

Ensuring Information Transparency in Light Vehicle Pre-start Checklist Procedures



The Problem

It's not uncommon for even a small-sized mine to have more than 100 vehicles in operation at any time. These vehicles vary widely in type as well as model, including dump trucks, haul trucks, excavators, dozers, graders, transport buses and light vehicles.

Safety and performance information related to these vehicles is usually recorded by the operator using a paper-based checklist combined with a carbon copy. This is a mandatory procedure by law to ensure the safe operation of equipment in and around the mine. However, this can sometimes lead to the following issues:

1. Process ignored by some operators due to lack of digital cross checks
2. Requires intensive manual resources (bodies on the ground) to ensure compliance
3. Loss of production time due to equipment problems that were not identified early
4. Lack of transparency across all levels from field vehicle all the way to the maintenance team
5. Time-consuming auditing for regulatory purposes
6. Storage of the paper takes up considerable physical space

This lack of information transparency makes it difficult to track day-to-day vehicle performance which leads to inefficient operations. By not having valuable vehicle data digitally historized, preventative or corrective actions are much harder to implement.

The Solution: j5 Operations Management Solutions

j5 Operations Management Solutions are used across the mining industry to improve communication and data collection at all levels of a mine operation. j5 applications enable operations, maintenance and process safety personnel within a mining company to manage their compliance duties efficiently and consistently.

j5 Operations Management Solutions can connect to external software such as the OSIsoft® PI System® to monitor real-time and historical data from equipment, sensors, instruments and the DCS and SCADA systems. This ensures that all the relevant data recorded at a mining asset can be shared with the correct people in real time.

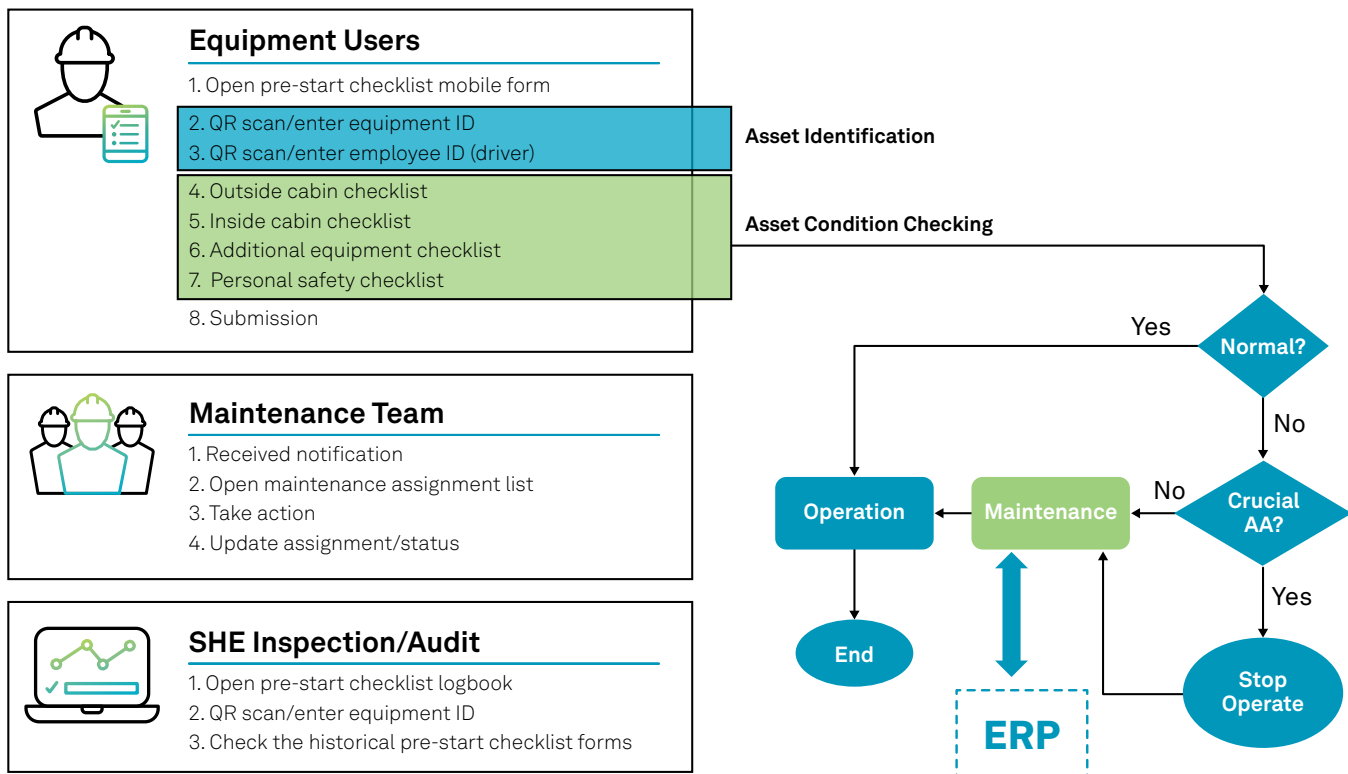
j5 Operations Management Solutions make key shift information available to the entire operations team. This enables greater communication and direction within the group, which are crucial in processes like management of change (MoC) and incident and near-miss management.

Senior managers can also use j5 Dashboards, Reports and Views to analyze the performance of their mines. This allows them to compare and contrast mine performance to optimize costs and efficiency.

It is particularly effective for light vehicle pre-start checklist procedures.



Daily Pre-start Inspection Workflow Process



Flow Description Prior to Operating the Equipment:

- Fill in the pre-start checklist form via a mobile device/digital form
- Go through the checklist to identify any issues that need follow up
- Follow the procedure according to the finding
- Recorded issues assigned to the responsible functions/unit

During Vehicle Inspection:

- Fill in the inspection checklist form via a mobile device/digital form for each area/department
- Go through the checklist to identify issues that need follow up
- Follow the procedure according to the finding
- Recorded issue assigned to the responsible functions/unit

Benefits of Digitalizing the Equipment Pre-start Checklist Procedure



The following are just some of the benefits that can be gained through the implementation of j5 Operations Management Solutions:

1. Elimination of paper and its associated physical storage space
2. Reduced operational risk due to the transparency and instant availability of vehicle information
3. Better equipment uptime due to end-to-end transparency from the field to the maintenance team
4. More efficient safety as officers will have the ability to check relevant information in real-time
5. Improved equipment performance data/information
6. Improved operational performance and regulatory compliance

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.