ICE® Pile Driving Leads

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Durable - Economical - Versatile

Engineered to provide maximum strength-to-weight ratio for superior pile rig performance.

High-strength structural tube front guide-rails for abrasion resistance and long life.

Braced rear tubes are structurally matched with front rails to provide equal moment capacity for both fore and aft batter conditions.

Rigid-bolted or pinned connections provide maximum stability and quick set-up.

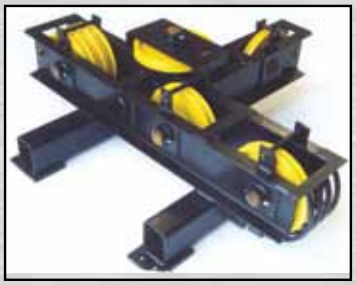
Available in various sections for maximum flexibility and ease of transport.

All sections precision-fabricated in production jigs to maintain strict dimensional tolerances that ensure accurate connection and alignment on-site.

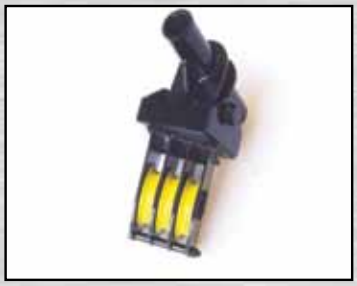
Fitted with full-length ladders for easy equipment access.

Swinging, fixed, sliding and offshore configurations available to meet any job requirement.

20" through 66" sizes available to maximize production.



Headblock with auger bracket



Rooster sheave

Boom point connector

Hydraulic spotter

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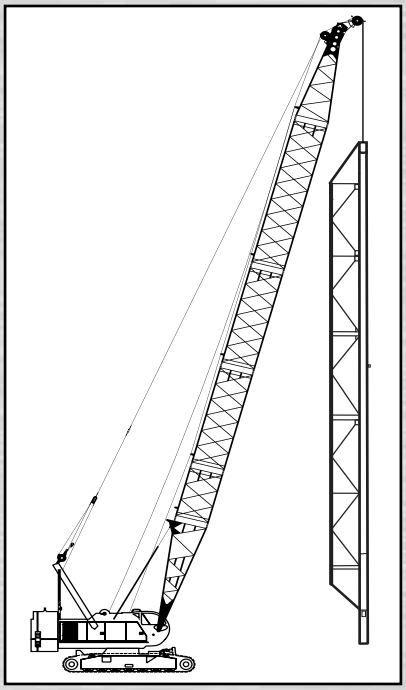
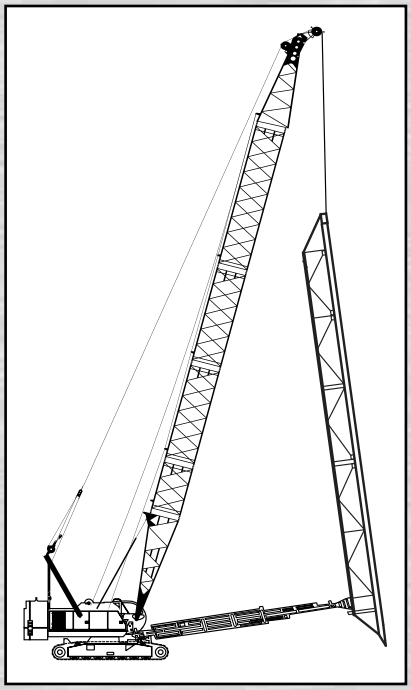
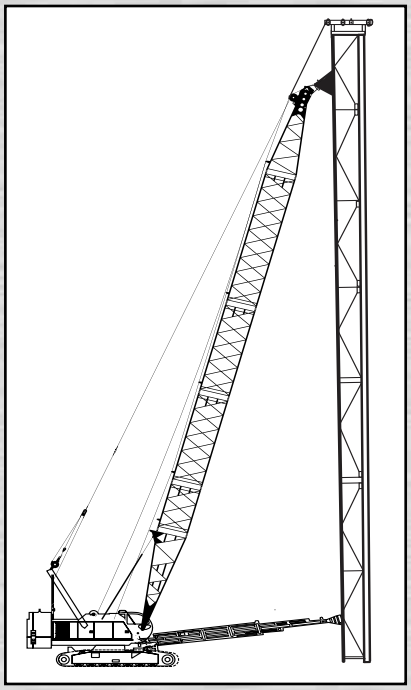


