## SPECIAL ATTACHMENTS

FOR INTERNATIONAL SUPER-A TRACTORS

International Super-A tractors are designed and equipped to meet the requirements of the greatest number of users, but special jobs or particular conditions frequently require additional equipment. The attachments shown in this manual include power take-offs and other means to extend the application and increase the convenience and efficiency of the tractor's power. Preserve this manual with your operator's manual, as your guide in installation, care and operation of your special attachments. For any service or repair refer to your International Industrial Power distributor or dealer.

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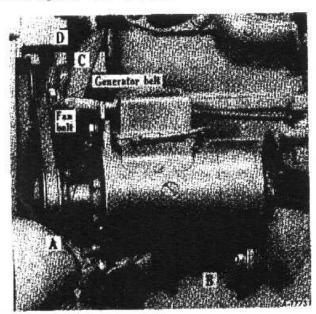
It is the policy of International Harvester Company to improve its products whenever it is possible and practical to do so. We reserve the right to make changes and add improvements at any time without incurring any obligation to make such changes on tractors or attachments sold previously.

# ELECTRIC STARTING AND LIGHTING ATTACHMENT

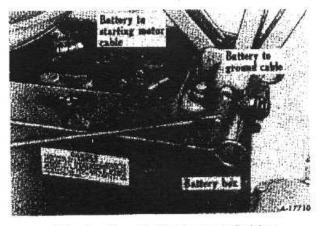
(350 731 R91)

#### INSTALLATION

- (3) Loosen the fan spindle "C" (illust. 1) and slide the spindle to the bottom of the groove in the fan bracket. Start the fan belt over the outer flange of the lower pulley and pry it out with a light bar or rod. At the same time slowly hand crank the engine and the belt will work off the pulley.
- (2) Slip the generator belt over the fan and through the fan belt onto the inner pulley groove.
- (3) Place the fan belt in the fan pulley groove. Start the belt over the outer flange of the lower pulley and hand crank the engine until belt is in position in the groove. CAUTION: The generator belt must not be rolled on under the fan belt.
- (4) Assemble the generator bracket to the two tapped holes on the left side of the crankcase with the two 3/8-NC x 7/8" cap screws and lock washers (illust. 1).
- (5) Attach the generator brace to the crankcase front cover stud, then assemble the generator to the bracket and brace.
- (6) Adjust the tension of the fan belt by moving the fan spindle up or down until the correct tension is obtained. The tension is correct when the belt can be depressed without effort by the thumb, approximately 3/4 to 1 inch, midway between the two pulleys. Then tighten the spindle.

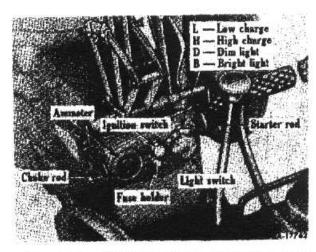


Illust. 1 - Fan and Generator Belts



Illust. 2 - Battery and Cables

- (7) Adjust the tension of the generator drive belt by loosening the bolts which hold the generator to the brace and bracket. Obtain the correct tension, then tighten the bolts. Tension is correct when the belt can be depressed without effort by the thumb, about 1/4 inch, midway between the two pulleys.
- (8) Remove battery box and assemble the light switch, ammeter, and fuse housing into the instrument panel. A good electrical connection must be made between the switch and switch mounting to complete the generator field circuit. Remove and discard the magneto ground cable as a new one is included with the ammeter to starting motor cable. Connect all cables to their proper terminals (illust. 4).
- (9) Insert the battery into the battery box. Reinstall the battery box with the battery (illust. 2 also refer to wiring diagram, illust. 9). Do not connect the battery to

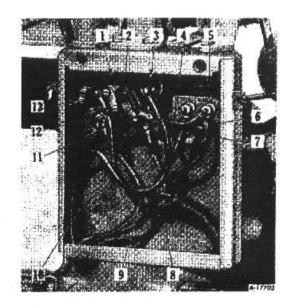


Illust. 3 - Light Switch, Ammeter, etc.

the ground cable until all other electrical equipment has been connected. This will avoid shorting and causing damage to any of the electrical units.

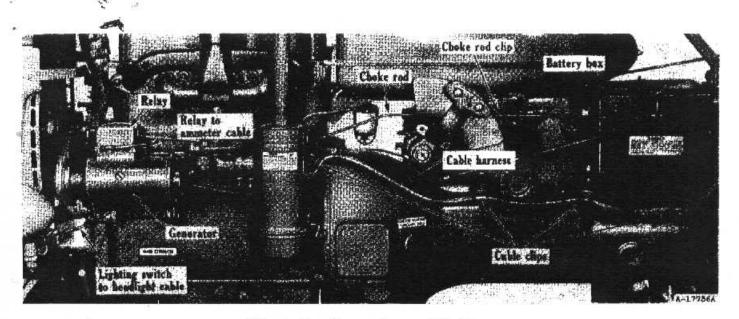
- (10) Remove the starter pad cover from the right side of the clutch housing. Install the starting motor and fasten in place with the two 1/2-NC x 1-1/4" cap screws and lock washers. Insert the starter rod through the clip on the right side of the instrument panel, and fasten to the starting switch lever with the cotter pin.
- (11) Fasten the rear light support to the left-hand seat support bracket and assemble rear light (illust. 6).
- (12) Assemble the front lights and brackets to the steering gear housing (illust. 8). Secure them in place with the two 3/8 x 1" set screws and jam nuts.
- (13) Attach the choke rod clip on the touch-control cylinder block on tractors equipped with the hydraulic lift touch-control system (illust. 5) or on the rear fuel tank support on tractors not equipped with touch-control.
- (14) Fasten the carburetor choke lever to the serrated end of the starting shutter shaft (behind carburetor) with the end for connecting the choke rod turned down and slightly toward the front of the tractor. Insert the choke rod through the clip on the instrument panel, and through the hole in the clip described in (13) above. Fasten the choke rod to the choke lever with the cotter pin. When completely assembled the

