

### **DACUM Panel**

1. Mr. Hari Prasad K.C., A.P.F., Hallchowk
2. Mr. Dilip Bishwas, A.P.F., Hallchowk
3. Mr. Dinesh Giri, Thapa Metal & Suppliers Pvt. Ltd. Kathmandu
4. Mr. Gopal B.C., DIG, Kathmandu
5. Mr. Binod Maharjan, Manakamana Poly Industry, Kathmandu
6. Mr. Suman Tamang, Baba King Metal Industries, Kathmandu
8. Mr. Iswer Lal Shrestha, BSET, Balaju, Kathmandu
9. Mr. Ravi Majhi, Sataujani Metal Workshop, Kathmandu
10. Mr. Dependra Gharti, Satunchandi Metal Workshop, Kathmandu

### **DACUM Facilitator/Recorder**

Mr. Ishwar Chandra Ghimire  
Skill Testing Officer, NSTB  
Mr. Raju Basel  
Senior Instructor BSET

### **Supervisor**

Mr. Ram Hari Devkota  
Dy-Director, NSTB

### **Verified Panel**

1. Mr. Hari Ram Adhikari  
Private worker, Dhapasi, Ktm.
2. Mr. Kedar Adhikari  
Adhikari eng. Workshop, Ktm.
3. Mr. Hari Kumar Bholan  
Privat worker, Ktm.
4. Mr. Arjun Kumar Shrestha  
Instructor, BSET, Ktm.
5. Mr. Iswer Lal Shrestha  
Asst. Instructoer, BSET, Ktm.
6. Mr. Ashok Kumar Shrestha  
Instructor, BSET, Ktm.
7. Mr. Shambhu Adhikari  
Privet worker, Ktm.
8. Mr. Hira Adhikari, Owner  
Samakoshii, Ktm

### **Facilitator/Recorder**

Mr. Ishwar Chandra Ghimire  
Skill Testing Officer, NSTB  
Mr. Baikuntha Shrestha  
Sanitary Dep. Head, BSET

### **Supervisor**

Mr. Ram Hari Devkota  
Dy-Director, NSTB

### **Technical Sub Committee**

1. Prof. Rabindra Nath Bhattarai  
Co-ordinator, Mechanical Tech. Sub Committee
2. Mr. Chandra Bhakta Nakarmi  
Drrector, NSTB, Sanothimi
3. Mr. Binaya Manandar, Sr.  
Instructor, Thapathali Campus
4. Mr. Durdam Thapa, Propiter  
Ambika Fabrication Pvt. Ltd.,  
Bhaktapur
5. Mr. Raju Bajracharya Sr.  
Mechanical Instructoer, BSET
6. Mr. Iswar Lal Shrestha  
Asst. Instructoer, BSET
7. Mr. Deepak Prasad Poudel  
Dy-Director, NSTB, Sanothomi
8. Mr. Ram Hari Devkota  
Dy-Director, NSTB, Sanothomi
9. Mr. Ishwar Chandra Ghimire  
Skill Testing Officer, NSTB,  
Sanothimi
10. Mr. Suresh Bhaila, Memb.  
Secretary  
Sr. Skill Testing Officer, NSTB,  
Sanothimi

# Occupational Profile



## Structural Fabricator, L-1

(DACUM workshop on 10-11 Nov., 2009)

(Task Verification on 9<sup>th</sup> December, 2009)

(Technical Sub Committee Meeting on 31<sup>th</sup> Dec., 2009)



Council For Technical Education and Vocational Training

**NATIONAL SKILL TESTING BOARD**

Madyapur Thimi 17, Sanothimi, Bhaktapur

**Nepal**

(NSTB approval date .....)

## DUTIES and TASKS

### A. Sketch Freehand Simple Drawing

A1. Sketch drill holes			A2. Sketch threads (internal and external)			A3. Sketch rivet joint			A4. Sketch 'C', 'S', Squire and round shape		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	2	1	3	2	3	3	3	2	3	2	3
A5. Sketch butt, Tee, Flange joint welding symbol											
Task rating											
Importance	Difficulty	Frequency									
2	2	1									

### B. Perform Bench Work

B1. Select materials			B2. Perform marking			B3. Perform sawing			B4. Perform filling		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	1	3	3	2	3	3	2	3	3	1	3
B5. Perform drilling			B6. Perform counter sink			B7. Perform grinding			B8. Perform internal and external thread cutting by hand		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	1	2	3	1	2	3	3	3	3	2	3
B9. Perform chiseling			B10. Perform simple rivet joints								
Task rating			Task rating								
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency						
2	3	2	3	2	3						

### C. Perform Cutting

C1. Perform layout			C2. Perform straight cutting			C3. Perform angle cutting			C4. Perform triangle cutting		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	1	3	3	1	3	3	3	2	2	3	1
C5. Perform circle cutting			C6. Perform square cutting			C6. Perform snapping by hammer			C6. Perform irregular cutting		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	2	1	3	2	1	2	3	1	2	3	1

