

Materials Management – it's priority one in maintenance

- Part 1 of a series of reflections on the management of maintenance materials

By Paul Dean, CEng
Shire Systems Limited



In maintenance, there is no greater priority than ensuring the ready availability of spare parts. Competent materials management is a precondition of maintenance management success. Because of the complexity of the challenge, an integrated materials management system is essential

No greater priority

Fast speed of response and repair are the top performance measures in the reactive maintenance environment. However, achieving quick repair is impossible unless the on-hand availability of spare parts is first assured. Parts availability is the number one priority.

In a proactive maintenance environment, while firefighting and panics are much rarer, the same fast speed of response and repair is often required when a critical item goes down. Again, spares availability is top priority.

No part, no fix, no output

Materials management is the process of planning, organising and controlling of the procurement and on-hand availability of spare parts. Becoming smart at it is a precondition of maintenance management success.

The right material, in the right quantity, in the right condition – together with all appropriate

information – must be available on demand. When it's not, the job stops, the customer waits and the business suffers. Besides the immediate economic losses, the organisation's risk exposure can escalate; health, safety and environmental violations may well loom large. After all, the very fact that a maintenance fix is being done at all means the facility is in a downgraded state. That often means more dangerous.

Without first achieving some semblance of good order in materials management, it will be impossible for the maintenance crew to deliver on senior management's expectations. The universally sought goals of maintenance-led increases in plant uptime, safety, operating performance and customer satisfaction will simply remain a pipe dream.

The self-inflicted pain

In maintenance, there's an implied expectation of spare parts availability. When you're fighting a fire, there's a presumption – not just a hope - that

water will be there when the hose is turned on.

In a similar way, when the flag goes up for an urgent fix on a critical item of equipment, there's an expectation that spare parts will be available. So, when a lack of them delays repair, there's a universally felt sense of let-down. Afflicted parties, not least the customer, will bite their nails in bitter frustration as they figure out whom to blame. Invariably it's the engineering manager. Always blamed, yet sometimes not guilty – like the times when those holding the materials budget purse strings have held them too tightly!

Non-availability of spare parts also trashes maintenance crew productivity. In fact, the greatest influence on the productivity of the maintenance department is materials management – or lack of it.

Where there's a deficient approach to materials management, hold-ups, delays, business-disrupting downtime and gut-wrenching operating costs inevitably result. As materials

management is one of the easiest things to get right, getting it wrong is like shooting yourself in the foot. In maintenance, close attention and top priority must be given to the management of maintenance materials. Organisations ignore it at their peril.



Uptime, uptime, uptime

While the cost of maintenance materials is significant - possibly up to 15% of an enterprise's total spend - it's not as great as the impact cost of not having them when they're needed. That includes downtime losses and the bill for the frequently nightmarish consequences of an in-service failure.

Impact considerations should come top of the priority list. It's that old

effectiveness and efficiency thing again. You must *always* be effective, but you will only grow in efficiency with continuous improvements made over time. Being effective – *doing the right thing* - means assuring the availability of necessary spare parts and materials. Their ready availability provides insurance against unwanted eventualities. It's simple and reduced downtime is guaranteed.

It costs! The comprehensive provision of spare parts is expensive. But, when you're serious about maintenance-led business performance improvement, you just have to have them. It's not an act of faith but a matter of fact. And, you're even obliged to err on the safe side. Higher costs! Is there a way to save?

The only rational way to save on materials costs is to optimise purchasing and stocking decisions. Because of the financial numbers involved, optimisation is generally an economic imperative.

However, cost optimisation is not something that can be achieved with hit-and-miss knee-jerks. It's a fine balancing act which needs a helping hand. Achieving the expected maintenance performance at minimum material cost, demands the use of a high capability, integrated

materials management system. Without one, analytical cost optimisation is just about impossible - given the number of hours in the day and the panoply of other issues that have to be dealt with by the engineering manager.

In maintenance, materials cost optimisation initiatives are about efficiency – *doing the right thing right*. This means that, in the grand scheme of things, they rank second to the assurance of plant availability – or should do. In practice, this is a sensitive area because materials costs are always of intense management concern and scrutiny.