(Continued on next page)



Illust. 4 - Back of Instrument Panel Showing Light Switch, Ammeter, Cables, etc.

- 1. Light switch.
- 2. Cable fuse housing to switch.
- 3. Ignition switch.
- 4. Cable fuse housing to ammeter.
- Ammeter.
- Cable generator to ammeter (natural with black and red cross tracers).
- 7. Cable ammeter to starting motor.
- Cable magneto to ignition switch.
- Cable generator field to switch (natural with black tracer).
- 10. Field resistance coil.
- 11. Cable switch to rear light.
- 12. Cable switch to head light.
- 13. Dimmer resistance coil.

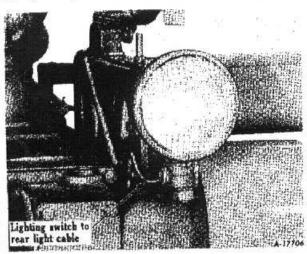


Illust. 5 - Generator and Cables

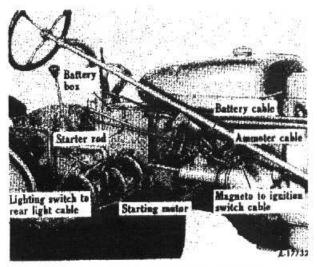
### ELECTRIC STARTING AND LIGHTING ATTACHMENT - Continued

choke rod should be all the way in and the choke lever on the carburetor should be in the open position.

- (15) Remove the short lead which connects the "F" terminal on generator frame to "F" terminal on the relay and connect lead from "A" terminal on generator frame to the generator terminal on the relay.
- (16) Connect all cables to the proper electrical units. Attach the cable shields to the cables with the opening on the bottom on tractors equipped with touch-control; on tractors not equipped with touch-control the opening is to the side towards the clutch housing at positions indicated on illust. 9, reference No. 23. Fasten the cable clips in place and attach the cables to the clips as shown in the wiring diagram, illust. 9, also illust, 5. In attaching the clips use the two offset clips on the touch-control cylinder block hold-down bolts on tractors equipped with touch-control, or two straight clips on the clutch housing on tractors not equipped with touch-control. Distribute any extra lengths of wire evenly between the points where the wires are secured so that the final assembly is as compact and out of the way as possible.
- (17) After all other connections have been made, connect the battery ground cable and fasten the battery cover in place.
- (18) After the electrical system is fully connected a jumper lead should be connected momentarily between the "BAT" and "GEN" terminals of the cutout relay before starting the engine. This correctly polarizes the generator with respect to the battery. (This procedure should be followed



Illust. 6 - Rear Light



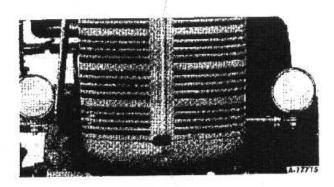
Illust. 7 - Starting Motor, Cables, etc.

any time leads have been disconnected and are to be reconnected to the generator.)

(19) After the attachment has been completely installed the lights should be turned on to the "dim" position and allowed to burn for approximately 15 minutes. This will cause the dimmer resistance coil to heat up and burn off the varnish. During this process the resistance coil will smoke; this will do no harm.

#### CAUTION:

Do not start the engine unless the generator and battery are completely hooked up. Do not operate the generator with the "F" terminal on the frame connected to the switch unless the battery charging circuit is completed and the lead from the "A" terminal is connected as shown on the wiring diagram (illust. 9). If it is necessary to operate the generator without the battery connections, remove the generator field to switch cable from "F" terminal on the generator frame.



Illust. 8 - Front Head Lights

#### GENERAL INSTALLATION INSTRUCTIONS

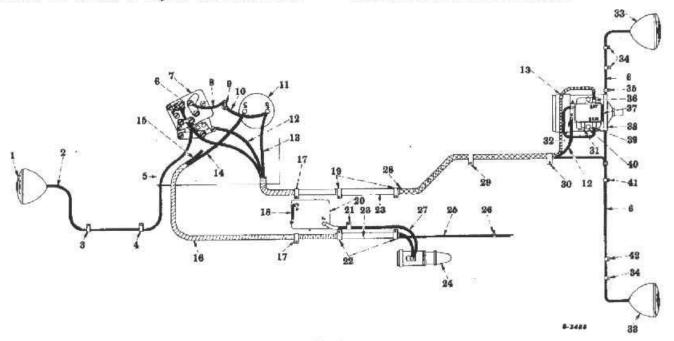
If the wiring or cables in loom are wired according to the wiring diagram, there will be no trouble from rubbing or crossed wires causing a short circuit.

