

# Mini-Excavator

## AX17u-6A / AX26u-6A

**SAFETY**

- Operate safely in accordance with the proper operation manual.
- To prevent troubles and accidents, make sure to perform daily and preventive maintenance checks.

**AIRMAN**<sup>®</sup>

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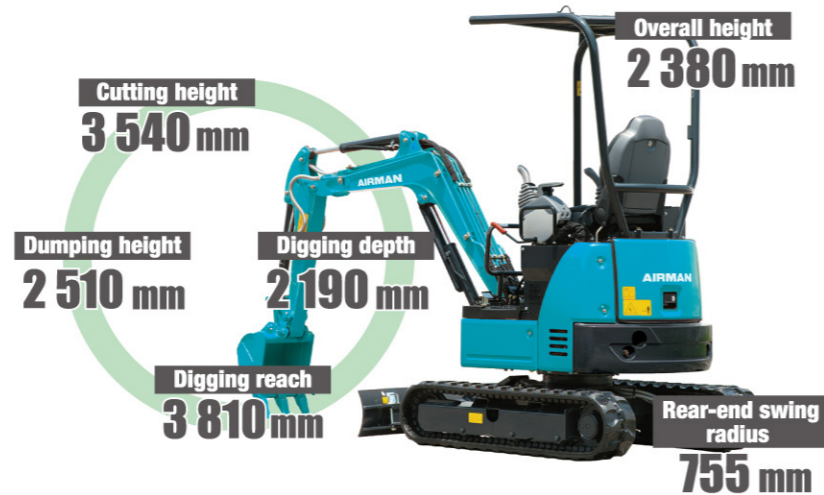
DISTRIBUTOR :



# Mini-Excavator AX17u-6A

Engine Rated Power : 10.6 kW (14.2 HP)  
 Operating Weight : Canopy 1 880 kg  
 Backhoe Bucket : ISO Heaped : 0.044 m<sup>3</sup>

## High Performance



### Neutral Engine Start System

The engine cannot start unless the shut-off lever is in the lock position for safe operation.

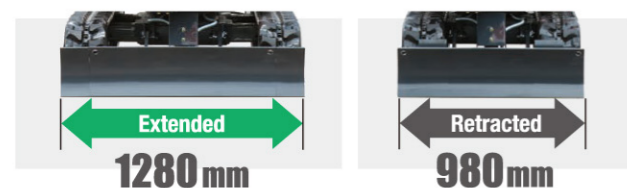


### Hydraulic Pilot Control

Hydraulic pilot control levers provide light, smooth control of the front, blade, swing and travel. The levers are ergonomically arranged for easier and less tiring operation.

### Adjustable Crawlers and Blade

Tracks can be extended and retracted by control lever: retracted for truck transport and easy access to narrow job sites; and extended for surefooted excavation.



### ROPS/OPG (TOP Guard) 3-Pillar Canopy

The rugged 3-pillar canopy effectively protects the operator against tipping and is ruggedly designed in accordance with the ROPS\* standard. All models are protected with an OPG\*\* top guard against falling objects.

\*Roll-Over Protective Structure  
 \*\*Operator Protective Guard



## Easy Maintenance

### Vertically Sliding Engine Cover

The upright engine cover, upgraded from the conventional model, slides vertically with less rearward projection for ease of maintenance in confined spaces.



### Easy Access for Engine Maintenance

With the seat tilted up, the top of engine is exposed for easy maintenance.



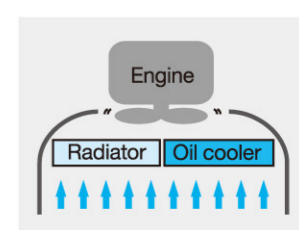
### Enlarged Refuel Port

Large fuel port has been fitted as per larger Airman models for quick filling.



### Easy Clean Radiator

The radiator and oil cooler are arranged side by side for easy cleaning. Ventilation ports on the radiator cover are enlarged for more efficient cooling.



