

4000# NAR: 99900556: 20111213



# INSTALLATION AND REPAIR MANUAL 4000 LB WINCH

## CRANES USED ON:

421  
425  
4800 SERIES  
5200 SERIES  
5800 SERIES  
780  
880

**IOWA MOLD TOOLING CO., INC.**

BOX 189, GARNER, IA 50438-0189

TEL: 641-923-3711

MANUAL PART NUMBER 99900556

Iowa Mold Tooling Co., Inc. is an Oshkosh Corporation company.

4000# NAR: -----

## REVISIONS LIST

DATE	LOCATION	DESCRIPTION OF CHANGE
20021007	Page 6	Item #12 is #14
20030718	Page 9	Item #20, 70056067, replaced by 70056364. (Same part)
20031105	Page 9	Added gasket kit numbers.
20070323	COVER	Updated ownership statement.

## INSTALLATION

### GENERAL INSTALLATION

These instructions are intended for installation of a 4000 lb (1814 kg) capacity winch on the 421, 425, 4800 Series, 5200 Series, 5800 Series, 780 and 880 Cranes. The 4800, 5200 & 5800 Series Cranes, 780 & 880 are a bolt-on application and the necessary mounting brackets are part of a standard outer boom assembly. The 425/421 mounting is a weld-on application and it is necessary to weld a mounting plate to the underside of the outer boom.

### CONTROLS

**4800/5200/5800/780/880** - Install the control handles and cross links using the existing crane controls as a guide. Do not remove the plugs from the valvebank.

#### CAUTION

IF THE PLUGS ARE REMOVED AND THE WINCH CONTROLS ARE ACTUATED WHILE THE PTO IS ENGAGED AND THE ENGINE RUNNING, HIGH-PRESSURE HYDRAULIC OIL WILL BE DISCHARGED FROM THOSE PORTS.

**425/421 CRANE** - An appropriate valvebank and control kit will be required - see the crane manual for reference.

### WINCH

Extend and lower the stabilizers. Position the crane with the extension boom retracted, the inner boom horizontal and the outer boom vertical.

**1. 4800/5200/5800/780/880** - Install the winch mounting bracket to the outer boom as shown in the parts drawing. The 3/4" washers are used as shims and it may not be necessary to use all of them. Tighten the lock nut until the mounting bolt is held securely.

#### CAUTION

DO NOT TIGHTEN THE NUT TO THE VALUE SHOWN IN THE TORQUE DATA CHART IN THE CRANE MANUAL. FAILURE TO COMPLY WITH THIS INSTRUCTION MAY RESULT IN DAMAGE TO THE CRANE.

**1a. 425/421 CRANES** - It will be necessary to remove the lugs from beneath the outer boom. Make certain the surface is flat and does not interfere with the winch mounting plate. Position and weld the mounting plate to the outer boom per IMT drawing 99900070.

2. Install the studs in the winch mounting bracket using a vise grip or channel lock pliers. Be careful not to damage the threads. Use Loctite to secure the studs.

3. Slide the spacers over the studs.

4. Remove the set screw securing the winch end housing to the winch drum shaft. Slide the end housing and drum off the shaft.

5. Slide the winch over the studs and up against the spacers. Install the nuts and tighten to 64 ft-lbs (8.8 kg-m).

6. Slide one (1) 2-1/2" washer over the shaft and up against the gear case.

7. Slide the drum over the shaft and then two (2) more washers, if required.

8. Slide the end housing over the shaft and bolt it to the winch mounting bracket with the two (2) socket head screws. Torque to 64 ft-lbs (8.8 kg-m).

9. Tighten the set screw in the end housing.

10. Fill the winch with 2 pints of Bloom N0. 60 Trans-Worm Gear Lube (IMT Part Number 89086059).

### HYDRAULICS

1. Remove the plugs from the ports in the valvebank section. Install the elbows in the ports.

2. Install the fittings on the winch as shown in the installation parts list. The check valve is installed on the side of the motor used for lifting the load.

3. Route the hydraulic hoses from the valve section up through the mast and inner boom.

4. Connect the hoses to the valvebank ports and the winch ports.

5. Start the engine, run the crane through all of its motions while checking hose clearances. Once the hose clearances have been checked and there is sufficient clearance, install the hose clamp for the winch hoses on the side of the outer boom.

6. Test operate the winch. Run the winch at least five revolutions in each direction. Check for signs of hydraulic leakage.

## ROPE AND HOOK KIT

1. If the winch was shipped without the wire rope wrapped around the winch drum, install the wire rope by operating the winch to wind the rope on the drum. Notice that the wire rope goes over the top of the drum.

### CAUTION

KEEP THE WIRE ROPE AS CLEAN AS POSSIBLE WHILE WINDING IT ONTO THE DRUM. WHILE INSTALLING THE WIRE ROPE, HAVE SOMEONE HELP BY WIPING DOWN THE ROPE WITH OIL AS IT IS BEING WOUND ONTO THE DRUM.

2. Install the sheave and snatch block on the tip of the extension boom. Notice how the "dead" end of the rope is doubled back on itself and a cable clamp installed.

### CAUTION

DO NOT INSTALL THE CABLE CLAMP COMPLETELY AROUND THE "DEAD" AND THE "LIVE" ENDS OF THE ROPE. CLAMPING THE "LIVE" END OF THE ROPE WILL WEAKEN THE ROPE AND CAUSE PREMATURE ROPE FAILURE.

### TEST

1. Test operate the winch by lifting the maximum rated load.

### WARNING

BE SURE YOU DO NOT EXCEED THE RATED LOAD OF THE WINCH OR CRANE AND DO NOT CAUSE CHASSIS INSTABILITY. FAILURE TO COMPLY MAY RESULT IN STRUCTURAL FAILURE AND CAUSE AN INJURY.

