-SUB	B	HC	2/1/2021		
DWG. DESCRIPTION:					
4-PASS 80 HP DRY BACK, 150 PSI STEAM, SN 81770, TN: 2459247.45236.12					
PART NO.:					
PART DESCRIPTION:					

D
C
B
A



DESIGN SPECIFICATIONS

MODEL NUMBER	4080D-150S
DESCRIPTION	4 PASS 80 HP DRY BACK, 150 PSI STEAM
JOB NUMBER(S)	81770
ASME BPVC SECTION	I
ASME BPVC EDITION	2019
SITE ALTITUDE	10 FT. ASL
MAXIMUM VESSEL PRESSURE	150 PSI
MAXIMUM RECOMMENDED OPERATING PRESSURE	143 PSI
MAXIMUM DESIGNED STEAM CAPACITY	2,760 LBS/HR FROM AND AT 212°F
SAFETY RELIEF VALVE CAPACITY, TYP.	3,200 LB/HR
SAFETY RELIEF VALVE SET PRESSURE	150 PSI
BLOWDOWN VALVE	250 PSI SS BALL VALVE, 160 PSI Y BLOW-OFF VALVE
PRESSURE GAUGE MODEL	4-1/2, 0-300 PSI PRESSURE GAUGE
OUTPUT, BOILER HORSEPOWER	80 HP
OUTPUT, BOILER, BTU	2,678,000 BTU/HR
WATER CONSUMPTION, TYP.	5.5 GPM
HEATING SURFACE	400 SQ. FT.
EXHAUST TEMPERATURE	450°F, TYP. HIGH FIRE
EXHAUST FLOW, TYP.	485.8 ACFM
BURNER MODEL	VG-34/F
BURNER EMISSION STANDARD RATING	STANDARD
ENVIRONMENT RATING	NEMA 4
FLAME SAFEGUARD MODEL	SIEMENS LMV 52
FIRING RATE CONTROL	SIEMENS LMV 52
