



Fixed Operations 2 -

Financial Calculations and Formulas

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Dealership

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Student

29

Class #

Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	Margin
Customer Pay	\$ 237,803	\$ 132,974	56.35%	43.65%
Customer			0%	0.00%
Customer Cases			0%	0.00%
Warranty	\$ 74,477	\$ 51,174	68.71%	28.21%
Warranty Other			0%	0.00%
Internal	\$ 50,000	\$ 32,000	63.99%	31.14%
NOI / Road Ready PCI	\$ 22,833	\$ 19,050	83.44%	5.25%
PCI - Scott Of Labor	\$	\$	0%	0.00%
Total	\$ 385,113	\$ 267,198	74.58%	20.00%

The Picture	
Customer Pay Gross Profit %	75.46%
Total Service Dept. G.P. %	74.58%

Parts To Labor Ratios

Category	Parts Sales	Labor Sales	P/L Ratio
Parts For Mechanical	\$ 128,500	\$ 222,800	0.58
W/Outside Parts	\$ 42,542		0.00
Customer Retail Parts	\$ 42,700		0.00
Warranty	\$ 76,414	\$ 74,873	1.01
Warranty Other	\$	\$	0.00
Other	\$ 41,029	\$ 50,093	0.82
Total	\$ 331,135	\$ 347,766	0.95

The Picture	
Customer Pay Gross Profit %	75.46%
Total Service Dept. G.P. %	74.58%
Parts / Labor Ratio (Cust. Pay Only)	0.98

Service Department Profit Centering

Financial Category	Value Amount	% of Cost	Profit
Equipment Expense	\$ 202,463		
Variable Expense	\$ 40,144	20.35%	
Leasing Expense		0.00%	
Personnel Expense		0.00%	
Parts Expense	\$ 65,811	32.52%	
Fuel Expense	\$ 149,205	74.13%	
Service Shop Supplies	\$ -	0.00%	
Service Profit Expense	\$ -	0.00%	
Total Expenses	\$ 275,263	95.99%	
Net Profit	\$ 11,265	4.04%	

The Picture	
Customer Pay Gross Profit %	75.42%
Total Service Dept. G.P. %	74.30%
Parts / Labor Ratio (Cost. Pay Only)	0.30
Total Service Dept. Expenses	\$ 275,263

Fixed Absorption

Parts Department Total Gross	\$ 146,764	% All Other Exp	100.00%
Service Department Total Gross	\$ 288,265	74.50%	
Body Shop Department Total Gross		0.00%	
Total Fixed Gross Profit	\$ 436,669		
Total Dealership Expense	\$ 842,639		
Overhead Expense	\$ 842,639		
Total Fixed Gross Profit	\$ 436,669		
Total Dealership Expense	\$ 842,639		
Fixed Absorption Percentage	51.81%	Guideline	67%

The Picture	
Customer Pay Gross Profit %	75.40%
Total Service Dept. G.P. %	74.50%
Parts / Labor Ratio (Cust. Pay Only)	17.56%
Total Service Dept. Expenses	\$ 276,963

NADA ACTUAL SERVICE ANALYSIS

	Labor Sales / Month		Effective Labor Rates		Hours Billed
Customer Pay	\$ 237,589	÷	148.00	=	1605.3
Customer	\$ -	÷		=	0.00
Customer Other	\$ -	÷		=	0.00
Warranty	\$ 74,473	÷	120.00	=	620.6
Internal	\$ 50,699	÷	148.00	=	342.6
New Vehicle Prep	\$ 22,833	÷	120.00	=	190.3
Total	\$ 385,594				2758.8

POTENTIAL

\$ 385,594	÷	2758.78	=	\$ 139.77
Total labor sales for month		Total hours billed		Effective Labor Rate

15.00	x	8	x	23	=	2,760.0
# Service mechanical technicians		# Hours/Day		Working Days/Month		Clock Hour Avail

2,760.0	x	\$ 139.77	=	\$ 385,765	\$ 482,206.48
Clock Hours Available		Effective Labor Rate		Labor sales potential @100%	Labor sales potential @ 125%

How proficient are your technicians ?

