

 Limited Liability Company	SHOP INSPECTION FORM	INSPECTION DATE: September 7, 2022
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Fabrication Shop			
Shop Contact:	Shop Owner (111) 111-1111 shop@owner.com	Inspector:	Michael Browne
Shop Address:	1234 Inspection Rd Houston, TX 77008	Date:	September 7, 2022
Ratings	Ratings are on a scale of 1 to 5 with 5 being the best. Ratings of 3 and higher are recommended shops, and ratings of 2 or lower are not recommended.		

OVERALL RECOMMENDATION					
Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why?	Shop is recommended. Site personnel are easy to work with – open and honest. Material tracking was very good. Safety performance is exceptional, but effort towards it is very minimal. Work force is experienced with the average level of experience of 15 to 20 years. Shop loading is well under capacity. All painting and most NDE is sub-contracted. The majority of the work at this shop is “build to print”.				

SCHEDULING / TRACKING					
Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Are project schedules maintained? Yes, production manager keeps them.				
2	How is shop floor progress measured? No formal method. Production manager provides his best estimate of percent complete.				
3	Are Travellers used on the shop floor? Yes, hold points and initials were verified.				

FACILITY

Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Is there an organization chart? Yes, in QC Manual. Organization is currently smaller, and some employees have to wear multiple hats.				
2	What is the current shop floor headcount? 8 to 10 people. Personnel are available to bring back. Could hire 10 to 20 people within a week – most would have to retest.				
3	What is the maximum shop floor headcount or capacity? Approximately 80 people when working two shifts				
4	How much work is currently in progress (manhours)? Roughly \$200,000, about 1200 to 1400 in manhours. They are well under capacity.				
5	What type of work is currently in progress? Code vessel and structural work				
6	What are the capabilities: <ul style="list-style-type: none"> • Cranes (Qty / Tons): 5 overhead (2.5, 5, 10, 20 and 30 tons) • Rolls: None - Sub out plate rolling • Cutting Tables: None - Sub out cut pieces • Paint Booth: None - Sub out paint – normally move the equipment to the sub-contractor. • Covered Square Footage: 26,000 ft² • Maximum Hook Height: 26' • Number of Welding Machines: 35 to 40 • Other: Iron working machine and beam / hole cutting machine 				

DOCUMENT CONTROL

Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Is there a document control process in place? Not really. QC Manual states that Engr. Mgr. is responsible for creation of Documents. QC Manager issues documents to the floor. The owner acts as QC Manager and Engr. Manager. Due to the small size, documents are controlled and well maintained. If they grow, they plan to add additional resources to support this.				
2	Does it cover Customers, Vendors and the Shop Floor? Communication is mostly through email. Transmittals are done sometimes on bigger jobs. No document log is maintained. So, it really only covers getting work from the office to the shop floor. All other correspondence is via email.				
3	How are drawing revisions communicated to the shop floor? Shop owner revises drawings and reissues them to the floor.				
4	Are documents revision controlled? Yes				
5	How are "As-Builts" communicated and recorded? Minimal "as-builts" as they update as they go. QC manager hand marks changes on the drawings and returns them. Lots of the work is build to print, so engineering is by the Customer. Any in-house engineering design work is subbed out to two different third parties.				
6	What is the quality of the Manufacturing Record Books? Job file is maintained in the Computer. We reviewed two projects and all records were current and accurate.				
7	By observation, how effective is the process and is it followed? I observed that the documents on the shop floor were current and maintained with the material.				

MATERIAL HANDLING

Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Are procurement requirements clarified and clear? Yes, PO's state that MTR's are required.				
2	Are receiving inspections performed? Yes, heat and PO numbers are marked on all materials – not just Code materials.				
3	If so, what information is used to confirm compliance? Material is inspected against the Purchase order.				
4	Is material rejected on occasions? Yes.				
5	Is there a process for material traceability? Yes, all cut pieces are marked.				
6	How is inventory controlled? Minimal inventory is maintained. Not stored in designated area, but it is marked.				
7	Are work in process materials assigned to a job and marked for that job? Yes, material is marked with job number and PO number, and material is issued to the shop floor by the Production Manager.				
8	How are welding consumables stored and inventoried? Stored in the tool room. Keep sealed until start using them. There is an oven for the sub-arc flux. Stick welding is seldom performed.				
9	How are welding consumables issued and controlled? They are issued by the Production Manager. The green sticker system in the QC manual is not used, but most of their consumables are wire.				
10	By observation, is the process followed and what is the confidence level that the correct materials are used and tracked on each project? Confidence is high that the correct material is being used on the shop floor. All materials in the shop had heat and PO numbers on them.				

QUALITY CONTROL

Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Are appropriate QC procedures in place? Yes				
2	Is in process work inspected? Yes				
3	Is completed work inspected? Yes				
4	What is the final inspection process? Take final measurements, take thickness readings, confirm inspections completed, check hydros and paint.				
5	What is the work inspected against? Drawings. Some jobs have an ITP. Not specifically written for every job though. However, the Traveller has this information also.				
6	Is work rejected on occasions? Yes. NCR'S are created and tracked.				
7	Is a quality plan followed showing inspection and hold points? Yes, via the traveller. PWHT information is provided by the Customer when applicable.				
8	How are weld procedures communicated? By QC Mgr to Engineering and then placed on the drawing. Weld procedures are issues with the Traveller as most engineering work is by the Customer. Most work is build to print.				
9	How are welds confirmed or approved? There is typically only one weld procedure used. Both weld maps and heat maps are maintained. Welder qualifications are maintained electronically. There is a folder for each welder.				
10	Are welds stamped? A welder qualification log is maintained. On ASME code work, welds are stamped. Non-code work is done via a weld map.				
11	By observation, what is the quality of the work in progress? Very good.				

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SAFETY					
Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Is a Safety Program in Place? Yes. They have a very good written procedure, but it is not really followed.				
2	What is the recordable incident rate? TRIR = 0 for 2017, 2018, 2019 and 2020. No incidents this year either.				
3	Is it proactive or reactive (observations versus incident investigation)? System is reactive. Observations are not typically performed. Incidents are typically investigated, but not retained. Work force is mostly experienced – 15 to 20 years, mostly Hispanic or Asian.				
4	How many observations have been submitted this year? 0				
5	Is the facility orderly and clean? Yes, reasonably so.				
6	How strong is the observed Safety Culture? Average				

PAINT					
Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	Are there clearly defined work practices and procedures? Not Applicable				
2	Is the paint stored properly? Not Applicable				
3	Do they use subcontractors to paint? Yes, all paint work is sub-contracted. Subcontractors perform any testing and they provide dft readings, etc.				
4	If so, who are they? Coatings Company				

EQUIPMENT

Rating	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why?					
Questions:					
1	What is the general age of the welding equipment? The average age is 3 years.				
2	Are the machines well maintained? Yes, but they are not routinely calibrated as it is not a Code requirement.				
3	What is the calibration status of the welding machines? Some jobs require it, and then it is performed.				
4	Is the inspection equipment in good condition? Pressure gauges and chart recorders for hydrotest are calibrated every 6 months. Date is on a sticker on front of the gauges. Calipers are calibrated every 6 months.				
5	What is the calibration status of the inspection equipment? Most NDE is by a third party, so this is not applicable.				

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PICTURES

Pictures removed for confidentiality