

Lift-and-Dump Hydraulic Dumper & Bucket

Operation and Service Manual

High Looper

Read this manual carefully and understand completely before operating High Looper. Keep filing this manual for future reference. If this copy is lost, please contact your local supplier for a replacement.

Explanation of Terms and Symbols

In this manual, 「Warning」, 「Caution」 are defined and specified as below. Notice of Warnings are very important for safe operations. As these are very Important to protect operators from accidents resulting in personal injury and death, and damage to property, so make sure to read thoroughly and understand fully before operation.

Warning Incorrect operation may result in serious injury or death of the operator.

Caution Incorrect operation may result in injury and damage to the property. The

Warning !

◎ Hazard or unsafe practice which, if not avoided, may result in DEATH or SEVERE PERSONAL INJURY and PROPERTY DAMAGE.

	Read the Operation Manual thoroughly before using the High Looper. Important Warnings are described. Failure to follow warnings could result in fatal accident and property damage.		DO NOT use High Looper unless you have been fully trained in its operation. Incorrect operation could result in fatal accident and property damage.
	NEVER look aside during operation. NEVER go under Dumper during operation. Failure to pay close attention during operation could result in fatal accident. Tilt Plate could fall all of sudden and it could result in fatal accident.		DO NOT overload lifter. ALWAYS stay within designated capacity. It could result in fatal accident.

Cautions !

	◎ Make sure to have Floor Lock grounded to stabilize High Looper except during moving operation to other locations. → Or it could result in turnover of High Looper
	◎ Make sure Bucket is engaged with Lock Hook before lifting.
	◎ DO NOT operate 2ea. Control Levers at same time. → Or it could result in malfunction.
	◎ DO NOT put foot and legs under Tilt Plate during operation → Or it could result in fatal accident.
	◎ Make sure to install and operate on the flat floor.

◎ Hazard or unsafe practice which, if not avoided, may result in MINOR or MODERATE PERSONAL INJURY and PROPERTY DAMAGE.

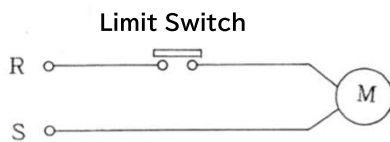
1. READ THIS OPERATION MANUAL COMPLETELY BEFORE USING AND THOROUGHLY UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS. Wrongful use may result in accident.
2. High Looper is designed to lift up and dump (throw in) the metal shavings, various raw materials etc. into prepared container (case etc.) by combining with exclusively developed Bucket or modified Tilt Truck (DS15,DS25,DR15,DR25). DO NOT use for any other purpose than its intended use.
3. When moving High Looper to other locations, have Tilt Plate floated in moving. If Tilt Plate is not floated in moving, Tilt Plate could be damaged and could be malfunctioned during Bucket entry.
4. If install outdoor, install under the roof.
5. Do Not leave High Looper with Bucket lifted.
6. Make sure to screw Floor Lock up to max height when moving High Looper to other locations. If Floor Lock is not screwed upto max height, it may hit and damage the floor, and could be dangerous.
7. Do Not operate (push down) Lock Outer Pedal until Tilt Plate is lowered down to floor.
8. Do Not swing High Looper when tilting bucket.
9. If load materials are adhesive compositions, they may not be dumped out completely by tilting bucket, and High Looper may lose balance and could be overturned. Try to rake during tilting with careful attention.

1. Intended Use

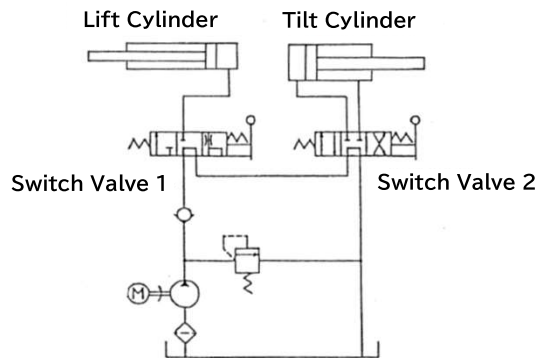
Bishamon 『 High Looper HTR25 』 is designed to lift up and dump (throw in) the metal shavings, various raw materials etc. into prepared container (case etc.) with combination of exclusively developed Bucket, or modified Tilt Truck (DS15, DS25, DR15, DR25).