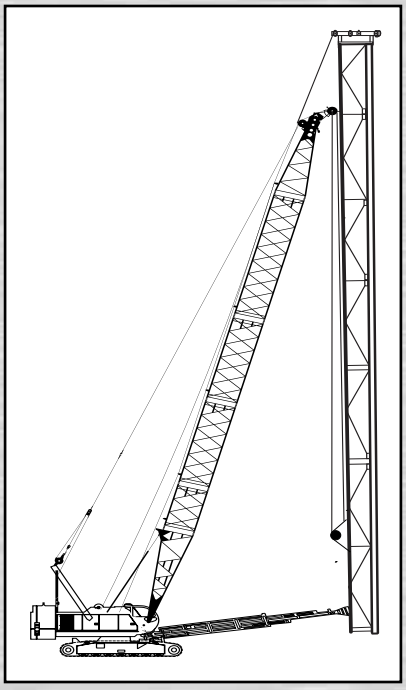
Swinging



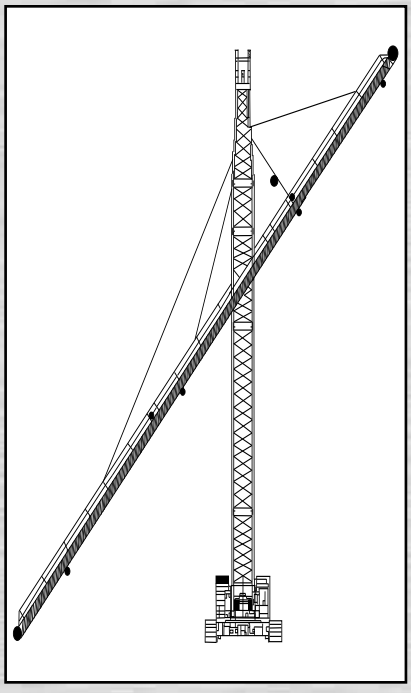
Fixed - Underhung



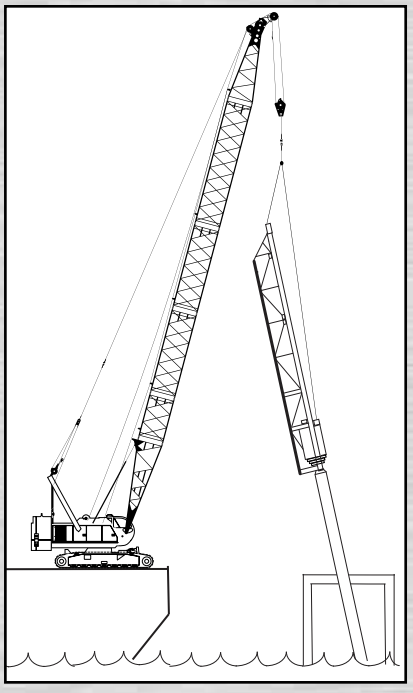
Fixed - Extended



Sliding



Cable Hung



Offshore

International Construction Equipment, Inc.

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ICE® Offshore Leads

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Offshore leads are hung from the crane boom by a crane line. The bottom of the leads has a guide that slides over the top of the pile. The crane line and boom are positioned to hold the leads plumb or at the desired batter in line with the pile.

Offshore leads are generally used with larger hammers and piles. The pile must have its own support structure.

Offshore leads are assembled from three components – a leads section, lifting gear, and a pile guide. The leads section guides the pile hammer and drive cap. The lifting gear supports the leads section and provides spacing for the ram and has a starting line if a diesel hammer is used. The pile guide aligns the leads, hammer and drive cap with the pile.

ICE® Offshore Leads

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Specifications

Description & Weight (lbs) by Leads Size	26"	32"	36"	42"
8' Intermediate section	926	1,427	1,520	-
16' Intermediate section	1,630	2,648	3,272	-
40' Intermediate section	-	6,353	7,596	8,507
Lifting angles (pair, bolt on)	250	270	330	300
Pile guides (bolt on)				
18" Square	520	775	-	-
20" Square	-	760	-	-
24" Square	-	765	-	-
30" Square	-	1,170	1,430	-
36" Square	-	-	-	1,590
41" (1 meter) Square	-	-	-	1,600
12-30" Round	-	1,950	-	-