2. Check the winch mounting bolts for tightness. Check the winch and hydraulic hoses for leaks.

## REPAIR

### DISASSEMBLY

To disassemble the winch:

1. Drain the oil from the gear case.
2. Position the crane with the inner boom horizontal, the outer boom vertical and the extension boom(s) extended to a point where the boom(s) reach the ground. Remove the winch from the crane.
3. Wash the exterior of the winch with warm, soapy water and blow dry with compressed air
4. Loosen the set screw securing the end housing bearing to the shaft. Slide the end housing off the shaft.

5. Pull the drum off the shaft. It may be necessary to use either a wheel puller or a hydraulic press to remove the drum from the shaft if corrosion or galling has occurred.

6. Slide the washer off the drum shaft.

7. Remove the hydraulic motor and spacer

8. Remove the bearing cup, cone and worm. It may be necessary to use the motor to remove the bearing. Slide the motor shaft into the end of the worm shaft. Have another person keep the drum shaft from turning and rotate the entire motor. This may force the worm to turn, which will push out the bearing.

9. Remove the six screws securing the gear case and remove the cover.

10. Use a bearing puller to remove the bearings from the cover.

11. Slide the worm gear and shaft assembly out of the gear case. Be careful not to damage the oil seal unless you plan to replace the seal.

12. Pull the other set of bearings from the gear case.

13. Clean all parts in a trichloroethane solvent bath. Blow dry with compressed air

### WARNING

USE TRICHLOROETHANE IN A WELL-VENTILATED AREA. INCOORDINATION OR IMPAIRED JUDGEMENT MAY OCCUR AT VAPOR EXPOSURES FROM 500-1000 PPM. DIZZINESS, DROWSINESS, LOSS OF CONSCIOUSNESS AND EVEN DEATH CAN OCCUR AT INCREASING LEVELS OF EXPOSURE. WHEN INVOLVED IN A FIRE, TRICHLOROETHANE EMITS HIGHLY TOXIC AND IRRITATING FUMES.

## **ASSEMBLY**

To assemble the winch:

1. Place all bearings in a clean oil bath of SAE 30 oil.
2. If the oil seal is being replaced, press a new seal into position.
3. If the worm gear is being replaced and has been removed from the drum shaft, care should be taken to press the gear onto the shaft squarely. Locate gear in the same position as the gear that was removed. It should be centered on keys. Tighten the set screw securing the gear.
4. Press all of the new bearings into the gear case and gear case cover.
5. Inspect the drum shaft for scratches, nicks or gouges. Dress any imperfections with #400 emery paper. Lightly lubricate the drum shaft and ID of the oil seal with SAE 30 oil. Carefully slide the drum shaft through the oil seal.
6. Bolt the cover to the gear case without gaskets. Snug the screws lightly and evenly. This serves two purposes: first, it preloads the bearings and secondly it permits measuring the clearance between the cover and case to determine which gaskets are needed for proper clearance. Measure the clearance between the cover and case. Remove the cover and install the necessary gaskets to obtain a thickness that is .003" to .005" less than the measurement. There are three thicknesses of gaskets: .002", .005" and .010". Use in any combination to obtain the desired thickness.
7. Inspect the worm carefully for any damage. Dress any nicks or gouges that may have occurred with #400 emery paper. Install the worm with bearings and spacer.
8. Install the motor without gaskets. Snug the screws lightly and evenly. Measure the clearance between the motor and case. Remove the motor and install the necessary gaskets. There are three different thicknesses of gaskets: .002", .005" and .010". Use in any combination to obtain a thickness that is .003" to .005" less than the measurement obtained above.
9. Fill the winch with 2 pints of Bloom No. 60 Trans-Worm Gear Lube (IMTPart Number 89086059).
10. Install the winch on the crane and test operate.

## **MAINTENANCE**

### **GEAR CASE OIL**

Every six months, drain and refill the winch oil. Use Bloom N0. 601 Trans-Worm Gear Lube (IMTPart Number 89086059).

### **WIRE ROPE INSPECTION**

Refer to the IMT Operator's Crane Safety Manual for instructions.

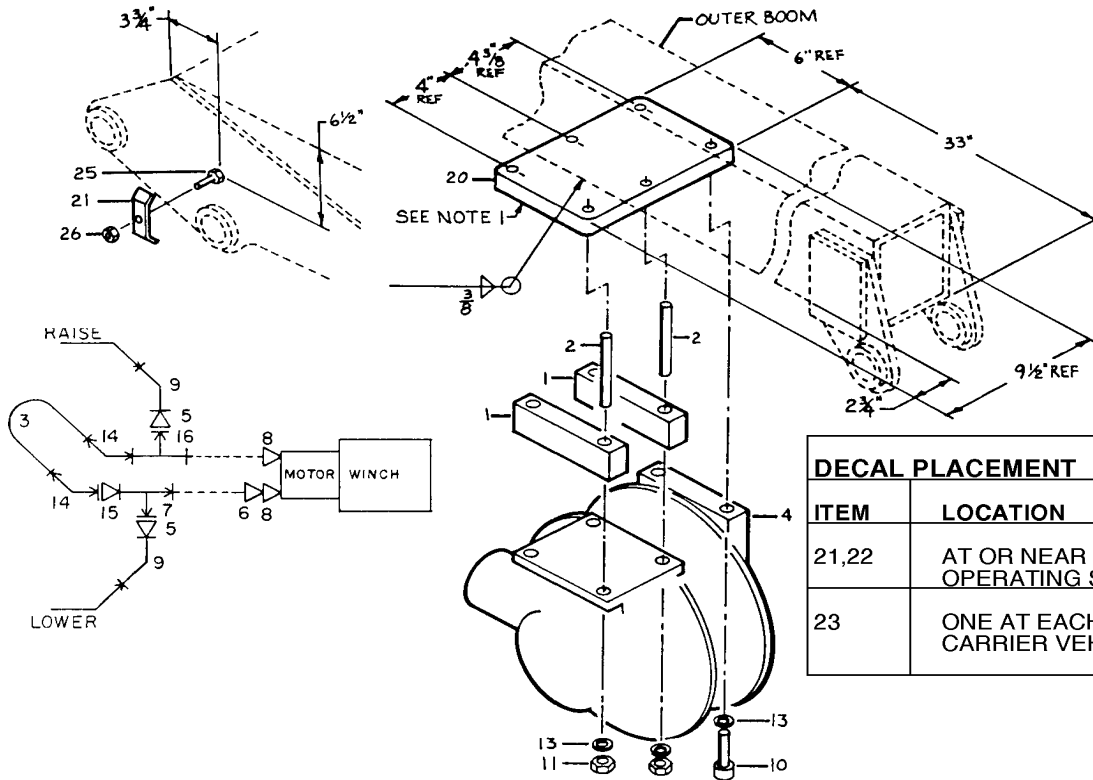
**WELD-ON WINCH KIT-425 CRANE  
(31705081)**

