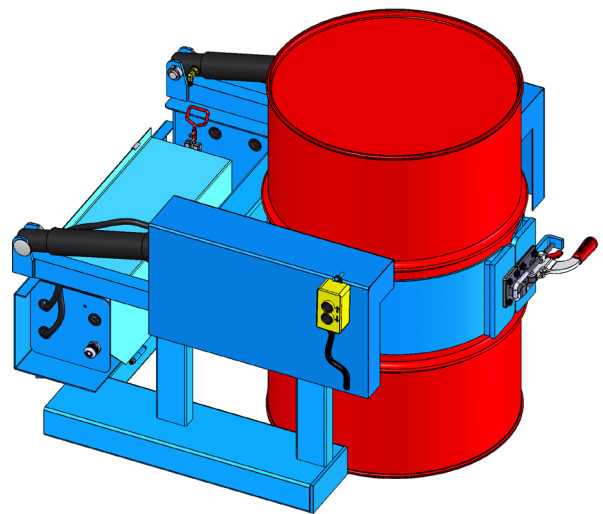


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Operator's Manual
for Morse
Super-Duty Forklift-Karrier
with Battery Power Drum Tilt

Model 285XBP
with serial number 414647 to _____



Receiving Procedures

Every Morse drum handler is inspected prior to shipping. However, damage may be incurred during transit.

- Check for visible damage. If you choose to accept damaged freight, always sign noting the damage on the **Bill of Lading**.
- Document the damage and have the truck driver sign. We recommend keeping a digital camera at your receiving dock for this purpose.
- Open packages expeditiously to check the condition of the goods. There is only a 24 hour window to notify the carrier of any concealed damage.
- Immediately **report all damage to the shipping company!** Then you may contact Morse for assistance with your freight claim.
- Morse Manufacturing will not be held responsible for any damaged freight that is not signed for as damaged.

Limited 2 Year Warranty

Morse drum handling equipment is guaranteed against defects in workmanship or materials for two years when used properly within its rated capacity. Warranty does not cover wear from normal use or damage from accident or abuse. Motors and other purchased parts carry the warranties of their manufacturers.

For warranty claims, contact your Morse Dealer to obtain a return authorization number, and for return freight advice. Return freight must be prepaid.

In all instances, liability is limited to the purchase price paid or to repairing or replacing the product. Customer assumes liability for any modifications, unauthorized repairs or parts substitution.

Safety Information

While Morse Manufacturing Co. drum handling equipment is engineered for safety and efficiency, a high degree of responsibility must be placed upon the machine operator to follow safe practices, based primarily on common sense, upon which true safety depends.




Failure to follow the safety precautions in this manual can result in personal injury or property damage. Observe the same precautions as with similar machinery where carelessness in operating or maintenance is hazardous to personnel. Carefully read the safety precautions below and throughout this manual.

Review the Material Safety Data Sheet(s) for the material(s) in the drum(s) and take all necessary precautions. Safety shoes, work gloves, hard hat and other personal protective devices are recommended.

Prior to initial use, inspect all moving parts and test rotation of drum holder. Perform necessary load test, inspections, operator training, etc.

**Operator's Manual for Morse Super-Duty Forklift-Karrier with Battery Powered Drum Tilt
Model 285XBP with serial number 414647 to _____**

Safety Information (continued)

	DANGER - Indicates a situation which, if not avoided, will result in serious injury or death. This signal word is limited to the most extreme situations.
	WARNING - Indicates a situation which, if not avoided, could result in serious injury or death.
	CAUTION - Indicates a situation which, if not avoided, can result in damage to the machine.



CAUTION – Do Not Transport with Drum Raised. Always lower the drum holder to lowest position before transporting.



WARNING - The Forklift-Karrier is designed to handle one drum of the types listed at the top of page 3. Machine Description. DO NOT attempt to handle any other type of drum or object. DO NOT exceed the weight capacity.



WARNING - Do Not Modify the Unit. - Under no circumstances should any modifications be made to the Morse machinery without factory authorization. Any modifications may void the warranty. This machine was designed to perform a specific job and alterations may result in injury to operator or machine.



