

# NAACC Canadian Vehicle Safety Guide



## National Member Club Safety Inspection Guidelines

### **Version 1**

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National Association of Automobile Clubs of Canada - l'Association nationale des clubs automobiles du Canada

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**Safety Inspection Program Purpose:**  
To provide the knowledge and materials for vehicle inspections by car clubs across Canada.

**Mission Statement:**

THE NATIONAL ASSOCIATION OF AUTOMOBILE CLUBS OF CANADA WILL STRIVE TO ACT AS THE VOICE OF THE AUTOMOTIVE HOBBYIST IN CANADA BY PROMOTING AND ENCOURAGING THE PRESERVATION OF THE AUTOMOBILE, ITS HISTORIC LORE, AND ITS ASSOCIATED ITEMS. THE NAACC WILL ENCOURAGE A COOPERATIVE WORKING RELATIONSHIP BETWEEN GOVERNMENTS, AT BOTH THE FEDERAL AND PROVINCIAL LEVEL TO PREVENT RESTRICTIVE LEGISLATION.

(Serving the collector hobby since 1974/75)

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**To Clubs of Specialty Vehicles and Classic vehicles in Canada.**

Our National Appraisal Program has been developed to provide clubs across Canada with the organization steps, forms and decals in a package that is affordable by every size club. There has been a growing need in the last few years to provide this service to Canadian Clubs.

An old car with a safety sticker in it's window goes a long way to the image the hobby has with the general public, and serves as a display of self-regulation that keeps the legislators from thinking they should get "involved".

Though some provinces allow the registration of antiques without the safety inspection process, the inspections are highly recommended.

Vehicle Safety Inspections are done in nearly every country in the world.

Similar to the National Street Rod Association does now and what the Canadian Street Rod Association used to do, our program is born from our NAACC Safety Inspection Guidelines in our National Judging Guidelines (Appendix 1, page 25). It's simple, so any club can undertake it, and it's effective. There may be vehicles out there the owners should have regular inspections done on.

Printing forms and decals can be cost prohibitive too, especially for the smaller clubs. The NAACC program has done the work and printed the material in a much larger quantity than any club could afford to do. As a service to our clubs that NAACC would prefer to assist with, than profit from, this program comes in whatever size package you would like for the cost of mailing alone.

**Please email your NAACC member club's order using the information below.**

NAACC is an arm's-length third party here, simply aiding. The NAACC cannot be held accountable for anything arising from the inspections that it's clubs do.

Should anyone request assistance, the NAACC, through it's network of contacts and provincial Directors may be able to provide information.

**National Association of Automobile Clubs Safety Inspection Package**

The package will come with a copy of this manual and a quantity of inspection forms and window decals determined by your club's needs. The pages are arranged so that selective printing may be done. That is, pages 7 to 10 may be printed solely if the other detail is not required.

**EMAIL to: [safety@naacc.ca](mailto:safety@naacc.ca)**



All of the following information is mandatory:

\_\_\_\_\_ **"Inspection Passed" window decals required.**  
 \_\_\_\_\_ **Inspection forms required (printed out).**  
**If partial, pages \_\_\_\_\_ are requested.** (pages that can be back-2-back write like 9-10)

**Please mail the club's package to:**  
**Club Name**  
**Shipping Address**  
**Date required by:**  
**Club Representative: (Attention:)**  
**Contact phone**

**Note: When your package arrives, you will be expected to submit a payment to NAACC for the amount of the postage. This should be visible on the package envelope but if it is not a copy of the cost paid will be emailed to your contact's email.**

# NAACC SAFETY INSPECTION GUIDELINES

## Special note on LIABILITY

As your inspection may be considered a “professional opinion”, the definition of a professional, as per Black’s Law dictionary, would likely be considered applicable in a court of law. With this comes a liability. All Canadian clubs have access to inexpensive insurance through NAACC.

There is an obligation on the inspector’s part to:

- a) Inform the vehicle owner that you are only offering a non-professional opinion as to the state of the vehicle.
- b) Perform due diligence within the inspection to ensure accuracy and completeness, to the best of your ability, that will not cause a detrimental effect to the owner.
- c) Clearly state any special conditions discovered in the inspection. If a vehicle is thought to be unsafe to operate any further, words to that effect should be written on the inspection form and the owner initialed if possible. This is mostly important for the inspector, as there may be an obligation to verify or impose their opinions.
- d) Be vicariously responsible for the actions of anyone deemed an employee or assistant active in the inspection.

