

PARTS MANUAL

**ELECTRIC
E45-50-55-60-65XM**

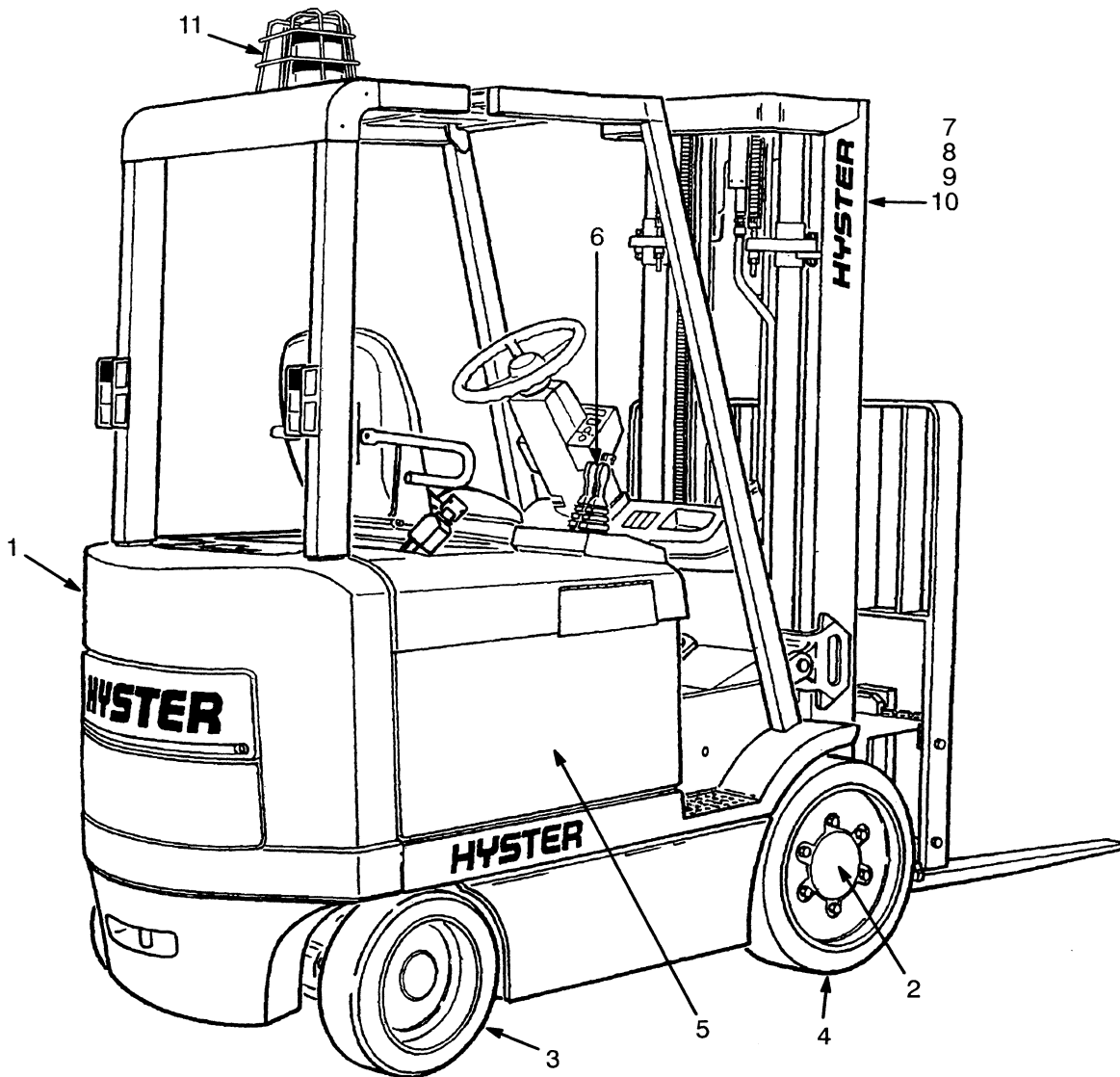
**LAST USED ON S/N F108V-15840,
EXCLUDING 14946, 15838**