All clips must grip the cables tightly to prevent vibration and rapid cable wear. The clips must be closed in a workmanlike manner so as not to injure the insulation.

The surface under all terminals must be clean and good electrical connections must be made.

#### OPERATION AND MAINTENANCE

Refer to the operator's manual furnished with your tractor for complete operating and maintenance instructions.



Illust, 9 - Wiring Diagram

- 1. Rear light.
- 2. Cable lighting switch to rear light.
- 3. Clip, on rear light bracket bolt, lower.
- 4. Clip, on starting crank mounting bracket, front,
- 5. Instrument panel.
- 6. Cable lighting switch to headlight (black).
- 7. Lighting switch.
- 8. Cable fuse housing to switch.
- 9. Fuse housing.
- 10. Cable fuse housing to ammeter.
- 11. Ammeter.
- 12. Cable generator field to lighting switch (natural with black tracer).
- 13. Cable relay to ammeter (natural with black and red cross tracers).
- 14. Cable ammeter to starting motor.
- 15. Cable magneto to ignition switch.
- 16. Cable assembly ignition and lighting.
- 17. Clips, on battery box rear hold-down bolts.
- 18. Cable battery to ground.
- 19. Clips, on left-hand side of touch-control cylinder block bolts or on top left-hand side of clutch housing of tractors without touch-control.
- 20. Battery,

- 21. Clip, on fuel tank rear mounting bolt.
- 22, Clips, on right-hand touch-control cylinder block bolts or on top right-hand side of clutch housing of tractors without touch-control.
- 23. Cable shield.
- 24. Starting motor.
- 25. Cable to magneto.
- 26, Clip, on clutch housing bolt.
- Cable battery to starting motor.
- 28. Cable harness complete.
- 29. Clip, on air cleaner support bracket bolt, lower.
- 30. Clip, on generator bracket rear bolt. 31. "F" terminal on relay.
- 32. "F" terminal on frame.
- 33. Head light.
- 34. Cable clamp, on light post.
- 35. Clip, on generator mounting bolt, front.
- 36. Battery terminal.
- 37. Relay.
- 38. Generator.
- 39. Generator terminal.
- 40. Mounting screw.
- 41. Clip, on generator brace bolt, right-hand
- 42. Clip, on crankcase front cover bolt (first below governor housing).

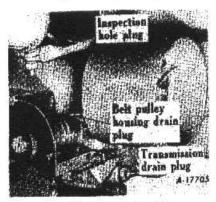
# BELT PULLEY AND POWER TAKE-OFF ATTACHMENTS

352 445 R91 - Belt pulley and power take-off attachment.

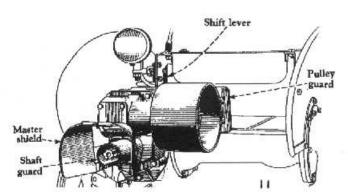
353 195 R91 - Power take-off attachment,

352 447 R91 - Belt pulley attachment for tractors already equipped with power take-off 353 195 R91.

The belt pulley and power take-off attachments enable you to do a great deal more work with the power of your tractor as it transfers the tractor power to different jobs or operations. The belt pulley and power take-off may be purchased together or separately.



Illust. 10 - Drain Plugs

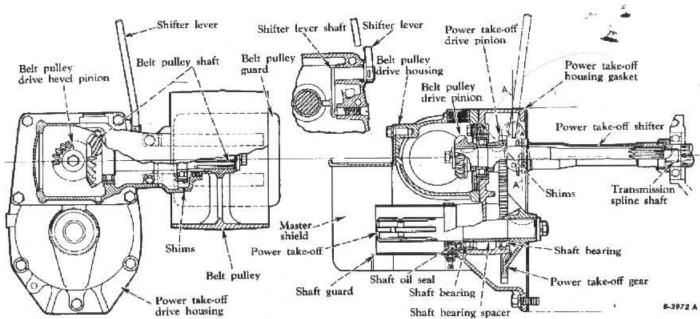


Illust: 11 - Belt pulley and Power Take-off Assembled on Tractor

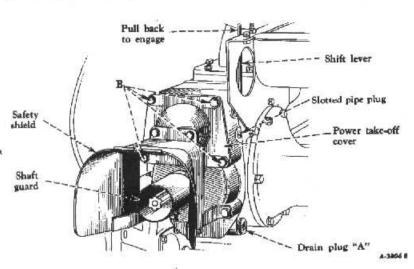
#### INSTALLATION

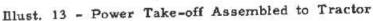
Belt Pulley and Power Take-off Attachment (352 445 R91)

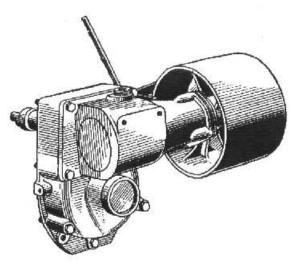
- (1) Drain the transmission case.
- (2) Remove the transmission case rear cover plate.
- (3) Remove the nuts from the power takeoff housing bolts.
- (4) Assemble the gasket to the power takeoff housing.
- (5) Assemble the complete attachment to the rear of transmission case and tighten all the bolts securely.



