Getting Ready to Tour

By Tom O'Donnell
Northern Illinois Regional Group
Early Ford V-8 Club of America

While going through this list, observe the condition of wiring and rubber parts. Look for signs of fraying, cracking, leaking and wear. Doing all of these checks will help to find most problems before you start to tour. If you start your touring with a check list like this and fix the problems, you will be able to have an enjoyable tour without worrying about breakdowns.

1._____ Do a battery load test.
- 1.1 Battery should be fully charged, terminals cleaned and coated with anti-corrosion grease.
- 1.2 Hook up load tester and test.

2._____ Do a Voltage Drop test on the lights and starter circuits.
- 2.1 Hook up digital voltmeter between the NEG terminal of the battery and the male plug on each of the head lights. Turn on headlights. Meter should read less than 1 volt.
- 2.2 Check at each connector and switch to find cause of circuit resistance. Clean connectors and switches as needed. Replace any frayed wires.
- 2.3 Check tail light voltage drop at the tail light connector.
- 2.4 Connect voltmeter between NEG terminal of the battery to the starter side of the solenoid. Crank the engine with the ignition off. Meter should be about .5V

3._____ Do a ground connection test on the lighting and starting circuits.
- 3.1 Hook up the meter between the POS terminal of the battery and the ground connector of the head lights and check for less than 2 tenths of a Volt.
- 3.2 Check the rear lights in the same manner.
- 3.3 Check the starter circuit by connecting the meter across the POS terminal and the case of the starter.
- 3.4 Repair any circuit that has excessive ground current.

4._____ Remove the spark plugs and check their condition. Look for carbon deposits that could indicate carburetor problems. Replace and torque to 24-28 ft. lbs. for 14mm in cast iron heads.

5._____ Check the coil and condenser. Crank the engine with the ignition on to check for a nice blue spark at least 1/4 inch long.

6._____ Check fuel pump sediment bowl for signs of gas tank rust and dirt. Clean the sediment bowl and screen

7._____ Check fuel pump.
- 7.1 Disconnect fuel pump line from the carburetor and direct the output to a graduated container.
- 7.2 Crank the engine with the ignition switch OFF until 2 ounces of fuel has been delivered, this amount ensures that the pump is fully primed.
- 7.3 Continue cranking the engine for 15 more strokes of the fuel pump. The container should contain 7-8 ounces of fuel. Less indicates a problem with fuel delivery. Check for weak vacuum on the supply side of the pump or clogged lines. Replace the pump if vacuum is less than 6 inches. Clean and tighten the fuel lines, replace deteriorated flex line.

8._____ Start and run the engine until it reaches normal operating temperatures.
9._____ Check dwell and timing on the 49-53 cars.
10._____ Check and adjust idle as needed.
11._____ Hook up the vacuum gauge to the vacuum port on the engine and look for a steady reading near 20 inches. This reading will vary according to the distance from sea level and the condition of the engine.
- 11.1 Check cylinder balance by grounding one spark plug at a time. The vacuum drop for each cylinder should be the same.

12._____ Check the charging circuit.
- 12.1 Inspect the belt for proper tension, wires for fraying and connections for tightness.
- 12.2 Two brush generators.
  - 1.2 Hook up the meter between the BATT terminal of the regulator and ground.
  - 2.2 Increase engine RPM to about 1500 RPM. The voltmeter should read between 7.2 and 7.4 Volts on a 6 Volt system.
  - 3.2 Have the charging system serviced if the voltage is outside of these specifications.
- 12.3 Three brush generators. This adjustment should work for most touring with the driving done mostly during daylight hours in the summer months. If you have a radio and use it on tours turn it on during the check.
  - 1.2 Adjust the 3rd brush to give a neutral or 0 reading on the ammeter with the parking lights on at 30-35 MPH. Recheck battery condition after 300 miles. It should be fully charged and not need water.
  - 2.2 If the battery is low increase the charging rate, if the battery needs water, decrease the charging rate.
  - 3.2 If you have an Optima, get a solid state regulator to replace the cutout.

13._____ Check windshield wipers.
- 13.1 Have your helpmate spray water on the windshield and turn on the wipers. The action should be quick and sharp at idle.
- 13.2 Turn off wipers and oil all linkage pivot points.
- 13.3 Remove and lubricate motor every 3 years.
- 13.4 If the wiper action is still unsatisfactory, remove the wiper arms and drive around a few days with the wipers turned on. This will loosen up the motor and redistribute the lubricant in the motor.

