



Fixed Operations 2 -

Financial Calculations and Formulas

Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	Margin Category
Customer Car	\$ 61,727	\$ 44,329	71.82%	46.04%
Customer Express	\$ 12,535	\$ 7,364	58.75%	9.42%
Customer Other	\$ 9,640	\$ 7,043	73.06%	7.51%
Warranty	\$ 61,382	\$ 11,776	19.19%	12.14%
Warranty Other	\$ 29,253	\$ 18,573	63.49%	0.00%
Invoice	\$ 9,728	\$ 2,849	29.19%	21.97%
Inv / Road Ready/PCI	\$ 3,728	\$ 2,849	76.45%	2.85%
Act. Cost Of Labor	\$ 133,113	\$ 89,940	67.56%	100.00%
Total	\$ 133,113	\$ 89,940	67.56%	100.00%

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The Picture	
Customer Pay Gross Profit %	70.04%
Total Service Dept. G.P. %	67.56%

Parts To Labor Ratios

Category	Parts Salary	Labor Salary	PL Ratio
Customer Car	\$ 23,632	\$ 61,709	0.40
Customer Truck	\$ 29,663	\$ 22,531	2.37
Customer Other	\$ 4,267	\$ 6,638	0.64
Warranty	\$ 13,564	\$ 16,188	0.71
Warranty Other	\$ -	\$ -	0.00
Admin	\$ 3,499	\$ 26,252	0.23
Total	\$ 84,625	\$ 129,406	0.65

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Customer Pay Gross Profit %	70.04%
Total Service Dept. G.P. %	67.59%
Parts / Labor Ratio (Cust. Pay Only)	0.70

Service Department Profit Centering

Financial Category	Value Amount	% of Gross	Profit
Department Office	\$ 49,240		
Variable Expense		0.00%	
Shipping Expense		0.00%	
Personnel Expense	\$ 54,150	40.34%	
Semi-Fixed Expense	\$ 26,781	20.18%	
Fixed Expense	\$ 11,844	9.07%	
Unallocated Expense		0.00%	
Operator Salary	\$ 1,351	1.03%	
Total Expenses	\$ 94,135	70.62%	
Net Profit	\$ 4,105	4.62%	

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Customer Pay Gross Profit %	70.04%
Total Service Dept. G.P. %	67.50%
Parts / Labor Ratio (Cust. Pay Only)	0.70
Total Service Dept. Expenses	\$ 34,131

Fixed Absorption

Parts Department Total Gross	\$ 44,073	% All Over Exp	70.34%
Service Department Total Gross	\$ 92,106		67.56%
Body Shop Department Total Gross			0.76%
Total Fixed Gross Profit	\$ 136,183		
Total Dealership Expense	\$ 294,312		

Overhead Expense	\$ 294,312		
Total Fixed Gross Profit	\$ 136,183		
Total Dealership Expense	\$ 294,312		
Fixed Absorption Percentage	46.27%	Guideline	60%

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The Picture	
Customer Pay Gross Profit %	70.34%
Total Service Dept. C.P. %	67.56%
Parts / Labor Ratio (Cust. Pay Only)	0.76
Total Service Dept. Expenses	\$ 94,135

NADA ACTUAL SERVICE ANALYSIS

Performance

	Labor Sales / Month	Effective Labor Rates	Hours Billed
Customer Car*	\$ 61,795	85.70	721.1
Customer Truck*		85.70	0.0
Customer Other*	\$ 12,535	85.70	146.3
Warranty	\$ 16,186	100.52	161.0
Internal	\$ 29,253	85.70	341.3
New Vehicle Prep	\$ 3,728	100.19	37.2
Total	\$ 123,497		1406.9

POTENTIAL

\$ 123,497	÷	1406.90	=	\$ 87.78	
Total labor sales for month		Total hours billed		Effective Labor Rate	
10.00	x	8	x	20	=
# Service mechanical technicians		# Hours/Day		Working Days/Month	Clock Hour Avail
1,600.0	x	\$ 87.78	=	\$ 140,447	\$ 175,558.81
Clock Hours Available		Effective Labor Rate		Labor sales potential @100%	Labor sales potential @ 125%

How proficient are your technicians ?