Illust. 12 - Belt Pulley and Power Take-off Assembly







Illust. 14 - Belt Pulley Attachment

- (6) Refill the transmission case with lubricant. The transmission case capacity is 6 quarts (U.S.) when this attachment is used. See the operator's manual which was furnished with your tractor for location of transmission filler and level plugs and for specifications of approved lubricant.
- (7) Fasten the drawbar extension plate to the center of the drawbar and tighten it securely.

#### INSTALLATION

Power Take-off Attachment (353 195 R91)

- (1) Drain the transmission case.
- (2) Remove the transmission case rear cover plate.
- (3) Remove the nuts from the power takeoff housing bolts.
- (4) Assemble the gasket to the power takeoff housing.
- (5) Assemble the complete attachment to the rear of transmission case and tighten all the bolts securely.
- (6) Refill the transmission case with lubricant. The transmission case capacity is 6 quarts (U.S.) when this attachment is used. See the operator's manual which was furnished with your tractor for location of transmission filler and level plugs, and for specifications of approved lubricant.
- (7) Fasten the drawbar extension plate to the center of the drawbar and tighten it securely.

#### INSTALLATION

Belt Pulley Attachment (352 447 R91)

- On tractors already equipped with
power take-off 353 195 R91.

- (1) Remove the master shield and the power take-off cover and gasket, by removing the four cap screws "B" (illust. 13).
- (2) Replace the spacer on the drive shaft with the new bevel pinion. (It may be necessary to remove the entire drive shaft assembly to drive the bevel pinion onto the drive shaft without injury to the bearing.)
- (3) Assemble the belt pulley in place using sufficient shims to obtain the proper backlash between the bevel gears. Back-lash is .004 to .006 inch, CAUTION: Improper bevel gear back-lash will result in excessive gear noise and rapid wear of the parts. If unable to obtain proper adjustment see your International Industrial Power distributor or dealer.
- (4) Assemble the belt pulley guard at holes in front of the belt pulley housing with the two 3/8-NC x 3/4" cap screws and lock washers provided.
- (5) Add 3/4 pint of lubricant to the transmission.

### OPTIONAL BELT PULLEY

An 8-1/2" diameter pulley is regularly furnished with the belt pulley attachment; however, a pulley is available with 10-1/2" diameter, 6-1/2" face, and belt speed of 3179 f.p.m.

### OPERATING THE BELT PULLEY AND POWER TAKE-OFF

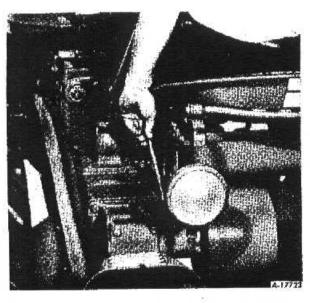
The belt pulley and power take-off are started and stopped by the same engine clutch as the tractor. Be sure to disengage the engine clutch before moving the belt pulley or power take-off shifter lever.

The belt pulley is driven by the power take-off shaft; therefore, the same shifter lever is used to operate either the belt pulley or power take-off.

The shifter lever should always be in the disengaged (forward) position when the belt pulley or power take-off is not in use.

#### OPERATING INFORMATION AND PRECAU-TIONS

- (1) It is not necessary to fill the belt pulley housing with lubricant as it is automatically lubricated from the transmission case. However, at the time of installation, or if the belt pulley housing has been drained, add an additional 3/4 pint to the transmission.
- (2) The power take-off shaft speed is 541 r.p.m.; belt pulley speed is 1157 r.p.m; the belt speed with an 8-1/2 inch diameter pulley is 2574 feet per minute.
- (3) When the belt pulley is not in use the pulley can be removed and the shaft covered with the spacer and pulley shaft guard.
- (4) When the power take-off shaft is not in use, it should be covered with the power take-off shaft guard.



Illust. 15 - Moving Shifter Lever

- (5) If you desire to use the tractor with the belt pulley temporarily removed, the shims should be left in place and the power take-off cover installed. When reassembling the belt pulley be sure these shims are in place as the size and number of these shims will change the tooth contact of the gears. Consult your International Industrial Power distributor or dealer if adjustment for tooth contact becomes necessary.
- (6) Static electricity generated by belt work can be discharged harmlessly by attaching a chain to the tractor and letting it contact the ground.

# OPERATING THE POWER TAKE-OFF WITH THE TRACTOR IN MOTION

- (1) The transmission gearshift lever must be in neutral position.
- (2) Move the engine speed control lever back to low idle speed.
- (3) Depress the clutch pedal to disengage the engine clutch. Keep the pedal depressed.
- (4) Pull the power take-off shifter lever all the way back,
- (5) Advance the engine speed control lever and move the transmission gearshift lever to the speed that it is desired to operate the tractor.
- (6) Slowly release the clutch pedal which will start the tractor in motion with the power take-off in operation.

# OPERATING THE BELT PULLEY OR POWER TAKE-OFF WITH THE TRACTOR STANDING STILL

- (1) The transmission gearshift lever must be in neutral position.
- (2) Move the engine speed control lever back to low idle speed.
- (3) Depress the clutch pedal to disengage the engine clutch.
- (4) Pull the power take-off shifter lever all the way back.
- (5). Slowly release the clutch pedal to engage the clutch.

