

PARTS MANUAL

CHALLENGER

**H40.00XM-H48.00XM-16CH,
H50.00XM-H52.00XM-16CH
(E117)**

CUSTOMER EDITION

HYSTER

SECTIONS

1	FRAME
2	ENGINES
3	FUEL SYSTEM
4	ELECTRICAL SYSTEM
5	TRANSMISSION
6	DRIVE AXLE
7	STEERING SYSTEM
8	BRAKE SYSTEM
9	HYDRAULIC SYSTEM
10	MAST WITH EMPTY CONTAINER HANDLER
11	CONTAINER HANDLER ATTACHMENT
12	ATTACHMENTS
13	OPTIONS
14	NUMERICAL INDEX

This Parts Manual is divided into 14 major sections which are listed above. Quick reference to these sections can be made by placing the right thumb on the tab of the desired section, bending the book back and thumbing the pages to the corresponding tab.

TABLE OF CONTENTS

DESCRIPTION	PAGE
A	
ACCUMULATOR	
PISTON TYPE	9-24
AIR CONDITIONING SYSTEM	1-38
AIR FILTER SYSTEM	2-8
AIR INLET CONNECTION	2-32
AIR OUTLET CONNECTION	2-34
AIR TRANSFER CONNECTION	2-36
ALARM	13-10
ALTERNATOR AND MOUNTING	4-24
ARMREST ASSEMBLY	
SEAT	1-36
ARMREST SWITCHES	4-19
AXLE HOUSING	
WET BRAKE	6-6
B	
BRAKE AND INCHING PEDAL LINKAGE	8-6
BRAKE ASSEMBLY	
DISC	
WET BRAKE	8-8
WET BRAKE	8-10
BRAKE SYSTEM	8-2
BRAKE VALVE ASSEMBLY	8-12
BREATHER PLUMBING	2-16
C	
CAB ATTACHING PARTS	1-12
CAB FLOORMATS	1-20
CAB MOUNT	1-10
CAB PANELS	1-26
CAB SOUND REDUCTION	1-22
CLUTCH	
FORWARD	
T36000 SERIES	5-12
FOURTH SPEED	
T36000 SERIES	5-18
LOW SPEED	
T36000 SERIES	5-14
REVERSE AND 2ND SHAFT	
T36000 SERIES	5-10
THIRD SPEED	
T36000 SERIES	5-16
CONDENSER	1-42
CONTROL PANEL	4-10
AIR CONDITIONER	4-14
HEATER	4-12
CONTROL VALVE	
ELECTRONIC INCHING	
T36000 SERIES	5-26
HYDRAULIC INCHING	

TABLE OF CONTENTS (Continued)

DESCRIPTION	PAGE
C (continued)	
T36000 SERIES	5-30
CONTROL VALVE ASSEMBLY	
AUXILIARY	9-12
CAP AND SUPPORT KIT	9-18
LIFT.....	9-14
LIFT AND TILT	9-16
CONVERTER HOUSING ATTACHMENT	
THREE SPEED	
T36000 SERIES	5-22
COOLANT HEATER STARTING AID	2-18
COOLING	2-10
CORROSION RESISTOR	2-68
COUNTERWEIGHT	1-7
FABRICATED	1-8
COVERS	1-2
D	
DC-DC CONVERTER AND ATTACHING PARTS.....	4-16
DEDICATED CARRIAGE	12-6
DIFFERENTIAL CARRIER	
WET BRAKE.....	6-2
DOOR ATTACHING PARTS	1-14
DRIVE PULLEY	
AIR COMPRESSOR.....	2-14
WATER PUMP	2-50
DRIVE TIRE AND WHEEL	
18.00 X 25.....	13-12
DRIVE TRAIN	
FRONT.....	2-22
E	
ELECTRICAL ACCESSORIES	2-74
ELECTRICAL SYSTEM.....	4-2
SERIES 813 AND 818	11-30
SERIES 818.....	11-32
ENGINE ASSEMBLY	2-2
ENGINE MOUNT.....	2-4
EXHAUST	2-6
EXHAUST MANIFOLD	2-60
EXTENSION CYLINDER AND ATTACHING PARTS	
SERIES 813 AND 818	11-20
F	
FAN.....	2-56
FAN DRIVE.....	2-28
FLOORPLATES, STEPS, AND RAILS	1-4
FLOW AMPLIFIER	9-26
FLYWHEEL.....	2-30
FRONT ENGINE SUPPORT	2-24

