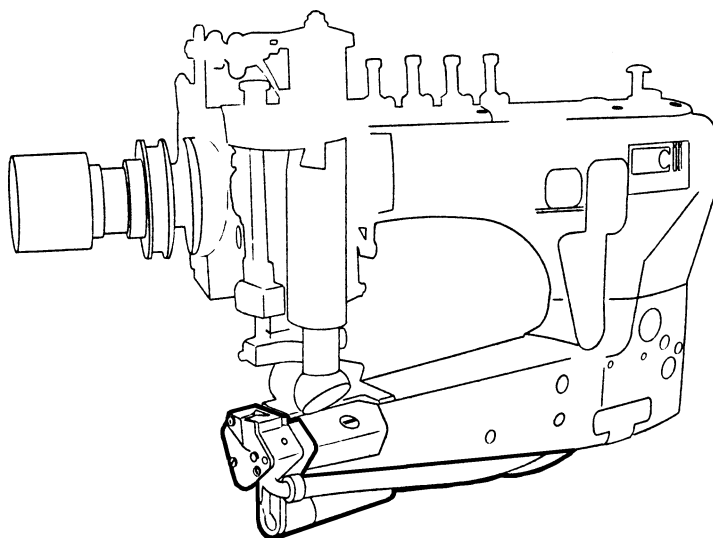


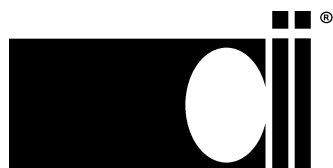
# CLINTON FEED OFF THE ARM CHAIN CUTTER WITH EXTERNAL AIR DRIVE

## MODEL 2115FOTA-V FOR UNION SPECIAL 35800, 36200 & YAMATO FD-62



# SERVICE MANUAL

40-0164-01



*Clinton Industries Inc.*

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## I. GENERAL INFORMATION

- A. The Clinton Feed-Off-The-Arm Chain Cutter, Model 2115FOTA is a continuous cutting system driven by a miniature air motor.
- B. The cutting system enables the operator to cut the thread chain at the beginning and at the end of the fabric being sewn. Cutting action is accomplished automatically at the beginning cut and by operator handling of the material at the end cut.

## II. INSTALLATION

- A. Drill and tap two holes as per drilling instructions in drawing INS-1008.
- B. Before mounting knife assembly to machine bed, adjust knife setting as shown in drawing INS-2078.
- C. Fasten air assembly to pedestal table as shown in drawing INS-2079.
- D. Valve Assembly Mount

When using a Clinton Accu Stop® DC Servo variable speed motor or a manual footlifter, mount valve assembly between the speed control and treadle as shown in respective illustrations.

- E. Mount venturi under one of the screws holding the switch box as shown in drawing INS-1005. See drawing INS-2085 for venturi vacuum system adjustments.
- F. Connect air hoses as per circuit diagram. When using electric eye refer to air circuit in electric eye manual.
- G. Set regulator to read 20 PSI, this will drive knife at approximately 2000 RPM.

## III. TROUBLE SHOOTING

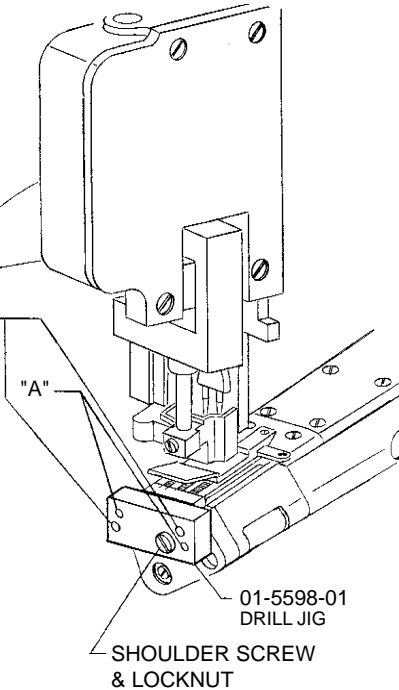
- A. Vacuum System Inoperative
  - 1. Check for clogging in the cutting system, the clear plastic tubing and the venturi.
  - 2. Check for excessive moisture or water condensation in the vacuum system.
- B. Cutting Assembly Inoperative
  - 1. Turn the air motor manually to determine whether the movable blade is going to its closed position and returning freely.
  - 2. Check to determine whether blades are cutting the thread chain. If the blades are not cutting, check for wear, binds and correct adjustments.

**NOTE: WARRANTY ON PARTS AND EQUIPMENT LIMITED TO USE OF GENUINE CLINTON PARTS ONLY**

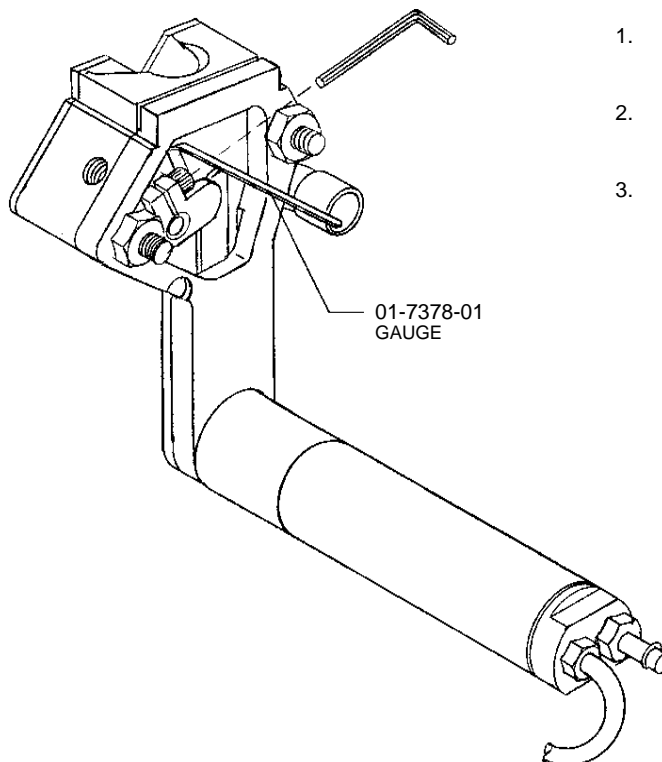
**DRILLING INSTRUCTIONS****CHAIN CUTTER MODEL 115VS, 115FOTA, 2115FOTA**

1. PLACE THE DRILL JIG ON THE MACHINE AS SHOWN.
2. ALIGN THE TOP OF THE DRILL JIG WITH THE TOP OF THE MACHINE BED.
3. TIGHTEN THE LOCKNUT ON THE END OF THE SHOULDER SCREW.
4. DRILL TWO HOLES MARKED "A" WITH #29 DRILL SUPPLIED.
5. LOOSEN THE LOCKNUT AND REALIGN THE DRILL JIG SO THAT THE TAPPING GUIDE HOLES WILL ALIGN WITH THE DRILLED HOLES.
6. TAP THE HOLES WITH AN 8-32 TAP USING THE TAP GUIDE HOLES TO GUIDE THE TAP STRAIGHT.
7. REMOVE THE DRILL JIG.

