

OIL AND GAS ROLES

There are three key areas of the oil and gas (or hydrocarbons) industry:

1. Exploration, ie drilling (on or off shore)
2. Construction, ie pipe laying, subsea construction, surface construction (on or off shore)
3. Production (on and off shore)

Jobs are either on or off shore. Obtaining work off shore – which is by far the most lucrative of all resource sector employment – often requires a trade qualification. All positions require candidates to have completed a First Aid Certificate and for all offshore roles, employees must have a current HUET ticket. More than any other aspect of the industry however, contracting companies often employ on the basis of referral and word of mouth.

Rates of pay quoted here are the minimum hourly rate. Offshore workers in particular, typically attract a range of additional allowances and for fixed term work, a redundancy payment at the end of the job.

OFFSHORE

BALLAST CONTROL OPERATORS

Ballast Control Operators maintain the balance and stability of the rig so that drilling and production can occur safely. Other responsibilities may include:

- Perform daily Deck Load Survey;
- Perform daily ocean motions stability calculations and make necessary adjustments to the ballast where required;
- Function ballast board valves and check pump rooms;
- Log changes and actions daily;
- Ensure accurate and current records of emergency equipment and personnel;
- Act as Command Center for emergencies;
- Record weather, anchor tensions and vessel movements;
- Record ROV off and on rig deck;
- Record and monitor vessels on close standby;
- Record and report on waste removed from the rig (food, oil) and additional loads taken on (fuel, oil, consumables);
- Pump fuel to the engine room;
- Test bilge alarms;
- Perform pump room maintenance;
- Ensure Fire Team radios, battery operated tools, Portable Gas Detector Units and spare batteries are kept charged;
- Grease and operate all manual ballast pump room valves and manual valves for winch cooling;
- Grease and operate all manual take-on station and isolation valves around rig;
- Do a Rig Move Stability proposal before each rig move;

- Provide permission for supply vessels to come alongside the rig in line with current or future rig operations, ROV in water port side etc);
- Obtain copy of all vessel manifests to and from rig;

Typically required

- Completion of Ballast Control Course and Radio Operator's Course.
- Experience in a marine environment, eg Coastguard, Navy, fishing industry

Money

From \$33 per hour

CRANE DRIVER

Crane Drivers operate cranes on vessel decks to assist Riggers and Scaffolders to move equipment for installation, repair and/or maintenance. Other responsibilities may include:

- Perform major equipment lifts for construction;
- Lift drill rods and equipment on deck for exploration activities;
- Operate Pedestal Crane to hoist and move large items on deck or site;
- Install platforms or construction equipment for construction sites;
- Lift supplies and stores from supply vessels.

Typically required:

- Open Crane Drivers License.
- Tower Crane (CT) Ticket.
- On shore experience doing heavy lifts before operating a crane off shore; operating a crane during high swell and moving seas requires high level competence in crane driving.

Money

From \$33 per hour

DIVER

There is, at this time, a worldwide shortage of experienced divers for employment in the offshore sector. However, employment opportunities in this area are extremely limited for the new trained and qualified Part 3 diver. Be aware that there are certain elements, especially within the training industry that give prospective students the impression that gaining employment upon completion of a Part 3 course is highly likely and this is simply not accurate.

A small percentage of newly qualified divers do gain employment but usually they already have good diving support skills, ie trade qualifications such as Fitting and Turning, Boilermaking or Welding.

For other graduates, to stand a reasonable chance of gaining employment in the offshore sector a newly trained diver needs to gain on-the-job experience by working offshore for a minimum period of two or three years. Divers can be called on to do a wide variety of tasks, including:

- Perform underwater welding and cutting;
- Bolt up flanges and hydraulic equipment;
- Find and check flanges for leaks;
- Hook up cranes to below sea level.

Some tasks require the Diver to operate at such deep levels that they may be required to spend long periods in a decompression chamber under or above water. This is considered a dangerous job.

DRILLER

Drillers move, set up and operate drilling rigs and related equipment to drill holes for exploration. Other responsibilities may include:

- Move rigs onto site and set them up;
- Position drills and set angles and depths;
- Start and stop drills and coordinate utility workers on site;
- Check equipment and progress throughout operation;
- Operate secondary equipment, such as pumps (air and mud) and equipment used to prevent and correct problems;
- Record performance details and take drill core samples;
- Carry out minor maintenance and repairs;
- Dismantle and move rig to next location.

Typically required

- Must be 18 years of age and have worked in a drilling environment in a remote area or offshore, for example driller's offsider.
- Ability to record details accurately, as precision is crucial to the safety of the exploration.
- Mine charging experience.
- Mechanical aptitude.
- Understanding of, or exposure to drilling processes and rigs.

