



SHAW-BOX[®]

COMMON ELECTRICAL COMPONENTS
& STANDARD ELECTRICAL WIRING
DIAGRAMS FOR:

**YALE / SHAW-BOX
WIRE ROPE HOISTS**

COMPONENTES ELECTRICOS COMUNES Y
DIAGRAMAS ELECTRICOS ESTANDARES
PARA:

**YALE / SHAW-BOX
POLIPASTOS DE CABLE
DE ACERO**

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PUSHBUTTONS

PUSHBUTTON STATIONS	DROP LENGTH	SLIM-LINE	XAC-A
4488	1 1/4		
4392			
1H	01		
2H	02		
1H-1T	03		
1H-2T	04		
2H-1T	05		
2H-2T	06		
M-1H	07		
M-2H	08		
M-1H-1B	09		
M-1H-2B	10		
M-2H-1B	11		
M-2H-2B	12		
M-1H-1T	13		
M-1H-2T	14		
M-2H-1T	15		
M-2H-2T	16		
M-1H-1T-1B	17		
M-1H-1T-2B	18		
M-1H-2T-1B	19		
M-1H-2T-2B	20		
M-2H-1T-1B	21		
M-2H-1T-2B	22		
M-2H-2T-1B	23		
M-2H-2T-2B	24		

TRANSFORMERS

TRANSFORMERS 50/60HZ - 115V SEC.			
VA	PRI VOLT	PART #	SEC. VOLT
230	230	229467-71	230
460	460	229467-71	460
75	208	277	208
75	277	277	277
100	208	277	208
100	277	277	277
150	208	277	208
150	277	277	277
230	230	229467-41	230
460	460	229467-41	460
500	208	277	208
500	277	277	277
575	575	575	575
575	575	575	575

SEE 445399 FOR OTHER PBS

CORD GRIPS & SEALINGS

PART NO.	NPT SIZE	CABLE DIAMETER	LOCKNUTS
232510-01	1/2	.20-.35"	232510-09
-02	1/2	.24-.47"	
-03	1/2	.28-.47"	
-04	1/2	.39-.56"	
-11	3/4	.35-.63"	232510-19
-12	3/4	.51-.71"	
-21	1	.51-.79"	232510-29
-22	1	.71-.98"	
-31	1 1/4	.51-.79"	N/A
-32	1 1/4	.71-.98"	
-41	1 1/2	.79-1.02"	N/A
-42	1 1/2	.86-1.26"	
232511-02	1/2	.125-.187"	N06779
-04	1/2	.250-.375"	
-05	1/2	.375-.500"	
-06	1/2	.500-.625"	
-16	3/4	.500-.625"	N06780
-17	3/4	.625-.750"	
-24	1	.750-.875"	N06781
-25	1	.875-1.000"	
-33	1 1/4	1.000-1.125"	N06782
-34	1 1/4	1.125-1.250"	
-44	1 1/2	1.125-1.250"	
-45	1 1/2	1.250-1.375"	N06783

CONTACTORS

PART #	200V	230V	300V/30Hz	460V	575V	DESCRIPTION	TELE PART #	AMPS	COIL	SEALED	INRUSH
333109-11	2	3	5	5	5	3 N.O.-1 N.C. REVERSER	LC2-K09-01F7	9	4.5VA		30VA
-21	2	3	5	5	5	2 N.O., 2 N.C. FAST	LC1-K09-008F7				
333110-10	3	3	7.5	7.5	10	3 N.O.-1 N.O. MAINLINE	LC1-K09-10F7				
-20	3	3	7.5	7.5	10	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D12-F7	12	7.5VA		70VA
-30	3	3	7.5	7.5	10	2 N.O., 2 N.C. FAST	LC1-D12-F7				
333110-11	5	5	10	10	15	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D18-F7	18	7.5VA		70VA
-11	5	5	10	10	15	3 N.O., 2 N.C. FAST	LC1-D18-F7				
333110-12	7.5	7.5	15	15	20	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D25-F7	25	8.5VA		100VA
-22	7.5	7.5	15	15	20	2 N.O., 2 N.C. FAST	LC1-D25-008F7				
333110-13	10	10	20	20	30	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D32-F7	32	110V		
-13	10	10	20	20	30	2 N.O., 2 N.C. FAST	LC1-D32-F7				
333110-14	10	10	25	30	30	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D32-F7	40	50/60HZ		
-24	10	10	25	30	30	2 N.O., 2 N.C. FAST	LC1-D40-F7				
333110-15	10	15	30	40	40	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D50-F7	50	26VA		220VA
-15	10	15	30	40	40	2 N.O., 2 N.C. FAST	LC1-D50-F7				
333110-16	20	20	40	50	50	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D65-F7	65			
-26	20	20	40	50	50	2 N.O., 2 N.C. FAST	LC1-D65-008F7				
333110-17	25	30	50	60	60	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D80-F7	80			
-17	25	30	50	60	60	2 N.O., 2 N.C. FAST	LC1-D80-008F7				
333110-18	30	40	74	75	100	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D115-F7	115			
-38	30	40	74	75	100	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D115-F7				
333110-19	40	50	100	100	125	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D150-F7	150	6VA		450VA
-39	40	50	100	100	125	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D150-F7				

NOTE: IF MOTOR HORSEPOWER IS THE SAME AS THE CONTACTOR MAXIMUM RATING, THEN USE NEXT SIZE LARGER CONTACTOR. ALSO, IF 2-SPEED CONTROL IS REQUIRED AND A FAST CONTACTOR IS NOT AVAILABLE FOR THE REQUIRED HORSEPOWER, THEN USE THE CONTACTORS FROM THE NEXT HIGHER SIZE GROUPING.

SOFT STARTERS

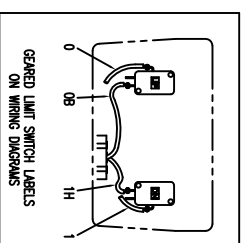
MAX. TOTAL H.P.	SPEED	SOFT-START ONLY WITH NEMA-1 ENCL.	MAX. AMPS
200-230	460	227727-01	116039-01
			904596
3/4	2	227727-11	116039-11
			904596
2	5	1 OR 2	116039-21
			913186
6	10	1 OR 2	440528-01
			no enclosure
			913186

USE (10) PUSH ON TERMINAL PART # 115186-02

DISCONNECT SWITCHES

CLASS J FUSED DISCONNECT SWITCHES	OPERATING HANDLE	OPERATING SHAFT (18.0 IN.)
30A	331902-11	331902-21
60A	331902-11	331902-21

GEARED LIMIT SWITCH



TERMINAL BOARDS

AMPS	TERM	PART #
20	6	117410-06
	9	117410-09
	10	117410-10
30	6	117845-06
	6	103206-15

FUSES

HORSEPOWER AT 1800 RPM	200	230	460	575	FUSE	AMP	FUSE BASE
			1/4	1/4	116952-01	1	
			1/3	1/3			
			1/2	1/2	116952-02	2	
			3/4	3/4			
		1/4	(2) 1/2	(2) 1/2	116952-03	3	
		1/3	1/2	1			
		1/2	1 1/2	2	116952-04	4	
		1 1/2	2 1/4	2 1/2	116952-05	5	
		(2) 1/4	(2) 1/4	3 & 4	116952-06	6	30A-600V
		3/4	3/4	2 1/2			116953-03
		(2) 1/2	(2) 1/2				
		1	1		116952-08	8	
		1 1/2	1 1/2		116952-10	10	
		2	2 1/4		116952-12	12	
		2 1/4	5		116952-15	15	
		3 & 4	7.5		116952-20	20	
		5	10		116952-25	25	
		7.5	15		116952-30	30	
		20	25		116952-40	40	60A-600V
		25	30		116952-50	50	
		30	40		116952-60	60	116953-13
		40	50		116952-70	70	
		20	40		116952-80	80	100A-600V
		25	50		116952-90	90	116953-23
		50	100		116952-88	100	
		100	125		116952-89	125	200A-600V
		150	150		116952-91	150	116953-33
		200	200		116952-92	200	

NOTE: FUSE SIZES CHOSEN BASED ON NEC 430-150 & 430-152. ALSO NEC 430-52(d) EXEMPTION No.2. b. ALSO NEC 610-42(d).

**OTHER THAN 1800 RPM: FUSE SIZE = MOTOR FULL LOAD AMPS x 1.75

HORSEPOWER (1φ)	CLASS J FUSES	AMP	FUSE BASE
115	1/4	116952-05	5
	1/2	116952-08	8
	10	116952-10	10
	12	116952-12	12
	15	116952-15	15
	25	116952-25	25

DISTRIBUTION BLOCKS

3 POLE DISTRIBUTION BLOCK	PART #
	117880-03
	117961-03
	117979-01

GROUND BARS

5 CIRCUIT GROUND BAR KIT	PART #
	117856-01

451222-59

FROM: 443705

ELECTRICAL CONTROLS APPLICATION REFERENCE

BOTONERAS

BOTONERAS	
Botones	Dimensiones de cada Linea Delgada
4488	XAC-A
4392	
1H	01
2H	02
1H-1T	03
1H-2T	04
2H-1T	05
2H-2T	06
M-1H	07
M-2H	08
M-1H-1B	09
M-1H-2B	10
M-2H-1B	11
M-2H-2B	12
M-1H-1T	13
M-1H-2T	14
M-2H-1T	15
M-2H-2T	16
M-1H-1T-1B	17
M-1H-1T-2B	18
M-1H-2T-1B	19
M-1H-2T-2B	20
M-2H-1T-1B	21
M-2H-1T-2B	22
M-2H-2T-1B	23
M-2H-2T-2B	24

Botones para polipasto Serie 800 uniformemente	
1H	330609
2H	330608

Ver 445399 para otros Botoneras

TRANSFORMADORES

Transformadores 50/60HZ - 115V SEC.					
VA	Voltaje Pri	Parte #	Primario AMP Fusible	Secundario AMP Fusible	
230	229467-71	1.4	(2) 116963-10		
460		0.8	(2) 116963-10		
208		1.4	(2) 116963-10	1	116963-08
277		-72	1.25 (2)	-09	
575		-73	0.6 (2)	-05	
*380/415		-74	0.8 (2)	-07	
230	229467-11	2	(2) 116963-12		
460		1	(2) 116963-12		
208		2	(2) 116963-12	1.4	116963-10
277		-12	2	-08	
575		-13	0.8 (2)	-07	
*380/415		-14	1	(2) 116963-14	
230	229467-21	3	(2) 116963-14		
460		1.4	(2) 116963-14		
208		-32	5	(2) 116963-16	4
277		-33	2	(2) 116963-16	
575		-34	3	(2) 116963-17	
*380/415		-24	1.4	(2) 116963-17	
230	229467-41	5	(2) 116963-17		
460		208			
208		-42	6	(2) 116963-18	6
277		-43	4	(2) 116963-18	
575		-44	6	(2) 116963-18	
*380/415		-44	6	(2) 116963-18	

