

SHOP MANUAL

FILE
E

THE GALION IRON WORKS & MFG. COMPANY, Galion, Ohio 44833, U.S.A.
A division of Jeffrey Galion Inc.

SECTION

9^{RI}

(Revised 11/30/72)

PRESSURE BEYOND END CAP USED WITH SNOW WING INSTALLATION

The correct function of the hydraulically controlled snow wing requires installation of a pressure beyond end cap in place of the standard manifold end cap.

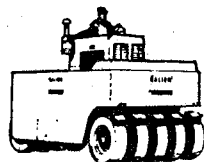
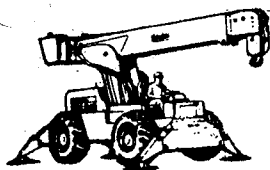
The correct end cap must be selected by machine serial number and installed in place of the standard end cap. Hook up as indicated.

Prior to placing wing in operation, pipe plug socket head (B) must be installed in pressure beyond end cap. To make installation, remove wing pressure hose and fittings at B. Install socket head pipe plug in threaded hole provided. Tighten and replace fittings and hydraulic hose.

NOTE: The plug is installed for wing operation and must be removed prior to warm weather operation. If not removed, severe hydraulic system heating could result.

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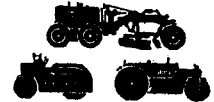


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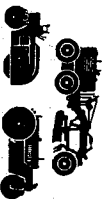


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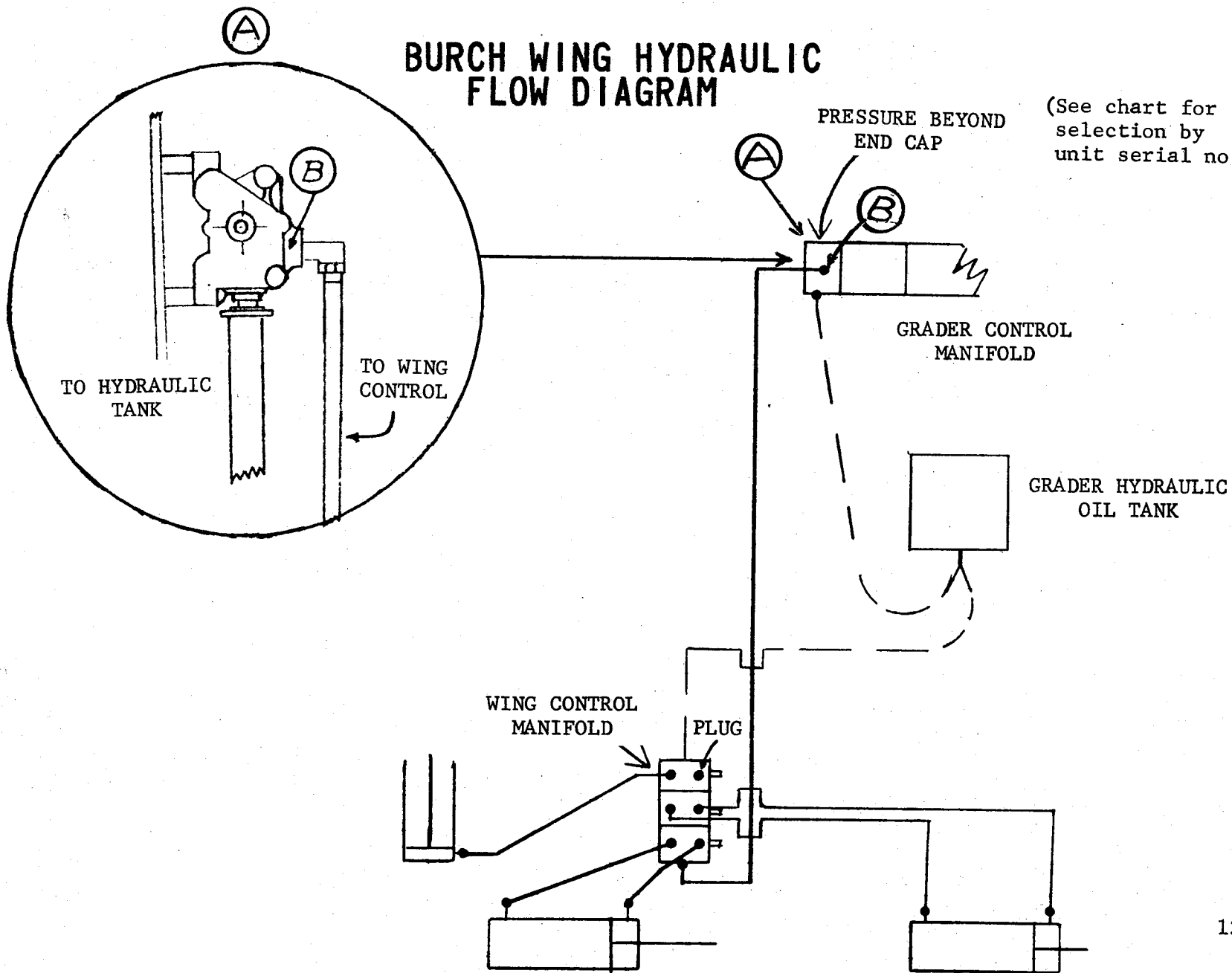
STEERING PEDESTAL	OPERATING VALVE	SEAL FOR END CAP AND VALVE	MODEL AND SERIAL	SNOW WING PRES- SURE BEYOND END SECTION
SA-27958 one piece body	SA-27390	3 of D-27340	104 thru MD-19853 118 thru MD-19853 203 thru MD-19853 303 thru MD-25645	B-51368
SA-35507A, top SA-35508, bottom	SA-36796	1 of D-27340 2 of D-35499	*104 MD-19854 thru MD-22326 *118 MD-19854 thru MD-22326 203 MD-19854 and up 303 MD-25646 thru MD-25929 450 all units thru MD-45248	B-51369
SA-40912, top G-40888, casting SA-40911, bottom	SA-40885	2 of D-38834 1 of D-55741 or 2 of D-40375 1 of D-27358	*104 MD-22327 to 1001 *118 MD-22327 to 1001 303 MD-25930 and up 450 MD-45249 to 1001 T-500 1001 thru 1459 T-600 1001 thru 1182	G-48916
SA-49303, top SA-40911, bottom	SA-48556	"	T-500 1460 thru 1563 T-600 1182 thru 1232	G-48916
----	SA-48556	"	104 1001 thru 1562 118 1001 thru 1562 160 1001 thru 1167 450 1001 thru 1562 T-500 1564 thru 1644 T-600 1233 thru 1254	G-48916
----	SA-48556A	2 of D-38834 1 of D-55741	104 1563 thru 2735 **118 1563 thru 2735 160 1168 thru 1374 450 1563 to 2599 T-500 1645 thru 1674 T-600 1255 thru 1265	G-48916A
----	AG-58572	2 of D-55741 1 of D-27358	104 2736 to 7601 118 2736 to 7245 160 1375 to 2019 T-500 1675 to 2601 T-600 1266 to 1501	G-48916B

