SAC

Springfield Auto Care EXAMPLE

SHOP

service@springfield-auto-care.example

2005 Chevrolet TrailBlazer at 118,000 mi

1GNDT13S052123456

MODEL / CHASSIS	ENGINE	MILEAGE	DRIVETRAIN
TrailBlazer · TrailBlazer LS 4.2L I6 4WD	GM Atlas engines: 4.2L inline-six (LL8), 3.5L and 3.7L inline-five (L52, LLR), 2.8L and 2.9L inline-four (LK5, LLV)	118,000 mi	4WD
BUILD MONTH	**REPORT DATE**	**MODE**	**PREPARED FOR**
Not entered (door jamb)	October 28, 2026	Shop	Sample Owner

VIN check: check digit valid; model-year code '5' = 2005, matches the year entered. The VIN doesn't record the build month. Sample report: synthetic VIN.

1 · SUMMARY

What this car needs, in order

Each item compares this car's mileage with when owners and shops report the part failing. It is not an inspection: our technician decides what the car actually needs.

0
jobs recommended now

0
to plan in the next 30,000 miles · plus 3 factory maintenance items

4
to watch or check at each service

Step 0 · Free: run the VIN at nhtsa.gov/recalls and ask a Chevrolet dealer for a campaign printout. Read the build month (MM/YY) on the driver's door-jamb label.

Recommended now at the next service

Good news: nothing on the 4.2L I6 / 3.5L–3.7L I5 / 2.8L–2.9L I4 (Atlas) watch list is due at this mileage. Worth a fresh look at about 128,000 mi.

Next 12 months up to about 130,000 mi

Nothing scheduled here.

Within the next 30,000 miles up to 148,000 mi

Nothing else enters its reported range in this window.

Watch inspect at each service, fix on condition, or optional

Exhaust camshaft actuator and solenoid (P0014 / P0017) **$650**
Any mileage (2004–2012 engines of every size in the GM notes; worse with skipped oil changes) · Inspect at each service; fix at the first sign
our price EXAMPLE

Electro-viscous fan clutch (loud fan, overheating) **$700**
Past the range (41,000–79,000 mi, the middle half of 42 owner reports) · Inspect at each service; fix at the first sign
our price EXAMPLE

Dirty throttle body (stalls at idle with A/C) **$220**
Past the range (38,000–87,000 mi, the middle half of 23 owner reports) · Inspect at each service; fix at the first sign
our price EXAMPLE

Misfire and flashing check-engine light **Ask us for a quote**
Any mileage (2002–2007 4.2L engines) · Inspect at each service; fix at the first sign

Recommended now

No repairs due now

Springfield Auto Care prices (example)

Planned through 148,000 mi

From $687

Now + next 12 months + next 30,000 miles, with the factory maintenance on this report if the records don’t show it done. Excludes “watch” and optional items.

Prices are Springfield Auto Care's estimates for typical parts and labor. They don't include tax, shop supplies or disposal fees, and may change after inspection or if part prices change. Not a written repair estimate: Springfield Auto Care confirms the price and gets your OK before any work.

Bundled jobs are priced together because the labor overlaps. Routine service (oil, brakes, tires) isn't included; factory fluid and spark plug intervals are listed below.

FACTORY MAINTENANCE

Scheduled maintenance from 118,000 mi to 148,000 mi

The maker's normal schedule for this car. Service history isn't known here, so an item is shown at its next interval mark; skip it if the records show it was done.

ITEM	INTERVAL	THIS CAR	OUR PRICE
Spark plugs	every 100,000 mi	**Was due at 100,000 mi (check records)** [M1][M2][M3][M4]	**$249**
Engine coolant DEX-COOL: drain, flush and refill every 150,000 mi or 5 years, whichever comes first.	every 150,000 mi or 5 years	**Due by age: every 5 years (check records)** [M1][M2][M4]	**From $179**
Automatic transmission fluid Every 100,000 mi normal; 50,000 mi severe.	every 100,000 mi	**Was due at 100,000 mi (check records)** [M1][M2][M3][M4]	**$259**

M1. 2002 Chevrolet TrailBlazer Owner Manual (Maintenance Schedule) OFFICIAL
https://assets.gm.com/manuals/chevrolet/2002_chevrolet_trailblazer_owners.pdf

