Engine
Isuzu AQ-4HK1X Final Tier 4 turbocharged diesel engine with
electronic control (ECM) and high pressure common-rail fuel
injection, 4-cylinder, water-cooled, Cooled Exhaust Gas
Recirculation (CEGR), Intercooler, Variable-Geometry
Turbocharger (VGT), Diesel Oxidation Catalyst (DOC) and
Selective Catalytic Reduction (SCR) system with Dosing
Control Module and heated DEF lines and tank. Electronic
fuel pump and priming, Fuel cooler, Auto-idle start, Auto warm-
up, EPF engine protection, dual-stage fuel filtration, remote
oil filter, engine oil sample port, green plug oil drain, double
element air filter.
SAE net horsepower ..............177 hp (132.1 kW) @ 2,000 rpm
Displacement .......317 cu in (5.2 L)
Maximum Torque ...............458 lb-ft (621 N·m) @ 1,800 rpm
Starter ..................24 V (5.0 kW)
Alternator ..................50 amp
Battery ..................(2) 12-volt 92 amp hours

Cab and Controls
OPS and FOPS Level 1 certified with automatic climate control
A/C and heat with defroster, 7" LCD Hi-Definition color monitor
with full time rear view camera display, fuel efficiency gauge,
low-effort joysticks are pre-wired for auxiliary hydraulics, dual
cab lights, control pattern changer, safety glass windows,
sunroof with sunshade, shockless cab suspension with four
fluid cab mounts, SCM High-Back reclining suspension seat,
sliding 4-position tilt control console, Bluetooth technology,
AM/FM sound system with USB and MP3 auxiliary input jack,
digital clock, dome light, seat belt, coat hook, cup holder,
storage compartments, floor mat, footrests, ashtray, 24V
cigarette lighter, 12V outlet, travel alarm, handrails, mirrors,
side-entry cab filter, spare parts kit.
Three selectable work modes, RemoteCARE® Telematics
GPS system, anti-theft password protection system, onboard
self-diagnostic system with memory and service interval
reminders, auto idling system, one-touch deaccelerator, auto-
idle engine shutdown, auto-power boost, neutral safety start,
gate-lock safety shutdown.

Hydraulic System
Open-center system, two variable-displacement electronically
controlled axial-piston pumps, one axial-piston pump for
magnet and one gear pump for pilot controls, main control
valve with one 4-spool section and one 5-spool section with
auxiliary spool: stackable, Auxiliary Control System, oil cooler,
Auto-Power boost, boom and arm holding valves, 6 micron
return filter, firewall, hydraulic oil sample port.

Hydraulic Pumps
Pump Output ..................2 x 61.8 gpm (234 L/min)
Pilot Pump Maximum Flow ...........5.3 gpm (20 L/min)
Magnet Pump ..................18 gpm (68 L/min)

Relief Valve Settings
Boom/Arm/Bucket .................4,970 psi (34.3 MPa)
in Power Boost .................5,410 psi (37.3 MPa)
Swing Circuit ..................3,910 psi (27.0 MPa)
Travel Circuit ..................4,970 psi (34.3 MPa)

Hydraulic Cylinders
number of cylinders - bore x stroke
Boom ...................................2 - 5.5" x 44.3" (140 mm x 1126 mm)
Arm .....................................2 - 4.9" x 50.4" (125 mm x 1280 mm)
Bucket (linkage style) ..........4.7" x 39.8" (120 mm x 1010 mm)
Cab elevating ......................3.3" x 31.5" (85 mm x 800 mm)

Swing
Planetary reduction powered by axial-piston motor, Internal
ring gear with grease cavity for swing pinion, Swing bearing
is single-row, shear type ball bearing, Mechanical disc swing
brake, Auto-power swing.
Swing Speed ......................11.0 rpm
Tail Swing .........................9.8" (2.95 m)
Swing Torque .................51,500 lb-ft (69.6 kNm)

Undercarriage
X- Pattern carbody with 15' 4" (4.68 m) LC on long undercarriage
by 8' 6" (2.59 m) track gauge, Sealed and strutted track
chain with track guide, Sealed rollers and idlers, Two-speed
independent hydrostatic travel with compact planetary final
drive, Disc type brakes, Adjustable track tension, Carbody
belly pan.
Carrier Rollers ......................2 per Side
Track Rollers ......................9 per Side
Track Link Pitch .................7.48" (190 mm)
Shoes .............................51 per Side
Shoe Width ......................23.6" (600 mm)

