

# INDUSTRY PROFILE - Mobile Cranes



**Transport, Postal & Warehousing  
Road Transport Freight**

**Machinery Operators and Drivers;  
Crane, Hoist and Lift Operators**

*ANZSIC: 7121, 4610*

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## 1. Background

### 1.1 Industry Regulatory / Licencing Bodies

- The Department of Transport and Main Roads WA are the entities responsible for licensing and regulatory requirements in the road transport industry.

## 2. Workforce Opportunities and/or Challenges for Industry

### 2.1 Industry opportunities

- Typically, employers are located centrally within metropolitan areas, with workers assigned to other areas as required. Some mining companies or freight and logistics workers have permanent staff on hand (i.e. medium size company, Midwest), however the majority of the workforce is located within the metropolitan area.
- There is an immediate need for these workers, with a national shortage and this demand is expected to increase over the next 5 years as the construction industry and other sectors continue to increase activities requiring these highly skilled workers.
- For those Crane companies that operate nationally, prior to border closures they utilised an interstate FIFO workforce. With the border closures this then moved to an intrastate FIFO workforce with some workers electing to relocate to the local areas they serviced. Based on industry consultation, some of the recruitment pools listed here are considered unsuitable for employment in this occupation due to the high experience component required beyond the licence (i.e. people with limited experience).
- Some companies in WA are currently expanding operations, for instance Mineral Resources will be expanding operations in Onslow iron ore mine taking place over the next 18 months to two years. Workers from all kinds of trades were in demand. Their recruitment campaign will target New Zealanders and offer FIFO roles for those who do not want to relocate to Australia. Crane operators already earn competitive salaries; however the campaign seeks to offer higher rates in a bid to attract talent.

### 2.2 Challenges

- Due to the impact of COVID-19, some workers found work in other industries with many not returning, further exacerbating the skills shortages and placing further strain on industry. With many approaching retirement age, industry is continuing to implement succession planning and seek new ways to create a sustainable worker pipeline with younger cohorts before the skills and experience of these workers is permanently lost to industry.
- These experienced individuals cannot be quickly replaced, creating higher demand for them due to the long lead time to attain the licences and associate qualifications (if required)
- Additionally, as the average age of mobile crane operators is approximately 54 years old
- It is foreseen succession planning issues may arise over the next ten years. This has the potential to impact on the operational continuity for businesses, further impacting the anticipated demand for these workers.
- Industry has identified that the current average age of crane operators is 54. There is a greater need to bring younger workers into the industry through identifying a career pathway. As these operators approach retirement, there are concerns that if the skills shortage is not addressed the

opportunity to transfer knowledge and mentor the upcoming generation will be lost). This will have further implications on the supply of experienced workers.

- Due to the growing demand for services and the ageing workforce, with industry anticipating 25% of the workforce to retire in the next decade. This will leave a deficit of skilled and experienced workers. These experienced individuals cannot be quickly replaced, creating higher demand for them due to the long lead time to attain the licences and associate qualifications (if required).

### *2.3 Supply and Demand for Workforce*

- Where highly skilled and experienced Crane Operators have been lost to other industries, employers report it would take a minimum of three to six months to train licenced individuals to an effective, autonomous level due to the long lead time to train and to develop the required experience.
- Those coming into WA under a migration scheme for these roles would need to demonstrate they have the requisite licences as a minimum, with industry then determining if their level of experience is commensurate with the job they were to perform, or if additional on the job training would be required.

### *2.4 Technology*

- As companies move into more technology-based operations, assistance with training will be required to assist current staff, and an older workforce to transition into new work modalities. Those groups with low technical expertise/literacy may experience delays in training. In addition, those with low LLN skills may further compound this issue. Support and funded assistance for these workers would be well regarded by industry.
- The area of AI and it's impact on the assessment practices will need to be monitored. ChatGPT is a chatbot launched by OpenAI in November 2022 and has the ability to generate human-like text, making it capable of using natural language conversations. Due to this ChatGPT is having an impact on the Assessment space both at secondary schools and for those offering online learning in determining the authenticity of individuals work for assessment who may be using the AI to submit work not of their own making. Schools are looking for ways to mitigate these effects, with some planning to return to paper and pencil based assessments conducted in the classroom to ensure they are accurately assessing individuals understanding of concepts in their submitted work. This trend will need to be monitored to see how/if it affects the VET area. Within the UK they have also recognised the potential for students utilising ChatGPT with permission and if it may create biases in grading, as well as the possibility it could replace human instructors and how this may affect the fair grading and assessment of individuals work. Some National retailers are also investigating it's potential to provide training.
- In addition ChatGPT has also been identified as a possible area to assist in career planning. In particular it can Level up your job searches by targeting opportunities for career moves, assist in elevating résumés, and assist in preparing responses to interview questions. As not everyone has access to career resources this can be a hidden benefit of AI.
- Further there are concerns around the roll-out of such technologies (i.e. ChatGPT) and the lack of consultation, from both from a consumer/public perspective - large companies tend to trial new technologies on their customers without informing them (i.e. Kmart and Bunnings face recognition as an example). This has the potential to impact customers (i.e. customer experience/satisfaction) as well as workers (in regards to understanding how and when to utilise these technologies). These technologies are often introduced into workplaces without consultation with the workforce. The Award states there is a requirement for this to occur however, industry feedback has been that this is rarely enforced. Further this area will need to be monitored to ensure that workers gain the requisite skills to understand, interact with or use this technology. As well as to understand their rights if used in the workplace from an industrial relations perspective.

