PACKARD MOTOR COMPANY OF PITTSBURGH

MEETING NOTES AT SPECIAL FACTORY SERVICE MEETING MARCH 9 and 10, 1932

MODEL 900

MOTOR

1. SPARK PLUGS don't stand up; had to renew at 400 miles. It is considered that K10 is too hot a plug and K9 has been made standard. In addition to this, there is a general improvement in the plug itself.

2. GAS THROTTLE RODS vibrating against dash; limits too loose and rods too close to dash. Rod must clear motor and dash. Determined end play to be 3/8" and use new spring (piece #20345) at bracket to hold end thrust to the left.

3. EXHAUST MANIFOLD GASKETS burn out. Mr. Paton is working on this endeavoring to obtain a gasket that will slip on one side and expand on the other.

4. OIL KNOCKS. Tape the oil gauge line or change pressure adjustment or in an extreme case use a Mushroom type valve in the pump.

5. IGNITION COIL noisy. North East working on this. In service be sure that the distributor rotor gap is not too wide, that the high tension wire is pushed all the way into the second notch of the coil, and, if necessary, remove the coil and tape the brackets or in some manner insulate the coil from the dash which seems to act as a sound board.

6. AIR CLEANER difficult to remove. A change has been made in the cleaner flange, allowing more clearance with the generator voltage regulator.

7. HOT AIR STOVE AND BONNET interfere. A rubber bumper is being added in production, and in service can be obtained under piece #203337, Rubber bumper retainer 203338, Screws 145661, Nut 9003, Lockwasher 5500.

8. HOT AIR STOVE THERMOSTAT VALVE rattle. The first 200 thermostats were liquid controlled and sluggish, causing vibration. This can be identified by shaking. New gas filled thermostat will be supplied in service stock. Set to open between 100 and 105 degrees Fahrenheit.

9. FLUCTUATION IN READING OF TEMPERATURE GAUGE. This is due to location of thermostat in cylinder which continually operates. No correction should be made. Free wheeling will cause rise in temperature at high speeds because of reduced motor speeds.

10. LOW SPEED VIBRATION. This is due to rubber motor mounting. Causes certain rattles or buzzes at this period.

CHASSIS

11. REAR SPRINGS strike through; not heavy enough. Springs should be supplied for service with 1" to 1½" more arch. Rear service springs are being made up same rate as at present, but capacity will be increased 125 or 150 pounds. The arch will be increased. Piece number on this spring will be supplied later.

MODEL 900

CHASSIS cont'd

12. FOOT BRAKE too severe; grab and pull to the left regardless. The present brakes call for a 50% adjustment, front and rear. Detailed brake adjustments are outlined in Service Letter Vol. 6 No. 5, March 1, 1932. Star wheel nut adjustment very sensitive. May have to change cable adjustment one-half turn to equalize. Use Gredag #213 1/2 lubrication on brake backing plate where shoe comes in contact. Two types of brake lining used. Hyco #1257 on secondary shoes and Raybestos #451 on primary shoes. Primary shoe front in top position - primary shoe rear on the bottom. Snapping noise in reverse caused by incorrect adjustment of brake shoe stop, or cables may be adjusted too tight. Should be adjusted with all slack just out. Brakes pulling to left or right are caused by loose spring clips. Brake cross shaft rattle can be eliminated by adjusting brake shaft brackets to make spring washer effective. New anchor bolt wrench ST 852.

13. RIDE CONTROL not stiff enough in stiff position. A change has been made in the rear shock absorber compression valves from G1 to GO to stiffen the ride. Engineering Department to experiment further with springs as it is felt that more can be accomplished in this direction than on the shock absorbers.

14. SHOCK ABSORBERS knock and squeak (cricket noise). Knock is caused by the compression valve. A new double area valve is specified for production and will be available in service GIX Front, GOX Rear. Cricket sound is caused by the rebound valve closing flat. A check is being made of the cam clearance and steps will be taken to change the seating of these valves, which will eliminate this sound. They will also be available for service.

15. HORN BUTTON ASSEMBLY vibrates when motor is pulling. A new wrench is available from the Special Tool Department ST 853. With this wrench it is possible to tighten up the general assembly and eliminate the vibration.

16. BATTERY in poor position; difficult to remove and replace. This was referred to the Quality Committee, who will specify changes that will simplify the removal and installation. The battery used in the 900 is a 19-plate, although not a High Level type; it does not require attention any more frequently than the High Level used in the Ninth Series.

17. HUB CAP CLAMP RING SCREWS work loose. The rings are being fitted tighter to wheel and the original star washers used on the screws are being replaced with lock washers.

18. CLUTCH. There is a new pressure plate and also a slight change in the driven plate. These changes are felt to be a considerable improvement in clutch design.

