Civil Construction Industry

Civil Engineer

2015

Comparative Summary

The scope of different job tasks that may be undertaken within any occupation, either by work specialization or by evolving project stages - means that the physical demands required to perform job tasks can vary quite significantly.

The table and graph below provides a summary of Civil Contruction Industry occupations and the indicative ergonomic physical demands.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occupation Ergonomics** | **Light** | **Moderate** | **Laboured** | **sum** |  |
| Road Construction Worker | 35.90% | 43.59% | 20.51% | 100% |  |
| Tunnel Worker | 33.33% | 51.28% | 15.39% | 100% |  |
| Foundation Worker | 35.90% | 48.72% | 15.38% | 100% |  |
| Road Marking Operator | 39.46% | 46.15% | 15.38% | 101% |  |
| Pavement Layer | 43.59% | 41.03% | 15.38% | 100% |  |
| Bridge Constructor | 43.59% | 41.03% | 15.38% | 100% |  |
| Plant Operator | 61.54% | 23.08% | 15.38% | 100% |  |
| Pipe Layer | 28.21% | 58.97% | 12.82% | 100% |  |
| Leading Hand | 38.46% | 48.72% | 12.82% | 100% |  |
| Directional Driller | 38.46% | 53.85% | 7.69% | 100% |  |
| Estimator | 89.74% | 5.13% | 5.13% | 100% |  |
| Supervisor | 66.67% | 33.33% | 0.00% | 100% |  |
| Project Manager | 71.79% | 28.21% | 0.00% | 100% |  |
| WHS Advisor | 84.62% | 15.38% | 0.00% | 100% |  |
| Civil Engineer | 87.18% | 12.82% | 0.00% | 100% |  |

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**Facilitating a Return to Work**

This document is a tool to assist General Practitioners’ in their examination of the functional ability of a worker and to assess possible restrictions after injury. It provides a summary of the occupational role and its physical demands.

**Physical Demands**

The physical demands required to perform job tasks can vary quite significantly and depend on the scope of the work, work specialization, worker skills and on the stage of the project. The following ergonomic assessment is indicative of a *usual* Worker’s physical demand requirements within this industry occupation.





**Range of tasks performed in the occupation**

|  |  |
| --- | --- |
| * Investigate & determine structures & services
 | * Technical advice & problem resolution
 |
| * Detailed designs for infrastructure systems
 | * Monitor construction & maintenance works
 |
| * Analysis of structural materials
 | * Managing and mentoring staff
 |
| * Managing contracts and the tendering process
 | * Organising labour and materials
 |
| * Implement and manage quality programs
 | * Remediation of contaminated soil sites
 |
| * Liaising with organisations, clients, contractors, suppliers, residents, technical consultants, local government authorities and agencies
 |

Civil Engineer

**Alternative Titles**

Airport Engineer, Harbour Engineer, Geotechnical Engineer, Highway Engineer, Hydraulics Engineer, Pipeline Engineer, Project Engineer, Railway Engineer, Road Engineer, Structural Engineer, Transport Engineer, Water Supply Engineer

**Education and Training**

Engineering Australia, is the body responsible for accrediting engineering programs in Australia.

**Overview of Occupation**

As a Professional Engineer, Technologist or Associate you create and maintain infrastructure systems (roads, railways, bridges, dams, airports, harbours, transport, gas, water, supply and sewerage). Civil engineers may work indoors in an office environment, and/or on project sites.

**Employers Assessment**

It is recommended that this document be provided to an employee’s Medical Practitioner in the event of a workplace incident that causes harm. It has been designed to provide information about the ergonomic requirements for employees in their normal role, to support informed medical decisions, and to encourage safe and timely return to work after injury. Employers are encouraged to complete their own assessment using the table below. This provides information about the physical requirements of the specific employee’s work tasks. *Please complete by placing a tick in the cell that best represents the physical demands for the injured worker.*



|  |  |  |
| --- | --- | --- |
| Completed by (Manager) |  | Sign |
| Date of assessment |  |
| Business / Employers name |  |
| Employee name |  |