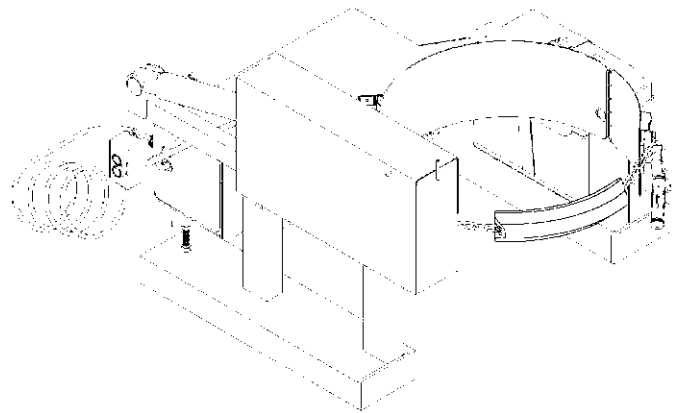


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Operator's Manual
for Morse
Forklift-Karrier with
Battery-Powered Drum Tilt

Model 285A-BP
 Serial Number 0413 to ____ (MMYY)



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 Battery-Powered Forklift-Karrier Model 285A-BP
Serial Number 0413 to ____ (MMYY)

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 of 1500 Lb.



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.

Operator's Manual for Morse Battery-Powered Forklift-Karrier Model 285A-BP
Serial Number 0413 to ____ (MMYY)

Machine Description

The Model 285A-BP Forklift-Karrier is designed to lift, transport, and dispense a ribbed 55-gallon steel or fiber drum 22.5" to 23.5" in diameter. The maximum full-drum capacity is 1500 Lb. The capacity is derated to 800 Lb. for a half-full drum. The half-full rating is based on the tilt mechanism's capacity for handling an unbalanced bottom-heavy drum.

MORSE
Mfg. Co., Inc.
E. Syracuse, NY

The Specialist In Drum Handling Equipment

1500 Lb.
(680 kg)
Max. Capacity

Made in U.S.A.

Options

- A smaller diameter drum can be handled with the correct size 55/30 Series Diameter Adaptor installed (see Diameter Adaptor literature).
- The adjustable Bracket Assembly (Part # 4556-P) is **required** to handle a plastic drum without a top rim (see figure 2.1). The Bracket Assembly is also recommended when handling a fiber drum. You can also use the Bracket Assembly when handling a rimmed drum.
- To handle a 55-gallon plastic drum with suitable top rim, you **must** install either the Bracket Assembly or the Top Rim Clamp (Part # 4560-P) (see figure 2.2). You can use the Top Rim Clamp to handle a 55-gallon plastic, steel or fiber drum with suitable top rim.
- 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.

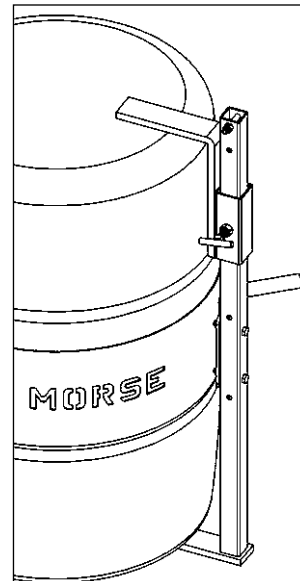


Figure 2.1
Plastic drum being lifted with part number 4556-P Bracket Assembly installed.

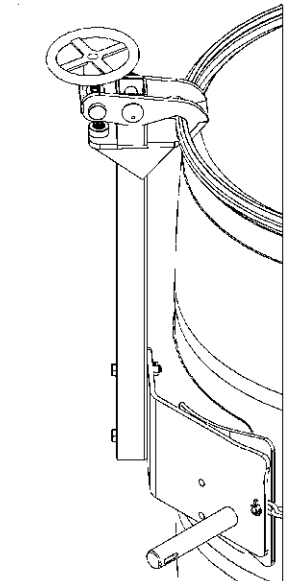



Figure 2.2
Plastic drum being lifted with part number 4560-P Top Rim Clamp Assembly installed.

