Finance Operations 2 - Financial Calculations and Formulas

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· Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	% Sales Contribution
Customer Pay	$ 85,311	$ 59,995	70.33%	57.09%
Customer			0%	0.00%
Customer Other			0%	0.00%
Warranty	$ 29,858	$ 23,820	79.78%	19.98%
Warranty Other			0%	0.00%
Internal	$ 34,255	$ 27,332	79.79%	22.92%
NVI / Road Ready/ PDI			0%	0.00%
Adj. Cost Of Labor			0%	0.00%
Total	$ 149,424	$ 111,147	74.38%	100.00%

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Customer Pay Gross Profit %	70.33%
Total Service Dept. G.P. %	74.38%

Parts To Labor Ratios

Category	Parts Sales	Labor Sales	P/L Ratio
Customer Pay	$ 83,177	$ 85,311	0.97
Customer		$ -	0.00
Customer Other		$ -	0.00
Warranty	$ 21,287	$ 29,858	0.71
Warranty Other		$ -	0.00
Internal	$ 21,765	$ 34,255	0.64
Total	$ 126,229	$ 149,424	0.84

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Customer Pay Gross Profit %	70.33%
Total Service Dept. G.P. %	74.38%
Parts / Labor Ratio (Cust. Pay Only)	0.97

Service Department Profit Centering

Expense Category	Dollar Amount	% of Gross	Profile
Department Gross	$ 111,147		
Variable Expense	$ 16,666	14.99%	
Selling Expense		0.00%	
Personnel Expense	$ 74,447	66.98%	
Semi-Fixed Expense	$ 21,951	19.75%	
Fixed Expense	$ 22,100	19.88%	
Unallocated Expense		0.00%	
Dealer's Salary		0.00%	
Total Expenses	$ 135,154	121.60%	
Net Profit	$ (24,007)	-21.60%	

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Customer Pay Gross Profit %	70.33%
Total Service Dept. G.P. %	74.38%
Parts / Labor Ratio (Cust. Pay Only)	0.97
Total Service Dept. Expenses	$ 135,154

Fixed Absorption

		% Adj Ovhd Exp
Parts Department Total Gross	$ 60,183	12.72%
Service Department Total Gross	$ 121,247	25.63%
Body Shop Department Total Gross		0.00%
Total Fixed Gross Profit	$ 181,430	
Total Dealership Expense	$ 473,081	

Overhead Expense	$ 473,081
Total Fixed Gross Profit	$ 181,430
Total Dealership Expense	$ 473,081
Fixed Absorption Percentage	38.35%

Guideline 60%

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Customer Pay Gross Profit %	70.33%
Total Service Dept. G.P. %	74.38%
Parts / Labor Ratio (Cust. Pay Only)	0.97
Total Service Dept. Expenses	$ 135,164

NADA ACTUAL SERVICE ANALYSIS

	Labor Sales / Month		Effective Labor Rates		Hours Billed
Customer Pay	$ 85,311	÷	86.85	=	982.3
Customer	$ -	÷		=	0.00
Customer Other	$ -	÷		=	0.00
Warranty	$ 29,858	÷	123.60	=	241.6
Internal	$ 34,255	÷	98.56	=	347.6
New Vehicle Prep	$ -	÷		=	0.00
Total	$ 149,424				1571.4

POTENTIAL

$ 149,424	÷	1571.40	=	$ 95.09			
Total labor sales for month		Total hours billed		Effective Labor Rate			
8.00	x	8	x	22	=	1,408.0	
# Service mechanical technicians		# Hours/Day		Working Days/Month		Hours Available to Sell	
1,408.0	x	$ 95.09	=	$ 133,886		$ 167,357.48	
Hours Available to Sell		Effective Labor Rate		Labor sales potential @100%		Labor sales potential @ 125%	

How proficient are your technicians ?

1,571.4	÷	1,408.00	=	111.61%
Total Hours Billed		Hours Available to Sell		Tech Proficiency

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Hours Per RO (RO Analysis)	4.9
Percent of One Item R.O.'s (RO Analysis)	48.00%
Customer Pay Effective Labor Rate (DMS Reoprt)	$ 86.85
Warranty Labor Rate (DMS Report)	$ 123.60
Total Overall Effective Labor Rate	$ 95.09
Overall Technician Proficiency	111.61%

FACILITY POTENTIAL

Number of Bays	23	
	x	
Number of Days	22	
	x	
Number of Hours	11	
	x	
Effective Labor Rate	$ 95.09	
	equals	
FACILITY POTENTIAL		$ 529,268

FACILITY UTILIZATION

Total Labor Sales	$ 149,424	
	÷	
Facility Potential	$ 529,268	
	equals	
FACILITY UTILIZATION		28.23%

