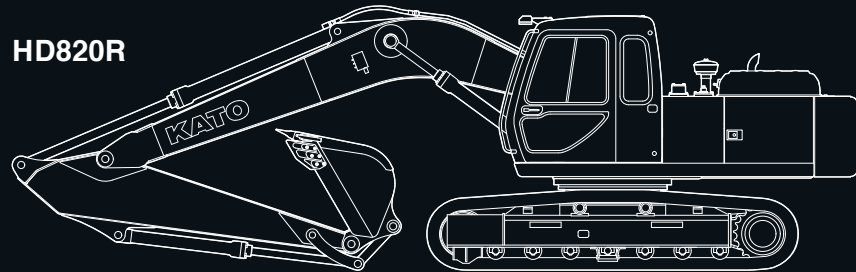


**Innovations
For The Future**

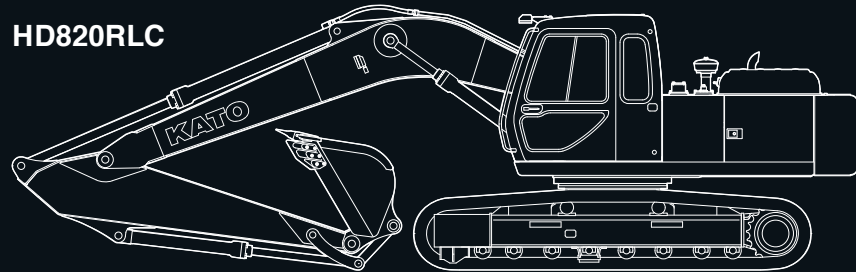
Eco & Tough



HD820R



HD820RLC



Address inquiries to :

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



KATO

**QUALITY & EXPERIENCE
SINCE 1895**

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

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

C02951
3.2010-3000(TG)1 Printed in Japan

KATO

REGZM

FULLY HYDRAULIC EXCAVATOR

HD820R

Bucket capacity : 0.45m³-1.1m³(ISO)

Engine output : 110kW / 2,050min⁻¹(ISO Net)

Operating weight : 19,500kg (HD820R)
20,300kg (HD820RLC)



Option specification

REGZAM

HD820R

**REGZAM means "ACTIVE MACHINE"
with 5 essential design features**

- User friendly design
- Reliable Mitsubishi Engine (6D34-TLE2A)
- New APC Control
- Fatigue Free & Comfortable Cabin
- Powerful Operation



Equipment



New APC System

- Easily selectable 3 working modes with one-touch switches.

- Advanced TFT color monitor liquid crystal display.
- Back-light at touch switches
- 14 maintenance information available



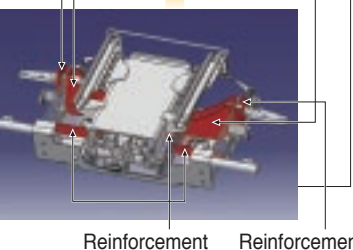
P: Professional Mode
for heavy duty application

A: All-around Multi Purpose Mode
for all application

E: ECO Mode
for economical works

Durable Seat Suspension

- Less rolling motion of lever-consol & seat assures powerful & precise operations.



Reinforcement Reinforcement

Less rolling seat

Technical Specifications

ENGINE

Model..... Mitsubishi 6D34-TLE2A, 4 cycle intercooler turbo charged diesel engine

Number of cylinders..... 6

Bore & Stroke..... 104mm X 115mm

Total displacement..... 5.86 L

Rated output..... 110kW/2,050min⁻¹ (ISO Net)

Max. torque..... 580N·m/1,400min⁻¹ (ISO Net)

Compression ratio..... 18.2:1

Combustion system..... Direct injection

Specific fuel consumption..... 225g/kW-hour

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-35A

Governor..... Mechanical

Air cleaner..... Dry type filter

HYDRAULIC SYSTEM

Pumps..... Double variable piston pump and gear pump

Max. discharge flow..... 2x235 L/min

Max. discharge pressure..... 31.4MPa

Max. discharge pressure (High power)..... 32.4MPa

Oil filtration..... Full-flow filter with replaceable element, drain cartridge filter, 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, 1,000mm wide pressed steel 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 mounted on the frame

