KD60 Manual Cream Separator
Use & Care Instructions

Read this manual carefully before using your Cream Separator. Skill at separating cream comes with practice, and being familiar with your machine will help develop your skills.

Please note: The top reservoir where the milk goes is called the “Milk tank.” The spinning assembly which actually separates the cream is called the “Bowl” assembly. This terminology is used throughout this manual.

UNPACKING & INSPECTION
Remove the machine and all spare parts from the packing case and check that all parts are present and in good condition. Besides the unit itself you should have spares and tools as listed below:

- Spare rubber O-Ring
- Top wrench for bowl
- Bottom wrench for bowl
- Cream regulating L-key (2.5mm)
- Bowl adjusting L-key
- Disk hanger
- Oil, 8 oz. Bottle
- Screw driver
- Spare neck bearing spring

SET-UP AND OILING

Fasten the machine to a suitable table with appropriate hardware (not included). Use a leveling device to make sure the machine is perfectly level. This is very important for the long life and smooth running of the machine.

Slide the crank handle onto the shaft and tighten the screw as in Figure C.

Lift the spindle and neck bearing from the top of the body (Figure G) and observe the worm gear spindle. Add about 6 ounces of oil to the gear chamber. Oil the spindle top bush. Frequently inspect and add oil as needed. Oil the top bush before each use. Use No. 10 Mobile Oil, or reorder #KD60-OIL from supplier.
CLEANING OF MILK CONTACT PARTS

The bottom wrench should be bolted to your work table for ease of disassembly of the bowl. Dismantle as shown in Figure E and Figure F and wash all parts in soap and warm water until thoroughly clean. Rinse well and wipe dry. All the other milk contact parts shown in Figure D except the body, should be washed the same way in soap and warm water including the milk tank, float, spouts, etc. Rinse well and wipe dry. This dismantling and washing procedure must be followed before first use and after every use.

ASSEMBLY

Put the bowl assembly back together according to Figure F. Make sure the bowl cover pin fits into the bowl base notch. Tighten the bowl nut well. Place the milk contact parts over the spindle according to Figure D starting with the milk spout. Next place the bowl assembly making sure it seats properly on the tapered head of the spindle shaft. Put the cream spout on next and make sure the cream supply hole on the bowl is at least 2mm above the cream pan inner edge. If adjusting is required, locate the bowl adjusting nut at the bottom of the base and use the bowl adjusting L-key to raise or lower the spindle. Place the float chamber, the float and the milk tank in place as shown. Make sure the milk tank is placed with the “ON” label at the front. Tighten the tank tap handle. Put the tap in “OFF” position. Your separator is now ready for use.

MILK PREPARATION AND SEPARATION

Milk must be strained to remove any dirt or particles. Milk must not be cold, homogenized or sour. For best results, separate milk right out of the cow.

If that is not possible, rewarmin the milk to approximate cow body temperature 100˚F (38˚C). It is very important that the milk is warm and stays warm throughout the separating process. Pre-warm the separator as follows: Heat approximately 4 quarts (3 liters) of water to 150˚F (66 C). Pour the hot water into the tank. Place containers under the spouts to catch the water. Begin to turn the handle, slowly at first, gradually increasing the speed to 60 - 65 rpm. Open the tap and turn the crank so the hot water flows through the separator warming the milk contact parts. Close the tap. Immediately pour 6 quarts (6 liters) of warm milk in the tank. Put in place adequately-sized containers to receive the cream and skimmed milk which will come out of the spouts.

Begin to turn the handle, slowly at first, gradually increasing to 60 - 65 RPM. Turn the tap to the “ON” position while maintaining this speed constantly throughout the entire skimming process. Spin and skim until all of the milk has passed out of the milk tank. Let the cream and milk drip for another moment, then remove the containers. Put another container in place to catch the rinse water then pour about 4 quarts of hot tap water into the milk tank and turn the handle. This will clean the last cream from the disks. When the water has run out of the milk tank, stop cranking, close tap and allow the machine to run down gradually. Do not attempt to stop the spinning by any means.
CLEANING AND STORAGE

After separating your batch of milk, dismantle the spinning bowl and clean all milk contact parts thoroughly as described above. Dry thoroughly and store in a clean dry place.

REGULAR MAINTENANCE

Besides proper storage and cleaning, regular inspection of the oil chamber is the only maintenance required. Add oil as necessary so that the entire worm gear is in contact with oil. Oil the spindle top bush before each use.

After approximately 60 hours of use, change oil as follows: Remove the drain plug at the back side of the machine base and allow the oil to drain from the chamber. Replace drain plug and pour approximately 1/2 pint fresh oil in the chamber. Turn the crank so the oil circulates and agitates. Remove plug and let it drain. Replace the drain plug and fill chamber with fresh oil.

TROUBLESHOOTING

PROBLEM: The separator vibrates.
1. Check to make sure your separator is perfectly level.
2. Check to make sure the bowl is in good order, nothing is damaged or misaligned, it is assembled correctly and the nut is well attached.
3. Check to make sure the neck bearing spring (at the top of the worm spindle) is not damaged. Replace if broken.

PROBLEM: The separator is hard to crank.
1. Check to make sure there is adequate oil in the chamber and you have not used an oil that is too heavy. Make sure neck bush is well oiled. Use only the recommended weight oil, No. 10 mobile.
2. Make sure the lower bush bearing (under the worm spindle) is not damaged or dirty.
3. Make sure bowl is seated perfectly according to the instructions.

PROBLEM: Milk does not separate correctly. With practice, you will get the “feel” of cream separating with your particular milk and conditions. These hints will help:
1. The most common cause is cold milk or a cold machine. Make sure the milk is not sour, homogenized or too cold. Follow the instructions for pre-warming the separator.
2. Make sure you are not turning too slowly or too fast. 60 - 65 RPM is correct. If too slow, the cream will be thin. If too fast, the cream will be too thick.
3. Make sure the cream regulating screw is not damaged or loose. The screw is found at the top of the bowl as shown below.
4. Some breeds such as Jerseys have very high butterfat and will give very thick cream. To achieve thinner cream, some users have luck with removing one of the separating disks. This restricts the separating function very slightly and results in thinner cream.

NOTE: The cream regulating screw is adjustable but should only be used as a last resort after all other problems have been checked. The screw has been pre-set at the factory for correct functioning. If you feel the cream is still too thick or too thin, adjust the screw with the L-key as shown at right. Turn only a quarter of a turn at a time as the setting is very sensitive. Test the new setting on a batch of milk before adjusting further. Be sure you are following all instructions, inspections and cleaning as described in this manual.