2012 Mazda CX-9 at 100,000 mi

JM3TB3CA8C0123456

MODEL / CHASSIS	ENGINE	MILEAGE	DRIVETRAIN
CX-9 · TB (2007–2015 CX-9)	Mazda 3.5L / 3.7L V6 (MZI, Cyclone-based)	100,000 mi	AWD
BUILD MONTH	**REPORT DATE**	**MODE**	**PREPARED FOR**
Not entered (door jamb)	October 28, 2026	Owner	Sample Owner

VIN check: check digit valid; model-year code 'C' = 2012, 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: a qualified 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

1
to watch or check at each service

Safety recalls NHTSA lists for this model year (4)

- **19V-782** · Air bags · passenger frontal inflator: Passenger air bag inflators fitted under an earlier recall can explode in a crash and throw metal fragments.
- **18V-717** · Air bags · passenger frontal inflator: The passenger air bag inflator can explode in a crash and throw sharp metal fragments at the occupants, causing serious injury or death.
- **17V-457** · Air bags · passenger frontal inflator: The passenger frontal air bag inflator can explode in a crash and throw metal fragments at the occupants.
- **15V-451** · Front suspension · lower ball joints: The ball joints can corrode and separate from the control arm, causing loss of steering control.

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. Read the build month (MM/YY) on the driver's door-jamb label.

Recommended now at the next service — $2,353–$3,234

Internal water pump (coolant into the oil) — $2,253–$3,074

independent shop, installed

Inside the range (Most failures around 90,000–100,000 miles)

`If it fails: $3,400–$8,000 · 2.1×`

Inspection: check now, while it's cheaper to fix — $100–$160

about 1 h of shop labor, our estimate

Power transfer unit (AWD) overheating and leaking: Inside the range (52,000–109,000 mi, the middle half of 18 owner reports) · if it fails: $2,750–$5,350
Known weak point for this engine, not a finding on your car. The inspection shows whether yours has early signs.

Next 12 months up to about 112,000 mi

Nothing scheduled here.

Within the next 30,000 miles up to 130,000 mi

Nothing else enters its reported range in this window.

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

Coolant leak at the lower radiator hose / thermostat housing — $435–$747

independent shop, installed

Any mileage (2007–2015 CX-9) · Inspect at each service; fix at the first sign

Recommended now

$2,353–$3,234

Independent shop, installed. Dealers often charge more.

Planned through 130,000 mi

$2,353–$3,234

No other repairs on the list before 130,000 mi. Now + next 12 months + next 30,000 miles. Excludes factory maintenance (listed separately), “watch” and optional items.

Costs are published independent-shop ranges (low end + low end, high end + high end). 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 100,000 mi to 130,000 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
Spark plugs	every 100,000 mi	**Due at 100,000 mi** [M1]
Engine coolant Depends on coolant type: if the radiator cap area reads "FL22", first change at 120,000 mi or 10 years then every 60,000 mi or 5 years; otherwise first at 60,000 mi or 4 years, then every 2 years.	no fixed interval	— [M1][M2]

M1. 2008 Mazda CX-9 Owner's Manual - Scheduled Maintenance (manualsdir copy) OFFICIAL
https://manualsdir.com/manuals/122610/mazda-2008-cx-9.html?page=388

M2. 2009 Mazda6 Owner's Manual p.8-4 - Scheduled Maintenance, Schedule 1 (manualsdir copy) OFFICIAL
https://manualsdir.com/manuals/121079/mazda-2009-6.html?page=346

WHERE 100K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	Internal water pump (coolant into the oil)	Most failures around 90,000–100,000 miles SHOP/RETAILER	Inside the range
2	Power transfer unit (AWD) overheating and leaking	52,000–109,000 mi (middle half of 18 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Inside the range
3	Coolant leak at the lower radiator hose / thermostat housing	2007–2015 CX-9 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 2012 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 JM3TB3CA8C0123456.
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.

3.5L/3.7L V6 (MZI) RECALLS WE TRACK

Other 3.5L/3.7L V6 (MZI) recalls we track, not listed by NHTSA for this model and year: 11V-134 (EVAP canister vent line can be blocked by spider webs (2009–2010 Mazda6)).

EVERY RECALL NHTSA LISTS FOR THE 2012 MAZDA CX-9 (4)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)
19V-782	Air bags · passenger frontal inflator	Passenger air bag inflators fitted under an earlier recall can explode in a crash and throw metal fragments. Details
18V-717	Air bags · passenger frontal inflator	The passenger air bag inflator can explode in a crash and throw sharp metal fragments at the occupants, causing serious injury or death. Details
17V-457	Air bags · passenger frontal inflator	The passenger frontal air bag inflator can explode in a crash and throw metal fragments at the occupants. Details
15V-451	Front suspension · lower ball joints	The ball joints can corrode and separate from the control arm, causing loss of steering control. Details

Source: NHTSA recalls API, fetched 2026-10-28 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

Left out of this list (CX-9): None. The passenger air-bag inflator recalls 17V-457 and 18V-717 are split by the state where the car was sold or registered, and 19V-782 covers inflators already replaced under an earlier recall; a VIN check shows which one applies.

