



1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 06ATEX6143** Issue: **1**

4 Equipment: **Range of Air Driven Hydraulic and Gas Booster Pumps**

5 Applicant: **Hydratron Limited**

6 Address: Unit 2
Blue Chip Business Park
Atlantic Street
Broadheath
Cheshire WA14 5DD
UK

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of Category 2 equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 13463-1: 2001

EN 13463-5: 2003

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment shall include the following:

 II 2GD c T5

Project Number 51A16510
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C. Ellaby
Certification Officer

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

A range of air driven pumps consisting of a single or double acting air motor connected to one or two pistons that produce hydraulic or inert gas pressure via a pressure retaining seal and an inlet/outlet check valve. The air motor is driven by regulated mains air pressure to a maximum of 100 psi and, at the end of each air motor stroke, the air is exhausted to atmosphere through an exhaust silencer. Pressure is generated by either the pump sucking tank supplied or direct feed liquid or an attached bottled gas supply through an inlet check valve on the piston back stroke and forcing it through an outlet check valve on the piston forward stroke. The diameter of the pumps piston and amount of regulated air supplied to the air motor determine maximum pressure. Pumps may also be installed within a frame unit complete with controls and gauges to form a power pack.

Apparatus Designations - Models Codes					
AZ-1-5****	AZ-1-10****	AZ- 1-12****	AZ-1-19****	AZ-1-26****	**** (alpha numerical part code suffix for additional design options when specified and applicable)
AZ-1-30****	AZ-1-36****	AZ-1-58****	AZ-1-70****	AZ-1-86****	
AZ-1-107****	AZ-1-140****	AZ-1-187****	AZ-1-275****	AZ-1-425-ST****	
AZ-2-21****	AZ-2-27****	AZ-2-36****	AZ-2-60****	AZ-2-97****	
AZ-2-144****	AZ-2-180****	AZ-2-237****	AZ-2-323-ST****	AZ-2-458-ST****	
DA33****	DA66****	DA118****	DA186****	DA267****	
DHDA33****	DHDA66****	DHDA118****			
GB4S****	GB15S****	GB36S****	GB58S****	GB96S****	
GB144S****	GB186S****	GB33D****	GB66D****	GB118D****	
GB186D****	GB7/33D****	GB15/66D****	GB33/118D****	GB66/186D****	

Apparatus Designations - Design Options		
Model codes AZ****		
Fkm seals	Standard high pressure unit	Trolley mounted
Chemraz seals	Lightweight high pressure unit	Pressure isolation valve
Pump pneumatic counter	Carbon steel frame (painted)	Tank bypass
Special fluid pump	Stainless steel frame	Air motor low pressure start
Contamination free pump	Stainless steel tank	Nylon inlet pipe work
Base entry check valve pump	Carbon steel tank (painted)	Copper inlet pipe work
Heavy duty pump	Without tank	Stainless steel inlet pipe work
Stainless steel pump hydraulic cylinder	On wheels	Pressure relief valve
		Lifting sling
Model codes DA**** and DH****		
Fkm seals	Stainless steel frame	Tank bypass
Chemraz seals	Stainless steel tank	Nylon inlet pipe work
Pump pneumatic counter	Carbon steel tank (painted)	Copper inlet pipe work
Stainless steel pump hydraulic cylinder	Without tank	Stainless steel inlet pipe work
Standard high pressure unit	On wheels	Pressure relief valve
Carbon steel frame (painted)	Pressure isolation valve	Lifting sling
Model codes GB****		
Fkm seals	Carbon steel frame (painted)	Pressure isolation valve
Chemraz seals	Stainless steel frame	Inlet gas pressure gauge
Standard high pressure unit	On wheels	Pressure relief valve
		Lifting sling

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Issue 1**

Variation 1 - This variation introduced the following changes:

- i. The option to fit a pressure relief valve to all models.
- ii. The option to fit all models with lifting lugs and wire rope slings for the purpose of transportation.

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Sira Reports and Certificate History**

Issue	Date	Report no.	Comment
0	3 October 2006	R51A14807A	The release of prime certificate.
1	18 May 2007	R51A16510A	This Issue covers the following changes: <ul style="list-style-type: none">• All previously issued certification was rationalised into a single certificate, Issue 1, Issue 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.• The introduction of Variation 1.

15 **SPECIAL CONDITIONS FOR SAFE USE**

None

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSRs)**

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed reports listed in Section 14.2.

