



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 | SLEM-LINE | XAC-A |
|---------------------|-------------|-----------|-------|
| 4488 | 1 1/2 | | |
| 4392 | | | |
| PRI | VOL T | PART # | VA |
| 230 | 230 | 229467-71 | 500 |
| 460 | 460 | 229467-71 | 500 |
| 208 | 208 | 1.4 | 2 |
| 277 | 277 | 1.4 | 2 |
| 575 | 575 | 1.25 | 2 |
| 380/415 | 380/415 | 0.6 | 2 |
| 230 | 230 | 229467-11 | 500 |
| 460 | 460 | 229467-11 | 500 |
| 208 | 208 | 2 | 2 |
| 277 | 277 | 2 | 2 |
| 575 | 575 | 2 | 2 |
| 380/415 | 380/415 | 2 | 2 |
| 230 | 230 | 229467-31 | 500 |
| 460 | 460 | 229467-31 | 500 |
| 208 | 208 | 3 | 2 |
| 277 | 277 | 3 | 2 |
| 575 | 575 | 3 | 2 |
| 380/415 | 380/415 | 3 | 2 |
| 230 | 230 | 229467-41 | 500 |
| 460 | 460 | 229467-41 | 500 |
| 208 | 208 | 4 | 2 |
| 277 | 277 | 4 | 2 |
| 575 | 575 | 4 | 2 |
| 380/415 | 380/415 | 4 | 2 |

SEE 445399 FOR OTHER PBS

TRANSFORMERS

| TRANSFORMERS 50/60HZ - 115V SEC. | | | | |
|----------------------------------|-----------|-----------|-------------|--------------------|
| VA | PRI VOL T | PART # | PRIMARY AMP | SECONDARY AMP FUSE |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |
| 500 | 230 | 116963-10 | 0.8 (2) | 116963-08 |

* USE 116964-01 SINGLE POLE FUSE BASE FOR SECONDARY FUSE

CORD GRIPS & SEALINGS

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

CONTACTORS

| PART # | 200V | 230V | 300V/30Hz | 480V | 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 | 12 | 7.5VA | | 70VA |
| -31 | 3 | 3 | 7.5 | 7.5 | 10 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D12-F7 | 18 | | | |
| 333110-11 | 5 | 5 | 10 | 10 | 15 | 2 N.O., 2 N.C. FAST | LC1-D12-F7 | 25 | 8.5VA | | 100VA |
| -20 | 5 | 5 | 10 | 10 | 15 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D18-F7 | | | | |
| 333110-12 | 7.5 | 7.5 | 15 | 15 | 20 | 3 N.O.-1 N.C.-1 N.O. M/L | LC1-D18-F7 | 32 | 110V | | |
| -32 | 7.5 | 7.5 | 15 | 15 | 20 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D25-F7 | | | | |
| 333110-13 | 10 | 10 | 20 | 20 | 30 | 2 N.O., 2 N.C. FAST | LC1-D25-F7 | | | | |
| -33 | 10 | 10 | 20 | 20 | 30 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D32-F7 | | | | |
| 333110-14 | 10 | 10 | 25 | 30 | 30 | 3 N.O.-1 N.C.-1 N.O. M/L | LC1-D32-F7 | | | | |
| -24 | 10 | 10 | 25 | 30 | 30 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D40-F7 | | | | |
| 333110-15 | 10 | 10 | 30 | 40 | 40 | 2 N.O., 2 N.C. FAST | LC1-D40-008F7 | 40 | | | |
| -34 | 10 | 10 | 30 | 40 | 40 | 3 N.O.-1 N.C.-1 N.O. M/L | LC1-D40-F7 | | | | |
| 333110-16 | 20 | 20 | 40 | 50 | 50 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D50-F7 | | | | |
| -26 | 20 | 20 | 40 | 50 | 50 | 2 N.O., 2 N.C. FAST | LC1-D50-F7 | | | | |
| 333110-17 | 25 | 30 | 50 | 60 | 60 | 3 N.O.-1 N.C.-1 N.O. M/L | LC1-D50-F7 | | | | |
| -27 | 25 | 30 | 50 | 60 | 60 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D80-F7 | | | | |
| 333110-18 | 30 | 40 | 74 | 75 | 100 | 2 N.O., 2 N.C. FAST | LC1-D80-008F7 | 80 | | | |
| -38 | 30 | 40 | 74 | 75 | 100 | 3 N.O.-1 N.C.-1 N.O. M/L | LC1-D80-F7 | | | | |
| 333110-19 | 40 | 50 | 100 | 100 | 125 | 3 N.O.-1 N.C.-1 N.O. REV. | LC2-D150-F7 | | | | |
| -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

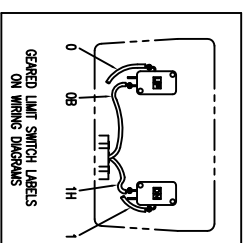
| MAX. TOTAL H.P. | SPEED | SOFT-START PART # | 60HZ |
|-----------------|-------|-------------------|-----------|
| 200-230 | 460 | 575 | |
| 3/4 | 2 | 227727-01 | MAX. AMPS |
| | | 116039-01 | 3.3 |
| | | 904596 | |
| | | 227727-11 | |
| | | 116039-11 | |
| | | 904596 | |
| 2 | 5 | 1 OR 2 | 7.5 |
| | | 227727-21 | |
| | | 116039-21 | |
| | | 904596 | |
| 6 | 10 | 1 OR 2 | 25 |
| | | 440528-01 | |
| | | no enclosure | |
| | | 904596 | |

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 |
| | 331902-11 | DISCONNECT SWITCH |
| | 331902-21 | OPERATING HANDLE |
| 60A | 331902-11 | 331902-21 |
| | 331902-11 | DISCONNECT SWITCH |
| | 331902-21 | OPERATING HANDLE |

GEARED LIMIT SWITCH



TERMINAL BOARDS

| AMPS | TERM | PART # |
|------|------|-----------|
| 20 | 6 | 117410-06 |
| | 9 | 117410-09 |
| | 10 | 117410-10 |
| 30 | 6 | 117845-06 |
| | 75 | 103206-15 |

FUSES

| HORSEPOWER AT 1800 RPM | 200 | 230 | 460 | 575 | FUSE | CLASS J FUSES |
|------------------------|-----|-----|-----|-------|-----------|---------------|
| | 1/4 | 1/4 | 1/4 | 1/3 | 116952-01 | 1 |
| | | | | 1/3 | | |
| | | | | 1/2 | 116952-02 | 2 |
| | | | | 3/4 | | |
| | | | | 1/2 | 116952-03 | 3 |
| | | | | 1 | | |
| | | | | 1 1/2 | 116952-04 | 4 |
| | | | | 2 | | |
| | | | | 1 1/2 | 116952-05 | 5 |
| | | | | 2 | | |
| | | | | 2 1/2 | 116952-06 | 6 |
| | | | | 3 & 4 | | |
| | | | | 3 | 116952-08 | 8 |
| | | | | 4 | 116952-10 | 10 |
| | | | | 5 | 116952-12 | 12 |
| | | | | 7.5 | 116952-15 | 15 |
| | | | | 2 1/2 | | |
| | | | | 3 | | |
| | | | | 3 & 4 | | |
| | | | | 7.5 | 116952-20 | 20 |
| | | | | 10 | 116952-25 | 25 |
| | | | | 15 | 116952-30 | 30 |
| | | | | 20 | 116952-40 | 40 |
| | | | | 25 | 116952-50 | 50 |
| | | | | 30 | 116952-60 | 60 |
| | | | | 40 | 116952-70 | 70 |
| | | | | 50 | 116952-80 | 80 |
| | | | | 100 | 116952-90 | 90 |
| | | | | 100 | 116952-88 | 100 |
| | | | | 125 | 116952-89 | 125 |
| | | | | 150 | 116952-91 | 150 |
| | | | | 200 | 116952-92 | 200 |
| | | | | | | |

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

**OTHER THAN 1800 RPM:

FUSE SIZE = MOTOR FULL LOAD AMPS x 1.75

| HORSEPOWER (1Ø) | 115 | 230 | FUSE | AMP | FUSE BASE |
|-----------------|-----|-----|-----------|-----|-----------|
| | 1/4 | 1/4 | 116952-05 | 5 | |
| | 1/2 | 1/2 | 116952-08 | 8 | |
| | 1 | 1 | 116952-10 | 10 | 30A-600V |
| | 1 | 1 | 116952-12 | 12 | 116953-02 |
| | 15 | 15 | 116952-15 | 15 | |
| | 25 | 25 | 116952-25 | 25 | |

DISTRIBUTION BLOCKS

| | | | |
|---------------------------|--------|-----------|------|
| 3 POLE DISTRIBUTION BLOCK | PART # | 117880-03 | 175A |
| | PART # | 117961-03 | 335A |
| | PART # | 117979-01 | 665A |

GROUND BARS

| | | |
|--------------------------|--------|-----------|
| 5 CIRCUIT GROUND BAR KIT | PART # | 117856-01 |
|--------------------------|--------|-----------|

BOTONERAS

Table with columns: BOTONERAS, Luminoso de color, Linea Delgada, XAC-A, VA, Parte #, AMP, Fusible, Secundario, AMP, Fusible.

TRANSFORMADORES

Table with columns: Transformadores 50/60HZ - 115V SEC., VA, Parte #, AMP, Fusible, Secundario, AMP, Fusible.

Abrazaderas para Cordon Conductor de Botonerias

Table with columns: Abrazaderas de Nylon Selladas para Cordon Conductor, Parte No., Tomano NTP, Diametro de Cable, Tarea de Separacion.

Contactores

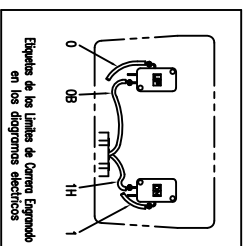
Table with columns: Parte #, Cebozos de Fuerza (HP) A, 200V, 230V, 300V/50Hz, 460V, 575V, Descripción, Tele Parte #, AMPS, Bobina, Sellado, En Acondicionados.

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

Table with columns: Total Max HP, 200-230, 460, 575, Velocidad, Arranques Suaves, Parte #, Enciermento NEMA I, Amps Max.

Limite de Carrera Engranado



Fusibles

Table with columns: Caballos de Fuerza (HP) a 1800 RPM, 200, 230, 460, 575, Fusible, AMP, Base para fusibles.

Otro diferente a 1800 RPM. Tamaño de Fusible = Carga Completa de Amps del Motor x 1,75. Nota: Ejugar el Tomano de los Fusibles basandose en NEC 430-180 & 430-152. Tambien NEC 430-52(0) Excepcion No. 2: b Tambien NEC 610-42(0)

Table with columns: Caballos de Fuerza (HP) (1/2), Fusibles Clase J, Fusible, AMP, Base para fusibles.

Bloque de Distribucion

Table with columns: Bloque de Distribucion de 3 Polos, Parte #, 117880-03, 1175A, Parte #, 117961-03, 335A, Parte #, 117979-01, 665A.

Barras de tierra

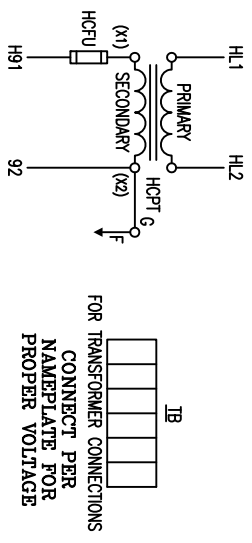
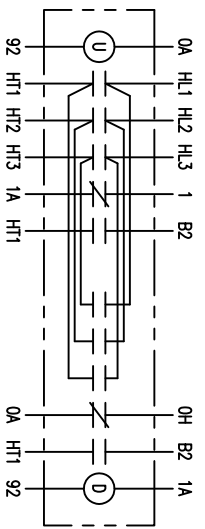
Table with columns: Kit de Barras de tierra de 5 circuitos, Parte #, 117856-01.

451222-59SP

FROM: 443705

Referencia Electrica del uso de los Controles

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

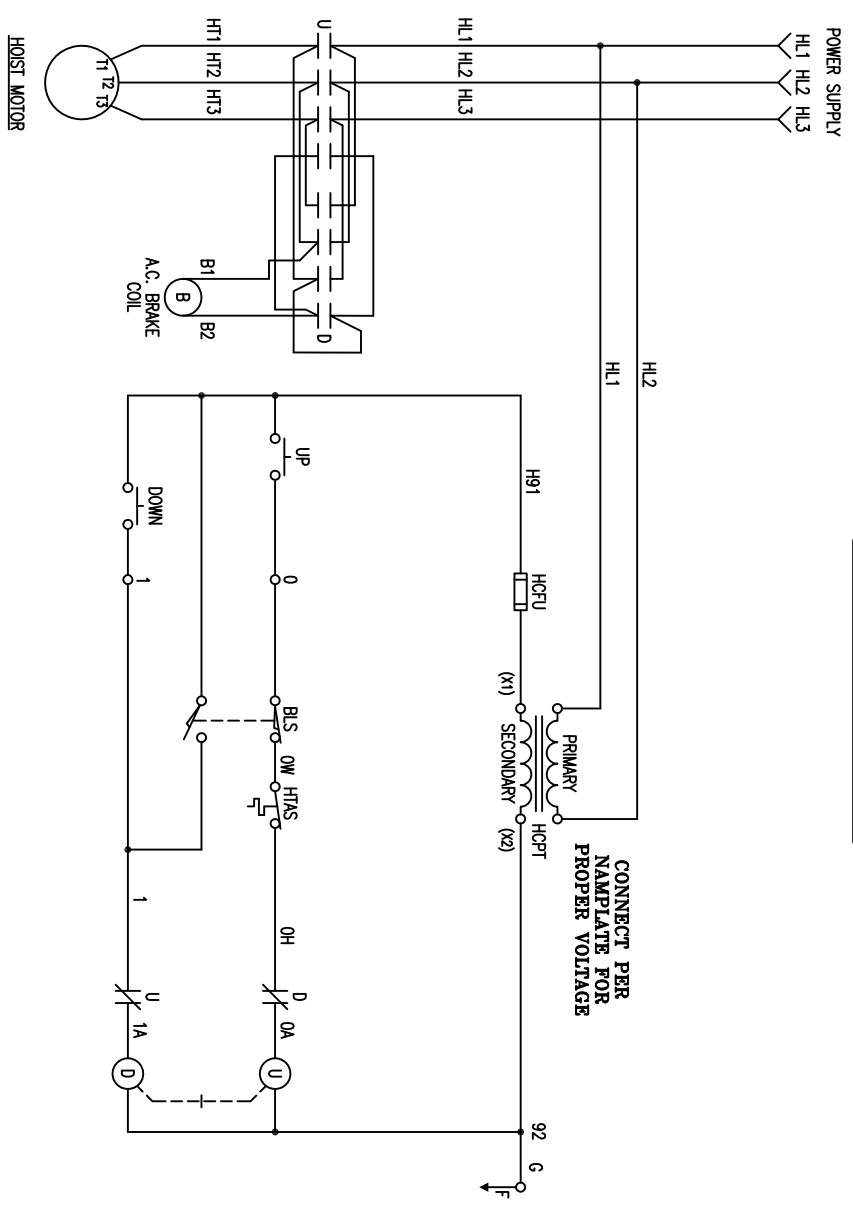
FIRST USED ON:

FROM: 451032

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_F - FRAME GROUND

ELEMENTARY DIAGRAM



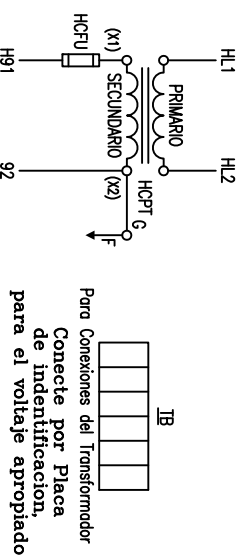
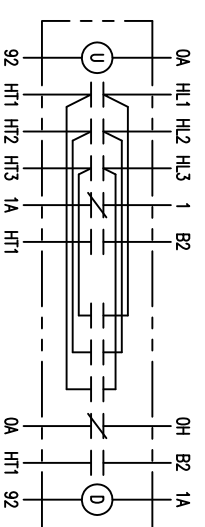
Y80/800 SERIES 1-SPEED HOIST

| NO. | CHANGE | DATE | TITLE | A.C. |
|-----|--------|-------------|------------------------------|------|
| | | | 1-SPEED HOIST WIRING DIAGRAM | |
| | | | WITH TDS AND BLS | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| SC | | DA 01/04/07 | | |
| DR | | SIDA | | |
| CK | | | | |
| AP | | | | |



451222

| Cable # | Dispositivo Conectado |
|---------|-----------------------|
| 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, D |
| 1A | U, D |
| H91 | HCFU |
| 92 | HCPT, G, U, D |
| B1 | U-D |
| B2 | U, D |



Para Conexiones del Transformador
Conecte por Placa
de indentificación,
para el voltaje apropiado

▲ Advertencia

A menos que el gancho de carga se eleve cuando el boton "Up" es presionado, donos severos al polipasto, y la caída de la carga pueden 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

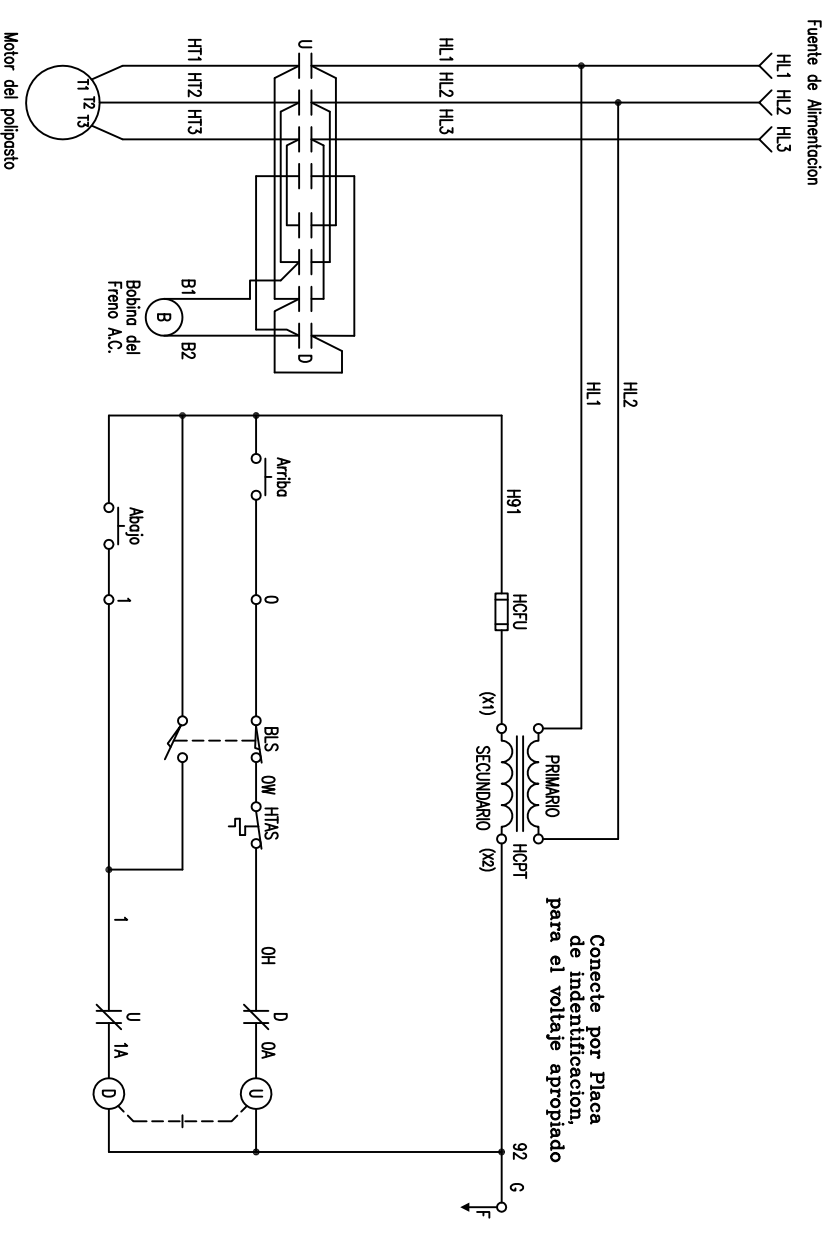
▲ AVERTISSEMENT:

