KNOWLEDGE IS POWER

HOW

to run your

ROTO-BALER

A-C ALLIS-CHALMERS

ALLIS-CHALMERS
TRACTOR DIVISION · MILWAUKEE 1, U. S. A.

BE CAREFUL

1. KEEP ALL SHIELDS IN PLACE.
2. STOP MACHINE TO ADJUST AND OIL.
3. WHEN MECHANISM BECOMES CLOGGED, DISCONNECT POWER BEFORE CLEANING.
4. KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER-DRIVEN PARTS.
5. KEEP OFF IMPLEMENT UNLESS SEAT OR PLATFORM IS PROVIDED. KEEP OTHERS OFF.

AVOID ACCIDENTS

Most accidents, whether they occur in industry, on the farm, at home, or on the highway, are caused by the failure of some individual to follow simple and fundamental safety rules or precautions. For this reason most accidents can be prevented by recognizing the real cause and doing something about it before the accident occurs. Regardless of the care used in the design and construction of any type of equipment, there are many conditions that can not be completely safeguarded against without interfering with reasonable accessibility and efficient operation.

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT.

THE COMPLETE OBSERVANCE OF ONE SIMPLE RULE WOULD PREVENT MANY THOUSAND SERIOUS INJURIES EACH YEAR. THAT RULE IS: —

NEVER ATTEMPT TO CLEAN, OIL, OR ADJUST A MACHINE WHILE IT IS IN MOTION!

"National Safety Council"

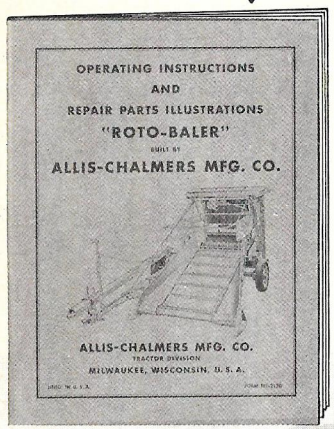
It pays to know your machine

Knowledge of a machine, operating ability and knowing when and how to make adjustments that effect more satisfactory operation, are a great asset to the farm machinery user —

Such qualifications are gained through careful study of the operating instructions and actual experience with the machine in the field.

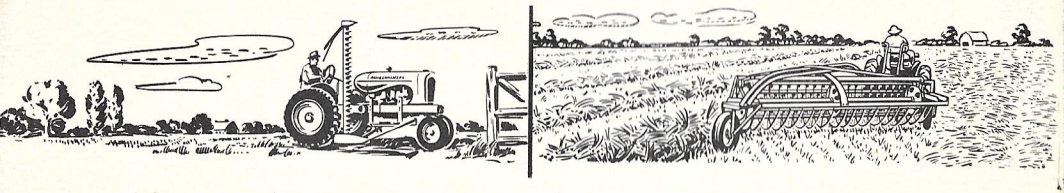
This book is intended only to assist the operator in determining adjustments that will aid in more satisfactory operation of a machine.

The operator's manual should be consulted for more detailed information on operation and adjustments.



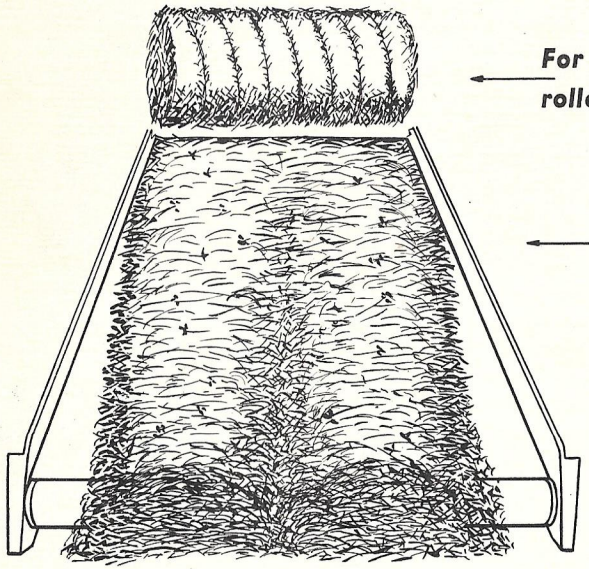
Operator's manual contains essential information on care, lubrication and adjustments of the ROTO-BALER. For most efficient operation and performance, follow these instructions.

Home ownership of a ROTO-BALER makes it possible to bale the crop at the peak of its quality and protect it from weather damage.



Make the right kind of windrows for good rolled bales . . .

There is a right way and wrong way to do most everything, including making good ROLLED BALES with the ROTO-BALER. Correctly made, ROLLED BALES are smooth and shapely. They roll out easily for feeding or bedding into a loose, fluffy blanket.