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 3 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 (TB). Left out because they apply to other models, years, engine sizes or body codes: Automatic transmission: P2757 with ATF leak (replace transmission).

1 Internal water pump (coolant into the oil)

Inside the range

Severity: Critical: rare, but can badly damage the engine · 78 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 100,000 mi this car is inside the reported range (Most failures around 90,000–100,000 miles), 10,000 miles past where reports start. Range: Most failures around 90,000–100,000 miles SHOP/RETAILER [2]



WHAT FAILS SHOP/RETAILER [2]

The water pump sits inside the engine and is driven by the timing chain. When its seal fails, coolant can leak into the oil with little warning, which can wreck the bearings and timing chain. Replacing it means taking the front of the engine apart.

SYMPTOMS

- Coolant level dropping with no visible leak
- Milky oil or coolant on the dipstick
- Overheating
- Rough running or stalling

IF IT'S LEFT TOO LONG

Coolant in the oil can destroy the engine; many owners report needing a replacement engine.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Watch coolant level closely; many shops advise replacing the pump preventively near 90,000–100,000 miles.

ESTIMATED REPAIR COST

Water pump replacement, 2008 CX-9 (RepairPal estimate)	**$2,253–$3,074** SHOP/RETAILER [3] independent shop, installed
Owner-reported repair bills in NHTSA complaints (n=5)	**$3,400–$8,000** COMPUTED FROM NHTSA DATA [1] reported range for the bill after a failure
Dealer	**Often 1.5–2× the independent-shop price** OUR ESTIMATE

2.1× The failure-bill midpoint ($5,700) is about 2.1× the early-fix midpoint ($2,664). A cost ratio, not a probability.

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 $4,000). Examples: ODI 11112905, 11112186, 11039779, 11597219. Owner-reported, often dealer prices; not shop quotes.

PARTS FOR TB

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

WHAT TO ASK YOUR SHOP

- Water pump ever replaced?
- Any coolant top-ups or milky oil?

2 Power transfer unit (AWD) overheating and leaking

Inside the range

Severity: High: overheating, stalls, limp mode or a big bill · 77 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 100,000 mi this car is inside the reported range (52,000–109,000 mi (middle half of 18 owner complaints that state a mileage)), 48,000 miles past where reports start. Range: 52,000–109,000 mi (middle half of 18 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: 2010–2015 CX-9 AWD were covered 7 years / 90,000 miles under SSP92 (now ended)

WHAT FAILS OFFICIAL [4][1]

Under high load or speed, the oil inside the power transfer unit gets hot and lubricates poorly. A needle bearing can move and break, causing noise, damage to the case and oil leaks. Mazda replaced the PTU under an extended warranty.

SYMPTOMS

- Gear oil leak at the PTU or its vent
- Grinding or whine from the front of the car
- Burnt gear-oil smell

IF IT'S LEFT TOO LONG

A failed PTU can lock up or damage the transmission.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check for leaks at every oil change; change the PTU fluid and fix seal leaks early.

ESTIMATED REPAIR COST

Transfer case output shaft seal replacement, 2009 CX-9 (RepairPal)	**$1,337–$1,764** SHOP/RETAILER [5] independent shop, installed
Owner-reported repair bills in NHTSA complaints (n=6)	**$2,750–$5,350** COMPUTED FROM NHTSA DATA [1] reported range for the bill after a failure
Dealer	**Often 1.5–2× the independent-shop price** OUR ESTIMATE

Where the numbers come from: Computed from 6 NHTSA owner complaints that quote a repair bill for this problem (middle half of the bills; median $5,000). Examples: ODI 10730280, 11400229, 10650012, 11631793. Owner-reported, often dealer prices; not shop quotes.

PARTS FOR TB

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

WHAT TO ASK YOUR SHOP

- PTU replaced or resealed?
- Any gear-oil smell or leak?

3 Coolant leak at the lower radiator hose / thermostat housing

Any mileage

Severity: Medium: leaks and wear · 23 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2007–2015 CX-9), so mileage doesn't say much here. Range: 2007–2015 CX-9 OFFICIAL [7]

WHAT FAILS OFFICIAL [7]

Coolant can leak where the lower radiator hose joins the thermostat housing. Mazda modified the hose to seal better.

SYMPTOMS

- Coolant drips at the front of the engine
- Coolant level dropping
- Sweet smell

IF IT'S LEFT TOO LONG

A coolant leak can lead to overheating; rule out the internal water pump.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Replace with the modified hose at the first seep.

ESTIMATED REPAIR COST

Radiator hose replacement, V6 CX-9 (YourMechanic estimate to shop range)	**$435–$747** SHOP/RETAILER [10] independent shop, installed
Same job	**$435–$747** SHOP/RETAILER [10] reported range for the bill after a failure
Dealer	**Often 1.5–2× the independent-shop price** OUR ESTIMATE

1.0× The failure-bill midpoint ($591) is about 1.0× the early-fix midpoint ($591). A cost ratio, not a probability.

