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)
- 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

● 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.

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REGZNM

HYDRAULIC EXCAVATOR

HD512-R5

Bucket capacity : 0.4 m³-0.6 m³ (ISO)
Engine output : 68 kW / 2,000 min⁻¹ (ISO Net)
Operating weight : 12,600 kg

A high-grade excavator looking at future

REGZNM

HD512-R5

- **Reliable Mitsubishi 4D37-TL engine is mounted**
- **The APC300 system has the excellent operability**
  Through switching between the three modes, select the most appropriate mode of operation according to different working conditions.
- **The fuel filtering system is enhanced**
- **Efficient machine construction and configuration design make the maintenance and safety better**
  Improve engine oil filter and fuel filter configurations.
  Equipped with battery disconnect switch.
- **Improved the hydraulic system to achieve greater digging force**
  The maximum discharge pressure is up to 31.4 MPa from 29.4 MPa (compared with HD512R).
- **Enhanced the durability of the Boom, Arm and upper slewing body**
- **Owing to improvement of positions of the inner parts, be easier to maintenanc**
- **More efficient work**
  The suitable oil line after revolution has higher working efficiency.

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

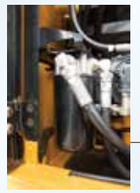
▲Equipped with battery disconnect switch

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

●Common rail electronically-controlled fuel system

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

▲Double-fuel filter enhance the fuel filtration system



▲Easy to access the oil filter

▲Improved the oil supply port of the motor and the replacement of gear oil become easier.

▲Increase a fuel valve between the fuel tank and fuel filter.

▲Enhanced the protective cover below the fuel tank

▲The oil sump is equipped with an oil drain cock.

▲Equipped with a larger capacity tool box with air pressure springs

▲Retractable rearview mirror

▲Easy to access the greasing port of the slewing motor

▲Increeased arm protective plate (STD)

●Enhanced the strength of the slewing body.

▲Improved the greasing port at the end of the arm.

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

Mounting high performance Mitsubishi 4D37-TL engine

- High output power engine with intercooler and turbocharger.
  - Max. output power : 68kW / 2,000min^{-1} (ISO Net)
  - Max. torque : 360N·m / 1,600min^{-1} (ISO Net)
  - Fuel consumption : 228g / 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

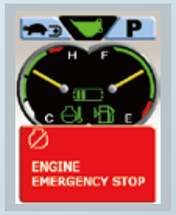
ECO mode for economical works.

Auto-slow mode

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

◀Initial confirmation screen

◀When the monitor fails



◀When engine emergency stop switch is operated

- 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.

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

Technical Specifications

ENGINE

Model····· Mitsubishi 4D37-TLC3B, 4 cycle intercooler turbo charged diesel engine
Number of cylinders····· 4
Bore & Stroke····· 104mm×115mm
Total displacement····· 3.91 L
Rated output····· 68kW/2,000min^{-1} (ISO Net)
Max. torque····· 360N•m/1,600min^{-1} (ISO Net)
Compression ratio····· 17:1
Combustion system····· Direct injection
Unit fuel consumption····· 228g/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-5kW
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····· 2×121L/min
Max. discharge pressure····· 31.4MPa
Max. discharge pressure (High power)····· 32.8MPa
Oil filtration····· Full-flow filter with replaceable element, a pilot line filter and suction strainer
Control valves····· 3+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 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····· 94kN (High power)····· 98kN
Arm digging force····· 69kN (High power)····· 72kN

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····· 12.5min^{-1}
Tail swing radius····· 2,120mm
Min. front swing radius
Standard Boom····· 2,410mm

TRAVEL SYSTEM

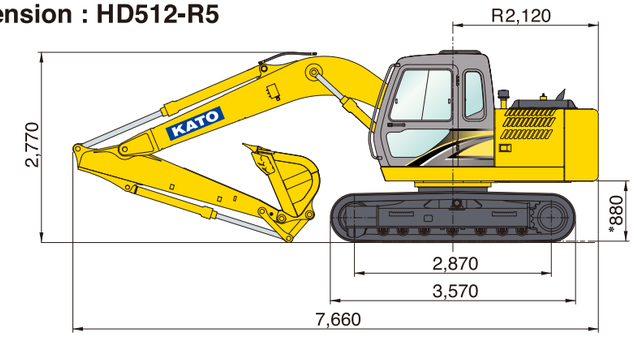
Drive····· Independent axial piston motor with reduction for each side
Brakes··· Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position.
Track shoes····· 44 each side
Track adjustment····· Grease cylinders with recoil springs
Lubrication··· Sealed-for-life rollers and front idlers with floating seals
Travel speed····· High 0~5.5km/h Low 0~3.2km/h
Gradeability····· 70% (35°)
Max. drawbar pull····· 110kN
Ground clearance····· 440mm (less grouser bar)
Track length····· 3,570mm

