PARTS MANUAL

ELECTRIC E25-30-35XL E1.25-1.50-1.75XL

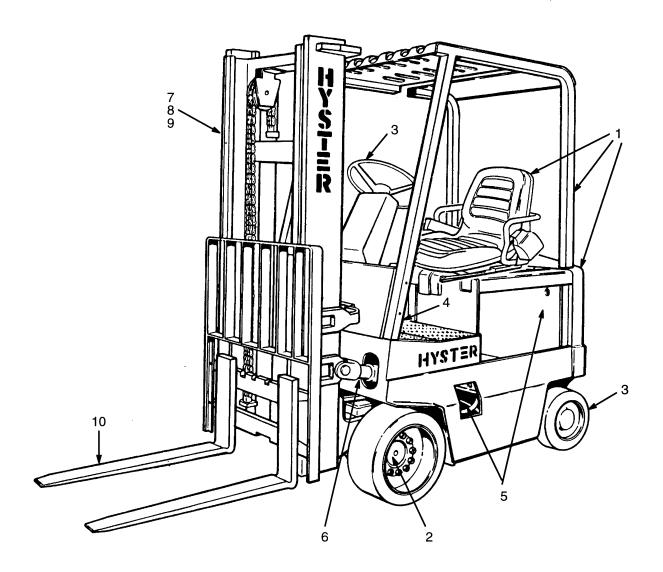
(C114)

CUSTOMER EDITION

HYSTER



INDEX-ILLUSTRATED



| REF | SECTION | PAGE |
|-----|----------------------------------|------|
| 1 | FRAME | 5 |
| 2 | DRIVE AXLE | |
| 3 | STEERING | |
| 4 | BRAKE | 45 |
| 5 | ELECTRICAL | 65 |
| 6 | HYDRAULIC | 119 |
| 7 | TWO STAGE LIMITED FREE LIFT MAST | 141 |
| 8 | THREE STAGE FULL FREE LIFT MAST | 151 |
| 9 | TWO STAGE FULL FREE LIFT MAST | 165 |
| 10 | OPTIONAL EQUIPMENT | 177 |
| 11 | NUMERICAL INDEX | 203 |



| DESCRIPTION | PAGE |
|--|----------|
| A | |
| ACCELERATOR PEDAL | Page 62 |
| ACCELERATOR | Page 60 |
| В | |
| BACKUP ALARM EV-100LX CONTROLLER | Page 200 |
| BATTERY CONNECTOR | Page 94 |
| BRAKE LINKAGE WITH TRACTION CONTROL SWITCH | Page 46 |
| BRAKE LINKAGE WITHOUT TRACTION CONTROL SWITCH | Page 48 |
| BRAKE | Page 52 |
| c | |
| CARRIAGE SIDE-SHIFT | Page 182 |
| CARRIAGE SIDE-SHIFT | Page 183 |
| CARRIAGE THREE STAGE FULL FREE LIFT | Page 164 |
| CARRIAGE TWO STAGE FULL FREE LIFT | Page 176 |
| CARRIAGE TWO STAGE LIMITED FREE LIFT | Page 149 |
| CONTACTOR (1A/PUMP) LAST USED ON S/N C114V-2693 STANDARD U.S. | Page 106 |
| CONTACTOR (1A/RB) FIRST USED ON S/N C114A-2671, C114V-2694 CONTACTOR HYDRAULIC SCR HYDRAULIC | Page 108 |
| CONTACTOR (1A/RB) LAST USED ON S/N C114A-2670, C114V-2693 PREMIUM | Page 104 |



