SPECIFICATIONS

SPEC. No. CC−1061
DATE AUG. 2012

SPECIFICATIONS
HYDRAULIC CRANE

MODEL: UNIC URW295C1AMR

Specifications subject to change without notice.

FURUKAWA UNIC CORPORATION
EXPORT TECHNICAL DEPT
TOKYO JAPAN

UNIC CRANE PERFORMANCE
MODEL : URW295C1AMR

CRANE CAPACITY:

LIFTING CAPACITY	: Max. 2.93t at 1.4m
HOOK HEIGHT	
ABOVE GROUND LEVEL	: Max. 8.8m
BELOW GROUND LEVEL	: Max. 11.5m with 4-part line
WORKING RADIUS	: Min 0.48m, Max. 8.41m

BOOM:

5-section box beam type telescoping boom

Boom Length	
Retracted boom:	2.70m
Extended boom:	8.65m
Boom Extending Speed:	5.95m / 21sec.
Boom Raising Speed:	0° to 78° / 12sec.

WINCH:

Hydraulic motor driven, spur gear reduction, with automatic mechanical brake

Hoisting Speed	
Single line speed:	40.0m/min. at 4th layer
Hook speed:	10.0m/min. at 4th layer with 4-part line
Hook Block;	2.9t capacity, 2 sheaves with safety latch
Wire Rope	
Construction (JIS):	IWRC 6 × WS(26) GRADE B
Diameter × Length:	ϕ8mm × 54.0m
Breaking strength:	42.4kN {4320kgf}

SLEWING:

Trochoid motor, worm gear reduction, spur gear reduction, and worm self-locking brake (supported by ball bearings)

Slewing Range:	360° continuous rotation on a ball bearing race
Slewing Speed:	1.5 r.p.m.

OUTRIGGERS:

2-section (with damper) for bend and 3-section extension.
Double acting hydraulic cylinders with pilot-operated check valves, direct pushing type.
(Directly connected with hydraulic automatic lock device)

CC−1061

HYDRAULIC SYSTEM:

Hydraulic Pump (when using engine)	
Type:	Variable delivery piston pump
Rated pressure:	21.6MPa {220kgf/cm^2}
Rated delivery:	30 ℓ/min.
Rated revolution:	2600r.p.m.
Hydraulic oil tank:	27 ℓ capacity
Hydraulic Valves	
Control valve:	Multiple control valve, spring centered, spool-type, with pressure relief valve
Pressure relief valve setting:	For crawling: 21.6MPa {220kgf/cm^2} For crane: 20.6MPa {210kgf/cm^2}
Counterbalance valve:	Boom raising and boom telescoping cylinders
Pilot-operated check valve:	Outrigger cylinders
Hydraulic Actuators	
Hydraulic motors:	Hoisting: Axial plunger type Slewing: Trochoid type
Hydraulic cylinders:	Double acting type 1 × Boom raising cylinder 3 × Boom telescoping cylinder 4 × Outrigger cylinder

CRAWLING GEAR:

Crawling:	Endless rubber crawler
Crawler:	180 × 40 × 72FR
Tread length:	1050mm
Ground contact pressure:	52.9kPa {0.54kgf/cm^2}
Crawling speed:	0~2.0km/h, forward / backward (when using Engine)
Hill climbing ability:	20°
Steering:	Hydraulic drive independent of left / right
Engine:	
Rated output:	7.2kW(9.8ps) / 2600r.p.m.
Starter:	Starter motor
Fuel type:	Diesel oil
Fuel tank:	10 ℓ capacity

Note: The figures in relation to the speed are on the basis of no-load running at rated oil flow condition.

CC−1061

MAJOR SPESIFICATION OF ELECTRIC POWER UINT :(AC200V)

Power unit

Hydraulic pump	Type:	Variable delivery piston pump	
	Rated pressure:	21.6MPa{220kgf/cm^2}	
		AC200V 50Hz	AC200-220-230V 60Hz
	Rated delivery:	Approx.16 litters/min.	Approx.19 litters/min.
	Rated revolution:	1440r.p.m.	1730-1740-1750r.p.m.
Motor	Rated output:	3.7kW(3-phase 4 poles)	
	Rated voltage:	AC200 / 200-220-230V 50 / 60Hz	
	Rated frequency:	50 / 60Hz	
Control box	Rated voltage:	AC200 / 200,220V 50 / 60Hz	
	Rated frequency:	50 / 60Hz	
	Starting-up:	Direct start-up	
	Crane power supply:	DC12V(156W)output With AC / DC converter built-in	
Power cable	Power connector:	Cord connector body made by American Electric Work(accessory) Type:4224R Part number:750501218	
	Power cable:	Vinyl cab-tire cable of 4-core cable (To be prepared by customer) Type:VCT4 × 5.5mm^2 (Outside diameter of cable is up to ϕ16mm.) Part number : 750604057 (Cable length is to be specified by customer. It is up to 50m.)	
	Crimp terminal:	Type:R5.5-4(To be prepared by customer) Part number : 750509039(Nitifu TGV5.5-4S)	

