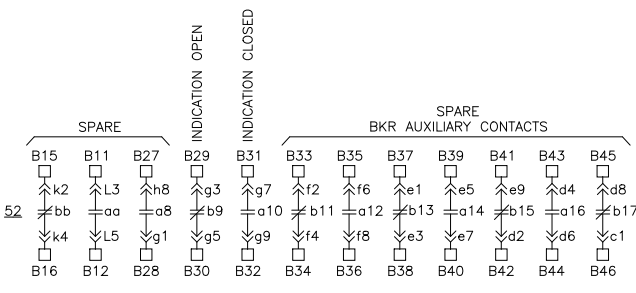


BREAKER CONTR. SWITCH
(TRIP RESET CONTACT)



LEGEND	
a	N.O. AUX. CONTACT
b	N.C. AUX. CONTACT
aa	SPRING LIMIT SWITCH—CLOSES WHEN SPRINGS BECOME FULLY CHARGED
bb	SPRING LIMIT SWITCH—OPENS WHEN SPRINGS BECOME FULLY CHARGED
LC	LATCH—CHECK SWITCH
LO	LOCKOUT SWITCH—CONTACT OF MECHANISM BLOCKING DEVICE
M	SPRING CHARGE MOTOR 120V 60Hz
CC	CLOSING RELEASE COIL 120V 60Hz
TC	SHUNT TRIP COIL 24V DC
B	BLUE INDICATING LIGHT "BKR CLOSED" A.B. #800T-P16
A	AMBER INDICATING LIGHT "BKR OPEN" A.B. #800T-P16
52Y	ANTI PUMPING RELAY — KLOCKNER MOELLER DIL-00L-31-NA
3PST	3-POLE SINGLE THROW 250V 30A DISCONNECT SWITCH NB3P30
74	AUX. TRIP RELAY — KM-DIL-00L-22d/G-CNA, 24V DC COIL

TB1—□ TERMINAL BLOCK WK4/32 ("B" No CORRESPONDS TO WIRE ON SECONDARY DISCONNECT PLUG.)
 TB2—□ TERMINAL BLOCK WK6/32 OR EQUIVALENT.
 CLOSING CIRCUIT DISCUSSION — W5339C1000
 FOR COMPLETE DEVICE TABLE AND DRAWING REFERENCE LIST SEE DATA SHEETS W5001A8062 SHEETS 1 TO 13

BREAKER CONT.	SWITCH POSITION			
TRIP	↑ CLOSE	CLOSE	NORMAL CLOSE	TRIP
CONTACTS				
1				X
2				X
3		X	X	
4	X			
5	X	X		
6	X	X		

— 01—BREAKER CONTROL SWITCH
 CGE SBM 10AA106

DISTRIBUTION					
DISTRIBUTION	QTY.	DISTRIBUTION	QTY.	DISTRIBUTION	QTY.
Owners		Operations Manager		Shipwright	
Classification		New Const. Supt.		Rigger	
Steamship Inspection		Outfit Supt.		Joiner	
		Repair Supt.		Pipe Fitter	
		Steel Supt.		Machine Ship	
		PLANNING			
Hull D.O.					
Machinery D.O.		Loft		Sheet Metal	
Electrical D.O.		Plater		Electric Shop	
Welding Engineer		Welder		Engine Fitter	
No.	REVISION			BY	DATE
1	GENERAL REVISIONS.			BOS	OCT/22/85
2	ADDED ALX CIRCUIT.			BOS	JUN/07/86
3	UPDATED TO CUSTOMER MARKED UP PRINTS.			JLN	OCT/20/86
4	REVISED AS BUILT.			TRH	OCT/28/86
5	REDRAWN TO CAD.			DB	JAN/19/2001