TAP GUIDE HOLES  
(LARGER HOLES)

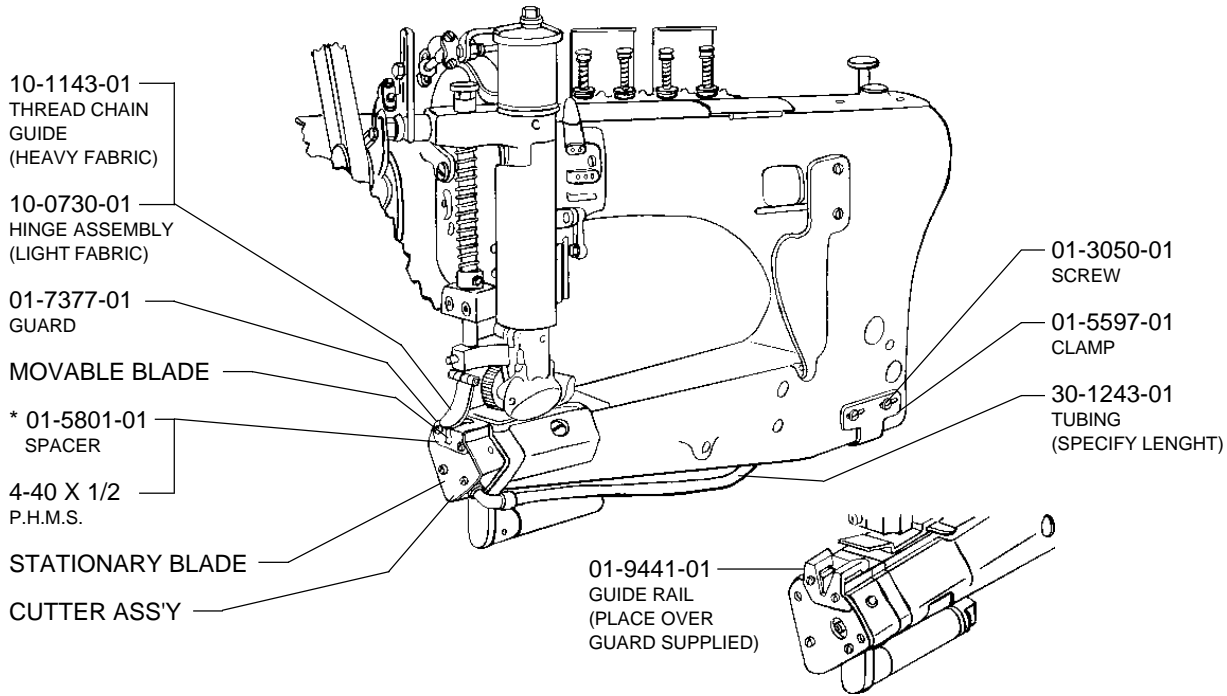
**NOTE:**

FOR U.S. 35800 DM AND DN: THE LOCATING HOLE IN THESE MACHINES IS 5/16" DIA. A REDUCER BUSHING 5/16" O.D. X 1/4" I.D. IS REQUIRED TO PROPERLY LOCATE THE DRILL FIXTURE.

**KNIFE ADJUSTMENT****MODEL 2115FOTA**

1. PLACE FEELER GAUGE BEHIND CUTTER DRIVE ARM.
2. INSERT WRENCH AND TIGHTEN ALLEN SCREW.
3. CHECK SETTING TO DETERMINE WHETHER THE MOVABLE BLADE IS GOING TO ITS CLOSED POSITION AND RETURNING FREELY.

