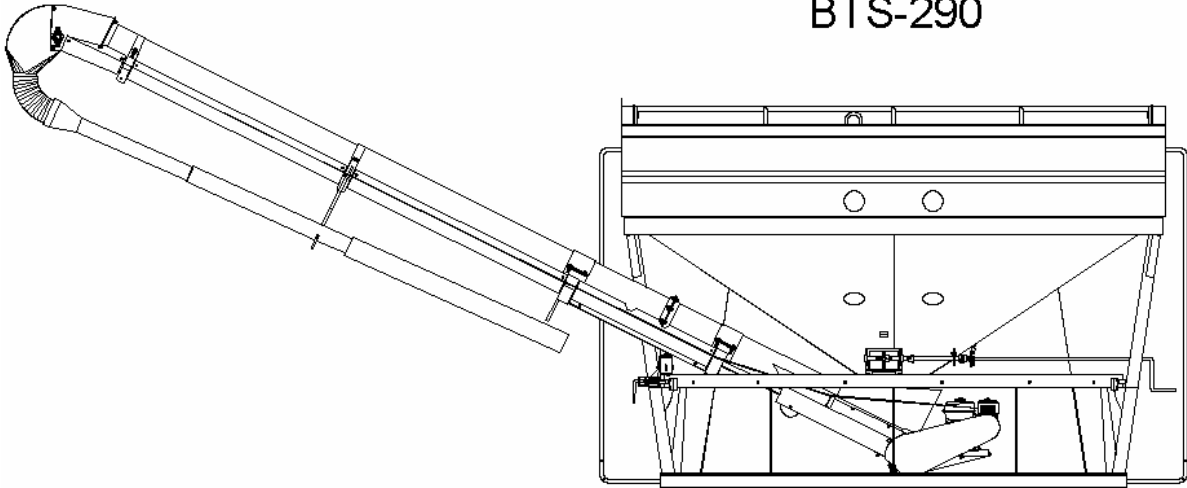


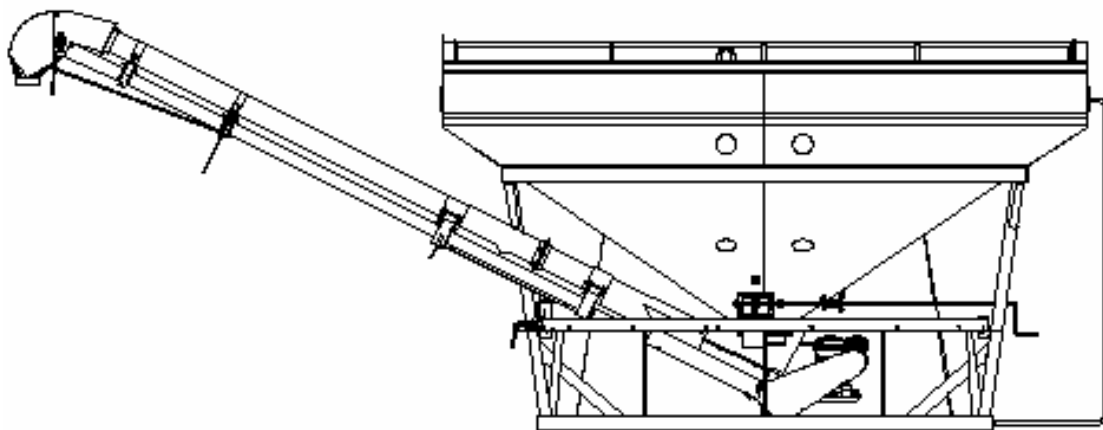
# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

BTS-290



BTS-360



**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**Table of Contents**

**Convey-all Industries Administrative Information**

Limited Warranty  
Warranty Registration Form  
Warranty Claim form  
Safety

**Operation Instructions For BTS 290 & 360**

**Section 1      Safety**

- General Safety
- Operating Safety
- Conveyor Transport
- Maintenance Safety
- Refueling Safety
- Storage Safety
- Battery Safety
- Gas Motor Safety
- Safety Signs
- Sign-Off Form

**Section 2      Operation**

- Introduction
- Machine Break-In
- Pre-Operation checklist
- Gas Engine
- Control
- Operating
- Storage

**Section 3      Service**

- Fuels, Fluids and Lubricants
- Greasing
- Servicing Intervals
- Service Records

**Section 4      Maintenance**

- Conveyor Belt Tension and Alignment
- Cleaning air cleaner
- Changing Engine oil and filter
- Drive Belt Tension and Alignment

**Section 5      Assembly Instructions**

- Conveyor Assembly Instructions (Basic)
- Conveyor Assembly Instructions (Complete)
- Gas Drive Assembly

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**Section 6**  
**Section 7**

**Trouble Shooting**  
**Specifications**

- Bolt Torque
- Reference Drawings

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**LIMITED WARRANTY**

**Convey-All** warrants to the buyer that the new machinery is free from defects in material and workmanship.

This warranty is only effective as to any new machinery which has not been altered, changed, repaired or treated since its delivery to the buyer, other than by **Convey-All** or its authorized dealers or employees, and does not apply to accessories, attachments, tools or parts, sold or operated with the new machinery, if they have not been manufactured by **Convey-All**.

**Convey-All** shall only be liable for defects in the materials or workmanship attributable to faulty material or bad workmanship that can be proved by the buyer, and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery or in any other manner whatsoever, and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with **Convey-All** operator's manual, specifications, or printed instructions.

Written notice shall be given by registered mail, to **Convey-All** within seven (7) days after the defect shall have become apparent or the repairs shall have become necessary, addressed as follows: **Convey-All, Box 2008, 130 Canada St., Winkler, Manitoba, R6W 4B7**.

This warranty shall expire one (1) year after the date of delivery of the new machinery.

If these conditions are fulfilled, **Convey-All** shall at its own cost and at its own option either repair or replace any defective parts provided that the buyer shall be responsible for all expenses incurred as a result of repairs, labour, parts, transportation or any other work, unless **Convey-All** has authorized such expenses in advance.

The warranty shall not extend to any repairs, changes, alterations, or replacements made to the new equipment other than by **Convey-All** or its authorized dealers or employees.

This warranty extends only to the original owner of the new equipment.

This warranty is limited to the terms stated herein and is in lieu of any other warranties whether express or implied, and without limiting the generality of the foregoing, excluded all warranties, express or implied or conditions whether statutory or otherwise as to quality and fitness for any purpose of the new equipment. **Convey-All** disclaims all liability for incidental or consequential damages.

This machine is subject to design changes and **Convey-All** shall not be required to retro-fit or exchange items on previously sold units except at its own option.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

# CONVEY - ALL INDUSTRIES INC.

Photocopy this  
page and return it  
to Convey-All

## WARRANTY REGISTRATION FORM & INSPECTION REPORT

This form must be filled out by the dealer and signed by the customer at the time of Delivery.

Customer Name \_\_\_\_\_ Dealer Name \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

City, State/Prov. \_\_\_\_\_ City, State/Prov. \_\_\_\_\_

Postal Code \_\_\_\_\_ Postal Code \_\_\_\_\_

Phone Number (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Model Number \_\_\_\_\_ Application \_\_\_\_\_

Serial Number \_\_\_\_\_ Private \_\_\_\_\_

Delivery Date \_\_\_\_\_ Commercial \_\_\_\_\_

### DEALER INSPECTION REPORT

### SAFETY

- \_\_\_\_\_ All Fasteners Tight
- \_\_\_\_\_ Drive System Rotates Freely
- \_\_\_\_\_ Drive line Secured To Machine
- \_\_\_\_\_ Hydraulic Hoses Free and Fittings Tight
- \_\_\_\_\_ Drive Aligned and Tensioned
- \_\_\_\_\_ Belting Moves Freely
- \_\_\_\_\_ Check Belting Tension and Alignment
- \_\_\_\_\_ Lubricate Machine
- \_\_\_\_\_ Check Tire Pressure

- \_\_\_\_\_ All Guards and Shields Installed and Secured
- \_\_\_\_\_ All Safety Signs Installed and Legible
- \_\_\_\_\_ Reflectors Clean
- \_\_\_\_\_ Review Operating and  
Safety Instructions

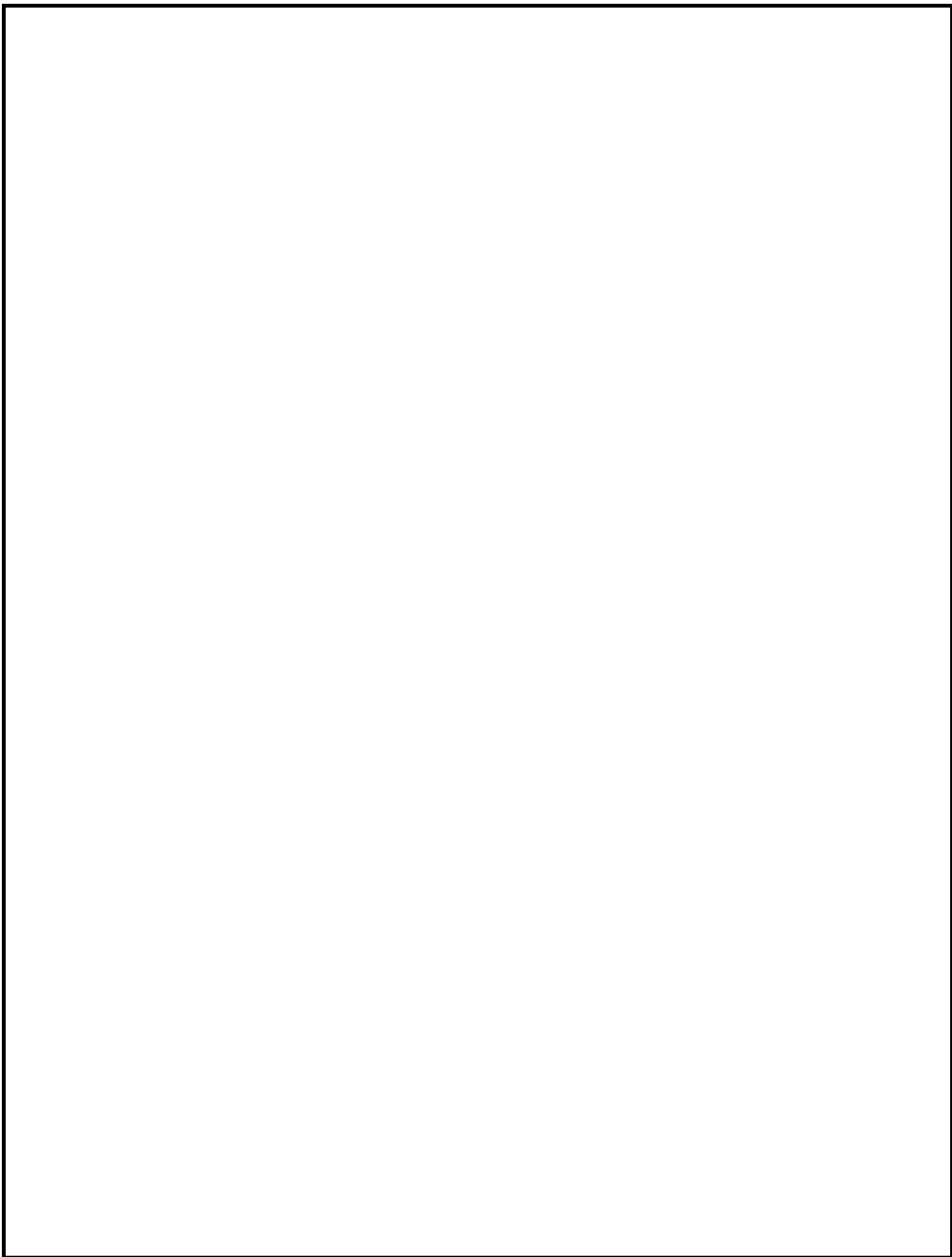
I have thoroughly instructed the buyer on the above described equipment, which review included the Operator's Manual content, Equipment care, Adjustments, Safe operation and applicable Warranty policy.

Date \_\_\_\_\_ Dealer's Signature \_\_\_\_\_

The above Equipment and Operator's manual have been received by me and I have been thoroughly instructed as to Care, Adjustments, Safe operation and applicable Warranty policy

Date \_\_\_\_\_ Owners Signature \_\_\_\_\_

CONVEY - ALL INDUSTRIES INC. 130 Canada St. Box 2008, Winkler Manitoba Canada, R6W 4B7



# Convey-All Industries Inc.

## Warranty Claim Form

**Date:** \_\_\_\_\_  
**Dealer Name:** \_\_\_\_\_ **Address:** \_\_\_\_\_  
**City:** \_\_\_\_\_ **Prov:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_ **Fax:** \_\_\_\_\_  
**Customer Name:** \_\_\_\_\_ **Address:** \_\_\_\_\_  
**City:** \_\_\_\_\_ **Address:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Equipment Type**  
**Model;** \_\_\_\_\_ **Serial #:** \_\_\_\_\_ **Invoice #** \_\_\_\_\_ **Invoice date:** \_\_\_\_\_

**Description of problem:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Cause Of Problem:** \_\_\_\_\_  
 \_\_\_\_\_

**Original Installation Done By:** \_\_\_\_\_

**Parts Required**

Part #	Description	Cost	Paid by

**Work To Be Done By:** \_\_\_\_\_

**Discussions and Action Taken**

Date	Description	

**Completed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_





This Safety Alert symbol means  
**ATTENTION! BECOME ALERT!**  
**YOUR SAFETY IS INVOLVED!**

## Safety

The Safety Alert symbol identifies important safety messages on the Convey-All Belt Tube Conveyor and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Following the instructions in the safety message.



## Why is SAFETY important to you?

### 3 Big Reasons

**Accidents Disable and Kill**  
**Accidents Cost**  
**Accidents Can Be Avoided**

### SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal words for each message has been selected using the following guide-lines:

**DANGER-** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situation, typically for machine components that, for functional purposes, cannot be guarded.

**WARNING-** Indicates a potential hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices

**CAUTION-** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## **SAFETY**

**YOU** are responsible for the **SAFE** operation and maintenance of your Convey-All Belt Conveyor.

**YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Belt Conveyor be familiar with the operation and maintenance procedures and related **SAFETY** information contained in this manual.

This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the Conveyor.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Conveyor owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow them. Most accidents can be avoided.
- A person who has not read and understood all Operating and Safety instructions is not qualified to operate the machine. An untrained operator exposes him/herself and bystanders to possible serious injury or death.
- **Think SAFETY! Work SAFELY!**

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**SECTION 1**

**GENERAL SAFETY**

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the Conveyor.
2. Only trained competent persons shall operate the Conveyor. An untrained operator is not qualified to operate the machine.
3. Have a first-aid kit available for use should the need arise and know how to use it.
4. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
5. Do not allow children spectators or bystanders with hazard area of machine.
6. Wear appropriate protective gear. This list includes but is not limited to:
  - A hard Hat
  - Protective shoes with slip resistant soles
  - Protective Goggles
  - Heavy gloves
  - Hearing protection
  - Respirator or filter mask
7. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
8. Review safety related items annually with all personnel who will be operating or maintaining the Conveyor.

**OPERATING SAFETY**

1. Read and understand the Operator's Manual and all safety signs before using.
2. Gas engine drive: Stop engine, place all controls in neutral, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Clear the area of bystanders, especially children, before starting.
4. Be familiar with machine hazard area. If anyone enters hazard areas, shut down

machine immediately. Clear the area before restarting.

5. Keep hands, feet, hair and clothing away from all moving and/ or rotating parts.
6. Do not operate machine when any guards are removed.

**CONVEYOR TRANSPORT SAFETY**

1. Roller bracket lock pin through end rail hole
2. Over-center latch securely locked onto roller bracket.
3. Fuel switch in "off" position (gas drive units)
4. Throttle rope secured
5. Downspout secured
6. Roll tarp closed (if carrying product)
7. Roll tarp crank secured

**MAINTENANCE SAFETY**

8. Review the Operator's Manual and all safety items before working with, maintaining or operating Conveyor.
9. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
10. Follow good shop practices:
  1. Keep service area clean and dry.
  2. Be sure electrical outlets and tools are properly grounded,
  3. Use adequate light for the job at hand.
4. Before applying pressure to a hydraulic system, make sure all components are tight and the hoses and couplings are in good condition.
5. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
6. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
7. Before resuming work, install and secure all guards when maintenance work is completed.
8. Keep safety signs clean. Replace any sign

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

that is damaged or not clearly visible.

### **REFUELING SAFETY**

1. Handle fuel with care. It is highly flammable.
2. Allow engine to cool for 5 minutes before refueling. Clean up spilled fuel before restarting engine.
3. Do not refuel the machine while smoking or when hear open flame or sparks.
4. Fill fuel tank outdoors.
5. Prevent fires by keeping machine clean of accumulated trash, grease and debris.

### **STORAGE SAFETY**

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.

### **BATTERY SAFETY**

1. Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive.
2. Avoid contact with battery electrolyte: wash off any spilled electrolyte immediately.
3. Wear safety glasses when working near batteries.
4. Do not tip batteries more then 45 degrees, to avoid electrolyte loss.
5. To avoid injury from spark or short circuit, disconnect battery ground cable before servicing and part of the electrical system.

### **GAS MOTOR SAFETY**

**BEFORE STARTINT ENGINE, READ AND UNDERSTAND THE OPERATING AND MAINTENANCE INSTRUCTIONS THAT CAME WITH YOUR ENGINE.**

#### **WARNING: DO NOT!**

1. **DO NOT** run engine in an enclosed area. Exhaust cases contain carbon monoxide, an

odorless and deadly poison.

2. **DO NOT** place hands or feet near moving or rotating parts.
3. **DO NOT** store, spill, or use Gas near an open flame, or devices such as a stove, furnace, or water heater which use a pilot light or device which can create a spark.
4. **DO NOT** refuel indoors where area is not well ventilated. Outdoor refueling is preferred.
5. **DO NOT** fill fuel tank while engine is running. Allow engine to cool for 5 minutes before refueling. Store fuel in approved safety containers.
6. **DO NOT** remove fuel cap while engine is running.
7. **DO NOT** operate engine if Fuel is spilled. Move machine away fro the spill and avoid creating any ignition until the diesel have evaporated.
8. **DO NOT** smoke when filling fuel tank.
9. **DO NOT** choke carburetor to stop engine. Whenever possible, gradually reduce engine speed before stopping.
10. **DO NOT** run engine above rated speeds. This may result in injury.
11. **DO NOT** tamper with governor springs, governor links or other parts which may increase the governed engine speed.
12. **DO NOT** tamper with the engine speed selected by the original equipment manufacturer.
13. **DO NOT** check for spark with spark plug or spark plug wire removed. Use an approved tester.
14. **DO NOT** crank engine with spark plug removed. If engine is flooded, place throttle in "FAST" position and crank until motor starts.
15. **DO NOT** strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation. Use proper tools to service engine.
16. **DO NOT** operate engine without muffler. Inspect periodically and replace, if necessary. If engine is equipped with muffler deflector, inspect periodically and replace, if necessary with correct deflector.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

17. DO NOT operate engine with an accumulation of grass, leaves, dirt or other combustible materials in the muffler area.
18. DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on the muffler. The arrester must be maintained in effective working order by then operator. In the State of California the above is required by law (Section 4442 or the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.
19. DO NOT touch hot muffler, cylinder or fins because contact may cause burns.
20. DO NOT run engine with air cleaner or air cleaner cover removed.

**WARNING: DO**

1. ALWAYS DO remove the wire from the spark plug when servicing the engine or equipment TO PREVENT ACCIDENTAL STARTING. Disconnect the negative wire from the battery terminal if equipped with a 12 volt starting system.
2. DO keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
3. DO examine muffler periodically to be sure it is functioning effectively. A worn or leaking muffler should be repaired or replaced as necessary.
4. DO use fresh diesel. Stale fuel can gum carburetor and cause leakage.
5. DO check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.

**SAFETY SIGNS**

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from you Distributor or the factory.

**How to Install Safety Signs:**

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using a piece of sign backing paper.



**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**SECTION 2**

**INTRODUCTION**

**TO THE NEW OWNER OR OPERATOR**

**It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, and prudence of personnel involved in the operation, transport, maintenance and storage of equipment or in the use and maintenance of facilities.**

**Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the are around the worksite. Untrained operators are not qualified to operate the machine.**

Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to set it to provide maximum efficiency. By following the operating instructions in conjunction with a good maintenance program, your Conveyor will provide many years of trouble-free service.

**MACHINE BREAK-IN**

Although there are no operational restrictions on the Conveyor when used for the first time, it is recommended that the following mechanical items be checked:

- A) Before starting work:
1. Read the Conveyor and Engine (if so equipped) Operator's Manuals.

- B) After operating or transporting for ½ hour:
1. Re-torque all the fasteners and hardware.
  2. Check the drive belt tension and alignment. Tension or align as required.
  3. During the conveyors first few minutes of operation, check belt alignment to ensure preset alignment and tension does not vary under loaded conditions.
  4. Check the flashing seal on the input hopper. If any product comes out of the hopper around the flashing, stop, loosen flashing mounting screws and adjust. Retighten anchor screws and try again.
  5. Check that all guards are installed and working as intended.

