

# Equipment and Features

## STANDARD EQUIPMENT

	E655F	E660FL	E680F	E690F
<b>Engine</b>				
Yanmar engine	S	S	S	S
Turbocharger	-	-	-	S
Two-stage air filters	S	S	S	S
Three-stage fuel filters	S	S	S	S
Oil-water separator	S	S	S	S
Pre-heater	S	S	S	S
<b>Electrical/Electronic control system</b>				
Engine safe start with restart prevention	S	S	S	S
Idling switch	S	S	S	S
Auto-idle function	S	S	S	S
9 work modes	S	S	S	S
Central fuse box	S	S	S	S
Halogen work lights (Frame-mounted 2 & Boom-mounted 1 LH)	S	S	S	S
Battery, 12V	S	S	S	S
Master electrical disconnect switch	S	S	S	S
Start motor, 12V	S	S	S	S
Colour monitor	S	S	S	S
Lock lever	S	S	S	S
<b>Hydraulic system</b>				
Load-sensing hydraulic system	S	S	S	S
Boom/arm/swing priority	S	S	S	S
Boom/arm regeneration	S	S	S	S
Boom/arm holding	S	S	S	S
Two speed travel motors	S	S	S	S
Cylinder/motor cushioning	S	S	S	S
Dust sealing	S	S	S	S
Hydraulic oil (ISO VG46)	S	S	S	S
Multi-stage filtration	S	S	S	S
<b>Frame</b>				
Reinforced revolving frame	S	S	S	S
Dozer blade	S	S	S	S
Rear-view mirror	S	S	S	S
Tool storage area	S	S	S	S

<b>Undercarriage</b>				
Durable "X" under-carriage	S	S	S	S
Greased and sealed track links	S	S	S	S
Reinforced carrier/top rollers	S	S	S	S
Steel track with triple grousers	S	S	S	S
<b>Cab and interior</b>				
Fabric operator seat with suspension	S	S	S	S
Seat belt	S	S	S	S
Joysticks	S	S	S	S
Radio with MP3/AUX	S	S	S	S
Master key	S	S	S	S
Hour meter	S	S	S	S
Sun visor	S	S	S	S
Dual arm rests	S	S	S	S
Air conditioner	S	S	S	S
Sliding wind screen	S	S	S	S

## OPTIONAL EQUIPMENT

	E655F	E660FL	E680F	E690F
<b>Electrical/Electronic control system</b>				
Fuel filler pump	o	o	o	o
Extra halogen work lights (Cab-mounted 1/ Boom-mounted 1RH)	o	o	o	o
Rotating warning beacon	o	o	o	o
Rear-view camera	o	o	o	o
<b>Hydraulic system</b>				
High-temperature/Low-temperature hydraulic oil module	o	o	o	o
<b>Undercarriage</b>				
600mm steel track	o	o	o	o
Rubber Pads	o	o	o	o
Without dozer blade	o	o	o	o
<b>Attachment</b>				
Ditching buckets	o	o	o	o
X1 pipes	o	o	o	o
X3 pipes	o	o	o	o
Side or top mounted breakers	o	o	o	o
Log grapples	o	o	o	o
Front upper/front lower/top FOG (falling object guard)	o	o	o	o



# E655F/E660FL/E680F/E690F Hydraulic Excavator



Congratulations SDLG for winning  
EFQM Global Excellence Award  
One of the top three quality awards in the world

**Member of the VOLVO Group Since 2007**

SDLG is member of the Volvo Group and one of the largest manufacturers of construction machinery in China, with a wide network of dealerships and service workshops throughout the world.

