

TABLE OF DEVICES

DEVICE NO.	FUNCTION	RATING OR RANGE	MFR	TYPE	CATALOG OR REF DWG	REMARKS
DRA23,B23	DROOP RELAY (UNIT-PARALLEL)	120VDC	C-H	R	D40RR43A1	
EG10B23	ENGINE RUN SOLENOID (PART OF HYDRAULIC ACTUATOR)	120VDC	WOODWARD			ENERGIZED TO SHUTDOWN
CR50,51,52	EXCITATION DIODE			300U	663082-81	Pg. 877,917
CR53,54,55	EXCITATION DIODE (REVERSE POLARITY)			300UR	663082-81	Pg. 877,917
ESR23	EMERGENCY STOP RELAY	120VDC	C-H	R	D40RR70A1	
ESR1-23	ENGINE STARTER RELAY					9
ESR2-23	ENGINE STARTER RELAY					10
ESR1A23	ENGINE STARTER RELAY					9
ESR2A23	ENGINE STARTER RELAY					10
FST23/TD	GEN FIELD SHUTDOWN TIMER	125VDC	AGASTAT	ETR	ETRI403G-003	10-300SEC, SET 2MIN
HCR23	HEATER CUT OFF RELAY	120VDC	C-H	R	D40RR52	
JWPR1-23	JACKET WATER PRESSURE RELAY					9
JWPR2-23	JACKET WATER PRESSURE RELAY					10
KWR23	KILOWATT RELAY	120VDC	C-H	R	D40RR70A1	
KWT23/TD	KILOWATT TIMER	125VDC	AGASTAT	ETR	ETRI403B-003	.55-15SEC, SET 3SEC
K1C23	GEN FIELD SHORTING CONTACTOR					9
K1AC23	GEN FIELD FLASHING CONTACTOR	125VDC	M	M		9
K3-23	FIELD FLASH CUT-OUT RELAY					7
K4C23	GEN VOLTAGE SHUTDOWN RELAY	110VDC	POTTER		PMI7DY	
MASL23	VOLTAGE REGULATOR MAN-AUTO SELECTOR SW					12
MASLX23	VOLTAGE REGULATOR MAN-AUTO SW AUX RELAY	125VDC	ASCO	SG	293B25-4A20	
PDT23/TD	LUBE OIL PRESSURE DELAY TIMER	125VDC	AGASTAT	ETR	ETRI403D-003	2-60SEC, SET 25SEC
SDR23	DIESEL SHUTDOWN ELECTRIC-RESET RELAY					13
SPR23	SPEED RELAY	120VDC	C-H	R	D40RR34A1	
SV715	PRIMING SOLENOID VALVE	125VDC	ASCO		EFX8210B26V1	
TDR23	TACHOMETER RELAY	120VDC	C-H	R	D40RR52A1	
YM-3	DIGITAL PROCESS TACH		AIRPAX	TACH	663082-309	SEE NOTE 1 (TYP)
YM-3A	TACH PAC CURRENT/CURRENT ISOLATOR	120VAC	ACTION INCL	ISO		
Y1-3	RPM METER - LOCAL					
Y1-102	RPM METER - CONTROL ROOM					
DE23/CS	DIESEL ENGINE CONTROL SW					9
29-23	DIESEL CONTROL SW					10
43-23	DIESEL ENGINE SELECTOR SW					10
65/LSC1	GOVERNOR LIMIT SWITCH					20
K2CX23	DG START TIMING AUX RELAY		C-H	R	D40RR43A1	
YM-3B	DG23 EGA OUTPUT VOLTS SIGNAL ISOLATOR		MOORE	IND	FCT/0-5V/0-5V/U	
YM-3C	DG23 EGA MOP INPUT SIGNAL ISOLATOR		MOORE	IND	FCT/0-5V/0-5V/U	
YM-3D	DG23 GEN VOLTS ADJ MOP SIGNAL ISOLATOR		MOORE	IND	FCT/0-10V/0-10-V/U	

