

**AIRMAN®**

# Zero Tail Swing Type Mini EXCAVATOR



AX40u-5F

ΔX27U-5F  
ΔX30U-5F  
ΔX35U-5F  
ΔX40U-5F  
ΔX50U-5F



AX35u-5F

**HOKUETSU INDUSTRIES CO., LTD.**

# Easy Maintenance, Toughness and Durability

Daily and periodical maintenance / inspection can be carried out easily and efficiently even on tight jobsites without having to move the machine to a bigger area.

## Sliding Engine Cover

The newly designed engine cover can slide up and down in order to allow maintenance and servicing in confined space.



Removable engine side cover to allow easy access to the engine. This cover is made of steel to allow easy repair when damaged.

## Finned Radiator and Oil Cooler for Effective Cooling



The radiator and oil cooler, made of rust-resistant aluminum, are integrated with wavy fins for effective cooling. Fins are easy to clean and hard to be packed with dirt.



## Tilt-up Canopy / Cabin

The cabin or canopy floor can be tilted up to 50 degrees to provide easy access to the excavators inner parts such as the swing motor, engine starter motor, control valve and other key components to reduce valuable inspection and maintenance time.

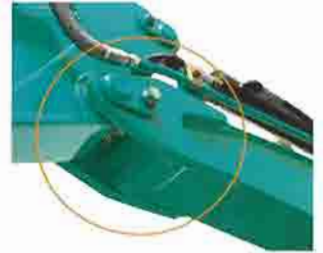






### **Reinforced Boom End** **New**

The boom end is made out of high tensile steel to reduce wearing of the pin that holds the arm.



### **Auxiliary Piping** **New**

Auxiliary piping size has been increased to reduce back pressure also a larger capacity selector valve has been used. (For model AX40u/50u)

### **Split-Type Front Hoses**



Split-Type Front Hoses are being used between the machine's cover ports and the bottom side of the boom to allow easy replacement in case of damage to one or more of the hoses.

### **Reinforced Angle-Steel type Boom Cylinder Guard** **New**

The boom cylinder guard is reinforced as it is now constructed from angle steel to prevent damages to the boom cylinder.



### **Single Swing Pin**



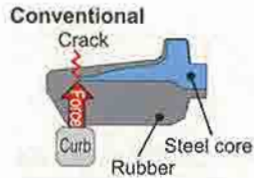
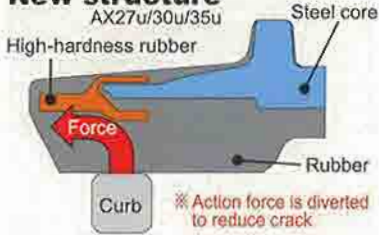
A large single swing pin is used for ease of operation with exceptionally smooth movement.

## New-Structure Rubber Crawlers

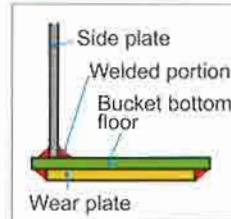
The Original-developed rubber crawlers are highly durable, featuring a steel-cored structure that protects shoe edges from being damaged even when riding on curbs.

### New structure

AX27u/30u/35u



## Durable Flat-Bottom Bucket



The flat-bottom bucket has wide wear plates welded to the bucket bottom to increase the durability.

## Grease-Bathed Type Swing Gear

Grease-Bathed Type Swing Gear, allowing longer lubrication interval times.

## WC (Tungsten Carbide) Thermal Spraying

The bush is sprayed with tungsten carbide to reduce friction between the bucket bush and arm bush which reduces wear and makes it more efficient.

## State of The Art Bushes

Hard wearing bushes are used for the front pins to reduce wear and tear and also make movement very smooth. Also longer lubrication intervals.



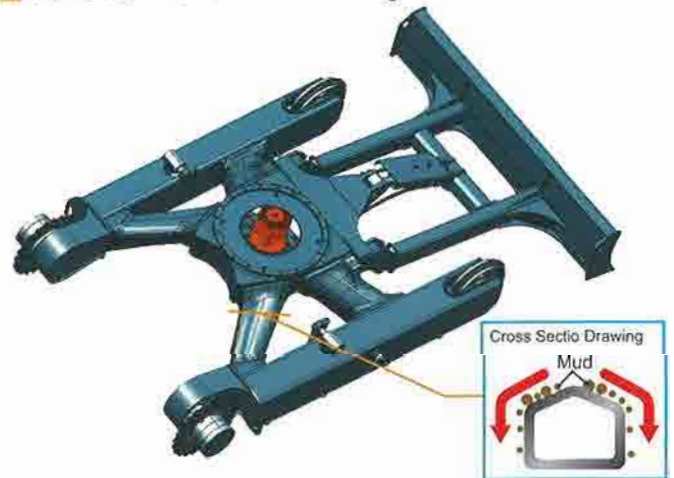
## Reinforced Blade New

The blade is designed as a box construction to improve strength and reliability of the blade.



## X-Beam Track Frame

Rounded X-beam track frame will minimize mud packing on the frame, which shortens washing time of the machine.



## ROPS/OPG Canoy and Cabin

Both canopy and cabin are compliant to the latest ROPS/TOPS and OPG top guard Lv.1 as standard.





# Easy Operation / Ecological Atmosphere

Increased swing speed and travel pulling force to allow more efficient operation.

## Powerful High Displacement Engine

New-generation ECO-powered engine with more power and higher efficiency.



## Smooth and Speedy Combined Operation of Functions

The matching between the 3 hydraulic pumps system on the AX27u / 30u and 35u and the arm recovery circuit is improved.

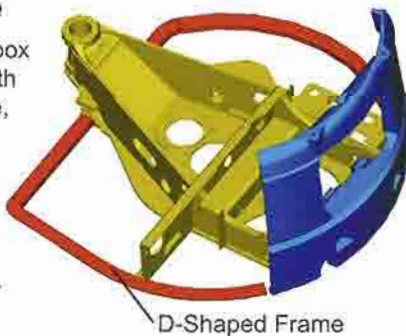
On the AX40u and 50u, the matching between the original hydraulic circuit (AHCS) and the arm recovery circuit is also improved.

## Hydraulic Pilot Control

The control levers are hydraulic pilot type for ease of operation and smooth movement.

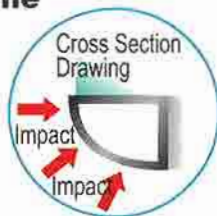
## Enlarged Counterweight and Box Type Frame

The newly developed box type frame which is both lightweight and durable, the enlarged counterweight and the more heavy undercarriage give a lower center of gravity thus improving stability.



## Reinforced D-Shaped Frame

The machine is reinforced with a strong D-shaped frame to protect the machine against damages and shocks.



## Automatic Travel Speed Control

During high speed travel, the speed is automatically switched down to low speed when the load increases due to steering and it is automatically resumed when the load decreases again.

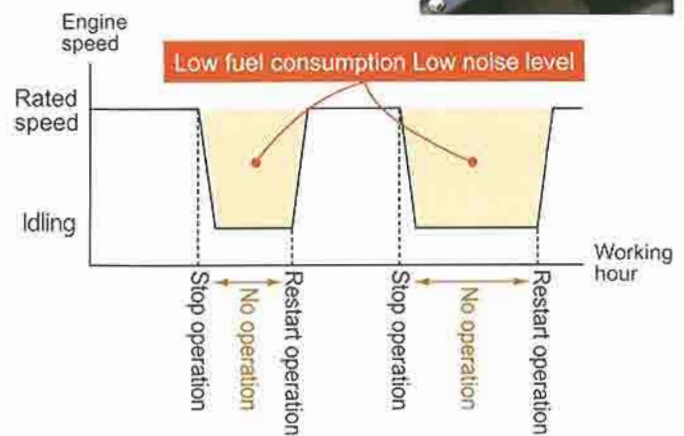
## High Fuel Efficiency (Eco Zone) **New**

The new setting of the Eco Zone results in more production with lower fuel consumption due to the optimal control of the engine speed and torque as well as the hydraulic pressure settings.

## Auto-Idle Device as Standard

AX30u ~ 50u

The engine speed is automatically lowered to idling speed to reduce fuel consumption when the control levers are at neutral position for 4 seconds.



