SAFETY, OPERATION, & MAINTENANCE MANUAL FOR MILLER CURBERS

Revised JANUARY 2026

Part #35001

This manual is for the Miller Curber

Read the contents of this Manual BEFORE putting this machine in Service.

Table of Contents

SPARK ARRESTER SERVICE: Your engine is not factory-equipped with a spark arrester. In some areas, it is illegal to operate an engine without a spark arrester. Check local laws and regulations. A spark arrester is available from your authorized engine dealer.

New Machine Assembly:

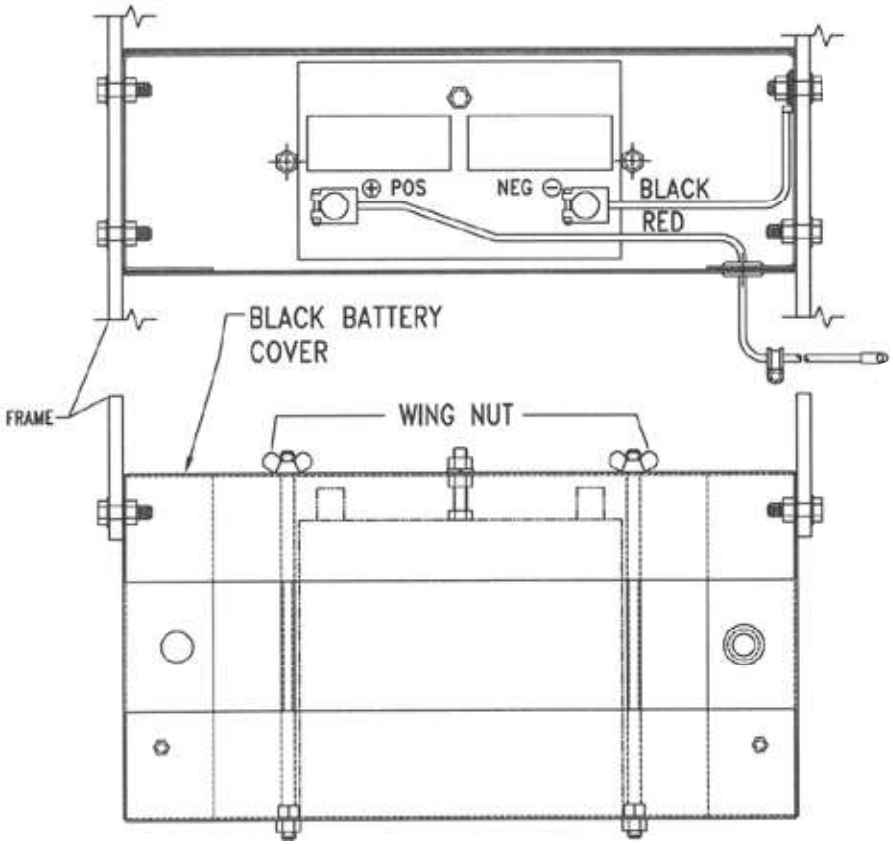
1) Remove Curber from Shipping Skid.

2) Loosen the two (2) Hopper Retention Bolts/ Wing nut assemblies. Unlatch the two (2) rubber hood latches on the Belt Guard which holds the Engine Cover in Place. Fold the Engine Cover into the hopper. With two (2) people, lift the hopper and engine cover off of the Curbilder frame and set these parts on the ground. Remove the Steering/Brake Handle that is shipped on the top of the Curbilder frame.

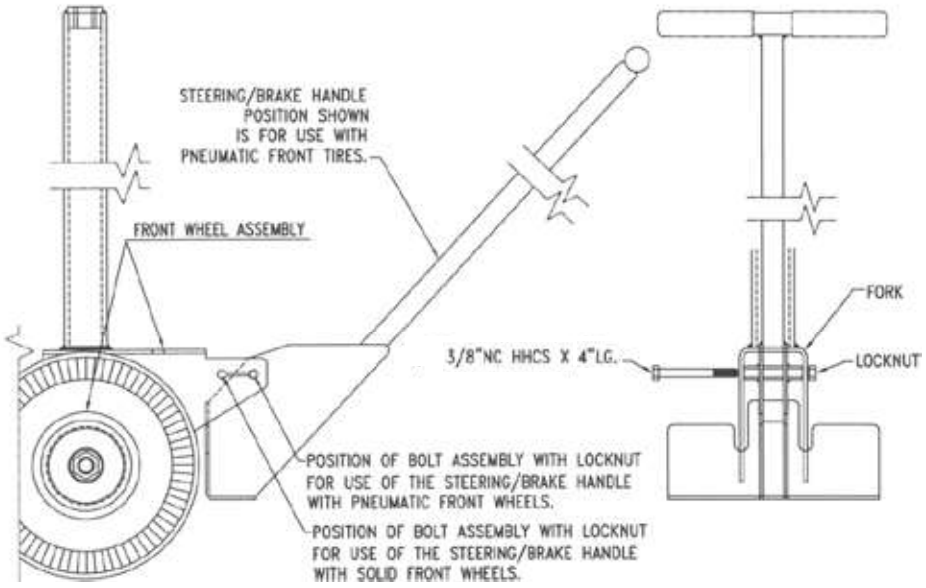
3) On Electric Start Models:

   A) On ALL Electric Start Models the Ignition Keys for the Engine are in the Ignition Switch.

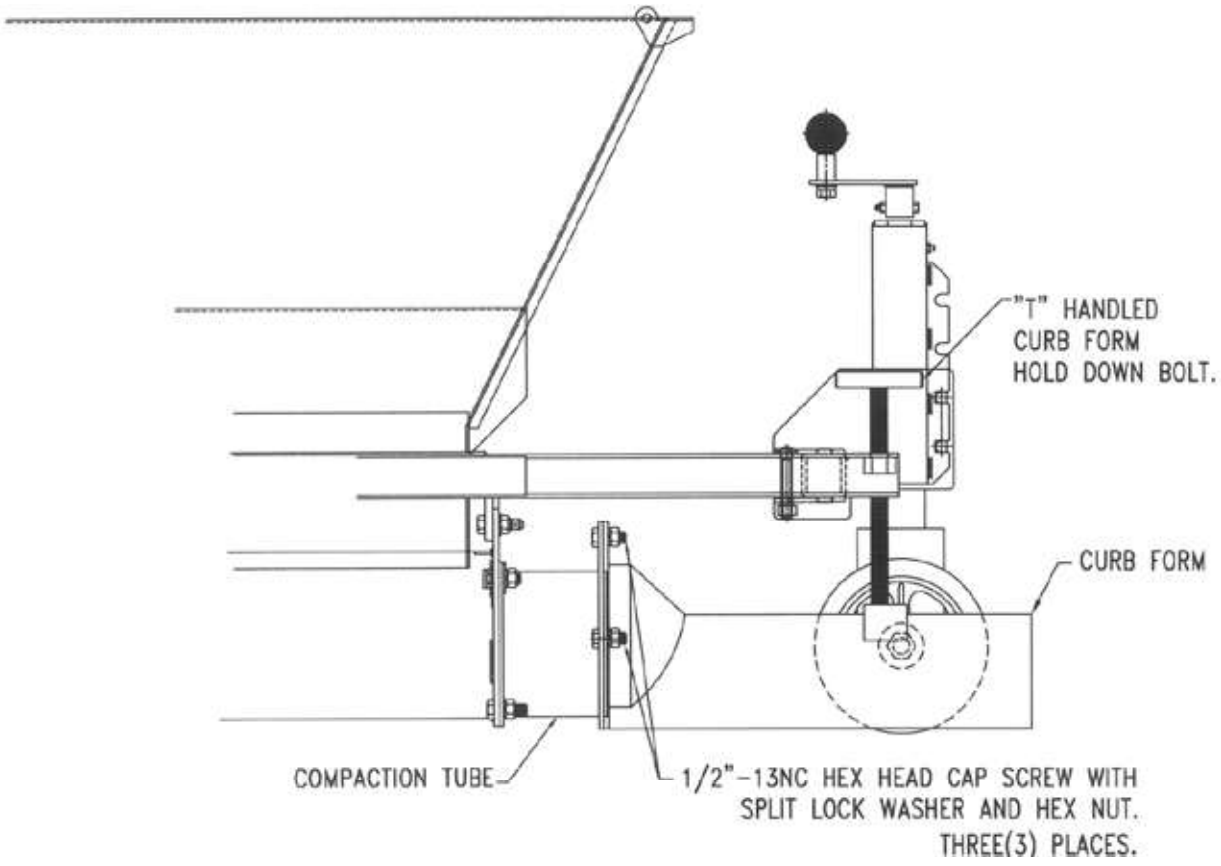
Remove the two (2) wing nuts on the top of the Black Battery Cover on the Battery Box in the middle of the Curbilder frame. Then remove the Battery Cover. Connect the Black Ground to the negative battery terminal.
Replace Battery Cover. Replace Hopper and Engine Cover.



4) Attach the Steering/Brake Handle to the Front Wheel Assembly on the same side of the machine that the Auger assembly is located. Use 3/8”-16NC Hex Head Cap Screw x 4” Long with Nylock lock nut. For Curbers with Solid Front Wheels assemble the Handle in the two (2) holes in the fork of the Front Wheel Assembly toward the Rear of the machine. For Curbers with Pneumatic Front Wheels assemble the Handle in the two(2) holes in the fork of the Front Wheel Assembly toward the Front of the machine. Tighten bolt so the Handle pivots smoothly without binding.



5) Attach Curb Form to the end of the Compaction Tube using three (3) ½”-13NC Hex Head Cap Screw with Split Lock Washer and Hex Nut. Then turn the “Tee” Handled Curb Form Hold Down bolt clockwise until the end of the bolt makes firm contact with the end of the Curb Form. DO NOT OVERTIGHTEN THIS “T” BOLT.



6) With Curber level, fill the engine with the proper grade and amount of motor oil. Refer to the Engine Owner’s Manual. Fill to full mark on dip stick. Do not overfill.

8) Reverse the Position of the Rear Wheel Assembly on the Frame of the Curber. The Rear Wheel Assembly is shipped with the Vertical Square Tube placed facing the Front of the Curber. This position prevents shipping damage. To place the Vertical Tube in the correct position for machine operation:

   A) Turn the Rear Wheel Assembly Crank Clockwise until the Rear Wheel Assembly is off of the ground.

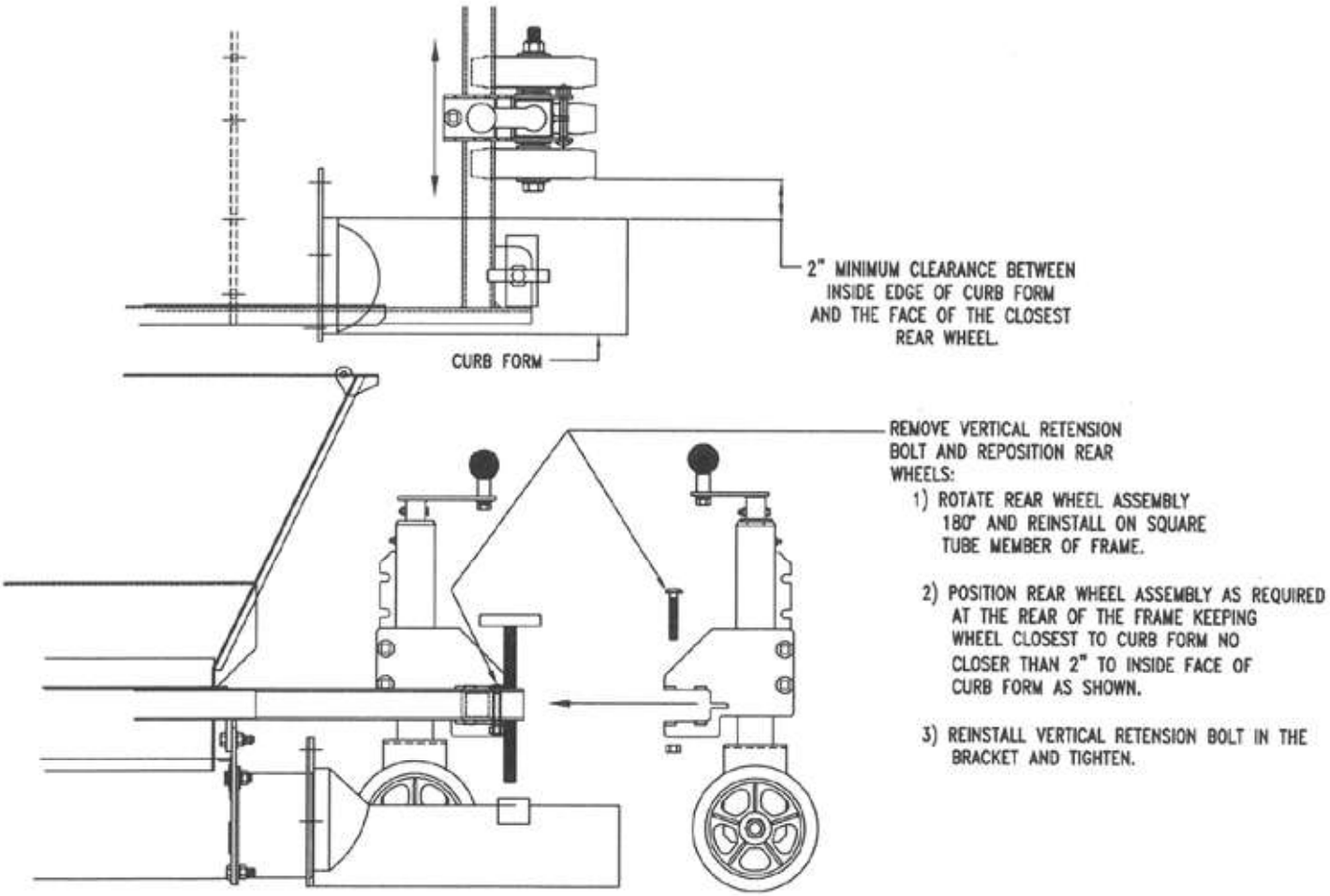
   B) Remove the one (1) vertical Retention Bolt holding the Rear Wheel Assembly Clamp to the horizontal square tube at the rear of the machine.

   C) Pull the Rear Wheel Assembly and Bracket off of the square tube of the frame.