* Five exceptions: MD-22286 through MD-22290 have SA-40885 valve and related items.
**118 graders 2601 thru 2675 have AG-58572 valves.

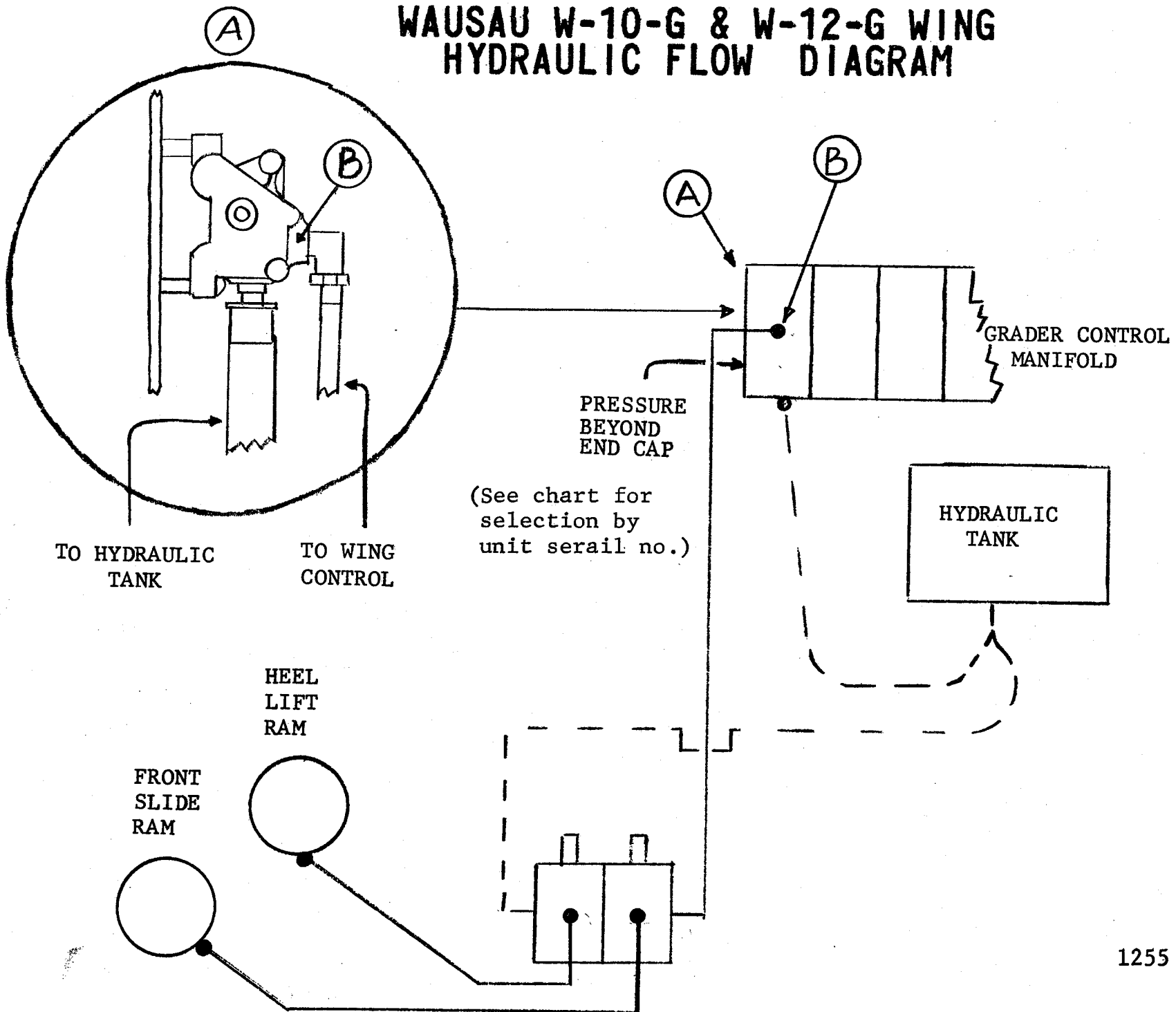


BURCH WING HYDRAULIC FLOW DIAGRAM

(See chart for
selection by
unit serial no.)



