

### Standard Equipment

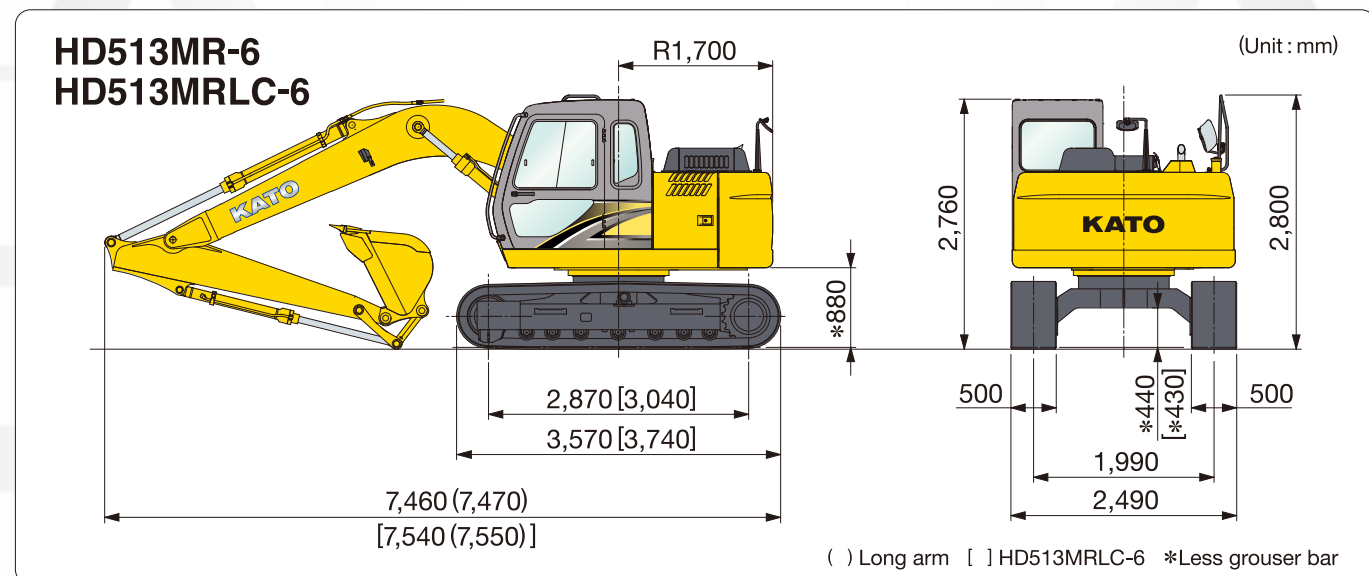
- PULL UP FRONT WINDOW
- COLOR MONITOR DISPLAY (APC300)
- 6 POINTS VISCOUS DUMPLING CAB SUSPENSION
- DOUBLE SLIDE OPERATOR SEAT
- SEAT-BELT
- AUTOMATIC AIR CONDITIONER (PRESSURIZED)
- HOT & COOL BOX
- 2 HOLES FRONT WINDOW WASHER
- INTERMITT WINDSHIELD WIPER
- EMERGENCY EXIT REAR WINDOW
- AM/FM RADIO
- 13 CM DUAL CORN SPEAKER X 2
- CABIN LIGHT
- WORKING LIGHT (SLEWING TABLE RIGHT SIDE, BOOM LEFT SIDE)
- REAR VIEW MIRROR (RIGHT & LEFT SIDE)
- TAIL VIEW MIRROR
- WORKIG MODE SELECTOR (APC300)
- AUTO-SLOW, ONE TOUCH SLOW
- AUTOMATIC TRANSMISSION FOR TRAVELING
- 2 SPEED MODES FOR TRAVELING
- BOOM/ARM ANTI-DRIFT VALVE
- SLEWING ANTI-COUNTER ACTION
- AUTOMATIC PARKING BRAKE (SLEWING TABLE)
- AUTOMATIC PARKING BRAKE (TRAVELING)
- SERVICE PORT (1 SPOOL)
- FIRE WALL
- AIR CLEANER DOUBLE ELEMENT
- TOOL SET