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

Designaciones de Símbolos

- HCPT – Transformador del Circuito de Control
- HCFU – Fusible del Circuito de Control
- U – Contactor de subir del polipasto
- D – Contactor de bajar del polipasto
- BLS – Interruptor de Límite de carrera, tipo Bloque
- HTAS – Interruptor activado por temperatura del motor del polipasto
- TB – Tablero de terminales
- G_o – Marco de tierra

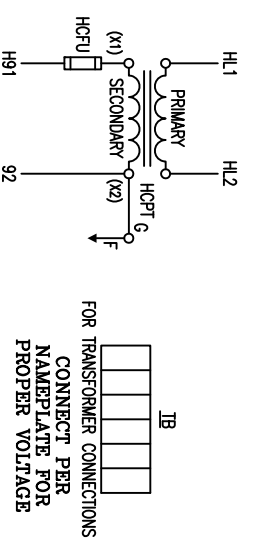
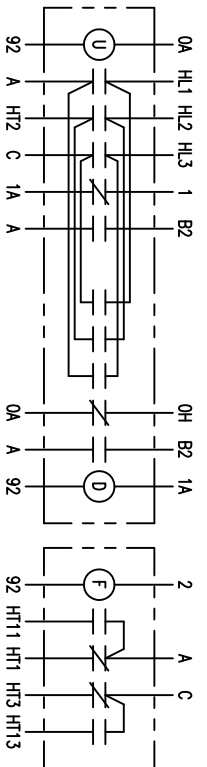
DIAGRAMA ELEMENTAL



Y80/800 SERIES
Polipasto de 1 Velocidad

| NO. | CHANGE | DATE | TTL. | Diagrama Electrico | A.C. |
|-----|--------------------|---------|------|---|------|
| 1 | Spanish Transition | 1/14/08 | MRF | Polipasto de 1 Velocidad con TMS y BLS | |
| | | | | SC. | |
| | | | | DA 01/04/07 | |
| | | | | DR. SIDA | |
| | | | | CK. | |
| | | | | AP. | |
| | | | | | |
| | | | | 451222SP | |

| WIRE # | DEVICE CONNECTED |
|--------|------------------|
| 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 |
| HTT1 | F |
| HTT3 | F |
| 0 | D, U |
| 0A | D, U |
| 0W | D |
| 0H | D |
| 1 | U, U, D |
| 1A | F |
| 2 | F |
| H91 | HCPT, G, U, D, F |
| 92 | U-D |
| B1 | U-D |
| B2 | U, D |



FOR TRANSFORMER CONNECTIONS
CONNECT PER
NAMEPLATE FOR
PROPER VOLTAGE

▲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.

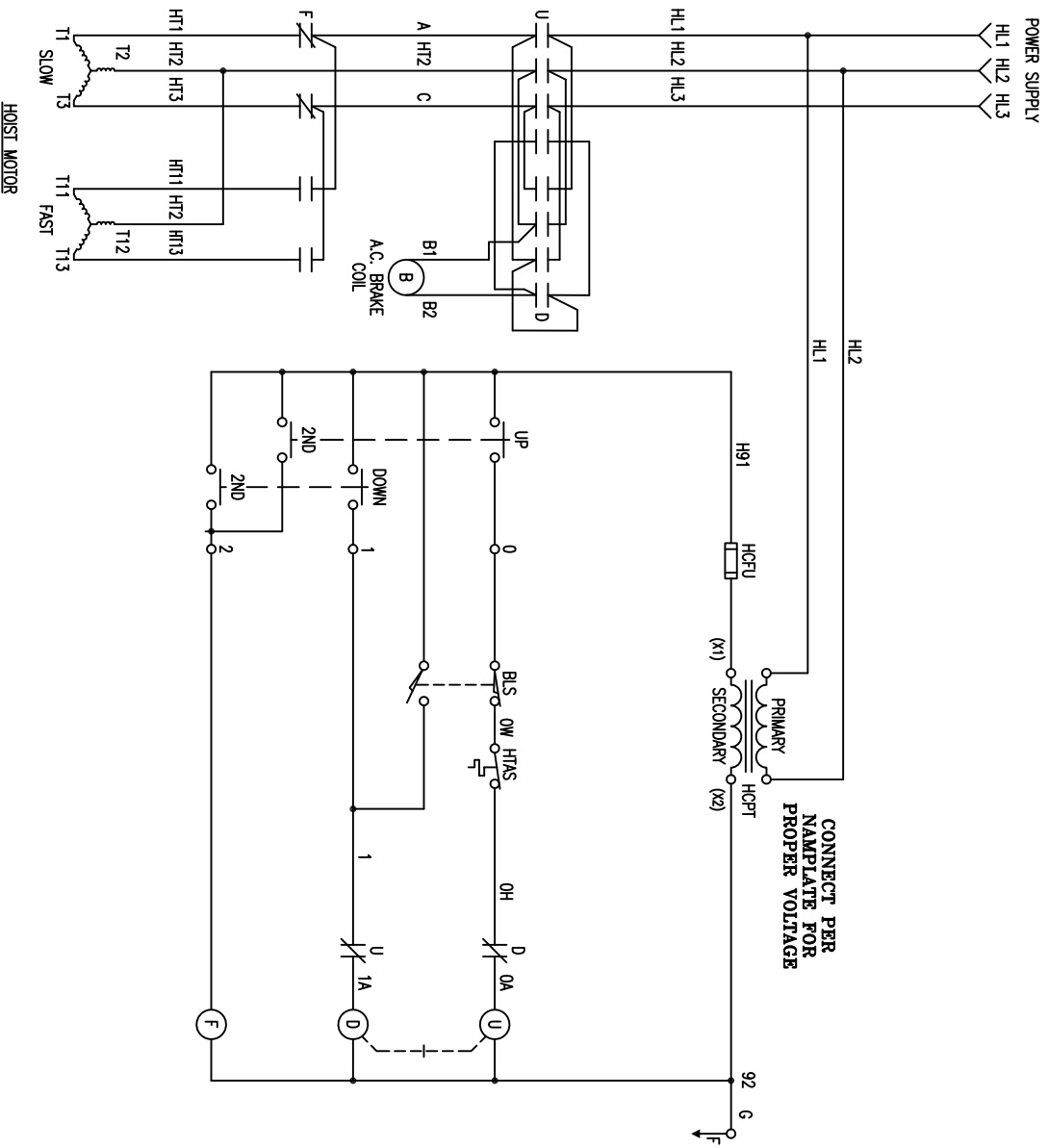
▲WARNING:
THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

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

SYMBOL DESIGNATIONS

- HCPT - CONTROL CIRCUIT TRANSFORMER
- HCPT - CONTROL CIRCUIT FUSING
- U - HOIST UP CONTACTOR
- D - HOIST DOWN CONTACTOR
- F - HOIST FAST SPEED CONTACTOR
- BLS - HOIST BLOCK OPERATED LIMIT SWITCH
- HTAS - HOIST MOTOR TEMPERATURE ACTIVATED SWITCH
- TB - TERMINAL BOARD
- G - FRAME GROUND

ELEMENTARY DIAGRAM

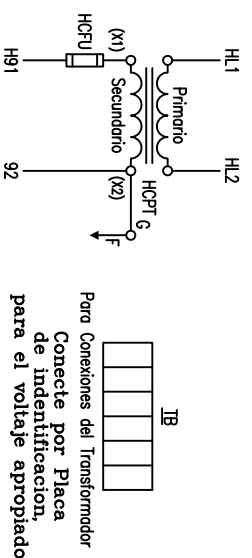
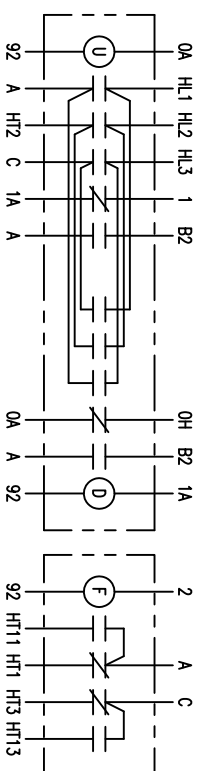


**Y80/800 SERIES
2-SPEED HOIST**

| NO. | CHANGE | DATE | TITLE | A.C. |
|-----|--------|------|------------------|------|
| | | | WIRING DIAGRAM | |
| | | | 2-SPEED HOIST | |
| | | | WITH TMS AND BLS | |

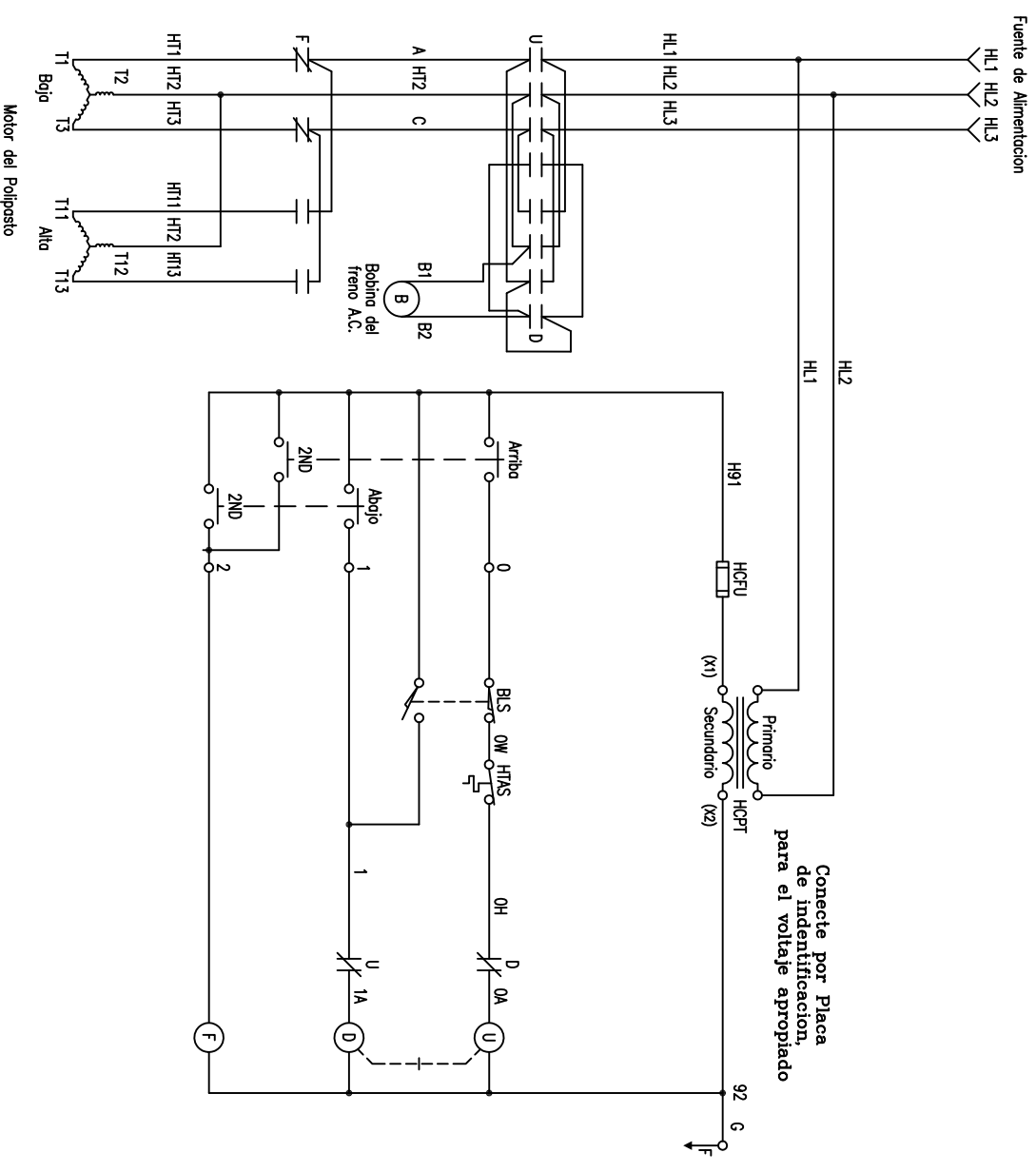
| | | |
|-----------------------|-------------|---|
| SC | DA 01/04/07 | YALE LIFT-TECH A Division of Emerson Power Transmission 2003 |
| DR | SIDA | |
| CK | | |
| AP | | |
| SHEET 48 OF 99 SHEETS | | |
| 451222 | | |

| 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 |
| 0 | D, U |
| 0A | D, U |
| 0W | D |
| 0H | D |
| 1 | U, U, D |
| 1A | U, U, D |
| 2 | F |
| H91 | HCPU |
| 92 | HCPT, G, U, D, F |
| B1 | U-D |
| B2 | U, D |



Para Conexiones del Transformador Conecte por Placa de Identificación, para el voltaje apropiado

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 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 códigos aplicables

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

Designaciones de Símbolos

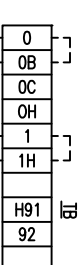
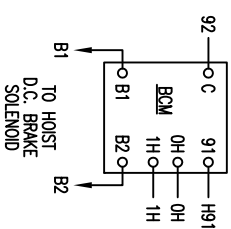
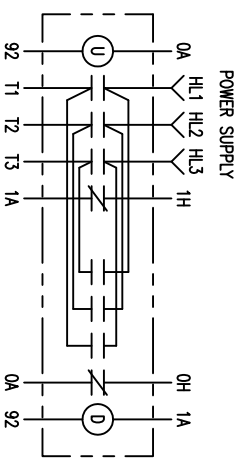
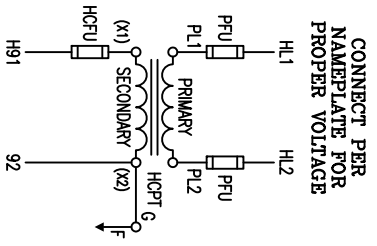
- HCPT – Transformador del Circuito de Control
- HCPU – Fusible del Circuito de Control
- U – Contactor de subir del polipasto
- D – Contactor de bajar del polipasto
- BLS – Interruptor de límite de carrera, tipo Bloque
- HTAS – Interruptor activado por temperatura del motor del polipasto
- TB – Tablero de terminales
- G₀ – 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 | | | | |

| WIRE # | DEVICE CONNECTED |
|--------|--------------------|
| HL1 | U-D, PFU |
| HL2 | U-D, PFU |
| HL3 | U-D, PFU |
| PL1 | PFU, HOPPT |
| PL2 | PFU, HOPPT |
| T1 | U-D |
| T2 | U-D |
| T3 | U-D |
| 0 | TB |
| 0A | D, U |
| 0B | TB |
| 0C | TB |
| 0H | D, BCM |
| 1A | U, D |
| 1H | U, BCM |
| 91 | HCFU, BCM |
| 92 | HCFU, G, U, D, BCM |
| B1 | BCM |
| B2 | BCM |



*NOTE:
TO THE UPPER AND LOWER GEAR LIMIT SWITCH, IF THE GLS IS NOT USED, JUMPER 0 TO 0B & 1 TO 1H, AS SHOWN.

▲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.

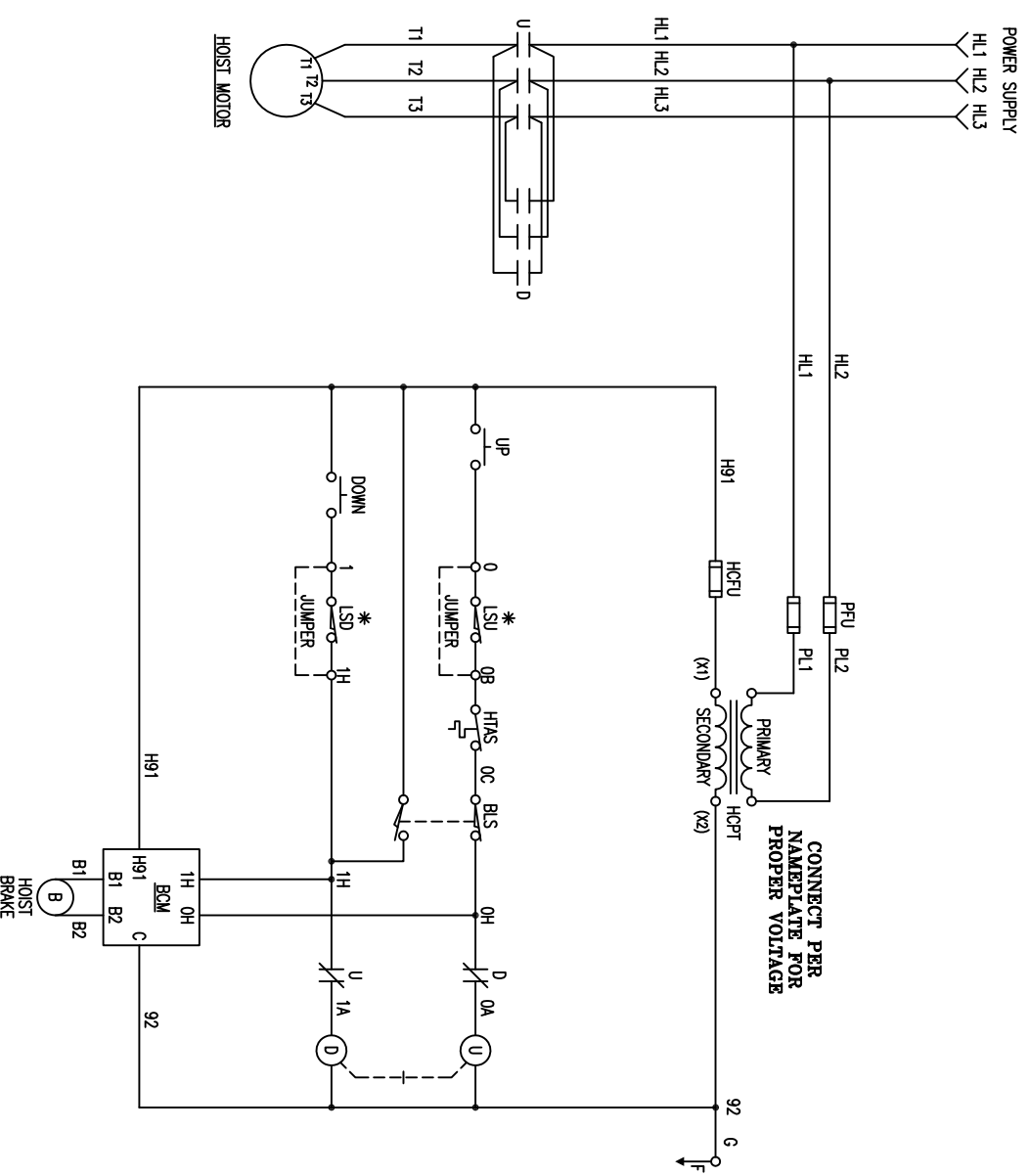
▲AVERTISSEMENT:

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

SYMBOL DESIGNATIONS

- PFU - TRANSFORMER PRIMARY FUSING
- HOPPT - CONTROL CIRCUIT TRANSFORMER
- HCFU - CONTROL CIRCUIT FUSING
- U - HOIST UP CONTACTOR
- D - HOIST DOWN CONTACTOR
- LSU - HOIST UPPER GEAR TYPE LIMIT SWITCH
- LSD - HOIST LOWER GEAR TYPE LIMIT SWITCH
- BLS - HOIST BLOCK OPERATED LIMIT SWITCH
- BCM - D.C. BRAKE CONTROL MODULE
- H/TAS - HOIST MOTOR TEMPERATURE ACTIVATED SWITCH
- TB - TERMINAL BOARD
- G - FRAME GROUND
- F -

ELEMENTARY DIAGRAM

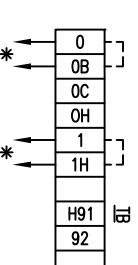
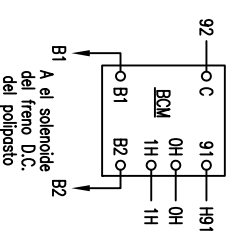
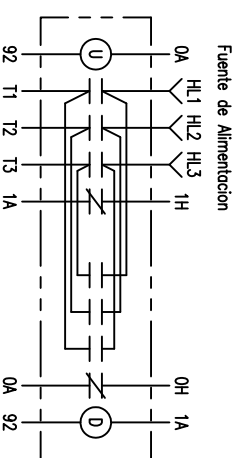
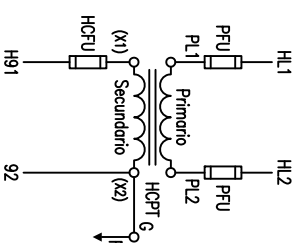


700 SERIES SIZE 2 & 3
1-SPEED HOIST

| NO. | CHANGE | DATE | ITL | WIRING DIAGRAM | A.C. |
|-----|--------|-------------|-----|---------------------------------|------|
| | | | | 700 SERIES HOIST, 1-SPEED | |
| | | | | WITH TAS, BLS, AND OPTIONAL GLS | |
| SC | | DA 10/11/96 | | | |
| DR | RITTER | | | | |
| CK | | | | | |
| AP | | | | | |
| | | | | YALE LIFT-TECH | |
| | | | | 451222 | |

| Cable # | Dispositivo Conectado |
|---------|-----------------------|
| HL1 | U-D, PFU |
| HL2 | U-D, PFU |
| HL3 | U-D, PFU |
| PL1 | PFU, HCPT |
| PL2 | PFU, HCPT |
| T1 | U-D |
| T2 | U-D |
| T3 | U-D |
| 0 | TB |
| 0A | D, U |
| 0B | TB |
| 0C | TB |
| 0H | TB |
| 1A | D, BCM |
| 1H | U, D |
| 1A | U, BCM |
| 1H | U, BCM |
| H91 | HCFT, G, U, D, BCM |
| 92 | HCFT, G, U, D, BCM |
| B1 | BCM |
| B2 | BCM |

Conecte por Placa de Identificación, para el voltaje apropiado



***NOTA:**
A el Interruptor Limitador de carrera engrando.
Si el Limitador de carrera no está en uso,
puentear el 0 al 0B y el 1 al 1H como se muestra.

▲Advertencia
A menos que el gancho de carga se eleve cuando el botón "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

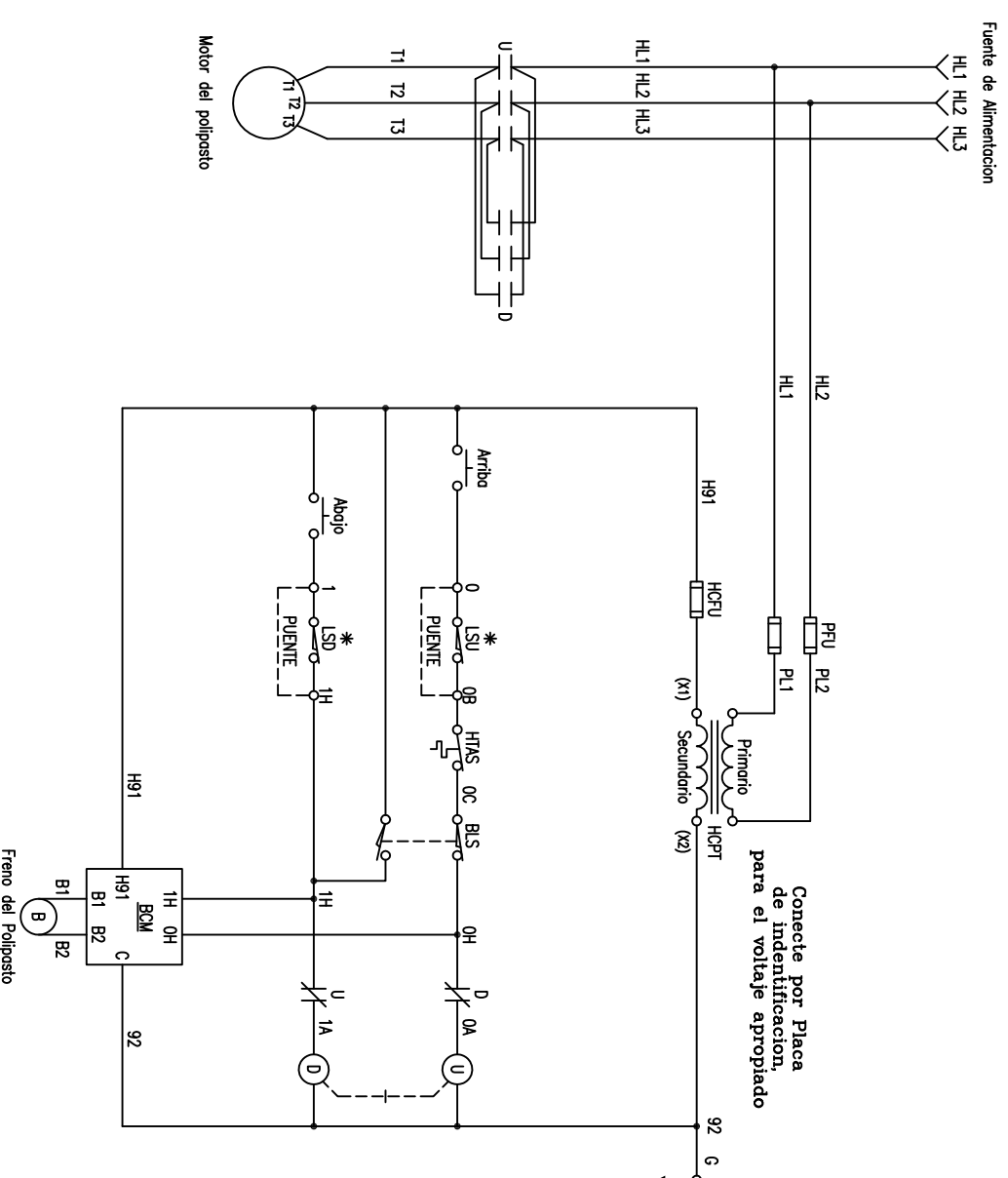
▲Advertencia
Este equipo debe ponerse a tierra de manera eficaz de acuerdo con los códigos aplicables

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

Designaciones de Símbolos

- 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
- LSU – Interruptor Limitador de carrera tipo engranado superior del polipasto
- LSB – Interruptor Limitador de carrera tipo engranado inferior del polipasto
- BLS – Interruptor de Límite de carrera, tipo Bloque
- BCM – D.C. Modulo de Control del Freno
- HTAS – Interruptor activado por temperatura del motor del polipasto
- TB – Tablero de Terminales
- G – Marco de tierra
- F –

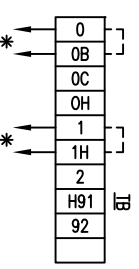
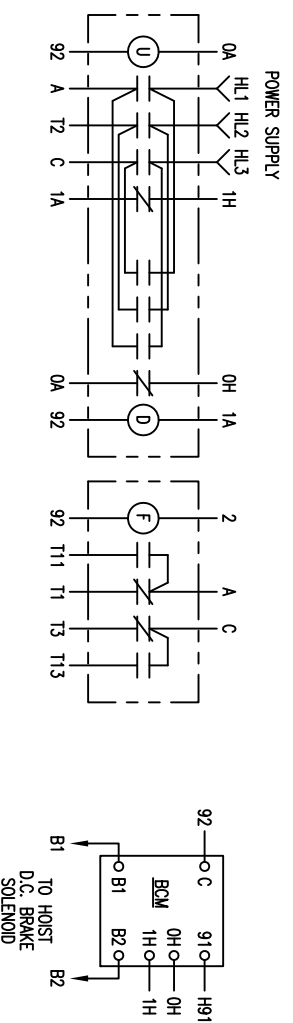
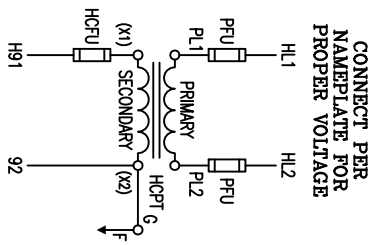
DIAGRAMA ELEMENTAL



Serie 700 – SIZE 2 & 3
Polipasto de 1 Velocidad

| NO. | CHANGE | DATE | ITL | A.C. |
|--|---------------------|----------------|-----|------|
| 1 | Spanish Translation | 1/23/08 | MRF | |
| Diagrama Eléctrico | | | | |
| Polipasto de dos velocidades Serie 700 con IAS, BLS y G.S. opcionl | | | | |
| SC | DA 10/11/96 | YALE LIFT-TECH | | |
| DR | RITTER | SHEETS | | |
| CK | | SHEETS | | |
| AP | | SHEETS | | |

| WIRE # | DEVICE CONNECTED |
|--------|-----------------------|
| HL1 | U-D, PFU |
| HL2 | U-D, PFU |
| HL3 | U-D, PFU |
| PL1 | PFU, HCPT |
| PL2 | PFU, HCPT |
| A | U-D, F |
| C | U-D, F |
| T1 | F |
| T2 | U-D |
| T3 | F |
| T11 | F |
| T12 | U-D |
| T13 | F |
| 0 | D, U |
| 0A | D, U |
| 0B | TB |
| 0C | TB |
| 0H | TB |
| 1 | D, BCM |
| 1A | TB |
| 1H | U, D |
| 2 | U, BCM |
| H91 | U, D, F, BCM |
| 92 | HCPT, G, U, D, F, BCM |
| B1 | BCM |
| B2 | BCM |



***NOTE:**
TO THE UPPER AND LOWER GEAR LIMIT SWITCH, IF THE G.S. IS NOT USED, JUMPER 0 TO 0B & 1 TO 1H, AS SHOWN.

SYMBOL DESIGNATIONS

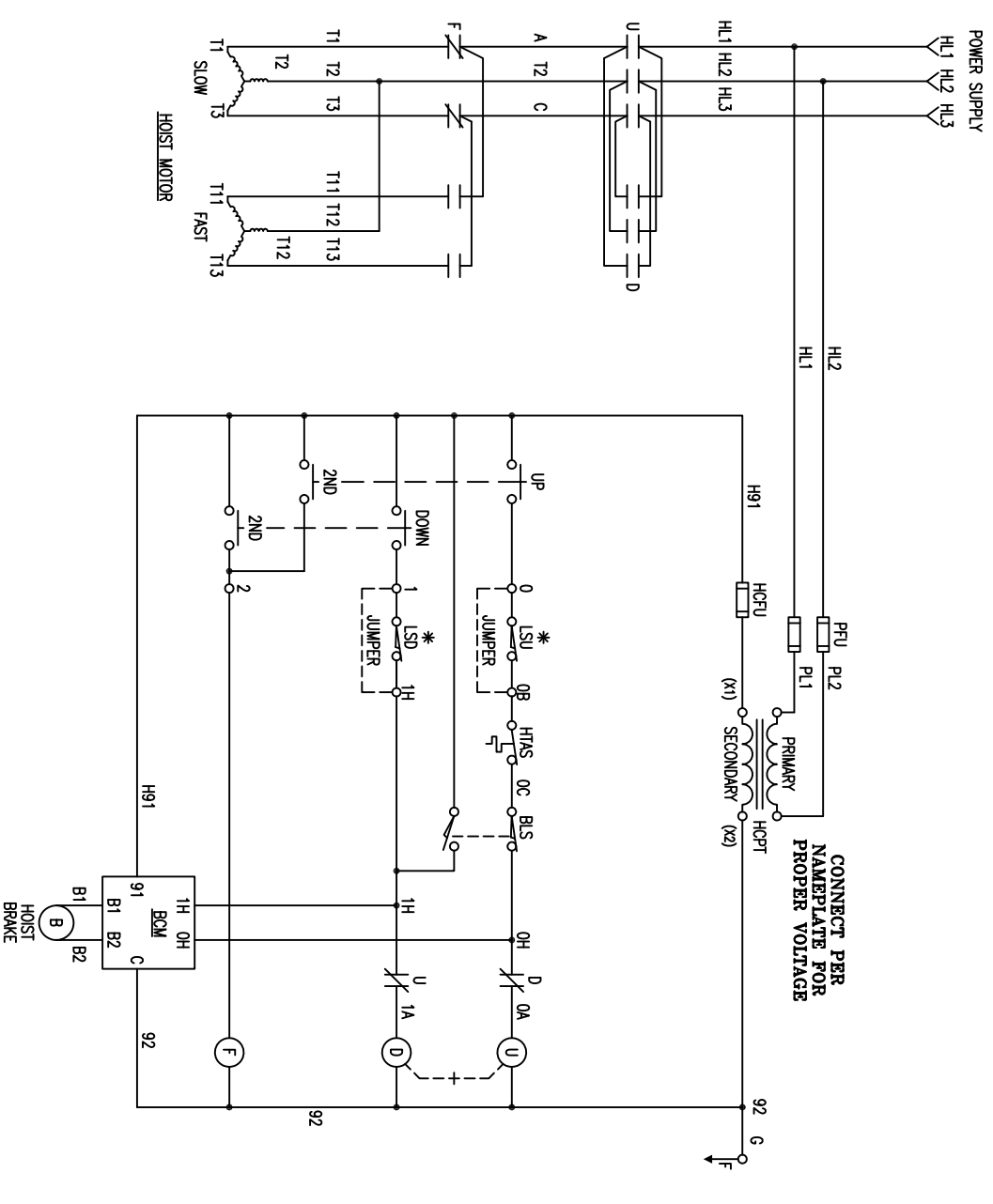
- PFU – TRANSFORMER PRIMARY FUSING
- HCPT – CONTROL CIRCUIT TRANSFORMER
- HCFU – CONTROL CIRCUIT FUSING
- U – HOIST UP CONTACTOR
- D – HOIST DOWN CONTACTOR
- F – HOIST FAST SPEED CONTACTOR
- LSU – HOIST UPPER GEAR TYPE LIMIT SWITCH
- LSD – HOIST LOWER GEAR TYPE LIMIT SWITCH
- BLS – HOIST BLOCK OPERATED LIMIT SWITCH
- BCM – D.C. BRAKE CONTROL MODULE
- HTAS – HOIST MOTOR TEMPERATURE ACTUATED SWITCH
- TB – TERMINAL BOARD
- G_O – FRAME GROUND

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

ELEMENTARY DIAGRAM

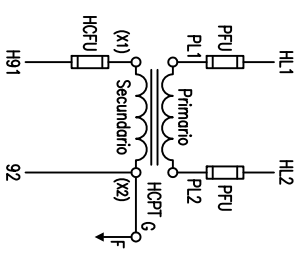


**700 SERIES SIZE 2 & 3
2-SPEED HOIST**

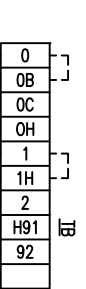
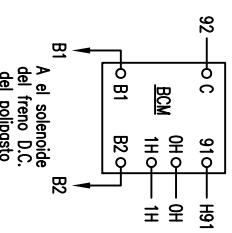
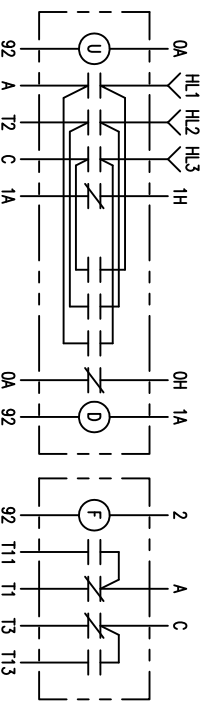
| NO. | CHANGE | DATE | ITL | WIRING DIAGRAM | A.C. |
|-----|--------|-------------|-----|--|------|
| | | | | 700 SERIES HOIST 2-SPEED WITH T.A.S, BLS, AND OPTIONAL G.S | |
| SC | | DA 10/11/96 | | | |
| DR | RITTER | | | | |
| CK | | | | | |
| AP | | | | | |
| | | | | YALE LIFT-TECH Lift Systems Division 1984321 | |
| | | | | SHEET 50 OF 99 SHEETS | |
| | | | | 451222 | |

| Cable # | Dispositivo Conectado |
|---------|-----------------------|
| HL1 | U-D, PFU |
| HL2 | U-D, PFU |
| HL3 | U-D, PFU |
| PL1 | PFU, HCPT |
| PL2 | PFU, HCPT |
| A | U-D, F |
| C | U-D, F |
| T1 | U-D |
| T2 | F |
| T3 | F |
| T11 | U-D |
| T12 | F |
| T13 | F |
| 0 | D, U |
| 0A | D, U |
| 0B | TB |
| 0C | TB |
| 0H | TB |
| 1 | D, BCM |
| 1A | U, D |
| 1H | U, BCM |
| 2 | F |
| TB | HCPU, BCM |
| T1 | HCPT, G, U, D, F, BCM |
| T2 | HCPT, G, U, D, F, BCM |
| T3 | HCPT, G, U, D, F, BCM |
| H91 | HCPT, G, U, D, F, BCM |
| 92 | HCPT, G, U, D, F, BCM |
| B1 | BCM |
| B2 | BCM |

Conecte por Placa de indentificacion, para el voltaje apropiado



Fuente de Alimentacion



***NOTA:**
A el Interruptor Limitador de carrera engrando.
Si el Limitador de carrera no esta en uso,
puentea 0 al 0B y el 1 al 1H como se muestra.

