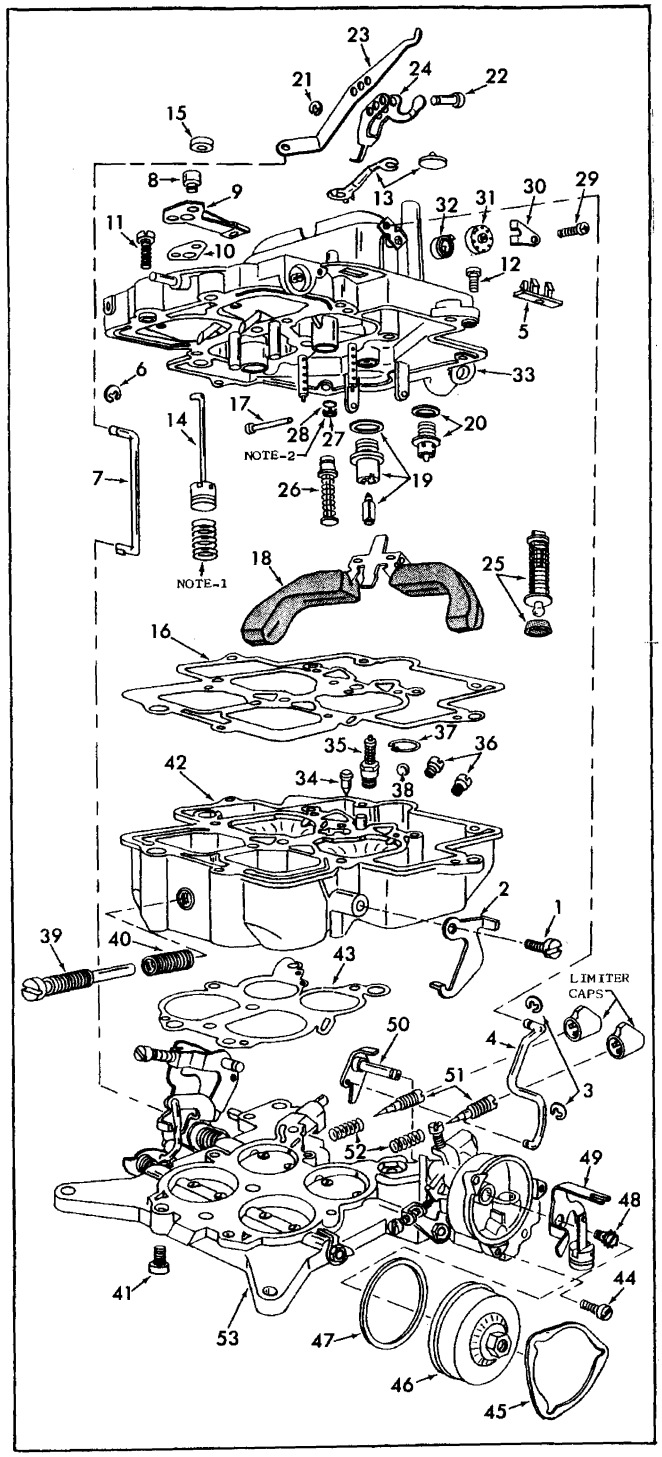
INSTRUCTION SHEET

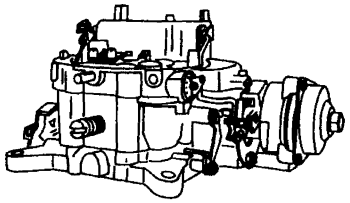
50-730

MOTORCRAFT CARBURETOR — MODEL 4300A, D

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: REMOVE STAKING FROM BOWL COVER FOR EASY REMOVAL OF POWER PISTON ASSEMBLY (26). 1968 AND LATER MODELS HAVE IDLE SCREW LIMITER CAPS. TO REMOVE CAPS INSTALL A SHEET METAL SCREW IN THE CENTER OF THE CAP AND TURN CLOCKWISE.