19. CLUTCH CONTROL. Clutch control operation is covered in general in the February 1 Service Letter, Vol. 6 No. 3 and March 15 Service Letter, Vol. 6 No. 6. New clutch release bearing oil wick will be covered in Technical Letter. The first 2500 cars came through with the old style wick. The change will consist of using only 1½" of wick and this change should be made in service. This change applies to the 900 only. A control rod with right and left hand threads is specified for production.

MODEL 900

CHASSIS cont'd

20. TRANSMISSION. The construction of our transmission is superior in design to many competitive cars. Double thrust ball bearings are used rather than thrust washers and close clearance limits are possible throughout the gears, shafts and bearings that cannot be obtained in most competitive trarsmissions. Due to these close limits the shift on some of our transmissions is rather stiff, but after the breaking-in period these close fits are very desirable. Two or three hundred miles of driving is all that is necessary to accomplish this. In cases of the transmission shifter rail striking the case, can be cared for in the field by grinding off the shifter rail or chip out the housing with a chisel. This condition is apt to cause the transmission to jump out of high. If it is impossible to correct by the suggested method, the transmission is to be returned to the Factory. Whistling noise is caused by gear teeth contact. This condition will improve with use. Our Penola Leaded Compound, handled by our Accessory Department, is approved as ideal for these syncro-mesh transmissions. Transmission or clutch rattle while free wheeling cannot be entirely eliminated. This is sometimes noticeable in second gear. The Engineering Department is working on this and will, no doubt, have the answer very soon.

BODY

21. SEAT CUSHIONS not flexible enough; too hard. A change in the seat cushion spring is being made to give more comfort.

22. REAR SEAT not enough head room; specification clearance apparently not figured from angle passenger rides. To overcome this the two back rows of springs in the seat cushion are being changed, the top bow construction altered and the head lining attached closer to the bows. All of these things combined give a result of from 1½" to 2" more head room.

23. REAR SEAT BACK REST not sufficiently padded to the top. A vote was taken as to whether the entire seat should be moved forward or the top of the back rest padded out. It was agreed by vote that the back rest be padded out and the contour made to conform with the increased padding.

24. FRONT SEAT uncomfortable; can't be compared to the 901. A study is being made of the front seat to see what improvements can be incorporated to make it more comfortable.

25. UPHOLSTERY cheap looking compared with Auburn and Buick. Mr. Macauley, Mr. Peters, Ed. Macauley and Mr. Knapp were to make a personal inspection of the upholstery and make recommendations, if advisable, to improve the texture or pattern.

26. TWO-PASSENGER COUPE LIGHT TOP unpopular; criticised; should build black top without extra charge. This criticism was only received from Pittsburgh and St. Louis. The Factory can furnish black khaki top for very small additional cost. Mr. Bishop to see Mr. Peters and inspect one of these tops on next trip to Factory.

MODEL 900

BODY cont'd

27. TWO-PASSENGER COUPE DOORS criticised because they are half doors same as used on Coupe Roadster. This is a matter of style and not cheaper construction. This type of door is used to fit in with the general appearance of the Sport Coupe. Full door could be made as cheaply as the half door, but would not match the general scheme as well.

28. BODY AND DOOR PANELS wavy, particularly around the cowl. This was mostly due to faulty dies, which have since been corrected.

29. FRONT PILLARS AT COWL paint chipping and pillars squeak. New rubber beading being used in production now which fits in at the top and bottom of this pillar cover. Makes a neat looking job. Squeak has been located near upper front door hinge. Oil (use Riz) in back of upper hinge will overcome this.

30. FRONT DOOR HINGES. Factory experienced some difficulty with these pillars received from the vendor not being made true to blue prints. This has been overcome in production. In service use a straight edge along all three hinges and adjust as necessary until properly aligned.

31. DOOR CHECK STRAP rattle. Will be taken care of in production. Can be cared for in field by cementing a piece of upholstery on the flat spring guide on which the check strap slides in the door recess.

32. WINDSHIELD WIPERS noisy, operate too slow, do not wipe sufficient space. Mr. Knapp will follow through with vendors. It was suggested that wiper blades be parked in center on glass by reversing wipers. This will be submitted to Quality Committee.

33. GLOVE COMPARTMENT DOOR fit unsatisfactory. This will have attention. No doubt the beaded or rolled edged door used on the Ninth series will be adopted on the 900.

34. HOODS poor fit; impossible to adjust radiator to help alignment as there are no slots in the cross members. Mr. Baker of the Inspection Department has already made a study of the hood fits and necessary steps taken to make a much neater job of this.

35. SIDE VENTILATORS leak air. New, thicker gasket now being used with stiffer spring.

36. WIND NOISE AND WHISTLE AT WINDSHIELD. Extensive experiments are being made. Rubber fillers above windshield have been added.