2,758.8	÷	2,760.00	=	99.96%
Total Hours Billed		Hours Available		Tech Proficiency

Hours Per RO (RO Analysis)	4.0
Percent of One Item R.O.'s (RO Analysis)	62.00%
Customer Pay Effective Labor Rate (DMS Reoprt)	\$ 148.00
Warranty Labor Rate (DMS Report)	\$ 120.00
Total Overall Effective Labor Rate	\$ 139.77
Overall Technician Proficiency	99.96%

FACILITY POTENTIAL	
Number of Bays	<input type="text"/>
	x
Number of Days	<input type="text"/>
	x
Number of Hours	<input type="text"/>
	x
Effective Labor Rate	\$ 139.77
	<i>equals</i>
FACILITY POTENTIAL	\$ -

FACILITY UTILIZATION	
Total Labor Sales	\$ 385,594
	÷
Facility Potential	\$ -
	<i>equals</i>
FACILITY UTILIZATION	0.00%

NADA "QUICK" SERVICE ANALYSIS

\$ 385,594

Labor Sales

Divided by Hours Billed

0.00

= OELR

\$ 385,594

Labor Sales

-Labor Gross

\$ 385,594

=Labor Cost

\$ 385,594

Labor Cost

0.00

/ Hours Billed

\$0.00

=Real Cost

Real Cost

÷

24.00%

=

\$0.00

E.L.R. Needed to
earn 76%

OWNER BASE POTENTIAL

$$\text{5 Year Owner Base} \times 8 = 0.0$$

Market Potential / Hours

$$0.0 \times 0.00 = \$ -$$

5 Yr. O.B Sales Potential

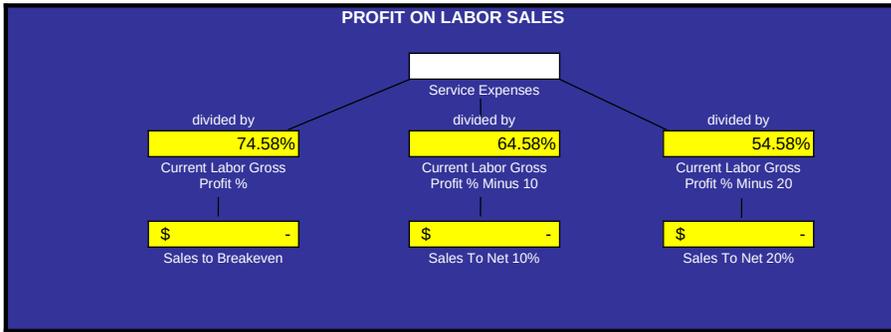
$$\text{Avg. Mos. Labor Sales (excluding internal, PDI and NVI)} \times 12 = \$ -$$

Current Labor Sales Trend

$$\text{Labor Sales Trend} \div \text{5 Yr. O.B. Sales Potential} = 0.00\%$$

Ouch

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



The Picture

Customer Pay Gross Profit %	75.46%	Customer Pay E.L.R.	\$ 148.00
Total Service Dept. G.P.%	74.58%	Total (overall) E.L.R.	\$ 139.77
Parts / Labor Ratio (Cust Pay Only)	0.98	Warranty Labor Rate	\$ 120.00
Total Service Dept Expense	\$ 275,963	Overall Tech Proficiency	99.96%
Hours Per R.O (recap)	4.00		
Percent Of One Item R.O.'s	62.00%		

Technician Value

Calculate using daily available hours per technician

Hours	x	Days	x	Labor Rate	=	Sales Value
<input type="text"/>		<input type="text"/>		\$ 139.77		\$ -