Ground Pressure
Swing Style Attachment ...........9.7 psi (0.067 MPa)
Dropo Nose Attachment ...........9.6 psi (0.066 MPa)

Travel System
Two-speed independent hydrostatic travel with compact
axial-piston motors. Hydraulic motor powered output shaft
coupled to a planetary reduction drive and track sprocket, All
hydraulic components mounted within the width of side frame,
Automatic downshift for high torque to overcome obstacles,
Spring-applied hydraulic release parking brake built into each
motor, Travel motors equipped with counterbalance valve to
prevent over-speeding down an incline, Single-pedal straight
line travel.
Travel Speeds ......................2.2 - 3.4 mph (3.5 - 5.5 km/h)
Drawbar Pull ......................44,100 lb (196 kN)
Gradeability ......................70% (35°)

Attachment
MH - Linkage Style Attachment
Boom .........................23' 3" (7.10 m)
Arm ..................................16' 5" (5.00 m)
Reach ..........................38' 0" (11.58 m)

SL - Droop Nose Attachment
Boom .........................24' 3" (7.40 m)
Arm ..................................19' 9" (5.80 m)
Reach .........................42' 6" (12.92 m)

Lubricant & Coolant Capacity
Fuel Tank ......................108 Gallons (410.0 Liters)
Hydraulic System ...............66 Gallons (250.0 Liters)
Hydraulic Tank ..................39 Gallons (147.0 Liters)
Final Drive (per side) ...........1.3 Gallons (5.0 Leters)
Swing Drive ......................2.6 Gallons (9.7 Leters)
Engine Oil .....................6.1 Gallons (23.1 Leters)
DEF Tank ........................31.7 Gallons (120.0 Leters)
Coolant System ...................8.3 Gallons (31.4 Leters)

Operating Weight
Working weight with 23.6" (600 mm) shoes, 23' 3" (7.10 m)
boom, MH - linkage style attachment, 4,038 lb. (2,240 kg)
magnet, 18,000 lb. (8,150 kg) counterweight
...........................................75,000 lbs. (34,000 kg)

Working weight with 23.6" (600 mm) shoes, 24' 5" (7.40 m)
boom, SL - droop nose attachment, 18,000 lb. (8,150 kg)
couterweight .....................73,200 lbs. (33,200 kg)
# Working Range & Travel Dimensions

## MH - Linkage Style Attachment

<table>
<thead>
<tr>
<th>Machine equipped with 23' 3&quot; (7.10 m) Boom</th>
<th>Arm 16' 5&quot; (5.00 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Maximum reach</td>
<td>36' 6&quot; (11.16 m)</td>
</tr>
<tr>
<td>B. Maximum reach @ ground level</td>
<td>37' 5&quot; (11.41 m)</td>
</tr>
<tr>
<td>C. Maximum depth</td>
<td>11' 10&quot; (3.61 m)</td>
</tr>
<tr>
<td>D. Maximum height</td>
<td>41' 7&quot; (12.70 m)</td>
</tr>
</tbody>
</table>

## SL - Droop Nose Attachment

<table>
<thead>
<tr>
<th>Machine equipped with 24' 3&quot; (7.40 m) Boom</th>
<th>Arm 19' 9&quot; (5.98 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Maximum reach</td>
<td>42' 5&quot; (12.92 m)</td>
</tr>
<tr>
<td>B. Maximum reach @ ground level</td>
<td>41' 11&quot; (12.77 m)</td>
</tr>
<tr>
<td>C. Maximum depth</td>
<td>12' 9&quot; (3.90 m)</td>
</tr>
<tr>
<td>D. Maximum height</td>
<td>47' 4&quot; (14.42 m)</td>
</tr>
</tbody>
</table>

## Travel Dimensions

### MH - Linkage Style Attachment

Machine equipped with: 16' 5" (5.00 m) Arm

- Maximum reach: 36' 6" (11.16 m)
- Maximum reach @ ground level: 37' 5" (11.41 m)
- Maximum depth: 11' 10" (3.61 m)
- Maximum height: 41' 7" (12.70 m)

### SL - Droop Nose Attachment

Machine equipped with: 19' 9" (5.98 m) Arm

- Maximum reach: 42' 5" (12.92 m)
- Maximum reach @ ground level: 41' 11" (12.77 m)
- Maximum depth: 12' 9" (3.90 m)
- Maximum height: 47' 4" (14.42 m)
## Lift Capacities

