



<b>Engine</b>	Yanmar 4TNV94L-BVLY/BVLYC
<b>Emission rating</b>	Stage IIIA
<b>Net Power</b>	34.6 kW (46 hp)
<b>Operating Weight</b>	5,900 kg
<b>Bucket Capacity</b>	0.21 m <sup>3</sup>

# 906E EXCAVATOR



# TOUGH WORLD. TOUGH EQUIPMENT.

You don't need to be told it's a tough world. It's your reality, you live it every day and you know how hard it can be on your people and your machines. It's getting tougher to make your business pay too, with rising costs, increasing legislation and greater competition. We understand and we've put that understanding into action with our new 906E.

## 906E AS VERSATILE AS YOU ARE

You know all about versatility because you've got to be ready to handle any challenge. Whatever the job; utilities, foundation work, landscaping, indoor/outdoor demolition and construction projects you need a flexible machine that is easy to transport, simple to operate and maintain, and cost effective to run.

We've risen to that challenge to create a machine that's as versatile as you are.

## NOT JUST ANOTHER COMPACT MACHINE

Listening to operators, our design brief was clear. You wanted something different, a machine that could go anywhere and do anything with ease and efficiency. We listened and we've delivered a versatile machine that gives you everything you need.

### OUR NEW 906E DELIVERS ON 4 ESSENTIAL NEEDS:

- 1**  
  
**FUEL EFFICIENT**
- 2**  
  
**ENHANCED OPERATOR COMFORT**
- 3**  
  
**SIMPLE TO OPERATE**
- 4**  
  
**EASY TO MAINTAIN**



With the new 906E, we've created something different. An exceptionally performing compact machine which gives operators everything they want – without compromise.



### TOUGH FACTS

#### AWARD WINNING DESIGN

Our UK-based design team has invested thousands of man-hours to really understand how our machines are used every day. This insight shapes our innovative approach to product design. Our design team recently won a prestigious Red Dot Award for our D-Series Grader and our New F-Series shares this award-winning design DNA.

#### TOUGH RESEARCH AND TESTING

Finding tougher, smarter, safer and more cost-effective ways of working matters to you. It matters to us too. Our new Global Research & Development Centre is a great example of this customer focused approach. We've established an international team of industry experts, backed up with the latest world-class technology, all focused on delivering greater value to you.

#### TOUGH QUALITY STANDARDS

When it comes to quality, we let our actions to speak for themselves. We follow a rigorous Six Sigma methodology and consistently achieve ISO 9001 standards.



# DESIGN IN ACTION

Take a walk around the new 906E and you will see the difference. It has big excavator performance – in smart, compact body.

## PUTTING YOU FIRST

No matter whether you've rented a machine or bought one for your fleet, comfort and ease of operation are high on your agenda. Operators spend a lot of time in the cab, so it needs to be a productive space.

Our in-cab display, ergonomically positioned, gives you all of the real-time information you need to operate your machine most economically and maintain it most effectively. From travel speed to engine oil pressure alarms, from fuel level indicator to coolant temperature – it's all there – where you need it.

## WELCOME TO FIRST CLASS

We've made long shifts easy thanks to our top of the range cab environment. 906E is equipped with color LCD, radio, USB, and Blue toothphone (photographed and operation panel).

906E features the latest pilot valve joystick with lower control force. And the intelligent system automatically switch to the turtle mode when encountering obstacles and reaching the set pressure during operation.

## INTELLIGENT POWER

The Yanmar 4TNV94L engine features higher torque and better performance at low speed. A high pressure pump provides the fuel pressure needed when injecting fuel directly into the combustion chamber so as to ensure that the engine runs efficiently. An electronic throttle control further improves fuel economy.

## SAFETY WITHOUT COMPROMISE

The 906E cab enlarges operating space by compared with our previous model. With the optimised visibility and larger glass surface, it gives the operator clearer line of sight and the necessary safety features.

## AT YOUR SERVICE

LiuGong excavators have been specifically designed by easy service and maintenance in even the most remote and harsh environments. If servicing is easy, it gets done.

906E has one-stop maintenance. Open the rear cover, and more than 10 component for daily inspection, maintenance are within reach.