OPERATING RANGE CONTROL	INTERNAL ADJ., E/M, L404F


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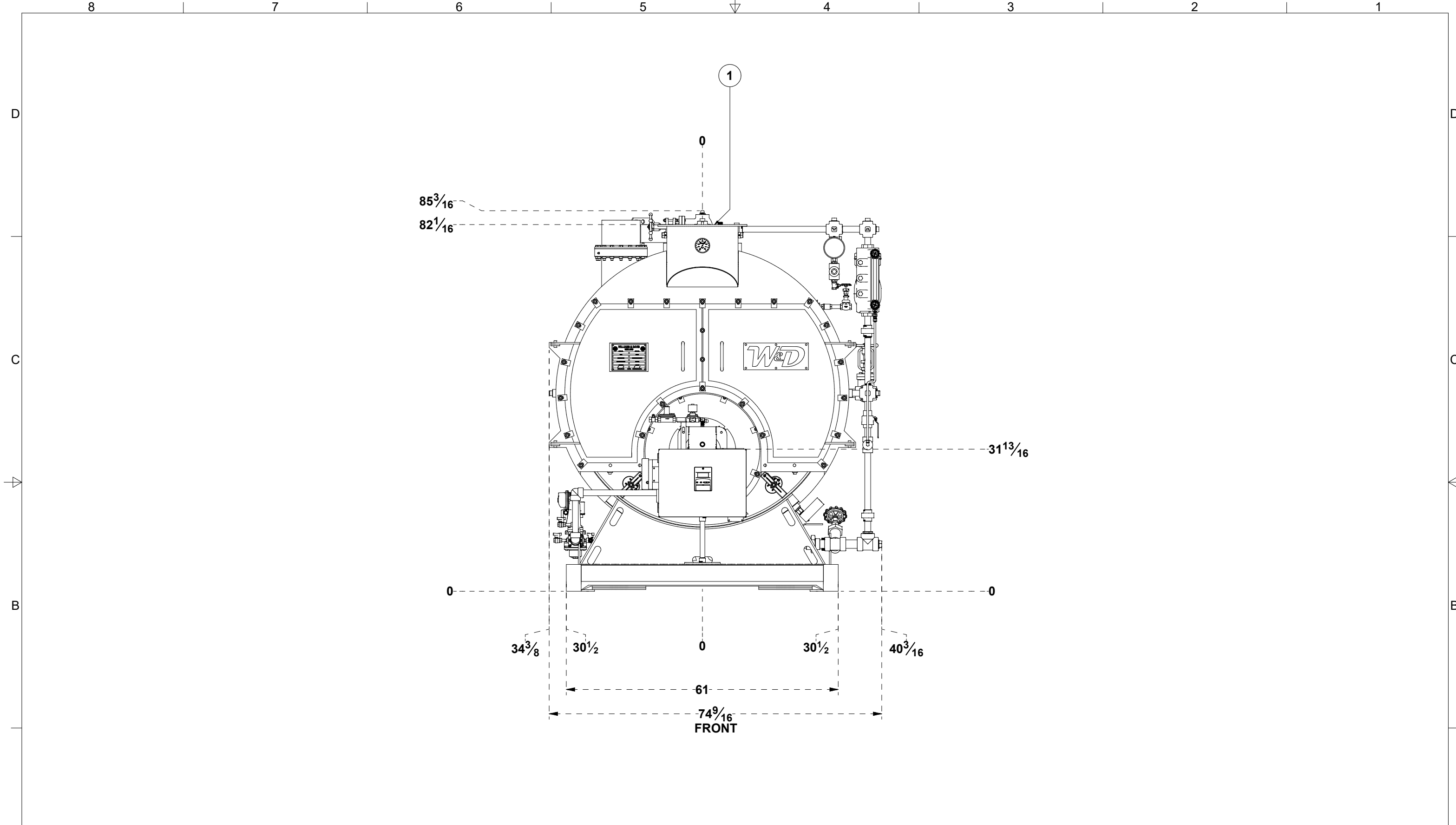
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DESIGN SPECIFICATIONS

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HIGH STEAM PRESSURE LIMIT CONTROL	INTERNAL ADJ., E/M, L4079
PRIMARY LOW WATER CUT OFF	FLOAT TYPE, E/M, 157S
SECONDARY LOW WATER CUT OFF	PROBE TYPE, MANUAL RESET, 26M
PUMP CONTROL	FLOAT TYPE, E/M, 1 EXTERNAL SYS CONTACT, 157S
SUPPLY VOLTAGE	480VAC / 3PH / 60HZ
