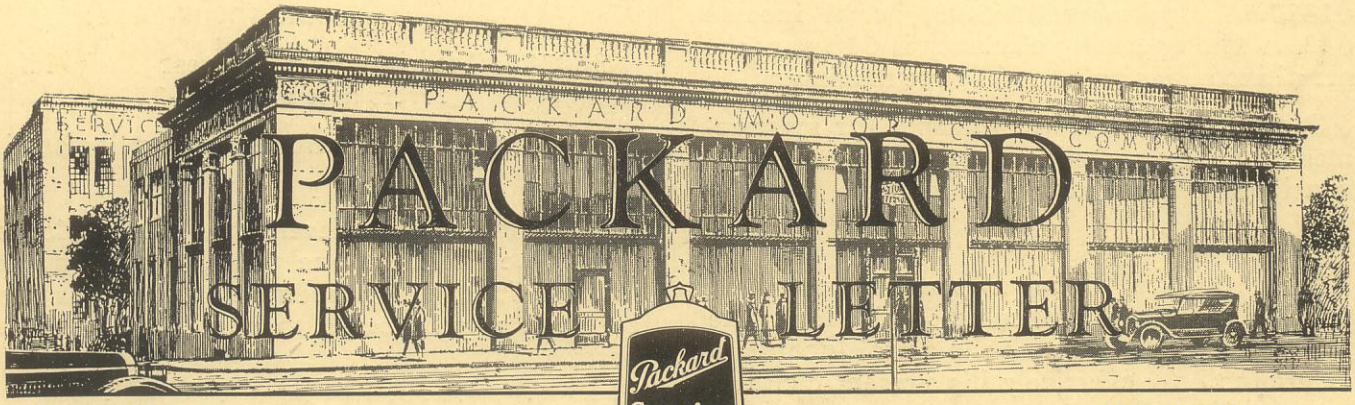

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HOW CLOSE TO 100% ARE YOU COMING?

You know what your shop is producing in the way of income. You assume everyone is busy and every available square foot is being used to best advantage.

Do you know definitely that your present income is the maximum income possible with your present space, equipment and manpower? Here is how to find out.

Your operating capacity in income is figured by taking your customer worth per hour of your specialized services, such as lubrication and wash rack and adding to it the customer worth per hour of the mechanics.

Example—

Wash rack (2 jobs per hour @ $1.25 each	$ 2.50
Lubrication Dept. (2 jobs per hour @ $1.00 each) =	2.00
5 Mechanics (Customer rate $2.50 per hour) =	12.50
	$17.00
For an 8 hour day 8 × $17.00 =	$136.00
For a 45 hour week 45 × $17.00 =	$765.00

The operating capacity in income can thus be figured for any period. Any change in specialized departments, number of mechanics or customer rates will change this figure.

Compare your actual labor sales with the operating capacity in income and you can determine the effectiveness of the actual operation. In the example given, the capacity in income was $765. If the actual labor sales for the week was $525, the department was operating at ($525 ÷ 765 = 68) 68% efficiency. The objective, of course, would be 100% and you can come close to it by making weekly comparisons and checking closely those things which affect the result.

Any margin between capacity in income and actual income may result from—

1. Idle time in the shop.
2. Warranty or policy work.
3. Internal work on new or used cars.

It is not possible to eliminate these items but you should know what the ratio is between what can be done and what is being done and the reason for the difference.

Your capacity in income may not be your maximum capacity and you should know what this is.

The maximum capacity for specialized departments is the same as the operating capacity, but for the shop you use car working space capacity.

Example—

Wash rack (2 jobs per hour @ $1.25 each) =	2.50
Lubrication (2 jobs per hour @ $1.00 each) =	2.00
Shop—10 car working spaces at one time @ $2.50 per hour) =	25.00
	$29.50
For an 8 hour day 8 × $29.50 =	$236.00
For a 45 hour week 45 × $29.50 =	$1327.50

Thus the maximum income capacity may be figured for any period.

Now a comparison may be made between maximum, operating, and actual income.

In the examples, the figures are: maximum $1327.50, operating $765.00, actual income $525. The operating efficiency is 68% but the actual income is only 39% of the maximum.

