

AWHEM INTERPRETATION OF MACHINERY DIRECTIVE

GUIDE DOCUMENT GD 9901

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OF
MACHINERY DIRECTIVE**

GUIDE 9901
Revision New

FOREWORD

POLICY:

AWHEM has developed this Interpretation through formation of a task group comprised of AWHEM member companies and represents the opinions of the membership. However it is not intended to obviate the need for applying sound engineering judgement nor the responsibilities and authorities specified with any regulatory requirement. The following is specifically drawn to the attention of any person following the provisions of these notes.

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 - ii) any supplier of equipment or services where the Equipment owner insists that those products or services are provided in accordance with this Interpretation.

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1.0 INTRODUCTION

The Machinery Directive (89/392/EEC) and amending Directives (91/368/EEC, 93/44/EEC, 93/68/EEC) was adopted by the fifteen Member States of the European Community and the three states of the European Free Trade Association (Norway, Iceland, and Liechtenstein) as part of a “New Approach” to allow the free movement of goods throughout the European Economic Area (EEA).

The Directive has been transposed into law in each of the Member States; in the UK it is enforced by the Health and Safety Executive (HSE) under Statutory Instruments

- SI 1992/3073 - The Supply of Machinery (Safety) Regulations 1992
- SI 1994/2063 - The Supply of Machinery (Safety) (Amendment) Regulations 1994

A codified version of 89/392/EEC and all subsequent amendments was published on July 23, 1998 under 98/37/EC. While the UK Regulations are unaffected, this Directive number must be referenced on all applicable documentation issued after August 12, 1998. Previously issued documentation referencing 89/392/EEC will remain valid.

The regulations are enforceable for all machinery supplied from January 1, 1995 in the United Kingdom, but not to machinery supplied before this date. The breach of these regulations could result in a fine or imprisonment, or both.

Reader is reminded that this Directive and local legislation are subject to change, and as such the reader should make themselves aware of the latest status of the document.

This document is intended to provide a unified position on equipment categorisation as pertaining to the Machinery Directive. Although compliance with this document does not guarantee immunity from investigation or prosecution, an AWHEM-backed position will receive higher acknowledgement than that of an individual company.

The contents are kept deliberately brief; this document is not intended to replace the actual text of the Directives or the Regulations. Guidance notes on the Regulations are available from the DTI, and a consolidated overview of the Machinery Directive is published by BSI, with whom's assistance this document was written.

2.0 DEFINITION AND COVERAGE

The Directive defines Machinery as one of the following:

- “An assembly of linked parts or components, at least one of which moves, including, with the appropriate actuators, control and power circuits, joined together for a specific application, in particular for the processing, treatment, moving, or packaging of a material.”

eg A pump, motor, and starter unit are not machines as individual components, but they are integral components of a independently functioning machine capable of moving a material (fluid).

- “An assembly of machines which, in order to achieve the same end, are arranged and controlled so that they function as an integral whole”.

eg A pumping skid containing two or more of the assemblies above tied into a common outlet line for the purpose of boosting flow volume is also a machine.

- “Interchangeable equipment modifying the function of a machine which is supplied for the purpose of being assembled with a machine (or a series of different machines or with a tractor) by the operator himself in so far as this equipment is not a spare part or a tool”.

eg Farm equipment, which modifies the function of a tractor when attached (no obvious applicability for AWHEM members).

The Machinery Directive also covers safety components for machinery, defined as

- “Components which are supplied separately to fulfil a safety function when in use and the failure or malfunctioning of which endangers the safety or health of exposed persons”.

eg An ESD valve at the pump outlet. Valve is normally open, but shuts off flow on a system fault.

2.1 Scope of Coverage

Appendix 1 of this document lists all relevant equipment manufactured by the AWHEM member bodies. Each item of equipment is classified under one of three categories:

1. Equipment meeting the definition of machinery or safety component as defined above.
2. Equipment which does not meet the definition of machinery or safety component as defined above, but is an integral component of a machine (eg Pumps, motors).
3. Equipment which neither meets the definition of machinery or safety component, nor is intended to be a machinery component.

2.2 Exemptions

Exemptions under the Machinery Directive which apply to AWHEM members are:

- Machinery whose only power source is manual effort, unless it is used to lift and lower loads. The AWHEM interpretation of “lifting equipment” is those items which are designed and manufactured for the express purpose of lifting a non-specific load up to a maximum weight.
- Steam boilers, tanks, and pressure vessels.

- Storage tanks and pipelines for petrol, diesel fuel, inflammable liquids and dangerous substances.
- Means of transporting goods by air, public road, rail, or water. This extends to transport cradles or containers for specific equipment which may also be used to lift that equipment, where they are not considered essential for lifting that equipment.
- Seagoing vessels and mobile offshore units together with equipment on board.

3.0 RESPONSIBILITY

The responsibility for compliance where required lies with the manufacturer. Where machinery is manufactured outside the EEA, the responsibility shall lie with the person or company importing the machinery into the EEA.