MAX CONTINUOUS AMPERAGE	4.5 FLA
LOCKED ROTOR AMPERAGE	10 AMPS
PRIMARY FUEL TYPE	LP GAS
SECONDARY FUEL TYPE	-
IGNITION FUEL TYPE	LP GAS
PRIMARY FUEL MAXIMUM DESIGN PRESSURE	5 PSI
PRIMARY FUEL MINIMUM SUPPLY PRESSURE	1 PSI
PRIMARY FUEL MAXIMUM SUPPLY RATE	1,291 SCFH
SECONDARY FUEL SYSTEM OPERATING PRESSURE, TYP.	-
SECONDARY FUEL SYSTEM MAXIMUM INLET PRESSURE	-
SECONDARY FUEL FLOW MAXIMUM RATE	-
SECONDARY FUEL SYSTEM BYPASS RETURN PRESSURE	-
JACKET MATERIAL	STAINLESS STEEL, 304L
JACKET FINISH	2B
NOMINAL WATER CAPACITY	4,027 GAL
FLOODED WATER CAPACITY	4,806 GAL
SHIPPING WEIGHT	14,639 LBS
NOMINAL OPERATING WEIGHT	48,278 LBS
FLOODED WEIGHT	54,724 LBS
CERTIFICATIONS, BOILER AND/OR BURNER	ASME, NATIONAL BOARD, UL

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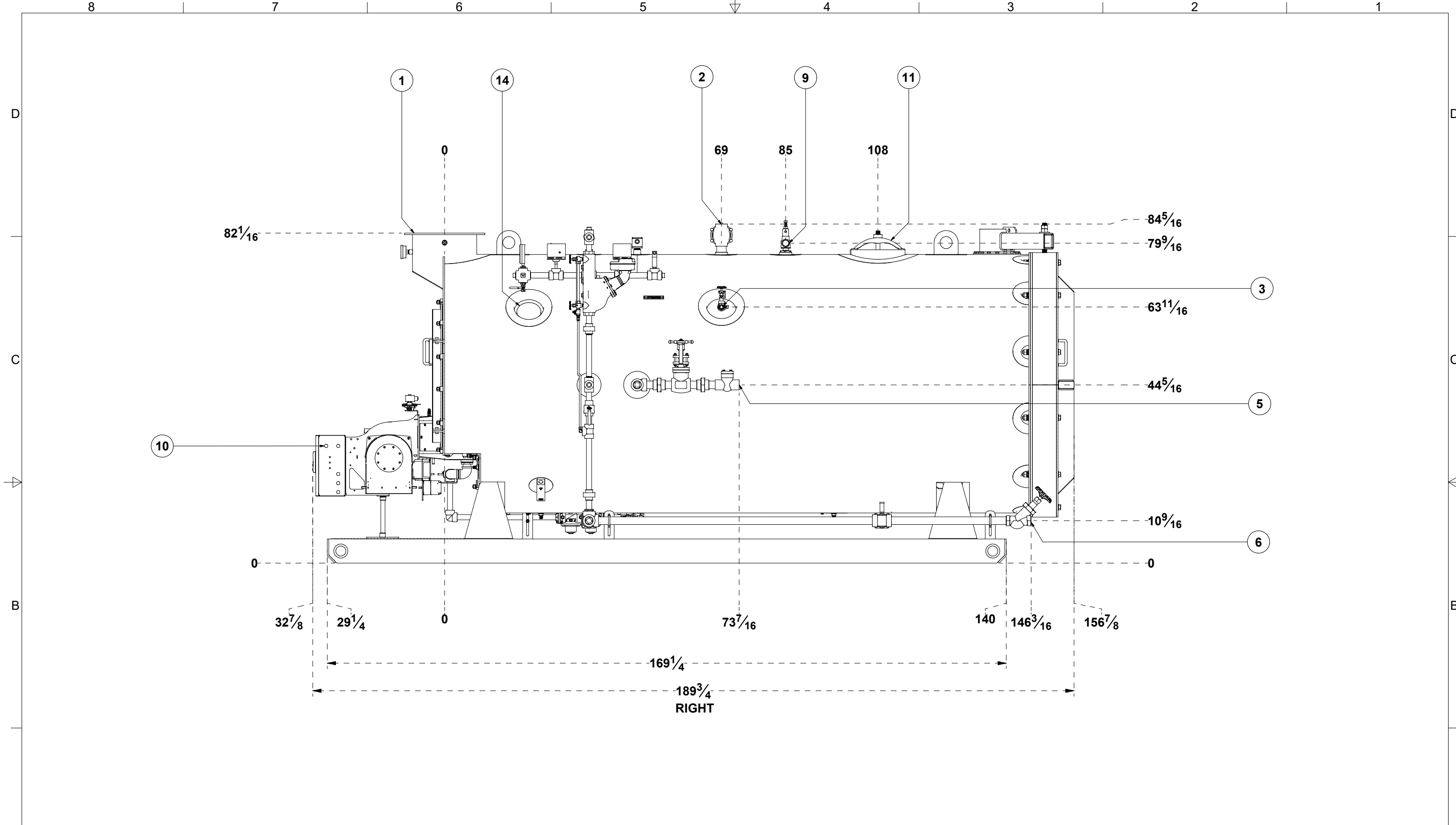


CONNECTION LIST				
ITEM	DESCRIPTION	SIZE	TYPE	QTY
1	EXHAUST OUTLET, TO OUTSIDE ATM	16"	W&D FLANGE	1
2	STEAM OUTLET, TO PROCESS HEADER	2"	FNPT	1
3	SURFACE BLOWDOWN OUTLET, TO BLOW DOWN SYSTEM AS REQ'D	1/2"	FNPT	1
4	COLUMN/AUXILIARY	1"	FNPT	1
