

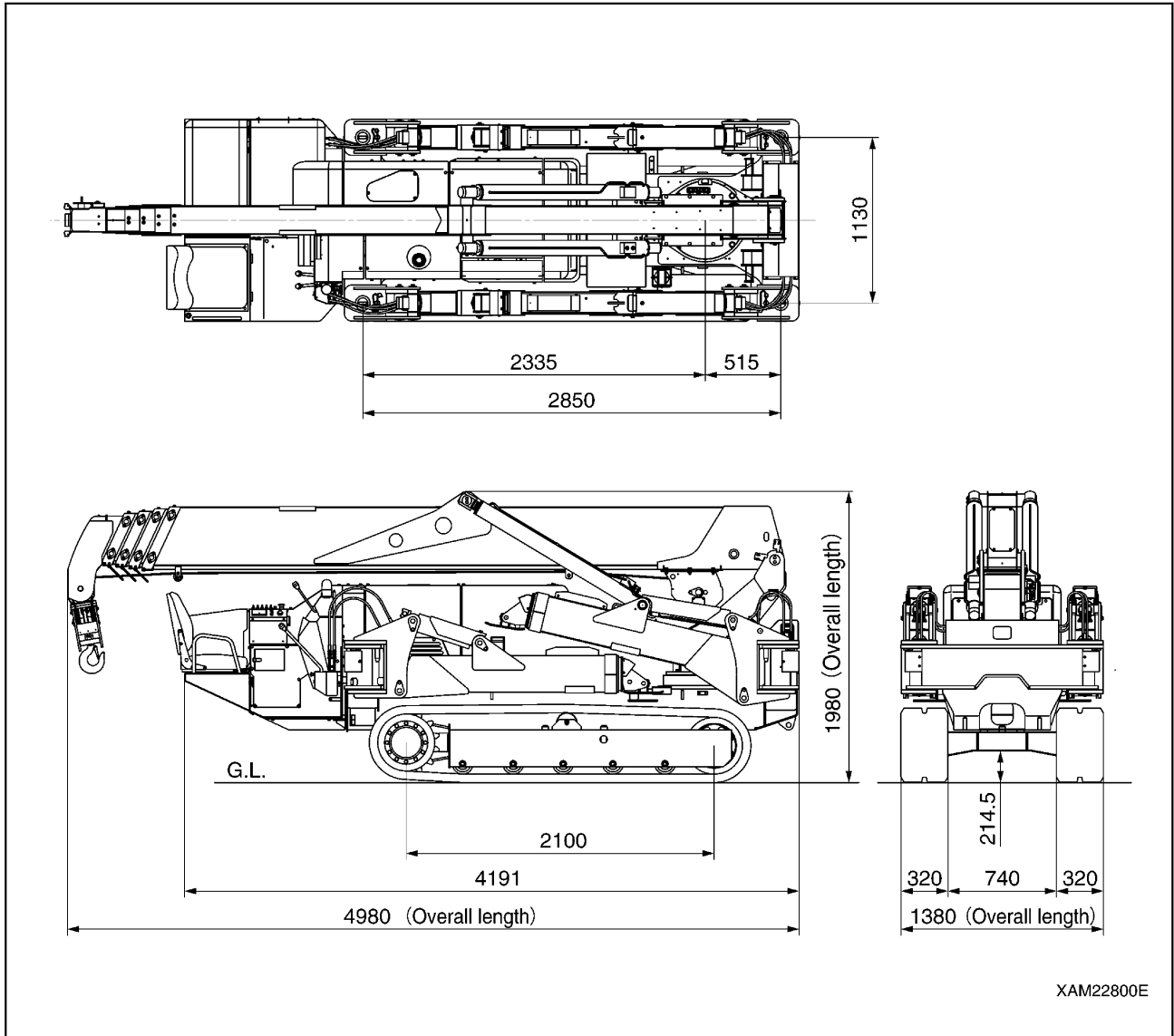
1. SPECIFICATIONS

1.1 SPECIFICATION LIST

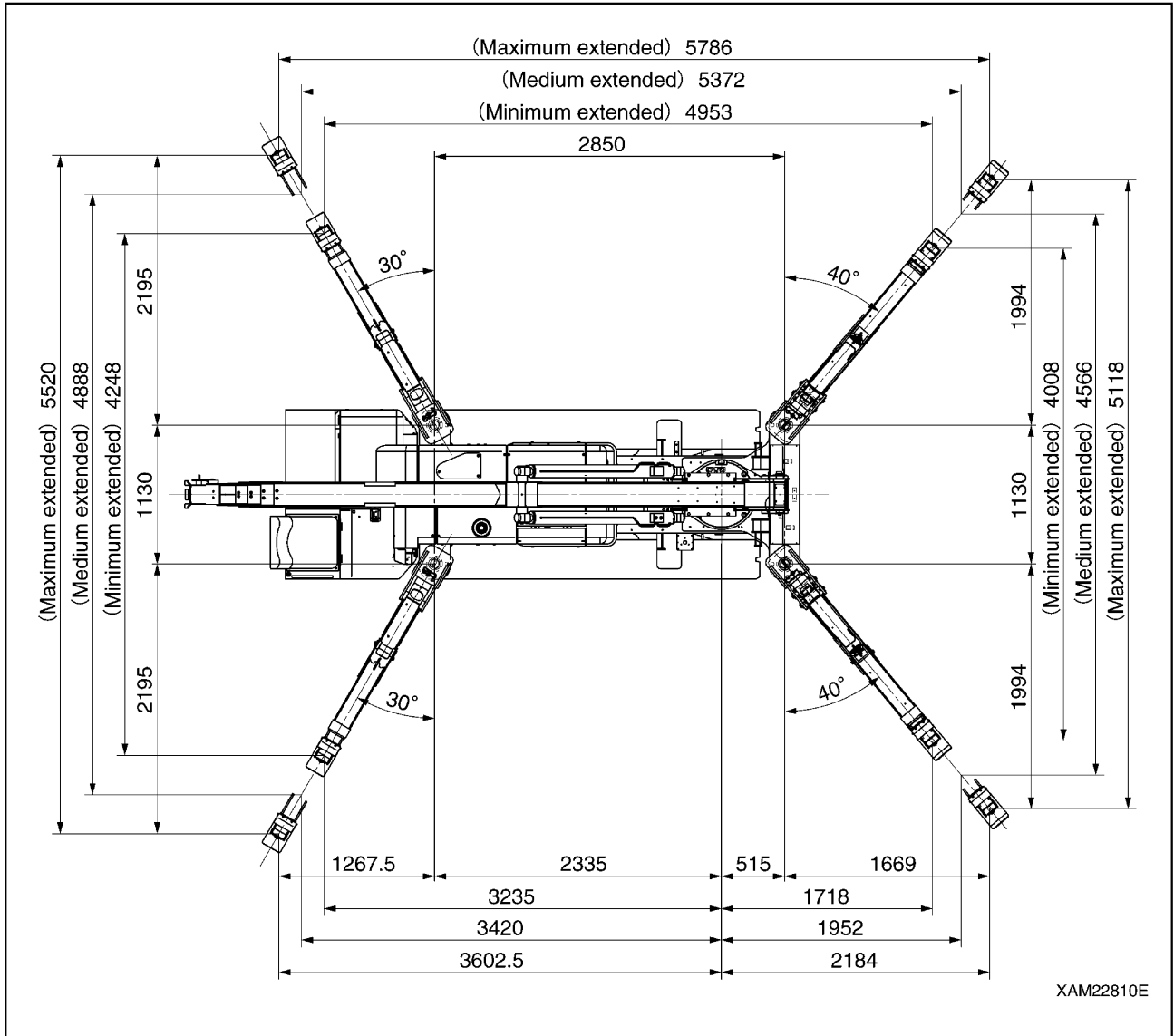
System / Item		MC-405C
Mass and dimensions	Machine mass	5600kg
	Overall length × width × height	4980mm × 1380mm × 1980mm
	Distance between idler and sprocket	2100mm
	Track gauge	1060mm
	Track width	320mm
Capacity	Maximum rated total load × working radius	3.83t × 2.7m
	Maximum working radius	16m
	Maximum lifting height	16.8m
Winch system	Method	Fixed displacement axial piston motor, Planetary reduction gear, Built-in disc brake, With counter balance valve
	Winding speed	18.0m/min (4th drum, 4 ropes)
	Hoisting rope	IWRC 6 × WS (26) 0/0 Type B φ8 × 95m
