

RigScan Report

AVO05A244 (Boomer 282)

For EBC inc



RigScan process

1

Machine audit

- a. Your machine receives a full coverage inspection conducted by a highly trained Epiroc expert.

2

Critical report

- a. You receive a critical report first.
- b. We will help you understand and address these critical issues for safety and performance.

Implementation

Authorize work on these critical issues with our OEM-certified technicians.

3

Final report

- a. You receive a final, detailed report.
- b. This includes:
 - 1. Critical report—issues that need immediate action
 - 2. Action Required—issues that require action
 - 3. Monitor—issues that need your continued attention over time

Implementation

Develop a short and long-term plan for parts and services with our OEM-certified technicians.

A message from your RigScan team

Congratulations! By taking advantage of a RigScan audit, you have taken an important step toward improving the performance and safety of your machine, as well as reducing your total operational costs

This Final Report lists the critical issues as well as a listing of additional important issues and our recommendations for action. You will see them labeled as “action required” and “monitor.”

We will work with you to get you the parts and service you need.

You will see in this Final Report the results at every inspection point. Addressing the areas of concern will bring your performance up to standard. We encourage you to use Epiroc genuine parts and our OEM-certified technicians. With the RigScan team, we believe you will increase safety, lower costs and maximize uptime!

Thank you for your business.

Your RigScan team



RigScan Final Report

Date of Inspection:	[IN PROGRESS]
Technician:	Stephane Simard
Customer:	EBC inc
Customer Site:	Quebec
Customer Contact:	Etienne Tschanz
Customer Purchase Order Number:	[PURCHASE NUMBER NOT AVAILABLE]
Epiroc Work Order Number:	[WORKORDER NUMBER NOT AVAILABLE]
Epiroc Audit Identifier:	RS00007607

Customer Unit Number:	77-0502
Machine Model:	Boomer 282
Machine Serial Number:	AVO05A244
Machine Impact Hours 1:	17
Machine Impact Hours 2:	13
Machine Impact Hours 3:	0
Machine Impact Hours 4:	0
Machine Engine Hours:	226
Machine Powerpack Hours:	0

Machine Configuration:	Airend: AC LE7 Boom: BUT 28 Control System: DCS COP Drill: COP 1838ME Engine: Deutz D914 L04 2V Feed: BMH 2843
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Machine Equipment Options:	Air Flushing Big Hole Drilling Kit Cable Reel Controls ECL Fire Suppression Hole Blowing Kit Hydraulic Oil Cooler (Water) No Water Reel Water Pump
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Operational Constraint:	
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Due to the critical nature of the issues listed below, Epiroc considers this machine inoperable until the issues have been resolved. Epiroc can not be held liable if this machine continues to operate without resolving the issues listed.

Immediate action required (Critical safety and critical performance issues)



	Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
	1 Lubrication ECL 1	Check ECL Regulator Condition	Replace	Machine Safety	Critical Safety
	2 Feed 1	Check Haul Ropes Condition	Replace	Reduced Downtime	Critical Safety
	3 Feed 1	Check Return Ropes Condition	Replace	Reduced Downtime	Critical Safety
	4 Feed 2	Check Haul Ropes Condition	Replace	Machine Safety	Critical Safety
	5 Feed 2	Check Return Ropes Condition	Replace	Machine Safety	Critical Safety
	6 Rock drill 2	Check Damper Accumulator Pressure	Repair	Increased Productivity	Critical Safety
	7 Rock drill 2	Check Intake Accumulator Pressure	Repair	Increased Productivity	Critical Safety
	8 Rock drill 2	Check Rock Drill Hoses Condition	Replace	Machine Safety	Critical Safety
	9 Other Electrical System (DC)	Check Reversing Alarm Function	Repair	Machine Safety	Critical Safety
	10 Fire Suppression System	Check Fire Suppression Nozzles Condition	Repair	Machine Safety	Critical Safety
	11 Fire Suppression System	Check Fire Suppression Kegs Condition	Repair	Machine Safety	Critical Safety
	12 Fire Suppression System	Check Fire Suppression Nozzles Condition	Repair	Machine Safety	Critical Safety
	13 Fire Suppression System	Check Fire Suppression Kegs Condition	Repair	Machine Safety	Critical Safety
	14 Fire Suppression System	Check Fire Suppression Actuators Condition	Repair	Machine Safety	Critical Safety
	15 Fire Suppression System	Check Fire Suppression Nozzles Condition	Repair	Machine Safety	Critical Safety
	16 Fire Suppression System	Check Fire Suppression Actuators Condition	Repair	Machine Safety	Critical Safety
	17 Hyd. Pump	Check Pumps Condition	Repair	Machine Safety	Critical Safety
	18 Tank	Check Hydraulic Tank Condition	Replace	Machine Safety	Critical Safety
	19 Jacks	Check Leveling Cylinder Condition	Repair	Machine Safety	Critical Safety
	20 Jacks	Check Leveling Cylinder Condition	Replace	Machine Safety	Critical Safety
	21 Brake & Steering	Check Low Brake Pressure Warning	Replace	Machine Safety	Critical Safety
	22 Boom 1 Telescope	Check Boom Extension Condition	Repair	Machine Safety	Critical Safety
	23 Boom 1 Rotation Units	Check Boom Rotation Unit Condition	Replace	Machine Safety	Critical Safety
	24 Hoses	Check Hose Protection Condition	Replace	Machine Safety	Critical Safety
	25 Boom 2 Telescope	Check Boom Extension Condition	Replace	Machine Safety	Critical Safety
	26 Hoses	Check Hose Protection Condition	Replace	Machine Safety	Critical Safety

	Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
	27	Fluids	Check Engine Oil Level	Replace	Machine Safety Critical Safety
	28	Working Safety	Check Emergency Stops Function	Inspect	Machine Safety Critical Safety
	29	Diesel Engine	Check Fuel Tank Condition	Replace	Machine Safety Critical Safety
	30	Diesel Engine	Check Exhaust Outlet Condition	Replace	Machine Safety Critical Safety
	31	Structural	Check Frame Condition	Repair	Machine Safety Critical Safety
	32	Other Tramming system	Check for Signs of Damage to Wiring	Repair	Machine Safety Critical Safety
	33	Wheels & Rims (E)	Check Tire Condition	Replace	Machine Safety Critical Safety
	34	Wheels & Rims (E)	Check Tire Pressure	Replace	Machine Safety Critical Safety
	35	Other Tramming system	Check for Signs of Damage to Hoses	Repair	Machine Safety Critical Safety
	36	Other Tramming system	Check for Signs of Damage to Wiring	Repair	Machine Safety Critical Safety
	37	Other Tramming system	Check for Signs of Damage to Hoses	Replace	Increased Productivity Critical Safety
	38	Other Tramming system	Check for Signs of Damage to Hoses	Replace	Machine Safety Critical Safety
	39	Other Tramming system	Check for Signs of Damage to Hoses	Replace	Increased Productivity Critical Safety
	40	Other Tramming system	Check for Signs of Damage to Hoses	Replace	Machine Safety Critical Safety
	41	Diesel Engine	Check Engine Condition	Replace	Machine Safety Critical Safety
	42	Diesel Engine	Check Exhaust Condition	Replace	Machine Safety Critical Safety
	43	Front axle	Check Rear Axle Condition	Replace	Machine Safety Critical Safety
	44	Transmission	Check Transmission Condition	Replace	Machine Safety Critical Safety
	45	Other Tramming system	Check Spline Shaft Condition	Replace	Machine Safety Critical Safety
	46	Other Tramming system	Check for Signs of Damage to Hoses	Replace	Machine Safety Critical Safety
	47	Cabin/Canopy	Check Canopy Condition	Replace	Machine Safety Critical Safety
	48	Cabin/Canopy	Check FOPS Placard Condition	Replace	Machine Safety Critical Safety
	49	Rock drill 1	Check Slides Condition	Replace	Machine Safety Critical Performance
	50	Rock drill 1	Check Damper Accumulator Pressure	Repair	Increased Productivity Critical Performance
	51	Rock drill 1	Check Intake Accumulator Pressure	Repair	Increased Productivity Critical Performance
	52	Rock drill 1	Check Rock Drill Hoses Condition	Replace	Reduced Downtime Critical Performance
	53	Rock drill 1	Check Drilling Rotation Speed	Repair	Increased Productivity Critical Performance
	54	Rock drill 1	Check Reaming Rotation Speed	Repair	Increased Productivity Critical Performance
	55	Rock drill 1	Check Rock Drill Using Thermal Imaging Camera	Repair	Increased Productivity Critical Performance
	56	Rock drill 1	Check Rock Drill Shank Adapter Using Thermal Imaging Camera	Repair	Increased Productivity Critical Performance
	57	Rock drill 1	Check Rock Drill Steel Coupling Using Thermal Imaging Camera	Repair	Increased Productivity Critical Performance
	58	Feed 1	Check Bit Knocker Function on Left Rock Drill	Repair	Increased Productivity Critical Performance
	59	Rock drill 2	Check Drilling Rotation Speed	Repair	Increased Productivity Critical Performance
	60	Rock drill 2	Check Reaming Rotation Speed	Repair	Increased Productivity Critical Performance
	61	Rock drill 2	Check Rock Drill Using Thermal Imaging Camera	Repair	Increased Productivity Critical Performance

	Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
	62 Rock drill 2	Check Rock Drill Shank Adapter Using Thermal Imaging Camera	Repair	Increased Productivity	Critical Performance
	63 Rock drill 2	Check Rock Drill Steel Coupling Using Thermal Imaging Camera	Repair	Machine Safety	Critical Performance
	64 Feed 2	Check Bit Knocker Function on Right Rock Drill	Repair	Increased Productivity	Critical Performance
	65 Batteries	Check Battery Condition	Repair	Reduced Downtime	Critical Performance
	66 Hyd. Pump	Check Pumps Condition	Replace	Reduced Downtime	Critical Performance
	67 Hyd. Pump	Check Pumps Using Thermal Imaging Camera	Replace	Increased Productivity	Critical Performance
	68 Hyd. Pump	Check Pumps Using Thermal Imaging Camera	Repair	Machine Safety	Critical Performance
	69 Tank	Check Hydraulic Tank Condition	Replace	Increased Productivity	Critical Performance
	70 Tank	Check Hydraulic Oil Temperature	Replace	Increased Productivity	Critical Performance
	71 Front Knuckle set 1	Check Knuckle Condition	Repair	Machine Safety	Critical Performance
	72 Front Knuckle set 2	Check Knuckle Condition	Repair	Machine Safety	Critical Performance
	73 Fluids	Check Hydraulic Tank Oil Level	Install/Add	Preventative Maintenance	Critical Performance
	74 Axle oil	Check Wheel Ends Oil Level	Replace	Machine Safety	Critical Performance
	75 Other Trammng system	Check for Signs of Damage to Hoses	Replace	Reduced Downtime	Critical Performance
	76 Other Water System	Check Inlet Water Pressure on Left Rock Drill	Repair	Increased Productivity	Critical Performance
	77 Other Water System	Check Inlet Water Pressure on Right Rock Drill	Repair	Increased Productivity	Critical Performance

Action Required (Important Issues)

	Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
	78 Other Electrical System (DC)	Check Lights Condition	Replace	Reduced Downtime	Important
	79 Brake & Steering	Check Brake Unload Pressure	Monitor	Preventative Maintenance	Important
	80 Brake & Steering	Check Brake Load Pressure	Monitor	Preventative Maintenance	Important
	81 Brake & Steering	Check Service Brake Pressure	Monitor	Preventative Maintenance	Important
	82 Brake & Steering	Check Parking Brake Pressure	Monitor	Preventative Maintenance	Important
	83 Fluids	Check Compressor Oil Level	Inspect	Preventative Maintenance	Important
	84 Wheels & Rims (E)	Check Tire Pressure	Inspect	Preventative Maintenance	Important
	85 Wheels & Rims (E)	Check Tire Pressure	Inspect	Preventative Maintenance	Important
	86 Wheels & Rims (E)	Check Tire Pressure	Inspect	Preventative Maintenance	Important
	87 Cabin/Canopy	Check Seat Condition	Replace	Machine Safety	Important

Other (More Information)

	Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
	88 Control Panel	Record Diesel Engine Hours			

		Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
✓	89	Lubrication ECL 1		Check ECL Lubricator Pressure		
✓	90	Rock drill 1		Record Left Rock Drill Impact Hours		
✓	91	Rock drill 1		Check Free Spin Rotation Pressure on Left Rock Drill		
✓	92	Rock drill 1		Check Free Feed Pressure on Left Rock Drill		
✓	93	Rock drill 1		Check Idle Dampening Pressure on Left Rock Drill		
✓	94	Rock drill 1		Check Collaring Impact Pressure on Left Rock Drill		
✓	95	Rock drill 1		Check Feed Collaring Pressure on Left Rock Drill		
✓	96	Rock drill 1		Check Drilling Impact Pressure on Left Rock Drill		
✓	97	Rock drill 1		Check Drill Rotation Pressure on Left Rock Drill		
✓	98	Rock drill 1		Check Max Feed Pressure for BMH 2000 on Left Rock Drill		
✓	99	Rock drill 1		Check Max Feed Reaming Pressure on Left Rock Drill		
✓	100	Rock drill 1		Check Drilling Dampening Pressure on Left Rock Drill		
✓	101	Rock drill 1		Check Anti Jamming Pressure on Left Rock Drill		
✓	102	Rock drill 1		Check FPCI Impact Pressure on Left Rock Drill		
✓	103	Rock drill 1		Check RPCF Drilling Pressure on Left Rock Drill		
✓	104	Rock drill 1		Check RPCF Reaming Pressure on Left Rock Drill		
✓	105	Rock drill 2		Record Right Rock Drill Impact Hours		
✓	106	Rock drill 2		Check Free Spin Rotation Pressure on Right Rock Drill		
✓	107	Rock drill 2		Check Free Feed Pressure on Right Rock Drill		
✓	108	Rock drill 2		Check Idle Dampening Pressure on Right Rock Drill		
✓	109	Rock drill 2		Check Collaring Impact Pressure on Right Rock Drill		
✓	110	Rock drill 2		Check Feed Collaring Pressure on Right Rock Drill		
✓	111	Rock drill 2		Check Drilling Impact Pressure on Right Rock Drill		
✓	112	Rock drill 2		Check Drill Rotation Pressure on Right Rock Drill		
✓	113	Rock drill 2		Check Max Feed Pressure for BMH 2000 on Right Rock Drill		
✓	114	Rock drill 2		Check Max Feed Reaming Pressure on Right Rock Drill		
✓	115	Rock drill 2		Check Drilling Dampening Pressure on Right Rock Drill		
✓	116	Rock drill 2		Check Anti Jamming Pressure on Right Rock Drill		
✓	117	Rock drill 2		Check FPCI Impact Pressure on Right Rock Drill		
✓	118	Rock drill 2		Check RPCF Drilling Pressure on Right Rock Drill		
✓	119	Rock drill 2		Check RPCF Reaming Pressure on Right Rock Drill		
✓	120	Boom 1 movements		Check Positioning Pump Standby Pressure on Left Positioning Pump		

		Subequipment	Step Title	Resolution Action	Resolution Benefit	Priority
✓	121	Boom 1 movements	Check Positioning Pump Pressure on Left Positioning Pump			
✓	122	Boom 1 movements	Check Positioning Pump Pressure During Impact on Left Positioning Pump			
✓	123	Boom 2 movements	Check Positioning Pump Standby Pressure on Right Positioning Pump			
✓	124	Boom 2 movements	Check Positioning Pump Pressure on Right Positioning Pump			
✓	125	Boom 2 movements	Check Positioning Pump Pressure During Impact on Right Positioning Pump			
✓	126	Critical Lubes	Check Lube Points at Articulation Cylinder			
✓	127	Booster pump	Check Flushing Water Pressure on Left Rock Drill			
✓	128	Booster pump	Check Flushing Water Pressure on Right Rock Drill			



Issue Number: 1
Status:  FAIL
Step Title: Check ECL Regulator Condition
Resolution Diagnosis: To be replace,dry diaphragms
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Front and Front of Carrier
Subsystem: Drilling system 1
Subequipment: Lubrication ECL 1

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
1 3715058400	ELBOW NIPPLE	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 3177307000	NIPPLE	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 0653090506	GASKET	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 6060003165	MANOMETER	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 3215959500	PRESS.RED.VALVE	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 3177503100	PRESSURE GAUGE 0-60bars	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety



To be replace,dry diaphragms



Issue Number: 2

Status:  FAIL

Step Title: Check Haul Ropes Condition

Resolution Diagnosis: Cable have to be replace for safety and replace the adjusting screw too

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Reduced Downtime

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Feed 1

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
2 0147195829	SCREW, HEX HEAD	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3128064702	PULL ROPE	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3222309749	ROPE TENSION	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3128055101	RETURN ROPE	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 0301235800	FLAT WASHER	4.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3128047600	WASHER	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 0113223100	BOLT	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety

Technician Comments:

Replace for safety because not using for very long time



Issue Number: 3

Status:  FAIL

Step Title: Check Return Ropes Condition

Resolution Diagnosis: Replace for safety because to much time without using it,already order

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Reduced Downtime

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Feed 1

Any damage?

Results: YES



Issue Number: 4

Status:  FAIL

Step Title: Check Haul Ropes Condition

**Resolution
Diagnosis:** Need to be replace for safety,they are
old and not using for years,parts
already order

**Resolution
Action:** Replace

**Resolution
Priority:** Critical Safety

**Resolution
Benefit:** Machine Safety

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Feed 2

Any damage?

Results: YES



Issue Number: 5

Status:  FAIL

Step Title: Check Return Ropes Condition

Resolution Diagnosis: Replace cable for safety,they are old and need to be replace for safety,parts already order for the other boom

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Feed 2

Any damage?