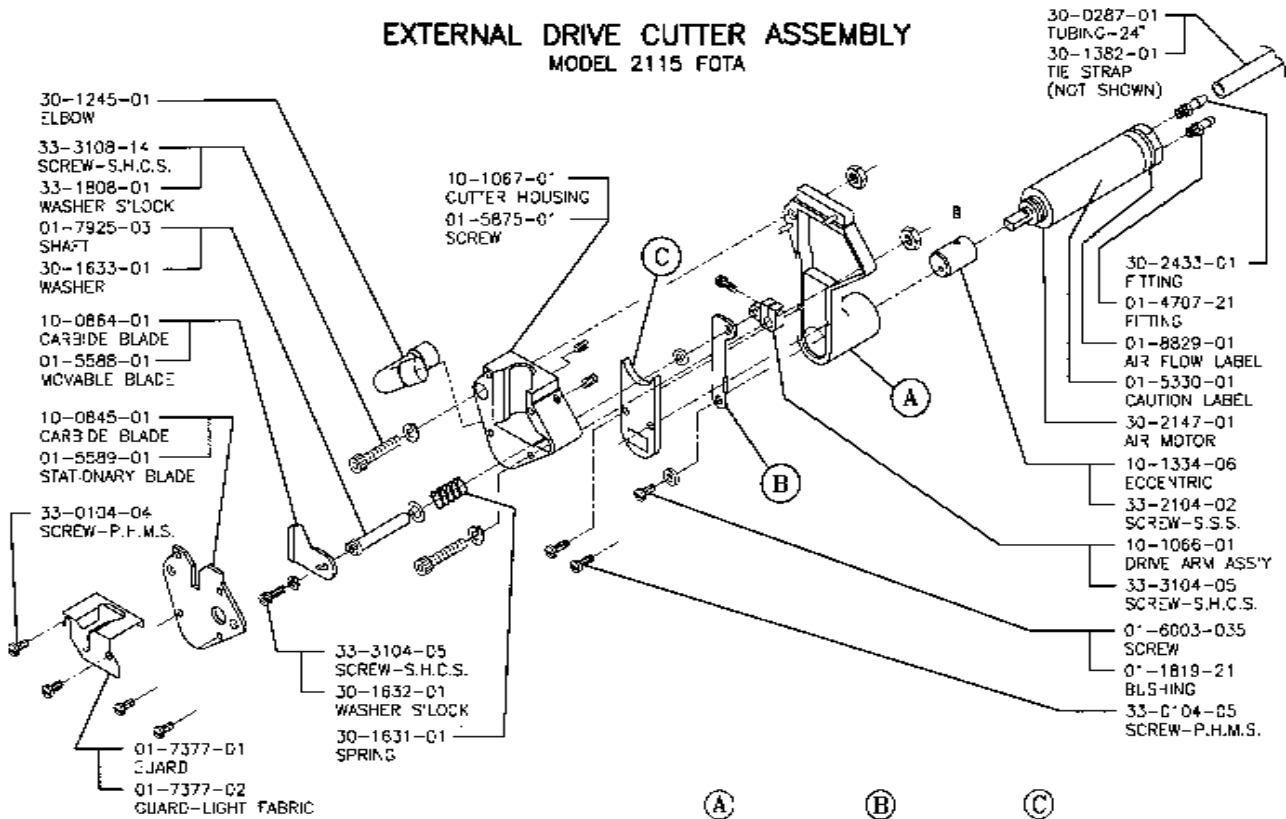
INSTALLATION - TYPICAL - 2115FOTA



\* OPTIONAL - FOR LONGER FINISH TAIL

INS-2044E

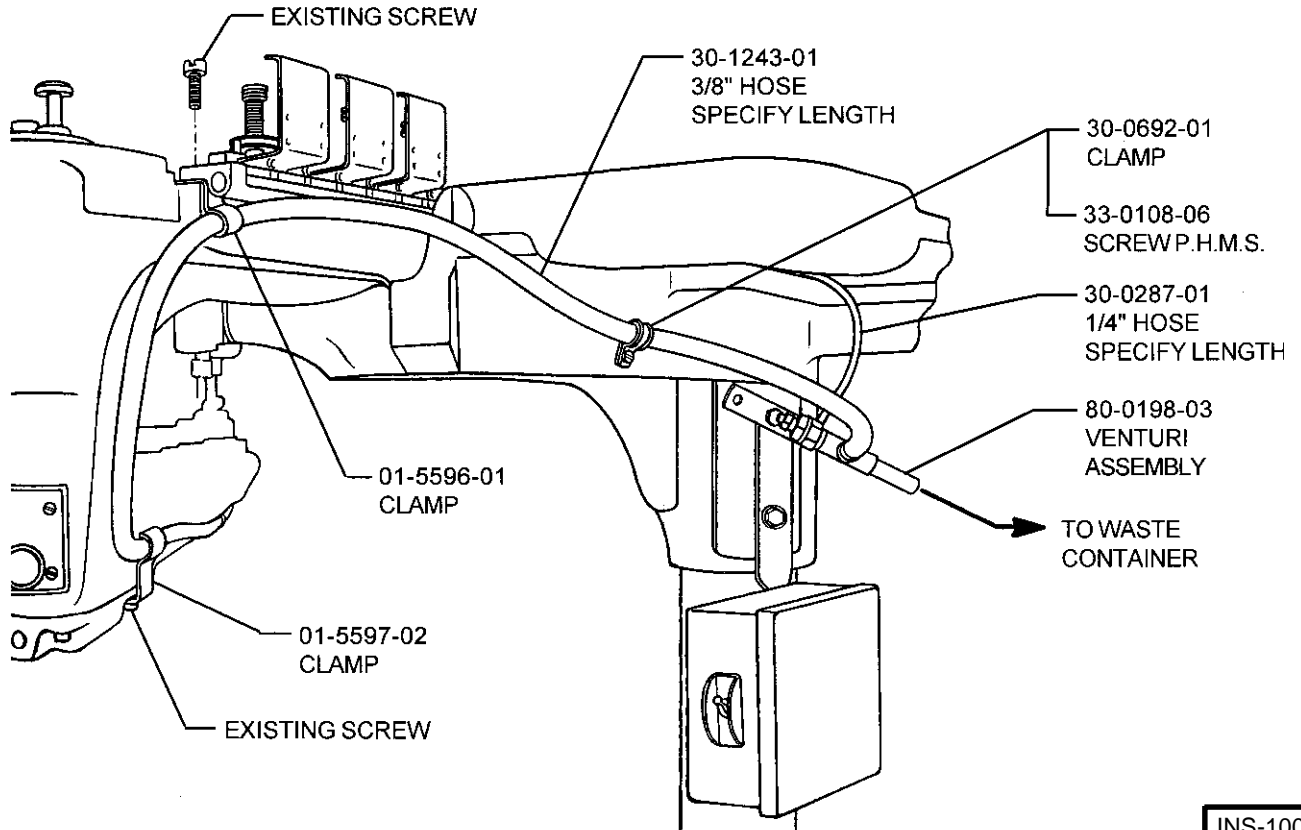
EXTERNAL DRIVE CUTTER ASSEMBLY  
MODEL 2115 FOTA



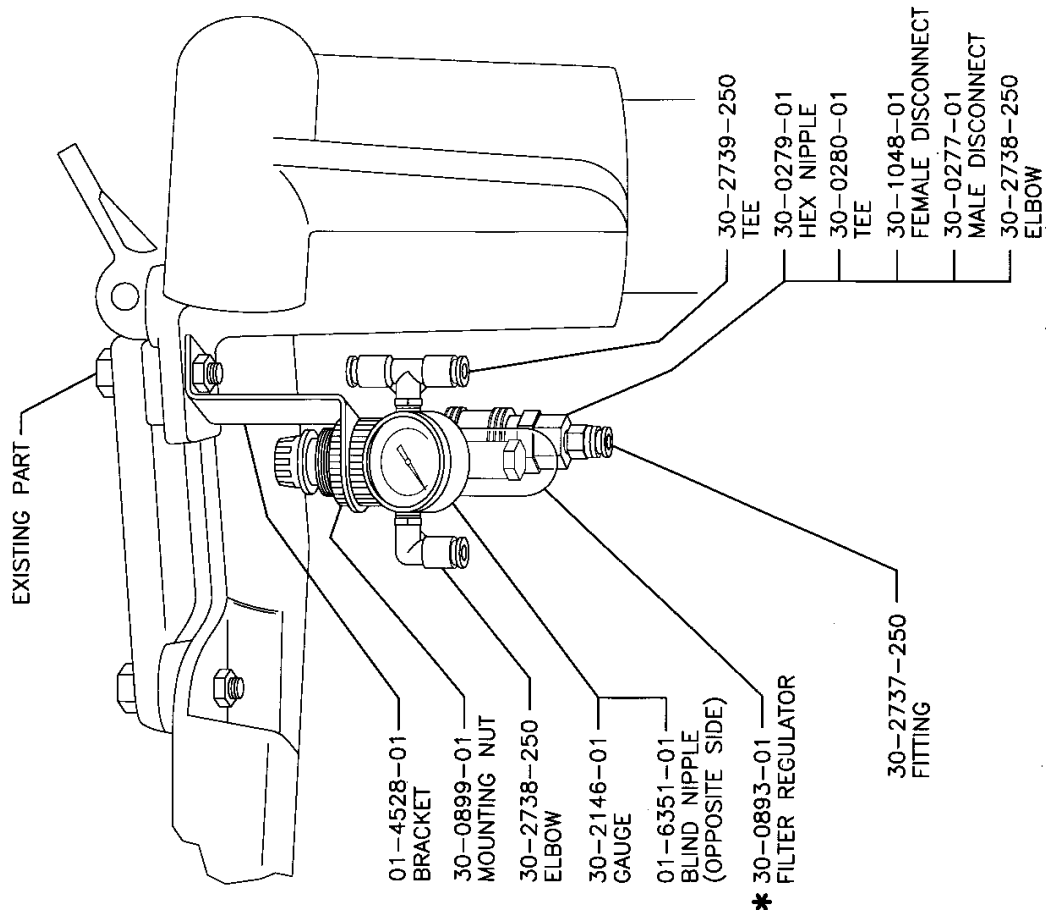
MACHINE	CUTTER ASSEMBLY	SPACER ASSEMBLY	LNK	LINK GUARD
36200, YAMATO FD-82, W+G FS601-603, PEGASUS 601	80-0417-01	10-1065-01 (SHORT)	01-7382-01	01-7988-01
U.S. 35700C, CL, CM, CN, CP, CR 35800CY, DE, DK, DL, DN, DO, DR, DW, DX, QA, DDH, DDW, DWR	80-0417-02	10-1065-02 (LONG)	01-7382-02	01-7988-02
KANSAI S6803PD, YAMATO DT-30, PFAFF FU205				

