



International Harvester

**Operator's Manual
for McCORMICK-DEERING**

**2S, 3S, 4S & 5S
Cream Separators**

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IH-O-2S CS

Operator's Manual

OWNER'S MANUAL

McCORMICK-DEERING

*Cream
Separators*



2-S Serial Nos. 20,000 and up
3-S Serial Nos. 70,000 and up
4-S Serial Nos. 19,300 and up
5-S Serial Nos. 2,800 and up

This manual contains information which will be valuable to you during the entire life of your separator. Rely on your manual for operating and maintenance information . . . and rely on your International Harvester dealer when in need of skilled mechanical service or genuine IHC service parts.

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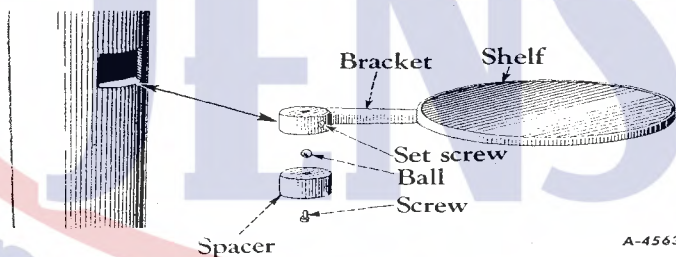


Cut-away View of the McCormick-Deering Cream Separator.

ASSEMBLING

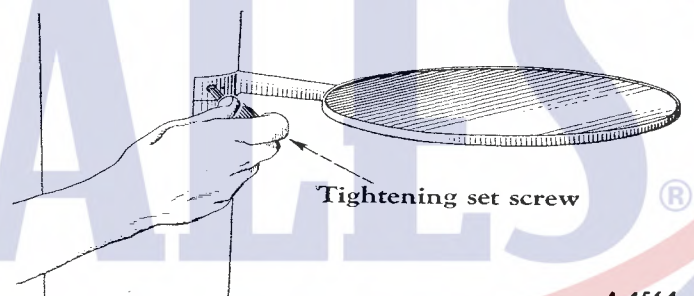
ASSEMBLING PAIL SHELF

After the Separator has been fastened to the foundation, attach the pail shelf. First, the pail shelf spacer should be placed in the frame opening with the head of screw projecting into hole in supporting ledge of separator base. Then the pail shelf, with the steel ball, should be inserted on top of the spacer and the set screw (*see Illust. 4*) backed out two or three turns to permit the steel ball to fit down into the opening on top of spacer. The set screw should then be screwed in again until its conical point passes over the top of the ball and holds it in place.



Illust. 4
Pail Shelf and Bracket.

The spacer may be used above the pail shelf if desired; this will lower the position of the shelf almost an inch. In this case, the spacer should be placed on top of the pail shelf bracket with the head of the screw projecting into the hole in the bracket. The bracket and spacer should then be inserted together into the opening in the Separator frame and the set screw (*see Illust. 5*) backed out to permit the ball to drop into the opening in the supporting ledge, after which it should be tightened again to hold the ball in position.

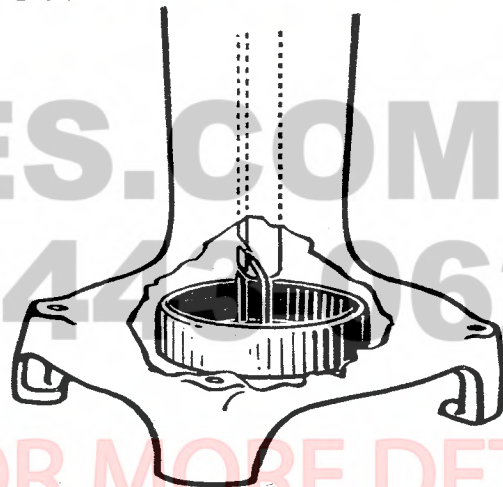


Illust. 5
Assembling Pail Shelf and Bracket.

LUBRICATION

OIL TO USE

For the protection of our users, a special "McCormick - Deering Cream Separator Oil" is available through all International Harvester dealers. This oil is inexpensive and will assure long life and ease of operation for your Separator. If for any reason your International Harvester dealer cannot supply this oil, write to the nearest International Harvester Branch, or to our General Office, Chicago, and we will see that the oil is furnished promptly. This is a feature of service that you can obtain easily and promptly.

