

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.

This certificate is issued to:

DESCRIPTION

STANDARD

RATINGS

PRODUCER PIX Transmissions Limited

I-7. MIDC. Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II, Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023,

PRODUCTION India

> High pressure, fire resistant flexible hoses of non-metallic material with or without permanently attached end fittings

TYPE PIX-ARMOUR-R12

APPLICATION

PIX-ARMOUR-R15

application, underground and open pit mining

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the

Classification of Ships, July 2010

SAE 1517 Grade 100R15/100R12, November 2008 Fire Resistant Testing according to ISO 15540/15541

Suited for hydraulic circuit in severe abrasion condition, marine

Maximum Working Pressure: 28.0/42.0 MPa

Working temperature Hydraulic fluid

: -40 °C ~+120 °C Water based fluid : -40 °C ~ +70 °C : 0 °C ~ +70 °C Water

Lloyd's Register

Certificate No. 11/10057

Issue Date 27 June 2011

Expiry Date 26 June 2016

Sheet 1 of 2 Yokohama Design Support Office

Lloyd's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

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STANDARD

PRODUCER

1-7. MIDC. Hingna Road Nagnur-440016, Maharashtra, India

PLACE OF UNIT-II Bazargaon Amrayati Road Nagnur city Maharashtra 440023

PRODUCTION

High pressure, fire resistant flexible hoses of non-metallic material with or without permanently attached end fittings.

TVPF PIX-HIPULSE-4SP

APPLICATION Heavy duty impulsive high pressure hydraulic systems for marine, mining, offshore and general industrial applications like excavators,

dosers, dumpers, cranes, compacters, rock breakers and hydraulic drill ries and other construction equipments

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the

Classification of Ships, July 2010

DIN EN 856 Type 4SP/4SH, February 1997

Fire Resistant Testing according to ISO 15540/15541

RATINGS Sizes

18.0 to 46.0 MPa (4SP)

Working temperature

: -40 °C ~ +100 °C

Water based fluid - - 40 °C ~ +70 °C - 0°C~+70°C Water

Certificate No. 11/10055

Issue Date 27 June 2011

Expiry Date 26 June 2016

Yokohama Design Support Office

Lloyd's Register

Lloud's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

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PRODUCER PIX Transmissions Limited

J-7, MIDC, Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II, Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023, PRODUCTION India

DESCRIPTION High pressure, fire resistant flexible hoses of non-metallic material with

or without permanently attached end fittings.

TYPE PIX-THERMAL-ISN PIX-THERMAL-2SN

APPLICATION Medium to high pressure hydraulic lines suitable for marine, mining,

offshore and general industrial applications up to operating temperature

of 135 °C

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the STANDARD Classification of Ships, July 2010

DIN EN 853 Type 1SN/2SN, February 1997

Fire Resistant Testing according to ISO 15540/15541

Sizes : DN6 to DN51

Maximum Working Pressure: 4.0 to 22.5 MPa (1SN) 8.0 to 40.0 MPa (2SN)

Working temperature Hydraulic fluid : -40 °C ~ +135 °C

Certificate No. 11/10053

RATINGS

Issue Date 27 June 2011

Expiry Date 26 June 2016

Sheet 1 of 2 Y. Sawada Yokohama Design Support Office Llovd's Register

Lloyd's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

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PRODUCER PIX Transmissions Limited

1-7, MIDC, Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II. Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023. PRODUCTION

High pressure, fire resistant flexible hoses of non-metallic material with

or without permanently attached end fittings

TYPE PIX-PROKOMP-1SC PIX-PROKOMP-2SC

APPLICATION Medium to high pressure hydraulic lines suitable for marine, mining,

offshore and general industrial applications

Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the DESIGN CODE

STANDARD Classification of Ships, July 2010

DIN EN 857 Type 1SC/2SC, February 1997 SAE 1517 Grade 100R16 Type S. November 2008

Fire Resistant Testing according to ISO 15540/15541

Sizes DN6 to DN25 (1SC)

Maximum Working Pressure: 9.0 to 22.5 MPa (1SC)

12.5 to 40.0 MPa (2SC) Working temperature

Hydraulic fluid Water base fluid

: -40 °C ~+100 °C : -40 °C ~ +70 °C

Lloyd's Register

Water : 0°C~+70°C : 0°C~+70°C Air

Certificate No.

