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鋼直杭桟橋の実寸大模型水平載荷実験資料集
（その２　清水港興津地区における実験）

山下生比古
小蔵紘一郎
宮島信雄
山田逓一郎
倉田栄一

運輸省港湾技術研究所

国土技術政策総合研究所
図書室
蔵書

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（その2　清水港興津地区における実験）

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BASIC DATA OF LATERAL LOAD TESTS ON LARGE SCALE MODEL STEEL PILE PIERS

(Part 2 Tests at Okitsu, Shimizu)

Ikuhiko YAMASHITA*
Koichiro OGURA**
Nobuo MIYAJIMA***
Teiichiro YAMADA***
Eiichi KURATA****

The basic data of lateral load tests on large scale model steel pile piers are shown in this paper. The tests were carried out at Okitsu, Shimizu from February to March in 1965 to obtain the vibrational properties of steel pile piers. Various types of lateral load tests such as static load tests, alternating load tests, static yield tests, free vibration tests and sinusoidal vibration tests were included in them.

* Senior Research Engineer, Structures Division
** Kokura Design and Investigation Office, Fourth District Port Construction Bureau
*** Sagamihara Research and Development Institute, Nippon Steel Corp.
**** Earthquake Resistant Structure Laboratory, Structures Division

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（その２　清水港興津地区における実験）

山　下　生比古＊
小　蔵　紘一郎＊＊
宮　島　信　雄＊＊＊
山　田　通一郎＊＊＊
倉　田　栄　一＊＊＊＊

要　旨

昭和４０年２月～３月の約１ケ月にわたり、清水港興津地区において実寸大模型による鋼直杭桟橋の水平載荷実験が行なわれた。実験は静荷重試験・交番荷重試験・自由振動試験・正弦強制振動試験・静的破壊試験などから成っている。本資料はこれらの各試験から得られた一時的な資料をまとめて収録したものである。

1. まえがき

昭和３８年度から、港湾技術研究所構造部耐震構造研室を中心として鋼直杭桟橋の合理的な耐震設計法の確立を目標とする研究が進められて来た。本報告は、この研究に基礎的な資料を提供した二つの実寸大模型桟橋の現地実験のうち、昭和３９年度に清水港興津地区で実施された実験の一次的な資料を収録したものである。実験そのものはかなり以前のものであり、実験資料なども研究の進展に応じて適宜公表されて来ているが[1]、昭和４５年度に至って、研究の成果がまとめられ刊行された[2]のを機に、基礎的な資料についてもまとみて資料集として公刊することにした。

2. 実験の概要

実験は清水港興津地区で実施された。現地は水深約6.5 mで、土質条件は図－１の土質柱状図に示す如く、表面に１m弱の厚さのヘドロ層があり、その下にN値が１０ないし２０程度のシルト質砂の層が続いている。杭の横抵抗の観点から見ると、海底面下３～４mの深さまでを考慮してS型地盤[3]としてよさそうである。$\overline{N}$値[3]は３程度となる。

模型桟橋は直径５０.８cm、肉厚９mm、全長２１m、根入長１０mの鋼管直杭４本を５m角に打ち込んだものである。桟橋頭部はH型鋼（Hp３００）で各杭を剛結した上で、鉄筋コンクリートを打設し厚さ５０cmの床版とした。床版部の総重量は５５.４tonである。模型桟橋の諸元をまとめて表－１に、平面図・断面図などを図－２にそれぞれ示す。また、測定足場なども含め実験全体の施設の配置を図－３に示す。この図にも見られる如く、上述のような模型桟橋をA・B二基作成し、A桟橋では静荷重試験および破壊試験、B桟橋では交番荷重試験、自由振動試験および強制振動試験をそれぞれ実施した。表－２に載荷試験の一覧を示す。

静荷重試験・交番荷重試験・静的破壊試験などの静的な載荷試験における載荷は荷重の小さい時にはオイルジャッキによった。荷重が大きい場合はワイヤーをかけてウインチで引張るという方法で載荷している。載荷の方法の相異によって測定方法も変わり、前者では荷重をブルービングリングで、変位をダイヤルゲージで測定したが後者ではロードセルで荷重を、差動変圧型の変位計で変位を測定した。

動的な載荷は、自由振動試験では切断金具を間にはさんだワイヤーをウインチで引張り、所定の荷重をかけておいて自由振動を起こさせるという方法によった。強制振動試験には振動数を変えても起振力を一定に保ち得る大型の起振機[4]を使用した。測定は差動変圧型変位計による変位測定と非接着抵抗線歪計型加速度計による加速度測定とを行なった。測定機器類の一覧を表－３に示す。

載荷と変位測定はすべて模型桟橋頭部の床版部で行なわれている。その他、本実験で特筆すべきこととしては、測定システムを車載とする新しい方式[5]を初めて大規模な実験に採り入れたことが挙げられる。ブルービングリング・ダイヤルゲージなど人力による測定を除いて、すべてこの方式によって記録されている。

3. 各試験の方法

3.1 静荷重試験

静荷重試験はA桟橋を使い、他のすべての試験に先立って、地盤が撹乱を受けていない状態で実施された。具体的

＊　構造部構造解析主任研究官
＊＊　第四港湾建設局小倉調査設計事務所
＊＊＊　新日本製鉄ＫＫ鉄鋼開発部相模原研究所
＊＊＊＊　構造部耐震構造研究室

な方法は、オイルジャッキで一方向に載荷し、最大荷重およびそれに至る途中の何点かで長時間載荷を行ない最終的な静的平衡の状態の測定を目標とするものである。載荷がオイルジャッキによっているため、長時間載荷ではオイルジャッキのストロークを一定に保ち変位の減少を測定している。したがって、リラクゼーション過程を経て静的な平衡状態に近づけるという形の試験と言える。実際の測定は荷重にして約0.25 *ton* 毎に載荷直後に行なった他に、1.0、2.0、3.0、4.0（最大荷重）*ton*で30分ないし70分の時間待ち後の測定も行なった。荷重減少時は約0.25 *ton* 毎に除荷直後の測定のみを実施した。

3.2 交番荷重試験

交番荷重試験は一定荷重をあらかじめ定め、その荷重までまず一方の側へ載荷し除荷する。次いで、同じ荷重まで反対側に載荷・除荷する。これを1サイクルとして、同一荷重に対し原則として4サイクル行なった。あらかじめ設定した一つのサイクルの中の正負両方向の最大荷重を折返し荷重と呼ぶことにする。交番荷重試験は前後4回行なわれたが、実施された順番に交番荷重試験Ⅰ、Ⅱ、Ⅲ、Ⅳ、とそれぞれ名付けた。それぞれの試験における折返し荷重は表－2の第五欄に示す通りで、表中の順番で実施されている。

測定は各サイクルの折返し荷重を8ないし16等分でするところで載荷もしくは除荷の直後に実施した。ただし、交番荷重試験Ⅲでは表－3に示した如く測定－記録の方式が他と異なり非常に密な間隔でデータが得られている。

3.3 自由振動試験

自由振動試験は模型桟橋にワイヤーをかけウインチで引張って初期変位を与えておき、ワイヤーを切断して自由振動を起こさせるというものである。ワイヤーの切断には切断金具を利用した。切断金具は鋳鉄製のバーで所定の荷重に達すると破断するようになっていて、これを通してワイヤーを引張るという方法を採った。したがって、自由振動のレベルは初期荷重の大きさで制禦した訳である。

この試験は前後3回行なわれていて、実施された順に自由振動試験Ⅰ、Ⅱ、Ⅲの如く区別する。初期荷重の大きさは表－2に示す通りで、表に示されている順に各1回づつ実施した。自由振動試験Ⅲは静的破壊試験や交番荷重試験Ⅲなどと同程度の変形レベルのところでの動的な挙動を把握することを目的として実施されたものである。

3.4 強制振動試験

強制振動試験は模型桟橋の頭部床版上に設置されている起振機によって正弦型の強制外力を桟橋に与え、強制振を行なわせるものである。加振外力は荷重振巾が一定の正弦型である。

強制振動試験は前後3回行なわれていて、他の試験と同様に、実施順にⅠ、Ⅱ、Ⅲを附して区別する。加振力の大きさは表－2に示す通りで、表に示されている順に実施された。各加振力に対し強制振動数は模型桟橋の固有振動数をはさみ両側各8点程度選ばれていて、最初、振動数の低い方から高い方へ変え、次いで、最高振動数から低い方へ変える往復加振の形で行なっている。

3.5 静的破壊試験

静的破壊試験は*A*桟橋で実施した。試験方法は一方向へのみ載荷したことを除けば、交番荷重試験Ⅲと同様である。最大荷重は杭1本当りにして10 *ton* 強であるが、ほぼ8 *ton*程度で模型桟橋脚柱の鋼管杭が降伏し、最終荷重での模型桟橋床版部の変位量は降伏時のそれのほぼ倍程度であった。なお、試験中および試験後に目視によって見出せるような破損は皆無であった。載荷は連続6回行なわれたが、そのうち2回は最大荷重附近でワイヤーが破断したため、模型桟橋の自由振動が起っている。

4. 実験結果の一覧

各試験から得られた一次的な資料を表－4に従って一覧の形で示す。

謝　辞

本実験の実施に当っては第五港湾建設局なかんずく清水港工事事務所の方々に多大の御配慮を蒙いた。ここに記して厚く謝意を表する。

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表－1　模型桟橋の諸元

杭	外　径	50.8 *cm*
	肉　厚	9 *mm*
	全　長	24 *m*
	根入長	10 *m*
床版	形　式	鉄骨組み 鉄筋コンクリート
	重　量	55.4 *ton*

表－2　載荷試験一覧（清水・興津）

年月日	実験種別	略称	使用桟橋	最大荷重または加振レベル（杭1本当り、*ton*）	繰返し回数	測定項目
40/2/19.20	静荷重試験	*SL*	*A*	*Fmax*=3.75	1	杭頭荷重および変位
2/20～3/1	交番荷重試験Ⅰ	*AL*－Ⅰ	*B*	*Ft*** =0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 3.0, 2.0, 1.0	各4以上	全　上
3/3～4	自由振動試験Ⅰ	*FV*－Ⅰ	*B*	*Fo**** =1.0, 2.0, 3.0, 4.0, 3.0, 2.0, 1.0	各1以上	杭頭変位、加速度分布
3/4～6	強制振動試験Ⅰ	*SV*－Ⅰ	*B*	*Fo**** =0.05, 0.075, 0.1, 0.125, 0.075, 0.05	各1	全　上
3/6	自由振動試験Ⅱ	*FV*－Ⅱ	*B*	*Fo* =1.0, 2.0, 3.0, 4.0, 3.0, 2.0, 1.0	各1	全　上
3/7～11	交番荷重試験Ⅱ	*AL*－Ⅱ	*B*	*Ft* = 全　上	各4	杭頭荷重および変位
3/14	強制振動試験Ⅱ	*SV*－Ⅱ	*B*	*Fo* =0.025, 0.05, 0.075, 0.1, 0.125, 0.1, 0.05	各1	杭頭荷位、加速度分布
3/13～19	交番荷重試験Ⅲ	*AL*－Ⅲ	*B*	*Ft* =2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0 7.0, 6.0, 5.0, 4.0, 3.0, 2.0	各4	杭頭荷重および変位
3/20	自由振動試験Ⅲ	*FV*－Ⅲ	*B*	*Fo* =1.0, 3.0, 4.0, 5.0, 5.5, 6.0, 6.5, 7.0 7.5, 7.5, 6.5, 6.0, 5.5, 5.0, 4.0	各1	杭頭変位、加速度分布
3/21	交番荷重試験Ⅳ	*AL*－Ⅳ	*B*	*Ft* =1.0, 2.0, 3.0, 4.0	各1以上	杭頭荷重および変位
3/22～23	強制振動試験Ⅲ	*SV*－Ⅲ	*B*	*Fo* =0.05, 0.1, 0.125, 0.175, 0.2, 0.175, 0.125, 0.1, 0.05	各1	杭頭変位、加速度分布
3/24～25	静的破壊試験	*SY*	*A*	*Fmax*=10.0	6	杭頭荷重および変位

* *Fmax*＝最大荷重

** *Ft*　＝折返し荷重

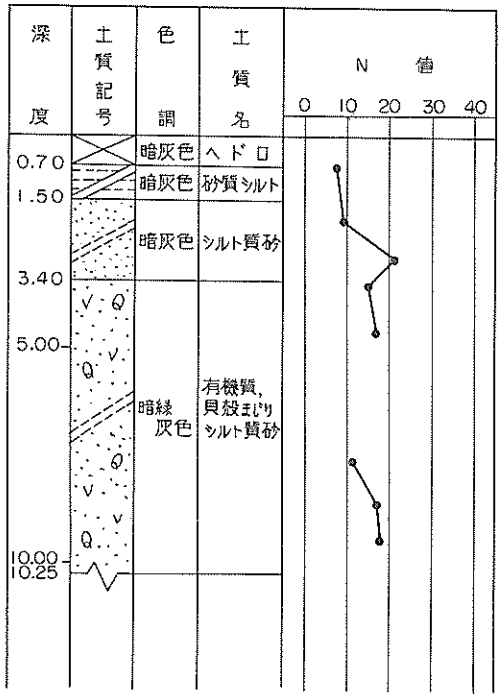
*** *Fo*　＝初期荷重（自由振動試験）または強制外力の荷重振巾（強制振動試験）

表－3　使用機器類

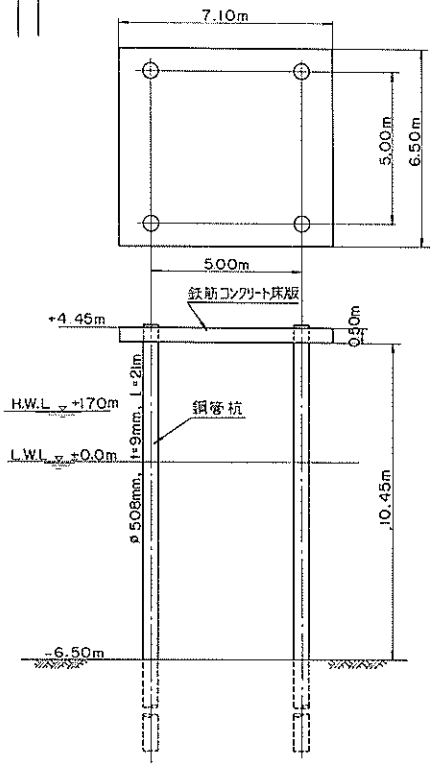
試験種別	載荷機器	測定機器
静荷重試験 交番荷重試験Ⅰ、Ⅱ、Ⅳ	オイルジャッキ（ケーソン浮上げ用、手動）	ブルービングリング（容量20 *ton*） ダイヤルゲージ（ストローク5 *cm*）
交番荷重試験Ⅲ 静的破壊試験	ウインチ	ロードセル（容量40 *ton*） 差動変圧型変位計（ストローク±50 *cm*）
自由振動試験Ⅰ、Ⅱ、Ⅲ	ウインチ＋切断金具付ワイヤー	差動変圧型変位計（ストローク±50 *cm*）
強制振動試験Ⅰ、Ⅱ、Ⅲ	起振機（文献 4）参照）	非接着抵抗線歪計型加速度計（容量2 *G*、5 *G*）

表－4　図表番号一覧

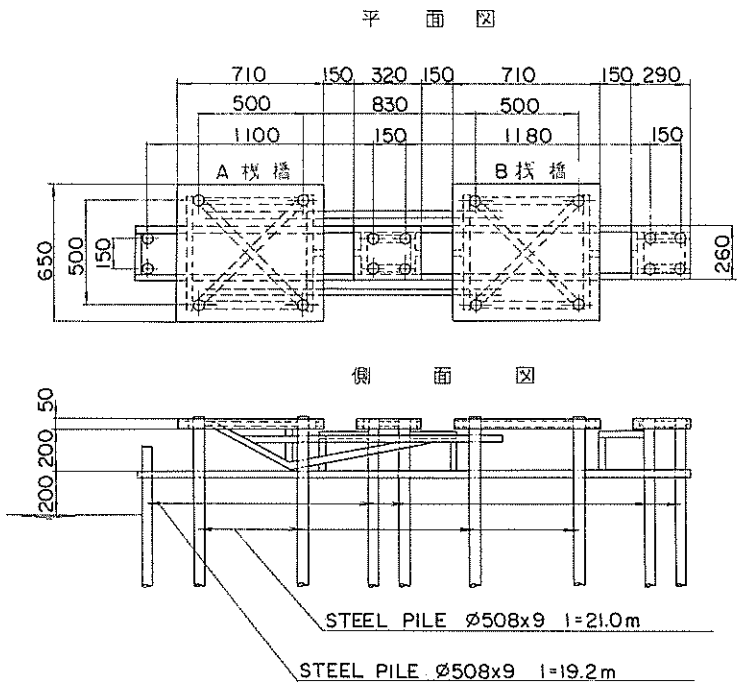
試験名	図面頁	図面番号	表頁	表番号
静荷重試験	6	4	49～50	5.1、5.2
交番荷重試験Ⅰ	7～12	5.1 ～5.11	51～67	6. 1～6.11
〃　Ⅱ	13～16	6. 1～6. 7	68～77	7. 1～7. 7
〃　Ⅲ	17～23	7. 1～7.13	78～112	8. 1～8.13
〃　Ⅳ	24～25	8. 1～8. 4	113～118	9. 1～9. 4
自由振動試験Ⅰ	26, 28～29	9、10、13.1～13.8		—
〃　Ⅱ	26, 30～31	9、11、14.1～14.7		—
〃　Ⅲ	26,27,32～35	9、12.1～12.2 15.1～15.16		—
強制振動試験Ⅰ	36～38	16.1～16.6	119～120	10.1～10.6
〃　Ⅱ	39～42	17.1～17.7	121～122	11.1～11.7
〃　Ⅲ	43～47	18.1～18.9	123～124	12.1～12.9
静的破壊試験	48	19	125	13