37. WINDSHIELD TO TOP CLAMPS break off when lowering. Decided to leave clamp spring off in production.

38. FRONT TOP BOOT FASTENER pulls out. A change has been made in production to eliminate this.

39. HEAD ROOM IN STATIONARY COUPE not sufficient. New cushion gains 1", also a reduction is being made of thickness of top padding.

MODEL 900

BODY cont'd

40. FRONT END OF FENDER TO SPLASHER poorly fit, also leaks mud and water. Referred to Mr. Baker, Quality Inspector.

41. FRONT FENDER TO SPLASHER AND REAR also leaks. Referred to Mr. Baker, Quality Inspector.

42. BONNET slides too much on hinge pins. Mr. Baker reports that this has been taken care of satisfactorily with a stamping. Details will be given in Service Letter.

43. DOOR LOCK rattle reported. Lateral movement of door lock bolt excessive. Can be corrected by removing enough metal from the end of the strap which operates the lock bolt to relieve the interference where the strap meets the shoulder.

44. FRONT SEAT CUSHIONS hard to get in place. A new design bracket is being made up for this and dowels are being eliminated.

45. SEAT REGULATOR HANDLE too close to cushion. A study is being made of this.

46. WINDOW CHANNEL SCREWS ON BOTH FRONT DOORS AT TOP FRONT are now being countersunk. Should be countersunk in the field.

47. ROOF MOULDING. New material is being used on the roof moulding that will take lacquer and produce a smoother job.

48. SEAT BACK COIL SPRINGS when contacted cause a metallic click. A change has been made in the diameters of these coils which will allow one coil to compress into the circle of the next coil below it. Spring will be enclosed in a cotton bag or tube. In service this click can be eliminated by lacing the coils with cotton.

49. WIRES TO RIGHT HAND SMOKING SET too long.
50. CIGAR LIGHTER IN REAR in poor position.
51. FENDER LIGHT INSULATOR is too thin.
52. TOUCH-UP PAINT ON COLORED CHASSIS is off color.
These items are new and will be referred to the Inspection Department.

53. BUMPER ATTACHMENT reported very difficult. Referred to Mr. Baker. It was suggested that the trunk rack rubber bumper be left off.

54. LIBBEY-OWENS GLASS STICKERS will be left off by the vendor.

55. DOOR SCUFF PLATE insufficient clearance at ends. This has been referred to Mr. Baker.

56. OPENING AT UPPER CORNER OF WINDSHIELD will be closed with new gasket going into production.

MODELS 901-2-3-4

MOTOR

1. SPARK PLUGS have to be renewed on an average of 2000 miles. K9 have been specified for current production, but a K8 cooler plug is now available and should be used for hard, summer driving. K10 is practically out, except where the use of a hot plug makes it desirable.

2. CYLINDER HEAD GASKETS blow out. The Factory are working on this to obtain a better gasket, but the general opinion is that most gasket failures follow jobs where the head has been removed and replaced. A close check should be made in tightening the head properly when it is replaced.

3. EXHAUST MANIFOLD GASKETS burn out. Mr. Paton is working on this and hopes to have a better type of gasket soon.

4. HARD STARTING - just hard to start on a cold morning. A change has been made in the vane hold-down spring, which will help in starting, also a new choke cam is available, which materially increases the efficiency of the carburetor action after the motor has started. This will be covered in the Service Letter.

CHASSIS

5. SHOCK ABSORBERS squeak (cricket sound). The cricket sound is caused by the rebound valve closing flat on its seat. A check is being made of the cam clearance and steps will be taken to change the seating of these valves, which will eliminate this sound. The valves will be available in service stock.

6. TRUNNION BRACKET allows too much steering road shock; springs seem weak. No general complaint was received from the field on this particular point. It is felt that the tension of the springs is right. If stiffer springs are desirable (in the exceptional case) it will be necessary to shim the springs.

7. CHASSIS LUBRICATING SYSTEM - oil doesn't seem to reach right front spring rear bolt. The Factory have not had a general complaint on this particular point, but will check the lubricating system for this trouble.

8. GEAR SHIFT LEVERS still vibrate; have done everything to eliminate this. The Factory is still working on this, but believe that the installation of the new rubber shifter ball will eliminate the most of this vibration.

9. STEERING GEAR too stiff, particularly on the 902-3-4 models. 900 Steering going into production.

10. REAR SPRINGS strike through. Mr. Paton is working with springs of different weight capacities, etc. to correct this condition.

MODELS 901-2-3-4

BODY

11. SIDE COWL VENTILATORS still vibrate; no successful method yet of eliminating this. A new perforated fibre board will be used as a ventilator in the 900, which entirely eliminates the possibility of vibration. This ventilator will be made up for service on the Ninth series.