## EXTRA TOUGHNESS – WHERE YOU NEED IT.

Compact machines can work as hard as their heavy counterparts, so we don't compromise on toughness. Our leading R&D team use FEA (Finite Element Analysis) to ensure that our cast boom ends are a match for the toughest jobs.

## ONE MACHINE – MULTIPLE POSSIBILITIES

Multi-tool versatility is designed into LiuGong excavators. High pressure 2-way attachment hydraulic lines with proportional control are fitted as options making it easy to get the most from the machine. Single direction attachments such as breakers; or dual direction attachments such as a tilting bucket can easily be utilised.

## ADVANCED HYDRAULICS

Advanced hydraulic system is perfectly matched to the engine and component for fast response and smooth operation. Load sensing and large displacement main pump provide operational precision, efficient performance and greater controllability. Optimized multi-way valve design and change of parameters of the structure, e.g. Reduce the power loss and delivers distinguished energy saving effect.

## SAVE MORE FUEL WITH THE OPTIONAL AUTO-IDLE SPEED FUNCTION

The machine maximizes fuel economy by regulating its idle speed. If no activity is detected over four seconds, the engine speed will decrease to idle automatically.

## TOUGH JUDGES

Operators are tough judges. They know what they like and what they don't. We've talked, we've listened and we've delivered a no-nonsense excavator that will do everything the operator wants and needs it to do. Job done? Judge for yourself.

## TOUGH EQUIPMENT

**100,000 Excavators** currently in the field. Over **1/2 BILLION** productive hours worked.



# JOBSITE UPTIME AND SUPPORT

Compact size with big performance might convince you to buy your first new 906E, but it's uptime and support and total cost of ownership which will keep you coming back to buy more. Having confidence in the machine's back up and support network is a vital part of the purchasing decision. How do we measure up?

## FAST RESPONDING GLOBAL NETWORK

We have an extensive dealer network of over 300 dealers in more than 100 countries.

All supported by 13 regional subsidiaries and 12 regional parts depots offering expert training, parts and service support.



## WHERE YOU NEED US WHEN YOU NEED US

Reliability is built into our machines but all machines have some planned downtime. Our aim is to reduce even planned down time to the minimum by getting it right.

Technician training and parts availability are also high on our agenda, as is keeping you

Informed on service and maintenance work and providing clear and accurate estimates, invoices and communication.

These may be small things, but customer feedback tells us that these basics really matter – so we aim to get them right.

## MAINTENANCE AND SUPPORT PACKAGES

From genuine LiuGong parts, to full repair and maintenance contracts, LiuGong has the flexibility to offer the level of support and response to suit your business and applications. Whatever level of support you choose you can be confident that it is backed up by LiuGong's service promise.

**Right parts.  
Right price.  
Right service.**

**Above all,  
we get it right  
the first time.**

# 1<sup>st</sup>



## WE ARE LIUGONG. WORKING HARD TO KEEP OUR GLOBAL CUSTOMERS EARNING



## LIUGONG SERVICE PROMISE







# TOTAL COST OF OWNERSHIP

Easy to transport, simple to use and quick to maintain, the new 906E appears to have it all. But ultimately, the machines earning potential, its overall life cost and its trade-in value really matter too.

When it comes to total cost of ownership LiuGong has a strong story to tell.

## PROFESSIONAL ADVICE

We are committed to reducing your total cost of ownership and increasing your profits. As part of this, LiuGong's experts will provide targeted advice on everything, from choosing the right machine for your needs to maximizing its efficiency on site.

## MACHINE AVAILABILITY

Our machines deliver everything you need and nothing you don't. They are expertly engineered NOT over engineered. As a result of having an extensive manufacturing operation right in the heart of Europe, we can offer significantly shorter lead times on

a range of models, compared with some manufacturers. In fact, we can deliver selected machines in as little as 4 weeks.

The faster you can get a machine – the faster you can get working and earning. Our aim is to get you on to the job site fast.

## TICKET PRICE

At LiuGong, our aim is to provide you with real, measurable value by giving you everything you need and nothing you don't. We choose high quality, proven components and parts from world-renowned brands and suppliers.

These proven components, combined with LiuGong design and manufacturing quality, result in a high quality, competitive machine that is totally fit for purpose.

## RESIDUAL VALUE

With the combination of LiuGong design and manufacturing excellence, world class components and comprehensive uptime support, our quality holds its value.



