

Operator's Manual

ZAXIS

130W

160W

180W

210W

Excavator

Serial No.

ZX130W 001001 and up

ZX160W 002001 and up

ZX180W 001001 and up

X210W 001001 and up

HITACHI

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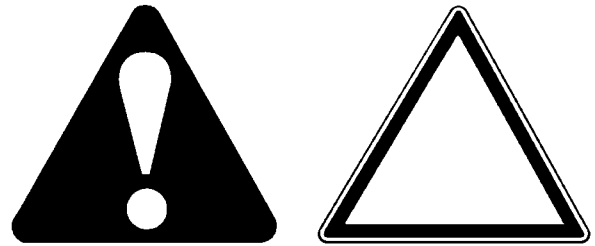
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SAFETY

RECOGNIZE SAFETY INFORMATION

- These are the **SAFETY ALERT SYMBOLS**.
 - When you see these symbols on your machine or in this manual, be alert to the potential for personal injury.
 - Follow recommended precautions and safe operating practices.



001-E01A-0001

SA-688

UNDERSTAND SIGNAL WORDS

- On machine safety signs, signal words designating the degree or level of hazard - DANGER, WARNING, or CAUTION - are used with the safety alert symbol.
 - **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 - **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 - **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
 - **DANGER or WARNING safety signs** are located near specific hazards. General precautions are listed on **CAUTION safety signs**.
 - Some safety signs don't use any of the designated signal words above after the safety alert symbol are occasionally used on this machine.
- **CAUTION** also calls attention to safety messages in this manual.
- To avoid confusing machine protection with personal safety messages, a signal word **IMPORTANT** indicates a situation which, if not avoided, could result in damage to the machine.
-  **NOTE** indicates an additional explanation for an element of information.



IMPORTANT



SA-1223

002-E01A-1223

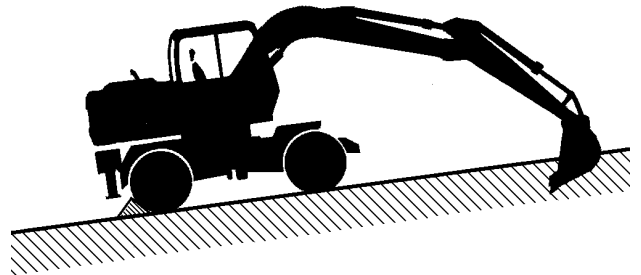
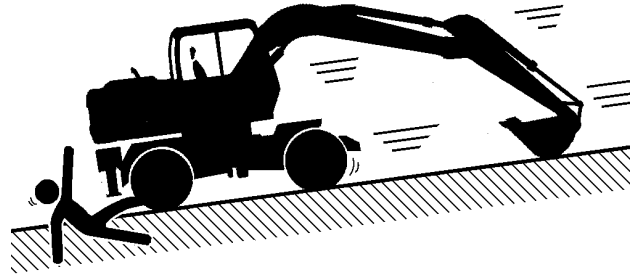
SAFETY

AVOID INJURY FROM ROLLAWAY ACCIDENTS

- Death or serious injury may result if you attempt to mount or stop a moving machine.

To avoid rollaways:

- Select level ground when possible to park machine.
- Do not park the machine on a grade.
- Lower the bucket and/or other work tools to the ground.
- Place the shift lever in neutral, and put the brake switch in the P (parking brake) position.
- Turn the auto-idle switch off.
- Run the engine at slow idle speed without load for 5 minutes to cool down the engine.
- Stop the engine and remove the key from the key switch.
- Pull the pilot control shut-off lever to LOCK position.
- Block both tires and lower the bucket to the ground. Thrust the bucket teeth into the ground if you must park on a grade.
- Position the machine to prevent rolling.
- Park a reasonable distance from other machines.



SA-278

020-E01A-0270

SAFETY

PREVENT PARTS FROM FLYING

- Travel reduction gears are under pressure.
 - As pieces may fly off, be sure to keep body and face away from AIR RELEASE PLUG to avoid injury. GEAR OIL is hot.
 - Wait for GEAR OIL to cool, then gradually loosen AIR RELEASE PLUG to release pressure.

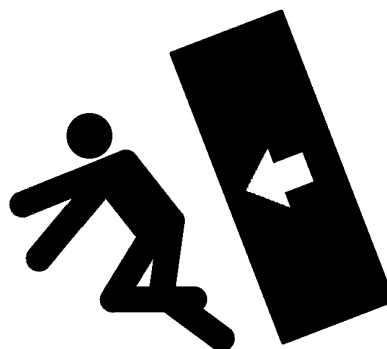


503-E03A-0344

SA-344

STORE ATTACHMENTS SAFELY

- Stored attachments such as buckets, hydraulic hammers, and blades can fall and cause serious injury or death.
 - Securely store attachments and implements to prevent falling. Keep children and bystanders away from storage areas.

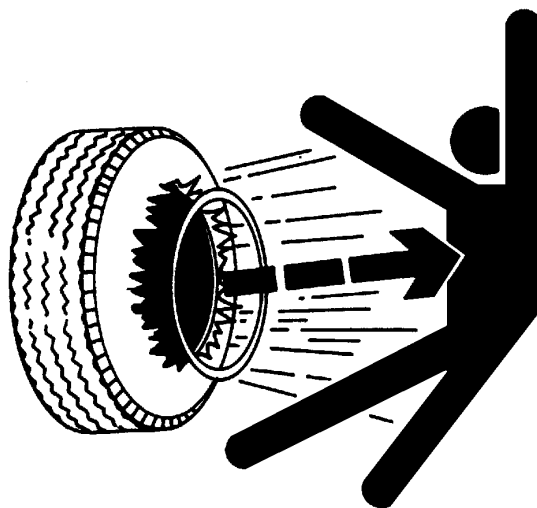


504-E01A-0034

SA-034

SUPPORT MAINTENANCE PROPERLY

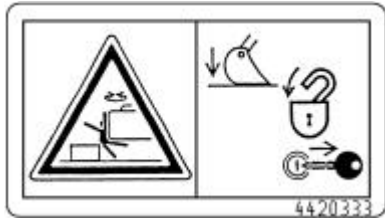
- Explosive separation of a tire and rim parts can cause serious injury or death.
 - Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your authorized dealer or a qualified repair service.
 - Always maintain the correct tire pressure. DO NOT inflate tire above the recommended pressure.
 - When inflating tires, use a chip-on chuck and extension hose long enough to allow you to stand to one side and not in front of or over the tire assembly. Use a safety cage if available.
 - Inspect tires and wheels daily. Do not operate with low pressure, cuts bubbles, damaged rims, or missing lug bolts and nuts.
 - Never cut or weld on an inflated tire or rim assembly. Heat from welding could cause an increase in pressure and may result in tire explosion.



SA-249

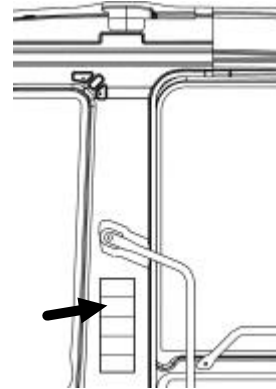
521-E02A-0249

SAFETY SIGNS/Europe/Asia/Middle and Near East Model Only

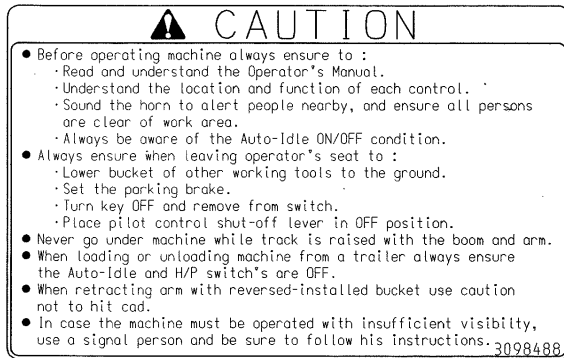


SS4420333

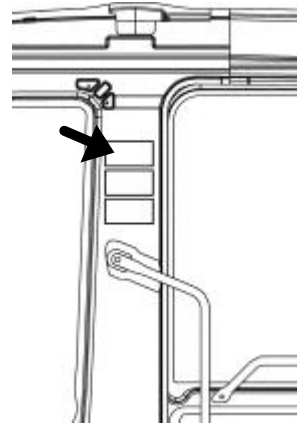
Caution: If the parked machine is unexpectedly moved, serious injury or death due to crushing may result. Be sure to lower the front attachment to the ground, lock the control levers, and remove the engine key before leaving the machine unattended.



SS-2451



SS3098488

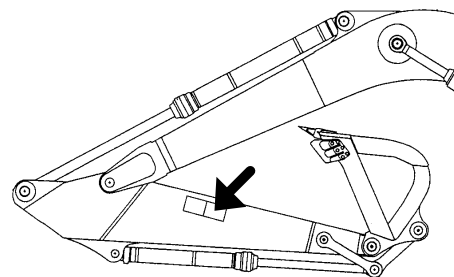


SS-2455



SS3089581

- Sign indicates a hazard of being hit by the working device of the machine.
Keep away from machine during operation.



SS-2042

OPERATOR'S STATION

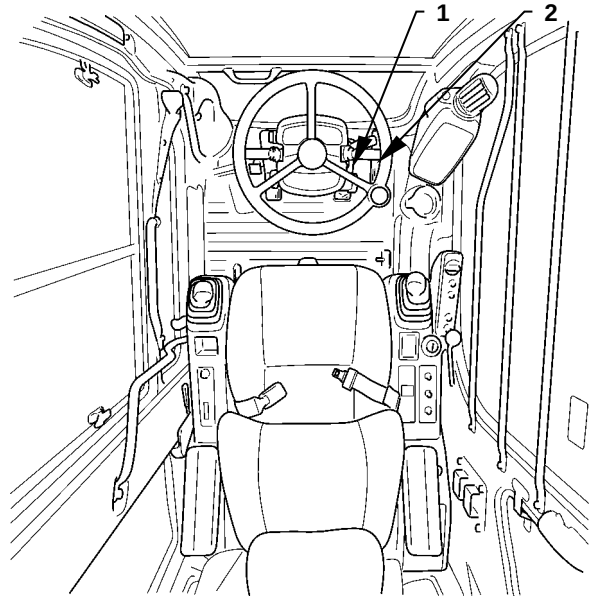
BRAKE PEDAL



CAUTION: Be aware of the following points.

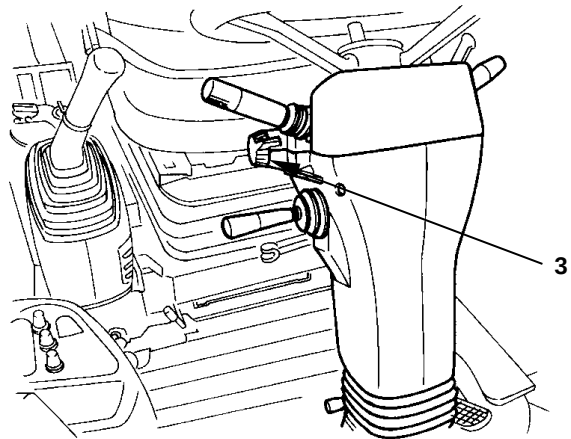
- When returning brake pedal (1), don't quickly release your foot from the pedal. By failure to do so, all hydraulic oil in the circuit is discharged, possibly causing the machine to start moving. Pay close attention when operating the brake.
- If brake pedal (1) is repeatedly stepped on more than necessary, the hydraulic oil will be temporarily discharged from the accumulator, causing the oil pressure to decrease and possibly resulting in insufficient brake capacity. Use an extra care.

An full-hydraulic brake system is employed on this machine so that powerful braking force is applied by lightly touching brake pedal (1). Accordingly, only use sudden brake operation in case of emergency.



MCBB-01-002

1. Operate the brake pedal in the following procedures to smoothly stop the machine:
 - (1) Slowly release forward/reverse travel pedal (2) when the machine approaches 25 to 35 m before the target area to stop.
 - (2) Lightly depress brake pedal (1) when the machine approaches 5 to 6 m before the target area to stop.
 - (3) Slightly release brake pedal (1) just before the machine reaches the target area and re-depress the pedal to completely stop the machine.
2. In case the brake becomes inoperable, turn brake switch (3) to the P (parking brake) position. However, only use this operation in case of emergency. After using this operation, sufficiently check that the parking brake has no failure.

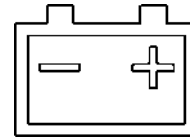


M216-01-021

OPERATOR'S STATION

ALTERNATOR INDICATOR

Red indicator will light with low alternator output. Check electrical system.



M178-01-038

PREHEAT INDICATOR

Orange indicator will light when the key switch is turned to ON position in cold weather. Light will turn off after a few seconds, indicating that the preheat is completed.



M178-01-041

HYDRAULIC OIL FILTER RESTRICTION INDICATOR (If equipped)

Red indicator will light when the hydraulic oil filter element is clogged. Clean or replace the filter element.



M1CC-01-039

OVERLOAD ALARM INDICATOR (Optional)



CAUTION: When using machine for object handling operation, be sure to comply with EN474-5, which prescribes that the machine must be equipped alarm device, and hose-rupture safety valve when applied to object handling.

The overload alarm indicator will light on when the lifting load exceeds the lifting capacity. If the overload alarm indicator light on, immediately move the load into the safety range, or lower the load on the ground.



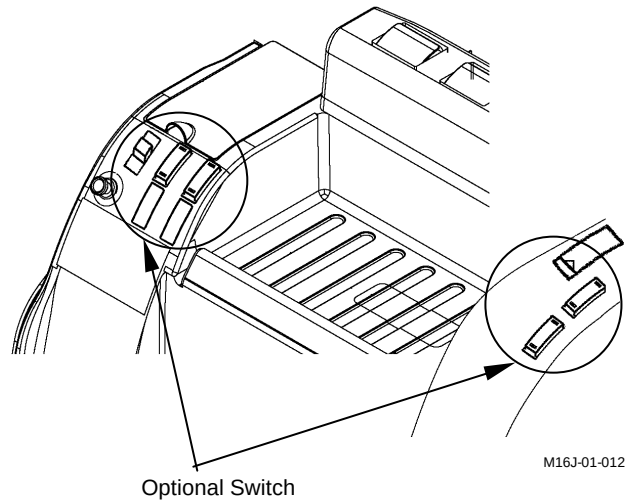
MCBB-01-013

OPERATOR'S STATION

SWITCH PANEL (Optional)

 **NOTE:** The optional switch locations differ depending on the kinds of optional devices are equipped. Before using the switches on the switch panel, make sure what kind of optional devices are equipped. All available optional devices are shown below.

- Travel Alarm Deactivation
- Swing Alarm Deactivation
- Seat Heat Switch
- Rear Light
- Rotating Lamp
- Overload Alarm Device Switch



Travel Alarm Deactivation Switch (Optional)

The travel alarm buzzer sounds during travel operation. When push the travel alarm deactivation switch, the travel alarm buzzer function is deactivated.

Swing Alarm Deactivation Switch (Optional)

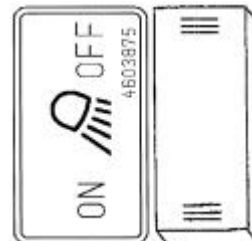
The swing alarm system sounds the buzzer and turns the beacon light ON during swing operation. When push the swing alarm deactivation switch is set to the OFF position, the swing alarm buzzer function is deactivated.

Seat Heat Switch



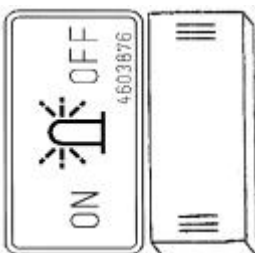
M1G6-01-019

Rear Light



M1G6-01-020

Rotating Lamp



M1G6-01-021

Overload Alarm Device Switch

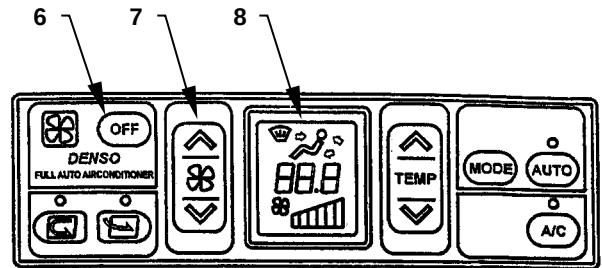


M1G6-01-022

OPERATOR'S STATION

Controller Part Name and Function

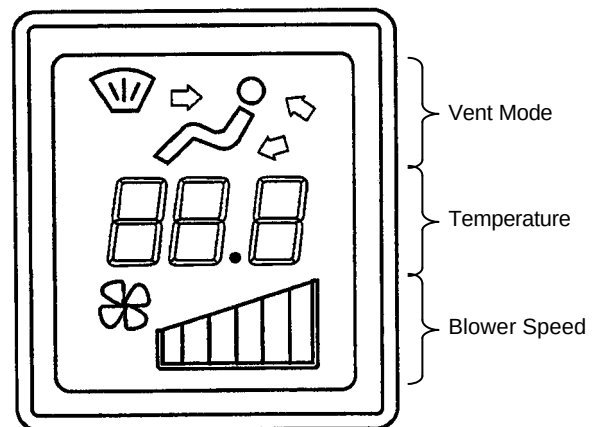
- **Blower OFF Switch (6)**
Stops the blower.
When the switch is pressed, all displays (vent mode, set-temperature, and blower speed) on the LCD (8) panel will disappear and the blower stops in both the auto and manual modes.
- **Blower Switch (7)**
Controls the blower speed from Low to High in 6 stages in the manual mode. The blower speed is displayed at the bottom on the LCD (8).
 - **Increasing Blower Speed**
Each time the top side mark "∧" on blower switch (7) is pressed, the blower speed is increased by one increment.
 - **Decreasing Blower Speed**
Each time the bottom side mark "∨" on blower switch (7) is pressed, the blower speed is decreased by one increment.



