

=ASSEMBLY INSTRUCTIONS=

ONE ROW MOUNTED CORN PICKER CORN HARVESTER

SERIES 601

TRACTOR AND IMPLEMENT DIVISION Ford Motor Company

BIRMINGHAM, MICHIGAN

SHIPPING

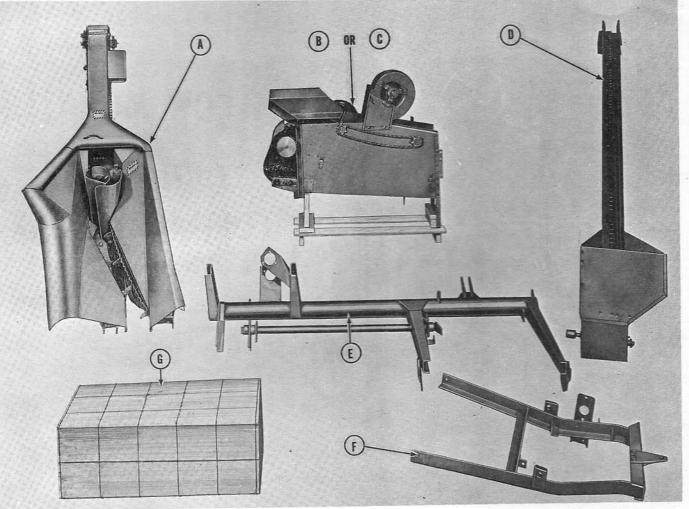


Figure 1 Ford One Row Mounted Corn Picker Bundle Breakdown

SHIPPING INFORMATION

The Ford One Row Mounted Snap Unit, Component No. 16-119, is shipped in one bundle, No. 166773, as shown at (A), Figure 1. The inner and outer gathering points are wired inside the snap unit as shown.

The corn picker and the corn harvester are each shipped in five bundles as shown at (B) through (G), Figure 1, and listed below.

The major units of each implement are assembled when it is shipped from the factory; however, some sub-assemblies are detached from the implement to accommodate shipping requirements. Check the shipment against the following itemized list and Figures 1 and 2 to be sure all parts are received. Picker Harvester

Description	(16-123) Bundle No.	(16-121) Bundle No.	
Husking Assembly	114297		
Conveyor Assembly		114299	
Wagon Elevator Assem-	165767	165768	
bly with two side braces wired inside.			
Main Frame Assembly		114291	
Drawbar Frame Assembly	y 165766	165766	
Wire Bound Crate con- taining parts listed below and shown in Figure 2.	166967	166966	
	Husking Assembly Conveyor Assembly Wagon Elevator Assem- bly with two side braces wired inside. Main Frame Assembly Drawbar Frame Assembly Wire Bound Crate con- taining parts listed	Description(16-123) Bundle No.Husking Assembly114297Conveyor Assembly114297Wagon Elevator Assem-165767bly with two side braceswired inside.Main Frame Assembly114291Drawbar Frame Assembly165766Wire Bound Crate con-166967taining parts listedbelow and shown in	

ASSEMBLY

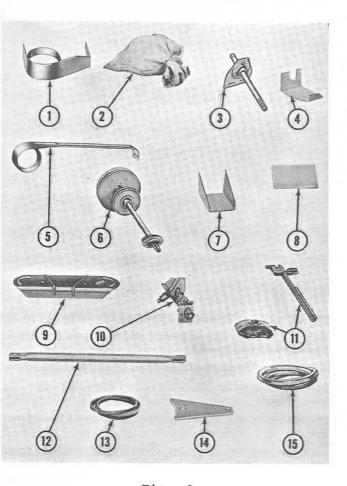


Figure 2 Parts Shipped In Crate

Item	Description Picker (16-123)		Harvester (16-121)	
1.	Elevator Driven Chain Shield	Х		
2.	Burlap Bag of Miscel- laneous Parts	Х	Х	
3.	Main Drive Bracket	Х	Х	
4.	Wagon Elevator Clutch Shield	X	Х	
5.	Elevator Drive Chain Shield		X	
6.	Snap Unit Drive Assembly	X	х	
7.	Wagon Elevator Dis- charge Chute	Х	Х	
8.	Owner's Manual and Envelope	X	X	
9.	Husk Rake Drive Chain Shield	X		
10.	Wagon Elevator Drive Assembly	X	X	
11.	and the second se	X	х	
12.	Lift Pipe	x	x	
13.	Blower V-Belt	X	х	

Item Item	Sec. 201 10	Description Picker (16-123)	
14.	Wagon Elevator		Х
	Bracket		
15.	Conveyor Drive V-Belt		х
*	Clutch Throw-Out Assembl	ly X	х
*	Husk Unit Drive Chain Idle	er X	
	Block and Bracket		
*	Husk Unit Drive Chain	Х	
*	Wagon Elevator Drive Chai	in X	Х
	* Not Shown		

MOUNTING KITS

Two Mounting Kits are available as extra equipment, and comprise an additional bundle when ordered with a corn picker or corn harvester. The Model 16-129 Mounting Kit (Bundle No. 16-129) is available for use with 8N, 9N, 2N, NAA, 600 through 801 Ford Tractors and Fordson Dexta Tractors.