PARTS FOR TB

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

WHAT TO ASK YOUR SHOP

- Any coolant drips?

5 · ALSO REPORTED, NOT RANKED

Other themes in 3.5L/3.7L V6 (MZI) 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 / loss of power	74	Many describe a failed water pump; others are mixed causes. 2011–2013 CX-9 also had a TCM fix for engine surge with cruise control (05-001/14).
Timing chain	11	Usually reported together with a failed internal water pump (coolant in the oil); see that item.

6 · BUYING OR SELLING

Used-car checklist and resale helper

For owners this is a resale checklist: it's what a careful buyer will ask.

Ask the inspecting shop to check

- Coolant level history and oil for coolant
- PTU seals and fluid (AWD)
- Transmission codes and shift quality
- Lower radiator hose joint

Ask the seller

- Water pump replaced? When and where?
- PTU replaced under SSP92?
- Transmission replaced?

Documents to request

- Dealer service-history printout for the VIN
- nhtsa.gov/recalls screenshot

WHAT A BUYER MAY DEDUCT

	FINDING	ESTIMATED ADJUSTMENT
●	Internal water pump (coolant into the oil): original, no replacement invoice	$2,253–$3,074
	Power transfer unit (AWD) overheating and leaking: fault found on inspection	$2,750–$5,350
	Coolant leak at the lower radiator hose / thermostat housing: seeping or leaking	$435–$747
	Pre-ticked rows (●), if no records clear them	**$2,253–$3,074**

● = expected at this mileage. Estimated repair costs, not an appraisal. Recalls cost the seller nothing: ask for open recalls to be completed rather than discounted. OUR ESTIMATE

7 · METHOD AND SOURCES

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. 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 2007–2015 CX-9 complaints and 2009–2013 Mazda6 complaints that name the V6, 3.7 or six-cylinder: 1,081 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
Transmission	91	Other years or engine sizes
Water pump / coolant in oil	78	Item 1
Transfer case / PTU	77	Item 2
Stalling / loss of power	74	Also reported
Coolant leak / overheating	23	Item 3
Timing chain	11	Also reported

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 2007–2015 Mazda CX-9 and 2009–2013 Mazda6 V6, pulled Oct 27, 2026 (ODI numbers in the cost notes) OFFICIAL
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. RepairPal: Mazda CX-9 water pump broke (failures around 90,000–100,000 miles; up to $4,000 because the pump sits inside the engine), via search extract Oct 28, 2026 SHOP/RETAILER
https://repairpal.com/problem/mazda/cx-9/water-pump-broke

3. RepairPal: 2008 Mazda CX-9 water pump replacement cost estimate ($2,253–$3,074), via search extract Oct 28, 2026 SHOP/RETAILER
https://repairpal.com/estimator/mazda/cx-9/2008/water-pump-replacement-cost

4. Mazda Special Service Program SSP92: Power transfer unit (PTU) abnormal noise and oil leak: warranty extended to 7 years / 90,000 miles, 2010–2015 CX-9 AWD (2017-07-18), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2017/MC-10111047-9999.pdf

5. RepairPal: 2009 Mazda CX-9 repair costs (transfer case output shaft oil seal replacement $1,337–$1,764), via search extract Oct 28, 2026 SHOP/RETAILER
https://www.repairpal.com/cars/mazda/cx-9/2009

6. Mazda Service Bulletin 05-001/13: MIL on with DTC P2757, A/T warning light and ATF leak at the bell housing: replace transmission, 2007–2010 CX-9 (2013-01-22), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2013/SB-10097279-2532.pdf

7. Mazda Service Bulletin 01-008/16: Engine coolant leak between the lower radiator hose and the thermostat housing: modified hose, CX-9 (2016-02-26), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10103922

8. Tekmetric: average auto repair labor rates by state, 2026 (national average $132/h; state averages $85–$197/h). We use $100–$160/h for labor-time estimates. SHOP/RETAILER
https://tours.tekmetric.com/answers/average-auto-repair-labor-rates-by-state-2026

9. Mazda Service Bulletin 05-001/14: Engine surge with cruise control on hills and shift shock, 2011–2013 CX-9: TCM replacement (2014-11-18), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2014/SB-10098889-2532.pdf

10. YourMechanic: Mazda CX-9 radiator hose replacement (V6 estimates about $435–$443; shop range about $520–$747), via search extract Oct 28, 2026 SHOP/RETAILER
https://www.yourmechanic.com/estimates/mazda/cx-9/radiator-hose-replacement

11. NHTSA recall records: 11V-134 (EVAP canister vent line, 2009–2010 Mazda6), checked Oct 27, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=11V134000

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. Nobody from RepairAhead has seen, driven or inspected this vehicle.

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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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.