

Audit Details		
Audit Start/Audit Finish	16. Feb. 2021	17. Feb. 2021
Unique ID	BA-2021-00031	
Audit Type	Basic Audit	
Audit Reason	Existing supplier / Supervision Audit	
Region (Supplier location)	RNA	
ESN	STEEL	Steel
Audit performed by	SU1	
Re-Audit	NO	

Supplier	
Supplier Number	0000102456
Supplier Address	JEMISON DEMSEY 1255 North Gate Drive 29154 SUMTER
Additional information to the auditing factory	New facility to be released Lynchburg Virginia

Additional Participants

Business Partner Roles / Participants					
Role	Title	First Name	Last Name	Country	E-Mail
Auditor	Mr.	Bob	Miller	DE	bob.miller@BSHG.COM
Lead Auditor	Mr.	Geoffrey	Smith	DE	Geoffrey.Smith@BSHG.CO
Responsible- Actions	Mr.	Geoffrey	Smith	DE	Geoffrey.Smith@BSHG.CO

Result of the Audit

	1st Audit	2nd Audit
Degree of performance (%)	84.1	
Rating of Audit	AB	
	*Downgrading because 0 valuation	

Assessment Result

Calculate

Assessment Element		achieved	max. possible	evaluated %
1	Supplier Audit Questionnaire v.4.0	496	590	84.1
1	Management	82	90	91.1
2	BCM, Enviroment, Safety & Energy Mgmt.	58	70	82.9
3	Research and Development / Project Mgmt.	84	90	93.3
4	Supplier Management	16	20	80
5	Management of Incoming Material	26	30	86.7
6	Production a)	128	170	75.3
7	Production b)	0	0	0
8	Production c)	0	0	0
9	Production d)	0	0	0
10	Supply Chain Planning	26	30	86.7
11	Laboratory and Quality Assurance	24	30	80
12	Warehouse Management of Finished Goods	22	30	73.3
13	Customer Complaints and Service	30	30	100
	Overall Result	496	590	84.1

Conclusion

Audit Conclusion	The Lynchburg VA facility was brought to our attention when it was noted steel was being shipped to Lafollette from a service facility not on the BSH approved list. There were no problems with the steel BSH received other than rules were not followed. They are very capable of slitting and banking aluminized, galvanized or enameling steel in this facility any of the three BSH facilities. I however would not run anything with cosmetic requirements. The service facility is older and does not seem to be well maintained as other JD facilities I have visited and could benefit from some facility upgrading. Major areas of concern are lack of systematic PM, storage and inventory of spare parts and house keeping / 5S of plant in general.
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Assessment Attachments

General Attachments	Add View 0 Del	place main picture here click into this area
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	Lead Auditor	Supplier
Signature		

Assessment Items					
No.	Question / Answers				Not Rele.
1	Supplier Audit Questionnaire v.4.0				
1	Management				☐
1.1	Company Policy				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Company Policy - Philosophy / Mission / Vision / Policy (Quality, BCM, Environment, Energy and Safety) - Long-term Business Plan / Business Roadmap (e.g. 1-5 years)				
Note	Large multi site company with all required covered on Website and on Company communication boards				
1.2	Organizational Structure and Processes				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Organizational Structure and Processes - Certification standard(s) - Organization charts - Corporate Process Map, - Quality & Supply Chain Management processes - Empowerment of QM - Overruling regulation - Control of information (Archiving)				
Note	ISO 9001-2015 Certified Cert # 021323 April 2021 thru March 2022 . Organizational charts in order, and up to dat quality is independent from Production				
1.3	Company Target Defintion, Implem. & Ctrl				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Company target definition, implementation and control KPI's definition and deployment: - Suppliers - Production - Quality (internal / external) - Logistics - Environment, Energy and Safety Information system: - Visualization, updating, accessibility - Meetings with reports (frequency)				

No.	Question / Answers				Not Rele.
	- Monitoring, Continuous Improvement				
Note	KPI's in quarterly and annual reviews. They track deliver and PM of steel suppliers and other packaging supplier. Would like see more KPIs driving by Energy reduction, green house gases carbon foot print etc. these are quickly becoming part of the new metrics				
1.4	Management Review				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Management Review - Regular Management Reviews - Documented reports - Action plan and tracking - Corporate Risk / BCM Management included - Resources (according to the Business Plan)				
Note	Monthly reviews and annual review next one scheduled June 29, 2021. Reviewed annual report for 2020, there were minutes reviewed from previous year. Action item accomplished versus still open target for next year. Risk for action plans also listed.				
1.5	Business Plan / Resources				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Business Plan / Resources (short-term) - According to strategy of the company - Bottleneck analysis (machinery and testing equipment, warehouse capacity, infrastructure) - Investment plan - Matching to volume planning HR: - Systematic planning / Evaluation of capacities in all departments				
Note	Quarterly business plan reviewed, one reason for this audit is to move some load off So. Carolina mill to Lynchburg VA mill to improve delivery.				
1.6	Internal Audits				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Internal Audits - Audit planning - Audit targets defined - Audits performed on time - Corrective action(s) defined and tracked - Auditor qualification				