# Mini-Excavator AX26U-6A

Engine Rated Power : 14.5 kW (19.4 HP)  
 Operating Weight : Canopy 2 630 kg  
                                  Cab 2 770 kg  
 Backhoe Bucket : ISO Heaped : 0.08 m<sup>3</sup>

## High Performance



## Easy Maintenance



### Neutral Engine Start System

The engine cannot start unless the shut-off lever is in the lock position for safe operation.



### Hydraulic Pilot Control

Hydraulic pilot control levers provide light, smooth control of the front, blade, swing and travel. The levers are ergonomically arranged for easier and less tiring operation.



### Vertically Sliding Engine Cover

The upright engine cover, upgraded from the conventional model, slides vertically with less rearward projection for ease of maintenance in confined spaces.



### Enlarged Refuel Port

Large fuel port has been fitted as per larger Airmann models for quick filling.



### ROPS/OPG (TOP Guard) Cab and 4-pillar Canopy

The rugged cab and 4-pillar canopy effectively protects the operator against tipping and are ruggedly designed in accordance with the ROPS\* standard. All models are protected with an OPG\*\* top guard against falling objects.

\*Roll-Over Protective Structure \*\*Operator Protective Guard

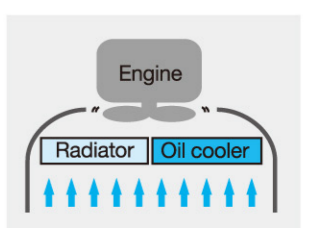
### Easy Access for Engine Maintenance

With the seat tilted up, the top of engine is exposed for easy maintenance.



### Easy Clean Radiator

The radiator and oil cooler are arranged side by side for easy cleaning. Ventilation ports on the radiator cover are enlarged for more efficient cooling.



# SPECIFICATIONS AX17u

## ENGINE

Model	3TNV70
Type	Water-cooled, 4-cycle, swirl combustion chamber injection type diesel engine
No. of cylinders	3
Rated power	
ISO 9249, net	10.6 kW (14.2 HP) at 2 400 min <sup>-1</sup> (rpm)
EEC 80/1269, net	10.6 kW (14.2 HP) at 2 400 min <sup>-1</sup> (rpm)
SAE J1349, net	10.6 kW (14.2 HP) at 2 400 min <sup>-1</sup> (rpm)
Maximum torque	48.8 Nm (49.8 kgfm) at 1 800 min <sup>-1</sup> (rpm)
Piston displacement	0.854 L
Bore and stroke	70 mm x 74 mm
Batteries	1 x 12 V / 36 Ah

## HYDRAULIC SYSTEM

### Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps
Maximum oil flow	2 x 19.2 L/min
	1 x 10.8 L/min
Pilot pump	1 gear pump
Maximum oil flow	6.5 L/min

### Hydraulic Motors

Travel	2 variable displacement axial piston motors
Swing	1 gear motor

### Relief Valve Settings

Implement circuit	20.6 MPa (210 kgf/cm <sup>2</sup> )
Swing circuit	13.7 MPa (140 kgf/cm <sup>2</sup> )
Travel circuit	20.6 MPa (210 kgf/cm <sup>2</sup> )
Pilot circuit	3.9 MPa (40 kgf/cm <sup>2</sup> )

### Hydraulic Cylinders

	Quantity	Bore	Rod diameter	Stroke
Boom (3-Pillar canopy)	1	60 mm	35 mm	435 mm
Arm	1	55 mm	30 mm	406 mm
Bucket	1	55 mm	30 mm	311 mm
Blade	1	65 mm	35 mm	94 mm
Boom swing	1	60 mm	30 mm	298 mm
Span	1	50 mm	30 mm	312 mm

## UPPERSTRUCTURE

### Swing Device

The axial piston motor with planetary reduction gear is bathed in oil and the swing circle is single-row. The swing parking brake is of the spring-set/hydraulic-released disc type.