NOMENCLATURE

REF. NO.	
1.	SCREW - SECONDARY LOCKOUT LEVER
2.	LEVER - SECONDARY LOCKOUT
3.	RETAINERS (2) CHOKE ROD
4.	ROD - CHOKE
5.	SEAL - CHOKE ROD DUST
6.	RETAINER - PUMP ROD
7.	ROD - PUMP
8.	SCREW (2) HOT IDLE COMPENSATOR VALVE
9.	VALVE - HOT IDLE COMPENSATOR
10.	GASKET - HOT IDLE COMPENSATOR VALVE
11.	SCREW - (1) BOWL COVER
12.	SCREW - (10) BOWL COVER
13.	VALVE - IDLE VENT
14.	PISTON & ROD ASSY. - AIR VALVE
15.	WASHER - AIR VALVE ROD
16.	GASKET - BOWL COVER
17.	PIN - FLOAT HINGE
18.	FLOAT & LEVER ASSEMBLY
19.	NEEDLE, SEAT & GASKET ASSY. PRI.
20.	NEEDLE, SEAT & GASKET ASSY. SEC.
21.	RETAINER - PUMP LEVER PIN
22.	PIN - PUMP LEVER
23.	LEVER - PUMP
24.	LEVER - IDLE VENT VALVE
25.	PUMP ASSEMBLY
26.	POWER PISTON ASSEMBLY
27.	RETAINER - PUMP AIR BLEED VALVE
28.	VALVE - PUMP AIR BLEED
29.	SCREW - AIR VALVE SPRING HOUSING CLAMP
30.	CLAMP - AIR VALVE SPRING HOUSING
31.	HOUSING - AIR VALVE SPRING
32.	SPRING - AIR VALVE 1966-68
33.	BOWL COVER ASSEMBLY
34.	NEEDLE - PUMP DISCHARGE
35.	VALVE - POWER
36.	JETS (2) MAIN
37.	RETAINER - PUMP INTAKE BALL
38.	BALL - PUMP INTAKE
39.	IDLE AIR BYPASS SCREW
40.	SPRING - IDLE AIR BYPASS SCREW
41.	SCREW (6) - THROTTLE BODY
42.	BOWL ASSEMBLY - FLOAT
43.	GASKET - THROTTLE BODY
44.	SCREW (3) - STAT RETAINER
45.	RETAINER - STAT
46.	STAT COVER & SPRING ASSY.
47.	GASKET - STAT COVER
48.	SCREW & LOCKWASHER - CHOKE PISTON & LINK
49.	PISTON & LINK - CHOKE
50.	SHAFT & LEVER - CHOKE HOUSING
51.	NEEDLES - IDLE ADJUSTING
52.	SPRINGS - IDLE ADJ. NEEDLES
53.	THROTTLE BODY ASSEMBLY

NOTE 1: 1969 & LATER-SECONDARY AIR VALVE SPRING. NO ADJUSTMENT REQUIRED.
NOTE 2: REF. NO. 27 & 28 NOT REQUIRED AFTER 1971.

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 BORES ARE 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 RUBBER PARTS OR FLOAT (18) IN SOLVENT.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS. (SEE ADJUSTMENTS.)

SPECIAL INSTRUCTIONS

POWER VALVE (35) - IF A NYLON POWER VALVE SPRING RETAINER IS USED, REPLACE WITH RETAINER IN KIT. DO NOT REPLACE IF RETAINER ON VALVE IS METAL.

FLOAT HINGE PIN INSTALLATION (17) - INSTALL SO HEAD OF PIN IS ON PUMP SIDE.

POWER PISTON INSTALLATION - LIGHTLY STAKE CASTING AROUND WASHER.

PUMP AIR BLEED VALVE RETAINER (27) - INSTALL FLUSH WITH BOWL COVER.

BOWL COVER SCREW (11) SPECIAL - INSTALL WHERE SHOWN ON EXPLODED VIEW.

AIR VALVE SPRING (32) INSTALLATION - INSTALL OPEN END OF SPRING HOOK TO THE LEFT AT BOTTOM OF HOUSING CAVITY.

IDLE ADJUSTING NEEDLES (51) - TURN EACH NEEDLE INTO SEAT LIGHTLY AND THEN BACK OUT 1 1/2 TURNS.

IDLE AIR BYPASS SCREW (39) - TURN IN UNTIL SEATED, THEN BACK OUT 3 1/2 TURNS.

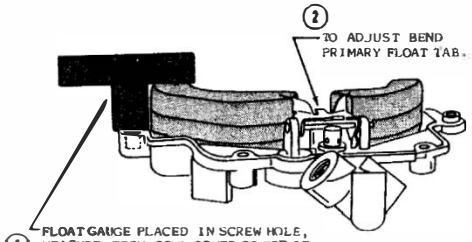
STAT COVER INSTALLATION (46) - BE SURE STAT SPRING IS PLACED IN SLOT OF VACUUM PISTON LEVER (49).