| DESCRIPTION | PAGE |
|---|----------|
| C (Continued) | |
| CONTACTOR PANEL (EV100) FIRST USED ON S/N C114A-2671, C114V-2694 WITH REGENERATIVE BRAKING | Page 114 |
| CONTACTOR PANEL (EV100) FIRST USED ON S/N C114A-2671, C114V-2694 WITHOUT REGENERATIVE BRAKING | Page 111 |
| CONTACTOR PANEL (EV100LX) FIRST USED ON S/N C114A-3895, C114V-4470 WITH REGENERATIVE BRAKING | Page 116 |
| CONTACTOR PANEL (EV100LX) FIRST USED ON S/N C114A-3895, C114V-4470 WITHOUT REGENERATIVE BRAKING | Page 112 |
| CONTACTOR ON-DEMAND POWER STEERING | Page 118 |
| CONTROL PANEL FIRST USED ON S/N C114A–2671, C114V–2694 CONTACTOR HYDRAULIC WITHOUT REGENERATIVE BRAKING | Page 80 |
| CONTROL PANEL LAST USED ON C114A-2670, C114V-2693 PREMIUM U.S. | Page 72 |
| CONTROL PANEL LAST USED ON S/N C114A-2670, C114V-2693 NON U.S. STANDARD | Page 76 |
| CONTROL PANEL LAST USED ON S/N C114A-2670, C114V-2693 STANDARD U.S. | Page 70 |
| CONTROL PANEL LAST USED S/N C114A-2670, C114V-2693 NON U.S. PREMIUM | Page 77 |
| CONTROL VALVE THREE FUNCTION | Page 136 |

Thanks very much for your reading,

Want to get more information,

Please click here, Then get the complete
manual



NOTE:

If there is no response to click on the link above, please download the PDF document first, and then click on it.

Have any questions please write to me: admin@servicemanualperfect.com



| DESCRIPTION | PAGE |
|---|----------|
| C (Continued) | |
| CONTROL VALVE LINKAGE | Page 132 |
| CONTROL VALVE FOUR FUNCTION | Page 138 |
| CONTROL VALVE TWO FUNCTION | Page 134 |
| COUNTERWEIGHT | Page 17 |
| CYLINDER SIDE-SHIFT | Page 184 |
| CYLINDER SIDE-SHIFT | Page 185 |
| CYLINDER TWO STAGE LIMITED FREE LIFT | Page 148 |
| D DRIVE AXLE | Page 20 |
| | |
| E | |
| ELECTRICAL FIRST USED C114A–2671, C114V–2694 SCR HYDRAULIC | Page 82 |
| ELECTRICAL FIRST USED ON S/N C114A-2671, C114V-2694 CONTACTOR HYDRAULIC | Page 78 |
| ELECTRICAL LAST USED ON S/N C114A-2670, C114V-2693 NON U.S | Page 74 |
| ELECTRICAL LAST USED ON S/N C114A-2670, C114V-2693 U.S | Page 68 |
| F | |
| FIRE EXTINGUISHER | Page 196 |
| FLOOR PLATES AND COVERS | Page 8 |



| DESCRIPTION | PAGE |
|--|----------------------------|
| F (Co | ontinued) |
| FORK | Page 197 |
| FORWARD/REVERSE CONTACTOR FIRST USED ON S/N C114A-2671, C114\ CONTACTOR HYDRAULIC AND SCR HY | /-2694 DRAULIC Page 102 |
| FORWARD/REVERSE CONTACTOR LAST USED ON S/N C114A-2670 NON U.S | Page 101 |
| FORWARD/REVERSE CONTACTOR LAST USED ON S/N C114V-2693 STANDARD/PREMIUM U.S | Page 100 |
| FREE-LIFT CYLINDER | - |
| THREE STAGE FULL FREE LIFT | Page 163 |
| FREE-LIFT CYLINDER TWO STAGE FULL FREE LIFT | Page 175 |
| FREE-LIFT THREE STAGE FULL FREE LIFT | Page 160 |
| FREE-LIFT TWO STAGE FULL FREE LIFT | Page 172 |
| н | |
| HAND PUMP IDENTIFY BY PART NUMBER OPTIONAL | Page 33 |
| HAND PUMP IDENTIFY BY PART NUMBER | Page 32 |
| HEADER HOSES THREE STAGE FULL FREE LIFT | Page 188 |
| HEADER HOSES TWO STAGE FULL FREE LIFT | Page 190 |
| HEADER HOSES TWO STAGE LIMITED FREE LIFT | Page 186 |
| HOOD LIFT-OFF | Page 13 |



