

LIBRARY OF STANDARDS

CONTENTS

	<i>Page</i>
British standards – prefix BS	3-4
European standards implemented as British standards (<i>mandatory</i>) – prefix BS EN	5
International standards implemented as European and British standards – prefix BS EN ISO	6-8
International standards implemented as British standards – prefix BS ISO	9-16
International standards – prefix ISO	17-19

KEY = Technical Committee responsible

1	Accumulators (TC 1)
3	Cylinders (TC 3)
4	Connectors and associated components (TC 4)
5	Control components (TC 5)
6	Contamination control (TC 6)
7	Seals (TC 7)
8	Product testing (TC 8)
9	Systems (TC 9)
16	Fluids (TC 16)
TCs	All technical committees

BRITISH STANDARDS INSTITUTION
British standards

<i>Number</i>	<i>Title</i>	<i>Key</i>
BS 3G 100-2.3.13:1973	Specification for general requirements for equipment for use in aircraft – All equipment – Environmental conditions – Resistance to fire in designated fire zones	4
BS 4F 68:2002	Controlled storage of vulcanised rubbers for use in aerospace applications	4
BS 778:1966	Specification for steel pipes and joints for hydraulic purposes	4
BS 903-1:1995	Physical testing of rubber – Guide to the selection and use of methods of test for rubber	4
BS 903-A1:1996+ Corr 1:1996	Physical testing of rubber – Determination of density	4
BS 903-A9:1988	Physical testing of rubber – Determination of abrasion resistance	4
BS 1806:1989	Dimensions of toroidal sealing rings – O-rings and their housings – inch series	7
BS 2779:1986	Pipe threads for tubes and fittings where pressure tight joints are not made on the threads (metric dimensions)	4
BS 4368-1:1998+ A1:2014	Metallic tube connectors for fluid power and general use Part 1: Split collet compression fittings	4
BS 4368-4:1984	Compression couplings for tubes Part 4: Specification for type test requirements	4
BS 4518:1982+A2:2014	Specification for metric dimensions of toroidal sealing rings (O-rings) and their housings	7
BS 5070:1974	Drawing practice for engineering diagrams	TCs
BS 5106:1988	Specification of spiral anti-extrusion back-up rings and their housings	7
BS 5173-1:1976	Methods of test for hoses Part 1: Measurement of dimensions	4
BS 5173-2:1976	Methods of test for hoses Part 2: Hydraulic pressure tests	4
BS 5173-100:1992	Methods of test for rubber and plastics hoses and hose assemblies Part 100: General introduction	4
BS 5173-102.1:1991	Methods of test for rubber and plastics hoses and hose assemblies Part 102.1: Hydraulic pressure tests – Hydrostatic tests	4
BS 5173-102.3:1988	Methods of test for rubber and plastics hoses and hose assemblies Part 102.3 – Hydraulic pressure tests – Determination of volumetric expansion of fuel-dispensing pump hoses	4
BS 5173-102.4:1990	Methods of test for rubber and plastics hoses and hose assemblies Part 102.4 – Hydraulic pressure tests – Determination of volumetric expansion of hydraulic hoses	4
BS 5173-102.8:1987	Methods of test for rubber and plastics hoses and hose assemblies Part 102.8 – Hydraulic pressure tests – Pressure impulse test for rigid helix reinforced thermoplastics hoses	4
BS 5173-102.10:1990	Methods of test for rubber and plastics hoses and hose assemblies Part 102.10 – Hydraulic pressure tests – Hydrostatic tests for oil suction and discharge hose	4
BS 5173-103.2:1990	Methods of test for rubber and plastics hoses and hose assemblies – Part 103.2 – Physical tests – Resistance of hoses	4
BS 5173-103.6:1990	Methods of test for rubber and plastics hoses and hose assemblies Part 103.6 – Physical tests - Determination of ignitability of lining	4
BS 5173-103.7:1991	Methods of test for rubber and plastics hoses and hose assemblies Part 103.7 – Physical tests – Determination of fracture resistance of rigid polymer helical reinforcement in thermoplastics hoses	4
BS 5173-103.13:1994	Methods of test for rubber and plastics hoses and hose assemblies Part 103.13 – Physical tests Determination of resistance to fire	4
BS 5173-106.2:1990	Rubber and plastics hoses and hose assemblies Part 106.2 – Environmental tests – General requirements for high temperature ageing tests	4

BRITISH STANDARDS INSTITUTION
British standards – continued...

Number	Title	Key
BS 5200:1997+Corr July 2017	Fluid Power Systems – specification for dimensions of hydraulic connectors and adaptors	4
BS 5244:1986	Application, storage and life expiry of hydraulic rubber hoses and hose assemblies	4
BS 5327:1976	Specification – Swept elbow bends for fluid power applications	4
BS 5344:1976	Methods for acceptance tests for rotary and percussive pneumatic tools	TCs
BS 5380:1984	Specification for hydraulic port and stud coupling using O-ring sealing and G-series fastening threads.	4
BS 5540-3:1978	Evaluating particulate contamination of hydraulic fluids Part 3: Methods of bottling fluid samples	6
BS 5540-6:1990	Evaluating particulate contamination of hydraulic fluids Part 6: Method of calibrating liquid automatic particle-count instruments (using mono-sized latex spheres)	6
BS 5671:1979	Guide for commissioning, operation and maintenance of hydraulic turbines	9
BS 5755:1986	Dimensions for basic features of fluid power cylinders	3
BS 5944-3:1980	Measurement of airborne noise from hydraulic fluid power systems and components Part 3: Guide to the application of Part 1 and Part 2	8
BS 5944-4:1984	Measurement of airborne noise from hydraulic fluid power systems and components Part 4: Method of determining sound power levels from valves controlling flow and pressure	8
BS 5944-5:1985	Measurement of airborne noise from hydraulic fluid power systems and components Part 5: Simplified method of determining sound power levels from pumps using an anechoic chamber	8
BS 6005:1997	Specification for moulded transparent polycarbonate bowls used in compressed air filters and lubricators	5
BS 6275-2:1984	Hydraulic fluid power filter elements Part 2: Methods of test to verify structural integrity	6
BS 6275-3:1988	HFP – Filter elements Part 3: Specification for marking	6
BS 6331-4:1985	Mounting dimensions for single rod double acting hydraulic cylinders Part 4: Specification for 63 bar series including associated components	3
BS 6361:1988	Specification for three-pin plug connectors for electrically controlled fluid power equipment	5
BS 6525:1984	Specification for design and construction of reservoirs used in hydraulic fluid power systems	9
BS 6537:1984	Staple type connectors for hydraulic fluid power applications	4
BS 6683:1985	Guide to installation and use of valves	5
BS 7388:1991	Guide for prevention of leaks from hydraulic fluid power systems	9
BS 7416:1991	Specification for precision finished seamless cold-drawn low carbon steel tubes for use in hydraulic fluid power systems	4
BS 7417:1991	Specification for interface dimensions of flat face O-ring seal hydraulic couplings	4
BS 7993:2011	Twin ferrule connectors and associated tubing for 316 stainless steel systems – Specification and test methods	4
BS 8465:2010	HFP – Monitoring the level of particulate contamination – Comparison membrane technique	6

CEN - European Committee for Standardisation
European standards implemented as British standards (*mandatory*)