### 3.Environmental, Social and Corporate Governance (ESG)

- With the Federal Governments commitment to net-zero emissions by 2050, Crane operators have the potential to modernise their fleet and offers significant opportunity from a project pipeline, skills, and resourcing perspective. It has been recommended that Crane Businesses should plan for a mix of fleet assets, ensuring they are fit for purpose to onboard debt to support their growth aspiration with these opportunities on the horizon.
- Due to the requirement for lower carbon emissions, industry is investigating how to incorporate electric or hydrogen fuelled vehicles into their fleets. Currently, the infrastructure does not exist in Australia to support Hydrogen refuelling. However, BOC and BP Australia have announced a new agreement to build a hydrogen refuelling station at the bp Truckstop in Lytton, Queensland. It will be the first service station in Australia with hydrogen refuelling capability. This will need to be monitored as training and upskilling will need to be available for those interacting with this infrastructure.
- Within WA work is underway by the State government subsidise a new network of electric vehicle charging infrastructure throughout the state. The grants will meet about half the costs of buying and installing charging stations and associated software. The grant program is designed to maximise opportunities for daytime EV charging, promote off-peak EV charging, support the conversion of organisation fleets to EVs and, over time, stimulate a second-hand EV market. This will likely encourage a wider adoption of these vehicles for WA businesses over time.

### 4. Training and Education Needs

#### *4.1 Current and Anticipated Training Needs*

- There is revamped engagement with traineeships following the recent amendments to the Certificate III in Mobile Crane Operations. Uptake numbers will need to be monitored with the intent of industry to bolster and embed a training culture beyond the attainment of a ticket/licence
- Certificate IV in Mobile Crane Operations and Certificate II in Construction Cranes are well regarded by industry. However, whilst there is no mandatory qualification requirement for this occupation, industry prefers the Certificate IV qualification.
- There is revamped engagement with traineeships following the recent amendments to the Certificate III in Mobile Crane Operations. Uptake numbers will need to be monitored with the intent of industry to bolster and embed a training culture beyond the attainment of a ticket/licence.
- The use of mobile cranes for lifting tasks spans emergency/recovery activities, construction and mining. Although the Certificate IV in Mobile Crane Operations is the industry preferred qualification, for those primarily in the construction industry, it has been suggested that the Certificate III in Construction Cranes be utilised.
- The skills acquired throughout the duration of the qualification comprise the underpinning knowledge for those wishing to work in the industry and gradually progress through the different crane licences, complimented by practical components which are learnt on the job. Within construction, an alternate training is used to better suit their needs.
- Based on industry feedback, there has been a high number of industry incidents in the past which has also led to an increasing push for assurances from companies contracting out crane services for a higher standard of training to be evidenced prior to commencement of operations on their worksites.
- Contractors that employ fixed crane operators are now embedding minimum training requirements and operating experience for operators intending to work on their sites. As a result, sub-contractors are struggling to source individuals that meet this.

#### *4.2 Licencing Considerations for Employability*

- Notably mobile crane licences have been identified by industry stakeholders as a suitable gradual feeder pathway to obtaining the higher-level crane licences

- It is a licensing requirement that an individual must have held their C6 licence: Slewing mobile cranes (up to and including 60 tonnes lifting capacity) for at least two years prior to undertaking their C1 licence: Slewing mobile cranes (up to and including 100 tonnes lifting capacity).
- Although there are licences required to operate equipment in this occupation, the occupation itself is not a licenced trade. It should be noted that successful achievement of the high-risk work (HRW) and heavy vehicle licensing units in the qualification must align with licensing and regulatory requirements. However, due to the high-risk nature of the occupation, type and size of machinery being operated, there is a licence that is required to:
  - Licence to perform dogging
  - Licence to perform rigging (basic level)
  - Licence to perform rigging (intermediate level)
  - Licence to operate a slewing mobile crane (up to 60 tonnes)
  - Licence to operate a slewing mobile crane (up to 100 tonnes)
  - Licence to operate a mobile crane (over 100 tonnes)
  - There has been efforts made by industry stakeholders to strongly encourage the use of log books that would assist in the tracking and accrual of practical experience as trainees progress through their various licences.