## IT ALL ADDS UP

With the new 906E we've risen to the challenge and given you everything you need and nothing you don't.

It's an excavator which can handle any job, anywhere, backed up by LiuGong's service promise and designed to perform on the job site and on the balance sheet. Add up the benefits and you'll see that the new 906E represents the formula for success.



**HIGHLY VERSATILE**

+

**EASY TO TRANSPORT**

+

**SIMPLE TO OPERATE & MAINTAIN**

+

**LOW TOTAL COST OF OWNERSHIP**

**CUSTOMER SATISFACTION**



# SPECIFICATIONS

<b>Operating weight</b>	<b>5,900 kg</b>
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Operating weight includes coolant, lubricants, full fuel tank, cab, standard shoes, boom, arm, bucket and operator 75 kg (165 lbs).

<b>Bucket capacity</b>	<b>0.21 m<sup>3</sup></b>
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## ENGINE

### Description

Yanmar 4TNV94L, 4 stroke direct injection diesel engine.

Air cleaner: Direct flow air filter.

Cooling system: Charge-air cooler

Emission rating	Stage IIIA
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Engine manufacturer	Yanmar
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Engine model	4TNV94L-BVLY/ BVLYC
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Aspiration	Natural
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Charged air cooling	Aftercooler
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Cooling fan drive	Direct
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Displacement	3.054 L
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Rated speed	2,100 rpm
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Engine output - Net (SAE J1349 / ISO 9249)	34.6 kW (46 hp)
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Engine output - Gross (SAE J1995 / ISO 14396)	36.2 kW (49 hp)
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Maximum torque	212.7 N·m @ 1,260rpm
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Bore × Stroke	94×110 mm
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## UNDERCARRIAGE

Track shoe each side	40
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Link pitch	135 mm
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Shoe width, triple grouser	400 mm
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Bottom rollers each side	5
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Top rollers each side	1
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## SWING SYSTEM

### Description

Planetary gear reduction driven by high torque axial piston motor, with oil disk brake. Swing parking brake resets within five seconds after swing pilot controls return to neutral.

Swing speed	10.4 rpm
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Swing torque	12,500 N·m
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## HYDRAULIC SYSTEM

### Main pump

Type	Load sensing variable displacement pump
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Maximum flow	142.8 L/min
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### Pilot pump

Type	
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Maximum flow	
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### Relief valve setting

Implement	25 MPa
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Travel circuit	25 MPa
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Slew circuit	20.6 MPa
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Pilot circuit	3.15-3.7 MPa
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### Hydraulic cylinders

Boom Cylinder – Bore × Stroke	Φ110×Φ60×656 mm
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Stick Cylinder – Bore × Stroke	Φ90×Φ55×739 mm
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Bucket Cylinder – Bore × Stroke	Φ80×Φ50×615 mm
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Dozer Cylinder – Bore×Stroke	Φ110×Φ60×168 mm
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## ELECTRIC SYSTEM

System Voltage	12 V
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Batteries	12 V/100 Ah
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Alternator	12 V - 55 A
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Start motor	12 V - 3 kW
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## SERVICE CAPACITIES

Fuel tank	118 L
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Engine oil	12 L
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Final drive (each)	0.9×2 L
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Cooling system	11 L
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Hydraulic reservoir	66 L
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Hydraulic system total	122 L
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## SOUND PERFORMANCE

Interior Sound Power Level (ISO 6396)	72 dB(A)
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Exterior Sound Power Level (ISO 6395)	98 dB(A)
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## DRIVE AND BRAKES

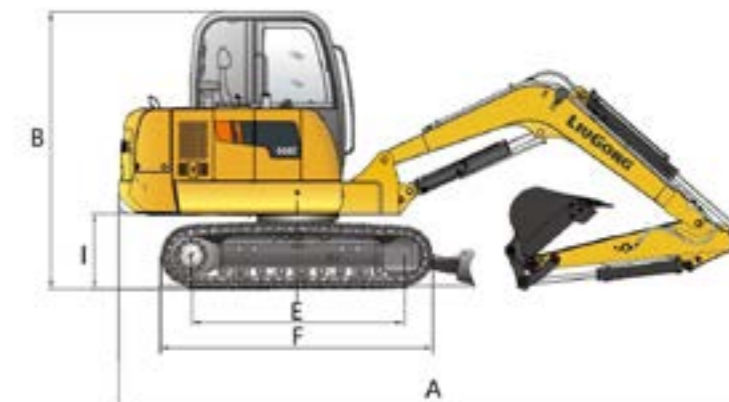
### Description

2-speed axial piston motors with oil disk brakes. Steering controlled by two hand levers with pedals.