No.	Question / Answers			Not Rele.
	- Lessons learned			
Note	All areas listed on audit schedule, 2020 was completed on time, plan for 2021 is spread out over year versus one day plant wide audit.			
1.7	Education & Qualification / Competences			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del
Description	Education and Qualification / Competences of all employees - Job description and qualification - Training for new employees - Training plan and systematic determination of training needs - Documentation of trainings - Trainings effectiveness evaluation - Motivation program - Skill matrix / Replacement plan - Evacuation training (Fire drill) done - Safety- / Fire-training for new workers BOSCH 14 Q Basic questions No. 3.3, 7.2			
Note	HR had all employees on sread sheet wihtlist of job trainings. We verified training level fomr one employee and it matched. as normal the OSHA required trained was all dated and updated. I did not see updates to training for long term employees. Sometimes to create refresher training is good idea.			
1.8	Problem Solving / Improvement Process			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del
Description	Problem Solving Process / Improvement Process (Management Level) - Procedure (initiator, escalation rules,...) - Production / Quality meeting records (tracking / monitoring) - Pareto analysis for top failures - OEE / Scrap rate / FPY / ... - Information distribution - Corrective actions (Lessons learned) - Closed quality control loop BOSCH 14 Q Basics questions No. 1.1, 1.2, 1.3, 1.4, 3.2 and 3.4			
Note	Only quality personnel are trained in problem solving, would recommend creating low, medium and high level problem solving training to involve all employees in task. Just like we alwasy hear "quality is everyone job", so is problem solving			
1.9	Problem Solving Methods			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del

No.	Question / Answers			Not Rele.
Description	Problem Solving methods (management level) - Pareto analysis for top failures - Tools (e.g. Six Sigma, PDCA, Kaizen, etc.) - Information distribution - Corrective actions (Lessons learned) - Closed quality control loop BOSCH 14 Q Basics questions No. 1.1, 1.2, 1.3, 1.4, 3.2 and 3.4			
Note	OEE yes 8D yes 5Why but no 6 Sigma or Kaizens. lesson learned yes			
2	BCM, Enviroment, Safety & Energy Mgmt.			☐
2.1	Business Continuity Management			☐
Rating	8	1st Audit		
Attachment	Add			View 0 Del
Description	Is there the Procedure / Work Instruction / Process flow with responsibilities / Tasks for the topic of Business Continuity Management (BCM)? - Production stop avoidance - Strategy / Period			
Note	Production stop and restart, Very basic to steel service facilities. steel is checked regularly or else a lot of scrap can be created quickly. I would like to see sign off for restart.			
2.2	Risk List			☐
Rating	8	1st Audit		
Attachment	Add			View 0 Del
Description	Is there a Risk List created? - Analysis of the company risks and opportunities (e.g. Machine / Material / Processes / Workers / IT / Environmental / Buildings / Infrastructure / Logistics / Financials / Weather / Strike / Storage / ...) - Definition of actions / Measures to minimize the company risk			
Note	Yes , all service sites know which sites can back them up based on equipment and capacity. only time required is time to move between plants or redirect coils from mills. Only opertunity would be time period of issue to each step of escalation , how long before a decision must be made and when is the cusomter contacted about risk.			
2.3	Contingency / Emergency Plan			☐
Rating	10	1st Audit		
Attachment	Add			View 0 Del
Description	Is there an Incident Management (Contingency / Emergency Plan) to define actions for "standard" problems (e.g. missing material / Logistics issues / IT- and infrastructure issues / ...)? - Responsible persons / Teams defined - Alternative actions to solve critical issues			

No.	Question / Answers			Not Rele.
	- Telephone list for emergency topics available (e.g. First Aid / Fire / ...)			
Note	Crisis communication plan available (internal, external, customers, ...) Good contact list on all desks and posted on communication boards			
2.4	IT Activities			☐
Rating	10	1st Audit		
Attachment	Add		View	0 Del
Description	Are there special IT Activities implemented to avoid cyber attacks and hardware problems? - Is there a Computer Emergency Response Team who takes care of IT Security - Physical securing activities of the IT infrastructure done - Software securing activities done - Data Backup / Storage concept available - Secure mails / Encryption			
Note	All records backed to corporate servers so all orders and work instructions can be sent to back up service facilities if needed or mill losses their local records.			
2.5	Environmental Management System			☒
Rating	Not evaluated	1st Audit		
Attachment	Add		View	0 Del
Description	Environmental Management System Is there a certified Environmental Management System in the company? - e.g. ISO14001, Council Regulation (EC) 761/2001 Note: Rating either "10" or "Not Valuated"			
Note				
2.6	Environmental Management			☐
Rating	6	1st Audit		
Attachment	Add		View	0 Del
Description	Environmental Management Identification and control of environmental impact of operations - Water, noise, waste, air pollution level, ... - KPI's defined and analyzed during Management Review			
Note	Environmental KPI's are weak and no real target set to track improvements. Would suggest considering adding Carbon foot print since it is a storm /requirement coming on the horizon.			

