



Fixed Operations 2 -

Financial Calculations and Formulas

UPTOWN CDJR

Dealership

MABLE MAYES

Student

N-420

Class #

Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as %	Net
		of Sales	of Sales	
Customer Pay	\$ 342,070	\$ 283,006	76.88%	
Customer	\$ -	\$ -	0.00%	
Customer Other	\$ -	\$ -	0.00%	
Warranty	\$ 71,126	\$ 54,508	76.64%	
Warranty Other	\$ -	\$ -	0.00%	
Internal	\$ 26,988	\$ 21,126	78.28%	
NW / Road Ready / PDI	\$ 4,159	\$ 3,714	89.30%	
Adj. Cost Of Labor	\$ -	\$ -	0.00%	
Total	\$ 444,343	\$ 362,353	81.55%	100.00%

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Customer Pay Gross Profit %	82.73%
Total Service Dept. G.P. %	81.55%

Parts To Labor Ratio

Category	Parts Sales	Labor Sales	P/L Ratio
Customer Pay	\$ 307,123	\$ 342,070	0.90
Customer	\$ -	\$ -	0.00
Customer Other	\$ -	\$ -	0.00
Warranty	\$ 74,376	\$ 71,126	1.05
Warranty Other	\$ -	\$ -	0.00
Internal	\$ 18,680	\$ 26,988	0.69
Total	\$ 400,180	\$ 440,184	0.91

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Customer Pay Gross Profit %	82.73%
Total Service Dept. G.P. %	81.55%
Parts / Labor Ratio (Cust. Pay Only)	0.90

Service Department Profit Centering

Expense Category	Dollar Amount	% of Gross	Profit
Department Gross	\$ 2,444,685		
Variable Expense	\$ 32,910	0.99%	
Selling Expense	\$ 65,365	2.69%	
Personnel Expense	\$ 22,680	0.93%	
Items Fixed Expense	\$ 78,505	3.23%	
Fixed Expense	\$ 670,059	27.41%	
Unallocated Expense	\$ -	0.00%	
Dealer's Salary	\$ -	0.00%	
Total Expenses	\$ 878,559	35.94%	
Net Profit	\$ 2,566,127	104.55%	

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Customer Pay Gross Profit %	82.73%
Total Service Dept. G.P. %	81.55%
Parts / Labor Ratio (Cust. Pay Only)	0.90
Total Service Dept. Expenses	\$ 878,559

Fixed Absorption

Parts Department Total Gross	\$ 344,685	% Adj Ovh'd Exp	44.31%
Service Department Total Gross	\$ 1,674,399		215.25%
Body Shop Department Total Gross	\$ -		0.00%
	0		
Total Fixed Gross Profit	\$ 2,019,064		
Total Dealership Expense	\$ 777,885		

Overhead Expense	\$ 777,885		
Total Fixed Gross Profit	\$ 2,019,064		
Total Dealership Expense	\$ 777,885		
Fixed Absorption Percentage	259.56%	Guideline	60%
	<input type="button" value="Clear Form"/>		

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Customer Pay Gross Profit %	82.73%		
Total Service Dept. G. P. %	81.55%		
Parts / Labor Ratio (Cust. Pay Only)	0.90		
Total Service Dept. Expenses	\$ 878,559		

SERVICE INVENTORY ANALYSIS

	<i>Labor Sales / Month</i>		<i>Effective Labor Rates</i>		<i>Hours Billed</i>
Customer Pay	\$ 342,070	÷	225.00	=	
Customer	\$ -	÷	0.00	=	0.00
Customer Other	\$ -	÷	0.00	=	0.00
Warranty	\$ 71,126	÷	173.00	=	411.1
Internal	\$ 26,988	÷	225.00	=	119.9
New Vehicle Prep	\$ 4,159	÷	155.00	=	26.8
Total	\$ 444,343				557.9

POTENTIAL

\$ 444,343	÷	557.91	=	\$ 796.44	
Total labor sales for month		Total hours billed		Effective Labor Rate	
8.00	x	9	x	24.0	= 1,728.0
# Service mechanical technicians		# Hours/Day		Working Days/Month	Hours Available to Sell
1,728.0	x	\$ 796.44	=	\$ 1,376,247	\$ 1,720,309.12
Hours Available to Sell		Effective Labor Rate		Labor sales potential @100%	Labor sales potential @ 125%

How proficient are your technicians ?