| DESCRIPTION | PAGE |
|--|----------|
| H (Continued) | |
| HOOD TRUCK MOUNTED | Page 12 |
| HYDRAULIC MOTOR 6.5 INCH MOTOR IDENTIFY BY PART NUMBER | Page 125 |
| HYDRAULIC MOTOR 6.5 INCH MOTOR OPTIONAL | Page 126 |
| HYDRAULIC MOTOR 7.5 INCH MOTOR IDENTIFY BY PART NUMBER | Page 127 |
| HYDRAULIC MOTOR 7.5 INCH MOTOR OPTIONAL | Page 128 |
| HYDRAULIC PUMP IDENTIFY BY PART NUMBER | Page 124 |
| HYDRAULIC TANK | Page 129 |
| HYDRAULIC | Page 120 |
| I | |
| INNER MAST THREE STAGE FULL FREE LIFT | Page 156 |
| INNER MAST TWO STAGE FULL FREE LIFT | Page 168 |
| INNER MAST TWO STAGE LIMITED FREE LIFT | Page 144 |
| INSTRUMENTS BATTERY GAUGE WITH LIFT INTERRUPT AND BWI | Page 91 |
| INSTRUMENTS L.E.D. DISPLAY | Page 93 |
| INSTRUMENTS PANEL ARRANGEMENT | Page 90 |



| DESCRIPTION | PAGE |
|---|----------|
| I (Continued) INSTRUMENTS | Page 92 |
| INTERMEDIATE MAST THREE STAGE FULL FREE LIFT | Page 154 |
| L | |
| LABELS AND PAINT | Page 6 |
| LIFT TWO STAGE LIMITED FREE LIFT | Page 146 |
| LIGHTS 36/48 VOLT LAST USED ON S/N C114V-1975 | Page 192 |
| LIGHTS FIRST USED ON S/N C114V–1976 | Page 194 |
| LOAD BACKREST EXTENSION | Page 18 |
| | |
| M MAIN CVI INDED | |
| MAIN CYLINDER THREE STAGE FULL FREE LIFT | Page 162 |
| MAIN CYLINDER TWO STAGE FULL FREE LIFT | Page 174 |
| MAIN LIFT TWO STAGE FULL FREE LIFT | Page 170 |
| MAIN LIFT THREE STAGE FULL FREE LIFT | Page 158 |
| MASTER CYLINDER | Page 50 |
| MOUNT PUMP AND MOTOR | Page 122 |
| 0 | |
| OUTER MAST THREE STAGE FULL FREE LIFT | Page 152 |



| DESCRIPTION | PAGE |
|---|----------|
| O (Continued) | |
| OUTER MAST TWO STAGE FULL FREE LIFT | Page 166 |
| OUTER MAST TWO STAGE LIMITED FREE LIFT | Page 142 |
| OVERHEAD GUARD GRID STYLE RAISED HEIGHT | Page 11 |
| OVERHEAD GUARD | Page 10 |
| P | |
| PARKING BRAKE LINKAGE SEAT ACTUATED | Page 56 |
| PARKING BRAKE LEVER ACTUATED | Page 54 |
| PARKING BRAKE SEAT ACTUATED | Page 58 |
| PUMP CONTACTOR FIRST USED ON S/N C114A-2671, C114V-2694 CONTACTOR HYDRAULIC | Page 110 |
| PUMP CONTACTOR LAST USED ON S/N C114A-2670 NON U.S | Page 109 |
| PUMP PANEL FIRST USED ON S/N C114A-2671, C114V-2694 SCR HYDRAULIC | Page 98 |
| PUMP PANEL LAST USED ON S/N C114V-2693 PREMIUM U.S. | Page 96 |
| PUMP PANEL LAST USED S/N C114A-2670 NON U.S. PREMIUM | Page 97 |



| DESCRIPTION | PAGE |
|--|----------|
| S | |
| SEAT AND ATTACHING PARTS | Page 14 |
| SEAT | Page 16 |
| STEERING AXLE | Page 42 |
| STEERING COLUMN | Page 28 |
| STEERING CYLINDER | Page 36 |
| STEERING LINES | Page 34 |
| STEERING MOTOR OPTIONAL USED ON S/N C114A-3778, C114V-4470 THRU S/N C114A-5022, C114V-7126 | Page 39 |
| STEERING MOTOR USED ON S/N C114A-5023, C114V-7127 ⇒ S/N PENDING PER ECN 72365 | Page 40 |
| STEERING MOTOR WITHOUT BRUSH WEAR INDICATOR FIRST USED ON S/N PENDING PER ECN 72365 | Page 41 |
| STEERING MOTOR | Page 38 |
| STEERING PUMP | Page 37 |
| STROBE LIGHT MEDIUM INTENSITY | Page 198 |
| Т | |
| TILT CYLINDER | Page 130 |
| TIRE AND WHEEL CUSHION DRIVE | Page 178 |
| TIRE AND WHEEL PNEUMATIC DRIVE | Page 181 |
| TIRE AND WHEEL PNEUMATIC STEERING | Page 180 |



