

LIST OF PARTS ILLUSTRATIONS

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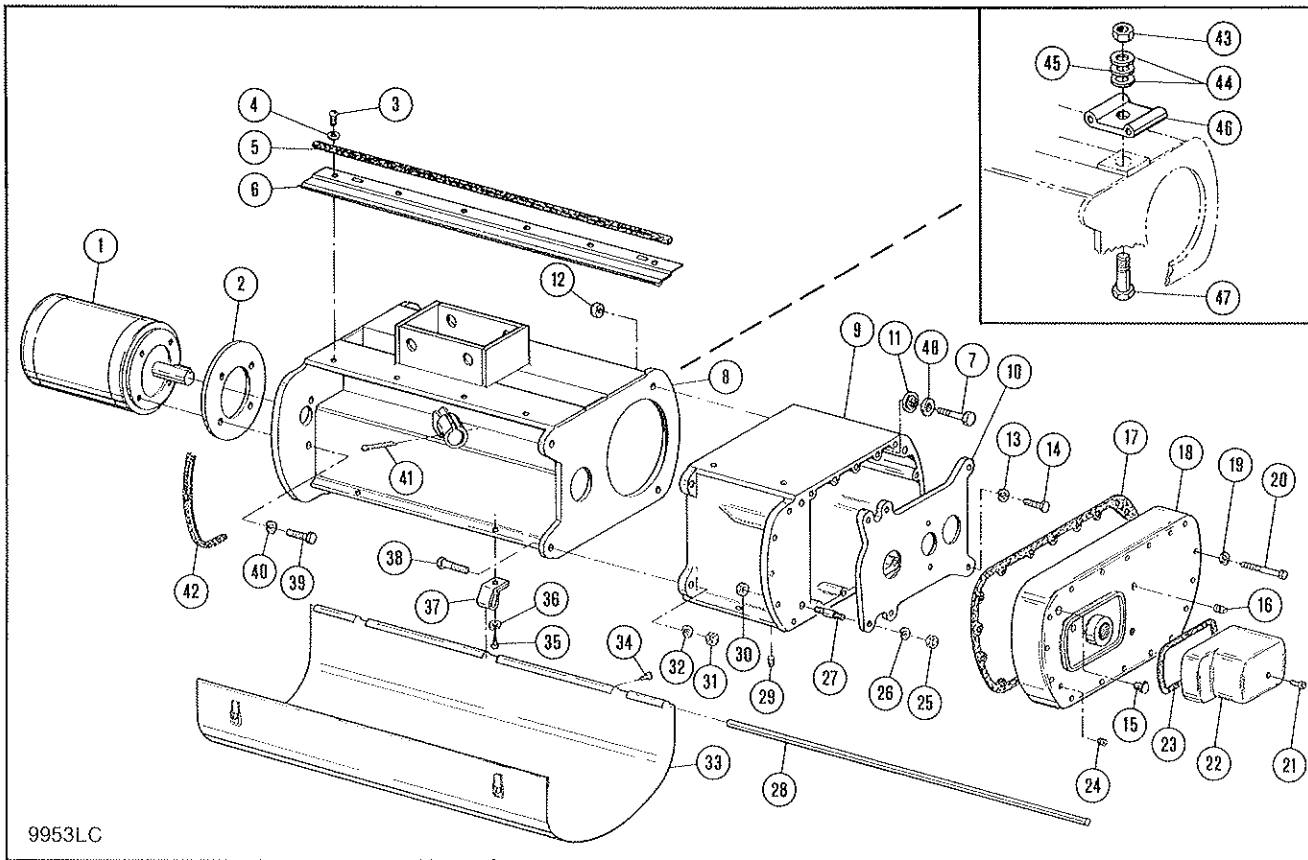


Figure 9-1. Frame, Gearcase, Motor and External Covers.

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|-----------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-101 | Motor Assembly (includes key) | 1 | 1 |
| 2 | 700-150 | Spacer — Motor (not used on all models) | — | 1 |
| 3 | 700-112 | Screw — Round Head, Self-tapping | 4 | 6 |
| 4 | 700-113 | Lockwasher | 4 | 6 |
| 5 | 700-114 | Gasket — Cover Bridge | 1 | 1 |
| 6 | 700-115 | Bridge Assembly — Cover | 1 | 1 |
| 7 | 700-151 | Fit Bolt — Hex Head | 2 | 2 |
| 8 | 700-116 | Frame — Hoist (typical frame shown) | 1 | 1 |
| 9 | 700-117 | Gearcase — Hoist | 1 | — |
| | 700-179 | Gearcase — Hoist | — | 1 |
| 10 | 700-118 | Spider — Gearcase | 1 | — |
| | 700-178 | Spider — Gearcase | — | 1 |
| 11 | 700-120 | Washer — "O" Ring Type | 2 | 2 |
| 12 | 700-119 | Nut — Hex, Self-locking | 2 | 2 |

Figure 9-1. Frame, Gearcase, Motor and External Covers. (Continued)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|----------------------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 13 | 700-152 | Lockwasher | 1 | 2 |
| 14 | 700-153 | Bolt — Hex Head | 1 | 2 |
| 15 | 700-180 | Cover — Oil Hole | 1 | 1 |
| 16 | 700-154 | Plug — Pipe (functional with overload clutch only) | 2 | 2 |
| 17 | 700-131 | Gasket — Gearcase Cover | 1 | 1 |
| 18 | 700-181 | Cover — Gearcase | 1 | 1 |
| 19 | 700-126 | Lockwasher | 17 | 24 |
| 20 | 700-182 | Screw — Hex Head Cap | 17 | 24 |
| 21 | 700-183 | Screw — Hex Socket Head Cap | 1 | 1 |
| 22 | 700-184 | Cover — Brake | 1 | 1 |
| 23 | 700-185 | Gasket — Brake Cover | 1 | 1 |
| 24 | 700-129 | Plug — Pipe | 1 | 1 |
| 25 | 700-157 | Nut — Hex | 3 | 2 |
| 26 | 700-158 | Lockwasher | 3 | 2 |
| 27 | 700-134 | Stud — Spider | 3 | 2 |
| 28 | 700-159 | Rod — Hinge | 1 | 1 |
| 29 | 700-136 | Plug — Pipe, Oil Drain | 1 | 1 |
| 30 | 700-160 | Nut — Hex, Self-locking | 3 | 2 |
| 31 | 700-161 | Nut — Hex | 2 | 2 |
| 32 | 700-162 | Lockwasher | 2 | 2 |
| 33 | 700-163 | Cover Assembly — Electrical | 1 | 1 |
| 34 | 700-164 | Screw — Sheet Metal | 2 | 3 |
| 35 | 700-165 | Screw — Round Head, Self-tapping | 2 | 3 |
| 36 | 700-166 | Lockwasher | 2 | 3 |
| 37 | 700-167 | Hinge | 2 | 3 |
| 38 | 700-168 | Bolt — Hex Head | 2 | 2 |
| 39 | 700-169 | Bolt — Hex Head | 4 | 4 or 8 |
| 40 | 700-170 | Lockwasher | 4 | 4 or 8 |
| 41 | 700-171 | Pin — Cotter (single reeved only) | — | 1 |
| 42 | 700-148 | Gasket — Cover Assembly | 2 | 2 |
| 43 | 700-172 | Nut — Hex | — | 2 |
| | 700-173 | *Nut — Slotted Hex | 2 | — |
| 44 | 700-174 | *Race — Thrust | 4 | — |
| 45 | 700-175 | *Bearing — Thrust | 2 | 2 |
| 46 | 700-176 | *Crosshead — Trolley | 2 | 2 |
| 47 | 700-177 | *Loadbolt | 2 | 2 |
| 48 | 700-186 | Washer — Flat | 2 | 2 |

*These parts are used only on hoists with swivel trolleys.

NOTES

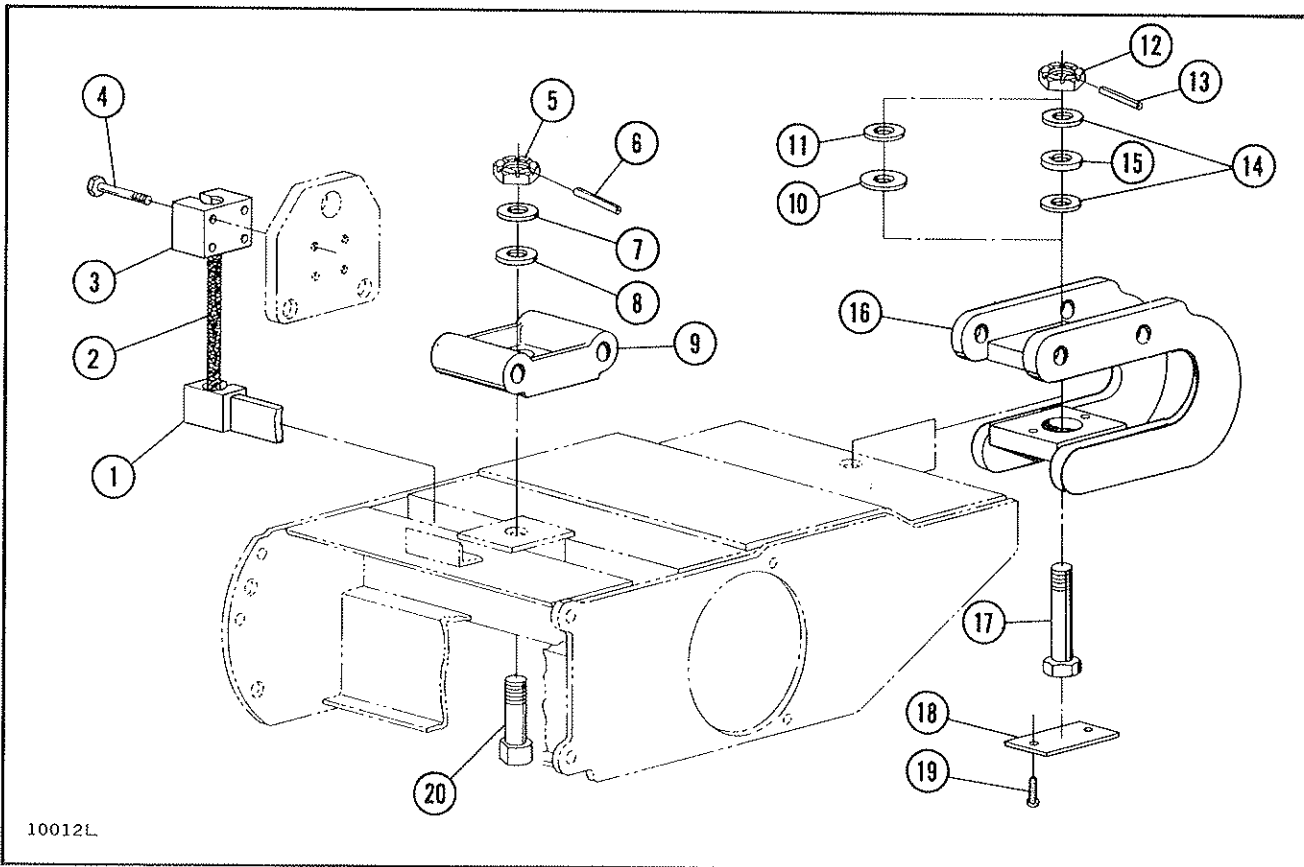
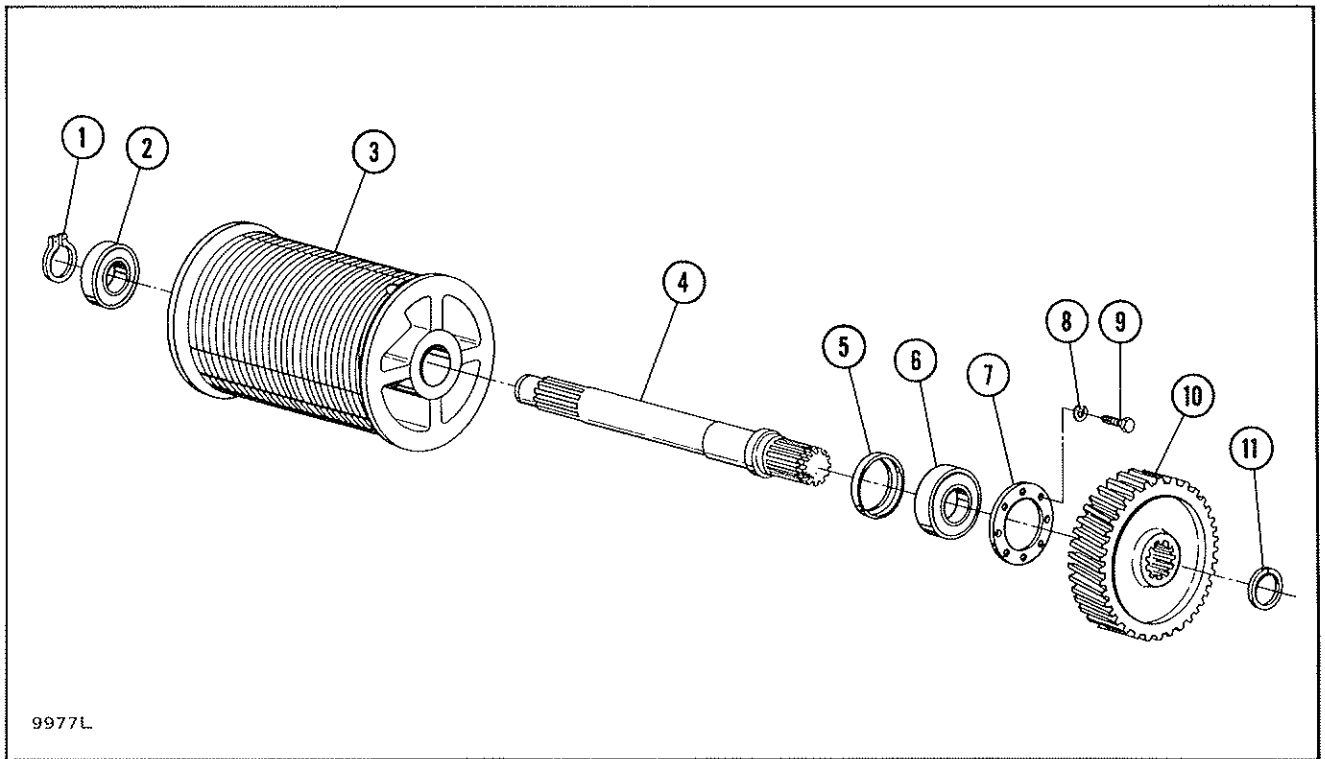


Figure 9-2. Suspension Parts for Low Headroom Hoists.

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|----------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-232 | *Crossbar — Redundant Support | 1 | 1 |
| 2 | 700-233 | Wire Rope Assembly — Redundant Support | 2 | 2 |
| 3 | 700-234 | Rope Sleeve Pocket | 2 | 2 |
| 4 | 700-235 | Bolt — Hex Head, Self-locking | 8 | 8 |
| 5 | 700-236 | Nut — Hex, Slotted | 1 | 1 |
| 6 | 700-237 | Pin — Drive | 1 | 1 |
| 7 | 700-238 | Machinery Bushing | 1 | 1 |
| 8 | 700-239 | Bearing — Thrust | 1 | 1 |
| 9 | 700-224 | Crosshead — Trailer | 1 | 1 |
| 10 | 700-240 | Bearing — Thrust | — | 1 |
| 11 | 700-241 | Machinery Bushing | — | 1 |
| 12 | 700-242 | Nut — Hex, Slotted | 1 | 1 |
| 13 | 700-243 | Pin — Drive | 1 | 1 |
| 14 | 700-244 | Bearing Race | 2 | — |
| 15 | 700-245 | Bearing — Thrust | 1 | — |
| 16 | 700-201 | Crosshead — Driver | 1 | 1 |
| 17 | 700-204 | Loadbolt — Driver | 1 | 1 |
| 18 | 700-246 | Plate — Retainer | 1 | 1 |
| 19 | 700-247 | Screw — Round Head, Self-locking | 2 | 2 |
| 20 | 700-213 | Loadbolt — Trailer | 1 | 1 |

*Correct monorail beam size must be given when ordering this part.



9977L

Figure 9-3. Drum, Shaft, Gear and Bearings.

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|--------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-314 | Ring — Retaining, External | 1 | 1 |
| 2 | 700-304 | Bearing — Drum Shaft | 1 | 1 |
| 3 | 700-305 | *Drum | 1 | 1 |
| 4 | 700-306 | *Shaft — Drum | 1 | 1 |
| 5 | 700-307 | Seal — Oil, Drum Shaft | 1 | 1 |
| 6 | 700-308 | Bearing — Drum Shaft | 1 | 1 |
| 7 | 700-309 | Retainer — Bearing, Drum Shaft | 1 | 1 |
| 8 | 700-313 | Lockwasher | 8 | 4 |
| 9 | 700-312 | Bolt — Hex Head | 8 | 4 |
| 10 | 700-310 | Gear — Drum | 1 | 1 |
| 11 | 700-311 | Ring — Retaining, External | 1 | 1 |

*Drums on some models have drum shaft integral (Ref. No. 4). Drums for low headroom models and some longer lift models, have right and left hand grooves.

