

DEMONSTRATION GUIDE

TO AX50 & BX50 SERIES LIFT TRUCKS

To demonstrators:

This DEMONSTRATION GUIDE is designed for the demonstrators of Komatsu Distributors/Dealers to show the typical demonstration procedure of newly introduced BX50 Series trucks.

The contents of this guide refer to Komatsu's Sales Aids but limited to major points so that it is recommended that each demonstrator vary the course of demonstration depending on the customer's application and requirement.

We are confident that this DEMONSTRATION GUIDE will be of service to your sales activities. And always please consider "Safety demonstration"

Thank you

1. PREPERATION FOR DEMONSTRATION

- 1-1 Determine the appropriate location for demonstration
- 1-2 Checking machine conditions
- 1-3 At the demonstration area

2. DEMONSTRATIONS

- 2-1 Procedure for demonstration
- 2-2 Showing around the machine

1. PREPERATION FOR DEMONSTRATION

1-1 Determine the appropriate location for demonstration

1. It is recommended that the location is outdoor area which is at least 5m width x 15m length.
2. The location should be flat and clean environment.
3. Show signs in order to avoid other trucks and persons approaching the area.
4. To avoid dangerous areas such as platform, dockyard, and quay.
5. At indoor demonstration, select sufficient illumination and high-ceiling place (max. lift height plus + 2m)

1-2 Checking machine conditions

1. Clean the demonstration machine.

Clean the machine with water and clean cloth.

Carefully clean the area where detonator will point out during the demonstration.

At the time of cleaning, check for leakage of water, oil or grease.

2. Keep fuel level to proper level

Check fuel level. And, if necessary, add correct fluid to proper level.

3. Keep engine fuel to proper level

Check engine oil level. If necessary, add correct engine oil.

4. Keep battery level to proper level

Check battery electrolyte level. If necessary, add correct electrolyte to proper level.

5. Check head lights

Check head lamps if they works. If necessary, correct.

6. Check turn signal lights

Check function of indicator. If necessary curry out proper maintenance.

7. Check mast operation

With lift lever and tilt lever, confirm that the mast is correctly raised/lowered and tilted forward/backward

8. Check for abnormal vibration and noise

Operate the machine to check vibration and noise. If abnormal condition is found, correct the machine.

9. Check bolts for looseness

Check tightness of bolts and tighten the loose bolts.

10. Position of steering column and operator's sea

Set the steering position to highest position with seat at front.

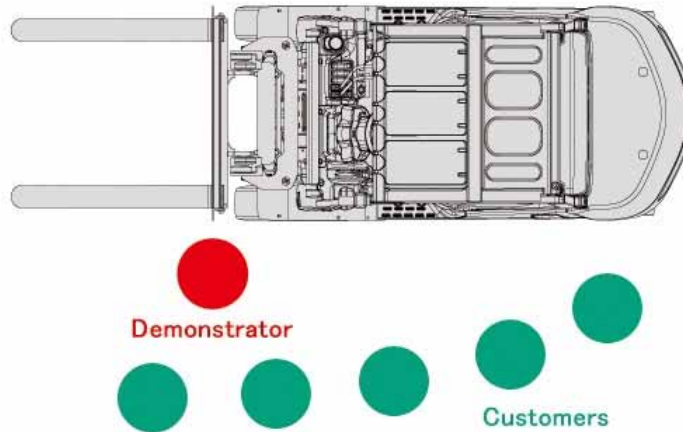
1-3 At the demonstration area

First of all, please direct customers to wear helmet and seatbelt for safety and call attention to avoid sudden accelerating, turning, and braking. Because customers are unfamiliar with demonstration truck, please pay attention for the safety demonstration.

2.DEMONSTRATIONS

2-1 Procedure for demonstration

1. Appearance
2. Design
3. Counterweight
4. Operator's seat
5. Cockpit
6. Visibility
7. Control levers




8. Meter panel
9. Low noise
10. Low vibration
11. Steering
12. Reliability
13. Economy
14. Productivity

1. Make customers to stand side by side along the left side of the demonstration truck as the figure above.
At this time it is recommended that the demonstrator stands left front side the demonstration truck for explanation.
2. Explain appearance and design features before the customers riding on the truck.
When demonstrator explains the appearance and design, **the engine remains turned off.**
3. Explain comfortable operation and easy operation when customers are riding on the truck.
Before customers operating the truck, pay attention for the safety around the area.
4. Make customers to operate the truck
5. Watch customers what they are interested in.
6. After the demonstration, make appointment for next visit.

