

# **AUTOMOTIVE MACHINE & Performance**

**Big Block Buick  
Engine Specialists**

[www.automachperf.com](http://www.automachperf.com)



**Real people      Real performance  
Over 25 years of satisfied customers**

**Let us help you have the power and durability  
to perform great on the street or win on the track**

**Complete Engines Street to Race  
cam break-in procedure  
Dyno tuned**

**Carburetors to Pans  
Dampers to Flexplates  
Balanced Rotating Assemblies**

**2014 Buick Performance Catalog**

<u>About us</u>	pg 3
<u>Carburetors</u>	pg 25
<u>Custom crate engines</u>	pg 6 - 15
<u>Cylinder blocks</u>	
<u>Stage 1</u>	pg 22
<u>Stage 1 PLUS</u>	pg 22
<u>Stage 1 Extreme</u>	pg 22
<u>Engines</u>	
<u>455 Street 1</u>	pg 6& 7
<u>455 Street 2</u>	pg 8& 9
<u>470 Stealth</u>	pg 10 & 11
<u>470 Super Stealth</u>	pg 11
<u>470 Street / Strip</u>	pg 12
<u>470 Race engine</u>	pg 13
<u>523 Bulldozer</u>	pg 14
<u>523 race engine</u>	pg 15
<u>604 race engine</u>	pg 16
<u>Labor rates</u>	pg 23

If you don't find what you need  
Please give us a call to see  
if we can help

<u>Oil system</u>	
<u>Booster plate</u>	pg 5
<u>Blue printed oil pump gears</u>	pg 5
<u>Crankshaft scraper</u>	pg 4
<u>Lifter valley oil splash shields</u>	pg 4
<u>HP oil pump kit</u>	pg 5
<u>Oil pan baffle</u>	pg 4
<u>Oil pressure balance line kit</u>	pg 5
<u>Oil pump kits</u>	pg 5
<u>Oil screens</u>	pg 4
<u>Scavenger oil system</u>	pg 5

<u>Rotating assemblies</u>	
<u>Stage 1 455</u>	pg 17
<u>Stage 1 PLUS 470</u>	pg 18
<u>Race 470</u>	pg 19

<u>Services</u>	
<u>Distributor rebuild service</u>	pg 24
<u>Intake manifold porting</u>	pg 24
<u>Stage 1 conversions</u>	
<u>350</u>	pg 20
<u>455</u>	pg 21
<u>Race head porting</u>	pg 25
<u>Timing cover rebuilding</u>	
<u>Stock</u>	pg 24
<u>HP</u>	pg 24

<u>Transport stands</u>	pg 4
-------------------------	------

<u>Transmissions and converters</u>	pg 23-25
-------------------------------------	----------

## **Automotive Machine & Performance**

6235 State Route 54  
Philpot, Kentucky 42366  
ampmike@aol.com



NOTE: Prices subject to change without notice



Thermal Cleaning



Precision Machining



Testing



**Tom Rix says AM&P is the place  
for all the above and final dyno tuning**

Automotive Machine & Performance is dedicated to the continued advance in V-8 Buick performance through state of the art machine work, cylinder head refinement, block preparation , engine assembly, dyno break-in and tuning.

Automotive Machine & Performance is your one stop engine source for ready to install cylinder heads and crate engines from mild to wild. Chose one of our proven packages or let us build a custom engine to suit your needs.

Automotive Machine & Performance is an authorized distributor for T/A Performance, Coan Transmissions and converters and Penn Grade 1 Racing Oil just to name a few of the many high performance lines that we stock.

From carburetors to oil pans and dampers to flexplates, Automotive Machine & Performance will get you the right parts for your engine.



**Oil Pan Baffle 12.95**

Custom fitted - Easily welded in place  
A must with aftermarket rods or strokers'



**AM&P Lifter valley oil splash shield**

Keeps oil away from PCV valve and hot  
oil off bottom of the intake manifold

Easy to install

No drilling required

35.00

Just drop in

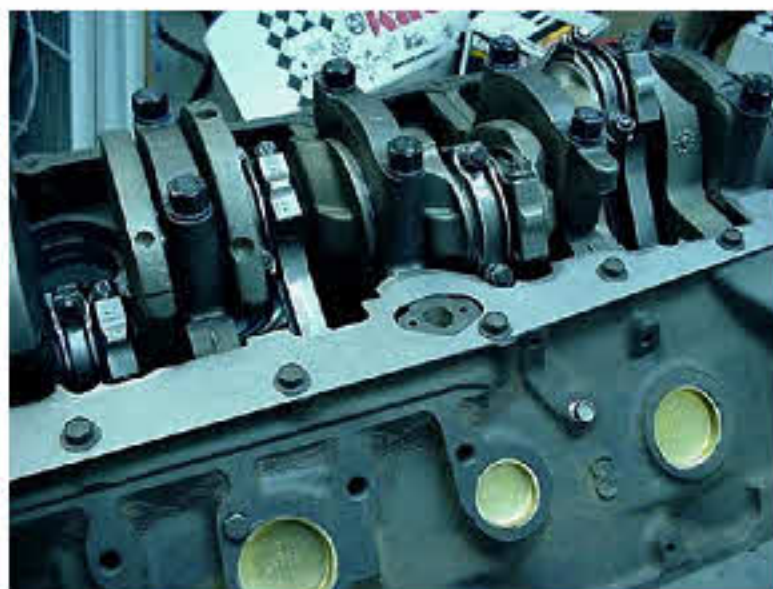
Available for all V-6, 350 and 455 manifolds



**Engine Transport Stand \$62.50**

V-6 350 455 Nail head

Shown with AM&P Stage 1 Plus 455 block



**AM&P crankshaft scraper**

The crankshaft scraper fits between the block  
and the oil pan gasket on the starter side of  
the engine.

It is lazer cut for a close fit to stock rods and  
crank counterweights on  
400-430-455 engines.

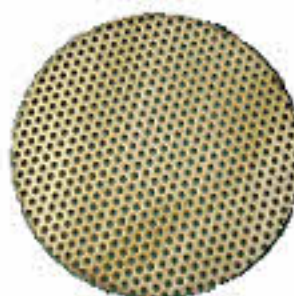
35.00



**Lifter Valley Re-enforcing plates**

\$70.00

Epoxied with JB Weld



**AM&P low  
restriction oil screen**

Get rid of that stopped up  
factory screen

12.95



**AM&P oil pressure  
balance line kit**

Balances oil pressure  
from the front of the en-  
gine to the rear 85.00  
Special fitting in the front  
to connect oil pressure  
gauge ( see arrow )



**The AM&P  
Scavenger  
oil system**

The Scavenger eliminates all the harsh 90° turns in the block leading to the pump gears, re-routes the oil to a low restriction racing filter then back to the block at the oil pressure gauge point. The Scavenger improves the oil pump by 30 % using only a standard gearset.