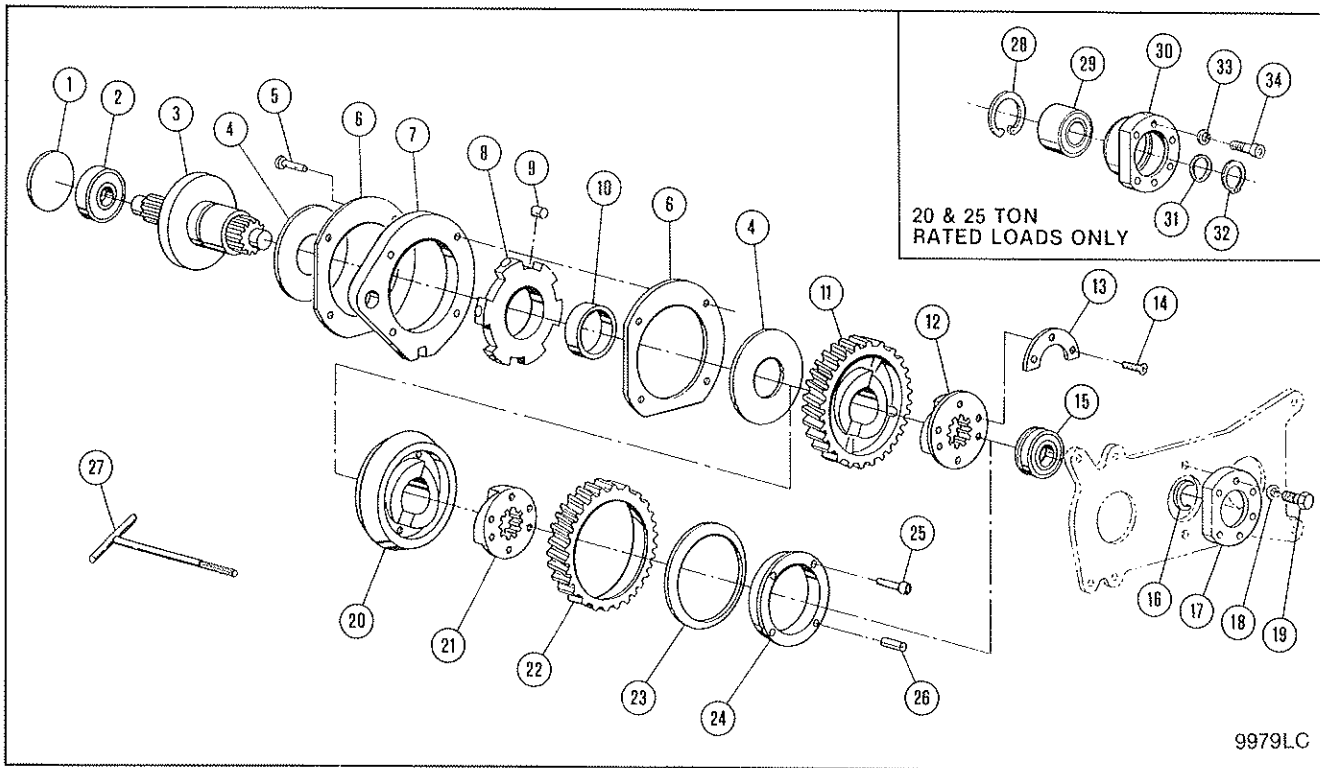


Figure 9-4. Mechanical Load Brake Parts (Includes Overload Clutch Parts).

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|----------------------------------------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-401 | Plug — Expansion (not used on later models) | 1 | — |
| 2 | 700-402 | Bearing | 1 | 1 |
| 3 | 700-403 | Shaft and Flange Assembly, Brake | 1 | 1 |
| 4 | 700-404 | Washer — Friction | 2 | 2 |
| | 700-405 | *Roller and Ratchet Assembly Brake (includes Ref. Nos. 5 through 10) | 1 | 1 |
| 5 | 700-406 | Rivet — Flat Head | 4 | — |
| | 700-417 | Bolt — Hex Head (with nut) | — | 6 |
| 6 | 700-407 | Plate — Roller Retaining | 2 | 2 |
| 7 | 700-408 | Race — Roller | 1 | 1 |
| 8 | 700-409 | Ratchet — Roller | 1 | 1 |
| 9 | 700-410 | Roller | 6 | 6 |
| 10 | 700-411 | Bushing — Bronze | 1 | 1 |
| 11 | 700-412 | Gear — Brake | 1 | 1 |
| 12 | 700-413 | Helix — Brake | 1 | 1 |
| 13 | 700-414 | Plate — Retaining | 2 | 2 |
| 14 | 700-415 | Screw — Flat Head Socket, Self-locking | 4 | — |
| | 700-418 | Screw — Socket Head Cap, Self-locking | — | 6 |
| 15 | 700-416 | ****Bearing | 1 | 1 |
| 16 | 700-419 | Ring — Retaining, External | — | 1 |
| 17 | 700-420 | Cap — Retaining, Bearing | — | 1 |
| 18 | 700-421 | Lockwasher | — | 6 |
| 19 | 700-422 | Bolt — Hex Head | — | 6 |
| 20 | 700-423 | **Center Assembly — Gear | 1 | 1 |
| 21 | 700-424 | **Helix — Brake | 1 | 1 |
| 22 | 700-425 | **Gear — Brake | 1 | 1 |
| 23 | 700-426 | **Spring — Belleville | 1 | 1 |
| 24 | 700-427 | **Collar — Adjusting | 1 | 1 |
| 25 | 700-428 | **Screw — Socket Head, Self-locking | 2 | 2 |
| 26 | 700-429 | **Pin — Groove | 2 | 2 |
| 27 | 700-430 | Tool — Clutch Adjusting | 1 | 1 |
| 28 | 700-431 | ***Ring — Retaining | — | 1 |
| 29 | 700-432 | ***Bearing | — | 1 |
| 30 | 700-433 | ***Cage — Bearing | — | 1 |
| 31 | 700-434 | ***Washer — Support | — | 1 |
| 32 | 700-435 | ***Ring — Retaining | — | 1 |
| 33 | 700-436 | ***Lockwasher | — | 6 |
| 34 | 700-437 | ***Screw — Socket Head Cap | — | 6 |

*When Ref. Nos. 5 through 10 require replacement, the factory recommends use of above assembly instead of individual parts. On some models Ref. Nos. 8 and 10 are integral.

**Ref. Nos. 20 through 26 are used only on hoists equipped with overload clutch.

***For 20 & 25 ton rated loads only, Ref. Nos. 28 through 34 replace Ref. Nos. 15 through 19.

****Size 2 shown. On Size 3 rotate bearing 180° and install from outside of spider.

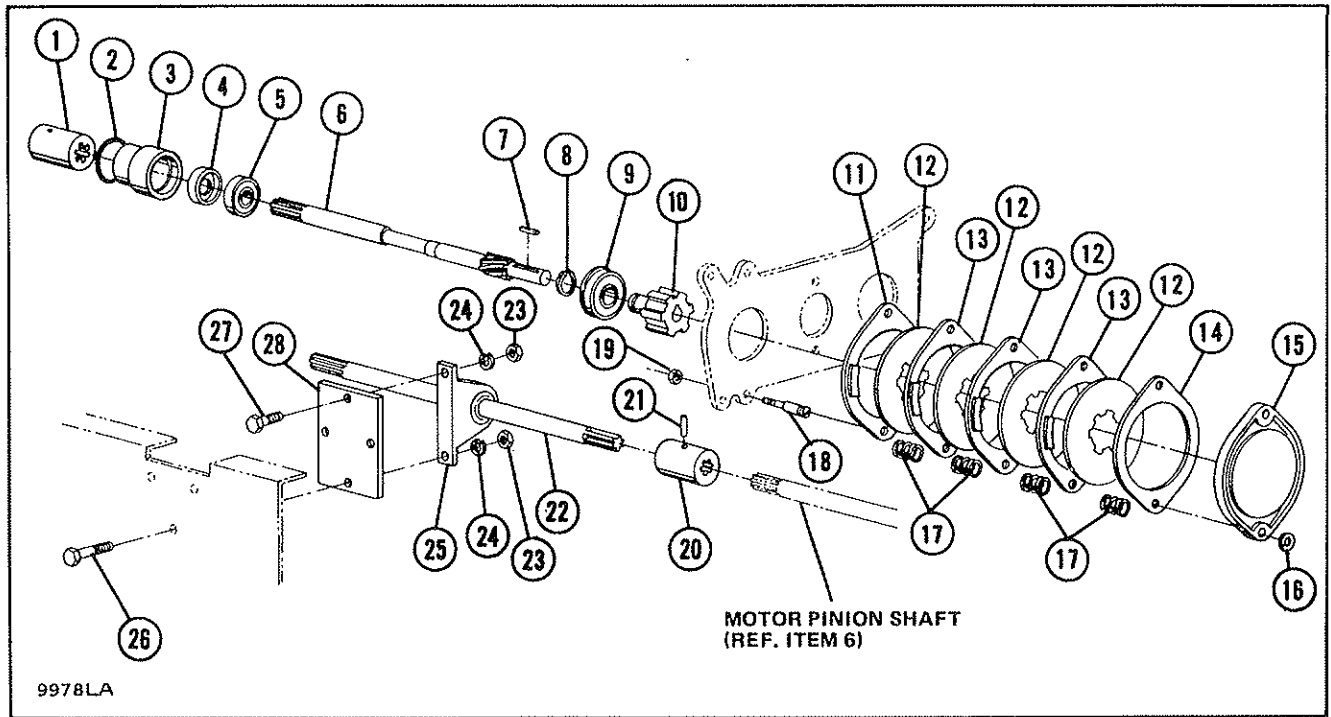


Figure 9-5. Motor Pinion Shaft, Coupling and Motor Brake Parts.

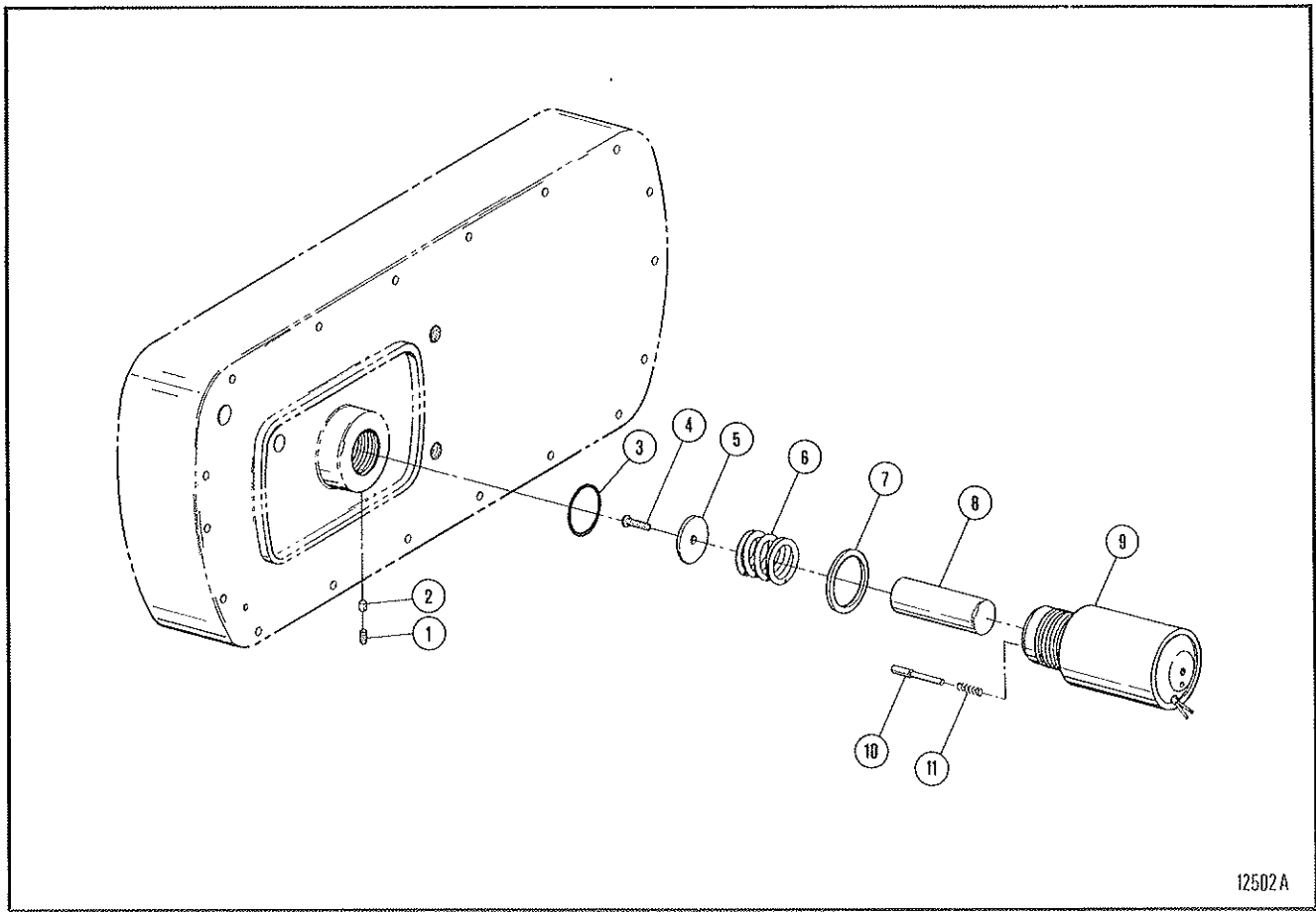
| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|-----------------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-501 | Coupling — Motor | 1 | 1 |
| | 700-530 | Ring — Retaining (not shown) | 1 | — |
| | 700-531 | Pin — Drive (not shown) | — | 1 |
| 2 | 700-502 | Gasket — “O” Ring | 1 | 1 |
| 3 | 700-503 | Cage — Bearing | 1 | 1 |
| 4 † | 700-504 | Seal — Oil | 1 | 1 |
| 5 | 700-505 | Bearing | 1 | 1 |
| 6 | 700-506 | Shaft — Motor Pinion (with keyway) | 1 | — |
| | 700-519 | Shaft — Motor Pinion (with spline) | — | 1 |
| 7 | 700-507 | Key | 1 | — |
| 8 | 700-508 | Ring — Retaining, External | 1 | 1 |
| 9 | 700-509 | Bearing | 1 | 1 |
| 10 † | 700-510 | Hub — Motor Brake (with keyway) | 1 | — |
| | 700-520 | Hub — Motor Brake (with spline) | — | 1 |
| 11 † | 700-551 | Washer & Lining Assembly — Spider End | 1 | 1 |
| 12 † | 700-553 | Plate — Motor Brake | 4 | 4 |
| 13 † | 700-552 | Washer & Lining Assembly — Intermediate | 3 | 3 |
| 14 † | 700-555 | Washer & Lining Assembly — Pressure Plate End | 1 | 1 |
| 15 | 700-556 | Plate — Compression | 1 | 1 |
| 16** | 700-514 | Ring — Retainer, External | 2 | 2 |
| 17 † | 700-515 | Spring — Release | 8 | 8 |
| 18 | 700-516 | Stud — Pilot | 2 | 2 |
| 19 | 700-518 | Nut — Hex, Self-locking | 2 | 2 |
| 20 | 700-521 | *Coupling — Shaft, Intermediate | 1 | 1 |
| 21 | 700-522 | *Pin — Drive | 1 | — |
| 22 | 700-523 | *Shaft — Intermediate | 1 | 1 |
| 23 | 700-524 | *Nut — Hex | 4 | 4 |
| 24 | 700-525 | *Lockwasher | 4 | 4 |
| 25 | 700-526 | *Pillow Block — Intermediate Shaft | 1 | 1*** |
| 26 | 700-527 | *Bolt — Hex Head | 1 | 1 |
| 27 | 700-528 | *Bolt — Hex Head | 3 | 3 |
| 28 | 700-529 | *Plate — Mounting, Pillow Block | 1 | 1 |

* Ref. Nos. 20 through 22 are used only on models with extended frames. Ref. Nos. 23 through 28 are used only on models with the longest frame extension.

** Spacers may occur between Ref. Nos. 15 and 16.

*** For hoists with 227' lift there are 2 pillow blocks and the quantity of associated hardware is twice that shown.

† Recommended spares.



12502A

Figure 9-6. Motor Brake Actuating Mechanism.

| Ref. No. | Description | Size 2 Hoist | | Size 3 Hoist | |
|----------|--------------------------------------------------------------|--------------|--------------|--------------|--------------|
| | | Part Number | Quan. Req'd. | Part Number | Quan. Req'd. |
| 1 | Screw — Hex Socket Head Set | 700-673 | 1 | 700-673 | 1 |
| 2 | Rod — Brass | 700-674 | 1 | 700-674 | 1 |
| 3 † | Seal — “O” Ring | 700-675 | 1 | 700-676 | 1 |
| | *Brake Actuating Assembly (includes Ref. Nos. 4, 5, 8 and 9) | 700-677 | 1 | 700-678 | 1 |
| 4 | Screw — Hex Socket Button Head Cap | 700-679 | 1 | 700-679 | 1 |
| 5 | Washer — Spring Stop | 700-680 | 1 | 700-681 | 1 |
| 6 † | Spring | | | | |
| | Natural Color | 700-682 | 1 | — | — |
| | White | — | — | 700-683 | 1 |
| | Red | — | — | 700-684 | 1 |
| | Green | — | — | 700-685 | 1 |
| 7 | Washer — Spacer (used with red and green springs only) | | | | |
| | Used with Red Spring Only | — | — | 700-686 | 1 |
| | Used with Green Spring Only | — | — | 700-686 | 2 |
| 8 | Plunger | 700-687 | 1 | 700-688 | 1 |
| 9 | Body Assembly | 700-689 | 1 | 700-690 | 1 |
| 10 | Indicator Pin — Brake Adjustment | 700-691 | 1 | 700-692 | 1 |
| 11 | Spring — Brake Pin | 700-693 | 1 | 700-693 | 1 |

*When Ref. Nos. 4, 5, 8 and 9 require replacement, the factory recommends use of the above assembly instead of individual parts.