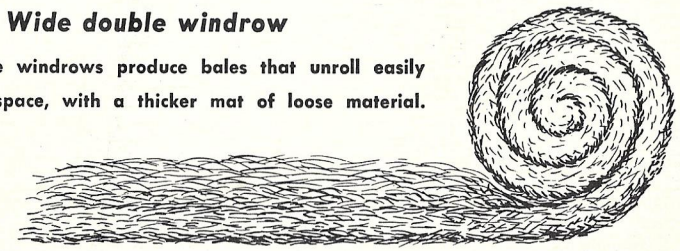
For smooth, well-formed rolled bales —

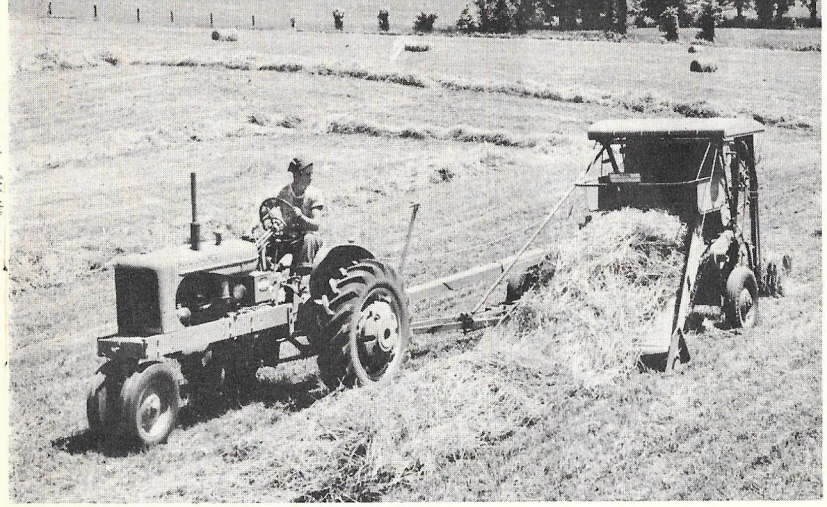
Make a uniform, double windrow, 3½ to 4½ feet wide overall.

Make windrows so they are loose and fluffy and have plenty of hay.

Wide double windrow

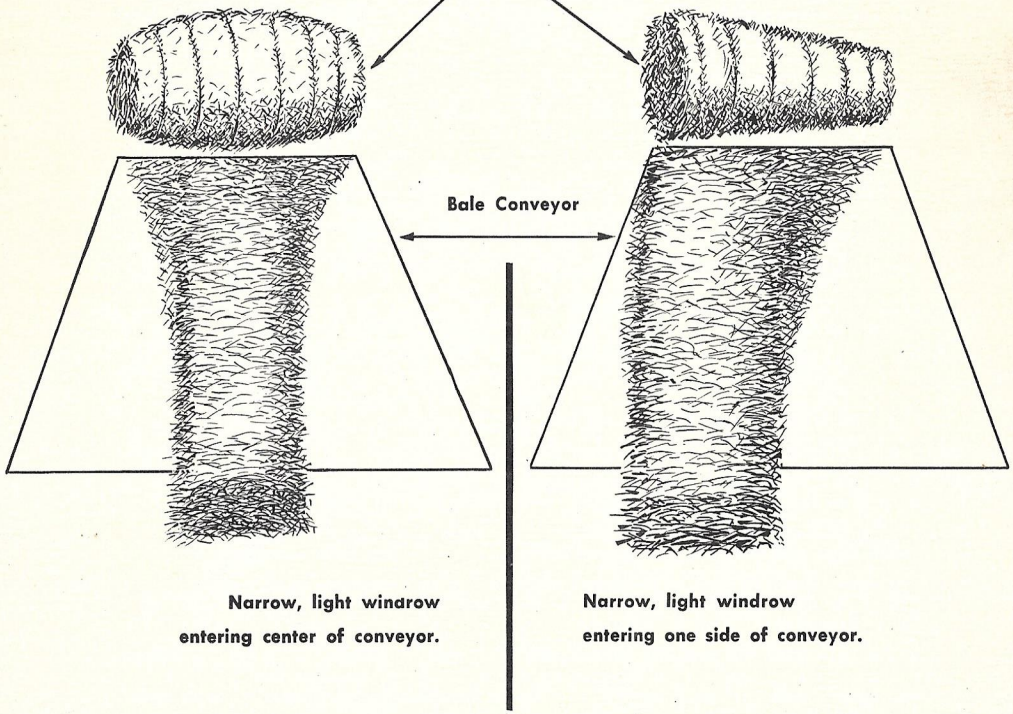
Properly made windrows produce bales that unroll easily in a shorter space, with a thicker mat of loose material.





Double windrows cut in half the amount of field travel both in baling and collecting bales later.