M178-01-017

NOTE: In the AUTO mode operation, the fan speed will be automatically controlled with the fan speed indicator flashing.

- **LCD (8)**
Displays the set-status of the air conditioner operating temperature, fan speed, and vent mode.
 - **Temperature Display**
Indicates the set-temperature (18 to 32.0 °C, 63 to 91 °F) by 0.5 °C or 1°F increments at the panel center.
 - **Blower Speed Display**
Indicates the blower speed in 6 stages by lighting the segment at the panel bottom.
 - **Vent Mode Display**
Indicates the selected vent mode at the panel top. The vent modes are as shown below:



- : Front/Defroster Vent Mode
- : Front/Rear/ Defroster Vent Mode
- : Front/Rear/Foot/ Defroster Vent Mode
- : Foot Vent Mode

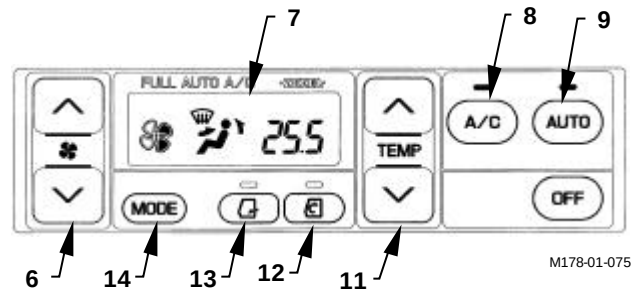
M178-01-020

OPERATOR'S STATION

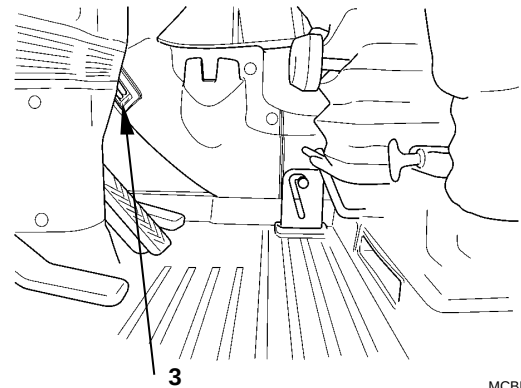
COOLING OPERATION

1. Press AUTO Switch (9)
The AUTO and the A/C indicators come ON. Then, the air temperature at the vent, blower speed, vent locations, and air suction ports are automatically controlled by the air conditioner amplifier according to signals sent from various sensors.
2. Operate Temperature Control Switch (11).
Set temperature control switch (11) so that 「25.0」 is indicated on LCD (7). Control air temperature inside the cab using this switch as necessary.
3. As Necessary:
 - Operate MODE switch (14) to manually select the air vent.
 - Operate blower switch (6) to manually control the blower speed.
 - Operate fresh air mode switch (13) to maintain the air vent in the fresh air circulation mode.
 - Operate circulation mode switch (12) to maintain the air suction port in the circulation mode.

In case the front window (lower) becomes clouded, manually close the defroster vent (3).



M178-01-075



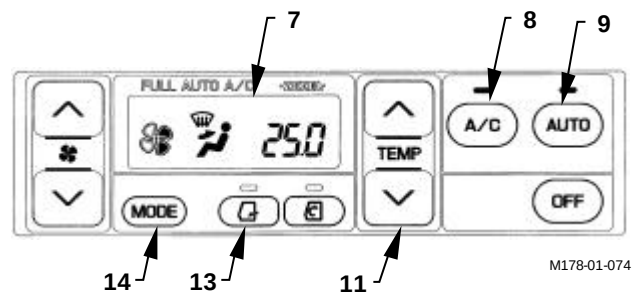
MCBB-01-003

DEFROSTER OPERATION

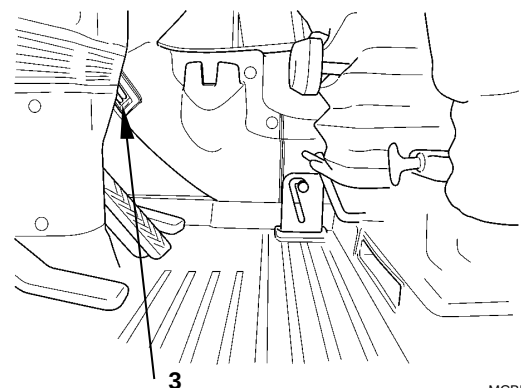
1. Press AUTO Switch (9). Temperature-controlled air blows out. During cold weather season when starting the engine, the engine coolant temperature and air temperature in the cab are low. Then, cool air is restricted not to flow in the cab to the minimum (LO) by the Heater Start-Operation Control System.
2. Set temperature control switch (11) so that 「25.0」 is indicated on LCD (7). Set fresh air vent switch (13) in the fresh air circulation mode.
3. Select the front vents  or the front and rear vents  using MODE switch (14).

Control air flow direction by adjusting the louvers at the front vent (1) and the defroster vent (3).

Control air temperature in the cab by operating temperature control switch (11). If the windowpanes become clouded in rainy season or when dehumidifying, turn the indicator of A/C switch (8) ON.



M178-01-074



MCBB-01-003

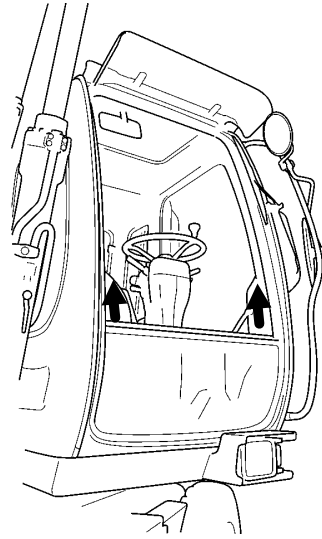
OPERATOR'S STATION

REMOVING AND STORING LOWER FRONT WINDOW

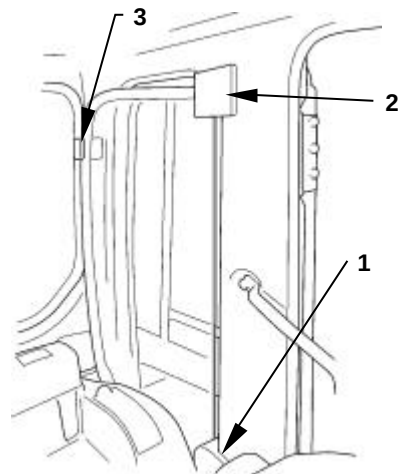


CAUTION: Take care not to pinch your fingers when handling the lower front window.

1. Open the upper front window beforehand when removing the lower front window.
2. While pushing the lower front window outward, raise it to remove.
3. Install the removed windowpane in the rear-left storing position. Install rubbers (1, 2 and 3) in order.



MCBB-01-019

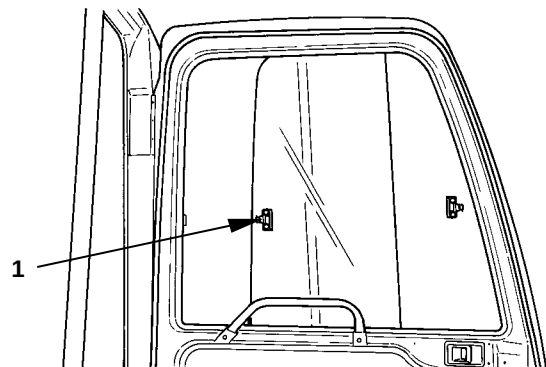


M178-01-086

OPENING SIDE WINDOWS

Opening Cab Door Window (1)

Slide the windowpane to open/close the cab door window.



Cab Door Window

MCBB-01-020

OPERATING THE ENGINE

INSPECT MACHINE DAILY BEFORE START- ING

ELECTRICAL SYSTEM

Check for worn or frayed wires and loose connections.

BOOM, BUCKET, SHEET METAL, CHASSIS

Check for bent, broken or missing parts.

HARDWARE

Check for loose or missing parts.

FUEL SYSTEM

Drain water and deposits from fuel tank.

HYDRAULIC SYSTEM

Check for leaks, kinked hoses, and lines or hoses that rub against each other or other parts.

LUBRICATION

Check lubrication points on the Periodic Service Chart.

PROTECTIVE DEVICES

Check guards, fenders.

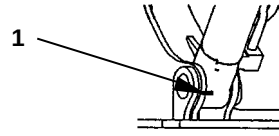
SAFETY

Walk around machine to clear all bystanders/obstacles from machine area.

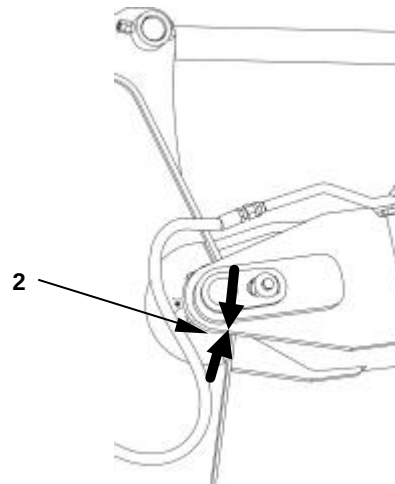
DRIVING THE MACHINE

Positioning monoblock boom attachment in traveling (Refer to the monoblock boom descriptions on other attachment pages for monoblock boom operation.)

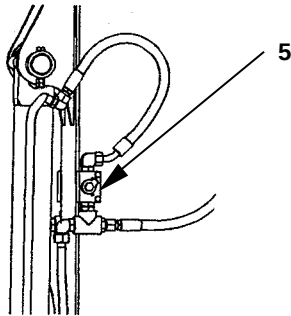
1. Retract the boom cylinder to align marks (1).
2. Extend the bucket cylinder.
3. Align marks (2) on the arm and the tip of the boom.
4. Turn stop valve (3) 90° to lock the boom cylinder.
5. Turn stop valve (4) 90° to lock the arm cylinder.
6. Turn stop valve (5) 90° to lock the bucket cylinder.



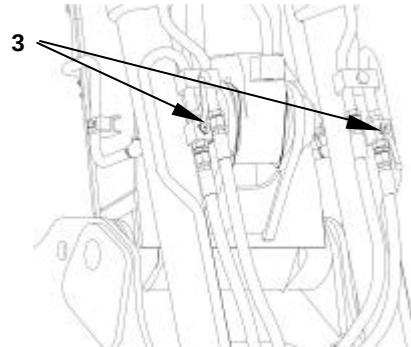
Boom Cylinder Aligning Mark MCBB-04-015



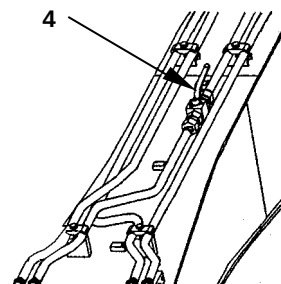
Arm Position Aligning Mark MCBB-04-001



Bucket Cylinder Stop Valve MCBB-04-017



Boom Cylinder Stop Valve MCBB-04-004



Arm Cylinder Stop Valve MCBB-04-016

OPERATING THE MACHINE

CONTROL LEVER (ISO PATTERN)



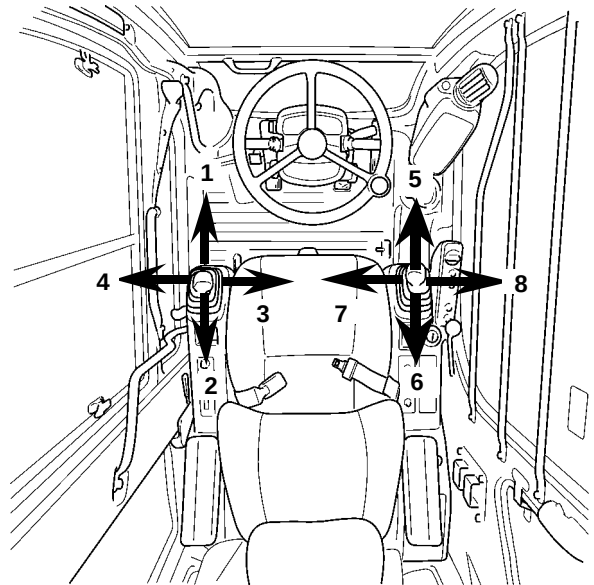
CAUTION: Never place any part of body beyond window frame. It could be crushed by the boom if boom control lever is accidentally bumped or otherwise engaged. If window is missing or broken, replace immediately. Prevent possible injury from unexpected machine movement. Make sure you know the location and function of each control before operating.

The machine is equipped with a label showing the control patterns of the levers and pedals.

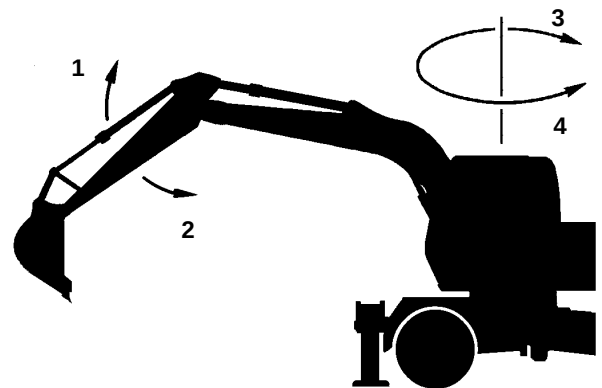
IMPORTANT: When digging, avoid hitting tracks with boom cylinders. When digging over the end of the tracks, travel motors should be at the rear to maximize machine stability and lift capacity.

When a lever is released, it will automatically return to neutral, and that machine function will stop.

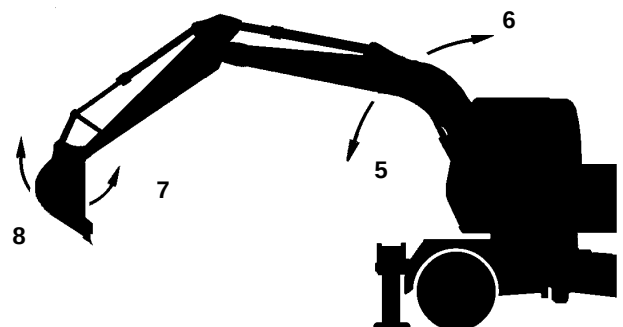
- 1- Arm Roll-Out
- 2- Arm Roll-In
- 3- Swing Right
- 4- Swing Left
- 5- Boom Lower
- 6- Boom Raise
- 7- Bucket Roll-In.
- 8- Bucket Roll-Out.



MCBB-01-002



M202-01-001



M202-01-002

OPERATING THE MACHINE

POWER MODE

One of three engine speed modes, E, P or H/P mode, can be selected using power mode switch (1).

- E (Economy) Mode

Even if the engine speed is reduced in the E mode, digging force remains unchanged from that in the P mode. Although production is reduced slightly more than in the P mode, the fuel consumption and noise levels are reduced, allowing the machine to operate most efficiently.

- P Mode

Operate the machine in this mode when performing normal work.

- H/P (High Power) Mode



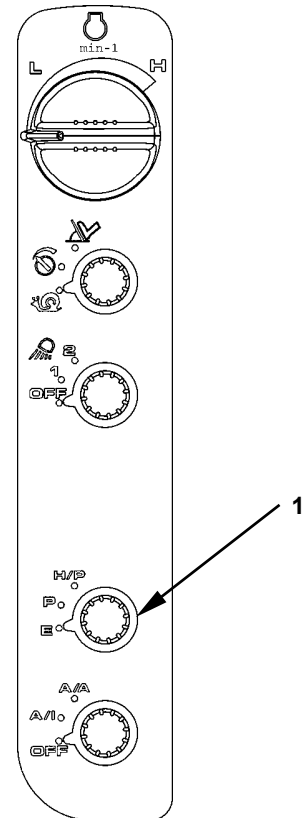
CAUTION: In the H/P mode, the engine speed will change quickly. To ensure safety, be sure to turn power mode switch (1) to the P or E mode position before starting such works as loading the machine on or off a trailer or lifting a load with the front attachment, which may result in personal accidents if the engine speed is suddenly changed.

