# EQUIPMENT ACQUISITION CHOICES: MAKING THE RIGHT CHOICE IN TODAY'S FINANCIAL ENVIRONMENT

*Arlen T. Swenson*
*John Deere National Sales Division*

As capital budgets continue to come under closer scrutiny and tighter spending reduction pressures, individual agencies and public officials are often faced with having to use alternative equipment acquisition methods to secure needed machines for key maintenance operations. Understanding the true costs of alternative machine acquisition methods can sometimes be confusing. What appears to make sense at the time of bid opening, can often be a very expensive or impractical choice when considered on a long-term or entire fleet basis. Determining which acquisition alternative is the best choice for a particular agency or operation will require detailed study, however, often the best way to start is simply to ask, "Do I have a real need to own the equipment or do I really just need to have use of the equipment?" Depending on local acquisition laws, a public agency can be in an excellent position to truly consider the benefits of paying to "use" a piece of equipment versus paying to "own" a piece of equipment.

There are many choices offered today for acquiring machines. Closed-end leases, open-end leases, municipal leases, residual values, short-term rental, total cost, skip payments, balloon payments, low A.P.R., fixed payments, variable payments, and many other choices. All these different choices, however, can normally be grouped into one of the following six common categories of equipment acquisition methods.

## COMMON EQUIPMENT ACQUISITION METHODS

1. Straight Rental of Equipment;
2. Straight Lease of Equipment;
3. Cash Purchase or Rental Purchase of Equipment;
4. Lease Purchase of Equipment;
5. Purchase w/trade or buyback guaranteed; or
6. Any of the five above methods combined with a guarantee of repair, parts, labor, and/or maintenance costs

### Paying to Own

When cash purchasing, rental purchasing, lease purchasing, or finance purchasing with a trade or buyback guarantee, you are paying to "own" the equipment. Paying to "own" the equipment, however, often requires the commitment of a higher cash flow than "use" acquisition methods such as straight rentals or operating leases. Buying a machine outright offers the best chance of obtaining a dealer's deepest discounts, but using cash ties up capital that might be better utilized in other investments or areas of budget expenditure. Sometimes simply financing equipment purchases can help invest hard-earned budget cash where it will produce the greatest return. For example, if you put 20% down on a $150,000 machine and financed the remaining $120,000 at 9% percent for 60-months, you would pay more than $29,000 in interest over the term of the note. Paying cash for the machine saves that sum. The problem is, even a very conservative rate of return (if local statutes permit) would produce $155,000 on a $120,000 investment over five years. Comparing the total acquisition costs (TAC), the combined finance charges, down payment, prepayment penalties, fees, other costs, and terms from various lenders will help reduce the impact of borrowing.

### Paying to Use

When renting or leasing (often called a straight lease, true lease, or operating lease) a piece of equipment, you are paying for the "use" of the equipment. Often, a purchase option can be provided as part of the rent or lease contract, however, the purchase option when combined with the monthly rental or lease payments will often prove to be a higher "owning" cost than other acquisition methods.

#### *Renting Equipment*

The straight renting of equipment normally fills a short-term need rather than putting off a buying decision. Rentals have also become the industry's "try before you buy" test drive. Renters are attracted by the opportunity to get the machine they think they need, earn some equity with it, and (if structured properly) convert it to a purchase, all with no money down. Rental contracts normally have minimum obligations compared with

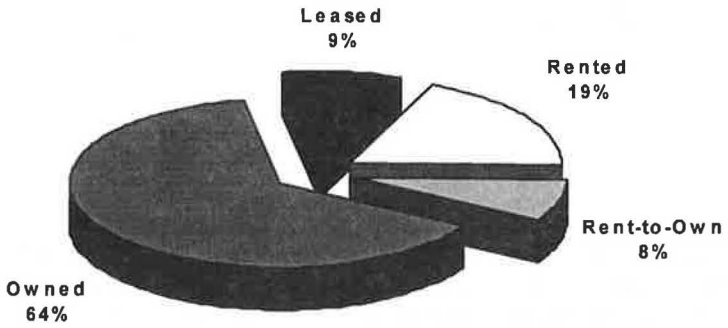


FIGURE 1 Short-term rentals and rental-purchase agreements increased 76% between 1987 and 1991 in the United States. The total universe of America's fleet is 1.28 million machines. Source: Construction Equipment Magazine, April 1994.