▲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 inopropiada 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

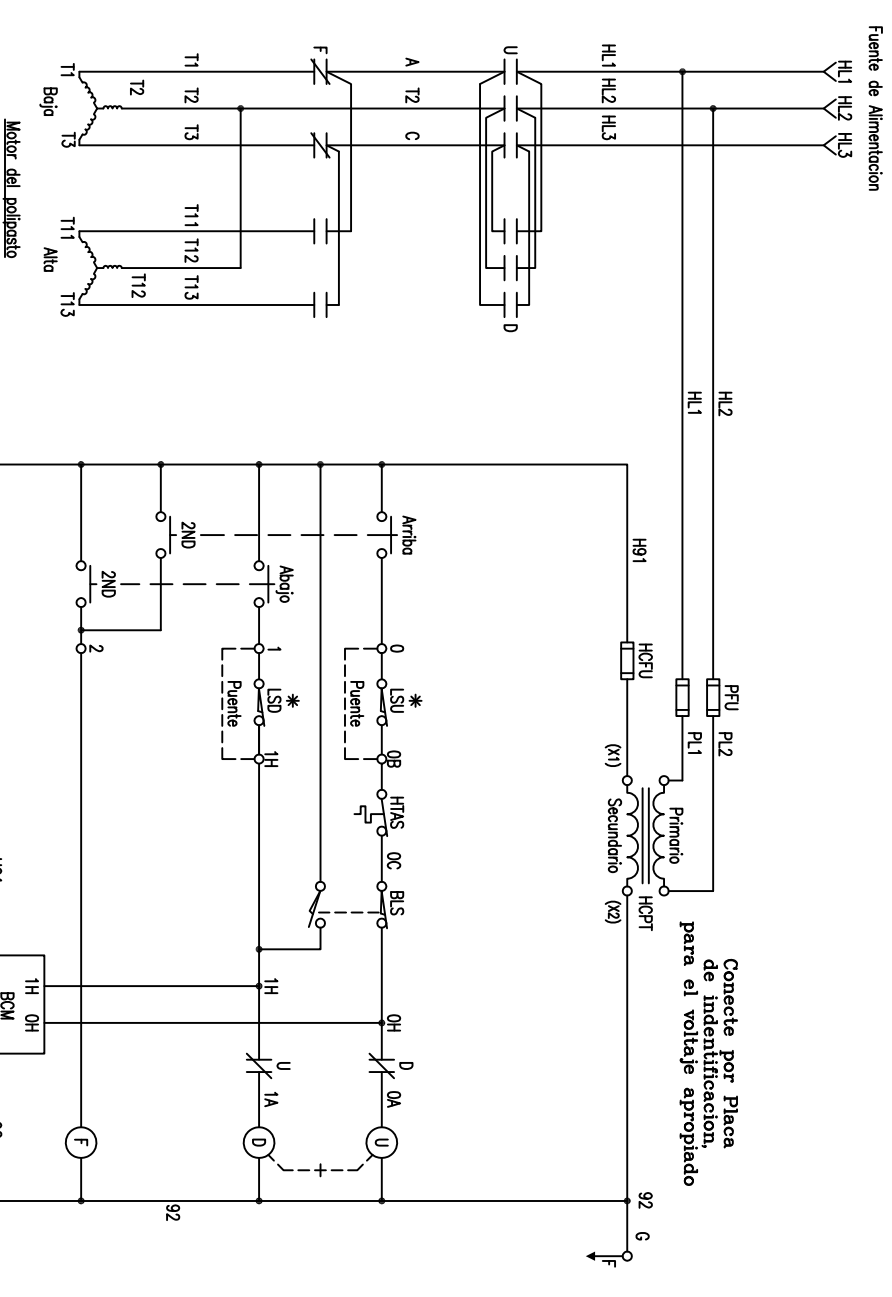
▲AVERTISSEMENT:
CET EQUIPEMENT DOIT ETRE MIS A LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

Designaciones de Simbolos

- 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 velocidad rapida del polipasto
- LSU – Interruptor Limitador de carrera tipo engrando superior del polipasto
- LSI – Interruptor Limitador de carrera tipo engrando inferior del polipasto
- BMS – Interruptor de Limite de carrera, tipo Bloque
- HTAS – Interruptor activado por temperatura del motor del polipasto
- IB – Tablero de terminales
- G_O – Marco de tierra
- F –

DIAGRAMA ELEMENTAL

Conecte por Placa de indentificacion, para el voltaje apropiado

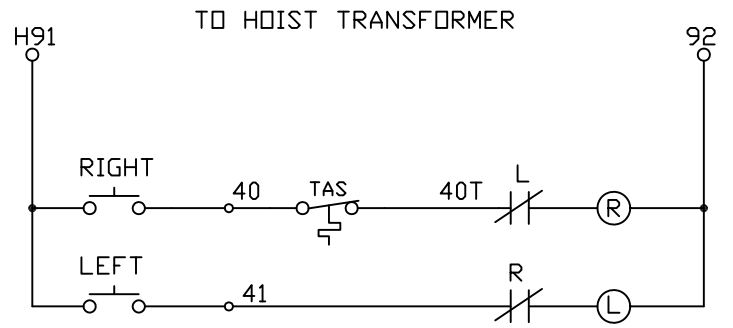
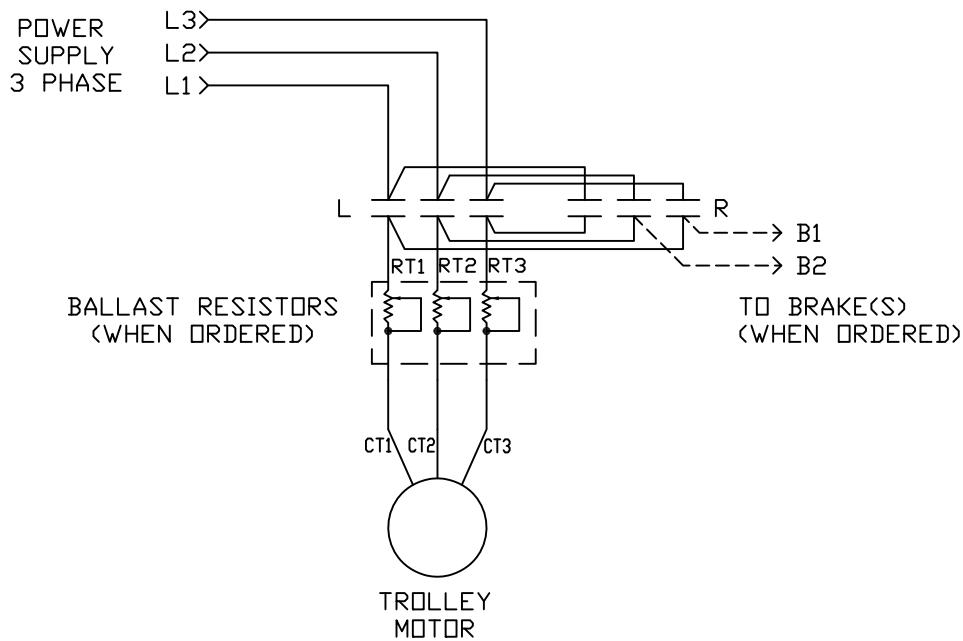


Serie 700 – Size 2 & 3
Polipasto de 2 Velocidad

| NDL | CHANGE | DATE | ITL | Diagrama Electrico | A.C. |
|-----|---------------------|---------|-----|---|------|
| 1 | Spanish Translation | 1/23/08 | MRF | Polipasto de dos velocidades Serie 700 con IAS, BLS y GLS opcionl | |
| SC | | | | | |
| DA | DA 10/11/96 | | | | |
| DR | RITTER | | | | |
| DR | RITTER | | | | |
| CK | | | | | |
| AP | | | | | |

VALE LIFT-TECH
 A Division of
 YALE
 Corporation
 451222SP

ELEMENTARY DIAGRAM



WARNING:

THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

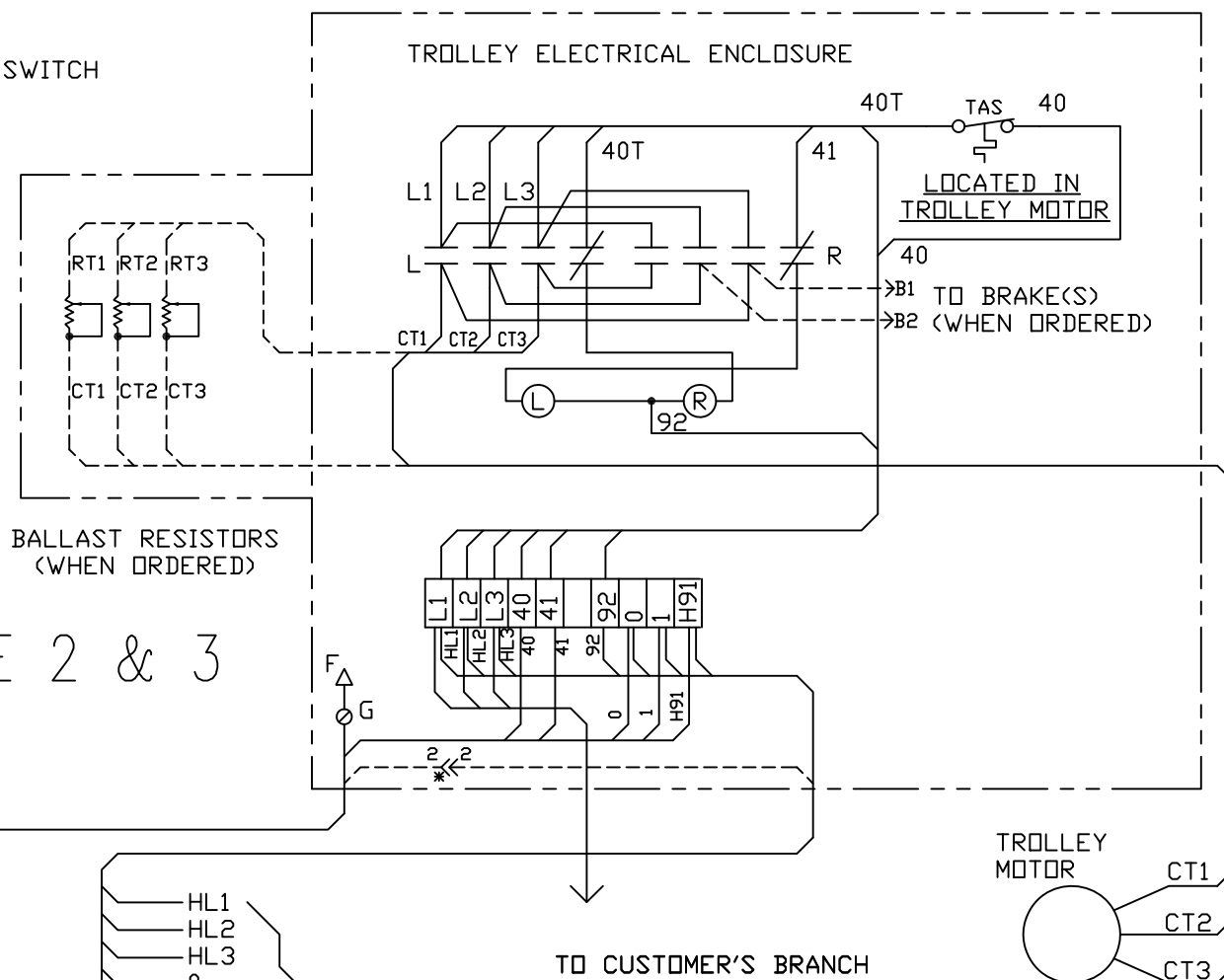
AVERTISSEMENT:

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

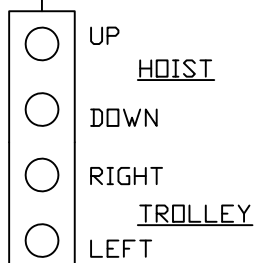
TAS TEMPERATURE ACTUATED SWITCH



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



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



PUSHBUTTON STATION

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

| 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. |

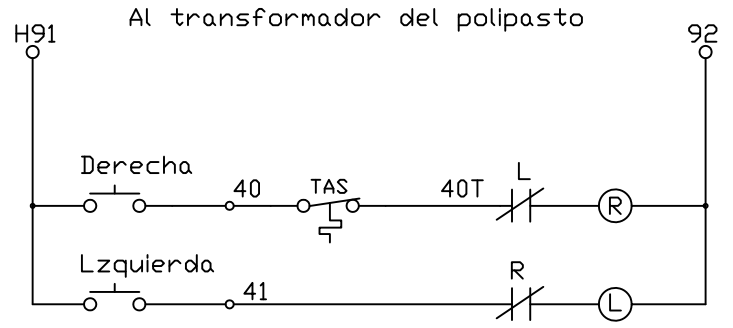
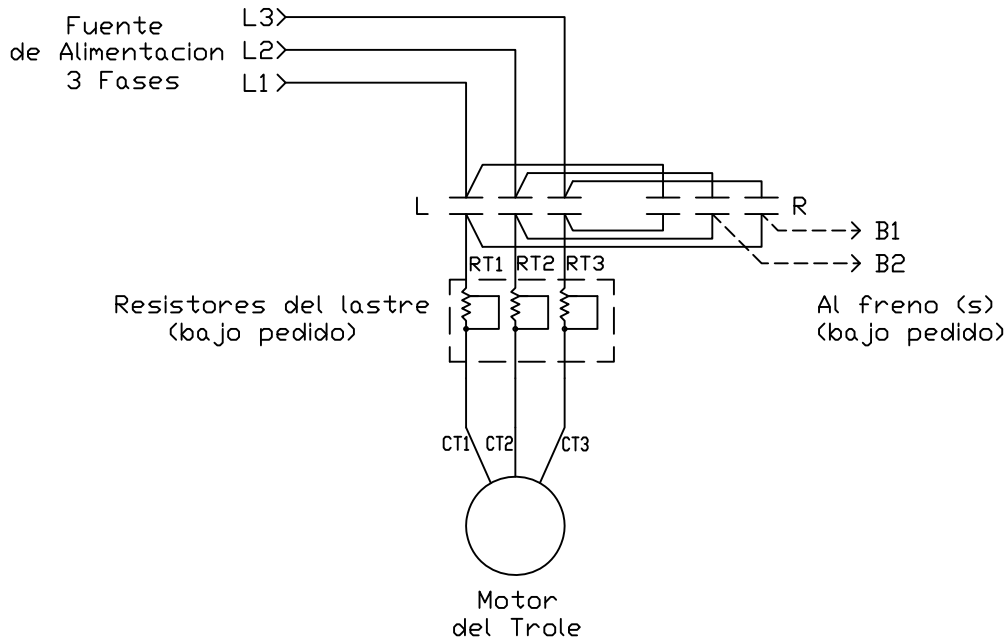


SHEET 51 OF 99 SHEETS
451222

FIRST USED ON:

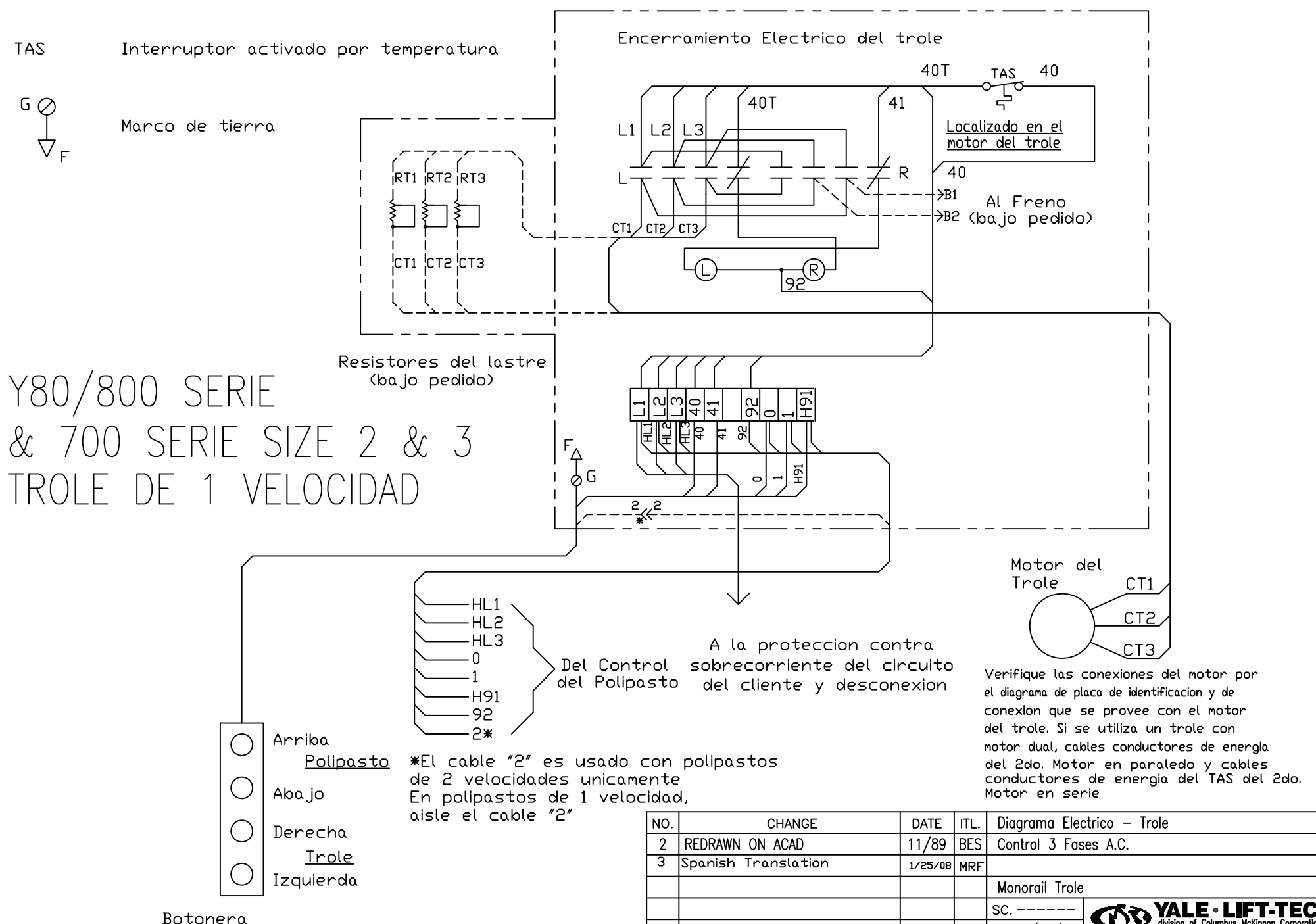
FROM: 329047

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.