Results: YES



Issue Number: 6

Status:  FAIL

Step Title: Check Damper Accumulator Pressure

Resolution Diagnosis: Have to be rebuilt in the same time than the Rock drill, they are empty

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Increased Productivity

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Enter measurement:

Minimum: 333.59 psi
Maximum: 362.59 psi

Results: 0.00 psi



Issue Number: 7

Status:  FAIL

Step Title: Check Intake Accumulator Pressure

Resolution Diagnosis: Have to be rebuilt in the same time than the rock drill,they are empty

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Increased Productivity

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Enter measurement:

Minimum: 1,305.34 psi
Maximum: 1,450.38 psi
Results: 0.00 psi



Issue Number: 8

Status:  FAIL

Step Title: Check Rock Drill Hoses Condition

Resolution Diagnosis: Have to be all replace,they are cracks and dry,use customer hoses and fittings

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Any damage?

Results: YES



Issue Number: 9

Status:  FAIL

Step Title: Check Reversing Alarm Function

Resolution Diagnosis: Alarm is plug forward,need to be rewire correctly with the schematic

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Cabin/Canopy

Subsystem: Electrical System (DC)

Subequipment: Other Electrical System (DC)

Does it work properly?

Results: NO



Issue Number:	10	Any damage?
Status:	 FAIL	
Step Title:	Check Fire Suppression Nozzles Condition	Results: YES
Resolution Diagnosis:	Need to be recertified	
Resolution Action:	Repair	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Machine Safety	
Zone:	Left Rear of Carrier	
Subsystem:	Fire Suppression System	
Subequipment:	Fire Suppression System	



Issue Number: 11

Status:  FAIL

Step Title: Check Fire Suppression Kegs Condition

Resolution Diagnosis: Need to be recertified

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Left Rear of Carrier

Subsystem: Fire Suppression System

Subequipment: Fire Suppression System

Any damage?

Results: YES



Issue Number:	12	Any damage?
Status:	 FAIL	
Step Title:	Check Fire Suppression Nozzles Condition	Results: YES
Resolution Diagnosis:	Have to be recertified	
Resolution Action:	Repair	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Machine Safety	
Zone:	Right Rear of Carrier	
Subsystem:	Fire Suppression System	
Subequipment:	Fire Suppression System	



Issue Number: 13

Status:  FAIL

Step Title: Check Fire Suppression Kegs Condition

Resolution Diagnosis: Have to be recertified

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Right Rear of Carrier

Subsystem: Fire Suppression System

Subequipment: Fire Suppression System

Any damage?

Results: YES



Issue Number:	14	Any damage?
Status:	 FAIL	
Step Title:	Check Fire Suppression Actuators Condition	Results: YES
Resolution Diagnosis:	Have to be recertified	
Resolution Action:	Repair	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Machine Safety	
Zone:	Rear of Carrier	
Subsystem:	Fire Suppression System	
Subequipment:	Fire Suppression System	



Issue Number:	15	Any damage?
Status:	 FAIL	
Step Title:	Check Fire Suppression Nozzles Condition	Results: YES
Resolution Diagnosis:	Need to be recertified	
Resolution Action:	Repair	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Machine Safety	
Zone:	Cabin/Canopy	
Subsystem:	Fire Suppression System	
Subequipment:	Fire Suppression System	



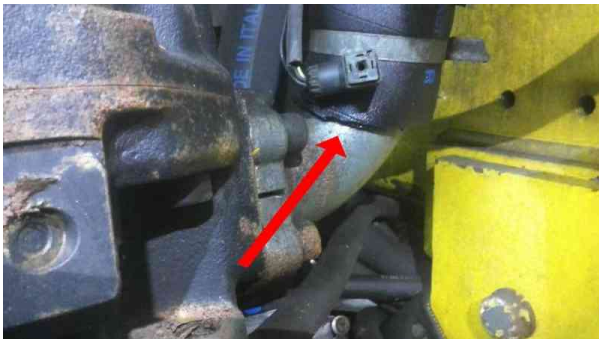
Issue Number:	16	Any damage?
Status:	 FAIL	
Step Title:	Check Fire Suppression Actuators Condition	Results: YES
Resolution Diagnosis:	Need to be recertified	
Resolution Action:	Repair	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Machine Safety	
Zone:	Cabin/Canopy	
Subsystem:	Fire Suppression System	
Subequipment:	Fire Suppression System	



Issue Number: 17
Status:  FAIL
Step Title: Check Pumps Condition
Resolution
Diagnosis: Leaks on the suction hoses, already on order
Resolution Action: Repair
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Right Rear of Carrier
Subsystem: Hydraulic System 1
Subequipment: Hyd. Pump

Any damage?

Results: YES



suction hoses are leaking



Issue Number: 18

Status:  FAIL

Step Title: Check Hydraulic Tank Condition

Resolution Diagnosis: Gauge is broken on the filters casing, oil level sensor and gauge for the temp. is not working need to be bypass

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Left Rear of Carrier

Subsystem: Hydraulic System Common

Subequipment: Tank

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
18 5112293101	PRESSURE SCREW	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 0663211900	O-RING	2.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293100	LEVEL-TEMP.IND	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293102	THERMOMETER	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293190	SPARE PARTS SET	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 0653105500	GASKET	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 8231085484	MANOMETER	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293103	PRESSURE SCREW	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety



Filters gauge broken, need to be replaced



Oil level sensor not working and temperature gauge also



Issue Number: 19
Status:  FAIL
Step Title: Check Leveling Cylinder Condition
Resolution Diagnosis: Outrigger need to be rebuilt,loose
Resolution Action: Repair
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Front and Front of Carrier
Subsystem: Hydraulic System Common
Subequipment: Jacks

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
19 0335213600	CIRCLIP	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112302287	JACK TUBE	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 3217681400	SHAFT	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 0147149103	SCREW, HEX HEAD	4.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 0301239400	PLAIN WASHER	10.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 0335113200	CIRCLIP	4.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112236080	HYDR. CYLINDER	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112271000	ATTACHM. PLATE	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112236300	SHAFT	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety



Outrigger need to be rebuilt,loose



Issue Number: 20
Status:  FAIL
Step Title: Check Leveling Cylinder Condition
Resolution Diagnosis: Right outrigger loose,tefflons have to be replace,parts already order for the other side
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Right Front of Carrier
Subsystem: Hydraulic System Common
Subequipment: Jacks

Any damage?

Results: YES



Right outrigger loose,tefflons haves to be replace



Issue Number: 21

Status:  FAIL

Step Title: Check Low Brake Pressure Warning

Resolution Diagnosis: Sensors broken, need to be replace

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Cabin/Canopy

Subsystem: Hydraulic System Common

Subequipment: Brake & Steering

Enter measurement:

Minimum: 1,522.90 psi
Maximum: 1,667.93 psi

Results: 0.00 psi

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
21 5112292101	PRESSURE SWITCH	2.0		Hydraulic System Common	Brake & Steering	Cabin/Canopy	Critical Safety
21 5112302343	PRESSURE SWITCH	2.0		Hydraulic System Common	Brake & Steering	Cabin/Canopy	Critical Safety
21 5112259500	PRESSURE SWITCH	2.0		Hydraulic System Common	Brake & Steering	Cabin/Canopy	Critical Safety



Brake sensors broken, need to be replace



Issue Number: 22

Status:  FAIL

Step Title: Check Boom Extension Condition

Resolution Bolts loose on the boom extension cylinder

Diagnosis:

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Left Boom

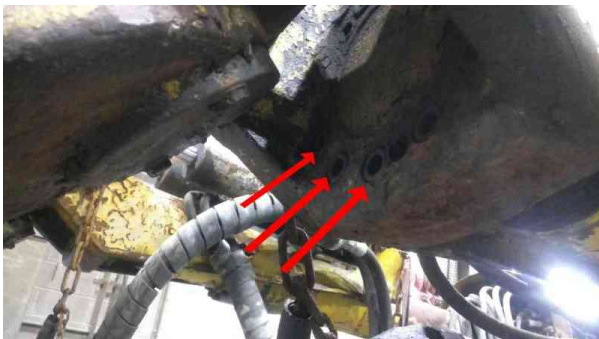
Subsystem: Positioning System 1

Subequipment: Boom 1 Telescope

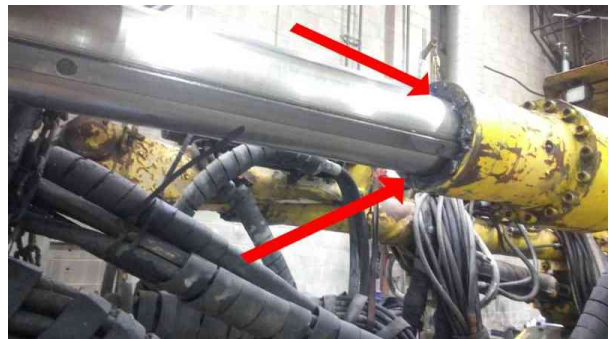
Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
22 0211196078	SCREW	4.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 0211196294	SCREW	10.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3125497400	RING	2.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 0211196278	SCREW	18.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3128312577	KEY	6.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3128312560	CLAMPING RING	2.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3128312561	CLAMPING RING	2.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3125497601	CRADLE	12.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety



Bolts on boom extension cylinder



Tefflons of the boom extension very loose,almost 3/8 inch



Issue Number: 23
Status:  FAIL
Step Title: Check Boom Rotation Unit Condition
Resolution Diagnosis: Very loose more than 1/4 inch, need to be replace
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Boom
Subsystem: Positioning System 1
Subequipment: Boom 1 Rotation Units

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
23 6060070722	TURNING DEVICE	1.0		Positioning System 1	Boom 1 Rotation Units	Left Boom	Critical Safety



Very loose more than 1/4 inch, need to be replace



Issue Number: 24
Status:  FAIL
Step Title: Check Hose Protection Condition
Resolution Diagnosis: Coil have to be replace in the same time than the hoses,use customer coil
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Boom
Subsystem: Positioning System 1
Subequipment: Hoses

Any damage?