Money

Offshore Driller: \$90,000+

ELECTRICAL TECHNICIAN

Electricians install, repair, upgrade and maintain electrical systems. They work on a range of equipment, including turbines, diesel engines, power generation, sewerage systems, water pumping systems, water makers, satellite television, ROV electrical systems, chain loading systems, winches, and hub drive systems and they are responsible for establishing and ensuring ongoing supplies of power from generators. Other responsibilities may include:

- Onshore repair, maintenance and testing of a wide range of diving equipment, hyperbaric welding equipment, laying equipment, piling equipment, cold cutting equipment, remote tie-in equipment and miscellaneous operational equipment;
- Pre-mobilisation preparation and assembly of diving systems, hyperbaric welding systems, lay systems, piling systems and remote tie-in systems;
- Construct and test control panels required for new-build systems;
- Offshore mobilisation and demobilisation, maintenance and repair of all equipment and systems detailed above;
- Work on low and high voltage DC systems;
- Repair and maintain all electrical equipment and process control;
- Maintain lighting, switches and electrical equipment in safe working order;
- Install wiring and circuits for extensions and additions to work sites;
- Carry out electrical fitting, high voltage switching and electronics;
- Maintain communications and telecommunications systems;

- Connect cables to circuit breakers, transformers, motors, heaters etc;
- Test circuits;
- Connect systems to power supplies;
- Complete electrical calculations;
- Test equipment using meters;
- Undertake high voltage switching.

Typically required:

- Electrical Trade Trade.
- Current A Grade Electrician License.
- Experience with gas turbines, automated control systems, HV switching, compressors, fire and gas systems, power generation and DCS.

Money

Electrician - Maintenance: \$70,000 - \$120,000+ (or from \$34 per hour)

Leading Hand: \$85,000 - \$135,000+ (or from \$36 per hour)

ELECTRICAL/INSTRUMENTATION TECHNICIAN

Electrician/Instrumentation Technicians specialise in the complexities of the electrical workings of specific instrumentation used used in the industry. Other responsibilities may include:

- Repair and maintain all electrical equipment and process control;
- Provide preventative and corrective maintenance on instrument/electrical equipment such as gas turbines, automated control systems, HV switching, compressors, fire and gas systems, power generation and Digital Control Systems (DCS);
- Ensure safe work practices near electrical outlets;
- Read wiring diagrams to plan layout of wiring systems;
- Test circuits;
- Assemble, calibrate, install and commission precision instruments that measure, indicate, transmit, record and control;
- Connect systems to power supplies;
- Complete electrical calculations;
- Test equipment using meters;
- Undertake high voltage switching.

Typically required:

- Instrumentation Qualifications.
- Possession of a High Voltage Switching ticket.
- Experience with gas turbines, automated control systems, HV switching, compressors, fire and gas systems, power generation and DCS.
- PLC and Instrumentation is required, heavy industrial background is highly recommended.

Money:

Instrumentation Technician: \$80,000 – \$120,000+ (or from \$34 per hour)

INTEGRATED RATING

Integrated Rating refers to a position that encompasses a number of roles on an off shore vessel. Responsibilities may include:

- Carry out sea lookout duties when navigating off the riser;
- Secure the vessel for sea when preparing to let go for cyclone avoidance;
- Act as Dogman and Crane Driver when material handling;
- Assist in shuttle tanker operations;
- Assist in discharging product to the shuttle tanker and acting as a deck watchman and assisting with valve operations;
- Carry out regular deck maintenance;
- Act as helicopter landing crew, assisting in all facets of the helicopter operation;
- Assist in the engine room as required, including general cleaning in the engine room;
- Assist in emergency response as required;
- Assist in tank entry operations as required;
- Assist in the changeout of the offtake hawser and floating hose maintenance;
- Assist where required in rigging and scaffolding;
- Assist with hot work operations.

Typically required:

- Integrated Rating Certificate.
- Offshore Crane Driver's License.
- Scaffolding, Dogging and Rigging Certificates.
- Experience driving small boats.
- Experience with Tankers.