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**Reliability in Action**



**POWERFUL YET  
ENERGY-SAVING**

The highly efficient four-cylinder Yanmar engine, coupled with an energy-saving hydraulic system, delivers both power and fuel economy. Nine gear modes and an auto-idle function ensure power on-demand, minimising fuel consumption and noise

**SMOOTH-OPERATIONS**

The load-sensing hydraulic system is engineered to deliver first-class performance and efficiency. The variable piston pump offers precise control in a wide variety of work conditions

**SAFE AND COMFORTABLE**

The cabin features excellent fields of vision, and is built on industry-leading vibration and noise reduction technologies. A powerful air-conditioning system provides comfort in cabin, reducing operator fatigue and improving productivity

**EASY TO MAINTAIN**

Designed to minimise maintenance efforts, the main components, filter and electrical systems are grouped for easy, ground level access

**RELIABLE AND DURABLE**

All core components in the engine and hydraulic systems are sourced from world-renowned manufacturers to meet our highest reliability standards. A robust structure provides excellent stability and machine durability

**MULTI-PURPOSE**

Access more applications with breaker piping, rubber pads and other optional accessories. This versatile machine is ideal for a wide variety of urban and rural tasks

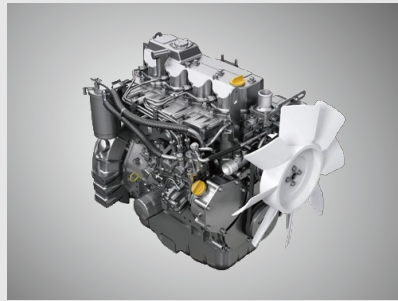


\*The illustration may include optional equipment.



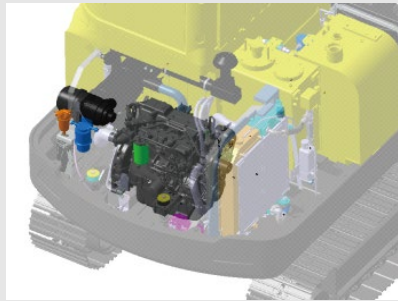
### POWERFUL ENGINE

- Yanmar engine with EGR
- Single rotor distribution pump for higher ignition pressure and better combustion
- ECU controlled



Multiple filters for prolonged engine life

- 3-stage fuel filters
- 2-stage air filters
- Oil-water separator

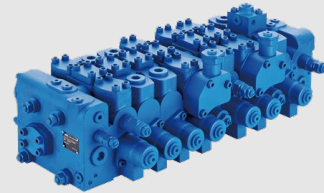
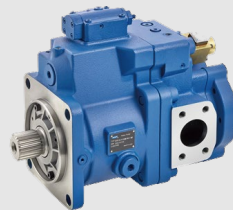
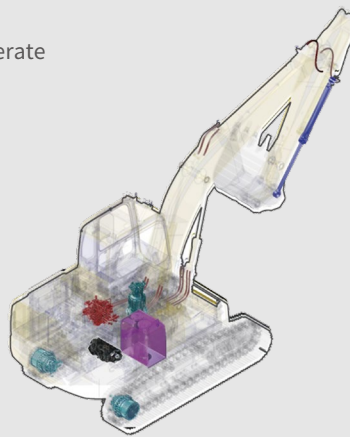
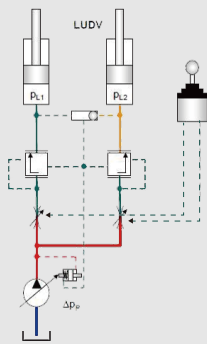