Complete system  
including rear  
feed \$635.95



AM&P blue printed oil pump kit  
The idler gear is drilled to oil the shaft  
Gears textured to run smooth  
and reduce wear  
Flats lapped to eliminate scratching  
the cover and wear plate 49.95



Anti aeration wear plate  
Improved re-production of the  
Kenne-Bell " booster plate"  
35.00



"New" HP oil pump kit  
.125 longer gears  
For higher RPM s  
serious street/strip and  
race applications

**Machine services**

**cylinder heads**

oven bake & steelabrate	54.00
magnaflux	35.00
replace guides	144.00
install hardened seats	112.00
Performance valve job	175.00
Stage 1 plus conversion	240.00
resurface heads	75.00
install freeze plugs	8.00

**Block**

pre-clean	45.00
oven bake & steelabrate	85.00
re-surface deck	150.00
align-hone (touch-in)	165.00
bore and hone	240.00
with torque plates	
install cam bearings	75.00
install galley & freeze plug	33.00
modify oil passages	85.00

**Rods**

oven bake & steelabrate	28.00
re-size big end ( w/ARP )	224.00

**Pistons**

press off old and refit new	80.00
-----------------------------	-------

**Crankshaft**

oven bake & steelabrate	22.00
chamfer oil holes	30.00
custom grind	155.00
balance assembly	255.00

**Labor**

disassemble engine	150.00
assemble	1090.00
dyno break in and tune	550.00
<b>Total labor and machine work</b>	<b>4,305.00</b>

**New Parts**

16 - 7000 series cast guides	28.80
8 - 30,000 series hard seats	66.00
set- Stage 1 3/8 valves	225.95
set- Stage 1 Plus	75.00
springs retainers & locks	
8 - intake seals	15.12
set- rocker assemblies	169.95
New stock pushrods	39.95
master engine kit (includes )	1,247.18
pistons, rings, bearings, gaskets	
brass freeze & galley plugs, oil pump kit	
Stage 1 plus cam, lifters, tru roller timing set	
set- ARP rod bolts	78.95
Stage 1 fuel pump	49.95
8 - RTS-44ts spark plugs	16.95
oil, filter, paint and materials	119.50
Core charge	500.00
<b>Total parts</b>	<b>2,633.33</b>

**total including  
machine work, labor and parts \$6,938.33**

This price does not include , crating, shipping or applicable sales tax

With stock intake and Quadrajet this combination makes 9.59 compression, idles well and makes 30 more HP as a factory Stage 1 engine that had 3/4 of a point more compression and will run on unleaded 92 octane pump gas

We have included as standard in this combination extras such as brass freeze plugs, hardened exhaust seats, ARP rod bolts, double roller timing set, enhanced oiling, balancing, blueprinting, dynamometer break-in and tune

Effective 1-1-2014  
PRICES SUBJECT TO CHANGE



Remove alignment pads from block	35.00
manganese bronze valve guides	101.20
oil pan baffle (includes installation)	37.95
T/A dual valve springs	312.00
(include cut spring seats, cut for PC seals & hardened shims)	
6 quart T/A oil pan	165.00
Chrome valve covers and hold downs	129.95
T/A Satin aluminum valve covers	204.95
T/A Red or black powder coated	224.95
T/A valve covers come machined with breather and fill cap	
T/A HP timing cover	499.95
HP rocker shafts	add 56.00
Speed-Pro forged pistons	add 144.00
crankshaft scraper (installed)	45.00
Edlebrock Performer or B4B intake	315.00
includes stainless intake bolts	
T/A SP1 intake (includes Stainless bolts)	369.95
AM&P Intake oil shield	35.00

AMP 1 inch Q-Jet spacer	42.00
includes bolt kit	
Holley 870 Avenger	399.95
Q-Jet Carb rebuild includes parts	285.00
recalibrated for larger cam	
(PLATING AVAILBLE)	
New MSD stand alone distributor	369.79
MSD blaster coil	43.95
rebuild point distributor	257.90
With Crane Fireball electronic conversion	
cap, rotor, vacuum advance and harness	
rebuild point distributor	189.95
Includes new points, condenser, cap, rotor	
vacuum advance and harness	
rebuild HEI distributor	225.95
Includes new magnetic pick-up, module,	
wiring harness, cap, rotor and coil	
7mm wire set	49.95
custom Buick 8 mm wire set	159.95
include wire separators and hold downs	
new stock flexplate	79.95

With better than the mild performance of the Street 1 engines and better parts  
The Street 2 455 engines are meant for high performance street and strip driving

The Street 2 is capable of making 500 HP

If you want more performance look at the Stealth or Bulldozer engines

**Machine services****cylinder heads**

oven bake & steelabrate	54.00
magnaflux	35.00
replace guides & wet hone	220.00
install hardened seats	112.00
Stage 1 <i>plus</i> conversion	240.00
performance valve job	175.00
Cut spring seats for dual springs	65.00
street/strip port, polish and flow test	700.00
resurface heads	75.00
install freeze plugs	8.00

**Block**

pre-clean	45.00
ovenbake & steelabrate	85.00
re-surface deck	150.00
align-hone (with studs)	200.00
bore and hone with torque plates ( street finish )	240.00
install cam bearings	75.00
install galley & freeze plugs	33.00
modify oil passages	85.00

**Rods**

oven bake & steelabrate	28.00
re-size big end ( w/ARP )	224.00

**Pistons**

press off old and refit new	80.00
-----------------------------	-------

**Crankshaft**

oven bake & steelabrate	22.00
chamfer oil holes	30.00
custom grind	155.00
balance assembly	255.00

**Labor**

disassemble engine	150.00
assemble	1190.00
dyno break in and tune	550.00

**Total machine work and labor 5,281.00**

**New Parts**

16 - phosphorus bronze guides	64.00
8 - 30,000 series hard seats	66.00
set- Stage 1 valves 11/32	225.95
set- Stage 1 Plus dual valve springs retainers & locks	169.95
8 - intake seals	15.12
set- T/A HD rocker assemblies	225.95
16 - custom length .80 wall pushrods	169.95
master engine kit (includes )	1,391.18
forged TRW pistons, rings, bearings, gaskets, brass freeze plugs, oil pump kit	
Stage 1 <i>plus</i> cam, lifters, tru roller timing set	
Stage 1 fuel pump	49.95
8 - RTS-44ts spark plugs	16.95
oil, filter, paint and materials	95.00
main studs	68.95
Core charge	500.00
Total parts	3,058.95

**Total including**

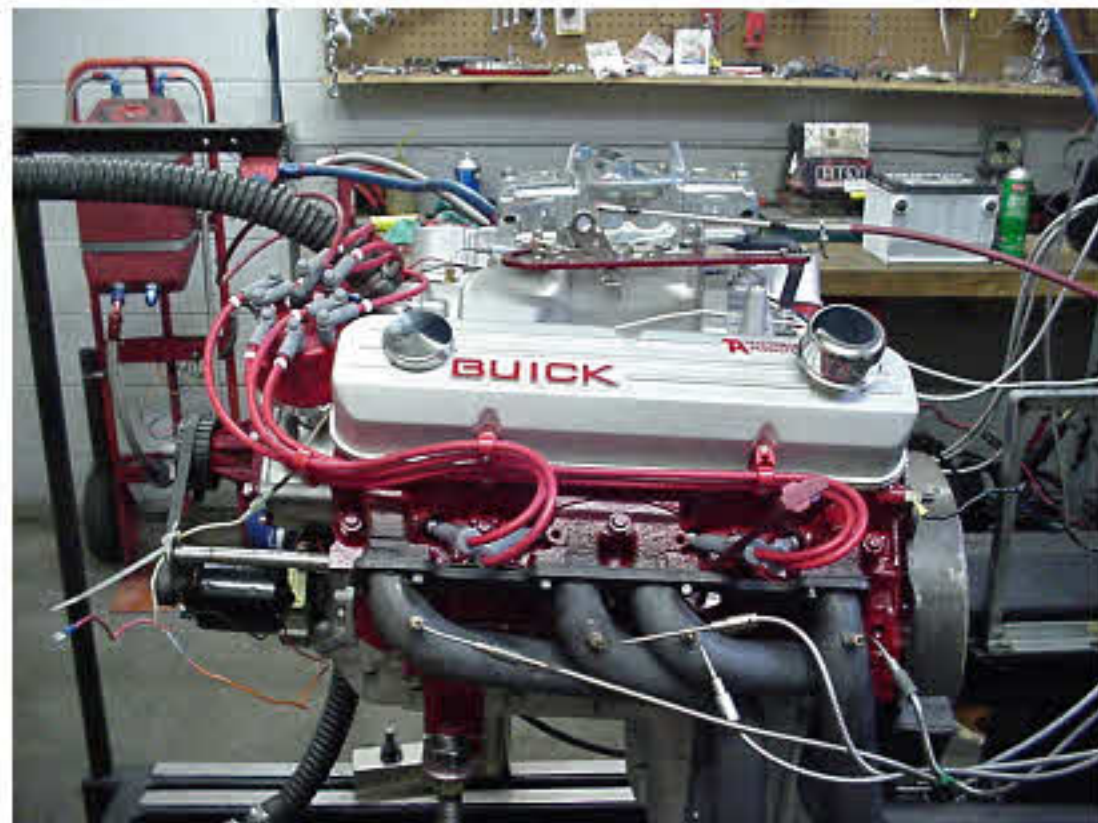
**machine work, labor and parts \$8,339.95**

