

# CHAPTER 75



## STEELWORKER (SW)

NAVPERS 18068F-75G  
Change 88

Updated: October 2021

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NAVY ENLISTED OCCUPATIONAL STANDARD

FOR

STEELWORKER (SW)



SCOPE OF RATING

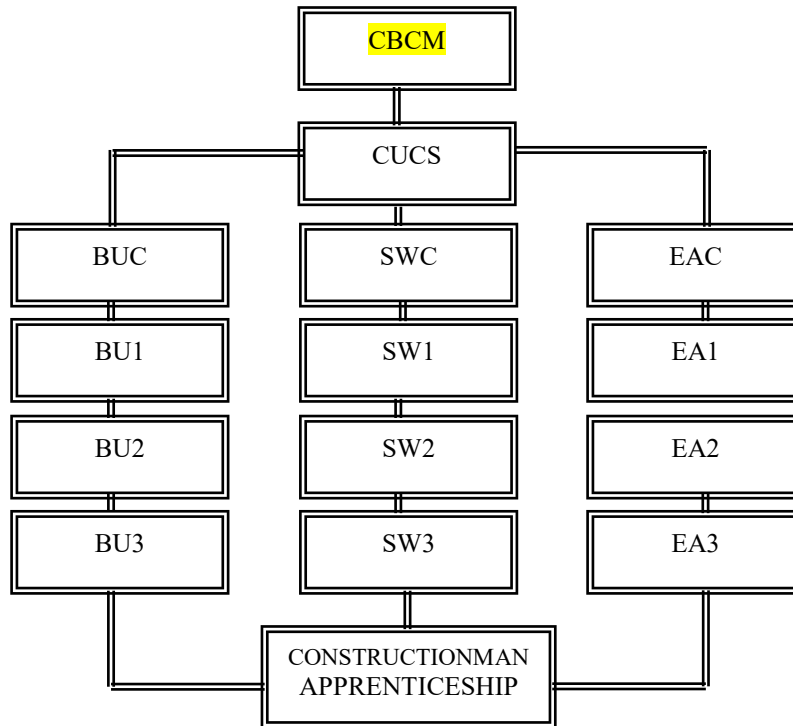
Steelworkers (SW) perform tasks directly related to fabrication and erection of pre-engineered structures, including steel reinforcement; manage construction operations, deploy materials and equipment; direct and coordinate the composition of training and efforts of crews who fabricate, assemble, erect, position, and join structural members and fabricated sections; perform various welding and cutting operations; maintain individual combat readiness; and perform tasks required in combat and Defense Support of Civil Authorities (DSCA) and Humanitarian Assistance/Disaster Recovery (HADR) operations.

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This Occupational Standard is to be incorporated in Volume I, Part B, of the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards (NAVPERS 18068F) as Chapter 75.

## GENERAL INFORMATION

### CAREER PATTERN



Normal path of advancement to Chief Warrant Officer and Limited Duty Officer categories can be found in OPNAVINST 1420.1.

For rating entry requirements, refer to MILPERSMAN 1306-618.

### SAFETY

**The observance of Operational Risk Management (ORM) and proper safety precautions in all areas is an integral part of each billet and the responsibility of every Sailor; therefore, it is a universal requirement for all ratings.**

\* Career path updated to reflect rating name change to Seabee Master Chief (CBCM) – NAVADMIN 054/21 refers

**Job Title**  
**Steelworker**

**Job Code**  
**001770**

**Job Family**  
 Construction and Extraction

**NOC**  
 TBD

**Short Title (30 Characters)**  
 STEELWORKER

**Short Title (14 Characters)**  
 STEELWORKER

**Pay Plan**  
 Enlisted

**Career Field**  
 SW

**Other Relationships and Rules**  
 NEC BXXX series, 717B, 718B, 804G, 833A or other NECs as assigned

**Job Description**

Steelworkers (SW) perform tasks directly related to fabrication and erection of pre-engineered structures, including steel reinforcement; manage construction operations, deploy materials and equipment; direct and coordinate the composition of training and efforts of crews who fabricate, assemble, erect, position, and join structural members and fabricated sections; perform various welding and cutting operations; and prepare progress reports, time records, construction schedules, material, labor, and tool and equipment estimates for construction projects. As project managers, they plan, staff, direct, and control multiple construction projects to include problem solving, planning, estimating, scheduling, cost control, and personnel management ensuring compliance with specifications, code requirements, plans, and contracts; and act as project supervisors and trainers for junior personnel.

**DoD Relationship**

**Group Title**  
 Steelworking

**DoD Code**  
 171100

**O\*NET Relationship**

**Occupation Title**  
 Welders, Cutters, Solderers, and Brazers

**SOC Code**  
 51-4121.00

**Job Family**  
 Construction and Extraction

**Skills**

Quality Control Analysis  
 Equipment Selection  
 Complex Problem Solving  
 Critical Thinking  
 Monitoring  
 Reading Comprehension  
 Management of Material Resources  
 Mathematics  
 Operation and Control  
 Judgment and Decision Making

**Abilities**

Information Ordering  
 Deductive Reasoning  
 Problem Sensitivity  
 Arm-Hand Steadiness  
 Inductive Reasoning  
 Oral Expression  
 Visualization  
 Written Comprehension  
 Near Vision  
 Manual Dexterity