#### TOUCH-CONTROL HYDRAULIC POWER LIFT ATTACHMENT

350 641 R91 - For Tractors Not Equipped with AI-23 Mower 353 732 R91 - For Tractors Equipped with AI-23 Mower

This attachment provides hydraulic power for instantaneous and effortless control of operating adjustments on various direct connected equipment used with this tractor. Equipment can be regulated and adjusted without stopping work while the tractor is in motion or while standing still. The hydraulic power lift is ready to operate whenever the engine is operating.

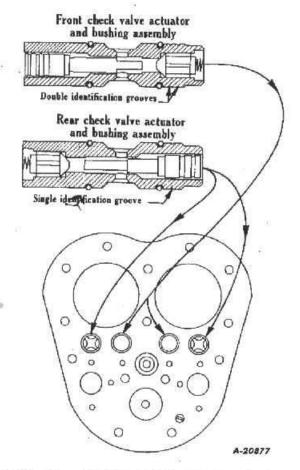
We recommend that you have your International Industrial Power distributor or dealer make this installation.

For operating and maintenance instructions refer to the operator's manual furnished with your tractor.

### HYDRAULIC LIFT FIELD CHANGE PACKAGE (353 751 R91)

For tractors equipped with hydraulic lift attachment 350 641 R91 when used in conjunction with AI-23 highway mower.

This package provides improved control of mower operation by reducing lifting and lowering speeds.



Illust. 16 - Install check valve actuator assemblies in the proper bores in the hydraulic block as shown by the arrows.

The package consists of the following parts:

353	737	R91	Check valve actuator and
			bushing, rear
			bushing, front 2
350	653	RI	Cylinder head gasket 1
350	667	RI	Check valve bushing seal,
			center 8

#### INSTALLATION

(1) Remove battery box (if used).

(2) Remove hydraulic lift cylinder head.

(3) Remove 4 old check valve actuator and bushing assemblies.

(4) Use old check valve springs, coat the new check valve assemblies with light engine oil, and assemble as follows:

(a) Assemble rear check valve actuator and bushing (which has a single groove for identification on the bushing) in the outside bores of the cylinder block with the check valve portion toward the rear of the clyinder block.

(b) Assemble front check valve actuator and bushing (which has two grooves for identification on the bushing) in the inner bores of the cylinder block with the check valve portion toward the front of cylinder block. Thus the check valve is inserted into the block first.

(5) Assemble cylinder head, using new gasket.

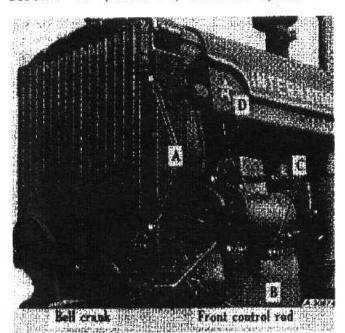
(6) Install battery box.

# RADIATOR SHUTTER ATTACHMENT

(351 462 R91)

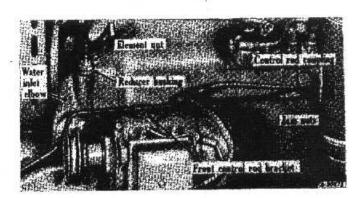
### INSTALLATION OF RADIATOR SHUTTER

- (1) Remove the radiator grille.
- (2) Remove four fan housing cap screws "A" (illust. 17) and assemble the shutter to the radiator with the same cap screws.
- (3) Loosen the cap screw "B" and nut "C". Remove the cap screw "D". Remove the generator belt from the generator pulley and swing the generator out and down as shown in illust. 18.
- (4) Connect the front control rod with the bell crank (illust. 17). Slip the front control rod bracket on the front control rod, then screw the jam nut on the threaded end of the rod and run it all the way back on the threads. Also start the control rod coupling on the end of the threads (illust. 18).
- (5) Disconnect the battery cables and remove the battery box with the battery.
- (6) Knock out the two small plugs in the left-hand side of the instrument panel and steering shaft support. Mount the radiator shutter control sector and lever as shown in illust. 19, using the two 5/16-NF x 3/4" cap screws. Place the nuts and lock washers on the inside of the instrument panel.
- (7) If your tractor is equipped with a touchcontrol system, remove the two front cap screws "A" (illust. 19) from the cylinder

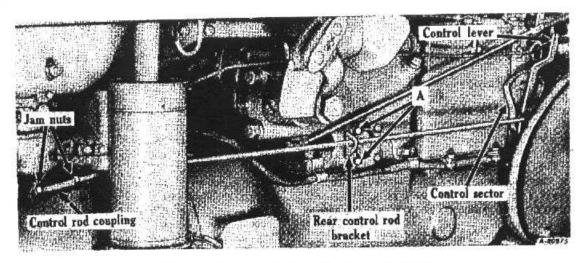


Illust. 17 - Radiator Shutter Assembled

- block oil strainer and fasten the rear control rod bracket here using the two 1/4-NC x 11/16" cap screws. Insert the rear control rod through the bracket with the threaded end toward the front. Screw the jam nut on the threaded end and run it all the way back on the threads. Then start the threads on the control rod coupling.
- (8) Place the control rod lever in the last notch to the rear of the control sector. Fasten the rear control rod to the control lever and secure in place with cotter pin. Tighten the control rod coupling just enough so the radiator shutter remains entirely closed when the control lever is in the last notch to the rear on the control sector. When the proper adjustments have been made, tighten the jam nuts up against the coupling.
- (9) Install the heat indicator as instructed in the following section.
- (10) Replace the generator in its proper position. Install the generator belt and adjust for the proper tension. Tension is correct when the belt can be depressed without effort by the thumb, approximately 1/4 inch, midway between the pulleys. After the correct tension has been obtained, fasten the generator securely in place.
- (11) Remove the front cap screw from the generator mounting bracket and fasten the front control rod bracket here using the same cap screw. If your tractor is not equipped with a generator, fasten the bracket at this same location.
- (12) Install the battery box and reconnect the battery.