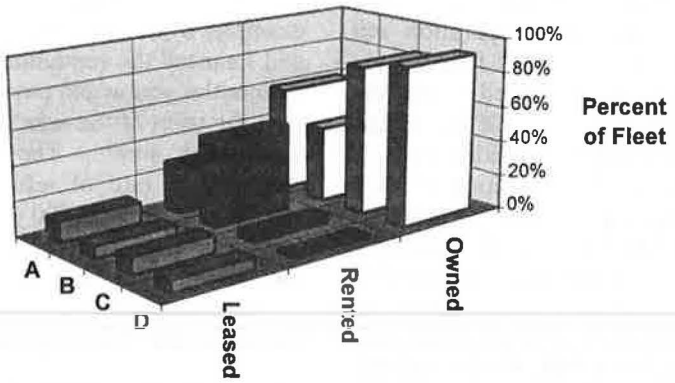


FIGURE 2 Until recently, many government agencies have not been allowed to rent or lease, but budget-conscious fleet managers are making progress revising procurement law to allow rental of low utilization machines. (A=highway and heavy construction firms; B=building firms; C=materials and mining firms; and D=governmental agencies.) Source: Construction Equipment Magazine, April 1994.

other acquisition methods. In a straight rental, the customer is paying for only the "use" of the equipment and not its ownership.

*Leasing Equipment*

Leasing is an escape hatch for buyers wary of long-term ownership or buyers faced with stretching budgets to cover a variety of acquisition needs. The same cash crunch that encourages agencies to finance, rather than buy machines outright, has also spurred the lease's popularity over conventional financing.

Leasing equipment is normally a good choice for longer-term equipment "use" without making a relatively high investment. The customer usually has a longer term obligation with a lease than a rental, however, the monthly lease payment will normally be lower than a straight rental due to the longer term commitment. Like a rental, with a lease, the customer is paying for the "use," not the "ownership" of the equipment. Low cash flow options are available with leases that can help justify the development of newer equipment fleets or the replacement of higher quantities of machines.

A = Highway & Heavy Construction Firms,
B = Building Firms,
C = Materials & Mining Firms, and
D = Governmental Agencies.

Many terms and options are available with leases, including master lease packages, which can greatly reduce traditional acquisition paperwork and procedures. Leases can also be structured where the agency can blend/balance their options for acquiring the machines at the end of the lease.

For example, a choice can be made at the start of a lease to have the lowest monthly payments and no funds going to reduce the machine's residual value (normally leasing with no intention or obligation to own) or starting the lease with higher monthly payments and some of those funds going to reduce the machine's residual value (normally leasing with intention, but no obligation to own). The flexibility of leasing can allow agencies to almost have their proverbial "financial budget cake and eat it too."

For one month's payment up front, agencies can lease a machine with the option to buy. The value of the money saved on the down payment can reduce the lease's TAC to equal or less than conventional financing. For example, purchase price of machine = $160,000. If an agency puts down 20% ($32,000) and finances the remaining balance over 60-months at 8.5 percent, the loan's TAC is $189,567. Leasing the same machine over 60-months, with a purchase option fixed at 25 percent of the original selling price, would require only a month's payment in advance of $3,258.86. The lease's TAC equals $198,790. The lease cost $9,233 more than the loan in cash flow over the term. However, it leaves $28,741 in your pocket, the difference between the first lease payment the loan's down payment, that you would not have if you financed the purchase. Assuming you could make 10% annually investing that money over five years (if local statutes permit), it would earn more than $18,500. To compare the total cost of the lease to the loan accurately, subtract the $18,500 earnings from the lease's TAC. The adjustment brings the lease's overall cost down to $180,290, about $9,277 less, in this example, than the TAC of the loan.

**Cash Purchase of Equipment**

Cash on the barrel head is the most common method used today by governmental agencies to acquire equipment. It is the lowest cost method for acquiring a machine that you want to own. When combined with an effective machine repair, parts, and labor coverage contract, cash purchase is also the lowest cost method for owning, operating, and disposing of equipment. Properly structured, cash purchase can be a near ideal method for long-term use of equipment by a governmental agency. The biggest barrier to cash purchase for many agencies, however, is the relatively high initial cash flow requirement.

