

**Operator's Manual
 for Morse Omni-Lift Karrier
 405 Series**

Serial Number 0802 to 1110 (MMYY)

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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 assembly. Inspect drum holder assembly for proper operation. Perform necessary load test, inspections, operator training, etc.

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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 Omni-Lift 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 800 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 with non-slip soles and hard toe protection.



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

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Machine Description

The Omni-Lift Karrier is designed to lift, transport, and dispense a ribbed 55-gallon steel drum 22.5" in diameter. The maximum full-drum capacity is 800 Lb. The capacity is derated to 500 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.

Options (shown at right)

A 55-gallon plastic drum can be handled with Option # AP405 installed.



Omni-Lift Karrier
with Option AP405 installed.

Important

1. 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.
2. Please read all instructions thoroughly before attempting to operate your new Morse drum handler.
3. The Omni-Lift Karrier has a maximum capacity rating of 800 Lb. full drum and 500 Lb. half-full drum and is designed to lift, move and pour a 55-gallon steel drum. DO NOT exceed these ratings. Exceeding these ratings or handling drums other than those mentioned above is unsafe and could result in equipment damage, excessive wear or awkward handling.
4. Omni-Lift Karriers are intended for lifting, moving, and holding drums for tilting, pouring or racking. Drums may be lifted upright to or from the floor or other suitable surface on dollies, scales, etc.
5. 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.
6. Prior to initial use, inspect all moving parts and test rotation of drum holder assembly. Inspect drum holder assembly for proper operation. Perform necessary load test, inspections, operator training, etc.

Operating Instructions

1. Roll the Omni-Lift Karrier to the drum.
2. Position the drum holder assembly (item 43) into the vertical position with the cross bar on top. Swing open ratchet hinge plate. The cinch chain (item 44) can be kept from dragging on the floor by hanging it on the pin at the front of the gear block (item 57).
3. Roll forward to mate the drum holder squarely and tightly to the drum. If necessary, turn drum tilt control to adjust attitude of the drum holder to fit flush to the drum.
4. Secure the drum: Drape the cinch chain across the face of the drum and engage a link into the slot on the ratchet (item 53). Turn ratchet handle clockwise to tighten the chain. If ratchet turns to the extent that the pawl (item 49) is beyond the last ratchet tooth and the chain is not tight, back up and try putting the next link in the slot. The chain should tighten as the ratchet turns and be held tight by the teeth of the ratchet and pawl. See page 4 (item 57) for how it might look when it's tight.
5. Pump the lever handle (item 5) (or operate the power lift) to raise the drum enough to clear the floor.
6. Move the Omni-Lift with the drum to the racking area. NOTE: DO NOT TRANSPORT WITH A RAISED DRUM. TRANSPORT THE DRUM UPRIGHT AT A HEIGHT CLEAR OF THE FLOOR. DO NOT ALLOW THE DRUM TO IMPACT ON FLOOR, RACKING STATION, ETC. OR A SPILL OR DAMAGE COULD OCCUR.
7. Raise the drum (hand pump or power lift) to the desired racking height. Drum attitude may be adjusted during the lift. (Turn the crank or use the power tilt control). Note: Before releasing your grip on the hand crank (item 24), pull out the crank stop pin (item 27) to block the crank from spinning freely. Disconnect cinch chain with drum in horizontal and place drum into rack.
8. To lower the drum with the hand pump, open release valve slowly, a part of a turn. Allow the drum to descend at a controlled rate. The valve may be reclosed to hold the drum at any height. To lower the drum with the power lift, lower the left control valve.
9. When retrieving drum from rack, raise drum slightly, back unit out of rack and lower with drum in horizontal position to a point where the cinch chain can be reattached. Lower drum to the floor in a vertical or horizontal position and disconnect cinch chain to release drum.
10. The screw-down floor lock may be used if there is a tendency for the unit to roll while dispensing.

Maintenance

1. Grease wheel bearings periodically. Oil or grease all moving parts including: the three clevis pins (item 9) and the surfaces of the boom which contact the inside of the mast cap, the hinge pin (item 46), the pump handle-socket linkage, the gears and sprockets in the tilt drive, and the ratchet and pawl.
2. Information for hydraulic components is provided on other sheets.
3. Periodically inspect all framework and parts for signs of wear, fatigue or loose hardware, etc. Replace, tighten or adjust as necessary to maintain proper function and prevent failures.

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Parts Information

Worn or damaged parts must be properly replaced with the correct, genuine Morse parts.