Number	Title	Key
BS EN 693:2001	Machine tools - Safety - Hydraulic presses	9
BS EN 853:2015	Rubber hoses and hose assemblies - Wire braid reinforced hydraulic type - Specification	4
BS EN 854:2015	Rubber hoses and hose assemblies – Textile reinforced hydraulic type – Specification	4
BS EN 856:2015+ Corr:March 2019	Rubber hoses and hose assemblies - Rubber-covered spiral wire reinforced by hydraulic type - Specification	4
BS EN 857:2015	Rubber hoses and hose assemblies - Wire braid reinforced compact type for hydraulic applications - Specification	4
BS EN 954-1:1997	Safety of machinery – Safety related parts of control systems Part 1: General principles for design	9
BS EN 1037:1996	Safety of machinery – Prevention of unexpected start-up	9
BS EN 1050:1997	Safety of machinery – Principles for risk assessment	9
BS EN 1088+A1	Safety of machinery - Interlocking devices associated with guards - Principles for design and selection	9
BS EN 1092-1:2007	Flanges and their joints – Circular flanges for pipes, valves, fittings and accessories, PN designated – Part 1: Steel flanges	4
BS EN 1360:2005	Rubber and plastic hoses and hose assemblies for measure fuel dispensing systems – Specification	4
BS EN 1765:1998	Rubber hose assemblies for oil suction and discharge services – Specification for the assemblies	4
BS EN 10226-1:2004	Pipe threads where pressure tight joints are made on the threads Part 1: Taper external threads and parallel internal threads – Dimensions, tolerances and designation	4
BS EN 10226-2:2005	Pipe threads where pressure tight joints are made on the threads Part 2: Taper external and internal threads – Dimensions, tolerances and designation	4
BS EN 10226-3:2005	Pipe threads where pressure tight joints are made on the threads Part 3: Verification by means of limit gauges	4
BS EN 10305-4:2003	Steel tubes for precision applications – Technical delivery conditions Part 4: Seamless cold drawn tubes for hydraulic and pneumatic power systems	4
BS EN 10324:2004	Steel wire and wire products – Hose reinforcement wire	4
BS EN 12622:2001	Safety of machine tools - Hydraulic press brakes	9
BS EN 14359:2017	Gas-loaded accumulators for Fluid Power applications	1
BS EN 14489:2005	Fire-resistant hydraulic fluids - Guidelines for the selection of fluids and the consideration of safety, health and environment hazards	16
BS EN 14832:2005	Petroleum and related products - Determination of the oxidation stability and corrosivity of fire-resistant phosphate ester fluids	16
BS EN 14833:2005	Petroleum and related products - Determination of the hydrolytic stability of fire-resistant phosphate ester fluids	16
BS EN 60204-1:2006+ A1:2009	Safety of machinery – Electrical equipment of machines Part 1: General requirements	9
BS EN 60617-2:1996	Graphical symbols for diagram Part 2: Symbol elements, qualifying symbols and other symbols having general application	9

**INTERNATIONAL STANDARDS ORGANISATION
CEN - European Committee for Standardisation
British Standards Institution**

International standards implemented as European and British standards

Number	Title	Key
BS EN ISO 228-1:2003	Pipe threads where pressure-tight joints are not made on the threads Part 1: Dimensions, tolerances and designation	4
BS EN ISO 228-2:2003	Pipe threads where pressure-tight joints are not made on the threads Part 2: Verification by means of limit gauges	4
BS EN ISO 1179-1:2013	Connections for general use and fluid power - Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing Part 1: Threaded ports	4
BS EN ISO 1179-2:2013	Connections for general use and fluid power - Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing Part 2: Heavy-duty (S series) and light duty (L series) stud ends with elastomeric sealing (type E)	4
BS EN ISO 1179-3:2008	Connections for general use and fluid power - Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing Part 3: Light-duty (L series) stud ends with sealing by O-ring with retaining ring (types G and H)	4
BS EN ISO 1179-4:2008	Connections for general use and fluid power - Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing Part 4: Stud ends for general use only with metal-to-metal sealing (type B)	4
BS EN ISO 1302:2002	Geometrical product specifications (GPS) - Indication of surface texture in technical product documentation for you to review in light of ISO 6164.	TCs
BS EN ISO 1307:2008	Rubber and plastics hoses - Minimum and maximum inside diameters and tolerances on cut lengths	4
BS EN ISO 1402:2009	Rubber and plastics hoses and hose assemblies - hydrostatic testing	4
BS EN ISO 1403:2008	Rubber hoses, textile-reinforced for general purpose water applications - specification	4
BS EN ISO 1746:2001	Rubber or plastics hoses and tubing - bending tests	4
BS EN ISO 2398:2008	Rubber hoses, textile-reinforced for compressed air - specification	4
BS EN ISO 3457:2008	Earth-moving machinery – Guards – Definitions and requirements	4
BS EN ISO 3949:2018	Plastics hoses and hose assemblies – Textile reinforced types for hydraulic applications - Specification	4
BS EN ISO 4259-1:2017	Petroleum products – Precision of measurement methods and results Part 1: Determination of precision data in relation to methods of test	16
BS EN ISO 4259-2:2017	Petroleum products – Precision of measurement methods and results Part 2: Interpretation and application of precision data in relation to methods of test	16
BS EN ISO 4259-3:2020	Petroleum and related products- Precision of measurement methods and results Part 3: Monitoring and verification of published precision data in relation to methods of test	16
BS EN ISO 4263-1:2004	Petroleum and related products - Determination of the ageing behaviour of inhibited oils and fluids - TOST test Part 1: Procedure for mineral oils	16
BS EN ISO 4263-3:2015	Petroleum and related products - Determination of the ageing behaviour of inhibited oils and fluids - TOST test Part 3: Anhydrous procedure for synthetic hydraulic fluids	16
BS EN ISO 4263-4:2006	Petroleum and related products - Determination of the ageing behaviour of inhibited oils and fluids - TOST test Part 4: Procedure of industrial gear oils	16
BS EN ISO 4404-1:2012	Petroleum and related products – Determination of the corrosion resistance of fire-resistant hydraulic fluids Part 1: Water-containing fluids	16
BS EN ISO 4404-2:2010	Petroleum and related products - Determination of the corrosion resistance of fire-resistant hydraulic fluids Part 2: Non-aqueous fluids	16
BS EN ISO 4413:2010	HFP – General rules and safety requirements for systems and their components	9
BS EN ISO 4414:2010	PFP - General rules and safety requirements for systems and their components	9
BS EN ISO 4589-2:1999	Plastics – Determination of burning behaviour by oxygen index Part 2: Ambient temperature test	4
BS EN ISO 4589-3:1996	Plastics – Determination of burning behaviour by oxygen index Part 3: Elevated temperature test	4

**INTERNATIONAL STANDARDS ORGANISATION
CEN - European Committee for Standardisation
British Standards Institution**

International standards implemented as European and British standards – continued...

