



TRITON XLX 200HP

POWER 200 shaft horsepower

DEPTH RATING 3000 msw (9842 fsw)

DIMENSIONS

Length 3.605 m (142")

Width 1.905 m (75")

Height 2.282 m (89.8")

WEIGHT

In-Air 5500 kg (12,125lb)

Payload in Seawater 300 kg (660lb)

PERFORMANCE (Calculated)

Forward 4.4 knots

Lateral 3.2 knots

Vertical 3.4 knots

Turning Rate 40° per second

Pitch and Roll Control: ±15° per second

Roll Control ±15° per second

BOLLARD PULL

Forward 1200 kgf

Aft 1200 kgf

Lateral 1200 kgf

Vertical Lift 1230 kgf

Vertical Down 1230 kgf

THRUSTERS

Type Hydraulic, fixed pitch, screens optional

RPM 2,000 (maximum)

Axial 4 x 380 mm (canted @ 45°)

Vertical 4 x 300 mm (canted @ 30°)

LIFT POINT

Location adjustable 5 positions in steps of 76.2 mm (3")

Safe Working Load (SWL) 8,500 kg (18,700 lb)

Design Load (DL) 25,500 kg (56,100 lb)

FRAME

Through frame lift (TFL) 3,000 kg (6,613 lb)

Material Aluminium 6082T6 with SST Hardware

Auxiliary Lift 2 x lift lugs provided with lift sling assembly

Work Package Mountings: 4 x sockets to accept 68 mm Ø vertical pins

Sockets include cross holes to accept 35 mm Ø horizontal pins

795 mm longitudinal spacing

428 mm lateral spacing

Centred on central lift point position

SUBSEA HPU MOTOR

Type 200 shaft horsepower 4-Pole Induction

RPM 1800

Voltage 3-phase, 4160 Vac, 60 Hz

Configuration Dual ended

Instrumentation Ground fault, temperature, water ingress

BUOYANCY

Type Syntactic Foam

Arrangement 4 main blocks, secured with spring loaded tie rods

HYDRAULICS

Main Pump Variable displacement, open circuit, remote pressure with torque limit control

200 cc/rev Kawasaki (cw rotation)

Factory Set System Pressure 240 bar (3,500 psi)

Maximum System Flow (@ 240 bar) 348 lpm (92 US gal/min)

Auxiliary Pump (if fitted) Variable displacement, open circuit, load sensed

200 cc/rev Kawasaki (ccw rotation)

Factory Set System Pressure 240 bar (3,500 psi)

Flow 242 lpm (at 240 bar) (64 US gal/min)

316 lpm (at 180 bar) (83 US gal/min)

Manifolds External metering, cross-port relief, available on all stations

Main 16 x NG3 proportional or directional flow control

See later text for allocation

Thruster 20 x M33 cartridge proportional pressure reducing

2 x M18 cartridge proportional pressure relief

2 x NG3 proportional flow control

Auxiliary (if fitted)	10 x NG3 proportional or directional flow control
	2 x NG6 proportional or directional flow control
	See later text for allocation and additional functions
NG3 PPFC	5 lpm (1.3 US gal/min)
NG3 DCV	15 lpm (4.0 US gal/min)
NG6 PPFC	32 lpm (8.5 US gal/min)
Instrumentation	Main and auxiliary pressure (mechanical and electrical gauges)
	Filter pressure differential (Thruster Case Drain)
	Reservoir levels (analogue)
	Water detectors in all manifolds
	Valve drive and power indicators (visual onboard and on GUI)
Reservoirs	
Main System	20 L (5.2 US gal/1,200 in3) including 6.6 L(1.7 US gal/400 in3) compensation @ 15 psig pressure, 20 psig relief
Auxiliary System (if fitted)	20 L (5.2 US gal/1,200 in3) including 6.6 L(1.7 US gal/400 in3) compensation @ 15 psig pressure, 20 psig relief

Fill Volumes	
Main System	75 L (20 US gal), 15 psi compensation
Auxiliary System (if fitted)	40 L (11 US gal), 15 psi compensation
Filtering	
Pressure	5 Micron Absolute, No Bypass
Return	5 Micron Absolute, 50 psi bypass
Case Drain	10 Micron Absolute, 15 psi bypass, back pressure alarm
Water Separation	CARDEV specifications
Oil	ISO rated, Shell Tellus (viscosity specified based on area of operation)
Tubing	Stainless steel seamless tubing
Fittings	Stainless steel Parker Seal-Lok & SAE Ports
1/2 inch Pressure connection	Quick disconnect, with isolation valve
1 inch Return connection	Quick disconnect, with isolation valve
1/4 inch vent connection	Isolation valve
POWER REQUIREMENTS	
Power Input	
ROV + TMS	260kVA
Control Van	30kVA
Spares Van	25kVA
Workshop Van	25kVA

