

COMPANY NAME:

# #A02

## HYDRAULIC INSTITUTE REPORT 2015 ANNUAL REPORT OF OPERATING RATIOS

REPORT RATIOS FOR PUMP DIVISION ONLY IN COLUMN I. IF THE ACCOUNTING SYSTEM OF THAT DIVISION INCLUDES ALLIED OPERATIONS SUCH AS A FOUNDRY, EXPENSES, SALES PROFITS, ASSETS, ETC. OF SUCH OPERATION ARE TO BE INCLUDED IN ALL RATIOS. IF THE ACCOUNTING SYSTEM DOES NOT INCLUDE SPECIFIC DATA FOR THE ALLIED OPERATIONS BUT REASONABLY ACCURATE ESTIMATES OF THE PUMP SHARE OF SUCH OPERATIONS CAN BE MADE, THE RATIOS STILL SHOULD BE REPORTED IN COLUMN I.

IF SUCH REASONABLY ACCURATE ESTIMATES CANNOT BE MADE OR IF IT IS NECESSARY TO COMBINE OTHER MAJOR OPERATIONS WITH THE PUMP DIVISION IN PRODUCING THESE RATIOS, THE RATIOS SHOULD BE REPORTED IN COLUMN II. PLEASE COMPLETE THE SURVEY BY **APRIL 15, 2015**, AND RETURN IT TO:

**STACEY HARRISON**  
**NEMA/BUSINESS INFORMATION SERVICES**  
**HARRISONS@NEMA.ORG**  
**or FAX to (703) 841-3370**

**REPORT COVERS:**

**CALENDAR YEAR 2014** OR  **FY ENDING** \_\_\_\_\_

**NET SALES DURING THE COVERED YEAR INDICATED ABOVE \$** \_\_\_\_\_

	<u>COLUMN I</u>	<u>COLUMN II</u>
	<u>PUMP OPERATIONS ONLY</u>	<u>PUMP OPERATION INC. WITH OTHER</u>
<b>I. P &amp; L RATIOS</b>		
<small>(ALL RATIOS SHOWN AS A % OF NET SALES)</small>		
A. <u>Manufacturing Cost</u>		
1. Material Costs	_____ %	_____ %
2. Direct Labor	_____ %	_____ %
3. Factory Overhead	_____ %	_____ %
Total Manufacturing Cost	_____ %	_____ %
B. <u>Engineering and Development Cost</u>		
1. Research and Development	_____ %	_____ %
2. Engineering Expense	_____ %	_____ %
Total Engr. & Development	_____ %	_____ %

**Note:** If pump manufacturing is carried on in separate plants, each keeping separate and distinct accounting systems, report each on separate form as though they were independent businesses.

	<u>COLUMN I</u>	<u>COLUMN II</u>
	<u>PUMP OPERATIONS ONLY</u>	<u>PUMP OPERATION INC. WITH OTHER</u>
C. <u>Marketing Cost</u>		
1. Advertising & Promotion	_____ %	_____ %
2. Field Sales	_____ %	_____ %
3. Other Marketing Expense	_____ %	_____ %
Total Marketing Cost	_____ %	_____ %
D. <u>General Administrative Expense</u>	_____ %	_____ %
E. <u>Net Operating Profit</u>	_____ %	_____ %
F. <u>TOTAL</u> (A+B+C+D+E) (Must equal 100%)	_____ %	_____ %

## II. OTHER RATIOS

A. <u>Cost of Goods Sold to Inventory</u> (Inventory Turnover)	_____	_____
B. <u>Return on Investment</u> (Net Operating Profit/Total Assets)	_____ %	_____ %
C. <u>Average Collection Period</u> (Days of Sales Outstanding)	_____	_____
D. <u>Warranty Expense/Net Sales</u>	_____ %	_____ %
E. <u>Aftermarket Business</u>	_____ %	_____ %
F. <u>Current Ratio</u>	_____ %	_____ %
G. <u>Debt to Total Capitalization</u>	_____ %	_____ %
H. <u>Cash Ratio</u>	_____ %	_____ %
I. <u>Accounts Receivable Turnover</u>	_____ %	_____ %
J. <u>Accounts Payable Turnover</u>	_____ %	_____ %
K. <u>Return on Assets</u>	_____ %	_____ %
L. <u>EBITDA Margin</u> (EBITDA/Net Sales)	_____ %	_____ %
M. <u>Debt to EBITDA</u> (Current and LTD/EBITDA)	_____ %	_____ %