<i>Number</i>	<i>Title</i>	<i>Key</i>
BS EN ISO 4671:2007+ A1:2011	Rubber and plastics hoses and hose assemblies - Methods of measurement of the dimensions of hoses and lengths of hose assemblies	4
BS EN ISO 4672:1999	Rubber and plastics hoses – Sub-ambient temperature flexibility tests	4
BS EN ISO 5774:2016	Plastics hoses – Textile reinforced types for compressed air applications – Specification	4
BS EN ISO 6149-1:2019	Connections for fluid power and general use - Ports and stud ends with ISO 261 threads and O-ring sealing Part 1: Ports with O-ring seal in truncated housing	4
BS EN ISO 6149-2:2006	Connections for fluid power and general use - Ports and stud ends with ISO 261 threads and O-ring sealing Part 2: Heavy-duty (S series) stud ends - Dimensions, design, test methods and requirements	4
BS EN ISO 6149-3:2006	Connections for fluid power and general use - Ports and stud ends with ISO 261 threads and O-ring sealing Part 3: Light-duty (L series) stud ends - Dimensions, design, test methods and requirements	4
BS EN ISO 6149-4:2017	Connections for fluid power and general use – Ports and stud ends with ISO 261 metric threads and O-ring sealing Part 4: Dimensions, design, test methods and requirements for external and internal hex port plugs	4
BS EN ISO 6224:2011	Thermoplastics hoses, textile reinforced for general purpose water applications – Specification	4
BS EN ISO 6743-4:2015	Lubricants, industrial oils and elated products (class L) – Classification Part 4: Family H (hydraulic systems)	16
BS EN ISO 6802:2008	Rubber and plastics hose and hose assemblies with wire reinforcements - Hydraulic impulse test with flexing	4
BS EN ISO 6803:2017	Rubber or plastics hoses and hose assemblies - Hydraulic pressure impulse test without flexing	4
BS EN ISO 6806:1996	Rubber hoses and hose assemblies for use in oil burners - Specification	4
BS EN ISO 6808:2014	Plastics hoses and hose assemblies for suction and low-pressure discharge of petroleum liquids – Specification	4
BS EN ISO 7233:1995	Rubber and plastics hoses and hose assemblies – Determination of suction resistance	4
BS EN ISO 7326:2016	Rubber and plastic hoses – Assessment of ozone resistance under static conditions	4
BS EN ISO 7662:1996	Rubber and plastics hoses – Determination of abrasion of lining	4
BS EN ISO 7751:2016	Rubber and plastics hoses and hose assemblies – Ratios of proof and burst pressure to design working pressure	4
BS EN ISO 8029:2010	Plastics hose – General purpose collapsible water hose, textile reinforced – Specification	4
BS EN ISO 8030:2014	Rubber and plastics hoses – Method of test for flammability	4
BS EN ISO 8031:2009	Rubber and plastics hose and hose assemblies – Determination of electrical resistance and conductivity	4
BS EN ISO 8032:1999	Rubber and plastics hose assemblies – Flexing combined with hydraulic impulse test (half-omega test)	4
BS EN ISO 8033:2016	Rubber and plastics hoses – Determination of adhesion between components	4
BS EN ISO 8308:1996	Rubber and plastics hoses and tubing – Determination of transmission of liquids through hose and tubing walls	4
BS EN ISO 8330:2014	Rubber and plastics hoses and hose assemblies - Vocabulary	4
BS EN ISO 8331:2014	Rubber and plastics hoses and hose assemblies – Guidelines for selection, storage, use and maintenance	4
BS EN ISO 8434-1:2018	Metallic tube connections for fluid power and general use Part 1: 24° cone connectors	4
BS EN ISO 8580:1995	Rubber and plastics hoses – Determination of ultra violet resistance under static conditions	4

**INTERNATIONAL STANDARDS ORGANISATION
CEN - European Committee for Standardisation
British Standards Institution**

International standards implemented as European and British standards – continued...

<i>Number</i>	<i>Title</i>	<i>Key</i>
BS EN ISO 9227:2006	Corrosion tests in artificial atmospheres – Salt spray tests	TCs
BS EN ISO 9974-1:2000	Connections for general use and fluid power - Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing Part 1: Threaded ports	4
BS EN ISO 9974-2:2000	Connections for general use and fluid power - Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing Part 2: Stud ends with elastomeric sealing (type E)	4
BS EN ISO 9974-3:2000	Connections for general use and fluid power - Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing Part 3: Stud ends with metal-to-metal sealing (type B)	4
BS EN ISO 10619-2:2018	Rubber and plastics hoses and tubing – Measurement of flexibility and stiffness Part 2: Bending tests at sub-ambient temperatures	45
BS EN ISO 10960:2018	Rubber and plastics hoses – Assessment of ozone resistance under dynamic conditions	45
BS EN ISO 12922:2012	Lubricants, industrial oils and related products (Class L) - Family H (Hydraulic systems) - Specifications for categories HFAE, HFAS, HFB, HFC, HFDR and HFDU	16
BS EN ISO 13849-1:2008	Safety of machinery - Safety-related parts of control systems Part 1: General principles for design	9
BS EN ISO 13849-2:2008	Safety of machinery - Safety-related parts of control systems – Part 2: Validation	9
BS EN ISO 14001:2015	Environmental management systems – requirements with guidance for use	-
BS EN ISO 14644-1:1999	Cleanliness and associated controlled environments Part 1: Classification of air cleanliness	6
BS EN ISO 14935:2020	Petroleum and related products - Determination of wick flame persistence of fire-resistant fluids	16
BS EN ISO 18752:2016	Rubber hoses and hose assemblies – Wire or textile reinforced single pressure types for hydraulic applications – Specification	4
BS EN ISO 19879:2010	Metallic tube connections for fluid power and general use - Test methods for hydraulic fluid power connections	4
BS EN ISO 20623:2018	Petroleum and related products - Determination of the extreme pressure and anti-wear properties of fluids – Four ball method (European conditions)	16
BS EN ISO 20763:2004	Petroleum and related products - Determination of anti-wear properties of hydraulic fluids - Vane pump method	16
BS EN ISO 20764:2003	Petroleum and related products - Preparation of a test portion of high-boiling liquids for the determination of water content - Nitrogen purge method	16
BS EN ISO 20783-1:2011	Petroleum and related products - Determination of emulsion stability of fire-resistant hydraulic fluids Part 1: Fluids in class HFAE	16
BS EN ISO 20783-2:2003	Petroleum and related products - Determination of emulsion stability of fire-resistant hydraulic fluids Part 2: Fluids in class HFB	16
BS EN ISO 20843:2011	Petroleum and related products – Determination of pH of fire-resistant fluids within categories HFAE, HFAS and HFC	16
BS EN ISO 20844:2015	Petroleum and related products - Determination of the shear stability of polymer-containing oils using a diesel injector nozzle	16

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards

Number	Title	Key
BS ISO 37:2005	Rubber, vulcanised or thermoplastic – Determination of tensile stress strain	4
BS ISO 48:2007	Rubber, vulcanised or thermoplastic – Determination of hardness (hardness between 10 IRHD and 100 IRHD)	4
BS ISO 188:2007	Rubber, vulcanised or thermoplastic – Accelerated ageing and heat resistance tests	4
BS ISO 815-1:2008	Rubber, vulcanised or thermoplastic – Determination of compression set Part 1: At ambient or elevated temperatures	4
BS ISO 1219-1:2012	Fluid power systems and components – Graphic symbols and circuit diagrams Part 1: Graphical symbols for conventional use and data-processing application	TCs
BS ISO 1219-2:2012	Fluid power systems and components – Graphic symbols and circuit diagrams Part 2 Circuit diagrams	TCs
BS ISO 1219-3:2016	Fluid power systems and components - Graphical symbols and circuit diagrams - Part 3: Symbol modules and connected symbols in circuit diagrams	9
BS ISO 1436:2020	Rubber hoses and hose assemblies – Wire braid reinforced hydraulic types for oil or water-based fluids – Specification	4
BS ISO 1629:1995+A1:2007	Rubbers and latices – Nomenclature	7
BS ISO 1817:2005	Rubber vulcanised – Determination of the effect of liquids	4
BS ISO 2230:2002	Vulcanised rubber – Guide to storage	4
BS ISO 2781:2008	Rubber, vulcanised or thermoplastic – Determination of density	4
BS ISO 2941:2009	HFP – Filter elements – Verification of collapse/burst pressure rating	6
BS ISO 2942:2004	HFP – Filter elements – Verification of fabrication integrity and determination of the first bubble point	6
BS ISO 2943:1998	HFP – Filter elements – Verification of material compatibility with fluids	6
BS ISO 2944:2000	Fluid power systems and components – Nominal pressures	TCs
BS ISO 3019-1:2001	HFP – Dimensions and identification code for mounting flanges and shaft ends of displacement pumps and motors Part 1: Inch series shown in metric units	8
BS ISO 3019-2:2001	HFP – Dimensions and identification code for mounting flanges and shaft ends of displacement pumps and motors Part 2: Metric series	8
BS ISO 3320:2013	Fluid power systems and components – Cylinder bores and piston rod diameters and area ratios – metric sizes	3
BS ISO 3322:1985	Fluid power systems and components – Cylinders – Nominal pressures	3
BS ISO 3601-1:2012+A1:2019	Fluid power systems – O-rings Part 1: Inside diameters, cross-sections, tolerances and designation codes	7
BS ISO 3601-2:2016+ Corr July 2017	Fluid Power Systems - O-rings Part 2: Housing dimensions for general applications	7
BS ISO 3601-3:2005+A1:2018	Fluid Power Systems - O-rings Part 3: Quality acceptance criteria	7
BS ISO 3601-4:2008	Fluid Power Systems - O-rings Part 4: Anti-extrusion rings (back-up rings)	7
BS ISO 3601-5:2015+ Corr March 2017	Fluid Power Systems - O-rings Part 5: Specification of elastomeric materials for industrial applications	7
BS ISO 3723:2015	HFP – Filter elements – Method for end load test	6
BS ISO 3724:2007	HFP – Filter elements – Determination of resistance to flow fatigue using particulate contaminant	6
BS ISO 3862:2020	Rubber hoses and hose assemblies – Rubber covered spiral wire reinforced hydraulic types for oil or water-based fluids – Specification	4
BS ISO 3968:2017	HFP – Filters – Evaluation of differential pressure versus flow characteristics	6
BS ISO 4079:2020	Rubber hoses and hose assemblies – Textile reinforced hydraulic types for oil or water-based fluids - Specification	4