When rolling in the arm while digging deep trenches for example, more power may be required. In such cases, use the H/P mode. The maximum power of the machine can be utilized in this mode, increasing work efficiency when more power is required than in the P mode.

The H/P mode is activated and the engine speed is increased when the boom raise or the arm rolled-in operation is made with the engine control dial nearly in the maximum position.



NOTE: In the H/P mode, the engine speed changes depending on load applied to the machine.



MCBB-01-014

OPERATING THE MACHINE

EMERGENCY BOOM LOWERING PROCEDURE (Without hose-rupture safety valve)

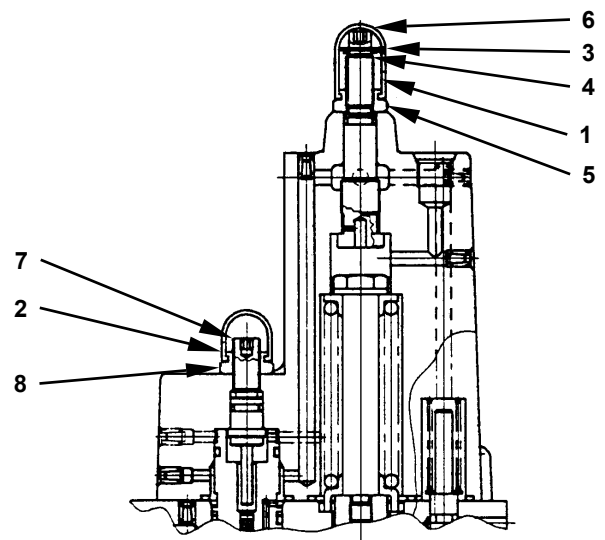
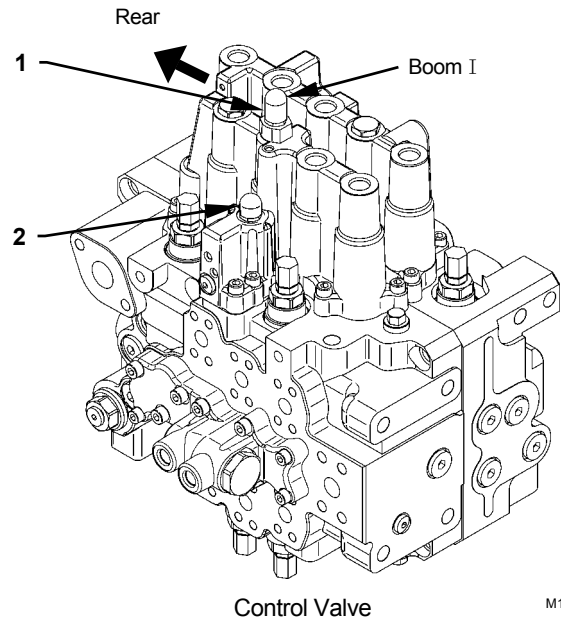
ZAXIS130W, 160W, 180W

CAUTION: Never allow anyone to come under the front attachment while performing the emergency boom lowering procedure.

If the engine stalls and cannot be restarted, lower the boom and the bucket to the ground referring to the emergency boom lowering procedure stated below.

1. Remove rubber caps (1) and (2) from the boom I section of the 4-spool control valve.
2. Remove lock nut (8) using a wrench (17 mm). Be sure to turn the wrench counterclockwise to remove lock nut (8).
3. Turn socket-head screw (7) clockwise to the stop using an allen wrench (4 mm).
4. Turn lock nut (5) counterclockwise to loosen it, using a wrench (17 mm).
5. Loosen socket-head screw (6) clockwise using an allen wrench (4 mm) while closely watching the boom lower. Note that the loosened degree of screw (6) determines the boom lowering speed. Adjust the boom lowering speed with the allen wrench as required.
Take care not to remove snap ring (3) and washer (4) at this time. Also, do not loosen screw (6) excessively or cause washer (4) to be deformed.
6. After the bucket is lowered to the ground, turn screws (6) and (7) counterclockwise to the stop. Loosen screw (7) 1/8 of a turn clockwise. Tighten lock nuts (5) and (8).
Tightening Torque: 20 N·m (2 kgf·m)
7. Re-install rubber caps (1) and (2). Be sure to return them to their original positions.

NOTE: Be sure to work on screw (7) first, then, on screw (6), as stated above.



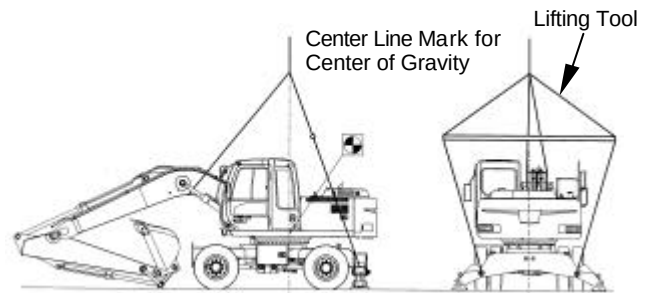
TRANSPORTATION

MACHINE LIFTING PROCEDURE



CAUTION:

- Lifting wire ropes and other lifting tools can break, possibly causing serious personal injury. Do not use damaged or deteriorated wire ropes or lifting tools.
 - Be sure to contact your authorized dealer for correct lifting procedure, and size and kinds of lifting wire ropes and lifting tools.
 - Pull the pilot control shut-off lever to the LOCK position so that the machine does not accidentally move while being lifted.
 - Incorrect lifting procedure and/or incorrect wire rope attachment will cause the machine to move (shift) while being lifted, resulting in machine damage and/or personal injury.
 - Do not lift the machine quickly. Excessive load will be applied to the lifting wire ropes and/or lifting tools, possibly causing them to break.
 - Do not allow anyone to come close to or under the lifted machine.
-
- Consult your nearest Hitachi dealer for the machine lifting procedures, and/or the size and kinds of the slings and equipment.



MCBB-06-002

MAINTENANCE

C. TRANSMISSION (See Page 7-26)

Parts				Quantity	Interval (hours)							
					8	50	100	250	500	1000	2000	
1. Pump Transmission (ZAXIS180W, 210W)	Oil Level Check			—								
	Change			1.0 L (0.26 US gal)								
2. Swing Reduction Gear	Oil Level Check			—								
	Change	ZAXIS130W		3.2 L (0.85 US gal)								
		ZAXIS160W, 180W, 210W		6.2 L (1.64 US gal)								
3. Transmission	Oil Level Check			—								
	Change	ZAXIS130W, 160W		3.2 L (0.85 US gal)			★					
		ZAXIS180W, 210W		2.9 L (0.77 US gal)			★					
4. Front Axle	Oil Level Check			—	Every one month							
	Change	ZAXIS130W		8.5 L (2.2 US gal)					★			
		ZAXIS160W	STD.	8.5 L (2.2 US gal)					★			
			WD.	10.0 L (2.6 US gal)					★			
		ZAXIS180W		8.5 L (2.2 US gal)					★			
		ZAXIS210W	STD.	11.0 L (2.91 US gal)					★			
			WD.	12.0 L (3.17 US gal)					★			
5. Rear Axle	Oil Level Check			—	Every one month							
	Change	ZAXIS130W		11.0 L (2.91 US gal)					★			
		ZAXIS160W	STD.	11.0 L (2.91 US gal)					★			
			WD.	10.3 L (3.72 US gal)					★			
		ZAXIS180W		11.0 L (2.91 US gal)					★			
		ZAXIS210W	STD.	13.0 L (3.44 US gal)					★			
			WD.	13.5 L (3.6 US gal)					★			
6. Front and Rear Hub Reduction Device	Oil Level Check			—	Every one month							
	Change	ZAXIS130W	Front	1.0 L×2 (0.26 US gal×2)					★			
			Rear	1.0 L×2 (0.26 US gal×2)					★			
		ZAXIS160W	STD.	Front	2.0 L×2 (0.53 US gal×2)					★		
				Rear	2.0 L×2 (0.53 US gal×2)					★		
			WD.	Front	2.0 L×2 (0.53 US gal×2)					★		
				Rear	1.0 L×2 (0.26 US gal×2)					★		
		ZAXIS180W	Front	2.0 L×2 (0.56 US gal×2)					★			
			Rear	2.0 L×2 (0.56 US gal×2)					★			
		ZAXIS210W	STD.	Front	2.0 L×2 (0.53 US gal×2)					★		
				Rear	2.0 L×2 (0.53 US gal×2)					★		
			WD.	Front	2.0 L×2 (0.53 US gal×2)					★		
				Rear	2.0 L×2 (0.53 US gal×2)					★		

 **NOTE:** ★ Maintenance required only during first time check.

D. BRAKE (TRAVELING) (See Page 7-32)

Parts	Quantity	Interval (hours)						
		8	50	100	250	500	1000	2000
1. Check Brake Accumulator	—							
2. Check Brake Lining for Wear	—	As required						

E. TIRE (See Page 7-35)

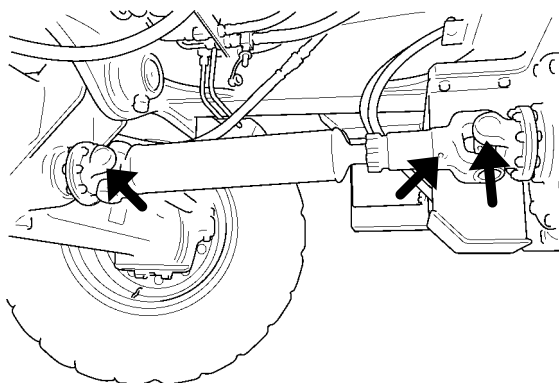
Parts		Quantity	Interval (hours)						
			8	50	100	250	500	1000	2000
1. Tire	Inspection	8							
	Replacement	—	As required						

MAINTENANCE

5

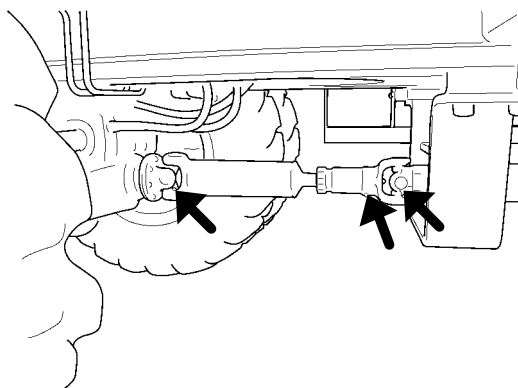
Propel Shaft (Front and Rear) --- every 500 hours

Grease all the fittings shown in the figure.



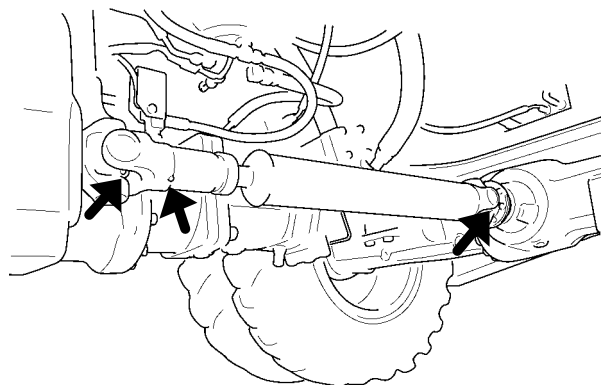
ZAXIS130W, 160W Front

MCBB-07-045



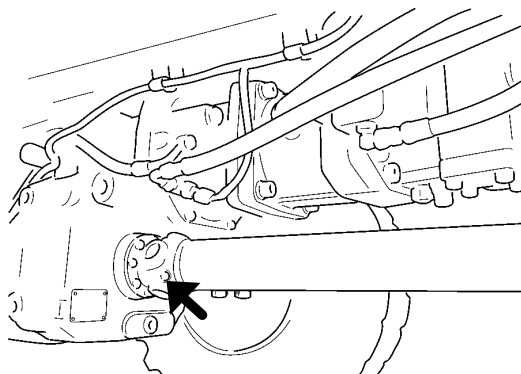
ZAXIS180W, 210W Front

MCBB-07-046



ZAXIS130W, 160W Rear

MCBB-07-047



ZAXIS180W, 210W Rear

MCBB-00-007

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

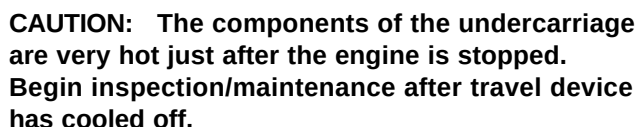
- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Front and Rear Hub Reduction Devices



-
- 1
- OIL LEVEL
- Check Position
- 1
- OIL LEVEL
- Drain Position
- MCBB-07-066

MCBB-07-023

- 7-31

MAINTENANCE

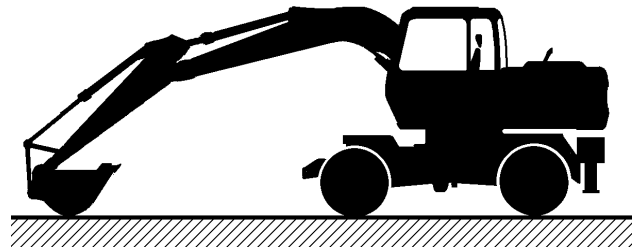
2

Drain Hydraulic Oil Tank Sump --- every 250 hours

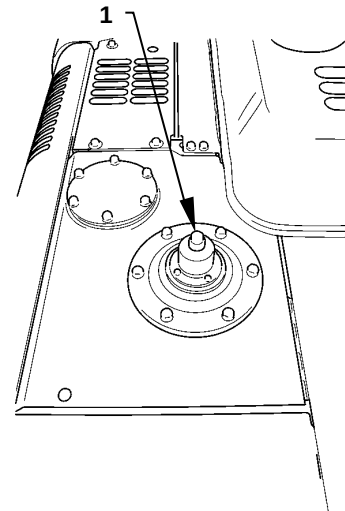


CAUTION: Hot hydraulic oil may spout immediately after operation, potentially causing severe burns. Drain the sump only when oil is cooled or before operating the machine in the morning.

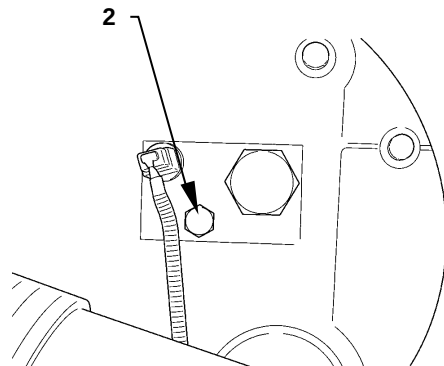
1. Park the machine on a solid level surface. As illustrated to the right, extend the bucket cylinder and retract the arm cylinder. Ground the bucket. Turn the brake switch on the steering column console to the P (parking) position. Stop the engine.
2. Leave the machine stationary. After oil is cooled, push the pressure release button (1) on the air brather to release pressure.
3. Slowly loosen drain plug (2) on the bottom of the hydraulic oil tank to drain water and sediment.



M202-07-028



MCBB-07-025



M178-07-020

MAINTENANCE

9

Check Hoses and Lines

- daily
- every 250 hours



CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. To avoid this hazard, search for leaks with a piece of cardboard. Take care to protect hands and body from high-pressure fluids. If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

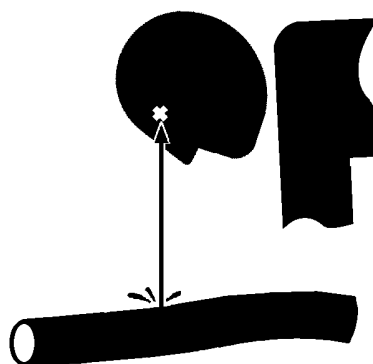


CAUTION: Hydraulic oil and lubricant leaks can lead to fire that may result in serious injury. To avoid this hazard :

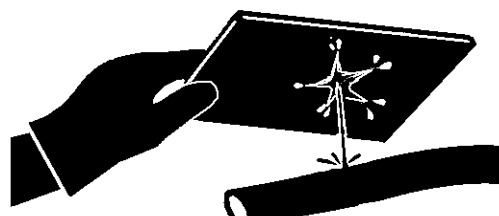
- Park the machine on a firm, level surface. Lower the bucket to the ground. Stop the engine. Remove key from the key switch. Pull the pilot control shut-off lever to the LOCK position.
- Check for missing or loose clamps, kinked hoses, lines or hoses that rub against each other, damaged oil cooler, and loose oil cooler flange bolts, for leaks. Check hoses, lines and oil cooler at the check points indicated below for leaks and other damage that may result in future leaks. If any abnormalities are found, replace or re-tighten them, as shown in Tables 1-3.
- Tighten, repair or replace any missing, loose or damaged clamps, hoses, lines, oil cooler, and loose oil cooler flange bolts. Do not bend or strike high-pressure lines. Never install bent or damaged hoses or lines.