Fisheries and Oceans

Coast Guard

Pêches et Océans

Garde côtière

Vessel
Novire TYPE 1200 ICEBREAKER

Drg. Title
Dess. Titre

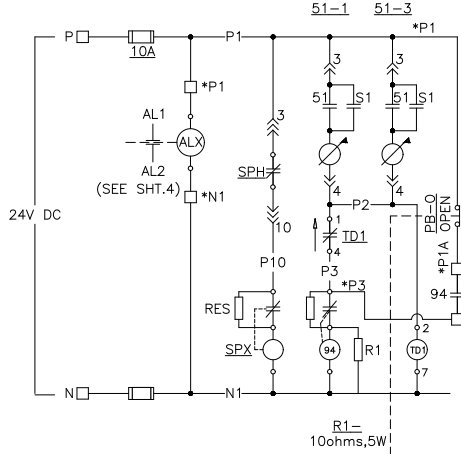
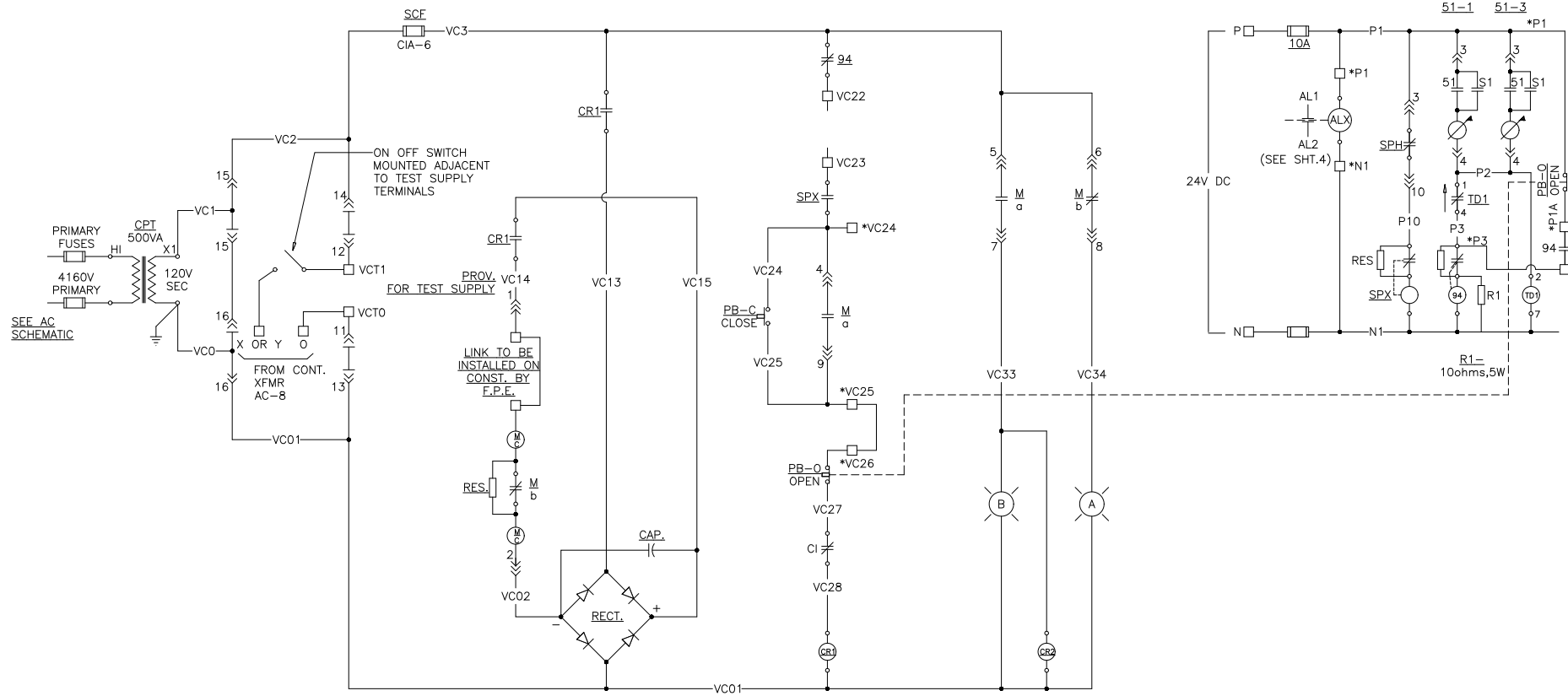
BREAKER SCHEMATIC:
AIR BUBBLERS

date — date
JAN/19/2001

scale — echelle
NTS

rev. 5

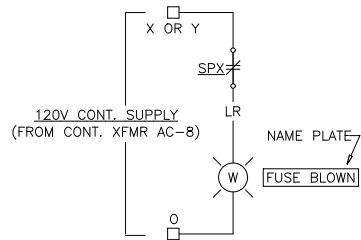
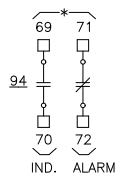
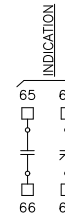
Contractor Drg. No.
Entrepreneur dess. No. W5339C2141-1 SHT. 1/9



LEGEND	
CR1	KM-DIL-00L-31-NA 120V AC
CR2	KM-DIL-00L-44-NA 120V AC
SPX	KM-DIL-00L-22d/G-CNA 24V DC
M C	CONTACTOR OPERATING COIL
a	AUX. CONTACT N.O.
b	AUX. CONTACT N.C.
CI	CRADLE INTERLOCK SWITCH OPEN WHEN CONTACTOR IS MOVED BETWEEN OPER. & TEST POSITION
SPH	SINGLE PHASE PROTECTION TO BE WIRED INTO 3 & 10 IN PLACE OF SUPPLIED JUMPER.
64	DSP. MARK II FEEDER MODULE
PB	PUSH BUTTONS CH-10250T101
TD1	AGASTAT SSC12EAA 24V DC 0.1-3 SEC.
ALX	ALARM RELAY - RELECO NO. C2A 20X-24V DC
94	AUX. RLY KM-DIL-00L-44d/G-CNA 24V DC

M - DRAW OUT CONTACTS	
→→→	ENGAGED IN OPERATION AND TEST POSITION
→→	ENGAGED IN OPERATION POSITION ONLY
→	ENGAGED IN TEST POSITION ONLY

FOR COMPLETE DEVICE TABLE AND DRAWING LIST SEE DATA SHEETS W5001A8062 SHEETS 1 TO 13



* PREFIX WITH CELL NO.