ITEM	MODEL	QTY.	PART #	DESCRIPTION
1		4	1521-P	3/8 - 16 X 3" HHCS GR 5 STL
2		8	1166-P	WASHER, 3/8 USS 1" OD
3		10	1169-P	3/8 - 16 REV HEX LOC NUT
4		2	134-84-P	LEG WELDMENT, 400A-84
5		1	96CP13-23	HANDLE, LEVER W/ GRIP, STAR
6		8	215-P	5/16 - 18 X 5/8 HHCS GR 2
7		8	491-P	5/16 - 18 REV HEX LOC NUT
8		1	96MK1939-P	PUMP, HYD, HAND STAR
9		3	138-P	CLEVIS PIN 5/8 X 3"
10		4	1572-P	3/8 - 16 X 1" HHCS GR 2 STL
11		1	765-P	HYD FITTING, MALE ELBOW
12		2	705-P	PUSH-ON HUB CAP, 3/4"
13		2	704-P	AXLE, 3/4", USE WITH PUSH-ON
14 *		2	87-P	WHEEL, MORTUF, 8", 3/4" BRG
15 *		2	3308-P	CASTER, 4" SWIVEL, DBL RACE
16		1	135-P	TOWER WELDMENT, 400A-60, 72
17		1	139-P	OVERHEAD WELDMENT, 405
18 (Note 1)	405	1	139CPT-P	OVERHEAD ASM CPT, 405
18 (Note 1)	405M	1	139MCPT-P	OVERHEAD ASM CPT, 405M
19		1	766-P	HYD HOSE ASM, 12"
20		7	17-P	WASHER, 5/8 SAE FL 1-5/16 OD
21		4	64-P	ROLL PIN, 3/16 X 1-1/4
22		1	781-P	CYLINDER, 1.5 X 22.625, SAE
23		4	136-P	HANDLE GRIP, 7/8" X 4-3/4"
24		1	5-P	HAND CRANK, 400, 405
25 *		2	735-P	KEY, WOODRUFF, SIZE 9, ASA606
26 *		1	19-P	BEARING, 3/4" ID X 2-1/2"
27	405	1	100-P	STOP PIN, HAND CRANK, 1/2"
27	405M	1	2779-P	STOP PIN, HAND CRANK, SS
28		1	15-P	COLLAR, 3/4" ID
29 *		1	7-P	BEARING, 3/4" ID X 1-1/2"

ITEM	MODEL	QTY.	PART #	DESCRIPTION
30		1	16-P	COLLAR, 1" ID
31 *		1	18-P	BEARING, 1" ID X 2-1/2"
32		3	55-P	WASHER, 3/4 SAE FL 1-1/2 OD
33 *		1	11-P	SPROCKET, #35 12T, 3/4" BORE
34		1	795-P	LINK, MASTER, #35 CHAIN
35 *		1	12-P	CHAIN, ROLLER, #35 W/ M LINK
36 *		1	13-P	SPROCKET #35 36T, 3/4" BORE
37		1	718-P	PUSH NUT, 1/2"
38 *		1	14-P	GEAR, PINION, 7 TOOTH
39 *		1	23-P	GEAR, SPUR, 72T, 1" HOLE
40		1	29-P	SPACER, SPUR GEAR .15"
41		2	22-P	3/8 - 24 X 5/8" SHCS STL
42	405	1	1179-P	SADDLE WELDMENT, 405
42	405M	1	1179M-P	SADDLE WELDMENT, 405M
43 (Note 2)	405	1	1180-P	SADDLE ASM CPT, 405
43 (Note 2)	405M	1	1118-P	SADDLE ASM CPT, 405M
44 *	405	1	180-P	CHAIN, CINCH, 3/16 ALLOY 33 LK
44 *	405M	1	1287-P	CHAIN, CINCH, 3/16" SS 33 LINK
45		1	82-P	3/8 - 16 X 2-1/4 HHCS GR 2 STL
46		1	1632-P	HINGE BOLT, 3/8 - 16 X 7-1/2
48		1	165KIT-P	KIT, RATCHET CHAIN TIGHTENER
49		1	168-P	PAWL, WITH DRILLED HOLE
50		1	710-P	RETAINER, RATCHET PUSH ON 3/4"
51		1	169-P	PAWL SPRING
52		1	170-P	3/8" DIA X 5/8" SHOULDER SCREW
53		1	165-P	RATCHET, MALLEABLE, FOR SADDLE
54		1	2021-P	IDLER ANGLE SUPPORT, 405
55		2	1474-P	WASHER, 3/8 SPLIT LOCK
56		2	535-P	3/8 - 16 X 1-1/4 HHCS GR 5 STL
57 *	405	1	156CPT-P	RATCHET HINGE PLATE CPT, 405
57 *	405M	1	156MCPT-P	RATCHET HINGE PLATE CPT, 405M