Boom telescoping system	Method	Sequentially telescoping hydraulic cylinder (3 pieces) + Sheave-embedded wire rope expansion device (1 piece), (With a hydraulic automatic locking device)
	Boom type	Pentagonal section, hydraulic automatic extension, 5-stage boom (Stage 2/3: Sequentially telescoping, Stage 4/5: Simultaneous telescoping)
	Boom length	4.735m – 7.695m – 10.655m – 13.565m – 16.475m
	Boom telescoping stroke/ time	0.28m/sec
Derrick system	Method	Direct push-type hydraulic double-acting cylinder (2 pieces), (With a hydraulic automatic locking device)
	Derrick angle/ time	0 to 80 deg./17.0sec
Slewing system	Method	Swing bearing, hydraulic motor drive, Reduction gear: Worm + Reduction spur gear, Brake: Worm-selflock
	Slewing angle/ speed	360 deg. (continuous)/ 24sec (2.5min ⁻¹)
Outtrigger system	Method	Extension/ground: Direct push-type hydraulic cylinder (With a hydraulic automatic locking device)
	Overall width of extended outriggers	(Front) 5118mm × (Right/left) 5786mm × (Rear) 5520mm
Traveling system	Method	Hydraulic two-speed motor drive, Variable speed, Built-in brake
	Travel speed	Forward/backward: 0 – 3.0km/h
	Gradeability	20 deg.
	Ground pressure	49.0kPa (0.50kgf/cm ²)
Hydraulic system	Hydraulic pump	Double-throw variable piston pump (17cc/rev × 2)
	Rated pressure	Traveling: 20.6MPa (210kgf/cm ²) Crane high-pressure relief: 20.1MPa (205kgf/cm ²) Crane low-pressure relief: 4.41 to 6.37MPa (45 to 65kgf/cm ²)
	Hydraulic oil tank capacity	70L