### 4.3 Training Challenges and Opportunities

- A number of training issues have been raised by for this occupation:

#### 4.3.1 Licencing Requirements vs Experience Requirements

- Mobile cranes are typically mounted onto a mobile platform such as trucks and operators are required to hold an appropriate level licence as dictated by regulation. Although this is a licenced occupation, concerns have been raised by a range of stakeholders that there are operators progressing through the different licence classes at a rate that is not coincide with the required level of skill and experience to be adequately deemed competent.
- As reported in last years response, In the 2020 WA Apprenticeship survey of crane operators conducted in 2020, 58 per cent of the 24 respondents stated they had either a poor or extremely inadequate experience with the three-day High-Risk Work Licence in preparing crane operators. This would suggest that there are gaps in in what is currently being offered. The lack of sufficient experience poses significant safety concerns (e.g. practical experience, load calculations and environmental conditions). Impacted organisations span across the construction, maintenance, infrastructure, residential, hire and rewards sectors).
- Mobile Crane Operators would look favourably at a possible private/public partnership arrangement to deliver the required training. A blended approach of learning that combines part institutional and an on-the-job learning would be looked at favourably by employers, partnering with either TAFE or private Registered Training Organisations.

#### 4.3.2 Changes to Regulatory Requirements

- Industry has raised concerns over the recent amendments to regulatory requirements for mobile crane licence holders. The C1 high risk qualification changes require a minimum of 2 years' experience to be held by the applicant to undertake training. This means existing staff are unable to meet these experience requirements. In addition, this presents a significant bottleneck for companies that wish to upskill their workers due to no use or access to C6 cranes needed to attain this. This will impact their ability to continue performing duties moving forward as activity begins to pick up pace. Without an ample transition period, it will be very difficult for operators to adjust to the new requirements.

#### 4.3.3 School-based Pathways

- It would not be appropriate to offer this pathway to school students. The minimum age of 18 years old is required to be issued a high-risk work licence if you intend to operate or perform tasks considered to

be high risk. High-risk tasks include using any of the following: scaffolding (basic, intermediate and advanced) and rigging work (dogging, basic, intermediate and advanced rigging).

#### 4.3.4 Access/Cost of Machinery/Equipment for Training Providers

- There is a high cost involved for the infrastructure and machinery for these roles and the equipment and technology required may not be as accessible to training institutions without industry partnerships.
- Given this, it is imperative that employers ensure that they engage a candidate with the interest and the right attitude before they invest their time and resources. There is an opportunity for the Education/Training sectors to provide support by creating workplace experience opportunities which could also test attitude/aptitude fit for those undergoing any training in this area. Through the establishment and encouragement of two-way collaborative partnerships between industry and training providers opportunities can be offered to candidates to assist them to develop an understanding of the requirements of the role prior to undertaking training and/or employment, and by helping to match them with suitable employment outcomes/options on the completion of their training. This could assist industry by lifting the quality and suitability of candidates who undertake training by ensuring a better compatibility fit with potential employers.

#### 4.3.5 Industry Currency

- Better links with industry through, partnerships and industry working groups are needed. This would assist RTOs and TAFEs to foster more and varied opportunities for staff to return to industry to maintain their currency. In addition, it would assist RTOs and TAFEs to ensure they are aware of industry issues, challenges and any barriers to training, particularly for those in regional and remote areas.

#### 4.3.6 ANZSCO and ANZSIC Considerations

- The ANZSCO for Mobile Crane Operators is 712111 - Crane, hoist or lift operators this ANZSCO covers both the lower entry level occupations (such as Mobile crane operator) as well as the higher level (post-entry level) roles such as (mobile crane leading hand, or mobile crane supervisor). Although these are not technically an emerging occupation it is important to recognise the difference in skills and qualifications at these two distinct levels. There is a need for a separate ANZSCO to be assigned so any differences relating to training and workforce development can be better tracked. As the ABS are currently reviewing the ANZSCO the LDSC will work with industry to determine this need and requirements in the LDSC submission to the ABS.
- In addition, for scope and coverage and due to the nature of the role please be aware there is some ambiguity around the correct ANZSIC code to be assigned to mobile cranes (with or without an operator). In some situations, some mobile crane operators are able to operate the crane, however they may not possess the appropriate licence to move/drive the mobile crane to locations. Under supervision, some truck operators can also operate the crane. This has meant there are three ANZSICs which may apply; 71 Machine and Stationary Plant Operators (7121 Crane, Host and Lift Operators), 66 - Rental and Hiring Services (except real estate). (In particular 6631 Leasing, hiring or renting of cranes and other lifting or materials handling equipment without operator) and 6631 Leasing, hiring, or renting of cranes from own stocks and without operator – mobile and fixed). In addition to 46 - Road transport (as a secondary ANZSIC) may also apply for those renting and leasing heavy machinery with operators are included in the division where the equipment is predominantly used (i.e. road transport).