### Radius of Load MH - Linkage Style Attachment

<table>
<thead>
<tr>
<th>End</th>
<th>10° 0' (3.0 m)</th>
<th>15° 0' (4.5 m)</th>
<th>20° 0' (6.0 m)</th>
<th>25° 0' (7.5 m)</th>
<th>30° 0' (9.0 m)</th>
<th>35° 0' (10.5 m)</th>
<th>Max. Reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>+35° 0' lbs</td>
<td>15,950*</td>
<td>15,950*</td>
<td>16,450*</td>
<td>16,450*</td>
<td>11,350*</td>
<td>11,350*</td>
<td>13,400*</td>
</tr>
<tr>
<td>+30° 0' lbs</td>
<td>15,600*</td>
<td>15,600*</td>
<td>14,500*</td>
<td>14,500*</td>
<td>11,150*</td>
<td>11,150*</td>
<td>9,050*</td>
</tr>
<tr>
<td>+25° 0' lbs</td>
<td>15,700*</td>
<td>15,700*</td>
<td>14,350*</td>
<td>14,350*</td>
<td>11,300*</td>
<td>11,300*</td>
<td>8,050*</td>
</tr>
<tr>
<td>+20° 0' lbs</td>
<td>16,850*</td>
<td>16,850*</td>
<td>15,050*</td>
<td>15,050*</td>
<td>13,700*</td>
<td>13,700*</td>
<td>7,850*</td>
</tr>
<tr>
<td>+15° 0' lbs</td>
<td>18,750*</td>
<td>18,750*</td>
<td>17,150*</td>
<td>17,150*</td>
<td>15,400*</td>
<td>15,400*</td>
<td>7,950*</td>
</tr>
<tr>
<td>+10° 0' lbs</td>
<td>22,750*</td>
<td>22,750*</td>
<td>21,200*</td>
<td>21,200*</td>
<td>15,000*</td>
<td>15,000*</td>
<td>10,150*</td>
</tr>
<tr>
<td>+5° 0' lbs</td>
<td>27,350*</td>
<td>27,350*</td>
<td>23,200*</td>
<td>23,200*</td>
<td>18,200*</td>
<td>18,200*</td>
<td>15,000*</td>
</tr>
<tr>
<td>0° 0' lbs</td>
<td>28,300*</td>
<td>28,300*</td>
<td>23,200*</td>
<td>23,200*</td>
<td>18,200*</td>
<td>18,200*</td>
<td>15,000*</td>
</tr>
<tr>
<td>-5° 0' lbs</td>
<td>15,500*</td>
<td>15,500*</td>
<td>14,450*</td>
<td>14,450*</td>
<td>10,150*</td>
<td>10,150*</td>
<td>7,950*</td>
</tr>
<tr>
<td>-10° 0' lbs</td>
<td>17,750*</td>
<td>17,750*</td>
<td>15,150*</td>
<td>15,150*</td>
<td>12,400*</td>
<td>12,400*</td>
<td>9,550*</td>
</tr>
</tbody>
</table>

### Notes:
1. Lifting capacities shown should not exceed 75% of minimum tipping limits or 87% of hydraulic capacities. Capacities marked with an asterisk (*) are limited by hydraulic capacities.
2. Least stable position is over the side.
3. Operator should be fully acquainted with the Operator’s Manual & Operating Safety Booklet, furnished by LBX before operating the machine.
4. Capacities apply only to the machine as originally manufactured and normally equipped by LBX Company, LLC.
5. Lift capacity ratings are based on ISO 10567, Earthmoving Machinery - Hydraulic Excavators - Lift Capacity.
Standard & Optional Equipment

Standard Equipment

- 12V Power Outlet
- AM/FM Sound System
- Anti-Theft Device
- Auxiliary Switches on Control Lever
- Bluetooth
- Cab Filter - External
- Cab Handrails
- Cab Interior Light
- Cab ISO Mounts
- Cab Light (2)
- Clear Roof Window
- Climate Control A/C and Heater
- Cup Holder
- Defroster
- Digital Clock
- Emergency Exit and Hammer
- Face Vent
- Floor Mat
- FOPS Level 1 Certified
- Front Guard (OPS 1)
- Front Window One-Touch Lock
- Gate Lock Hydraulic Activation
- Horn
- Hour Meter (Digital)
- LCD Color Monitor
- Magazine Storage Rack
- Maintenance Interval Reminders
- MP3 Auxiliary Input Jack
- On-Board Diagnostic System
- One-Piece Right Window
- Radio Mute Switch
- Rear View Camera
- Rear View Mirrors (2)
- RemotECARE Support System (GPS)
- Sun Shade
- Safety Glass Windows
- Selectable Monitor Languages
- Small Storage
- Travel Alarm with Cancel Switch
- Trip Meter (Digital)
- USB Input
- Wiper & Washer
- Wiper Switch on RH Joystick