14._____ Cooling system checks.
- 14.1 Inspect all hose connections for leaks.
- 14.2 Inspect all hoses for cracks and softness.
- 14.3 Inspect the belt for wear.
- 14.4 Inspect the pulleys for looseness. Release tension on belt and turn and wiggle the pulleys to check for binding or looseness.
- 14.5 Adjust belt for 1 inch movement halfway between the water pump and generator pulleys.
- 14.6 Drain and flush the cooling system.
- 14.7 Fill the cooling system with fresh coolant.

15._____ Check front end, tires and brakes.
- 15.1 Jack up the left front tire, place a jack stand under the axle and check the wheel for any movement in the vertical or horizontal plane. Movement indicates wear or bearing adjustment incorrect.

15.2 Jack up the right front wheel and remove both wheels and drums.
15.3 Check the tires for wear patterns that might indicate front end problems or balance problems.
15.4 Check the brakes for wear and the wheel cylinders for leaks.
15.5 Check the flex brake lines for cracks and leaks.
15.6 Inspect and repack the wheel bearings (at least every 3 years) and reinstall the drum and wheels.

16._____ Check the rear brakes and bearings.
16.1 Remove the rear wheels and drums and perform the brake and tire checks.
16.2 Inspect the lower surface of the axle housing for pitting and wear on 1932-1948 cars.
16.3 Inspect and repack the rear wheel bearings (at least every 3 years) and reinstall the wheels and drums.

17._____ Inspect all brake connections for leaks and all flex lines for condition. Pull back the boot on the master cylinder to check for leaks.
18._____ Drain oil and check transmission and differential oil levels.
19._____ Lube the chassis and lower the car.
20._____ Check the brake fluid. If you are not using silicone (DOT 5) brake fluid flush the system every 3 years or check with test strips. DOT 3 and 4 brake fluids attract water. The water can corrode the cylinder surfaces and cause brake failure. Water in the fluid can also lead to brake fade by lowering the boiling point.
21._____ Clean the air cleaner and refill engine with fresh oil.
22._____ Oil the generator, linkage and check steering box oil level. Grease water pumps, shift mechanism and all other points under the hood.
23._____ Check the pressure in all 5 tires.
24._____ Take for a test drive.
24.1 Listen for noises
1.2 Loose suspension components.
2.2 Bad tires.
3.2 Loose exhaust parts.
4.2 Engine noises.
5.2 Drive train noises.
24.2 Make sure the car handles normally and tracks correctly and does not pull to one side.
24.3 Engine should be responsive and all gauges should show normal conditions.
25._____ Fill gas tank and check that the fuel level gauge works.
26._____ Wash car and check for water leaks.
27._____ Check spare parts for condition and store them in the car.
28._____ Check tool box for necessary tools and store them in car.

Drive safely. Every morning before driving, check fluids and tire pressure. Do a walk around inspection and check operation of lights.

Spare Parts and Tools in Kept in Car

Parts

- Spare coil and condenser. Both have been tested at beginning of season.
- New or tested rebuilt fuel pump.
- Spare bulbs for headlights and taillights.
- Spare fuses.
- Spare spark plugs.
- Points and rotor for 49-53 engines
- Good tested distributor for earlier engines.
- Regulator
- Fan belts
- Spool of 14 gauge wire.
- Optional parts if you have room- generator, water pumps, wheel bearings and grease seals, carburetor or rebuild kit, coolant, motor oil, miscellaneous nuts and bolts.

Tools

- Socket set; make sure that it has the large sockets necessary for your car.
- Breaker bar, long enough to exert at least 100 ft. lbs. torque.
- Pliers - slip joint, needle nose, diagonal cutters, water pump or channel lock, locking or vice grip
- Screwdrivers, several sizes to fit all of the screws in your car.
- Volt meter
- Pry bar, short and as long as you can carry.
- Scraper
- Combination wrenches and open end wrenches
- Scissors jack and bottle jack
- Wedges to put under tires when jacking.
- 14 inch long pieces of 2x4 (use to distribute load of jacks or wedge under frame for additional stability when car is on jack.)
- Safety signals or triangles.
- Battery operated trouble light and flash light with spare batteries.
- Original tool kit for your car.
- Hand wipes or water-less hand cleaner.
- Wiping cloths, rags and paper towels.
- Emergency air supply for flat tires.
- Oil can with medium weight oil.
- Grease gun with all purpose grease.
- Car cleaning supplies and tools.
- Optional: empty container for gas, mat to lay on for under car repairs

Miscellaneous

- Registration information, insurance information, national roster, road maps, note pad, pen, cell phone, parts catalog and parts vendor phone numbers.