| DESCRIPTION | PAGE |
|---|---------|
| T (Continued) | |
| TRACTION MOTOR NON U.S | Page 26 |
| TRACTION MOTOR WITH BWI CONNECTION U.S | Page 25 |
| TRACTION MOTOR WITHOUT BWI CONNECTION U.S. | Page 24 |
| TRACTION PANEL FIRST USED ON S/N C114A-2671, C114V-2694 SCR HYDRAULIC | Page 86 |
| TRACTION PANEL LAST USED S/N C114A-2670, C114V-2693 | Page 84 |
| TRACTION PANEL | Page 88 |
| TRANSMISSION AND DIFFERENTIAL | Page 22 |

HYSTER

NOTES

| | , | | | | |
|---|---|--|---|--|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | 1700 to 1 |
| | | | | 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| · · · · · · · · · · · · · · · · · · · | | | | W | |
| | | | | | |
| | | 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- | | THE STATE OF | |
| | | | | | |
| | | nese. | *************************************** | | *************************************** |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



ABBREVIATIONS QUICK REFERENCE SHEET

Listed Below Are Abbreviations Used In Parts Manuals To Denote The Following Expressions:

| 2-STG | Two Stage Mast | | |
|---------------|--|--|--|
| 3-STG | Three Stage Mast | | |
| 4–STG | Four Stage Mast | | |
| Amp | Amperes | | |
| AR | · | | |
| | As Required | | |
| BCS | Box Car Special | | |
| BWI | Brush Wear Indicator | | |
| CE | Commutator End | | |
| CRE | Corrosive Environment | | |
| dbA | Decibel "A" Scale | | |
| DE | Drive End | | |
| EC or ECH | Empty Container Handler Europe Empty Container Handler U.S. | | |
| EC-3 ECH-3 | Empty Container Handler–3 High Stacking | | |
| EC-4 ECH-4 | Empty Container Handler–4 High Stacking | | |
| EC-5 ECH-5 | Empty Container Handler–5 High Stacking | | |
| EC-6 ECH-6 | Empty Container Handler–6 High Stacking | | |
| EC-7 ECH-7 | Empty Container Handler–7 High Stacking | | |
| ECM | Electronic Control Module | | |
| ECN | Engineering Change Notice | | |
| EEPROM | Electrically Erasable Programable Read Only Memory | | |
| EPROM | Electrically Programable Read Only Memory | | |
| FFL | Full Free Lift | | |
| FLT | Fork Lift Truck | | |
| FRE | Freezer Environment | | |
| in. | inches | | |
| LFL | Limited Free Lift | | |
| LPG | Liquid Petroleum Gas | | |
| MAP | Manifold Absolute Pressure | | |
| mm | millimeters | | |
| MSTS | Microprocessor Spark Timing System | | |

