LOOKING OUT CO.

Builder Build Sheet

1993 Ford Mustang Cobra · Turbo 321 · Target 650–700 hp (estimate)

PRO
$75 demo price

Plan: Your Build, Turbo 321 (93 octane) **Prices checked:** Oct 18, 2026 (approx.)

Sheet ID: LOC-COBRA-T321-DEMO

Demo: checkout coming soon. This preview is free in the demo. Prices are approximate and can change, so confirm with each seller before you buy. Legal note: this Cobra build includes race / off-road-only parts, labeled under each part.

1. Parts list in stage order

Stage 1: Chassis, front end, launch & tires est. 235 hp (estimate)

#	Category	Part (with part number where the maker uses one)	Approx. price
1.1	Suspension	Maximum Motorsports subframe connectors **Legal: Not an emissions part (no EO needed)**	$249.97 your price
1.2	Suspension	MM Extreme-Duty adjustable rear lower control arms **Legal: Not an emissions part (no EO needed)**	$519.97 your price
1.3	Suspension	MM rear upper control arms **Legal: Not an emissions part (no EO needed)**	$109.99 your price
1.4	Suspension	Eibach Drag Launch Kit 9310.140 (springs) **Legal: Not an emissions part (no EO needed)**	$395.00 Eibach, checked Oct 19, 2026
1.5	Suspension	MM caster/camber plates, 1990-93 (MMCC9093) **Legal: Not an emissions part (no EO needed)**	$249.97 checked Oct 2026
1.6	Suspension	MM bumpsteer kit, bolt-through (MMTR-1). Requires drilling spindle arm for 5/8 in. bolts **Legal: Not an emissions part (no EO needed)**	$189.97 checked Oct 2026

#	Category	Part (with part number where the maker uses one)	Approx. price
1.7	*Suspension*	*Bilstein HD dampers* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$768.00* ***your price***
1.8	*Suspension*	*Option: MM front coil-over kit w/ springs, fits Bilstein (COP-1). Works with stock K-member* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$491.97* ***checked Oct 2026***
1.9	*Suspension*	*Option: MM torque-arm package (MMTASS-1). Replaces the rear upper arms; Panhard bar alone is $559.97* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$1,306.97* ***checked Oct 2026***
1.10	*Suspension*	*K-member: stock is OK for this build (MM coil-over kit is stock K-member compatible). Tubular K-member only if you need header/turbo clearance* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*not needed (stock K* ***estimate***
1.11	Tires	2x Nitto NT555RII 275/40R18 ($249.75 each) **Legal: Not an emissions part (no EO needed)**	$499.50 **your price**

Stage 1 subtotal (required parts): **$2,214.37**

Stage 2: 321ci boost-ready engine, fuel, EFI & cooling est. 360–410 hp (estimate)

#	Category	Part (with part number where the maker uses one)	Approx. price
2.1	Engine	Ford Performance Boss 302 big-bore block **Legal: Race / off-road only per Ford (competition or off-highway use only)**	$2,450.00 **your price**
2.2	Engine	4.125 x 3.000 forged rotating assembly (321ci) **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$2,500.00 – $3,000 **your price**

#	Category	Part (with part number where the maker uses one)	Approx. price
2.3	Engine	Ford Performance M-6014-BOSS head stud kit, 1/2 in. (Boss big bore block uses 1/2-13; call ARP tech for an ARP option. Ford lists it for its own X/Z heads, so confirm stud length with the Trick Flow heads) **Legal: Not an emissions part (no EO needed)**	$276.61 – $315.00 **Pit Stop USA $276.61 to Ford retail $315.00, checked Oct 19, 2026**
2.4	Engine	Trick Flow Twisted Wedge 11R 205 heads **Legal: Race / off-road only: listed as non-emissions heads (TFS listing notes, via TRE Performance)**	$3,099.98 **your price**
2.5	Engine	COMP Cams 35-312-8 turbo cam **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$577.95 **your price**
2.6	Engine	Holley SysteMAX 300-72S intake (fits 2 in. cowl) **Legal: Check: Holley's page conflicts ("E.O. # D-115-11 / 50 State Legal" in features, emission code 3 = uncontrolled vehicles only in specs). Confirm with Holley or CARB**	$1,349.95 **Holley, checked Oct 19, 2026**
2.7	Engine	Canton 15-640 oil pan **Legal: Not an emissions part (no EO needed)**	$623.82 **your price**
2.8	Engine	Melling M-68HV high-volume oil pump **Legal: Not an emissions part (no EO needed)**	$58.95 **CNC Motorsports, checked Oct 19, 2026**
2.9	Fuel system	Ford Performance 80 lb/hr injectors (confirm high-impedance + EV1 connector, or buy adapters) **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$666.99 **your price**
2.10	Fuel system	Aeromotive 340 Stealth in-tank pump **Legal: Race / off-road only per Aeromotive (not legal on emission-controlled vehicles except as an OEM-spec replacement)**	$162.50 **your price**