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 4392-1:2002	HFP – Determination of characteristics of motors Part 1: At constant low speed and constant pressure	8
BS ISO 4392-2:2002	HFP – Determination of characteristics of motors Part 2: Startability	8
BS ISO 4393:2015	Fluid power systems and components – Cylinders – Basic series of piston strokes	3
BS ISO 4395:2009+ Corr:2010	Fluid power systems and components – Cylinder piston rod end types and dimensions	3
BS ISO 4397:2011	Fluid power connectors and associated components – Nominal outside diameters of tubes and nominal hose sizes	4
BS ISO 4399:2019	Fluid Power Systems and Components - Connectors and associated components - Nominal pressures	4
BS ISO 4401:2005	HFP – Four-port directional control valves – Mounting surfaces	5
BS ISO 4406:2017+ Corr August 2018	HFP – Fluids – Method for coding the level of contamination by solid particles	6
BS ISO 4407:2002	HFP – Fluid Contamination – Determination of particulate contamination by the counting method using an optical microscope	6
BS ISO 4409:2019	HFP – Positive displacement pumps, motors and integral transmissions – Methods of testing and presenting basic steady state performance	8
BS ISO 4411:2019	HFP – Valves – Determination of pressure differential/flow characteristics	4
BS ISO 5391:2003	Pneumatic tools and machines - Vocabulary	TCs
BS ISO 5596:1999	HFP – Gas-loaded accumulators with separator – Ranges of pressures and volumes and characteristic quantities	1
BS ISO 5597:2018	HFP – Cylinders – Dimensions and tolerances of housings for single acting piston and rod seals in reciprocating application	7
BS ISO 5598:2020	Fluid power systems and components - Vocabulary	TCs
BS ISO 5599-1:2001+ Corr 1	PFP – Five-port directional control valves Part 1: Mounting interface surfaces without electrical connector	5
BS ISO 5599-2:2001+ A1 and Corr 1	PFP – Five-port directional control valves Part 2: Mounting interface surfaces with optional electrical connector	5
BS ISO 5781:2016	HFP – Pressure reducing valves, sequence valves, unloading valves, throttle valves and check valves – Mounting surfaces	5
BS ISO 5782-1:2017	PFP – Compressed air filters Part 1: Main characteristics to be included in supplier's literature and product marking requirements	5
BS ISO 5782-2:1997	PFP – Compressed air filters Part 2: Test methods to determine the main characteristics to be included in supplier's literature	5
BS ISO 5783:2019	HFP - Code for identification of valve mounting surfaces and cartridge valve cavities	5
BS ISO 6020-1:2007	HFP – Mounting dimensions for single rod cylinders, 16 MPa (160 bar) series Part 1: Medium series	3
BS ISO 6020-2:2015	HFP – Mounting dimensions for single rod cylinders, 16 MPa (160 bar) series Part 2: Compact series	3
BS ISO 6020-3:2015	HFP – Mounting dimensions for single rod cylinders, 16 MPa (160 bar) series Part 3: Compact series with bores from 250 to 500mm	3
BS ISO 6022:2006	HFP – Mounting dimensions for single rod cylinders, 25 MPa (250 bar) series	3
BS ISO 6072:2011	Rubber – Compatibility between hydraulic fluids and standard elastomeric materials	7 16
BS ISO 6099:2018	Fluid power systems and components – Cylinder – Identification code for mounting dimensions and mounting types	3
BS ISO 6150:2018	PFP – cylindrical quick-action couplings for maximum working pressures of 10, 16 and 25 bar (1, 1,6 and 2,5 MPa) – Plug connecting dimensions, specifications, application guidelines and testing	4
BS ISO 6162-1:2012	HFP – Flange connectors with split or one-piece flange clamps and metric or inch screws – Part 1: Flange connectors, ports and mounting surfaces for use at pressures of 3,5 MPa (35 bar) to 35 MPa (350 bar), DN 13 to DN 127	4
BS ISO 6162-2:2018	HFP - Flange connectors with split or one-piece flange clamps and metric or inch screws – Part 2: Flange connectors , ports and mounting surfaces for use at pressures of 42 MPa (420 bar), DN 13 to DN 127	4
BS ISO 6164:2018	HFP - Four-screw, one-piece square-flange connections for use at pressures of 42 MPa, DN 25 to 80	4

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 6194-1:2007	Rotary shaft lip-type seals incorporating elastomeric sealing elements Part 1: Nominal dimensions and tolerances	7
BS ISO 6194-2:2009	Rotary shaft lip-type seals incorporating elastomeric sealing elements Part 2: Vocabulary	7
BS ISO 6194-3:2009	Rotary shaft lip-type seals incorporating elastomeric sealing elements Part 3: Storage, handling and installation	7
BS ISO 6194-4:2009	Rotary shaft lip-type seals incorporating elastomeric sealing elements Part 4: Performance test procedures	7
BS ISO 6194-5:2008	Rotary shaft lip-type seals incorporating elastomeric sealing elements Part 5: Identification of visual imperfections	7
BS ISO 6195:2013	Fluid power systems and components – Cylinder-rod wiper-ring housings in reciprocating applications – Dimensions and tolerances	7
BS ISO 6263:2013	HFP – Compensated flow-control valves – Mounting surfaces	5
BS ISO 6264:1998	HFP – Pressure relief valves – Mounting surfaces	5
BS ISO 6296:2000	Methods of test for petroleum and its products – BS 2000-439: Determination of water – Potentiometric Karl Fischer titration method	16
BS ISO 6301-1:2017	PFP – Compressed air lubricators Part 1: Main characteristics to be included in supplier's literature and product marking requirements	5
BS ISO 6301-2:2018	PFP – Compressed air lubricators Part 2: Test methods to determine the main characteristics to be included in supplier's literature	5
BS ISO 6358-1:2013 +A1:220	PFP – Determination of flow-rate characteristics of components using compressible fluids Part 1: General rules and test methods for steady-state flow	5
BS ISO 6358-2:2019	PFP – Determination of flow-rate characteristics of components using compressible fluids Part 2: Alternative test methods	5
BS ISO 6358-3:2014	PFP – Determination of flow-rate characteristics of components using compressible fluids Part 3: Method for calculating steady-state flow-rate characteristics of systems	5
BS ISO 6431:1992	PFP – Single rod cylinders, 1 000 kPa (10 bar) series with detachable mountings, bores from 32 to 320mm – Mounting dimensions	3
BS ISO 6432:2015	PFP – Single rod cylinders – 10 bar (1 000 kPa) series – Bores from 8 to 25mm – Mounting dimensions	3
BS ISO 6505:2005	Rubber, vulcanized or thermoplastic – Determination of tendency to adhere to and corrode metals	3
BS ISO 6547:1981	HFP – Cylinders – Piston seal housings incorporating bearing rings – Dimensions and tolerances	7
BS ISO 6605:2017	HFP – Hoses and hose assemblies – Test methods	4
BS ISO 6743-1:2002	Lubricants, industrial oils and related products (class L) – Classification Part 1: Family A (total loss systems)	16
BS ISO 6743-3:2003	Lubricants, industrial oils and related products (class L) – Classification Part 3: Family D (compressors)	16
BS ISO 6743-5:2006	Lubricants, industrial oils and related products (class L) – Classification Part 5: Family T (turbines)	16
BS ISO 6743-99:2002	Lubricants, industrial oils and related products (class L) – Classification Part 99: General	16
BS ISO 6805:1994	Rubber hoses and hose assemblies for underground mining – Wire reinforced hydraulic types for coal mining - Specification	4