### Optional Equipment

- TRANSPARENT ROOF HATCH WITH SUN VISOR
- SEAT SUSPENSION ADJUSTABLE TO OPERATOR'S WEIGHT
- 12 VOLT POWER SUPPLY
- OPTIONAL WORKING LIGHT (BOOM RIGHT SIDE)
- OPTIONAL WORKING LIGHT (CAB LEFT AND RIGHT SIDE)
- CAB FOR CRUSHER
- STEP ON SIDE OF CAB
- HOSE RUPTURE VALVE
- UNDER COVER SLEWING TABLE (THICKER)
- 2 WAYS OPTION PIPING (FOR BREAKER & CRUSHER)
- PIPING FOR BREAKER AND CRUSHER WITH TESTING CIRCUIT \*
- PIPING FOR BREAKER AND CRUSHER WITHOUT TESTING CIRCUIT \*
- ADDITIONAL PIPING (FOR ROTATOR)
- MULTI-LEVER
- WINDSHIELD HALF SIZE GUARD \*
- WINDSHIELD FULL SIZE GUARD \*
- CABIN HEAD GUARD
- ADDITIONAL ELECTRIC HORN
- SWING INTERLOCKING WARNING LAMP
- BUZZER TRAVELING
- ELECTRIC REFUELING PUMP
- FIRE EXTINGUISHER
- LOUD SPEAKER
- PRE-CLEANER
- REAR VIEW MONITOR
- BATTERY DISCONNECT SWITCH

\* Means cannot equip in the same time.

### Dimensions



<http://www.kato-works.co.jp>

NOTE : Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice. Mentioned figures are approximate.

● Contact for enquiry:



Obtained authentication of International Specification ISO9001 for quality assurance.

# REGZM

## FULLY HYDRAULIC EXCAVATOR

# HD513<sub>MR-6</sub>

Bucket capacity : 0.25m<sup>3</sup>- 0.60m<sup>3</sup> (ISO)  
 Engine output : 75.0kW / 2,000min<sup>-1</sup> (ISO Net)  
 Operating weight : 13,700kg (HD513MR-6)  
 14,100kg (HD513MRLC-6)



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## Environment-friendly & User-friendly Compact tail KATO excavator

**REGZM**

### Reliable and clean ISUZU engine is adopted

- Model : ISUZU 4JJ1X (Stage IIIB). Saves the fuel consumption, inject optimum amount of fuel by common rail system. Reduces more NOx by the large capacity intercooler and turbo charged EGR system.

### DPF is installed

- DPF (Diesel Particulate Filter) collect and remove PM. Operator is able to confirm DPF condition from latest APC300 display.

### Fuel efficiency up approximately 11%

- With the latest APC300, fuel efficiency increased approximately by 11% compare to previous model at "A mode" (All-round mode)

### Compact tail swing model

- Tail swing radius is 1,700mm. Minimum front swing radius is 2,370mm. Advantage in narrow working site.







## Easy to maintain by user-friendly design

- The lubricant impregnated bush and the resin-made shim suppress rattling sound of front attachment and extend greasing interval.
- Parallel configuration oil cooler and radiator make maintenance easier.
- Powerful double element for the air cleaner.
- The one touch cock enables to discharge oil without staining hand or using tool.
- Easy access to the water separator.
- Easy access to the fuel filter and the engine oil filter.



▲ Easy access to filters



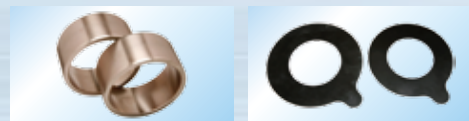
▲ Parallel configuration oil cooler and radiator



▲ Right side is fully open design



▲ Air cleaner with double element



▲ Lubricant impregnated bush

▲ Resin-made shim



▲ One touch cock for hydraulic oil

▲ Water separator for fuel tank

### Rear view camera (option)

- Operator can monitor rear view by the rear view camera.

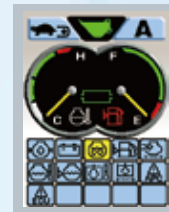


▲ Rear view camera



▲ Rear view monitor

## Latest APC300 with various functions



- Able to set maintenance term for filter and oil.
- Hour meter function is adopted.
- Adopt "P mode" (Pro Mode). P, A and E mode operation method are selectable.
- Emergency backup switch is equipped for in case of APC malfunction.

### P Mode

Pro mode established both power and good response.

### A Mode

All-round mode is ideal for general operation.

### E Mode

ECO mode for economical works.

### Auto-slow mode

Auto-slow mode controls the engine to ideal engine speed automatically and save the fuel consumption.



