

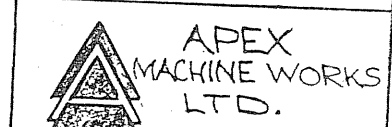
WHEN HOOK REACHES POSITION 'A' CONTACT 'A' OPENS
WHEN HOOK REACHES POSITION 'B' CONTACT 'B' OPENS

HOOK POSITION 'B'

LIMIT SWITCH TRIP POINTS

NO	REVISIONS
1	REVISED TO SUIT APPROVAL

GENERAL ARRANGEMENT



14330.1.7.2.1-003
EX151-10
SHOP CRANES
H-417-9632/12-4021

FRASER-BRACE MARITIMES
S.R.U.'A' JETTY 2 COMPLEX
C.F.B. HALIFAX
2514219
MK TC FEB 4/82
1191-08 REV 15

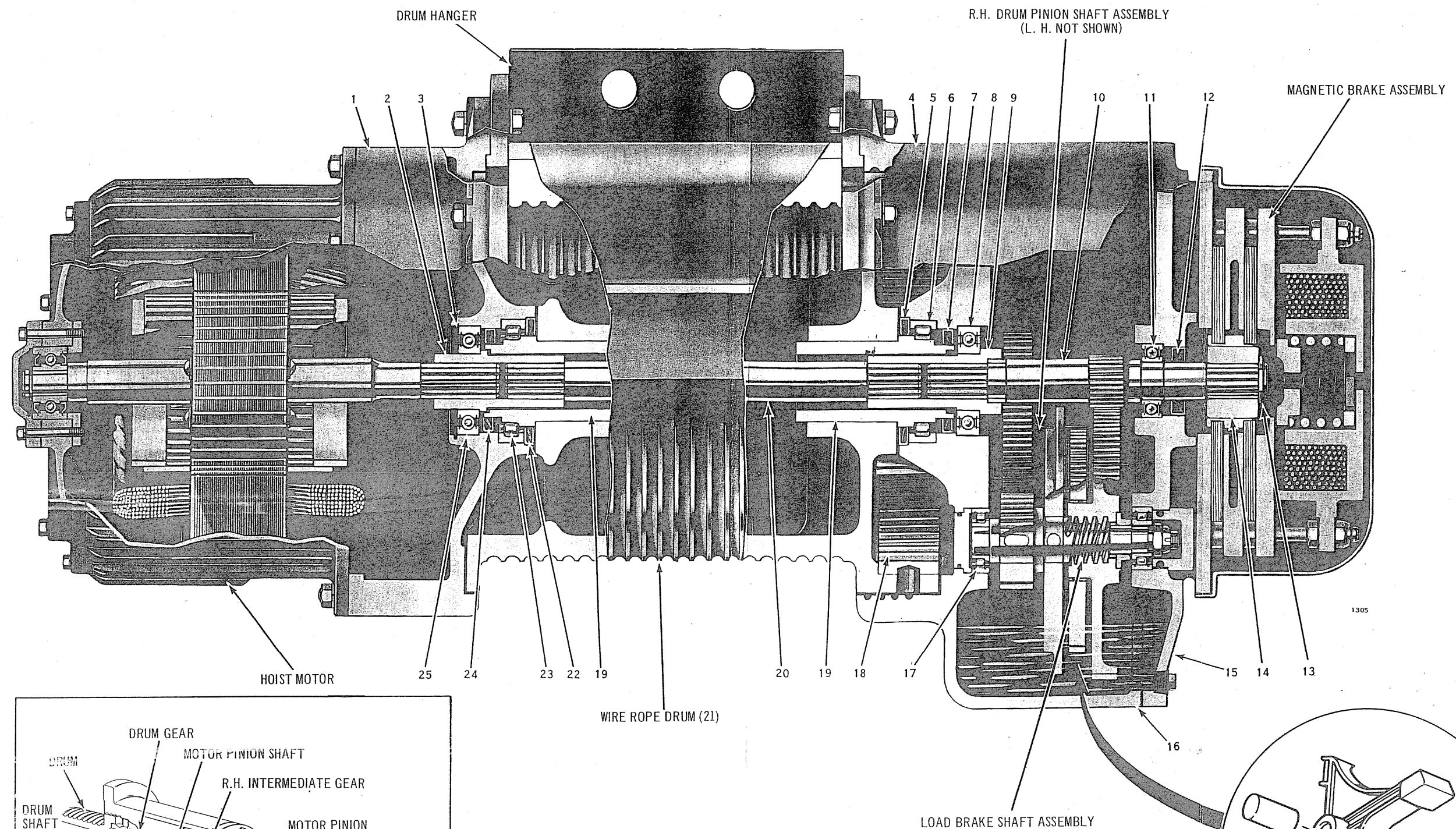


Figure 5-21. Cross Sectional View of Hevi-Lift Hoist

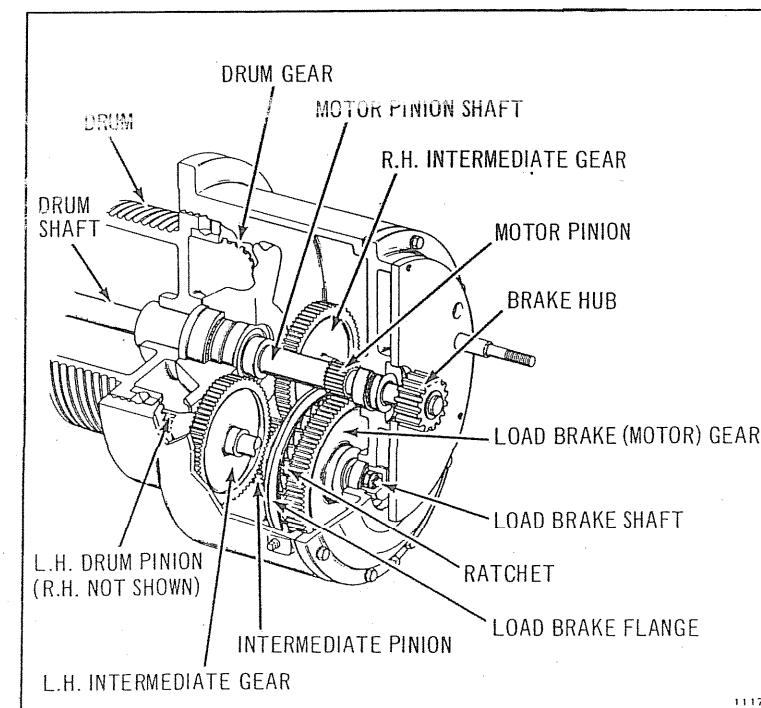
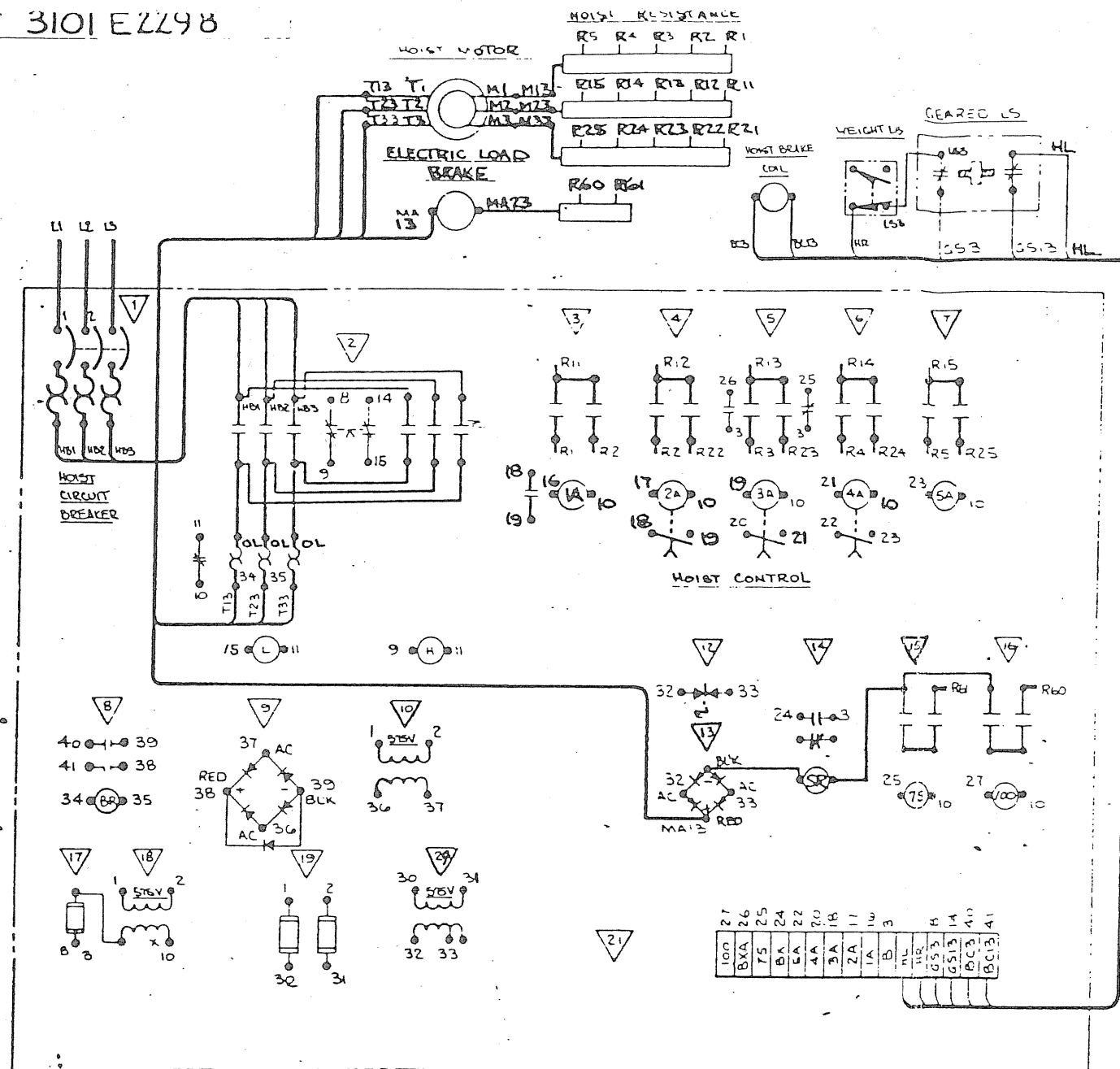