†Recommended spares.

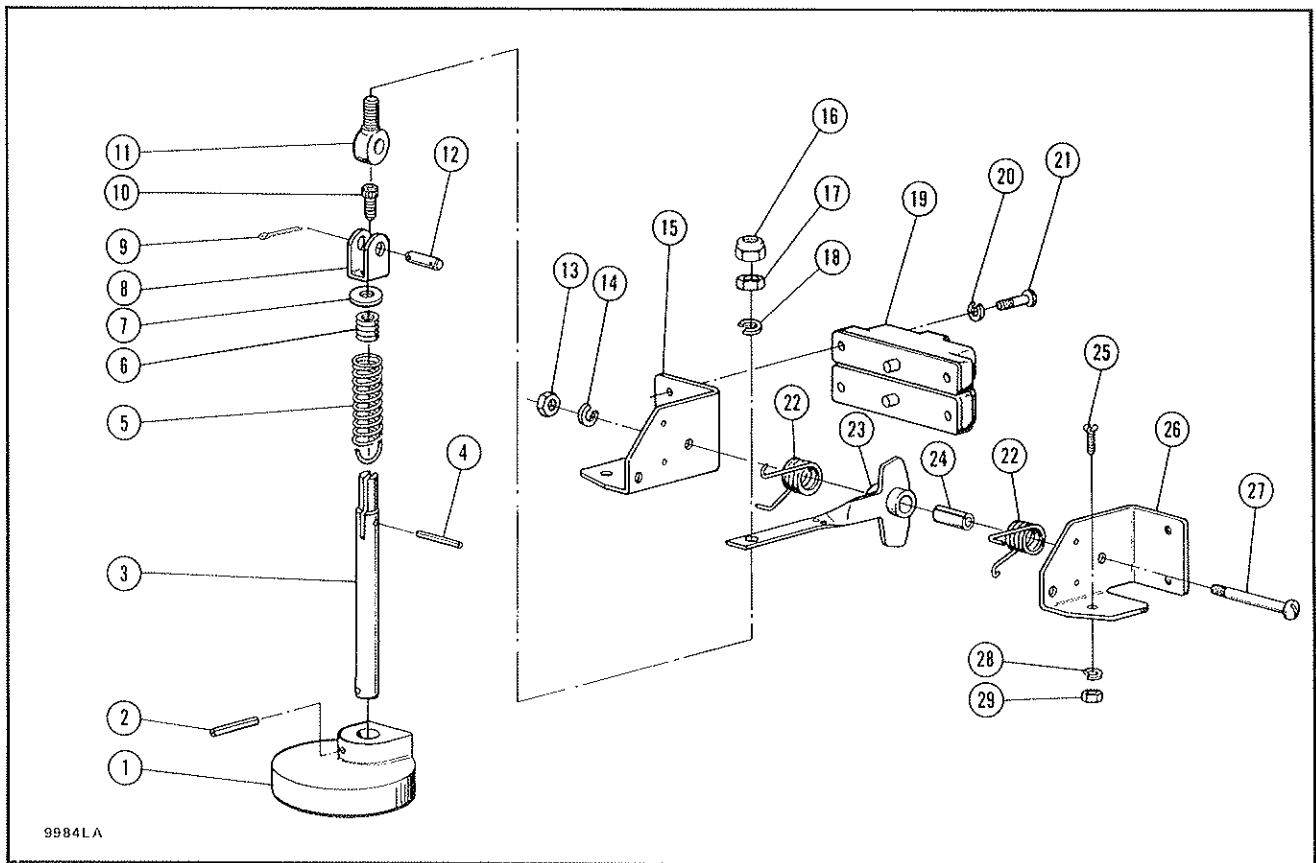


Figure 9-7. Upper Limit Switch Parts — Block Operated.

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|--------------------------------------------------------------------------------------|--------------|
| | 700-726 | Actuator Assembly — Limit Switch (includes Ref. Nos. 1 through 12 and 16 through 18) | 1 |
| 1 | 700-718 | Weight Actuator | 1 |
| 2 | 700-719 | Pin — Drive | 1 |
| 3 | 700-720 | Rod — Actuator | 1 |
| 4 | 700-717 | Pin — Drive | 1 |
| 5 | 700-721 | Spring — Actuator | 1 |
| 6 | 700-716 | Insert — Spring | 1 |
| 7 | 700-714 | Washer — Actuator | 1 |
| 8 | 700-727 | Clevis — Actuator | 1 |
| 9 | 700-728 | Pin — Cotter | 2 |
| 10 | 700-729 | Cap Screw — Hex Socket Head | 1 |
| 11 | 700-730 | Rod End — Actuator | 1 |
| 12 | 700-731 | Pin — Actuator | 1 |
| 13 | 700-724 | Nut — Standard Hex | 1 |
| 14 | 700-723 | Lockwasher | 1 |
| 15 | 700-701 | Bracket — Limit Switch (R.H.) | 1 |
| 16 | 700-732 | Nut — Hex Cap (Optional) | 1 |
| 17 | 700-703 | Nut — Standard Hex | 1 |
| 18 | 700-704 | Lockwasher | 1 |
| 19 | 700-707 | Switch Assembly — Upper Limit | 2 |
| 20 | 700-709 | Lockwasher | 4 |
| 21 | 700-708 | Screw — Round Head Machine | 4 |
| 22 | 700-705 | Spring — Lever | 2 |
| 23 | * | Lever Assembly — Limit Switch | 1 |
| 24 | 700-712 | Spacer — Limit Switch Lever | 1 |
| 25 | 700-702 | Screw — Flat Head Machine | 2 |
| 26 | 700-710 | Bracket — Limit Switch (L.H.) | 1 |
| 27 | 700-711 | Screw — Round Head Machine | 1 |
| 28 | 700-725 | Lockwasher | 1 |
| 29 | 700-722 | Nut — Standard Hex | 1 |

* Replacement for Lever Assembly is Lever (Part Number 700-736) plus Hub (Part Number 700-737).

† Recommended spares.

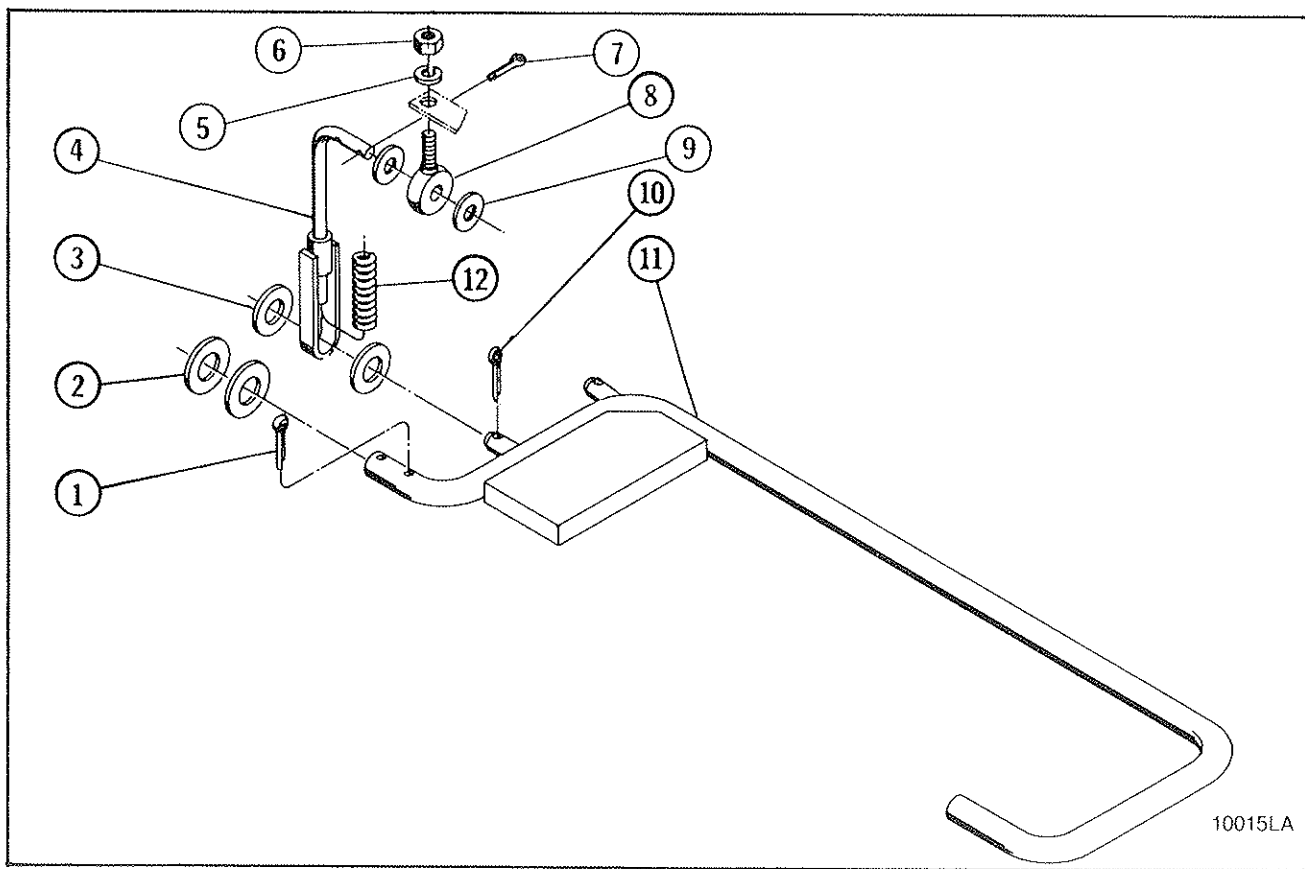


Figure 9-8. Upper Limit Switch Parts — Block Operated — Low Headroom Hoists.

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|-------------------------|--------------|
| 1 | 700-751 | Pin — Cotter | 2 |
| 2 | 700-752 | Washer | 2 |
| 3 | 700-753 | Washer | 2 |
| 4 | 700-754 | Connecting Rod Assembly | 1 |
| 5 | 700-755 | Lockwasher | 1 |
| 6 | 700-756 | Nut — Hex | 1 |
| 7 | 700-757 | Pin — Cotter | 2 |
| 8 | 700-758 | Rod End | 1 |
| 9 | 700-759 | Washer | 2 |
| 10 | 700-760 | Pin — Cotter | 1 |
| 11 | 700-761 | Actuator | 1 |
| 12 | 700-762 | Spring | 1 |

For limit switch catalog numbers, see Figure 9-7, Ref. No. 13 through 15 and 19 through 29.

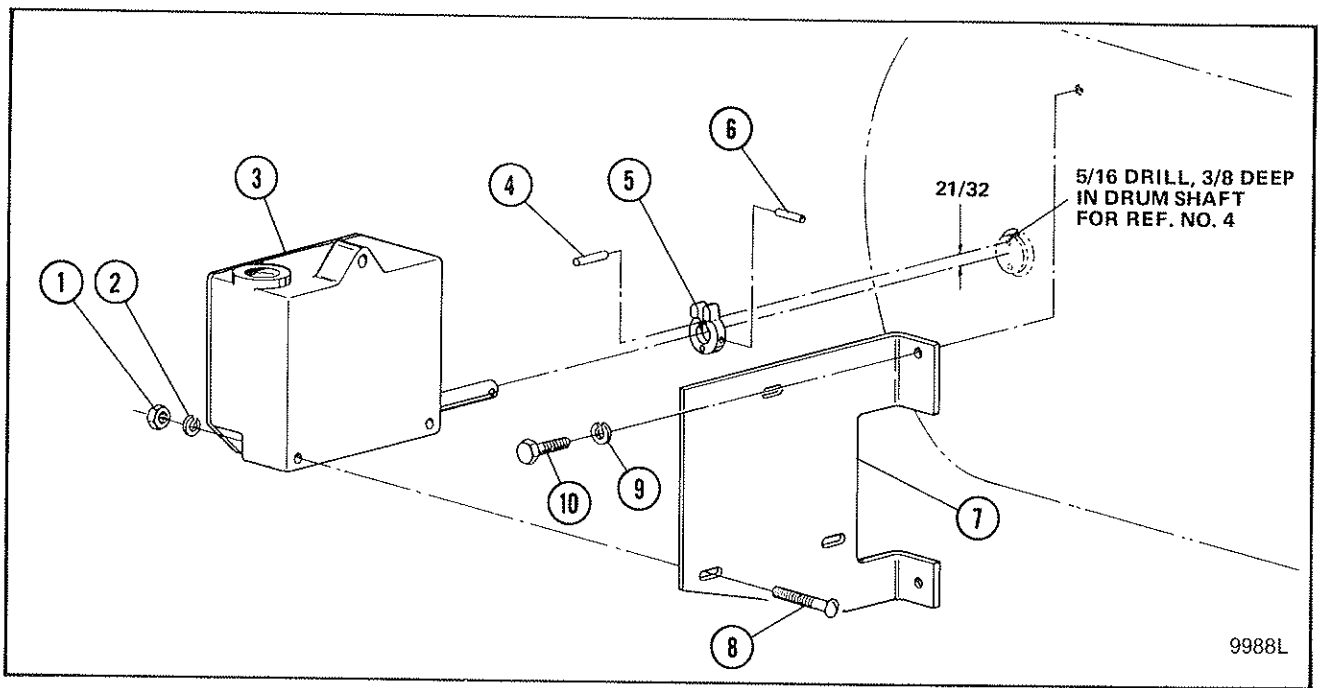


Figure 9-9. Upper & Lower Limit Switch — Geared Rotary Type.

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|-----------------------------|--------------|
| 1 | 700-916 | Nut — Hex, Jam | 3 |
| 2 | 700-917 | Lockwasher — Spring Type | 3 |
| 3 | 700-918 | Switch — Geared, Rotary | 1 |
| 4 | 700-919 | Rollpin — Drum Shaft | 1 |
| 5 | 700-920 | Crank | 1 |
| 6 | 700-921 | Rollpin — Crank | 1 |
| 7 | 700-922 | Plate — Switch Mounting | 1 |
| 8 | 700-923 | Screw — Round Head, Slotted | 3 |
| 9 | 700-924 | Lockwasher | 2 |
| 10 | 700-925 | Bolt — Hex Head | 2 |

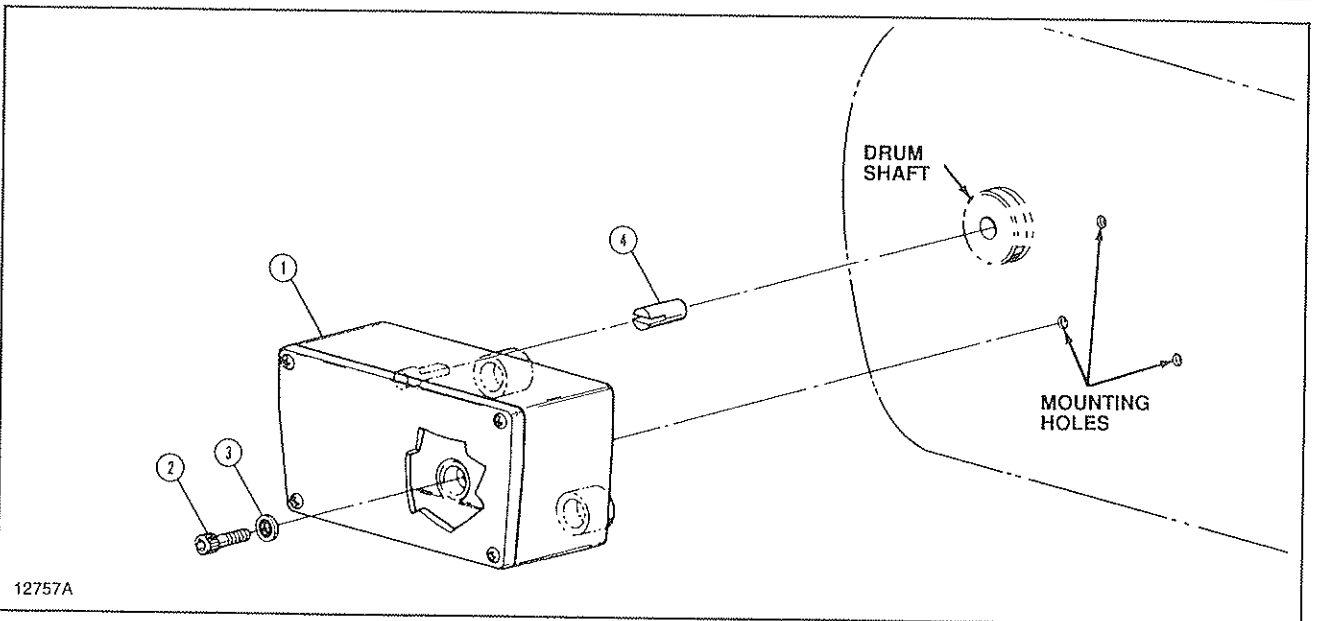


Figure 9-9a. Upper & Lower Limit Switch — Geared Rotary Type.

