



# HOSE INTEGRITY, INSPECTION AND MANAGEMENT



BRITISH FLUID POWER ASSOCIATION

COURSE OVERVIEW



## ABOUT THE COURSE

This one day course has been written and developed using the technical expertise available to the BFPA and the BFPDA and sets out to establish a benchmark for training people responsible for hose inspection and management from a wide variety of industry sectors and establishing a recognised standard in hose management best practice. Through the introduction of the Hose Integrity, Inspection and Management course, we have further enhanced the training package to include all core issues surrounding the efficient inspection, analysis, identification, registering and recording of hydraulic hose. During the training the individual will be assessed in order to achieve a BFPA industry recognised certificate. As with all BFPA courses a high quality personalised course book, certification of hose management achievement and registration on the BFPA National data base, gives both the attendee and

employer confidence that the correct methods and culture are being adopted and used.

## WHY SHOULD YOU ATTEND THE COURSE

“The course is an excellent addition to the suite of training offered by the BFPA and authorised trainers. We soon realised that this course has the potential to cross a vast section of industry, this is mainly due to the excellent content and presentation, which makes the course very interesting and accessible to manufacturers, distributors and most importantly end users. We feel that the time and effort put in by the BFPA has raised the bar to a new level of understanding safety for all industries.”

Interpump Hydraulics T/A IMM Hydraulics (UK) Limited

## CHAPTER ONE

### HOSE ASSEMBLY - LIFE EXPECTANCY

- considerations as to how long a hose assembly should last in service
- understand the 3 distinct stages where failure can occur in the life of a hose assembly
- understand the factors which help to determine the expected service life of a hose assembly
- benefits of rubber hose – overview
- benefits of thermoplastic hose – overview
- advantages of rigid pipe and hose assemblies
- The 9 phases within the life cycle of a hose assembly

## CHAPTER TWO

### RISK ANALYSIS

- risk analysis
- defining the consequences of failure for a hose assembly
- defining the probability of failure for a hose assembly
- calculating the resultant risk
- analysing the results of the risk assessment
- a risk based inspection programme



## CHAPTER THREE

### COMPETENCE ASSURANCE

- competence by way of a robust competence assurance system
- the competence assurance cycle
- a typical competence profile for personnel involved with hose assemblies
- industry definitions to distinguish a person who is competent, knowledgeable and aware

## CHAPTER FOUR

### IDENTIFY, INSPECT & RECORD

- ISO stipulated requirements for the identification of hydraulic hose assemblies including what information shall be included
- an overview of the methods commonly used to uniquely identify a hose assembly
- the visual inspection of a hose assembly upon receipt before it is put into service
- supporting documentation for a hose assembly prior to it entering service
- Certificate of Conformity (C of C) and Test Certificates

## CHAPTER FIVE

### HOSE REGISTER

- recording a hose assembly prior to it going into service/one already in service
- examples of a hose register and what information is typically contained in them

## CHAPTER SIX

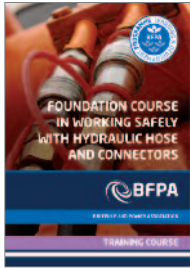
### VISUAL INSPECTION

- hose assembly installation inspection checklist
- ensuring that inspection is undertaken in a safe manner – making reference to BFPA publication P113 'Fluid Injection Injury Emergency – The Facts'
- hose assembly in service inspection checklist
- bulk hose branding – examples of branding methods commonly used
- examples of hose assembly damage/failure
- corrosion of the hose reinforcement
- inspection of equipment
- inspecting around mating parts
- galvanic (bimetallic) corrosion
- correct and incorrect use of hose whip checks
- inspecting quick release couplings



## OTHER COURSES AVAILABLE

### BFPA FOUNDATION COURSE IN WORKING SAFELY WITH HYDRAULIC HOSE AND CONNECTORS



This one day course has been developed to provide an introduction into hydraulic hose, connectors and the safe assembly of these components for industry use. The course is classroom based, during the day the attendee will gain a knowledge and understanding of safe hose assembly and if applied will only enhance the safety within the hydraulic industry and that of the attendee.

### BFPA HOSE ASSEMBLY SKILLS TRAINING PROGRAMME



The skills course will take the candidate through the many techniques and considerations essential for the safe production of a quality hose assembly and ultimately leading to installation. This two day course involves both the theoretical and practical elements in working with hose and connectors. During the 2 days the attendees will be trained and practically assessed to an industry level of ability in working with hose and connectors.

### SMALL BORE TUBING INTEGRITY COURSE



This one day course has been developed by BFPA technical experts to give candidates a valuable understanding of the complexity surrounding small bore tubing and compression fittings. The training course covers generic manufacturers' twin ferrule compression fittings, thread awareness, tube and pipe differences and the preparation process, tube manipulation (bending) principles, common installation and routing techniques. Attendees are assessed through a number of practical tasks and a theory question paper.

### BFPA HYDROSTATIC PROOF PRESSURE TESTING COURSE



This one day pressure testing course has been developed by the BFPA to enable the attendee to hydrostatically test a given component. The course centres around the testing of flexible hose and rigid tube and during the day attendees will receive both theoretical understanding and practical experience of procedures.



**ON COMPLETION  
OF ANY OF THESE COURSES  
YOU CAN APPLY FOR THE BFPA  
TRAINING PASSPORT CARD**

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