Figure 5-20

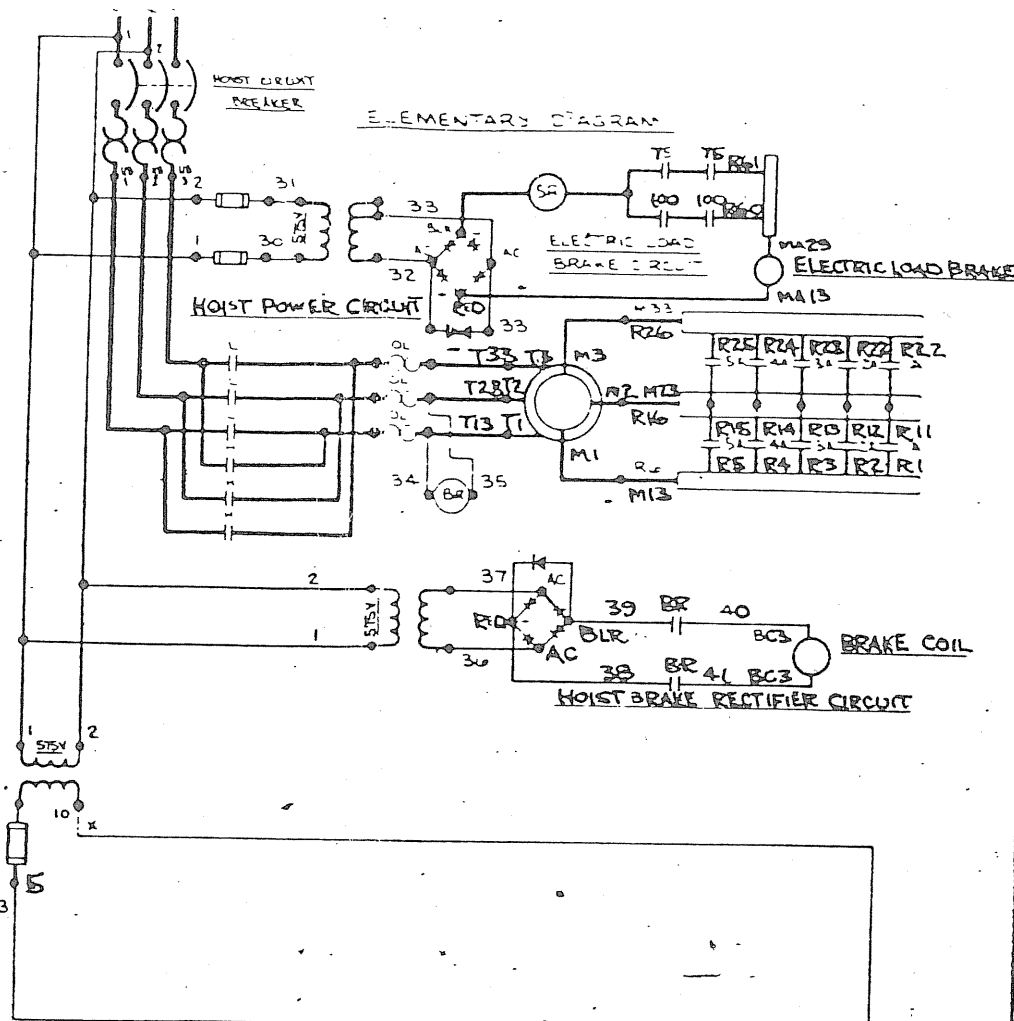
3101 E2298



* INDICATES CONTACTOR CLOSED

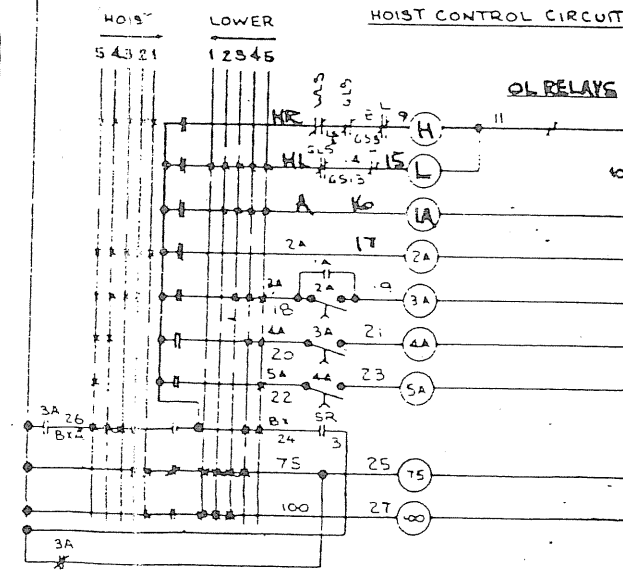
CONT.	RAISE					LOWER				
	5	4	3	2	1	1	2	3	4	5
T5										
100										
H										
L										
1A										
2A										
3A										
4A										
5A										

WIRING DIAGRAM FOR HOIST MOTOR
 THIS DIAGRAM IS THE PROPERTY OF HARNISCHFEGGER
 AND IS NOT TO BE REPRODUCED OR COPIED
 WITHOUT THE WRITTEN PERMISSION OF HARNISCHFEGGER