- C) After operating for 5 hours and 10 hours:
- 1) Repeat items 1 through 5 above.
  - 2) Change the engine crankshaft oil (if so equipped).
  - 3) Then go to the normal servicing schedule as defined in the Maintenance Section

**PRE-OPERATION CHECKLIST**

Efficient and safe operation of the Belt Conveyor requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both the personal safety and maintaining the good mechanical conditions of the Conveyor that this checklist it followed.

Before operating the Conveyor each time thereafter, the following areas should be checked off:

1. Servicing the machine per the schedule outlined in Section 3 (Service) and Section 4 (Maintenance).
2. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
3. Check worksite. Clean up working area to prevent slipping or tipping.



**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

4. Check that drive and conveying belts are not frayed or damaged and that they are properly adjusted and aligned.
5. Check that discharge and intake area are free of obstructions.

**IMPORTANT**

Anchoring and/or support of conveyor during operation is necessary. When lower half of Conveyor empties of material, the weight balance transfers to the upper end of the machine, which can cause upending.

**GAS ENGINE**

Refer to the Operator's Manual for the Honda engine that came with your unit.

**CONTROLS**

Before starting to work, all operators should familiarize themselves with the location and function of the controls.

**GAS DRIVE:**

**1. Ignition switch:**

The switch controls the electrical power to the engine electrical system. Turn the switch counterclockwise to turn OFF. Turn clockwise to the first position for ON.

If your machine is equipped with electric start, turn the switch clockwise to the second detent (spring-loaded) to engage the starter. Release the switch when the engine starts and the switch returns to the ON position.

**2. Choke:**

This lever controls the position of the choke. Slide the lever to the left to close the choke valve for starting when the engine is cold. Slide to the right to open the choke as the engine warms. Always open the choke fully when operating the machine.

**3. Throttle:**

This lever controls the engine RPM. Move the lever to the left to increase the engine speed and right to decrease. Always run at

maximum engine RPM when operating.

**4. Fuel shut-off switch:**

This switch controls the flow of fuel to the engine. Turn the switch to its vertical position to close the valve and stop the flow of fuel. Turn the switch to its horizontal position to open the valve and the engine will run.

**5. Starting rope:**

This retracting rope and T bar is used to turn the engine over for starting. Grasp the T bar firmly and pull the rope sharply to start the engine. Close the choke if the engine is cold.

**OPERATING**

When using the Conveyor, follow this procedure:

1. Clear the area of bystander, especially small children, before starting.
2. Review the Pre-Operation Checklist before starting.

**Starting:**

1. Start the gas engine
2. start the flow of material and unload

**Stopping:**

1. Run until the belting is empty.
2. Turn off the motor and lock out power source.
3. **Emergency stopping:**  
Although it is recommended that the tube be emptied before stopping, in an emergency situation, stop or shut-down the engine immediately. Correct the emergency before resuming work.
4. **Restarting (full tube):**  
When the machine is shut-down inadvertently or for an emergency, the belting will still be filled with material. Since the start-up torque loads are much higher than normal when the belting is full, restart at low speed if possible. It may be necessary to tighten the drive belts slightly to handle the heavier than normal loads.
5. **Belt Speed:**

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

The best results are obtained when the input drives are set to provide a belt speed of 350 to 500 ft./min. Count the number of belt revolutions per unit time to determine belt speed. Belt length is double the length of your machine plus 1 foot. Use the connector splice as a reference when counting belt revolutions.

Contact your dealer or factory for the appropriate drive components to give the recommended belt speed.

**6. Operating Hints:**

- a. Direct the flow of material into the input hopper when moving material. Best results will be obtained when flow of incoming materials are directed to the front (upper) are of hopper and materials being dumped is center in hopper. Keep the hopper full for maximum capacity.
- b. Always listen for any unusual sounds or noises. If any are heard, stop the machine and determine the source. Correct the problem before resuming work.
- c. Never allow anyone into the workplace hazard area. If anyone enters, stop immediately. Make them LEAVE before resuming work.
- d. Do not run the machine for long periods of time with no material on the belting. It increases the wear. Try to run only when moving material.
- e. Keep intake end completely covered with material for maximum capacity.

**STORAGE**

After a season's use, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged

components to prevent any unnecessary down time at the start of the next season. To ensure long, trouble free life, this procedure should be followed when preparing the unit for storage.

1. Remove all residual material from the hopper and the tubes
2. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris or residue.
3. Inspect all moving or rotating parts to see if anything have become entangled in them. Remove the entangled material.
4. Inspect all hydraulic hoses, fittings, lines, couplers and valves. Tighten any loose fittings. Replace any hose that is badly cut, nicked or abraded or is separating from crimped end of the fitting.
5. Touch up all paint nicks and scratches to prevent rust.
6. Select an area that is dry, level and free of debris.
7. If the Conveyor is not being stored in a storage facility then it should be placed in its lowest position.

**SECTION 3**

**SERVICE**

**FLUIDS AND LUBRICANTS**

1. Grease  
Use SAE multi-purpose high temperature grease with extreme pressure (EP) performance. Also acceptable is an SAE multi-purpose lithium based grease.
2. See Operator's Manual for 3TNV88 specs on appropriate oil types to use. Also check for fuel type.
3. Storing lubricants  
Your machine can operate at top efficiency only if clean lubricants are used. Use clean containers to handle all lubricants. Store then in an area protected from dust, moisture and other contaminants.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**GREASING**

Use the maintenance Checklist provided to keep an accurate record of all scheduled maintenance.

1. Use a hand-held grease gun for greasing.
2. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
3. Replace and repair broken fittings immediately.
4. If fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

## **SERVICING INTERVALS**

### **Initial Start-Up Servicing:**

As the belt alignment is preset to run true under a condition of no load, it is important to check alignment and make adjustments, if required during the initial few minutes of loaded operation.

### **10 Hours or Daily**

#### **Gas Drive**

1. Check fuel levels. Add as required.
2. Check crankcase oil level. Add as required

#### **Conveyor**

1. Grease tail roller bearings.
2. Grease upper end belt roller bearings.

### **40 Hours or Weekly**

#### **Belt Conveyor**

1. Check the Conveying belt tension. The conveying belt should not slip on its drive roller during operation.
2. Check condition of hopper seals. Be sure it seals the hopper and prevents leaking.
3. Check the conveying belt tracking
4. Check alignment of the conveying belt.
5. Check drive belt tension and alignment.

#### **Gas Drive**

1. Clean air cleaner foam.

#### **NOTE**

Clean more frequently in very dirty or dusty conditions.

### **200 Hours or Annually**

#### **Belt Conveyor**

1. Check for tube straightness.
2. Grease upper guide roller ends.
3. Repack wheel bearings.
4. Wash machine.

## SERVICE RECORD

See Lubrication and Maintenance sections in Operator's Manual's for details of service. Copy this page to continue record.

ACTION CODE:     = CHECK                    CL = CLEAN                    R = REPACK  
                                  L = LUBRICATE                    C = CHANGE

<b>HOURS</b>														
<b>MAINTENANCE</b>	<b>SERVICED BY</b>													
<b>10 HOURS or DAILY</b>														
<input checked="" type="checkbox"/> Fuel Level & Crank Oil Levels														
L Tail Roller Bearings														
L Upper End Roller Bearings														
L Drive Box Bearings														
<b>40 HOURS or WEEKLY</b>														
<input checked="" type="checkbox"/> Conveyor Belt Tension & Hopper Seals														
<input checked="" type="checkbox"/> Conveyor Belt Tracking														
<input checked="" type="checkbox"/> Alignment Conveyor Belt														
CL Air Cleaner Foam														
<b>200 HOURS or ANNUALLY</b>														
<input checked="" type="checkbox"/> Tube Straightness														
L Upper Guide Roller Ends														
R Wheel Bearing														
CL Machine														
C Engine Oil														

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**SECTION 4**

**MAINTENANCE**

By following a careful service and maintenance program for your machine, you will enjoy many years of trouble-free service.

**CONVEYOR BELT TENSION  
& ALIGNMENT**

A flat belt is used to convey material through the tube. The tension and alignment of the belt should be checked weekly, or more often if required, to be sure that it does not slip or run to one side.

To maintain the belt, follow this procedure:

1. Place all controls in neutral or off, stop engines or motors and disable power source before working on belt.
2. **Tension:**
  - a. Use the intake idler roller position bolts to set the tension of the belt.
  - b. The tension is correct when the belting deflects 5 to 6 inches when pulled with a 40 lb. force at the center of a 9 to 10 foot span.
  - c. **A properly tensioned belt will not slip when it is operating.**
3. **Alignment:**

The belting is properly aligned when the belt runs in the center of the rollers on the end and in the drive housing.

  1. **Checking alignment:**

Use the drive and idler roller in the driving assembly to set the tension

and alignment. The belt should be centered.

Turn the belt ½ revolution when the belt is new and check the drive and idler roller. If out of alignment, the belt will move to the loose side. Loosen the roller bearing assembly mounting bolts and use the bearing position bolts to set the position. Tighten mounting bolts. Run a couple of revolutions and check again. Check frequently during the first few minutes of operation and then several times during the first 10 hours. The belt normally seats itself during the first 10 hours of operation and can be checked weekly after that.

2. **Adjusting Tracking:**

A misaligned belt will track towards the loose side. Set the tracking by loosening the bearing mounts on the tight side and using the bearing position bolt to move the end of the roller into the required position. Tighten the bearing mounts.

Move the belting another revolution and check the tracking again. Loosen the tight side slightly again if required. Repeat the adjusting and checking procedure until the belting centers on the input end roller and stays centered when running.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

Always repeat this aligning procedure when installing a new belt. Check frequently during the first 10 hours, the belt is normally seated and checking the alignment can be done less frequently.

**NOTE**

Use a square to align the small guide roller at 90° to the main tube. Misaligned guide rollers can skew the belt during operation or fray the edges of the belt.

**4. Belt Replacement:**

- a. Rotate the belting until the seam is between the drive housing and the intake.
- b. Move the tension roller in the drive housing in its loosest position
- c. Pull all the slack to the seam area.
- d. Remove the lacing pin and open the belt.
- e. Attach one end to the replacement belt to the belt end being removed.
- f. Pull the old belt out and the new belt will be threaded into place.
- g. Disconnect the old.
- h. Connect the ends of the new belt together and secure.
- i. Set the belting tension.
- j. Check and set the belting alignment.

**CLEANING AIR CLEANER**

1. Review the Operator's Manual for the

- engine.
2. Place all controls in neutral, stop engine and remove ignition key before maintaining.
3. Remove the cover over the air cleaner.
4. Remove the foam from the engine.
5. Use an air hose to blow the dust and debris out of the foam.
6. Install foam.
7. Install and secure the cover.

**CHANGING ENGINE OIL AND FILTER**

1. Review the Operator's Manual for the engine.
2. Place all controls in neutral, stop engine, and remove ignition key before maintaining.
3. Allow the engine to cool before changing the oil. Hot oil can cause burns if it contacts exposed skin. It is best to change oil while then engine is warm to keep the contaminants in suspension.
4. Place a pan under the drain plug.
5. Remove the drain and allow the oil to drain for 10 minutes.
6. Install and tighten the drain plug.
7. Dispose of the used oil in an approved container.
8. Remove engine oil filter.
9. Apply a light coat of oil to the O ring and install the replacement filter. Snug up by hand and then tighten another 1/2 turn.
10. Fill the crankcase with specified oil.
11. Run the engine 1-2 minutes and check for oil leaks.
12. If leaks are found around the drain plug or filter, tighten slightly. Repeat step 9.
13. Check engine oil level. Top up as required.

**DRIVE BELT TENSION AND**

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**ALIGNMENT**

Power to the Conveyor Belt is transmitted through a set of V belts. The drive system must be maintained at the proper belt tension and pulley alignment to obtain the desired performance and life. When maintaining the drive system, follow this procedure:

8. Turn off and unplug power cord or turn off power at the master panel before starting on the drive belts.
9. **Belt tension:**
  - a. Push on the center of the belt span with a force of approximately 5 lbs.
  - b. The belts will deflect approximately 1/4" to 1/2" with properly tensioned.
  - c. Move the motor base or cross shaft to set drive belt tension.
  - d. Close and secure guards.
10. **Alignment:**
  - a. Lay a straight-edge across the pulley faces to check the alignment.
  - b. Use the pulley hub to move the pulley to the required position for alignment.
  - c. Tighten hub bolts to secure pulley on shaft.
  - d. Check belt tension.
  - e. Close belt guards.



## **SECTION 5**

### **ASSEMBLY INSTRUCTIONS**

#### **Conveyor Assembly Instructions (Basic)**

Conveyors are fully assembled and tested at factory, but for shipping purposes tender units come with the conveyor partially disassembled. Pre-assembly at the factory ensures correct operation and provides minimal assembly for the end user. The following is a list of items already assembled upon delivery, and are not covered in this section "*Basic Conveyor Assembly Instructions*". If fine-tuning or adjustment is required for any of these items, refer to the "*Complete Conveyor Assembly Instructions*".

1. Hopper with drive roller and flashing (comes mounted inside tender)
2. Return rollers and brackets
3. Discharge with idler roller
4. Swivel pin assembly
5. Downspout transport hook
6. Gate, cranks, and chutes
7. Roll tarp system
8. Gas motor, mounts, pulleys, and V-belt (gas drive models only)

The following steps outline what is required for final assembly of conveyor upon delivery.

#### **1. Tube and Discharge Assembly**

Begin by un-strapping the tube and discharge assembly from tender. Using a lift strap, find the balancing position of the conveyor tube and gently lift it into place against the hopper tube flange. Marks are made on the mating tube flanges at factory prior to disassembly, indicating correct alignment of the hopper with the discharge. Be sure to align these marks before inserting and tightening fasteners through tube flanges. (Note: It is critical that the hopper and discharge sections are level to ensure proper belt tracking)

#### **2. Belt Installation / Tensioning**

The conveyor belt already comes partially installed. Simply pull the belt as needed to join the two ends together. Be sure the belt is laid over top of all the return rollers and the roller bracket tubing, and not underneath. Join both ends by inserting the connector cable through both lacing connectors. Once the connector cable is fully inserted, crimp both ends of the lacing over the cable to prevent it from slipping out in the future. With the belt loosely installed, it can now be tensioned by turning the bolts connected to the tension brackets in the hopper. The

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

belt should be tensioned until snug to prevent any slippage during operation. Be sure not to make it overly tight, as this will cause premature wear. After the first several uses, the belt may need to be re-tensioned due to normal stretching.

### **3. Weather Guards**

Weather guards are mounted on small tabs coming off from the return roller brackets and held in place with self-tapping screws. Holes are predrilled in the weather cover so it can be simply positioned and screwed in place. The roller bracket wind guard section comes in two halves and can be secured by fastening screws through the roller bracket tabs on top, and into the stiffener tube in the bottom. Both halves are the same and a notch out is provided to fit around the tube flange connection. Similarly, the discharge wind guard section is fastened by inserting screws through the upper return roller bracket, and into the discharge box. It is recommended that the center wind guard section remain temporarily uninstalled so a lift strap can be attached to lift the conveyor into the tender.

### **4. Running Conveyor**

With the conveyor fully assembled, it should be test run to ensure everything is working correctly. Assemble the drive components as outlined in the “*Drive Assembly*” section. Once complete, start conveyor, run at approximately 1/3 power to get the belt moving, and check overall operation. Before running at full power, check specifically the drive roller (hopper) and idler roller (discharge) for proper belt alignment. If the belt is running to one side of the roller, apply more tension to this side until the belt runs centered on the roller. For the drive roller, adjust tension bolts on either side of hopper as necessary to achieve correct belt alignment and tension. For the idler roller, loosen bolts in bearings per side as necessary to align belt before re-tightening. The belt should not put excessive pressure on either side of the discharge box, as this will cause premature wear.

### **5. Downspout**

Mount downspout to the discharge hood using the attached hose clamp. Use the bungee hook to secure the downspout to the conveyor. The conveyor should now be fully assembled.

## **Conveyor Assembly Instructions (Complete)**

- 1. Basic Hopper, Tube, and Discharge Assembly**  
Begin by setting up the tube so that the seam is to the top. Attach the discharge to the tube end with ½" of tube protruding past the flange. (Note: One end protrudes ½" and the other is inset ½") Level discharge (with tube seam still to the top) before fully tightening fasteners. Attach hopper to the tube end with ½" inset. Tighten fasteners after ensuring that hopper section is level with discharge section. (Note: It is critical that the hopper and discharge sections are level to ensure proper belt tracking)
- 2. Return Rollers & Brackets**  
With basic hopper, tube, and discharge assembled, attach roller brackets and tube clamps to the tube at the positions shown. Be sure to install the return roller brackets so that the loops are on the same side as they are for the roller bracket. Place a level along the bottom of the roller brackets to ensure they are level while tightening fasteners. Insert return rollers through hex holes in return roller brackets. Hex shafts on return rollers are spring loaded to allow one end to be compressed while assembling.
- 3. Hopper Return Roller**  
Install return roller mount plates into hopper channel as shown. Then insert flanged return roller into mount plates, similar to above. To ensure proper tracking for this roller, make sure that the distance from the mount plate to the end of the hopper channel is the same for both sides before fully tightening fasteners.
- 4. Hopper Drive Roller**  
Install drive roller with bearings and tension brackets into hopper with the keyed side of the shaft exiting to the side shown. Large slots are provided in the hopper side channels to allow for adjustment for belt tensioning. For now, assembly roller in hopper so that it is positioned as far forward as possible, providing room for later tensioning.
- 5. Discharge Idler Roller**  
Remove hood from discharge to allow access for idler roller assembly. Install idler roller with bearings into discharge body as shown. Pull roller fully forward (towards hood), before tightening fasteners.
- 6. Belt Installation / Tensioning**  
With the discharge hood still off, install the conveyor belt by pushing it through the discharge, down the tube into the hopper. For rubber belting (with zigzag pattern), it does not matter which end of the belt goes in first, as long as the ribbed

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

portion of the belt is facing upwards, and the smooth side is against the tube. Once the belt is into the hopper, it can be pulled for the remaining distance. Be sure the belt is laid over top of all the return rollers and the roller bracket tubing, and not underneath. Join both ends by inserting the connector cable through both lacing connectors. Once the connector cable is fully inserted, crimp both ends of the lacing over the cable to prevent it from slipping out in the future. With the belt loosely installed, it can now be tensioned by turning the bolts connected to the tension brackets in the hopper. The belt should be tensioned until snug to prevent any slippage during operation. Be sure not to make it overly tight, as this will cause premature wear. After the first several uses, the belt may need to be re-tensioned due to normal stretching.

**7. Hopper Flashing**

With the belt in place, the hopper flashing can now be installed. It is critical that the hopper flashing be installed correctly to provide a leak free hopper. The hopper flashing pieces need to be installed at the same time because the same fasteners are used to attach two different pieces of flashing. Begin by installing the long narrow side flashing, with the wider curved end towards the drive roller. Lay them inside the hopper flow panels, making sure the holes in the flashing line up with the holes in the flow panel. Then place the large rubber hopper liner over top of the side flashing. Insert fasteners from the inside through the rubber liner, the side flashing, and lastly the steel flow panel. Assemble the other side the same way. For the rear flashing, insert four fasteners through the rubber liner, then the hopper end plate (steel cross member), and finally through the end flashing. Be sure to fold the two corners of the end flashing over so that the fastener goes through both holes. Again, be sure the smooth head of the fastener is to the inside of the hopper. To secure the ends of the rubber liner, drill two 1/4" holes through the tube as shown, insert the rubber liner to the inside of the tube and secure with fasteners. Once all the pieces are attached they should be inspected and adjusted if necessary to ensure the side and end flashing pieces are tight against the belt, and that there are no ripples or loose sections allowing product to escape.

**8. Weather Guards**

Weather guards are mounted on small tabs coming off from the return roller brackets and held in place with self-tapping screws. Holes are predrilled in the weather cover so it can be simply positioned and screwed in place. The roller bracket wind guard section comes in two halves and can be secured by fastening screws through the roller bracket tabs on top, and into the stiffener tube in the bottom. Both halves are the same and a notch out is provided to fit around the tube flange connection. Similarly, the discharge wind guard section is fastened by inserting screws through the upper return roller bracket, and into the discharge box. It is recommended that the center wind guard section remain temporarily uninstalled so a lift strap can be attached to lift the conveyor into the tender.

**9. Swivel Pin**

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

Attach the swivel pin to the mount plate using the large T-bolt provided. The swivel pin and plate assembly can then be attached to the bottom of the hopper with four bolts. Fasten the plate to the hopper so that the fasteners are centered in the slots, leaving room for future adjustment in both directions if necessary.

