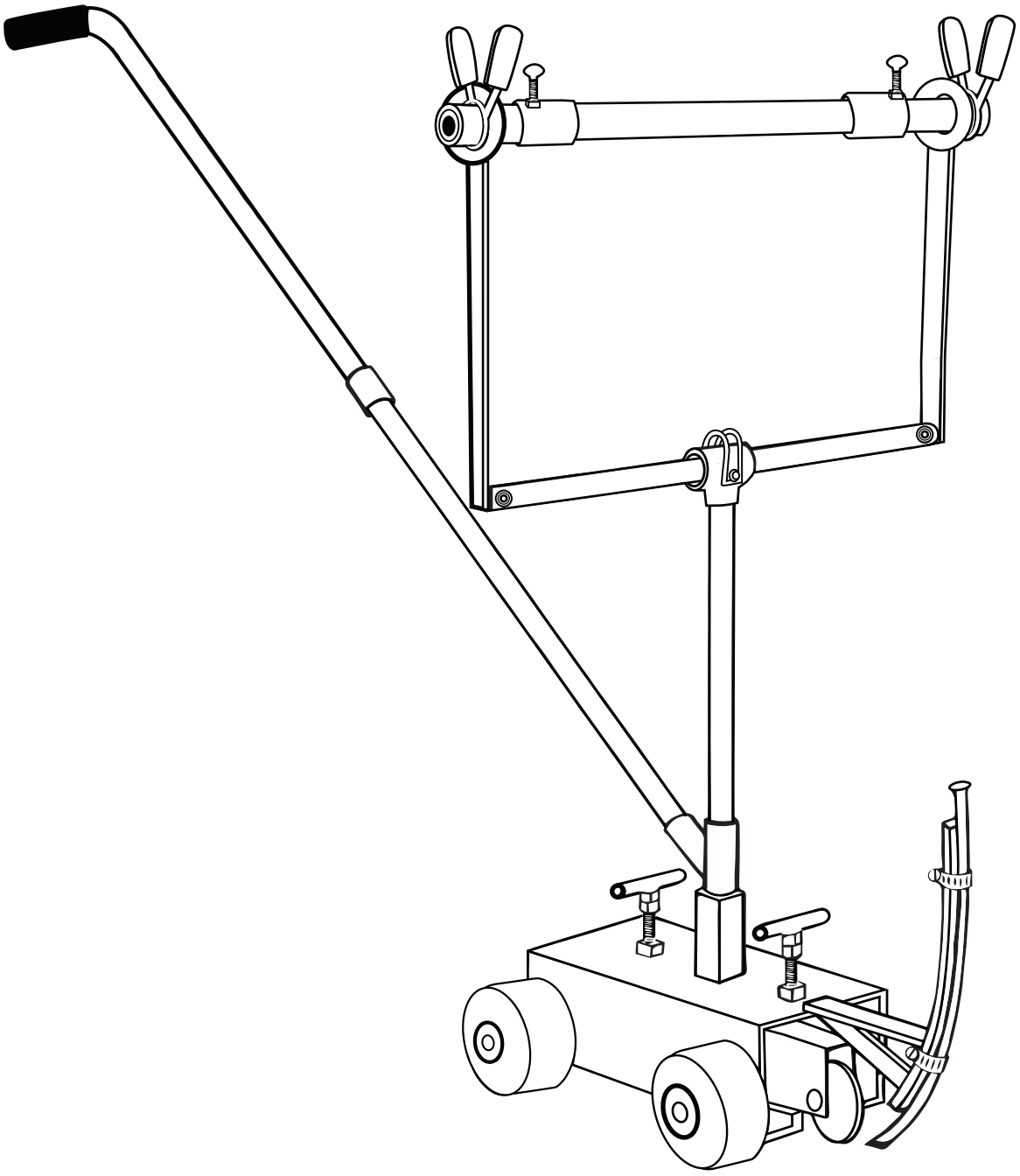
Albion®
DISPENSING SOLUTIONS

BACKER ROD INSTALLATION MACHINE

Model 1051-1 ROVER



QUESTIONS? CALL 856.235.6688
OR VISIT WWW.ALBIONENG.COM

INTRODUCTION

Dear Customer:

Thank you for choosing an Albion Engineering Co. product! The Rover you have purchased was designed to help you accomplish large scale caulking tasks faster. This patented one-of-a-kind invention began with an individual in the caulking and sealing trade looking for a way to install backer rod on large out of town projects. When day laborers and helpers weren't available or showing up late to the job site, the necessity for making backer rod installation a one man operation was needed. The Rover emerged from his workshop and evolved into the preferred tool on site because the energy saved installing backer rod could be better spent on joint preparation, mixing, dispensing, and tooling the caulking.