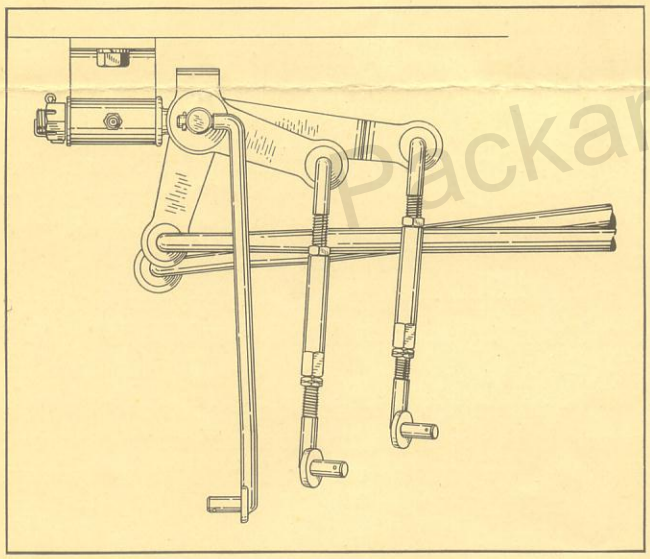
Such comparisons are valuable for management purposes and should always be taken into consideration in setting sales quotas.

Summary—

Every Service Manager should know the operating capacity in income of his shop. He should compare this with the actual income to determine how effectively his present facilities are used.

Every Service Manager should know the maximum income capacity of his shop in order to determine whether it is possible to meet a given quota with his present facilities.

GEAR SHIFT IDLER LEVERS— CLIPPER



When excessive lost motion develops in the gear shift linkage it may be found that no one point is responsible. It is more likely to be the accumulated clearances at all the wearing points.

We have accordingly made up equipments for the Clipper models which include all of the parts which are mounted on the side of the motor. Every part shown in the illustration is included in the equipment, which may be ordered as follows:

360366 Steering column gear shift idler levers assem. (1951)

360369 Steering column gear shift idler levers assem. (2000-2001)

360385 Steering column gear shift idler levers assem. (2003-2006)

The suggested list price of the equipment is $6.84.

When lost motion develops at a low mileage it may be found at one point, but when the mileage is high or operating conditions are severe it may be better to replace all of these parts.

Bear in mind that this equipment does not include any of the parts at the lower end of the steering column or any parts in the transmission cover.

As we have said before, a complete check of the linkage must always include:

1. Steering column levers and bracket.
2. Idler levers and rods.
3. Transmission cover.

THE STARTING CIRCUIT

20th Series Cars

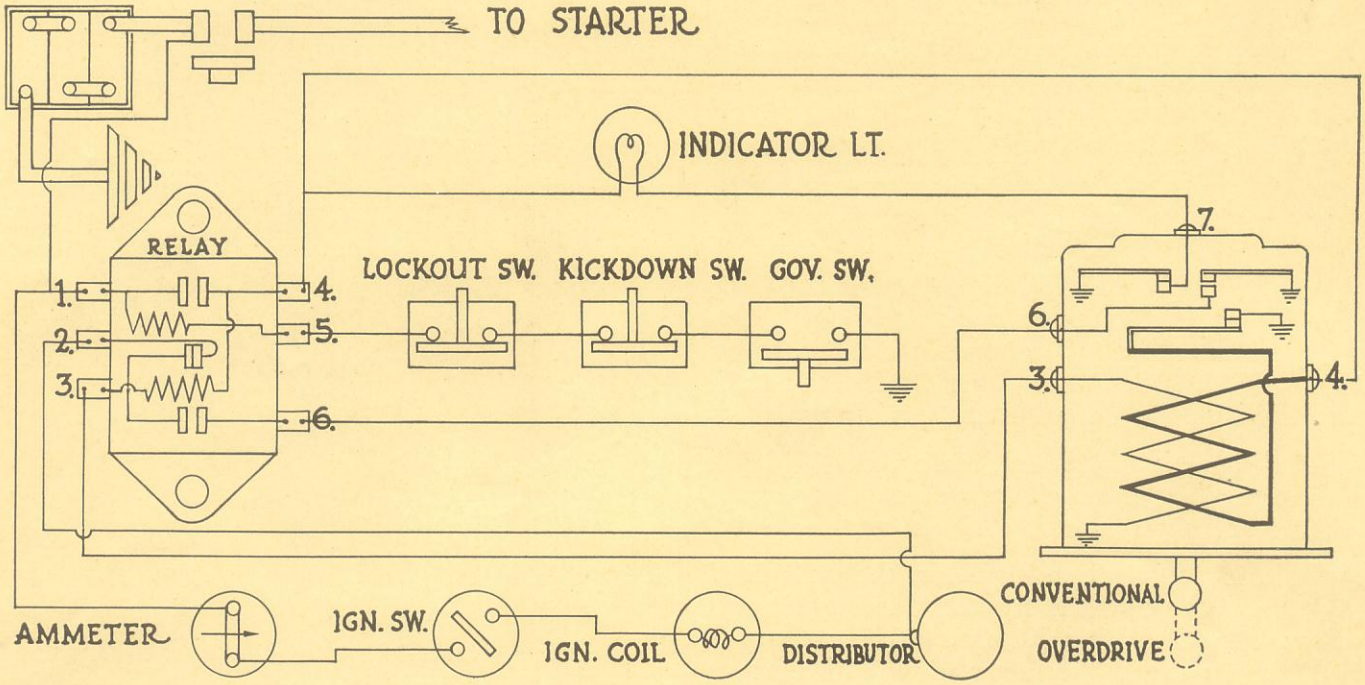
We still hear of cases where owners of 20th Series cars have trouble in starting, due to the fact that the engine does not crank when the accelerator pedal is depressed.