#	Category	Part (with part number where the maker uses one)	Approx. price
2.11	Fuel system	Aeromotive A1000 regulator (boost-referenced) **Legal: Race / off-road only per Aeromotive (not legal on emission-controlled vehicles except as an OEM-spec replacement)**	$243.23 **your price**
2.12	EFI	Holley Terminator X Fox 5.0 kit 550-937F (non-Max is enough: manual trans, boost control built in) **Legal: Race / off-road only per Holley (emission code 4: racing-use-only vehicles)**	$1,649.95 **Holley, checked Oct 19, 2026**
2.13	EFI	Holley 3-bar MAP sensor 554-107 (internal 1-bar MAP can't read boost) **Legal: Emissions-legal per Holley (emission code 5: doesn't affect emissions)**	$155.95 **checked Oct 2026**
2.14	Cooling	Mishimoto 2-row aluminum radiator, 79-93 Mustang, manual trans (direct fit; confirm A/C condenser clearance) **Legal: Not an emissions part (no EO needed)**	$346.95 **checked Oct 2026**
2.15	*Cooling*	*Alt: Champion EC-138 2-row radiator (OEM saddle mounts, has trans cooler)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$266.95* ***checked Oct 2026***
2.16	Cooling	Mishimoto dual 12 in. fan + aluminum shroud MMFS-MUS-79BK (fits stock & Mishimoto radiator) **Legal: Not an emissions part (no EO needed)**	$277.95 **checked Oct 2026**
2.17	Cooling	Tuff Stuff 180°F thermostat M-8575-4TB (79-93 Mustang) **Legal: Not an emissions part (no EO needed)**	$16.20 **checked Oct 2026**

Stage 2 subtotal (required parts): **$14,456.98 – $14,995.37**

Stage 3: Turbo at 12 psi + driveline est. 650–700 hp (estimate)

#	Category	Part (with part number where the maker uses one)	Approx. price
3.1	Power adder / turbo	On3 Performance Fox 5.0 single turbo kit FOX.70.3 (headers, downpipe, IC + piping, oil feed/drain per listing) **Legal: Race / off-road only per On3 (kit has no room for the smog pump)** **⚠️ Fitment warning: On3 says this kit "IS NOT designed for HIGH PORT Heads or TWISTED WEDGE Heads". This plan uses Trick Flow Twisted Wedge 11R heads. Ask On3 before buying, or plan a custom hot side (the No Limit tier does).**	$1,899.00 checked Oct 2026
3.2	Power adder / turbo	On3 turbo option: 6870 billet wheel dual ball bearing (68mm), via Beefcake Racing kit options **Legal: Race / off-road only per On3 (kit has no room for the smog pump)**	$778.00 checked Oct 2026
3.3	Power adder / turbo	Turbosmart GenV HyperGate45 14 psi wastegate (replaces kit's On3 44mm gate) **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$518.99 checked Oct 2026
3.4	Power adder / turbo	Turbosmart GenV RacePort 50mm BOV **Legal: Race / off-road only per Turbosmart ("Race Only", no CARB EO)**	$355.99 checked Oct 2026
3.5	Power adder / turbo	Turbosmart Boost Tee **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$124.99 your price
3.6	Intercooler / charge pipes	Treadstone TR1045 core (10.5x22x4.5 in., 3 in. in/out). Upgrade over the kit's 3 in. On3 core; needs mounting fab **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$429.00 checked Oct 2026
3.7	Intercooler / charge pipes	Intercooler mounting / piping fab for Treadstone core **Legal: No CARB EO found (not verified). Treat as off-road until the maker shows an EO**	$600.00 – $1,500.0 rough estimate

