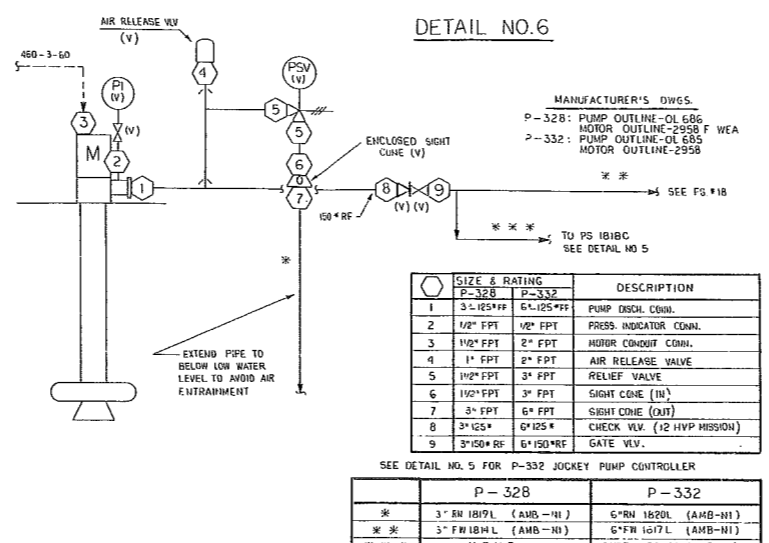


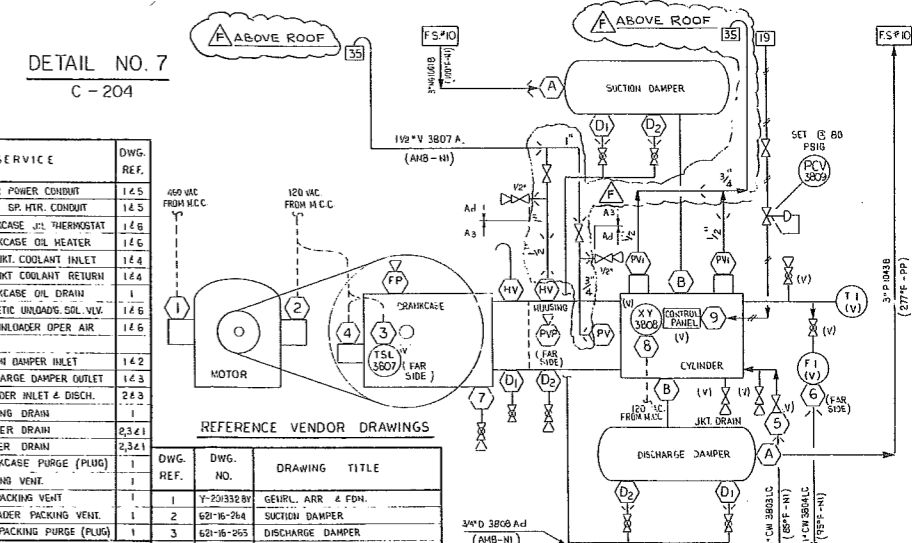
SIZE & RATING	DESCRIPTION
1 16" 150# FF	PUMP DISCH. CONN. (STEEL)
2 1/2" 125# FF	LUBE OIL SOLENOID CONN.
3 3" FPT	ENGINE C.W. SUPPLY (P-325 A ONLY)
4 3/4" FPT	PRESS. INDICATOR CONN.
5 6" 250# FF	AIR RELEASE VALVE
6 12" 125# FF	RELIEF VALVE IN/OUT
7 12" 300# FF	SIGHT CONE INLET
8 16" 150# FF	SIGHT CONE OUTLET
9 16" 250# FF	CHECK VALVE
10 16" 150# FF	BUTTERFLY VALVE
11 3" - FPT	MOTOR CONDUIT CONN. (P-325 B ONLY)
12 3/4" FPT	MOTOR SP HT CONN. (P-325 B ONLY)

	P-325 A	P-325 B
*	16" RN 1819 L (AMB-NI)	16" FN 1813 L (AMB-NI)
**	16" FN 1816 L (AMB-NI)	16" FN 1816 L (AMB-NI)
***	3/4" FW 1822 L (AMB-NI)	3/4" FW 1823 L (AMB-NI)



SIZE & RATING	DESCRIPTION
1 3.5 125# FF	6.1 125# FF PUMP DISCH. CONN.
2 1/2" FPT	2" FPT PRESS. INDICATOR CONN.
3 1/2" FPT	2" FPT MOTOR CONDUIT CONN.
4 1" FPT	2" FPT AIR RELEASE VALVE
5 1/2" FPT	3" FPT RELIEF VALVE
6 1/2" FPT	3" FPT SIGHT CONE (IN)
7 3" FPT	6" FPT SIGHT CONE (OUT)
8 3" 125#	6" 125# CHECK VLV. (12 HVP MISSION)
9 3" 150# RE	6" 150# RE GATE VLV.