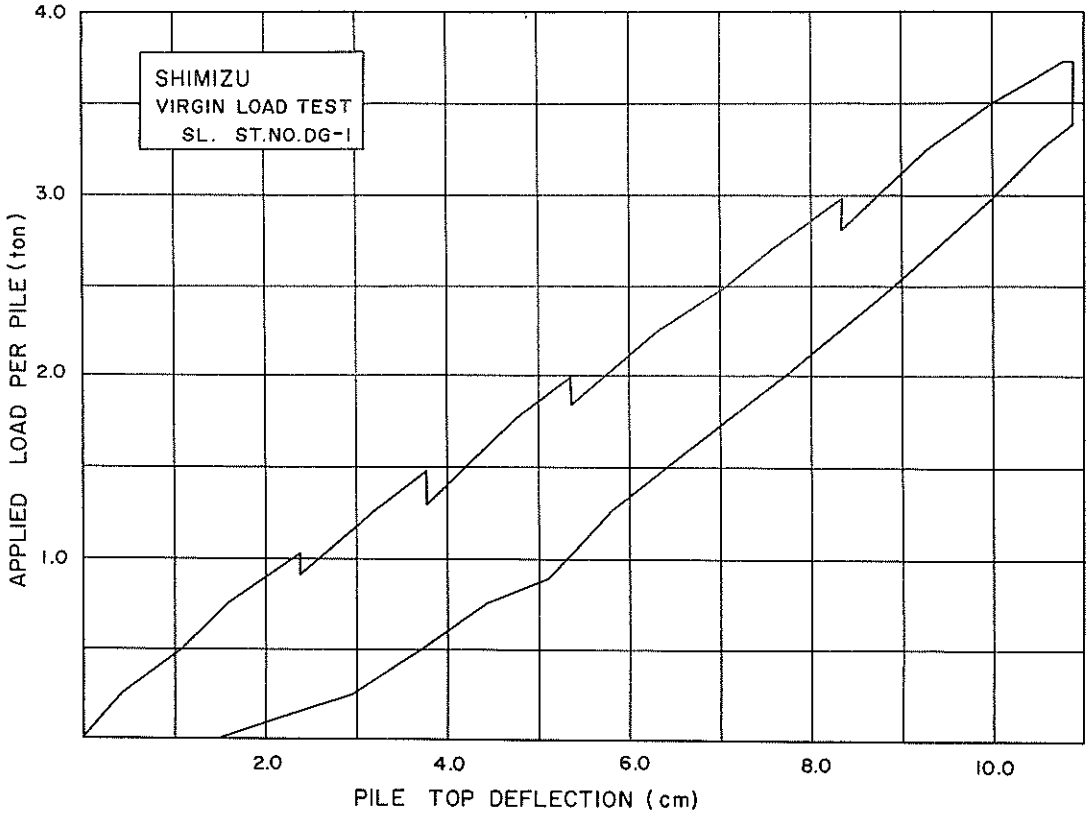
図－1　実験地点の土質柱状図



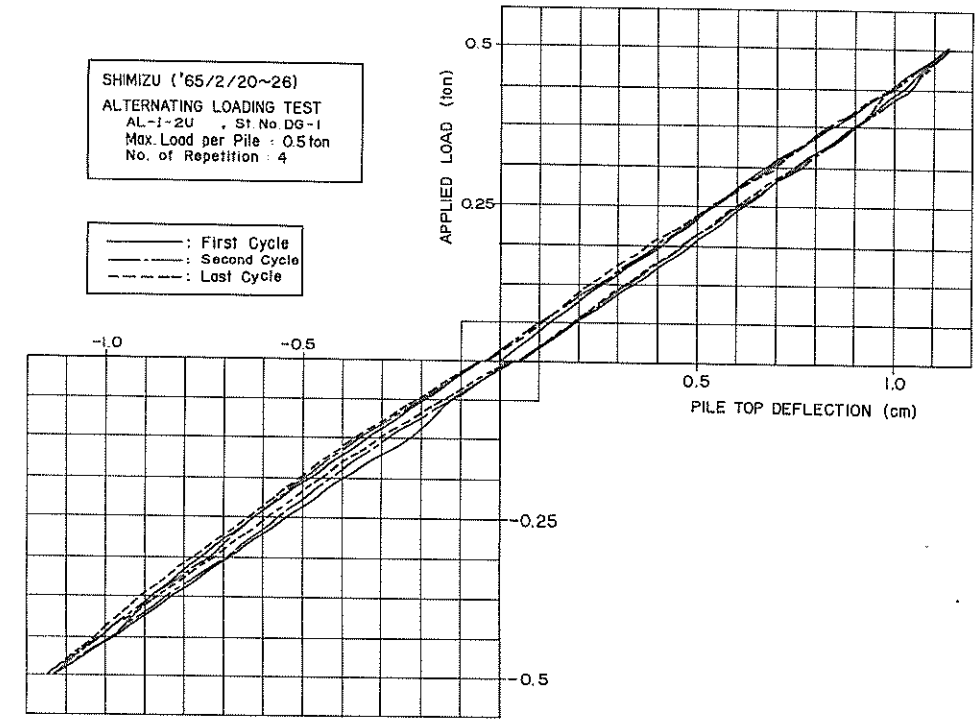
図－2　模型桟橋



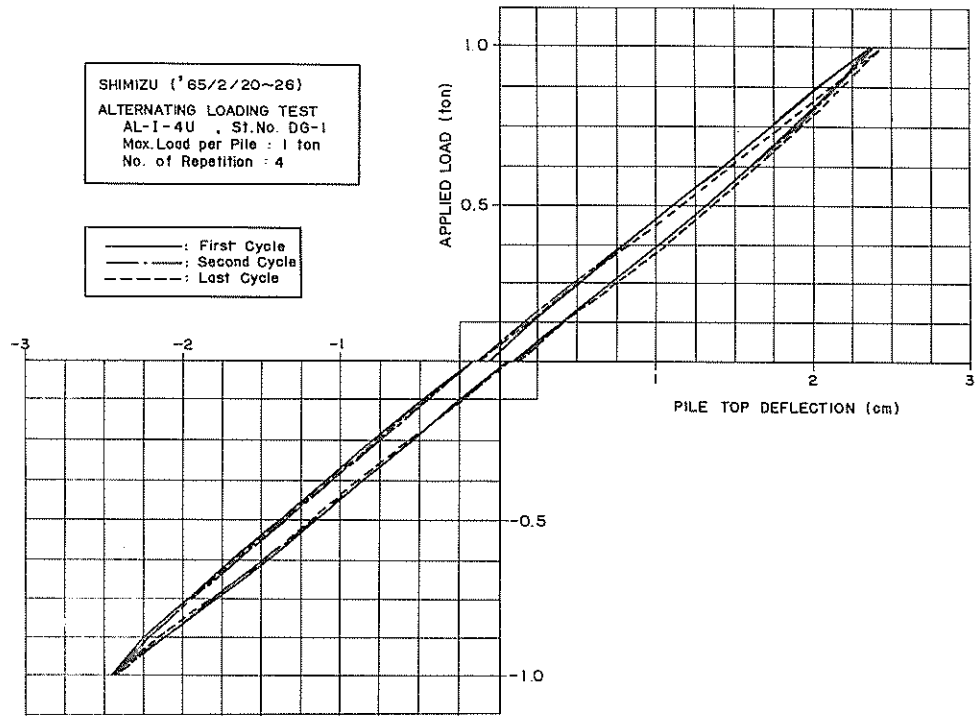
図－３　模型桟橋と測定足場



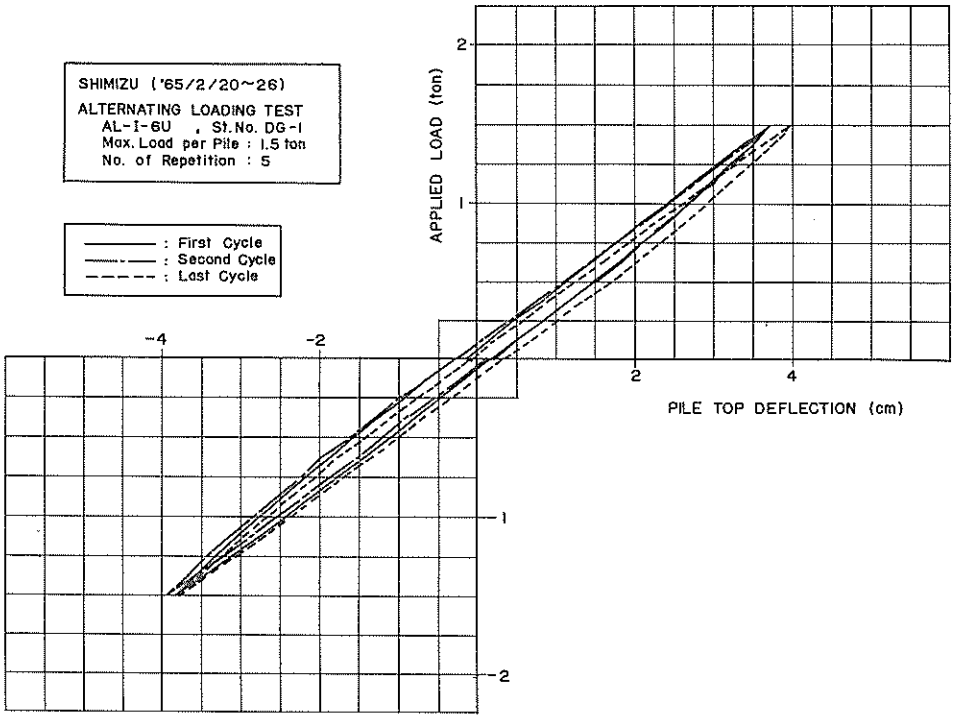
図－４　静荷重試験



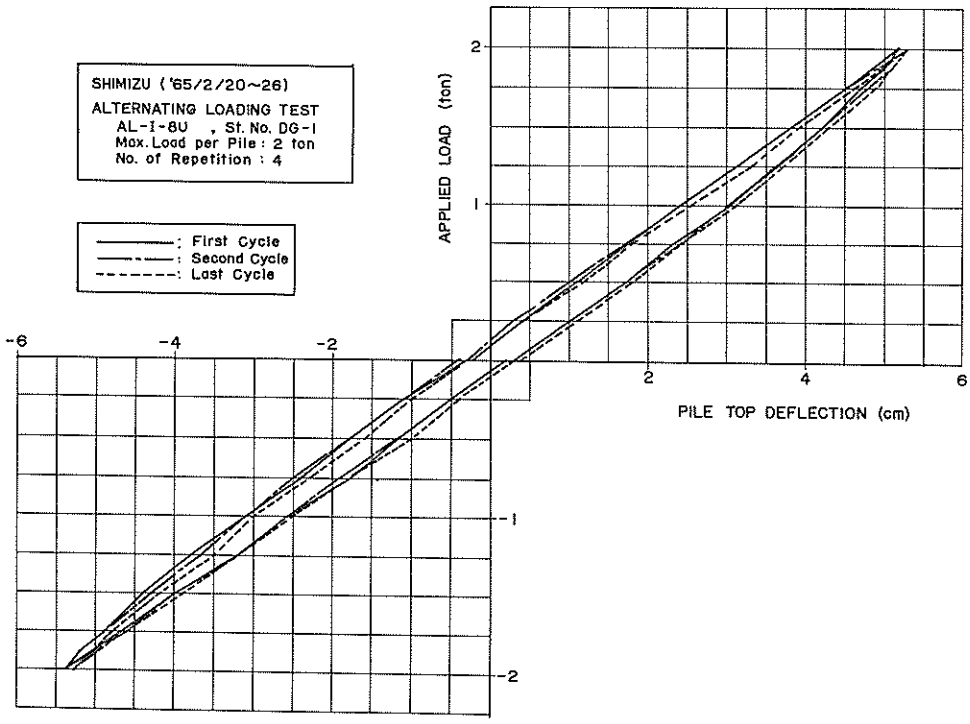
図－５－１　交番荷重試験　Ｉ，２Ｕ



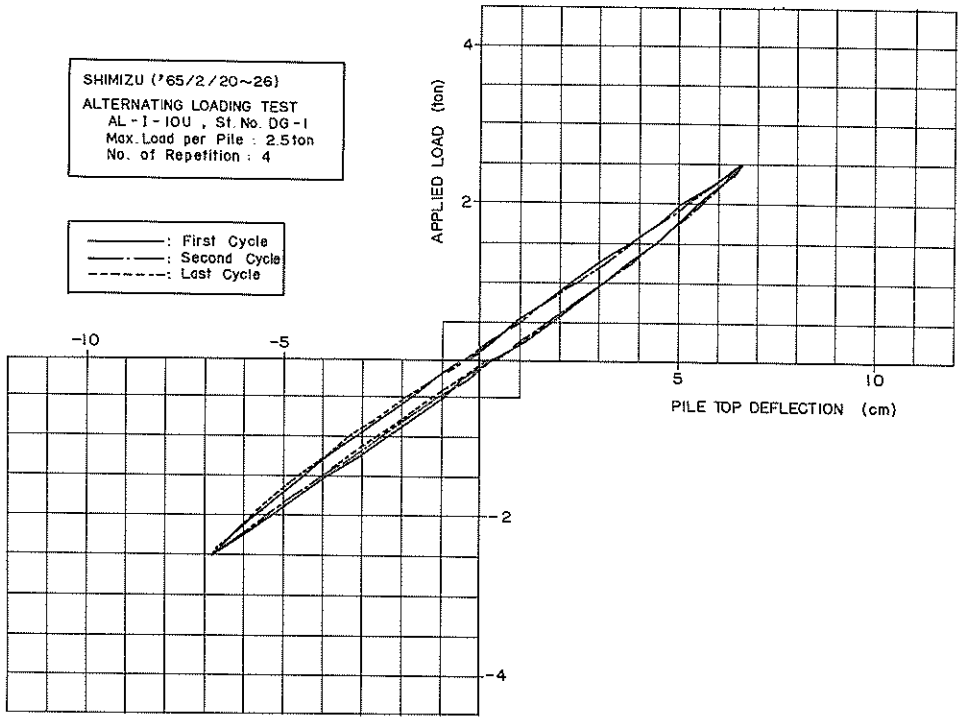
図－５－２　交番荷重試験　Ｉ，４Ｕ



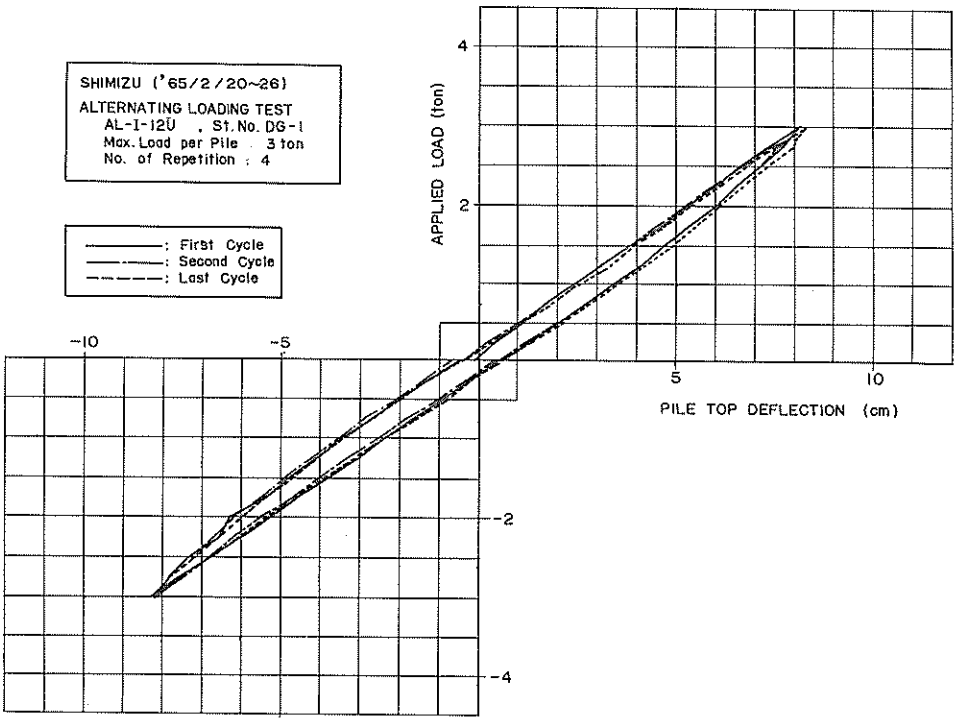
図－５－３　交番荷重試験　Ⅰ，６Ｕ



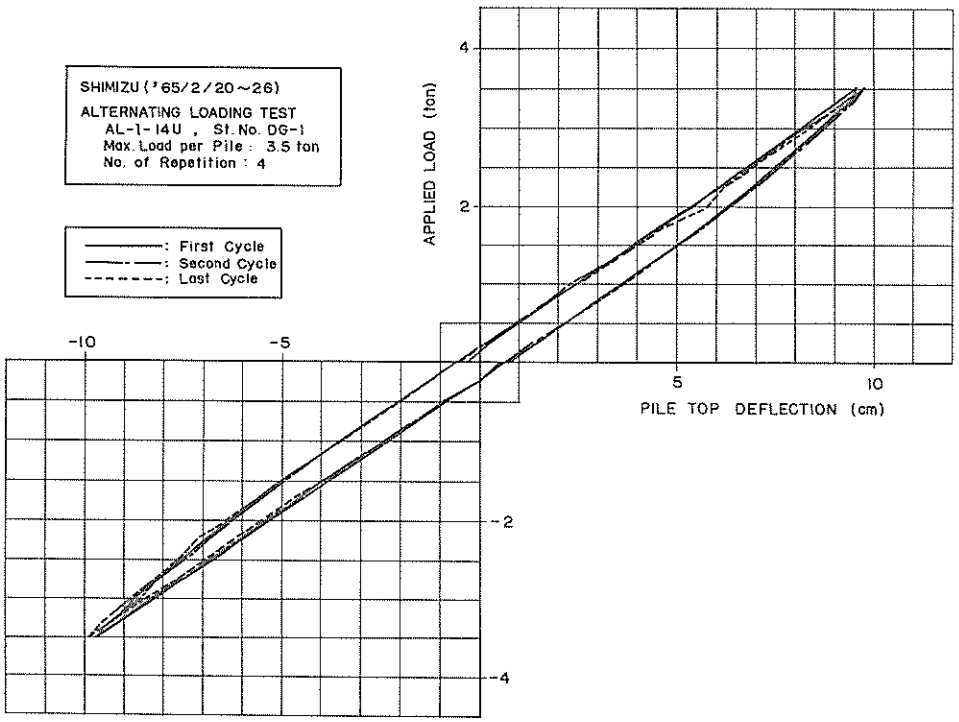
図－５－４　交番荷重試験　Ⅰ，８Ｕ



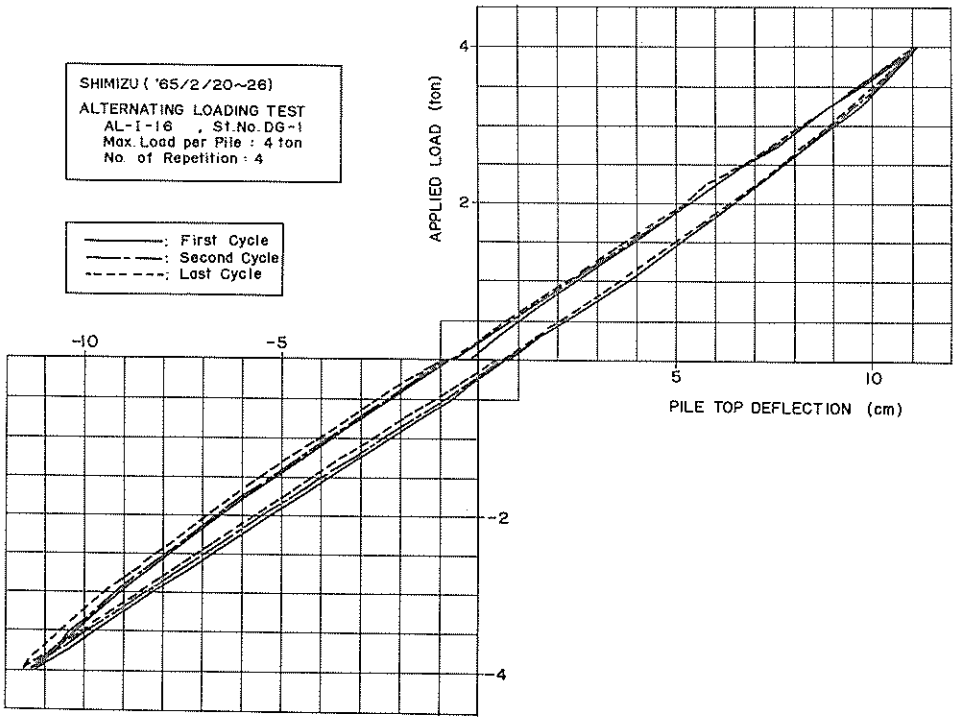
図－５－５　交番荷重試験　Ⅰ，１０Ｕ



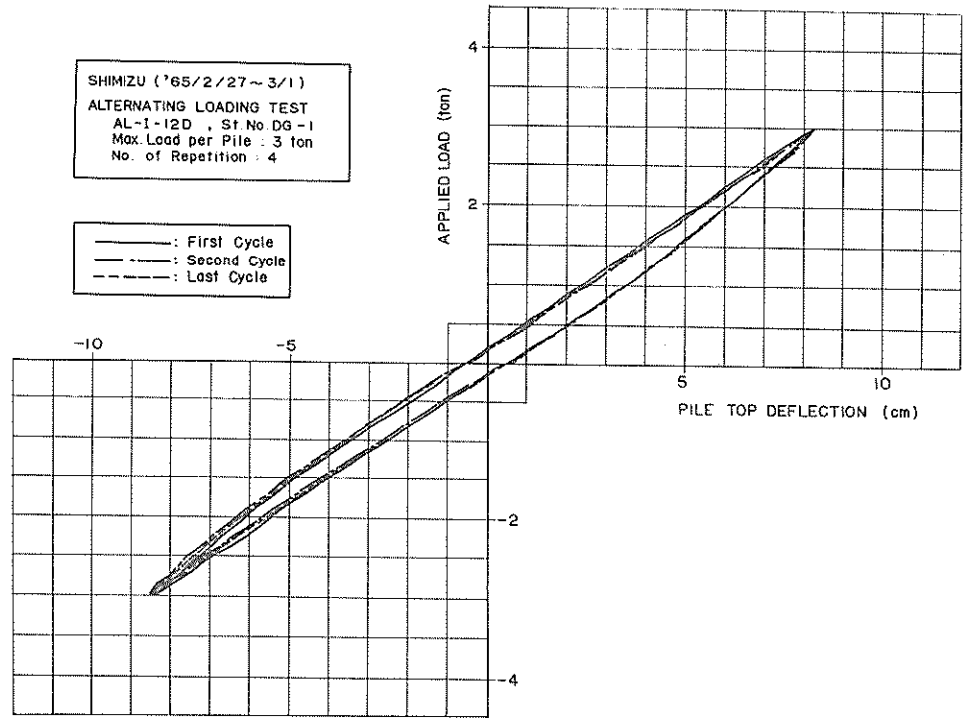
図－５－６　交番荷重試験　Ⅰ，１２Ｕ



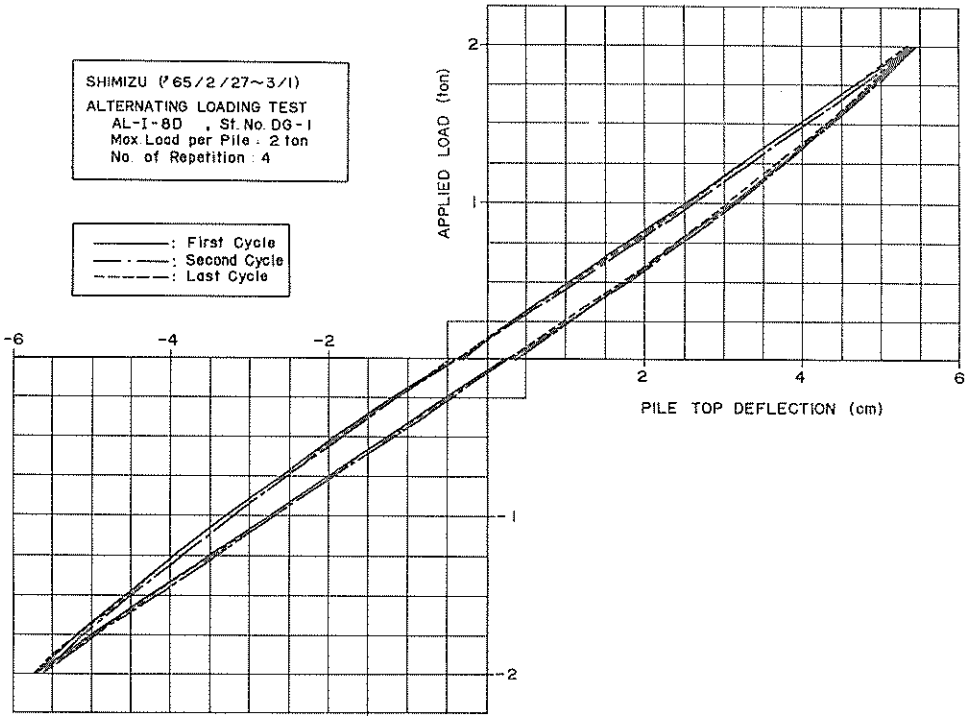
図－５－７　交番荷重試験　Ⅰ，14Ｕ



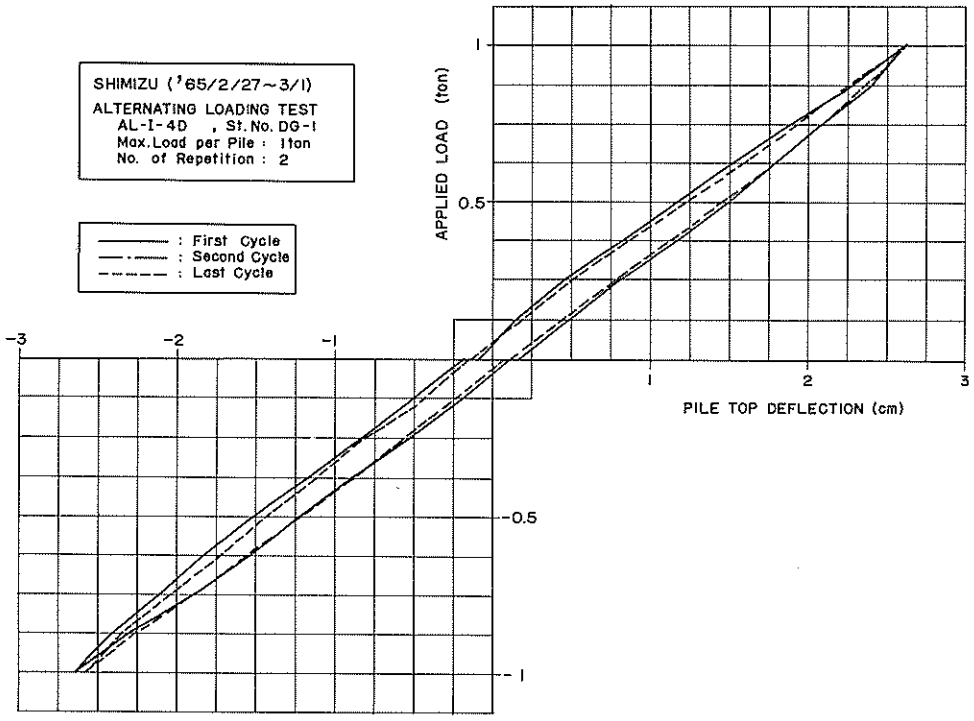
図－５－８　交番荷重試験　Ⅰ，16



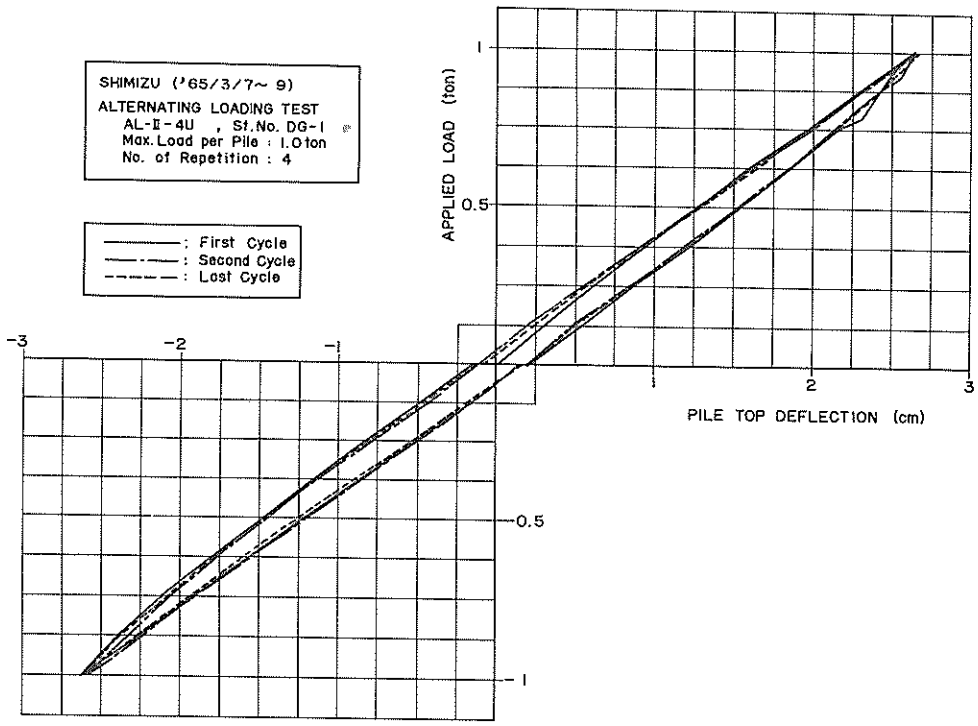
図－5－9　交番荷重試験　I，12D



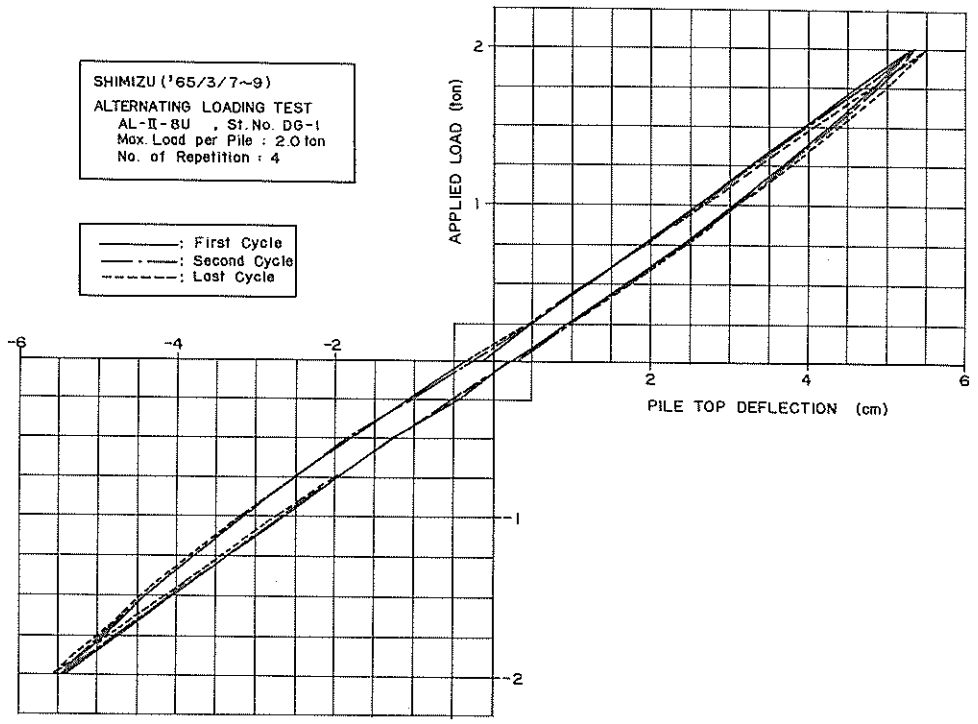
図－5－10　交番荷重試験　I，8D



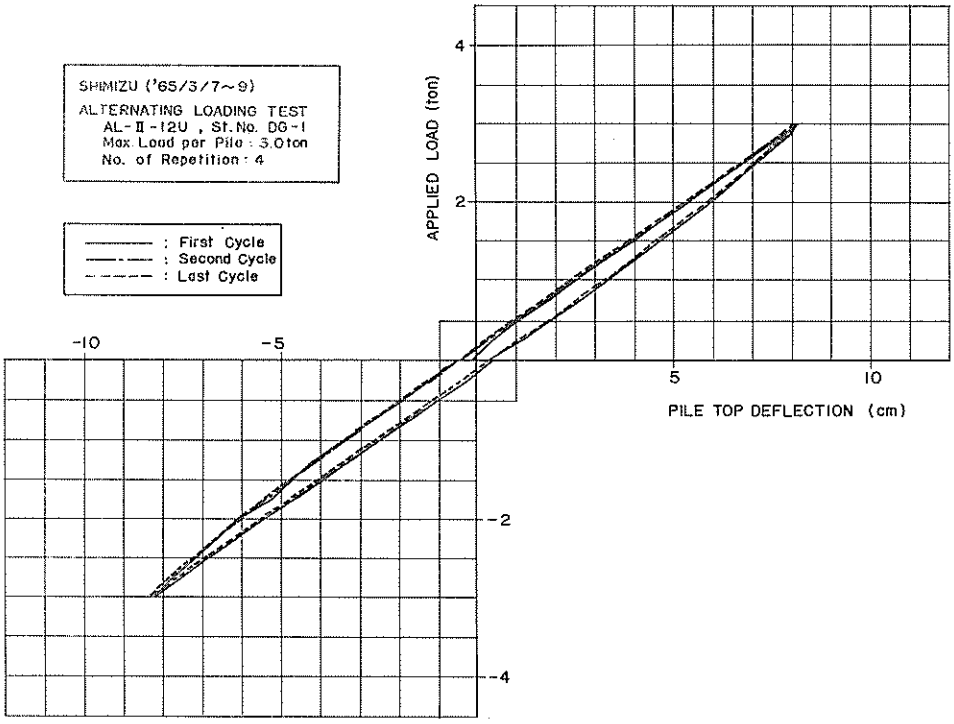
図－５－１１　交番荷重試験　Ⅰ，４Ｄ



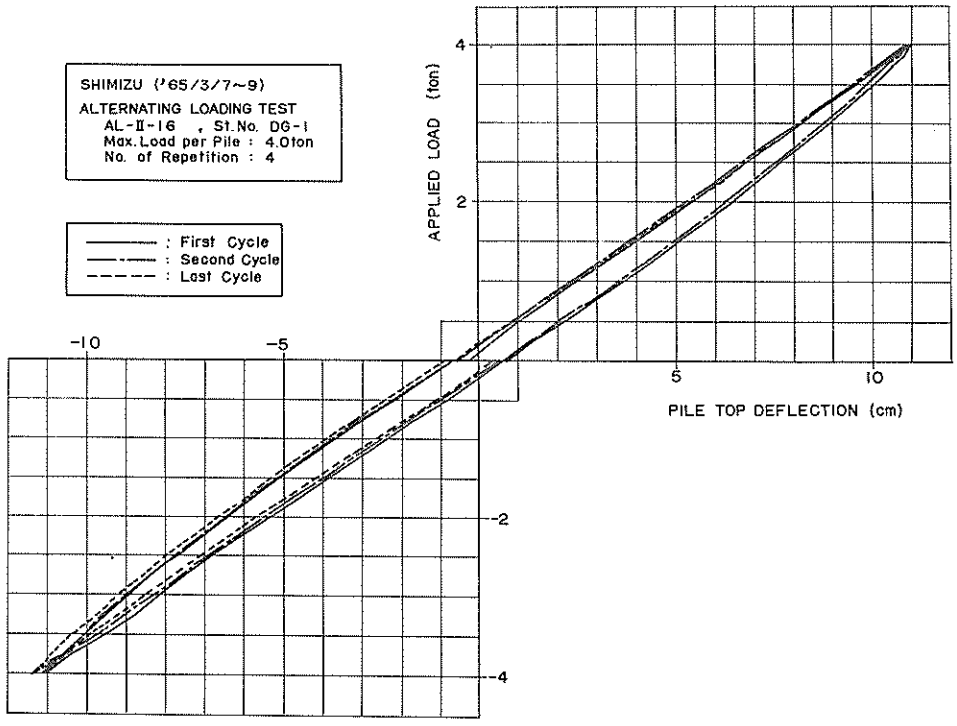
図－6－1　交番荷重試験　Ⅱ，4U



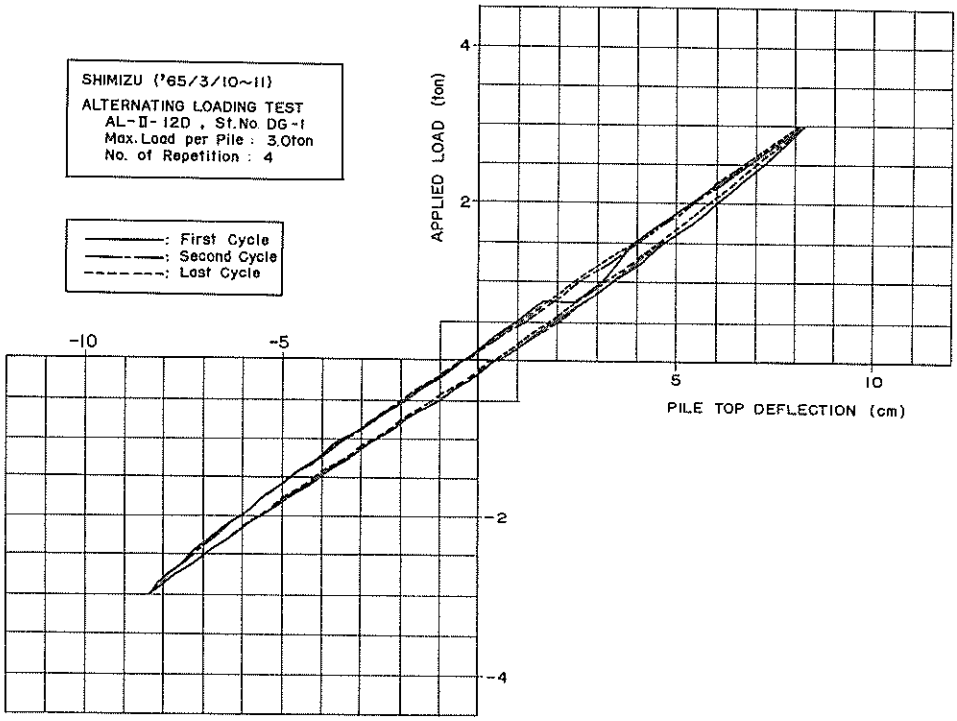
図－6－2　交番荷重試験　Ⅱ，8U



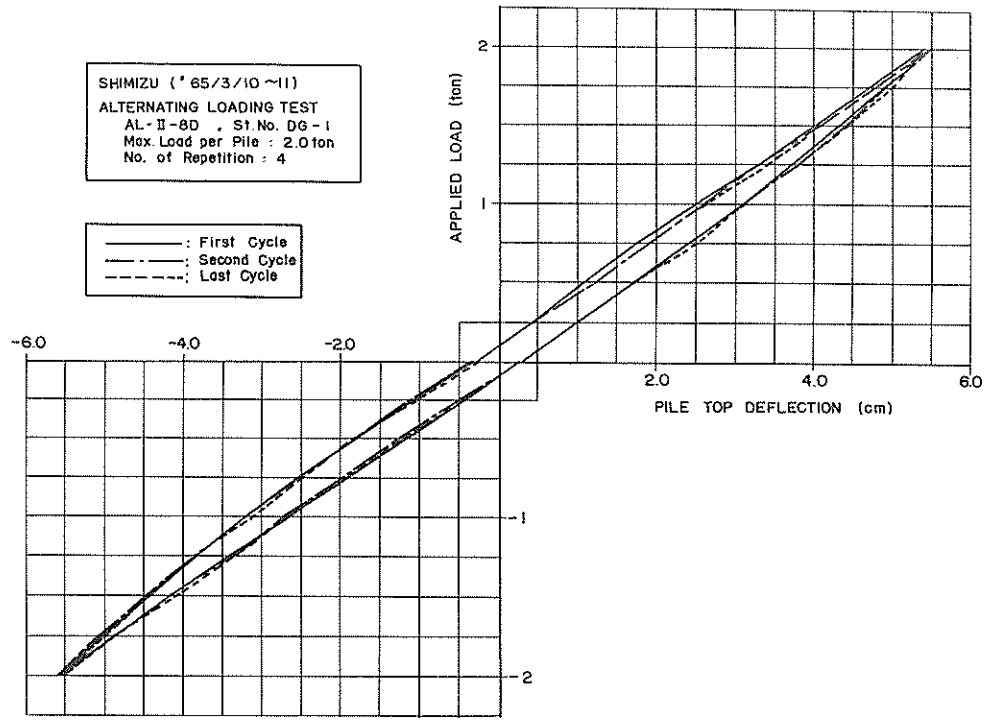
図－６－３　交番荷重試験　Ⅱ，12Ｕ



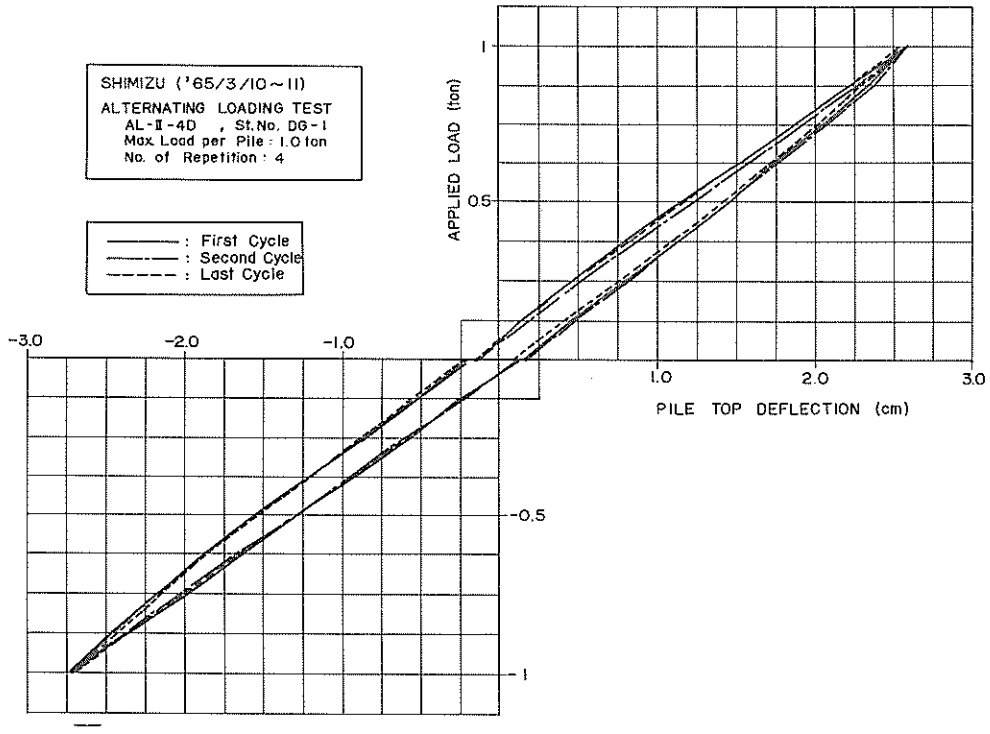
図－６－４　交番荷重試験　Ⅱ，16



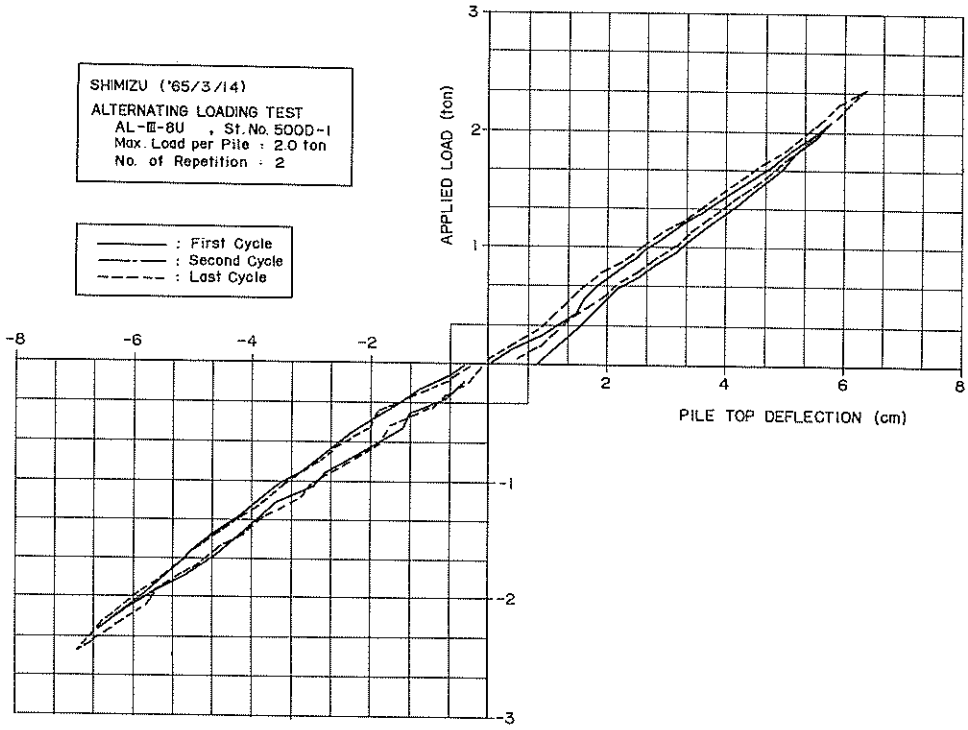
図－6－5　交番荷重試験　II，12 D



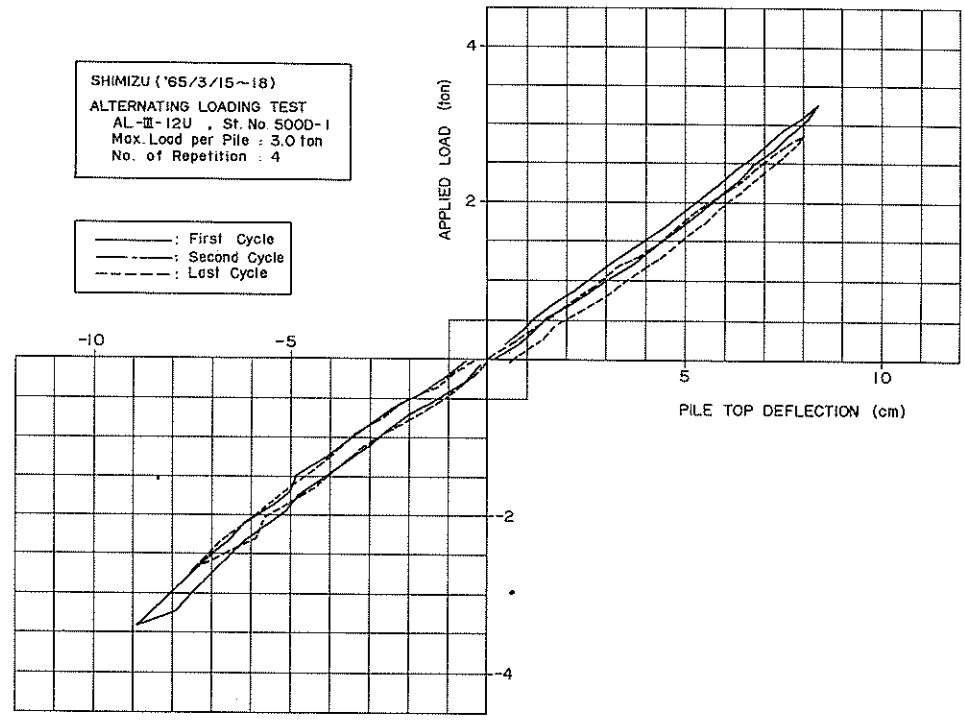
図－6－6　交番荷重試験　II，8D



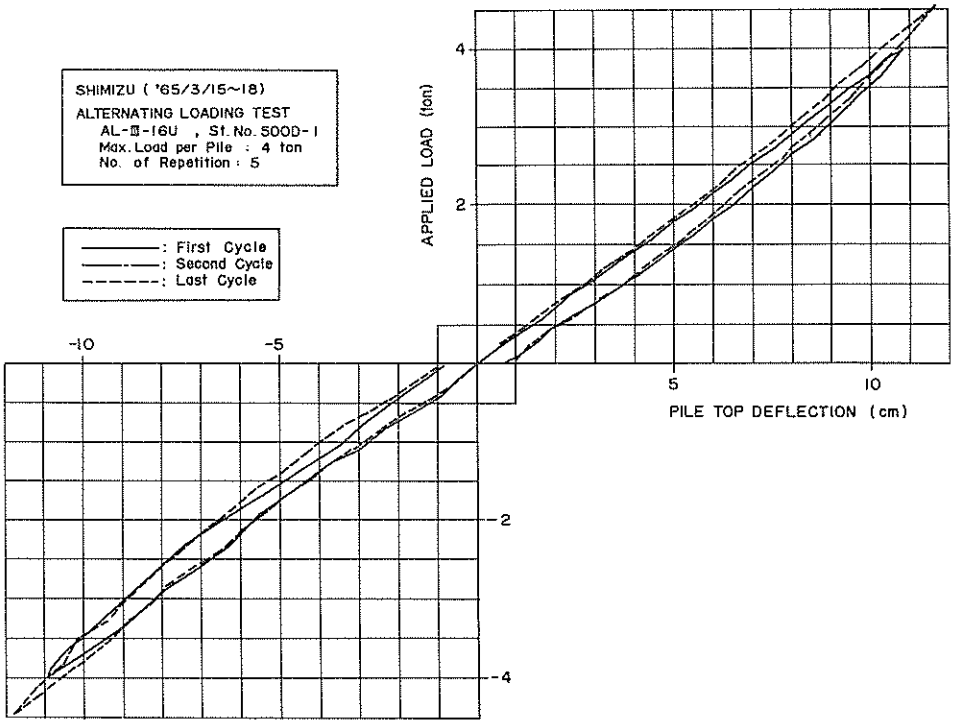
図－６－７　交番荷重試験　Ⅱ，４Ｄ



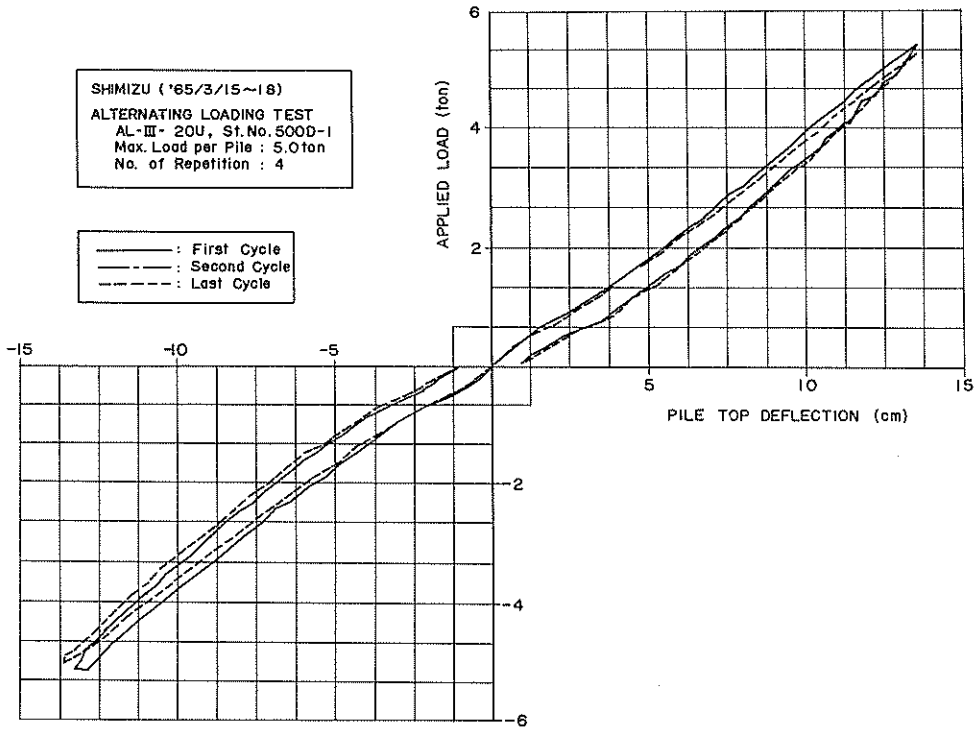
図－７－１　交番荷重試験　Ⅲ，8U



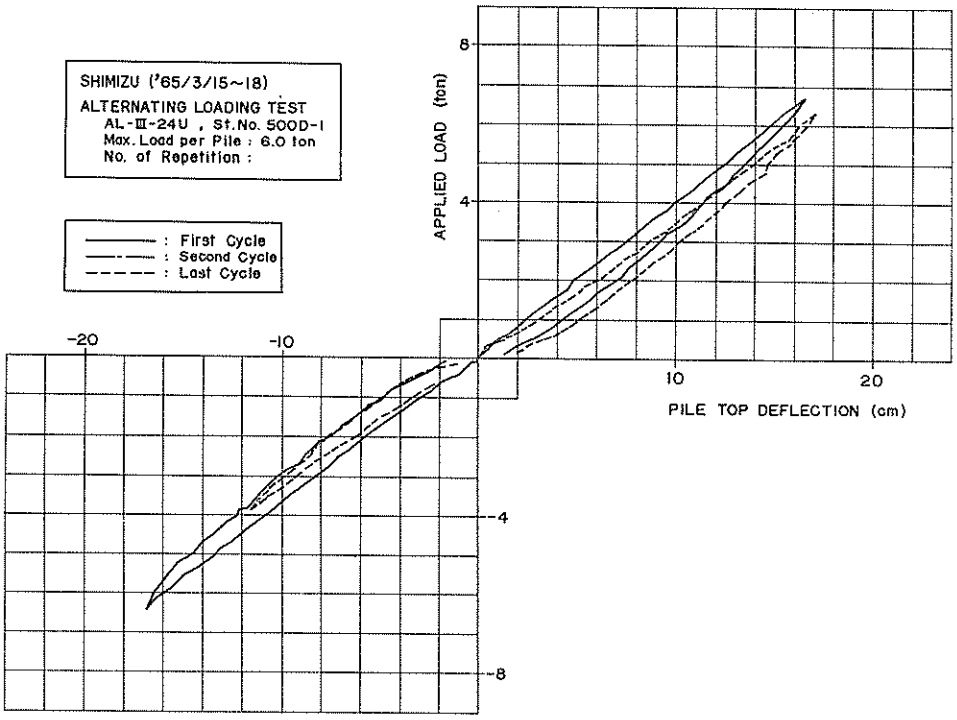
図－７－２　交番荷重試験　Ⅲ，12 U



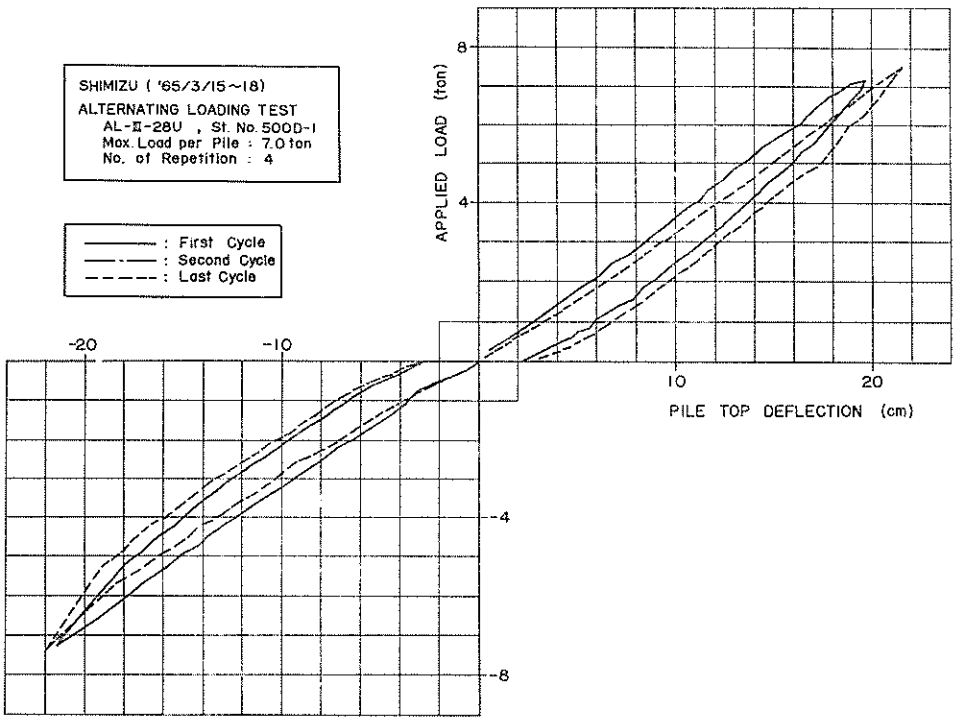
図－７－３　交番荷重試験　Ⅲ，１６Ｕ



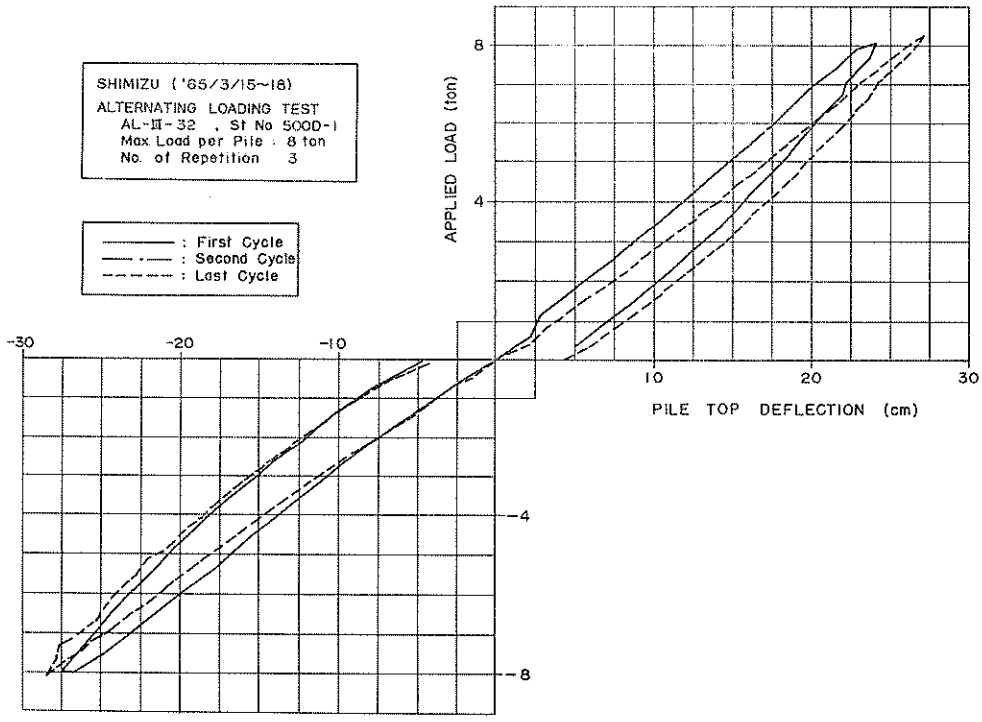
図－７－４　交番荷重試験　Ⅲ，２０Ｕ



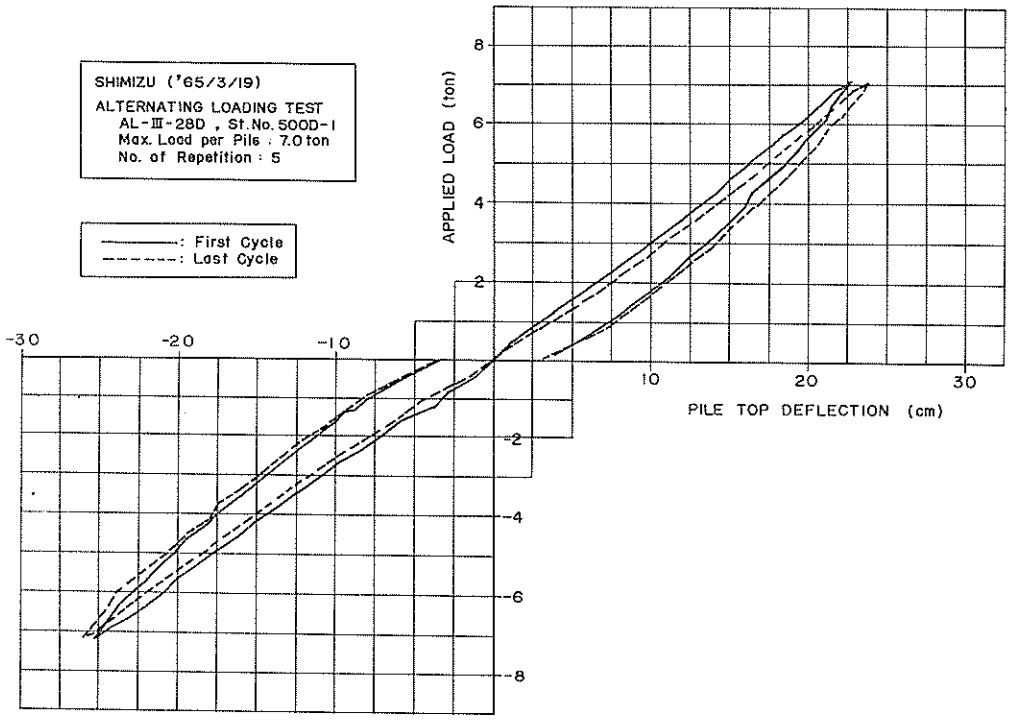
図－７－５　交番荷重試験　Ⅲ，２４Ｕ



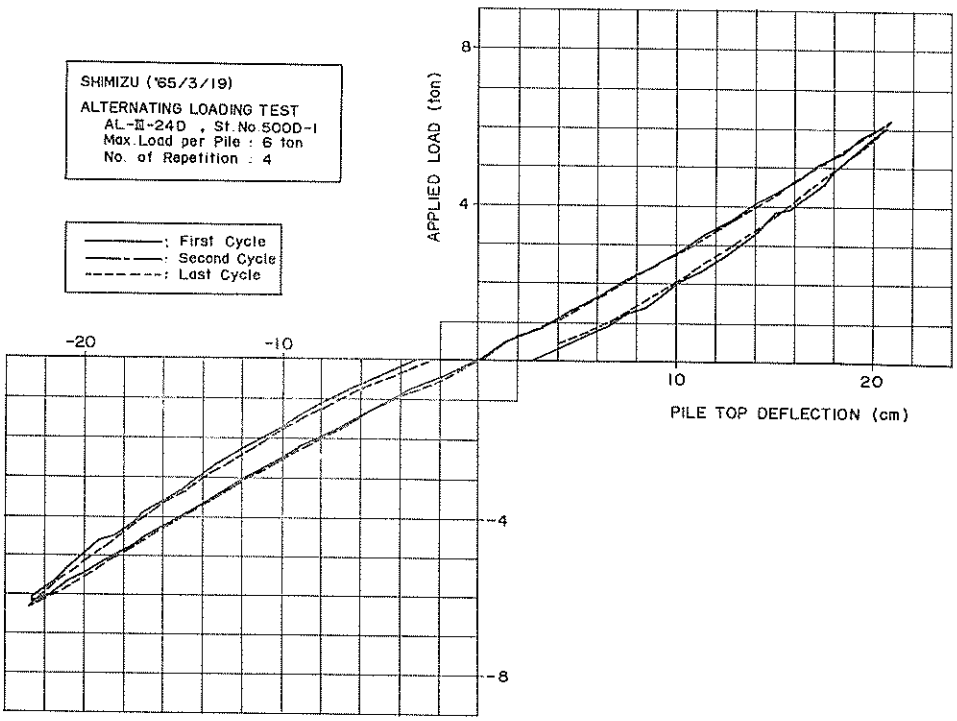
図－７－６　交番荷重試験　Ⅲ，２８Ｕ



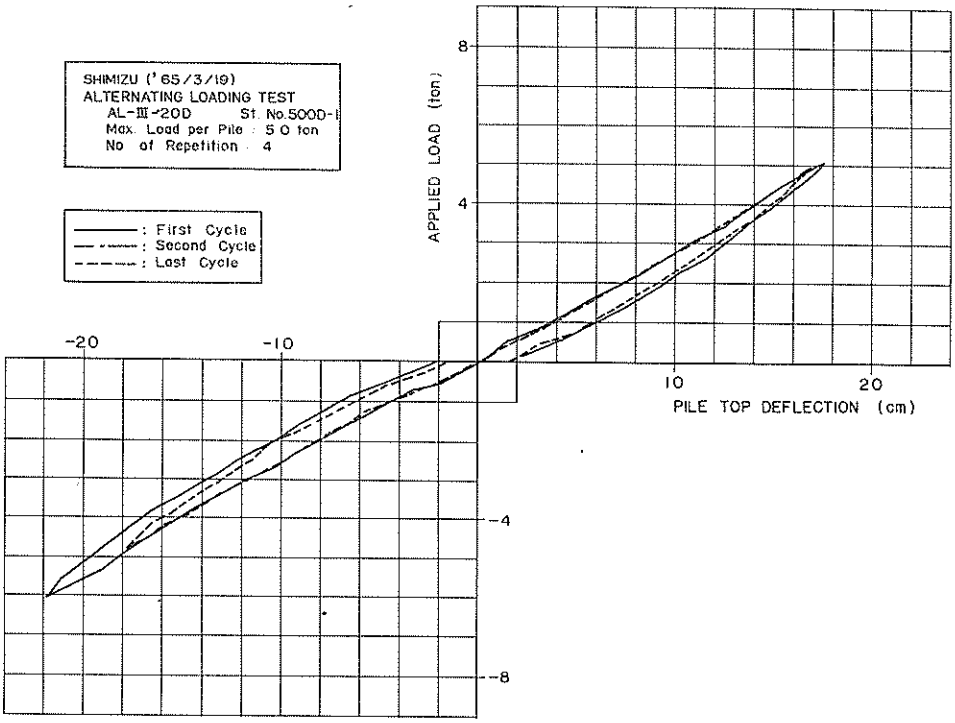
図－７－７　交番荷重試験　Ⅲ，３２



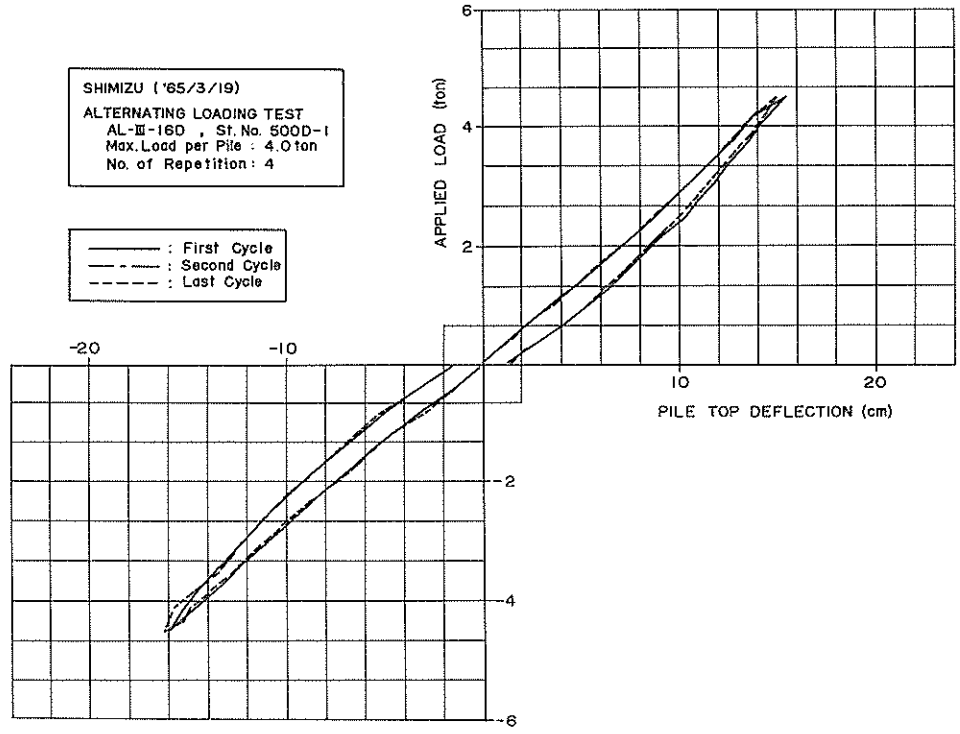
図－７－８　交番荷重試験　Ⅲ，２８Ｄ



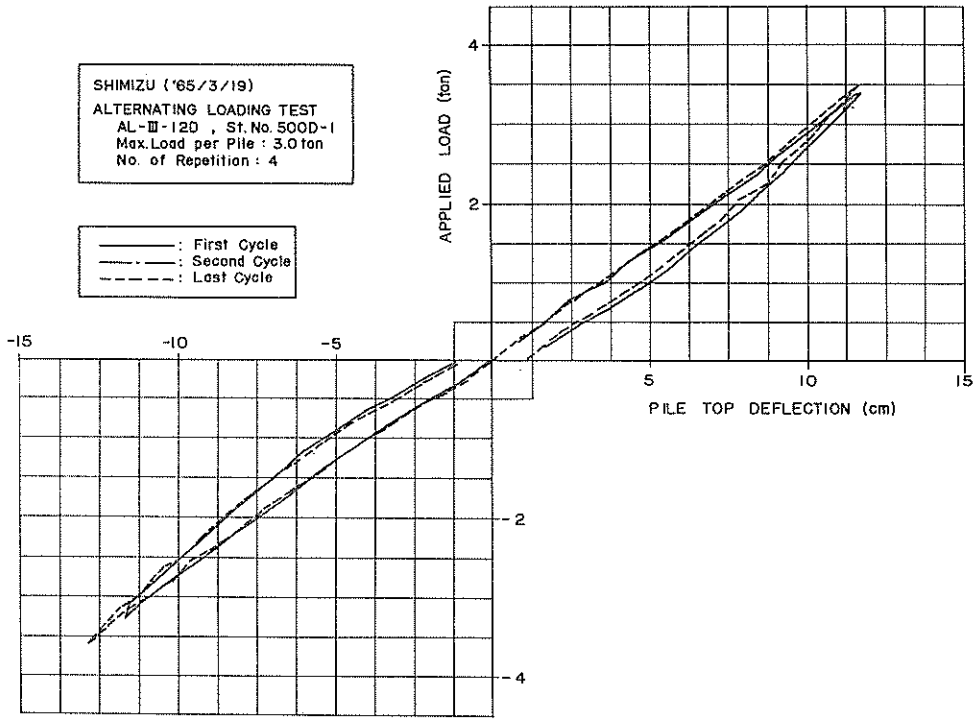
図－７－９　交番荷重試験　Ⅲ，２４Ｄ



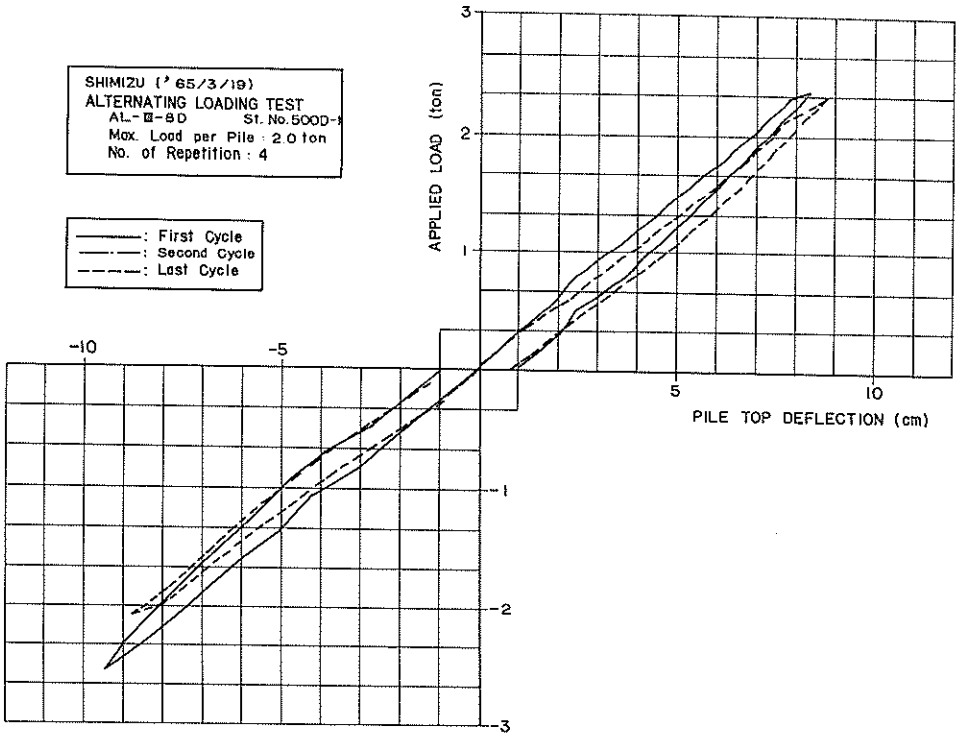
図－７－１０　交番荷重試験　Ⅲ，２０Ｄ



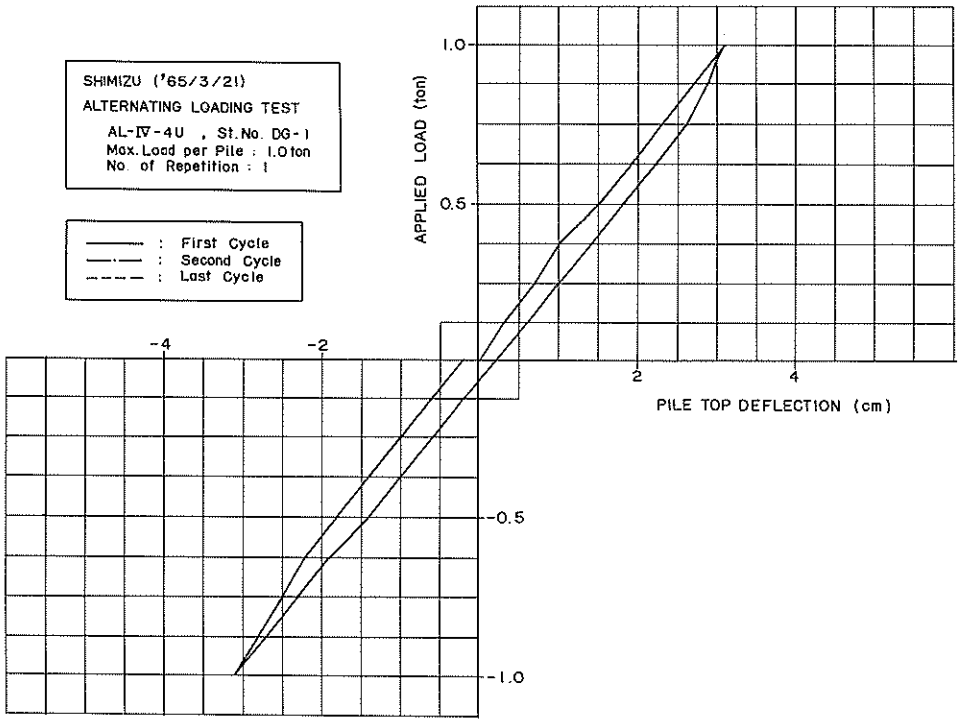
図－７－１１　交番荷重試験　Ⅲ，１６D



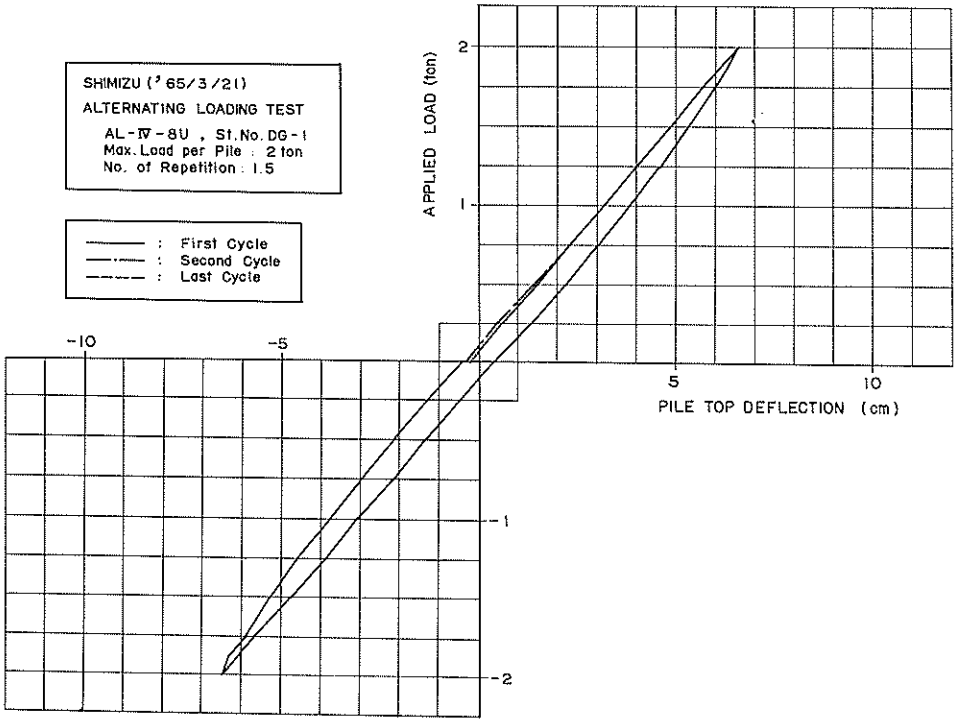
図－７－１２　交番荷重試験　Ⅲ，１２D



