

# Summary of Engineering Insurance Classes of Business \*

## Renewable (annual) covers

### **Machinery (M) insurance**

It was developed to grant industry an effective insurance cover for plant, machinery and mechanical equipment at work, at rest or during maintenance operations.

By its very nature, machinery insurance is an all risks “accident” insurance for machinery supplementing the coverage afforded by fire insurance. Thus it covers unforeseen and sudden physical loss of or damage to the insured items, necessitating their repair or replacement. Loss or damage covered under machinery insurance is mainly due to one of the following causes:

- Faulty design (calculations, plans, drawings and specifications)
- Faults at workshop or in erection
- Defects in casting and material
- Faulty operation, lack of skill, negligence, malicious acts
- Tearing apart on account of centrifugal force
- Physical explosion, flue gas explosion in boilers
- Electrical causes such as short circuit
- Shortage of water in boilers
- Storm, frost, drifting ice.

All types of machinery, plant, mechanical equipment and apparatus may be covered under machinery insurance. If possible, all the machines of a plant or workshop or of a separate plant section should be included in the insurance in order to ensure that the risk is adequately balanced.

Only those items having a short service life compared with the entire plant are normally excluded from machinery insurance, these are mainly:

- All types of interchangeable tools
- Belts, chains, ropes, sieves, engraved cylinders, stamps, dies
- Parts made of glass, ceramic or wood, rubber tires
- Operating media of any kind such as fuel, gas, refrigerants, catalysts, liquids, lubricants (oil in transformers and circuit breakers is, however, included since it is not only a coolant but also serves as an insulation agent).

The few individual exclusions from the cover mainly comprise loss or damage caused by:

- Fire, lightning stroke, chemical explosion, burglary and theft, i.e. perils covered or coverable under other standard policies

- Inundation, flood, earthquake, subsidence, landslide, impact of land-borne, waterborne or airborne craft (perils coverable under a fire policy)
- War or warlike operations, civil commotion of any kind as well as acts on the part of strikers and locked out persons
- Willful acts or gross negligence on the part of the insured or of his representatives
- Faults or defects existing at the time of commencement of the insurance which ought to have been or were known to the insured
- Faults or defects for which the supplier is responsible either by law or under contract (losses covered by warranty)
- Nuclear reaction, nuclear radiation or radioactive contamination
- Also excluded is consequential loss or liability of any kind or description and wear and tear as a consequence of ordinary use or operation as well as cavitation, erosion, corrosion (e.g. rust) or boiler scale (this exclusion relates, however, only to the parts immediately affected).

The sum insured should always be equal to the costs of replacement of the insured machinery by new machinery of the same kind at the same place (value of the new item plus customs duties plus transportation and installation charges).

Risk assessment and premium calculation for the items to be insured should consider the following factors:

- Age, specification
- Present condition, maintenance standard
- Operating environment
- Past loss experience

The premium rates charged are calculated separately for each type of machine on the basis of statistics kept over a period of many years.

In the event of damage which may be repaired, the insurer will indemnify the insured in respect of the expenses incurred for restoring the damaged machinery to its working condition prior to the damage. These expenses mainly include the costs for repair work and the necessary spares, disassembly and reassembly costs, ordinary freight charges, customs duties, expenses for the employment of specialists and other charges contained in the sum insured.

In the event where an insured item is totally destroyed or where the repair cost would exceed the actual value of the insured item, the insurer will indemnify the insured the actual value of the insured item immediately before the loss occurrence less the agreed deductible and the value of any salvage.

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\*) This summary is taken from Munich Re's booklet Technical Insurance References and is based on the examples of Engineering Insurance wordings of Munich Re, but broadly applies in general to the class of Engineering Insurance referred to herein.