The Model 16-131 Kit (Bundle No. 16-131) permits attachment of the implements on Series 700 through 901 Ford Tractors.

RESPONSIBILITY OF THE DEALER

The Ford Tractor and Implement Dealer is responsible for the proper assembly and pre-delivery servicing of the corn picker or the corn harvester.

The machine should be completely assembled, adjusted, serviced, and given the recommended "breakin," as outlined in this manual, before delivery to the purchaser. The dealer will show the purchaser how to operate the implement and make necessary adjustments. He will also be glad to answer questions as to its operation.

ASSEMBLY PROCEDURE

In the assembly of the corn picker or corn harvester, some steps will require the use of a chain fall or other suitable hoist. With this equipment, the work can be done by two men.

NOTE: The terms left and right as used in this manual, are determined from a position facing the direction of implement travel.



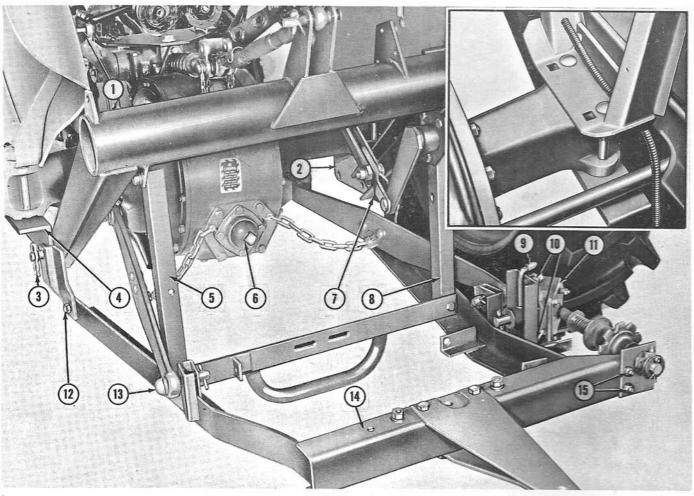


Figure 3 Mounting Main Frame-General Purpose Tractors

MOUNTING THE MAIN AND DRAWBAR FRAMES-GENERAL PURPOSE TRACTORS

- 1. Set the right rear wheel of the tractor out to 36 inches (center of tractor to center of tire). Set the left rear wheel so that it will not ride on the corn row.
- 2. Set the right front wheel in as far as possible and the left front wheel in line with the left rear wheel.
- 3. Remove the nuts and lock washers from the four tractor fender bolts.

NOTE: On Ford Tractors produced prior to January 1, 1955, and all Fordson Dexta Tractors, it will be necessary to replace the tractor right fender bolt with a special heat-treated 5/8" x 6-1/2" bolt (Part Nos. 302604 or 354131). On Ford Tractors produced after January 1, 1955, all fender bolts are heat treated. 4. Install the mounting brackets (2) and (4), Figure 3, on the tractor fender bolts as shown, and secure with lock washers and nuts. On 8N, 9N, 2N, and NAA Tractors, install the bracket with the small hole in the center on the left side of the tractor. On Series 600 through 801 Ford Tractors, the bracket with the small hole must be on the right side of the tractor (2), Figure 3.

NOTE: On all Dexta Tractors it is necessary to drill new mounting boles in the right fender to move it one inch to the right as shown in the insert in Figure 3. This is necessary to provide clearance for the wagon elevator throw-out lever.

5. Remove the tractor drawbar and the P.T.O. cap

NOTE: On late model Ford Tractors equipped with a swinging drawbar, the drawbar and P.T.O. cap must be removed; bowever, the drawbar hanger may be left on the tractor.

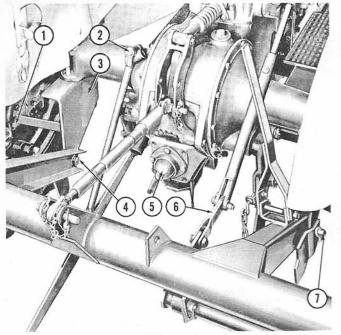


Figure 4 Main Frame Installed–Row Crop Tractors

- 6. Detach the left lift rod at the top (1), Figure 3, and lean it against the tractor axle.
- Attach the main frame to both tractor mounting brackets with pins and hairpins as shown at (3). Install the top link as shown and secure in the lower hole of the rocker.
- 8. Detach the right lift rod at the bottom and install the link extension (7), on the lift rod. Use the front hole in the link for 8N, 9N, 2N, and NAA tractors and the middle hole for Series 600 through 801 tractors.
- 9. Install the right and left vertical support angles (5) and (8), Figure 3, on the drawbar frame (14), with 1/2" x 1-1/4" hex head bolts, lock washers and nuts as shown. The right angle (9) is identified by the small bracket welded to it.
- 10. Attach the drawbar frame (14), Figure 3, to the main frame with 1/2" x 1-1/4" hex head bolts, lock washers and nuts (12), then raise the frame and attach the lower links with round head pins, flat washers and cotter pins (13). Insert the pins so that the heads are on the outside as shown. Attach the vertical support angles (5) and (8) to the main frame tube with the bolts, lock washers and nuts provided.