Important

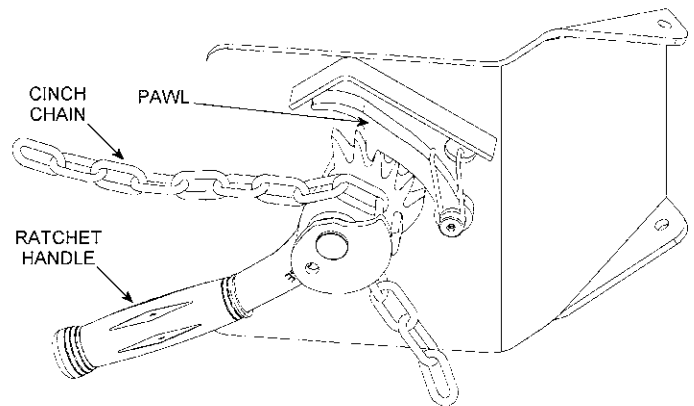
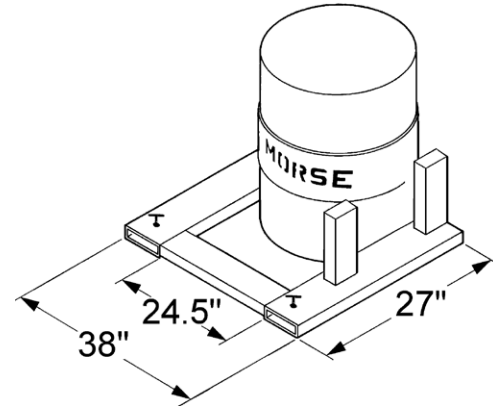
1. Please read all instructions thoroughly before attempting to operate your new Morse drum handler.
2. When loading, unloading, operating, or maintaining your MORSE drum handler, always use care and good judgment. Maintain secure footing and a firm hold. Keep hands and loose clothing away from all moving 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 285A-BP 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 285A-BP on page 5 for calculating lost load on your equipment.
4. Prior to operation: open the rear cover to access the power pack & replace the red shipping plug in the hydraulic reservoir with the supplied black breather plug.

 **LOAD CAPACITY**
_____ Lb.

Operator's Manual for Morse Battery-Powered Forklift-Karrier Model 285A-BP
Serial Number 0413 to ____ (MMYY)

Operating Instructions

1. Before sliding forklift forks into the fork tubes, adjust forks to an inside spread of 25" minimum. Lock forks into position on the forklift carriage.
2. Drive the forklift forward to slip the forks into the fork tubes. Tighten tee screws (item #4) to secure the Forklift Karrier to the forks.
3. Release the cinch chain (item #112) and hang the loose end from the upright peg on the front of the guard. Allow the ratchet hinge plate to swing to the open position.
4. Drive the forklift with the Forklift Karrier near floor level to position the saddle band around the middle of the drum between the ribs.
5. Drape the cinch chain across the front of the drum and insert one link into the slot on the ratchet handle. Turn the ratchet handle clockwise to tighten the cinch chain around the drum (shown right).
6. Remove pendant assembly (item #27) 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.



CAUTION:

DO NOT exceed weight capacity of 1500 Lb. for FULL drum, 800 Lb. for HALF-FULL drum.



CAUTION:

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

Maintenance

1. Lubricate cylinder pins (items 14 & 11) and linkages (items 8 & 9).
2. Clean and oil ratchet, pawl, 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).

