INFORMATION BULLETIN

AUTOMOTIVE MAINTENANCE & REPAIR ASSOCIATION

IB – 004M
September 2014

SHOCK/STRUT REPLACEMENT at 50,000m

Laboratory and field testing show that most strut and shock (ride control) units installed during a vehicle's initial assembly - as Original Manufacturer's Equipment (OEM), degrade measurably by 50,000 miles (80,000 kilometers). Testing concludes that over time, internal strut and shock valving components weaken, causing ride control units to measure beyond manufacturers specifications for rebound and compression values.

> ***NOTE: MAP's position of when to suggest replacement of ride control units DOES NOT APPLY to any aftermarket replacement struts or shocks – because no testing was performed on any aftermarket units.***

Upon visual inspection, leaks or other defects may not be visible. However, degraded or worn ride control units cannot efficiently dissipate the kinetic energy formed when riding over uneven road surfaces; and the strut or shock can no longer properly perform its primary function – providing body control and keeping the tire in contact with the road.

Ride control unit replacement may be considered an expensive repair for some motorists. It is the role of the service provider shop to educate the consumer of the inter-related roles of ride control performance with a vehicle's suspension, braking, steering and safety-related systems. Simply stated, any vehicle with measurably degraded ride control units may exhibit degraded performance in handling, steering and braking. Additionally, degraded or worn ride control units can cause premature wear to tires and suspension system components.

Therefore, ride control unit replacement may be beneficial to motorists who value optimal performance in their vehicle's ride, handling and safety system characteristics; motorists intent upon keeping their vehicle for a longer period of time; or to motorists who incur excessive miles driven during the ownership of their vehicle.

Shops may suggest replacement of the degraded shock or strut for one or more of the following:

- ***Improved performance or preventive maintenance; to extend tire life; to balance ride and handling; to improve stopping distance; or to help optimize the performance of electronically controlled-safety systems such as Anti-lock Braking Systems (ABS), Traction Control Systems (TCS) and Electronic Stability Control (ESC).***

The Motorist Assurance Program (MAP) believes that FURTHER INSPECTION IS REQUIRED of ride control units, in any vehicles using OEM hydraulic fluid and/or gas-charged shocks or struts (not electronically-controlled units) with 50,000 miles (80,000 kilometers) or more on the unit(s), -- and should include a pointed interview with the vehicle owner, a thorough ride control component inspection and a test drive of the vehicle.

USE THE MAP SHOCK/STRUT WORKSHEET TO COMPLETE THIS TASK

MAP hopes this information will be used when counseling consumers about suggested services, so motorists will recognize the importance of 'preventive maintenance' -- and act before component failure occurs.

725 E. Dundee Road • Suite 206 • Arlington Heights, IL 60004 • 847-947-2650
Send Questions or Comments to: map@motorist.org

The Motorist Assurance Program is a consumer outreach program of the Automobile Maintenance & Repair Association

Shock/Strut Worksheet

Motorist Assurance Program
STANDARDS FOR AUTOMOTIVE REPAIR

Date_____ License Plate/Tag_____ State_____ Expiration_____/_____

Year_____ Make_____ Model_____

Vehicle Identification Number (VIN)

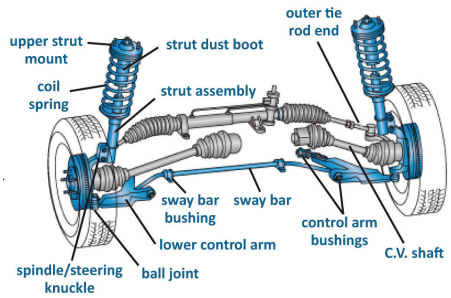
Section One — Use numeric values (1) or (0) only

Customer Interview	Yes=(1)	No=(0)
Have you noticed a need to slowdown to gain control in corners, highway ramps? Comments _____		
Have you experienced repeated replacement of front brakes, suspension components, or tires? Comments _____		
Have you noticed a need to slowdown to gain control over railroad tracks? Comments _____		
Is the vehicle difficult, or stressful to control at highway speeds, during windy conditions or when loaded? Comments _____		
Have you noticed degradation in the ride quality over time? Comments _____		