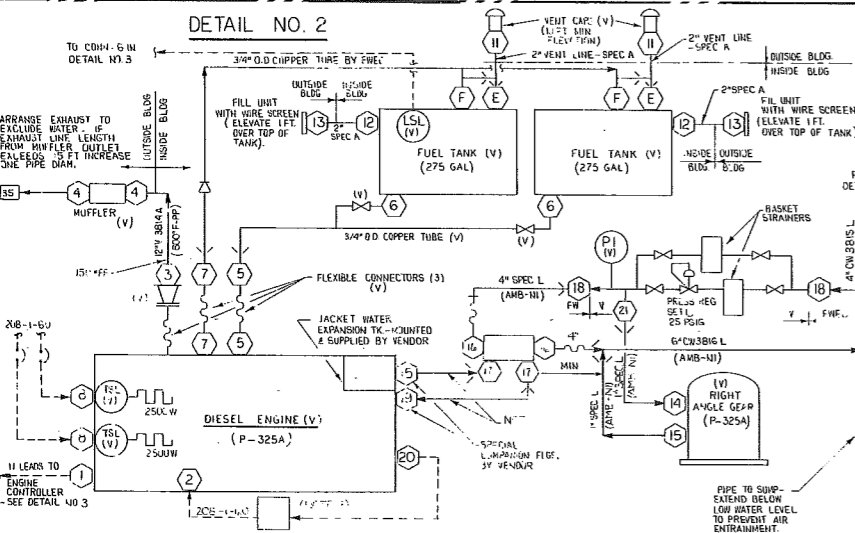
	P-328	P-332
*	3" RN 1819 L (AMB-NI)	6" RN 1820 L (AMB-NI)
**	3" FN 1818 L (AMB-NI)	6" FN 1817 L (AMB-NI)
***	N O N E	3/4" FW 1824 Lb (AMB-NI)



PURCH. CONN.	SIZE & TYPE	SERVICE	DWG. REF.
1	3.5 FPT	MOTOR POWER CONDUIT	1.4.5
2	3/4" FPT	MOTOR SP. HTR. CONDUIT	1.4.5
3	1/2" FPT	CRANKCASE OIL THERMOSTAT	1.4.6
4	1/2" FPT	CRANKCASE OIL HEATER	1.4.6
5	3/4" FPT	CYL. JKT. COOLANT INLET	1.4.4
6	3/4" FPT	CYL. JKT. COOLANT RETURN	1.4.4
7	3/4" FPT	CRANKCASE OIL DRAIN	1.4.6
8	1/2" FPT	MAGNETIC UNLOAD. SOL. VLV.	1.4.6
9	1/2" FPT	CYL. UNLOADER OPER AIR	1.4.6

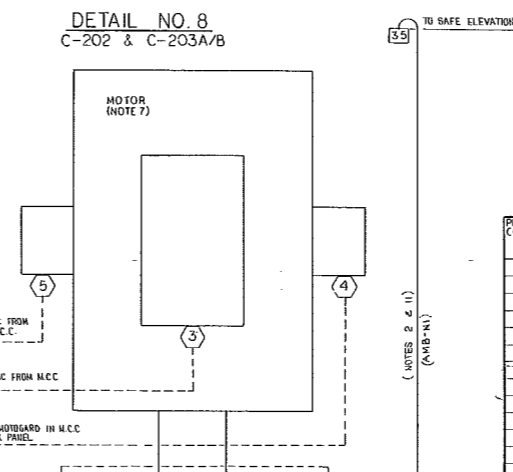
REFERENCE VENDOR DRAWINGS

DWG. REF.	DWG. NO.	DRAWING TITLE
1	Y-201328 BY	GENRL. ARR. & FDN.
2	621-16-284	SUCTION DAMPER
3	621-16-265	DISCHARGE DAMPER
4	Y-29954 KN	WATER PHOS. ARRANGEMENT
5	222 C. A70	MOTOR OUTLINE
6	X346802XJ	CONTROL, COMPLETE



