Boilermaker (2026) Level 2

ACRONYMS AND ABBREVIATIONS

TERM	MEANING
AC	alternating current
ASME	American Society of Mechanical Engineers
DC	direct current
DCRP	direct current reverse polarity
ID	inside diameter
MAPP	methlacetylene (propyne), propadiene and propane
OD	outside diameter
RFCVs	reverse flow control valves
WLL	working load limit

NOTE Do **not** bring this document to your exam.
These acronyms and abbreviations will be included in the exam reference materials.

FORMULAS

WLL for Fibre Ropes

Imperial	Metric
$\frac{(Dia^2 \times 100)}{DF} = WLL$	$\frac{(Dia^2 \times 4.5 \times 1)}{DF} = WLL$
$\frac{(Dia^2 \times 200)}{DF} = WLL$	$\frac{(Dia^2 \times 4.5 \times 2)}{DF} = WLL$
$\frac{(Dia^2 \times 300)}{DF} = WLL$	$\frac{(Dia^2 \times 4.5 \times 3)}{DF} = WLL$

WLL for Wire Ropes

Imperial	Metric
$\frac{(Dia^2 \times 40)}{DF} = WLL$	$\frac{(Dia^2 \times 56)}{DF} = WLL$

WLL for Sling Configurations

$\frac{(WLL_{VH} \times 0.75)}{DF} = WLL$
$WLL_{VH} \times \frac{H}{L} \times 2 = WLL$
$WLL_{VH} \times 2 = WLL$
$WLL_{VH} \times 4 = WLL$

$a^2 + b^2 = c^2$
$PPD \times Factor\ of\ angle = Sling\ Length$
$\frac{Weight}{Number} \times \frac{Length}{Height} = Sling\ Stress$

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