This price does not include, crating,  
shipping or applicable sales tax

With stock intake and Quadrajet this  
combination makes 9.59 compression, idles well  
and makes 85 more HP as a factory Stage 1  
engine that had 3/4 of a point more compression  
and will run on unleaded 92 octane pump gas

We have included as standard in this  
combination extras such as brass freeze plugs,  
hardened exhaust seats, modern valves, bronze  
guides, dual valve springs, competition valve job,  
street - strip port, polish & flow test, ARP rod  
bolts, double roller timing set, enhanced oiling,  
balancing,  
blueprinting, dynamometer break-in and tune





T/A Stage 1 heads or Stage 2 heads	507.00		
includes new head bolts			
Stage 1 Plus street reciprocating assembly	514.53	AMP 1 inch Q-Jet spacer	42.00
Remove alignment pads from block	35.00	includes bolt kit	
manganese bronze valve guides	101.20	Holley 870 Avenger	399.95
oil pan baffle (includes installation)	37.95	Q-Jet Carb rebuild includes parts	285.00
T/A dual valve springs	312.00	recalibrated for larger cam	
(include cut spring seats, cut for PC		(PLATING AVAILBLE)	
seals & hardened shims)		New MSD stand alone distributor	369.79
6 quart T/A oil pan	165.00	MSD blaster coil	43.95
oil pan baffle (includes installation)	37.95	rebuild point distributor	257.90
Chrome valve covers and hold downs	129.95	With Crane Fireball electronic conversion	
T/A Satin aluminum valve covers	204.95	cap, rotor, vacuum advance and harness	
T/A Red or black powder coated	224.95	rebuild point distributor	189.95
T/A valve covers come machined with breather		Includes new points, condenser, cap, rotor	
and fill cap		vacuum advance and harness	
T/A HP timing cover	499.95	rebuild HEI distributor	225.95
HP rocker shafts	add 56.00	Includes new magnetic pick-up, module,	
crankshaft scraper (installed)	45.00	wiring harness, cap, rotor and coil	
Edlebrock Performer or B4B intake	315.00	7mm wire set	49.95
includes stainless intake bolts		custom Buick 8 mm wire set	159.95
T/A SP1 intake (includes Stainless bolts)	369.95	include wire separators and hold downs	
AM&P Intake oil shield	35.00	Romac SFI damper	329.95
		Cat SFI flexplate	99.95

10.61 to one 92 octane pump gas engine

AMP Stage one plus 470 STREET reciprocating assembly

Performer manifold & AM&P prepped 800 CFM Q-jet

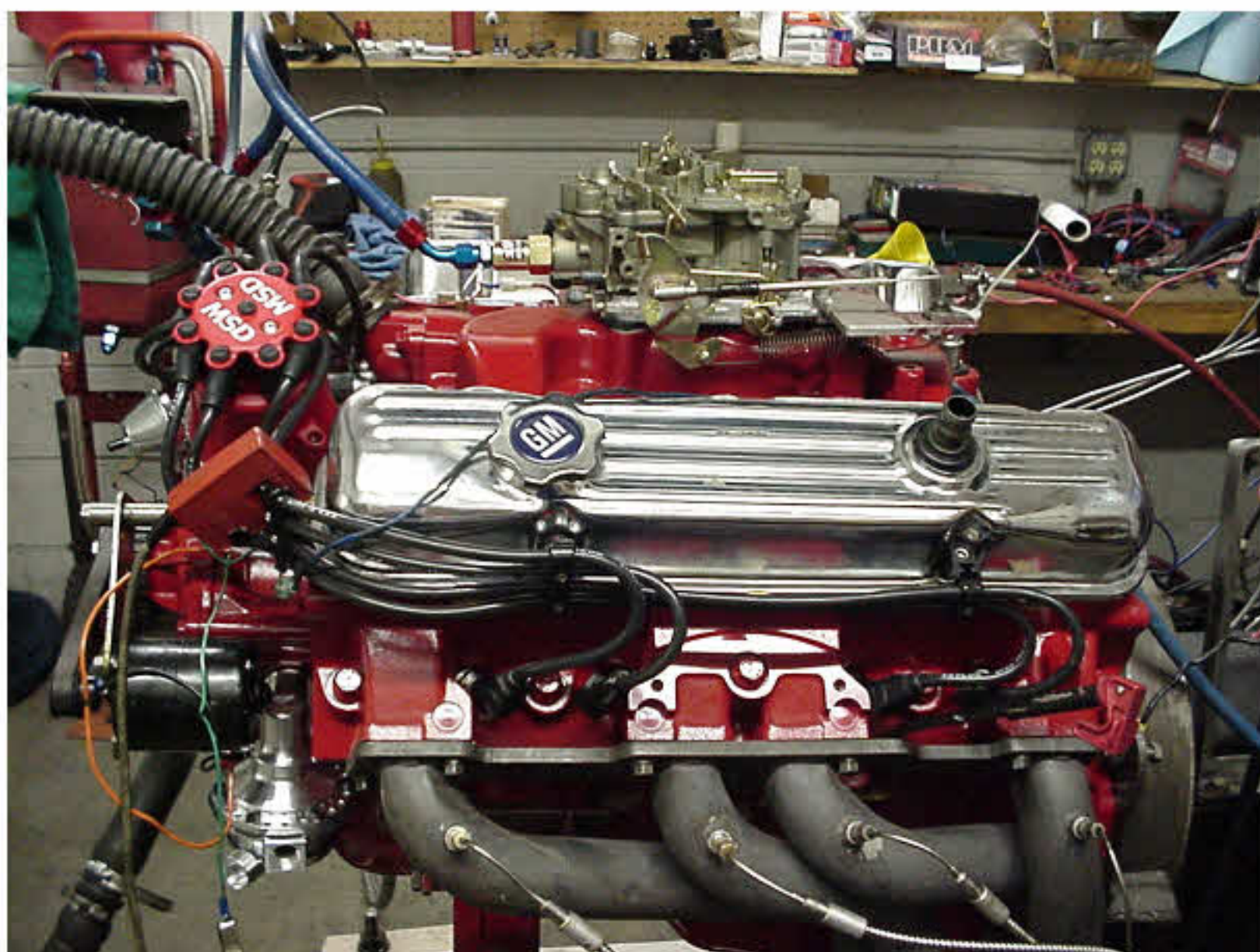
UN-ported AMP prepped Stage 1 aluminum T/A heads

MSD distributor, Blaster coil and custom Taylor wire set

540 + lbft of torque

500+ HP

Painted Buick red almost no one except a Buick guy  
would know it was not a factory engine