Results: YES



Issue Number: 25
Status:  FAIL
Step Title: Check Boom Extension Condition
Resolution Diagnosis: Boom extension loose in the tefflons, and leak internally
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Right Boom
Subsystem: Positioning System 2
Subequipment: Boom 2 Telescope

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
25 3128259242	HYDR. CYLINDER	1.0		Positioning System 2	Boom 2 Telescope	Right Boom	Critical Safety
25 3125496880	EXPANDING SHAFT	1.0		Positioning System 2	Boom 2 Telescope	Right Boom	Critical Safety



Boom extension cylinder loose in the tefflons and leak internally



Issue Number: 26
Status:  FAIL
Step Title: Check Hose Protection Condition
Resolution Diagnosis: Have to be replace in the same time than the hoses,use customer coil
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Right Boom
Subsystem: Positioning System 2
Subequipment: Hoses

Any damage?

Results: YES



Issue Number: 27
Status:  FAIL
Step Title: Check Engine Oil Level
Resolution Diagnosis: Engine dipstick broken
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Fluids
Subsystem: Safety
Subequipment: Fluids

Sufficient oil?

Results: NO

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
27	Dipstick for engine F5L912W S/N:8740752	1.0		Safety	Fluids	Fluids	Critical Safety
27	Shut off cable with bracket and hardware	1.0		Safety	Fluids	Fluids	Critical Safety



Engine dipstick broken, Engine #F5L912W S/N:8740752



Issue Number: 28
Status:  FAIL
Step Title: Check Emergency Stops Function
Resolution Diagnosis: E-stop only work only on 600volts
Resolution Action: Inspect
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Working Safety
Subsystem: Safety
Subequipment: Working Safety

Do they work?

Results: NO

Technician Comments:

Works only on 600 volts



E-stop not working, shut off cable on the engine broken



Issue Number: 29

Status:  FAIL

Step Title: Check Fuel Tank Condition

Resolution Diagnosis: Fuel tank strap is not attach on the brackets,tank is damage by the engine damper pulley

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Left Rear of Carrier

Subsystem: Tramming system

Subequipment: Diesel Engine

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
29 0347611400	HOSE CLIP	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112234100	GASKET	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112234000	COVER	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112208381	LEVEL SENSOR	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 0653112400	GASKET	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112302218	HOSE	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112233807	FILLER PIPE	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 0653111500	GASKET	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5054014000	PLASTIC TUBING	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 0211121200	SCREW	5.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112300485	PLUG	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112302029	SUCT.-RETU.PIPE	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112302066	FUEL TANK	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety



Fuel tank strap is not attach to the brackets and tank is damage by the engine damper pulley



Issue Number: 30
Status:  FAIL
Step Title: Check Exhaust Outlet Condition
Resolution Diagnosis: Exhaust clam loose and smoke a lot
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Rear of Carrier
Subsystem: Trimming system
Subequipment: Diesel Engine

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
30 0347405217	HOSE CLIP	2.0		Trimming system	Diesel Engine	Left Rear of Carrier	Critical Safety
30 5112247800	EXHAUST HOSE	1.0		Trimming system	Diesel Engine	Left Rear of Carrier	Critical Safety



Exhaust clam smoke a lot and need to be replace



Issue Number: 31
Status:  FAIL
Step Title: Check Frame Condition
Resolution Diagnosis: Rear fame counterweight bracket crowked,need to be repair by Welder
Resolution Action: Repair
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Rear of Carrier
Subsystem: Tramming system
Subequipment: Structural

Any damage?

Results: YES



Rear counter weight bracket crowked,need to be repair



Issue Number: 32

Status:  FAIL

Step Title: Check for Signs of Damage to Wiring

Resolution Diagnosis: Cables are not secure on the cable reel and cable itself is missing

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Left Rear of Carrier

Subsystem: Tramming system

Subequipment: Other Tramming system

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
32 3176826600	WIRE MESH HOSE	1.0		Tramming system	Other Tramming system	Left Rear of Carrier	Critical Safety
32 3163185400	SHACKLE	1.0		Tramming system	Other Tramming system	Left Rear of Carrier	Critical Safety



Cable is not secure in the cable reel and cable is missing



Issue Number: 33
Status:  FAIL
Step Title: Check Tire Condition
Resolution Diagnosis: Flat tire front left
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Front and Front of Carrier
Subsystem: Tramming system
Subequipment: Wheels & Rims (E)

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
33 5112305640	WHEEL COMPL.	1.0		Tramming system	Wheels & Rims (E)	Left Front and Front of Carrier	Critical Safety



Issue Number: 34
Status:  FAIL
Step Title: Check Tire Pressure
Resolution Diagnosis: Flat tire need to be replace
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Left Front and Front of Carrier
Subsystem: Tramming system
Subequipment: Wheels & Rims (E)

Enter measurement:

Minimum: 137.79 psi
Maximum: 145.04 psi

Results: 0.00 psi

Technician Comments:

Tire already order



Issue Number: 35

Status:  FAIL

Step Title: Check for Signs of Damage to Hoses

Resolution
Diagnosis: Leak under the operator console, need to be repair or replace, use Customer hoses and Fittings

Resolution
Action: Repair

Resolution
Priority: Critical Safety

Resolution
Benefit: Machine Safety

Zone: Left Front and Front of Carrier

Subsystem: Tramming system

Subequipment: Other Tramming system

Any damage?

Results: YES



Leak under the operator console



Issue Number: 36

Status:  FAIL

Step Title: Check for Signs of Damage to Wiring

Resolution Diagnosis: Cut wires under the operator console, need to be troubleshoot and repair

Resolution Action: Repair

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Left Front and Front of Carrier

Subsystem: Tramming system

Subequipment: Other Tramming system

Any damage?

Results: YES



Cut wires under the operator console



Issue Number: 37

Status:  FAIL

Step Title: Check for Signs of Damage to Hoses

Resolution Diagnosis: All the hoses have to be replace,they are all dry and cracks,use customer Hoses and fittings

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Tramming system

Subequipment: Other Tramming system

Any damage?

Results: YES



Issue Number:	38	Any damage?
Status:	 FAIL	
Step Title:	Check for Signs of Damage to Hoses	Results: YES
Resolution Diagnosis:	Change all the hoses for safety because the are all dry and cracks,use customer hoses and fittings	
Resolution Action:	Replace	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Machine Safety	
Zone:	Right Boom	
Subsystem:	Tramming system	
Subequipment:	Other Tramming system	



Issue Number:	39	Any damage?
Status:	 FAIL	
Step Title:	Check for Signs of Damage to Hoses	Results: YES
Resolution Diagnosis:	All the hoses have to be replace.use customer hoses and fittings	
Resolution Action:	Replace	
Resolution Priority:	Critical Safety	
Resolution Benefit:	Increased Productivity	
Zone:	Right Feed and Rock Drill	
Subsystem:	Tramming system	
Subequipment:	Other Tramming system	



Issue Number: 40

Status:  FAIL

Step Title: Check for Signs of Damage to Hoses

Resolution Diagnosis: Need to be replace under the operator console,use customer hoses and fittings

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Right Front of Carrier

Subsystem: Tramming system

Subequipment: Other Tramming system

Any damage?