WARNING - No Loose Fitting Clothing - Wear close-fitting clothing and safety equipment appropriate to the job. Loose fitting clothing may become caught on the machinery and cause severe personal injury.



CAUTION - Wear Safety Shoes - Wear safety shoes with non-slip soles and hard toe protection.



CAUTION: DO NOT allow drum to impact on floor, ground, or dumping station, etc.



WARNING: This product can expose you to chemicals including barium sulfate, cobalt, titanium dioxide, and 2-methylimidazole, which are known to the State of California to cause cancer, and bisphenol-A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



WARNING: This product can expose you to chemicals including lead and arsenic, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

**Operator's Manual for Morse Super-Duty Forklift-Karrier with Battery Powered Drum Tilt
Model 285XBP with serial number 414647 to _____**

Machine Description

The Model 285XBP Forklift-Karrier is designed to lift, transport, and dispense a ribbed 55-gallon (210 liter) steel drum 22.5" (56 cm) in diameter.

The maximum full-drum capacity is 2500 Lb. (1134 kg). The capacity is derated to 1250 Lb. (567 kg) for a half-full drum. The half-full rating is based on the tilt mechanism's capacity for handling an unbalanced bottom-heavy drum.



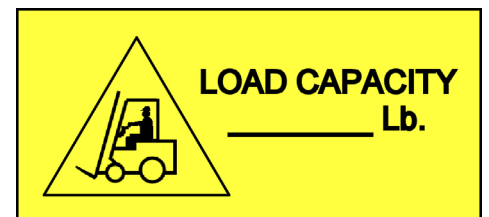
Options

- Wireless Control (part # 4804-P) provides safe, simple and reliable wireless machine tilt control with up to approximately 300 foot (91 m) operating range. It features 900MHz frequency hopping technology for eliminating interference from other RF sources. Easily switch between direct wire pendant control and wireless remote control. Quick DC power disconnect for locking out the equipment.



Important

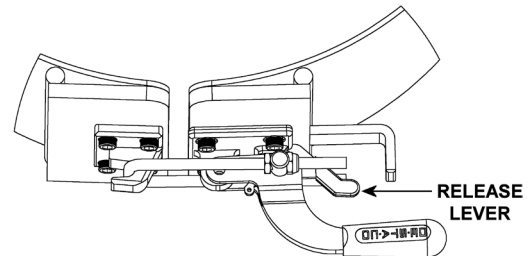
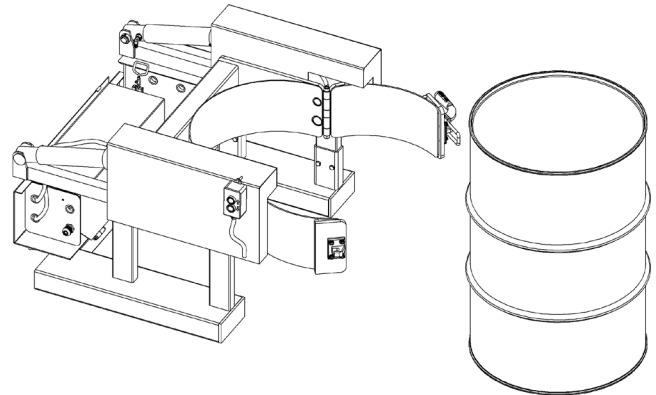
1. Please read all instructions thoroughly before attempting to operate your new Morse drum handler.
2. When loading, unloading, operating, or maintaining your MORSE drum handler, always use care and good judgment. Maintain secure footing and a firm hold. Keep hands and loose clothing away from all moving parts. Never allow anyone to be below any part of a raised drum handler or drum. Read operating instructions and review the pictures in the sales brochure before operation.
3. Because the model 285XBP is a front-end attachment for a forklift, OSHA recommends that "... the truck (forklift) be marked to identify the attachment(s) and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered." See center of gravity dimensions of model 285XBP on page 5 for calculating lost load on your equipment.
4. Prior to operation: Open the rear cover to access the power pack and replace the red shipping plug in the hydraulic reservoir with the supplied black breather plug.