If your bales look like this — Check your windrows

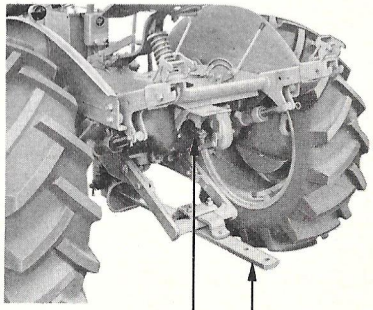


Narrow, light winarow entering center of conveyor.

Narrow, light windrow entering one side of conveyor.

Make double windrows 3½ to 4½ feet overall width for shapely rolled bales.

Before going to field



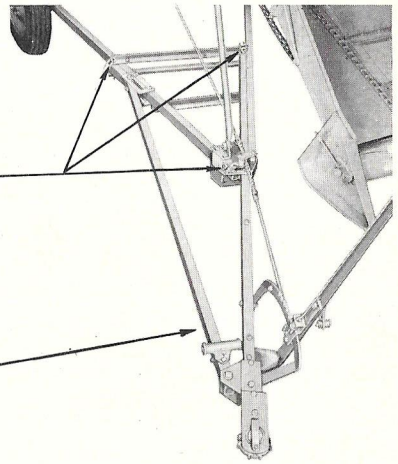
Adjust tractor wheels to narrowest tread position

Adjust tractor drawbar to A.S.A.E. position

14" from end of P.T.O. to center of hitch hole in drawbar.

12" to 15" from top of tractor drawbar to ground.

Before you start to bale

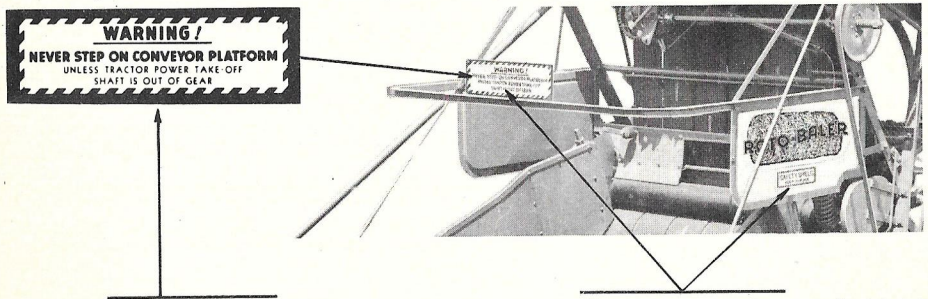


Put Baler Tongue in operating position

Bottom of Baler Tongue should be 11" from ground.

Tractor Wheels set too wide or Baler Tongue in transport position will cause tractor to run on windrow

A good operator is a careful operator

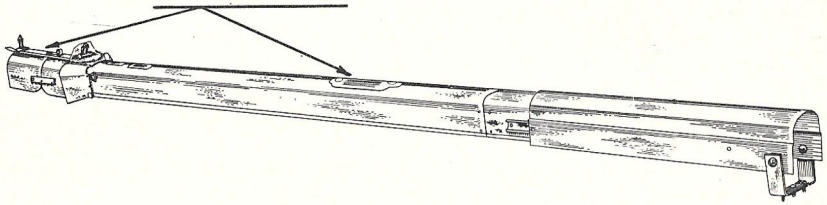


A careful operator will always keep this warning sign and shield assembly in place and obey its instructions.

A careful operator will always be sure the tractor Power Take-Off is out of gear before he works on the machine or attempts to make any adjustments.

A careful operator will always use trip crank rope to feed additional material against twine if twine fails to start under the Press Roll.

A careful operator will always keep all Power Take-Off and Propellor Shaft shields in place.



All shields and warning signs are for the operator's protection!

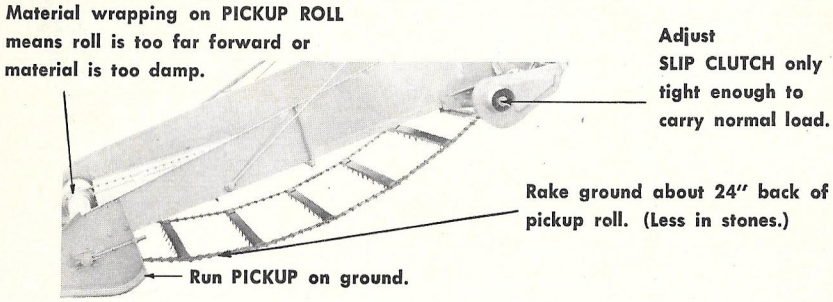
A good operator is a safe operator!

Suggestions for the operator

Know your adjustments! Lack of knowledge about machine adjustments, or machine operation is usually the cause of field problems. ***A study of these pictures and suggestions*** will guide you in locating the cause and making the proper adjustments to overcome your problems.

