



Fixed Operations 2 -

Financial Calculations and Formulas

ROBERT ARISTY

Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	% Sales Overhead
Customer Car	\$ 111,982	\$ 32,433	82.53%	26.23%
Customer Express	\$ 40,423	\$ 35,908	88.83%	9.46%
Customer other	\$ 16,612	\$ 14,432	86.87%	3.19%
Warranty	\$ 170,453	\$ 132,765	77.89%	39.80%
Quick service	\$ (13,257)	\$ 0	0%	0.00%
Internal	\$ 53,208	\$ 38,150	71.70%	12.49%
NW / Road Ready/FDI	\$ 35,147	\$ 29,185	82.99%	8.23%
Adj. Cost Of Labor	\$	\$ (33,875)	0%	0.00%
Total	\$ 427,225	\$ 286,706	67.11%	100.00%

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Customer Pay Gross Profit % 80.61%
Total Service Dept. G.P. % 67.11%

Parts To Labor Ratios

Category	Parts Sales	Labor Sales	PL Ratio
Customer Car	\$ 105,440	\$ 111,982	0.94
Customer quick service	\$ 47,558	\$ 40,423	1.18
Customer Other SC	\$ 14,238	\$ 16,012	0.89
Warranty	\$ 176,663	\$ 170,453	1.04
Warranty Other	\$	\$	0.00
Internal	\$ 65,326	\$ 53,208	1.23
Total	\$ 409,243	\$ 392,078	1.04

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Customer Pay Gross Profit % 80.61%
Total Service Dept. G.P. % 67.11%
Parts / Labor Ratio (Cust. Pay Only) 0.99

Service Department Profit Centering

Expense Category	Dollar Amount	% of Gross	Profit
Department Gross	\$ 286,706	6.00%	
Variable Expense	\$ 19,782	6.90%	
Selling Expense	\$	0.00%	
Personnel Expense	\$ 43,083	15.03%	
Semi-Fixed Expense	\$	0.00%	
Fixed Expense	\$ 70,248	24.50%	
Unallocated Expense	\$ 9,392	3.28%	
Dealers Salary	\$ 39,661	13.84%	
Total Expenses	\$ 182,166	63.54%	
Net Profit	\$ 104,540	36.46%	

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Customer Pay Gross Profit % 80.61%
Total Service Dept. G.P. % 67.11%
Parts / Labor Ratio (Cust. Pay Only) 0.99
Total Service Dept. Expenses \$ 182,166

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xed Absorption

Parts Department Total Gross	\$ 314,400	% Adj Over Exp 123.22%
Service Department Total Gross	\$ 288,780	111.30%
Body Shop Department Total Gross		0.00%
Total Fixed Gross Profit	\$ 603,270	
Total Dealership Expense	\$ 259,456	

Overhead Expense	\$ 259,456	
Total Fixed Gross Profit	\$ 603,270	
Total Dealership Expense	\$ 259,456	
Fixed Absorption Percentage	232.51%	Guideline 60%

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Customer Pay Gross Profit %	80.61%
Total Service Dept. G. P. %	67.11%
Parts / Labor Ratio (Cust. Pay Only)	0.99
Total Service Dept. Expenses	\$ 182,186

NADA ACTUAL SERVICE ANALYSIS

Performance

	<i>Labor Sales / Month</i>		<i>Hourly Labor Rate</i>		<i>Hours Billed</i>
Customer Car*	\$ 111,982	÷	160.81	=	696.4
Customer Truck*	\$ 40,423	÷	160.81	=	251.4
Customer Other*	\$ 16,012	÷	160.81	=	99.6
Warranty	\$ 170,453	÷	152.88	=	1114.9
Internal	\$ 53,208	÷	155.00	=	343.3
New Vehicle Prep	\$ 35,147	÷	152.88	=	229.9
Total	\$ 427,225				2735.4

POTENTIAL

\$ 427,225	÷	2735.43	=	\$ 156.18
<small>Total labor sales for month</small>		<small>Total hours billed</small>		<small>Effective Labor Rate</small>

17.00	x	8	x	23	=	3,128.0
<small># Service mechanical technicians</small>		<small># Hours/Day</small>		<small>Working Days/Month</small>		<small>Clock Hour Avail</small>

3,128.0	x	\$ 156.18	=	\$ 488,538
<small>Clock Hours Available</small>		<small>Effective Labor Rate</small>		<small>Labor sales potential</small>

How proficient are your technicians ?