- 1. 60010868 SPACER (PART OF 19) 2REF
- 2. 60010869 STUD 1/2-13X4-1/2 (PART OF 19) 4REF
- 3. 60101420 U-TUBE (PART OF 19) 1REF
- 4. 71057607 WINCH 4000LB (PART OF 19) 1REF
- 5. 72053497 ADAPTER 1/2MPT 3/4MJIC (PART OF 19) 1REF
- 6. 72532670 ELBOW #8MJIC #8FJIC 45° (PART OF 19) 2REF
- 7. 72053611 TEE 3/8NPT (PART OF 19) 1REF
- 8. 72053744 ADAPTER #10MSTR 1/2FPT (PART OF 19) 2REF
- 9. 72053629 ADAPTER 1/2MPT 3/8MPT (PART OF 19) 1REF
- 10. 72060797 CAP SCR 1/2-13X2-1/2 SH (PART OF 19) 2REF
- 11. 72062004 NUT 1/2-13 HEX (PART OF 19) 4REF
- 13. 72063053 WASHER 1/2 LOCK (PART OF 19) 6REF
- 14. 72533342 FLRLS #4TUBE 1/4MPT 45° 2REF

- 15. 72532138 REDUCER BUSHING 3/8-1/4NPT (PART OF 19) 1REF
- 16. 73054006 CHECK VALVE-PILOT OP (PART OF 19) 1REF
- 19. 31904001 WINCH KIT 4000# WELD-ON (INCL:1-16) 1
- 20. 60010383 WINCH MTG PLATE 1
- 21. 60107648 HOSE CLAMP 1
- 22. 70392861 DECAL-DANGER 2-BLOCKING 2
- 23. 70392863 DECAL-DANGER HOISTING PERS 4
- 24. 70392868 DECAL-DANGER LOADLINE 1
- 25. 72060048 CAP SCR 3/8-16X1-1/2 HHGR5 1
- 26. 72062103 NUT 3/8-16 LOCK 1
- 27. 99900070 BOOM MODIFICATION DRAWING 1

**NOTES**

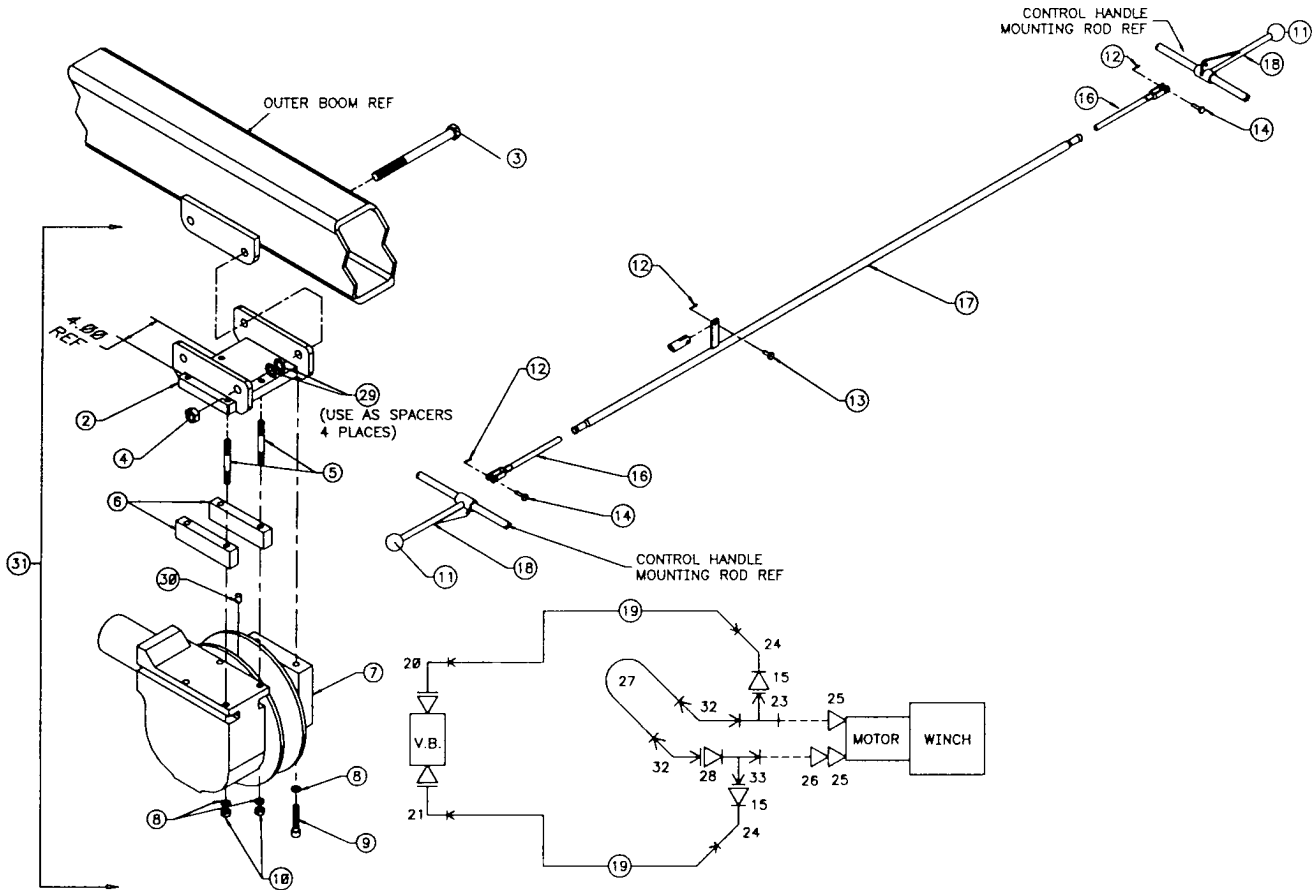
1. REMOVE LUGS FROM BOTTOM OF BOOM BEFORE INSTALLING PLATE.
2. REFER TO DRAWING 99900070 FOR COMPLETE DIMENSIONAL REFERENCE.



