



# MODEL B67592 FOLD UP CRANE

# MODEL B67593 FOLD UP CRANE - AIR/MANUAL

## OWNER/OPERATOR MANUAL

### DESCRIPTION

The fold up cranes are designed for lifting and transporting. The cranes hydraulic units are equipped with an automatic bypass and metering release valve enabling the operator to lower the boom at a controlled rate of speed. Typical applications include maintenance and rebuilding of automotive and truck engines. The cranes can be taken apart for storage or transport and be reassembled.

### OWNER/OPERATOR RESPONSIBILITY

It is the owner/operator responsibility to properly use and maintain this equipment.

The instructions and warning contained in this manual shall be read and understood by the owner/operator prior to operating this equipment.

If an owner/operator does not understand English, the contents of this manual shall be explained in the owner/operators native language to assure the owner/operator comprehends.

It is the owner/operators responsibility to maintain the legibility of the warning label.

The owner/operator shall retain this manual for future reference to important warnings, operating and maintenance instructions.

### INSPECTION

Prior to operation or maintenance a visual crane inspection shall be made. Check for bent or worn parts, hydraulic leaks, damaged, loose or missing parts.

## **⚠ WARNING**

### **FAILURE TO FOLLOW WARNINGS MAY RESULT IN INJURY AND/OR PROPERTY DAMAGE**

- **Use only as a engine lifting device.**
- **Lift only at locations suggested by the vehicle manufacturer.**
- **Do not exceed rated load capacity.**
- **Use on hard level surfaces capable of supporting the load to prevent crane instability or tipping.**
- **Use only chains or slings with a capacity equal to or greater than the crane.**
- **Do not stand over boom or in its path of travel. Loss of load may cause boom to rise suddenly.**

Check crane operation by closing release valve and pumping crane handle. Make sure crane operates smoothly and is not binding or requires lubrication. If crane does not respond to pumping action, refer to TROUBLESHOOTING and perform AIR PURGING procedure.

If crane is damaged, badly worn, or operates abnormally it should be removed from service. Contact a factory authorized service center for repair.

If the crane has been subjected to an abnormal load or shock, the crane shall be inspected by a factory authorized service center.

An annual crane inspection is recommended to be performed by a factory authorized service center.

### ASSEMBLY

See Figure(1) ASSEMBLY DRAWING and assemble crane as follows:

- Install wheels (18A) and caster bracket (15) to base frame (1) using bolts, lockwashers and nylon nuts (20, 21, 26).
- Install wheels (17) using bolts and nylon nuts.
- Attach two front legs (2A, 2B) to base frame (1) using bolt pin, lockwashers and bolts (26, 19, 20, 21).
- Attach mast (3) to base frame using two bolts and nuts (27, 28). Mast must lean towards the rear of base frame as shown.
- Attach struts (6) to mast with bolt and nylon nut. Leave nut finger tight.
- Attach struts to outside of base frame using two bolts and nylon nuts (25, 28).
- Tighten mast to base frame, strut to mast and strut to base frame bolts.
- Install hydraulic unit (8) to mounting base (38) with two bolts and nuts (35, 36).
- Install fast hook and handle grip (11, 14) to mast with bolts and nylon nuts (24, 28). Leave nuts finger tight.