Results: YES



Need to be replace under the operator console



Issue Number: 41
Status:  FAIL
Step Title: Check Engine Condition
Resolution Diagnosis: Alternator and alternator belt have to be replace
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Right Rear of Carrier
Subsystem: Tramming system
Subequipment: Diesel Engine

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
41 3177000219	GENERATOR	1.0		Tramming system	Diesel Engine	Right Rear of Carrier	Critical Safety



Alternator and alternator belt have to be replace



Issue Number: 42
Status:  FAIL
Step Title: Check Exhaust Condition
Resolution Diagnosis: Smoke by the clam
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Right Rear of Carrier
Subsystem: Tramming system
Subequipment: Diesel Engine

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
42 5112247800	EXHAUST HOSE	1.0		Tramming system	Diesel Engine	Right Rear of Carrier	Critical Safety
42 0347405217	HOSE CLIP	2.0		Tramming system	Diesel Engine	Right Rear of Carrier	Critical Safety



Smoke by the clam



Issue Number: 43
Status:  FAIL
Step Title: Check Rear Axle Condition
Resolution Diagnosis: Have to be replace, loose, already in the parts list
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Underneath Carrier
Subsystem: Tramming system
Subequipment: Front axle

Any damage?

Results: YES



Issue Number: 44

Status:  FAIL

Step Title: Check Transmission Condition

Resolution Diagnosis: Transmission/dropbox is leaking everywhere and replace leaking hoses and o-rings,use customer parts

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Underneath Carrier

Subsystem: Tramming system

Subequipment: Transmission

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment Zone		Priority
44	External gasket kit for transmission Clark #1102FT12345-200 S/N GBEA-209410	1.0		Tramming system	Transmission	Underneath Carrier	Critical Safety



Issue Number: 45
Status:  FAIL
Step Title: Check Spline Shaft Condition
Resolution Diagnosis: Rear one is very loose
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Underneath Carrier
Subsystem: Tramming system
Subequipment: Other Tramming system

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
45 5112310284	BALL	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310281	FLANGE FORK	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310287	GREASE NIPPLE	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 0144429100	SCREW, HEX HEAD	4.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310282	U-JOINT	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310283	DRIVER	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310271	TRUNNION BLOCK	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310286	SPAT	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310285	CLAMP	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety



Issue Number: 46

Status:  FAIL

Step Title: Check for Signs of Damage to Hoses

Resolution Diagnosis: all the hoses have to be replace,they are dry,crack and leaking,use customer Hoses and fittings

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Underneath Carrier

Subsystem: Tramming system

Subequipment: Other Tramming system

Any damage?

Results: YES



Issue Number: 47
Status:  FAIL
Step Title: Check Canopy Condition
Resolution Diagnosis: Lifting cylinder right side is leaking
Resolution Action: Replace
Resolution Priority: Critical Safety
Resolution Benefit: Machine Safety
Zone: Cabin/Canopy
Subsystem: Tramming system
Subequipment: Cabin/Canopy

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
47 9126158000	HYDR. CYLINDER	2.0		Tramming system	Cabin/Canopy	Cabin/Canopy	Critical Safety



Lifting cylinder right side is leaking



Issue Number: 48 **Any damage?** _____

Status:  FAIL

Step Title: Check FOPS Placard Condition **Results:** YES

Resolution Diagnosis: Missing

Resolution Action: Replace

Resolution Priority: Critical Safety

Resolution Benefit: Machine Safety

Zone: Cabin/Canopy

Subsystem: Tramming system

Subequipment: Cabin/Canopy

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
48 3186662195	FOPS/ROPS	1.0		Tramming system	Cabin/Canopy	Cabin/Canopy	Critical Safety



Issue Number: 49
Status:  FAIL
Step Title: Check Slides Condition
Resolution Diagnosis: Took off rear left
Resolution Action: Replace
Resolution Priority: Critical Performance
Resolution Benefit: Machine Safety
Zone: Left Feed and Rock Drill
Subsystem: Drilling system 1
Subequipment: Rock drill 1

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
49 3128045801	SLIDE BAR	4.0		Drilling system 1	Rock drill 1	Left Feed and Rock Drill	Critical Performance



Slide cover take off and dirt underneath



Issue Number: 50

Status:  FAIL

Step Title: Check Damper Accumulator Pressure

Resolution Diagnosis: Have to be rebuilt in the same time than they gonna rebuilt de Rock drill and bench test

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Enter measurement:

Minimum: 333.59 psi

Maximum: 362.59 psi

Results: 0.00 psi



Issue Number: 51

Status:  FAIL

Step Title: Check Intake Accumulator Pressure

Resolution Diagnosis: Have to be rebuilt in the same time than they gonna rebuilt the Rock drill and test bench

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Enter measurement:

Minimum: 1,305.34 psi

Maximum: 1,450.38 psi

Results: 0.00 psi



Issue Number: 52

Status:  FAIL

Step Title: Check Rock Drill Hoses Condition

Resolution Diagnosis: All the hoses have to be replace,they are all cracks,dry and leaking,use customer hoses and fitting

Resolution Action: Replace

Resolution Priority: Critical Performance

Resolution Benefit: Reduced Downtime

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Any damage?

Results: YES



Issue Number: 53

Status:  FAIL

Step Title: Check Drilling Rotation Speed

Resolution Diagnosis: 600volts issue,can not get the hyd.running and pump have to be rebuilt et readjust

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Enter measurement:

Minimum: 190.00 rpm

Maximum: 210.00 rpm

Results: 0.00 rpm

Technician Comments:

600 volts have to be repair first and the Rock drills have to be rebuilt and bench test



Issue Number: 54
Status:  FAIL
Step Title: Check Reaming Rotation Speed
Resolution Diagnosis: 600volts issue,pumps are not running,need to be rebuilt and readjust
Resolution Action: Repair
Resolution Priority: Critical Performance
Resolution Benefit: Increased Productivity
Zone: Left Feed and Rock Drill
Subsystem: Drilling system 1
Subequipment: Rock drill 1

Enter measurement:

Minimum: 150.00 rpm

Maximum: 170.00 rpm

Results: 0.00 rpm

Technician Comments:

600 volts have to be repair first and the Rock drills have to be rebuilt and bench test



Issue Number: 55

Status:  FAIL

Step Title: Check Rock Drill Using Thermal Imaging Camera

Resolution Diagnosis: Drill is not running,have to be rebuilt because the time without work

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Attach image:



Should take the temperature in the field when jumbo is running and drilling,in the shop that's different



Issue Number: 56

Status:  FAIL

Step Title: Check Rock Drill Shank Adapter Using Thermal Imaging Camera

Resolution Diagnosis: Drill have to be rebuilt,not turning because the 600volts issue

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Attach image:



Drill is not running because the 600volt issue,need to be rebuilt



Issue Number: 57

Status:  FAIL

Step Title: Check Rock Drill Steel Coupling Using Thermal Imaging Camera

Resolution Diagnosis: Drill have to be rebuilt,not running because the 600volts issue

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Feed and Rock Drill

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Attach picture:



Technician Comments:

600 volts have to be repair first and the Rock drills have to be rebuilt and bench test



Issue Number: 58

Status:  FAIL

Step Title: Check Bit Knocker Function on Left Rock Drill

Resolution Diagnosis: Pump is not running because the 600volts issue,need to be rebuilt and readjust

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Cabin/Canopy

Subsystem: Drilling system 1

Subequipment: Feed 1

Does it work properly?

Results: NO



Issue Number: 59

Status:  FAIL

Step Title: Check Drilling Rotation Speed

Resolution Diagnosis: 600volts issue,pump not running,need to be rebuilt and readjust

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Enter measurement:

Minimum: 190.00 rpm

Maximum: 210.00 rpm

Results: 0.00 rpm



Issue Number: 60

Status:  FAIL

Step Title: Check Reaming Rotation Speed

Resolution Diagnosis: 600volts issuse,pump not running,need to be rebuilt and readjust

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Enter measurement:

Minimum: 150.00 rpm

Maximum: 170.00 rpm

Results: 0.00 rpm



Issue Number: 61

Status:  FAIL

Step Title: Check Rock Drill Using Thermal Imaging Camera

Resolution Diagnosis: Drill have to be rebuilt,not running because 600volts issue

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Attach image:



Drill have to be rebuilt,not running because the 600volts issue



Issue Number: 62

Status:  FAIL

Step Title: Check Rock Drill Shank Adapter Using Thermal Imaging Camera

Resolution Diagnosis: Drill need to be rebuilt,not running because the 600volts issue

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Attach image:





Issue Number: 63

Status:  FAIL

Step Title: Check Rock Drill Steel Coupling
Using Thermal Imaging Camera

**Resolution
Diagnosis:** Drill have to be rebuilt,not running
because the 600volts issue

**Resolution
Action:** Repair

**Resolution
Priority:** Critical Performance

**Resolution
Benefit:** Machine Safety

Zone: Right Feed and Rock Drill

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Attach image:





Issue Number:	64	Does it work properly?
Status:	 FAIL	
Step Title:	Check Bit Knocker Function on Right Rock Drill	Results: NO
Resolution Diagnosis:	Pump is not running because the 600volts issue,need to be rebuilt and readjust	
Resolution Action:	Repair	
Resolution Priority:	Critical Performance	
Resolution Benefit:	Increased Productivity	
Zone:	Cabin/Canopy	
Subsystem:	Drilling system 2	
Subequipment:	Feed 2	