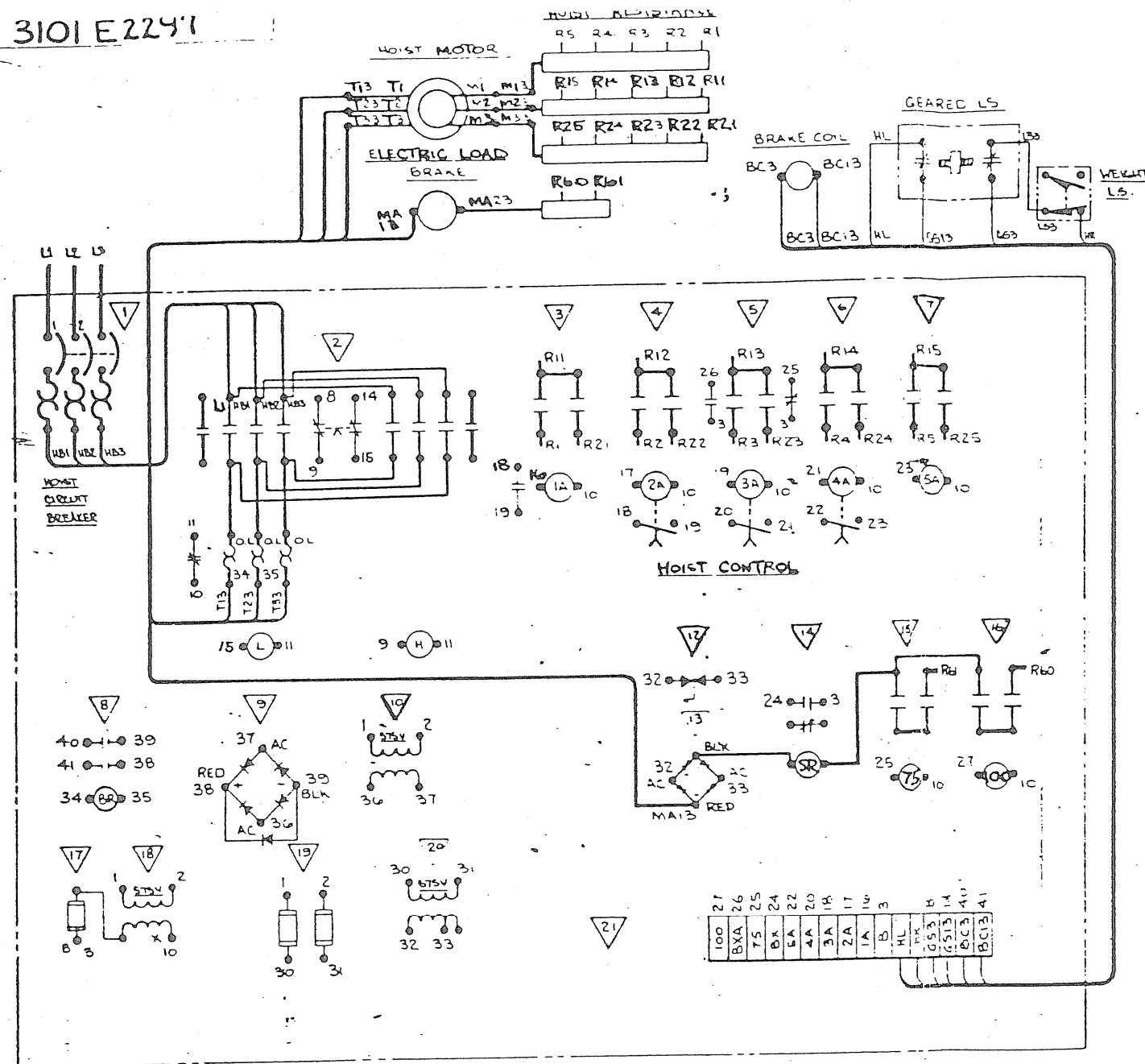
WIRING TABLE

WIRE NO.	DEVICE LOCATION	WIRE NO.	DEVICE LOCATION
1	1.10.18.19	21	5.10
2	1.10.18.19	22	6.21
3	5.5.14.17.21	23	6.7
4		24	14.21
5		25	5.15.21
6		26	5.21
7		27	16.21
8	2.21	28	
9	2.2	29	
10	2.3.4.5	30	19.20
11	6.7.15.16	31	19.20
12	18 (WHITE)	32	12.13.20
13	2.2.2	33	12.13.20
14		34	2.8
15		35	2.8
16	2.21	36	9.10
17	2.2	37	9.10
18	3.4.21	38	8.9
19	3.4.5	39	8.9
20	5.21	40	8.21
		41	8.21



CAD	3-11-82	Harnischfeger
ZIS	300455	PCN
WIRING DIAGRAM		
MAGNETORQUE CONTROL		
3101 E2298		

3101 E2297



*X INDICATES CONTACTOR CLOSED

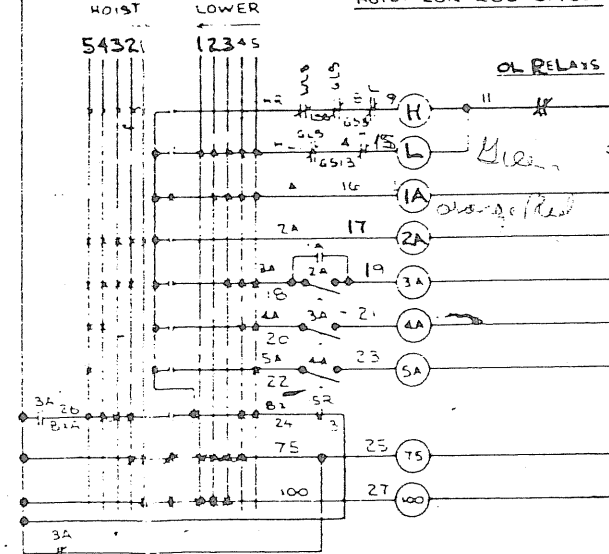
CONTACTOR SEQUENCE	
CONT.	RAISE LOWER
T5	5 4 3 2 1
100	1 2 3 4 5
H	
L	
1A	
2A	
3A	
4A	
5A	

ARMSTRONG ELECTRIC CO. HARNISCHFEGGER DIVISION
 1200 N. 10TH ST. MILWAUKEE, WIS. 53233
 TELEPHONE 442-1100
 CABLE "ARMSTRONG" CHICAGO, ILL.
 C. O. HARNISCHFEGGER