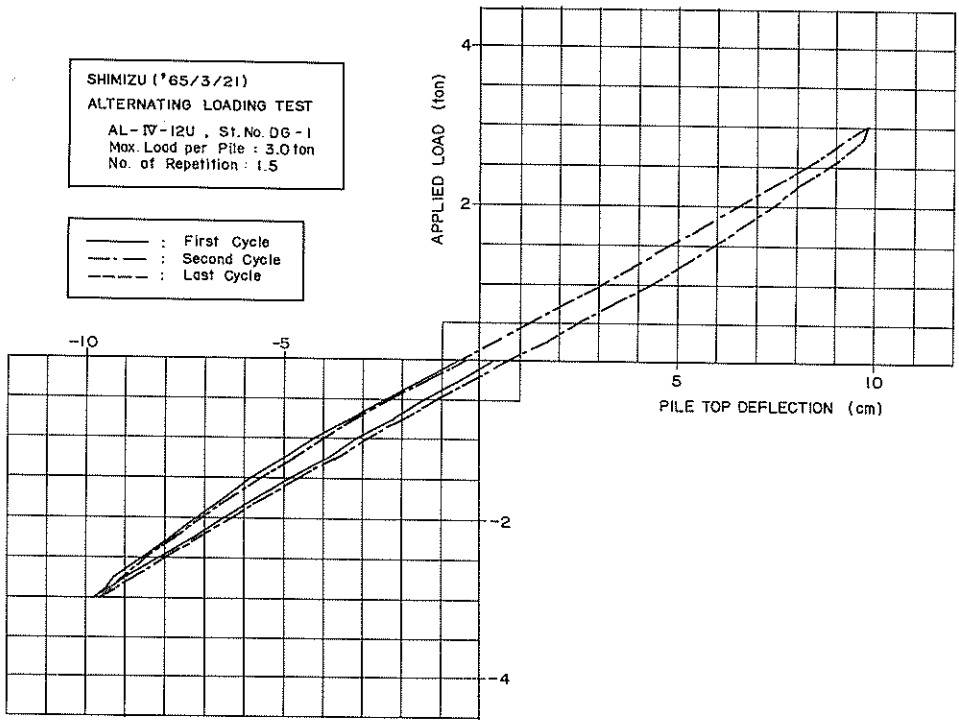
図－７－１３　交番荷重試験　Ⅲ，　8D



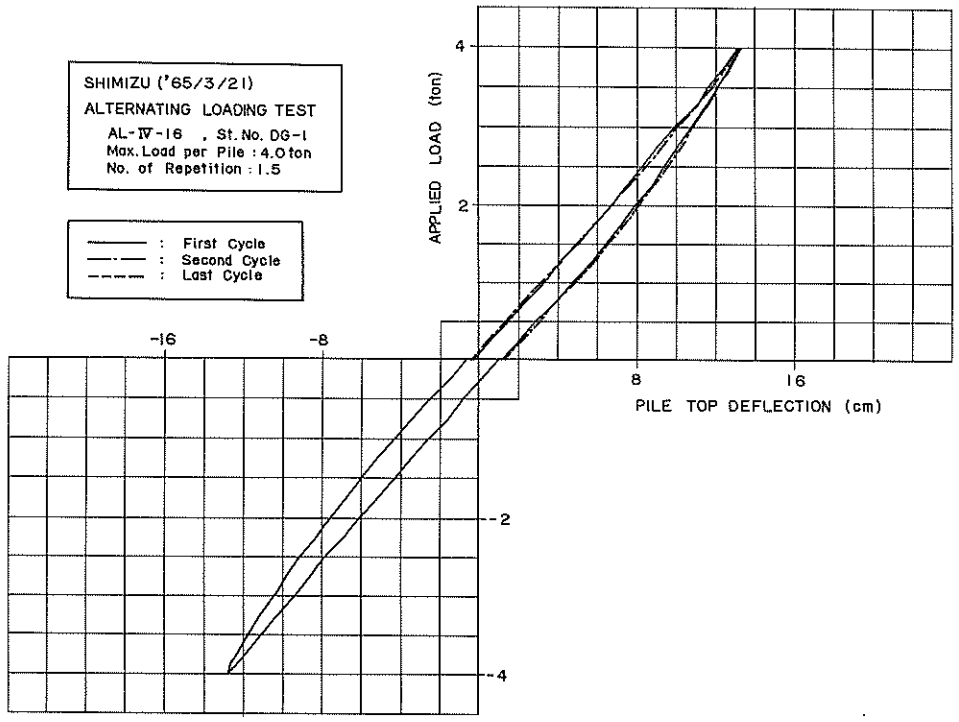
図－８－１　交番荷重試験　Ⅳ，４　U



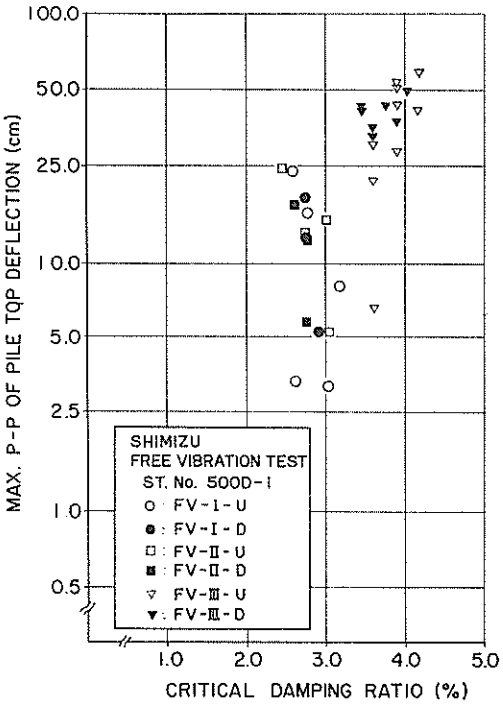
図－８－２　交番荷重試験　Ⅳ，８　U



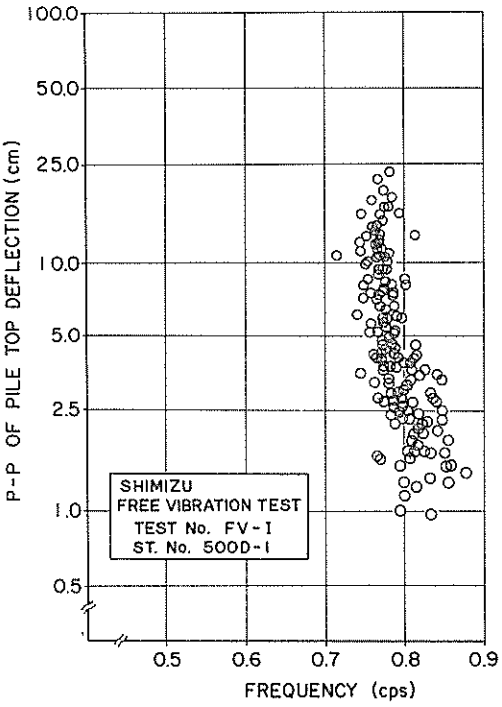
図－８－３　交番荷重試験　Ⅳ．１２Ｕ



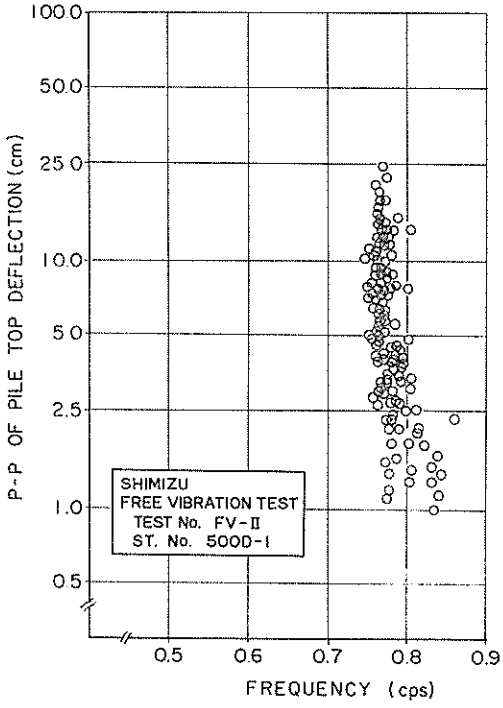
図－８－４　交番荷重試験　Ⅳ，１６



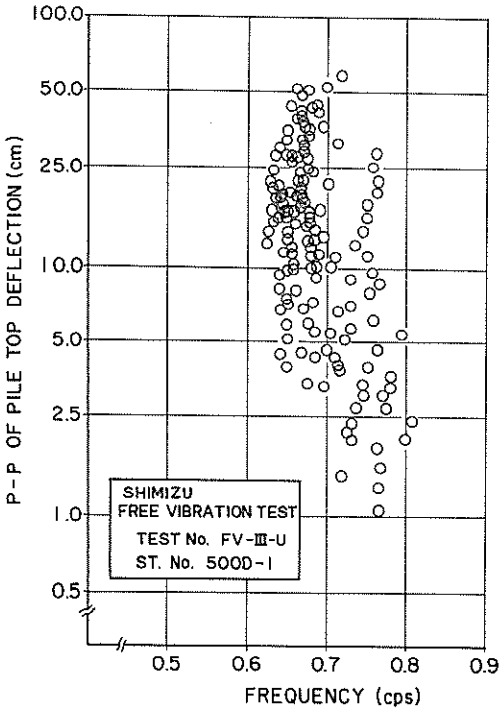
図－９　臨界減衰比一倍振巾、自由振動試験



図－１０　固有振動数一倍振巾、自由振動試験

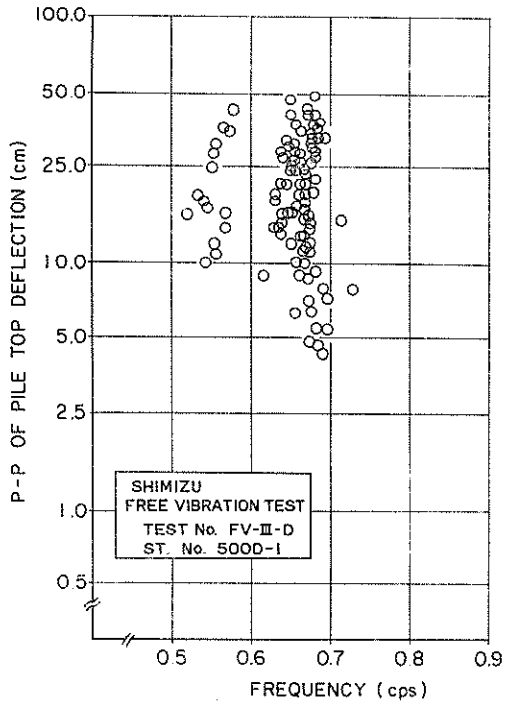


図－１１　固有振動数一倍振巾、自由振動試験　II



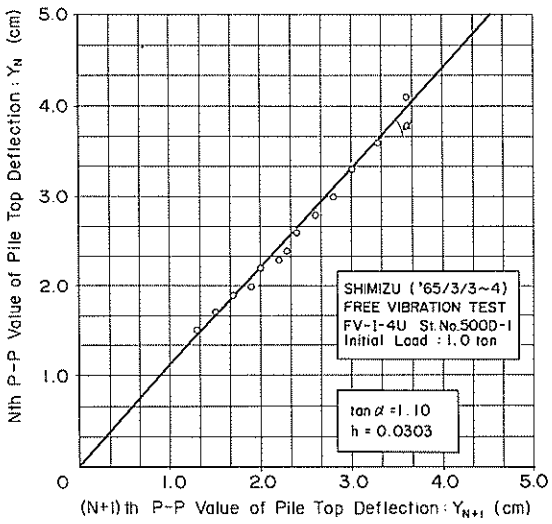
図－１２－１

固有振動数―倍振巾、自由振動試験　Ⅲ（前半）

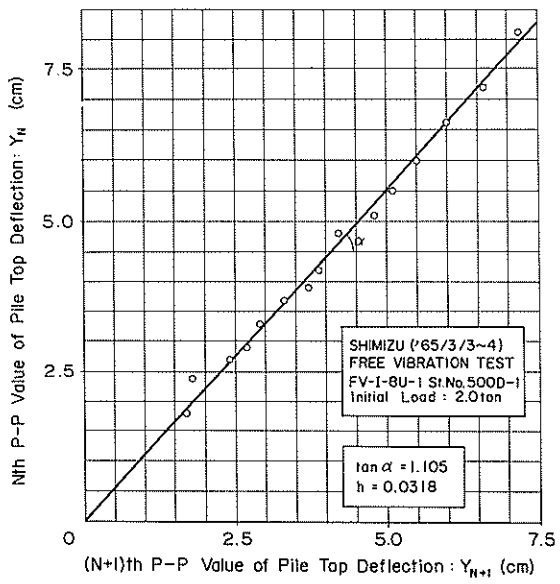


図－１２－２

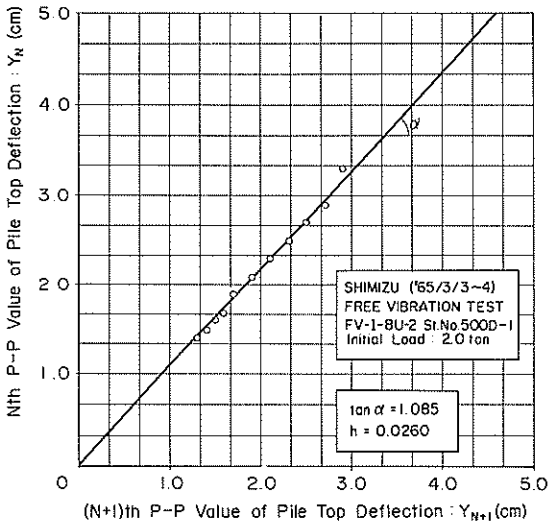
固有振動数―倍振巾、自由振動試験　Ⅲ（後半）



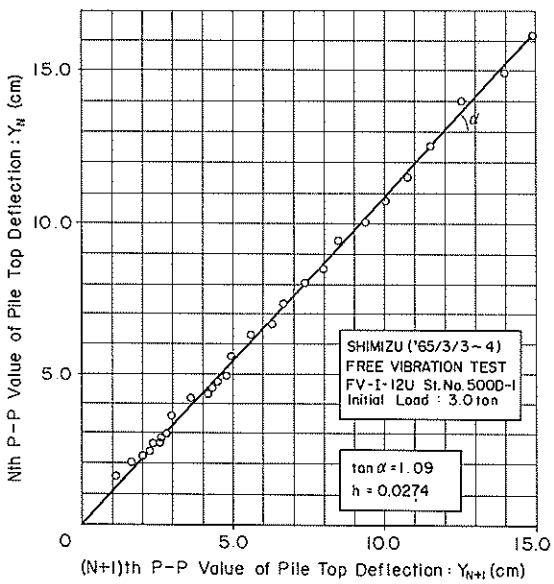
図－13－1　自由振動試験　Ⅰ，4U



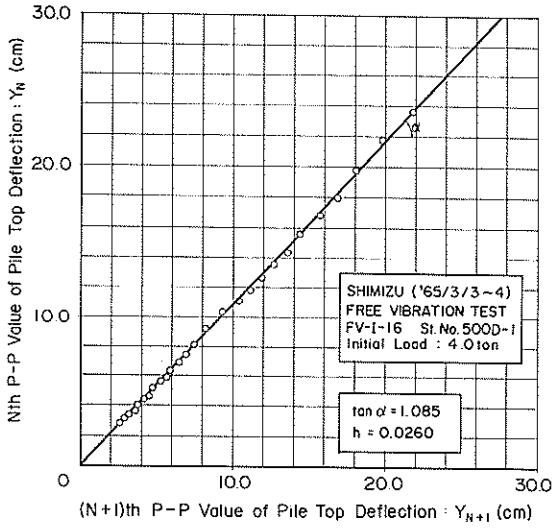
図－13－2　自由振動試験　Ⅰ，8U－1



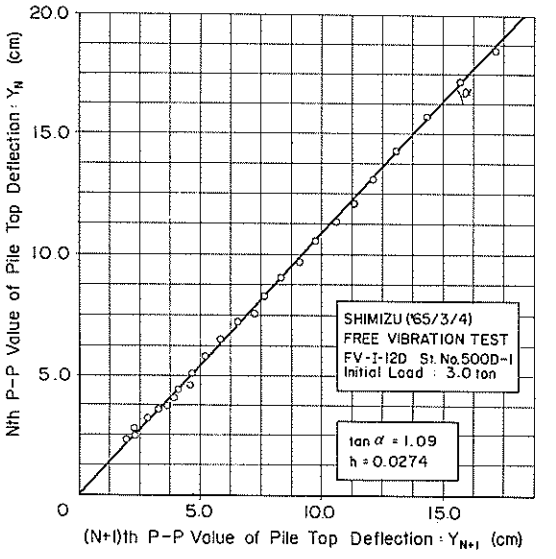
図－13－3　自由振動試験　Ⅰ，8U－2



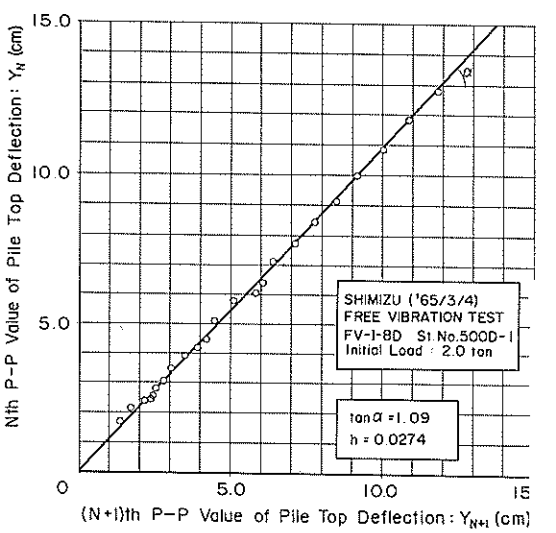
図－13－4　自由振動試験　Ⅰ，12U



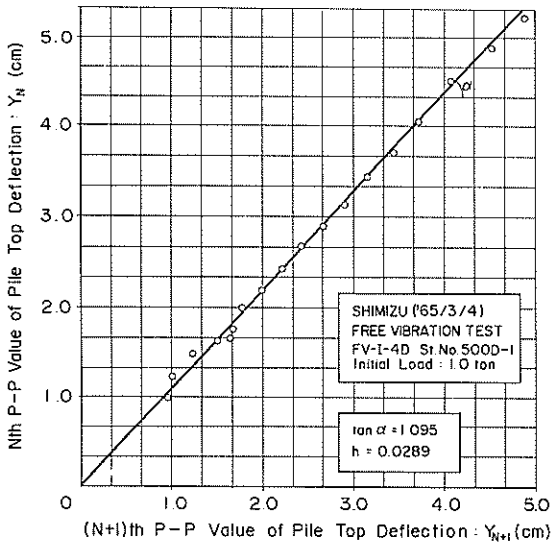
図－13－5　自由振動試験　Ⅰ，16



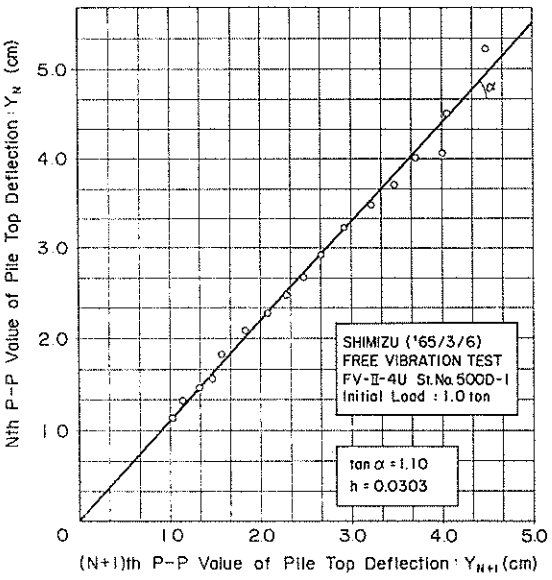
図－13－6　自由振動試験　Ⅰ，12D



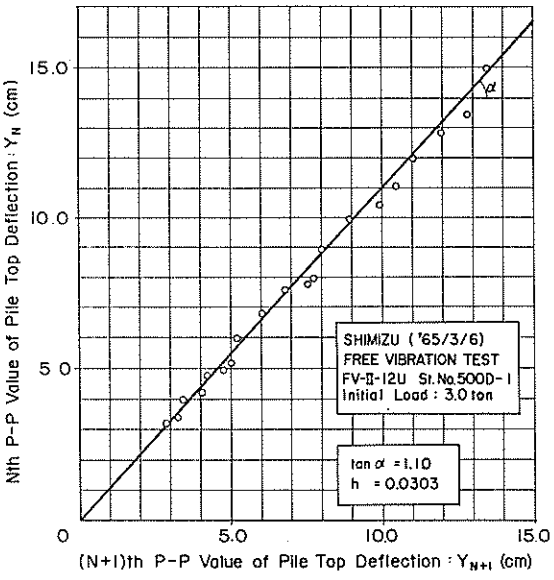
図－13－7　自由振動試験　Ⅰ，8D



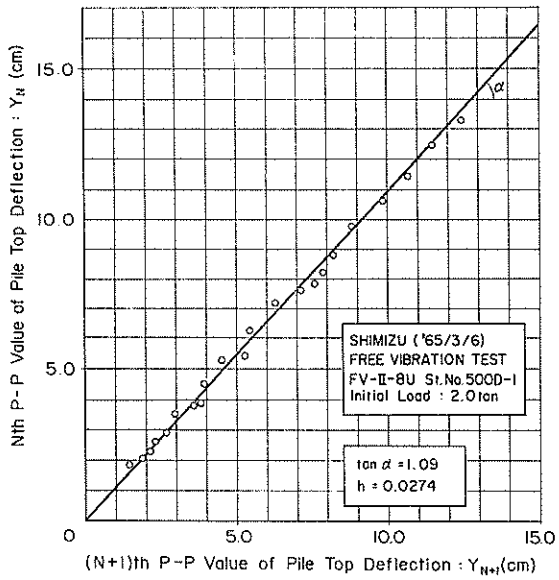
図－13－8　自由振動試験　Ⅰ，4D



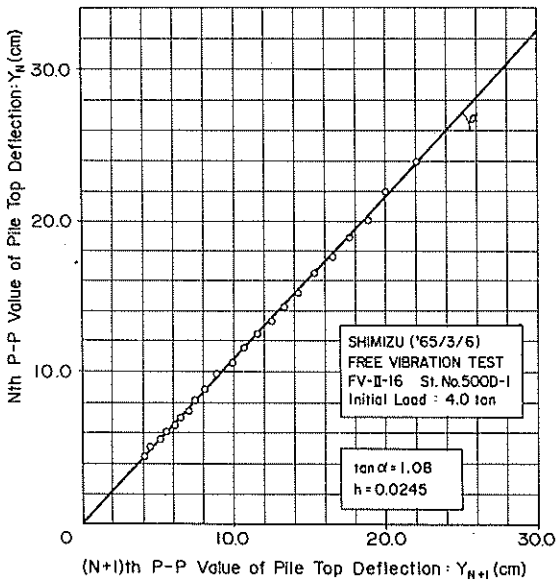
図－14－1　自由振動試験　Ⅱ，4U



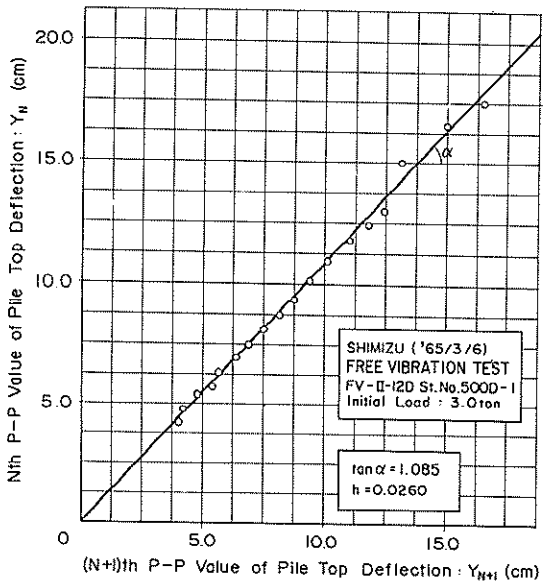
図－14－3　自由振動試験　Ⅱ，12U



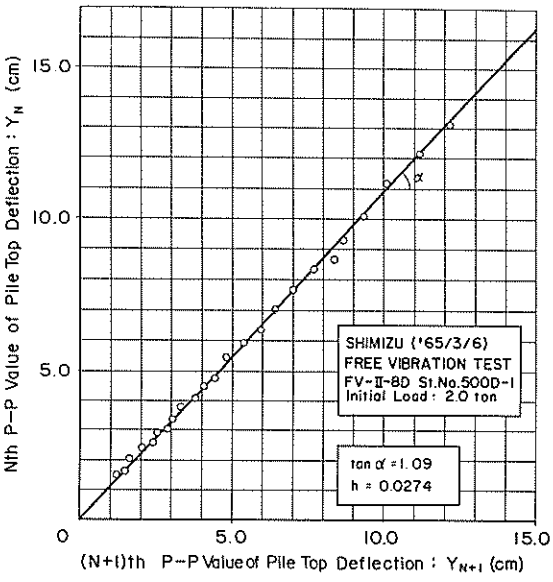
図－14－2　自由振動試験　Ⅱ，8U



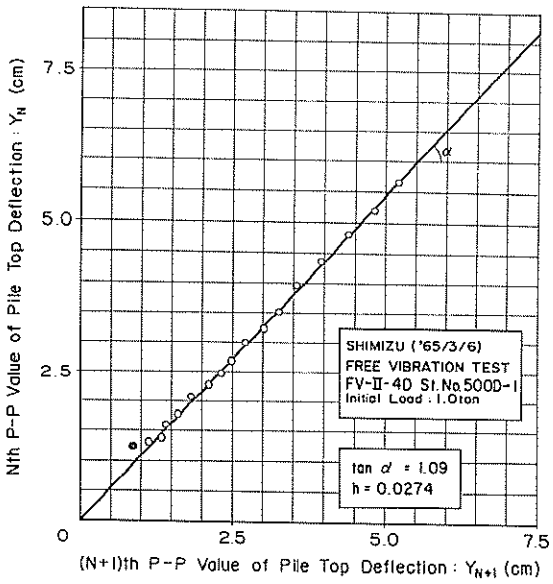
図－14－4　自由振動試験　Ⅱ，16



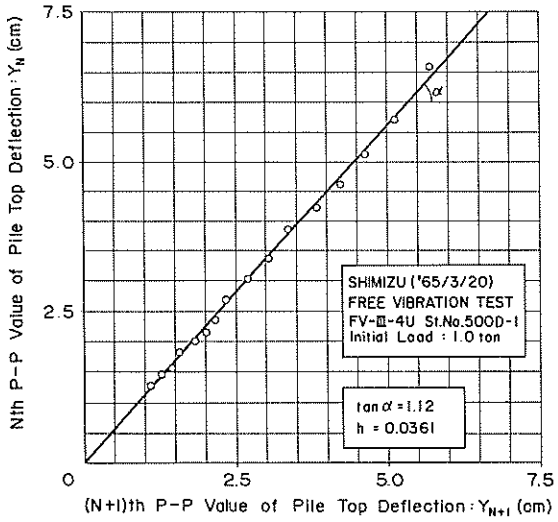
図－14－5　自由振動試験　Ⅱ，12D



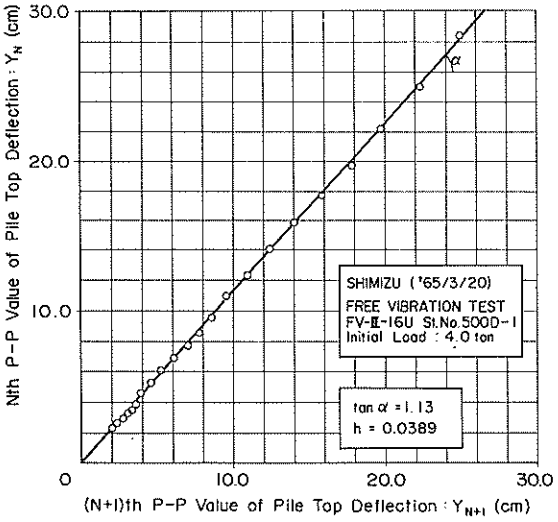
図－14－6　自由振動試験　Ⅱ，8D



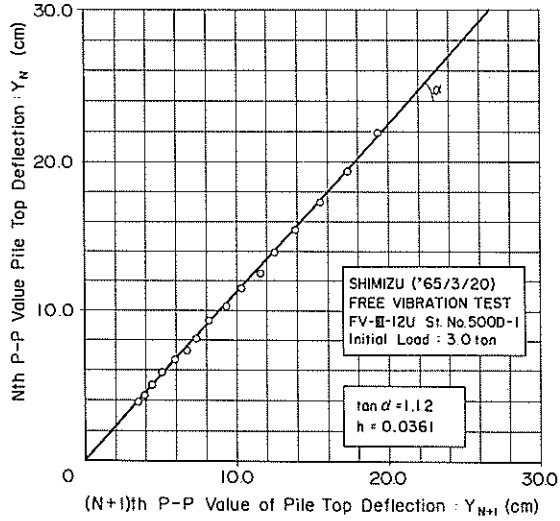
図－14－7　自由振動試験　Ⅱ，4D



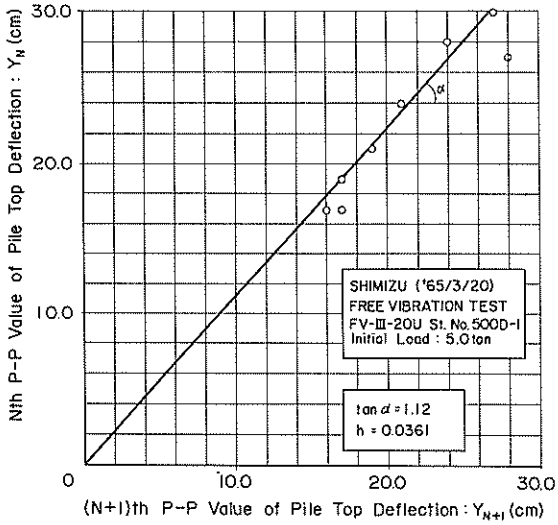
図－15－1　自由振動試験　Ⅲ，4U



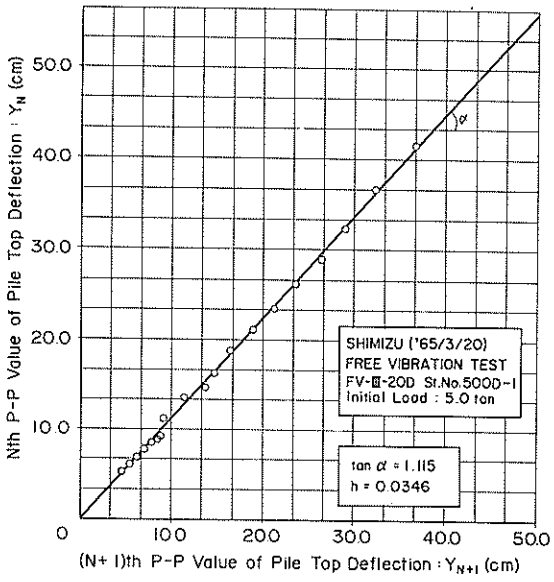
図－15－3　自由振動試験　Ⅲ，16U



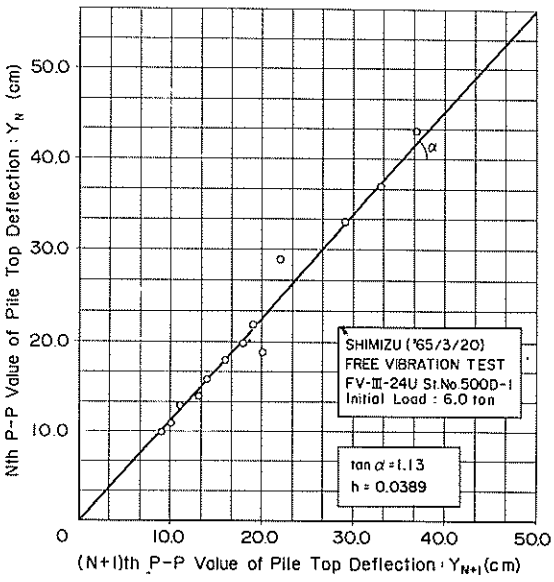
図－15－2　自由振動試験　Ⅲ，12U



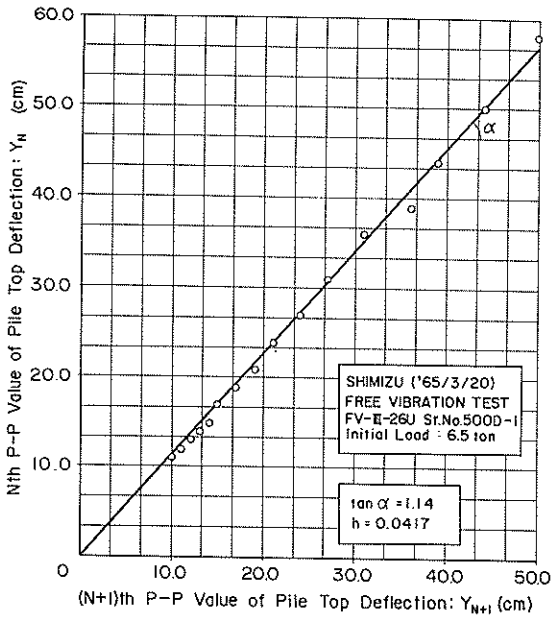
図－15－4　自由振動試験　Ⅲ，20U



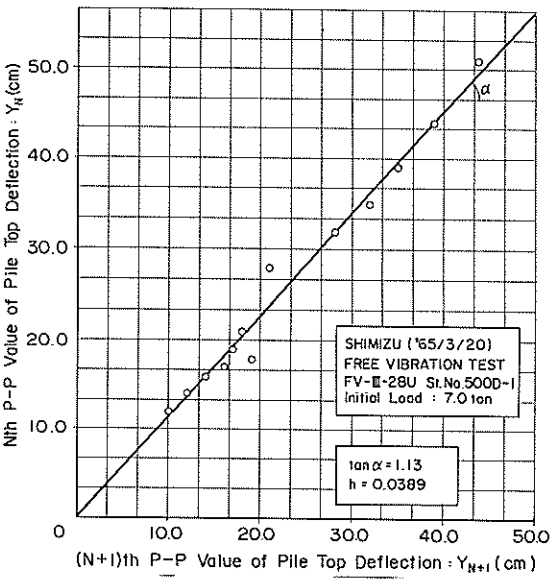
図－15－5　自由振動試験　Ⅲ，22 U



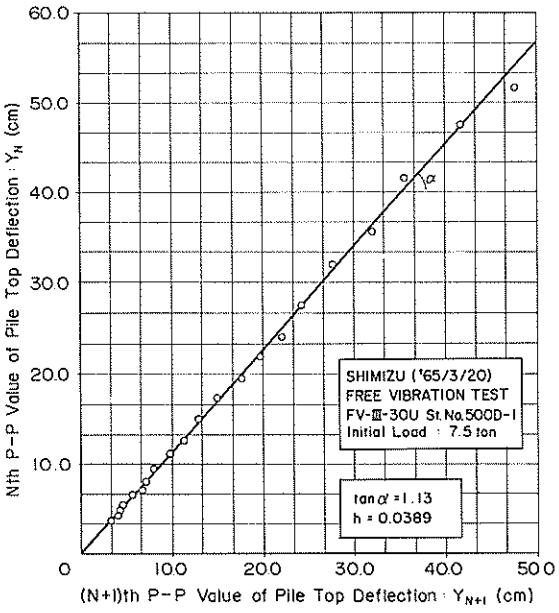
図－15－6　自由振動試験　Ⅲ，24 U



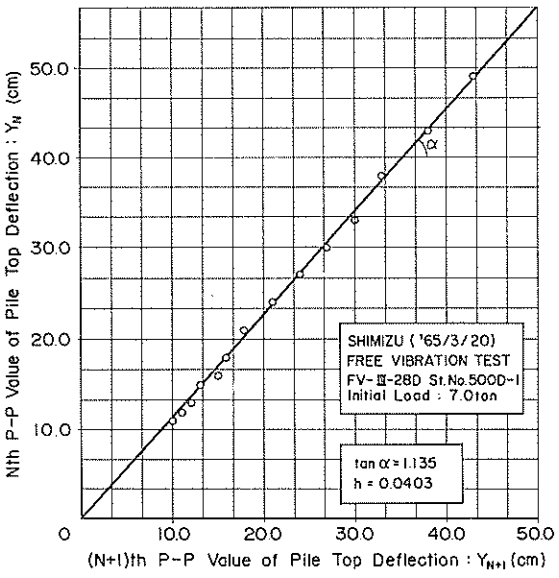
図－15－7　自由振動試験　Ⅲ，26 U



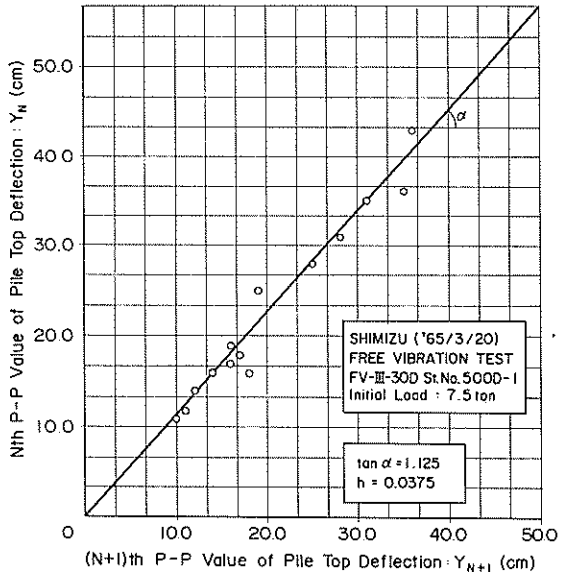