DASHPOT BRACKET IF USED - BE SURE TO INSTALL IT BEFORE INSTALLING THROTTLE BODY TO FUEL BOWL.

CARBURETOR HOLD DOWN NUTS. - TORQUE TO 14 FT. LBS.

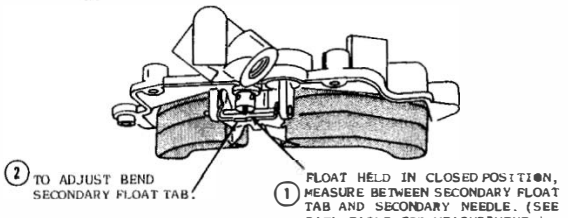
ADJUSTMENTS

STEP ONE
PRIMARY NEEDLE-SEAT

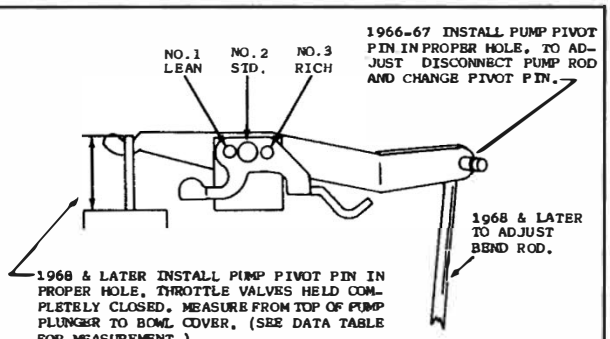


CAUTION
DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE (PRIMARY VALVE).