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|-----------------------------------------------------------------------|--------------|
| 1 | 700-950 | Limit Switch Assembly — Geared Rotary (Includes Ref. Nos. 2, 3 and 4) | 1 |
| 2 | | Cap Screw — Hex Socket Head (#10-24 x 3/4 Pltd.) | 3 |
| 3 | 700-951 | Sealing Washer | 3 |
| 4 | 700-952 | Drum Shaft Insert — Plastic | 1 |

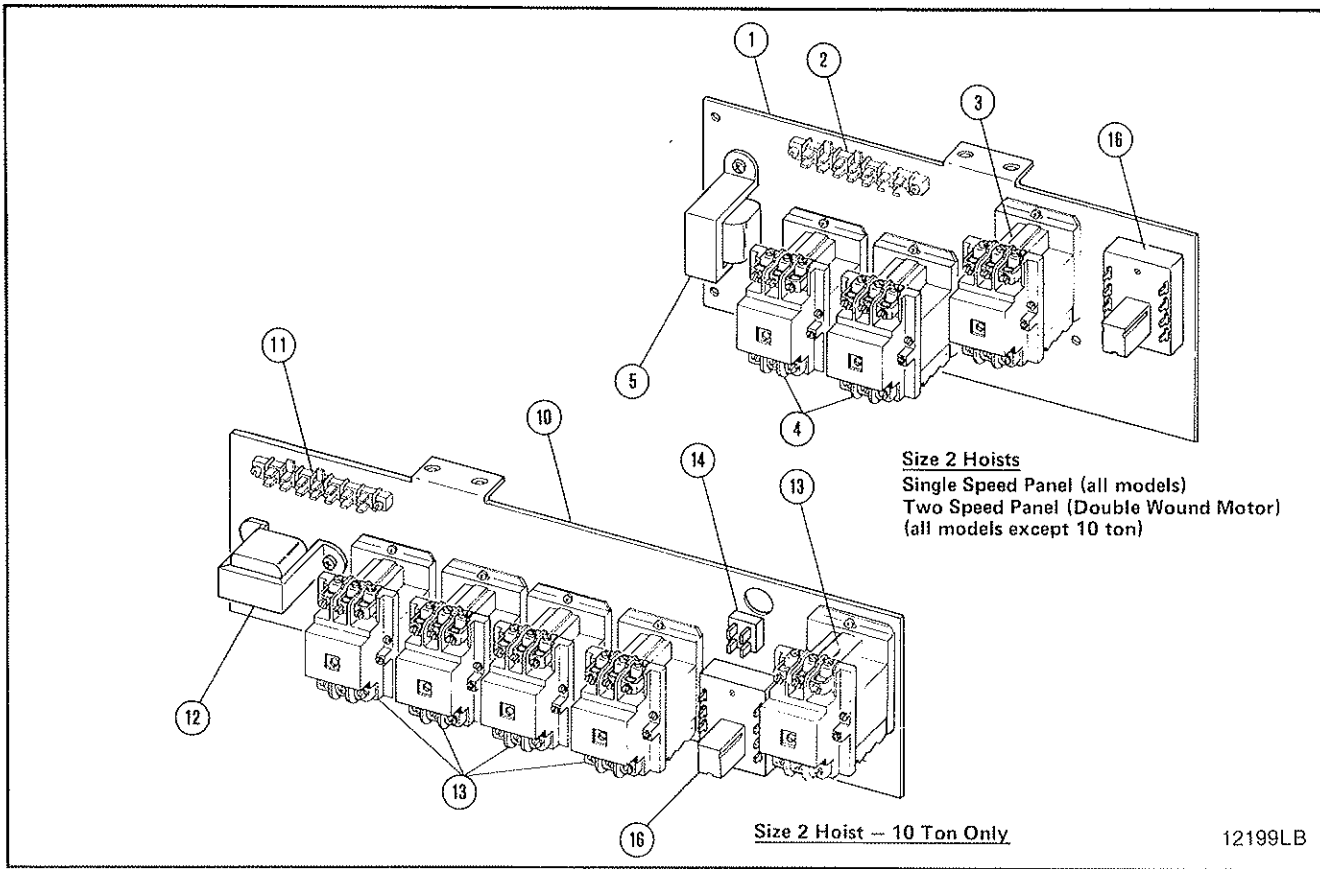


Figure 9-10. Electrical Control Equipment.

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|-------------------------------------------------------|--------------|
| 1 | 700-1088 | Plate — Mounting, Contactor | 1 |
| 2 | 700-1026 | Terminal Board | 1 |
| 3 † | 700-1027 | Contactor — two speed only | 1 |
| 4 † | 700-1028 | Contactor | 1 |
| 5 † | 700-1086 | **Transformer | 1 |
| 6 | 700-1030 | Terminal Board — single speed only (not shown) | 1 |
| 7 † | 700-1031 | *Contact Kit — single speed (not shown) | 1 |
| 8 † | 700-1032 | *Contact Kit — two speed | 1 |
| 9 † | 700-1033 | Coil — single speed (not shown) | 2 |
| | | Coil — two speed | 1 |
| 10 | 700-1035 | Plate — Mounting, Contactor (10 ton — two speed only) | 1 |
| 11 | 700-1036 | Terminal Board (10 ton — two speed only) | 1 |
| 12 † | 700-1087 | **Transformer (10 ton — two speed only) | 1 |
| 13 † | 700-1038 | Contactor (10 ton — two speed only) | 5 |
| 14 | 700-1039 | Relay — Timing | 1 |
| 15 † | 700-1040 | *Contactor Kit (10 ton — two speed only) | 1 |
| 16 † | 700-1084 | Controller — Brake | 1 |
| 17 † | 700-1091 | Fuse, Fuse Holder and Wire Assembly (not shown) | 1 |

*Order one (1) contact kit per contactor.

**Furnish complete nameplate data from old transformer.

†Recommended spares.

NOTE: When ordering coils, contactors, contactor kits, or brake controllers, specify voltage.

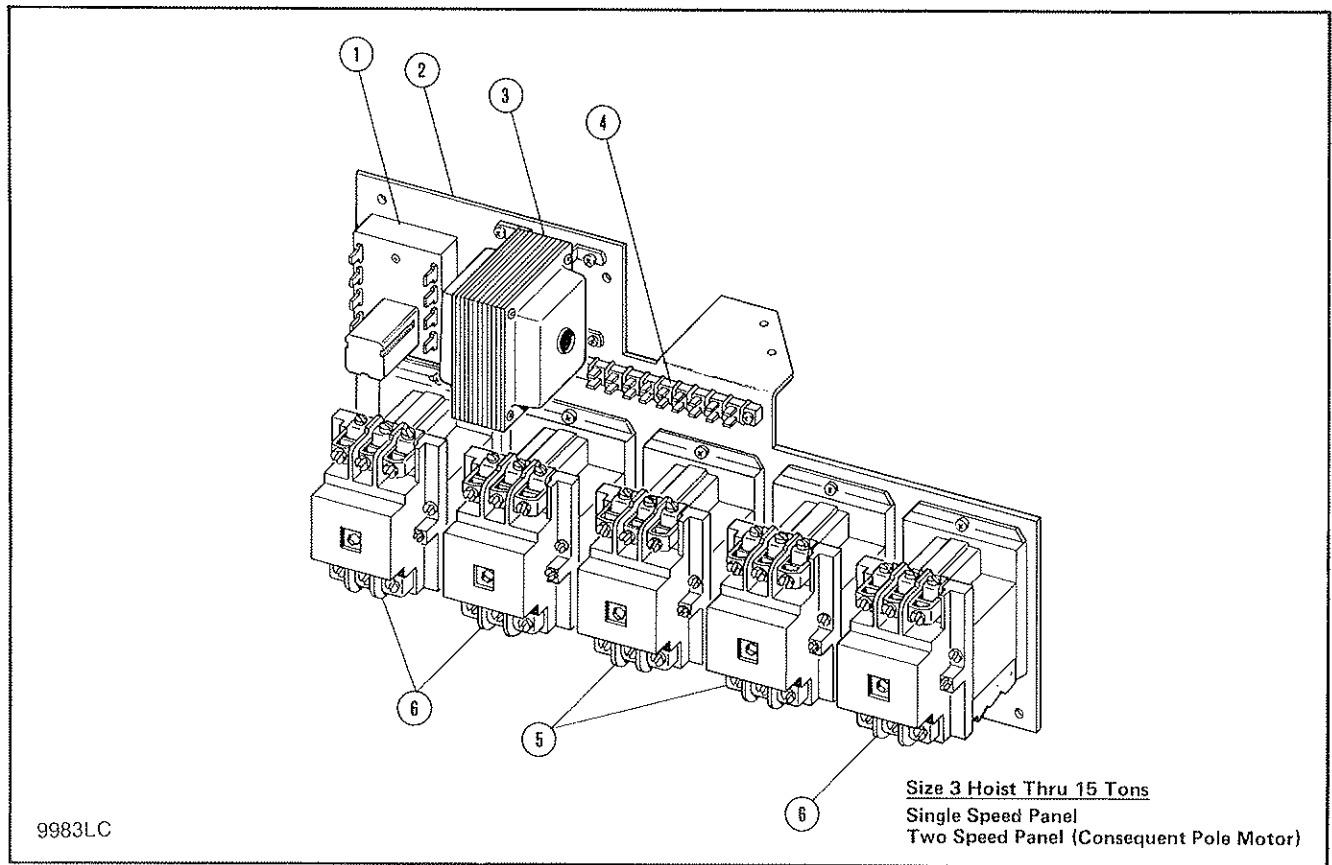


Figure 9-10a. Electrical Control Equipment.

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|--------------------------------------------------------------------|--------------|
| 1 † | 700-1084 | Controller — Brake | 1 |
| 2 | 700-1085 | Plate — Contactor Mounting | 1 |
| 3 | | *Transformer | 1 |
| | 700-1086 | Single speed Hoist | |
| | 700-1087 | Two speed Hoist | |
| 4 | 700-1022 | Terminal Board | 1 |
| 5 † | 700-1011 | **Contactor — Accelerating | 2 |
| 6 † | 700-1003 | Contactor | 2 |
| 7 | 700-1019 | Block Assembly — Terminal (not shown) | 1 |
| 8 † | 700-1023 | ***Contact Kit — 3-Pole (not shown) | 1 |
| 9 † | 700-1024 | ***Coil (not shown) | 1 |
| 10 † | 700-1034 | ***Interlock — electrical contactor — replace in pairs (not shown) | 2 |
| 11 † | 700-1092 | Fuse, Fuse Holder and Wire Assembly (not shown) | 1 |

*Furnish complete nameplate data from old transformer.

**Parts used on two-speed hoists only.

***Order one (1) per contactor.

†Recommended spares.

NOTE: When ordering relay, contactors, contact kits, coils or brake controller, specify voltage.

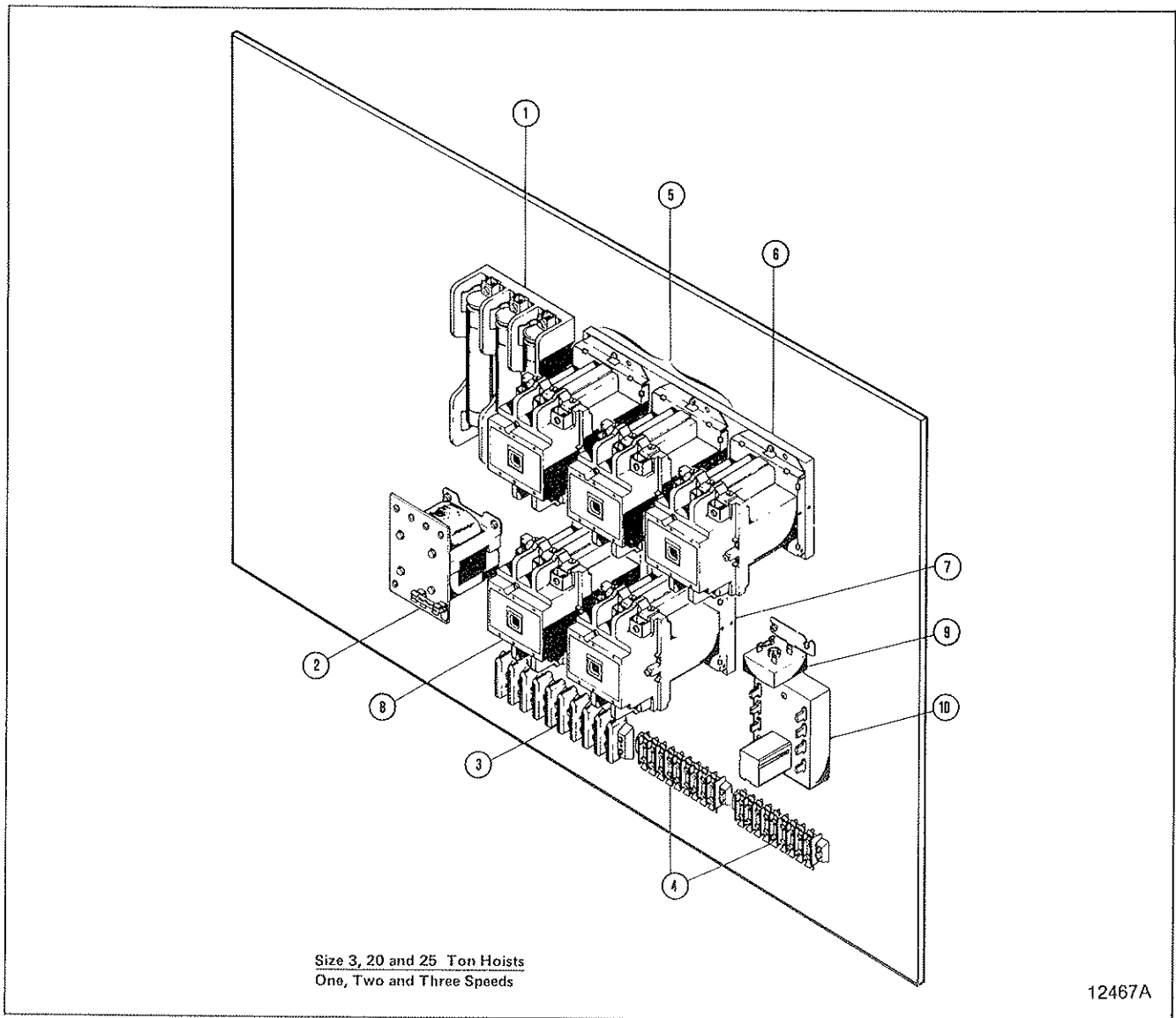


Figure 9-10b. Electrical Control Equipment.

| Ref. No. | Part Number | Description | Quan. Req'd. | | |
|----------|-----------------|-----------------------------------|--------------|-----------|----------------|
| | | | One Speed | Two Speed | 3 Speed Points |
| 1 | 700-1050 | Kit — Hoist Motor Fuse (Optional) | 1 | 1 | 1 |
| | 700-1051 | 15 HP, 208/230V | | | |
| | 700-1052 | 15 HP, 460V | | | |
| | 700-1053 | 15 HP, 575V | | | |
| | 700-1054 | 20 HP, 208/230V | | | |
| | 700-1054 | 20 HP, 460V | | | |
| | 700-1055 | 20 HP, 575V | | | |
| | 700-1056 | 25 HP, 208/230V | | | |
| | 700-1057 | 25 HP, 460V | | | |
| | 700-1058 | 25 HP, 575V | | | |
| | | Replacement Fuses | 3 | 3 | 3 |
| | 700-1059 | 15 HP, 208/230V | | | |
| | 700-1060 | 15 HP, 460V | | | |
| | 700-1061 | 15 HP, 575V | | | |
| | 700-1062 | 20 HP, 208/230V | | | |
| | 700-1063 | 20 HP, 460V | | | |
| | 700-1060 | 20 HP, 575V | | | |
| 700-1064 | 25 HP, 208/230V | | | | |
| 700-1065 | 25 HP, 460V | | | | |
| 700-1063 | 25 HP, 575V | | | | |

(Continued on following page)

Figure 9-10b. Electrical Control Equipment. (Continued)

| Ref. No. | Part Number | Description | Quan. Req'd. | | | |
|----------|-------------|---------------------------------------------------------------------|------------------------------------|-----------|----------------|---|
| | | | One Speed | Two Speed | 3 Speed Points | |
| 2 | 700-1087 | Transformer 230/460V | 1 | 1 | 1 | |
| | 700-1089 | 208V | | | | |
| | 700-1090 | 575V | | | | |
| | 700-1091 | Transformer Fuse | 1 | 1 | 1 | |
| 3 | 700-1070 | Terminal Board — Motor | 1 | — | 1 | |
| | 700-1071 | Terminal Board — Motor | — | 1 | — | |
| 4 | 700-1072 | Terminal Board — Control | 2 | 2 | 2 | |
| 5 † | 700-1073 | Contactora — Reversing (Double) | 1 | 1 | — | |
| | 700-1074 | Replacement Coil | 2 | 2 | — | |
| | 700-1075 | Contact Kit | 2 | 2 | — | |
| | | Contactora — Reversing (Double) | | | | |
| | 700-1073 | All except 25 HP, 230V | — | — | 1 | |
| | 700-1074 | Replacement Coil | — | — | 2 | |
| | 700-1075 | Contact Kit | — | — | 2 | |
| | 700-1076 | 25 HP, 230V Only | — | — | 1 | |
| | 6 † | 700-1077 | Contactora — Accelerating (Single) | — | 1 | — |
| | | 700-1074 | Replacement Coil | — | 1 | — |
| 700-1075 | | Contact Kit | — | 1 | — | |
| 7 † | 700-1073 | Contactora — Reversing (Double) | — | 1 | — | |
| | 700-1074 | Replacement Coil | — | 2 | — | |
| | 700-1075 | Contact Kit | — | 2 | — | |
| | | Contactora — Accelerating (Single) | | | | |
| | 700-1078 | 15 and 20 HP Only | — | — | 1 | |
| | 700-1074 | Replacement Coil | — | — | 1 | |
| | 700-1079 | Contact Kit | — | — | 1 | |
| | 700-1077 | 25 HP Only | — | — | 1 | |
| | 700-1074 | Replacement Coil | — | — | 1 | |
| | 700-1075 | Contact Kit | — | — | 1 | |
| 8 † | | Contactora — Accelerating (Single) | | | | |
| | 700-1078 | 15 and 20 HP Only | — | — | 1 | |
| | 700-1074 | Replacement Coil | — | — | 1 | |
| | 700-1079 | Contact Kit | — | — | 1 | |
| | 700-1077 | 25 HP Only | — | — | 1 | |
| | 700-1074 | Replacement Coil | — | — | 1 | |
| 700-1075 | Contact Kit | — | — | 1 | | |
| 9 | 700-1080 | Relay — Time Delay | — | 1 | 1 | |
| 10 † | 700-1084 | Controller — Brake | 1 | 1 | 1 | |
| 11 | | Resistor — Secondary (not shown — located outside of control panel) | | | | |
| | 700-1081 | 15 HP Only | — | — | 1 | |
| | 700-1082 | 20 HP Only | — | — | 1 | |
| | 700-1083 | 25 HP Only | — | — | 1 | |
| 12 † | 700-1092 | Fuse, Fuse Holder and Wire Assembly (not shown) | 1 | 1 | 1 | |

†Recommended spares.