(F108)

CUSTOMER EDITION

HYSTER

ILLUSTRATED CONTENTS



REF	SECTION	PAGE
1	FRAME	Page 5
2	DRIVE AXLE	Page 25
3	STEERING	Page 35
4	BRAKE/ACCELERATOR	Page 55
5	ELECTRICAL	Page 71
6	HYDRAULIC	Page 125
7	TWO-STAGE LIMITED FREE-LIFT MAST	Page 147
8	THREE-STAGE FULL FREE-LIFT MAST	Page 165
9	TWO-STAGE FULL FREE-LIFT MAST	Page 195
10	FOUR-STAGE FULL FREE-LIFT MAST	Page 219
11	OPTIONAL	Page 241
12	NUMERIC INDEX	Page 261

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
A	
ACCELERATOR (Figure 39)	Page 69
ACCELERATOR PEDAL (Figure 40)	Page 70
B	
BACKUP ALARM (Figure 154)	Page 257
BATTERY CONNECTOR ASSEMBLY (Figure 61)	Page 110
BATTERY SLIDE AND ROLLER TRAY (Figure 147)	Page 248
BRAKE (Figure 34)	Page 60
BRAKE AND BACK-UP LIGHT (Figure 148)	Page 250
BRAKE PEDAL LINKAGE (Figure 32)	Page 56
C	
CARRIAGE (Figure 139) FOUR-STAGE FULL FREE-LIFT MAST	Page 235
CARRIAGE (FOUR ROLLER) (Figure 124) TWO-STAGE FULL FREE-LIFT MAST	Page 210
CARRIAGE (FOUR ROLLER) (Figure 96) TWO-STAGE LIMITED FREE-LIFT MAST	Page 156
CARRIAGE (SIX ROLLER) (Figure 110) THREE-STAGE FULL FREE-LIFT MAST LAST USED ON S/N B508V-4186, B563V-2161	Page 186
CARRIAGE (SIX ROLLER) (Figure 111) THREE-STAGE FULL FREE-LIFT MAST FIRST USED ON S/N B508V-4187, B563V-2162	Page 187
CARRIAGE (SIX ROLLER) (Figure 125) TWO-STAGE FULL FREE-LIFT MAST	Page 211
CARRIAGE (SIX ROLLER) (Figure 97) TWO-STAGE LIMITED FREE-LIFT MAST	Page 157

TABLE OF CONTENTS

DESCRIPTION	PAGE
C (Continued)	
CONTACTOR (Figure 58)	Page 107
CONTACTOR (Figure 59)	Page 108
CONTACTOR PANEL (Figure 50) CONTACTOR HYDRAULIC	Page 92
CONTACTOR PANEL (Figure 51) SCR HYDRAULIC	Page 94
CONTACTOR PANEL (Figure 52) TRANSISTOR HYDRAULIC (WITHOUT FIELD WEAKENING) FIRST USED ON S/N F108V-5948	Page 96
CONTACTOR PANEL (Figure 53) TRANSISTOR HYDRAULIC (WITH FIELD WEAKENING) FIRST USED ON S/N F108V-5948	Page 98
CONTROL PANEL (Figure 47) CONTACTOR HYDRAULIC	Page 86
CONTROL PANEL (Figure 48) SCR HYDRAULIC	Page 88
CONTROL VALVE (Figure 88) THREE FUNCTION	Page 142
CONTROL VALVE (Figure 89) FOUR FUNCTION	Page 144
COUNTERWEIGHT (Figure 9)	Page 15
COVERS (Figure 5)	Page 10
COWL ELECTRICAL (Figure 44)	Page 80
CYLINDER (E45-55XM) (Figure 94) TWO-STAGE LIMITED FREE-LIFT MAST	Page 154
CYLINDER (E60-65XM) (Figure 95) TWO-STAGE LIMITED FREE-LIFT MAST	Page 155