## Hydraulic Oil Circulation Type Swing Reduction Gear

The swing reduction gear is a hydraulic oil circulation type that does not require troublesome gear oil change. Long-life hydraulic oil extends replacement interval up to 2000 hours. (This is depending on country and working conditions)

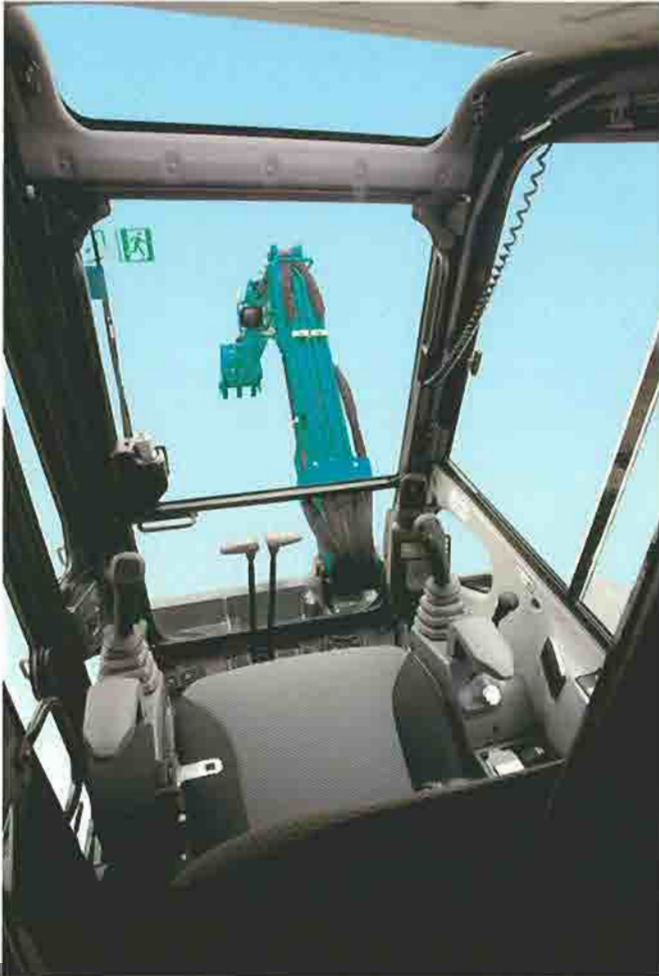


# Operator Comfort and Safety

Sufficient space and convenient options are offered to enlighten the operator's job.

## Largest Cabin Space in It's Class

The cabin space, conforming to the international standards, is the largest among the mini excavators for comfort and efficient operation.



## Renewed Cabin Interior Color

The consol and cab interior are painted with a new color ensuring comfortable atmosphere for an operator.



## Equipment

### Standard Equipment

- Auto-idling system (AX30u~50u)
- Reclining seat
- Seat belt
- Wrist rests
- Drink holder
- Electric horn
- Cigarette lighter (12V outlet)
- Floor mat
- Rearview mirror  
(AX40u/50u canopy)
- Two work lights

### Option

- Suspension seat
- Retractable seat belt
- Rearview mirror (AX27u/30u/35u canopy)

### Standard Equipment for Cabin

- Air conditioner
- AM/FM radio
- Window washer
- Defroster
- Ash tray
- Rearview mirror

### Cabin Option

- Suspension seat
- Retractable seat belt
- Spare power supply (outside 12V outlet)





### Comfortable Operator's Seat **New**

The operator's seat is designed for more comfort with a higher and more spacious back of the seat. The fabric seat is also available for the cabin model.



Canopy  
(Semi high backrest)



Cabin (High backrest)

### Easy-to Read Monitor

The large LCD monitor placed in the front right position, clearly shows the fuel level, coolant temperature and the status of various indicators to the operator.



### Storage Space

Seat backrest box



Tool box for canopy spec



The tool box is provided behind the operator's seat as standard for AX40u/50u only.

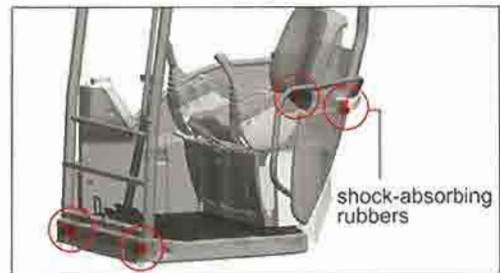
### Clear Roof Sun Visor (4 Pole Canopy)

A clear sun visor is mounted at the front of the roof to secure the visibility for upper operation.



### Shock-Absorbing Rubber Mounted Cabin / Canopy Floor

The cabin / canopy floor is mounted on 4 shock-absorbing rubbers to ensure comfortable operation.



### Pilot Control Shut-Off Lever and Neutral Engine Start System

All operations such as front swing, travel and blade are shut off when the pilot control lever is up. It prevents accidental movement. The engine can start only when the pilot control shut-off lever is locked. This is called the neutral engine start system. It eliminates unexpected operation.



### Brakes on Both The Swing and Travel Operation are equipped as Standard for Safety

# SPECIFICATIONS AX27u-5F

## ENGINE

|                          |  |
|--------------------------|--|
| Model.....               | Yanmar 3TNV88  |
| Type.....                | 4-cycle water-cooled, direct injection               |
| No. of cylinders.....    | 3  |
| Rated power              |  |
| ISO 9249, net.....       | 19.7 kW (26.4 HP) at 2 200 min <sup>-1</sup> (rpm)   |
| EEC 80/1269, net.....    | 19.7 kW (26.4 HP) at 2 200 min <sup>-1</sup> (rpm)   |
| SAE J1349, net.....      | 19.7 kW (26.4 HP) at 2 200 min <sup>-1</sup> (rpm)   |
| DIN 6271, net.....       | 19.5 kW (26.1 HP) at 2 200 min <sup>-1</sup> (rpm)   |
| Gross.....               | 20.2 kW (27.5 HP) at 2 200 min <sup>-1</sup> (rpm)   |
| Maximum torque.....      | 107 Nm (10.9 kgf m) at 1 000 min <sup>-1</sup> (rpm) |
| Piston displacement..... | 1.642 L  |
| Bore and stroke.....     | 88 mm x 90 mm  |
| Electric system          |  |
| Voltage.....             | 12 V   |
| Batteries.....           | 55 Ah  |
| Alternator.....          | 55 A   |
| Starter motor.....       | 1.7 kW   |

## HYDRAULIC SYSTEM

|                       |  |
|-----------------------|--|
| Main pumps.....       | 2 variable displacement axial piston pumps |
| .....                 | 1 gear pump                                |
| Maximum oil flow..... | 2 x 35.2 L/min                             |
| .....                 | 1 x 17.6 L/min                             |
| Pilot pump.....       | 1 gear pump                                |
| Maximum oil flow..... | 9.9 L/min                                  |

## Hydraulic Motors

|             |   |
|-------------|---|
| Travel..... | 2 variable displacement axial piston motors |
| Swing.....  | 1 axial piston motor                        |

## Relief Valve Settings

|                        |                                     |
|------------------------|-------------------------------------|
| Implement circuit..... | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |
| Swing circuit.....     | 18.6 MPa (190 kgf/cm <sup>2</sup> ) |
| Travel circuit.....    | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |
| Pilot circuit.....     | 3.9 MPa (40 kgf/cm <sup>2</sup> )   |
| Auxiliary circuit..... | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |

## Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinder to absorb shock at stroke ends.

## Dimensions

|            | Quantity | Bore  | Rod diameter | Stroke |
|------------|----------|-------|--------------|--------|
| Boom       | 1        | 75 mm | 45 mm        | 567 mm |
| Arm        | 1        | 65 mm | 40 mm        | 549 mm |
| Bucket     | 1        | 55 mm | 35 mm        | 437 mm |
| Blade      | 1        | 80 mm | 45 mm        | 135 mm |
| Boom swing | 1        | 75 mm | 40 mm        | 525 mm |

## CONTROLS

Hydraulic pilot control levers for all operations.

## FRONT ATTACHMENTS

### BACKHOE BUCKETS

| ISO 7451 capacity    | Width                |                   | No. of teeth | Weight | Front Attachment |           |
|----------------------|----------------------|-------------------|--------------|--------|------------------|-----------|
|                      | Without side cutters | With side cutters |              |        | AX27u-5F         |           |
|                      |                      |                   |              |        | 1.17m arm        | 1.47m arm |
| 0.05 m <sup>3</sup>  | 300 mm               | 350 mm            | 3            | 53 kg  | A                | A         |
| 0.06 m <sup>3</sup>  | 350 mm               | 400 mm            | 3            | 55 kg  | A                | A         |
| 0.07 m <sup>3</sup>  | 400 mm               | 450 mm            | 3            | 58 kg  | A                | A         |
| 0.08 m <sup>3</sup>  | 450 mm               | 500 mm            | 4            | 61 kg  | A                | B         |
| 0.09 m <sup>3</sup>  | 500 mm               | 550 mm            | 4            | 66 kg  | B                | B         |
| 0.10 m <sup>3</sup>  | 550 mm               | 600 mm            | 4            | 70 kg  | B                | C         |
| Arm crowd force      |                      |                   |              |        | 17.2 kN          | 14.7 kN   |
| Bucket digging force |                      |                   |              |        | 27.5 kN          | 27.5 kN   |

A: General digging B: Light-duty digging C: Loading

## UPPERSTRUCTURE

### Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

### Swing Device

Axial piston motor with planetary reduction gear is lubricated by hydraulic oil. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

|                   |                             |
|-------------------|-----------------------------|
| Swing speed.....  | 9.1 min <sup>-1</sup> (rpm) |
| Swing torque..... | 3.83 kN·m (390 kgf·m)       |

### Operator's Cab

Independent spacious cab, 960mm wide by 1,520mm high, conforming to ISO\* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened. Reclining seat.  
\* International Standardization Organization

## UNDERCARRIAGE

### Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame.