## Roomy and comfortable cabin



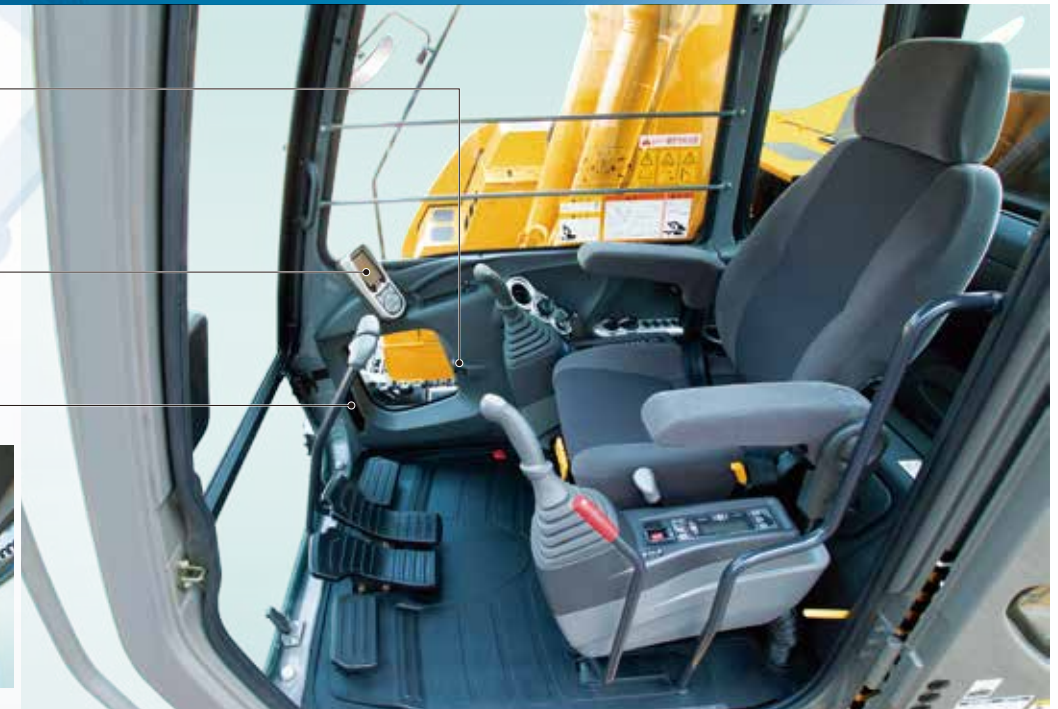
▲ The hour meter can be checked even when key is turned off

APC monitor

Defroster



▲ Wide view design



## High performance KATO original seat system

- High position tilting design.
- Lever console is reinforced and achieved stable operability.
- Armrest is pleasant feeling by moquett fabric.
- Seat suspension keeps operator in stable position.



▲ Seat suspension (option)



▲ Hot & cool box



▲ 12 volt power supply (option)



# Technical Specifications

## ENGINE

Model..... ISUZU 4JJ1X  
 4 cycle intercooler turbo charged diesel engine  
 Number of cylinders..... 4  
 Bore & Stroke..... 95.4mm×104.9mm  
 Total displacement..... 2,999 L  
 Rated output..... 75.0kW/2,000min<sup>-1</sup> (ISO Net)  
 Max. torque..... 378N·m/1,600min<sup>-1</sup> (ISO Net)  
 Compression ratio..... 17.5:1  
 Combustion system..... Direct injection  
 Cooling system..... Pressurized water circulated by a centrifugal pump with thermostat  
 Lubrication system..... Pressurized oil fed by a gear pump through full-flow and by-pass cartridge filter  
 Starter..... Electric, 24V-4.0kW  
 Generator..... Alternator, 24V-50A  
 Governor..... Electronic variable speed control  
 Air cleaner..... Dry type filter

## HYDRAULIC SYSTEM

Pumps..... Double variable piston pump and gear pump  
 Max. discharge flow..... 2×126L/min  
 Max. discharge pressure..... 31.4MPa  
 Max. discharge pressure (travel circuit only)..... 32.9MPa  
 Oil filtration..... Full-flow filter with replaceable element, a pilot line filter and suction strainer  
 Control valves..... 5+4 section multiple control valves (with one free service circuit)  
 Pilot pump..... Gear type  
 Oil cooler..... Finned tube, forced ventilation  
 Pressure relief valves..... Primary and secondary on each circuit

