

Operator's Manual for
MORSE 185M-HD SERIES HEAVY DUTY KONTROL-KARRIERS
with Serial Number 0000 to 0209 (MMYY)

185AM-HD for 55 gal. standard steel drums (22 ½" dia.)

185BM-HD for 30 gal. standard steel drums (19" dia.)

185CM-HD for steel or fibre drums (21 - 23" dia.)

185DM-HD for steel or fibre drums (19 - 20 ½" dia.)

The letter M designates "Made with spark resistant parts."

A. 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 models 185AM-HD, BM-HD, CM-HD, and DM-HD have a maximum capacity rating of 1500 Lb. FULL drum and 800 Lb. HALF-FULL and are intended for lifting, moving and pouring drums of size and type noted above. *DO NOT* exceed these ratings as an unsafe condition may result which could cause damage or excessive wear, or make the unit awkward to handle.
4. When loading, unloading, operating, or maintaining your MORSE drum handler, always use care and good judgment, have good footing and a firm hold. Keep hands and loose clothing, etc. 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.
5. The model 185M-HD is a "Group 1 - Structural and Mechanical" Below-the-Hook Lifting Device which is covered by the American National Standard ANSI/ASME B30.20. The user should comply with all aspects of this standard.

B. OPERATING INSTRUCTIONS:

1. Start with Kontrol-Karrier on the floor. Lower hoist and engage hoist hook to off-center lift point. Empty Kontrol-Karrier will hang plumb from off-center lift point.
2. Raise hoist to lift Kontrol-Karrier clear of floor and transport it next to the drum.
3. Suspend Kontrol-Karrier at a height which aligns drum saddle with center of drum.
4. With binder (call-out #29 or #30) chain hanging freely, push Kontrol-Karrier against drum so that saddle will encircle drum.
5. Drape the binder (call-out #29 or #30) across the face of the drum and engage a link in notch in hub of ratchet (#38).
See assembly detail on page 3.
6. Lock drum in place by turning ratchet to tighten chain.
7. Move hoist hook to lift point which is centered over the drum.
8. Raise hoist and position drum at pouring station.
9. To pour drum: Pull on control chain (#3) rotating drum to angle required for emptying. For best control of drum pouring angle, pay out one side of the loop while pulling in the other, thus being able to hold back the drum rotation after the load shifts.
10. After emptying, rotate drum back to vertical position and lower hoist to return empty drum.
11. To remove drum: Pull ratchet handle to relieve pressure on ratchet teeth. Lift pawl handle (#34) to release teeth engagement and rotate ratchet to loosen chain and allow its removal from notch.

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

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

C. MAINTENANCE:

1. Lubricate gear teeth and roller chain.
2. Oil ratchet, pawl, saddle hinge and other moving parts periodically.
3. 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.

Parts List for Morse 185M-HD Series with Serial Number 0000 to 0209 (MMYY)