**10. Mounting Conveyor**

The conveyor should now be ready to be installed into the tender. (Note: Units equipped with a gas drive should leave the motor off until conveyor is mounted inside tender) Using a lift strap, find the balancing position on the conveyor and gently lift it into place in the tender. Insert the swivel pin through the bushing plate and attach the large lock nut on the bottom to prevent it from coming back out. This nut should be snug to prevent unwanted play in the swivel assembly, but not too tight (causing conveyor to swing hard) nor too loose (allowing excessive play). Continue to lower conveyor in place until the roller bracket makes contact with the rail. Before releasing the full weight of the conveyor onto the rail, ensure the wheels are centered correctly over the rail. If not, loosen the two nuts holding the roller bracket in place and adjust as necessary before re-tightening.

**11. Running Conveyor**

With the conveyor assembled and mounted in place, it should be test run to ensure everything is working correctly. Assemble the drive components as outlined in the “*Drive Assembly*” section. Once complete, start conveyor, run at approximately 1/3 power to get the belt moving, and check overall operation. Before running at full power, check specifically the drive roller (hopper) and idler roller (discharge) for proper belt alignment. If the belt is running to one side of the roller, apply more tension to this side until the belt runs centered on the roller. For the drive roller, adjust tension bolts on either side of hopper as necessary to achieve correct belt alignment and tension. For the idler roller, loosen bolts in bearings per side as necessary to align belt before re-tightening. The belt should not put excessive pressure on either side of the discharge box, as this will cause premature wear.

**12. Downspout and Transport Hook**

Reinstall hood to discharge body and mount downspout using the attached hose clamp. Assemble the downspout transport hook as shown, mounting it off the same bolt holding the tube clamp in place. Use the bungie hook to secure the downspout to the conveyor. The conveyor should now be fully assembled.

## **Gas Drive Assembly**

### **1. Assembling Motor Mount to Conveyor**

For gas drive models, the motor mount must be assembled to the conveyor before the conveyor is mounted inside the tender. The motor mount plate gets assembled between the conveyor hopper and swivel pin mount plate using the same four bolts already provided for the mounting the plate. The easiest method is to first assemble the two bolts that run horizontally through the rear of the hopper plate. This holds the motor mount in place, and makes it easier to assemble the four bolts which run vertically through the swivel pin mount plate, the motor mount and into the bottom of the hopper channels. With the motor mount assembled to the conveyor, the motor mount rail can then be placed over top of the matching holes in the motor mount and fastened as shown. (Note: Do not assemble gas motor at this time, as this will make conveyor assembly into tender difficult)

### **2. Driven Pulley**

The driven pulley is the larger of the two pulleys, and gets assembled onto the drive roller shaft. Insert a 1/4" key into the keyseat cut into the drive roller. Align the keyseat of the pulley with the key and slide the pulley onto the roller shaft as far as possible (right against the bearing). Tighten the two set screws in the pulley hub to lock the pulley in place.

At this point the conveyor can be assembled into the tender unit as described in *Step 10 of "Conveyor Assembly Instructions"*.

### **3. Gas Motor**

With the conveyor mounted inside the tender, the gas motor can be assembled onto the motor mount rails with four bolts. Position the motor on the rails so that the center of the motor output shaft roughly lines up with the center of the driven pulley.

### **4. Driver Pulley**

The driver pulley is the smaller of the two pulleys, and gets assembled onto the gas motor. Insert a 7mm key into the keyseat cut into the output shaft. Align the keyseat of the pulley with the key and slide the pulley onto the output shaft. It is critical that the two pulleys line up before tightening the set screws in the pulley hub. The simplest way to ensure the two pulleys are aligned is to hold a strait edge across the face of the larger pulley, and then slide the smaller pulley over until it's face is flush against the strait edge. With the two pulleys precisely lined up, the set screws can now be tightened on the smaller pulley hub.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

## **5. V-belt Installation / Tensioning**

Install the V-belt by inserting it onto the two pulleys. If necessary, loosen the tension bolts connected to the motor mount rails to allow more room to get the V-belt over the pulleys. Once installed, tension the V-belt by equally tightening the two tension bolts. Tension the V-belt until it is snug, making sure it is not too tight (which causes premature wear) or too loose (allowing the belt to slip when power is applied).

## **6. Belt Guard**

Install belt guard over top of drive system using four bolts. Be sure there is no contact between the pulleys or belts with the belt guard. While holding it in the correct position, mark the mounting holes on the conveyor. Remove belt guard, and pre-drill three ¼" holes for the fasteners (2 through hopper channel, and 1 through motor mount). Reinstall belt guard, lining up the belt guard holes with the holes just drilled into the conveyor, and install fasteners. Assemble belt guard mounting bracket where necessary onto motor mount plate, and fasten fourth bolt to the belt guard as shown.

## **7. Throttle Rope**

Begin by installing the rope guide assembly onto the hopper channel as shown. Then install the discharge throttle pulley onto the discharge using the same bolt already used to mount the discharge hood. Begin installing the throttle rope by tying one end of the rope to the throttle loop assembly on the gas motor. Feed the rope through the rope guide assembled on the hopper, and continue looping it through the rings coming off the roller brackets. Once to the top of the conveyor, feed rope through discharge throttle pulley, and the throttle rope installation is complete.

## **8. Throttle Adjustment**

With the factory drive reductions, the conveyor is designed to run at approximately 600 FPM (Feet Per Minute) at the full throttle setting. If a slower belt speed is desired, simply turn the throttle adjustment screw on the gas motor (by the throttle linkage) until the desired belt speed is acquired.

At this point the gas motor assembly is complete and the conveyor can be tested as outlined in *Step 11* of "*Complete Conveyor Assembly Instructions*" or *Step 4* of "*Basic Conveyor Assembly Instructions*."

Once the belt tracking has been done you are ready to use your new CONVEY-ALL conveyor to convey your product in an efficient ,clean and gentle manner.

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**SECTION 6**

**TROUBLE SHOOTING**

The Convey-All Belt Conveyor uses an endless flat belt moving through a tube to convey material from one location to another. It is a simple and reliable system that requires minimal maintenance.

In the following section, we have listed many of the problems, causes and solutions to the problems that you may encounter.

If you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, please call your local Convey-All dealer or distributor. Before you call, please have this Operator's manual and the serial number from your machine ready.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Conveyor will not run	Belting loose.	Tighten and align.
	Drive belts loose.	Tighten and align belting.
	Belt frozen to tube from operating in high humidity conditions in extreme cold.	Remove conveyor from area of high humidity and continue to run empty so the belt dries prior to freezing.
<hr/>		
Belt edge fraying	Belting not aligned.	Align and tension belting.
<hr/>		
Low conveying capacity.	Conveyor angle exceeds 30°.	Reposition with lower tube slope angle.
	Incorrect belt speed.	Adjust belt speed to correct range.
	Conveyor belting slipping.	Tighten and align.
	Drive belt slipping.	Replace if worn or glazed. Set correct tension and alignment.

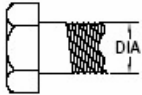




**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

**SECTION 7**  
**BOLT TORQUE**

**CHECKING BOLT TORQUE**

The tables shown give correct torque values for various bolts and capscrews. Tighten all bolts to the torque specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

Threaded Diameter 	S.A.E. Grade 2 	S.A.E. Grade 5 
1/4 inch	60 – 80 lb. inch	100 – 120 lb. inch
3/8 inch	20 – 30 lb. foot	30 – 40 lb. foot
1/2 inch	40 – 60 lb. foot	65 – 85 lb. foot
5/8 inch	90 – 110 lb. foot	140 – 160 lb. foot
3/4 inch	145 – 165 lb. foot	250 – 270 lb. foot
7/8 inch	165 – 185 lb. foot	420 – 440 lb. foot
1 inch	230 – 250 lb. foot	640 – 660 lb. foot
1 1/4 inch	500 – 520 lb. foot	1200 – 1250 lb. foot
1 1/2 inch	600 – 620 lb. foot	1400 – 1500 lb. foot

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

NOTE: Torque value for bolts and capscrews are identified by their head markings.

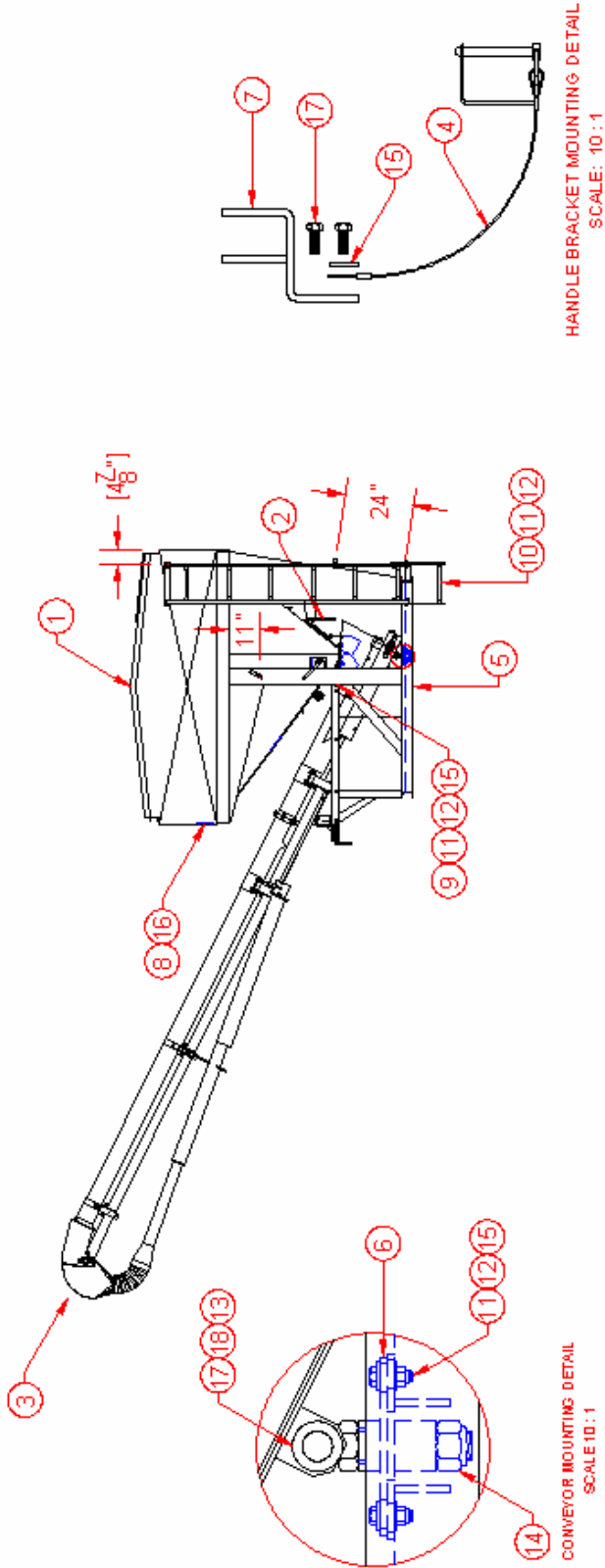
**REFERENCE DRAWINGS**  
 On following Pages

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	ECR	ZDT	308	309	302
1					
2					
3					
4					

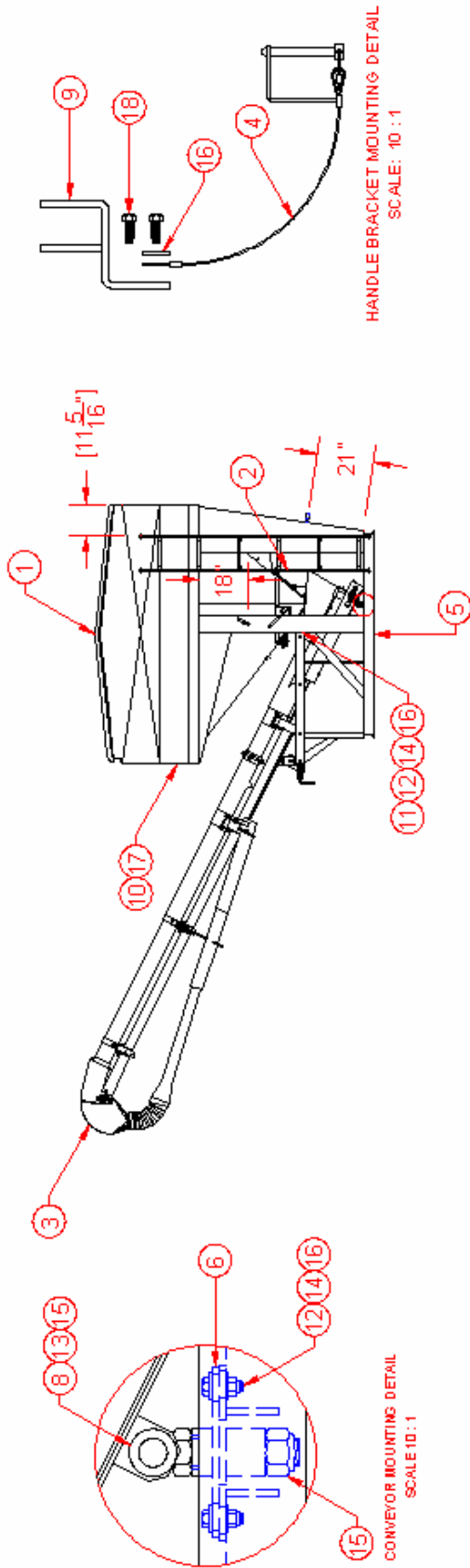


Ref.	Part#	Description	Qty
1	BTS-2400-6002	TARP ROLL UP SYSTEM	1
2	BTS-2900-6001	GATES & HANDLES	1
3	TC-0800-6101	BASE BT CONVEYOR	1
4	BTS-3000-5003	LOCK PIN WITH LANYARD	2
5	BTS-2900-4006	COMPLETE FRAME	1
6	400074	BUSHING PLATE	1
7	BTS-1500-4026	HANDLE BRACKET SUB-ASSEMBLY	2
8	BTS-2400-0133	SIGHT GLASS - ROUND	4
9	BTS-2400-0137	OVER CENTER LATCH	2
10	WT-2900-4012	LADDER EXTENSION	1
11	16-0207-0126	HEX BOLT - 3/8" x 1 1/4" UNC. - PLTD. - GRD 5	8
12	16-0707-0003	NYLON INSERT LOCK NUT - 3/8" UNC. - PLTD. - GRD 5	8
13	16-0707-0010	NYLON INSERT LOCK NUT - 1" UNC. - PLTD. - GRD 5	2
14	16-1707-0004	USS FLAT WASHER - 3/8" PLTD	12
15	16-3600-0012	POP RIVET - 1/8" x 1/2"	16
16	24-2200-0020	SELF TAPPING SCREW - 5/16" x 1"	4
17	400054	SWIVEL PIN	1
18	16-0207-0495	HEX BOLT - 1" x 7" UNC. - PLTD. - GRD 8	1

Title: <b>BTS-290</b>	
Part No.: <b>SPLIT TANK - BASE</b>	
Tolerance	Date: 02/11/04
±1/16	Scale: 1 : 60
Checked By:	Approved By:
Drawn By: Ed Witebe	Ref. No.:
CONVEY-ALL IND. INC. Box 2008, Winkler, Manitoba R6W 4B7 (204) 325-4195, Fax (204) 325-8116	

# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3



Ref.	Part#	Description	Qty
1	BTS-3000-6002	TARP ROLL UP SYSTEM	1
2	BTS-2900-6001	GATES & HANDLES	1
3	TC-0800-6102	BASE BTS-360 C CONVEYOR	1
4	BTS-3000-5003	LOCK PIN WITH LANYARD	2
5	BTS-3600-4008	COMPLETE FRAME WITH SPLIT TANK	1
6	400074	BUSHING PLATE	1
7	400064	SWIVEL PIN	1
8	BTS-1500-4026	HANDLE BRACKET SUB-ASSEMBLY	2
9	BTS-2400-0133	SIGHT GLASS - ROUND	4
10	BTS-2400-0137	OVER CENTER LATCH	2
11	16-0207-0126	HEX BOLT - 3/8" x 1 1/4" UNC. - PLTD. - GRD 5	6
12	16-0207-0465	HEX BOLT - 1" x 7" UNC. - PLTD. - GRD 8	1
13	16-0707-0003	NYLON INSERT LOCK NUT - 3/8" UNC. - PLTD. - GRD 5	6
14	16-0707-0010	NYLON INSERT LOCK NUT - 1" UNC. - PLTD. - GRD 5	2
15	16-1707-0004	USS FLAT WASHER - 3/8" PLTD	12
16	16-3600-0012	POP RIVET - 1/8" x 1/2"	16
17	24-2200-0020	SELF TAPPING SCREW - 5/16" x 1"	4

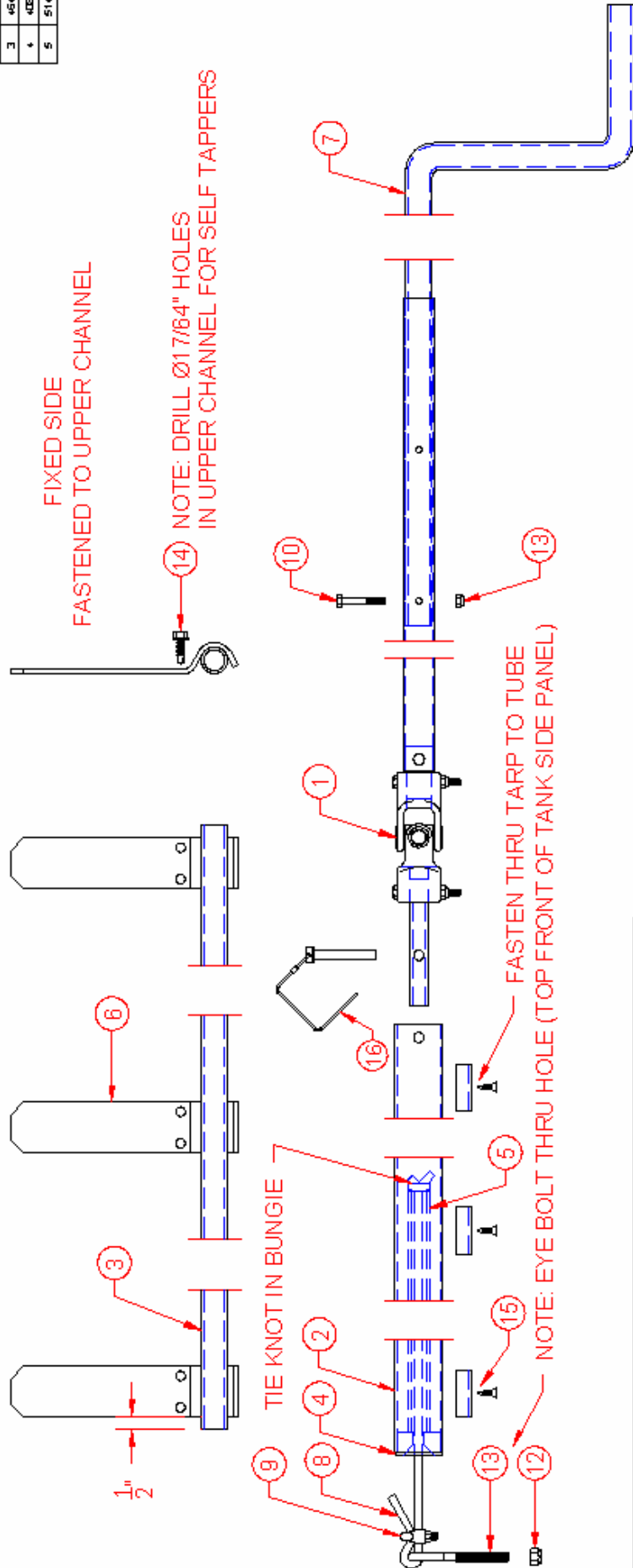
Title: <b>BTS-360</b>			
Part No.: <b>SPLIT TANK - BASE</b>			
Part No.:	Tolerance	Date:	Scale:
BTS-360	±1/16	04/04/05	1 : 60
Checked By:			
Approved By:			
Drawn By: Ed Wielebe			
CONVEY-ALL IND. INC.			
Box 2008, Winkler, Manitoba			
R6M7 4B7			
(204) 325-4195, Fax (204) 325-8116			
Ref. No.:			

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Rev	ECR
1	36
2	294
3	464
4	408
5	514