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
D	
DC-DC CONVERTOR (Figure 151) LAST USED ON S/N F108V-6525	Page 254
DC-DC CONVERTOR (Figure 152) 36/48 TO 12 VOLT FIRST USED ON S/N F108V-6526	Page 255
DIRECTIONAL CONTACTOR (Figure 57)	Page 106
DOME LIGHT (Figure 153) LAST USED ON S/N F108V-10086, INCLUDING 10089,10097,10104, 10105,10107,10113,10114,10120-23,10146-49, EXCEPT 10062-64,10069,10071,10079,10086	Page 256
DRIVE AND REAR LIGHTS (Figure 149)	Page 252
DRIVE AXLE (Figure 14)	Page 26
DRIVE MOTOR MOUNT (Figure 76)	Page 128
E	
ELECTRICAL (Figure 41) SCR HYDRAULIC	Page 74
ELECTRICAL (Figure 42) CONTACTOR HYDRAULIC	Page 76
ELECTRICAL (Figure 43) TRANSISTOR HYDRAULIC FIRST USED ON S/N F108V-5948	Page 78
F	
FORK (Figure 143) FOUR-STAGE FULL FREE-LIFT MAST	Page 240
FORK (Figure 101) TWO-STAGE LIMITED FREE-LIFT MAST	Page 162
FORK (Figure 115) THREE-STAGE FULL FREE-LIFT MAST	Page 192
FORK (Figure 129) TWO-STAGE FULL FREE-LIFT MAST	Page 217

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
F (Continued)	
FRAME (Figure 4)	Page 8
FREE LIFT CYLINDER (Figure 123)	Page 208
FREE LIFT (E45-55XM) (Figure 106) THREE-STAGE FULL FREE-LIFT MAST	Page 174
FREE LIFT (E45-55XM) (Figure 119) TWO-STAGE FULL FREE-LIFT MAST	Page 202
FREE LIFT (E60-65XM) (Figure 107) THREE-STAGE FULL FREE-LIFT MAST	Page 176
FREE LIFT (E60-65XM) (Figure 120) TWO-STAGE FULL FREE-LIFT MAST	Page 204
FREE-LIFT (Figure 135) FOUR-STAGE FULL FREE-LIFT MAST	Page 230
FREE-LIFT CYLINDER (Figure 109)	Page 182
FREE-LIFT CYLINDER (Figure 138) FOUR-STAGE FULL FREE-LIFT MAST	Page 234
H	
HANDLEVER (Figure 87)	Page 140
HEADER HOSE (Figure 114) THREE-STAGE FULL FREE-LIFT MAST	Page 190
HEADER HOSE (Figure 100) TWO-STAGE LIMITED FREE-LIFT MAST	Page 160
HEADER HOSE (Figure 128) TWO-STAGE FULL FREE-LIFT MAST	Page 214
HEADER HOSE (Figure 142) FOUR-STAGE FULL FREE-LIFT MAST	Page 238
HOOD (Figure 10)	Page 16
HYDRAULIC (Figure 75)	Page 126
HYDRAULIC MOTOR (Figure 81) ECONOMY TRUCK IDENTIFY BY PART NUMBER	Page 133