SA-031



SA-292



SA-044

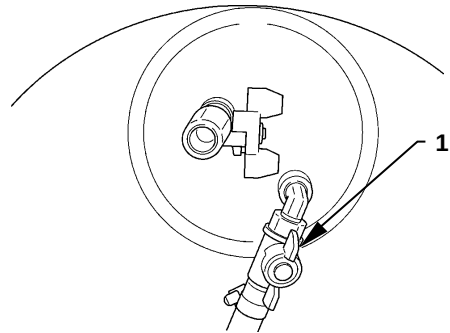
MAINTENANCE

4

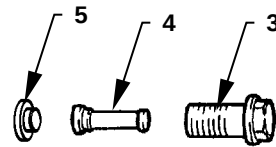
Clean Feed Pump Strainer

--- every 1000 hours,

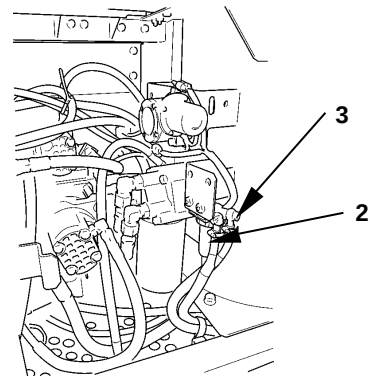
1. Close the stop valve (1) on the bottom of fuel tank to stop the fuel.
2. Remove the feed pump inlet hose joint bolt (3), located at water separator (2) inlet.
3. Remove strainer (4) from joint bolt (3) using a screw driver.
4. Clean strainer (4) using diesel fuel.
5. Install and tighten strainer (4) and plug (5) in joint bolt (3).
6. Install and tighten joint bolt (3). Then, bleed air from the fuel system.
7. Open the stop valve (1) on the bottom of fuel tank.
8. After cleaning feed pump strainer (4), bleed air from the fuel system.



M178-07-022

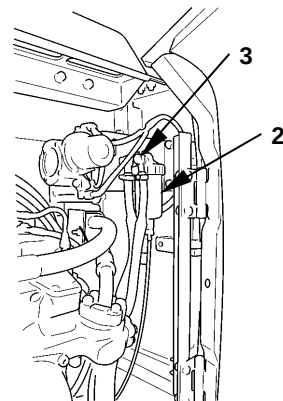


M178-07-102



ZAXIS130W, 160W

MCBB-07-028



ZAXIS180W, 210W

MCBB-07-029

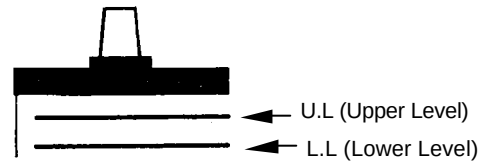
MAINTENANCE

Electrolyte Level Check --- every one month

1. Check the electrolyte level at least once a month.
2. Park the machine on level ground and stop the engine.
3. Check the electrolyte level.

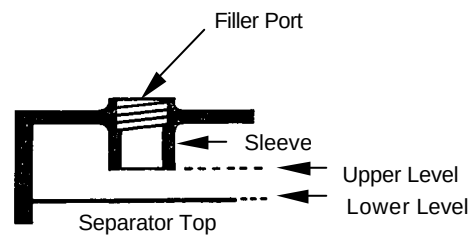
3.1 When checking the level from the battery side:

Clean around the level check lines with a wet towel. Don't use a dry towel. Static electricity may be developed, causing the battery gas to explode. Check if the electrolyte level is between U.L (Upper Level) and L.L (Lower Level). In case the electrolyte level is lower than the middle level between the U.L and L.L, immediately refill distilled water or commercial battery fluid. Be sure to refill with distilled water before recharging (operating the machine). After refilling, securely tighten the filler plug.



M146-07-109

- #### 3.2 When impossible to check the level from the battery side or no level check mark is indicated on the side:
- After removing the filler plug from the top of the battery. Check the electrolyte level by viewing through the filler port. It is difficult to judge the accurate electrolyte level in this case. Therefore, when the electrolyte level is flush with the U.L, the level is judged to be proper. Then, referring to the right illustrations, check the level. When the electrolyte level is lower than the bottom end of the sleeve, refill with distilled water or commercial battery fluid up to the bottom end of the sleeve. Be sure to refill with distilled water before recharging (operating the machine). After refilling, securely tighten the filler plug.



Proper

M146-07-110



Since the electrolyte surface touches the bottom end of the sleeve, the electrolyte surface is raised due to surface tension so that the electrode ends are seen curved.

M146-07-111

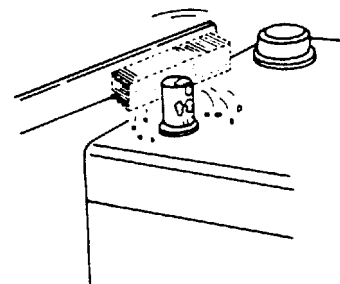
Lower



When the electrolyte surface is lower than the bottom end of the sleeve, the electrode ends are seen straight.

M146-07-112

- #### 3.3 When an indicator is available to check the level, follow its check result.
4. Always keep around the battery terminals clean to prevent battery discharge. Check terminals for loose and/or rust. Coat terminals with grease or petroleum jelly to prevent corrosion build up.



M409-07-072

MAINTENANCE

7

Clean and Replace Air Conditioner Filter

Clean Filter

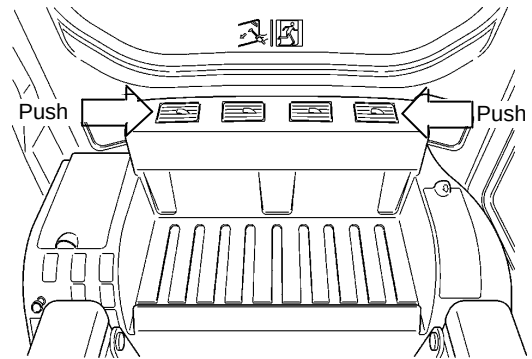
Circulating Air Filter --- every 500 hours

Fresh Air Filter --- every 500 hours

Replace Filter

Circulating Air Filter --- After cleaning 6 times or so

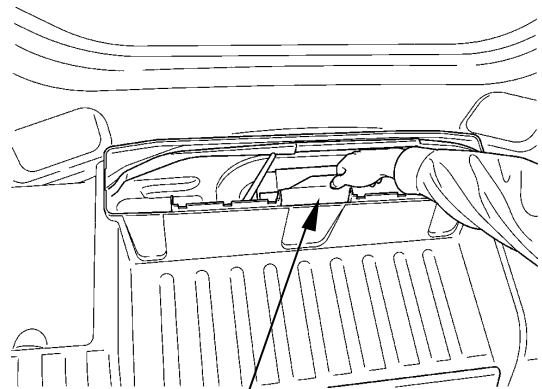
Fresh Air Filter --- After cleaning 6 times or so



M178-07-037

Removing Fresh Air Filter

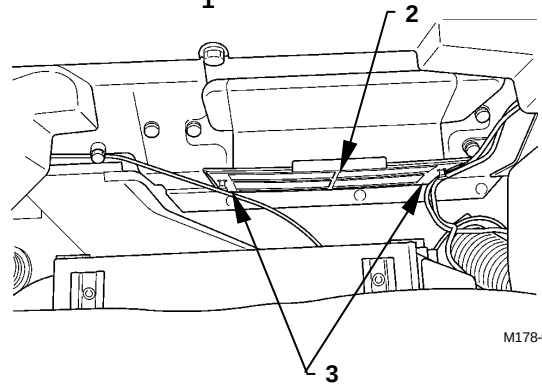
1. While pushing the cover side above the rear deck, raise the upper cover to remove.
2. After removing the upper cover, hold the grip of fresh air filter (1) and pull it out in the vertical direction.



M178-07-070

Removing Recirculation Filter

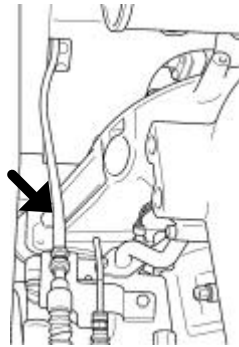
1. Recirculation filter (2) is located under the rear deck.
2. Holding grips (3), pull them toward you to remove.



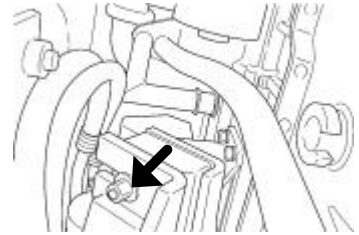
M178-07-071

MAINTENANCE

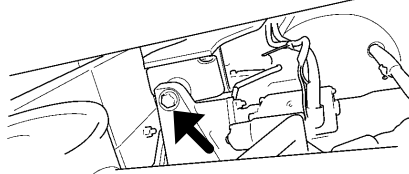
1. Retighten the engine insulation rubber mounting bolts and nuts.



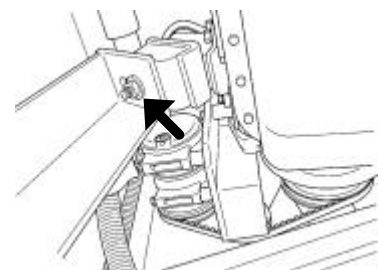
ZAXIS130W, 160W, 180W M175-07-022



M175-07-014

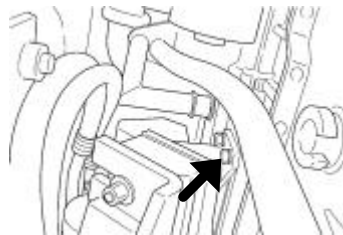


ZAXIS210W MCBB-07-034

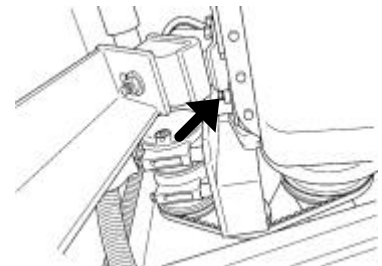


ZAXIS210W M178-07-041

2. Retighten the engine bracket mounting bolts.

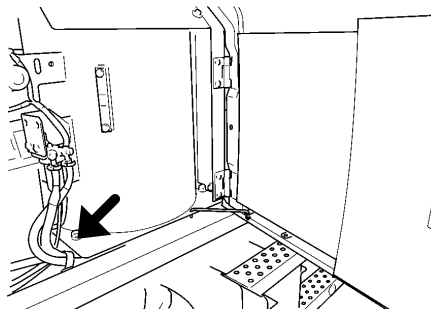


ZAXIS130W, 160W, 180W M175-07-014

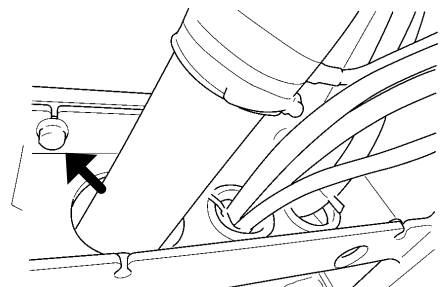


ZAXIS210W M178-07-041

3. Retighten the hydraulic oil tank mounting bolts.

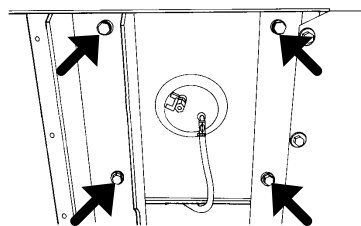


ZAXIS130W, 160W MCBB-07-003

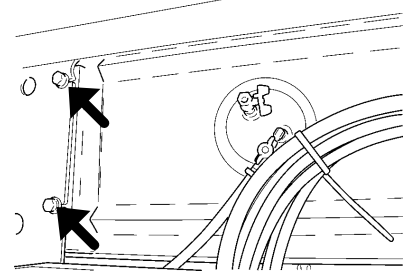


ZAXIS180W, 210W MCBB-07-035

4. Retighten the fuel tank mounting bolts.

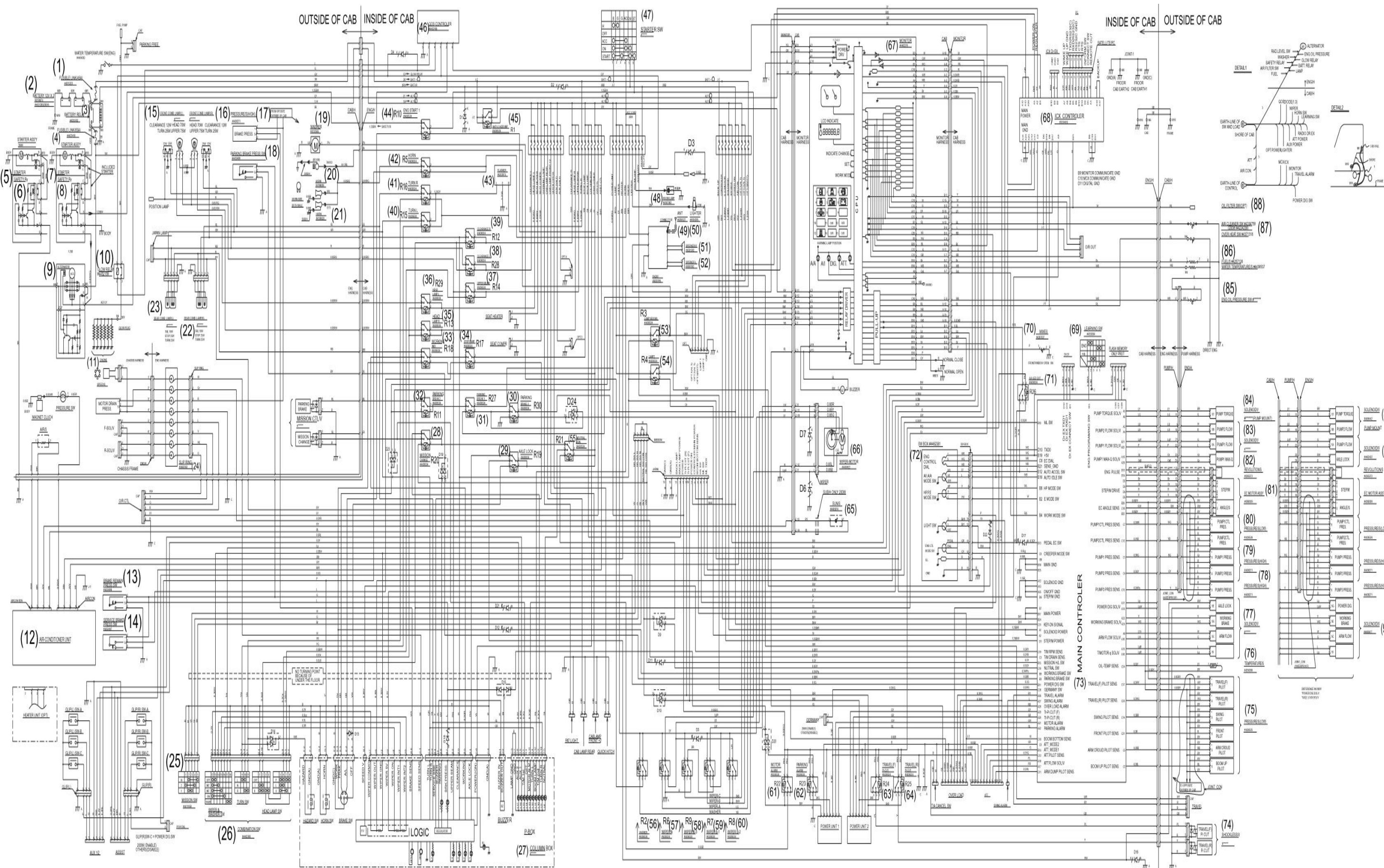


ZAXIS130W, 160W, 180W M175-07-027



ZAXIS210W MCBB-07-036

ELECTRICAL DIAGRAM



TROUBLESHOOTING

3. Engine is hard to start.

Problem	Cause	Solution
Starter will not rotate.	Low battery voltage	Charge batteries and replace.
	Increased resistance in starter circuit	* Clean and retighten battery terminals and starter terminals.
	Broken key switch	* Replace.
	Broken wire harness	* Repair and replace
	Broken battery relay	* Replace.
	Blown fusible link	* Replace.
	Brake switch is not in P or S.	Place brake switch to P or S.
Although starter rotates, engine will not start.	Poor quality fuel	Replace fuel.
	Faulty glow plug	* Replace glow plugs.
	Air in fuel line	Bleed air.
	Malfunction of EC motor	* Repair and replace
	Blown fuse	* Replace.
Although engine starts, engine runs at slow speed and easily stalls.	Degraded engine oil	Change engine oil.
	Contaminated injection nozzles	* Replace.
	Clogged fuel filter	Replace
	Incorrect adjustment of engine control cable	* Adjust
	Clogged feed pump strainer	Clean
	Blown fuse	Replace