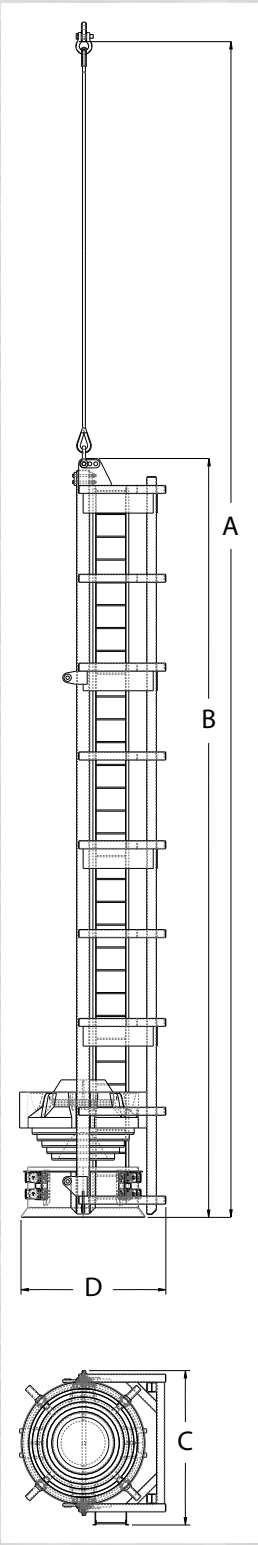
Description & Weight (lbs) by Leads Size	48"	66"
40' section with lifting gear	12,800	13,700
DHP-48 (24-48" Pipe)	11,570	-
DHP-66 (42-66 Pipe")	-	26,600
Striker plate	1,420	3,065
Cushion (nylon & aluminum)	185	260
Total weight	25,975	43,625

Description & Weight (lbs) by Leads Size	60"
40' section with lifting gear and 48-54" pipe drive cap, striker & cushion	32,600

CAUTION
ICE® leads are designed and built for normal hammers piles and driving conditions. If unusual hammers, piles or driving conditions are encountered or if any question about specific job situation arises, contact ICE before proceeding with pile driving operations.

Dimensions by Leads Size	26"	32"	36"	42"	48"	60"	66"
Overall length (A)*	47'	47'	47'	55'	61' 2"	63'	61' 2"
Lead section length (B)*	32'	32'	32'	40'	38' 10"	40' 8"	38' 10"
Width, including ladder (C)	45 1/2"	52 1/2"	50 1/2"	68 1/2"	6' 5"	7' 5"	7" 11"
Lead guides width	26 1/2"	32 1/2"	36 1/2"	42 1/2"	48 1/2"	60 1/2"	66 1/2"
Depth including pile guide (D)					6' 8"	7' 4"	7' 5"
18" Square	46"	58 3/8"	-	-			
20" Square	-	59 3/8"	-	-			
24" Square	-	61 3/8"	-	-			
30" Square	-	-	65 1/4"	-			
36" Square	-	-	-	76 1/4"			
41" (1 meter) Square	-	-	-	78 1/4"			
12-30" Round	-	64 1/4"	-	-			

* Lengths using two 16' lead sections for 18"-41" square pile guide and 26"-36" leads
Add 3' 3" for 12"-30" round pile guide



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ICE® Fixed, Extended Leads

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Fixed, extended leads extend above the boom-point. They are connected to the boom-point with a swivel connection to allow movement in the fore-aft and side-to-side directions. A spotter connects the bottom of the leads to the front of the crane. A headblock directs the crane lines over the top of the leads. A rooster sheave at the boom-point guides the lines to the headblock.

Extended leads require only a two-line crane (pile & hammer) although a third auxilary line may be used if desired. Excellent speed, control and accuracy are possible in positioning the leads. Side-to-side as well as fore and aft adjustment is possible. A shorter boom may be used. However, extended leads are more expensive and require more time to set up.

COMPONENTS

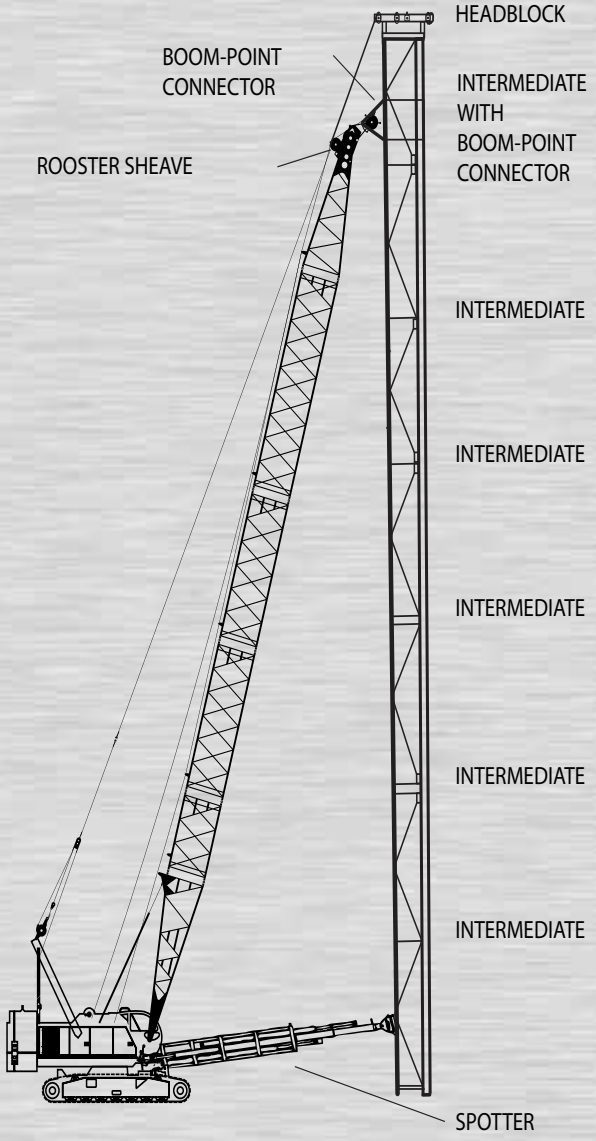
ICE® fixed extended leads are assembled from several components 4, 8, 16 or 40-foot intermediate sections, a headblock, a boom-point connector, a rooster sheave and a spotter.