#	Category	Part (with part number where the maker uses one)	Approx. price
3.8	Cooling	Mishimoto Fox 5.0 oil cooler kit MMOC-MUS-79 (19-row, thermostatic sandwich plate, -10AN lines) **Legal: Not an emissions part (no EO needed)**	$450.95 **checked Oct 2026**
3.9	Cooling	Turbo oil feed & drain lines: included in On3 kit (per kit listing; verify for 6870 turbo) **Legal: Race / off-road only per On3 (part of the On3 kit; kit has no room for the smog pump)**	included / $0 **checked Oct 2026**
3.10	*Cooling*	*Turbo coolant lines (only if you plumb the turbo's water ports)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$60.00 – $150.00* ***rough estimate***
3.11	*Cooling*	*Trans cooler: usually not needed for a TKX manual. Derale 13503 shown for auto swaps* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$112.40* ***checked Oct 2026***
3.12	Drivetrain	Tremec TKX 5-speed, Fox swap kit (Tick). TKO-600 is replaced by the TKX **Legal: Not an emissions part (no EO needed)**	$2,894.99 **checked Oct 2026**
3.13	Drivetrain	Lakewood SBF-to-TKX bellhousing LK9000K (Tick option) **Legal: Not an emissions part (no EO needed)**	$399.95 **checked Oct 2026**
3.14	Drivetrain	McLeod RST twin-disc clutch (Tick option) **Legal: Not an emissions part (no EO needed)**	$722.20 **checked Oct 2026**
3.15	Drivetrain	Tilton 6100 hydraulic throwout bearing (Tick option) **Legal: Not an emissions part (no EO needed)**	$382.50 **checked Oct 2026**
3.16	Drivetrain	Sonnax 31-spline slip yoke (Tick option; T-5 yoke won't fit TKX) **Legal: Not an emissions part (no EO needed)**	$179.97 **checked Oct 2026**

#	Category	Part (with part number where the maker uses one)	Approx. price
3.17	*Drivetrain*	*Option: McLeod aluminum flywheel (Tick option)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$345.00* ***checked Oct 2026***
3.18	*Drivetrain*	*Option: hydraulic clutch master cylinder/pedal kit (Tick option)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$625.00* ***checked Oct 2026***
3.19	Drivetrain	Moser 31-spline 8.8 axles, 79-93 Mustang 5-lug (A883151, pair) **Legal: Not an emissions part (no EO needed)**	$335.00 **checked Oct 2026**
3.20	Drivetrain	31-spline 8.8 diff, required with 31-spline axles: FP Trac-Lok M-4204-F318C ($310.99) to Eaton Truetrac 913A561 ($749.99) **Legal: Not an emissions part (no EO needed)**	$310.99 – $749.99 **checked Oct 2026**
3.21	Drivetrain	Driveshaft rated for the power + TKX crossmember **Legal: Not an emissions part (no EO needed)**	$700.00 – $1,300.0 **rough estimate**
3.22	*Brakes*	*Recommended before boost: Wilwood Forged Dynalite Pro front kit 140-11018 (87-93, 5-lug)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$1,242.35* ***checked Oct 2026***
3.23	*Brakes*	*Wilwood flexline kit 220-6471 (needed with kit)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$102.21* ***checked Oct 2026***
3.24	*Brakes*	*Alt: SN95 brake swap (used parts)* ***optional*** ***Legal: Not an emissions part (no EO needed)***	*$300.00 – $700.00* ***rough estimate***

Stage 3 subtotal (required parts): **$11,082.52 – $13,021.52**

Required parts total: **$27,753.87 – $30,231.26**

Optional parts add up to $5,620.85 – $6,110.85. Not included: tax, shipping, machine work, labor

and tuning.