Specified speed when using electric power unit

		<50Hz>	<60Hz>
Hoisting Speed	Single line speed:	22m/min.	27m/min.(at 4th layer)
	Hook speed:	5.5m/min.	6.7m/min. (at 4th layer with 4-part line)
Boom extending Speed:		5.95m / 33sec.	5.95m / 28sec.
Boom Raising Speed:		0° - 78°/ 18sec.	0° - 78°/ 15sec.
Slewing Speed:		1.5r.p.m.	1.5r.p.m.
Crawling Speed(forward / backward):		0-1.2km/h	0-1.4km/h

Caution

Not use engine and electric power unit together.

Be sure to confirm before starting the electric power unit that the engine has been stopped.

CC−1061

MAJOR SPESIFICATION OF ELECTRIC POWER UINT :(AC400V)

Power unit

Hydraulic pump	Type:	Variable delivery piston pump	
	Rated pressure:	21.6MPa{220kgf/cm^2}	
		AC380-400-415V 50Hz	AC400-440-460V 60Hz
	Rated delivery:	Approx.16 litters/min.	Approx.19 litters/min.
	Rated revolution:	1410-1420-1420r.p.m.	1710-1730-1730r.p.m.
Motor	Rated output:	3.7kW(3-phase 4 poles)	
	Rated voltage:	AC380-400-415 / 400-440-460V 50 / 60Hz	
	Rated frequency:	50 / 60Hz	
Control box	Rated voltage:	AC400 / 400,440V 50 / 60Hz	
	Rated frequency:	50 / 60Hz	
	Starting-up:	Direct start-up	
	Crane power supply:	DC12V(120W)output With AC / DC converter built-in	
Power cable	Power connector:	Cord connector body made by American Electric Work(accessory) Type:4364R Part number:750501211	
	Power cable:	Vinyl cab-tire cable of 4-core cable (To be prepared by customer) Type:VCT4 × 5.5mm^2 (Outside diameter of cable is up to ϕ16mm.) Part number : 750604057 (Cable length is to be specified by customer. It is up to 50m.)	
	Crimp terminal:	Type:R5.5-5(To be prepared by customer) Part number : 750509058(Nitifu TGV5.5-5S)	

Specified speed when using electric power unit

		<50Hz>	<60Hz>
Hoisting Speed	Single line speed:	22m/min.	27m/min.(at 4th layer)
	Hook speed:	5.5m/min.	6.7m/min. (at 4th layer with 4-part line)
Boom extending Speed:		5.95m / 33sec.	5.95m / 28sec.
Boom Raising Speed:		0° - 78° / 18sec.	0° - 78° / 15sec.
Slewing Speed:		1.5r.p.m.	1.5r.p.m.
Crawling Speed(forward / backward):		0-1.1km/h	0-1.3km/h

Caution

Not use engine and electric power unit together.

Be sure to confirm before starting the electric power unit that the engine has been stopped.

CC－1061

SAFETY DEVICES:

1. Pressure relief valve for hydraulic circuit
2. Counterbalance valves for boom raising and boom telescoping cylinders
3. Double pilot-operated check valves for outrigger cylinders
4. Boom angle indicator with load indicator
5. Hook safety latch
6. Automatic mechanical brake for winch
7. Automatic stop for overwinding
8. Overwinding alarm
9. Emergency stop button (Ignition cut)
10. Inter-lock device of crane and crawling levers
11. Inter-lock device of crane and outriggers
12. Turn over prevention device
13. Level
14. Slewing restriction limit switch
15. Automatic stop for leaving minimum wire rope (option)
16. Three colored lamp (option)
17. Digital load meter (option)

VOICE MESSAGE:

[Remote control active]
[Stop winch up]
[Secure lifting hook]
[Low transmitter battery]
[Reset main switch]
[Change control mode]
[Crane mode]
[Outrigger mode, Outriggers moving]
[Check error code]
[Reset Emergency stop button]
[Control system error]

DIMENSIONS OF CRANE: 2905mm(L) × 600mm(W) × 1450mm(H)

MASS OF CRANE: 2,090kg

CC−1061

RADIO REMOTE CONTROL DEVICE:

System:	Manual / remote control combined system		
Control:	1. Selective control	Boom	Raise / Lower
		Hook	Hoist / Lower
		Boom	Extend / Retract
		Slewing	C.W. / C.C.W.
			(Eng. start / stop)
		Hook storage	Store
	2. Start / Warning horn	Start radio remote control and recovered emergency stop / Horn	
	3. Speed control lever	Hydraulic control and engine speed control	
	4. Speed mode select	High speed mode(normal mode) / Medium speed mode / Low speed mode	
	5. Key switch	Transmitter power on-off	
	6. Emergency-stop switch	Stop function of crane	
Power supply:	Controller	Crawler battery (DC12V)	
	Transmitter	Four R03 dry cells (DC6V)	
Power consumption:	Approx. 50 W (Single selective operation at maximum operating speed)		
Transmitter:	Battery life more than 20 hours (of transmitter operation)		
Transmitter weight:	700g (with batteries)		
Ambient temperature:	-20 °C ~ +60 °C		
Storage temperature:	-30 °C ~ +75 °C		

RADIO:

Model / Radio frequency:	RC-500HA-AUS / 434 MHz Band
	RC-500HA-KOR / 447 MHz Band
	RC-500HA-USA / 458 MHz Band
	RC-500HA-TWN / 480 MHz Band
Transmitted output power:	10mV
Operating range:	Approx. 100m
Unit address:	Special address combining a frequency and ID code is assigned to each unit.

CAUTION: In accordance with our policy of constant product improvement, all specifications are subject to change without notice or obligations.