System / Item		MC-405C
Engine	Model	Yanmar 3TNV88-PMB
	Type	Vertical in-line 3-cylinder, Water cooled, 4-cycle (Direct injection type)
	Displacement	1.642L (1642cc)
	Rated output (continuous)	21.8kW/2400min ⁻¹ (29.6PS/2400rpm)
	Fuel tank capacity	Light oil/ 60L
Battery	Model	95D31R (DC12V × 1 piece)
Safety device	Over hoist detector / automatic stop device, three-winding stop alarm / automatic stop device, load indicator, hydraulic safety valve, hydraulic automatic locking device, slinging rope detachment protector, alarm buzzer, audio alarm, level, crane tip-over alarm (an alarm issued in the event of the crane operation at 3-degree inclination and traveling at 15-degree inclination), traveling lever lock, traveling/crane/outrigger selector switch (designed to prevent the machine from craning at traveling), outrigger safety device (outrigger interlock and crane interlock), moment limiter (working envelope limited), working status lamp, outrigger non-installation warning lamp	

1.2 SPECIFICATION DIMENSIONAL DRAWING



1.3 DIMENSIONAL DRAWING OF OUTRIGGER WIDTH



1.4 RATED TOTAL LOAD TABLE

[1] TOTAL RATED LOAD CHART AT WIRE ROPE 4 FALLS

OUTRIGGER EXTENDED TO MAXIMUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.60	3830	3.28	3030	4.00	2230	5.00	1130
3.28	3030	4.00	2480	4.50	1930	5.50	980
4.00	2480	5.00	1980	5.00	1730	6.00	910
5.00	1980	6.00	1660	6.00	1400	7.00	760
6.00	1660	7.00	1380	7.00	1180	8.00	650
7.00	1380	8.00	1130	8.00	1030	9.00	600
7.25	1330	9.00	880	9.00	930	10.00	550
--	--	10.20	580	10.00	830	11.00	490
--	--	--	--	11.00	690	12.00	440
--	--	--	--	12.00	530	13.00	380
--	--	--	--	13.10	430	14.00	320
--	--	--	--	--	--	15.00	260
--	--	--	--	--	--	16.00	210

OUTRIGGER EXTENDED TO MEDIUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.60	3830	3.28	3030	4.00	2230	5.00	1130
3.28	3030	4.00	2480	4.50	1830	5.50	980
4.00	2480	5.00	1880	5.00	1630	6.00	910
5.00	1880	6.00	1430	6.00	1330	7.00	730
6.00	1430	7.00	1130	7.00	1080	8.00	630
7.00	1160	8.00	880	8.00	880	9.00	550
7.25	1120	9.00	740	9.00	730	10.00	480
--	--	10.20	490	10.00	530	11.00	430
--	--	--	--	11.00	480	12.00	380
--	--	--	--	12.00	430	13.00	330
--	--	--	--	13.10	330	14.00	280
--	--	--	--	--	--	15.00	220
--	--	--	--	--	--	16.00	180

OUTRIGGER EXTENDED TO MINIMUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.60	3830	3.28	3030	4.00	2230	5.00	1130
3.28	3030	4.00	2480	4.50	1830	5.50	980
4.00	2480	5.00	1680	5.00	1630	6.00	880
5.00	1680	6.00	1180	6.00	1180	7.00	730
6.00	1180	7.00	880	7.00	830	8.00	530
7.00	930	8.00	730	8.00	680	9.00	450
7.25	780	9.00	580	9.00	550	10.00	420
--	--	10.20	400	10.00	430	11.00	370
--	--	--	--	11.00	380	12.00	330
--	--	--	--	12.00	350	13.00	280
--	--	--	--	13.10	310	14.00	240
--	--	--	--	--	--	15.00	190
--	--	--	--	--	--	16.00	150

[2] TOTAL RATED LOAD CHART AT WIRE ROPE 2 FALLS

OUTRIGGER EXTENDED TO MAXIMUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.70	1930	3.50	1930	4.00	1930	5.00	1130
3.50	1930	4.00	1930	4.50	1930	5.50	980
4.00	1930	5.00	1930	5.00	1730	6.00	910
5.00	1930	6.00	1660	6.00	1400	7.00	760
6.00	1660	7.00	1380	7.00	1180	8.00	650
7.00	1380	8.00	1130	8.00	1030	9.00	600
7.25	1330	9.00	880	9.00	930	10.00	550
--	--	10.20	580	10.00	830	11.00	490
--	--	--	--	11.00	690	12.00	440
--	--	--	--	12.00	530	13.00	380
--	--	--	--	13.10	430	14.00	320
--	--	--	--	--	--	15.00	260
--	--	--	--	--	--	16.00	210

OUTRIGGER EXTENDED TO MEDIUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.70	1930	3.50	1930	4.00	1930	5.00	1130
3.50	1930	4.00	1930	4.50	1830	5.50	980
4.00	1930	5.00	1880	5.00	1630	6.00	910
5.00	1880	6.00	1430	6.00	1330	7.00	730
6.00	1430	7.00	1130	7.00	1080	8.00	630
7.00	1160	8.00	880	8.00	880	9.00	550
7.25	1120	9.00	740	9.00	730	10.00	480
--	--	10.20	490	10.00	530	11.00	430
--	--	--	--	11.00	480	12.00	380
--	--	--	--	12.00	430	13.00	330
--	--	--	--	13.10	330	14.00	280
--	--	--	--	--	--	15.00	220
--	--	--	--	--	--	16.00	180