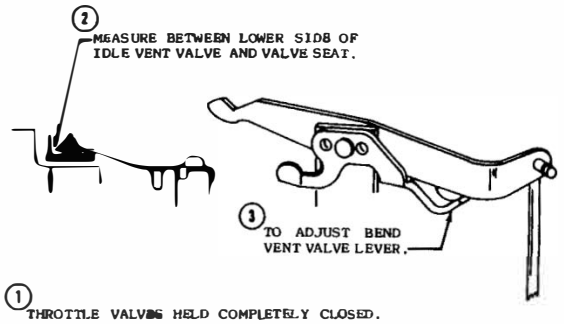
STEP TWO
SECONDARY NEEDLE-SEAT



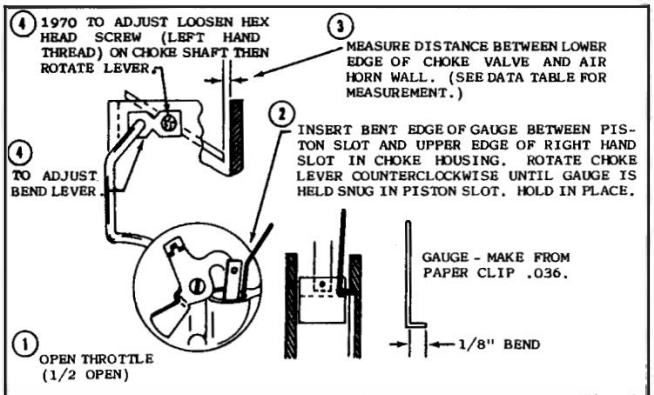
FLOAT LEVEL ADJUSTMENTS — Fig. 1



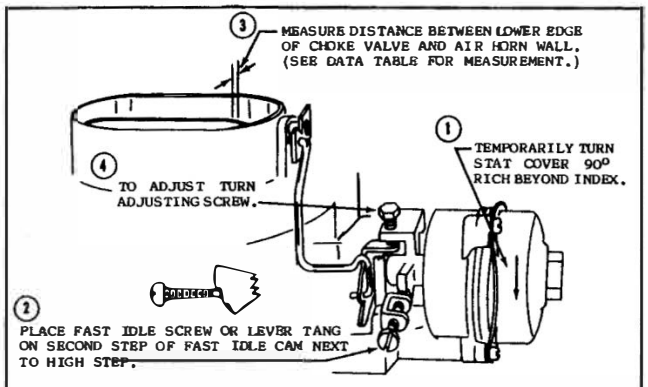
PUMP ADJUSTMENT — Fig. 2



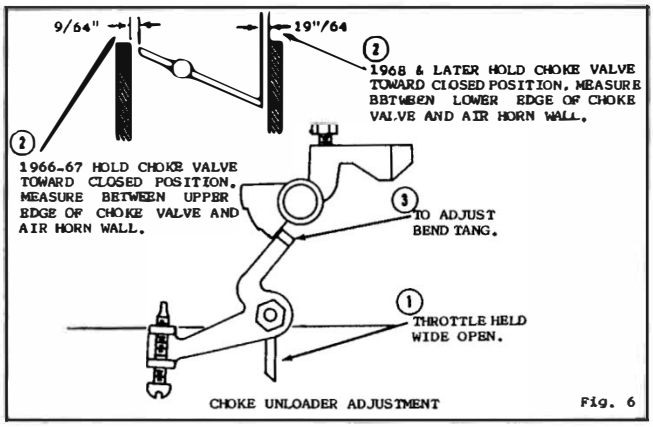
1966-69
IDLE VENT VALVE ADJUSTMENT — Fig. 3



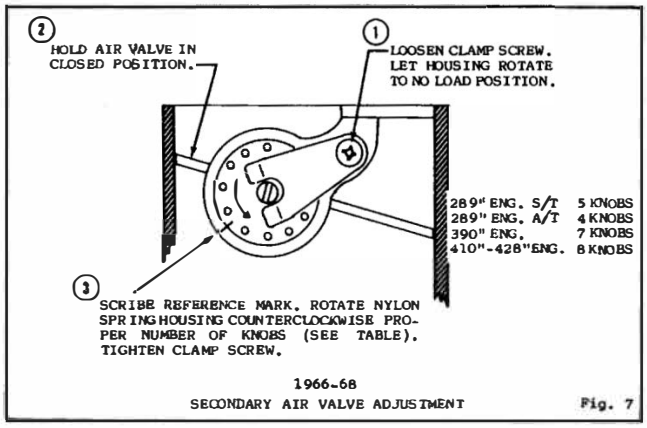
CHOKE VALVE PULLDOWN ADJUSTMENT — Fig. 4



FAST IDLE CAM LINKAGE ADJUSTMENT — Fig. 5

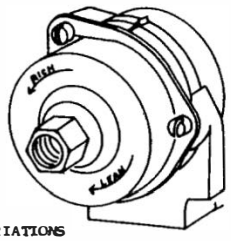


CHOKE UNLOADER ADJUSTMENT — Fig. 6



1966-68
SECONDARY AIR VALVE ADJUSTMENT — Fig. 7

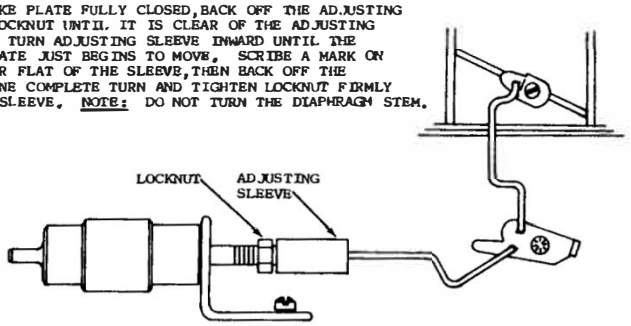
ROTATE STAT COVER AGAINST SPRING TENSION. SET MARK ON COVER TO SPECIFIED POINT ON CHOKE HOUSING. (SEE DATA TABLE FOR MEASUREMENT.)



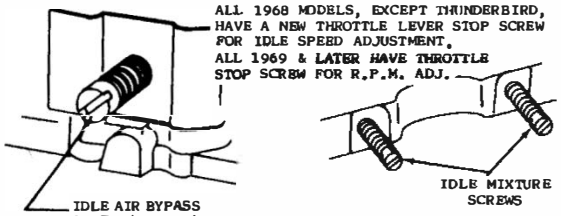
ALLOWABLE VARIATIONS
2 NOTCHES EITHER WAY
FROM INITIAL SETTING.

AUTOMATIC CHOKE SETTING Fig. 8

WITH CHOKE PLATE FULLY CLOSED, BACK OFF THE ADJUSTING SLEEVE LOCKNUT UNTIL IT IS CLEAR OF THE ADJUSTING SLEEVE. TURN ADJUSTING SLEEVE INWARD UNTIL THE CHOKE PLATE JUST BEGINS TO MOVE. SCRIBE A MARK ON THE UPPER FLAT OF THE SLEEVE, THEN BACK OFF THE SLEEVE ONE COMPLETE TURN AND TIGHTEN LOCKNUT FIRMLY AGAINST SLEEVE. NOTE: DO NOT TURN THE DIAPHRAGM STEM.