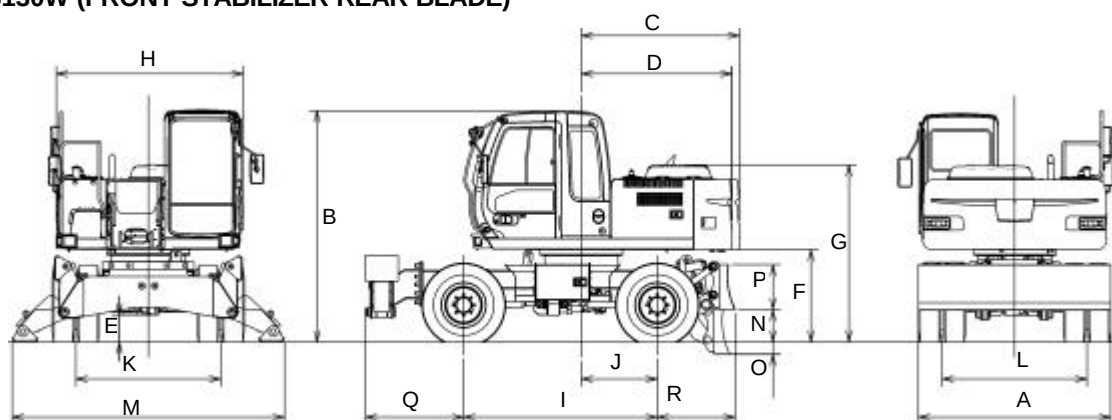
4. Control Lever

Problem	Cause	Solution
Heavy to control	Rusted joint	* Grease and repair
	Worn pusher	* Replace
Lever can not be moved smoothly.	Worn pusher	* Repair and replace
	Faulty pilot valve	* Replace
Lever can not return to neutral.	Faulty pilot valve	* Replace
Play increased so that lever cannot be held upright in neutral.	Rusted joint	* Repair and replace
	Faulty pilot valve	* Replace

SPECIFICATIONS

Specifications

ZAXIS130W (FRONT STABILIZER REAR BLADE)



MCBB-12-018

Type of Front-End Attachment			Monoblock boom	2-piece boom	
Type of Arm			-	2.52m (8 ft 3 in)	
Bucket Capacity (Heaped)			m ³ (yd ³)	PCSA 0.50m ³ (0.65yd ³), CECE 0.45m ³	
Operating Weight			kg (lb)	14600 (32200)	
Basic Machine Weight			kg (lb)	11800 (26000)	
Engine			ISUZU	Engine family 4BG1XABF Engine Type 4BG1XABFA	
			Traveling	Digging	
				H/P mode	P mode
Engine Power	DIN 6271 net	kW/min ⁻¹ (PS/rpm)	87.5 (119)/2200	86.2 (117)/1950	83 (113)/1750
	SAE J1349 net	kW/min ⁻¹ (PS/rpm)	87.5 (119)/2200	86.2 (117)/1950	83 (113)/1750
	ISO 9249 net	kW/min ⁻¹ (PS/rpm)	87.5 (119)/2200	86.2 (117)/1950	83 (113)/1750
	ECE-R24	kW/min ⁻¹ (PS/rpm)	87.5 (119)/2200		
A: Overall Width (Excluding Rearview Mirrors)			mm (ft.in)	2530 (8' 4")	
B: Cab Height			mm (ft.in)	3030 (9' 11")	
C: Rear End Swing Radius			mm (ft.in)	1980 (6' 6")	
D: Rear End Length			mm (ft.in)	1980 (6' 6")	
E: Minimum Ground Clearance			mm (ft.in)	360 (1' 2")	
F: Counterweight Clearance			mm (ft.in)	1215 (4' 0")	
G: Engine Cover Height			mm (ft.in)	2320 (7' 7")	
H: Overall Width of Upperstructure			mm (ft.in)	2465 (8' 1")	
I: Wheelbase			mm (ft.in)	2550 (8' 4")	
J: Swing-center to Rear Axle			mm (ft.in)	1000 (3' 3")	
K: Front Wheel Tread			mm (ft.in)	1915 (6' 3")	
L: Rear Wheel Tread			mm (ft.in)	1915 (6' 3")	
M: Stabilizer Spread			mm (ft.in)	3570 (11' 9")	
N: Max. Raising Height			mm (ft.in)	440 (1' 5")	
O: Max. Digging Depth			mm (ft.in)	150 (6")	
P: Blade Height			mm (ft.in)	590 (1' 11")	
Q: Front Axle to Front of Chassis			mm (ft.in)	1300 (4' 3")	
R: Rear Axle to Rear of Chassis			mm (ft.in)	1020 (3' 4")	
Tire Size			-	10.00-20 14PR	
Swing Speed			min ⁻¹ (rpm)	13.1	
Travel Speed (fast/low/creeper) ?			km/h(mph)	34/8.6/2.5 (21.1/5.3/1.6)	
Gradeability			degree(%)	35 (70)	

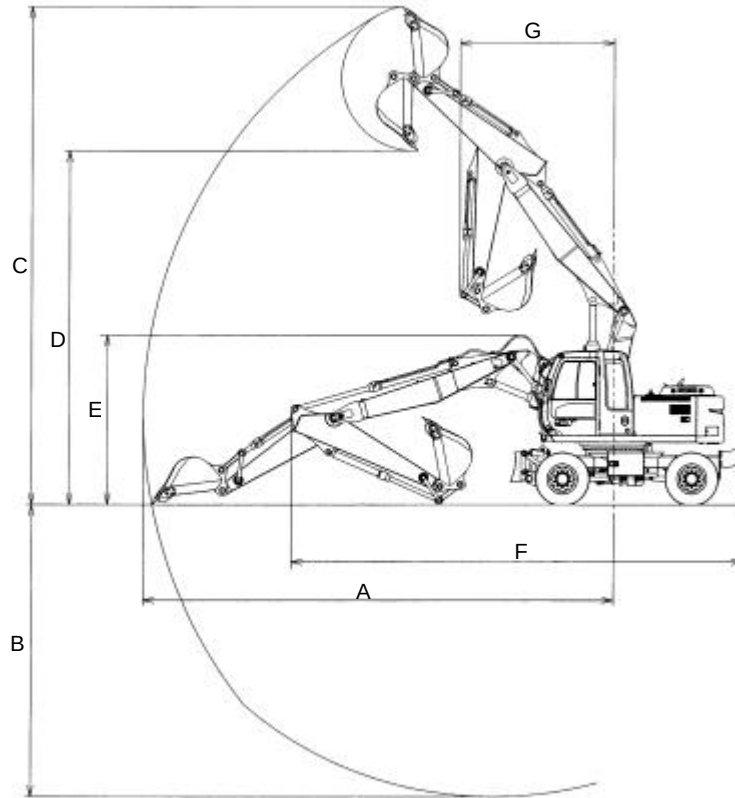
NOTE: ? The specification not matching the local regulation is excluded.

SPECIFICATIONS

Working Ranges

ZAXIS160W

2-PIECE BOOM



MCBB-12-007

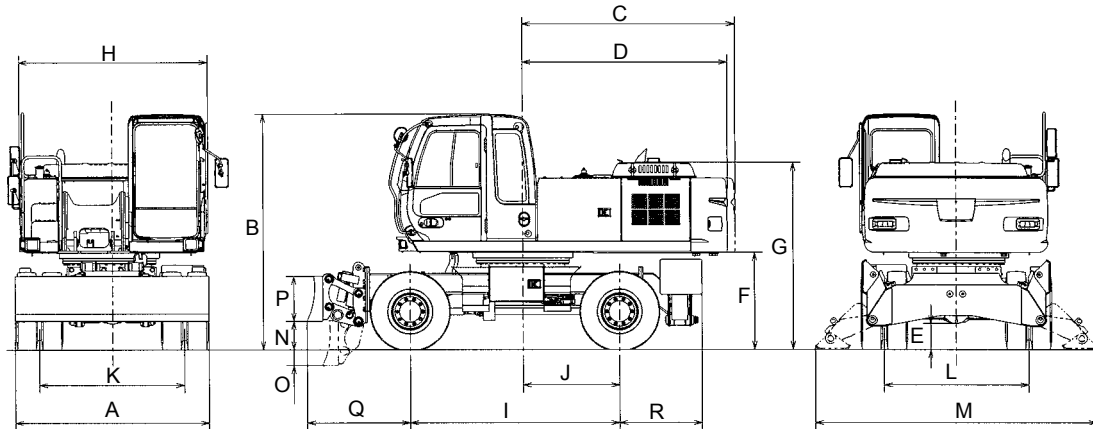
Type of Front-End Attachment		2-piece Boom		
Item	Category	2.21 m (7 ft 3 in) Arm	2.50 m (8 ft 2 in) Arm	3.10 m (10 ft 2 in) Arm
		Backhoe	Backhoe	Backhoe
A: Maximum Digging Reach	mm (ft-in)	9020 (29' 7")	9280 (30' 5")	9800 (32' 2")
B: Maximum Digging Depth	mm (ft-in)	5440 (17' 10")	5730 (18' 10")	6300 (20' 8")
C: Maximum Cutting Height	mm (ft-in)	9650 (31' 8")	9800 (32' 2")	10090 (33' 1")
D: Maximum Dumping Height	mm (ft-in)	6810 (22' 4")	6970 (22' 10")	7260 (23' 10")
E: Transport Height	mm (ft-in)	3300 (10' 10")	3340 (10' 11.5")	3610 (11' 10")
F: Overall Transport Length				
Std. Shassis Rear BL	mm (ft-in)	8550 (28' 1")	* 8920 (29' 3")	* 8880 (29' 2")
Short Shassis Rear BL	mm (ft-in)	8550 (28' 1")	8540 (28' 0")	8500 (27' 11")
Std. Shassis Rear STB.	mm (ft-in)	8550 (28' 1")	* 8920 (29' 3")	* 8880 (29' 2")
Short Shassis Rear STB.	mm (ft-in)	8550 (28' 1")	8540 (28' 0")	8500 (27' 11")
Front BL Rear STB.	mm (ft-in)	8550 (28' 1")	* 9220 (30' 3")	* 9180 (30' 1")
Front STB. Rear BL	mm (ft-in)	8550 (28' 1")	* 9220 (30' 3")	* 9180 (30' 1")
FrontSTB.RearSTB.	mm (ft-in)	8550 (28' 1")	* 9220 (30' 3")	* 9180 (30' 1")
G: Minimum Swing Radius	mm (ft-in)	3070 (10' 1")	3030 (9' 11")	3430 (11' 3")

NOTE: * Transport the machine with the rear side facing forward.

SPECIFICATIONS

Specifications

ZAXIS210W (Standard GAUGE, FRONT BLADE REAR STABILIZER)



MCBB-12-010

Type of Front-End Attachment			Monoblock boom	2-piece boom	
Type of Arm			—	2.91m (9 ft 7 in)	2.41m (7 ft 11 in)
Bucket Capacity (Heaped)			m ³ (yd ³)	PCSA 0.80m ³ (1.05yd ³), CECE 0.70m ³	
Operating Weight			kg (lb)	20300 (44800)	21200 (46700)
Basic Machine Weight			kg (lb)	16000 (35300)	16000 (35300)
Engine			ISUZU	Engine family 6BG1XAB Engine Type 6BG1XABFA	
			Traveling	Digging	
				H/P mode	P mode
Engine Power	DIN 6271 net	kW/min ⁻¹ (PS/rpm)	110 (150)/2100	110 (150)/2100	105.6 (144)/1900
	SAE J1349 net	kW/min ⁻¹ (PS/rpm)	110 (150)/2100	110 (150)/2100	105.6 (144)/1900
	ISO 9249 net	kW/min ⁻¹ (PS/rpm)	110 (150)/2100	110 (150)/2100	105.6 (144)/1900
	ECE-R24	kW/min ⁻¹ (PS/rpm)	108.1 (147)/2100		
A: Overall Width (Excluding Rearview Mirrors)			mm (ft-in)	2530 (8' 4")	
B: Cab Height			mm (ft-in)	3110 (10' 2")	
C: Rear End Swing Radius			mm (ft-in)	2700 (8' 10")	
D: Rear End Length			mm (ft-in)	2690 (8' 10")	
E: Minimum Ground Clearance			mm (ft-in)	340 (1' 1")	
F: Counterweight Clearance			mm (ft-in)	1275 (4' 2")	
G: Engine Cover Height			mm (ft-in)	2465 (8' 1")	
H: Overall Width of Upperstructure			mm (ft-in)	2490 (8' 2")	
I: Wheelbase			mm (ft-in)	2750 (9' 0")	
J: Swing-center to Rear Axle			mm (ft-in)	1270 (4' 2")	
K: Front Wheel Tread			mm (ft-in)	1875 (6' 2")	
L: Rear Wheel Tread			mm (ft-in)	1875 (6' 2")	
M: Stabilizer Spread			mm (ft-in)	3700 (12' 2")	
N: Max. Raising Height			mm (ft-in)	375 (1' 3")	
O: Max. Digging Depth			mm (ft-in)	215 (8")	
P: Blade Height			mm (ft-in)	590 (1' 11")	
Q: Front Axle to Front of Chassis			mm (ft-in)	1355 (4' 5")	
R: Rear Axle to Rear of Chassis			mm (ft-in)	1080 (3' 7")	
Tire Size			—	10.00-20 14PR	
Swing Speed			min ⁻¹ (rpm)	13.6	
Travel Speed (fast/low/creeper) ※			km/h (mph)	25/6.6/2.0 (15.5/4.1/1.2)	
Gradeability			degree(%)	35 (70)	

NOTE: ※ The specification not matching the local regulation is excluded.

OPTIONAL ATTACHMENTS AND DEVICES

Stabilizer



CAUTION: Securely hold the stabilizer with pins (1 and 2) before traveling.

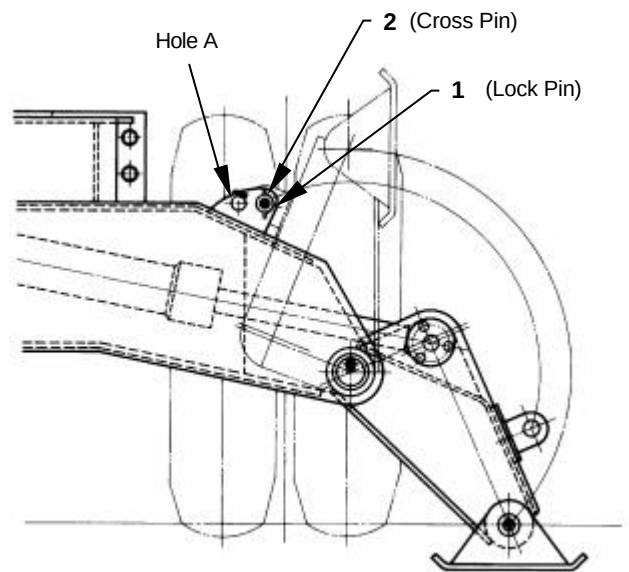
Install/Remove Stabilizer Lock Pins

1. Install Lock Pins

- (1) After raising the stabilizer, always securely hold the stabilizer with lock pin (1) and cross pin (2).

2. Remove Lock Pins

- (1) Use hole A to stow the removed lock pins.
- (2) After removing pins (1 and 2), securely hold them in hole A.

