

INCREASING HAUL TRUCK AVAILABILITY ACROSS A TIER 1 MINING HAUL TRUCK FLEET

GreaseBoss's Critical Point Monitoring system detected that **35 out of 40 monitored haul trucks were consistently undergreased**. Direct correlation between undergreasing and unplanned downtime.

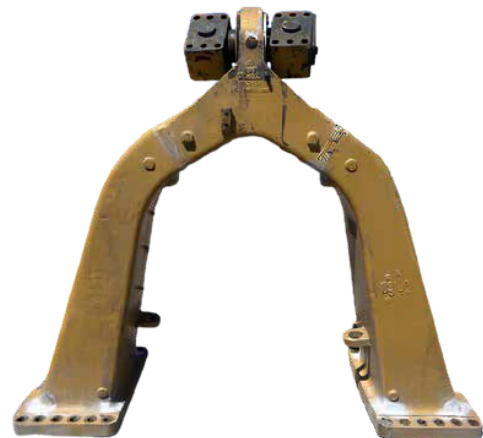
What began as a two-truck pilot became a validated business case and a fleet-level rollout, committing GreaseBoss monitoring across two sites within nine months.

CHALLENGES FACED

A Tier 1 Australian Mining Operation runs large fleets of CAT 793 Haul Trucks. Avoiding unscheduled downtime is critical to a profitable operation.

Persistent, premature A-Frame bearing failures caused massive unscheduled downtime creating logistical and economical stresses.

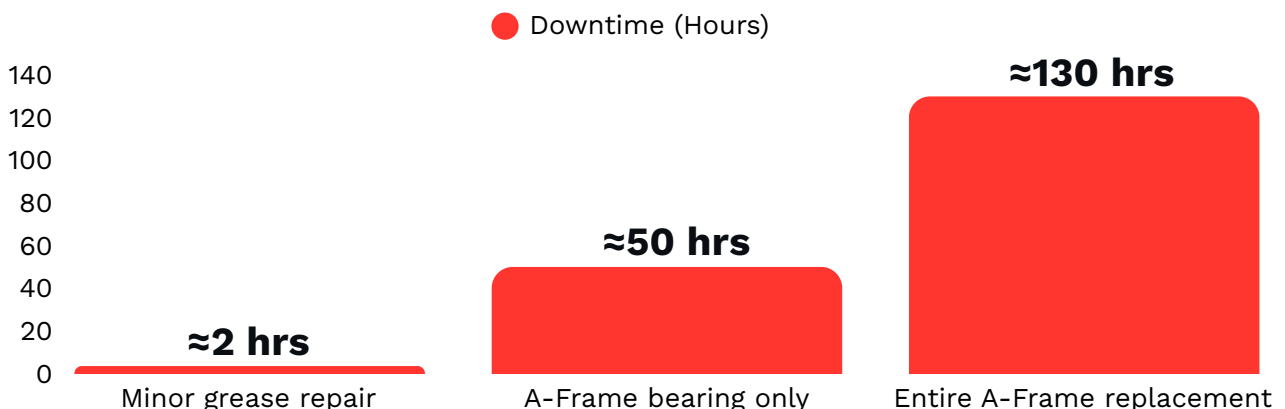
Major reason for early failure of the A-Frame bearings - inadequate lubricating grease. **Lubrication compliance was assumed rather than measured**, and faults could escalate to failure entirely. With the right verification tools this is 100% avoidable.



Haul Truck A-Frame

THE COSTS OF DOWNTIME

A minor grease system repair costs 1 to 6 hours of downtime. Left undetected, the same underlying fault escalates to an A-Frame bearing replacement at ≈50 hours in the workshop, or a full A-Frame replacement at ≈130 hours in the workshop. **Every unplanned downtime disrupts scheduling, reduces fleet availability, and adds safety risks.**