\$11,649.95 as shown includes core

includes carb lift plate and transport stand

Because of the special price on this engine there are no substitutions

**570+ torque / 560+ HP Super Stealth \$14,995.00**

## The Stealth 470

STAGE 1 PLUS 470 Street & Strip Reciprocating Assembly  
(new stock damper and flexplate)

AM&P prepped Stage 1 aluminum heads

Custom ground hydraulic cam

T/A Heavy duty rocker arm assemblies

Blue printed and dyno tuned

T/A HP fuel pump and hard line

New MSD distributor and coil

Includes selected core

All AM&P machine work and oil modifications



## The Super Stealth 470

All of the above plus

Hydraulic roller cam & lifters

AM&P Street/Strip port work

aluminum rocker arms

new T/A 6 quart pan w/ baffle

new T/A timing cover

new T/A HP water pump

Billet 750 HP rated fuel pump

T/A race SFI approved balancer

race blue print and assembly



**92 octane pump gas 600 HP**

**The ultra 470 has it all.**

T/A Stage 2 SE heads  
T/A shaft mounted roller rockers  
T/A Hyd. Roller cam  
T/A timing cover  
AM&P HP oil pump  
T/A SP1 intake  
T/A aluminum valve covers  
T/A 6 quart pan  
T/A HD water pump  
T/A damper and flexplate  
MSD distributor and coil  
Quick Fuel 950 carburetor  
Forged Diamond pistons  
H-beam rods

**\$15,399.95**

**Complete**

**Damper to flexplate  
Carburetor to oil pan**

**Selected block**

thermal cleaned  
pressure checked  
sonic checked  
all oil modifications  
bored & honed w/plates  
align honed w/studs  
drilled for T/A aluminum heads

**Selected crank**

thermal cleaned  
liquid magnafluxed  
chamfered oil holes w/ scoop milled mains  
offset ground to 3.950 stroke  
micro polished

**Forged pistons and H-beam rods**

Flow bench tested Street / Strip porting  
guides precision wet honed  
seats prepped with multi-angle carbide cutters  
professionally assembled

Rotating assembly balanced to .5 grams

Blue printed & professionally assembled

Dyno tuned



Shown with optional tube chassis SRE aluminum oil pan

Select block w/ all AM&P machining  
 470 race reciprocating assembly  
 T/A girdle installed  
 Custom nitrided solid lifter flat tappet race cam  
 6 quart pan  
 T/A front cover w/ AM&P HP oil pump  
 Multi-layer head gaskets  
 AM&P S/S ported Stage 2 TE heads w/ studs  
 T/A 1.65 shaft rockers  
 3/8 .080 pushrods  
 SP2 intake  
 1050 QFX carburetor  
 Jomar Power Cone carburetor spacer  
 T/A HP water pump  
 MSD race distributor  
 custom made wires & looms  
 T/A valve covers  
 All new T/A fasteners

Options

Race ported	1050.00
w/ center port supports & push rod sleeves	
SRE aluminum oil pan	call for price
Scavenger oil system	\$566
Peterson external oil pump	call for price
Moroso vacuum pump	call for price
Solid roller cam	call for price
QFX 1250 carburetor	add \$145
T/A electric water pump	add \$195

**\$18,595.00**

**Complete**

**Damper to flexplate  
 Carburetor to oil pan**

## 2005 ENGINE MASTERS COMPETITION

### BULLDOZER TORQUE

Popular Hot Rodding Magazine  
proclaimed that the AM&P 508  
cubic inch Buick  
Engine Masters Challenge  
entry had bulldozer torque  
- PHRM July 2006 -

We agree with them so much  
that is what we call the ultimate  
Buick Street engine

**"THE BULLDOZER"**

The **"BULLDOZER"** comes in two versions

#### **92 Octane Pump gas 523 cubic inch**

10.75 to one compression with more than enough vacuum for power brakes but still makes almost 650 lb<sub>ft</sub> of torque and over 650 HP

#### **100 octane unleaded version (Engine Masters Version)**

11.5 to one compression but needs a vacuum canister or vacuum pump  
675 lb<sub>ft</sub> of torque and over 700 HP

Neither of these engines are for the faint of heart as they are more than adequate to put a well prepped full bodied GS well into the 10's in the quarter

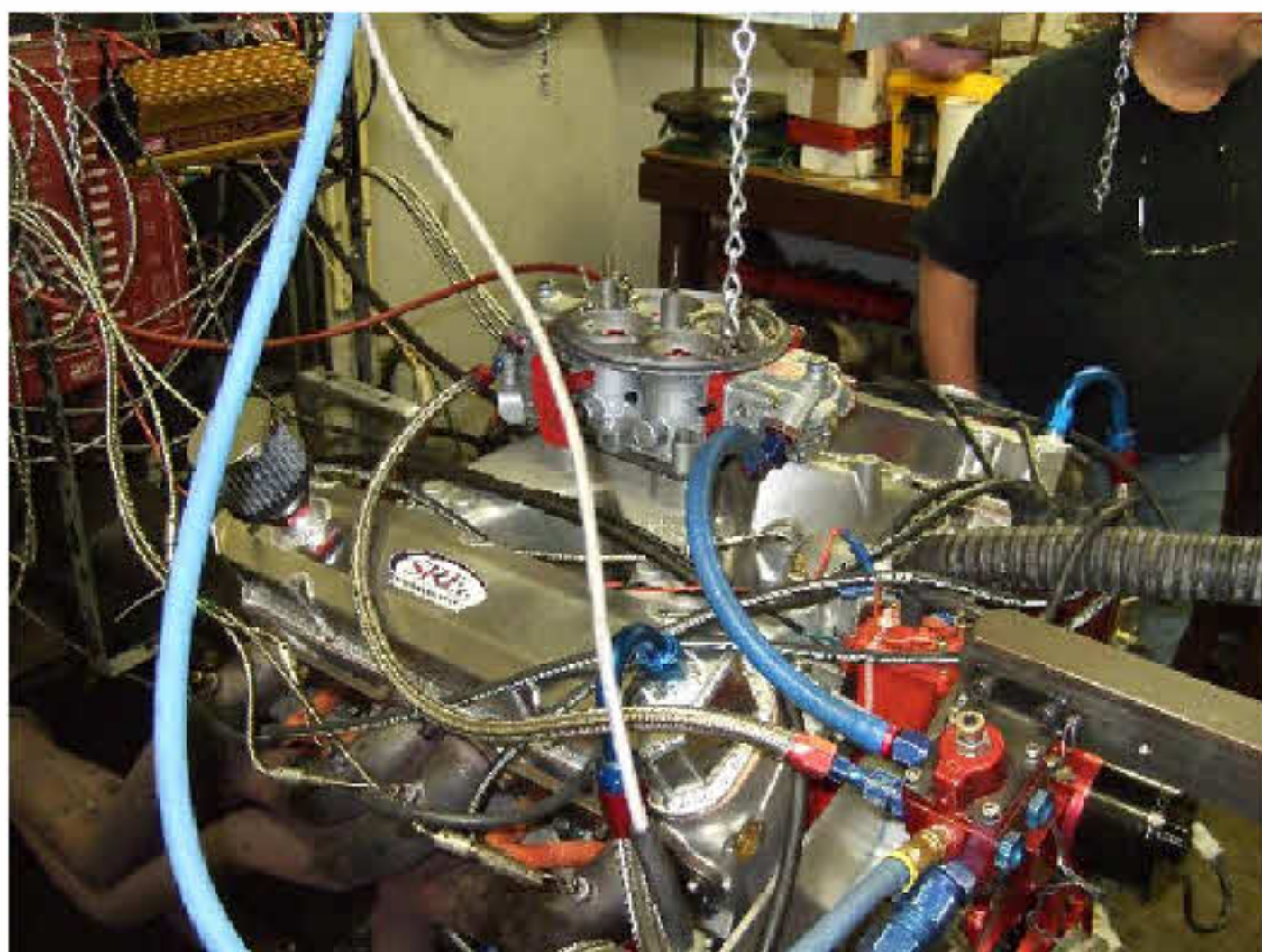
#### **Starting at \$19,900.00 carburetor to pan, water pump to flexplate**