Money:

\$60,000 – \$130,000+ (or from \$28 per hour)

MECHANICAL TECHNICIAN

Mechanical Technicians are responsible for the modification, upgrade, mobilisation, commissioning, maintenance and repairs on a wide range of PLC controlled systems and trouble shooting of same. Typical systems worked on include ROV mechanical and hydraulic systems, piling, welding, conventional lay spread, tilted lay spread, chain loading systems, winches, hub drive system and cold cutting. Other responsibilities may include:

- Onshore repair, maintenance and testing of a wide range of diving equipment, hyperbaric welding equipment, laying equipment, piling equipment, cold cutting equipment, remote tie-in equipment and other operational equipment;
- Pre-mobilisation preparation and assembly of diving systems, hyperbaric welding systems, lay systems, piling systems and remote tie in systems;
- Construct and test control panels required for new-build systems;
- Offshore mobilisation, maintenance and repair of all equipment and systems detailed above;
- Offshore demobilization of all equipment and systems detailed above;
- Repair and maintain diesel engines, pumps and hydraulics;
- Install, repair, and maintain diesel engines, water markers, hydraulics, turbines, engines and valves.

Typically required:

- Mechanical Fitting or Mechanic trade;
- Experience working on pumps, gas turbines and compression equipment, hydraulics and diesel engines.

Money

\$70,000 – \$140,000+ (or from \$34 per hour)

MEDIC/SAFETY OFFICER

The Medic/Safety Officer assists in all matters regarding safety and health. Other responsibilities may include:

- Manage the medical facilities, update equipment and medicine in accordance with relevant external and internal requirements;
- Initiate and perform training of dedicated first aiders to advanced first aid level;
- Operate all medical and first aid equipment onboard, and respond to illness/injuries;
- Evaluate and, if necessary, initiate improvement of working conditions related to safety and health;
- Carry out medical treatment and report according to relevant procedures, and when relevant, make contact with the Duty Doctor;
- Assist with the implementation of risk assessments and report identified hazards to relevant personnel;
- Ensure correct control, storing and use of chemicals, assess all materials and consumables and give advice and guidance to personnel concerning exposure limits and medical treatment;
- Participate in area inspections, safety initiatives and the monitoring of safe working practices;
- Assist in vessel emergency drills and training as required;
- Perform safety inductions and orientation tours of personnel;
- Stop any operation if there is doubt about own or others safety;
- Co-ordinate, initiate and collate reporting, logging, investigation and follow up of accident/incidents;
- Participate in in-house safety training provided;
- Initiate safety improvement and safety awareness programs.

Typically required:

- Offshore Medic / Army Medic / Registered General Nurse qualification.
- Experience in handling medical emergencies.
- Training in emergency and occupational health medicine.

Money

From \$34 per hour

PROCESS/PRODUCTION TECHNICIAN OR OPERATOR

Process Technicians operate equipment relating to oil and gas production. Other responsibilities may include:

- Operate a designated section of the process plant safely and according to the documented procedures and within control bounds at all times;
- Operate utilities, gas compression, power generation and oil and gas processing systems;
- Prepare equipment for maintenance and execute preventative maintenance;
- Monitor process plant equipment to ensure it is operating at optimum levels and take corrective actions when this is not the case;

- Ensure systems, procedures and work instructions for the safe operation of the process plant are always used;
- Ensure the permit-to-work system is used when required;
- Prepare a hand over log for the next shift at the end of every rostered shift;
- Report any safety, environmental and production incidents that occur within the section;
- Indirectly minimise costs through efficient operation of equipment, following guidelines and reporting discrepancies.

Typically required:

- Trade qualification preferred.
- Certificate IV in Processing - TAFE qualification (eg Perth Challenger TAFE).
- Previous experience working and/or operating a hydro-metallurgical plant or continuous process chemical refinery.
- Understanding of permit-to-work and job hazard analysis systems.

Money

From \$30 per hour

RADIO CONTROL OPERATORS

Radio Operators are responsible for the safe operation and deployment of all communication and communication equipment on board the vessel. Other responsibilities may include:

- Manage the helicopter flights to and from land to vessel;
- Monitor and, where applicable, communicate with all working vessels and maritime authorities (eg Coastguard) in the area;
- Monitor weather and alert management on changes that may impact the safe operation of the vessel or transportation via helicopter;
- Maintain logs and weather details;
- Monitor the radio and phone systems;
- Act as direct contact for the helicopter pilot;
- Coordinate passenger and store loads to and from land;
- Coordinate personnel evacuation in times of emergency or extreme weather conditions.

Typically required:

- Must hold a recognised Radio Operators License and certificate (eg SWAN TAFE, Western Australia).
- Local Sea Rescue experience and training.
- Medical background and qualification is preferred.
- OHS Training and qualifications.
- Naval experience highly advantageous.