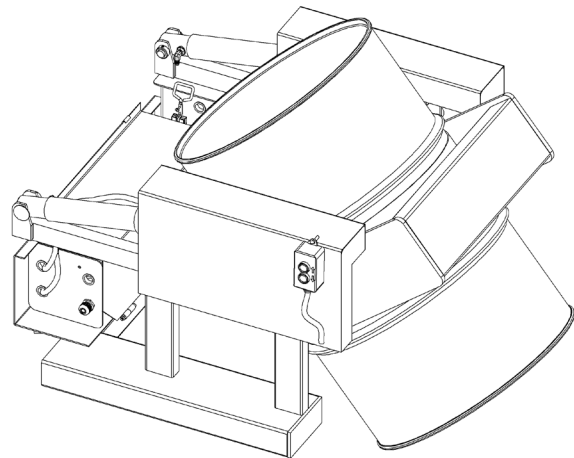
Operator's Manual for Morse Super-Duty Forklift-Karrier with Battery Powered Drum Tilt Model 285XBP with serial number 414647 to _____

Operating Instructions

1. Before sliding forklift forks into the fork tubes, adjust forks to an inside spread of 24.5" (62.2 cm) minimum. Lock forks into position on the forklift carriage.
2. Drive the forklift forward to slip the forks into the fork tubes. Hook the safety chain clamp to top edge of carriage and tighten T-bolt. Take up slack by engaging a chain link in the provided notch. Transport Forklift Karrier to drum to be handled.
3. Drive the forklift with the Forklift Karrier near floor level to position the saddle band around the middle of the drum between the ribs.
4. Open the toggle clamp by activating the release lever (item 108) and swing both hinge bands to the open position. Push the Forklift-Karrier against the drum to surround the drum with the saddle band.
5. Close the two hinged bands around the drum and latch the toggle clamp to secure the drum.
6. Remove pendant assembly (item # 12) from holder on guard and place near operator's seat.
7. Raise forks to clear the floor and transport drum in vertical position to dispensing location.
8. To pour drum: press the down button on the pendant, rotating drum to angle required for dispensing.
9. When dispensing is completed, rotate the drum back to vertical by pressing the up button on the pendant and return drum. While transporting, ensure that the drum is raised away from the floor to prevent the drum bottom from interfering with a pallet or other obstacle.



Toggle Clamp



CAUTION: DO NOT exceed weight capacity of 2500 Lb. (1134 kg) for FULL drum, 1250 Lb. (567 kg) for HALF-FULL drum.



CAUTION: DO NOT allow drum to impact on floor, ground, or dumping station, etc.