This situation was covered in the Service Letter of June 15, 1942, in which we suggested that instead of grounding the starter motor solenoid switch through the generator, the wiring may be changed to ground directly on the starter motor. If you do not recall this letter please review it again.

In these earlier instructions it was not clear that the red generator wire (3A on the diagram) is still needed. While this wire is no longer used in the starting circuit, it is in the charging circuit between the generator and the regulator.

When the starting circuit is grounded on the starter motor we depend on the carburetor switch to break the circuit when the engine starts. If the starter motor keeps on spinning it means that the carburetor switch contacts have not broken. Make sure that the ball and the plunger are free to operate, as described in the Service Letter of January 1, 1943.

OVERDRIVE WIRING DIAGRAM



This diagram shows the electrical circuits of the overdrive mechanism.

You will see that the circuit which grounds at the governor controls the operation of the solenoid. When the cut-in speed is reached, and the governor points close, the upper relay closes.

When the relay closes, the current leaves the relay unit at No. 4, enters the solenoid at No. 4 post, and energizes the heavy "pulling" coil. The No. 3 circuit is completed at the same time and energizes the light "holding" coil. When the solenoid pawl moves to the overdrive position the No. 4 circuit is broken by the separation of the points in the head of the solenoid, but the No. 3 circuit is still complete, so that the holding coil keeps the pawl in the engaged position.

The No. 7 circuit simply operates the indicator light. It is completed when No. 4 circuit is closed, but you can see that a break in this circuit, such as a burnt out bulb or a poor connection, would not affect the operation of the overdrive.

The No. 6 circuit momentarily grounds the ignition as the solenoid pawl engages, due to the fact that the points in the solenoid head make contact for an instant during the travel of the pawl. This takes the load off the drive shaft so that the pawl can engage.

If you know what the circuits are supposed to do it will be much easier to trace a trouble. For instance, a ground at the lock-out switch or kick-down switch will complete the No. 4 circuit before the governor points close, so that the indicator light will be lit below the cut-in point. Or, a failure of the No. 4 points in the solenoid head to separate may blow the fuse or burn out the heavy coil in the solenoid.

In actually checking the circuits you will, of course, use the regular wiring diagram and in tracing a broken circuit we suggest that you pay particular attention to the cable connectors on the inside of the frame. An ordinary trouble light makes the checking of the circuits a simple matter.

WHAT SELLS BLUE CORAL?

1. A demonstration is really convincing.
2. Use the attractive mailing folders. They are supplied without charge.
3. Use the 8 foot Banner. Display it prominently. It's supplied without charge.
4. Display the attractive Blue Coral bottle and sealer.
5. It's a product that will save the finish and customers are very much interested in protecting their cars.

SERVICE SIGNS

Sign manufacturers discontinued the use of metal about a year ago and we have endeavored to take care of the Service Sign requirements with some small flange type signs we had on hand. These are 14 inches by 18 inches and were intended for authorized service station use. They are not very suitable for Dealer use and by comparison with the signs of other car manufacturers are not at all adequate.

We have been able to obtain a number of Service Signs of more suitable size. The panel is constructed of $\frac{3}{16}''$ asphalt panel board to withstand weather. It is 41″ x 27″ finished alike on both sides in blue and white and varnished.

