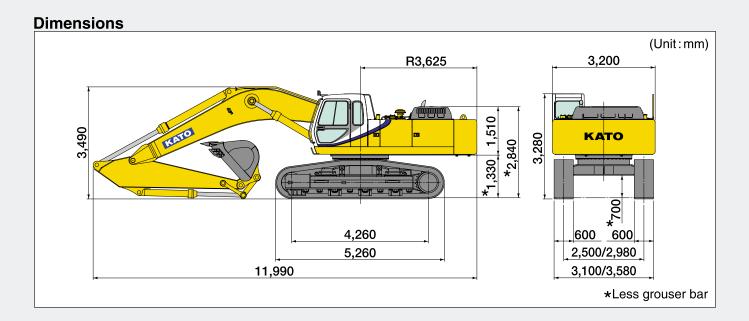
# **SUPER EXCEED**

# HD2045II



Address inquiries to :

• NOTE : Illustrations may include optional equipment, KATO products and specifications are subject to improvements and changes without notice.







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Bucket capacity: 1.4m³ - 2.3m³ (ISO)

Engine output: 228kW/2,000min<sup>-1</sup> (310PS/2,000rpm) (ISO, Net)

Operating weight: 46,200kg



# **Technical Specifications (HD2045II)**



## **ENGINE**

Model ····· Mitsubishi 6D24-TC, 4 cycle intercooler turbo
charged diesel engine
Number of cylinders 6
Bore & Stroke130mm × 150mm
Total displacement11.94 L
Rated output228kW/2,000min <sup>-1</sup> (310PS/2,000rpm)
(ISO, Net)
Max. torque ······1,187N • m/1,400min <sup>-1</sup> (121kgf • m/1,400rpm)
(ISO, Net)
Compression ratio ······16.5:1
Combustion system ·····Direct injection
Specific fuel consumption 245g/kW-hour
(180g/PS-hour)
Cooling systemPressurized water circulated by a
centrifugal pump with thermostat
Lubrication systemPressurized oil fed by a gear
pump through full-flow and by-
pass cartridge filter
StarterElectric, 24V-5.5kW
GeneratorAlternator, 24V-35A
Governor ····· Mechanical
Air cleanerDry type filter



### **SWING SYSTEM**

The hydraulic gear-driven swing is powered by two axial piston motors which are flange-connected to each planetary reduction unit. It rotates 360° continuously on the single rowball bearing that has an integral, internally cut swing gear, and is totally enclosed to prevent the ingress of mud and water.

Brake A hydraulic brake that locks automatically when the swing control lever is in the neutral position and a mechanical parking brake which is applied when the safety lock lever is pulled backwards, the engine is turned off or the swing control lever is in the neutral position.

Lubrication Completely housed and grease by	athec
Max. swing speed ····· 9.1min <sup>-1</sup> (9	.1rpm
Tail swing radius 3,6	
Min. front swing radius 4,8	60mm







### TRAVEL SYSTEM

Spring-applied idlers protect the drives from shock.

Adjust cylinder is provided for easy arrangement of the track tensioning. An all welded undercarriage frame gives clog-free clearance, and the drive motors are neatly housed inside the track frame. The crawler tracks with interchangeable shoes are supported by 8 lower rollers and 2 upper roller on each side.

side the track frame. The	crawler tracks with interchangeable
shoes are supported by 8	B lower rollers and 2 upper roller on
each side.	• •
Traveling motors	······ Independent axial piston motor
	with reduction for each side
BrakesIndeper	ndent disk parking brake for each
side, ap	pplied automatically when the travel
	levers are in the neutral position.
Track shoes ·····	51 each side
Track adjustment	Grease cylinders with recoil springs
Lubrication S	Sealed-for-life rollers and front idlers
	with floating seals
Travel speed ·····	·····High 0∼5.0km/h
	Medium 0∼3.0km/h
	Low 0~2.2km/h
Gradeability	····· 70% (35°)
Max. drawbar pull	392kN (40,000kgf)
Ground clearance (less g	rouser bar)····· 700mm
	5,260mm
<del>-</del>	



## **BOOM, ARM AND BUCKET**

The boom and arm are of all-welded, steel box section type with reinforced pin joints. Bucket is fabricated from high tensile strength steel.

9	
Boom cylinders	····· Two, double acting
Bore & Stroke ·····	······ 180mm × 1,683mm
Arm cylinder······	One, double acting
Bore & Stroke ·····	······ 190mm × 1,990mm
Bucket cylinder	One, double acting
Bore & Stroke ·····	170mm × 1,278mm
Lubrication ······	· Grease nipples, with centralized
	greasing for remote points
Bucket digging force	247kN (25,200kgf)
(High power)·····	276kN (28,100kgf)
Arm digging force ······	184kN (18,800kgf)
(High power)·····	216kN (22,000kgf)
(High power can be used	with STD arm and short arm.)