Deck HPU	35kVA
LARS	155kVA
Generator Sizing	Subject to system configuration, ask FORUM for advice
Voltage	380/480 V, 3-Phase, 60Hz
ELECTRICAL & TELEMETRY	Water ingress sensors in all junction boxes & manifolds
Total Instrumentation Power	3,000 Vac, 1Ø, 8.0 kVA
Control Protocol	ICEnet™ Distributed Network Control
Communications	CWDM Multiplexers on 1 Single Mode Fibre – 2 spare fibres
Power Monitoring and Control	Ground fault monitors on all power circuits
Power Monitoring and Control:	Ground fault monitors on all power circuits
	Voltage and temperature of all power sources
	All load currents (AC & DC)
	Remote-reset circuit breakers (AC)
	Remote-reset with overload circuit protection (DC)
Termination Junction Box	
Description	Oil filled, Pressure Compensated Machined Aluminium Alloy
	Enclosure, housing umbilical termination, Power conversion/distribution, Fibre Optic distribution.

Expansion Ports	1 HD Camera optical interface connectors
Core Junction Box	
Description	Oil filled, Pressure Compensated Machined Aluminium Alloy Enclosure, housing power and control conversion/distribution.
Camera Ports	8 each with focus and zoom
Manipulator Ports	2
Navigation Equipment Ports	4
Manifold Ports	3
Lights Ports	(for 6 lights)
Expansion Ports	7, each with RS232 or RS485 and 24Vdc/48Vdc/110Vac at 10A

Survey Junction Box

Description	Oil filled, Pressure Compensated Machined Aluminium Alloy Enclosure, housing power and control conversion/distribution.
Camera Ports	8 each with focus and zoom
Lights Ports	3 (for 6 lights)
Expansion Ports	Up to 16, each with RS232 or RS485 and 24Vdc/48Vdc/110Vac at 10A

ELECTRICAL COMPENSATION

Relief Pressure	10 psi – 15 psi
Oil	Shell Tellus (same viscosity as hydraulic fluid)
Total Capacity	100 L (26.5 gallons)

COMPENSATION CIRCUITS

Termination Junction Box	3.3 L(0.85 US gal/200 in3) compensation @ 5 psig pressure, 10 psig relief
Core & Auxiliary Junction Boxes	3.3 L(0.85 US gal/200 in3) compensation @ 5 psig pressure, 10 psig relief
Thruster, Main & Auxiliary Manifolds	3.3 L(0.85 US gal/200 in3) compensation @ 5 psig pressure, 10 psig relief
Electric Motor	3.3 L(0.85 US gal/200 in3) compensation @ 5 psig pressure, 10 psig relief
Thruster Bearings	1.4 L(0.37 US gal/85 in3) compensation @ 10 psig pressure, 20 psig relief
Thruster Speed Feedback	Connected to Core and Auxiliary Manifolds
Instrumentation	Analog level sensors, 4 – 20 mA Water Ingress

PERIPHERAL EQUIPMENT

Lights	User Configurable Maximum 12 x 250 W 120 Vac, dimmable Controlled in pairs
Cameras	4 x NTSC or PAL, (+4 optional)
Pan & Tilts	1 (+2 optional) Hydraulic Proportional speed control Max Torque: 100 Nm (75 ft-lbs)
Optional Depth	± 0.1% FS Quartz Resonator
Optional Imaging Sonar	330/675 kHz, 100 m range or optional customer specified sonar

Optional Emergency RDF Beacon	Channel C 160.275 kHz pressure deactivated
Optional Emergency Flasher	Pressure de-activated strobe
Optional DVL	As specified by customer

AUTO CONTROLS

Heading	± 1°
Depth	± 0.1 m
Altitude	± 0.1 m
Pitch and Roll	± 5°
Heading Park	Maintains heading relative to manipulator

ENVIRONMENTAL CONDITIONS

Air Temperature	-20 to 45°C
Water Temperature	4 to 32°C
Storage Temperature	-20 to 60°C
Humidity	Up to 100%
Saltwater	Designed for intermittent submersion

LOAD FRAME DESIGN SPECIFICATIONS

	Load Frame: TMS frame, vehicle frame, work package mount
Det Norske Veritas	Rules for Certification of Lifting Appliances
Lloyds Register of Shipping	Lifting Appliances in a Marine Environment
American Bureau of Shipping	DNV approved