As with all AM&P engines the "BULLDOZER" is broken in and dyno tuned and comes with head flow sheets, dyno sheet and complete blue print

There are so many variables to building an engine like this, we have to consult with our customers and figure out their specific needs

Please be serious before requesting an estimate for an engine of this type

Prices start at \$19,900



**This is where it starts**

**T/A Performance Tomahawk Aluminum Block**

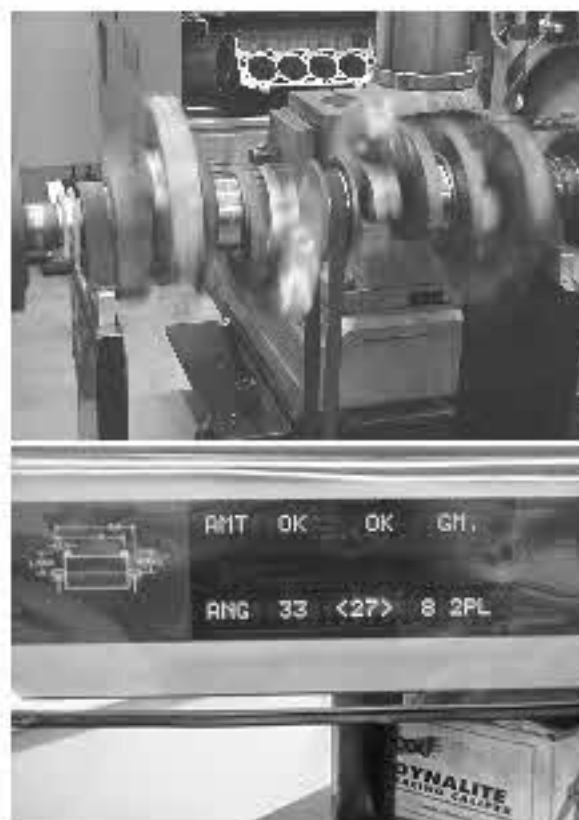
There are so many variables to building an engine like this, we have to consult with our customers and figure out their specific needs

Please be serious before requesting an estimate for an engine of this type

Prices start at \$28,000







**1 T/A Replacement Pistons**

Specifications: > Cast, press type pin  
5/64 - 5/64 - 3/16 ring size

**2 AM&P HP re-conditioned Connecting Rods**

Specifications: > selected cores  
thermal cleaned & shot blasted  
big end re-conditioned with ARP rod bolts

**3 Automotive Machine & Performance Crankshaft  
Selected Cores**

No junk here, only choice non-welded cranks  
Thermal cleaned and shot blasted  
not only immaculately cleans but also stress relieves  
Liquid magnafluxed to insure a perfect core  
Oil holes chamfered  
Ground with less than .0002  
that's 2 tenths of a thousand tolerance in journals to one  
another, taper and roundness and in the lower to middle  
of the spec to achieve .002-.0025 clearance  
Computer balanced to within .5 of a gram  
Micro-polished to deter bearing deterioration

<b>Parts:</b>	1 - 455 1379242 crank core	195.00
	8 - selected rod cores cleaned & shot blasted	46.00
	8 - T/A 1607 cast pistons	345.00
	set - ACL or Clevite main bearings	96.98
	set - ACL or Clevite rod bearings	63.52
	set - moly Hastings Rings	89.95
	set ARP rod bolts	78.95
	new T/A damper	249.95
	AM&P new flexplate	79.95
	<b>parts total</b>	<b>\$1,245.30</b>

<b>Labor:</b>	Clean and liquid mag crank	57.00
	chamfer oil holes	30.00
	custom grind crankshaft and polish	155.00
	press - fit pistons and pins	34.00
	balance assembly	255.00
	re-condition rods	224.00
	machine work total	755.00
	<b>total</b>	<b>\$2001.30</b>

Notched forged Speed-Pro pistons add \$230.00

All reciprocating parts supplied nothing else to look for or buy  
pistons - pins - rod and main bearings - rings - crankshaft - damper - flexplate  
The STAGE 1 reciprocating assembly is a very cost effective way for a  
street/strip engine in the 400 to 500 horsepower range



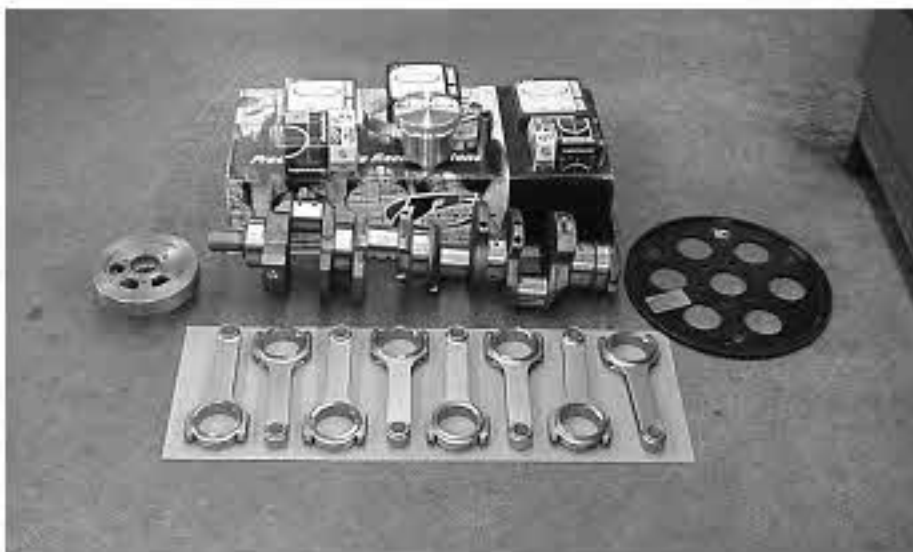
<b>Parts:</b> 1 - 455 N 1379242 crank core	195.00
8 - AMP/ Eagle H-beam rods	499.00
8 - AMP/ Diamond Custom 25cc dish pistons includes pins and locks	695.95
1 - set Clevite main bearings	96.98
1 - set Clevite race rod bearings	79.76
1 - set AMP/ piston Rings	109.95
Romac damper (steel/steel) Import	329.95
SFI approved flexplate	95.00
ARP flexplate bolts	13.95
ARP torque converter bolts	12.95

sub total \$2128.19

<b>Labor:</b> Clean and liquid magnaflux crank	57.00
Scoop mill main oil holes	65.00
chamfer oil holes	30.00
custom offset grind 3.950 crankshaft and polish	400.00
balance assembly	255.00

sub total 807.00

**total \$2,935.19**



This combination uses a custom flat top JE Piston with generous valve reliefs for high lift cams

**Specifications:**

- forged 2618 low silicone floating pin with double spiral locks
- .043-.043 - 3mm ring package
- Eagle H-beam Rods
- 6.800 x 2.200 journal H-beam GM rods
- Automotive Machine & Performance
- 3.950 stroke Crankshaft

**selected Cores** - No junk here, only choice non-welded cranks

Thermal cleaned and shot blasted which not only immaculately cleans but also stress relieves