*Usar 11694-01 Fusible base de 1 Polo para el fusible Secundario

Contactores

Parte #	Cabozos de Fuerza (HP) A	Descripcion	Tele Parte #	AMPS	Bobina	Sellado	En Acordados
333109-11	2	3 N.O.-1 N.C. REVERSER	LC2-K09-01F7	9		4.5VA	30VA
-21	3	2 N.O., 2 N.C. FAST	LC1-K09-008F7				
-31	5	3 N.O.-1 N.O. MAINLINE	LC1-K09-10F7				
333110-10	3	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D12-F7	12		7.5VA	70VA
-20	3	2 N.O., 2 N.C. FAST	LC1-D12-008F7				
-30	3	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D12-F7				
333110-11	5	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D18-F7	18		7.5VA	70VA
-31	5	2 N.O., 2 N.C. FAST	LC1-D18-F7				
333110-12	7.5	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D25-F7	25		8.5VA	100VA
-22	7.5	2 N.O., 2 N.C. FAST	LC1-D25-008F7				
-32	15	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D25-F7				
333110-13	10	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D32-F7	32	110V	8.5VA	100VA
-32	10	2 N.O., 2 N.C. FAST	LC1-D32-F7				
-33	10	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D32-F7				
333110-14	10	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D40-F7	40		26VA	220VA
-24	10	2 N.O., 2 N.C. FAST	LC1-D40-008F7				
-34	10	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D40-F7				
333110-15	10	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D50-F7	50		26VA	220VA
-35	10	2 N.O., 2 N.C. FAST	LC1-D50-F7				
333110-16	20	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D65-F7	65		26VA	220VA
-26	20	2 N.O., 2 N.C. FAST	LC1-D65-008F7				
-36	20	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D65-F7				
333110-17	25	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D80-F7	80		26VA	220VA
-27	25	2 N.O., 2 N.C. FAST	LC1-D80-008F7				
-37	25	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D80-F7				
333110-18	30	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D115-F7	115		26VA	220VA
-38	30	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D115-F7				
333110-19	40	3 N.O.-1 N.C.-1 N.O. REV.	LC2-D150-F7	150		6VA	450VA
-39	40	3 N.O.-1 N.C.-1 N.O. M/L	LC1-D150-F7				

Nota: Si los Caballos de Fuerza del motor son iguales al grado maximo del contactor, entonces utilice un contactor del siguiente grupo de mayor tamaño. Tambien si se requiere el control de 2 velocidades, y un contactor rapido no esta disponible para los caballos de fuerza requeridos, utilice los contactores del siguiente grupo de mayor tamaño

Arrancadores Suaves

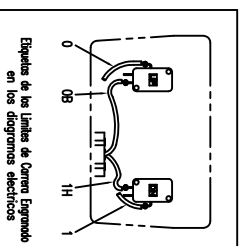
Total Max HP	Velocidad	Partes #	60HZ Amps Max.
200-230	575	116039-01	3.3
3/4	2	116039-11	7.5
2	5	116039-21	25
6	10	440528-01	25

Usar (10) Empuje en la terminal No. 115186-02

Interruptor de Separacion

Interruptor de Separacion con fusibles Clase J	30A	60A
331902-01	331902-11	331902-21
Interruptor de Separacion	Manivela de Operacion	Flecha de Operacion (18.0 in)

Limite de Carrera Engranado



Tableros Terminales

AMPS	Term	Parte #
20	6	117410-06
30	6	117845-06
75	6	103206-15

Bloque de Distribucion

Bloque de Distribucion de 3 Polos
Parte # 117880-03 175A
Parte # 117961-03 335A
Parte # 117979-01 665A

Barras de tierra

Kit de Barras de tierra de 5 circuitos
Parte # 117856-01

Fusibles

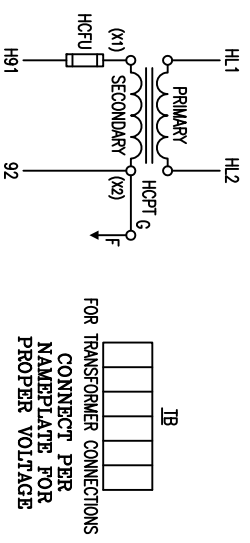
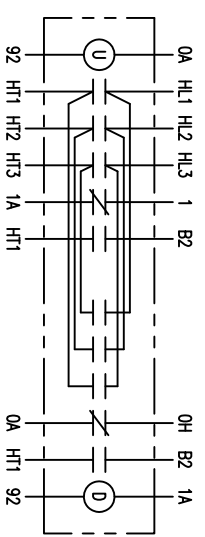
Caballos de Fuerza (HP) a 1800 RPM	200	230	460	575	Fusible	Fusibles Clase J
			1/4	1/4	116952-01	1
			1/3	1/3		
			1/2	1/2	116952-02	2
			3/4	3/4		
		1/4	(2) 1/2	(2) 1/2	116952-03	3
		1/3	1/2	1		
		1/2	1 1/2	2	116952-04	4
		1 1/2	2 1/4	5	116952-05	5
		2	2 1/2	6	116952-06	6
		(2) 1/4	(2) 1/4	3 & 4		30A-600V
		3/4	3/4	2 1/2		116953-03
		(2) 1/2	(2) 1/2	2 1/2		
		1	1	3	116952-08	8
		1 1/2	1 1/2	4	116952-10	10
		2	2 1/4	5	116952-12	12
		2	2 1/4	5	116952-15	15
		2 1/2	2 1/2	7.5		
		3 & 4	3 & 4	7.5	116952-20	20
		5	10	15	116952-25	25
		7.5	15	20	116952-30	30
		10	20	30	116952-40	40
		15	25	40	116952-50	50
		20	30	40	116952-60	60
		25	30	40	116952-70	70
		30	40	50	116952-80	80
		40	50	60	116952-90	90
		50	60	70	116952-100	100
		60	70	80	116952-125	125
		70	80	90	116952-150	150
		80	90	100	116952-175	175
		90	100	110	116952-200	200

Nota: Elegir el Tamaño de los Fusibles basandose en NEC 430-180 & 430-152. Tambien NEC 430-52(0) Excepcion No. 2. b Tambien NEC 610-42(0)

Otro diferente a 1800 RPM Tamaño de Fusible = Carga Completa de Amps del Motor x 1.75

Caballos de Fuerza (HP) (75)	Fusibles Clase J
115	116952-05 5
1/4	116952-08 8
1/4	116952-10 10
1	116952-12 12
1/2	116952-15 15
1	116952-25 25

WIRE #	DEVICE CONNECTED
HL1	U-D, HCPT
HL2	U-D, HCPT
HL3	U-D
HT1	U-D
HT2	U-D
HT3	U-D
0	D, U
0A	D, U
0W	D
0H	D
1	U
1A	U, D
H91	HCPT, G, U, D
92	HCPT, G, U, D
B1	U, D
B2	U, D



▲WARNING:

UNLESS HOOK RAISES WHEN "UP" PUSHBUTTON IS PRESSED, SEVERE HOIST DAMAGE AND A DROPPED LOAD MAY RESULT.
CORRECT IMPROPER HOOK DIRECTION BY INTER-CHANGING MOTOR INPUT POWER LEADS L1 AND L2.
DO NOT CHANGE PUSHBUTTON WIRING.

▲WARNING:

THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

▲AVERTISSEMENT:

CEI EQUIPMENT DOIT ÊTRE MIS À LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

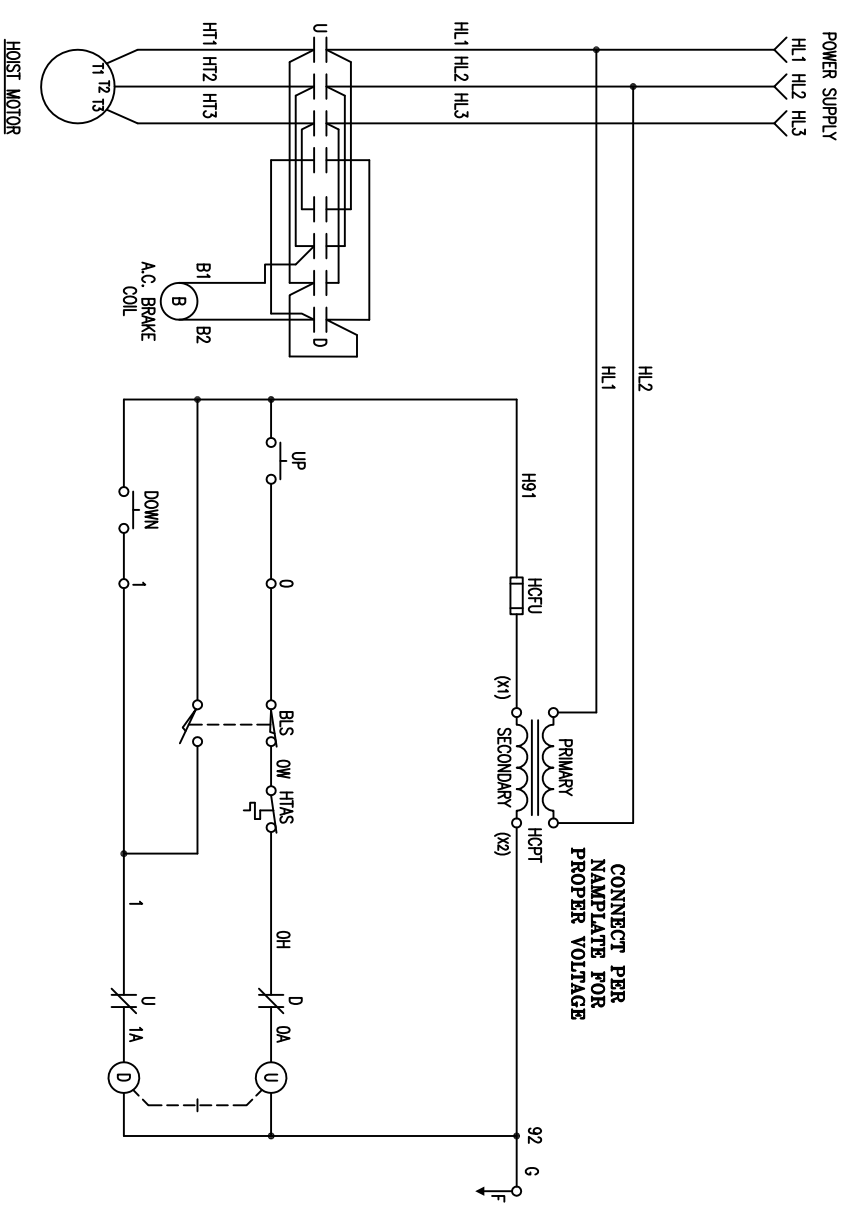
SYMBOL DESIGNATIONS

- HCPT - CONTROL CIRCUIT TRANSFORMER
- HCFU - CONTROL CIRCUIT FUSING
- U - HOIST UP CONTACTOR
- D - HOIST DOWN CONTACTOR
- BLS - HOIST BLOCK OPERATED LIMIT SWITCH
- HTAS - HOIST BLOCK OPERATED TEMPERATURE ACTIVATED SWITCH
- TB - TERMINAL BOARD
- G_o - FRAME GROUND

FIRST USED ON:

FROM: 451032

ELEMENTARY DIAGRAM



**Y80/800 SERIES
1-SPEED HOIST**

NO.	CHANGE	DATE	TITLE	A.C.
			WIRING DIAGRAM	
			1-SPEED HOIST	
			WITH TMS AND BLS	

SC	DA 01/04/07	
DR	SUDA	
CK		
AP		
		451222

Cable #	Dispositivo Conectado
HL1	U-D, HCPT
HL2	U-D, HCPT
HL3	U-D, HCPT
A	U-D, F
C	U-D, F
HT1	F
HT2	F
HT3	F
HT11	F
HT12	F
HT13	F
H91	HCPU, G, U, D, F
92	U-D
B1	U-D
B2	U, D