4.0 REQUIREMENTS

Equipment classified as machinery must:

- Satisfy the essential health and safety requirements. These are described in Schedule 3 of the Regulations.
- Have the appropriate conformity assessment procedure carried out. Unless equipment has been manufactured to a harmonised standard (European Standards produced for specific machinery which cover all of the Essential Health and Safety Requirements (EHSR) NOTE: there are no harmonised standards applying to equipment manufactured by AWHEM members) a technical file must be **held** consisting of (but not limited to) drawings, calculations, specifications used, and a description of methods adopted to eliminate hazards. **This file need not be kept as a single file as long as the required information can be produced on request.** For the scope of equipment manufactured by AWHEM members, it is possible to self-certify ie no 3rd party testing requirements.
- Be accompanied by a Declaration of Conformity. This is issued by the responsible party ie Manufacturer or importer of the machinery. Where the equipment does not meet the definition of machinery but is an integral component of that machinery, the responsible party must issue a Declaration of Incorporation. The purchaser of the equipment must specifically request a Declaration of Incorporation since the manufacturer is not necessarily aware of the intended application. A Declaration of Incorporation **still requires the equipment to satisfy the EHSRs, and as such a technical construction file must still be maintained.**
- Have the CE mark affixed. Equipment and safety components accompanied by a Declaration of Incorporation may not carry the CE mark unless compliance with another Directive is required (eg Electromagnetic Compatibility Directive, or in due course the Pressure Equipment Directive).

- Actually be safe.

5.0 GENERAL NOTES AND CLARIFICATIONS

1. The application of a CE mark implies conformity with all relevant Directives, where these do not overlap. Similarly, if equipment is not classified as machinery a CE mark may still be required due to the applicability of another Directive.
2. It is an offence to CE mark equipment that does not require it.
3. As the Directive is an approximation of the Laws drafted individually by the Member States, the interpretation of the common technical requirements may vary somewhat in each of the Member States.
4. The equipment classification on the attached list has been produced following discussion between the AWHEM task group members and an independent Machinery Directive consultant from the British Standards Institute (BSI). The list is a summary of the AWHEM stance; justification will be provided on an individual basis if requested.
5. Although not presently covered, reconditioned equipment which was originally supplied before the Directive was in force will likely be included in the next revision.

Appendix 1 : AWHEM Equipment Classification Relating to Machinery Directive

Item	Description	Declaration of Conformity required	Declaration of Incorporation required (where requested)	Directive not Applicable
1.0	Surface Wellhead Assembly			x
1.1	Casing Head Housing			x
1.2	Casing Head Spool			x
1.3	Casing Hanger			x
1.4	Tubing Head Spool			x
1.5	Tubing Hanger			x
1.6	Lock Screws			x
1.7	Tubing Head Adapter			x
1.8	Crossover Spools/Connections			x
1.9	Seal Assemblies			x
2.0	Surface Christmas Tree Assembly			x
2.1	Master Valve			x
2.2	Tee			x
2.3	Wing Valve			x
2.4	Crown Valve			x
2.5	Top Connection			x
2.6	Gauge Valve			x
3.0	Subsea Wellhead Assembly (Equivalent Surface Equipment shall apply)			x
3.1	Temporary Guide Base (TGB)			x
3.2	Permanent Guide Base (PGB)			x
3.3	Conductor Housing			x
3.4	Wellhead Housing			x
3.5	Bore Protectors/Wear Bushings			x
3.6	Corrosion Caps			x
3.7	Tieback/Wellhead Adapter			x
4.0	Subsea Tree Assembly (Equivalent Surface Equipment shall apply)			x
4.1	Tree Guide Frame			x
4.2	Tree Connector			x
4.3	Tree Cap			x
5.0	Running/Workover/Intervention Tools			x
5.1	Through Flowline (TFL) Tools			x
5.2	Intervention Fixtures			x

5.3	Lower Workover Riser Package			x
5.4	Workover Riser			x
5.5	Guidance Mechanisms			x

Item	Description	Declaration of Conformity required	Declaration of Incorporation required (where requested)	Directive not Applicable
6.0	Valves and Chokes			
6.1	Choke Valve - Manual			x
6.2	Choke Valve - Actuated		x	
6.3a	Surface/Underwater Safety Valve (SSV/USV)		x	
6.3b	Self Contained Safety System (SSV)	x		
6.4	Back Pressure Valve			x
6.5	Valve Actuators		x	
7.0	Other Equipment			
7.1	Production/Injection Manifold			x
7.2	Drilling Manifold (Land)		x	
7.3	Drilling Manifold (Offshore)			x
7.4	BOP Stack (Land)		x	
7.5	BOP Stack (Offshore)			x
7.6	Flanged Connections			x
7.7	Clamp Connections			x
7.8	Threaded Connections			x
7.9	Ring Joint Seals/Gaskets			x
7.10	Tree/Manifold Flowlines			x
7.11	Flowline Connectors			x
8.0	Transport Cradles/Containers for specific equipment			x