WCL-2000 SERIES SUSPENSION INSTALLATION DATA.

STEP 1: MOUNTING PREPARATION
PLACE TRUCK ON LEVEL SURFACE BEFORE STARTING. REMOVE EXISTING CROSSMEMBERS WHICH INTERFERENCE WITH INSTALLATION AND OPERATION OF NEW SUSPENSION SYSTEM. CHECK DRIVE AXLE ALIGNMENT AND REALIGN IF NECESSARY.

STEP 2: PRELIMINARY MOUNTING
CENTER SUSPENSION UNDER FRAME AT REQUIRED LOCATION. ALLOW OPERATING CLEARANCE TO REAR OF SUSPENSION. DIMENSIONS 'A' AND 'B' WILL DECREASE APPROXIMATELY ONE INCH FROM FRONT TO REAR POSITION.

STEP 3: CROSSMEMBER INSTALLATION (STEP 3 NOT NECESSARY IF SUFFICIENT CROSSMEMBERS ARE IN PLACE FROM MANUFACTURER).
CROSSMEMBER LENGTH SHOULD RESULT IN A SNAKE FIT AGAINST END PLATES. WELD CROSSMEMBERS TO END PLATES WHILE IN PLACE IN FRAME. FILLET SIZE EQUAL TO MATERIAL THICKNESS.

STEP 4: SUSPENSION CONNECTION
RECHECK SUSPENSION FOR PROPER ALIGNMENT. BE SURE BOTH FLANGES OF SUSPENSION OR SHIMS CONTACT LOWER SURFACE OF TRUCK FRAME FOR FULL LENGTH. DRILL MOUNTING HOLES SIMILAR TO WHAT IS SHOWN. BOLT CROSSMEMBER PLATES AND SUSPENSION SIDES TO FRAME.

STEP 5: REINFORCEMENT INSTALLATION
WELD GUSSETS, PLATES, AND 4 INCH TUBE (10096) IN PLACE. FOLLOW WELDING PROCEDURES RECOMMENDED IN STEP 3.

STEP 6: FINAL SUSPENSION ALIGNMENT
CHECK SUSPENSION ALIGNMENT. IF 'A' DOES NOT EQUAL DIM 'B' MOVE AXLE FORWARD OR BACKUNTIL 'A' EQUALS 'B'. ONCE COMPLETED WELD COLLARS (10090) ALL AROUND. WELD 25 INCH FILLET WELD. LOOSENING OF FRONT BOLT IS NOT NECESSARY FOR ADJUSTMENT.

STEP 7: INSTALLATION COMPLETION
REFER TO DRAWING NUMBERS 10144 AND 10145.

IOTES:
END PLATE SIZES TO BE 25 INCH THICK AND LARGE ENOUGH TO ACCEPT CROSSMEMBER WELDMENT AND ATTACHMENT BOLTS.
25 TUBE IS PROVIDED, CUT TO SUIT SNAKE FIT.
SUBSTITUTE GUSSETS FOR ITEM 2 AND ITEM 3.

CAUTION
OPERATION OF THE SUSPENSION WITHOUT PROPER REINFORCEMENTS MAY DAMAGE SUSPENSION AND WILL VOID ANY WARRANTIES OF EITHER THE VEHICLE MANUFACTURER OR WATSON & CHAIN MANUFACTURING INC.

FIGURE 1

END PLATE, SEE NOTE 1.

ACCEPTABLE BAG PLATE SUPPORT

25 INCH TUBE, SEE STEP 3.
MUST LEAVE AIRAOG AIR PORT CLEARANCE.

4 PLACES AFTER ALIGNMENT.

WATSON & CHAIN MFG., INC. ROWLETT, TEXAS

10096- (4) SQUARE TUBE, SEE NOTE 2.

DETAIL 'A'

1021851

WCL-2100 SERIES INSTALLATION
INTERMEDIATE MOUNT

10363
STEP 9: PNEUMATIC SYSTEM INSTALLATION
INSTALL PNEUMATIC SYSTEM IN ACCORDANCE WITH PLUMBING SCHEMATIC SHOWN AT RIGHT.

PNEUMATIC OPERATION CHECK
(1) TURN PRESSURE REGULATING KNOB TO "FULL OFF" (DECREASE) POSITION.
(2) FLIP SWITCH TO "LOAD" POSITION.
(3) TURN PRESSURE REGULATING KNOB (INCREASE) SLOWLY UNTIL PRESSURE GAGE READS 10 PSI.
(4) CHECK AIRIDE HEIGHT. AIR PRESSURE MAY BE INCREASED TO RESULT IN AIRIDE HEIGHT OF 21 INCH MAXIMUM (MEASURED AT REAR CENTER SECTION OF AIRIDE).
(5) CHECK COMPLETE AIR SYSTEM FOR LEAKS.
(6) OPERATE "LIFT LOAD" SWITCH FOR PROPER SUSPENSION FUNCTION AND CLEARANCE.