DISTRIBUTION					
DISTRIBUTION	QTY.	DISTRIBUTION	QTY.	DISTRIBUTION	QTY.
Owners		Operations Manager		Shipwright	
Classification		New Const. Supt.		Rigger	
Steamship Inspection		Outfit Supt.		Joiner	
		Repair Supt.		Pipe Fitter	
		Steel Supt.		Machine Ship	
		PLANNING			
Hull D.O.					
Machinery D.O.		Loft		Sheet Metal	
Electrical D.O.		Plater		Electric Shop	
Welding Engineer		Welder		Engine Fitter	

No.	REVISION	BY	DATE
1	REVISED CELL 9, ADDED ALX.	BS	JUL/07/86
2	REVISED AS PER CUST. MARKED UP PRINTS..	NAR	OCT/20/86
3	REVISED AS BUILT.	TH	OCT/28/86
4	REDRAWN TO CAD.	DB	FEB/02/2001

Fisheries and Oceans

Coast Guard

Pêches et Océans

Garde côtière

Vessel
Novire TYPE 1200 ICEBREAKER

Drg. Title
Dess. Titre

VACUUM CONTACTOR-
CONTROL SCHEMATIC

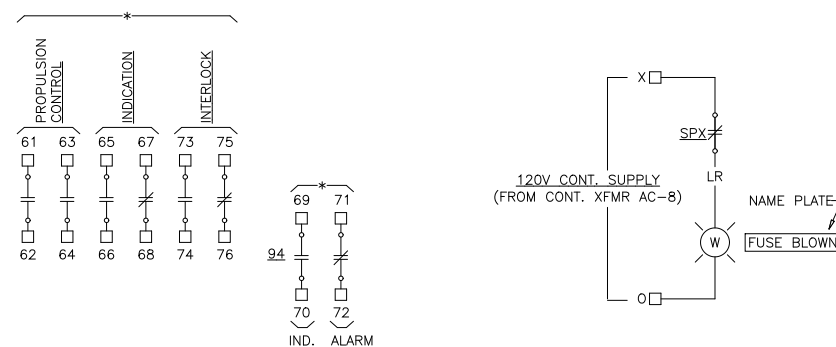
date - date
FEB/02/2001

scale - echelle
NTS

rev.
4

Contractor Drg. No.
Entrepreneur dess. No.

W5339C2141-2 SHT. 2/9



M – DRAW OUT CONTACTS	
—>>>—	ENGAGED IN OPERATION AND TEST POSITION
—>>—	ENGAGED IN OPERATION POSITION ONLY
— >>—	ENGAGED IN TEST POSITION ONLY

* PREFIX WITH CELL NO.

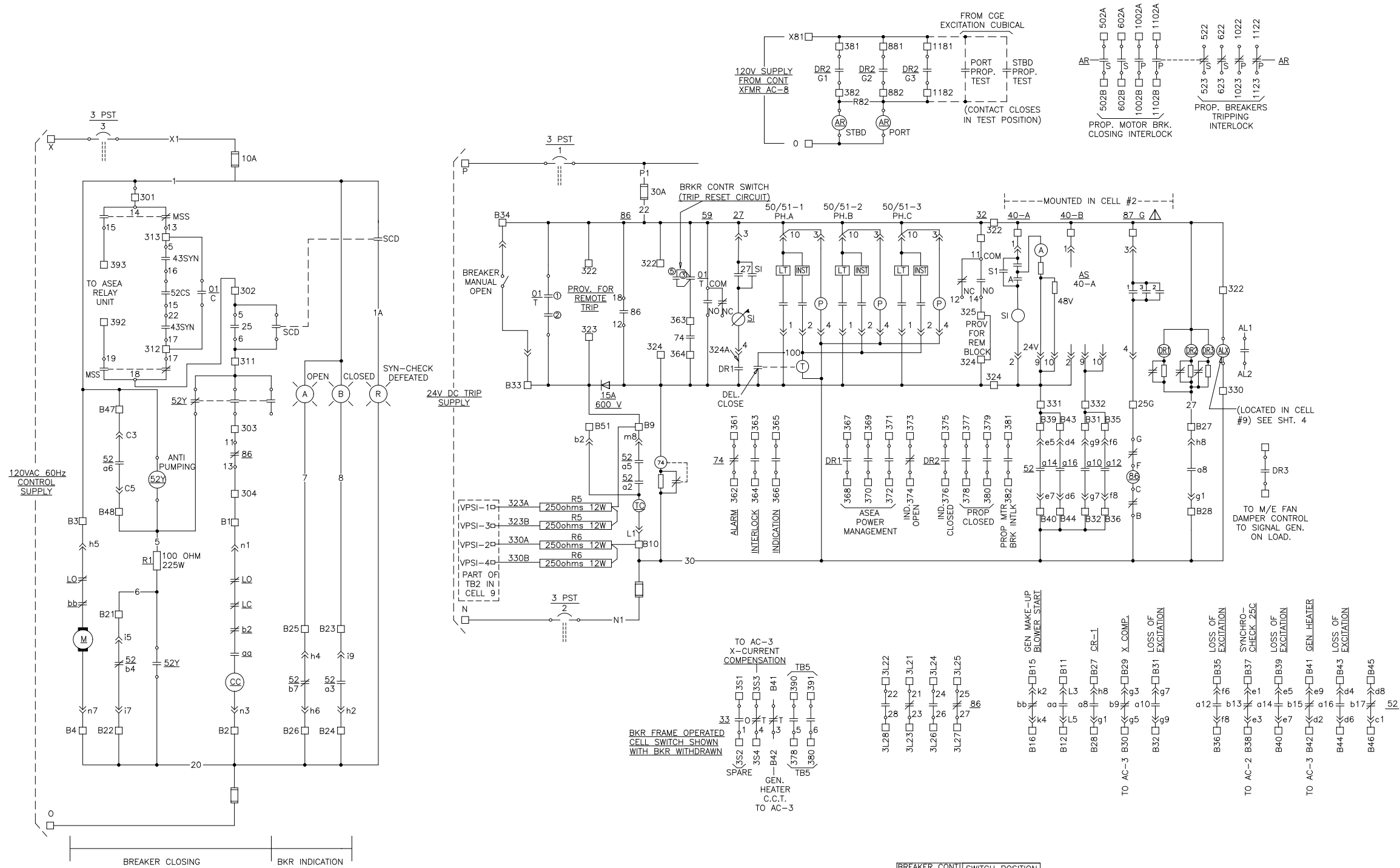
No.	REVISION	BY	DATE
1	REVISED CELL 9, ADDED ALX.	BS	JUL/07/8
2	REVISED AS PER CUST. MARKED UP PRINTS..	NAR	OCT/20/8
3	REVISED AS BUILT.	TH	OCT/28/8
4	REDRAWN TO CAD.	DB	FEB/02/200