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 6953-1:2015	PFP – Compressed air pressure regulators and filter regulators Part 1: Main characteristics to be included in literature from suppliers and product marking requirements	5
BS ISO 6953-2:2015	PFP – Compressed air pressure regulators and filter regulators Part 2: Test methods to determine the main characteristics to be included in literature from suppliers	5
BS ISO 6953-3:2013	PFP – Compressed air pressure regulators and filter regulators Part 3: Alternative test methods for measuring the flow-rate characteristics of pressure regulators	5
BS ISO 6981:1992	HFP – Cylinders - Rod end plain eyes – Mounting dimensions	3
BS ISO 6982:1992	HFP – Cylinders - Rod end spherical eyes – Mounting dimensions	3
BS ISO 7180:1986	PFP – Cylinders – Bore and port thread sizes	3
BS ISO 7181:1991	HFP – Cylinders – Bore and rod area ratios	3
BS ISO 7241:2014	HFP - Dimensions and requirements of quick-action couplings	4
BS ISO 7241-2:2000	HFP – Quick-action couplings Part 2: Test methods	4
BS ISO 7368:2016	HFP – Two-port slip in cartridge valves - Cavities	5
BS ISO 7425-1:1998	HFP – Housing for elastomer energised plastic faced seals – Dimensions and tolerances Part 1: Piston seal housings	7
BS ISO 7425-2:1989	HFP – Housing for elastomer energised plastic faced seals – Dimensions and tolerances Part 2: Rod seal housings	7
BS ISO 7745:2010	HFP – Fire-resistant (FR) fluids – Requirements and guidelines for use	16
BS ISO 7789:2007	HFP – Two, three and four-port screw-in cartridge valves - Cavities	5
BS ISO 7790:2013	HFP – Four-port modular stack valves and four-port directional control valves, sizes 02, 03 and 0,5 – Clamping dimensions	5
BS ISO 8068:2006 + A1:2019	Lubricants, industrial oils and elated products (class L) – Family T (turbines) – Specification for lubricating oils for turbines	16
BS ISO 8131:1992	HFP – Single rod cylinders 16 MPa (160 bar) compact series – Tolerances	3
BS ISO 8132:2014	HFP – Mounting dimensions for accessories for single rod cylinders, 16 MPa (160 bar) medium and 25 MPa (250) bar series	3
BS ISO 8133:2014	HFP – Mounting dimensions for accessories for single rod cylinders, 16 MPa (160 bar) compact series	3
BS ISO 8135:1999	HFP – Single rod cylinders 16 MPa (160 bar) medium and 25 MPa (250 bar) series – Tolerances	3
BS ISO 8136:1986	HFP – Single rod cylinders, 16 MPa (160 bar) medium series – Port dimensions	3
BS ISO 8137:1986	HFP – Single rod cylinders 250 bar (25 MPa) series – Port dimensions	3
BS ISO 8138:1998	HFP – Single rod cylinders 16 MPa (160 bar) compact series – Port dimensions	3
BS ISO 8139:2018	PFP – Cylinders – 1 000 kPa (10 bar) series – Mounting dimensions of rod end spherical eyes	3
BS ISO 8140:2018	PFP – Cylinders – 1 000 kPa (10 bar) series – Mounting dimensions of rod end clevises	3
BS ISO 8426:2008	HFP - Positive displacement pumps and motors - Determination of derived capacity	8
BS ISO 8434-2:2007	Metallic tube connections for fluid power and general use Part 2: 37° flared connectors	4
BS ISO 8434-3:2005	Metallic tube connections for fluid power and general use Part 3: O-ring face seal connectors	4
BS ISO 8434-6:2009+ Corr:2010	Metallic tube connections for fluid power and general use Part 6: 60° cone connector with or without O-ring	4
BS ISO 8778:2003	PFP – Standard reference atmosphere	5
BS ISO 9110-1:2020	HFP – Measurement techniques Part 1: General measurement principles	8
BS ISO 9110-2:2020	HFP – Measurement techniques Part 2: Measurement of average steady-state pressure	8

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 9276-1:1998	Representation of results of particle size analysis Part 1: Graphical representation	6
BS ISO 9276-2:2001	Representation of results of particle size analysis Part 2: Calculation of average particle sizes/diameters and moments from particle size distributions	6
BS ISO 9276-4:2001	Representation of results of particle size analysis Part 4: Characterisation of a classification process	6
BS ISO 9974-4:2016	Connections for general use and fluid power – Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing Part 4: Dimensions, design, test methods and requirement for external hex and internal hex port plugs	4
BS ISO 10050:2005	Lubricants, industrial oils and related products (class L) – Family T (turbines) – Specifications of triaryl phosphate ester turbine control fluids (category ISO-L-TCD)	16
BS ISO 10041-1:2010	PFP - Electro-pneumatic continuous flow rate control valves Part 1: Main characteristics to include in the supplier's literature	5
BS ISO 10041-2:2010	PFP - Electro-pneumatic continuous flow rate control valves - Part 2: Test methods to determine main characteristics to include in the supplier's literature	5
BS ISO 10094-1:2010	PFP - Electro-pneumatic pressure control valves Part 1: Main characteristics to include in the supplier's literature	5
BS ISO 10094-2:2010	PFP – Electro-pneumatic pressure control valves Part 2: Test methods to determine main characteristics to include in the supplier's literature	5
BS ISO 10099:2001	PFP – Cylinders – Final examination and acceptance criteria	3
BS ISO 10100:2020	HFP – Cylinders – Acceptance tests	3
BS ISO 10372:1992	HFP – Four and five-port servo valves – Mounting surfaces	5
BS ISO/TR 10686:2013	HFP – Method to relate the cleanliness of a hydraulic system to the cleanliness of the components and hydraulic fluid that make up the system	6
BS ISO 10762:2015	HFP – Cylinder mounting dimensions – 1 0 MPa (100 bar) series	3
BS ISO 10763:2020	HFP – Plain-end, seamless and welded precision steel tubes – Dimensions and nominal working pressures	4
BS ISO 10766:2014	HFP – Cylinders – Housing dimensions for rectangular section-cut bearing rings for pistons and rods	7
BS ISO 10767-1:2015	HFP – Determination of pressure ripple levels generated in systems and components Part 1: Precision method for pumps	8
BS ISO 10767-2:1999	HFP – Determination of pressure ripple levels generated in systems and components Part 2: Simplified method for pumps	8
BS ISO 10767-3:1999	HFP – Determination of pressure ripple levels generated in systems and components Part 3: Method for motors	8
BS ISO 10770-1:2009	HFP – Electrically modulated hydraulic control valves Part 1: Test methods for four-port directional flow control valves	8
BS ISO 10770-2:2012	HFP – Electrically modulated hydraulic control valves Part 2: Test methods for three-way directional flow control valves	8
BS ISO 10770-3:2020	HFP – Electrically modulated hydraulic control valves Part 3: Test methods for pressure control valves	8
BS ISO 10771-1:2015	HFP – Fatigue pressure testing of metal pressure containing envelopes Part 1: Test method	8
BS ISO 10771-2:2008	HFP – Fatigue pressure testing of metal pressure containing envelopes Part 2: Rating methods	8
BS ISO/TR 10946:2019	HFP – Gas-loaded accumulators with separator – Selection of preferred hydraulic ports	1
BS ISO 11158:2009+ Corr:2010	Lubricants, industrial oils and related products (class L) – Family H (hydraulic systems) – Specifications for HH, HL, HM, HV and HG	16
BS ISO 11170:2013	HFP – Filter elements – Sequence of tests for verifying performance characteristics	6
BS ISO 11171:2016	HFP – Calibration of automatic particle counters for liquids	6
BS ISO 11237-2:2006	Rubber hoses and hose assemblies – Wire braid reinforced compact types for hydraulic applications – Specification	4