INS-2043M

**VENTURI INSTALLATION-115 FOTA & 2115 FOTA  
UNION SPECIAL 35800 DWW**

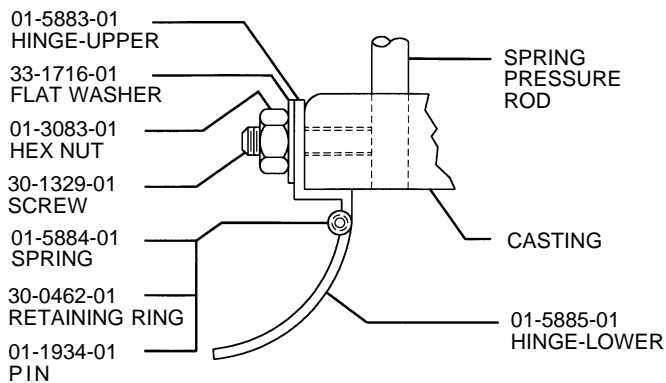


INS-1005E

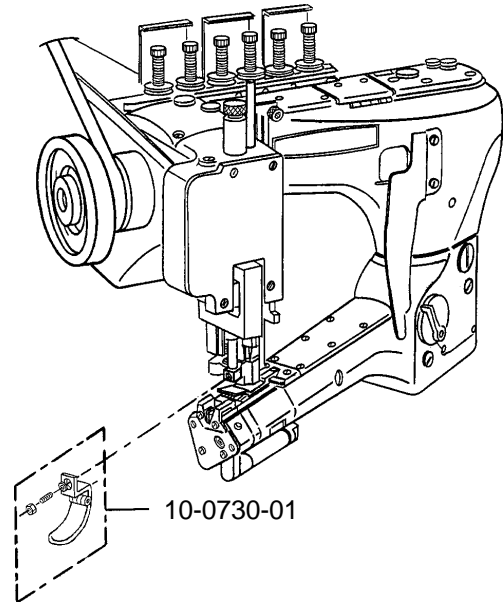


\* NOTE: SEE INS-842 FOR SPARE PARTS

INS-2079E

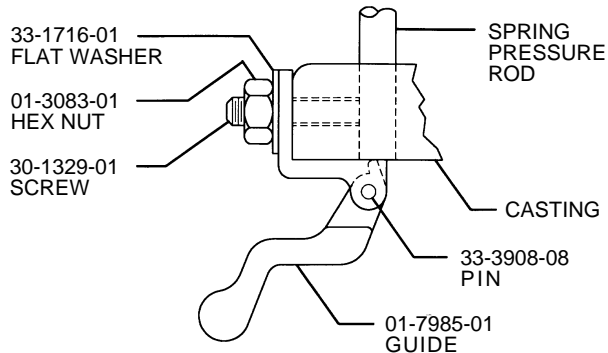
**MATERIAL HOLD DOWN HINGE ASSEMBLY****(FRONTAL MACHINE VIEW)  
10-0730-01 (LIGHT FABRIC)****10-0730-1****MODEL 2115 FOTA**

UN. SP. 35700 CR, UN. SP. 36200

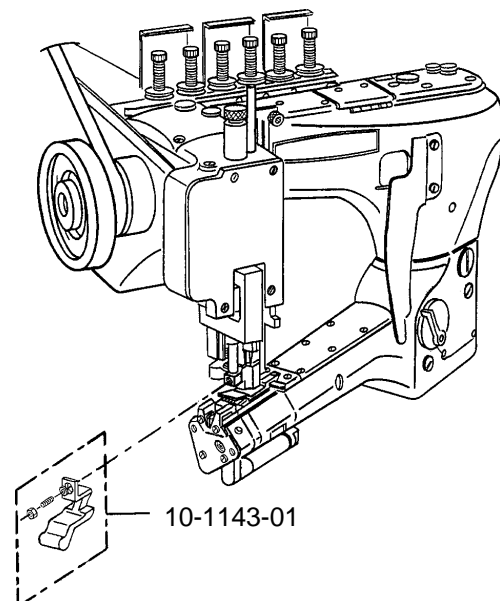
**INSTALLATION**

1. REMOVE EXISTING SPRING PRESSURE ROD SCREW FROM THE MACHINE CASTING AND REPLACE WITH SCREW 30-1329-01
2. MOUNT 10-0730-01 ASSEMBLY AS ILLUSTRATED

INS-2150A

**MATERIAL HOLD DOWN HINGE ASSEMBLY****(FRONTAL MACHINE VIEW)  
10-1143-01 (HEAVY FABRIC)****10-1143-01****MODEL 2115 FOTA**

UN. SP. 35700 CR, UN. SP. 36200

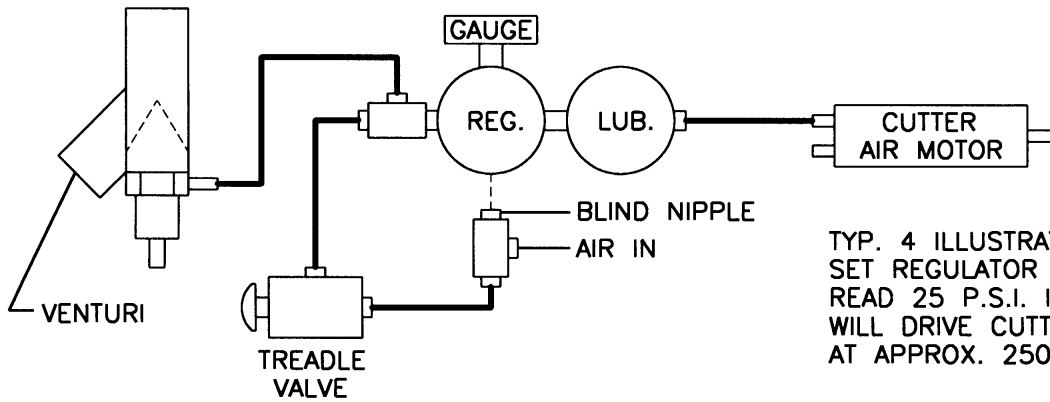
**INSTALLATION**

1. REMOVE EXISTING SPRING PRESSURE ROD SCREW FROM THE MACHINE CASTING AND REPLACE WITH SCREW 30-1329-01
2. MOUNT 10-1143-01 ASSEMBLY AS ILLUSTRATED

INS-2151C

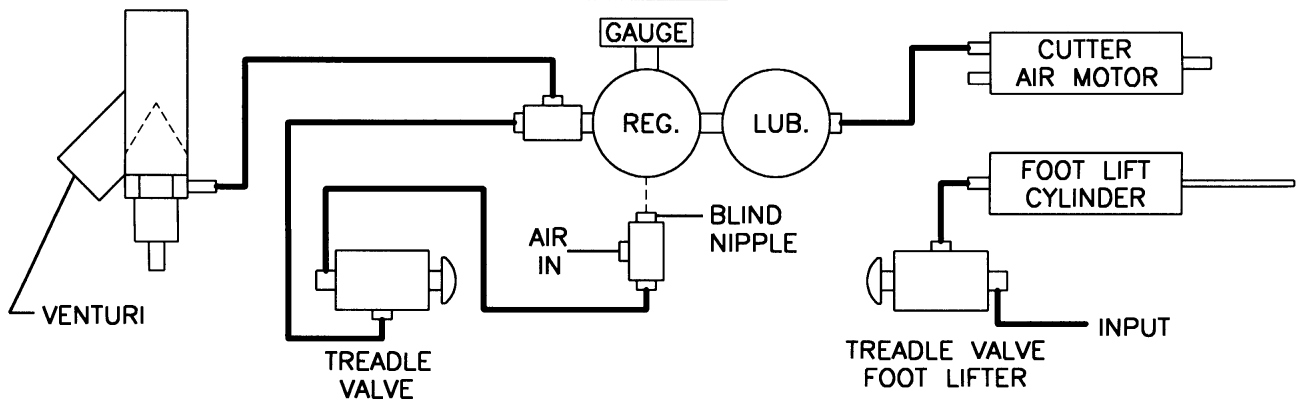
# AIR CIRCUITS—EXTERNAL AIR DRIVE CHAIN CUTTERS