Sales Value	x	Gross Margin	=	Profit Value
\$ -		74.58%		\$ -

\$ -	x	70%		\$ -
\$ -	x	80%		\$ -
\$ -	x	90%		\$ -
\$ -	x	100%		\$ -
\$ -	x	110%		\$ -
\$ -	x	120%		\$ -
\$ -	x	0.0%	=	\$ -
Profit Value		Your Proficiency #		Adjusted Profit Value

STAFFING REQUIREMENTS

A. Sales To Break Even			
Service Expenses for One Month	÷	Current Gross Profit Percent	= Sales To Break Even
<input type="text" value="0"/>	÷	74.58%	= \$ -

B. Sales To Generate 20% Net			
Service Expenses for One Month	÷	Current Gross Profit Percent (Minus 20)	= Sales To Generate 20% Net
\$ -	÷	54.58%	= \$ -

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" value="0"/>	X	80%	X	\$ 139.77	X	<input type="text" value="0"/>	=	\$0
<input type="text" value="0"/>	X	90%	X	\$ 139.77	X	<input type="text" value="0"/>	=	\$0
<input type="text" value="0"/>	X	100%	X	\$ 139.77	X	<input type="text" value="0"/>	=	\$0
<input type="text" value="0"/>	X	120%	X	\$ 139.77	X	<input type="text" value="0"/>	=	\$0

D. Staffing To Break Even			
Sales To Break Even	÷	Technician Value	= Staffing
\$ -	÷	<input type="text" value="0"/> @ 80%	= <input type="text" value="0.0"/>
\$ -	÷	<input type="text" value="0"/> @ 90%	= <input type="text" value="0.0"/>
\$ -	÷	<input type="text" value="0"/> @ 100%	= <input type="text" value="0.0"/>
\$ -	÷	<input type="text" value="0"/> @ 120%	= <input type="text" value="0.0"/>

E. Staffing To Generate 20% Net			
Sales To Generate 20% Net	÷	Technician Value	= Staffing
\$ -	÷	\$ - @ 80%	= <input type="text" value="0.0"/>
\$ -	÷	\$ - @ 90%	= <input type="text" value="0.0"/>
\$ -	÷	\$ - @ 100%	= <input type="text" value="0.0"/>
\$ -	÷	\$ - @ 120%	= <input type="text" value="0.0"/>

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"/>
÷	<input type="text" value="74.58%"/>
2 Divide by current labor gross profit % to break even	=
3 Equals New Sales Objective	<input type="text" value="\$ -"/>
÷	<input type="text"/>
4 Number of Advisors	=
5 Equals Sales Objective per Advisor	<input type="text" value="\$0.00"/>
÷	<input type="text"/>
6 Number of work days per month	=
7 Equals daily sales objective per advisor	<input type="text" value="\$0.00"/>
÷	<input type="text" value="\$ 139.77"/>
8 Current overall effective labor rate	=
9 Equals daily sales objective per advisor (FRH's)	<input type="text" value="0.0"/>

Net 10 %	
1 Service Department's Monthly Expenses	<input type="text" value="\$0"/>
÷	<input type="text" value="64.58%"/>
2 Divide by current labor gross profit % minus 10 to net 10%	=
3 Equals New Sales Objective	<input type="text" value="\$ -"/>
÷	<input type="text" value="0.0"/>
4 Number of Advisors	=
5 Equals Sales Objective per Advisor	<input type="text" value="\$0.00"/>
÷	<input type="text" value="0"/>
6 Number of work days per month	=
7 Equals daily sales objective per advisor	<input type="text" value="\$0.00"/>
÷	<input type="text" value="\$ 139.77"/>
8 Current overall effective labor rate	=
9 Equals daily sales objective per advisor (FRH's)	<input type="text" value="0.0"/>