2,735.4	÷	3,128.00	=	87.45%
<small>Total Hours Billed</small>		<small>Hours Available</small>		<small>Tech Proficiency</small>

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Hours Per RO (Recap Sheet)	2.3
Percent of One Item R.O.'s (Recap Sheet)	58.33%
Customer Pay Effective Labor Rate (Recap Sheet)	\$ 160.81
Warranty Labor Rate (Recap Sheet)	\$ 152.88
Total Overall Effective Labor Rate	\$ 156.18
Overall Technician Proficiency	87.45%

	FACILITY POTENTIAL		NADA "QUICK" SERVICE A
Number of Bays			
	x	\$	427,225
Number of Days			Labor Sales
	x		
Number of Hours			Divided by Hours Billed
	x		
Effective Labor Rate			0.00
	<i>equals</i>		= OELR
FACILITY POTENTIAL		\$	-

	FACILITY UTILIZATION		\$	427,225
Total Labor Sales		\$		Labor Cost
	÷			
Facility Potential		\$	-	0.00
	<i>equals</i>			/ Hours Billed
FACILITY UTILIZATION			0.00%	\$0.00
				=Real Cost

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Real Cost ÷ 26.00%

ANALYSIS

\$ 427,225
Labor Sales

-Labor Gross

\$ 427,225
=Labor Cost

OWNER BASE POTENTIAL

5 Year Owner Base x Annual Hours Purchased = Market Potential / Hours 0.0

0.0 x 0.00 = \$ -
Market Potential/ Hours Effective Labor Rate 5 Yr. O.B Sales Potential

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

\$ - ÷ \$ - = 0.00%
Labor Sales Trend 5 Yr. O.B. Sales Potential Ouch

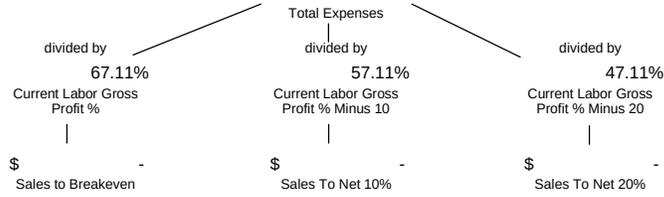
**Note: The industry average of 35% is very poor performance.*

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

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PROFIT ON LABOR SALES



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Customer Pay Gross Profit %	80.61%	Customer Pay E.L.R.	\$ 160.81
Total Service Dept. G.P.%	67.11%	Total (overall) E.L.R.	\$ 156.18
Parts / Labor Ratio (Cust Pay Only)	0.99	Warranty Labor Rate	\$ 152.88
Total Service Dept Expense	\$ 182,186	Overall Tech Proficiency	87.45%
Hours Per R.O (recap)	2.30		
Percent Of One Item R.O.'s	58.33%		

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Technician Value

Calculate using daily available hours per technician

Hours		Days		Labor Rate		Sales Value
	x		x	\$ 156.18	=	\$ -

Sales Value		Gross Margin		Profit Value
	x	67.11%	=	\$ -

\$ -	70%	\$ -	<input type="button" value="Clear Form"/>
\$ -	80%	\$ -	
\$ -	90%	\$ -	
\$ -	100%	\$ -	
\$ -	110%	\$ -	
\$ -	120%	\$ -	
Profit Value		Adjusted Profit Value	

STAFFING REQUIREMENTS

A. Sales To Break Even

Total Expenses for One Month		Current Gross Profit Percent	=	Sales To Break Even
		67.11%	=	\$ -

B. Sales To Generate 20% Net

Total Expenses for One Month		Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
		47.11%	=	\$ -

C. Technician Value

Daily Work Hours	x	Average Proficiency Rate	x	Overall Effective Labor Rate	x	Work Days Per Month	=	Technician Value
		80%		\$ 156.18				\$0
0		90%		\$ 156.18		0		\$0
0		100%		\$ 156.18		0		\$0
0		120%		\$ 156.18		0		\$0

D. Staffing To Break Even

Sales To Break Even		Technician Value	=	Staffing
\$ -		0 @ 80%	=	0.0
\$ -		0 @ 90%	=	0.0
\$ -		0 @ 100%	=	0.0
\$ -		0 @ 120%	=	0.0

E. Staffing To Generate 20% Net

Sales To Generate 20% Net		Technician Value	=	Staffing
\$ -		\$ - @ 80%	=	0.0
\$ -		\$ - @ 90%	=	0.0
\$ -		\$ - @ 100%	=	0.0
\$ -		\$ - @ 120%	=	0.0