NOTE: For the remaining assembly on four wheel tractors, refer to the section below on "INSTALLING THE WAGON ELEVATOR DRIVE ASSEMBLY."

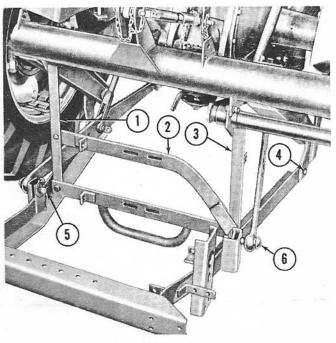


Figure 5 Drawbar Frame Attached–Row Crop Tractors

MOUNTING THE MAIN AND DRAWBAR FRAMES -ROW CROP TRACTORS

The following procedure covers only those assembly steps which differ from the assembly procedure for general purpose tractors.

- 1. Set the right rear wheel of the tractor out to 36 inches (center of tractor to center of tire). Set the left rear wheel so that it will not ride on the corn row.
- Remove the nuts and lock washers from the four tractor fender bolts.

NOTE: On Ford Tractors produced prior to January 1, 1955, it will be necessary to replace the tractor right rear fender bolt with a special heat-treated 5/8" x 6-1/2" bolt (Part Nos. 302604 or 354131). On tractors produced after this date, all fender bolts are heat treated.

Install the mounting brackets (3), Figure 4, on the tractor fender bolts as shown, and bolt the angle side braces to the tractor final drive housing with bolts, lock washers and nuts (1), Figure 4. Tighten all nuts securely.

 Remove the tractor drawbar and the P.T.O. cap (5), Figure 4.

ASSEMBLY -

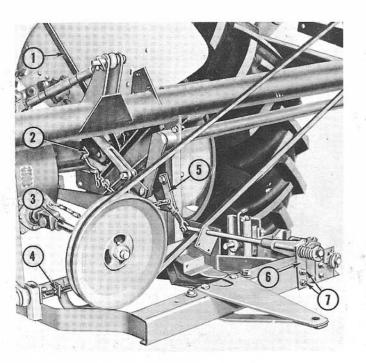


Figure 6 Drive Sheave and Clutch Rod Installed

NOTE: On late model Ford Row Crop Tractors equipped with a Swinging Drawbar, the drawbar and P.T.O. cap must be removed; however, the drawbar hanger may be left on the tractor.

- 4. Detach the left lift rod at the top (2), Figure 4, and lean it against the tractor axle.
- 5. Attach the main frame to both tractor mounting brackets with pins and hairpins (4) and (7), Figure 4. Install the top link as shown and secure it in the lowest hole of the rocker.
- 6. Detach the right lift rod at the bottom and install the link extension (6) on the lift rod. Use the front hole in the link.
- Position the right and left vertical support angles

 and (3), Figure 5, and drive sheave cross angle (2), on the drawbar frame, as shown.
- 8. Attach the drawbar frame to the main frame with 1/2" x 1-1/4" hex head bolts, lock washers and nuts (4), Figure 5, then raise the frame and attach the vertical support angles (1) and (3), to the main frame tube with 1/2" x 1-1/4" hex head bolts, lock washers and nuts.

Attach the tractor lower links to the drawbar frame with round head pins, flat washers and hairpins (5) and (6).

INSTALLING THE WAGON ELEVATOR DRIVE ASSEMBLY

- Attach the wagon elevator drive assembly (11), Figure 3, to the drawbar frame (14), with two 7/16" x 1-1/2" carriage bolts, flat washers, lock washers, and nuts (10).
- Attach the drive assembly bearing bracket to the frame with two 3/8" x 1" hex head bolts, lock washers and nuts (15), Figure 3.
- 3. Assemble the pipe, coupling and lube fitting (9), Figure 3. Install the pipe assembly in the top of the wagon elevator drive shaft bearing on com pickers, and in the underside of the bearing on corn harvesters.