Various intermediate sections have the boom-point connection positioned to allow vertical positioning of the leads. Multiple intermediate sections may be used both above and below the section to allow complete flexibility in boom and lead lengths.

The boom-point connector attaches the boom-point intermediate section to the boom-point of the crane. The connector permits full fore-aft and side-to-side movement.

The headblock, which carries the crane lines over the top of the leads, is available with either 4 or 6 sheaves to handle either 2 or 3 lines. An optional auger side-sheave is available.

Model 101, 155 or 225 spotters are available to position the bottom of the leads.




Headblock with auger bracket


Rooster sheave


Boom point connector

ICE® Fixed, Extended Leads

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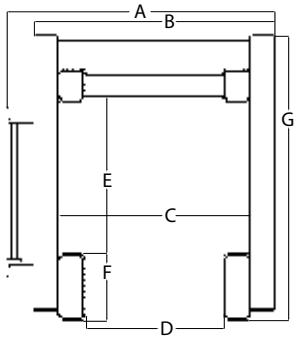
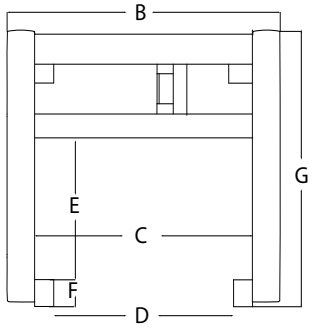


	20 in. leads	26 in. leads	32 in. leads	42 in. leads
A	39.5	45.5	52.5	68.5
B	35.5	41.5	48.5	64.5
C	28.5	34.5	40.5	54.5
D	20.5	26.5	32.5	42.5
E	18.8	20.8	31	35
F	8	8	8	8
G	34.1	36.1	48.6	53.8



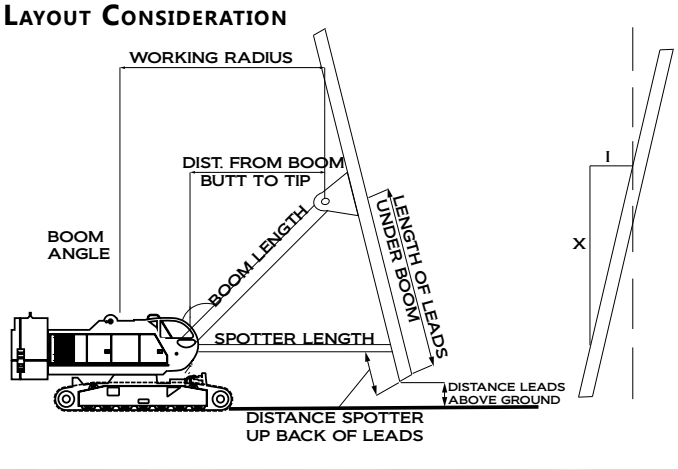
	36 in. leads
B	35.5
C	43
D	26
E	21
F	6
G	62

Fixed, extended leads components	26 in	32 in	36 in
4′ Intermediate section	570	-	-
8′ Intermediate section	947	1,427	1,520
16′ Intermediate section	1,660	2,648	3,272
40′ Intermediate section	4,146	6,353	7,596
2′ Fixed boom-point section	670	-	-
3′ Fixed boom-point section	-	1,563	-
40′ Fixed boom-point section	-	9,157	11,070
Boom-point connnector - 2 axis	1,150	1,150	1,150
Roosted sheave (3 lines x 8″ sheaves) - 2 axis	150	150	150
Roosted sheave (3 lines x 8″ sheaves) - 3 axis	200	200	200
Roosted sheave (3 lines x 18″ sheaves) - 2 axis	500	500	500
Headblock (4 sheaves for 2 lines)	1,200	1,400	1,490
Headblock (6 sheaves for 3 lines)	1,330	1,530	1,620
Headblock with auger bracket (2 lines plus auger line)	1,750	2,000	-
Side auger guides (weight per foot)	33	33	33
Connecting bolts (weight per connection)	13	28	37

CAUTION

ICE® leads are designed and built for normal hammers piles and driving conditions. If unusual hammers, piles or driving conditions are encountered or if any question about specific job situation arises, contact ICE before proceeding with pile driving operations.

