

Constructing Clarity: The True Cost of Your Equipment & Its Business Value

Grasping your expenses & their impact on cash flows, budgets & bids



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Equipment, machinery and vehicles are essential tools to nearly all contractors and continue to be a significant expense on most of their income statements. Like labor and materials, the costs of purchasing and maintaining construction equipment have also been affected by ongoing supply chain issues and inflation. In fact, in the new 2023 Marcum National Construction Survey, 37% of construction companies say they may delay purchasing equipment because of interest rates. If the sticker shock and long lead times related to new equipment purchases are not bad enough, used equipment prices are also at an all-time high, and availability is spotty at best.

In addition to the purchase price of a piece of equipment, a variety of other cost components need to be considered to determine the true cost of that piece of equipment and the effect it will have on the company. Knowing how to calculate the total cost of each piece of equipment is essential when projecting the cash flows of the company and budgeting for future years of operation. By better understanding all the costs associated with equipment ownership and operation, contractors can improve budgeting, job costing and projections and apply more appropriate estimates when bidding on new contract opportunities.

In general, two main categories of costs need to be considered: ownership and operating costs. Ownership costs represent the costs associated with the initial purchase and continuous

ownership of the equipment. Operating costs represent the costs of using the equipment throughout its estimated life.

Most ownership costs are straightforward, but at times there are some costs that do not appear on the bill of sale that may be overlooked. Some common ownership costs are as follows:

- Purchase price
- State and local sales taxes
- Delivery fees
- Financing costs
- Other improvements to operationalize the equipment include GPS systems, attachments, company paint and logos, etc.

These are the costs involved with taking possession of the equipment. Other costs of equipment ownership that are often overlooked in the initial purchase price include:

- Insurance costs
- Annual property taxes
- Extended warranty cost

Operating costs must also be considered when determining what a piece of equipment truly costs. These include but are not limited to:

- Operator costs (wages, benefits, matching contributions, union benefits, employer payroll taxes, etc., per hour)
- Fuel costs (cost per gallon and how many gallons are used per hour of operation)
- Routine maintenance costs – internal and external (daily, weekly, monthly and

annual maintenance items should be considered)

- Lubrication costs
- Major repair allowances
- Transportation and storage costs
- The cost of other consumables utilized during the year (oil, fluids, wear parts, etc.)

The items listed above represent a high-level overview of some common ownership and operating costs that should be considered when working to better understand what a piece of equipment costs. However, these costs will vary drastically based on the equipment type and proposed use. Also, inflation must always be a consideration. At a minimum, a company should assume and allow for increases in the cost of labor, fuel and parts over the useful life of the equipment.

With the ownership and operating costs of a piece of equipment identified, a contractor can now estimate what that piece of equipment truly costs to use once they answer a few additional questions. Those questions are:

1. What is the estimated useful life of the equipment with the company?
2. How many hours will the equipment be used each year?
3. Once the equipment has reached the end of its useful life with the company, how much will it be worth?

With the information gathered, a contractor can now calculate what each hour a piece of equipment is running costs, and this “rate” can be used to assist with bidding, job costing and projections. A best practice to consider when thinking about equipment usage reporting is to treat each piece of equipment like an employee from a costing and budgeting standpoint. Employees are budgeted onto contracts at a standard hourly rate, and equipment should be treated similarly to capture all costs.



This process represents the first steps to consider in determining the true cost of a piece of equipment. By going through this process, a contractor should be able to make better decisions related to currently owned equipment and when considering the purchase of additional equipment and budgeting for their use. Based on a company's size, type of construction performed, geographical location and other factors, further information to be taken into consideration may include:

- *Location and use* – A piece of equipment utilized full-time in the Arizona sun and heat will age and depreciate at a different rate than a piece of equipment that will be used part-time in middle Tennessee. This is a critical consideration for contractors operating in multiple states or regions with varying seasons, weather, and operation windows.
- *Ability to lease unused equipment* – If there is a risk of equipment going unused, is there an opportunity to lease this equipment to third parties? When managed properly, this option may help reduce the overall cost to the owner whenever the company utilizes

it. However, it can also lead to higher inspection, repair and maintenance costs before the company can put it back into use for themselves.

- *Cost of renting versus owning* – A company may determine that renting a piece of equipment is more cost-effective than owning it. It is very common in the case of some specialty equipment that companies determine that owning the equipment may not make sense due to low estimated utilization.

It is readily apparent that there is much more to the cost of a piece of construction equipment than what is paid to purchase it from a dealer or at an equipment auction. By performing an analysis of the costs to own and operate a piece of equipment, a contractor will better understand the total cost of the equipment over its lifetime. Contractors with this knowledge can use it to calculate an appropriate hourly rate for allocating these costs to their construction contracts. This will help the company better manage its cash flows, estimate future budgets and forecasts, and produce more competitive bids for future contracts. ▲