Vessel	
Navire	TYPE 1200 ICEBREAKER

Drg. Title	
Dess. Titre	

date - date FEB/02/2001	scale - echelle NTS	rev. 4
Contractor Drg. No. W5339C2141-2A SHT. 2A/9		
Entrepreneur dess. No.		

Note: AR relays located in Cell #9.



TB1-□ TERMINAL BLOCK WK4/32 "B" No CORRESPONDS TO WIRE ON SECONDARY DISCONNECT PLUG
TB2-□ TERMINAL BLOCK WK6/32 OR EQUIVALENT
CIRCUIT BREAKER WIRING DIAGRAM - W5339C1000
CLOSING CIRCUIT DESCRIPTION - W5339A1002
FOR COMPLETE DEVICE TABLE AND DRAWING LIST SEE DATA SHEETS W5001A8062 SHEETS 1 TO 13

MSS- MODE SELECTOR SWITCH
SCD- SYNCHRO CHECK DEFEAT SWITCH
43-SYN- SYNCHRO SELECTOR SWITCH

BREAKER CONT.		SWITCH POSITION			
TRIP		CLOSE		TRIP	
CONTACTS		NORMAL		NORMAL	
1	2			X	X
3	4	X	X		
5	6	X	X		
7	8	X	X		

-01-BREAKER CONTROL SWITCH
CGE SBM 10AA106

DISTRIBUTION					
DISTRIBUTION	QTY.	DISTRIBUTION	QTY.	DISTRIBUTION	QTY.
Owners		Operations Manager		Shipwright	
Classification		New Const. Supt.		Rigger	
Steamship Inspection		Outfit Supt.		Joiner	
		Repair Supt.		Pipe Fitter	
		Steel Supt.		Machine Ship	
		PLANNING			
Hull D.O.					
Machinery D.O.		Loft		Sheet Metal	
Electrical D.O.		Plater		Electric Shop	
Welding Engineer		Welder		Engine Fitter	

No.	REVISION	BY	DATE
1	ADDED "ALX" AND "33".	BS	JUN/07/86
2	REVEISED AS PER MARKED UP DRAWING.	NAR	OCT/20/86
3	REVISED AS BUILT 50/51 INST. CONNECTED.	TRH	OCT/28/86
4	REDRAWN TO CAD.	TH	JAN/28/2000
5	REVISED TO DATE.	DB	JAN/17/2001

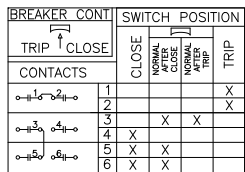
Fisheries and Oceans
Coast Guard
Pêches et Océans
Garde côtière

Vessel
Novire TYPE 1200 ICEBREAKER

Drg. Title
Dess. Titre

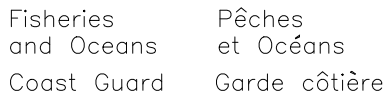
BREAKER CONTROL SCHEMATIC:
STBD GEN. - G1

date - date OCT/28/86	scale - echelle NTS	rev. 5
Contractor Drg. No. Entrepreneur dess. No. W5339D2141-3 SHT. 3/9		



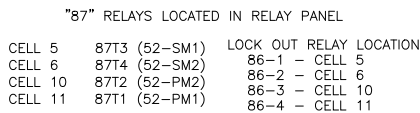
The diagram shows a main switchboard with six vertical busbars. From left to right, they are labeled: SM 1, SM 2, EX 1, EX 2, PM 1, and PM 2. Below SM 1 and SM 2 are wavy lines representing loads, labeled STBD and CCV respectively. Below EX 1 and EX 2 are rectangular boxes representing loads, labeled EX. Below PM 1 and PM 2 are wavy lines representing loads, labeled PORT and CCV respectively. A horizontal line connects the busbars between EX 1 and EX 2, labeled EXT SW. Below this line are two parallel horizontal lines, with an asterisk (*) between them.

