

Publication 60994 de la CEI
(Première édition - 1991)

**Guide pour la mesure *in situ*
des vibrations et fluctuations sur
machines hydrauliques (turbines,
pompes d'accumulation
et pompes-turbines)**

IEC Publication 60994
(First edition - 1991)

**Guide for field measurement of
vibrations and pulsations in hydraulic
machines (turbines, storage pumps and
pump-turbines)**

CORRIGENDUM 1

Page 6 - AVANT-PROPOS

*Dans la liste des publications citées de la CEI,
à la cinquième ligne, au lieu de*

*** Actuellement document 4(Bureau Central)48

lire:

CEI 41 (1991): Essais de réception sur place des
turbines hydrauliques, pompes d'accumulation et
pompes-turbines en vue de la détermination de leurs
performances (troisième édition)

Corrections en anglais uniquement

Page 7 - PREFACE

*In the list of other IEC publications quoted, fifth line,
instead of*

*** At present Document 4(Central Office)48

read:

IEC 41 (1991): Field acceptance tests to deter- mine
the hydraulic performance of hydraulic turbines,
storage pumps and pump-turbines (third edition)

Page 17 – Subclause 2.3.2.7

*In the definitions column, third line, instead of
...quantity. A is... read ...**quantity**, **A** is... (comma instead
of full stop) **

Page 19

*In the footnote, at end of first line, instead of ...N in
the denomination... read ...N in the denominator...*

Page 21

*In the definitions column, fifth line, instead of
...function, X(t) over... read ...**function X(t) over...**
(no comma)*

Page 25 – 2.3.4.11

*In the definitions column, first and second line,
instead of ...length of the connecting pipe connecting
the pressure transducer... read ...**length of the pipe
connecting the pressure transducer...***

Page 41 – 4.1.1

*In item d), second and third line, instead of
...unbalance; also and if... read ...**unbalance and
also if...***

*4.1.3 - In the first line, instead of ...to the machine
water passages... read ...**to the water passages...***

* Bold types are for clarity only

Corrections en anglais uniquement

Page 58 – 6.1.1

Au point b), au lieu de
Limite supérieure de fréquence**:
— turbines Pelton:
lire **Limite supérieure de fréquence:**
— turbines Pelton**

Corrections en anglais uniquement

Page 49 – 5.2.3

*In the eighth line, instead of ...in the draft tube at a distance of $0.5 D_5$ to $1.0 D_5$ from... read ...**0.5 to 1.0 times the suction diameter of the runner (D_S)** from...*

*Tenth line, instead of ... $0.2 D_5 - 0.8 D_5$ from... read ... **$0.2 D_S - 0.8 D_S$** from...*

*Eleventh line, instead of ... D_5 being... read ... **D_S** being...*

*Twelfth line, instead of ...outer contour of the elbow, read ...**outer side of the elbow.***

Page 51 – 5.2.10

*Item b), instead of ...thrust bearing load pulsations, by means of strain measurements on every bearing element; read ...**thrust bearing load pulsations, on every bearing element by means of strain measurements;***

Page 53 – 5.6.1

*In item b), first line, instead of ...and runner blade angle... read ...**and runner/impeller blade angle...***

Page 55 – 5.7.4

*In the second line, instead of ...position of a runner vane or nozzle and/or guide blade... read ...**position of a guide vane or nozzle and/or runner blades...***

Page 59 – 6.1.1

*In item b), instead of Upper frequency**:
— for Pelton turbines:
read **Upper frequency:**
— for Pelton turbines***

In the first footnote (), end of first line, instead of ...lower than the vortex rope... read ...**lower than the suction vortex...***

Page 65 – 6.3.5

*In the second line, instead of ...any measuring point. read ...**any measuring operating condition.***

Page 71 – Clause 6.8

*In the seventh line (second dash), remove the words ...(see Figure 7)... and place them in next line so as to obtain ...**are eliminated (see Figure 7).***

Page 85 – 8.3

*In the seventh line, instead of ...A/D conversion... read ...**A/D (analog to digital) conversion...***

Page 95 – 9.2.4

Ninth line, instead of Only in the last case is phase information preserved, *read:* **Only in the last case phase information is preserved.**

Page 99 – 10.3

In the second line, instead of ...should be agreed with the concerned parties,... *read* ...**should be agreed between the concerned parties**,...

Page 103 – Clause A2.

In the last but one line, instead of ...conversion of the signals from the three signals... *read* ...**conversion of the three signals**...

Page 108 – Article B2.

Dans la dernière formule de la page, ajouter un signe moins à la suite du second signe égale (= -)

Page 109 – B2.

In the last formula of the page, add a minus sign just after the second equal sign (= -)

Corrections en anglais uniquement

Page 115 – C7.

In the fifth line (third dash), instead of (...recorder or plotter, output)... *read* (...**recorder or plotter output**)... (no comma)

Page 117 – Figure C1.

In the heading of the table, last column, instead of Conditions test/... *read* **Test conditions**/...

Page 118 – Figure C2.

Sous le tableau, à la cinquième ligne (4ème tiret), au lieu de
– rendement de la pompe ou de la turbine,
lire
– rendement de la pompe ou de la turbine, **etc.**

Page 119 – Figure C2.

Below the table, fifth line (4th dash), instead of
– turbine or pump efficiency,
read
– turbine or pump efficiency, **etc.**

Page 132 – Figure D1.

Dans le schéma, au lieu de II_B lire II

Page 133 – Figure D1.

In the diagram, instead of II_B read II