1,406.9	÷	1,600.00	=	87.93%
Total Hours Billed		Hours Available		Tech Proficiency

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- Hours Per RO (Recap Sheet) 2.2
- Percent of One Item R.O.'s (Recap Sheet) 38.00%
- Customer Pay Effective Labor Rate (Recap Sheet) \$ 85.67
- Warranty Labor Rate (Recap Sheet) \$ 100.52
- Total Overall Effective Labor Rate \$ 87.78
- Overall Technician Proficiency 87.93%

FACILITY POTENTIAL	
Number of Bays	<input type="text" value="17"/>
	x
Number of Days	<input type="text" value="20"/>
	x
Number of Hours	<input type="text" value="8"/>
	x
Effective Labor Rate	\$ <input type="text" value="87.78"/>
	<i>equals</i>
FACILITY POTENTIAL	\$ <input type="text" value="238,760"/>

FACILITY UTILIZATION	
Total Labor Sales	\$ <input type="text" value="133,133"/>
	÷
Facility Potential	\$ <input type="text" value="238,760"/>
	<i>equals</i>
FACILITY UTILIZATION	<input type="text" value="55.76%"/>

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NADA "QUICK" SERVICE ANALYSIS

\$ 133,133
Labor Sales

Divided by Hours Billed

0.00
= OELR

\$ 133,133
Labor Sales

-Labor Gross

\$ 133,133
=Labor Cost

\$ 133,133
Labor Cost

0.00
/ Hours Billed

\$0.00
=Real Cost

Real Cost

÷

26.00%

=

\$0.00
E.L.R. Needed to earn
74%

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OWNER BASE POTENTIAL

x =
5 Year Owner Base Annual Hours Purchased Market Potential / Hours

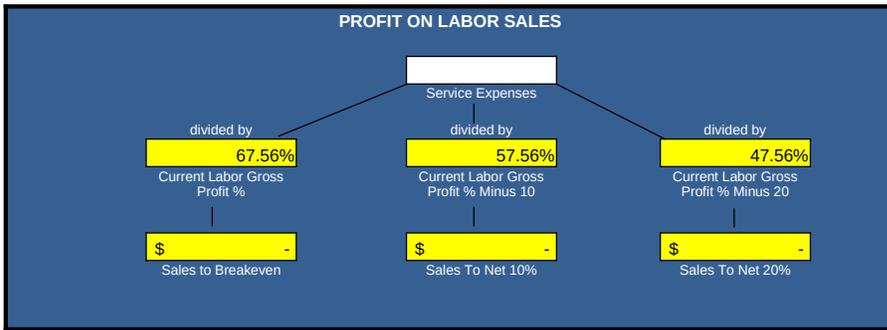
x =
Market Potential/ Hours Effective Labor Rate 5 Yr. O.B Sales Potential

x =
Avg. Mos. Labor Sales (excluding internal, PDI and NVI) Annualized Current Labor Sales Trend

÷ =
Labor Sales Trend 5 Yr. O.B. Sales Potential Ouch

**Note: The industry average of 35% is very poor performance.*

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The Picture

Customer Pay Gross Profit %	70.04%	Customer Pay E.L.R.	\$ 85.67
Total Service Dept. G.P.%	67.56%	Total (overall) E.L.R.	\$ 87.78
Parts / Labor Ratio (Cust Pay Only)	0.76	Warranty Labor Rate	\$ 100.52
Total Service Dept Expense	\$ 94,135	Overall Tech Proficiency	87.93%
Hours Per R.O (recap)	2.20		
Percent Of One Item R.O.'s	38.00%		

Technician Value

Calculate using daily available hours per technician

Hours		x	Days		x	Labor Rate	\$ 87.78	=	Sales Value	\$ -
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Sales Value	\$ -	x	Gross Margin	67.56%	=	Profit Value	\$ -
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\$ -	x	70%	p r o f i t c i e n c y	\$ -
\$ -	x	80%		\$ -
\$ -	x	90%		\$ -
\$ -	x	100%		\$ -
\$ -	x	110%		\$ -
\$ -	x	120%		\$ -
\$ -	x	0.0%		=
Profit Value	Your #			Adjusted Profit Value

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STAFFING REQUIREMENTS

A. Sales To Break Even

Service Expenses for One Month	+	Current Gross Profit Percent	=	Sales To Break Even
<input type="text"/>	+	67.56%	=	\$ <input type="text"/>