**Lease Purchase of Equipment**

Properly structured, a lease purchase contract for a governmental agency (often called a municipal lease purchase contract) normally offers one of the lowest financing costs for owning equipment. As such, lease purchasing is an excellent ownership acquisition tool for matching existing equipment budgets to equipment needs by reducing initial cash flow requirements. Normally the total acquisition cost associated with a lease purchase is much lower than the costs incurred by an agency in issuing a bond for raising capital to pay cash for the equipment. The lease purchase contract can be written so there are no early payment penalties and also provide non-appropriation of funds clause protection for the customer.

**Purchase with Trade or Buyback Guarantee**

On a long-term fleet management basis, the purchase of equipment that includes a trade or buyback guarantee of those same machines will normally be the highest cost acquisition method for owning, operating, and disposing of equipment. The main reason for its high relative cost is that the customer is asking the bidder to be responsible for costs that the bidder has little control over. To protect himself, the bidder must add some cost cushion to his guarantees. In addition, this method of acquisition normally has extensive customer record keeping requirements, that if not performed, make the contract guarantees null and void. Due to the record keeping requirements, required maintenance, required inspections, required operator maintenance, required mechanic qualifications, instability of some dealers and resultant unenforceable performance bonds, force majeure, and/or a combination of these or other factors; a low percentage of the contracts have the trade or buyback guarantee effectively utilized, which negates any possible "real" benefit of this type of acquisition method.

Along with the high cost, this method normally also has the highest initial cash flow requirements and a limited number of bidders are usually willing to participate. With all these problems, why would an agency want to consider this acquisition method? Although the costs are relatively higher, if dealing with a reputable supplier, the costs are guaranteed and can be accurately budgeted. Accurate budgeting, sometimes, is worth the additional cost to some agencies.

TABLE 1 SAMPLE 2.5 CUBIC YARD WHEEL LOADER

| | |
|---|---|
| Base Machine Price | $ 85,500 |
| Front axle hydraulic lock | 1,100 |
| 17.5 x 25 12PR L2 tires | 750 |
| Rops Cab w/deluxe cloth seat | 4,500 |
| Bucket w/teeth & return-to-dig | 6,500 |
| Counterweight, drawbar, and fenders | 2,250 |
| M.S.R.P. | $ 100,600 |
| Factory freight | 1,100 |
| Prep, insp, del | 750 |
| Window Sticker | $ 102,450 |
| Dealer Bid Price | $ 92,500 |

## ANALYZING ACQUISITION COSTS

When considering the six basis acquisition methods, it is sometimes helpful to layout the choices and look at their relative, bottom-line costs. For comparison purposes, assume that a standard four wheel drive wheel loader is being considered for acquisition by a governmental agency.For example purposes, let us assume that the dealer bid price of $92,500 is acceptable and that the customer now wants to consider various acquisition alternatives. The customer in this example is considering the acquisition of twenty-five (25) machines and wants to compare the TAC of various "pay to use" and "pay to own" options.

The following table shows four acquisition methods and compares their first month cash flow requirement, the first twelve month cash flow requirements, and total acquisition cost over 60-month period. Using this approach, a governmental customer can quickly see which plan is the smarter choice in terms of initial cash flow or total investment. The costs for machine repair, parts, and labor are assumed to be the same in each example.

In the above example, if the agency is interested in "owning" the equipment, the lowest total acquisition cost is represented by the lease purchase method (if the agency can recognize return on invested funds). If the agency cannot recognize invested funds, then the straight cash purchase option represents the lowest TAC. If, however, the agency does not have $2,312,500 to purchase the units, they might consider the lease purchase option which only requires $507,273 in cash the first year. The agency could then payoff the amount owed on the lease purchase the next year or continue the contract to its full term.

Another use of the lease purchase contract is to "leverage" an existing capital budget into covering additional items compared with the straight cash purchase method. For example, if the agency had the $2,312,500 in cash to purchase the loaders, but decided to use the lease purchase contract, they would have $1,805,227 left after paying for the first year of the lease. These funds could then be applied to other purchases, capital, or personnel requirements and still have "use" of the twenty-five loaders. The agency could then payoff the amount owed on the lease purchase the next year or continue the contract to its full term.

