Drying Tumblers
120 Pound Capacity
170 Pound Capacity
Refer to Page 5 for Model Numbers
# Table of Contents

## Section 1 – Safety Information

1. Locating An Authorized Service Person

## Section 2 – Introduction

1. Model Identification
2. Customer Service
3. Serial Plate Location
4. Safety Warnings and Decals
5. Safety Precautions for Servicing Tumblers

## Section 3 – Troubleshooting

1. Motor Does Not Start
2. Motor Overload Protector Cycles Repeatedly
3. Motor Runs But Cylinder Does Not Turn
4. Motor Does Not Stop
5. Gas Burner Does Not Ignite
6. Burner Ignites and Goes Out Repeatedly
7. Burner Shuts OFF Prematurely
8. Burner Repeatedly Cycles Off on High Limit Thermostat
9. Steam Valve or Burner Does Not Shut Off
10. Clothes Do Not Dry
11. Tumbler Overheating
12. Burner Not Burning Properly
13. Loading Door Opens During Operation
14. Tumbler Runs But No Steam to Coils – Steam Models
15. Water In Steam Line – Steam Models
16. Tumbler Will Not Start, Time On Drying Timer, Door Closed
17. Motor Runs But Will Not Heat
18. Cylinder Turns, But Will Not Heat

## Section 4 – Adjustments

19. Drive Belt Tension
20. Cylinder Belt Tension
21. Fan Belt Tension
22. Cylinder Clearance

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Section 1
Safety Information

Throughout this manual and on machine decals, you will find precautionary statements (i.e. “CAUTION,” “WARNING,” and “DANGER”) followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

⚠️ DANGER
Danger indicates the presence of a hazard that will cause severe personal injury, death or substantial property damage if the danger is ignored.

⚠️ WARNING
Warning indicates the presence of a hazard that can cause severe personal injury, death or substantial property damage if the warning is ignored.

⚠️ CAUTION
Caution indicates the presence of a hazard that will or can cause minor personal injury or property damage if the caution is ignored.

Additional precautionary statements (i.e. “IMPORTANT” and “NOTE”) are followed by specific instructions.

IMPORTANT
The word “IMPORTANT” is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE
The word “NOTE” is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

In the interest of safety, some general precautions relating to the operation of this machine follow.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Failure to install, maintain and/or operate this product according to the manufacturer’s instructions may result in conditions which can produce serious injury, death and/or property damage.</td>
</tr>
<tr>
<td>• Do not repair or replace any part of the product or attempt any servicing unless specifically recommended or published in this Service Manual and unless you understand and have the skills to carry out the servicing.</td>
</tr>
<tr>
<td>• Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the product is properly grounded and to reduce the risk of fire, electric shock, serious injury or death.</td>
</tr>
</tbody>
</table>

W006R2
IMPORTANT INFORMATION: During the lifetime of your tumbler, it may require service. The information contained in this manual was written and is intended for use by qualified service technicians who are familiar with the safety procedures required in the repair of your tumbler, and who are equipped with the proper tools and testing equipment.

**WARNING**

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- Disconnect electric power to the tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

**WARNING**

Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you or the inexperienced person making such repairs to the risk of serious injury, electrical shock or death.

**CAUTION**

If you or an unqualified person perform service on your product, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.

NOTE: The WARNING and IMPORTANT instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which CANNOT be built into this tumbler. These factors MUST BE supplied by the person(s) installing, maintaining or operating the tumbler.

Always contact your dealer, distributor, service agent or the manufacturer on any problems or conditions you do not understand.