NOTE: When ordering contactors, coils, contact kits or brake controller, specify voltage. When ordering transformer, furnish complete nameplate data from old transformer.

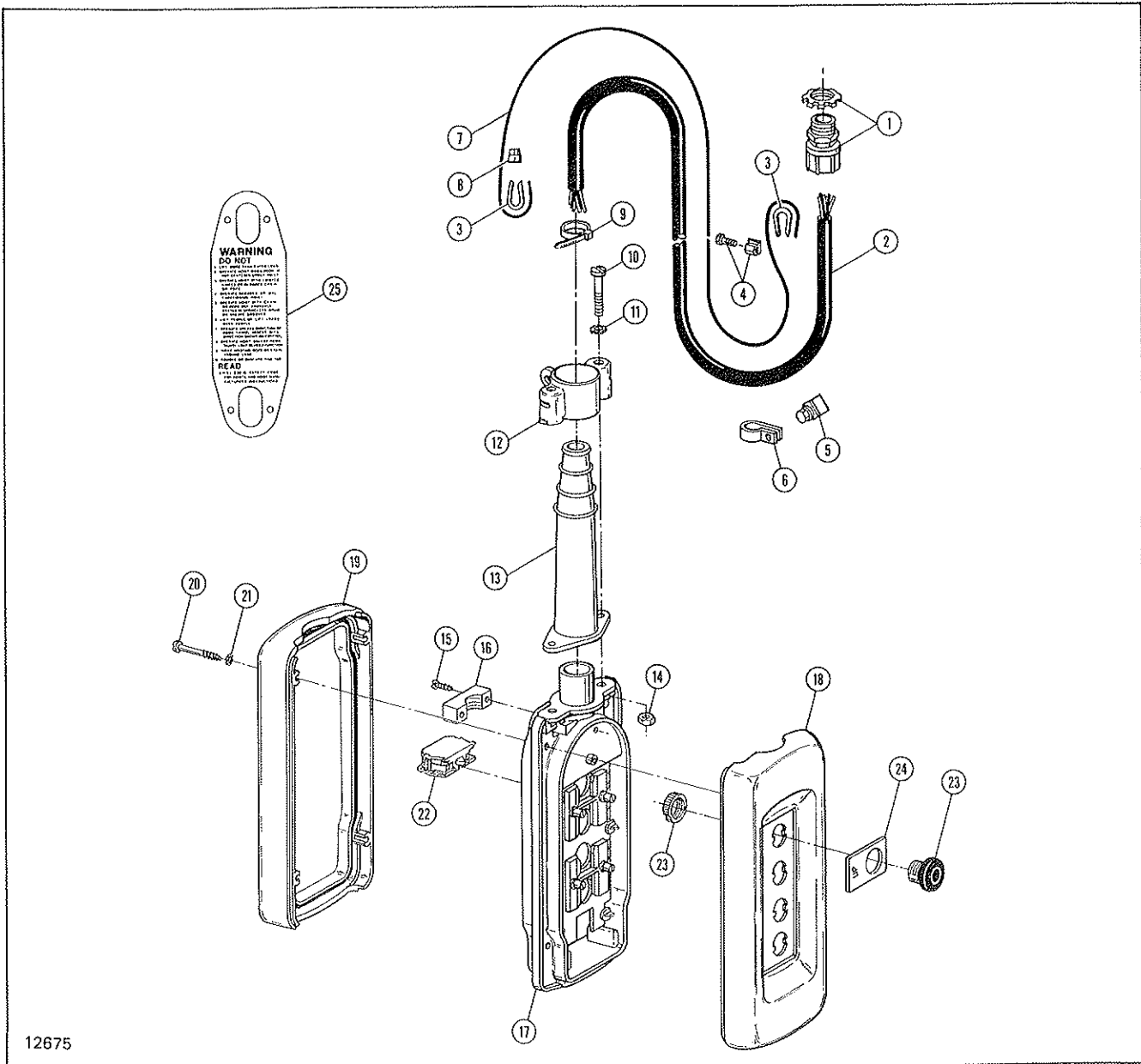


Figure 9-11. Push Button Station and Conductor Cord Assembly.

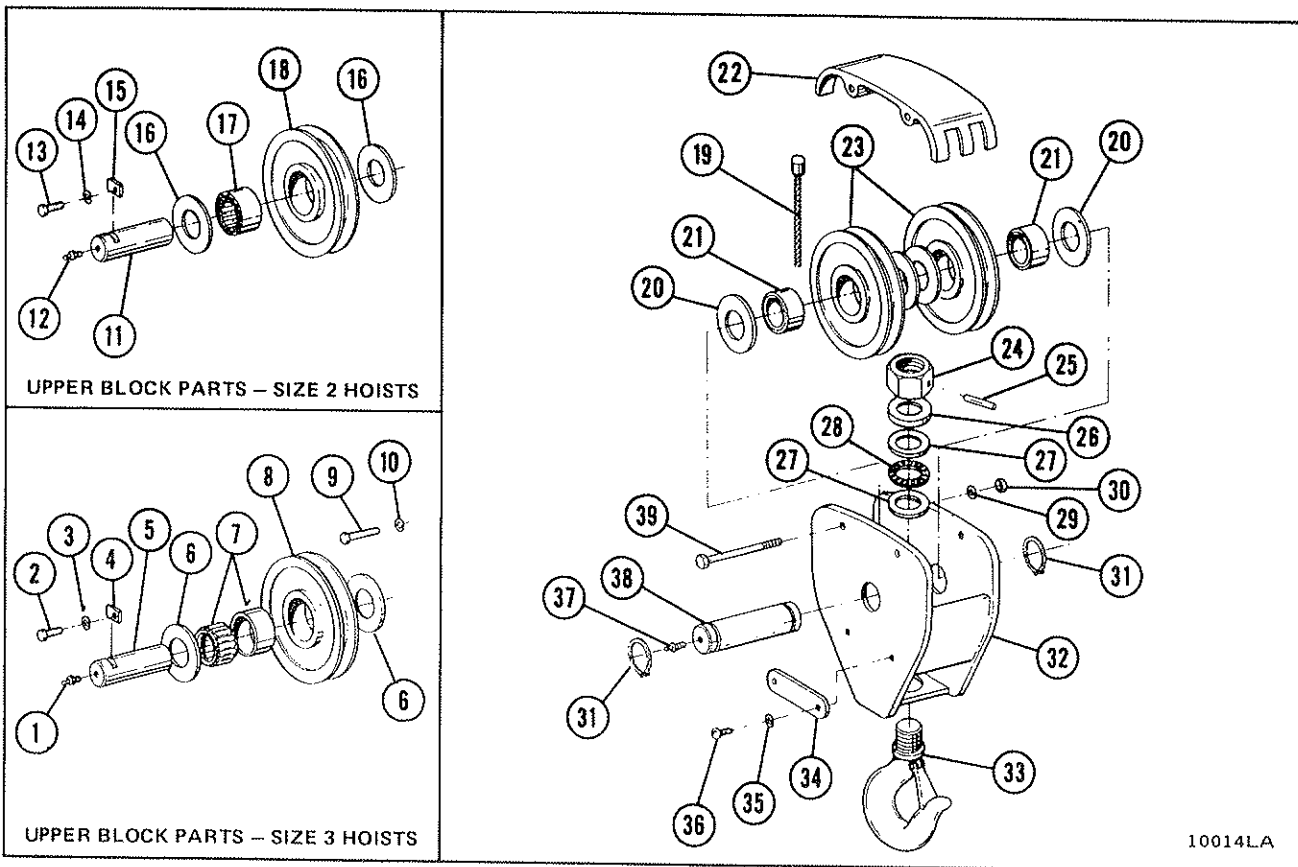
| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1 | 700-3100 700-3101 700-3102 700-3103 700-3104 | Grip Assembly — Conductor For 4 Conductor Cable For 5 Conductor Cable For 6 Conductor Cable For 7 and 8 Conductor Cable For 10, 12 and 16 Conductor Cable | 1 |
| 2 | 700-3105 700-3106 700-3107 700-3108 700-3109 700-3110 700-3111 700-3112 | Cable — Flexible Conductor* 4 Conductor 5 Conductor 6 Conductor 7 Conductor 8 Conductor 10 Conductor 12 Conductor 16 Conductor | 1 |
| 3 | 700-3113 | Thimble — Strain Cable | 2 |
| 4 | 700-3114 | Connector — Strain Cable | 1 |
| 5 | 700-3115 | Connector — Conductor to Strain Cable | 1 |

Figure 9-11. Push Button Station and Conductor Cord Assembly (Continued).

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|-----------------------------------------------------|--------------|
| 6 | | Clamp-Conductor | 1 |
| | 700-3116 | For 4 Conductor Cable | |
| | 700-3117 | For 5 and 6 Conductor Cable | |
| | 700-3118 | For 7 Conductor Cable | |
| | 700-3119 | For 8 and 10 Conductor Cable | |
| | 700-3120 | For 12 Conductor Cable | |
| | 700-3121 | For 16 Conductor Cable | |
| 7 | 700-3122 | Cable — Strain* | 1 |
| 8 | 700-3123 | Sleeve — Pressure | 1 |
| | | Push Button Assembly (Includes Ref. Nos. 9 thru 24) | 1 |
| | 700-3124 | 2 Buttons | 3 |
| | 700-3125 | 4 Buttons | 3 |
| | 700-3126 | 6 Buttons | 3 |
| | 700-3127 | 8 Buttons | 3 |
| | | Enclosure Assembly (Includes Ref. Nos. 9 thru 21) | 1 |
| | 700-3128 | 2 Buttons | 3 |
| | 700-3129 | 4 Buttons | 3 |
| | 700-3130 | 6 Buttons | 3 |
| | 700-3131 | 8 Buttons | 3 |
| 9 | ** | Clamp — Conductor | 1 |
| 10 | ** | Screw — Slotted Head | 2 |
| 11 | ** | Lockwasher | 2 |
| 12 | ** | Support — Strain Cable | 1 |
| 13 | 700-3132 | Sleeve — Conductor | 1 |
| 14 | ** | Nut — Hex | 2 |
| 15 | ** | Screw — Slotted Head | 2 |
| 16 | ** | Clamp — Conductor | 1 |
| 17 | ** | Enclosure Body | 1 |
| 18 | ** | Enclosure Front | 1 |
| 19 | ** | Enclosure Rear | 1 |
| 20 | ** | Screw — Slotted Head | |
| | | 2 Button Station | 2 |
| | | 4 Button Station | 4 |
| | | 6 Button Station | 6 |
| | | 8 Button Station | 8 |
| 21 | ** | Lockwasher | |
| | | 2 Button Station | 2 |
| | | 4 Button Station | 4 |
| | | 6 Button Station | 6 |
| | | 8 Button Station | 8 |
| 22 | 700-3133 | Block — Contact | |
| | | 2 Button Station | 2 |
| | | 4 Button Station | 4 |
| | | 6 Button Station | 6 |
| | | 8 Button Station | 8 |
| 23 | 700-3134 | Push Button Assembly | |
| | | 2 Button Station | 2 |
| | | 4 Button Station | 4 |
| | | 6 Button Station | 6 |
| | | 8 Button Station | 8 |
| 24 | | Nameplate | 1 |
| | 700-3135 | Stop | |
| | 700-3136 | Start | |
| | 700-3137 | Up | |
| | 700-3138 | Down | |
| | 700-3139 | Right | |
| | 700-3140 | Left | |
| 25 | 700-3141 | Operator Warning Label | 1 |

* Specify length required.

** Not available separately. Order Enclosure Assembly.

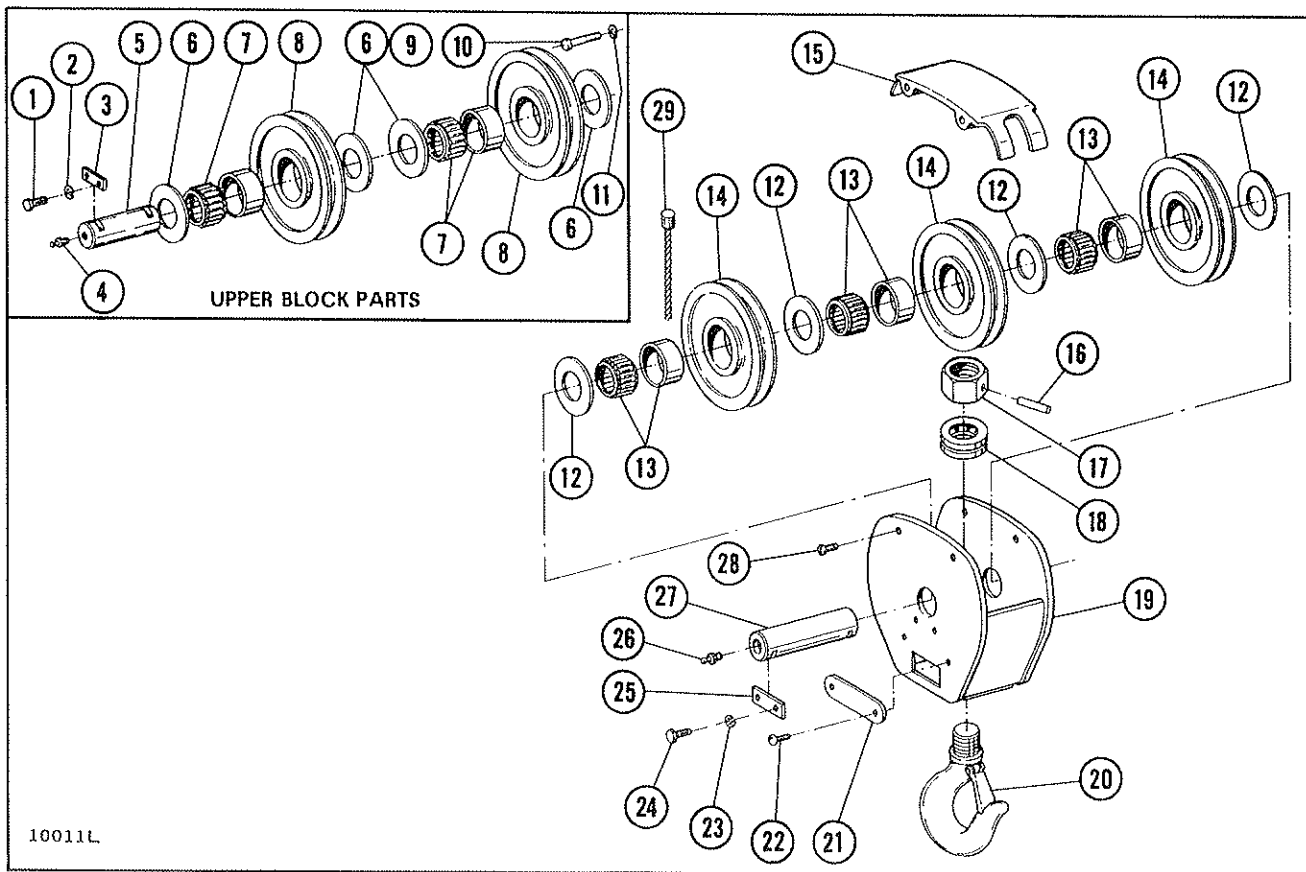


10014LA

Figure 9-14. Upper and Lower Block Parts Including Hoist Rope.
 (2 through 7-1/2 ton — single reeved standard headroom hoist with 1/4" through 7/16" rope)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|---------------------------------------------------------|--------------|-----|
| | | | Reeving | |
| | | | 2PS | 4PS |
| 1 | 700-1430 | Fitting — Grease | — | 1 |
| 2 | 700-1431 | Screw — Hex Head Cap | — | 1 |
| 3 | 700-1432 | Lockwasher | — | 1 |
| 4 | 700-1433 | Key Plate | — | 1 |
| 5 | 700-1434 | Pin — Upper Sheave | — | 1 |
| 6 | 700-1435 | Spacer | — | 2 |
| 7 | 700-1436 | Bearing (includes outer race) | — | 1 |
| 8 | 700-1437 | Sheave — Upper | — | 1 |
| 9 | 700-1438 | Bolt — Rope Guide | — | 2 |
| 10 | 700-1439 | Lockwasher | — | 2 |
| 11 | 700-1443 | Pin — Upper Sheave | — | 1 |
| 12 | 700-1444 | Fitting — Grease | — | 1 |
| 13 | 700-1402 | Screw — Hex Head Cap | — | 2 |
| 14 | 700-1403 | Lockwasher | — | 2 |
| 15 | 700-1404 | Key Plate | — | 1 |
| 16 | 700-1445 | Bushing — Spacer | — | 2 |
| 17 | 700-1446 | Bearing — Upper Sheave (includes inner race, not shown) | — | 1 |
| 18 | 700-1447 | Sheave — Upper | — | 1 |
| | 700-1448 | Block Assembly — Lower (Complete) | — | 1 |
| | 700-1449 | Block Assembly — Lower (Complete) | 1 | — |
| 19 † | 700-1429 | **Rope Assembly — Wire | 1 | 1 |
| 20 | 700-1450 | Bushing — Spacer | 2 | 4 |
| 21 | 700-1451 | Bearing — Lower Sheave (no inner race) | 1 | 2 |
| 22 | 700-1452 | Guard — Sheave | 1 | 1 |
| 23 | 700-1453 | Sheave — Lower | 1 | 2 |
| 24 | * | Nut — Hook | 1 | 1 |
| 25 | 700-1413 | Pin — Roll | 1 | 1 |