**BOLT-ON WINCH KIT-4800 SERIES & 780 CRANE W/MNL CONTROLS (31705009)**

2.	52703575	MTG BRACKET (PART OF 31)	1REF
3.	72060199	CAP SCR 3/4-10X9 HHGR5 (PART OF 31)	2REF
4.	72062114	NUT 3/4-10 LOCK (PART OF 31)	2REF
5.	60010869	STUD 1/2-13X4-1/2 (PART OF 31)	4REF
6.	60010868	SPACER (PART OF 31)	2REF
7.	71057607	WINCH (PART OF 31) (INCL:30)	1REF
8.	72063053	WASHER 1/2 LOCK (PART OF 31)	6REF
9.	72060797	CAP SCR 1/2-13X 2-1/2 SH (PART OF 31)	2REF
10.	72062004	NUT 1/2-13 (PART OF 31)	4REF
11.	71039096	KNOB	2
12.	72066168	COTTER PIN 3/32X3/4	3
13.	72661169	PIN 5/16X3/4	1
14.	72066338	CLEVIS PIN 5/16X1	2
15.	72053497	ADAPTER 1/2MPT 3/4MJIC (PART OF 31)	2REF
16.	52704745	CONTROL ROD-M	2
17.	52704744	CONTROL ROD-F	1
18.	70029451	CONTROL HANDLE	2

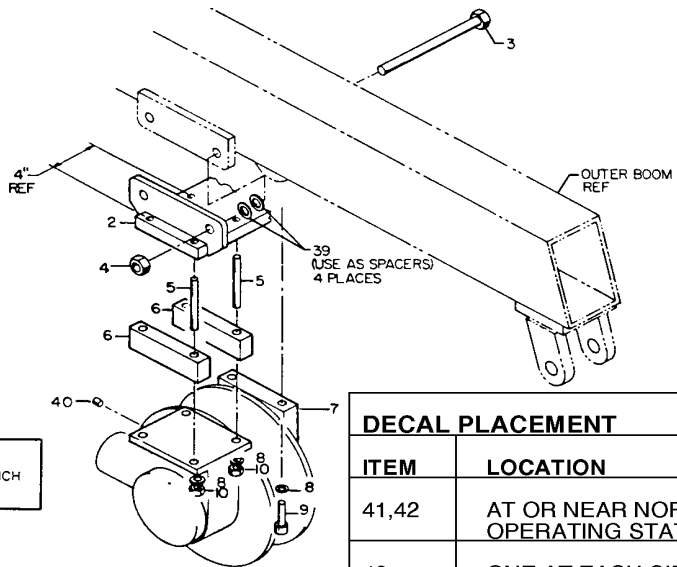
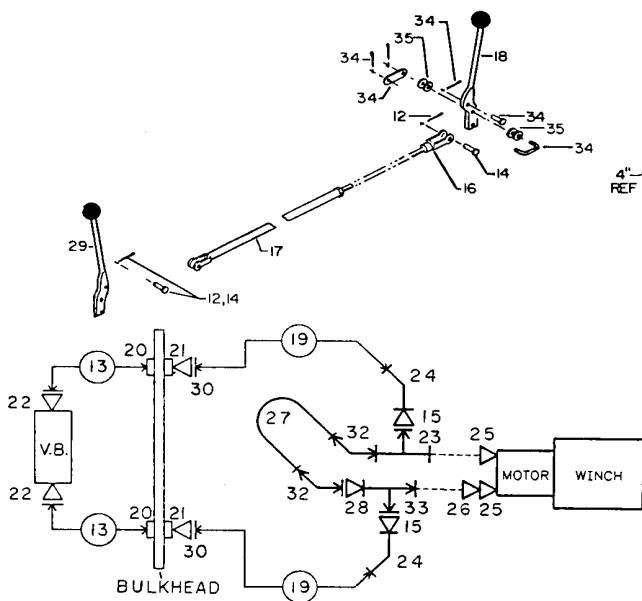
19.	51712717	HOSE ASM 3/8X256 FF	2
20.	72053760	ELBOW 9/16MSTR 9/16MJIC 90°	1
21.	72532700	ELBOW 9/16MSTR 9/16MJIC XLG	1
23.	73054006	CHECK VALVE (PART OF 31)	1REF
24.	72532670	ELBOW #8MJIC #8FJIC 45° (PART OF 31)	2REF
25.	72053744	ADAPTER #10MSTR 1/2FPT (PART OF 31)	2REF
26.	72053629	ADAPTER 1/2MPT 3/8MPT (PART OF 31)	1REF
27.	60101420	TUBE (PART OF 31)	1REF
28.	72532138	RED. BUSHING 3/8MPT 1/4FPT (PART OF 31)	1REF
29.	72063030	MACH BUSHING 3/4X10GA NR (PART OF 31)	8REF
30.	72060596	SET SCR 1/2-13X3/4 SH (PART OF 7)	1REF
31.	31904002	WINCH KIT BOLT-ON (INCL:3-10,15,23-29,32-36)	1
32.	72533342	FLRLS #4TUBE 1/4MPT 45° (PART OF 31)	2REF
33.	72053611	TEE 3/8NPT (PART OF 31)	1REF