Issue Number: 65
Status:  FAIL
Step Title: Check Battery Condition
Resolution Diagnosis: Lost power,need to be troubleshoot
Resolution Action: Repair
Resolution Priority: Critical Performance
Resolution Benefit: Reduced Downtime
Zone: Right Rear of Carrier
Subsystem: Electrical System (DC)
Subequipment: Batteries

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
65 5112322617	V-BELT	1.0		Electrical System (DC)	Batteries	Right Rear of Carrier	Critical Performance
65 3176439400	FUSE	4.0		Electrical System (DC)	Batteries	Right Rear of Carrier	Critical Performance



Issue Number: 66

Status:  FAIL

Step Title: Check Pumps Condition

Resolution Diagnosis: Succions hoses to be replace,the are leaking and the wrong one to be there

Resolution Action: Replace

Resolution Priority: Critical Performance

Resolution Benefit: Reduced Downtime

Zone: Left Rear of Carrier

Subsystem: Hydraulic System 1

Subequipment: Hyd. Pump

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
66 5107153600	HOSE ASSEMBLY	4.0		Hydraulic System 1	Hyd. Pump	Left Rear of Carrier	Critical Performance
66 0347434400	HOSE CLIP	16.0		Hydraulic System 1	Hyd. Pump	Left Rear of Carrier	Critical Performance



Succion hoses are leakings and need to be replace,wrong clams,wrong hoses



Issue Number: 67

Status:  FAIL

Step Title: Check Pumps Using Thermal Imaging Camera

Resolution Diagnosis: Pump is not running because the 600volts issue(wont come on)electric issue in the panel,pump have to be rebuilt

Resolution Action: Replace

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Left Rear of Carrier

Subsystem: Hydraulic System 1

Subequipment: Hyd. Pump

Attach picture:



Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
67 3217955366	Pumps set assembly	2.0		Hydraulic System 1	Hyd. Pump	Left Rear of Carrier	Critical Performance



Pump not turning because of the 600volts Motor is not starting



Issue Number: 68

Status:  FAIL

Step Title: Check Pumps Using Thermal Imaging Camera

Resolution Diagnosis: Pump is not turning because the 600volts issue,pump have to be rebuilt because the long time without work

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Machine Safety

Zone: Right Rear of Carrier

Subsystem: Hydraulic System 2

Subequipment: Hyd. Pump

Attach picture:



Pump not turning because the 600volts issue,pump have to be rebuilt because the long time without work



Issue Number: 69

Status:  FAIL

Step Title: Check Hydraulic Tank Condition

Resolution Diagnosis: Oil level sensor not working, and temperature gauge too, already in the parts list

Resolution Action: Replace

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Right Rear of Carrier

Subsystem: Hydraulic System Common

Subequipment: Tank

Any damage?

Results: YES



Oil level sensor and temperature gauge not working, have to be replaced



Issue Number: 70
Status:  FAIL
Step Title: Check Hydraulic Oil Temperature
Resolution
Diagnosis: Gauge not working, already in the parts list
Resolution Action: Replace
Resolution Priority: Critical Performance
Resolution Benefit: Increased Productivity
Zone: Right Rear of Carrier
Subsystem: Hydraulic System Common
Subequipment: Tank

Enter measurement:

Minimum: 32.00 °F
Maximum: 179.60 °F
Results: -0.00 °F



Gauge not working, have to be replace



Issue Number: 71
Status:  FAIL
Step Title: Check Knuckle Condition
Resolution Diagnosis: Have to be reshims
Resolution Action: Repair
Resolution Priority: Critical Performance
Resolution Benefit: Machine Safety
Zone: Left Boom
Subsystem: Positioning System 1
Subequipment: Front Knuckle set 1

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
71 3128306951	SHAFT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128306954	BOLT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 0291112826	LOCK NUT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 0291112828	LOCK NUT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128280009	THRUST BEARING	16.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128280008	THRUST BEARING	16.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128306955	BOLT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128308303	SHAFT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance



Have to be reshims



Issue Number: 72
Status:  FAIL
Step Title: Check Knuckle Condition
Resolution
Diagnosis: Have to be reshims, parts already order
Resolution Action: Repair
Resolution Priority: Critical Performance
Resolution Benefit: Machine Safety
Zone: Right Boom
Subsystem: Positioning System 2
Subequipment: Front Knuckle set 2

Any damage?

Results: YES



Have to be reshims



Issue Number:	73	Sufficient oil?
Status:	 FAIL	
Step Title:	Check Hydraulic Tank Oil Level	Results: NO
Resolution Diagnosis:	Add 60liters of oil	
Resolution Action:	Install/Add	
Resolution Priority:	Critical Performance	
Resolution Benefit:	Preventative Maintenance	
Zone:	Fluids	
Subsystem:	Safety	
Subequipment:	Fluids	



Issue Number: 74
Status:  FAIL
Step Title: Check Wheel Ends Oil Level
Resolution Diagnosis: Rear right planetary empty
Resolution Action: Replace
Resolution Priority: Critical Performance
Resolution Benefit: Machine Safety
Zone: Fluids
Subsystem: Trimming system
Subequipment: Axle oil

Sufficient oil?

Results: NO

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
74 6060070078	DRIVE SHAFT	1.0		Trimming system	Axle oil	Fluids	Critical Performance

Technician Comments:

Rear right planetary empty



Issue Number:	75	Any damage?
Status:	 FAIL	
Step Title:	Check for Signs of Damage to Hoses	Results: YES
Resolution Diagnosis:	Have to be all changes,they are dry and very old,use customer hoses and fittings	
Resolution Action:	Replace	
Resolution Priority:	Critical Performance	
Resolution Benefit:	Reduced Downtime	
Zone:	Left Boom	
Subsystem:	Tramming system	
Subequipment:	Other Tramming system	



Issue Number: 76

Enter measurement:

Status:  FAIL

Step Title: Check Inlet Water Pressure on Left Rock Drill

Minimum: 29.01 psi
Maximum: 58.02 psi

Resolution Diagnosis: Pump is not running because the 600volts issue,need to be rebuilt and readjust

Results: 0.00 psi

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Cabin/Canopy

Subsystem: Water System

Subequipment: Other Water System

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust



Issue Number: 77

Status:  FAIL

Step Title: Check Inlet Water Pressure on Right Rock Drill

Resolution Diagnosis: Pump is not running because the 600volts issue,need to be rebuilt and readjust

Resolution Action: Repair

Resolution Priority: Critical Performance

Resolution Benefit: Increased Productivity

Zone: Cabin/Canopy

Subsystem: Water System

Subequipment: Other Water System

Enter measurement:

Minimum: 29.01 psi
Maximum: 58.02 psi

Results: 0.00 psi

Issue Number: 78
Status:  FAIL
Step Title: Check Lights Condition
Resolution Diagnosis: Rear right light broken
Resolution Action: Replace
Resolution Priority: Important
Resolution Benefit: Reduced Downtime
Zone: Rear of Carrier
Subsystem: Electrical System (DC)
Subequipment: Other Electrical System (DC)

Any damage?

Results: YES

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
78 5112304340	HEADLIGHT	2.0		Electrical System (DC)	Other Electrical System (DC)	Rear of Carrier	Important



Rear right light broken

Issue Number:	79	Enter measurement:
Status:	 FAIL	
Step Title:	Check Brake Unload Pressure	Minimum: 2,030.53 psi
Resolution Diagnosis:	Reading like the specs	Maximum: 2,175.57 psi
Resolution Action:	Monitor	Results: 2,200.00 psi
Resolution Priority:	Important	
Resolution Benefit:	Preventative Maintenance	
Zone:	Cabin/Canopy	
Subsystem:	Hydraulic System Common	
Subequipment:	Brake & Steering	

Issue Number: 80

Status:  FAIL

Step Title: Check Brake Load Pressure

Resolution Diagnosis: Reading like the specs

Resolution Action: Monitor

Resolution Priority: Important

Resolution Benefit: Preventative Maintenance

Zone: Cabin/Canopy

Subsystem: Hydraulic System Common

Subequipment: Brake & Steering

Enter measurement:

Minimum: 1,667.93 psi
Maximum: 1,812.97 psi

Results: 1,950.00 psi

Issue Number:	81	Enter measurement:
Status:	 FAIL	
Step Title:	Check Service Brake Pressure	Minimum: 1,087.78 psi
Resolution Diagnosis:	Reading like the specs	Maximum: 1,232.82 psi
Resolution Action:	Monitor	Results: 2,275.00 psi
Resolution Priority:	Important	
Resolution Benefit:	Preventative Maintenance	
Zone:	Cabin/Canopy	
Subsystem:	Hydraulic System Common	
Subequipment:	Brake & Steering	

Issue Number:	82	Enter measurement:
Status:	 FAIL	
Step Title:	Check Parking Brake Pressure	Minimum: 362.59 psi
Resolution Diagnosis:	Reading like the specs	Maximum: 507.63 psi
Resolution Action:	Monitor	Results: 2,290.00 psi
Resolution Priority:	Important	
Resolution Benefit:	Preventative Maintenance	
Zone:	Cabin/Canopy	
Subsystem:	Hydraulic System Common	
Subequipment:	Brake & Steering	

Issue Number: 83
Status:  FAIL
Step Title: Check Compressor Oil Level
Resolution Diagnosis: No compressor on that equipment
Resolution Action: Inspect
Resolution Priority: Important
Resolution Benefit: Preventative Maintenance
Zone: Fluids
Subsystem: Safety
Subequipment: Fluids

Sufficient oil?