The handing equipment includes a $1\frac{1}{8}''$ oak pole and 2 metal attaching straps. Supporting chains are not available and are not included.

This is a substitute sign for the unlighted P-950. The P-1500 lighted Service Sign is discontinued for the duration. The new sign will serve for the duration and we will replace it when metal is again available. The rental price of $10.50 will be maintained.

The sign is to be ordered on form VT-81, which serves as a rental agreement with Distributers. Distributers with the use of form VT-80 may sublease the sign to Dealers.

These signs will be known as P-1050 and orders on VT-81 should be sent to the Car and Service Sales Division.

The small flange type sign P-200 will be supplied without charge on Notice of Appointment forms when specified. If the P-1050 sign is desired for a newly appointed Dealer, the VT-81 order form should also be used.

FRONT END SPECIFICATIONS

Model	Camber	Caster	Toe-In	Knuckle Pin Angle
2020	R.H. $0° + \frac{3}{4}° - \frac{1}{4}°$ L.H. $0° + 1° - 0°$	Pos. $\frac{1}{4}° \pm \frac{1}{2}°$	$0° + \frac{1}{8}° - 0°$	$2\frac{1}{2}°$
2021	R.H. $0° + \frac{3}{4}° - \frac{1}{4}°$ L.H. $0° + 1° - 0°$	Pos. $\frac{1}{4}° \pm \frac{1}{2}°$	$0° + \frac{1}{8}° - 0°$	$2\frac{1}{2}°$
2023-2004-5-7-8	R.H. $0° + \frac{3}{4}° - \frac{1}{4}°$ L.H. $0° + 1° - 0°$	Neg. $1°\ 15' \pm \frac{1}{2}°$	$0° + \frac{1}{8}° - 0°$	$2\frac{1}{2}°$
2000-1	$\frac{1}{4}° \pm \frac{1}{2}°$	Neg. $1° \pm \frac{1}{2}°$	$0° + \frac{1}{8}° - 0°$	5° 35′
2003-6	$\frac{1}{4}° \pm \frac{1}{2}°$	Neg. $2° \pm \frac{1}{2}°$	$0° + \frac{1}{8}° - 0°$	5° 35′
1951	$\frac{1}{4}° \pm \frac{1}{2}°$	Neg. $1° \pm \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$	5° 35′
1900-1	$\frac{1}{2}° + \frac{3}{4}° - 0°$	Pos. $\frac{1}{2}° \pm \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$	$2\frac{1}{2}°$
1903-4-5-6-7-8	$\frac{1}{2}° + \frac{3}{4}° - 0°$	Neg. $\frac{1}{2}° \pm \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$	$2\frac{1}{2}°$
1800-1	$\frac{1}{2}° + \frac{3}{4}° - 0°$	Pos. $\frac{1}{2}° \pm \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$	1° 54′
1803-4-5-6-7-8	$\frac{1}{2}° + \frac{3}{4}° - 0°$	Neg. $1° \pm \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$	1° 54′
1700-1-2-3-5	$\frac{1}{2}° + \frac{3}{4}° - 0°$	Pos. $\frac{1}{2}° \pm \frac{1}{2}°$ $0° + 0° - \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$ $\frac{1}{16}° + \frac{1}{16}° - 0°$	1° 54′ 1° 30′
1707-8	$1° \pm \frac{1}{4}°$			
1600-1-2	$\frac{1}{2}° \pm \frac{1}{2}°$	Pos. $1\frac{1}{2}° \pm \frac{1}{2}°$	$0° + \frac{1}{16}° - 0°$	1° 54′
1603-4-5	$\frac{1}{2}° \pm \frac{1}{4}°$	Pos. $2\frac{1}{2}° \pm \frac{1}{2}°$	$\frac{1}{16}° + \frac{1}{16}° - 0°$	1° 30′
1607-8	$\frac{1}{2}° \pm \frac{1}{4}°$	$0° + 0° - \frac{1}{2}°$	$\frac{1}{16}° + \frac{1}{16}° - 0°$	1° 30′
115-C-120-C-1500-1-2	$1° \pm \frac{1}{4}°$	Pos. $2° \pm \frac{1}{2}°$	$\frac{1}{16}° \pm \frac{1}{16}°$	1° 30′
1506-7-8	$1° \pm \frac{1}{4}°$	$0° + 0° - \frac{1}{2}°$	$\frac{1}{16}° \pm \frac{1}{16}°$	1° 30′

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