

FORD MODEL 4300 4-BARREL

FORD MOTOR CO.

Application	Ford Carburetor No.
1973 460" V8	
Man. Trans.	D3PF-9510-NA
Auto. Trans.	D3TF-9510-ZA, ZC
1974 460" V8	
F100.....	D4PE-9510-DA, D4TE-9510-BA, BB
F & P-250 & 350.....	D4TE-9510-CA

JEEP CORPORATION

Application	Jeep Corp. Code No.
1973 Jeep V8 (All)	
Man. Trans.	3TM4
Auto. Trans.	3TA4
1974 360" V8.....	4TA4
1974 401" V8 (Except J-20).....	4TA4
1974 401" V8 (J-20).....	4THD4

CARBURETOR IDENTIFICATION

Carburetor can be identified by tag attached to carburetor by one air horn screw. Ford Motor Co. tags include prefix and suffix of part number. Jeep Corp. tags include entire part number. Tag must remain with carburetor at all times to insure proper identification.

CARBURETOR DESCRIPTION

Model 4300 carburetors are of three-piece body design with a single fuel bowl for all barrels. Primary system has throttle lever stop screw for idle speed adjustment, and may have either a dashpot or throttle positioner solenoid incorporated. Secondary system has spring-loaded air valves located above secondary throttle valves. On model 4300-A carburetors, an integral hydraulic dashpot dampens sudden movement of air valve plates to aid in preventing flutter and erratic engine operation. On model 4300-D carburetors, secondary fuel supply is controlled by metering rods attached to air valve plates. Secondary throttle valves are mechanically operated by primary throttle linkage.

ADJUSTMENT

HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP Section.

COLD (FAST) IDLE RPM

See appropriate article in TUNE-UP Section.

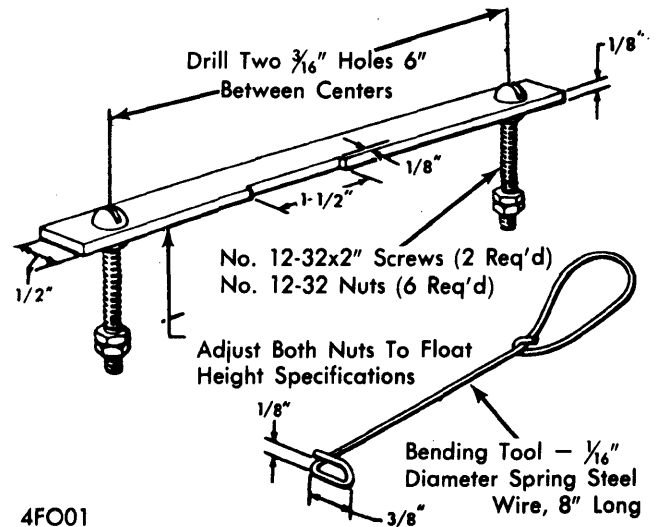
ACCELERATOR LINKAGE

See appropriate article in TUNE-UP Section.

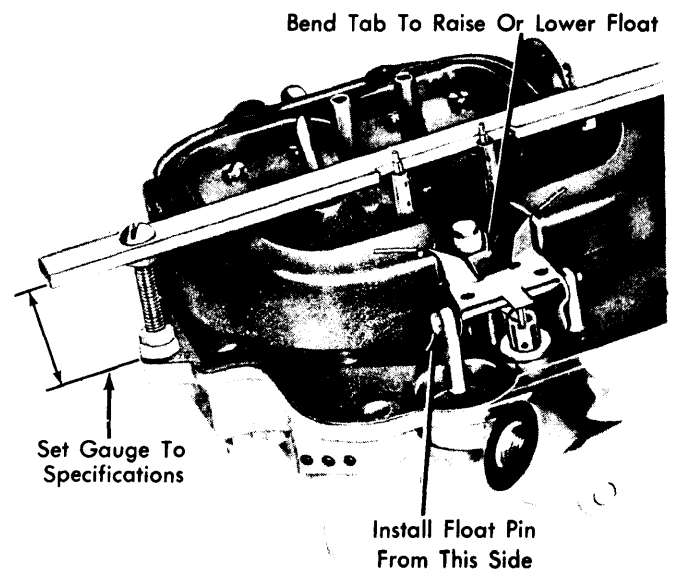
FLOAT LEVEL

NOTE — It is recommended that a float gauge tool be made up for this purpose. Dimensions of tool are shown in illustration.