- 9 work modes
- Auto-idle function



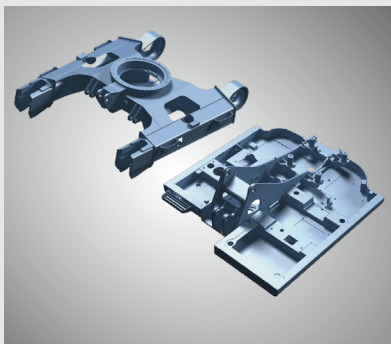
### EFFICIENT HYDRAULIC SYSTEM

- Load-sensing system
- Responsive and smooth to operate

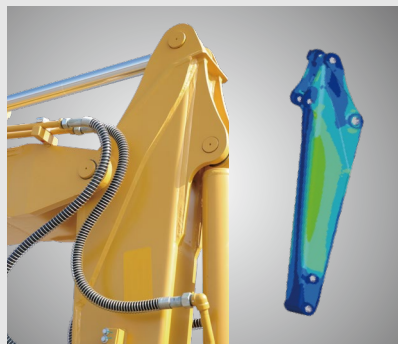


### ROBUST STRUCTURE

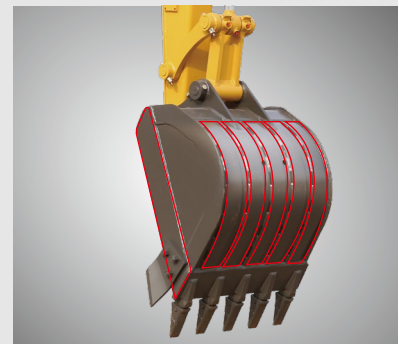
- Integrated frame offering balanced load distribution
- Reinforced structures
- Large ground clearance



- Robotic-welded high-strength steel plates
- Stringent NDT procedures
- Reinforced joints

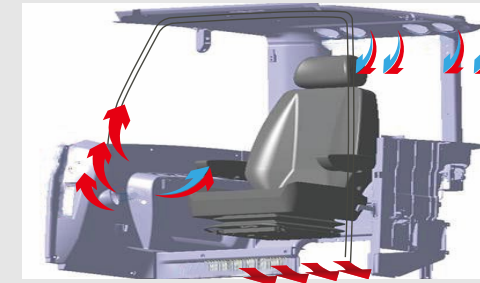


- Wear-resistant GP bucket lasting 20% longer



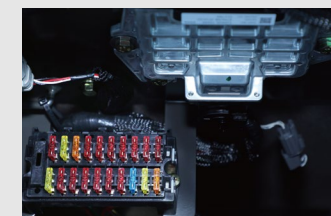
### SAFE AND COMFORTABLE CABIN

- Excellent fields of vision
- Large rear-view mirror
- Large wiper area
- Lock lever
- Good anti-slip
- Hydraulic cylinder protective covers
- Silicone oil shock absorbers
- 6-way adjustable mechanical suspension seat
- Strong A/C with multiple air outlets in a well-sealed cabin
- Tinted glass
- Multiple storage compartments



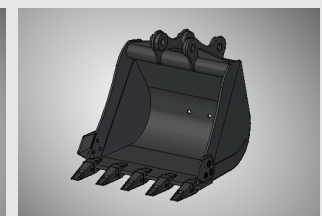
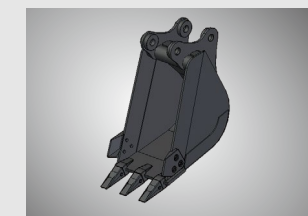
### EASY MAINTENANCE

- Grouped filters, electrics and lubrication points
- Easy access at standing height



### OPTIONAL ATTACHMENTS

- Top/side mounted breakers
- LM buckets
- Ditching buckets
- Log grapples





### ENGINE

	Unit	E655F	E660FL	E680F	E690F
Model	-	4TNV98-EXSLGC	4TNV98-EXSLGC	4TNV98-ZCVLGC	4TNV98T-ZCSLGC
Type	-	In-line, water-cooled, four-stroke	In-line, water-cooled, four-stroke	In-line, water-cooled, four-stroke	In-line, water-cooled, four-stroke, turbocharged
Rated power	kW@rpm	38.3@2200	38.3@2200	44.4@2200	54.1@2200
Max. torque	Nm@rpm	(191.8-208.6)@1650	208.6@1650	246.7@1575	297.7@1650
Displacement	ml	3319	3319	3319	3319
No. of cylinders	-	4	4	4	4
Cylinder bore x stroke	Φ×mm	98×110	98×110	98×110	98×110
Emission	-	Tier III (GB 20891-2014)	Tier III (GB 20891-2014)	Tier III (GB 20891-2014)	Tier III (GB 20891-2014)