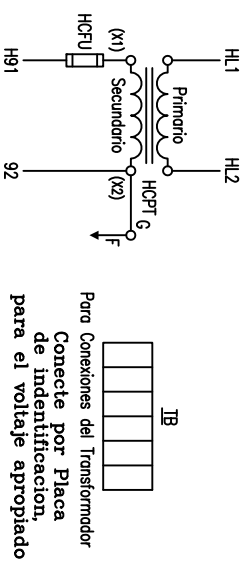
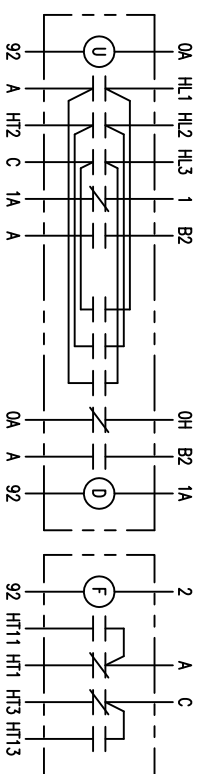
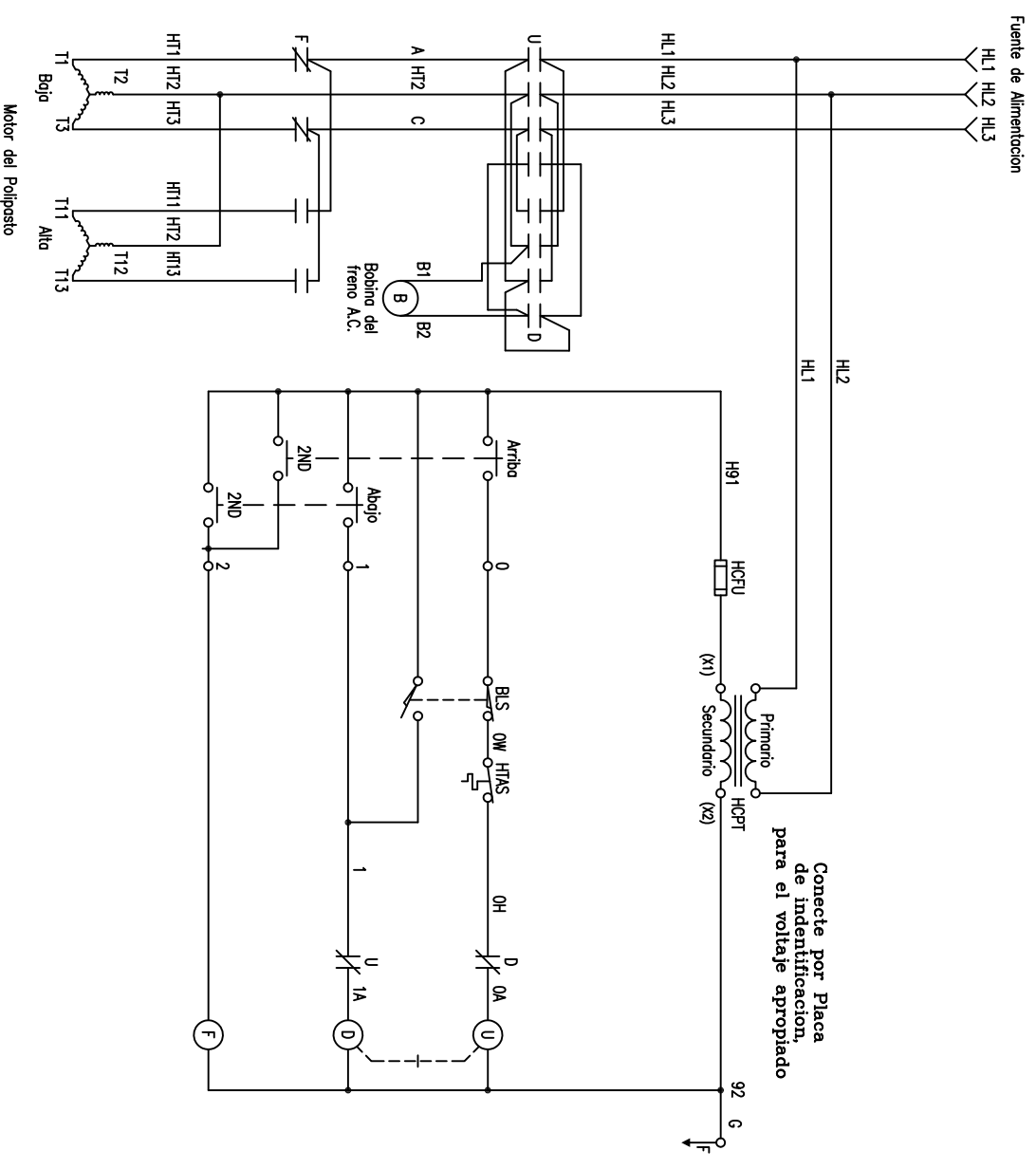


DIAGRAMA ELEMENTAL



▲Advertencia
A menos que el gancho de carga se eleve cuando el boton "Up" es presionado, danos severos al polipasto, y la caída de la carga podrian resultar.

Corria la inapropiada direccion del gancho, intercambiando la direccion de entrada de energia del motor que conduce L1 y L2. No cambie el cableado de la botonera

▲Advertencia
Este equipo debe ponerse a tierra de manera eficaz de acuerdo con los codigos aplicables

▲AVERTISSEMENT:
CET EQUIPEMENT DOIT ETRE MIS A TERE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

Designaciones de Simbolos

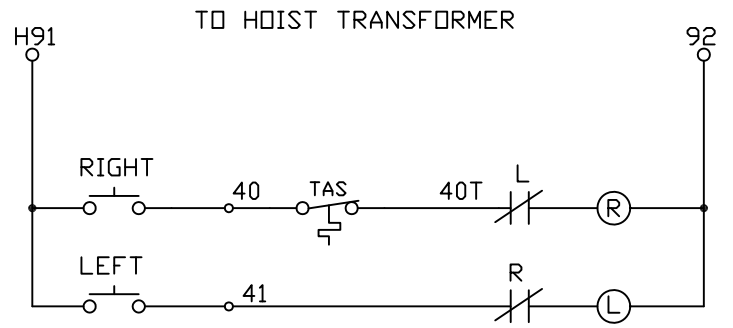
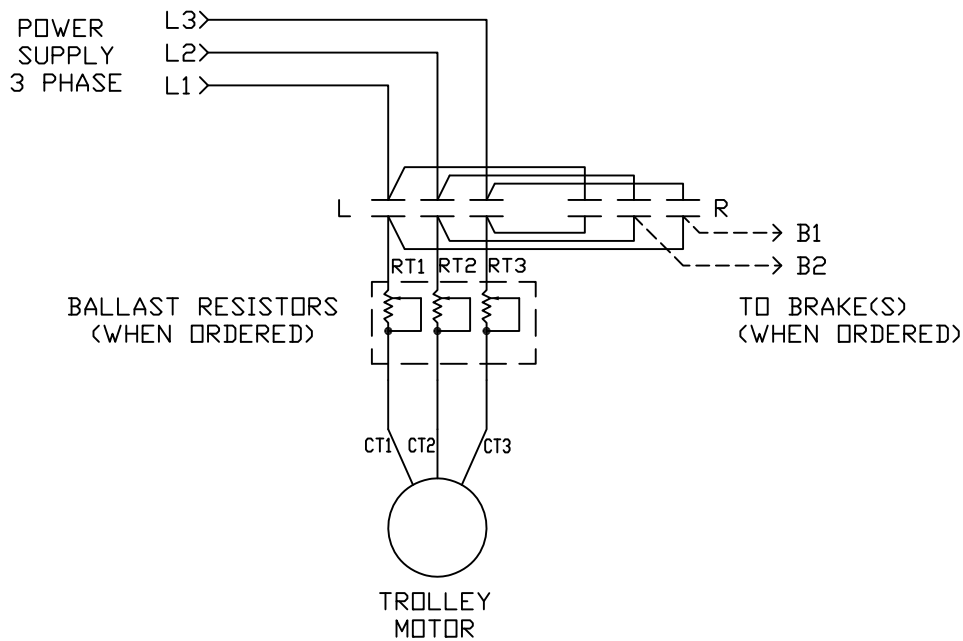
- HCPT – Transformador del Circuito de Control
- HCPU – Fusible del Circuito de Control
- U – Contactor de subir del polipasto
- D – Contactor de bajar del polipasto
- BLS – Interruptor de limite de carrera, tipo Bloque
- HTAS – Interruptor activado por temperatura del motor del polipasto
- TB – Tablero de terminales
- G – Marco de Tierra
- F –

Y80/800 SERIES

Polipasto de 2 Velocidades

NO.	CHANGE	DATE	ITL	A.C.
1	Spanish Translation	1/23/08	MRF	
Diagrama Electrico Polipasto de 2 Velocidad con TAS y BLS				
SC	DA 01/04/07	YALE LIFT-TECH		
DR	SIDA	SHEETS 48 DF 99 SHEETS		
CK				
AP		451222SP		

ELEMENTARY DIAGRAM



WARNING:

THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

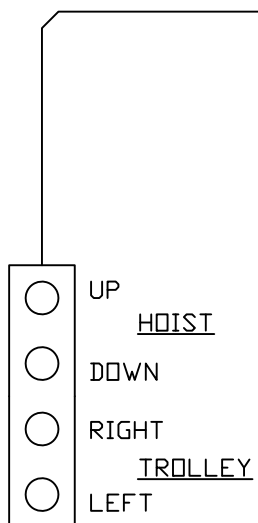
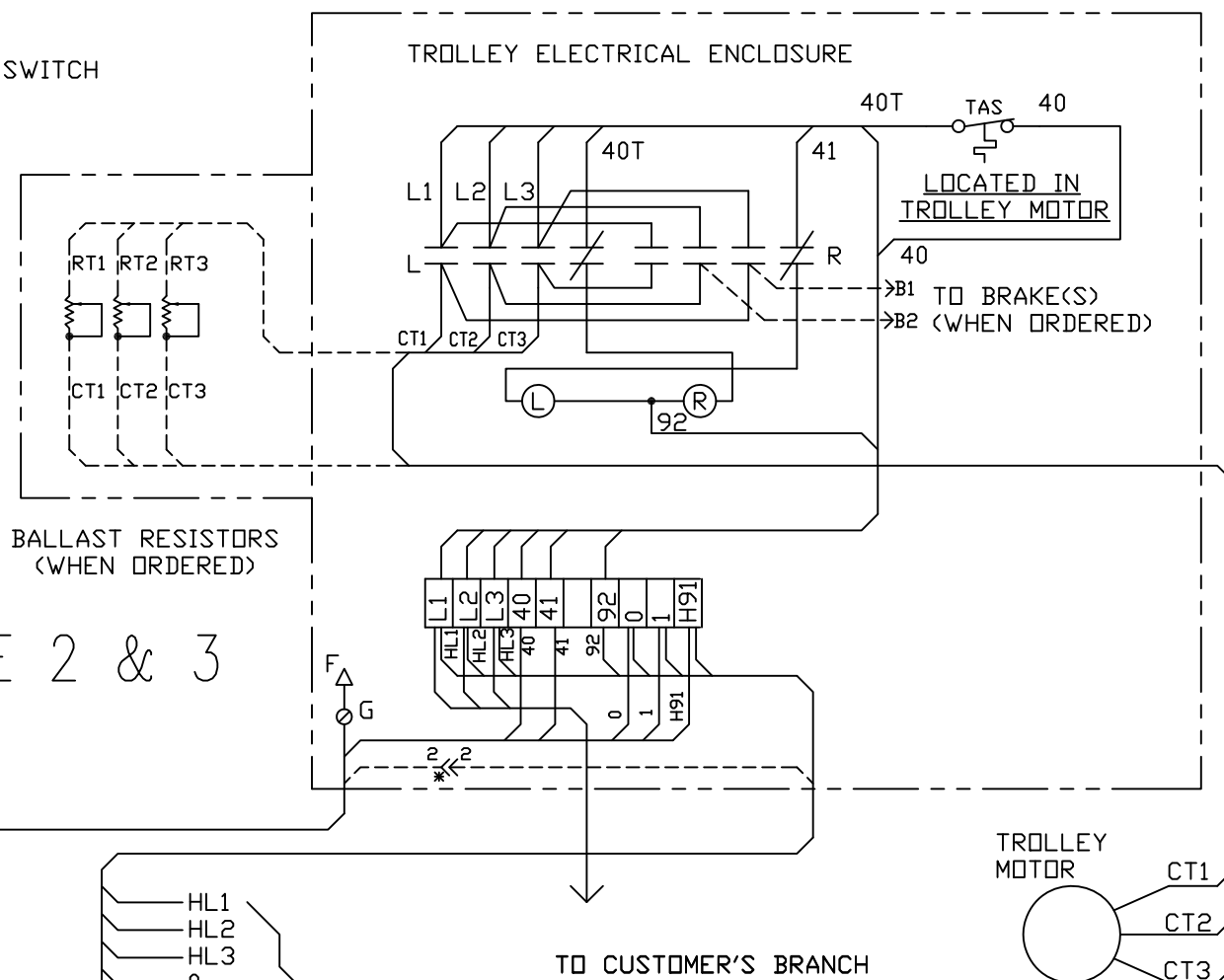
AVERTISSEMENT:

CET EQUIPEMENT DOIT ETRE MIS A'LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

TAS TEMPERATURE ACTUATED SWITCH



Y80/800 SERIES
& 700 SERIES SIZE 2 & 3
1-SPEED TROLLEY



PUSHBUTTON STATION

*WIRE "2" IS USED WITH 2 SPEED HOISTS ONLY. ON SINGLE SPEED HOISTS, ISOLATE WIRE "2".

VERIFY MOTOR CONNECTIONS PER NAMEPLATE AND CONNECTION DIAGRAM PARALLEL 2ND MOTOR POWER LEADS WHEN (WHEN UTILIZED). SERIES 2nd MOTOR TAS LEADS (WHEN UTIL.)

NO.	CHANGE	DATE	ITL.	WIRING DIAGRAM- TROLLEY
2	REDRAWN ON ACAD	11/89	BES	CONTROL 3PHASE A.C.
				MONORAIL TROLLEY
				SC. -----
				DA. 11/21/89
				DR. B.E.S.
				CK.

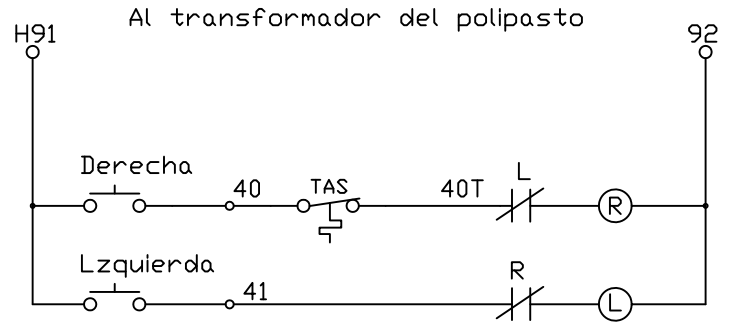
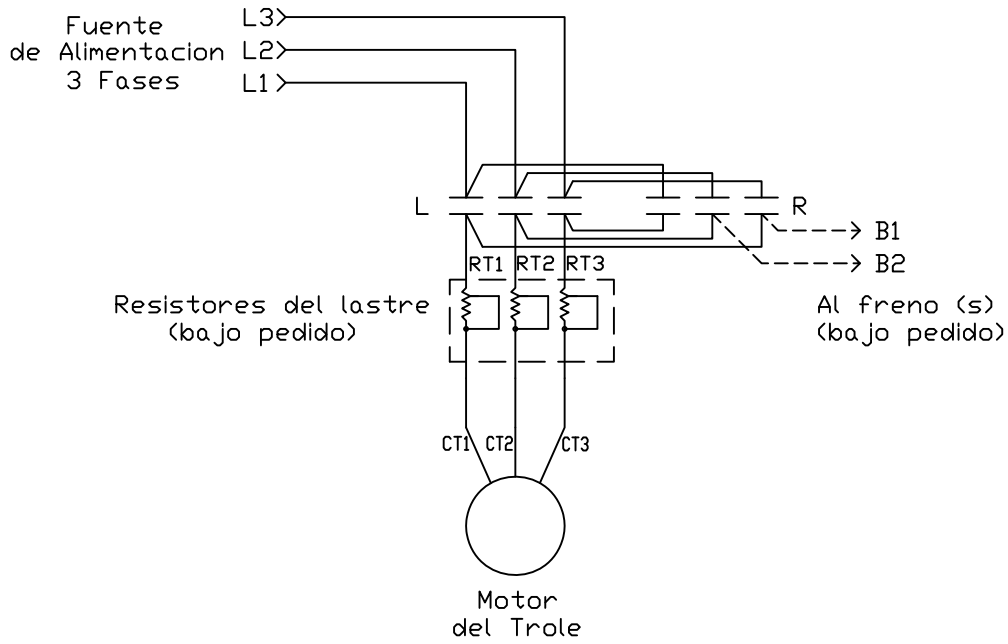


451222

FIRST USED ON: -----

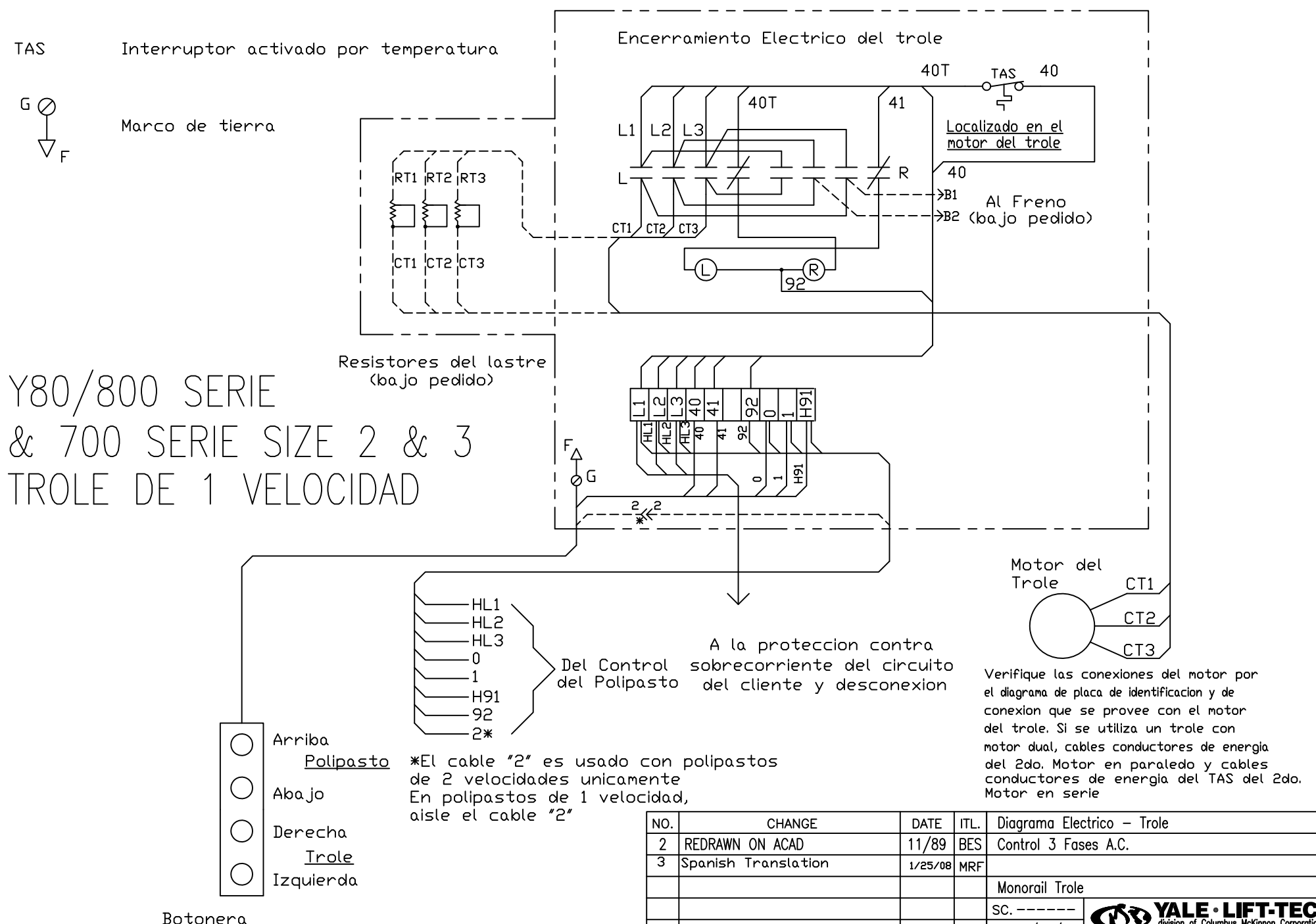
FROM: 329047

DIAGRAMA ELEMENTAL



ADVERTENCIA:
ESTE EQUIPO DEBE PONERSE A TIERRA DE MANERA EFICAZ DE ACUERDO CON LOS CODIGOS APLICABLES

AVERTISSEMENT:
CET EQUIPMENT DOIT ETRE MIS A'LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

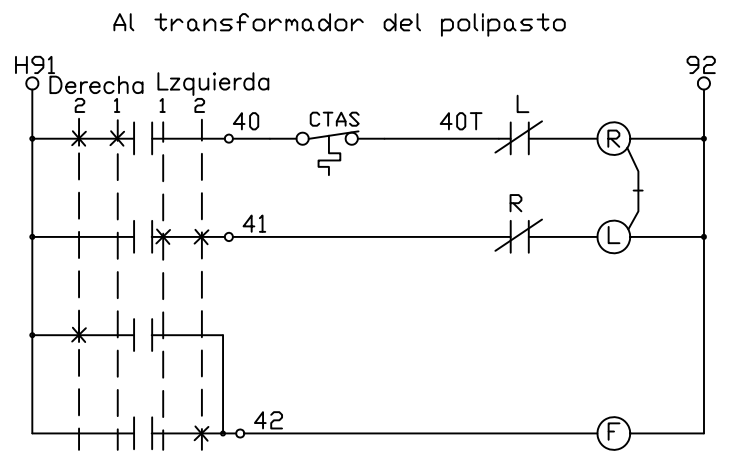
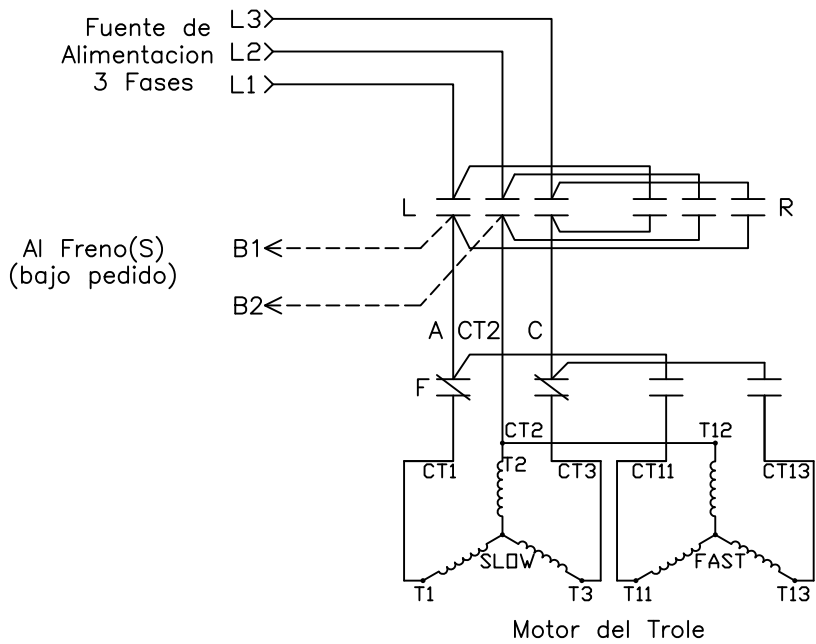