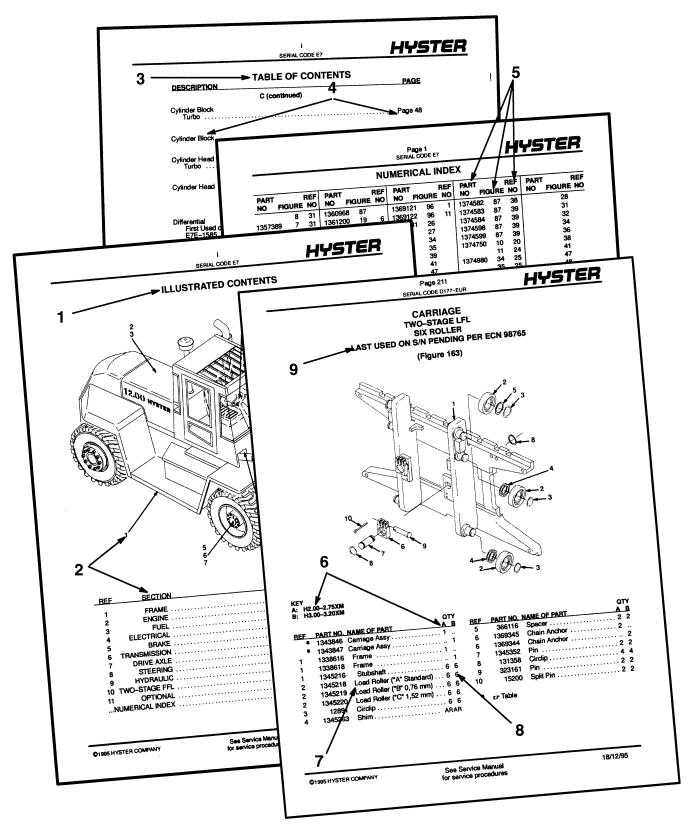
| NC | Normally Closed |
|----------|---|
| NDE | Not Drive End (Commutator End) |
| NFL | No Free Lift |
| NI | Not Illustrated |
| NO | Normally Open |
| NPT | National Pipe Threads |
| NS | Neutral Start |
| O/S | Oversize |
| ОС | Oil Clutch Transmission |
| PS | Powershift Transmission |
| PTO | Power Take Off |
| RPM | Revolutions per Minute |
| S/N | Serial Number |
| SFL | Semi-Free Lift |
| ТММ | Truck Management Module |
| Type D | UL Type D, Diesel–Powered Safety Rating |
| Type DS | UL Type DS, Diesel–Powered Safety Rating |
| Type E | UL Type E, Battery Powered Safety Rating |
| Type EE | UL Type EE, Battery–Powered Safety Rating |
| Type ES | UL Type ES, Battery–Powered Safety Rating |
| Type G | UL Type G, Gasoline-Powered Safety Rating |
| Type GS | UL Type GS, Gasoline–Powered Safety Rating |
| Type LP | UL Type LP, LP Gas-Powered Safety Rating |
| Type LPS | UL Type LPS, LP Gas-Powered Safety Rating |
| U/S | Undersize |
| UL | Underwriters Laboratory |
| UK | United Kingdom |
| U.S. | United States |
| V | Volts |
| Xmsn | Transmission |



HOW TO USE THE ILLUSTRATED PARTS MANUAL

This parts manual describes and illustrates assemblies, subassemblies, and detail parts needed for service replacement.

The different constructions are indicated by keys, symbols and footnotes.





HOW TO FIND THE DESIRED PART NUMBER

WHEN THE PART NUMBER AND THE NEXT HIGHER ASSEMBLY IS NOT KNOWN:

- Determine the function and application of the part required. Turn to the illustrated index page immediately behind the front cover. Choose the general area of reference most likely to include the part.
- Find the page number for the reference number you choose and turn to that page. Use the division index to determine the assembly which would normally contain the part required. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS NOT KNOWN AND THE NEXT HIGHER ASSEMBLY IS KNOWN:

- Determine the assembly the required part is used on.
 Turn to the Master Index immediately following the Illustrated Index.
- 4. Locate the assembly the required part is used on and turn to the page indicated for that assembly. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS KNOWN:

5. Use the numerical index at the back of the manual to find the part number. Turn to the figure listed and locate the part as indicated by the reference number.

GENERAL:

The assembly breakdowns include part numbers, description, quantities required, keys and footnotes to help in selecting the correct parts.

- 6. Keys are used to show effective serial numbers for two or more similar assemblies, RH and LH assembly parts, etc. Select the appropriate key, "A", "B", "C" or "D" and the corresponding quantity. column to find the required parts.
- 7. Indented descriptions under "Name of Part" are used to indicate assemblies and sub–parts of assemblies. In the example, LOAD ROLLER (Item 2) is a subpart of the major assembly CARRIAGE.
- Quantities shown are for one assembly. The quantities of the subpart LOAD ROLLER are indicated as six and six. This means six per CARRIAGE assembly.
- Engineering change notice (ECN) numbers for pending serial numbers are shown to allow for the inclusion of the most current parts information.
 Contact your local dealer for Hyster lift trucks for serial number information listed by ECN number.
- 10. Additional fork lengths are available. Contact your dealer for Hyster lift trucks.