Liquid magnafluxed to insure a perfect Core

Oil holes chamfered, ground with less than .0002 (that's 2 tenths of a thousand) tolerance in journals to one another, taper and roundness and in the lower to middle of the spec to achieve .002-.0025 clearance

Computer balanced to within .5 of a gram

Micro-polished to deter bearing deterioration

Off set ground to a more common 2.200 journal for a wide selection of rod bearings

**Parts:**

1 - 455 N 1379242 crank core	195.00
8 - AMP/ Eagle H-beam rods (w/2000 bolts)	599.00
8 - AMP/J.E. Custom flat top pistons includes pins and locks	845.00
1 - set Clevite main bearings	96.98
1 - set Clevite race rod bearings	79.76
1 - set J.E. piston Rings	133.80
T/A Performance SFI damper	465.00
T/A Performance S.F.I. approved flexplate	215.00
ARP flexplate bolts	13.95
ARP torque converter bolts	12.95
sub total	\$2,656.44

**Labor:**

Clean and liquid magnaflux crank	57.00
Scoop mill main oil holes	65.00
chamfer oil holes	30.00
custom offset grind crankshaft and polish	400.00
balance assembly	255.00
sub total	807.00
total	\$3463.44

**Options:** GRP aluminum rods call  
ATI balancer call

**All reciprocating parts supplied  
nothing else to look for or buy**

pistons - pins - rod and main bearings - rings - crankshaft - damper - flexplate

We use this reciprocating assembly in our race 470 drag race engines

Capable of 800HP +

### What is a 350 Stage 1 Plus Cylinder Head Conversion?

- 1 Thorough cleaning with a thermal cleaning system and shot blasting to a like new appearance
- 2 Magnafluxing to insure a sound product to work with
- 3 Chasing the threads in all bolt holes
- 4 Installation of new guides and properly sized
- 5 Pocket porting to Stage 1 valve size with improved angles
- 6 Unshrouding of combustion chambers
- 7 Valve job ( concentric to less than .0005 ) done with state of the art equipment by Sunnen
- 8 New Automotive Machine & Performance stainless steel, swirl polished chrome stem valves
- 9 New brass freeze plugs installed
- 10 Heads are then thoroughly washed and professionally assembled checking the following:
  - A - valve stem to guide clearance
  - B - valve and seat concentricity
  - C - stem height
  - D - retainer to guide and retainer to seal clearance
  - E - Valve spring installed height (shimmed as necessary)
  - F - Valve spring open and closed pressure (as per cam specifications)
  - G - Lubricated with high pressure lubricant

Heads are then placed in plastic bags to prevent contamination

These procedures are done on each conversion from the basic to competition

### Basic Stage 1 Conversion

Labor charges	
Thermal cleaning	54.00
Magnaflux	35.00
Replace guides	144.00
Stage 1 PLUS conversion.	80.00
*open for oversize valves	
*unshroud combustion chambers	
3-angle performance valve job	175.00
resurface heads	75.00
Total labor	563.00

### Parts

cast spiral groove valve guides	28.80
AM&P 1006-1006 valves	159.95
1.94 intake 1.50 exhaust	
stainless steel - swirl polished	
chrome stem - one piece	
*Viton valve stem seals	14.85
Stage 1 plus valve springs	49.00
Total parts	252.60

**Total Parts and Labor 815.60**

### Recommended upgrades

30,000 series unleaded add 176.80  
exhaust valve seats (installed)

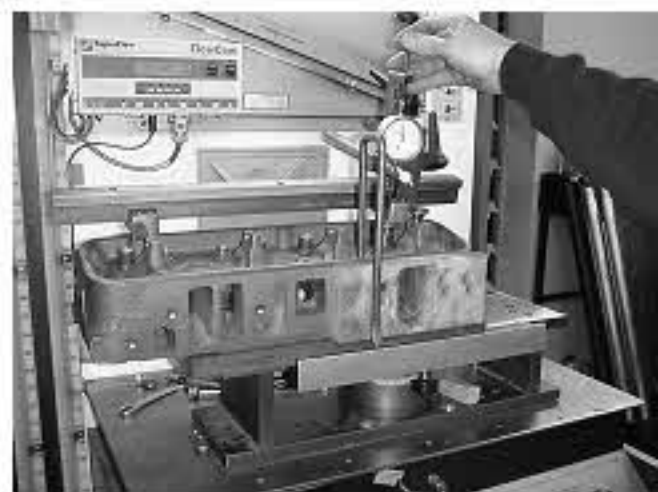
Phosphorus bronze guides add 84.20  
installed and wet honed  
Competition Multi-angle valve job 70.00  
(must do with port work)

Street-Strip Port, flow test & 750.00  
upgrade to Competition valve job  
& back cut valves  
( int. flow min. 230 cfm @ .450 lift)



All port work verified with on our computerized SUPERFLOW SF 600 flow bench with the Brezinski slider system which correctly aligns head over bore for more exacting measurements

Flow sheets showing flow on ALL intake and exhaust ports furnished with all ported heads



<b>Basic Stage 1 Conversion</b>	<b>Plus Flow Conversion</b>	<b>Extreme Duty Plus Flow Conversion</b>
Labor charges	Labor charges	Same as PLUS FLOW conversion
Thermal cleaning 54.00	Thermal cleaning 54.00	With unleaded seats and dual springs
Magnaflux 35.00	Magnaflux 35.00	<b>\$1557.00</b>
Replace guides 144.00	Replace w/bronze guides and wet hone 220.00	
Stage 1 PLUS conversion. 240.00	Stage 1 PLUS conversion. 240.00	
*open for oversize valves	*open for oversize valves	
*unshroud combustion chambers	*unshroud combustion chambers	
3-angle Hi-Perf valve job 175.00	Multi-angle competition valve job 150.00	
resurface heads 75.00	resurface heads 63.00	
Total labor 723.00	Total labor 762.00	
Parts	Parts	<b>Extreme Duty SS Plus Flow Conversion</b>
cast spiral groove valve guides 28.80	Phosphorus/Bronze guides 72.00	With street strip port work
T/A 2.13 - 1.760 valves 225.00	T/A 11/32 2.123-1.76 valves 225.00	Intake flow min. 250 cfm @ .450 lift)
stainless steel - swirl polished	Extreme duty - stainless steel	<b>\$2267.00</b>
chrome stem - one piece	swirl polished - chrome stem	
*Viton valve stem seals 14.85	*Viton valve stem seals 14.85	
Stage 1 plus valve springs 75.00	Stage 1 plus valve springs 75.00	
Total parts 344.60	Total parts 386.85	
<u>Total Parts and Labor 1066.65</u>	<u>Total Parts and Labor 1148.85</u>	
30,000 series unleaded exhaust valve seats (installed) 176.80		



All port work verified with on our computerized SUPER-FLOW SF 600 flow bench with the Brezinski slider system which correctly aligns head over bore for more exacting measurements  
Flow sheets showing flow on ALL intake and exhaust ports furnished with all ported heads

**What is a Stage 1 Plus Cylinder Head Conversion?**

- 1 Thorough cleaning with a thermal cleaning system and shot blasting to a like new appearance
- 2 Magnafluxing to insure a sound product to work with
- 3 Chasing the threads in all bolt holes
- 4 Installation of new guides and properly sized
- 5 Pocket porting to Stage 1 valve size with improved angles
- 6 Unshrouding of combustion chambers
- 7 Valve job ( concentric to less than .0005 ) done with state of the art equipment by Sunnen
- 8 New Automotive Machine & Performance stainless steel, swirl polished chrome stem valves
- 9 New springs retainers and locks from T/A Performance, AM&P, Isky or Comp Cam
- 10 New brass freeze plugs installed