CC-V

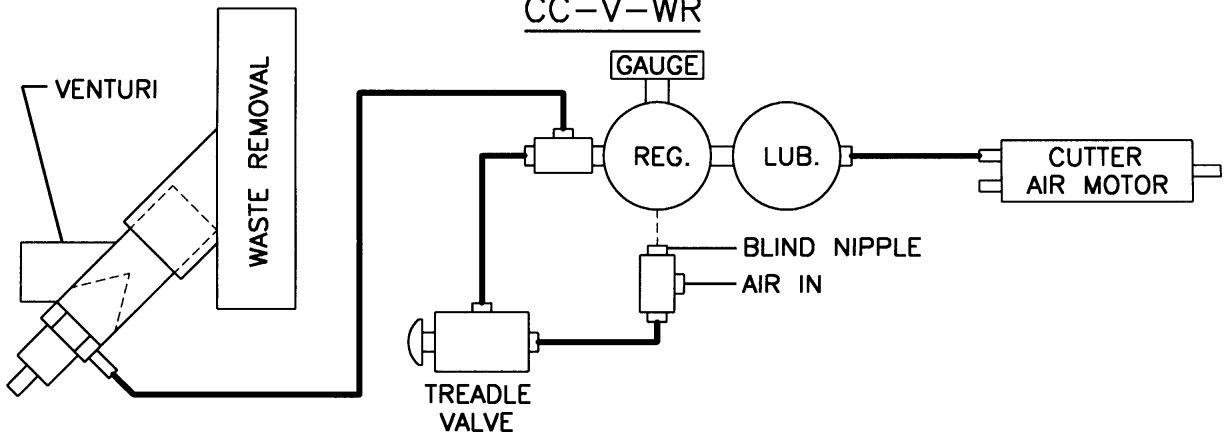


TYP. 4 ILLUSTRATIONS:  
SET REGULATOR TO  
READ 25 P.S.I. IT  
WILL DRIVE CUTTER  
AT APPROX. 2500 R.P.M.

