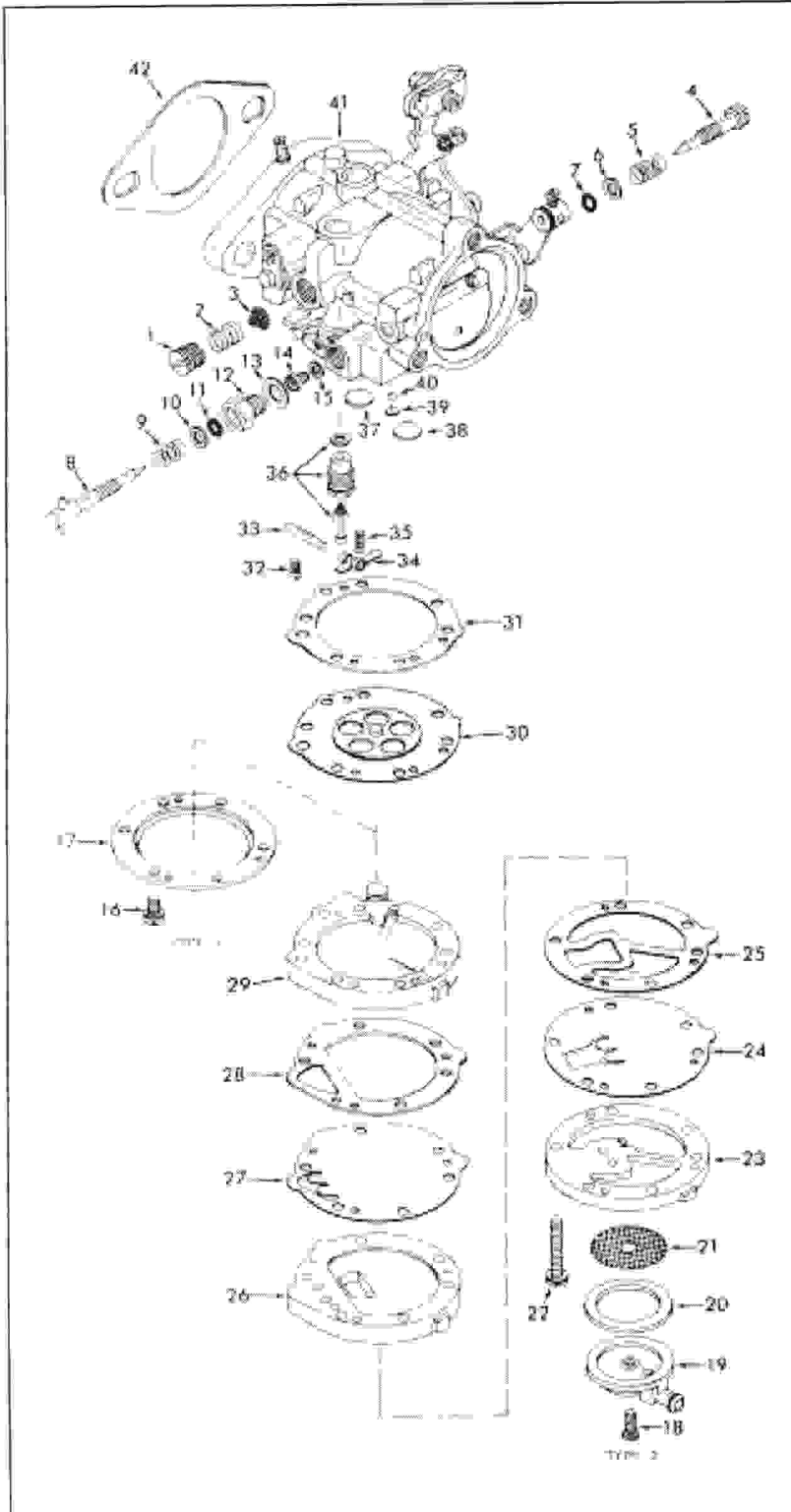


# INSTRUCTION SHEET TILLOTSON CARBURETOR - MODEL HD

## GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO 1 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.	20 GASKET - FUEL STRAINER COVER
1 PLUG SCREW - BODY CHANNEL	21 SCREEN - FUEL STRAINER
2 SPRING - INLET SCREEN RETAINER	22 SCREW & LOCKWASHER (6) - INLET VALVE BODY
3 SCREEN - INLET	23 BODY - INLET VALVE
4 NEEDLE - IDLE ADJUSTING	24 DIAPHRAGM - INLET VALVE
5 SPRING - IDLE ADJUSTING NEEDLE	25 GASKET - INLET VALVE
6 WASHER - IDLE NEEDLE SPRING	26 BODY - FUEL PUMP
7 O-RING - IDLE NEEDLE ADJUSTING	27 DIAPHRAGM - FUEL PUMP
8 NEEDLE - HIGH SPEED ADJUSTING	28 GASKET - FUEL PUMP
9 SPRING - HIGH SPEED ADJUSTING NEEDLE	29 COVER - DIAPHRAGM
10 WASHER - HIGH SPEED NEEDLE SPRING	30 DIAPHRAGM
11 O-RING HIGH SPEED NEEDLE	31 GASKET - DIAPHRAGM
12 GLAND - HIGH SPEED NEEDLE	32 SCREW - LEVER PIN RETAINING
13 GASKET - GLAND	33 PIN - LEVER
14 JET - MAIN	34 LEVER - INLET CONTROL
15 GASKET - MAIN JET - TYPE 1 -	35 SPRING - INLET LEVER TENSION
16 SCREW & LOCKWASHER (6) DIAPHRAGM COVER	36 NEEDLE SEAL & GASKET ASSEMBLY
17 COVER - DIAPHRAGM - TYPE 2 -	37 WELCH PLUG - IDLE PORT
18 SCREW - FUEL STRAINER COVER	38 WELCH PLUG - NOZZLE CHECK VALVE
19 COVER - FUEL STRAINER	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) DENATURIZED 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

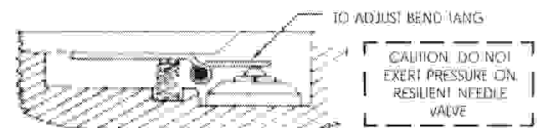
REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND ADJUSTMENTS.

## 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 SEAL INSTALLATION - INSTALL GASKET AND SEAL 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 SEALED, THEN BACK OUT 1 TURN.

HIGH SPEED NEEDLE INSTALLATION - TURN NEEDLE (8) IN LIGHTLY UNTIL SEALED, 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.