

SPEEDY BILL'S *Tech Tips*

Bill Smith • Speedway Motors, Inc.

910-15310

ALUMINUM HEADS ON FLATHEAD FORD/MERCURY BLOCKS INSTALLATION INSTRUCTIONS

Old studs that are in the original blocks of '38-'48 Ford/Mercury have been bent, stripped, rusted, torqued and stretched too many times! Remove them and clean the threaded areas in the block by running a tap through them. Smooth and level the top of the block with a sharp hand-draw file.

NOTE: Do not let any machine shop deck, mill, grind or remove any material from the block's deck surface!! Ford made the deck (top of the block) material too thin at the factory! Remember, any material removed will ruin the block. If you over-torque, all you do is pull the deck of the block up at the bolt hole and cause a very uneven surface, which no gasket will ever seal!
Do not over-torque.

INSTALLING STUDS: Your first step has been to straighten and smooth the top of the block, with the studs out. Now clean all the block threads by running a tap through them. Wipe the threads of the studs with Moroso Ceramic Seal Part# 545-35500 before threading them into the block. Many of the bolt holes go into the water jacket, so water will travel up threads if not properly sealed.

On the '49-'53 Ford/Mercury blocks, **throw away the cap-screw-type head bolts!** It's too easy to strip the coarse threads in the block. Using our studs will pull the block deck much more even and lessen the chance of cracking the block or stripping bolt hole threads.

NOTICE: I strongly recommend using our new Speedway special Grade 5 stud-nut and washer kit. Part # 910-15310. Please specify year of engine: '39-'48 or '49-53.

PREPARING SURFACES: Before installing heads, make sure that all surfaces are clean, both block and head. There should be no oil, grease, metal particles, shavings, rust, etc. on any of the surfaces.

INSTALLING HEAD GASKETS: Spray paint each side of the head gasket with a heavy coat of hi-temperature aluminum spray paint Part# 704-12002. This paint will be acting as a sealer. Put the gasket over the studs carefully. Avoid bending or tearing the gasket.

INSTALLING THE HEADS: Before the paint dries on the gaskets, slide the head on over the studs and tap down with plastic mallet. **IMPORTANT:** When torquing the head down with the nuts and washers, start at one end and work across the head. i.e.: L to R or R to L. (Much as you would do when putting a water decal on a window glass). Go from one side across to the other *see note at the end of instructions. Start at 30 pounds on your first pull. The last pull will be 45 pounds. Never any more! Do one side of head at a time, completely.

I know this is a different method than most mechanics will tell you, or the instruction manuals have shown. But, with Flathead Aluminum Heads, and from years of experience, this is the only way to do the job!!!

Remember, on all ALUMINUM, threaded areas, or in heads, like spark plug threads, water neck bolts, or temperature senders, you must use ALUMINUM ANTI-SEIZE. Use this Anti-seize on all studs or bolts everytime you remove or replace. **SPEEDWAY PART# 910-16009**

STARTING THE ENGINE: Spot check yourself as you go along. When you are ready to start the engine, START DRY! That means **NO WATER AND NO ANTIFREEZE AND ALWAYS ADD OIL.** Warm up the engine where you can still put your hand on the head. Turn off the engine, and let it cool down. At this time you must spot check the torque one more time for the 45 pounds. This may seem to most of you as a lot of extra work and trouble, but you must follow these instructions or 90% of the time you are inviting expensive disaster with your project.

BIG BORE HEAD GASKETS: Our Big Bore Head Gaskets are always an excellent choice for both standard and big bores, because they are the "Sandwich Style Gaskets". This means they are soft copper on each side, with a special composition material inside, between the copper.

SPEEDWAY'S BIG BORE COPPER HEAD GASKETS

'38-'48 Ford or Mercury Part# 910-15890

'49-'53 Ford or Mercury Part# 910-15895

With all aluminum heads, water corrosion is a huge problem. Untreated water will attack, corrode and ruin virgin aluminum. **SPEEDWAY'S WATER WETTER PART #910-15709** is a product that solves this problem.

FLATHEAD ALUMINUM HEADS PARTS LIST

Head Stud-Nut and Washer Kit	Part # 910-15310
Please specify Offenhauser or Edelbrock heads	
Moroso Ceramic Seal	Part # 545-35500
Hi-Temp Aluminum Paint	Part # 704-12002
Aluminum Anti-Seize	Part # 910-76009
Big Bore Copper Sandwich Head Gaskets:	
'38-'48 Ford/Mercury	Part # 910-15890
'49-'53 Ford/Mercury	Part # 910-15895
Water Wetter	Part # 910-15709

*** NOTE: Double CHECK your TORQUE WRENCH for accuracy before starting your head installation project!**

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