Radiator with dust screen



### **HYDRAULIC SYSTEM**

Two pumps are controlled by the Kato developed "APC" (Automatic Power Control) system, which senses where power is needed and automatically adjusts the pressure and flow-rate of the pump to match the work load. New "APC" system enables pump output to be utilized to the full with minimum fuel consumption. The adoption of joint circuit enables dual speed for boom derricking and arm extension/ retraction.

traction.
Pumps ·····Double variable piston pump and gear pump
Max. discharge flow ······ 2×370 L/min <sup>-1</sup>
Max. discharge pressure ······24.9MPa (300kgf/cm²)
Max. discharge pressure (travel circuit only)
30.9MPa (315kgf/cm <sup>2</sup> )
Oil filtration ······ Full-flow filter with replaceable element,
a drain cartridge filter, a pilot line filter and
a suction strainer
Control valves 5+5 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



### REFILLING CAPACITY

Fuel tank ·····	605 L
Cooling system ·····	51 L
Engine oil ·····	49 L
Track drives ·····	2×23 L
Swing drives ·····	2×11.3 L
Hydraulic oil tank	
(level)	329 L
(system) ·····	610 L



●Combination monitor ●"APC" system



●Fire wall

## **CAB & CONTROLS**

The all-weather sound suppressed, 1,000mm wide pressed steel cab is six point viscous mounted and has plenty of leg room. All windows are made of tinted safety glass. The front window can be raised and slide back so that it fits flush with the ceiling to provide improved visibility and ventilation. The cloth-covered, fully adjustable seat is provided. Operating conditions can be seen at a glance on safety monitor.

Right hand lever ...... Controls the boom & bucket Inner right hand lever (with foot pedal) ..... Controls the right

hand track
Inner left hand drive (with foot pedal) ······· Controls the left

and fuel level
Monitor display ······· Engine oil pressure, engine oil filter,
hydraulic oil filter, hydraulic oil temperature, water temperature, water

level, fuel level, battery charge, APC monitor and air cleaner.

Indicator lamps ······ Caution lamp & Engine preheater indicator lamp

Working lights ····· Provided on the boom left side and mounted on the frame

Lubrication chart ····· Inside the tool box



# WEIGHT

In standard figure, with the 3.45m arm, 600mm grouser shoes and  $2.0 \, \text{m}^3$  (ISO) bucket.

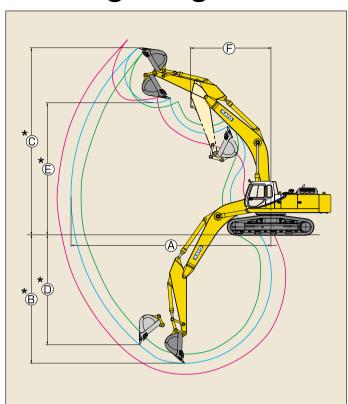
Operating weight 46,200kg Ground pressure 81.9kPa (0.84kgf/cm²)



Air conditioner control panel (option)



# Working Ranges (HD2045II)



			(Unit : mm)						
Arm Range	Short Arm (2.95m)	STD Arm (3.45m)	Long Arm (4.95m)						
A-Max. digging radius	11,640	12,080	13,430						
★®-Max. digging depth	7,260	7,760	9,250						
★©-Max. digging height	11,080	11,300	11,800						
<b>★</b> D-Max. vertical wall	5,880	6,630	8,120						
<b>★</b> ⑤-Max. dumping height	7,800	7,970	8,480						
⑤-Min, swing radius	5,050	4,860	4,840						
*Less grouser bar,									

## **Bucket**

Тур	oe of bucket			Backhoe bucket	Skeleton bucket	Rock bucket	Ripper		
Bucket ca	apacity m³, ISO	1.4	1.6	1.8	2.0	2.3	_	1.2	_
Bucket	w/o side cutters, mm	1,180	1,310	1,440	1,550	1,770	_	920	_
width	with side cutters, mm	1,290	1,420	1,550	1,660	1,880	_	1,180	_
Bucket we	eight kg	1,400	1,510	1,605	1,780	1,790	1,930	1,870	1,290
Number o	of bucket teeth	4	5	5	5	5	5	5	1
Shape of	bucket	Francisco (Constitution of the Constitution of							9
	Short arm	•	•	•	•	•	0	0	•
Standard	Standard arm	•	•	•	•	<b>A</b>	0	0	•
boom +	Long arm	•	<b>A</b>	×	×	×	×	×	×

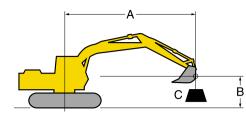
● General purpose ▲ Light work ◎ Rock digging ☐ Loading ○ Usable × Unusable \*Usable only when 700mm shoe is fitted on.

### Track Shoes

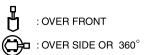
Hack Shoes												
		Grouser shoe										
Type of shoes												
Shoe width	mm	600	700	760	800	910						
Overall width mm	Extended	3,580	3,680	3,740	3,780	3,890						
Overall width	Retracted	3,200	3,200	3,260	3,300	3,410						
Ground pressure	Pa (kgf/cm²)	81.9 (0.84)	71.0 (0.72)	66.2 (0.68)	63.2 (0.64)	56.2 (0.57)						
Net weight change	kg	S.T.D	+500	+1,100	+1,300	+1.900						

Yellow colored area means standard.