### HYDRAULIC SYSTEM

	Unit	E655F	E660FL	E680F	E690F
Hydraulic system type	-	Load-sensing	Load-sensing	Load-sensing	Load-sensing
Main pump	-	1 variable displacement axial piston pump	1 variable displacement axial piston pump	1 variable displacement axial piston pump	1 variable displacement axial piston pump
Max flow rate	L/min	138	138	160	160
Relief valve setting					
Implement circuit	bar	215	215	245	265
Travel circuit	bar	215	215	280	280
Swing circuit	bar	225	225	235	235
Pilot circuit	bar	45	45	45	45

### ELECTRICAL SYSTEM

	Unit	E655F	E660FL	E680F	E690F
System voltage	V	12	12	12	12
Battery voltage	V	12	12	12	12
Battery capacity	Ah	100	100	100	100
Alternator voltage	V	13.5	13.5	13.5	13.5
Starter voltage	V	12	12	12	12

### SERVICE REFILL CAPACITY

	Unit	E655F	E660FL	E680F	E690F
Fuel tank	L	135	135	135	135
Engine coolant	L	10	10	13.5	13.5
Engine oil	L	12	12	12	12
Swing drive	L	1.2	1.2	0	0
Travel drive	L	2×1.3	2×1.3	2×1.1	2×1.1
Hydraulic tank	L	50	108	140	140
Hydraulic system	L	100	157	150	150

### DRIVE AND BRAKES

	Unit	E655F	E660FL	E680F	E690F
Drive motor	-	2 axial piston motors	2 axial piston motors	2 axial piston motors	2 axial piston motors
Max drawbar pull	kN	50	50	65	65
Max travel speed (low/high)	km/h	2.4/4.8	2.4/4.8	2.86/5.0	2.6/5
Service/parking brakes	-	Wet and disc type	Wet disc, spring applied, hydraulic release	Wet disc, spring applied, hydraulic release	Wet disc, spring applied, hydraulic release
Gradeability	°	30	30	35	35

### SWING SYSTEM

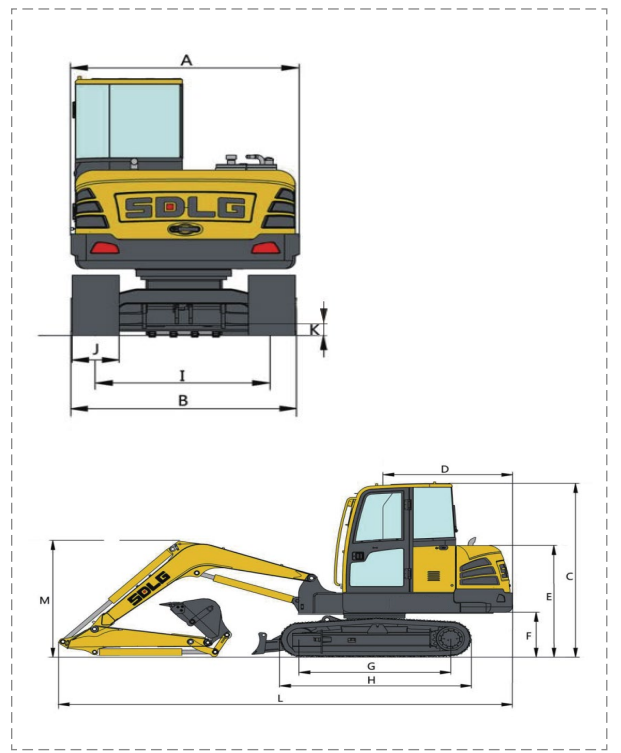
	Unit	E655F	E660FL	E680F	E690F
Swing motor	-	Axial piston motor	Axial piston motor	Axial piston motor	Axial piston motor
Swing brake	-	Wet and disc type	Wet disc	Wet disc	Wet disc
Swing speed	r/min	0~11.5	0~11.5	0~10	0~12