Accountants and senior managers have a natural tendency to regard cost as a sunk expense, rather than an enabler of future value-added. That's not surprising, given that material costs are fat numbers plain to see in the financial accounts, whereas benefits must be judged and quantified. Only then can the astounding returns be more vividly presented in money terms.

Because of this, and because an engineering manager rarely holds the purse strings, he will have to be compelling in projecting the big picture, assertive in broadcasting the spectacular cost-benefit relationship

and well-primed to answer all the inevitable ifs and buts queries.

The ultimate prize? Gaining proper control of maintenance materials can increase plant availability by more than 5%, drive up maintenance productivity by 15% and slash the cost of materials by 25%. Work out what that would mean for your organisation.

The contribution of higher productivity and lower materials cost is considerable. Money-wise, however, the value to the business of increased availability, or uptime, is an order of magnitude greater. Availability is king - always. It's what maintenance is really called to deliver.

Easy yet complex

Achieving proficient maintenance materials management is relatively simple compared with other maintenance management challenges. But, because of the amount of information that must be processed, it still remains highly complex.

As for all other areas of management, materials management proficiency and performance is, unsurprisingly, entirely dependent on the availability of accurate, pertinent,

comprehensive and accessible information. Technical as well as financial information, that is.

Because of the volume and innate intricacy of this information, a computer-based system is essential. Achieving the necessary control at an economic cost is completely impossible without the aid of one.

CMMS is key

A fit-for-purpose system has to be more than a financial accounting cum stock movement tracking system. That's too simplistic and deficient in the required functionality.

The risk mitigation measures demanded for maintenance materials are different and almost invariably more onerous than for other commercial items. Due to their intense impact on operational performance, maintenance spares require attentive technical management - from purchase enquiry through to their on-hand storage, preservation and release – whether they're kept in a formal store or not.

A CMMS (Computerised Maintenance Management System) has the exclusive capability of enabling both the technical and financial control of maintenance materials throughout their lifecycle.

Close integration with the maintenance work management process is naturally of leading importance.

Because of the critical dependence plant availability and reliability has on timely maintenance actions, and the critical dependence that those actions have, in turn, on maintenance materials, it's surely wildly absurd for an asset-intensive organisation not to use an integrated CMMS.

CMMS facilitates the forward-looking, business value-adding activities of maintenance management as well as the historical, business sustaining activities of financial accounting. In asset-intensive organisations, CMMS is a practical management tool that helps ensure - and drive up - business performance. It's no longer a nice to have but an essential.

Gain without pain

Many performance transformation initiatives cause resentment on the shopfloor. They are actively resisted because of the behavioural changes required - the cultural change stonewall effect much feared by management.

However, this is far from the case with an initiative to improve a maintenance materials management

system. Resistance-to-change animosity is displaced by enthusiasm-for-change support.

The individuals most affected by the change, the maintenance technicians, will invariably be keen to create more order in this area. That's because they get exasperated when they have to scratch about and wait around for parts, or they're forced to carry out make-do repair jobs. In reality, the best technicians will leave an organisation in which such chaos is allowed to persist.

Unlike other productivity initiatives that meet with opposition, with materials management, you're pushing at an open door. And, because it's so relatable and intuitive, it's arguably the easiest area for the maintenance team to get to grips with.

All factors considered – the huge payoff, low degree of implementation difficulty, assured buy-in of the maintenance team and the intuitiveness of the process - there's little doubt that materials management is the best area in which to kick off a CMMS implementation, especially when the maintenance team is new to electronic information systems.

Streamlined maintenance materials management delivers immediate wins for the organisation and everyone else as well. All gain with very little pain – providing you choose the right CMMS.



Call today to find out more...

+44 (23) 8022 4111

info@shiresystems.co.uk

www.shiresystems.co.uk

In further articles in this maintenance materials management series, we will discuss:

- ✓ *Material classification and management*
- ✓ *Procurement and inventory control*
- ✓ *Operating costs and working capital reduction*