SIZE & RATING	DESCRIPTION	MFR'S DWG.
1	CONTROLLER LEADS (1) TO ENG.	4,6
2	ENG. PRELUBE PUMP (1/2 H.P.)	4,6
3	ENG. EXH. TRANSITION PC.	4
4	MUFFLER CONNS.	
5	3/8" FPT FLEX. CONN. (FUEL FEED)	3
6	3/4" FPT FUEL TK. FEED CONN.	3
7	3/8" FPT FLEX. CONN. (FUEL RETURN)	3
8	ENG. JACKET WATER HEATER (2)	4
F	1" FPT FUEL TK. RETURN CONN. (2)	3
E	1/4" FPT FUEL TK. VENT CONN. (2)	3
11	2" FPT VENT CAP (2)	3
12	2" MPT FUEL TK. FILL CONN. (2)	3
13	2" MPT FILL UNIT	3
14	1" FPT RT. ANGLE GEAR C/W IN/OUT.	2
15	4" PIPE ENG. JACKET WATER OUT	1
16	4" MPT ENG. J.W. CLR. C/W IN/OUT	4
17	3" MPT ENG. J.W. CLR. - J.W. IN/OUT	4
18	4" MPT C.W. REGULATOR ASSY.	5
19	4" PIPE ENG. JACKET WATER IN	1
20	PIPE LINE PUMP CONTROL RELAY	6
21	C/W RT. ANGLE GEAR	5

- MANUFACTURER'S DWGS.**
1. DIESEL ENG. OUTLINE: CATAPILLAR DWG. NO. 346323 (3pgs.)
 2. RT. ANGLE GEAR C/W: PHILADELPHIA DWG. NO. 03-158-026-3.
 3. FUEL TANKS: WORTHINGTON DWG. NO. WY-163615.
 4. PACKAGE SKID: WORTHINGTON DWG. NO. WJ-53427.
 5. C.W. REGULATOR ASSY.: WY-34453
 6. DIESEL ENGINE WIRING DIAGRAM.

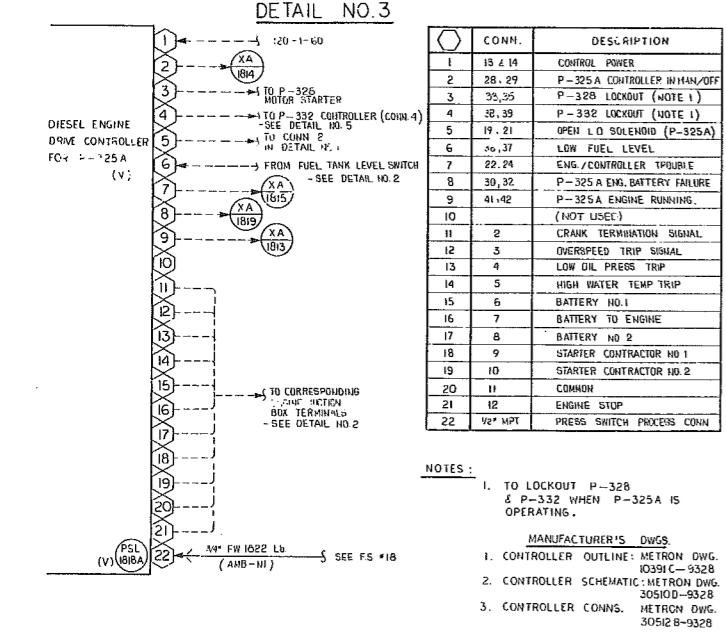


PURCH. CONN.	SIZE & TYPE	SERVICE	DWG. REF.
1	5" 600#	C-202 INLET	1
1	6" 600#	C-203 A & B INLET	1
2	2" 600#	C-202 DISCHARGE	1
2	4" 600#	C-203 A & B DISCHARGE	1
3	3" FPT	MAIN MTR PWR CONDUIT	2
4	3/4" FPT	THEGEMOTOR CONDUIT	2
5	3/4" FPT	SPACE HEATER CONDUIT	2
6	1/2" FPT	GAS SEAL VENT	5
7	1/2" FPT	GAS SEAL DRAIN	5
8	1" FPT	OIL COOLER C/W INLET	3 & 7
9	1" FPT	OIL COOLER C/W RETURN	3 & 7
10	1/2" FPT	OIL PUMP MOTOR CONDUIT	6
11	1/2" FPT	OIL TEMP SWITCH CONDUIT	6
12	1/2" MPT	OIL PRESS. SWITCH (CONDUIT)	8
13	1/2" MPT	OIL PRESS. SWITCH CONDUIT	8