Y80/800 SERIE
& 700 SERIE SIZE 2 & 3
TROLE DE 1 VELOCIDAD

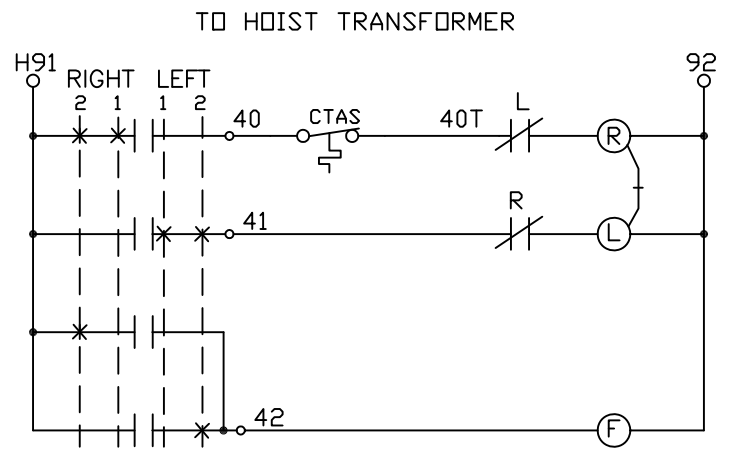
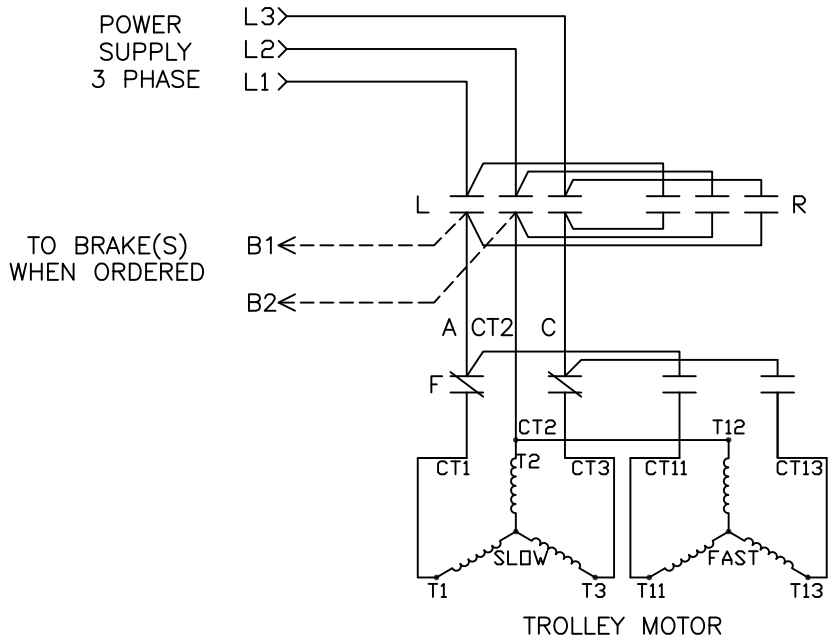


*El cable "2" es usado con polipastos de 2 velocidades unicamente. En polipastos de 1 velocidad, aisle el cable "2"

Verifique las conexiones del motor por el diagrama de placa de identificacion y de conexion que se provee con el motor del trole. Si se utiliza un trole con motor dual, cables conductores de energia del 2do. Motor en parado y cables conductores de energia del TAS del 2do. Motor en serie

| 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 |

ELEMENTARY DIAGRAM



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

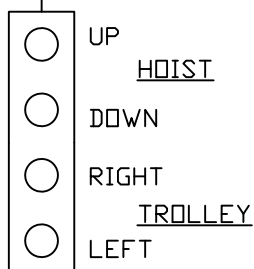
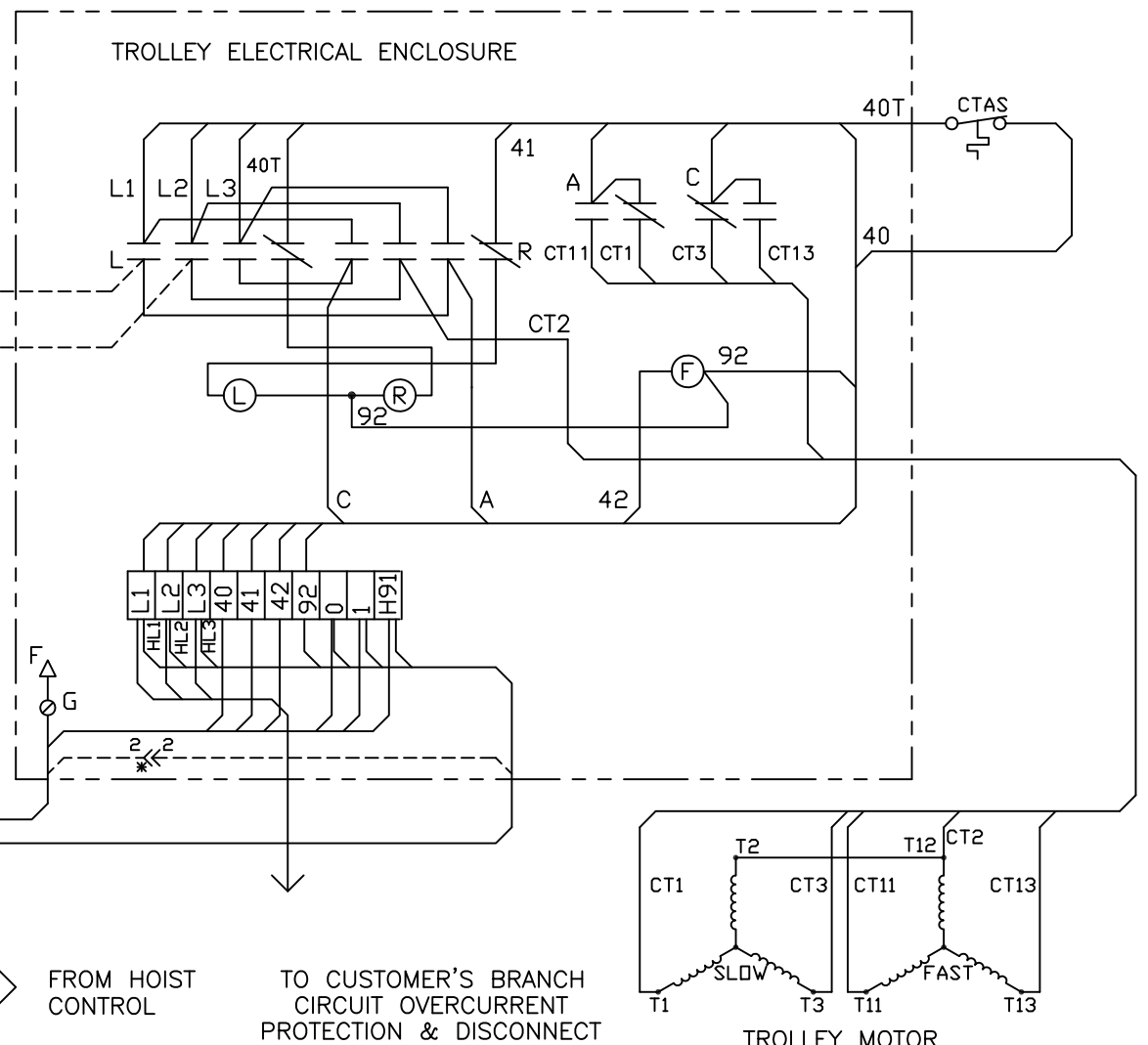
AVERTISSEMENT:
CET EQUIPEMENT DOIT ETRE MIS A'LA TERRE EN
ACCORDANCE AVEC LES NORMES EN VIGUEUR.

CTAS TEMPERATURE ACTUATED SWITCH
IN MOTOR

G
F
FRAME GROUND

TO BRAKE(S)
WHEN ORDERED
B1
B2

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



PUSHBUTTON STATION

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

FIRST USED ON:

FROM: 329700


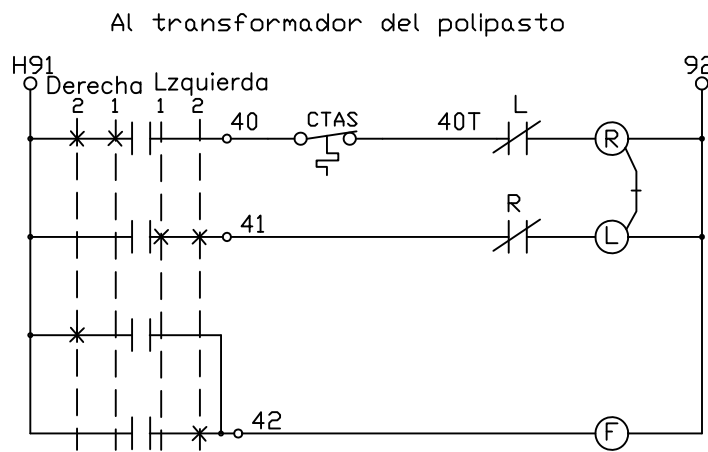
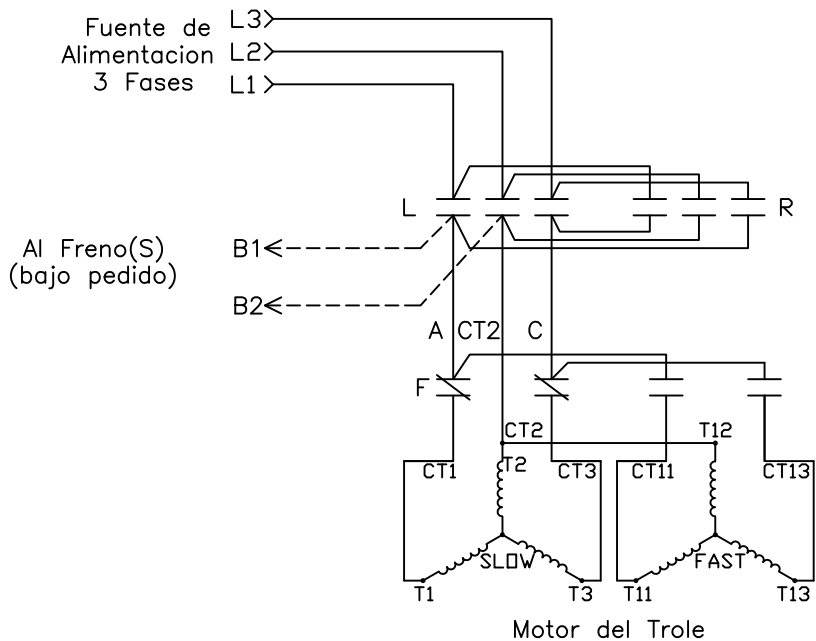
| NO. | CHANGE | DATE | ITL. | WIRING DIAGRAM |
|-----|-----------------|------|------|--|
| 1 | REDRAWN ON CAD. | 9/91 | D.R. | TROLLEY CONTROL - 2 SPEED, 2 WDG. 3 PHASE, W/ TAS |
| | | | | SC. ----- DA. 7/28/87 |
| | | | | DR. K.D. CK. |
| | | | |  Division of Columbus McKinnon Corporation Muskegon, Michigan 49443 |
| | | | | SHEET 52 OF 99 SHEETS |
| | | | | 451222 |

DIAGRAMA ELEMENTAL



ADVERTENCIA

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

AVERTISSEMENT:

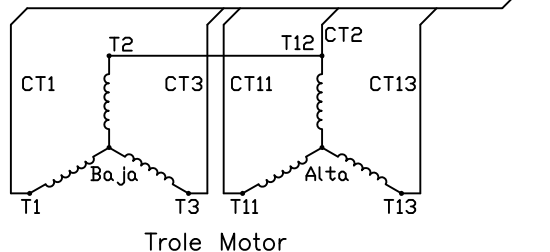
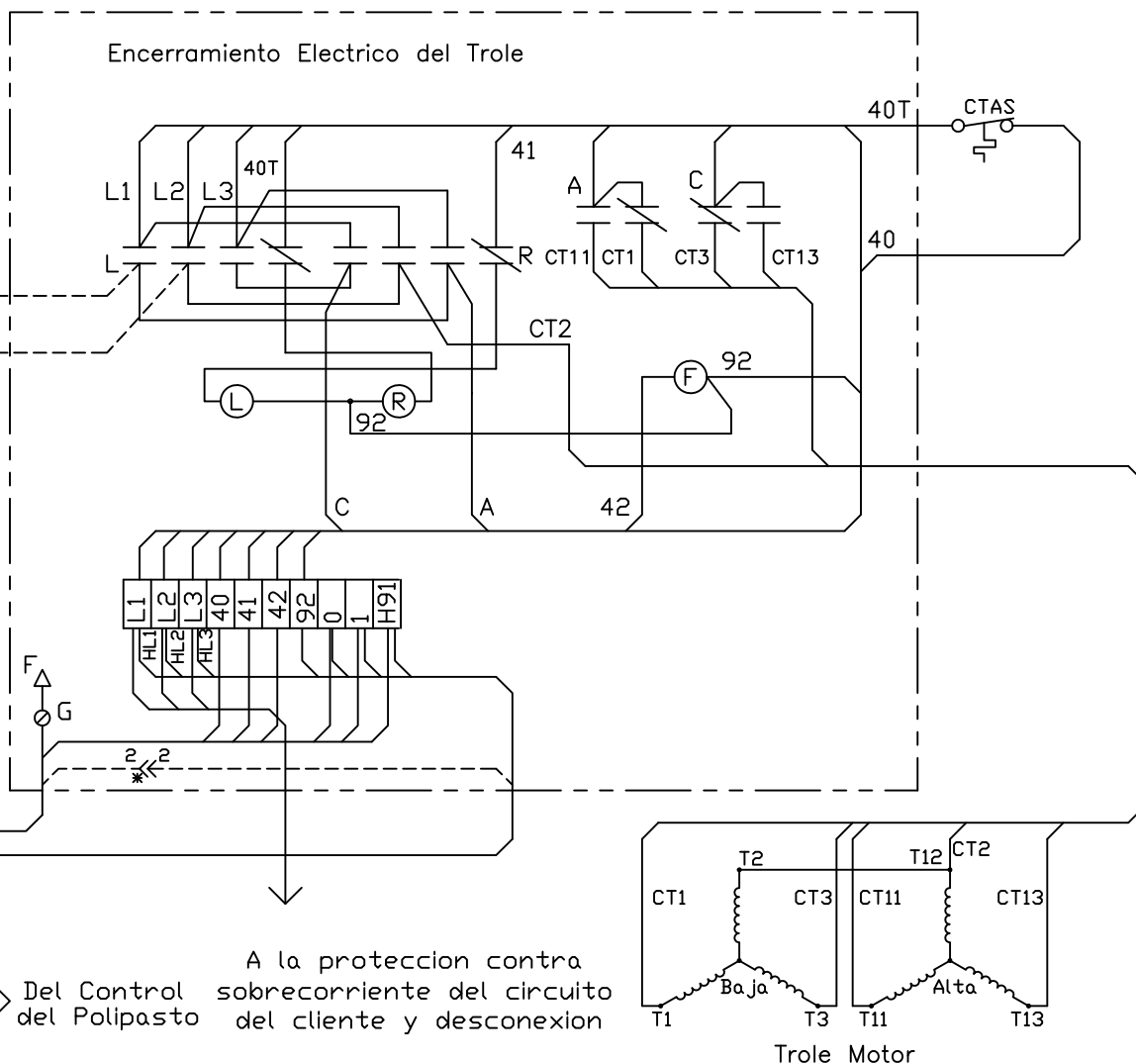
CET EQUIPMENT DOIT ETRE MIS A'LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

CTAS Interruptor activado por temperatura en el motor

G Marco de tierra

Al Freno(S) (bajo pedido)

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



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

- Arriba Polipasto
- Abajo
- Derecha Trole
- Lzquierda

Botonera

*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

YALE LIFT-TECH
division of Columbus McKinnon Corporation
Muskegon, Michigan 49443

DR. K.D. SHEET 52 OF 99 SHEETS

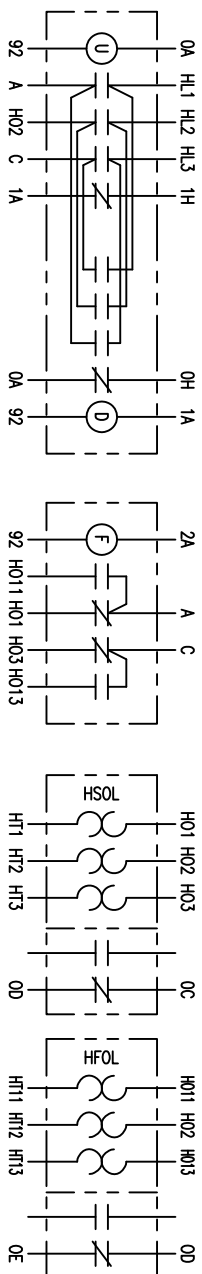
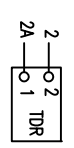
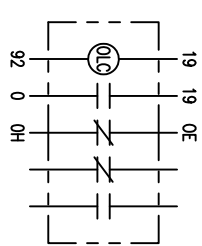
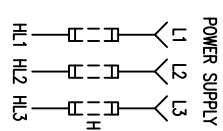
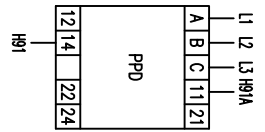
CK.

451222SP

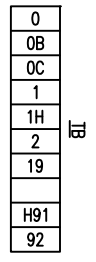
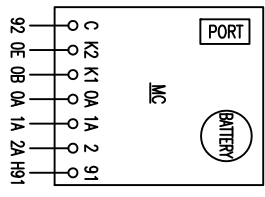
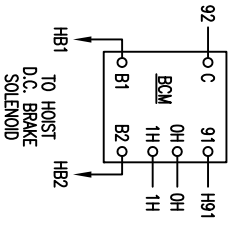
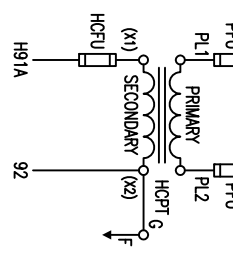
FIRST USED ON:

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 |
| A | U-D, F |
| C | U-D, F |
| H01 | F, HSOL |
| H02 | U-D, HSOL, HFOL |
| H03 | F, HSOL |
| H011 | F, HFOL |
| H013 | F, HFOL |
| HT1 | HSOL |
| HT2 | HSOL |
| HT3 | HSOL |
| HT11 | HSOL |
| HT12 | HSOL |
| HT13 | HSOL |
| 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 | PPD |
| H91A | PPD, OLC, U, D, F, BCM, MC |
| 92 | BCM |
| HB1 | BCM |
| HB2 | BCM |



CONNECT PER NAMEPLATE FOR PROPER VOLTAGE



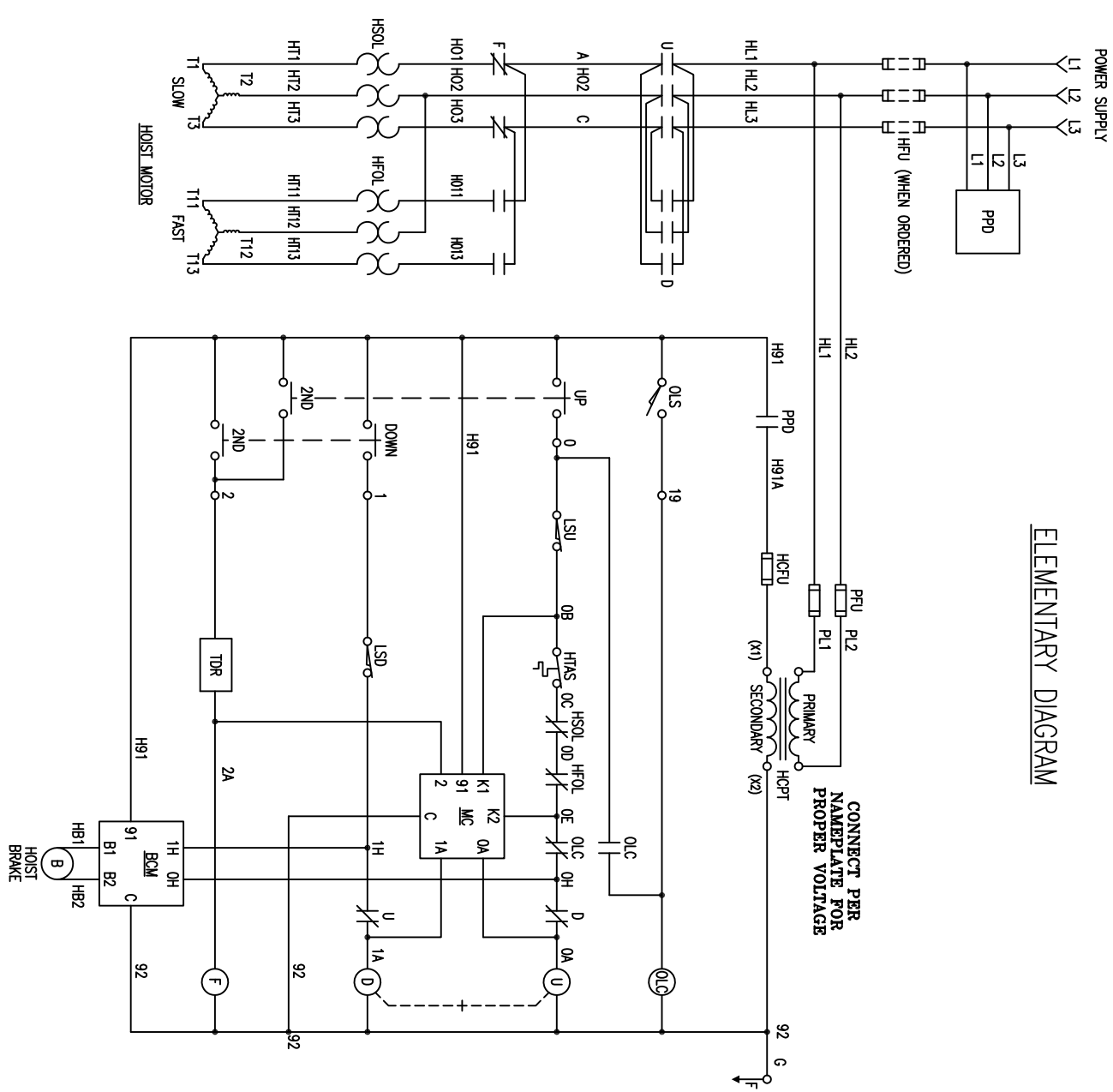
SYMBOL DESIGNATIONS

- 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 CONTACTOR
- 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.