OUTRIGGER EXTENDED TO MINIMUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.70	1930	3.50	1930	4.00	1930	5.00	1130
3.50	1930	4.00	1930	4.50	1830	5.50	980
4.00	1930	5.00	1680	5.00	1630	6.00	880
5.00	1680	6.00	1180	6.00	1180	7.00	730
6.00	1180	7.00	880	7.00	830	8.00	530
7.00	930	8.00	730	8.00	680	9.00	450
7.25	780	9.00	580	9.00	550	10.00	420
--	--	10.20	400	10.00	430	11.00	370
--	--	--	--	11.00	380	12.00	330
--	--	--	--	12.00	350	13.00	280
--	--	--	--	13.10	310	14.00	240
--	--	--	--	--	--	15.00	190
--	--	--	--	--	--	16.00	150

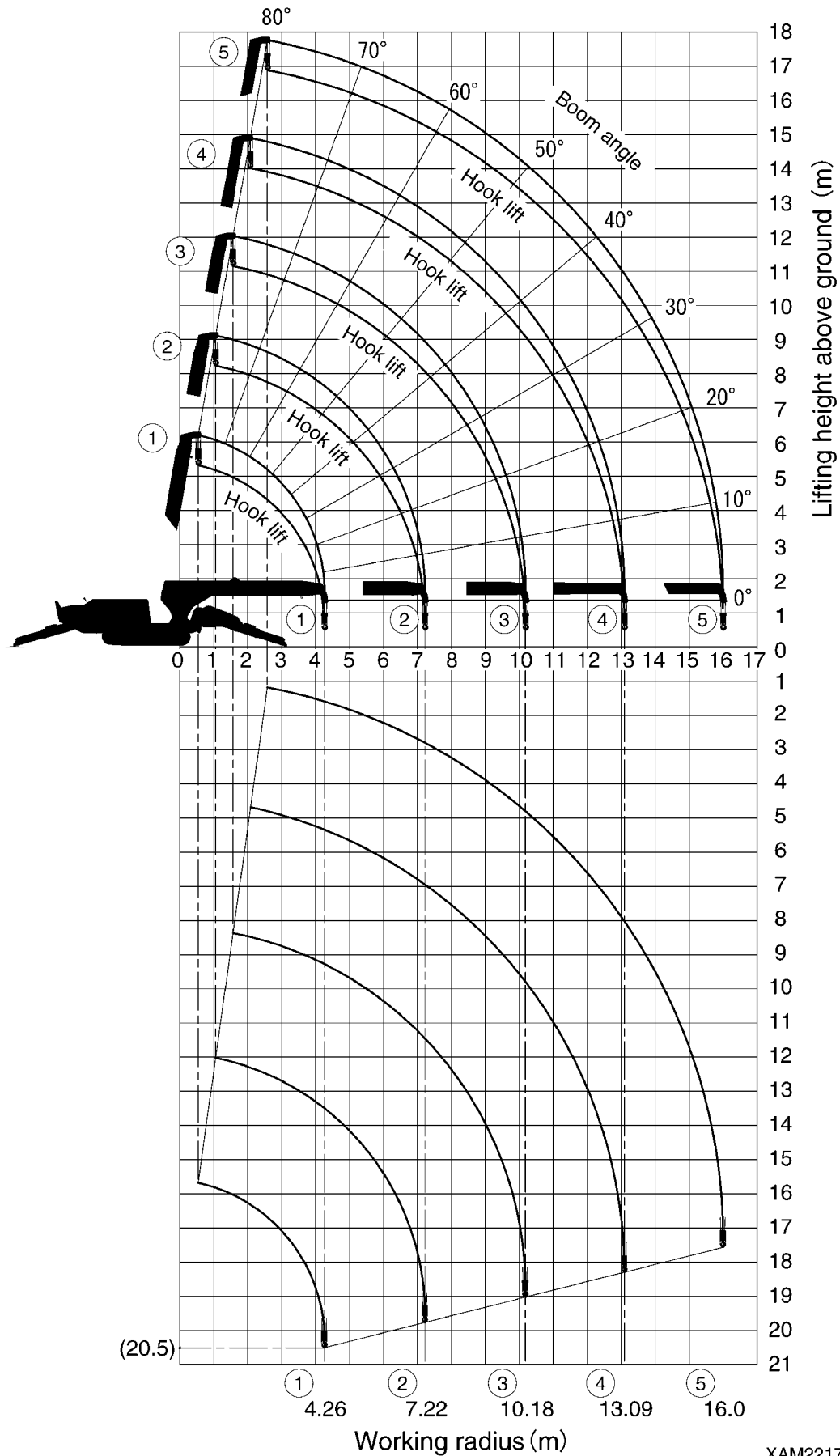
[3] TOTAL RATED LOAD CHART AT WIRE ROPE 1 FALL