The rental option also offers the agency "leverage" within an existing capital budget by providing new machines as needed each year for agency "use" with minimum obligation and substantial cash flow savings. For example, if the agency was considering the purchase of the loaders, but trading them for new units after twelve months (commonly calling rolling), substantial cash flow savings ($1,652,500) would be gained by simply renting the machines for the number of months needed (in this example, eight months) with an option to rent new units at the start of the next eight-month period. The agency could also eliminate the administrative paperwork and procedures involved in the buying and selling of a $2,312,500 group of machines annually.

Compared with straight rental, additional cash flow could be saved if the agency committed to a longer-term "use" of the equipment through an operating lease. Although the agency would not own the equipment at the end of the operating lease, they would have full "use"

TABLE 2 FOUR ACQUISITION METHODS AND A COMPARISON OF THEIR FIRST MONTH CASH FLOW REQUIREMENT

| | | | |
|---|---|---|---|
| Cash Purchase Machines: | Down Payment | = | $ 0.00 |
| | First Month Cash | = | $ 2,312,500.00 |
| | First Year Cash | = | $ 2,312,500.00 |
| | Return on Invested Funds | = | $ 0.00 |
| | Total Acquisition Cost | = | $ 2,312,500.00 |
| Lease Purchase Machines: | Advance Payment | = | $ 39,021.00 |
| | First Month Cash | = | $ 39,021.00 |
| | First Year Cash | = | $ 507,273.00 |
| | Return on Invested Funds | = | $ 461,930.00 |
| | Total Acquisition Cost | = | $ 1,918,315.00 |
| Monthly Rental of Machines: | Advance Payment | = | $ 0.00 |
| *Assumes machines are rented eight months yearly and are turned back each year for new rental units the following year. | First Month Cash | = | $ 82,500.00 |
| | First Year Cash | = | $ 660,000.00 |
| | Return on Invested Funds | = | $ 311,783.00 |
| | Total Acquisition Cost | = | $ 2,988,217.00 |
| Straight Lease of Machines: | Advance Payment | = | $ 47,101.00 |
| | First Month Cash | = | $ 47,101.00 |
| | First Year Cash | = | $ 612,313.00 |
| | Return on Invested Funds | = | $ 365,543.00 |
| | Total Acquisition Cost | = | $ 2,516,618.00 |

*Note: Figures shown are for example only and are not meant to represent the best choice available at any given time, on any given bid, in any given area, from any given bidder.

of the machines for 60-months and would normally not be responsible for major repairs on the units. Operating leases of 36-months may be more attractive than leases of 48 to 60-months which allows the user to return machines more frequently helping keep the fleet newer (fewer breakdowns) and provides the latest in production-enhancing product innovations and features.

It should be noted, however, that users (lessees) will pay a premium for this flexibility. Leasing companies tend to calculate lease payments based on a machine price close to suggested list. There is little incentive for a dealer to offer the deepest possible discount on a new machine that may show up on their used-equipment lot in a couple of years. Lessors also tend to compensate themselves generously for their capital investment by using the interest rate they build into lease payments. Left unchallenged, the rate often approaches the prime rate plus up to six percentage points. While the deck may seem stacked, each of these issues represents a negotiating opportunity.

Maintenance contracts in which the user leaves preventive maintenance and light-repair responsibility with the lessor are increasingly common elements that can add value to the lease agreement.

The machine's residual value (the price the user pays to exercise the purchase option) is a critical component of the lease's total cost. Monthly payments will likely be lower if the residual value is close to the fair-market value and the lease payments are calculated to reimburse the owner for the real value of the machine during its use. A fair-market value lease is based on the actual value (or estimated value) of the machine being established at the end of the lease.