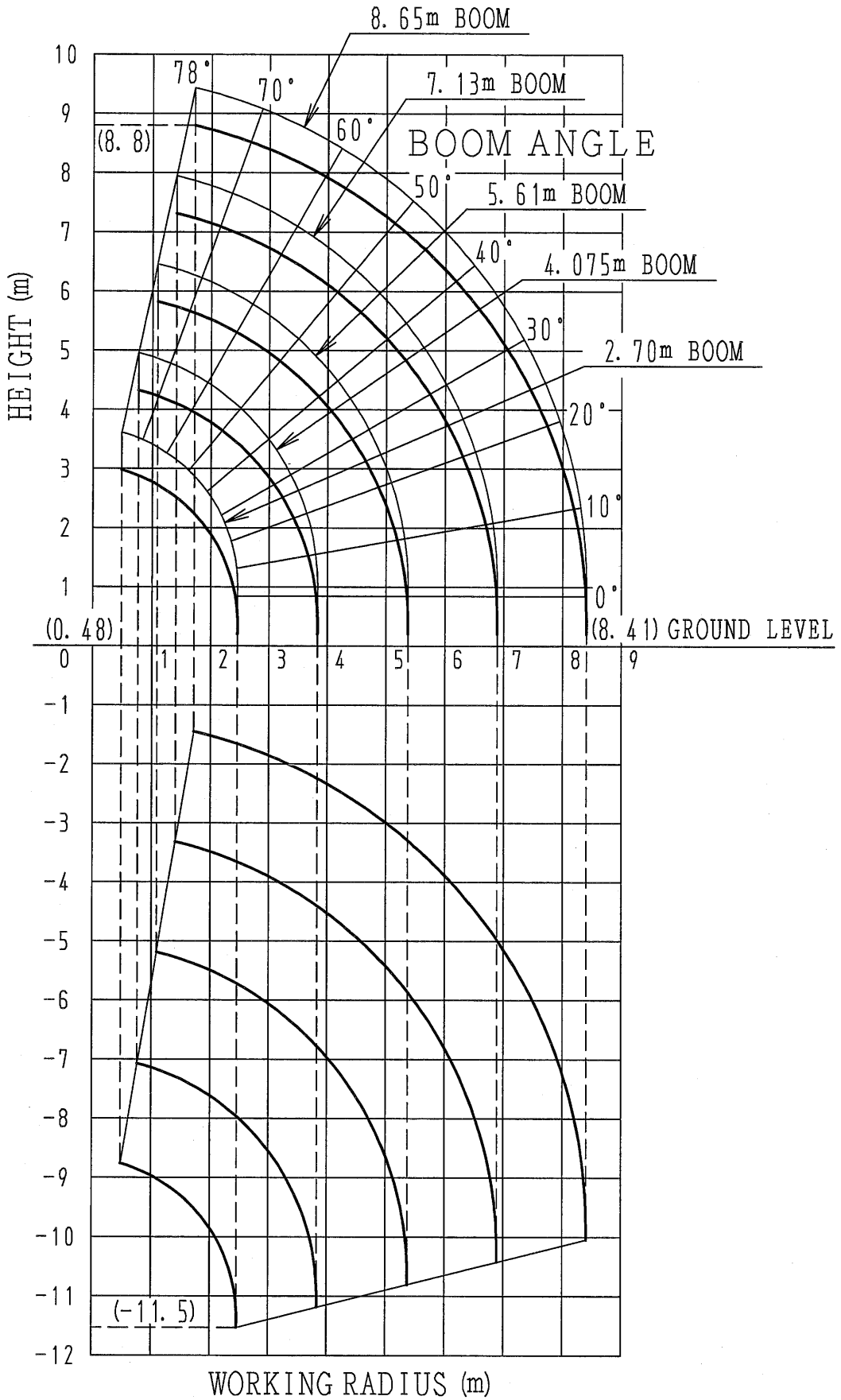
CC-1061

TURNOVER PREVENTION DEVICE:

Power supply:	Crawler battery (DC12V) (Turn on automatically by changing to the crane mode.)	
Ambient temperature:	-20°C~+60°C	
Protection	Waterproof (JIS D 0203 S2) and dustproof	
Amplifier		
Circuit:	Digital control type (Adder type)	
Function:	Turnover pre-alarm;	Buzzer intermittent rumbling Yellow lamp lighting (Option)
	Turnover alarm;	Buzzer continuous rumbling Red lamp lighting (Option) Automatic stop (Hoisting, Extend, Boom lower, Slewing)
Alarm buzzer:	2.4kHz 90dB	
Alarm lamp:	3 colors (green, yellow, red) (Option)	
Ground pressure detection:	Detection method;	Detection of ground pressure applied to outrigger
	Detector;	Load detector by strain gauge

CC－1061

WORKING RANGE:



Note: The above figures are based on no-load condition and do not include the deflection of the boom.

CC-1061

NET RATED LOADS:

Boom-sections extended: ①, ①+②

Working radius (m)		1.0	1.4	1.5	1.8	2.0	2.5	3.0	3.5	3.835
Net rated load (t)	Outriggers extended to maximum	2.9	2.9	2.65	2.25	2.05	1.65	1.3	1.0	0.9
	Outriggers extended not to maximum	2.0	2.0	2.0	1.45	1.1	0.65	0.49	0.35	0.25

Boom-sections extended: ①+②+③

Working radius (m)		2.2	2.5	2.9	3.0	3.5	4.0	4.5	5.0	5.37
Net rated load (t)	Outriggers extended to maximum	1.35	1.35	1.35	1.25	1.0	0.8	0.65	0.52	0.43
	Outriggers extended not to maximum	0.8	0.65	0.53	0.5	0.38	0.28	0.22	0.16	0.12

Boom-sections extended: ①+②+③+④

Working radius (m)		3.4	3.8	4.0	4.5	5.0	5.5	6.0	6.5	6.89
Net rated load (t)	Outriggers extended to maximum	0.85	0.85	0.75	0.6	0.5	0.42	0.36	0.32	0.27
	Outriggers extended not to maximum	0.42	0.34	0.3	0.25	0.19	0.14	0.1	0.08	0.06

Boom-sections extended: ①+②+③+④+⑤

Working radius (m)		3.8	4.1	4.5	5.0	5.5	6.0	6.5	7.0	8.0	8.41
Net rated load (t)	Outriggers extended to maximum	0.55	0.55	0.45	0.37	0.31	0.27	0.23	0.2	0.15	0.13
	Outriggers extended not to maximum	0.35	0.29	0.25	0.2	0.16	0.13	0.1	0.07	0.04	0.03

CAUTION

1. Net rated loads are performance when the crane is placed level and is based on an actual working radius including boom deflection under load.
   Net rated loads are also based on the strength of the crane and the stability of the crawler.
2. Net rated loads must be reduced in accordance with wind, ground condition and operating speed.
3. Net rated loads are the lifting capacities excepted for the mass of the hook.
4. When the outriggers are set without extending to their maximum, stability of the crane deteriorates remarkably.
   Pay attention that the net rated loads are changed according to how far the outriggers are extended.
5. If any one of the four outriggers is not fully extended, operate with performance of not maximum extension.
6. In order to make correct operation, read the instruction manual carefully before crane operation.

