

Pioneer HD

Work Class ROV

i-Tech⁷



The Pioneer HD is a Work Class ROV system designed and built in-house to optimise reliability and operational capability. Based on the highly successful Pioneer series, the Pioneer HD has been modified to meet the dynamic challenges of the offshore exploration and production industry.

Key elements include:

- 1,000m or 1,500m depth rating
- 100hp or 125hp versions
- 2,200kg in air weight
- 100kg payload
- 4 vectored horizontal and 2 vertical thrusters
- Up to 6 SD cameras available
- Top hat tether management system

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PRODUCT OVERVIEW

Specifications

DIMENSIONS & WEIGHTS

| | |
|-----------------------------|----------------------|
| Length | 2,000mm |
| Width | 1,700mm |
| Height | 1,900mm |
| Weight in Air | 2,200kg |
| Through Frame Lift Capacity | 3,000kg |
| Payload | 100kg |
| Depth Rating | 1,000msw or 1,500msw |

PROPULSION SYSTEM

The vehicle is propelled by 6 Innerspace thrusters or 6 Curvetech HT300 thrusters as an option

| | |
|-------------|------------|
| 100hp HPU | |
| Shaft power | 100hp/75kW |
| Forward | >560kgf |
| Vertical | >300kgf |
| Lateral | >560kgf |

| | |
|-------------|------------|
| 125hp HPU | |
| Shaft power | 125hp/93kW |
| Forward | >705kgf |
| Vertical | >456kgf |
| Lateral | >705kgf |

Thruster configuration: Four horizontal vectored, two vertical

LIGHT OUTPUT (Available)

Standard fit of six 250W diffused lights

Three 115Vac supplies at 500W

VIDEO SYSTEM

| | |
|------------------------|-----|
| Recording Format | DVD |
| 6 off SD cameras | |
| Focus and zoom control | |

CONTROL SENSORS

| | |
|---------------|-----------|
| Auto-heading | +/- 0.5° |
| Auto-depth | +/- 0.01% |
| Auto-altitude | 0.025% |

INDICATION SENSORS

| | |
|--------------------------------|-----------|
| Heading (digital and analogue) | 1.0° |
| Pitch and Roll | 1.0° |
| Altitude (Optional) | +/-0.025% |
| Depth | +/-0.01% |
| Water Ingress | |
| Low Oil Alarm | |
| Hydraulic Temperature | |
| Hydraulic Pressure | |
| Line Insulation Monitoring | |
| Vehicle Turns | |
| Telemetry Status Panel | |

MANIPULATORS

| | |
|----------------------------------|--|
| Right-hand | |
| - Conan 7P as standard | |
| - T4 as option | |
| Left-hand | |
| - Rigmaster 5F as standard | |
| - Atlas 7R or Conan 7R as option | |

VEHICLE CONTROL SYSTEM

Digital TDM multiplexer via TSP. 24 analogue and 96 digital channels in both directions.

| | |
|---|--------|
| Resolution | 12-bit |
| Data Rate | 50Hz |
| Update rate of 32 times per second each channel | |

GYRO COMPASS SYSTEM

Tritech iGC / iFG as standard
CDL TOGS or Oceantools FOG optional

LOCATION SYSTEM

Various sonar system options
Transponder / Responder

OPTIONAL TETHER MANAGEMENT SYSTEM (TMS)

| | |
|------------------------|---------|
| Perry - Top-hat Design | |
| Height | 2,080mm |
| Diameter | 1,830mm |
| Weight in Air | 2,200kg |
| Tether Capacity | |
| - Standard | 200m |
| - Optional | 400m |

OR

| | |
|---------------------------|-------------|
| Slingsby - Top-hat Design | |
| Height | 2,100mm |
| Diameter | 2,000mm |
| Weight in Air | 2,300kg |
| Tether Capacity | 250m - 300m |

ELECTRICAL SUPPLY REQUIREMENTS

| | |
|---------------|---------------------|
| Control Cabin | 230KVA @ 380-480VAC |
| LARS | 150KVA @ 380-480VAC |

FIBRE OPTIC SYSTEM

4 SD cameras via video switchers
10 x RS232 data channels as an option

SONAR

Tritech DST as standard

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