| ITEM | MODEL LETTER SUFFIX ** | QTY. | PART # | DESCRIPTION |
|--------|------------------------|------|------------|---------------------------------------|
| 1 * | | 1 | 1-P | CHAINWHEEL #1-1/2 W/GUIDE |
| 2 | | 12 | 2B-P ** | 1/0 BRASS CHAIN, PER FOOT |
| 3 * | | 1 | 2435-P ** | PULL CHAIN, BRASS 1/0, 12 FT |
| 4 | | 1 | 15-P | COLLAR, 3/4" ID |
| 5 * | | 1 | 30-P | SPROCKET #40D 16T, 1" BORE |
| 6 * | | 1 | 31-P | CHAIN, ROLLER, #40D W/ M. LINK |
| 7 | | 1 | 796-P | LINK, MASTER, FOR #40D CHAIN |
| 8 * | | 1 | 32-P | SPROCKET #40D 32T, 1" BORE |
| 9 | | 1 | 3-P | TRIANGLE & SHAFT W/ BOLTS |
| 10 * | | 2 | 735-P | KEY, WOODRUFF, SIZE 9, ASA606 |
| 11 | | 3 | 35-P | 5/16 - 18 X 1 HHCS GR 2 |
| 12 | | 6 | 1570-P | WASHER, 5/16 USS 7/8 OD |
| 13 * | | 1 | 19-P | BEARING, 3/4" ID X 2-1/2" |
| 14 | | 2 | 55-P | WASHER, 3/4 SAE FL 1-1/2 OD |
| 15 * | | 1 | 11-P | SPROCKET, #35 12T, 3/4" BORE |
| 16 * | | 1 | 7-P | BEARING, 3/4" ID X 1-1/2" |
| 17 * | | 1 | 13-P | SPROCKET #35 36T, 3/4" BORE |
| 18 * | | 1 | 12-P | CHAIN, ROLLER, #35 W/ M LINK |
| 19 | | 1 | 795-P | LINK, MASTER, #35 CHAIN |
| 20 * | | 1 | 14-P | GEAR, PINION, 7 TOOTH |
| 21 * | | 1 | 27-P | SPUR GEAR W/ 1" SHAFT, HD TYPE |
| 22 * | | 2 | 736-P | KEY, WOODRUFF, SIZE 15, ASA808 |
| 23 | | 1 | 29-P | SPACER, SPUR GEAR .15" |
| 24 * | | 2 | 18-P | BEARING, 1" ID X 2-1/2" |
| 25 | AM-HD, CM-HD | 1 | 48M-P ** | LIFT YOKE W/ BRGS, 185AM-HD |
| 25 | BM-HD, DM-HD | 1 | 48BM-P ** | LIFT YOKE W/ BRGS, 185BM-HD |
| 26 *** | AM-HD | 1 | 745AM-P ** | SADDLE ASM CPT, AM-HD, SR |
| 26 *** | BM-HD | 1 | 745BM-P ** | SADDLE ASM CPT, AM-HD, SR |
| 26 *** | CM-HD | 1 | 745CM-P ** | SADDLE ASM CPT, 185CM-HD, SR |
| 26 *** | DM-HD | 1 | 745DM-P ** | SADDLE ASM CPT, 185DM-HD, SR |
| 27 | | | | SADDLE WELDMENT (NOT SOLD SEPARATELY) |
| 28 | | 1 | 82-P | 3/8 - 16 X 2-1/4 HHCS GR 2 STL |
| 29 * | AM-HD, CM-HD | 1 | 1287-P ** | CHAIN, CINCH, 3/16" SS 33 LINK |
| 30 * | BM-HD, DM-HD | 1 | E14SS ** | FIBRE DRUM STRAP, SS, SR |
| 31 | | 1 | 64-P | ROLL PIN, 3/16 X 1-1/4 |
| 32 | | 1 | 731M-P ** | HINGE PLATE ONLY, 1/4" SR |
| 33 | | 1 | 1296-P | 1/4 - 20 X 7-1/2 HHCS GR 5 STL |
| 34 | | 1 | 168-P | PAWL, WITH DRILLED HOLE |
| 35 | | 1 | 169-P | PAWL SPRING |