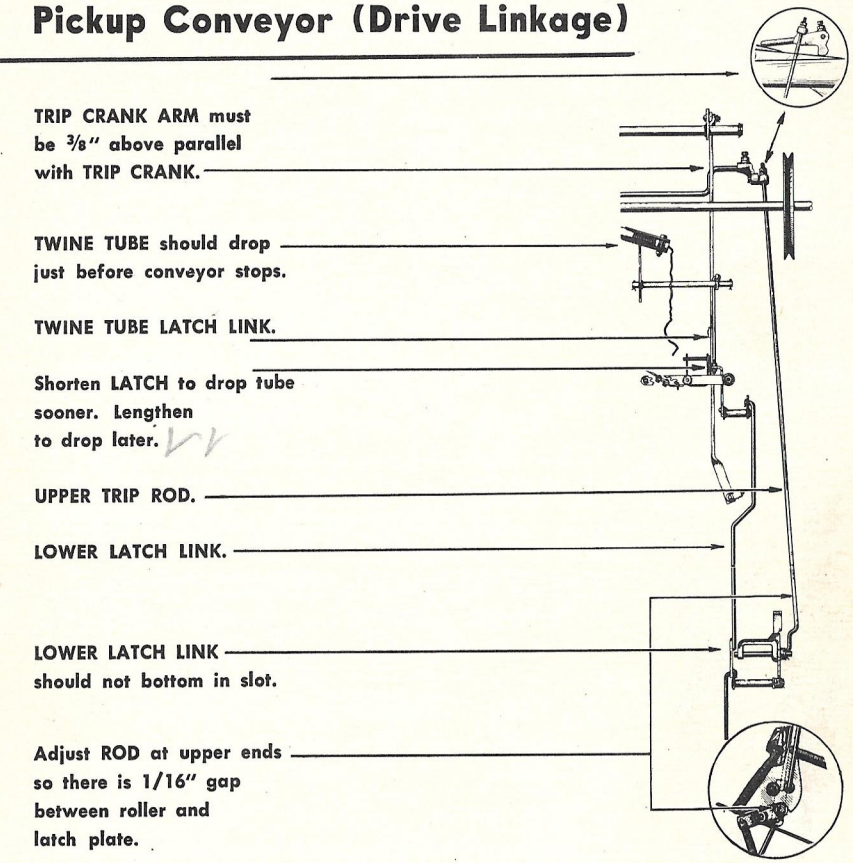
Pickup Conveyor

Is this your problem?	*Check this*
Conveyor does not pick up clean	Raddle chain not dragging ground far enough back of pickup roll. Conveyor slip clutch slipping. Picking up windrow in wrong direction. Follow travel of mower whenever possible. Not stopping forward travel when conveyor stops. Not running pickup on ground. Ground travel too fast.



Conveyor slip clutch slips excessively	Clutch adjusted too loose. Raddle dragging ground too far back. Ground travel too fast. Raddle slats bent. Material wrapping on drive shaft, sprockets, or pick-up roll. Starting forward travel too soon.

Pickup Conveyor (Drive Linkage)



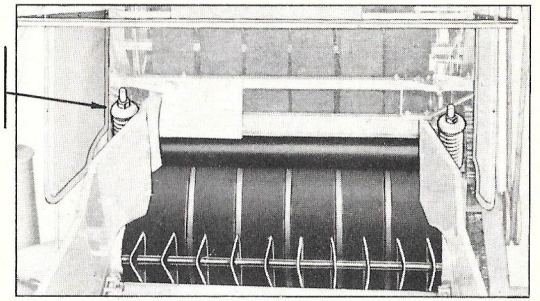
Is this your problem?	*Check this*
Conveyor Drive unlatching before bale is completed	Trip crank arm not 3/8" above parallel with trip crank. Twine tube latch link adjusted too long and lower latch link bottoms in slot in inner trip arm assembly.
Pickup Conveyor fails to start after bale has been discharged	Upper trip rod adjusted too long. Conveyor drive trip latch return spring not pulling latch into clutch wheel. Trip crank arm loose on shaft or not set 3/8" above parallel with trip crank. Trip linkage or tension roll gears binding. Starting forward travel too soon.

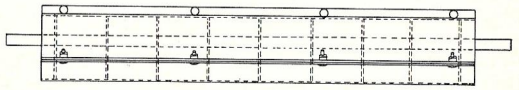
Press Roll

Adjust PRESS ROLL SPRINGS to equal length.
7" satisfactory for most baling.

Pressure needed varies with size of of windrow and type of material.

