SAC **Springfield Auto Care** EXAMPLE SHOP
service@springfield-auto-care.example

2018 Mazda CX-9 at 65,000 mi

JM3TCBCY6J0123456

MODEL / CHASSIS	ENGINE	MILEAGE	DRIVETRAIN
CX-9 · TC CX-9 Touring AWD (2.5L turbo)	Mazda SKYACTIV-G 2.5T turbo four	65,000 mi	AWD
BUILD MONTH	**REPORT DATE**	**MODE**	**PREPARED FOR**
Not entered (door jamb)	October 27, 2026	Shop	Sample Owner

VIN check: check digit valid; model-year code 'J' = 2018, 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.

2
jobs recommended now

0
to plan in the next 30,000 miles · plus 1 factory maintenance item

2
to watch or check at each service

Safety recalls NHTSA lists for this model year (2)

- **21V-875** · Fuel system · low-pressure fuel pump: The fuel pump impeller can crack and the pump can fail, so the engine can stall.
- **19V-403** · Wiring harness: A wiring fault can disable the passenger front air bag, turn signals or engine starting.

A model-year list, not a VIN check. Repairs are free at a Mazda dealer if open. Check this VIN at nhtsa.gov/recalls.

Step 0 · Free: run the VIN at nhtsa.gov/recalls and ask a Mazda dealer for a campaign printout, including 21V-875. Read the build month (MM/YY) on the driver's door-jamb label.

Recommended now at the next service — $140

Inspection: check now, while it's cheaper to fix — $140

inspection EXAMPLE

Coolant leak at the cylinder head (cracked head): Inside the range (Owner reports on the forum) · **may be free at a Mazda dealer** (free under CSP11 (2016–2020, 10 yr / 120k mi)) · if it fails outside that coverage: $5,230–$11,000

Known weak point for this engine, not a finding on your car. The inspection shows whether yours has early signs.

Low-pressure fuel pump failure (recalled)

Free if open

Recall 21V-875 is listed for this model year. Check the VIN; the repair is free at a Mazda dealer if it is open.

Next 12 months up to about 77,000 mi

Nothing scheduled here.

Within the next 30,000 miles up to 95,000 mi

Nothing else enters its reported range in this window.

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

Water pump seepage (check before replacing) — Ask us for a quote

Any mileage · Ask for this check at every service

Lean fuel trim (P0171) and misfire — Ask us for a quote

Any mileage · Inspect at each service; fix at the first sign

Recommended now

$140

Springfield Auto Care prices (example)

Planned through 95,000 mi

$389

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 65,000 mi to 95,000 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 2.5 Turbo: plugs every 40,000 mi.	every 40,000 mi	**Was due at 40,000 mi, next 80,000 mi** [M1][M2][M3][M4]	**$249**
Engine coolant FL22 coolant: first change at 120,000 mi or 10 years, then every 60,000 mi or 5 years.	first at 120,000 mi, then every 60,000 mi or 5 years	Next at 120,000 mi [M1][M2][M3][M4]	—

M1. 2020 Mazda CX-5 Owner's Manual - Scheduled Maintenance, Schedule 1 (U.S.) OFFICIAL
https://www.mazdausa.com/static/manuals/2020/cx-5/contents/07020201.html

M2. 2021 Mazda CX-9 Owner's Manual - Scheduled Maintenance, Schedule 1 OFFICIAL
https://www.mazdausa.com/static/manuals/2021/cx-9/contents/07020201.html

M3. 2020 Mazda6 Owner's Manual - Scheduled Maintenance, Schedule 1 OFFICIAL
https://www.mazdausa.com/static/manuals/2020/mazda6/contents/07020201.html

M4. 2022 Mazda3 Owner's Manual - Scheduled Maintenance (U.S.A. and Puerto Rico) OFFICIAL
https://www.mazdausa.com/static/manuals/2022/mazda3/contents/07020601.html

WHERE 65K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	Coolant leak at the cylinder head (cracked head)	Owner reports on the forum FORUM/BLOG	Inside the range
2	Water pump seepage (check before replacing)	Any mileage OFFICIAL	Any mileage
3	Lean fuel trim (P0171) and misfire	Any mileage OFFICIAL	Any mileage
4	Low-pressure fuel pump failure (recalled)	2018–2019 CX-9 and CX-5 and 2018 Mazda6 in the recall range 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 2018 Mazda CX-9

Safety recall repairs are free at Mazda dealers. 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 JM3TCBCY6J0123456.
2. Note every recall shown as “Recall incomplete” and keep a screenshot.
3. Ask a Mazda dealer for a campaign printout; it also lists completed campaigns.