No.	Question / Answers			Not Rele.
2.7	Safety Management System			☒
Rating	Not evaluated	1st Audit		
Attachment	Add		View	0 Del
Description	Safety Management Is there a certified Safety Management System in the company? - e.g. ISO45001, OHSAS18001 (only until 03/2021) Note: Rating either "10" or "Not Valuated"			
Note				
2.8	Safety Management			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del
Description	Safety Management Identification and control of topics and areas relevant for employee's safety - Process, machine, workers' safety - KPI's defined and analyzed during Management Review			
Note	Safety supplies are readily available, They are tracking accident and lost time injuries, Safety is huge at most steel service facilities and here is no exception.			
2.9	Energy Management System			☒
Rating	Not evaluated	1st Audit		
Attachment	Add		View	0 Del
Description	Energy Management System Is there a certified Energy Management System according to ISO50001 / Energy audits (e.g. EN16247-1) implemented to reduce energy / costs? Note: Rating either "10" or "Not Valuated"			
Note				
2.10	Energy Management			☒
Rating	Not evaluated	1st Audit		
Attachment	Add		View	0 Del
Description	Energy Management Definition and Measurement of Energy Performance (e.g. performance is measured by Energy Efficiency + Energy Use + Energy Consumption)			

No.	Question / Answers			Not Rele.
	- KPI's defined and analyzed during Management Review: - Energy Performance Indicator ('EnPI') - Energy Baseline ('EnB') - Significant Energy Users ('SEU')			
Note				
2.11	Improvements Actions			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del
Description	Do you define improvement actions? - Environmental action list - Safety action list (e.g. PPE (Personal Protection Equipment) info, fire drill, machine safety, safety trainings, ...) - Energy action list (focus energy reduction)			
Note	Fire drills and safety training are current. Might want to create KPIs (ie KW per ton of steel shipped?) energy reduction as part of carbon foot print targets.			
3	Research and Development / Project Mgmt.			☐
3.1	Product and Process Development			☐
Rating	10	1st Audit		
Attachment	Add		View	0 Del
Description	Product and Process Development (PDP) - Procedure - Tailoring rules - Phases / Milestones - Go / No-Go criteria - Internal release criteria (part and process)			
Note	Very little variation in process development. size , thickness packaging and delivery date.			
3.2	Project Organization and Resources			☐
Rating	10	1st Audit		
Attachment	Add		View	0 Del
Description	Project Organization and Resources Is the project organization (project management) established and are the competences of project management and project team defined? - Project targets /Content defined - Project team fixed - Responsibilities / Project leader tasks defined - Project team participants - HR & technical resources check			

No.	Question / Answers				Not Rele.
Note	Team defined, standard process is followed and tracked to completeion				
3.3	Project Plan				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Project Plan Is a project plan available and agreed with the customer? - Project plan - Milestone planning - Coordination with customer - Project meeting with to do list - Project reviews with checklist to milestones				
Note	Boiler plate, quick no need for milestones. Customer signed off on plan and first article				
3.4	Change Management in Projects				☒
Rating	Not evaluated		1st Audit		
Attachment	Add			View	0 Del
Description	Change Management in Projects Does the project manager assure Change Management in the projects? - Change Management procedure defined - Are all responsible persons from organization and customer included in the Change Management? - Control of information - Impact on timeline - Impact on verification and validation				
Note					
3.5	Risk Management (Projects)				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Risk management (before / during project start) Is a risk management defined and executed? - Project risk management (Non-technical focus: currency exchange rates, cultural issues, unreliable customer...) - Systematics to identify and evaluate risks - Corrective action(s) to minimize risks				
Note	Very basic , machine downtime or delayed steel delivery. Would like to see a wider list for weather , electrical, INTERNET or water interruptions. Escalation plans how many hours or days before going to each planned manage response step.				

No.	Question / Answers				Not Rele.
3.6	Quality Plan (e.g. APQP)				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Quality Plan (e.g. Advanced Product Quality Plan) Is a quality plan for the project available, executed and regularly controlled? - Responsibility for quality plan - Adequate Q-methods - Consideration of determined risks				
Note	APQP is good. workers know their job and follow all quality checks				
3.7	Escalation Process				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Escalation Process - internal and with customer Is there an escalation process established and effectively controlled? - Content of process description - Escalation criteria defined (e.g. escalation steps) BOSCH 14 Q Basics question No. 2.2				
Note	Any time a specification is out or heading out a quality or supervisor is contacted. The line stopped if specification is clearly beyond max/min limits out but I am not sure there is s clear re-start sign off.				
3.8	Management of Customer Requirements				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Management of Customer Requirements / Feasibility - Interdisciplinary approach - Review and classification of material number independent specifications (BSH LV, TCD...) - Drawings - Feasibility Study - Systematic feedback to the customer - Transfer to internal drawings and specifications - Critical and significant characteristics (SC/CC) analyzed in regard to manufacturability and testing - Functional quality (e.g. haptics) - Aesthetical requirements (surfaces) - Logistics aspects (packaging, flexibility in regard to varying demands) - Quality and reliability targets				
Note	Size, thickness, flatness, Burr, packaging and delivery date.				