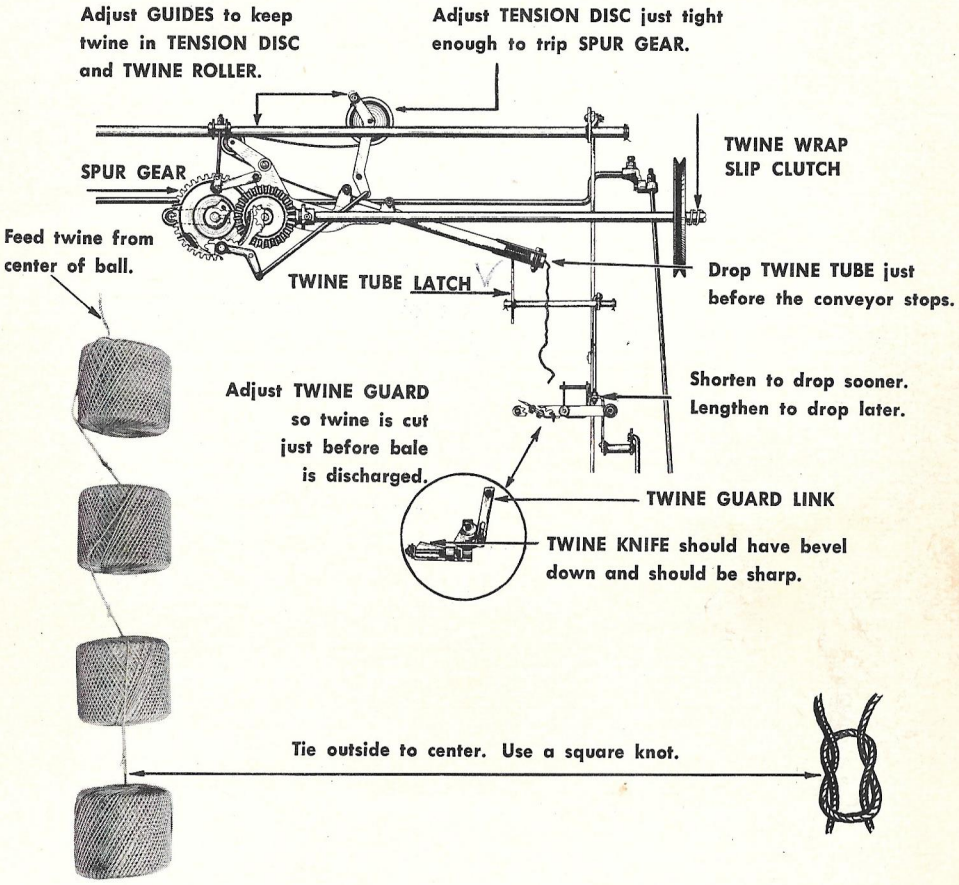
If material is dry and wraps on roll, install FEED ROLL COVER (special equipment).





Is this your problem?	*Check this*
Hay will not feed into baler	Press roll springs adjusted wrong. Driving too fast; material bunching on conveyor.
Excessive plugging at Press Roll	Press roll springs adjusted wrong. Windrow too heavy or roped. Material too damp.
Hay wrapping on Feed Roll	Material too damp. Roll cover not installed.

Twine Tube and twine wrapping mechanism

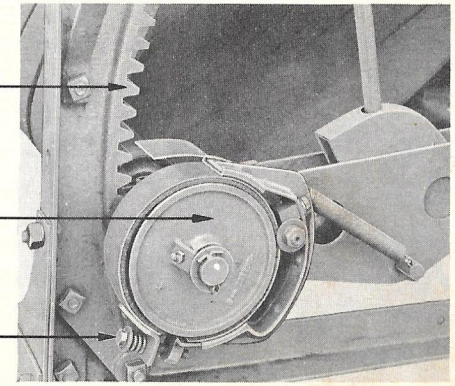


Is this your problem?	*Check this*
Twine tube drops too soon	Twine tube latch link adjusted too short.
Twine tube drops too late	Twine tube latch link adjusted too long.
Breaking twine	Twine tension disc adjusted too tight. Guides not adjusted properly on tension disc and twine roller.