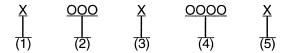
ORDERING PARTS:

When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

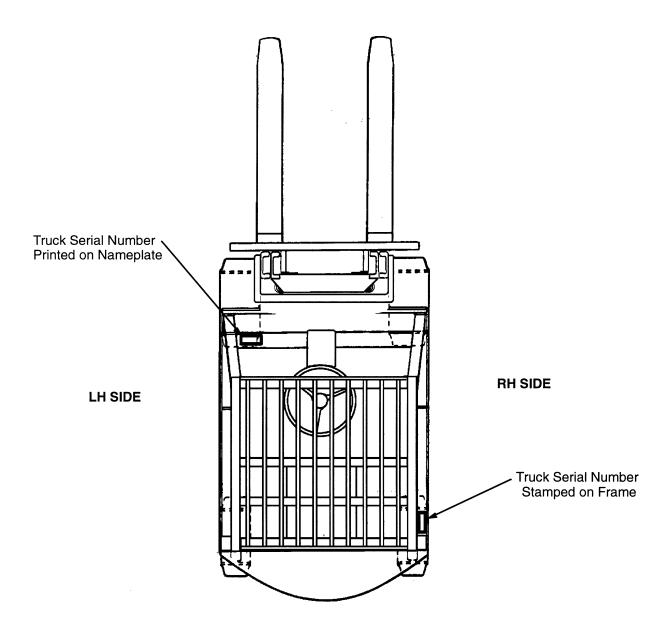


IDENTIFICATION OF TRUCK SERIAL NUMBERS



- (1) & (2) The first letter and three numbers indicate the truck model code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number series indicates the serial number of the truck.
- (5) The final letter indicates the year of manufacture starting with "A" in 1957 and 1980. The letters "I", "O", and "Q" will not be used.

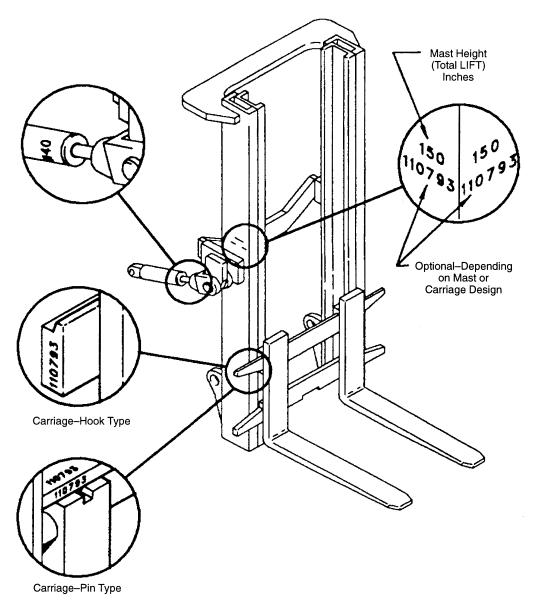
For pending serial numbers contact your local dealer for Hyster lift trucks.



Parts referred to in this book as right or left hand parts are in accordance with the illustration above.



IDENTIFICATION OF MAST SERIAL NUMBERS



LIFT EQUIPMENT IDENTIFICATION

- 1. Mast group numbers and total lift heights are stamped on the right hand outer mast approximately four feet from the bottom of the load arm. The group numbers include the inner and outer masts, lift cylinder, lift chain and bleeder hoses or pipes.
- 2. The carriage and tilt cylinder numbers are located as shown. Lift cylinder numbers are stamped on the cylinder shell near the bleeder screw or on the chain anchor. Load arm part number, capacity rating, plant code letter and date of manufacture are stamped approximately six inches below the top RH side of load arms. Always refer to these group and part numbers when ordering service parts.



RECOMMENDED SPARE PARTS LIST (Figure 1)