SOLUTIONS PROVIDED

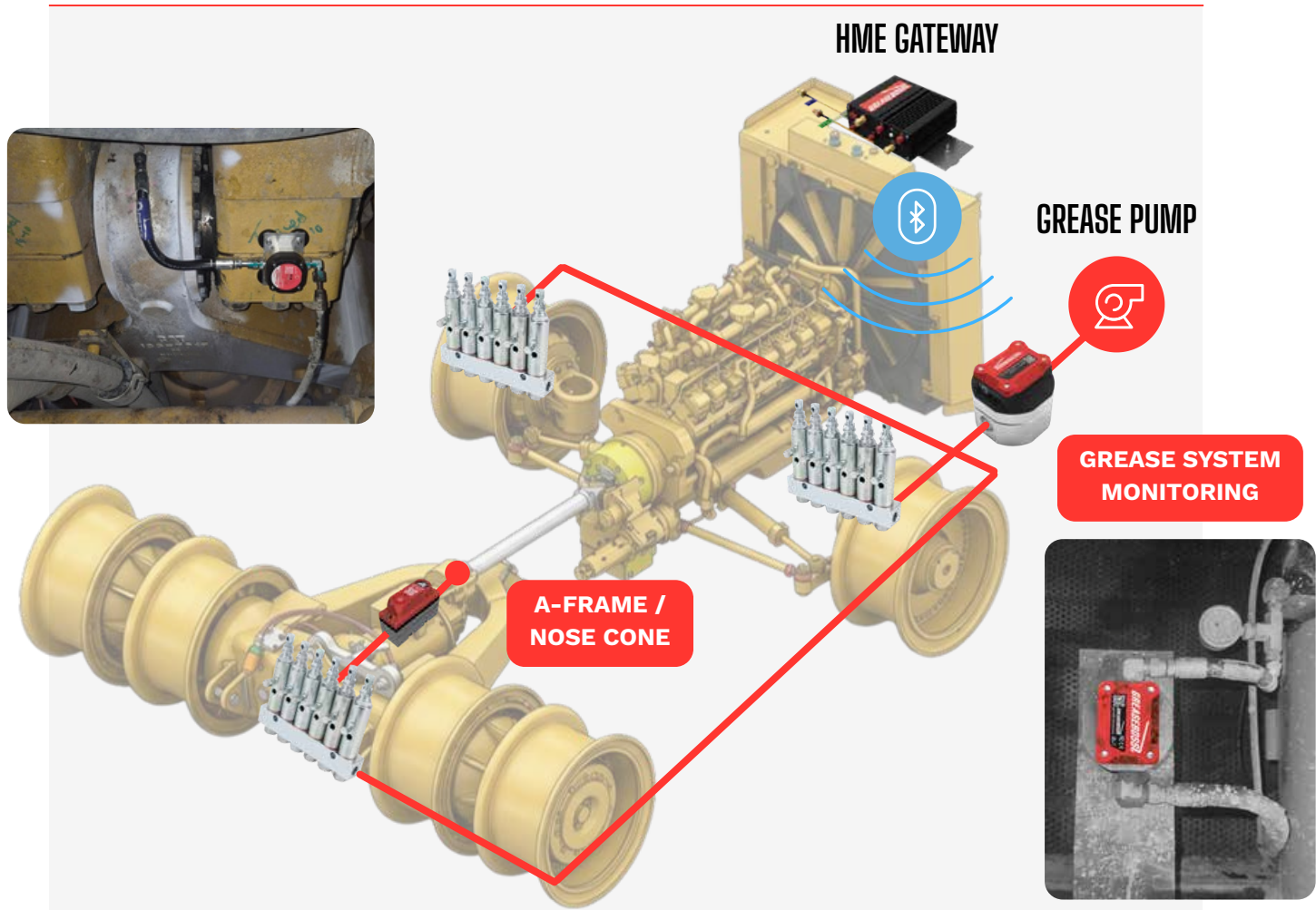
GreaseBoss Critical Point Monitoring solution was deployed to close the visibility gap and verify grease delivery across the fleet. **The Fleet Management team now have visibility over every grease event - equivalent of a “balloon” test every pump cycle.**

Upon installation, the Endpoint data syncs via an HME Gateway to the GreaseBoss Cloud, where planned volumes are compared against actual delivery at every pump cycle. **When delivery falls outside specification, the system automatically raises an alert**, giving the maintenance team the ability to act before a lubrication fault becomes an A-Frame failure.

