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An Actual Loading Test of Steel Pipe Piled Well

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Synopsis :

This report explains static and dynamic behaviours of the Steel Pipe Piled Well, based on the results of the horizontal loading test and the free vibration test conducted to the Steel Pipe Piled Well constructed at the Mizushima Works. This report also examines the technical feasibility of design method, thereby verifying the following points: (1) The design method against deformation is sufficiently safe based on the interrelations among load, deformation and the angle of rotation. (2) In the stress calculation, the rigidity of the Steel Pipe Piled Well can be evaluated higher. (3) The design of the footing is fairly safe. (4) Model analysis described in this report expresses relatively well the vibration characteristics of the Steel Pipe Piled Well. (5) The Steel Pipe Piled Well has relatively large dumping property, and the range of inherent values of it falls between two ranges of values in the respective cases of caisson and piling.

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仮締切兼用鋼管矢板井筒の実物載荷試験

An Actual Loading Test of Steel Pipe Piled Wall

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Manuscript received at the editorial office on \_\_\_\_\_

## 2. 設計概要

層の横抵抗はあまり期待できず、 $K_{H1} = 0$  とし  
よ、この井筒は埋設部の鉛直方向の地盤反力係数

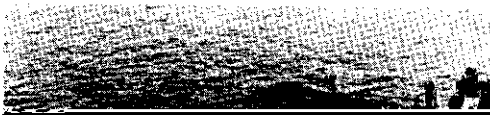
ここで述べる鋼管矢板井筒は港湾におけるドル

$K_V = 2 \times K_{H3}$  とした。

一、この井筒は埋設部の鉛直方向の地盤反力係数

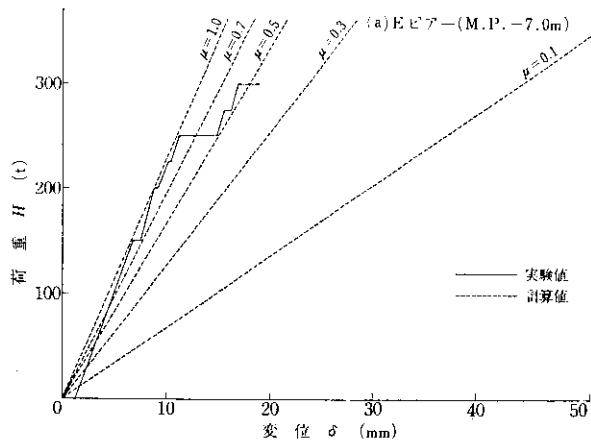
七、鋼管矢板井筒の埋設部は、埋設部

れたEピアー, Wピアーに互いに反力をとらせな



+4.5m における両ピアの荷重—変位曲線を示す。残留変形量はEピアよりWピアの方が大きく現われているが、それを無視すれば両ピア—





200





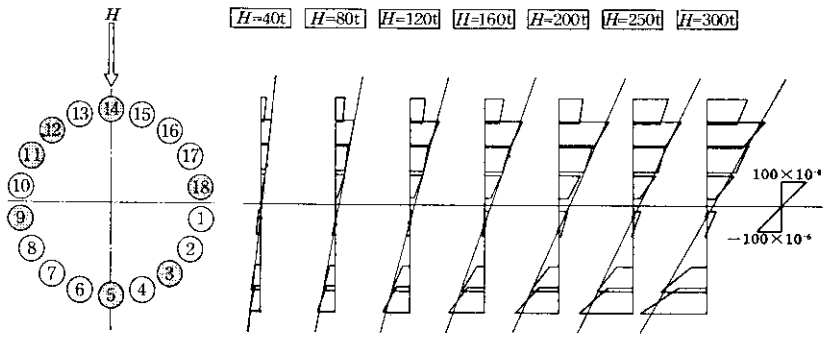


図 9 残留ひずみを含む鋼管矢板の曲げひずみ (M. P. -12m)

### 3.2.3 フーチングの応力

定する。鋼棒の一端に切断用鋼棒を接続し、他端には揚量 300 t の油圧ジャッキを設置する。静的

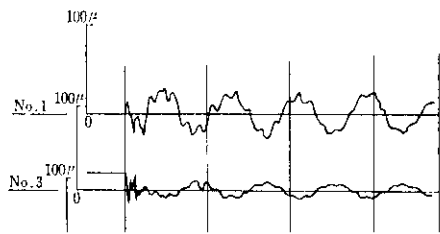
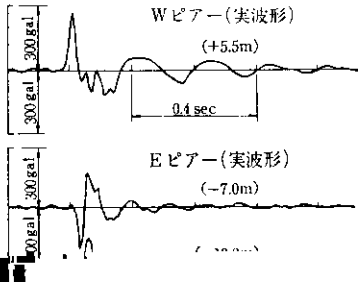


表 2 自由振動試験結果

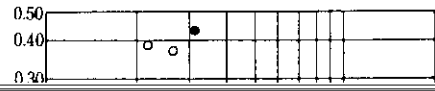
(a) 最大加速度 (gal)

The table content is completely obscured by heavy black redaction bars. No data is visible.





4.4.3 鋼管矢板井筒の減衰性



標準化減衰率と標準化減衰係数の関係

果加速度の最大応答値はEピアーで、530gal, W  
 ピアーで 280gal であった。ただし、実験場所が  
 地震危険度の小さい、会館事務所より、工場地区の

### 5. 結 論

1) 鋼管組立鉄骨構造の柱は、