TABLE OF CONTENTS (Continued)

DESCRIPTION	PAGE
F (continued)	
FRONT, BRAKE/BACK-UP AND REAR WORK LIGHTS	13-2
FUEL FILTER PLUMBING.....	3-8
FUEL SYSTEM.....	3-2
FUSE BOX	
SEALED.....	4-37
FUSES AND RELAYS	4-26
G	
GANTRY CARRIAGE	
WITH MECHANICAL PILE SLOPE	12-8
WITH POWER PILE SLOPE	12-10
H	
HANDLEVER INSTALLATION.....	9-42
HANGER ASSEMBLY	
SERIES 818.....	11-2
HEADER HOSE	12-2
HEATER AND AIR CONDITIONER ASSEMBLY.....	1-46
HEATER AND AIR CONDITIONER MOUNT	1-44
HEATER ASSEMBLY	1-48
HEATER HOSE ARRANGEMENT	1-40
HORN AND ATTACHING PARTS	4-22
HUB AND SHAFT	
WET BRAKE.....	6-8
HYDRAULIC PUMP	
MAIN.....	9-28
STEERING	
DUAL.....	9-30
HYDRAULIC STOP ASSEMBLY	
SERIES 813 AND 818	11-6
HYDRAULIC SUPPLY AND RETURN	
SHEET 1 OF 2.....	9-2
SHEET 2 OF 2.....	9-6
HYDRAULIC SYSTEM	
SERIES 813.....	11-34
SERIES 818.....	11-36
HYDRAULIC TANK AND ATTACHING PARTS.....	9-20
HYDRAULIC VALVE AND ATTACHING PARTS	9-8
I	
INDICATOR DISPLAY ASSEMBLY.....	4-8
INTAKE MANIFOLD	2-58
J	
JOYSTICK INSTALLATION	9-38

TABLE OF CONTENTS (Continued)

DESCRIPTION	PAGE
L	
LABELS.....	1-56
LIFT ACCUMULATOR AND ATTACHING PARTS.....	9-22
LIFT CYLINDER.....	10-6
12650 MM (498.0 IN.) LIFT HEIGHT.....	10-8
LIFTING BRACKET.....	2-38
LIGHT BAR AND MOUNT CAB.....	4-20
M	
MAIN FRAME SERIES 813 AND 818.....	11-8
MANIFOLD CAB.....	9-32
LIFT AND TILT.....	9-34
MAIN.....	9-36
MAST ASSEMBLY.....	10-2
MAST INSTALLATION.....	9-48
N	
NOISE PANEL.....	2-3
O	
OIL COOLER WATER PLUMBING.....	2-70
OIL FILLER ARRANGEMENT.....	2-44
HAND COVER.....	2-46
OIL FILTER.....	2-42
OIL FILTER AND COOLER HEAD.....	2-40
OIL PAN.....	2-12
P	
PENDULAR TWIST LOCK SERIES 813 AND 818.....	11-12
PILOT VALVE ASSEMBLY JOYSTICK.....	9-40
PIVOT ARM ASSEMBLY.....	1-34
PUMP DRIVE AND SHAFT T36000 SERIES.....	5-20
R	
RADIATOR PLUMBING.....	2-52
RADIO CONSOLE.....	4-18
REGULATING PRESSURE VALVE AND CHARGE PUMP T36000 SERIES.....	5-6
ROTATING BEACON.....	13-6
S	
SEAT ASSEMBLY AIR.....	1-32
MECHANICAL.....	1-30
SIDE-SHIFT CYLINDER	

TABLE OF CONTENTS (Continued)