**BOLT-ON WINCH KIT-4800 SERIES & 780 CRANE RMT CTRLS (31705967)**

- 2. MTG BRACKET (PART OF 31) 1REF
- 3. CAP SCR 3/4-10X9 HH GR5 (PART OF 31) 2REF
- 4. NUT 3/4-10 LOCK (PART OF 31) 2REF
- 5. STUD 1/2-13X4-1/2 (PART OF 31) 4REF
- 6. SPACER (PART OF 31) 2REF
- 7. WINCH (PART OF 31) (INCL:30) 1REF
- 8. WASHER 1/2 LOCK (PART OF 31) 6REF
- 9. CAP SCR 1/2-13X 2-1/2 SH (PART OF 31) 2REF
- 10. NUT 1/2-13 (PART OF 31) 4REF
- 12. 72066168 COTTER PIN 3/32X3/4 3
- 13. 51705975 HOSE ASM 3/8X96 2
- 14. 72066338 CLEVIS PIN 5/16X1 2
- 15. ADAPTER 1/2MPT 3/4MJIC (PART OF 31) 2REF
- 16. 52702018 CONTROL ROD-M 1
- 17. 52702016 CONTROL ROD-F 1
- 18. 70141982 CONTROL HANDLE 1
- 19. 51704589 HOSE ASM 3/8X245 2
- 20. 72532672 BULKHEAD UNION 3/4JIC 2
- 21. 72531708 BULKHEAD NUT 3/4 2
- 22. 72532358 ADAPTER 3/4MSTR 3/4MJIC 2
- 23. CHECK VALVE (PART OF 31) 1REF

- 24. ELBOW #8MJIC #8FJIC 45° (PART OF 31) 2REF
- 25. ADAPTER #10MSTR 1/2FPT (PART OF 31) 2REF
- 26. ADAPTER 1/2MPT 3/8MPT (PART OF 31) 1REF
- 28. RED. BUSHING 3/8MPT 1/4FPT (PART OF 31) 1REF
- 29. 70141984 CONTROL HANDLE-LONG 1
- 30. 72532790 ADAPTER 9/16MJIC 3/4FJIC 2
- 31. 31904002 WINCH KIT BOLT-ON (INCL:2-10,15,23-28,32-33,36-39) 1
- 32. FLRLS #4TUBE 1/4MPT 45° (PART OF 31) 2REF
- 33. TEE 3/8NPT (PART OF 31) 1REF
- 34. 94731839 LINK & PIN KIT 1
- 35. 72063001 WASHER 1/4 WRT 4
- 39. 72063030 MACH BUSHING 3/4X10GA NR (PART OF 31) 8REF
- 40. 72060596 SET SCR 1/2-13X3/4 SH (PART OF 7) 1REF
- 41. 70392861 DECAL-DANGER 2-BLOCKING (PART OF 31) 2REF
- 42. 70392863 DECAL-DANGER HOISTING PERS (PART OF 31) 2REF
- 43. 70392868 DECAL-DANGER LOADLINE (PART OF 31) 4REF



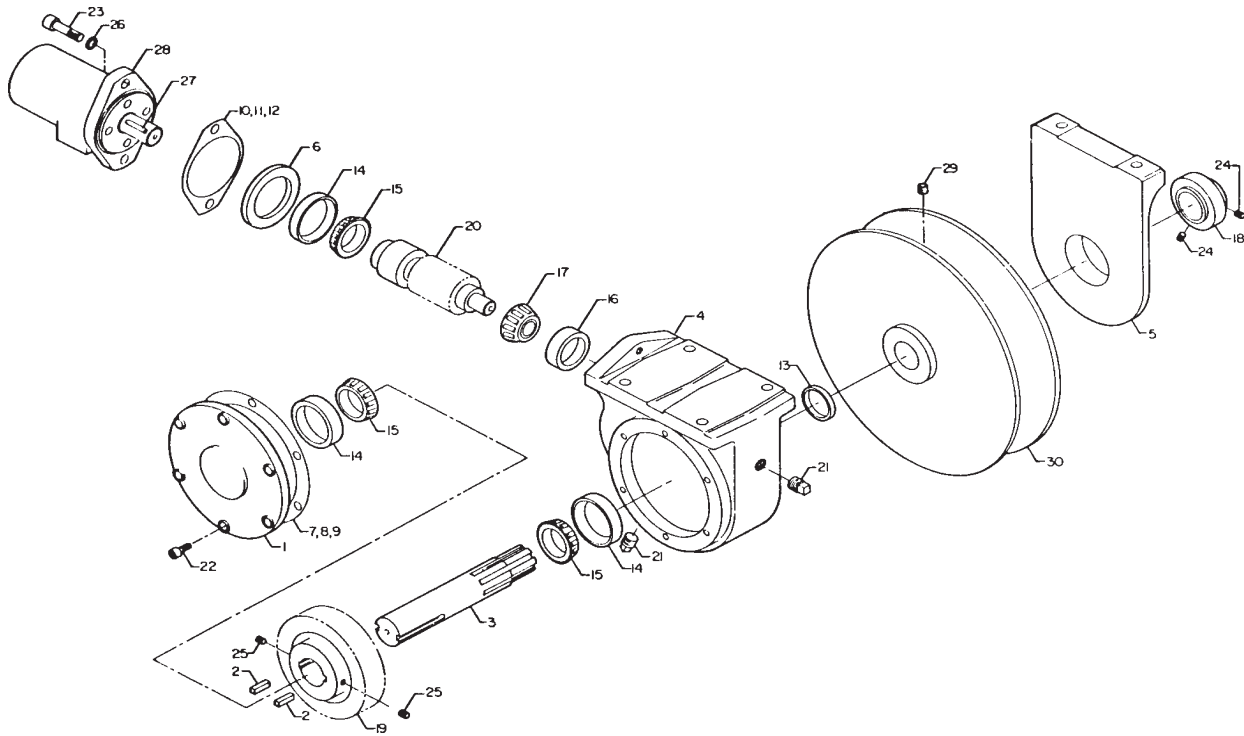
DECAL PLACEMENT	
ITEM	LOCATION
41,42	AT OR NEAR NORMAL OPERATING STATION
43	ONE AT EACH SIDE OF CARRIER VEHICLE.



