User's manual

# ONION TOPPER
## VS-AS

K00.EN.00.00 MACHINE

*Blanco*

Complete the following information as soon as you take delivery of your -holaras- machine. This information is important in the event of a breakdown or when ordering parts in the future.

| | |
|---|---|
| Machine number | :…… |
| Type designation | :…….. |
| Date of commissioning | : ….. -……-……. ….. |

(copy the above information from the type-plate on your machine)

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# 1 DECLARATION OF CONFORMITY

Machine : Oniontopper
Brand : Holaras
Type : (VS)AS 10 / 15 / 20 / 25

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**NL - Verklaring van conformiteit**
Wij, Hoopman Machines B.V., Dinxperlosestraatweg 145, NL-7122 JP Aalten, Nederland, verklaren hiermee dat de hier vermelde machine, waarop deze verklaring betrekking heeft, in overeenstemming is met de normen en normatieve documenten, overeenkomstig de bepalingen van de EG-richtlijnen 98/37/EG en 2006/42/EG (en wijzigingen zoals laatstelijk gewijzigd), onder onze exclusieve verantwoordelijkheid valt.

**D - Konformitätserklärung**
Wir, Hoopman Machines B.V., Dinxperlosestraatweg 145, NL-7122 JP Aalten, Niederlande, erklären hiermit, dass die bezeichnete Maschine aufgrund ihrer Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Maschinenrichtlinie 98/37/EG und 2006/42/EG entspricht.

**GB - Declaration of Conformity**
We, Hoopman Machines B.V., Dinxperlosestraatweg 145, NL-7122 JP Aalten, The Netherlands, declare on our exclusive responsibility that the machine described, to which this declaration refers, conforms to the norms and normative documents as defined in the provisions of 98/37/EC and 2006/42/EC.

**F - Déclaration de conformité**
Nous, Hoopman Machines B.V., Dinxperlosestraatweg 145, NL-7122 JP Aalten, Pays Bas, déclarons que l'outil sous-mentionné, qui fait l'machine de la déclaration, se trouve, sous notre responsabilité exclusive, en conformité avec les normes et documents normatifs conformément aux dispositons des directives 98/37/CE en 2006/42/CE.

**DK - Overensstemmelsesattest**
Vi, Hoopman Machines B.V., Dinxperlosestraatweg 145, NL-7122 JP Aalten, Holland, erklærer, at det her anførte maskine, som erklæringen referer til, ene og alene star under vores ansvar i overensstemmelse med standarderne og de normgivende dokumenter, svarende til bestemmelserne i henhold til 98/37/EG, 2006/42/EG.

**I - Dichiarazione di Conformitá**
Hoopman Machines B.V., Dinxperlosestraatweg 145, NL-7122 JP Aalten, Olanda, con la presente dichiariamo che macchina sotto elencati, ai quali si riferisce la presente dichiarazione, sono conformi alle normative e alle documentazionie normative come da dirrettive n 98/37/EG, 2006/42/EG, e di questo ci assumiamo la piena responsbilita

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## 2 SAFETY INSTRUCTIONS

1. Before use, make sure that the manual has been carefully read. Become familiar with the controls so as to use the machine correctly. Obey all safety instructions.
2. The plates and safeties fitted on the machine are part of it and must not be removed or spoiled for any reason.
3. Before use, check the machine.
4. Keep children and visitors away from the working area.
5. Do not force the machine. It will do the job better and safer at the rate for which it was intended.
6. Use the machine only for the purpose for which it was designed.
7. Maintain the machine with care. Keep the parts clean (and sharp) for better performance. Correct machine servicing is necessary with a view to reliable and safe working.
8. Disconnect the power before maintenance.
9. Check damaged parts. A part that is damaged should be repaired or replaced directly.
10. Never leave the machine unattended.
11. Stay alert, watch what you are doing and use your common sense. Do not operate the machine when you are tired or under the influence of alcohol, drugs or medicines.
12. Always pull out the power plug, stop engine, PTO and/or moving parts before adjusting, cleaning or lubricating the machine.
13. All covers and safety devices have to be properly fitted before the machine is switched on. All guards and safety devices have to be refitted immediately after transport or completion of any repairs or maintenance.
14. **Warning:** The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

### *2.1.1 Machine specific safety regulations*

1. Do not operate the machine until it is fully connected.
2. If any part of the machine is defective, missing, or malfunctioning, you must immediately switch the machine off and repair or replace it the part.
3. Never let any body parts come inside the machine while it is in use.
4. Watch out for sharp or protruding parts.
5. Keep unauthorized persons out of the machine's reach while using the machine.