TABLE OF CONTENTS

DESCRIPTION	PAGE
H (Continued)	
HYDRAULIC MOTOR (Figure 82) PREMIUM TRUCK OPTIONAL IDENTIFY BY PART NUMBER	Page 134
HYDRAULIC MOTOR (Figure 83) ECONOMY TRUCK OPTIONAL IDENTIFY BY PART NUMBER	Page 135
HYDRAULIC MOTOR (Figure 84) PREMIUM TRUCK OPTIONAL IDENTIFY BY PART NUMBER	Page 136
HYDRAULIC PUMP (Figure 77) 12 cc PUMP	Page 129
HYDRAULIC PUMP (Figure 78) 12 cc SINGLE GEAR PUMP IDENTIFY BY PART NUMBER FIRST USED ON S/N F108V-12787, EXCEPT 12788,12798	Page 130
HYDRAULIC PUMP (Figure 79) 19 cc DOUBLE GEAR PUMP IDENTIFY BY PART NUMBER FIRST USED ON S/N F108V-12787, EXCEPT 12788,12798	Page 131
HYDRAULIC PUMP (Figure 80)	Page 132
HYDRAULIC TANK (Figure 90)	Page 146
I	
INNER MAST (Figure 104) THREE-STAGE FULL FREE-LIFT MAST	Page 170
INNER MAST (Figure 117) TWO-STAGE FULL FREE-LIFT MAST	Page 198
INNER MAST (Figure 92) TWO-STAGE LIMITED FREE-LIFT MAST	Page 150
INNER MAST (Figure 133) FOUR-STAGE FULL FREE-LIFT MAST	Page 226
INSTRUMENT CLUSTER (Figure 46) ECONOMY TRUCK	Page 84

TABLE OF CONTENTS

DESCRIPTION	PAGE
I (Continued)	
INTERMEDIATE MAST (Figure 103) THREE-STAGE FULL FREE-LIFT MAST	Page 168
INTERMEDIATE MAST #1 (Figure 131) FOUR-STAGE FULL FREE-LIFT MAST	Page 222
INTERMEDIATE MAST #2 (Figure 132) FOUR-STAGE FULL FREE-LIFT MAST	Page 224
L	
LABELS AND PAINT (Figure 3)	Page 6
LIFT (Figure 93) TWO-STAGE LIMITED FREE-LIFT MAST	Page 152
LIGHT HARNESS (Figure 155)	Page 258
LOAD BACKREST EXTENSION (Figure 112) THREE-STAGE FULL FREE-LIFT MAST	Page 188
LOAD BACKREST EXTENSION (Figure 126) TWO-STAGE FULL FREE-LIFT MAST	Page 212
LOAD BACKREST EXTENSION (Figure 140) FOUR-STAGE FULL FREE-LIFT MAST	Page 236
LOAD BACKREST EXTENSION (Figure 98) TWO-STAGE LIMITED FREE-LIFT MAST	Page 158
M	
MAIN CYLINDER (Figure 108) THREE-STAGE FULL FREE-LIFT MAST	Page 178
MAIN CYLINDER, LH (Figure 121) TWO-STAGE FULL FREE-LIFT MAST	Page 206
MAIN CYLINDER, LH (Figure 136) FOUR-STAGE FULL FREE-LIFT MAST	Page 232
MAIN CYLINDER, RH (Figure 122) TWO-STAGE FULL FREE-LIFT MAST	Page 207
MAIN CYLINDER, RH (Figure 137) FOUR-STAGE FULL FREE-LIFT MAST	Page 233

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
M (Continued)	
MAIN LIFT (Figure 105) THREE-STAGE FULL FREE-LIFT MAST	Page 172
MAIN LIFT (Figure 118) TWO-STAGE FULL FREE-LIFT MAST	Page 200
MAIN LIFT (Figure 134) FOUR-STAGE FULL FREE-LIFT MAST	Page 228
MAST INSTALLATION (Figure 113) THREE-STAGE FULL FREE-LIFT MAST	Page 189
MAST INSTALLATION (Figure 127) TWO-STAGE FULL FREE-LIFT MAST	Page 213
MAST INSTALLATION (Figure 141) FOUR-STAGE FULL FREE-LIFT MAST	Page 237
MAST INSTALLATION (Figure 99) TWO-STAGE LIMITED FREE-LIFT MAST	Page 159
MASTER CYLINDER (Figure 33)	Page 58
N	
NON-SUSPENSION SEAT (Figure 12)	Page 20
O	
OUTER MAST (Figure 102) THREE-STAGE FULL FREE-LIFT MAST	Page 166
OUTER MAST (Figure 116) TWO-STAGE FULL FREE-LIFT MAST	Page 196
OUTER MAST (Figure 130) FOUR-STAGE FULL FREE-LIFT MAST	Page 220
OUTER MAST (Figure 91) TWO-STAGE LIMITED FREE-LIFT MAST	Page 148
OVERHEAD GUARD (Figure 6) LAST USED ON S/N F108V-8423	Page 12