**Locating An Authorized Service Person:**

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.
# Section 2

## Introduction

### Model Identification

Information in this manual is applicable to these models:

<table>
<thead>
<tr>
<th>Gas</th>
<th>Steam/Thermal Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT120FG</td>
<td>AT170FG</td>
</tr>
<tr>
<td>DC120FG</td>
<td>DC170FG</td>
</tr>
<tr>
<td>DT120FG</td>
<td>DT170FG</td>
</tr>
<tr>
<td>JC120FG</td>
<td>JC170FG</td>
</tr>
<tr>
<td>JT120FG</td>
<td>JT170FG</td>
</tr>
<tr>
<td>SC120FG</td>
<td>SC170FG</td>
</tr>
<tr>
<td>ST120FG</td>
<td>ST170FG</td>
</tr>
<tr>
<td>AT120CSH</td>
<td>AT170CSH</td>
</tr>
<tr>
<td>DC120CSH</td>
<td>DC170CSH</td>
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<td>SC170CSH</td>
</tr>
<tr>
<td>ST120AT</td>
<td>ST120CSH</td>
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</tbody>
</table>
**Customer Service**

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

For technical assistance, call (920) 748-3121.

**Serial Plate Location**

When calling or writing about your product, be sure to mention model and serial numbers. Model and serial numbers are located on serial plate as shown.

![120 Pound Models Diagram](image1)

![170 Pound Models Diagram](image2)
Safety Warnings and Decals

SAFETY WARNINGS and decals have been provided in key locations to remind you of important precautions for the safe operation and maintenance of your tumbler. Please take the time to review these warnings before proceeding with service work.

All decals have been designed and applied to withstand washing and cleaning. Decals should be checked periodically to be sure they have not been damaged, removed, or painted. Refer to the Parts Manual for ordering replacement decals.

Safety Precautions for Servicing Tumblers

- Disconnect electrical service.
- Shut off supply gas valve before servicing gas components.
- Access panel MUST be reinstalled after inspection or servicing of tumbler is completed.
- Use a non-corrosive leak detecting compound to check all pipe connections for gas leaks. DO NOT USE AN OPEN FLAME TO CHECK FOR GAS LEAKS!
- Belt guard MUST be reinstalled after inspection or servicing of tumbler is completed.
- Contactor box cover MUST be reinstalled after inspection or servicing of electric and/or reversing tumbler is completed.
- Loading door switch MUST be operational before putting tumbler into service.
- Junction box cover MUST be reinstalled after inspection or servicing of tumbler is completed.
Section 3
Troubleshooting

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</tr>
<tr>
<td>• Close steam valve to steam tumbler before servicing.</td>
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<td>• Never start the tumbler with any guards/panels removed.</td>
</tr>
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<td>• Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.</td>
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</table>

IMPORTANT: Refer to wiring diagram for aid in testing tumbler components.
Troubleshooting

1. Motor Does Not Start

Motor Does Not Start

Is the electrical power off or circuit breaker fuse blown?
  Yes

Check power supply, or replace fuses.

No

Is the loading door switch not closed or switch inoperative?
  Yes

Close door, panel or test switch and replace if inoperative.

No

Is the door switch improperly adjusted?
  Yes

Refer to Installation Manual for door switch adjustment.

No

Is the start circuit not complete?
  Yes

Press start switch or test switch and replace if inoperative.

No

Is the motor inoperative?
  Yes

Have motor tested and replace if inoperative.

No
2. Motor Overload Protector Cycles Repeatedly

Motor Overload Protector Cycles Repeatedly

Is voltage correct? Yes

Is clothes load too large? Yes

Remove part of load.

No

Is clothes cylinder binding? Yes

Check cylinder for binding.

No

Is wiring adequate? Yes

Check with local power company to ensure that wiring is adequate.

No

Is make-up air adequate? Yes

Refer to Installation Manual for make-up air requirements.

No

Is there lint buildup around tumbler or poor maintenance? Yes

Clean lint accumulation on and around the motors.

No

Is there broken, loose or incorrect wiring? Yes

Refer to wiring diagram.