### Numbers of Rollers and Shoes on Each Side

|                    |   |
|--------------------|---|
| Upper rollers..... | 1 |
| Lower rollers..... | 4 |

### Travel Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable.

Parking brake is spring-set/hydraulic-released disc type.

|                             |                             |
|-----------------------------|-----------------------------|
| Travel speeds.....          | High : 0 to 4.5 km/h        |
| .....                       | Low : 0 to 2.6 km/h         |
| Maximum traction force..... | 27.3 kN (2,790 kgf)         |
| Gradeability.....           | 58 % (30 degree) continuous |

## WEIGHTS AND GROUND PRESSURE

AX27u-5F Equipped with 2.28m boom, 1.17m arm and 0.08m<sup>3</sup> bucket (ISO heaped).

|                                 | Operating weight | Ground pressure |
|---------------------------------|------------------|-----------------|
| <b>4-Pillars Canopy version</b> |                  |                 |
| 300 mm rubber shoes             | 2,840 kg         | 28 kPa          |
| 300 mm steel shoes              | 2,930 kg         | 30 kPa          |
| <b>Cabin version</b>            |                  |                 |
| 300 mm rubber shoes             | 3,010 kg         | 30 kPa          |
| 300 mm steel shoes              | 3,100 kg         | 31 kPa          |

\* Operating weight with 0.08m<sup>3</sup> bucket if fully serviced +80kg operator ISO 6016.

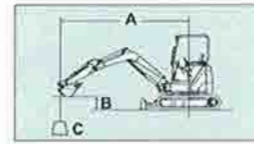
## SERVICE REFILL CAPACITIES

|                                |        |
|--------------------------------|--------|
| Fuel tank.....                 | 40.0 L |
| Engine coolant.....            | 5.0 L  |
| Engine oil.....                | 7.2 L  |
| Travel device (each side)..... | 0.6 L  |
| Hydraulic system.....          | 56.0 L |
| Hydraulic oil tank.....        | 32.0 L |



# LIFTING CAPACITIES

- Notes: 1. Ratings are based on SAE J1097.  
 2. Lifting capacity of the AX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.  
 3. The load point is a hook (not standard equipment) located on the back of the bucket.  
 4. \*Indicates load limited by hydraulic capacity.  
 5. 0 m = Ground.



- A: Load radius  
 B: Load point height  
 C: Lifting capacity

## AX27u-5F Canopy Version, Blade above Ground

Rating over-side or 360 degrees

Rating over-front

Unit: 1,000 kg

| Conditions                        | Load point height | Load radius |       |       |       |       |       |       |      | At max. reach |  |       |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|------|---------------|--|-------|
|                                   |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |      |               |  | meter |
|                                   |                   |             |       |       |       |       |       |       |      |               |  |       |
| Arm 1.17 m<br>Rubber shoes 300 mm | 3.0 m             |             |       |       |       | 0.49  | *0.54 |       |      |               |  | 3.98  |
|                                   | 2.0 m             |             |       |       |       | 0.48  | 0.54  | 0.29  | 0.33 |               |  | 4.40  |
|                                   | 1.0 m             |             |       |       |       | 0.44  | 0.51  | 0.28  | 0.32 |               |  | 4.48  |
|                                   | 0 (Ground)        |             |       |       |       | 0.42  | 0.48  | 0.27  | 0.31 |               |  | 4.22  |
|                                   | -1.0 m            | *1.58       | *1.58 | 0.79  | 0.94  | 0.41  | 0.48  |       |      |               |  | 3.53  |
|                                   | -2.0 m            |             |       | 0.83  | *0.91 |       |       |       |      |               |  |       |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |      | At max. reach |  |       |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|------|---------------|--|-------|
|  |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |      |               |  | meter |
|  |                   |             |       |       |       |       |       |       |      |               |  |       |
| Arm 1.17 m<br>Rubber shoes 300 mm<br>Additional counterweight 190 kg | 3.0 m             |             |       |       |       | *0.54 | *0.54 |       |      |               |  | 3.98  |
|  | 2.0 m             |             |       |       |       | 0.56  | 0.64  | 0.35  | 0.39 |               |  | 4.40  |
|  | 1.0 m             |             |       |       |       | 0.53  | 0.60  | 0.34  | 0.38 |               |  | 4.48  |
|  | 0 (Ground)        |             |       |       |       | 0.50  | 0.58  | 0.33  | 0.37 |               |  | 4.22  |
|  | -1.0 m            | *1.58       | *1.58 | 0.94  | 1.11  | 0.50  | 0.57  |       |      |               |  | 3.53  |
|  | -2.0 m            |             |       | *0.91 | *0.91 |       |       |       |      |               |  |       |

## AX27u-5F Canopy Version, Blade on Ground

| Conditions                        | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |  |       |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|--|-------|
|                                   |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |       |               |  | meter |
|                                   |                   |             |       |       |       |       |       |       |       |               |  |       |
| Arm 1.17 m<br>Rubber shoes 300 mm | 3.0 m             |             |       |       |       | 0.49  | *0.54 |       |       |               |  | 3.98  |
|                                   | 2.0 m             |             |       |       |       | 0.48  | *0.65 | 0.29  | *0.65 |               |  | 4.40  |
|                                   | 1.0 m             |             |       |       |       | 0.44  | *0.98 | 0.28  | *0.73 |               |  | 4.48  |
|                                   | 0 (Ground)        |             |       |       |       | 0.42  | *1.19 | 0.27  | *0.79 |               |  | 4.22  |
|                                   | -1.0 m            | *1.58       | *1.58 | 0.79  | *1.65 | 0.41  | *1.11 |       |       |               |  | 3.53  |
|                                   | -2.0 m            |             |       | 0.83  | *0.91 |       |       |       |       |               |  |       |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |  |       |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|--|-------|
|  |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |       |               |  | meter |
|  |                   |             |       |       |       |       |       |       |       |               |  |       |
| Arm 1.17 m<br>Rubber shoes 300 mm<br>Additional counterweight 190 kg | 3.0 m             |             |       |       |       | *0.54 | *0.54 |       |       |               |  | 3.98  |
|  | 2.0 m             |             |       |       |       | 0.56  | *0.65 | 0.35  | *0.65 |               |  | 4.40  |
|  | 1.0 m             |             |       |       |       | 0.53  | *0.98 | 0.34  | *0.73 |               |  | 4.48  |
|  | 0 (Ground)        |             |       |       |       | 0.50  | *1.19 | 0.33  | *0.79 |               |  | 4.22  |
|  | -1.0 m            | *1.58       | *1.58 | 0.94  | *1.65 | 0.50  | *1.11 |       |       |               |  | 3.53  |
|  | -2.0 m            |             |       | *0.91 | *0.91 |       |       |       |       |               |  |       |

# SPECIFICATIONS AX30u/35u-5F

## ENGINE

|                     |  |
|---------------------|--|
| Model               | Yanmar 3TNV88  |
| Type                | 4-cycle water-cooled, direct injection               |
| No. of cylinders    | 3  |
| Rated power         |  |
| ISO 9249, net       | 21.3 kW (28.5 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| EEC 80/1269, net    | 21.3 kW (28.5 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| SAE J1349, net      | 21.3 kW (28.5 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| DIN 6271, net       | 21.2 kW (28.4 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| Gross               | 22.0 kW (29.5 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| Maximum torque      | 106 Nm (10.8 kgf m) at 1 000 min <sup>-1</sup> (rpm) |
| Piston displacement | 1.642 L  |
| Bore and stroke     | 88 mm x 90 mm  |
| Electric system     |  |
| Voltage             | 12 V   |
| Batteries           | 55 Ah  |
| Alternator          | 55 A   |
| Starter motor       | 2.3 kW   |

## HYDRAULIC SYSTEM

|                  |  |
|------------------|--|
| Main pumps       | 2 variable displacement axial piston pumps |
|                  | 1 gear pump                                |
| Maximum oil flow | 2 x 38.4 L/min                             |
|                  | 1 x 25.2 L/min                             |
| Pilot pump       | 1 gear pump                                |
| Maximum oil flow | 10.8 L/min                                 |

## Hydraulic Motors

|        |   |
|--------|---|
| Travel | 2 variable displacement axial piston motors |
| Swing  | 1 axial piston motor                        |

## Relief Valve Settings

|                   |                                     |
|-------------------|-------------------------------------|
| Implement circuit | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |
| Swing circuit     | 14.8 MPa (150 kgf/cm <sup>2</sup> ) |
| Travel circuit    | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |
| Pilot circuit     | 3.9 MPa (40 kgf/cm <sup>2</sup> )   |
| Auxiliary circuit | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |

## Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinder to absorb shock at stroke ends.

## Dimensions

|            | Quantity | Bore  | Rod diameter | Stroke |
|------------|----------|-------|--------------|--------|
| Boom       | 1        | 80 mm | 45 mm        | 579 mm |
|            | 1        | 85 mm | 50 mm        | 576 mm |
| Arm        | 1        | 70 mm | 40 mm        | 546 mm |
|            | 1        | 75 mm | 45 mm        | 597 mm |
| Bucket     | 1        | 65 mm | 40 mm        | 435 mm |
|            | 1        | 65 mm | 40 mm        | 435 mm |
| Blade      | 1        | 85 mm | 45 mm        | 135 mm |
|            | 1        | 95 mm | 45 mm        | 140 mm |
| Boom swing | 1        | 85 mm | 45 mm        | 525 mm |
|            | 1        | 85 mm | 45 mm        | 525 mm |

Figure in  are data on the AX30u-5F  
Figure in  are data on the AX35u-5F

## CONTROLS

Hydraulic pilot control levers for all operations.

