



# Southwestern Petroleum Corporation

## GEAR BOX LUBRICATION COST IMPROVEMENT ANALYSIS

*With a very small amount of information, we can show you in dollars and cents what a switch to Southwestern Petroleum Corporation's superior SWEPco Brand Lubricants can mean to your operation. The actual cost of the lubricant is a very small portion of the story. Frequency of lubrication, waste lubricant disposal costs, lube labor, repair parts and labor, equipment service life, replacement cost, fuel or energy usage and cost of downtime must all be considered to reveal the **total cost of lubrication**. Knowing all of these factors permits today's maintenance professional to make good business decisions. Thank you.*

### Company Information

Company Name: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Contact Name: \_\_\_\_\_ Department: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State/Prov: \_\_\_\_\_ County: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_  
 Phone: (\_\_\_\_) \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

### Information About The Individual Unit Being Analyzed

Type of Equipment: \_\_\_\_\_ Manufacturer: \_\_\_\_\_ Model No: \_\_\_\_\_  
 Component Being Lubricated: \_\_\_\_\_ Manufacturer: \_\_\_\_\_ Model No: \_\_\_\_\_  
 Manufacturer's Lubricant Spec: \_\_\_\_\_ Current Lubricant Brand/Weight: \_\_\_\_\_  
 Type of Service?  Mobile  Stationary  High Heat  High Speed  High Load  High Shock  Water/Steam Contamination  
 Other Special Service Notes: \_\_\_\_\_  
 Number of Identical Units: \_\_\_\_\_ Number of Similar Units: \_\_\_\_\_

### Questions About Your Current Lubrication Related Costs (Green Items Required)

|   |   |
|---|---|
| 1. What is your current cost per gal/liter for gear oil?<br>_____   | 11. What is your average energy/fuel usage rate for this unit (kw per hr or gal/liter per hour or mile)?<br>_____ |
| 2. How many average hours/miles per week is this unit operated?<br>_____  | 12. What is your average cost for energy/fuel (per kwhr/gal/liter)?<br>_____                                      |
| 3. What is the gear box's oil capacity in gallons/liters?<br>_____  | 13. What is the projected life of this gear box in years?<br>_____  |
| 4. How many gallons/liters of make up oil is used between drains?<br>_____                                      | 14. What is replacement cost for this gear box?<br>_____  |
| 5. What is the gear box's current drain cycle in hours/miles?<br>_____  | 15. How many hours/miles do bearings/seals last?<br>_____   |
| 6. How long does a routine oil change take?<br>_____  | 16. How long does bearing/seal replacement take the unit out of service?<br>_____                                 |
| 7. What is your cost per gallon/liter for waste oil disposal?<br>_____  | 17. What was your last cost for bearing/seal replacement parts?<br>_____  |
| 8. What is your current yearly cost for oil analysis services for this gear box?<br>_____                       | 18. How many hours/miles do gear sets last?<br>_____  |
| 9. What is your hourly cost for maintenance labor (including benefits, taxes, shop overhead, etc)?<br>_____     | 19. How long do major rebuilds (gear set replacements) take the unit out of service?<br>_____                     |
| 10. What is your average hourly cost for downtime (lost revenue, productivity, wages, penalties, etc)?<br>_____ | 20. What was your last cost for a gear set?<br>_____  |

### Please Complete In Black Ink And Fax Back To 1-817-348-7237 For A Complete Analysis

SWEPco Field Service Representative: \_\_\_\_\_ Phone Number: (\_\_\_\_) \_\_\_\_\_