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**NET SALES**

- a. The dollar volume of business for complete pumps and parts transacted for the period of one year. Dollar volume is to be based on actual shipments.
- b. Includes:
  - 1. Drivers both close-coupled and all others
  - 2. Controls
  - 3. All discounts and reductions from list price, except cash discounts
  - 4. Deductions from gross sales for returns and allowances. Returns cover products which are sent back by the customer for credit. Allowances are any reductions from selling price because of defects in product, non-conformance with specifications, or for any reason after billing is complete
  - 5. Figures for departments subsidiary to the pump department when output so closely relates to pumps that figures cannot be separated
  - 6. Export sales (manufacture must be domestic)
  - 7. Invoiced serviced work
- c. Excludes:
  - 1. Do not deduct commissions to salesmen or agents
  - 2. Do not deduct cash discounts
  - 3. Warranty service

**I-A(1): MATERIAL COSTS**

- a. Includes all materials and purchase parts which make up the finished product as detailed on the Engineering Material lists.
- b. Includes but not limited to:
  - 1. The cost of all rough castings as delivered to the Machine Shop, whether purchased or made at a captive foundry
  - 2. Any standard accounting variances applicable to material costs
  - 3. Couplings
  - 4. Mechanical seals
  - 5. Lubrication systems
  - 6. Cooling systems
  - 7. Drivers (all)
  - 8. Controls (all)

**I-A(2): DIRECT LABOR**

- a. All labor performed in the production of parts for the finished product and chargeable to the product.

- b. Includes but not limited to:
  - 1. Labor cost variances
  - 2. All machine shop operations such as cutting, forming, welding, and grinding
  - 3. All machine set-up costs
  - 4. Assembly
  - 5. Testing
  - 6. Mounting of drivers and auxiliaries
  - 7. Painting
  - 8. Packaging
- c. Excludes:
  - 1. Material handling
  - 2. Shipping
  - 3. Warehousing
  - 4. Any direct labor involved with the production of castings

**I-A(3): FACTORY OVERHEAD**

- a. All manufacturing costs not included in direct material and direct labor.
- b. Includes but not limited to:
  - 1. Production and material control
  - 2. Inspection and quality control
  - 3. Receiving, shipping, stores, material handling, factory warehousing
  - 4. Purchasing
  - 5. Industrial relations as related to manufacturing
  - 6. Maintenance and janitorial services
  - 7. Industrial, manufacturing, and plant engineering
  - 8. Safety and plant protection
  - 9. Supervisor personnel charges to manufacturing operations
  - 10. Tool, die, and pattern operations
  - 11. Order processing
  - 12. Depreciation and rent of manufacturing equipment and facilities
  - 13. Utilities
  - 14. All fringe benefits for manufacturing personnel, whether direct or indirect
  - 15. Supplies and materials which do not become a direct part of the product. Includes painting and packaging materials.
  - 16. Travel
  - 17. Periodicals and memberships
  - 18. Manufacturing cost and volume variances not included in material or direct labor
  - 19. Inventory adjustments

**I-B(1): RESEARCH AND DEVELOPMENT EXPENSE**

- a. Salaries, fringe benefits, and total department expense related to research and development programs preliminary and incident to manufacture, whether expensed or capitalized costs.
- b. Includes but not limited to:
  - 1. All materials, parts, supplies, etc.

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2. Experimental machinery and equipment
  3. Finished products used and expenses in research and development
  4. All normal department expenses such as rent, utilities, maintenance, travel, insurance, taxes, etc.
  5. Engineering expenses specifically related to research and development
- c. Excludes:
1. Normal and recurring engineering expenses which are outlined under Engineering Expense.
  2. Sales and expense on R & D contracts unrelated to normal manufacture or which result in design only as opposed to a product.