Service Advisor Performance

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

Break Even	Net 10 %	Net 20 %
1 Department's Average Monthly Expenses	1 Department's Average Monthly Expenses	1 Department's Average Monthly Expenses
=	\$0	\$0
2 Divide by current labor gross profit % to break even	2 Divide by current labor gross profit % minus 10 to net 10%	2 Divide by current labor gross profit % minus 20 to net 20%
=	=	=
67.11%	57.11%	47.11%
3 Equals New Sales Objective	3 Equals New Sales Objective	3 Equals New Sales Objective
\$ -	\$ -	\$ -
4 Number of Advisors	4 Number of Advisors	4 Number of Advisors
=	=	=
0.0	0.0	0.0
5 Equals Sales Objective per Advisor	5 Equals Sales Objective per Advisor	5 Equals Sales Objective per Advisor
\$0.00	\$0.00	\$0.00
6 Number of work days per month	6 Number of work days per month	6 Number of work days per month
=	=	=
0	0	0
7 Equals daily sales objective per advisor	7 Equals daily sales objective per advisor	7 Equals daily sales objective per advisor
\$0.00	\$0.00	\$0.00
8 Current overall effective labor rate	8 Current overall effective labor rate	8 Current overall effective labor rate
\$ 156.18	\$ 156.18	\$ 156.18
9 Equals daily sales objective per advisor (FRH's)	9 Equals daily sales objective per advisor (FRH's)	9 Equals daily sales objective per advisor (FRH's)
0.0	0.0	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	
Multiply by .3 hours		0.3 hours
Additional customer labor hours generated	=	0.00
	X	
Multiply by Customer Labor Rate	\$	160.81
Equals additional Customer Labor Sales Generated	= \$	-
	X	
Multiply by customer Labor Gross Profit %		80.61%
Equals additional Labor Gross Profit \$ generated	= (A) \$	-
Divide Parts Sales R.O. by Labor Sales R.O. to calculate \$ parts sales per 1\$ of Labor Sales	=	0.99
	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)	= \$	-

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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		
Price	Units	=		\$0.00
			Labor Rate	

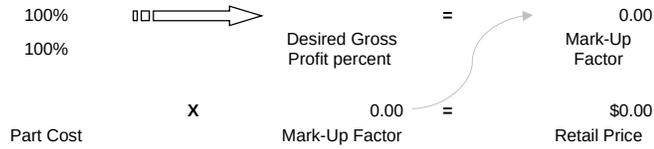
2 Calculate the **Effective Labor Rate** for the following "Repair" operations.

Labor Operations	Labor Price		Labor Units	Labor Rate
Clean Fuel Injectors	\$ 117.60		1.20 =	
R&R Rear Hub Bearing.	\$ 96.00		0.80 =	
Replace Trans. Pan gasket	\$ 107.80		1.10 =	
R&R Headlight unit (1)	\$ 108.00		0.90 =	
Total Price	↓		↓	
	Total Price		Total Units	=
				\$0.00
				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)



- 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	112	
Filter #2	\$4.01	56	
Filter #3	\$3.56	85	
Filter #4	\$3.86	202	
Filter #5	\$3.51	36	
	Total Items	491	Total Cost
			\$0.00

$$\begin{array}{rcl} \$ & - & | \\ \text{Total Cost} & & 491 \\ & & \text{Total Items} \\ & & = \\ & & \$ & - \\ & & & \text{Weighted Average Cost} \end{array}$$

$$\begin{array}{rcl} \$ & - & \times \\ \text{Weighted Average Cost} & & \text{Mark-Up Factor} \\ & & = \\ & & \$ & - \\ & & & \text{Weighted Average Price} \end{array}$$

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Cost Of A Come-Back

Lost Customers

Average Hours per R.O.	X		
	=		0.0
Effective Labor Rate	X	\$	156.18
	=	\$	- (A) Service Labor Sales
Service Department Gross Profit % (Excluding Sublet)	X		67.11%
	=	\$	- (B) Service Labor Gross
Service Labor Sales (A)		\$	-
Parts / Labor Ratio	X		0.94
	=	\$	-
Parts Dept Gross Profit % R.O.Sales	X		
	=	\$	- (C) Service Parts Gross
(B) Service Labor Gross		\$	-
(C) Service Parts Gross	+	\$	-
Lost Gross	=	\$	-

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