**Warning!!**
Do not allow your familiarity with the machine to turn into carelessness. It takes only fractions of a second for carelessness to result in serious injuries.

# 3 TECHNICHAL INFORMATION

## 3.1 Process description

When using the Holaras topping machines the haulm cut of by fast rotating blades. This avoids damage since the blades do not touch the onions. The number of directed vibrations transmitted by specially designed vibrator is such that the onions move in a floating motion above the vibration-sieves. Due to the special shape and movement of the blades the haulm-tops are drawn through the openings in the sieves by a heavy downward airstream. Then they are cut by the rotating blades just underneath the sieve. In a closed machine the excess waste can be transported by conveyor belt.
It is important to use a sieve that is suitable for the type of onion. Regular supply is wanted. One can achieve this by using the Holaras bulk hopper and pre-grader.

## 3.2 Method of operation

## 3.3 Technical information

All specifications are subject to change. Subject to technical changes.

### *3.3.1 The technical specifications of the AS 10*

- Machine dimensions (LxWxH): : 273x131x128
  300x181x211 (closed)
- Required power : See electrical diagram
- Capacity : 5-10 tons p / h
- Weight : -
- 2 vibrating motors: : 0.45 kW / 920 Rpm (set to 100%)
  KBM 115-6; 6.25 kN impact force
- 2 knife motors: : 3 kW 1400 -Rpm AS 28mm
  208-240V 50HZ

### *3.3.2 The technical specifications of the AS 15*

- Machine dimensions (LxWxH): : 368x131x127
  370x181x198 (closed)
- Required power : See electrical diagram
- Capacity : 10-15 tons per hour
- Weight : -
- 2 vibrating motors: : 0.7 kW 1000T (set to 85%)
  KBC2-165-6; 9kN impact
- 3 knife motors: : 3KW AS 28MM
  208-240V 50HZ

### *3.3.3 The technical specifications of the AS 20*

- Machine dimensions (LxWxH) : 273x210x111
  300x247x243 (closed)
- Required power : See electrical diagram
- Capacity : 15-20 tons per hour
- Weight : -
- 4 vibrating motors : 0.45 kw 980rpm (set to 100%)
  KBM 115-6; 6.25 kN impact force
- 4 Blade motors : 3 kW 1400 -Rpm AS 28MM
  208-240V 50HZ

*3.3.4 The technical specifications of the AS 25*

- Machine dimensions (LxWxH) : 368x215x215
  370x247x249 (closed)
- Required power : See electrical diagram
- Capacity : 15-25 tons p / h
- Weight : -
- 4 vibrating motors : 0.7 kW 1000T (set to 85%)
  KBC2-165-6; 9kN impact
- 6 knife motors : 3KW AS 28MM
  208-240V 50HZ

### 3.4 Version

If the machine is a VS-AS combination, the pre-grading machine is mounted onto the onion topper. The pre-grader uses a “shake-screen-system” the onion topper uses vibrating motors.

All types are available as an open system and as a closed-air circulation system with a waste-belt. The sieves can also be delivered in different sizes. The underframes can vary in height and can include a forklift pick-up. The control panel can be manually operated or automatic.

## 4 PLACEMENT AND INSTALLING

*Carefully read the safety regulations (see chapter 3. SAFETY PRECAUTIONS) before assembling, installing or operating the machine. Disregarding the instructions can cause damage.*

Depending the destination and the shipping instructions, the parts of the machine can be packed in crates, boxes, on wooden pallets, sent by truck or in a container.

Immediately on receipt of the (packaged) machine, the shipment should be checked for any possible damage during transport. Any damage should be directly reported (in writing) to the carrier.

If the machine cannot be installed immediately, it should be stored covered and in a dry place.