No.	Question / Answers			Not Rele.
3.9	Product Development			☒
Rating	Not evaluated	1st Audit		
Attachment	Add		View	0 Del
Description	Product Development: Quality tools and methods (in case of responsibility) - FMEA method (Design FMEA) - Quality Function Deployment (QFD) - Design of Experiments (DOE) - Poka Yoke in part / Fixture design BOSCH 14 Q Basics question No. 3.2			
Note				
3.10	Manufacturing Process Development			☐
Rating	10	1st Audit		
Attachment	Add		View	0 Del
Description	Manufacturing Process Development: Quality tools & methods - Internal process release (e.g. Machine / Process Capability) - Planning of quantity & quality targets (approach, internal and external ppm, FPY) - Process FMEA - Definition of SPC, MSA - Preparation of work instructions including marking & labelling - Control plan, test plan - Traceability concept - Retest procedure after rework BOSCH 14 Q Basics questions No. 3.2, 6.2, 6.3 and 9.3			
Note	Working instructions are detailed to allow all operators on all shifts to make quality parts. FEMA are fairly simple, slitting width, burr, blanking, flattening via leveler and length .			
3.11	Initial Sample Inspection Report (ISIR)			☐
Rating	10	1st Audit		
Attachment	Add		View	0 Del
Description	Verification [prototype] and Validation (ISIR) - Design Verification Plan and Report (DVP&R) approach or similar - Test and sampling scheme - Test equipment planning (development and series production) - Sampling inspection report (SIR) - Release procedure to the customer (special and limited releases) - Release of all cavities - ROHS, REACH declaration list - Food and drug administration (FDA)			

No.	Question / Answers	Not Rele.
Note	Testing plan is well defined, industry standard measuring tables used to measure length, width and squareness.	
4	Supplier Management	☐
4.1	Selection & Release	☒
Rating	Not evaluated	1st Audit
Attachment	Add View 0 Del	
Description	Selection & Release - Criteria for selection / Release of new suppliers - Selection and release procedure such as: - Diversification per type of supplier (raw material, catalogue, specification, service providers) - Certificates - Audit results / Self-assessment - Achieved minimum level - Overruling regulation - Environmental aspects - Health and Safety aspects - Energy aspects - Phase out criteria (blocking)	
Note	Service facilities process steel from specified /released mills. They do not audit mills.	
4.2	Contracting	☒
Rating	Not evaluated	1st Audit
Attachment	Add View 0 Del	
Description	Contracting Are there Quality Contracts / Targets available? - ppm targets - AQL targets (e.g. DIN 2859, DIN3951) - Logistics targets - Quality Agreement - Commercial frame contract - Terms of Delivery	
Note	Handled at corporate level.	
4.3	Auditing, Visiting (existing suppliers)	☒
Rating	Not evaluated	1st Audit
Attachment	Add View 0 Del	
Description	Auditing, Visiting (existing suppliers) - Audit / Visit criteria (interface to regular supplier evaluation) - Audit plan, Audit standard - Interval of Audits / Visits - Auditors qualification / Experience	

No.	Question / Answers			Not Rele.
	- Improvement / Action plan(s) - Control of Improvement(s)			
Note	Service facilities process steel from specified /released mills. They do not audit mills.			
4.4	Initial Release of Purchased Components			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del
Description	Initial Release of Purchased Components / Materials - ISIR or other (according to a defined process, e.g. differing for bulk material vs. part according to specification) - Responsibilities, procedure of sample handling and release (e.g. PPAP, PSW, ...) - Dimensional check, functional tests, lifetime tests - Functional Safety - Statistical evaluation (Cmk, Cpk) - Corrective action(s) in case of deviations - Follow up of limited releases - Labelling & marking of samples - Storage of retaining samples, time period - Release status			
Note	Often track first five coils closely for new material or new mill.			
4.5	Regular Supplier Evaluation			☒
Rating	Not evaluated	1st Audit		
Attachment	Add		View	0 Del
Description	Regular Supplier Evaluation - Presentation and visualization of actual status (Quality, Logistics, Co-operation, ...) - Assessment tools - Frequency of assessment - Incentive programs - Derived improvement strategy / Supplier pyramid - List of released suppliers - Information to supplier about result (frequency)			
Note	They track delivery performance and PPM /reject percentage of coils processd to see if it exceed 3% industry standard.			
4.6	Complaint Management towards Suppliers			☐
Rating	8	1st Audit		
Attachment	Add		View	0 Del
Description	Complaint Management towards Suppliers - Procedure, Regulation - Status tracking - Effectiveness checks of corrective actions			

No.	Question / Answers	Not Rele.
	- Regular follow-up / Check of quality improvement - Closed quality loop - Quality tools (e.g. 8D, Ishikawa, 5Why, PDCA, ...)	
Note	CAFs are required any time there is excessive loss from a coil or difficulty processing a coil. CAF are tracked to completion	
5	Management of Incoming Material	☐
5.1	Inspection Plans, Test Procedures	☐
Rating	10	1st Audit
Attachment	Add View 0 Del	
Description	Inspection Plans, Test Procedures, Definition of Items and Sample Size - Inspection or Control Plan, Sampling plan (e.g. DIN 2859, DIN3951) - Delivery notes / Certificates / Material test results (if applicable) - Reference of inspection documents to specifications, protection against fake components - Release procedure for incoming batches - Special material handling (e.g. ESD protection) - Cleanliness of production material	
Note	Receiving inspection is very regimented LYN-RC-001 (Receiving) 2/16/2021. Very standard throughout industry. Coils checked for visible shipping damage and weighted to verify bill of lading. Each coil is labeled, assign a location in building for tracking purposes. The coils are then moved to specified location in building. There is no testing performed on coil steel.	
5.2	Definition of Material Status	☐
Rating	10	1st Audit
Attachment	Add View 0 Del	
Description	Definition of Material Status, Rejected Materials Management - Marking / Control of material - Status control physically and per system (ERP, MES, CAQ, manual, ...) - Procedure how to handle control of non-conforming rejected parts, including marking & separation of unqualified material - Traceability - Limited release concept BOSCH 14 Q Basics questions No. 10.1 and 10.5	
Note	Coils are either accepted to warehouse or rejected to quarantine area due to shipping damage or discrepancy with bill of lading. Every coil is traceable back to heat in mill.	
5.3	Warehouse Conditions	☐
Rating	6	1st Audit
Attachment	Add View 0 Del	