NO.	CHANGE	DATE	ITL.	Diagrama Electrico - Trole
2	REDRAWN ON ACAD	11/89	BES	Control 3 Fases A.C.
3	Spanish Translation	1/25/08	MRF	
				Monorail Trole
				SC. -----
				DA. 11/21/89
				DR. B.E.S.
				CK.
				SHEET 51 OF 99 SHEETS
				451222SP

FIRST USED ON: _____
FROM: 329047



DIAGRAMA ELEMENTAL



ADVERTENCIA

Este equipo debe ponerse a tierra de manera eficaz de acuerdo con los codigos aplicables

AVERTISSEMENT:

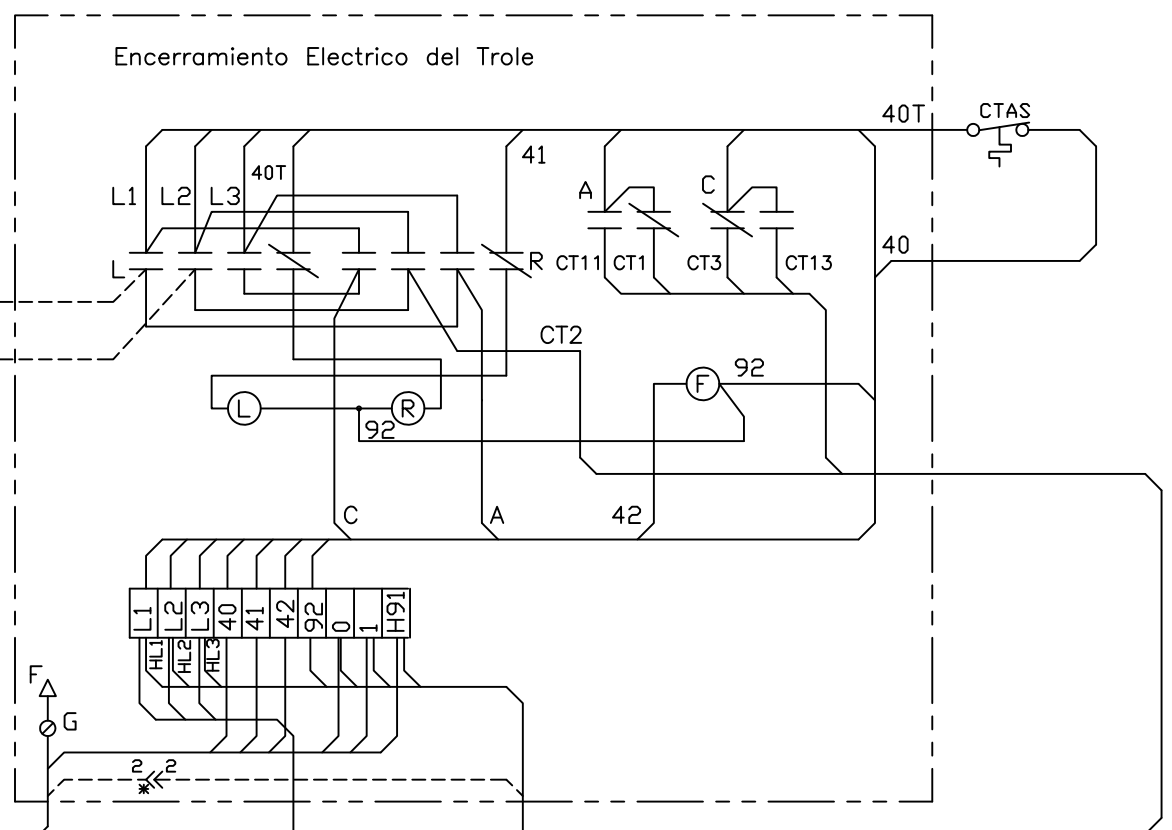
CET EQUIPMENT DOIT ETRE MIS A'LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

CTAS Interruptor activado por temperatura en el motor

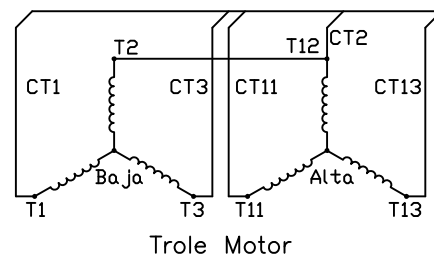


Y80/800 SERIE
& 700 SERIE SIZE 2 & 3
TROLE DE 2 VELOCIDAD

Al Freno(S) (bajo pedido) B1, B2

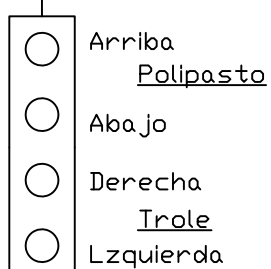


A la proteccion contra sobrecorriente del cliente y desconexion



Conductores de la energia del segundo motor en Paralelo (cuando es utilizado)
Conductores del TAS del segundo motor en Serie (cuando es utilizado)

*El cable "2" es usado con polipastos de 2 velocidades unicamente
En polipastos de 1 velocidad, aiste el cable "2"



NO.	CHANGE	DATE	ITL.	Diagrama Electrico
1	REDRAWN ON CAD.	9/91	D.R.	Trole Control - 2 Velocidad, 2 WDG.
2	Spanish Translation	1/28/08	MRF	3 Fase, W/ TAS

SC. -----
DA. 7/28/87



DR. K.D. SHEET 52 OF 99 SHEETS

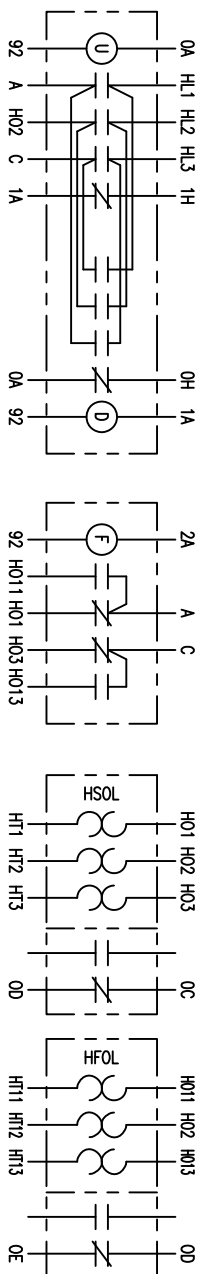
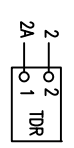
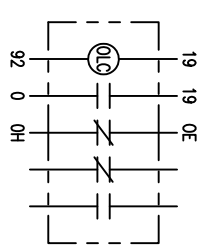
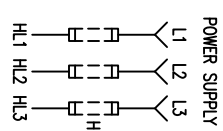
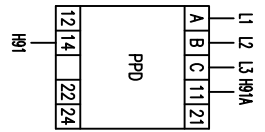
CK.

451222SP

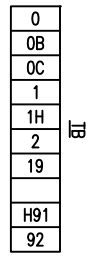
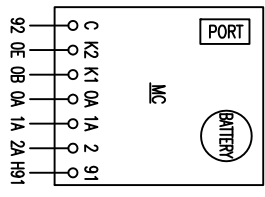
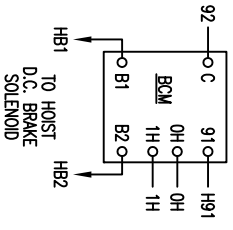
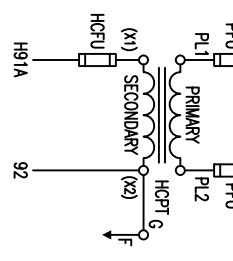
FIRST USED ON:

FROM: 329700

WIRE #	DEVICE CONNECTED
L1	HFU, PPD
L2	HFU, PPD
L3	HFU, PPD
HL1	HFU, U-D, PFU
HL2	HFU, U-D, PFU
HL3	HFU, U-D, PFU
HL1	PFU, HCPT
HL2	PFU, HCPT
HL3	PFU, HCPT
PL2	U-D, F
A	U-D, F
C	F, HSOL
H01	U-D, HSOL, HFOL
H02	F, HSOL
H03	F, HSOL
H0113	F, HFOL
H011	F, HFOL
H012	HSOL
H013	HSOL
H11	HSOL
H12	HSOL
H13	HSOL
HT13	HFOL
0	OLC
0A	D, U, MC
0B	MC
0C	HSOL
0D	HSOL, HFOL
0E	HSOL, OLC, MC
0H	OLC, D, BCM
1	U, D, MC
1A	U, BOM
1H	U, BOM
2	TDR, F, MC
2A	OLC
19	PPD, BCM, MC
H91	HCPT, PPD
H91A	HCPT, OLC, U, D, F, BCM, MC
92	BCM
HB1	BCM
HB2	BCM