## Notes pertain to their relative number on the inspection form:

- 1) Windshields must be safety glass. Safety glass must be installed in all flat windows when replacement is required. Retroactive replacement is strongly recommended for safety. Vision must be reasonably unobstructed by hood ornament or any attachment/projection outside the front of the windshield. Replacement glass should have standard AS-2M541 etched on it.
- 2) Rearview mirror must be securely attached and not be broken, cracked or unclear.
- 3) Windshield wipers must be operable by driver and blades in good condition. Operation must be automatic other than the activation of the controls and does not apply if the original system was manual.
- 4) Doors must open properly with both outside (if equipped) and inside handles. Door locks not a requirement but if present the inside handle operation must unlock the door.
- 5) Only Park and Neutral positions shall allow starter motor operation.
- 6) The horn must be capable of emitting sound audible from a distance of not less than 60 meters (197ft). The switch used to activate the horn shall be easily accessible to the driver when seated in the normal driving position and secured by the seat belt.
- 7) Seat belts must be as originally equipped or, if a Special Motor Vehicle (fabricated), must be equipped with a lap type belt for every seating position. They must be securely fastened to the vehicle with large enough washers to prevent the washer from being drawn through the fastening hole.
- 8) Headlights must work and be as bright as manufactured, all other lights must operate properly; turn signals (if so equipped) must operate. Note: broken lenses and or missing parts must be replaced. When checking brake and signal lights, leave parking tail lights on so that any poor grounds will show up as a “wig-wag” effect in the light operation. If equipped with high beam lighting the operation must be by floor switch easily accessible by the driver.
- 11) Vehicles not originally equipped with turn signals must have an operational driver’s side window to facilitate hand signals.
- 12) Pedal reserve should be 2 inches minimum clearance from floorboards.
- 13) “Service”, or “Parking” brake must be easily accessed and operated. Minimum brake effectiveness shall be to hold the vehicle from moving backwards when at rest.
- 14) If originally equipped, the defrost system must work to keep a windshield reasonably clear enough to operate the vehicle safely. If a Special Motor Vehicle (fabricated) it must have a defrost system.
- 15) Wiring should have no frayed areas or connections, nor blackened spots or connections. Wires must be safely routed.
- 16) A proper fuel cap must seal all fuel container fill points.
- 17) Upper bodywork shall have no broken, jagged pieces that could catch an object or person passing by. There can be no direct entry to the passenger compartment below the window belt line that would allow exhaust fumes into the passenger area. Fenders shall cover the tire tread circumference from at least 15 degrees in front to at least 90 degrees to the rear of the vertical center line at each wheel measured from the center of wheel rotation. At no time shall the fender contact the tire.

- 18) Pedal reserve (movement) should be a minimum of 5 cm (2 in.) from the floorboards.
- 19) Linkage must operate freely and have adequate clearance from obstacles to compensate for engine torque movement.
- 20) The battery must have adequate support and be fastened to prevent any movement. Connections should have no corrosion build-up. Wiring must be in sound condition with no visible fraying or insulation or rot (brittleness). Wires must be safely routed.
- 21) The fan must have adequate clearance to allow for engine torque movement. All belts and hoses shall be free from checking, splits and signs of wear points.
- 22) Brake master cylinder(s) and fittings must be adequately fastened and have no visible signs of wetness (leaking fluid) or wear points.
- 23) Steering lash is checked by a back and forth movement of the steering wheel with the vehicle's weight on the front wheels. Resistance to the movement will show up any looseness in the steering linkage and gearbox.  
 ALLOWABLE AMOUNT OF FREE MOVEMENT:  
 Steering wheel less than 35.5 cm (14") diameter = 5 cm (2") total movement.  
 Steering wheel 38 cm - 50 cm (15-20") diameter = 7 cm (2.8") total movement.  
 Have a second person observe where any looseness may exist while the steering is being moved back and forth.
- 24) Exhaust manifolds and connections must be sealed and not show any sign of leakage.
- 25) Hood safety latch must work. Hinges must allow free operation of engine compartment access.
- 26) Wheels must revolve without wobble, the lug holes not distorted and secured adequately by at least 4 fasteners.
- 27-28) Inspect tires for tread depth, splits, cuts or sidewall checking. Tires must be matched in size and type on each axle. Tread depth minimum is .32 cm (1/8") above wear bars, no baldness showing on adjacent treads is allowed. No part of the vehicle shall come within 2.54 cm (1 in.) of any part of the tire in any position of travel or turn.
- 29) Steering box or rack must be securely bolted in place. If movement is determined at any connection the amount of play must be checked against factory allowable standards. (see #30)
- 30) If movement is determined at any joint the amount of play must be checked against factory allowable standards, or if not known, total play should fall between 3.2 to 7 mm (1/8—1/4 in.)
- 31) King Pin/wheel bearing adjustment:  
 Jack up the vehicle so that the weight of the vehicle is removed from the wheels and try to move the tire in and out at the top and bottom. Note whether movement is in the king pins or wheels bearings. Normal passenger car maximum movement moving the tire sidewalls should be .32 cm to .635 cm (1/8" - 1/4"). Wheel bearings should be adjusted so a small amount of play exists in the bearing between the hub and spindle. No pressure should be put on the wheel bearings by the hub retaining nut. The nut should be backed off to allow a non-binding rotation. See mechanics manual for proper specifications.
- 32-33) Shock absorbers must be present and operational without signs of stress or wetness (leaking fluid). Anti-sway bars (if equipped) must operate freely without contact with anything and all insulating bushings shall be in good condition.
- 34) Springs shall not have a negative arc, be free from cracks and signs of severe chaffing and all connection bushings must be in good condition. Forward connection bolt or pin must be free from excessive wear.
- 35-36) All brake lines, mechanical or hydraulic, must be free from signs of wear and corrosion. Hydraulic components must free from wetness (fluid leaks).
- 37) Exhaust system components must be secured by flexible hangers where engine torque movement occurs and all rubber-type connections shall be in good condition. There shall be no signs of contact wear, cracks or leakage (until past rear axle).
- 38) The frame and floor pan shall have no cracks. The floor pan shall have no holes into the passenger area. If seat belts are fastened to the floor pan they must incorporate a plate-type washer no smaller than 5 cm (2 in.) to prevent pull-through.
- 39) Check fuel tank for vent and wetness (leaks). Tank must be secure and connections made using appropriate fasteners/clamps. Check the rubber hose connection between the solid fuel line and the gas tank (if so equipped). Fuel lines should not be copper.
- 40) No vehicle parts shall extend below the wheel rims at their lowest position, except tires.
- 41) Any suspension components that constitute an air system shall have rubber stops to limit chassis movement in the event of system failure. All lines must be free from leakage and show no signs of contact abrasion.
- 42) Any components added for body or suspension lift shall be in good condition and not cause any other component to be stressed. Of particular importance is the steering linkage before and after the steering box and the driveshaft U-joint angles (though 6 degrees is considered a maximum, twice that may suffice for a low speed vehicle).
- 43) optional item space

