■SP110 Performance Characteristics (Leader type: R70)

Pile hammer		Earth auger					Pile			Vertical	Backward slant pile driving			Find the Control	
Model/ class	Mass	Cap mass	Driving unit		Auger		Leader	-			pile driving	Cl+	04-1-111	Total	Ground
			Model	Mass	Length	Mass	length	Length	Mass	Dia.	stability (w/suspended pile)	Slant	Stability (w/o pile)	working mass	pressure
RYSE BE	ton	ton		ton	m	ton	m	m	ton	mm	(°)	(=)	(*)	ton	kPa(kgf/cm²)
MH80B	19.5	4.0	-	-	-	-	27.0	19.0	10.0	1500	6.0	13.0	5.3	106.1	127(1.29)
MH80B	19.5	4.0	-	-	-	-	30.0	22.0	10.0	1500	5.3	10.0	5.9	107.5	128(1.30)
#70	19.5	3.0	-	-	-	-	27.0	19.0	10.0	1500	6.1	13.0	5.4	105.1	125(1.27)
#70	19.5	3.0	-	-	-	-	30.0	22.0	10.0	1500	5.4	10.0	6.0	106.5	127(1.29)
KB60	15.0	3.0	-	-	-	-	33.0	25.0	10.0	1200	6.3	9.0	5.3	103.7	125(1.27)
#45	11.0	1.5	-	-	-	-	33.0	26.0	10.0	850	7.9	9.0	5.5	98.2	117(1.19)
-	-	-	D-150H	12.0	25.0	8.2	30.0	23.0	10.0	1400	6.5	-	-	104.3	124(1.26)
-	-		D-120H	9.5	29.0	6.7	33.0	27.0	10.0	1200	7.1	-		102.0	122(1.24)
-	-	-	D- 80H	7.0	29.0	4.9	33.0	27.0	10.0	1000	8.5	-	-	97.7	116(1.18)
#45	11.0	1.5	D-120H	9.5	23.0	5.3	27.0	21.0	10.0	850	6.1	-	-	109.6	131(1.33)
#35	8.5	0.7	D-120H	9.5	29.0	6.7	33.0	26.0	10.0	750	5.2	-	-	110.8	133(1.35)
#25	5.3	0.5	D-120H	9.5	29.0	6.7	33.0	28.0	10.0	700	5.8	-	-	107.4	129(1.31)

Notes:

- Max. leader length which can be lifted off ground unassisted is 30m under the condition that front jack is applied. In case that leader length exceeds 33m, an assist crane
 is required for erection of leader.
- Leader guide pipe of 101.6mm dia. with 600mm pitch is available to mount pile hammer of MH80B and class #70, or earth auger of D-150H and D-120H while the other
 guide pipe of 70mm dia. with 330mm pitch is applicable to mount other pile hammers than MH80B and class #70, or earth auger of D-80H.
- 3. Max. earth auger torque as allowable is 98kN-m<10t-m>.
- 4. Max. auger extraction force as allowable is 50t that, however, includes a total mass of earth auger unit and its accessories under the conditions that (1) an independent auger operation is applied, (2) leader length is 24m or less, (3) center of gravity of earth auger unit do not exceed 655mm from center of guide pipe, and (4) front jack is applied.
- 5. Total working mass excludes mass of pile.

■SP110 Performance Characteristics (Leader type: R90)

Pile hammer		Earth auger					Pile			Vertical	Backward slant pile driving				
Model/ class	Mass	Cap mass	Driving unit		Auger		Leader		32.2		pile driving	C1 .	Ct. Latte	Total	Ground
			Model	Mass	Length	Mass	length	Length	Mass	Dia.	stability (w/suspended pile)	Slant angle	Stability (w/o pile)	working mass	pressure
	ton	ton		ton	m	ton	m	m	ton	mm	(°)	(=)	(°)	ton	kPa(kgf/cm²
MH80B	19.5	4.0	-	-	-	-	27.0	19.0	10.0	1500	5.8	13.0	5.3	107.3	128(1.30)
#70	19.5	3.0	-	-	1-		27.0	19.0	10.0	1500	5.9	13.0	5.4	106.3	127(1.29)
KB60	15.0	3.0	-	-	-	-	33.0	25.0	10.0	1200	6.0	9.0	5.3	105.1	125(1.27)
#45	11.0	1.5	-	-	-	-	36.0	29.0	10.0	850	6.7	7.0	5.7	101.2	121(1.23)
-	-	-	D-240H	13.0	22.0	9.9	27.0	20.0	10.0	1700	6.1	-	-	106.8	128(1.30)
-		-	D-150H	12.0	25.0	8.2	30.0	23.0	10.0	1400	6.3	-	-	105.7	126(1.28)
-	-	-	D-120H	9.5	29.0	6.7	33.0	27.0	10.0	1200	6.8	-	-	103.4	123(1.25)
-	-	-	D- 80H	7.0	32.0	5.4	36.0	30.0	10.0	1000	7.2			101.1	121(1.23)
#35	8.5	0.7	D-150H	12.0	19.0	6.3	24.0	18.0	10.0	750	6.5	-	-	109.3	131(1.33)
#45	11.0	1.5	D-120H	9.5	23.0	5.3	27.0	21.0	10.0	850	6.0	-	-	110.8	133(1.35)
#35	8.5	0.7	D-120H	9.5	26.0	6.0	30.0	23.0	10.0	750	5.8	-	-	109.8	132(1.34)

