



**NORTH CAROLINA DEPARTMENT OF LABOR**

**No. 34-2**

**OSH DIVISION**

**Date: 10/2009**

**OSHNC INDUSTRIAL DATA REPORT**

**Pages: 4**

Industry: **Fabricated Metal Products**

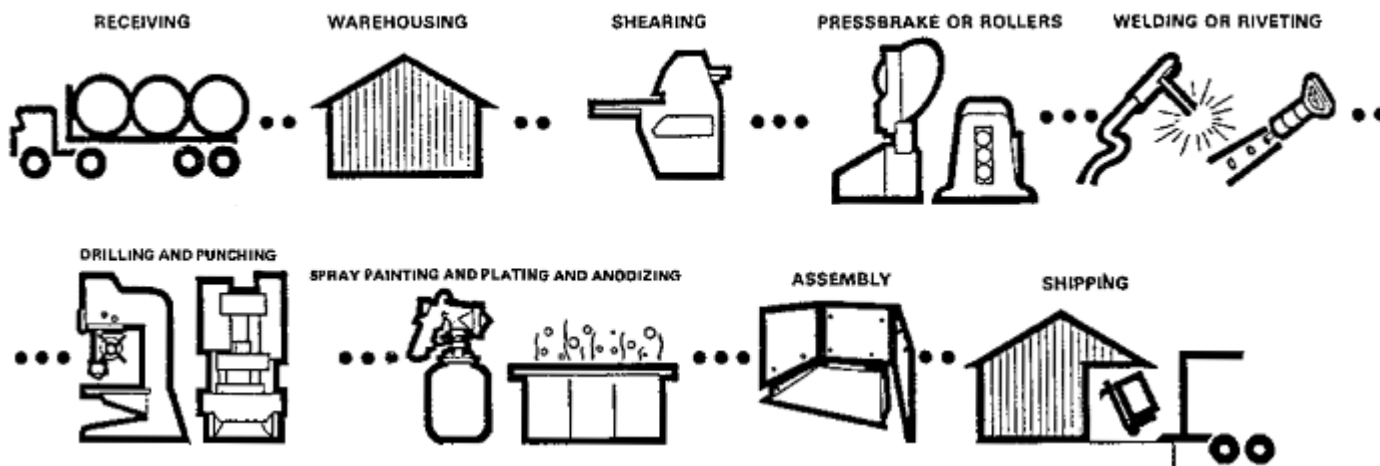
Sub-Group: **Sheet Metal Work**


SIC: **3444**


NAICS: **332322**

**PROCESS DESCRIPTION:** Roll stock or unit flat stock is received from the mill and sheared to desired length. After degreasing, it is formed to the desired configuration by press brake, rolling or by weld fabrication. At this point, drilling, punching or riveting may be necessary. Soldering, spot welding or riveting in rough form follows. Finishing operations can include pickling, galvanizing, plating or spray painting according to expected use. Prior to shipping, there may be assembly of additional machine or electrical components.

**PROCESS FLOW:**



			NORTH CAROLINA DEPARTMENT OF LABOR		No. 34-2
			OSH DIVISION		Date: 10/2009
			OSHNC INDUSTRIAL DATA REPORT		Pages: 4
Hazards Analysis					
Major Hazards			Other Hazards		
Location	Item	Hazard	Location	Item	Hazard
Receiving and storage	Sheet metal, angle iron	Crushed toes, hand lacerations, falling of material, back injuries and hernia	Throughout	Electrical  Dust  Noise	Fire and explosion  Inhalation, fire, explosion  Hearing Loss
Manufacturing	Points of operation such as: shearing, braking, fan blades, press, lock forming machines	Amputations and crushed limbs	Pickling, galvanizing and plating	Chemicals	Inhalation; skin, eye, nose, throat irritation;
	Mechanical power transmission apparatus	Amputations and crushed limbs			
	Degreasing	Inhalation, skin irritation			
	Welding	Burns to skin, welder’s flash, welding fume inhalation	Receiving, manufacturing, shipping	Overhead cranes	Falling loads from defective or improperly maintained cranes and slings.
	Spray paint vapors	Inhalation/overexposure			
	Flammables	Fire and explosions			
	Spray paint	Explosion and fire			
	Compressed air	Eye and skin injuries			
Shipping	Finished products	Crushed toes, hand lacerations, back injuries and hernias	Throughout	Housekeeping	Slipping, tripping and falling


	<b>NORTH CAROLINA DEPARTMENT OF LABOR</b>	<b>No. 34-2</b>
	<b>OSH DIVISION</b>	<b>Date: 10/2009</b>
	<b>OSHNC INDUSTRIAL DATA REPORT</b>	<b>Pages: 4</b>

### Key OSHNC Standards

<b>Reference</b>	<b>29 CFR 1910 — General Industry Standards</b>
ANSI B30.6	Overhead underhung hoists
Subpart D	Walking and working surfaces
Subpart E	Means of egress
Subpart I	Personal protective equipment
Subpart O	Machinery and machine guarding
Subpart Q	Welding, cutting and brazing
Subpart S	Electrical
1910.94	Ventilation
1910.95	Occupational Hearing Loss
1910.106	Flammable and combustible liquids handling and storage
1910.107	Spray finishing with flammable and combustible liquids
1910.122 - .126	Dipping and coating operations
1910.147	Control of hazardous energy - (lock-out/tag-out)
1910.151	Eyewash and emergency showers
1910.176	Handling materials
1910.178	Powered industrial trucks
1910.179	Overhead and gantry cranes
1910.1000	Air contaminants
1910.1200	Hazard communication

### Inspection Analysis

Inspection should begin in the receiving and material storage area. Check powered industrial trucks, dock boards, wheel chocks, overhead cranes, walking and working surfaces and stacking of material. Shearing operations must be checked for point of operation guarding and personal protective equipment (gloves), the degreasing area must be observed for ventilation and fumes and industrial hygiene matters referred. Check personal protective equipment at all points. Check the braking and/or rolling operation for proper point of operation guards. Welding, which could include riveting, drilling and punching, must be inspected for shielding screens, wrenches on acetylene cylinders, face and eye protection, condition of cables, fumes and ventilation. The paint spray booth must be checked for electrical hazards (NEC Class I, Division 1 and/or 2), ventilation, construction, personal protective equipment, bonding and grounding, accumulation of residues, storage of flammables and fire protection. If pickling, galvanizing or plating is done, check eye and face protection and assure an ample supply of clean water for the eye wash. Be aware of fumes that may present a health hazard. Compressed air for cleaning purposes in the assembly department shall be checked. Housekeeping and open aisles must be observed throughout. Check all operations for employee exposure and determine where lockout and tagging procedures are necessary.

	<b>NORTH CAROLINA DEPARTMENT OF LABOR</b>	<b>No. 34-2</b>
	<b>OSH DIVISION</b>	<b>Date: 10/2009</b>
	<b>OSHNC INDUSTRIAL DATA REPORT</b>	<b>Pages: 4</b>
<p><b>Other Pertinent Comments:</b> Usually greatest exposures are to sharp metals, welding flashes and lifting hazards which cause cuts to hands and eye injuries from flash burns and strains and sprains from lifting stock. Burns from welding sparks are controlled by shields and personal protective equipment such as gloves, goggles and welding masks. Adequate material handling equipment includes hoists and hand trucks.</p>		