

PHYSICAL PLANT DIVISION

UNIVERSITY OF FLORIDA

OFFICIAL MOTOR VEHICLE

INSPECTION MANUAL

February 2003

INTRODUCTION

1. General
 - A. The University of Florida has implemented a State Motor Vehicle Inspection Program to help ensure that State vehicles assigned to the University of Florida are adequately maintained for safe operation.
 - B. An annual vehicle inspection is mandatory for all University vehicles. Vehicles assigned to University of Florida departments or associated organizations and physically located in Alachua County must receive the annual "Safety Check" inspection at the Physical Plant Division Motor Pool.
 - C. UF departments operating vehicles outside of Alachua County should develop a preventive maintenance and inspection program with a commercial service station that meets the general requirements of this program.
2. Purpose
 - A. The purpose of this manual is to identify vehicle items requiring inspection, method of conducting inspection, and reasons for rejection of specific items.
 - B. The manual is to be used by PPD Motor Pool as a guide for the annual inspection and is available for other UF departments outside Alachua County to use in establishing their annual vehicle inspection program.
3. This information details Safety Inspection requirements of the University of Florida Vehicle Safety Inspection Form, PPD/Motor Pool Form 2, November 21, 2002.
4. Questions concerning this manual should be addressed to the Physical Plant Division Motor Pool Administration at 392-1131.

INSPECTION PROCEDURE**(A) EXTERNAL INSPECTION**

An external inspection shall be performed as follows:

- 1) Verify ownership, legality, and proof of financial responsibility. **REJECT IF** one or more of the following apply:
 - a) The VIN is not in agreement with the vehicle number.
 - b) The VIN plate is not securely fastened or is defaced, misplaced or missing.
 - c) The license plate is not in agreement with the numbers on the vehicle
 - d) The license plate is hanging loosely from its mounting bracket.
 - e) The license plate is obscured so that numbers cannot be identified.
 - f) The license plate lamp, if originally so equipped, does not illuminate the license plate.
 - g) Acceptable proof of financial responsibility is not provided.

- 2) Check Glazing. **REJECT IF** any of the following apply:
 - a) Approved safety glazing is not used in every windshield, window, and wing.
 - b) A sign, poster or other material whose design prevents a driver from seeing through the material, obstructs, obscures or impairs the driver's clear view of the highway or an intersecting highway.
 - c) A sign, poster or other material, whose design prevents a driver from seeing through the material, extends more than 3 ½ inches from the lowest exposed portion of the rear window, rear side windows or rear wings of a passenger car.
 - d) A vehicle displays a sticker other than those prescribed.
 - e) Glass is shattered, broken, or has exposed sharp edges.
 - f) The windshield is removed.
 - g) There are defects in an acute area of the windshield—center of the critical area on the driver's side of the vehicle directly in the driver's normal line of vision, 8 ½ inches wide and 5 ½ inches high—or discolorations or hazardous cracks to the front, right, left, or rear of the driver which would interfere with the driver's vision.
 - h) Glass etchings, except those used for vehicle identification, are on the windshield or front side windows.
 - i) Glass etchings extend more than 3 ½ inches from lowest exposed portion of rear window, rear side windows or rear wings.

This paragraph does not prohibit the use of a product or material along the top edge of a windshield as long as the product or material is transparent and is not more than 3 inches from the top of the windshield.

- 3) Check the windshield wiper system and **REJECT IF** any of the following apply:
 - a) The wipers do not operate as specified by manufacturer or 45 cycles per minute if not specified.
 - b) Wiper blades are torn or smear or streak windshield after 5 cycles.
 - c) There is only one wiper where two are required.
 - d) The wipers do not return to rest position.
 - e) The windshield washers, if originally so equipped, do not operate.

- 4) Check the operation of doors, including the tailgate, **and REJECT IF** one or more of the following apply:
 - a) The doors, except a tailgate on a pickup truck, are not on the vehicle if originally fitted by the manufacturer.
 - b) The doors, including the tailgate, do not open and close securely, unless the vehicle has been manufactured or modified to the extent that there is no roof or side.

- 5) Check outside mirrors and **REJECT IF** one or more of the following apply:
 - a) The mirror is cracked, broken, or discolored.
 - b) The mirror will not hold adjustment.
 - c) A vehicle does not have rearview mirrors as originally equipped by the manufacturer.

- 6) Check fenders, hood and trunk lid and **REJECT IF** one or more of the following apply:
 - a) A fender—front or rear—has been removed.
 - b) The fenders are not of a type and size used as original equipment.
 - c) The hood does not cover the entire front compartment or cannot be fully closed.
 - d) The trunk lid is not present or does not close securely.