REFERENCE VENDOR DRAWINGS

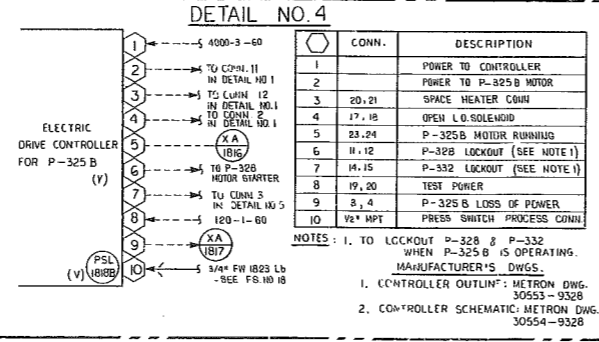
DWG. REF.	DRAWING TITLE	DRAWING NO.
1	C-202 COMPOSITE OUTLINE	77226660
1	C-203 A COMPOSITE OUTLINE	---
1	C-203 B COMPOSITE OUTLINE	---
2	MAIN MOTOR OUTLINE	9510 D 69
3	VERTICAL ASSEMBLY	VA 10 AG 08 B
4	NOISE SHROUD	KT 02 65DA
5	SEAL VENT PIPING	KT 02 AC 16
6	PRE-LUBE PUMP & OIL TSL	KT 01 AD 02
7	LUBE OIL COOLER ASSY.	KT 01 AG 07-00A
8	L O PRESSURE SWITCH ASSY.	KT 01 AA 42 J

- NOTES:**
- (1) C-202, TSL-3800; C-202 A & B, TSL-3801 A & B.
 - (2) C-202, C-203; V 3800 A & V 3800 B, RESPECTIVELY. SEE NOTE 11.
 - (3) C-202, C-203 A & B; S811 Ad, D3812 Ad, D3813 Ad, RESPECTIVELY.
 - (4) C-202, C-203; 1" CW 3800 L & 1 1/2" CW 3805 L, RESPECTIVELY.
 - (5) C-202, C-203; 1" CW 3802 L & 1 1/2" CW 3805 L, RESPECTIVELY.
 - (6) SECOND OIL COOLER & PIPING (INCLUDING THE POINT REDUCERS, APPLICABLE TO C-203A & B ONLY).
 - (7) C-202 & C-203A MOTORS ARE ORIENTED 180° FROM POSITION SHOWN.
 - (8) ALL SEAL PORTS (1/2" FPT) EXCEPT #1 (VENT & DRAIN) ARE PLUGGED.
 - (9) C-202, PSH-3803; C-203 A & B, PSH-3804 A & B.
 - (10) C-202, PSL-1635; C-203 A & B, PSL-962 A & B. THESE SWITCHES APPEAR ON MAIN FLUGHSHEETS #16 & 9.
 - (11) MANIFOLD C-203 A & B VENT LINES AND INCREASE LINE SIZE TO 1 1/2" FROM UPSTREAM OF THE TIE-POINT TO [35].



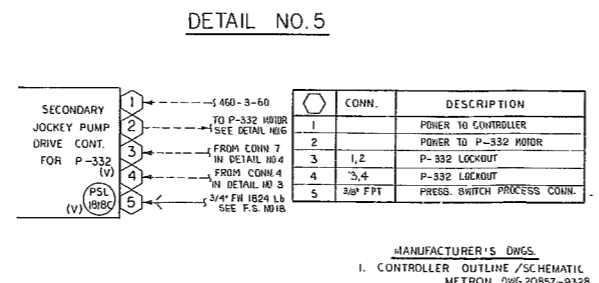
CONN.	DESCRIPTION
1	15 & 14 CONTROL POWER
2	28, 29 P-325 A CONTROLLER IN/HYD/OFF
3	32, 25 P-328 LOCKOUT (NOTE 1)
4	38, 39 P-332 LOCKOUT (NOTE 1)
5	19, 21 OPEN L.O. SOLENOID (P-325A)
6	26, 37 LOW FUEL LEVEL
7	22, 24 ENG./CONTROLLER TROUBLE
8	30, 32 P-325 A ENG. BATTERY FAILURE
9	41, 42 P-325 A ENGINE RUNNING
10	(NOT USED)
11	2 CRANK TERMINATION SIGNAL
12	3 OVERSPEED TRIP SIGNAL
13	4 LOW OIL PRESS. TRIP
14	5 HIGH WATER TEMP TRIP
15	6 BATTERY NO. 1
16	7 BATTERY TO ENGINE
17	8 BATTERY NO. 2
18	9 STARTER CONTRACTOR NO. 1
19	10 STARTER CONTRACTOR NO. 2
20	11 COMMON
21	12 ENGINE STOP
22	1/2" MPT PRESS. SWITCH PROCESS CONN.