CC－1061

FLY JIB:(OPTION)

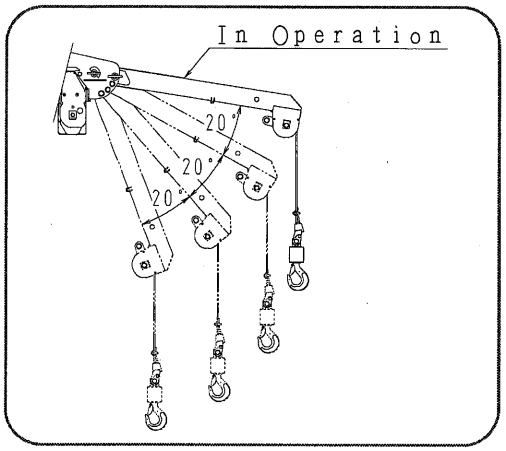
LIFTING CAPACITY:	700kg
JIB LENGTH:	1.5m
TILT ANGLE:	0° ,20° ,40° ,60°
MASS OF FLY JIB:	70kg

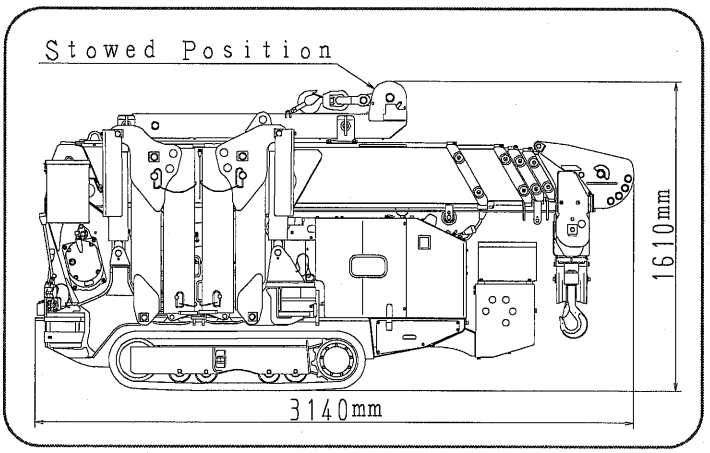
NET RATED LOADS: (FOR FLY JIB)

	TILT ANGLE							
	1st TO 4th BOOM SECTIONS				ONLY 5th BOOM SECTION			
BOOM ANGLE	0°	20°	40°	60°	0°	20°	40°	60°
78°	700	700	700	700	400	400	400	400
75°	700	700	700	700	400	400	400	400
70°	700	700	700	700	400	400	400	400
65°	500	500	500	500	250	250	250	250
60°	350	350	350	350	200	200	200	200
55°	250	250	PROHIBITED AREA OF CRANE OPERATIONS		150	150	PROHIBITED AREA OF CRANE OPERATIONS	
50°	200	200			100	100		
40°	PROHIBITED AREA OF CRANE OPERATIONS				PROHIBITED AREA OF CRANE OPERATIONS			
30°								
20°								
10°								
0°								

CAUTION

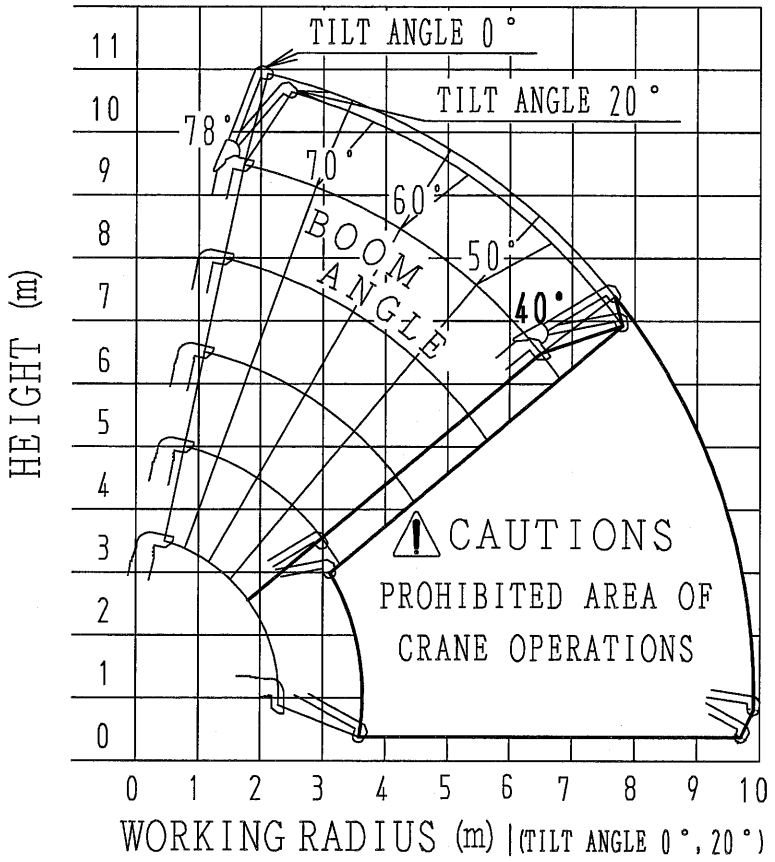
1. Net rated loads are performance when outriggers extended to maximum.
2. Net rated loads are performance when the crane is placed level and is based on an actual working radius including boom deflection under loaded.
   Net rated loads are also based on strength and stability of the crane.
3. Net rated loads must be reduced in accordance with wind, ground condition and operating speed.
4. Net rated loads are the lifting capacities except for the mass of hook.
5. The mass of the slings and any accessories attached to the boom or load line must be deducted from the above net rated loads in the chart.
6. In order to make correct operation, read the instruction manual carefully before crane operation.

