

# **PARTS MANUAL**

**ELECTRIC  
N45XMR2, N30XMDR2  
(F138)**

CUSTOMER EDITION

# ***HYSTER***

**Thanks very much for your reading,  
Want to get more information,  
Please click here, Then get the complete  
manual**

**JustClickHere** 

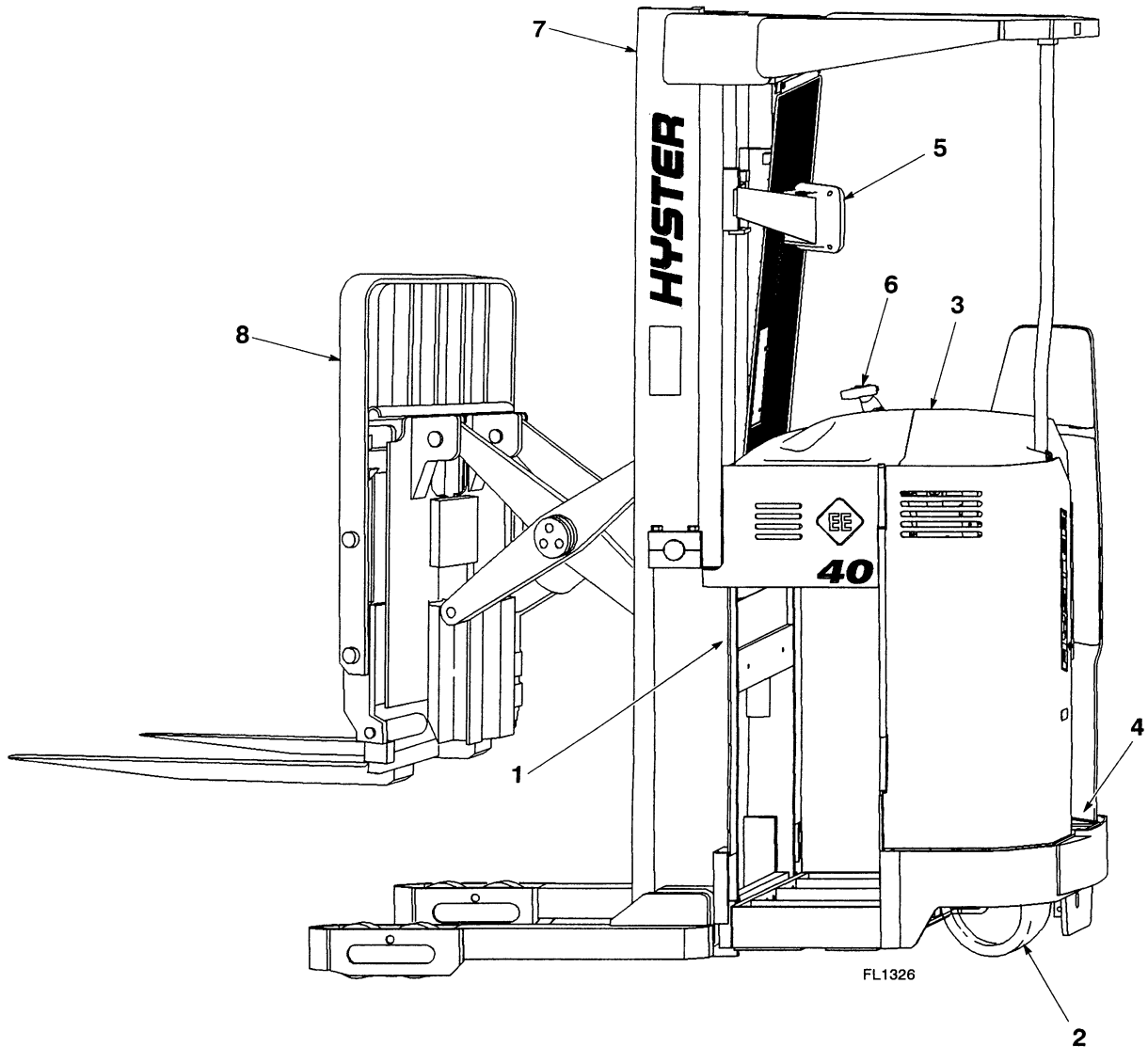
**NOTE:**

**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](mailto:admin@servicemanualperfect.com)**



**ILLUSTRATED CONTENTS**



REF.	DIVISION	PAGE
1	Frame .....	1
2	Drive Unit .....	13
3	Steering .....	23
4	Brake System .....	33
5	Electrical .....	41
6	Hydraulic .....	57
7	Mast-Three Stage-Full Free Lift (FFL) .....	73
8	Carriage .....	93
*	Options .....	108
*	Numerical Index .....	120