INSTALLING THE MAIN DRIVE SHAFT

- 1. Remove the paint from the splined end of the drive shaft (3), Figure 6, and install the universal joint on the shaft.
- 2. Insert the draw bolt (4), Figure 6, through the ear on the main drive sheave mounting plate and install a 1/2" nut on the bolt as shown. Insert the draw bolt through the bracket on the drawbar frame (see Figure 6), then attach the mounting plate and sheave to the drawbar frame with two 1/2" x 1-1/2" hex head bolts, flat washers, lock washers, and nuts. Install a jam nut on the draw bolt but do not tighten at this time.
- 3. Align the hole and slide the 1-3/8" universal joint onto the tractor P.T.O. shaft. Secure the universal at each end with a 1/4" x 3" hex head bolt, lock washer, and nut.

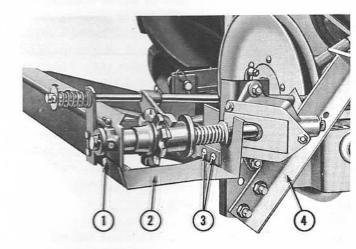


Figure 7 Clutch Shield and Stand Assembly Installed

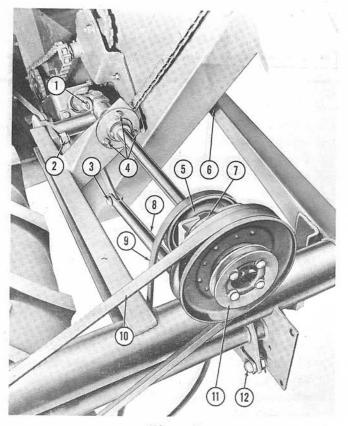


Figure 8 Snap Unit and Snap Unit Drive Installed

NOTE: When installing the 1-3/8" "U" joint on earlier Ford Tractors equipped with a 1-1/8" P.T.O. shaft, it will be necessary to first install a Splined Adapter (Part No. 231082) on the tractor P.T.O. shaft.

ATTACHING THE CLUTCH THROW-OUT ASSEMBLY

- Attach the rear guide (6), Figure 6, to the drawbar frame with two 3/8" x 1" hex head bolts, lock washers, and nuts (7).
- Attach the pivot plate (5), Figure 6, to the right support angle using a 1/2" x 4" hex head bolt, nut and jam nut.
- Attach the throw-out lever clip (2), Figure 6, to the throw-out lever (1), using a 5/16" x 1-1/2" hex head bolt, flat washer, lock washer and nut.

INSTALLING THE CLUTCH SHIELD AND STAND ASSEMBLY

1. Attach the wagon elevator clutch shield (2), Figure 7, under the clutch assembly with the hex

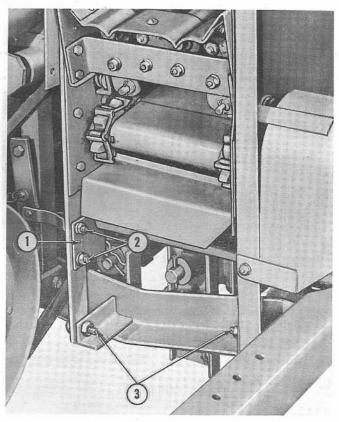


Figure 9 Husk Unit Installed

head bolt, lock washer and nut (1), and two 1/4" x 5/8" round head screws, lock washers and nuts (3).

2. Install the stand assembly (4), Figure 7, in the transport position as shown, with two bolts, lock washers and nuts provided in place.

MOUNTING THE SNAP UNIT AND SNAP UNIT DRIVE

1. Remove the snap unit assembly from the shipping skid and position it between the support arms on the right side of the frame.

NOTE: To facilitate installation of the snap unit, a chain can be attached to the snap unit handle and the unit can be raised with a chain fall or other suitable hoist. Align the mounting holes by raising or lowering the unit with the hoist as the tractor is moved slowly forward.

2. Attach the snap unit to the mounting arms with two bolts, flat washers, ferrules, lock washers, and nuts (2) and (6), Figure 8.

ASSEMBLY -

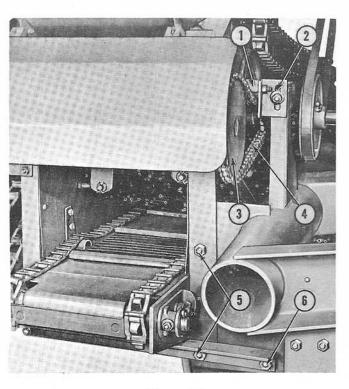


Figure 10 Husk Unit Drive Chain Installed

- 3. Attach the lift pipe (8), Figure 8, to the snap unit and lift shaft with round head pins and cotter pins as shown at (3) and (12).
- 4. Loosen the set screw in the fan drive sheave (5), Figure 8, and slide the sheave forward on the shaft.
- 5. Position the front bearing flange on the shaft and the fan drive belt (9), around the sheave (5), Figure 8. Insert the splined end of the drive shaft through the front mounting bracket and into the universal joint (1), then lower the rear bearing into the rear mounting bracket as shown.
- 6. Attach both sets of bearing flanges to the REAR SIDE of the mounting brackets (7), Figure 8, with three 3/8" x 1" carriage bolts, lock washers and nuts as shown at (4).
- 7. Slide the fan drive sheave (5), Figure 8, back to its original position on the shaft and tighten the set screw securely.
- Install the main drive belt (10), Figure 8, around the driven sheave as shown. Adjust the draw bolt (4), Figure 6, until the proper belt tension is obtained, then tighten the main drive sheave mounting bolts securely.