図－15－8　自由振動試験　Ⅲ，28 U



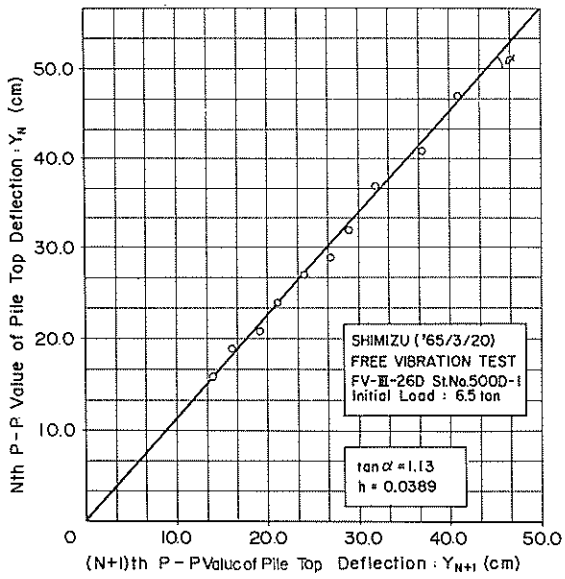
図－１５－９　自由振動試験　Ⅲ，３０Ｕ



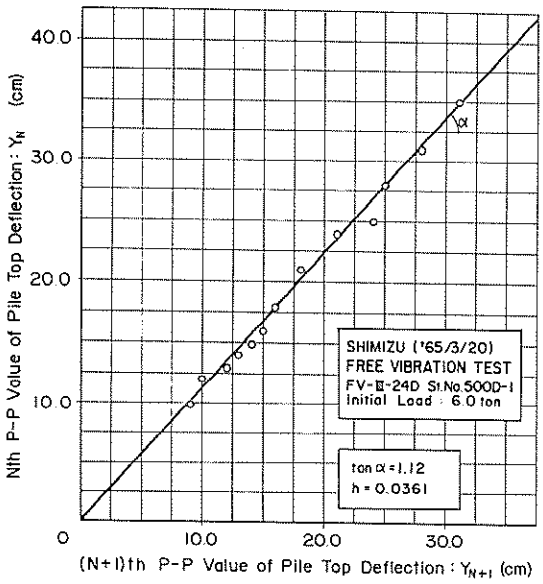
図－１５－１１　自由振動試験　Ⅲ，２８Ｄ



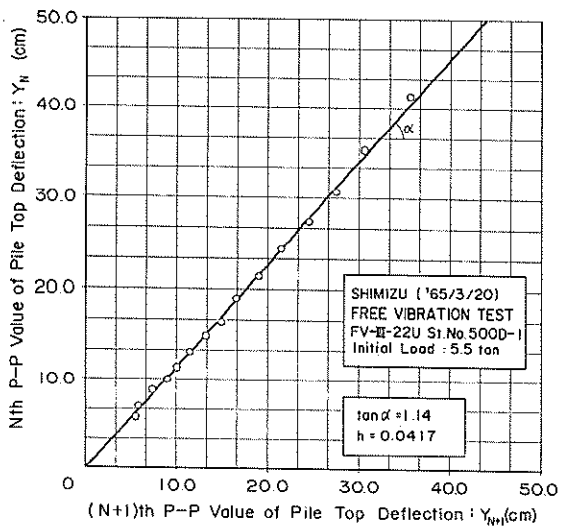
図－１５－１０　自由振動試験　Ⅲ，３０Ｄ



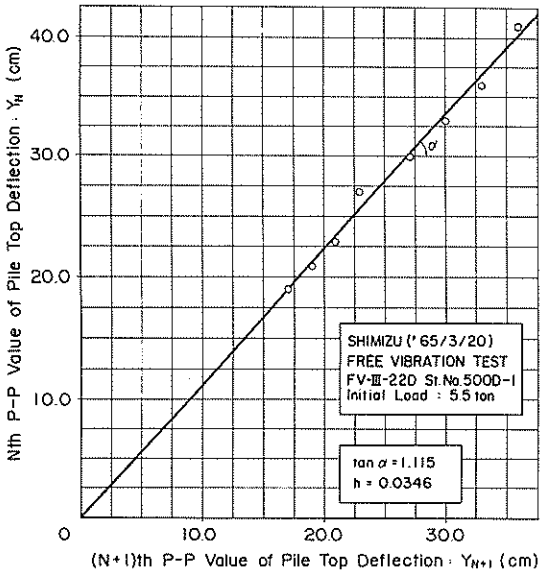
図－１５－１２　自由振動試験　Ⅲ，２６Ｄ



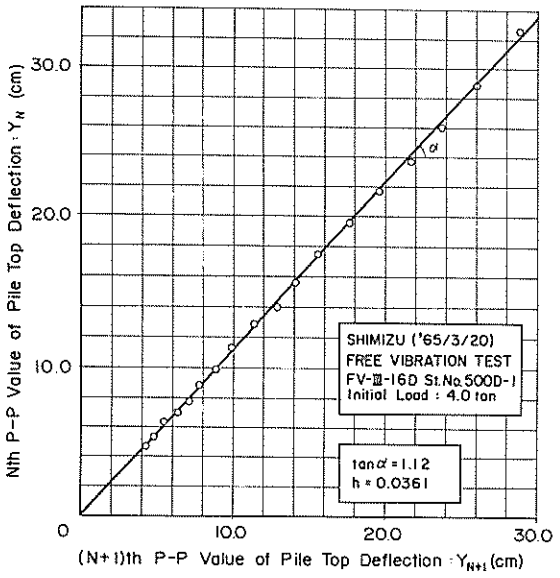
図－15－13　自由振動試験　Ⅲ，24 D



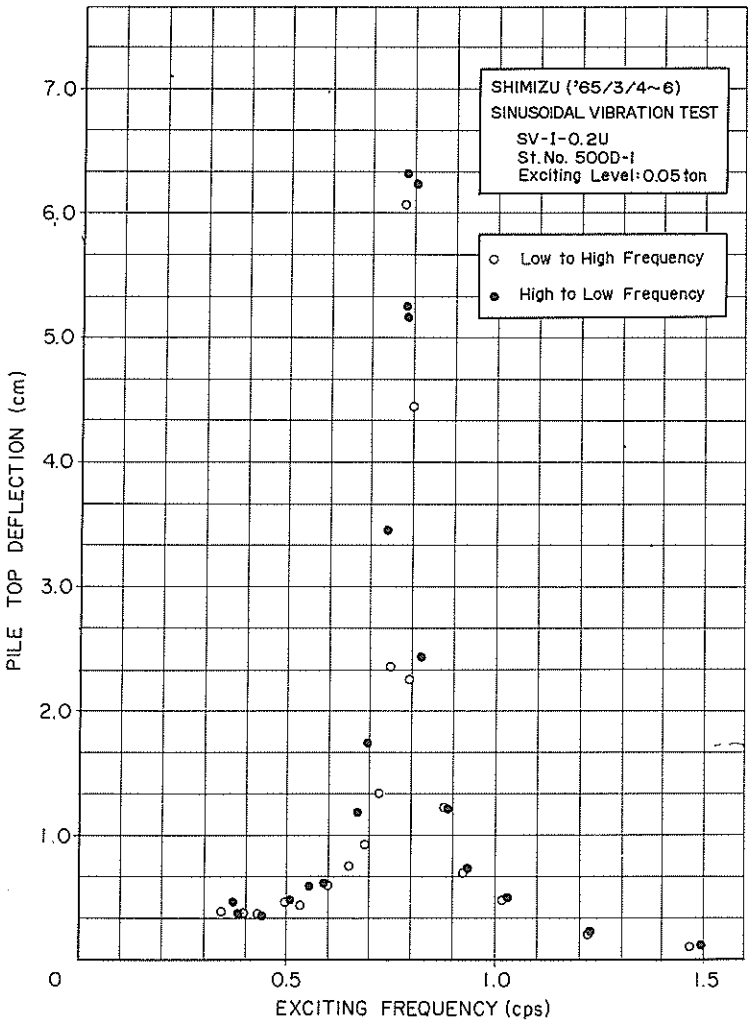
図－15－15　自由振動試験　Ⅲ，20 D



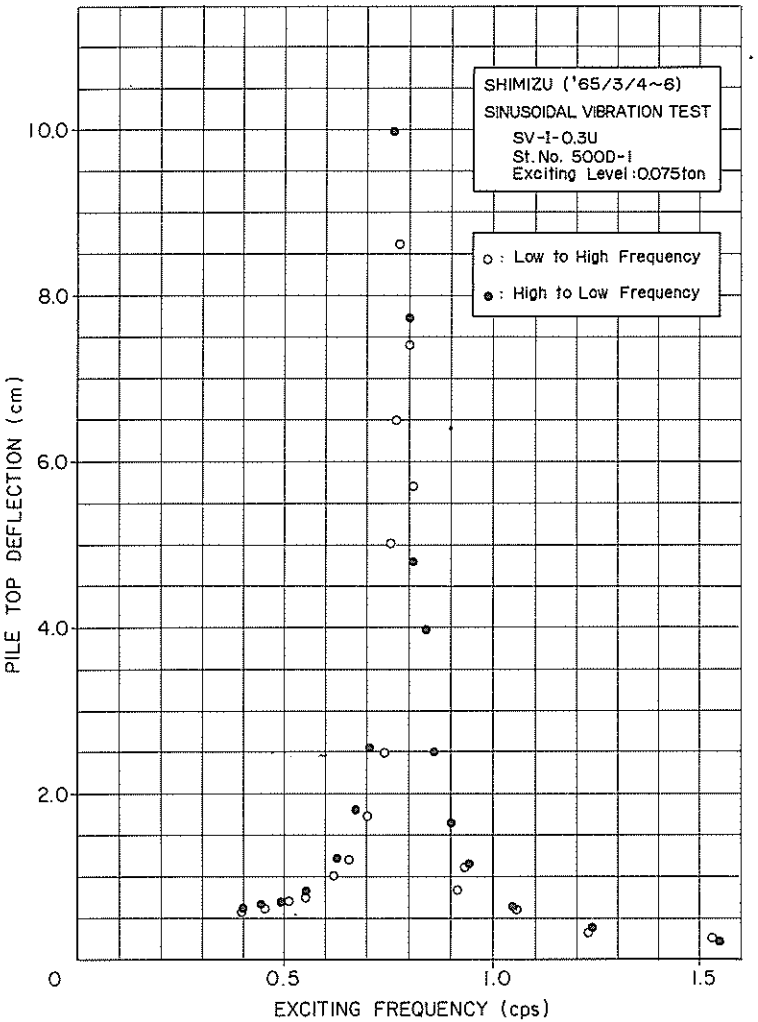
図－15－14　自由振動試験　Ⅲ，22 D



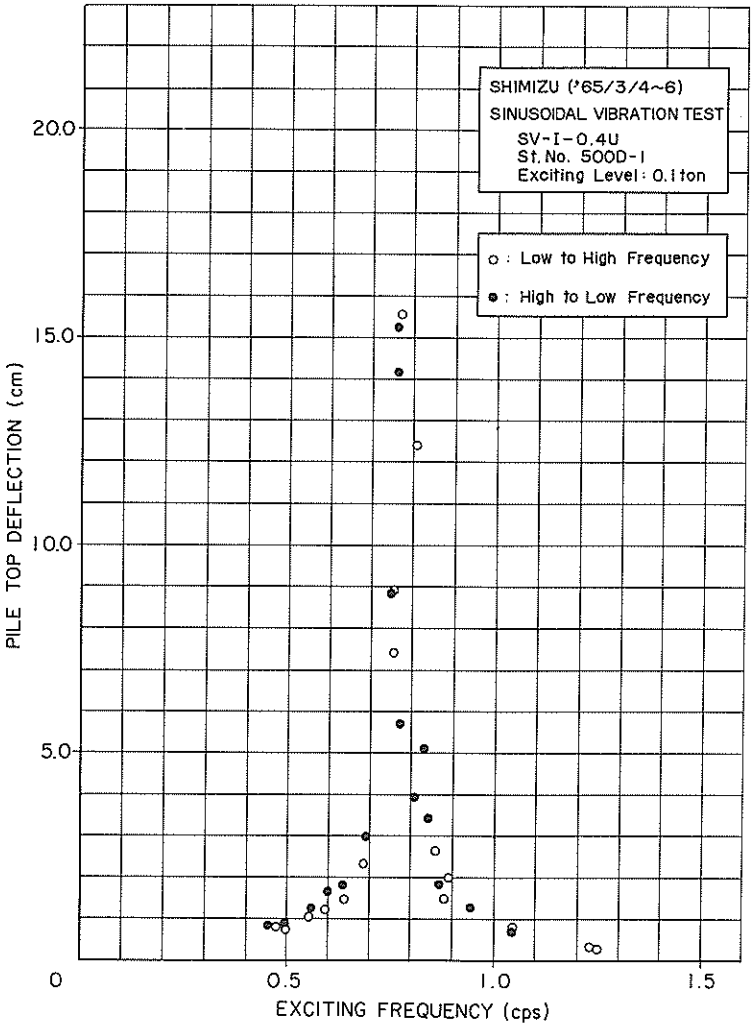
図－15－16　自由振動試験　Ⅲ，16 D



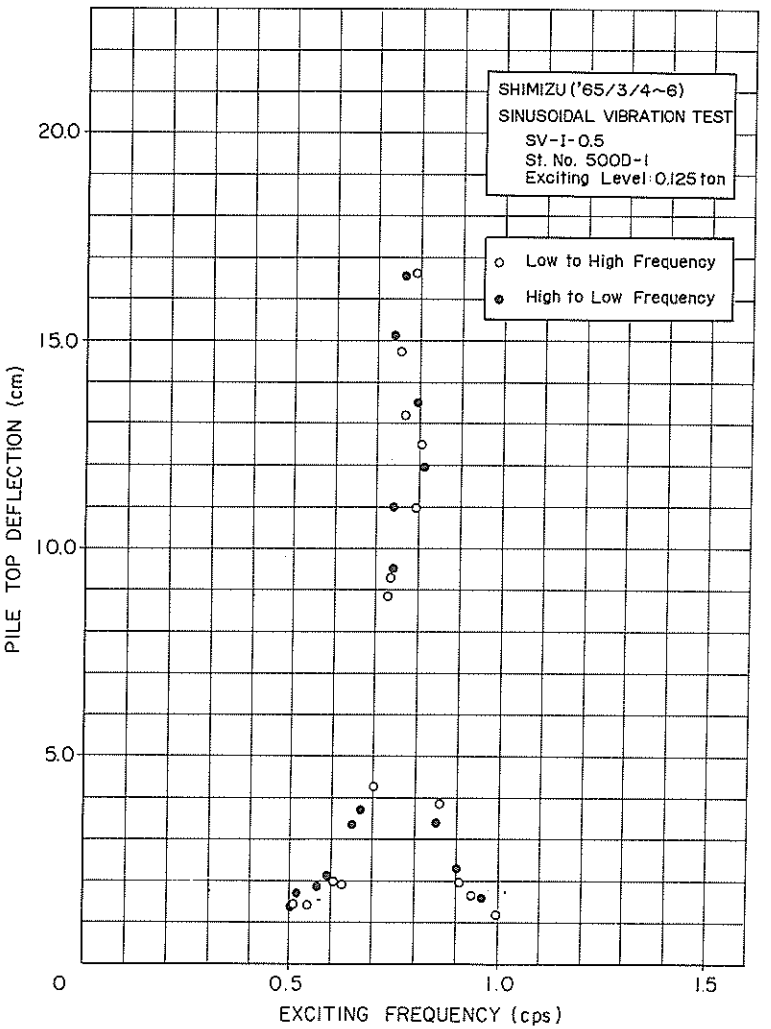
図－16－1　強制振動試験　I，0.2U



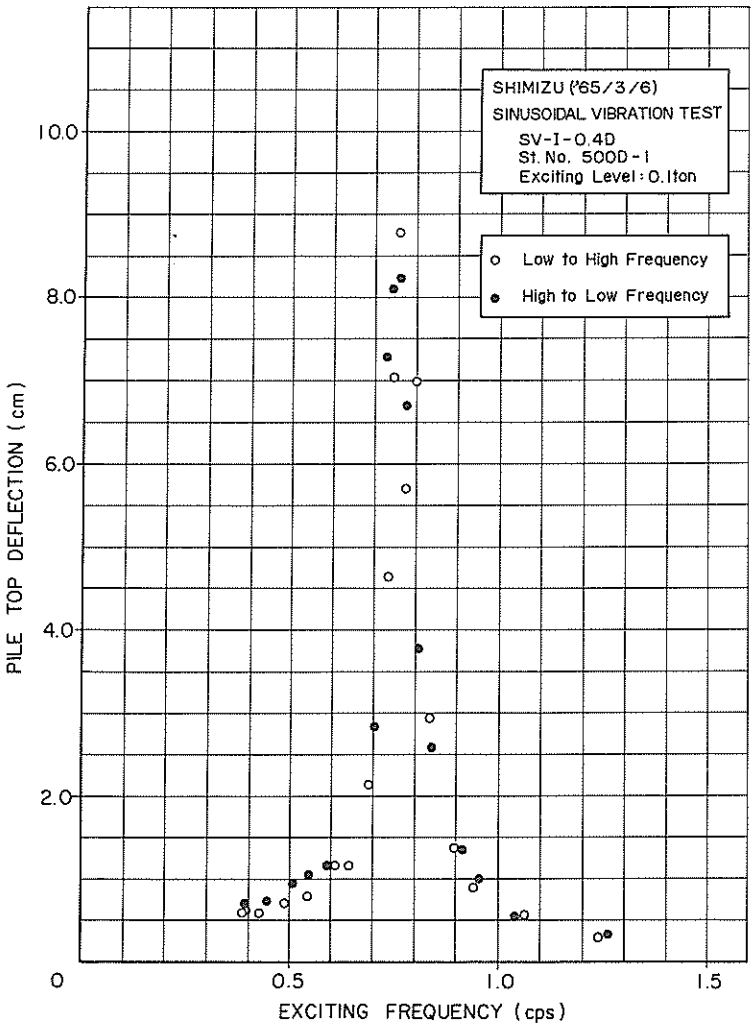
図－16－2　強制振動試験　I，0.3U



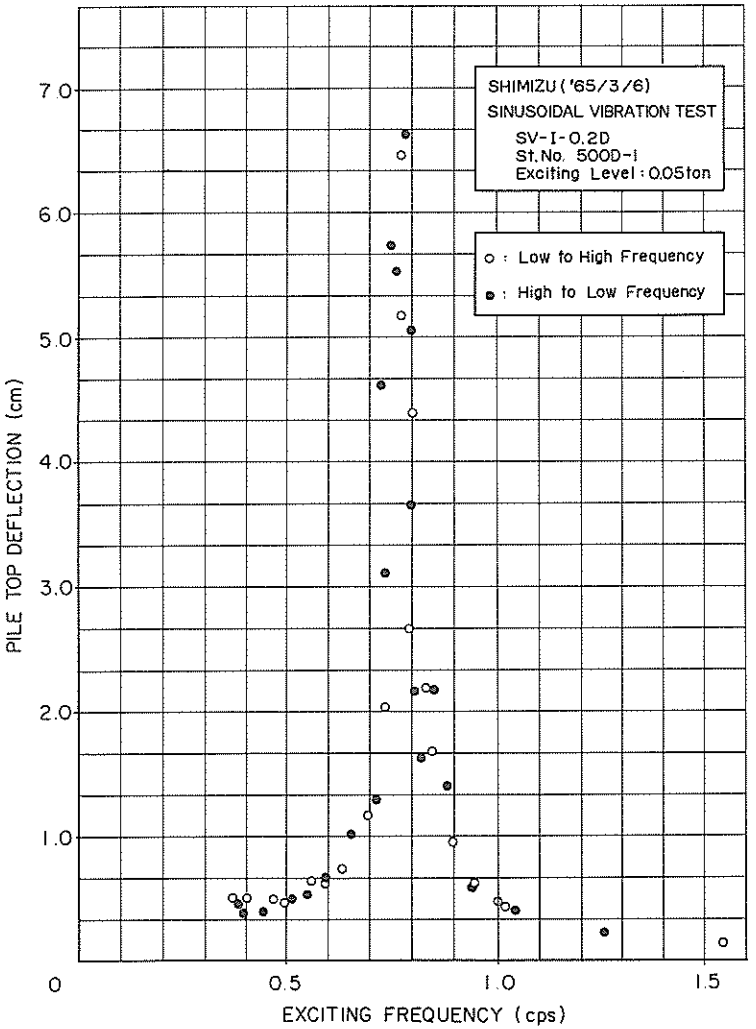
図－16－3　強制振動試験　Ⅰ，0.4U



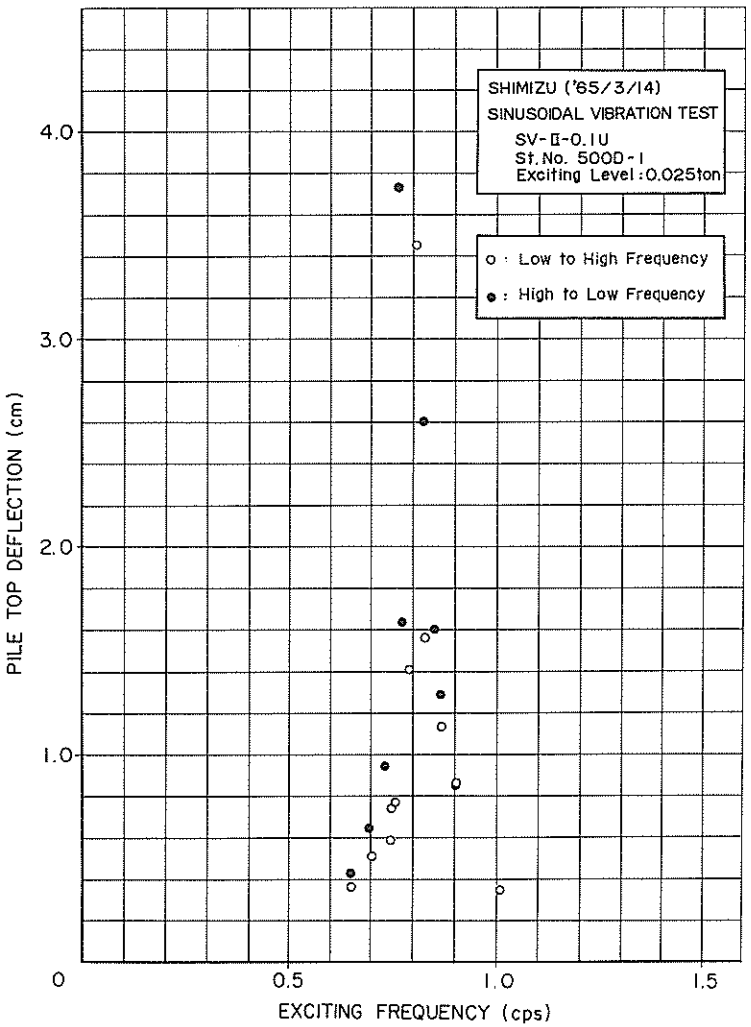
図－16－4　強制振動試験　Ⅰ，0.5



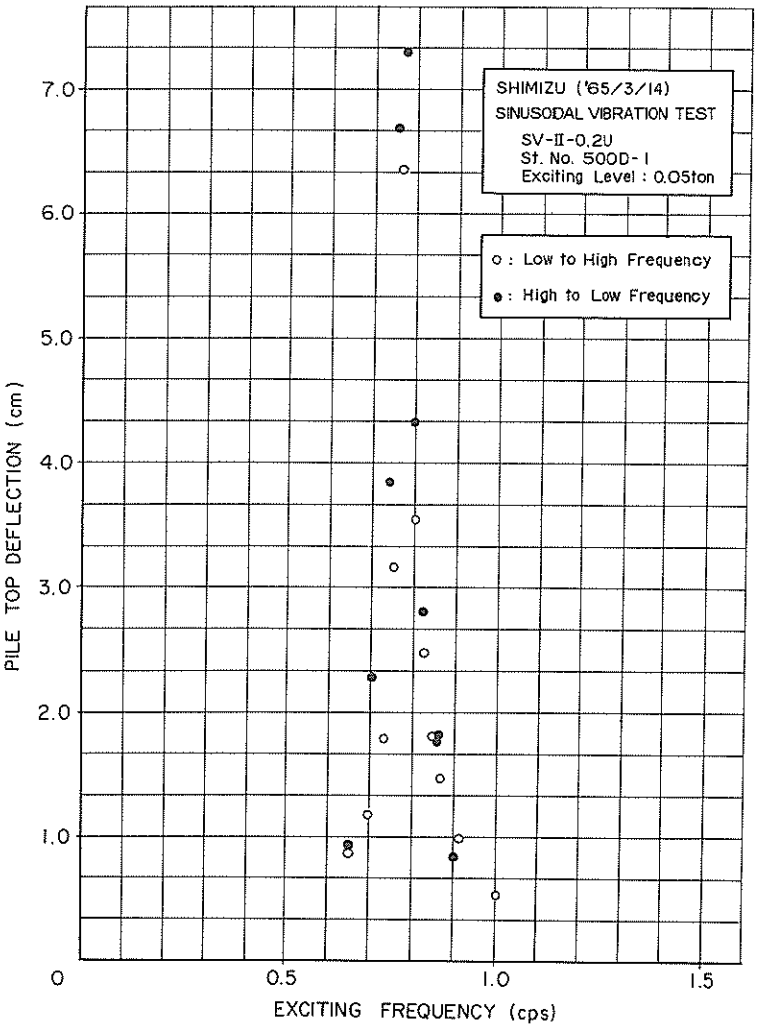
図－16－5　強制振動試験　I，0.4 D



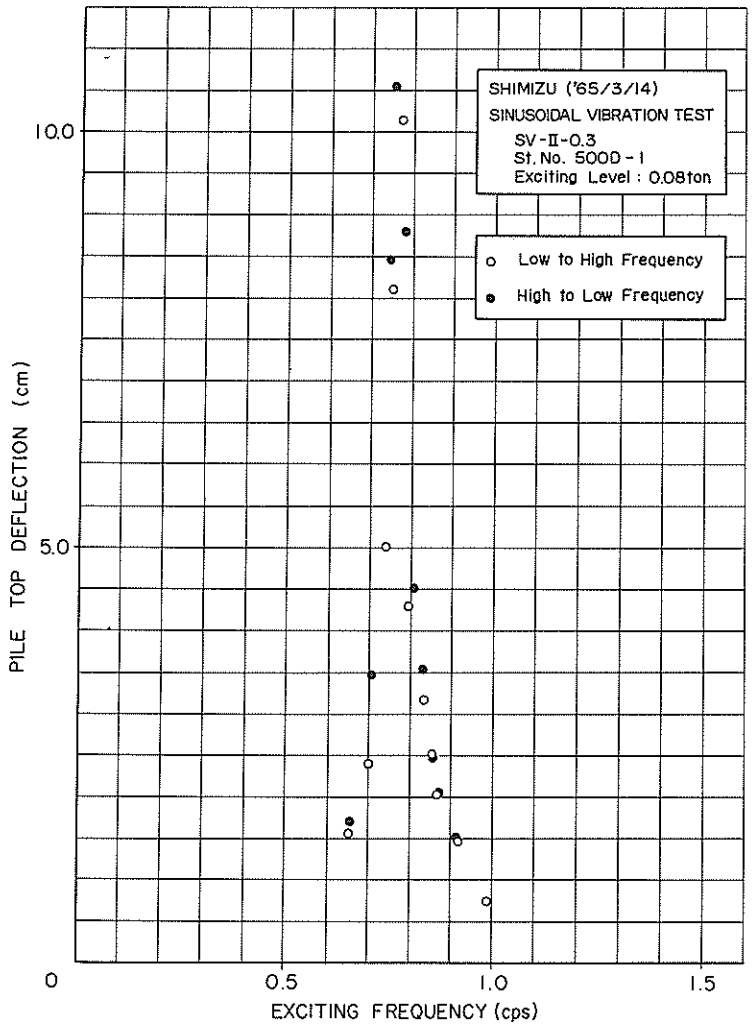
図－16－6　強制振動試験　I，0.2 D



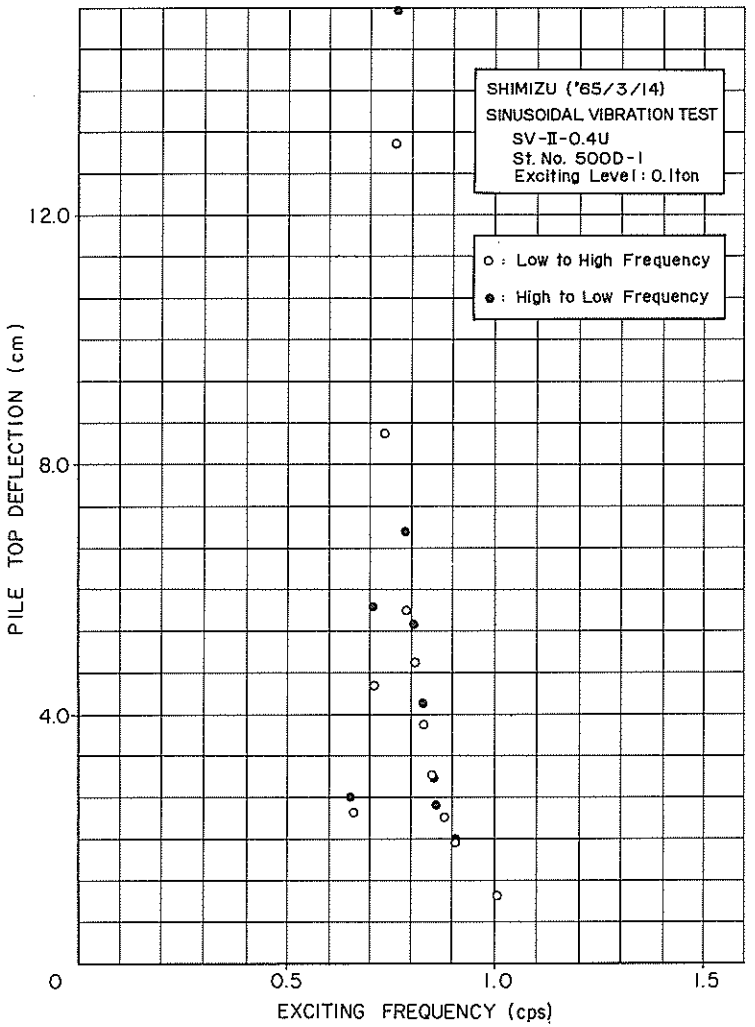
図－17－1　強制振動試験　Ⅱ，0.1U



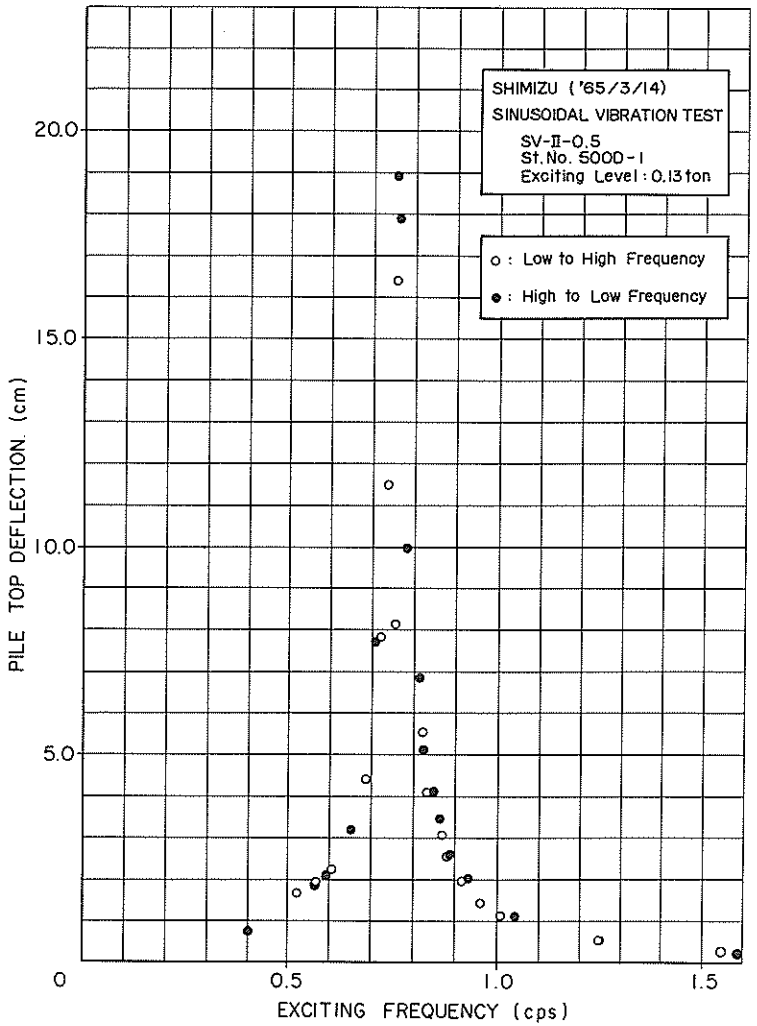
図－17－2　強制振動試験　Ⅱ，0.2U



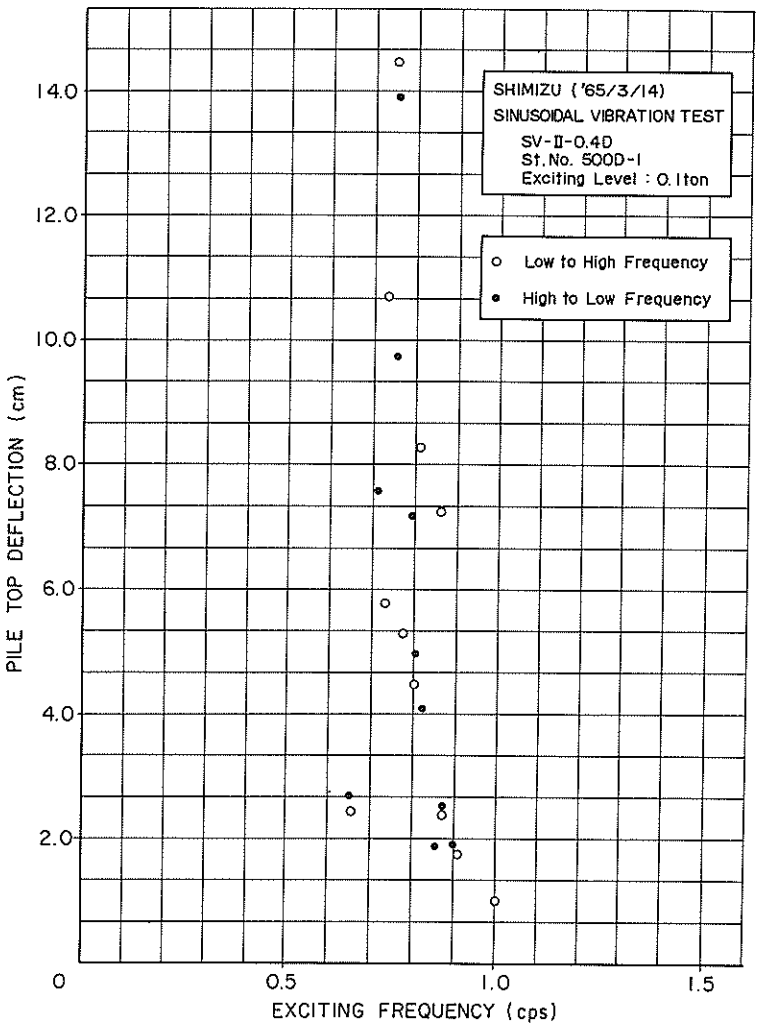
図－17－3　強制振動試験　Ⅱ，0.3U



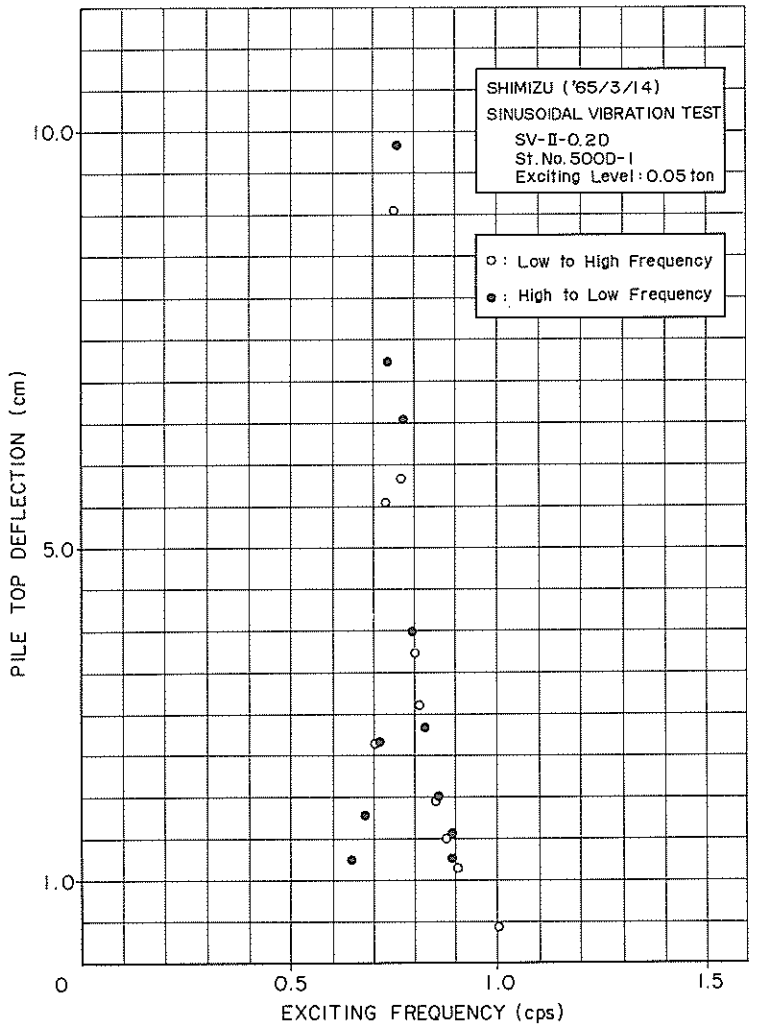
図－17－4　強制振動試験　Ⅱ，0.4U



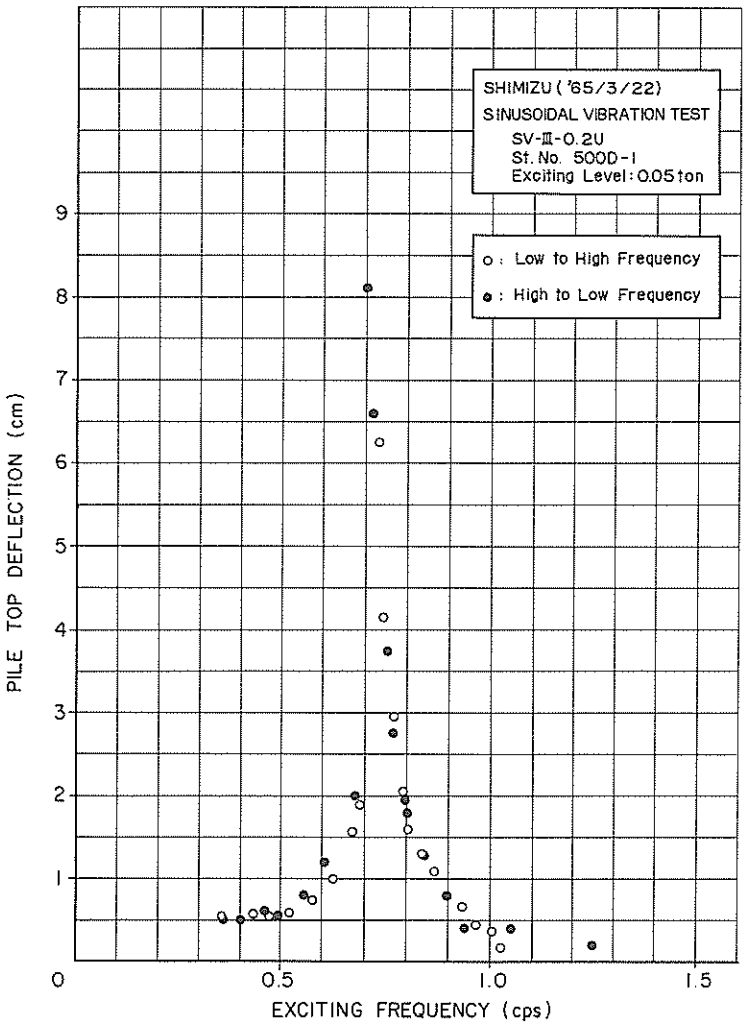
図－17－5　強制振動試験　II，0.5



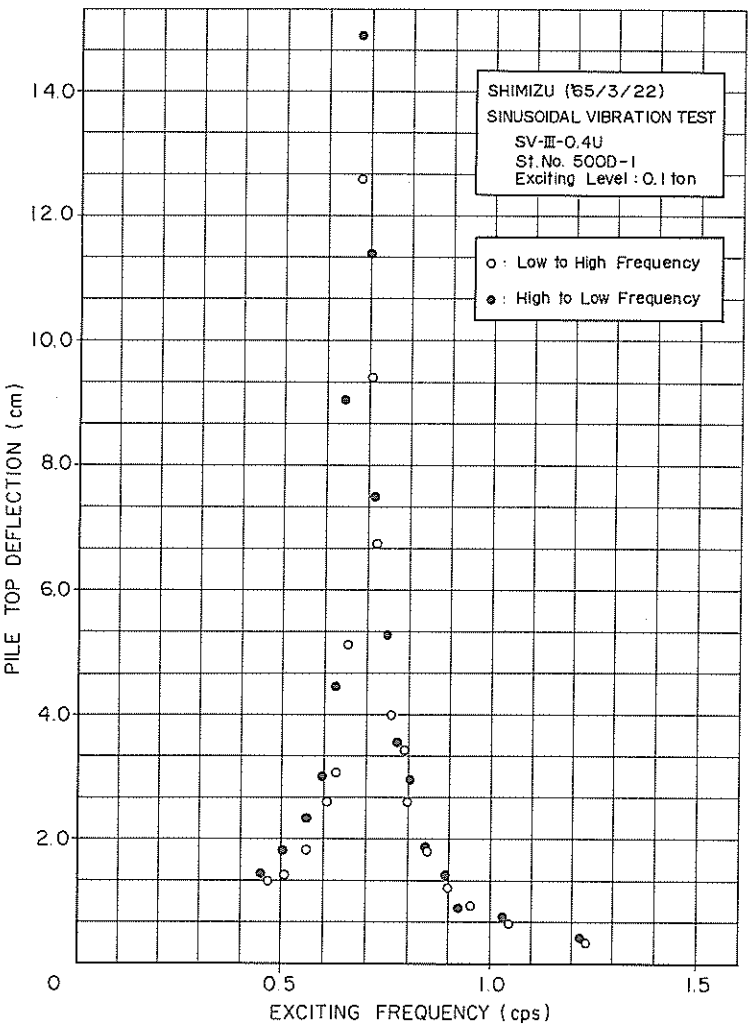
図－17－6　強制振動試験　II，0.4D



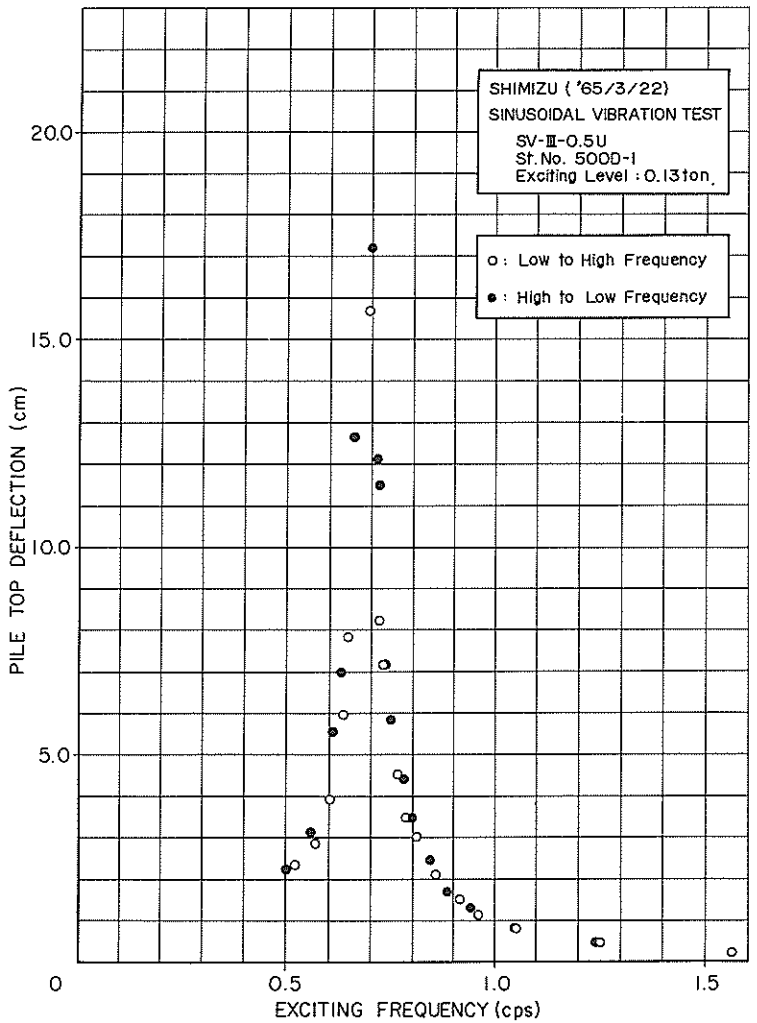
図－17－7　強制振動試験　II，0.2 D



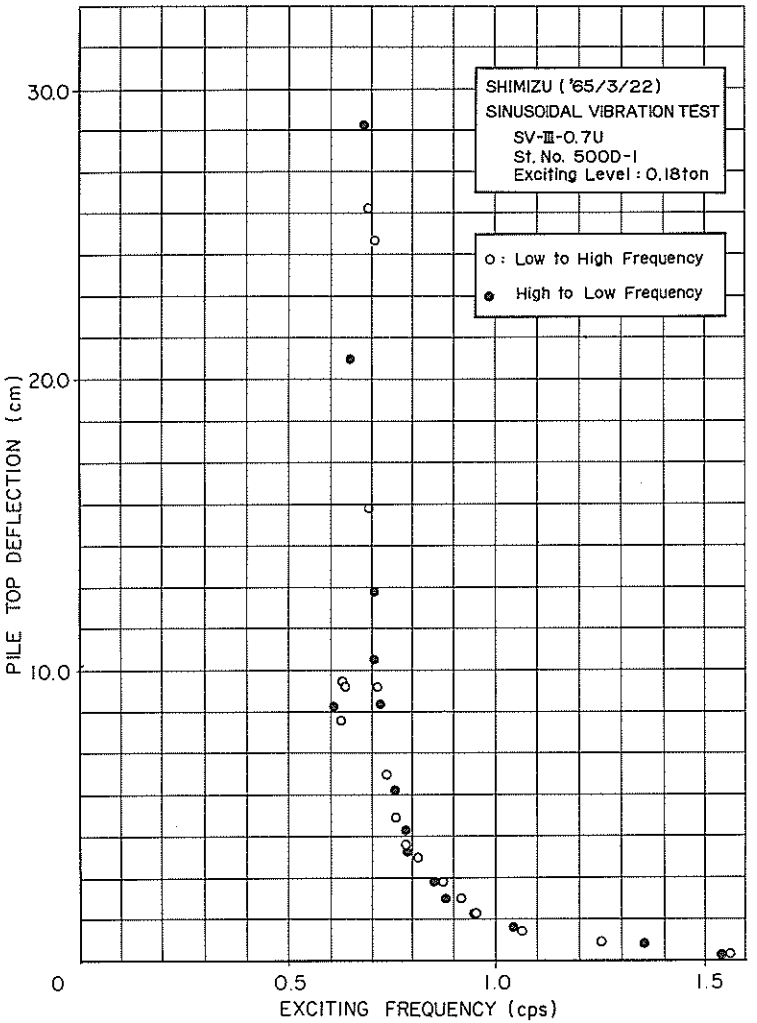
図－18－1　強制振動試験　Ⅲ，0.2 U



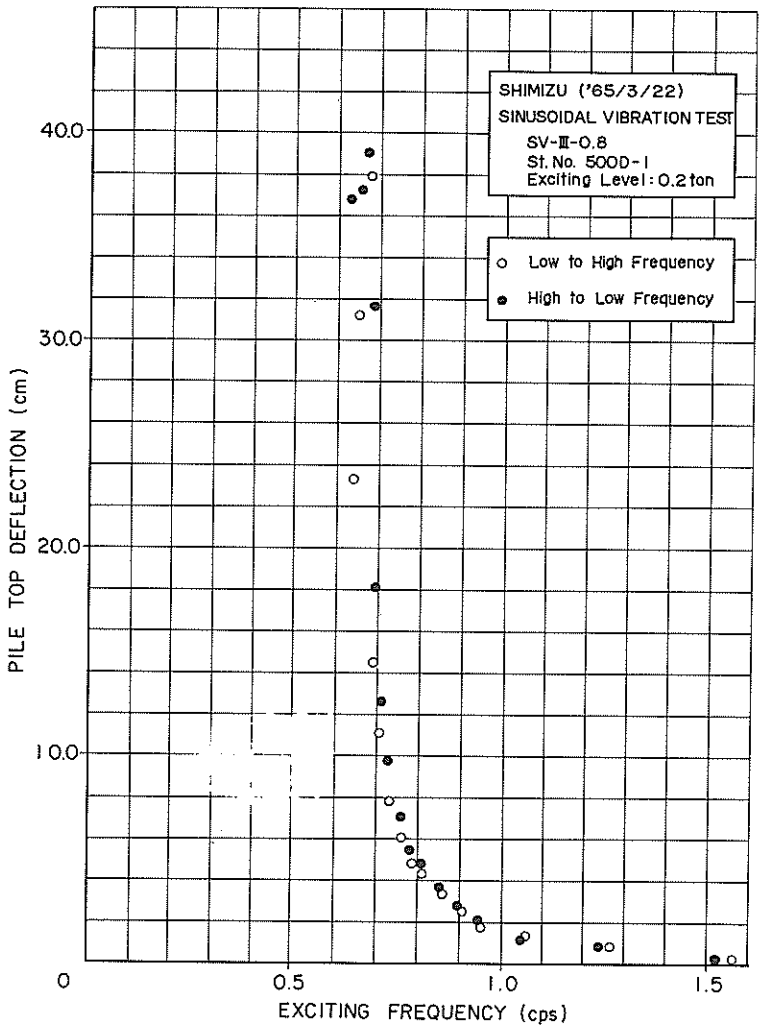
図－18－2　強制振動試験　Ⅲ，0.4 U



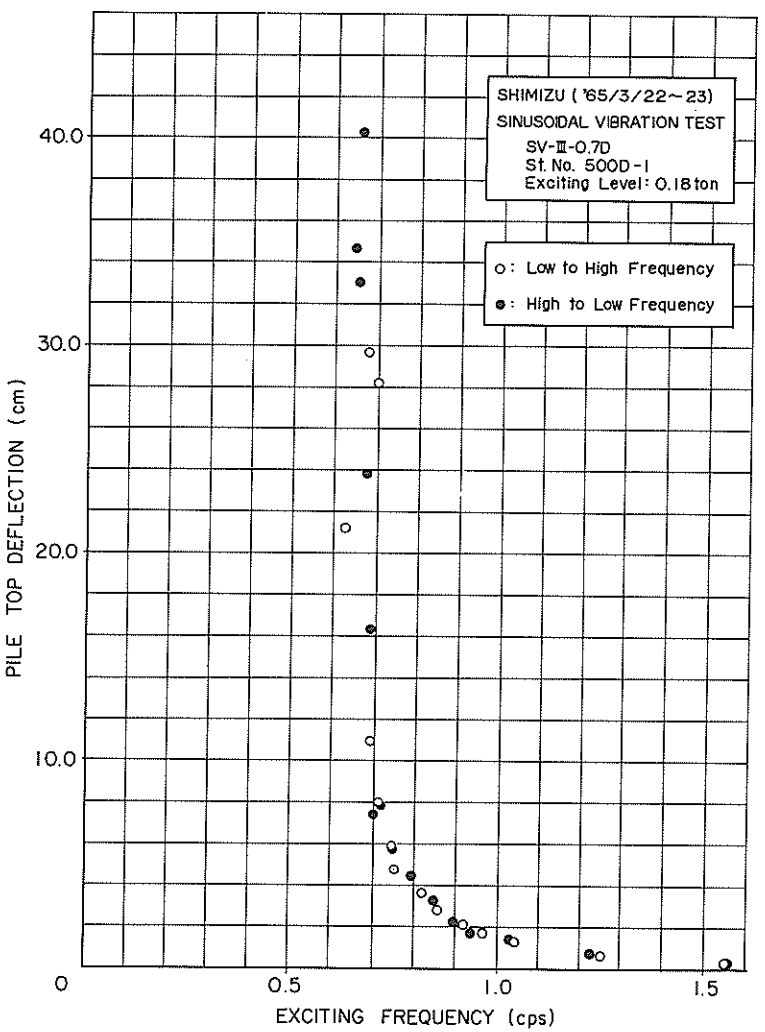
図－18－3　強制振動試験　Ⅲ，0.5U



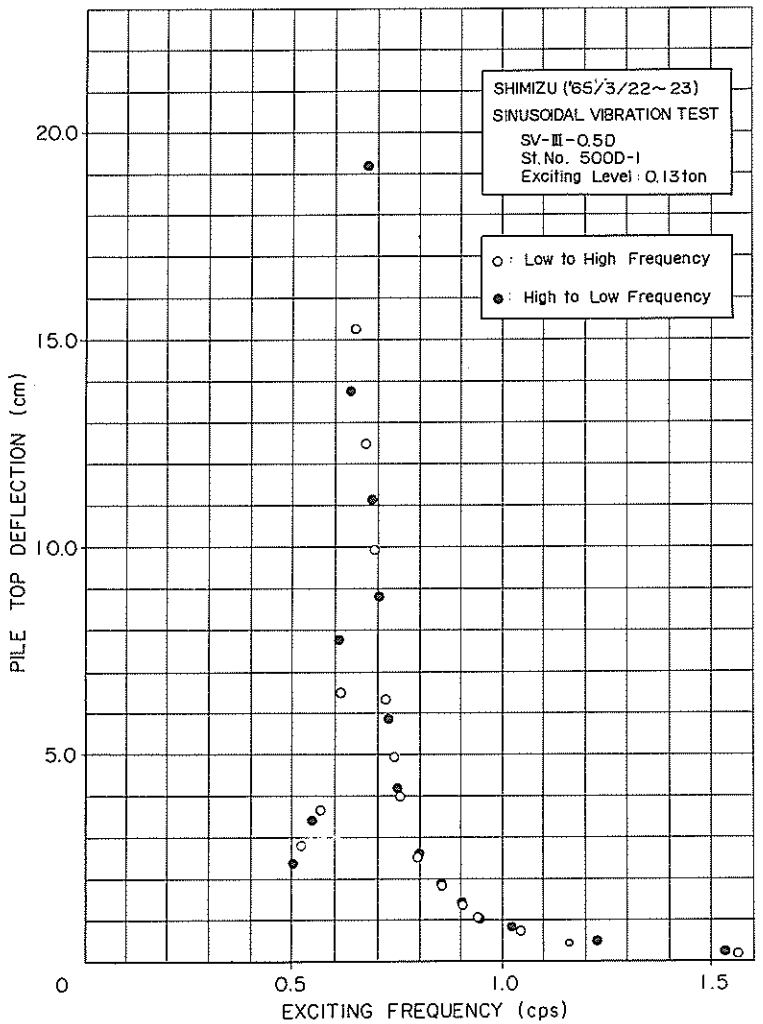
図－18－4　強制振動試験　Ⅲ，0.7U



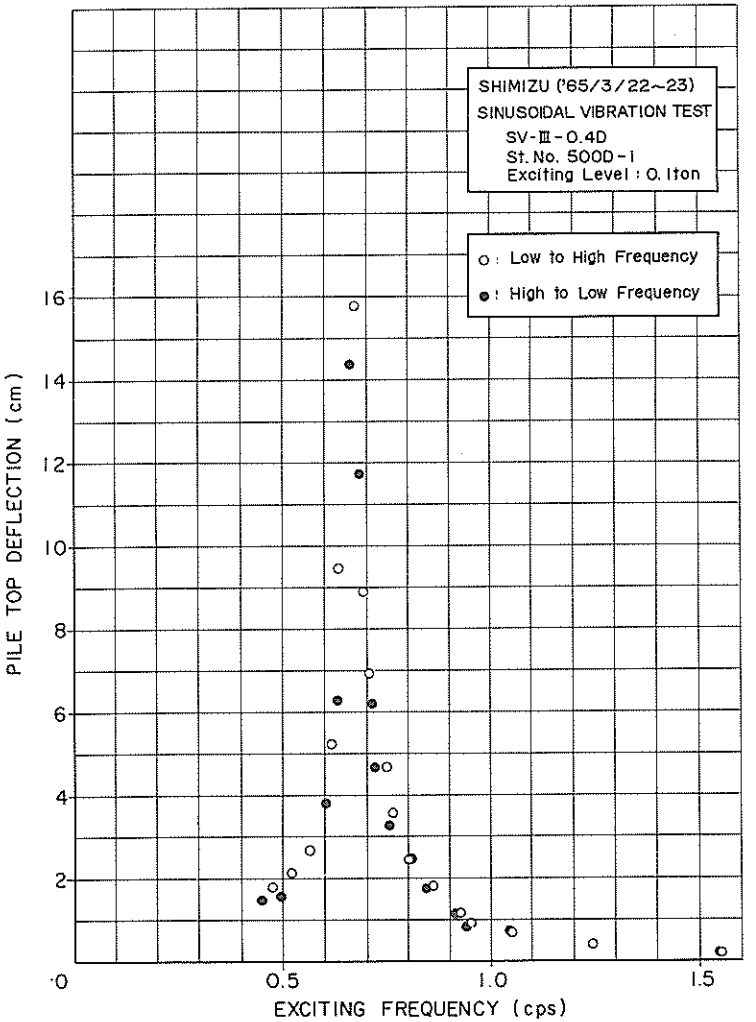
図－18－5　強制振動試験　Ⅲ，0.8



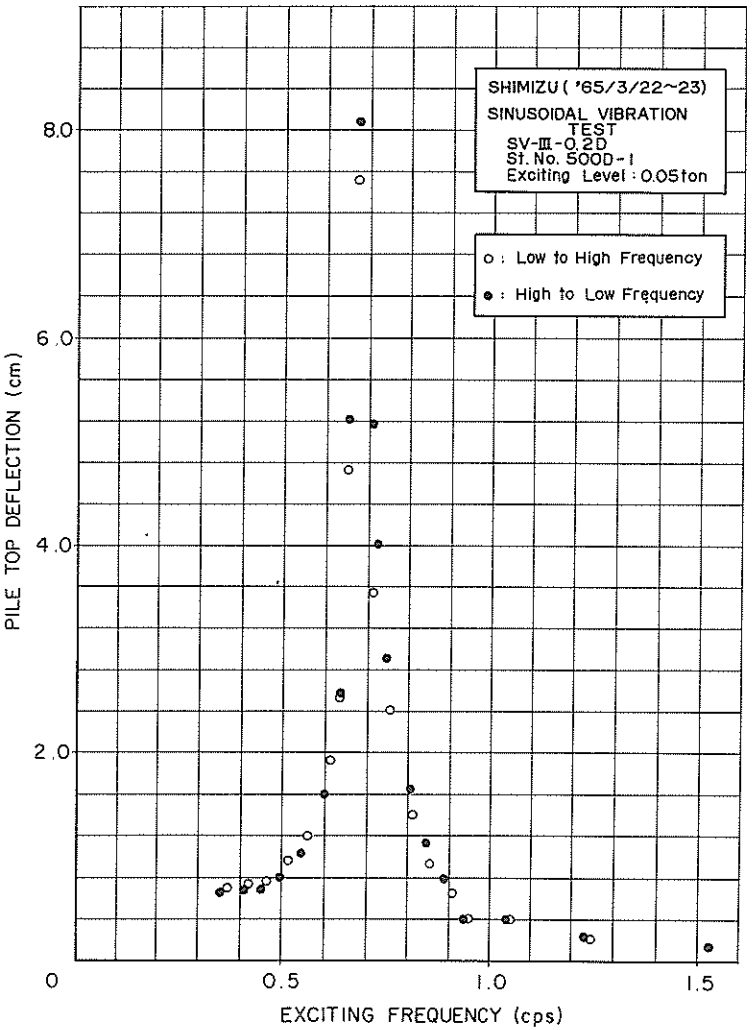
図－18－6　強制振動試験　Ⅲ，0.7 D



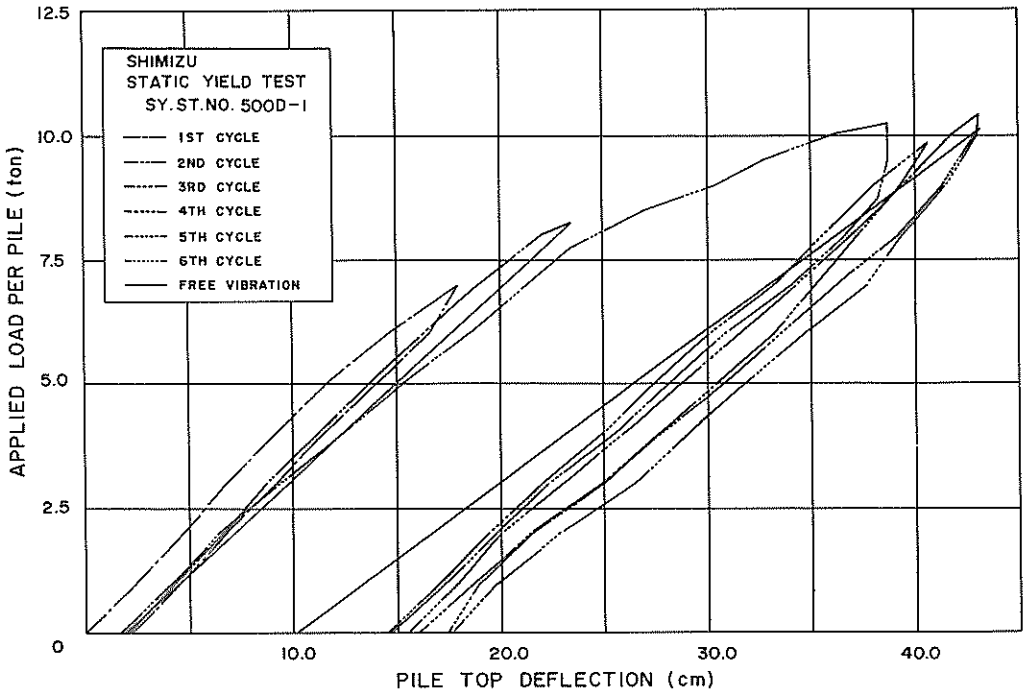
図－18－7　強制振動試験　Ⅲ，0.5 D



図－18－8　強制振動試験　Ⅲ，0.4 D



図－18－9　強制振動試験　Ⅲ，0.2 D


SHIMIZU
STATIC YIELD TEST
SY.ST.NO. 500D-1
1ST CYCLE
2ND CYCLE
3RD CYCLE
4TH CYCLE
5TH CYCLE
6TH CYCLE
FREE VIBRATION
APPLIED LOAD PER PILE (ton)
12.5
10.0
7.5
5.0
2.5
0
10.0
20.0
30.0
40.0
PILE TOP DEFLECTION (cm)

