



Fixed Oper

Financial Calculations a

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Dealership

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Student

448

Class #

Service Department Sales And Gross (Labor Only)

| Category | Sales | Gross | Gross as % of Sales | % Sales Contribution |
|-----------------------------------|-------------------|-------------------|---------------------|----------------------|
| Customer Pay | \$ 179,276 | \$ 114,975 | 64.13% | 26.56% |
| Customer | \$ 85,675 | \$ (14,080) | -16.43% | 12.69% |
| Customer Other | \$ 78,689 | \$ 58,571 | 74.42% | 11.56% |
| Warranty | \$ 104,134 | \$ 83,145 | 79.84% | 15.43% |
| Warranty Other | | | 0% | 0.00% |
| Internal | \$ 185,145 | \$ 111,564 | 60.26% | 27.43% |
| NV/PI/Road Ready | \$ 42,156 | \$ 37,399 | 88.72% | 6.24% |
| Unapplied Time/Adj, Cost Of Labor | | \$ 4,925 | 0% | 0.00% |
| Total | \$ 675,085 | \$ 396,499 | 58.73% | 100.00% |

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| The Picture | |
|-----------------------------|--------|
| Customer Pay Gross Profit % | 46.40% |
| Total Service Dept. G.P. % | 58.73% |

Parts To Labor Ratios

| Category | Parts Sales | Labor Sales | PL Ratio |
|----------------|--------------|-------------|----------|
| Customer Pay | \$ 199,484 | \$ 179,276 | 1.11 |
| Customer | \$ 47,924 | \$ 85,675 | 0.56 |
| Customer Other | \$ 4,255,111 | \$ 78,689 | 54.07 |
| Warranty | \$ 110,551 | \$ 104,134 | 1.06 |
| Warranty Other | | \$ -0 | \$0.00 |
| Internal | \$ 91,151 | \$ 185,145 | 0.49 |
| Total | \$ 4,704,221 | \$ 632,929 | 7.43 |

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| Customer Pay Gross Profit % | 46.40% |
| Total Service Dept. G.P. % | 58.73% |
| Parts / Labor Ratio (Cust. Pay Only) | 13.10 |

Service Department Profit Centering

| Expense Category | Dollar Amount | % of Gross | Profile |
|---------------------|---------------|------------|---------|
| Department Gross | \$ 396,499 | | |
| Variable Expense | N/A | 0.00% | |
| Selling Expense | N/A | 0.00% | |
| Personnel Expense | \$ 205,260 | 51.77% | |
| Semi-Fixed Expense | \$ 38,085 | 9.61% | |
| Fixed Expense | \$ 46,287 | 11.67% | |
| Unallocated Expense | N/A | 0.00% | |
| Dealer's Salary | N/A | 0.00% | |
| Total Expenses | \$ 289,632 | 73.05% | |
| Net Profit | \$ 106,867 | 26.95% | |

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|--------------------------------------|------------|
| Customer Pay Gross Profit % | 46.40% |
| Total Service Dept. G.P. % | 58.73% |
| Parts / Labor Ratio (Cust. Pay Only) | 13.10 |
| Total Service Dept. Expenses | \$ 289,632 |

| | | % Adj. Ovhd Exp |
|--------------------------------------|---------------------|-----------------|
| Parts Department Total Gross | \$ 804,616 | 61.13% |
| Service Department Total Gross | \$ 396,499 | 30.13% |
| Body Shop Department Total Gross | \$ 163,315 | 12.41% |
| | | |
| Total Fixed Gross Profit | \$ 1,364,430 | |
| Total Dealership Expense | \$ 1,316,170 | |
| | | |
| Overhead Expense | \$ 1,316,170 | |
| Total Fixed Gross Profit | \$ 1,364,430 | |
| Total Dealership Expense | \$ 1,316,170 | |
| Fixed Absorption Percentage | 103.67% | |
| Guideline 60% | Clear Form | |
| | | |
| The Picture | | |
| Customer Pay Gross Profit % | 46.40% | |
| Total Service Dept. G.P. % | 58.73% | |
| Parts / Labor Ratio (Cust. Pay Only) | 13.10 | |
| Total Service Dept. Expenses | \$ 289,632 | |