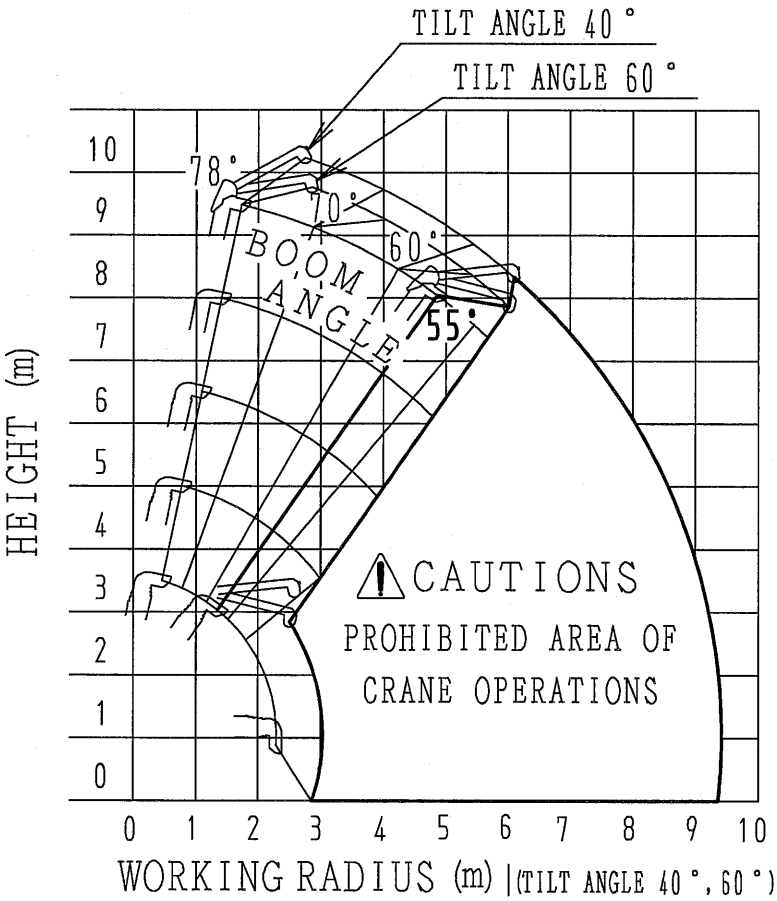




CC-1061

WORKING RANGE: (FOR FLY JIB)





CC−1061

Note: The above figures are based on no-load condition and do not include the deflection of the boom.

FLY JIB-SEARCHER HOOK:(OPTION)

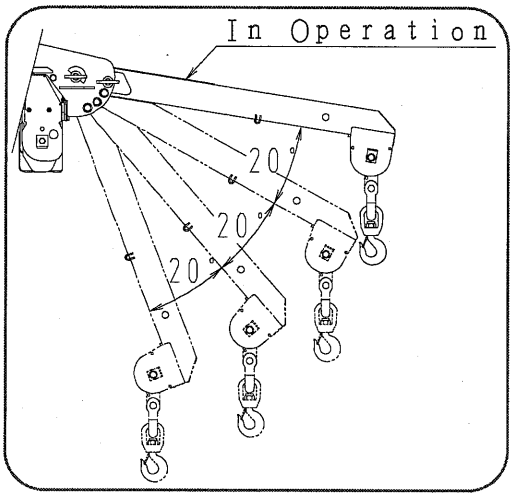
LIFTING CAPACITY:	700kg
SEARCHER HOOK LENGTH:	1.5m
TILT ANGLE:	0° ,20° ,40° ,60°
MASS OF SEARCHER HOOK	8kg (Bracket and jib are excepted)