"A more consistent backer rod depth can directly translate into a more consistent caulking bead. With improved craftsmanship and faster completion rates you can be hired more frequently and have a reputation for quality in your caulking and sealing trade." -inventor

The Albion Difference

Albion Engineering is a third-generation company internationally recognized as a leader in the field of hand-held dispensing technologies. Albion supports multiple industries with innovative, high-quality dispensing tools and accessories for the most demanding applications.

More information on our products and services is available via:
Web: www.albioneng.com
Email: service@albioneng.com
Phone: 856-235-6688

For more dispensing solutions request our Catalog and Handbook 333.

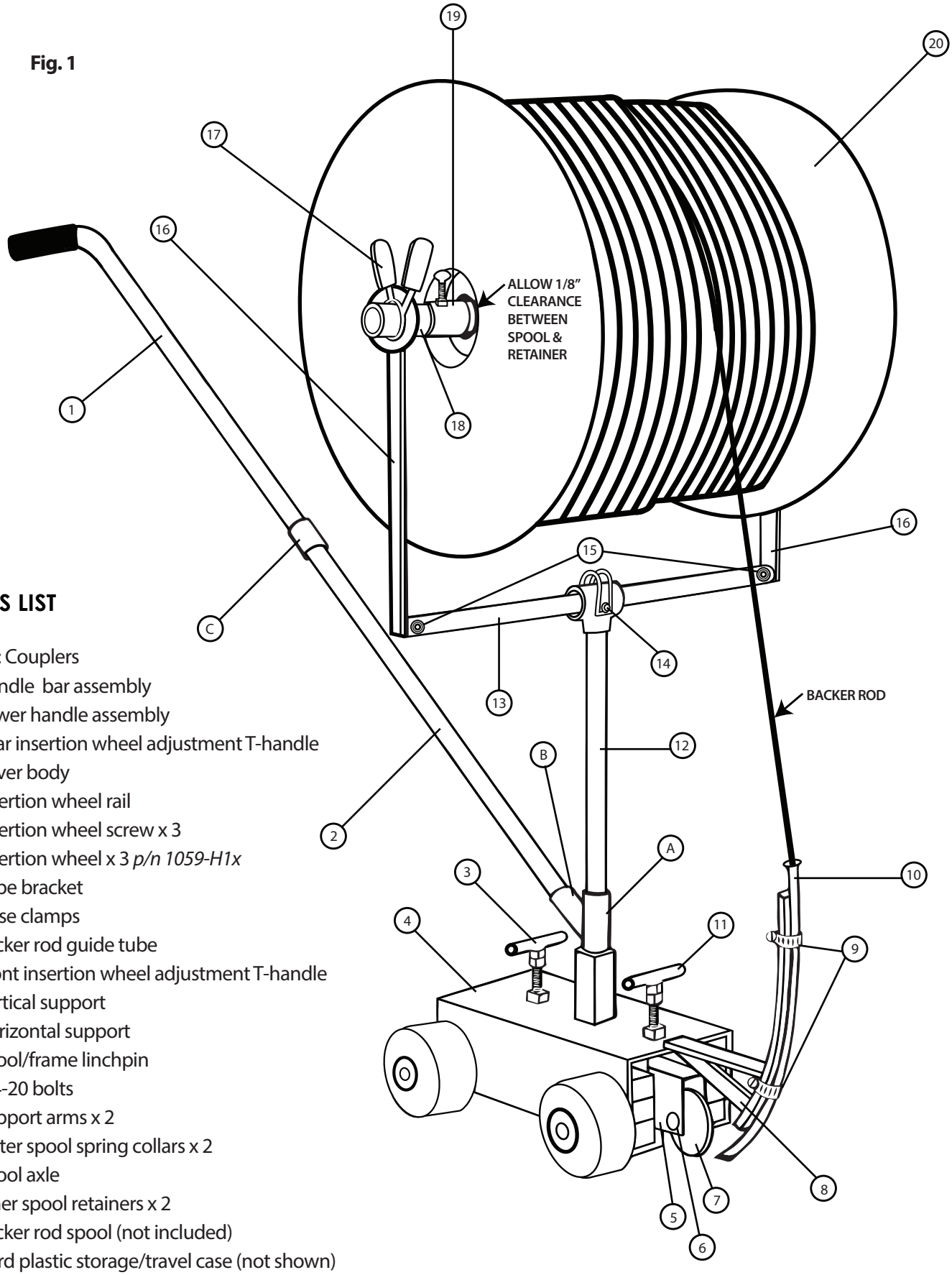
Backer Rod Rover Features

- Quickly sets polyethylene foam backer rod in saw cuts and expansion joints
- Fast one-man, walk behind operation
- Reduce job site fatigue and labor cost
- Pack joints from 1/8"-1/2" wide by changing insertion wheels
- Insertion depth adjustable up to 3/4" deep
- Heavy duty all-steel construction. Packaged in a durable, weather-resistant wheeled storage/travel case.
- High visibility orange finish
- Holds spools up to 17" wide. For wider spools up to 31" purchase Spool Extension Kit 1074-1.
- Compatible with most major manufacturers of spooled backer rod
- Can be customized for specific applications
- Unit ships with 1/8" (0.080") and 3/8" (0.375") wide insertion wheels. Also available are 1/4" (0.25") and 1/2" (0.50") wide insertion wheels.

Size	Part Number
1/8"	1062-G05
1/4"	1062-G06
3/8"	1062-G07
1/2"	1062-G08

PRESENTATION

Fig. 1



PARTS LIST

A, B, C: Couplers

1. Handle bar assembly
2. Lower handle assembly
3. Rear insertion wheel adjustment T-handle
4. Rover body
5. Insertion wheel rail
6. Insertion wheel screw x 3
7. Insertion wheel x 3 *p/n 1059-H1x*
8. Tube bracket
9. Hose clamps
10. Backer rod guide tube
11. Front insertion wheel adjustment T-handle
12. Vertical support
13. Horizontal support
14. Spool/frame linchpin
15. 1/4-20 bolts
16. Support arms x 2