Two Endpoint types were deployed on each truck:

- **Endpoint LF for A-Frame monitoring.** Installed downstream of the injectors, the LF Endpoints confirm each injector delivers grease as per OEM specification to the A-Frame bearing.
- **Endpoint BF for grease pump monitoring.** Installed on the grease pump, the BF Endpoints give visibility over Total grease delivered to the haul truck greasing system, pump cycle times, and alerts when these grease pump parameters are not met.

Faults that would previously have progressed silently to a catastrophic failure are now detected at the point of occurrence, creating the opportunity to intervene before mechanical damage.



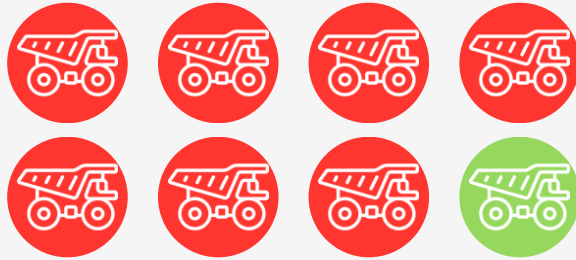
KEY FINDINGS

Within months of installation, our customer was able to prevent faulty dump valves, bypassing injectors, and A-Frame undergreasing. However, these are some of our key findings from a fleet-level:

01

ROUGHLY 7 OUT OF 8 TRUCKS ARE CONSISTENTLY UNDERGREASED

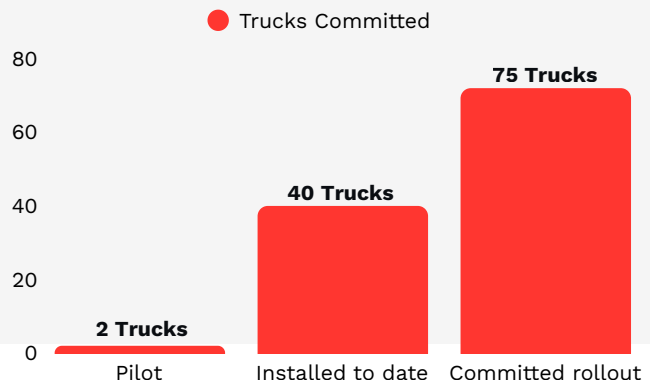
Across the 40 monitored haul trucks, GreaseBoss found that 35 were consistently under-greased, the majority of the fleet operating outside lubrication specification without any prior visibility.



02

COMMITTED TO 75 TRUCKS ACROSS 2 SITES IN 9 MONTHS

What began as a two-truck A-Frame monitoring pilot became a validated business case and a fleet-level commitment. The customer committed to a 72-truck rollout and, from an early-July start, **extended GreaseBoss monitoring across two sites within nine months.**



03

7 A-FRAME BEARINGS SAVED IN 6 MONTHS

Within 6 months, 7 A-Frame bearings had been identified by the GreaseBoss system to be undergreased and work orders raised before damage to the bearing. It took **≈3 days from alert to rectification.**

Within 6 months of installation, our customer has saved ≈\$1.7M in labour and repair costs.

Estimated savings
≈\$1.7M

GreaseBoss system pays for itself within months of installation

MOVING FORWARD

Providing visibility over every greasing event, Actual vs Assumed, has shifted fleet management from reactive to proactive.

Grease-related maintenance is now prescriptive: critical A-Frame bearings are balloon-tested at every pump cycle, and the moment the system flags a grease system fault, the team raises a work order and rectifies it before it can escalate into a catastrophic failure.

The result is a prescriptive grease lubrication strategy that has prevented 7 A-Frame grease-related failures to date. Since deployment, there has been zero grease-related failures recorded on any GreaseBoss-equipped truck.

With 40 trucks monitored, assuming 10 A-Frame failures are prevented annually, our customers would save \$2.5M per year. By year 5, our customer would have saved \$12.4M.



use our [ROI Calculator](#) to model the potential cost savings across your HME fleet by installing preventative solutions such as GreaseBoss at your site.