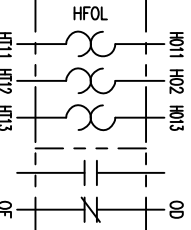
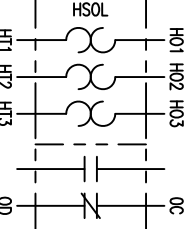
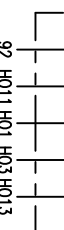
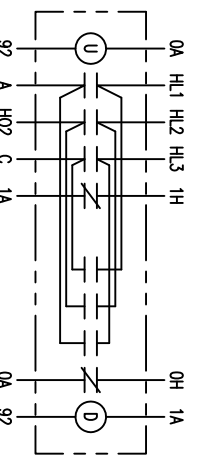
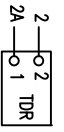
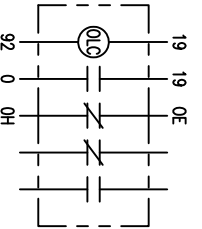
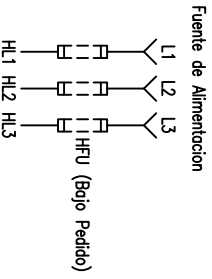
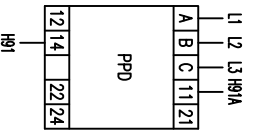
ELEMENTARY DIAGRAM



WORLD SERIES & GLOBAL FEM DESIGN 2-SPEED HOIST

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

| Cable # | Dispositivo Conectado |
|---------|-----------------------------|
| L1 | HFU, PPD |
| L2 | HFU, PPD |
| L3 | HFU, PPD |
| HL1 | HFU, U-D, PFU |
| HL2 | HFU, U-D, PFU |
| HL3 | HFU, U-D, PFU |
| PL1 | PFU, HCPT |
| PL2 | PFU, HCPT |
| A | U-D, F |
| C | F, HSOL |
| HO1 | U-D, HSOL, HFOL |
| HO2 | F, HSOL |
| HO3 | F, HSOL |
| HO11 | F, HFOL |
| HO13 | F, HFOL |
| HT1 | HSOL |
| HT2 | HSOL |
| HT3 | HSOL |
| HT11 | HSOL |
| HT12 | HSOL |
| HT13 | HSOL |
| 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, BCM |
| 1H | U, D, MC |
| 2 | U, BCM |
| 2A | TDR, F, MC |
| 2B | OLC |
| 2C | PPD, BCM, MC |
| 19 | HCPT |
| 19A | HCPT |
| 92 | HFOL, OLC, U, D, F, BCM, MC |
| 92 | BCM |
| HB1 | |
| HB2 | |



Conecte por Placa de Indentificación, para el voltaje apropiado.

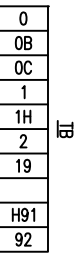
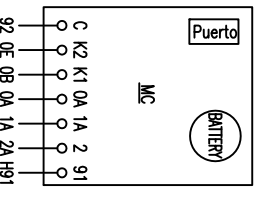
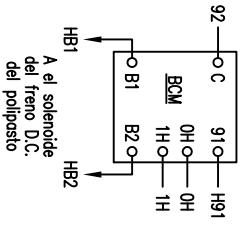
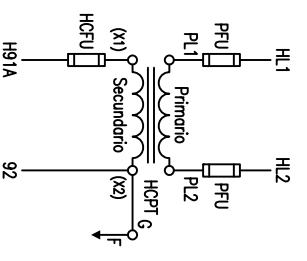
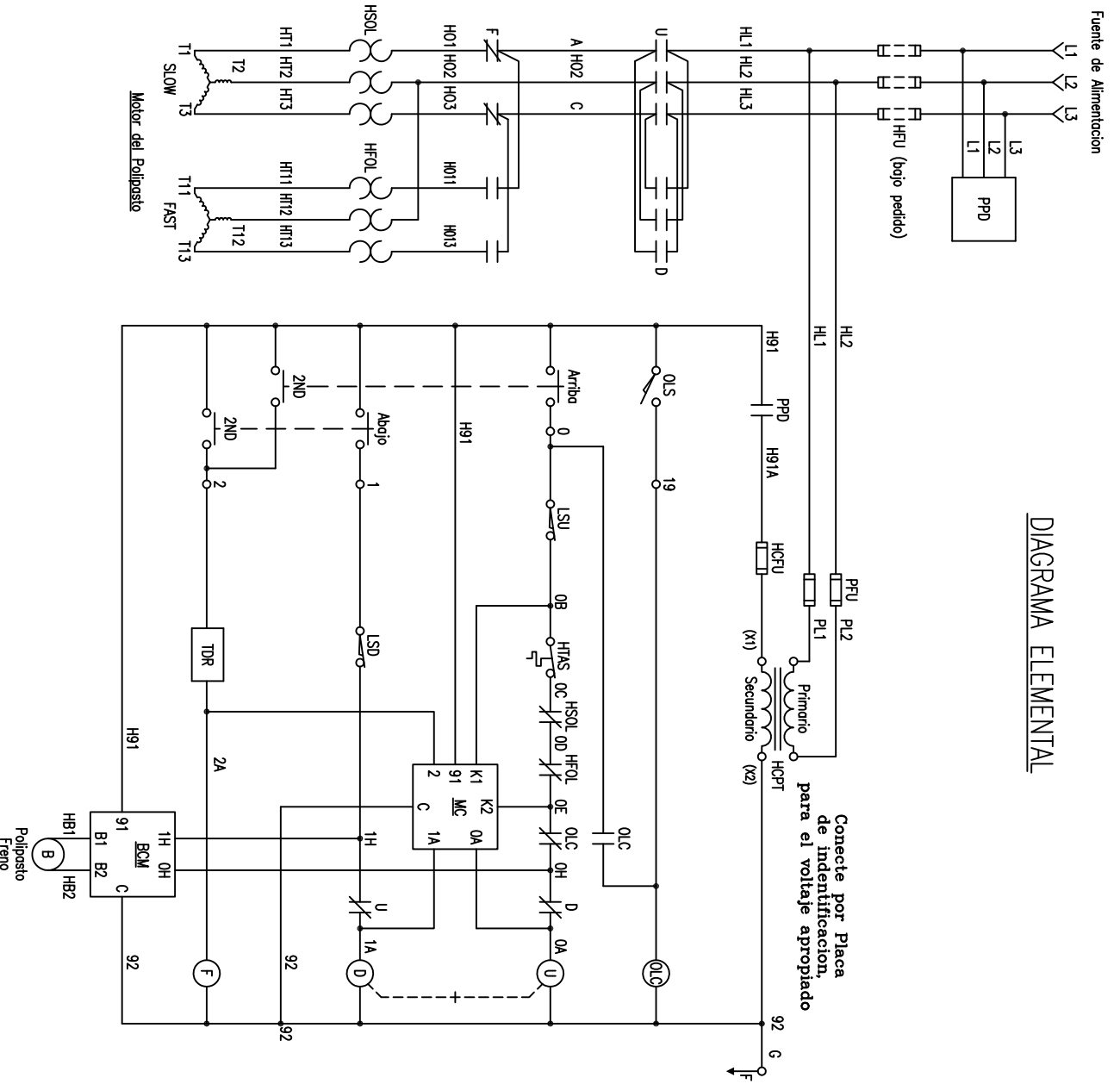


DIAGRAMA ELEMENTAL



Designaciones de Símbolos

- PPD - Dispositivo de Revocación de fase/Protección de pérdida
- 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 rápida velocidad del polipasto
- HSOL - Relévidor térmico de sobrecarga de polipasto de baja velocidad
- HFOL - Relévidor térmico de sobrecarga de polipasto de alta velocidad
- LSU - Interruptor Limitador de carrera tipo engranado superior del polipasto
- LSD - Interruptor Limitador de carrera tipo engranado inferior del polipasto
- BCM - Módulo de Control
- TDR - Módulo de Retraso
- HTAS - Interruptor activado por temperatura del motor del polipasto
- OLC - Interruptor limitador de sobrecarga
- MC - Contactor del interruptor limitador de sobrecarga
- MC - Tarjeta del monitor
- TB - Tablero de terminales
- G_o - Marco de Tierra

POLIPASTO DE 2 VELOCIDADES WORLD SERIES y GLOBAL FEM

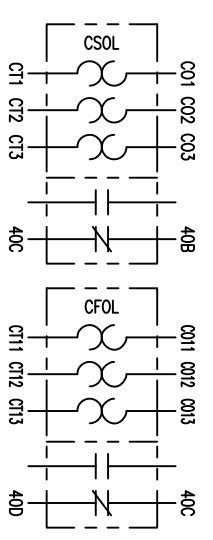
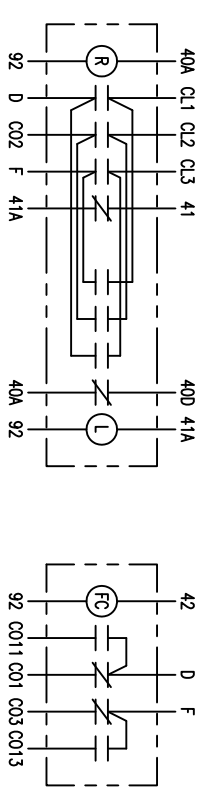
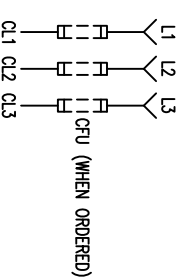
⚠️ ADVERTENCIA:
Este equipo debe ponerse a tierra de manera eficaz de acuerdo con los códigos aplicables

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

| NO. | CHANGE | DATE | ITL | Diagrama Eléctrico | A.C. |
|-----|-----------------------------|----------|------|--|------|
| 1 | ADDED NODE NUMBERS TO TIMER | 02/08/06 | SIDA | 2-Velocidad Polipasto | |
| 2 | Spanish Translation | 1/28/08 | MRF | With TAS, G.S., OLS, HDL, Torjeta del Monitor. | |
| | | | | Relévidor de Retraso, Fusibles Opciones | |
| | | | | DA 12/21/05 | |
| | | | | DR. SIDA | |
| | | | | 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 |



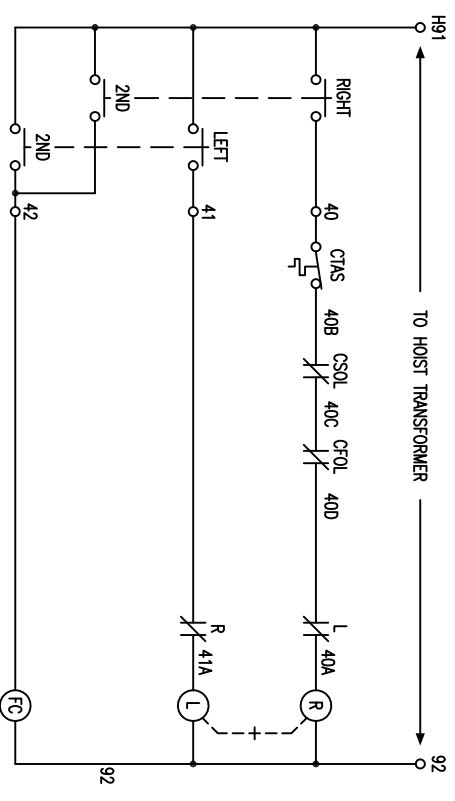
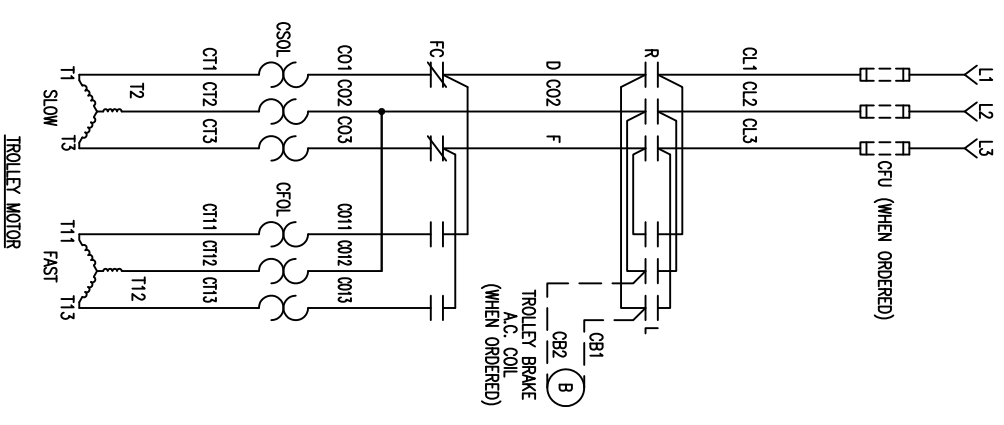
| |
|-----|
| 40 |
| 40B |
| 41 |
| 42 |
| H91 |
| 92 |
| CB1 |
| CB2 |

▲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 SLOW SPEED THERMAL OVERLOAD RELAY
CTAS - TROLLEY MOTOR TEMPERATURE ACTIVATED SWITCH
TB - TERMINAL BOARD
G_o - FRAME GROUND



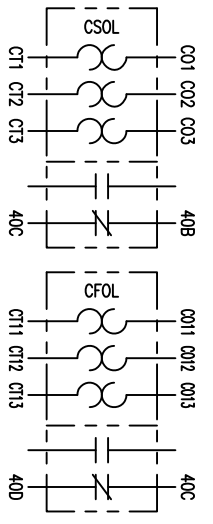
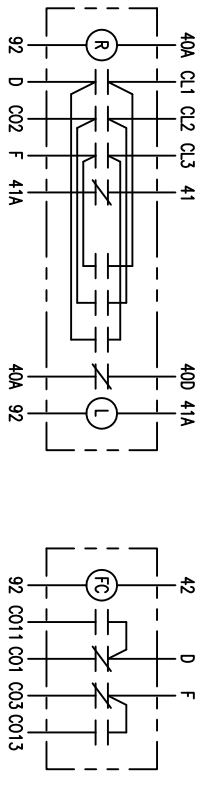
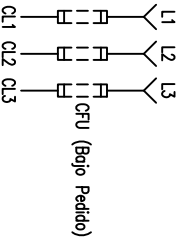
ELEMENTARY DIAGRAM

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 | | 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 | TB |
| 42 | FC |
| H91 | TB |
| 92 | TB |
| 92 | R, L, FC |
| CB1 | TB |
| CB2 | TB |



| |
|-----|
| 40 |
| 40B |
| 41 |
| 42 |
| H91 |
| 92 |
| CB1 |
| CB2 |

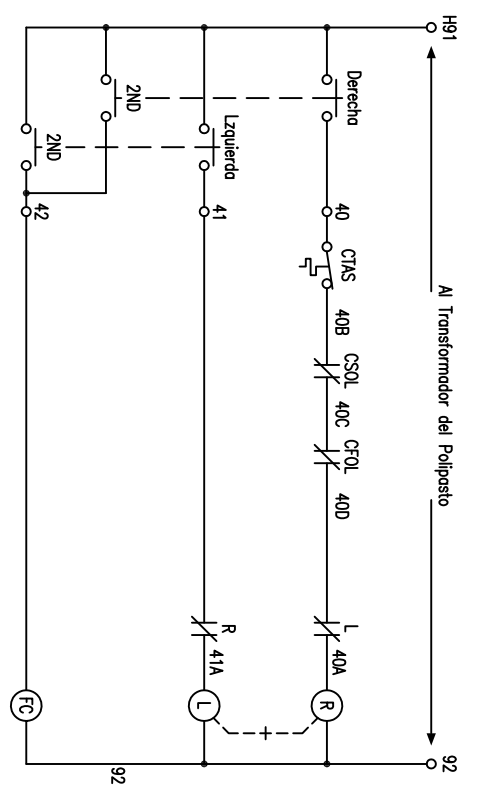
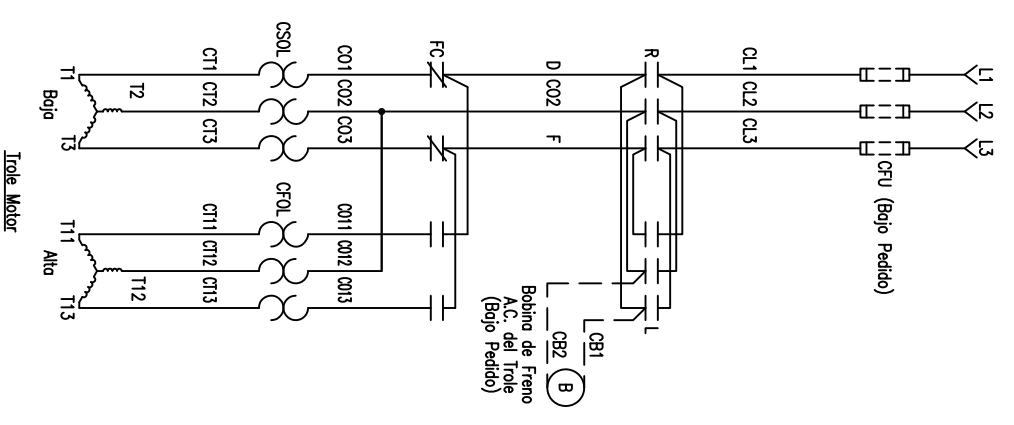
▲ADVERTENCIA:
 ESTE EQUIPO DEBE PONERSE A TIERRA DE MANERA EFICAZ DE ACUERDO CON LOS CODIGOS APLICABLES

▲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

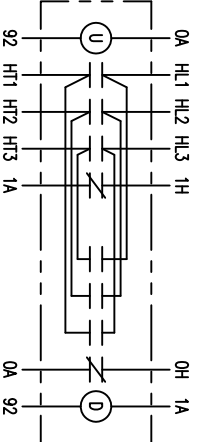
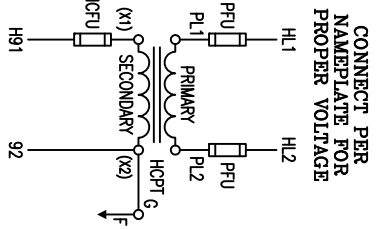
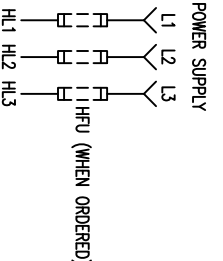
DIAGRAMA ELEMENTAL



WORLD SERIES y GLOBAL TROLE DE 2-VELOCIDADES DISEÑO 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 | | SHEET | 54 DP 99 SHEETS |
| | | | | |
| 451222SP | | | | |

| WIRE # | DEVICE CONNECTED |
|--------|------------------|
| L1 | HFU |
| L2 | HFU |
| L3 | HFU |
| HL1 | HFU, U-D, PFU |
| HL2 | HFU, U-D, PFU |
| HL3 | HFU, U-D, PFU |
| PL1 | PFU, HOPT |
| PL2 | PFU, HOPT |
| H11 | U-D |
| H12 | U-D |
| H13 | U-D |
| 0 | TB1 |
| 0A | D, U |
| 0B | TB1 |
| 0C | TB1 |
| 0H | D |
| 1 | TB1 |
| 1A | U, D |
| 1H | TB1 |
| H91 | U, H |
| 92 | HCFU, TB1 |
| | HOPU, G, U, D |
| HB1 | U-D |
| HB2 | TB2 |
| HB3 | TB2 |
| ** | U-D |



** HB3 NEEDED ONLY WHEN A 3-PHASE BRAKE IS CONNECTED.

▲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.