DESCRIPTION	PAGE
S (continued)	
SERIES 813 AND 818	11-15
SLEWING CYLINDER	
SERIES 813 AND 818	11-17
STAIR LIGHT	13-8
STARTER MOTOR	2-54
STEEL DOOR	
LEFT HAND	1-18
RIGHT HAND	1-16
STEER TIRE AND WHEEL	13-16
STEERING AXLE AND ATTACHING PARTS	7-6
STEERING AXLE ASSEMBLY	7-8
STEERING COLUMN AND ATTACHING PARTS	7-2
STEERING COLUMN ASSEMBLY	7-4
STEERING CONTROL VALVE	7-12
STEERING CYLINDER	7-10
STOP KIT ASSEMBLY	11-4
T	
THERMOSTAT	2-26
THERMOSTAT HOUSING	2-62
THROTTLE PEDAL LINKAGE	3-4
TILT CYLINDER	9-46
TILT CYLINDER AND ATTACHING PARTS	9-44
TIRES AND WHEELS	
DRIVE AND STEER	
18.00 X 33 X 36 PLY	13-14
TRAINING SEAT	1-28
TRANSMISSION	
T40000 SERIES	
CASE AND REAR COVER	5-32
ELECTRIC CONTROL VALVE	5-64
FIRST SPEED CLUTCH	5-54
FIRST SPEED GEARS	5-44
FORWARD CLUTCH SHAFT	5-46
FORWARD, REVERSE, SECOND AND FOURTH CLUTCH SHAFT	5-43
FOURTH SPEED CLUTCH SHAFT	5-56
INPUT DRIVE GEARS	5-42
MODULATOR VALVE	5-66
OUTPUT FLANGE AND SHAFT	5-60
OUTPUT SHAFT GEARS	5-58
PUMP DRIVE	5-38
REGULATING VALVE AND CHARGE PUMP	5-62
SECOND AND REVERSE CLUTCH SHAFT	5-52
THIRD SPEED CLUTCH SHAFT	5-48
THIRD SPEED GEARS	5-50
TORQUE CONVERTER AND DRIVE PLATE	5-34
TORQUE CONVERTER HOUSING	5-40
TURBINE SHAFT, STATOR SUPPORT AND OIL BAFFLE	5-36
TRANSMISSION CASE AND REAR COVER	

TABLE OF CONTENTS (Continued)

DESCRIPTION	PAGE
T (continued)	
T36000 SERIES.....	5-8
TRANSMISSION CONTROLLER AND SHIFT LEVER.....	4-6
TRANSMISSION LINES AND ATTACHING PARTS.....	5-2
TURBOCHARGER.....	2-48
TURBOCHARGER PLUMBING.....	2-64
U	
UNDERFLOOR COVER MOUNT.....	1-24
UNIVERSAL SHAFT.....	5-5
V	
VALVE	
EXTENSION CYLINDER	
SERIES 813 AND 818.....	11-23
VALVE ASSEMBLY	
SERIES 813.....	11-26
SERIES 813 AND 818.....	11-28
VALVE COVER.....	2-66
VIBRATION DAMPER.....	2-20
W	
WATER PUMP.....	2-72
WATER SEPERATOR.....	3-6
WEAR PADS	
SERIES 813 AND 818.....	11-10
WHEEL AND DRIVE PLATE	
T36000 SERIES.....	5-24
WINDOW INSTALLATION.....	1-50
WINDOW WIPER SYSTEM	
SHEET 1 OF 2.....	1-52
SHEET 2 OF 2.....	1-54
WIRE HARNESS	
ARMREST.....	4-60
CAB LIGHT.....	4-52
CHASSIS.....	4-30
CLOSED CAB.....	4-48
FRONT LIGHTS.....	4-64
JOYSTICK.....	4-62
JUMPER.....	4-54
LIGHT SWITCH	
SHEET 1.....	4-45
SHEET 2.....	4-46
LUBRICATION PUMP.....	4-44
POWER PILE SLOPE	
MAST.....	4-38
SOLENOID VALVE.....	4-39
REAR.....	4-35
REAR WIPER.....	4-50
ROTATING BEACON.....	4-42

TABLE OF CONTENTS (Continued)

DESCRIPTION	PAGE
W (continued)	
SIDE CONSOLE	
SHEET 1 OF 2	4-66
SHEET 2 OF 2	4-70
STAIR LIGHT	4-43
STEERING COLUMN	4-55
SWITCHES	4-40
TRANSMISSION	
T36000 SERIES	4-33
T40000 SERIES	4-34
UNDER FLOOR	4-58
WASH PUMPS	4-36
WIRING ACCESSORIES	
ELECTRONIC CONTROL MODULE	2-76

ABBREVIATIONS QUICK REFERENCE SHEET

Listed below are abbreviations used in parts manuals to denote the following expressions:

TERM	DEFINITION	TERM	DEFINITION
Amp	Amperes	FRE	Freezer Environment
AR	As Required	in.	inches
BDI	Battery Discharge Indicators	LPG	Liquefied Petroleum Gas
BWI	Brush Wear Indicator	MAP	Manifold Absolute Pressure
CE	Communicator End	mm	millimeters
CRE	Corrosive Environment	MSTS	Microprocessor Spark Timing System
D/B	Date Break	NPT	National Pipe Threads
dbA	Decibel "A" Scale	O/S	Oversize
DE	Drive End	PTO	Power Take Off
ECH	Empty Container Handler	RPM	Revolutions per Minute
ECH-3	Empty Container Handler - 3 High Stacking	S/N	Serial Number
ECH-4	Empty Container Handler - 4 High Stacking	TMM	Truck Management Module
ECH-5	Empty Container Handler - 5 High Stacking	UL Type D	Diesel-Powered Safety Rating
ECH-6	Empty Container Handler - 6 High Stacking	UL Type DS	Diesel-Powered Safety Rating
ECH-7	Empty Container Handler - 7 High Stacking	UL Type E	Battery-Powered Safety Rating
ECM	Electronic Control Module	UL Type EE	Battery-Powered Safety Rating
ECN	Engineering Change Notice	UL Type ES	Battery-Powered Safety Rating
EEPROM	Electrically Erasable Programmable Read Only Memory	UL Type G	Gasoline-Powered Safety Rating
EPROM	Electrically Programmable Read Only Memory	UL Type GS	Gasoline-Powered Safety Rating
		UL Type LP	Gas-Powered Safety Rating
		UL Type LPS	LP Gas-Powered Safety Rating
		U/S	Undersize
		UL	Underwriters Laboratory
		V	Volts

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 and footnotes. The callouts correspond to descriptions found on the next page.

The image shows several overlapping pages from a Hyster parts manual. Callouts 1 through 10 point to specific features:

- 1:** Points to the 'SECTIONS' tab on the left page.
- 2:** Points to the 'MAST-TWO STAGE LI' section in the 'SECTIONS' list.
- 3:** Points to the 'TABLE OF CONTENTS' header.
- 4:** Points to the 'DESCRIPTION' and 'PAGE' columns in the Table of Contents.
- 5:** Points to the 'PART NO.', 'PG', and 'ITEM' columns in the 'SECTION 11 NUMERICAL INDEX' table.
- 6:** Points to the 'ITEM' column in the 'TRANSMISSION HOUSING' table.
- 7:** Points to the 'TRANSMISSION HOUSING' title.
- 8:** Points to the 'DESCRIPTION' column in the 'TRANSMISSION HOUSING' table.
- 9:** Points to the 'QTY' column in the 'TRANSMISSION HOUSING' table.
- 10:** Points to the 'KEY' section above the 'TRANSMISSION HOUSING' table.

SECTION 11 NUMERICAL INDEX

PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
138	5-9	31	5-17	42	16481	6-25	3	6-7	16882	9-7	28
139	5-9	32	7-13	8		6-25	4	9-7	16883	6-25	8
12921	3-12	10	1-3	6		6-26	53	6-25	16883	6-25	5
14269	5-5	8	1-4	45		10-3	16	8-5	16882	8-5	24
			5-9	16		6-11	48	9-5		19	19
			5-13	16		6-26	3	5-25		10	10
			23	16484		6-11	9	8-5		13	13
			42			6-13	101	9-5		13	13
			34			6-25	7	6-25		6	6
			10			6-25	8	17081		6-25	24
			11			6-25	11	17151		3-9	24
			21			6-25	20	3-11		26	26
			27			9-7	7	6-25		22	22

TRANSMISSION HOUSING
(= S/N G160-2628)

KEY:
A: Diesel
B: Gasoline and LPG

ITEM	PART NO.	DESCRIPTION	QTY	A	B
1	2022547	Transmission	1		
2	2023329	Transmission	2		
3	2064270	Case	4		
4	2023418	Bearing Cap	4		
5	296426	Washer	1		
6	293692	Capscrew	2		
7	2021390	Cover	2		
8	1371856	Collar Pin	4		
9	2021329	O-Ring	1		
10	2021915	Plug	4		
11	2021675	Housing	22		
12	2021336	Pin	39		
13	287680	Capscrew	1		
14	296682	Lockwasher	1		
15	2021345	Hydraulic Pump (w/ Figure 6-6)	8		
16	214954	Gasket	8		
17	296418	Capscrew	1		
18	2021388	Washer	1		
19	2021389	Temperature Switch	1		
20	2021383	Breather	9		
21	292515	Dipstick	9		
22	136692	Capscrew	2		
23	232527	Nut	3		
24	292531	Capscrew	2		
25	292683	Capscrew	4		
26	293637	Lockwasher	4		
	296420	Capscrew	1		
	996403	Washer	1		
	996405	Transmission Kit (Include Item 7)	1		
		Transmission Kit (Include Item 14)	1		

This Parts Manual is divided into 11 major sections which are listed above. Quick reference may be made by placing the right thumb on the tab of the desired section, bending the book, and turning the pages to the corresponding tab.

