

Work Processes Schedule

PIPE FITTER (SHIP - BOAT MFG)

RAPIDS: 0412N

O*NET/SOC: 47-2152.01

REVISION DATE: 12/2014

Lay out, assemble, install, and maintain pipe systems, pipe supports, and related hydraulic and pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, and industrial production and processing systems.

Applicable Ratings/MOS

USMC MOS None

USCG DC

USN HT

Related Instruction

Any trade related schools/courses totaling 576 hours.

Additional Requirement

None

Total Hours: **8000**

Skill	Description	Hours
A	<p>FUNDAMENTALS</p> <p>Demonstration of knowledge required in all areas</p> <ol style="list-style-type: none"> 1. Safety Precautions Fundamentals 2. First Aid And Rescue 3. Quality Assurance Administration Fundamentals 4. Quality Assurance Program Fundamentals 5. Levels Of Control Fundamentals 6. Hearing Conservation Program Fundamentals 7. Hazardous Material Control And Management-(HMC&M) Program Fundamentals 8. Respiratory Protection Program Fundamentals 9. Sight Conservation Program Fundamentals 10. General Administration (Log, Record And File Maintenance) 11. Technical Administration (Publications And Technical Manuals) 12. Logistics 13. Shop Fundamentals <ul style="list-style-type: none"> · Mechanical Fundamentals 	500
B	<p>EQUIPMENT</p> <p>Demonstration of knowledge required in all areas</p> <ol style="list-style-type: none"> 1. Safety Precautions Fundamentals 2. First Aid And Rescue 3. Quality Assurance Administration Fundamentals 4. Quality Assurance Program Fundamentals 5. Levels Of Control Fundamentals 6. Hearing Conservation Program Fundamentals 7. Hazardous Material Control And Management-(HMC&M) Program Fundamentals 8. Respiratory Protection Program Fundamentals 9. Sight Conservation Program Fundamentals 10. General Administration (Log, Record And File Maintenance) 11. Technical Administration (Publications And Technical Manuals) 12. Logistics 13. Shop Fundamentals <ul style="list-style-type: none"> · Mechanical Fundamentals 	500
C	<p>DRAIN SYSTEM CLEANING</p> <ol style="list-style-type: none"> 1. Hydroblast Cleaning (Deck Drains) 2. Hydroblast Cleaning (Piping Systems) 3. Mechanical Cleaning (Snake & Brush) 	500
	<p>FABRICATE & INSTALL SPECIAL PURPOSE PIPES, JOINTS & FITTINGS</p> <ol style="list-style-type: none"> 1. Bosses 2. Deck Drains 	

D	<ol style="list-style-type: none"> 3. Expansion Joints (Install Only) 4. Flexible Couplings (Piping System) 5. Flow Restrictors 6. Metal Braided Steam Hoses 7. Plastic, Pvc & Abs Piping & Fittings 8. Pressure & Flow Indicators 9. RISIC 2 10. RISIC 3 11. Small Boat Rails 12. Temperature Regulating & Solenoid Valves 13. Thermometer Wells 14. Vacuum Breakers 15. Valve Manifolds, Ells, Tees, Wyes & Strainers 	2000
E	<p>FABRICATE, FORM, TARGET & BEND PIPING/TUBING</p> <ol style="list-style-type: none"> 1. Inch To 12 Inch (Sched 80) (Subs) 2. Inch To 3 Inches 3. Inch To 4 Inches 4. Inch To 4 Inches (Sched 40 -80) 5. Inch To 2 Inches 	500
F	<p>PREPARE & INSTALL BRAZED PIPING JOINTS</p> <ol style="list-style-type: none"> 1. Grade 3 2. Grade 4 3. Grade 5 4. Grade 7 5. P3a - 3b Special Cat Piping 	1000
G	<p>PREPARE & INSTALL MECHANICAL PIPING JOINTS</p> <ol style="list-style-type: none"> 1. Compression Joints To 1/2 Inch 2. Flanged Joints 3. Flared Joints 4. Threaded Joints To 2 Inches 5. Threaded Joints To 4 Inches 6. Union Joints 	500
H	<p>PROVIDE EQPT FOR HYDROSTATIC TEST SERVICES (NON-NUCLEAR SYSTEMS)</p> <ol style="list-style-type: none"> 1. Maintain & Provide Hydro Pumps 2. Maintain & Provide Relief Valves 3. Test Piping Sys & Components (100 - 3000 PSI) 4. Test Piping Sys & Components (3000-10000 PSI) 	500
I	<p>PROVIDE MISCELLANEOUS SERVICES</p> <ol style="list-style-type: none"> 1. Repair Condensers/Heat Exchangers 2. Install Phenolic Plugs 3. Gas Tungsten Arc (Tig) Welding 4. Shielded Metal Arc (Sma) Welding 5. All Non-Nuclear Pipe Included In Ht 4955 Nec 6. Socket Weld Up To 2 Ips 7. Butt Welds 8. Brazier Training, Qualification & Recertification 9. Brazing - Manual 10. Conduct In-Shop And Shipboard Flushes Of Hoses <ul style="list-style-type: none"> · Hot Water Flushes · Fresh Water Flushes (Hot Water) 11. Conduct Shop Hydro Testing <ul style="list-style-type: none"> · Test Air Flasks To 2000 Psi · Test Air Flasks To 6000 Psi · Test Hoses To 4000 Psi · Test Hoses To 6000 Psi · Test Hoses To 10,000 Psi 12. Cut And Skive Flexible Hoses <ul style="list-style-type: none"> · Cut (Machine) Up To 3 Inch Hoses · Cut (Manually) Up To 8 Inch Hoses · Skive (Machine) Up To 2-1/4 Inc Hoses 13. Fabricate Special Purpose Hoses <ul style="list-style-type: none"> · Helo In-Flight Refueling Hoses · Install Spiral Reinforcement In Non-Collapsible Hose 14. Inspect And Test Flexible Hose Installation 15. Install Hose Fittings <ul style="list-style-type: none"> · Crimped Hose Fittings To 2 Inches · Hose Connections With Band Retained Rings (3 Seg) · Hose Connections With Band Retained Rings (4 Seg) · Hose Connections With Band Retained Rings (5 Seg) · Segmented Bolt Together Socket · Solid Socket Fittings On 	2000

Multiple Wire Reinforced

Hose · Solid Socket Fittings On Single Wire Reinforced Hose

16. Install Miscellaneous Types Of Fittings

· Flared Fittings On Tubing · Super Gem Fittings On Wire Jacket Teflon Hose

17. Manufacture And Install Hose Tags

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