Lubrication chart..... Inside the tool box

APC150

- Quick Selection of Working Modes
- P:** Professional Mode for heavy duty application (H Mode)
- A:** All-around 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
- Engine oil filter
- 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..... Two, double acting

Bore & Stroke..... 125mm X 1,315mm

Arm cylinder..... One, double acting

Bore & Stroke..... 135mm X 1,630mm

Bucket cylinder..... One, double acting

Bore & Stroke..... 120mm X 1,090mm

Lubrication..... Grease nipples and/ or centralized greasing for remote points

Bucket digging force..... 136kN (High power)..... 144kN

Arm digging force..... 99kN (High power)..... 104kN

Note: High power can be used with STD arm and short arm.

SWING SYSTEM

Drive..... Axial piston motor with shock-less 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..... 13min⁻¹

Tail swing radius..... 2,750mm

Min. front swing radius..... 3,460mm

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..... 46 each side HD820R
49 each side HD820RLC

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..... 179.5kN

Ground clearance..... 465mm (less grouser bar)

Track length..... 4,170mm HD820R
4,460mm HD820RLC

SERVICE DATA

Fuel tank..... 320 L

Cooling system..... 23 L

Engine oil..... 22 L

Track drives..... 2 X 5 L

Swing drive..... 4.0 L

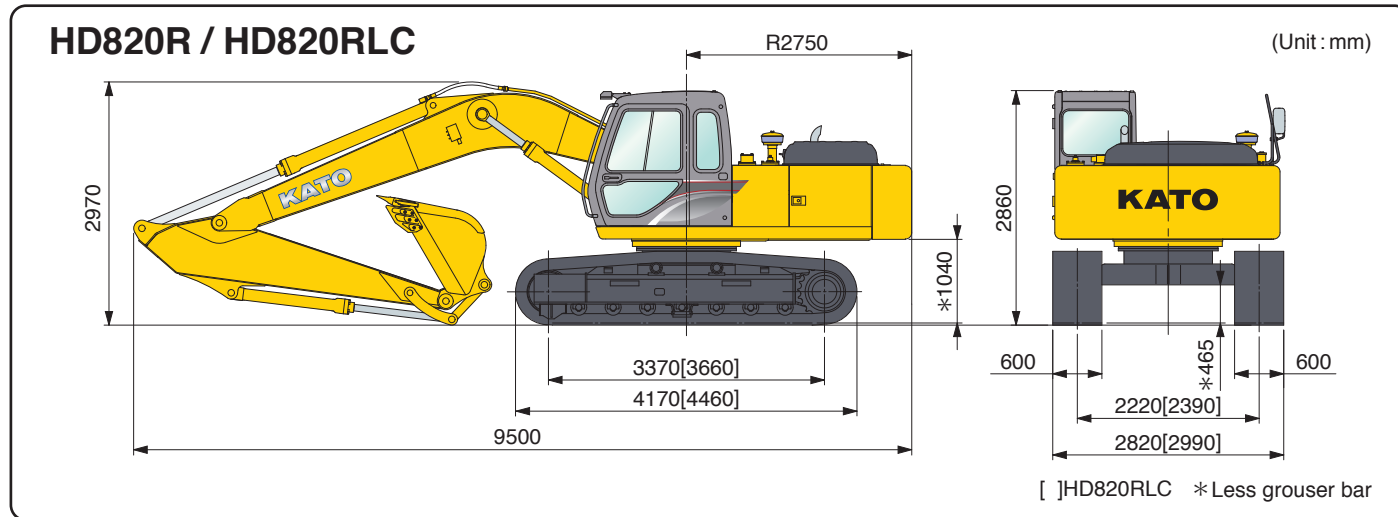
Hydraulic oil tank (level)..... 165 L (system)..... 260 L

In standard figure, with the 2.93m arm, 600mm grouser shoes and 0.8m³ (HD820RLC: 0.9m³)ISO, bucket.