Float Level (Primary Fuel Valve) — Adjust nuts on float gauge tool for correct float level setting. With air horn and float assembly removed and inverted, install float gauge over floats with locating bolts installed in outboard holes of air horn. Both floats should just touch underside of float gauge bar. Align floats by slightly twisting float arms, adjust float height by bending primary needle tab (inner tab on float arm) up or down as required. **NOTE** — Raise floats so that tab clears primary needle.



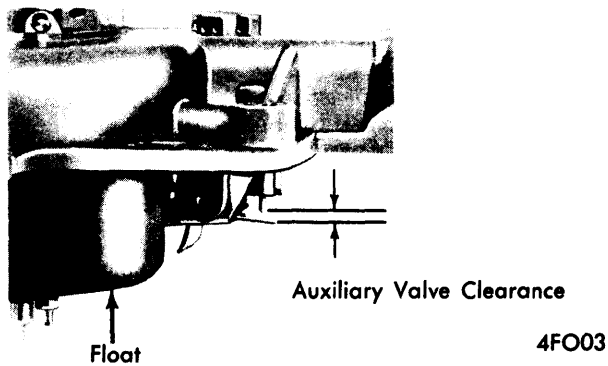
FLOAT LEVEL GAUGE



FLOAT LEVEL ADJUSTMENT

Float Level (Auxiliary Fuel Valve) — After adjusting primary fuel valve, check clearance between auxiliary fuel valve pin and tab on rear of float arm. If clearance not correct adjust by bending this tab up or down as required.

FORD MODEL 4300 4-BARREL (Cont.)



AUXILIARY FLOAT LEVEL SETTING

ACCELERATOR PUMP ROD

Disconnect pump rod from pump link before removing pump pivot pin. Line up holes in pump link and pivot hole in main body casting before attempting to reinstall pivot pin in correct hole. Make certain that split end of pivot pin is spread, so it will be retained in place.

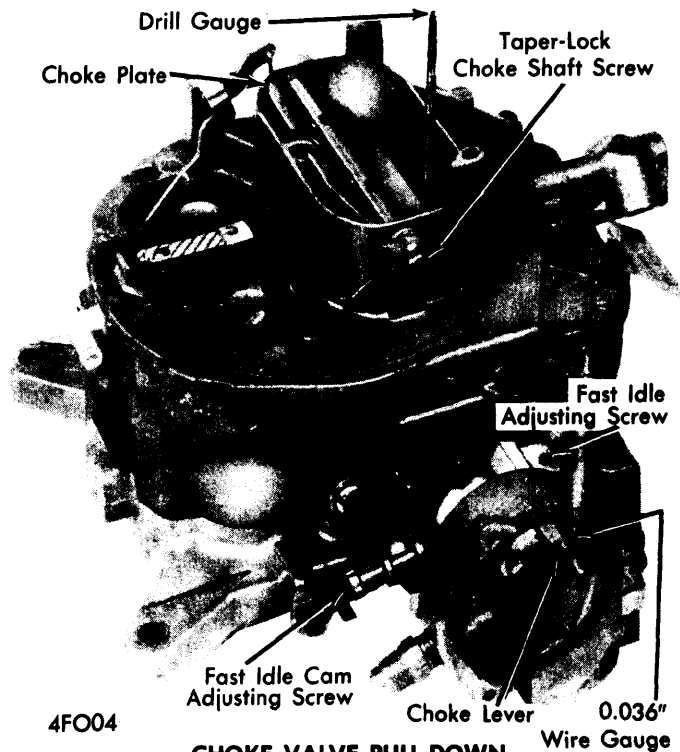
CHOKE VALVE PULL-DOWN

Remove choke cover screws and retainer, remove choke cover and thermostatic coil. Bend a .036" wire gauge at a 90° angle approximately 1/8" from end. Insert bent end of gauge between piston slot and upper edge of right hand slot in choke housing. Rotate choke lever counterclockwise until gauge is held snugly in piston slot. Maintain slight pressure on choke lever to hold gauge in place. Use gauge or drill of correct size to check clearance between lower edge of choke valve and air horn wall. If clearance not correct, adjust as follows:

- 1) Loosen hex head screw (left hand thread) on choke valve shaft and pry link away from tapered choke shaft. With a drill gauge .010" under the specified clearance between the lower edge of choke plate and air horn wall, hold the choke valve against the gauge with a light pressure on the choke lever.
- 2) With the choke piston firmly against the .036" wire gauge and the choke valve against the drill gauge, tighten the hex head screw on the choke valve shaft. *NOTE* — Adjustment is made with choke valve drill gauge .010" under specified clearance to allow for tolerances in linkage.
- 3) Recheck choke valve pull-down using choke valve drill gauge of size specified in adjustment specifications (.010" larger than adjusting gauge).