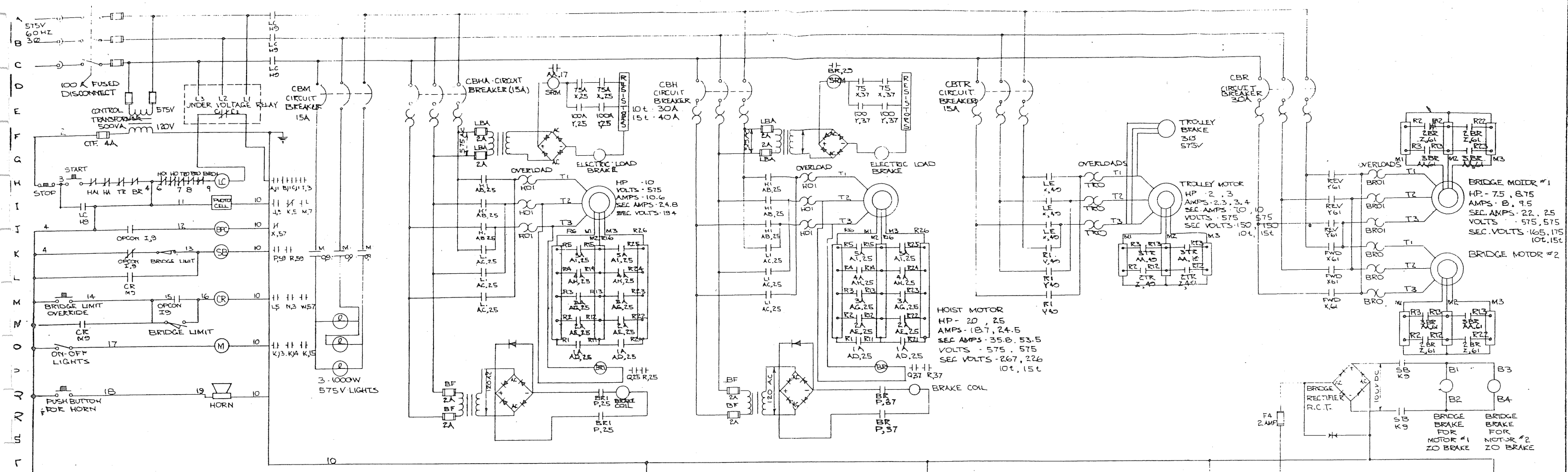
WIRING TABLE

WIRE NO.	DEVICE LOCATION	WIRE NO.	DEVICE LOCATION
1	1, 10, 18, 19	21	5, 6
2	1, 10, 18, 19	22	6, 21
3	5, 5, 14, 17, 21	23	6, 7
4		24	14, 21
5		25	5, 5, 21
6		26	5, 21
7		27	16, 21
8	2, 21	28	
9	2, 2	29	
10	2, 3, 4, 5	30	19, 20
11	6, 7, 15, 16, 18 (WHITE)	31	19, 20