   D) Reinstall the Rear Wheel Assembly and Bracket to the rear of the Frame of the Curbilder sliding the Bracket over the Square Tube with the Vertical Rear Wheel Assembly facing to the REAR of the Curber.

   E) Locate the outside edge of the Rear Wheel Assembly nearest the Curb Form two (2”) from the edge of the Curb Form.

   F) Replace the vertical Retention Bolt in the Bracket and tighten.



SAFETY

See "Operating the Curber," page 30 for location of machine controls.

This symbol applies to all items in the Safety section unless otherwise noted. This CAUTION symbol indicates a possibility of Personal Injury or Equipment Damage if the Instructions in this manual and on the decals attached to the machine are not followed.

This DANGER symbol, when it appears, indicates a strong possibility of Severe Personal Injury or Death if the Instructions in this manual and on the decals attached to the machine are not followed.

These safety and operating instructions for Miller Spreader curbing equipment are for your protection. Careless regard of these instructions and other safe construction practices could result in accidents and injury. **Read** and **Understand** this manual and ALL Decals located on this machine **BEFORE** putting this machine into service.

A. General Safety

- Replace damaged or worn decals.
- Replace damaged or worn decals only with original equipment decals. Do not modify decals in any way.
- Know what safety equipment is required to operate and maintain this machine. Safety equipment must include but not limited to Safety Glasses, Reflector type Vests, Gloves, Ear Protection and Steel Toed Work Boots.
- Never operate or perform any maintenance on this machine while under the influence of Drugs and/or Alcohol.

A qualified service mechanic using only MILLER CURBER CO.replacement parts or their approved equal must make all repairs to this machine. Any deviation from the original MILLER CURBER CO. supplied machine in the operation, repair, and/or modifications of the machine without the express written consent of the MILLER CURBER CO. voids all machine warranties and any liability for injuries and/or damage to person or property.

B. Before putting this equipment into operation <u>inspect the equipment daily</u>.

- Inspect this equipment on a hard and level surface.
  1. Shut engine off. "LOCK-OUT, TAG-OUT Equipment BEFORE serving.
  2. Push in any one (1) Emergency Stop Switch and remove Spark Plug Wire(s) to prevent accidental starts.
  3. Block wheels in both directions to prevent machine movement. Lower machine using the three (3) Wheel Height Adjustment Cranks until Auger Housing Assembly engages the ground and the Curb Machine is **Immobile.**
  4. Inspect belt tension/chain tension. Adjust if required. See "Machine Adjustment Section".

5. Inspect auger for wear. Repair or replace if required. See “Machine Cleaning and Maintenance Section”.
6. Inspect tires, wheels and tire pressure on pneumatic tire models. Air pressure should be 30 PSI.
7. Inspect all operating controls: Engine Speed Control Linkage, Steering Handle, Service Brake and Wheel Height Adjustment three (3) places.
8. Inspect Safety Torque Arm Assembly for proper operation, cleanliness, and adjustment. See “Machine Adjustment Section”.
9. Inspect engine oil level. Follow all maintenance as outlined in the “Machine Cleaning and Maintenance Section”.
10. Before adding fuel:

- **A hot and/or running engine can ignite spilled gasoline.**
- Shut engine off.
- Let engine cool off a minimum of 5 minutes
- Extinguish smoking materials
- Use funnel
- Do not overfill
- Replace fuel cap after adding fuel.
- **Exercise extreme caution when refueling.**

- After making Inspections and Adjustments 1-10, **REPLACE ALL MACHINE GUARDS,** Be sure that no person is in harm’s way. Start engine. Verify that centrifugal clutch operates correctly. At idle speed the clutch fully **Disengages** auger drive and the auger stops turning. When engine speed is increased to full speed, the clutch engages and auger turns freely.
  Do not operate the Curber unless Centrifugal Clutch operates correctly.
- Make any necessary repairs or adjustments before putting this equipment into operation. All repairs must be made by qualified service personnel using only MILLER CURBER CO. replacement parts or their approved equal. Any deviation from the original MILLER CURBER CO. supplied machine in the operation, repair and/or modifications of the machine without the express written consent of the MILLER CURBER CO. voids all machine warranties and any liability for injuries and/or damage to person or property. **ALL GUARDS MUST BE IN PLACE AND FUNCTIONAL.** Refer to the “Machine Cleaning and Maintenance” and Machine Adjustments Sections” of this manual.

C. Familiarize yourself with the work site and job conditions PRIOR to using the Curber.

This equipment must only be operated by trained personnel who fully understand its safe operation. Each operator must be able to **identify any unsafe worksite conditions** and report these conditions to his supervisor for **immediate correction.**

Do not start or operate this equipment in an unventilated area.

- A GASOLINE ENGINE DISCHARGES CARBON MONOXIDE GAS WHICH CAUSES INJURY OR DEATH IF INHALED. ENGINE EXHAUST AND SOME OF ITS CONSTITUENTES ARE KNOWN TO CAUSE CANCER, BIRTH DEFECTS AND OTHER REPRODUCTIVE HARM. DO NOT OPERATE THIS MACHINE IN A BUILDING OR OTHER AREA WHERE THERE IS NOT ADEQUATE VENTILATION FOR ALL PERSONS. WHERE THERE IS ANY POSSIBILITY

OF INADEQUATE VENTILATION ON THE JOB DUE TO BUT NOT LIMITED TO CARBON MONOXIDE GAS, THE JOB SITE AREA MUST BE TESTED REGULARILY (EVERY ONE (1) HOUR) PER OSHA 29 CFR PART 1910.146. FURTHER, THE JOBSITE MUST MEET ALL OSHA MINIMUM ATMOSPHERE GUIDELINES FOR THE JOB SITE AS SET FORTH "IN THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION", OSHA 29CFR PART 1926.55 APPENDIX A. ADEQUATE VENTILATION MUST BE DETERMINED BY FOLLOWING JOB SITE INSPECTION PROCEDURES AS OUTLINED BY OSHA. **ALL JOB SITE VENTILATION ISSUES MUST BE CORRECTED BEFORE EXPOSING ALL PERSONS TO HARMFUL JOB SITES.**

- Do not operate this equipment on unsafe surfaces. This equipment is intended for use only on **leveled and compacted surfaces**. AVOID ANY CONDITIONS OF SLOPE AND/OR GRADE, WHICH CAN CAUSE THIS EQUIPMENT TO TIP.

1. Verify that all surfaces will support safely the maximum load of the machine with the payload. Refer to the Lifting/Tie Down Section" in this Manual and " Lifting/Tie Down/ Operation" Decals Under the Engine Cover.

   Be aware of the maximum Gross Vehicle Weight (GVW) of Miller Curbilders when the hopper of these machines are filled with concrete/asphalt. Verify the entire surface of the job site will support the maximum GVW as listed. If job site conditions so warrant, correct deficiencies before using Curbilder.

SAFETY & OPERATION SPECIFICATION CHART FOR MILLER CURBER		
MAX VEHICLE GVW with CONCRETE/ASPHALT	TIRE PRESSURE (IF PNEUMATIC)	
	FRONT	REAR
1600 LBS	30 PSI	30 PSI

2. All **surfaces** must have suitable surface for good footing for all persons and machine. Wet, muddy and/or loose surfaces may cause all persons to lose his/her footing and fall. Correct job site surface deficiencies before using Curber.
3. Identify all **unprotected openings** on jobsite and do not operate this equipment near these openings.
4. Identify all overhead structures, electrical wires, and door openings on the jobsite. Be sure the Curber and Asphalt/Concrete Truck will safely pass through and under.
5. When working on an active/in-use roadway set up safety protection for all employees and equipment as required by local codes. This safety equipment should include but is not limited to Traffic Cones, Flagmen for traffic control, Safe Access and Exit for Asphalt/Concrete Truck.
6. Dismiss all untrained employees and bystanders from the area in which this machine will be operated.

D. Operation of this equipment

Use caution when operating near other people and obstructions. Always look to the rear before backing up and back up slowly.

Never operate Curber with safety torque arm out of adjustment or serious injury may result.

Never feed auger with a tool that could get caught in a turning auger and strike someone.

- Know the two(2) ways a Curber Auger can be Stopped:

1) IN AN EMERGENCY:

Push **IN** any one (1) of the Emergency Stop Switch RED Buttons on the Curber. On Models MC-550, MC-650 and MC-655 there are two (2) Emergency Stop Switches located on BOTH ends of the Belt Guard (Part #45010-17). On Models MC-850 and MC-900 there are two (2) additional Emergency Stop Switches located at the left and right rear corners of the machine frame. These Emergency Stop Switches have two (2) MAINTAINED POSITIONS: Pulled OUT Position, Engine/Auger will operate; Pushed IN Position, Engine/Auger will not run. Note: On all machines manufactured prior to July 2007 there is one (1) Emergency Stop Switch located on the Belt Guard and/or the engine. The operation of this switch requires that the switch be pushed in and HELD IN to stop Engine/Auger.

2) In Normal Machine On-Off Operation:

Use the Engine Speed Control (Throttle) to Decrease engine speed to the slowest Idle Speed (750 RPM) to DISENGAGE the Centrifugal Clutch. Know how to operate the Engine Throttle on your machine BEFORE putting the machine into service:

A) MC-550, MC-650, MC-655, built after November 2007 see page 31 of this manual and Parts Drawing #45130-01 in the complete Parts Manual, Part #35001-01.
B) MC-850, MC-900 built after February 2007 see page 31 of this manual and Parts Drawing #45028-01 in the complete Parts Manual, Part #35001-01.
C) MC-550, MC-650, MC-655 built between February 2006 to November 2007 Parts Drawing #45142-08.
D) MC-850, MC-900 built between February 2006 and February 2007 Parts Drawing #45142-08.
E) On all models of Curbers built prior to February 2006 the Engine Speed Control is accomplished by using the throttle located on the engine. Refer to your engine manual for operation.

- This vehicle is not intended for the transportation of any personnel. **NO RIDERS!**
- Do not operate equipment with oily dirty gloves and/or controls.
- Do not operate recklessly. Careless operation causes accidents and injury.

- If operator must leave operator's station (standing at the steering handle) he must
    1. Stop Auger from turning.
    2. Shut OFF engine. Shut off engine by depressing any Emergency Stop button on the machine.
    3. Lower machine using three (3) Wheel Height Adjustment Cranks until the Auger Housing Assembly engages the ground and the Curb Machine is immobile.
- This equipment is not intended to be towed. **NO TOWING.**
- Refer to "Lifting and Tie down Instructions" section of this manual and machine decals. Note the three (3) ways a Curber™ may be lifted and tied down and the appropriate lifting and tie down points for each method. Note the specific load ratings for chains, straps, and forklifts.
- Avoid all operating conditions where you, the operator, and/or other people can become **trapped or pinched** between the Curbilder and some other obstacle or where a Curber lifted by a crane etc. can fall on you or when loading the Curber onto a trailer or truck.
- A Curber cannot be operated in areas with flammable or explosive atmospheres. Refer to code of Federal Regulations (OSHA.) 29 CFR Part 1910.178 to determine permissible areas where these Curbers may be operated.

⚠DANGER **Keep hands clear of auger during operation of Curber. Rotating auger contact can cause injury or death. Keep away!**

Lifting, Tie Down, and Transportation Instructions

CAUTION All chains/straps must pull away from and to the front and rear as shown below. A Curber can only be lifted with a forklift when the Curber has first been attached to a suitable skid rated to support a minimum of 1,500#. Failure to attach the Curber to a skid before lifting with a forklift may result in damage to Curber and/or injury to bystanders.

Note: An Empty Curber weighs between 760# and 1,140# depending on model and auger assembly. Only lift, load and tie down Curber with the **Hopper EMPTY, the Engine Off and the Engine Fuel turned Off**).

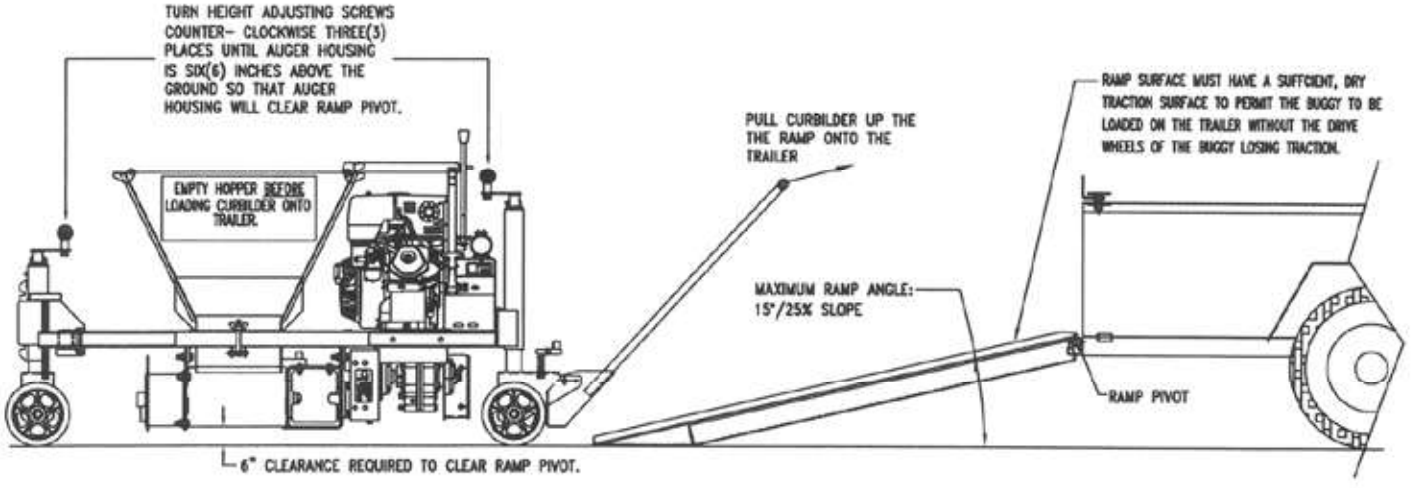
A. To load a Curber onto a trailer:

Either:

- Load the Curber using a Crane (see item C below).