No
3. Motor Runs But Cylinder Does Not Turn

- **Motor Runs But Cylinder Does Not Turn**
4. Motor Does Not Stop

Motor Does Not Stop

- Is the door switch not working properly?
  - Yes: Test switches and replace if inoperative. Refer to *Installation Manual* for proper switch adjustment.
  - No: Is wiring incorrect?
    - Yes: Refer to wiring diagram.
    - No: Is timer inoperative?
      - Yes: Test timer and replace if inoperative.
      - No: Is motor contactor inoperative?
        - Yes: Test motor contactor and replace if inoperative.
5. Gas Burner Does Not Ignite

- **Burner Does Not Ignite**
  - **Are there an improper or inadequate exhaust system?**
    - Yes: Refer to *Installation Manual* for exhaust system requirements.
    - **No**
      - **Are there blown fuses or tripped circuit breakers in external electric supply line?**
        - Yes: Check fuses or circuit breaker.
        - **No**
          - **Is drying timer not selected or inoperative?**
            - Yes: Set drying timer or replace if inoperative.
            - **No**
              - **Is thermostat inoperative?**
                - Yes: Test thermostat and replace if inoperative.
                - **No**
                  - **Is there an insufficient gas supply?**
                    - Yes: Open partially closed gas shut-off valve, or correct low gas pressure. Check manifold pressure and adjust to pressure specified on serial plate. If pressure cannot be obtained, have your local gas company check main gas pressure.
                    - **No**
          - **Is there lint buildup?**
            - Yes: Clean lint compartment. Check damper for lint accumulation. Check ductwork for lint buildup.
            - **No**
              - **Is there inadequate ductwork and make-up air?**
                - Yes: Refer to *Installation Manual* to ensure that ductwork and make-up air openings are sized accurately.
                - **No**
                  - **Is airflow switch inoperative?**
                    - Yes: Test switch and replace if inoperative.
                    - **No**
                      - **Is airflow switch out of adjustment?**
                        - **No**

- **Tumbler** is equipped for type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install correct orifices.
5. Gas Burner Does Not Ignite (continued)

- Is the lint door panel not closed properly?
  - Yes: Open lint door panel, place lint door and panel back on tumbler (ensuring a tight fit).
  - No:
    - Is there broken, loose or incorrect wiring?
      - Yes: Refer to wiring diagram.
      - No:
        - Is there an inoperative igniter?
          - Yes: Test igniter and replace if inoperative.
          - No:
            - Is the igniter control inoperative?
              - Yes: Test igniter control and replace if inoperative.
              - No:
                - Are valve coils inoperative?
                  - Yes: Check valve coils and replace if necessary.
                  - No:

- Is fan rotation improper?
  - Yes: May be due to improper wiring resulting in low air flow. Refer to Installation Manual.
6. Burner Ignites and Goes Out Repeatedly

- **Burner Ignites and Goes Out Repeatedly**
  - Is there insufficient gas pressure? Yes → Check gas supply and pressure. Low flame will not maintain sensor conductivity. No → Are the burner ports plugged? Yes → Check burner tubes for build-up. No → Is high limit or cabinet limit thermostat inoperative? Yes → Test thermostat and replace if inoperative. No → Is the exhaust system improper or inadequate? Yes → Refer to Installation Manual for exhaust system requirements. No → Does tumbler have improper orifices? Yes → Tumbler is equipped for type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install correct orifices. No → Is there inadequate make-up air? Yes → Refer to Installation Manual for make-up air requirements.

TMB2119S
7. Burner Shuts OFF Prematurely

- Burner shuts off prematurely
  - Is there improper or inadequate exhaust and/or make-up air?
    - Yes
      - Refer to *Installation Manual* for exhaust and make-up air requirements.
    - No
  - Is there insufficient gas supply?
    - Yes
      - Open partially closed gas shut-off valve or correct low pressure.
    - No
  - Is tumbler not properly equipped for type of gas used?
    - Yes
      - Tumbler is equipped for type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install proper orifices.
    - No
  - Is burner flame improperly adjusted?
    - Yes
      - Refer to *Installation Manual* for burner flame adjustment.
    - No
  - Is high limit thermostat cycling off?
    - Yes
      - Refer to Paragraph 8.
    - No
8. Burner Repeatedly Cycles Off on High Limit Thermostat

