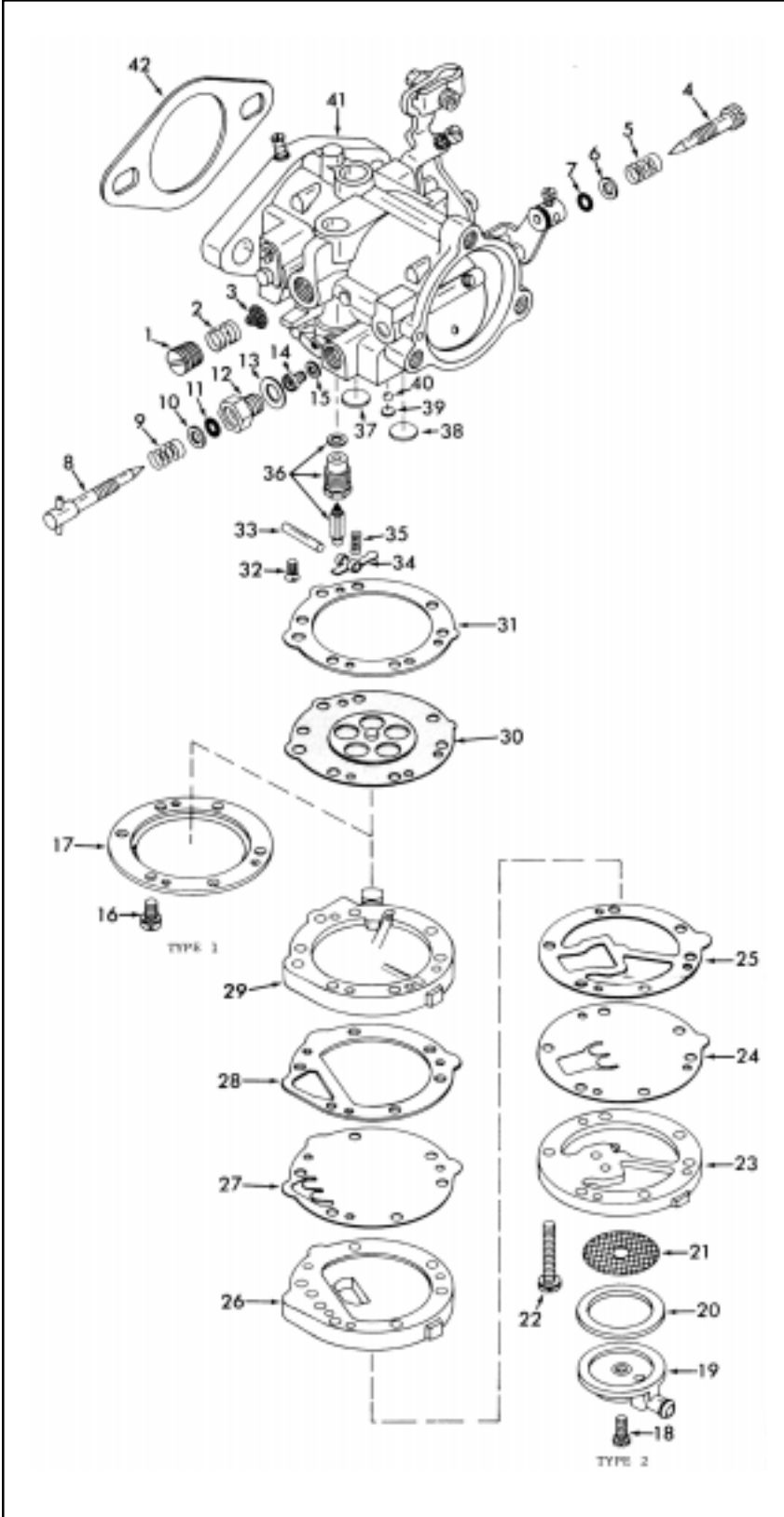


# INSTRUCTION SHEET

## TILLOTSON CARBURETOR - MODEL HD

### GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO  
INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET



### DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION.

**NOTE:** SOME MODELS HAVE AN EXTERNAL FUEL PUMP WHICH IS REMOVED AS AN ASSEMBLY.

EARLY MODELS HAVE A MAIN JET (14) WITH **RIGHT HAND THREADS**. LATER MODELS HAVE **LEFT HAND THREADS**.

IF WELCH PLUGS ARE REMOVED, **CAREFULLY DRILL THROUGH THICKNESS OF PLUG**, USING A 1/8" DRILL. THEN PRY OUT WELCH PLUG, USING A SMALL PUNCH.