M2. 2005 Chevrolet TrailBlazer Owner Manual (Maintenance Schedule) OFFICIAL
https://assets.gm.com/manuals/chevrolet/2005_chevrolet_trailblazer_owners.pdf

M3. 2009 Chevrolet TrailBlazer Owner Manual (Maintenance Schedule) OFFICIAL
https://assets.gm.com/manuals/chevrolet/2009_chevrolet_trailblazer_owners.pdf

M4. 2008 Chevrolet Colorado Owner Manual (Maintenance Schedule) OFFICIAL
https://assets.gm.com/manuals/chevrolet/2008_chevrolet_colorado_owners.pdf

WHERE 118K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	Exhaust camshaft actuator and solenoid (P0014 / P0017)	2004–2012 engines of every size in the GM notes; worse with skipped oil changes OFFICIAL	Any mileage
2	Electro-viscous fan clutch (loud fan, overheating)	41,000–79,000 mi (middle half of 42 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Past the range
3	Dirty throttle body (stalls at idle with A/C)	38,000–87,000 mi (middle half of 23 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Past the range
4	Misfire and flashing check-engine light	2002–2007 4.2L engines OFFICIAL	Any mileage

Colors compare mileage with reported failures, not the car's condition. Red: past the range. Amber: inside or approaching. Green: below, or not listed for a recall.

2 · RECALLS AND BULLETINS

Recalls to check for this 2005 Chevrolet TrailBlazer

Safety recall repairs are free at Chevrolet dealers. On a car over 15 years old, ask the dealer whether a newer recall is still repaired free. Nothing here can tell whether a recall is open or already done on this VIN; only the official VIN lookup or a dealer can.

Official VIN check (2 minutes)

1. Go to nhtsa.gov/recalls and enter 1GNDT13S052123456.
2. Note every recall shown as “Recall incomplete” and keep a screenshot.
3. Ask a Chevrolet dealer for a campaign printout; it also lists completed campaigns.

4.2L I6 / 3.5L–3.7L I5 / 2.8L–2.9L I4 (ATLAS) RECALLS WE TRACK

Other 4.2L I6 / 3.5L–3.7L I5 / 2.8L–2.9L I4 (Atlas) recalls we track, not listed by NHTSA for this model and year: 02V-121 (fuel filter fitting can disconnect (2002 TrailBlazer and Envoy)), 04V-289 (air suspension can stall the engine (2002 Envoy with air suspension)).

EVERY RECALL NHTSA LISTS FOR THE 2005 CHEVROLET TRAILBLAZER (1)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)
05V-035	Windshield · mounting	The windshield adhesive may not have bonded in places, so the windshield may not stay in place in a crash. Details

Source: NHTSA recalls API, fetched 2026-10-28 and combined across NHTSA model names: TRAILBLAZER. Safety categories (air bags, fire, brakes, stalling, roll-away and loss of control) are listed first; listings whose NHTSA text names another engine, or an aftermarket part, go last. OFFICIAL
Left out of this list (TRAILBLAZER): 06V-417 (passenger air bag sensing) covers only vehicles refitted with aftermarket leather seat-cover kits and is left out of this sample; a VIN check would show it if it applied.

SERVICE ACTIONS, BULLETINS AND WARRANTY PROGRAMS

Manufacturer bulletins and warranty programs for this engine are cited on each weak point in section 4, where they apply.

4 · THE 4 WEAK POINTS

Each weak point, one card each

Every figure carries its source. Retailer part numbers are shown only when the retailer lists them for this chassis (GMT360). Left out because they apply to other models, years, engine sizes or body codes: Worn intake valve seats (misfire, 2.8L / 3.5L).

1 Exhaust camshaft actuator and solenoid (P0014 / P0017)

Any mileage

Severity: High: overheating, stalls, limp mode or a big bill · 58 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2004–2012 engines of every size in the GM notes; worse with skipped oil changes), so mileage doesn't say much here. Range: 2004–2012 engines of every size in the GM notes; worse with skipped oil changes OFFICIAL [2][3]

WHAT FAILS OFFICIAL [2][3]

GM says rough idle, belt-area noise and a check-engine light with P0014 or P0017 can come from the camshaft actuator solenoid (missing oil screens) or a sticking exhaust camshaft actuator. GM links the sticking actuator to oil debris from poor oil change maintenance. In some engines worn thrust bearings cause it, and GM then suggests a replacement engine.