### 4.1 Packaging/transport

In order to enable a safe and easy to handle transport, the main body is transported completely assembled. Where necessary, the machine is packed and/or strapped together in a secure way. The applied packing method is carried out in such a way that it does not need further explanation.

### 4.2 Unpacking the machine

Observe the necessary caution when taking off the packaging material.
Remove all temporary storage material used during transport such as planks, blocks, lashing, ropes and filler material.
Check the machine for the presence of temporary supports between the main and the support frame. If these are present, disassemble and/or remove these and re-secure the assembly bolts. Carefully check the various parts and if necessary, clean them.

### 4.3 Internal transport

*Make sure that there is equal support along the full length of the main frame.*

*If the machine has to be lifted for transport, make sure that it remains in proper balance. Only lift the machine under the support frame base. Carefully transport all parts to the place of installation.*

Some versions are supplied with a forklift mount (optional), make a suitable choice for internal transport based on your machine and place of installation. The final location of the machine must be such that it has been taken into account that the machine can be reached from all sides, so that cleaning and maintenance can easily be carried out.

## 4.4 Assembly

The assembly and installation of the machine must be carried out by authorized personnel.

The machine should be slightly tilted for optimum operation, the input side should be 5-10 cm higher than the outlet side.

The machine is plug & play but make sure that:

*Check all bolted connections of the machine on tightness as they may have worked loose during transport!*

## 4.5 Connection to power supply

- Connect the machine to the power supply with the connector
- Before you connect the machine to the power supply you should check if the specifications of your supply matches the specifications mentioned in chapter 3.3
- Check the power connection

Checking the direction of rotation
(Only applies for 2 imbalance motors)

*The two electric motors must rotate in opposite directions. Both motors must be automatically and simultaneously started and stopped. Besides that, ask your electro-technical company to connect both motors in such a way that they are individually fused.*

*Ask your local Electro-technician to connect the motor correctly to safeguard the electrical installation.*

*Do not leave the electrical power switched on, while the machine is unattended.*

## 4.6 Disconnection of the power supply

*Be sure that the machine is disconnected from any power supply, if:*
- *Maintenance and/or repair activities are executed*
- *Equipment is not used for a longer period of time*

### 4.7 Earth

The machine should always be connected to a power supply which has an earth connection.

### 4.8 Final check

- Check whether all bolted connections of the machine are tightened.
- Check whether all utility connections to the machine are properly supported.
- Check whether there are no foreign objects present in or near the machine.
- Check whether the protective covers and safety provisions are in place and properly secured.
- Check whether the product supply and discharge systems of the machine are in place and in good functioning order.

## 5 OPERATING

*Carefully read the safety regulations (see chapter 2 Safety instructions) before starting the machine. Disregarding the instructions and safety regulations can cause damage. Do not connect the machine to the power supply until it is completely assembled.*

*Every time before using the machine: check whether anyone is working at or near the machine. Warn them accordingly. Carefully check the interior and exterior of the machine on foreign objects, paying special attention for missing parts (after maintenance) and tools and check whether the machine is cleaned.*

*Keep hands and clothing well away from moving parts.*

*Never run the machines with vibration motor counterweight covers open!*

### 5.1 Sequence of starting and stopping

Disregard when using a fully-automatic control panel (optional).

#### *5.1.1 Start*

1. Vibrationmotors
2. Toppingmotors
3. Pre-grader motors

#### *5.1.2 Stop*

1. Pre-grader motors
2. Toppingmotors
3. Vibrationmotors

*Standard control panel AS 10 enclosed*

### 5.2 Automatic control panel

If the machine is equipped with an automatic control panel.

When the machine is switched on, the motors will immediately start to vibrate. And after approximately five seconds the knife blades will start. This short delay is to prevent overload of the system.

When the blades are at full speed, the machine can be used. When the emergency button is pressed while the machine is vibrating, the knife blades will stop. The machine keeps vibrating for ninety seconds, before stopping. If during use of the machine, the cover will be lifted, a switch stops the machine.