- 11 Heads are then thoroughly washed and professionally assembled checking the following:
  - A - valve stem to guide clearance
  - B - valve and seat concentricity
  - C - stem height
  - D - retainer to guide and retainer to seal clearance
  - E - Valve spring installed height (shimmed as necessary)
  - F - Valve spring open and closed pressure (as per cam specifications)
  - G - Lubricated with high pressure lubricant

Heads are then placed in plastic bags to prevent contamination  
These procedures are done on each conversion from the basic to competition



**Stage 1 \$958.64 exchange**

Thermal clean and shot blast for thorough cleaning  
Pressure tested  
Bore perpendicular to crank  
Square deck to crank to the proper RMS  
Align hone for the correct bearing clearance  
Power hone with deck plates  
( Sunnen CV-616 and BHJ ) (street finish)  
Modify oil galleys  
Install gallery and freeze plugs  
Install HP cam bearings & brass freeze plugs  
Final assembly-ready cleaned



**Stage 1 Plus \$1,114.73 exchange**

Everything the Stage 1 block has  
PLUS  
Side pads removed for ease of header  
Installation  
Special screw in front galley plugs  
Front cam journal grooved  
Coated front non-grooved cam bearing  
T/A dual groove bearings 2, 3,4 & 5  
Main studs installed

**Stage 2 Xtreme Plus \$2,846.80 exchange**



This block used in every engine we build over 600HP  
Thermal clean and shot blast for thorough cleaning  
Pressure tested  
Sonic checked  
Bore perpendicular to crank  
Blue print deck to specification  
Fit T/A girdle & align hone  
Power hone with deck plates  
( Sunnen CV-616 and BHJ ) (race finish)  
Modify oil galleys  
3 o'clock cam oiling  
Install gallery and freeze plugs  
Install coated HP cam bearings & brass freeze plugs  
Lifter valley plates installed  
Jig drilled for Stage 2 heads

### BLOCK MACHINING

Pre-clean	45.00
(includes removal of freeze plugs, cam bearings & galley plugs)	
Oven bake and steelabrate	85.00
Pressure check block	89.00
Tap front galley holes	27.50
Resize w/torque plates	
street	240.00
Plateau hone/Race finish	275.00
Competition re-hone w/plates	200.00
Deck square to mains	150.00
ea. add. .005 per cyl	1.50
Install sleeve (labor)	165.00
Install cam bearings	75.00
Install galley & freeze plugs	33.00
Line hone	200.00
Fill block w/HARDBLOK	175.00
Sonic check block	120.00
Install Buick block girdle	550.00
Machine & install Poston Pan	150.00
Cut off alignment pads	35.00
3 o'clock cam oil mod	60.00
Drill for Stage 2 heads	80.00
Perform oil mods	85.00

### REPLACE GUIDES

One ————each ————	18.00
aluminum head -----	22.00
2-4 ————each ————	12.00
aluminum head -----	16.00
5 or more —each ————	9.00
aluminum head -----	13.00

### REPLACE SEATS

Set up & first seat ————	22.00
aluminum head -----	30.00
Each additional seat -----	14.00
aluminum head -----	18.00

### CRANKSHAFT

#### SERVICES

Clean ————	22.00
Chamfer oil holes ————	30.00
Magnaflux ————	25.00
Clean & polish ————	60.00
Grind - most ————	155.00
Offset grind to 3.950 ————	400.00
Cross-drill mains ————	150.00

### HEAD WORK

Oven bake & steelabrate	54.00
Magnaflux	35.00
Valve job	135.00
Perf. valve job	175.00
Correct stem height	35.00

### COMPETITION

#### HEAD WORK

Disassemble race heads	40.00
Clean aluminum heads	60.00
Competition Multi-angle valve job	250.00
Assemble & Set installed height	80.00
Back-cut valves each	4.00
Cut for teflon seals	50.00
Cut for over-size springs diameter only	65.00
Install bronze guides	220.00
& wet hone to size	
Wet hone guides in new heads	50.00
Machine for oversize valves	180.00

### ROD & PISTON WORK

Clean rods or pistons (each) ————	3.50
Remove & replace press fit	
Each ————	10.00
Remove & replace non stock applications ————	H.R.
Check big end - each ————	4.00
Check big end & hone to size	
Each ————	10.00
Re-condition rods	
stock - each ————	24.00
ARP bolts & nuts bolts - each ————	28.00
Magnaflux rods - each ————	4.00
Pin-fit small end - each ————	8.50
Re-bush small end - ea ————	H.R.
Drill & chamfer oil holes	
Each ————	5.00
Pin fit piston - each ————	8.50
Fly-cut reliefs, dome machining & contouring ————	H.R.

### HEAD RE-SURFACING

	Cast Iron	Aluminum
V-6 or V8 Pair		
(up to .010)	75.00	95.00
Each additional		
(.0050 per cyl)	2.00	2.00
V-6 or V8 Intake		
or exhaust side		<u>Priced per job</u>

#### Additional Charge For Extra Set-up

### COMPETITION

#### ENGINE SERVICES

File-fit rings	75.00
Blueprinting	H.R.
Side clearance rods	H.R.
Degree cam min	75.00
C.C. heads	H.R.
Custom engine assembly	H.R.
Check bearing clearances	150.00

### BALANCING SERVICES

Standard Passenger V-6 or V-8	255.00
Balance Crankshaft V-6 or V-8	168.00
Balance Flywheel or flexplate Plate	68.00
Heavy Metal Installation	H.R.
Welding and Excess Metal Removal	H.R.

**NEEDED FOR BALANCING:** Crank, rods, pistons & pins, locks, rings, bearings, flywheel and bolts, pressure plate and bolts, vibration damper and bolt. All parts must be clean and unassembled (pistons off rods, rings off pistons etc.)

Shop Labor not covered in this price sheet is based on a minimum charge of \$75.00 per hour  
Credit Cards Subject to 3% charge



**Timing cover rebuild**

Stock 175.00

Includes new neoprene seal,  
blueprinted gears and wear plate

HP \$250

Includes modified oil passages and  
adjustable pressure regulator

Additional charge for thread repairs



**Distributor rebuild service**

points type  
Electronic conversions  
HEI



**Push rod sleeves installed**

This modification allows the use of 3/8  
pushrods and 1.65 rockers  
(aluminum heads only)



**Intake Manifold Porting**

Before and after SPX

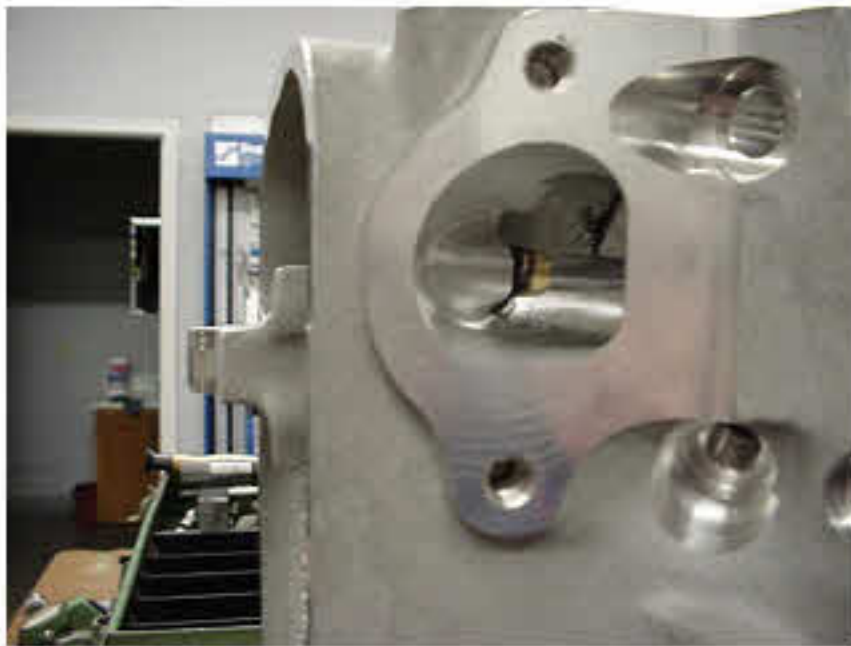


We do record setting and winning  
competition porting

Stage 1, 2, 3 & 4

Valve guides are wet honed

Seats are cut with multi-angle  
carbide cutters



**Final flow testing to verify results**



We stock many T/A Performance parts for your convenience



Automotive Machine & Performance can supply a custom calibrated carburetor for your application.

