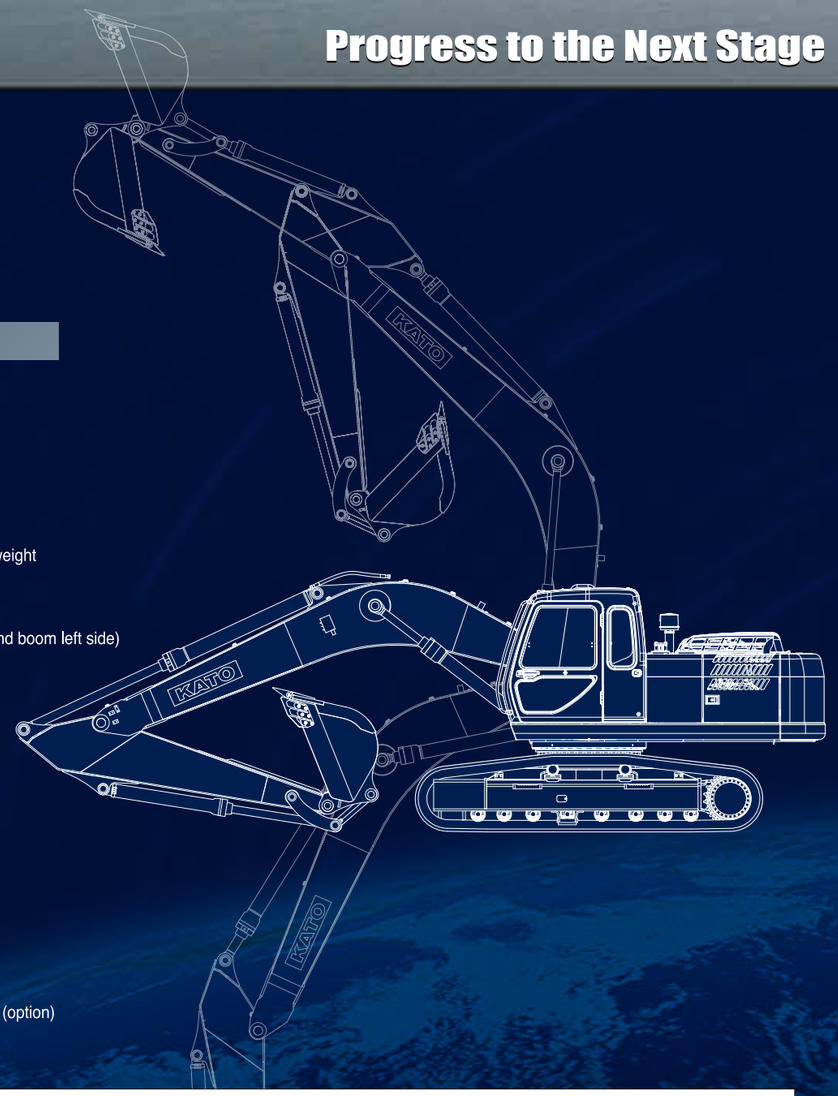
EQUIPMENT

- New color monitor display (APC300)
- Auto-slow, one touch slow
- Working mode selector (APC300)
- 2 speed modes for traveling
- Automatic transmission for traveling
- Pull up front window
- 6 points viscous dumpling cab
- Double slide operation seat
- Seat suspension adjustable to operator's weight
- Intermitted windshield wiper
- Emergency exit rear window
- Cabin light
- 2 working lights (Slewing table right side and boom left side)
- Boom/Arm Anti-drift valve
- High power of digging force
- Slewing anti-counter action
- Automatic parking brake (slewing)
- Automatic parking brake (traveling)
- Service port (1 spool)
- Rear view mirror (right side)
- Track guard (1 pc each side)
- 2 holes front window washer
- Automatic air conditioner (pressurized)
- Hot & cool box
- AM/FM radio
- 13 cm dual corn speaker ×2
- Air cleaner double element, pre-cleaner
- Tool set
- Arm protection plate
- Seat-belt
- 2 ways option piping for breaker & crusher (option)
- Fire extinguisher



KATO Website kato-works.co.jp

/ KATO WORKS OFFICIAL youtube.com/user/katowork

Instagram instagram.com/kato_works_official/

● Contact for enquiry:

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

KATO WORKS(CHINA)LTD.
NO.8 Huasheng South Road, Huayang Industrial Park,
Zhoushi Town, Kunshan City, Jiangsu Province, China
Tel. :0512-57065058
Fax. :0512-57065052

KATO WORKS CO.,LTD.
9-37, Higashi-ohi 1-chome, Shinagawa-ku,
Tokyo 140-0011, Japan.
Tel. :Head Office Tokyo(03)3458-1111
Overseas Marketing Department Tokyo(03)3458-1115
Fax. :Tokyo(03)3458-1163