Net 20 %	
1 Service Department's Monthly Expenses	<input type="text" value="\$0"/>
÷	<input type="text" value="54.58%"/>
2 Divide by current labor gross profit % minus 20 to net 20%	=
3 Equals New Sales Objective	<input type="text" value="\$ -"/>
÷	<input type="text" value="0.0"/>
4 Number of Advisors	=
5 Equals Sales Objective per Advisor	<input type="text" value="\$0.00"/>
÷	<input type="text" value="0"/>
6 Number of work days per month	=
7 Equals daily sales objective per advisor	<input type="text" value="\$0.00"/>
÷	<input type="text" value="\$ 139.77"/>
8 Current overall effective labor rate	=
9 Equals daily sales objective per advisor (FRH's)	<input type="text" value="0.0"/>

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

Number of customer R.O.'s for the month		
	x	
Multiply by .3 hours		0.3 hours
	=	0.00
Additional customer labor hours generated	x	
		\$ 148.00
Multiply by Customer Labor Rate	=	\$ -
Equals additional Customer Labor Sales Generated	x	
		75.46%
Multiply by customer Labor Gross Profit %	= (A)	\$ -
Equals additional Labor Gross Profit \$ generated		
Divide Parts Sales R.O. by Labor Sales R.O. to calculate \$ parts sales per \$ of Labor Sales	=	0.98
	x	
Multiply by Customer Labor Sales		\$ -
	=	
Equals additional Customer Parts Sales generated	x	\$ -
Multiply by Customer Parts Sales Gross Profit %		
Equals additional Parts Gross Profit \$ Generated	= (B)	\$ -
Add Gross Profit from Labor (A) and Parts (B)	=	\$ -

Labor Rate Calculations

1 Calculate the Labor Rate for the following operation.

A/C Charge and Check

Labor Price \$144.00
 Units 1.2

$$\frac{\text{Price}}{\text{Units}} = \text{Labor Rate} = \text{\$0.00}$$

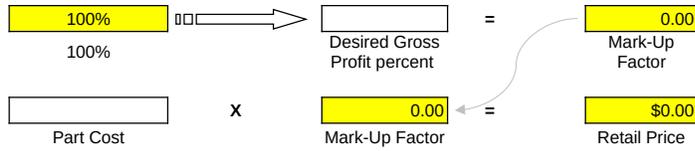
2 Calculate the Effective Labor Rate for the following "Repair" operations.

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"/>
	<hr/> Total Price	÷	<hr/> Total Units	=	\\$0.00 Effective Labor Rate

(For This R.O.)

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)



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

Item	Cost	X	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 \$0.00

$$\begin{array}{r}
 \$ \text{ - } \\
 \text{Total Cost}
 \end{array}
 \div
 \begin{array}{r}
 491 \\
 \text{Total Items}
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 \text{Weighted} \\
 \text{Average Cost}
 \end{array}$$

$$\begin{array}{r}
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 \text{Factor}
 \end{array}
 =
 \begin{array}{r}
 \$ \text{ - } \\
 \text{Weighted} \\
 \text{Average Price}
 \end{array}$$

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="\$ 139.77"/>
	=	<input type="text" value="\$ -"/> (A) Service Labor Sales
<hr/>		
Service Department Gross Profit % (Excluding Sublet)	X	<input type="text" value="74.58%"/>
	=	<input type="text" value="\$ -"/> (B) Service Labor Gross
<hr/>		
Service Labor Sales (A)		<input type="text" value="\$ -"/>
Parts / Labor Ratio	X	<input type="text" value="0.75"/>
	=	<input type="text" value="\$ -"/>
Parts Dept Gross Profit % R.O.Sales	X	<input type="text"/>
	=	<input type="text" value="\$ -"/> (C) Service Parts Gross
<hr/>		
(B) Service Labor Gross		<input type="text" value="\$ -"/>
(C) Service Parts Gross	+	<input type="text" value="\$ -"/>
Lost Gross	=	<input type="text" value="\$ -"/>