Results: NO

Issue Number:	84	Enter measurement:
Status:	 FAIL	
Step Title:	Check Tire Pressure	Minimum: 137.79 psi
Resolution Diagnosis:	No pressure in the tire,he is full of rubber	Maximum: 145.04 psi
Resolution Action:	Inspect	Results: 0.00 psi
Resolution Priority:	Important	
Resolution Benefit:	Preventative Maintenance	
Zone:	Left Rear of Carrier	
Subsystem:	Tramming system	
Subequipment:	Wheels & Rims (E)	

Issue Number: 85

Status:  FAIL

Step Title: Check Tire Pressure

Resolution Diagnosis: Full of rubber

Resolution Action: Inspect

Resolution Priority: Important

Resolution Benefit: Preventative Maintenance

Zone: Right Front of Carrier

Subsystem: Tramming system

Subequipment: Wheels & Rims (E)

Enter measurement:

Minimum: 137.79 psi
Maximum: 145.04 psi

Results: 0.00 psi

Issue Number: 86

Status:  FAIL

Step Title: Check Tire Pressure

Resolution Diagnosis: Tire full of rubber

Resolution Action: Inspect

Resolution Priority: Important

Resolution Benefit: Preventative Maintenance

Zone: Right Rear of Carrier

Subsystem: Trimming system

Subequipment: Wheels & Rims (E)

Enter measurement:

Minimum: 137.79 psi
Maximum: 145.04 psi

Results: 0.00 psi

Issue Number: 87
Status:  FAIL
Step Title: Check Seat Condition
Resolution Diagnosis: Have to be replace
Resolution Action: Replace
Resolution Priority: Important
Resolution Benefit: Machine Safety
Zone: Cabin/Canopy
Subsystem: Tramming system
Subequipment: Cabin/Canopy

Any damage?

Results: YES

	Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
87	5112302114	DRIVERS CHAIR	1.0		Tramming system	Cabin/Canopy	Cabin/Canopy	Important



Have to be replace

Issue Number: 88

Enter hours:

Status:  PASS

Step Title: Record Diesel Engine Hours

Minimum: 0.00 h

Zone: Cabin/Canopy

Maximum: 10,000,000,000.00 h

Subsystem: Control System (RCS/ECS) Common

Results: 226.00 h

Subequipment: Control Panel

Issue Number: 89
Status:  PASS
Step Title: Check ECL Lubricator Pressure
Zone: Left Front and Front of Carrier
Subsystem: Drilling system 1
Subequipment: Lubrication ECL 1

Enter measurement:

Minimum: 0.00 psi
Maximum: 58.02 psi

Results: 0.00 psi

Technician Comments:

Missing gauge

Issue Number: 90
Status:  PASS
Step Title: Record Left Rock Drill Impact Hours
Zone: Right Rear of Carrier
Subsystem: Drilling system 1
Subequipment: Rock drill 1

Enter hours:

Minimum: 0.00 h

Maximum: 10,000,000,000.00 h

Results: 1,713.00 h

Issue Number: 91

Enter measurement:

Status:  PASS

Step Title: Check Free Spin Rotation Pressure on
Left Rock Drill

Minimum: 0.00 psi
Maximum: 435.11 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 92

Enter measurement:

Status:  PASS

Step Title: Check Free Feed Pressure on Left Rock Drill

Minimum: 0.00 psi
Maximum: 362.59 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,pump have to be rebuilt and readjust

Issue Number: 93

Enter measurement:

Status:  PASS

Step Title: Check Idle Dampening Pressure on Left
Rock Drill

Minimum: 0.00 psi
Maximum: 580.15 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 94

Enter measurement:

Status:  PASS

Step Title: Check Collaring Impact Pressure on
Left Rock Drill

Minimum: 0.00 psi
Maximum: 2,030.53 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,pump have to be rebuilt and readjust

Issue Number: 95

Enter measurement:

Status:  PASS

Step Title: Check Feed Collaring Pressure on Left
Rock Drill

Minimum: 0.00 psi
Maximum: 652.67 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,pump have to be rebuilt and readjust

Issue Number: 96

Enter measurement:

Status:  PASS

Step Title: Check Drilling Impact Pressure on Left Rock Drill

Minimum: 0.00 psi
Maximum: 2,900.75 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,pump need to be rebuilt and readjust

Issue Number: 97

Enter measurement:

Status:  PASS

Step Title: Check Drill Rotation Pressure on Left
Rock Drill

Minimum: 0.00 psi
Maximum: 725.19 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 98

Enter measurement:

Status:  PASS

Step Title: Check Max Feed Pressure for BMH
2000 on Left Rock Drill

Minimum: 0.00 psi
Maximum: 1,740.45 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 99

Enter measurement:

Status:  PASS

Step Title: Check Max Feed Reaming Pressure on
Left Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 100

Enter measurement:

Status:  PASS

Step Title: Check Drilling Dampening Pressure on
Left Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 101

Enter measurement:

Status:  PASS

Step Title: Check Anti Jamming Pressure on Left
Rock Drill

Minimum: 0.00 psi
Maximum: 1,305.34 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 102

Enter measurement:

Status:  PASS

Step Title: Check FPCI Impact Pressure on Left
Rock Drill

Minimum: 0.00 psi
Maximum: 2,030.53 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 103

Enter measurement:

Status:  PASS

Step Title: Check RPCF Drilling Pressure on Left Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 104

Enter measurement:

Status:  PASS

Step Title: Check RPCF Reaming Pressure on Left Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 1

Subequipment: Rock drill 1

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 105

Enter hours:

Status:  PASS

Step Title: Record Right Rock Drill Impact Hours

Minimum: 0.00 h

Zone: Right Rear of Carrier

Maximum: 10,000,000,000.00 h

Subsystem: Drilling system 2

Results: 17.00 h

Subequipment: Rock drill 2

Issue Number: 106

Enter measurement:

Status:  PASS

Step Title: Check Free Spin Rotation Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 435.11 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 107

Enter measurement:

Status:  PASS

Step Title: Check Free Feed Pressure on Right
Rock Drill

Minimum: 0.00 psi
Maximum: 362.59 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 108

Enter measurement:

Status:  PASS

Step Title: Check Idle Dampening Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 580.15 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 109

Enter measurement:

Status:  PASS

Step Title: Check Collaring Impact Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 2,030.53 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 110

Enter measurement:

Status:  PASS

Step Title: Check Feed Collaring Pressure on Right Rock Drill

Minimum: 0.00 psi
Maximum: 652.67 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 111

Enter measurement:

Status:  PASS

Step Title: Check Drilling Impact Pressure on Right Rock Drill

Minimum: 0.00 psi
Maximum: 2,900.75 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 112

Enter measurement:

Status:  PASS

Step Title: Check Drill Rotation Pressure on Right Rock Drill

Minimum: 0.00 psi
Maximum: 725.19 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 113

Enter measurement:

Status:  PASS

Step Title: Check Max Feed Pressure for BMH
2000 on Right Rock Drill

Minimum: 0.00 psi
Maximum: 1,740.45 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 114

Enter measurement:

Status:  PASS

Step Title: Check Max Feed Reaming Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 115

Enter measurement:

Status:  PASS

Step Title: Check Drilling Dampening Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 116

Enter measurement:

Status:  PASS

Step Title: Check Anti Jamming Pressure on Right Rock Drill

Minimum: 0.00 psi
Maximum: 1,305.34 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 117

Enter measurement:

Status:  PASS

Step Title: Check FPCI Impact Pressure on Right Rock Drill

Minimum: 0.00 psi
Maximum: 2,030.53 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 118

Enter measurement:

Status:  PASS

Step Title: Check RPCF Drilling Pressure on Right Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 119

Enter measurement:

Status:  PASS

Step Title: Check RPCF Reaming Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 1,015.26 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Drilling system 2

Subequipment: Rock drill 2

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 120

Enter measurement:

Status:  PASS

Step Title: Check Positioning Pump Standby
Pressure on Left Positioning Pump

Minimum: 0.00 psi
Maximum: 290.08 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Hydraulic System 1

Subequipment: Boom 1 movements

Technician Comments:

Pump is not running because the 600volts issue,have to be rebuilt and readjust

Issue Number: 121

Enter measurement:

Status:  PASS

Step Title: Check Positioning Pump Pressure on
Left Positioning Pump

Minimum: 0.00 psi
Maximum: 3,045.79 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Hydraulic System 1

Subequipment: Boom 1 movements

Technician Comments:

Pump not running because the 600volts issue,pump have to be rebuilt and readjust

Issue Number: 122

Enter measurement:

Status:  PASS

Step Title: Check Positioning Pump Pressure
During Impact on Left Positioning Pump

Minimum: 0.00 psi
Maximum: 3,190.83 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Hydraulic System 1

Subequipment: Boom 1 movements

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 123

Enter measurement:

Status:  PASS

Step Title: Check Positioning Pump Standby
Pressure on Right Positioning Pump

Minimum: 0.00 psi
Maximum: 290.08 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Hydraulic System 2

Subequipment: Boom 2 movements

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 124

Enter measurement:

Status:  PASS

Step Title: Check Positioning Pump Pressure on
Right Positioning Pump

Minimum: 0.00 psi
Maximum: 3,045.79 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Hydraulic System 2

Subequipment: Boom 2 movements

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 125

Enter measurement:

Status:  PASS

Step Title: Check Positioning Pump Pressure
During Impact on Right Positioning
Pump

Minimum: 0.00 psi
Maximum: 3,190.83 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Hydraulic System 2

Subequipment: Boom 2 movements

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 126

Sufficient lube?