Form 1101 Rev.1



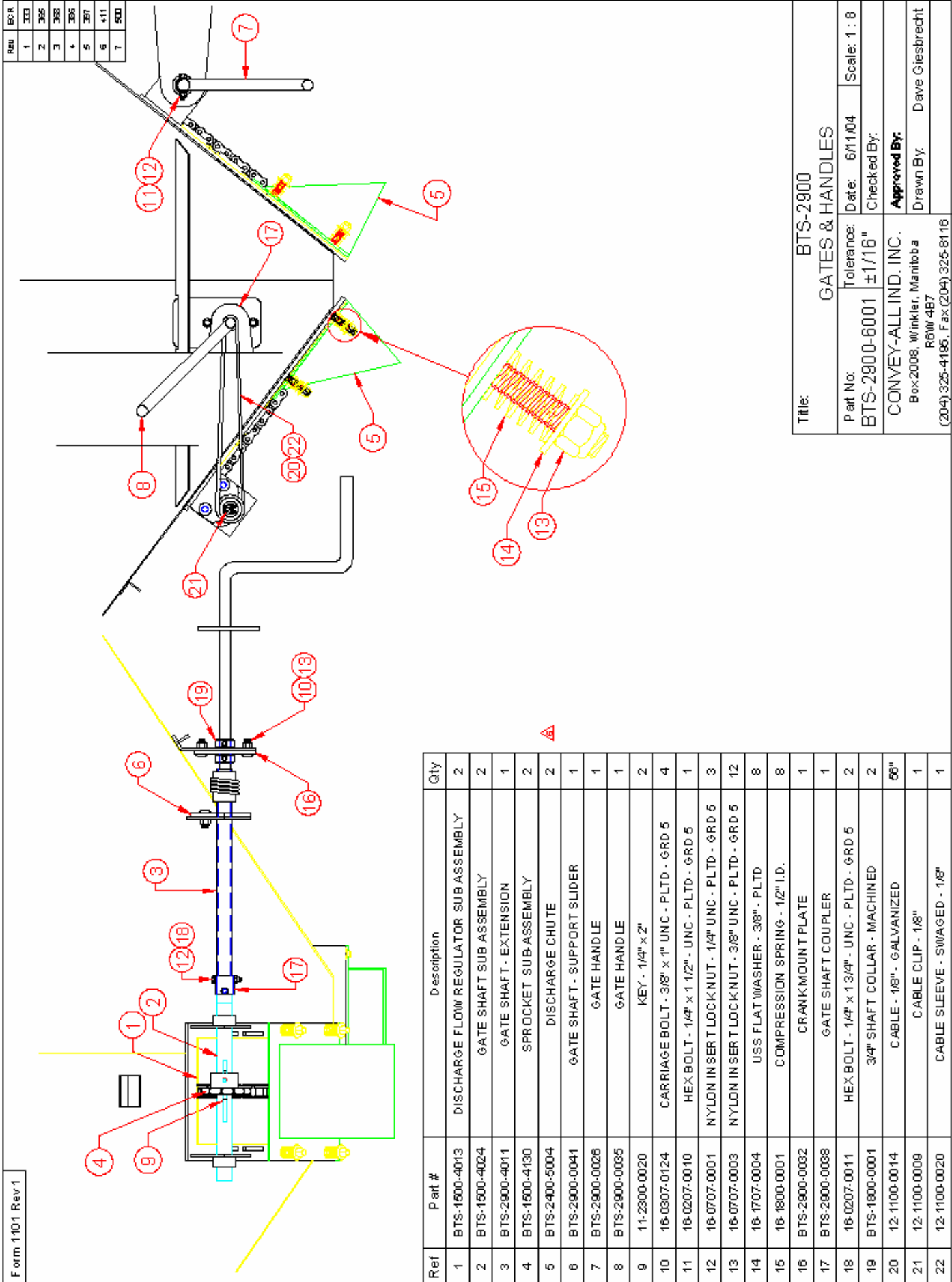
NOTE: SHOWN WITHOUT TARP (15)

Ref.	Part #	Description	Qty
1	BTS-2900-6001	TARP CRANK JOINT	1
2	BTS-2400-0043	TARP INSERT TUBE - UNIVERSAL SIDE	1
3	BTS-2400-0044	TARP INSERT TUBE - FIXED SIDE	1
4	BTS-1500-0097	BUNGIE CORD GUIDE	1
5	BTS-2900-0029	BUNGIE CORD TUBE <sup>⚠</sup>	1
6	BTS-1500-0100	TARP STOP	3
7	BTS-1500-0102	TARP HANDLE	1
8	BTS-2900-0051	BUNGIE CORD 130"	1
9	12-1100-0011	CABLE CLAMP - 1/4"	1
10	16-0207-0011	HEX BOLT - 1/4" x 1 3/4" - UNC. - PLTD. - GRD 5	1
11	16-0707-0001	NYLON INSERT LOCKNUT - 1/4" UNC. - PLTD. - GRD 5	1
12	16-0707-0003	NYLON INSERT LOCKNUT - 3/8" UNC. - PLTD. - GRD 5	1
13	16-1807-0003	EYE BOLT - 3/8" x 4" - UNC. - PLTD. - GRD 5	1
14	24-2200-0020	SELF TAPPING SCREW - HEX - 5/16" x 1"	6
15	25-1000-0021	WHITE ROLL TARP - 105" x 137" W/3 U-CLAMPS	1
16	16-1100-0032	WIRE LOCK PIN ROUND - 3/8" x 2-1/2"	1

Title: BTS-2400	
TARP ROLL UP SYSTEM	
Part No.: BTS-2400-6002	Tolerance: ±1/16
Date: 12/16/02 Scale: 1:6	
Checked By:	
Approved By:	
Drawn By: Ron Dick	
Box 2008, Winkler, Manitoba R6W 4B7 (204) 325-4195, Fax (204) 325-8116	

# Convey-All Industries Inc.

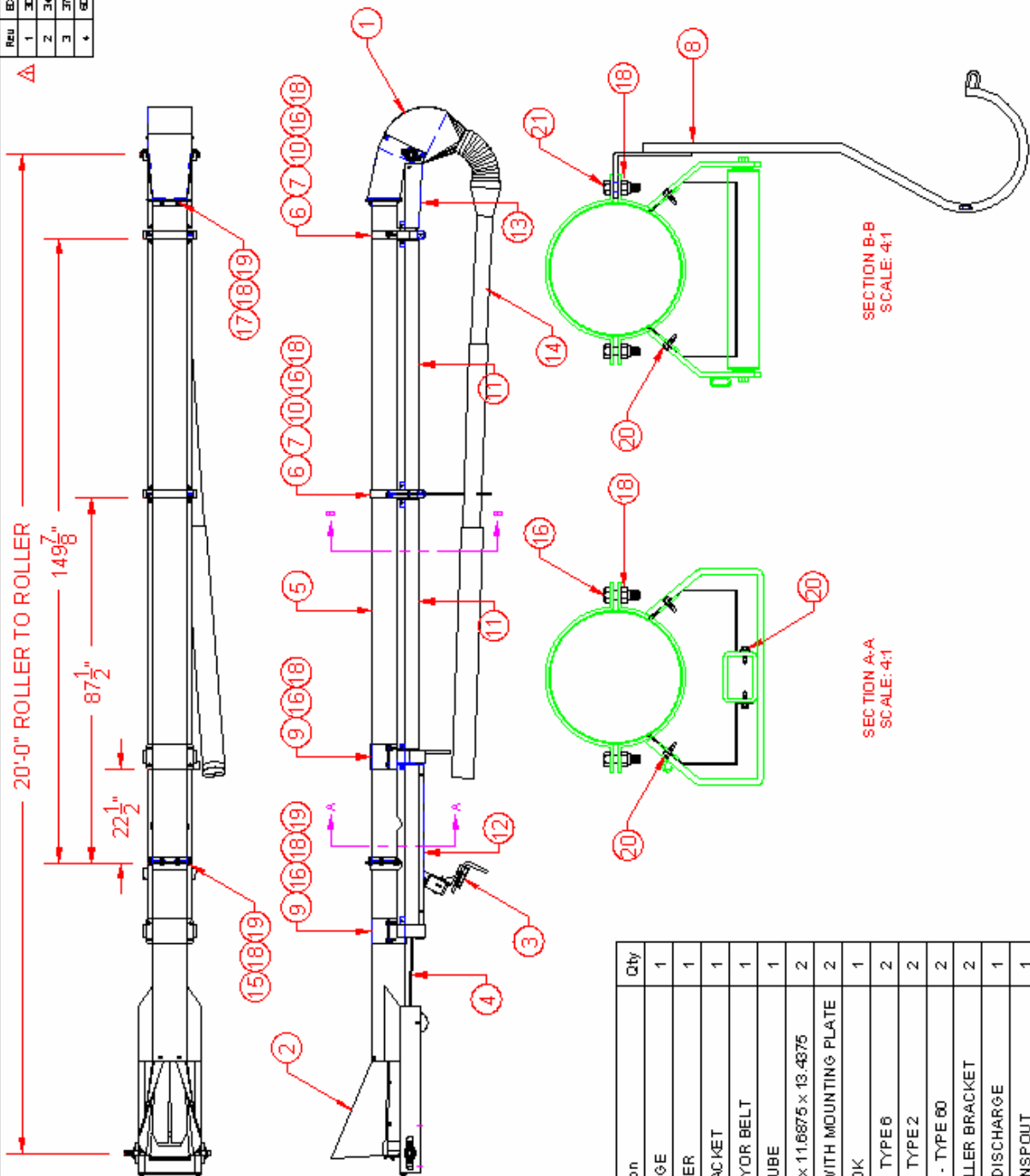
## BTS 290 & 360 OPERATOR'S MANUAL



# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	EDR
1	206
2	348
3	379
+	622



Ref.	Part#	Description	Qty
1	TC-0800-5727	DISCHARGE	1
2	TC-0800-5721	BT HOPPER	1
3	TC-0800-5723	ROLLER BRACKET	1
4	TC-0800-5724	BTS-290 CONVEYOR BELT	1
5	400046	BTS-290 TUBE	1
6	500025	RETURN ROLLER - 4375 x 11.6875 x 13.4375	2
7	400108	RETURN ROLLER BRACKET WITH MOUNTING PLATE	2
8	TC-0800-4768	MID HOOK	1
9	101084	TUBE CLAMP - TYPE 6	2
10	101086	TUBE CLAMP - TYPE 2	2
11	100487	BT WIND GUARD - TYPE 60	2
12	TC-0800-1197	BT WIND GUARD - ROLLER BRACKET	2
13	TC-0800-1200	BT WIND GUARD - DISCHARGE	1
14	12-2900-0002	3 STAGE DOWNSPOUT	1
15	16-0207-0248	HEX BOLT - 1/2" x 1 1/2" UNC - PLTD - GRD 5	8
16	16-0207-0250	HEX BOLT - 1/2" x 2" UNC - PLTD - GRD 5	1
17	16-0307-0246	CARRIAGE BOLT - 1/2" x 1 1/4" UNC - PLTD - GRD 5	4
18	16-0707-0005	NYLON INSERT LOCK NUT - 1/2" UNC - PLTD - GRD 5	24
19	16-1307-0006	SAE FLAT WASHER - 1/2" PLTD	20
20	24-2200-0002	SELF TAPPING SCREW - 1/4" x 3/4"	20
21	16-0207-0248	HEX BOLT - 1/2" x 1 3/4" UNC - PLTD - GRD 5	11

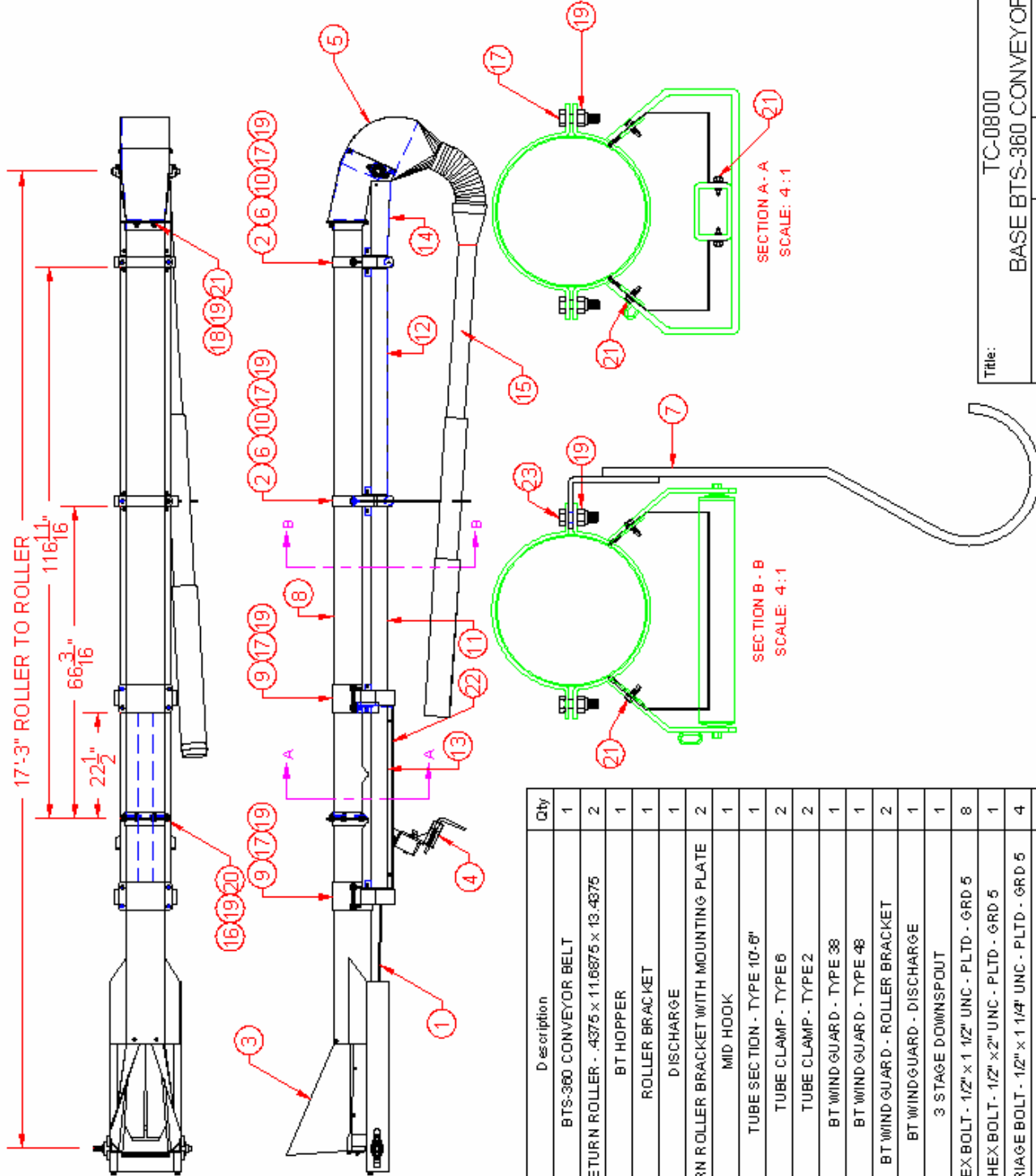
Title: TC-0800			
BASE BTS-290 CONVEYOR			
Part No.:	Tolerance	Date:	Scale:
TC-0800-6101	±1/16	02/05/04	1:36
Checked By:		Approved By:	
CONVEY-ALL IND. INC.		Ed Wiebe	
Box 2008, Winkler, Manitoba R0M 4B7		Drawn By:	
(204) 325-4195, Fax (204) 325-8116		Ref. No.:	

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	EDR
1	JAS
2	JPS
3	ED
4	SL

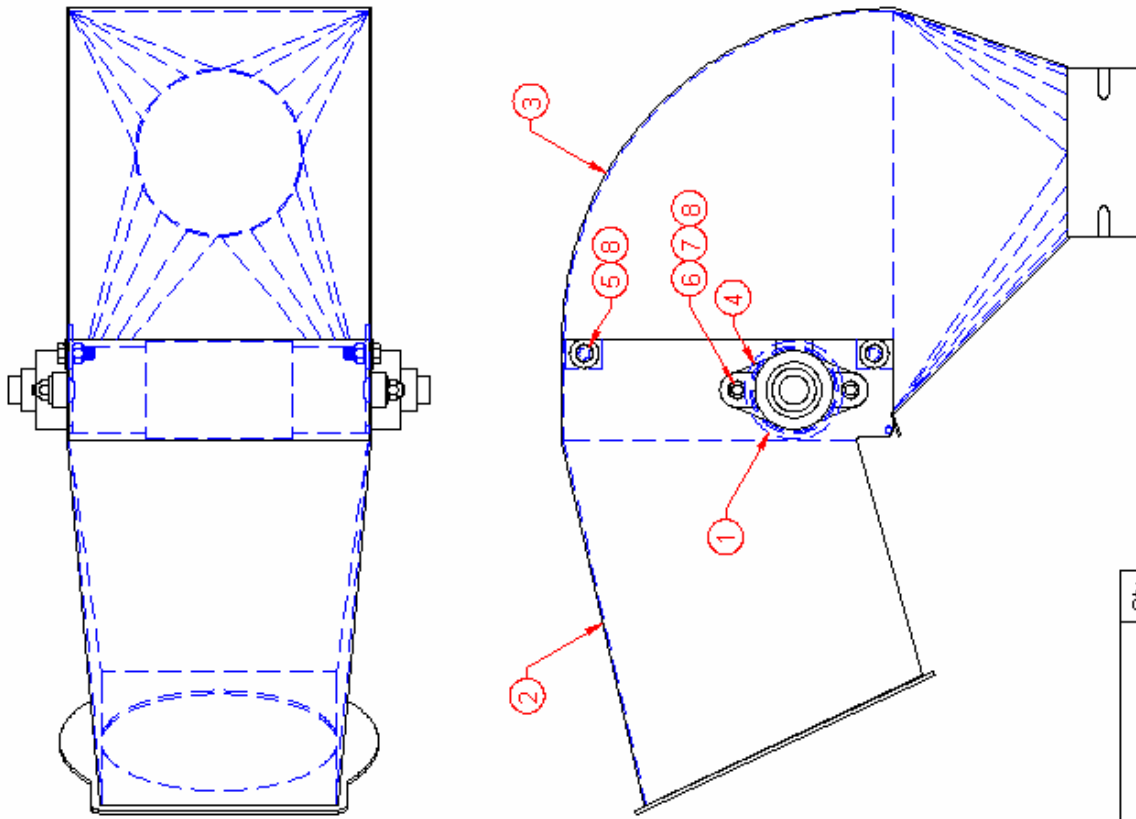


Ref.	Part #	Description	Qty
1	TC-0800-5013	BTS-360 CONVEYOR BELT	1
2	500025	RETURN ROLLER - .4375 x 11.6875 x 13.4375	2
3	TC-0800-5721	BT HOPPER	1
4	TC-0800-5723	ROLLER BRACKET	1
5	TC-0800-5727	DISCHARGE	1
6	400108	RETURN ROLLER BRACKET WITH MOUNTING PLATE	2
7	TC-0800-4788	MID HOOK	1
8	TC-0800-4780	TUBE SECTION - TYPE 10-8"	1
9	101084	TUBE CLAMP - TYPE 6	2
10	101086	TUBE CLAMP - TYPE 2	2
11	TC-0800-1225	BT WIND GUARD - TYPE 38	1
12	TC-0800-1193	BT WIND GUARD - TYPE 48	1
13	TC-0800-1197	BT WIND GUARD - ROLLER BRACKET	2
14	TC-0800-1200	BT WIND GUARD - DISCHARGE	1
15	12-2900-0002	3 STAGE DOWNSPOUT	1
16	16-0207-0248	HEX BOLT - 1/2" x 1 1/2" UNC - PLTD - GRD 5	8
17	16-0207-0250	HEX BOLT - 1/2" x 2" UNC - PLTD - GRD 5	1
18	16-0307-0246	CARRIAGE BOLT - 1/2" x 1 1/4" UNC - PLTD - GRD 5	4
19	16-0707-0005	NYLON INSERT LOCK NUT - 1/2" UNC - PLTD - GRD 5	24
20	16-1307-0006	SAE FLAT WASHER - 1/2" PLTD	20
21	24-2200-0002	SELF TAPPING SCREW - 1/4" x 3/4"	20
22	BTS-0000-5002	DOWNSPOUT HOLD DOWN BUNGIE	1
23	16-0207-0248	HEX BOLT - 1/2" x 1 3/4" UNC - PLTD - GRD 5	11

Title: TC-0800	
BASE BTS-360 CONVEYOR	
Part No.: TC-0800-6102	Tolerance ±1/16
Checked By:	Date: 09/27/04
Approved By:	Scale: 1:30
Drawn By: TS	
CONVEY-ALL IND. INC.	
Box 2008, Winkler, Manitoba	
R6M 4B7	
(204) 325-4195, Fax (204) 325-8116	
Ref. No.:	

**Convey-All Industries Inc.**  
**BTS 290 & 360 OPERATOR'S MANUAL**

Form 1101 Rev 3



Ref.	Part#	Description	Qty
1	500022	ROLLER - TYPE 3 x 14.5L x 1	1
2	400102	DISCHARGE BODY	1
3	400104	DISCHARGE HOOD	1
4	B-0000-0005	BEARING - FL206 - 1" FLANGED - COMPLETE	2
5	16-0207-0124	HEX BOLT - 3/8" x 1" UNC - PLTD - GRD 5	4
6	16-0307-0126	CARRIAGE BOLT - 3/8" x 1-1/4" UNC - PLTD - GRD 5	4
7	16-0707-0003	NYLON INSERT LOCK NUT - 3/8" UNC - PLTD	4
8	16-1707-0004	USS FLAT WASHER - 3/8" - PLTD	8