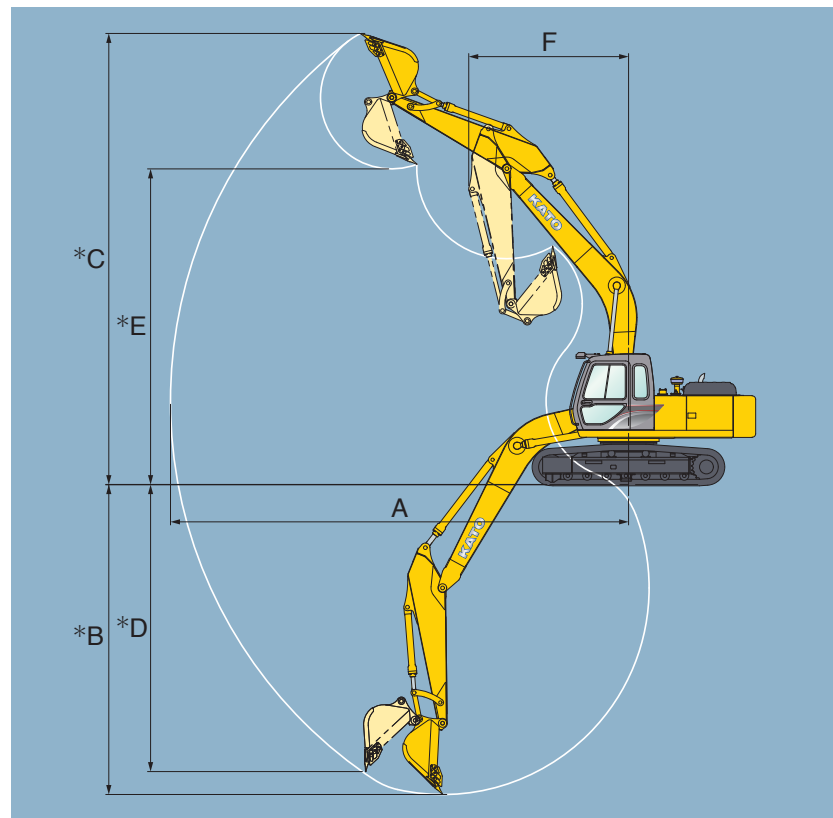
Operating weight..... 19,500kg: HD820R
20,300kg: HD820RLC

Ground pressure..... 43kPa: HD820R
42kPa: HD820RLC

Dimensions



Working Ranges



Range	Arm	Short Arm 2.43m	STD Arm 2.93m	Long Arm 3.92m
A : Max. digging radius		9,470	9,910	10,840
*B : Max. digging depth		6,210	6,700	7,700
*C : Max. digging height		9,550	9,760	10,300
*D : Max. vertical wall		5,640	6,120	7,150
*E : Max. dumping height		6,620	6,830	7,340
F : Min. swing radius		3,580	3,460	3,400

*Less grouser bar.

Bucket

Type of bucket		Backhoe bucket					
Bucket capacity	m ³ , ISO	0.45	0.55	0.80	0.90	1.00	1.10
Bucket width	W/O side cutters, mm	650	800	1,020	1,190	1,270	1,400
	with side cutters, mm	760	910	1,130	1,300	1,380	—
Standard boom +	Short arm	●	●	●	●	▲	□
	Standard arm	●	●	●	●	▲	□
	Long arm	●	●	▲	▲	×	×

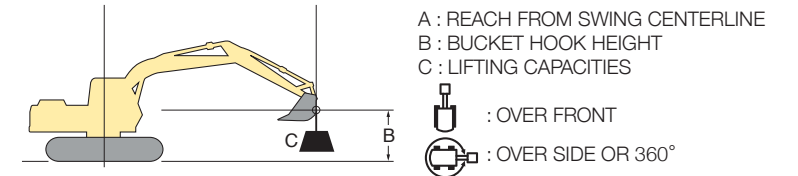
● General purpose ▲ Light work □ Loading ○ Usable × Unusable — No setting
 ○ Yellow colored area means standard.
 (HD820R 0.8m³, HD820RLC 0.9m³)