17. Outer spool spring collars x 2
18. Spool axle
19. Inner spool retainers x 2
20. Backer rod spool (not included)
21. Hard plastic storage/travel case (not shown)

ASSEMBLING

Unpacking

• Remove all contents from shipping container and remove all parts from packing material. The front and rear insertion wheel T-handles **(3 & 11)** can be used as lifting points for the Rover.

• The front and rear T-handles control the insertion wheel depth by turning clockwise and counter clockwise.

• Place rover on flat surface making sure all insertion wheels are in up position and all four tires are in contact with surface.

• *Reference all parts to* ***figure 1***

Assembly *(see figure1)*

• Starting with the spool assembly, begin by unfolding and inserting the linchpin **(14)** into an upright position.

• Next, thread vertical support **(12)** into coupler **(A)**. Turn clockwise until hand tight.

• Slide spool axle **(18)** into the opening at one end of a support arm **(16)** followed by an inner spool retainer **(19)**, backer rod spool **(20)**, and another inner spool retainer **(19)** then slide spool axle **(18)** through the opposite support arm **(16)**. Make sure the long end of the inner spool retainer **(19)** are facing the backer rod spool **(20)** and that the thumb screws are not in contact of the backer rod spool.

• Make sure backer rod spool **(20)** is dispensing backer rod from the front top side, and it has a clear path to the guide tube.

• Install both of the outer spool spring collars **(17)** onto each end of the spool axle **(18)**. Center the backer rod spool **(20)** on the spool axle **(18)** and tighten thumb screws on the inner spool retainers **(19)**. Allow for some clearance between the inner spool retainers **(19)** and backer rod spool **(20)**. For large

• **Note:** backer rod spool must rotate freely and independently from the spool axle.

• Install the lower handle assembly **(2)** by turning clockwise into coupler **(B)** until hand tight.

• Install handle bar assembly **(1)** into the coupler **(C)** and turn clockwise until hand tight.