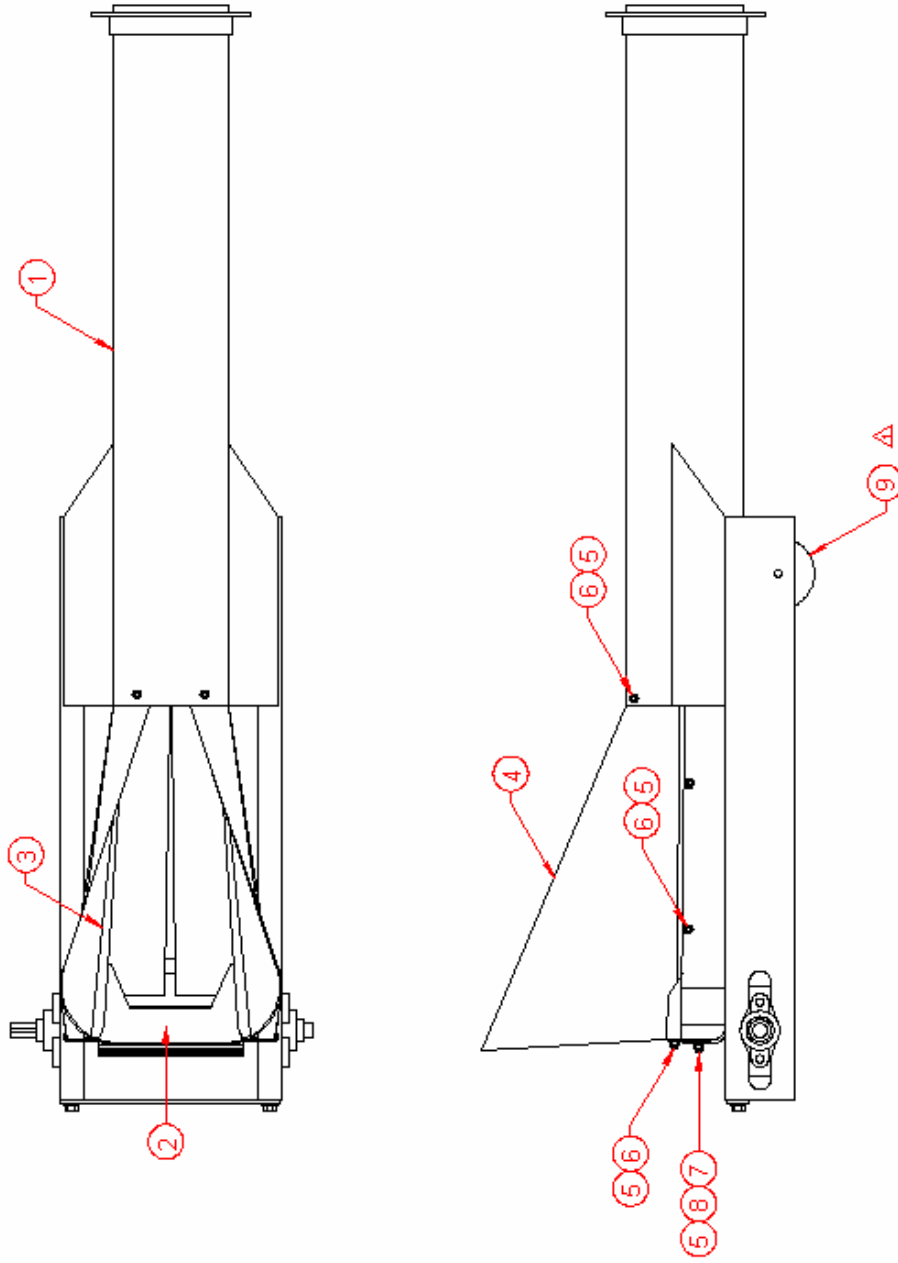
Title: TC-0800	
DISCHARGE & ROLLERS	
Part No.: TC-0800-5727	Tolerance: ±1/16
Date: 10/25/04	Scale: 1 : 6
Checked By:	Approved By:
Drawn By: TS	
CONVEY-ALL IND. INC. Box 2008, Winkler, Manitoba R6M 4B7 (204) 325-4195, F ax (204) 325-8116	
Ref. No.:	



# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	Ed
1	286
2	401

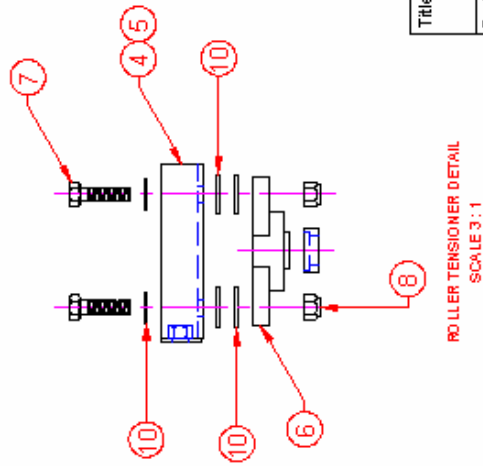
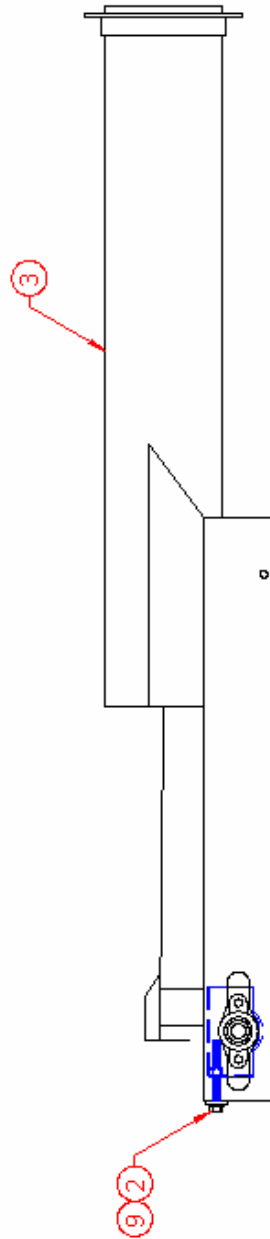
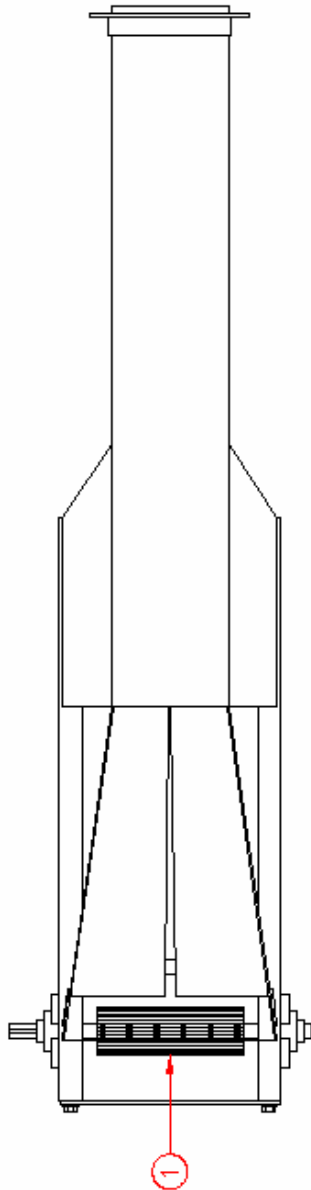


Ref.	Part#	Description	Qty
1	TC-0800-5720	HOPPER WITH ROLLER	1
2	100-499	RUBBER FLASHING - END	1
3	100-498	RUBBER FLASHING - SIDE	2
4	TC-0800-0202	RUBBER HOPPER	1
5	16-0707-0001	NYLON INSERT LOCK NUT - 1/4" UNC - PLTD - GRD 5	13
6	16-1400-0010	TRUSS HEAD COMB SCREW - 1/4" x 3/4" UNC - PLTD	9
7	16-1400-0011	TRUSS HEAD COMB SCREW - 1/4" x 1" UNC - PLTD	4
8	16-1707-0002	USS FLAT WASHER - 1/4" PLTD	4
9	BTS-2400-6105	BOTTOM RETURN ROLLER - ASSEMBLY	1

Title: TC-0800 BT HOPPER			
Part No.:	Tolerance	Date:	Scale:
TC-0800-5721	±1/16	02/05/04	1 : 12
Checked By:		Approved By:	
CONVEY-ALL IND. INC.		Ed Wiebe	
Box 2008, Winkler, Manitoba R0M 7 4B7		Drawn By:	
(204) 325-4195, Fax (204) 325-8116		Ref. No.:	

# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Form 1104 Rev 3



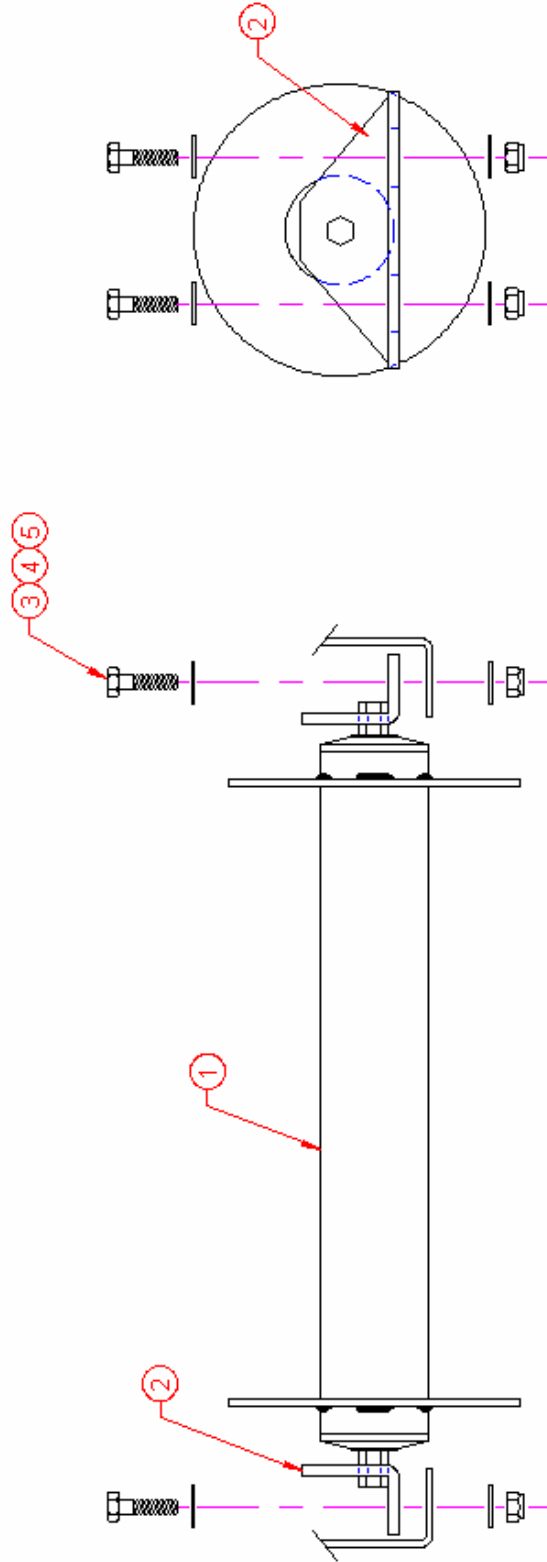
Ref.	Part#	Description	Qty
1	500024	ROLLER - TYPE 3 x 10L x 1	1
2	400135	THREADED ROD - TYPE 4.75	2
3	TC-0800-4750	HOPPER FRAME - COMPLETE	1
4	400013L	BELT TENSIONER BRACKET - LEFT	1
5	400013R	BELT TENSIONER BRACKET - RIGHT	1
6	B-0000-0005	BEARING - FL 206 - 1" SHAFT - COMPLETE	2
7	16-0207-0248	HEX BOLT - 1/2" x 1 1/2" UNC - PLTD - GRD 5	4
8	16-0707-0005	NYLON INSERT LOCK NUT - 1/2" UNC - PLTD - GRD 5	4
9	16-1307-0006	SAE FLAT WASHER - 1/2" PLTD	2
10	16-1707-0006	USS FLAT WASHER - 1/2" PLTD	12

Title: TC-0800	
HOPPER WITH ROLLER	
Part No.: TC-0800-5720	Tolerance: ±1/16
Date: 02/05/04	Scale: 1:12
Updated 11/04 mth	
Approved By: Ed Wiebe	
Drawn By: Ed Wiebe	
CONVEY-ALL IND. INC.	
Box 2008, Winkler, Manitoba R0M 4B7	
(204) 325-4195, F ax (204) 325-8116	
Ref. No.:	

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

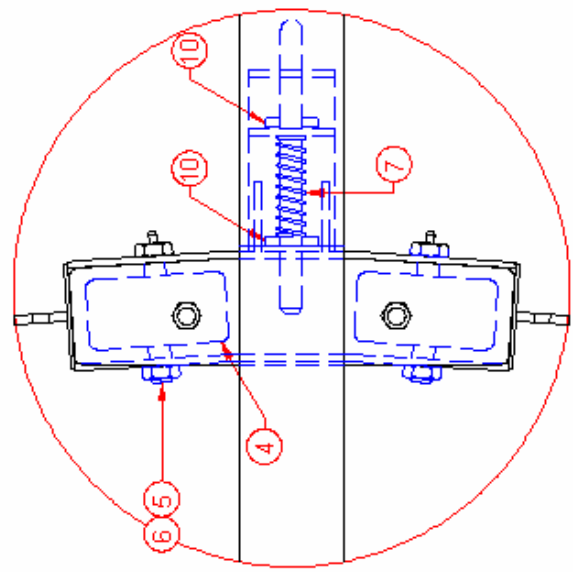
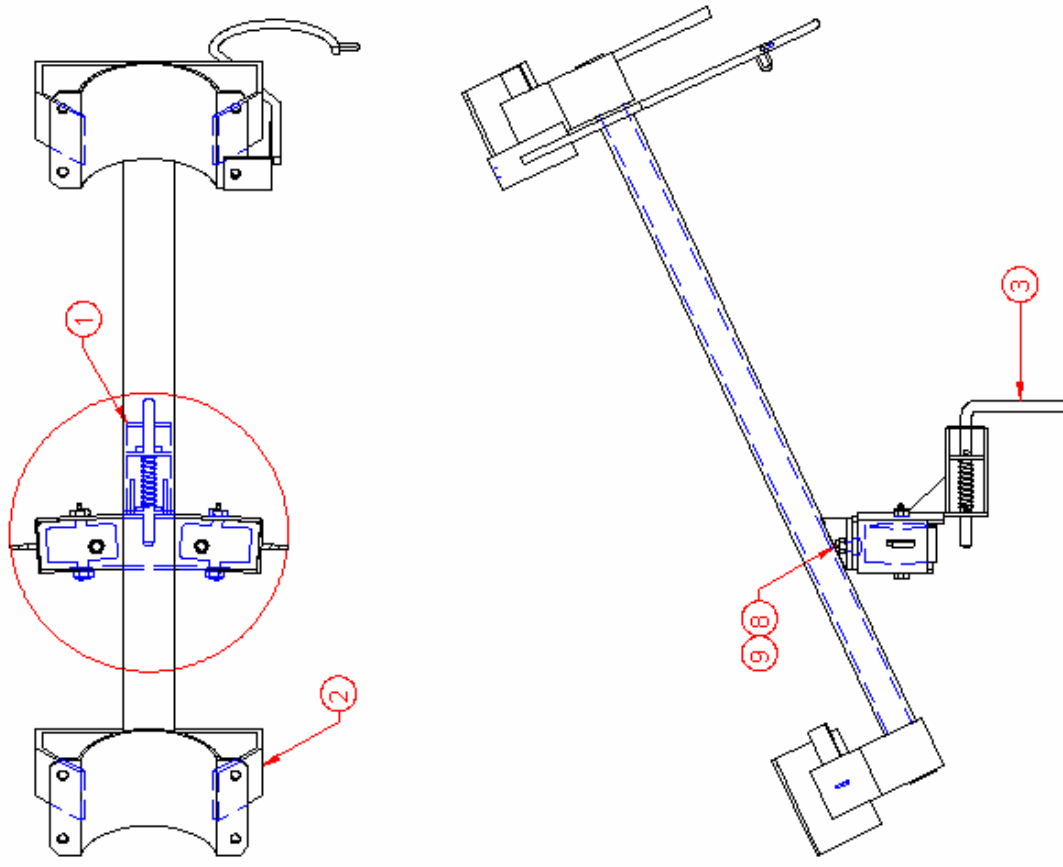


Ref.	Part#	Description	Qty
1	500026	RETURN ROLLER FL - .4375 x 11.8875 x 13.4375	1
2	100489	ROLLER MTG BRACKET	2
3	16-0207-0006	HEX BOLT - UNC - 1/4" X 1" ZINC PLTD - GRD 5	4
4	16-1307-0002	FLAT W/ASHER - SAE 1/4" - ZINC PLTD	4
5	16-0707-0001	LOCK NUT - 1/4" NYLON INSERT - UNC - ZINC PLTD	4

Title: <b>BTS-2400</b>	
Part No.: <b>BTS-2400-6105</b>	Tolerance: <b>±1/16</b>
Date: <b>04/14/03</b>	Scale: <b>1 : 3</b>
Checked By:	Approved By:
Drawn By: <b>Dave Giesbrecht</b>	Ref. No.:
<b>CONVEY-ALL IND. INC.</b> Box 2008, Winkler, Manitoba R6W 4B7 (204) 325-4195, F ax (204) 325-8116	

# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Rev. B/A  
1 295



ROLLER BRACKET ASSEMBLY DETAIL  
SCALE 2 : 1

TC-0800	
<b>BTS-290 ROLLER BRACKET</b>	
Part No.:	Tolerance
TC-0800-5723	±1/16
Checked By:	Approved By:
CONVEY-ALL IND. INC.	Ed Wiebe
Box 2008, Winkler, Manitoba R6M 4B7	Drawn By:
(204) 325-4195, F ax (204) 325-8116	Ref. No.:

Ref.	Part#	Description	Qty
1	BTS-2900-4007	ROLLER BRACKET - LOCKING MECHANISM	1
2	TC-0800-4754	ROLLER BRACKET TUBE SUPPORT	1
3	BTS-1500-0073	LOCK MECHANISM HANDLE	1
4	12-1801-0007	4" CASTER WHEEL	2
5	12-1801-0008	WHEEL - CASTER - SPNR BUSHING	2
6	12-1801-0009	SHEEL - CASTER - AXLE & NUT	2
7	12-2800-0011	COMPRESSION SPRING - 5/8" I.D. x 3 1/2"	1
8	16-0307-0246	CARRIAGE BOLT - 1/2" x 1 1/4" UNC - PLTD - GRD 5	2
9	16-0707-0005	NYLON INSERT LOCK NUT - 1/2" UNC - PLTD - GRD 5	2
10	16-1100-0024	ROLL PIN - 1/4" x 1 1/2"	2