CAUTION:
DO NOT INCREASE AIR PRESSURE AS OVERINFLATION OF AIRIDES MAY RESULT IN DAMAGE TO COIL SPRINGS OR AIRIDE.

OPERATION
(1) REFER TO PNEUMATIC OPERATION CHECK BEFORE APPLYING AIR PRESSURE.
(2) CHECK VALVE (ITEM 2) PREVENTS REDUCTION OF SYSTEM PRESSURE WHEN THE BRAKES ARE APPLIED.
(3) BRAKE PROTECTION VALVE (ITEM 1) PROTECTS AIR SUPPLY TO 65 PSI MINIMUM IN THE EVENT OF LINE OR AIRIDE BREAKAGE.
(4) CONTROL PANEL (ITEM 6) PERMITS ADJUSTMENT TO SUIT LOADING CONDITIONS AND PROVIDES POSITIVE ON-OFF CONTROL.
(5) QUICK RELEASE VALVE (ITEM 8) PROVIDES RAPID EXHAUST FROM AIRIDE WHEN LIFTING AXLES.

CAUTION:
ALWAYS LIFT AXLE BEFORE RUNNING VEHICLE UNLOADED, COIL SPRING OR AIR SPRING DAMAGE MAY OCCUR OTHERWISE.

NOTE 1: ITEMS SUPPLIED BY INSTALLER

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<tr>
<td>5</td>
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<td>ELBOW 3/8&quot; LINE X 1/4 FEMALE THREAD</td>
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<td>6</td>
<td>4</td>
<td>ELBOW 3/8&quot; LINE X 1/4 MALE THREAD</td>
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<tr>
<td>7</td>
<td>1</td>
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<tr>
<td>8</td>
<td>1</td>
<td>ELBOW 3/8&quot; LINE X 1/2 MALE THREAD</td>
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<tr>
<td>9</td>
<td>2</td>
<td>CONNECTOR 3/8&quot; LINE X 3/8 MALE THREAD</td>
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<td>10</td>
<td>-</td>
<td>3/8&quot; O.D. REINFORCED NYLON TUBING</td>
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PLUMBING SCHEMATIC

BE SURE ARROW IS TOWARD ITEM 1.

MOUNTED IN CAB

AIR SUPPLY

AIR SPRING

ITEM | PART NO. | D.S. | QTY | DESCRIPTION
--- | -------- | ---- | ---- | ------------------
1   | 10100    | A    | 1   | BRAKE PROTECTION VALVE
2   | 10116    | A    | 1   | CHECK VALVE
3   | 10098    | A    | 1   | CONTROL PANEL
4   | 10099    | A    | 1   | QUICK RELEASE VALVE

WATSON & CHALIN MFG., INC.
RONLETT, TEXAS

SCALE: NONE
APPROVED BY: N (N)
DRAWN BY: TNC
DATE: 2-21-85
REVISED:

MCL-2000 SERIES INSTALLATION INSTRUCTIONS
PNEUMATIC SYSTEM INSTALLATION

DRAWING NUMBER
10115
SUSPENSION ASSEMBLIES ARE SHIPPED WITH COIL SPRINGS LOOSE. ONCE ALIGNMENT IS COMPLETE, RAISE AXLE UP WITH THE USE OF A JACK OR LIKE TOOL. LUBRICATE SPRING BOLT (10091). TIGHTEN SPRING BY TURNING SPRING BOLT (10091) UNTIL A GAP OF 2.0 INCHES EXISTS BETWEEN SPRING TOP AND UNDER SIDE OF SIDERAIR SPRING ANCHOR AS SHOWN IN THE FIGURE BELOW.

STEP 8: BOLT TORQUE CHECK
CHECK ALL BOLTS FOR PROPER TORQUE BEFORE SUSPENSION IS PUT INTO SERVICE. TORQUE SPECIFICATIONS ARE SHOWN IN THE TORQUE CHART BELOW. ONCE PUT INTO SERVICE BOLT TORQUES SHOULD BE CHECKED EVERY 90 DAYS.

<table>
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<th>SIZE</th>
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<th>5/8</th>
<th>3/4</th>
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<td>TORQUE IN FOOT. LBS.</td>
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<td>25</td>
<td>150</td>
<td>200</td>
<td>1000</td>
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NOTES:
(1) PERIODICAL ADJUSTMENT OF COIL SPRING MAY BE REQUIRED AFTER EXTENDED ROAD SERVICE.