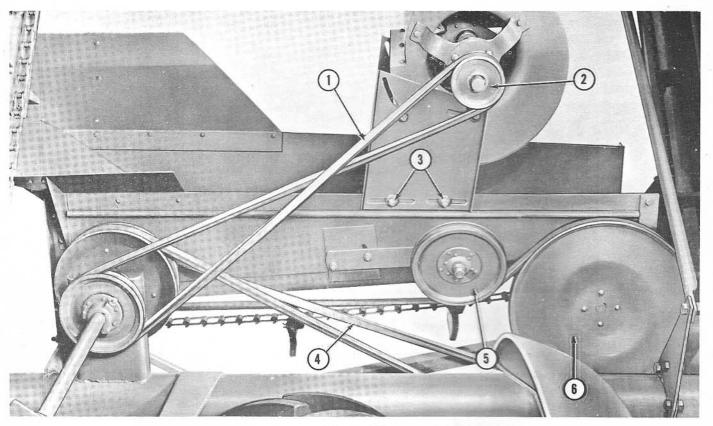


Figure 11 Fan and Conveyor Drive Belts Installed

MOUNTING THE HUSK OR CONVEYOR ASSEMBLY

The procedure for mounting the husk unit on pickers or the conveyor unit on harvesters is the same.

- Using a suitable hoist, raise the husking or conveyor unit into position on the rear of the implement and attach the left end to the drawbar frame with two 1/2" x 1-1/2" hex head bolts, lock washers and nuts (3), Figure 9.
- Attach the right end of the unit to the main frame with three bolts, lock washers and nuts (5) and (6), Figure 10. Use two spacers between the angle and frame on the bolt (6).
- 3. Attach the clutch throw-out rod front guide (1), Figure 9, to the unit with two 3/8" x 1" hex head bolts, lock washers, and nuts (2).
- 4. On corn pickers, install the husk unit drive chain around the drive sprocket (4), Figure 10, and the driven sprocket (3). Assemble the drive chain slide block (1) and the mounting bracket (2), and attach the assembly to the frame as shown with the carriage bolt, flat washer, lock washer and nut provided.
- 5. On corn harvesters, install the conveyor drive belt (4), Figure 11, on the driven sheave (6), and under the idler (5). Twist the belt to reverse direction, then install it on the drive sheave (11), Figure 8. Adjust the idler (5), Figure 11, for proper belt tension.
- 6. On both corn pickers and corn harvesters, loosen the four front and rear hex nuts (3), Figure 11, twist the fan belt (1), to reverse direction, then position the belt around the sheave (2). Move the fan housing to the left to obtain proper fan belt tension, then tighten the four hex nuts (3), securely.

MOUNTING THE WAGON ELEVATOR

- Install the discharge chute (2), Figure 12, in the top of the wagon elevator with four 1/4" x 1/2" round head screws, lock washers, and nuts (1).
- Attach the right and left support braces (3) and (4), Figure 13, to the wagon elevator with the 1/2" x 10-1/2" hex head bolt, lock washer and nut provided.
- 3. On corn harvesters, attach the elevator brace bracket (2), Figure 13, to the main frame tube with 1/2" x 1" bolts, lock washers and nuts as shown. This extension is not required on corn pickers.

- 4. Raise the elevator into position on the drawbar frame, making sure that the elevator driven shaft is properly coupled with the drive shaft. Attach the right brace (3), Figure 13, to the bracket (HARVESTERS), or to the main frame tube (PICKERS) with the 1/2" x 1-1/4" hex head bolt, lock washer and nut (1). Attach the left brace to the bracket on the frame tube with a 1/2" x 1-1/4" hex head bolt, lock washer and nut (6).
- Attach the bottom support braces to the drawbar frame with two 1/2" x 1-1/2" hex head bolts, lock washers and nuts (9), Figure 13.
- 6. Attach the elevator hopper front panel to the husk unit or conveyor with three 5/16" x 3/4" hex head bolts, lock washers and nuts (5), Figure 13. Attach the hopper right rear panel with two 1/4" x 5/8" round head screws, lock washers and nuts (2), Figure 14.