SERVICE INVENTORY ANALYSIS

| | Labor Sales / Month | | Effective Labor Rates | | Hours Billed |
|------------------|---------------------|---|-----------------------|---|---------------|
| Customer Pay | \$ 179,276 | ÷ | 174.84 | = | 1025.4 |
| Customer | \$ 85,675 | ÷ | 174.84 | = | 490.0 |
| Customer Other | \$ 78,699 | ÷ | 174.84 | = | 450.1 |
| Warranty | \$ 104,134 | ÷ | 221.75 | = | 469.6 |
| Internal | \$ 185,145 | ÷ | 164.84 | = | 1123.2 |
| New Vehicle Prep | \$ 42,156 | ÷ | 221.75 | = | 190.1 |
| Total | \$ 675,085 | | | | 3748.4 |

POTENTIAL

| | | | | |
|-----------------------------|---|--------------------|---|----------------------|
| \$ 675,085 | ÷ | 3748.40 | = | \$ 180.10 |
| Total labor sales for month | | Total hours billed | | Effective Labor Rate |

| | | | | | | |
|----------------------------------|---|-------------|---|--------------------|---|-------------------------|
| 31.00 | x | 8 | x | 20.0 | = | 4,960.0 |
| # Service mechanical technicians | | # Hours/Day | | Working Days/Month | | Hours Available to Sell |

| | | | | | | |
|-------------------------|---|----------------------|---|-----------------------------|---|------------------------------|
| 4,960.0 | x | \$ 180.10 | = | \$ 893,294 | = | \$ 1,116,617.48 |
| Hours Available to Sell | | Effective Labor Rate | | Labor sales potential @100% | | Labor sales potential @ 125% |

How proficient are your technicians ?

| | | | | |
|--------------------|---|-------------------------|---|------------------|
| 3,748.4 | ÷ | 4,960.00 | = | 75.57% |
| Total Hours Billed | | Hours Available to Sell | | Tech Proficiency |

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| | |
|--|-----------|
| Hours Per RO (RO Analysis) | 1.5 |
| Percent of One Item R.O.'s (RO Analysis) | 20.00% |
| Customer Pay Effective Labor Rate (DMS Report) | \$ 174.84 |
| Warranty Labor Rate (DMS Report) | \$ 221.75 |
| Total Overall Effective Labor Rate | \$ 180.10 |
| Overall Technician Proficiency | 75.57% |

FACILITY POTENTIAL

Number of Bays
 x
 Number of Days
 x
 Number of Hours
 x
 Effective Labor Rate
 equals
 FACILITY POTENTIAL

FACILITY UTILIZATION

Total Labor Sales
 ÷
 Facility Potential
 equals
 FACILITY UTILIZATION

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Calcu

Labor Sales

 Divided by Hours Billed

 = OELR

÷
 Real Cost

Calculating Real Cost of Labor

| | |
|------------|--------------|
| \$ 675,085 | Labor Sales |
| \$ 396,499 | -Labor Gross |
| \$ 278,586 | =Labor Cost |

| | |
|------------|----------------|
| \$ 278,586 | Labor Cost |
| 3,748.40 | / Hours Billed |
| \$ 74.32 | =Real Cost |

| | | |
|--------|---|---------------------------|
| 24.00% | = | \$309.67 |
| | | E.L.R. Needed to earn 76% |

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OWNER BASE POTENTIAL

| | | |
|---|---|----------------------------|
| 5081 | x | 8 |
| 5 Year Owner Base | | Annual Hours Purchased |
| 40,648.0 | x | \$ 180.10 |
| Market Potential/ Hours | | Effective Labor Rate |
| \$ 447,748 | x | 12 |
| Avg. Mos. Labor Sales (excluding internal, PDI and NVI) | | Annualized |
| \$ 5,372,976 | ÷ | \$ 7,320,685 |
| Labor Sales Trend | | 5 Yr. O.B. Sales Potential |

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

AL

= 40,648.0
Market Potential / Hours

= \$ 7,320,685
5 Yr. O.B Sales Potential

= \$ 5,372,976
Current Labor Sales Trend

= 73.39%
Ouch

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PROFIT ON LABOR SALES

| | | |
|------------------------------|---------------------------------------|---------------------------------------|
| | 289632 | |
| | Service Expenses | |
| divided by | divided by | divided by |
| 58.73% | 48.73% | 38.73% |
| Current Labor Gross Profit % | Current Labor Gross Profit % Minus 10 | Current Labor Gross Profit % Minus 20 |
| \$ 493,132 | \$ 594,322 | \$ 747,762 |
| Sales to Breakeven | Sales To Net 10% | Sales To Net 20% |

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The Picture

| | |
|-------------------------------------|------------|
| Customer Pay Gross Profit % | 46.40% |
| Total Service Dept. G.P.% | 58.73% |
| Parts / Labor Ratio (Cust Pay Only) | 13.10 |
| Total Service Dept Expense | \$ 289,632 |
| Hours Per R.O (recap) | 1.49 |
| Percent Of One Item R.O.'s | 20.00% |

Customer Pay E.L.R.