\* NOT ILLUSTRATED

---

**TABLE OF CONTENTS**

<b>DESCRIPTION</b>	<b>PAGE NO.</b>
BACKREST (Figure 61) .....	111
BATTERY CONNECTOR (Figure 32) .....	56
BATTERY TRAY (Figure 67) .....	119
BRAKE ASSEMBLY (Figure 17) .....	36
BRAKE PEDAL AND OPERATOR SENSING SWITCH (Figure 20) FIRST USED ON S/N PENDING PER ECN 83325 .....	39
BRAKE PEDAL AND OPERATOR SENSING SWITCH (Figure 19) LAST USED ON S/N PENDING PER ECN 83325 .....	38
BRAKE SYSTEM (Figure 16) .....	34
CARRIAGE-S/N PENDING ECN 83482 (Figure 55) .....	104
CARRIAGE-INNER FRAME (Figure 54) .....	102
CARRIAGE-OUTER FRAME-SIDESHIFTER (Figure 51) .....	96
CARRIAGE-OUTER FRAME-STANDARD (Figure 50) .....	94
CASTER ASSEMBLY (Figure 6) .....	16
CHAINS, PINS, AND ANCHORS (Figure 45) THREE-STAGE FULL FREE LIFT (FFL) .....	84
CONTACTOR PANEL "E" (Figure 23) .....	44
CONTACTOR PANEL "EE" (Figure 24) .....	46
CONTROL HANDLE (Figure 30) .....	54
CONTROL HANDLE ASSEMBLY (Figure 29) .....	52
CONTROL HANDLE MECHANISM (Figure 31) .....	55
CONTROL VALVE ASSEMBLY (Figure 36) .....	64
DECAL AND PLATE LOCATION (Figure 4) .....	10
DRIVE UNIT (Figure 7) .....	18
ELECTRICAL ARRANGEMENT (Figure 22) .....	42
ELECTRICAL COMPONENTS (Figure 28) .....	51

**TABLE OF CONTENTS**

<b>DESCRIPTION</b>	<b>PAGE NO.</b>
FORKS (Figure 60) HOOK TYPE .....	110
FORKS (Figure 59) SHAFT TYPE .....	109
FREE LIFT CYLINDER (Figure 48) THREE-STAGE FULL FREE LIFT (FFL) .....	89
GEAR PUMP (Figure 39) .....	69
HEADER HOSE (Figure 43) THREE-STAGE FULL FREE LIFT (FFL) FIRST USED ON MAST S/N A570-1967 AND A571-1679 .....	78
HEADER HOSE (Figure 42) THREE-STAGE FULL FREE LIFT (FFL) LAST USED ON MAST S/N A570-1966 AND A571-1678 .....	76
HOOD AND COVERS (Figure 2) FIRST USED ON S/N PENDING PER ECN 83325 .....	6
HOOD AND COVERS (Figure 1) LAST USED ON S/N PENDING PER ECN 83325 .....	2
HYDRAULIC CONTROL VALVE AND FITTINGS (Figure 35) .....	62
HYDRAULIC MOTOR (Figure 40) .....	70
HYDRAULIC PUMP AND MOTOR (Figure 38) .....	68
HYDRAULIC SYSTEM (Figure 34) FIRST USED ON S/N PENDING PER ECN 83176 .....	60
HYDRAULIC SYSTEM (Figure 33) LAST USED ON S/N PENDING PER ECN 83176 .....	58
HYDRAULIC TANK ASSEMBLY (Figure 37) .....	66
INTEGRAL SIDESHIFTER CYLINDER (Figure 58) 24-INCH AND 42-INCH REACH .....	107
LIFT LIMIT SWITCH (Figure 49) THREE-STAGE FULL FREE LIFT (FFL) .....	91
LIFT PUMP CONTACTOR (Figure 27) .....	50
LIGHT AND FAN ASSEMBLY (Figure 64) FIRST USED ON S/N F138N01806W .....	116