B. Sales To Generate 20% Net

Service Expenses for One Month	+	Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
\$ <input type="text"/>	+	47.56%	=	\$ <input type="text"/>

c. Technician Value

Daily Work Hours	X	Average Proficiency Rate	X	Overall Effective Labor Rate	X	Work Days Per Month	=	Technician Value
<input type="text"/>	X	80%	X	\$ 87.78	X	<input type="text"/>	=	\$ <input type="text"/>
<input type="text"/>	X	90%	X	\$ 87.78	X	<input type="text"/>	=	\$ <input type="text"/>
<input type="text"/>	X	100%	X	\$ 87.78	X	<input type="text"/>	=	\$ <input type="text"/>
<input type="text"/>	X	120%	X	\$ 87.78	X	<input type="text"/>	=	\$ <input type="text"/>

d. Staffing To Break Even

Sales To Break Even	+	Technician Value	=	Staffing
\$ <input type="text"/>	+	<input type="text"/> @ 80%	=	<input type="text"/>
\$ <input type="text"/>	+	<input type="text"/> @ 90%	=	<input type="text"/>
\$ <input type="text"/>	+	<input type="text"/> @ 100%	=	<input type="text"/>
\$ <input type="text"/>	+	<input type="text"/> @ 120%	=	<input type="text"/>

e. Staffing To Generate 20% Net

Sales To Generate 20% Net	+	Technician Value	=	Staffing
\$ <input type="text"/>	+	\$ <input type="text"/> @ 80%	=	<input type="text"/>
\$ <input type="text"/>	+	\$ <input type="text"/> @ 90%	=	<input type="text"/>
\$ <input type="text"/>	+	\$ <input type="text"/> @ 100%	=	<input type="text"/>
\$ <input type="text"/>	+	\$ <input type="text"/> @ 120%	=	<input type="text"/>

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Service Advisor Performance

How To Set Advisor Sales Objectives To: Break Even, Net 10%, & Net 20%

Break Even	
1 Service Department's Monthly Expenses	<input type="text"/>
+	
2 Divide by current labor gross profit % to break even	67.56%
=	
3 Equals New Sales Objective	\$ -
+	
4 Number of Advisors	<input type="text"/>
=	
5 Equals Sales Objective per Advisor	\$0.00
+	
6 Number of work days per month	<input type="text"/>
=	
7 Equals daily sales objective per advisor	\$0.00
+	
8 Current overall effective labor rate	\$ 87.78
=	
9 Equals daily sales objective per advisor (FRH's)	0.0

Net 10 %	
1 Service Department's Monthly Expenses	\$0
+	
2 Divide by current labor gross profit % minus 10 to net 10%	57.56%
=	
3 Equals New Sales Objective	\$ -
+	
4 Number of Advisors	0.0
=	
5 Equals Sales Objective per Advisor	\$0.00
+	
6 Number of work days per month	0
=	
7 Equals daily sales objective per advisor	\$0.00
+	
8 Current overall effective labor rate	\$ 87.78
=	
9 Equals daily sales objective per advisor (FRH's)	0.0

Net 20 %	
1 Service Department's Monthly Expenses	\$0
+	
2 Divide by current labor gross profit % minus 20 to net 20%	47.56%
=	
3 Equals New Sales Objective	\$ -
+	
4 Number of Advisors	0.0
=	
5 Equals Sales Objective per Advisor	\$0.00
+	
6 Number of work days per month	0
=	
7 Equals daily sales objective per advisor	\$0.00
+	
8 Current overall effective labor rate	\$ 87.78
=	
9 Equals daily sales objective per advisor (FRH's)	0.0

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Exercise to See What Happens When You Increase Your Hours Per Repair Order