### *5.2.1 Use manual control panel*

On the control panel is also a button for manual control located. The supplied key must be used to control it. However, the remote control must be also connected to the control panel, without it, the machine will not run. If the key is in position Right (II), the machine starts. The middle position (0) is the neutral position, and then the key can also be removed. If the key is in the left position (I), the machine stops.

### *5.2.2 Remote control (option)*

When the machine is equipped with a remote control.
**Before starting the machine**, the remote control must be connected. The machine does not run without it. The remote control is plugged in at the bottom of the control panel with the plug. If the main switch is now in position on, the machine can be turned on with the remote control.
There are 3 buttons located on the remote control. With the green button, the machine is switched on, with red one, the machine can be stopped. With the emergency button the machine can always be stopped.


Remote control


Plug from the remote connected on the control panel


Switch on the cover

## 6 MAINTENANCE

### 6.1 Cleaning

*Always wear the correct protective clothing during cleaning operations.*

*During cleaning operations, dust will be whirled up. Always take care for properly fitting, approved protection for nose and mouth.*

### 6.2 Preventive maintenance

If maintenance must be committed, make sure the machine is completely turned off. And the key and remote control are removed from the control panel.

1. Make sure that the main switch is off.
2. Remove the remote-control plug from the control panel.
3. The key must be removed from the control panel.
4. Make sure there is no power supply to the control panel.

Below a list of checks to be carried out and the interval when these should be done. .

D = Daily
W = Weekly
M = Monthly
Y = Yearly

| Preventive maintenance | | Interval | | | |
|---|---|---|---|---|---|
| | | D | W | M | Y |
| **1** | Cleaning the machine | ● | | | |
| **2** | Check the condition of the knives | | ● | | |
| **3** | Check all bolted connections for tightness (special care for the vibratory motors!)*<br>**Bolts from vibratory motors need tightening to 420 Nm** | | | ● | |
| **4** | Check for any play between sieve and sieve frame | | | ● | |
| **5** | Check the condition of the sieves and the frame | | | | ● |

* After the first 6-8 operational hours, the foundation bolts and nuts must be checked for tightness

Lubrication of the bearings is not required, they are “greased for life.”

### 6.3 Setting of the force of the stroke (energy momentum)

If the product to be calibrated / sized does require a stronger force stroke (energy momentum) for proper processing. follow instructions underneath:

- Start the machine.
- Keep a thin pencil against the sides of the vibration separator at the four corners (near the torsion rubber mounts).
- Stop the machine.
- At the corners 4 inclined lines of a certain length can now be seen.
- The inclination indicates the direction of movement of the vibration separator.
- The length indicates the stroke of the vibration separator at that point.
- Theoretically, the lines at the product feeder side, both at the left-hand side and the right-hand side, should have the same length and inclination. This accounts also for the product discharge side.
- If for instance the energy momentum of the vibratory motors is set at 40% (See also instructions “” unbalanced motors) and if these are re-adjusted to 60%, the stroke of the vibration separator and subsequently the length of the stripes will increase.
- Change **by altering counter weight segments on the vibrator into opposite direction.** If 50 % of the segments have opposite direction, the force will be theoretically zero. At delivery the standard setting is ca. 60 % of maximal force, which is o.k. for most products.

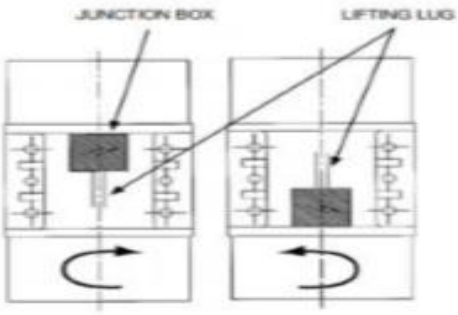
*Danger: Never run machine with Counterweights open.*