---

**TABLE OF CONTENTS**

<b>DESCRIPTION</b>	<b>PAGE NO.</b>
LIGHT AND FAN ASSEMBLY (Figure 63) LAST USED ON S/N F138N01805W .....	114
LIGHTS (Figure 62) .....	112
MAIN CYLINDER ARRANGEMENT (Figure 46) THREE-STAGE FULL FREE LIFT (FFL) .....	86
MAIN LIFT CYLINDER (Figure 47) THREE-STAGE FULL FREE LIFT (FFL) .....	87
MAIN-FREE LIFT (Figure 44) THREE-STAGE FULL FREE LIFT (FFL) .....	82
MAST-OUTER, INTERMEDIATE, AND INNER (Figure 41) THREE-STAGE FULL FREE LIFT (FFL) .....	74
MASTER CYLINDER (Figure 21) .....	40
MASTER DRIVE UNIT (Figure 5) .....	14
OPERATOR GUARD (Figure 3) .....	9
POWER STEER ARRANGEMENT (Figure 9) .....	24
POWER STEER CONTACTOR (Figure 25) .....	48
REACH CYLINDER (Figure 56) 24-INCH AND 42-INCH REACH .....	105
SCISSOR CARRIAGE 24-INCH REACH (Figure 52) .....	98
SCISSOR CARRIAGE 42-INCH REACH (Figure 53) .....	100
SINGLE LOAD WHEEL (Figure 66) .....	118
SLAVE CYLINDER (Figure 18) .....	37
STEER CONTROL UNIT (Figure 10) .....	26
STEER AND AUXILIARY MOTOR (Figure 13) STANDARD "E" CONSTRUCTION .....	29
STEER AND AUXILIARY MOTOR (Figure 14) "EE" CONSTRUCTION .....	30
STEER AND AUXILIARY PUMP (Figure 15) .....	31
STEER AND AUXILIARY PUMP AND MOTOR (Figure 12) .....	28
STEERING MOTOR (Figure 11) .....	27

---

**TABLE OF CONTENTS**

<b>DESCRIPTION</b>	<b>PAGE NO.</b>
TANDEM LOAD WHEEL (Figure 65) .....	117
TILT CYLINDER (Figure 57) .....	106
TRACTION CONTACTOR (Figure 26) .....	49
TRACTION MOTOR (Figure 8) .....	20



## 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.

**Page 2 SERIAL CODE E138**

**HYSTER**

**TABLE OF CONTENTS**

DESCRIPTION	PAGE
Accelerator	58-59
Accumulator	104
Aisle-Drive	24-25
Aisle-Clearing	42-43
Brake	
Brake-Park Lever Adjusted	
Brake-Park Seat Adjusted	
Carriage Side-Shift	
Carriage Vista Two-Stage Full Free Lift	
Carriage Vista Three-Stage Full Free Lift	

**Page 100 SERIAL CODE E138**

**HYSTER**

**INDEX-NUMERICAL**

PART NO.	FIGURE NO.	REF. NO.	PART NO.	FIGURE NO.	REF. NO.	PART NO.	FIGURE NO.	REF. NO.
360207	43	1	370128	11	14	370205	91	34
360208	43	1	370206	82	14	370207	22	3
360209	47	1	370207	70	1	370208	22	3
360210	48	2	370208	70	1	370209	43	4
360211	54	1	370209	66	1	370210	26	11
360212	54	1	370210	66	1	370211	42	11
360213	30	2	370211	66	1	370212	43	3
360214	47	1	370212	66	1	370213	43	3
360215	46	8	370213	66	1	370214	43	3
360216	43	3	370214	66	1	370215	42	11
360217	30	2	370215	66	1	370216	42	11
			370216	66	1	370217	43	3

**Page 1 SERIAL CODE E138**

**HYSTER**

**ILLUSTRATED CONTENTS**

REF.	DIVISION	PAGE
1	Frame	1
2	Master Drive Unit	22
3	Steering	35
4	Brake System	44
5	Electrical	56
6	Hydraulic	67
7	Mast-Vista Two Stage	72
8	Mast-Vista Three Stage	82
9	Carriage	96
10	Options	102