-44) A 2lb fire extinguisher with A, B & C ratings should be in the car when on tours or on display or any other clubs events.

-45) A battery disconnect switch is recommended as a safety item from electrical shorts, which may result in a fire. It also isolates the battery from any parasitic loads which will discharge a battery while connected to the car's electrical system.

-46) Trailer towing components such as a frame or bumper mounted hitch should have adequate fasteners and not interfere with any vehicle systems. Trailer wiring connections to the vehicles wiring should be sealed from the elements and be of adequate length as to not pull tight during a turn. A safety chain is required, as are two outside mirrors on the vehicle if the trailer obstructs vision by the rear view mirror. Check all lighting operations.

-47) Bumpers, where required (after 1976, not rear of pickup trucks, but local laws prevail) must be at least 7.62 cm (3 in.) and cover the width of the tire track. GENERALLY, allowances for bumper height range from: "some part of the bumper must fall between 35 cm (13.78 in) and 70 cm (27.56 in)".

**-48) BRAKE FUNCTION TEST**

**SPEED 32 KPH (20 MPH) STOPPING DISTANCE**

Vehicles with four wheel brakes = 6 m (20 ft)

Vehicles with two wheel brakes = 12.25 m (40 ft)

Motorcycles with two wheel brakes = 5 m (16 ft)

Motorcycles with one wheel brake = 11.75 m (38 ft)

**The NAACC accepts no responsibility for implementation or use of these safety standards.**

**NAACC recommends that all vehicles have a yearly mechanical inspection.**

**NAACC strongly recommends that all competition vehicles have all front end steering components tested by non-destructive testing methods for safety and further recommend that competition vehicles incorporate a fuel cell and external manual electrical disconnect and fire system.**

The inspection worksheets have been laid out so that inspection people can be organized by skill level and the convenience of teams. The information page and Stage 1 could be completed by people/assistants possessing minimal automotive knowledge, whereas Stage 2 may need more knowledge Stage 3 definitely needs competence in that area. Also, Information could be collected and Stage 1 completed by one set of people (**Team A**), then another team (**Team B**) comes in to do Stage 2 and then team (**Team C**) completes Stage 3 (and possibly some of the Optional, if necessary). Finally, another team (**Team D**) files the paperwork and attaches the decal to the vehicle. Teams can be as small as one person, so the entire personnel demand would be four, unless Teams B and C are combined to require 3 people, or Team A does the Team D function which lowers the minimum personnel to two! 'Rule of thumb', 2 people for every 4 cars, per hour, to maximum of four teams of 2 — per line!

Parallel lanes are recommended so the vehicles do not have to be started/driven ahead as inspections progress.