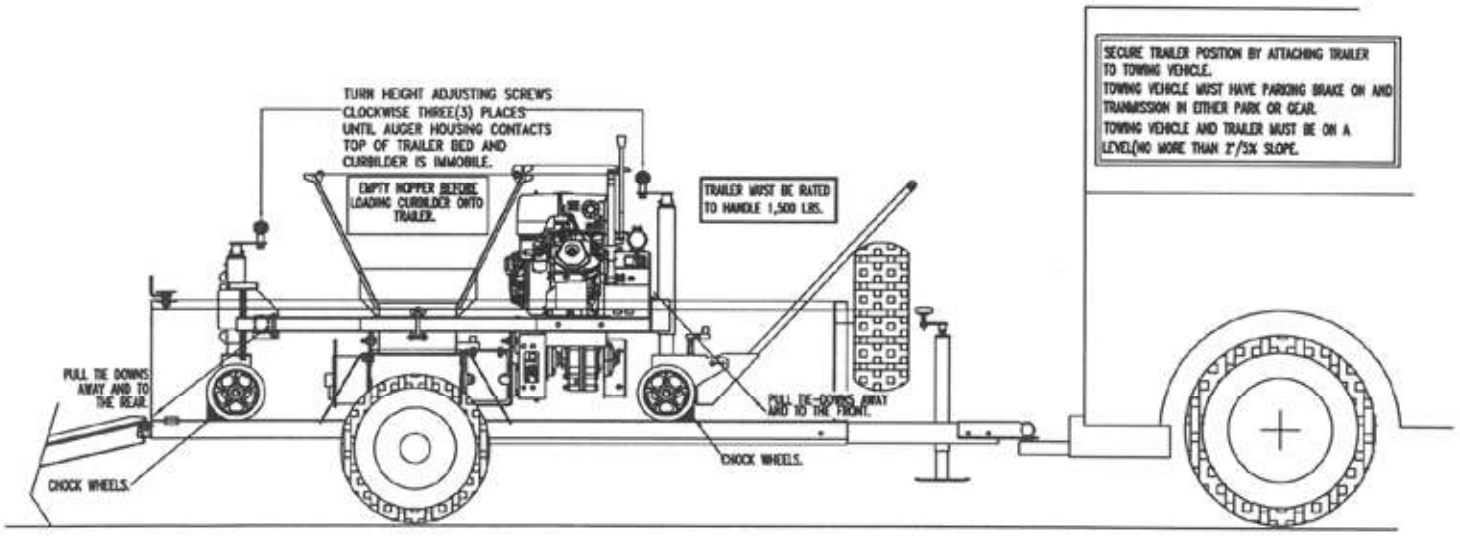
or

- Pull the Curber onto a trailer using ramp(s). Note: When pulling Curber onto a trailer, the top, loading surface of the ramp(s) must be clean and dry. The Loading Surface of the Trailer must be level, dry and the brakes on the towing vehicle secure. Three (3) people are required to pull the machine onto the trailer. Pull the machine with the Steering Handle toward the front of the trailer. Turn the Height Adjusting Screws COUNTER-Clockwise to provide 6" of clearance between the bottom of the Auger Housing and the ground. This clearance is required for the Curber to clear the ramp pivot point on the trailer. Also raise the Pointer Rod up so there is a minimum of 6" of Clearance between the bottom end of the Pointer Rod and the Ground. The ramps must not exceed a 25% (15 Degree) Grade. If three (3) people are not available to pull the machine onto the trailer a 1000# rated Winch is required to safely pull the Curber onto the trailer.



B. To tie Curber down to the Trailer Bed, Truck Bed, etc.

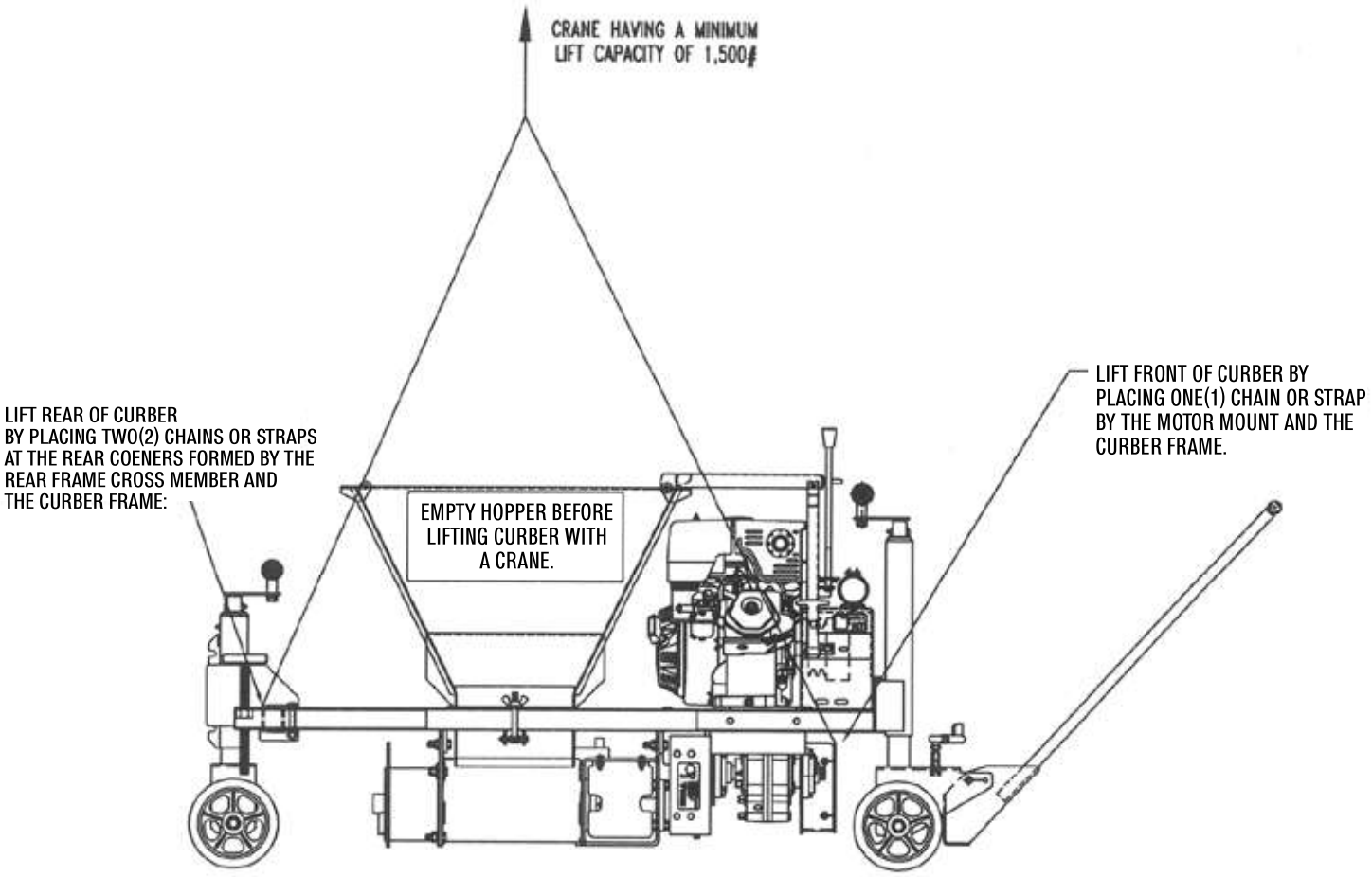
- Lower Curber using three (3) Wheel Height Adjusting Screws until Auger Housing makes firm contact with the trailer bed and Curber is level with bed of trailer and the Curber is immobile.
- Chock all wheels to prevent machine movement in all directions.
- Secure Curber to trailer bed using three (3) chains or straps as follows:
  1. 1 strap at the front middle of the Curber™ frame.
  2. 2 straps, 1 at each pocket formed by the tube and frame at the rear of the machine.
- All chains/straps must pull away and to the front and rear as shown.



C. To lift Curber (Not equipped with Lifting Lug)

- To lift the Curber use a crane or other mechanical hoist rated at a 1,500# Working Load and:

  - Position the chains or straps as follows:
    a) One (1) at the front corner formed by the motor mount and the Curber frame.
    b) Two (2) at rear corners formed by the auger housing and the Curber frame.
  - Position each chain or strap in a “U” shape around the Curber™ frame.
  - Adjust chains or straps so that when the Curber is lifted it is level in both length and width.

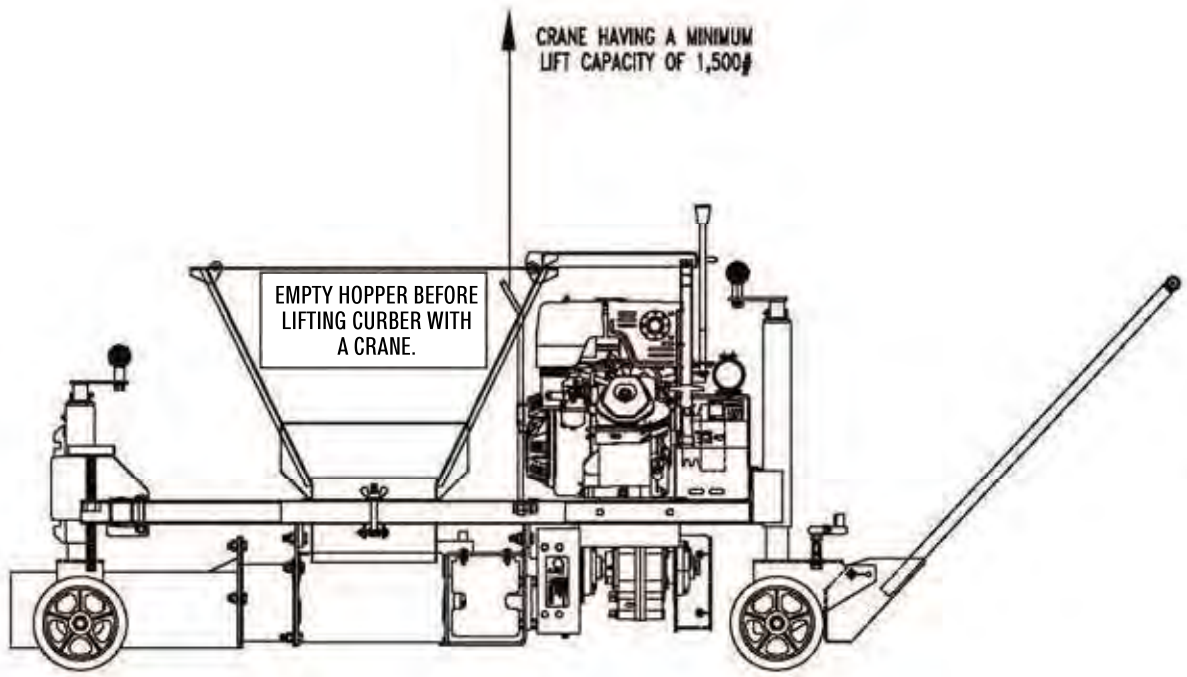


CAUTION

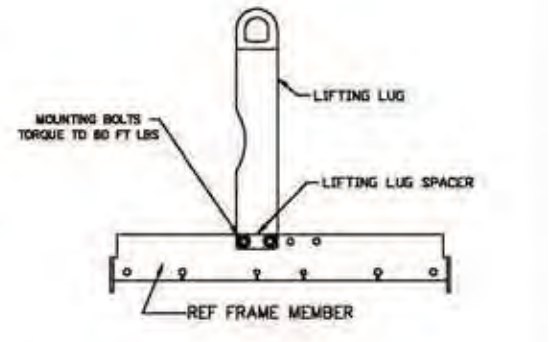
Use OSHA approved lifting/tie down chains and straps that are designed to have a minimum working load limit of 2500# per chain or strap. Lift or tie down Curber only when hopper is empty. Only transport Curber with engine off. Turn fuel switch to off position to prevent fuel from entering crankcase.

D. To lift Curber equipped with optional lifting lug:

- To lift the Curber use a crane / hoist / chains rated at a 1,500# Working Load and:
    - Position hook / chain through lifting lug eye.



Note: There are two lifting lug attaching positions. If the Curber is set up to extrude on the left side of the machine, the lifting lug is to be attached in the left set of mounting holes. If the Curber is set up to extrude on the right hand side of the machine, the lifting lug is to be attached to the right set of mounting holes. Torque lifting lug mounting bolts to 60 FT LBS.



Preparing for the Job

Choosing the Curb Form

Miller Curber has manufactured over 2200 different Curb Forms. Any of these Curb Forms are available or you may request a Curb Form to your specific dimensions.

To Order a Curb Form:

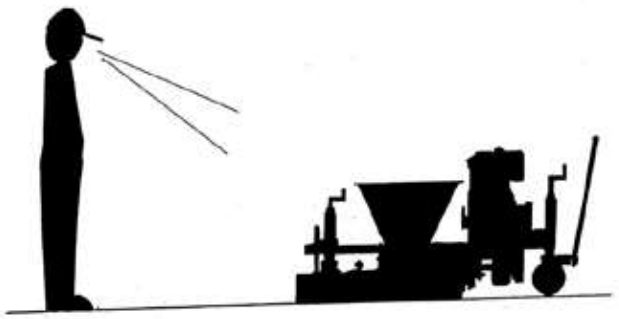
A. If you have an existing Curb Form locate the stamped number (one (1) to five (5) digits/letter) on the outside face of the curb form mounting flange. Submit this number to your local Miller Dealer or Miller Curber Co. Be sure to note any special features your Curb Form can have, for example, does it operate over dowel pins, will it extrude 3/8”(#3) reinforcing rod rebar through the center of the auger shaft, etc.

B. If you have a drawing with dimensions or a full size tracing of the exact shape of the curb form you want to purchase, submit this information to the Miller Curber Co. Be sure to note any special features your Curb Form can have, for example, does it operate over dowel pins, will it extrude 3/8” (#3) reinforcing rod rebar through the center of the auger shaft, etc. The Miller Curber Co. Customer Service Department will try to match your Curb Form information with our listing of previously manufactured forms. If your Information matches a form made previously, the number and drawing of this form will be sent to you. If the form has never been made a new Curb Form Design (CFD) Number will be assigned.

C. For Curb Forms in which the shape is non-symmetrical (Drawing a vertical center line down the center of a Curb Shape, the left and right halves of the Curb Form Shape are not the same) a left or right hand Curb Form must be determined.