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Figure 9-15. Upper and Lower Block Parts Including Hoist Rope.
 (for 5 through 15 ton hoists with 9/16" rope and 6 through 10 ton double reeved standard headroom hoists)

| Ref. No. | Part Number | Description | Quantity Required | | | | |
|----------|-------------|----------------------------------------------------------------|-------------------|-----|-----|-----|-----|
| | | | Reeving | | | | |
| | | | 2PS | 4PS | 6PS | 3PD | 4PD |
| 1 | 700-1501 | Screw — Hex Head Cap | — | 1 | 1 | 4 | 4 |
| 2 | 700-1502 | Lockwasher | — | 1 | 1 | 4 | 4 |
| 3 | 700-1503 | Key Plate | — | 1 | 1 | 2 | 2 |
| 4 | 700-1504 | Fitting — Grease | — | 1 | 1 | 1 | 1 |
| 5 | 700-1505 | Pin — Upper Sheave | — | 1 | 1 | 1 | 1 |
| 6 | 700-1508 | Spacer — Upper Sheave | — | 2 | 4 | 3 | 4 |
| 7 | 700-1506 | Bearing — Upper Sheave | — | 1 | 2 | 2 | 3 |
| 8 | 700-1507 | Sheave — Upper | — | 1 | 2 | 2 | 3 |
| 9 | 700-1531 | Spacer — Upper Sheave (not shown) | — | — | — | 2 | — |
| 10 | 700-1532 | Bolt — Rope Guide | — | 2 | 2 | — | — |
| 11 | 700-1533 | Lockwasher | — | 2 | 2 | — | — |
| | 700-1511 | Block Assembly — Lower, 2PS (includes Ref. Nos. 12 through 28) | 1 | — | — | — | — |
| | 700-1512 | Block Assembly — Lower, 4PS (includes Ref. Nos. 12 through 28) | — | 1 | — | — | — |
| | 700-1513 | Block Assembly — Lower, 6PS (includes Ref. Nos. 12 through 28) | — | — | 1 | — | — |
| | 700-1534 | Block Assembly — Lower, 3PD (includes Ref. Nos. 12 through 28) | — | — | — | 1 | — |
| | 700-1535 | Block Assembly — Lower, 4PD (includes Ref. Nos. 12 through 28) | — | — | — | — | 1 |
| 12 | 700-1529 | Spacer — Lower Sheave | 2 | 3 | 4 | 3 | 4 |
| 13 | 700-1530 | Bearing Assembly (includes outer race) | 1 | 2 | 3 | 3 | 4 |
| 14 | 700-1515 | Sheave — Lower | 1 | 2 | 3 | 3 | 4 |
| 15 | 700-1514 | Guard — Sheave | 1 | 1 | 1 | 1 | 1 |
| 16 | 700-1516 | Pin — Roll | 1 | 1 | 1 | 1 | 1 |
| 17 | ** | Nut — Hook | 1 | 1 | 1 | 1 | 1 |
| 18 | 700-1517 | Bearing — Thrust | 1 | 1 | 1 | 1 | 1 |
| 19 | 700-1518 | Body — Lower Block | 1 | 1 | 1 | 1 | 1 |
| 20 | 700-1519 | Hook — Assembly (includes nut and latch) | 1 | 1 | 1 | 1 | 1 |
| 21 | 700-1527 | Plate — Capacity | 2 | 2 | 2 | 1 | 1 |
| 22 | 700-1536 | Screw — Round Head, Self-tapping | 4 | 4 | 4 | 2 | 2 |
| 23 | 700-1524 | Lockwasher | 4 | 4 | 4 | 2 | 2 |

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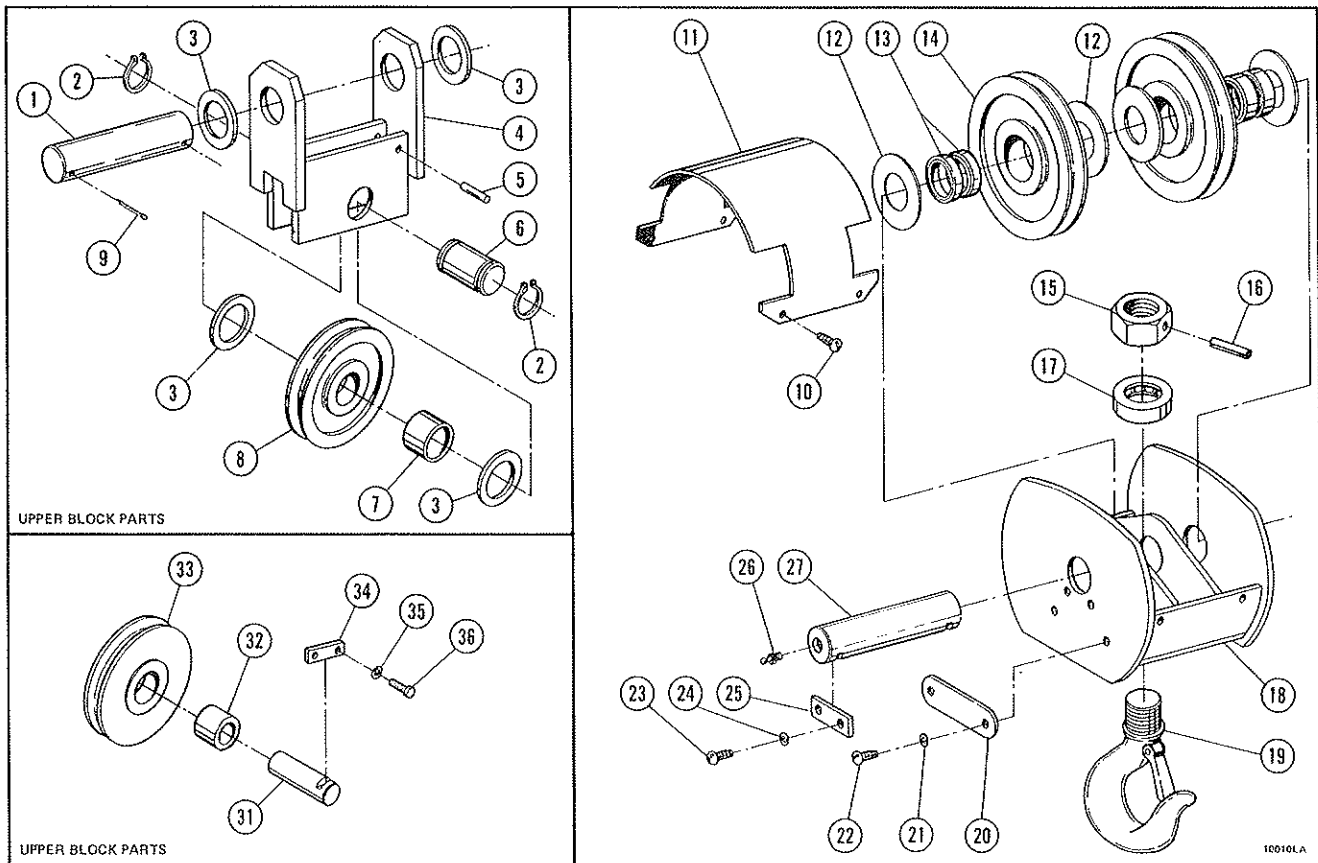


Figure 9-16. Upper and Lower Block Parts Including Hoist Rope.
(2 through 5 ton — standard and low headroom hoists 2PD reeved)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|-----------------------------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-1602 | Pin — Upper Sheave Yoke | 1 | 1 |
| 2 | 700-1623 | Ring — Retaining | 2 | 2 |
| 3 | 700-1624 | Spacer | — | 4 |
| 4 | 700-1603 | Yoke — Upper Sheave | 1 | 1 |
| 5 | 700-1625 | Pin — Drive | 2 | — |
| 6 | 700-1604 | Pin — Upper Sheave | 1 | 1 |
| 7 | 700-1607 | Bearing | 1 | 1 |
| 8 | 700-1606 | Sheave — Upper | 1 | 1 |
| 9 | 700-1605 | Pin — Cotter | 2 | 2 |
| | 700-1608 | Block Assembly — Lower (includes Ref. Nos. 10 through 27) | 1 | 1 |
| 10 | 700-1626 | Screw — Round Head, Self-tapping | 4 | 4 |
| 11 | 700-1627 | Guard — Sheave | 1 | 1 |
| 12 | 700-1628 | Spacer | — | 4 |
| 13 | 700-1621 | Bearing — Sheave | 4 | 2 |
| 14 | 700-1609 | Sheave — Lower | 2 | 2 |
| 15 | * | Nut — Hook | 1 | 1 |
| 16 | 700-1619 | Pin — Drive | 1 | 1 |
| 17 | 700-1615 | Bearing Assembly — Thrust | 1 | 1 |
| 18 | 700-1638 | Body — Lower Block | 1 | 1 |
| 19 | 700-1614 | Hook Assembly (includes nut and latch) | 1 | 1 |
| 20 | 700-1617 | Plate — Capacity | 2 | 1 |
| 21 | 700-1629 | Lockwasher | 4 | 2 |
| 22 | 700-1630 | Screw — Self-tapping, Round Head | 4 | 2 |
| 23 | 700-1632 | Screw — Hex Head | — | 2 |
| 24 | 700-1633 | Lockwasher | — | 2 |
| 25 | 700-1634 | Key Plate | 2 | 1 |
| | 700-1645 | Ring — Retaining (not shown) | 2 | — |
| 26 | 700-1635 | Fitting — Grease | — | 2 |
| 27 | 700-1616 | Pin — Lower Sheave | 1 | 1 |

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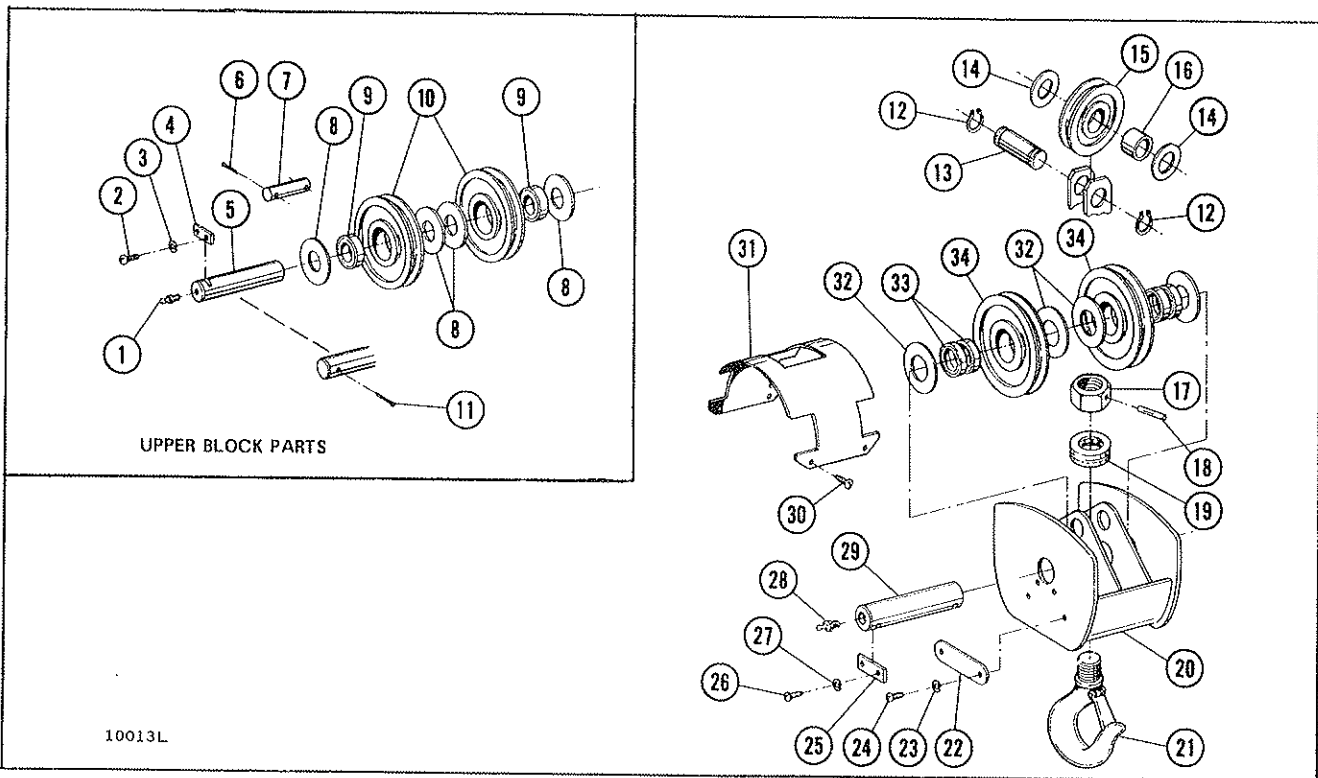


Figure 9-17. Upper and Lower Block Parts Including Hoist Rope.
(2 through 7½ ton low headroom hoists — 3PD reeved)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|---------------------------------------------------|--------------|--------------|
| | | | Size 2 Hoist | Size 3 Hoist |
| 1 | 700-1728 | Fitting — Grease | — | 2 |
| 2 | 700-1725 | Screw — Hex Head | — | 2 |
| 3 | 700-1726 | Lockwasher | — | 2 |
| 4 | 700-1727 | Key Plate | — | 1 |
| 5 | 700-1702 | Pin — Upper Sheave | 1 | 1 |
| 6 | 700-1729 | Pin — Cotter | 4 | 4 |
| 7 | 700-1730 | Pin — Rope Guide | 2 | 2 |
| 8 | 700-1731 | Spacer — Upper Sheave | — | 4 |
| 9 | 700-1703 | Bearing — Upper Sheave | 4 | 2 |
| 10 | 700-1704 | Sheave — Upper | 2 | 2 |
| 11 | 700-1701 | Pin — Cotter | 2 | — |
| | 700-1742 | Block Assembly (includes Ref. Nos. 12 through 34) | 1 | 1 |
| 12 | 700-1732 | Ring — Retaining, External | 2 | 2 |
| 13 | 700-1708 | Pin — Idler Sheave | 1 | 1 |
| 14 | 700-1733 | Spacer — Idler Sheave | — | 2 |
| 15 | 700-1706 | Sheave — Idler | 1 | 1 |
| 16 | 700-1707 | Bearing — Idler Sheave | 1 | 1 |
| 17 | * | Nut — Hook | 1 | 1 |
| 18 | 700-1722 | Pin — Drive | 1 | 1 |
| 19 | 700-1718 | Bearing — Thrust | 1 | 1 |
| 20 | 700-1746 | Body Assembly — Lower Block | 1 | 1 |
| 21 | 700-1716 | Hook Assembly (includes nut and hook latch) | 1 | 1 |
| 22 | 700-1720 | Plate — Capacity | 2 | 1 |
| 23 | 700-1734 | Lockwasher | 4 | 2 |
| 24 | 700-1721 | Screw — Round Head, Self-tapping | 4 | 2 |
| 25 | 700-1737 | Key Plate | 2 | 1 |
| 26 | 700-1735 | Screw — Round Head, Machine | 4 | — |
| | 700-1736 | Screw — Hex Head Cap | — | 2 |
| 27 | 700-1738 | Lockwasher | 4 | 2 |
| 28 | 700-1739 | Fitting — Grease | — | 2 |
| 29 | 700-1719 | Pin — Lower Sheave | 1 | 1 |
| 30 | 700-1740 | Screw — Round Head, Self-tapping | 4 | 4 |