Transmission: this plan uses the Tremec TKX 5-speed, the newer replacement for the TKO-600. If you already own a TKO-600, keep it and drop the TKX line.

2. Engine specs

Numbers come from the maker's published sheets. Where the maker doesn't publish a number for your exact parts, the sheet says **Per builder** instead of guessing.

Short block

Displacement	321 ci: 4.125 in. bore × 3.000 in. stroke × 8 cylinders (4.125^2 × 0.7854 × 3.000 × 8 = 320.8 ci)
Block	Ford Performance Boss 302 big-bore M-6010-B302BB, cast iron, Siamese bores (no cross-drilling) · Ford instruction sheet
Bore	Delivered at 4.115–4.120 in. Finish at 4.125 in. Ford says to sonic-test before going bigger.
Deck height	8.210–8.215 in. out of the box. Finish at 8.200 in.
Max stroke	Ford recommends 3.400 in. max, so the 3.000 in. crank is well inside it.
Main bearing bore	2.4412–2.4420 in. 4-bolt splayed mains on #2, 3, 4 (2-bolt on #1 and #5), nodular iron caps
Rear main seal	1-piece 302 rear main seal
Oil pan	At least 0.150 in. from main caps to the pan (Ford). Plan pan is the Canton 15-640. Check fit.
Cam bearings	M-6261-J351 or M-6261-R351. Cam plug M-6026-S351 is included with the block.
Head gasket	Ford lists M-6051-S331 or M-6051-CP331 for this block · Ford part page. Confirm the gasket bore fits 4.125 in. **Per builder**
Compression target	**Per builder** It depends on piston dish, head chamber (56 cc or 66 cc) and gasket thickness. Set it with your machinist and tuner for 93 octane at 10–14 psi.
Piston ring end gaps (boost)	**Per ring maker / builder** Use the gap chart from the ring maker in your rotating assembly for a boosted gasoline engine.

Main and rod bearing clearances	**Per builder** Follow the crank and bearing maker's specs. Measure and record each journal below.
Piston-to-valve clearance	**Per builder** Check with clay or a dial indicator at the cam's installed centerline.

Heads: Trick Flow Twisted Wedge 11R 205

Runners	205 cc intake, 66 cc exhaust, CNC Competition Ported · Trick Flow
Chamber	56 cc or 66 cc CNC chambers. Pick the one that gives your compression target.
Valves	2.080 in. intake, 1.600 in. exhaust, 11° intake / 13° exhaust valve angles
Head bolts	Machined for 1/2 in. head bolts. That matches the Boss block's 1/2-13 threads, so no reducer bushings are needed (bushings TFS-51400419 are only for 7/16 in. blocks).
Spring max lift	Check your head's spec sheet. Trick Flow lists .600–.650 in. depending on version, and the cam below lifts .560 in. max.

Cam: COMP Cams 35-312-8 (Magnum blower/turbo hydraulic roller)

Duration	276° / 280° advertised · 220° / 224° at .050 in. · COMP Cams
Valve lift	.544 in. intake / .560 in. exhaust (lobe lift .342 / .350 in. with 1.6 rockers)
Lobe separation / centerline	114° LSA · 110° intake centerline
Valve events at .006 in.	IVO 28° BTDC · IVC 68° ABDC · EVO 78° BBDC · EVC 22° ATDC
RPM range	2,000–6,000 rpm, built for the 1985–2002 5.0L. Verify the firing order on the cam card.

3. Fastener torque

Main caps (Ford-supplied)	1/2-13 UNC inner: **100 lb-ft** · 3/8-16 UNC outer: **35 lb-ft**. Grade 8 hardware, per Ford's M-6010-B302BB sheet. If you switch to aftermarket main studs, use that kit's sheet.