   To determine Curb Form Hand for non-symmetrical Curb Forms:

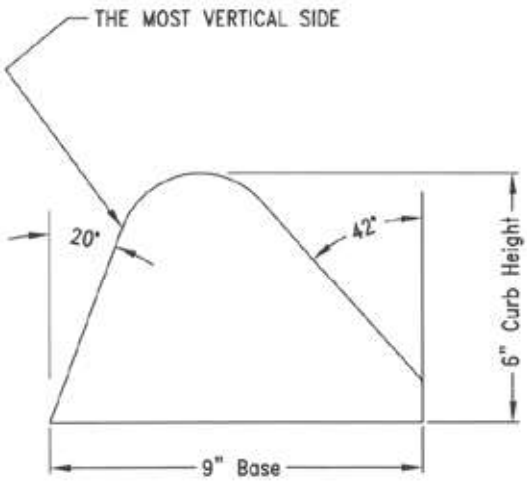
   i. Imagine a Curber equipped with the desired curb form to be in operation moving AWAY from an observer at the rear of the machine (where the curb comes out). See drawing below.



ii. With an observer looking at the Curbilder as shown determine from the observer's viewpoint on which side (left/right) **the most vertical side** of the curb is being formed. The location of the most vertical side on the Curb Form determines the hand of the form.

A CURB FORM AS VIEWED WITH THE CURBILDER MOVING AWAY FROM THE OBSERVER WITH THE MOST VERTICAL SIDE OF THE CURB FORM ON THE LEFT SIDE OF THE CURB FORM.

WHEN ORDERING THIS CURB FORM SPECIFY THAT THIS CURB FORM IS TO BE MADE LEFT HAND.



For example, if the most vertical side of the curb is on the observers left side, the curb form required to extrude the curb should be designated as a left-hand form.
Note: The majority of Curb Forms (over 90%) are manufactured as Left Hand.

See Curb Mix Information on Web Page

C. Mix required for a given Curb Form

Use the following calculations to help determine the quantity of mix required for any given curb form. It is usually a good practice to **reduce** yield per cubic yard/per ton by 5% to allow for waste, shortages, etc.:

CONCRETE: $\frac{3{,}888}{\text{Area of curb form in Square Inches}}$ = lineal feet of curb per cubic yard

ASPHALT: $\frac{1920}{\text{Area of curb form in Square Inches}}$ = lineal feet of curb per ton

NOTE: Contact Miller Curber CO. Customer Service to obtain the Curb Form Design Sheet for the Curb Form you are using to obtain the square inch area of the curb form.

See Choosing Auger Size on Web Page

Choosing either a Solid or Hollow Auger

Auger assemblies can be provided as “HOLLOW” assemblies allowing the insertion of 3/8” (#3) reinforcing rod into the curb during the extrusion process, or as “SOLID” assemblies for curbing without rebar. Determine which type of auger is required for your job site. The augers that are mounted onto a solid auger shaft have one (1) long shear bolt through the center of each auger. The augers that are mounted onto a hollow auger shaft have two (2), short, specially machined shear bolts which engage each side of the shaft but do not interfere with the rebar.
Note: Hollow Auger Assemblies can only be mounted on the LEFT side of the Curber.

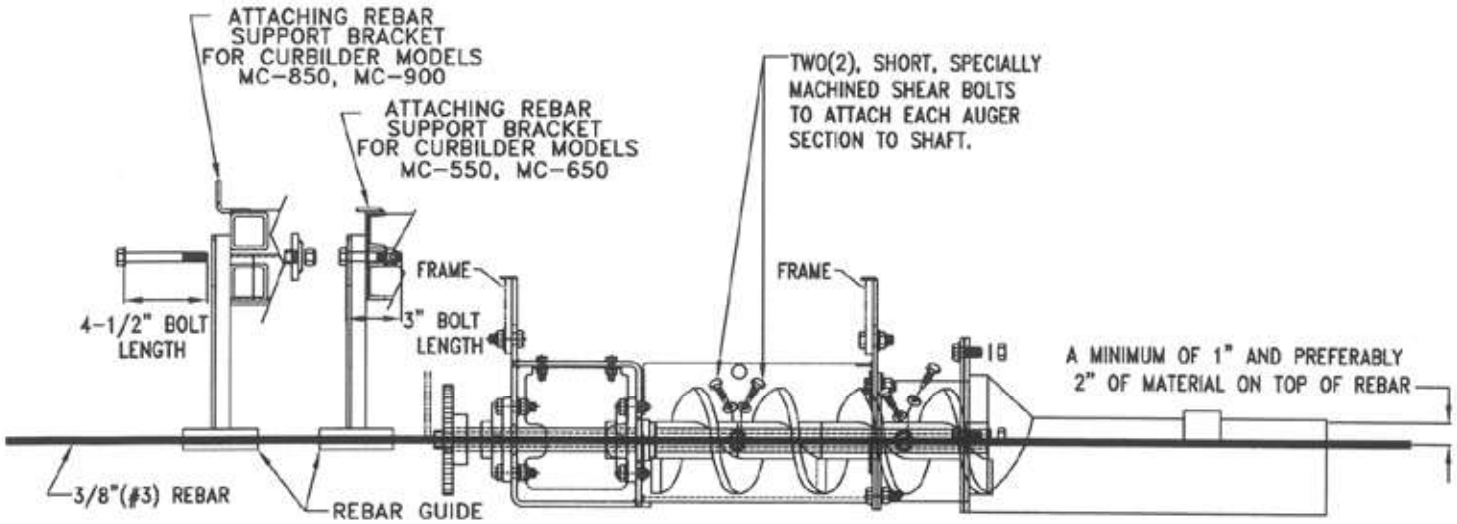
Reviewing any Special Applications that can Apply to your Job Site

A. Placing Reinforcing Rod/Rebar in an Extruded Curb

With a hollow auger assembly (available for 5”, 6” and 8” diameter augers) a $^{3}/_{8}$” diameter steel reinforcing rod can be inserted through the center of the Optional Hollow Shaft Assembly. The Front Wheel Support must be moved away from the LEFT side of the frame on which the Auger housing is mounted so that a special bracket can be mounted to the front of the frame to guide the rebar into the Hollow auger Shaft. The machine operator inserts reinforcing rod in 10’ lengths into this bracket. From the bracket the rebar then passes into the Hollow Shaft during the curbing operation. The rod passes through the auger shaft and curb form and into the finished curb. For radius work stranded steel aircraft cable can be used.

When choosing a curb form to be used with reinforcing rod, curb height and configuration are important considerations. As much material as possible should surround the rod within the finished curb. The location of the rod from the ground is fixed for each auger size. Therefore, it is important to have sufficient curb form height to adequately cover the rod.

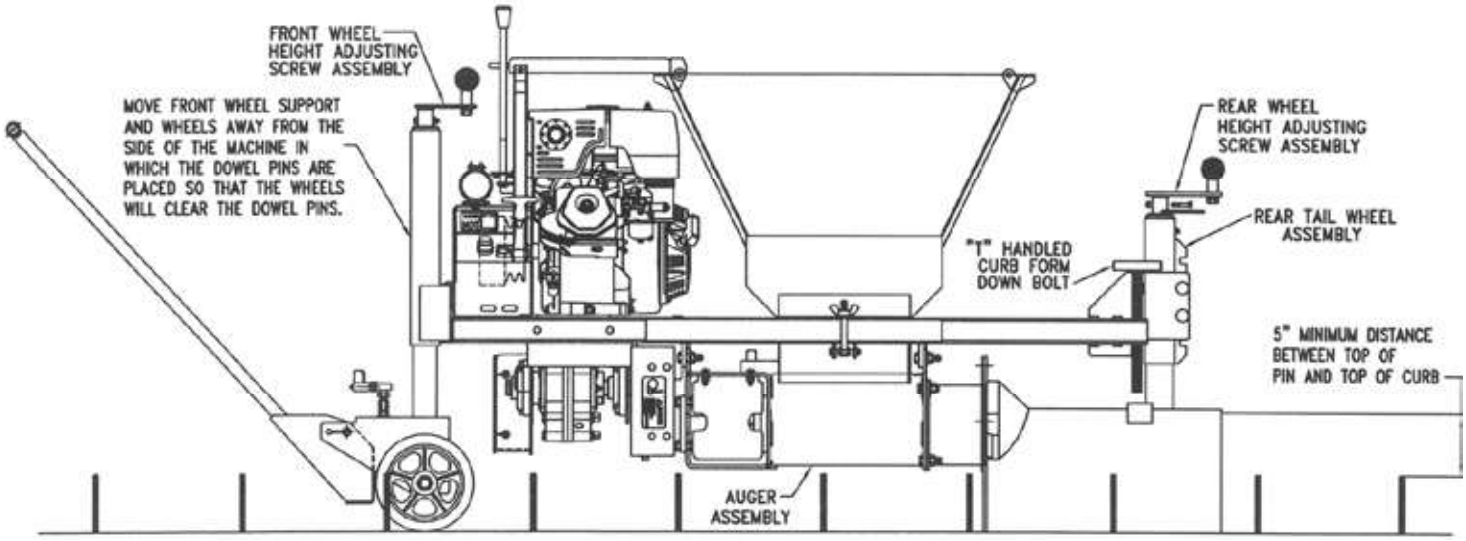
With a 5” auger assembly, the top of the reinforcing rod will be approximately 3-1/2” above the ground. With a 6” auger assembly, the top of the reinforcing rod will be approximately 4” from the ground. With an 8” auger assembly, the top of the reinforcing rod will be approximately 5” from the ground. **A minimum of 1” and preferably 2” of material should be on top of the reinforcing rod.**



B. Extruding Curb over vertical Dowel Pins

With a Miller Curber, curb can be extruded over vertical dowel pins. This is accomplished by raising the machine with the leveling screws at each wheel assembly in order to allow the screw housing to pass over the pins. Curbing over dowel pins also requires a special curb form. The form must be made with an elevated auger opening to accommodate the raised auger assembly. It must also incorporate an opening at the bottom of the mounting flange to allow the pins to pass into the form as the machine moves over them.

Curb forms for curbing over pins are made for a specific pin height. Therefore, the pins cannot exceed the pin height that the curb form was designed for. Also, pin placement is critical. Pins must be on line, not more than ½" left or right of center to prevent pins from hitting the form.



The most important aspect to remember when considering curbing over pins is that there must be a minimum of 5" between the top of the finished curb and the top of the pin.

For example, to curb over 1" pins, the curb height must be 6"; over 2" pins, the curb height must be 7"; over 3" pins the curb height must be 8". In most cases, the Curber cannot extrude rebar and pass over pins at the same time.

C. Extruding Curb Under an existing Guardrail

A Miller Curber Model MC-655 has an offset frame, auger housing and hopper so that asphalt curb can be placed under existing guardrail. Supply the Miller Curber Co. Service Department a drawing showing the curb form shape and the guardrail dimensions under which the curb must be placed. Our Customer Service Department will evaluate the feasibility of your job your application.

D. Extruding New Curb over Old Curb

A Miller Curber can extrude new curb over old curb. A special curb form is required. Roads that have several layers of pavement built up against the curb will diminish the curb height. Extruding new curb over the old can increase the curb height. To build this special curb form, both the old curb form design and the new curb form design are required. Consult with the factory about your specific requirements.

E. Extruding Curb into an Offset Ditch

A Miller Curber can extrude a new curb into an excavated ditch/trench at the edge of a paved road surface. A special curb form is required. There are some limitations to this procedure depending on curb size, the amount of offset required and the distance to the

bottom of the ditch/trench. Supply the factory the curb form shape, the amount of offset and the depth of the ditch/trench from the top of the road surface to determine the feasibility of your application.

Layout the Job Site

Before putting the Miller Curber in use determine the location of the curb on the job site. Work from either plan job site drawings or surveyors grade stakes.

A) Determine the SEQUENCE or ORDER in which each curb section will be placed. Consider the hand(s) (Left and/or Right) of Curb Forms required, the exit areas available at the end of straight sections and the starting locations of curbs required against walls and other curbs. Anticipate the best sequence of moves for the concrete trucks. Note the location of unprotected openings, walls, excavations, etc. Also note the location of any overhead wires, openings or obstructions that will affect the curb placement sequence.

Note any job conditions that are unsafe and take corrective action BEFORE putting the Curbilder into service. For example, correct any soft condition in base or exit areas. All surfaces where the Curber must travel must be leveled within a 5% slope and compacted in excess of 90%. DO NOT OPERATE THE CURBER ON SOFT, UNEVEN SURFACES WHICH CAN CAUSE THE CURBER TO GET STUCK AND/OR TIP. Job site grades must not exceed 15%/ 8.5 Degrees. Dangerous Job Site Conditions that will be present during curb placement must be marked and protected with sufficient equipment to prevent any injury to personnel. Examples include but are not limited to overhead wires, openings with more than a 6” drop off, other job site work activity, etc.

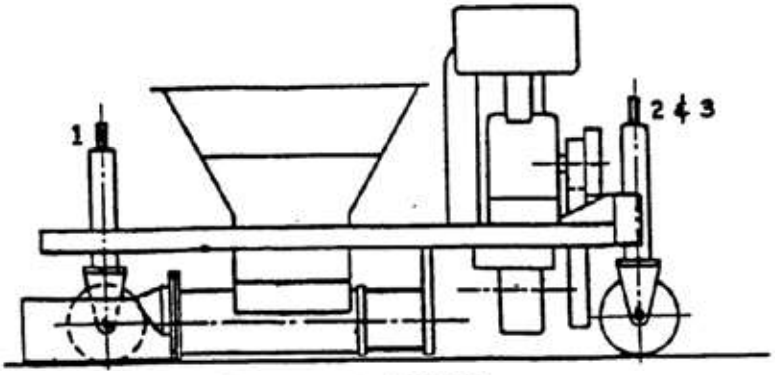
B) Determine the LOCATION where each curb section will be placed. Mark all the locations of the inside curb face. The inside curb face is the face/side of the curb that faces toward the middle of the road or toward the center of a parking area. Then snap a chalk line or nail in place a colored string 12” from the location of the inside face of the curb toward the center of the road/parking area. This mark/string will be the reference for the pointer on the front of the Curbilder.

C) Apply Adhesive.

i) When placing Concrete Curb over an existing concrete surface, apply a spray coating of Concrete Epoxy to the area where a concrete curb will be located on top of a concrete surface. Permit the epoxy to become tacky before applying curb. Follow epoxy directions for curing, amounts to be placed and safety.