Maintenance

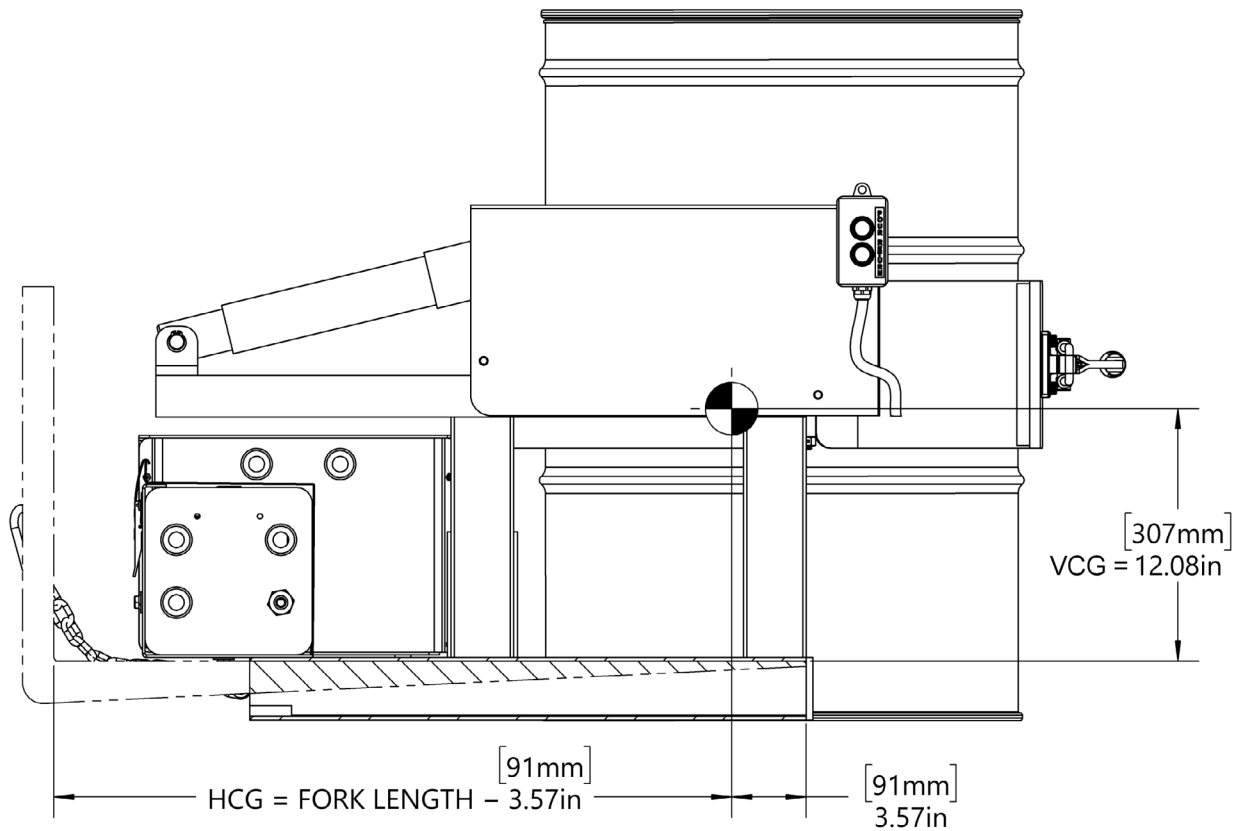
1. Lubricate cylinder pins (items 13 and 28) and linkages (items 3 and 7).
2. Clean and oil saddle hinge, and other moving parts periodically. (Clean & lubricate more often in environments where dust, dirt or other foreign particles will effect the performance of moving parts.)
3. Periodic inspection for the general condition of structural and mechanical components is imperative for safe and efficient operation.
4. Periodically inspect all moving parts, framework, and contact areas for signs of wear, fatigue, or loosening. Tighten, adjust, or replace parts as necessary to prevent failure and maintain proper function.
5. Inspect the hydraulic system for oil drips, hose damage, or other signs of wear. Inspect the level and condition of the hydraulic fluid. Replace any parts that show signs of wear.
6. Worn or damaged parts must be properly replaced with the correct, genuine Morse parts.
7. Hydraulic pump is shipped filled with Noco Premium plus automatic transmission fluid d/m. Material safety data sheet (msds) is available online. Change oil yearly, sooner depending on dirty conditions or outdoor use. Replace oil with Mobil dte 24 or equivalent for indoor use (Mobil dte 13 for outdoor use).

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Center of Gravity Dimensions for Calculating Lost Load on Equipment

MORSE MODEL 285XBP

Center of gravity shown for Morse attachment combined with max drum: 2990lb [1356kg]
 285XBP NET WEIGHT: 480lb [218kg]



