February 4, 1972

REVERSE RELAY CHECK LIST

As part of our continuing test and evaluation program, will you please assure that the attached check list is filled out if there are any failures of the reverse relay on the E15 tractor. Several copies of the check list are enclosed. Please fill this check list out completely and return it to us.

LIFT STRAP GUARD

A recent audit and survey of warranty claims indicates a sharp reduction in the number of lift straps replaced on tractors having lift strap guards installed. Moreover, investigation of the strap claims received shows that most failures occurred on tractors not having a guard installed. If you have unused guards in inventory, please install them on all units encountered. If additional guards are needed, requests will be honored and sent at no charge until August 1, 1972. Refer to Product Service Bulletin No. 7 for part numbers and ordering information.

CRIMPING TOOL

In order to provide good service on Elec-Trak tractor wiring repairs, a crimping tool is needed for crimping open-barrel terminals, such as used on Cards 1 and 3. This is not a replacement for the yellow-handled crimper, which is used for close-barrel terminals, but is an addition to the Elec-Trak Service Kit, 112L795. This crimper produces machine-quality crimps for use in the field without the need for strippers, soldering iron or pliers. The built-in strippers and crimping jaws allow fast and accurate work. Instructions for use are supplied with each tool. Since no Elec-Trak mechanic should be without this tool, we are sending one to each dealer. (cost $11.50). Additional tools can be ordered at this price if necessary. The part number is 243A4510P2.
MOWER ARM WEAR SLEEVES

Future production of 26AA42 Rotary Mowers (Front Mounted) will include wear sleeves which are installed on each mower mounting arm in the area of the tractor’s front bumper. These sleeves prevent wear to the arms where they contact the front mower guide in cases where rough or hilly terrain causes excessive wear of the arms. These sleeves are inexpensive and easy to replace.

Three sets of these sleeves and retaining rings are being sent to each dealer at no charge and are to be installed on all new front mounted mowers and on delivered units where arm abrasion may become a problem. Reasonable numbers of sleeves and rings requested before August 1, 1972 will be sent at no charge.

Refer to Figure 1 and install one retaining ring, #244A7216P1, on each arm 1/2 inch from the lower end of the main tube. This is easily done by marking the tube at the 1/2 inch point and pushing the ring over the tube with pliers while the arm is mounted to the tractor. The arm should be removed from the tractor and one sleeve, #244A7215P1, pushed over its main tube to the ring on each arm. (Figure 2)
E15 REVERSE RELAY FAILURE CHECK LIST

This check list is provided to enable the Elec-Trak mechanic to rapidly find the cause of burned reverse relay contacts. Please complete and attach to the warranty claim. These forms should be kept in a convenient place for the mechanic's use. For instance, they might be kept with your new relays in inventory.

Replaced parts involved with the failed relay should be properly tagged and returned collect to Product Service to aid in our analysis.

Should any problems or unusual conditions arise, please call Product Service on the "hot line". Many thanks for your efforts in this matter.

Tractor Serial No. _______________ Failure Date ____________

Check List

1. Are reverse relay contact leaves abnormally bent?
   ____ Yes     ____ No

2. Is there any evidence of harness wiring interfering with relay actuation?
   ____ Yes     ____ No

3. Are there any loose wire terminals on Card #1 or Card #3?
   ____ Yes     ____ No

4. Is Card #1 marked with the latest revision, 211A3150G1-RG?
   ____ Yes     ____ No

   If no, change to the latest revision.

5. Is the reverse switch on the speed control positively held actuated in all reverse positions?
   ____ Yes     ____ No

6. Can the throttle be rotated manually to start the drive motor in either the left or right neutral positions? To test this, advance throttle to maximum speed forward (gear selector in neutral) and quickly return throttle to neutral. If drive motor continues to run, throttle cam has over-traveled. Repeat on reverse side.
   ____ Yes     ____ No
Check List (Cont'd.)

7. Determine that 36 V D.C. is present between pads 7 and 12 of Card #1 with the drive motor running.
   ____ Yes  ____ No

8. Is the drive motor field resistance approximately 16 ohms?
   ____ Yes  ____ No

9. Does the L contactor stick shut occasionally as verified by the drive motor continuing to run with the speed control in neutral.
   **NOTE:** Determine first that this symptom is not produced by speed control cam overtravel as described in Item 6.
   ____ Yes  ____ No

Additional Information

What was the operating condition when failure occurred?

1. ____ Stopping (speed control returning to neutral)
2. Changing direction:
   ____ Forward to Reverse
   ____ Reverse to Forward
3. ____ Failure occurred during impact (dropped over curb, in hole, snow/dozer blade snapped up, etc.)

   Explain________________________________________________________________________________________________________
   _______________________________________________________________________________________________________________

4. Other conditions__________________________________________________________________________________________________
   _______________________________________________________________________________________________________________
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Tractor Serial No. ___________ Failure Date ___________

Check List

1. Are reverse relay contact leaves abnormally bent?
   ____ Yes    ____ No

2. Is there any evidence of harness wiring interfering with relay actuation?
   ____ Yes    ____ No

3. Are there any loose wire terminals on Card #1 or Card #3?
   ____ Yes    ____ No

4. Is Card #1 marked with the latest revision, 211A3160G1-R6?
   ____ Yes    ____ No
   If no, change to the latest revision.