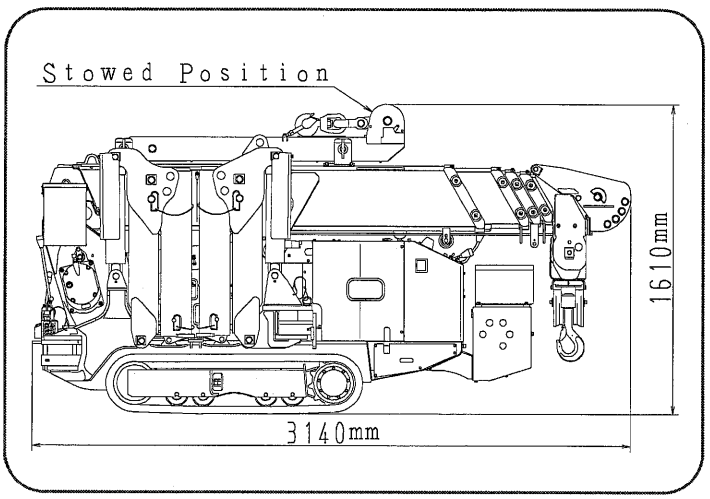
NET RATED LOADS: (FOR FLY JIB-SEARCHER HOOK)

1st TO 4th BOOM SECTIONS			ONLY 5th BOOM SECTION		
	NET RATED LOAD (kg)			NET RATED LOAD (kg)	
WORKING RADIUS (m)	OUTRIGGERS MAX EXT	OUTRIGGERS NOT MAX EXT	WORKING RADIUS (m)	OUTRIGGERS MAX EXT	OUTRIGGERS NOT MAX EXT
3.8	700	250	3.8	500	250
4.0	700	200	4.0	450	200
4.5	500	150	4.5	400	150
5.0	400	110	5.0	320	110
5.5	330	80	5.5	300	80
6.0	260	50	6.0	260	50
6.5	220	40	6.5	220	40
7.0	180	PROHIBITED AREA OF CRANE OPERATIONS	7.0	180	PROHIBITED AREA OF CRANE OPERATIONS
8.0	130		8.0	130	
8.39	100		9.0	100	
			9.91	50	

CAUTION

1. Net rated loads are performance when the crane is placed level and is based on an actual working radius including boom deflection under loaded.
   Net rated loads are also based on strength and stability of the crane.
2. Net rated loads must be reduced in accordance with wind, ground condition and operating speed.
3. Net rated loads are the lifting capacities except for the mass of hook.
4. The mass of the slings and any accessories attached to the boom or load line must be deducted from the above net rated loads in the chart.
5. In order to make correct operation, read the instruction manual carefully before crane operation.





CC-1061

SEARCHER HOOK:(OPTION)

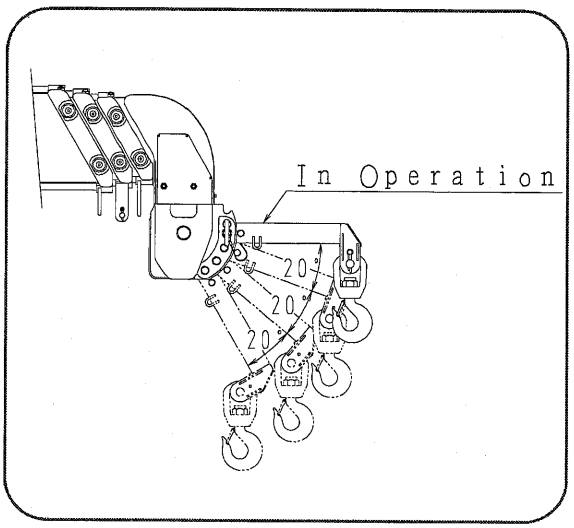
LIFTING CAPACITY:	300kg
SEARCHER HOOK LENGTH:	0.5m
TILT ANGLE:	0° ,20° ,40° ,60°
MASS OF SEARCHER HOOK:	15kg

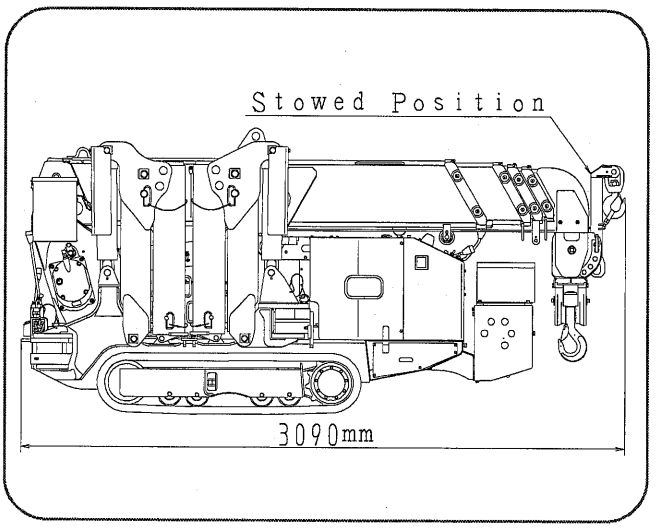
NET RATED LOADS: (FOR SEARCHER HOOK)