continued

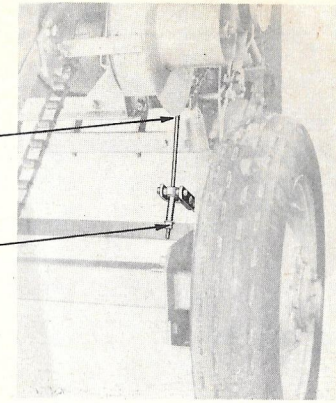
Is this your problem?	*Check this*
Breaking twine (Continued):	Twine ends not tied with square knot.
	Poor quality twine.
	Twine tangled and catching in twine box.
	Not feeding from center of ball.
Excessive twine on right hand end of bale	Twine tension disc adjusted too loose.
	Twine wrap gear not engaging.
	Twine wrap drive belt or slip clutch too loose.
Twine does not cut	Twine tension disc adjusted too loose.
	Twine wrap drive belt or slip clutch too loose.
	Twine guard latch link adjusted too long.
	Twine knife dull.
	Twine knife installed upside down.
	Twine knife guard binding.
Not enough twine on left hand end of bale	Twine guard latch link adjusted too short.
Twine tube fails to relatch	Twine tube latch string adjusted too short.
	Bale discharge sluggish.
	Various parts of discharge linkage binding, trip latch springs too loose.
Twine not entering Press Roll	Twine tube dropping too late. (Check twine tube adjustments, page 11.)
	Stopping forward motion too soon, or windrow broken, resulting in no material to carry twine under press roll.

Lower Tension Roll Brake (Bale Density Regulator)



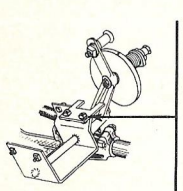
Is this your problem?	*Check this*
Lower tension roll jerks as it raises in gear racks	Brake too tight.
	Brake pawls (inside brake) worn or binding.

Lower Conveyor Trip Rod (Bale diameter adjustment)



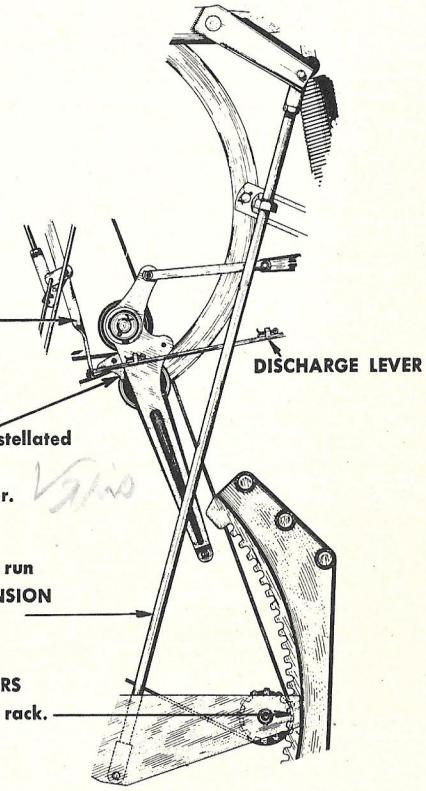
CAUTION: Do not attempt to make bales larger than 22".

Bale Discharge and Upper Bands

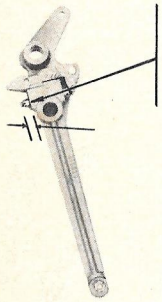


Adjust TENSION BRACKET STOP so ROLLER centers in lug on back of SPUR GEAR.

DISCHARGE LEVERS should raise full height and evenly.



DISCHARGE LEVER



TRIP LATCH PLUNGERS should have 1/16" gap between the castellated nut and the inner trip arm when the trip arms are latched together.

If UPPER BANDS continually run to one side, shorten the TENSION ROD slightly on that side.

LOWER TENSION ROLL GEARS must operate freely in gear rack.

Is this your problem?	*Check this*
Discharging small bale with no twine	Tension bracket stop improperly adjusted. Trip latch plates worn or loose. Trip latch plungers improperly adjusted.
Bale will not discharge	Discharge lever not raising high enough. Trip latch plungers improperly adjusted. Tension arms binding. Gears binding in gear rack. Making bale too light.

continued

Is this your problem?	*Check this*
Bales discharge from one side of machine first	Discharge levers not raising together. Trip latch plungers improperly adjusted. Plunger spring weak or broken. Release pin or latch plate loose or missing on one side. Trip roll bearings or bow pivot caps loose.
Trip rolls fail to relatch	Trip latch plungers improperly adjusted. Tension arms binding. Gears binding in rack. Pawls stuck in brake. Material caught in latches holding them apart.
Upper bands run to one side	Tension rods improperly adjusted. Bands stretched or cut on one side. Trip roll bearings loose. Feeding material to one side of conveyor.

Miscellaneous

P.T.O. Clutch slipping excessively	Clutch adjusted too loose or over-lubricated. Windrow too heavy, too damp or roped. Tension brake stuck.
P.T.O. shaft vibrating excessively on turns	Tractor improperly hitched. Hitch points not secure. Baler tongue in transport position.

(See page 6 for hitching instructions)

Bale counter not working	Trip arm not properly adjusted. Trip spring unhooked.