557.9	÷	1,728.00	=	32.29%
Total Hours Billed		Hours Available to Sell		Tech Proficiency

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Hours Per RO (RO Analysis)	2.3
Percent of One Item R.O.'s (RO Analysis)	39.00%
Customer Pay Effective Labor Rate (DMS Report)	\$ 225.00
Warranty Labor Rate (DMS Report)	\$ 155.00
Total Overall Effective Labor Rate	\$ 796.44
Overall Technician Proficiency	32.29%

FACILITY POTENTIAL	
Number of Bays	8
	x
Number of Days	24
	x
Number of Hours	9
	x
Effective Labor Rate	225
	<i>equals</i>
FACILITY POTENTIAL	\$ 388,800

Calculating Real Cost of	
	\$ 444,343
	Labor Sales
	69.7
	Divided by Hours Billed
	\$ 6,375.08
	= OELR

FACILITY UTILIZATION	
Total Labor Sales	\$ 444,343
	÷
Facility Potential	\$ 388,800
	<i>equals</i>
FACILITY UTILIZATION	114.29%

\$ 444,279
Labor Cost
69.70
/ Hours Billed
\$ 6,374.16
=Real Cost

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\$150.00	÷	24.00%
Real Cost		

Labor

OWNER BASE POTENTIAL

<p>\$ 444,343 Labor Sales</p>	<p>5 Year Owner Base</p>	<p>x</p>	<p>Annual Hours Purchased</p>	<p>8 =</p>	<p>Market Potential / Hours</p>	<p>0.0</p>
<p>\$ 64 -Labor Gross</p>	<p>Market Potential/ Hours</p>	<p>x</p>	<p>Effective Labor Rate</p>	<p>\$ 6,375.08 =</p>	<p>5 Yr. O.B Sales Potential</p>	<p>\$ -</p>
<p>\$ 444,279 =Labor Cost</p>	<p>Avg. Mos. Labor Sales (excluding internal, PDI and NV)</p>	<p>x</p>	<p>Annualized</p>	<p>12 =</p>	<p>Current Labor Sales Trend</p>	<p>\$ -</p>
	<p>Labor Sales Trend</p>	<p>- ÷</p>	<p>5 Yr. O.B. Sales Potential</p>	<p>\$ - =</p>	<p>Ouch</p>	<p>0.00%</p>

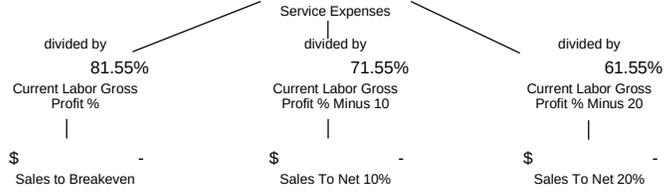
**Note: The industry average of 35% is very poor performance.*

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= \$625.00
E.L.R. Needed to earn
76%

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PROFIT ON LABOR SALES



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Customer Pay Gross Profit %	82.73%	Customer Pay E.L.R.	\$ 225.00
Total Service Dept. G.P.%	81.55%	Total (overall) E.L.R.	\$ 796.44
Parts / Labor Ratio (Cust Pay Only)	0.90	Warranty Labor Rate	\$ 155.00
Total Service Dept Expense	\$ 878,559	Overall Tech Proficiency	32.29%
Hours Per R.O (recap)	2.25		
Percent Of One Item R.O.'s	39.00%		

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Technician Value

Calculate using daily available hours per technician

Hours		Days		Labor Rate		Sales Value
9	x	24	x	\$ 796.44	=	\$ 172,031

Sales Value		Gross Margin		Profit Value
\$ 172,031	x	81.55%	=	\$ 140,288

\$ 140,288	x	70%	\$ 98,201
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\$ 140,288	x	80%	\$ 112,230
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\$ 140,288	x	90%	\$ 126,259
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\$ 140,288	x	100%	\$ 140,288
------------	---	------	------------

\$ 140,288	x	110%	\$ 154,317
------------	---	------	------------

\$ 140,288	x	120%	\$ 168,345
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\$ 140,288	x	0.0%	\$ -
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Profit Value Your Proficiency # 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
\$ 22,689		81.55%	=	\$ 27,823

B. Sales To Generate 20% Net

Service Expenses for One Month		Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
\$ 22,689		61.55%	=	\$ 36,864

C. Technician Value

Daily Work Hours	X	Average Proficiency Rate	X	Overall Effective Labor Rate	X	Work Days Per Month	=	Technician Value
9	X	80%	X	\$ 796.44	X	24	=	\$137,625
9	X	90%	X	\$ 796.44	X	24	=	\$154,828
9	X	100%	X	\$ 796.44	X	24	=	\$172,031
9	X	120%	X	\$ 796.44	X	24	=	\$206,437