Total (overall) E.L.R.

Warranty Labor Rate

Overall Tech Proficiency



\$ 174.84

\$ 180.10

\$ 221.75

75.57%



|

Technician Value

Calculate using daily available hours per technician

| | | | | | | | | | |
|-------|---|---|------|----|---|------------|--|---|-------------|
| Hours | | | Days | | | Labor Rate | | = | Sales Value |
| | 8 | x | | 20 | x | \$ 180.10 | | = | \$ 28,816 |

| | | | | | | |
|-------------|--|---|--------------|--|---|--------------|
| Sales Value | | | Gross Margin | | = | Profit Value |
| \$ 28,816 | | x | 58.73% | | = | \$ 16,925 |

| | | | | | |
|--------------|---|-------|--------------------|---|-----------------------|
| \$ 16,925 | x | 70% | | = | \$ 11,847 |
| \$ 16,925 | x | 80% | | = | \$ 13,540 |
| \$ 16,925 | x | 90% | proficiency | = | \$ 15,232 |
| \$ 16,925 | x | 100% | | = | \$ 16,925 |
| \$ 16,925 | x | 110% | | = | \$ 18,617 |
| \$ 16,925 | x | 120% | | = | \$ 20,309 |
| \$ 16,925 | x | 75.6% | Your Proficiency # | = | \$ 12,790 |
| Profit Value | | | | | 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 |
| \$ 289,632 | + | 58.73% | = | \$ 493,132 |

B. Sales To Generate 20% Net

| | | | | |
|--------------------------------|---|---|---|---------------------------|
| Service Expenses for One Month | + | Current Gross Profit Percent (Minus 20) | = | Sales To Generate 20% Net |
| \$ 289,632 | + | 38.73% | = | \$ 747,762 |

C. Technician Value

| Daily Work Hours | x | Average Proficiency Rate | x | Overall Effective Labor Rate | x | Work Days Per Month | = |
|------------------|---|--------------------------|---|------------------------------|---|---------------------|---|
| 8 | | 80% | | \$ 180.10 | | 20 | |
| 8 | | 90% | | \$ 180.10 | | 20 | |
| 8 | | 100% | | \$ 180.10 | | 20 | |
| 8 | | 120% | | \$ 180.10 | | 20 | |

D. Staffing To Break Even

| | | | |
|---------------------|---|------------------|---|
| Sales To Break Even | + | Technician Value | = |
| \$ 493,132 | + | 23,053 @ 80% | = |
| \$ 493,132 | + | 25,934 @ 90% | = |
| \$ 493,132 | + | 28,816 @ 100% | = |
| \$ 493,132 | + | 34,579 @ 120% | = |

E. Staffing To Generate 20% Net

| | | | |
|---------------------------|---|------------------|---|
| Sales To Generate 20% Net | + | Technician Value | = |
| \$ 747,762 | + | 23,053 @ 80% | = |
| \$ 747,762 | + | 25,934 @ 90% | = |
| \$ 747,762 | + | 28,816 @ 100% | = |
| \$ 747,762 | + | 34,579 @ 120% | = |

Net 20 %

| | | |
|--|---|---|
| Service Department's Monthly Expenses | | <input type="text" value="\$289,632"/> |
| | + | |
| Divide by current labor gross profit % minus 20 to net 20% | | <input type="text" value="38.73%"/> |
| | = | |
| Equals New Sales Objective | | <input type="text" value="\$ 747,762"/> |
| | + | |
| Number of Advisors | | <input type="text" value="8.0"/> |
| | = | |
| Equals Sales Objective per Advisor | | <input type="text" value="\$ 93,470"/> |
| | + | |
| Number of work days per month | | <input type="text" value="20"/> |
| | = | |
| Equals daily sales objective per advisor | | <input type="text" value="\$ 4,674"/> |
| | + | |
| Current overall effective labor rate | | <input type="text" value="\$ 180.10"/> |
| | = | |
| Equals daily sales objective per advisor (FRH's) | | <input type="text" value="25.9"/> |