**I-B(2): ENGINEERING EXPENSE**

- a. Salaries, fringe benefits, and department expenses related to product engineering. This should represent the total engineering cost of the department. Time charged out to other categories such as orders, overhead on other departments such as marketing should be included in the total engineering expense. Costs for application engineering and engineering for research and development should be excluded.
- b. Includes but not limited to:
  1. Specification writing and/or order clarification
  2. Drafting expense
  3. Engineering for product improvement
  4. Engineering for cost reduction
  5. Engineering for product modification for special applications
  6. Testing or experimentation that is not otherwise charged to R & D, production orders, or quality control. (Could include testing to obtain performance information on existing products.)
  7. All normal department expenses such as rent, utilities, supplies, maintenance, travel, insurance, taxes, etc.
  8. Application engineers included in the engineering department budget.
- c. Excludes:
  1. Customer service
  2. Plant engineering, manufacturing engineering, and industrial engineering
  3. Engineering for R & D
  4. Testing for production orders
  5. Order processing

**I-C(1): ADVERTISING AND PROMOTION**

- a. Salaries, fringe benefits, department expense, outside services, and the cost of all media and materials involved in conducting advertising and promotion programs.
- b. Includes but not limited to:

1. All fees to agencies or outside services
  2. Radio or television time
  3. Catalog, directory, and space advertising (including any allocations against pumps from corporate or institutional space).
  4. Advertising and promotional research
  5. All costs of producing advertising copy and materials, such as visual aids, exhibits, sales aids, novelties, etc.
  6. Product literature of all types
  7. Postage, boxing, and shipping costs
- c. Excludes: price books and technical data such as instruction books and service manuals.

**I-C(2): FIELD SALES EXPENSE**

- a. Salaries, fringe benefits, total department expense, and all other costs associated directly with the sales function.
- b. Includes but not limited to:
  1. Commissions paid to salesmen or sales agents of all types. (Discounts allowed to distributors or other sales agents are to be construed as trade discounts and therefore handled as provided in definition of sales.)
  2. Field warehousing and handling
  3. Automobile expenses
  4. Sales errors and policy
  5. Sales Conferences
  6. Salaries and fringe benefits of sales management, salesmen, clerks, office supervisors, and technical support personnel located in the sales offices.
  7. Application engineering (field)
- c. Excludes:
  1. Application engineering (factory)
  2. Customer service
  3. Sales training
  4. Sales contests
  5. Sales management charged to Marketing Administration

**I-C(3): OTHER MARKETING EXPENSE**

- a. Salaries, fringe benefits, department expenses, and all other expenses of all marketing functions not included in Advertising and Promotion, or in Field Sales Expense.
- b. Includes but not limited to:
  1. Application engineers (factory)
  2. Customer service
  3. Marketing research
  4. Sales training
  5. Price books
  6. Published technical data
  7. Sales promotion allowances

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8. Contest expenses
9. Market planning

**I-D: GENERAL ADMINISTRATIVE EXPENSE**

- a. The salaries, fringe benefits, department expense, and all other costs associated with the general administration of the company. All operating costs and expenses which do not fit into previous categories must be included in this category.
- b. Includes but not limited to:
  1. Corporate charges allocated to the pump operation
  2. Consultants and directors' fees
  3. Legal
  4. Accounting, auditing, data processing, and finance
  5. Corporate industrial relations and personnel
  6. Public relations
  7. Corporate and business planning

**I-E: NET OPERATING PROFIT**

- a. This is the pre-tax profit from normal operations that results when all operating expenses are subtracted from the total sales.
- b. It is the intent of this form that all operating expenses be classified under one of the four major headings:
  - A. Manufacturing
  - B. Engineering and Development
  - C. Marketing
  - D. General Administrative

Thus, the sum of Net Operating Profit and the above four categories should equal the total sales of the operation. When using percentages, as are used in this report, the sum of these five items should equal 100%.

- c. Net Operating Profit is not the final profit figure of a company. Other adjustments are made, such as:
  1. Non-operating profit or loss
  2. Provisions for Federal income taxes
  3. Stockholder dividends
  4. Withdrawals by proprietors and partners

Net Operating Profit is to be computed prior to these adjustments.