12		32	12, 13, 20
13	2, 2, 2	33	12, 13, 20
14		34	2, 8
15	2, 21	35	2, 8
16	3, 21	36	8, 9
17	4, 21	37	8, 9
18	3, 4, 21	38	8, 9
19	3, 4, 5	39	8, 9
20	5, 21	40	8, 21
		41	8, 21

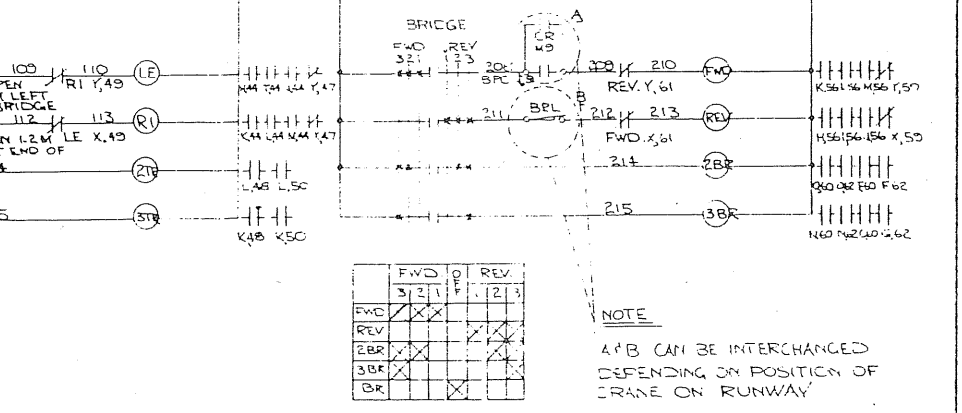
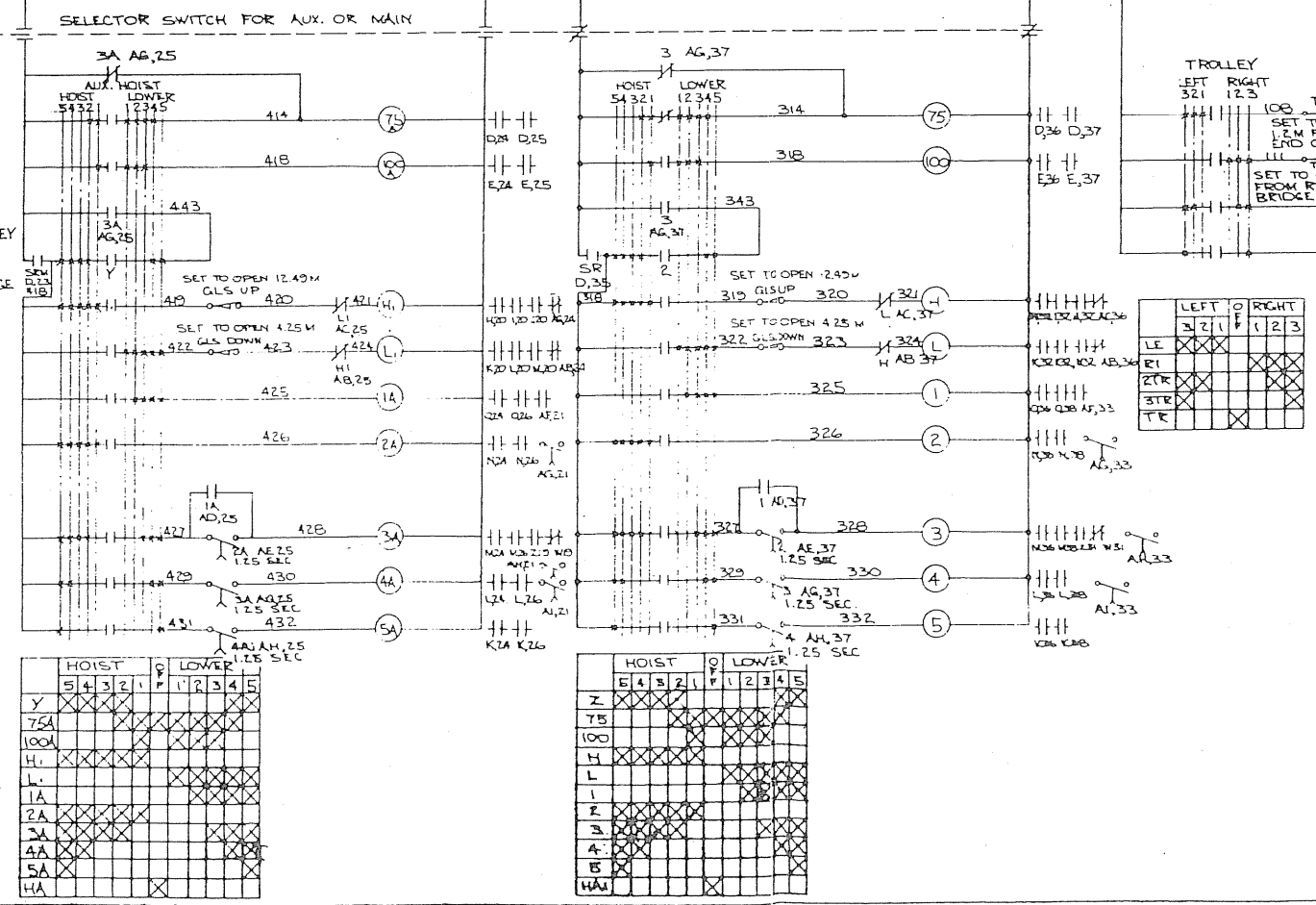
HOIST CONTROL CIRCUIT