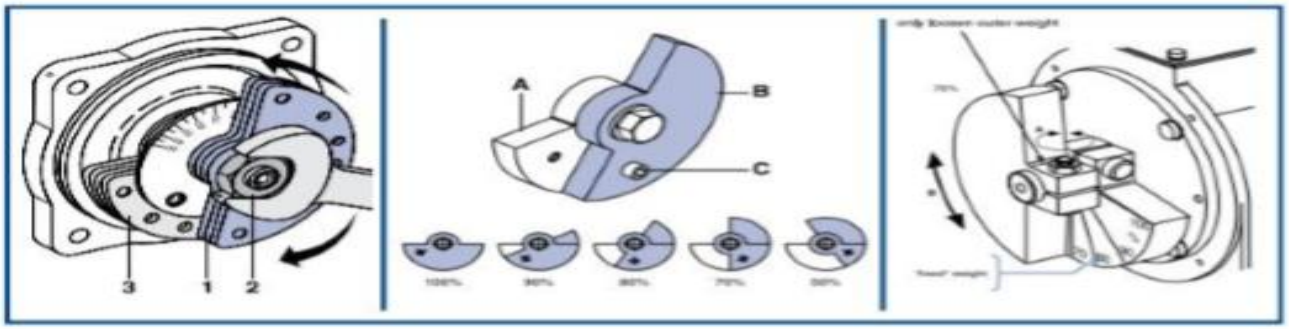
- If required to have higher stroke at the product feeder side than at the discharge side, the weights of the vibratory motors may be unequally divided with a maximum difference of 20%. In other words, the weight of the left-hand side vibratory motor at the product feeder side could be at 50% and the one at the product discharge side at 40%. Exactly the same settings have to be used of course for the right-hand side vibratory motor.
- The inclination and the length of the pencil stripes will now change.

## Setting of Eccentric Weight

**If adjustments are made:**

- insure both ends of the vibrators' eccentric weights equal the same percentage value
- when utilizing dual vibrators in a configuration to produce a rectilinear motion; insure one is running CW, and one is running CCW
- when utilizing dual vibrators for feeders, and the outer eccentric weight is thinner than the inner weight, one vibrator must be rotated 180° so the vibrators synchronize when settings are less than 100% (It is a good rule to do this all of the time)





### 6.4 Exchanging pre-grader sieves

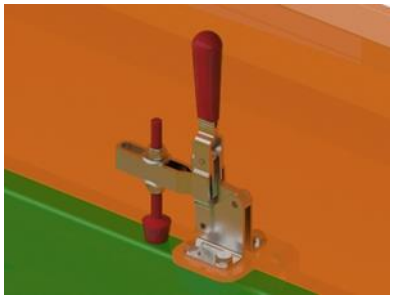
When replacing the pre-sorting sieves, the sieve holder no. 54 must be removed first, then the sieve can be lifted upwards.The assembly is done in reverse order. After attaching the sieve holders, they must be tightened securely and be slightly adjusted so that they are under tension.

1. Remove sieve-holder
2. Remove sieve
3. Replace the old sieve with a new sieve
4. Fit bolts (hand tighten) through sieve frame and sieve holder
5. Place the sieve in its correct position
6. Firmly tighten all nuts and bolts

### 6.5 Exchanging topper sieves

1. Open quick attach handle (see picture)
2. Carefully slide-out the sieve(s)

For mounting another sieve, follow instruction in reverse till, re-fit and tighten all bolts and nuts.



*Quick attack handle*

### 6.6 Replacing topping-blades

The knives can (optionally) be sharpened once with a small hand grinder. As soon as the blades are more damaged, the blades must be replaced. Do not sharpen worn blades, as this can cause imbalance and result in equipment-damage
The tail sieve must then first be dismantled and removed. Then dismantle the entire knife and remove the old blades and bolts on the workbench. Install new blades and new bolts.

| |
|---|
| Pay attention…. Always assemble 2 new blades, these are also supplied per set (of 2), this important for balance of the knife. |

When reassembling the complete blade-unit, first grease or oil the shaft of the motor so that later on, if necessary, dismantling is easier.

1. Remove the sieve.
2. To remove the blade holder; remove the M10 bolt from the motor shaft. To remove the blade holder, you must screw an M12 bolt into the blade holder.
3. Grease the motor shaft before refitting the blade holder.
4. Replace the blades on the blade holder.
5. Tighten the bolts securely.
6. Install the sieve.

### 6.7 Note

Be careful not to get any body parts underneath the sieves.
When shielding the machine, it must be taken into account beneath the sieves the normal underpressure or SUCKING OPERATION OF THE KNIVES remains, otherwise the machine is not unable to operate at full capacity.