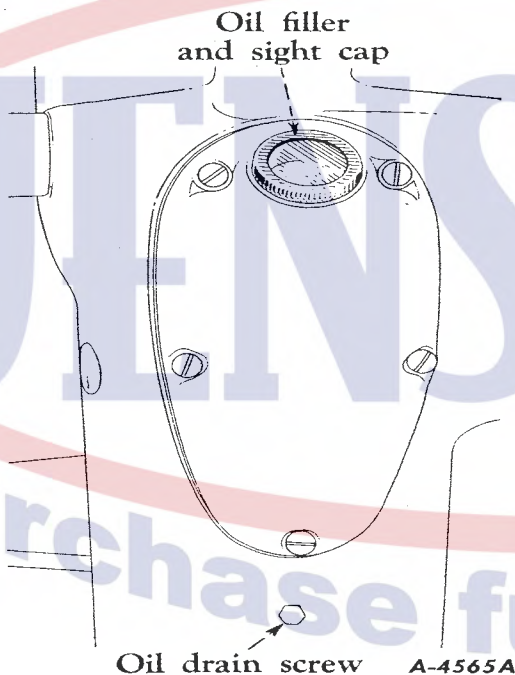


Illust. 6
Oil Drip Cup and Base.

LUBRICATION—Continued

LUBRICATING

Remove (unscrew) combination oil sight and filler cap. Before pouring in the lubricating oil, place the drip cup on the floor directly underneath the oil drain tube. Then pour oil through opening until it overflows into drip cup. This indicates sufficient oil in housing; then hang drip cup on notch at bottom of drip tube. Replace filler cap. Approximate capacity is one pint.

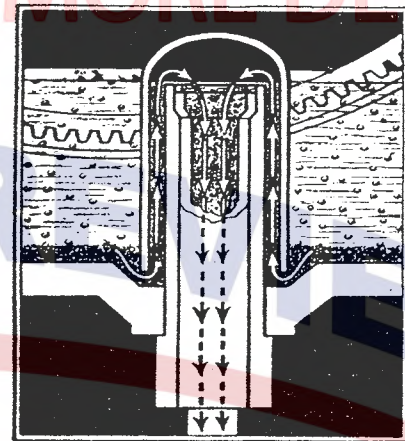


Illust. 7

Oil Filler and Sight Cap.

As long as oil sprays against the transparent filler cap, there is sufficient oil for ample lubrication. *When the spray thins down to a mist, or is not visible, it is a warning that the oil supply is too low. Add oil.*

The Cream Separator, with its close-fitting parts and high speed, requires a system of lubrication that is positive and accurate under all conditions. This is made possible by an efficient splash circulation system. When the cor-



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Illust. 8

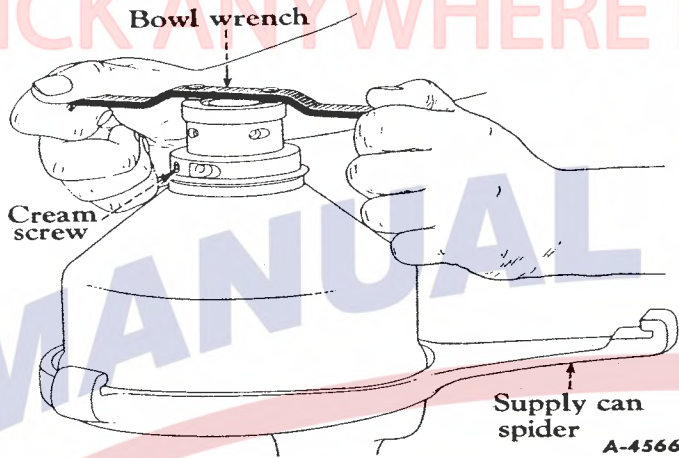
Sectional view of oil overflow tube. The arrows show how dirty oil from the bottom of the reservoir is forced out between the overflow tube and cap to the drip cup underneath, when fresh oil is added.

rect oil level is maintained, only fresh, clean oil is used.

Oil is delivered to the spindle driving gear through a hole in the bottom of a shallow trough. This exclusive construction provides a constant spray of clean oil without disturbing the surplus oil in the reservoir and without the retarding effect of running the gear in the oil.