図－19　静的破壊試験

表－5　荷重－変位、静荷重試験

ST. NO. DG-1

経過時間（分）	荷重（*ton*）	変位（*cm*）
0	0	0
0	0.25	0.41
0	0.50	1.08
0	0.74	1.56
0	1.03	2.39
30	0.91	2.39
0	1.25	3.15
0	1.49	3.78
40	1.29	3.78
0	1.75	4.74
0	1.99	5.36
40	1.84	5.36
0	2.24	6.30
0	2.48	7.03
0	2.73	7.63
0	2.99	8.34
50	2.82	8.34
0	3.24	9.25
0	3.48	9.94
0	3.73	10.76
0	3.73	10.88
945	3.39	10.88
0	3.26	10.54
0	3.00	10.03
0	2.77	9.51
0	2.52	8.94
0	2.26	8.34
0	2.01	7.74
0	1.76	7.08
0	1.50	6.42
0	1.25	5.76
0	0.92	5.11
0	0.75	4.42
0	0.50	3.73
0	0.26	2.97
0	0	1.47

表－ 5.2　経過時間－荷重、静荷重試験

（単位 *ton*）

名目荷重 (*ton*) ＼ 経過時間	1.0	1.5	2.0	3.0	4.0
0 秒	1.0 3	1.4 9	1.9 9	2.9 9	3.7 3
1 0 〃	1.0 1	1.4 7	1.9 8	2.9 8	3.7 2
2 0 〃	1.0 1	—	1.9 7	2.9 6	3.7 0
3 0 〃	1.0 1	—	1.9 7	2.9 5	3.7 0
4 5 〃	1.0 1	1.4 6	1.9 7	2.9 5	3.7 0
6 0 〃	1.0 1	1.4 5	1.9 6	2.9 4	3.7 0
7 5 〃	—	—	—	—	3.6 9
9 0 〃	1.0 1	1.4 4	1.9 5	2.9 4	3.6 9
1 2 0 〃	0.9 8	1.4 3	1.9 5	2.9 3	3.6 8
1 8 0 〃	0.9 8	1.4 1	1.9 4	—	3.6 7
2 1 0 〃	—	—	—	2.9 2	—
3 0 0 〃	0.9 7	1.4 0	1.9 2	2.9 1	3.6 5
1 0 分	0.9 6	1.3 7	1.8 9	2.8 8	3.6 3
2 0 〃	0.9 4	1.3 4	1.8 7	2.8 6	3.6 0
3 0 〃	0.9 1	1.3 2	1.8 6	2.8 4	3.5 8
4 0 〃		1.2 9	1.8 4	2.8 3	3.5 7
5 0 〃				2.8 2	3.5 5
6 0 〃					3.5 4
7 0 〃					3.5 2
1 3 0 〃					3.4 9
9 4 5 〃					3.3 9

SHIMIZU　　AL-I-0,5U　　ST,NO, DG-1　　FMAX= 0,50 TON/PILE　　40/2/22

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	0,	0,	-0,040	0,	-0,035	0,	-0,035
0,060	0,120	0,063	0,100	0,063	0,100	0,063	0,110
0,125	0,260	0,125	0,250	0,125	0,245	0,125	0,230
0,188	0,410	0,188	0,395	0,188	0,395	0,188	0,385
0,250	0,545	0,250	0,535	0,250	0,540	0,250	0,535
0,308	0,665	0,313	0,685	0,310	0,685	0,310	0,690
0,380	0,860	0,375	0,828	0,375	0,840	0,375	0,830
0,438	0,990	0,438	0,995	0,438	0,990	0,440	0,995
0,500	1,140	0,498	1,134	0,500	1,140	0,500	1,135
0,440	1,025	0,438	1,035	0,435	1,020	0,438	0,990
0,375	0,895	0,375	0,897	0,375	0,885	0,378	0,890
0,313	0,750	0,313	0,760	0,313	0,745	0,313	0,740
0,250	0,620	0,250	0,605	0,253	0,605	0,248	0,600
0,188	0,485	0,188	0,465	0,188	0,470	0,188	0,463
0,125	0,335	0,123	0,323	0,123	0,320	0,125	0,317
0,063	0,195	0,063	0,185	0,063	0,180	0,063	0,185
0,	0,050	0,	0,055	0,	0,035	0,	0,050
0,	0,035	0,	0,030	0,	0,025	0,	0,020
-0,060	-0,115	-0,063	-0,120	-0,065	-0,130	-0,063	-0,135
-0,125	-0,225	-0,110	-0,250	-0,125	-0,280	-0,125	-0,305
-0,188	-0,405	-0,188	-0,425	-0,188	-0,440	-0,188	-0,450
-0,250	-0,535	-0,250	-0,560	-0,250	-0,580	-0,250	-0,585
-0,313	-0,685	-0,313	-0,690	-0,313	-0,720	-0,313	-0,720
-0,373	-0,830	-0,375	-0,845	-0,375	-0,860	-0,375	-0,870
-0,438	-0,980	-0,438	-0,985	-0,438	-1,010	-0,438	-1,015
-0,500	-1,130	-0,500	-1,130	-0,500	-1,160	-0,500	-1,150
-0,438	-0,975	-0,438	-1,015	-0,438	-1,040	-0,438	-1,035
-0,375	-0,885	-0,375	-0,882	-0,376	-0,905	-0,378	-0,910
-0,305	-0,740	-0,315	-0,760	-0,313	-0,780	-0,310	-0,770
-0,250	-0,615	-0,245	-0,610	-0,245	-0,635	-0,250	-0,635
-0,188	-0,485	-0,188	-0,497	-0,185	-0,500	-0,185	-0,500
-0,125	-0,335	-0,125	-0,355	-0,125	-0,375	-0,125	-0,365
-0,055	-0,170	-0,070	-0,215	-0,066	-0,225	-0,053	-0,190
0.	-0,060	0,	-0,050	0,	-0,065	0,	-0,060

表－6－1　交番荷重試験　I，0.5 U

SHIMIZU AL=I=1U ST.NO. DG=1 FMAX= 1.00 TON/PILE 40/2/22

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	-0.060	0.	-0.135	0.	-0.120	0.	-0.120
0.125	0.210	0.125	0.165	0.125	0.165	0.125	0.180
0.250	0.510	0.250	0.475	0.250	0.445	0.250	0.500
0.375	0.800	0.375	0.785	0.375	0.775	0.375	0.825
0.500	1.110	0.500	1.100	0.500	1.090	0.500	1.135
0.625	1.410	0.625	1.428	0.625	1.430	0.628	1.465
0.750	1.730	0.750	1.725	0.750	1.740	0.750	1.790
0.870	2.035	0.878	2.050	0.875	2.065	0.875	2.105
1.000	2.365	1.000	2.380	1.003	2.375	1.000	2.430
0.875	2.140	0.878	2.145	0.873	2.120	0.875	2.185
0.750	1.875	0.750	1.885	0.750	1.860	0.750	1.925
0.625	1.600	0.628	1.600	0.625	1.575	0.623	1.635
0.500	1.310	0.500	1.315	0.500	1.280	0.500	1.350
0.375	1.010	0.375	1.020	0.375	0.985	0.375	1.055
0.256	0.715	0.250	0.705	0.253	0.680	0.253	0.745
0.125	0.405	0.125	0.400	0.125	0.355	0.125	0.415
0.	0.105	0.	0.095	0.	0.100	0.	0.120
0.	0.060	0.	0.070	0.	0.070	0.	0.075
-0.125	-0.265	-0.130	-0.250	-0.123	-0.220	-0.125	-0.230
-0.250	-0.550	-0.253	-0.550	-0.250	-0.545	-0.250	-0.560
-0.375	-0.855	-0.375	-0.860	-0.378	-0.860	-0.380	-0.880
-0.500	-1.160	-0.500	-1.160	-0.500	-1.140	-0.500	-1.180
-0.625	-1.460	-0.625	-1.480	-0.625	-1.450	-0.625	-1.490
-0.750	-1.790	-0.750	-1.810	-0.748	-1.780	-0.750	-1.805
-0.875	-2.120	-0.873	-2.120	-0.875	-2.105	-0.878	-2.145
-1.003	-2.465	-1.000	-2.445	-1.000	-2.455	-0.998	-2.465
-0.873	-2.235	-0.870	-2.205	-0.875	-2.215	-0.875	-2.215
-0.748	-1.960	-0.750	-1.950	-0.750	-1.940	-0.750	-1.950
-0.625	-1.685	-0.625	-1.655	-0.625	-1.640	-0.625	-1.675
-0.500	-1.390	-0.503	-1.655	-0.500	-1.340	-0.498	-1.365
-0.373	-1.095	-0.375	-1.060	-0.375	-1.055	-0.375	-1.080
-0.250	-0.805	-0.250	-0.755	-0.248	-0.765	-0.250	-0.765
-0.123	-0.500	-0.125	-0.450	-0.125	-0.450	-0.125	-0.470
0.	-0.175	0.	-0.170	0.	-0.145	0.	-0.155

表－6－2　交番荷重試験　I，1.0U

SHIMIZU　　AL-I-1,5U　　ST,NO, DG=1　　FMAX= 1,50 TON/PILE　　40/2/22-23

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	-0,140	0.	-0,270	0.	-0,090	0.	-0,095	0.	-0,085
0,123	0,140	0,125	0,050	0,123	0,190	0,125	0,205	0,125	0,215
0,250	0,440	0,250	0,395	0,250	0,505	0,250	0,535	0,250	0,575
0,375	0,790	0,375	0,735	0,375	0,840	0,375	0,865	0,375	0,900
0,500	1,110	0,503	1,085	0,498	1,160	0,500	1,205	0,500	1,225
0,625	1,420	0,625	1,420	0,625	1,490	0,625	1,535	0,625	1,575
0,750	1,730	0,750	1,740	0,750	1,820	0,750	1,870	0,750	1,915
0,875	2,055	0,873	2,070	0,875	2,160	0,875	2,205	0,878	2,255
1,000	2,390	1,000	2,410	1,000	2,500	1,000	2,535	1,005	2,595
1,125	2,710	1,125	2,735	1,125	2,830	1,125	2,875	1,125	2,925
1,250	3,030	1,250	3,060	1,250	3,175	1,250	3,185	1,250	3,270
1,370	3,350	1,375	3,395	1,373	3,500	1,373	3,525	1,375	3,590
1,500	3,715	1,498	3,720	1,500	3,855	1,500	3,855	1,500	3,950
1,373	3,485	1,375	3,500	1,438	3,770	1,438	3,765	1,438	3,875
1,250	3,210	1,250	3,240	1,370	3,610	1,373	3,635	1,370	3,735
1,125	2,955	1,125	2,950	1,250	3,380	1,250	3,375	1,250	3,475
0,998	2,660	1,003	2,680	1,123	3,080	1,125	3,105	1,125	3,180
0,875	2,385	0,875	2,380	1,000	2,805	1,000	2,810	1,003	2,895
0,750	2,085	0,750	2,085	0,873	2,495	0,875	2,520	0,875	2,605
0,625	1,785	0,625	1,790	0,750	2,210	0,748	2,195	0,750	2,295
0,500	1,475	0,500	1,475	0,623	1,880	0,625	1,905	0,623	1,975
0,375	1,155	0,375	1,155	0,500	1,585	0,500	1,575	0,500	1,675
0,250	0,815	0,250	0,815	0,375	1,260	0,378	1,260	0,375	1,345
0,125	0,490	0,125	0,485	0,250	0,920	0,250	0,925	0,250	1,005
0.	0,180	0.	0,165	0,125	0,590	0,138	0,585	0,125	0,675
0.	0,130	0.	0,150	0.	0,285	0.	0,275	0.	0,350
-0,125	-0,170	-0,125	-0,205	0.	0,220	0.	0,215	0.	0,325
-0,250	-0,510	-0,250	-0,565	-0,125	-0,115	-0,125	-0,105	-0,128	-0,006
-0,375	-0,830	-0,375	-0,885	-0,250	-0,445	-0,250	-0,435	-0,250	-0,345
-0,498	-1,120	-0,500	-1,225	-0,375	-0,765	-0,375	-0,755	-0,375	-0,685
-0,625	-1,460	-0,625	-1,550	-0,500	-1,080	-0,500	-1,090	-0,500	-1,015
-0,750	-1,800	-0,750	-1,905	-0,625	-1,415	-0,625	-1,415	-0,625	-1,335
-0,875	-2,120	-0,873	-2,220	-0,750	-1,745	-0,750	-1,755	-0,750	-1,720
-1,000	-2,445	-1,000	-2,575	-0,875	-2,080	-0,875	-2,115	-0,875	-2,055
-1,125	-2,780	-1,125	-2,905	-1,000	-2,425	-1,000	-2,435	-1,000	-2,385
-1,250	-3,140	-1,250	-3,255	-1,125	-2,750	-1,125	-2,755	-1,125	-2,725
-1,375	-3,490	-1,375	-3,605	-1,250	-3,065	-1,250	-3,085	-1,250	-3,065
-1,500	-3,840	-1,500	-3,945	-1,375	-3,415	-1,375	-3,455	-1,375	-3,435
-1,370	-3,610	-1,373	-3,705	-1,500	-3,775	-1,500	-3,775	-1,500	-3,785
-1,250	-3,360	-1,250	-3,440	-1,438	-3,665	-1,438	-3,660	-1,440	-3,685

表－6－3　交番荷重試験　I，1.5U（続き）

SHIMIZU　　AL=I=1,5U　　ST,NO, DG=1　　FMAX= 1,50 TON/PILE　　40/2/22=23

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
=1,123	=3,075	=1,128	=3,165	=1,375	=3,530	=1,375	=3,535	=1,375	=3,535
=1,000	=2,810	=0,890	=2,595	=1,253	=3,265	=1,250	=3,245	=1,253	=3,255
=0,875	=2,510	=0,875	=2,565	=1,123	=2,965	=1,125	=2,970	=1,128	=2,975
=0,750	=2,200	=0,750	=2,265	=1,000	=2,680	=1,000	=2,675	=0,983	=2,625
=0,625	=1,890	=0,625	=1,955	=0,875	=2,400	=0,875	=2,385	=0,880	=2,385
=0,498	=1,590	=0,500	=1,635	=0,750	=2,095	=0,750	=2,075	=0,750	=2,060
=0,375	=1,270	=0,378	=1,315	=0,625	=1,775	=0,628	=1,770	=0,625	=1,755
=0,248	=0,940	=0,250	=0,985	=0,500	=1,460	=0,503	=1,440	=0,503	=1,415
=0,133	=0,650	=0,125	=0,656	=0,378	=1,150	=0,375	=1,125	=0,375	=1,095
0,	=0,315	0,	=0,310	=0,250	=0,825	=0,250	=0,795	=0,250	=0,755
				=0,128	=0,495	=0,128	=0,470	=0,125	=0,425
				0,	=0,135	0,	=0,125	0,	=0,085

表－6－3　交番荷重試験　I，1.5 U

SHIMIZU　　AL=I=2U　　ST,NO, DG=1　　FMAX= 2,00 TON/PILE　　40/2/23

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,180	0,	-0,329	0,	-0,329	0,	-0,234
0,253	0,425	0,250	0,321	0,250	0,351	0,250	0,416
0,500	1,085	0,503	1,031	0,500	1,061	0,503	1,236
0,660	1,510	0,750	1,736	0,750	1,781	0,750	1,816
1,000	2,416	1,000	2,431	1,000	2,451	1,000	2,536
1,250	3,090	1,250	3,131	1,250	3,171	1,250	3,256
1,500	3,754	1,498	3,841	1,500	3,881	1,500	3,936
1,748	4,508	1,748	4,541	1,750	4,551	1,750	4,632
1,998	5,214	2,000	5,261	2,000	5,281	2,000	5,342
1,876	4,994	1,875	5,081	1,875	5,056	1,878	5,142
1,750	4,738	1,748	4,791	1,750	4,796	1,750	4,882
1,498	4,164	1,500	4,231	1,500	4,231	1,495	4,282
1,250	3,599	1,335	3,846	1,250	3,641	1,250	3,702
1,000	2,979	1,000	2,996	1,003	3,021	1,000	3,082
0,750	2,339	0,750	2,356	0,750	2,361	0,750	2,432
0,500	1,664	0,500	1,676	0,500	1,686	0,503	1,752
0,250	0,963	0,250	0,976	0,250	0,986	0,250	1,072
0,	0,263	0,	0,306	0,	0,321	0,	0,372
0,	0,239	0,	0,206	0,	0,301	0,	0,312
-0,250	-0,451	-0,250	-0,494	-0,250	-0,369	-0,250	-0,358
-0,500	-1,151	-0,500	-1,164	-0,500	-1,049	-0,500	-1,038
-0,750	-1,816	-0,750	-1,874	-0,748	-1,754	-0,750	-1,768
-1,003	-2,557	-1,000	-2,574	-1,005	-2,499	-1,000	-2,478
-1,250	-3,247	-1,250	-3,244	-1,250	-3,159	-1,248	-3,158
-1,498	-3,954	-1,500	-3,964	-1,500	-3,859	-1,500	-3,908
-1,750	-4,674	-1,750	-4,644	-1,750	-4,559	-1,750	-4,588
-2,000	-5,419	-2,008	-5,354	-2,000	-5,279	-2,000	-5,288
-1,863	-5,204	-1,875	-5,156	-1,875	-5,059	-1,875	-5,048
-1,750	-4,928	-1,750	-4,899	-1,750	-4,799	-1,750	-4,783
-1,500	-4,374	-1,503	-4,334	-1,500	-4,239	-1,503	-4,228
-1,250	-3,764	-1,253	-3,729	-1,253	-3,634	-1,250	-3,508
-1,003	-3,140	-1,000	-3,099	-1,003	-3,004	-1,000	-2,968
-0,750	-2,440	-0,750	-2,454	-0,750	-2,364	-0,750	-2,318
-0,500	-1,779	-0,500	-1,769	-0,500	-1,694	-0,500	-1,638
-0,253	-1,129	-0,250	-1,089	-0,250	-1,034	-0,253	-0,983
0,	-0,349	0,	-0,399	0,	-0,304	0,	-0,278

表－6－4　交番荷重試験　I，2.0U

SHIMIZU　AL-I=2.5U　ST.NO. DG=1　FMAX= 2.50 TON/PILE　40/2/24

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	-0.310	0.	-0.430	0.	-0.340	0.	-0.480
0.250	0.290	0.250	0.230	0.250	0.320	0.250	0.305
0.500	0.940	0.503	0.950	0.500	1.010	0.500	0.915
0.750	1.630	0.750	1.645	0.750	1.710	0.750	1.625
1.000	2.325	1.000	2.365	1.000	2.420	1.000	2.335
1.250	3.040	1.250	3.080	1.250	3.140	1.250	3.035
1.500	3.750	1.505	3.780	1.500	3.840	1.500	3.755
1.750	4.450	1.750	4.480	1.748	4.550	1.750	4.455
2.000	5.130	2.000	5.190	2.000	5.250	2.000	5.195
2.250	5.850	2.250	5.880	2.250	5.970	2.250	5.875
2.500	6.550	2.500	6.610	2.500	6.680	2.498	6.575
2.375	6.350	2.348	6.326	2.375	6.470	2.375	6.375
2.248	6.080	2.250	6.135	2.248	6.190	2.250	6.105
2.000	5.530	2.000	5.580	1.998	5.640	2.000	5.545
1.750	4.960	1.750	5.000	1.753	5.070	1.753	4.955
1.500	4.370	1.500	4.400	1.500	4.470	1.503	4.355
1.250	3.740	1.253	3.760	1.250	3.840	1.250	3.745
1.000	3.110	1.000	3.100	1.000	3.190	1.000	3.085
0.750	2.440	0.750	2.430	0.750	2.520	0.750	2.435
0.500	1.760	0.500	1.740	0.503	1.830	0.503	2.835
0.250	1.060	0.250	1.020	0.250	1.110	0.250	1.135
0.	0.330	0.	0.350	0.	0.440	0.	0.435
0.	0.310	0.	0.340	0.	0.390	0.	0.245
-0.250	-0.450	-0.250	-0.340	-0.250	-0.325	-0.250	-0.465
-0.500	-1.010	-0.500	-1.050	-0.500	-1.060	-0.500	-1.245
-0.750	-1.740	-0.750	-1.780	-0.750	-1.800	-0.748	-1.865
-1.000	-2.440	-1.000	-2.500	-1.000	-2.530	-1.000	-2.585
-1.250	-3.140	-1.250	-3.200	-1.255	-3.270	-1.250	-3.335
-1.500	-3.850	-1.500	-3.960	-1.500	-3.995	-1.500	-4.045
-1.750	-4.570	-1.748	-4.680	-1.750	-4.730	-1.750	-4.735
-2.000	-5.280	-2.000	-5.390	-2.000	-5.420	-2.000	-5.425
-2.250	-5.990	-2.250	-6.080	-2.250	-6.130	-2.250	-6.145
-2.500	-6.750	-2.500	-6.790	-2.500	-6.835	-2.500	-6.845
-2.318	-6.390	-2.375	-6.520	-2.375	-6.610	-2.370	-6.625
-2.253	-6.270	-2.248	-6.270	-2.250	-6.350	-2.250	-6.335
-2.000	-5.270	-1.990	-5.685	-2.000	-5.800	-1.983	-5.745
-1.750	-5.140	-1.750	-5.120	-1.750	-5.230	-1.750	-5.205
-1.498	-4.530	-1.500	-4.510	-1.493	-4.710	-1.500	-4.575
-1.248	-3.880	-1.250	-3.860	-1.250	-3.980	-1.250	-3.935
-1.000	-3.230	-1.000	-3.200	-1.005	-3.330	-1.000	-3.305

表－6－5　交番荷重試験　I，2.5U（続き）

SHIMIZU　　AL-I-2.5U　　ST.NO. DG=1　　FMAX= 2.50 TON/PILE　　40/2/24

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-0.745	-2.530	-0.750	-2.530	-0.750	-2.660	-0.748	-2.625
-0.500	-1.840	-0.493	-1.800	-0.498	-1.950	-0.500	-1.925
-0.243	-1.155	-0.253	-1.160	-0.250	-1.290	-0.255	-1.205
0.	-0.515	0.	-0.430	0.	-0.540	0.	-0.525

表－6－5　交番荷重試験　I，2.5 U

SHIMIZU　AL-I-3U　ST,NO, DG-1　FMAX= 3,00 TON/PILE　40/2/25

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,140	0,	-0,425	0,	-0,520	0,	-0,375
0,250	0,410	0,248	0,245	0,250	0,255	0,248	0,330
0,500	1,060	0,503	0,980	0,503	0,985	0,500	1,070
0,750	1,750	0,748	1,680	0,748	1,730	0,750	1,780
1,000	2,440	0,995	2,415	1,003	2,490	1,000	2,525
1,250	3,135	1,250	3,140	1,250	3,185	1,250	3,265
1,500	3,845	1,498	3,820	1,503	3,905	1,493	3,945
1,748	4,555	1,750	4,515	1,743	4,595	1,750	4,710
2,000	5,245	1,985	5,210	2,003	5,335	2,003	5,410
2,253	5,960	2,255	5,920	2,250	6,030	2,250	6,115
2,498	6,635	2,500	6,660	2,493	6,720	2,498	6,825
2,750	7,335	2,748	7,370	2,753	7,480	2,748	7,535
3,000	8,090	3,000	8,075	2,998	8,225	3,003	8,255
2,875	7,900	2,875	7,900	2,868	7,945	2,875	8,095
2,753	7,655	2,730	7,570	2,748	7,720	2,750	7,850
2,500	7,125	2,493	7,065	2,500	7,200	2,500	7,305
2,250	6,545	2,255	6,535	2,250	6,610	2,250	6,715
2,003	5,965	2,003	5,955	2,000	6,015	1,998	6,115
1,750	5,345	1,755	5,320	1,750	5,395	1,750	5,510
1,500	4,715	1,510	4,720	1,508	4,775	1,503	4,870
1,250	4,075	1,258	4,065	1,258	4,145	1,250	4,210
1,000	3,395	1,008	3,400	1,003	3,445	1,003	3,515
0,750	2,735	0,750	2,695	0,750	2,755	0,750	2,825
0,500	2,015	0,510	2,015	0,503	2,045	0,498	2,100
0,253	1,295	0,250	1,245	0,250	1,310	0,250	1,380
0,	0,595	0,	0,535	0,	0,635	0,	0,645
0,	0,505	0,	0,435	0,	0,525	0,	0,550
-0,250	-0,215	-0,250	-0,255	-0,253	-0,235	-0,250	-0,190
-0,500	-0,925	-0,495	-0,960	-0,495	-0,925	-0,500	-0,800
-0,750	-1,665	-0,750	-1,750	-0,750	-1,730	-0,750	-1,645
-1,000	-2,385	-0,995	-2,495	-1,000	-2,475	-1,000	-2,410
-1,250	-3,125	-1,253	-3,250	-1,253	-3,215	-1,248	-3,185
-1,508	-3,845	-1,498	-4,000	-1,498	-3,945	-1,500	-3,930
-1,750	-4,575	-1,755	-4,735	-1,750	-4,685	-1,750	-4,700
-2,000	-5,315	-2,000	-5,465	-2,000	-5,425	-2,000	-5,390
-2,250	-6,045	-2,253	-6,185	-2,250	-6,130	-2,243	-6,070
-2,500	-6,780	-2,498	-6,840	-2,500	-6,830	-2,498	-6,840
-2,750	-7,485	-2,753	-7,640	-2,753	-7,550	-2,753	-7,530
-3,000	-8,155	-2,993	-8,325	-3,008	-8,300	-2,993	-8,210
-2,875	-8,025	-2,500	-7,310	-2,875	-8,080	-2,863	-7,975

表－6－6　交番荷重試験　I，3.0U（続き）

SHIMIZU　　AL=I-3U　　ST,NO, DG=1　　FMAX= 3.00 TON/PILE　　40/2/25

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2,750	-7,765	-2,248	-6,745	-2,748	-7,805	-2,760	-7,795
-2,500	-7,165	-2,000	-6,170	-2,503	-7,250	-2,503	-7,180
-2,250	-6,635	-1,750	-5,530	-2,253	-6,685	-2,253	-6,620
-2,000	-6,345	-1,508	-4,930	-2,000	-6,100	-2,010	-6,040
-1,750	-5,415	-1,248	-4,230	-1,750	-5,440	-1,750	-5,385
-1,500	-4,790	-1,000	-3,545	-1,500	-4,815	-1,500	-4,735
-1,243	-4,110	-0,753	-2,860	-1,248	-4,105	-1,248	-4,065
-1,000	-3,435	-0,500	-2,115	-0,995	-3,400	-1,000	-3,365
-0,750	-2,735	-0,250	-1,440	-0,753	-2,710	-0,748	-2,680
-0,500	-2,010	0,	-0,670	-0,498	-1,965	-0,500	-1,955
-0,250	-1,325			-0,250	-1,270	-0,255	-1,250
0,	-0,525			0,	-0,490	0,	-0,490

表－６－６　交番荷重試験　Ⅰ，3.0 U

SHIMIZU　　AL=I=3.5U　　ST,NO, DG=1　　FMAX= 3.50 TON/PILE　　40/2/25

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	-0.320	0.	-0.595	0.	-0.500	0.	-0.540
0.250	0.285	0.250	0.155	0.250	0.190	0.250	0.170
0.500	0.995	0.503	0.935	0.513	0.980	0.510	0.970
0.750	1.735	0.750	1.665	0.750	1.700	0.748	1.700
1.000	2.440	0.998	2.435	0.995	2.430	1.000	2.470
1.253	3.155	1.253	2.285	1.250	3.185	1.250	3.220
1.500	3.885	1.503	3.925	1.490	3.900	1.500	3.970
1.748	4.595	1.738	4.615	1.750	4.690	1.750	4.700
2.000	5.320	1.993	5.355	1.990	5.380	1.998	5.740
2.250	6.015	2.253	6.105	2.253	6.140	2.248	6.160
2.500	6.725	2.500	6.815	2.505	6.870	2.500	6.910
2.748	7.415	2.745	7.525	2.748	7.560	2.753	7.600
2.998	8.125	2.998	8.255	3.003	8.300	3.000	8.320
3.250	8.845	3.258	9.015	3.248	9.000	3.253	9.030
3.498	9.570	3.500	9.725	3.503	9.740	3.503	9.730
3.375	9.430	3.378	9.550	3.375	9.540	3.375	9.525
3.250	9.170	3.250	9.285	3.243	9.255	3.250	9.250
2.998	8.625	3.000	8.735	3.000	8.725	2.998	8.730
2.753	8.080	2.753	8.170	2.753	8.160	2.500	7.580
2.498	7.495	2.500	7.585	2.500	7.550	2.253	6.960
2.253	6.905	2.253	6.985	2.253	6.960	2.003	6.330
1.998	6.255	2.003	6.325	2.000	6.320	1.750	5.680
1.745	5.615	1.753	5.695	1.750	5.690	1.503	5.050
1.503	4.990	1.500	5.015	1.500	4.940	1.250	4.330
1.250	4.295	1.250	4.325	1.250	4.305	1.003	3.630
1.003	3.615	1.000	3.615	1.003	3.620	0.750	2.910
0.748	2.865	0.750	2.880	0.750	2.890	0.500	2.160
0.503	2.165	0.503	2.155	0.503	2.150	0.255	1.350
0.250	1.430	0.250	1.410	0.250	1.370	0.	0.560
0.	0.725	0.	0.640	0.	0.650	0.	0.560
0.	0.645	0.	0.540	0.	0.520	-0.250	-0.140
-0.250	-0.075	-0.255	-0.170	-0.325	-0.510	-0.495	-0.840
-0.500	-0.815	-0.498	-0.890	-0.500	-0.960	-0.750	-1.600
-0.750	-1.590	-0.750	-1.650	-0.750	-1.710	-1.000	-2.330
-1.000	-2.325	-1.003	-2.400	-1.008	-2.480	-1.243	-3.110
-1.250	-3.065	-1.250	-3.155	-1.253	-3.210	-1.500	-3.910
-1.500	-3.815	-1.503	-3.930	-1.498	-3.980	-1.760	-4.780
-1.750	-4.575	-1.750	-4.650	-1.750	-4.730	-2.000	-5.380
-2.000	-5.315	-1.993	-5.350	-2.000	-5.430	-2.230	-6.215
-2.250	-6.065	-2.250	-6.100	-2.250	-6.170	-2.498	-6.960

表－6－7　交番荷重試験　I，3.5U（続き）

SHIMIZU　　AL=I=3.5U　　ST.NO. DG=1　　FMAX= 3.50 TON/PILE　　40/2/25

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2.500	-6.735	-2.498	-6.815	-2.503	-6.910	-2.753	-7.595
-2.750	-7.475	-2.753	-7.535	-2.758	-7.630	-2.998	-8.430
-2.998	-8.195	-2.998	-8.250	-3.003	-8.340	-3.248	-9.110
-3.250	-8.935	-3.253	-8.980	-3.253	-8.040	-3.498	-9.885
-3.500	-9.700	-3.500	-9.710	-3.488	-9.740	-3.375	-9.685
-3.365	-9.535	-3.375	-9.500	-3.375	-9.550	-3.250	-9.415
-3.250	-9.195	-3.250	-9.230	-3.253	-9.290	-2.975	-8.825
-3.003	-8.755	-3.003	-8.590	-3.000	-8.760	-2.753	-8.195
-2.750	-8.165	-2.750	-8.015	-2.753	-8.180	-2.485	-7.635
-2.498	-7.545	-2.475	-7.450	-2.500	-7.570	-2.248	-7.145
-2.248	-6.975	-2.250	-6.900	-2.250	-6.955	-1.995	-6.385
-2.000	-6.345	-2.000	-6.250	-1.998	-6.310	-1.743	-5.685
-1.750	-5.695	-1.745	-5.590	-1.750	-5.680	-1.498	-4.935
-1.500	-5.025	-1.500	-4.950	-1.500	-5.020	-1.248	-4.235
-1.250	-4.295	-1.253	-4.260	-1.248	-4.300	-0.993	-3.515
-1.000	-3.570	-1.003	-3.550	-1.000	-3.590	-0.748	-2.785
-0.750	-2.865	-0.750	-2.820	-0.750	-2.870	-0.500	-2.085
-0.500	-2.105	-0.495	-2.060	-0.500	-2.140	-0.250	-1.345
-0.250	-1.385	-0.250	-1.360	-0.250	-1.410	0.	-0.615
0.	-0.605	0.	-0.620	0.	-0.640		

表－6－7　交番荷重試験　I，3.5 U

SHIMIZU　AL-I-4U　ST,NO, DG-1　FMAX= 4,00 TON/PILE　40/2/26

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,280	0,	-0,675	0,	-0,655	0,	-0,765
0,253	0,330	0,250	0,025	0,250	-0,005	0,250	-0,075
0,500	0,980	0,498	0,775	0,500	0,705	0,500	0,690
0,748	1,700	0,750	1,535	0,750	1,445	0,750	1,485
1,000	2,440	1,000	2,285	1,000	2,190	1,003	2,235
1,250	3,180	1,250	3,065	1,245	2,940	1,250	2,995
1,500	3,880	1,500	3,805	1,498	3,705	1,500	3,725
1,753	4,630	1,745	4,535	1,750	4,455	1,750	4,485
2,003	5,360	2,000	5,275	2,000	5,205	2,000	5,215
2,248	6,080	2,250	6,005	2,243	5,925	2,250	5,755
2,500	6,790	2,500	6,745	2,480	6,640	2,500	6,695
2,750	7,585	2,748	7,465	2,753	7,370	2,748	7,435
3,000	8,230	3,003	8,205	3,000	8,100	2,998	8,165
3,250	8,940	3,250	8,925	3,250	8,840	3,250	8,885
3,500	9,710	3,500	9,605	3,500	9,560	3,495	9,565
3,745	10,410	3,750	10,355	3,758	10,360	3,750	10,305
4,000	11,120	4,000	11,095	4,003	11,085	4,000	10,995
3,875	10,955	3,865	10,855	3,878	10,880	3,875	10,825
3,718	10,640	3,718	10,555	3,750	10,645	3,750	10,545
3,503	10,190	3,500	10,105	3,498	10,095	3,500	10,015
3,248	9,655	3,250	9,555	3,250	9,745	3,250	9,455
2,773	8,390	2,993	8,915	3,000	8,945	3,003	8,875
2,725	8,280	2,748	8,335	2,755	8,370	2,750	8,260
2,500	7,745	2,500	7,745	2,503	7,750	2,498	7,635
2,243	7,065	2,250	7,105	2,250	7,095	2,253	7,025
2,000	6,465	2,000	6,445	2,003	6,455	2,000	6,370
1,750	5,825	1,750	5,765	1,755	5,795	1,750	5,690
1,500	5,105	1,493	5,125	1,508	5,195	1,505	4,980
1,250	4,415	1,253	4,425	1,260	4,405	1,250	4,290
1,003	3,725	1,003	3,705	1,003	3,695	1,008	3,590
0,750	2,965	0,753	2,985	0,753	2,925	0,750	2,820
0,500	2,250	0,500	2,215	0,503	2,185	0,500	2,080
0,250	1,455	0,250	1,395	0,253	1,425	0,250	1,315
0,	0,735	0,	0,675	0,	0,695	0,	0,540
0,	0,635	0,	0,595	0,	0,595	0,	0,430
-0,258	-0,065	-0,250	-0,135	-0,255	-0,335	-0,250	-0,320
-0,490	-0,715	-0,500	-0,855	-0,500	-1,005	-0,490	-1,110
-0,750	-1,525	-0,743	-1,655	-0,748	-1,775	-0,753	-1,950
-1,250	-3,035	-1,000	-2,425	-1,000	-2,575	-1,000	-2,640
-1,500	-3,845	-1,253	-3,195	-1,258	-3,375	-1,250	-3,490

表－６－８　交番荷重試験　Ｉ，4.0Ｕ（続き）

SHIMIZU AL-I-4U ST,NO, DG=1 FMAX= 4.00 TON/PILE 40/2/26

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-1,750	-4,555	-1,500	-4,055	-1,503	-4,025	-1,508	-4,240
-2,000	-5,305	-1,750	-4,765	-1,760	-4,885	-1,758	-4,980
-2,250	-6,050	-2,000	-5,545	-2,003	-5,595	-2,003	-5,690
-2,500	-6,765	-2,248	-6,225	-2,258	-6,365	-2,250	-6,430
-2,750	-7,485	-2,503	-6,955	-2,508	-7,075	-2,500	-7,120
-3,008	-8,275	-2,753	-7,705	-2,753	-7,795	-2,750	-7,880
-3,258	-8,965	-3,003	-8,435	-3,003	-8,535	-3,000	-8,580
-3,500	-9,725	-3,248	-9,125	-3,253	-9,205	-3,250	-9,300
-3,750	-10,435	-3,500	-9,975	-3,495	-9,905	-3,500	-10,060
-4,000	-11,225	-3,750	-10,635	-3,755	-10,685	-3,748	-10,770
-3,838	-10,945	-4,000	-11,395	-4,003	-11,465	-4,000	-11,590
-3,750	-10,795	-3,608	-10,515	-3,880	-11,405	-3,870	-11,450
-3,500	-10,235	-3,500	-10,345	-3,743	-11,135	-3,750	-11,190
-3,250	-9,675	-3,253	-9,775	-3,500	-11,195	-3,488	-10,610
-3,000	-9,105	-3,003	-9,195	-3,253	-10,005	-3,250	-10,050
-2,753	-8,515	-2,750	-8,585	-3,008	-9,435	-3,000	-9,480
-2,498	-7,875	-2,500	-7,935	-2,750	-8,815	-2,748	-8,860
-2,238	-7,205	-2,250	-7,315	-2,508	-8,195	-2,498	-8,190
-1,998	-6,575	-2,000	-6,665	-2,248	-7,545	-2,245	-7,560
-1,763	-5,945	-1,750	-6,005	-1,995	-6,895	-2,000	-6,920
-1,500	-5,235	-1,500	-5,300	-1,750	-6,215	-1,748	-6,230
-1,245	-4,485	-1,248	-4,555	-1,508	-5,555	-1,500	-5,530
-0,998	-3,765	-1,000	-3,855	-1,256	-4,805	-1,250	-4,830
-0,750	-3,045	-0,750	-3,105	-0,998	-4,065	-0,995	-4,075
-0,498	-2,265	-0,500	-2,355	-0,745	-3,275	-0,750	-3,360
-0,250	-1,545	-0,253	-1,655	-0,500	-2,555	-0,490	-2,560
0,	-0,795	0,	-0,915	-0,250	-1,785	-0,250	-1,840
				0,	-0,910	0,	-0,890

表－6－8　交番荷重試験　I，4.0 U

SHIMIZU　AL=I=3D　ST,NO, OG=1　FMAX= 3,00 TON/PILE　40/2/27

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,430	0,	-0,450	0,	-0,460	0,	-0,520
0,250	0,200	0,250	0,270	0,250	0,250	0,258	0,270
0,500	0,890	0,505	1,030	0,518	1,060	0,493	0,950
0,750	1,620	0,750	1,660	0,748	1,760	0,750	1,730
1,003	2,385	1,003	2,540	1,000	2,490	1,003	2,470
1,250	3,100	1,250	3,260	1,253	3,200	1,250	3,260
1,500	3,860	1,498	3,960	1,500	3,960	1,503	4,000
1,750	4,600	1,750	4,720	1,750	4,710	1,750	4,710
2,000	5,360	2,000	5,430	1,998	5,410	1,998	5,400
2,248	6,040	2,250	6,160	2,250	6,130	2,258	6,170
2,498	6,760	2,505	6,890	2,500	6,850	2,468	6,820
2,748	7,500	2,750	7,560	2,745	7,590	2,750	7,540
3,000	8,220	2,998	8,250	3,005	8,260	3,000	8,230
2,875	8,040	2,875	8,070	2,875	8,010	2,878	8,020
2,753	7,770	2,753	7,820	2,750	7,750	2,750	7,750
2,500	7,220	2,500	7,260	2,500	7,200	2,500	7,210
2,250	6,640	2,248	6,660	2,253	6,630	2,248	6,610
2,003	6,050	1,998	6,060	1,995	6,020	2,003	6,020
1,748	5,410	1,750	5,450	1,753	5,410	1,748	5,390
1,500	4,770	1,500	4,790	1,500	4,730	1,500	4,840
1,253	4,220	1,250	4,140	1,253	4,110	1,250	4,180
1,003	3,440	1,000	3,440	1,000	3,390	1,003	3,490
0,750	2,730	0,753	2,740	0,750	2,690	0,750	2,780
0,505	2,010	0,500	2,030	0,500	1,960	0,503	2,050
0,250	1,240	0,250	1,260	0,250	1,220	0,250	1,300
0,	0,500	0,	0,510	0,	0,490	0,	0,580
0,	0,430	0,	0,430	0,	0,410	0,	0,580
-0,250	-0,280	-0,250	-0,360	-0,250	-0,320	-0,250	-0,210
-0,503	-0,990	-0,503	-1,160	-0,500	-1,150	-0,500	-0,990
-0,750	-1,760	-0,748	-1,920	-0,753	-1,920	-0,745	-1,740
-1,008	-2,520	-1,003	-2,660	-1,000	-2,660	-1,000	-2,540
-1,250	-3,220	-1,280	-3,420	-1,253	-3,470	-1,250	-3,320
-1,500	-3,980	-1,500	-4,190	-1,500	-0,421	-1,500	-4,110
-1,753	-4,760	-1,750	-4,930	-1,750	-4,920	-1,750	-4,840
-2,000	-5,440	-2,000	-5,650	-2,000	-5,670	-2,000	-5,570
-2,250	-6,200	-2,250	-6,370	-2,248	-6,410	-2,250	-6,340
-2,503	-6,910	-2,503	-7,100	-2,500	-7,180	-2,500	-7,030
-2,750	-7,630	-2,750	-7,810	-2,750	-7,850	-2,750	-7,800
-2,998	-8,350	-3,000	-8,530	-3,003	-8,650	-2,998	-8,450
-2,870	-8,120	-2,878	-8,370	-2,875	-8,430	-2,838	-8,180

表－6－9　交番荷重試験　I，3.0 D（続き）

SHIMIZU　　AL-I-3D　　ST,NO, DG-1　　FMAX= 3.00 TON/PILE　　40/2/27

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2,748	-7,860	-2,770	-8,080	-2,748	-8,130	-2,748	-7,980
-2,498	-7,280	-2,498	-7,580	-2,498	-7,550	-2,498	-7,400
-2,250	-6,710	-2,250	-6,920	-2,253	-6,980	-2,250	-6,850
-2,003	-6,110	-2,000	-6,310	-2,000	-6,360	-2,000	-6,230
-1,750	-5,470	-1,750	-5,670	-1,750	-5,710	-1,750	-5,570
-1,500	-4,810	-1,500	-5,010	-1,503	-5,070	-1,500	-4,920
-1,250	-4,090	-1,248	-4,280	-1,243	-4,330	-1,250	-4,200
-0,998	-3,390	-1,003	-3,600	-1,003	-3,670	-1,000	-3,520
-0,755	-2,690	-0,750	-2,870	-0,750	-2,930	-0,750	-2,890
-0,500	-1,840	-0,500	-2,120	-0,500	-2,170	-0,500	-2,120
-0,250	-1,200	-0,250	-1,400	-0,248	-1,430	0,248	-1,400
0,	-0,540	0,	-0,540	0,	-0,550	0,	-0,550

表－6－9　交番荷重試験　I，3.0 D

SHIMIZU AL=I=2D ST.NO. DG=1 FMAX= 2.00 TON/PILE 40/2/27

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	=0.300	0.	=0.340	0.	=0.330	0.	=0.370
0.250	0.310	0.250	0.360	0.250	0.370	0.248	0.300
0.500	1.010	0.498	1.110	0.500	1.110	0.500	1.050
0.750	1.750	0.750	1.870	0.750	1.830	0.750	1.810
1.000	2.490	1.000	2.590	0.995	2.530	1.008	2.540
1.250	3.210	1.250	3.330	1.250	3.260	1.250	3.220
1.500	3.940	1.508	4.040	1.500	3.980	1.500	3.950
1.750	4.660	1.750	4.750	1.750	4.670	1.750	4.650
2.003	5.400	2.000	5.450	2.003	5.390	2.000	5.340
1.873	5.170	1.875	5.210	1.873	5.140	1.875	5.130
1.750	4.900	1.750	4.950	1.750	4.880	1.748	4.850
1.500	4.320	1.500	4.370	1.500	4.310	1.498	4.280
1.250	3.720	1.250	3.760	1.250	3.700	1.250	3.670
1.003	3.090	1.000	3.130	1.000	3.060	1.000	3.050
0.745	2.400	0.750	2.460	0.750	2.400	0.750	2.380
0.500	1.740	0.503	1.770	0.500	1.720	0.500	1.700
0.250	1.030	0.250	1.060	0.253	1.010	0.250	0.970
0.	0.340	0.	0.350	0.	0.310	0.	0.280
0.	0.270	0.	0.280	0.	0.250	0.	0.220
=0.250	=0.510	=0.250	=0.460	=0.250	=0.470	=0.250	=0.510
=0.500	=1.240	=0.500	=1.170	=0.495	=1.200	=0.500	=1.230
=0.750	=1.980	=0.750	=1.930	=0.750	=1.970	=0.750	=2.000
=1.000	=2.730	=1.000	=2.690	=1.000	=2.690	=1.005	=2.760
=1.253	=3.510	=1.250	=3.410	=1.250	=3.450	=1.250	=3.470
=1.503	=4.280	=1.498	=4.170	=1.500	=4.200	=1.500	=4.240
=1.750	=4.980	=1.750	=4.920	=1.750	=4.970	=1.750	=5.020
=2.000	=5.700	=2.000	=5.620	=2.000	=5.670	=2.005	=5.730
=1.875	=5.470	=1.873	=5.390	=1.875	=5.440	=1.875	=5.480
=1.748	=5.180	=1.750	=5.120	=1.748	=5.250	=1.750	=5.180
=1.498	=4.580	=1.500	=4.520	=1.505	=4.550	=1.495	=4.580
=1.250	=3.950	=1.250	=3.880	=1.250	=3.920	=1.250	=3.950
=1.000	=3.300	=0.995	=3.210	=1.000	=3.270	=1.000	=3.290
=0.748	=2.610	=0.748	=2.530	=0.750	=2.580	=0.748	=2.590
=0.500	=1.920	=0.503	=1.850	=0.498	=1.870	=0.500	=1.880
=0.250	=1.210	=0.250	=1.140	=0.250	=1.180	=0.250	=1.180
0.	=0.410	0.	=0.380	0.	=0.440	0.	=0.500