## FRONT ATTACHMENTS

### BACKHOE BUCKETS

| ISO 7451 capacity    | Width                |                   | No. of teeth | Weight | Front Attachment |           |           |           |
|----------------------|----------------------|-------------------|--------------|--------|------------------|-----------|-----------|-----------|
|                      | Without side cutters | With side cutters |              |        | AX30u-5F         |           | AX35u-5F  |           |
|                      |                      |                   |              |        | 1.17m arm        | 1.52m arm | 1.32m arm | 1.72m arm |
| 0.04 m <sup>3</sup>  | 250 mm               | 300 mm            | 3            | 55 kg  | A                | A         | A         | A         |
| 0.055 m <sup>3</sup> | 300 mm               | 350 mm            | 3            | 60 kg  | A                | A         | A         | A         |
| 0.065 m <sup>3</sup> | 350 mm               | 400 mm            | 3            | 65 kg  | A                | A         | A         | A         |
| 0.08 m <sup>3</sup>  | 400 mm               | 450 mm            | 3            | 67 kg  | A                | A         | A         | A         |
| 0.09 m <sup>3</sup>  | 450 mm               | 500 mm            | 4            | 73 kg  | A                | A         | A         | A         |
| 0.10 m <sup>3</sup>  | 500 mm               | 550 mm            | 4            | 76 kg  | A                | B         | A         | A         |
| 0.11 m <sup>3</sup>  | 550 mm               | 600 mm            | 4            | 80 kg  | B                | C         | A         | B         |
| 0.13 m <sup>3</sup>  | 600 mm               | 650 mm            | 4            | 84 kg  | C                | C         | B         | C         |
| Arm crowd force      |                      |                   |              |        | 17.2kN           | 14.7kN    | 19.1kN    | 17.2kN    |
| Bucket digging force |                      |                   |              |        | 27.5kN           | 27.5kN    | 27.5kN    | 27.5kN    |

A: General digging B: Light-duty digging C: Loading

## UPPERSTRUCTURE

### Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

### Swing Device

Axial piston motor with planetary reduction gear is lubricated by hydraulic oil. Swing circle is single-row, shear-type ball bearing with inductionhardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

|              |                             |
|--------------|-----------------------------|
| Swing speed  | 9.0 min <sup>-1</sup> (rpm) |
| Swing torque | 5.47 kN·m (558 kgf·m)       |

### Operator's Cab

Independent spacious cab, 960mm wide by 1,520mm high, conforming to ISO\* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened. Reclining seat.  
\* International Standardization Organization

## UNDERCARRIAGE

### Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame.

### Numbers of Rollers and Shoes on Each Side

|               |   |
|---------------|---|
| Upper rollers | 1 |
| Lower rollers | 4 |

### Travel Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable.

Parking brake is spring-set/hydraulic-released disc type.

|                        |                             |
|------------------------|-----------------------------|
| Travel speeds          | High : 0 to 4.4 km/h        |
|                        | Low : 0 to 2.9 km/h         |
| Maximum traction force | 27 kN (2,750 kgf)           |
| Gradeability           | 58 % (30 degree) continuous |

## WEIGHTS AND GROUND PRESSURE

AX30u-5F Equipped with 2.28m boom, 1.17m arm and 0.09m<sup>3</sup> bucket (ISO heaped). AX35u-5F Equipped with 2.47m boom, 1.32m arm and 0.11m<sup>3</sup> bucket (ISO heaped).

|                                 | AX30u-5F         |                 | AX35u-5F         |                 |
|---------------------------------|------------------|-----------------|------------------|-----------------|
|                                 | Operating weight | Ground pressure | Operating weight | Ground pressure |
| <b>4-Pillars Canopy version</b> |                  |                 |                  |                 |
| 300 mm rubber shoes             | 3,080 kg         | 28 kPa          | 3,520 kg         | 32 kPa          |
| 300 mm steel shoes              | 3,190 kg         | 28 kPa          | 3,630 kg         | 33 kPa          |
| <b>Cabin version</b>            |                  |                 |                  |                 |
| 300 mm rubber shoes             | 3,250 kg         | 29 kPa          | 3,690 kg         | 33 kPa          |
| 300 mm steel shoes              | 3,360 kg         | 30 kPa          | 3,800 kg         | 34 kPa          |

\* AX30u-5F Operating weight with 0.09m<sup>3</sup> bucket if fully serviced +80kg operator ISO 6016.  
\* AX35u-5F Operating weight with 0.11m<sup>3</sup> bucket if fully serviced +80kg operator ISO 6016.

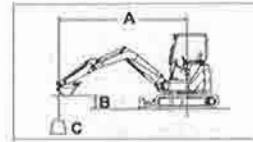
## SERVICE REFILL CAPACITIES

|                           |        |
|---------------------------|--------|
| Fuel tank                 | 40.0 L |
| Engine coolant            | 5.0 L  |
| Engine oil                | 7.2 L  |
| Travel device (each side) | 0.6 L  |
| Hydraulic system          | 56.0 L |
| Hydraulic oil tank        | 32.0 L |



# LIFTING CAPACITIES

- Notes: 1. Ratings are based on SAE J1097.  
 2. Lifting capacity of the AX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.  
 3. The load point is a hook (not standard equipment) located on the back of the bucket.  
 4. \*Indicates load limited by hydraulic capacity.  
 5. 0 m = Ground



- A: Load radius  
 B: Load point height  
 C: Lifting capacity

## AX30u-5F Canopy Version, Blade above Ground



Rating over-side or 360 degrees



Rating over-front

Unit: 1,000 kg

| Conditions                        | Load point height | Load radius |       |       |       |       |      |       |      | At max. reach |      |      |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|------|-------|------|---------------|------|------|
|                                   |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |      | 4.0 m |      | meter         |      |      |
|                                   |                   | ⊗           | ⊕     | ⊗     | ⊕     | ⊗     | ⊕    | ⊗     | ⊕    |               |      |      |
| Arm 1.17 m<br>Rubber shoes 300 mm | 3.0 m             |             |       |       |       |       |      |       |      | 0.31          | 0.41 | 4.21 |
|                                   | 2.0 m             |             |       |       |       | 0.55  | 0.71 | 0.33  | 0.43 | 0.26          | 0.34 | 4.61 |
|                                   | 1.0 m             |             |       |       |       | 0.50  | 0.66 | 0.32  | 0.42 | 0.24          | 0.32 | 4.68 |
|                                   | 0 (Ground)        |             |       |       |       | 0.48  | 0.63 | 0.31  | 0.40 | 0.26          | 0.34 | 4.44 |
|                                   | -1.0 m            | *1.61       | *1.61 | 0.91  | 1.26  | 0.47  | 0.63 |       |      | 0.34          | 0.45 | 3.79 |
|                                   | -2.0 m            |             |       | 0.94  | *1.18 |       |      |       |      |               |      |      |

| Conditions   | Load point height | Load radius |       |       |       |       |      |       |      | At max. reach |      |      |
|--|-------------------|-------------|-------|-------|-------|-------|------|-------|------|---------------|------|------|
|  |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |      | 4.0 m |      | meter         |      |      |
|  |                   | ⊗           | ⊕     | ⊗     | ⊕     | ⊗     | ⊕    | ⊗     | ⊕    |               |      |      |
| Arm 1.17 m<br>Rubber shoes 300 mm<br>Additional counterweight 190 kg | 3.0 m             |             |       |       |       |       |      |       |      | 0.37          | 0.47 | 4.21 |
|  | 2.0 m             |             |       |       |       | 0.64  | 0.81 | 0.39  | 0.50 | 0.31          | 0.40 | 4.61 |
|  | 1.0 m             |             |       |       |       | 0.59  | 0.77 | 0.38  | 0.49 | 0.29          | 0.38 | 4.68 |
|  | 0 (Ground)        |             |       |       |       | 0.56  | 0.73 | 0.37  | 0.47 | 0.31          | 0.41 | 4.44 |
|  | -1.0 m            | *1.61       | *1.61 | 1.06  | 1.45  | 0.56  | 0.73 |       |      | 0.40          | 0.52 | 3.79 |
|  | -2.0 m            |             |       | 1.09  | *1.18 |       |      |       |      |               |      |      |

## AX30u-5F Canopy Version, Blade on Ground

| Conditions                        | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |      |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|------|
|                                   |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |       | meter         |       |      |
|                                   |                   | ⊗           | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     |               |       |      |
| Arm 1.17 m<br>Rubber shoes 300 mm | 3.0 m             |             |       |       |       |       |       |       |       | 0.31          | *0.53 | 4.21 |
|                                   | 2.0 m             |             |       |       |       | 0.55  | *0.83 | 0.33  | *0.76 | 0.26          | *0.52 | 4.61 |
|                                   | 1.0 m             |             |       |       |       | 0.50  | *1.18 | 0.32  | *0.85 | 0.24          | *0.56 | 4.68 |
|                                   | 0 (Ground)        |             |       |       |       | 0.48  | *1.38 | 0.31  | *0.92 | 0.26          | *0.66 | 4.44 |
|                                   | -1.0 m            | *1.61       | *1.61 | 0.91  | *2.07 | 0.47  | *1.29 |       |       | 0.34          | *0.76 | 3.79 |
|                                   | -2.0 m            |             |       | 0.94  | *1.18 |       |       |       |       |               |       |      |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |      |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|------|
|  |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |       | meter         |       |      |
|  |                   | ⊗           | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     |               |       |      |
| Arm 1.17 m<br>Rubber shoes 300 mm<br>Additional counterweight 190 kg | 3.0 m             |             |       |       |       |       |       |       |       | 0.37          | *0.53 | 4.21 |
|  | 2.0 m             |             |       |       |       | 0.64  | *0.83 | 0.39  | *0.76 | 0.31          | *0.52 | 4.61 |
|  | 1.0 m             |             |       |       |       | 0.59  | *1.18 | 0.38  | *0.85 | 0.29          | *0.56 | 4.68 |
|  | 0 (Ground)        |             |       |       |       | 0.56  | *1.38 | 0.37  | *0.92 | 0.31          | *0.66 | 4.44 |
|  | -1.0 m            | *1.61       | *1.61 | 1.06  | *2.07 | 0.56  | *1.29 |       |       | 0.40          | *0.76 | 3.79 |
|  | -2.0 m            |             |       | 1.09  | *1.18 |       |       |       |       |               |       |      |

