

ABB – Process Industries Service

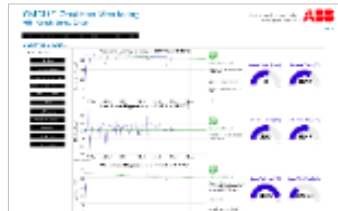
# Hoist Performance Fingerprint Availability, Productivity and Safety

# Hoist Performance Fingerprint

## Underground mining service portfolio

### Long-Term Service Agreement (LTSA)

Site audit	Inventory audit	Condition monitoring	Competence development	Evolution & upgrades
Long-term scheduled maintenance	Spare parts lists and kits	Periodic maintenance	Training partnership	
Long-term on-site support	On-demand spares	Troubleshooting	On-site	Engineering, optimization & consulting
Extended start-up support	Emergency spares	Supportline	Classroom	
On-demand service				
<b>Field services</b>	<b>Spare parts services</b>	<b>Remote services</b>	<b>Training services</b>	<b>Special services</b>



# Hoist Performance Fingerprint Concept

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Preventive & legislative requirements

## Electrical Fingerprint

Electrical hoist equipment assessments & testing

- Consists of high resolution data collected from over 20 pre-defined electrical points in the hoist system.
- Collected data form the backbone for further analysis and an associated comprehensive report.
- Provides information and evaluates:
  - Hoist normal operation; safety brake system; hoist supervision

## Mechanical Fingerprint

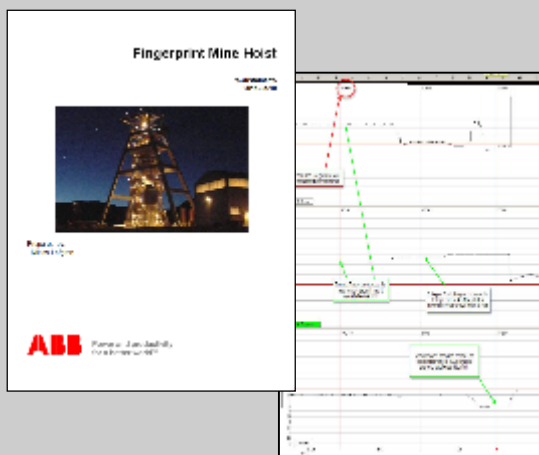
Mechanical hoist equipment assessments & testing

- A structured hoist equipment assessment tool to check all critical hoist components
- All gathered information and testing results are analysed and compared to best industry practices
- Results are compiled in a detailed report identifying gaps, possible risks and recommendations

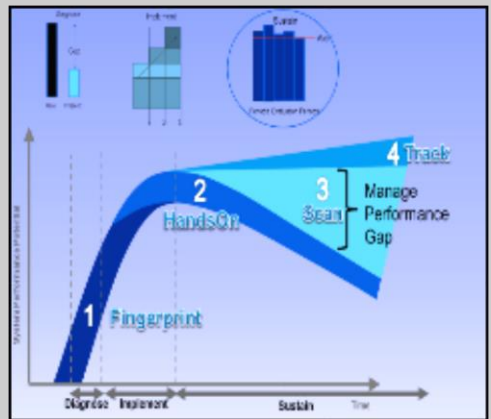
# Hoist Performance Fingerprint (HPFP) Concept

## HPFP

Hoist performance baseline established



Hoist current equipment condition



Recommendations for improvements



Past Now Future



# Hoist Performance Fingerprint

## Your challenges



- Are you certain your hoist will stop safely?
- Is your hoist's production cycle set at optimum rate?
- Do you know the performance of your individual brake units?
- Is your Maintenance budget reduced compared to previous years?
- Do you have all necessary skilled resources to maintain your mine hoist at its optimum level?

# Hoist Performance Fingerprint

## Our solution



The Hoist Performance Fingerprint consists of mechanical and electrical inspections, represents a comprehensive hoist equipment condition assessment, as well as preventive maintenance program review, directly linked to increase productivity and safety.

ABB's inspections cover the legislative requirements for the hoist owners in Canada, U.S.A. and Mexico regulated by the local mining authorities.