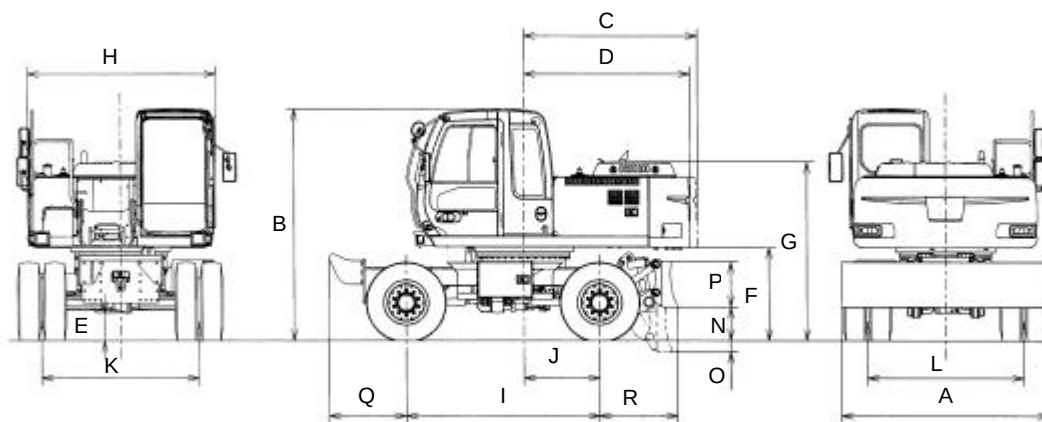


M202-05*032

OPTIONAL ATTACHMENTS AND DEVICES

Specifications

ZAXIS160W (Wide GAUGE, Standard CHASSIS, REAR BLADE)



MCBB-13-015

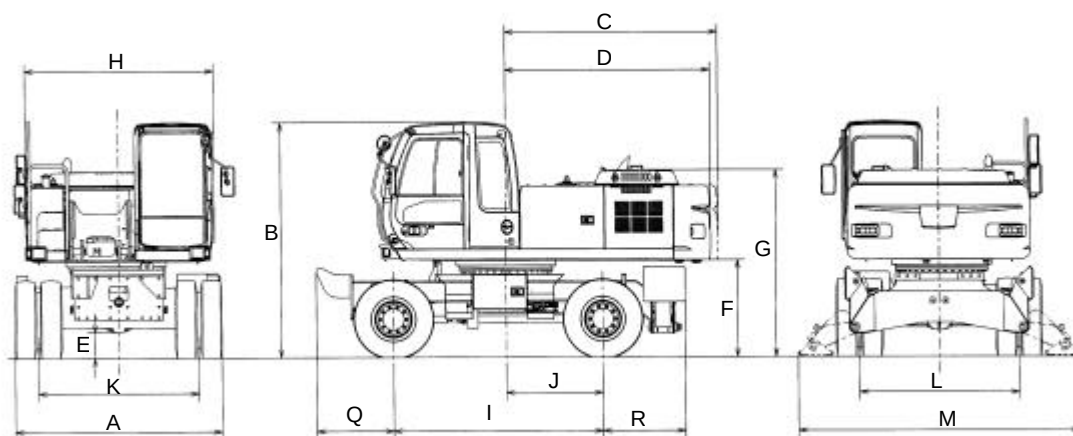
Type of Front-End Attachment			Monoblock boom	2-piece boom	
Type of Arm			-	2.58m (8 ft 6 in)	2.50m (8 ft 2 in)
Bucket Capacity (Heaped)			m ³ (yd ³)	PCSA 0.60m ³ (0.78yd ³), CECE 0.55m ³	
Operating Weight			kg (lb)	16000 (35300)	16500 (36400)
Basic Machine Weight			kg (lb)	12500 (27600)	12500 (27600)
Engine			ISUZU	Engine family 4BG1XABF Engine Type 4BG1XABFA	
			Traveling	Digging	
				H/P mode	P mode
Engine Power	DIN 6271 net	kW/min ⁻¹ (PS/rpm)	90.2 (123)/2300	89.7 (122)/2050	84.8 (115)/1850
	SAE J1349 net	kW/min ⁻¹ (PS/rpm)	90.2 (123)/2300	89.7 (122)/2050	84.8 (115)/1850
	ISO 9249 net	kW/min ⁻¹ (PS/rpm)	90.2 (123)/2300	89.7 (122)/2050	84.8 (115)/1850
	ECE-R24	kW/min ⁻¹ (PS/rpm)	90.2 (123)/2300		
A: Overall Width (Excluding Rearview Mirrors)			mm (ft-in)	2730 (8' 11")	
B: Cab Height			mm (ft-in)	3045 (9' 11.9")	
C: Rear End Swing Radius			mm (ft-in)	2190 (7' 2")	
D: Rear End Length			mm (ft-in)	2190 (7' 2")	
E: Minimum Ground Clearance			mm (ft-in)	360 (1' 2")	
F: Counterweight Clearance			mm (ft-in)	1215 (4' 0")	
G: Engine Cover Height			mm (ft-in)	2345 (7' 8")	
H: Overall Width of Upperstructure			mm (ft-in)	2465 (8' 1")	
I: Wheelbase			mm (ft-in)	2550 (8' 4")	
J: Swing-center to Rear Axle			mm (ft-in)	1000 (3' 3")	
K: Front Wheel Tread			mm (ft-in)	2055 (6' 9")	
L: Rear Wheel Tread			mm (ft-in)	2055 (6' 9")	
M: Stabilizer Spread			mm (ft-in)	-	
N: Max. Raising Height			mm (ft-in)	440 (1' 5")	
O: Max. Digging Depth			mm (ft-in)	150 (6")	
P: Blade Height			mm (ft-in)	590 (1' 11")	
Q: Front Axle to Front of Chassis			mm (ft-in)	1015 (3' 4")	
R: Rear Axle to Rear of Chassis			mm (ft-in)	1025 (3' 4")	
Tire Size			-	10.00-20 14PR	
Swing Speed			min ⁻¹ (rpm)	13.3	
Travel Speed (fast/low/creeper) ?			km/h(mph)	32/9.0/2.3 (19.9/5.6/1.4)	
Gradeability			degree(%)	35 (70)	

NOTE: ? The specification not matching the local regulation is excluded.

OPTIONAL ATTACHMENTS AND DEVICES

Specifications

ZAXIS210W (Wide GAUGE, REAR STABILIZER)



MCBB-13-021

Type of Front-End Attachment			Monoblock boom	2-piece boom	
Type of Arm			-	2.91m (9 ft 7 in)	2.41m (7 ft 11 in)
Bucket Capacity (Heaped)			m ³ (yd ³)	PCSA 0.80m ³ (1.05yd ³), CECE 0.70m ³	
Operating Weight			kg (lb)	19400 (42800)	20300 (44800)
Basic Machine Weight			kg (lb)	15100 (33300)	15100 (33300)
Engine			ISUZU	Engine family 6BG1XAB Engine Type 6BG1XABFA	
			Traveling	Digging	
				H/P mode	P mode
Engine Power	DIN 6271 net	kW/min ⁻¹ (PS/rpm)	110 (150)/2100	110 (150)/2100	105.6 (144)/1900
	SAE J1349 net	kW/min ⁻¹ (PS/rpm)	110 (150)/2100	110 (150)/2100	105.6 (144)/1900
	ISO 9249 net	kW/min ⁻¹ (PS/rpm)	110 (150)/2100	110 (150)/2100	105.6 (144)/1900
	ECE-R24	kW/min ⁻¹ (PS/rpm)	108.1 (147)/2100		
A: Overall Width (Excluding Rearview Mirrors)			mm (ft.in)	2700 (8' 10")	
B: Cab Height			mm (ft.in)	3110 (10' 2")	
C: Rear End Swing Radius			mm (ft.in)	2700 (8' 10")	
D: Rear End Length			mm (ft.in)	2690 (8' 10")	
E: Minimum Ground Clearance			mm (ft.in)	340 (1' 1")	
F: Counterweight Clearance			mm (ft.in)	1275 (4' 2")	
G: Engine Cover Height			mm (ft.in)	2465 (8' 1")	
H: Overall Width of Upperstructure			mm (ft.in)	2490 (8' 2")	
I: Wheelbase			mm (ft.in)	2750 (9' 0")	
J: Swing-center to Rear Axle			mm (ft.in)	1270 (4' 2")	
K: Front Wheel Tread			mm (ft.in)	2055 (6' 9")	
L: Rear Wheel Tread			mm (ft.in)	2055 (6' 9")	
M: Stabilizer Spread			mm (ft.in)	3700 (12' 2")	
N: Max. Raising Height			mm (ft.in)	-	
O: Max. Digging Depth			mm (ft.in)	-	
P: Blade Height			mm (ft.in)	-	
Q: Front Axle to Front of Chassis			mm (ft.in)	1020 (3' 4")	
R: Rear Axle to Rear of Chassis			mm (ft.in)	1080 (3' 7")	
Tire Size			-	10.00-20 14PR	
Swing Speed			min ⁻¹ (rpm)	13.6	
Travel Speed (fast/low/creeper) ?			km/h(mph)	25/6.6/2.0 (15.5/4.1/1.2)	
Gradeability			degree(%)	35 (70)	

NOTE: ? The specification not matching the local regulation is excluded.

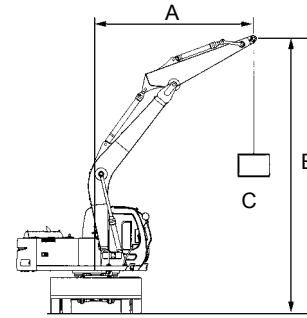
OPTIONAL ATTACHMENTS AND DEVICES

LIFTING CAPACITIES (ZAXIS160W)

NOTE: 1. Lifting capacity of the ZX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)

2. * Indicates load limited by hydraulic capacity.

NOTE: R: Rear
F: Front
BL: Blade
ST: Stabilizer



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

MCBB-13-025

METRIC MEASURE

ZAXIS160W Monoblock Boom, Standard Gauge, Arm 2.22 m

Unit; ton

B; Load Point Height m		A: Load Radius										Max		Reach m
		3m		4m		5m		6m		7m				
														
6	R-BL UP					3.7	3.6					2.9	2.8	5.77
	R-BL DOWN					4.8 *	4.1					4.6 *	3.2	
	R-ST					4.8 *	4.8 *					4.6 *	3.9	
	F-ST, R-BL					4.8 *	4.8 *					4.6 *	4.6 *	
	F-BL, R-ST					4.8 *	4.8 *					4.6 *	4.6 *	
	4-ST					4.8 *	4.8 *					4.6 *	4.6 *	
5	R-BL UP			5.2	4.9	3.7	3.5	2.7	2.6			2.4	2.3	6.42
	R-BL DOWN			5.6 *	5.6 *	5.0 *	4.0	4.6 *	3.0			4.5 *	2.7	
	R-ST			5.6 *	5.6 *	5.0 *	4.9	4.6 *	3.6			4.5 *	3.3	
	F-ST, R-BL			5.6 *	5.6 *	5.0 *	5.0 *	4.6 *	4.3			4.5 *	3.9	
	F-BL, R-ST			5.6 *	5.6 *	5.0 *	5.0 *	4.6 *	4.6 *			4.5 *	4.1	
	4-ST			5.6 *	5.6 *	5.0 *	5.0 *	4.6 *	4.6 *			4.5 *	4.5 *	
4	R-BL UP			4.9	4.7	3.5	3.3	2.7	2.5			2.2	2.0	6.85
	R-BL DOWN			6.4 *	5.4	5.3 *	3.9	4.7 *	2.9			4.4 *	2.4	
	R-ST			6.4 *	6.4 *	5.3 *	4.7	4.7 *	3.6			4.2	2.9	
	F-ST, R-BL			6.4 *	6.4 *	5.3 *	5.3 *	4.7 *	4.2			4.4 *	3.4	
	F-BL, R-ST			6.4 *	6.4 *	5.3 *	5.3 *	4.7 *	4.5			4.4 *	3.7	
	4-ST			6.4 *	6.4 *	5.3 *	5.3 *	4.7 *	4.7 *			4.4 *	4.2	
3	R-BL UP			4.6	4.3	3.4	3.2	2.6	2.4	2.0	1.9	2.0	1.9	7.10
	R-BL DOWN			7.2 *	5.1	5.8 *	3.7	4.9 *	2.8	4.4 *	2.2	4.3 *	2.2	
	R-ST			7.2 *	6.4	5.8 *	4.5	4.9 *	3.5	4.0	2.7	3.9	2.7	
	F-ST, R-BL			7.2 *	7.2 *	5.8 *	5.5	4.9 *	4.1	4.4 *	3.3	4.3 *	3.2	
	F-BL, R-ST			7.2 *	7.2 *	5.8 *	5.8 *	4.9 *	4.4	4.4 *	3.5	4.3 *	3.4	
	4-ST			7.2 *	7.2 *	5.8 *	5.8 *	4.9 *	4.9 *	4.4 *	4.0	4.3 *	3.9	
2	R-BL UP					3.2	3.0	2.5	2.3	2.0	1.9	1.9	1.8	7.21
	R-BL DOWN					6.2 *	3.5	5.1 *	2.7	4.4 *	2.2	4.3 *	2.1	
	R-ST					6.2 *	4.4	5.0	3.4	4.0	2.7	3.8	2.6	
	F-ST, R-BL					6.2 *	5.3	5.1 *	4.0	4.4 *	3.2	4.3 *	3.1	
	F-BL, R-ST					6.2 *	5.6	5.1 *	4.3	4.4 *	3.4	4.2	3.3	
	4-ST					6.2 *	6.2 *	5.1 *	5.0	4.4 *	4.0	4.3 *	3.8	
1	R-BL UP			4.1	3.9	3.1	2.9	2.4	2.3	1.9	1.8	1.9	1.8	7.17
	R-BL DOWN			8.1 *	4.6	6.4 *	3.4	5.2 *	2.6	4.4 *	2.1	4.3 *	2.1	
	R-ST			8.1 *	5.8	6.4 *	4.2	5.0	3.3	3.9	2.6	3.8	2.6	
	F-ST, R-BL			8.1 *	7.2	6.4 *	5.1	5.2 *	3.9	4.4 *	3.2	4.3 *	3.1	
	F-BL, R-ST			8.1 *	7.7	6.4 *	5.5	5.2 *	4.2	4.4	3.4	4.2	3.3	
	4-ST			8.1 *	8.1 *	6.4 *	6.4 *	5.2 *	4.9	4.4 *	3.9	4.3 *	3.8	
0 (Ground)	R-BL UP			4.0	3.8	3.0	2.8	2.3	2.2			1.9	1.8	6.99
	R-BL DOWN			7.9 *	4.5	6.3 *	3.3	5.1 *	2.6			4.2 *	2.1	
	R-ST			7.9 *	5.7	6.3 *	4.1	4.9	3.2			3.9	2.6	
	F-ST, R-BL			7.9 *	7.1	6.3 *	5.0	5.1 *	3.9			4.2 *	3.2	
	F-BL, R-ST			7.9 *	7.6	6.3 *	5.4	5.1 *	4.1			4.2 *	3.4	
	4-ST			7.9 *	7.9 *	6.3 *	6.3 *	5.1 *	4.8			4.2 *	3.9	
-1	R-BL UP	6.2	5.8	4.0	3.8	3.0	2.8	2.3	2.2			2.0	1.9	6.65
	R-BL DOWN	8.7 *	7.0	7.3 *	4.5	5.9 *	3.3	4.8 *	2.6			4.2 *	2.2	
	R-ST	8.7 *	8.7 *	7.3 *	5.7	5.9 *	4.1	4.8 *	3.2			4.2 *	2.8	
	F-ST, R-BL	8.7 *	8.7 *	7.3 *	7.1	5.9 *	5.0	4.8 *	3.9			4.2 *	3.4	
	F-BL, R-ST	8.7 *	8.7 *	7.3 *	7.3 *	5.9 *	5.4	4.8 *	4.1			4.2 *	3.6	
	4-ST	8.7 *	8.7 *	7.3 *	7.3 *	5.9 *	5.9 *	4.8 *	4.8			4.2 *	4.2 *	
-2	R-BL UP	6.3	5.9	4.1	3.8	3.0	2.8	2.3	2.2			2.3	2.2	6.12
	R-BL DOWN	7.6 *	7.1	6.4 *	4.5	5.3 *	3.3	4.1 *	2.6			4.0 *	2.5	
	R-ST	7.6 *	7.6 *	6.4 *	5.8	5.3 *	4.1	4.1 *	3.2			4.0 *	3.2	
	F-ST, R-BL	7.6 *	7.6 *	6.4 *	6.4 *	5.3 *	5.0	4.1 *	3.9			4.0 *	3.8	
	F-BL, R-ST	7.6 *	7.6 *	6.4 *	6.4 *	5.3 *	5.3 *	4.1 *	4.1 *			4.0 *	4.0 *	
	4-ST	7.6 *	7.6 *	6.4 *	6.4 *	5.3 *	5.3 *	4.1 *	4.1 *			4.0 *	4.0 *	
-3	R-BL UP	5.9 *	5.9 *	4.1	3.9	3.0	2.9					2.8	2.6	5.34
	R-BL DOWN	5.9 *	5.9 *	5.1 *	4.6	4.1 *	3.4					3.6 *	3.1	
	R-ST	5.9 *	5.9 *	5.1 *	5.1 *	4.1 *	4.1 *					3.6 *	3.6 *	
	F-ST, R-BL	5.9 *	5.9 *	5.1 *	5.1 *	4.1 *	4.1 *					3.6 *	3.6 *	
	F-BL, R-ST	5.9 *	5.9 *	5.1 *	5.1 *	4.1 *	4.1 *					3.6 *	3.6 *	
	4-ST	5.9 *	5.9 *	5.1 *	5.1 *	4.1 *	4.1 *					3.6 *	3.6 *	

Lifting capacities (ZAXIS160W)

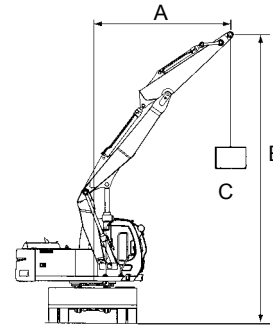
OPTIONAL ATTACHMENTS AND DEVICES

Lifting capacities (ZAXIS160W)

NOTE: 1. Lifting capacity of the ZX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)

2. * Indicates load limited by hydraulic capacity.