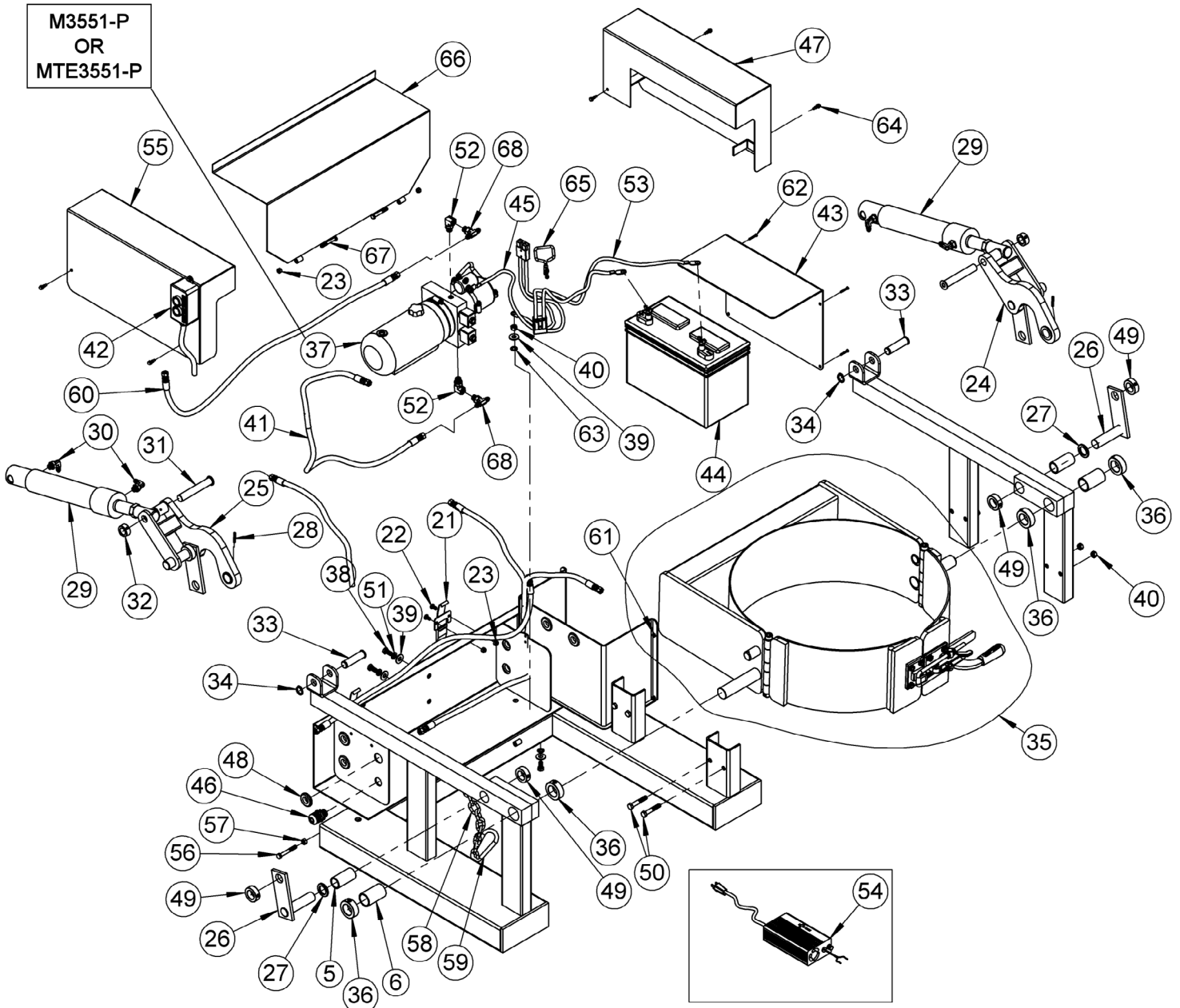
(DIMENSIONS ASSUME FORKS ARE TOUCHING FORK TUBE END CAPS.)

Operator's Manual for Morse Super-Duty Forklift-Karrier with Battery Powered Drum Tilt Model 285XBP with serial number 414647 to _____