Layout Consideration



Pile gates	26 in	32 in
Pile gate arms without rollers	800	1,000
Rollers for 12″ pile - set of 8	280	-
Rollers for 14″ pile - set of 8	240	-
Rollers for 16″ pile - set of 8	200	320
Rollers for 18″ pile - set of 8	160	280
Rollers for 20″ pile - set of 8	-	240
Rollers for 22″ pile - set of 8		200
Rollers for 24″ pile - set of 8	-	160

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ICE® Swinging Leads

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Swinging leads are hung from the crane boom by a crane line. The bottom of the leads are held in position by stabbing points. The crane line and boom are positioned to hold the pile plumb or at the desired batter.

Swinging leads are the lightest, simplest, and least expensive. Precise alignment of the crane and pile is not required. It is possible to drive in a hole or over the edge of an excavation. However, swinging leads require a three-line crane (leads, hammer & pile). And precise positioning of the leads is slower and more difficult.

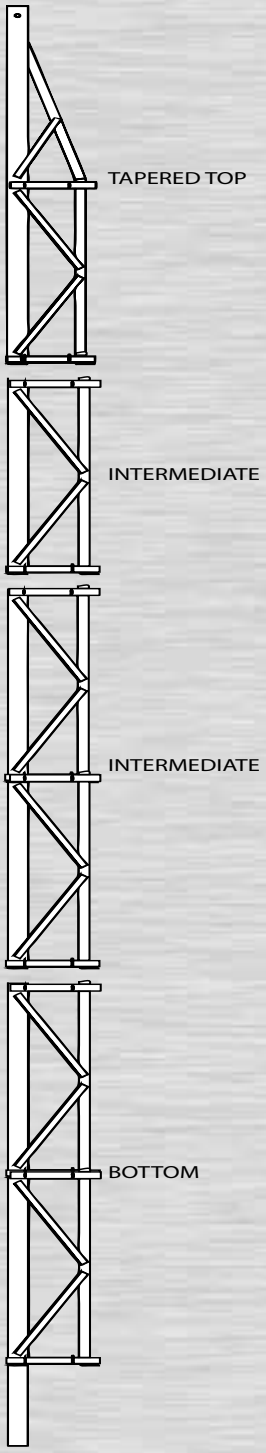
SWINGING LEADS COMPONENTS

ICE swinging leads are assembled from three basic components- a top section, a bottom section, and intermediate sections.

The tapered top section is used at the top of swinging leads. The taper at the back of the leads provides the required clearance for the crane boom. A bail attachment is a standard part of the tapered top section and it accepts a standard shackle. The top section has a full-length ladder (except for the top eight feet).

The bottom section is used at the bottom of the swinging leads. Four-foot stabbing points hold the leads in position during driving. The bottom section has a full length ladder.

Multiple intermediate sections are used with the above sections to provide various lengths of leads. Intermediate sections have full length ladders.



ICE® Swinging Leads

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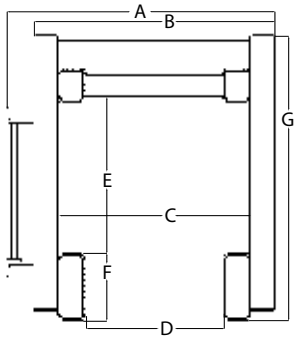
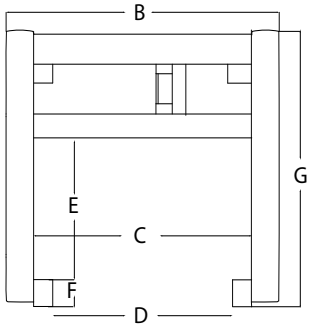


	20 in. leads	26 in. leads	32 in. leads	42 in. leads
A	39.5	45.5	52.5	68.5
B	35.5	41.5	48.5	64.5
C	28.5	34.5	40.5	54.5
D	20.5	26.5	32.5	42.5
E	18.8	20.8	31	35
F	8	8	8	8
G	34.1	36.1	48.6	53.8