SYMPTOMS

- Check-engine light with P0014 or P0017
- Rough idle
- Noise from the front of the engine
- Rare stalling

IF IT'S LEFT TOO LONG

Cam timing faults hurt idle and economy; if crankshaft end play is the cause, the engine is worn out.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Change the oil on time. Diagnose the code early: a solenoid is cheap, an engine is not.

ESTIMATED REPAIR COST

Owner-reported repair bills in NHTSA complaints (n=5)	**Our price is in the plan above** ask us for a written quote
No published price (engine replacement if crankshaft end play is out of spec)	**No published price** reported range for the bill after a failure

Where the numbers come from: Computed from 5 NHTSA owner complaints that quote a repair bill for this problem (middle half of the bills; median $840). Examples: ODI 10211181, 10141701, 10112427, 10626968. Owner-reported, often dealer prices; not shop quotes.

PARTS FOR GMT360

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Any cam timing codes?
- Was the solenoid or actuator replaced?
- Oil change history?

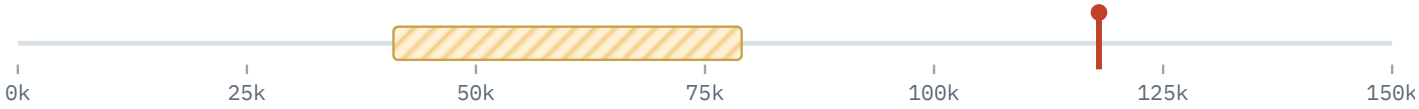
2 Electro-viscous fan clutch (loud fan, overheating)

Past the range

Severity: Medium: leaks and wear · 253 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

At 118,000 mi this car is past the reported range (41,000–79,000 mi (middle half of 42 owner complaints that state a mileage)). If the original parts are still fitted, have them checked and plan for them. Range: 41,000–79,000 mi (middle half of 42 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: 2002–2006 TrailBlazer, Envoy, Rainier and Bravada

WHAT FAILS OFFICIAL [4]

The engine fan is driven by an electronically controlled (electro-viscous) clutch. GM issued a bulletin on how it works and how to diagnose a loud cooling fan, delayed shifts or the engine revving too high.

SYMPTOMS

- Loud roaring fan
- Engine runs hot in traffic or when towing
- A/C weak at idle

IF IT'S LEFT TOO LONG

A slipping clutch can let the engine overheat; one that stays locked is loud and wastes fuel.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Replace when the fan roars all the time or the engine runs hot at idle.

ESTIMATED REPAIR COST

Owner-reported repair bills in NHTSA complaints (n=11)	**Our price is in the plan above** ask us for a written quote
Owner-reported repair bills in NHTSA complaints (n=11)	**$600–$880** COMPUTED FROM NHTSA DATA [1] reported range for the bill after a failure

Where the numbers come from: Computed from 11 NHTSA owner complaints that quote a repair bill for this problem (middle half of the bills; median $710). Examples: ODI 10262619, 10255052, 10207979, 10185429. Owner-reported, often dealer prices; not shop quotes.

PARTS FOR GMT360

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Fan clutch ever replaced?
- Does the fan roar or the engine run hot?

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3 Dirty throttle body (stalls at idle with A/C)

Past the range

Severity: Medium: leaks and wear · 258 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

At 118,000 mi this car is past the reported range (38,000–87,000 mi (middle half of 23 owner complaints that state a mileage)). If the original parts are still fitted, have them checked and plan for them. Range: 38,000–87,000 mi (middle half of 23 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: 2002–2009 4.2L TrailBlazer, Envoy, Rainier and Bravada (not Colorado, Canyon or H3)

WHAT FAILS OFFICIAL [5]

ESTIMATED REPAIR COST

GM tells technicians to clean the throttle body if the engine stalls at idle when the A/C comes on.

SYMPTOMS

- Stalls at idle, mostly with the A/C on
- Rough or low idle

IF IT'S LEFT TOO LONG

Stalling in traffic is a safety risk.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Clean the throttle body at the first idle stall; it is a cheap job.

Throttle body cleaning, 2004–2009 Trailblazer (YourMechanic estimates)	**Our price is in the plan above** ask us for a written quote
Throttle body replacement, 2007 Trailblazer (RepairPal)	**$438–$765** SHOP/RETAILER [9] reported range for the bill after a failure

PARTS FOR GMT360

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Any stalling at idle?
- Throttle body cleaned or replaced?

