



SERVICING THE DEFENCE INDUSTRY



**PRESSURE
DYNAMICS**

An engineering and maintenance services contractor specialising in delivering electro-hydraulic and lifting solutions to the Defence industry.

With facilities and resources across Western Australia and the Northern Territory, we are well positioned to support our Defence clients with highly skilled project managers, engineers and technicians along with necessary equipment and parts to complete simple and complex works.

PRODUCTS & SERVICES



Original Equipment Manufacture Fluid Power Equipment & System	Engineering & Analysis	Modelling, Simulation, & Troubleshooting
Equipment, Systems, & Materials Testing	Equipment / Materials Refurbishment & Rotable Spares	Condition Monitoring
Installation & Commissioning	Inspection, Maintenance & Repair	Brownfield Modifications and Upgrades
Equipment Storage, Maintenance, & Preservation	Equipment Mobilisation & Project Management	Asset Management



SPECIALISATIONS

Fluid Power

- Controls Systems and Equipment
- Electromechanical Drive Systems and Equipment
- Auxiliary Marine Systems and Equipment
- Lubrication, Fluid Transfer and Chemical Injection

Cranes & Lifting

- | Cranes | Pedestal | Overhead / Gantry | Jib |
|--|----------|-------------------|-----|
| Crane and Lifting Equipment Maintenance and Inspection | | | |
| Routine and Preventative Maintenance | | | |
| Optimisation | | | |
| Structural Analysis and Life Extension Studies | | | |
| Lift Planning and Engineering | | | |

Products

- Hydraulic Products and Components
- Specialist, Hydraulic, Industrial, & Utility Hose Assemblies, Couplings, Fittings, and Adaptors
- Hose Testing - NATA Certified
- Hydraulic Equipment and Tool Hire

BENDER & MINI-ME MAN-RIDING WINCHES

Pressure Dynamics is the Original Equipment Manufacturer of the Bender and Mini-Me Man-Riding Winches utilised at the Harold E. Holt Naval Communication Station, which is operated and maintained by the Australian Department of Defence on behalf of Australia and the US.

The winches are used to lift personnel safely and reliably to the top of the radio towers for the very low frequency (VLF) radio transmission system, which range from 304m to 364m to 387m high.

Between 2014 & 2016 we refurbished the man-riding winches to an as-new condition, also executing PLC controls upgrades, and a digital operations display and alarms system.

Pressure Dynamics continues to inspect, maintain, and repair the man-riding winches for optimum condition and operations for Raytheon Australia.



HMAS WESTRALIA

Pressure Dynamics executed significant works for HMAS Westralia, including manufacture of its RAS Winch, and modification of the BD Troughing and AT Winches.

Numerous Hydraulic Power Units (HPUs) were supplied for the vessel refurbishment.

Over numerous years we inspected, maintained, and repaired boat davit systems, winches and capstans, RAST (Recovery Assist, Securing and Traversing) systems, fin stabilising systems, ships steering systems and Controllable Pitch Propellers (CPPs).

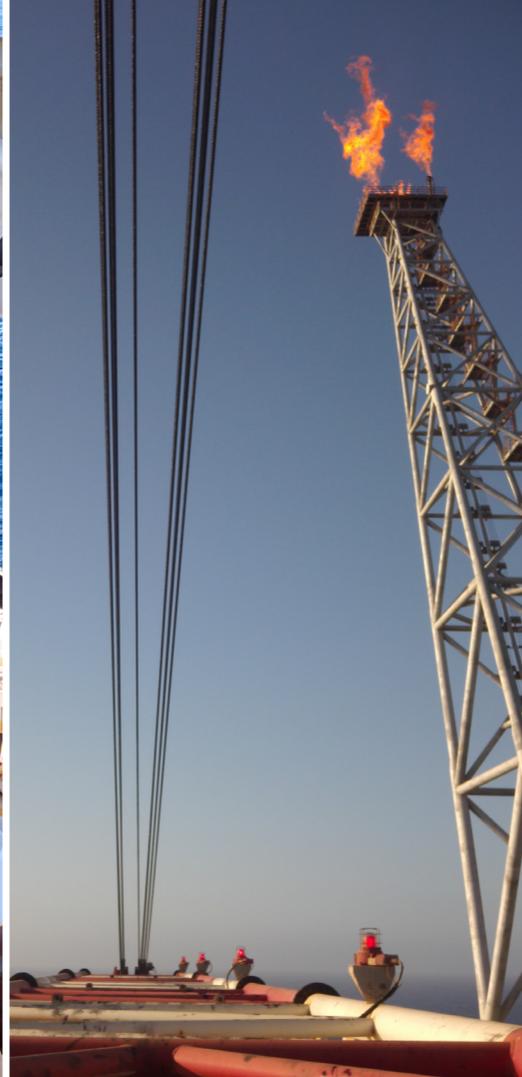
Further works executed included maintenance and calibration of gauge panels, renewal of instrument and control air lines, and the flushing, filtration, and pressure testing of hydraulic circuits.