## CAB & CONTROLS

Type.....All weather sound suppressed, cab mounted on 6 point viscous mounting.  
 Right hand levers.....Controls the boom & bucket  
 Inner right hand lever (with foot pedal)..... Controls the right hand track  
 Inner left hand lever (with foot pedal)..... Controls the left hand track  
 Left hand lever..... Controls the arm & swing  
 Pilot control.....Travel, boom, arm, bucket and swing  
 Engine throttle.....Electric "Accell dial"  
 Meter & gauges..... Hour meter, water temperature and fuel level  
 Working lights..... Provided on the boom left side and right front cover  
 Lubrication chart.....Inside of the left rear side cover

## APC300

- Quick Selection of Working Modes
- P: Professional mode for experienced operator. Established both power and good response
- A: All-round Multi Purpose Mode for all application from precision work to heavy duty work by stroke of operation levers
- E: ECO Mode for economical works
- Color monitor display with back up light
- Engine oil pressure
- Hydraulic oil filter
- Engine preheater
- Hydraulic oil temperature
- Water temperature
- Water level
- Fuel level
- Battery charge
- APC monitor and air cleaner
- Calendar

## BOOM, ARM AND BUCKET

Boom cylinders..... 2, double acting  
 Bore & Stroke..... 105mm×1,090mm  
 Arm cylinder..... One, double acting  
 Bore & Stroke..... 120mm×1,215mm  
 Bucket cylinder..... One, double acting  
 Bore & Stroke..... 95mm×995mm  
 Lubrication..... Grease nipples, with centralized greasing for remote points  
 Bucket digging force..... 98kN (10tf)  
 Arm digging force..... 68kN (6.9tf)

## SWING SYSTEM

Drive..... Axial piston motor with shockless valve and reduction gear.  
 Brake..... A hydraulic brake that locks automatically when the swing control lever is in the neutral position.  
 Lubrication..... Completely housed and grease bathed  
 Max. swing speed..... 13.0min<sup>-1</sup>  
 Tail swing radius..... 1,700mm  
 Min. front swing radius  
 Standard Boom..... 2,370mm  
 Small swing Boom..... 1,790mm

## TRAVEL SYSTEM

Drive..... Independent axial piston motor with reduction for each side  
 Brakes..... Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position.  
 Track shoes..... 44 each side  
 46 each side (LC)  
 Track adjustment..... Grease cylinders with recoil springs  
 Lubrication..... Sealed-for-life rollers and front idlers with floating seals  
 Travel speed..... High 0~5.8km/h  
 Low 0~3.8km/h  
 Gradeability..... 70% (35°)  
 Max. drawbar pull..... 109kN  
 Ground clearance (less grouser bar)..... 440mm  
 Track length..... 3,570mm  
 3,740mm (LC)

## SERVICE DATA

Fuel tank..... 220 L  
 Cooling system..... 17 L  
 Engine oil..... 17.6 L  
 Track drives..... 2×2.1 L  
 Hydraulic oil tank (level)..... 78 L (system)..... 155 L  
 In standard figure, with the 2.50m arm, 450mm grouser shoes and 0.50m<sup>3</sup> (ISO), bucket.  
 Operating weight..... 13,700kg  
 Ground pressure..... 41kPa

## Bucket

Type of bucket		Backhoe bucket						
Bucket capacity	m <sup>3</sup> , ISO	0.25	0.35	0.40	0.45	0.50	0.55	0.60
Bucket width	W/O side cutters, mm	540	695	785	875	910	1,000	1,090
	with side cutters, mm	630	785	875	965	1,000	1,090	1,180
Number of bucket teeth		3	4	4	4	5	5	5
Shape of bucket								
Standard boom +	Standard arm (2.50m)	●	●	●	●	●	▲	□
	Long arm (3.00m)	●	●	●	▲	▲	×	×