	36 in. leads
B	35.5
C	43
D	26
E	21
F	6
G	62

Swinging leads components	20 in	26 in	32 in	36 in	42 in
16′ Top Section with lifting bail assembly	1,170	1,495	2,288	-	-
32′ Top Section with lifting bail assembly		2,990	4,685	-	-
40′ Top Section with lifting bail assembly	-	-	-	7,055	-
Lifting angles (pair, bolt on)	-	-	270	330	300
4′ Intermediate section	-	570	-	-	-
8′ Intermediate section	926	947	1,427	1,520	-
16′ Intermediate section	1,630	1,660	2,648	3,272	-
40′ Intermediate section	-	4,146	6,353	7,596	8,507
4′ Stab point bottom section	390	406	696	960	1,050
20′ Stab point bottom section	-	1,930	3,000	-	-
40′ Stab point bottom section	-	-	-	7,094	-
Side auger guides (weight per foot)	33	33	33	33	33
Connecting bolts (weight per connection)	13	13	28	37	50

ICE sells and rents a full line of standard pile hammers, leads and accessories to meet a wide variety of job requirements. In addition, ICE engineers and production personnel are fully qualified to design and build special leads and accessories to meet unique and difficult job specifications.

An efficient, productive lead set-up is key to a profitable pile driving operation. Experienced ICE personnel are available to insure that the proper components are provided to achieve the optimum arrangement for each job.

CAUTION

ICE® leads are designed and built for normal hammers piles and driving conditions. If unusual hammers, piles or driving conditions are encountered or if any question about specific job situation arises, contact ICE before proceeding with pile driving operations.

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ICE® Sliding, Extended Leads

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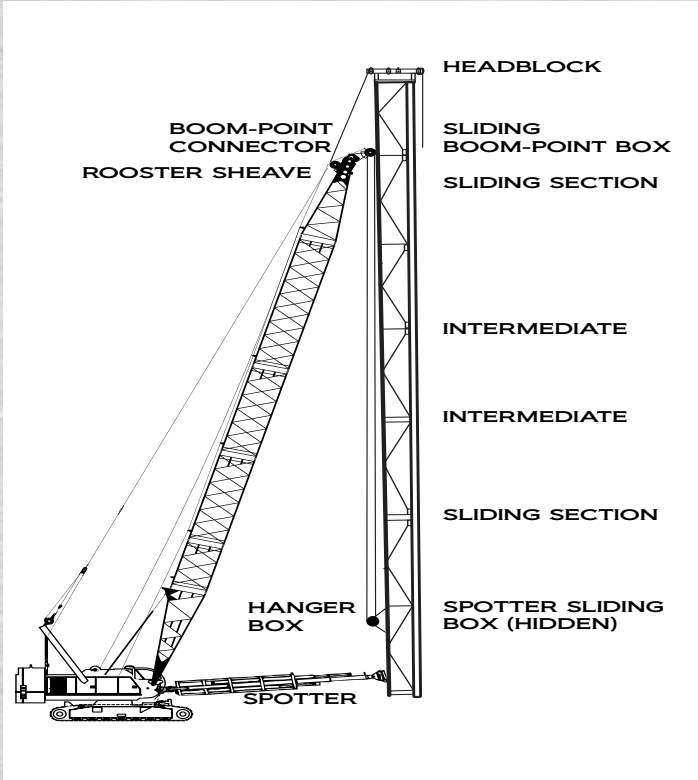
Sliding, extended leads have all of the features of fixed, extended leads. In addition, sliding leads may be raised or lowered vertically approximately 35 feet independent of the boom position. Also, the leads may be rotated 45° each way about their longitudinal axis. The added features provide a number of operating advantages, enabling:

- Leads to be raised or lowered in any batter position.
- Driving of longer piles by raising leads at start of driving, later lowering to cut-off elevation.
- Hammer to be guided to cut-off elevation regardless of boom position.
- Leads can be lifted clear of obstructions.
- Crane to sit on ground higher than pile area and leads to reach cut-off elevation.
- Crane to sit on ground lower than pile area with out leads interfering with ground.
- Leads to be supported on the ground where desired for long reaches or extra heavy piles or hammers.
- Pile hammer to be mounted by first raising and then lowering the lead into the hammer guides, eliminating the need to use a hole in the ground or to unbolt the hammer guides.

Sliding, extended leads require a three-line crane (leads, hammer and pile). The spotter being used must permit lead rotation. Maximum speed, control and accuracy are possible in positioning the leads. Fore-aft, side-to-side, vertical and rotational adjustment is possible. However sliding leads are more expensive and require the most time to set up.



SLIDING, EXTENDED LEADS COMPONENTS

The components which make up ICE sliding, extended leads are shown above.