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 11365:2017	Petroleum and related products – Maintenance and use guide for triaryl phosphate ester turbine control fluids	16
BS ISO 11500:2008	HFP – Determination of the particulate contamination level of a liquid sample by automatic particle counting using the light-extinction principle	6
BS ISO/TR 11686:2017	Connectors for fluid power and general use – Assembly instructions for connectors with adjustable stud ends and O-ring sealing	4
BS ISO 11727:1999	PFP – Identification of ports and control mechanisms of control valves and other components	5
BSI ISO 11943:2018	HFP – On-line automatic particle counting systems for liquids – Methods of calibration and validation	6
BS ISO 12151-1:2010+A1:2017	Connections for hydraulic fluid power and general use – Hose fittings Part 1: Hose fittings with ISO 8434-3 O-ring face seal ends	4
BS ISO 12151-2:2003	Connections for hydraulic fluid power and general use – Hose fittings Part 2: Hose fittings with ISO 8434-1 and ISO 8434-4 24° cone connector ends with O-rings	4
BS ISO 12151-3:2010	Connections for hydraulic fluid power and general use – Hose fittings Part 3: Hose fittings with ISO 6162-1 or ISO 6162-2 flange ends	4
BS ISO 12151-4:2007	Connections for hydraulic fluid power and general use – Hose fittings Part 4: Hose fittings with ISO 6149 metric stud ends	4
BS ISO 12151-5:2007	Connections for hydraulic fluid power and general use – Hose fittings Part 5: Hose fittings with ISO 8434-2 37° flared ends	4
BS ISO 12151-6:2009	Connections for hydraulic fluid power and general use – Hose fittings Part 6: Hose fittings with ISO 8434-6 60° cone ends	4
BS ISO 12238:2001	PFP – Directional control valves – Measurement of shifting time	5
BS ISO 12500-1:2007	Filters for compressed air – Test methods Part 1: Oil aerosols	5
BS ISO 12500-2:2007	Filters for compressed air – Test methods Part 2: Oil vapours	5
BS ISO 12584:2013	Aerospace – Hydraulic fluid components – Expression of particulate contamination levels	6
BS ISO 12669:2017	HFP – guidelines for determining the required cleanliness level (RCL) of a system	6
BS ISO 12829:2016	Hydraulic spin-on filters with finite lives – Method for verifying the rated fatigue life and the rated static burst pressure of the pressure-containing envelope	6
BS ISO 13226:2011	Rubber – Standard reference elastomers (SREs) for characterising the effect on vulcanised rubbers	7 16
BS ISO 13317-1:2001	Determination of particle size distribution by gravitational liquid sedimentation methods Part 1: General principles and guidelines	6
BS ISO 13317-2:2001	Determination of particle size distribution by gravitational liquid sedimentation methods Part 2: Fixed pipette method	6
BS ISO 13317-3:2001	Determination of particle size distribution by gravitational liquid sedimentation methods Part 3: X-ray gravitational technique	6
BS ISO 13357-1:2017	Petroleum products – Determination of the filterability of lubricating oils Part 1: Procedure for oils in the presence of water	16
BS ISO 13357-2:2017	Petroleum products – Determination of the filterability of lubricating oils Part 2: Procedure for dry oils	16
BS ISO/TS 13725:2016	HFP – Cylinders – Method for determining the buckling load	3
BS ISO 13726:2008	HFP – Single rod cylinders, 16 MPa (160 bar) compact series with bores from 250 to 500mm – Accessory mounting dimensions	3
BS ISO 14540:2013	HFP – Dimensions and requirements for screw-to-connect quick-action couplings for use at a pressure of 72 MPa (720 bar)	4
BS ISO 14541:2013	HFP – Dimensions and requirements for screw-to-connect quick-action couplings for general use	4
BS ISO 14743:2020	PFP – Push-in connectors for thermoplastic tubes	4
BS ISO 15029-2:2018	Petroleum and related products – Determination of spray ignition characteristics of fire-resistant fluids	16
BS ISO 15086-1:2001	HFP – Determination of the fluid borne noise characteristics of components and systems Part 1: Introduction	8
BS ISO 15086-2:2000	HFP – Determination of the fluid borne noise characteristics of components and systems Part 2: Measurement of speed of sound in a fluid in a pipe	8