Notes

- Max. leader length which can be lifted off ground unassisted is 27m under the condition that front jack is applied. In case that leader length exceeds 30m, an assist crane
 is required for erection of leader.
- Leader guide pipe of 101.6mm dia. with 600mm pitch is available to mount pile hammer of MH80B and class #70, or earth auger of D-240H, D-150H and D-120H while
 the other guide pipe of 70mm dia. with 330mm pitch is applicable to mount other pile hammers than MH80B and class #70, or earth auger of D-80H.
- 3. Max. earth auger torque as allowable is 127kN-m<13t-m>.
- 4. Max. auger extraction force as allowable is 60t that, however, includes a total mass of earth auger unit and its accessories under the conditions that (1) an independent auger operation is applied, (2) leader length is 27m or less, (3) center of gravity of earth auger unit do not exceed 800mm from center of guide pipe, and (4) front jack is applied.
- 5. Total working mass excludes mass of pile.
- ·We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.
- ·Illustrations may include optional equipment and accessories, and may not include all standard equipment.
- -Units in this catalog are shown under International System of Unit; the figures in parenthesis are under Gravitational System of Units as old one.

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> Printed in Japan 0303(T)01T.EA011-1





SP110. A **Go**od Tripodal Pile Driver. Designed under advanced technology that provides superior controllability and safety operation features to perform foundation jobs efficiently with no loss of time.

> To achieve a high work-efficiency foundation jobs that requires a highskilled winch drum combined and independent operations, all winch drums of two main, 3rd and optional 4th are designed under concept of independent hydraulic drive and larger rope winding capacity.

> Further, minute and true gravity free-fall/power load lowering operations are of course certainly available on all winch drums under a kind design of control ease and cab comfort that eliminates operator's fatigue.

In addition, SP110 provide a plenty of safety device for a good operation safety and a high foundation job accuracy.

Operation mode change from automatic brake mode (power load lowering mode) to foot brake mode (free-fall mode) and vice-versa can easily be done by simply switching the toggle fitted on top of winch drum control

Combined operation ease is available among two main, 3rd and optional 4th winch drums as these are each driven by independent hydraulic motor and no clutch lever is designed.

A further good minute operation characteristic is designed on two main winch drums as an ultra low line speed of 3.9mpm as minimum is available as a 2-stage pump discharge control is designed in addition to independent or combined hydraulic oil flow control of two main pumps.

Reliable automatic track adjusting device is designed at both ends of front idler wheels to keep the track tension at optimum level. Should foreign matter lodges between track and idler wheel/drive sprocket, hydraulic pressure works as a cushion to prevent damage.

Operator's cab insures a total operator comfort with acoustic treatment and 940mm wide.

A superior Stability is taken in its design to competitor models.



Winch drum rope capacities

TWINGT Grain Tope dapadraes								
Rope dia.	22.4	20	18	16				
Front main drum	360	440	530	_				
Rear main drum	360	440	530	_				
3rd drum	170	200	260	_				
4th drum (opt.)	_	110	140	170				
Leader hoist drum	_	_	_	185				

Tripodal Pile Driver

SP110

Main specifications

Total working mass (*1)

115t

Working speeds :

Front drum line speed 60/30/7.8/3.9m/mir Rear drum line speed 60/30/7.8/3.9m/min 32/4.1m/min 3rd drum line speed 4th drum line speed (opt.) 65/8.1m/min 63/8 0m/min Leader hoist rope line speed Swing speed: 3.7min-1 [rpm] Travel speed 1.7/1.0km/h

Hino H07CT diesel Rated output: 132.4kW/2,100min⁻¹ [180ps/2,100rpm]

Gradeability (w/bottom leader only): 40% (approx. 22*)

Ground pressure(*2)

146kPa [1.49kgf/cm²]

unit: m

1. Line speeds vary under load conditions

2. Total working mass is the figure of machine selfweight plus attachment like earth auger as limited as available in terms of SP110 travel capability (*1).

3. Ground pressure is under an 115t working mass as max, as limited (*2).

General dimensions