* Recommended spare parts

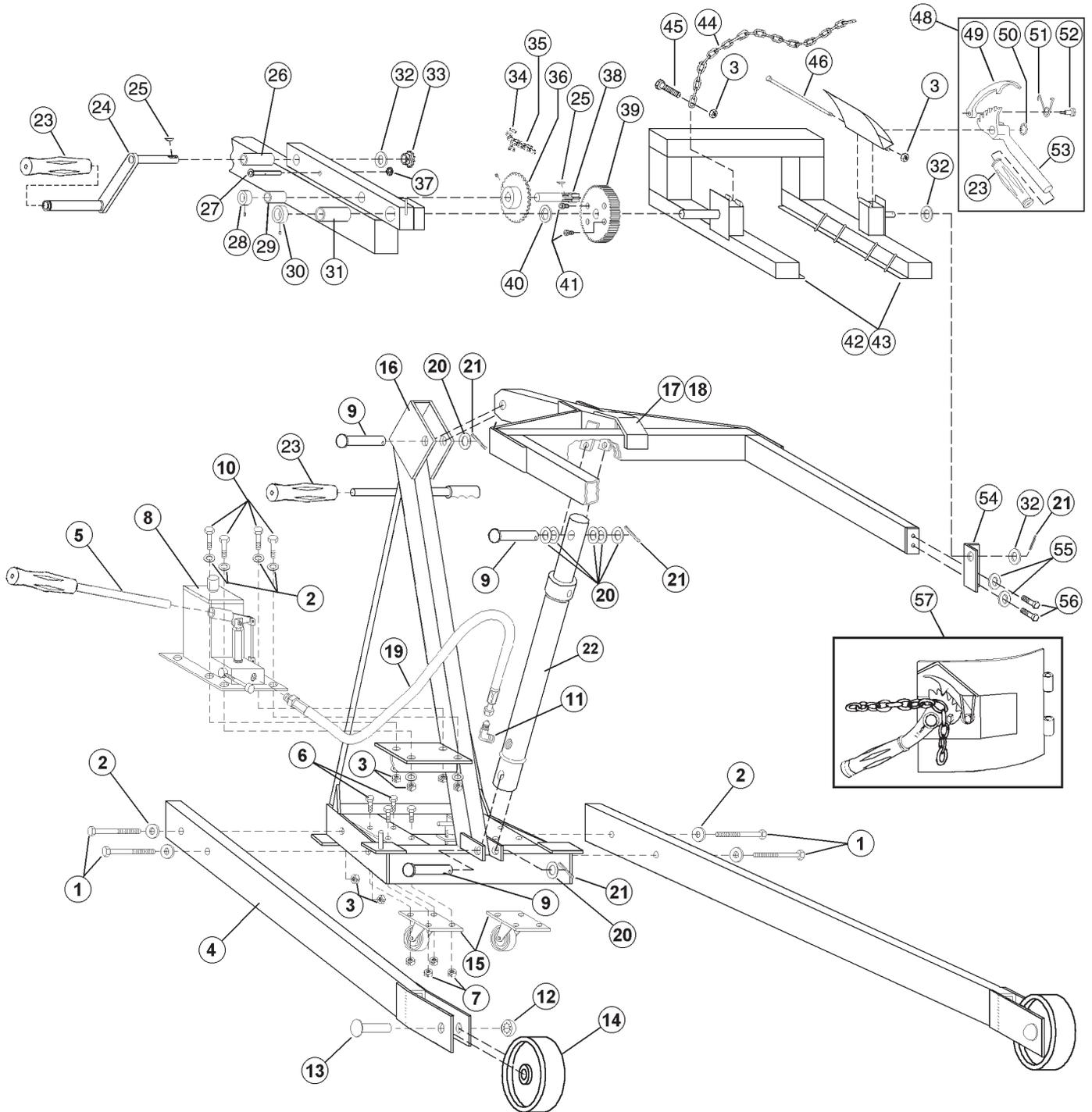
NOTE #1: "Overhead Assembly Complete" includes the overhead weldment #17, saddle assembly complete #43, tilt gear assembly #24 with related parts and #26 through 41, etc., all factory assembled.

NOTE#2: "Saddle Assembly Complete" includes the saddle weldment #42 and appropriate attached moving parts, such as #3, 44, 45, 46 & 57.

NOTE #3: Basic model 405 includes hand pump hydraulic lift and manually driven geared tilt as pictured. Motor powered hydraulic lift and powered tilt are available options. Power lift is available for retrofit to replace hand pump lift. Contact your dealer for info.