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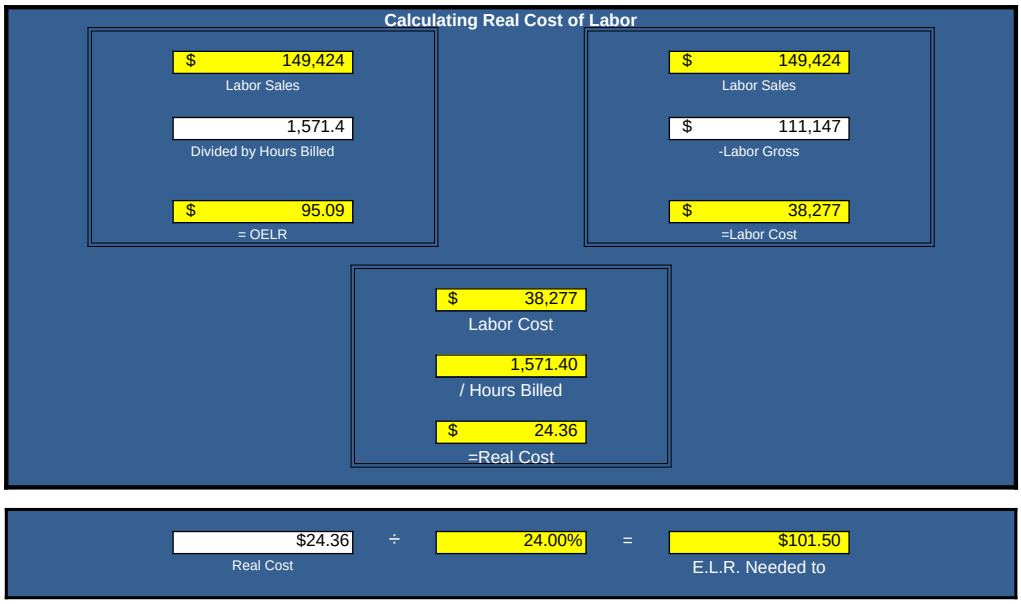

$24.36	÷	24.00%	=	$101.50
Real Cost				E.L.R. Needed to

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OWNER BASE POTENTIAL

6299	x	8	=	50,392.0
5 Year Owner Base		Annual Hours Purchased		Market Potential / Hours
50,392.0	x	$ 95.09	=	$ 4,791,749
Market Potentail/ Hours		Effective Labor Rate		5 Yr. O.B Sales Potential
$ 161,883	x	12	=	$ 1,942,596
Avg. Mos. Labor Sales (excluding internal, PDI and		Annualized		Current Labor Sales Trend
$ 1,942,596	÷	$ 4,791,749	=	40.54%
Labor Sales Trend		5 Yr. O.B. Sales Potential		Ouch

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

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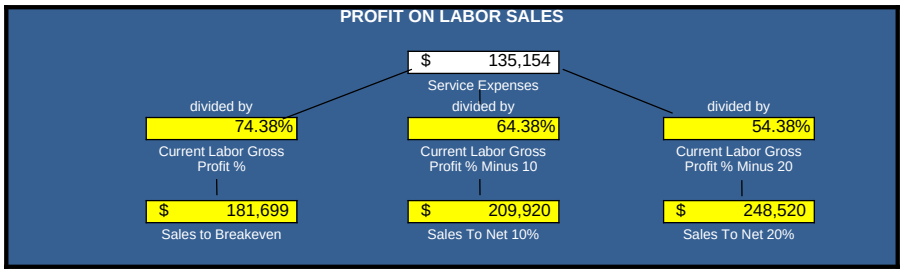

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Customer Pay Gross Profit %	70.33%	Customer Pay E.L.R.	$ 86.85
Total Service Dept. G.P.%	74.38%	Total (overall) E.L.R.	$ 95.09
Parts / Labor Ratio (Cust Pay Only)	0.97	Warranty Labor Rate	$ 123.60
Total Service Dept Expense	$ 135,154	Overall Tech Proficiency	111.61%
Hours Per R.O (recap)	4.87		
Percent Of One Item R.O.'s	48.00%		

Technician Value

Calculate using daily available hours per technician

Hours		Days		Labor Rate		Sales Value
9	x	21	x	$ 95.09	=	$ 15,975

Sales Value		Gross Margin		Profit Value
$ 15,975	x	74.38%	=	$ 11,883

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proficiency

Profit Value				Adjusted Profit Value
$ 11,883	x	70%		$ 8,318
$ 11,883	x	80%		$ 9,506
$ 11,883	x	90%		$ 10,695
$ 11,883	x	100%		$ 11,883
$ 11,883	x	110%		$ 13,071
$ 11,883	x	120%		$ 14,259
$ 11,883	x	111.6%	=	$ 13,262
		Your Proficiency #		

STAFFING REQUIREMENTS

A. Sales To Break Even

Service Expenses for One Month	÷	Current Gross Profit Percent	=	Sales To Break Even
$ 135,154	÷	74.38%	=	$ 181,699

B. Sales To Generate 20% Net

Service Expenses for One Month	÷	Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
$ 135,154	÷	54.38%	=	$ 248,520

