

1988 Ford Mustang LX
www.binaryweb.com/88lx/
Brantley Smith

Engine

Bottom End

- 1974 casting 351w block bored 0.040" over (9.5" deck)
- Stock crankshaft – main journals are 0.030" under; rod journals are 0.020" under
- Stock "football" rods and bolts
- Speedpro forged pistons (around 9.1:1 CR)
- CAT main girdle and studs
- Stock oil pump
- Modified Bronco oil pan – cut notch for rack and pinion clearance, added 2 -10 AN bungs for turbo oil return lines, and added provision for stock in-pan dipstick

Top End

- ARP head studs
- ProComp Aluminum heads
 - 215cc intake runners
 - 1.300" x 2.150" intake runners
 - 1.360" x 1.410" exhaust runners (raised)
 - 60cc chambers
 - 2.02" Ferrea stainless intake valves
 - 1.60" Ferrea stainless intake valves
 - Light port/casting cleaning performed on runners and chambers
 - Advertised flow numbers:

<u>Lift</u>	<u>Int</u>	<u>Ex</u>	<u>%</u>
0.200"	127	97	76.4
0.300"	184	138	75.0
0.400"	234	168	69.7
0.500"	265	276	66.4
0.600"	288	184	63.9

Valvetrain

- Herbert Racing Cams solid roller grind #J6J 112 (242int 251ex duration @ 0.050"; 0.569" valve lift [1.7 rockers]; 0.012" intake lash, 0.018" exhaust lash [cold]; 108 center line)
- Crane solid roller lifters
- 1.7 aluminum Chinese roller rockers
- Trick Flow hardened chromoly pushrods – 8.250" 5/16ths
- Competition Cams pushrod guide plates

Intake

- Professional Products Power Plus Hurricane carb single plane intake manifold
- Aluminum injector bung welded in each runner for fuel injection
- Custom hand build upper intake manifold/elbow – 3.25” mandrel elbow
- Stock 65mm throttle body from a 4.6 SOHC engine; no IAC provision
- Custom built crossover/Y-pipe (2.5” compressor outlets into 3” intercooler inlet)
- Custom built 3” intercooler outlet pipe through RF fender to throttle body inlet

Exhaust & Power Adders

- Twin Holset HE351 turbos (nearly the same as the HY-35)
- Internal wastegate valves are welded shut in the turbine housing
- Modified Powerstroke Diesel front mount intercooler
- Hand built custom step-tube exhaust headers/logs with T3 turbo flanges
- 38mm external wastegate on each manifold
- Hand built 3” downpipes
- Handbuilt 3” mandrel exhaust pipes back to rear axle
- 3” Moroso Spiral Flow muffler for each bank

Thermal Protection

- Airbrushed exhaust manifolds with ceramic thermal coating
- Airbrushed turbine housings with ceramic thermal coating
- DEI turbo blanket on each turbine housing
- Wrapped each downpipe with DEI thermal wrap
- Wrapped exhaust manifolds with thermal wrap to protect plug wires & boots
- Installed thermal sleeving over plug wires
- Installed fiberglass thermal sleeves over plug wire boots

Fuel

- Walbro 255lph in-tank fuel pump
- Stock fuel lines from tank to firewall
- Handbuilt custom 1” box tube fuel rails & brackets
- -10 AN crossover hose
- -10 AN pressure regulator hose
- Aeromotive EFI fuel pressure regulator
- 83lb Siemens Deka low impedance fuel injectors

Ignition

- Stock Ford TFI distributor (using only 3 wires for hall effect sensor for RPM signal; no TFI module)
- MSD 6A box
- MSD Blaster 3 coil
- Autolite plugs gapped at 0.028”

- Moroso 11mm Spiral Max plug wires

Engine Management

- MegaSquirt v1 PCB 3.0
- MegaSquirt 'n Spark Extra code 029v
- MegaSquirt controls spark through the MSD box and fuel from 2 internal injector drivers
- GM intake air temp sensor
- GM coolant temp sensor
- Ford TPS that was stock for that throttle body
- DIY Autotune harness with DB37 connector for the MS box
- Handbuilt sensor and injector harness with connectors

Transmission

- C4 automatic (I rebuilt it)
- B&M high performance rebuild kit
- Pinto style valve body modified to B&M “competition” specs
- Power Planet 6 pinion/sun planetary gearset
- External fluid cooler
- 4” deep pan (capacity is now around 10 qts)
- 2900 stall converter
- B&M Pro Ratchet shifter

Chassis

- Mostly gutted interior
- Competition Engineering 10 point welded roll cage
- Welded subframe connectors
- 1993 GT 8.8 traction lock rear end with 3.73 ring/pinion
- Rebuilt traction lock with the extra clutch arrangement modification
- 94 GT 5 lug axles 28 spline
- 95 GT front control arms, spindles, & tie rods
- 99+ GT front struts
- V8 Thunderbird front sway bar
- MAC caster/camber plates
- Stock 1988 4 cylinder coil springs (rear springs were cut down 1 coil)
- Koni yellow single adjustable rear shocks
- Fox body GT rear sway bar
- Boxed stock upper control arms
- Steeda road race lower control arms
- 96 GT rear disc brakes
- 2001 GT/V6 front brakes
- 2000 Mustang base model master cylinder (no ABS)
- Wilwood manual proportioning valve
- 2000 Mustang GT 17x8 rims
- Kumho Ecsta 711 tires (245/45/17 front; 255/45/17 rear)