- 7) Check the flooring and floor beds and **REJECT IF** one or more of the following apply:
 - a) They are not in a condition to support the occupants and cargo.
 - b) The floor pan is rusted through so as to cause hazard to occupants or to permit exhaust gases to enter passenger compartment.

- 8) Check the bumpers and **REJECT IF** one or more of the following apply:
 - a) The bumper, if required as original equipment, is not on the vehicle.
 - b) The bumpers are not firmly attached to the frame or chassis.
 - c) Some part of the main horizontal bumper bar on passenger vehicles does not fall within 16-20 inches above ground level.
 - d) Some part of horizontal bumper bar on multipurpose passenger vehicles and light trucks does not fall within 16-30 inches above ground level.
 - e) The broken or torn portion is protruding so as to create a hazard.
 - f) The bumpers extend beyond body line or are longer than originally equipped, whichever is greater.

- 9) Check the lamps and lenses and **REJECT IF** one or more of the following apply:
 - a) An exterior bulb or sealed beam, if originally equipped or installed, fails to light properly, except ornamental lights.
 - b) The turn signal lamps do not flash between 60-120 flashes per minute.
 - c) The turn signal lamps do not properly indicate right or left or hold in position when so switched or do not self-cancel if originally designed to do so.
 - d) The back-up lamps do not turn off automatically when vehicle goes forward, there is no indicator on dash that lights or there is no audible warning signal, if so equipped.
 - e) The lamp shows color contrary to lighting chart.
 - f) The lamp or filament indicated at the switch position does not light when the correct switch indicates the lamp should be on.
 - g) The lamp has a missing or broken lens.
 - h) A required lamp is missing.
 - i) The auxiliary equipment is placed on, in or in front of a lamp.
 - j) The fog lamps operate with the high beams of the headlamps or are substituted for the low beams.
 - k) The auxiliary driving lamps operate with the low beam of standard headlamp system or alone.
 - l) The headlamps are out of adjustment as follows:
 - (1) Mechanical aimer:
 - (a) The horizontal aim is more than 4 inches to the left or right.
 - (b) The vertical aim is higher or lower than 4 inches from center.
 - (c) Turn the lamps on high beam and **REJECT IF** the center of the beam is horizontally more than 4 inches to the right or left of "straight ahead" or if center of light beam is vertically more than 4 inches above or below horizontal line.
 - (d) Turn the lamps on low beam and **REJECT IF** the upper edge of the beam is more than 4 inches above or below horizontal center line of headlamp or if inner edge of beam is more than 4 inches to the right or the left of the vertical line.

- 10) Check for protruding metal and **REJECT** IF torn metal, glass or other loose or dislocated parts protrude from a surface of the vehicle so as to create a hazard.
- 11) Check the fuel tank cap and **REJECT IF** the fuel tank filler cap is missing, wrong, or does not seal.
- 12) Check the shock absorbers and **REJECT IF~** the vehicle continues free rocking motion greater than three cycles after release, indicating loss of the shock absorber function.

(B) INTERNAL INSPECTION

An internal inspection shall be performed as follows:

- 1) Check steering column and **REJECT IF** one or more of the following apply:
 - a) Free play exceeds the following allowances

<u>Wheel Diameter</u>	<u>Freeplay</u>
16 inches or less	2 inches
18 inches	2 ¼ inches
20 inches	2 ½ inches
22 inches	2 ¾ inches
 - b) The gear box is loose on the frame.
 - c) The energy-absorbing column is defective.
 - d) The steering wheel, except if specially designed for handicapped drivers, is not circular or equivalent in strength to original equipment or has an outside diameter less than 13 inches.
 - e) The front wheels cannot be turned to the full right or left position without binding or interference.
 - f) The flexible steering coupler—rag joint—is badly misaligned—twisted or out of alignment between attaching collars.
 - g) The number of turns of the steering wheel from a straight ahead tire position to the right stop is not equal to the number of turns to the left stop within a tolerance of ¼ turn.
- 2) Check the high beam and turn signal indicator lamps and **REJECT IF** the indicator lamps are not working.
- 3) Check the horn and **REJECT IF** any of the following apply:
 - a) There is no horn or other acceptable audible warning device.
 - b) The horn or other warning device is not audible under normal conditions for a distance of not less than 200 feet.
 - c) The vehicle is equipped with a siren, bell, whistle or any device emitting harsh or unreasonably loud sound, except emergency vehicles and vehicles equipped with an anti-theft device.
- 4) Check brake pedal and **REJECT IF** one or more of the following apply:
 - a) The brake pedal travel exceeds 80% of the total available travel unless originally designed to do so.
 - b) The brake pedal fades while the vehicle is stopped unless originally designed to do so.
 - c) There is excessive friction in pedal linkage or components, pedal levers are misaligned or improperly positioned, or the pedal pad is missing.
 - d) A brake warning lamp or other device indicates a malfunction of the braking systems unless the vehicle is equipped with an antilock braking system (ABS) which is designed to revert to standard braking operation and no driveability deficiency or loss of braking performance is present.