2.5T SKYACTIV-G (PY-VPTS) RECALLS WE TRACK

21V-875 · Low-pressure fuel pump impeller may crack (2018–2019 CX-5, CX-9; 2018 Mazda6 and others)

NHTSA lists this model and year: check by VIN

Free fuel pump replacement. OFFICIAL [5]

☐ VIN checked ☐ Open: booked with dealer ☐ Completed (printout kept)

Other 2.5T SKYACTIV-G (PY-VPTS) recalls we track, not listed by NHTSA for this model and year: 19V-497 (PCM software error may stall the engine (2018–2019 CX-5, Mazda6)).

EVERY RECALL NHTSA LISTS FOR THE 2018 MAZDA CX-9 (2)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)
21V-875 2.5T SKYACTIV-G (PY-VPTS) tracked	Fuel system · low-pressure fuel pump	The fuel pump impeller can crack and the pump can fail, so the engine can stall. Details
19V-403	Wiring harness	A wiring fault can disable the passenger front air bag, turn signals or engine starting. Details

Source: NHTSA recalls API, fetched 2026-10-27 and combined across NHTSA model names: CX-9. 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

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 (TC).

1 Coolant leak at the cylinder head (cracked head)

Inside the range

Severity: Critical: rare, but can badly damage the engine · 213 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 65,000 mi this car is inside the reported range (Owner reports on the forum), 15,000 miles past where reports start. Range: Owner reports on the forum FORUM/BLOG [2]



Applies to: all 2.5 turbo models; Mazda program CSP11 covers 2016–2020 CX-9, 2018–2020 Mazda6 and 2019–2020 CX-5 in its VIN ranges

WHAT FAILS FORUM/BLOG [2][6][7]

Owners of the 2.5 turbo CX-9 report coolant leaking from the exhaust side of the cylinder head, often traced to a cracked head. Coolant is lost with no outside drip, and the engine can overheat. Owners report it at about 50,000–70,000 miles. Mazda extended the powertrain warranty for this leak on 2016–2020 CX-9, 2018–2020 Mazda6 and 2019–2020 CX-5 2.5 turbo models to 10 years or 120,000 miles from the warranty start date, once a dealer confirms the leak, and reimburses owners who paid.

SYMPTOMS

- Coolant level keeps dropping
- Low coolant warning
- Sweet smell or white smoke
- Overheating

IF IT'S LEFT TOO LONG

Running low on coolant can overheat the engine and ruin it.

IS IT WORTH DOING EARLY? OUR ESTIMATE

On 2016–2020 cars the repair is free at a Mazda dealer inside 10 years / 120,000 miles (program CSP11); check the VIN. Check the coolant level often and pressure-test at the first sign of loss.

ESTIMATED REPAIR COST

Free under CSP11 (2016–2020, 10 yr / 120k mi)	**Free if covered** OFFICIAL [6][7] published independent-shop range
Owner-reported repair bills in NHTSA complaints (n=11)	**$5,230–$11,000** COMPUTED FROM NHTSA DATA [1] reported range for the bill after a failure

Where the numbers come from: Free under Mazda program CSP11 on 2016–2020 CX-9, 2018–2020 Mazda6 and 2019–2020 CX-5 2.5T inside 10 years / 120,000 miles from the warranty start date [6][7]. Outside the program (2021 and later cars, or past the limit): Computed from 11 NHTSA owner complaints that quote a repair bill for this problem (middle half of the bills; median $7,200). Examples: ODI 11589984, 11470452, 11540718, 11614956. Owner-reported, often dealer prices; not shop quotes.

PARTS FOR TC

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

QUESTIONS TO ASK US

- Any coolant top-ups?
- Was the head or engine replaced?

2 Water pump seepage (check before replacing)

Any mileage

Severity: Medium: leaks and wear · 9 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (Any mileage), so mileage doesn't say much here. Range: Any mileage OFFICIAL [3]

WHAT FAILS OFFICIAL [3]

A small green deposit at the water pump bleed hole is normal; it comes from steam that escapes the seal. Mazda says to replace the pump only if crystallized coolant builds up near the bleed hole. Avoid replacing it under about 1,860 miles, while the seal is still settling.

SYMPTOMS

- Green or crusty deposit under the water pump
- Coolant drips on the undercover

IF IT'S LEFT TOO LONG

A truly leaking pump lets coolant run low.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Inspect the bleed hole; replace only when crystallized coolant has built up.

ESTIMATED REPAIR COST

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

PARTS FOR TC

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

QUESTIONS TO ASK US

- Water pump replaced before?