# GEAR BOX LUBRICATION COST IMPROVEMENT ANALYSIS

Company: Sweeney Manufacturing

Gear Box Description: Johnson Power Model 425G Planetary Gear Box

## SECTION 1 -- CURRENT MAINTENANCE INFORMATION

|  |            |                      |
|--|------------|----------------------|
| How many average hours/miles per week is this gear box operated?                                   | 100        | Hours/Miles per Week |
| What is the gear box's oil capacity in gallons/liters?   | 28         | Gallons/Liters       |
| How many gallons/liters of make up oil is used between drains?                                     | 4          | Gallons/Liters       |
| What is the gear box's current drain cycle in hours/miles?   | 600        | Hours/Miles          |
| How long does a routine oil change take?   | 2.00       | Hours                |
| What is your cost per gallon/liter for waste oil disposal?   | \$0.46     | Per Gallon/Liter     |
| What is your current yearly cost for oil analysis services for this gear box?                      | \$300.00   | Per Year             |
| What is your hourly cost for maintenance labor (including benefits, taxes, shop overhead, etc)?    | \$53.24    | Per Hour             |
| What is your average hourly cost for downtime (lost revenue, productivity, wages, penalties, etc)? | \$1,100.00 | Per Hour             |

## SECTION 2 -- CURRENT ENERGY/FUEL COST INFORMATION

|  |        |                                   |
|--|--------|-----------------------------------|
| What is your average energy/fuel usage rate for this unit? | 8.33   | KW/Hr or Gal/Liter per Mile or Hr |
| What is your average cost for energy/fuel?                 | \$0.98 | Per Gal/Liter/KWHR                |

## SECTION 3 -- EQUIPMENT COST INFORMATION

|   |             |       |
|---|-------------|-------|
| What is the projected life of this gear box in years? | 6.00        | Years |
| What is replacement cost for this gear box?           | \$50,000.00 | Each  |

## SECTION 4 -- CURRENT REPAIR COST INFORMATION

|  |             |             |
|--|-------------|-------------|
| How many hours/miles do bearings and seals last?                                 | 2,400       | Hours/Miles |
| How long does bearing/seal replacement take the unit out of service?             | 10.00       | Hours       |
| What was your last cost for bearing/seal replacement parts?                      | \$925.00    | Per Set     |
| How many hours/miles do gear sets last?  | 9,600       | Hours/Miles |
| How long do major rebuilds (gear set replacements) take the unit out of service? | 16.00       | Hours       |
| What was your last cost for a gear set?  | \$11,000.00 | Per Set     |

## SECTION 5 -- LUBRICATION COST ANALYSIS

|   | Current Supplier | SWEPCO             |
|---|------------------|--------------------|
| Projected Drain Interval                          | 100.00%          | 250.00% Of Current |
| Projected Equipment Life                          | 100.00%          | 150.00% Of Current |
| Projected Energy/Fuel Savings                     | 0.00%            | 3.00% Of Current   |
| Cost of Gear Oil Per Gallon/Liter                 | \$9.10           | \$23.55            |
| In Service Hours/Miles Per Year                   | 5,200            | 5,200              |
| Oil Changes Per Year                              | 8.67             | 3.47               |
| Bearing/Seal Replacements Per Year                | 2.17             | 1.44               |
| Gear Set Replacements Per Year                    | 0.54             | 0.36               |
| Annualized New Oil Costs                          | \$2,523.73       | \$2,612.48         |
| Annualized Oil Analysis & Used Oil Disposal Costs | \$427.57         | \$51.03            |
| Annualized Labor Costs                            | \$2,537.77       | \$1,445.76         |
| Annualized Parts Costs                            | \$7,962.50       | \$5,308.33         |
| Annualized Cost of Downtime                       | \$52,433.33      | \$29,871.11        |
| Annualized Fuel/Energy Usage                      | \$42,449.68      | \$41,176.19        |
| Equipment Cost Per Year Of Service                | \$8,333.33       | \$5,555.56         |

**THE BOTTOM LINE -- TOTAL ANNUALIZED GEAR BOX OPERATING COST \$116,667.93 \$86,020.46**

|  |             |
|--|-------------|
| Projected Yearly SWEPCO Savings In Dollars   | \$30,647.47 |
| Projected Yearly SWEPCO Savings As A Percent | 26.27%      |

**CONSIDER THE IMPACT OF THIS TYPE OF SAVINGS ACROSS YOUR ENTIRE EQUIPMENT INVENTORY**

Number of Similar Units

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