CND	3-12-82	Harnischfeger
ZIS	300E433	PCN
TITLE		
WIRING DIAGRAM		
MAGNETORQUE CONTROL		
3101 E2297		



GLS - GEARED LIMIT SWITCH MOUNTED ON HOIST GEARBOX
 ON AB, AG, 21 & AB, AC, 33
 TRL - TROLLEY LIMIT SWITCH MOUNTED IN THE CENTER OF TROLLEY
 END TRUCK
 BRL - BRIDGE LIMIT SWITCH MOUNTED IN THE CENTER OF BRIDGE
 END TRUCK
 LC - MAIN CONTACTOR
 BPC - LIMIT SWITCH CONTACTOR
 SB - BRIDGE SAFETY BRAKE
 M - LIGHT CONTACTORS
 CBM - LIGHT CIRCUIT BREAKERS
 CBH - HOIST CIRCUIT BREAKER
 CTF - CONTROL FUSE
 LBA - LOAD BRAKE FUSE
 BF - BRAKE FUSE
 SR - SERIES RELAY
 CBR - TROLLEY CIRCUIT BREAKER
 CBR - BRIDGE CIRCUIT BREAKER



WIRING DIAGRAM FOR (3.6T(MAIN) 2.7T(AUX)) - O.H. CRANE

COLOR CODE IDENTIFICATION CHART
FOR PUSH BUTTON STATION CABLE CONDUCTORS

12. BUTTON PUSH BUTTON STATION USING TWO 16.

CONDUCTOR CABLES CONSISTING OF: 4 MOMENTARY P.B.,
6 VARIABLE SPEED P.B., 2 CLOSING BUTTONS & 1 TOGGLE SW.

CABLE #1			Cable #2		
COND. COLOR		CONT. CIR. COND.	COND. COLOR		CONT. CIR. COND.
Green	4	Ground	Green	4	Ground
Red	3	CTF	Red	3	4B
Orange	5	CF	Orange	5	TL
Blue	6	A	Blue	6	TL 2
White	2	H13	White	2	TL 3
Black	1	H23	Black	1	TR
Red-Black	8	H33	Red-Black	8	BF
White-Black	7	H43	White-Black	7	BF2
Blue-Black	11	H53	Blue-Black	11	BF3
Orange-Black	10	H63	Orange-Black	10	BR
Green-White	14	L13	Green-White	14	4
Blue-White	15	L23	Blue-White	15	BP
Black-Red	16	L33	Black-Red	16	H
Black-White	12	L43	Black-White	12	SPARE
Green-Black	9	L53	Green-Black	9	↓
Red-White	13	L63	Red-White	13	M