17 **CONDITIONS OF CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of Type Examination Certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

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Certificate Annexe

Certificate Number: Sira 06ATEX6143

Component: Range of Air Driven Hydraulic and Gas Booster Pumps

Applicant: Hydratron Limited



Issue 0

Drawing No.	Sheet	Rev.	Date	Description
			(Sira stamp)	
GBD-GBS SYSTEM-ATEX	1 of 1	1	22 Sep 06	GBD-GBS gas booster power pack system layout
AZ SYSTEM-ATEX	1 of 1	1	22 Sep 06	AZ hydraulic power pack system layout
DA-DHDA SYSTEM-ATEX	1 of 1	2	22 Sep 06	DA-DHDA hydraulic power pack system layout
PHOTO-1	1 of 1	1	22 Sep 06	Typical DHDA power pack system image with isolation chambers
PHOTO-2	1 of 1	1	22 Sep 06	Typical GBD power pack system image
PHOTO-3	1 of 1	1	22 Sep 06	Typical AZ-2 Lightweight power pack system image
PHOTO-4	1 of 1	1	22 Sep 06	Typical AZ-1 Lightweight power pack system image
PHOTO-5	1 of 1	1	22 Sep 06	Typical Trolley mount AZ-1 Lightweight power pack system image
PHOTO-7	1 of 1	1	22 Sep 06	Typical DA power pack system image without tank
PHOTO-8	1 of 1	1	22 Sep 06	Typical AZ-1 power pack system image
PHOTO-9	1 of 1	1	22 Sep 06	Typical DHDA power pack system image
PHOTO-10	1 of 1	1	22 Sep 06	Typical AZ-2 power pack system image
PHOTO-11	1 of 1	1	22 Sep 06	Typical GBS power pack system image
ASSYFRAME-ATEX	1 of 1	2	22 Sep 06	G.A. drawing – standard frame and tanks
GA-CPD2160-AIR	1 of 1	1	22 Sep 06	G.A. drawing - Pressure gauge assembly
ASSYLPBV-ATEX	1 of 1	2	22 Sep 06	G.A. drawing – Low pressure ball valve
ASSYHPNV-ATEX	1 of 1	1	22 Sep 06	G.A. drawing – High pressure needle valve
ASSYSTRAINER1-ATEX	1 of 1	1	22 Sep 06	G.A. drawing – Tank fluid strainer
ASSYDAPV5-ATEX	1 of 1	3	22 Sep 06	G.A. drawing – 5 Port pilot valve
ASSY48104	1 to 3	1	22 Sep 06	G.A. drawing – AZ pump
ASSY30402-ATEX	1 of 1	4	22 Sep 06	G.A. drawing – DA hydraulic pump
ASSY30401-ATEX	1 of 1	4	22 Sep 06	G.A. drawing – DHDA hydraulic pump
ASSY30158-ATEX	1 of 1	4	22 Sep 06	G.A. drawing – DA hydraulic pump with isolation chambers
ASSY30157-ATEX	1 of 1	4	22 Sep 06	G.A. drawing – DHDA hydraulic pump with isolation chambers
ASSY30403-ATEX	1 of 1	4	22 Sep 06	G.A. drawing – Air driven GBD gas booster pump
ASSY30404-ATEX	1 of 1	4	22 Sep 06	G.A. drawing – gas booster pump
L47422-17-UK	1 of 1	2	22 Sep 06	ATEX nameplate drawing
L47422-18	1 of 1	1	22 Sep 06	ATEX static warning label drawing

Issue 1

Drawing No.	Sheet	Rev.	Date	Description
			(Sira stamp)	
G.1102.00.0046	1 of 1	1	02 May 07	BIS Relief Valve RL25 & 37
G.1104.00.0013	1 of 1	1	02 May 07	BIS Relief Valve RL50
ASSYRV15700-ATEX	1 of 1	1	02 May 07	Haskel Relief Valve Model 15700
ASSYRV27741-ATEX	1 of 1	1	02 May 07	Haskel Relief Valve Model 27741
ASSYSLING-ATEX	1 of 1	1	02 May 07	4 Leg Wire Rope Sling Assembly
ASSYFRAME-ATEX	1 of 1	3	02 May 07	Standard Tank and Frame Dimensions
AZ SYSTEM-ATEX	1 of 1	2	02 May 07	AZ Hydraulic Power Pack System Layout
DA-DHDA SYSTEM-ATEX	1 of 1	3	02 May 07	DA-DHDA Hydraulic Power Pack System Layout

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