FAST IDLE CAM

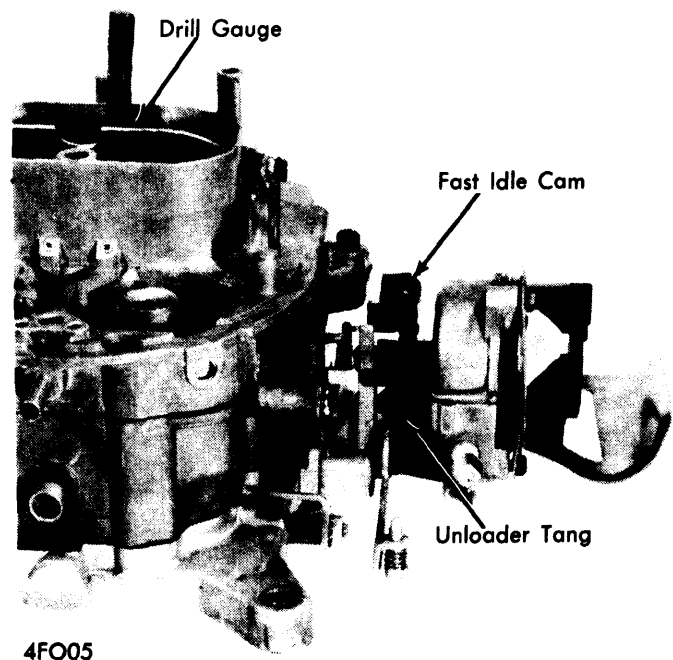
Install choke cover and thermostatic coil loosely (make certain coil end engages choke lever slot). Rotate cover to 90° rich position, then place fast idle speed screw on kickdown (center) step of the fast idle cam, against shoulder of the high step of the cam, and hold it in this position. Using a drill or gauge of correct size, check clearance between lower edge of choke valve and air horn wall. If fast idle cam clearance not correct, adjust by turning fast idle cam adjusting screw in or out as necessary. *NOTE* — This is not the fast idle speed adjusting screw, but the cam adjusting screw.



CHOKE VALVE PULL-DOWN & FAST IDLE CAM ADJUSTMENT

UNLOADER

Hold throttle valves in wide open position, rotate choke valve toward closed position until pawl on fast idle lever contacts fast idle cam. Use gauge or drill of specified size to check clearance between lower edge of choke valve and air horn wall. If this clearance not correct, adjust by bending pawl on fast idle speed lever forward or backward as required.



UNLOADER ADJUSTMENT

FORD MODEL 4300 4-BARREL (Cont.)

AUTOMATIC CHOKE

Loosen choke cover retainer screws, rotate cover to align index mark on cover flange with correct graduation of scale on housing. Tighten retainer screws after adjustment completed.

STAGED CHOKE CONTROL

With choke plate fully closed, back off the adjusting sleeve lock nut 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 lock nut firmly against sleeve.
NOTE — Do not turn the diaphragm stem.

OVERHAUL

NOTE — Carburetor consists of three main castings: Air Horn, Main Body, and Throttle Body, which are separated and then disassembled separately as follows:

DISASSEMBLY

Air Horn — 1) Disconnect choke control rod from automatic choke lever and accelerating pump rod from throttle lever. Remove all air horn-to-main body retaining screws and carefully lift air horn off main body.

2) Remove float pivot pin and lift out float assembly, use correct size screwdriver (or jet removal tool) to remove main and auxiliary fuel inlet seat assemblies and gaskets.

3) Disconnect secondary air valve lever rods from dampener piston assembly and air valve, remove dampener piston assembly and air valve.

4) If necessary to remove secondary air valves or shaft, scribe index mark on air valve housing and body casting, remove valve retaining screws and valves, then slide shaft out of air horn.

5) If necessary to remove choke valve or shaft, remove staking marks on choke valve retaining screws or file off flared portion of screws, remove retaining screws and valve, then slide shaft out of air horn.