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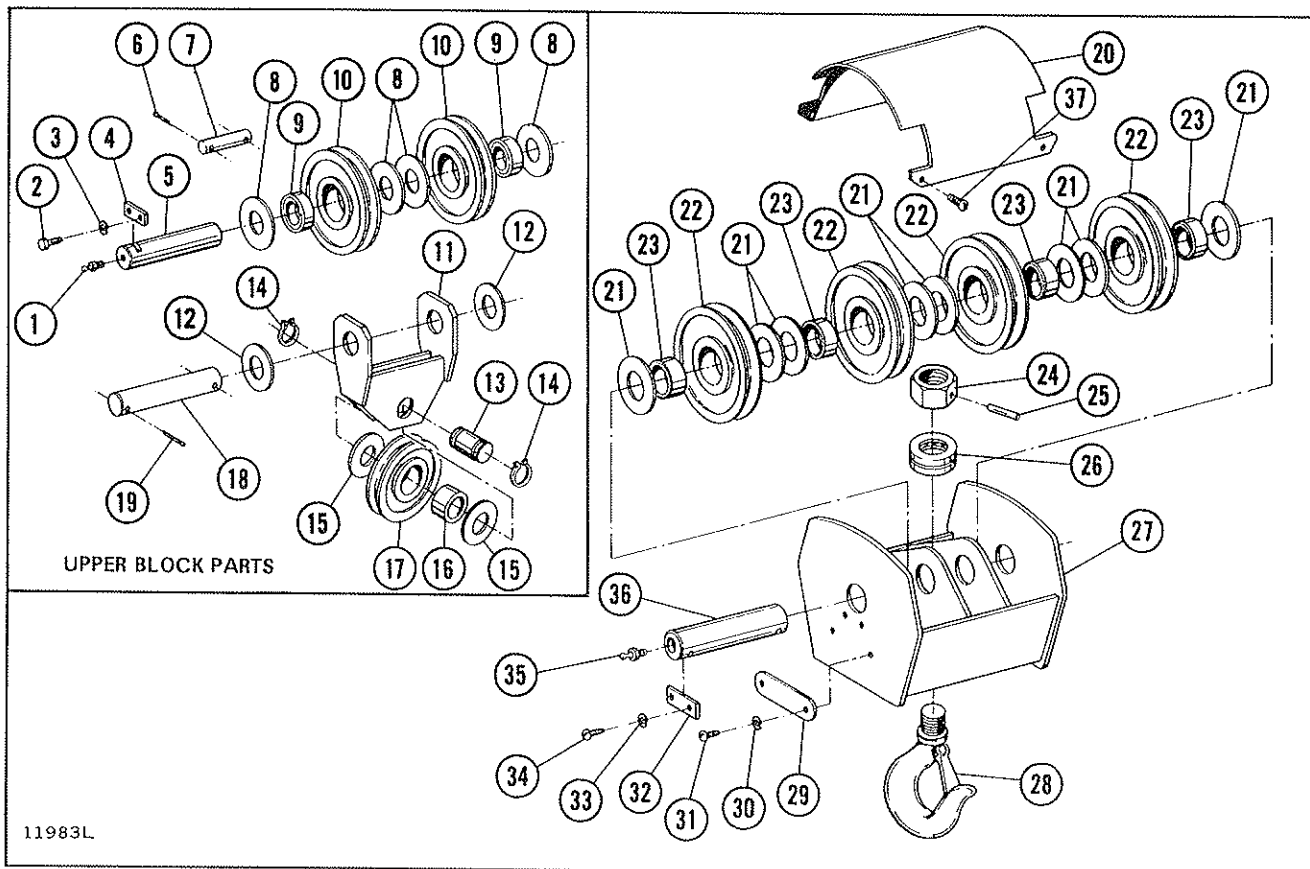


Figure 9-18. Upper and Lower Block Parts Including Hoist Rope.
(10 ton low headroom hoists)

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|---------------------------------------------------------|--------------|
| 1 | 700-1801 | Fitting — Grease | 2 |
| 2 | 700-1802 | Screw — Hex Head Cap | 2 |
| 3 | 700-1803 | Lockwasher | 2 |
| 4 | 700-1804 | Key Plate | 1 |
| 5 | 700-1805 | Pin — Upper Sheave | 1 |
| 6 | 700-1906 | Pin — Cotter | 4 |
| 7 | 700-1807 | Pin — Rope Guide | 2 |
| 8 | 700-1808 | Spacer — Upper Sheave | 4 |
| 9 | 700-1909 | Bearing — Upper Sheave | 2 |
| 10 | 700-1810 | Sheave — Upper | 2 |
| 11 | 700-1811 | Yoke Assembly — Equalizer | 1 |
| 12 | 700-1812 | Spacer — Equalizer Yoke Pin | 2 |
| 13 | 700-1813 | Pin — Equalizer Sheave | 1 |
| 14 | 700-1814 | Ring — Retaining | 2 |
| 15 | 700-1815 | Spacer — Equalizer Sheave | 2 |
| 16 | 700-1816 | Bearing — Equalizer Sheave | 1 |
| 17 | 700-1817 | Sheave — Equalizer Yoke | 1 |
| 18 | 700-1818 | Pin — Equalizer Yoke | 1 |
| 19 | 700-1819 | Pin — Cotter | 2 |
| 20 | 700-1820 | Lower Block Assembly (includes Ref. Nos. 20 through 37) | 1 |
| 21 | 700-1821 | Guard — Sheave | 1 |
| 22 | 700-1822 | Spacer — Lower Sheave | 6 |
| 23 | 700-1823 | Sheave — Lower | 4 |
| 24 | 700-1824 | Bearing — Lower Sheave | 4 |
| 25 | * | Nut — Hook | 1 |
| 26 | 700-1825 | Pin — Drive | 1 |
| 27 | 700-1826 | Bearing — Thrust | 1 |
| 28 | 700-1827 | Body Assembly — Lower Block | 1 |
| 29 | 700-1828 | Hook Assembly (includes nut and hook latch) | 1 |
| 30 | 700-1829 | Plate — Capacity | 1 |

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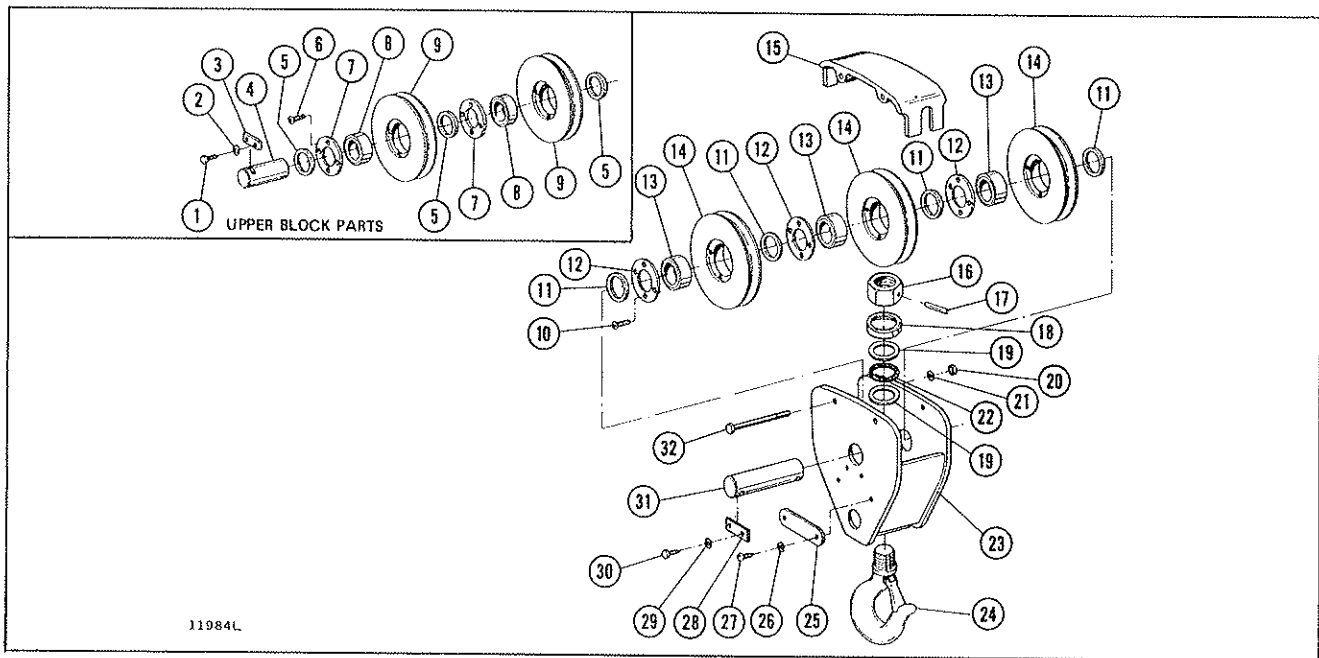


Figure 9-19. Upper and Lower Block Parts Including Hoist Rope.
(7½ ton standard headroom hoist)

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|---------------------------------------------------------|--------------|
| 1 | 700-1910 | Screw — Hex Head Cap | 2 |
| 2 | 700-1902 | Lockwasher | 2 |
| 3 | 700-1903 | Key Plate | 1 |
| 4 | 700-1904 | Pin — Upper Sheave | 1 |
| 5 | 700-1905 | Spacer — Upper Sheave | 3 |
| 6 | 700-1906 | Screw — Flat Head Socket, Self-locking | 8 |
| 7 | 700-1907 | Plate — Retainer, Bearing | 2 |
| 8 | 700-1908 | Bearing — Upper Sheave | 2 |
| 9 | 700-1909 | Sheave | 2 |
| | 700-1910 | Lower Block Assembly (includes Ref. Nos. 10 through 32) | 1 |
| 10 | 700-1911 | Screw — Flat Head Socket, Self-locking | 12 |
| 11 | 700-1912 | Spacer — Lower Sheave | 4 |
| 12 | 700-1913 | Plate — Retaining Bearing | 3 |
| 13 | 700-1914 | Bearing — Lower Sheave | 3 |
| 14 | 700-1915 | Sheave — Lower | 3 |
| 15 | 700-1916 | Guard — Sheave | 1 |
| 16 | * | Nut — Hook | 1 |
| 17 | 700-1917 | Pin — Drive | 1 |
| 18 | 700-1918 | Shield — Bearing | 1 |
| 19 | 700-1919 | Washer — Thrust | 2 |
| 20 | 700-1920 | Nut — Hex | 2 |
| 21 | 700-1921 | Lockwasher | 2 |
| 22 | 700-1922 | Bearing — Thrust | 1 |
| 23 | 700-1923 | Body Assembly — Lower Block | 1 |
| 24 | 700-1924 | Hook Assembly (includes nut and hook latch) | 1 |
| 25 | 700-1925 | Plate — Capacity | 2 |
| 26 | 700-1926 | Lockwasher | 4 |
| 27 | 700-1927 | Screw — Round Head, Self-tapping | 4 |
| 28 | 700-1928 | ***Key Plate | 2 |
| 29 | 700-1929 | ***Lockwasher | 4 |
| 30 | 700-1930 | ***Screw — Hex Head Cap | 4 |
| 31 | 700-1931 | ***Pin — Lower Sheave | 1 |
| 32 | 700-1932 | Bolt — Hex Head | 2 |
| 33 † | 700-1933 | **Rope Assembly — Wire (not shown) | 1 |

* Hook nuts are not interchangeable; available only with hook as an assembly.

** CAUTION: Only factory approved wire rope assembly of proper length, having swaged fitting at each end, should be used for replacement. Do not use substitutes.

*** Later model hoists use pin (700-1935) with two retaining rings (700-1934).

† Recommended spares.

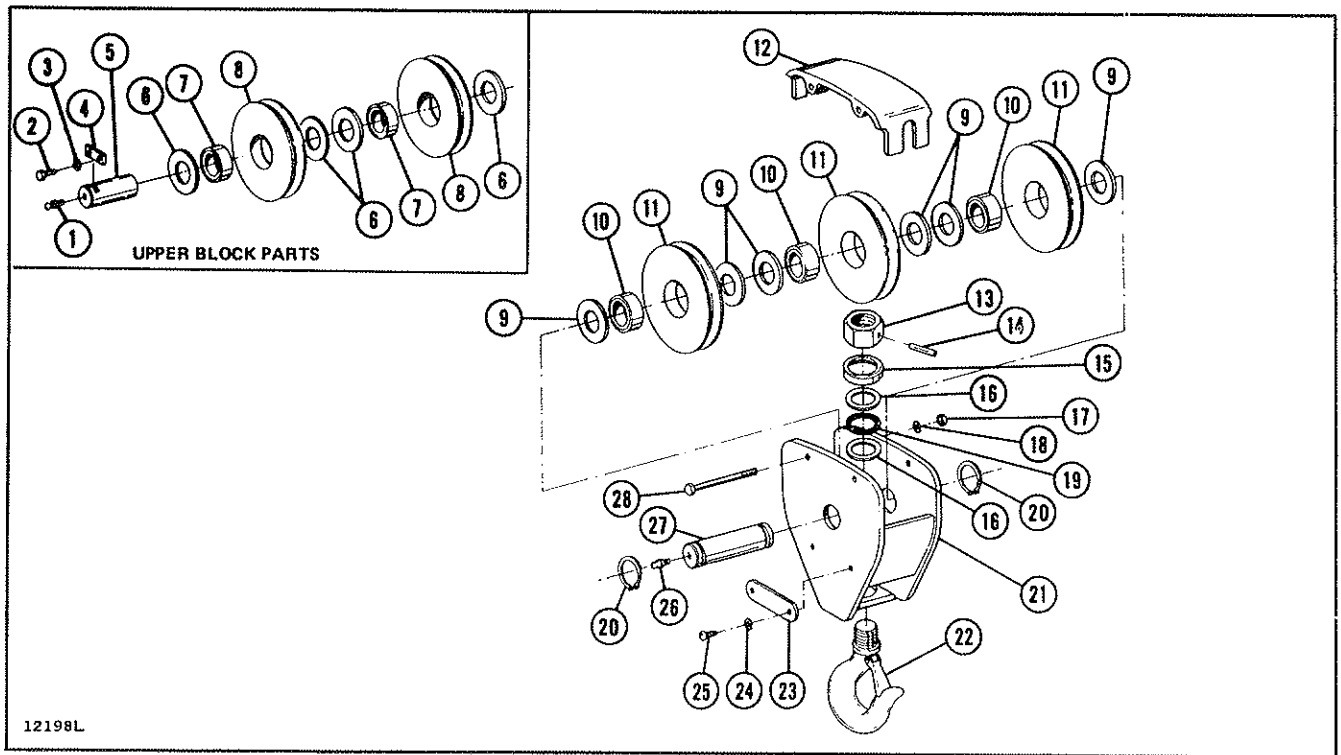


Figure 9-20. Upper and Lower Block Parts Including Hoist Rope.
(10 ton size 2 standard headroom hoist)

| Ref. No. | Part Number | Description | Quan. Req'd. |
|----------|-------------|---------------------------------------------------------------|--------------|
| 1 | 700-2001 | Fitting — Grease | 1 |
| 2 | 700-2002 | Screw — Hex Head Cap | 2 |
| 3 | 700-2003 | Lockwasher | 2 |
| 4 | 700-2004 | Key Plate | 1 |
| 5 | 700-2005 | Pin — Upper Sheave | 1 |
| 6 | 700-2006 | Washer — Spacer, Upper Sheave | 4 |
| 7 | 700-2007 | Bearing — Upper Sheave | 2 |
| 8 | 700-2008 | Sheave — Upper | 2 |
| | 700-2000 | Block Assembly — Lower (includes Ref. Nos. 9 through 28) | 1 |
| 9 | 700-2009 | Washer — Spacer, Lower Sheave | 6 |
| 10 | 700-2010 | Bearing — Lower Sheave | 3 |
| 11 | 700-2011 | Sheave — Lower | 3 |
| 12 | 700-2012 | Guard — Lower Sheave | 1 |
| 13 | * | Nut — Hook | 1 |
| 14 | 700-2014 | Roll Pin — Hook Nut | 1 |
| 15 | 700-2015 | Shield — Thrust Bearing | 1 |
| 16 | 700-2016 | Washer — Thrust | 2 |
| 17 | 700-2017 | Nut — Hex (sheave guard) | 2 |
| 18 | 700-2018 | Lockwasher (sheave guard) | 2 |
| 19 | 700-2019 | Bearing — Thrust | 1 |
| 20 | 700-2020 | Retaining Ring — External (sheave pin) | 2 |
| 21 | 700-2021 | Body — Lower Block | 1 |
| 22 | 700-2022 | Hook Assembly (includes nut, roll pin, hook and safety latch) | 1 |
| 23 | 700-2023 | Plate — Capacity | 2 |
| 24 | 700-2024 | Lockwasher | 4 |
| 25 | 700-2025 | Screw — Round Head, Self-tapping | 4 |
| 26 | 700-2026 | Fitting — Grease | 1 |
| 27 | 700-2027 | Pin — Lower Sheave | 1 |
| 28 | 700-2028 | Bolt — Hex Head | 2 |
| 29 † | 700-2013 | **Rope Assembly — Wire (not shown) | 1 |

*Hook nuts are not interchangeable; available only with hook as an assembly.

**CAUTION: Only factory approved wire rope assembly of proper length, having swaged fitting on each end, should be used for replacement. Do not use substitutes.

†Recommended spare parts.