D. Staffing To Break Even

Sales To Break Even		Technician Value	=	Staffing
\$ 27,823		137,625 @ 80%	=	0.2
\$ 27,823		154,828 @ 90%	=	0.2
\$ 27,823		172,031 @ 100%	=	0.2
\$ 27,823		206,437 @ 120%	=	0.1

E. Staffing To Generate 20% Net

Sales To Generate 20% Net		Technician Value	=	Staffing
\$ 36,864		\$ 137,625 @ 80%	=	0.3
\$ 36,864		\$ 154,828 @ 90%	=	0.2
\$ 36,864		\$ 172,031 @ 100%	=	0.2
\$ 36,864		\$ 206,437 @ 120%	=	0.2

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Service Advisor Performance

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

Break Even	Net 10 %	Net 20 %																																																																																																						
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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	329
	Multiply by .3 hours		0.3 hours
\$22,689	Additional customer labor hours generated	=	98.70
		X	
61.55%	Multiply by Customer Labor Rate	\$	225.00
\$ 36,864	Equals additional Customer Labor Sales Generated	= \$	22,208
		X	
2.0	Multiply by customer Labor Gross Profit %		82.73%
\$ 18,432	Equals additional Labor Gross Profit \$ generated	= (A) \$	18,373
24			
\$ 768			
\$ 796.44	Divide Parts Sales R.O. by Labor Sales R.O. to calculate \$ parts sales per 1\$ of Labor Sales	=	0.90
		X	
1.0	Multiply by Customer Labor Sales	\$	22,208
		=	
	Equals additional Customer Parts Sales generated	\$	19,939
		X	
	Multiply by Customer Parts Sales Gross Profit %		82.70%
	Equals additional Parts Gross Profit \$ Generated	= (B) \$	16,489
	Add Gross Profit from Labor (A) and Parts (B)	= \$	34,862

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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		
	Hours		1.2		
Price	\$144.00		1.2	=	\$120.00
			Hours		Labor Rate

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

Labor Operations	Labor Price		Labor Hours		Labor Rate
Clean Fuel Injectors	\$ 117.60		1.20	=	\$ 98.00
R&R Rear Hub Bearing.	\$ 96.00		0.80	=	\$ 120.00
Replace Trans. Pan gasket	\$ 107.80		1.10	=	\$ 98.00
R&R Headlight unit (1)	\$ 108.00		0.90	=	\$ 120.00
	436		4.0	=	\$ 109.00
	Total Price		Total Hours		Effective Labor Rate
					(For This R.O.)

0

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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)

$$\begin{array}{rclcl}
 100\% & \xrightarrow{\quad} & 35\% & = & 6.72 \\
 100\% & & \text{Desired Gross} & & \text{Mark-Up} \\
 & & \text{Profit percent} & & \text{Factor} \\
 \\
 \$4.36 & \times & 6.72 & = & \$29.30 \\
 \text{Part Cost} & & \text{Mark-Up Factor} & & \text{Retail Price}
 \end{array}$$

- 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	\$488.32
Filter #2	\$4.01	56	\$224.56
Filter #3	\$3.56	85	\$302.60
Filter #4	\$3.86	202	\$779.72
Filter #5	\$3.51	36	\$126.36
Total Items		491	Total Cost \$1,921.56

$$\begin{array}{rclcl}
 \$ & 1,921.56 & | & 491 & = & \$ & 3.91 \\
 \text{Total Cost} & & & \text{Total Items} & & \text{Weighted} & \text{Average Cost}
 \end{array}$$

$$\begin{array}{rclcl}
 \$ & 3.91 & \times & 1.40 & = & \$ & 5.48 \\
 \text{Weighted Average} & & & \text{Mark-Up} & & \text{Weighted} & \\
 \text{Cost} & & & \text{Factor} & & \text{Average Price} &
 \end{array}$$

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Cost Of A Come-Back

Lost Customer Opportunity			40.0
Average Hours per R.O.	X		3.0
	=		121.6
Effective Labor Rate	X	\$	796.44
Lost Labor Sales	=	\$	96,847 (A)
Service Department Gross Profit % (Excluding Sublet)	X		50.5%
Lost Labor Gross	=	\$	41 (B)
Lost Labor Sales		\$	96,847 (A)
Parts / Labor Ratio	X		0.90
	=	\$	86,952
Parts Dept Gross Profit % R.O.Sales	X		42.30%
Lost Parts Gross	=	\$	36,781 (C)
Lost Labor Gross		\$	41 (B)
Lost Parts Gross	+	\$	36,781 (C)
Total Lost Gross	=	\$	36,821

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