WAUSAU W-10-G & W-12-G WING HYDRAULIC FLOW DIAGRAM



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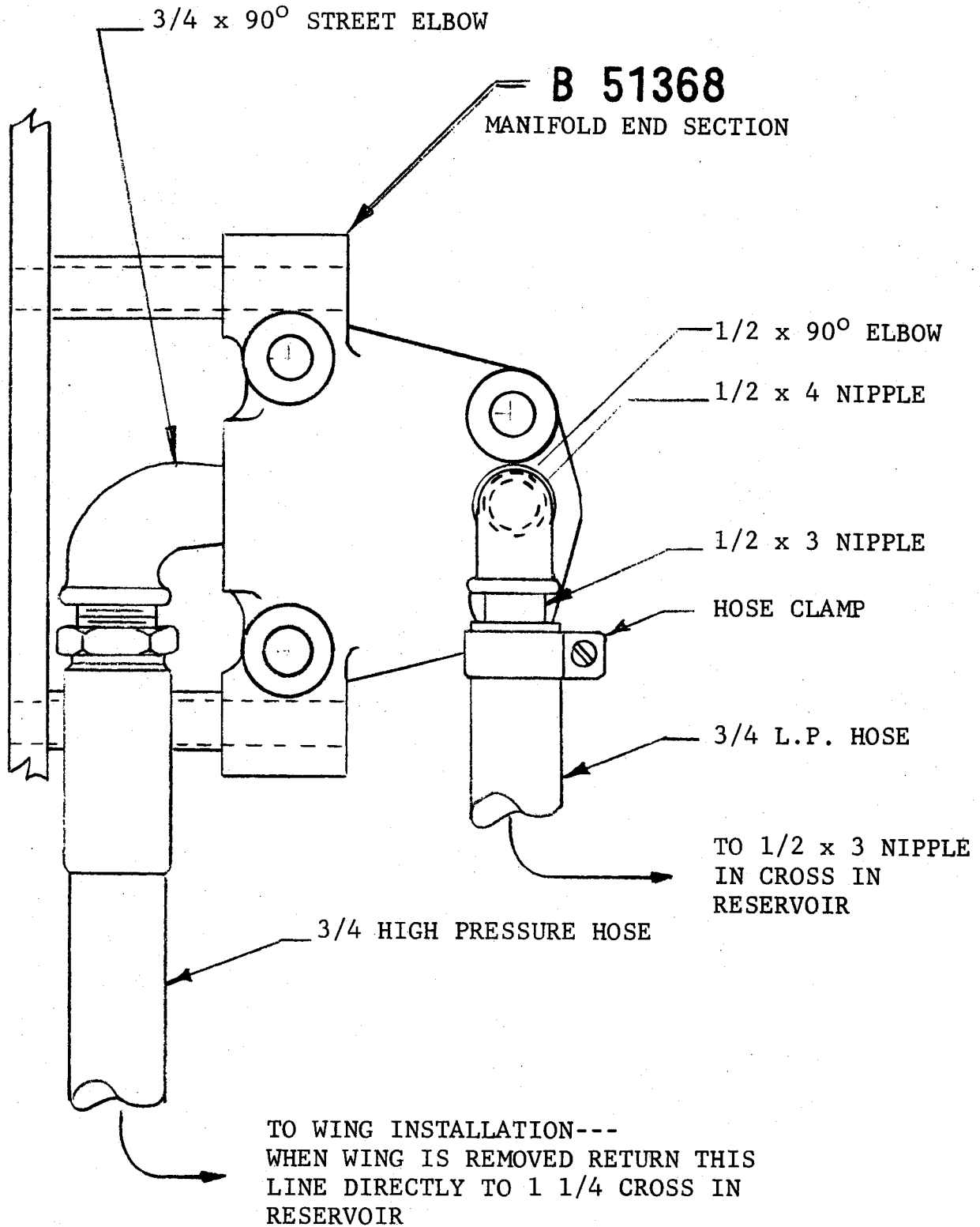