KATO HYDRAULIC EXCAVATOR

REGZNM

HYDRAULIC EXCAVATOR

HD1023-R5

Bucket capacity : 1.0m³-1.1m³ (ISO)
Engine output : 122kW / 2,200min⁻¹ (ISO Net)
Operating weight : 23,700kg

A high-grade excavator looking at the future

REGZNM

HD1023-R5

- **Reliable Mitsubishi 4M50-TL engine is mounted**
  (GB20891-2014)
- **The APC300 system has the excellent operability.**
  Through switching between the three modes, choose the most optimum mode of operation according to different working conditions.
- **Stronger power**
  Increases the digging force by 10% (compared to HD1023R)
- **The fuel filtration system is enhanced**
- **Efficient machine construction and configuration design making the maintenance and safety better**
  Improve engine oil filter and fuel filter configurations. Equipped with battery disconnect switch.
- **Boom raising priority function**
  Select boom raising priority switch, to operate the boom more easily. (Boom moves faster and stronger)

Better maintainability and safety Establish a long-term stability of the machine

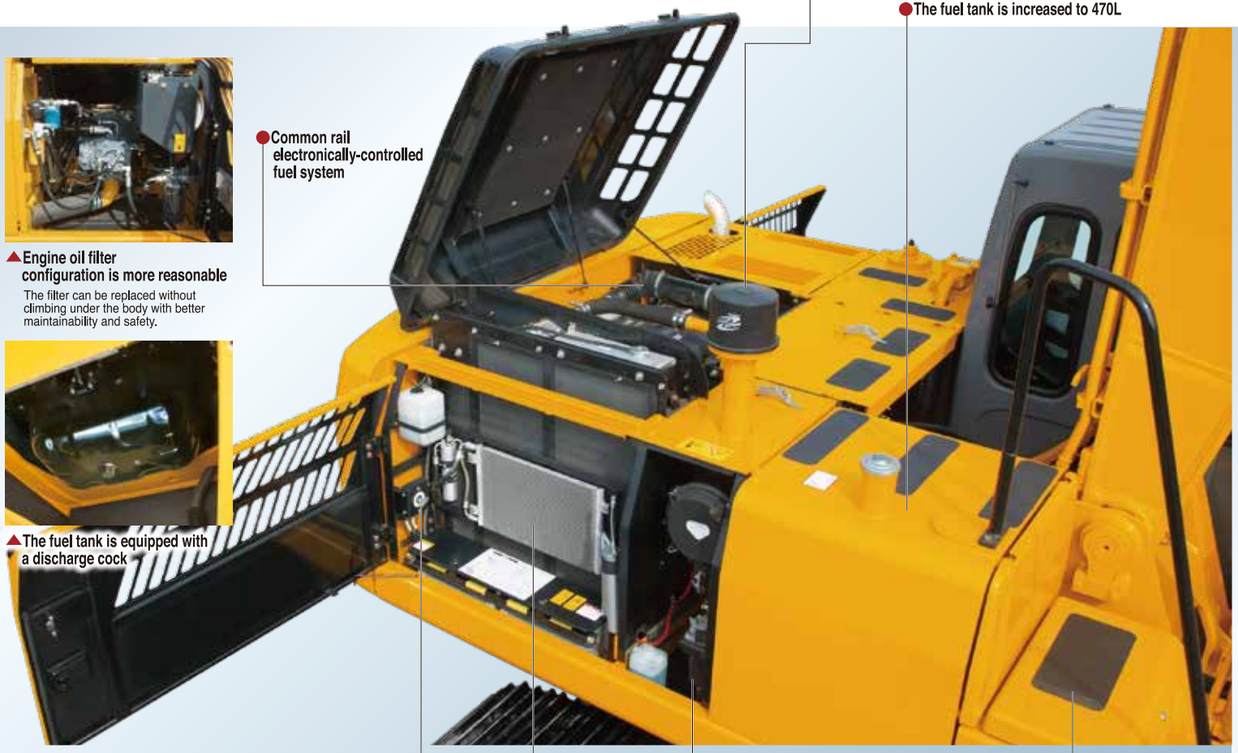
▲New air pre-filter that does not require the special maintenance

●The fuel tank is increased to 470L

▲Engine oil filter configuration is more reasonable
The filter can be replaced without climbing under the body with better maintainability and safety.

●Common rail electronically-controlled fuel system

▲The fuel tank is equipped with a discharge cock



▲Equipped with battery disconnect switch

▲Cooler
The oil cooler and the intercooler and the radiator are arranged parallel to make the cooling effect better.

▲Fuel filter
By arranging the triple filters in the same position to improve the efficiency of replacement. Easy to access and improve safety.