ISO.	DROOP	CONTACTS	DROOP	ISOCHRONOUS	REMARKS
— — —	— — —	A			SPARE
— — —	— — —	B	X	X	THIS DWG

MAINTAINED CONTACTS
DROOP SW DSLS23 CS AT LOC: SED23

EQUIPMENT LOCATION

CHF CONTROL BOARD ENGINEERING SAFEGUARD BUS F
 GDD23 DIESEL GENERATOR 23 CONTROL PANEL
 SED23 DIESEL GENERATOR 23 EXCITATION CUBICLE
 GDDC23A DIESEL GENERATOR 23 EMERGENCY STOP SWITCH
 XEG10B ELECTRO HYDRAULIC GOVERNOR
 PM-DST23 DG23 START TIMING DATA ACQUISITION (DAS) PANEL

DECK

DECK	CONTACTS			POSITION			REMARKS
	BACKUP	INTER	NORMAL	BACKUP	INTER	NORMAL	
1	12-11	11-14	X				REF 9
1	21-11	11-13				X	REF 9
1	31-16	11-18	X				REF 9
1	41-15	11-17				X	REF 9
2	52-11	11-24	X				REF 12
2	62-11	11-23				X	REF 12
2	72-11	11-28	X				REF 12
2	82-11	11-27				X	REF 12
3	92-11	11-34	X				REF 22
3	103-11	11-33				X	SPARE
3	113-16	11-38	X				SPARE
3	123-11	11-37				X	SPARE
3	132-11	11-44				X	SPARE
3	141-11	11-43				X	SPARE
3	151-11	11-48	X				SPARE
3	161-11	11-47				X	SPARE
3	172-11	11-54	X				SPARE
3	181-11	11-53				X	SPARE
3	191-11	11-58	X				SPARE
3	201-11	11-57				X	SPARE
3	211-11	11-64	X				SPARE
3	221-11	11-63				X	SPARE
3	231-11	11-68	X				SPARE
3	241-11	11-67				X	SPARE
3	251-11	11-74	X				SPARE
3	261-11	11-73				X	SPARE
3	271-11	11-78	X				SPARE
3	281-11	11-77				X	SPARE

TRANSFER SWITCH : 43DC23/55
MAINTAINED POSITION
LOC: GDD23

REFERENCES

NO.	DESCRIPTION	DWG NO.
1.	DESCRIPTION OF ELECTRICAL SCHEMATIC DIAG SYMBOLS & CIRCUIT DESIGNATIONS	050003
2.	LIST OF EQUIPMENT LOCATION CODES	103013
3.	LOGIC DIAG 4160V BUS SECTIONS "F" AUTOMATIC TRANSFER	441286
4.	SINGLE LINE METER & RELAY DIAG 4160V SYSTEM BUS SECTIONS "F"	441229
5.	SINGLE LINE METER & RELAY DIAG 125VDC SYSTEM	441240
6.	SINGLE LINE DIAG MAIN CONTROL BD 2VBI-2VBR FUSE PANELS	451805
7.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 & ASSOCIATED CIRCUIT BREAKERS SH 1	496275
8.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 & ASSOCIATED CIRCUIT BREAKERS SH 2	496276
9.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 CONTROL SH 1	496277
10.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 CONTROL SH 2	496278
11.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 CONTROL SH 3	496279
12.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 CONTROL SH 4	496280
13.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 CONTROL SH 5	496281
14.	SCHEMATIC DIAG 4160V DIESEL GENERATOR NO. 23 AUXILIARY MOTORS	496282
15.	SCHEMATIC DIAG DIESEL FUEL TRANSFER PUMPS	437657
16.	SCHEMATIC DIAG 4160V BUS SECTION "F" AUTOMATIC TRANSFER	441352
17.	SCHEMATIC DIAG STATE PROTECTION SYSTEM TRAIN A OUTPUT RELAYS	503089
18.	SCHEMATIC DIAG MAIN ANNUNCIATOR SH 10	500780
19.	SCHEMATIC DIAG MAIN ANNUNCIATOR SH 15, 16, 17	500785, 6, 7, 8
20.	DIESEL GENERATOR MFR DRAWINGS	6011476
21.	SCHEMATIC DIAG MAIN ANNUNCIATOR SH 23	500639
22.	SCHEMATIC DIAG MAIN ANNUNCIATOR SH 10	500780
23.	VENDOR DWG DG START TIMING DAS	663082-342 THRU 354