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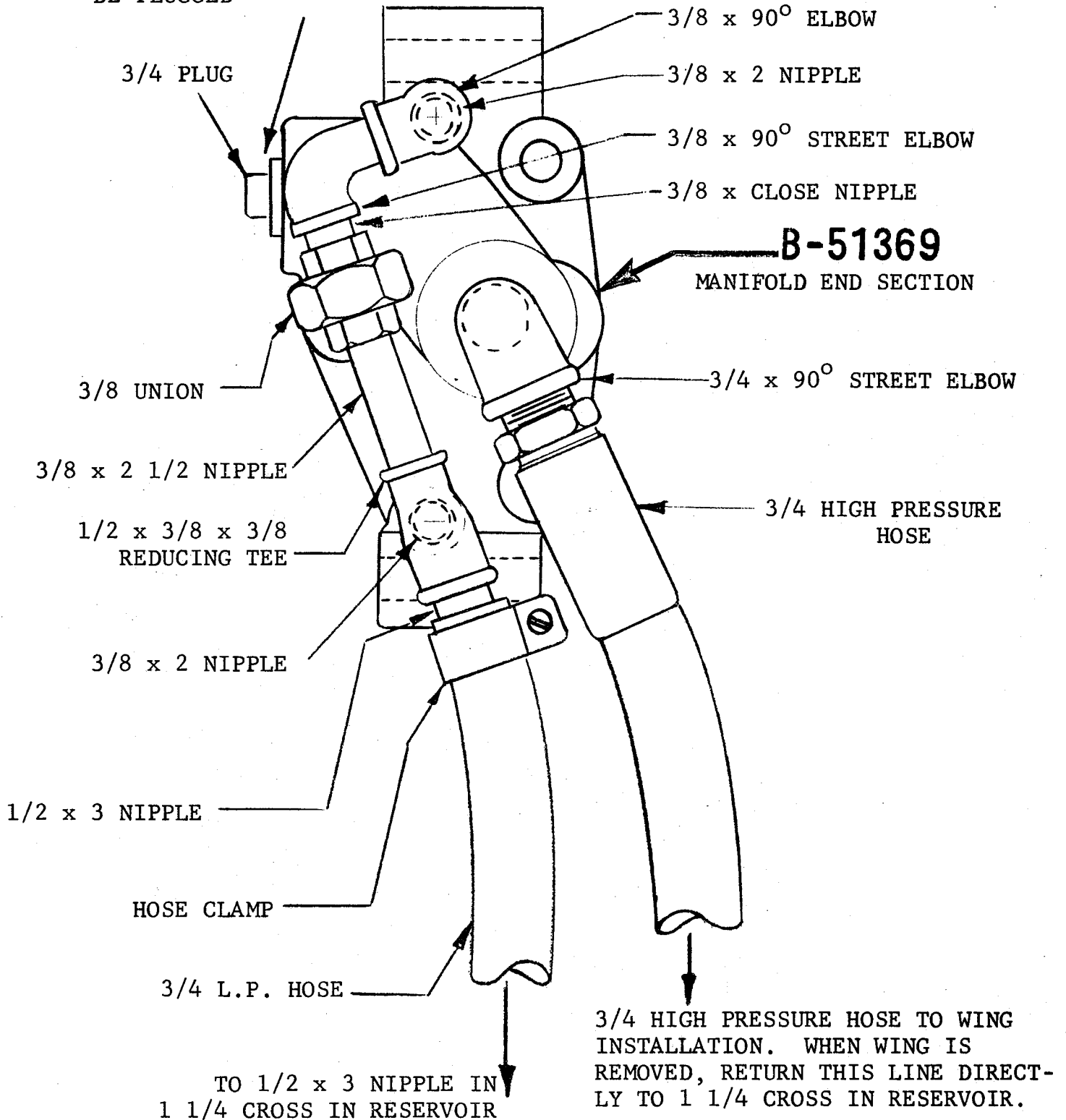
B-51368 MANIFOLD END SECTION