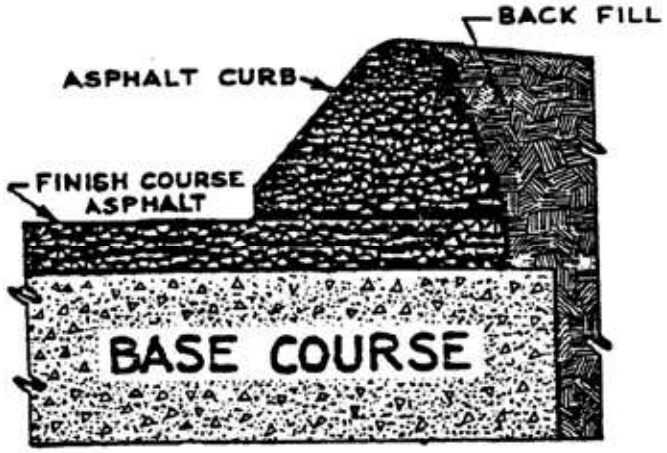
ii) When placing Concrete Curb over an existing asphalt or compacted rock surface apply a spray coating of SS-1 Emulsified Asphalt Tack Coat to the area where a concrete curb will be located. Apply from .05 to .15 gallons per square yard.

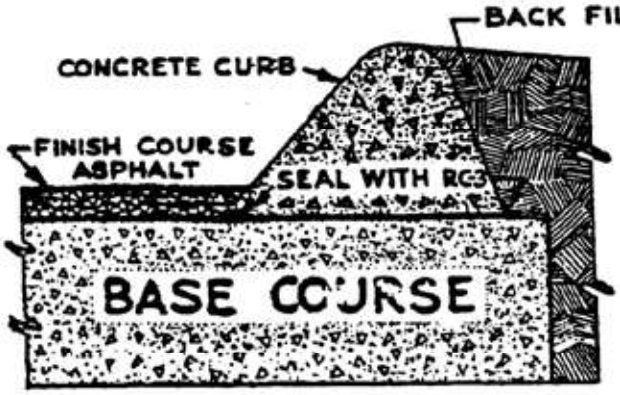
iii) When placing Asphalt Curb over an existing asphalt, concrete or compacted rock surface apply a spray coating of SS-1Emulsified Asphalt Tack Coat to the area where a concrete curb will be located. Apply from .05 to .15 gallons per square yard.

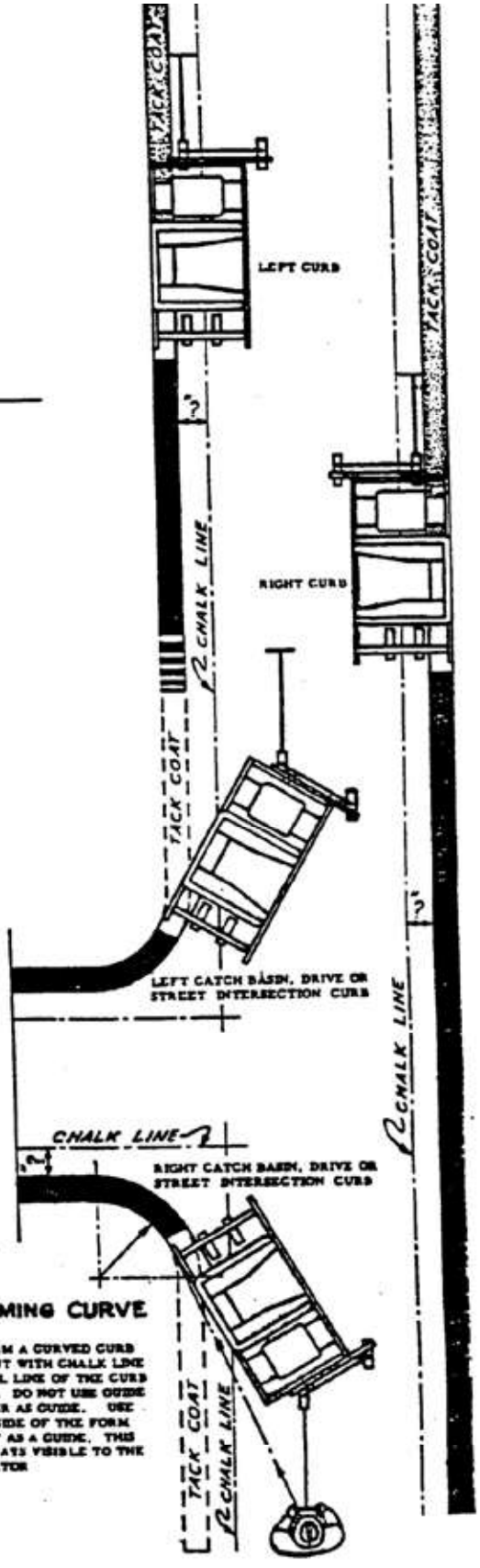


LEVELING MACHINE

BEFORE STARTING TO EXTRUDE CURB BE SURE BOTH SIDES OF THE BOTTOM OF THE CURB FORM ARE TOUCHING PAVEMENT. THIS IS MADE POSSIBLE BY THREE ADJUSTMENTS - (1) REAR WHEEL, AND (2) and (3) FRONT STEERING WHEELS





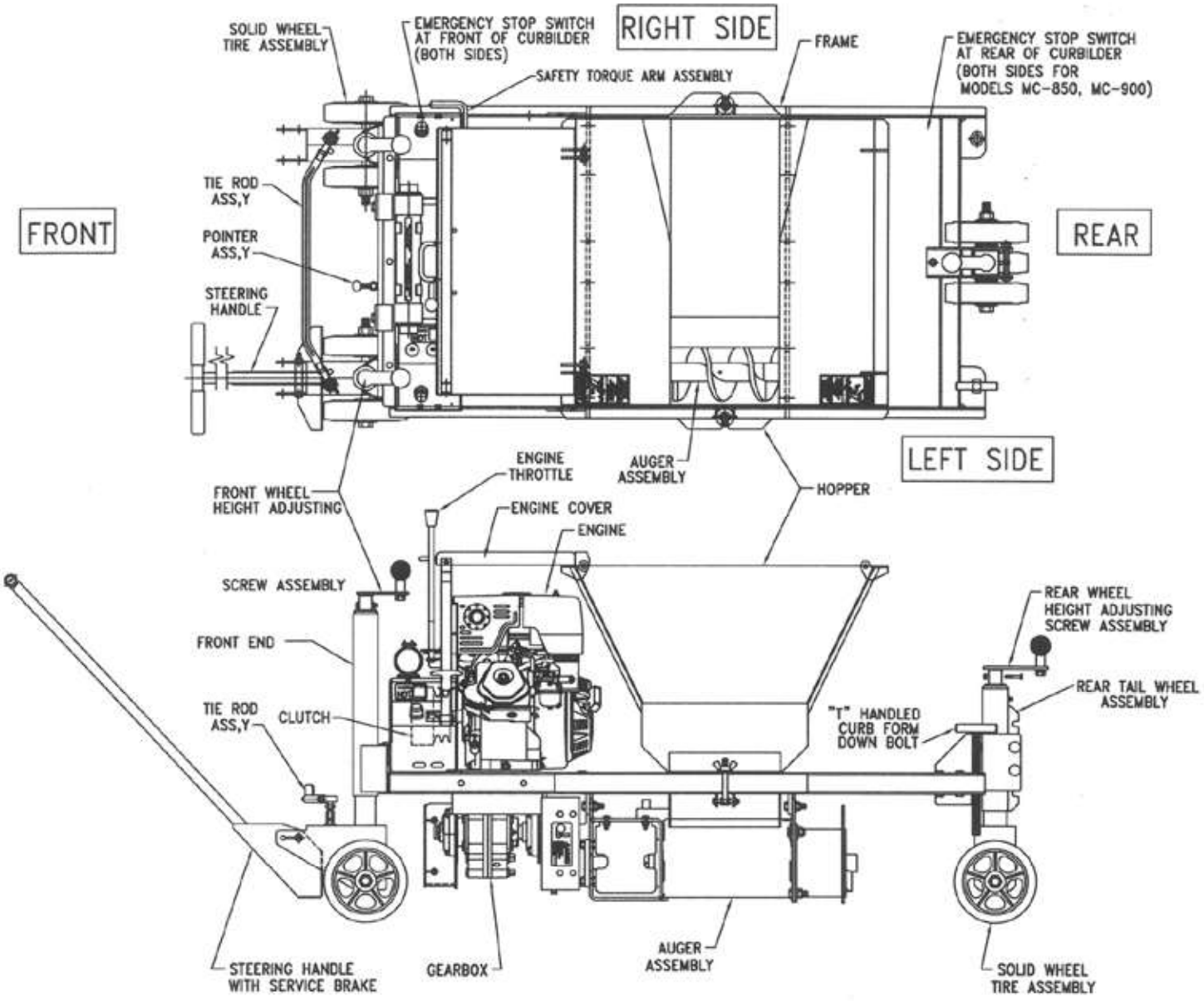


FORMING CURVE

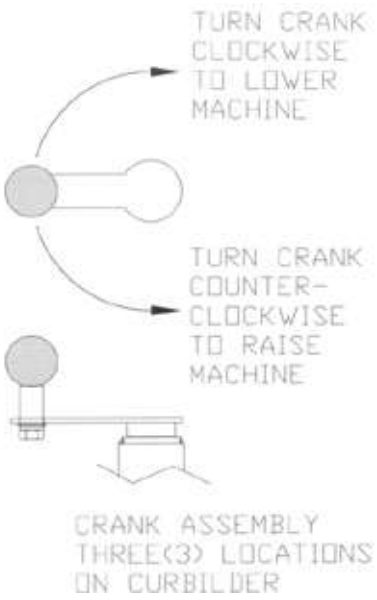
TO FORM A CURVED CURB LAY OUT WITH CHALK LINE ACTUAL LINE OF THE CURB INSIDE. DO NOT USE GUIDE MARKER AS GUIDE. USE BACK SIDE OF THE FORM ITSELF AS A GUIDE. THIS IS ALWAYS VISIBLE TO THE OPERATOR

Operating the Curbilder

A. Know how to Use and Adjust ALL Controls and Features of the Miller Curber BEFORE putting this machine into Operation.



- **MACHINE HEIGHT:** The machine height of the Miller Curber can be adjusted using three (3) crank handles located on the top of each Height Adjusting Screw Assembly, two (2) in the front of the machine, one (1) in the rear of the machine. Turn the crank handle CLOCKWISE (as looking down on the handle) to LOWER the machine height. Turn the crank handle COUNTER-CLOCKWISE to RAISE the machine height.



- **STEERING:** The Steering Control of the Miller Curber is done by means of a Steering Handle, which can be, attached either to the Left or Right front wheel fork.

- **BRAKE:** The Steering Handle is equipped with both a Service Brake. Push DOWN on the Steering Handle to apply the Service Brake against the front wheels.

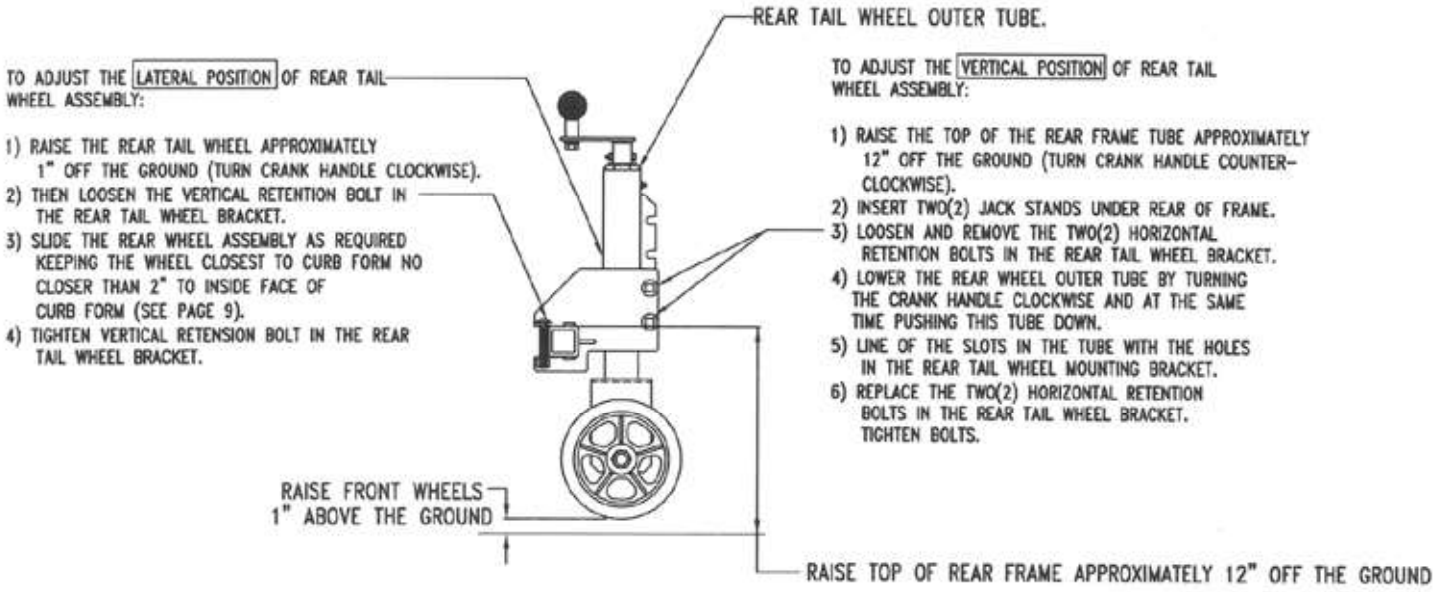
See how to move the front video on Web Site

- **REAR TAIL WHEEL ASSEMBLY**: The Rear Tail Wheel Assembly consisting of the Holding Bracket and Vertical Upright Tube with wheels should be mounted with the Holding Bracket and Vertical Tube to the **Rear** of the Main Frame Rear Cross Tube.

  To adjust the LATERAL LOCATION of the Rear Tail Wheel Assembly turn the crank handle CLOCKWISE until the rear wheels are 1" above the ground. Then loosen the one (1) 3" long vertical retention Bolt on the Holding Bracket to move the Rear Tail Wheel Assembly. Slide the Rear Tail Wheel Assembly to the Left or Right so that the wheel closest to the curb form is no closer than 2" from the inside edge of the curb form. Tighten the one (1) vertical retention bolt.