2. Operating Principle

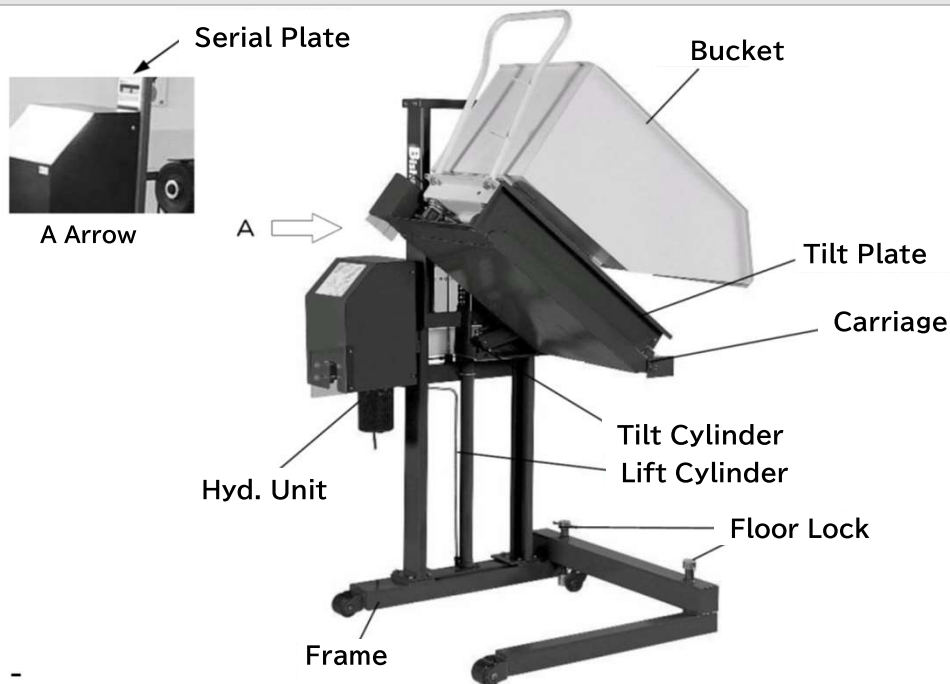
【 Electric Circuit 】



【 Hydraulic Circuit 】



3. Name and Functions of Components



Tilt Plate -

Base plate which Bucket cart drives in and tilt to dump inside load after being raised to required height.

Frame -

Combination of Post and large Base. Post lift up and lower down Carriage. Base prevent from turnover by Floor Lock.

Carriage -

Carriage rise and lower along Frame, and lift up and lower down Tilt Plate.

Hydraulic Unit -

Consists of Motor, Pump and electric components.

Lift Cylinder -

Lift up and lower down Carriage.

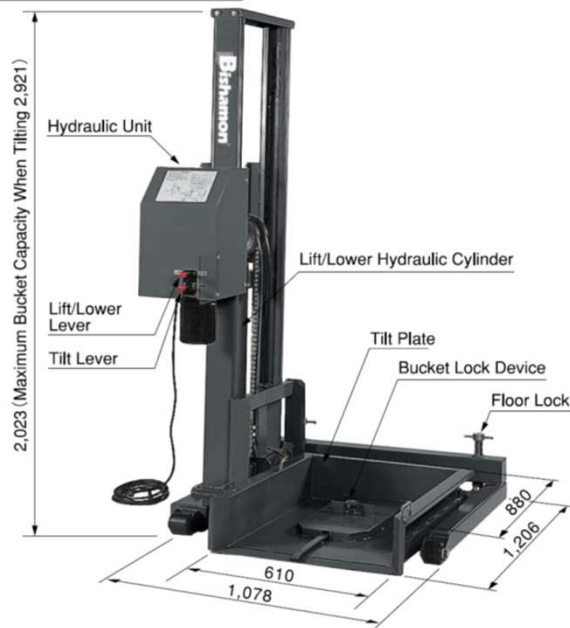
Tilt Cylinder -

Is installed at Carriage and tilt Tilt Plate.