- **Burner repeatedly cycles off on high limit thermostat**
- Is external exhaust system longer than recommended or is there inadequate make-up air?  
  - **No**
  - Is lint screen clogged?  
    - **Yes**  
      - Refer to Installation Manual for exhaust and make-up air requirements.
    - **No**  
      - Is there lint in tumbler ducts?  
        - **Yes**  
          - Clean tumbler ducts.
        - **No**  
          - Is there lint in external exhaust system?  
            - **Yes**  
              - Disassemble exhaust system and clean.
            - **No**  
              - Remove screen and clean. Lint screen and compartment should be cleaned after every eight hour shift.

- **Is high limit thermostat cycling at too low a temperature?**  
  - **Yes**  
    - Replace thermostat.
  - **No**  
    - Is lint door panel not closed properly?  
      - **Yes**  
        - Remove lint door panel, place lint door panel back on tumbler (ensuring a tight fit).
      - **No**  
        - Is there improper fan rotation?  
          - **Yes**  
            - May be due to improper wiring resulting in low air flow. Refer to Installation Manual.
          - **No**  
            - 3 Phase power: reverse L1 and L2 incoming power, check for proper rotation.
9. Steam Valve or Burner Does Not Shut Off

Are there impurities on gas or steam valve seat, preventing valve from closing?  
Yes → Replace gas valve or disassemble and clean steam valve.  
No → Is wiring correct?  
Yes → Refer to wiring diagram.  
No → Is drying timer inoperative?  
Yes → Replace timer.
**Troubleshooting**

**10. Clothes Do Not Dry**

**Clothes Do Not Dry**

- Is there enough heating time allocated for the load? **Yes**
  - Start cycle again with enough time to dry load.
  
  **No**

- Is the heat source inoperative? **Yes**
  - Refer to Flowchart 17.
  
  **No**

- Is the clothes load too large? **Yes**
  - Remove part of load. Maximum load is 120 pound dry weight (cotton load) for 120 pound Tumbler, etc.
  
  **No**

- Is there inadequate make-up air? **Yes**
  - Refer to Installation Manual for make-up air requirements.
  
  **No**

- Is there improper fan rotation? **Yes**
  - May be due to improper wiring resulting in low air flow. Refer to Installation Manual.
  
  **No**

- Is there too much water in articles being dried? **Yes**
  - Remove excess water.

- Is there inadequate make-up air? **Yes**
  - Refer to Installation Manual for make-up air requirements.

- Is the voltage incorrect? **Yes**
  - Refer to Installation Manual for electrical requirements.
  
  **No**

- Is the drying selector improperly set? **Yes**
  - Set selector for higher setting.

- Does heat source shut off prematurely? **Yes**
  - Refer to Flowchart 17.

- Is the exhaust system improper or inadequate? **Yes**
  - Refer to Installation Manual for exhaust system requirements.

  **No**

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TMB2123S
11. Tumbler Overheating

Gas Models: Does tumbler have incorrect main burner orifices?  
Yes: Obtain and install correct orifices.  
No: Gas Models: Is gas pressure too high or low?  
Yes: Adjust gas pressure as specified on serial plate.  
No: Steam Models: Is steam solenoid valve stuck open?  
Yes: Clean solenoid valve and replace if necessary.  
No: Is the make-up air inadequate?  
Yes: Refer to Installation Manual for make-up air requirements.  
No: Is there lint buildup?  
Yes: Clean lint compartment. Check damper for lint accumulation. Check ductwork for lint buildup.  
No: Is the exhaust system restricted or inadequate?  
Yes: Remove obstruction or lint build up from exhaust ductwork. Refer to Installation Manual for exhaust system requirements.  
No: Is the thermostat inoperative?  
Yes: Replace thermostat.
Troubleshooting

12. Burner Not Burning Properly

- Are burner air shutters incorrectly adjusted?
  - Yes: Refer to Installation Manual for proper flame adjustment.
  - No