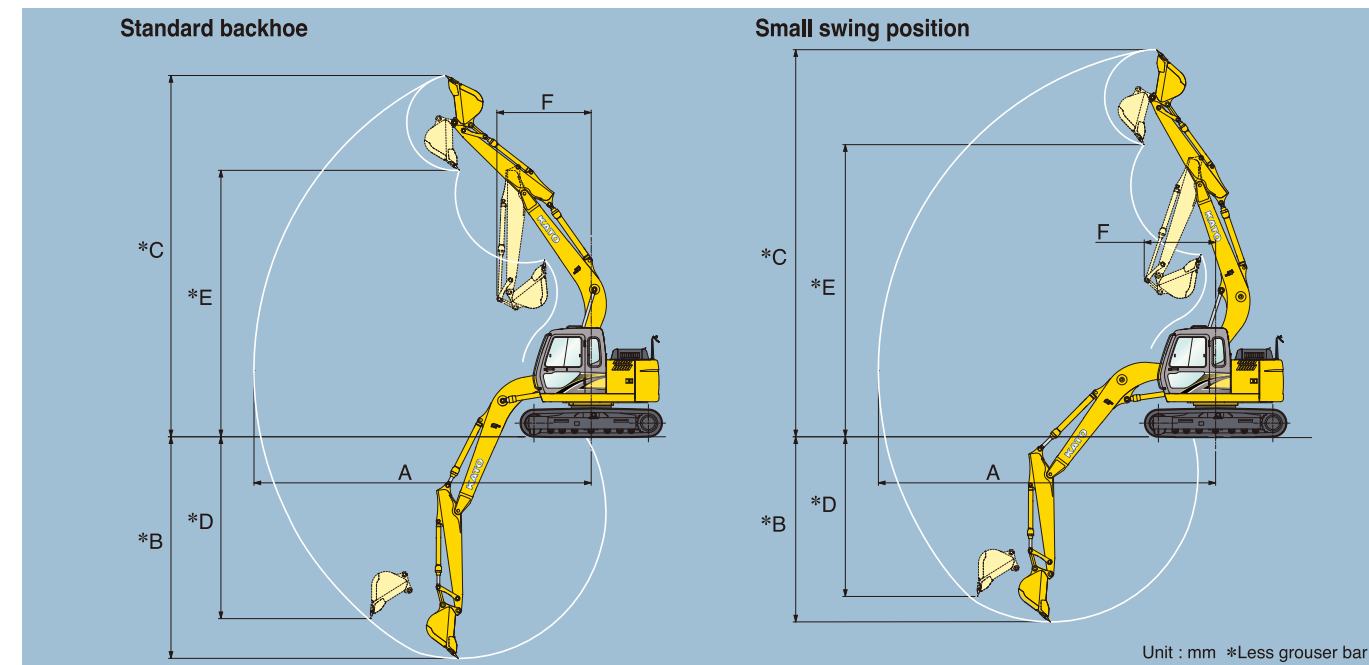
● General purpose ▲ Light work □ Loading × Unusable  
 ● Yellow colored area means standard.

## Track Shoes

Type of shoes	Grouser shoe			Triangle shoe	
Shoe width mm	500 [500 thicker]	600	700	700	
Operating weight kg	13,700 [14,100]	13,900	14,200	14,200	
Overall height mm	2,800	2,800	2,800	2,850	
Ground clearance mm	*440 [*430]	*440	*440	*430	
Crawler overall length mm	3,570 [3,740]	3,570	3,570	3,670	
Distance between shoe edge of both side mm	2,490	2,590	2,690	2,690	
Ground pressure	kPa	43 [42]	36	32	31
	kgf/cm <sup>2</sup>	0.44 [0.43]	0.37	0.33	0.32

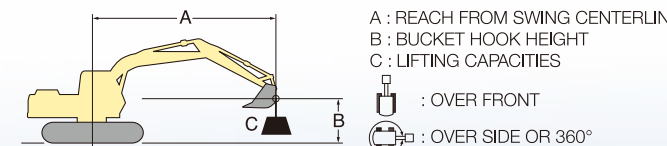
Ground pressure when equip standard bucket and arm.  
 [ ] HD513MRLC-6 \*Less grouser bar  
 ● Yellow colored area means standard.