## AX35u-5F Canopy Version, Blade above Ground, 1.32m Arm

| Conditions                        | Load point height | Load radius |       |       |      |       |      |       |      | At max. reach |      |      |
|-----------------------------------|-------------------|-------------|-------|-------|------|-------|------|-------|------|---------------|------|------|
|                                   |                   | 1.0 m       |       | 2.0 m |      | 3.0 m |      | 4.0 m |      | meter         |      |      |
|                                   |                   | ⊗           | ⊕     | ⊗     | ⊕    | ⊗     | ⊕    | ⊗     | ⊕    |               |      |      |
| Arm 1.32 m<br>Rubber shoes 300 mm | 3.0 m             |             |       |       |      |       |      | 0.48  | 0.49 | 0.38          | 0.39 | 4.58 |
|                                   | 2.0 m             |             |       |       |      | 0.76  | 0.80 | 0.47  | 0.49 | 0.32          | 0.33 | 4.94 |
|                                   | 1.0 m             |             |       |       |      | 0.70  | 0.74 | 0.45  | 0.47 | 0.31          | 0.32 | 5.00 |
|                                   | 0 (Ground)        |             |       |       |      | 0.66  | 0.70 | 0.43  | 0.45 | 0.33          | 0.34 | 4.78 |
|                                   | -1.0 m            | *1.58       | *1.58 | 1.29  | 1.39 | 0.66  | 0.69 | 0.42  | 0.44 | 0.40          | 0.42 | 4.22 |
|                                   | -2.0 m            |             |       | 1.32  | 1.42 | 0.68  | 0.71 |       |      |               |      |      |

| Conditions   | Load point height | Load radius |       |       |      |       |       |       |      | At max. reach |      |      |
|--|-------------------|-------------|-------|-------|------|-------|-------|-------|------|---------------|------|------|
|  |                   | 1.0 m       |       | 2.0 m |      | 3.0 m |       | 4.0 m |      | meter         |      |      |
|  |                   | ⊗           | ⊕     | ⊗     | ⊕    | ⊗     | ⊕     | ⊗     | ⊕    |               |      |      |
| Arm 1.32 m<br>Rubber shoes 300 mm<br>Additional counterweight 230 kg | 3.0 m             |             |       |       |      |       |       | 0.56  | 0.59 | 0.45          | 0.47 | 4.58 |
|  | 2.0 m             |             |       |       |      | *0.86 | *0.86 | 0.55  | 0.58 | 0.39          | 0.41 | 4.94 |
|  | 1.0 m             |             |       |       |      | 0.83  | 0.87  | 0.53  | 0.56 | 0.37          | 0.39 | 5.00 |
|  | 0 (Ground)        |             |       |       |      | 0.79  | 0.83  | 0.51  | 0.54 | 0.40          | 0.41 | 4.78 |
|  | -1.0 m            | *1.58       | *1.58 | 1.51  | 1.64 | 0.78  | 0.82  | 0.51  | 0.53 | 0.48          | 0.50 | 4.22 |
|  | -2.0 m            |             |       | 1.55  | 1.67 | 0.80  | 0.84  |       |      |               |      |      |

## AX35u-5F Canopy Version, Blade on Ground, 1.32m Arm

| Conditions                        | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |      |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|------|
|                                   |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |       | meter         |       |      |
|                                   |                   | ⊗           | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     |               |       |      |
| Arm 1.32 m<br>Rubber shoes 300 mm | 3.0 m             |             |       |       |       |       |       | 0.48  | *0.71 | 0.38          | *0.52 | 4.58 |
|                                   | 2.0 m             |             |       |       |       | 0.76  | *0.86 | 0.47  | *0.77 | 0.32          | *0.52 | 4.94 |
|                                   | 1.0 m             |             |       |       |       | 0.70  | *1.29 | 0.45  | *0.91 | 0.31          | *0.55 | 5.00 |
|                                   | 0 (Ground)        |             |       |       |       | 0.66  | *1.54 | 0.43  | *1.02 | 0.33          | *0.64 | 4.78 |
|                                   | -1.0 m            | *1.58       | *1.58 | 1.29  | *2.37 | 0.66  | *1.49 | 0.42  | *0.98 | 0.40          | *0.81 | 4.22 |
|                                   | -2.0 m            |             |       | 1.32  | *1.73 | 0.68  | *1.10 |       |       |               |       |      |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |      |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|------|
|  |                   | 1.0 m       |       | 2.0 m |       | 3.0 m |       | 4.0 m |       | meter         |       |      |
|  |                   | ⊗           | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     | ⊗     | ⊕     |               |       |      |
| Arm 1.32 m<br>Rubber shoes 300 mm<br>Additional counterweight 230 kg | 3.0 m             |             |       |       |       |       |       | 0.56  | *0.71 | 0.45          | *0.52 | 4.58 |
|  | 2.0 m             |             |       |       |       | *0.86 | *0.86 | 0.55  | *0.77 | 0.39          | *0.52 | 4.94 |
|  | 1.0 m             |             |       |       |       | 0.83  | *1.29 | 0.53  | *0.91 | 0.37          | *0.55 | 5.00 |
|  | 0 (Ground)        |             |       |       |       | 0.79  | *1.54 | 0.51  | *1.02 | 0.40          | *0.64 | 4.78 |
|  | -1.0 m            | *1.58       | *1.58 | 1.51  | *2.37 | 0.78  | *1.49 | 0.51  | *0.98 | 0.48          | *0.81 | 4.22 |
|  | -2.0 m            |             |       | 1.55  | *1.73 | 0.80  | *1.10 |       |       |               |       |      |



# SPECIFICATIONS

## AX40u/50u-5F

### ENGINE

|                          |  |
|--------------------------|--|
| Model.....               | Yanmar 4TNV88  |
| Type.....                | 4-cycle water-cooled, direct injection               |
| No. of cylinders.....    | 4  |
| Rated power              |  |
| ISO 9249, net.....       | 28.4 kW (38.1 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| EEC 80/1269, net.....    | 28.4 kW (38.1 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| SAE J1349, net.....      | 28.4 kW (38.1 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| DIN 6271, net.....       | 28.2 kW (37.8 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| Gross.....               | 29.5 kW (39.5 HP) at 2 400 min <sup>-1</sup> (rpm)   |
| Maximum torque.....      | 141 Nm (14.4 kgf m) at 1 100 min <sup>-1</sup> (rpm) |
| Piston displacement..... | 2.189 L  |
| Bore and stroke.....     | 88 mm x 90 mm  |
| Electric system          |  |
| Voltage.....             | 12 V   |
| Batteries.....           | 72 Ah  |
| Alternator.....          | 55 A   |
| Starter motor.....       | 2.3 kW   |

### HYDRAULIC SYSTEM

|                       |  |
|-----------------------|--|
| Main pumps.....       | 1 variable displacement axial piston pumps |
| Maximum oil flow..... | 1 x 120 L/min                              |
| Pilot pump.....       | 1 gear pump                                |
| Maximum oil flow..... | 12.0 L/min                                 |

### Hydraulic Motors

|             |   |
|-------------|---|
| Travel..... | 2 variable displacement axial piston motors |
| Swing.....  | 1 axial piston motor                        |

### Relief Valve Settings

|                        |                                     |
|------------------------|-------------------------------------|
| Implement circuit..... | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |
| Swing circuit.....     | 18.1 MPa (185 kgf/cm <sup>2</sup> ) |
| Travel circuit.....    | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |
| Pilot circuit.....     | 5.9 MPa (60.2 kgf/cm <sup>2</sup> ) |
| Auxiliary circuit..... | 24.5 MPa (250 kgf/cm <sup>2</sup> ) |

### Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinder to absorb shock at stroke ends.

### Dimensions

|            | Quantity | Bore   | Rod diameter | Stroke |
|------------|----------|--------|--------------|--------|
| Boom       | 1        | 90 mm  | 55 mm        | 702 mm |
|            | 1        | 95 mm  | 55 mm        | 702 mm |
| Arm        | 1        | 80 mm  | 50 mm        | 698 mm |
|            | 1        | 80 mm  | 50 mm        | 731 mm |
| Bucket     | 1        | 70 mm  | 40 mm        | 551 mm |
|            | 1        | 75 mm  | 45 mm        | 551 mm |
| Blade      | 1        | 105 mm | 50 mm        | 140 mm |
|            | 1        | 105 mm | 50 mm        | 140 mm |
| Boom swing | 1        | 90 mm  | 50 mm        | 140 mm |
|            | 1        | 90 mm  | 50 mm        | 664 mm |

Figure in    are data on the AX40u-5F

Figure in    are data on the AX50u-5F

### CONTROLS

Hydraulic pilot control levers for all operations.