SERVICE DATA

Fuel tank····· 275 L
Cooling system····· 19 L
Engine oil····· 17 L
Track drives····· 2×2.1 L
Hydraulic oil tank (level)····· 78 L
(system)····· 158 L
In standard figure, with the 2.50m arm, 500mm grouser shoes and 0.50m^3 (ISO), bucket.
Operating weight····· 12,600kg
Ground pressure····· 40kPa

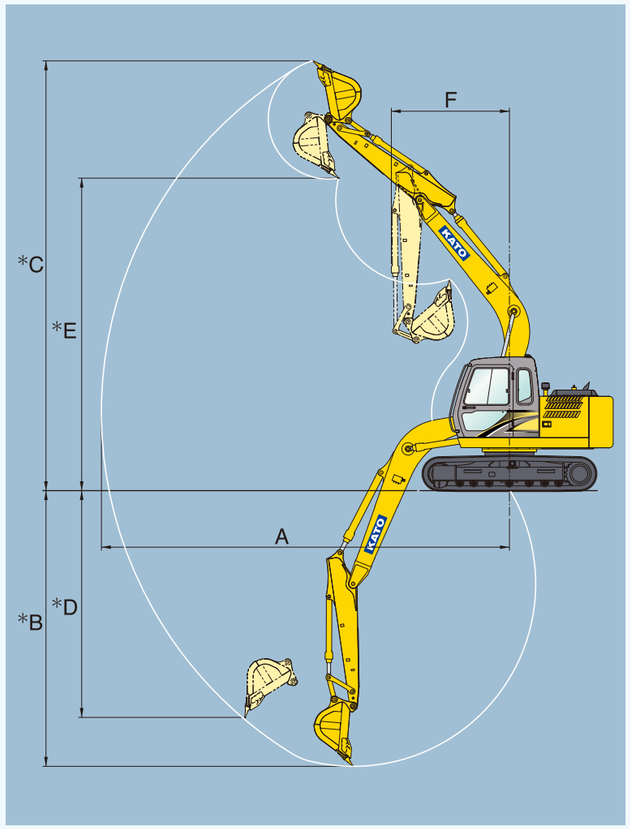
Dimension : HD512-R5

(Unit : mm)



＊Less grouser bar

Working Ranges



Unit : mm

Range \ Arm	Standard arm 2.50m
A : Maximum digging radius	8,340
＊B : Maximum digging depth	5,630
＊C : Maximum digging height	8,780
＊D : Maximum vertical wall	4,630
＊E : Maximum dumping height	6,370
F : Min. swing radius	2,410

＊Less grouser bar

Bucket

Type of bucket			Backhoe bucket			
Bucket capacity		m^3, ISO	0.40	0.45	0.50	0.60
Bucket width	W/O side cutters	mm	785	875	910	1,090
	with side cutters	mm	875	965	1,000	1,180
Number of bucket teeth			4	4	5	5
Shape of bucket						
Standard arm			●	●	●	□

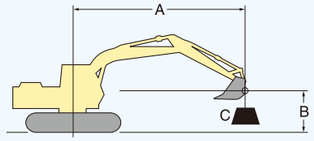
● General purpose □ Loading ○ Blue colored area means standard.

Track Shoes

Specifications for main body	Shoe width	mm	500	600	700
	Operating weight	kg	12,600	12,800	13,100
	Overall height	mm	2,800	2,800	2,800
	Ground clearance	mm	＊440	＊440	＊440
	Crawler overall length	mm	3,570	3,570	3,570
	Distance between shoe edge of both side	mm	2,490	2,590	2,690
	Ground pressure	kPa	40	34	29
		kgf/cm^2	0.40	0.34	0.30

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°

HD512-R5 BOOM : 4.65m, ARM : 2.50m, BUCKET : 0.5m^3 (450kg), SHOE WIDTH : 500mm, COUNTERWEIGHT : 2300kg

UNIT: kg

LIFT POINT HEIGHT B(m)	LIFT POINT RADIUS A(m) 1.5		3.0		4.5		6.0		AT MAXIMUM LIFT POINT RADIUS		
											RADIUS (m)
6.0									*2020	*2020	4.96
4.5					*2180	*2180	*2380	1950	*1700	1530	6.74
3.0			*3960	*3960	*3060	*3060	2730	1860	*1730	1290	7.21
1.5			*5380	5250	*4180	2780	2590	1730	1820	1190	7.34
0.0			*4870	4830	3950	2570	2480	1630	1860	1210	7.16
-1.5	*5170	*5170	*4880	4760	3850	2480	2430	1580	2090	1360	6.63
-3.0	*4850	*4850	*5110	4860	3890	2510			2720	1780	5.66
-4.5			*6180	5160					*4840	3330	3.93

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 Operation Manual before operating the machine.