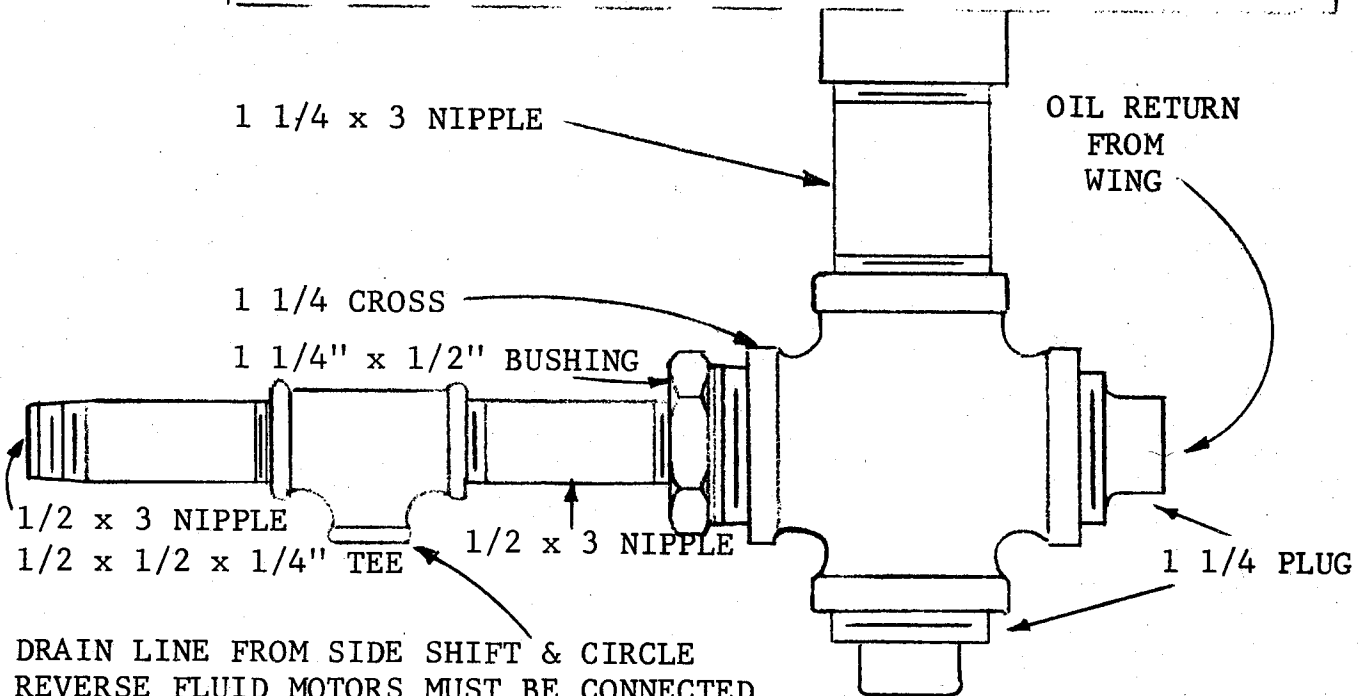
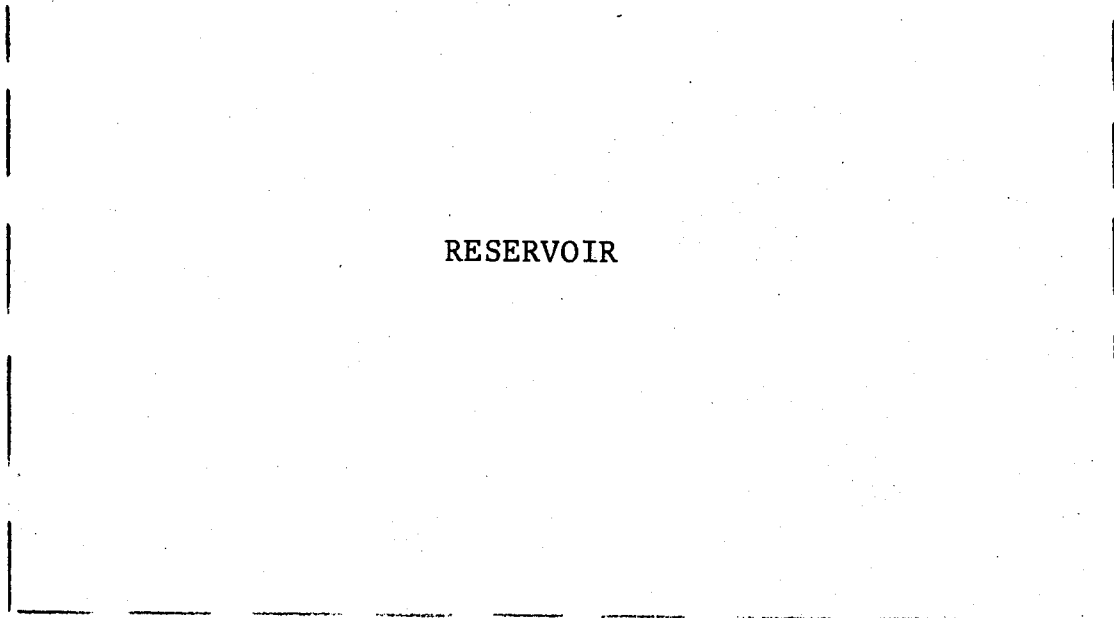
B-51369 MANIFOLD END SECTION