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Sheet 1 of 2 Yokohama Design Support Office

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71 Fenchurch Street, London EC3M 4BS

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PRODUCER PIX Transmissions Limited

J-7, MIDC, Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II, Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023, PRODUCTION India

DESCRIPTION High pressure, fire resistant flexible hoses of non-metallic material with

or without permanently attached end fittings

TYPE PIX-PERFORMER-ISN PIX-PERFORMER-2SN

APPLICATION Medium to high pressure hydraulic lines suitable for marine, mining,

offshore and general industrial applications

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the STANDARD Classification of Ships, July 2010

Classification of Ships, July 2010 DIN EN 853 Type 1SN/2SN, February 1997

SAE J517 Grade 100R1/R2 Type AT, November 2008 Fire Resistant Testing according to ISO 15540/15541

RATINGS Sizes : DN5 to DN102

26 June 2016

Maximum Working Pressure: 2.5 to 25.0 MPa (ISN) 4.0 to 45.0 MPa (2SN)

Working temperature
Hydraulic fluid : -40 °C ~ +100 °C
Water base fluid : -40 °C ~ +70 °C

Water base fluid : -40 °C ~ +70 °C

Water : 0 °C ~ +70 °C

Air : 0 °C ~ +70 °C

Certificate No. 11/10050

Issue Date 27 June 2011

Sheet 1 of 2 Y. Sawada

Y. Sawada Yokohama Design Support Office Lloyd's Register

Lloyd's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

Expiry Date

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PRODUCER PIX Transmissions Limited

I-7. MIDC. Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II, Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023, PRODUCTION India

DESCRIPTION High pressure, fire resistant flexible hoses of non-metallic material with

or without permanently attached end fittings.

TYPE PIX-OPTIMAL-210

APPLICATION Wide range of pressure with the condensed product range specially for

mobile van application and also suitable for medium to high pressure hydraulic lines for marine, mining, offshore and general industrial

applications

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the STANDARD Classification of Shine July 2010

Classification of Ships, July 2010 SAE 1517 Grade 100R17 / 100R19. November 2008

Fire Resistant Testing according to ISO 15540/15541

RATINGS Sizes : DN6 to DN25
Maximum Working Pressure : 21.0/28.0 MPa
Working temperature

Hydraulic fluid : -40 °C ~ +100 °C Water base fluid : -40 °C ~ +70 °C

Water base rund : -40 °C ~ +70 °C

Water : 0 °C ~ +70 °C

26 June 2016

Certificate No. 11/10052

Issue Date 27 June 2011

Sheet 1 of 2 Y. Sawad

Y. Sawada Yokohama Design Support Office Lloyd's Register

Lloyd's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

Expiry Date

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DESCRIPTION

PRODUCER PIX Transmissions Limited

I-7, MIDC, Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II, Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023,

PRODUCTION India

High pressure, fire resistant flexible hoses of non-metallic material with

or without permanently attached end fittings.

TYPE PIX-IMPETUS-280 PIX-IMPETUS-350

PIX-IMPETUS-420

APPLICATION Heavy duty impulsive high pressure hydraulic systems for marine,

mining, offshore and general industrial applications like excavators, dosers, dumpers, cranes, compacters, rock breakers and hydraulic drill

rigs and other construction equipments

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the STANDARD Classification of Ships, July 2010

DIN EN 856 Type R12/R13, February 1997

SAE J517 Grade 100R12/100R13/100R15, November 2008 Fire Resistant Testing according to ISO 15540/15541

Fire Resistant Testing according to ISO 15540/15541

Maximum Working Pressure: 28.0/35.0/42.0 MPa

Working temperature
Hydraulic fluid : -40 °C ~ +120 °C

Water based fluid : $-40 \,^{\circ}\text{C} \sim +70 \,^{\circ}\text{C}$ Water : $0 \,^{\circ}\text{C} \sim +70 \,^{\circ}\text{C}$

Certificate No. 11/10056

26 June 2016

Issue Date 27 June 2011

issue Date 2/ June 2011

Sheet 1 of 2 Y. Sawada

Yokohama Design Support Office Lloyd's Register

Lloyd's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

Expiry Date

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PRODUCER PIX Transmissions Limited

I-7, MIDC, Hingna Road Nagpur-440016, Maharashtra, India

PLACE OF UNIT-II, Bazargaon, Amravati Road, Nagpur city, Maharashtra, 440023,

PRODUCTION India

High pressure, fire resistant flexible hoses of non-metallic material with or without permanently attached end fittings

TYPE PIX-ULTRAFLEX-ISN

PIX-ULTRAFLEX-2SN PIX-ULTRAFLEX-R12

APPLICATION Medium to high pressure hydraulic lines suitable for marine, mining, offshore and general industrial applications even at very low bend

offshore and

DESIGN CODE Part 5, Chapter 12 of Lloyd's Register's Rules and Regulations for the STANDARD Classification of Ships, July 2010

NDARD Classification of Ships, July 2010 DIN EN 853 Type 15N/25N, February 1997

DIN EN 856 Type R12, February 1997

SAE J517 Grade 100R1 Type AT/100R2 Type AT/100R12, November

Fire Resistant Testing according to ISO 15540/15541

RATINGS Sizes : DN6 to DN25 (ISN/2SN DN10 to DN25 (R12)

Maximum Working Pressure: 9.0 to 22.5 MPa (ISN) 16.5 to 40.0 MPa (25N)

28.0 MPa (R12)

Lloyd's Register

Certificate No. 11/10054

Issue Date 27 June 2011

Expiry Date 26 June 2016

Sheet 1 of 2 Y. Sawada Yokohama Design Support Office

Lloyd's Register, registered office: 71 Fenchurch Street, London EC3M 4BS

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