CONNECT PER NAMEPLATE FOR PROPER VOLTAGE



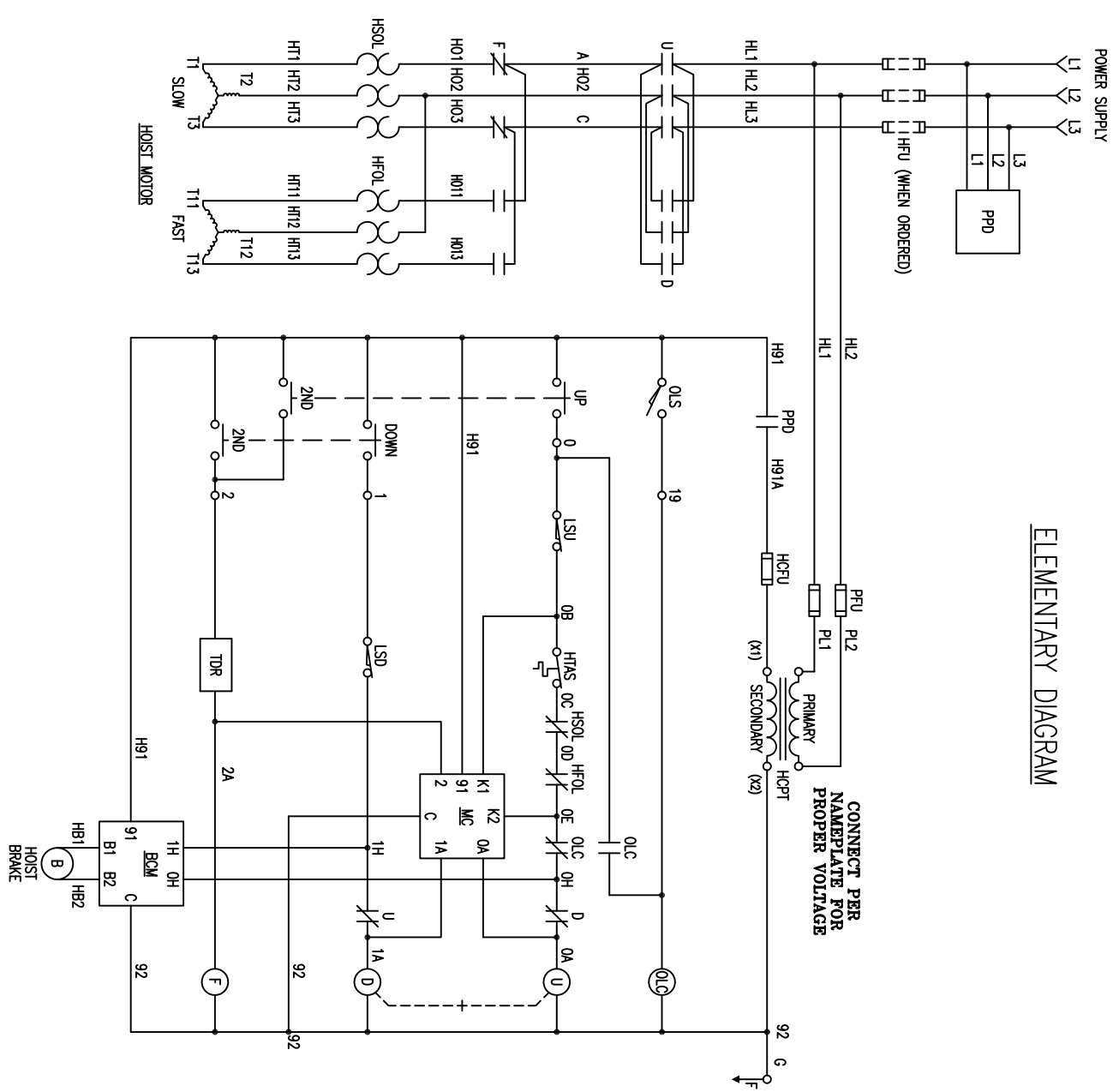
SYMBOL DESIGNATIONS

- PPD - PHASE REV./LOSS PROTECTION DEVICE
- HFU - HOIST MOTOR CIRCUIT FUSING
- PFU - TRANSFORMER PRIMARY FUSING
- HCPT - CONTROL CIRCUIT TRANSFORMER
- HCFU - CONTROL CIRCUIT FUSING
- U - HOIST UP CONTACTOR
- D - HOIST DOWN CONTACTOR
- F - HOIST FAST SPEED CONTACTOR
- HSOL - HOIST SLOW SPEED THERMAL OVERLOAD RELAY
- HFOL - HOIST FAST SPEED THERMAL OVERLOAD RELAY
- LSU - HOIST UPPER GEAR TYPE LIMIT SWITCH
- LSD - HOIST LOWER GEAR TYPE LIMIT SWITCH
- BCM - D.C. BRAKE CONTROL MODULE
- TDR - TIMER DELAY MODULE
- HTAS - HOIST MOTOR TEMPERATURE ACTUATED SWITCH
- OLC - OVERLOAD LIMIT SWITCH
- MC - MONITOR CARD
- TB - TERMINAL BOARD
- G_o - FRAME GROUND

WARNING:
THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

AVERTISSEMENT:
CET EQUIPEMENT DOIT ETRE MIS A LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

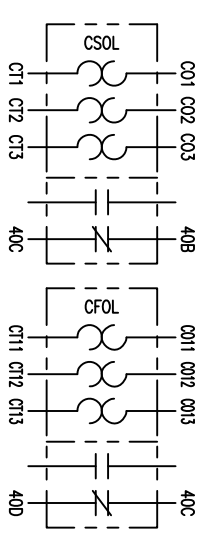
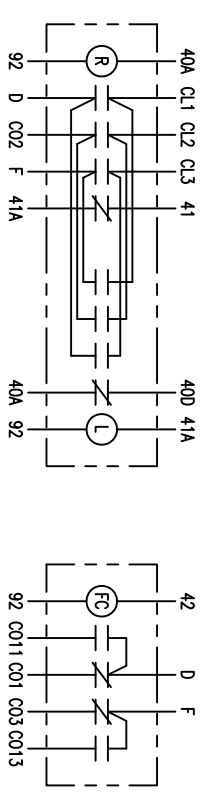
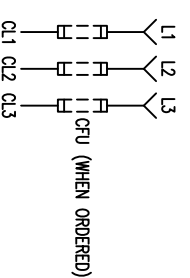
ELEMENTARY DIAGRAM



WORLD SERIES & GLOBAL FEM DESIGN 2-SPEED HOIST

NO.	CHANGE	DATE	ITL	WIRING DIAGRAM	A.C.
1	ADDED NODE NUMBERS TO TIMER	02/08/06	S/DA	2-SPEED HOIST	
				WITH T.A.S. G.I.S. O.I.S. HOI. TIME DELAY RELAY.	
				MONITOR CARD, AND OPTIONAL FUSES	
				SC -	
				DA 12/21/05	
				DR. S/DA	
				SHEET 53 OF 99 SHEETS	
				CK.	
				AP.	

WIRE #	DEVICE CONNECTED
L1	CFU
L2	CFU
L3	CFU
CL1	R-L
CL2	CFU, R-L
CL3	CFU, R-L
D	R-L, FC
F	R-L, FC
001	FC, CSOL
002	R-L, CSOL
003	FC, CSOL
0011	FC, CSOL
0012	R-L, CFOL
0013	FC, CFOL
011	CSOL
012	CSOL
013	CSOL
0111	CFOL
0112	CFOL
0113	CFOL
40	TB
40A	L, R
40B	CSOL
40C	CSOL, CFOL
40D	CFOL, L
41	R, L
41A	R, L
42	FC
H91	TB
92	TB
92	R, L, FC
CB1	TB
CB2	TB



40
40B
41
42
H91
92
CB1
CB2

TB

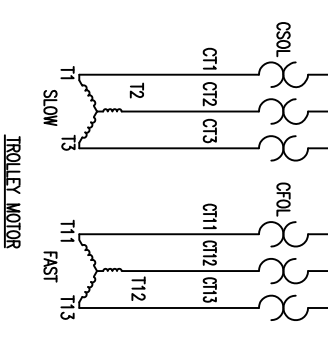
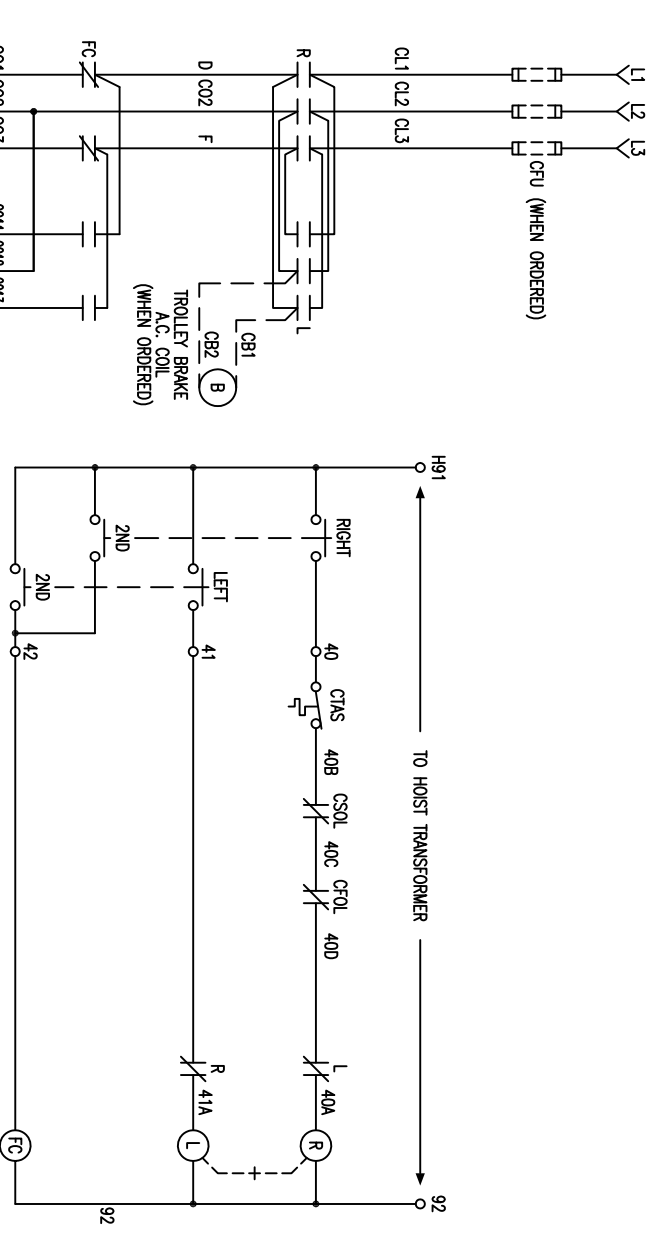
▲WARNING:
THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED
ACCORDING TO APPLICABLE CODES.

▲AVERTISSEMENT:
CET EQUIPEMENT DOIT ETRE MIS A LA TERRE EN
ACCORDANCE AVEC LES NORMES EN VIGUEUR.

SYMBOL DESIGNATIONS

CFU - TROLLEY MOTOR CIRCUIT FUSING
R - TROLLEY RIGHT CONTACTOR
L - TROLLEY LEFT CONTACTOR
FC - TROLLEY FAST CONTACTOR
CSOL - TROLLEY SLOW SPEED THERMAL OVERLOAD RELAY
CFOL - TROLLEY FAST SPEED THERMAL OVERLOAD RELAY
CTAS - TROLLEY MOTOR TEMPERATURE ACTIVATED SWITCH
TB - TERMINAL BOARD
G_o - FRAME GROUND

ELEMENTARY DIAGRAM



WORLD SERIES & GLOBAL
FEM DESIGN
2-SPEED TROLLEY

NO.	CHANGE	DATE	TITLE	A.C.
			WIRING DIAGRAM	
			2-SPEED TROLLEY	
			WITH OPTIONAL FUSES, THERMAL OVERLOAD RELAYS	

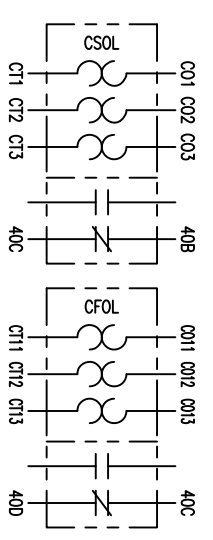
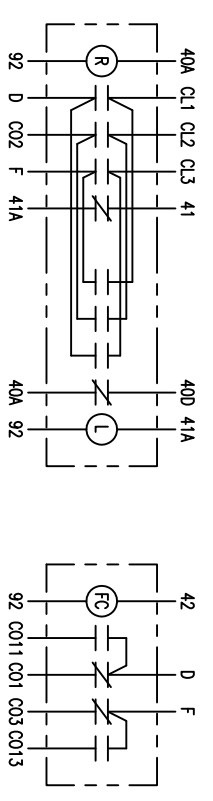
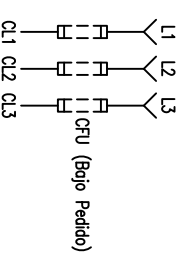
SC: _____
DA: 8/3/95
DR: TJB
CK: _____
AP: _____

YALE LIFT-TECH
A Division of
Yale Corporation
1000 Main Street
New Britain, CT 06110

SHEET 54 OF 99 SHEETS

451222

Cable #	Dispositivo Conectado
L1	CFU
L2	CFU
L3	CFU
CL1	R-L
CL2	CFU, R-L
CL3	CFU, R-L
D	R-L, FC
F	R-L, FC
001	FC, CSOL
002	R-L, CSOL
003	FC, CSOL
0011	FC, CFOL
0012	R-L, CFOL
0013	FC, CFOL
CT1	CSOL
CT2	CSOL
CT3	CSOL
CT11	CFOL
CT12	CFOL
CT13	CFOL
40	TB
40A	L, R
40B	TB
40C	CSOL, CFOL
40D	CFOL, L
41	TB
41A	R, L
42	FC
H91	TB
92	TB
92	R, L, FC
CB1	TB
CB2	TB