▲Large capacity toolbox equipped with air pressure spring

Common rail electronic control fuel system further enhances fuel efficiency More energy efficient and more environmentally friendly

High efficiency Low fuel consumption Low noise Mitsubishi 4M50-TL engine

- High output power engine with intercooler and turbocharger
  - Max. output power 122kW / 2,200min^{-1} (ISO Net)
  - Max. torque 606N·m / 1,500min^{-1} (ISO Net)
  - Fuel consumption 219g / kW·h

Latest APC300 with various functions

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.

- 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.

◀Initial confirmation screen

◀When the monitor fails

◀When engine emergency stop switch is operated

▲Boom up priority switch

●New seats

▲Hour meter
The location of hour meter is improved so as to confirm conveniently from outside of the cab.

Technical Specifications

ENGINE

Model····· Mitsubishi 4M50-TL, 4-cycle intercooler turbo charged engine
Number of cylinders····· 4
Bore & Stroke····· 114mm×120mm
Total displacement····· 4.89 L
Rated output ····· 122kW/2,200min^{-1} (ISO Net)
Max. torque····· 606N・m/1,500min^{-1} (ISO Net)
Compression ratio····· 17.5:1
Combustion system····· Direct injection
Unit fuel consumption····· 219g/kW・h
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-5 kW
Generator····· Alternator, 24V-50A
Governor····· Electronic variable speed control
Air cleaner····· Dry type double filter

HYDRAULIC SYSTEM

Pumps····· Double variable piston pump and gear pump
Max. discharge flow····· 2×260L/min
Max. discharge pressure····· 34.3MPa
Max. discharge pressure (High power)····· 36.3MPa
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 lever····· 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 toolbox

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····· 135mm×1,370mm
Arm cylinder····· One, double acting
Bore & Stroke····· 150mm×1,680mm
Bucket cylinder····· One, double acting
Bore & Stroke····· 135mm×1,155mm
Lubrication····· Grease nipples, with centralized greasing for remote points
Bucket digging force····· 176 kN
(High power)····· 186 kN
Arm digging force····· 128 kN
(High power)····· 135 kN

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 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 bathed
Max. swing speed····· 13.0min^{-1}
Tail swing radius····· 2,940mm
Min. front swing radius
Standard Boom····· 3,870mm

TRAVEL SYSTEM

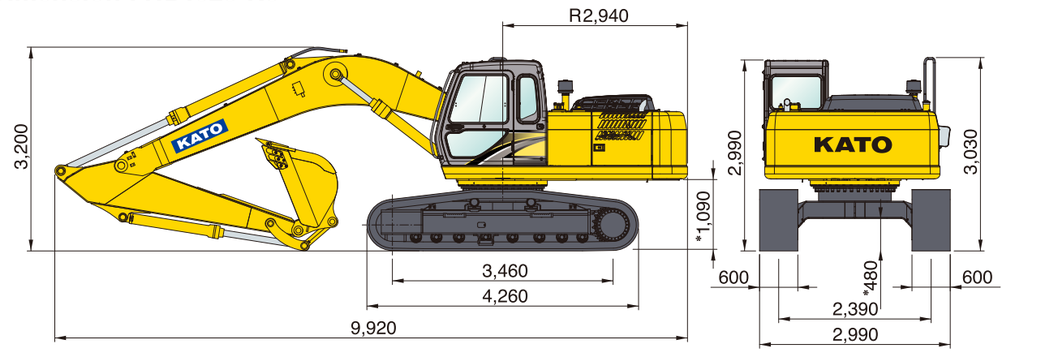
Drive····· Independent axial piston motor with reduction for each side.
Brakes··· Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position.
Track shoes····· 47 each side
Track adjustment····· Grease cylinders with recoil springs
Lubrication····· Sealed-for-life rollers and front idlers with floating seals
Travel speed····· High 0~5.5km/h
Low 0~3.6km/h
Gradeability····· 70% (35°)
Max. drawbar pull····· 195kN
Ground clearance····· 480mm
(less grouser bar)
Track length····· 4,260mm

SERVICE DATA

Fuel tank····· 470 L
Cooling system····· 25 L
Engine oil····· 21 L
Track drives····· 2×5.3 L
Revolving mechanism····· 11.35 L
Hydraulic oil tank
(level)····· 165 L
(system)····· 290 L
In standard figure, with the 2.96m arm, 600mm grouser shoes and 1.0m^3 (ISO), bucket.
Operating weight····· 23,700 kg
Ground pressure····· 52 kPa