Cylinder heads	Plan uses Ford M-6014-BOSS studs (1/2 in.; the Boss big bore block uses 1/2-13). Ford's M-6014-BOSS sheet: studs into the block at 3-5 lb-ft, then nuts in sequence to **35, 65, then 100 lb-ft (±5)** with lightly oiled 1/2-20 threads · Ford instruction sheet. Ford lists these studs for its own X/Z heads: confirm stud length with the TFS 11R heads, or call ARP tech for an ARP option. Ford's site shows no instruction sheet for the M-6065-BOSS bolt set. For reference, ARP's general chart lists **110 lb-ft** for a 1/2 in. 170,000–180,000 psi fastener with ARP Ultra-Torque, and ARP says to follow the kit sheet when it differs · ARP torque chart. Don't use 7/16 in. SBF head-stud kits on this block.
Connecting rods	**Per rod maker** Use the rod bolt maker's torque or stretch spec for the rods in your rotating assembly. Stretch gauge preferred.
Block port plugs (Ford sheet)	-4 AN (×9): aluminum 8–10 lb-ft / steel 22 lb-ft · -6 AN (×1): aluminum 14–16 / steel 24 · -20 AN (×8): aluminum 24–26 / steel 30

4. Fuel, injector and turbo sizing

Injectors	8 × Ford Performance 80 lb/hr. At 80% duty: 8 × 80 × 0.80 = 512 lb/hr. At an assumed 0.65 BSFC for boosted gasoline, that's about 788 crank hp of capacity, so there's headroom over the 650–700 hp target. **math estimate, not a maker rating** Confirm high-impedance and the connector type.
Fuel pump / regulator	Aeromotive 340 Stealth in-tank pump with an A1000 boost-referenced regulator. **Check pump flow per Aeromotive's chart at your base pressure plus boost**
Turbo	On3 Fox kit with the 6870 (68 mm) ball-bearing option, 10–14 psi on 93 octane. **Turbo map match per On3 / builder**
Wastegate spring	The plan lists the Turbosmart HyperGate45 14 psi version · Turbosmart. Base boost depends on the spring. For a 10–12 psi start, ask the builder about a softer spring. **Per builder**
MAP sensor	Holley 3-bar MAP 554-107 is required for boost · Holley. Holley's handheld base calibrations support up to 250 kPa (21.6 psi). Above that, tune with the PC software.

5. Tune setup Starting point, verify with your tuner

Fuel	93 octane pump gas
Target AFR	Holley's Terminator X setup asks for a **WOT AFR at zero boost** plus an **AFR offset per 7 psi** of boost. Holley lists 12.5–13.2:1 as the typical naturally aspirated WOT range · Holley manuals. AFR under boost: **per tuner**
Ignition timing	Holley's setup asks for **WOT timing at zero boost** plus **timing retard per psi**. Values: **per tuner**. Tune on a dyno with a wideband and knock monitoring.
Boost	Start at the wastegate spring's base pressure and raise boost only on the dyno, inside the 10–14 psi plan.

6. DIY vs shop

DIY friendly	Stage 1 chassis bolt-ons (subframe connectors and the MM bumpsteer kit need drilling/welding skills or a shop), fuel pump, cooling parts, bolt-on wiring for the Terminator X.
Shop / machinist	Bore and hone to 4.125 in. with a torque plate, deck to 8.200 in., measure clearances, balance the rotating assembly: **per machine shop quote**. Intercooler mounting and piping fab: $600–$1,500 rough estimate (plan). Dyno tune: **per tuner**.
Labor rate used on this site	Alabama shops: about $90–$130/hr (estimate). Get a written quote.

7. Measurements and notes

Bore size (each cyl.) _____

Main clearances #1–5 _____

Rod clearances #1–8 _____

Ring end gaps (top / 2nd) _____

Deck clearance / quench _____

Chamber cc / gasket / CR _____

Cam installed centerline _____

Notes _____

Customer signature _____ **Date** _____

Builder / shop signature _____ **Date** _____

Tuner signature _____ **Date** _____

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Scan to open this plan

lookingoutco.com/plan/LOC-COBRA-T321 (placeholder link, live in the real app)

Prices approximate, checked Oct 18, 2026. Specs from Ford Performance, Trick Flow, COMP Cams, ARP, Holley and Turbosmart published sheets. "Per builder" items must be set by your engine builder. The Trucks section is emissions-legal; this Cobra build includes race / off-road-only parts, labeled in the Legal line under each part. Demo sheet.