  Note: When the Curb Form to be used is over 10" tall the Rear Wheel Outer Upright Tube can be repositioned vertically down to gain additional height of the frame of the Curbilder.

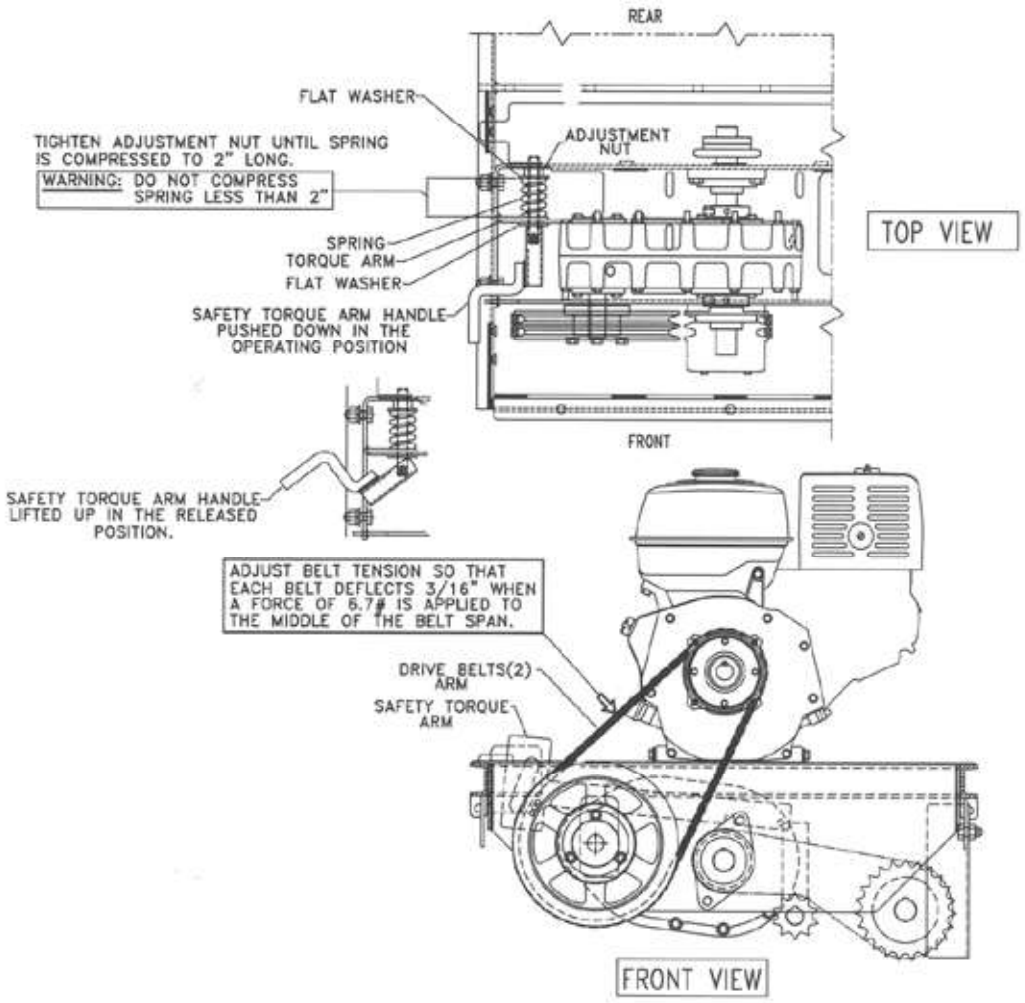
  To Adjust the VERTICAL HEIGHT POSITION of the rear of the Curber frame upward, raise the rear of the Curber frame as shown using the Rear Tail Wheel Assembly. Insert two(2) jack stands under the rear of the Curbilder frame. Loosen and remove the two (2) 3-1/2" long horizontal retention bolts on the Holding Bracket. Then LOWER the Rear Tail Wheel Outer Tube by turning the crank handle CLOCKWISE and at the same time pushing this tube down until the slots in the next lower tube position can be lined up with the square holes in the Rear Tail Wheel Bracket. Each lower slot position gains 2-1/4" vertical rear height of the Curbilder. When the desired position is achieved, replace and tighten the two (2) horizontal retention bolts. Remove jack stands.



- **SAFETY TORQUE ARM**: The Safety Torque Arm holds the Gearbox and Input Pulley/Sheave in position to maintain the tension on the Drive Belts. When properly adjusted, the Safety Torque Arm will disengage the Drive Belts when a the drive in the Curber is overloaded. This overload can occur when a piece of oversize aggregate passes through the auger and/or the curb form is too small for the auger selected. The Safety Torque Arm Spring must be 2” overall length when the Safety Torque Arm Handle is pushed down in the operating position. Refer to the drawing below. To Adjust the length of the Safety Torque Arm Spring push the handle in the down position. Then turn the adjustment nut CLOCKWISE to DECREASE the spring length, COUNTER-CLOCKWISE to INCREASE the spring length. To adjust tension on the Drive Belts, lift the Safety Torque Arm Handle up. Push the Safety Torque Arm DOWN until each belt deflects 3/16” when a force of 6.7# is applied to the middle of the belt span. Hold this tension on the Safety Torque Arm and engage the Safety Torque Arm Handle by pushing it down. A belt tension adjusting gauge can assist in making this adjustment.

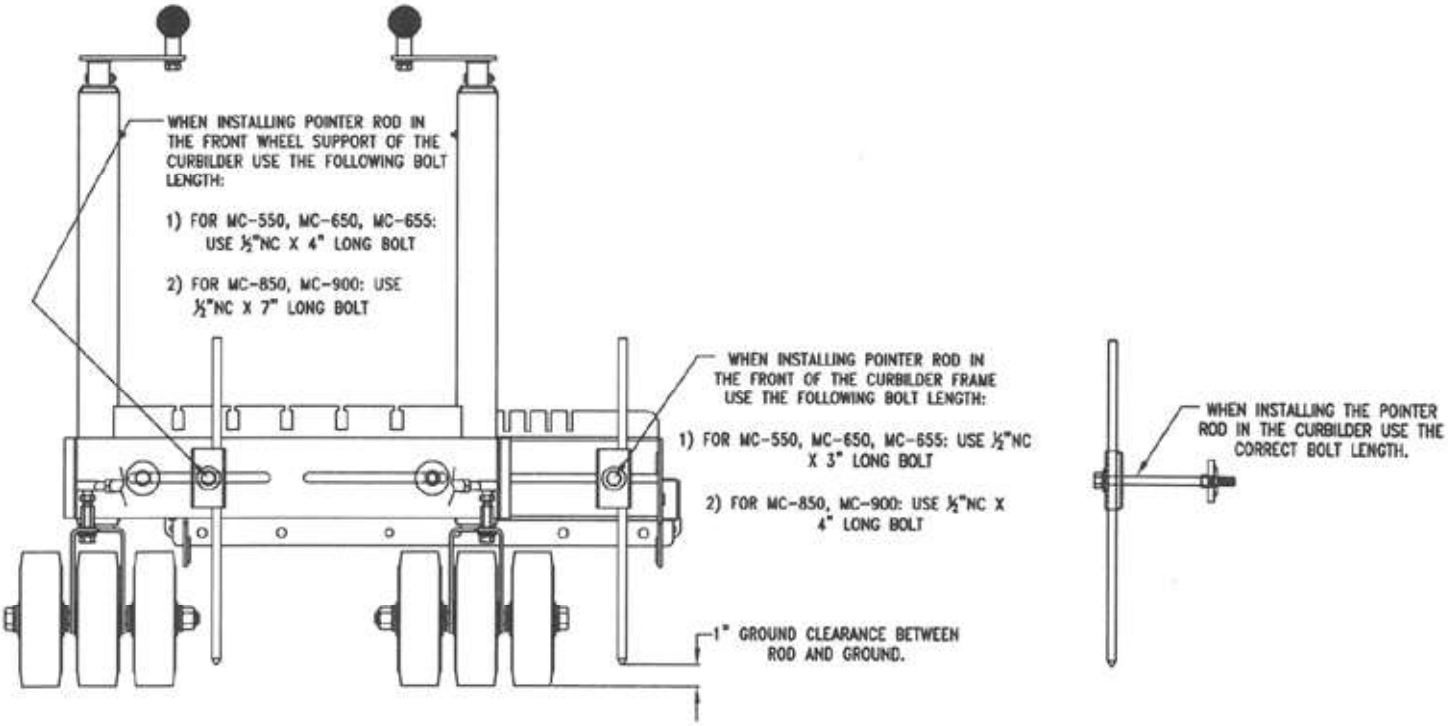
DANGER DO NOT OPERATE MILLER CURBER WITH THE SAFETY TORQUE ARM OUT OF ADJUSTMENT OR SERIOUS INJURY OR DEATH CAN OCCUR.

See belt tensioning video on Web Site



- **POINTER ROD:** The Pointer Rod is located in the Front of the Curber. The operator who is steering the machine while curb is being placed uses the Pointer Rod to follow a chalk or string line on the ground to place the curb in the correct location on the job. When the Curber is in the correct position to begin placing the curb and the chalk or string line has been placed on the ground (see 6, "Laying Out the Job Site" above) adjust the Pointer Rod 1" above the ground and directly over the reference string. Then tighten the retention bolt. To avoid damaging the Pointer Rod when loading the Curbilder onto a trailer or lifting the machine with a crane, loosen the retention bolt and lift the Pointer Rod bottom end 6" or more above the ground.

  Note: The Pointer Rod is assembled at the factory on the front of the **Front Wheel Support**. When it is required to move the Pointer Rod to the front of the Curber **Frame** a SHORTER retaining bolt is required. See drawing below for the correct bolt size for each location for each Curber model. Caution: Do not use a bolt length other than what is specified or the bolt will not tighten all the way and/or there will be interference between the bolt and other parts.

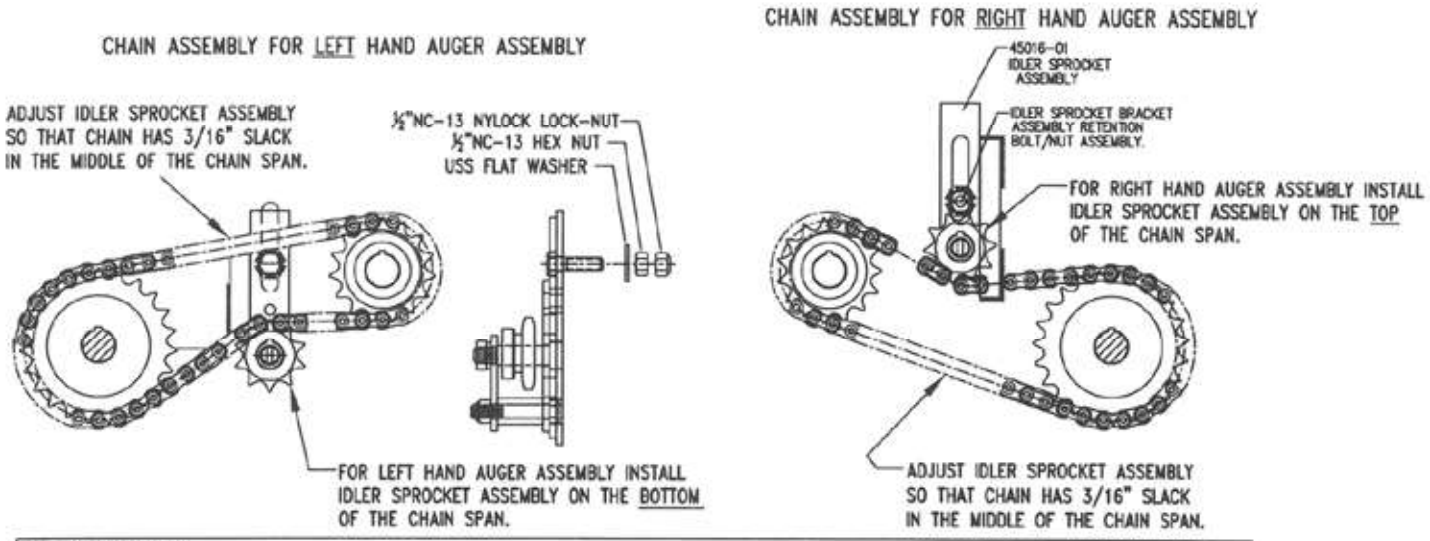


- **EMERGENCY STOP SWITCH(ES):** Refer to the "SAFETY" section of the manual, "Operation of this Equipment", E.1. and "Operating the Curber," page 29. Locate ALL of the Emergency Stop Switch(es) on your machine. In the event of an Emergency, know how to stop the Engine/Auger on the Curber using these switch(es).

- **INSTALL THE CURB FORM WITH THE CORRECT AUGER SIZE:** Refer to “Preparing for the Job”, Section #1 “Choosing the Curb Form” and Section #3 “Choosing the appropriate Auger Size for a given Curb Form.” Determine which side the Auger Housing Assembly and Curb Form are to be mounted on the Curber. To assemble an Auger Housing Assembly and Curb Form to the Frame of a Curber:

  1) Place the Curber on a level, concrete or asphalt surface. Chock the wheels as shown. Push in any one (1) Emergency Stop Switch and remove the Spark Plug Wire(s) to prevent an Accidental Start.
  2) Loosen the Wing Nuts on each of the two (2) Hopper Retention Bolts and swing the bolts out of the slots in the hopper flanges.
  3) Remove the Hopper from the machine.
  4) Remove the Chain Guard attached to the frame with two (2) 3/8”-16NC Bolts.
  5) Loosen and remove the one (1) Retention Bolt Assembly from the Chain Tension Idler. Then remove the Chain Tension Idler.
  6) Raise the Curber up by turning the cranks COUNTER-CLOCKWISE on the three (3) Uprights. Raise the Curbilder high enough so that the Auger Housing Assembly can be slid under the frame of the machine and into the approximate mounting location. Note: The Lugs on the top of the two (2) vertical mounting flanges of the Auger Housing should be pointing toward the front of the machine with the open end of the auger pointing toward the rear of the machine. Position the two (2) vertical mounting flanges approximately ½” to the rear of the two(2) frame cross rails to which they will attach.
  7) Lower the machine so that the four (4) mounting holes on the frame cross rails are level and in line with the four (4) mounting holes in the vertical mounting flanges of the Auger Housing.
  8) Slide the Drive Chain onto the Drive Sprocket attached to the Output Shaft of the Gearbox and the Driven Sprocket attached to the shaft on the Auger Housing.
  9) Slide the Auger Housing Assembly forward until the two(2) vertical mounting flanges of the Auger Housing are flush against the two(2) mounting cross rails of the frame. Then line up the four (4) mounting holes of the Auger Housing with the holes in the frame. Attach the Auger Housing to the frame with four (4) ½” Bolts, Lock Washers, Flat Washers and Nuts. Note: Face the four (4) bolt heads toward the Middle of the machine.
  10) Reattach the Chain Tension Idler. Refer to the drawing for the correct position of the Idler. Note: When assembling the Chain Tension Idler to the frame of the machine the long leg of the attaching bar always faces UP. When attaching an Auger Assembly to the LEFT side of the Machine (standing at the rear of the machine looking forward) the Idler Sprocket engages the LOWER SIDE of the bottom leg of the chain and pulls up against the chain. When attaching an Auger Assembly to the RIGHT side of the Machine the Idler Sprocket engages the TOP SIDE of the TOP leg of the chain and pushes down. Adjust the tension on the Chain using the Chain Tension Idler Assembly so there is 3/16” Slack in the middle of the chain span. Torque the Chain Tension Idler Bolt to 60 LBS. FT. Torque.

