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# rental

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# The hidden costs of

**Rental companies and contractor fleets in North America and Europe are investing in making spare part management more efficient. Alexander A. Schuessler, Ph.D, investigates.**

**D**epending on an equipment owner's fleet size and mix, typically only 1% to 3% of all money spent – including on equipment, tools, facility maintenance, legal services, stationary, coffee cups, and so forth – is on spare parts.

This makes it one of the company's smallest spend categories. Accordingly, neither equipment rental companies nor other fleet owners historically have made parts management their primary target for improving efficiency and profitability.

Over the past decade this has changed. Initially

in North America, and now increasingly in Europe, fleet owners have turned their attention to raising profitability by making spare part purchasing and management more efficient.

They have come to recognise how this tiny percentage operationally in fact accounts for the costliest form of procurement.

To begin with, while the relative value of parts procurement may be low, the frequency of this type of purchasing is greater than for any other category of spend: for a typical North American national rental company, more than 80% of all purchase orders may be for parts.

And because the associated labour efforts for the rental company will be a function of the frequency of orders, not of order value – in other words, of how often parts are being ordered, rather than how much they cost – operationally this implies a high level of labour cost.

Second, no other type of purchasing requires as many labour hours on a per-order basis as spare parts, and for no other type of purchasing are the labour hours as expensive. Parts requirements are identified by qualified service technicians who are diagnosing equipment, and parts selection frequently involves complex serial-number specific rules.

Subsequently locating the needed part requires access to the company's local and regional stock information, as well as to the parts inventories of dealers, manufacturers, and perhaps other sources. No other individual purchase requires this much labour, and no

other labour category requires this much skill.

Third and finally, the level of efficiency of parts management has direct and immediate bearing on fleet owner's revenue, or turnover. An estimated 15% to 20% of manually managed parts orders include at least one error, typically resulting in equipment repairs being delayed at least another one to three days each time. Which, of course, defers the equipment's ability to generate a financial return.

Recognising these hidden costs and potential threats to turnover has led rental companies and other fleet owners to readdress parts management in a number of ways.

## 1. An equipment lifecycle perspective of parts management

Most companies begin with a simple equipment lifecycle view. Parts management is inextricably linked to equipment service, because service essentially represents putting parts to use on equipment. Parts and service together represent a significant percentage of total equipment lifecycle costs.

In the simple illustration, a piece of equipment is acquired for €50000 and, after five years is sold off for €20300. During its five-year lifecycle it incurred €6800 in parts and €7500 in service costs, which leaves a total cost of ownership (TCO) of €44000.

The only direct means of decreasing cost is for the rental company to drive down parts cost and improve labour efficiency which, in this illustrative example, together account for approximately one-third of the total cost of ownership.

Not only have the largest rental companies in the US, including United Rentals, Sunbelt Rentals, BlueLine Rental, and Hertz Equipment Rental Corporation defined better practices for their internal teams to drive down lifecycle costs, but over the past decade they have also increasingly relied on over 200 manufacturers (and their dealers) to date, to help drive down service costs on the fleets' behalf, cumulatively covering an approximately US\$30 billion (€27.6 billion) "first-cost" fleet investment, industry-wide.

For example, more than 75% of locations belonging to the 20 largest equipment rental companies in North America today receive self-updating electronic parts and service information via the SmartEquip Network, delivered to their service technicians and dynamically customized in real time to the serial-number specific requirements of each individual asset in the fleet.

Global contractor fleets are following suit, and in Europe the most operationally progressive companies, like Boels Rental, are doing the same.

The resulting increase in productive service time and reduced information-search time drives down service labour cost. And because systems route parts orders at the correct price to the correct supplier (e.g. the preferred dealer), they also control parts costs.



**Dr Schuessler is the founder of SmartEquip**

# parts management

## Example: Total lifecycle cost for equipment (5 years)

<b>Original equipment purchase</b>		<b>€50000</b>	} Target for operating efficiency via improved parts management cost
+ Total parts costs		€6800	
+ Total service labour		€7500	
- Equipment resale value		- €20300	
<b>= TOTAL COST OF EQUIPMENT OWNERSHIP</b>		<b>€44000</b>	

## 2. A corporate lifecycle perspective of parts management

But there's more: the operational costs of parts management extend beyond service technicians' labour time, as they are not the only employees participating in the parts-related workflow, which calls for an enterprise-wide view.

In addition to service technicians identifying and installing parts, administrators file work orders, process purchase requisitions and purchase orders, identify the correct sources for fulfilment, and then receive spare parts into stock, or route them to the appropriate repair location.

All of this is very labour-intensive. And because parts numbers and descriptions, as well as parts prices are in constant flux, purchasing administrators need to constantly update the company's master data files in order to reflect current parts descriptions, ID numbers, pricing, and preferred sources.

Meanwhile, because of inaccuracies in the rental company's purchasing data, a large number of transactions get held up in Accounts Payable, where employees seek to consolidate mismatched invoices, packing slips, and purchase orders in order to validate the transaction.

Taken together, various North American equipment fleet owners have estimated the labour cost of parts orders to range between \$175-275 per order. This is on top of the average \$350 cost of the parts



The administrative costs of parts management reach across the entire enterprise.

order itself, which makes for a tremendously high percentage of administrative "overhead".

## 3. Earnings and profitability

An equipment fleet owner's earnings, of course, are a function not only of cost, but also of turnover. Each hour saved in identifying, locating, receiving, and installing the right spare part not only saves direct labour cost, but also frees up an hour of equipment availability. If it's a rental fleet, and a company's equipment utilization is 50% or greater, then more than half of the hours of greater availability will result in generating revenue.

There is no consensus on the impact of overall

efficiency improvement on fleet availability, and measurement is difficult. However, three points are worth noting:

First, for every one-hour reduction in equipment service time through improved parts management, equipment uptime, or availability is increased by one hour.

Second, multiply the value of the freed-up fleet by the company's financial utilization, and you establish the company's increase in rental revenue.

And third, noting that this incremental revenue comes with very little incremental cost, recognize that the majority of this revenue falls to the "bottom line", implying a direct lift in earnings.

Be it via cost reduction or improvement in high-margin turnover, recognizing and attacking the hidden costs of parts management has tremendous bearing on a fleet owner's profitability. **IRN**

## The corporate-wide workflow of parts management



## About the Author

**DR SCHUESSLER** is the founder of SmartEquip and the president of its international group. He also serves on the technical committee of the European Rental Association, where a more detailed version of this analysis was presented. Prior to founding SmartEquip, he received his Ph.D. in Economics from Harvard University and was a professor at New York University. He can be reached at [aschuessler@smartequip.com](mailto:aschuessler@smartequip.com).