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See Service Manual for service procedures.

HP990135

HOW TO FIND THE DESIRED PART NUMBER

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

1. Determine the function and application of the part required. Turn to the Sections Page. Choose the general area of reference most likely to include the part.
2. Turn to the section you chose. Use the Section Table of Contents 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:

3. Determine the assembly the required part is used on. Turn to the Table of Contents on Page i.
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 on Page 14-1 to find the part number. Turn to the page listed and locate the part as indicated by the item number.

GENERAL:

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

6. Five periods in the PART NO. column (.) indicate that the part is either *Not Serviced Separately* or there is a reference to another figure. A figure reference is denoted by a pointing hand followed by a figure number in the DESCRIPTION column (☞ Figure 10)
7. Keys are used to show two or more similar assemblies, RH and LH assembly parts, etc. Select the appropriate key, "A", "B", "C", "D", or "E" and the corresponding quantity column to find the required parts. Two periods in the QTY column (..) indicate that the part is not used for that assembly.
8. Indented descriptions under the DESCRIPTION column are used to indicate assemblies and subparts of assemblies. In the example on the

previous page, *BEARING CAP* (Item 2) is a subpart of the major assembly *CASE*.

9. Quantities shown are for one assembly. The quantities of the subpart *BEARING CAP* are indicated as two and two. This means two per *CASE* assembly.
10. Serial number breaks identify the most current parts information and are shown as follows:
 - ⇒ **S/N D001H-2628**
Indicates last serial number affected.
 - S/N D001H-2629** ⇒
Indicates the first serial number affected.
 - S/N D001H-1553** ⇔ **S/N D001H-3291**
Indicates a range of serial numbers affected.

ECN numbers for pending serial numbers are shown to allow for the inclusion of the most current parts information and are identified as follows:

- ⇒ **S/N Pending Per ECN 63243**
Indicates a pending serial number for last unit affected.
- S/N Pending Per ECN 63243** ⇒
Indicates a pending serial number for first unit affected.

Date breaks are used to indicate when a change occurred but a subsequent serial number break was not recorded. This is an arbitrary date usually based on the ECN release and are identified as follows:

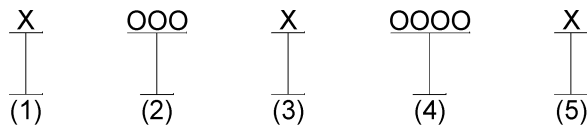
- ⇒ **D/B 3/00**
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00** ⇒
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00** ⇔ **D/B 4/00**
Indicates a range of production dates of the item affected.

Contact your local dealer for Hyster lift trucks for serial number information for items with a ECN or a date break.

ORDERING PARTS:

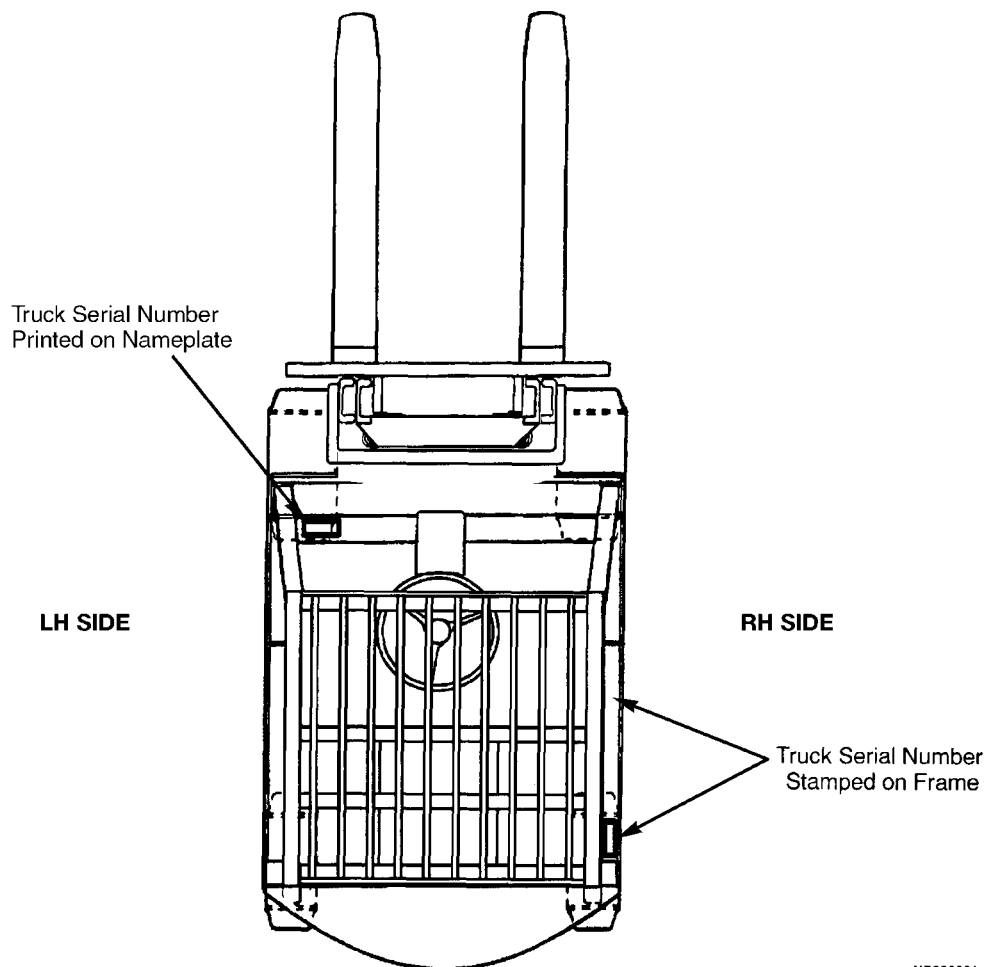
When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

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

IDENTIFICATION OF TRUCK SERIAL NUMBERS

- (1) and (2) The first letter and three numbers indicate the truck unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence 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.

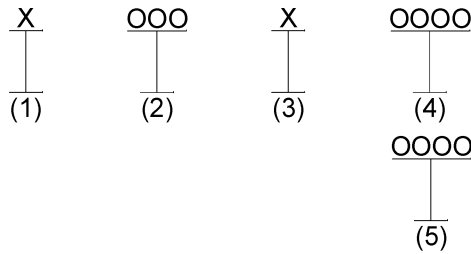
For pending serial numbers contact your local dealer for Hyster lift trucks.



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

IDENTIFICATION OF MAST SERIAL NUMBERS



- (1) and (2) The first letter and number indicates the mast unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the mast.
- (5) Carriage travel in millimeters stamped just below the serial number.

Mast Group identification consists of mast unit code (1) and (2) plus carriage travel (5).

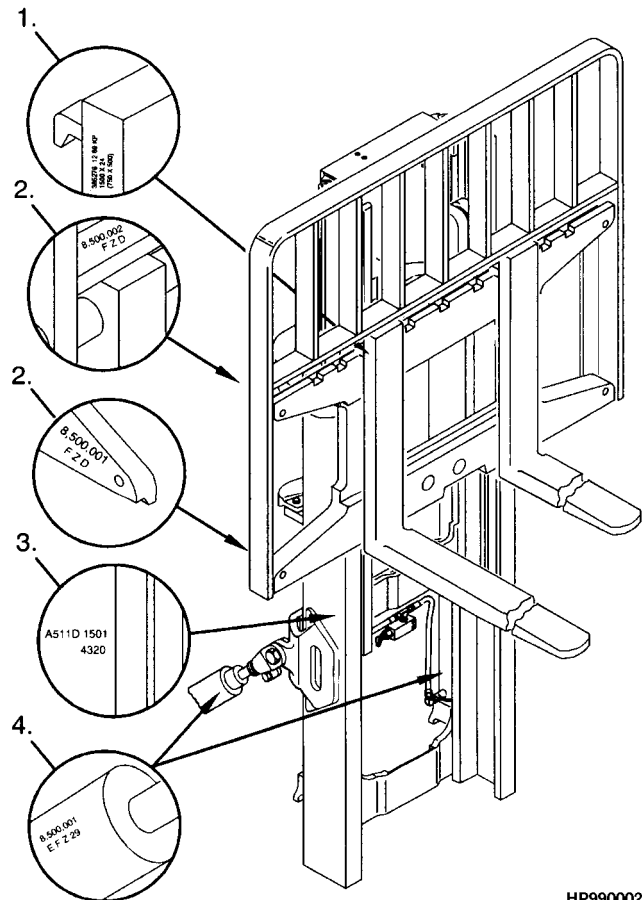
For pending production sequence numbers contact your local dealer for Hyster lift trucks.