Floor Lock -

Refer to Page 4, 『 7-1. Control Lever and Floor Lock 』

4. Specifications



High Looper

Model	HTR25
Capacity	250 kg. (plus DS Bucket weight)
Overall Height	2,014 mm
Overall Width	1,229 mm
Overall Length	1,206 mm
Max Height (When DS Bucket is on)	2,921 mm
Lifting Speed	33 sec. (50HZ), 27 sec. (60HZ)
Tilting Speed	12 sec. (50HZ), 10 sec. (60HZ)
Power Source	AC100V Only (Higher voltage is not available)
Motor	0.56 KW
Machine Weight	250 kg.

DS Bucket

Model		DS15	DS25
Capacity		150 kg.	250 kg.
Bucket	Lip Height	563 mm	582 mm
	Height	689 mm	784 mm
	Capacity	0.12 m ³	0.27 m ³
Overall Height		798 mm	898 mm
Overall Width		535 mm	685 mm
Overall Length		1,007 mm	1,292 mm
Machine Weight		36 kg.	66 kg.

5. Safety

- DO NOT use High Looper unless you have been fully trained in its operation.
- Repair immediately if safety guard and safety cover etc. are damaged.
DO NOT remove safety guard and safety cover.
- DO NOT alter or modify High Looper in anyway.
- When lowering Tilt Plate, keep Tilt Plate horizontal except tilting operation.
- Have Floor Lock being locked except moving High Looper to other locations.
- Keep inflammable away from oil of Hyd. Unit. Or it could result in fire.
- If cloud of dust is expected when load is put into bucket, add the wet to load, and wear the protector such as mask if necessary.

6. Pre-Operation Checks

■ Perform the Pre-Operation checks before operating everyday.

Check below visually

- 1) Is there any abnormal external appearance (wear, distortion, crack etc.) ?
- 2) Is there any oil leak from Hydraulic Lines such as Hyd. Unit and piping etc. ?
- 3) Is there any crack, damage on the chain ?
- 4) Is Floor Lock working properly ? grounded firm (properly) ?

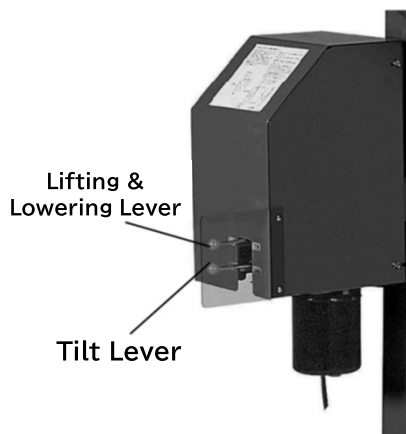
■ Operate without load

Check below visually and also by hearing

- 1) Is there any abnormal noise from structure such as Hyd. Unit and Carriage ?
High Looper can be operated smooth without hitching ?
- 2) Does Lock Hook move smooth when Lock Outer Pedal was stepped down ?

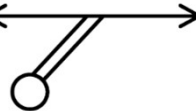
7. Operation

7-1 Control Lever and Floor Lock



① Lifting & Lowering Lever

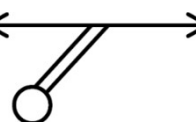
Lifting ← → Lowering



Tilt plate would go up and lower down by operating this lever. Tilt Plate goes up by pushing to left side and lowers down by pushing to right side. Tilt Plate stops when releasing lever.