THIS OPENING MUST
BE PLUGGED





B-51368 & B-51369 END SECTION RESERVOIR PIPING



DRAIN LINE FROM SIDE SHIFT & CIRCLE
REVERSE FLUID MOTORS MUST BE CONNECTED
DIRECTLY TO RESERVOIR HERE--NOT--TO
MANIFOLD EXHAUST END SECTION.

AUXILIARY HYDRAULIC MANIFOLDS FOR GRADER ATTACHMENTS

A "booted" type grader control manifold on all models except 303 and 503, is effective with:

T-600	-	s/n 01304 & up	160	-	s/n 01562 & up
T-500	-	s/n 01766 & up	118 & 104	-	s/n 04274 & up

This new grader control manifold precludes the use of commercial auxiliary manifold assemblies for control of snow wings and/or other multiple control attachments.

To provide auxiliary manifold of adequate design and to simplify installation of multiple control attachments, Galion now offers "booted" type auxiliary manifolds factory installed.

When a two (double acting) valve auxiliary manifold is required, order:

AG 63312 AUXILIARY MANIFOLD

When a three (double acting) valve auxiliary manifold is required, order:

AG 63312A AUXILIARY MANIFOLD

Where auxiliary manifold requirements are other than for those above (i.e. attachment requires a combination of single and double acting valves) contact Galion for price and delivery.

"Booted" type auxiliary manifolds may also be used on graders prior to those listed above. When an auxiliary manifold is required for field installation, order through normal parts channels.

