

# Holley Carburetors

## HOLLEY MODEL 1904 SINGLE BARREL

### INTERNATIONAL HARVESTER

Application	Holley Part No.	
	Man. Trans.	Auto. Trans.
<b>1965</b>		
152" 4 Cyl. ....	R2352	①
220" 6 Cyl. ....	R1418	R1419
241" 6 Cyl. ....	R1420	R1421
<b>1966</b>		
152" 4 Cyl. ....	R2352	①
152" 4 Cyl. ② ....	R3479	①
196" 4 Cyl. ....	R3716	①
196" 4 Cyl. ② ....	R3842	①
220" 6 Cyl. ....	R1418	R1419
220" 6 Cyl. ② ....	R3478	R3499
241" 6 Cyl. ....	R1420	R1421
241" 6 Cyl. ② ....	R3443	R3496
<b>1967</b>		
152" 4 Cyl. ....	R2352	①
152" 4 Cyl. ② ....	R3862	①
196" 4 Cyl. ....	R3716	①
196" 4 Cyl. ② ....	R3842	①
220" 6 Cyl. ....	R1418	R1419
220" 6 Cyl. ② ....	R3478	R3499
241" 6 Cyl. ....	R1420	R1421
241" 6 Cyl. ② ....	R3443	R3496
<b>1968</b>		
152" 4 Cyl. ....	R2494	①
152" 4 Cyl. ② ....	R4171	①
196" 4 Cyl. ....	R3716	①
196" 4 Cyl. ② ....	R3842	①
220" 6 Cyl. ....	R3478	R3499
241" 6 Cyl. ....	R3443	R3496
<b>1969 &amp; 1970</b>		
152" 4 Cyl. ....	R2494	①
196" 4 Cyl. ....	R3716	①
196" 4 Cyl. ② ....	R3842	①

- ① - Not applicable.
- ② - An emission control engine with internal changes signified by the letter "E" in the engine serial number.

### CARBURETOR IDENTIFICATION

Holley Part Number is stamped on boss next to fuel inlet. **NOTE** - Holley Model 1904 and Model 1920 carburetors were used concurrently in later model years and are of similar appearance. Model 1920 has part number stamped on carburetor body.

### DESCRIPTION

Single barrel downdraft type carburetor utilizing a manual choke.

### ADJUSTMENTS

#### HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP Section.

#### COLD (FAST) IDLE RPM

See appropriate article in TUNE-UP Section.

#### ACCELERATOR & DOWNSHIFT LINKAGE ADJUSTMENT

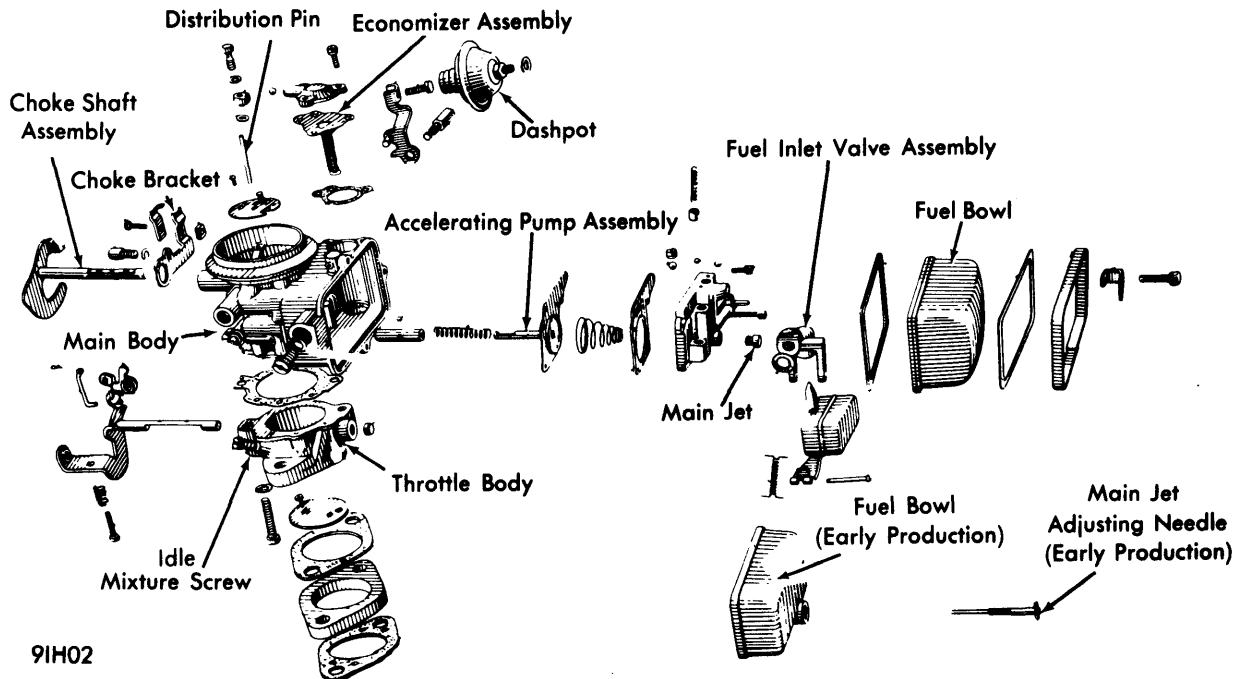
See appropriate article in TUNE-UP Section.

