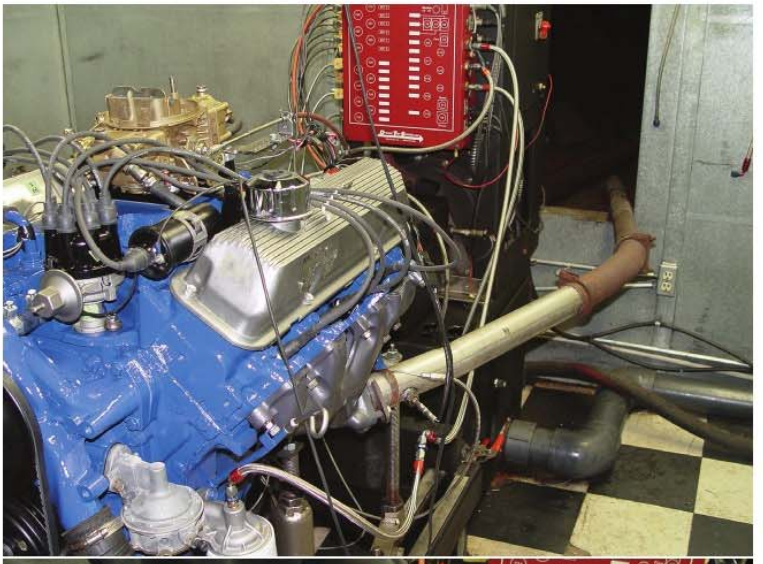
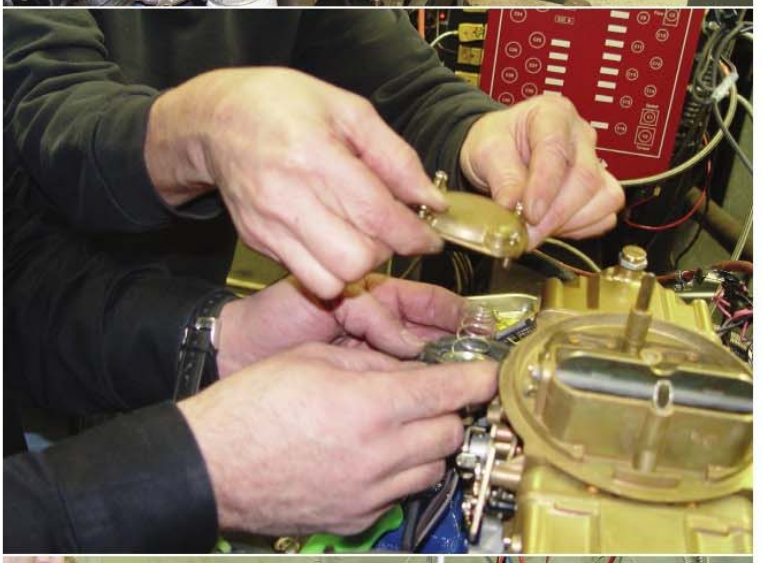
OUR COBRA JET

We jumped at the chance to rebuild and then dyno one of these great engines. Our subject engine is of the "standard" Cobra Jet variety, not the fancier Super Cobra Jet, out of Dan Heller's Grabber Green 1970 Cougar Eliminator. Basically, the differences between the two engines are that the SCJ had the beefier "LeMans" rods, an external engine oil cooler, heavier harmonic balancer and flywheel (or flexplates on automatic cars),

Since Dan's Eliminator is currently undergoing a complete restoration, he chose to have the engine rebuilt to the maximum specs that the Pure Stock Drags allow. In other words, the engine was built using NHRA stock class specs as a guideline. Heads were cut to minimize the combustion chambers' volumes (68.0 cc), as well as the piston to deck height clearance (.008-inch), piston dish volume (10.25 cc), and the head gasket thickness (.026-inch). Theoretical static compression, given these specifications, combined with a maximum overbore of .070 would raise the compression ratio from its advertised 10.6:1 to 11.55:1. However, since the 428 block has fairly thin cylinder walls, we kept the overbore at .030. Our compression ratio came in at 11.28:1.

Research told us that original CJ cams aren't available, other than lucking into a NOS unit. We found cam specs on the internet, telling us intake and exhaust durations were around 209 to 211 and 219 to 222 degrees respectively, which makes





TOP: Our dyno test subject is from Dan Heller's 1970 Cougar Eliminator that Rich Rinke is restoring. The 428CJ with Ram Air made 355.7 hp and 433.7 lb-ft of torque in baseline tune. We used 2½-inch pipe extensions for tests one through eight. These kept the engine quiet enough so we could hear if there were any problems.

MIDDLE: Here we are changing out the stock vacuum secondary control spring for the fastest one in the Holley kit, a cut yellow spring. It still wasn't fast enough, so we had to zip tie the linkages on the driver's side of the carburetor to trick the carb into mechanical secondaries.

BOTTOM We leaned out the primary side of the Holley carb by swapping No. 68 jets for the 70s that were in it. This was good for about 1.5 hp and 1.1 lb-ft of torque in test five.