No.	Question / Answers			Not Rele.
Description	Warehouse Conditions - Space - Cleanliness & order - Conditions such as temperature, humidity (e.g. for chemicals, polymers, etc.) - Packaging condition (e.g. ESD handling) - FIFO - Follow-up of expiry dates - Remaining quantities from production - Accessibility of harmful substances - Designated area for blocked material - Obsolete material BOSCH 14 Q Basics questions No. 14.1, 14.2 and 14.3			
Note	This honestly was one of the dirtier mills I have visited. I would strongly suggest they invest in a floor cleaner in an attempt to control the dirt in the air which lands on all the steel pallet weight to leave the facility. The lighting was also poor. Like most steel service facility there is not real attempt to cool in the summer or heat in the winter, in this case the insulation on the walls was falling down in many locations. Made a poor first impression. I believe the FIFO is good based on the warehouse management system.			
6	Production a)			☐
6.1	Room, Production Conditions			☐
Rating	6	1st Audit		
Attachment	Add		View 0 Del	
Description	Room, Production Conditions - Layout and structure - Cleanliness and order, 5S - Light condition, air condition, humidity etc. - Requirements systematically derived (e.g. for paint shops, electronics, ...) - Access rule - Risk of contamination (separate process steps in different areas) - ESD-protection - Space situation / Blocked areas (unplanned) BOSCH 14 Q Basics question No. 3.5			
Note	This honestly was one of the dirtier mills I have visited. I would strongly suggest they invest in a floor cleaner in an attempt to control the dirt in the air which lands on all the finished goods steel pallet in storage waiting to leave the facility. The lighting was also poor. Like most steel service facilities, there is not real attempt to cool in the summer or heat in the winter.			
6.2	Production Equipment			☐
Rating	8	1st Audit		
Attachment	Add		View 0 Del	

No.	Question / Answers			Not Rele.
Description	Production Equipment - Machines, test equipment, transport, fixtures, production equipment - Condition / Age (obvious damages, leakages, damaged cables , etc.) - Cleanliness / No oil-leakage - Precision adequate for intended purpose - Identification of equipment - Machine safety features existing and activated (e.g. emergency stop) BOSCH 14 Q Basics questions No. 8.1, 8.3 and 8.4			
Note	They had a state of the art laser cutting operation but the slitting and cut to length lines were not new but appear to be maintained in reasonable working condition.			
6.3	Release of Production Process / Batch			☐
Rating	8		1st Audit	
Attachment	Add			View 0 Del
Description	Release of Production Process / Batch - Set-up procedure - First part approval - Criteria for release procedure defined - Line stop concept - Documents (orders) evaluation - Responsibility for release decision BOSCH 14 Q Basics questions No. 2.3, 4.3, 9.1, 9.2 and 9.3			
Note	The work instructions are sound and set-up parameters well defined. a second person is required to approve set before running the coil. The only thing I would question is if the operator stops the line is there a clear paper work trail documenting the stop, the correction or accepting of the deviation and restart.			
6.4	Control of Process Characteristics			☐
Rating	8		1st Audit	
Attachment	Add			View 0 Del
Description	Control of Process Characteristics Process: - Process parameters sheet - Control plan - Interval of checks - Records of parameters & incidents - Reaction in case of deviation (e.g. line stop concept) - "Restart" protocol BOSCH 14 Q Basics questions No. 2.1, 2.2, 4.1, 4.2, 4.3, 4.4, 5.1 and 5.2			
Note	Restart is only thing I would like to see documented			

No.	Question / Answers				Not Rele.
6.5	Control of Product Characteristics				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Control of Product Characteristics - Control plan - Method of process-control (visual, manual, automation) - Measurement devices suitable and calibrated, test instruction - Process capability for special characteristics - Records of measurements & incidents - Reaction in case of deviations BOSCH 14 Q Basics questions No. 2.1, 2.2, 2.3, 4.2, 4.3, 4.4, 5.1 and 5.2				
Note	They track measurements as the coil is processed on Aper . crates a paper trial bbu tmissesout on chance to do SPC as coils are processes. The tape measures are on calibration log as is th e measuring table which was in date and calibration.				
6.6	Control of Non-Conforming Products				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Control of Non-Conforming Products - Rework procedure - Criteria for scrap & rework - Designated areas for scrap & rework - Traceability / Blocking - Identification of non-conforming products - Rework process and release process after rework - Responsibilities defined BOSCH 14 Q Basics questions No. 1.1, 9.1, 10.1, 10.2, 10.3, 10.5, 11.1, 11.2, 11.3, 12.1 and 12.2				
Note	Generally there is no rework procededurs for blanked steel , it is either good or bad. All rejected steel is clearly marked and moved to rejected material location in the inventory program and phically separated from finished goods.				
6.7	Product Changes in Production/New Batch				☒
Rating	Not evaluated		1st Audit		
Attachment	Add			View	0 Del
Description	Product Changes in Production / New Batch - Finalization of previous production process / batch - Line cleaning (if necessary) - Change procedure (checklist) - Remaining quantities (labelling, packaging, traceability, etc.) BOSCH 14 Q Basics questions No. 9.3, 10.1, 13.1, 13.2, 14.1 and 14.3				