#### DASHPOT ADJUSTMENT

See appropriate article in TUNE-UP Section.

#### FLOAT LEVEL

Invert main body assembly, allowing the float to drop to the closed position. Using specified special tool, check setting on both "touch" and "no touch" legs of gauge. Float level may be adjusted by bending small tab in float lever which contacts head of fuel inlet needle pin. Use needle nose pliers for this adjustment and recheck setting after adjustment is made.

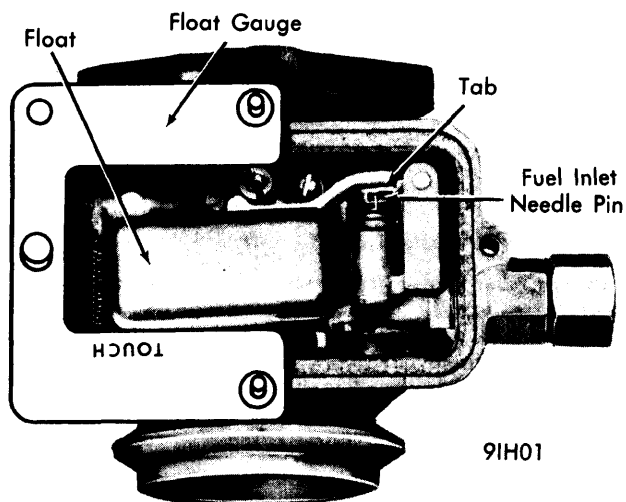


HOLLEY 1904 CARBURETOR ASSEMBLY (TYPICAL)

## HOLLEY MODEL 1904 SINGLE BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS				
Holley Carb. No.	Idle Speed (Engine RPM)		① Float Level	Preliminary Adjustment
	Man. Trans.	Auto. Trans.		
1418	350-400	350-400	SE-1772-9B	②
1419	350-400	350-400	SE-1772-9B	②
1420	350-400	350-400	SE-1772-9B	③
1421	350-400	350-400	SE-1772-9B	③
2352	450-500	.....	SE-1772-9B	③
2494	450-500	.....	SE-1772-9B	③
3443	700	.....	SE-1772-9B	③
3478	700	.....	SE-1772-9B	③
3479	700	.....	SE-1772-9B	③
3496	.....	600	SE-1772-9B	③
3499	.....	600	SE-1772-9B	③
3716	700	.....	SE-1772-9B	③
3842	700	.....	SE-1772-9B	③
3862	700	.....	SE-1772-9B	③
4171	700	.....	SE-1772-9B	③

- ① - Float setting tool number.  
 ② - Turn screw  $\frac{3}{4}$  to  $1\frac{1}{4}$  turns off seat.  
 ③ - No preliminary adjustment.



FLOAT LEVEL ADJUSTMENT

### OVERHAUL

#### DISASSEMBLY

- 1) Disconnect pump linkage and remove throttle body from main body assembly. From main body, remove dashpot (if equipped) and fuel bowl. Using suitable socket (SE-1772-7) remove fuel inlet retaining screw and lift out float and fuel inlet assembly. Separate float assembly from fuel valve assembly.
- 2) Remove economizer from top of main body and remove main well from fuel bowl attachment point. Remove two screws from top of main well and invert to allow pump inlet check valve ball, pump discharge valve spring, retainer, and pump discharge valve ball to fall out.
- 3) Carefully slide accelerating pump assembly out of main body. **CAUTION** - Pump rod sleeve is under spring tension. Pull assembly straight out; do not rotate during removal. Press pump rod sleeve toward pump diaphragm, compressing pump spring, and allow pump rod sleeve retainer ball to drop out

(rotate sleeve if ball sticks in place). Complete disassembly of pump rod assembly.

- 4) From side of main body, remove pump operating lever and choke bracket screw. Rotate choke plate past full open position and drive distribution pin out of shaft while supporting shaft to prevent its distortion. Remove choke plate and choke shaft. If choke plate retaining screws have been excessively flared due to staking, the tips must be ground to prevent damaging choke shaft threads. Remove pump discharge nozzle screw and pump discharge nozzle.

#### CLEANING & INSPECTION

Clean all carburetor castings and metal parts, except dashpot, in a suitable carburetor cleaning solution. Wipe dashpot clean with dry rag. After inspecting all parts for wear, carbon deposits, nicks, and stripped threads, blow all passages dry with compressed air, checking for blocked passages.

#### REASSEMBLY

To reassemble carburetor, reverse disassembly procedure observing the following precautions:

- 1) When installing throttle plate, check that beveled edge is nearly parallel with throttle bore when throttle plate is in closed position by holding throttle body up to light. If little or no light shows between plate and bore, and there is no binding as plate is rotated, installation is correct.
- 2) When installing main well, use this procedure to assure that accelerator spring tension does not disturb alignment of various components. Grasp main body in left hand, holding the thumb over protruding end of pump rod sleeve and fingers over main well. Apply pressure with thumb and fingers to compress pump spring and pump return spring. After main well is pressed into position, maintain pressure until five main well screws have been started in their holes. Turn screws in as far as possible without compressing lockwashers and release pump rod sleeve. Then tighten screws evenly.