A sliding section accepts the sliding boom-point connector box to provide 35 feet of vertical movement of the leads at the boom-point. A second sliding section accepts the spotter sliding box to permit the spotter to be positioned within a 30-foot vertical range at the bottom of the leads. The lead hanger box attaches at the top of the lower 40-foot sliding section to provide an attach point for the leads lifting line.

Multiple 8 and 16 foot intermediate sections may be used between and outside of the 40' sliding sections to permit the use of various lengths of leads and boom.

The boom-point connector which connects the crane boom to the boom-point connector box allows movement in six directions-fore & aft, side-to-side and leads rotation each way.

The rooster sheave swivels in all directions to allow for the six-way movement of the leads at the boom-point.

The spotter connects to the leads to allow six-way movement at the bottom of the leads. Optional powered lead rotation is available with Model 155 and 225 spotters.

The headblock, which carries the crane lines over the top of the leads, is available with either 4 or 6 sheaves to handle 2 or 3 lines.

ICE® Sliding, Extended Leads

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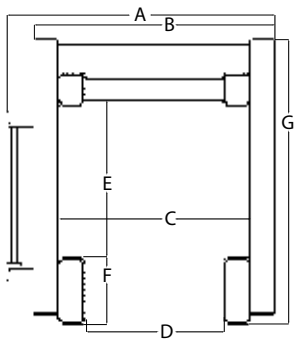
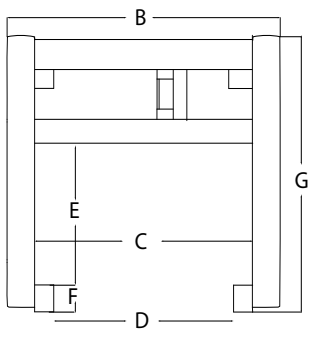


	20 in. leads	26 in. leads	32 in. leads	42 in. leads
A	39.5	45.5	52.5	68.5
B	35.5	41.5	48.5	64.5
C	28.5	34.5	40.5	54.5
D	20.5	26.5	32.5	42.5
E	18.8	20.8	31	35
F	8	8	8	8
G	34.1	36.1	48.6	53.8



	36 in. leads
B	35.5
C	43
D	26
E	21
F	6
G	62

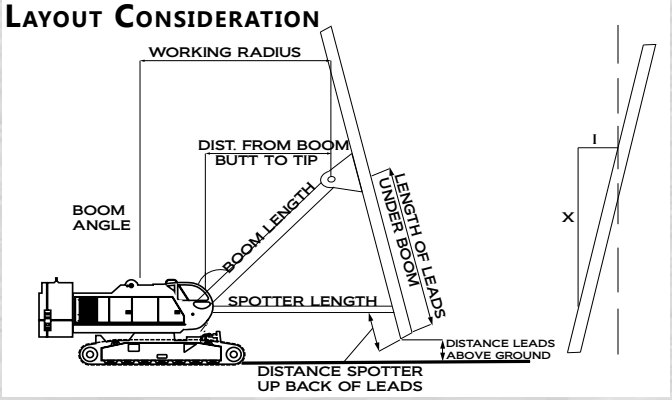
Sliding leads components	26 in	32 in	36 in
4′ Intermediate section	570	-	-
8′ Intermediate section	947	1,427	1,520
16′ Intermediate section	1,660	2,648	3,272
40′ Intermediate section	4,146	6,353	7,596
2′ Fixed boom-point section	670	-	-
3′ Fixed boom-point section	-	1,563	-
40′ Fixed boom-point section	-	9,157	11,070
Boom-point connector - 2 axis	1,150	1,150	1,150
Roosted sheave (3 lines x 8″ sheaves) - 2 axis	150	150	150
Roosted sheave (3 lines x 8″ sheaves) - 3 axis	200	200	200
Roosted sheave (3 lines x 18″ sheaves) - 2 axis	500	500	500
Headblock (4 Sheaves for 2 lines)	1,200	1,400	1,490
Headblock (6 Sheaves for 3 lines)	1,330	1,530	1,620
Headblock with auger bracket (2 lines plus auger line)	1,750	2,000	-
Side auger guides (weight per foot)	33	33	33
Connecting bolts (weight per connection)	13	28	37
16′ long sliding box track with clamp-plates, bolts, nuts	-	1,075	1,423
Sliding boom point box	-	897	1,115
Lifting box with 3 sheaves	-	448	616
Spotter sliding box	-	361	438

CAUTION

ICE® leads are designed and built for normal hammers piles and driving conditions. If unusual hammers, piles or driving conditions are encountered or if any question about specific job situation arises, contact ICE before proceeding with pile driving operations.