表－6－10　交番荷重試験　I，2.0D

SHIMIZU AL-I-1D ST,NO, DG-1 FMAX= 1,00 TON/PILE 40/2/28

1 CYCLE		2 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,100	0,	-0,130
0,125	0,150	0,125	0,180
0,250	0,460	0,250	0,510
0,375	0,820	0,375	0,850
0,500	1,170	0,495	1,220
0,625	1,510	0,625	1,590
0,750	1,880	0,750	1,920
0,855	2,210	0,875	2,250
1,000	2,610	1,000	2,620
0,938	2,510	0,925	2,480
0,870	2,380	0,870	2,350
0,745	2,080	0,753	2,090
0,625	1,790	0,625	1,790
0,498	1,480	0,500	1,450
0,383	1,180	0,383	1,150
0,255	0,810	0,263	0,810
0,125	0,480	0,130	0,460
0,	0,170	0,	0,120
0,	0,110	0,	0,070
-0,125	-0,190	-0,138	-0,260
-0,250	-0,540	-0,250	-0,560
-0,373	-0,870	-0,375	-0,880
-0,500	-1,230	-0,500	-1,220
-0,625	-1,530	-0,640	-1,590
-0,745	-1,910	-0,750	-1,880
-0,870	-2,290	-0,875	-2,250
-1,000	-2,650	-1,000	-2,570
-0,933	-2,540	-0,935	-2,460
-0,875	-2,410	-0,873	-2,350
-0,750	-2,110	-0,748	-2,040
-0,625	-1,830	-0,625	-1,740
-0,500	-1,520	-0,500	-1,440
-0,383	-1,160	-0,375	-1,120
-0,250	-0,840	-0,250	-0,820
-0,138	-0,530	-0,145	-0,490
0,	-0,190	0,	-0,150

表－6－11　交番荷重試験　I，1.0D

SHIMIZU AL-II-1U ST.NO. DG-1 FMAX= 1.00 TON/PILE 40/3/7

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	0.	0.	-0.120	0.	-0.090	0.	-0.085
0.125	0.290	0.125	0.190	0.125	0.260	0.125	0.225
0.250	0.600	0.250	0.550	0.250	0.610	0.250	0.565
0.375	0.930	0.375	0.900	0.375	0.960	0.375	0.915
0.500	1.270	0.500	1.250	0.500	1.320	0.500	1.290
0.623	1.590	0.625	1.610	0.625	1.670	0.625	1.635
0.750	1.960	0.748	1.950	0.750	2.025	0.750	1.985
0.875	2.300	0.875	2.310	0.875	2.360	0.875	2.325
1.000	2.650	1.000	2.650	1.000	2.700	1.000	2.670
0.938	2.520	0.928	2.560	0.938	2.600	0.935	2.545
0.838	2.310	0.880	2.425	0.875	2.460	0.878	2.425
0.750	2.160	0.750	2.130	0.750	2.180	0.750	2.135
0.625	1.850	0.625	1.840	0.625	1.880	0.625	1.850
0.503	1.540	0.500	1.510	0.500	1.555	0.503	1.520
0.378	1.220	0.375	1.180	0.375	1.230	0.378	1.195
0.255	0.870	0.250	0.835	0.250	0.885	0.250	0.845
0.125	0.540	0.125	0.480	0.125	0.545	0.125	0.495
0.	0.200	0.	0.190	0.	0.215	0.	0.165
0.	0.130	0.	0.130	0.	0.165	0.	0.155
-0.120	-0.160	-0.125	-0.170	-0.125	-0.170	-0.125	-0.195
-0.245	-0.500	-0.250	-0.500	-0.375	-0.875	-0.250	-0.525
-0.375	-0.870	-0.375	-0.850	-0.500	-1.215	-0.383	-0.875
-0.500	-1.220	-0.500	-1.210	-0.625	-1.565	-0.503	-1.245
-0.625	-1.570	-0.625	-1.560	-0.750	-1.925	-0.625	-1.585
-0.753	-1.930	-0.750	-1.910	-0.875	-2.265	-0.750	-1.930
-0.875	-2.260	-0.875	-2.245	-1.000	-2.605	-0.875	-2.270
-1.003	-2.640	-1.000	-2.580	-0.938	-2.495	-1.000	-2.620
-0.933	-2.500	-0.930	-2.450	-0.870	-2.345	-0.938	-2.515
-0.875	-2.400	-0.875	-2.335	-0.750	-2.075	-0.878	-2.385
-0.750	-2.120	-0.750	-2.070	-0.625	-1.785	-0.743	-2.075
-0.623	-1.800	-0.625	-1.770	-0.498	-1.455	-0.625	-1.790
-0.500	-1.480	-0.500	-1.450	-0.375	-1.145	-0.500	-1.475
-0.375	-1.160	-0.375	-1.130	-0.250	-0.805	-0.378	-1.145
-0.250	-0.840	-0.253	-0.790	-0.125	-0.465	-0.253	-0.810
-0.125	-0.480	-0.125	-0.435	0.	-0.145	-0.123	-0.455
0.	-0.170	0.	-0.130			0.	-0.135

表－7－1　交番荷重試験　Ⅱ，1.0 U

SHIMIZU AL-II-2U ST,NO, DG=1 FMAX= 2,00 TON/PILE 40/3/7

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.	-0,130	0.	-0,265	0.	-0,250	0.	-0,270
0,250	0,490	0,250	0,465	0,250	0,470	0,250	0,450
0,500	1,200	0,503	1,195	0,500	1,210	0,500	1,200
0,750	1,890	0,750	1,915	0,750	1,940	0,750	1,930
1,000	2,570	1,000	2,615	1,000	2,640	1,000	2,650
1,250	3,260	1,250	3,310	1,250	3,360	1,250	3,360
1,500	3,940	1,498	3,980	1,500	4,070	1,500	4,070
1,748	4,610	1,750	4,680	1,750	4,750	1,750	4,780
1,998	5,310	2,000	5,360	2,000	5,420	1,998	5,490
1,875	5,080	1,878	5,145	1,870	5,170	1,875	5,260
1,750	4,830	1,753	4,890	1,750	4,930	1,748	4,980
1,500	4,265	1,503	4,320	1,500	4,350	1,498	4,390
1,253	3,665	1,250	3,710	1,245	3,730	1,253	3,790
1,003	3,020	1,003	3,080	1,006	3,120	1,003	3,110
0,750	2,370	0,750	2,400	0,750	2,440	0,753	2,450
0,503	1,675	0,500	1,700	0,498	1,720	0,498	1,720
0,250	0,950	0,250	0,990	0,250	0,980	0,255	1,010
0.	0,245	0.	0,310	0.	0,320	0.	0,310
0.	0,195	0.	0,220	0.	0,220	0.	0,230
-0,250	-0,425	-0,248	-0,490	-0,250	-0,470	-0,250	-0,500
-0,503	-1,265	-0,500	-1,230	-0,500	-1,210	-0,503	-1,250
-0,750	-1,960	-0,750	-1,950	-0,750	-1,960	-0,750	-1,980
-1,000	-2,645	-1,000	-2,670	-1,000	-2,660	-1,000	-2,720
-1,250	-3,345	-1,250	-3,360	-1,250	-3,370	-1,250	-3,430
-1,508	-4,055	-1,500	-4,060	-1,500	-4,100	-1,500	-4,140
-1,750	-4,715	-1,748	-4,760	-1,750	-4,780	-1,750	-4,840
-2,004	-5,420	-2,000	-5,450	-2,000	-5,480	-1,998	-5,540
-1,875	-5,185	-1,875	-5,230	-1,875	-5,260	-1,875	-5,300
-1,738	-4,905	-1,748	-4,950	-1,750	-4,900	-1,745	-5,010
-1,503	-4,375	-1,500	-4,385	-1,503	-4,420	-1,498	-4,440
-1,250	-3,775	-1,250	-3,780	-1,250	-3,800	-1,250	-3,840
-1,000	-3,145	-1,000	-3,140	-1,000	-3,170	-1,003	-3,190
-0,750	-2,485	-0,750	-2,475	-0,743	-2,470	-0,748	-2,490
-0,503	-1,805	-0,505	-1,780	-0,500	-1,780	-0,500	-1,770
-0,253	-1,050	-0,253	-1,030	-0,250	-1,060	-0,250	-1,040
0.	-0,355	0.	-0,280	0.	-0,350	0.	-0,350

表－7 － 2　交番荷重試験　Ⅱ，2.0 U

SHIMIZU　AL=II=3U　ST,NO, DG=1　FMAX= 3,00 TON/PILE　40/3/8

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,180	0,	-0,450	0,	-0,420	0,	-0,430
0,250	0,380	0,250	0,220	0,250	0,260	0,250	0,180
0,500	1,100	0,500	0,970	0,500	1,010	0,500	0,890
0,750	1,780	0,750	1,710	0,750	1,750	0,750	1,620
1,000	2,510	1,008	2,460	1,000	2,510	1,000	2,340
1,250	3,220	1,250	3,170	1,250	3,270	1,250	3,090
1,500	3,940	1,500	3,880	1,500	3,990	1,500	3,830
1,750	4,650	1,745	4,630	1,748	4,710	1,750	4,550
2,000	5,350	2,000	5,380	2,000	5,440	2,000	5,260
2,250	6,040	2,250	6,090	2,250	6,140	2,250	5,970
2,500	6,750	2,500	6,780	2,500	6,840	2,500	6,660
2,750	7,440	2,753	7,480	2,750	7,530	2,750	7,360
3,000	8,150	3,000	8,170	3,000	8,220	3,000	8,030
2,875	7,940	2,875	7,950	2,875	8,020	2,875	7,840
2,750	7,680	2,750	7,690	2,750	7,750	2,750	7,560
2,500	7,130	2,500	7,150	2,500	7,190	2,500	7,010
2,250	6,540	2,253	6,570	2,250	6,600	2,250	6,430
2,000	5,940	2,000	5,950	1,998	5,980	1,998	5,820
1,750	5,320	1,750	5,320	1,750	5,340	1,750	5,210
1,500	4,670	1,500	4,670	1,500	4,710	1,500	4,560
1,250	3,990	1,250	4,000	1,250	4,020	1,250	3,900
1,000	3,300	1,003	3,340	1,003	3,350	1,000	3,210
0,750	2,600	0,750	2,630	0,750	2,640	0,750	2,520
0,500	1,850	0,500	1,860	0,500	1,900	0,503	1,800
0,250	1,120	0,250	1,090	0,250	1,150	0,250	1,050
0,	0,370	0,	0,400	0,	0,450	0,	0,370
0,	0,360	0,	0,370	0,	0,390	0,	0,290
-0,250	-0,300	-0,250	-0,310	-0,250	-0,370	-0,250	-0,490
-0,500	-1,070	-0,503	-1,050	-0,500	-1,130	-0,500	-1,140
-0,750	-1,780	-0,750	-1,800	-0,750	-1,860	-0,750	-1,900
-1,000	-2,520	-1,000	-2,530	-1,000	-2,620	-1,000	-2,610
-1,250	-3,220	-1,253	-3,270	-1,250	-3,370	-1,250	-3,360
-1,500	-3,920	-1,500	-3,990	-1,500	-4,080	-1,500	-4,080
-1,753	-4,680	-1,750	-4,700	-1,750	-4,800	-1,750	-4,830
-2,000	-5,410	-2,000	-5,410	-2,000	-5,510	-2,000	-5,530
-2,250	-6,110	-2,250	-6,140	-2,250	-6,230	-2,250	-6,230
-2,500	-6,810	-2,500	-6,860	-2,500	-6,930	-2,500	-6,960
-2,755	-7,530	-2,750	-7,570	-2,748	-7,640	-2,750	-7,640
-3,003	-8,200	-3,000	-8,260	-3,000	-8,370	-3,000	-8,350
-2,875	-8,030	-2,875	-8,020	-2,868	-8,130	-2,875	-8,120

表－７－３　交番荷重試験　Ⅱ，3.0Ｕ（続き）

SHIMIZU　　AL-II-3U　　ST,NO, DG-1　　FMAX= 3.00 TON/PILE　　40/3/6

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2,750	-7,780	-2,743	-7,750	-2,750	-7,880	-2,750	-7,850
-2,463	-7,140	-2,500	-7,240	-2,500	-7,320	-2,498	-7,280
-2,248	-6,640	-2,250	-6,620	-2,250	-6,740	-2,250	-6,700
-1,993	-6,030	-2,000	-6,020	-2,000	-6,120	-2,000	-6,100
-1,750	-5,420	-1,750	-5,410	-1,750	-5,490	-1,750	-5,470
-1,500	-4,780	-1,498	-4,740	-1,500	-4,830	-1,500	-4,820
-1,250	-4,130	-1,250	-4,070	-1,250	-4,170	-1,250	-4,150
-1,000	-3,420	-1,000	-3,380	-1,000	-3,460	-1,000	-3,440
-0,750	-2,700	-0,750	-2,680	-0,748	-2,750	-0,760	-2,770
-0,503	-1,990	-0,500	-1,930	-0,503	-2,050	-0,500	-2,020
-0,255	-1,250	-0,250	-1,190	-0,250	-1,270	-0,250	-1,280
0,	-0,550	0,	-0,510	0,	-0,570	0,	-0,590

表－7－3　交番荷重試験　Ⅱ，3.0 U

SHIMIZU AL=II=4U ST,NO, DG=1 FMAX= 4,00 TON/PILE 40/3/9

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,250	0,	-0,580	0,	-0,390	0,	-0,620
0,250	0,340	0,250	0,060	0,250	0,200	0,250	0,010
0,498	1,000	0,503	0,810	0,500	0,880	0,500	0,800
0,748	1,750	0,750	1,580	0,750	1,640	0,750	1,580
1,000	2,470	1,000	2,320	0,993	2,390	1,000	2,400
1,245	3,210	1,250	3,050	1,248	3,130	1,250	3,100
1,503	3,960	1,498	3,790	1,498	3,840	1,500	3,850
1,750	4,700	1,748	4,510	1,748	4,560	1,750	4,600
2,000	5,420	2,000	5,230	1,993	5,280	2,000	5,320
2,250	6,130	2,250	5,970	2,248	6,040	2,248	6,160
2,498	6,800	2,500	6,710	2,500	6,780	2,500	6,770
2,753	7,520	2,753	7,390	2,750	7,480	2,750	7,480
3,003	8,220	3,000	8,100	2,998	8,240	3,000	8,200
3,248	8,910	3,253	8,800	3,250	8,950	3,248	8,880
3,503	9,610	3,503	9,510	3,498	9,650	3,498	9,570
3,750	10,310	3,750	10,200	3,750	10,340	3,750	10,260
4,003	11,010	4,000	10,880	4,000	11,140	4,000	10,960
3,878	10,820	3,875	10,660	3,875	10,860	3,875	10,770
3,750	10,580	3,748	10,410	3,750	10,610	3,750	10,480
3,503	10,040	3,500	9,900	3,500	10,080	3,500	9,880
3,253	9,490	3,250	9,350	3,250	9,510	3,250	9,440
2,998	8,890	3,000	8,770	2,998	8,930	3,000	8,830
2,750	8,290	2,750	8,160	2,750	8,320	2,748	8,240
2,500	7,690	2,500	7,540	2,500	7,730	2,500	7,630
2,253	7,030	2,250	6,930	2,248	7,070	2,253	6,990
2,000	6,410	2,000	6,270	1,998	6,420	2,000	6,240
1,750	5,740	1,753	5,650	1,750	5,780	1,750	5,610
1,503	5,050	1,500	4,950	1,503	5,100	1,500	4,910
1,250	4,340	1,250	4,250	1,250	4,430	1,250	4,200
1,000	3,650	1,000	3,520	1,003	3,710	1,000	3,490
0,750	2,910	0,750	2,800	0,748	2,960	0,748	2,690
0,503	2,150	0,500	2,050	0,500	2,200	0,503	2,000
0,253	1,390	0,250	1,300	0,250	1,450	0,250	1,240
0,	0,690	0,	0,600	0,	0,700	0,	0,450
0,	0,600	0,	0,480	0,	0,520	0,	0,360
-0,248	-0,100	-0,250	-0,220	-0,248	-0,150	-0,250	-0,310
-0,500	-0,850	-0,503	-1,010	-0,500	-0,930	-0,503	-1,100
-0,750	-1,640	-0,750	-1,760	-0,748	-1,690	-0,750	-1,900
-1,000	-2,380	-1,000	-2,490	-1,000	-2,410	-1,000	-2,650
-1,253	-3,140	-1,253	-3,280	-1,250	-3,180	-1,250	-3,690

表－7－4　交番荷重試験　Ⅱ，4.0 U（続き）

SHIMIZU AL-II-4U ST,NO, DG-1 FMAX= 4,00 TON/PILE 40/3/9

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-1,498	-3,850	-1,500	-3,990	-1,500	-3,920	-1,503	-4,190
-1,753	-4,610	-1,753	-4,740	-1,748	-4,660	-1,750	-4,900
-1,998	-5,350	-1,998	-5,460	-2,003	-5,400	-2,003	-5,690
-2,253	-6,080	-2,248	-6,150	-2,248	-6,140	-2,253	-6,410
-2,500	-6,820	-2,498	-6,880	-2,498	-6,860	-2,500	-7,110
-2,753	-7,500	-2,753	-7,620	-2,753	-7,590	-2,753	-7,810
-3,003	-8,200	-2,998	-8,270	-2,995	-8,320	-2,998	-8,470
-3,248	-8,680	-3,250	-8,990	-3,248	-9,030	-3,253	-9,220
-3,500	-9,640	-3,503	-9,740	-3,498	-9,710	-3,500	-9,910
-3,750	-10,360	-3,750	-10,450	-3,750	-10,510	-3,750	-10,640
-4,000	-11,080	-4,003	-11,150	-4,003	-11,300	-4,003	-11,360
-3,875	-10,860	-3,853	-10,890	-3,875	-11,110	-3,865	-11,080
-3,748	-10,630	-3,748	-10,680	-3,750	-10,870	-3,750	-10,880
-3,498	-10,080	-3,498	-10,140	-3,500	-10,310	-3,503	-10,350
-3,250	-9,530	-3,248	-9,580	-3,253	-9,760	-3,245	-9,750
-2,998	-8,930	-2,995	-8,980	-2,998	-9,160	-2,995	-9,170
-2,753	-8,350	-2,753	-8,400	-2,753	-8,550	-2,750	-8,560
-2,498	-7,700	-2,498	-7,760	-2,500	-7,890	-2,500	-7,960
-2,245	-7,050	-2,248	-7,120	-2,250	-7,270	-2,240	-7,280
-1,993	-6,400	-1,995	-6,480	-2,000	-6,630	-1,998	-6,650
-1,750	-5,770	-1,750	-5,820	-1,750	-5,930	-1,750	-5,920
-1,498	-5,070	-1,500	-5,150	-1,500	-5,250	-1,500	-5,330
-1,250	-4,390	1,253	-4,450	-1,250	-4,560	-1,253	-4,640
-0,998	-3,660	-1,003	-3,740	-1,000	-3,820	-1,000	-3,940
-0,750	-2,950	-0,750	-3,020	-0,750	-3,090	-0,750	-3,150
-0,498	-2,190	-0,495	-2,230	-0,500	-2,300	-0,510	-2,450
-0,250	-1,430	-0,253	-1,470	-0,260	-1,560	-0,250	-1,660
0,	-0,730	0,	-0,690	0,	-0,780	0,	-0,920

表－7－4　交番荷重試験　Ⅱ，4.0 U

SHIMIZU　AL=II=3D　ST,NO, DG=1　FMAX= 3.00 TON/PILE　40/3/10

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,380	0,	-0,350	0,	-0,350	0,	-0,440
0,250	0,220	0,250	0,310	0,250	0,310	0,250	0,230
0,500	0,900	0,498	1,050	0,500	1,070	0,500	0,960
0,748	1,630	0,750	1,790	0,750	1,820	0,750	1,690
0,750	2,370	1,000	2,530	1,000	2,540	1,000	2,440
1,003	3,120	1,250	3,260	1,250	3,280	1,250	3,180
1,503	3,860	1,500	3,985	1,500	4,010	1,500	3,880
1,748	4,610	1,765	4,730	1,750	4,700	1,750	4,600
2,003	5,330	2,003	5,430	2,000	5,410	2,000	5,320
2,250	6,040	2,250	6,130	2,250	6,120	2,250	6,020
2,500	6,770	2,500	6,820	2,500	6,810	2,500	6,700
2,750	7,490	2,753	7,510	2,750	7,490	2,750	7,390
3,000	8,170	2,998	8,180	3,000	8,180	3,000	8,060
2,875	7,980	2,875	7,990	2,875	7,970	2,870	7,850
2,750	7,720	2,753	7,710	2,750	7,590	2,750	7,580
2,500	7,170	2,500	7,160	2,500	7,140	2,500	7,030
2,248	6,580	2,250	6,570	2,250	6,560	2,253	6,430
2,003	5,980	2,003	5,980	2,000	5,950	2,000	5,830
1,750	5,350	1,750	5,360	1,750	5,220	1,750	5,210
1,498	4,700	1,500	4,700	1,500	4,670	1,500	4,570
1,250	4,060	1,250	4,040	1,250	4,010	1,250	3,880
1,000	3,360	1,000	3,360	1,000	3,330	1,003	3,190
0,750	2,670	0,750	2,655	0,750	2,620	0,750	2,500
0,503	1,930	0,500	1,970	0,498	1,900	0,500	1,770
0,250	1,220	0,250	1,190	0,250	1,160	0,250	1,050
0,	0,500	0,	0,460	0,	0,440	0,	0,350
0,	0,420	0,	0,410	0,	0,380	0,	0,300
-0,250	-0,280	-0,250	-0,280	-0,250	-0,340	-0,250	-0,380
-0,500	-1,060	-0,498	-1,030	-0,500	-1,130	-0,500	-1,170
-0,750	-1,830	-0,750	-1,810	-0,750	-1,900	-0,750	-1,930
-1,000	-2,560	-1,000	-2,540	-1,000	-2,620	-1,000	-2,680
-1,250	-3,310	-1,250	-3,280	-1,250	-3,350	-1,250	-3,410
-1,503	-4,060	-1,503	-4,040	-1,500	-4,090	-1,500	-4,140
-1,750	-4,800	-1,750	-4,780	-1,750	-4,810	-1,750	-4,840
-2,000	-5,540	-2,000	-5,510	-2,000	-5,490	-2,000	-5,600
-2,250	-6,260	-2,250	-6,240	-2,250	-6,160	-2,250	-6,290
-2,500	-6,970	-2,500	-6,950	-2,500	-6,870	-2,500	-6,980
-2,753	-7,670	-2,750	-7,630	-2,750	-7,540	-2,750	-7,670
-3,000	-8,370	-3,000	-8,320	-3,000	-8,240	-3,000	-8,360
-2,863	-8,110	-2,870	-8,090	-2,875	-8,010	-2,870	-8,110

表－７－５　交番荷重試験　Ⅱ，3.0 D

SHIMIZU AL=II=3D ST,NO, DG=1 FMAX= 3,00 TON/PILE 40/3/10

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2,750	-7,870	-2,750	-7,820	-2,750	-7,750	-2,750	-7,860
-2,500	-7,300	-2,495	-7,240	-2,498	-7,170	-2,500	-7,290
-2,248	-6,700	-2,250	-6,670	-2,250	-6,590	-2,253	-6,710
-2,000	-6,100	-2,000	-6,060	-2,000	-5,980	-2,000	-6,090
-1,748	-5,450	-1,750	-5,420	-1,750	-5,340	-1,750	-5,450
-1,500	-4,800	-1,500	-4,760	-1,490	-4,660	-1,500	-4,800
-1,250	-4,130	-1,253	-4,090	-1,253	-4,030	-1,250	-4,140
-1,000	-3,410	-1,003	-3,360	-0,995	-3,310	-1,003	-3,440
-0,750	-2,710	-0,750	-2,660	-0,750	-2,620	-0,750	-2,710
-0,503	-1,960	-0,498	-1,920	-0,500	-1,900	-0,500	-1,980
-0,250	-1,190	-0,253	-1,180	-0,250	-1,150	-0,250	-1,240
0.	-0,430	0.	-0,440	0.	-0,370	0.	-0,490

表－7－5　交番荷重試験　Ⅱ，3.0 D（続き）

SHIMIZU AL=II=2D ST,NO, DG=1 FMAX= 2.00 TON/PILE 40/3/10

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	=0,250	0,	=0,270	0,	=0,280	0,	=0,230
0,250	0,350	0,250	0,410	0,250	0,450	0,250	0,460
0,500	1,060	0,500	1,160	0,500	1,170	0,500	1,170
0,793	1,930	0,750	1,890	0,750	1,900	0,750	1,910
1,000	2,520	1,000	2,620	1,000	2,610	1,000	2,650
1,250	3,250	1,250	3,340	1,250	2,350	1,250	3,370
1,500	3,970	1,500	4,050	1,503	4,060	1,500	4,070
1,745	4,680	1,750	4,750	1,750	4,740	1,750	4,740
2,000	5,410	2,000	5,450	2,000	5,440	2,000	5,440
1,875	5,180	1,875	5,200	1,875	5,210	1,875	5,200
1,750	4,900	1,750	4,940	1,750	4,930	1,750	4,930
1,500	4,320	1,500	4,360	1,500	4,350	1,500	4,350
1,250	3,730	1,250	3,750	1,250	3,740	1,250	3,730
1,000	3,090	1,000	3,090	1,003	3,100	1,000	3,100
0,750	2,430	0,750	2,430	0,750	2,450	0,750	2,450
0,503	1,740	0,503	1,730	0,500	1,770	0,500	1,760
0,250	1,020	0,250	1,010	0,250	1,040	0,250	1,030
0,	0,320	0,	0,280	0,	0,310	0,	0,290
0,	0,280	0,	0,240	0,	0,270	0,	0,270
=0,250	=0,420	=0,250	=0,470	=0,250	=0,430	=0,250	=0,420
=0,500	=1,160	=0,500	=1,230	=0,500	=1,160	=0,500	=1,180
=0,750	=1,920	=0,750	=1,950	=0,750	=1,900	=0,750	=1,900
=1,000	=2,650	=1,000	=2,690	=1,000	=2,640	=1,000	=2,640
=1,250	=3,390	=1,250	=3,440	=1,250	=3,370	=1,250	=3,370
=1,500	=4,140	=1,500	=4,150	=1,500	=4,090	=1,500	=4,080
=1,750	=4,850	=1,750	=4,860	=1,750	=0,480	=1,750	=4,840
=2,000	=5,550	=2,000	=5,570	=2,000	=5,500	=2,000	=5,530
=1,875	=5,300	=1,875	=5,320	=1,865	=5,230	=1,865	=5,240
=1,745	=5,020	=1,750	=5,050	=1,750	=4,970	=1,745	=4,970
=1,500	=4,430	=1,500	=4,450	=1,500	=4,390	=1,500	=4,410
=1,250	=3,820	=1,250	=3,820	=1,250	=3,770	=1,250	=3,790
=1,000	=3,170	=1,000	=3,170	=1,000	=3,110	=1,000	=3,100
=0,750	=2,480	=0,750	=2,490	=0,750	=2,440	=0,750	=2,460
=0,500	=1,780	=0,500	=1,780	=0,498	=1,720	=0,500	=1,730
=0,250	=1,060	=0,250	=1,060	=0,250	=1,000	=0,250	=1,010
0,	=0,330	0,	=0,320	0,	=0,270	0,	=0,260

表－7－6　交番荷重試験　Ⅱ，2.0 D

SHIMIZU AL=II=10 ST,NO, DG=1 FMAX= 1,00 TON/PILE 40/3/11

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	=0,140	0,	=0,150	0,	=0,160	0,	=0,170
0,128	0,140	0,125	0,180	0,125	0,140	0,125	0,130
0,250	0,460	0,250	0,520	0,250	0,490	0,250	0,470
0,375	0,800	0,375	0,860	0,375	0,850	0,375	0,820
0,498	1,150	0,500	1,240	0,500	1,190	0,503	1,160
0,625	1,520	0,625	1,580	0,625	1,550	0,625	1,520
0,750	1,870	0,750	1,920	0,750	1,880	0,750	1,860
0,875	2,220	0,875	2,260	0,875	2,230	0,875	2,210
1,000	2,580	1,000	1,600	1,000	2,570	1,000	2,540
0,938	2,470	0,938	2,500	0,938	2,460	0,938	2,430
0,875	2,335	0,875	2,370	0,875	2,320	0,875	2,290
0,750	2,050	0,750	2,070	0,750	2,030	0,748	2,020
0,625	1,750	0,625	1,770	0,625	1,730	0,628	1,730
0,500	1,460	0,500	1,460	0,500	1,430	0,500	1,420
0,375	1,130	0,378	1,130	0,375	1,100	0,375	1,100
0,253	0,800	0,250	0,810	0,250	0,770	0,250	0,760
0,125	0,460	0,125	0,470	0,125	0,430	0,125	0,420
0,	0,150	0,	0,160	0,	0,090	0,	0,120
0,	0,130	0,	0,110	0,	0,070	0,	0,080
=0,125	=0,200	=0,125	=0,220	=0,125	=0,250	=0,125	=0,250
=0,250	=0,560	=0,250	=0,590	=0,250	=0,600	=0,250	=0,590
=0,375	=0,920	=0,375	=0,950	=0,375	=0,950	=0,375	=0,950
=0,500	=1,280	=0,498	=1,280	=0,500	=1,310	=0,500	=1,280
=0,625	=1,640	=0,625	=1,660	=0,625	=1,670	=0,625	=1,660
=0,750	=1,990	=0,750	=2,020	=0,750	=2,010	=0,750	=2,000
=0,878	=2,370	=0,875	=2,360	=0,875	=2,360	=0,875	=2,350
=1,000	=2,740	=1,000	=2,720	=1,003	=2,720	=1,000	=2,700
=0,935	=2,600	=0,938	=2,600	=0,938	=2,580	=0,938	=2,580
=0,875	=2,470	=0,873	=2,460	=0,875	=2,450	=0,875	=2,440
=0,748	=2,170	=0,750	=2,170	=0,750	=2,150	=0,748	=2,150
=0,625	=1,855	=0,625	=1,870	=0,625	=1,850	=0,625	=1,860
=0,500	=1,550	=0,498	=1,550	=0,500	=1,540	=0,500	=1,530
=0,375	=1,220	=0,375	=1,210	=0,375	=1,200	=0,373	=1,200
=0,253	=0,870	=0,250	=0,880	=0,250	=0,870	=0,250	=0,890
=0,125	=0,530	=0,125	=0,540	=0,128	=0,530	=0,125	=0,560
0,	=0,190	0,	=0,210	0,	=0,200	0,	=0,230

表－7－7　交番荷重試験　Ⅱ，1.0 D

SHIMIZU　　AL-III-2U　　ST,NO, 500D-1　FMAX= 2.00 TON/PILE　　40/3/14

2 CYCLE		3 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.011	0.039	0.021	-0.117
0.146	0.467	0.156	0.311
0.250	0.895	0.297	0.856
0.328	1.128	0.650	1.556
0.432	1.439	0.775	1.906
0.557	1.595	0.900	2.334
0.676	1.828	1.004	2.606
0.739	2.023	1.118	2.918
0.796	2.178	1.233	3.268
0.915	2.490	1.342	3.579
0.983	2.645	1.472	3.890
1.061	2.879	1.602	4.279
1.186	3.229	1.732	4.629
1.316	3.657	1.857	5.018
1.446	4.007	1.955	5.252
1.571	4.357	2.085	5.563
1.706	4.746	2.236	5.913
1.857	5.135	2.361	6.341
1.987	5.524	2.252	6.107
2.059	5.718	2.091	5.796
1.945	5.524	1.961	5.563
1.799	5.174	1.862	5.252
1.685	4.940	1.721	4.940
1.571	4.668	1.586	4.590
1.461	4.396	1.487	4.318
1.342	4.123	1.389	4.085
1.217	3.773	1.248	3.734
1.082	3.423	1.134	3.423
0.962	3.151	1.019	3.151
0.863	2.840	0.905	2.840
0.749	2.529	0.785	2.490
0.624	2.178	0.666	2.140
0.317	1.595	0.583	1.967
0.187	1.206	0.395	1.362
0.099	0.817	0.271	1.323
-0.011	0.	0.146	0.817
-0.172	-0.428	0.057	0.506
-0.281	-0.778	0.	0.350
-0.416	-1.323	-0.011	0.117
-0.536	-1.517	-0.161	-0.350

表－8－1　交番荷重試験　Ⅲ，2U（続き）

SHIMIZU AL-III-2U ST.NO. 500D-1 FMAX= 2.00 TON/PILE 40/3/14

2 CYCLE		3 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-0.666	-1.906	-0.260	-0.700
-0.926	-2.762	-0.364	-0.934
-1.051	-2.995	-0.531	-1.673
-1.196	-3.579	-0.676	-1.867
-1.477	-4.201	-0.796	-2.217
-1.633	-4.590	-1.025	-2.995
-1.779	-5.096	-1.155	-3.190
-1.940	-5.641	-1.311	-3.812
-2.065	-6.068	-1.571	-4.551
-2.262	-6.613	-1.695	-4.824
-1.966	-5.796	-1.815	-5.213
-1.690	-5.213	-1.929	-5.602
-1.597	-5.057	-2.075	-5.757
-1.461	-4.707	-2.200	-6.185
-1.321	-4.279	-2.460	-6.924
-1.186	-3.929	-2.210	-6.535
-1.035	-3.579	-2.085	-6.224
-0.915	-3.190	-1.961	-5.913
-0.588	-2.373	-1.846	-5.563
-0.369	-1.673	-1.685	-5.174
-0.213	-1.167	-1.591	-4.979
-0.094	-0.622	-1.451	-4.590
-0.016	-0.428	-1.300	-4.162
		-1.181	-3.812
		-1.030	-3.462
		-0.895	-3.073
		-0.765	-2.702
		-0.676	-2.490
		-0.525	-1.984
		-0.395	-1.828
		-0.281	-1.362
		-0.141	-0.700
		-0.011	-0.350

表－8－1　交番荷重試験　Ⅲ，2U

IIMIZU AL-III-3U ST,NO, 5000-1 FMAX= 3,00 TON/PILE 40/3/15

2 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,225	0,457	0,023	0,038	0,023	0,038
0,390	0,914	0,225	0,533	0,248	0,686
0,540	1,219	0,450	1,181	0,413	1,219
0,728	1,715	0,593	1,524	0,570	1,638
0,885	2,210	0,810	2,210	0,765	2,172
1,050	2,629	0,968	2,667	0,938	2,705
1,245	3,162	1,140	3,124	1,118	3,277
1,448	3,772	1,328	3,696	1,298	3,772
1,658	4,343	1,500	4,191	1,523	4,420
1,853	4,877	1,710	4,801	1,695	4,839
2,040	5,372	1,913	5,334	1,905	5,448
2,235	5,867	2,070	5,753	2,093	5,867
2,408	6,248	2,243	6,172	2,258	6,401
2,558	6,629	2,453	6,706	2,490	6,934
2,738	7,087	2,678	7,239	2,693	7,506
2,903	7,468	2,895	7,811	2,865	8,001
3,083	7,925	3,098	8,268	2,783	7,887
3,263	8,420	3,270	8,725	2,558	7,430
3,083	8,115	3,240	8,725	2,310	6,820
2,865	7,658	3,180	8,687	2,168	6,553
2,655	7,239	2,940	8,268	1,958	6,058
2,445	6,706	2,753	7,849	1,755	5,525
2,235	6,363	2,550	7,391	1,530	4,953
2,048	5,791	2,340	6,934	1,335	4,420
1,868	5,410	2,160	6,515	1,148	3,924
1,665	4,877	1,965	5,944	0,953	3,391
1,478	4,343	1,733	5,448	0,818	3,010
1,230	3,734	1,538	4,915	0,713	2,705
1,035	3,010	1,343	4,382	0,578	2,210
0,885	2,629	1,200	4,039	0,428	1,676
0,698	2,057	0,990	3,429	0,233	1,334
0,533	1,486	0,795	2,858	0,053	0,800
0,375	1,143	0,623	2,362	-0,015	0,533
0,188	0,724	0,495	1,867	-0,045	0,038
0,030	0,191	0,300	1,334	-0,218	-0,343
0,060	-0,191	0,120	0,991	-0,413	-0,914
0,293	-0,686	0,015	0,610	-0,593	-1,600
0,510	-1,295	-0,023	-0,038	-0,840	-2,248
0,705	-2,019	-0,263	-0,648	-1,043	-2,896
0,885	-2,438	-0,465	-1,181	-1,230	-3,467

表－8－2　交番荷重試験　Ⅲ，3U（続き）

SHIMIZU　　AL=III=3U　　ST,NO, 5000=1　FMAX= 3,00 TON/PILE　　40/3/15

2 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
=1,118	=3,048	=0,645	=1,867	=1,440	=3,962
=1,395	=3,848	=0,885	=2,515	=1,650	=4,382
=1,740	=4,801	=1,110	=3,277	=1,845	=5,067
=1,965	=5,144	=1,305	=3,734	=2,033	=5,601
=2,340	=6,172	=1,500	=4,191	=2,325	=5,829
=3,023	=7,582	=1,695	=4,953	=2,700	=7,468
=3,233	=7,925	=1,920	=5,105	=2,513	=7,087
=3,420	=8,839	=2,145	=5,982	=2,318	=6,706
=2,903	=7,849	=2,520	=6,896	=2,046	=6,058
=2,700	=7,544	=3,240	=9,030	=1,673	=5,105
=2,310	=6,591	=2,978	=8,458	=1,470	=4,572
=2,078	=6,210	=2,228	=6,668	=1,238	=4,039
=1,883	=5,410	=2,003	=6,134	=1,170	=3,848
=1,710	=5,029	=1,613	=5,258	=0,938	=3,315
=1,485	=4,839	=1,403	=4,496	=0,735	=2,629
=1,238	=4,039	=1,080	=3,810	=0,570	=2,172
=1,050	=3,581	=0,855	=3,239	-0,353	=1,295
=0,855	=3,048	=0,705	=2,781	=0,143	=0,762
=0,623	=2,438	=0,518	=2,057	=0,015	=0,343
=0,465	=1,753	=0,293	=1,410		
=0,240	=1,181	=0,083	=0,762		
=0,023	=0,572	=0,015	=0,572		

表－8－2　交番荷重試験　Ⅲ，3U

SHIMIZU AL-III-4U ST.NO, 5000-1 FMAX= 4,00 TON/PILE 40/3/15

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,015	0,039	0,015	0,	0,	0,039	0,008	0,	0,015	0,
0,227	0,584	0,309	0,581	0,222	0,542	0,253	0,619	0,245	0,542
0,416	1,167	0,539	1,122	0,428	1,161	0,436	1,200	0,443	1,161
0,560	1,634	0,729	1,509	0,610	1,509	0,618	1,548	0,610	1,548
0,734	2,023	0,951	2,090	0,832	2,206	1,030	2,670	0,848	2,206
0,878	2,412	1,157	2,670	1,030	2,709	1,228	2,367	1,030	2,786
1,030	2,840	1,394	3,290	1,252	3,367	1,458	3,947	1,228	3,251
1,196	3,345	1,593	3,870	1,474	3,947	1,688	4,567	1,434	3,947
1,401	3,929	1,791	4,334	1,696	4,489	1,925	5,186	1,640	4,489
1,583	4,474	1,973	4,799	1,902	5,031	2,124	5,728	1,846	5,031
1,765	4,979	2,187	5,302	2,116	5,573	2,345	6,318	2,060	5,650
1,946	5,485	2,369	5,805	2,330	6,192	2,544	6,773	2,274	6,192
2,113	5,913	2,583	6,308	2,544	6,734	2,773	7,353	2,480	6,695
2,318	6,496	2,773	6,776	2,742	7,189	2,979	7,934	2,694	7,237
2,499	6,924	2,987	7,198	2,964	7,740	3,217	8,398	2,916	7,740
2,696	7,469	3,217	7,817	3,178	8,243	3,439	8,978	3,146	8,282
2,878	7,936	3,455	8,359	3,384	8,862	3,685	9,598	3,344	8,785
3,086	8,441	3,503	8,901	3,613	9,327	3,938	10,565	3,566	9,211
3,272	8,947	3,859	9,327	3,819	9,869	4,192	10,372	3,772	9,791
3,469	9,414	4,041	9,791	4,057	10,410	4,438	9,830	4,010	10,294
3,658	9,881	4,263	10,217	4,271	10,913	4,557	9,443	4,382	11,571
3,878	10,425	4,511	10,526	4,493	11,417	4,430	8,940	4,255	11,146
3,969	10,814	4,208	10,410	4,572	11,765	4,350	8,514	4,089	10,836
3,886	10,659	4,076	10,178	4,366	11,339	4,271	8,166	3,930	10,565
3,651	10,270	3,883	9,714	4,094	10,797	4,105	10,565	3,701	10,101
3,439	9,803	3,693	9,482	3,851	10,604	3,923	10,372	3,510	9,675
3,264	9,453	3,502	9,172	3,653	10,256	3,819	9,830	3,360	9,482
2,848	8,519	3,265	8,746	3,463	9,714	3,582	9,443	3,122	8,862
2,636	8,013	3,019	8,166	3,217	9,095	3,336	8,940	2,932	8,475
2,431	7,547	2,805	7,624	2,979	8,630	3,130	8,514	2,742	7,972
2,234	7,041	2,551	7,160	2,781	8,282	2,948	8,166	2,591	7,740
2,037	6,574	2,377	6,579	2,575	7,663	2,781	7,740	2,377	7,198
1,840	6,030	2,282	6,424	2,480	7,508	2,591	7,740	2,187	6,656
1,628	5,485	2,227	6,347	2,266	7,082	2,377	7,276	1,989	6,231
1,499	5,096	2,139	6,153	1,846	6,076	2,139	6,618	1,846	5,882
1,325	4,629	1,949	5,728	1,656	5,457	1,941	6,192	1,640	5,379
1,143	4,126	1,767	5,302	1,426	4,915	1,759	5,728	1,434	4,838
0,977	3,618	1,553	4,760	1,228	4,334	1,545	5,108	1,244	4,257
0,765	2,956	1,339	4,257	1,054	3,870	1,339	4,567	1,062	3,831
0,598	2,412	1,141	3,678	0,887	3,406	1,125	4,025	0,824	3,135

表－8－3 交番荷重試験 Ⅲ，4U（続き）

SHIMIZU AL-III-4U ST.NO. 5000-1 FMAX= 4.00 TON/PILE 40/3/15

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.462	1.867	0.966	3.251	0.705	2.903	0.911	3.444	0.586	2.399
0.265	1.517	0.792	2.709	0.531	2.286	0.705	2.825	0.420	1.742
0.063	0.973	0.626	2.245	0.293	1.548	0.539	2.167	0.229	1.316
0.007	0.700	0.467	1.625	0.095	1.277	0.317	1.548	0.047	1.006
-0.022	-0.078	0.269	1.277	0.	0.929	0.126	1.238	0.	0.813
-0.227	-0.545	0.055	0.774	-0.023	-0.039	0.023	0.968	-0.015	-0.077
-0.409	-0.934	0.	0.542	-0.214	-0.464	-0.015	-0.039	-0.245	-0.581
-0.836	-2.376	-0.222	-0.464	-0.436	-1.084	-0.237	-0.542	-0.467	-1.238
-1.116	-3.034	-0.436	-1.006	-0.602	-1.625	-0.459	-1.122	-0.684	-1.780
-1.272	-3.696	-0.610	-1.625	-0.784	-2.283	-0.618	-1.703	-0.840	-2.477
-1.939	-5.524	-0.832	-2.283	-1.006	-2.825	-0.848	-2.439	-1.077	-3.096
-2.340	-6.341	-1.022	-2.864	-1.212	-3.444	-1.070	-3.019	-1.268	-3.715
-2.681	-7.313	-1.236	-3.406	-1.418	-3.947	-1.252	-3.599	-1.497	-4.257
-2.886	-7.936	-1.355	-3.793	-1.624	-4.489	-1.458	-4.180	-1.704	-4.838
-3.333	-8.908	-1.577	-4.334	-1.830	-5.108	-1.696	-4.683	-1.941	-5.418
-3.772	-10.231	-1.846	-4.954	-2.028	-5.612	-1.894	-5.341	-2.155	-5.999
-3.977	-10.931	-2.021	-5.418	-2.250	-6.115	-2.124	-5.805	-2.401	-6.540
-3.870	-10.853	-2.227	-5.921	-2.425	-6.695	-2.330	-6.347	-2.607	-7.198
-3.727	-10.581	-2.448	-6.386	-2.623	-7.121	-2.559	-6.966	-2.845	-7.901
-3.605	-10.347	-2.655	-7.043	-2.773	-7.353	-2.789	-7.547	-3.082	-8.321
-3.469	-10.036	-2.861	-7.508	-2.924	-7.740	-3.043	-8.127	-3.281	-8.862
-2.287	-7.352	-3.090	-8.088	-3.154	-8.359	-3.257	-8.708	-3.471	-9.211
-1.704	-5.485	-3.320	-8.630	-3.344	-8.978	-3.439	-9.136	-3.716	-9.830
-1.068	-3.501	-3.439	-8.940	-3.598	-9.365	-3.637	-9.482	-3.954	-10.449
-0.729	-2.956	-3.843	-9.907	-3.772	-9.946	-4.366	-11.146	-4.438	-11.765
-0.522	-2.256	-3.986	-10.294	-3.978	-10.372	-4.184	-11.494	-4.136	-11.223
-0.272	-1.556	-4.192	-10.759	-4.200	-10.836	-3.946	-10.875	-4.081	-11.146
-0.045	-0.817	-4.152	-10.797	-4.279	-11.184	-3.669	-10.410	-3.812	-10.526
-0.007	-0.661	-3.851	-10.333	-4.184	-11.068	-3.431	-9.559	-3.479	-10.178
		-3.170	-9.172	-3.986	-10.643	-3.178	-9.056	-3.265	-9.404
		-3.296	-8.901	-3.590	-9.946	-2.956	-8.708	-3.035	-9.056
		-3.185	-9.133	-3.098	-8.901	-2.694	-8.166	-2.805	-8.514
		-3.281	-8.978	-2.940	-8.514	-2.464	-7.547	-2.583	-7.972
		-3.225	-9.056	-2.734	-8.050	-2.242	-7.005	-2.417	-7.624
		-3.027	-8.630	-2.551	-7.701	-2.028	-6.502	-2.227	-7.198
		-2.853	-8.321	-2.417	-7.392	-1.862	-6.037	-2.041	-6.695
		-2.710	-8.011	-2.282	-7.082	-1.775	-5.844	-1.783	-6.037
		-2.559	-7.663	-2.060	-6.540	-1.545	-5.302	-1.569	-5.573
		-2.322	-7.043	-1.862	-5.999	-1.355	-4.799	-1.371	-4.915
		-2.108	-6.579	-1.704	-5.534	-1.157	-4.296	-1.141	-4.334

表－8－3 交番荷重試験 Ⅲ，4U（続き）

SHIMIZU　　AL-III-4U　　ST,NO, 500D-1　FMAX= 4,00 TON/PILE　　40/3/15

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE		5 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
		-1,933	-6,153	-1,490	-5,070	-0,966	-3,793	-0,903	-3,754
		-1,727	-5,612	-1,283	-4,489	-0,800	-3,328	-0,753	-3,290
		-1,474	-4,954	-1,070	-3,986	-0,602	-2,670	-0,562	-2,554
		-1,268	-4,412	-0,840	-3,406	-0,261	-1,548	-0,348	-1,935
		-1,085	-3,909	-0,610	-2,670	-0,111	-1,122	-0,174	1,393
		-0,927	-3,480	-0,428	-1,973	-0,008	-0,813	-0,039	-0,968
		-0,745	-2,941	-0,222	-1,393				
		-0,570	-2,361	-0,087	-1,006				
		-0,372	-1,742	-0,008	-0,774				
		-0,198	-1,277						
		-0,079	-0,890						
		-0,008	-0,697						