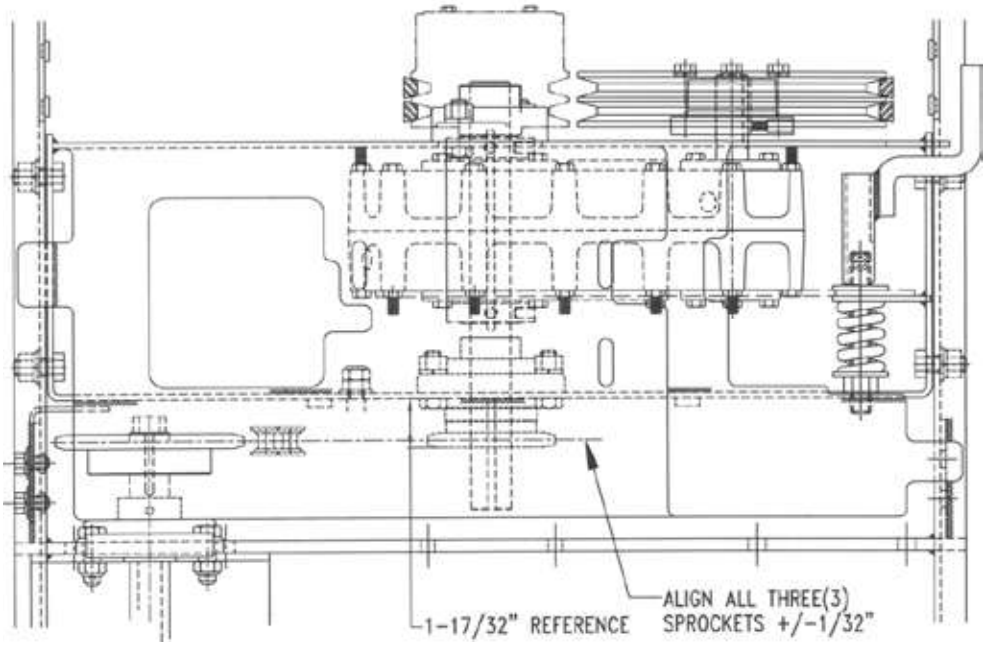
CHAIN ASSEMBLY AS LOOKING AT THE REAR OF THE CURBER TOWARD THE FRONT OF THE MACHINE



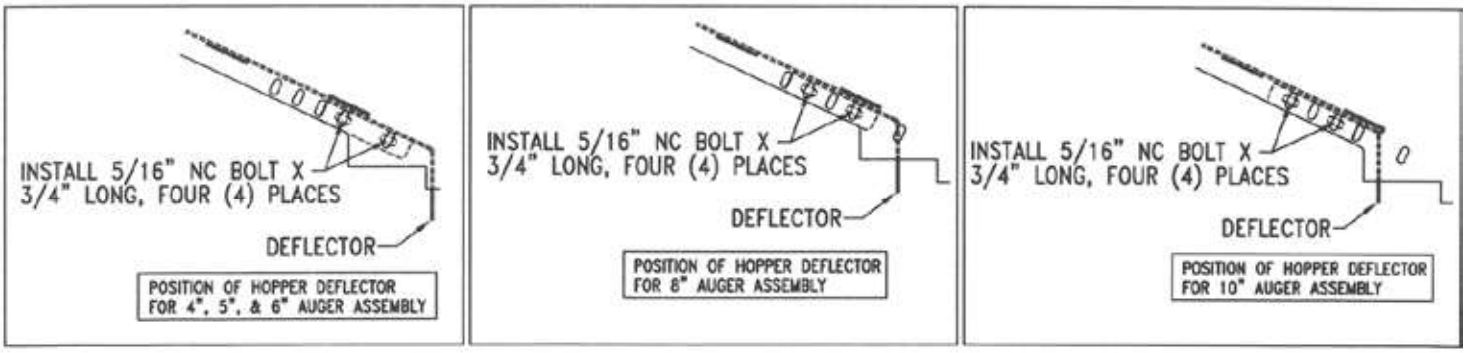
TO TENSION CHAIN:

1) DISABLE ENGINE. PRESS ANY EMERGENCY STOP SWITCH "IN" AND/OR REMOVE TWO(2) SPARK PLUG WIRES. REMOVE KEY FROM IGNITION AND DISCONNECT BATTERY GROUND CABLE.
2) BLOCK WHEELS IN BOTH DIRECTIONS TO PREVENT MACHINE MOVEMENT.
3) RELEASE TENSION ON THE IDLER SPROCKET BRACKET ASSEMBLY IDLER RETENSION/NUT BY REMOVING ½"NC LOCKNUT AND LOOSENING HEX NUT.
4) SLIDE IDLER SPROCKET BRACKET ASSEMBLY UP/DOWN WITH THE TEN(10) TOOTH SPROCKET ENGAGING THE PITCH OF THE CHAIN. MOVE THE BRACKET ASSEMBLY UNTIL THE CHAIN HAS 3/16" SLACK IN THE MIDDLE OF THE SPAN.
5) RETIGHTEN THE RETENTION BOLT/NUT ON THE IDLER BRACKET ASSEMBLY. TORQUE THIS BOLT/NUT TO SIXTY(60) FT.LBS. REPLACE ½"NC LOCKNUT AFTER APPLYING PROPER TORQUE TO HEX NUT.
6) AFTER TIGHTENING IDLER BRACKET ASSEMBLY REVERIFY CHAIN SLACK.
7) DO NOT OVERTIGHTEN CHAIN.
8) RE-ADJUST A NEW CHAIN AFTER THE FIRST TEN(10) HOURS OF USE.
9) REPLACE ALL GUARD(S) AFTER ADJUSTMENT IF THEY HAVE BEEN REMOVED.

11) Check the Alignment of all three (3) sprockets using a straight edge. Adjust Driver and/or Driven Sprockets so that all sprockets are in line +/-1/32”



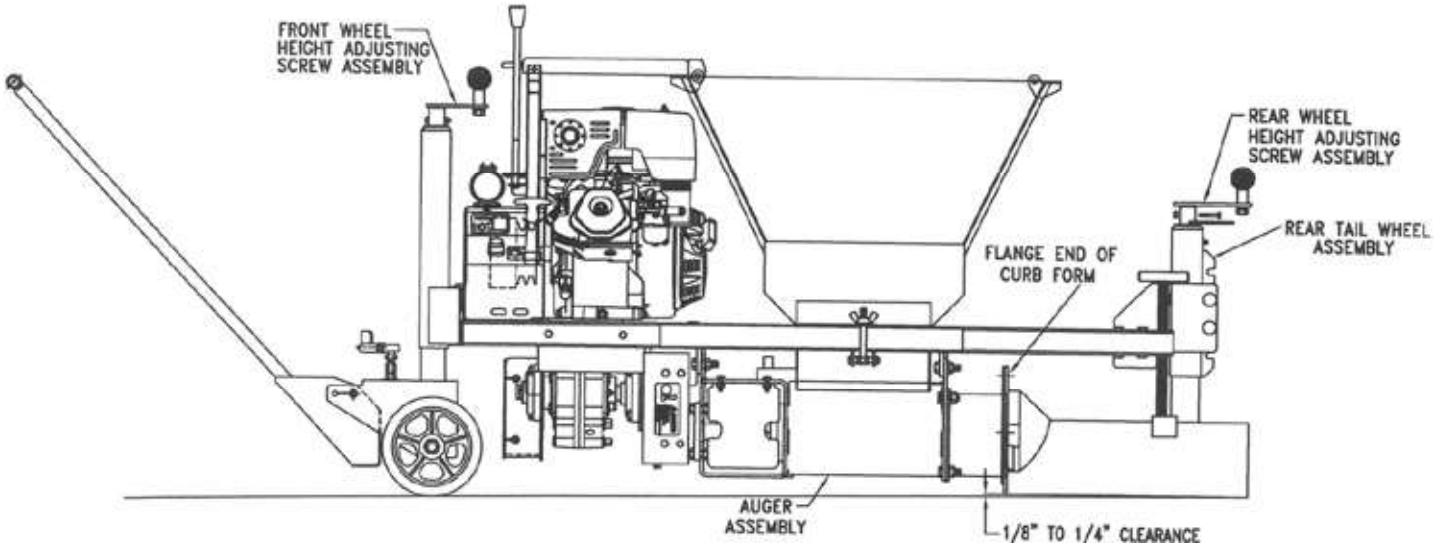
12) Reattach the Chain Guard.
13) Assemble the Deflector in the correct position in the bottom of the Hopper for the Auger size selected.



14) Install the Hooper in the machine sliding the bottom opening of the hopper into the top opening of the Auger Housing Assembly. Secure the hopper to the frame by swinging the two (2) Hooper Bolts into the slots in the Hopper Flanges. Tighten both Wing Nuts on the Hopper Bolts.
15) Attach the Curb Form to the flanged end of the Compaction Tube using three (3) ½"-13NC Bolts, Lock Washers and Nuts. Then turn the "T" bolt over the end of the Curb Form CLOCKWISE until the end of the bolt makes firm contact with the end of the curb form. DO NOT OVERTIGHTEN THIS "T" BOLT. See page 8, item #5 for drawing.

B. Preparing Curber for Operation

- Spray with water when extruding concrete curb.
- Position Curbilder so that the inside face of the curb form is in the proper location to begin extrusion. Curber should start from 12” - 18” ahead of where curb is to begin.
- Inspect the front wheel assembly horizontally to make sure the front wheels will not track in the adhesive. Adjust Rear Wheel Assembly vertically so that the discharge (rear) end of curb form just touches the base course. Adjust both Front Wheel Assemblies vertically to lift the flange (front) end of the Curb Form 1/8” to ¼” above the base course. (Rear discharge end of curb form will touch base, front flanged end of curb form will not).
- Set guide pointer directly over chalk/string line approximately 1” above pavement.



C. Assign Crew to Work Stations

- A crew of three(3) is required to run Curber if using concrete. One person is required to steer machine and apply brake when required. A second person is needed to tend the hopper and break up any material that bridges over the auger. This person will need to adjust machine height as required. A third person is required to provide signals to the concrete truck driver and to feed concrete material into the hopper using the chute of the truck.
- A crew of two (2) is required to run Curber if using asphalt. One person is required to steer machine and apply brake when required. A second person is needed to tend the hopper and break up any material that bridges over the auger. This person will need to adjust machine height as required. An additional two to four persons will be required to bring asphalt to the Curber using wheelbarrows unless a Curbloader is used in which case one (1) additional person is required.
- Assign one or two finishers to detail curb and cut expansion joints (concrete curb only) if required.

D. Curber is now in position to extrude curb.

- Start engine and idle five (5) minutes. When ready to extrude curbing, increase engine speed to full throttle (3,000 RPM) to engage automatic clutch, thereby driving the extrusion auger. DO NOT RUN CURBILDER AT PARTIAL THROTTLE OR DAMAGE TO CENTRIFUGAL CLUTCH WILL RESULT.
- Fill hopper slowly with curb mix and allow curb form to fill. Feed Hopper of Curber with asphalt using wheelbarrows or Curbloader. Feed Hopper of Curber directly from concrete truck using discharge chute.
- As material nears the discharge end of the curb form, block the opening in order that the material will be compacted. (A piece of wood or a flat shovel work well.)
- The Curber starts moving forward as material is extruded through the curb form. THE FORCE OF EXTRUSION PROVIDES PROPELLING POWER.
- After Curber moves forward, the curb may be struck off with a shovel at the desired starting point. (This excess material may be reused in the Curbilder). If advanced start is not possible, starting end of curb may be hand shaped with finishing trowel.
- Fill hopper with curb mix at a steady rate. It is best to operate the Curber at a steady rate with as few of stops/starts as possible.
- Steer Curber keeping the pointer on the chalk line/string.
- Optimum compaction has been designed into the Curber and the curb form. Greater compaction will be obtained when the machine is operating uphill, when the brake is applied, or by raising the front wheel assemblies, transferring weight to the curb form. Lowering the front wheel assemblies decreases compaction by decreasing the weight carried on the curb form.
- When the Curber is not extruding material, throttle engine down to disengage automatic clutch so the auger stops turning and machine vibration does not break apart curb.
- Never allow material to stand in the hopper when the Curber is not in operation. Finish out the material in the hopper, raise the machine 1” above the curb and shut the machine off if there will be a five (5) minute or longer wait until the next truck arrives. If the wait on the next truck will be longer than 30 minutes pull the Curber forward until the end of the curb form clears the extruded curb. Then lightly spray the hopper and the inside of the curb form with either fuel oil or water, depending on the curb mix used.
- At the end of a run, cut off curb with a shovel and finish with hand trowel as required. The excess material may be reused if needed. Elevate the machine approximately 4-5” using the three (3) crank adjustments (Two(2) in Front, One(1) in Rear) and pull the Curber away from the fresh curb.

See setting of Curber and getting started video one the Web Site.