Pile gates	26 in	32 in
Pile gate arms without rollers	800	1,000
Rollers for 12″ pile - set of 8	280	-
Rollers for 14″ pile - set of 8	240	-
Rollers for 16″ pile - set of 8	200	320
Rollers for 18″ pile - set of 8	160	280
Rollers for 20″ pile - set of 8	-	240
Rollers for 22″ pile - set of 8		200
Rollers for 24″ pile - set of 8	-	160

Layout Consideration



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An efficient, productive lead set-up is key to a profitable pile driving operation. Experienced ICE® team members are available to insure that the proper components are provided to achieve the optimum arrangement for each job.

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ICE® Pin Connected Swinging Leads

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Swinging leads are hung from the crane boom by a crane line. The bottom of the leads are held in position by stabbing points. The crane line and boom are positioned to hold the pile plumb or at the desired batter.

Swinging leads are the lightest, simplest, and least expensive. Precise alignment of the crane and pile is not required. It is possible to drive in a hole or over the edge of an excavation. However, swinging leads require a three-line crane (leads, hammer & pile). And precise positioning of the leads is slower and more difficult.

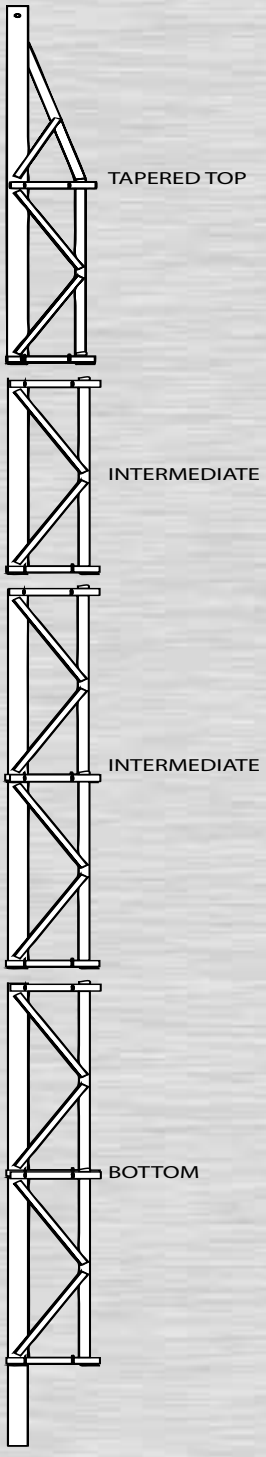
SWINGING LEADS COMPONENTS

ICE swinging leads are assembled from three basic components-a top section, a bottom section, and intermediate sections.

The tapered top section is used at the top of swinging leads. The taper at the back of the leads provides the required clearance for the crane boom. A bail attachment is a standard part of the tapered top section and it accepts a standard shackle. The top section has a full-length ladder (except for the top eight feet).

The bottom section is used at the bottom of the swinging leads. Four-foot stabbing points hold the leads in position during driving. The bottom section has a full length ladder.

Multiple intermediate sections are used with the above sections to provide various lengths of leads. Intermediate sections have full length ladders.



ICE® Pin Connected Swinging Leads

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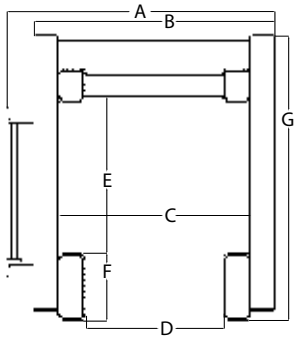

	26 in. leads	32 in. leads
A	45.5	52.5
B	41.5	48.5
C	34.5	40.5
D	26.5	32.5
E	20.8	31
F	8	8
G	36.1	48.6

Description & Weight by Size Swinging leads components	26 in	32 in
20′ Top Section with lifting bail assembly	2,450	2,475
11′ Intermediate section	1,750	1,770
20′ Intermediate section	2,850	2,885
38′ Intermediate section	5,260	5,320
20′ Stab point bottom section	2,450	2,475
Lifting angles (pair, pin-on)	550	575
Connecting pins (weight per connection)	18	18

CAUTION

ICE® leads are designed and built for normal hammers piles and driving conditions. If unusual hammers, piles or driving conditions are encountered or if any question about specific job situation arises, contact ICE before proceeding with pile driving operations.

ICE sells and rents a full line of standard pile hammers, leads and accessories to meet a wide variety of job requirements. In addition, ICE engineers and production personnel are fully qualified to design and build special leads and accessories to meet unique and difficult job specifications.

An efficient, productive lead set-up is key to a profitable pile driving operation. Experienced ICE personnel are available to insure that the proper components are provided to achieve the optimum arrangement for each job.

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