### FRONT ATTACHMENTS

#### BACKHOE BUCKETS

| ISO 7451 capacity    | Width                |                   | No. of teeth | Weight | Front Attachment |           |           |           |
|----------------------|----------------------|-------------------|--------------|--------|------------------|-----------|-----------|-----------|
|                      | Without side cutters | With side cutters |              |        | AX40u-5F         |           | AX50u-5F  |           |
|                      |                      |                   |              |        | 1.38m arm        | 1.69m arm | 1.38m arm | 1.69m arm |
| 0.10 m <sup>3</sup>  | 400 mm               | 450 mm            | 3            | 92 kg  | A                | A         | A         | A         |
| 0.11 m <sup>3</sup>  | 450 mm               | 500 mm            | 3            | 96 kg  | A                | A         | A         | A         |
| 0.13 m <sup>3</sup>  | 500 mm               | 550 mm            | 4            | 104 kg | A                | A         | A         | A         |
| 0.14 m <sup>3</sup>  | 550 mm               | 600 mm            | 4            | 109 kg | A                | C         | A         | A         |
| 0.16 m <sup>3</sup>  | 600 mm               | 650 mm            | 4            | 113 kg | C                | C         | A         | B         |
| 0.17 m <sup>3</sup>  | 650 mm               | 700 mm            | 4            | 120 kg | C                | C         | B         | C         |
| Arm crowd force      |                      |                   |              |        | 24.0kN           | 21.0kN    | 24.0kN    | 21.0kN    |
| Bucket digging force |                      |                   |              |        | 32.1kN           | 32.1kN    | 36.8kN    | 36.8kN    |

A: General digging B: Light-duty digging C: Loading

### UPPERSTRUCTURE

#### Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

#### Swing Device

Axial piston motor with planetary reduction gear is lubricated by hydraulic oil. Swing circle is single-row, shear-type ball bearing with inductionhardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

|                   |                             |
|-------------------|-----------------------------|
| Swing speed.....  | 9.0 min <sup>-1</sup> (rpm) |
| Swing torque..... | 8.92 kN·m (910 kgf·m)       |

#### Operator's Cab

Independent spacious cab, 960mm wide by 1,520mm high, conforming to ISO\* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened. Reclining seat.  
\* International Standardization Organization

### UNDERCARRIAGE

#### Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame.

#### Numbers of Rollers and Shoes on Each Side

|                    |   |
|--------------------|---|
| Upper rollers..... | 1 |
| Lower rollers..... | 4 |

#### Travel Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable.

Parking brake is spring-set/hydraulic-released disc type.

|                             |                             |
|-----------------------------|-----------------------------|
| Travel speeds.....          | High : 0 to 4.2 km/h        |
|                             | Low : 0 to 2.7 km/h         |
| Maximum traction force..... | 38.3 kN (3,905 kgf)         |
| Gradeability.....           | 58 % (30 degree) continuous |

### WEIGHTS AND GROUND PRESSURE

AX40u-5F Equipped with 2.68 m boom, 1.38 m arm and 0.14 m<sup>3</sup> bucket (ISO heaped). AX50u-5F Equipped with 2.85m boom, 1.38m arm and 0.16m<sup>3</sup> bucket (ISO heaped).

|                                 | AX40u-5F         |                 | AX50u-5F         |                 |
|---------------------------------|------------------|-----------------|------------------|-----------------|
|                                 | Operating weight | Ground pressure | Operating weight | Ground pressure |
| <b>4-Pillars Canopy version</b> |                  |                 |                  |                 |
| 400 mm rubber shoes             | 4,570 kg         | 26 kPa          | 4,900(5,180) kg  | 28(29) kPa      |
| 400 mm steel shoes              | 4,640 kg         | 26 kPa          | 4,970(5,250) kg  | 28(29) kPa      |
| <b>Cabin version</b>            |                  |                 |                  |                 |
| 400 mm rubber shoes             | 4,730 kg         | 27 kPa          | 5,060(5,340) kg  | 29(30) kPa      |
| 400 mm steel shoes              | 4,800 kg         | 27 kPa          | 5,130(5,410) kg  | 29(30) kPa      |

\* AX40u-5F Operating weight with 0.14m<sup>3</sup> bucket if fully serviced +80kg operator ISO 6016.

\* AX50u-5F Operating weight with 0.16m<sup>3</sup> bucket if fully serviced +80kg operator ISO 6016. The figure in ( ) shows the machine equipped with long arm and add. counterweight.

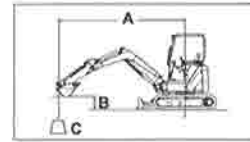
### SERVICE REFILL CAPACITIES

|                                |        |
|--------------------------------|--------|
| Fuel tank.....                 | 70.0 L |
| Engine coolant.....            | 6.5 L  |
| Engine oil.....                | 8.6 L  |
| Travel device (each side)..... | 0.9 L  |
| Hydraulic system.....          | 77.0 L |
| Hydraulic oil tank.....        | 50.0 L |



# LIFTING CAPACITIES

- Notes: 1. Ratings are based on SAE J1097.  
 2. Lifting capacity of the AX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.  
 3. The load point is a hook (not standard equipment) located on the back of the bucket.  
 4. \*Indicates load limited by hydraulic capacity.  
 5. 0 m = Ground.



- A: Load radius  
 B: Load point height  
 C: Lifting capacity

## AX40u-5F Canopy Version, Blade above Ground, 1.38m Arm



Rating over-side or 360 degrees



Rating over-front

Unit: 1,000 kg

| Conditions                        | Load point height | Load radius |       |       |      |       |      |       |      | At max. reach |       |       |
|-----------------------------------|-------------------|-------------|-------|-------|------|-------|------|-------|------|---------------|-------|-------|
|                                   |                   | 2.0 m       |       | 3.0 m |      | 4.0 m |      | 5.0 m |      | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm | 4.0 m             |             |       |       |      |       |      |       |      | 0.52          | 0.65  | 4.56  |
|                                   | 3.0 m             |             |       |       |      | 0.65  | 0.80 |       |      | 0.40          | 0.50  | 5.20  |
|                                   | 2.0 m             |             |       | 1.01  | 1.27 | 0.62  | 0.77 | 0.41  | 0.51 | 0.34          | 0.44  | 5.49  |
|                                   | 1.0 m             |             |       | 0.90  | 1.15 | 0.58  | 0.73 | 0.39  | 0.50 | 0.33          | 0.42  | 5.51  |
|                                   | 0 (Ground)        |             |       | 0.85  | 1.10 | 0.55  | 0.70 | 0.38  | 0.49 | 0.35          | 0.45  | 5.26  |
|                                   | -1.0 m            | 1.75        | 2.39  | 0.85  | 1.10 | 0.54  | 0.69 |       |      | 0.43          | 0.55  | 4.69  |
|                                   | -2.0 m            | 1.80        | *1.91 | 0.88  | 1.13 |       |      |       |      |               |       |       |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |      | At max. reach |       |       |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|------|---------------|-------|-------|
|  |                   | 2.0 m       |       | 3.0 m |       | 4.0 m |       | 5.0 m |      | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm<br>Additional counterweight 220 kg | 4.0 m             |             |       |       |       |       |       |       |      | 0.60          | *0.68 | 4.56  |
|  | 3.0 m             |             |       |       |       | 0.74  | *0.89 |       |      | 0.46          | 0.57  | 5.20  |
|  | 2.0 m             |             |       | 1.14  | *1.34 | 0.71  | 0.88  | 0.48  | 0.59 | 0.41          | 0.51  | 5.49  |
|  | 1.0 m             |             |       | 1.03  | 1.31  | 0.67  | 0.83  | 0.46  | 0.58 | 0.39          | 0.49  | 5.51  |
|  | 0 (Ground)        |             |       | 0.99  | 1.26  | 0.64  | 0.80  | 0.45  | 0.56 | 0.42          | 0.53  | 5.26  |
|  | -1.0 m            | 1.99        | *2.47 | 0.99  | 1.26  | 0.63  | 0.79  |       |      | 0.51          | 0.64  | 4.69  |
|  | -2.0 m            | *1.91       | *1.91 | 1.01  | 1.29  |       |       |       |      |               |       |       |