6) Take out attaching screws and remove hot idle compensator valve assembly. *Do not remove power valve vacuum valve assembly unless it is to be replaced.* Remove staked areas and remove valve assembly carefully to avoid damage to air horn casting.

Main Body — 1) Invert main body assembly and catch accelerating pump discharge needle which will fall out. Use $\frac{3}{8}$ " deep socket to remove power valve and jet tool to remove main metering jets from within fuel bowl.

2) Remove check ball retainer from bottom of accelerating pump cylinder with long nosed pliers, then invert main body and catch pump inlet ball check which will drop out

3) Remove throttle body-to-main retaining screws from bottom of throttle body and separate the two castings.

Throttle Body — 1) *CAUTION — Do not remove idle mixture limiter caps, screws, and springs.* Remove automatic choke housing cover screws, remove retainer, cover, gasket, and thermostatic spring assembly. Remove choke piston lever retaining screw, then remove piston assembly.

2) Remove secondary throttle-to-primary throttle lever connecting link. If necessary to remove primary or secondary throttle valves or shafts, remove staking marks on throttle valve attaching screws, remove screws and valves. After valves removed, remove nut from secondary throttle shaft, slide shaft and return spring out of throttle body.

3) After valves removed, remove nut from primary throttle shaft and remove fast idle lever and adjusting screw, then slide primary throttle shaft and lever assembly out of throttle body. Remove throttle lever assembly retainer, slide lever and springs off shaft.

4) If necessary to remove fast idle cam or bushings, press bushing out of choke housing and bushing column. *CAUTION — Housing and column must be properly supported during bushing removal and installation to prevent bending or breaking of the column.*

CLEANING AND INSPECTION

Clean all castings and metal parts in cleaning solution (plastic fast idle cam and air valve spring cover can be cleaned in the solution but floats and gaskets should not be immersed in the solution). Rinse parts in hot water, soak in gasoline, and dry with air. Blow out all passages, jets, and tubes with air. Inspect all parts for wear, distortion or damage. Make certain power valve piston and rod move freely. *CAUTION — Do not remove calibrating shims from power valve piston rod for cleaning and use care not to distort rod.*

REASSEMBLY

Use all new gaskets. Reassemble carburetor by reversing disassembly procedure with particular attention to the following points:

Primary Throttle Valve Installation — Install return spring (coiled clockwise) on primary throttle shaft and insert shaft in throttle body. Position throttle valves on shaft with ground flat edge of valves facing upwards and toward idle mixture needles, install valve screws just snug. Rotate shaft to closed position, tap valves lightly to properly seat them in throttle bore (when viewed against a light, little or no light should be visible around valves), then tighten valve screws securely.