Max. travel speed	High: 4.1 km/h Low: 2.5 km/h
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Gradeability	35°/70%
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Max. drawbar pull	57/51 kN
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## DIMENSIONS

Boom	3,000 mm
Arm Options	1,600 mm
A Shipping Length	5,900 mm
B Shipping Height – Top of CAB	2,630 mm
C Track Gauge	1,500 mm
D Undercarriage Width – with 450 mm Shoes	1,900 mm
E Length to Center of Rollers	1,990 mm
F Track Length	2,540 mm
G Overall Width of Upper Structure	1,820 mm
Tail Swing Radius	1,650 mm
I Counterweight Ground Clearance	705 mm
Overall Height of Cab	2,630 mm
Min. Ground Clearance	350 mm
L Track Shoe Width	400 mm

## BOOM DIMENSIONS

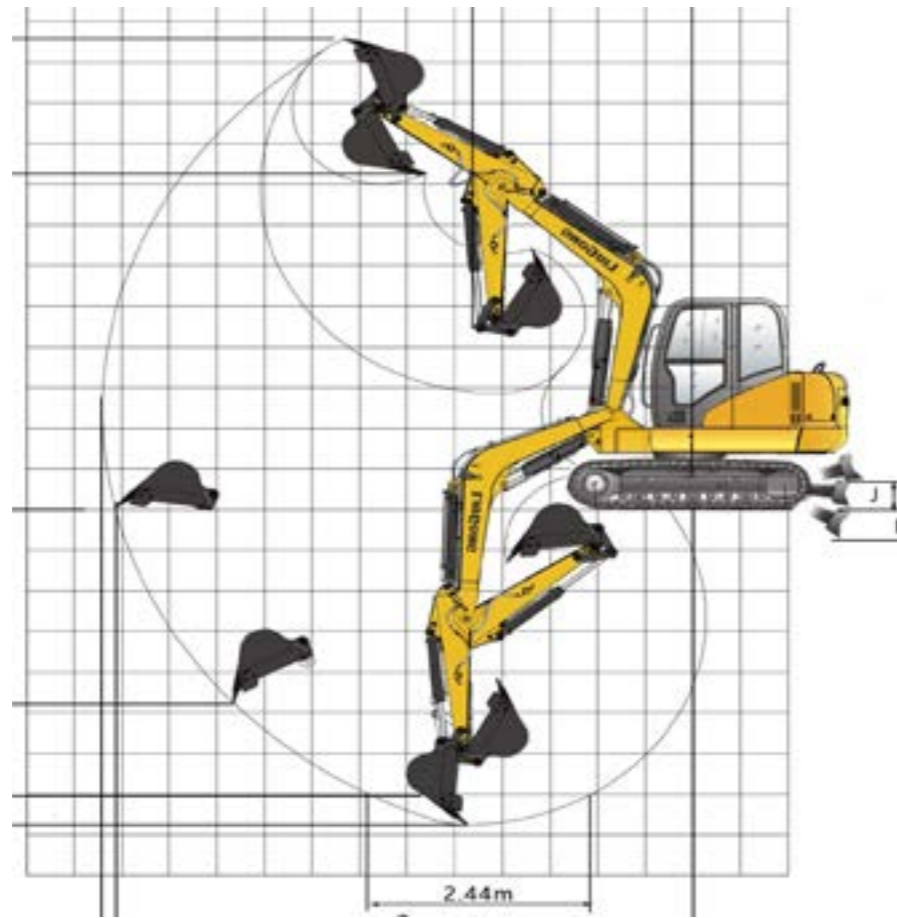
Boom	3,000 mm
Length	3,135 mm
Height	1,092 mm
Width	312 mm
Weight	269 kg

Boom cylinder and pin excluded.

## ARM DIMENSIONS

Arm	1,600 mm
Length	2,075 mm
Height	479 mm
Width	186 mm
Weight	190 kg

Cylinder, piping and pin included.