② Tilt Lever

Tilting ← → Reverse Back (to Horizontal)



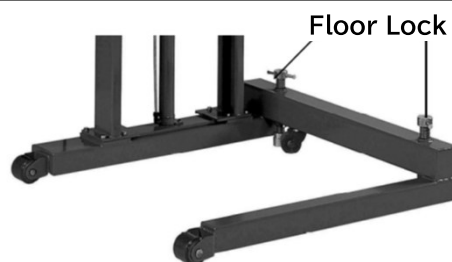
Tilt plate would tilt and return to horizontal by operating this lever. Tilt Plate tilts by pushing to left side and returns by pushing to right side. Tilt Plate stops when releasing lever.

③ Floor Lock



Warning

**Make sure Floor Lock is grounded properly. If NOT, High Looper may overturn.
Make sure Floor Lock is grounded properly except during moving to other location.**



Floor Lock is used to prevent High Looper from overturn. High Looper can be grounded by turning clockwise. Only when moving to other location, turn counterclockwise to have High Looper floated.

7-2 Bucket - Preparation for entering onto Tilt Plate

- ① Lower Tilt plate down to ground with horizontal conditions

Caution

If bucket tries to enter onto Tilt Plate before lowered completely, it may result in the damage to High Looper and bucket.

- ② Make sure both 2ea. Floor Locks are grounded firm

Warning

If Floor Locks are not grounded firm, it may result in overturn of High Looper and serious accident.

7-3 Bucket - Entering onto Tilt Plate

- ① Drive Bucket DS15•25, (or Tilt Truck DR15•25 with authorized special attachment) onto Tilt Plate

Warning

If unauthrized bucket or tilt truck is used, it may result in fall and serious accident.

- ② Check if Lock Bar beneath bucket (tilt truck) became engaged with Lock Hook by swinging bucket (tilt truck) back and forward.

Warning

If Lock Bar of bucket (tilt truck) is not engaged, it may result in fall and serious accidents

7-4 Lifting Up (Rising)

- ① Make sure areas around High Looper is clear of all personnel and objects
- ② Lift up to the height 20~30cm higher than charging port of bin (box etc.) , or upto required height for work by pushing Lifting & Lowering Lever to left.

Warning

Pay close attention during lifting operation of Tilt Plate lest it should touch or obstruct anybody and anything. Or it could result in serious accidents and damage to property

Caution

Stop lifting immediately when reached max height. Or it could result in damage to hyd. unit

7-5 Tilting

- ① Make sure areas in front of Tilt Plate is clear of objects.

Caution

If there is objects etc., it could result in damage to High Looper and bucket (tilt truck)

- ② Push Tilt Lever to left to tilt Tilt Plate. When all load inside bucket are dumped, finish operation. If load are still left inside bucket after tilting to max angle (62°), use bar etc. to rake and empty bucket.

Caution

Stop tilting immediately when reached max angle. Or it could result in damage to hyd. unit

7-6 Reverse Back

- ① Reverse Tilt Plate back to horizontal if all load inside bucket fell down. Check and make sure areas beneath Tilt Plate and High looper is clear of all personnel and objects, and then push Tilt Lever to Right side and return Tilt Plate to horizontal.

Caution

Stop operating once Tilt Plate returned to horizontal. Or it may damage Hyd. Unit

7-7 Lowering

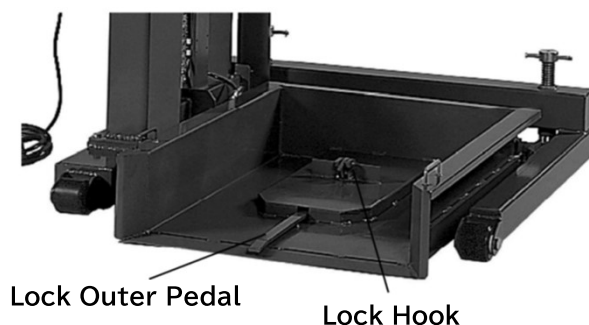
- ① Check and make sure areas beneath Tilt Plate is clear of all personnel and objects.
- ② Push Lift and Lowering Lever to Right side and lower down to lower limit.