**Page 9 SERIAL CODE E138**

**HYSTER**

**MOTOR-TRACTION (Figure 4)**

LAST USED ON PENDING S/N PER ECN 98020

**KEY**

A: 24 Volt-N50-40XMR, N25XMDR, N50XMA  
 B: 36 Volt-N40XMR, N25XMDR, N50XMA  
 C: 36 Volt-N45XMR, N50XMDR

REF.	PART NO.	NAME OF PART	QTY.	REF.	PART NO.
			A B C	9	+203200
				9	\$203201
				10	3607
				11	3607
				12	2014
				12	2037
				12	+201
				12	\$201
				13	+34
1	+2032087	Cover-CE	1	13	\$20
1	+2032089	Cover-CE	1	14	13
2	+2032088	Cover-CE	1	14	13
2	+2032090	Cover-CE	1	15	24
2	+2032086	Yoke/Bearing Support	1	16	
3	2032086	Brush	4	17	
4	2015288	Yoke/Holder	1	17	
5	360237	Spring-Brush	8	18	
6	360930	Connector	1	19	
7	360939	Field	1	1	
9	+2032038	Field	1	1	
9	+2032042	Field	1	1	
9	2032040	Field	1	1	

©1995 HYSTER COMPANY See Service Manual for service procedures

## WHEN THE PART NUMBER AND THE NEXT HIGHER ASSEMBLY ARE NOT KNOWN:

1. **USE:** Determine the function and application of the required part. Turn to the Illustrated Contents page immediately behind the front cover and select the most appropriate area.
2. Use the Section Index to determine the assembly which would normally contain the required part. 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 page immediately following the Illustrated Contents.
4. Locate the assembly the required part is used on and turn to the page indicated for that assembly. Locate the part on the Assembly Breakdown page.

## WHEN THE PART NUMBER IS KNOWN:

5. Use the Numerical Index 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.

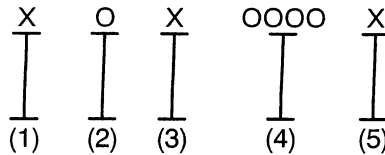
6. Keys are used to show effective serial numbers for two or more similar assemblies, RH and LH assembly parts, etc. Select the appropriate key, "A," "B," "C," or "D" and the corresponding Quantity column to find the required parts.
7. Indented descriptions under "Name of Part" are used to indicate subparts of assemblies. A major assembly is not indented. Parts under the first, second, or third indent are subparts of the major assembly shown above them.
8. Quantities shown are for one assembly. Note that two assemblies are shown, but the quantities of the subparts are indicated as three and three. This means three per assembly.
9. Engineering Change Notice (ECN) numbers for pending serial numbers are shown to allow for the inclusion of the most current part information. Contact your local dealer for Hyster Lift Trucks for serial number information listed by an ECN number.

## ORDERING PARTS:

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

For further information on parts, service, or ordering, consult your local dealer for Hyster Lift Trucks.

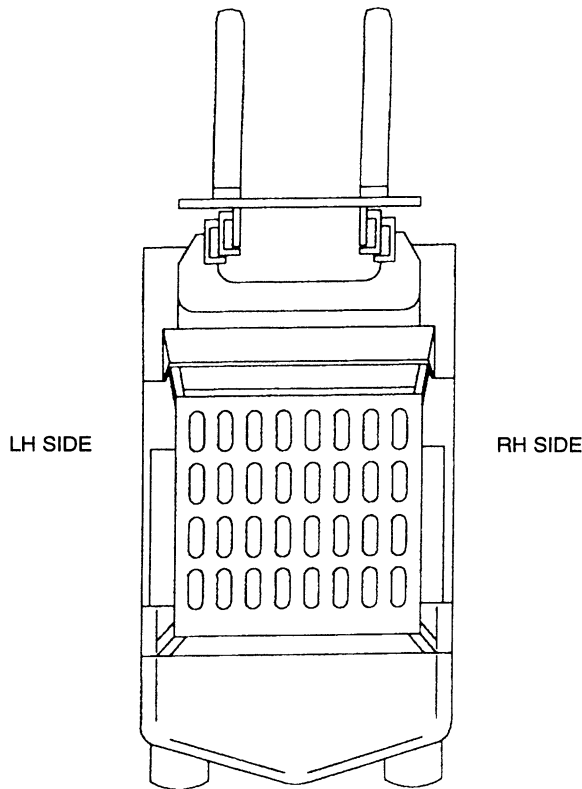
## UNIT IDENTIFICATION UNIT S/N



- (1) & (2) The first letter and number denote the design series and model of the unit.
- (3) The second letter denotes the Plant at which the unit was manufactured.
- (4) The number series denotes the serial number of the unit.
- (5) The final letter denotes the year of manufacture starting with "A" in 1957 and 1980. The letters "I," "O," and "Q" will not be used.