- Is there lint/dirt in burner tube?
  - Yes: Disassemble burner and blow out the dirt.
  - No

- Is the gas pressure too high or low?
  - Yes: Check serial plate on back of tumbler for correct gas pressure.
  - No

- Does the tumbler have incorrect orifices?
  - Yes: Tumbler is equipped for the type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install correct orifices.
  - No

- Is the exhaust duct restricted or blocked?
  - Yes: Disassemble and clean exhaust system.
  - No

- Is the airflow switch not functioning properly?
  - Yes: Replace airflow switch.
  - No

- Is there inadequate make-up air?
  - Yes: Refer to Installation Manual for make-up air requirements.
  - No

- Is there improper fan rotation?
  - Yes: May be due to improper wiring resulting in low air flow. Refer to Installation Manual.
  - No

TMB2125S
13. Loading Door Opens During Operation

- Loading Door Opens During Operation
  - Is tumbler improperly leveled?
    - Yes: Refer to *Installation Manual* for leveling leg adjustment.
    - No: Is clothes load too large?
      - Yes: Remove part of load and restart tumbler.
      - No: Is door strike adjusted incorrectly?
        - No: No
14. Tumbler Runs But No Steam to Coils – Steam Models

- Are valves closed? [Yes/No]
  - Yes: Check all valves in supply and return lines, make sure they are open.
  - No: Is steam trap blocked? [Yes/No]
    - Yes: Remove trap and clean. Replace if inoperative.
    - No: Is solenoid valve inoperative? [Yes/No]
      - Yes: Check operation of solenoid valve.
      - No: Is check valve incorrectly installed? [Yes/No]
        - Yes: Check for inlet and outlet markings on check valve and invert if necessary.
        - No: Is strainer clogged? [Yes/No]
          - Yes: Remove strainer and clean.
          - No:
15. Water In Steam Line – Steam Models

Water in steam line - Steam Models

Is steam piping installed incorrectly?

Yes
Refer to Installation Manual for steam requirements.

No

Is trap functioning improperly?

Yes
Check trap for size and capacity. If trap is dirty or sluggish clean thoroughly or replace. Check return line for high back pressure.

No
16. Tumbler Will Not Start, Time On Drying Timer, Door Closed

Is there line voltage into transformer? Yes
Is there control (120 VAC) voltage out of transformer? No
Check electrical service to tumbler (fuses/circuit breaker).

No
Is there control circuit fuse? Yes
Replace fuse.

Is there 120 volts into door switch? No
Check for broken wire between fuse and door switch.

Yes
Is there control (120 VAC) voltage out of transformer? Yes
Replace transformer.

Yes
Is there 120 volts out of door switch? Yes
Is there 120 volts at terminal 3 of control relay? Yes
Check for broken wire or poor connection at harness plug.

No
Is door switch actuator functioning properly? No
Adjust actuator.

Yes
Is there 120 volts across coil terminals of control relay? Yes
Replace relay.

No
Is there 120 volts on terminal 1 of control relay? No
Replace timer.

Is there 120 volts on terminal B of drying timer? No
Replace timer.

Continued on next page
16. Tumbler Will Not Start, Time On Drying Timer, Door Closed (continued)

Is there 120 volts into push-to-start switch?

Yes

Press push-to-start switch. Is there 120 volts out of push-to-start switch?

Yes

Is there 120 volts across fan contactor coil?

Yes

Replace fan contactor.

No

Check for broken wire or poor connection at harness plug.

No

Replace push-to-start switch.

No

Check for broken wire from control relay terminal 1.
Troubleshooting

17. Motor Runs But Will Not Heat

Motor Runs But Will Not Heat

- Is igniter sparking?
  - Yes
  - No

  - Is green wire from IEI control connected to ground terminal?
    - Yes
    - No

    - Connect green wire to ground terminal.

  - Is gas shut-off valve turned on?
    - Yes
    - No

    - Turn on gas shut-off valve.