40
40B
41
42
H91
92
CB1
CB2

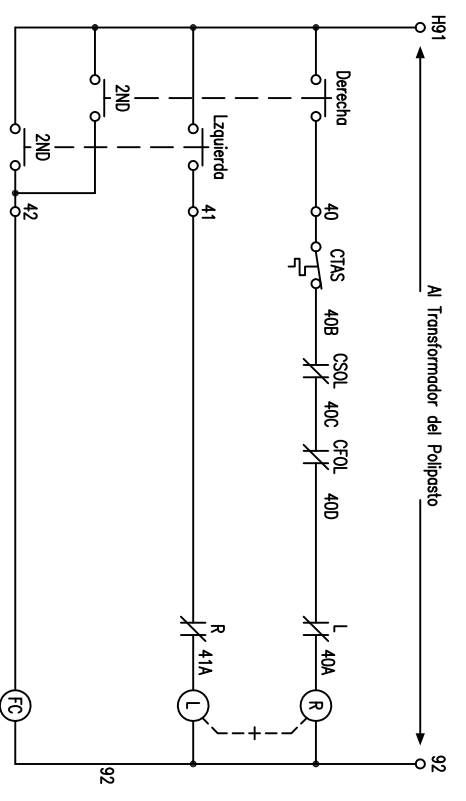
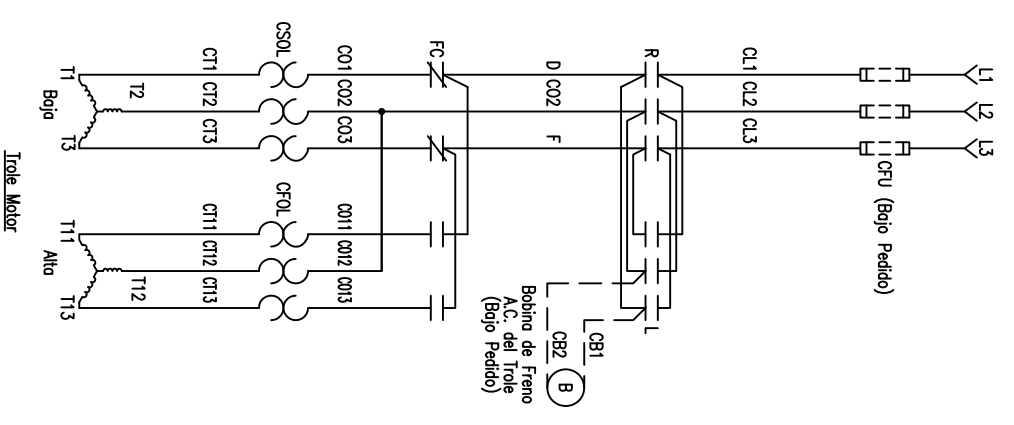
▲ADVERTENCIA:
 ESTE EQUIPO DEBE PONERSE A TIERRA DE MANERA EFICAZ
 DE ACUERDO CON LOS CODIGOS APLICABLES

▲AVERTISSEMENT:
 CET EQUIPMENT DOIT ETRE MIS A LA TERRE EN
 ACCORDANCE AVEC LES NORMES EN VIGUEUR.

DESIGNACIONES DE SIMBOLOS

- CFU - Fusible del circuito del motor trole
- R - Contactor derecho del trole
- L - Contactor izquierdo del trole
- FC - Contactor rapido del trole
- CSOL - Relayador termico de sobrecarga para trole de bajo velocidad
- CFOL - Relayador termico de sobrecarga para trole de alta velocidad
- CIAS - Interruptor activado por temperatura del motor del trole
- TB - Tablero de terminales
- G_o - Marco de Tierra

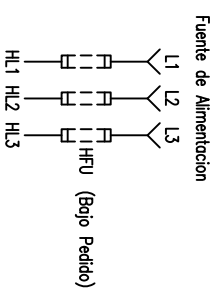
DIAGRAMA ELEMENTAL



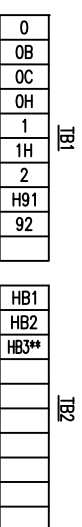
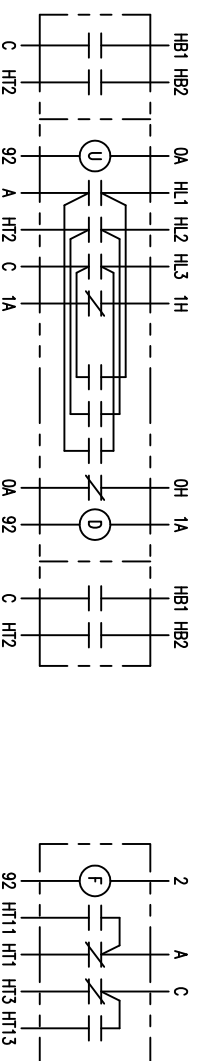
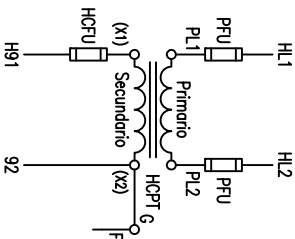
**WORLD SERIES y GLOBAL TROLE DE
 2-VELOCIDADES DISENO FEM**

NO.	CHANGE	DATE	ITL	A.C.
1	Spanish Transition	7/29/08	MRF	
Diagrama Electrico				
2-Velocidad Trole				
Fusibles opcionales, Relayador termico de sobrecarga				
SC	DA	8/3/95	DR	TJB
CK	AP		DR	TJB
SHEET 54 OF 99 SHEETS				
451222SP				

Cable #	Dispositivo Conectado
L1	HFU
L2	HFU
L3	HFU
HL1	HFU, PRU, U-D
HL2	HFU, PRU, U-D
HL3	HFU, U-D
PL1	PFU, HCPT
PL2	PFU, HCPT
A	U-D, F
C	U-D, F
HT1	F
HT2	F
HT3	F
HT11	F
HT12	F
HT13	F
0	0A
0A	0B
0B	0C
0C	0H
0H	1A
1A	1H
1H	2
2	H91
H91	92
HB1	TB1
HB2	TB2
HB3	TB2
HB3**	TB2
	U, D
	U, D
	U, D
	U-D



Conecte por Placa de identificación, para el voltaje apropiado



** HB3 Necesario unicamente cuando un freno de 3 fases es conectado

▲Advertencia
A menos que el gancho de carga se eleve cuando el boton "Up" es presionado, danos severos al polipasto, y la caída de la carga pudieran resultar.

Corrija la inapropiada dirección del gancho, intercambiando la dirección de entrada de energía del motor que conduce L1 y L2. No cambie el cableado de la botonera

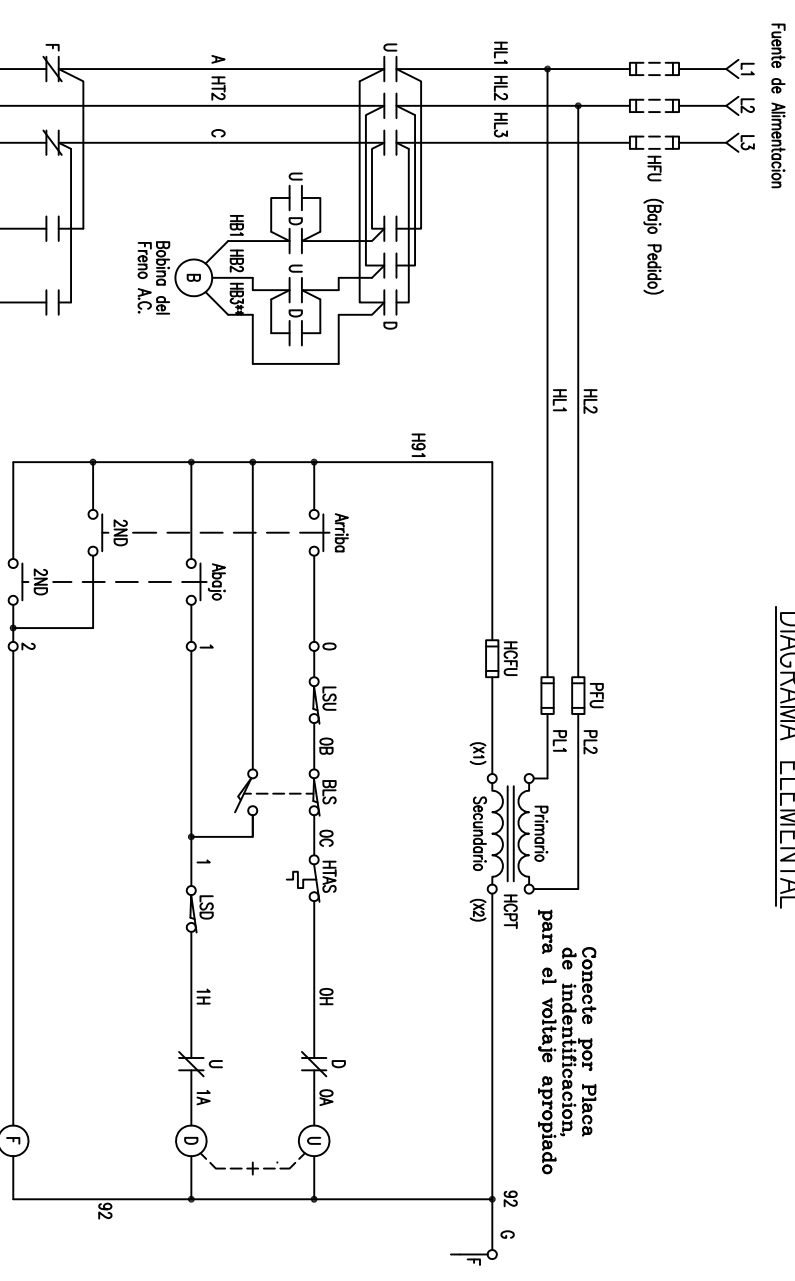
▲Advertencia
Este equipo debe ponerse a tierra de manera eficaz de acuerdo con los codigos aplicables

▲AVERTISSEMENT:
CET EQUIPEMENT DOIT ETRE MIS A LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

Designaciones de Símbolos

- HFU – Fusible del Circuito del motor de polipasto
- PFU – Fusible Primario del Transformador
- HCPT – Transformador del Circuito de Control
- HCFU – Fusible del Circuito de Control
- U – Contactor de subir del polipasto
- D – Contactor de bajar del polipasto
- F – Contactor de rapida velocidad del polipasto
- LSU – Interruptor Limitador de carrera tipo engranado superior del polipasto
- BLS – Interruptor Limitador de carrera tipo engranado inferior del polipasto
- H9AS – Interruptor de Limite de carrera, tipo bloque
- TB – Tablero de terminales
- G_o – Marco de tierra

DIAGRAMA ELEMENTAL



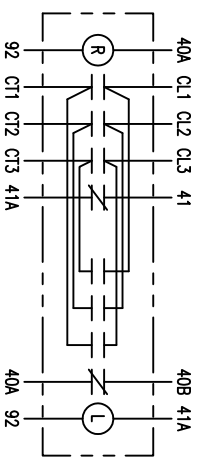
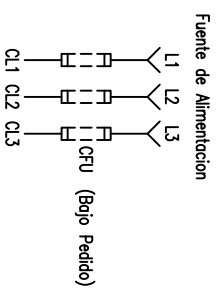
POLIPASTO DE 2 VELOCIDADES CABLE KING