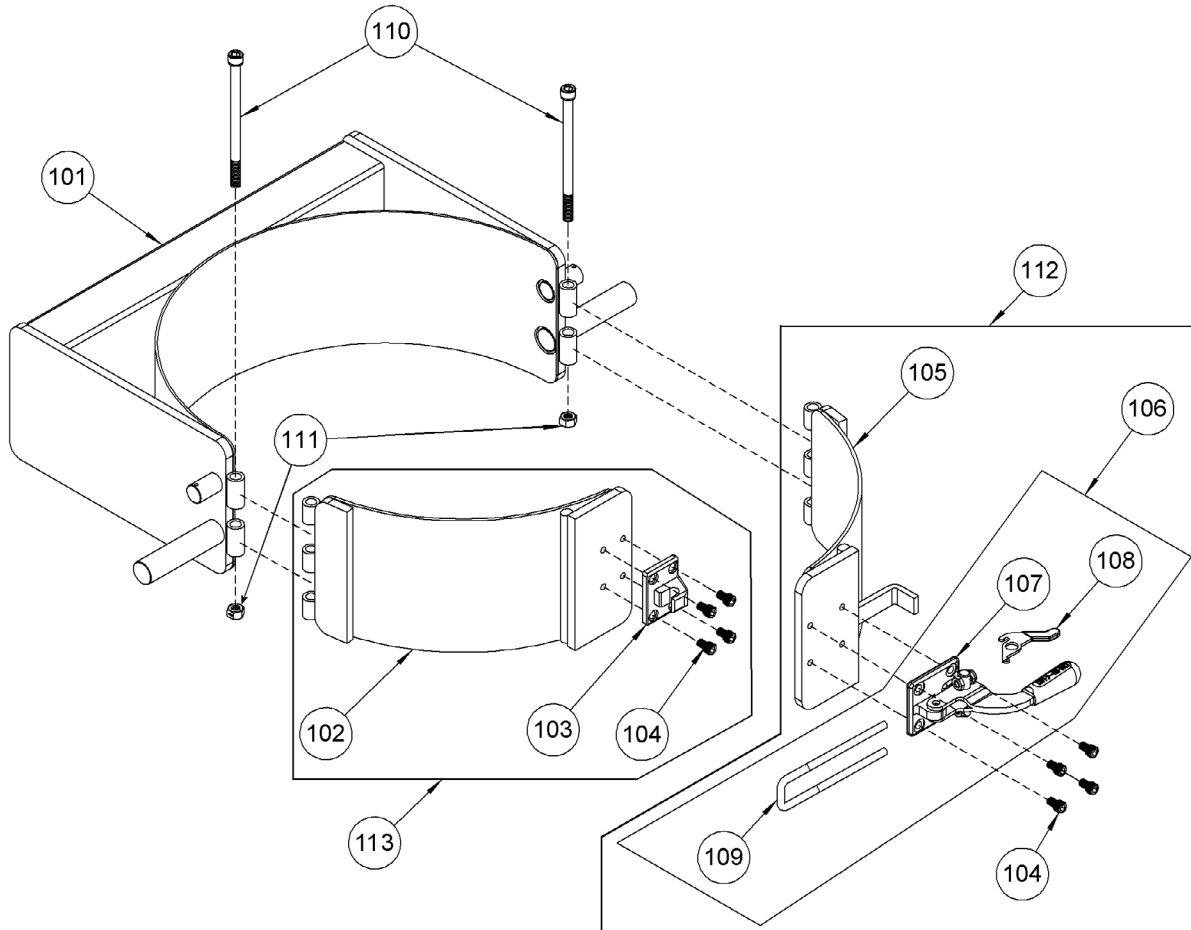
ITEM NO.	PART #	DESCRIPTION	QTY.
5	18-P	BEARING, 1" ID X 2-1/2"	2
6	5062-P	BEARING, 1-1/4" ID X 2-1/2"	2
21	4770-P	LATCH, SPRING, 305-CAGE, A-BP	2
22	1517-P	SCREW, 1/4-20 X 5/8 PAN HEAD	4
23	1518-P	NUT, 1/4-20 NYLON LOCK	6
24	6025-P	POWER LINK WELD, LEFT XBP	1
25	6024-P	POWER LINK WELD, A-BP	1
26	2500-P	DRAG LINK WELD, A-BP	2
27	29-P	SPACER, SPUR GEAR .15", ALUM	2
28	64-P	ROLL PIN, 3/16 X 1-1/4	2
29	5522K-P	CYLINDER, 2 X 10 DBL ACT, KFP	2
30	3610-P	HYD FIT, MALE ELBOW, SAE	4
31	2506-P	PIN WELD, CYL, 285A-BP	2
32	15-P	COLLAR, 3/4" ID	2
33	5585-P	PIN, GROOVE, 3/4 X 2.61 C	2
34	5330-P	SNAP RING, EXT, HD, .078, 3/4"	2
35	5081-P	SADDLE ASM, XBP, 3PC, 2500LB	1
36	5061-P	COLLAR, 1-1/4" ID	4
37	M3551-P	(SHOWN) HYD POWER PACK, 12V DC, BP	1
37	MTE3551-P	HYD POWER PACK, A-BP, 12V MTE	1
38	1657-P	HHCS, 3/8-16 X 3/4 GR2	3
39	1166-P	WASHER, 3/8 USS 1" OD, ZINC	4
40	1169-P	NUT, 3/8-16 REV HEX LOCK	5
41	2467A-P	HYD HOSE ASM, 40", A-BP, XBP	2
42	6689-P	PENDANT ASM, WIRED, 15' A-BP	1
43	5087-P	TOP PIECE, BATTERY BOX, 285XBP	1