  - Is 120 volts present on black wire from IEI control?
    - Yes
    - No

    - Replace IEI control.

  - Is resistance of high voltage lead greater than 28,000 ohms or less than 10,500 ohms?
    - Yes
    - No

    - Replace high voltage lead.

  - Is igniter gap not 5/32 inch (.397 cm) or is ceramic cracked?
    - Yes
    - No

    - Regap or replace igniter.

  - Is IEI control in safety lockout?
    - Yes
    - No

    - Open and close door.

  - Is gas shut-off valve turned on?
    - Yes
    - No

    - Replace gas valve.

  - Is there an open circuit on gas valve coil?
    - Yes
    - No

    - Replace gas valve.

Replace IEI control.
18. Cylinder Turns, But Will Not Heat

- Is airflow light glowing?
  - Yes
  - Is fan turning counter-clockwise as viewed from the front?
    - Yes
    - Refer to *Installation Manual* for makeup air and exhaust duct requirements.
    - No
    - No
    - Reverse any two of the electrical service leads at the fan motor contactor.
  - No
  - Open gas shut-off valve.

- Is gas shut-off valve open?
  - Yes
    - Is 120 volts present at output terminal of main thermostat?
      - Yes
      - Check for broken or loose wire to ignition control.
      - No
      - Replace main thermostat.
    - No
      - Is 120 volts present at input terminal of main thermostat?
        - Yes
        - Replace relay.
        - No
        - Is 120 volts present across coil terminals of relay?
          - Yes
          - Replace stove high limit thermostat.
          - No
          - Is 120 volts present at output terminal of stove high limit thermostat?
            - Yes
            - Check for broken or loose wire to relay.
            - No
            - Replace stove high limit thermostat.
    - No
      - Is 120 volts present at terminal 4 of relay?
        - Yes
        - Replace stove high limit thermostat.
        - No
        - Continued on next page
      - No
      - Is 120 volts present at terminal 6 of relay?
        - Yes
        - Check for broken or loose wire to main thermostat.
        - No
        - Continued on next page

TMB2130S-a
Troubleshooting

18. Cylinder Turns, But Will Not Heat (continued)

Continued from previous page

- Is 120 volts present at output terminal of airflow switch?
  - Yes: Check for broken or loose wire to stove high limit thermostat.
  - No: Next step...

- Is 120 volts present at input terminal of airflow switch?
  - Yes: Replace airflow switch.
  - No: Next step...

- Is 120 volts present at output terminal of exhaust high limit thermostat?
  - Yes: Check for broken or loose wire to airflow switch.
  - No: Next step...

- Is 120 volts present at input terminal of exhaust high limit thermostat?
  - Yes: Replace exhaust high limit thermostat.
  - No: Next step...

- Is 120 volts present on red wire of fan motor?
  - Yes: Check for broken or loose wire to exhaust high limit thermostat.
  - No: Next step...

- Is 120 volts present on brown wire of fan motor?
  - Yes: Replace fan motor.
  - No: Next step...

- Is 120 volts present on output terminal of fan contactor aux contact?
  - Yes: Check for broken or loose wire to fan motor.
  - No: Next step...

- Is 120 volts present on input terminal of fan contactor aux contact?
  - Yes: Replace fan contactor.
  - No: Check for broken or loose jumper wire to contactor contacts.
Section 4
Adjustments

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19. Drive Belt Tension
Refer to Figure 1.

NOTE: If cylinder belts will be adjusted, service them before drive belt.

NOTE: To find the proper tension, apply light thumb pressure midway between the sheave and motor pulley, and adjust until the belt can be depressed approximately 1/2 inch (13 mm).