2-2 Showing around the machine

This demonstration procedure is just an example as showing below. A demonstrator should allocate time properly depending on the points where the customers are interested in. Therefore, please explain while watching customers' reaction.

Before the demonstration, the engine key must be in demonstrator's hand. Otherwise, some customer may start the engine and demonstrator will not able to explain by the engine noise. (Important!)

Speech	Explanation
<p>1. Appearance</p> <p>“BX50's feature is well functional appearance.”</p> <p>“That's images mobility, low gravity, and toughness in its design.”</p> <p>Frame and Spoon-curved fender:</p> <p>“The appearance is designed as powerful image that a lion is attacking a catch.”</p> <p>“The unique spoon-curved fender is designed for making step to look much wider.” “This curved fender is designed for psychological effect which makes step to look much wider and is aimed to make operator get on with feel easy.”</p> <p style="text-align: right;"> Back </p>	<p>1 . Appearance</p> <p>Please start your speech at the left side of the truck.</p> <p>Frame: (Slant line +Attack line +Spoon-curved fender)</p> 
<p>2. Design</p> <p>1) Comfortable Cabin</p> <p>“BX50 Series have the suspension cab structure to mitigate vibrations from ground.”</p> <p>“There are 4 mounts inside.” “Distances between front 2 mounts are wider than BX20.” “Positions of rear 2 mounts are located near to the operator's seat.” “4 mounts provide you low vibrations and shocks.”</p> <p>“Well, I'll explain you later, there is the other vibration-reduction structure: Power train floating.” “This structure cuts vibration from the engine by floating power train.” “Suspension cab with power train floating is one of the biggest advantages for our trucks.” “We named it dual floating structure.”</p>	<p>2. Design</p> <p>1) Comfortable Cabin</p> <p>For power train floating, you should give customers to ride on the truck. And please explain just after turning on the engine. They must feel lower vibrations.</p>

2) Wide floor and step

“Floor space is wider than BX20.” “You can get into trucks easily.”

“Wide step and flat floor is good for diligent operators.” “They can get on and off easily.”

“Tilt cylinders are located under the floor.” “Thus the tilt cylinder cover is displaced not to prevent you from catching.” “Suspended pedals also contribute to expand foot space.”

“Komatsu considers step surface, floor mat and pedals to grip firmly.” “There are ditches behind the floor mat.” “These help to get out water in case of rain.”

2) Wide floor and step



BX50



BX20

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3. Counterweight

“Dual outlets are flow-directional.” “Komatsu complete simulations make it possible.” “Dual outlets part radiator hot air in the right and the left.” “Operators could avoid facing unpleasant hot air.”

“Exhaust pipe is located left bottom of the counterweight.” “As a result, operators need not to face exhaust gas.”

“We employ texture type painting for environmental reason.” “It doesn't require fine particles like conventional putty type painting.” “Counterweights have slits inside.” “It enables us to recycle it by breaking easily.”

3. Counterweight

Please start presentation behind the truck.



Inside slits is available only for BX50. Counterweight for AX50 is slight and easy to break without slits.

A customer sits on the seat...

“Could you get on the truck easily?”

“Could you see behind well with the center mirror?”

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4. Operator’s seat

“Please find out your best driving position.”

- 1) “Please adjust the angle of steering wheel.”
- 2) “Please adjust the seat space and inclination.”
- 3) “Suspension seat is also available.”

“Would you please tell us your feeling?”

“New Komatsu exclusive operator’s seat is installed.” “We improve both the position of damper and the suspension itself.” “This seat helps to reduce your fatigue by absorbing vibrations and shocks.”

“Could you wear the seatbelt easily?”

“It’s easy to wear by raising the position of buckle.”

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A customer sits on the seat...

It’s time to get customers to ride on. The most important thing is that you should explain not only the customer on the seat but also other customers. They are interested in its comfort, visibility and so on. You ask the customer what his/her impressions are.

First you have to do is that you get the customer to fasten the seatbelt (You should leave the truck locked at first.)