**4000 LB WINCH (71057607)**

- 1. 71014724 GEAR CASE COVER 1
- 2. 71014725 KWY 3/8X3/8X1-7/16 2
- 3. 71014726 SHAFT 1
- 4. 71014727 GEAR CASE 1
- 5. 71014728 END HOUSING 1
- 6. 71014729 SPACER 1
- \*7. 76039262 COVER GASKET .002 RED AR
- \*8. 76039263 COVER GASKET .005 BLUE AR
- \*9. 76039264 COVER GASKET .010 BROWN AR
- (KIT # 51392353 INCLUDES 7-9. ORDER IN KITS ONLY.)
- \*10. 76039265 MOTOR GASKET .002 RED AR
- \*11. 76039266 MOTOR GASKET .005 BLUE AR
- \*12. 76039267 MOTOR GASKET .010 BROWN AR
- (KIT #51392354 INCLUDES 10-12. ORDER IN KITS ONLY.)

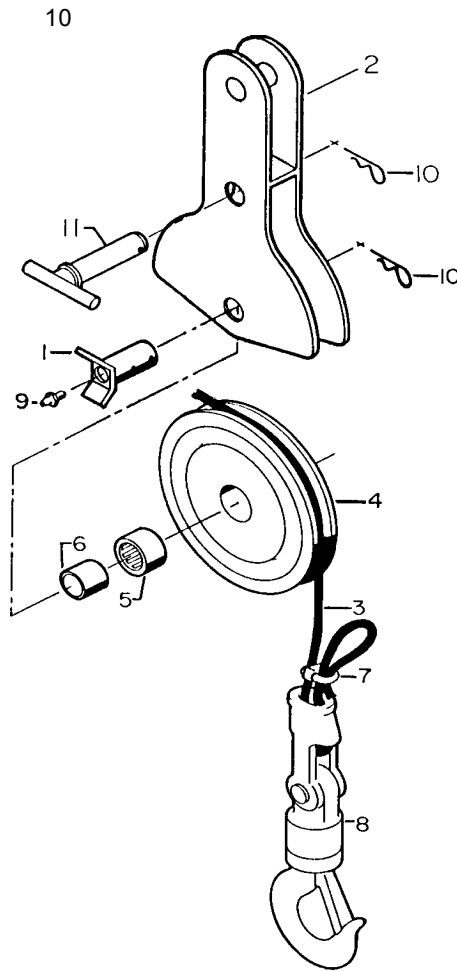
- 13. 76039268 OIL SEAL 1
- 14. 70055031 BEARING CUP 3
- 15. 70055032 BEARING CONE 3
- 16. 70055033 BEARING CUP 1
- 17. 70055034 BEARING CONE 1
- 18. 70055035 BEARING 1
- 19. 70056066 WORM GEAR 1
- 20. 70056364 WORM SHAFT 1
- 21. 72053413 PIPE PLUG 3/8NPT SQHD 2
- 22. 72060731 SCR 5/16-18X3/4 SH 6
- 23. 72060775 SCR 7/16-14X1-1/2 SH 2
- 24. 72060912 SET SCR 5/16-24X1/4 2
- 25. 72060581 SET SCR 3/8-16X3/4 SH 2
- 26. 72063052 WASHER 7/16 LOCK 2
- 27. 72066283 WOODRUFF KEY 1/4X1 1
- 28. 73051020 MOTOR 1
- 29. 72060596 SET SCR 1/2-13X3/4 SH 1
- 30. 70142754 DRUM 1



