ATTACHMENT H

TRACK LAYOUT - DIAGRAMATIC

1 TRACK GAUGE OR SPAN

The actual value for the span may vary from the nominal value by the following amount:

Tolerance: $T = \pm [3 + 0.25 \times (s - 15)]$ max. $T = \pm 25mm$ "T" in mm, "s" in meters

Example: For a span of 30m (100ft) the tolerance is ±6.75mm

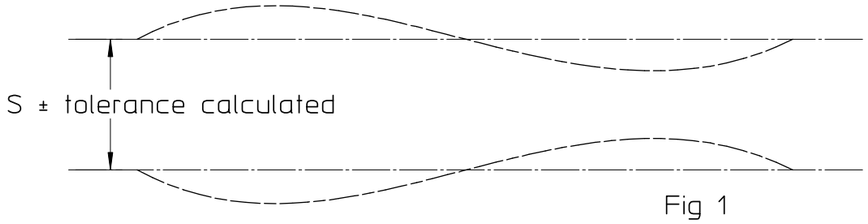

Fig 1

2 CRANE RAIL ALIGNMENT (HORIZONTAL)

(a) The overall alignment must not differ by more than ±10mm from the true center line of rail

Example:

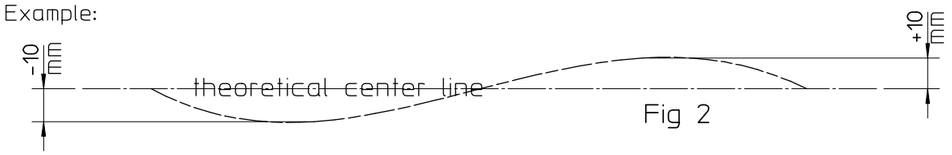

Fig 2

(b) The alignment must not exceed 1 mm over a distance of 2 m

Example:

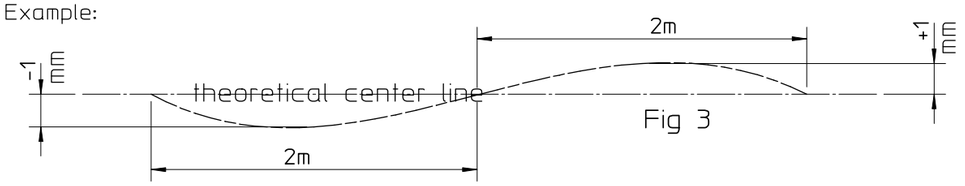

Fig 3

3 CRANE RAIL LEVEL (VERTICAL) - ALLOWABLE UNDULATION

(a) The crane rail level must not vary more than ±10mm over the total length of rail

Example:

Fig 4

(b) The crane rail level must not vary more than ±2mm in any 2m rail length

Example:

Fig 5

ATTACHMENT H

4 RELATIVE CRANE RAIL HEIGHTS

The height difference between seaside and landside rails shall not exceed ±10mm

Example:

Fig 6

NOTE : If the crane is required to operate on a sloped pier, the crane rails can be set at different heights.
The height difference must be stated clearly when ordering.

5 RAIL SLOPE IN ALTERNATE DIRECTIONS

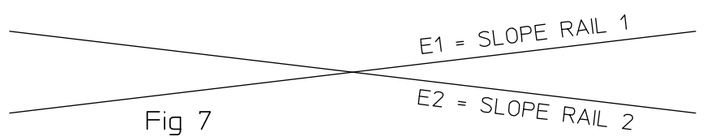

Fig 7

PERMISSIBLE SLOPE DIFFERENCE:

$E = E1 - E2 = 0.5$ ‰

(i.e. 5 mm over 10 m)

6 RAIL TILTING

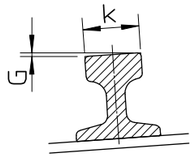

Fig 8

$G = 3$ ‰ of k

(i.e. 0.3 mm over 100 mm)

7 BUFFER END STOP

The alignment of both buffer endstops along the track must not differ by more than 0.7 ‰ of the span and not more than 20 mm.

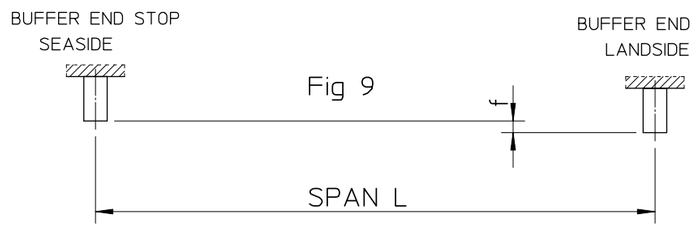

Fig 9

$f = 0.7$ ‰ of L

(i.e. 7 mm over 10 m SPAN)

f = max. 20 mm

NOTE: THE TOLERANCES SPECIFIED APPLY TO NEW CRANES. IF IN THE COURSE OF USE, THESE TOLERANCES ARE EXCEEDED BY 20%, THE TRACK MUST BE REALIGNED. IF THE TRAVELLING BEHAVIOUR IS NOTICEABLY DETERIORATING, IT MAY BE NECESSARY TO REALIGN THE TRACK, EVEN IF THE TOLERANCE EXCESS HAS NOT REACHED 20%.

NOTE: THIS ATTACHMENT WAS BASED ON FEM 1.001, 8.2.3, DIN 4132, 5.7 AND VDI 3576