MODEL ABS-78A

BOOK No. 406

SERIAL No. _____

MACHINE SERIAL NUMBER

The machine serial number is on the serial number capacity plate, or on the Crane Rating Manual located inside the operator's cab. The serial number should always be furnished when ordering parts for the machine or when corresponding with the distributor or factory concerning the machine. Providing the serial number is the only way of ensuring the correct parts and/or information can be furnished.

In the event the serial number is not readable, a number is stamped on the upper revolving frame which can be used to identify the machine. On cable crane this number is located on the right hand boom foot mounting lug. On hydraulic cranes and excavators the number is stamped just below the boom hoist cylinder mounting lugs.

MODEL TC-78A
BOOK No. 406
SERIAL No. _____

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MODEL TC-78B

BOOK No. 406

SERIAL No. _____

MACHINE SERIAL NUMBER

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FMC Corporation
Crane and Excavator Division
Cedar Rapids Iowa 52406

SERVICE MANUAL

QUICK REFERENCE SYSTEM

PREFACE

The productive life of any machine depends largely on the care and consideration given it. This especially holds true of such equipment as cranes and excavators.

Link-Belt Speeder machines embody the best of engineering knowledge, years of experience, and construction in accordance with the high standards of the Company. The present machine age and universal use of the automobile has taught most people to appreciate that systematic, periodical inspection and maintenance will be repaid with a longer period of satisfactory service.

This instruction book was compiled to explain the adjustments necessary for proper operation of the machine. A study of this book will acquaint operator or serviceman with the construction of this equipment and enable him to readily diagnose and remedy most troubles which may arise. It is advisable to correct minor troubles before they develop into costly major shut-downs.

Right hand and left hand parts, as referred to in this book, are determined by facing boom from rear of machine. Operator's position is located on left hand side of machine.

We do not attempt to outline what part or parts of the cab it might be necessary to remove to perform your particular job as this will vary depending upon what equipment or tools are available.

Any questions pertaining to the care and upkeep of this equipment which have not been covered in this book should be directed to your nearest Link-Belt Speeder distributor, or Link-Belt Speeder Company.

Link-Belt Speeder Company reserves the right to make alterations or modifications in this equipment at any time, which in their opinion may improve the performance or efficiency of the machine. The manufacturer shall not be obliged to make such alterations or modifications to machines already in service.

Upper, Lower And Attachment Time Table

Read the following instructions before attempting to operate a new machine.

(a) Operate at half throttle during the first 16 hours (two shifts) of operation. A "Break In" period under moderate loads will assist in providing long and trouble-free operation.
(b) Inspect and adjust all clutches and brakes periodically during the "break-in" period. Poor lining contact or misadjustment will cause excessive heat which is detrimental to both linings and drums.
(c) Lubricate all bearings and bushings frequently. Lubrication intervals for all bearings and bushings may be found in the lubrication chart.
(d) Lubricate open gears at frequent intervals. A special Molybdenum sulphide base grease has been applied at the factory, which because of its special qualities protects the tooth surfaces during the "break-in" period. This grease should not be removed, but allowed to be absorbed by the normal gear lubricant being used.
(e) Follow the engine manufacturre's recommendations for proper engine care. Disengage the master clutch and shut off the engine while working on the machine. Replace all guards before starting the machine.

General Lubrication Information

The machine should be regularly and systematically lubricated in accordance with the lubrication charts shown later in this Section of the manual. A copy of this chart is mounted on the upper cab in each machine. The time interval shown on the lubrication chart is intended as a guide only. Under unusual working conditions, such as working in dry, dusty conditions, in water or mud, around a corrosive atmosphere, more frequent lubrication will be necessary. In these cases, the oiler must use his own good sense and work out his own lubrication schedule.

The following procedures are important for proper lubrication of the machine.

CAUTION

Shut Down Engine Before Fueling Or Lubricating Machine. To Avoid A Fire Hazard, Do Not Smoke Or Handle Fuel Around An Open Flame. To Avoid Machine Damage And To Prevent Serious Injury, Do Not Lubricate Gears Or Any Assembly While It Is In Motion.

(a) Wipe the grease gun nozzle, and the grease fitting before lubricating. This will help keep dirt and grit from entering the bushing or bearing.
(b) Keep all grease and oil cans and containers clean. Always replace the lid on containers when through to prevent entry of foreign materials. Wipe off oil can covers before using.
(c) Drain oil cases when hot to drain off accumulated sludge.
(d) Watch for signs of incorrect lubrication such as failure of clean grease to expel the old grease.
(e) Bleed off hydraulic pressure before opening or removing a line or fitting.
(f) Replace all guards before starting machine.
(g) Use a clean funnel equipped with a strainer for pouring lubricants. Clean an area around fill or check plugs before removing to prevent entry of foreign material.
(h) Disengage master clutch before working on or lubricating the machine. Shut off engine.

Note: See specific instructions later in this Section for lubrication check and change procedures on all gear compartments.

Upon Delivery

Operation	Remarks
General	(1) Check for any shortages or damages that may have occurred during transit. If any, notify the transportation company involved, immediately. (2) Clean dust, dirt, cinders, and other foreign material from all clutches, gears, and other moving parts. Check all oil compartments for the proper weight and level of lubricant. If necessary, change to meet local conditions. Lubricate the upper, lower and attachment completely. (3) Check and adjust all clutches, as explained in Section 3B. (4) Check and adjust all drum brakes, as explained in Section 3B. (5) Check and adjust steer brakes as explained in Section 3A.
Engine	(1) Check fuel, oil and water levels. (2) Start engine and check oil pressure, water temperature, S-o-M pressure, etc.
Master Clutch	(1) Before engaging master clutch, inspect the entire machine for any items which may interfere with moving parts.
Controls	(1) Become familiar with all controls. Read Section 1 "Operating Instructions", before attempting to operate the machine.
Attachment	(1) Assemble the desired length of boom on the machine as explained in Section 13. (2) Inspect all wire rope and rope connections. See Section 14 for wire rope inspection procedures. (3) Check all ropes for proper spooling on the drum.
Engine Speed	(1) Check engine for proper speed. See reverse shaft speed, Section 14.
Attachment	(1) Check all bolts, nuts, rod ends, cotter pins, etc., making sure they are spread and/or secured. (2) Inspect all rope and connections. Make sure rope is spooling properly. (3) Check and adjust the boom hoist limiting device, if necessary. See Section 13.

Before Starting Operations

Operation	Remarks
Engine	(1) Check oil and water levels, and other items as recommended by the manufacturer.
Clutches & Brakes	(1) Examine all clutches and brakes. Make sure they are in proper adjustment as explained later in this manual. (2) Examine the linings to make sure they are not oil soaked, or worn to the point that rivets are contacting the drum. See Section 3B.
Speed-o-Matic System	(1) Check for correct operating pressures (refer to Section 10 for more information). (2) Check for external leaks. If any, repair before operating.
Attachment	(1) Inspect all wire rope and wire rope connections. See Section 14 for wire rope inspection procedures. (2) Check all ropes for proper spooling on the drum.