No.	Question / Answers				Not Rele.
Note					
6.8	Internal Packaging & Handling				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Internal Packaging & Handling & Identification at Production Area (Raw Material, Semi- and Finished Goods) - Suitable packaging and handling (against contamination, damages, ESD, etc.) - Labelling of material - Material flow, FIFO - Storage and transport condition - Conditions of returnable packaging (if necessary) - Environmental influences BOSCH 14 Q Basics questions No. 10.1, 10.2, 10.3, 10.4, 14.1, 14.2 and 14.3				
Note	Not much internal packaging. steel coils are slit into daughter coils which are blanked directly onto specified pallets, warped and shipped out to customers.				
6.9	Final Release for Shipment				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Final Release for Shipment - Interfaces to central laboratory - "Ready / Released for shipment" decision (in context of batch release tests) - Lot traceability - Escalation rule - Control of samples (use decision, labelling) BOSCH 14 Q Basics questions No. 10.3, 10.4 and 14.1				
Note	With the tag number on each pallet, all steel produced can be traced to operator who ran it. What day i twas run. What master coil was used. Which mill the steel came from and what heat lot it was made from. Complete with metallurgical from the mill.				
6.10	Maintenance (Tools / Jigs)				☐
Rating	4		1st Audit		
Attachment	Add			View	0 Del
Description	Maintenance (Tools / Jigs) - Preventive maintenance plan (frequency - date / shots number) - Technical equipment for maintenance - Release after maintenance (work instruction) - Responsibility - Storage of equipment, tools, jigs / 5S - Jigs tracked in metrology log with measuring devices - Marking / Identification of ownership of equipment and tools				

No.	Question / Answers			Not Rele.
	- Status - Shots counting system (Software / Automatic alarm / etc.) - Spare parts management - Maintenance statistics / Analysis / KPI's BOSCH 14 Q Basics questions No. 7.1, 7.3, 8.1, 8.2, 8.3 and 8.4			
Note	I believe this mills runs on luck and people who have been doing their jobs for many years. The standardized systems to support are lacking. The spare parts area is dirty, disorganized and needs to be over hauled.			
6.11	Maintenance (Machines / Infrastructure)			☐
Rating	4		1st Audit	
Attachment	Add			View 0 Del
Description	Maintenance (Machines / Infrastructure) - Preventive plan systematically derived (OEM recommendation...) - Maintenance organization and status - Technical equipment for maintenance - Release after maintenance (work instruction) - Responsibility - Spare parts management - Maintenance statistics / analysis / KPI's - Production machine / lines' backup- plan (e.g. machine matrix) - Separate area / team for maintenance / all shifts - Consideration of central process supplies (pressured air, cooling water, ...) BOSCH 14 Q Basics questions No. 7.1, 7.3, 8.1, 8.2, 8.3 and 8.4			
Note	This was the single largest opportunity for improvement from the audit. The spare parts/maintenance room was completely disorganized. The larger spare parts/motors were on open racks in the main room covered with dirt. It was hard to tell which parts were new good parts, which were used but workable parts and which were in need to repair or tossed. From our discussion with maintenance there is no real inventory of standard required spare parts, reorder points or up to date data base. The system runs based on the deep knowledge by long time employees who have been running this plant successfully for years. I would strongly suggest a commercial software package be used. A complete emptying out of the large part storage racks, and building an enclosed dedicated storage room out the dirty air. The maintenance office should also be moved into a larger area and start fresh. Many facilities I audit retain a company who stops on a regular basis to check inventory of nuts and bolts and restocks as needed (like many companies who have outsourced maintaining medical boxes or service fire extinguishers).			
6.12	Test Equipment in Production			☐
Rating	6		1st Audit	
Attachment	Add			View 0 Del
Description	Test Equipment in Production - Appropriate test equipment (resolution, repeatability, Gage R&R) according to control plan - Control of Measurement devices (calibration rule, clear proceeding for damaged devices) - Access rules for in-line tester control - Back-up plan for designated devices - MSA guideline			

No.	Question / Answers			Not Rele.
	BOSCH 14 Q Basics questions No. 5.1, 5.2, 5.3, 5.4 and 6.1			
Note	While all the tape measures, micrometers and measuring tables were on a calibration log and were "in date" the in-house system is weak. The golden gauge block used to check all the measuring tools had a cert showing they were correct but there is no standardize procedure for checking each piece of equipment. People turn over and shop often run 1, 2 or 3 shifts some to make sure everyone does the job in the same "approved" manner a standard work instruction is required for calibrating or evaluating condition of quality measuring equipment.			
6.13	Problem Solving / Improvement Process			☐
Rating	8		1st Audit	
Attachment	Add			View 0 Del
Description	Problem Solving / Improvement Process (Shop Floor Level) - Procedure - Tools (e.g. QRQC, PDCA, Kaizen, etc.) - Pareto analysis for top failures - OEE / Scrap rate /... - Genba table, meetings, etc. - Production meeting records (tracking / monitoring) - Information distribution - Corrective actions (Lessons learned) BOSCH 14 Q Basics questions No. 1.1, 1.2, 1.3, 1.4, 3.2 and 3.4			
Note	OEE and scrap rates are the back bone of this industry i saw no problems with them. I do nto believe there is a lot of training on problem solving since thee type of processing have few parameters to control or have mysterious failures. to require detailed Kaizen. Having said that Kaizen and Genba meeting with cross functional team can reveal way to improve output reduce operator caused scrap and improve the OEE of each line.			
6.14	Work & Test Instructions (Work Station)			☐
Rating	8		1st Audit	
Attachment	Add			View 0 Del
Description	Work & test instructions for work stations - Actual (matching to valid release) - Controlled - Content suitable and complete (e.g. with tolerances, defined line stop points) - Clear and easy to understand (visualization, e.g. pictures, pictogrammes) - Test equipment, fixtures, gauges clearly referenced - Access (available at work station) - Alarm rules (special failures, actual complaints, ...) - Safety information BOSCH 14 Q Basics questions No. 3.1, 3.2, 6.2 and 6.3			
Note	Very basic and not much to say about the work instructions of cut to length lines, length, flatness and burr. The width is determined on slitting line if separate process versus a slitting /blanking line.			