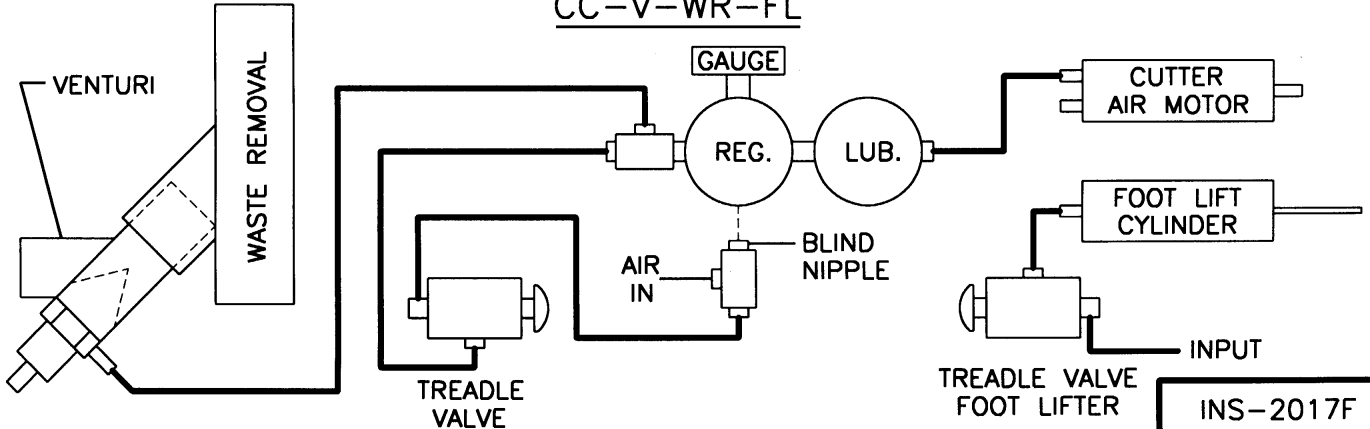
CC-V-FL



CC-V-WR

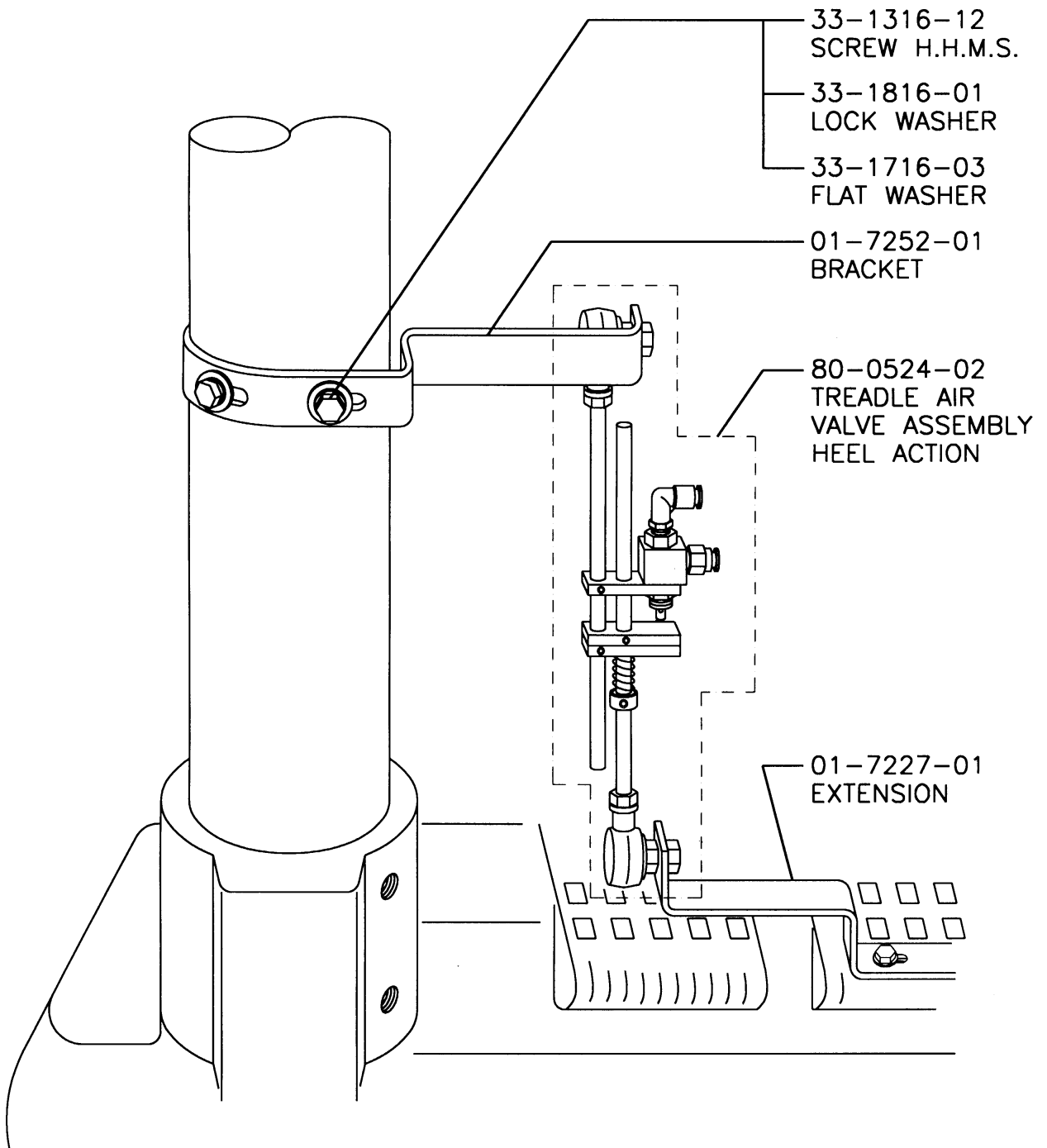


CC-V-WR-FL



# TREADLE AIR SWITCH HEEL ACTION

80-0524-08





# DUAL TREADLE AIR SWITCH

## TOE & HEEL ACTION

### 80-0524-03

30-2739-250  
TEE

30-2102-01  
TUBING

30-1132-01  
AIR VALVE

30-2737-250  
TUBE FITTING

02-2696-01  
BLOCK VALVE  
ACTUATOR

30-1132-01  
AIR VALVE

30-2737-250  
TUBE FITTING

30-2738-250  
ELBOW

30-2102-01  
TUBING

30-4296-01  
RODS &  
RODS END

33-2410-03  
SET SCREW

02-2746-01  
COLLAR

30-0290-01  
SPRING

02-2697-01  
BLOCK VALVE  
MOUNT

33-2410-03  
SET SCREW

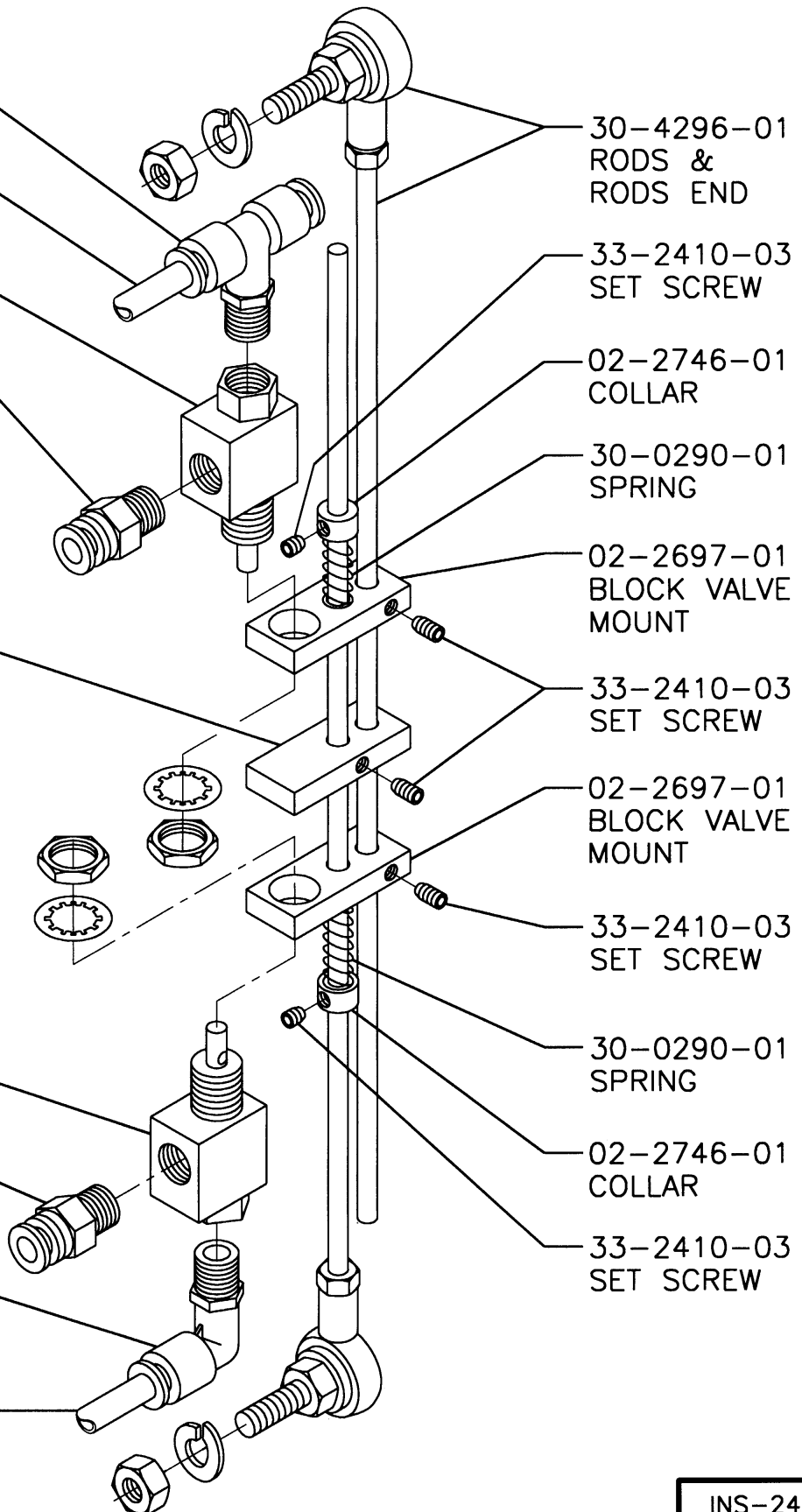