Swing speed	9.4 min <sup>-1</sup> (rpm)
Swing torque	1.7 kNm (173 kgfm)

## BUCKET AND ARM DIGGING FORCE

	Arm length	0.93 m
Bucket digging force ISO		16.0 kN (1 630 kgf)
Bucket digging force SAE : PCSA		12.5 kN (1 270 kgf)
Arm crowd force ISO		8.6 kN (880 kgf)
Arm crowd force SAE : PCSA		7.9 kN (810 kgf)

## BACKHOE ATTACHMENTS

Boom and arm are of welded, box-section design. A 1.82m boom and 0.93m arm are available.

### Buckets

Capacity	Width		No. of teeth	Weight	Recommendation
	Without side cutters	With side cutters			Arm 0.93 m
0.020 m <sup>3</sup>	250 mm	300 mm	3	37.0 kg	○
0.035 m <sup>3</sup>	300 mm	350 mm	3	40.0 kg	○
0.040 m <sup>3</sup>	350 mm	400 mm	3	42.0 kg	○
0.044 m <sup>3</sup>	400 mm	450 mm	3	44.0 kg	○
0.050 m <sup>3</sup>	450 mm	500 mm	3	47.0 kg	□

○ Suitable for materials with density of 2 000 kg/m<sup>3</sup> or less □ Suitable for materials with density of 1 600 kg/m<sup>3</sup> or less

## UNDERCARRIAGE

### Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame extended by cylinder span.

### Numbers of Rollers on Each Side

Lower rollers	3
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### Travel Device

Each track driven by a 2-speed axial piston motor. Parking brake is of the spring-set/hydraulic-released disc type.

Travel speeds	High : 0 to 4.2 km/h
	Low : 0 to 2.4 km/h

Maximum traction force ... 11.4 kN (1 160 kgf)

Gradeability ... 47% (25 degree) continuous

## SERVICE REFILL CAPACITIES

Fuel tank	20.0 L
Engine coolant	2.7 L
Engine oil	3.1 L
Travel device (each side)	0.25 L
Hydraulic system	26.0 L
Hydraulic oil tank	14.0 L

## WEIGHTS AND GROUND PRESSURE

### Operating Weight and Ground Pressure

3-PILLAR CANOPY  
Including 1.82 m boom and 0.044 m<sup>3</sup> bucket (ISO heaped) heavier counterweight 240 kg and extra piping.

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm <sup>2</sup> )
Rubber shoe	230 mm	0.93 m	1 880 *	28.7 (0.29)

\* Operating weight fully serviced, +80 kg operator ISO 6016.

### 3-PILLAR CANOPY

Including 1.82 m boom and 0.044 m<sup>3</sup> bucket (ISO heaped) counterweight 120 kg and extra piping.

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm <sup>2</sup> )
Rubber shoe	230 mm	0.93 m	1 760 *	26.6 (0.27)

\* Operating weight fully serviced, +80 kg operator ISO 6016.

# LIFTING CAPACITIES (Without bucket) AX17u

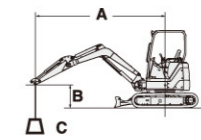
Notes: 1. Ratings are based on ISO 10567.

2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.

3. The load point is the center-line of the bucket pivot mounting pin on the arm.

4. \*Indicates load limited by hydraulic capacity.

5. 0 m = Ground.



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

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

## AX17u-6A 3-Pillar Canopy Version, Blade above Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 1.82 m Arm 0.93 m	2							0.30	0.29	2.98
Heavier counterweight 240 kg	1			0.52	0.49	0.29	0.28	0.26	0.24	3.27
Rubber shoe 230 mm	0 (Ground)			0.50	0.46	0.28	0.27	0.26	0.25	3.15
	-1	*1.12	*1.12	0.50	0.46			0.35	0.33	2.58