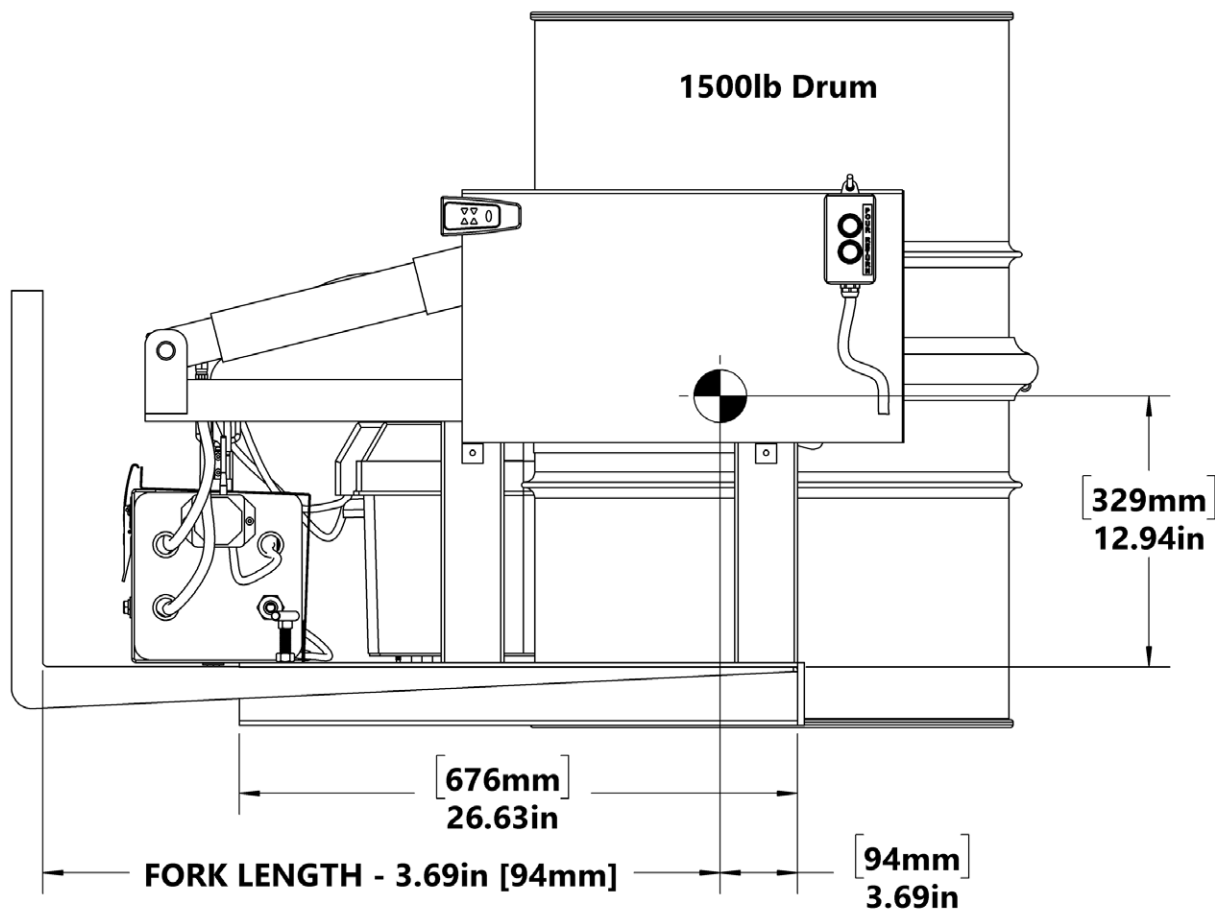
* For each size fiber drum, this model requires a 55/30 series Diameter Adaptor.

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Center of Gravity Dimensions for Calculating Lost Load on Equipment

MORSE MODEL 285A-BP

Center of gravity shown for Morse attachment combined with max drum: 1826lb [828kg]