NOTE #4: Unless otherwise specified, parts are for Model 405 or 405M.

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ITEM	MODEL (note #1)	QTY.	PART #	DESCRIPTION
1		9	193-P	SCREW, TEK, 12-14 X 3/4" 3 PT
2		1	1755-P	COVER HALF SQ, NO HOLES 400 PT
3		1	351-P	MOTOR, HYDRAULIC HYD, 400, 456
4		2	2120-P	HYD FITTING 0103-8-4, 456 400
5		1	30-P	SPROCKET #40D 16T, 1" BORE
6		1	32-P	SPROCKET #40D 32T, 1" BORE
7		1	31-P	CHAIN, ROLLER, #40D W/ M. LINK
8		1	796-P	LINK, MASTER, FOR #40D CHAIN
9		1	15-P	COLLAR, 3/4" ID
10		1	7-P	BEARING, 3/4" ID X 1-1/2"
11		2	18-P	BEARING, 1" ID X 2-1/2"
12		4	1474-P	WASHER, 3/8 SPLIT LOCK
13		4	1657-P	3/8 - 16 X 3/4 HHCS GR 2 STL
14		1	1116-P	SPROCKET #35 17T, 1" BORE
15		1	12-P	CHAIN, ROLLER, #35 W/ M LINK
16		1	13-P	SPROCKET #35 36T, 3/4" BORE
17		1	735-P	KEY, WOODRUFF, SIZE 9, ASA606
18		1	14-P	GEAR, PINION, 7 TOOTH
19		1	29-P	SPACER, SPUR GEAR .15"
20		3	736-P	KEY, WOODRUFF, SIZE 15, ASA808
21		1	27-P	SPUR GEAR W/ 1" SHAFT, HD TYPE
22		1	1772-P	COVER HALF SQ, 1 HOLE, 400 PT
23		2	1169-P	3/8 - 16 REV HEX LOC NUT
24	405	1	180-P	CHAIN, CINCH, 3/16 ALLOY 33 LK
24	405M	1	1287-P	CHAIN, CINCH, 3/16" SS 33 LINK
25		1	82-P	3/8 - 16 X 2-1/4 HHCS GR 2 STL

ITEM	MODEL (note #1)	QTY.	PART #	DESCRIPTION
26 (Note 1)	405	1	1181-P	SADDLE ASM CPT, 405 PT
26 (Note 1)	405M	1	2781-P	SADDLE ASM CPT, 405M PT
27	405	1	2691-P	SADDLE WELDMENT, 405 PT
27	405M	1	2782-P	SADDLE WELDMENT, 405M PT
28		1	2021-P	IDLER ANGLE SUPPORT, 405
29		1	1632-P	HINGE BOLT, 3/8 - 16 X 7-1/2
30		1	64-P	ROLL PIN, 3/16 X 1-1/4
31		2	55-P	WASHER, 3/4 SAE FL 1-1/2 OD
32	405	1	156-P	RATCHET HINGE PLATE ONLY, 405
32	405M		156M-P	RATCHET HINGE PLATE ONLY 405M
33		1	168-P	PAWL, WITH DRILLED HOLE
34		1	169-P	PAWL SPRING
35		1	170-P	3/8" DIA X 5/8" SHOULDER SCREW
36		1	710-P	RETAINER, RATCHET PUSH ON 3/4"
37		1	165-P	RATCHET, MALLEABLE, FOR SADDLE
38		1	136-P	HANDLE GRIP, 7/8" X 4-3/4"
39		1	165KIT-P	KIT, RATCHET CHAIN TIGHTENER
40	405	1	156CPT-P	RATCHET HINGE PLATE CPT, 405
40	405M	1	156MCPT-P	RATCHET HINGE PLATE CPT, 405M
41		2	1474-P	WASHER, 3/8 SPLIT LOCK
42		2	535-P	3/8 - 16 X 1-1/4 HHCS GR 5 STL
43		2	1766-P	HYD HOSE ASM, 405 PT, 91"
44 (Note 2)	405	1	2019-P	OVERHEAD ASM CPT, 405 PT
44 (Note 2)	405M	1	2780-P	OVERHEAD ASM CPT, 405M PT
45	405	1	2018-P	OVERHEAD WELDMENT, 405 PT

NOTE #1: Saddle Assembly Complete (drum holder) includes the Saddle Weldment (#27) and appropriate attached moving parts: #23, 24, 25, 29, & 40.

NOTE #2: Overhead Assembly Complete includes the Overhead Weldment (#45), Saddle Assmeby complete (#26) and part #'s 1 through 42, all factory assembled.

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