#### 4.4 Career Pathways and Graduate Outcomes

- Work is underway by employers and associations to strengthen the career pathways available for this industry. As well as better promoting and creating better visibility around the many varied opportunities for these roles.
- See also Road Transport – Freight Industry Profile for some of the pathways associated with these linked occupations and licences.

## 5 References

- LDSC, Road Transport Industry Profile 2020, 2021, 2022
- LDSC, Road Transport Industry Profile, 2021, 2022
- LDSC WAJET/SPOL response 2021
- LDSC Establishment and Variation of Apprenticeship (EVAC) Mobile Crane Certificate IV in Mobile Crane Operations, 2020
- LDSC, Addendum, Establishment and Variation of Apprenticeship (EVAC) Mobile Crane Certificate IV in Mobile Crane Operations, 2022
- www.9news.com.au. (n.d.). The Aussie mining company hoping to lure New Zealanders with \$150k-plus a year. [online] Available at: <https://www.9news.com.au/national/australian-mining-company-lure-new-zealanders-with-150-thousand-dollar-salary/ed74d997-83ec-42f1-83fe-eb5a1afa6c1b> [Accessed 6 Apr. 2023].

## 6 Industry Consultation:

Regular industry consultation is undertaken by the LDSC through the Road Transport Industry Advisory Group (IAG), the Registered Training Organisations (RTOs), LDSC Annual RTO Forum, the LDSCs Board of Management (BoM) meetings, regional consultations, participation in industry advisory committees, teleconferences, email and social media and the use of online surveys.

Participation in group and individual meetings varies year on year. Comprising: the Road Transport IAG (41 members; 18 small, 8 medium, 15 large organisations located in the metropolitan and regional areas of WA covering organisations in the freight, passenger, and on-demand transport area); the Furniture Removalist IAG (comprising 10 members of the Furniture Removalist Industry; 4 National, 6 small to medium); the Mobile cranes IAG (14 organisations comprising small medium and large operators in the Metropolitan, Goldfields-Esperance, northwest and southwest regions); the Warehousing and Logistics IAG (comprising 10 members made up of small, medium and large organisations, located predominantly in the Metropolitan area with depots or service provision and facilities in the Southwest and Northwest); and the RTO IAG (we invite 120 RTO Comprising small, medium and large private and public training providers). Please note, Industry union and association members are also invited to provide feedback.

Continued and ongoing contact is made throughout the year via emails, newsletters, surveys (our most recent State of the Industry Survey had 89 industry respondents: across all industries under the LDSC remit. This data has also been included in these responses); and other channels by the LDSC to members and non-members of the Road Transport IAG and RTO IAG networks.

In addition, participating organisations for the Road Transport and the Warehousing and Logistics sector included **many small, medium and large companies** with interests in Freight and passenger transport, local Chamber of Commerce and Industries (CCIs) across WA, **Industry Associations** (i.e. Crane Industry Council of Australia (CICA WA), Australian Furniture Removalists Association (AFRA), the Ride Share Drivers Association of Australia (RSDAA), WA Country Taxi Operators Association, Western Roads Federation (WRF) Transafe WA, Livestock and Regional Transport Association (LRTA), iMove, Freight and Logistics Council WA, Australian Trucking Association; The Chartered Institute of Logistics and Transport (CILTA), Freight and Transport (FT Alliance), and Supply Chain And Logistics Association of Australia (SCLAA)); **Unions** (i.e.. the Transport Workers Union (TWU)); Maritime Union of WA, CFMEU WA, Crane and Industry Council Australia (CICA) the **licensing/regulatory body for Road** (i.e. Main Roads WA, Worksafe WA); **Local and Commonwealth Government Departments** (i.e. the Department of Transport, Department of Infrastructure, Regional Development and Cities, and Defence West, the Western Australian Defence Industry Workforce Office (WADIWO), Road Safety Commission); and the **WA Industry Training Council Network and Registered Training Organisations** (RTOs).