### NOMENCLATURE

REF. NO.		
1.	PLUG SCREW - BODY CHANNEL	20. GASKET - FUEL STRAINER COVER
2.	SPRING - INLET SCREEN RETAINER	21. SCREEN - FUEL STRAINER
3.	SCREEN - INLET	22. SCREW & LOCKWASHER (6) - INLET VALVE BODY
4.	NEEDLE - IDLE ADJUSTING	23. BODY - INLET VALVE
5.	SPRING - IDLE ADJUSTING NEEDLE	24. DIAPHRAGM - INLET VALVE
6.	WASHER - IDLE NEEDLE SPRING	25. GASKET - INLET VALVE
7.	O-RING - IDLE NEEDLE ADJUSTING	26. BODY - FUEL PUMP
8.	NEEDLE - HIGH SPEED ADJUSTING	27. DIAPHRAGM - FUEL PUMP
9.	SPRING - HIGH SPEED ADJUSTING NEEDLE	28. GASKET - FUEL PUMP
10.	WASHER - HIGH SPEED NEEDLE SPRING	29. COVER - DIAPHRAGM
11.	O-RING HIGH SPEED NEEDLE	
12.	GLAND - HIGH SPEED NEEDLE	30. DIAPHRAGM
13.	GASKET - GLAND	31. GASKET - DIAPHRAGM
14.	JET - MAIN	32. SCREW - LEVER PIN RETAINING
15.	GASKET - MAIN JET - TYPE 1 -	33. PIN - LEVER
16.	SCREW & LOCKWASHER (6) DIAPHRAGM COVER	34. LEVER - INLET CONTROL
17.	COVER - DIAPHRAGM - TYPE 2 -	35. SPRING - INLET LEVER TENSION
18.	SCREW - FUEL STRAINER COVER	36. NEEDLE, SEAT & GASKET ASSEMBLY
19.	COVER - FUEL STRAINER	37. WELCH PLUG - IDLE PORT
		38. WELCH PLUG - NOZZLE CHECK VALVE
		39. WELCH PLUG - ECONOMIZER CHECK BALL (SOME MODELS)
		40. BALL - ECONOMIZER CHECK (SOME MODELS)
		41. BODY - MAIN CARBURETOR
		42. GASKET - FLANGE

### CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE (1) A CARBURETOR CLEANING SOLVENT, (2) LACQUER THINNER, OR (3) DENATURED ALCOHOL. MAKE CERTAIN THE THROTTLE BORE IS FREE OF ALL CARBON AND VARNISH DEPOSITS. RINSE OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. CAUTION: DO NOT SOAK GASKETS OR RUBBER PARTS IN CLEANING SOLVENTS.

### REASSEMBLY

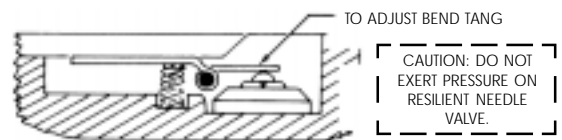
REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND ADJUSTMENTS.

### SPECIAL INSTRUCTIONS

**WELCH PLUG INSTALLATION** - INSTALL PLUG WITH CONVEX SIDE UP. THEN FLATTEN, USING A 5/16" FLAT END PUNCH AND HAMMER. (CORRECTLY INSTALLED WELCH PLUG IS FLAT.)

**INLET NEEDLE SEAT INSTALLATION** - INSTALL GASKET AND SEAT THEN TIGHTEN TO 40-50 INCH LBS. OF TORQUE.

### INLET CONTROL LEVER SETTING



**INLET CONTROL LEVER** SHOULD BE FLUSH WITH THE METERING CHAMBER WALL. **IDLE NEEDLE INSTALLATION** - TURN NEEDLE (4) IN LIGHTLY UNTIL SEATED, THEN BACK OUT 1 TURN.

**HIGH SPEED NEEDLE INSTALLATION** - TURN NEEDLE (8) IN LIGHTLY UNTIL SEATED, THEN BACK OUT 1 TURN.

**IDLE ADJUSTMENT** - ENGINE AT OPERATING TEMPERATURE, ADJUST IDLE MIXTURE SCREW TO OBTAIN A SMOOTH STEADY IDLE AND ADJUST IDLE SPEED SCREW TO ENGINE MANUFACTURER'S R.P.M.

**HIGH SPEED ADJUSTMENT** - ENGINE AT FULLY OPEN THROTTLE AND UNDER NORMAL FULL LOAD, ADJUST NEEDLE TO OBTAIN THE HIGHEST R.P.M.