表－8－3　交番荷重試験　Ⅲ，4Ｕ

SHIMIZU AL-III-5U ST,NO, 500U-1 FMAX= 5,00 TON/PILE 40/3/16

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,018	0,168	0,018	0,126	0,018	0,084	0,017	0,079
0,270	0,504	0,306	0,546	0,288	0,420	0,447	1,225
0,468	0,882	0,432	1,302	0,468	1,218	0,619	1,857
0,648	1,554	0,612	1,848	0,684	1,932	0,877	2,686
0,936	2,184	0,864	2,436	0,900	2,688	1,118	3,358
1,206	2,898	1,026	3,276	1,170	3,318	1,342	3,990
1,494	3,570	1,296	3,654	1,386	4,158	1,565	4,740
1,764	4,410	1,530	4,536	1,656	4,788	1,841	5,372
1,998	4,833	1,818	5,166	1,872	5,418	2,099	6,281
2,214	5,418	2,124	5,964	2,124	6,216	2,305	6,834
2,484	6,132	2,358	6,720	2,412	6,846	2,546	7,347
2,736	6,678	2,556	7,140	2,682	7,644	2,769	8,137
2,934	7,266	2,790	7,812	2,988	8,400	3,062	8,690
3,204	7,980	3,078	8,568	3,240	9,114	3,268	9,480
3,546	8,736	3,384	9,282	3,420	9,576	3,526	10,033
3,798	9,450	3,582	9,912	3,690	10,206	3,801	10,784
4,050	9,996	3,816	10,332	3,924	10,836	4,077	11,534
4,320	10,794	4,086	11,088	4,176	11,424	4,352	12,166
4,590	11,256	4,338	11,634	4,410	12,096	4,593	12,838
4,788	11,760	4,554	12,138	4,662	12,684	4,816	13,272
5,094	12,558	4,806	12,852	4,950	13,356	5,040	13,983
5,346	13,146	5,058	13,272	5,112	13,692	5,298	14,497
5,616	13,818	5,238	13,860	5,346	14,322	5,539	15,168
5,922	14,490	5,526	14,448	5,616	15,120	5,762	15,728
6,210	15,162	5,688	14,910	5,904	15,792	5,986	16,235
6,372	15,540	5,922	15,498	6,138	16,464	6,330	16,985
6,732	16,548	6,156	16,044	6,408	17,052	6,037	16,669
6,372	16,044	6,336	16,464	6,624	17,808	5,900	16,432
6,156	15,666	6,606	17,094	6,516	17,682	5,625	15,879
5,958	15,330	6,732	17,598	6,390	17,514	5,435	15,563
5,688	14,784	6,624	17,472	6,246	17,262	5,195	15,089
5,400	14,322	6,534	17,388	6,084	17,010	4,988	14,615
5,130	13,776	6,390	17,220	5,904	16,674	4,730	14,141
4,842	13,104	6,192	16,842	5,634	16,128	4,524	13,707
4,734	12,894	6,048	16,506	5,400	15,708	4,283	13,233
4,446	12,432	5,904	16,254	5,202	15,288	3,973	12,482
4,140	11,592	5,832	16,128	4,950	14,658	3,767	12,127
3,942	11,298	5,544	16,624	4,716	14,154	3,526	11,534
3,708	10,836	5,310	15,246	4,572	13,818	3,320	11,021
3,474	10,248	5,094	14,616	4,356	13,482	3,113	10,586

表－８－４　交番荷重試験　Ⅲ，５Ｕ（続き）

SHIMIZU AL-III-5U ST.NO. 5000-1 FMAX= 5.00 TON/PILE 40/3/16

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
3,222	9,618	4,878	14,406	4,140	12,978	2,855	9,954
3,006	9,198	4,662	13,818	3,924	12,432	2,632	9,362
2,772	8,610	4,392	13,272	3,708	12,054	2,374	8,809
2,556	8,232	4,140	12,684	3,528	11,592	2,185	8,216
2,304	7,476	3,924	12,306	3,312	11,130	2,013	7,821
2,070	7,014	3,672	11,718	3,096	10,584	1,789	7,189
1,854	6,468	3,420	11,046	2,916	10,206	1,531	6,557
1,692	6,006	3,168	10,584	2,718	9,618	1,290	5,886
1,476	5,502	3,024	10,290	2,466	9,114	1,067	5,254
1,242	4,872	2,772	9,618	2,232	8,400	0,843	4,582
0,990	4,242	2,520	9,072	1,980	7,770	0,568	3,674
0,756	3,528	2,286	8,442	1,782	7,308	0,379	2,686
0,486	2,688	2,124	8,064	1,530	6,594	0,138	1,936
0,324	1,890	1,854	7,350	1,314	6,006	0,	1,462
0,108	1,260	1,566	6,636	1,080	5,334	-0,035	-0,040
0,	0,924	1,296	5,922	0,846	4,704	-0,258	-0,593
0,	0,042	1,044	5,208	0,648	4,116	-0,499	-1,462
-0,117	-0,294	0,810	4,578	0,468	3,318	-0,723	-2,489
-0,414	-1,050	0,594	3,948	0,270	2,478	-0,981	-3,279
-0,558	-1,806	0,378	2,982	0,108	2,016	-1,239	-4,029
-0,810	-2,436	0,126	2,100	0,	1,638	-1,497	-4,859
-1,044	-3,192	0,	1,680	-0,018	0,042	-1,755	-5,649
-1,350	-3,948	-0,018	0,042	-0,234	-0,420	-1,978	-6,202
-1,584	-4,620	-0,180	-0,336	-0,486	-1,386	-2,202	-6,992
-1,818	-5,250	-0,450	-1,134	-0,720	-2,394	-2,477	-7,782
-2,088	-6,006	-0,612	-2,016	-0,918	-2,982	-2,701	-8,493
-2,340	-6,552	-0,864	-2,814	-1,152	-3,654	-2,959	-9,125
-2,520	-7,098	-1,116	-3,486	-1,476	-4,578	-3,371	-10,231
-2,754	-7,644	-1,332	-4,200	-1,728	-5,376	-3,526	-10,744
-3,024	-8,316	-1,548	-4,872	-1,962	-6,048	-3,819	-11,534
-3,222	-8,862	-1,836	-5,544	-2,214	-6,762	-3,629	-11,179
-3,456	-9,450	-2,052	-6,342	-2,484	-7,518	-3,561	-11,100
-3,726	-10,080	-2,304	-6,930	-2,736	-8,274	-3,337	-10,665
-3,906	-10,584	-2,574	-7,728	-2,952	-8,862	-3,148	-10,310
-4,122	-11,088	-2,880	-8,568	-3,132	-9,408	-3,027	-9,994
-4,410	-11,886	-3,132	-9,156	-3,330	-9,996	-2,701	-9,243
-4,698	-12,558	-3,330	-9,702	-3,474	-10,374	-2,649	-9,204
-4,842	-13,020	-3,600	-10,416	-3,762	-11,088	-2,408	-8,493
-5,094	-13,482	-3,870	-11,088	-4,014	-11,760	-2,322	-8,335
-5,346	-14,196	-3,996	-11,592	-4,248	-12,390	-2,099	-7,782

表－8－4　交番荷重試験　Ⅲ，5Ｕ（続き）

SHIMIZU　　AL-III-5U　　ST,NO, 5000-1　FMAX= 5,00 TON/PILE　　40/3/16

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-5,616	-14,868	-4,266	-12,180	-4,500	-13,104	-1,961	-7,466
-5,850	-15,498	-4,428	-12,768	-4,590	-13,356	-1,806	-7,031
-6,138	-16,044	-4,464	-12,810	-4,860	-13,986	-1,755	-6,913
-6,282	-16,632	-5,076	-14,154	-5,076	-14,574	-1,514	-6,281
-6,372	-17,070	-5,256	-14,784	-5,274	-15,204	-0,671	-3,990
-6,390	-16,842	-5,544	-15,246	-5,508	-15,666	-0,499	-3,397
-5,994	-16,548	-5,742	-15,960	-5,742	-16,296	-0,275	-2,291
-5,760	-16,128	-6,030	-16,590	-6,012	-17,010	-0,138	-1,196
-5,490	-15,708	-6,282	-17,346	-6,210	-17,640		
-5,238	-15,288	-6,534	-18,312	-6,390	-18,270		
-4,986	-14,532	-6,426	-18,228	-6,264	-18,060		
-4,698	-13,986	-6,282	-18,018	-6,210	-18,018		
-4,446	-13,314	-6,102	-17,682	-6,012	-17,598		
-4,194	-12,810	-5,904	-17,262	-5,760	-17,052		
-3,994	-12,474	-5,652	-16,800	-5,472	-16,422		
-3,582	-11,676	-5,382	-16,212	-5,274	-15,750		
-3,348	-10,878	-5,130	-15,624	-4,878	-15,246		
-3,060	-10,290	-4,860	-14,994	-4,680	-14,784		
-2,862	-9,786	-4,590	-14,406	-4,482	-14,322		
-2,646	-9,114	-4,302	-13,776	-4,356	-13,986		
-2,448	-8,778	-4,176	-13,524	-4,176	-13,608		
-2,142	-8,106	-3,906	-12,936	-4,014	-13,146		
-1,926	-7,392	-3,654	-12,264	-3,852	-12,768		
-1,674	-6,804	-3,456	-11,802	-3,708	-12,432		
-1,404	-6,048	-3,258	-11,214	-2,790	-10,038		
-1,314	-5,586	-3,006	-10,624	-2,628	-9,618		
-1,188	-5,502	-2,826	-10,248	-2,340	-8,820		
-1,044	-4,998	-2,538	-9,618	-2,034	-7,980		
-0,810	-4,494	-2,286	-8,778	-1,944	-7,308		
-0,504	-3,360	-2,070	-8,316	-1,764	-6,888		
-0,360	-2,604	-1,872	-7,728	-1,548	-6,300		
-0,198	-2,142	-1,692	-7,182	-1,314	-5,586		
-0,036	-1,680	-1,548	-6,846	-1,134	-5,124		
0.	-1,512	-1,440	-6,552	-0,918	-4,536		
		-1,242	-6,006	-0,720	-3,906		
		-1,026	-5,334	-0,504	-3,066		
		-0,774	-4,746	-0,270	-1,974		
		-0,558	-3,948	-0,162	-1,554		
		-0,396	-2,982	-0,018	-1,008		
		-0,198	-2,394				

表－8－4　交番荷重試験　Ⅲ，5U（続き）

SHIMIZU AL-III-5U ST.NO. 5000-1 FMAX= 5.00 TON/PILE 40/3/16

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
		-0.018	-1.764				

表－８－４　交番荷重試験　Ⅲ，５Ｕ

SHIMIZU AL=III=6U ST,NO, 500U=1 FMAX= 6,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,034	0,077	0,017	0,039	0,017	0,039	0,033	0,039
0,202	0,426	0,168	0,310	0,118	0,194	0,269	0,581
0,421	0,968	0,353	0,890	0,303	0,774	0,538	1,238
0,639	1,471	0,555	1,316	0,539	1,316	0,723	2,012
0,825	2,206	0,724	2,051	0,690	1,935	0,992	2,825
0,993	2,709	0,926	2,554	0,892	2,516	1,262	3,560
1,212	3,328	1,094	3,096	1,077	3,019	1,497	4,141
1,413	3,870	1,296	3,599	1,279	3,599	1,716	4,760
1,599	4,373	1,464	4,141	1,464	4,141	1,901	5,302
1,800	4,954	1,649	4,567	1,649	4,567	2,153	5,882
2,002	5,467	1,817	4,992	1,834	5,147	2,406	6,579
2,204	5,921	2,019	5,495	2,036	5,534	2,608	7,237
2,389	6,386	2,204	5,960	2,171	5,999	2,910	7,856
2,524	6,734	2,423	6,502	2,372	6,424	3,196	8,553
2,658	7,082	2,625	7,082	2,558	6,927	3,466	9,249
2,860	7,508	2,844	7,624	2,961	8,011	3,752	9,907
3,062	8,050	3,062	8,127	3,197	8,475	4,004	10,565
3,281	8,591	3,281	8,669	3,399	8,940	4,240	10,991
3,634	9,404	3,517	9,211	3,533	9,365	4,458	11,571
3,819	9,791	3,735	9,675	3,752	9,830	4,694	12,152
4,038	10,256	3,904	10,062	3,988	10,333	4,946	12,732
4,257	10,797	4,089	10,526	4,173	10,836	4,963	13,429
4,442	11,223	4,543	11,610	4,324	11,107	5,283	13,584
4,610	11,533	4,762	12,074	4,509	11,494	5,064	13,352
4,778	11,958	4,930	12,500	4,711	11,997	5,215	13,235
4,997	12,461	5,115	12,965	4,930	12,500	5,165	13,235
5,182	12,926	4,711	12,461	5,064	12,887	5,182	13,274
5,435	13,622	4,560	11,997	5,199	13,235	5,114	13,197
5,098	13,197	4,408	11,687	5,401	13,584	4,946	12,965
4,930	12,926	4,307	11,610	5,569	14,048	4,727	12,539
4,745	12,539	4,021	10,991	5,721	14,396	4,559	12,268
4,560	12,229	3,836	10,604	5,519	14,319	4,428	11,997
4,459	11,842	3,718	10,372	5,418	14,048	4,172	11,533
4,341	11,726	3,500	9,946	5,250	13,739	3,903	10,913
4,206	11,687	3,382	9,598	5,064	13,506	3,667	10,488
4,072	11,417	3,214	9,482	4,930	13,158	3,466	10,139
4,105	11,223	3,079	9,017	4,812	13,042	3,247	9,559
3,954	10,952	2,911	8,630	4,593	12,694	2,978	8,940
3,819	10,623	2,743	8,359	4,459	12,229	2,742	8,475
3,718	10,526	2,541	7,817	4,274	12,074	2,523	7,934

表－８－ｂ　杭番何里試験　Ⅲ，６Ｕ（続き）

SHIMIZU AL-III-6U ST,NO, 5000-1 FMAX= 6,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
3,567	10,217	2,356	7,392	4,122	11,726	2,321	7,508
3,416	9,791	2,154	6,927	3,954	11,339	2,069	6,889
3,331	9,520	1,969	6,386	3,803	10,913	1,884	6,502
3,045	9,559	1,817	6,115	3,601	10,565	1,632	5,805
2,995	8,824	1,666	5,689	3,449	10,217	1,379	5,225
2,877	8,669	1,464	5,263	3,298	9,907	1,161	4,605
2,793	8,437	1,312	4,838	3,146	9,714	0,942	4,025
2,692	8,204	1,161	4,373	3,012	9,172	0,757	3,522
2,541	7,972	0,993	4,025	2,894	8,901	0,555	2,593
2,356	7,430	0,825	3,406	2,793	8,746	0,302	1,780
2,187	7,121	0,623	2,941	2,658	8,359	0,084	1,084
1,985	6,540	0,539	2,283	2,519	8,204	0,	1,045
1,868	6,269	0,286	1,509	2,136	7,160	-0,016	-0,039
1,716	5,960	0,152	1,200	1,935	6,695	-0,252	-0,542
1,548	5,457	0,051	1,161	1,766	6,231	-0,504	-1,393
1,413	5,186	0,	1,006	1,548	5,728	-0,706	-2,245
1,279	4,760	-0,017	-0,039	1,396	5,225	-0,942	-3,019
1,144	4,451	-0,101	-0,232	1,262	5,031	-1,177	-3,599
0,959	3,947	-0,303	-0,658	1,093	4,451	-1,396	-4,296
0,791	3,483	-0,539	-1,393	0,942	4,141	-1,665	-4,876
0,656	2,864	-0,673	-2,051	0,757	3,560	-1,918	-5,689
0,522	2,322	-0,858	-2,632	0,589	2,864	-2,170	-6,308
0,320	1,742	-1,077	-3,251	0,471	2,322	-2,389	-6,889
0,152	1,200	-1,279	-3,831	0,067	1,277	-2,608	-7,508
0,051	0,968	-1,481	-4,296	0,	1,238	-2,877	-8,166
-0,017	-0,039	-1,666	-4,799	0,	-0,077	-3,146	-8,862
-0,152	-0,310	-1,885	-5,379	-0,253	-0,658	-3,651	-10,139
-0,353	-0,774	-2,053	-5,805	-0,539	-1,509	-3,954	-10,836
-0,572	-1,509	-2,288	-6,347	-0,724	-2,399	-4,223	-11,571
-0,690	-2,129	-2,490	-6,966	-1,010	-3,135	-4,492	-12,113
-0,858	-2,670	-2,675	-7,392	-1,262	-3,909	-4,744	-12,694
-0,976	-3,019	-2,877	-7,817	-1,498	-4,567	-4,896	-13,429
-1,178	-3,444	-3,029	-8,321	-1,716	-5,147	-5,013	-13,622
-1,346	-3,986	-3,281	-8,862	-1,935	-5,728	-4,879	-13,584
-1,531	-4,412	-3,533	-9,404	-2,187	-6,347	-4,963	-13,390
-1,699	-4,876	-3,702	-9,907	-2,406	-6,966	-4,862	-13,313
-1,885	-5,341	-3,887	-10,333	-2,591	-7,469	-4,744	-13,159
-2,105	-5,882	-4,105	-10,875	-2,810	-8,011	-4,458	-12,578
-2,322	-6,424	-4,139	-11,146	-3,045	-8,630	-4,290	-12,229
-2,457	-6,889	-4,408	-11,494	-3,298	-9,172	-4,155	-12,036

表－8－5　交番荷重試験　Ⅲ，6U（続き）

SHIMIZU AL-III-6U ST,NO, 5000-1 FMAX= 6,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2,658	-7,237	-4,543	-12,113	-3,533	-9,830	-3,869	-11,417
-2,877	-7,856	-5,014	-13,274	-3,786	-10,372	-3,617	-10,875
-3,130	-8,475	-4,829	-13,003	-4,055	-11,068	-3,365	-10,372
-3,298	-8,824	-4,610	-12,616	-4,307	-11,687	-3,129	-9,752
-3,449	-9,172	-4,526	-12,500	-4,509	-12,191	-2,894	-9,172
-3,685	-9,830	-4,358	-12,229	-4,795	-12,848	-2,624	-8,553
-3,870	-10,178	-4,173	-11,726	-4,896	-13,274	-2,406	-8,050
-4,072	-10,681	-3,971	-11,339	-4,846	-13,197	-2,254	-7,779
-4,291	-11,184	-3,803	-11,030	-4,543	-12,655	-2,019	-7,160
-4,526	-11,726	-3,584	-10,565	-4,408	-12,423	-1,783	-6,618
-4,762	-12,191	-3,399	-9,907	-4,291	-12,268	-1,598	-5,999
-4,980	-12,848	-3,197	-9,714	-4,055	-11,804	-1,362	-5,379
-5,149	-13,274	-3,029	-9,327	-3,803	-11,262	-1,177	-4,915
-5,064	-13,158	-2,827	-8,862	-3,567	-10,720	-0,925	-4,180
-4,964	-13,081	-2,709	-8,630	-3,365	-10,333	-0,673	-3,522
-4,812	-12,926	-2,524	-8,127	-3,163	-9,946	-0,488	-2,632
-4,661	-12,616	-2,322	-7,713	-2,894	-9,404	-0,269	-1,858
-4,595	-12,461	-2,137	-7,276	-2,675	-8,746	-0,101	-1,393
-4,577	-12,423	-1,969	-6,656	-2,457	-8,127	-0,016	-1,084
-4,492	-12,268	-1,649	-6,424	-2,238	-7,624		
-4,341	-11,997	-1,800	-6,347	-1,969	-7,005		
-4,156	-11,649	-1,447	-5,457	-1,733	-6,308		
-4,055	-11,455	-1,279	-4,992	-1,649	-6,192		
-3,819	-11,262	-1,111	-4,528	-1,397	-5,689		
-3,904	-11,107	-1,010	-4,334	-1,161	-4,954		
-3,718	-10,720	-0,841	-3,909	-0,892	-4,258		
-3,500	-10,250	-0,623	-3,096	-0,623	-3,367		
-3,264	-9,714	-0,488	-2,399	-0,471	-2,554		
-2,978	-9,133	-0,370	-2,090	-0,236	-1,896		
-2,810	-8,785	-0,185	-1,509	-0,067	-1,432		
-2,675	-8,514	-0,101	-1,316	0,	-1,200		
-2,490	-8,088	-0,034	-1,045				
-2,322	-7,585						
-2,120	-7,160						
-1,935	-6,695						
-1,784	-6,347						
-1,615	-5,960						
-1,464	-5,534						
-1,329	-5,186						
-1,178	-4,760						

表－８－５ 交番荷重試験 Ⅲ，６Ｕ（続き）

SHIMIZU AL=III=6U ST,NO, 500D=1 FMAX= 6,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
=0,993	=4,296						
=0,825	=3,909						
=0,757	=3,599						
=0,606	=3,019						
=0,421	=2,206						
=0,202	=1,664						
=0,101	=1,355						
=0,017	=1,122						

表－８－５　交番荷重試験　Ⅲ，６Ｕ

SHIMIZU AL-III-7U ST.NO, 5000-1 FMAX= 7,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,017	0,	0,052	0,158	0,035	0,040	0,121	0,395
0,310	0,593	0,447	1,027	0,344	0,830	0,293	0,948
0,430	1,027	0,568	1,541	0,516	1,185	0,585	1,936
0,688	1,936	0,843	2,449	0,740	2,212	0,791	2,726
0,912	2,607	1,084	3,121	0,998	3,042	1,032	3,397
1,170	3,318	1,307	3,911	1,221	3,792	1,256	4,187
1,428	4,148	1,548	4,503	1,479	4,543	1,531	5,017
1,669	4,701	1,789	5,572	1,789	5,491	1,789	5,807
1,909	5,491	2,047	6,044	2,030	6,241	2,047	6,557
2,167	6,202	2,271	6,676	2,236	6,834	2,305	7,268
2,425	6,834	2,460	7,647	2,477	7,466	2,511	7,979
2,649	7,584	2,701	7,900	2,683	8,177	2,769	8,690
2,907	8,167	2,941	8,690	2,855	8,690	2,976	9,322
3,148	8,809	3,199	9,362	3,079	9,322	3,251	10,073
3,389	9,520	3,475	10,152	3,629	10,744	3,475	10,665
3,664	10,073	3,715	10,744	3,836	11,376	3,681	11,258
3,870	10,705	3,905	11,218	4,111	12,008	3,922	11,929
4,042	11,258	4,145	12,008	4,369	12,798	4,180	12,640
4,335	11,732	4,386	12,601	4,644	13,391	4,455	13,351
4,558	12,482	4,627	13,233	4,851	14,023	4,679	13,983
4,851	13,035	4,851	13,825	5,074	14,615	4,954	14,694
5,091	13,746	5,109	14,497	5,315	15,287	5,246	15,484
5,418	14,457	5,332	15,089	5,607	15,998	5,487	16,116
5,676	15,168	5,607	15,761	5,865	16,669	5,745	16,867
6,020	16,037	5,883	16,551	6,089	17,301	6,003	17,459
6,261	16,748	6,140	17,064	6,313	17,775	6,209	18,012
6,743	17,894	6,330	17,854	6,553	18,486	6,416	18,605
6,863	18,249	6,915	19,237	6,629	19,118	6,639	19,118
7,069	18,881	7,087	19,750	7,069	19,829	6,915	19,869
7,173	19,671	7,345	20,422	7,310	20,461	7,500	21,500
7,035	19,592	7,517	20,856	7,534	21,054	6,674	20,303
6,880	19,513	6,966	20,145	7,379	21,054	6,519	20,106
6,639	19,039	6,725	19,671	7,018	20,698	6,244	19,592
6,123	18,052	6,588	19,474	6,794	20,501	5,969	18,881
5,900	17,657	6,381	19,039	6,502	19,750	5,711	18,565
5,521	17,025	6,192	19,000	6,209	19,079	4,919	17,341
5,315	16,432	5,917	18,170	5,917	18,684	4,765	16,432
5,023	15,998	5,625	17,341	5,711	18,210	4,593	16,077
4,747	15,326	5,401	16,946	5,504	17,775	4,317	15,484
4,524	14,734	5,143	16,551	5,229	17,104	4,077	14,813

表－８－６　交番荷重試験　Ⅲ，７Ｕ（続き）

SHIMIZU AL=III=7U ST.NO, 500D=1 FMAX= 7,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
4,266	14,181	4,902	15,958	5,040	16,551	3,870	14,378
4,145	14,023	4,627	15,366	4,730	16,245	3,647	13,825
3,939	13,509	4,455	15,089	4,507	15,366	3,526	13,588
3,715	12,996	4,231	14,497	4,266	14,931	3,320	13,114
3,492	12,489	4,094	14,102	4,111	14,576	3,148	12,601
3,234	11,850	3,870	13,628	3,991	14,299	2,890	11,969
2,959	11,139	3,612	13,114	3,715	13,667	2,735	11,574
2,769	10,744	3,389	12,601	3,457	13,035	2,494	10,942
2,563	10,152	3,165	12,008	3,217	12,364	2,339	10,547
2,322	9,599	2,976	11,534	3,062	12,048	2,150	9,994
2,064	8,888	2,804	11,179	2,821	11,416	1,927	9,441
1,875	8,374	2,615	10,626	2,563	10,784	1,720	8,848
1,669	7,861	2,391	10,033	2,374	10,270	1,497	8,256
1,445	7,189	2,202	9,520	2,202	9,796	1,307	7,703
1,221	6,518	1,978	8,927	2,013	9,322	1,187	7,308
1,015	5,886	1,806	8,374	1,789	8,651	0,877	6,360
0,843	5,570	1,600	7,782	1,376	7,426	0,723	5,886
0,757	5,135	1,359	7,189	1,153	6,873	0,465	5,056
0,602	4,740	1,118	6,399	0,895	6,044	0,258	4,108
0,418	3,911	0,895	5,767	0,671	5,333	0,017	3,081
0,189	2,923	0,688	5,135	0,551	4,582	0,	-0,119
0,017	2,291	0,447	3,990	0,361	3,832	-0,241	-0,751
-0,017	-0,040	0,138	2,805	0,172	3,121	-0,465	-1,738
-0,189	-0,395	0,052	2,449	0,017	2,528	-0,688	-2,647
-0,379	-1,146	-0,017	-0,040	0,	-0,079	-0,929	-3,634
-0,536	-2,133	-0,447	-1,501	-0,189	-0,553	-1,187	-4,385
-0,751	-3,002	-0,671	-2,449	-0,379	-1,462	-1,445	-5,372
-1,084	-3,674	-0,912	-3,239	-0,619	-2,489	-1,737	-6,281
-1,342	-4,464	-1,170	-4,148	-0,826	-3,121	-1,978	-7,189
-1,669	-5,491	-1,411	-4,701	-1,067	-3,911	-2,219	-7,821
-1,944	-6,281	-1,669	-5,609	-1,325	-4,740	-2,425	-8,572
-2,167	-7,031	-1,875	-6,439	-1,548	-5,609	-2,526	-9,283
-2,408	-7,703	-2,064	-6,794	-1,737	-6,320	-2,959	-10,231
-2,649	-8,335	-2,271	-7,466	-1,978	-6,834	-3,217	-10,902
-2,924	-9,204	-2,511	-8,256	-2,219	-7,663	-3,440	-11,574
-3,217	-10,073	-2,752	-9,006	-2,494	-8,453	-3,664	-12,245
-3,475	-10,784	-3,010	-9,757	-2,752	-9,401	-3,887	-12,917
-3,733	-11,574	-3,251	-10,349	-3,010	-10,033	-4,145	-13,667
-3,991	-12,166	-3,509	-11,258	-3,234	-10,784	-4,369	-14,260
-4,249	-12,956	-3,750	-11,929	-3,492	-11,495	-4,575	-14,852

表－８－６　交番荷重試験　Ⅲ，７Ｕ（続き）

SHIMIZU AL-III-7U ST.NO. 500D-1 FMAX= 7.00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-4.489	-13.667	-3.973	-12.406	-3.715	-12.206	-4.833	-15.603
-4.730	-14.220	-4.231	-13.154	-3.956	-12.996	-5.057	-16.393
-4.971	-15.010	-4.489	-13.865	-4.214	-13.588	-5.332	-17.183
-5.229	-15.721	-4.713	-14.576	-4.403	-14.378	-5.556	-17.894
-5.453	-16.274	-4.971	-15.168	-4.679	-14.892	-5.745	-18.447
-5.711	-16.985	-5.229	-15.998	-4.868	-15.563	-7.400	-22.000
-5.986	-17.696	-5.453	-16.669	-5.074	-16.314	-5.332	-19.276
-6.244	-18.407	-5.711	-17.341	-5.281	-16.669	-4.816	-18.012
-6.519	-19.197	-5.951	-18.091	-5.504	-17.459	-4.541	-17.459
-7.300	-21.500	-6.227	-18.763	-5.745	-18.170	-4.249	-16.748
-5.986	-19.276	-6.433	-19.237	-5.986	-18.526	-3.991	-15.919
-5.453	-18.407	-7.400	-21.500	-6.141	-19.158	-3.715	-15.208
-5.160	-17.775	-5.642	-19.118	-6.347	-19.197	-3.475	-14.615
-4.902	-17.143	-5.435	-18.565	-6.588	-19.197	-3.148	-13.825
-4.661	-16.551	-5.263	-18.091	-7.500	-22.000	-2.890	-12.917
-4.438	-16.116	-4.988	-17.578	-6.261	-19.197	-2.580	-11.969
-4.249	-15.524	-4.730	-16.827	-5.607	-19.197	-2.305	-11.179
-4.025	-15.089	-4.421	-16.156	-5.315	-18.842	-2.081	-10.626
-3.779	-14.457	-4.094	-15.445	-5.109	-18.170	-1.823	-9.757
-3.561	-13.904	-3.836	-14.655	-4.919	-17.854	-1.565	-8.927
-3.337	-13.272	-3.561	-14.141	-4.765	-17.420	-1.376	-8.335
-3.079	-12.680	-3.303	-13.430	-4.507	-16.867	-1.153	-7.703
-2.821	-11.850	-3.045	-12.640	-4.266	-16.630	-0.843	-6.755
-2.683	-11.574	-2.769	-11.850	-4.077	-15.879	-0.705	-6.241
-2.460	-10.823	-2.511	-11.179	-3.858	-15.326	-0.482	-5.333
-2.219	-10.231	-2.443	-10.902	-3.595	-14.694	-0.327	-4.424
-1.995	-9.559	-2.236	-10.310	-3.354	-14.102	-0.189	-3.792
-1.789	-9.006	-2.030	-9.717	-3.045	-13.154	-0.052	-3.002
-1.600	-8.453	-1.806	-9.085	-2.804	-12.719		
-1.393	-7.742	-1.565	-8.374	-2.580	-11.811		
-1.239	-7.347	-1.307	-7.584	-2.425	-11.574		
-1.067	-6.755	-1.101	-6.952	-2.185	-10.665		
-0.929	-6.399	-0.912	-6.360	-2.030	-10.468		
-0.774	-5.846	-0.723	-5.807	-1.789	-9.480		
-0.551	-5.175	-0.551	-5.135	-1.583	-9.006		
-0.361	-4.108	-0.379	-4.227	-1.428	-8.532		
-0.189	-3.437	-0.189	-3.437	-1.256	-7.900		
-0.035	-2.884	-0.017	-2.844	-1.067	-7.347		
				-0.860	-6.755		
				-0.688	-6.123		

表－８－６　交番荷重試験　Ⅲ，７Ｕ（続き）

SHIMIZU　　AL=III-7U　　ST.NO. 5000=1　FMAX= 7.00 TON/PILE　　40/3/18

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
				=0.499	=5.451		
				=0.293	=4.385		
				=0.138	=3.595		
				=0.035	=3.121		

表— 8 — 6　交番荷重試験　Ⅲ，7 U

SHIMIZU　AL-III-8U　ST.NO, 500U-1　FMAX= 8,00 TON/PILE　40/3/18

1 CYCLE		2 CYCLE		3 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,017	-0,116	0,051	0,116	0,137	0,638
0,615	2,206	0,581	2,206	0,461	2,262
1,127	2,786	1,161	3,251	0,822	3,132
1,554	4,180	1,656	4,876	1,178	4,408
2,015	5,689	2,169	6,502	1,554	5,684
2,527	7,314	2,664	8,243	1,845	6,960
3,022	8,824	3,142	9,869	2,271	8,294
3,518	10,449	3,654	11,378	2,681	9,686
4,013	11,842	4,132	12,771	3,039	10,904
4,508	13,352	4,610	14,280	3,369	11,948
5,006	14,745	5,088	15,674	3,740	13,108
5,464	16,138	5,601	17,067	4,081	14,268
5,959	17,415	6,130	18,576	4,405	15,254
6,472	18,924	6,642	20,085	4,781	16,414
6,950	20,201	7,172	21,595	5,157	17,516
7,411	21,595	7,682	22,988	5,532	18,734
7,906	22,988	8,094	24,729	5,908	19,836
8,060	24,149	7,820	24,265	6,267	20,880
7,633	23,568	7,342	23,568	6,625	21,982
7,018	22,175	6,881	22,407	7,008	23,026
6,779	21,943	6,369	21,479	7,377	24,186
6,233	20,666	5,840	20,318	7,718	25,230
5,703	19,505	5,396	19,273	8,042	26,216
5,259	18,576	5,054	18,576	8,213	27,086
4,747	17,415	4,542	17,299	8,025	26,738
4,235	16,138	4,132	16,370	7,650	25,926
3,825	15,209	3,603	14,977	7,377	25,172
3,261	13,700	3,174	13,816	7,018	24,186
2,800	12,423	2,664	12,423	6,694	23,664
2,322	11,146	2,169	11,030	6,250	22,620
1,810	9,636	1,708	9,636	5,874	21,808
1,366	8,243	1,212	8,127	5,447	20,822
0,888	6,734	0,717	6,502	5,003	19,662
0,376	4,992	0,188	4,180	4,576	18,676
-0,037	-0,232	0,017	3,483	4,030	17,226
-0,581	-2,206	-0,051	-0,116	3,637	16,124
-1,144	-4,412	-0,631	-2,438	3,279	15,254
-1,656	-6,153	-1,110	-4,180	2,954	14,326
-2,169	-8,011	-1,605	-4,921	2,578	13,166
-2,664	-9,636	-2,117	-7,779	2,237	12,122

表－8－7　交番荷重試験　Ⅲ，8U

SHIMIZU AL-III-8U ST,NO, 500D-1 FMAX= 8,00 TON/PILE 40/3/18

1 CYCLE		2 CYCLE		3 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-3,159	-11,262	-2,647	-9,520	1,844	10,962
-3,654	-12,771	-3,142	-11,262	1,486	9,802
-4,115	-14,164	-3,671	-13,003	1,144	8,700
-4,576	-15,557	-3,899	-14,513	0,803	7,540
-5,003	-16,835	-4,627	-16,022	0,393	6,032
-5,430	-18,112	-5,140	-17,647	0,068	4,292
-5,891	-19,737	-5,652	-19,389	0,	4,118
-6,420	-21,362	-6,181	-21,014	-0,059	0,058
-7,001	-23,220	-6,694	-22,640	-0,444	-1,450
-7,513	-24,845	-7,155	-24,149	-0,786	-3,132
-7,991	-26,819	-7,667	-25,774	-1,230	-4,582
-7,974	-27,516	-8,060	-27,748	-1,588	-5,974
-7,701	-27,051	-7,786	-27,167	-1,913	-7,134
-7,412	-26,355	-7,359	-26,355	-2,271	-8,468
-6,821	-24,962	-6,933	-25,310	-2,681	-9,918
-6,454	-24,265	-6,420	-24,033	-3,039	-11,194
-5,925	-22,988	-5,891	-22,756	-3,381	-12,528
-5,430	-21,711	-5,345	-21,362	-3,757	-13,746
-4,867	-20,318	-4,901	-20,201	-4,132	-15,080
-4,645	-19,737	-4,405	-18,808	-4,508	-16,356
-4,030	-18,112	-4,115	-18,112	-4,849	-17,458
-3,518	-16,718	-3,552	-16,602	-5,106	-18,444
-3,005	-15,209	-3,074	-15,093	-5,464	-19,488
-2,630	-14,164	-2,613	-13,816	-5,891	-20,996
-2,100	-12,259	-2,220	-12,655	-6,267	-22,156
-1,622	-11,030	-1,810	-11,378	-6,591	-23,316
-1,230	-9,752	-1,298	-9,636	-6,933	-24,360
-0,564	-7,430	-0,820	-7,895	-7,223	-25,636
-0,103	-5,108	-0,307	-5,689	-7,445	-26,274
-0,017	-4,760	-0,103	-4,644	-7,735	-27,434
		-0,017	-4,412	-8,100	-28,500
				-7,633	-27,840
				-7,291	-27,702
				-7,001	-26,390
				-6,574	-25,404
				-6,164	-24,418
				-5,857	-23,664
				-5,532	-22,736
				-5,174	-21,808
				-4,875	-20,880

表－８－７　交番荷重試験　Ⅲ，８Ｕ（続き）

SHIMIZU　　AL-III-8U　　ST.NO. 500D-1　FMAX= 8.00 TON/PILE　　40/3/18

1 CYCLE		2 CYCLE		3 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
				-4.457	-19.836
				-4.098	-18.734
				-3.740	-17.690
				-3.364	-16.646
				-3.022	-15.544
				-2.681	-14.442
				-2.322	-13.340
				-1.981	-12.180
				-1.656	-11.020
				-1.332	-9.918
				-0.956	-8.584
				-0.529	-6.902
				-0.222	-5.046
				-0.103	-4.292

表－8－7　交番荷重試験　Ⅲ，8 U（続き）

SHIMIZU AL=III=7D ST.NO, 500D=1 FMAX= 7.00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,034	0,163	0,017	1,086	0,051	0,163	0,017	0,109
0,492	1,140	0,458	1,303	0,441	1,249	0,441	1,466
0,848	2,552	0,797	2,715	0,814	2,824	0,831	3,041
1,237	3,855	1,170	4,018	1,204	4,235	1,237	4,561
1,627	5,159	1,492	5,159	1,543	5,539	1,593	5,919
2,000	6,462	1,831	6,407	1,876	6,842	1,949	7,222
2,373	7,765	2,204	7,819	2,254	8,091	2,305	8,471
2,780	9,122	2,627	9,231	2,661	9,448	2,695	9,828
3,170	10,426	3,051	10,534	3,034	10,697	3,034	10,969
3,509	11,620	3,407	11,729	3,407	11,892	3,339	12,000
3,882	12,815	3,780	12,978	3,797	13,195	3,746	13,304
4,272	14,064	4,119	14,064	4,221	14,498	4,170	14,715
4,627	15,150	4,526	15,367	4,644	15,856	4,594	16,073
5,000	16,236	4,916	16,507	5,085	17,213	4,933	17,159
5,373	17,485	5,305	17,756	5,475	18,299	5,272	18,191
5,729	18,462	5,729	18,951	5,831	19,439	5,611	19,277
6,102	19,548	6,119	20,200	6,221	20,580	5,983	20,363
6,492	20,743	6,509	21,286	6,594	21,666	6,373	21,557
6,882	21,829	6,865	22,263	7,034	23,023	6,814	22,752
7,085	22,806	7,221	23,675	7,051	23,403	7,051	23,838
7,017	22,806	7,034	23,458	6,763	22,915	6,763	23,295
6,475	21,611	6,661	22,698	6,560	22,535	6,424	22,589
6,085	21,068	6,288	21,992	6,119	21,557	6,187	22,154
5,594	19,874	5,899	21,014	5,289	19,711	5,865	21,286
5,373	19,439	5,560	20,525	5,051	19,277	5,526	20,688
4,983	18,516	5,204	19,548	4,695	18,408	5,085	19,602
4,543	17,322	4,933	18,951	4,407	17,648	4,712	18,734
4,221	16,616	4,577	18,028	4,068	16,833	4,322	17,648
3,949	15,964	4,102	16,779	3,695	15,747	4,000	16,887
3,644	15,258	3,814	16,019	3,441	15,041	3,627	15,747
3,322	14,390	3,644	15,530	3,085	14,118	3,255	14,770
2,966	13,358	3,238	14,444	2,712	13,032	3,882	13,684
2,682	12,435	2,848	13,466	2,339	11,946	2,543	12,652
2,661	12,380	2,458	12,380	1,983	10,806	2,187	11,566
2,204	11,186	2,204	11,620	1,644	9,720	1,882	10,534
1,848	10,100	1,983	10,914	1,305	8,688	1,576	9,557
1,475	8,960	1,610	9,720	1,000	7,656	1,271	8,525
1,136	7,819	1,254	8,525	0,644	6,298	0,898	7,276
0,831	6,788	0,932	7,548	0,356	4,778	0,526	5,702
0,559	5,539	0,661	6,462	-0,034	-0,054	0,119	3,747

表－8 － 8　交番荷重試験　Ⅲ，7 D（続き）

SHIMIZU　　AL=III=7D　　ST,NO, 5000=1　FMAX= 7,00 TON/PILE　　40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,136	3,910	0,373	4,996	-0,441	-1,466	0,034	3,149
0,	3,312	0,051	3,584	-0,729	-2,987	-0,085	-0,326
-0,051	-0,054	-0,034	-0,054	-1,085	-4,398	-0,458	-1,575
-0,458	-1,303	-0,441	-1,412	-1,458	-5,864	-0,746	-3,149
-0,797	-2,878	-0,780	-3,041	-1,831	-7,222	-1,102	-4,616
-1,204	-4,344	-1,136	-4,398	-2,560	-9,937	-1,441	-5,756
-1,593	-5,810	-1,509	-5,756	-2,932	-11,294	-1,814	-7,168
-1,966	-7,113	-1,899	-7,222	-3,288	-12,598	-2,187	-8,525
-2,339	-8,417	-2,271	-8,634	-3,661	-13,901	-2,577	-9,937
-2,695	-9,720	-2,644	-9,991	-3,983	-14,933	-2,932	-11,294
-3,068	-11,077	-3,017	-11,349	-4,272	-16,019	-3,288	-12,543
-3,458	-12,435	-3,441	-12,815	-4,577	-17,050	-3,678	-13,901
-3,814	-13,738	-3,814	-14,009	-4,933	-18,191	-4,034	-15,150
-4,204	-15,041	-4,102	-15,041	-5,238	-19,385	-4,390	-16,344
-4,577	-16,236	-4,458	-16,237	-5,577	-20,363	-4,763	-17,702
-4,933	-17,485	-4,831	-17,485	-5,916	-21,557	-5,017	-18,353
-5,356	-18,842	-5,187	-18,679	-6,306	-22,752	-5,187	-19,059
-5,661	-19,928	-5,594	-19,982	-6,645	-23,892	-5,543	-20,308
-6,000	-20,851	-5,983	-21,286	-6,712	-24,544	-5,899	-21,503
-6,306	-21,883	-6,356	-22,480	-7,017	-24,869	-6,221	-22,643
-6,661	-23,078	-6,543	-23,349	-6,933	-25,141	-6,645	-24,001
-6,882	-24,164	-6,678	-23,783	-7,102	-25,250	-7,068	-25,358
-7,204	-25,032	-6,984	-24,544	-7,204	-26,227	-7,136	-26,064
-6,831	-24,706	-7,187	-25,738	-6,712	-25,141	-6,865	-25,467
-6,289	-23,783	-6,645	-25,250	-6,221	-23,892	-6,661	-25,087
-5,933	-22,752	-6,373	-24,598	-5,916	-23,295	-6,560	-24,869
-5,695	-21,992	-6,119	-23,132	-5,577	-22,426	-6,306	-24,381
-5,289	-20,960	-5,543	-21,937	-5,170	-21,177	-6,068	-24,055
-4,983	-20,091	-5,000	-20,743	-4,746	-20,091	-5,238	-21,503
-4,678	-19,494	-4,712	-19,494	-4,441	-19,439	-4,831	-20,254
-4,255	-18,082	-4,356	-18,896	-4,153	-18,353	-4,407	-19,168
-3,949	-17,376	-4,509	-18,679	-3,780	-17,648	-4,136	-18,028
-3,577	-16,073	-4,068	-18,028	-3,390	-16,019	-3,729	-17,430
-3,305	-15,313	-3,644	-16,562	-3,102	-15,421	-3,305	-15,856
-2,831	-14,009	-3,407	-15,964	-2,814	-14,390	-2,814	-14,281
-2,526	-12,978	-3,051	-14,878	-2,560	-13,521	-2,695	-13,901
-2,187	-11,837	-2,678	-13,738	-2,170	-12,380	-2,254	-12,489
-1,831	-10,697	-2,305	-12,652	-1,848	-11,186	-2,034	-11,837
-1,644	-10,046	-1,932	-11,349	-1,475	-9,937	-1,831	-11,023
-1,339	-9,340	-1,627	-10,263	-1,170	-8,797	-1,509	-9,937

表－8 －8　交番荷重試験　Ⅲ，7 D（続き）

SHIMIZU AL=III=7D ST,NO, 500D=1 FMAX= 7,00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
=1,305	=8,905	=1,305	=9,014	=0,814	=7,548	=1,187	=8,797
=0,966	=7,765	=1,000	=8,036	=0,509	=6,027	=0,831	=7,548
=0,610	=6,245	=0,644	=6,625	=0,085	=4,073	=0,509	=5,864
=0,220	=4,453	=0,322	=4,996	0,	=3,638	=0,102	=4,073
=0,034	=3,638	=0,051	=3,855			=0,017	=3,692

表－8－8　交番荷重試験　Ⅲ，7D

SHIMIZU AL-III-6D ST,NO, 5008-1 FMAX= 6,00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,051	0,109	0,034	0,109	0,034	0,109	0,034	0,163
0,526	1,520	0,475	1,466	0,509	1,412	0,492	1,412
0,882	3,095	0,814	2,932	0,848	2,715	0,814	2,932
1,305	4,724	1,204	4,398	1,170	4,018	1,170	4,290
1,729	6,245	1,543	5,647	1,543	5,267	1,576	5,756
2,119	7,602	1,882	6,842	1,932	6,625	1,932	7,113
2,475	8,905	2,238	8,145	2,271	7,874	2,526	9,122
2,882	10,263	2,610	9,340	2,644	9,177	2,882	10,371
3,255	11,566	3,000	10,697	3,086	10,534	3,255	11,620
3,661	12,869	3,424	12,000	3,420	11,675	3,627	12,815
4,051	14,064	3,780	13,195	3,763	12,815	4,001	14,064
4,373	15,258	4,102	14,227	3,886	14,009	4,373	15,204
4,729	16,236	4,475	15,421	4,526	15,204	4,763	16,344
5,068	17,322	4,865	16,616	4,899	16,399	5,153	17,593
5,390	18,408	5,119	17,322	5,272	17,539	5,441	18,478
5,729	19,331	5,356	18,082	5,695	18,788	5,729	19,277
6,017	20,363	5,729	19,168	6,102	19,928	6,051	20,363
6,068	20,688	6,085	20,471	6,306	20,634	6,221	20,851
5,762	20,091	5,848	20,037	6,373	21,068	5,899	20,308
5,678	19,874	5,577	19,685	6,289	20,797	5,509	19,548
5,255	19,059	5,153	18,462	6,120	20,417	5,068	18,408
4,865	17,973	4,695	17,322	5,865	19,982	4,848	17,865
4,577	17,430	4,458	16,779	5,441	19,005	4,441	16,779
4,170	16,236	4,051	15,693	5,034	18,136	4,119	16,019
3,966	15,801	3,678	14,770	4,661	17,105	3,763	15,095
3,894	15,041	3,305	13,792	4,373	16,398	3,441	14,227
3,305	14,009	3,000	12,923	4,034	15,530	3,051	13,141
2,983	13,086	2,661	11,946	3,678	14,498	2,797	12,272
2,678	12,218	2,271	10,697	3,339	13,629	2,407	11,077
2,339	11,186	1,915	9,557	3,068	12,815	2,085	10,208
2,034	10,263	1,543	8,362	2,814	12,109	1,678	8,905
1,678	9,122	1,204	7,276	2,424	10,914	1,356	7,819
1,424	8,471	0,882	6,136	2,113	10,100	1,034	6,733
1,237	7,548	0,576	4,778	1,848	9,611	0,729	5,539
0,882	6,462	0,273	3,204	1,899	9,394	0,458	4,073
0,559	5,050	0,034	2,444	1,576	8,308	-0,034	-0,109
0,204	3,421	-0,017	-0,163	1,254	7,276	-0,576	-1,955
0,034	2,661	-0,475	-1,901	0,949	6,082	-0,898	-3,801
-0,017	-0,217	-0,814	-3,692	0,644	4,941	-1,237	-5,159
-0,441	-1,901	-1,187	-5,104	0,356	3,421	-1,644	-6,625