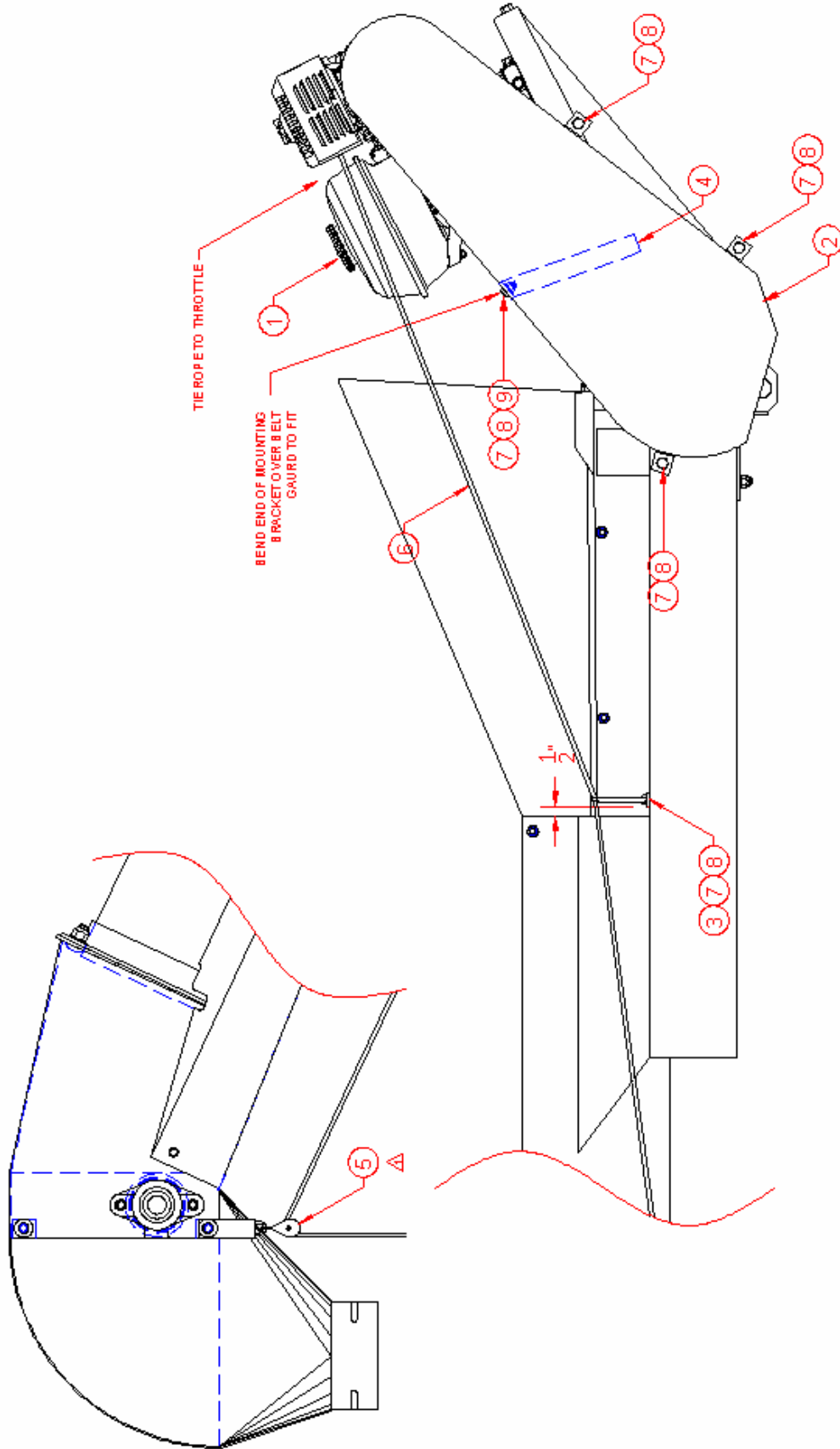
Form 1101 Rev 3

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	EDR
1	JMS
2	SSC



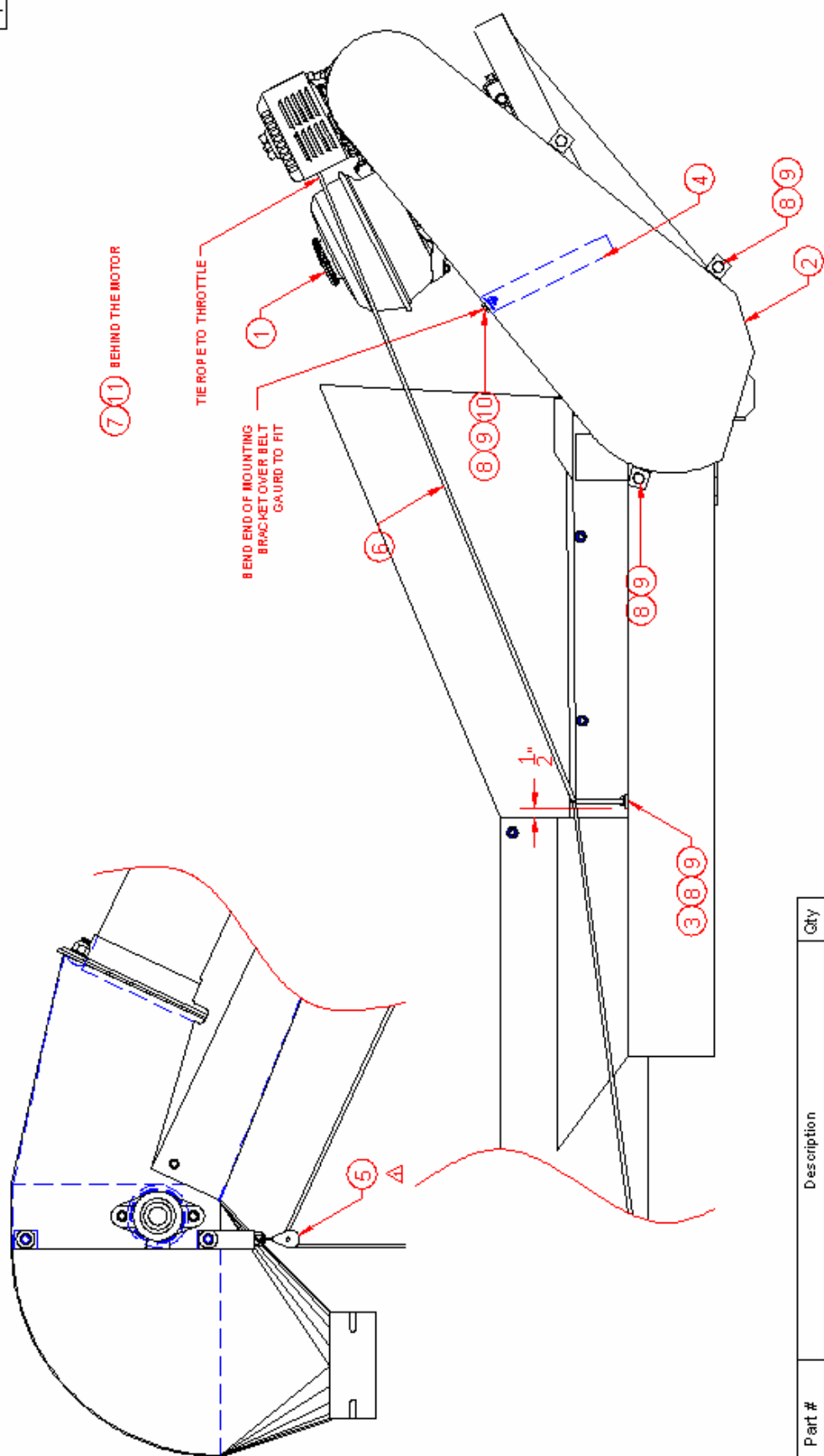
Ref	Part #	Description	Qty
1	BTS-2400-6005	PULLEY & BELT	1
2	BTS-1500-4018	SHIELD	1
3	BTS-1500-4021	ROPE GUIDE SUB ASSEMBLY	1
4	TC-0800-1228	BELT GUARD BRACKET	1
5	TC-0800-4763	DISCHARGE THROTTLE PULLEY	1
6	TC-0800-1226	GAS THROTTLE ROPE	1
7	16-0207-0004	HEX BOLT - 1/4" x 3/4" - UNC - PLTD - GRD 5	7
8	16-0707-0003	NYLON INSERT LOCK NUT - 1/4" UNC - PLTD - GRD 5	7
9	16-1307-0002	WASHER - SAE FLAT - 1/4" - ZINNKPLTD	1

Title: BTS-290 - 360 GAS DRIVE	
Part No.: BTS-290-360-GAS DR	Tolerance: ±1/16
Date: 09/27/04	Scale: 1 : 8
Checked By:	Approved By:
Drawn By: Ed Wiebe	Ref: 487
Company: CONVEY-ALL IND. INC. Box 2008, Winkler, Manitoba R6M 4B7 (204) 325-4195, Fax (204) 325-8116	Ref. No.:

# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	ECR
1	3/8



Ref	Part #	Description	Qty
1	BTS-2400-8005	PULLEY & BELT	1
2	BTS-1600-4018	SHIELD	1
3	BTS-1600-4021	ROPE GUIDE SUB ASSEMBLY	1
4	TC-0800-1228	BELT GUARD BRACKET	1
5	TC-0800-4783	DISCHARGE THROTTLE PULLEY	1
6	TC-0800-1226	GAS THROTTLE ROPE	1
7	WT-2900-0048	BATTERY MOUNT	1
8	16-0207-0004	HEX BOLT - 1/4" x 3/4" - UNC - PLTD - GRD 5	7
9	16-0707-0003	NYLON INSERT LOCK NUT - 1/4" UNC - PLTD - GRD 5	7
10	16-1307-0002	WASHER - SAE FLAT - 1/4" - ZINC PLTD	1
11	26-3300-0014	TARP STRAP - 18"	1
12	14-1100-0018	BATTERY CABLE RED 24" RING TERMINAL	1
13	14-1100-0019	BATTERY CABLE BLACK 24" RING TERMINAL	1

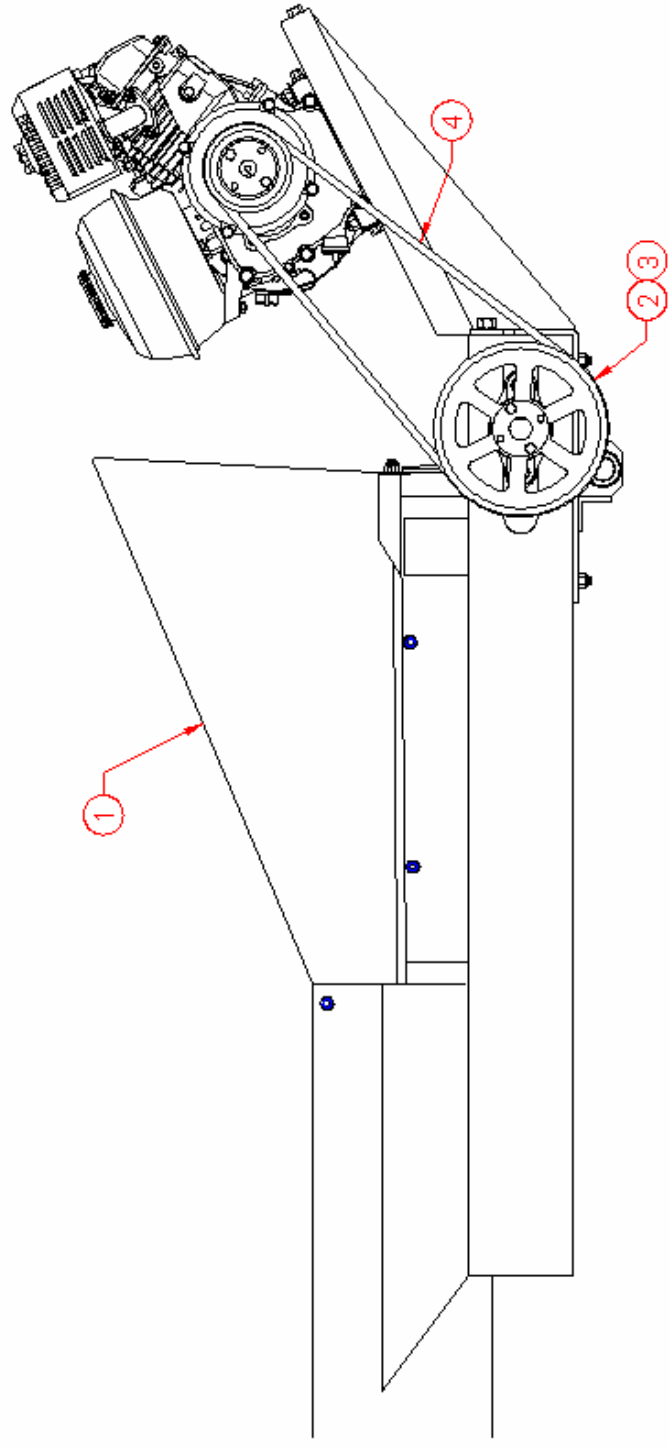
Title: BTS-290 - 360 GAS DRIVE W/ ELECTRIC START	
Part No.:	Tolerance
BTS-290-360-GAS DR-E/S	±1/16
Date: 01/05/05	Scale: 1:8
Checked By:	Approved By:
CONVEY-ALL IND. INC.	Drawn By: TS
Box 2008, Winkler, Manitoba R6M 4B7	Ref. No.:
(204) 325-4195, F ax (204) 325-8116	

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Rev	ECR
1	71
2	86
3	270

Form 1101 Rev. 1



Title: <b>BTS-2400 PULLEYS &amp; BELT</b>	
Part No: <b>BTS-2400-6005</b>	Date: 12/16/02
Tolerance: <b>±1/16"</b>	Checked By:
<b>CONVEY-ALL IND. INC.</b>	
Box 2008, Winkler, Manitoba R6W 4B7 (204) 325-4195, Fax (204) 325-8116	
Drawn By: <b>Ron Dick</b>	Scale: 1 : 8
Drawing No:	Approved By:

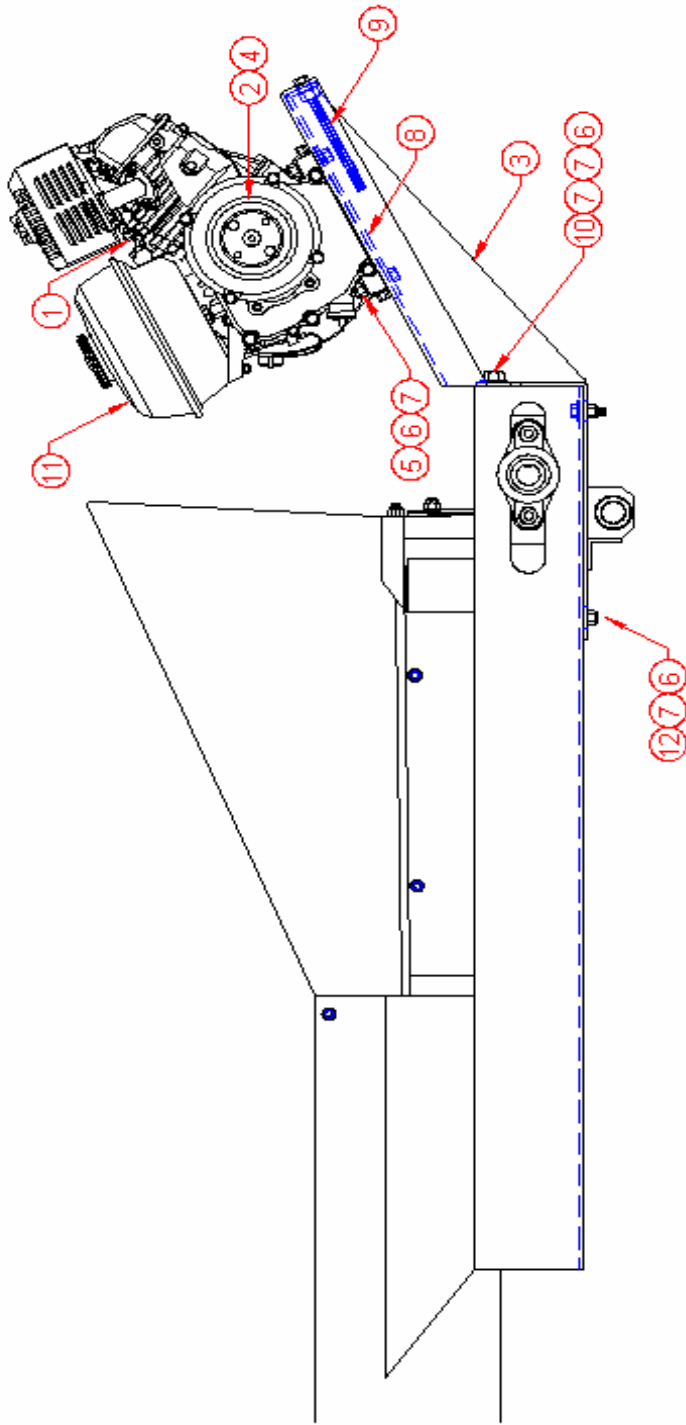
Ref	Part #	Description	Qty
1	BTS-2400-6004	MOTOR & SWIVEL PIN	1
2	11-1600-0003	PULLEY HUB - H1	1
3	11-1600-0003	SINGLE GROOVE PULLEY - 8" O.D. - BK80H	1
4	11-1800-0108	V-BELT - B SECTION - B66	1

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev. 1

Rev	ECR
1	20
2	270
3	283
4	303



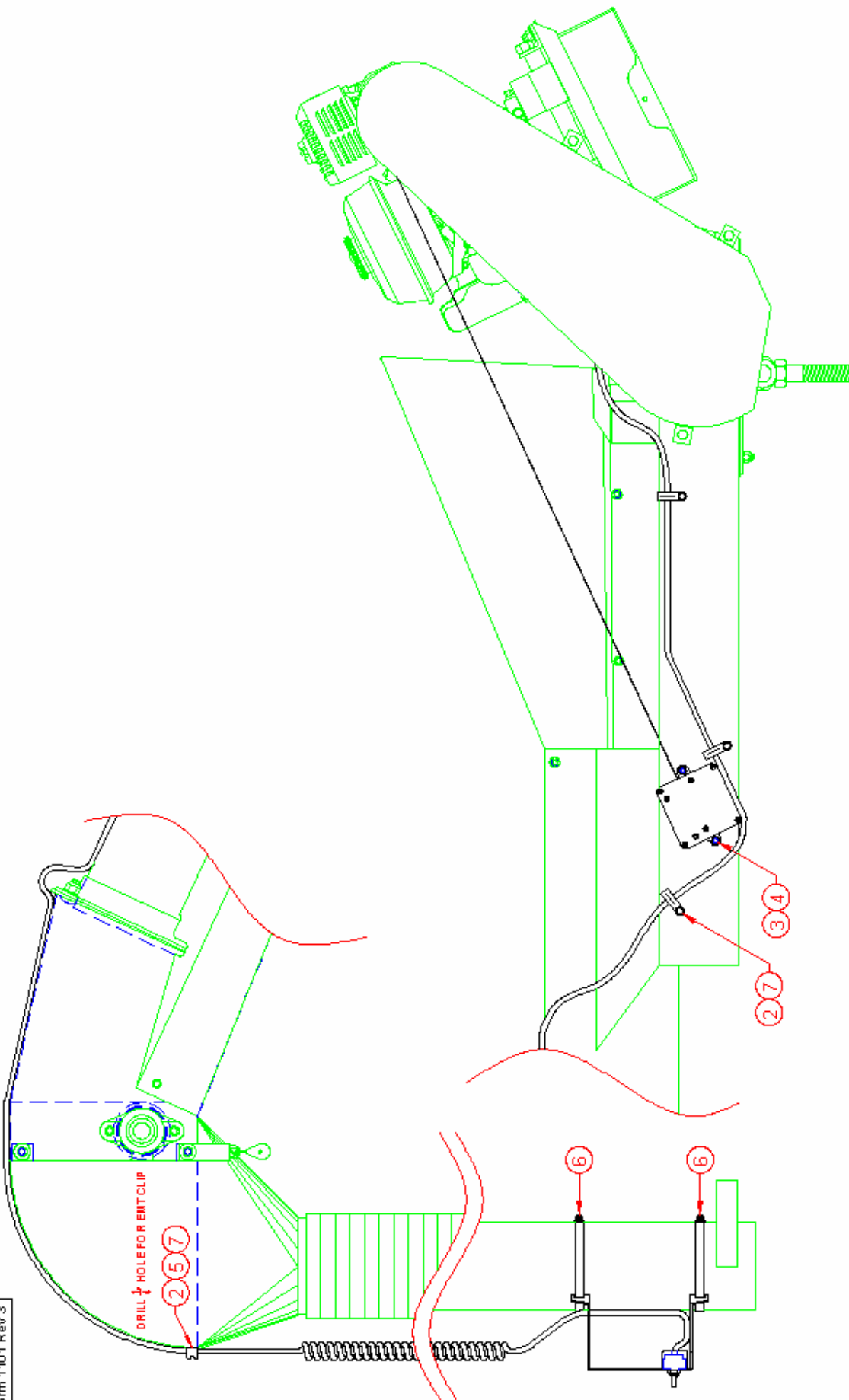
Ref	Part #	Description	Qty
1	BTS-1600-4023	THROTTLE CONTROL	1
2	BTS-1600-1105	PULLEY HUB - H22MM	1
3	TCH-1000-4756	MOTOR MOUNT	1
4	11-1600-0002	SINGLE GROVE PULLEY - 4" O.D. - BK40H	1
5	16-0207-0129	HEX BOLT - 3/8" x 1-3/4" - UNC - PLTD - GRD 5	4
6	16-0707-0008	NYLON INSERT LOCK NUT - 3/8" UNC - PLTD - GRD 5	10
7	16-1707-0004	USS FLAT WASHER - 3/8" - PLTD	12
8	400142	BT MOTOR TENSIONER BRACKET	2
9	400014	THREADED ROD - TYPE 6 x 50	2
10	16-0207-0124	HEX BOLT - 3/8" x 1" - UNC - PLTD - GRD 5	2
11	VARIES	5.5 HP HONDA GAS MOTOR	1
12	16-0207-0126	HEX BOLT - 3/8" x 1 1/4" UNC - PLTD - GRD 5	4

Title: <b>BTS-2400</b>	
<b>MOTOR &amp; SWIVEL PIN</b>	
Part No: <b>BTS-2400-6004</b>	Tolerance: $\pm 1/16"$
Scale: 1 : 8	
Date: 12/16/02	
Checked By:	
Approved By:	
Drawn By: Ron Dick	
Drawing No:	



# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3



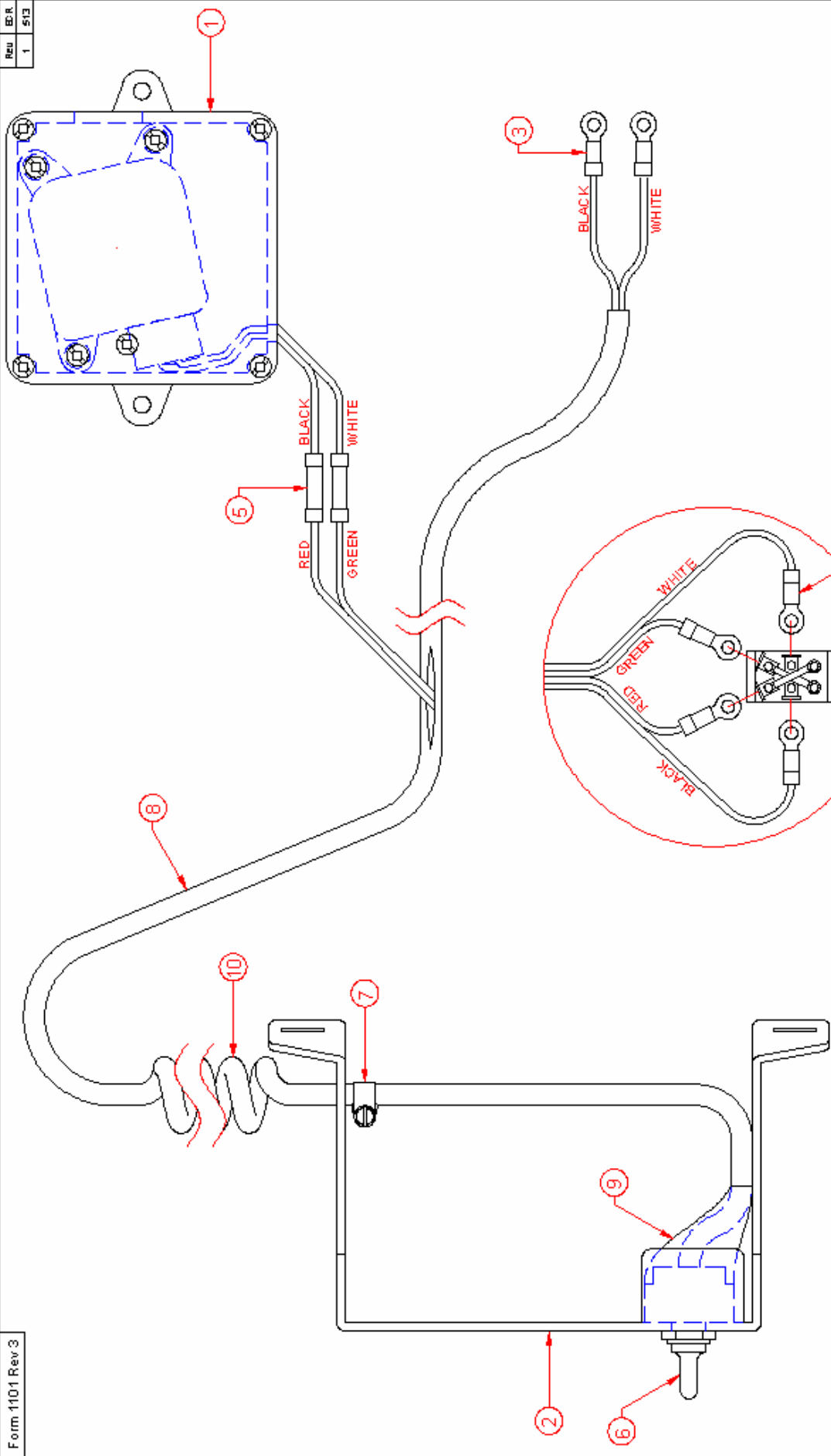
Ref	Part #	Description	Qty
1	TC-0800-5729	ETC WIRING SCHEMATIC	1
2	14-1500-0005	ELECTRICAL - 1 HOLE EMT STRAP - 1/4"	11
3	16-0207-0004	HEX BOLT - 1/4" x 3/4" UNC - PLTD - GRD 5	2
4	16-0707-0001	NYLON INSERT LOCK NUT - 1/4" UNC - PLTD - GRD 5	3
5	16-1400-0010	TRUSS HEAD COMB SCREW - 1/4" x 3/4" UNC - PLTD	1
6	16-2500-0010	HOSE CLAMP - 5" - 7"	2
7	24-2200-0007	SELF TAPPING SCREW - #8 x 3/4"	10

Title: BTS-0000	
ELECTRIC THROTTLE CONTROL	
Part No.: BTS-0000-ETC	Tolerance ±1/16
Date: 01/20/05	Scale: 1 : 8
Checked By:	Approved By:
Drawn By: TS	
CONVEY-ALL IND. INC. Box 2008, Winkler, Manitoba R6M 4B7 (204) 325-4195, F ax (204) 325-8116	
Ref. No.:	

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Rev	EDR
1	5/13



Ref.	Part#	Description	Qty
1	TC-0800-5730	THROTTLE CONTROL - ELECTRIC MOTOR ASSEMBLY	1
2	TC-0800-1217	TOGGLE SWITCH MOUNT BRACKET (DOWNSPOUT)	1
3	12-3000-0002	ELECTRICAL - RING TERMINALS - YELLOW - 12-10	2
4	12-3000-0020	ELECTRICAL - RING TERMINALS - BLUE 16-14	4
5	12-3000-0018	ELECTRICAL - BUTT CONNECTOR - BLUE 16-14G	2
6	12-3000-0026	ELECTRICAL - THROTTLE CONTROL TOGGLE SWITCH	1
7	16-2500-0001	HOSE CLAMP - 7/32" - 5/8"	1
8	19-5000-0007	THROTTLE CONTROL ELEC. GEAR MOTOR - CORD ASSEMBLY	1
9	14-2200-0049	HEAT SHRINK - 1" - HEAVY DUTY	3"
10	14-2200-0048	ELEC. WIRE 18/4 CURLY CORD	1

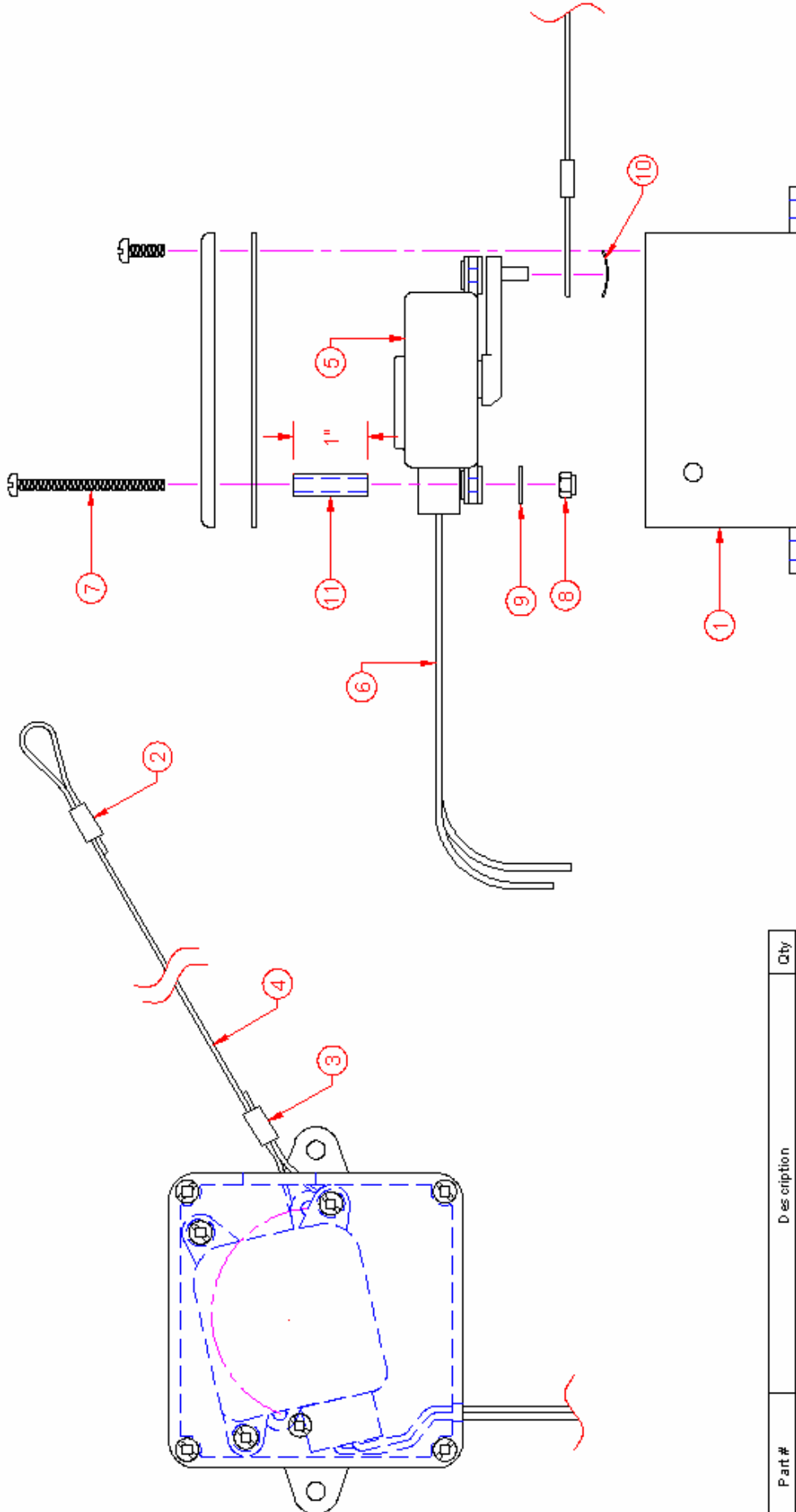
Title: TC-0800			
ETC WIRING SCHEMATIC			
Part No.:	Tolerance	Date:	Scale:
TC-0800-5729	±1/16	01/20/05	1:2
Checked By:		Approved By:	
CONVEY-ALL IND. INC.		Drawn By: TS	
Box 2008, Winkler, Manitoba R6M 4B7		Ref. No.:	
(204) 325-4195, Fax (204) 325-8116		.	

TOGGLE SWITCH WIRING DETAIL

Form 1101 Rev 3

# Convey-All Industries Inc. BTS 290 & 360 OPERATOR'S MANUAL

Rev	EDR
1	513



Part #	Description	Qty
TC-0800-1215	JUNCTION BOX - 4" x 4" x 2" - SCEPTER	1
12-1100-0009	CABLE CLIP - 1/8"	1
12-1100-0017	CABLE SLEEVE - SWAGED - 1/16"	1
12-1100-0018	CABLE - GALVANIZED - 1/16"	45'
19-5000-0004	THROTTLE CONTROL - ELECTRIC GEAR MOTOR	1
19-5000-0005	ELECTRIC GEAR MOTOR - 8" LEADS (INSTALLED)	1
16-0301-0003	MACHINE SCREW - ROUND HEAD - 8/32" x 2"	4
19-0907-0009	HEX MACHINE SCREW NUT - 8/32"	1
16-12-0007	RIMIT 3/16 BACK PLATE	1
16-2700-0001	3/16" SPRING CLIP	1
24-2800-0092	5/16" HOSE (3/16" I.D.) - TRANSLUCENT	4'

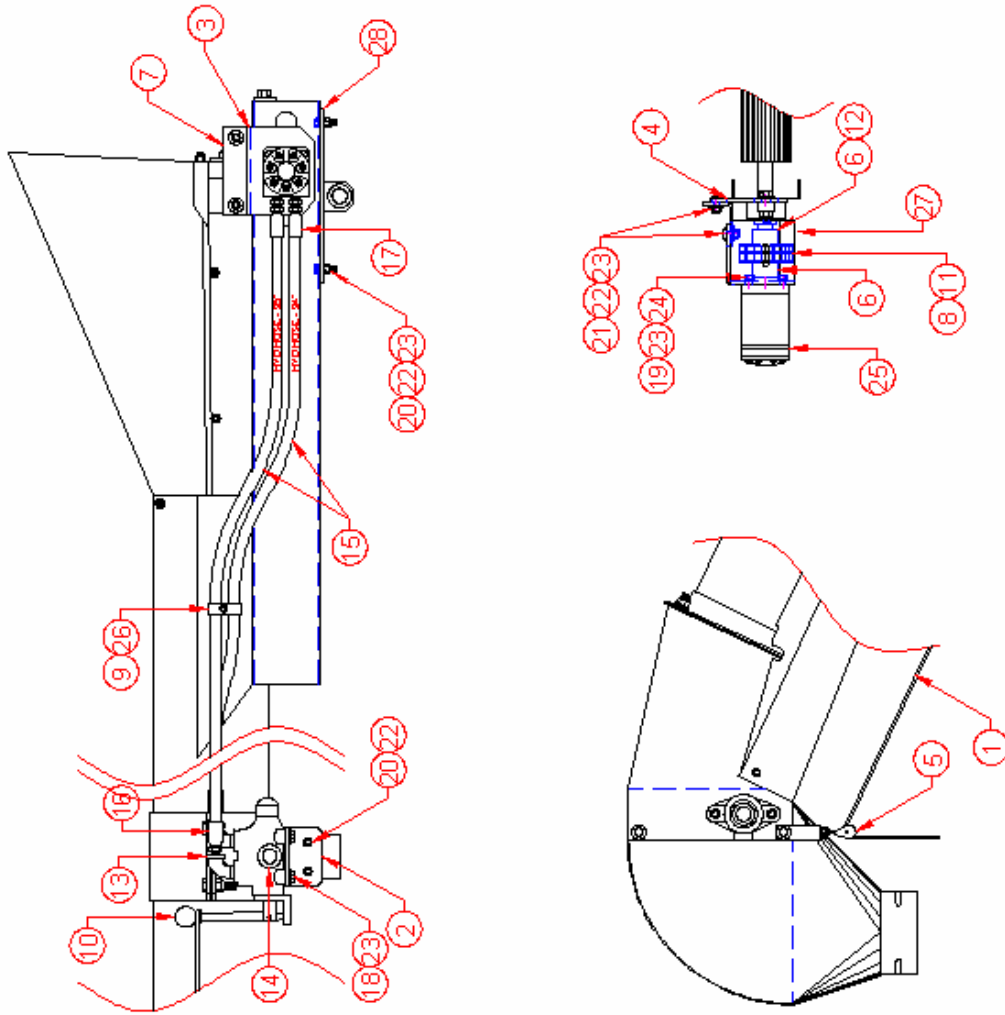
Title: TC-0800	
THROTTLE CONTROL - ELEC MOTOR ASSY	
Part No.: TC-0800-5730	Tolerance: ±1/16
Date: 01/18/05	Scale: 1 : 2
Checked By:	Approved By:
Drawn By: TS	Ref. No.: 14-1800-0001
CONVEY-ALL IND. INC. Box 2008, Winkler, Manitoba R6W 4B7 (204) 325-4195, F ax: (204) 325-8116	

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3

Rev	EDA
1	588



Ref	Part #	Description	Qty
1	TC-0800-1226	GAS THROTTLE ROPE	1
2	BTS-2900-0042	HYD VALVE MOUNT PLATE	1
3	MM-1000-0007	HYDRAULIC MOTOR MOUNT BRACKET	1
4	MM-1000-0009	HYDRAULIC MOTOR MOUNT PLATE	1
5	TC-0800-4763	DISCHARGE THROTTLE PULLEY	1
6	TC-1000-4623	# 50 - 14 TOOTH SPROCKET ON 1" HUB	2
7	UB-1000-0019	HYDRAULIC MOTOR BRACKET (INNER)	1
8	UB-1000-0021	HYDRAULIC COUPLER CHAIN (#50)	1
9	UH-0000-0191	DOUBLE HYDRAULIC HOSE CLAMP	1
10	18-4600-0008	MANUAL HYDRAULIC VALVE (GRIESEN 400-1600)	1
11	11-1100-0004	#50-2 (DOUBLE) CHAIN - CONNECTING LINK	1
12	11-2300-0020	KEY - 1/4" x 2"	1
13	15-1200-0002	90° ELBOW - 1/2" MALE x 1/2" FEMALE - BLACK	2
14	15-1200-0015	90° ELBOW - 3/4" MALE x 3/4" FEMALE - BLACK	1
15	18-5000-0002	HIGH PRESSURE HYD. HOSE - 1/2"	189"
16	18-3500-0086	8WC-8MP X - 1/2" HOSE - 1/2" MALE PIPE SWIVEL	2
17	18-3500-0090	8WC-8MP - 1/2" HOSE - 1/2" MALE PIPE	2
18	16-0207-0122	HEX BOLT - 3/8" x 3/4" UNC - PLTD - GRD 5	4
19	16-0207-0124	HEX BOLT - 3/8" x 1" UNC - PLTD - GRD 5	4
20	16-0207-0126	HEX BOLT - 3/8" x 1-1/4" UNC - PLTD - GRD 5	6
21	16-0307-0124	CARRIAGE BOLT - 3/8" x 1" UNC - PLTD - GRD 5	4
22	16-0707-0003	NYLON INSERT LOCK NUT - 3/8" UNC - PLTD - GRD 5	10
23	16-1707-0004	USS FLAT WASHER - 3/8" PLTD	16
24	16-2408-0007	LOCK W/ASHER - 3/8" PLTD	4
25	19-3000-0002	CHAR-LYNN HYDRAULIC MOTOR - 5.9 CU. IN. / REV	1
26	24-2200-0002	SELF TAPPING SCREW - 1/4" x 3/4"	1
27	TCS-1435-0010	HYD. MOTOR GEAR GUARD	1
28	BTS-2400-4114	CONVEYOR SWIVEL	1

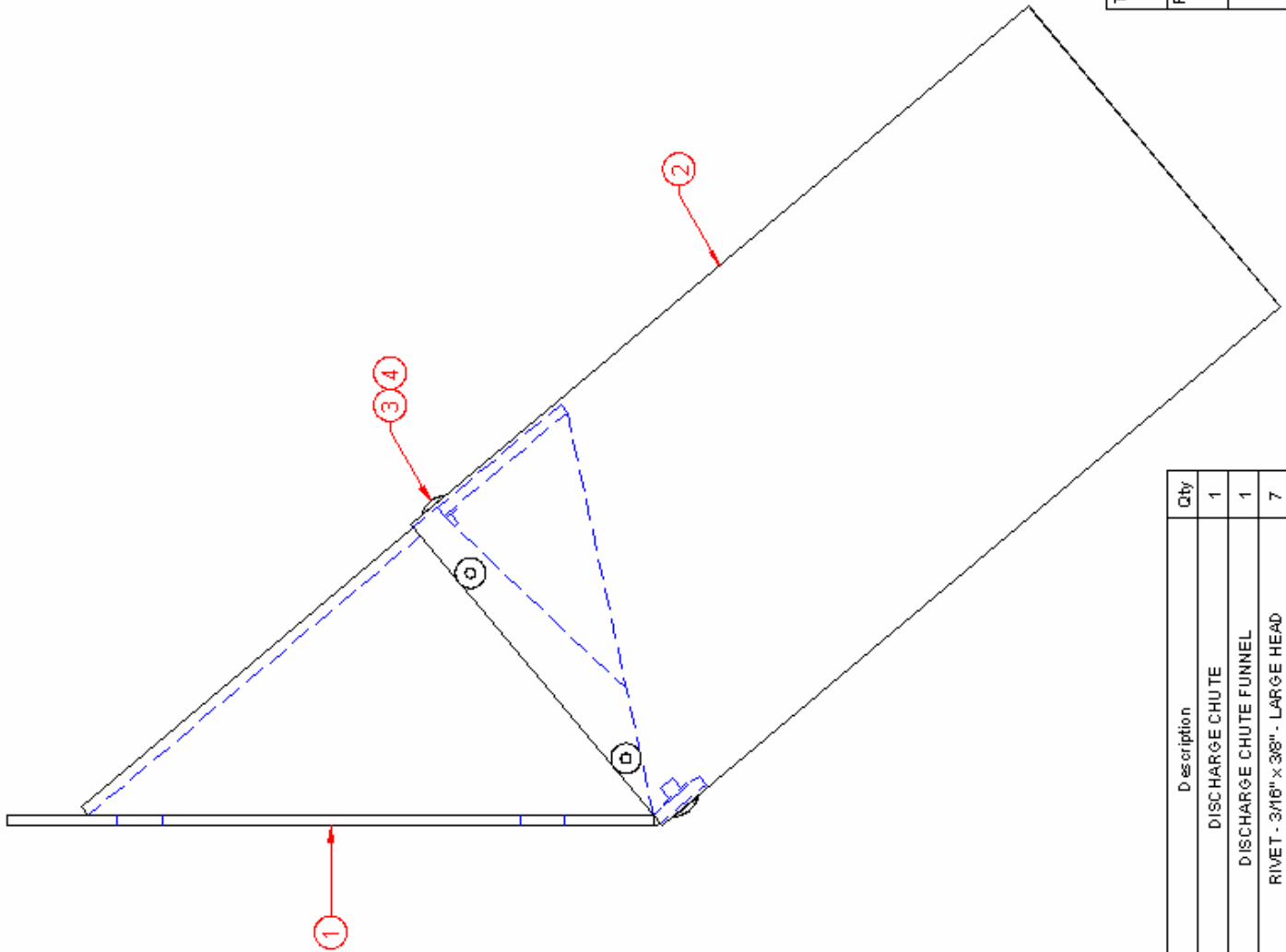
Title: BTS-290 - 360 HYDRAULIC DRIVE			
Part No.:	Tolerance	Date:	Scale:
BTS-290-360-HYD DR	±1/16	09/27/04	1 : 12
Checked By:		Approved By:	
CONVEY-ALL IND. INC.		Drawn By: TS	
Box 2008, Winkler, Manitoba R6M 7 4B7		Ref. No.:	
(204) 325-4195, F ax (204) 325-8116		-	