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
O (Continued)	
OVERHEAD GUARD (Figure 7) USED ON S/N F108V-8424 THRU S/N F108V-10086, INCLUDING 10089,10097,10104,10105,10107,10113,10114, 10120-23,10146-49, EXCEPT 10062-64,10069,10071,10079,10086 . .	Page 13
OVERHEAD GUARD (Figure 8) FIRST USED ON S/N F108V-10087, EXCEPT 10089,10097,10104,10105,10107,10113,10114, 10120-23,10146-49, INCLUDING 10062-64,10069,10071, 10079,10086	Page 14
P	
PARK BRAKE (Figure 35) LEVER ACTUATED LAST USED ON S/N F108V-6654	Page 62
PARK BRAKE (Figure 36) LEVER ACTUATED FIRST USED ON S/N F108V-6655	Page 64
PARK BRAKE (Figure 38) SEAT ACTUATED	Page 68
PARK BRAKE LINKAGE (Figure 37) SEAT ACTUATED	Page 66
PROP ROD RELEASE (Figure 11) OPTIONAL	Page 19
PUBLICATIONS (Figure 1)	Page 2
PUBLICATIONS	Page 1
PUMP PANEL (Figure 55)	Page 102
R	
RECOMMENDED SPARE PARTS LIST (Figure 2)	Page 4
S	
SHIFT LEVER (Figure 45)	Page 82
SIDESHIFT CARRIAGE (Figure 145)	Page 244
SIDESHIFT CYLINDER (Figure 146)	Page 246

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
S (Continued)	
STEERING AXLE (Figure 31)	Page 52
STEERING CONTACTOR (Figure 60)	Page 109
STEERING CONTROL UNIT (Figure 19) IDENTIFY BY PART NUMBER LAST USED ON S/N F108V-11223, INCLUDING 11233,11234,11247 ..	Page 38
STEERING CONTROL UNIT (Figure 20) IDENTIFY BY PART NUMBER FIRST USED ON S/N F108V-11224, EXCEPT 11233,11234,11247	Page 39
STEERING CYLINDER (Figure 22)	Page 42
STEERING HYDRAULIC (Figure 21)	Page 40
STEERING MOTOR (Figure 26) LAST USED ON S/N F108V-11552, EXCEPT 11482-87,11491-94, 11499,11500,11502,11503,11508-12,11521-29,11534,11540-49	Page 46
STEERING MOTOR (Figure 27) WITH BRUSH WEAR INDICATOR USED ON S/N F108V-11553, INCLUDING 11482-87,11491-94, 11499,11500,11502,11503,11508-12,11521-29,11534,11540-49 THRU S/N F108V-13931, EXCEPT 13768, INCLUDING 13936,13937, 13939,13941-45,13947	Page 47
STEERING MOTOR (Figure 28) WITH BRUSH WEAR INDICATOR FIRST USED ON S/N F108V-13932, INCLUDING 13768, EXCEPT 13936,13937,13939,13941-45,13947	Page 48
STEERING MOTOR (Figure 29) WITHOUT BRUSH WEAR INDICATOR USED ON S/N F108V-11553, INCLUDING 11482-87,11491-94, 11499,11500,11502,11503,11508-12,11521-29,11534,11540-49 THRU S/N F108V-14260	Page 49
STEERING MOTOR (Figure 30) WITHOUT BRUSH WEAR INDICATOR FIRST USED ON S/N F108V-14261	Page 50
STEERING POD (Figure 18)	Page 36
STEERING PUMP (Figure 23) LAST USED ON S/N F108V-10235, EXCEPT 10192,10195-97, 10200,10202-06,10208-10,10213,10214,10219,10221-23,10225, 10227-31	Page 43