Please ask him/her its accessibility before he/she starts to travel.

You could ask him/her when he/she adjusts the angle of center mirror.

From BX50, wide angle center mirror is available as standard.

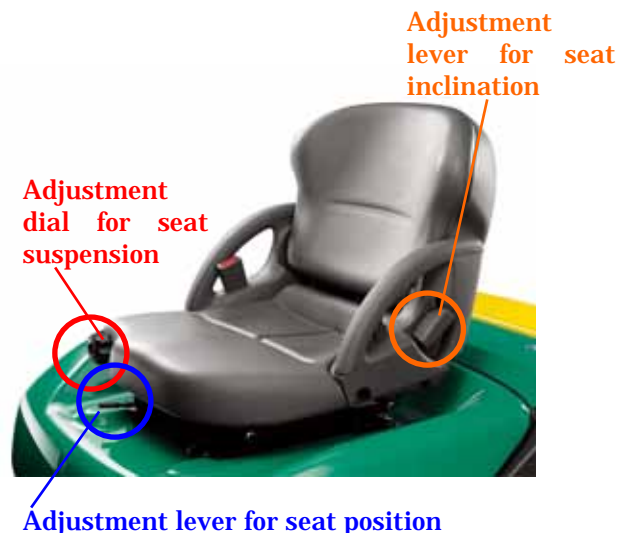
4.Operator’s seat

Firstly, please help the customer to find out the appropriate driving position.

- 1) The adjustment lever is beside the steering wheel column.
- 2) The adjustment lever is under the seat.
- 3) You can easily find the adjustment dial on the right.

Best seat spring depends on his/her weight.

(Adding 10kg to his/her weight might be the best)



5. Cockpit

“BX50 provides you extraordinary driving space.”

“Comfort driving space comes true by redesigning the steering wheel and floor.”

1) “Small diameter steering wheel (360mm→300mm) has 2 advantages.” “It enlarges the driving space and eases oppression.” “For BX20, large steering wheel interfere your smooth driving.” “Your elbow might stick smooth work, don’t you?” “How about BX50?”

2) Full-flat floor: “Tilt cylinder located under the floor contributes to wide driving space.” “In contrast, tilt cylinder located above the floor is as barrier in BX20.”

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6. Visibility

“Could you confirm better visibility?”

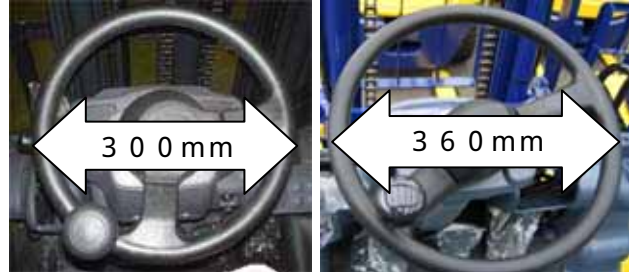
“Could you see the top of forks?”

“My finger comes at the top of forks.” “Please say ‘Stop’ when you miss it.”

“In operation, visibility of the top of forks is extremely important.” “You could confirm the extended area of visibility.” “You could see the point of 50cm from the top of forks although we only see 10cm for BX20.” “As a result, you could operate it surely and achieve higher efficiency.”

5. Cockpit

From this section, only 1 operator experiences it while other customers don’t. When an operator switches to others, please repeat procedures No. 6 to 12 if it’s required.



BX50

BX20

6. Visibility

BX50 front view



From the top of forks, you come close to the operator with your finger (or rod) indicating the fork. The operator could confirm the area of visibility.

You must demonstrate it with the right fork. If you set the fork just a little inside, it helps his/her understanding.

Remarks for front visibility

- 1) "Tilt bracket was lowered." "When you confirm the top of forks, it hides behind the dash board." "Tilt bracket is designed to go out of sight." "It disturbed sight in BX20."
- 2) "Inclined lower plate with backrest improves visibility." "It looks as if just line."
- 3) "Inclined dash board helps to see forks."
- 4) "Flatter inner mast also improves visibility." "Keeping the overall mast width same, mast inside width become wider."