- NOTES:**
1. TO LOCKOUT P-328 & P-332 WHEN P-325A IS OPERATING.
- MANUFACTURER'S DWGS.**
1. CONTROLLER OUTLINE: METRON DWG. 10391C-9328
 2. CONTROLLER SCHEMATIC: METRON DWG. 30510D-9328
 3. CONTROLLER CONNS.: METRON DWG. 30512B-9328



CONN.	DESCRIPTION
1	4000-3-60 POWER TO CONTROLLER
2	TO CONN. 11 IN DETAIL NO. 1
3	TO CONN. 12 IN DETAIL NO. 1
4	17, 18 OPEN L.O. SOLENOID
5	23, 24 P-325 B MOTOR RUNNING
6	11, 12 P-328 LOCKOUT (SEE NOTE 1)
7	14, 15 P-332 LOCKOUT (SEE NOTE 1)
8	19, 20 TEST POWER
9	8, 4 P-325 B LOSS OF POWER
10	1/2" MPT PRESS. SWITCH PROCESS CONN.

- NOTES:**
1. TO LOCKOUT P-328 & P-332 WHEN P-325 B IS OPERATING.
- MANUFACTURER'S DWGS.**
1. CONTROLLER OUTLINE: METRON DWG. 30553-9328
 2. CONTROLLER SCHEMATIC: METRON DWG. 30554-9328



CONN.	DESCRIPTION
1	460-3-60 POWER TO CONTROLLER
2	TO CONN. 11 IN DETAIL NO. 6
3	1, 2 P-332 LOCKOUT
4	3, 4 P-332 LOCKOUT
5	3/8" FPT PRESS. SWITCH PROCESS CONN.

- MANUFACTURER'S DWGS.**
1. CONTROLLER OUTLINE/SCHEMATIC: METRON DWG. 20857-9328

LEGEND	ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION	
1	COOLING WATER SUPPLY (CYCL-W)	15	REHEAT/HEAT TREN	1	STEAM CONDENSATE	1	ONLY OR DIRTY WATER SEWER
2	COOLING WATER RETURN (CYCL-W)	16	POTABLE WATER	2	TREATED WATER	2	CENITAL WASTES
3	450# H.P. STEAM	17	PLANT AIR	3	FUEL OIL (SHPIDA)	3	CENITAL SEWER
4	150# ATOMIZING STEAM	18	INSTRUMENT AIR	4	FUEL GAS (NATURAL GAS)	4	FIRE WATER
5	50# L.P. STEAM	19		5	CLEAN WATER SEWER	5	FLUSHING OIL
6		20		6		6	PUMP/OUT
7		21		7		7	PURGE GAS (NITROGEN)
8		22		8		8	BLOWDOWN
9				9		9	FLARE
10				10		10	TO ATMOSPHERE
11				11		11	BAILER FEED WATER
12				12		12	PROV. CONDENSATE
13				13		13	INERT GAS (N2)
14				14		14	FUEL GAS (STEAM/PROV)
15				15		15	COND. WATER
16				16		16	PRESSURIZATION N2
17				17		17	REF. STEAM CONDENSATE
18				18		18	
19				19		19	
20				20		20	
21				21		21	
22				22		22	

NOTES:

1. 16" x 12" TEE WITH WELDED ENDS LESS FLANGES BY VENDOR
2. 12" x 12" TEE WITH WELDED ENDS LESS FLANGES BY VENDOR
3. PRELUBE PUMP MOTOR CONTACTOR - SUPPLIED BY FVCC.
4. ALL 4" & 6" (6" & 8") TO EQUIPMENT WITH FLANGES IN 1/2" OR 3/4" (2" COMP. CAN BE RELIEVED)
5. FOR GENERAL NOTES, ETC., SEE E.S. 11

PHILADELPHIA GAS WORKS
ENGINEERING DEPT. PHILADELPHIA, PA.
PGW DWG. NO. 12-A-223

AUXILIARY FLOW DIAGRAM
FIRE PUMPS AND COMPRESSORS
SECTIONS 200 AND 300
60MM SCFD SNG PLANT
PHILADELPHIA GAS WORKS
PHILADELPHIA, PENNSYLVANIA
EST. NO. 12-278
CONTRACT NO. 15-1779
DWG. NO. 1779-11-50-38 F