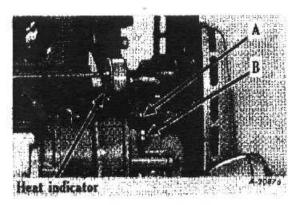
Illust. 18 - Generator Position When Installing Front Control Rod and Heat Indicator Element



Illust. 19 - Radiator Shutter Control Lever and Sector, Rear Control Rod, and Rear Bracket

#### INSTALLATION OF HEAT INDICATOR

- (1) Drain the water from the cooling system.
- (2) Remove one cap screw and lock washer "A" (illust. 20) from the front of the governor housing. Assemble the heat indicator with bracket to the governor housing by reinserting the cap screw and lock washer "A" and inserting the new 5/16-NC x 1/2" screw and lock washer at "B." Tighten securely.
- (3) Remove the water inlet elbow and gasket originally furnished with the tractor and replace it with the elbow and gasket provided with the attachment. Tighten the elbow sufficiently to Prevent water leakage.
- (4) Remove the pipe plug from the top of the inlet elbow. Place the reducer bushing (illust, 18) into the tapped hole and tighten



Illust, 20 - Heat Indicator Assembled on Tractor

the bushing. Now insert the indicator element into the bushing and tighten the element nut sufficiently to prevent water leakage.

(5) Refill the cooling system.

### OPERATION OF RADIATOR SHUTTER

To assist in warming up a cold engine quickly, close the shutter completely by moving the control lever all the way to the rear.

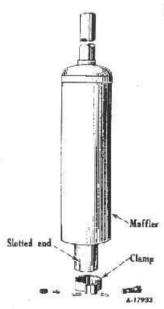
When the heat indicator begins to show "Hot" open the shutter just enough to maintain the operating temperature on the high side of the "Run" range on the heat indicator.

Adjustment of the shutter will vary according to the tractor load, long periods of idling, or atmospheric temperature.

IMPORTANT! Do not start the engine in freezing weather without first closing the shutter completely.



Illust. 21 - Operating Temperature Shown on Heat Indicator



Illust. 22 - Exhaust Muffler Attachment

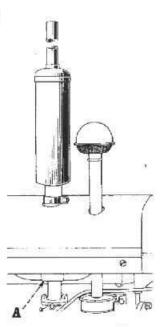
### EXHAUST MUFFLER ATTACHMENT (48831 DA)

The laws of most cities prohibit the use of a tractor without an exhaust muffler in residential districts or near schools or hospitals as the roar of an open exhaust may be disturbing and objectionable.

#### INSTALLATION

The muffler attachment is installed very easily and quickly.

- (1) Slide the slotted end of the exhaust muffler over the exhaust pipe.
- (2) Fasten the muffler securely with the clamp provided, using the  $5/16-NC \times 1-3/8$  cap screw, nut and lock washer.
- (3) Insert plugs included with this attachment into the two holes "A" (illust. 23) in the manifold.



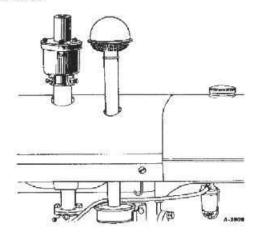
Illust. 23 - Exhaust Muffler on Tractor

### SPARK ARRESTER ATTACHMENT (55348 D)

The spark arrester is a valuable insurance against fire hazards. Its use is advisable when operating near dry underbrush and insuflammable material in forests, oil fields, grain fields or any place where there is possibility of fire from an exhaust spark. The spark arrester throws the exhaust gases into a cyclonic motion which smothers any sparks or hot carbon particles in the exhaust. Clean the spark arrester each month.

#### INSTALLATION

Assemble the spark arrester over the exhaust pipe and secure the clamp with the two set screws.



Illust. 24 - Spark Arrester Assembled on Tractor

### PRE-CLEANER ATTACHMENT (59206 D)

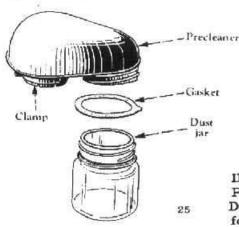
The collector type pre-cleaner is used to secure clean air for the engine when operating under excessively dusty conditions.

#### INSTALLATION

- (1) Remove the air intake cap from the top of the air cleaner.
- (2) Set the pre-cleaner in place on top of the air cleaner intake and secure with the clamp attached to the pre-cleaner.