	NET RATED LOAD (kg)	
WORKING RADIUS (m)	OUTRIGGERS MAX EXT	OUTRIGGERS NOT MAX EXT
3.5	300	300
4.0	300	220
4.5	300	170
5.0	300	120
5.5	300	90
6.0	260	60
6.5	220	50
7.0	180	PROHIBITED AREA OF CRANE OPERATIONS
8.0	130	
8.91	100	

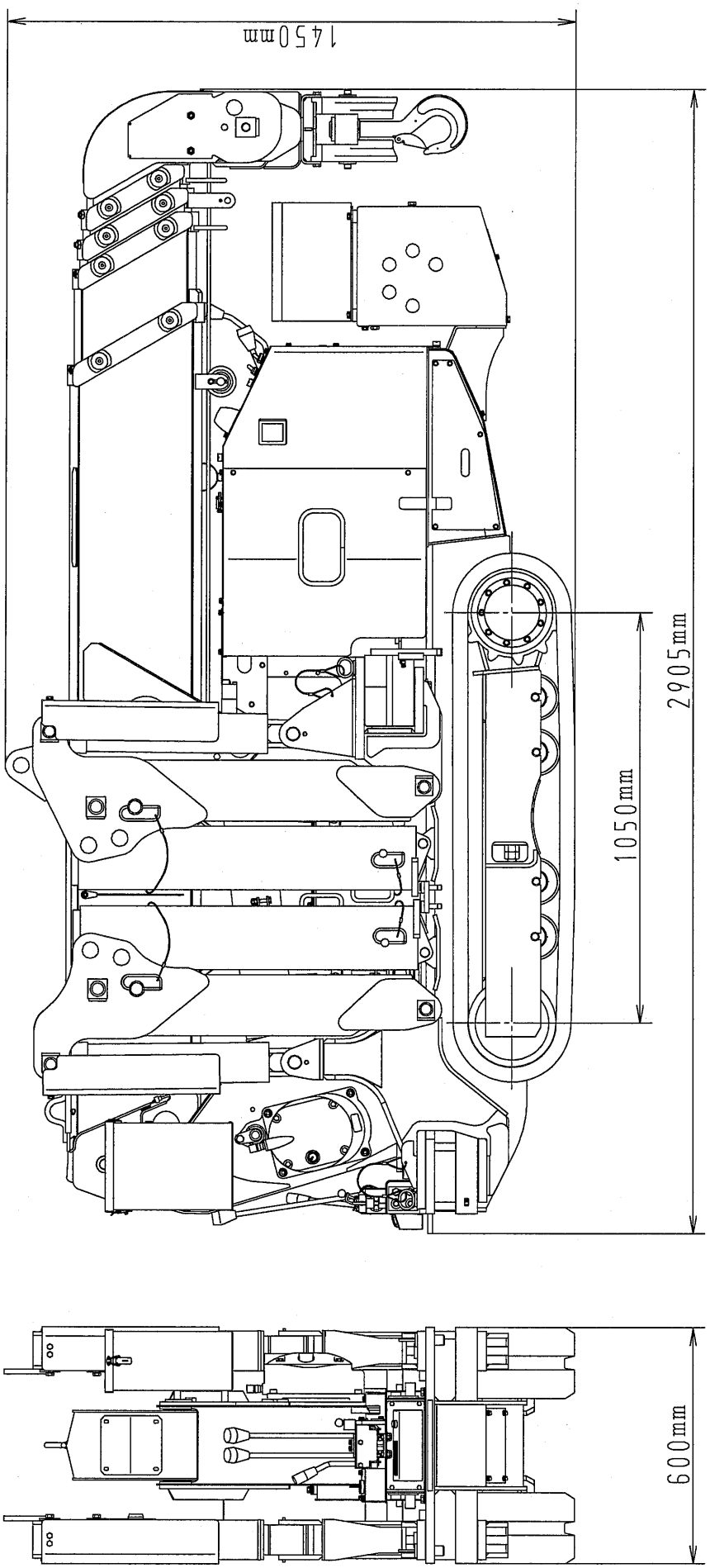
CAUTION

1. Net rated loads are performance when the crane is placed level and is based on an actual working radius including boom deflection under loaded.
   Net rated loads are also based on strength and stability of the crane.
2. Net rated loads must be reduced in accordance with wind, ground condition and operating speed.
3. Net rated loads are the lifting capacities except for the mass of hook.
4. The mass of the slings and any accessories attached to the boom or load line must be deducted from the above net rated loads in the chart.
5. In order to make correct operation, read the instruction manual carefully before crane operation.





CC-1061



CC−1061