No.	Question / Answers				Not Rele.
6.15	Production Plan / Batch				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Production Plan / Batch (Machine, Material, Operator, ...) - Daily basis / per shift / ... - Information loop (planning department to shop floor) - Calculation tools (e.g. ERP, excel, ...) - Responsibility - Supply of parts guaranteed (Contingency Plan) BOSCH 14 Q Basics questions No. 13.1 and 13.2				
Note	Every detail ins on the tag number .				
6.16	Work Safety and Fire Protection Status				☐
Rating	8		1st Audit		
Attachment	Add			View	0 Del
Description	Work Safety and Fire Protection Status - Basics - Use of Personal Protection Equipment (PPE) - (body, ears, eyes, head, feet, ...) - Machine safety - obvious violations - Escape and safety routes marked - Emergency doors free and marked - Fire protection equipment: Smoke detector / fire extinguishers / alarm button/ ... - Fire walls / tool-separation & protection / storage conditions and handling of chemicals & hazardous substances BOSCH 14 Q Basics questions No. 3.3 and 3.4				
Note	Good use of PPE, all fork lift drivers wore their seat belts, everyone wore hard hats, cut sleeves and gloves. safety glasses were used by everyone. Fire /smoke detectors were in office and main processing areas. The building was very dark and dirty with poor lighting in hallways in back of building where the worker break rooms and maintenance office were located.				
6.17	Environmental Status - Basics				☐
Rating	6		1st Audit		
Attachment	Add			View	0 Del
Description	Environmental Status - Basics - Correct / Controlled usage of hazardous substances in the process (auxiliary substances) - Waste Management: separation of different fractions - Obvious pollution of air, earth, ground water, noise				
Note	Steel scrap is always maintained well so it can be returned for value. The one environmental issue while we were there was the septic system backed up into the building. To me this suggests there no complete overview of "systems" maintenance for this site. Knowing a septic system requires regular				

No.	Question / Answers			Not Rele.
	pumping just like a car needs regular oil changes how did a system basic to all the employees fail to get the attention it requires BEFORE it failed.			
6.18	Information / Visualization (Shop floor)			☐
Rating	8		1st Audit	
Attachment	Add		View	0 Del
Description	Information / Visualization on Shop Floor level - Information to floor level - Data update - KPI's (targets, failure rates, ...) - Linked to corporate KPI's - Information about complaints - Safety & environmental information - Running projects info BOSCH 14 Q Basics questions No. 1.1, 1.2, 1.3, 1.4 and 3.2			
Note	The employee know how well the plant is running based on posted KPI's but more imporantly by daily tracking of "coils precessed" there are weekly goals that if met or exceeded the workers get bonus pay.			
7	Production b)			☒
8	Production c)			☒
9	Production d)			☒
10	Supply Chain Planning			☐
10.1	Production Planning System			☐
Rating	10		1st Audit	
Attachment	Add		View	0 Del
Description	Production Planning System - Customer inputs (EDI, e-mail, fax, ...) - Forecasts, orders, etc. - ERP system, excel - Orders tracking and information to customer (delivery notes)			
Note	They utilize EDI. They manage a 5 month forecast of on-hand steel and forecast orders. The forecast and ordered coils are reviewed weekly			
10.2	Material Order Processing			☐
Rating	8		1st Audit	
Attachment	Add		View	0 Del
Description	Material Order Processing - Planning process procedure - Systematic derivation of durations (order till shipment)			

No.	Question / Answers	Not Rele.
	- Consideration of components / Materials with long lead-times (MRP, etc.) - Production Preview System (PPS-System)	
Note	They do a good job of managing orders except for some customer requirements like shipping steel only from a "released " service facility. BSH requires a release audit before a service facility can ship material to a BSH site. Somehow that was over looked when Sumter shifted orders from SC to VA without gaining the proper permission first.	
10.3	Production Capacity	☐
Rating	8	1st Audit
Attachment	Add View 0 Del	
Description	Production Capacity - Machine capacity - OEE - Bottleneck analysis - Strategy to avoid capacity conflicts (alternative machines, sub-suppliers, ...) - Testing capacity	
Note	They have plenty of machine capacity. Th OEE is good and all the steel they had shipped before our audit was defect free. The only reason it was caught, BSH receiving inspection procedures inspection for length, width, thickness, steel type cert or no cert noticed it came from another state that before. It was not on our inspection work instructions but they noticed a variation and contacted us.	
10.4	Availability of Finished Products	☒
Rating	Not evaluated	1st Audit
Attachment	Add View 0 Del	
Description	Availability of Finished Products - Safety stock rule - Emergency concept - Consignment stock - VMI (Vendor Management Inventory)	
Note	They will keep any product on th efloor we request but most of their customers requests shipping as they are processed.	
11	Laboratory and Quality Assurance	☐
11.1	Test Equipment	☐
Rating	8	1st Audit
Attachment	Add View 0 Del	
Description	Test Equipment - Overview test equipment (laboratory and production) - Control of Golden Samples - Control of Limit Samples (especially for aesthetical failures, regular check / exchange) - MSA guideline / Plan - Calibration process and records - Back-up list	