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Rev	EDR
1	WDT
2	411

Form 1101 Rev 3



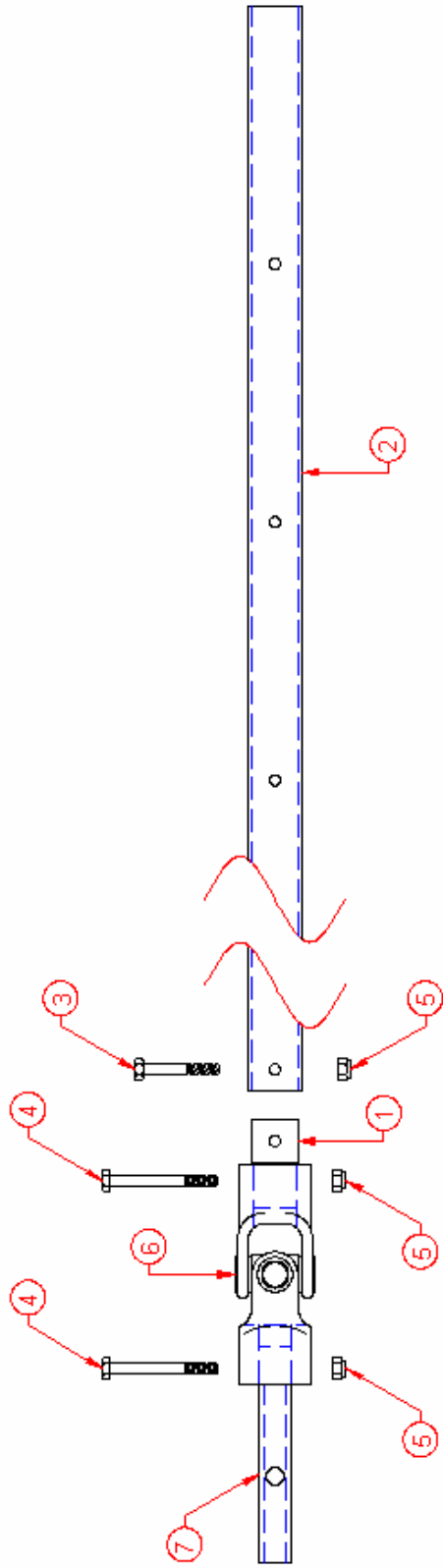
Title: <b>BTS-2400 DISCHARGE CHUTE</b>	
Part No.: <b>BTS-2400-5004</b>	Tolerance: <b>±1/16</b>
Date: <b>09/16/03</b>	Scale: <b>1 : 2</b>
Checked By:	Approved By:
Drawn By: <b>T Suderman</b>	M.E.T.
CONVEY-ALL IND. INC. Box 2008, Winkler, Manitoba R6M 4B7 (204) 325-4195, Fax (204) 325-8116	
Ref. No.:	

Ref.	Part #	Description	Qty
1	BTS-1500-4014	DISCHARGE CHUTE	1
2	25-1000-0034	DISCHARGE CHUTE FUNNEL	1
3	16-1200-0009	RIVET - 3/16" x 3/8" - LARGE HEAD	7
4	16-1200-0007	RIVET - BACKUP PLATE - 3/16"	7

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

Form 1101 Rev 3



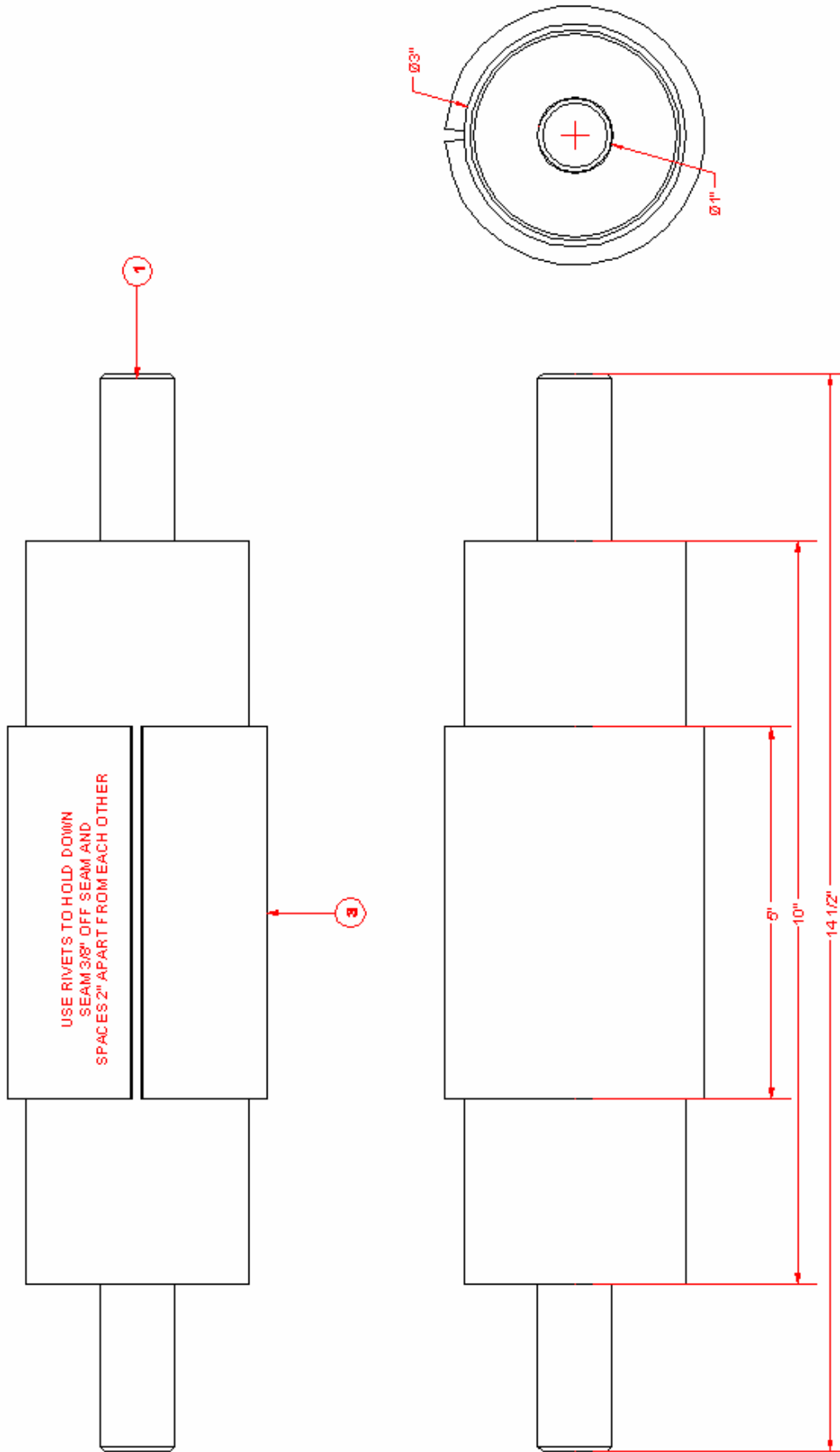
Ref.	Part#	Description	Qty
1	BTS-1500-0099	HANDLE TO UNIVERSAL ADAPTER	1
2	BTS-1500-0101	HANDLE TO UNIVERSAL TUBE	1
3	16-0207-0011	HEX BOLT - 1/4" x 1 3/4" UNC. - PLTD. - GRD 5	1
4	16-0207-0014	HEX BOLT - 1/4" x 2 1/2" UNC. - PLTD. - GRD 5	2
5	16-0707-0001	NYLON INSERT LOCK NUT - 1/4" UNC. - PLTD. - GRD 5	3
6	25-1000-0020	ROLL TARP - CRANK HANDLE - U-JOINT	1
7	25-1000-0033	3/4" SQUARE TUBE - PIVOT CRANK KEY	1


Title: <b>BTS-2900</b>			
Part No.: <b>TARP CRANK JOINT</b>			
Part No.:	Tolerance	Date:	Scale:
BTS-2900-5001	±1/16	03/01/05	1 : 4
Checked By:			
Approved By:			
Drawn By: Ed Wiebe			
Ref. No.:			

CONVEY-ALL IND. INC.  
 Box 2008, Winkler, Manitoba  
 R6M 4B7  
 (204) 325-4195, Fax (204) 325-8116

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL



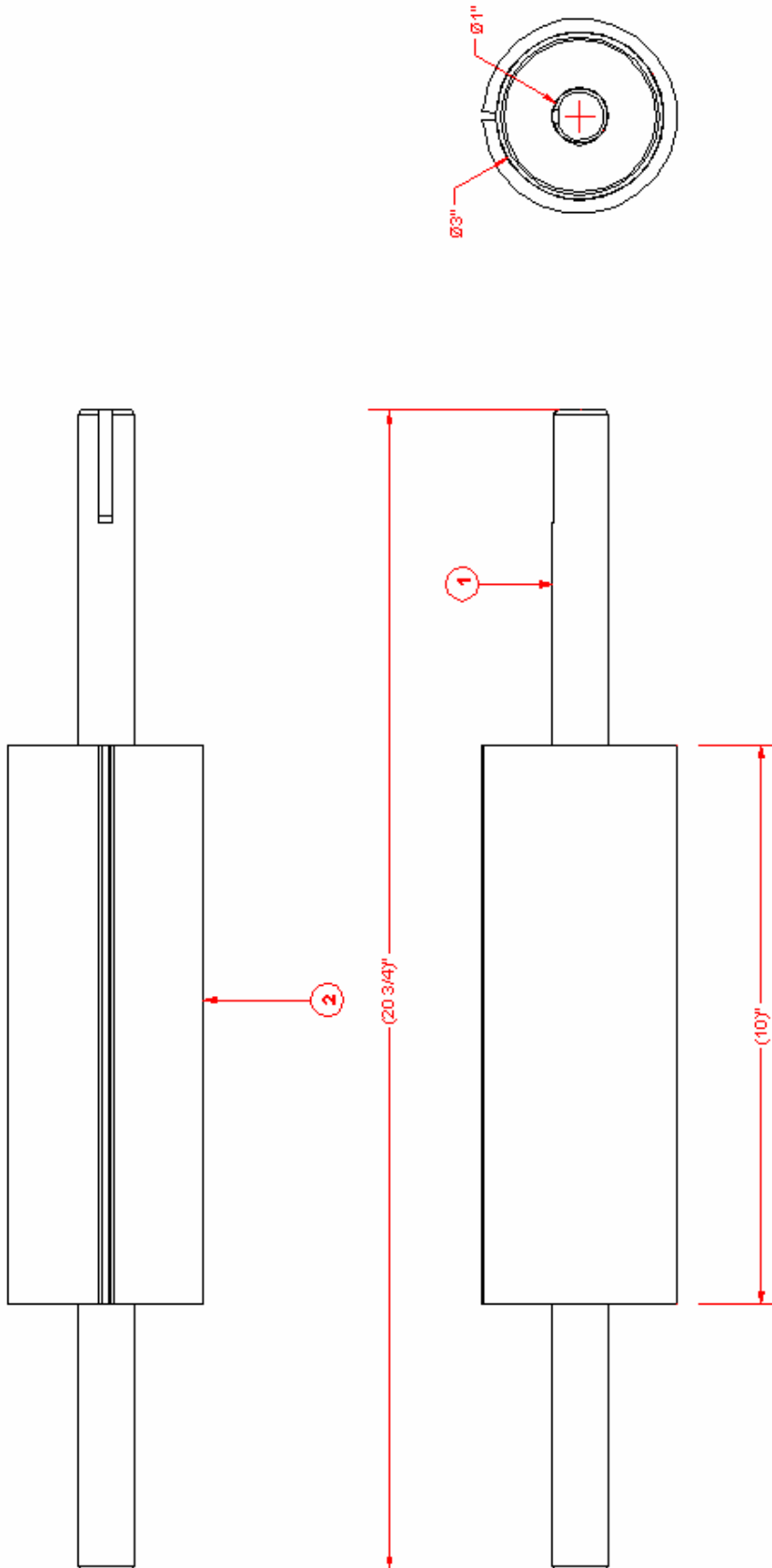
<p><b>TO LEARN MORE VISIT US ONLINE</b>          VISIT OUR WEBSITE AT  <a href="http://www.conveyall.com">www.conveyall.com</a>          OR CALL US AT          1-800-368-3688</p>	 <p><b>CONVEY-ALL INDUSTRIES INC.</b>          MISSISSAUGA, ONTARIO, CANADA</p>	<p><b>DO NOT REPEAT</b>          DO NOT SCALE DRAWING</p>	<p><b>TITLE</b>          CONVEYOR - COMMON          ROLLER - TYPE 3 x 14.5L x 1</p>
<p><b>PART NO.</b>          500022</p>	<p><b>MATERIAL</b>          ROLLER</p>		<p><b>REF NO.</b>          ROLLER</p>
<p><b>DATE</b>          27.10.2005</p>	<p><b>SCALE</b>          (1:2)</p>		<p><b>SHEET</b>          1 OF 1</p>
<p><b>CHECKED:</b></p>			



ITEM	PART #	DESCRIPTION	QTY
1	409103	ROLLER - TYPE 3 x 14.5L x 1	1
2	1B-1200-0005	RIVET - A1914 - 3/16D x 5/8D	8
3	100473	ROLLER LAGGING - TYPE 3 x 5L	1

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

USE RIVETS TO HOLD DOWN  
SEAM 3/8" OFF SEAM AND  
SPACES 2" APART FROM EACH OTHER



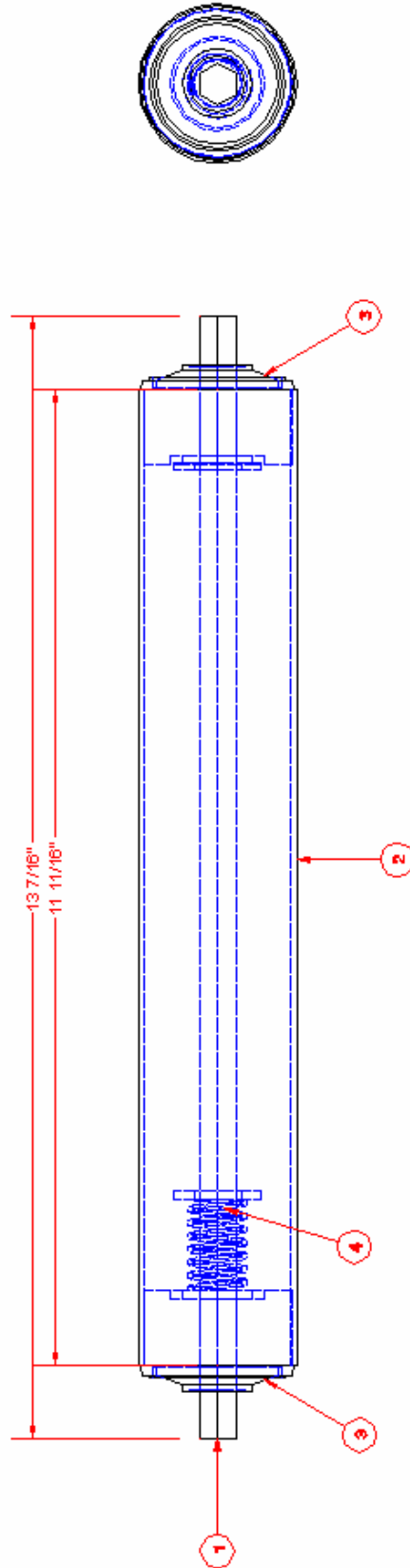
<p><b>TO LEARN MORE VISIT US ONLINE</b>          VISIT OUR WEBSITE AT  <a href="http://www.convey-all.com">www.convey-all.com</a>          OR CALL US AT          1-800-368-2262</p>	 DO NOT SCALE DRAWING	 MISSISSAUGA, ONT. CANADA (905) 238-1100	<p><b>TITLE</b> CONVEYOR - COMMON</p> <p><b>PART NO.</b> 500024</p> <p><b>DATE</b> 27/10/2005</p> <p><b>DRAWN</b> EW</p> <p><b>CHECKED:</b></p>
<p><b>MATERIAL</b> ROLLER - TYPE 3 x 10L x 1</p>			<p><b>SCALE</b> (1:3)    <b>SG. IN.</b></p>
<p><b>PROPERTY AND CONFIDENTIALITY NOTICE:</b>          THIS DRAWING IS THE PROPERTY OF CONVEY-ALL INDUSTRIES INC. IT IS TO BE USED ONLY FOR THE PROJECT AND QUANTITY SPECIFIED THEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF CONVEY-ALL INDUSTRIES INC.</p>			<p><b>REF. NO.</b></p> <p><b>SHEET:</b> 1 OF 1</p>

ITEM	PART #	DESCRIPTION	QTY
1	400110	ROLLER - TYPE 3 X 10L X 1	1
2	100479	ROLLER LAGGING - TYPE 3 X 10L	1
3	18-1200-0005	RIVET - A884 - 3/16D X 5/8O	12



# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL

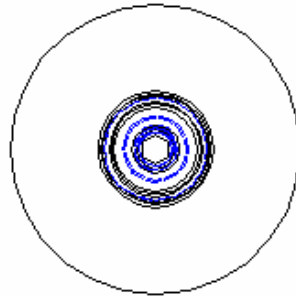
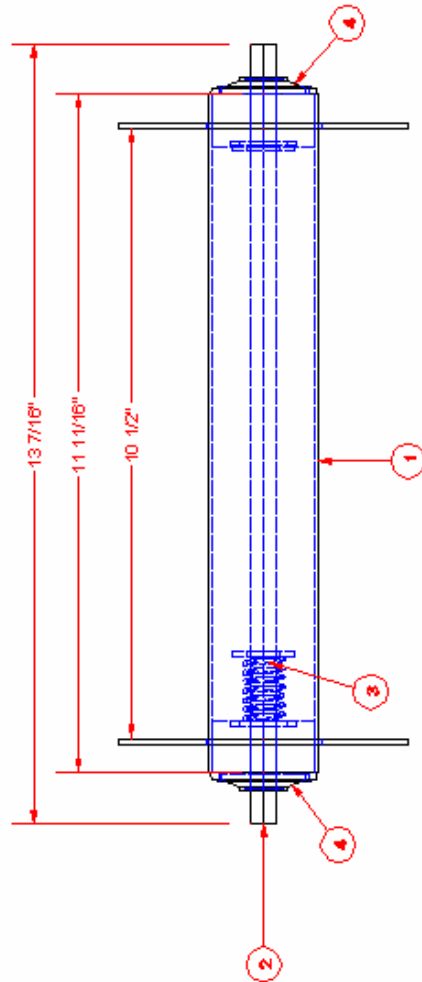


ITEM	PART #	DESCRIPTION	QTY
1	400106	RETURN ROLLER SHAFT - .4375 x 13.4375	1
2	100484	RETURN ROLLER BODY - TYPE 1 .675 x 11.6875	1
3	12-1000-0109	BEARING - 7/16" HEX SHAFT - 1.9" O.D.	2
4	18-1900-0001	COMPRESSION SPRING - 1/2" I.D.	1

TO LEARN THE RULES OF THE DRAWING GO TO THE APPROPRIATE CHAPTER IN THE CONVEY-ALL OPERATOR'S MANUAL.	ISO 1 POINT NO DIMENSIONAL TOLERANCES	<b>CONVEY-ALL INDUSTRIES INC.</b> MANUFACTURING DEPARTMENT 1000 W. 1000 S. SALT LAKE CITY, UT 84119	CONVEYOR - COMMON TURN ROLLER - .4375 x 11.6875 x 13.4375	REF NO.
PART NO. 500025RE	TITLE	MATERIAL	SCALE (1:2)	SHEET 1 OF 1
DATE 27/10/2005 DRAWN: E10 CHECKED:				

# Convey-All Industries Inc.

## BTS 290 & 360 OPERATOR'S MANUAL



ITEM	PART #	DESCRIPTION	QTY
1	400109	RETURN ROLLER FL - BODY - 11.6875	1
2	400109	RETURN ROLLER SHAFT - .4375 x 13.4375	1
3	18-1600-0001	COMPRESSION SPRING - 1.2" I.D.	1
4	12-1000-0009	BEARING - 7/16" HEX SHAFT - 1.6" O.D.	2

POLYGRAPHED DRAWING OF THE DESIGN OF THIS DRAWING IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF CONVEY-ALL INDUSTRIES INC.	DO NOT SCALE DRAWING 100%	CONVEY-ALL INDUSTRIES INC. VENTNOR, DE CALAPA. CPO 208-438	TITLE CONVEYOR-COMMON	REF. NO. 13.4375
PART NO. 5000.28	TITLE RETURN ROLLER FL - .4375 x 11.6875 x 13.4375			REF. NO. 13.4375
DATE 27/10/2005	MATERIAL			REF. NO.
DRAWN: BMM	CHECKED:			SCALE 1:1
PARTS LISTED ARE SUBJECT TO CHANGE WITHOUT NOTICE				SHEET: 1 OF 1