**WORKING RANGE**

Boom	3,000 mm
Arm Options	1,600 mm
A. Max. cutting height	5,790 mm
B. Max. dumping height	4,135 mm
C. Max. digging depth	3,875 mm
D. Max. vertical wall digging depth	2,940 mm
E. Max. digging depth (2.44 m level)	3,450 mm
F. Max. digging reach	6,205 mm
G. Max. digging reach on ground	6,065 mm
H. Min. front swing radius	2,430 mm
I. Depth below Ground	405 mm
J. Lift above Ground	360 mm
Bucket Digging Force (ISO)	41 kN
Arm Digging Force (ISO)	31 kN
Bucket Capacity	0.21 m <sup>3</sup>
Bucket Tip Radius	875 mm

**MACHINE WEIGHTS AND GROUND PRESSURE**

Shoe width	Operating weight	Ground pressure	Overall width
	3,000 mm boom, 1,600 mm arm, 0.21 m <sup>3</sup> bucket, 215 kg counterweight		
400 mm (steel)	5,900 kg	32.4 kPa	1,900 mm
400 mm (rubber)	5,855 kg	32.2 kPa	1,900 mm
600 mm (steel)	6,048 kg	22.2kPa	2,100 mm

**BUCKET SELECTION GUIDE**

Bucket type	Capacity	Cutting width	Weight	Teeth pcs	3.0 m boom, 1.6 m arm
Digging Bucket	0.06	323	86	2	B
Digging Bucket	0.09	466	108	3	B
General Purpose Bucket**	0.12	458	82	3	B
General Purpose Bucket	0.16	610	101	4	B
General Purpose Bucket	0.2	730	161	5	B
General Purpose Bucket	0.21	761	159	5	B
General Purpose Bucket**	0.21	785	175	5	B
General Purpose Bucket	0.21	766	167	5	B
Grading Bucket	0.28	1,040	325	5	A
Ditch Cleaning Bucket	0.32	1,020	315	/	A

\*The recommendations are given as a guide only, based on typical operation conditions. Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.  
 \*\*The bucket is with lifting eyes.

Maximum material density:  
 A 1,200 - 1,300 kg/m<sup>3</sup> : Coal, Caliche, Shale  
 B 1,400 - 1,600 kg/m<sup>3</sup> : Wet earth and clay, limestone, sandstone  
 C 1,700 - 1,800 kg/m<sup>3</sup> : Granite, wet sand, well blasted rock  
 D 1,900 kg/m<sup>3</sup> : Wet mud, Iron ore  
 NA. Not applicable



Lifting capacity at the arm end without bucket.  
For lifting capacity including bucket, weight of the bucket or the bucket with quick coupler must be deducted from the lifting capacities.

Lifting capacities are based on the machine standing on a firm, uniform supporting surface.



Rating over - front (Cf)



Rating over - side (Cs)

- Do not attempt to lift or hold any load that is greater than these rated values at their specified load radius and height. Weight of all accessories must be deducted from the above lifting capacities.
- The rated loads are in compliance with ISO 10567 Hydraulic Excavator Lift Capacity Rating Standard. They do not exceed 87% of hydraulic lifting capacity or 75% tipping load.
- Ratings at bucket lift hook.
- Lifting capacities are based on machine standing on level, firm and uniform ground.
- \*Indicates the load is limited by hydraulic capacity rather than tipping capacity.
- Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine and rules for the safe operation of equipment should be adhered to at all times.

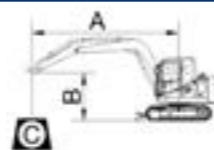
**LIFTING CAPACITY (METRIC)**

**906E with 400 mm shoes, 3,000 mm Boom, 1,600 mm Arm**

A: Reach from swing center  
B: Bucket hook height  
C: Lifting capacity--ISO10567  
Cf: Rating over front  
Cs: Rating over side

**Conditions**

Boom length: 3,000 mm one-piece boom  
Arm length: 1,600 mm  
Bucket: None  
Shoes: 400 mm triple grouser  
Unit: kg