5. Is the reverse switch on the speed control positively held actuated in all reverse positions?
   ____ Yes    ____ No

6. Can the throttle be rotated manually to start the drive motor in either the left or right neutral positions? To test this, advance throttle to maximum speed forward (gear selector in neutral) and quickly return throttle to neutral. If drive motor continues to run, throttle cam has over-traveled. Repeat on reverse side.
   ____ Yes    ____ No
Check List (Cont'd.)

7. Determine that 36 V D.C. is present between pads 7 and 12 of Card #1 with the drive motor running.
   ___ Yes ___ No

8. Is the drive motor field resistance approximately 16 ohms?
   ___ Yes ___ No

9. Does the L contactor stick shut occasionally as verified by the drive motor continuing to run with the speed control in neutral.
   NOTE: Determine first that this symptom is not produced by speed control cam overtravel as described in Item 6.
   ___ Yes ___ No

Additional Information

What was the operating condition when failure occurred?

1. ___ Stopping (speed control returning to neutral)

2. Changing direction:
   ___ Forward to Reverse
   ___ Reverse to Forward

3. ___ Failure occurred during impact (dropped over curb, in hole, snow/dozer blade snapped up, etc.)
   Explain________________________________________
   ________________________________________________

4. Other conditions__________________________________
   ________________________________________________
   ________________________________________________
E15 REVERSE RELAY FAILURE CHECK LIST

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tractor serial no. failure date

Check List

1. Are reverse relay contact leaves abnormally bent?
   ___ Yes  ___ No

2. Is there any evidence of harness wiring interfering with relay actuation?
   ___ Yes  ___ No

3. Are there any loose wire terminals on Card #1 or Card #3?
   ___ Yes  ___ No

4. Is Card #1 marked with the latest revision, 211A3160G1-R6?
   ___ Yes  ___ No

   If no, change to the latest revision.

5. Is the reverse switch on the speed control positively held actuated in all reverse positions?
   ___ Yes  ___ No

6. Can the throttle be rotated manually to start the drive motor in either the left or right neutral positions? To test this, advance throttle to maximum speed forward (gear selector in neutral) and quickly return throttle to neutral. If drive motor continues to run, throttle cam has over-traveled. Repeat on reverse side.
   ___ Yes  ___ No
Check List (Cont'd.)

7. Determine that 36 V D.C. is present between pads 7 and 12 of Card #1 with the drive motor running.
   Yes  ______  No  ______

8. Is the drive motor field resistance approximately 16 ohms?
   Yes  ______  No  ______

9. Does the L contactor stick shut occasionally as verified by the drive motor continuing to run with the speed control in neutral.
   NOTE: Determine first that this symptom is not produced by speed control cam overtravel as described in Item 6.
   Yes  ______  No  ______

Additional Information

What was the operating condition when failure occurred?

1.  ______ Stopping (speed control returning to neutral)

2. Changing direction:
   ______ Forward to Reverse
   ______ Reverse to Forward

3.  ______ Failure occurred during impact (dropped over curb, in hole, snow/dozer blade snapped up, etc.)

Explain ____________________________________________________________
____________________________________________________________________
____________________________________________________________________

4. Other conditions __________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
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Should any problems or unusual conditions arise, please call Product Service on the "hot line". Many thanks for your efforts in this matter.

Tractor Serial No. _________________ Failure Date ____________

Check List

1. Are reverse relay contact leaves abnormally bent?
   ____ Yes   ____ No

2. Is there any evidence of harness wiring interfering with relay actuation?
   ____ Yes   ____ No

3. Are there any loose wire terminals on Card #1 or Card #3?
   ____ Yes   ____ No

4. Is Card #1 marked with the latest revision, 211A3160G1-R6?
   ____ Yes   ____ No
   If no, change to the latest revision.

5. Is the reverse switch on the speed control positively held actuated in all reverse positions?
   ____ Yes   ____ No

6. Can the throttle be rotated manually to start the drive motor in either the left or right neutral positions? To test this, advance throttle to maximum speed forward (gear selector in neutral) and quickly return throttle to neutral. If drive motor continues to run, throttle cam has over-traveled. Repeat on reverse side.
   ____ Yes   ____ No
Check List (Cont'd.)

7. Determine that 36 V D.C. is present between pads 7 and 12 of Card #1 with the drive motor running.

   ___ Yes    ___ No

8. Is the drive motor field resistance approximately 16 ohms?

   ___ Yes    ___ No

9. Does the L contactor stick shut occasionally as verified by the drive motor continuing to run with the speed control in neutral.

   NOTE: Determine first that this symptom is not produced by speed control cam overtravel as described in Item 6.

   ___ Yes    ___ No

Additional Information

What was the operating condition when failure occurred?

1. ___ Stopping (speed control returning to neutral)

2. Changing direction:

   ___ Forward to Reverse
   ___ Reverse to Forward

3. ___ Failure occurred during impact (dropped over curb, in hole, snow/dozer blade snapped up, etc.)

   Explain __________________________________________________________
   __________________________________________________________

4. Other conditions ___________________________________________________
   __________________________________________________________