NOTE: R: Rear
F: Front
BL: Blade
ST: Stabilizer



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

MCBB-13-026

METRIC MEASURE

ZAXIS160W 2-piece Boom, Wide Gauge, Arm 2.50 m

Unit: ton

B; Load Point Height m		A; Load Radius										Max		Reach m
		3m		4m		5m		6m		7m				
														
6	R-BL UP					3.7 *	3.7 *	2.9	3.0			2.1 *	2.1 *	6.56
	R-BL DOWN					3.7 *	3.7 *	3.7 *	3.4			2.1 *	2.1 *	
	R-ST					3.7 *	3.7 *	3.7 *	3.7 *			2.1 *	2.1 *	
	F-ST, R-BL					3.7 *	3.7 *	3.7 *	3.7 *			2.1 *	2.1 *	
	F-BL, R-ST					3.7 *	3.7 *	3.7 *	3.7 *			2.1 *	2.1 *	
	4-ST					3.7 *	3.7 *	3.7 *	3.7 *			2.1 *	2.1 *	
5	R-BL UP					3.8	3.9	2.9	3.0	2.2	2.2	2.0 *	2.0 *	7.13
	R-BL DOWN					4.0 *	4.0 *	3.8 *	3.4	2.7 *	2.6	2.0 *	2.0 *	
	R-ST					4.0 *	4.0 *	3.8 *	3.8 *	2.7 *	2.7 *	2.0 *	2.0 *	
	F-ST, R-BL					4.0 *	4.0 *	3.8 *	3.8 *	2.7 *	2.7 *	2.0 *	2.0 *	
	F-BL, R-ST					4.0 *	4.0 *	3.8 *	3.8 *	2.7 *	2.7 *	2.0 *	2.0 *	
	4-ST					4.0 *	4.0 *	3.8 *	3.8 *	2.7 *	2.7 *	2.0 *	2.0 *	
4	R-BL UP	6.6 *	6.6 *	5.1	5.2 *	3.7	3.8	2.9	3.0	2.2	2.2	1.9	1.9	7.52
	R-BL DOWN	6.6 *	6.6 *	5.2 **	5.2 *	4.4 *	4.3	4.0 *	3.4	3.7 *	2.6	2.0 *	2.0 *	
	R-ST	6.6 *	6.6 *	5.2 **	5.2 *	4.4 *	4.4 *	4.0 *	3.8	3.7 *	3.0	2.0 *	2.0 *	
	F-ST, R-BL	6.6 *	6.6 *	5.2 **	5.2 *	4.4 *	4.4 *	4.0 *	4.0 *	3.7 *	3.6	2.0 *	2.0 *	
	F-BL, R-ST	6.6 *	6.6 *	5.2 **	5.2 *	4.4 *	4.4 *	4.0 *	4.0 *	3.7 *	3.7 *	2.0 *	2.0 *	
	4-ST	6.6 *	6.6 *	5.2 **	5.2 *	4.4 *	4.4 *	4.0 *	4.0 *	3.7 *	3.7 *	2.0 *	2.0 *	
3	R-BL UP	7.1 *	7.1 *	5.0	5.1	3.7	3.8	2.9	3.0	2.2	2.2	1.7	1.8	7.75
	R-BL DOWN	7.1 *	7.1 *	6.2 **	5.8	5.0 *	4.3	4.3 *	3.3 *	3.9 *	2.6	2.0 *	2.0 *	
	R-ST	7.1 *	7.1 *	6.2 **	6.2 *	5.0 *	4.9 *	4.3 *	3.8	3.9 *	3.0	2.0 *	2.0 *	
	F-ST, R-BL	7.1 *	7.1 *	6.2 **	6.2 *	5.0 *	5.0 *	4.3 *	4.3 *	3.9 *	3.6	2.0 *	2.0 *	
	F-BL, R-ST	7.1 *	7.1 *	6.2 **	6.2 *	5.0 *	5.0 *	4.3 *	4.3 *	3.9 *	3.7	2.0 *	2.0 *	
	4-ST	7.1 *	7.1 *	6.2 **	6.2 *	5.0 *	5.0 *	4.3 *	4.3 *	3.9 *	3.9 *	2.0 *	2.0 *	
2	R-BL UP	7.3	7.5	4.9	5.0	3.7	3.7 *	2.9	2.9	2.1	2.2	1.7	1.7	7.85
	R-BL DOWN	8.6 *	8.6 *	7.2 **	5.7	5.5 *	4.2	4.6 *	3.3	4.1 *	2.5	2.1 *	2.0 *	
	R-ST	8.6 *	8.6 *	7.2 **	6.6	5.5 *	4.8	4.6 *	3.8	4.1 *	2.9	2.1 *	2.1 *	
	F-ST, R-BL	8.6 *	8.6 *	7.2 **	7.2 *	5.5 *	5.5 *	4.6 *	4.4	4.1 *	3.6	2.1 *	2.1 *	
	F-BL, R-ST	8.6 *	8.6 *	7.2 **	7.2 *	5.5 *	5.5 *	4.6 *	4.6 *	4.1 *	3.7	2.1 *	2.1 *	
	4-ST	8.6 *	8.6 *	7.2 **	7.2 *	5.5 *	5.5 *	4.6 *	4.6 *	4.1 *	4.1 *	2.1 *	2.1 *	
1	R-BL UP	7.3	7.5	4.9	5.0	3.7	3.7	2.8	2.9	2.1	2.1	1.6	1.7	7.82
	R-BL DOWN	9.5 *	8.8	7.7 **	5.7	6.0 *	4.2	4.9 *	3.3	4.2 *	2.5	2.2 *	2.0 *	
	R-ST	9.5 *	9.5 *	7.7 **	6.6	6.0 *	4.8	4.9 *	3.8	4.1	2.9	2.2 *	2.2 *	
	F-ST, R-BL	9.5 *	9.5 *	7.7 **	7.7 *	6.0 *	5.6	4.9 *	4.4 *	4.2 *	3.5	2.2 *	2.2 *	
	F-BL, R-ST	9.5 *	9.5 *	7.7 **	7.7 *	6.0 *	5.8	4.9 *	4.6	4.2 *	3.6	2.2 *	2.2 *	
	4-ST	9.5 *	9.5 *	7.7 **	7.7 *	6.0 *	6.0 *	4.9 *	4.9 *	4.2 *	4.1	2.2 *	2.2 *	
0 (Ground)	R-BL UP	7.4	7.6	4.9	5.1	3.6	3.7	2.7	2.7	2.0	2.0	1.7	1.7	7.65
	R-BL DOWN	10.6 *	8.9	7.9 **	5.8	6.2 *	4.3	5.1 *	3.2	4.3 *	2.4	2.3 *	2.0 *	
	R-ST	10.6 *	10.4 *	7.9 **	6.7	6.2 *	4.9	5.0 *	3.7	4.0	2.8	2.3 *	2.3 *	
	F-ST, R-BL	10.6 *	10.6 *	7.9 **	7.8	6.2 *	5.7	5.1 *	4.5	4.3 *	3.4	2.3 *	2.3 *	
	F-BL, R-ST	10.6 *	10.6 *	7.9 **	7.9 *	6.2 *	5.9	5.1 *	4.6	4.3 *	3.6	2.3 *	2.3 *	
	4-ST	10.6 *	10.6 *	7.9 **	7.9 *	6.2 *	6.2 *	5.1 *	5.0	4.3 *	4.0	2.3 *	2.3 *	
-1	R-BL UP	7.2	7.5	4.7	4.9	3.5	3.6	2.5	2.6	1.9	2.0	1.8	1.8	7.34
	R-BL DOWN	11.1 *	9.1	8.0 **	5.8	6.2 *	4.2	5.1 *	3.1	4.2 *	2.3	2.6 *	2.1 *	
	R-ST	11.1 *	10.5	8.0 **	6.8 *	6.2 *	4.9	5.1 *	3.6	4.0	2.7	2.6 *	2.5	
	F-ST, R-BL	11.1 *	11.1 *	8.0 **	7.9	6.2 *	5.8	5.1 *	4.3	4.2 *	3.4	2.6 *	2.6 *	
	F-BL, R-ST	11.1 *	11.1 *	8.0 **	8.0 *	6.2 *	6.0	5.1 *	4.5	4.2 *	3.5	2.6 *	2.6 *	
	4-ST	11.1 *	11.1 *	8.0 **	8.0 *	6.2 *	6.2 *	5.1 *	5.1 *	4.2 *	3.9	2.6 *	2.6 *	
-2	R-BL UP	7.1	7.3	4.6	4.8	3.3	3.4	2.4	2.5			1.9	2.0	6.86
	R-BL DOWN	11.3 *	8.9	8.1 *	5.7	6.4 *	4.0	5.1 *	2.9			3.0 *	2.4	
	R-ST	11.3 *	10.8	8.1 *	6.7	6.4 *	4.7	5.1	3.5			3.0 *	2.8	
	F-ST, R-BL	11.3 *	11.3 *	8.1 *	8.1 *	6.4 *	5.7	5.1 *	4.2			3.0 *	3.0 *	
	F-BL, R-ST	11.3 *	11.3 *	8.1 *	8.1 *	6.4 *	6.0	5.1 *	4.4			3.0 *	3.0 *	
	4-ST	11.3 *	11.3 *	8.1 *	8.1 *	6.4 *	6.4 *	5.1 *	5.0			3.0 *	3.0 *	
-3	R-BL UP	7.1	7.3	4.5	4.6	3.2	3.3	2.4	2.4			2.3	2.4	6.12
	R-BL DOWN	11.7 *	8.9	8.4 *	5.5	6.2 *	3.8	4.2 *	2.9			3.7 *	2.8	
	R-ST	11.7 *	10.9	8.4 *	6.6	6.2 *	4.6	4.2 *	3.4			3.7 *	3.3	
	F-ST, R-BL	11.7 *	11.7 *	8.4 *	8.2	6.2 *	5.6	4.2 *	4.2			3.7 *	3.7 *	
	F-BL, R-ST	11.7 *	11.7 *	8.4 *	8.4 *	6.2 *	5.9	4.2 *	4.2 *			3.7 *	3.7 *	
	4-ST	11.7 *	11.7 *	8.4 *	8.4 *	6.2 *	6.2 *	4.2 *	4.2 *			3.7 *	3.7 *	

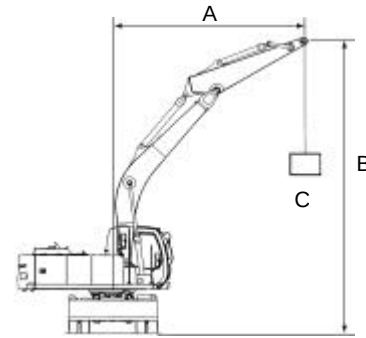
OPTIONAL ATTACHMENTS AND DEVICES

Lifting capacities (ZAXIS210W)

 NOTE: 1. Lifting capacity of the ZX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)

2. * Indicates load limited by hydraulic capacity.

 NOTE: R: Rear
F: Front
BL: Blade
ST: Stabilizer



MCBB-13-027

METRIC MEASURE

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

ZAXIS210W Monoblock Boom, Standard Gauge, Arm 2.91 m

Unit: ton

B: Load Point Height m		A: Load Radius										Max		Reach m
		3m		4m		5m		6m		7m				
														