# Working Ranges



Range	Arm	Standard boom		Bracket on boom for small swing radius (option)	
		Standard arm 2.50m	Long arm 3.00m	Standard arm 2.50m	Long arm 3.00m
A : Maximum digging radius		8,460	8,930	8,460	8,930
* B : Maximum digging depth		5,560	6,060	4,640	5,140
* C : Maximum digging height		9,060	9,410	9,700	10,140
* D : Maximum vertical wall		4,560	5,300	4,000	4,570
* E : Maximum dumping height		6,680	7,030	7,320	7,760
F : Minimum swing radius		2,370	2,530	1,790	2,080

# Lifting Capacities



HD513MR-6 BOOM: 4.65m, ARM: 2.50m, BUCKET: 0.5m<sup>3</sup> (415kg), SHOE WIDTH: 500mm, COUNTERWEIGHT: 3,280kg Unit: 1,000kg

LIFT POINT HEIGHT B (m)	LIFT POINT RADIUS A (m)										AT MAXIMUM LIFT POINT RADIUS				
	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	RADIUS (m)	RADIUS (m)	RADIUS (m)	
5.00							*2.18	*2.18	*2.36	2.05					
4.00			*2.55	*2.55	*2.53	*2.53	*2.53	*2.53	2.00	*2.10	1.47	*1.69	1.43	7.11	
3.00	*6.63	*6.63	*4.36	*4.36	*3.47	*3.47	*3.04	2.65	*2.82	1.93	2.19	1.44	*1.72	1.29	7.37
2.00			*5.85	5.56	*4.52	3.55	*3.64	2.49	2.78	1.84	2.14	1.40	*1.80	1.22	7.49
1.00			*5.05	*5.05	5.18	3.30	3.61	2.35	2.69	1.76	2.09	1.35	1.87	1.20	7.46
0.00	*3.21	*3.21	*4.94	4.92	5.00	3.15	3.49	2.25	2.62	1.69	2.05	1.31	1.92	1.22	7.30
-1.00	*4.97	*4.97	*4.94	4.86	4.92	3.07	3.42	2.19	2.58	1.65			2.04	1.31	6.98
-2.00	*5.01	*5.01	*4.99	4.89	4.90	3.06	3.41	2.17	2.57	1.65			2.29	1.47	6.48
-3.00	*4.92	*4.92	*5.17	4.98	4.96	3.10	3.45	2.21					2.78	1.80	5.77
-4.00	*5.06	*5.06	*5.66	5.15	5.09	3.22							3.90	2.52	4.72

HD513MRLC-6 BOOM: 4.65m, ARM: 2.50m, BUCKET: 0.5m<sup>3</sup> (415kg), SHOE WIDTH: 500mm, COUNTERWEIGHT: 3,280kg Unit: 1,000kg

LIFT POINT HEIGHT B (m)	LIFT POINT RADIUS A (m)										AT MAXIMUM LIFT POINT RADIUS				
	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	RADIUS (m)	RADIUS (m)	RADIUS (m)		
5.00							*2.18	*2.18	*2.36	2.11					
4.00			*2.55	*2.55	*2.53	*2.53	*2.53	*2.53	2.07	*2.10	1.53	*1.69	1.48	7.11	
3.00	*6.63	*6.63	*4.36	*4.36	*3.47	*3.47	*3.04	2.73	*2.82	1.99	2.46	1.50	*1.72	1.35	7.37
2.00			*5.85	5.73	*4.52	3.65	*3.64	2.57	3.13	1.91	2.41	1.45	*1.80	1.27	7.49
1.00			*5.05	*5.05	*5.47	3.41	4.07	2.43	3.03	1.82	2.36	1.40	*1.94	1.25	7.46
0.00	*3.21	*3.21	*4.94	*4.94	5.70	3.25	3.95	2.33	2.96	1.76	2.32	1.37	*2.15	1.28	7.30
-1.00	*4.97	*4.97	*4.94	*4.94	*5.61	3.18	3.88	2.27	2.92	1.72			2.32	1.36	6.98
-2.00	*5.01	*5.01	*4.99	*4.99	5.60	3.17	3.87	2.25	2.91	1.71			2.60	1.53	6.48
-3.00	*4.92	*4.92	*5.17	5.14	5.65	3.21	3.91	2.29					3.15	1.86	5.77
-4.00	*5.06	*5.06	*5.66	5.31	*5.46	3.33							*4.36	2.61	4.72

NOTE: 1. The lifting capacities are based on ISO 10567.  
 2. The lifting capacities shown do not exceed 87% of machine hydraulic capacity or 75% of minimum tipping load.  
 3. The capacities marked with an asterisk(\*) are limited by hydraulic capacities.  
 4. The lifting capacities are based on machine standing on firm, uniform supporting surface. User must make allowances for job conditions such as soft or uneven ground.  
 5. The lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.  
 6. The capacities apply only to the machine as originally manufactured and equipped by KATO WORKS CO., LTD.  
 7. The operator should be fully acquainted with the Operation Manual before operating the machine.