表－8 －9 交番荷重試験 Ⅲ，6 D（続き）

SHIMIZU　AL-III-6D　ST,NO, 5000-1　FMAX= 6,00 TON/PILE　40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-0,768	-3,530	-1,543	-6,353	0,051	2,172	-2,051	-8,036
-1,153	-4,941	-1,899	-7,711	-0,017	-0,109	-2,390	-9,503
-1,560	-6,462	-2,288	-9,231	-0,475	-1,629	-2,781	-10,860
-1,932	-7,874	-2,661	-10,534	-0,797	-3,367	-3,187	-12,272
-2,254	-9,122	-3,017	-11,729	-1,170	-4,778	-3,577	-13,521
-2,644	-10,534	-3,356	-13,086	-1,560	-6,299	-3,899	-14,661
-3,051	-12,000	-3,729	-14,281	-1,949	-7,656	-4,238	-15,856
-3,509	-13,521	-4,068	-15,367	-2,339	-9,177	-4,526	-16,724
-3,899	-14,824	-4,390	-16,399	-2,729	-10,643	-4,780	-17,593
-4,272	-16,019	-4,526	-16,996	-3,102	-11,892	-5,153	-18,788
-4,509	-16,942	-4,814	-17,810	-3,475	-13,141	-5,926	-20,037
-4,746	-17,539	-5,119	-18,951	-3,831	-14,444	-5,882	-21,068
-5,051	-18,734	-5,475	-20,091	-4,221	-15,693	-6,221	-22,372
-5,424	-19,874	-5,882	-21,340	-4,640	-16,616	-6,289	-22,752
-5,695	-20,851	-6,119	-22,480	-4,611	-16,996	-5,712	-21,449
-6,034	-21,883	-5,814	-21,829	-4,865	-17,810	-5,289	-20,308
-6,187	-22,643	-5,339	-20,688	-5,136	-18,734	-4,814	-19,059
-6,102	-22,535	-5,119	-19,982	-5,526	-20,037	-4,475	-18,299
-5,729	-21,611	-5,034	-19,982	-5,899	-21,123	-4,119	-17,376
-5,272	-20,743	-5,034	-19,982	-6,255	-22,535	-3,678	-16,181
-4,644	-19,385	-5,051	-19,982	-6,255	-22,643	-3,305	-14,770
-4,526	-18,462	-4,712	-19,439	-6,051	-22,100	-2,899	-13,684
-4,187	-17,648	-4,373	-18,245	-5,865	-21,774	-2,509	-12,326
-3,966	-17,105	-3,966	-17,105	-5,644	-21,286	-2,254	-11,512
-3,610	-16,019	-3,560	-16,019	-5,204	-20,091	-1,814	-10,154
-3,339	-15,150	-3,187	-14,715	-4,899	-19,494	-1,458	-8,797
-3,017	-14,335	-2,780	-13,521	-4,441	-18,028	-1,119	-7,602
-2,627	-13,195	-2,407	-12,218	-3,966	-16,670	-0,712	-5,919
-2,238	-11,837	-1,983	-10,969	-3,712	-15,638	-0,441	-4,398
-1,831	-10,371	-1,746	-9,991	-3,356	-15,095	-0,170	-3,204
-1,712	-9,991	-1,441	-9,014	-3,051	-14,064	-0,017	-2,606
-1,424	-9,068	-1,204	-8,145	-2,712	-13,032		
-1,085	-7,874	-0,882	-6,950	-2,373	-12,055		
-0,780	-6,679	-0,543	-5,376	-2,034	-10,914		
-0,475	-5,213	-0,170	-3,584	-1,712	-9,774		
-0,102	-3,475	-0,017	-2,878	-1,390	-8,742		
-0,034	-2,878			-1,085	-7,548		
				-0,695	-5,973		
				-0,339	-4,073		
				-0,034	-2,824		

表－8－9　交番荷重試験　Ⅲ，6 D

SHIMIZU AL-III-5D ST,NO, 500D-1 FMAX= 5,00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,034	0,189	0,034	0,163	0,017	0,217	0,017	0,109
0,492	1,358	0,509	1,575	0,424	1,575	0,424	1,466
0,797	2,878	0,780	2,987	0,712	2,715	0,780	2,987
1,170	4,290	1,136	4,235	1,051	3,964	1,170	4,398
1,543	5,593	1,543	5,702	1,441	5,430	1,560	5,864
1,882	6,950	1,899	7,005	1,831	6,842	1,966	7,276
2,238	8,254	2,254	8,254	2,204	8,145	2,356	8,634
2,678	9,720	2,610	9,448	2,577	9,394	2,712	9,828
3,051	10,914	2,949	10,697	2,966	10,643	3,068	11,077
3,407	12,163	3,322	11,837	3,339	11,892	3,441	12,272
3,814	13,412	3,695	12,978	3,712	13,086	3,814	13,466
4,255	14,824	4,068	14,172	4,085	14,227	4,221	14,661
4,695	16,127	4,407	15,204	4,339	14,987	4,594	15,801
5,000	17,213	4,814	16,453	4,627	16,019	4,950	16,996
5,085	17,593	5,000	17,322	4,288	15,258	4,695	16,399
4,933	17,322	4,882	17,105	3,916	14,335	4,255	15,367
4,492	16,236	4,441	16,181	3,577	13,629	3,899	14,552
4,119	15,367	4,000	15,041	3,204	12,543	3,610	13,955
3,865	14,715	3,577	14,009	2,831	11,566	3,204	12,706
3,475	13,684	3,153	12,706	2,458	10,371	2,882	11,783
3,071	12,598	2,814	11,837	2,119	9,503	2,458	10,589
2,621	11,512	2,441	10,697	1,848	8,688	2,102	9,557
2,305	10,317	2,051	9,557	1,509	7,548	1,729	8,308
1,948	9,285	1,661	8,254	1,119	6,245	1,373	7,113
1,593	8,091	1,265	7,059	0,780	5,050	1,051	5,973
1,288	7,113	0,949	5,919	0,441	3,475	0,695	4,778
0,915	5,810	0,627	4,507	0,034	1,683	0,407	3,041
0,576	4,235	0,339	2,987	-0,017	0,	0,034	1,683
0,136	2,226	0,051	1,846	-0,475	-1,738	-0,034	-0,054
0,	1,629	-0,017	-0,054	-0,848	-3,530	-0,509	-1,901
-0,017	-0,109	-0,441	-1,629	-1,254	-5,104	-0,882	-3,747
-0,492	-1,738	-0,780	-3,367	-1,644	-6,516	-1,288	-5,721
-0,780	-3,367	-1,187	-4,887	-2,034	-7,982	-1,678	-6,956
-1,153	-4,887	-1,543	-6,245	-2,458	-9,394	-2,085	-8,362
-1,543	-6,299	-1,932	-7,765	-2,814	-10,643	-2,509	-9,828
-1,932	-7,819	-2,373	-9,340	-3,204	-12,000	-2,899	-11,294
-2,305	-9,231	-2,763	-10,751	-3,577	-13,141	-3,238	-12,489
-2,678	-10,426	-3,136	-12,055	-3,949	-14,444	-3,627	-13,684
-3,034	-11,783	-3,441	-13,195	-4,322	-15,747	-3,966	-14,933
-3,390	-13,082	-3,831	-14,335	-4,695	-16,779	-4,204	-15,801

表－8－10　交番荷重試験　Ⅲ，5D（続き）

SHIMIZU AL-III-5D ST.NO. 500D-1 FMAX= 5.00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-3,763	-14,281	-4,288	-16,127	-4,950	-17,919	-4,458	-16,453
-4,170	-15,638	-4,543	-16,724	-4,797	-17,648	-4,814	-17,756
-4,560	-16,887	-4,848	-17,756	-4,492	-17,050	-4,560	-17,267
-4,983	-18,191	-5,017	-18,516	-4,119	-16,019	-4,170	-16,507
-5,356	-19,494	-4,983	-18,462	-3,729	-14,967	-3,848	-15,421
-5,763	-20,743	-4,797	-18,028	-3,339	-13,847	-3,390	-14,172
-6,017	-21,829	-4,475	-17,376	-3,085	-13,161	-3,000	-12,978
-5,628	-21,177	-4,204	-16,453	-2,746	-12,000	-2,593	-11,783
-4,814	-19,114	-3,848	-15,584	-2,475	-11,240	-2,424	-11,294
-3,848	-16,562	-3,407	-14,498	-2,085	-9,937	-2,051	-10,046
-3,492	-15,258	-3,017	-13,249	-1,729	-8,797	-1,678	-8,793
-2,882	-13,304	-2,610	-12,000	-1,373	-7,493	-1,322	-7,493
-2,560	-12,272	-2,254	-10,806	-1,034	-6,245	-0,966	-6,190
-2,238	-11,240	-1,848	-9,394	-0,560	-4,670	-0,576	-4,561
-1,915	-10,100	-1,610	-8,525	-0,288	-2,824	-0,288	-2,878
-1,593	-9,068	-1,204	-7,168	-0,061	-1,792	-0,034	-1,846
-1,221	-7,711	-0,831	-5,719				
-0,848	-6,353	-0,475	-4,235				
-0,543	-4,724	-0,136	-2,389				
-0,136	-2,769	0.	-1,792				
-0,017	-2,226						

表－8 －10 交番荷重試験 Ⅲ，5 D

SHIMIZU AL-III-4D ST.NO. 5000-1 FMAX= 4.00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.016	0.052	0.024	0.052	0.024	0.104	0.016	0.052
0.411	1.253	0.403	1.253	0.411	1.305	0.403	1.305
0.736	2.349	0.763	2.349	0.749	2.453	0.717	2.297
1.087	3.706	1.047	3.602	1.119	3.863	1.063	3.654
1.401	4.959	1.377	4.855	1.457	5.063	1.401	4.907
1.755	6.107	1.658	5.846	1.739	6.160	1.739	6.055
2.117	7.412	1.490	6.890	2.077	7.308	2.109	7.360
2.463	8.561	2.302	8.195	2.415	8.404	2.447	8.509
2.826	9.761	2.713	9.396	2.745	9.500	2.761	9.553
3.164	10.805	3.035	10.440	3.115	10.649	3.132	10.701
3.470	11.797	3.341	11.536	3.461	11.693	3.824	12.841
3.800	12.789	3.711	12.528	3.792	12.685	4.154	13.729
4.170	13.833	4.065	13.572	4.130	13.624	4.492	14.981
4.524	15.451	4.347	14.512	4.371	14.459	4.146	14.303
4.057	14.198	4.379	14.668	4.299	14.303	3.840	13.624
3.751	13.572	4.057	13.990	4.146	14.042	3.478	12.632
3.405	12.632	3.679	13.207	3.800	13.363	3.156	11.798
3.107	11.849	3.373	12.267	3.437	12.371	2.834	10.858
2.785	10.962	3.059	11.484	3.099	11.484	2.504	10.022
2.463	10.022	2.761	10.701	2.745	10.544	2.222	9.187
2.166	9.135	2.391	9.605	2.423	9.657	1.868	8.143
1.852	8.143	2.101	8.770	2.174	8.874	1.578	7.151
1.562	7.256	1.779	7.569	1.852	7.882	1.272	6.160
1.272	6.264	1.481	6.786	1.538	6.890	0.942	5.011
0.934	5.063	1.159	5.690	1.232	5.899	0.588	3.706
0.644	3.967	0.821	4.489	0.910	4.802	0.266	2.192
0.314	2.506	0.467	3.132	0.572	3.550	0.016	1.566
0.008	1.253	0.129	1.566	0.258	2.088	-0.024	-0.104
-0.024	-0.104	0.	1.357	0.008	1.462	-0.459	-1.618
-0.451	-1.566	-0.024	-0.104	-0.032	-0.052	-0.797	-3.080
-0.765	-2.871	-0.467	-1.566	-0.451	-1.566	-1.167	-4.541
-1.111	-4.228	-0.733	-2.871	-0.765	-2.923	-1.489	-5.742
-1.449	-5.585	-1.039	-4.124	-1.087	-4.280	-1.836	-7.047
-1.795	-6.682	-1.401	-5.377	-1.441	-5.377	-2.214	-8.352
-2.117	-7.934	-1.763	-6.682	-1.731	-6.577	-2.552	-9.553
-2.447	-9.031	-2.093	-7.882	-2.061	-7.778	-2.858	-10.597
-2.818	-10.283	-2.447	-9.135	-2.415	-8.874	-3.172	-11.641
-3.099	-11.223	-2.785	-10.231	-2.769	-10.127	-3.486	-12.632
-3.373	-12.215	-3.124	-11.432	-3.091	-11.223	-3.824	-13.833
-3.735	-13.207	-3.518	-12.632	-3.373	-12.110	-4.090	-14.773

表－8 － 11　交番荷重試験　Ⅲ，4 D（続き）

SHIMIZU AL-III-4D ST.NO. 500D-1 FMAX= 4.00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-4.049	-14.407	-3.776	-13.624	-3.719	-13.363	-4.347	-15.295
-4.484	-15.973	-4.122	-14.564	-4.041	-14.355	-4.516	-16.182
-4.122	-15.242	-4.355	-15.242	-4.476	-15.921	-4.122	-15.712
-3.743	-14.251	-4.508	-16.025	-4.186	-15.190	-3.816	-14.564
-3.421	-13.368	-4.170	-15.295	-3.896	-14.564	-3.470	-13.259
-3.051	-12.319	-3.832	-14.355	-3.574	-13.624	-2.987	-12.215
-2.802	-11.641	-3.582	-13.729	-3.228	-12.685	-2.761	-11.641
-2.471	-10.649	-3.180	-12.685	-2.922	-11.954	-2.455	-10.649
-2.101	-9.448	-2.834	-11.693	-2.641	-11.014	-2.149	-9.657
-1.836	-8.613	-2.222	-9.866	-2.391	-10.283	-1.819	-8.561
-1.505	-7.517	-1.932	-8.874	-2.085	-9.344	-1.514	-7.569
-1.200	-6.368	-1.626	-7.830	-1.803	-8.456	-1.167	-6.368
-0.894	-5.324	-1.296	-6.682	-1.522	-7.517	-0.845	-5.220
-0.539	-3.915	-1.006	-5.690	-1.224	-6.473	-0.507	-3.706
-0.234	-2.453	-0.692	-4.385	-0.934	-5.377	-0.169	-2.192
-0.040	-1.618	-0.419	-3.184	-0.580	-4.019	-0.016	-1.514
		-0.040	-1.618	-0.282	-2.558		
		0.	-1.409	-0.032	-1.514		

表－8 － 11　交番荷重試験　Ⅲ，4 D

SHIMIZU AL-III-3D ST,NO, 5000-1 FMAX= 3,00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	0,052	0,024	0,052	0,024	0,052	0,016	0,052
0,242	0,835	0,322	0,992	0,274	0,783	0,274	0,835
0,491	1,618	0,572	1,827	0,515	1,775	0,515	1,723
0,773	2,453	0,845	2,767	0,781	2,554	0,789	2,558
0,998	3,550	1,095	3,654	1,055	3,558	1,039	3,497
1,272	4,333	1,377	4,750	1,328	4,541	1,280	4,280
1,554	5,481	1,602	5,481	1,602	5,533	1,546	5,324
1,844	6,473	1,844	6,316	1,884	6,473	1,779	6,107
2,117	7,412	2,101	7,204	2,133	7,360	2,053	6,995
2,351	8,352	2,327	7,987	2,423	8,195	2,302	7,882
2,657	9,135	2,624	8,822	2,673	9,031	2,568	8,770
2,890	9,970	2,850	9,761	2,946	9,709	2,826	9,553
3,180	10,912	3,115	10,283	3,204	10,649	3,091	10,336
3,381	11,588	3,462	11,014	3,333	11,171	3,309	11,014
3,397	11,641	3,307	11,014	3,059	10,544	3,478	11,588
3,301	11,484	3,260	11,014	2,737	9,761	3,349	11,327
3,204	11,223	3,156	10,858	2,504	9,187	3,035	10,544
2,914	10,544	2,906	10,336	2,238	8,456	2,769	9,970
2,641	9,814	2,689	9,553	1,997	7,726	2,512	9,187
2,399	9,239	2,463	9,083	1,755	6,995	2,294	8,665
2,158	8,509	2,254	8,613	1,522	6,316	2,045	7,934
1,924	7,882	2,021	7,778	1,256	5,481	1,811	7,256
1,658	6,995	1,771	7,047	0,998	4,594	1,602	6,525
1,417	6,264	1,554	6,421	0,757	3,758	1,369	5,846
1,192	5,585	1,312	5,638	0,531	2,819	1,159	5,168
0,926	4,646	1,087	4,907	0,314	1,984	0,918	4,333
0,676	3,706	0,870	4,124	0,089	1,409	0,749	3,654
0,467	2,714	0,620	3,236	0,	1,044	0,572	3,080
0,169	1,618	0,411	2,245	-0,016	-0,104	0,395	2,192
0,	1,305	0,169	1,670	-0,330	-1,044	0,177	1,670
-0,016	-0,157	0,008	1,096	-0,572	-2,192	0,016	1,096
-0,298	-1,044	-0,016	-0,052	-0,813	-3,184	-0,032	-0,104
-0,548	-2,140	-0,330	-1,096	-1,071	-4,176	-0,330	-1,044
-0,829	-3,341	-0,556	-2,192	-1,361	-5,063	-0,596	-2,297
-1,111	-4,385	-0,829	-3,236	-1,578	-6,003	-0,894	-3,497
-1,409	-5,481	-1,095	-4,385	-1,892	-6,995	-1,159	-4,594
-1,715	-6,525	-1,417	-5,429	-2,149	-7,934	-1,457	-5,585
-1,964	-7,308	-1,707	-6,525	-2,391	-8,770	-1,666	-6,421
-2,222	-8,300	-1,948	-7,412	-2,665	-9,709	-1,932	-7,360
-2,528	-9,292	-2,260	-8,352	-2,930	-10,492	-2,198	-8,195

表－8－12　交番荷重試験　Ⅲ，3 D（続き）

SHIMIZU　AL-III-3D　ST,NO, 5008-1　FMAX= 3,00 TON/PILE　40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
-2,785	-10,179	-2,504	-9,292	-3,164	-11,327	-2,383	-8,926
-3,067	-11,171	-2,745	-10,127	-3,365	-12,215	-2,632	-9,814
-3,293	-11,693	-3,027	-11,014	-3,204	-11,797	-2,810	-10,231
-3,091	-11,536	-3,260	-11,902	-3,124	-11,588	-3,083	-11,223
-2,819	-10,805	-3,349	-12,110	-2,842	-10,910	-3,252	-11,902
-2,552	-10,127	-3,349	-12,058	-2,560	-10,127	-3,590	-12,841
-2,335	-9,553	-3,075	-11,588	-2,270	-9,292	-3,478	-12,632
-2,101	-8,874	-2,761	-10,858	-1,997	-8,456	-3,156	-11,849
-1,850	-8,091	-2,496	-10,179	-1,795	-7,830	-2,914	-11,119
-1,610	-7,308	-2,270	-9,292	-1,530	-7,047	-2,649	-10,544
-1,393	-6,629	-2,005	-8,717	-1,296	-6,212	-2,439	-9,761
-1,167	-5,899	-1,763	-7,778	-1,079	-5,481	-2,182	-9,135
-0,910	-5,011	-1,514	-7,047	-0,829	-4,646	-1,980	-8,509
-0,668	-4,072	-1,248	-6,160	-0,572	-3,550	-1,795	-7,934
-0,475	-3,132	-0,974	-5,220	-0,354	-2,506	-1,594	-7,256
-0,217	-2,036	-0,709	-4,280	-0,065	-1,357	-1,385	-6,525
-0,008	-1,201	-0,491	-3,236	0,	-1,096	-1,167	-5,794
		-0,242	-2,140			-0,982	-5,168
		-0,042	-1,305			-0,749	-4,280
						-0,507	-3,132
						-0,274	-2,140
						-0,040	-1,201

表－8－12　交番荷重試験　Ⅲ，3 D

SHIMIZU AL=III-2D ST.NO. 500D=1 FMAX= 2.00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0.016	0.052	0.024	0.052	0.023	0.078	0.039	0.104
0.274	0.835	0.306	0.940	0.342	1.148	0.334	1.070
0.523	1.775	0.556	1.984	0.568	2.088	0.575	2.192
0.781	2.453	0.829	2.714	0.848	3.158	0.824	3.106
1.014	3.393	1.079	3.654	1.104	4.228	1.065	4.072
1.264	4.280	1.288	4.385	1.345	5.037	1.314	4.985
1.514	5.168	1.554	5.220	1.610	6.029	1.563	5.925
1.779	6.107	1.827	6.212	1.882	6.995	1.827	6.890
2.061	7.047	2.085	6.995	2.130	7.961	2.107	7.778
2.302	7.882	2.407	8.091	2.162	8.091	2.309	8.744
2.359	8.404	2.319	7.882	1.967	7.621	1.773	7.204
1.536	5.951	2.045	7.204	1.703	6.917	1.555	6.577
1.224	5.063	1.811	6.577	1.415	6.029	1.306	5.794
0.974	4.228	1.562	5.951	1.151	5.168	1.081	5.063
0.765	3.612	1.328	5.220	0.894	4.359	0.855	4.228
0.507	2.506	1.079	4.385	0.661	3.497	0.607	3.210
0.282	1.984	0.813	3.550	0.443	2.401	0.381	2.271
0.065	1.148	0.548	2.558	0.125	1.331	0.117	1.305
0.	0.887	0.298	1.931	0.016	0.835	0.016	0.861
-0.024	-0.104	0.081	1.096	-0.016	-0.078	-0.023	-0.052
-0.531	-1.984	0.016	0.783	-0.311	-1.070	-0.319	-1.096
-0.813	-3.080	-0.023	-1.070	-0.568	-2.271	-0.583	-2.323
-1.063	-4.228	-0.288	-1.827	-0.840	-3.524	-0.886	-3.680
-1.353	-5.063	-0.529	-2.923	-1.120	-4.568	-1.159	-4.776
-1.586	-6.003	-0.809	-4.150	-1.376	-5.716	-1.423	-5.846
-2.125	-7.726	-1.089	-5.324	-1.680	-6.734	-1.687	-6.864
-2.359	-8.561	-1.361	-6.368	-1.905	-7.700	-1.983	-7.961
-2.552	-9.448	-1.602	-7.308	-2.162	-8.561	-2.084	-8.717
-2.327	-8.978	-1.835	-8.143	-2.372	-9.527	-1.866	-7.908
-2.069	-8.248	-2.084	-9.083	-2.154	-8.978	-1.617	-7.073
-1.836	-7.569	-2.255	-9.892	-1.889	-8.169	-1.337	-6.186
-1.626	-6.943	-2.278	-10.049	-1.633	-7.360	-1.104	-5.403
-1.409	-6.264	-2.309	-9.970	-1.376	-6.525	-0.848	-4.463
-1.200	-5.533	-2.255	-9.944	-1.135	-5.716	-0.575	-3.289
-0.958	-4.802	-2.045	-9.448	-0.894	-4.829	-0.381	-2.375
-0.692	-3.811	-1.796	-8.665	-0.630	-3.732	-0.109	-1.253
-0.467	-2.662	-1.540	-7.804	-0.436	-2.714	-0.023	-0.861
-0.193	-1.566	-1.322	-7.151	-0.148	-1.488		
-0.040	-0.992	-1.089	-6.316	-0.016	-0.966		
		-0.840	-5.403				

表－8－13 交番荷重試験 Ⅲ，2D（続き）

SHIMIZU AL-III-2D ST,NO, 5000-1 FMAX= 2,00 TON/PILE 40/3/19

1 CYCLE		2 CYCLE		3 CYCLE		4 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
		-0,560	-4,228				
		-0,319	-3,054				
		-0,093	-2,166				
		-0.008	-1,827				

表－8－13　交番荷重試験　Ⅲ，2 D

SHIMIZU　　AL=IIII=1U　ST.NO, DG=1　　FMAX= 1,00 TON/PILE　　40/3/21

1 CYCLE

LOAD (TON)	DEFLECTION (CM)
0,	0,
0,125	0,300
0,250	0,655
0,375	1,040
0,500	1,455
0,625	1,880
0,750	2,290
0,875	2,715
1,000	3,135
0,940	3,030
0,875	2,870
0,750	2,550
0,625	2,195
0,500	1,820
0,375	1,440
0,250	1,030
0,125	0,630
0,	0,240
0,	0,190
=0,125	=0,190
=0,250	=0,580
=0,375	=1,040
=0,500	=1,420
=0,625	=1,860
=0,750	=2,290
=0,875	=2,710
=1,000	=3,140
=0,938	=3,000
=0,870	=2,830
=0,748	=2,505
=0,623	=2,160
=0,500	=1,805
=0,375	=1,400
=0,250	=1,010
=0,123	=0,580
0,	=0,190

表－9－1　交番荷重試験　Ⅳ，1.0 U

SHIMIZU AL=IIII=2U ST,NO, DG=1 FMAX= 2,00 TON/PILE 40/3/21

1 CYCLE		2 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	=0,150	0,	=0,325
0,248	0,620	0,250	0,480
0,500	1,480	0,500	1,375
0,750	2,320	0,750	2,265
1,000	3,150	1,000	3,160
1,250	4,000	1,248	4,020
1,500	4,880	1,500	4,870
1,748	5,720	1,750	5,720
1,998	6,550	2,000	6,550
1,875	6,300	1,875	6,280
1,743	5,980	1,750	5,980
1,493	5,300	1,500	5,305
1,253	4,610	1,250	4,590
1,000	3,830	1,000	3,830
0,750	3,010	0,750	3,040
0,500	2,180	0,500	2,200
0,250	1,300	0,250	1,320
0,	0,430	0,	0,420
0,	0,370		
=0,250	=0,480		
=0,500	=1,390		
=0,750	=2,240		
=1,000	=3,100		
=1,250	=3,930		
=1,500	=4,805		
=1,750	=5,665		
=1,998	=6,505		
=1,875	=6,255		
=1,748	=5,935		
=1,500	=5,265		
=1,250	=4,555		
=1,000	=3,805		
=0,750	=3,005		
=0,500	=2,175		
=0,250	=1,285		
0,	=0,415		

表－９－２　交番荷重試験　Ⅳ，2.0 U

SHIMIZU AL=IIII=3U ST,NO, DG=1 FMAX= 3,00 TON/PILE 40/3/21

1 CYCLE		2 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	0,270	0,	-0,550
-0,250	-0,480	0,250	0,270
-0,500	-1,350	0,500	1,180
-0,750	-2,230	0,750	2,070
-1,000	-3,100	1,000	2,975
-1,250	-3,920	1,250	3,865
-1,500	-4,820	1,500	4,735
-1,750	-5,670	1,750	5,625
-2,000	-6,470	2,003	6,480
-2,250	-7,330	2,253	7,300
-2,500	-8,145	2,500	8,150
-2,750	-8,990	2,750	9,010
-3,000	-9,800	3,000	9,840
-2,870	-9,530	2,875	9,660
-2,750	-9,250	2,750	9,360
-2,500	-8,590	2,500	8,750
-2,250	-7,920	2,240	8,040
-2,000	-7,230	2,000	7,385
-1,750	-6,510	1,745	6,635
-1,503	-5,770	1,500	5,900
-1,250	-4,970	1,250	5,095
-1,003	-4,150	1,000	4,275
-0,750	-3,280	0,750	3,435
-0,500	-2,400	0,500	2,545
-0,250	-1,520	0,253	1,655
0,	-0,590	0,	0,735
		0,	0,675
		-0,250	-0,155
		-0,500	-1,075
		-0,750	-1,965
		-1,000	-2,865
		-1,250	-3,735
		-1,500	-4,615
		-1,750	-5,455
		-2,000	-6,335
		-2,250	-7,155
		-2,500	-8,005
		-2,750	-8,830
		-3,000	-9,655
		-2,865	-9,375

表－９－３　交番荷重試験　Ⅳ，３.０Ｕ（続き）

SHIMIZU　　AL=IIII=3U　　ST.NO. DG=1　　FMAX= 3.00 TON/PILE　　40/3/21

1 CYCLE		2 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
		-2.750	-9.105
		-2.500	-8.475
		-2.250	-7.795
		-1.993	-7.075
		-1.750	-6.365
		-1.500	-5.615
		-1.250	-4.825
		-1.000	-3.995
		-0.750	-3.155
		-0.500	-2.265
		-0.250	-1.345
		0.	-0.435

表－９－３　交番荷重試験　Ⅳ，3.0 U

SHIMIZU　　AL=IIII=4U　　ST,NO, DG=1　　FMAX= 4,00 TON/PILE　　40/3/21

1 CYCLE		2 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
0,	-0,275	0,	-0,470
0,250	0,515	0,250	0,370
0,500	1,415	0,500	1,275
0,750	2,315	0,750	2,220
1,000	3,215	1,000	3,140
1,250	4,105	1,250	4,060
1,500	4,965	1,500	4,945
1,750	5,815	1,750	5,810
2,000	6,665	2,000	6,685
2,248	7,485	2,250	7,545
2,500	8,325	2,500	8,400
2,750	9,125	2,750	9,225
3,000	9,925	3,000	10,035
3,250	10,755	3,250	10,895
3,500	11,560	3,500	11,695
3,750	12,370	3,750	12,465
4,000	13,170	4,000	13,255
3,875	12,950	3,873	13,010
3,750	12,675	3,750	12,735
3,500	12,080	3,500	12,145
3,250	11,450	3,250	11,525
3,000	10,780	2,995	10,830
2,750	10,110	2,750	10,185
2,500	9,420	2,500	9,500
2,250	8,700	2,250	8,765
1,998	7,930	2,000	8,035
1,750	7,180	1,750	7,265
1,500	6,395	1,500	6,485
1,250	5,570	1,250	5,675
1,000	4,730	1,000	4,820
0,750	3,860	0,750	3,935
0,500	2,940	0,500	3,025
0,250	2,010	0,250	2,065
0,	1,110	0,	1,165
0,	0,970		
-0,258	0,130		
-0,500	-0,765		
-0,750	-1,700		
-1,008	-2,640		
-1,258	-3,550		

表－９－４　交番荷重試験　Ⅳ，4.0 U（続き）

SHIMIZU　　AL-IIII-4U　ST,NO, DG=1　　FMAX= 4,00 TON/PILE　　40/3/21

1 CYCLE		2 CYCLE	
LOAD (TON)	DEFLECTION (CM)	LOAD (TON)	DEFLECTION (CM)
=1,500	=4,420		
=1,750	=5,310		
=2,000	=6,185		
=2,250	=7,045		
=2,500	=7,890		
=2,750	=8,715		
=3,000	=9,545		
=3,250	=10,390		
=3,500	=11,210		
=3,750	=12,000		
=4,000	=12,840		
=3,845	=12,535		
=3,750	=12,335		
=3,500	=11,730		
=3,250	=1,120		
=3,000	=10,440		
=2,753	=9,760		
=2,500	=9,050		
=2,250	=8,330		
=2,000	=7,580		
=1,750	=6,795		
=1,500	=6,000		
=1,253	=5,170		
=1,000	=4,310		
=0,750	=3,420		
=0,500	=2,500		
=0,250	=1,540		
0.	=0,630		

表－9－4　交番荷重試験　Ⅳ，4.0 U

SHIMIZU SV=I=0.2U

ST.NO, 500D=1 (40/3/5)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.345	0.385
0.395	0.365
0.430	0.360
0.495	0.445
0.530	0.430
0.595	0.595
0.650	0.745
0.685	0.930
0.720	1.335
0.745	2.345
0.775	6.060
0.800	4.425
0.795	2.255
0.880	1.220
0.925	0.710
1.015	0.475
1.220	0.210
1.465	0.105
1.495	0.120
1.225	0.240
1.030	0.505
0.930	0.735
0.885	1.225
0.820	2.430
0.785	5.170
0.805	6.225
0.780	6.315
0.780	5.250
0.740	3.455
0.695	1.740
0.670	1.180
0.585	0.615
0.550	0.595
0.505	0.485
0.435	0.345
0.385	0.350
0.365	0.470

表－10－1　強制振動試験　I，0.2U

SHIMIZU SV=I=0.3U

ST.NO, 500D=1 (40/3/5)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.395	0.570
0.450	0.625
0.510	0.715
0.550	0.740
0.615	1.010
0.655	1.185
0.700	1.720
0.740	2.515
0.755	5.035
0.775	8.585
0.770	6.490
0.800	7.415
0.810	5.710
0.915	0.825
0.935	1.130
1.055	0.605
1.230	0.325
1.530	0.260
2.045	0.090
1.550	0.220
1.235	0.385
1.050	0.630
0.940	1.155
0.900	1.665
0.860	2.500
0.840	3.470
0.810	4.810
0.800	7.720
0.765	9.975
0.705	2.565
0.670	1.805
0.625	1.225
0.550	0.860
0.495	0.700
0.440	0.650
0.390	0.660

表－10－2　強制振動試験　I，0.3U

SHIMIZU SV=I=0.4U

ST.NO, 500D=1 (40/3/5)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.470	0.820
0.500	0.755
0.550	1.025
0.590	1.215
0.635	1.430
0.685	2.285
0.755	7.390
0.770	15.550
0.810	12.400
0.755	8.895
0.860	2.595
0.890	1.985
0.880	1.465
1.045	0.760
1.230	0.350
1.245	0.315
1.045	0.755
0.940	1.280
0.810	3.950
0.870	1.845
0.840	3.465
0.770	5.685
0.830	5.095
0.760	14.150
0.750	8.905
0.760	15.250
0.690	2.995
0.635	1.830
0.600	1.645
0.560	1.245
0.490	0.890
0.455	0.835

表－10－3　強制振動試験　I，0.4U

SHIMIZU SV-I-0,5

ST,NO, 5000-1 (40/3/6)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,505	1,405
0,540	1,375
0,610	1,940
0,625	1,890
0,700	4,245
0,730	8,840
0,735	9,295
0,755	14,750
0,790	16,650
0,765	13,200
0,805	12,500
0,795	10,950
0,855	3,855
0,905	1,935
0,935	1,650
0,995	1,150
0,960	1,695
0,900	2,320
0,850	3,370
0,815	11,900
0,795	13,450
0,740	9,565
0,765	16,550
0,740	11,000
0,740	15,150
0,670	3,710
0,650	3,350
0,590	2,085
0,565	1,865
0,515	1,690

表－10－4　強制振動試験　I，0.5 U

SHIMIZU SV-I-0,4D

ST,NO, 5000-1 (40/3/6)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,385	0,590
0,390	0,655
0,425	0,575
0,485	0,690
0,540	0,795
0,610	1,160
0,640	1,150
0,690	2,135
0,735	4,645
0,760	8,780
0,755	7,020
0,800	6,985
0,775	5,695
0,835	2,920
0,895	1,375
0,940	0,885
1,060	0,565
1,235	0,280
1,255	0,330
1,040	0,565
0,955	1,030
0,915	1,340
0,840	2,575
0,805	3,775
0,775	6,705
0,760	8,225
0,740	8,110
0,725	7,280
0,700	2,840
0,590	1,160
0,545	1,050
0,505	0,955
0,440	0,730
0,390	0,685

表－10－5　強制振動試験　I，0.4 D

SHIMIZU SV-I-0,2D

ST,NO, 5000-1 (40/3/6)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,365	0,510
0,400	0,495
0,465	0,475
0,490	0,460
0,555	0,625
0,590	0,615
0,630	0,730
0,695	1,145
0,735	2,040
0,800	4,380
0,775	6,455
0,775	5,165
0,795	2,645
0,830	2,180
0,845	1,665
0,895	0,945
0,945	0,620
1,000	0,460
1,020	0,425
1,545	0,135
1,255	0,255
1,040	0,410
0,940	0,585
0,880	1,400
0,850	2,175
0,820	1,615
0,800	3,655
0,805	2,145
0,800	5,050
0,785	6,625
0,760	5,525
0,750	5,735
0,730	4,620
0,735	3,110
0,710	1,280
0,650	1,000
0,595	0,640
0,540	0,520
0,510	0,500
0,440	0,400
0,390	0,375
0,375	0,470

表－10－6　強制振動試験　I，0.2 D

SHIMIZU SV-II-0.1U

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.650	0.360
0.705	0.500
0.745	0.590
0.750	0.735
0.755	0.765
0.790	1.410
0.810	3.450
0.830	1.555
0.870	1.130
0.900	0.855
1.010	0.350
0.895	0.835
0.865	1.280
0.850	1.595
0.825	2.595
0.765	3.725
0.755	1.625
0.730	0.935
0.695	0.640
0.650	0.425

表－11－1

強制振動試験　Ⅱ，0.1U

SHIMIZU SV-II-0.2U

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.650	0.865
0.695	1.190
0.730	1.800
0.750	3.165
0.765	6.355
0.800	3.545
0.825	2.475
0.845	1.820
0.865	1.470
0.910	0.985
1.000	0.525
0.900	1.180
0.855	1.750
0.855	1.815
0.820	2.815
0.800	4.335
0.770	7.295
0.755	6.870
0.740	3.855
0.700	2.280
0.650	0.930

表－11－2

強制振動試験　Ⅱ，0.2U

SHIMIZU SV-II-0.3U

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.650	1.555
0.700	2.390
0.735	5.000
0.750	8.100
0.770	10.125
0.790	4.320
0.830	3.300
0.850	2.495
0.865	2.030
0.915	1.485
0.985	0.740
0.910	1.545
0.870	2.070
0.860	2.470
0.830	3.530
0.805	4.550
0.780	8.790
0.755	11.040
0.745	8.435
0.705	3.470
0.655	1.705

表－11－3

強制振動試験　Ⅱ，0.3U

SHIMIZU SV-II-0.4U

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.660	2.390
0.710	4.455
0.735	8.495
0.760	13.103
0.785	5.705
0.810	4.810
0.825	3.825
0.850	3.020
0.880	2.330
0.905	1.970
1.005	1.090
1.905	1.990
0.860	2.560
0.855	2.980
0.830	4.170
0.815	5.475
0.785	6.910
0.765	15.260
0.755	15.885
0.705	5.730
0.650	2.680

表－11－4

強制振動試験　Ⅱ，0.4U

SHIMIZU SV-II-0.5U

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.520	1.640
0.565	1.900
0.605	2.215
0.685	4.385
0.715	7.820
0.735	11.475
0.755	16.410
0.765	8.150
0.820	5.540
0.830	4.125
0.865	3.050
0.880	2.550
0.915	1.965
0.960	1.455
1.065	1.085
1.250	0.540
1.550	0.255
2.050	0.120
1.580	0.220
1.250	0.530
1.040	1.085
0.925	1.980
0.885	2.605
0.860	3.440
0.840	4.015
0.820	5.335
0.810	6.860
0.780	10.000
0.760	17.905
0.755	18.950
0.705	7.710
0.650	3.225
0.595	2.130
0.565	1.825
0.400	0.720

表－11－5　強制振動試験　Ⅱ，0.5U

SHIMIZU SV-II-0.4D

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.655	2.440
0.730	5.775
0.735	10.700
0.750	14.450
0.775	5.300
0.800	4.485
0.820	8.250
0.855	7.235
0.870	2.400
0.910	1.750
1.000	1.025
0.900	1.895
0.870	2.500
0.855	1.855
0.820	4.060
0.804	4.970
0.790	7.180
0.755	13.890
0.750	9.725
0.710	7.575
0.650	2.685

表－11－6　強制振動試験　Ⅱ，0.4D

SHIMIZU SV-II-0.2D

ST.NO. 5000-1 (40/3/14)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.705	2.635
0.730	5.535
0.750	9.060
0.770	5.845
0.805	3.750
0.810	3.120
0.850	1.960
0.875	1.515
0.905	1.150
1.000	0.455
0.890	1.280
0.890	1.580
0.855	1.995
0.825	2.860
0.795	4.005
0.770	6.560
0.755	9.855
0.735	7.245
0.705	2.635
0.675	1.790
0.645	1.235

表－11－7　強制振動試験　Ⅱ，0.2D

SHIMIZU SV-III-0,2U

ST,NO, 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,355	0,570
0,430	0,580
0,470	0,575
0,520	0,595
0,575	0,765
0,624	0,975
0,670	1,550
0,685	1,925
0,730	6,270
0,740	4,155
0,765	2,945
0,790	2,040
0,805	1,615
0,835	1,295
0,865	1,090
0,930	0,680
0,965	0,455
1,060	0,370
1,255	0,180
1,245	0,210
1,045	0,390
0,940	0,425
0,895	0,803
0,840	1,290
0,805	1,785
0,795	1,935
0,765	2,755
0,750	3,740
0,710	6,620
0,700	8,110
0,675	4,735
0,645	1,985
0,600	1,200
0,555	0,815
0,495	0,550
0,460	0,620
0,400	0,510
0,360	0,490

表－12－1　強制振動試験　Ⅲ，0.2 U

SHIMIZU SV-III-0,4U

ST,NO, 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,465	1,325
0,505	1,415
0,555	1,825
0,605	2,580
0,625	3,065
0,650	5,135
0,675	12,605
0,705	9,375
0,720	6,740
0,755	3,985
0,775	3,425
0,795	2,610
0,845	1,810
0,890	1,225
0,945	0,905
1,045	0,645
1,235	0,350
1,220	0,375
1,030	0,735
0,920	0,890
0,890	1,440
0,840	1,880
0,800	2,955
0,770	3,555
0,745	5,260
0,715	7,485
0,700	11,400
0,675	14,895
0,640	9,070
0,620	4,455
0,590	3,010
0,555	2,360
0,500	1,785
0,450	1,455

表－12－2　強制振動試験　Ⅲ，0.4 U

SHIMIZU SV-III-0,5U

ST,NO, 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,515	2,345
0,565	2,835
0,600	3,930
0,630	5,940
0,640	7,765
0,690	15,685
0,715	8,200
0,725	7,145
0,760	4,530
0,780	3,500
0,805	2,985
0,855	2,115
0,915	1,540
0,955	1,154
1,050	0,830
1,250	0,470
1,560	0,230
1,240	0,495
1,045	0,830
0,940	1,325
0,885	1,700
0,845	2,440
0,800	3,490
0,775	4,390
0,745	5,860
0,730	7,155
0,715	11,485
0,710	12,155
0,695	17,215
0,655	12,650
0,625	6,970
0,605	5,560
0,555	3,135
0,500	2,215

表－12－3　強制振動試験　Ⅲ，0.5 U

SHIMIZU SV-III-0,7U

ST,NO, 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,620	8,245
0,625	9,625
0,630	9,450
0,705	24,805
0,690	25,890
0,690	15,535
0,710	9,420
0,735	6,435
0,755	4,940
0,780	3,960
0,810	3,535
0,870	2,710
0,915	2,110
0,950	1,625
1,060	1,050
1,250	0,660
1,560	0,220
1,535	0,230
1,350	0,620
1,040	1,165
0,945	1,620
0,880	2,140
0,850	2,745
0,785	3,740
0,785	4,520
0,755	5,895
0,720	8,870
0,705	10,370
0,700	12,750
0,680	28,750
0,645	20,670
0,605	8,780

表－12－4　強制振動試験　Ⅲ，0.7 U

SHIMIZU SV-III-0,8U

ST,NO, 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0,640	23,315
0,650	31,150
0,675	37,890
0,690	14,480
0,705	11,140
0,730	7,795
0,760	6,095
0,785	4,770
0,810	4,380
0,855	3,355
0,905	2,550
0,950	1,815
1,060	1,425
1,265	0,885
1,565	0,275
1,525	0,330
1,240	0,925
1,050	1,550
0,945	2,115
0,900	2,760
0,850	3,690
0,805	4,845
0,780	5,490
0,760	7,080
0,725	9,780
0,710	12,695
0,695	18,095
0,685	31,665
0,670	39,060
0,630	36,835
0,655	37,260

表－12－5　強制振動試験　Ⅲ，0.8 U

SHIMIZU SV-III-0.7D

ST.NO. 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.625	21.200
0.700	28.170
0.675	29.690
0.690	11.040
0.710	8.010
0.740	5.935
0.750	4.800
0.815	3.720
0.855	2.915
0.915	2.080
0.960	1.685
1.040	1.285
1.250	0.730
1.560	0.270
1.555	0.255
1.230	0.795
1.030	1.435
0.935	1.735
0.895	2.335
0.845	3.335
0.790	4.545
0.745	5.675
0.720	7.885
0.700	7.425
0.685	16.350
0.670	23.785
0.650	32.960
0.655	40.200
0.640	34.660

表－ 12 － 6

強制振動試験 Ⅲ, 0.7 D

SHIMIZU SV-III-0.5D

ST.NO. 5000-1 (40/3/22)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.515	2.805
0.560	3.665
0.610	6.645
0.645	15.235
0.670	12.475
0.680	9.925
0.715	6.335
0.735	4.940
0.745	3.985
0.790	2.630
0.850	1.845
0.900	1.410
0.940	1.070
1.045	0.775
1.160	0.440
1.560	0.200
1.530	0.236
1.225	0.465
1.025	0.845
0.945	1.025
0.900	1.465
0.850	1.895
0.800	2.645
0.745	4.205
0.720	5.830
0.700	8.830
0.685	11.160
0.675	19.195
0.635	13.810
0.605	7.770
0.545	3.395
0.500	2.395

表－ 12 － 7

強制振動試験 Ⅲ, 0.5 D

SHIMIZU SV-III-0.4D

ST.NO. 5000-1 (40/3/23)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.470	1.800
0.515	2.160
0.560	2.690
0.610	5.235
0.625	9.490
0.665	15.765
0.685	8.880
0.700	6.960
0.735	4.660
0.760	3.565
0.800	2.445
0.860	1.775
0.915	1.145
0.950	0.900
1.050	0.690
1.240	0.395
1.545	0.210
1.950	0.125
1.535	0.185
1.235	0.335
1.035	0.745
0.935	0.875
0.910	1.130
0.840	1.760
0.805	2.495
0.745	3.285
0.720	4.700
0.705	6.270
0.680	11.750
0.655	14.370
0.630	6.285
0.595	3.825
0.560	2.745
0.485	1.595
0.445	1.475

表－ 12 － 8

強制振動試験 Ⅲ, 0.4 D

SHIMIZU SV-III-0.2D

ST.NO. 5000-1 (40/3/23)

EXCITING FREQUENCY (HZ)	DISPLACEMENT AMPLITUDE (CM)
0.365	6.805
0.415	7.155
0.460	7.505
0.510	9.470
0.560	12.105
0.610	19.155
0.630	25.260
0.650	47.265
0.670	75.105
0.705	44.980
0.725	35.425
0.755	23.995
0.810	13.905
0.850	9.415
0.910	6.375
0.950	4.090
1.050	3.900
1.245	2.015
1.525	1.345
1.230	2.260
1.040	4.090
0.940	4.035
0.890	7.880
0.845	11.350
0.805	16.410
0.745	28.945
0.720	40.240
0.705	51.700
0.675	80.700
0.650	52.025
0.630	25.555
0.595	16.010
0.540	10.410
0.495	8.095
0.450	6.700
0.405	6.670
0.355	6.670

表－ 12 － 9

強制振動試験 Ⅲ, 0.2 D

表－13　荷重－変位、静的破壊試験

ST.NO 500D-1

1回目		2回目		3回目		4回目		5回目		6回目	
荷重 (ton)	変位 (cm)	荷重 (ton)	変位 (cm)	荷重 (ton)	変位 (cm)	荷重 (ton)	変位 (cm)	荷重 (ton)	変位 (cm)	荷重 (ton)	変位 (cm)
0	0	0	2.05	0	1.75	0	14.50	0	15.45	0	17.40
1	2.40	1	4.45	1	4.25	1	17.10	1	17.95	1	19.00
2	4.70	2	6.60	2	6.45	2	19.45	2	20.00	2	21.50
3	6.75	3	8.80	3	9.45	3	22.00	3	23.05	3	25.00
4	9.25	4	11.30	4	12.45	4	25.00	4	26.00	4	27.80
5	11.70	5	13.80	5	15.35	5	37.50	5	28.80	5	30.90
6	14.70	6	16.35	6	18.55	6	30.15	6	31.60	6	33.60
7	18.00	7	19.10	7	21.35	7	33.30	7	34.30	7	36.30
6	16.60	8	22.10	7.75	23.50	8	35.60	8	37.00	8	39.25
5	14.10	8.25	23.45	8.5	27.00	9	38.10	9	39.45	9	41.35
4	11.50	～自由振動～		9	30.30	9.85	40.70	10	41.75	10.13	43.10
3	9.20			9.5	32.75	9	39.40	10.4	43.10	～自由振動～	
2	6.75			10	35.90	8	37.30	10	43.00		
1	4.55			10.25	38.70	7	35.30	9	41.50		
0	2.20	0	1.80	9.5	38.70	6	33.25	8	39.50		
				8.75	38.25	5	30.50	7	37.75		
				8	36.65	4	27.85	6	34.75	0	10.10
				7	34.05	3	25.10	5	31.85		
				6	30.85	2	21.45	4	29.10		
				5	28.15	1	18.75	3	26.50		
				4	25.55	0	16.00	2	22.80		
				3	22.35			1	19.85		
				2	19.75			0	17.55		
				1	17.35						
				0	14.65						

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