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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 | | <input type="text" value="2753"/> |
| | x | |
| Multiply by .3 hours | | <input type="text" value="0.3 hours"/> |
| | = | |
| Additional customer labor hours generated | | <input type="text" value="825.90"/> |
| | x | |
| Multiply by Customer Labor Rate | | <input type="text" value="\$ 174.84"/> |
| | = | |
| Equals additional Customer Labor Sales Generated | | <input type="text" value="\$ 144,400"/> |
| | x | |
| Multiply by customer Labor Gross Profit % | | <input type="text" value="46.40%"/> |
| | = | |
| Equals additional Labor Gross Profit \$ generated | | <input type="text" value="(A) \$ 67,007"/> |
| | = | |
| Divide Parts Sales R.O. by Labor Sales R.O. to calculate \$ parts sales per 1\$ of Labor Sales | | <input type="text" value="13.10"/> |
| | x | |
| Multiply by Customer Labor Sales | | <input type="text" value="\$ 144,400"/> |
| | = | |
| Equals additional Customer Parts Sales generated | | <input type="text" value="\$ 1,891,940"/> |
| | x | |
| Multiply by Customer Parts Sales Gross Profit % | | <input type="text" value="46.40%"/> |
| | = | |
| Equals additional Parts Gross Profit \$ Generated | | <input type="text" value="(B) \$ 877,860"/> |
| | = | |
| Add Gross Profit from Labor (A) and Parts (B) | | <input type="text" value="\$ 944,867"/> |

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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

$$\frac{\$144.00}{\text{Price}} \div \frac{1.2}{\text{Hours}} = \boxed{\$120.00} \text{ Labor Rate}$$

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 | = | <input type="text" value="\$ 98.00"/> |
| R&R Rear Hub Bearing. | \$ 96.00 | ÷ | 0.80 | = | <input type="text" value="\$ 120.00"/> |
| Replace Trans. Pan gasket | \$ 107.80 | ÷ | 1.10 | = | <input type="text" value="\$ 98.00"/> |
| R&R Headlight unit (1) | \$ 108.00 | ÷ | 0.90 | = | <input type="text" value="\$ 120.00"/> |
| | \$ 429.40 | ÷ | 4.0 | = | <input type="text" value="\$ 107.35"/> |
| | Total Price | | Total Hours | | 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)

| | | | | |
|--|---------------|--|---|--|
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">100%</div> 100% | \rightarrow | <div style="border: 1px solid black; padding: 2px; display: inline-block;">35%</div> Desired Gross Profit percent | = | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1.54</div> Mark-Up Factor |
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">\$6.72</div> Part Cost | \times | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1.54</div> Mark-Up Factor | = | <div style="border: 1px solid black; padding: 2px; display: inline-block;">\$10.34</div> 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 | \times | 112 | = | \$488.32 |
| Filter #2 | \$4.01 | \times | 56 | = | \$224.56 |
| Filter #3 | \$3.56 | \times | 85 | = | \$302.60 |
| Filter #4 | \$3.86 | \times | 202 | = | \$779.72 |
| Filter #5 | \$3.51 | \times | 36 | = | \$126.36 |
| | | | Total Items | | 491 |
| | | | Total Cost | | \$1,921.56 |

| | | | | |
|--|--------|---|---|---|
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">\$ 1,921.56</div> Total Cost | \div | <div style="border: 1px solid black; padding: 2px; display: inline-block;">491</div> Total Items | = | <div style="border: 1px solid black; padding: 2px; display: inline-block;">\$ 3.91</div> Weighted Average Cost |
|--|--------|---|---|---|

| | | | | |
|---|----------|---|---|--|
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">\$ 3.91</div> Weighted Average Cost | \times | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1.67</div> Mark-Up Factor | = | <div style="border: 1px solid black; padding: 2px; display: inline-block;">\$ 6.54</div> Weighted Average Price |
|---|----------|---|---|--|

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Cost Of A Come-Back

| | | | |
|---|---|----|---------|
| Lost Customer Opportunity | | | 1.5 |
| Average Hours per R.O. | X | | 1.5 |
| | = | | 2.2 |
| Effective Labor Rate | X | \$ | 180.10 |
| Lost Labor Sales | = | \$ | 403 (A) |
| <hr/> | | | |
| Service Department Gross Profit % (Excluding Sublet) | X | | 58.73% |
| Lost Labor Gross | = | \$ | 236 (B) |
| <hr/> | | | |
| Lost Labor Sales | | \$ | 403 (A) |
| Parts / Labor Ratio | X | | 1.11 |
| | = | \$ | 448 |
| Parts Dept Gross Profit % R.O.Sales | X | | 46.40% |
| Lost Parts Gross | = | \$ | 208 (C) |
| <hr/> | | | |
| Lost Labor Gross | | \$ | 236 (B) |
| Lost Parts Gross | + | \$ | 208 (C) |
| Total Lost Gross | = | \$ | 444 |

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