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 15171-1:1999	Connections for fluid power and general use – Hydraulic couplings for diagnostic purposes Part 1: Coupling not for connection under pressure	4
BS ISO 15171-2:2016	Connections for fluid power and general use – Hydraulic couplings for diagnostic purposes Part 2: Coupling with M16 x 2 end for connection under pressure	4
BS ISO 15217:2000	Fluid power systems and components – 16mm square electrical connector with earth contact – Characteristics and requirements	5
BS ISO 15218:2003	PFP – 3/2 solenoid valves – Mounting interface surfaces	5
BS ISO 15380:2016	Lubricants, industrial oils and related products (class L) – Family H (hydraulic systems) – Specifications for categories HETG, HEPG, HEES and HEPR	16
BS ISO 15407-1:2000	PFP – Five-port directional control valves, sizes 18 and 26mm Part 1: Mounting interface surfaces without electrical connector	5
BS ISO 15407-2:2003	PFP – Five-port directional control valves, sizes 18 and 26mm Part 2: Mounting interface surfaces with optional electrical connector	5
BS ISO 15524:2011	PFP – Cylinders – Single-rod short-stroke cylinders, 1 000 kPa (10 bar) series, bores from 20 mm to 100 mm	3
BS ISO 15552:2018	PFP – Cylinders with detachable mountings, 1000 kPa (10 bar) series, bores from 32 to 320mm – Basic mounting and accessories dimensions	3
BS ISO/TR 15640:2011	HFP – Contamination Control – General principles and guidelines for selection and application of hydraulic filters	6
BS ISO 16028+A1:1999	HFP – Flush-face type, quick-action couplings for use at pressures of 20 MPa (200 bar) to 31,5 MPa (315 bar) - Specifications	4
BS ISO 16030+A1:2001	PFP – Connections – Ports and stud ends	4
BS ISO/TR 16194	Pneumatic fluid power - Assessment of component reliability by accelerated life testing - General guidelines and procedures	8
BS ISO 16301:2017	Rubber and plastic hoses and hose assemblies, wire or textile reinforced for manually operated hydraulic jacks - Specification	-
BS ISO 16368:2003	Mobile elevating work platforms – Design calculations, safety and test methods	9
BS ISO/TR 16386:2014	Impact of changes in ISO fluid power particle counting – Contamination control and filter test standards	6
BS ISO 16431:2012	HFP – System clean-up procedures and verification of cleanliness of assembled systems	6
BS ISO 16589-1:2011+A1:2018	Rotary shaft lip-type seals incorporating thermoplastic sealing elements Part 1: Nominal dimensions and tolerances	7
BS ISO 16589-2:2012	Rotary shaft lip-type seals incorporating thermoplastic sealing elements Part 2: Vocabulary	7
BS ISO 16589-3:2012+ Corr April 2012	Rotary shaft lip-type seals incorporating thermoplastic sealing elements Part 3: Storage, handling and installation	7
BS ISO 16589-4:2012	Rotary shaft lip-type seals incorporating thermoplastic sealing elements Part 4: Performance test procedures	7
BS ISO 16589-5:2012	Rotary shaft lip-type seals incorporating thermoplastic sealing elements Part 5: Identification of visual imperfections	3
BS ISO 16656:2016	HFP – Single rod, short-stroke cylinders with bores from 32 to 100mm for use at 10 MPa (100 bar) – Mounting dimensions	3
BS ISO/TR 16806:2003	PFP – Cylinders – Load capacity of pneumatic slides and their presentation method	3
BS ISO 16860:2005	HFP – Filters – Test method for differential pressure devices	6
BS ISO 16873:2011	HFP – Pressure switches – Mounting surfaces	5
BS ISO 16889:2008+A1: 2018	HFP – Filters – Multi-pass method for evaluating filtration performance of a filter element	6
BS ISO 16902-1:2003	HFP – Test code for the determination of sound power levels using sound intensity techniques – Engineering method Part 1: Pumps	8
BS ISO 16908:2014	Hydraulic filter element test methods – Thermal conditioning and cold start-up simulation	6
BS ISO 17066:2007	Hydraulic Tools – Vocabulary	9
BS ISO 17082:2004	PFP - Valves - Data to be included in supplier literature	5

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

Number	Title	Key
BS ISO 17165-1:2007	HFP - Hose assemblies - Part 1: Dimensions and requirements	4
BS ISO/TS 17165-2:2018	HFP – Hose assemblies – Part 2: Practices for hydraulic hose assemblies	4
BS ISO/TR 17209:2013	HFP – Two, three and four port screw in cartridge valves – Cavities with ISO 725 (UN and UNF) threads	5
BS ISO 17559:2003	HFP – Electrically controlled hydraulic pumps – Test methods to determine performance characteristics	8
BS ISO 18237:2017	Hydraulic fluid dehydrators – Method for evaluating water separation performance of mass transfer dehydrators	6
BS ISO/TR 18409:2018	HFP – Hose and hose assemblies – Method of collecting a fluid sample for analysing the cleanliness of a hose or hose assembly	4
BS ISO 18413:2015	HFP – Cleanliness of components – Inspection document and principles related to contaminant extraction, analysis and data reporting	6
BS ISO 18582-1:2016	Fluid power – Specification of reference dictionary – Part 1: General overview on organisation and structure	9
BS ISO 18582-2:2018	Fluid power – Specification of reference dictionary – Part 2: Definitions of classes and properties of pneumatics	
BS ISO 18752:2016	Rubber hoses and hose assemblies – Wire or textile reinforced single pressure types for hydraulic applications - Specification	4
BS ISO 18869:2017	HFP – Test methods for couplings actuated with or without tools	4
BS ISO 19385:2017+ A1:2019	Rubber and plastics hoses and hose assemblies, wire or textile reinforced for water jetting or water blasting applications	4
BS ISO 19972-1:2009	HFP – Methods to assess the reliability of hydraulic components Part 1: General procedures and calculation method	8
BS ISO 19973-1:2015	PFP – Assessment of component reliability by testing Part 1: General procedures	8
BS ISO 19973-2:2015+ A1:2019	PFP – Assessment of component reliability by testing Part 2: Directional control valves	8
BS ISO 19973-3:2015	PFP – Assessment of component reliability by testing Part 3: Cylinders with piston rod	8
BS ISO 19973-4:2014	PFP – Assessment of component reliability by testing Part 4: Pressure regulators	8
BS ISO 19973-5:2015	PFP – Assessment of component reliability by testing Part 5: Non-return valves, shuttle valves, dual pressure valves (and function), one-way adjustable flow control valves, quick-exhaust valves	8
BS ISO 20145:2019	PFP – Test method for measuring acoustic emission pressure level of exhaust silencers	5
BS ISO 20401:2017	PFP – Directional control valves – Specification of pin assignments for electrical round connectors of diameters 8 and 12mm	5
BS ISO 21018-1:2008	HFP – Monitoring the level of particulate contamination of the fluid Part 1: General principles	6
BS ISO 21018-3:2008	HFP – Monitoring the level of particulate contamination of the fluid Part 3: Use of the filter blockage technique	6
BS ISO 21018-4:2019	HFP – Monitoring the level of particulate contamination of the fluid Part 4: Use of the light extinction technique	4
BS ISO 21287:2004	PFP – Cylinders – Compact cylinders 1 000 kPa (10 bar) series, bores from 20 to 100mm	3
BS ISO/TR 22164:2020	HFP – Application notes for the optimisation of the energy efficiency of hydraulic systems	9
BS ISO/TR 22165:2018	PFP – Application notes for the improvement of the energy efficiency of pneumatic systems	9
BS ISO/TR 22681:2019	HFP – Impact and use of ISO 11171:2016 µm(b) and µm(c) particle size designations on particle count and filter test data	6

INTERNATIONAL STANDARDS ORGANISATION
International standards implemented as British standards - continued...

<i>Number</i>	<i>Title</i>	<i>Key</i>
BS ISO 23181:2007	HFP – Filter elements – Determination of resistance to flow fatigue using high viscosity fluid	6
BS ISO 23297:2017	Thermoplastics hoses and hose assemblies – Wire or synthetic yarn reinforced single pressure types for hydraulic applications - Specification	4
BS ISO 23309:2020	HFP – Assembled systems – Methods of cleaning lines by flushing	6
BS ISO 23529:2010	Rubber – General procedures for preparing and conditioning test pieces for physical test methods	4
BS ISO 23849:2010	Guidance on the application of ISO 13849-1 and IEC 62061 in the design of safety-related control systems for machinery	9
BS ISO 26422:2014	Petroleum and related products – Determination of shear stability of lubricating oils containing polymers – Method using a tapered roller bearing	16
BS ISO 27407:2010	HFP – Marking of performance characteristics on hydraulic filters	6
BS ISO 28702:2008	Rubber and plastics hoses and tubing – Textile reinforced types – Sub-ambient temperature crush test	4

