E215C
HYDRAULIC EXCAVATOR

1. ENGINE TIER 3

Type	Water-cooled, 6-cycle diesel, 6-cylinder in line, High pressure common rail system (electric control), Turbocharger with air cooled intercooler.
Model	FPT NEF6 F4HE0687A*J101
Rated flywheel horse power NET (SAE J1349, ISO 9249) GROSS (ISO 14396)	 110.2 kW at 1800 min^{-1} (rpm) 116.9 kW at 1800 min^{-1} (rpm)
Piston displacement	6727.8 cc
Maximum torque (SAE J1349, ISO 9249) (ISO 14396)	 546.3 N-m at 1600 min^{-1} (rpm) 556.3 N-m at 1600 min^{-1} (rpm)
Bore and stroke	104 mm X 132 mm
Voltage	24 V
Alternator	70 Amp
Starter	24 V 4.0 kW

2. HYDRAULIC SYSTEM

Main pumps	2 variable displacement axial piston pumps with regulating system
• Max. oil flow	2 X 211 liter/min at 1800 min^{-1}
• Working circuit pressure	34.3 MPa
• Boom/Arm/Bucket	36.8 MPa with auto power up
• Swing circuit	29.4 MPa
• Travel circuit	34.3 MPa
Pilot pump	1 gear pump
• Max. oil flow	18 liter/min
• Working circuit pressure	3.9 MPa
Control valves	With Boom/Arm holding valve One 4-spool valve for Right track travel, Bucket, Boom and Arm acceleration One 5-spool valve for Left track travel, Auxiliary, Swing, Boom acceleration and Arm
Swing device	
• Motor	Fixed displacement axial piston motor
• Brake	Mechanical disc brake
• Final drive	Planetary gear reduction
• Turn table bearing	Ball bearing type with internal gear
• Maximum swing speed	11.5 min^{-1} (rpm)
• Swing torque	64,000 N-m
Cylinders	NO. of cylinders – bore X Rod diameter X Stroke
• Boom (STD & ME)	2 – Ø 120 mm X Ø 85 mm X 1255 mm
• Arm (STD)	1 – Ø 140 mm X Ø 100 mm X 1460 mm
• Arm (ME)	1 – Ø 135 mm X Ø 95 mm X 1558 mm
• Bucket (STD)	1 – Ø 120 mm X Ø 85 mm X 1010 mm
• Bucket (ME)	1 – Ø 125 mm X Ø 85 mm X 1075 mm

3. HYDRAULIC CONTROLS

Boom/Arm/Bucket/Swing	Pilot pressure control system (ISO control pattern)
Travel	Pilot pressure control system
Work mode select	
• SP – mode	
• H – mode	
• Auto – mode	
Travel mode select (2-speed travel)	
Attachment cushion control	
Hydraulic lock (gate lock, left side tilt console)	

4. ELECTRICAL SYSTEM

Engine control

- Dial type throttle control
- One touch idle / Auto deceleration / Auto idle shutdown system
- Emergency stop

Monitor system

- Message display
- Work mode display (SP, H, Auto)
- Machine condition
- Alarm display and buzzer
- Water temperature
- Hydraulic oil temperature
- Fuel level
- Diagnosis system

Wire harness

Waterproof type connector

Safety

- Travel alarm
- Double horn

• Battery		2 X 12 V 100 Ah / 20 HR

Lights

• Working light	Upper	24 V 70 W X 1
	Boom	24 V 70 W X 2
	CAB	24 V 70 W X 2
• Operator's cab	Room	24 V 10 W X 1

5. OPERATOR ENVIRONMENT

Operator's cab

- Smooth and round shape design cab, fabricated by press work
- Safety glass for all windows
- Shock-less cab suspension by 4-point fluid mounting
- Sliding front window with auto lock
- Built-in type full-color LCD monitor display
- Membrane switch on monitor display
- Windshield wiper & washer
- AM/FM Radio with auto-tuner
- Floor mat
- Polycarbonate roof hatch & Sun shade
- Auto air conditioner
- Roll-over protective structure (ROPS)
- Top guard OPG level 1 (in CAB structure)

Operator's seat

Low frequency mechanical suspension with helical springs and double acting hydraulic damper. (Achieves ISO7096 in category EM6)

- With following features
- Manual weight adjustment
- Backrest angle adjustment
- Seat height adjustment
- Adjustable pivoting armrests linked to consoles
- Adjustable headrest
- Retractable seat belt
- Adjustable lumbar support
- Control consoles adjust independently of seat

Others

- Rear view mirror (Cab side & Right side)

6. UNDERCARRIAGE

Travel motor	Variable displacement axial piston motor
Brake	Mechanical disc brake
Hydraulic service brake	Brake valve
Final drive	Planetary gear reduction
Travel speeds	
• High	5.6 km/h (Automatic travel speed shifting)
• Low	3.4 km/h
Drawbar pull	188 KN
Number of carrier rollers	2 (each side)
Number of track rollers	8 (each side)
Number of shoes	49 (each side)
Type of shoe	Triple grouser shoe
Link pitch	190 mm
Width of shoe	600 mm (STD) | 700 mm (OPT) | 800 mm (OPT)
Grade-ability	70% (35°)

7. MASS

Operating mass

21.400 kg with 2.94m Arm, 1.2m³ GP Wide Bucket, 600 mm grouser shoe, operator, lubricant, coolant and full fuel tank