- 5) Check the parking brake operation and **REJECT IF** the pedal or lever reaches its limit of travel before parking brakes are set.
- 6) Check the seat and safety belts, if originally equipped, and **REJECT IF** one or more of the following apply:
 - a) The driver's seat or back rest is not firmly attached.
 - b) The metal spring protrudes from driver's seat.
 - c) The seat adjusting mechanism slips out of set position.
 - d) There is no safety belt for each seating location, if the vehicle was originally so equipped, or if seats have been added.
 - e) The safety belt webbing is frayed.
 - f) The belt buckles do not operate properly.
 - g) The belt anchorages are broken.
 - h) A passive seat belt restraint system is inoperative.
- 7) Check the inside mirror and **REJECT IF** one or more of the following apply:
 - a) The mirror is cracked, broken or discolored.
 - b) The mirror will not hold adjustment.
 - c) An object or material is hung from or blocking inside mirror.
- 8) Check the front windshield defroster system, if so equipped, and **REJECT IF** the defroster fan does not function.

(C) UNDER THE HOOD INSPECTION

An under the hood inspection shall be performed as follows:

- 1) Check the hood and **REJECT IF** any of the following apply:
 - a) The latch does not hold securely in the fully-closed position.
 - b) The latch release mechanism or its parts are broken, missing or so poorly adjusted that the hood cannot be closed properly.
 - c) The double latch mechanism is not operating as originally equipped.
- 2) Check the motor mounts, either here or during the beneath vehicle inspection, and **REJECT IF** the motor mounts are broken, cracked or missing.
- 3) Check the fuel systems and controls and **REJECT IF** any of the following apply:
 - a) There is liquid fuel leakage at any point in the system.
 - b) A part of fuel line is not securely fastened.
 - c) Any fuel tank or line was not specifically designed or manufactured as fuel tank or line.
 - d) A fuel line is in contact with high temperature surfaces or moving parts.
 - e) A fuel tank or line intrudes into a driver, passenger or cargo compartment except if vehicle was originally so designed.
 - f) The throttle does not return to the idle position when the actuating force is removed.
 - g) The firewall has any holes or cracks which would permit fumes to enter driver and passenger compartments.
- 4) Check the exhaust system and **REJECT IF** there, is an exhaust leak.
- 5) Check the brake system and **REJECT IF** any of the following apply:
 - a) The power brake lines or hydraulic hoses or lines leak or are disconnected, flattened, or restricted.
 - b) The hydraulic booster for power brake system is leaking or inoperative or has excessively worn belts that would prevent proper operation of the pump.

- 6) Check the battery and **REJECT IF** the battery is not securely fastened with a device specifically designed for that function.

(D) BENEATH THE VEHICLE INSPECTION

A beneath the vehicle inspection shall be performed as follows:

- 1) Inspect tires and wheels and **REJECT IF** one or more of the following apply:
- a) A tire has two adjacent treads with less than 2/32-inch tread remaining at any point - less than 4/32-inch tread on front tires of the vehicles having a gross weight in excess of 10,000 pounds.
 - b) A tire is worn so that the tread wear indicators contact the road in any two adjacent grooves.
 - c) A part of ply or cord is exposed.
 - d) A tire has been repaired with a blowout patch or boot.
 - e) There is a bump, bulge or separation.
 - f) A tire is marked "not for highway use," "for racing purposes only" or "unsafe for highway use" or has a similar designation.
 - g) There are other conditions or markings reasonably believed to render the tire unsafe for highway use.
 - h) A tire has been regrooved or recut below original tread design depth except special taxicab tires which are identified as having extra undertread rubber.
 - i) A tire's tread extends beyond the outer edge of the wheel housing inclusive of fender flares.
 - j) The tires used on the same axle are not the same size or type of construction—bias, belted, radial or snow.
 - k) The wheel nuts or bolts are missing, loose or have improper thread engagement.
 - l) The stud or bolt holes are worn out of round.
 - m) Part of wheel is bent, cracked, welded or damaged so as to affect safe operation of vehicle.
 - n) The rear wheel does not track front wheel in straight ahead position as originally designed.
 - o) The wheel base on one side differs from the wheel base on the other side by more than 1 inch, unless vehicle's design specifications indicate different left and right wheel base dimension.
 - p) The diameter of duals is not within 3/8-inch of each other.
 - q) An axle has missing tires or rims.
 - r) A tire makes contact with the body or chassis.
 - s) Spacers over 1/4 inch in thickness are used to increase wheel track.
- 2) Inspect steering system and **REJECT IF** one or more of the following apply:
- a) Steering gear box is loose on frame.
 - b) Measured movement at the front or rear of a tire is greater than 1/4-inch. Eliminate all wheel bearing movement by applying the service brake; then, with the vehicle raised and wheels in the straight ahead position, grasp the front and rear of the tire and attempt to move the assembly right and left without moving the steering gear. Measure the movement.
 - c) The linkage components are not secured with cotter pins or other suitable devices.
 - d) The steering stops allow the tire to rub on the frame or chassis parts.
 - e) The front wheels are incapable of being turned to the right and left steering stops without binding or interference.
- 3) Inspect suspension system and **REJECT IF** one or more of the following apply:
- a) The ball joint movement is in excess of the manufacturer's specifications.
 - b) The shock absorbers mounting bolts or mounts are broken.
 - c) The shock absorbers have severe leakage—not slight dampness.
 - d) The sway or stabilizer bar is missing or broken.
 - e) The coil spring or main leaf spring is broken if originally equipped.
 - f) The spring attaching part is loose, badly worn, broken or missing.