7-8 Exit of Bucket (Tilt Truck)

- ① Push Lock Outer Pedal down to release Lock Hook. Keep pushing down Lock Outer Pedal, and pull Bucket 5~10cm. And then release Pedal and drive out (exit) Bucket from Tilt Plate.

Warning

Pay close attention during driving out Bucket lest Bucket should hit and damage operator's foot, especially the foot pushing down the Lock Outer Pedal.



8. Move High Looper to other location

Bishamon 『 High Looper HTR25 』 has wheels equipped for moving.

※ Make sure to keep Tilt Plate being raised during moving by wheels.

- ① Unload Tilt Plate
- ② Raise Tilt Plate upto the waist level height keeping Tilt Plate horizontal.
- ③ Take off Power plug and put on Tilt Plate etc.
- ④ Unfasten Floor Lock. Make sure to turn clockwise to raise upto max height.
- ⑤ Hold Tilt Plate and move High Looper to the destination.
- ⑥ When reached destination, make sure to lock the Floor Lock, and plug in.

9. Clean Up and Check after the Work

After the end of work of the day, remove dirt and dust on the High Looper, and also remove wetness on chain. Also check any abnormality on the High Looper such as distortion, crack, damage and oil leak etc. on High Looper.

10. Periodic Inspections & Regular Maintenance

Period	Inspection Items	Inspection Method	Action
Every Month	Any rust, crack on Chain ?	By Visual	Replace Chain
	Check external appearance for any damage, distortion etc.	By Visual	
	Sliding portion inside Post	Grease Up	
	Tilt Cylinder connecting portion	Grease Up	
	Grease Fitting at Tilt Plate Shaft	Grease Up	
Every 6 Months	Any crack, deformation on Floor Lock ?	By Visual	Replace
Every Year	Hyd. Oil	Replace	

■ Hydraulic Oil

ISO VG32 (Oil volume - 3 liter)

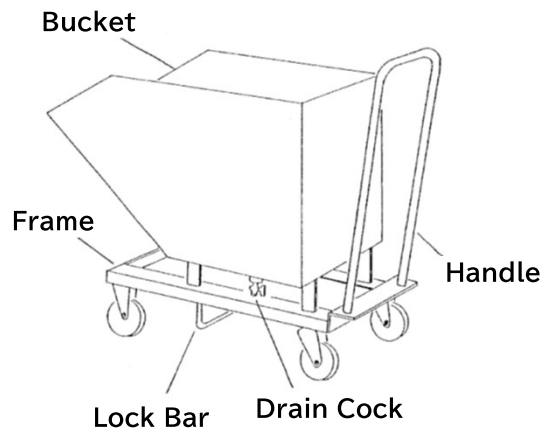
11. Troubleshooting

Symptom	Possible Cause	Action
High Looper does not work at all	〔 Motor does NOT run 〕 <ul style="list-style-type: none"> • Voltage drop due to extended cable (Power cable is extended) • Power plug is not connected • Malfunctions of Limit Switch • Cable disconnection • Malfunctions of Motor 	→ Operate High Looper within standard cable length → Plug in and supply power → Replace Limit Switch → Repair wiring → Replace Motor
	〔 Motor does RUN 〕 <ul style="list-style-type: none"> • Lack of Hyd. Oil • Malfunctions of gear pump • Adjustment defect of Relief Valve 	→ Fill the oil → Replace gear pump → Adjust Relief Valve properly
Natural Lowering (Drift)	<ul style="list-style-type: none"> • Malfunctions of check valve • Oil leak from piping • Wear of seals in cylinder 	→ Replace check valve → Retighten piping → Replace seals
Oil Leak from Cylinder	• Wear of seals in cylinder	→ Replace seals
Oil leak from Switch Valve	• Wear of seals	→ Replace seals
Oil leak from piping	• Loosening, rupture of piping	→ Retighten, or replace piping

12. Bucket DS15 • DS25

Bucket to be used exclusively for High Looper

Bucket DS15 and DS25 are specially designed for High Looper.