NOTES

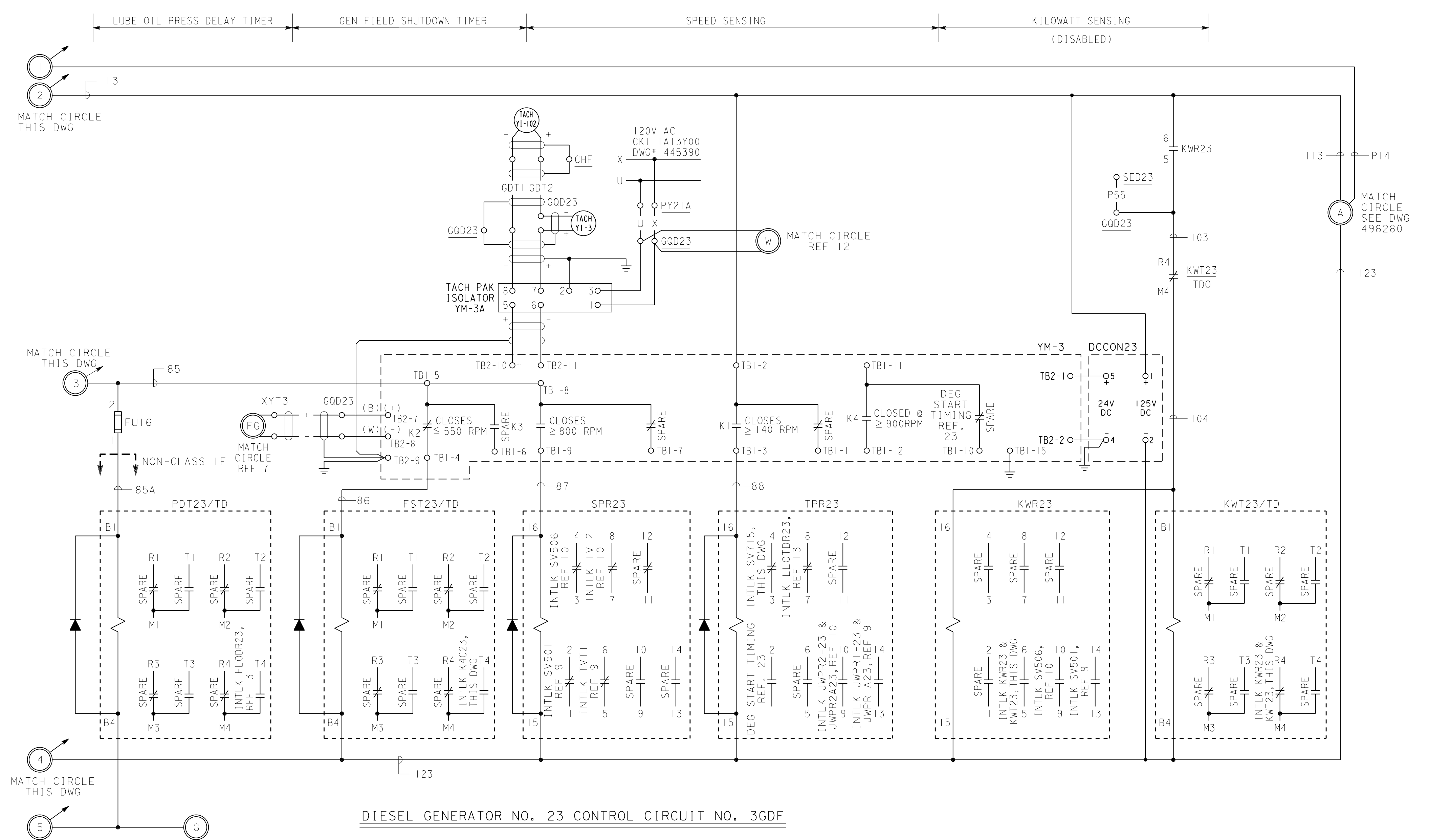
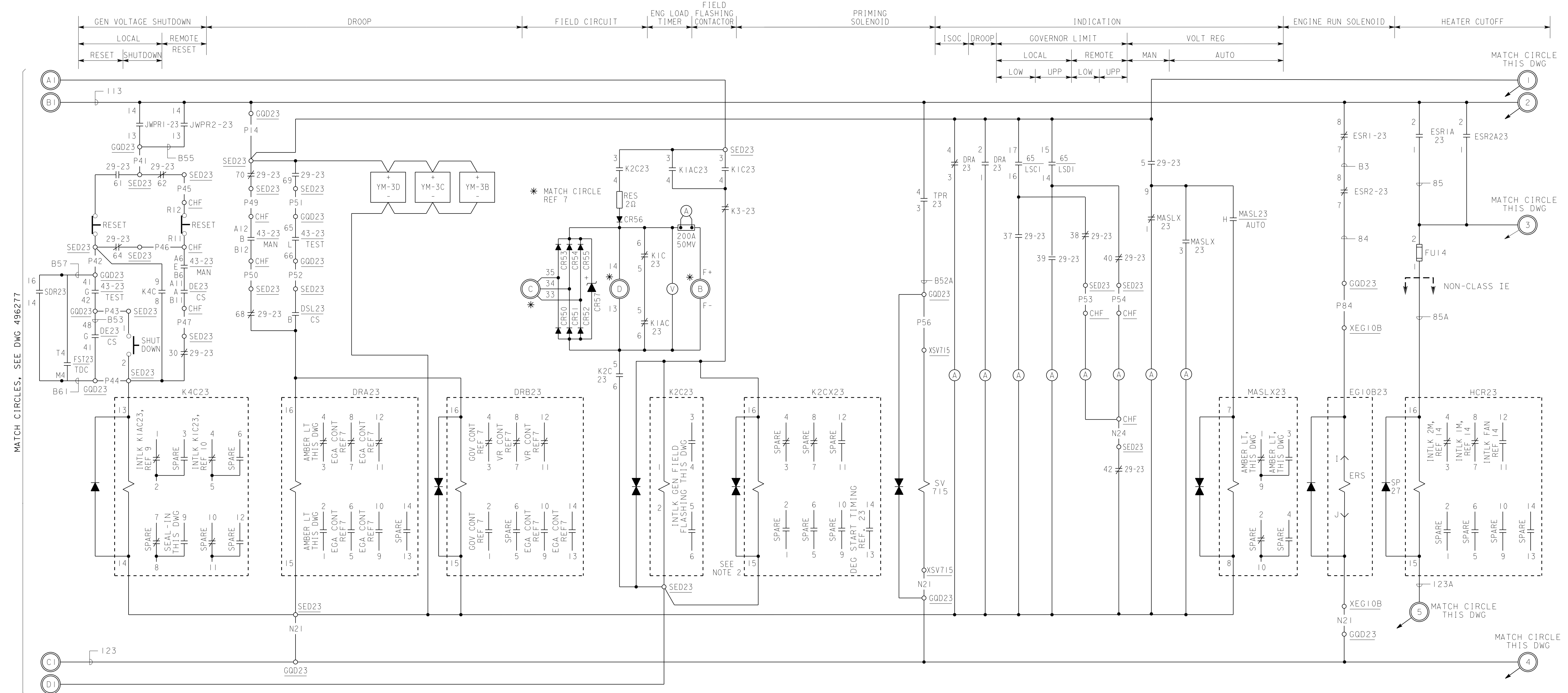
- FOR ELECTRICAL DEVICES TECH DATA AND SETPOINTS SEE PIMS COMPONENT DATABASE.
- SEE DWG 216153, ITEM 10 BILL OF MATERIAL.

NUCLEAR SAFETY RELATED

KEY DWG. SECTION 2

DATE	REVISION DESCRIPTION	DWG SCALES
01-22-2018	Revised Per DFT-74376	BILL OF MATL:
D.O. ZNS4		SUPDS1:
R.E. FXC2		SUPDS2:
T.V. N/A		SUPDS3:
P.E. N/A		DRAWING SHEET PAGE REV
		496279 1 0 9

UNIT 2
ELECTRICAL SCHEMATIC DIAGRAM
4160V DIESEL GENERATOR CONTROL NO. 23
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA



DIESEL GENERATOR NO. 23 CONTROL CIRCUIT NO. 3GDF

RASTER=496279-1-0.dgn
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