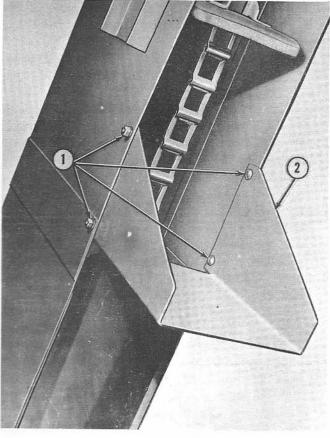


Figure 12 Discharge Chute Attached



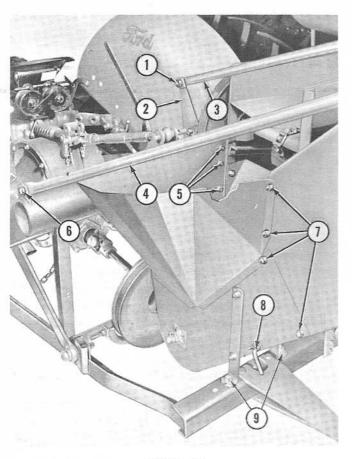


Figure 13 Wagon Elevator Installed

INSTALLING WAGON ELEVATOR DRIVE CHAIN AND SHIELD

- On corn harvesters, install the chain (4), Figure 14, as shown. Adjust the chain slide block until the chain can be deflected approximately 3/4". Attach the drive chain shield with the bolt (1), Figure 14, and four 1/4" x 1/2" stove bolts, lock washers and nuts (3) and (6).
- 2. On corn pickers, install the wagon elevator drive chain as shown in the insert, Figure 14. Adjust the chain slide block until a 3/4" deflection is obtained. Attach the drive chain shield over the chain, using the three bolts (5), shown in the insert.

ATTACHING THE GATHERING POINTS

- 1. Start the tractor and raise the snap unit to its highest position with the touch control lever.
- 2. Attach each gathering point to the snap unit with the long hinge pins, washers and cotter pins provided. With the snap unit on a level surface,

adjust each point for desired height and secure with an adjusting clip, 5/16" x 1" hex head bolt, lock washer and nut.

LOWERING ELEVATOR FOR STORAGE

To provide adequate clearance for passing through low overhead doors or when storing the picker or harvester in a low building, the wagon elevator may be lowered as follows:

- 1. Decrease the tension on the wagon elevator chain and disconnect the chain at the coupler link.
- Remove the four bolts (7), Figure 13, on each side of the elevator, then, with the elevator properly supported, remove the bolts (1) and (6), holding the support braces to the main frame tube. Carefully lower the elevator on the hinge pin (8).

NOTE: If necessary, the elevator may be completely detached by removing the hinge pin (8).

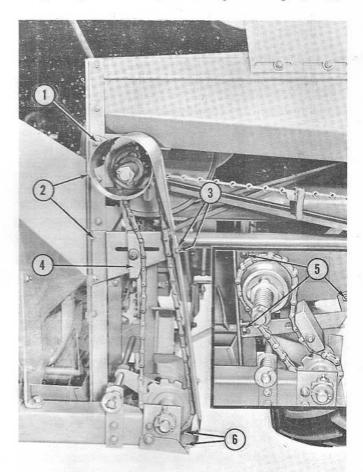


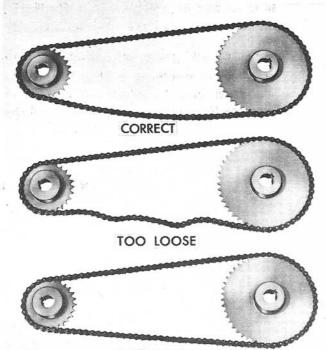
Figure 14 Wagon Elevator Driven Chain and Shield Installed

BREAK-IN PROCEDURE

It is important that the new corn picker or corn harvester be properly broken-in before it is taken into the field. After the unit has been properly assembled, it should be lubricated, adjusted and operated according to the following direction:

- 1. Lubricate the unit as directed in the section on "LUBRICATION."
- Check the unit to be sure that it is properly adjusted, as outlined in the section on "ADJUST-MENTS."
- Check all belts and chains for proper tension and alignment.
- 4. Make sure all safety shields are in place.
- 5. Check the air pressure in the tractor tires. Inflate the rear tractor tires to 14 pounds of pressure.
- 6. Make certain that slip clutches are free to operate if unit becomes overloaded.
- 7. Start the tractor engine, engage the power take-off and operate the picker or harvester at idle speed long enough to be certain all moving parts are operating correctly. Stop the unit periodically to check, lubricate, tighten, or adjust loose parts, chains and belts.
- Run-in at recommended operating speed for at least 15 minutes, then check for hot bearings and loose chains or belts.
- 9. Repeat lubrication procedure after run-in.
- 10. Check all nuts and bolts for tightness.

NOTE TO DEALER: After completing the above "BREAK-IN PROCEDURE," fill in the Pre-Delivery Check List. **Chain Adjustment:** The proper chain adjustment is necessary to obtain long chain life and trouble-free operation. Chains should be adjusted to allow a slight flexing in the slack strand as shown below. A tight chain imposes too much strain on working parts and will cause premature wear. An excessively loose chain will cause vibration and noise.



