Metal Fabricator – Competency Changes

Current Program Outline Competencies found in Harmonized Level 2

This document is to show the **60 additional hours** from current level 2 to harmonized level 2

Green = Added	Red = Removed/Moved/Combined	210 hours (Increased by 60 hours)

B	**Use Safe Work Practices**
B6	**Describe safe work practices for confined work spaces (CL 1 → HL 2)**
C	**Solve Trade Math Problems**
C8	Solves complex problems using geometric construction
C9	Solve complex problems using Pythagorean theory
C10	**Solve problems involving weight, mass and the capacity of vessels (CL 2 → HL 1)**
C11	Calculate costs of materials to complete assemblies
D	**Use Trade Tools**
D4	**Use specialized measuring tools (CL 4 → HL 1 & 2)**
E	**Use Shop Equipment**
E2	**Use the hydraulic brake press**
E3	Use the power plate rolls
E7	Use the thread cutting machine
E8	Use the power shape rollers (power angle rolls)
E10	**Use a CNC brake press (CL 4 → HL 2 & 3)**
F	**Burn and Weld Metals**
F7	**Use air-arc gouging/cutting methods**
F8	Use the plasma arc cutter
F9	**Use semi-automatic welding machines**
G	**Read Drawings**
G5	Interpret weld symbols
G8	Draw secondary views of complex objects
G9	Interpret complex multi-view show drawings
G13	**Describe electronic detailing (CL 3 → HL 2)**
G14	**Interpret computer generated shop drawings (CL 4 → HL 2 & 3)**
G15	**Interpret specialized structural, erection and detail drawings (CL 4 → HL 2 & 3)**
H	**Use Material Handling Equipment**
H3	**Use ladders and scaffolding (CL 2 → HL 1)**

I	**Use Structural Layout Techniques**
I3	Layout complex templates from a shop drawing
I4	Describe standard allowances, required accuracy and shop tolerances
I5	Identify component parts
I6	Describe the process operation
I7	Layout a set of stair stringers

J	**Develop Plate and Structural Patterns**
J4	Integrate radial and parallel line development
J5	**Develop shop layout and processing for plate and structural sections (CL 2 → HL 2 & 3)**
J6	Develop various patterns using radial line development

L	**Develop Plate and Structural Patterns**
L3	Layout and fit a structural beam
L4	Describe modern alignment methods
L5	Fabricate a simple hopper
L7	Develop and fit branches on a cone
L10	Layout complex templates from a machine detail drawing
L11	**Fabricate a reduced tank with fittings (CL 3 → HL 2)**
L14	**Plan, cost and fabricate an eccentric hopper (CL 3 → HL 2)**
L15	**Apply work simplification methods (CL 4 → HL 2)**
L16	**Differentiate types of structural steel fasteners (CL 4 → HL 2)**

O	**Develop Plate and Structural Patterns**
O1	**Establish area for installation (CL 4 → HL 2)**
O4	**Determine required consumables (CL 4 → HL 2 & 3)**
O5	**Confirm field dimensions (CL 4 → HL 2)**
O6	**Describe installation of components (CL 4 → HL 2 & 3)**

LEGEND

CL - Current Level

HL - Harmonized Level