• On the final rotation the handle bar must be positioned parallel to rover body.

Transport and storage

• Always store the Rover with insertion wheels in up position
• Dismantle the handle and carriage assemblies before transporting
• Secure the equipment in storage container to avoid damage or accidents when transporting.
• Store the Rover and backer rod in a dry, secure indoor location.

Technical Data (fully assembled)

• Shipping weight: 86 lbs.
• Length 56"
• Width 24" - with standard rod
• 38" wide with rod extension kit 1074-1 *(sold separately)*
• Height 44"
• Maximum insertion wheel depth 3/4"
• Operation: Manual

ADJUSTMENTS AND TECHNIQUE

• Place Rover in a 45° position ***(as shown)*** and confirm all 3 insertion wheels spin freely. ***(see Figure 2)***

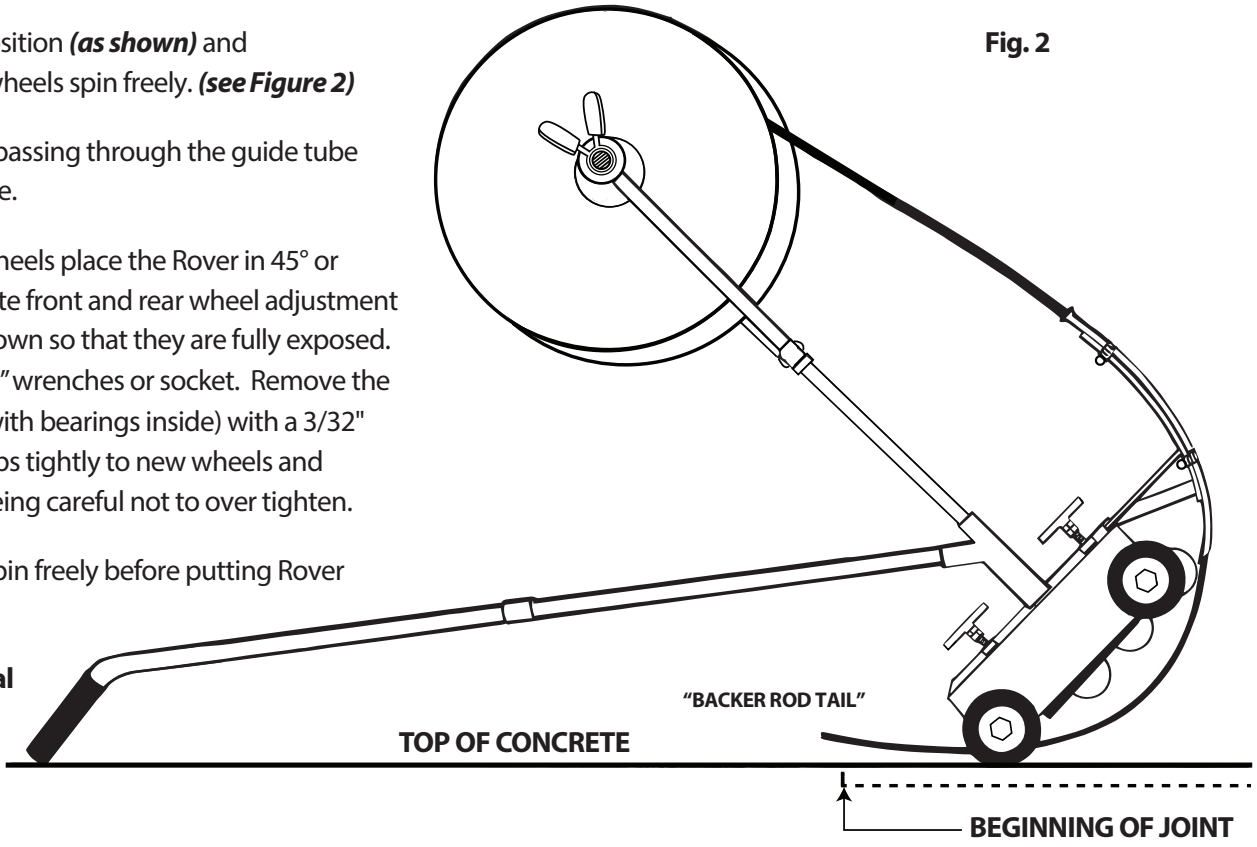
• Confirm backer rod is passing through the guide tube with very little resistance.