Counter weight mass

4,250 kg (STANDARD)

4,500 kg (MASS EXCAVATOR)

Ground pressure

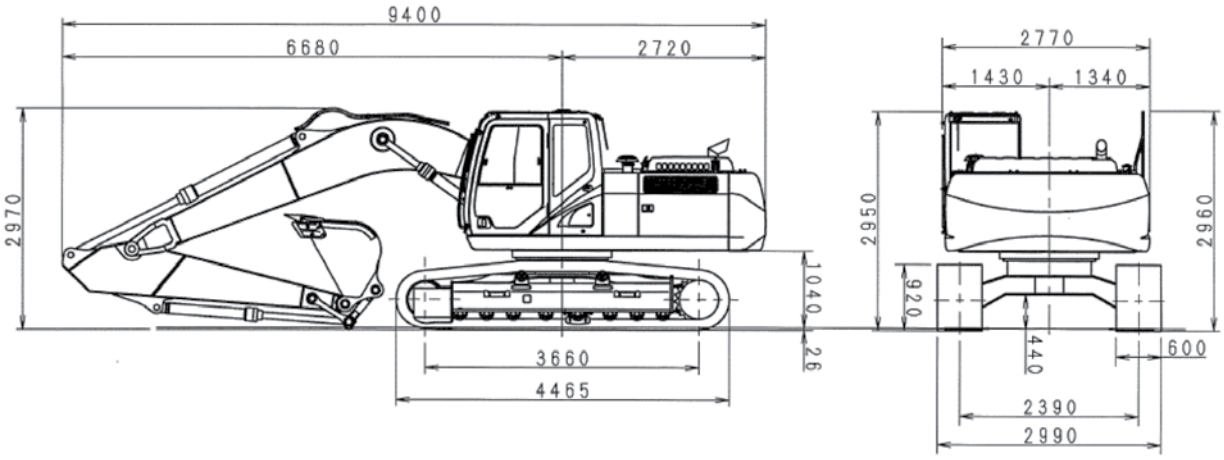
STD 0.044 MPa
(with 2.94 m Arm, 1.2m³ GP Wide Bucket, 600 mm grouser shoe)

8. DIGGING FORCE

(with 2,94 m³ Bucket)	
(ISO 6015)	**(2.94 m Arm)**
Arm digging force	103 kN
With auto power up	110 kN
Bucket digging force	142 kN
With auto power up	152 kN

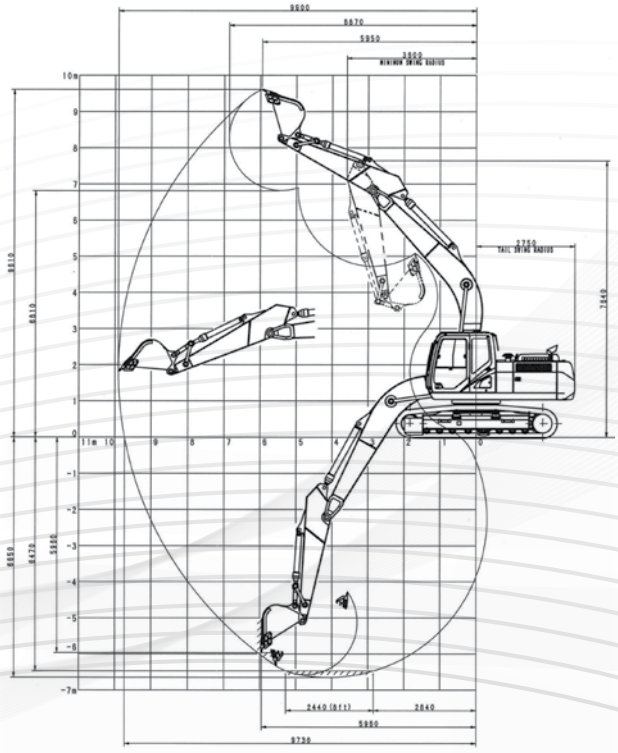
9. DIMENSIONS

	(2.94 m Arm)
Overall length (without attachment)	4950 mm
Overall length (with attachment)	9400 mm
Overall height (with attachment)	2970 mm
Cab height	2950 mm
Upper structure overall width	2770 mm
Swing (rear end) radius	2750 mm
Clearance height under upper structure	1040 mm
Minimum ground clearance	440 mm
Wheel base (Center to center of wheels)	3660 mm
Crawler overall length	4470 mm
Track gauge	2390 mm
Undercarriage overall width (with 600 mm shoes)	2990 mm
Crawler tracks height	920 mm



10. WORKING RANGES

	(2.94 m Arm)
Boom length	5700 mm
Bucket radius	1450 mm
Bucket wrist action	177°
Maximum reach at GRP	9730 mm
Maximum reach	9900 mm
Max. digging depth	6650 mm
Max. digging height	9610 mm
Max. dumping height	6810 mm



11. SYSTEM FLUID CAPACITIES AND SPECIFICATIONS

Capacities	Specifications	
Hydraulic system	240 liter	ISO VG 46
Hydraulic sump tank	147 liter	ISO VG 46
Fuel tank	410 liter	Light oil (Diesel)
Cooling system	25 liter Water 50%	Coolant 50%,
Final drive case (per side)	5.0 liter	API GL-4 90
Swing drive case	5.0 liter	API GL-5 90
Engine crank case (With Remote Oil Filter)	16.0 liter	API CD SAE 15W-40

E215C EVO

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