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



The Specialist In Drum Handling Equipment

Model 285A-BP Battery-Powered Forklift-Karrier

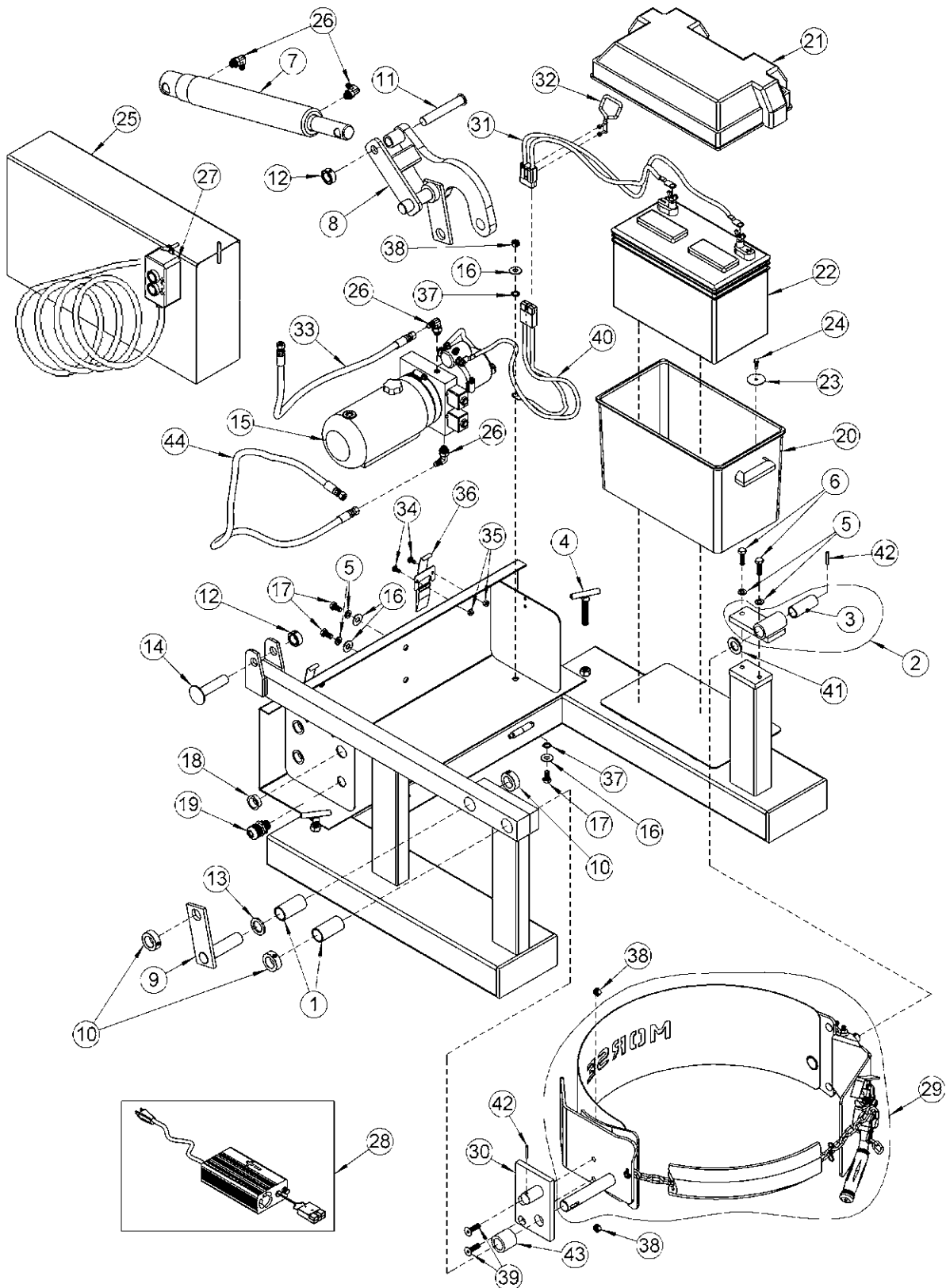
Operator's Manual for Morse Battery-Powered Forklift-Karrier Model 285A-BP Serial Number 0413 to ____ (MMYY)