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Support corner drive guard and remove screws holding corner guard to rear of tumbler.</td>
</tr>
<tr>
<td>b.</td>
<td>Support drive guard cover and remove screws holding guard to rear of tumbler.</td>
</tr>
<tr>
<td>c.</td>
<td>Reinstall drive guard.</td>
</tr>
<tr>
<td>d.</td>
<td>Loosen the two side bracket attaching screws.</td>
</tr>
<tr>
<td>e.</td>
<td>Turn the adjusting nuts clockwise until proper tension is reached.</td>
</tr>
<tr>
<td>f.</td>
<td>Tighten all nuts and screws.</td>
</tr>
</tbody>
</table>

![Figure 1](image-url)
20. Cylinder Belt Tension

NOTE: To find the proper tension, apply light thumb pressure midway between the cylinder sheave and the step pulley, and adjust until the belt can be depressed approximately 1/2 inch (13 mm).

a. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
b. Support drive guard cover and remove screws holding guard to rear of tumbler.
c. Loosen the four jackshaft assembly attaching screws. Refer to Figure 2.
d. Loosen adjusting nuts on outer eyebolt and rotate bottom nut clockwise until proper tension is reached. Refer to Figure 1.
e. Retighten all nuts and screws.
f. Readjust drive belt.

IMPORTANT: Adjusting the cylinder belt tension WILL AFFECT the drive belt tension. You MUST check and readjust the drive belt tension after adjusting the cylinder belt tension.

21. Fan Belt Tension

Refer to Figure 3.

NOTE: To find the proper tension, apply light thumb pressure midway between the fan motor pulley and the fan pulley, and adjust until the belt can be depressed approximately 1/2 inch (13 mm).

a. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
b. Support drive guard cover and remove screws holding guard to rear of tumbler.
c. Loosen the two mounting bracket attaching screws.
d. Raise or lower eye bolt until proper tension is reached.
e. Retighten all nuts and screws.
Adjustments

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

22. Cylinder Clearance
The clearance between the cylinder rim and front panel must be adjusted so the cylinder is centered within the front panel opening when the cylinder is fully loaded and is turning. However, the adjustment should be made when the cylinder is empty.

NOTE: If the cylinder is not properly adjusted, the cylinder rim will rub against the front panel.

a. Open loading door.
b. Check the gap between the center of the front panel top flange and the cylinder rim. Proper adjustment is when the gap is 8/32 inch ± 3/32 inch. Refer to Figure 4. Perform steps “a” through “g” to adjust the cylinder rim/front panel flange clearance.
c. Check the cylinder fore/aft clearance between the inside front of the cylinder and the edge of the front panel flange. Proper adjustment is when the gap is 9/32 inch ± 1/32 inch. Refer to Figure 4. Perform steps “h” through “m” to adjust the cylinder fore/aft clearance.

cylinder Rim/Front Panel Flange Clearance Adjustment

a. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
b. Support drive guard cover and remove screws holding guard to rear of tumbler.
c. Loosen rear bearing mounting screws. Refer to Figure 5.
d. Loosen the locknuts on rear adjustment screws. Refer to Figure 5.
e. Turn the adjusting screws in or out as necessary to obtain proper clearance between cylinder rim and front panel.

NOTE: Turning the adjusting screws clockwise will raise the cylinder and turning them counterclockwise will lower the cylinder. Turn both screws evenly to adjust top and bottom clearance. Turn one or the other adjusting screw in or out to adjust side clearance.

f. After the cylinder is properly adjusted, tighten the adjusting screw locknuts and the rear bearing mounting screws.
g. Install drive guard cover.

NOTE: If adjusting the trunnion housing fails to correct the clearance, the problem is probably due to a worn trunnion shaft or defective bearings.

Cylinder Fore/Aft Clearance Adjustment

h. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
i. Support drive guard cover and remove screws holding guard to rear of tumbler.
j. Loosen setscrews in the front bearing assembly collar and rear bearing assembly collar. Refer to Figure 5.
k. Move cylinder assembly in or out as necessary to obtain proper clearance between the cylinder and the front panel.
l. After the cylinder is properly adjusted, tighten setscrews in the front and rear bearing assembly collars.
m. Install drive guard cover.
Adjustments

Figure 4

Figure 5