4000# NAR: 31705637.01: 19940531

**CABLE & HOOK KIT (31705637)**

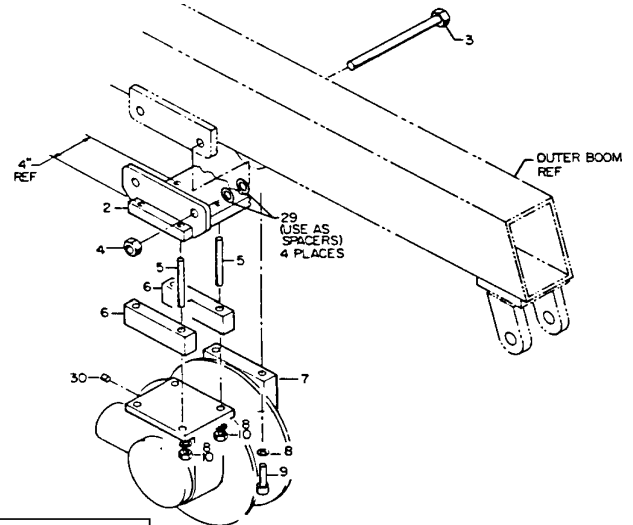
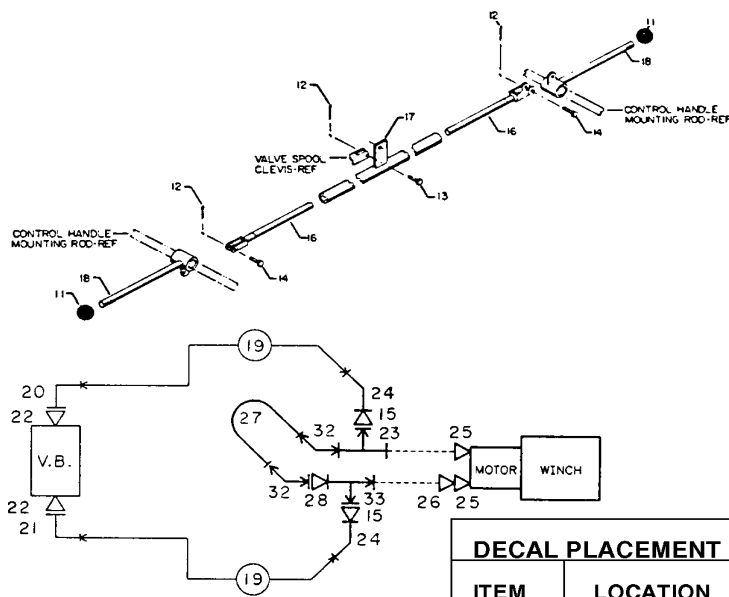
- |     |          |                          |   |
|-----|----------|--------------------------|---|
| 1.  | 52070705 | PIN                      | 1 |
| 2.  | 52704143 | YOKE                     | 1 |
| 3.  | 60107592 | CABLE 3/8X65'            | 1 |
| 4.  | 70034204 | NYLON SHEAVE 10-1/4      | 1 |
| 5.  | 70055024 | BEARING                  | 1 |
| 6.  | 70055025 | RACE                     | 1 |
| 7.  | 70058033 | CABLE CLAMP 3/8          | 1 |
| 8.  | 70731716 | SWIVEL HOOK/WEDGE SOCKET | 1 |
| 9.  | 72053508 | ZERK 1/8NPT              | 1 |
| 10. | 72066145 | HAIR PIN                 | 2 |
| 11. | 52070151 | PIN                      | 1 |



**BOLT-ON WINCH KIT-5200 & 5800 SERIES & 880 CRANE (31711646)**

- 2. 52711645 MTG BRACKET (PART OF 31) 1REF
- 3. 72060199 CAP SCR 3/4-10X9 HH GR5 (PART OF 31) 2REF
- 4. 72062114 NUT 3/4-10 LOCK (PART OF 31) 2REF
- 5. 60010869 STUD 1/2-13X4-1/2 (PART OF 31) 4REF
- 6. 60010868 SPACER (PART OF 31) 2REF
- 7. 71057607 WINCH (PART OF 31) (INCL:30) 1REF
- 8. 72063053 WASHER 1/2 LOCK (PART OF 31) 6REF
- 9. 72060797 CAP SCR 1/2-13X 2-1/2 SH (PART OF 31) 2REF
- 10. 72062004 NUT 1/2-13 (PART OF 31) 4REF
- 11. 71039096 KNOB 2
- 12. 72066168 COTTER PIN 3/32X3/4 3
- 13. 72661169 PIN 5/16X3/4 1
- 14. 72066338 CLEVIS PIN 5/16X1 2
- 15. 72053497 ADAPTER 1/2MPT 3/4MJIC (PART OF 31) 2REF
- 16. 52704745 CONTROL ROD-M 2
- 17. 52704744 CONTROL ROD-F 1
- 18. 70029451 CONTROL HANDLE 2
- 19. 51704589 HOSE ASM 3/8X245 2
- 20. 72053760 ELBOW 9/16MSTR 9/16MJIC 90° 1
- 21. 72532700 ELBOW 9/16MSTR 9/16MJIC XLG 1