Curber Cleaning

CAUTION **CLEAN THE MACHINE EVERYDAY AS OUTLINED. FAILURE TO CLEAN THE MACHINE EVERYDAY WILL RESULT IN THE AUGER SEIZING TO THE SHAFT, OTHER DAMAGED PARTS AND AN UNSAFE MACHINE.**

BEFORE CLEANING CURBER:

1) **SHUT ENGINE OFF.**
2) **PUSH IN ANY ONE (1) EMERGENCY STOP SWITCH AND REMOVE SPARK PLUG WIRE(S) TO PREVENT ACCENDENTIAL STARTS.**
3) **PLACE MACHINE ON A LEVEL CONCRETE OR ASPHALT SURFACE. BLOCK WHEELS IN BOTH DIRECTIONS AND LOWER THE CURBER USING THREE (3) WHEEL HEIGHT ADJUSTING SCREWS UNTIL THE AUGER HOUSING MAKES CONTACT WITH THE GROUND AND THE CURBILDER IS IMMOBILE.**

A) To clean the Curber ***after using Asphalt***, remove the curb form, compaction tube, and extrusion auger. Scrape off all asphalt, which adheres to any operational surfaces. Inspect auger for wear, reverse or rebuild as required. After cleaning, grease auger shaft before placing the auger back onto shaft.

B) To clean the Curber ***after use with Concrete***, remove the curb form, compaction tube, and extrusion auger. All parts should be cleaned with water and all deposits scraped from Curber. The inside of the hopper and the auger housing should be thoroughly cleaned with water, and the auger shaft should be greased, before placing the auger back onto shaft.

For long term storage spray all wear parts with a light protective coating of No. 2 fuel oil.

See Cleaning the Curber video on the Web Site.

Curber Maintenance

DANGER **Perform all Maintenance items per the schedule below. A Clean, Properly Lubricated and Adjusted machine is a SAFE MACHINE. Failure to perform Machine Maintenance as outlined can cause Injury or Death. Further, failure to perform Maintenance as outlined will cause damaged parts and unsatisfactory machine performance.**

BEFORE MAINTAINING CURBER:

1) **SHUT ENGINE OFF**
2) **PUSH IN ANY ONE(1) EMERGENCY STOP SWITCH AND REMOVE SPARK PLUG WIRE(S) TO PREVENT ACCENDENTIAL STARTS.**
3) **PLACE MACHINE ON A LEVEL CONCRETE OR ASPHALT SURFACE. BLOCK WHEELS IN BOTH DIRECTIONS AND LOWER THE CURBILDER USING THREE (3) WHEEL HEIGHT ADJUSTING SCREWS UNTIL THE AUGER HOUSING MAKES CONTACT WITH THE GROUND AND THE CURBER IS IMMOBILE.**

Failure to perform Machine Maintenance as outlined Voids all Machine Warranties AND any liability for injuries and/or damage to person or property.

Maintenance Area	Every Day or Eight (8) Hours of use, whichever is less.	Every 5 Days or Fifty (50) Hours of use.	Every 20 Days or Two-hundred (200) Hours of use.	Every Year or Twenty-Five Hundred (2,500) Hours of use.
Engine:				
Check Oil Level	X			
Change Engine Oil		X		
Lube Throttle Linkage Pivot Points		X		
Bearings:				
Grease Two(2) Flange Bearings for Auger Shaft.	X			
Grease Three(3) Upright Jack Assemblies		X		
Grease Two(2) Flange Bearings for Gearbox Output Shaft		X		
Grease Two(2) Tie Rod End Bearings		X		
Grease All Wheel Bearings		X		

Maintenance Area	Every Day or Eight (8) Hours of use, whichever is less.	Every 5 Days or Fifty (50) Hours of use.	Every 20 Days or Two-hundred (200) Hours of use.	Every Year or Twenty-Five Hundred (2,500) Hours of use.
Gearbox:				
Check Gearbox Oil Level			X	
Change Gearbox Oil		X Change Oil at First 50 Hours of Use.		X
Clean Gearbox Breather Plug		X Clean Breather at First 50 Hours of Use.		X
Drive Belts:				
Retention Belts	X Retention New Belts after First Day of Use.		X	
Inspect Belts for Wear and Alignment			X	
Drive Chain to Auger:				
Retention Chain	X Retention New Chain after First Day of Use.		X	
Inspect Chain for Wear and Alignment			X	
Oil Chain	X			

Maintenance Area	Every Day or Eight (8) Hours of use, whichever is less.	Every 5 Days or Fifty (50) Hours of use.	Every 20 Days or Two-hundred (200) Hours of use.	Every Year or Twenty-Five Hundred (2,500) Hours of use.
Auger/				
Compaction Tube/ Curb Form:				
Remove Compaction Tube and Curb Form from machine and clean. Grease Auger Shaft BEFORE re-assembly.	**X**			
Inspect all parts for wear. Repair or Replace.	**X**			
Pneumatic Tires:				
(Optional Equipment)				
Verify Tire pressure @ 30 PSI		**X**		
Centrifugal Clutch:				
Inspect Set Screw Torque, Engine Crankshaft Retention Bolt and Key			**X**	
Safety Torque Arm Release Spring:				
Verify Compressed Length @ 2”			**X**	

Additional Notes regarding Machine Maintenance:

1) Engine

Oil Grade and Type along with Additional Engine maintenance is described in the Engine Owner's Manual supplied with each Curber. Follow additional maintenance items as recommended by the Manufacturer. Use engine motor oil to lubricate engine throttle pivot/wear points.

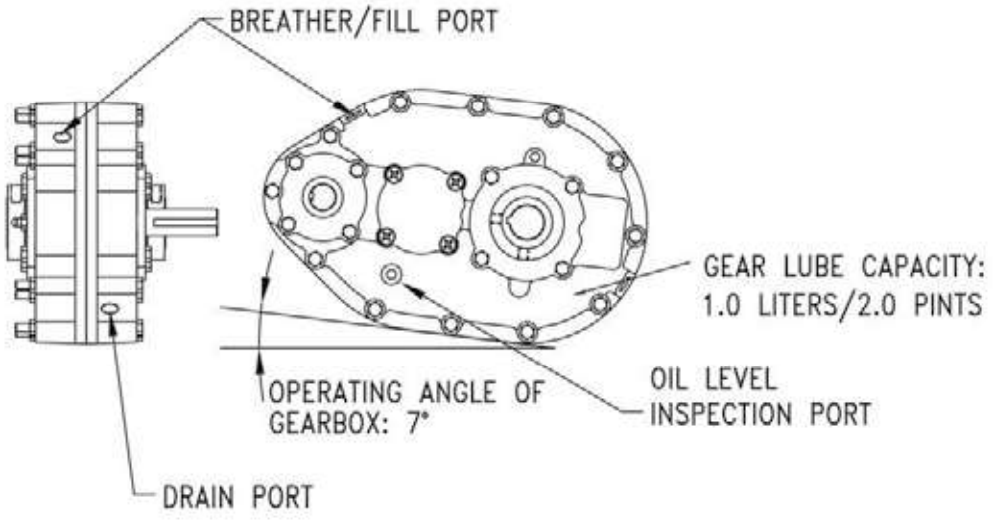
2) Bearings

Grease Bearings as recommended with NLGI No. 2 Extreme Pressure (EP), Lithium Base Grease. Grease all bearings with a handgun to avoid seal damage. Apply enough lube that grease just begins to leak past seals.

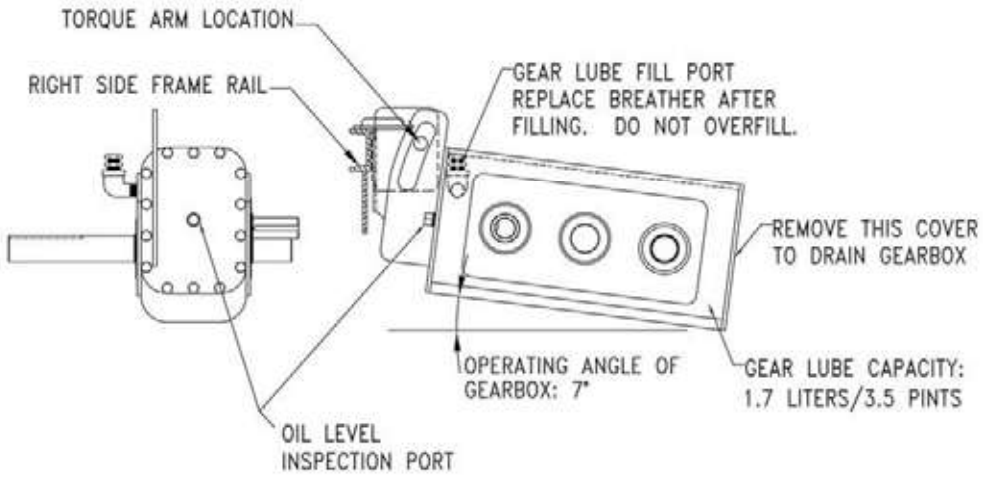
3) Gearbox

Use either 90 Weight Mineral Gear Oil meeting ISO 220 or 75W-90 Multigrade Synthetic Gear Oil in the gearbox.

a) Miller Curbers have used two (2) different gearbox designs. The Gearbox used on machines manufactured up to August, 2011 (up to Serial Number J13861) are shown in the drawing below. This Gearbox requires two (2) pints of Gear Oil. To inspect Lube Level remove inspection port plug as shown in drawing. Fill gearbox to level of this hole. Add oil if required through the Breather/Fill Port located on the top angled surface of the gearbox near the Safety Torque Arm Assembly. When replacing Gear Oil, remove one of the two drain plugs at the bottom of the gearbox. Drain the Gear oil when it is hot. Flush the inside of the gearbox with Lubriplate Syn Flush or equal before adding new oil.



b) The Gearbox used on machines manufactured after August, 2011(Serial Number J-13862 and later) are shown in the drawing below. This Gearbox requires three and one-half (3-1/2) pints of Gear Oil. To inspect Lube Level, remove the Oil Level Inspection Port Plug the location shown in drawing. This Inspection Plug is located on the end plate of the right side of the gearbox below the frame rail near the torque arm assembly. Fill gearbox to the bottom level of this hole. Add oil if required through the Breather/Fill Port located on the rear side of the gearbox housing. When replacing Gear Oil, remove the cover at the lower end(left side) of the gearbox. Drain the Gear oil when it is hot. Flush the inside of the gearbox with Lubriplate Syn Flush or equal before adding new oil.



The Gearbox should be inspected frequently as to its location on the output shaft. The clamping collars four(4) set screws must be tight on the shaft and with either the two(2) speed reducer-housing bolts or the housing itself should touch the front end of the motor mount.

4) Compaction Tube

The compaction tube must be inspected regularly and kept clean and free of holes. For holes in the compaction tube, steel patches can be welded on the inside of the STEEL compaction tube and ground smooth to maintain proper auger clearance. CAST Compaction Tubes cannot be repaired. When the compaction tube is damaged or worn beyond repair, a new compaction tube must be purchased.

5) Augers

Each extrusion auger has been designed to give double life against abrasive wear by being interchangeable end for end. During the daily check if the clearance between the inside of the compaction tube and the outside auger edge exceed the limits below turn it end for end, placing the unworn end of the auger to the discharge side of the auger housing. On machines equipped with multiple augers (2 or 3), all augers can be turned

end for end and front and rear positions changed to get optimum wear. Do not permit auger wear beyond these limits or loss of performance and/or machine damage will result. **Avoid permitting an auger to be worn in the shape of a Christmas Tree.**

Note: Hard Aggregates, Curb Mixes with excessive sand content and/or Small Curb Forms in relation to Auger Size will cause more rapid auger wear.

The **CAST** augers are available only in the 5" and 6" sizes. Each auger "half" is 9" long. The cast extrusion auger diameter should be maintained to within $^{3}/_{8}$" of the inside diameter of the compaction tube and auger housing. Cast extrusion augers should be replaced when they exceed the $^{3}/_{8}$" limit. Replace augers when they are damaged or worn out. Never strike a cast auger with a hammer. If auger is struck it will break and possibly cause personal injury. Remove the auger from shaft only by pulling it by hand, or pressing it off with an arbor press. Never drop a cast auger. IT WILL BREAK!

3) Centrifugal clutch

The centrifugal clutch must be checked for alignment and tightness of the set screw, key and the clutch retaining bolt on the engine shaft. To inspect the Clutch remove the center section of the Belt Guard (on Machines manufactured after July 2007).

On machines manufactured before July 2007, remove the entire Belt Guard to make this Inspection.

4) Belts

Adjust the belts for $^{3}/_{16}$" of depression with a force of 6.7# in the middle of the belt span. To adjust tension on the Drive Belts, lift the Safety Torque Arm Handle up. Push DOWN the Torque Arm until each belt is tensioned properly. Hold this tension on the Torque Arm and engage the handle by pushing it down. A belt tension adjusting gauge can assist in making this adjustment. Refer to page 34 for Belt Tensioning Detail.

Replace belts with matched pairs only.

5) Safety Torque Arm Release

The safety torque arm release spring must be maintained at the proper tension. The Safety Torque Arm Spring must be adjusted to 2" overall length when the Safety Torque Arm Handle is pushed down in the operating position. Refer to the drawing below. To adjust the length of the Safety Torque Arm Spring push the handle in the down position. Then turn the adjustment nut CLOCKWISE to DECREASE the spring length, COUNTER-CLOCKWISE to INCREASE the spring length. Refer to page 34 for Safety Torque Arm Adjustment procedures.

⚠DANGER

Over tensioning the safety torque arm spring to overcome mix, or application problems can cause injury or death from failure of the Torque Arm Release Assembly to disengage the belt drive should the Curbilder become overloaded. A Curber can become overloaded due to over size aggregate, too small of a feeding tool jamming in the auger and/or using too small of a Curb Form in relationship to the size of the auger. Further, failure of the Safety Torque Arm Release Assembly to disengage the belt drive will cause premature wear or failure of drive train and extrusion components.

6) Chain

Adjust the chain for $^{3}/_{16}$" of slack in the middle of the chain span. Chain adjustment is accomplished by adjusting the idler sprocket vertically up or down. Lube Chain as shown in chart with 30wt or 10-30wt Detergent Motor Oil. Apply Oil to both sides of the chain at the gaps between the side bars. Use spray/drip oilcan to apply lube. Refer to page 37 for Chain Assembly Detail.

See belt tensioning video on Web Site