OUTRIGGER EXTENDED TO MAXIMUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.70	970	3.50	970	4.00	970	5.00	970
3.50	970	4.00	970	4.50	970	5.50	970
4.00	970	5.00	970	5.00	970	6.00	900
5.00	970	6.00	970	6.00	970	7.00	750
6.00	970	7.00	970	7.00	970	8.00	640
7.00	970	8.00	970	8.00	970	9.00	590
7.25	970	9.00	870	9.00	920	10.00	540
--	--	10.20	570	10.00	820	11.00	480
--	--	--	--	11.00	680	12.00	430
--	--	--	--	12.00	520	13.00	370
--	--	--	--	13.10	420	14.00	310
--	--	--	--	--	--	15.00	250
--	--	--	--	--	--	16.00	200

OUTRIGGER EXTENDED TO MEDIUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.70	970	3.50	970	4.00	970	5.00	970
3.50	970	4.00	970	4.50	970	5.50	970
4.00	970	5.00	970	5.00	970	6.00	900
5.00	970	6.00	970	6.00	970	7.00	720
6.00	970	7.00	970	7.00	970	8.00	620
7.00	970	8.00	870	8.00	870	9.00	540
7.25	970	9.00	730	9.00	720	10.00	470
--	--	10.20	480	10.00	520	11.00	420
--	--	--	--	11.00	470	12.00	370
--	--	--	--	12.00	420	13.00	320
--	--	--	--	13.10	320	14.00	270
--	--	--	--	--	--	15.00	210
--	--	--	--	--	--	16.00	170