## AX40u-5F Canopy Version, Blade on Ground, 1.38m Arm

| Conditions                        | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |       |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|
|                                   |                   | 2.0 m       |       | 3.0 m |       | 4.0 m |       | 5.0 m |       | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm | 4.0 m             |             |       |       |       |       |       |       |       | 0.52          | *0.68 | 4.56  |
|                                   | 3.0 m             |             |       |       |       | 0.65  | *0.89 |       |       | 0.40          | *0.65 | 5.20  |
|                                   | 2.0 m             |             |       | 1.01  | *1.34 | 0.62  | *1.04 | 0.41  | *0.93 | 0.34          | *0.66 | 5.49  |
|                                   | 1.0 m             |             |       | 0.90  | *2.00 | 0.58  | *1.26 | 0.39  | *0.99 | 0.33          | *0.71 | 5.51  |
|                                   | 0 (Ground)        |             |       | 0.85  | *2.16 | 0.55  | *1.39 | 0.38  | *1.01 | 0.35          | *0.82 | 5.26  |
|                                   | -1.0 m            | 1.75        | *2.47 | 0.85  | *1.95 | 0.54  | *1.32 |       |       | 0.43          | *0.88 | 4.69  |
|                                   | -2.0 m            | 1.80        | *1.91 | 0.88  | *1.41 |       |       |       |       |               |       |       |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |       |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|
|  |                   | 2.0 m       |       | 3.0 m |       | 4.0 m |       | 5.0 m |       | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm<br>Additional counterweight 220 kg | 4.0 m             |             |       |       |       |       |       |       |       | 0.60          | *0.68 | 4.56  |
|  | 3.0 m             |             |       |       |       | 0.74  | *0.89 |       |       | 0.46          | *0.65 | 5.20  |
|  | 2.0 m             |             |       | 1.14  | *1.34 | 0.71  | *1.04 | 0.48  | *0.93 | 0.41          | *0.66 | 5.49  |
|  | 1.0 m             |             |       | 1.03  | *2.00 | 0.67  | *1.26 | 0.46  | *0.99 | 0.39          | *0.71 | 5.51  |
|  | 0 (Ground)        |             |       | 0.99  | *2.16 | 0.64  | *1.39 | 0.45  | *1.01 | 0.42          | *0.82 | 5.26  |
|  | -1.0 m            | 1.99        | *2.47 | 0.99  | *1.95 | 0.63  | *1.32 |       |       | 0.51          | *0.88 | 4.69  |
|  | -2.0 m            | *1.91       | *1.91 | 1.01  | *1.41 |       |       |       |       |               |       |       |

## AX50u-5F Canopy Version, Blade above Ground, 1.38m Arm

| Conditions                        | Load point height | Load radius |       |       |      |       |       |       |      | At max. reach |       |       |
|-----------------------------------|-------------------|-------------|-------|-------|------|-------|-------|-------|------|---------------|-------|-------|
|                                   |                   | 2.0 m       |       | 3.0 m |      | 4.0 m |       | 5.0 m |      | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm | 4.0 m             |             |       |       |      |       |       |       |      | *0.56         | *0.56 | 4.82  |
|                                   | 3.0 m             |             |       |       |      | 0.79  | *0.93 |       |      | 0.46          | *0.53 | 5.42  |
|                                   | 2.0 m             |             |       | 1.20  | 1.45 | 0.75  | 0.90  | 0.51  | 0.61 | 0.41          | 0.49  | 5.69  |
|                                   | 1.0 m             |             |       |       |      | 0.71  | 0.85  | 0.49  | 0.59 | 0.39          | 0.47  | 5.71  |
|                                   | 0 (Ground)        |             |       | 1.05  | 1.28 | 0.68  | 0.82  | 0.48  | 0.58 | 0.42          | 0.50  | 5.48  |
|                                   | -1.0 m            | *2.04       | *2.04 | 1.05  | 1.29 | 0.67  | 0.81  |       |      | 0.50          | 0.60  | 4.94  |
|                                   | -2.0 m            | 2.19        | *2.43 | 1.07  | 1.31 | 0.68  | 0.83  |       |      |               |       |       |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |      | At max. reach |       |       |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|------|---------------|-------|-------|
|  |                   | 2.0 m       |       | 3.0 m |       | 4.0 m |       | 5.0 m |      | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm<br>Additional counterweight 220 kg | 4.0 m             |             |       |       |       |       |       |       |      | *0.56         | *0.56 | 4.82  |
|  | 3.0 m             |             |       |       |       | 0.88  | *0.93 |       |      | 0.52          | *0.53 | 5.42  |
|  | 2.0 m             |             |       | 1.34  | *1.52 | 0.85  | 1.00  | 0.58  | 0.69 | 0.47          | *0.54 | 5.69  |
|  | 1.0 m             |             |       |       |       | 0.80  | 0.95  | 0.56  | 0.67 | 0.45          | 0.54  | 5.71  |
|  | 0 (Ground)        |             |       | 1.18  | 1.44  | 0.77  | 0.92  | 0.55  | 0.65 | 0.48          | 0.57  | 5.48  |
|  | -1.0 m            | *2.04       | *2.04 | 1.18  | 1.45  | 0.76  | 0.91  |       |      | 0.57          | 0.68  | 4.94  |
|  | -2.0 m            | 2.43        | *2.43 | 1.21  | 1.47  | 0.78  | 0.93  |       |      |               |       |       |

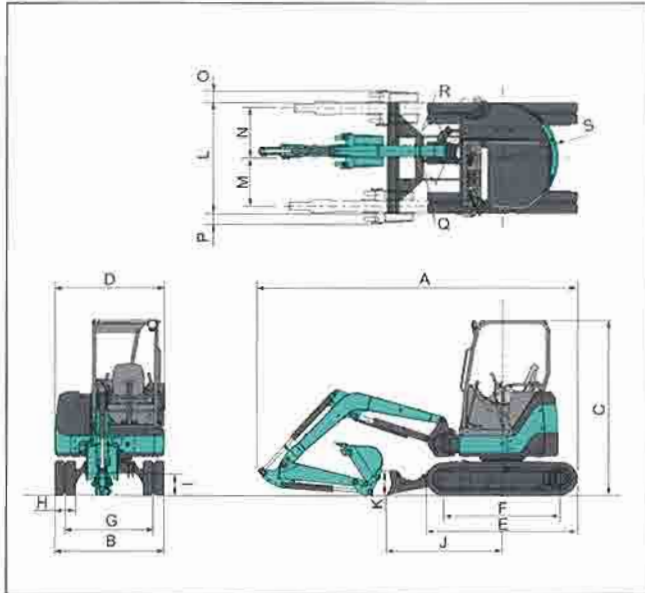
## AX50u-5F Canopy Version, Blade on Ground, 1.38m Arm

| Conditions                        | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |       |
|-----------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|
|                                   |                   | 2.0 m       |       | 3.0 m |       | 4.0 m |       | 5.0 m |       | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm | 4.0 m             |             |       |       |       |       |       |       |       | *0.56         | *0.56 | 4.82  |
|                                   | 3.0 m             |             |       |       |       | 0.79  | *0.93 |       |       | 0.48          | *0.53 | 5.42  |
|                                   | 2.0 m             |             |       | 1.20  | *1.52 | 0.75  | *1.13 | 0.51  | *1.00 | 0.41          | *0.54 | 5.69  |
|                                   | 1.0 m             |             |       |       |       | 0.71  | *1.40 | 0.49  | *1.09 | 0.39          | *0.58 | 5.71  |
|                                   | 0 (Ground)        |             |       | 1.05  | *2.42 | 0.68  | *1.56 | 0.48  | *1.14 | 0.42          | *0.66 | 5.48  |
|                                   | -1.0 m            | *2.04       | *2.04 | 1.05  | *2.22 | 0.67  | *1.52 |       |       | 0.50          | *0.82 | 4.94  |
|                                   | -2.0 m            | 2.19        | *2.43 | 1.07  | *1.74 | 0.68  | *1.17 |       |       |               |       |       |

| Conditions   | Load point height | Load radius |       |       |       |       |       |       |       | At max. reach |       |       |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|
|  |                   | 2.0 m       |       | 3.0 m |       | 4.0 m |       | 5.0 m |       | meter         | meter | meter |
| Arm 1.38 m<br>Rubber shoes 400 mm<br>Additional counterweight 220 kg | 4.0 m             |             |       |       |       |       |       |       |       | *0.56         | *0.56 | 4.82  |
|  | 3.0 m             |             |       |       |       | 0.88  | *0.93 |       |       | 0.52          | *0.53 | 5.42  |
|  | 2.0 m             |             |       | 1.34  | *1.52 | 0.85  | *1.13 | 0.58  | *1.00 | 0.47          | *0.54 | 5.69  |
|  | 1.0 m             |             |       |       |       | 0.80  | *1.40 | 0.56  | *1.09 | 0.45          | *0.58 | 5.71  |
|  | 0 (Ground)        |             |       | 1.18  | *2.42 | 0.77  | *1.56 | 0.55  | *1.14 | 0.48          | *0.66 | 5.48  |
|  | -1.0 m            | *2.04       | *2.04 | 1.18  | *2.22 | 0.76  | *1.52 |       |       | 0.57          | *0.82 | 4.94  |
|  | -2.0 m            | *2.43       | *2.43 | 1.21  | *1.74 | 0.78  | *1.17 |       |       |               |       |       |

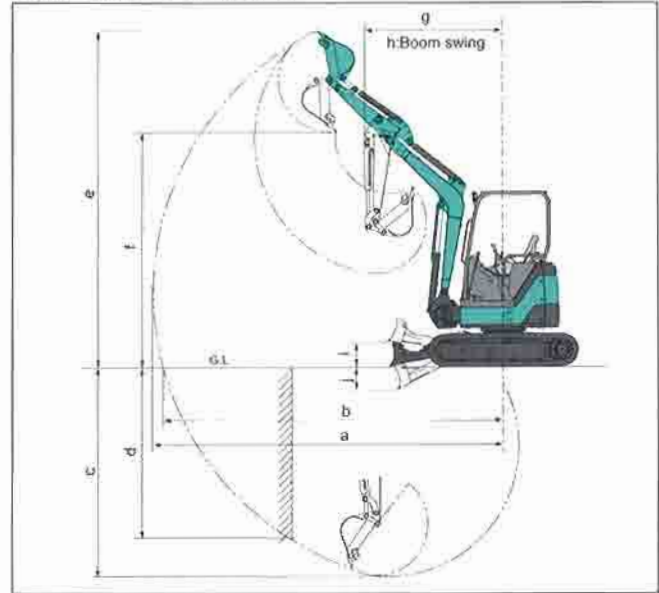
# DIMENSIONS & WORKING RANGES

## ● DIMENSIONS



Note:  
The illustration shows the AX30u-5F canopy version equipped with 1.17m arm and 300mm rubber shoes.