LIFT EQUIPMENT IDENTIFICATION

1. Fork part number, capacity rating, plant code letter, and date of manufacture are stamped approximately six inches below the top of most forks.
2. The carriage group number is stamped on the right hand side of the top crossmember (pin type) or on the back of the right hand end of the bottom crossmember (hook type). A date code has two letters in line with or below the carriage group number.
3. The mast identification number has a unit code, a letter indicating the plant of manufacture, and a serial number. Underneath the production sequence number is a four digit number that indicates the carriage travel in millimeters.
4. Tilt and lift cylinder group numbers are stamped on the cylinder shell.

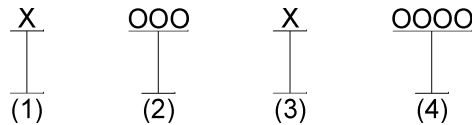
Always refer to the group, serial, or part number when ordering service parts.

Modification of masts and carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". contact your dealer for Hyster lift trucks for information on these assemblies.



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IDENTIFICATION OF ATTACHMENT AND SIDE-SHIFT CARRIAGE SERIAL NUMBERS

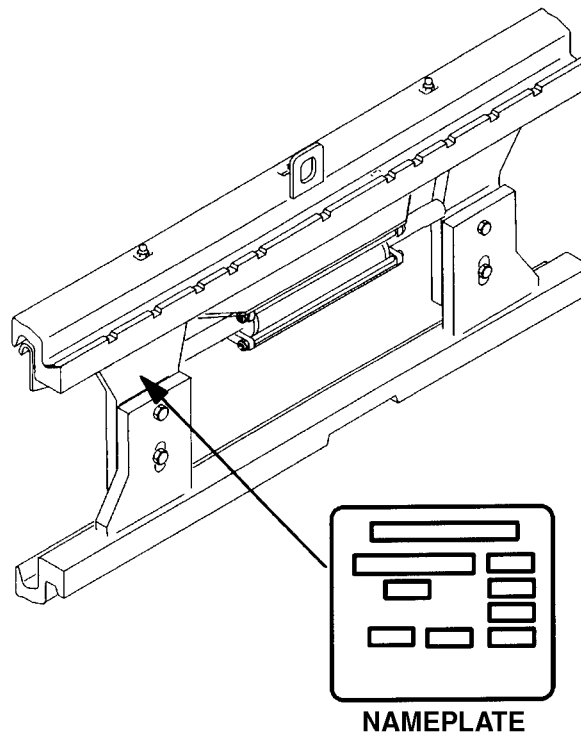


(1) and (2) The first letter and three numbers indicate the attachment unit code.

(3) The second letter indicates the plant of manufacture.

(4) The four or five digit number indicates the production sequence number.

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



HP990003

Side-shift carriages and attachments have nameplates. Use the serial number found on the nameplate to identify the attachment.

Always refer to the group, serial, or part number when ordering service parts.

Modifications of attachments and side-shift carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". Contact your dealer for Hyster lift trucks for information on these assemblies.

PUBLICATIONS

Every new lift truck is provided with an OPERATING MANUAL. This manual has information that the operator must know for inspection and operation of the lift truck.

SERVICE MAINTENANCE MANUALS, which provide service and overhaul procedures, and PARTS MANUALS with complete replacement part identification, are available at a nominal fee from your Hyster dealer to assist users in effectively maintaining Hyster lift trucks in a safe, useful condition. See the list below for information on ordering specific publications for this model lift truck.

PUBLICATION	HYSTER PART NUMBER
Operating Manual	1546431
Service Manual (Complete)	1546437
Parts Manual	1546436

1

FRAME

Hyster Challenger H40 00xm16ch 52 00xm16ch E117 Parts Manual

Full download: <http://manualplace.com/download/hyster-challenger-h40-00xm16ch-52-00xm16ch-e117-parts-manual/>