

# DIN EN 818-4:2008-12 (E)

## Short link chain for lifting purposes - Safety - Part 4: Chain slings - Grade 8 (includes Amendment A1:2008)

---

| <b>Contents</b>    |  | <b>Page</b> |
|--------------------|--|-------------|
| Foreword .....     |  | 4           |
| Introduction ..... |  | 5           |
| 1                  | Scope .....  | 6           |
| 2                  | Normative references .....   | 6           |
| 3                  | Terms and definitions" .....   | 7           |
| 4                  | Hazards .....  | 8           |
| 5                  | Safety requirements .....  | 9           |
| 5.1                | Components of a chain sling .....  | 9           |
| 5.1.1              | Chain .....  | 9           |
| 5.1.2              | Forged steel components .....  | 9           |
| 5.1.3              | Links .....  | 9           |
| 5.1.4              | Hooks .....  | 9           |
| 5.2                | Design and construction .....  | 10          |
| 5.2.1              | Chain slings" assembled with mechanical joining devices .....                            | 10          |
| 5.2.2              | Chain" slings assembled by welding .....   | 10          |
| 5.2.3              | Endless chain" slings .....  | 10          |
| 5.2.4              | Tolerance on length .....  | 10          |
| 5.3                | Working load rating .....  | 11          |
| 5.3.1              | Single-leg chain" slings .....   | 11          |
| 5.3.2              | Multi-leg chain" slings .....  | 11          |
| 5.3.3              | Endless chain" slings .....  | 11          |
| 6                  | Verification of safety requirements .....  | 12          |
| 6.1                | Qualification of personnel .....   | 12          |
| 6.2                | Manufacturing proof force .....  | 13          |
| 6.2.1              | General .....  | 13          |
| 6.2.2              | Manufacturing proof force factors .....  | 13          |
| 6.2.3              | Post-test examination .....  | 13          |
| 6.3                | Final examination .....  | 13          |
| 6.3.1              | Chain" slings joined by mechanical devices .....   | 13          |
| 6.3.2              | Chain" slings of welded construction .....   | 13          |
| 7                  | Marking .....  | 14          |
| 7.1                | General .....  | 14          |
| 7.2                | Single-leg chain" slings .....   | 14          |
| 7.3                | Multi-leg chain" slings rated for a range of angles from 0° to 45° to the vertical ..... | 14          |
| 8                  | Manufacturer's certificate .....   | 15          |
| 8.1                | General .....  | 15          |
| 8.2                | Chain" slings of welded construction .....   | 15          |
| 8.3                | Chain" slings joined by mechanical devices .....   | 15          |
| 9                  | Information" for use .....   | 16          |

|   |           |
|---|-----------|
| <b>Annex A (normative) Alternative method of rating and marking a chain sling for a specific lifting application .....</b>                | <b>21</b> |
| <b>A.1 General .....</b>  | <b>21</b> |
| <b>A.2 Alternative method of rating .....</b>   | <b>21</b> |
| <b>A.3 Manufacturing proof force .....</b>  | <b>21</b> |
| <b>A.4 Marking of "chain" slings rated by the alternative method of rating .....</b>  | <b>22</b> |
| <b>Annex B (informative) "Bases for calculation of values for the working load limits" .....</b>  | <b>23</b> |
| <b>B.1 Calculated values of working load limits (WLL) for single-leg "chain" slings .....</b>   | <b>23</b> |
| <b>B.2 Calculated values of working load limits (WLL) for multi-leg "chain" slings .....</b>  | <b>23</b> |
| <b>Annex C (informative) Designation system for chain slings - Grade 8 .....</b>  | <b>24</b> |
| <b>Annex D ("normative") Identification tags for chain slings .....</b>   | <b>25</b> |
| <b>D.1 General .....</b>  | <b>25</b> |
| <b>D.2 Tags for chain slings .....</b>  | <b>25</b> |
| <b>Annex ZA (informative) "Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC .....</b>  | <b>27</b> |
| <b>Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC .....</b> | <b>28</b> |
| <b>"Bibliography .....</b>  | <b>29</b> |