## AX17u-6A 3-Pillar Canopy Version, Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 1.82 m Arm 0.93 m	2							*0.40	0.29	2.98
Heavier counterweight 240 kg	1			*0.70	0.49	*0.44	0.28	*0.41	0.24	3.27
Rubber shoe 230 mm	0 (Ground)			*0.81	0.46	*0.46	0.27	*0.42	0.25	3.15
	-1	*1.12	*1.12	*0.63	0.46			*0.42	0.33	2.58

## AX17u-6A 3-Pillar Canopy Version, Blade above Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 1.82 m Arm 0.93 m Counterweight 120 kg Rubber shoe 230 mm	2							0.26	0.25	2.98
	1			0.45	0.42	0.25	0.23	0.22	0.21	3.27
	0 (Ground)			0.42	0.39	0.24	0.22	0.22	0.21	3.15
	-1	*1.12	*1.12	0.42	0.39			0.30	0.28	2.58

## AX17u-6A 3-Pillar Canopy Version, Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 1.82 m Arm 0.93 m Counterweight 120 kg Rubber shoe 230 mm	2							*0.40	0.25	2.98
	1			*0.70	0.42	*0.44	0.23	*0.41	0.21	3.27
	0 (Ground)			*0.81	0.39	*0.46	0.22	*0.42	0.21	3.15
	-1	*1.12	*1.12	*0.63	0.39			*0.42	0.28	2.58

# SPECIFICATIONS AX26u

## ENGINE

Model	3TNV76
Type	Water-cooled, 4-cycle, swirl combustion chamber injection type diesel engine
No. of cylinders	3
Rated power	
ISO 9249, net	14.5 kW (19.4 HP) at 2 500 min <sup>-1</sup> (rpm)
EEC 80/1269, net	14.5 kW (19.4 HP) at 2 500 min <sup>-1</sup> (rpm)
SAE J1349, net	14.5 kW (19.4 HP) at 2 500 min <sup>-1</sup> (rpm)
Maximum torque	64.1 Nm (6.5 kgfm) at 1 800 min <sup>-1</sup> (rpm)
Piston displacement	1.115 L
Bore and stroke	76 mm x 82 mm
Batteries	1 x 12 V / 36 Ah

## HYDRAULIC SYSTEM

### Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps 1 gear pump
Maximum oil flow	2 x 30.0 L/min 1 x 16.3 L/min
Pilot pump	1 gear pump
Maximum oil flow	6.8 L/min

### Hydraulic Motors

Travel	2 variable displacement axial piston motors
Swing	1 gear 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> )

### Hydraulic Cylinders

	Quantity	Bore	Rod diameter	Stroke
Boom (4-Pillar canopy)	1	75 mm	45 mm	567 mm
Boom (Cab)	1	75 mm	45 mm	553 mm
Arm	1	65 mm	40 mm	549 mm
Bucket	1	55 mm	35 mm	437 mm
Blade	1	75 mm	45 mm	144 mm
Boom swing	1	75 mm	40 mm	415 mm

## UPPERSTRUCTURE

### Swing Device

The axial piston motor with planetary reduction gear is bathed in oil and the swing circle is single-row. The swing parking brake is of the spring-set/hydraulic-released disc type.

Swing speed	9.1 min <sup>-1</sup> (rpm)
Swing torque	3.5 kNm (357 kgfm)

## BUCKET AND ARM DIGGING FORCE

Arm length	1.17 m
Bucket digging force ISO	22.3 kN (2 270 kgf)
Bucket digging force SAE : PCSA	18.0 kN (1 830 kgf)
Arm crowd force ISO	15.2 kN (1 550 kgf)
Arm crowd force SAE : PCSA	14.3 kN (1 460 kgf)

## BACKHOE ATTACHMENTS

Boom and arms are of welded, box-section design. A 2.10 m boom and 1.17 m arm are available.