1 NOTE: TRIP COIL CIRCUIT FOR EXCITATION WILL NOT WORK
UNLESS UMBILICAL CORDS ARE PLUGGED INTO
TRANSFORMER BREAKERS.









BREAKER CONTROL SCHEMATIC:
BREAKER 52 EX-1, CELL4.

date - date JAN/29/2001	scale - echelle NTS	rev. 3
Contractor Drg. No. Entrepreneur dess. No. W5339D2141-4 SHT. 4/9		





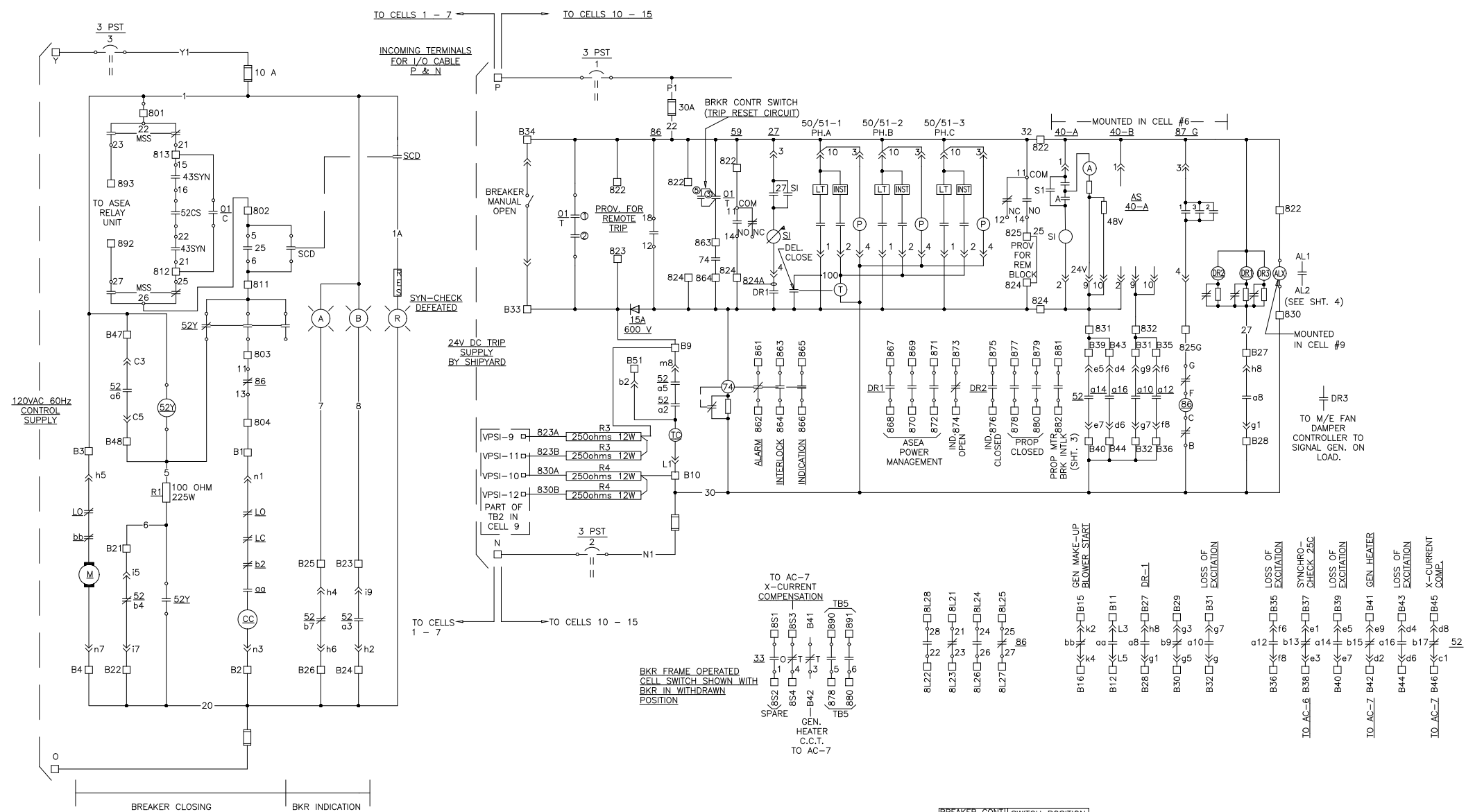
1. *Journal of the American Medical Association*, 2000; 283: 2689-2695.