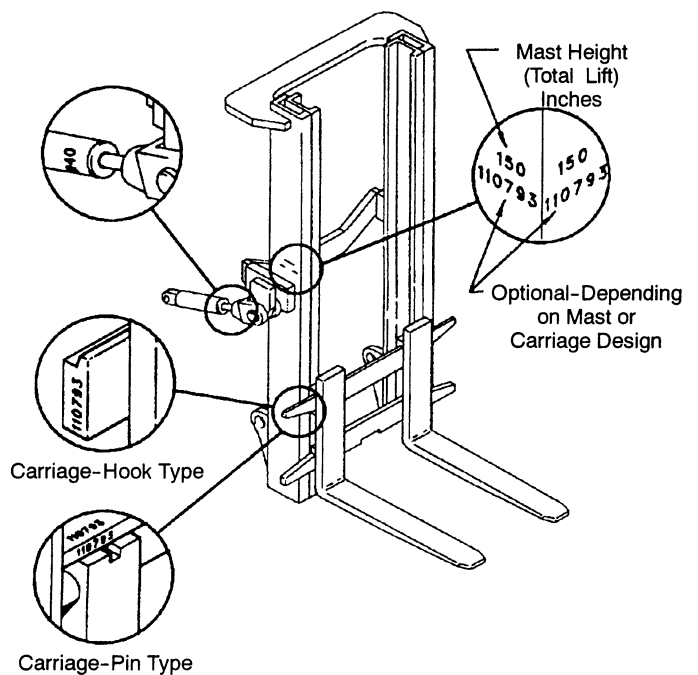
For pending serial numbers contact your local Hyster Dealer.

Parts referred to in this book as R.H or L.H. parts are in accordance with the illustration below.



### LIFT EQUIPMENT IDENTIFICATION

1. Mast group numbers and total lift heights are stamped on the R.H. outer mast approximately four feet from the bottom of the fork. 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. Fork part number, capacity rating, plant code letter, and date of manufacture are stamped approximately six inches below the top R.H. side of the forks. Always refer to these group and part numbers when ordering service parts.



---

## **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.

<b>PUBLICATION</b>	<b>HYSTER PART NUMBER</b>
<b>Operating Manual English (U.S.)</b> .....	1458152
<b>Service Manual (Complete)</b> .....	897707
<b>Parts Manual</b> .....	1458149