02-2697-01  
BLOCK VALVE  
MOUNT

33-2410-03  
SET SCREW

30-0290-01  
SPRING

02-2746-01  
COLLAR

33-2410-03  
SET SCREW

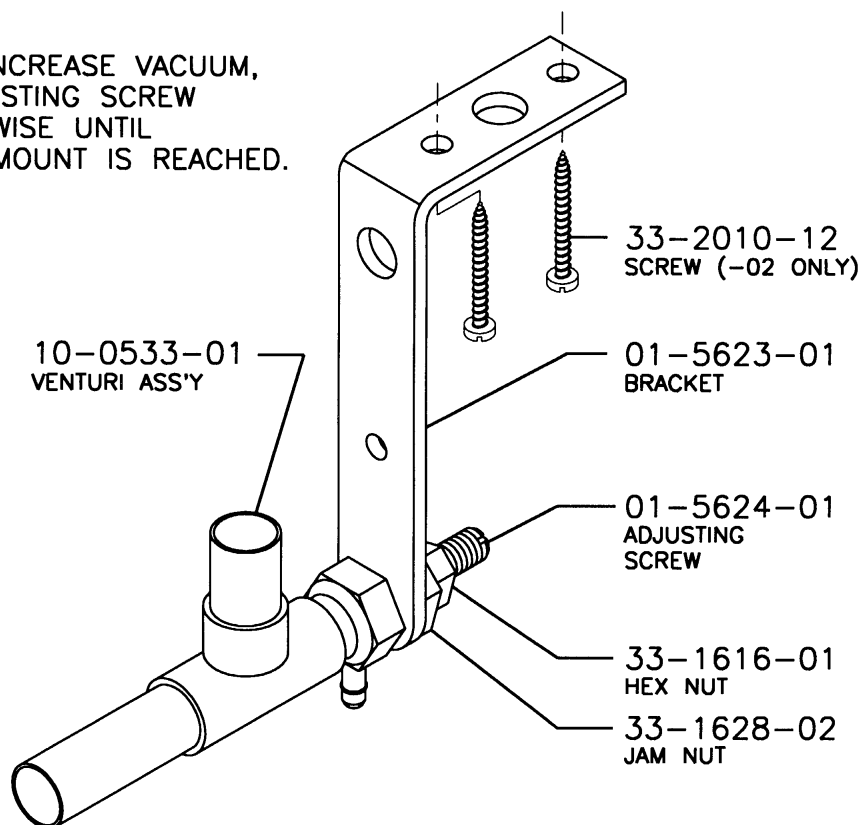


# VENTURI REGULATOR ASSEMBLY

80-0198-02 - TABLE

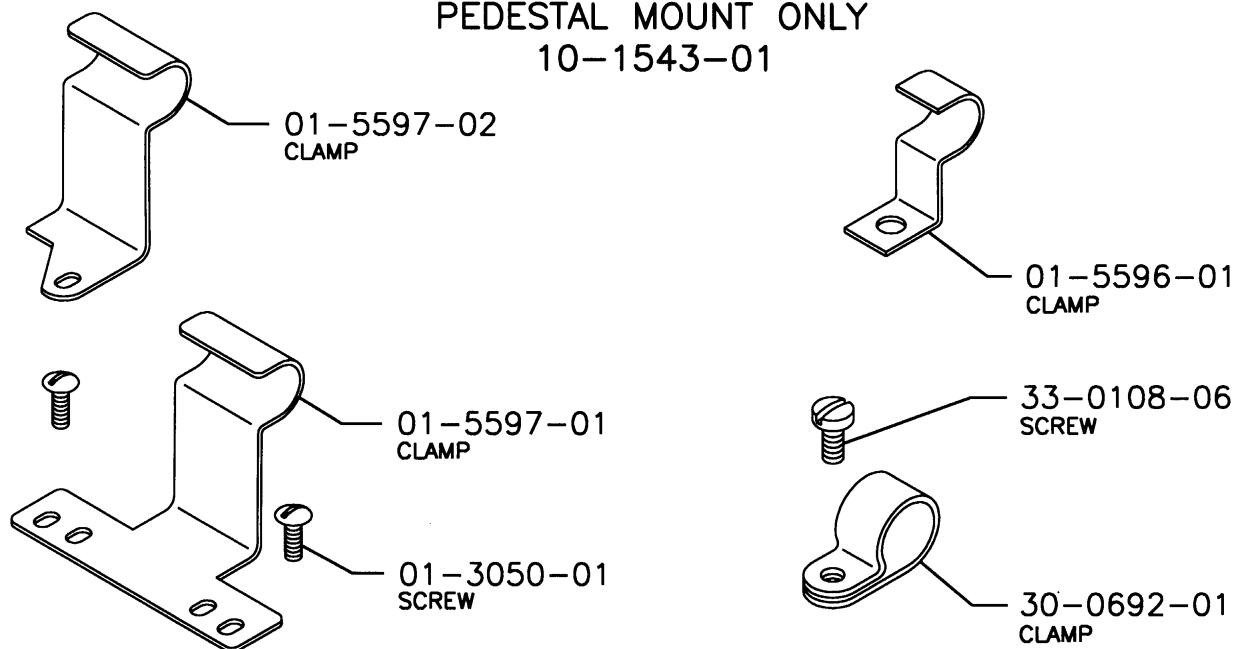
80-0198-03 - PEDESTAL

NOTE:  
IN ORDER TO INCREASE VACUUM,  
TURN THE ADJUSTING SCREW  
COUNTERCLOCKWISE UNTIL  
THE DESIRED AMOUNT IS REACHED.



## PEDESTAL MOUNT ONLY

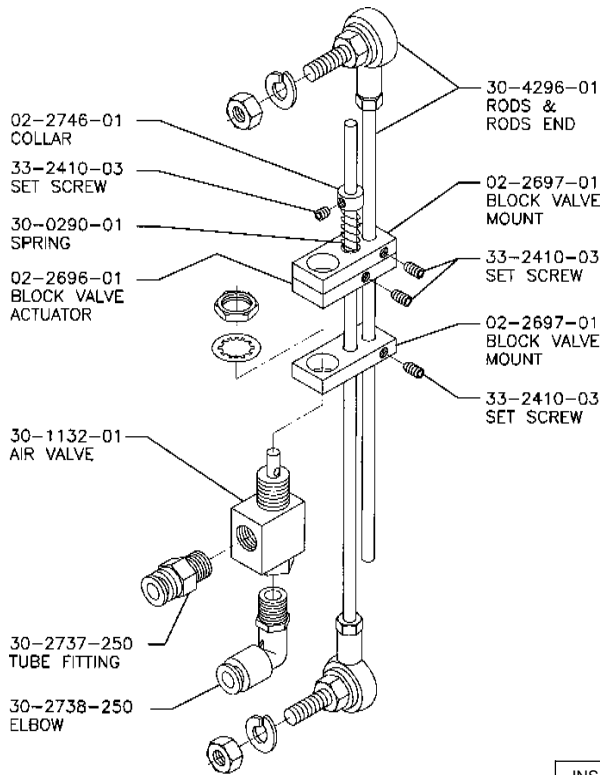
10-1543-01



**AIR VALVE ASSEMBLIES AND VENTURI INSTALLATIONS**

**TABLE MOUNTING**

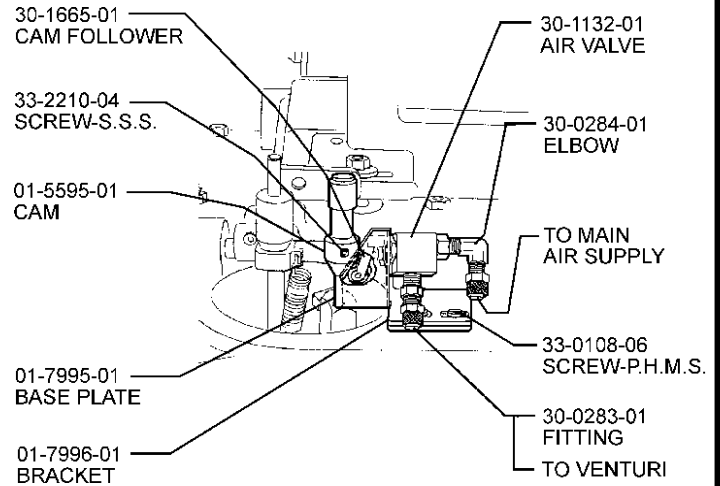
**TREADLE AIR VALVE  
TOE ACTION  
80-0524-01**