ABB is a service provider of both mechanical and electrical assessments

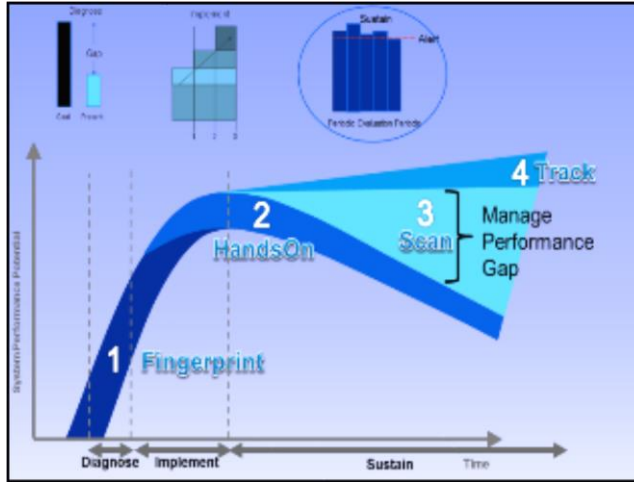
- one point of contact

Team work delivers better results due to seamless interaction between engineering fields

- better general overall hoist verification

# Hoist Performance Fingerprint

## How can this service help you?

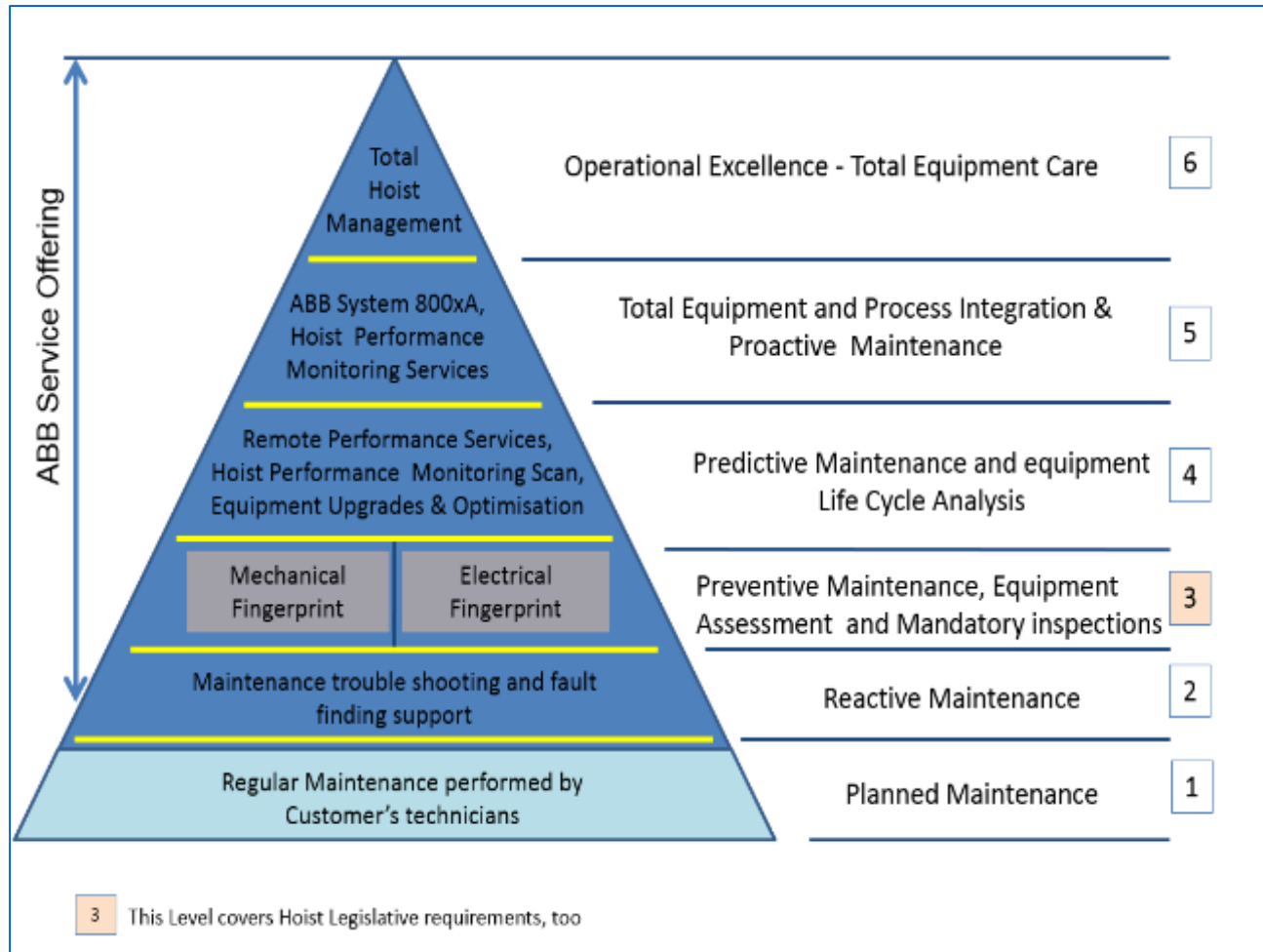


The structured hoist equipment assessment and testing can identify:

- Compliance against local statutory requirements
- Shortfalls in preventive maintenance activities
- Shortfalls in required maintenance training
- Status of equipment life cycle

# Hoist Performance Fingerprint

## Where does it fit in your overall maintenance strategy?

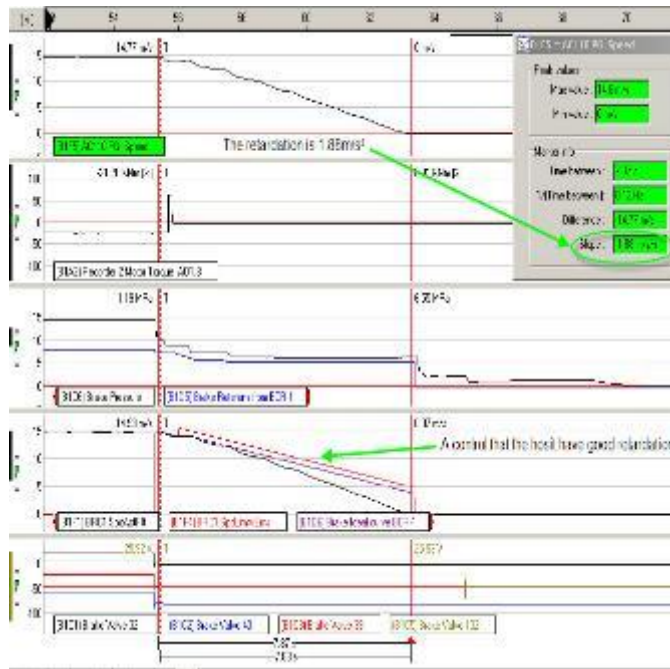




# Hoist Performance Fingerprint

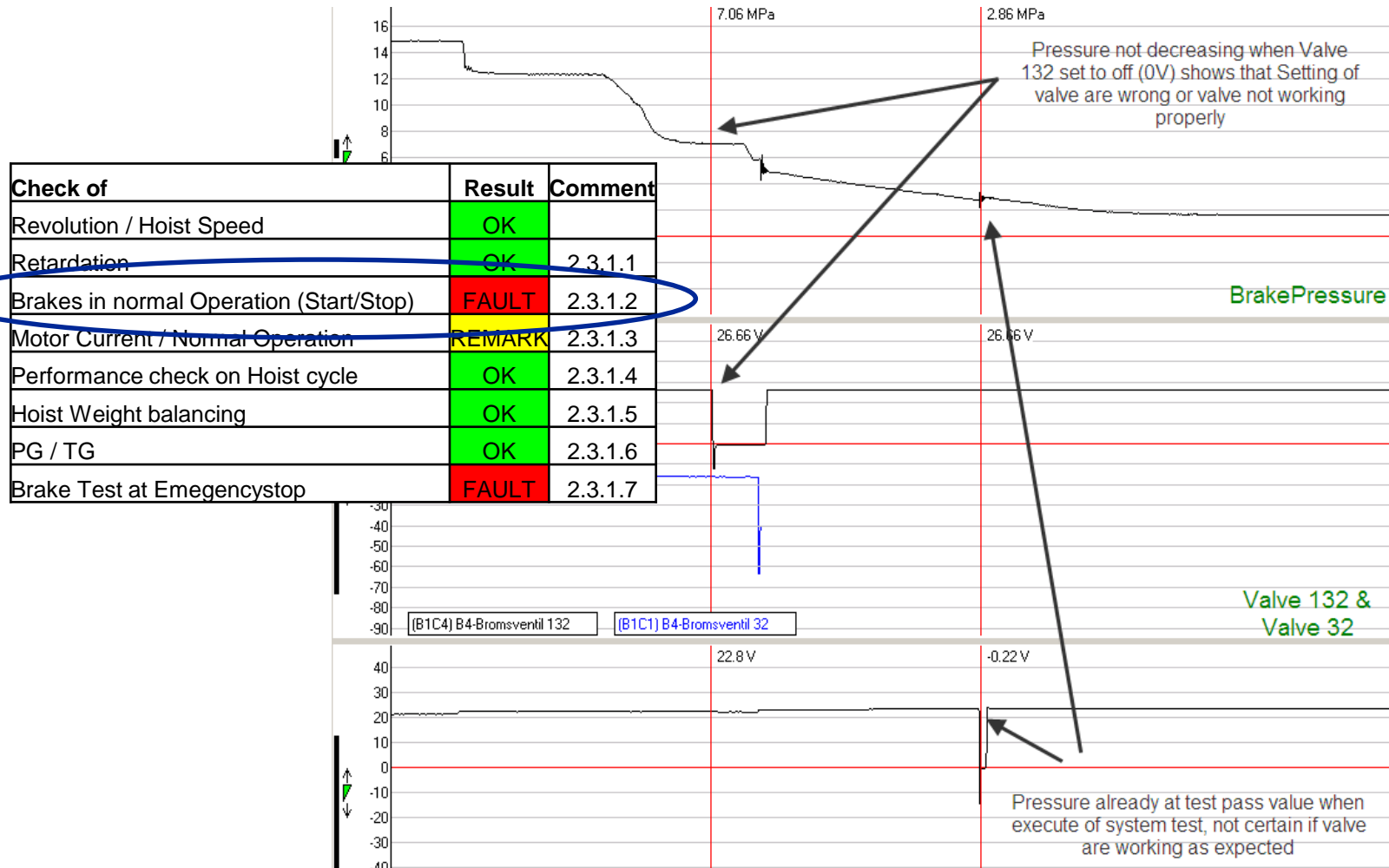
## Technical concept – Mechanical Fingerprint

Check of:	Result	Comment
Brake test at emergency stop	OK	
Retardation performance.	OK	
Brake test, test functions	OK	