#### CLEANING

Remove and clean out the dist jar frequently, at least before the jar becomes 3/4 full. Remove the pre-cleaner and inspect the fins regularly. When the fins become dirty or oily wash the entire pre-cleaner in kerosene. Replace the gasket and tighten jar securely.



Illust. 25 -Pre-Cleaner Disassembled for Cleaning

#### PRE-SCREENER ATTACHMENT (353 409 R91)

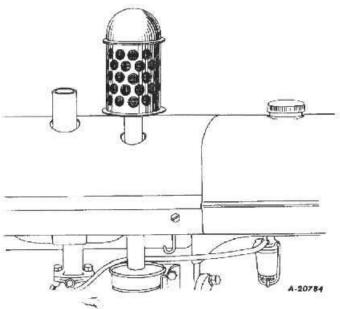
The pre-screener is recommended to secure clean air for the engine when operating in extremely dusty conditions.

#### INSTALLATION

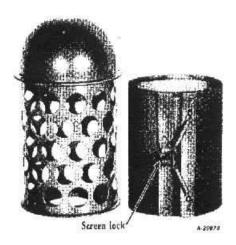
Remove the air cleaner intake cap and replace it with the pre-screener.

#### CLEANING

Remove and clean the screen frequently. To remove the screen from the body assembly unhook the screen lock. Remove and inspect the body regularly. When the body becomes dirty or oily wash the entire pre-screener in kerosene.



Illust. 26 - Pre-Screener Assembled on Tractor



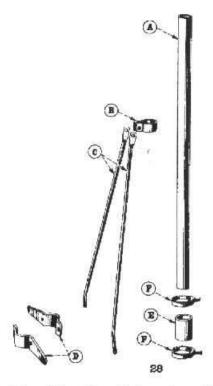
Illust. 27 - Pre-Screener Disassembled

# AIR PIPE EXTENSION ATTACHMENT (63258 D)

The regular air intake pipe is located high enough above the ground for most operating conditions. But when heavy dust clouds continually envelop the air intake cap it is best to add an air pipe extension. It raises the air screen above the dust, providing a fresher and cleaner supply of air for the engine which means longer tractor life and better performance.

#### INSTALLATION

- (1) Remove the air cleaner intake cap and attach the extension pipe "A" to the top of the air cleaner pipe, using the hose "E" and the two clamps "F" (illust, 28).
- (2) Attach the clamps "D" to the exhaust pipe in the position shown in the illustration, using the two 3/8-NF x 1" cap screws, lock washers and nuts.
- (3) Attach the braces "C" to the ends of the clamps "D" with the two 5/16-NC x 3/4" cap screws, lock washers and nuts.
- (4) Slip the extension pipe clamp "B" over the top of the extension pipe "A", line up the hole in the extension pipe clamp with the upper hole in each brace "C" and fasten the braces to the clamp with the 5/16-NC x 1" cap screw, lock washer and nut.
- (5) Tighten all the cap screws and nuts securely and replace the air cleaner intake cap on top of the extension pipe.



Illust. 28 - Air Pipe Extension Attachment

### FRONT WHEEL WEIGHT ATTACHMENTS

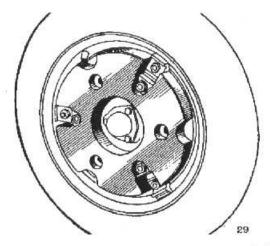
48600 D - First set (set of 2).

48602 D - Second set (set of 2).

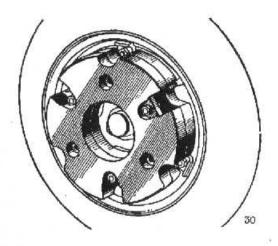
Front wheel weights weigh approximately 42-1/2 pounds each and either one or two can be attached to each front wheel. Front wheel weights are recommended as a front end counterbalance to increase steerability whenever heavy loads are superimposed on the drawbar or when heavy equipment is to be mounted on the rear end of the tractor.

#### INSTALLATION

- (1) To assemble the first front wheel weight, fasten the weight to the wheel with three 1/2 x 2" bolts.
- (2) To assemble the second front wheel weight, fasten it to the first wheel weight with  $1/2 \times 3^{11}$  bolts.
- (3) The first front wheel weights must be attached first.



Illust. 29 - First Front Wheel Weight
Assembled



Illust. 30 - First and Second Front Wheel Weights Assembled

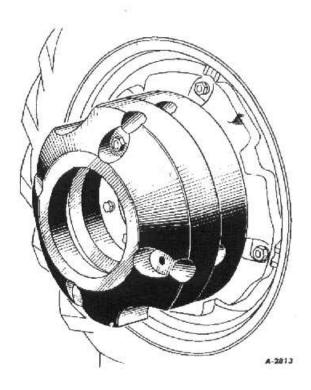
### REAR WHEEL WEIGHT ATTACHMENTS

54142 D - First set (set of 2). 54143 D - Second set (set of 2).

Rear wheel weights weighing approximately 140 pounds each can be attached to each drive wheel to reduce slippage and increase drawbar pull. Either one or two weights can be attached to each drive wheel. The increase in drawbar pull, with the proportionate reduction of slippege, varies with the type of soil.