### Buckets

Capacity	Width		No. of teeth	Weight	Recommendation
	Without side cutters	With side cutters			Arm 1.17 m
ISO heaped					
0.07 m <sup>3</sup>	400 mm	450 mm	3	61.0 kg	
0.08 m <sup>3</sup>	450 mm	500 mm	3	64.0 kg	

Suitable for materials with density of 2 000 kg/m<sup>3</sup> or less

## UNDERCARRIAGE

### Tracks

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

### Numbers of Rollers on Each Side

Upper roller	1
Lower rollers	4

### Travel Device

Each track driven by a 2-speed axial piston motor. Parking brake is of the spring-set/hydraulic-released disc type. Automatic transmission system: High-Low.

Travel speeds	High : 0 to 4.5 km/h Low : 0 to 2.9 km/h
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Maximum traction force ... 20.1 kN (2 050 kgf)

Gradeability ..... 47% (25 degree) continuous

## SERVICE REFILL CAPACITIES

Fuel tank	34.0 L
Engine coolant	3.1 L
Engine oil	3.7 L
Travel device (each side)	0.6 L
Hydraulic system	39.0 L
Hydraulic oil tank	24.0 L

## WEIGHTS AND GROUND PRESSURE

### Operating Weight and Ground Pressure

4-PILLAR CANOPY  
Including 2.10 m boom, 0.08 m<sup>3</sup> bucket (ISO heaped) and extra piping.

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm <sup>2</sup> )
Rubber shoe	300 mm	1.17 m	2 630 *	24.8 (0.25)

\* Operating weight with fully serviced, +80 kg operator ISO 6016.

### CAB

Including 2.10 m boom, 0.08 m<sup>3</sup> bucket (ISO heaped) and extra piping.

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm <sup>2</sup> )
Rubber shoe	300 mm	1.17 m	2 770 *	26.2 (0.27)

\* Operating weight with fully serviced, +80 kg operator ISO 6016.

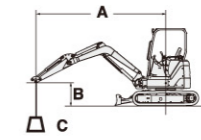
### Operator's Cab

An independent spacious cab, 1 050 mm wide by 1 610 mm high, conforming to ISO\* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened.

\* International Organization for Standardization

# LIFTING CAPACITIES (Without bucket) AX26u

- Notes: 1. Ratings are based on ISO 10567.  
2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.  
3. The load point is the center-line of the bucket pivot mounting pin on the arm.  
4. \*Indicates load limited by hydraulic capacity.  
5. 0 m = Ground.



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

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

## AX26u-6A 4-Pillar Canopy Version, Blade above Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 2.10 m Arm 1.17 m Counterweight 240 kg Rubber shoe 300 mm	2 1 0 (Ground) -1					0.55 0.52 0.50 0.50	0.41 0.38 0.36 0.37	0.37 0.34 0.36 0.45	0.28 0.25 0.26 0.33	3.83 3.98 3.80 3.24

## AX26u-6A 4-Pillar Canopy Version, Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 2.10 m Arm 1.17 m Counterweight 240 kg Rubber shoe 300 mm	2 1 0 (Ground) -1					*0.81 *1.06 *1.73 *1.88	0.41 0.38 0.65 0.66	*0.60 *0.63 *1.20 *1.06	0.28 0.25 0.26 0.33	3.83 3.98 3.80 3.24

## AX26u-6A CAB Version, Blade above Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 2.10 m Arm 1.17 m Counterweight 210 kg Rubber shoe 300 mm	2 1 0 (Ground) -1					0.65 0.61 1.11 1.12	0.49 0.46 0.78 0.79	0.44 0.41 0.59 0.60	0.34 0.31 0.43 0.45	3.83 3.98 3.80 3.24

## AX26u-6A CAB Version, Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit: 1 000 kg

Conditions	Load point height m	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 2.10 m Arm 1.17 m Counterweight 210 kg Rubber shoe 300 mm	2 1 0 (Ground) -1					*0.81 *1.06 *1.73 *1.88	0.49 0.46 0.78 0.79	*0.60 *0.63 *1.20 *1.06	0.34 0.31 0.43 0.45	3.83 3.98 3.80 3.24