*When working on the machine, switch it off and disconnect from the energy supply. Place sign: "don't start, danger for maintenance personnel," over control panel.*

*Isolate all electric motors from mains by turning safety switches on the machine to off position.*

## 7 DUST AND OTHER WASTE MATERIALS

## 8 ENVIRONMENT

- The machine itself will not harm the environment.
- Do not leave the machine running unnecessarily.
- Use, if necessary, biodegradable cleaning and disinfecting agents when cleaning the machine.

## 9 DISPOSAL

**Be aware of local regulations!**

- Consult Hoopman Machines B.V., when considering disposing of the machine. Possibilities for overhaul and possible re-use can then be reviewed.
- Steel and stainless steel construction parts must be discharged as scrap metal.
- Parts of the drive motor(s): gearbox, gear wheels, shafts and bearings of the redactor, must be discharged as scrap. This also accounts for cast iron parts, as far as scrap metal collection takes place.

- Parts of the drive motor(s): worm-gears are partly of non-ferrous metal and must be disposed of in accordance with local regulations.
- Plastics and rubber (e.g. belt conveyors), Must be kept separate and subsequently be discharged seperately.
- Consult Hoopman Machines B.V. in case of doubt.

## 10 TROUBLESHOOTING

| Problem detected | Possible causes | Solutions |
|---|---|---|
| **1.** Machine does not start | **a.** Power supply is missing<br>**b.** Main switch is turned off<br>**c.** Emergency stop has not been reset | **a.** Connect to a power supply<br>**b.** Turn on the main switch<br>**c.** Release the emergency stop and reset control current |
| **2.** One or more drive motor(s) is (are) stopped | **a.** Too much product supply (load)<br>**b.** Too much difference in load due to irregular supply | **a.** Reduce the product supply<br>**b.** Make sure that the product is evenly and continuously supplied, if possible try a different batch. |
| **3.** Insufficient topping | **a.** Wrong speed<br>**b.** Too large capacity supplied | **a.** Change the “normal” speed setting<br>**b.** Reduce product supply |
| **4.** Heavy vibrations of the entire machine | **a.** Direction of rotation of the vibratory motors is the same<br>**b.** 1 Vibratory motor is stopped<br>**c.** 1 Vibratory motor is running on 2 phases only<br>**d.** Slack foundation bolts of a (the) vibratory motor(s)<br>**e.** One or more rubber torsion mounts is not functioning properly | **a.** Check the direction of rotation and remedy in such a way, that both motors are running in opposed directions<br>**b.** Check the vibratory motor and remedy<br>**c.** Check the vibratory motors and remedy<br>**d.** Tighten the foundation bolts with the correct torque<br>**e.** Repair or renew |

This table is only a tool to solve errors with the machine. When you cannot solve the error in a safe way, you should contact authorized personnel.

**Pay attention!!** Maintenance on the electrical parts should only be executed by an authorized electrician.

## 11 INCIDENT & REPAIR LIST

Whenever the machine has a malfunction or worn out parts you should write it down in this list. When the machine needs service, or has a frequent malfunction we can check this list what is the best solution to make the machine work properly again. It also can save much time for trouble shooting.

| Date | Problem | Solution | Solved by |
|---|---|---|---|
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## 12 ORDERING SPARE PARTS

You can always order spare parts for your machine. Every spare part can be find in the parts list that is also delivered by your machine. It is important that you always mention the construction year, the type and the serial number of your machine when you order spare parts.

## 13 EXPLANATION OF THE SAFETY DECALS

Carefully read operator's manual before handling the machine. Observe instructions and safety rules when operating.

Stay clear of rotating machine parts

Stay clear of raised gate unless safety lock is applied.

Never reach or climb into grain tank while engine is running.

Stay clear of gate swinging area while tractor engine is running

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Secure lifting cylinder with locking device before getting in hazardous area.

Do not open or remove safety shields while engine is running.

Do not open or remove safety shields while engine is running.

Never reach into the crushing danger area as long as parts may move.


Wait until all machine components have completely stopped before touching them.

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Lubricating point

## 14 MEMO

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