Track Shoes

Type of shoes	Grouser shoe			
Shoe width	mm	600	700	800
Overall width	mm	2,820 [2,990]	2,920 [3,090]	3,020 [3,190]
Ground pressure (kPa)		43 [42]	38 [37]	34 [33]
Net weight change (kg)		S.T.D.	+410 [+440]	+670 [+720]

○ Yellow colored area means standard. [] HD820RLC

Lifting Capacities



HD820R BOOM: 5.63m, ARM: 2.93m, BUCKET: 0.8m³ (640kg), SHOE WIDTH: 600mm, COUNTERWEIGHT: 4,200kg 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	2.00	3.00	4.00	5.00	6.00	7.00	8.00	RADIUS (m)		
7.00															*3.27	*3.27	6.72
6.00															*3.17	2.92	7.40
5.00															*3.16	2.54	7.89
4.00															*3.21	2.29	8.22
3.00															*3.32	2.13	8.43
2.00															4.48	2.88	8.51
1.00															3.19	2.00	8.48
0.00															3.24	2.03	8.32
-1.00															3.40	2.13	8.03
-2.00															3.70	2.32	7.61
-3.00															4.22	2.65	7.01
-4.00															5.19	3.27	6.19
-5.00															7.38	4.61	5.05

HD820RLC BOOM: 5.63m, ARM: 2.93m, BUCKET: 0.9m³ (710kg), SHOE WIDTH: 600mm, COUNTERWEIGHT: 4,200kg 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	2.00	3.00	4.00	5.00	6.00	7.00	8.00	RADIUS (m)		
7.00															*3.21	*3.21	6.72
6.00															*3.12	*3.12	7.40
5.00															*3.11	2.78	7.89
4.00															*3.16	2.51	8.22
3.00															*3.27	2.34	8.43
2.00															*3.46	2.25	8.51
1.00															3.62	2.21	8.48
0.00															3.69	2.25	8.32
-1.00															3.88	2.36	8.03
-2.00															4.22	2.57	7.61
-3.00															4.83	2.94	7.01
-4.00															5.95	3.62	6.19
-5.00															*7.33	5.11	5.05

- 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.
 7. The operator should be fully acquainted with the Operation Manual before operating the machine.

Standard Equipment

- COLOR MONITOR DISPLAY (APC150)
- SEAT-BELT
- AUTOMATIC AIR CONDITIONER (PRESSURIZED)
- HOT & COOL BOX
- INTERMITTENT WINDSHIELD WIPER
- EMERGENCY EXIT REAR WINDOW
- AM/FM RADIO (2 SPEAKERS)
- 13 CM DUAL CORN SPEAKER X2
- CABIN LIGHT
- 3 STD WORKING LIGHTS (SLEWING TABLE-R, BOOM-L, CAB-L)
- REAR VIEW MIRROR-R
- WORKING MODE SELECTOR (APC150)
- AUTO-SLOW, ONE TOUCH SLOW
- BOOM/ARM ANTI-DRIFT VALVE
- SLEWING ANTI-COUNTER ACTION
- AUTOMATIC PARKING BRAKE (SLEWING TABLE)
- AUTOMATIC PARKING BRAKE (TRAVELING)
- SERVICE PORT (1 SPOOL)
- TRACK GUARD (1 PD EACH SIDE)
- AIR CLEANER DOUBLE ELEMENT
- PRE-CLEANER
- COVER ON THE BOTTOM FACE OF TRAVELING FRAME

Optional Equipment

- TRANSPARENT ROOF HATCH WITH SUN VISOR
- OPTIONAL WORKING LIGHT (BOOM-R)
- OPTIONAL WORKING LIGHT (CAB-R)
- 2 WAY OPTION PIPING (FOR CRUSHER & BREAKER)
- OPTION PIPING (FOR BREAKER)
- WINDSHIELD HALF SIZE GUARD
- WINDSHIELD FULL SIZE GUARD
- CABIN HEAD GUARD
- ROOM FAN
- ELECTRIC REFUELING PUMP
- HIGH PERFORMANCE FUEL FILTER