NO.	CHANGE	DATE	ITL.	Diagrama Electrico	A.C.
1	ADDED BRAKE LEADS TO TB	07/10/02	SJDA	Polipasto 2 Velocidad	
2	Spanish Transition	1/30/08	MF	with TAS, BLS, GLS, Fusible, Auxiliary for Freno	
				SC. -----	
				DA 02/21/02	
				DR. SJDA	
				CK. -----	
				SHEET 56 OF 99 SHEETS	
				AP. -----	



451222SP

Cable #	Dispositivo Conectado
L1	CFU
L2	CFU
L3	CFU
CL1	CFU, R-L
CL2	CFU, R-L
CL3	CFU, R-L
CT1	CFU, R-L
CT2	R-L
CT3	R-L
40	TB
40A	L, R
40B	L, R
41	TB
41A	R, L
H91	TB
92	L, R
CB1	TB
CB2	R-L



40	40B	41	H91	92	CB1	CB2
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TB1

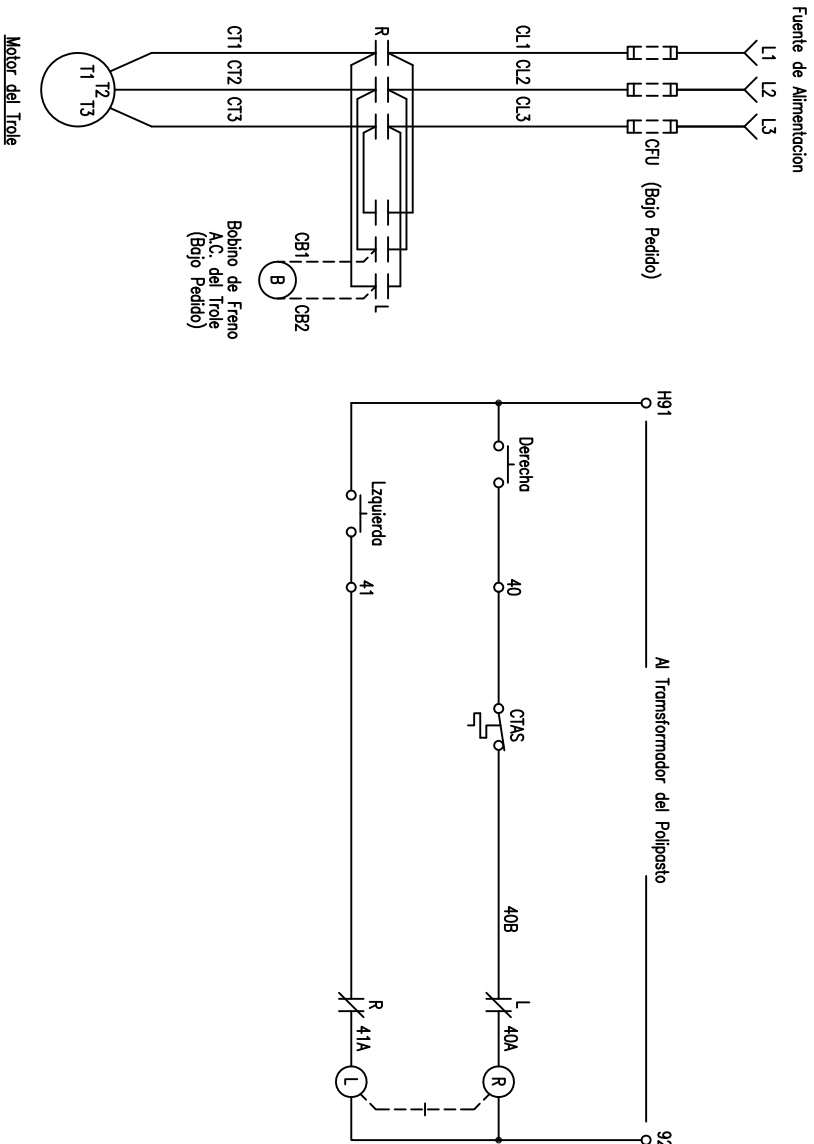
▲Advertencia:
 ESTE EQUIPO DEBE PONERSE A TIERRA DE MANERA EFICAZ DE ACUERDO CON
 LOS CODIGOS APLICABLES

▲AVERTISSEMENT:
 CET EQUIPMENT DOIT ETRE MIS A LA TERRE EN
 ACCORDANCE AVEC LES NORMES EN VIGUEUR.

Designaciones de Símbolos

CFU – Fusible del circuito del motor del trole
 L – Contactor Izquierdo del trole
 R – Contactor derecho del trole
 TB – Tablero de Terminales
 CTAS – Interruptor activado por temperatura del motor del trole

DIAGRAMA ELEMENTAL

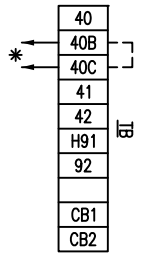
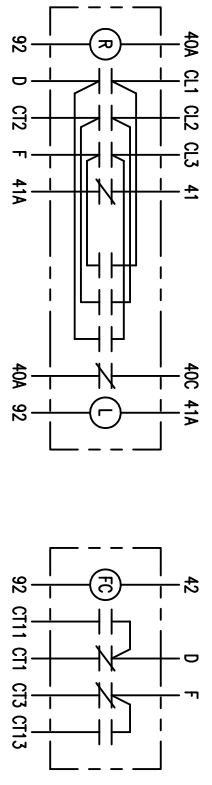
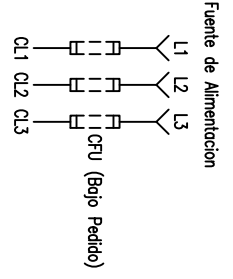


TROLE DE 1 VELOCIDAD
 CABLE KING

NO.	CHANGE	DATE	ITL	Diagrama Electrico	A.C.
1	UPDATED DRAWING	12/20/01	SJDA	Trole de 1 Velocidad	
2	Spanish Translation	1/30/08	JRF	with TAS, Fusible, y Opcionale Freno A.C.	
				SC. -----	
				DA. 11/08/01	
				DR. SIDA	
				CK.	



Cable #	Dispositivo Conectado
L1	CFU
L2	CFU
L3	CFU
CL1	CFU, R-L
CL2	CFU, R-L
CL3	CFU, R-L
D	CFU, R-L
F	R-L, FC
CT1	FC
CT2	R-L
CT3	FC
CT11	FC
CT12	FC
CT13	R-L
40	FC
40A	L, R
40B	L, R
40C	L
41	R, L
41A	R, L
42	FC
H91	TB
92	TB
CB1	TB
CB2	TB
	R, L, FC



*** NOTA:**
 Al interruptor TAS del segundo motor.
 Si el CTAS #2 no está siendo utilizado,
 puentear el 40B al 40C como se muestra.

▲ADVERTENCIA
 ESTE EQUIPO DEBE PONERSE A TIERRA DE MANERA EFICAZ
 DE ACUERDO CON LOS CODIGOS APLICABLES

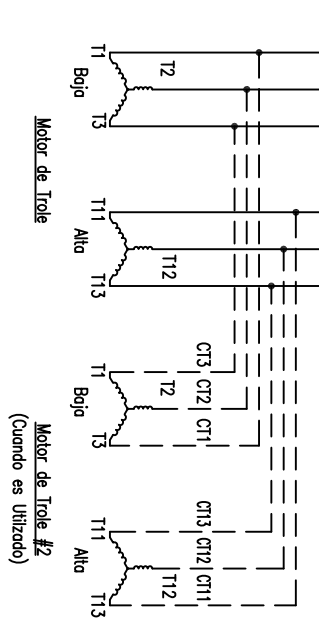
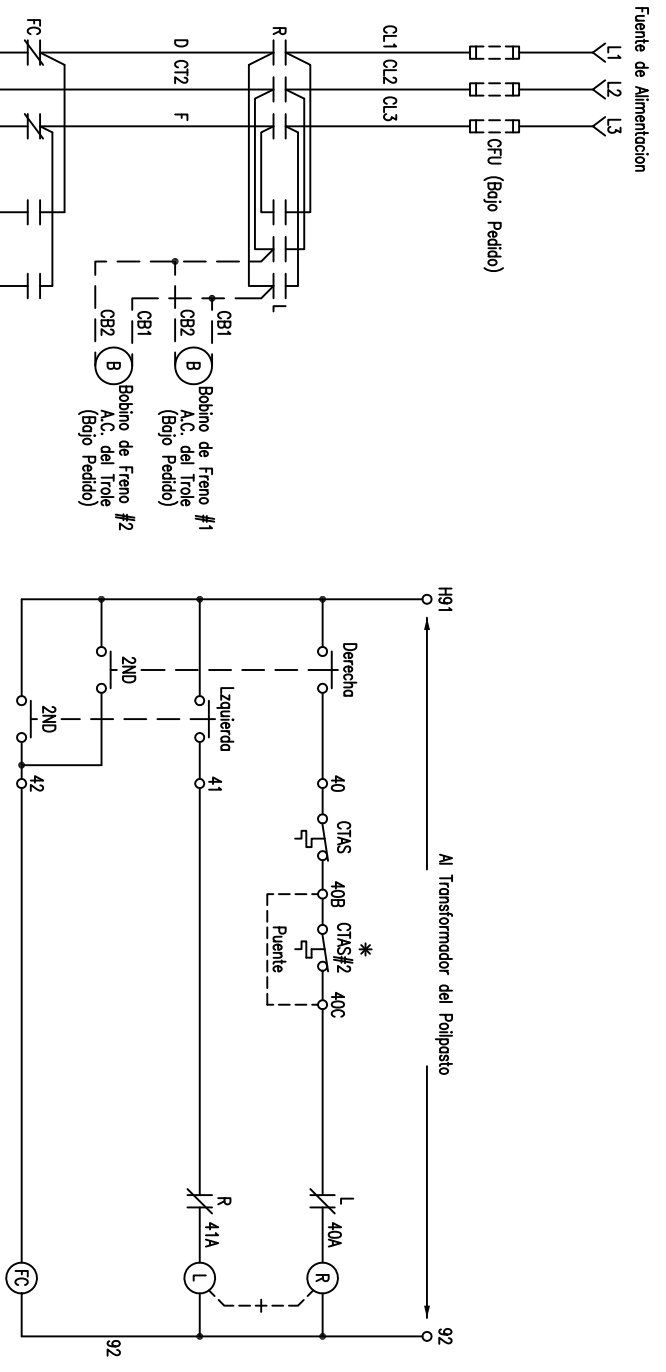
▲AVERTISSEMENT:
 CET EQUIPMENT DOIT ETRE MIS A LA TERRE EN
 ACCORDANCE AVEC LES NORMES EN VIGUEUR.

Designaciones de Símbolos

CFU - Fusible del circuito del motor del trole
 R - Contactor derecho del trole
 L - Contactor izquierdo del trole
 FC - Contactor rápido del trole
 CTAS - Interruptor activado por temperatura del motor del trole
 TB - Tablero de terminales
 G_o - Marco de tierra
 F

FIRST USED ON:
 ... FROM: 443900

DIAGRAMA ELEMENTAL



TROLE DE 2 VELOCIDADES
 CABLE KING

NO.	CHANGE	DATE	INTL.	Diagrama Electrico	A.C.
1	ADDED 2nd BRAKE	7/96	GDB	Trole de 2 Velocidades	
2	Spanish Transition	1/31/08	MRF	with TAS y Fusibles Opcionales	
				SC: -----	
				DA: 7/31/95	
				DR: TLB	
				CK: _____	
<small>YALE LIFT-TECH Division of Caterpillar Inc. 1000 North 10th Street Milwaukee, WI 53217</small>					
SHEET 58 OF 99 SHEETS					
451222					