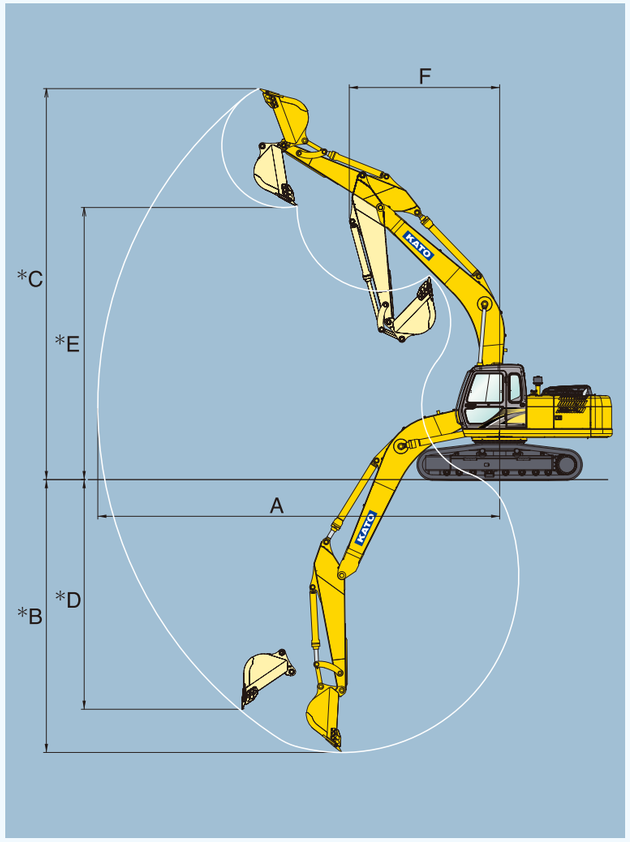
Dimension : HD1023-R5

(Unit : mm)



＊Less grouser bar

Working Ranges



Unit : mm

Range \ Arm	Standard arm 2.96m
A : Maximum digging radius	10,350
＊B : Maximum digging depth	7,010
＊C : Maximum digging height	10,060
＊D : Maximum vertical wall	5,910
＊E : Maximum dumping height	6,990
F : Min. swing radius	3,870

＊Less grouser bar

Bucket

Type of bucket			Backhoe bucket	
Bucket capacity		m^3, ISO	1.0	1.1
Bucket width	W/O side cutters	mm	1,170	1,220
	with side cutters	mm	1,280	1,330
Number of bucket teeth			5	5
Shape of bucket				
Standard arm			●	▲

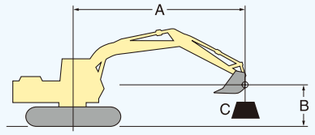
● General purpose ▲ Light work ○ Blue colored area means standard.

Track Shoes

			Grouser shoe	
Type of shoes				
Specifications for main body	Shoe width	mm	600	700
	Operating weight	kg	23,700	24,000
	Overall height	mm	3,200	3,200
	Ground clearance	mm	＊480	＊480
	Crawler overall length	mm	4,260	4,260
	Distance between shoe edge of both side	mm	2,990	3,090
	Ground pressure	kPa	52	45
		kgf/cm^2	0.53	0.46

Ground pressure when equip standard bucket and arm.
＊Less grouser bar
○ Blue colored area means standard.

Lifting Capacity



A : REACH FROM SWING CENTERLINE
B : BUCKET HOOK HEIGHT
C : LIFTING CAPACITIES
: OVER FRONT
: OVER SIDE OR 360°

HD1023-R5 BOOM : 5.87m, ARM : 2.96m, BUCKET : 1.0m^3 (900kg), SHOE WIDTH : 600mm, COUNTERWEIGHT : 5,000kg

UNIT: kg

LIFT POINT HEIGHT B(m)	LIFT POINT RADIUS A(m) 1.5		3.0		4.5		6.0		7.5		AT MAXIMUM LIFT POINT RADIUS		
													RADIUS (m)
7.5											＊4240	＊4240	6.59
6.0									＊4670	3560	＊3260	3080	8.01
4.5							＊5280	5230	＊5010	3440	＊3260	2560	8.62
3.0			＊6810	＊6810	＊8340	7730	＊6480	4820	4820	3250	＊3400	2280	8.93
1.5			＊5480	＊5480	＊7250	6890	6660	4410	4590	3040	3340	2160	8.99
0.0			＊6820	＊6820	＊6600	6410	6340	4120	4420	2870	3400	2180	8.78
-1.5	＊6840	＊6840	＊6580	＊6580	＊6530	6240	6180	3980	4330	2800	3700	2380	8.31
-3.0	＊7280	＊7280	＊6360	＊6360	＊6700	6290	6190	3990			4390	2850	7.50
-4.5	＊6460	＊6460	＊6380	＊6380	＊7350	6550	6420	4190			6060	3970	6.23

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 (CHINA) LTD.
7. The operator should be fully acquainted with the instruction manual before operating the machine.