STAGE CHOKE CONTROL ADJUSTMENT Fig. 9



USE FACTORY CAR MANUAL PROCEDURE FOR SETTING SLOW IDLE IF AVAILABLE, AND SPECIFICATIONS LISTED ON ENGINE DECAL.

SUPPLEMENT

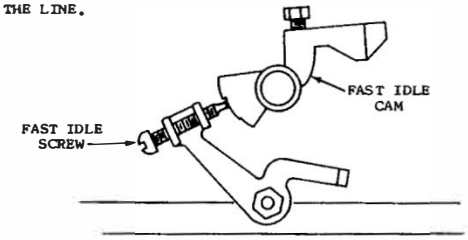
SLOW IDLE ADJUSTMENT PROCEDURE WITH AND WITHOUT THROTTLE SOLENOID POSITIONER.

1. SET IGNITION TIMING PER CAR FACTORY SPECIFICATIONS.
2. ENGINE AT OPERATING TEMPERATURE, CHOKE FULLY OPEN
   - A. AIR CLEANER INSTALLED.
   - B. HEADLIGHTS ON HIGH BEAM.
   - C. AUTOMATIC TRANSMISSION IN DRIVE.
   - D. HOT IDLE COMPENSATOR VALVE CLOSED.
   - E. VACUUM LINE DISCONNECTED FROM VACUUM RELEASE PARKING BRAKE, AND LINE PLUGGED.
   - F. THERMACTOR EQUIPPED CARS: THERMAL SENSING VALVE VACUUM LINE DISCONNECTED AND PLUGGED.
   - G. AIR CONDITIONER ON. 1967-69 MODELS ONLY.
3. ADJUST THROTTLE STOP SCREW TO SPECIFIED IDLE SPEED R.P.M. USING A TACHOMETER.
   NOTE: WHEN USED ADJUST SOLENOID THROTTLE POSITIONER TO SPECIFIED IDLE SPEED (SOLENOID LEAD MUST BE CONNECTED SO SOLENOID WILL BE ENERGIZED.)
4. ADJUST IDLE MIXTURE NEEDLES TO OBTAIN THE HIGHEST R.P.M. AT THE LEANEST BEST IDLE SETTING.
5. READJUST IDLE SPEED IF NECESSARY.
   NOTE: DISCONNECT SOLENOID THROTTLE POSITIONER AT BULLET CONNECTION THEN ADJUST THROTTLE STOP SCREW FOR LOWER R.P.M. WITH AUTOMATIC OR MANUAL TRANSMISSION IN NEUTRAL. CONNECT SOLENOID, OPEN THROTTLE AND RELEASE, RECHECK HIGHER IDLE SPEED.

SLOW IDLE SPEED ADJUSTMENT Fig. 10

ADJUST SLOW IDLE, THEN PLACE FAST IDLE SCREW OR LEVER TANG ON SECOND STEP OF FAST IDLE CAM AND ADJUST FAST IDLE SCREW TO PROPER R.P.M.

NOTE: ELECTRONIC SPARK CONTROL OR TRANSMISSION REGULATED SPARK SYSTEM WITH AMBIENT TEMPERATURE ABOVE 55°F. CONNECT A VACUUM LINE DIRECTLY FROM CARBURETOR SPARK PORT TO ADVANCE SIDE OF DISTRIBUTOR (i.e. BY-PASSING THE SPARK CONTROL SYSTEM). DISCONNECT THE VACUUM SUPPLY LINE TO THE EGR VALVE AND PLUG THE LINE.



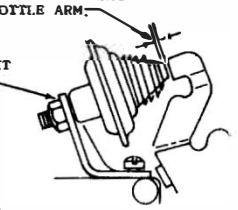
FAST IDLE ADJUSTMENT Fig. 11

1968 FORD MTRS. 1/16"-7/64"
1969 FORD MTRS. 3/32"-390" ENG. GT 1/8"
1970 FORD MTRS. 5/64"-7/64"
AMERICAN MTRS. 1/8" A/T 1/16" S/T
1971 FORD MTRS. 1/16" 429" ENG. 7/64" 460" ENG.
AMERICAN MTRS. 1/8" A/T 1/16" S/T
1972-73 AMERICAN MTRS. 9/64"

(2) DEPRESS PLUNGER STEM AND MEASURE DISTANCE BETWEEN END OF STEM AND THROTTLE ARM.

(3) LOOSEN LOCKNUT AND TURN UNIT TO ADJUST. TIGHTEN NUT.

(1) ADJUST SLOW IDLE



(ON CAR)
DASHPOT ADJUSTMENT Fig. 12