ITEM #	QTY.	PART #	DESCRIPTION
1 *	2	18-P	BEARING, 1" ID X 2-1/2"
2	1	3849B-P	BEARING ASM, SLIDING IDLER
3 *	1	19-P	BEARING, 3/4" ID X 2-1/2"
4	2	58-P	SET SCREW, LOCK TEE, 285
5	4	1474-P	WASHER, 3/8 SPLIT LOCK
6	2	535-P	HHCS, 3/8-16 X 1-1/4 GR5
7	1	5522-P	CYLINDER, 2 X 10, SAE ADJ CLEV
8	1	1281-P	POWER LINK WELD, A-BP
9	1	2500-P	DRAG LINK WELD, A-BP
10	3	16-P	COLLAR, 1" ID
11	1	2506-P	PIN WELD, CYL, 285A-BP
12	2	15-P	COLLAR, 3/4" ID
13	1	29-P	SPACER, SPUR GEAR .15"
14	1	704-P	AXLE, 3/4", USE WITH PUSH-ON
15	1	M3551-P	HYD POWER PACK, 12V DC, BP
16	4	1166-P	WASHER, 3/8 USS 1" OD
17	3	1657-P	HHCS, 3/8-16 X 3/4 GR2
18	3	5212-P	GROMMET, 1-1/2 OD, RUBBER
19	1	3682-P	STRAIN RELIEF, 285A-BP
20	1	1729-P	BOTTOM, BATTERY BOX, 400
21	1	1728-P	TOP, BATTERY BOX, 400, 285A-BP
22	1	388-P	BATTERY, 12V DC

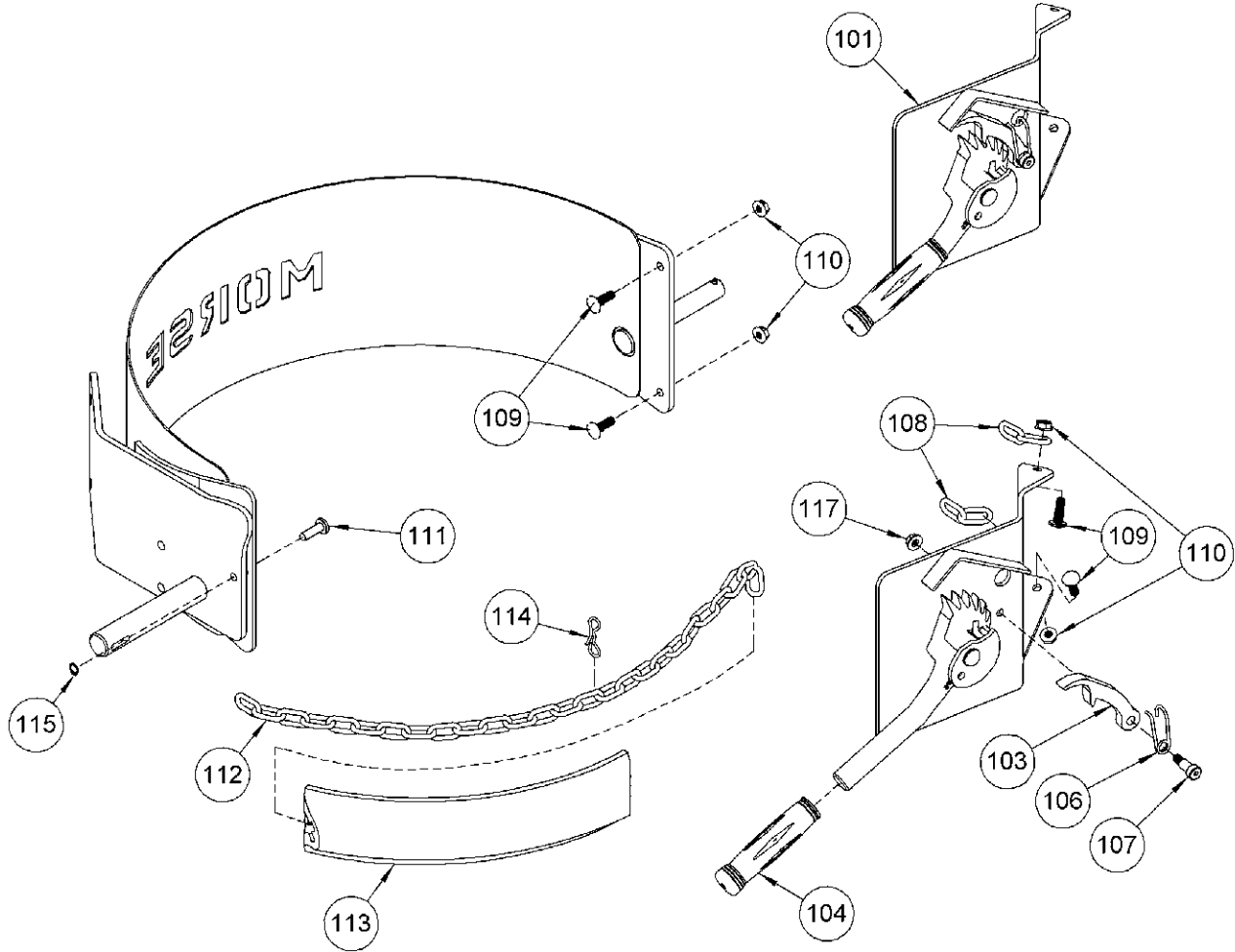
ITEM #	QTY.	PART #	DESCRIPTION
23	4	4168-P	WASHER, 7/32, 1-1/2 OD, FENDER
24	8	193-P	SCREW, 12-14 X 3/4 3 PT TEK
25	1	4814-P	LINKAGE GUARD WELD, 285A-BP
26	4	3610-P	HYD FIT, MALE ELBOW, SAE
27	1	4605-P	PENDANT ASM, WIRED, 20' A-BP
28	1	391-P	CHARGER 12V 50HZ 60HZ 100-240V
29	1	5000-P	SADDLE ASM, MORCINCH, MOR
30	1	4911-P	PLATE WELD, BOLT ON, A-BP
31	1	4913-P	HARNESS, BATTERY CABLE, 28/20