		Fisheries and Oceans Coast Guard		Pêches et Océans Garde côtière	
Vessel Navire TYPE 1200 ICEBREAKER					
Drg. Title Dess. Titre <div style="text-align: center; font-size: 1.5em;"> BREAKER CONTROL SCHEMATIC: PROPULSION MOTORS </div>					
date - date FEB/02/2001		scale - echelle NTS		rev. <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 5 </div>	
Contractor Drg. No. Entrepreneur dess. No.		W5339D2141-5 SHT. 5/9			

BREAKER CONT		SWITCH POSITION			
					
TRIP ↑ CLOSE		CLOSE	NORMAL CLOSE	NORMAL AFTER TRIP	TRIP
CONTACTS					
	1				X
	2				X
	3		X	X	
	4	X			
	5	X	X		
	6	X	X		

LEGEND	
a	N.O. AUX. CONTACT
b	N.C. AUX. CONTACT
aa	SPRING LIMIT SWITCH—CLOSES WHEN SPRINGS BECOME FULLY CHARGED
bb	SPRING LIMIT SWITCH—OPENS WHEN SPRINGS BECOME FULLY CHARGED
LC	LATCH—CHECK SWITCH
LO	LOCKOUT SWITCH CONTACT OF MECHANISM BLOCKING DEVICE
M	SPRING CHARGE MOTOR 120V AC 60Hz
CC	CLOSING RELEASE COIL 120V AC 60Hz
TC	SHUNT TRIP COIL 24V DC
B	BLUE INDICATING LIGHT "BKR CLOSED" A.B. #800T-P16-B
A	AMBER INDICATING LIGHT "BKR OPEN" A.B. #800T-P16-A
52Y	ANTI PUMPING RELAY - KLOCKNER MOELLER DIL-00L-31-NA 120V AC
3PST	3-POLE SINGLE THROW DISCONNECT SWITCH 250V 30A FPE NB3P30
86	LOCK OUT RELAY - 24V DC - TRIP COIL

		Fisheries and Oceans Coast Guard		Pêches et Océans Garde côtière	
Vessel Navire TYPE 1200 ICEBREAKER					
Drg. Title Dess. Titre <div style="text-align: center; padding: 20px;"> BREAKER CONTROL SCHEMATIC: CENTRE GEN. — G2 </div>					
date — date OCT/28/86		scale — échelle NTS		rev. 	
Contractor Drg. No. Entrepreneur dess. No.		W5339D2141-6 SHT. 6/9			



TB1-□ TERMINAL BLOCK WK4/32 "B" No CORRESPONDS TO WIRE ON SECONDARY DISCONNECT PLUG
TB2-□ TERMINAL BLOCK WK6/32 OR EQUIVALENT
CIRCUIT BREAKER WIRING DIAGRAM - W5339C1000
CLOSING CIRCUIT DESCRIPTION - W5339A1002
FOR COMPLETE DEVICE TABLE AND DRAWING LIST SEE DATA SHEETS W5001A8062 SHEETS 1 TO 13

MSS- MODE SELECTOR SWITCH
SCD- SYNCHRO CHECK DEFEAT SWITCH
43-SYN- SYNCHRO SELECTOR SWITCH


BREAKER CONT		SWITCH POSITION	
TRIP	CLOSE	TRIP	CLOSE
CONTACTS			
o-1-1-1-1-1-1	1	X	X
o-1-1-1-1-1-1	2	X	X
o-1-1-1-1-1-1	3	X	X
o-1-1-1-1-1-1	4	X	X
o-1-1-1-1-1-1	5	X	X
o-1-1-1-1-1-1	6	X	X

-O1-BREAKER CONTROL SWITCH
CGE SBM 10AA106

CELL 8

DISTRIBUTION					
DISTRIBUTION	QTY.	DISTRIBUTION	QTY.	DISTRIBUTION	QTY.
Owners		Operations Manager		Shipwright	
Classification		New Const. Supt.		Rigger	
Steamship Inspection		Outfit Supt.		Joiner	
		Repair Supt.		Pipe Fitter	
		Steel Supt.		Machine Ship	
		PLANNING			
Hull D.O.					
Machinery D.O.		Loft		Sheet Metal	
Electrical D.O.		Plater		Electric Shop	
Welding Engineer		Welder		Engine Fitter	

No.	REVISION	BY	DATE
1	ADDED "ALX" AND "33".	BOS	JUN/07/86
2	REVISED PER CUST.	NAR	OCT/20/86
3	REVISED AS BUILT (50/51 INST. CONNECTED).	TRH	OCT/28/86
4	REDRAWN TO CAD.	TH	
5	REVISED TO DATE.	DB	JAN/18/2001



Fisheries and Oceans
Coast Guard

Pêches et Océans
Garde côtière

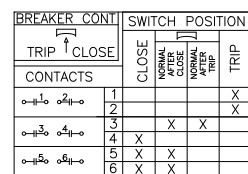
Vessel
Navire TYPE 1200 ICEBREAKER

Drg. Title
Dess. Titre

BREAKER CONTROL SCHEMATIC:
CENTRE GEN. - G2

date - date OCT/28/86	scale - echelle NTS	rev. 5
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Contractor Drg. No.
Entrepreneur dess. No. W5339D2141-6 SHT. 6/9