• To change insertion wheels place the Rover in 45° or sideways position. Rotate front and rear wheel adjustment T-handles all the way down so that they are fully exposed. Remove axles using 1/2" wrenches or socket. Remove the insertion wheel hubs (with bearings inside) with a 3/32" hex wrench. Attach hubs tightly to new wheels and reassemble to Rover, being careful not to over tighten.

• Confirm that wheels spin freely before putting Rover back into service.

See pg. 2 for additional wheel sizes.

Fig. 2



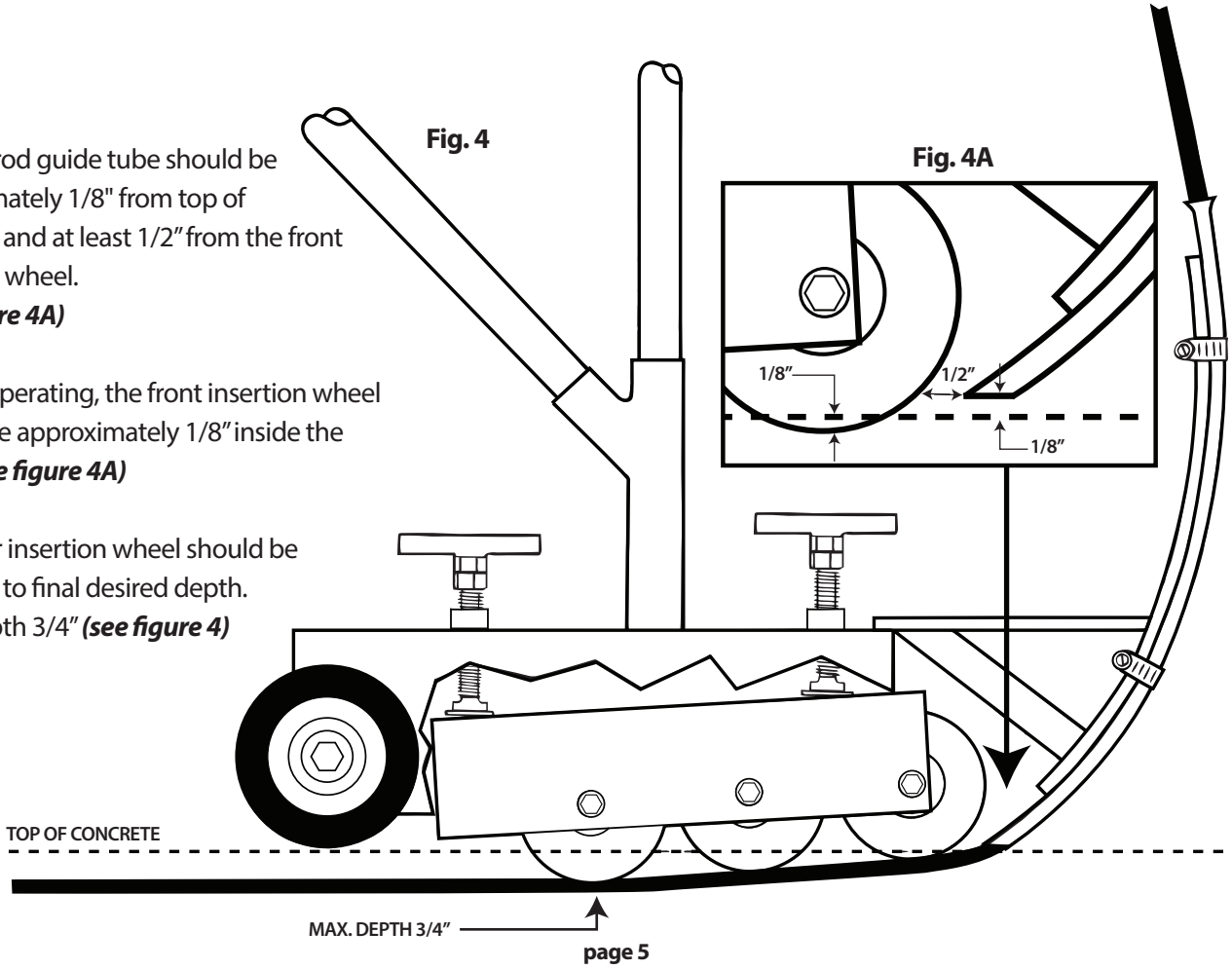
• Backer rod guide tube should be approximately 1/8" from top of concrete and at least 1/2" from the front insertion wheel. ***(see figure 4A)***