| Part Number | Description | Figure | Ref No. |
|-------------------------|--------------------|--------|---------|
| TDACTION MOTO | ND | | |
| TRACTION MOTO 364591 | Brush | 15 | 19 |
| 371967 | Brush | 17 | 18 |
| 374531 | Brush | 15 | 19 |
| 374531 | Brush | 16 | 18 |
| 384687 | Brush | 17 | 18 |
| STEERING MOTO | DR . | | |
| 286081 | Brush | 24 | 9 |
| 1309377 | Brush | 25 | 7 |
| 1309377 | Brush | 26 | 7 |
| HYDRAULIC MOT | | | |
| 360809 | Brush (Economy) | 73 | 3 |
| 1308831 | Brush (Economy) | 74 | 15 |
| 366090 | Brush (Premium) | 75 | 5 |
| 373448 | Brush (Premium) | 76 | 3 |
| HYDRAULIC | | | |
| 325980 | Filter | 77 | 10 |
| STEERING COLU | MN | | |
| 186304 | Key | 18 | 14 |
| CONTROL PANEL | _ | | |
| 325810 | Fuse (500 Amp) | 44 | 23 |
| 325809 | Fuse (325 Amp) | 44 | 14 |
| 355368 | Fuse (40 Amp) | 44 | 26 |
| CONTACTOR PAN | NEL | | |
| 314878 | Fuse (15 Amp) | 65 | 7 |
| 1335606 | Fuse (3 Amp) | 66 | 8 |
| DIRECTIONAL CO | ONTACTOR | | |
| 388245 | Connector | 59 | 4 |
| 388248 | Connector | 59 | 5 |
| 388237 | Connector | 59 | 8 |
| 388246 | Connector | 59 | 10 |
| 388247 | Connector | 59 | 11 |
| 388030 | Tip | 59 | 17 |
| CONTACTOR-RE | GENERATIVE BRAKING | | |
| 1300945 | Connector | 62 | 4 |
| 1300278 | Movable Tip | 62 | 11 |
| CONTACTOR-1A | | | |
| 388236 | Connector | 62 | 4 |
| 388239 | Movable Tip | 62 | 11 |
| CONTACTOR-PU | MP | | |
| 388236 | Connector | 64 | 4 |
| 388239 | Movable Tip | 64 | 11 |
| | | | |



PUBLICATIONS (Figure 2)

Every new lift truck is provided with at least three publications. These publications are the PARTS MANUAL, the OPERATING MANUAL, and the section of the SERVICE MANUAL called Periodic Maintenance.

The OPERATING MANUAL must always be available on every lift truck. This manual has information that the operator must know for inspection and operation of the lift truck. The section Periodic Mainte-

nance has a recommended schedule of service intervals and the procedures for servicing the lift truck.

These manuals, other publications and programs are available from your Dealer for Hyster Lift Trucks to help you operate and maintain your lift truck professionally. See the list that follows for reference to items for lift trucks in this PARTS MANUAL.

| Operating Manual | Part Number |
|-------------------------|-------------|
| English (Hyster Europe) | 897318 |
| English (Hyster U.S.) | 897320 |
| Spanish | 853578 |
| French | 853575 |
| German | 853577 |
| Dutch | 853580 |
| Danish | 853581 |
| Italian | 853582 |
| Portuguese | 853583 |

| Service Manual (Complete) | 897131 |
|---|--------|
| The Frame (100 SRM 284) | 897066 |
| DC Motor Maintenance (620 SRM 294) | 897076 |
| Drive Axle, Speed Reducer And Differential (1400 SRM 285) | 897067 |
| The Steering Control Unit (1600 SRM 257) | 910458 |
| The Steering Axle (1600 SRM 316) | 897097 |
| The Brake System (1800 SRM 315) | 897073 |
| The Hydraulic System (1900 SRM 286) | 897068 |
| The Main Control Valve (2000 SRM 77) | 899782 |
| The Tilt Cylinders (2100 SRM 103) | 910102 |
| EV-100 Motor Controller | |
| Description And Operation (2200 SRM 287) | 897069 |
| EV-100 Motor Controller | |
| Repairs And Adjustments (2200 SRM 288) | 897070 |
| EV-100 Motor Controller | |
| Troubleshooting (2200 SRM 312) | 897094 |
| EV-100/200 LX Series Diagnostic Motor Controller And Hand Set | |
| Description, Checks, Repairs, Adjustments | |
| And Troubleshooting (2200 SRM 460) | 897409 |
| The Industrial Battery (2240 SRM 1) | 899648 |
| Battery Indicators (2260 SRM 138) | 910114 |
| Vista Masts-Description (4000 SRM 222) | 899237 |
| Vista Masts-Repair (4000 SRM 223) | 910435 |
| Lift Cylinders (4000 SRM 135) | 910119 |
| Periodic Maintenance (8000 SRM 291) | 897001 |
| Capacities And Specifications (8000 SRM 561) | 897641 |