No.	Question / Answers				Not Rele.
	BOSCH 14 Q Basics questions No. 5.1, 5.2, 5.3, 5.4 and 6.1				
Note	The only defeincency was work instruction for how to qualify all equipment using the master gauge blocks or how to perform.				
11.2	Specialists in Laboratory				☐
Rating	6		1st Audit		
Attachment	Add			View	0 Del
Description	Specialists in Laboratory - Necessary knowledge in statistical analysis appropriate to their responsibilities - Training records (test equipment and trainings) - Capacity - Responsibility for creating and releasing test report				
Note	Your quality people are doing an adequate job could benefit from some external quality training				
11.3	Measurement planning				☐
Rating	10		1st Audit		
Attachment	Add			View	0 Del
Description	Measurement Planning - Link to production plan - Link to projects - Projects qualification - Capacity - Reliability test - Product audit				
Note	Noting I would suggest at this time				
12	Warehouse Management of Finished Goods				☐
12.1	Warehouse Conditions				☐
Rating	4		1st Audit		
Attachment	Add			View	0 Del
Description	Warehouse Conditions - Light conditions - Cleanliness, Dust - Order, 5s - Racking properly secured - Responsibility for cleanliness and order - Air condition (humidity control) - Use of external warehouses / partners BOSCH 14 Q Basics questions No.10.2, 10.3, 10.4 and 14.1				

No.	Question / Answers	Not Rele.
Note	This honestly was one of the dirtier mills I have visited. I would strongly suggest they invest in a floor cleaner in an attempt to control the dirt in the air which lands on all the steel pallet weight to leave the facility. The lighting was also poor. Like most steel service facility there is not real attempt to cool in the summer or heat in the winter, in this case the insulation on the falls was falling down in many locations. Made a poor first impression. I believe the FIFO is good based on the warehouse management system.	
12.2	Packaging and Storage	☐
Rating	8	1st Audit
Attachment	Add View 0 Del	
Description	Packaging and Storage - Packaging Instruction - Labelling - Traceability (level, rule for re-work) - Intermediate storage - Racks conditions - ESD protection BOSCH 14 Q Basics questions No. 10.1, 10.3, 10.4 and 14.1	
Note	Except for the dirty conditions, the labeling has everything required for good traceability. The racks used to store space parts is not good and was covered in other areas of this audit.	
12.3	Warehouse Management	☐
Rating	10	1st Audit
Attachment	Add View 0 Del	
Description	Warehouse Management (marking and handling) - Control tool (e.g. ERP system, excel, ...) - Labelling / Identification - "Ready for Shipment rule" - FIFO - Physical blocking / Unblocking of products / Proceeding with obsolete materials - Material status (Responsibilities / Deadlines / Next actions in case of complaints...) BOSCH 14 Q Basics questions No. 10.1, 10.2, 10.3, 10.4, 14.1, 14.2 and 14.3	
Note	No issues here.	
13	Customer Complaints and Service	☐
13.1	Customer Complaints Management	☐
Rating	10	1st Audit
Attachment	Add View 0 Del	

No.	Question / Answers				Not Rele.
Description	Customer Complaints Management - Procedure (including NTF-rule) - Tools / methods (e.g. Six Sigma, 8D reports, 5xWhy, ...) - Cross-customer analysis / Action plans / Pareto - Lessons learned - Tracking system (time to closure tracked) BOSCH 14 Q Basics questions No. 1.1 and 1.5				
Note	There is a written procedure. Weekly review of all customer complaints. They are all tracked to closure. There is "Lesson learned" used to share with other J-D service facilities of issues that could be found in similar operations				
13.2	Staff Competences				☐
Rating	10		1st Audit		
Attachment	Add				View 0 Del
Description	Staff Competences - Organisational chart - Evidence of knowledge of the product / Specifications / customer Requirements - Standards / Legislation (Product Liability) - Evaluation methods (e.g. audits, statistics) - Quality techniques (e.g. Pareto, 8D Method, Cause and Effect diagram, Ishikawa) - Foreign language skills				
Note	Quality , production and sales are all involved with addressing customer complaints.				
13.3	Service Concept				☐
Rating	10		1st Audit		
Attachment	Add				View 0 Del
Description	Service Concept (if applicable) - Knowledge of the product application - Knowledge of problems with the product and complaints regarding the product or transport - Implementation of new requirements - Notification of improvement actions - World-wide customer service - Customer information in case of non-compliance with the requirements				
Note	Adequate for the purpose. good summaries communicated to the customer in a timely basis.				