4 Misfire and flashing check-engine light

Any mileage

Severity: Medium: leaks and wear · 62 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2002–2007 4.2L engines), so mileage doesn't say much here. Range: 2002–2007 4.2L engines OFFICIAL [6]

Applies to: 2002–2007 4.2L TrailBlazer, Envoy, Rainier and Bravada

WHAT FAILS OFFICIAL [6]

GM has a bulletin for the 4.2L LL8 with a flashing or steady check-engine light, rough idle and misfire codes P0300 to P0306.

SYMPTOMS

- Flashing check-engine light
- Rough idle
- Misfire codes

IF IT'S LEFT TOO LONG

A flashing light means a heavy misfire that can overheat the catalytic converter.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Diagnose right away; do not drive far with a flashing light.

ESTIMATED REPAIR COST

No published price	**Our price is in the plan above** ask us for a written quote
No published bill	**No published price** reported range for the bill after a failure

PARTS FOR GMT360

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Any flashing check-engine light?
- Coils or plugs replaced?

5 · ALSO REPORTED, NOT RANKED

Other themes in 4.2L I6 / 3.5L–3.7L I5 / 2.8L–2.9L I4 (Atlas) owner complaints

Every NHTSA complaint theme with 10 or more counted reports is either a weak point above or explained here.

THEME	COMPLAINTS	WHY IT ISN'T A WEAK POINT
Fuel gauge / fuel level sensor	1,810	Most complaints are about a fuel gauge that reads wrong; GM says some drop in park is a normal buffering trait, but owners also report failed level sensors. Not an engine fault.
Transmission	926	Counts every transmission complaint (4L60-E automatic); not an engine fault.
Fuel pump	309	Owners report in-tank fuel pump failures (no start, stall); no GM program for it was found.
Oil pressure gauge	194	Many 2003–2005 owners report the oil pressure gauge dropping to zero; owners often blame the sensor. No GM program found.

How this report is built

Inputs. VIN, model year, model, mileage and build month (if entered). Model and engine are checked with NHTSA's vPIC decoder.

Mileage positions. Below: more than 10,000 miles before the reported range. Approaching: within 10,000. Inside: in the range, or past the start of an open-ended range. Past: beyond the top of the range. These bands are our rules, not an industry standard.

The plan. Critical items inside or past their range go first; high-severity items follow, and jobs that share labor are bundled. At most three jobs land in “Recommended now”. Leaks that are cheap to watch are fixed on condition; inspections are asked for at each service.

Costs. Published independent-shop ranges from shop quotes, retailer prices and owner reports. Shop prices come from the issuing shop. The worst-case cost of every item failing is not shown: it isn't an expected cost.

Labels. `OFFICIAL` NHTSA/GM documents · `SHOP/RETAILER` parts prices and shop articles · `FORUM/BLOG` owner forums and blogs · `COMPUTED FROM NHTSA DATA` our analysis of NHTSA data · `OUR ESTIMATE` ours.

NHTSA complaint data. Pulled Oct 28, 2026 from NHTSA's complaints API for TrailBlazer, Envoy, Rainier and Bravada complaints that do not mention the 5.3L, a V8, the SS or the Denali; and 2004–2012 Colorado and Canyon and 2006–2010 H3/H3T complaints that do not mention the 5.3L or a V8: 14,653 complaints. Some of these nameplates were sold with other engines too; for those we left out complaints whose text names another engine or a hybrid, so a few complaints about other engines can remain. Themes are keyword matches on the complaint text. The four-, five- and six-cylinder engines are counted together. Colorado, Canyon and H3 complaints that name no engine can include a few V8 trucks.

`COMPUTED FROM NHTSA DATA`

THEME	COMPLAINTS	IN THIS REPORT
Fuel gauge / fuel level sensor	1,810	Also reported
Transmission	926	Also reported
Fuel pump	309	Also reported
Throttle / idle stall	258	Item 3
Fan clutch / overheating	253	Item 2
Oil pressure gauge	194	Also reported
Misfire	62	Item 4
Cam actuator / P0017	58	Item 1
Valve seat / compression loss	48	Other years or engine sizes

Limits: complaints are self-reported and not adjusted for cars sold; keyword matching over- and under-counts; owners rarely file safety complaints about oil seeps, so leaks look rarer than they are.