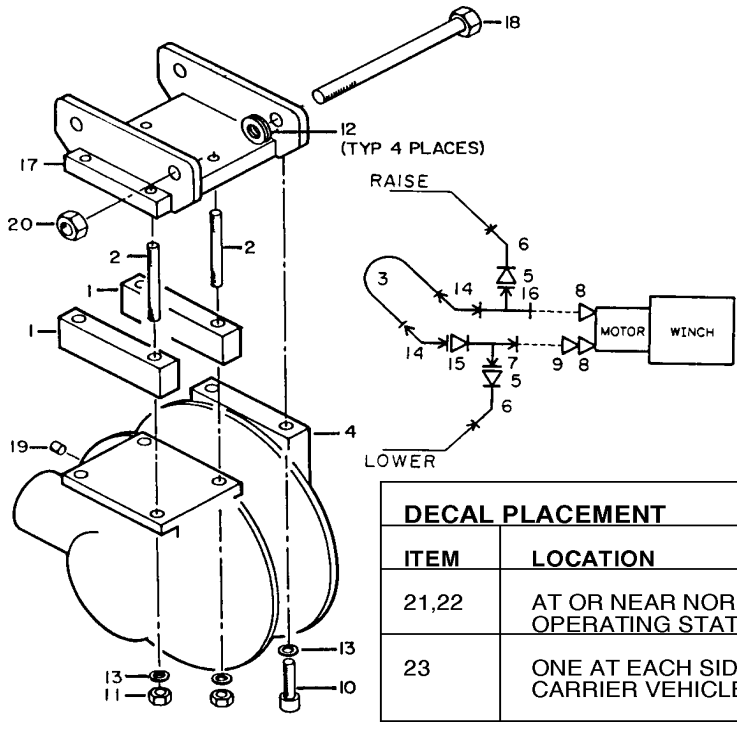
- 22. 72532722 ADAPTER 7/8MSTR 9/16FSTR (PART OF VALVEBANK) 2REF
- 23. 73054006 CHECK VALVE (PART OF 31) 1REF
- 24. 72532670 ELBOW #8MJIC #8FJIC 45° (PART OF 31) 2REF
- 25. 72053744 ADAPTER #10MSTR 1/2FPT (PART OF 31) 2REF
- 26. 72053629 ADAPTER 1/2MPT 3/8MPT (PART OF 31) 1REF
- 27. 60101420 TUBE (PART OF 31) 1REF
- 28. 72532138 RED. BUSHING 3/8MPT 1/4FPT (PART OF 31) 1REF
- 29. 72063030 MACH BUSHING 3/4X10GA NR (PART OF 31) 8REF
- 30. 72060596 SET SCR 1/2-13X3/4 SH (PART OF 7) 1REF
- 31. 31904004 WINCH KIT BOLT-ON (INCL:2-10,15,23-29,32-35) 1
- 32. 72533342 FLRLS #4TUBE 1/4MPT 45° 2REF
- 33. 72053611 TEE 3/8NPT (PART OF 31) 1REF
- 34. 70392861 DECAL-DANGER 2-BLOCKING (PART OF 31) 2REF
- 35. 70392863 DECAL-DANGER HOIST PERS (PART OF 31) 2REF
- 36. 70392868 DECAL-DANGER LOADLINE (PART OF 31) 4REF



DECAL PLACEMENT	
ITEM	LOCATION
34,35	AT OR NEAR NORMAL OPERATING STATION
36	ONE AT EACH SIDE OF CARRIER VEHICLE.

**BOLT-ON WINCH KIT-5200 & 5800  
SERIES & 880 CRANE (31904004)**

- |     |          |                                  |      |
|-----|----------|----------------------------------|------|
| 1.  | 60010868 | SPACER                           | 2    |
| 2.  | 60010869 | STUD 1/2-13X4-1/2                | 4    |
| 3.  | 60101420 | U-TUBE                           | 1    |
| 4.  | 71057607 | WINCH 4000LB (INCL: 19)          | 1    |
| 5.  | 72053497 | ADAPTER 1/2MPT 3/4MJIC           | 1    |
| 6.  | 72532670 | ELBOW #8MJIC #8FJIC 45°          | 2    |
| 7.  | 72053611 | TEE 3/8NPT                       | 1    |
| 8.  | 72053744 | ADAPTER #10MSTR 1/2FPT           | 2    |
| 9.  | 72053629 | ADAPTER 1/2MPT 3/8MPT            | 1    |
| 10. | 72060797 | CAP SCR 1/2-13X2-1/2 SH          | 2    |
| 11. | 72062004 | NUT 1/2-13 HEX                   | 4    |
| 12. | 72063030 | MACH BUSHING 3/4X10GA            | 8    |
| 13. | 72063053 | WASHER 1/2 LOCK                  | 6    |
| 14. | 72533342 | FLRLS #4TUBE 1/4MPT              | 2    |
| 15. | 72532138 | REDUCER BUSHING 3/8-1/4NPT       | 1    |
| 16. | 73054006 | CHECK VALVE-PILOT OP             | 1    |
| 17. | 52711645 | WINCH MTG BRKT                   | 1    |
| 18. | 72060199 | CAP SCR 3/4-10X9 HHGR5           | 2    |
| 19. | 72060596 | SET SCR 1/2-13X3/4 SH(PART OF 4) | 1REF |
| 20. | 72062114 | NUT 3/4-10 LOCK                  | 2    |
| 21. | 70392861 | DECAL-DANGER 2-BLOCKING          | 2    |
| 22. | 70392863 | DECAL-DANGER HOISTING PERS       | 2    |
| 23. | 70392868 | DECAL-DANGER LOADLINE            | 4    |



The information within this manual has been compiled and checked but errors do occur. To provide our customers with a method of communicating those errors we have provided the Manual Change Request form below. In addition to error reporting, you are encouraged to suggest changes or additions to the manual which would be of benefit to you. We cannot guarantee that these additions will be made but we do promise to consider them. When completing the form, please write or print clearly. Submit a copy of the completed form to the address listed below.

## MANUAL CHANGE REQUEST

DATE	PRODUCT MANUAL	MANUAL PART NO.
SUBMITTED BY		
COMPANY		
ADDRESS		
CITY, STATE, ZIP		
TELEPHONE		

ERROR FOUND

LOCATION OF ERROR (page no.): \_\_\_\_\_

DESCRIPTION OF ERROR: \_\_\_\_\_

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REQUEST FOR ADDITION TO MANUAL

DESCRIPTION OF ADDITION: \_\_\_\_\_

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REASON FOR ADDITION: \_\_\_\_\_

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MAIL TO: IOWA MOLD TOOLING Co., Inc.  
Box 189,  
Garner IA 50438-0189  
ATTN: Technical Publications

**IOWA MOLD TOOLING CO., INC.**

BOX 189, GARNER, IA 50438-0189

TEL: 641-923-3711

TECHNICAL SUPPORT FAX: 641-923-2424

MANUAL PART NUMBER 99900556