## ● WORKING RANGES



Note:  
The illustration shows the AX30u-5F canopy version equipped with 0.09m<sup>3</sup> bucket, 1.52m arm and 300mm rubber shoes.

## ● DIMENSIONS & WORKING RANGES

Unit: mm

| Item                           |   | Model | ΔX27U-5F     |              | ΔX30U-5F     |              | ΔX35U-5F     |              | ΔX40U-5F     |              | ΔX50U-5F     |              |       |  |
|--------------------------------|---|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|--|
| Shoe type                      |   |       |              |              |              |              |              |              |              |              |              |              |       |  |
| Roof type                      |   |       | Canopy       |              | Cabin        |              | Canopy       |              | Cabin        |              | Canopy       |              | Cabin |  |
| DIMENSIONS                     | A: Max. transport length (with long arm)        | mm    | 4,200(4,280) |              | 4,450(4,560) |              | 4,650(4,780) |              | 5,340(5,380) |              | 5,460(5,520) |              |       |  |
|                                | B: Undercarriage width                          | mm    | 1,550        |              | 1,550        |              | 1,740        |              | 1,990        |              | 2,000        |              |       |  |
|                                | C: Overall height                               | mm    | 2,460        | 2,500        | 2,460        | 2,500        | 2,460        | 2,500        | 2,510        | 2,550        | 2,510        | 2,550        |       |  |
|                                | D: Upper structure width                        | mm    | 1,550        |              | 1,550        |              | 1,550        |              | 1,960        |              | 1,850        |              |       |  |
|                                | E: Undercarriage length                         | mm    | 1,950        |              | 2,100        |              | 2,100        |              | 2,500        |              | 2,500        |              |       |  |
|                                | F: Sprocket center to idler center              | mm    | 1,490        |              | 1,650        |              | 1,650        |              | 1,990        |              | 1,990        |              |       |  |
|                                | G: Distance between undercarriage center        | mm    | 1,250        |              | 1,250        |              | 1,440        |              | 1,560        |              | 1,600        |              |       |  |
|                                | H: Track shoe width                             | mm    | 300          |              | 300          |              | 300          |              | 400          |              | 400          |              |       |  |
|                                | I: Min. ground clearance                        | mm    | 320          |              | 280          |              | 280          |              | 340          |              | 340          |              |       |  |
|                                | J: Parallel blade distance                      | mm    | 1,530        |              | 1,610        |              | 1,610        |              | 1,720        |              | 1,720        |              |       |  |
|                                | K: Blade height                                 | mm    | 320          |              | 355          |              | 355          |              | 360          |              | 360          |              |       |  |
|                                | L: Blade width                                  | mm    | 1,550        |              | 1,550        |              | 1,740        |              | 1,960        |              | 2,000        |              |       |  |
|                                | M: Left offset distance                         | mm    | 605          |              | 605          |              | 605          |              | 695          |              | 695          |              |       |  |
|                                | N: Right offset distance                        | mm    | 740          | 700          | 740          | 700          | 740          | 700          | 740          | 700          | 860          | 860          |       |  |
|                                | O: Right over width                             | mm    | 215          | 175          | 215          | 175          | 215          | 130          | 215          | 130          | 180          | 185          |       |  |
|                                | P: Left over width                              | mm    | 80           |              | 80           |              | 35           |              | 15           |              | 20           |              |       |  |
| Q: Left max. boom swing angle  | deg   | 72    | 62           | 72           | 62           | 72           | 62           | 72           | 62           | 80           | 80           |              |       |  |
| R: Right max. boom swing angle | deg   | 62    |              | 62           |              | 62           |              | 62           |              | 60           |              | 60           |       |  |
| S: Rear edge swing radius      | mm  | 775   |              | 775          |              | 870          |              | 980          |              | 1,000        |              |              |       |  |
| WORKING RANGES                 | a: Max. digging reach (with long arm)           | mm    | 4,670(4,920) |              | 4,890(5,170) |              | 5,210(5,520) |              | 5,740(6,030) |              | 5,940(6,240) |              |       |  |
|                                | b: Max. digging reach at ground                 | mm    | 4,530(4,780) |              | 4,760(4,890) |              | 5,080(5,390) |              | 5,590(5,880) |              | 5,800(6,100) |              |       |  |
|                                | c: Max. digging depth (with long arm)           | mm    | 2,590(2,890) |              | 2,780(3,130) |              | 3,050(3,450) |              | 3,340(3,650) |              | 3,550(3,860) |              |       |  |
|                                | d: Max. vertical wall (with long arm)           | mm    | 2,200(2,390) |              | 2,340(2,540) |              | 2,590(2,800) |              | 2,550(2,900) |              | 2,820(3,160) |              |       |  |
|                                | e: Max. cutting height (with long arm)          | mm    | 4,450(4,550) | 4,280(4,350) | 4,620(4,700) | 4,430(4,470) | 4,870(4,950) | 4,710(4,60)  | 5,600(5,840) | 5,480(5,700) | 5,760(6,010) | 5,630(5,870) |       |  |
|                                | f: Max. dumping height (with long arm)          | mm    | 3,190(3,300) | 3,030(3,120) | 3,210(3,310) | 3,040(3,100) | 3,470(3,570) | 3,320(3,390) | 3,920(4,160) | 3,810(4,040) | 4,080(4,330) | 3,960(4,200) |       |  |
|                                | g: Min. swing radius (with long arm)            | mm    | 1,960(2,040) | 2,040(2,100) | 1,950(2,080) | 2,140(2,180) | 2,070(2,170) | 2,230(2,300) | 2,190(2,330) | 2,270(2,390) | 2,150(2,260) | 2,300(2,320) |       |  |
|                                | h: Max. boom swing (with long arm)              | mm    | 1,580(1,640) | 1,750(1,790) | 1,580(1,660) | 1,730(1,730) | 1,670(1,730) | 1,810(1,970) | 1,710(1,820) | 1,780(1,880) | 1,680(1,770) | 1,790(1,820) |       |  |
|                                | i: Blade bottom highest position (above ground) | mm    | 360          |              | 360          |              | 370          |              | 430          |              | 430          |              |       |  |
|                                | j: Blade bottom lowest position (under ground)  | mm    | 315          |              | 320          |              | 390          |              | 335          |              | 335          |              |       |  |

The figure in ( ) shows the machine equipped with long arm.



# EQUIPMENT

## ● STANDARD EQUIPMENT

Standard equipment may vary by country, so please consult your AIRMAN dealer for details.

### ENGINE

- Water-separator for engine fuel
- Radiator reserve tank
- Electrical fuel feed pump
- Cartridge-type engine oil filter
- Fuel filter

### HYDRAULIC SYSTEM

- Hydraulic pilot type control levers
- Pilot control shut-off lever  
with neutral engine start system
- Swing parking brake
- Travel parking brake
- Two-speed travel system
- Auto idling system (AX30u~50u)
- Suction filter
- Full-flow filter
- Pilot filter
- Boom anti-drift valve (AX30u~50u)

### 4-PILLARS CANOPY

- ROPS/OPG canopy
- Reclining seat
- Seat belt
- Wrist rests
- Drink holder
- Electric horn
- Cigarette lighter (12V outlet)
- Floor mat
- Rearview mirror (AX40u/50u)
- Two work lights

### UPPERSTRUCTURE

- Utility box

### UNDERCARRIAGE

- 300mm rubber shoes(AX27u/30u/35u)
- 400mm rubber shoes(AX40u/50u)

### FRONT ATTACHMENTS

- Original bushing
- 1.17m arm(AX27u/30u)
- 1.32m arm(AX35u)
- 1.38m arm(AX35u/40u)

## ● OPTIONAL EQUIPMENT

Optional equipment may vary by country, so please consult your AIRMAN dealer for details.

### ENGINE

- Air cleaner inner element

### HYDRAULIC SYSTEM

- Valve for extra piping
- 2-way control lever pattern selector valve

### CABIN

- ROPS/OPG cab
- Air conditioner
- AM/FM radio
- Window washer
- Defroster
- Reclining seat
- Seat belt
- Wrist rests
- Wiper
- Drink holder
- Electric horn
- Cigarette lighter (inside 12V outlet)
- Ashtray
- Floor mat
- Rearview mirror
- Two work lights

### CABIN OPTIONAL EQUIPMENT

- Suspension seat
- Retractable seat belt
- Spare power supply (outside 12V outlet)

### UPPERSTRUCTURE

- Suspension seat
- Retractable seat belt
- Rearview mirror(AX27u~35u for canopy)
- Accumulator
- Additional counterweight
- Theft deterrent system
- AFL(AUX Function lever)
- Auxiliary overload relief valve
- Travel motion alarm device
- Protective mesh screen for radiator and oil cooler

### UNDERCARRIAGE

- Grouser shoes
- Pad crawler shoes

### FRONT ATTACHMENTS

- Auxiliary piping
- Long arm
- Backhoe buckets(refer to specification page)