INTERNATIONAL STANDARDS ORGANISATION

International standards

<i>Number</i>	<i>Title</i>	<i>Key</i>
ISO 1179:1981	Pipe connections, threaded to ISO 228-1 for plain end steel and other metal tubes in industrial applications	4
ISO 1432:1988+Corr 1	Rubber, vulcanized or thermoplastic – Determination of low temperature stiffening (Gehman test)	4
ISO 2548:1973	Specification – Acceptance tests for centrifugal, mixed flow and axial pumps Part 1: Class C tests	8
ISO 2909:2002	Petroleum products – Calculation of viscosity index from kinematic viscosity	16
ISO 3019-3:1988	HFP - Positive displacement pumps and motors - Dimensions and identification code for mounting flanges and shaft ends Part 3: Polygonal flanges (including circular flanges)	8
ISO 3228:1997	Rolling bearings – Bearings with spherical outside surface and extended inner ring width Part 3: Specification for dimensions of cast and pressed housings	4
ISO 3302-1:1996+A1	Rubber – Tolerances for products Part 1: Dimensional tolerances	-
ISO 3321:1975	Fluid Power Systems and Components - Cylinder bores and piston rod diameters - Inch series	3
ISO 3448:1992	Classification for viscosity grades of industrial liquid lubricants	16
ISO 3555:1977	Specification for acceptance tests for centrifugal mixed flow and axial pumps Part 2: Class B tests	3
ISO 3662:1976	HFP - Pumps and motors, geometric displacements	8
ISO 3722:1976	HFP - Fluid sample containers - Qualifying and controlling cleaning methods	6
ISO 3857-1:1977	Glossary of terms for compressors, pneumatic tools and machines Part 1: General	9
ISO 3857-3:1979	Glossary of terms for compressors, pneumatic tools and machines Part 3 Pneumatic tools and machines	9
ISO 3938:1986	HFP - Contamination analysis - Method for reporting analysis data	6
ISO 3939:1977	Fluid Power Systems and Components - Multiple lip packing sets - Methods for measuring stack heights	7
ISO 4021:1992	HFP - Particulate contamination analysis - Extraction of fluid samples from lines of an operating system	6
ISO 4263:1986	Petroleum products – Inhibited mineral oils – Determination of oxidation characteristics	16
ISO 4263-2:2003	Petroleum and related products - Determination of the ageing behaviour of inhibited oils and fluids - TOST test Part 2: Procedure for category HFC hydraulic fluids	16
ISO 4391:1983	HFP - Pumps, motors and integrated transmissions - Parameter definitions and letter symbols	8
ISO 4392-3:1993	HFP - Determination of characteristics of motors Part 3: At constant flow and constant torque	8
ISO 4394-1:1980	Fluid Power Systems and Components - Cylinder barrels Part 1: Requirements for steel tubes with specially finished bores	3
ISO 4400:1994	Fluid Power Systems and Components - Three-pin electrical plug connectors with earth contact - Characteristics and requirements	5
ISO 4405:1991	HFP - Fluid contamination - Determination of particulate contamination level by the gravimetric method	6
ISO 4412-1:1991	HFP - Test code for determination of airborne noise levels Part 1: Pumps	8
ISO 4412-2:1991	HFP - Test code for determination of airborne noise levels Part 2: Motors	8
ISO 4412-3:1991	HFP - Test code for determination of airborne noise levels Part 3: Pumps - Method using a parallel piped microphone array	8
ISO 5599-3:1990	PFP - Five-port directional control valves Part 3: Code system for communication of valve functions	5

INTERNATIONAL STANDARDS ORGANISATION
International standards –continued...

Number	Title	Key
ISO 5784-1:1988	Fluid Power Systems and Components - Fluid logic circuits Part 1: Symbols for binary logic and related functions	5
ISO 5784-2:1989	Fluid Power Systems and Components - Fluid logic circuits Part 2: Symbols for supply and exhaust as related to logic symbols	5
ISO 5784-3:1989	Fluid Power Systems and Components - Fluid logic circuits Part 3: Symbols for logic sequencers and related functions	5
ISO 6247:1998	Petroleum products - Determination of foaming characteristics of lubricating oils	16
ISO 6301-2:2006	PFP - Compressed air lubricators Part 2: Test methods to determine the main characteristics to be included in suppliers' literature	7
ISO 6358:1989	PFP - Components using compressible fluids - Determination of flow-rate characteristics	5
ISO 6403:1988	HFP - Valves controlling flow and pressure - Test methods	5
ISO 6404:1985	HFP – Servo-valves – Test Methods	5
ISO 6430:1992	PFP - Single rod cylinders, 1000 kPa (10 bar) series, with integral mountings, bores from 32 mm to 250 mm - Mounting dimensions	3
ISO 6537:1982	PFP – Cylinder barrels – Requirements for non-ferrous metallic tubes	3
ISO 6743-0:1981	Lubricants, industrial oils and related products (class L) – Classification Part 0: General	16
ISO 6743-2:1981	Lubricants, industrial oils and related products (class L) Part 2: Classification for family F (spindle bearings, bearing and associated clutches)	16
ISO 6801:1983	Rubber and plastics hoses – Determination of volumetric expansion	4
ISO 6952:1994	Fluid Power Systems - Two-pin electrical plug connectors with earth contact - Characteristics and requirements	5
ISO 7233:1991	Rubber and plastics hoses and hose assemblies – Determination of suction resistance	4
ISO 7662:1988	Rubber and plastics hoses – Determination of abrasion of lining	4
ISO 7986:1997	HFP - Sealing devices - Standard test methods to assess the performance of seals used in oil hydraulic reciprocating applications	7
ISO 9110-1:1990	HFP - Measurement techniques Part 1: General measurement principles	8
ISO 9110-2:1990	HFP - Measurement techniques Part 2: Measurement of average steady-state pressure in a closed conduit	8
ISO 9461:1992	HFP - Identification of valve ports, sub-plates, control devices and solenoids	5
ISO 9632:1992	HFP – Fixed displacement pumps – Flow degradation due to classified AC fine test dust contamination – Test method	8
ISO 10763:1994	HFP - Plain-end, seamless and welded precision steel tubes - Dimensions and nominal working pressures	4
ISO 10949:2002	HFP - Component cleanliness - Guidelines for achieving and controlling cleanliness of components from manufacture to installation	6
ISO 11340:1994	Rubber and rubber products – Hydraulic hose assemblies – External leakage classification for hydraulic systems	4
ISO 11365:2011 TS	Petroleum and related products – Guidance for the maintenance and use of triaryl phosphate ester turbine-control fluids	16
ISO 11366:2011 TS	Petroleum and related products – Guidance for in-servicing of lubricating oils for steam, gas and combined-cycle turbines	16
ISO 11926-1:1995	Connections for general use and fluid power - Ports and stud ends with ISO 725 threads and O-ring sealing Part 1: Ports with O-ring seal in truncated housing	4
ISO 11926-2:1995	Connections for general use and fluid power - Ports and stud ends with ISO 725 threads and O-ring sealing Part 2: Heavy-duty (S series) stud ends	4
ISO 11926-3:1995	Connections for general use and fluid power - Ports and stud ends with ISO 725 threads and O-ring sealing Part 3: Light-duty (L series) stud ends	4
ISO 11237:2010	Rubber and hoses and hose assemblies - wire braid - reinforced compact types for hydraulic applications - Specifications - Oil and water based fluid applications	4

INTERNATIONAL STANDARDS ORGANISATION
International standards –continued...

<i>Number</i>	<i>Title</i>	<i>Key</i>
ISO 15029-1:1999	Petroleum and related products - Determination of spray ignition characteristics of fire-resistant fluids Part 1: Spray flame persistence - Hollow-cone nozzle method	16
ISO 15086-3:2008	HFP - Determination of fluid borne noise characteristics of components and systems Part 3: Measurement hydraulic impedance	8
ISO 16031-1:2002	Aerospace fluid systems - O-rings, inch series - Inside diameters and cross-sections, tolerances and size-identification codes Part 1: Close tolerances for hydraulic systems	7
ISO 16144:2002	HFP - Calibration of liquid automatic particle counters - Procedures used to certify the standard reference material SRM 2806	6
ISO 20823:2003	Petroleum and related products - Determination of the flammability characteristics of fluids in contact with hot surfaces - Manifold ignition test	16