NT DEFENCE BASES

Pressure Dynamics inspect, maintain, and repair all Cranes and Lifting Devices for the NT Defence Bases; subcontracted by Defence Base Infrastructure manager Ventia.

We conduct Preventative Maintenance, Reactive Maintenance, and Asset Projects works on the cranes and lifting devices – predominantly Overhead and Gantry Cranes – extending to vehicle hoists, jib cranes, scissors lifts and EWPs, winches, and a ship lift.

Project works have included the supply and installation of an overhead crane, and the as-new refurbishment of a vehicle hoist.



DIFFERENTIATORS

Marine vessels and facilities expertise and experience in Oil & Gas, Mining, & Commercial sectors

Largest, independent Fluid Power, and Cranes & Lifting Engineering team in Australia

Largest, independent Fluid Power, and Cranes & Lifting Technicians resource team in Australia

Complete Asset Management life-cycle capability

Network of custom-purpose Fluid Power, and Cranes & Lifting workshops in Western Australia and Northern Territory Perth | Karratha Industrial Estate | Bunbury | Darwin

Exclusive or preferential specialist OEM materials and equipment Distributorships

Extensive hire equipment fleet and mobile workshop containers to execute Fluid Power, and Cranes & Lifting work scopes and projects offshore, nationally, and internationally

Network of Fluid Power, and Cranes & Lifting partners across Australia Facility, workshop, and equipment access nation-wide, and especially - Sydney | Adelaide | Brisbane | Cairns | Derby (Broome)

3D Static and Mobile Scanning of Assets for Point Cloud Data – subsequent modelling toolsets

Multi-functional 'Digital Twin' Modelling, Simulation, Analysis & Troubleshooting technologies

Condition Monitoring (and Machine Learning)

PRESSURE DYNAMICS HAS ALSO

Manufactured 2 Torpedo Recovery Units, for Defence.

Manufactured and maintained various equipment for Submarine Rescue systems, for JFD Limited.

Supplied specialist componentry and hose assemblies and fittings to Defence Primes for >40 years.



KEY CLIENTS

Defence (& Marine)	Energy	Mining
Ventia NT Defence Bases Asset Management	Woodside Energy	Alcoa
Raytheon Man Riding Winches	Inpex Australia	Rio Tinto
JFD Limited Submarine Rescue	Chevron	FMG
Total Marine Technology SEA1354 Submarine Rescue	Shell Australia	Glencore
Thales	BHP Petroleum	BHP
Wärtsilä Corporation	Jadestone Energy	South32
	Upstream Production Solutions	Newmont

KEY PARTNERS

Collaborators	Distributorships	
Safespear Indigenous Partner – Personnel, Lifting & Rigging Materials, Hazardous Area Enclosures	Altra Industrial Motion	Parker Premier Distributor
National Energy Resources Australia (NERA) Machine Learning for Hydraulic Systems R&D project	Stauff	Manuli
Subsea Innovation Cluster Australia	Parker Hannifin	Elaflex
Hydrogen Technology Cluster Australia (H2TCA) eInnovations (Norway)	Hydac	Exatech
Alliance Automation (NT / National)	Bosch Rexroth	Alfagomma
	Danfoss	GH Cranes
	Eaton	Hydroil

QUALITY ASSURANCE & ACCREDITATIONS
 ISO 9001:2015
 Certified by DNV GL
 Certificate # 2789853-2018-AQ-AUS-JAS-ANZ
 Incorporating ISO 14001 | AS4801 | ISO 3 1000
 ISO 17025:2017
 Certified by NATA
 Accreditation # 19298
 Hose Assemblies | Pressure Fittings | Valves

www.pressuredynamics.com

Flavio Bruni – National Hydraulics Manager
 T 0415 446 641 | Flavio.Bruni@pressuredynamics.com

Davide Sirolli – National Sales Manager, Hydraulics
 T 0448 985 888 | Davide.Sirolli@pressuredynamics.com

Head Office

234 Barrington St,
 Bibra Lake WA 6163
 T +618 9473 7277
Sales@pressuredynamics.com

Regional Facility – Pilbara

20 Seabrook Crescent,
 Karratha Industrial Estate
 WA 6714
 T +618 9144 1290

Darwin – NT Branch

7 Andrews St,
 Berrimah NT 0828
 T +618 8423 6104
Darwin@pressuredynamics.com