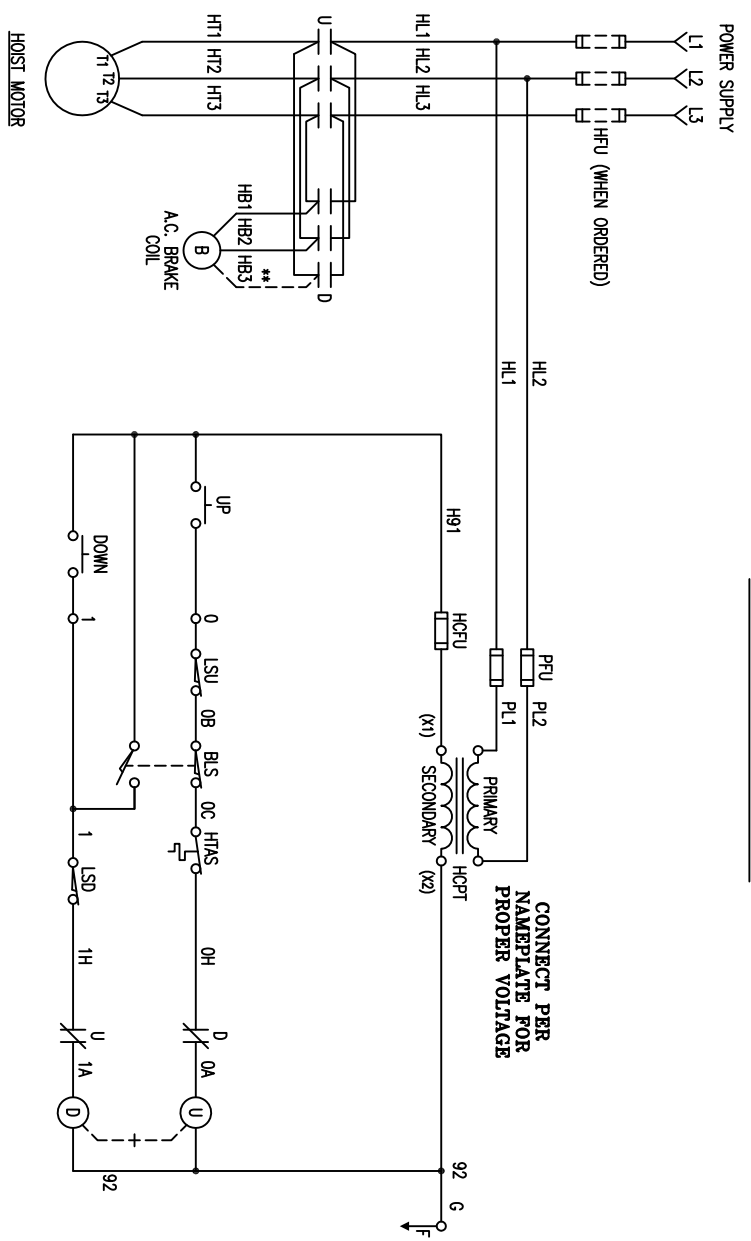
▲WARNING:
THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

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

SYMBOL DESIGNATIONS

- HFU - HOIST MOTOR CIRCUIT FUSING
- PFU - TRANSFORMER PRIMARY FUSING
- HOPT - CONTROL CIRCUIT TRANSFORMER
- HCFU - CONTROL CIRCUIT FUSING
- U - HOIST UP CONTACTOR
- D - HOIST DOWN CONTACTOR
- LSU - HOIST UPPER GEAR TYPE LIMIT SWITCH
- BSD - HOIST LOWER GEAR TYPE LIMIT SWITCH
- BLS - HOIST BLOCK OPERATED LIMIT SWITCH
- HTAS - HOIST MOTOR TEMPERATURE ACTIVATED SWITCH
- TB - TERMINAL BOARD
- G - FRAME GROUND

ELEMENTARY DIAGRAM



**CABLE KING HOIST
1-SPEED**

| NO. | CHANGE | DATE | ITL | WIRING DIAGRAM | A.C. |
|-----|-------------------------|----------|-----|-------------------------------|------|
| 1 | UPDATED DRAWING | 12/20/01 | SDA | 1-SPEED HOIST | |
| 2 | ADDED BRAKE LEADS TO TB | 07/10/02 | PRJ | WITH TMS, BLS, GLS AND FUSERS | |

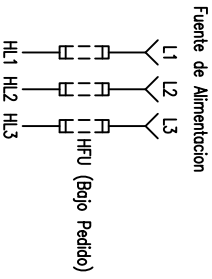
SC. _____ DA. 11/08/01
 DR. SDA
 CK. _____
 AP. _____

YALE LIFT-TECH
 A Division of
 Emerson Electric Company

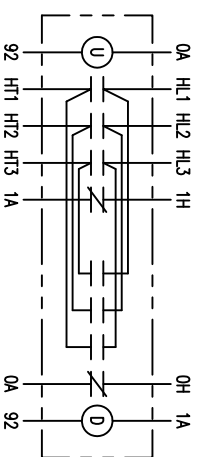
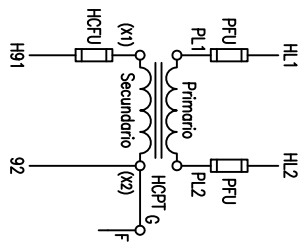
SHEET 55 OF 99 SHEETS

451222

| Cable # | Dispositivo Conectado |
|---------|-----------------------|
| L1 | HFU |
| L2 | HFU |
| L3 | HFU |
| HL1 | HFU, U-D, PFU |
| HL2 | HFU, U-D, PFU |
| HL3 | HFU, U-D, PFU |
| PL1 | PFU, HCPT |
| PL2 | PFU, HCPT |
| HT1 | U-D |
| HT2 | U-D |
| HT3 | U-D |
| 0 | U |
| 0A | D, U |
| 0B | U |
| 0C | U |
| 0H | D |
| 1A | U, D |
| 1H | U, D |
| 1H1 | U, D |
| 1H2 | U, D |
| 1H3 | U, D |
| 92 | HCPT, G, U, D |
| HB1 | U-D |
| HB2 | U-D |
| HB3 | U-D |
| HB3 ** | U-D |



Conecte por Placa de Identificación, para el voltaje apropiado



| TB1 | | | | | TB2 | | | | | | | | | | | | | | |
|-----|----|----|----|----|-----|----|----|-----|----|-----|-----|-------|--|--|--|--|--|--|--|
| 0 | 0A | 0B | 0C | 0H | 1 | 1A | 1H | H91 | 92 | HB1 | HB2 | HB3** | | | | | | | |

** 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 podrian resultar.

Corrija 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

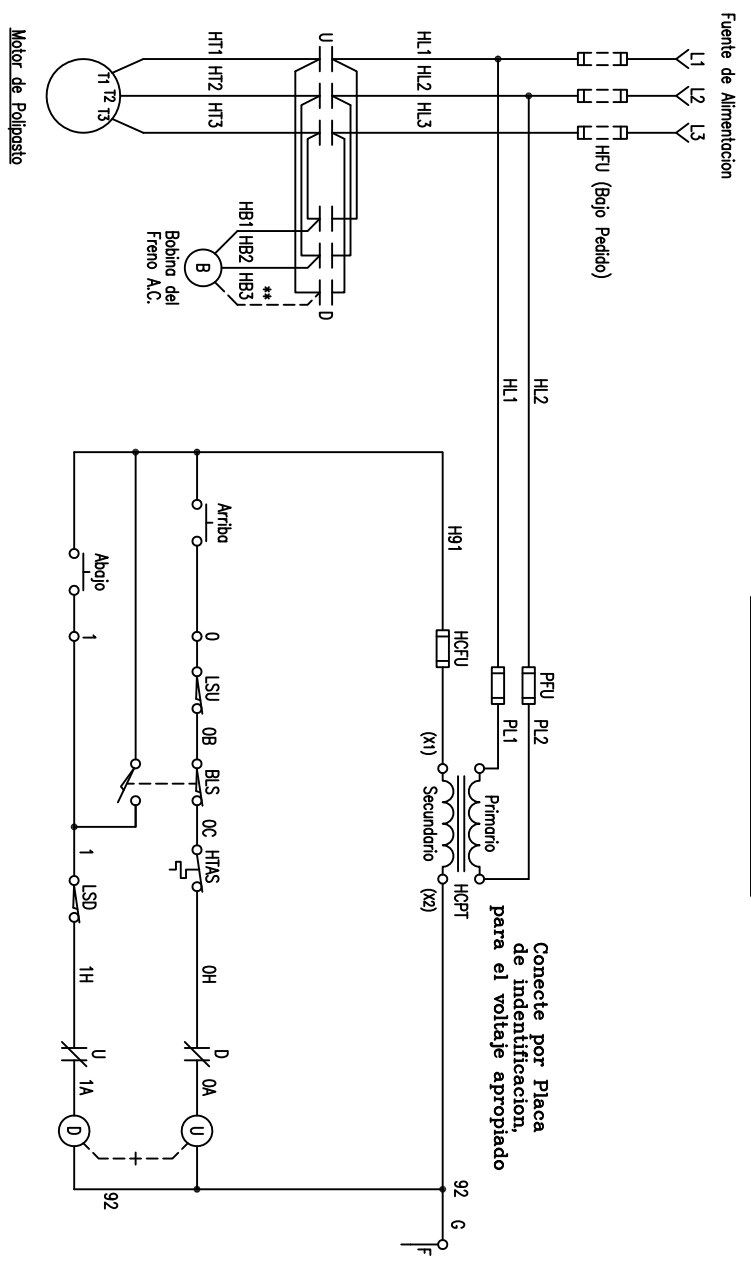
Este equipo debe poseerse a tierra de manera eficaz de acuerdo con los codigos aplicables

AVERTISSEMENT:

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

FIRST USED ON: FROM: 448203

DIAGRAMA ELEMENTAL



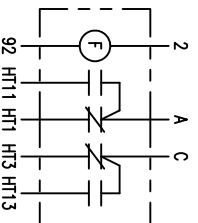
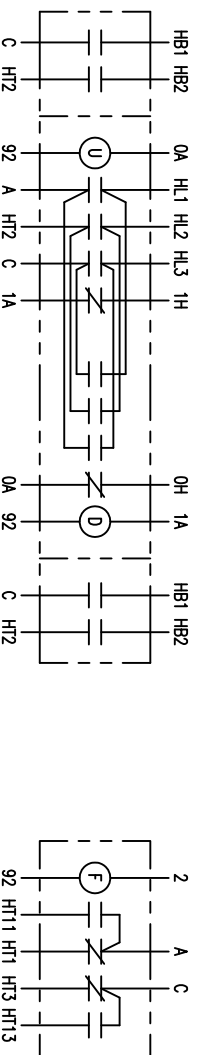
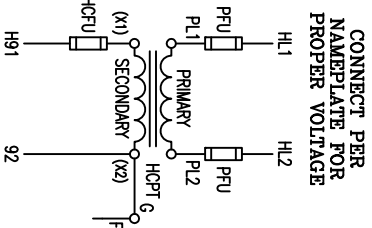
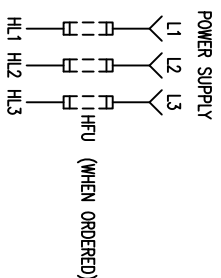
**POLIPASTO DE 1 VELOCIDAD
CABLE KING**

| NO. | CHANGE | DATE | ITL. | Diagrama Electrico | A.C. |
|-----|-------------------------|----------|------|--------------------------------|------|
| 1 | UPDATED DRAWING | 12/20/01 | SJDA | Polipasto de 1 Velocidad | |
| 2 | ADDED BRAKE LEADS TO TB | 07/10/02 | PRT | with T&S, BLS, GLS y Fushibles | |
| 3 | Spanish Transition | 1/29/08 | MRF | | |
| | | | | SC. ----- | |
| | | | | DA. 11/08/01 | |
| | | | | DR. SJDA | |
| | | | | CK. ----- | |
| | | | | AP. ----- | |



451222SP

| WIRE # | DEVICE CONNECTED |
|--------|------------------|
| L1 | HFU |
| L2 | HFU |
| L3 | HFU, PFU, U-D |
| HL1 | HFU, PFU, U-D |
| HL2 | HFU, PFU, U-D |
| HL3 | PFU, HOPT |
| PL1 | PFU, HOPT |
| PL2 | U-D, F |
| A | U-D, F |
| C | U-D, F |
| HT1 | F |
| HT2 | F |
| HT3 | F |
| HT11 | F |
| HT12 | F |
| HT13 | F |
| 0 | TB1 |
| 0A | D, U |
| 0B | TB1 |
| 0C | TB1 |
| 0H | D |
| 1 | TB1 |
| 1A | U, D |
| 1H | F |
| 2 | TB1 |
| H91 | HCFU |
| 92 | HOPT, U, D, F |
| HB1 | TB2 |
| HB2 | TB2 |
| HB3 | TB2 |
| ** | U, D |
| | U, D |
| | U, D |



** HB3 NEEDED ONLY WHEN A 3-PHASE BRAKE IS CONNECTED.

▲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:

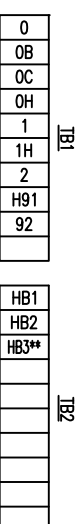
THIS EQUIPMENT MUST BE EFFECTIVELY GROUNDED ACCORDING TO APPLICABLE CODES.

▲AVERTISSEMENT:

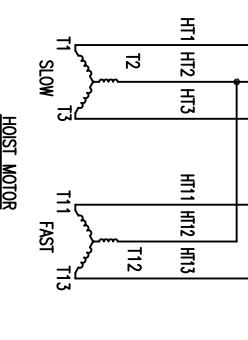
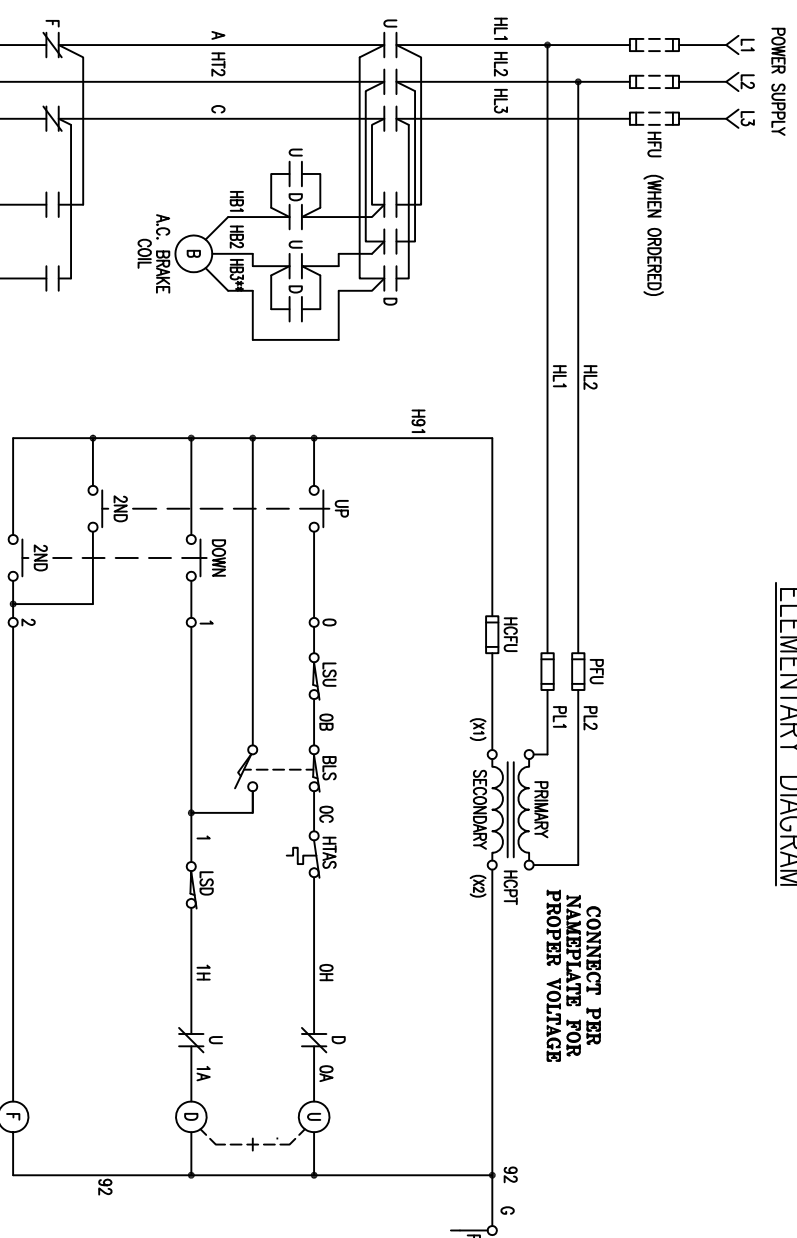
CET EQUIPEMENT DOIT ETRE MIS A LA TERRE EN ACCORDANCE AVEC LES NORMES EN VIGUEUR.