### UNDER CARRIAGE

	Unit	E655F	E660FL	E680F	E690F
No. of track shoes	-	2×39	2×40	2×40	2×40
No. of top rollers	-	2×1	2×1	2×1	2×1
No. of bottom rollers	-	2×5	2×5	2×5	2×5
No. of track guards	-	2×1	2×0	2×0	2×0

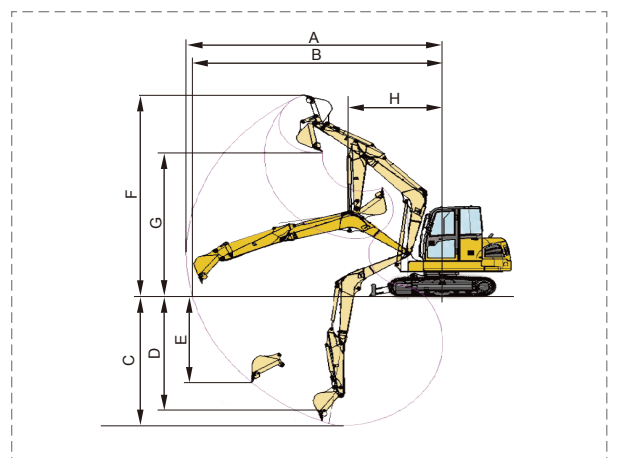
### DIMENSIONS

	Unit	E655F	E660FL	E680F	E690F
Boom length	mm	3030	3030	3710	3710
Arm length	mm	1540	1540	1650	1650
A Overall width of upper assembly	mm	1870	1870	2255	2255
B Overall width	mm	1960	1940	2240	2265
C Overall height	mm	2610	2620	2600	2600
D Tail swing radius	mm	1670	1670	1895	1895
E Overall height of engine hood	mm	1685	1700	1790	1790
F Counterweight clearance	mm	664	740	800	800
G Wheel base	mm	1950	1990	2220	2220
H Track length	mm	2490	2540	2870	2870
I Track gauge	mm	1520	1540	1780	1780
J Track shoe width	mm	380	400	450	450
K Min. ground clearance	mm	375	367	400	400
L Overall length	mm	5970	5930	6340	6340
M Overall height of boom	mm	1890	1820	2500	2500
Bucket capacity	m³	0.2	0.22	0.32	0.34
Operating weight	kg	6050	6050	7800	8550



### EXCAVATING RANGE

	Unit	E655F	E660FL	E680F	E690F
A Max. digging reach	mm	6130	5990	6340	6340
B Max. digging reach on ground	mm	5990	5850	6192	6192
C Max. digging depth	mm	3846	3846	4150	4150
D Max. digging depth (horizontal 2.44m)	mm	3375	3400	3800	3800
E Max. vertical wall digging depth	mm	2500	2600	3750	3750
F Max. digging height	mm	5870	5743	7200	7200
G Max. dumping height	mm	4143	4163	5057	5057
H Min. front swing radius	mm	2250	2321	1760	1760
Max. digging force--bucket (ISO)	kN	40	45	56	60
Max. digging force--arm (ISO)	kN	30	30	38	42



### ATTACHMENTS

Attachment	Model	Capacity/m³	Width/mm	Weight/kg	Number of teeth/side cutters
	Bucket	E655F/E660FL	0.1-0.23	400-795	122-168
	E680F	0.25-0.32	730-810	216-258	5/2
	E690F	0.16-0.34	450-810	210-270	(3-5)/2
Log grapple	Model	Diameter/mm	Width/mm	Opening size/mm	Remarks
	E655F/E660FL	140	748	1411	Combined teeth 2 upper + 3 lower (upper movable)
		207	704	1780	Ganged teeth 2 upper + 3 lower (both movable)
Breaker (Side mounted)	Model	Diameter/mm	Weight/kg	Pressure/bar	Frequency/bpm
	E655F/E660FL	68	263	110-140	500-900
	E680F	75	335	120-150	500-900
	E690F	80	335	120-150	400-800