	DS15	DS25
Max Capacity	150 kg	250 kg
Bucket Capacity	120 L	270 L

■ Operation and Intended Use

1. Put metal shavings, raw material etc. into Bucket
2. Drive onto Tilt Plate of High Looper.
3. Check and make sure Lock Bar is engaged with Lock Hook of Tilt Plate.
4. Dump the inside load according to the operation instructions.
5. Water and oil etc. inside Bucket can be drained by Drain Cock.

■ Cautions in Operation

1. Do not exceed rated load capacity
2. It is possible bucket can be damaged or deformed during operation
3. DO NOT use if load is protruded (sticking) out of bucket. It could be entangled with High Looper frame etc.
4. Raise up and drop bucket. Wheels could be distorted.
5. If Drain Cock was clogged, use air etc. to clean up and flushing.

■ Maintenance

1. Check for external damage, distortion
2. Check for wear, damage, distortion on Lock Bar
3. Check if wheels rotate smooth and if brake work properly.

13. Disposal

When disposing of this High Looper and Bucket, dispose of the metal, non-metal, plastic, and hydraulic oil components separately. There are regulations for disposing of the hydraulic oil, so make sure to sort and follow the local rules. If you have any questions regarding disposal, please check with your supplier of the High Looper and Bucket.

14. Product Warranty Conditions

Warranty

Should the unit malfunction within the warranty period (Within one (1) year of purchase) when it has been operated in accordance with the user manual and the warning labels on the unit, we will adjust the defective component, repair it, or send a replacement part free of charge. However, this does not apply in the case of secondary damage or any damage which any of the following apply :

- (1) Damage or injury resulting from incorrect operation, improper inspection, improper storage, or any other type of negligence
- (2) Damage or injuries resulting from changes (modifications) that negatively impact the product's operation mechanism
- (3) Consumable parts that are damaged and need to be replaced
- (4) Damage or injury resulting from fires, earthquakes, wind, floods, or other natural disasters or external factors
- (5) Problem resulting from specified parts not being used
- (6) Error in the warranty claim process (Ex: failure to indicate Model or Serial No. etc.)
- (7) Damage or injury resulting from installation
- (8) Repairs performed not by our company or not by our authorized dealer
- (9) Damage confirmed to be the result of overuse, user error, or accident

Furthermore, all rubber components and other naturally degradable products used in this products and its accessories, as well as all consumable products, fall outside the scope of this warranty.

This lifter is not waterproof, so rust, corrosion, short circuits, and other damage caused by water is not covered under warranty.

How to Claim Warranty

If you decide to file claim for this product based on the above, please contact your dealer. The dealer will carry out the necessary procedures. In addition, we can not decide whether or not any particular situation falls within the scope of this warranty.

15. After Sales Service

•Product does not work properly	→	Review the manual and try to find solution
•Product still does not work properly	→	Contact your supplier and request repairs
•Repairs within the warranty period	→	The warranty is valid one year from the date of purchase. We will service your product in accordance with warranty conditions.
•Repairs out of warranty period	→	Consult with your supplier
•Availability of Spare Parts	→	The spare parts are available for 8 years after discontinuing manufacturing

Contact your lifter supplier for any information regarding after service.

When contacting your lifter supplier, provide following information.

- Model No.
- Serial No.
- Purchase Date
- Conditions of trouble

Record the above information in the table below for future inquiries.

Model	
Serial No.	
Purchase Date	
Lifter Supplier	
Installer	
Trouble Date and conditions	Date :
	Date :
	Date :

Bishamon



Sugiyasu Corporation

3-21, 4-Chome, Hongo-Cho, Takahama City,
Aichi, Japan 444-1394
Tel. 81-566-53-1126, Fax. 81-566-53-1844
<http://www.bishamon.co.jp/>