- g) Spring shackle kits or blocks are used to lower the suspension of the vehicle.
 - h) Spring shackle kits are more than 2 inches over original equipment.
 - i) Blocks are used on either axle to raise the vehicle.
- 4) Inspect floor and **REJECT IF** any of the following apply:
- a) The floor bed or inner panels have openings that would allow exhaust gases to enter either occupant compartment or trunk.
 - b) The floor bed is not sufficient to hold the weight of the driver, passengers or cargo.
- 5) Inspect the vehicle frame and **REJECT IF** one or more of the following apply:
- a) The vehicle frame is not in solid condition.
 - b) The repairs are made with tape, tar paper or cloth, or are made in another temporary manner.
 - c) The frame components are missing, cracked, rotted, or broken or are in deteriorated or dangerous condition.
 - d) Body mounts do not hold as required.
 - e) A body mount is broken, cracked, deteriorated or missing.
 - f) The difference in the body floor and the top of the frame rail exceeds 4 inches.
- 6) Inspect exhaust system and **REJECT IF** one or more of the following apply:
- a) The vehicle has no muffler or muffler has external repair.
 - b) There are loose or leaking joints.
 - c) There are holes, cracks or leaking seams in exhaust system.
 - d) There is a muffler cutout or similar device.
 - e) Part of the exhaust system passes through occupant compartment.
 - f) The elements are not securely fastened with proper clamps and hangers.
 - g) The exposed exhaust system does not have adequate heat shield or protective system.
 - h) The exhaust does not discharge to the outside edge of the vehicle body, including a truck bed, or as originally designed.
- 7) Inspect the braking system. Remove at least one front and one opposite rear wheel and **REJECT IF** one or more of the following apply:
- a) The hydraulic hoses or tubing leak; is flattened, restricted, insecurely fastened, improperly retained; or have exposed cords.
 - b) The wheel cylinder leaks, has missing parts, is improperly retained or is not functioning.
 - c) The caliper leaks, has missing parts, is improperly retained or is not functioning.
 - d) The lining is broken; not firmly attached to shoe; or contaminated with oil, grease or any other substance that would affect proper brake operation.
 - e) There is mechanical damage other than wear.
 - f) The inside diameter of drum is greater than maximum diameter stamped on drum, or greater than .090 inch over original drum diameter for unmarked drums.
 - g) The disc thickness is less than minimum stamped on assembly or less than manufacturer's specifications.
 - h) The bonded linings are less than 2/32 inch at thinnest point.
 - i) The riveted linings are less than 1/32 inch above rivet head at thinnest point.
 - j) The drums or rotors are scored deeper than .015 inches.
- 8) Inspect fuel system and **REJECT IF** any of the following apply:
- a) There is fuel leakage.
 - b) Part of the system is not securely fastened.
 - c) The system is not properly routed.

(E) ROAD TEST

Perform road test and REJECT IF one or more of the following apply:

- 1) The parking brake fails to exhibit normal resistance when an attempt is made to move the vehicle both forward and backward from a stopped position.
- 2) The automatic transmission will not hold in the park position.
- 3) The vehicle is not capable of stopping within the maximum stopping distance or swerves so that any part leaves a 12-foot lane.
- 4) There is a malfunction of the braking or steering mechanism, particular shimmy, wander, pull or another questionable operating behavior that affects safe operation of the vehicle.
- 5) The speedometer does not operate.
- 6) The odometer does not operate, except on a motor vehicle at least 25 years old.
- 7) The vehicle cannot be driven both forward and backward.