INS-2402B

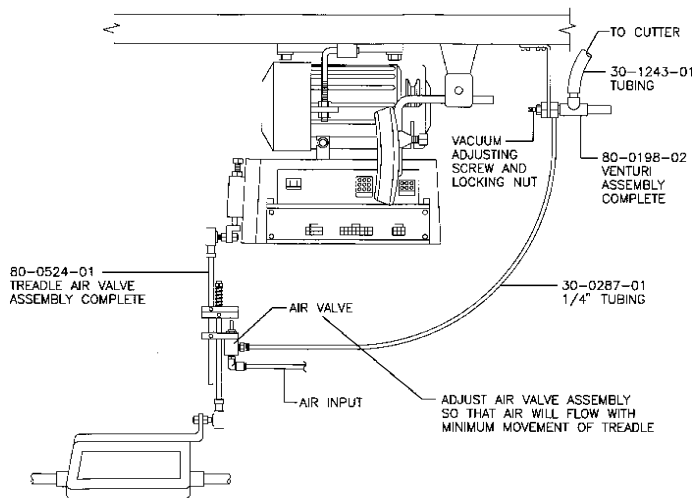
**PEDESTAL MOUNTING**

**TREADLE AIR VALVE INSTALLATION - 115FOTA & 2115 FOTA  
UNION SPECIAL 35800  
80-6111-01**



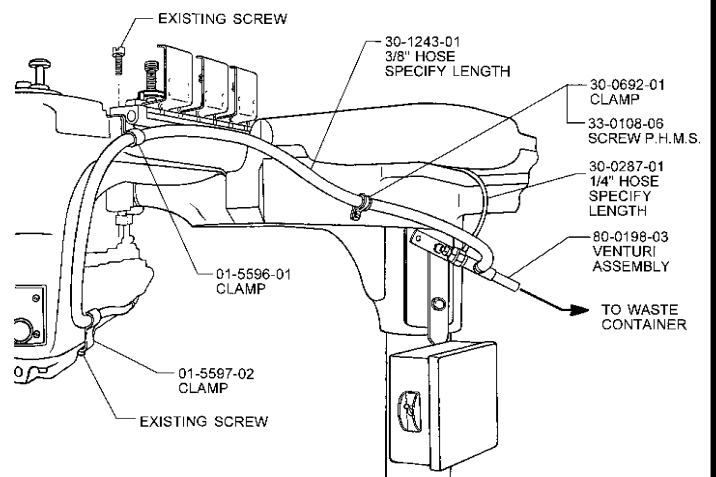
INS-1009B

**VACUUM SYSTEM INSTALLATION  
TREADLE OPERATED**



INS-1089B

**VENTURI INSTALLATION - 115 FOTA & 2115 FOTA  
UNION SPECIAL 35800 DWW**



INS-1005E

## FILTER REGULATOR ASSEMBLY

30-0893-01

### OPERATION

AIR ENTERS THE INTEGRAL FILTER/REGULATOR UNIT AND IS DIRECTED DOWNWARD THROUGH A SET OF LOUVERS (D) TO IMPART WHIRLING ACTION. THIS CENTRIFUGAL ACTION CAUSES LIQUID PARTICLES TO BE SEPARATED FROM THE AIR STREAM AND SETTLE TO THE BOTTOM OF THE BOWL. ACCUMULATED LIQUID IS DRAINED MANUALLY (H).

AIR THEN PASSES THROUGH THE SINTERED BRONZE FILTER ELEMENT (E) WHERE SMALLER SIZE FOREIGN PARTICALS ARE REMOVED.

THE CLEAN AIR PASSES THROUGH THE VALVE (C) OF THE REGULATOR AND IS CONTROLLED TO A PRESSURE, DETERMINED BY THE ADJUSTMENT OF THE REGULATOR. PRESSURE IS INCREASED BY ROTATING THE KNOB (A) CLOCKWISE, OR DECREASED BY ROTATING THE KNOB COUNTER-CLOCKWISE.

**CAUTION** THIS MINIATURE INTEGRAL FILTER/REGULATOR SHOULD NOT BE USED IN APPLICATIONS WHICH MAY EXCEED 250 PSIG. DURING MAINTENANCE PERIODS, INSPECT AND CLEAN EACH PART CAREFULLY, USING ONLY CLEAR, WARM WATER OR KEROSENE. DO NOT USE SOLVENTS AS THE POLYCARBONATE BOWL MAY BE DAMAGED.

### MAINTENANCE

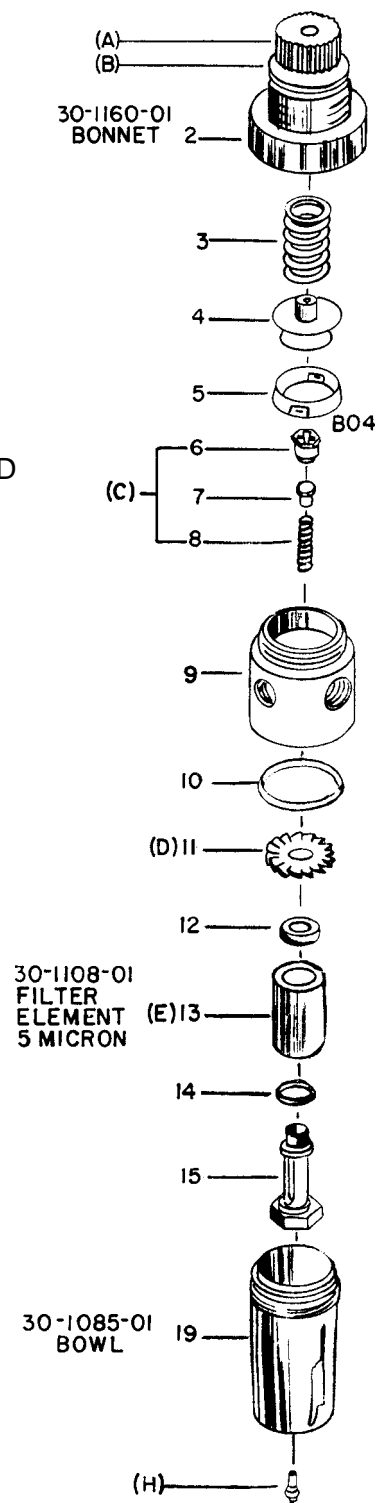
REGULATOR SECTION: DISASSEMBLE THE REGULATOR SECTION AS FOLLOWS: TURN OFF AIR SUPPLY. TURN THE ADJUSTING KNOB COUNTER-CLOCKWISE TO RELIEVE COMPRESSION ON THE REGULATING SPRING (3). UNSCREW THE BONNET (2), REMOVE THE REGULATING SPRING (3), AND PISTON ASSEMBLY (4&5). UNSCREW THE VALVE SEAT (6) WITH A 3/8" SOCKET AND REMOVE THE VALVE ASSEMBLY (7) AND VALVE SPRING (8).

CLEAN AND INSPECT EACH PART FOR WEAR OR DAMAGE. REPLACE IF NECESSARY.

CAUTION: WHEN REASSEMBLING, VALVE SEAT (6) SHOULD NOT BE TIGHTENED TO MORE THAN 10 INCH POUNDS OF TORQUE. BONNET ASSEMBLY (2) SHOULD BE THIGHTENED TO 40 TO 50 INCH POUNDS OF TORQUE.

MANUAL DRAIN FILTER SECTION: TO SERVICE THE FILTER SECTION, SHUT OFF THE AIR PRESSURE. UNSCREW BOWL ASSEMBLY (19) AND REMOVE "O" RING (10) UNSCREW STUD (15) AND FROM THE STUD REMOVE FILTER ELEMENT (13), LOUVER (11) AND GASKETS (12 & 14). THE FILTER ELEMENT SHOULD BE CLEANED PERIODICALLY WITH KEROSENE AND BLOWN OUT WITH COMPRESSED AIR.

AFTER CLEANING, INSPECT EACH PART CAREFULLY, REPLACE ANY DAMAGED PARTS. WHEN REASSEMBLING, THIGHTEN STUD (15) TO 5 TO 10 INCH POUNDS OF TORQUE.



30-1156-01  
REPAIR KIT  
CONTAINS ITEMS  
4,5,6,7,8,10,12,13 &14