SOURCES

1. NHTSA owner complaints for 2002–2009 TrailBlazer and TrailBlazer EXT, 2002–2009 Envoy, Envoy XL and Envoy XUV, 2004–2007 Rainier, 2002–2004 Bravada, 2004–2012 Colorado and Canyon and 2006–2010 H3/H3T, leaving out complaints that name the 5.3L, a V8, the SS or the Denali, pulled Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. GM PIP3694F: Belt noise, rough idle and/or SES light with DTC P0014 and/or P0017: inspect the camshaft actuator solenoid screens and crankshaft end play (2004–2009 TrailBlazer, 2004–2011 Envoy, inline 4, 5 and 6 engines incl. LL8) (2015-03-11), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2015/MC-10139336-9999.pdf

3. GM PIP4913A: Intermittent SES light, DTC P0017: sticking exhaust camshaft actuator from oil debris and poor oil change maintenance (2006–2009 TrailBlazer, Envoy, Rainier with the 4.2L LL8) (2015-11-23), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2015/MC-10115130-9999.pdf

4. GM Bulletin 06-06-02-003: Operating characteristics of the electro-viscous (EV) fan clutch and diagnostic tips for cooling fan noise, delayed transmission shifts and/or engine revving too high (2002–2006 TrailBlazer, Envoy, Rainier) (2006-02-01), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10019510

5. GM PIT3116B: Clean the throttle body if the engine stalls at idle when the A/C comes on (2002–2009 TrailBlazer, Envoy, 2004–2007 Rainier) (2020-05-13), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2020/MC-10176314-9999.pdf

6. GM Bulletin 06-06-04-048: 4.2L LL8 engine: flashing and/or steady MIL, rough idle, misfire, DTC P0300–P0306 (2002–2007 TrailBlazer, Envoy, Rainier) (2006-09-01), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10020879

7. NHTSA recall records: 02V-121 (2002 TrailBlazer and Envoy fuel filter fitting) and 04V-289 (2002 Envoy with air suspension: electrical spike can stall the engine), checked Oct 27, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=02V121000

8. YourMechanic: Chevrolet Trailblazer clean throttle body estimate, via search extract Oct 28, 2026 SHOP/RETAILER
https://www.yourmechanic.com/estimates/chevrolet/trailblazer/clean-throttle-body

9. RepairPal: 2007 Chevrolet Trailblazer throttle body replacement estimate, via search extract Oct 28, 2026 SHOP/RETAILER
https://repairpal.com/estimator/chevrolet/trailblazer/2007/throttle-body-replacement-cost

10. GM special coverage 07123A: engine intake valve seat wear, 2004–2006 Chevrolet Colorado and GMC Canyon with the 2.8L (LK5) or 3.5L (L52) engine; 7 years / 100,000 miles (owner letter, November 2008), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2008/CSC-10022722-5099.pdf

This report contains no affiliate links; retailer prices are quoted as price sources only. Found an error? Email hello@repairahead.com.

PLEASE READ

Important

Based on public records and published repair costs. Not a diagnosis or a guarantee. Your technician's inspection decides what your car needs. Confirm recalls with a dealer using your VIN.

Informational only. This report is not a mechanical inspection, a diagnosis, or professional, legal or financial advice. It was issued by Springfield Auto Care using RepairAhead data; the inspection findings and prices are the shop's.

Reported ranges and estimates, not predictions

Failure mileages are reported ranges compiled from public owner complaints, manufacturer bulletins, recalls and repair-shop reports. Costs are estimates. Parts can fail earlier, later or not at all, and other problems can occur. Statistics from owner complaints describe past reports to NHTSA; NHTSA has not reviewed or endorsed this analysis.

Safety issues go to a dealer

If you notice overheating, a burning or fuel smell, smoke, a brake-assist problem, stalling or loss of power, pull over when it's safe and contact a Chevrolet dealer or qualified shop. Safety recall repairs are free at Chevrolet dealers. Confirm recalls for this VIN at nhtsa.gov/recalls.

No warranty

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Based on public records and published repair costs. Not a diagnosis or a guarantee. Your technician's inspection decides what your car needs. Confirm recalls with a dealer using your VIN.