Dozer: Up											
A (Unit: m)											
B (m)	2		3		4		5		MAX REACH		
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					1.49	1.14			*1.37	1.04	4.3
3					1.48	1.13			1.12	0.86	4.91
2			2.21	1.64	1.44	1.09	1.04	0.79	1.04	0.75	5.21
1			2.10	1.54	1.39	1.05	1.02	0.77	0.95	0.73	5.28
0			2.05	1.49	1.36	1.02	1.00	0.76	1.01	0.75	5.12
-1	4.15	2.79	2.04	1.49	1.35	1.01			1.12	0.85	4.70
-2	*4.00	2.83	2.06	1.51					1.47	1.10	3.93

Dozer: Down											
B (m)	2		3		4		5		MAX REACH		
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1.63	1.14			*1.65	1.04	4.30
3					*1.70	1.13			1.41	0.86	4.91
2			*2.60	1.64	1.85	1.09	1.32	0.79	1.24	0.75	5.21
1			2.81	1.54	1.80	1.05	1.30	0.77	1.23	0.73	5.28
0			2.75	1.49	1.76	1.02	1.28	0.71	1.27	0.75	5.12
-1	*5.23	2.79	2.75	1.49	1.75	1.01			1.44	0.85	4.70
-2	*4.00	2.83	*2.64	1.51					*1.87	1.10	3.93

# STANDARD EQUIPMENT

**ENGINE SYSTEM**

- Yanmar engine 4TNV94L, Stage IIIA, Natural Aspiration, 4 cylinder, 4 stroke, water cooled.
- Electronic throttle
- Engine oil filter
- Air filter with pre-cleaner
- Pre-filter with water separator
- Auto-idle speed control
- Aspiration, Natural
- Radiator, oil cooler, and cooling fan drive - direct drive
- Radiator dust mesh

**DRIVETRAIN**

- Hydraulic motor, one -piece two-gear piston and reducer
- 2-speed travel

**SWING SYSTEM**

- High-torque piston swing motor and automatic hydraulic release swing brake

**HYDRAULIC SYSTEM**

- Load sensing variable displacement pump
- Cylinders: boom, arm, bucket, dozer
- Swing with anti-reverse function

- Arm regeneration circuits
- Pilot control shut-off lever
- 2-working mode selection system: (Eco and Standard)
- Boom down holding valve

**DIGGING EQUIPMENT**

- 3,000 mm boom
- 1,600 mm arm
- Dozer blade
- 0.21 m<sup>3</sup> (SAE, heaped) bucket

**OPERATOR STATION**

- Pressurized and sealed cab with all-around visibility, front window wiper and removable lower window
- Air conditioner, heater, defroster and fresh air function
- Mechanical suspension seat
- AM/FM radio (includes phone calling /USB and Bluetooth)
- Glass-breaking hammer
- Cigarette lighter
- Cup holder
- Floor mat
- Storage box
- One key for all locks
- Rear view mirrors

**INSTRUMENTATION**

- LCD color monitor with alarms, maintenance reminder, fuel gauge, water temperature, fault code, working hour, etc.

**ELECTRICAL**

- Alternator 55 A
- One battery 12 V
- Work lights, 2 Cab front mounted, 1 boom mounted
- Starting, 12 V
- LiuGong telematics

**UNDERCARRIAGE**

- 400 mm track-shoes
- Rollers, bottom - 5 each side, top - 1 each side
- Towing eye on base frame

**GUARDS**

- Cover plate under travel frame

**OTHER STANDARD EQUIPMENT**

- Counterweight, 215 kg
- Maintenance tool kit
- Maintenance parts package
- Grease gun & grease bucket support

# OPTIONAL EQUIPMENT

**HYDRAULIC SYSTEM**

- Large flow single / two-way auxiliary hydraulic line (to stick)
- Aux large flow, foot pedal operated

**OPERATOR STATION**

- Operation protection guard (included cab front and top guard, bar)
- Operation protection screen (cab front, net)
- Fire extinguisher

**ENGINE SYSTEM**

- Refuelling pump

**ELECTRICAL**

- Travel alarm
- Rotating beacon

**UNDERCARRIAGE**

- 600 mm steel shoes
- 400 mm rubber shoes / steel shoes with rubber block
- Towing eye on base frame

**DIGGING EQUIPMENT**

- 0.21 m<sup>3</sup> bucket
- Bucket touch with dozer blade

**ADDITIONAL OPTIONS**

- Hydraulic hammer
- Auger





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