**ARC WELDING AND CUTTING**

<b>Paygrade</b>	<b>Task Type</b>	<b>Task Statements</b>
E4	CORE	Conduct hard facing operations
E4	CORE	Cut ferrous metals using Plasma Arc Cutting (PAC) process
E4	CORE	Cut nonferrous metals using Plasma Arc Cutting (PAC) process
E4	CORE	Fabricate metal components
E4	CORE	Interpret welding symbols and standards from drawings and specifications
E4	CORE	Maintain arc welding and cutting equipment
E4	CORE	Perform arc welding operations in all positions
E5	NON-CORE	Perform destructive metal tests
E5	CORE	Perform maintenance welding operations
E4	CORE	Perform metal stress relieving measures
E5	CORE	Perform non-destructive metal tests
E4	CORE	Prepare surfaces for welding
E5	CORE	Supervise arc welding and cutting operations
E5	CORE	Supervise metal component fabrications
E5	CORE	Validate arc welding and cutting operations
E4	CORE	Weld ferrous and nonferrous metals using Gas Metal Arc Welding (GMAW) process
E4	CORE	Weld ferrous and nonferrous metals using Gas Tungsten Arc Welding (GTAW) process

### ARC WELDING AND CUTTING (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Weld ferrous and nonferrous metals using Shielded Metal Arc Welding (SMAW) process

### CONSTRUCTION MANAGEMENT

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	NON-CORE	Conduct safety inspections of projects
E6	NON-CORE	Conduct three-phase quality control inspections
E4	CORE	Develop construction activities
E5	CORE	Develop construction environmental protection plans
E4	CORE	Develop construction estimates
E5	CORE	Develop construction project packages
E4	CORE	Develop construction project sketches, diagrams, and shop drawings
E5	CORE	Develop construction safety plans
E5	CORE	Develop master activities
E5	CORE	Develop project three-phase quality control plans
E6	CORE	Establish construction site layouts
E5	CORE	Input project data into construction management software and tools
E5	CORE	Inspect construction materials
E4	CORE	Interpret construction project drawings and specifications
E4	CORE	Inventory project tools and materials
E5	CORE	Lead construction project crew
E7	CORE	Manage construction projects
E7	CORE	Manage construction safety plans
E7	CORE	Manage project quality control plans
E7	CORE	Manage three-phase quality control process
E7	CORE	Monitor construction project contracts
E6	CORE	Supervise construction project
E6	CORE	Supervise construction project crews
E6	CORE	Supervise construction project safety operations
E6	CORE	Supervise environmental protection plans
E6	CORE	Supervise job site construction operations (e.g., quality control and safety plan implementation, job site information board, level III chart, etc.)
E6	CORE	Supervise planning and estimating operations
E6	CORE	Supervise project three-phase quality control process
E6	CORE	Turnover construction project
E6	CORE	Validate construction project packages
E5	CORE	Validate project surveys and elevation data

## OXYFUEL GAS CUTTING AND WELDING

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Bend pipes
E4	CORE	Cut ferrous metals using Oxyfuel Gas Cutting (OFC) equipment
E4	CORE	Fabricate pipes
E4	CORE	Interpret Oxyfuel Gas Cutting and Welding (OFC & OFW) symbols and standards from drawings and specifications
E4	CORE	Join metal using Brazing (B) process
E4	CORE	Maintain Oxyfuel Gas Cutting and Welding (OFC & OFW) equipment
E4	CORE	Prepare metal joints for Oxyfuel Gas Welding (OFW) and Brazing (B) processes
E4	CORE	Prepare oxyfuel gas equipment for cutting and welding
E4	CORE	Solder metals
E5	CORE	Supervise oxyfuel gas cutting and welding (OFC & OFW) operations
E5	CORE	Validate oxyfuel gas cutting and welding (OFC & OFW) operations
E4	CORE	Weld metal joints using Oxyfuel Gas Welding (OFW) process

## REINFORCING STEEL (RST)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Bend reinforcing steel (RST)
E4	CORE	Develop reinforcing steel (RST) bending schedules
E4	CORE	Fabricate reinforcing steel (RST) components
E4	CORE	Interpret reinforcing steel (RST) bending schedules
E4	CORE	Place reinforcing steel (RST) components
E5	CORE	Supervise reinforcing steel (RST) component fabrication and placement
E5	CORE	Validate reinforcing steel (RST) component fabrication and placement

## SHEET METAL

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Assemble advanced duct systems
E4	CORE	Assemble duct components
E4	CORE	Develop sheet metal patterns
E4	CORE	Develop sheet metal sketches and diagrams
E4	CORE	Fabricate sheet metal components
E4	CORE	Interpret sheet metal drawings and specifications
E4	CORE	Maintain sheet metal tools and equipment
E5	CORE	Supervise sheet metal component fabrication
E5	CORE	Validate sheet metal component installation

## SPECIAL CONSTRUCTION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	NON-CORE	Conduct launch and recovery bridging systems operations (e.g., Mabey Johnson, Medium Girder Bridge (MGB), heavy timber)
E4	NON-CORE	Construct non-standard bridging (gap crossing)
E4	CORE	Erect pre-engineered structures (i.e., K-Span, tension fabric, pre-engineered buildings (PEB), fabricated steel buildings, steel towers, and antennas)

**SPECIAL CONSTRUCTION (CONT'D)**

<b><u>Paygrade</u></b>	<b><u>Task Type</u></b>	<b><u>Task Statements</u></b>
E4	CORE	Interpret special construction drawings and specifications
E7	CORE	Manage special construction assembly operations
E6	CORE	Supervise special construction assembly