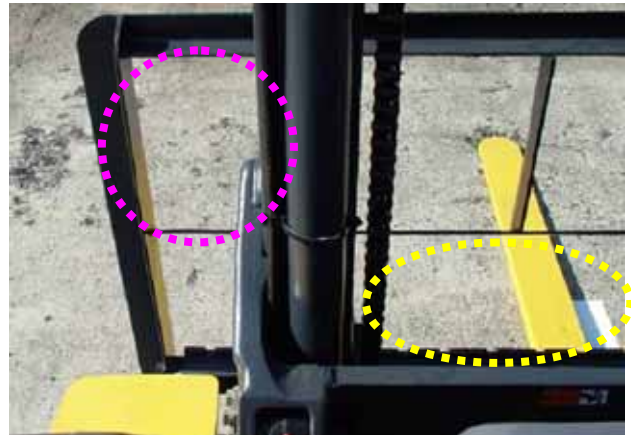
"In addition, wider visibility is secured for 3-stage free view mast by lowering the center cylinder."

Rear visibility :

"My finger is on the end of the counterweight."
"Could you confirm the end of the counterweight?"
"The upper corners of the counterweight are inclined." "It is easy for you to find out the end."
"My finger indicates the end of the counterweight." "You can avoid crushing the wall or counterweight itself by seeing the end."

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Remarks for front visibility



BX50



Toyota

Rear visibility :

You move your finger from the top of the counterweight to the end. And let the operator say "Stop" if he/she is unable to see your finger.
(Same as forks)



7. Control levers

“Control levers are designed and allocated for comfortable operations.” “It is allocated as if you play the piano.”

“Lever operations cost you wrist much fatigue.” “Komatsu believe that pull lever operation is better than down operation.” “Thus we adjust the angle of levers for easily to pull.” “You can easily and surely catch the knob of lever thanks to its special shape.”

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8. Meter panel

“Meter panel become smaller and divide into two.” “And it is allocated for the right and the left.” “Thus front visibility is better than AX20/BX20.”

“Neutral indicator is available as standard.” “You could confirm visually whether the transmission is in neutral.”

For an option

“Operator presence sensing system is the safety mechanism controls lifting and traveling.” “When an operator leaves the seat during operation, fork icon in meter panel starts blinking and you can't do lifting and lowering.” “Also the operator leaves the seat with either forward or reverse position, warning buzzer starts working.” “And the operator can't do traveling.” “To restore this mechanism, you have to seat it and shift gears in neutral.”

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7. Control levers

8. Meter panel

Please get the operator to confirm the clear visibility, meter panel doesn't disturb. At this time, turn on lights to see the meter panel layout more clearly (However, you should not turn on the engine yet).

Neutral indicator: It lights in blue when gears are in neutral.



Operator presence sensing system (option): This mechanism shut down both lifting and traveling function. However, it doesn't work as brake. For example, if you leave trucks without using parking brake on the slope, it would go down.

Turn on the engine

9. Low noise

“Comparing with AX20/BX20, lower noise structure is installed.” “It can be achieved by employing the monolithic engine hood, cast iron hydraulic pump and sealed dashboard floor.”

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Turn on the engine

9. Low noise

67dB within 7m radius, under full acceleration
84dB at the operator’s ears, under full acceleration

10. Low vibration

“Could you find out the difference about vibrations of steering wheel, seat and pedal?”

“Komatsu successfully reduces those vibrations.”
“Power train floating cut vibrations from engine and transmission.” “It’s connected indirectly by universal joint.”

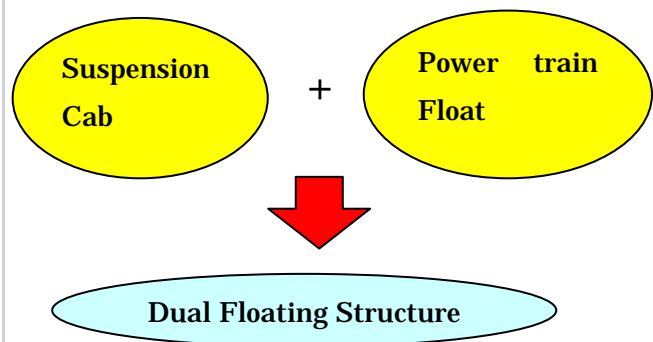
“As I said before, harmony between power train floating and suspension cab decreases operator’s stress dramatically.”

10. Low vibration

Please confirm it under idling.