SYMBOL DESIGNATIONS

- HFU - HOIST MOTOR CIRCUIT FUSING
- PFU - TRANSFORMER PRIMARY FUSING
- HOPT - CONTROL CIRCUIT TRANSFORMER
- HCFU - CONTROL CIRCUIT FUSING
- U - HOIST UP CONTACTOR
- D - HOIST DOWN CONTACTOR
- F - HOIST FAST SPEED CONTACTOR
- LSU - HOIST UPPER GEAR TYPE LIMIT SWITCH
- LSD - HOIST LOWER GEAR TYPE LIMIT SWITCH
- BLS - HOIST BLOCK OPERATED LIMIT SWITCH
- HTAS - HOIST MOTOR TEMPERATURE ACTIVATED SWITCH
- TB - TERMINAL BOARD
- G_o - FRAME GROUND
- F - FUSE



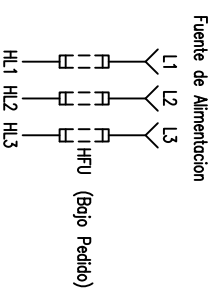
ELEMENTARY DIAGRAM



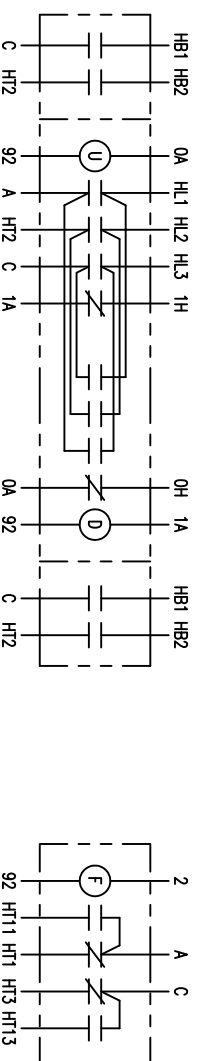
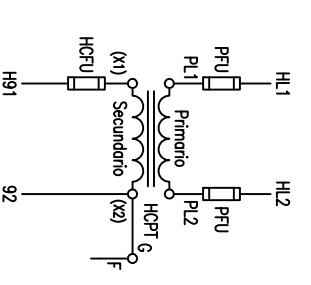
**CABLE KING HOIST
2-SPEED**

| NO. | CHANGE | DATE | ITL. | WIRING DIAGRAM | A.C. |
|-----|-------------------------|----------|------|---|------|
| 1 | ADDED BRAKE LEADS TO TB | 07/10/02 | SIDA | 2-SPEED HOIST WITH TMS, BLS, GLS, FUSING, AUXILIARY FOR BRAKE | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| 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



| TB1 | | | | | TB2 | | | | |
|-----|----|----|-----|----|-----|-----|-------|--|--|
| 0 | OB | OC | OH | 1 | HB1 | HB2 | HB3** | | |
| 1 | H | 2 | H91 | 92 | | | | | |

** 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

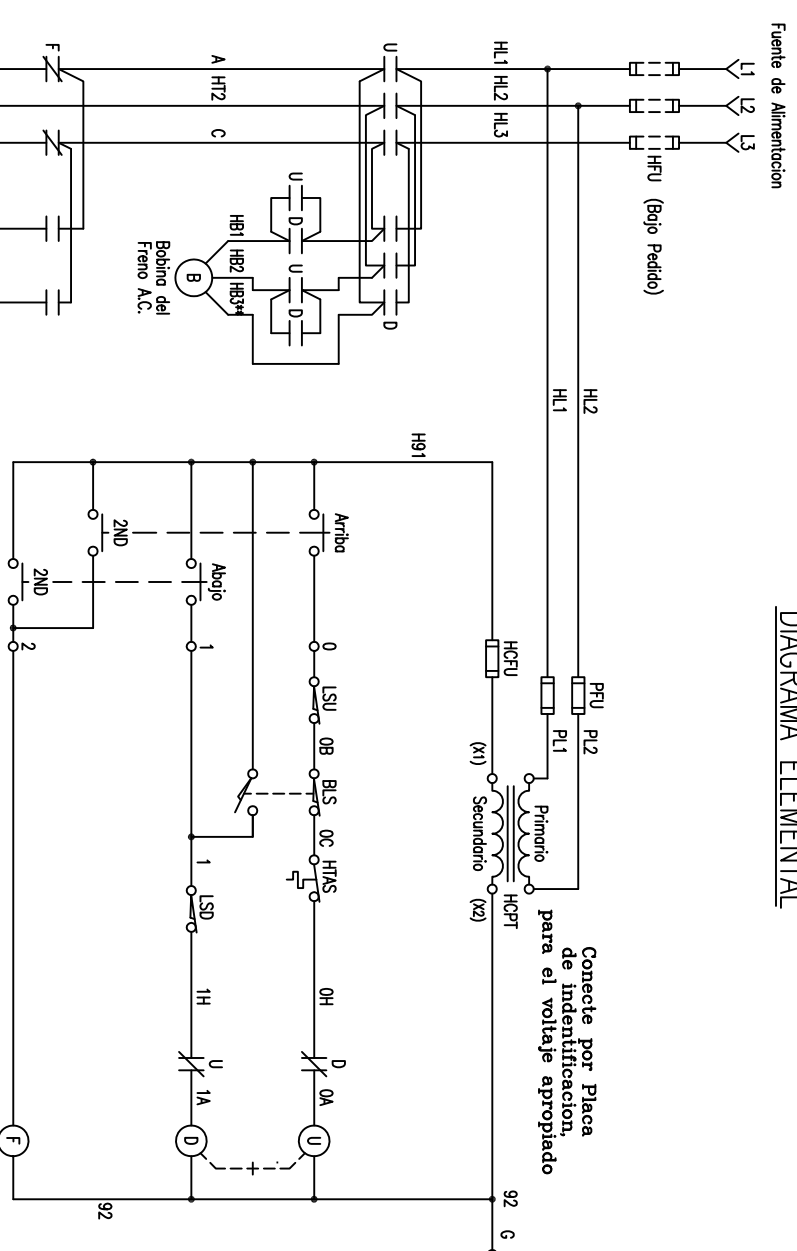
▲Advertencia
Este equipo debe ponerse a tierra de manera eficaz de acuerdo con los codigos aplicables

▲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
- H91S – Interruptor de Limite de carrera, tipo bloque
- TB – Tablero de terminales
- G_o – Marco de tierra

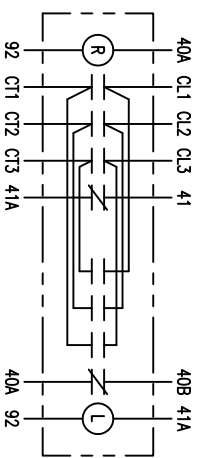
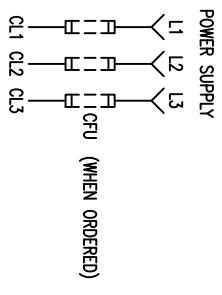
DIAGRAMA ELEMENTAL



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 Translation | 1/30/08 | MF | with TMS, BLS, GLS, Fusible, Auxiliary for Freno | |
| | | | | SC | |
| | | | | DA 02/21/02 | |
| | | | | DR. SJDA | |
| | | | | CK. | |
| | | | | AP. | |

| WIRE # | DEVICE CONNECTED |
|--------|------------------|
| 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 |



TB1

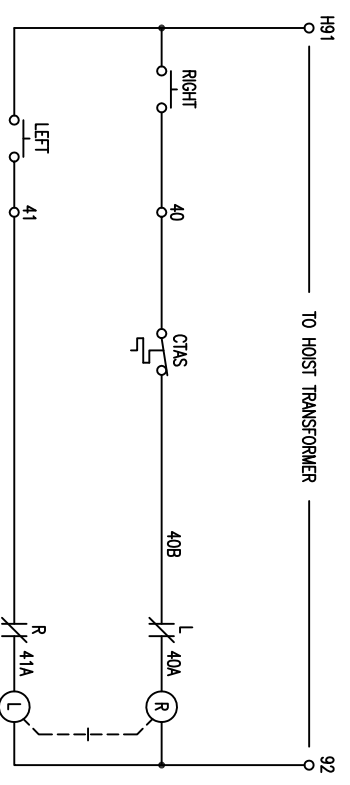
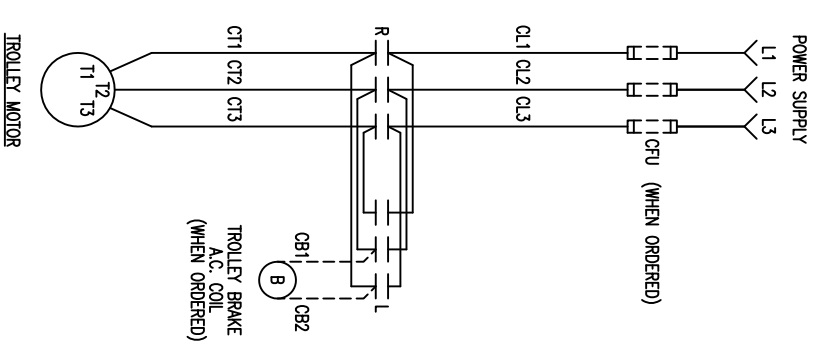
| |
|-----|
| 40 |
| 40B |
| 41 |
| H91 |
| 92 |
| CB1 |
| CB2 |

▲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
L - TROLLEY LEFT CONTACTOR
R - TROLLEY RIGHT CONTACTOR
TB - TERMINAL BOARD
CTAS - TROLLEY MOTOR TEMPERATURE ACTIVATED SWITCH

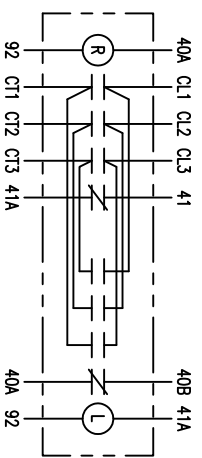
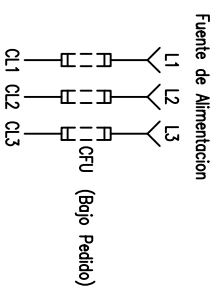


ELEMENTARY DIAGRAM

CABLE KING 1-SPEED TROLLEY

| NO. | CHANGE | DATE | ITL | WIRING DIAGRAM | A.C. |
|--|-----------------|----------|------|--|------|
| 1 | UPDATED DRAWING | 12/20/01 | SIDA | 1-SPEED TROLLEY WITH TMS, FUSING, AND OPTIONAL A.C. BRAKE | |
| SC. ----- DA. 11/08/01 DR. SIDA CK. | | | | | |
| | | | | | |
| SHEET 57 OF 99 SHEETS | | | | | |
| 451222 | | | | | |

| 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 |



TB1

| | | | | | | |
|----|-----|----|-----|----|-----|-----|
| 40 | 40B | 41 | H91 | 92 | CB1 | CB2 |
|----|-----|----|-----|----|-----|-----|

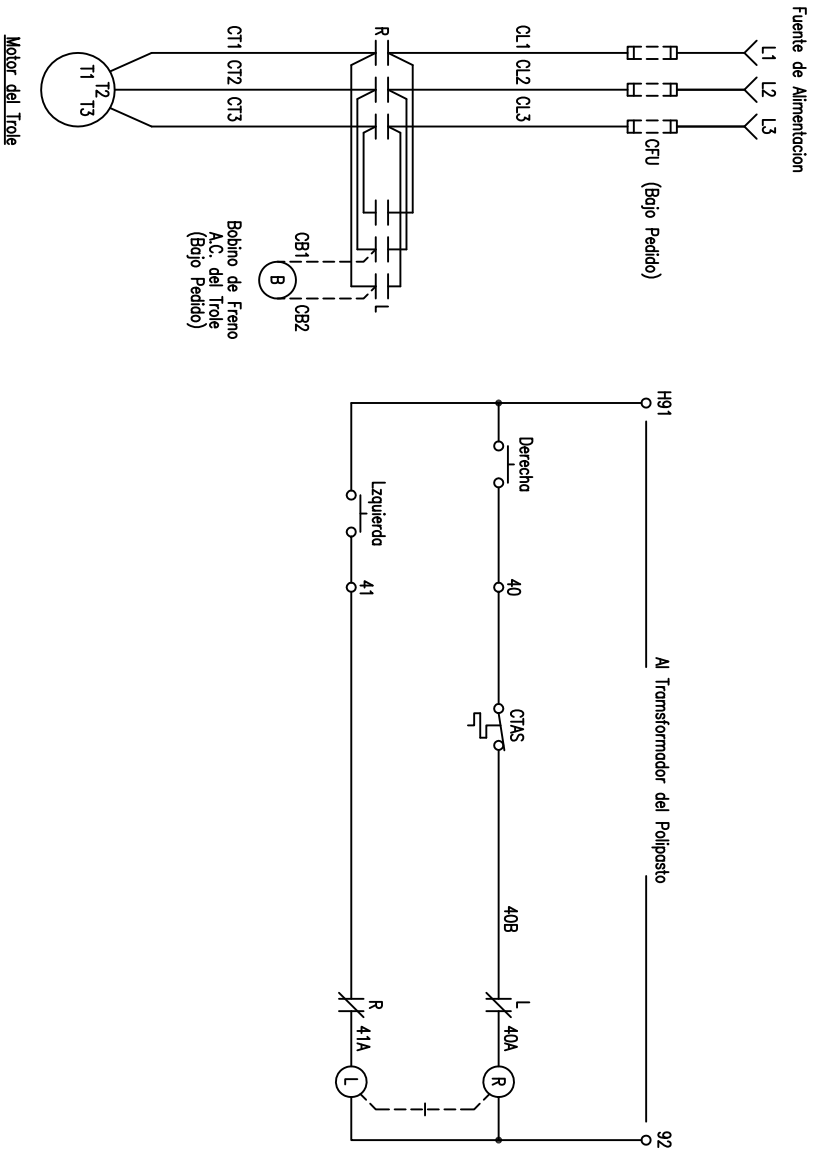
▲Advertencia:
ESTE EQUIPO DEBE PONERSE A TIERRA DE MANERA EFICAZ DE ACUERDO CON
LOS CODIGOS APLICABLES

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

Designaciones de 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. | |

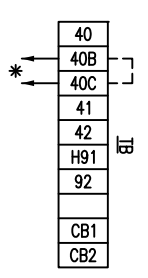
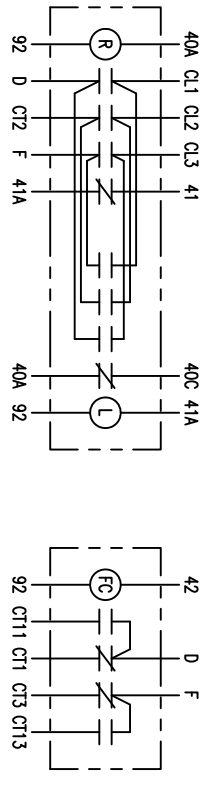
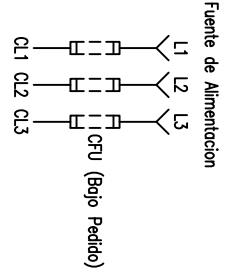


451222SP

FIRST USED ON: 2281052

FROM: 448204

| 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

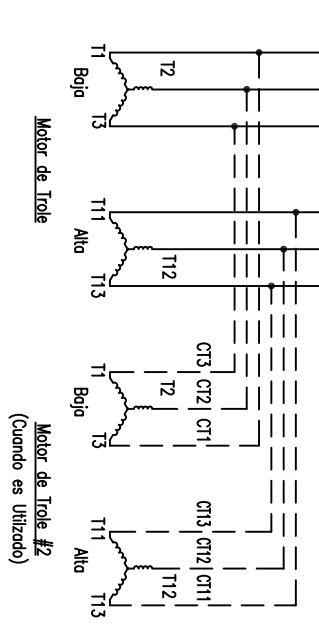
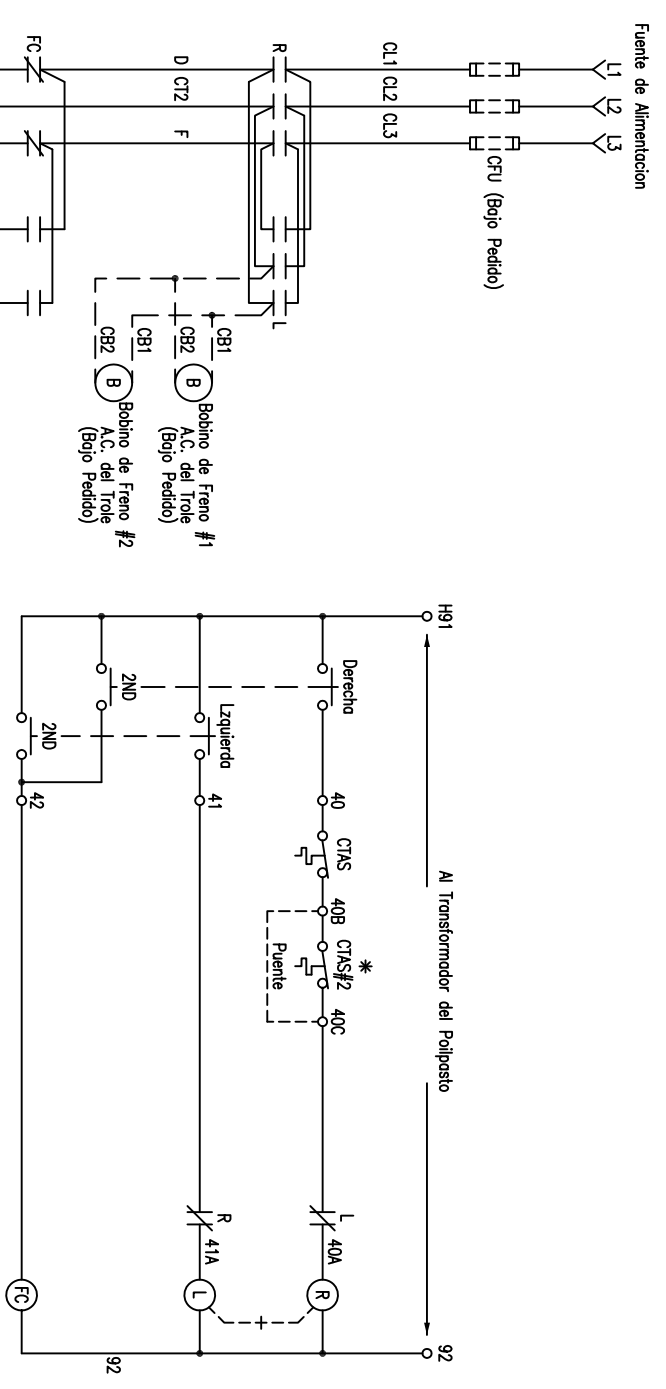
▲AVERTISSEMENT:
 CET EQUIPMENT DOIT ETRE MIS A LA TERRE EN
 ACCORDANCE AVEC LES NORMES EN VIGUEUR.

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. ----- | |
| | | | | YALE LIFT-TECH Division of Caterpillar Inc. Corporation 58 OF 99 SHEETS | 451222 |