# **Auto Service Summary**

**Shop:** Performance Tire & Auto **Date:** June 11, 2025

#### **Reason For Visit**

#### The car was brought in for several reasons:

an oil change was needed, a complete vehicle inspection was performed, and there were multiple error codes related to engine performance and misfiring that required investigation.

#### **Repair Summary**

During the visit, a complete vehicle inspection was performed along with an oil change using semi-synthetic oil. The vehicle's diagnostics indicated misfires in multiple cylinders and issues with the camshaft position sensor due to rodent damage to the wiring. This led to the inspection and cleaning of the camshaft timing oil control valve, although it was found stuck and further inspection was recommended. Subsequently, several components including the serpentine belt, front struts, rear shocks, and the right rear leaf spring were replaced. Additionally, the vehicle had a timing chain guide and an engine VVT solenoid replaced as part of the service for maintaining proper engine timing.

## Major

## Oil Control Valve and Camshaft Sensor Wiring:

#### Importance:

Ensures proper engine timing and cylinder operation.

#### **Consequences:**

Malfunction can cause engine performance issues, increase wear, and potentially lead to engine damage.

### **Front Struts Replacement:**

#### Importance:

Critical for vehicle stability and ride comfort.

#### **Consequences:**

Worn struts can affect steering, increase stopping distance, and cause uneven tire wear.

## **Moderate**

### **Serpentine Belt Replacement:**

### Importance:

Powers essential engine components, including the alternator and air conditioning.

#### **Consequences:**

A snapped belt can lead to the loss of critical functions.

## **Rear Shocks Replacement:**

#### Importance:

Maintains vehicle control and comfort.

#### **Consequences:**

Failed shocks can lead to poor handling and unsteady driving.

### **Minor**

## **Timing Chain Guide:**

### Importance:

Keeps the timing chain properly aligned.

#### **Consequences:**

If misaligned, it can lead to costly engine issues.

## **Right Rear Leaf Spring:**

#### Importance:

Supports vehicle weight and absorbs road impacts.

#### **Consequences:**

Broken spring could lead to compromised suspension performance.

#### **Cost Breakdown**

\$19.95

#### 2. Semi-Synthetic Oil Change:

\$67.75

#### 3. Testing and Inspection:

\$159.22

#### 4. Connector:

\$11.42

#### 5. Engine VVT Solenoid:

\$303.95

#### 6. Valve Cover Gasket Set:

\$327.80

#### 7. Serpentine Belt Replacement:

\$162.85

### 8. Front Strut Replacement:

\$998.27

#### 9. Rear Shock Replacement:

\$435.98

### 10. Timing Chain Guide:

\$37.55

### 11. Right Rear Leaf Spring:

\$858.41

### 12. Environmental & Technology Fee:

\$3.88

13. Job Supplies:	
\$86.43	
14. Subtotal:	
\$3,473.46	
15. Sales Tax:	
\$324.77	
16. Total:	
\$3,798.23	

### What Does This Actually Mean?

#### **Camshaft Timing Oil Control Valve:**

This valve controls the timing of the camshaft, adjusting for optimal engine performance. Its failure can lead to timing issues and engine inefficiency.

#### **Serpentine Belt:**

Powers various engine components like the alternator and power steering pump. Its failure causes a loss of these functions and possible engine overheating.

#### **Front Struts:**

Part of the suspension system, struts contribute to vehicle stability and comfort by absorbing road shocks. Worn struts compromise vehicle handling and increase stopping distances.

#### **Rear Shocks:**

Work with springs to absorb shocks from the road, ensuring a smooth and controlled ride. Malfunctioning shocks can lead to poor vehicle handling and increased wear on other suspension parts.

#### **Leaf Spring:**

Part of the rear suspension, these help support the vehicle's weight and stabilize the ride. Broken springs can cause noise, imbalanced driving, and reduced load capacity.

#### **Other Notes**

All service work is covered by a nationwide 24 month/24,000 mile warranty. For any warranty queries, please contact 1-866-588-0728. No additional notes regarding the service.

### **Recommendations**

- 1. Regularly check under the hood for signs of rodent damage and take preventive measures to avoid future wiring issues.
- 2. Ensure regular oil changes and complete inspections according to the vehicle's maintenance schedule to keep the engine in good working order.
- 3. Consider the recommended services listed, such as air filter services and brake services, to maintain the vehicle's performance and safety.
- 4. Monitor any unusual sounds or changes in vehicle handling, as these can be early signs of suspension or other mechanical issues.