(Note: Firstly, you have to let the operator no to lift. And you can start the demonstration. You hardly feel vibrations from the mast.)

Dual Floating Structure: Komatsu’s exclusive structure



<p>Super Lift Hydraulic System (BX50 only)</p> <p>“Please try to lift the load under idling.”</p> <p>“In BX20, we have only 1 pump and divide oil for hydraulic pump and power steering.” “But in BX50, it has 2 pumps.” “Thus lifting speed under idling become 2 times faster.” “There is better fuel consumption because you need not to let the engine full acceleration.” “It can be useful for trucks with attachment.”</p> <p>“Could you please keep steering while lifting with low idling position?”</p> <p style="text-align: right;"> Back </p>	<p>Super Lift Hydraulic System (BX50 only)</p> <p>Lifting under idling is one of the biggest advantages in BX50. You should take a great deal of time on it.</p> <p>(Note: It is effective to demonstrate with BX20 or competitive manufacturers if it is possible. Please don't forget to use the parking brake whenever you do lifting. Since it helps your understanding, you do this procedure with load.)</p> <p>With previous model, the simultaneous operation, lifting and steering, made lifting speed slowdown under the low idling condition.”</p> <p>“However, you can be able to simultaneous operation thanks to its tandem pump structure in BX50.”</p>
<p>11. Steering</p> <p>“BX50 enables comfortable steering with light operation force.”</p> <p>When the customer start driving</p> <p>“Now, would you mind starting to operate it?”</p> <p style="text-align: right;"> Back </p>	<p>11. Steering</p> <p>(Note: When the customers try to drive, please explain just hold the steering wheel with light force. Or the body may sway, because the response is too superior.)</p> <p>When the customer start driving</p> <p>Please watch what the operator is interested in the demonstration drive. You could find what customer's need by watching his/her operation.</p> <p>If other customers are waiting for demonstration drive, please explain the sales features from point 6 to 11 again</p>
<p>When demonstration drive is over</p> <p>12. Reliability</p> <p>“Komatsu improved quality level and easy accessibility.” “We are able to replace floor plate without tool.” “And cross bar under the floor become disuse that makes easy access.” “Also fuse relay box is closely placed in the engine hood.”</p>	<p>When demonstration drive is over</p> <p>12. Reliability</p> <p>(Note: After demonstration, please show inside of truck by opening engine hood and floor plate. At this time please pay attention to the risk of a burn.)</p>

“Komatsu has done through bench test for vital component such as frame, mast, transmission, and axles.”

“Heat balance is improved by increase radiator’s capacity and improved efficiency of airflow.”

“Also increased the capacity of torque converter cooler.”

“By extended lifespan for lighting devises, improve lining for harness and hoses, the mean times between failures is improved by 40% compared with BX20.” “As a result, total operating cost can be minimized.”

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13. Economy

“The Super Lift Hydraulic System enables lifting with low idling.” “This feature makes fine adjustment for lift height.”

“The two pumps work for lifting and steering independently.” “This system makes power loss while lifting and traveling minimize.”

“Consequently fuel consumption is reduced.”

“Also Komatsu equipped the new engine that improved fuel efficiency.” “For example fuel efficiency is improved by 10% in FD25.”

“Rigid design for component and improved heat balance make maintenance cost to be minimized.”

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13. Economy

Economical efficiency is very important factor that most managers concern. So when you explain to managers, please appeal BX50 has superior cost performance.

14. Productivity

“BX50 reduces operator’s fatigue.”

“Wide open step and floor make easy get on and off.”

“Ergonomically designed operator’s cabin keeps operator comfortable driving position.”

“And the vibration cut body design reduces operator’s fatigue.”

“As a result, operator’s productivity could be increased.”

“BX50 is superior economical efficiency that contributes to operating cost reductions.”

“The Super Lift Hydraulic System and new engine contribute to increase fuel efficiency.”

“And both traveling and lifting speed are improved.” “So the cycle time is minimized and productivity is improved.”

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14. Productivity

Please appeal these merit that they introduce BX50 to customers.

Finally

Thank you for your attention and cooperation. We are confident BX50 minimizes your total operating cost. If you have some questions, feel free to ask me. Thank you again.

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Finally

Please ask customers what they feel while demonstration. That help you the coming business talk in the future.