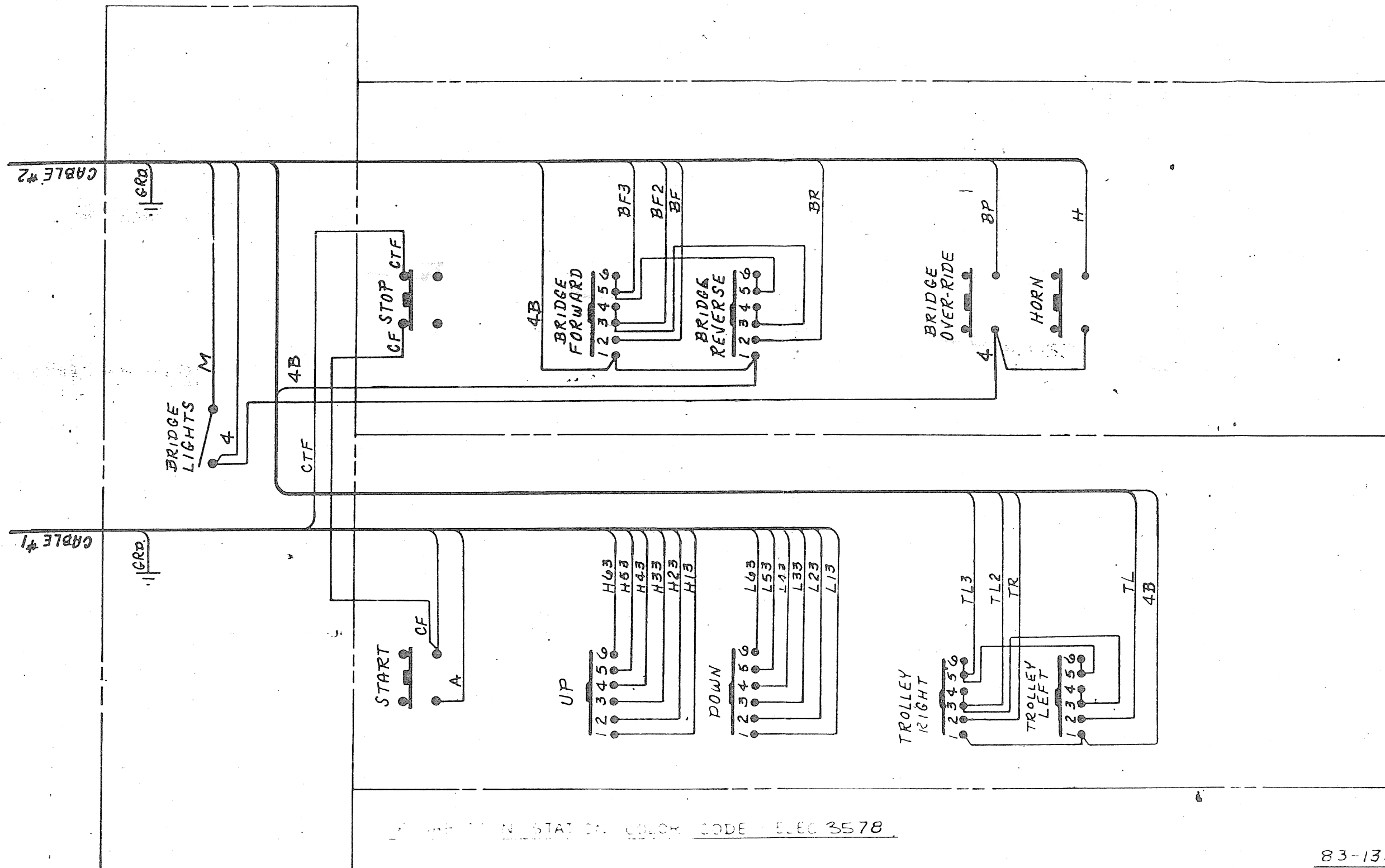
HARNISCHFEGGER CORPORATION

ELECTRICAL DEPARTMENT

ELEC. 3578

83-133656 FOR NON-PATH E.O.I.C.

2-#16-16 CONDUCTOR CABLES



FOR INFORMATION: STAT. ON COLOR CODE - ELEC 3578

83-133656 FOR NON P&H E.O.T.C.

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CHANGE MARK

CHANGE

NAME & DATE

DATE 10-20-83	Harnischfeger P&H
SIMILAR TO	
C.B. 10-20-83	BASIC LIST NO.
J.A.G. 10-24-83	TITLE WIRING DIAGRAM FOR PUSHBUTTON STATION
PROD OR MODEL E.O.T.C.	PROD OR MODEL E.O.T.C.
DWG NO. 101F9996	DWG NO. 101F9996

209