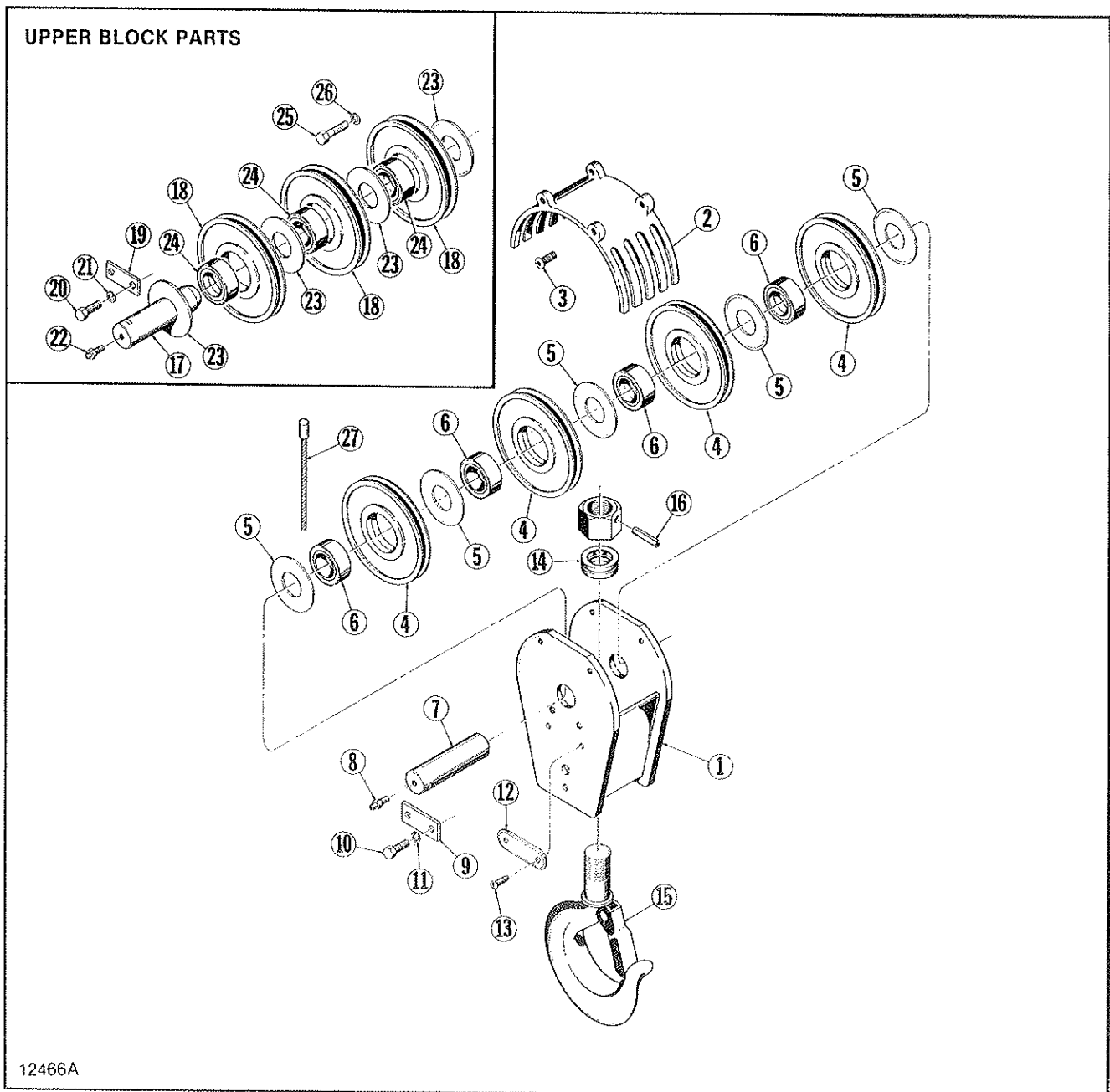


Figure 9-21. Upper and Lower Block Parts Including Hoist Rope.
(20 and 25 ton — single reeved standard headroom hoist with 1/2" and 9/16" rope)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|--------------------------------------------------------|--------------|------------|
| | | | For 20 Ton | For 25 Ton |
| | 700-2100 | Lower Block Assembly (includes Ref. Nos. 1 through 16) | 1 | — |
| | 700-2101 | Lower Block Assembly (includes Ref. Nos. 1 through 16) | — | 1 |
| 1 | 700-2102 | Body — Lower Block | 1 | 1 |
| 2 | 700-2103 | Guard — Sheave | 1 | 1 |
| 3 | 700-2104 | Cap Screw — Hex Socket Head | 4 | 4 |
| 4 | 700-2105 | Sheave — Lower | 4 | — |
| | 700-2106 | Sheave — Lower | — | 4 |
| 5 | 700-2107 | Spacer — Lower Sheave | 5 | 5 |
| 6 | 700-2108 | Bearing — Lower Sheave | 4 | 4 |
| 7 | 700-2109 | Pin — Lower Sheave | 1 | 1 |
| 8 | 700-2110 | Fitting — Grease | 2 | 2 |
| 9 | 700-2111 | Key Plate | 1 | 1 |
| 10 | 700-2112 | Screw — Hex Head Cap | 2 | 2 |

(Continued on following page)

Figure 9-21. Upper and Lower Block Parts Including Hoist Rope. (Continued)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|--------------------------------------------------------|--------------|------------|
| | | | For 20 Ton | For 25 Ton |
| 11 | 700-2113 | Lockwasher | 2 | 2 |
| 12 | 700-2114 | Plate — Capacity | 2 | — |
| | 700-2115 | Plate — Capacity | — | 2 |
| 13 | 700-2116 | Screw — Round Head, Self-tapping | 4 | 4 |
| 14 | 700-2117 | Bearing — Thrust | 1 | 1 |
| 15 | 700-2118 | Hook Assembly (includes hook, nut, roll pin and latch) | 1 | 1 |
| 16 | 700-2119 | Pin — Drive | 1 | 1 |
| 17 | 700-2120 | Pin — Upper Sheave | 1 | 1 |
| 18 | 700-2105 | Sheave — Upper | 1 | — |
| | 700-2106 | Sheave — Upper | — | 1 |
| 19 | 700-2111 | Key Plate | 1 | 1 |
| 20 | 700-2112 | Screw — Hex Head Cap | 2 | 2 |
| 21 | 700-2113 | Lockwasher | 2 | 2 |
| 22 | 700-2110 | Fitting — Grease | 1 | 1 |
| 23 | 700-2107 | Spacer — Upper Sheave | 4 | 4 |
| 24 | 700-2108 | Bearing — Upper Sheave | 3 | 3 |
| 25 | 700-2121 | Bolt — Hex Head (for rope guide) | 2 | 2 |
| 26 | 700-2113 | Lockwasher | 2 | 2 |
| 27 † | | *Rope Assembly — Wire | | |
| | 700-2122 | 20' Lift | 1 | — |
| | 700-2123 | 27' Lift | 1 | — |
| | 700-2124 | 34' Lift | 1 | — |
| | 700-2125 | 17'-6" Lift | — | 1 |
| | 700-2126 | 24' Lift | — | 1 |
| | 700-2127 | 30' Lift | — | 1 |

*CAUTION: Only factory approved wire rope assembly of proper length, having swaged fitting on each end, should be used for replacement. Do not use substitutes.

†Recommended spare parts.

NOTE: Hook nuts are not interchangeable; available only with hook as an assembly.

NOTES

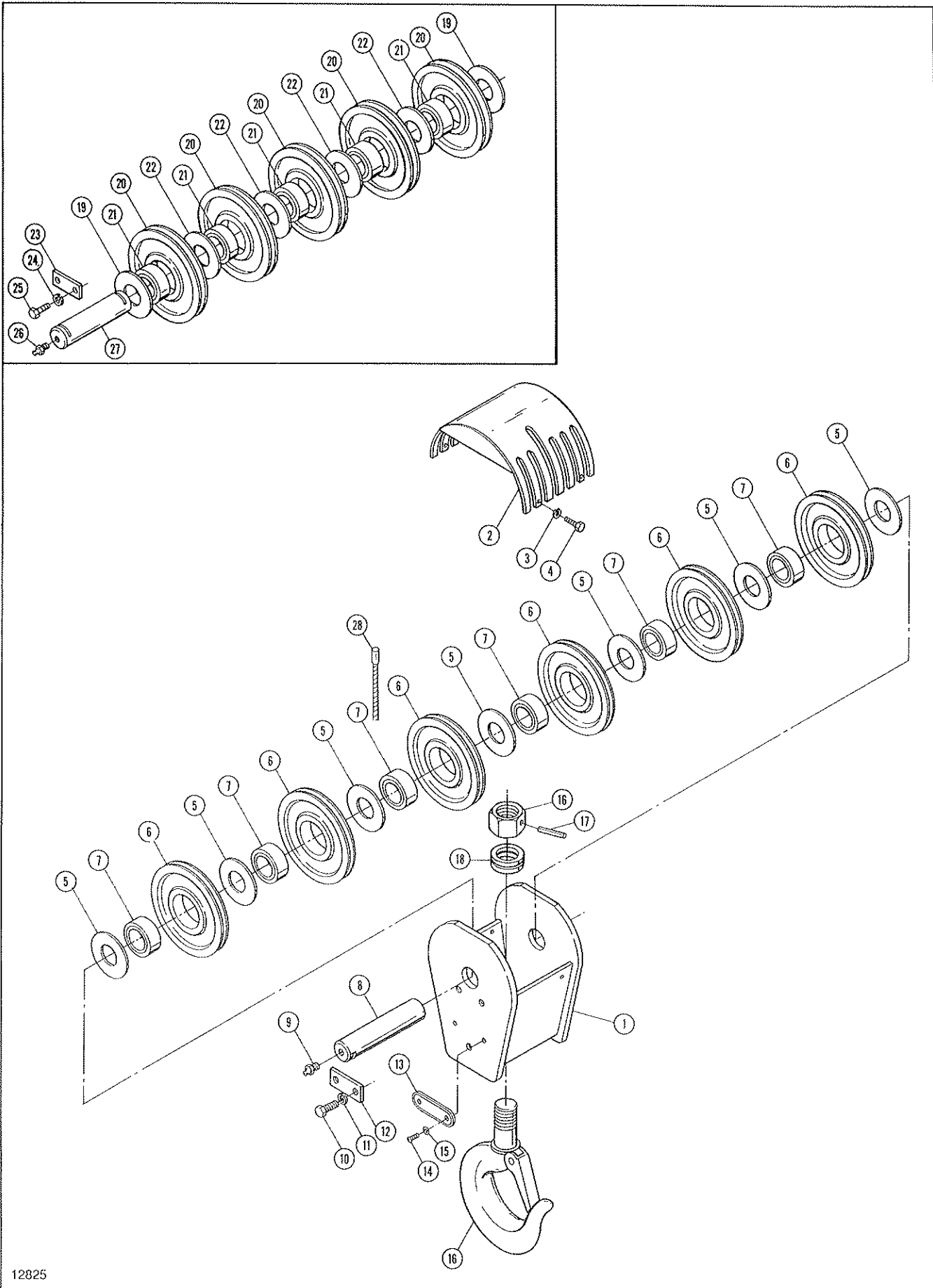


Figure 9-22. Upper and Lower Block Parts Including Hoist Rope.
 (15 and 20 ton — double reeved hoist with 7/16" rope)

Figure 9-22. Upper and Lower Block Parts Including Hoist Rope. (Continued)

| Ref. No. | Part Number | Description | Quan. Req'd. | |
|----------|-------------|------------------------------------------------------|--------------|------------|
| | | | For 15 Ton | For 20 Ton |
| | 700-2200 | Lower Block Assembly (includes Ref. Nos. 1 thru 18) | 1 | — |
| | 700-2201 | Lower Block Assembly (includes Ref. Nos. 1 thru 18) | — | 1 |
| 1 | 700-2202 | Body — Lower Block | 1 | — |
| | 700-2203 | Body — Lower Block | — | 1 |
| 2 | 700-2204 | Guard — Sheave | 1 | 1 |
| 3 | 700-2205 | Lockwasher | 4 | 4 |
| 4 | 700-2206 | Bolt — Hex Head | 4 | 4 |
| 5 | 700-2207 | Spacer | 7 | 7 |
| 6 | 700-2208 | Sheave | 6 | 6 |
| 7 | 700-2209 | Bearing | 6 | 6 |
| 8 | 700-2210 | Pin — Sheave | 1 | 1 |
| 9 | 700-2211 | Fitting — Grease | 2 | 2 |
| 10 | 700-2212 | Bolt — Hex Head | 2 | 2 |
| 11 | 700-2213 | Lockwasher | 2 | 2 |
| 12 | 700-2214 | Key Plate | 1 | 1 |
| 13 | 700-2215 | Plate — Capacity | 1 | — |
| | 700-2216 | Plate — Capacity | — | 1 |
| 14 | 700-2217 | Machine Screw — Round Head | 2 | 2 |
| 15 | 700-2218 | Lockwasher | 2 | 2 |
| 16 | 700-2219 | Hook Assembly (includes hook, nut, roll pin & latch) | 1 | — |
| | 700-2220 | Hook Assembly (includes hook, nut, roll pin & latch) | — | 1 |
| 17 | 700-2221 | Roll Pin | 1 | — |
| | 700-2222 | Roll Pin | — | 1 |
| 18 | 700-2223 | Bearing — Thrust | 1 | — |
| | 700-2224 | Bearing — Thrust | — | 1 |
| 19 | 700-2225 | Spacer | 2 | 2 |
| 20 | 700-2226 | Sheave | 5 | 5 |
| 21 | 700-2227 | Bearing | 5 | 5 |
| 22 | 700-2228 | Spacer | 4 | 4 |
| 23 | 700-2229 | Key Plate | 2 | 2 |
| 24 | 700-2230 | Lockwasher | 4 | 4 |
| 25 | 700-2231 | Bolt — Hex Head | 4 | 4 |
| 26 | 700-2232 | Fitting — Grease | 1 | 1 |
| 27 | 700-2233 | Pin — Sheave | 1 | 1 |
| 28† | | *Rope Assembly — Wire | | |
| | 700-2234 | 16' Lift | 1 | — |
| | 700-2235 | 26' Lift | 1 | — |
| | 700-2236 | 36' Lift | 1 | — |
| | 700-2237 | 56' Lift | 1 | — |
| | 700-2238 | 20' Lift | — | 1 |
| | 700-2239 | 27' Lift | — | 1 |

*CAUTION: Only factory approved wire rope assembly of proper length, having swaged fitting on each end, should be used for replacement. Do not use substitutes.

†Recommended spare parts.

NOTE: Hook nuts are not interchangeable; available only with hook as an assembly.

NOTES

RECOMMENDED SPARE PARTS FOR YOUR CM APOLLO™ HOIST

Certain parts of your hoist will, in time, require replacement under normal wear conditions. It is suggested that the following parts be purchased for your hoist as spares for future use.

- One set of load brake friction washers
- One set of motor brake washer and lining assemblies
- One set of motor brake plates
- One set of motor brake release springs
- One motor brake actuator spring
- One brake controller
- One set of contact kits for contactors
- One set of contactor coils
- One transformer
- One wire rope assembly

Note: When ordering parts, always furnish hoist serial number, catalog number, motor horsepower, voltage, phase, frequency and related load of hoist on which the parts are to be used.

Parts for your hoist are available from your local authorized CM Apollo repair station.

CM HOIST PARTS AND SERVICE ARE AVAILABLE IN THE UNITED STATES

As a CM Hoist user, you are assured of reliable repair and parts service through a network of Master Parts Depots and Service Centers that are strategically located in the United States. These facilities have been selected on the basis of their demonstrated ability to handle all parts and repair requirements promptly and efficiently.

Below is a list of the Master Parts Depots in the United States. To quickly obtain the name of the U.S. Service Center located nearest you call (800) 888-0985 (Fax: (716) 689-5644).

GEORGIA
ACE INDUSTRIES, INC.
6295 McDonough Drive
Norcross, Georgia 30093
(404) 441-0898
Fax (404) 441-0326

PENNSYLVANIA
RAM MOTORS & CONTROLS, INC.
Box 39, RD #1
Morganlown Road
Reading, Pennsylvania 19607
(215) 376-7102
Fax (215) 375-8667

LIMITATION OF WARRANTIES, REMEDIES AND DAMAGES
THE WARRANTY STATED BELOW IS GIVEN IN PLACE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, NO PROMISE OR AFFIRMATION OF FACT MADE BY ANY AGENT OR REPRESENTATIVE OF SELLER SHALL CONSTITUTE A WARRANTY BY SELLER OR GIVE RISE TO ANY LIABILITY OR OBLIGATION.

Seller warrants that on the date of its delivery to carrier the goods are free from defects in workmanship and materials.

SELLER'S SOLE OBLIGATION IN THE EVENT OF BREACH OF WARRANTY OR CONTRACT OR FOR NEGLIGENCE OR OTHERWISE WITH RESPECT TO GOODS SOLD SHALL BE EXCLUSIVELY LIMITED TO REPAIR OR REPLACEMENT, F.O.B. SELLER'S POINT OF SHIPMENT, OF ANY PARTS WHICH SELLER DETERMINES TO HAVE BEEN DEFECTIVE or if Seller determines that such repair or replacement is not feasible, to a refund of the purchase price upon return of the goods to Seller.

Any action against Seller for breach of warranty, negligence or otherwise, must be commenced within one year after such cause of action accrues.

NO CLAIM AGAINST SELLER FOR ANY DEFECT IN THE GOODS SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE YEAR FROM THE DATE OF SHIPMENT.

Seller shall not be liable for any damage, injury or loss arising out of the use of the goods if, prior to such damage, injury or loss, such goods are (1) damaged

or misused following Seller's delivery to carrier; (2) not maintained, inspected, or used in compliance with applicable law and Seller's written instructions and recommendations; or (3) installed, repaired, altered or modified without compliance with such law, instructions or recommendations.

UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES AS THOSE TERMS ARE DEFINED IN SECTION 2-715 OF THE UNIFORM COMMERCIAL CODE.

INDEMNIFICATION AND SAFE OPERATION

Buyer shall comply with and require its employees to comply with directions set forth in instructions and manuals furnished by Seller and shall use and require its employees to follow such instructions and manuals and to use reasonable care in the use and maintenance of the goods. Buyer shall not remove or permit anyone to remove any warning or instruction signs on the goods. In the event of personal injury or damage to property or business arising from the use of the goods, Buyer shall within 48 hours thereafter give Seller written notice of such injury or damage. Buyer shall cooperate with Seller in investigating any such injury or damage and in the defense of any claims arising therefrom.

If Buyer fails to comply with this section or if any injury or damage is caused, in whole or in part, by Buyer's failure to comply with applicable federal or state safety requirements, Buyer shall indemnify and hold Seller harmless against any claims, loss or expense for injury or damage arising from the use of the goods.



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