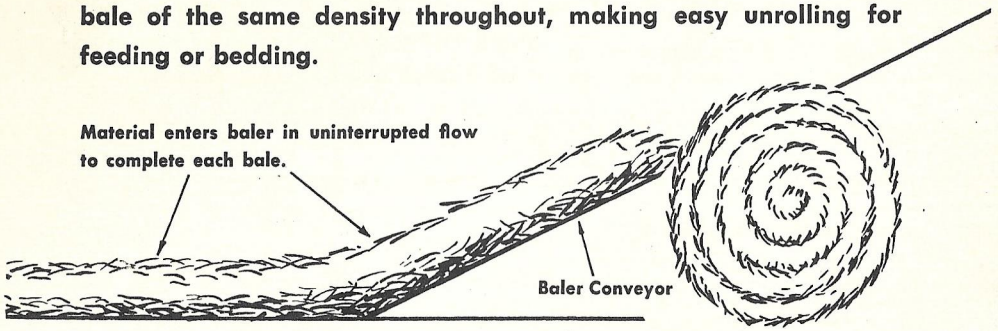
Rolled Bales, properly made, never have a hard center core . . .

There are only two possible causes for a more dense center core in a rolled bale, both under full control of the baler operator.

a. ***Moisture content too high.*** Too much moisture in hay causes mold growth, which spreads, forming a tight compact core of damaged hay, which does not unroll readily.

b. ***Incorrect delivery of material while forming bale.*** All the material necessary to form each complete bale should be delivered or fed into the baling chamber of baler in one uninterrupted flow. If operator delays too long in starting baler forward after previous bale is ejected and raddle conveyor starts, material on conveyor will be rolled into a tight small bale or core before the balance of material from windrow completes bale. Don't "break the wrap" in forming each bale.

To make a bale the right way, operator should engage tractor clutch and start forward travel the instant completed bale is ejected and conveyor raddle starts. If this is done, the material on the conveyor and in the windrow flows in one continuous "wrap" until the bale is formed and the forward motion stopped. This forms a bale of the same density throughout, making easy unrolling for feeding or bedding.



Bale Cross-Section — no tight center core.

Bale your hay at the right time

Hay baled at proper time retains its natural mellow sweetness, full food value and does not become moldy or sour.
Hay baled at proper time, needs no shaking apart at feeding time.

Hauling and storing rolled bales

Rolled bales can be handled with the ordinary hay hooks.

Use whatever means of transporting you have available.

Lay one row of bales on each side of truck or rack using front and rear endgates. Truck beds eight feet wide will permit one row of bales standing on end through center of truck. Stack bales on truck or rack as high as legally permitted or at safe height for handling.

Do not stack rolled bales horizontally laying end to end through center of load as top bales will crowd past lower bales and spread load.

Rolled bales can be elevated to the mow with a portable elevator or with rope slings handling from five to ten bales at a time.

A grab fork can be used for handling rolled bales by laying four bales side by side and four more across top at right angles. Place each tine of fork through inner edge of bottom outside bale and into second bale.

Bales can be stacked in the mow by laying them side by side and nesting the top bales in the cavity between the lower bales.

It is possible to store a large tonnage of rolled bales in a small area, consequently mow floors should be carefully checked to prevent overload.

Bales can be stacked in the field by placing side by side for the desired length of stack, placing four or more bales end to end for stack width and pyramiding stack to height most convenient. The last three rows on stack can be drawn in using three rows, two rows, and one row, topping the stack out which can then be covered with canvas or loose hay.

How to feed Rolled Bales

Rolled bales have a decided advantage in feeding, there being a number of different ways they can be handled, such as:

Pull twine from bale and roll out in feedway. (Needs no shaking, no wire to cut or break.)

Roll off desired portion, balance of bale remains intact (reduces waste).

Remove twine and toss bale in feed bunks, permitting livestock to feed from bale.

Cut or saw lengthwise through bale and feed in layers as desired.

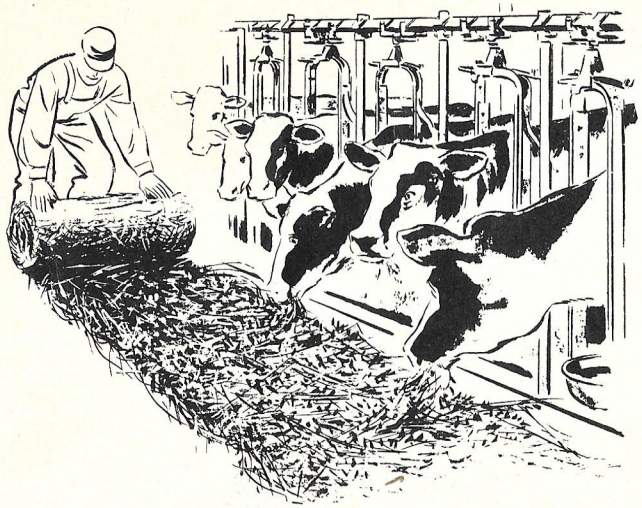
Unroll bale in mow and drop to feed racks as loose hay.