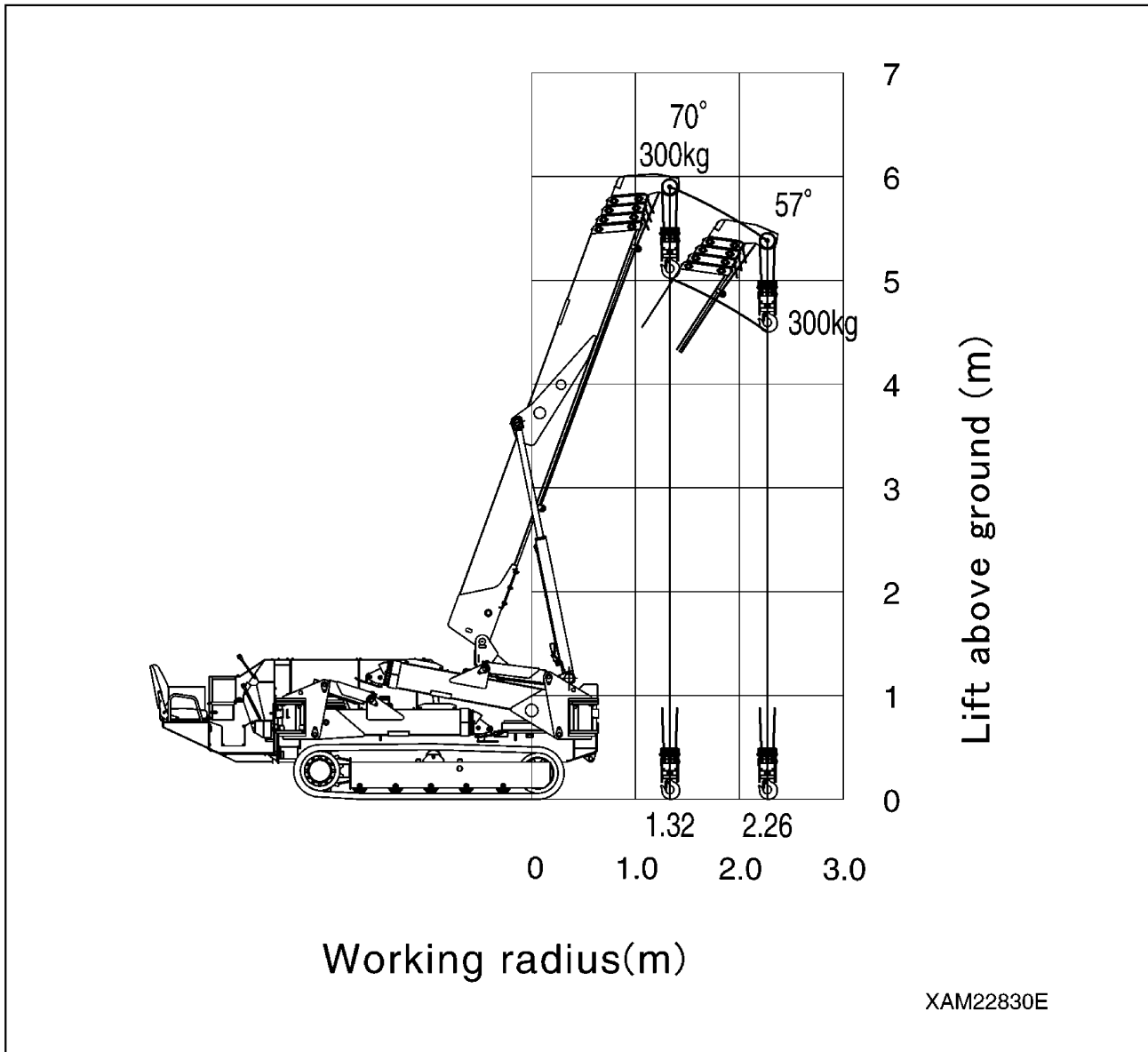
OUTRIGGER EXTENDED TO MINIMUM							
BOOM ①+②		BOOM ①+②+③		BOOM ①+②+③+④		BOOM ①+②+③+④+⑤	
Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)	Working radius (m)	Total rated load (kg)
2.70	970	3.50	970	4.00	970	5.00	970
3.50	970	4.00	970	4.50	970	5.50	970
4.00	970	5.00	970	5.00	970	6.00	870
5.00	970	6.00	970	6.00	970	7.00	720
6.00	970	7.00	870	7.00	820	8.00	520
7.00	920	8.00	720	8.00	670	9.00	440
7.25	770	9.00	570	9.00	540	10.00	410
--	--	10.20	390	10.00	420	11.00	360
--	--	--	--	11.00	370	12.00	320
--	--	--	--	12.00	340	13.00	270
--	--	--	--	13.10	300	14.00	230
--	--	--	--	--	--	15.00	180
--	--	--	--	--	--	16.00	140

1.5 WORKING RADIUS AND LIFTING HEIGHT



XAM22170E

1.6 WORKING RADIUS AND LIFTING HEIGHT (DURING TRAVELING HOIST)



⚠ DANGER

When using pick & carry duties, follow these rules to prevent machine from tipping over.

1. Do not travel on a slope, soft ground or uneven ground.
2. Do not slew. Avoid any sharp movements when stopping or starting.
3. When traveling with a load, keep it low to the ground as possible.
4. If the load swings, stop traveling until the load is still.