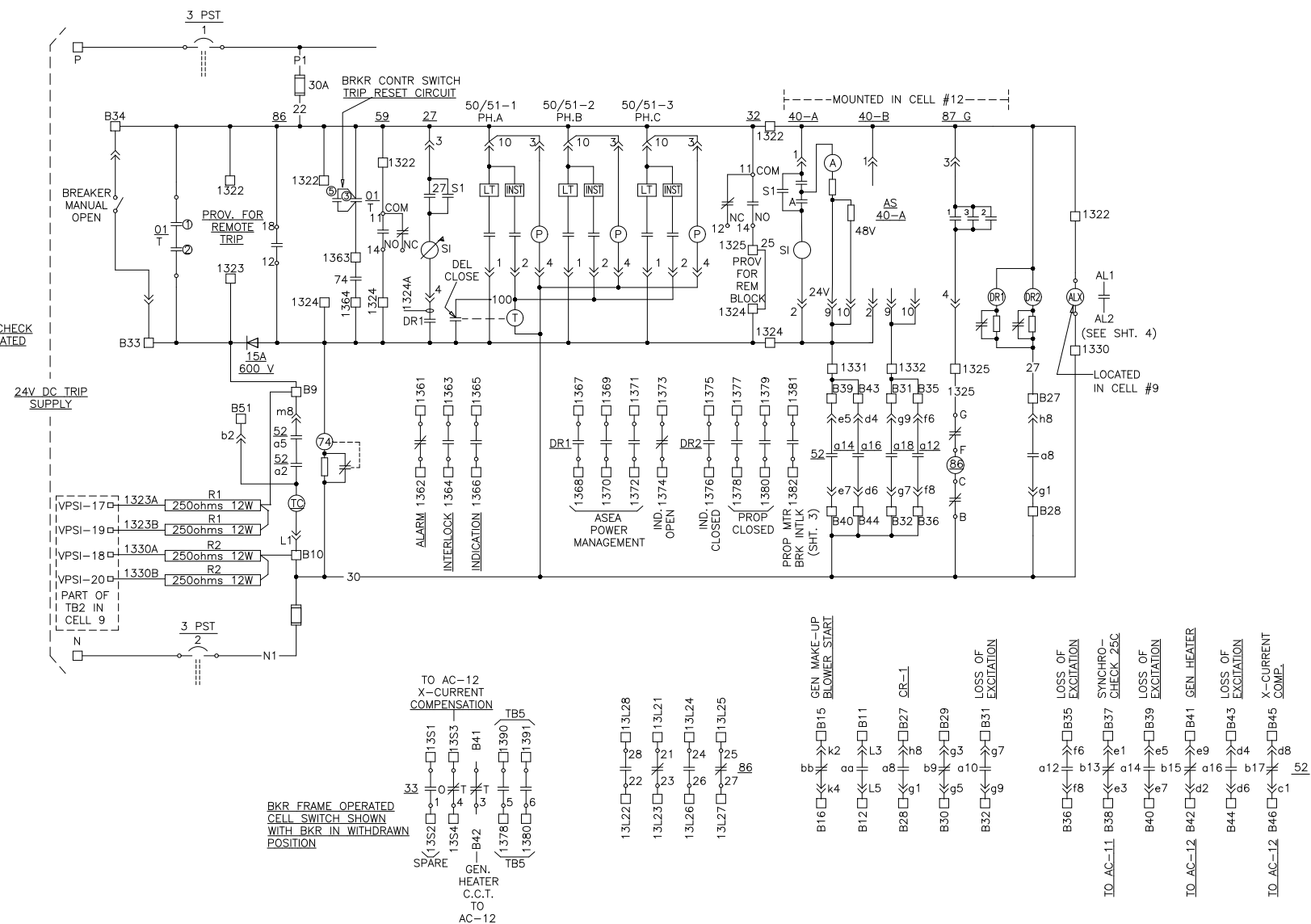



The diagram illustrates a Main Switchboard with the following components and connections:



- Main Switchboard:** The central power source at the top.
- Breakers and Connections:**
 - SM 1:** Connected to **STBD** (Stbd Motor).
 - SM 2:** Connected to **CCV** (Cav. Vent. Valve).
 - EX 1:** Connected to an **EX** (Exhaust) unit.
 - EX 2:** Connected to another **EX** (Exhaust) unit.
 - PM 1:** Connected to **PORT** (Port Motor).
 - PM 2:** Connected to **CCV** (Cav. Vent. Valve).
- EXT SW:** An external switch connected between the two EX units, controlled by two battery sources (represented by two sets of parallel lines).