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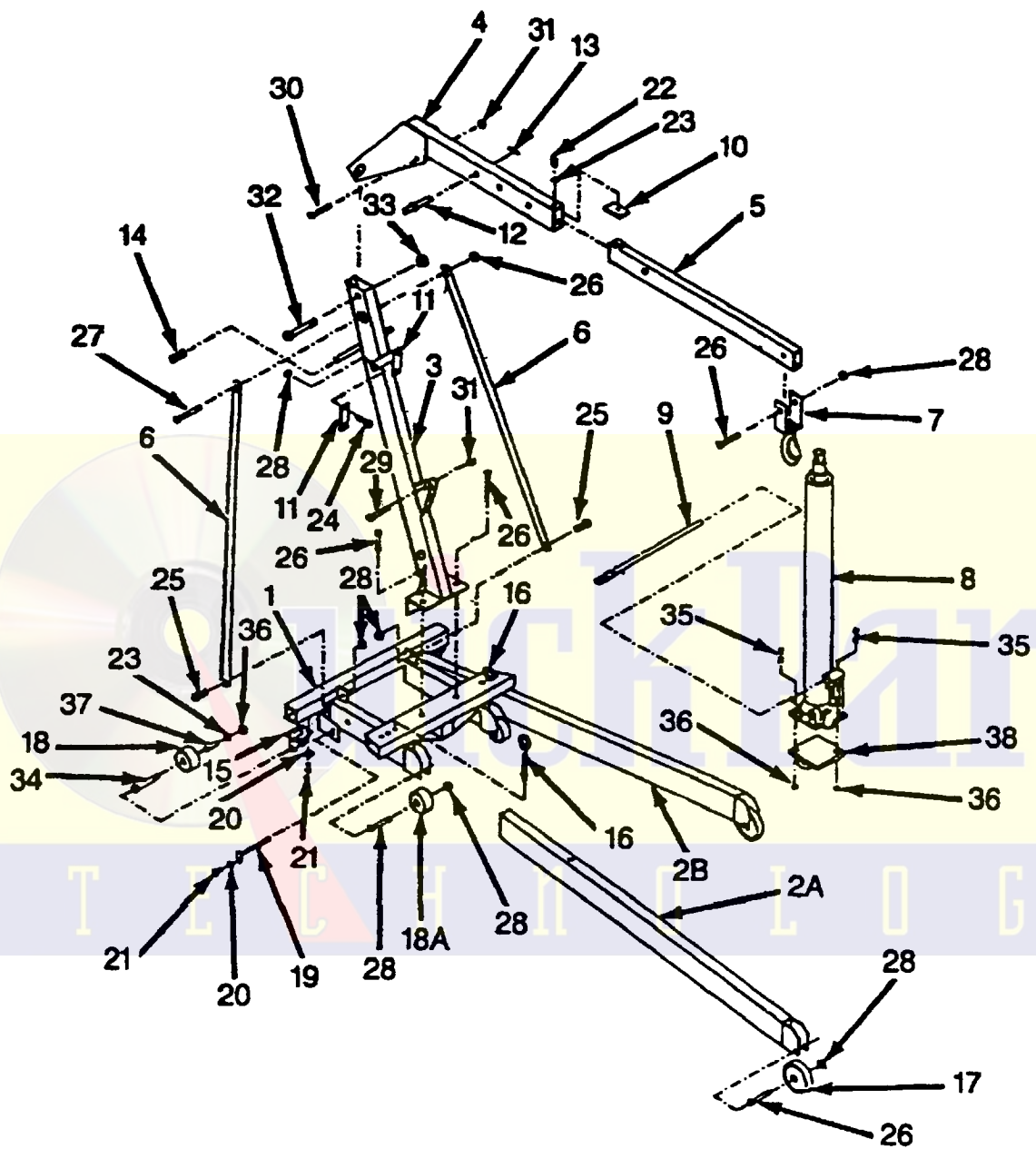


FIGURE (1) - ASSEMBLY DRAWING

- J. Position hydraulic unit with base between mounting ears on mast and attach using bolt and nylon nut (29, 31). Handle socket of hydraulic unit must face front of base frame as shown. Tighten nut. Lean hydraulic unit back against mast.

- K. Connect boom (4) to mast using bolt and nylon nut (32, 33).

- L. Hold boom and pivot hydraulic unit out away from mast and position ram between mounting brackets on boom. Attach hydraulic unit to boom with bolt and nylon nut (30, 31). Tighten nut.

- M. Slide boom extension (5) into boom and secure in retracted position using lock pin and "R" pin (12, 13).

- N. Attach hook (7) to boom extension using bolt and nylon nut.

- O. Check all nuts for tightness. Tighten as required.

- P. To close front legs, remove pins from base and pull front legs out and up to mast using mast fast hook to secure legs.

## OPERATION

Crane operation is controlled by pumping the handle (or pressing the air control valve) and opening and closing the release valve

- A. See BOOM SPECIFICATIONS table and select the proper boom for the load.
- B. Position crane over load.
- C. Extend boom from its retracted position only as necessary to reach load connecting point. Make sure load is within capacity limit for boom position selected.
- D. Connect load firmly to boom hook.

## WARNING

Do not try to change boom position while under load.

## WARNING

To prevent damaging the hydraulic unit and dropping the load, make sure front of vehicle is not jammed against hydraulic unit.

- E. Close release valve and pump handle (or press air control valve) to raise load to desire height. Raise only as required to perform maintenance or remove engine from vehicle.