Bed with straw bales by rolling off a mat full length of stall (no spreading).

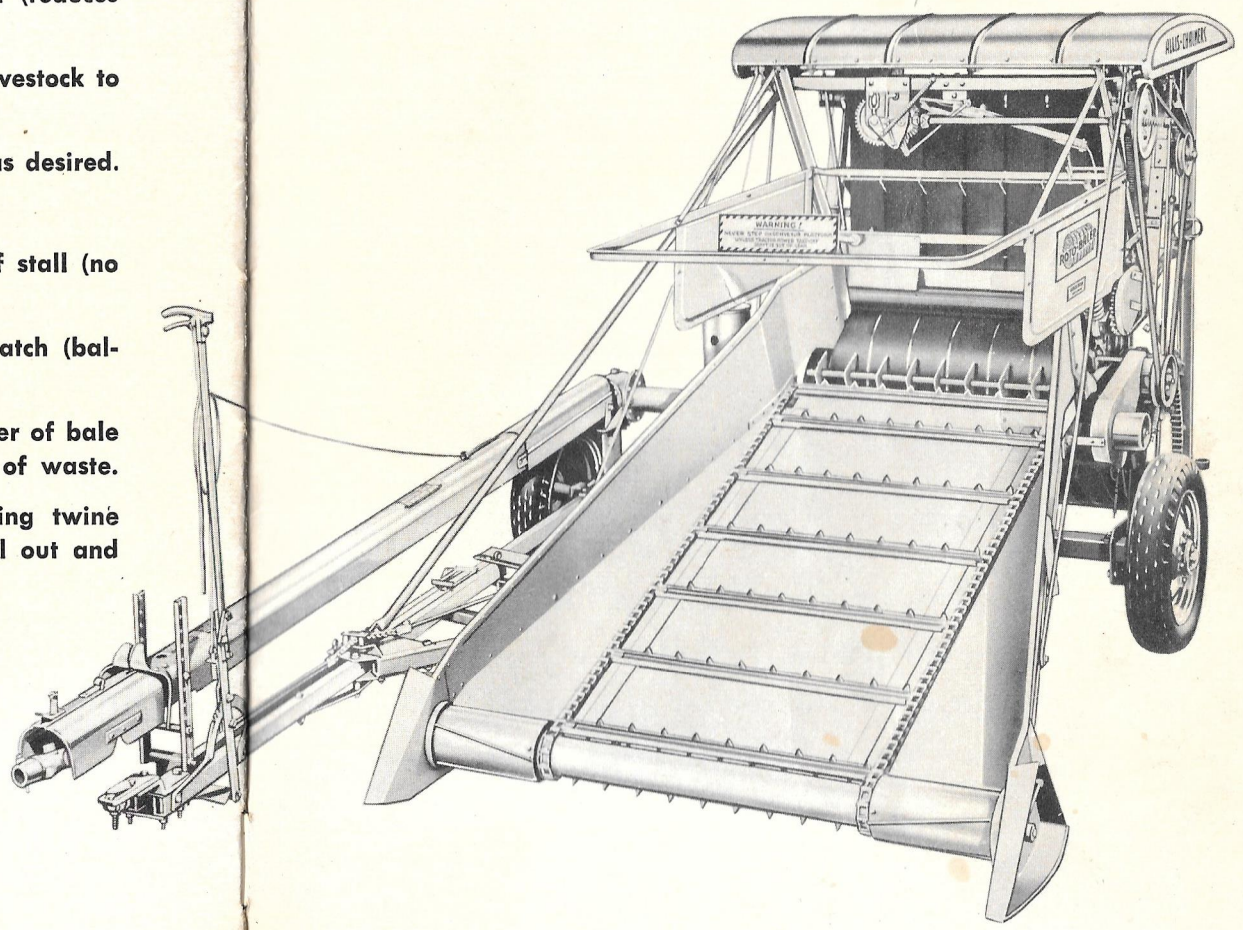
Roll off desired amount of straw or hay for poultry scratch (balance of bale remains intact).

Suspend rolled bale above ground with rod through center of bale to permit poultry to feed as desired with least amount of waste.

Supplement light pasture or winter feeding by removing twine and dropping bale on ground to permit livestock to roll out and feed at will.



THE ROTO-BALER



built by **ALLIS-CHALMERS**

Repair Parts

Machinery manufacturers make no distinction between parts for repair purposes and those used on the assembly lines. Thus, when you buy genuine parts you buy with the knowledge and confidence that you are getting parts designed to give you maximum performance.

When in need of service or repairs:

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We are anxious that your Allis-Chalmers Farm Equipment operate to your utmost satisfaction.

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