TABLE OF CONTENTS

DESCRIPTION	PAGE
S (Continued)	
STEERING PUMP (Figure 24) USED ON S/N F108V-10236, INCLUDING 10192,10195-97,10200, 10202-06,10208-10,10213,10214,10219,10221-23,10225,10227-31 THRU S/N F108V-11223, INCLUDING 11233,11234,11247	Page 44
STEERING PUMP (Figure 25) FIRST USED ON S/N F108V-11224, EXCEPT 11233,11234,11247	Page 45
STROBE LIGHT (Figure 150)	Page 253
SUSPENSION SEAT (Figure 13)	Page 22
SWITCH HARNESS (Figure 156) FIRST USED ON S/N F108V-4442	Page 259
T	
TILT CYLINDER (Figure 85)	Page 137
TIRE AND WHEEL (Figure 144)	Page 242
TRACTION MOTOR (Figure 16) ECONOMY TRUCK	Page 30
TRACTION MOTOR (Figure 17) PREMIUM TRUCK	Page 32
TRACTION PANEL (Figure 54)	Page 100
TRANSISTOR ASSEMBLY (Figure 56)	Page 104
TRANSISTOR CONTROL PANEL (Figure 49) TRANSISTOR HYDRAULIC FIRST USED ON S/N F108V-5948	Page 90
TRANSMISSION (Figure 15)	Page 28
V	
VALVE ATTACHING PARTS (Figure 86)	Page 138

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
W	
WIRE HARNESS (Figure 62) ON-DEMAND STEERING	Page 111
WIRE HARNESS (Figure 63) INSTRUMENT CLUSTER (PREMIUM DISPLAY)	Page 112
WIRE HARNESS (Figure 64)	Page 113
WIRE HARNESS (Figure 65) INSTRUMENT CLUSTER (PREMIUM DISPLAY WITH TMM)	Page 114
WIRE HARNESS (Figure 66) IGNITION SWITCH	Page 115
WIRE HARNESS (Figure 67) CHASSIS LIGHT LAST USED ON S/N F108V-11358, EXCEPT 11382,11383, INCLUDING 11293,11294,11339,11352,11357	Page 116
WIRE HARNESS (Figure 68) CHASSIS LIGHT FIRST USED ON S/N F108V-11359, INCLUDING 11382,11383, EXCEPT 11293,11294,11339,11352,11357	Page 117
WIRE HARNESS (Figure 69) STEER MOTOR	Page 118
WIRE HARNESS (Figure 70) HANDLEVER (CONTACTOR HYDRAULICS)	Page 119
WIRE HARNESS (Figure 71) HANDLEVER TRANSISTOR HYDRAULIC AND SCR HYDRAULIC	Page 120
WIRE HARNESS (Figure 72) MAIN SCR HYDRAULICS	Page 121
WIRE HARNESS (Figure 73) MAIN POWER STEERING ON DEMAND FIRST USED ON S/N F108V-11267	Page 122
WIRE HARNESS (Figure 74) MAIN FULL TIME POWER STEERING FIRST USED ON S/N F108V-11267	Page 123

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
LH	Left Hand
LPG	Liquified 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
OC	Oil Clutch Transmission
PS	Powershift Transmission
PTO	Power Take Off
RH	Right Hand
RPM	Revolutions per Minute
S/N	Serial Number
SFL	Semi-Free Lift
TMM	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

Please Click Here To Download The Complete Manual
Download Other Manuals
If Having Any Questions Feel Free To Contact us

admin@servicemanualbit.com