• When operating, the front insertion wheel should be approximately 1/8" inside the joint. ***(see figure 4A)***

• The rear insertion wheel should be adjusted to final desired depth. Max. depth 3/4" ***(see figure 4)***

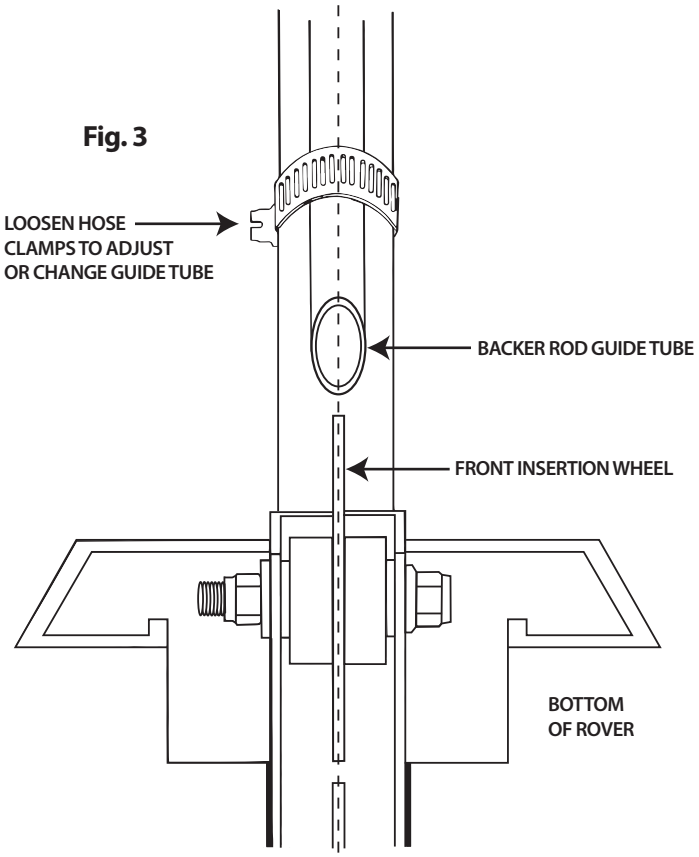
Fig. 4

Fig. 4A



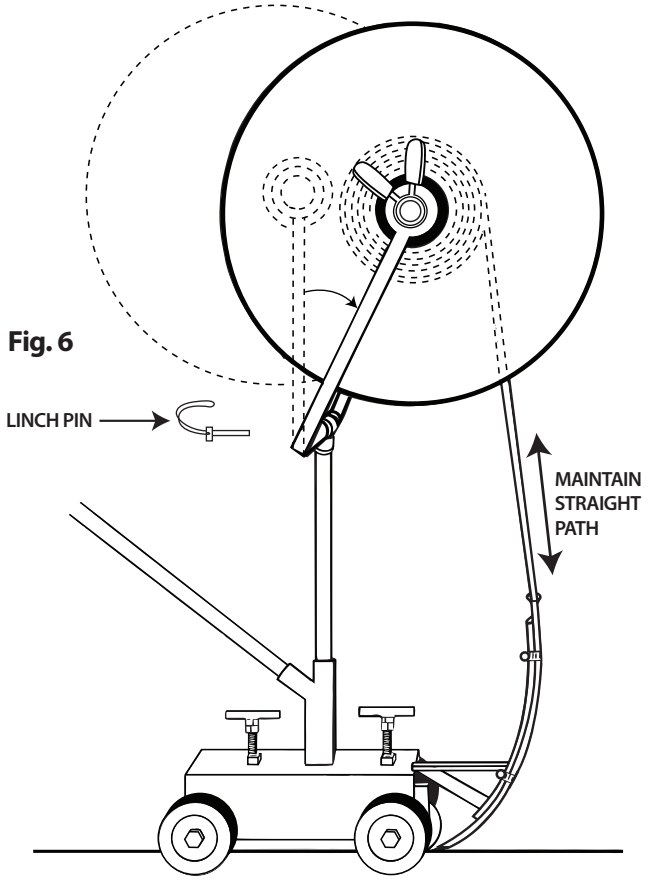
ADJUSTMENTS AND TECHNIQUE

Fig. 3



• Ensure backer rod guide tube is centered with the insertion wheels. ***(see figure 3)***