Money

From \$33 per hour

RIGGER

Riggers are responsible for performing all general deck operations, including housekeeping. Other responsibilities may include:

- Perform housekeeping activities to maintain a safe and clean worksite, including painting and equipment repairs;
- Perform rigging tasks relating to construction, repair and maintenance of vessel and construction equipment, eg lifting valves and pumps to assist electrical and mechanical trades to install and remove equipment;
- Assist with handling and storage of vessel stores and provisions during loading operations of these items;
- Assist with transferring equipment from vessel to vessel, including loading and unloading supplies from helicopters;
- Direct cranes to assist with transferring equipment;
- Perform sea-fastening of equipment;
- Assist with handling of vessel mooring ropes;
- Perform pipe handling operations;
- Perform Rigid Pipelay and Flexible / Umbilical installation activities;
- Perform front end firing line operations;
- Ensure any rigging is 'Fit For Purpose' prior to use and perform visual inspection of all loose rigging prior to and after in-service use;
- Ensure rigging equipment and scaffolding are maintained;
- Perform 'working at height' and 'over-side' operations;
- Erect and dismantle scaffolding;
- Connect flanges and tension bolts;
- Terminate wire ropes;
- Operate winches (air and hydraulic) for construction activities;
- Ensure Manual Handling operations are undertaken with necessary precautions and requirements;
- Perform pad change on tensioners for set-up of lay spread equipment.

Typically required:

- Advanced Scaffolding, Rigging and Rope Rescue Tickets.
- Elevated Work Platform training.
- Handling of Dangerous Goods Certificate.
- Crane License.
- Mechanically inclined.
- Emergency response or fire fighting training (as often on emergency response teams).

Money

\$60,000 – \$130,000+ (or from \$28 per hour)

ROV OPERATOR/TECHNICIAN (Remote Underwater Vehicle, offshore only)

ROV Operators control remotely operated submersible vehicles as pilot technicians. ROVs are used extensively in the oil and gas sector for observation, installation and intervention/ maintenance tasks. Operators must be capable of piloting the ROV in a broad range of operational circumstances and act as a data recorder/observer as required. Other responsibilities may include:

- Operate, maintain and repair ROV system equipment in accordance with applicable procedures and standards;
- Ensure that the necessary paperwork is completed for the operations being undertaken;

- Perform timely execution of ROV Operations in accordance with the project requirements and procedures to a quality standard;
- Perform maintenance / repair and upgrades to ROV and related equipment, inclusive of mechanical / hydraulic / electrical / electric and fibre optic systems;
- Undertake pre and post dive checks on the ROV system;
- Perform Launch / Recovery operations of ROV.

Typically Required:

- ROV Operator Ticket.
- Knowledge of specific ROV control, navigation and propulsion systems being utilised.
- Previous experience and/or training in navigating and operating an ROV.

Money

From \$36 per hour

STOREPERSON

Storepersons ensure compliance with policy and procedures for custody and distribution of inventory on the vessel. Other responsibilities may include:

- Ensure stock is maintained in a fit-for-use state in accordance with set procedures;
- Unload inbound freight on arrival, segregate, receipt and issue materials;
- Prepare materials for storage;
- Manage all aspects of dangerous goods storage, handling and distribution in accordance with relevant codes and regulations.

Typically Required:

- Trade qualification.
- Certificate IV in Distribution or Logistics.
- Working knowledge of distribution principles, including store maintenance, preservation and stocktaking.
- Comprehensive understanding of EHS compliance and statutory requirements for warehousing environments.
- Competency in using a warehousing materials management computer package.
- Experience in Stores highly regarded.
- Experience with online maintenance system.

Money

From \$30 per hour

WELDER

Welders are responsible for performing all deck welding/fabrication tasks as directed by the Deck Foreman and for ensuring that all welding/burning equipment used and any hot work carried out is done so safely. Welders construct or repair metal products by joining parts using one of several welding processes. There are first, second and third class welders. Other responsibilities may include:

- Work under the instructions of the Welding Foreman for Anode Pad and Anode operations;
- Perform 'hot work' seafastening, fabrication and equipment repair as may be required;
- Operate welding equipment and hand tools as required for 'hot work' operations;

- Install anode pads and anodes onto pipeline in compliance with approved procedures;
- Perform housekeeping activities as necessary to maintain a safe and clean worksite;
- Follow specific working requirements set out by applicable Permit to Work orders.

Typically required:

- Welding/Boilermaking Trade.
- As many coded tickets as possible is highly recommended, as is experience in a heavy industrial background.

Money

\$60,000 – \$130,000+ (or from \$34 per hour)

ONSHORE

Onshore roles are similar to those off shore, however do not always pay at the same level. Similar roles and requirements include:

- Boilermaker/Welder
- Crane Driver
- Drillers
- Electrician/Instrumentation
- Fitter and Turner
- Mechanic
- Production/Process Operator
- Rigger/Scaffolder
- Storeperson
- Trades Assistant