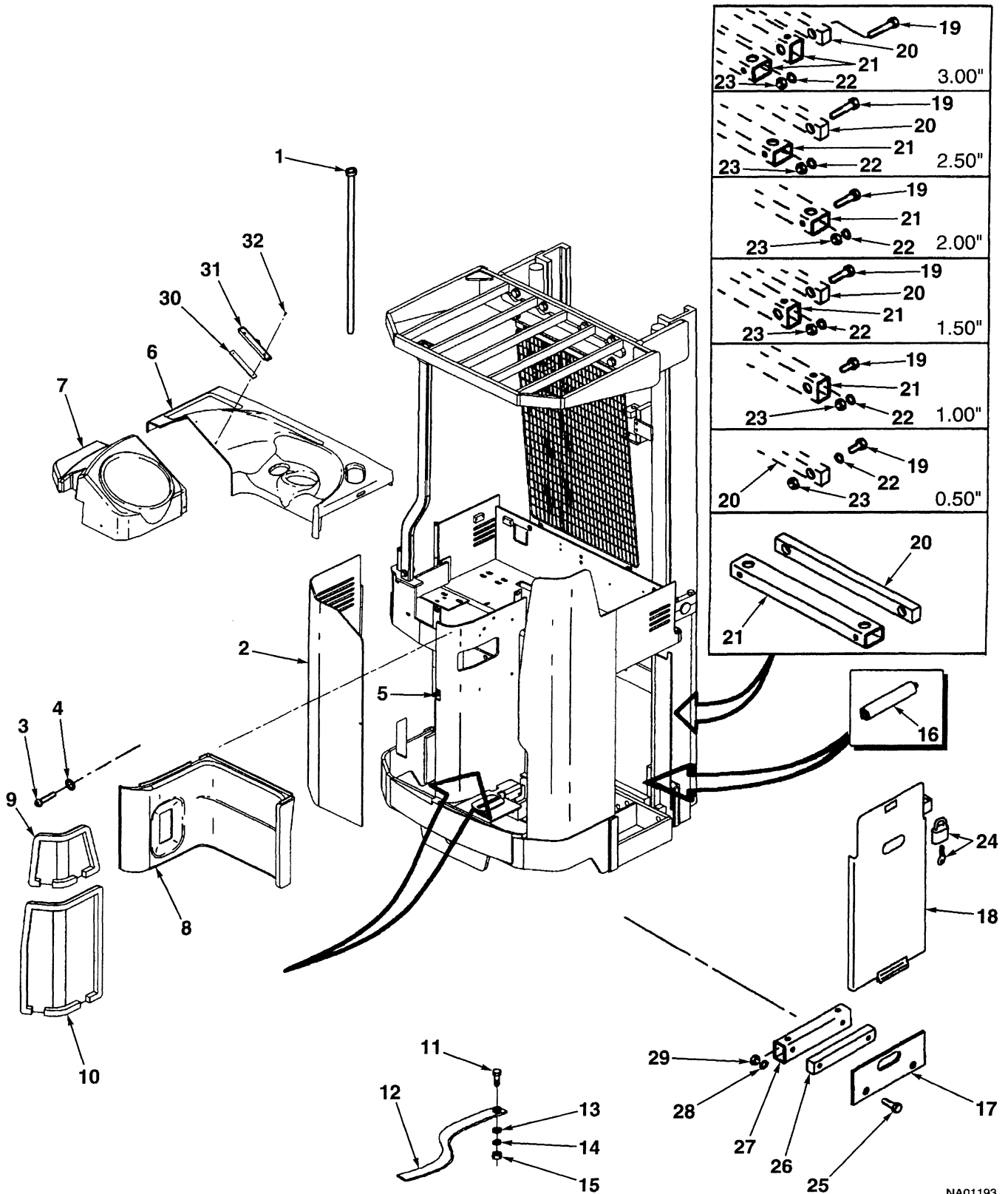


---

**FRAME**

<b>DESCRIPTION</b>	<b>PAGE NO.</b>
HOOD AND COVERS (Figure 2) FIRST USED ON S/N PENDING PER ECN 83325 .....	6
HOOD AND COVERS (Figure 1) LAST USED ON S/N PENDING PER ECN 83325 .....	2
OPERATOR GUARD (Figure 3) .....	9
DECAL AND PLATE LOCATION (Figure 4) .....	10

## HOOD AND COVERS (Figure 1) LAST USED ON S/N PENDING PER ECN 83325



NA01193

**HOOD AND COVERS**

LAST USED ON S/N PENDING PER ECN 83325

REF.	PART NO.	NAME OF PART	QTY.	REF.	PART NO.	NAME OF PART	QTY.
1 <sup>e</sup>	2310970	Hinge Pin	1	14 <sup>a</sup>	15155	Lockwasher	1
f	2306030	Hinge Pin	1	15 <sup>a</sup>	15055	Nut	1
2	1457028	Door	1	16 <sup>b</sup>		Roller	..
3	17178	Screw	11	17 <sup>b</sup>		Retainer	2
4	2034638	Washer	10	18 <sup>ab</sup>		Retainer	2
5	249668	Nut	11	19 <sup>c</sup>		Screw	2
6 <sup>b</sup>		Compartment Cover	1	20 <sup>c</sup>		Spacer	..
7	1455985	Cover	1	21 <sup>c</sup>		Tube	..
7	249668	Nut	3	22 <sup>c</sup>		Lockwasher	..
7	18731	Capscrew	3	23 <sup>c</sup>		Nut	..
7	18515	Washer	3	24 <sup>a</sup>	2305060	Padlock	2
7	16712	Capscrew	8	25 <sup>d</sup>		Screw	..
7	15152	Lockwasher	8	26 <sup>d</sup>		Spacer	..
7	2031173	Clip	4	27 <sup>d</sup>		Tube	..
8	1456467	Cushion	1	28 <sup>d</sup>		Lockwasher	..
8	18460	Capscrew	6	29 <sup>d</sup>		Nut	..
8	15154	Lockwasher	6	30	2036141	Plate	1
8	15127	Washer	6	31	2306899	Spring Clip	1
9	1456469	Cushion	1	32	244272	Screw	2
10	1456468	Cushion	1				
10	18718	Capscrew	6	a		"EE" Construction	
10	15154	Lockwasher	6	b		Battery Compartment Chart	
10	15127	Washer	6	c		Battery Spacer Front to Back Chart	
10	2035767	Mounting Clip	4	d		Battery Spacer Side to Side Chart	
11 <sup>a</sup>	18497	Screw	1	e		Standard	
12 <sup>a</sup>	216895	Strap	1	f		Freezer	
13 <sup>a</sup>	18515	Washer	2				