Optional Equipment

- 270° WAVES™ Camera System
- Cab Light (2 LED)
- Cab Sun Screen [rear]
- FOPS Head Guard [Level 2]
- Front Guard (OPS 2)
- LED Light Kts for Side Camera (1)
- LED Lights for Rear Camera (2)
- Underview Cab Camera
- 50A Alternator
- Power Boost
- 12V Power Outlet
- AM/FM Sound System
- Anti-Theft Device
- Auxiliary Switches on Control Lever
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Hydraulics

- Anti-Drift Valve (Arm & Boom)
- Arm Generation
- Arm Speed Assistance [2 Pump Flow]
- Attachment Cushion Valve
- Auto Saving Priority
- Auxiliary Flow Control
- Auxiliary Tool Settings [Memory]
- Auxiliary Valve
- Boom Regeneration
- Boom Speed Assistance [2 Pump Flow]
- Bucket Curl Assist
- Control Levers Pre-Wired for Auxiliary Hydraulic
- Electronically Controlled Hydraulic Pumps
- Fire Wall
- Free Saving
- Hose Burst Check Valves
- Hydraulic Filter Restriction Indicator
- Hydraulic Oil Sample Port
- Long Life Hydraulic Oil (5,000 Hour)
- Neutral Pump De-Stroke
- Oil Cooler
- Power Boost

Engine

- 50A Alternator
- Air Filter (Double Element)
- Air Filter Restriction Indicator
- Air Pre-Cleaner (Cyclone type)
- Auto Warm-Up System
- Auto-Idle
- Auto-Ide
- Auto-Idle Engine Shutdown
- Battery Disconnect Switch w/ LED Light
- CEGR (Cooled Exhaust Gas Recirculation)
- Cooling Fan
- Diesel Oxidation Catalyst (DOC)
- Drain for Fuel Tank
- Dual Remote Fuel Filters with Water Separators
- EGR Coolers
- Emergency Engine Stop
- Engine Idle System
- Engine Oil Sample Port
- Engine Protection Feature
- External Fuel Gauge
- External DEF Gauge
- Fan Housing
- Fuel Cooler
- Fuel Filter Restriction Indicator
- Fuel Management System
- Fuel Shut-Off Valve
- Fuel Usage History
- Fuel Monitor
- Glow Plug Pre-Heat
- Idle-Start
- Intercooler
- Neutral Start
- One-Touch Idle
- Passive Emissions Regeneration
- Radiator / Oil Cooler / Intercooler Protective Screen
- Remote Engine Oil Drain
- Remote Oil Filter
- Selective Catalytic Reduction (SCR)
- DEF Gauge on Monitor
- VGT Turbocharger

Undercarriage

- 600 mm [23.6 in] flat shoe
- Carbodi Belly Pan [Seewel Guardung]
- Center Track Guide [single]
- Lashing Points [Tie-Downs]
- Long Undercarriage
- Sealed Link Chain
- Steps
- Strutted Track Chain
- X-Profile Carbody

Upperstructure

- Belly Pans
- Center Cover [Over Main CV]
- Fuel Tank Belly Pan
- Hand Rail (RH access)
- ISO Guard Rails
- Lifting Eyes for Counterweight
- Lockable Fuel Cap and Service Doors
- Lockable Tool Box
- Turntable Tub
- Work Lights (Boom and Tool Box)

Attachment

- MH - Linkage Style Attachment
  - 23’ 3” (7.10 m) Main Boom Section
  - 16’ 5” (5.00 m) Arm
- SL - Droop Nose Attachment
  - 24’ 3” (7.40 m) Main Boom Section
  - 19’ 0” (5.80 m) Arm
- Auxiliary Pipe Brackets
- Boom Work Light
- Chrome Pins
- Easy Maintenance System (EMS)
- HD Bucket Linkage
- Remote Lube Bank
- Teardrop Pin Retention Keepers

Part Kit

- Engine Manual
- Engine Oil Filter
- Filter Wrench
- Fuel Filters
- Grease Gun
- Green Plug Drain Hose for Engine Oil Drain
- Hydraulic Return Filter
- Ignition Keys
- Pilot Circuit Hydraulic Filter
- Rearview Mirrors
- Work Light for Boom

Cab

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