ITEM NO.	PART #	DESCRIPTION	QTY.
44	388-P	BATTERY, 12V DC	1
45	4914-P	HARNESS, PUMP CABLE, 18/24	1
46	3682-P	STRAIN RELIEF, 285A-BP	1
47	6186L-P	LINKAGE GUARD, LEFT, LC	1
48	5212-P	GROMMET, 1-1/2 OD, RUBBER	7
49	16-P	COLLAR, 1" ID	4
50	82-P	HHCS, 3/8-16 X 2-1/4 GR2	4
51	1474-P	WASHER, 3/8 SPLIT LOCK	2
52	3757-P	HYD FIT, SAE ELBOW, 456 CYL	2
53	4913-P	HARNESS, BATTERY CABLE, 28/20	1
54	391-P	CHARGER 12V 50HZ 60HZ 100-240V	1
55	6186R-P	LINKAGE GUARD, RIGHT, LC	1
56	4079-P	HHCS, M8 X 60 MM CL8.8, 8MM	1
57	4081-P	NUT, M8 ESNA, 8MM	1
58	2162-P	CHAIN, 1/4" PROOF COIL, 4 FT	1
59	5713-P	CARABINER, 7/16 OPENING, 286-1	1
60	3694-P	HYD HOSE ASM, 35"	1
61	5042-P	NUT, 6-32 NYLON LOCK, SS	4
62	5041-P	PHMS, SLOTTED, 6-32 X 1, SS	4
63	1739-P	WASHER 3/8 INTERNAL TOOTH LOCK	2
64	193-P	SCREW, TEK, 12-14 X 3/4 3 PT	6
65	4820-P	HANDLE, BATTERY CONNECT	1
66	4811W-P	DOOR, PUMP, 285A-BP	1
67	3838-P	HHCS, 1/4-20 X 2 GR2	2
68	5889-P	HYD FIT, BRANCH TEE, SAE	2

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ITEM	QTY.	PART #	DESCRIPTION
101	1	5082-P	SADDLE WELD, XBP, 2500LB (NOT SOLD SEPARATELY)
102	1	4515-P	FRONT BAND WELD, CATCH, XGR
103	1	3067-P	CATCH, 375-R TOGGLE, CAMLOCK
104	8	22-P	SHCS, 3/8-24 X 5/8
105	1	4516-P	FRONT BAND WELD, CLAMP, XGR
106	1	4187-P	TOGGLE CLAMP, W/ U BOLT
107	1	2984-P	TOGGLE CLAMP, 375-R
108	1	3601-P	RELEASE LEVER, 2984-P
109	1	4682-P	U-BOLT, 6", 375-R CLAMP
110	2	3592-P	SHCS, 1/2-13 X 7-1/2
111	2	810-P	NUT, 1/2-13 REV HEX LOCK
112	1	4514-P	FRONT BAND CPT, CLAMP, XGR
113	1	4513-P	FRONT BAND CPT, CATCH, XGR

* Recommended Spare Parts