We have an extensive library of dyno tests where we have calibrated carburetors specifically for Buick engines

You don't have to buy an off the shelf carburetor with a "tune" that is not right for your application.

Quadrajets - Quick Fuel - Demon - Holley



Quick Fuel 650 to 1450 CFM



Quadrajets 750, 800 and Special 900



Demon 650 and 750 (Q-Jet replacement)



Holley 870 Street Avenger



**A WINNING COMBINATION**

Automotive Machine & Performance has worked closely with Coan for over 20 years to help design and chose the right converters and transmissions for Buick engines

Let Automotive Machine & Performance get a converter and transmission designed for the torque curve of your Buick



Tired of that lame  
1970's design converter  
Can't get a transmission to hold up  
under all that **TORQUE**  
Want the **right**  
transmission and converter for a Buick?

**20003-B     13" TH-400 street performance     up to 2, 200 stall     315.00**

Tig welded pump and turbine blades, billet steel turbine hubs, HD pump bearings, selected pump and stator combinations for desired stall, balanced and pressure tested. Recommended for 455 Buick engines with cams under 220 duration with moderate compression

**20103-B     12" TH-350 street performance     up to 2,400 stall     295.00**

Tig welded pump and turbine blades, billet steel turbine hubs, HD pump bearings, selected pump and stator combinations for desired stall, balanced and pressure tested. Recommended for 350 Buick engines with cams under 220 duration with moderate compression.

**20211-4B     11" Pro Street     up to 3100 stall     425.00**

Built tough - furnace brazed, HD thrust bearings, HD sprag, mild 455

**20212-4B     11" Pro Street     up to 3400 stall     425.00**

Built tough - furnace brazed, HD thrust bearings, HD sprag, small or big block

<b>20213-4B</b>	<b>11" Pro Street</b>	<b>up to 3800 stall</b>	<b>425.00</b>
Built tough - furnace brazed, HD thrust bearings, HD sprag, mild 455 makes car quick but still good lockup for street at affordable price			
<b>20306-1B</b>	<b>10" Street Performance</b>	<b>small block up to 3500 stall</b>	<b>448.00</b>
<b>20307-1B</b>	<b>10" Street Performance</b>	<b>small block up to 4000 stall</b>	<b>448.00</b>
<b>20320-2B</b>	<b>10" (258mm) maximum performance</b>	<b>better lockup</b>	<b>895.00</b>
Custom built for either 350 or 455 with stall to 4,200. Furnace brazed pump and turbine blades, anti-ballooning plate's), HD bearing supports, HD one way clutch (sprag) for use w/transbrake, billet steel turbine hub, HD thrust bearings, structurally designed and reinforced front cover to prevent ballooning, and balanced and pressure tested. Includes the latest design in converter technology to achieve your performance goals. Motor plate spacers included at no charge. "This is an excellent choice for more radical race style engines used on the street. It allows for extended highway driving and has excellent "lock-up" characteristics with higher stall speeds resulting in better ET's at less RPM. Has good street manners, good idle characteristics in gear, great throttle response and very low heat generation, custom built."			
<b>20400-1B</b>	<b>9" High performance race converter</b>		<b>699.30</b>
Furnace brazed pump and turbine blades, anti-ballooning plate's), HD bearing supports, HD one way clutch (sprag) for use w/transbrake, billet steel turbine hub, HD thrust bearings, structurally designed and reinforced front cover to prevent ballooning, and balanced and pressure tested. 4,000- 5,500 stall			
<b>20416-1B</b>	<b>9" Competition</b>	<b>up to 3600 stall w/ 500 ft lbs torque</b>	<b>515.00</b>
Great for mild 455 engines			
<b>20417-1B</b>	<b>9" Competition</b>	<b>up to 3600 stall w/ 400 ft lbs torque</b>	<b>515.00</b>
Great for slightly modified small blocks			
<b>20425-1B</b>	<b>9" Competition</b>	<b>up to 4200 stall w 500 ft lbs torque</b>	<b>665.00</b>
Custom built with steel stator, super sprag, anti balloon plates, HD bearings, nickel brazed, transbrake Compatible, balanced and pressure tested			
<b>20510B</b>	<b>8" MAXIMUM PERFORMANCE</b>	<b>up to 5500 stall</b>	<b>995.00</b>
These are custom built to your application. Furnace brazed pump and turbine blades, anti-ballooning plate's), HD bearing supports, HD one way clutch (sprag) for use w/transbrake, billet steel turbine hub, HD thrust bearings, structurally designed and reinforced front cover to prevent ballooning, and balanced and pressure tested.			



## Dyno Tested Torque Rated Transmissions

### TH-400 Transmissions

**21100-5B Street performance \$1225.00**  
standard shift pattern  
for engines up to 520 lbs ft of torque  
with street tires

**21101-5B "ProStreet" \$1350.00**  
HD34 element sprag, standard shift pattern  
for engines up to 600 lbs ft of torque

**21105-5B "Extreme street" \$2195.00**  
standard pattern with super sprag, 300M alloy  
input shaft, steel clutch hub and deep aluminum  
pan.  
This is the transmission that controls the  
AM&P Popular Hot Rodding Engine Masters  
509 cubic inch 713 HP with a Bulldozer 675 lbs ft torque

**21110-5B Competition manual \$1350.00**  
reverse pattern with 34 element sprag  
for engines up to 600 lbs ft of torque

**21120-5B Competition manual \$1495.00**  
w/ trans brake 34 element sprag reversed  
Pattern for engines up to 600 lbs ft of torque

**21128-5B Super Competition \$1995.00**  
w/trans brake, 34 element sprag, 300M input  
shaft, steel clutch hub and deep aluminum pan for  
engines up to 675 lbs ft of torque

**21124A-5B Extreme Performance \$2795.00**  
Pro brake 300m input shaft 300m alloy main shaft,  
steel clutch hub, super sprag,

### TH-350 Transmissions

**31100-4B—Street performance \$1095.00**  
standard shift pattern  
for engines up to 400 lbs ft torque with street tires

**31101-4B—"Pro-Street" \$1294.99**  
HD36 element sprag, standard shift pattern  
for engines up to 500 lbs ft of torque

**31110-4B—Competition manual \$1195.00**  
reverse pattern with extreme duty sprag race  
for engines up to 600 lbs ft of torque

**31120-4B—Competition manual \$1,395.00**  
reversed pattern with extreme duty sprag race  
for engines up to 600 lbs ft of torque

**31125-4B—Maximum performance \$2,850.00**  
W/ brake, extreme duty sprag & race, billet aluminum direct  
drum, 5 clutch direct (blue), 300M alloy input shaft, lightened  
sun shell, fabricated aluminum deep pan,  
roller bearing package (reversed pattern)

Note that any transmission  
can be customized for  
customer's needs, pans,  
shafts, drums, sprags etc.