Number of customer R.O.'s for the month	X	<input type="text" value=""/>
Multiply by .3 hours		<input type="text" value="0.3 hours"/>
Additional customer labor hours generated	=	<input type="text" value="0.00"/>
	X	
Multiply by Customer Labor Rate		<input type="text" value="\$ 85.67"/>
Equals additional Customer Labor Sales Generated	=	<input type="text" value="\$ -"/>
	X	
Multiply by customer Labor Gross Profit %		<input type="text" value="70.04%"/>
Equals additional Labor Gross Profit \$ generated	= (A)	<input type="text" value="\$ -"/>
Divide Parts Sales R.O. by Labor Sales R.O. to calculate \$ parts sales per \$ of Labor Sales	=	<input type="text" value="0.76"/>
	X	
Multiply by Customer Labor Sales		<input type="text" value="\$ -"/>
	=	
Equals additional Customer Parts Sales generated		<input type="text" value="\$ -"/>
	X	<input type="text" value=""/>
Multiply by Customer Parts Sales Gross Profit %		
Equals additional Parts Gross Profit \$ Generated	= (B)	<input type="text" value="\$ -"/>
Add Gross Profit from Labor (A) and Parts (B)	=	<input type="text" value="\$ -"/>

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Labor Rate Calculations

1 Calculate the **Labor Rate** for the following operation.

A/C Charge and Check

	Labor Price	\$144.00		
	Units	1.2		
_____	÷	_____	=	\$0.00
Price		Units		Labor Rate

2 Calculate the **Effective Labor Rate** for the following "Repair" operations.

Labor Operations	Labor Price	÷	Labor Units	=	Labor Rate
Clean Fuel Injectors	\$ 117.60	÷	1.20	=	<input type="text"/>
R&R Rear Hub Bearing.	\$ 96.00	÷	0.80	=	<input type="text"/>
Replace Trans. Pan gasket	\$ 107.80	÷	1.10	=	<input type="text"/>
R&R Headlight unit (1)	\$ 108.00	÷	0.90	=	<input type="text"/>
	Total Price <input type="text"/>		Total Units <input type="text"/>		
	↓		↓		
	-----	÷	-----	=	\$0.00
	Total Price		Total Units		Effective Labor Rate
					(For This R.O.)

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Calculating Mark-Up

- 3 Using the following formula, mark-up a part costing \$6.72 to attain a 35% gross profit (round to the nearest cent)

<input type="text" value="100%"/> 100%	⇒	<input type="text"/> Desired Gross Profit percent	=	<input type="text" value="0.00"/> Mark-Up Factor
<input type="text"/> Part Cost	X	<input type="text" value="0.00"/> Mark-Up Factor	=	<input type="text" value="\$0.00"/> Retail Price

- 4 Calculate the "Weighted Average" price at a 40% Gross Profit for the following parts (round to the nearest cent)

Item	Cost	Annual Turnover	Total Cost
Filter #1	\$4.36 X	112 =	<input type="text"/>
Filter #2	\$4.01 X	56 =	<input type="text"/>
Filter #3	\$3.56 X	85 =	<input type="text"/>
Filter #4	\$3.86 X	202 =	<input type="text"/>
Filter #5	\$3.51 X	36 =	<input type="text"/>
Total Items		491	Total Cost <input type="text" value="\$0.00"/>

<input type="text" value="\$ -"/> Total Cost	÷	<input type="text" value="491"/> Total Items	=	<input type="text" value="\$ -"/> Weighted Average Cost
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<input type="text" value="\$ -"/> Weighted Average Cost	X	<input type="text"/> Mark-Up Factor	=	<input type="text" value="\$ -"/> Weighted Average Price
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Cost Of A Come-Back

Lost Customers		<input type="text"/>
Average Hours per R.O.	X	<input type="text"/>
	=	<input type="text" value="0.0"/>
Effective Labor Rate	X	<input type="text" value="\$ 87.78"/>
	=	<input type="text" value="\$ -"/> (A) Service Labor Sales
Service Department Gross Profit % (Excluding Sublet)	X	<input type="text" value="67.56%"/>
	=	<input type="text" value="\$ -"/> (B) Service Labor Gross
Service Labor Sales (A)		<input type="text" value="\$ -"/>
Parts / Labor Ratio	X	<input type="text" value="0.48"/>
	=	<input type="text" value="\$ -"/>
Parts Dept Gross Profit % R.O.Sales	X	<input type="text"/>
	=	<input type="text" value="\$ -"/> (C) Service Parts Gross
(B) Service Labor Gross		<input type="text" value="\$ -"/>
(C) Service Parts Gross	+	<input type="text" value="\$ -"/>
Lost Gross	=	<input type="text" value="\$ -"/>

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