12. HOODS noisy; 901-2 crunching sound at center hinge. 903-4 louvre doors vibrate. Mr. Baker is working on this, also the vibration in the louvre doors and the field will be acquainted later with any improvement that can be suggested.

13. REAR SEAT CUSHION 901-2 uncomfortable at extreme right and left side over wheel housing. This was more prevalent in the 902 and was only reported in a few extreme cases. In such cases it will be necessary to obtain one of the cushions made up for service stock, which incorporates a different type of spring lacing, etc.

14. TRUMPET HORNS won't stay in adjustment. The only adjustment the Factory recommends for the field is to clean the horns. If this does not bring back the original tone, it will be necessary to change them as we have been doing.

15. COILS noisy; have a snapping sound; renewing distributor rotor arm seems to eliminate. North East working on this. In service be sure that the distributor rotor gap is not too wide, that the high tension wire is pushed all the way into the second notch of the coil, and, if necessary, remove the coil and tape the brackets or in some manner insulate the coil from the dash which seems to act as a sound board.

FIFTH SERIES - 443

MOTOR

1. PISTON SLAPS - unable to keep piston slaps out of the motor, even with reground blocks, also enamel on reground blocks does not stand up, comes off with first motor wash. Manifold stud threads being tapped out too much and studs screwed in too far, also some cases of loose valve guides. These items were reported direct to Mr. Horsley and he is to make a careful check of these conditions in service production.

SIXTH-SEVENTH AND EIGHTH SERIES

MOTOR

1. WATER PUMP NEW STYLE 7th & 8th SERIES impeller screw loosens in service. Factory not familiar with this complaint and Mr. Stalker would like one of these pumps sent to him.

2. CYLINDER HEADS cracked between 1 & 2 and 5 & 6 cylinders on top. The Factory is familiar with this complaint and heads are now being annealed. Credit will be allowed on cracked heads.

SIXTH-SEVENTH AND EIGHTH SERIES

MOTOR

3. CYLINDER BLOCKS cracked from valve port to cylinder. Factory are familiar with this and will allow exchange credit on block or full credit if small mileage.

4. SPARK PLUGS don't stand up. A close study is being made of spark plugs of different heat capacities and their suitableness for use in different types of heads. (See Service Letter December 15, 1931, Vol. 5 No. 24). There is also a general improvement in the plug itself. K9 is now standard in production and K8 a new, cooler plug should be used for high speed or summer driving.

5. FAN BELTS noisy and wear out rapidly. This has not been a general complaint with the Factory, but they are checking into it.

6. VIBRATION DAMPERS rust, corrode and seize up. This condition is confined mostly to the 6th and 7th series cars, and is not so prevalent where the new style water pumps are used.

7. HARD STARTING. On D & L Carburetors the new type vane hold-down spring and choke cam can be added which gives a decided improvement in carburation for starting and during the warming up period. (See notes on 9th series).

8. CONNECTING RODS fail, bolts break, rods break at oil bleed hole; babbitt pounds out. Factory is working on a service arrangement to cover this situation. Mr. Algar will have complete information later.

9. CYLINDER AND PISTON ASSEMBLIES excessive wear. These cases are the exception rather than the rule and should be reported to Mr. Algar who will work up a service arrangement with the Factory on any cases of this kind.

CHASSIS

10. VANE TYPE SHOCK ABSORBERS. Mr. Algar is working out credit arrangement with Mr. Stalker and should be informed of any vane type shock absorber failures on which credit is expected.

11. BRAKE OPERATING SHAFTS pulling out. This condition is caused by uncontrolled rebound of the springs. There will be very few cases if the shock absorbers are kept in proper adjustment. Cases of this kind, where credit is expected, should be reported to Mr. Algar who in turn will take the matter up with the Factory.

12. RADIATOR SHUTTERS vibrate. The radiator shutters in production have been carefully checked and the limits reduced. In service it will be necessary to use the new rust proof steel washers or bend the individual shutter fin to eliminate the up and down movement.

13. CLUTCH PLATES AND BEARINGS fail at low mileage. Considerable improvement has been made in the new 900 clutch; experiments are being carried on with these improvements in the 9th series; if found equally successful, they will, no doubt, be incorporated in this model.

SIXTH-SEVENTH AND EIGHTH SERIES

BODY

14. RUBBER LINERS BETWEEN BODY AND FRAME flatten out; don't stand up in service. There is nothing that can be done with the old liner. The new style fabric liner should be used.

15. DOOR HINGE PINS wear too rapidly. There is no recommended practice for the field on this particular item. Periodical lubrication, of course, will minimize the amount of wear. Anything that is done to stop the body weave and keep the doors tight will help obtain longer life from the hinge pins. Excessive body and door movement greatly aggravates hinge pin wear. The installation of the new body liner very materially helps steady the body and doors as a whole and adds to the life of the hinge pins.

Bruce G. Algar

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General Service Manager

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