## WARNING

If load is to be moved to another location, make sure load is raised only high enough to clear floor. Move crane slowly and avoid sudden stops that could cause load to swing.

## MAINTENANCE

### FILLING HYDRAULIC UNIT

## CAUTION

Brake or transmission fluids will damage crane hydraulic unit.

- A. Open release valve by turning release valve counterclockwise and allow crane to fully retract.
- B. Clean dirt from around filler plug and remove filler plug from hydraulic unit.
- D. Fill hydraulic unit with clean hydraulic jack oil to a level that just covers the hydraulic cylinder visible through the filler hole. Do not overfill.
- E. Reinstall filler plug in hydraulic unit assembly. Hand tightening is usually adequate.

## LUBRICATION

Lubricate unit as follows:

- A. Open release valve by turning release valve counterclockwise and allow crane to fully retract.

- B. Apply a medium weight motor oil to all moving joints periodically (at least every 30 days).
- C. Apply oil or grease to wheels and caster swivel bearings.

## TROUBLESHOOTING

If the following procedures do not correct the problem, contact a factory authorized service center. When submitting a crane or equipment to be repaired, be sure to state the nature of the problem and indicate if a repair cost estimate is required.

### AIR PURGING

As with any hydraulic unit, the jack may occasionally become air bound due to being tipped over during shipment or handling. To purge air from crane hydraulic circuit, perform the following procedure:

- A. Open release valve by turning release valve one full turn counterclockwise.
- B. Rapidly pump crane handle six or more full strokes to purge air from hydraulic circuit.
- C. Close release valve by turning release valve clockwise.
- D. Pump crane handle to raise boom.
- E. Open release valve by turning release valve counterclockwise and allow boom to retract.
- F. Close release valve by turning release valve clockwise.
- G. Check pump action by pumping crane handle. If crane does not respond, repeat the above procedure several times until air is fully purged from the hydraulic system.

## COMMON PROBLEMS

### CRANE FEELS SPONGY WHEN LIFTING LOAD

- Air in hydraulic system. Refer to AIR PURGING procedure and purge air from system.

- Oil level low. Refer to FILLING HYDRAULIC UNIT procedure.

#### CRANE WILL NOT LIFT TO FULL HEIGHT

- Air in hydraulic system. Refer to AIR PURGING procedure and purge air from system.
- Oil level low. Refer to FILLING HYDRAULIC UNIT procedure.

#### JACK WILL NOT LIFT LOAD

- Release valve not tightly closed or not sealing. Internal repairs may be required.
- Air in hydraulic system. Refer to AIR PURGING procedure and purge air from system.
- Oil level low. Refer to FILLING HYDRAULIC UNIT procedure.

#### CRANE WILL NOT HOLD LOAD

- Release valve not tightly closed or not sealing. Internal repairs may be required.

#### HANDLE RAISES OR LOWERS UNDER LOAD

- Release valve not tightly closed or not sealing. Internal repairs may be required.

### BOOM SPECIFICATIONS

MODEL	EXTENSION BOOM LOCK POSITION	CAPACITY	HOOK HEIGHT		BOOM LENGTH
			MIN	MAX	
B67592	P1	2200 LBS.	8-1/4"	85-1/2"	42-3/8"
AND	P2	1650 LBS.	2-1/2"	88-1/2"	48-3/8"
B67593	P3	1100 LBS.	0"	91-1/2"	54-1/2"

### LIMITED WARRANTY

Lincoln, a division of McNeil (Ohio) Corp., a subsidiary of Pentair, Inc., warrants that jacks and related service equipment sold with brand names Lincoln, Blackhawk Automotive, Banner, Blackhawk Automotive Porto-Power, and Winner will be free from defects in material and workmanship during one (1) year following the date of purchase. This warranty is extended to the original retailer purchaser only. If a jack or related service equipment proves to be defective during this warranty period, it will be repaired or replaced without charge. To obtain repair or replacement, it must be shipped, transportation charges prepaid, with proof of date of purchase, to a Lincoln authorized Warranty and Service Center, within one (1) year following the date of purchase. This warranty does not apply to parts damaged from accident, overload, or abuse, nor does it apply to any equipment which has been altered or used with special attachments other than those recommended by Lincoln. No other express warranty applies to jacks and related service equipment manufactured by Lincoln.

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