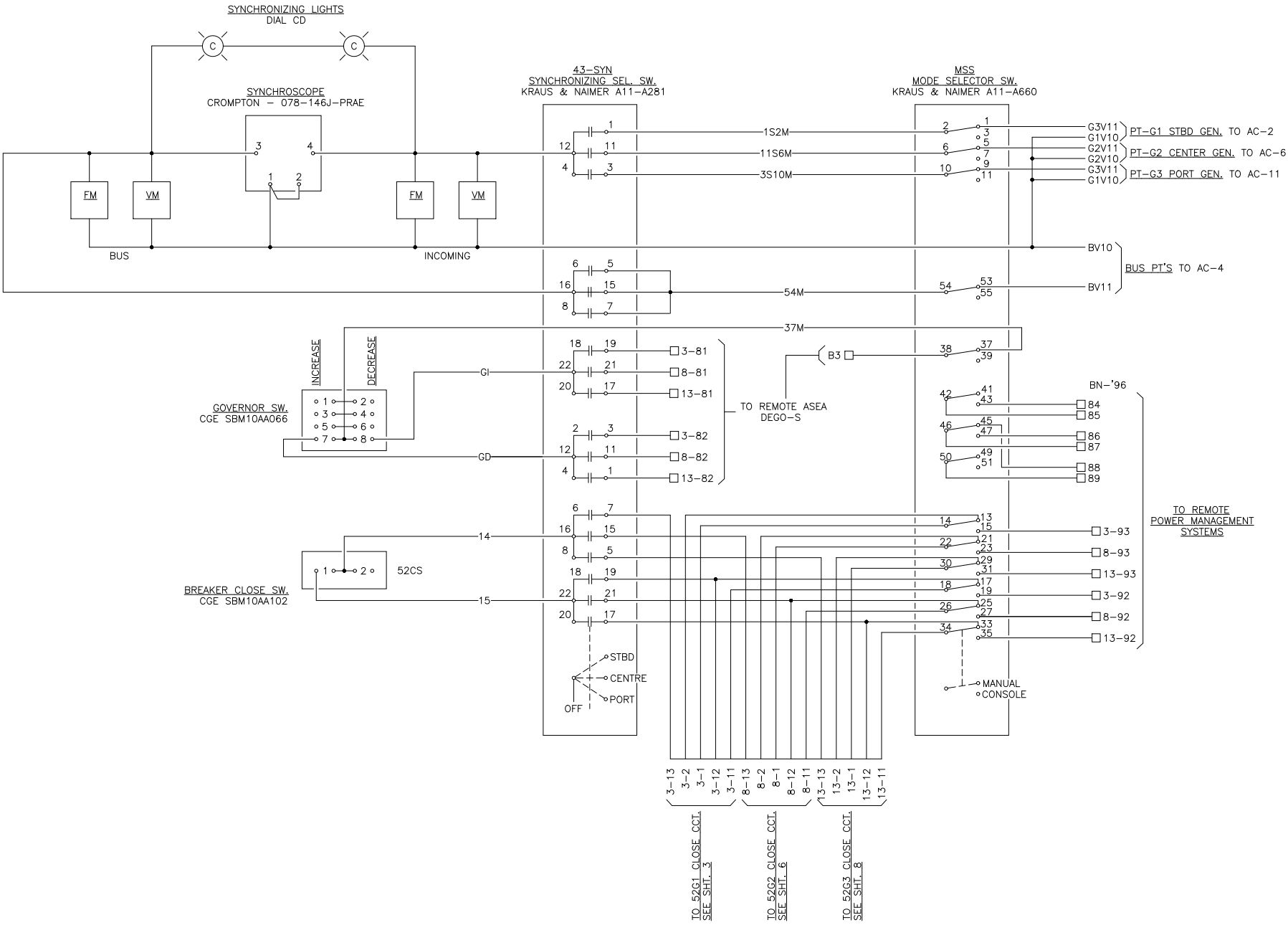
No.	REVISION	BY	DATE
1	UPDATED TO CUSTOMER MARKED UP PRINTS.	JLN	OCT/20/86
2	REVISED AS BUILT.	TH/BOS	OCT/28/86
3	REDRAWN TO CAD.	DB	JAN/29/2001

date - date JAN/29/2001	scale - echelle NTS	rev. 
Contractor Drg. No. Entrepreneur dess. No. W5339D2141-7 SHT. 7/9		




BREAKER CONT.		SWITCH POSITION				
<div style="text-align: center;">  TRIP CLOSE </div>		CLOSE	NORMAL AFTER CLOSE	NORMAL AFTER TRIP	TRIP	
CONTACTS						
1-2	1-2				X	
					X	
3-4	4-3		X	X		
		X				
5-6	6-5	X	X			
		X				

		fisheries and Oceans Coast Guard		Pêches et Océans Garde côtière	
Vessel Navire TYPE 1200 ICEBREAKER					
Drg. Title Dess. Titre BREAKER CONTROL SCHEMATIC: PORT GEN. – G3					
date – date OCT/26/86		scale – échelle NTS		rev. 	
Contractor Drg. No. Entrepreneur dess. No.		W5339D2141–8 SHT. 8/9			



FOR COMPLETE BILL OF MATERIAL AND DRAWING LIST
SEE DATA SHEETS W5001A8062 SHEETS 1 TO 13.

DISTRIBUTION					
DISTRIBUTION	QTY.	DISTRIBUTION	QTY.	DISTRIBUTION	QTY.
Owners		Operations Manager		Shipwright	
Classification		New Const. Supt.		Rigger	
Steamship Inspection		Outfit Supt.		Joiner	
		Repair Supt.		Pipe Fitter	
		Steel Supt.		Machine Ship	
		PLANNING			
Hull D.O.					
Machinery D.O.		Loft		Sheet Metal	
Electrical D.O.		Plater		Electric Shop	
Welding Engineer		Welder		Engine Fitter	
No.	REVISION			BY	DATE
1	UPDATED TO CUST. MARKED UP PRINTS.			JLN	OCT/20/86
2	REDRAWN TO CAD.			DB	FEB/02/2001



Fisheries
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Pêches
et Océans

Garde côtière

Vessel
Navire

TYPE 1200 ICEBREAKER

Drg. Title
Dess. Titre

MAIN GENERATORS
SYNCHRONIZING SCHEMATIC

date - date
FEB/02/2001

scale - echelle
NTS

rev.
2

Contractor Drg. No.
Entrepreneur dess. No.

W5339D2141-9 SHT. 9/9