TOO TIGHT

MAINTENANCE -

LUBRICATION

Proper lubrication is a vitally important factor in the efficient operation and long life of the corn picker and corn harvester. Consequently, the operator must become thoroughly familiar with the location of all lubricating points on the machine and follow a systematic procedure to assure thorough and quick lubrication. It is recommended that the operator start at Fitting No. 1 (Chart "A") and lubricate the fittings on the machine in accordance with the sequence shown on the lubrication charts.

Lubricate all grease gun fittings according to the recommended frequency when working under average conditions. Under extremely dusty or abrasive soil conditions, the unit should be lubricated more often. Wipe the fittings clean, force a sufficient amount of grease into each fitting, then wipe off all excess grease.

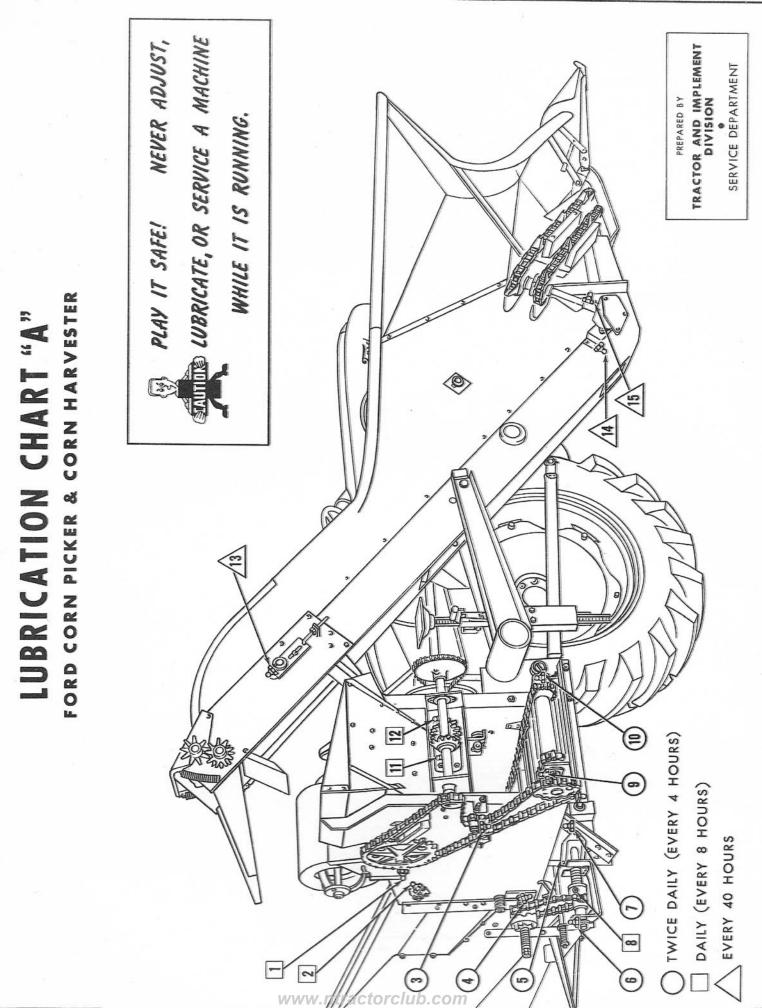
When lubricating fittings located near drive belts, be careful to avoid getting grease on the belts where it will cause slippage and deterioration.

Check the oil level in the snap unit gear box (see Chart "B") weekly during operation. If low, fill to the level plug with S.A.E. 90 oil.

The following keys provide descriptive information regarding each lubricating point on the accompanying charts. Fittings common to the corn picker only, are identified by the word (PICKER), and those common to the corn harvester only, are identified by the word (HARVESTER). Fittings common to both units are not identified.