## HOOD AND COVERS

LAST USED ON S/N PENDING PER ECN 83325

### BATTERY COMPARTMENT

REF. NO.	NAME OF PART 1 2 3 4	BATTERY BOX SIZE		
		16.6 in.	18.8 in.	21.1 in.
6	Compartment Cover	1457997	1457998	1457999
17	Retainer	2302926	2309424	2302481
18	Retainer	2303359	2305021	2303173
16	Roller	<sup>a</sup> 2302952	<sup>a</sup> 2305145	<sup>b</sup> 2302495

<sup>a</sup> Requires 5 Rollers

<sup>b</sup> Requires 6 Rollers

### BATTERY SPACER FRONT TO BACK

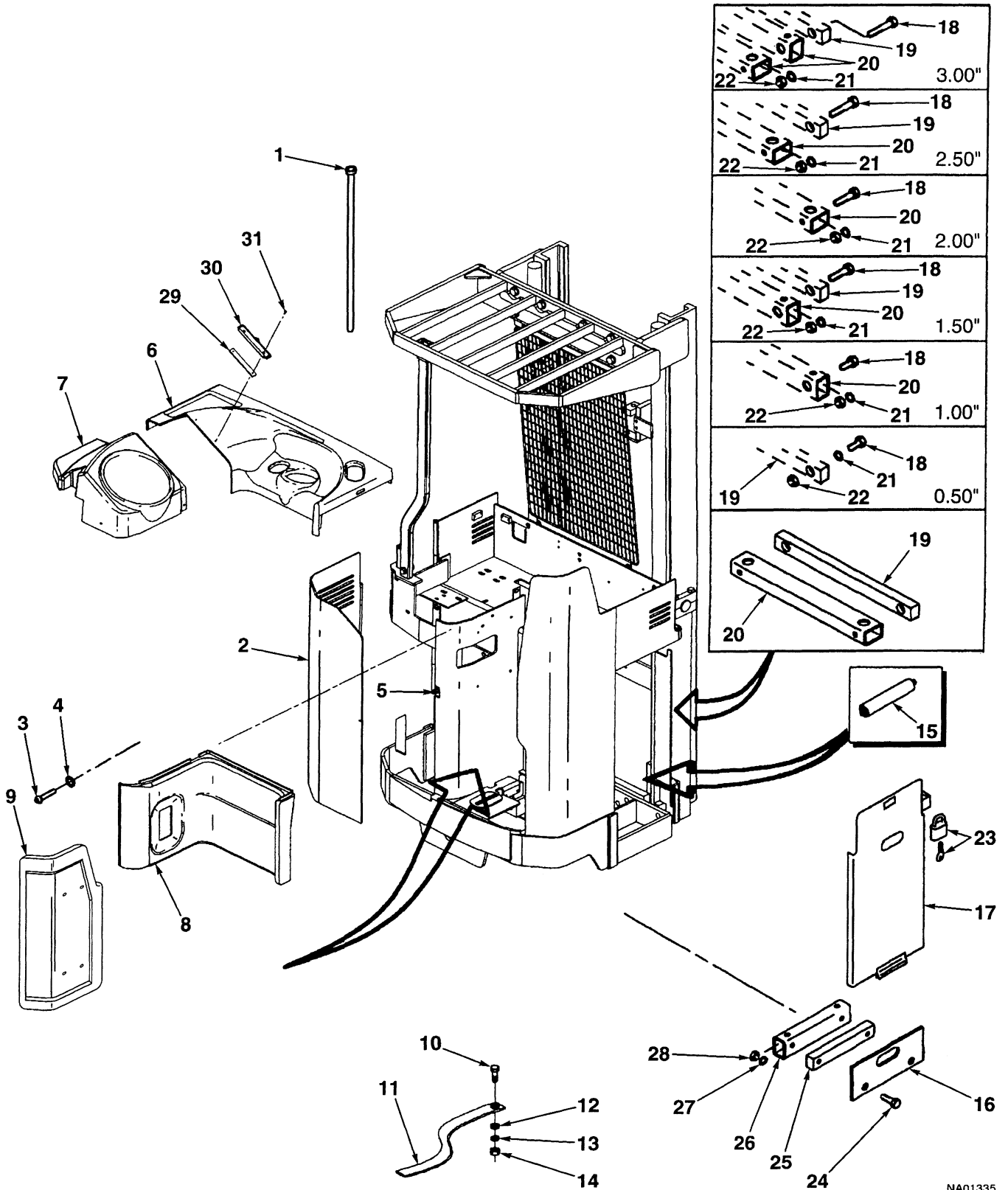
REF. NO.	PART NO.	NAME OF PART 1 2 3 4	QUANTITY-TOTAL SPACER(S) REQUIRED					
			0.5 in.	1.00 in.	1.50 in.	2.00 in.	2.50 in.	3.00 in.
19	18497	Screw	2	2	-	-	-	-
19	18508	Screw	-	-	2	2	-	-
19	18513	Screw	-	-	-	-	2	2
20	2306205	Spacer	1	-	1	-	1	-
21	2306243	Tube	-	1	1	1	1	2
22	15155	Lockwasher	2	2	2	2	2	2
23	15055	Nut	2	2	2	2	2	2