Total points (0 - 5)
Proceed to Section Two

Reason Code Explanation

Code	Reason
REQUIRED	
A	Part no longer performs intended purpose
B	Part does not meet a design specification (Regardless of performance)
C	Part is missing
SUGGESTED/OPTIONAL	
1	Part is close to the end of it's useful life
2	To address a customer need, convenience or request
3	To comply with maintenance Recommended by the vehicle's original equipment manufacturer
4	Technician's recommendation based on substantial and informed experience



Your vehicle has been inspected following the Uniform Inspection and Communications Standards developed by the Motorist Assurance Program (MAP). MAP produces materials that give motorists the information and encouragement to take greater responsibility for their vehicles—through proper maintenance. We encourage participating service and repair shops to adopt the MAP Pledge of Assurance to their customers and the Motorist Assurance Program Standards of Service. All participating service providers have agreed to subscribe to this Pledge and to adhere to the promulgated Standards of Service demonstrating to their customers that they are serious about customer satisfaction. For more information visiti www.motorist.org

Automotive Maintenance & Repair Association

www.motorist.org
725 E Dundee Road • Suite 206 • Arlington Heights, IL 60004
Tel: (847) 947-2650 • Fax: (202) 318-0378

Motorist Assurance Program
STANDARDS FOR AUTOMOTIVE REPAIR

DISCLAIMER: This document may be used as a guide when performing vehicle inspection. This form is not to be used as an estimate form and may not comply with Local or State laws. The Motorist Assurance Program is not responsible for the performance and accuracy of the motor vehicle inspection performed using this document.

Section Two

Visual Component Inspection	Comments	Yes=(1)	No=(0)
Suspension stops damaged, smashed, missing, show signs of repeated contact			

Total points (0 - 1)
Proceed to Section Three

Section Three

Visual Component Inspection (continued)	Comments	Yes=(R)	No=(0)
Shock/Strut Binding	**If Yes Shock/Strut Replacement is Required**		
Shock/Strut Seized	**If Yes Shock/Strut Replacement is Required**		
Shock/Strut Actively Leaking (Seepage is considered normal)	**If Yes Shock/Strut Replacement is Required**		
Air Shock/Strut with a torn or leaking bladder/boot	**If Yes Shock/Strut Replacement is Required**		
Shock/Strut Piston Rod damaged	**If Yes Shock/Strut Replacement is Required**		
Shock/Strut housing bent, dented or damaged	**If Yes Shock/Strut Replacement is Required**		
(Any) Shock/Strut measures significantly hotter or cooler than other units	**If Yes Shock/Strut Replacement is Required**		

- **If ANY conditions in Section Three are marked as Yes in the red column, REQUIRE replacement of applicable shock(s)/strut(s). (STOP HERE; completion of Section Four is not applicable)**
- **If NO conditions in Section Three are marked as Yes in the red column proceed to Section Four**

Section Four

Technician's Vehicle Test-Ride Evaluation	Comments	Yes=(1)	No=(0)
Nose Dive - Front end dips, collapses during braking			
Body Roll - Top of vehicle tips side to side, hard to control			
Harshness/Buckboard - Jarring effect on light bumps, over-reacting			
Traction Loss - Tire(s) skipping during braking or acceleration			
Bottoms-out - Tire moves too far over bumps, suspension hits travel limiting bumper			
Swerving - Front end over-reacts, side to side looseness			
Acceleration Squat - Front-end rises or rear-end moves downward			

Total points (0 - 7)
Proceed to Worksheet Total

0-3 points = Shock/Strut Replacement neither suggested or required
4-13 points = Shock/Strut Replacement SUGGESTED to restore or improve vehicle's handling, stability and ride
(Use MAP Reason for Repair Code #1, Part Near the End of it's Useful Life)

WORKSHEET TOTAL
Total Points from Sections 1, 2 and 4 (0 - 13)

I certify the above results are a valid representation of the shock/strut condition on this date:_____

Technician Name / *Initials*:_____

Manager's Name / *Initials*:_____

Automotive Maintenance & Repair Association

www.motorist.org

725 E Dundee Road • Suite 206 • Arlington Heights, IL 60004
Tel: (847) 947-2650 • Fax: (202) 318-0378

Motorist Assurance Program
STANDARDS FOR AUTOMOTIVE REPAIR

DISCLAIMER: This document may be used as a guide when performing vehicle inspection. This form is not to be used as an estimate form and may not comply with Local or State laws. The Motorist Assurance Program is not responsible for the performance and accuracy of the motor vehicle inspection performed using this document.

Automotive Maintenance & Repair Association ©2014