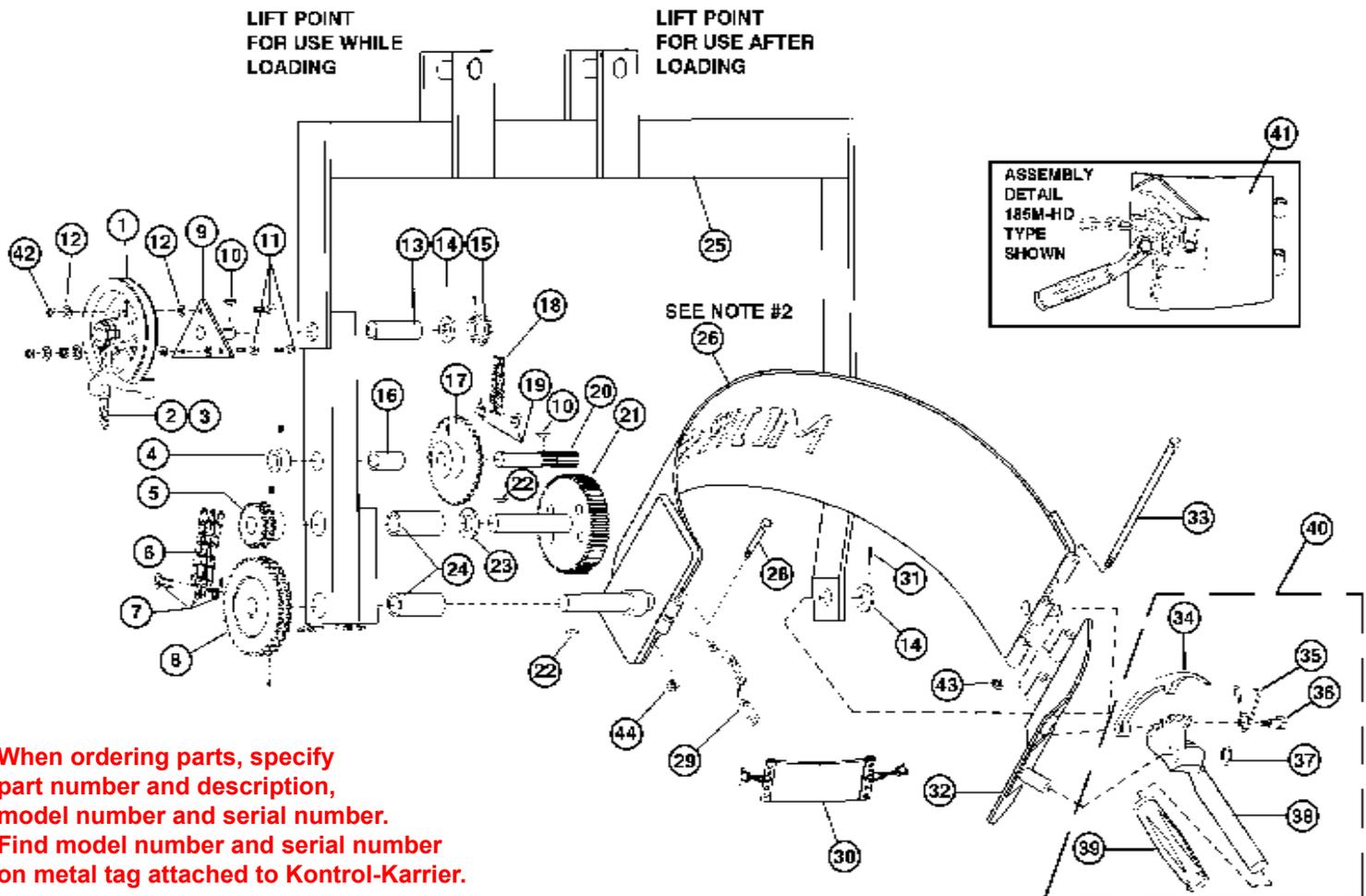
Parts Diagram for Morse 185M-HD Series with Serial Number 0000 to 0209 (MMYY)

| | | | | |
|------|--|---|-----------|--------------------------------|
| 36 | | 1 | 170-P | 3/8" DIA X 5/8" SHOULDER SCREW |
| 37 | | 1 | 710-P | RETAINER, RATCHET PUSH ON 3/4" |
| 38 | | 1 | 165-P | RATCHET, MALLEABLE, FOR SADDLE |
| 39 | | 1 | 136-P | HANDLE GRIP, 7/8" X 4-3/4" |
| 40 | | 1 | 165KIT-P | KIT, RATCHET CHAIN TIGHTENER |
| 41 * | | 1 | 726M-P ** | HINGE PLATE CPT, 1/4" SR |
| 42 | | 3 | 491-P | 5/16 - 18 REV HEX LOC NUT |
| 43 | | 1 | 1297-P | 1/4 - 20 REV HEX LOC NUT |
| 44 | | 1 | 1169-P | 3/8 - 16 REV HEX LOC NUT |

* Recommended spare parts

** **Note #1:** If no letter is shown, the part is for Models 185AM-HD, 185BM-HD, 185CM-HD or 185DM-HD. If a letter is shown, the part is for the model with that letter suffix only.

*** **Note #2:** "SADDLE ASM CPT" (DRUM HOLDER ASSEMBLY) includes the "SADDLE WELDMENT" (item 27) and appropriate attached moving parts (items 28, 30, 33, 41, 43, 44 and 29 or 30).



When ordering parts, specify part number and description, model number and serial number. Find model number and serial number on metal tag attached to Kontrol-Karrier.