Status:  PASS

Step Title: Check Lube Points at Articulation
Cylinder

Results: YES

Zone: Critical Lubes

Subsystem: Safety

Subequipment: Critical Lubes

Technician Comments:

1/8 of loose on the pin/bushing on both side of the cylinder

Issue Number: 127

Enter measurement:

Status:  PASS

Step Title: Check Flushing Water Pressure on Left
Rock Drill

Minimum: 0.00 psi
Maximum: 290.08 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Water System

Subequipment: Booster pump

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Issue Number: 128

Enter measurement:

Status:  PASS

Step Title: Check Flushing Water Pressure on
Right Rock Drill

Minimum: 0.00 psi
Maximum: 290.08 psi

Zone: Cabin/Canopy

Results: 0.00 psi

Subsystem: Water System

Subequipment: Booster pump

Technician Comments:

Pump is not running because the 600volts issue,need to be rebuilt and readjust

Recommended parts to address the identified critical issues as soon as possible.

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
1 3715058400	ELBOW NIPPLE	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 3177307000	NIPPLE	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 0653090506	GASKET	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 6060003165	MANOMETER	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 3215959500	PRESS.RED.VALVE	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
1 3177503100	PRESSURE GAUGE 0-60bars	1.0		Drilling system 1	Lubrication ECL 1	Left Front and Front of Carrier	Critical Safety
2 0147195829	SCREW, HEX HEAD	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3128064702	PULL ROPE	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3222309749	ROPE TENSION	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3128055101	RETURN ROPE	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 0301235800	FLAT WASHER	4.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 3128047600	WASHER	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
2 0113223100	BOLT	2.0		Drilling system 1	Feed 1	Left Feed and Rock Drill	Critical Safety
18 5112293101	PRESSURE SCREW	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 0663211900	O-RING	2.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293100	LEVEL-TEMP.IND	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293102	THERMOMETER	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293190	SPARE PARTS SET	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 0653105500	GASKET	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 8231085484	MANOMETER	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
18 5112293103	PRESSURE SCREW	1.0		Hydraulic System Common	Tank	Left Rear of Carrier	Critical Safety
19 0335213600	CIRCLIP	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112302287	JACK TUBE	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 3217681400	SHAFT	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 0147149103	SCREW, HEX HEAD	4.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 0301239400	PLAIN WASHER	10.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 0335113200	CIRCLIP	4.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112236080	HYDR. CYLINDER	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112271000	ATTACHM. PLATE	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
19 5112236300	SHAFT	2.0		Hydraulic System Common	Jacks	Left Front and Front of Carrier	Critical Safety
21 5112292101	PRESSURE SWITCH	2.0		Hydraulic System Common	Brake & Steering	Cabin/Canopy	Critical Safety
21 5112302343	PRESSURE SWITCH	2.0		Hydraulic System Common	Brake & Steering	Cabin/Canopy	Critical Safety
21 5112259500	PRESSURE SWITCH	2.0		Hydraulic System Common	Brake & Steering	Cabin/Canopy	Critical Safety
22 0211196078	SCREW	4.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 0211196294	SCREW	10.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
22 3125497400	RING	2.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 0211196278	SCREW	18.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3128312577	KEY	6.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3128312560	CLAMPING RING	2.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3128312561	CLAMPING RING	2.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
22 3125497601	CRADLE	12.0		Positioning System 1	Boom 1 Telescope	Left Boom	Critical Safety
23 6060070722	TURNING DEVICE	1.0		Positioning System 1	Boom 1 Rotation Units	Left Boom	Critical Safety
25 3128259242	HYDR. CYLINDER	1.0		Positioning System 2	Boom 2 Telescope	Right Boom	Critical Safety
25 3125496880	EXPANDING SHAFT	1.0		Positioning System 2	Boom 2 Telescope	Right Boom	Critical Safety
27	Dipstick for engine F5L912W S/N:8740752	1.0		Safety	Fluids	Fluids	Critical Safety
27	Shut off cable with bracket and hardware	1.0		Safety	Fluids	Fluids	Critical Safety
29 0347611400	HOSE CLIP	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112234100	GASKET	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112234000	COVER	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112208381	LEVEL SENSOR	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 0653112400	GASKET	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112302218	HOSE	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112233807	FILLER PIPE	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 0653111500	GASKET	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5054014000	PLASTIC TUBING	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 0211121200	SCREW	5.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112300485	PLUG	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112302029	SUCT.-RETU.PIPE	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
29 5112302066	FUEL TANK	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
30 0347405217	HOSE CLIP	2.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
30 5112247800	EXHAUST HOSE	1.0		Tramming system	Diesel Engine	Left Rear of Carrier	Critical Safety
32 3176826600	WIRE MESH HOSE	1.0		Tramming system	Other Tramming system	Left Rear of Carrier	Critical Safety
32 3163185400	SHACKLE	1.0		Tramming system	Other Tramming system	Left Rear of Carrier	Critical Safety
33 5112305640	WHEEL COMPL.	1.0		Tramming system	Wheels & Rims (E)	Left Front and Front of Carrier	Critical Safety
41 3177000219	GENERATOR	1.0		Tramming system	Diesel Engine	Right Rear of Carrier	Critical Safety
42 5112247800	EXHAUST HOSE	1.0		Tramming system	Diesel Engine	Right Rear of Carrier	Critical Safety
42 0347405217	HOSE CLIP	2.0		Tramming system	Diesel Engine	Right Rear of Carrier	Critical Safety
44	External gasket kit for transmission Clark #1102FT12345-200 S/N GBEA-209410	1.0		Tramming system	Transmission	Underneath Carrier	Critical Safety
45 5112310284	BALL	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310281	FLANGE FORK	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310287	GREASE NIPPLE	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 0144429100	SCREW, HEX HEAD	4.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310282	U-JOINT	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310283	DRIVER	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310271	TRUNNION BLOCK	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310286	SPAT	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
45 5112310285	CLAMP	1.0		Tramming system	Other Tramming system	Underneath Carrier	Critical Safety
47 9126158000	HYDR. CYLINDER	2.0		Tramming system	Cabin/Canopy	Cabin/Canopy	Critical Safety
48 3186662195	FOPS/ROPS	1.0		Tramming system	Cabin/Canopy	Cabin/Canopy	Critical Safety
49 3128045801	SLIDE BAR	4.0		Drilling system 1	Rock drill 1	Left Feed and Rock Drill	Critical Performance
65 5112322617	V-BELT	1.0		Electrical System (DC)	Batteries	Right Rear of Carrier	Critical Performance
65 3176439400	FUSE	4.0		Electrical System (DC)	Batteries	Right Rear of Carrier	Critical Performance
66 5107153600	HOSE ASSEMBLY	4.0		Hydraulic System 1	Hyd. Pump	Left Rear of Carrier	Critical Performance
66 0347434400	HOSE CLIP	16.0		Hydraulic System 1	Hyd. Pump	Left Rear of Carrier	Critical Performance

Part Number	Part Description	Qty	UOM	Subsystem	Subequipment	Zone	Priority
67 3217955366	Pumps set assembly	2.0		Hydraulic System 1	Hyd. Pump	Left Rear of Carrier	Critical Performance
71 3128306951	SHAFT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128306954	BOLT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 0291112826	LOCK NUT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 0291112828	LOCK NUT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128280009	THRUST BEARING	16.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128280008	THRUST BEARING	16.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128306955	BOLT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
71 3128308303	SHAFT	4.0		Positioning System 1	Front Knuckle set 1	Left Boom	Critical Performance
74 6060070078	DRIVE SHAFT	1.0		Tramming system	Axle oil	Fluids	Critical Performance
78 5112304340	HEADLIGHT	2.0		Electrical System (DC)	Other Electrical System (DC)	Rear of Carrier	Important
87 5112302114	DRIVERS CHAIR	1.0		Tramming system	Cabin/Canopy	Cabin/Canopy	Important

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