The pressure beyond end section, as is covered in File E, Section 9, Galion Shop Manual, must be used with all auxiliary manifold installation on graders prior to serial numbers listed above. The pressure beyond end section is NOT USED ON MODELS AND SERIAL NUMBERS ABOVE.

When installing the "booted" type auxiliary manifold on a unit in the field, the following precautions must be observed:

1. Use correct pressure beyond end section, if required.
2. Pressure line manifold to auxiliary manifold must be at least 1" hydraulic type, hose (4000 psi burst) and fittings. Minimum I.D. through any tube or fitting 7/8". DO NOT use street ells. Use only J. I. C. fittings or DRY SEAL hydraulic type fittings. Use no pipe "dope" on fittings.
3. Use correct return connection (per grader serial number) in bottom of hydraulic tank, replacing existing fitting on all machines using pressure beyond end section. Return line from grader manifold to tank must remain "as is" to carry full flow upon relief spill.
4. Return (low pressure) line from auxiliary valve manifold to tank must be similar to Galion return line. Use 1 1/2" low pressure hose. Minimum I. D. through any fitting must be 1 3/8".
5. Auxiliary manifold must not raise back pressure (measured at engine high idle) at input end of grader control manifold more than 15 psi. (measure pressure prior to auxiliary manifold installation and again after installation to check back pressure rise).

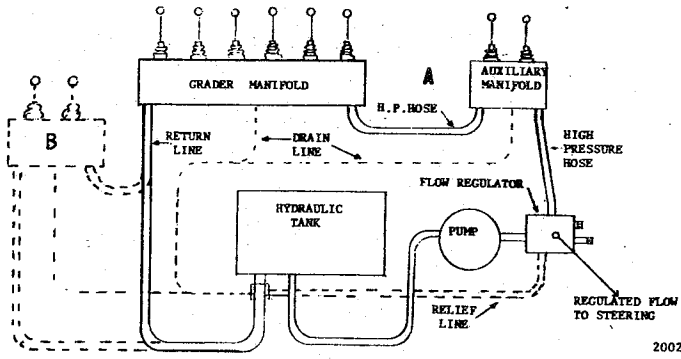


Fig. 1 - ("Booted Manifold")

Auxiliary manifold consisting of double acting valves only (A).

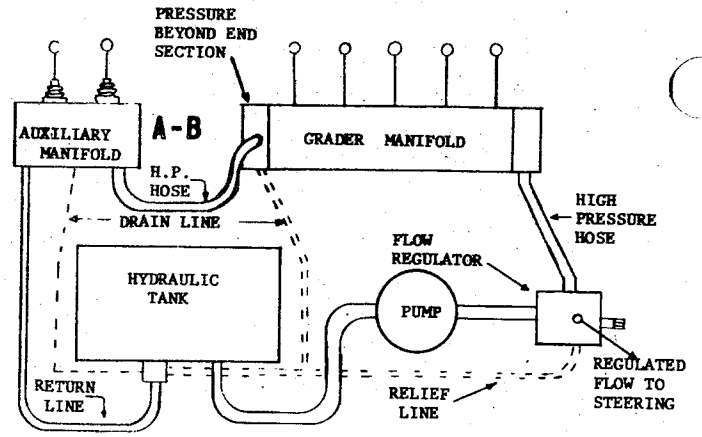


Fig. 3 - (Other than "booted" manifold)

Auxiliary manifold consisting of either double acting valves or a combination of single acting and double acting valves (A - B).

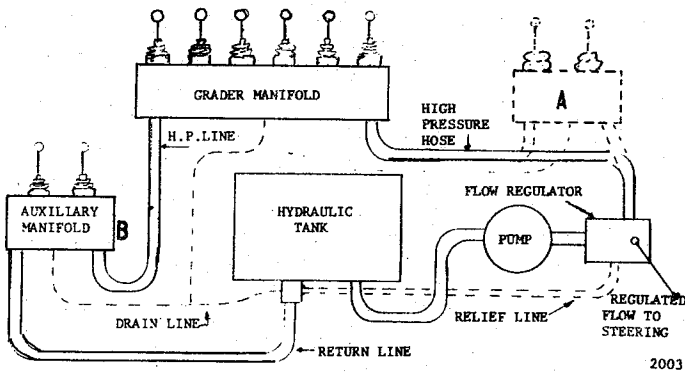


Fig. 2 - ("Booted" Manifold)

Auxiliary manifold consisting of combination of single acting and double acting valves (B).