6	R-BL UP							4.5	3.3	3.5	2.6	3.0	2.2	7.66
	R-BL DOWN							4.7 *	3.7	4.7 *	2.9	4.0 *	2.5	
	R-ST							4.7 *	4.4	4.7 *	3.4	4.0 *	2.9	
	F-ST, R-BL							4.7 *	4.7 *	4.7 *	4.2	4.0 *	3.6	
	F-BL, R-ST							4.7 *	4.7 *	4.7 *	4.4	4.0 *	3.8	
	4-ST							4.7 *	4.7 *	4.7 *	4.7 *	4.0 *	4.0 *	
5	R-BL UP							4.4	3.2	3.4	2.5	2.7	1.9	8.13
	R-BL DOWN							5.1 *	3.6	4.9 *	2.8	4.0 *	2.2	
	R-ST							5.1 *	4.3	4.9 *	3.3	4.0 *	2.6	
	F-ST, R-BL							5.1 *	5.1 *	4.9 *	4.2	4.0 *	3.3	
	F-BL, R-ST							5.1 *	5.1 *	4.9 *	4.3	4.0 *	3.4	
	4-ST							5.1 *	5.1 *	4.9 *	4.9 *	4.0 *	3.9	
4	R-BL UP	10.6 *	8.5	7.7 *	5.6	5.6	4.1	4.2	3.1	3.3	2.4	2.5	1.8	8.45
	R-BL DOWN	10.6 *	9.8	7.7 *	6.4	6.4 *	4.6	5.7 *	3.5	5.3 *	2.8	4.0 *	2.0	
	R-ST	10.6 *	10.6 *	7.7 *	7.6	6.4 *	5.4	5.7 *	4.1	5.3 *	3.2	4.0 *	2.4	
	F-ST, R-BL	10.6 *	10.6 *	7.7 *	7.7 *	6.4 *	6.4 *	5.7 *	5.2	5.3 *	4.1	4.0 *	3.0	
	F-BL, R-ST	10.6 *	10.6 *	7.7 *	7.7 *	6.4 *	6.4 *	5.7 *	5.4	5.3 *	4.2	4.0 *	3.1	
	4-ST	10.6 *	10.6 *	7.7 *	7.7 *	6.4 *	6.4 *	5.7 *	5.7 *	5.3 *	4.9	4.0 *	3.7	
3	R-BL UP			7.4	5.1	5.3	3.8	4.1	2.9	3.2	2.3	2.3	1.7	8.63
	R-BL DOWN			9.8 *	5.8	7.5 *	4.3	6.4 *	3.3	5.7 *	2.7	4.1 *	1.9	
	R-ST			9.8 *	7.0	7.5 *	5.1	6.4 *	3.9	5.7 *	3.1	4.1 *	2.3	
	F-ST, R-BL			9.8 *	9.1	7.5 *	6.5	6.4 *	5.0	5.7 *	4.0	4.1 *	2.9	
	F-BL, R-ST			9.8 *	9.5	7.5 *	6.8	6.4 *	5.2	5.7 *	4.1	4.1 *	3.0	
	4-ST			9.8 *	9.8 *	7.5 *	7.5 *	6.4 *	6.1	5.7 *	4.8	4.1 *	3.5	
2	R-BL UP			6.9	4.7	5.0	3.6	3.9	2.8	3.1	2.2	2.3	1.6	8.69
	R-BL DOWN			10.8 *	5.4	8.6 *	4.1	7.0 *	3.2	6.1 *	2.6	4.3 *	1.8	
	R-ST			10.8 *	6.6	8.6 *	4.9	7.0 *	3.8	5.8	3.0	4.2	2.2	
	F-ST, R-BL			10.8 *	8.7	8.6 *	6.3	7.0 *	4.8	6.1 *	3.9	4.3 *	2.8	
	F-BL, R-ST			10.8 *	9.1	8.6 *	6.5	7.0 *	5.0	6.1 *	4.0	4.3 *	2.9	
	4-ST			10.8 *	10.8 *	8.6 *	7.8	7.0 *	5.9	6.1 *	4.7	4.3 *	3.4	
1	R-BL UP			6.6	4.5	4.9	3.4	3.8	2.7	3.0	2.2	2.3	1.6	8.64
	R-BL DOWN			8.9 *	5.2	9.4 *	3.9	7.6 *	3.0	6.5	2.5	4.6 *	1.8	
	R-ST			8.9 *	6.3	9.4 *	4.7	7.3	3.7	5.7	3.0	4.2	2.2	
	F-ST, R-BL			8.9 *	8.4	9.4 *	6.1	7.6 *	4.7	6.5 *	3.8	4.6 *	2.8	
	F-BL, R-ST			8.9 *	8.8	9.4 *	6.3	7.6 *	4.9	6.4	3.9	4.6 *	2.9	
	4-ST			8.9 *	8.9 *	9.4 *	7.5	7.6 *	5.8	6.5 *	4.6	4.6 *	3.4	
0 (Ground)	R-BL UP	4.2 *	4.2 *	6.5	4.4	4.7	3.3	3.7	2.6	3.0	2.1	2.3	1.6	8.45
	R-BL DOWN	4.2 *	4.2 *	10.0 *	5.1	9.9 *	3.8	8.0 *	3.0	6.4	2.4	4.8	1.9	
	R-ST	4.2 *	4.2 *	10.0 *	6.2	9.7	4.6	7.2	3.6	5.7	2.9	4.3	2.2	
	F-ST, R-BL	4.2 *	4.2 *	10.0 *	8.3	9.9 *	5.9	8.0 *	4.6	6.8 *	3.7	5.0 *	2.9	
	F-BL, R-ST	4.2 *	4.2 *	10.0 *	8.7	9.9 *	6.2	8.0 *	4.8	6.3	3.9	4.8	3.0	
	4-ST	4.2 *	4.2 *	10.0 *	10.0 *	9.9 *	7.4	8.0 *	5.7	6.5	4.5	4.9	3.5	
- 1	R-BL UP	7.1 *	6.7	6.5	4.4	4.7	3.2	3.6	2.5	2.9	2.1	2.4	1.7	8.14
	R-BL DOWN	7.1 *	7.1 *	12.6 *	5.1	10.1 *	3.7	8.1	2.9	6.4	2.4	5.1	2.0	
	R-ST	7.1 *	7.1 *	12.6 *	6.2	9.6	4.5	7.1	3.5	5.6	2.9	4.5	2.3	
	F-ST, R-BL	7.1 *	7.1 *	12.6 *	8.3	10.1 *	5.9	8.2 *	4.5	6.9 *	3.7	5.6 *	3.0	
	F-BL, R-ST	7.1 *	7.1 *	12.6 *	8.6	10.1 *	6.1	8.0	4.7	6.3	3.8	5.1	3.1	
	4-ST	7.1 *	7.1 *	12.6 *	10.6	10.1 *	7.3	8.2	5.6	6.5	4.5	5.2	3.7	
- 2	R-BL UP	10.4 *	6.8	6.5	4.4	4.7	3.2	3.6	2.5	2.9	2.1	2.6	1.9	7.67
	R-BL DOWN	10.4 *	8.0	12.5 *	5.1	9.9 *	3.7	8.1 *	2.9	6.4	2.4	5.6	2.1	
	R-ST	10.4 *	10.0	12.5 *	6.2	9.6	4.5	7.1	3.5	5.6	2.9	4.9	2.5	
	F-ST, R-BL	10.4 *	10.4 *	12.5 *	8.3	9.9 *	5.9	8.1 *	4.5	6.8 *	3.7	6.0 *	3.3	
	F-BL, R-ST	10.4 *	10.4 *	12.5 *	8.7	9.9 *	6.1	7.9	4.7	6.3	3.8	5.5	3.4	
	4-ST	10.4 *	10.4 *	12.5 *	10.6	9.9 *	7.3	8.1 *	5.6	6.5	4.5	5.7	4.0	
- 3	R-BL UP	10.8	6.9	6.6	4.5	4.7	3.3	3.7	2.6	3.0	2.1	3.0	2.1	7.02
	R-BL DOWN	14.5 *	8.1	11.7 *	5.2	9.4 *	3.8	7.7 *	2.9	6.2 *	2.4	6.2 *	2.4	
	R-ST	14.5 *	10.1	11.7 *	6.3	9.4 *	4.6	7.1	3.5	5.7	2.9	5.7	2.9	
	F-ST, R-BL	14.5 *	14.0	11.7 *	8.4	9.4 *	5.9	7.7 *	4.6	6.2 *	3.7	6.2 *	3.7	
	F-BL, R-ST	14.5 *	14.5 *	11.7 *	8.8	9.4 *	6.2	7.7 *	4.8	6.2 *	3.9	6.2 *	3.9	
	4-ST	14.5 *	14.5 *	11.7 *	10.7	9.4 *	7.4	7.7 *	5.6	6.2 *	4.6	6.2 *	4.6	

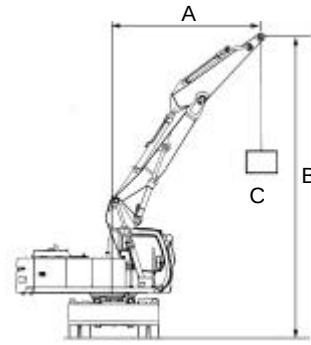
OPTIONAL ATTACHMENTS AND DEVICES

Lifting capacities (ZAXIS210W)

 **NOTE:** 1. Lifting capacity of the ZX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)

2. * Indicates load limited by hydraulic capacity.

 **NOTE:** R: Rear
F: Front
BL: Blade
ST: Stabilizer



MCBB-13-028

METRIC MEASURE

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

ZAXIS210W 2-piece Boom, Wide Gauge, Arm 2.02 m

Unit: ton

B: Load Point Height m		A: Load Radius										Max		Reach m	
		3m		4m		5m		6m		7m					
															
6	R-BL UP					4.8 *	4.8 *	4.4	3.5			3.9	3.1	6.35	
	R-BL DOWN					4.8 *	4.8 *	5.2 *	4.0			5.5 *	3.6		
	R-ST					4.8 *	4.8 *	5.2 *	4.5			5.5 *	4.0		
	F-ST, R-BL					4.8 *	4.8 *	5.2 *	5.2 *			5.5 *	5.1		
	F-BL, R-ST					4.8 *	4.8 *	5.2 *	5.2 *			5.5 *	5.2		
5	4-ST					4.8 *	4.8 *	5.2 *	5.2 *			5.5 *	5.5 *	6.91	
	R-BL UP			5.7 *	5.7 *	5.4 *	4.7	4.4	3.6			3.4	2.7		
	R-BL DOWN			5.7 *	5.7 *	5.4 *	5.3	5.3 *	4.0			5.7 *	3.0		
	R-ST			5.7 *	5.7 *	5.4 *	5.4 *	5.3 *	4.5			5.7 *	3.4		
	F-ST, R-BL			5.7 *	5.7 *	5.4 *	5.4 *	5.3 *	5.3 *			5.7 *	4.4		
4	F-BL, R-ST			5.7 *	5.7 *	5.4 *	5.4 *	5.3 *	5.3 *			5.7 *	4.5		
	4-ST			5.7 *	5.7 *	5.4 *	5.4 *	5.3 *	5.3 *			5.7 *	5.0	7.29	
	R-BL UP			7.4 *	6.2 *	5.6	4.6	4.4	3.6	3.3	2.6	3.0	2.4		
	R-BL DOWN			7.4 *	7.0	6.3 *	5.2	5.8 *	4.0	5.7 *	3.0	5.8 *	2.7		
	R-ST			7.4 *	7.4 *	6.3 *	5.7	5.8 *	4.4	5.7 *	3.4	5.7 *	3.1		
3	F-ST, R-BL			7.4 *	7.4 *	6.3 *	6.3 *	5.8 *	5.6	5.7 *	4.4	5.8 *	4.0		7.50
	F-BL, R-ST			7.4 *	7.4 *	6.3 *	6.3 *	5.8 *	5.5	5.7 *	4.3	5.8 *	4.1		
	4-ST			7.4 *	7.4 *	6.3 *	6.3 *	5.8 *	5.8 *	5.7 *	4.9	5.8 *	4.6		
	R-BL UP			7.6	6.1	5.6 *	4.5	4.3	3.6	3.3	2.6	2.8	2.2	7.58	
	R-BL DOWN			7.8 *	6.9	7.5 *	5.1	6.5 *	4.0	6.1 *	3.0	5.8 *	2.6		
R-ST			7.8 *	7.7	7.5 *	5.6	6.5 *	4.4	6.0	3.4	5.3	2.9			
F-ST, R-BL			7.8 *	7.8 *	7.5 *	7.2 *	6.5 *	5.6	6.1 *	4.4	5.8 *	3.8			
2	F-BL, R-ST			7.8 *	7.8 *	7.5 *	7.1	6.5 *	5.5	6.1 *	4.3	5.8 *	3.9		
	4-ST			7.8 *	7.8 *	7.5 *	7.5 *	6.5 *	6.1	6.1 *	4.9	5.8 *	4.3	7.51	
	R-BL UP	7.0 *	7.0 *	7.5	6.0	5.5	4.5	4.4	3.5	3.2	2.6	2.8	2.2		
	R-BL DOWN	7.0 *	7.0 *	9.5 *	6.8	8.7 *	5.0	7.2 *	4.0	6.5 *	2.9	5.9 *	2.5		
	R-ST	7.0 *	7.0 *	9.5 *	7.6	8.7 *	5.6	7.2 *	4.5	6.0 *	3.3	5.2	2.8		
1	F-ST, R-BL	7.0 *	7.0 *	9.5 *	9.5 *	8.7 *	7.2	7.2 *	5.6	6.5 *	4.4	5.9 *	3.7		7.29
	F-BL, R-ST	7.0 *	7.0 *	9.5 *	9.5 *	8.7 *	7.0	7.2 *	5.5	6.5 *	4.3	5.8	3.8		
	4-ST	7.0 *	7.0 *	9.5 *	9.5 *	8.7 *	7.9	7.2 *	6.1	6.5 *	4.9	5.9 *	4.2		
	R-BL UP	12.0	9.2	7.6	6.1 *	5.6	4.6	4.3	3.4	3.2	2.5	2.8	2.2	6.92	
	R-BL DOWN	12.9 *	10.5	11.9 *	6.8	9.7 *	5.1	7.9 *	3.9	7.0 *	2.8	6.2 *	2.5		
R-ST	12.9 *	12.0	11.9 *	7.7	9.7 *	5.6 *	7.5	4.3	6.0	3.2	5.2	2.8			
F-ST, R-BL	12.9 *	12.9 *	11.9 *	10.0	9.7 *	7.2	7.9 *	5.7	6.6	4.3	6.2 *	3.7			
0 (Ground)	F-BL, R-ST	12.9 *	12.9 *	11.9 *	9.8	9.7 *	7.0	7.9 *	5.6	7.0 *	4.2	5.9	3.8		6.36
	4-ST	12.9 *	12.9 *	11.9 *	11.2 *	9.7 *	7.9	7.9 *	6.2 *	6.7 *	4.8	6.0	4.2		
	R-BL UP	12.2	9.0	7.7	6.0	5.6	4.4	4.1	3.2	3.1	2.4	2.8	2.2	5.11	
	R-BL DOWN	16.1 *	10.6	13.6 *	6.9	10.5 *	5.0	8.5 *	3.7	7.1	2.8	6.6	2.6		
	R-ST	16.1 *	12.2	13.6 *	7.8	10.0 *	5.7	7.6 *	4.2	5.9	3.1	5.5	2.9		
F-ST, R-BL	16.1 *	16.1 *	13.6 *	10.1	10.5 *	7.3	8.3	5.5	6.6	4.2	6.6 *	3.8			
- 1	F-BL, R-ST	16.1 *	16.1 *	13.6 *	9.9	10.5 *	7.2	8.5 *	5.4	7.4 *	4.1	6.1	3.9		6.92
	4-ST	16.1 *	16.1 *	13.6 *	11.3 *	10.5 *	8.0	8.4	6.2	6.7	4.7	6.2	4.4		
	R-BL UP	12.0	8.8	7.6	5.8	5.4	4.2	3.9	3.1			3.1	2.4	6.36	
	R-BL DOWN	19.0 *	10.4	14.1 *	6.7	10.9 *	4.9	8.9 *	3.5			7.2	2.8		
	R-ST	19.0 *	12.1	14.1 *	7.7	10.2 *	5.5	7.6	4.0			5.9	3.1		
F-ST, R-BL	19.0 *	17.0 *	14.1 *	10.4	10.9 *	7.3	8.5	5.3			7.3 *	4.1			
- 2	F-BL, R-ST	19.0 *	16.5	14.1 *	10.2	10.9 *	7.1	8.9 *	5.2			6.6	4.2		5.11
	4-ST	19.0 *	19.0 *	14.1 *	11.6	10.9 *	8.2	8.6 *	6.0			6.8	4.7		
	R-BL UP	12.0	8.8	7.5	5.8	5.2	4.0	3.8	3.0			3.5	2.7	6.36	
	R-BL DOWN	20.0	10.4	14.3 *	6.7	11.1 *	4.6	9.1 *	3.4			8.3 *	3.1		
	R-ST	20.1 *	12.1	14.3 *	7.6	10.4	5.3	7.5	3.9			6.8	3.6		
F-ST, R-BL	20.1 *	17.5	14.3 *	10.4	11.1 *	7.1	8.3	5.2			8.3 *	4.7			
- 3	F-BL, R-ST	20.1 *	16.9	14.3 *	10.1	11.1 *	6.9	9.1 *	5.1			7.6	4.8		5.11
	4-ST	20.1 *	19.7	14.3 *	11.8	11.1 *	8.0	8.5	5.9			7.7	5.4		
	R-BL UP	12.0	8.8	7.3	5.6	5.1	3.9					4.9	3.8	6.92	
	R-BL DOWN	20.8 *	10.4	14.7 *	6.4	11.0 *	4.5					10.6 *	4.4		
	R-ST	20.8 *	12.1	14.7 *	7.4	10.3	5.2					9.9	5.0		
F-ST, R-BL	20.8 *	17.5	14.7 *	10.1	11.0 *	7.0					10.6 *	6.6			
- 4	F-BL, R-ST	20.8 *	16.9	14.7 *	9.9	11.0 *	6.8					10.6 *	6.7		5.11
	4-ST	20.8 *	20.6	14.7 *	11.6	11.0 *	7.8					10.6 *	7.6		

OPTIONAL ATTACHMENTS AND DEVICES

ELECTRONIC KEY LOCK OPERATION MANUAL

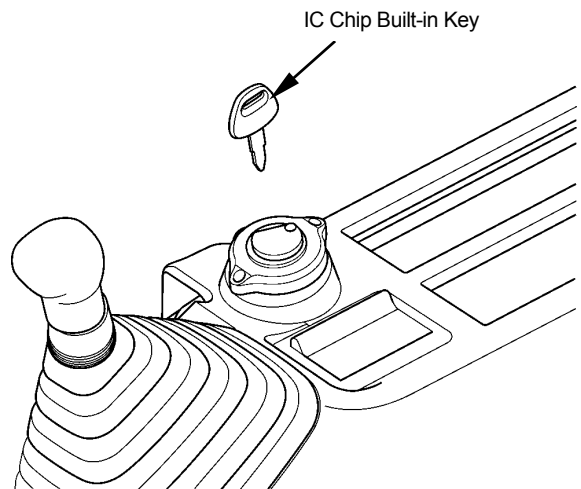
Electronic key lock

The controller exclusively designed to read the data stored in the IC chip built in the key judges whether or not to start the engine and to operate the hydraulic system. To the contrary that usual keys are identified by the difference in groove pattern curved on the key, the IC chip allows the key to identify using electrical signals, patterns of which can be made in trillions, resulting in copying the key is very difficult.

Electronic key lock system

The controller equipped in the cab reads the data stored in the IC chip built in the key and checks electrically whether the key used is a correct one or not to the corresponding machine serial No. The controller reads the IC data when the key switch is turned ACC. When the correct key is used, the engine is started in due course. If an incorrect key is used, the engine will not start even if the key is turned to the START position.

 **NOTE:** If the start switch is turned ON two to three times with an incorrect key, the horn will sound to inform abnormality. Once the horn sounds, it continues to sound for about 4 minutes even though the key switch is turned OFF. Turn the switch ON with the correct key to stop the horn sounding.



M1G6-13-014

Precautions for handling of electronic key lock

1. Precautions for Handling of Registration key Lock and Ordinary Operation Key

Use the electronic key in the same way as the usual key to start the engine. One registration key (gray) and two registered ordinary operation keys (black) are included in the electronic key lock kit. Be sure to use the ordinary operation key (black) in normal machine operation. Refer to the following pages for handling the electronic key lock other than normal operation.

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