Recommended equipment: floor jack, fender covers, pieces carpet (lay on) or floor creepers (poor on rough surface), paper towels, hand cleaner, tape measure, table, chairs, clipboards, pens and signage.

**THE SENARIO:**

- ◆ Team A meets the owner and while one person gets the information on the form another checks the Stage 1 items.
- ◆ Team B and C get the pages for Stage 2 and 3 respectively, with an ID code (number, name, or ..) entered in the upper right box so inspection pages are not mixed up. If the inspection is being done by one team (B and C combined) the forms may be printed out on back-2-back pages.
- ◆ On completion of the form pages they are passed to Team D who combines/attaches them, files them and attaches the 'PASSED' decal to the windshield before proceeding to the next vehicle. In the instance of a small volume of vehicles Team A might do this completion phase.

# Inspection Worksheet

Date Inspected:  Inspector:  PASS/FAIL:

Club Inspecting:  Province:

Vehicle Owner:

Owner's Address:

City / Prov. / Postal Code:  /  /

Phone:  /  Plate #:

Vehicle Year & Manufacturer:  /

Model:

Body Style:  Bodystyle Code:

Vehicle Identification Number:  Mileage:  Circle one used:  
Kms / Miles

Engine Serial Number:  Colour / Code:

Location of inspection:

Classification: Circle ORIGINAL / RESTORED / MODIFIED / CUSTOM or OTHER>:

**Vehicle was physically inspected:**  
 YES:   
 NO:   
**Any pictures taken?**  
 YES:   
 NO:

**CONDITIONS:**  
 The club, it's directors, officers and membership take no responsibility for any inspection referred to on the above vehicle. Any inspections are for club purposes only and are not an endorsement of safety or compliance with Provincial or Federal requirements. The owner has the full responsibility to maintain the vehicle in a road worthy condition. The application of a "safety" sticker simply confirms that the vehicle has been inspected and is not reflective on the state of the vehicle's condition according to provincial or federal regulations or legal safety requirements.  
 Alterations to the vehicle void this inspection. Inspections should be done yearly, or after 10,000 kms (6,000 mi).  
 I understand and agree to the above conditions:

Signature of vehicle owner or proxy: \_\_\_\_\_ Date: \_\_\_\_\_

**PASS / FAIL CODING:**    ✓ Pass    ✗ Fail    † Not required, but OK    ■ Not required, but poses safety issue

**Stage 1— General operations**

**ID:**

Ref#	Description	Code	Comments
1	Glass		
2	Mirrors		
3	Wipers		
4	Door operation		
5	Neutral Safety Switch—Automatics		
6	Horn		
7	Seat belts		
8	Head lights— high & low beam		
9	Lights— running/park, licence & brake		
10	Signals— turn—front & rear		
11	Lowering driver's window—w/o signals		
12	Brake pedal reserve clearance		
13	Service brake		
14	Defrost / heater		
15	Wiring		
16	Fuel cap		
17	Bodywork— upper, including fenders		
18	Accelerator pedal		

**PASS / FAIL CODING:**    ✓ Pass    ✗ Fail    † Not required, but OK    ■ Not required, but poses safety issue

### Stage 2— Mechanical under hood

**ID:**

Ref#	Description	Code	Comments
19	Accelerator/carburetor linkage		
20	Battery, connections and hold-down Includes under-hood wiring		
21	Fan, belts and hoses		
22	Master cylinder and fittings		
23	Steering wheel lash		
24	Exhaust manifold(s)		
25	Hood safety latch and hinges		

### Optional & Recommended Equipment

**ID:**

Ref#	Description	Code	Comments
44	Fire extinguisher— mounting & rating		
45	Battery disconnect switch		
46	Trailer towing components		
47	Bumpers, where required		
48	Brake function test—operational		
49			
50			

**PASS / FAIL CODING:**    ✓ Pass    ✗ Fail    † Not required, but OK    ► Not required, but poses safety issue

**Stage 3— Mechanical under vehicle**

**ID:**

Ref#	Description	Code	Comments
26	Wheels & wheel lugs		
27	Tires—front		
28	Tires—rear		
29	Steering box or rack, linkage and idler arm(s)		
30	Rod ends (heim ends)		
31	King pins, spindles and ball joints		
32	Shocks and anti-sway bars— front		
33	Shocks and anti-sway bars— rear		
34	Springs, shackles and bushings		
35	Brake components— mechanical		
36	Brake components— hydraulic		
37	Exhaust system— mufflers, clamps, pipes		
38	Floor pan and frame		
39	Fuel system—tank, hangers and lines		
40	Scrub line		
41	Air component(s) (if equipped) clearance & operation		
42	Body and/or suspension lift components		
43			