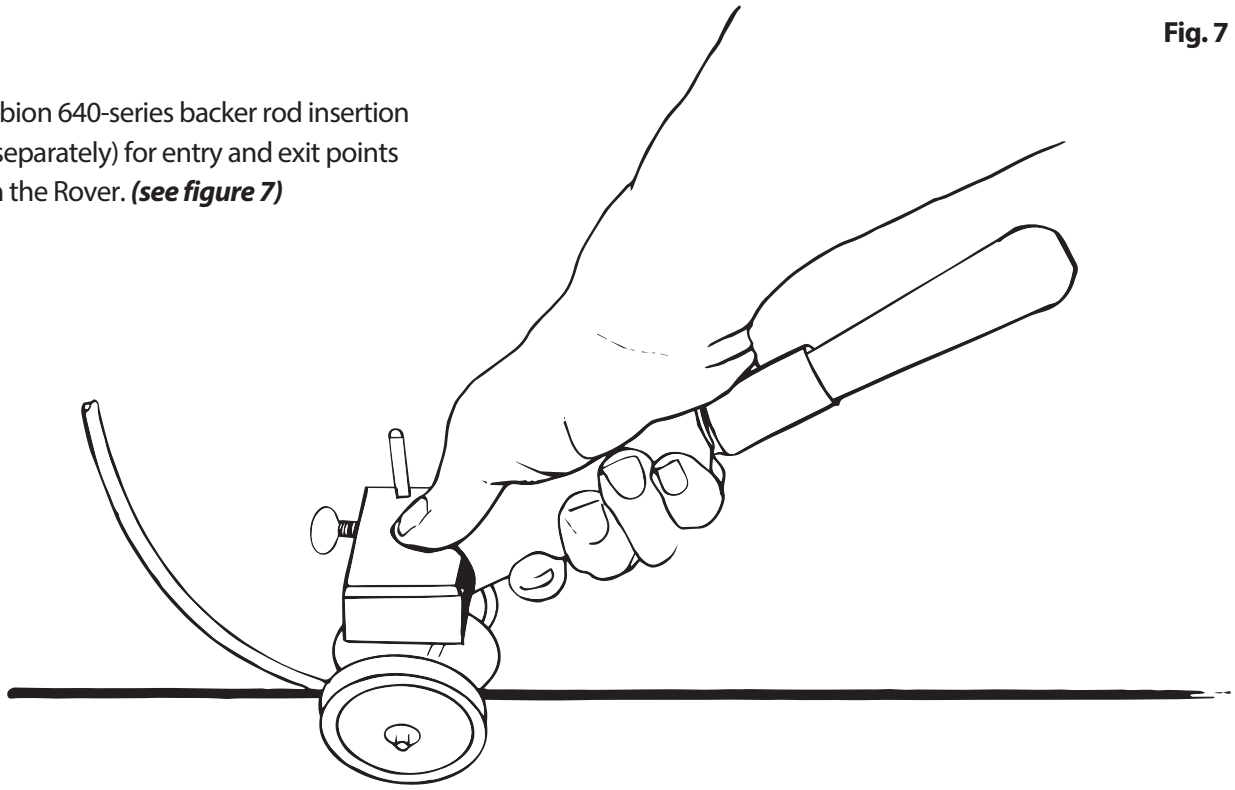
Fig. 6



• As backer rod volume on the spool decreases remove the linchpin and re-secure in the forward position to maintain a straight path into the guide tube. ***(see figure 6)***

Fig. 7

• Use an Albion 640-series backer rod insertion tool (sold separately) for entry and exit points made with the Rover. ***(see figure 7)***



OPERATING INSTRUCTIONS

Define the work zone

• Clear the work area before operating the Rover.

• Be aware of your surroundings. Use cones and caution tape in work zones.

• Wear high visibility clothing, gloves, and steel toe boots

• Never work alone, always ensure there is another person close at hand.