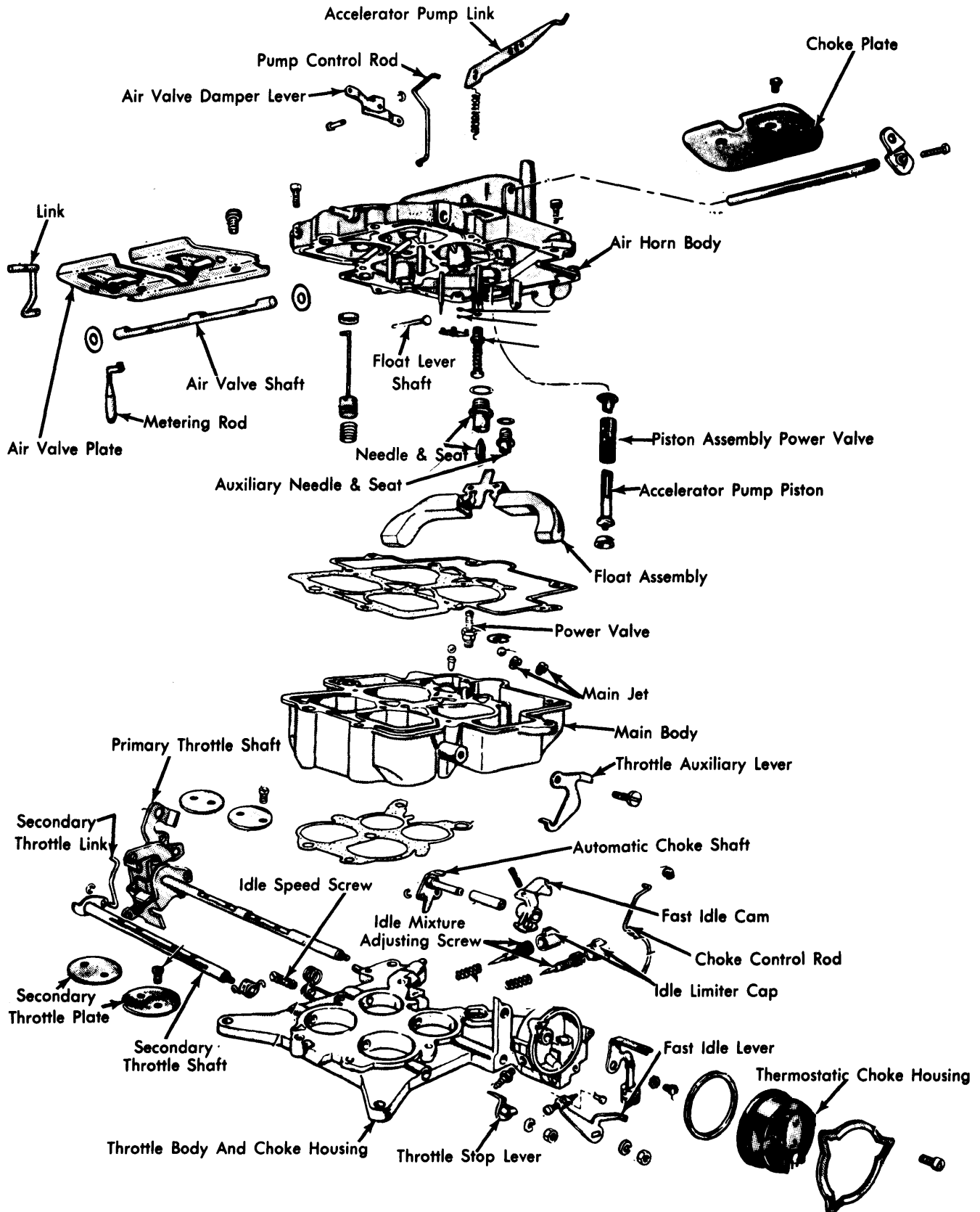
Fast Idle Cam & Bushing Installation — Start bushing through choke housing, position fast idle cam between housing and bushing column and slide bushing through fast idle cam, then support bushing column and press bushing into position in column. Clean bushing with $\frac{1}{4}$ " reamer before installing choke shaft and lever.

Choke Valve Installation — Insert choke shaft in air horn with lever end on automatic choke side, install choke valve and tighten attaching screws just snug, then close valve and tap lightly to position it in air horn, tighten attaching screws and stake screws to prevent loosening. Install a new seal on choke control rod, press seal into air horn and attach control rod to choke shaft lever. *CAUTION — Seal must grip ledge in air horn at all four points to prevent unfiltered air entering carburetor.*

Air Valve Installation — Slide air valve shaft in air horn with slotted end of shaft in air valve spring chamber. Position plain air valve in air horn opening adjacent to spring chamber and tighten attaching screws just snug, install air valve in other air horn opening with control rod eye facing upward, install attaching screws just snug. Close air valves and tap valves lightly to position them in air horn, then tighten attaching screws and stake the screws to prevent loosening.

Ford Carburetors

FORD MODEL 4300 4-BARREL (Cont.)



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MODEL 4300 CARBURETOR ASSEMBLY

Ford Carburetors

FORD MODEL 4300 4-BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS									
Carb. No. ①	Idle Speed (Engine RPM) ②		Float Level		Choke Valve Pull-Down	Fast Idle Cam Clearance	Accel. Pump Setting	Unloader Setting	Auto. Choke Setting
	Hot	Fast	Primary Valve	Auxiliary Valve					
D3PF-NA
D3TF-ZA
D3TF-ZC
D4PE-DA
D4TE-BA	3/4"	1/16"	.220"	.200"	#1	...	Index
D4TE-BB	3/4"	1/16"	.220"	.200"	#1	...	Index
D4TE-CA
Jeep Corp. Code No.									
3TA4	13/16"	1/16"	.190"	.160"	#2	.275"	2 Rich
3TM4	13/16"	1/16"	.190"	.160"	#2	.275"	2 Rich
4TA4	13/16"	1/16"	.170"	.160"325"	2 Rich
4THD4	13/16"	1/16"	.170"	.160"325"	2 Rich

① — Basic number is 9510. Table gives prefix and suffix.

② — See appropriate article in TUNE-UP Section.