3 Lean fuel trim (P0171) and misfire

Any mileage

Severity: Medium: leaks and wear · 12 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (Any mileage), so mileage doesn't say much here. Range: Any mileage OFFICIAL [4]

WHAT FAILS OFFICIAL [4]

The check engine light can come on with code P0171 (too lean) and sometimes misfire codes. Mazda says to check the airbox and air filter fit, the mass airflow sensor and the air-fuel sensor. If the fuel trims stay wrong, the fuel injectors are replaced.

SYMPTOMS

- Check engine light
- Rough idle
- Misfire

IF IT'S LEFT TOO LONG

Long misfires can damage the catalytic converter.

IS IT WORTH DOING EARLY? OUR ESTIMATE

ESTIMATED REPAIR COST

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

PARTS FOR TC

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

Check the intake and sensors first; replace injectors only if the trims stay lean.

QUESTIONS TO ASK US

- Any lean or misfire codes?

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4 Low-pressure fuel pump failure (recalled)

Any mileage

Severity: High: overheating, stalls, limp mode or a big bill · 8 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2018–2019 CX-9 and CX-5 and 2018 Mazda6 in the recall range), so mileage doesn't say much here. Range: 2018–2019 CX-9 and CX-5 and 2018 Mazda6 in the recall range OFFICIAL [5]

WHAT FAILS OFFICIAL [5]

The impeller inside the low-pressure fuel pump can crack and deform, and the pump can fail. Mazda replaces the pump under recall 21V-875.

SYMPTOMS

- Engine stalls
- Rough running
- No start

IF IT'S LEFT TOO LONG

A stall at speed is a crash risk.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check the VIN for recall 21V-875.

ESTIMATED REPAIR COST

Free under recall	**Free if covered** OFFICIAL [5] published independent-shop range
No published bill outside the recall	**No published price** reported range for the bill after a failure

PARTS FOR TC

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

QUESTIONS TO ASK US

- Fuel pump recall done?

5 · ALSO REPORTED, NOT RANKED

Other themes in 2.5T SKYACTIV-G (PY-VPTS) 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
Stalling	43	Mixed causes: fuel pump recall 21V-875, PCM software 19V-497 and coolant loss.

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/Mazda 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 27, 2026 from NHTSA's complaints API for All 2016–2023 CX-9 complaints; Mazda6, CX-5, Mazda3, CX-30 and CX-50 complaints that mention the turbo or 2.5T: 488 complaints. Some of these nameplates were sold with other engines too; for those we kept only complaints whose text names this engine, which under-counts. Themes are keyword matches on the complaint text. `COMPUTED FROM NHTSA DATA`

THEME	COMPLAINTS	IN THIS REPORT
Coolant loss / cylinder head	213	Item 1
Stalling	43	Also reported
Lean / misfire	12	Item 3
Water pump	9	Item 2
Fuel pump	8	Item 4
Turbo	0	—

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 2016–2023 CX-9; Mazda6, CX-5, Mazda3, CX-30 and CX-50 complaints naming the 2.5 turbo, pulled Oct 27, 2026 (ODI numbers in the cost notes) `OFFICIAL`
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. Mazdas247 forum: CX-9 2.5T engine coolant leaking (cylinder head) owner reports `FORUM/BLOG`
https://mazdas247.com/forum/goto/post?id=6781310

3. Mazda SA-014-26: Water pump seepage from the bleed hole: normal condition vs. replacement criteria (2018–2023 CX-9 and other SKYACTIV models) (2026-03-11), filed with NHTSA `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2026/MC-11030636-0001.pdf

4. Mazda MT-004-22: Check engine light with DTC P0171 (fuel trim too lean) and possible misfire DTCs: inspection and injector replacement (2016–2023 CX-9 and other SKYACTIV models) (2022-12-01), filed with NHTSA `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2022/MC-10228648-0001.pdf

5. NHTSA recall records: 21V-875 (low-pressure fuel pump), 19V-497 (PCM stall software), checked Oct 27, 2026 `OFFICIAL`
https://www.nhtsa.gov/recalls?nhtsaId=21V875000

6. Mazda CSP11 owner letter: powertrain warranty extended to 10 years / 120,000 miles for coolant leaks at the cylinder head around the exhaust manifold, 2016–2020 CX-9, 2018–2020 Mazda6 and 2019–2020 CX-5 with the 2.5T (2024-12-24), filed with NHTSA, read Nov 10, 2026 `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2025/MC-11012343-0001.pdf

7. Mazda CSP11 parts and warranty information: coolant leaks at cylinder head warranty extension, 10 years / 120,000 miles from the original warranty start date; VIN and production ranges (2024-11-16), filed with NHTSA, read Nov 10, 2026 `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2024/MC-11011136-0001.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 Mazda dealer or qualified shop. Safety recall repairs are free at Mazda dealers. Confirm recalls for this VIN at nhtsa.gov/recalls.

No warranty

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