Air gap brake units	OK	



# Hoist Performance Fingerprint

## Technical concept – Electrical Fingerprint



# Hoist Performance Fingerprint Execution

Action

Report

Interpret

Analyze

View

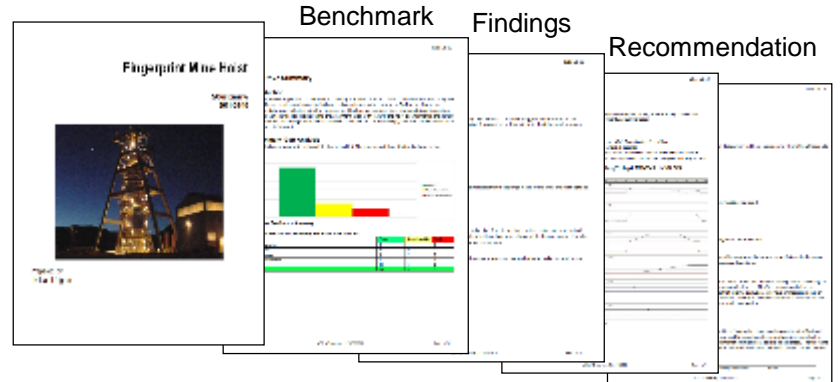
Collect data

Assessment

Report  
 Gap analysis  
 Action plan

Performance evaluation  
 Standard methodology  
 Best industry practices  
 Analysis expertise  
 Performance visualization

Mechanical & Electrical inspections/testing  
 Hoist parameters  
 Customer interview  
 Local regulations