### D. Perform Metal Forming (cold process by hand)

D1. Straight work pieces			D2. Fold metal sheet			D3. Perform twisting			D4. Prepare C shape		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	3	3	3	3	1	3	3	1	3	3	3
D5. Prepare S shape			D6. Prepare 'O' shape			D7. Prepare square shape					
Task rating			Task rating			Task rating					
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency			
3	2	3	3	3	1	3	2	3			

### E. Perform Manual Metal Arc Welding (MMAW)

E1. Strike and maintain the arc length			E2. Make straight beads			E3. Perform bead overlapping			E4. Perform tack welding		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	1	3	3	2	3	3	2	3	2	3	3
E5. Perform closed butt joint			E6. Perform T joint			E7. Perform flange joint			E8. Perform thin sheet welding (3mm)		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
2	1	3	3	1	2	3	3	2	3	3	1

## DUTIES and TASKS

### F. Perform Finishing Work

F1. Perform cleaning by emery paper			F2. Perform offhand grinding			F3. Perform deburring			F4. Perform cleaning by wire brush		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	1	2	2	1	2	2	1	2	2	1	2
F5. Apply putty			F6. Paint metal primer (red oxide )								
Task rating			Task rating								
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency						
3	2	1	3	1	1						

### G. Develop professionalism

G1. Read articles			G2. Visit workshop/factory			G3. Consult library			G4. Learn with senior/ junior		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	1	3	3	1	1	3	1	1	3	2	1
G5. Attain training			G6. Participate workshop /seminar								
Task rating			Task rating								
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency						
3	3	1	3	1	1						

### H. Perform communication

H1. Communicate with client			H2. Communicate with store keeper			H3. Communicate with Senior/junior			H4. Communicate with callings		
Task rating			Task rating			Task rating			Task rating		
Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency	Importance	Difficulty	Frequency
3	2	3	3	1	3	3	2	3	3	1	3
H5. Communicate with office administration											
Task rating											
Importance	Difficulty	Frequency									
3	1	3									

**Note:- G and H for reference and not for Skill Test.**

**Rating options:**

0= No

1= Low

2= Medium

3= High

## Additional Information for Job Title

<p style="text-align: center;"><b><u>Worker Trait</u></b></p> <ul style="list-style-type: none"> <li>• Discipline.</li> <li>• Honest</li> <li>• Faithful</li> <li>• Sincere</li> <li>• Confidence</li> <li>• Hard worker</li> <li>• Punctual</li> <li>• Healthy</li> </ul>	<p style="text-align: center;"><b><u>Entry Requirement</u></b></p> <ul style="list-style-type: none"> <li>• NSTB/Rules 3 months (390hrs) or As per NSTB rule</li> </ul>	<p style="text-align: center;"><b><u>Career Path</u></b></p> <ul style="list-style-type: none"> <li>• <b>Structural Fabricator Level-2</b></li> </ul>
<p style="text-align: center;"><b><u>Related Knowledge</u></b></p> <ul style="list-style-type: none"> <li>• Knowledge about safety and hazard.</li> <li>• Knowledge on first aid.</li> <li>• Knowledge on electricity.</li> <li>• Knowledge about uses of machines.</li> <li>• Knowledge about ampere setting.</li> <li>• Knowledge on quality of electrode.</li> <li>• Knowledge on welding, different methods of welding.</li> <li>• Knowledge about drawing.</li> <li>• Knowledge about measurement.</li> <li>• Knowledge about handling of tools.</li> <li>• Knowledge on metal estimating.</li> <li>• Knowledge of cold forging.</li> </ul>		<p style="text-align: center;"><b><u>Tools and equipment</u></b></p> <ul style="list-style-type: none"> <li>• Hammer.</li> <li>• Scissor.</li> <li>• Chisel</li> <li>• Welding machine set.</li> <li>• Drill machine.</li> <li>• Drill bit.</li> <li>• Counter sink.</li> <li>• Abrasive cutting machine.</li> <li>• Grinding machine</li> <li>• Hacksaw.</li> <li>• Back square.</li> <li>• Center punch.</li> <li>• Files.</li> <li>• Snapper set.</li> <li>• Anvil.</li> <li>• Tape/steel ruler.</li> <li>• Screw driver.</li> <li>• Slide wrench.</li> <li>• Pipe wrench.</li> <li>• Bench vice.</li> <li>• Open spanner set.</li> <li>• Divider.</li> <li>• Protractor.</li> <li>• Marking scriber.</li> <li>• Chipping hammer.</li> <li>• Hand shield.</li> <li>• Wire brush</li> <li>• Pliers.</li> <li>• Tongs</li> <li>• Jig/fixture.</li> <li>• Gloves.</li> <li>• Leather apron.</li> </ul>