32	1	4820-P	HANDLE, BATTERY CONNECT
33	1	2466A-P	HYD HOSE ASM, 35" 285A-BP
34	4	1517-P	SCREW, 1/4-20 X 5/8 PAN HEAD
35	4	1518-P	NUT, 1/4-20 NYLON LOCK
36	2	4770-P	LATCH, SPRING, 305-CAGE, A-BP
37	2	1739-P	WASHER 3/8 INTERNAL TOOTH LOCK
38	3	1169-P	NUT, 3/8-16 REV HEX LOCK
39	2	4927-P	SHCS, 3/8-16 X 1-1/4 FH
40	1	4914-P	HARNESS, PUMP CABLE, 18/24
41	1	55-P	WASHER, 3/4 SAE FL 1-1/2 OD
42	2	64-P	ROLL PIN, 3/16 X 1-1/4
43	1	4372-P	SPACER, HD DRIVE SHAFT 1.4"
44	1	2467A-P	HYD HOSE ASM, 40" 285A-BP

* Recommended spare parts

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ITEM	QTY.	PART #	DESCRIPTION
101*	1	4214A-P	RATCHET PLATE CPT, MOR
103	1	168-P	PAWL, WITH DRILLED HOLE
104	1	136-P	GRIP, HANDLE 7/8" X 4-3/4"
106	1	169-P	SPRING, PAWL
107	1	170-P	SCREW, 3/8 DIA X 5/8 SHOULDER
108*	2	5019-P	CHAIN, HINGE, 9/32 ALLOY 2 LK
109*	4	4177-P	BOLT, 5/16-18 X 1 CARRIAGE RIB

ITEM	QTY.	PART #	DESCRIPTION
110*	4	4178-P	NUT, 5/16-18 FLANGE LOCK, MOR
111*	1	4172SP-P	PIN, S.P., CINCH CHAIN, 5000-P
112*	1	5017-P	CHAIN, CINCH, 9/32, 38 LINK
113*	1	4414-P	COVER, CINCH CHAIN, FLEX PVC
114	1	4710-P	PIN, BOW TIE COTTER, MOR
115*	1	4744-P	SNAP RING, EXTERNAL, 3/8"
117	1	1634-P	NUT, 5/16-18 WHIZ LOCK

* Recommended spare parts.