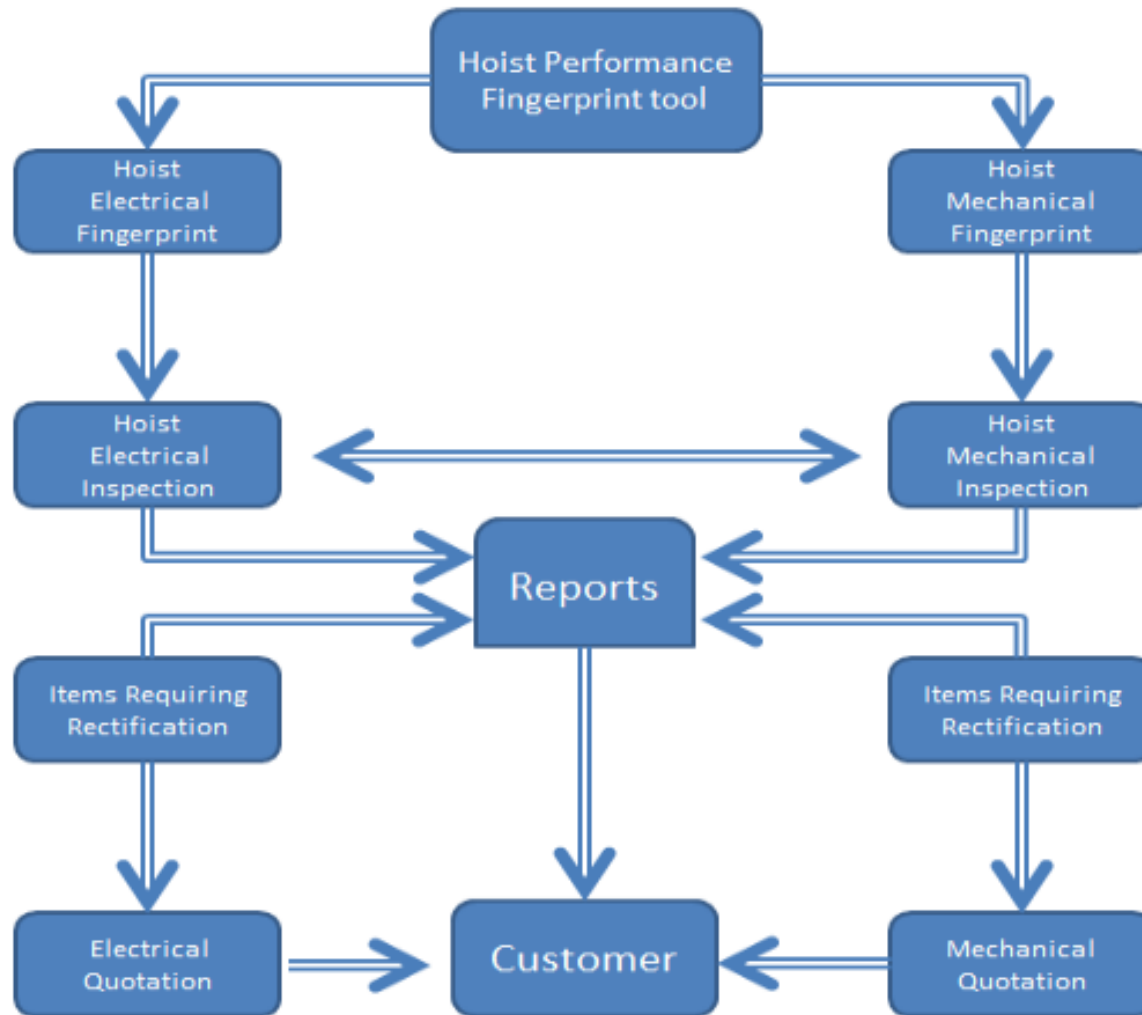


People  
 Process  
 Tools

Equipment  
 condition  
 assessment



# Hoist Performance Fingerprint Information flow



# Hoist Performance Fingerprint

## Your benefits



- Hoisting equipment assessed against the local statutory requirements
- Reduced downtime as inspections are done simultaneously
- Engineering and reliability approach to equipment testing/assessing
- Periodical equipment assessment and testing
- Comprehensive written report contains recommendations to increase over all equipment performance and safety
- The report can be used as
  - Statutory document
  - Maintenance planning
  - Maintenance budgeting
- Technical support available between the assessments
- Reliable service partner who knows your equipment

# Hoist Performance Fingerprint

## Inspection reference list



- BHP Billiton Cannington, friction hoist, Qld, AU
- BHP Billiton Leinster, double drum hoists, WA, AU
- Glencore CSA Mine, friction hoist, NSW, AU
- Anglo American Coal, Grasstree Mine, double drum, Qld, AU
- Bluestone Mines Tasmania, Renison mine friction hoist, Tas, AU
- New Boliden, Garpenberg mine, friction & single drum hoists, Sweden

# Hoist Performance Fingerprint

## You want to know more?

We would be happy to assist you with your inquiry:

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