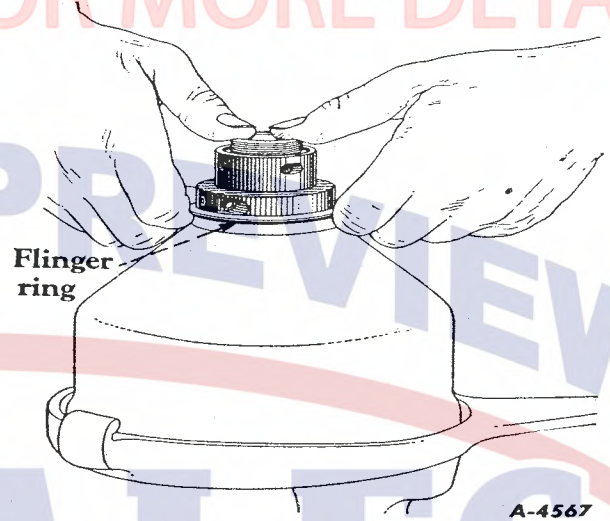
When fresh oil is added, the old oil is pushed out and discharged from the bottom of the oil reservoir, between the overflow tube and cap, to the drip cup underneath. This self-cleaning and clarifying feature also provides for the removal of condensed water as well as used oil. The oil in the reservoir should be removed every three or four months by unscrewing the oil drain screw at the rear of the frame, about $\frac{1}{2}$ inch, and draining off the old oil. See Illust. 7. Replace oil drain screw tightly and refill with fresh McCormick-Deering Cream Separator Oil as described previously. (Note: The hole in bowl wrench fits the head of oil drain screw.)

CLEANING



Illust. 9

Removing or Adjusting Bowl Nut.



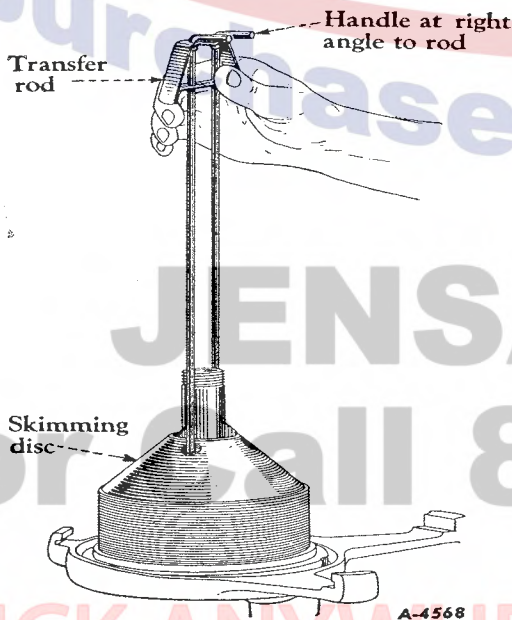
Illust. 10

Removing Bowl Shell.

TAKING THE BOWL APART

To take bowl apart, place it in center of supply can spider *as shown in Illust. 9*, so the small holes in bottom of bowl drop over pins in spider; then, with the bowl wrench, remove nut by turning left as indicated by arrow on nut. When taking bowl apart after skimming, do not remove the nut while on holder but merely loosen nut about $\frac{1}{2}$ or $\frac{3}{4}$ turn so it can be

unscrewed the rest of the way by hand. Then take the bowl to a sink, or wherever the liquid in the bowl is to be emptied, and remove the nut. Remove shell by placing fingers under flinger ring on bowl neck and using thumbs on top of tubular shaft for leverage *as shown in Illust. 10*.



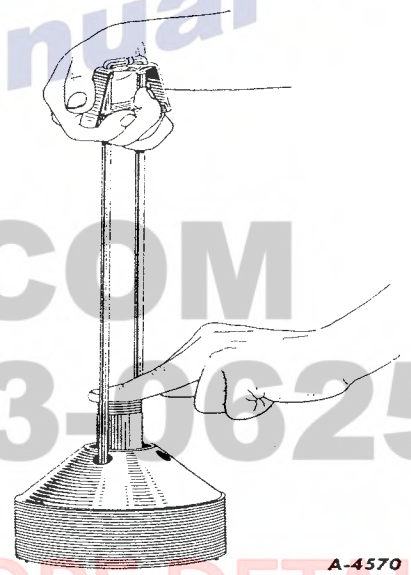
Illust. 11

Removing Discs from Bowl.



Illust. 12

Removing Discs from Bowl.



Illust. 13

Lifting the Discs.