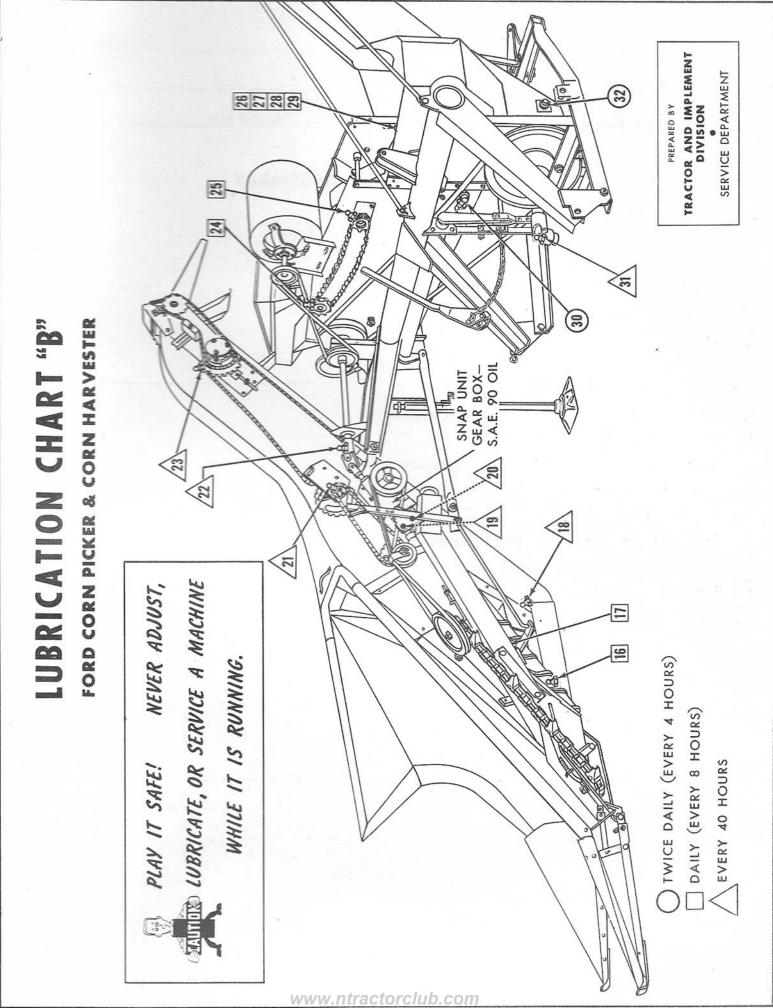
KEY TO LUBRICATION CHART "A"

Fitting No.	Description	Lubricate
1.	Feeder paddle wheel, upper, rear (PICKER)	Daily
2.	Feeder paddle wheel, lower, rear (PICKER)	Daily
3.	Husk rake - paddle wheel idler (PICKER)	Twice Daily
4.	Husk rake driven shaft, rear (PICKER)	Twice Daily
_	Conveyor drive shaft, front and rear (HARVESTER)	Twice Daily
5.	Wagon elevator right angle drive	Twice Daily
6.,7.	Wagon elevator clutch shaft, front and rear (PICKER)	Twice Daily
8.	Wagon elevator clutch throw-out	Daily
_	Wagon elevator clutch shaft, rear (HARVESTER)	Twice Daily
9., 10.	Husk rake drive shaft, front and rear (PICKER)	Twice Daily
11., 12.	Rubber husking rolls, upper end (PICKER)	Daily
13.	Snapped corn elevator drive shaft, right	Every 40 hrs.
14.	Snapped corn elevator driven shaft, right	Every 40 hrs.
15.	Outer gathering chain drive shaft, lower	Every 40 hrs.



KEY TO LUBRICATION CHART "B"

Fitting No.	ξ.	Description	Lubricate
16.	Lower Snap Roll		Daily
17.			
18.	Snapped corn elevato	or driven shaft	Every 40 hrs.
19.	Upper snap roll drive	e coupling	Every 40 hrs.
20.	Lower snap roll drive	e coupling	Every 40 hrs.
21.	Snapped corn feed wh	heel drive shaft	Every 40 hrs.
22.	Snap unit universal jo	oint	Every 40 hrs.
23.	Snapped corn elevato	or drive shaft, left	Every 40 hrs.
24.	Feeder paddle wheel,	, upper, front (PICKER)	Daily
25.	Feeder paddle wheel,	, lower, front (PICKER)	Daily
26., 27., 28., 29.	Husking rolls, lower	end (PICKER)	Daily
30.	Husk rake driven sha	ft, front (PICKER)	
31.	Universal joint (tract	or drive)	Every 40 hrs.
32.	Wagon elevator, botto	om	



PRE-DELIVERY CHECK LIST

Owner's N	la	m	e
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Address_

Corn Picker or Harvester Model_____ Serial No.__

AFTER IMPLEMENT ASSEMBLY

Tractor rear tires checked for correct inflation. Machine lubricated thoroughly as outlined in lubrication charts. Oil level in snap unit gear box checked. Outer gathering chain transmission checked for lubrication. All bolts checked for tightness. All linch pins, pins, and cotter pins in place. All V-belts checked for proper deflection and twist. All chains checked for proper tension. Snap rolls checked for proper clearance and timing. Husking rolls checked for tension. Wagon elevator clutch throw-out linkage adjusted. Slip clutches operating freely. All shields in place. Implement run-in as outlined in Break-in Procedure. All bearings checked for over-heating. Implement checked for loose parts and proper tension of belts and chains after break-in period.

Implement cleaned and touch-up enamel used where needed.

AT TIME OF DELIVERY

Operation and adjustments of implement explained to owner as outlined in this manual.

All lubrication fittings pointed out to owner.

Safety rules and precautions explained to owner.

Procedures for mounting and dismounting implement explained to owner.

DATE

DEALER'S SIGNATURE

"Ford Motor Company, whose policy is one of continuous improvement, reserves the right to make changes in design and specifications at any time without notice and without obligation to modify units previously built."

SE A8484 6614