C. Technician Value

Daily Work Hours	X	Average Proficiency Rate	X	Overall Effective Labor Rate	X	Work Days Per Month	=	Technician Value
8		80%		$ 95.09		21		$12,780
8		90%		$ 95.09		21		$14,378
8		100%		$ 95.09		21		$15,975
8		120%		$ 95.09		21		$19,170

D. Staffing To Break Even

Sales To Break Even	÷	Technician Value		=	Staffing
$ 181,699	÷	12,780	@ 80%	=	14.2
$ 181,699	÷	14,378	@ 90%	=	12.6
$ 181,699	÷	15,975	@ 100%	=	11.4
$ 181,699	÷	19,170	@ 120%	=	9.5

E. Staffing To Generate 20% Net

Sales To Generate 20% Net	÷	Technician Value		=	Staffing
$ 248,520	÷	$ 12,780	@ 80%	=	19.4
$ 248,520	÷	$ 14,378	@ 90%	=	17.3
$ 248,520	÷	$ 15,975	@ 100%	=	15.6
$ 248,520	÷	$ 19,170	@ 120%	=	13.0

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Service Advisor Performance

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

Break Even

1	Service Department's Monthly Expenses	$135,154
÷		
2	Divide by current labor gross profit % to break even	74.38%
=		
3	Equals New Sales Objective	$ 181,699
÷		
4	Number of Advisors	3.0
=		
5	Equals Sales Objective per Advisor	$ 60,566
÷		
6	Number of work days per month	21
=		
7	Equals daily sales objective per advisor	$ 2,884
÷		
8	Current overall effective labor rate	$ 95.09
=		
9	Equals daily sales objective per advisor (FRH's)	30.3

Net 10 %

1	Service Department's Monthly Expenses	$135,154
÷		
2	Divide by current labor gross profit % minus 10 to net 10%	64.38%
=		
3	Equals New Sales Objective	$ 209,920
÷		
4	Number of Advisors	3.0
=		
5	Equals Sales Objective per Advisor	$ 69,973
÷		
6	Number of work days per month	21
=		
7	Equals daily sales objective per advisor	$ 3,332
÷		
8	Current overall effective labor rate	$ 95.09
=		
9	Equals daily sales objective per advisor (FRH's)	35.0

Net 20 %

1	Service Department's Monthly Expenses	$135,154
÷		
2	Divide by current labor gross profit % minus 20 to net 20%	54.38%
=		
3	Equals New Sales Objective	$ 248,520
÷		
4	Number of Advisors	3.0
=		
5	Equals Sales Objective per Advisor	$ 82,840
÷		
6	Number of work days per month	21
=		
7	Equals daily sales objective per advisor	$ 3,945
÷		
8	Current overall effective labor rate	$ 95.09
=		
9	Equals daily sales objective per advisor (FRH's)	41.5

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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			920
Multiply by .3 hours	x		0.3 hours
Additional customer labor hours generated	=		276.00
Multiply by Customer Labor Rate	x		$ 86.85
Equals additional Customer Labor Sales Generated	=		$ 23,971
Multiply by customer Labor Gross Profit %	x		70.33%
Equals additional Labor Gross Profit $ generated	=	(A)	$ 16,857
Divide Parts Sales R.O. by Labor Sales R.O. to calculate $ parts sales per 1$ of Labor Sales	=		0.97
Multiply by Customer Labor Sales	x		$ 23,971
Equals additional Customer Parts Sales generated	=		$ 23,371
Multiply by Customer Parts Sales Gross Profit %	x		38.20%
Equals additional Parts Gross Profit $ Generated	=	(B)	$ 8,928
Add Gross Profit from Labor (A) and Parts (B)	=		$ 25,785

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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 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)

100%	▯□⟹		=	0.00
100%		Desired Gross Profit percent		Mark-Up Factor
	X	0.00	=	$0.00
Part Cost		Mark-Up Factor		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	=	
Filter #2	$4.01	X	56	=	
Filter #3	$3.56	X	85	=	
Filter #4	$3.86	X	202	=	
Filter #5	$3.51	X	36	=	
	Total Items		491	Total Cost	$0.00

$ -	÷ 491	=	$ -	
Total Cost	Total Items		Average **Cost**	
$ -	X	=	$ -	
Cost	Factor		Average **Price**	

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Cost Of A Come-Back

Lost Customer Opportunity			
Average Hours per R.O.	X		
	=	0.0	
Effective Labor Rate	X	$ 95.09	
Lost Labor Sales	=	$ -	(A)
Service Department Gross Profit % (Excluding Sublet)	X	74.38%	
Lost Labor Gross	=	$ -	(B)
Lost Labor Sales		$ -	(A)
Parts / Labor Ratio	X	0.97	
	=	$ -	
Parts Dept Gross Profit % R.O.Sales	X		
Lost Parts Gross	=	$ -	(C)
Lost Labor Gross		$ -	(B)
Lost Parts Gross	+	$ -	(C)
Total Lost Gross	=	$ -	

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