5	FEED WATER INLET, TO FEED WATER SUPPLY SYSTEM	1-1/2"	FNPT	1
6	BOTTOM BLOWDOWN OUTLET, TO BLOWDOWN SYSTEM AS REQ'D	1-1/2"	FNPT	1
7	FUEL SYSTEM INLET, TO FUEL SUPPLY	1"	MNPT	1
8	FUEL SYSTEM PILOT REGULATOR VENT, TO OUTSIDE ATM	1/8"	FNPT	1
9	SAFETY RELIEF VALVE OUTLET, TO OUTSIDE ATM	1-1/2"	FNPT	1
10	ELECTRICAL SUPPLY CONDUIT CONNECTION, CONNECT CABINET TERMINAL BLOCKS TO SUPPLY POWER	12" X 16" ELL.	CONDUIT KNOCKOUT	1
11	MANWAY INSPECTION OPENING	18" DIA.	-	1
12	MANWAY INSPECTION OPENING	18" DIA.	-	1
13	AUXILIARY	1-1/2"	FNPT	1
14	MFG DATA / ASME STAMP	-	-	1



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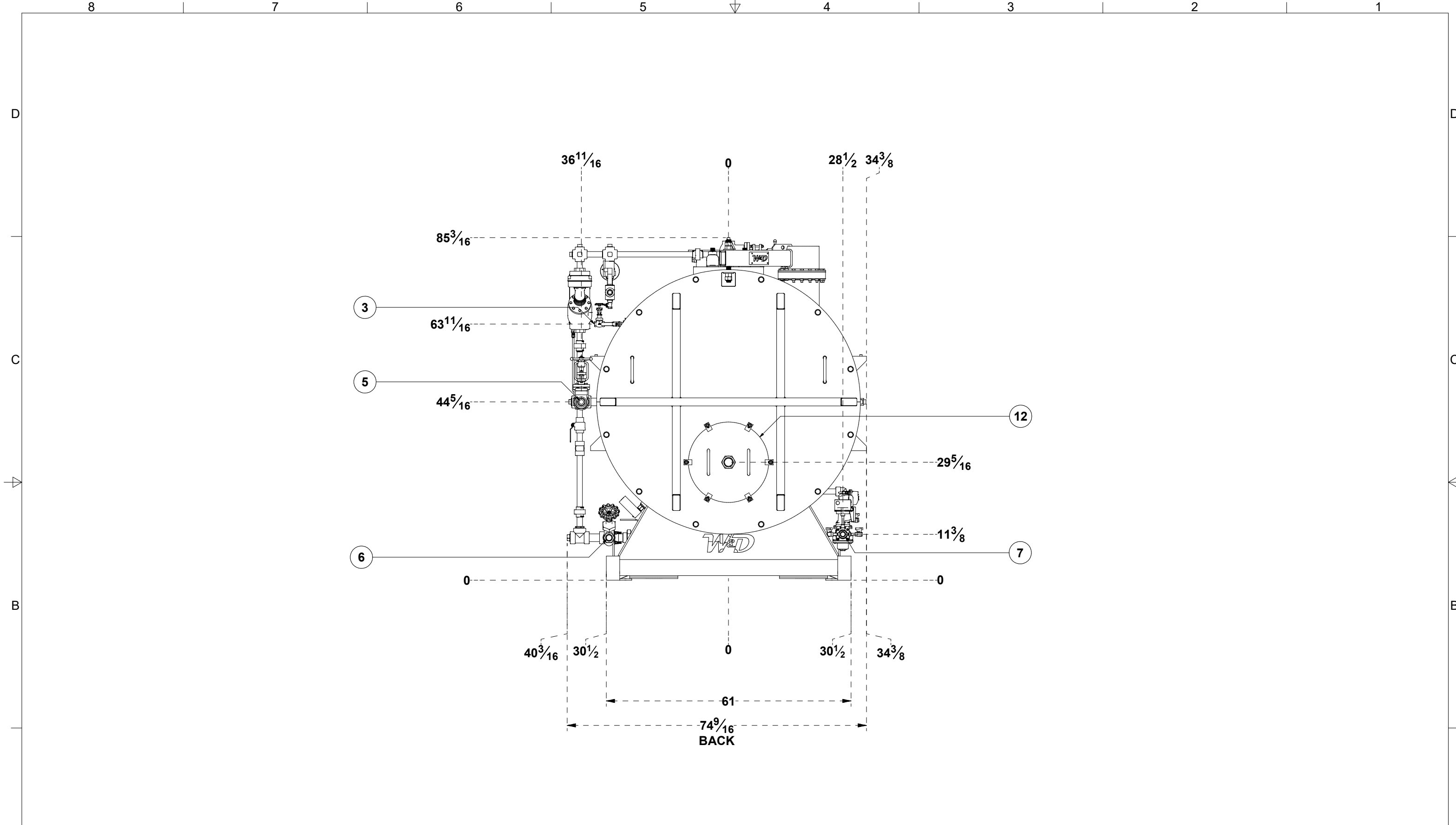


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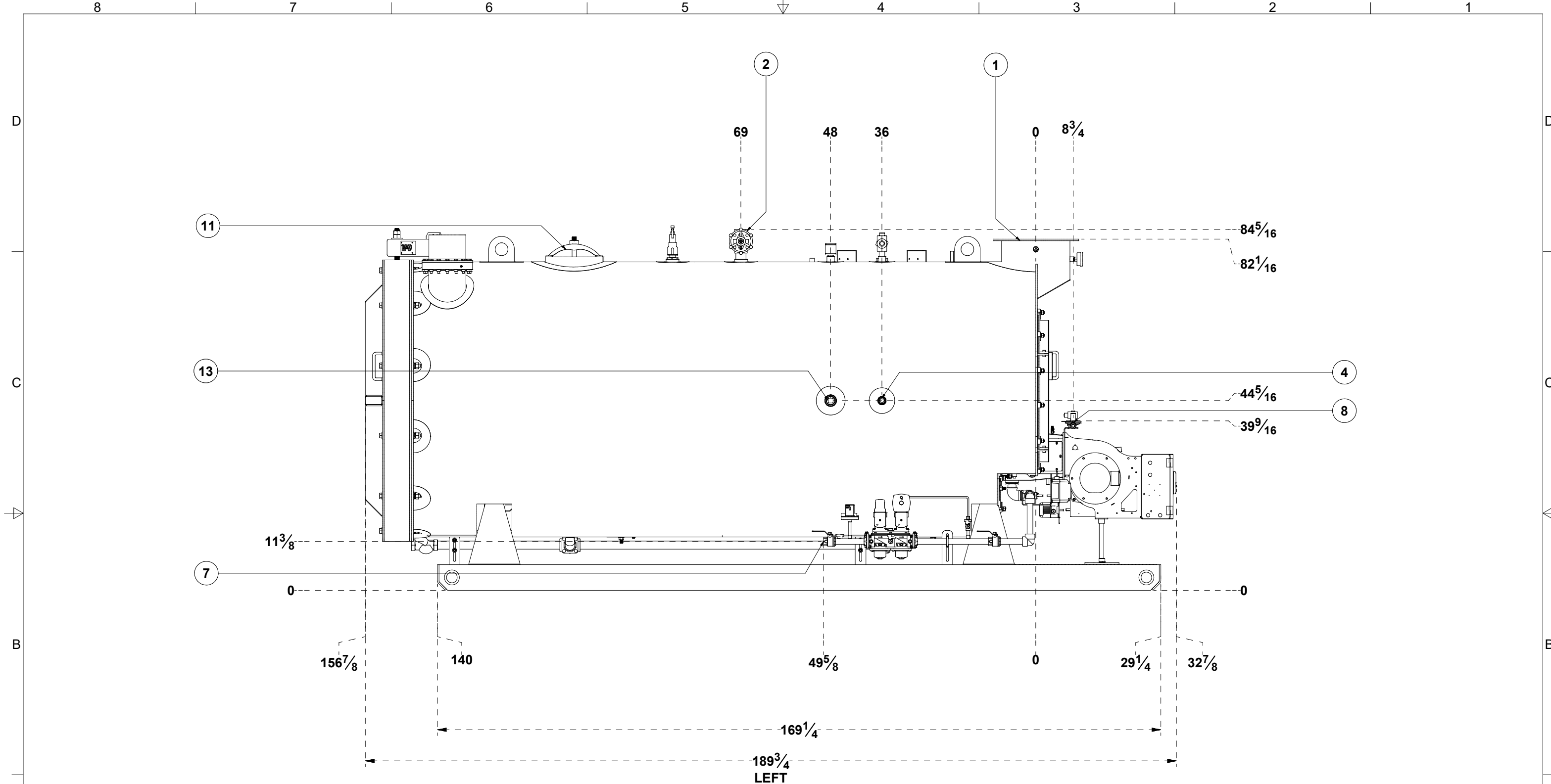


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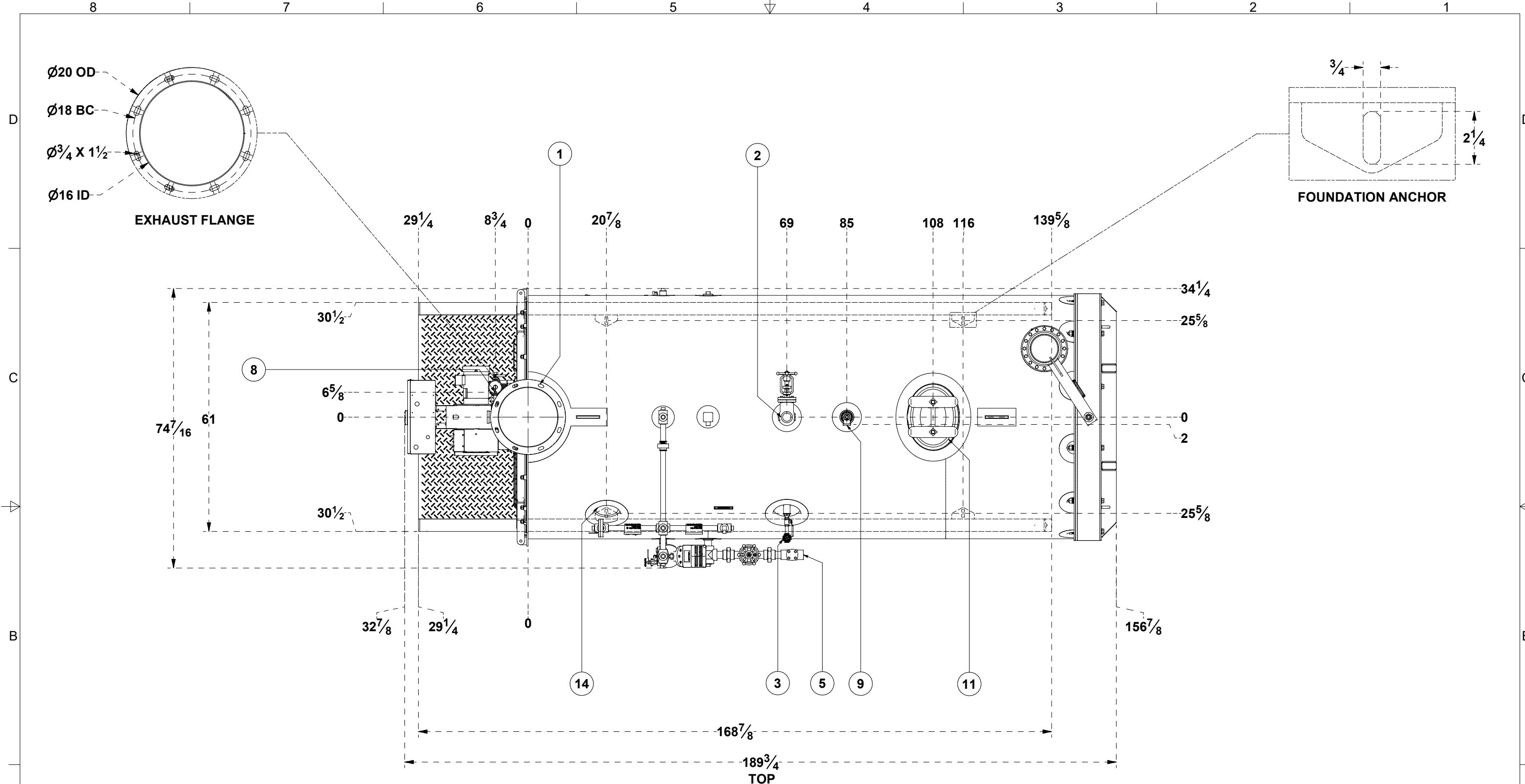


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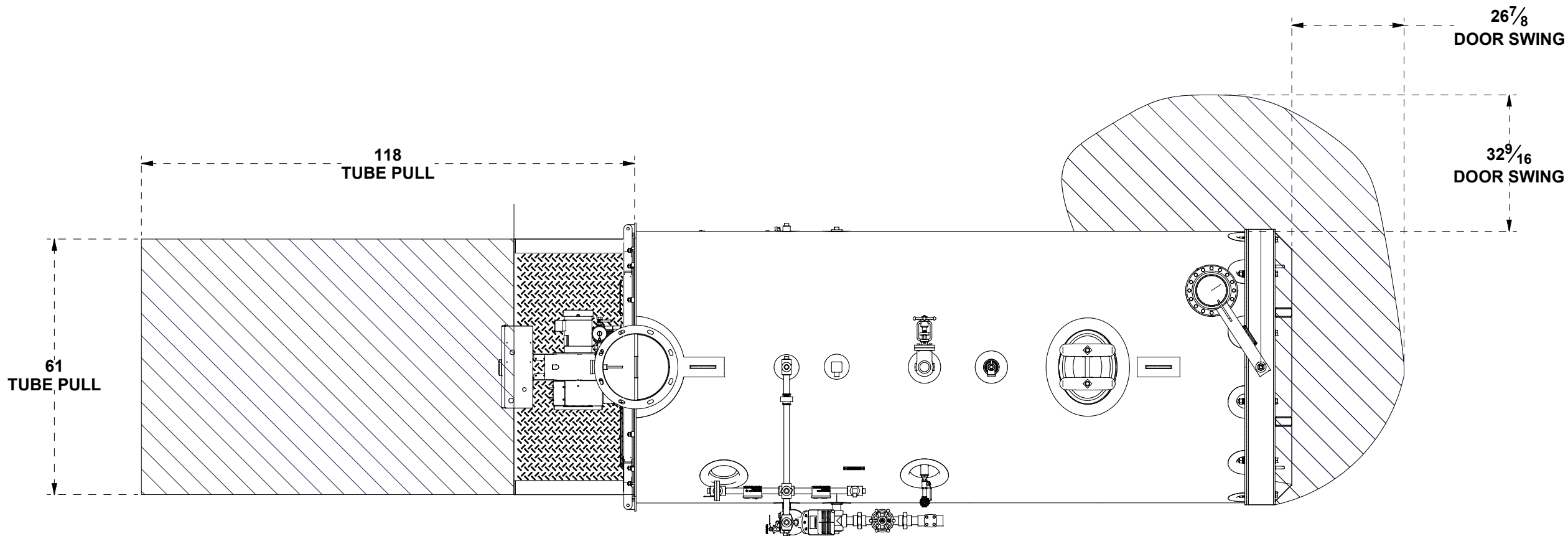
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BOILER CLEARANCE



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