# Lifting Capacities (HD2045II)



- A : REACH FROM SWING CENTERLINE B : BUCKET HOOK HEIGHT
- C: LIFTING CAPACITIES



HD2045II 600mm Shoe, 7.00m Boom, 3.45m Arm, 2.0m3 Bucket (1,780kg)

Unit: 1,000kg

LIFT	LIFT POINT RADIUS A (m)									AT MAXIMUM											
POINT	2.0	00	3.0	00	4.0	00	5.0	00	6.	00	7.0	00	8.	00	9.0	00	10.	.00	LIFT P	OINT R	ADIUS
HEIGHT B (m)	B				붠	<b>-</b>	B	<b>-</b>	B		붠	<b>-</b>	ď		В		g		ď		m
8.00													* 7.48	* 7.48					* 4.85	* 4.85	8.81
7.00													* 7.69	* 7.69	* 6.56	* 6.56			* 4.80	* 4.80	9.38
6.00													* 8.13	* 8.13	* 7.94	6.87			* 4.82	* 4.82	9.82
5.00											* 9.39		* 8.75	8.34	* 8.33	6.69	* 5.77	5.40	* 4.92	* 4.92	10.13
4.00			* 8.67	* 8.67	*10.27	*10.27	*13.01	*13.01	*11.94	*11.94	*10.46	10.10	* 9.49	8.02	* 8.83	6.48	* 7.28	5.27	* 5.10	4.91	10.34
3.00					* 8.77						*11.59	9.62	*10.27	7.69	9.25	6.25	7.68	5.13	* 5.36	4.70	10.45
2.00					* 8.71				*10.77			9.17	11.00	7.38	9.02	6.04	7.52	4.99	* 5.72	4.58	10.46
1.00					* 8.96							8.81	10.71	7.12	8.82	5.85	7.39	4.86	* 6.20	4.55	10.37
0.00			* 8.77	* 8.77	* 9.05	* 9.05	* 8.67	* 8.67	* 9.41	* 9.41	*11.24	8.53	10.48	6.91	8.67	5.70	7.30	4.77	* 6.86	4.63	10.18
-1.00	* 9.48	* 9.48	*10.86	*10.86	* 8.98	* 8.98	* 8.66	* 8.66	* 9.26	* 9.26	*10.86	8.36	10.34	6.78	8.57	5.61			7.38	4.82	9.89
-2.00	*12.71	*12.71	* 9.94	* 9.94	* 8.83	* 8.83	* 8.68	* 8.68	* 9.28	* 9.28	*10.84	8.28	10.27	6.72	8.53	5.58			7.89	5.16	9.47
-3.00	*10.71	*10.71	* 9.31	* 9.31	* 8.70	* 8.70	* 8.74	* 8.74	* 9.44	* 9.44	*11.16	8.29	10.29	6.74					8.70	5.71	8.93
-4.00	* 9.62				* 8.64							8.41	10.43	6.86					10.01	6.59	8.22
-5.00			* 8.67	* 8.67	* 8.72	* 8.72	* 9.25	* 9.25	*10.59	*10.59	*12.71	8.65							*11.92	8.12	7.31
-6.00					* 9.06	* 9.06	*10.05	*10.05	*12.49	11.45									*12.47	11.17	6.09

NOTE: 1. Lifting capacities are based on ISO 10567.

- 2. Lifting capacities shown do not exceed 87% of machine hydraulic capacity or 75% of minimum tipping load.
- 3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities
- 4. 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. Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.

  6. Capacities apply only to the machine as originally manufactured and equipped by KATO WORKS CO., LTD.

# Standard Equipment

- New APC mode
- New auto-slow One-touch-slow
- Multi-mode display monitor
- Adjustable monitor alarm
- 2 service hour meter
- 3 traveling mode
- Automatic travel speed change
- · Spring assisted pull-up front window
- 6 points viscous damping cab suspension
- Multi position operator's seat
- Adjustable seat suspension
- Adjustable speed window wiper
- Rear emergency escape window
- Cabin light connected to cabin door
- 2 working lights (Upper front right side & Boom left side)
- Boom holding valve
- Arm holding valve
- Digging force booster (High power)
- Swing shockless valve
- Automatic swing parking brake
- Automatic travel parking brake
- One free service circuit for attachments
- Rear view mirror (right side)
- Track guard, 3 pcs each side
- Front window washer (2 sprays)

# Optional Equipment

- Tinted transparent hatch
- Seat belt
- Automatic climate control air conditioner
- Hot & cool box contained with AC
- Cabin heater
- Auto tuning AM/FM radio with clock
- 2 speaker stereo
- Working light (Cab left side)
- Working light (Boom right side)
- Working light (Cab right side)
- Cab access step
- Optional piping
- Cab front half guard
- Cab front full guard
- Cab head guard
- Electronic horn
- Cabin fan
- Swing warning light
- Travel alarm
- Refueling pump
- Air cleaner, double element
- Low temperature spec
- Tool set
- Full-length track guard
- Electric lubricator