#### INSTALLATION

- (1) To assemble the left-hand first rear wheel weight, fasten the weight to the wheel with four 5/8 x 3-1/2" bolts.
- (2) To assemble the left-hand second rear wheel weight, remove two  $5/8 \times 3-1/2$ " bolts and insert two  $5/8 \times 6-3/4$ " bolts.
- (3) To assemble the right-hand first rear wheel weight, fasten the weight to the wheel with four 5/8 x 5-3/4" bolts.
- (4) To assemble the right-hand second rear wheel weight, remove two 5/8 x 5-3/4" bolts and insert two 5/8 x 9" bolts.
- (5) Tighten the bolts securely.

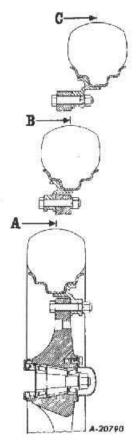


Illust, 31 - First and Second Rear Wheel Weights Assembled

#### ADJUSTABLE FRONT WHEEL ATTACHMENT (57 098 DB)

With this attachment the following additional treads can be obtained: 40-3/4", 66-3/4", 70", and various other intermediate combinations when used in conjunction with front axle adjustments.

NOTE: The 40-3/4" tread or narrow position cannot be obtained on tractors equipped with 5.00 x 15 or 5.50 x 16 tires.



Illust. 32 Different Positions of Rims and Lugs for Each Axle Adjustment

#### INSTALLATION

- Block the rear wheels securely and raise the front end of the tractor until the front wheels clear the ground.
- (2) Remove the old front wheels and assemble the new adjustable front wheels.

#### TREAD ADJUSTMENT

- To obtain the narrow position "A"
   (illust. 32) place the rims so the lugs are on the outside of the rims and assemble the rims with the lugs on the outside of the wheels.
- (2) For the intermediate position "B" place the rims so the lugs are on the inside of the rims and assemble the rims with the lugs on the inside of the wheels.
- (3) For the wide position "C" place the rims so the lugs are on the inside of the rims and assemble the rims with the lugs on the outside of the wheels.

#### LUBRICATION

After every 960 hours of operation remove, clean and repack front wheels with short fibre wheel bearing grease.

#### RIM ATTACHMENTS

52889 D - W8-24 for 9.00/24 and 9-24 tires. 56203 D - W9-24 for 10-24 tires.

Wide based tires must be used on wide based rim attachments. Rims will fit both the regular disc wheel and the heavy (cast) wheel,

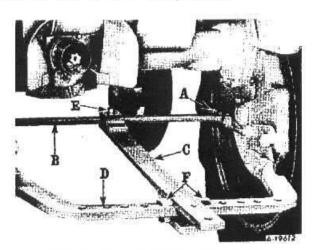
These tire sizes meet the demand for more traction in territories having sandy soil.

# SWINGING DRAWBAR ATTACHMENT (69426 D)

The swinging drawbar can be set at different heights and makes possible short turns when pulling trailing equipment.

#### INSTALLATION

- Loosen front stud nuts "A" (illust, 33) on both rear axle housings. Hook the anchor bar "B" on each stud and tighten nuts securely.
- (2) Place pivot end of swinging drawbar "C" on anchor bar "B" and swinging end on regular drawbar "D". Three holes are provided in the anchor bar as optional pivot points for pull-behind equipment. Fasten swinging drawbar to anchor bar using 5/8-NF x 3" cap screw "E" with nut and lock washer.
- (3) Use two 3/4-NG x 1-1/2" square head bolts "F" with nuts and lock washers to keep the swinging of the drawbar within a desired arc or in a set position.



Illust. 33 - Swinging Drawbar Assembled on Tractor

### HIGH ALTITUDE PISTON ATTACHMENTS

351 5	18 R	91 -	- 5	000	11.,	gasoline.
351 5				000	ft.,	distillate.
351 5	92 R	91 -	. 5	000	ft.,	kerosene.
351 5	19 R	91 -	. 8	000	ft.,	gasoline,
3515				000	ft.,	distillate.
351.5	94 R	91 -	. 8	000	ft	kerosene.

These attachments consist of complete sets of cylinder sleeves and pistons for use at high altitudes. We recommend that you have your International Industrial Power distributor or dealer make this installation.

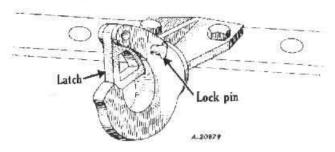
# DRAWBAR PINTLE HOOK ATTACHMENT (65463 D)

A pintle hook provides a more positive hitch and prevents loads from uncoupling, especially when traveling over rough ground.

To make a hitch remove the lock pin, depress the latch and couple the load to the hook. After making the hitch replace the lock pin to prevent the latch from opening.

#### INSTALLATION

Assemble the pintle hook to the drawbar with two cap screws and nuts as shown in illust. 34.



Illust. 34 - Pintle Hook Assembled on Drawbar

#### DISTILLATE BURNING ATTACHMENT (351 683 R91)

KEROSENE BURNING ATTACHMENT (351 684 R91)

These attachments are available if you desire to convert your gasoline tractor to a distillate or kerosene unit. The attachments include a complete set of pistons and rings, cylinder head assembly, new carburetor, new manifold, adjustable heat control and adjustable radiator shutter for controlling the operating temperature of the engine.

We recommend that you have your International Industrial Power distributor or dealer make this installation.