Many users, however, are uncomfortable in signing a lease without knowing the residual value. When the owner presets residuals, they like to set them low and compensate for the difference between preset residual and actual value in the monthly payments. If the user decides to return the machine at the end of the term, the owner has already been paid more than market

TABLE 3 WHICH BID IS THE BETTER CHOICE?

| BIDDER A | | BIDDER B | |
|---|---|---|---|
| Purchase Price | $ 70,655.00 | Purchase Price | $ 80,655.00 |
| Guaranteed Parts/Labor Cost | 4,500.00 | Guaranteed Parts/Labor Cost | 3,500.00 |
| Guaranteed Repurchase Price | no bid | Guaranteed Repurchase Price | 40,300.00 |
| Total Cost | $ 75,155.00 | Total Cost | $ 43,855.00 |
| Bidder A Claims: | | Bidder B Claims: | |
| Purchase Price Savings | $ 10,000.00 | Machine Cost Savings | $ 31,300.00 |

| BIDDER A | | BIDDER B | |
|---|---|---|---|
| Purchase Price | $ 70,655.00 | Purchase Price | $ 80,655.00 |
| Guaranteed Parts/Labor Cost | 4,500.00 | Guaranteed Parts/Labor Cost | 3,500.00 |
| Available Investment Funds | 10,000.00 | Available Investment Funds | 0.00 |
| Estimated Funds Earnings | 5,657.00 | Estimated Funds Earnings | 0.00 |
| Machine's Used Value | 38,860.00 | Guaranteed Repurchase Value | 40,300.00 |
| Total Acquisition Cost | $ 30,638.00 | Total Acquisition Cost | $ 43,855.00 |
| At Contract Termination: | | At Contract Termination: | |
| Funds Left in Bank | $ 10,000.00 | Funds Left in Bank | $ 0.00 |

value in lease income and can unload the used machines quickly.

The practice of low preset residuals obliges many users to buy leased machines to recoup some value of their lease payments. A fair-market value lease helps counter the residual hedge and normally gives the user lower lease payments. Experience is also improving the leasing companies' ability to estimate residual prices closer to fair market value, helping make leases a more viable acquisition method for more governmental agencies.

## CAN YOU TELL WHICH BID IS THE BETTER CHOICE?

An agency has asked bidders to provide unit purchase price, plus a guarantee for repair, parts, and labor, and a guaranteed repurchase for a period of five years or 5,000 hours of use. Shown above are two sample responses.

Often the type of bid shown above is called a total cost bid or life cycle cost bid. With only the information shown in the above table, knowing which bidder is the smartest choice is difficult. One might be tempted to conclude, since bidder B had the confidence to provide a guaranteed repurchase price, bidder B might be the smarter choice. Unfortunately, the total cost bid method of acquisition does not cover all of the total machine or acquisition costs. Fuel consumption rates, ground engaging tool wear, and time-value of money are often overlooked or deliberately avoided in the total cost methods of acquisition. To avoid potential pit falls with this method of acquisition, it is often helpful to make a comparison to conventional purchasing techniques to determine total investment costs.

If both machines meet all operational and specification requirements, one technique that can help

determine which bidder represents the best choice is to compare the bidders on the time value of money and wholesale equipment value basis.

The available investment funds entry in the above table makes the assumption if the agency is willing to accept bidder B and spend $80,655 purchasing his machine, why not purchase bidder A and invest the purchase price difference and take advantage of the time value of money?

The estimated funds earnings were computed on a $10,000 investment earning 9% annually, compounded monthly, for 60-months. The machine's used value for bidder A was computed by taking equipment bid price and projecting that the machine would have a wholesale value, as-is where-is (in five years or 5,000 hours) of 55% of the bid price ($70,655 x 55% = $38,860). Calculating a machine's expected used value is an important step when comparing bids that include total cost or life cycle cost guarantees. Often agencies forget to include the used value of a machine from a bidder who has not guaranteed a repurchase price when comparing total acquisition cost. Leaving this step out can cause a significant calculation error. An interesting note in this comparison, if the agency selects bidder A and spends the whole amount required ($80,655) to purchase bidder B, the agency saves $13,217 in total investment and has $10,000 remaining in the bank at the end of five years. Even if the used equipment value is off by 30%, the agency would still save more than $1,550 in total investment and still have $10,000 remaining in the bank.

Based on this type of analysis, it would appear that bidder A, even with the higher repair costs, is the smarter choice, provided that

- The machine is capable of performing the work requirements;
- The machine meets agency specification requirements;
- The machine has a proven parts and service support; and
- The machine has a low operating cost.

Making the right acquisition choice will not always be as simple as the examples detailed here. However, it is hoped that armed with some analysis on acquisition choices covered in this report, a public official can better answer, "Do I have a real need to own this machine or would I be better to simply pay for the use of this machine?"