### BATTERY SPACER SIDE TO SIDE

REF. NO.	PART NO.	NAME OF PART 1 2 3 4	QUANTITY-TOTAL SPACER(S) REQUIRED					
			0.5 in.	1.00 in.	1.50 in.	2.00 in.	2.50 in.	3.00 in.
25	16836	Screw	2	4	4	4	2	-
25	18498	Screw	-	-	-	-	-	4
26	2308771	Spacer (18.8 and 21.1 in.)	1	2	1	-	1	2
26	2302703	Spacer (16.6 in.)	1	2	1	-	1	2
27	2307752	Tube (18.8 and 21.1 in.)	-	-	1	2	2	2
27	2309538	Tube (16.6 in.)	-	-	1	2	2	2
28	15155	Lockwasher	2	4	4	4	4	4
29	15055	Nut	2	4	4	4	4	4



## HOOD AND COVERS (Figure 2) FIRST USED ON S/N PENDING PER ECN 83325



NA01335

**HOOD AND COVERS**  
 FIRST USED ON S/N PENDING PER ECN 83325

REF.	PART NO.	NAME OF PART	QTY.	REF.	PART NO.	NAME OF PART	QTY.
1 <sup>e</sup>	2310970	Hinge Pin .....	1	15 <sup>b</sup>	.....	Roller .....	..
f	2306030	Hinge Pin .....	1	16 <sup>b</sup>	.....	Retainer .....	2
2	1457028	Door .....	1	17 <sup>ab</sup>	.....	Retainer .....	2
3	17178	Screw .....	11	18 <sup>c</sup>	.....	Screw .....	2
4	2034638	Washer .....	10	19 <sup>c</sup>	.....	Spacer .....	..
5	249668	Nut .....	11	20 <sup>c</sup>	.....	Tube .....	..
6 <sup>b</sup>	.....	Compartment Cover .....	1	21 <sup>c</sup>	.....	Lockwasher .....	..
7	1455985	Cover .....	1	22 <sup>c</sup>	.....	Nut .....	..
7	249668	Nut .....	3	23 <sup>a</sup>	2305060	Padlock .....	2
7	18731	Capscrew .....	3	24 <sup>d</sup>	.....	Screw .....	..
7	18515	Washer .....	3	25 <sup>d</sup>	.....	Spacer .....	..
7	16712	Capscrew .....	8	26 <sup>d</sup>	.....	Tube .....	..
7	15152	Lockwasher .....	8	27 <sup>d</sup>	.....	Lockwasher .....	..
7	2031173	Clip .....	4	28 <sup>d</sup>	.....	Nut .....	..
8	1474896	Cushion .....	1	29	2036141	Plate .....	1
8	18460	Capscrew .....	6	30	2306899	Spring Clip .....	1
8	15154	Lockwasher .....	6	31	244272	Screw .....	2
8	15127	Washer .....	6	a	"EE" Construction		
9	1468017	Cushion .....	1	b	Battery Compartment Chart		
9	1474743	Rivet .....	4	c	Battery Spacer Front to Back Chart		
10 <sup>a</sup>	18497	Screw .....	1	d	Battery Spacer Side to Side Chart		
11 <sup>a</sup>	216895	Strap .....	1	e	Standard		
12 <sup>a</sup>	18515	Washer .....	2	f	Freezer		
13 <sup>a</sup>	15155	Lockwasher .....	1				
14 <sup>a</sup>	15055	Nut .....	1				