**II-A: COST OF GOODS SOLD TO INVENTORY (INVENTORY TURNOVER)**

- a. This is a ratio, and is to be computed by dividing the cost of goods sold during a 12-month period by the average monthly inventory during the same 12-month period. Your present accounting method is to be used for determining value.
- b. Inventory includes:
  1. Raw material

2. Material in process
3. Finished goods

- c. Inventory excludes: All supplies

**II-B: RETURN ON INVESTMENT**

- a. This is pre-tax return on investment and is to be computed by dividing net operating profit by total assets.
- b. Net Operating Profit - use definition from "E" above.
- c. Assets include:
  1. All tangible assets as shown on company's balance sheet
  2. Cost or appraised value of land
  3. Depreciated cost value of buildings, leasehold improvements, fixtures, furniture, tools, and equipment.
- d. Assets exclude: Intangible assets such as goodwill, trademarks, and patents.

**II-C: AVERAGE COLLECTION PERIOD**

- a. The turnover of accounts receivable is the average number of days for collecting outstanding invoices. It is the average monthly or weekly balance of outstanding accounts receivables averaged over a given period and divided by the average daily sales recorded during this same period, which in turn is the total sales for this period divided by the number of calendar days in the period.
- b. Since this survey is done on an annual basis, we will use the calendar year, i.e., 365 days.

**EXAMPLE**

Average Gross Billing	10,000,000
Average Month End Receivable	2,000,000
	2,000,000
Average Collection Period=	----- X 365 = 73 days
	10,000,000

**II-D: WARRANTY EXPENSE TO NET SALES**

This is a ratio and is to be computed by dividing warranty expense by net sales. Warranty expense includes all costs normally charged to warranty costs.

**II-E: AFTERMARKET BUSINESS**

Total aftermarket business is to be reported as a percentage of total sales for the year.

Aftermarket business is defined as all business except original equipment and accessories.

Included are parts, repairs, service and trouble jobs.

**II-F: CURRENT RATIO (CURRENT ASSETS/CURRENT LIABILITIES)**

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- a. The **Current Ratio** is a liquidity ratio that measures whether or not a firm has enough resources to pay its debts over the next 12 months. It compares a firm's current assets to its current liabilities. Provides an indication of liquidity.
- b. **Current Assets** generally consist of cash, marketable securities, accounts receivable and inventories.
- c. **Current Liabilities** include accounts payable, current maturities of long-term debt, accrued income taxes and other accrued expenses that are due within one year.

**II-G: DEBT TO TOTAL CAPITALIZATION (CURRENT AND LTD/TOTAL CAPITAL INVESTMENT)**

- a. This is a financial leverage ratio of debt to total capitalization (debt plus shareholders' equity) on a company's balance sheet and is calculated by dividing **Total Debt** by the **sum of Debt and Equity**.

**II-H: CASH RATIO (CASH EQUIVALENTS + MARKETABLE SECURITIES/CURRENT LIABILITIES)**

- a. The **Cash Ratio** is a formula for measuring the liquidity of a company by calculating the ratio between all cash and cash equivalent assets and all current liabilities.
- b. It excludes both inventory and accounts receivable in comparison to the current ratio.

**II-I: ACCOUNTS RECEIVABLE TURNOVER (NET SALES/AVERAGE A/R)**

- a. Is defined as the number of times that trade receivables turnover during the year. This is an efficiency ratio that is a good indicator of cash flow and overall operating efficiency.
- b. Calculate by dividing **Net Sales** by **Average Accounts Receivables**.

**II-J: ACCOUNTS PAYABLE TURNOVER (COST OF GOODS SOLD/AVERAGE ACCOUNTS PAYABLE)**

- a. This is an efficiency ratio defined as the number of times trade payables turnover during a year.
- b. Calculate by dividing **Cost of Goods Sold** by **Average Accounts Payable**.

**II-K: RETURN ON ASSETS (NET INCOME/(BEGINNING + ENDING TOTAL ASSETS) /2**

- a. This is a profitability ratio indicating how profitable a company is relative to its total assets.
- b. Calculate by dividing **Net Income** by **Total Assets**.

**II-L: EBITDA MARGIN (EBITDA/NET SALES)**

- a. Measures the extent to which operating expenses use revenue.
- b. Calculate by dividing **Total EBITDA** (earnings before interest, taxes, depreciation and amortization) by **Net Sales**.

**II-M: DEBT TO EBITDA (CURRENT AND LTD/EBITDA)**

- a. Is a dynamic measure of leverage that takes into account the ability of a company to decrease its debt burden.
- b. Calculate by dividing **Total Debt** by **EBITDA** (earnings before interest, taxes, depreciation and amortization).