• Work in good weather conditions on dry concrete whenever possible.

• Try to seal joints same day backer rod is installed to prevent recontamination.

Before installing backer rod

• Joint preparation is critical.

• Chase out the saw cuts to clear joints of any dirt and debris.

• Machine cut joint profile to engineer specifications.

• Clear and remove all construction debris from joint and surrounding surfaces.

• Read and understand sealant manufacturer's requirements.

Start rolling in backer rod

• Place fully assembled Rover over the beginning of a joint.

• Thread backer rod into the guide tube and tilt Rover into 45 degree position resting on the handle then pull approximately 18" of extra backer rod through the exit end of the guide tube to create a "tail". ***(see figure 2)***

• Place the Rover in the upright position and turn both insertion wheel T-handles clockwise and simultaneously until front insertion wheel is approximately 1/8" inside the joint.

• Turn the rear T-handle an additional 3 revolutions and push Rover forward a few feet. Inspect backer rod depth and fine tune the rear T-handle adjustment for ideal depth. ***(see figure 4)***

• Push the Rover forward, starting slow to let the backer rod spool gradually begin to rotate. Increase forward speed to a steady walk.

• When exiting a joint, press down on the handle while pushing the rover forward. This will bring the insertion wheels out of the joint. Keep dispensing backer rod until there is enough extra to complete the joint while having enough to start the next joint. Then cut the backer rod.

• At these start and stop points use an Albion 640-series insertion tool and tamping blade to roll in the "tails". ***(see figure 7)***

• When moving from one joint to the next, press down on handle so the Rover rides on the rear tires to avoid direct contact of the insertion wheels to the concrete surface.

• Keep Rover in a 45° position resting on the handle when not in use or raise insertion wheels up to avoid damage.

TROUBLESHOOTING

Backer rod is breaking during operation

• **Note:** Not all backer rod is spooled correctly. Finding a spool of backer rod without overlap and tangles is essential for smooth operations. When using 1/4" backer rod a 2,000' spool can be more user friendly than the 3,200' and 4,000' foot spools.

• Check backer rod spool for tangles and overlap. To correct, place Rover handle into wind and remove backer rod until tangles and overlaps are chased out. Carefully rewind backer rod back onto spool.

• Do not push Rover too fast. Start out slow and increase to a normal walking speed. This becomes increasingly important as the backer rod spool diameter decreases.

• It is critical the joints are clean and ready for sealant before backer rod is applied. Any rocks, sand, concrete dust, or debris can effect the performance of this machine. Joint preparation and cleaning must be done prior to backer rod installation.

• Move the spool carriage to its forward position to maintain a smooth entry angle into the entry point of guide tube. **(see figure 6)**

• Check for clearance between spool retainers and backer rod spool. The spool axle should not be spinning with the backer rod spool. Spool must rotate freely without friction.

• Ensure backer rod passes freely through guide tube without friction.

• Check backer rod guide tube for burr on exit end.

Backer rod is too large for guide tube

• Make sure backer rod size matches the guide tube and insertion wheel sizes.

• Backer rod can swell slightly when stored in extreme heat or become elliptical during the forming process. In most cases it is faster to replace the backer rod instead of changing the guide tube.

Backer rod is punctured or cut at entry points of the joint

• Adjust front insertion wheel upwards. Approximately 1/8" should be inside the joint. ***(see figure 4A)***

Backer rod does not roll into joint when Rover is pushed forward

• Make sure front insertion wheel is not set too deep. ***(see figure 4A)***

• Wiggle handle slightly while pushing Rover forward to help start backer rod into the joint.

• Check backer rod guide tube alignment. ***(see figure 3)***

• Step on the backer rod "tail" while pushing Rover forward.

Backer rod is too shallow in the joint

• Adjust the rear insertion wheel down.

• For extremely tight joints or joints requiring a deep sealant bed, a second pass without dispensing additional backer rod may be necessary. Setting the insertions wheels deeper for a second dry pass can provide an acceptable depth.

• For custom applications requiring backer rod depth deeper than 3/4" contact Albion Engineering.

• Make sure saw cut is wide enough for the insertion wheels to fit inside. If saw cuts are too tight they should be chased out and re-cut to proper width.

• The joint can be silted with debris and may require additional cleaning.

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