

# INSTRUCTION SHEET

# BER0016 – MANUAL ROTATION

## APPLICATION

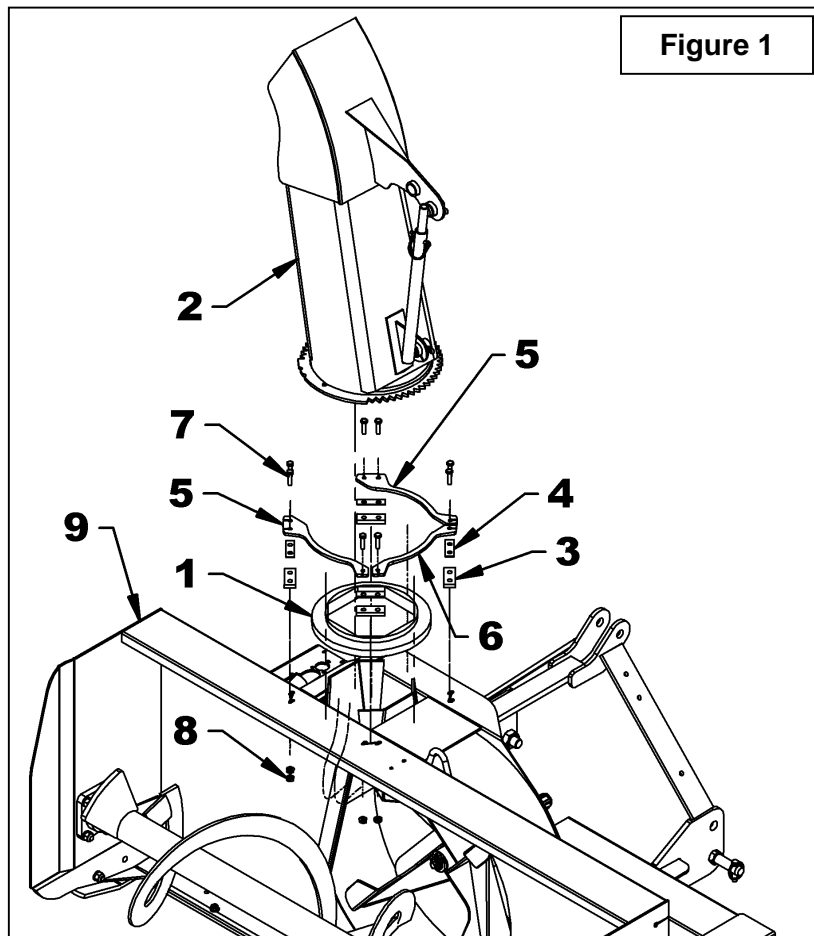
SA54 and SA64 snowblowers

## INSTALLATION

**NOTE:** Parts and hardware mentioned for the installation of the chute are included with the snowblower.

If the chute is hard to turn manually, insert the 1/16" spacers (item 4) as illustrated to give the chute more clearance.

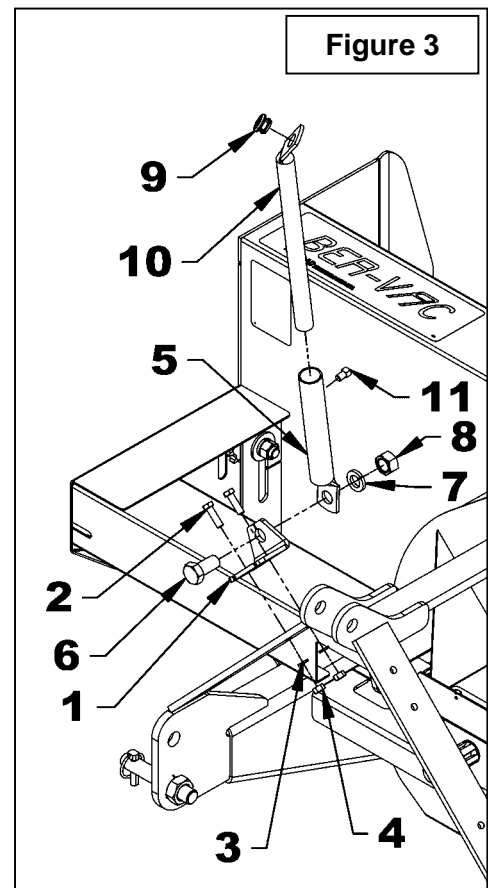
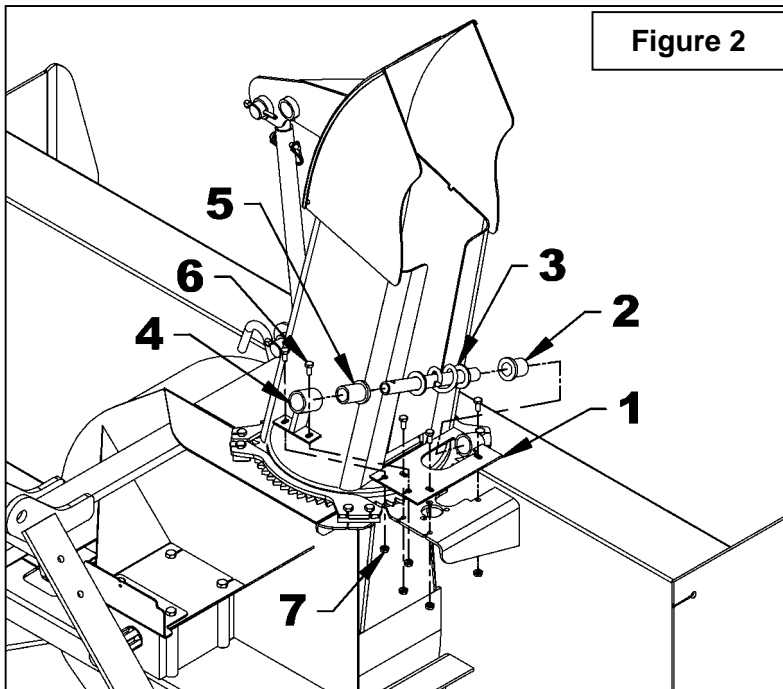
- 1. Figure 1:** Place the rotation bushing (item 1) over the snowblower chute base (item 9).
- 2. Figure 1:** Place the chute (item 2) over the rotation bushing and install the two three hole retaining plates (items 5) placing the larger sections towards the rotation plate and install the two hole retaining plate (item 6) at the end of the other two plates.
- 3. Figure 1:** Insert four 3/8" spacers (item 3) under the retaining plates and secure with eight 5/16" x 1 1/4" bolts and 5/16" serrated flange nuts (items 7-8). Tighten firmly.



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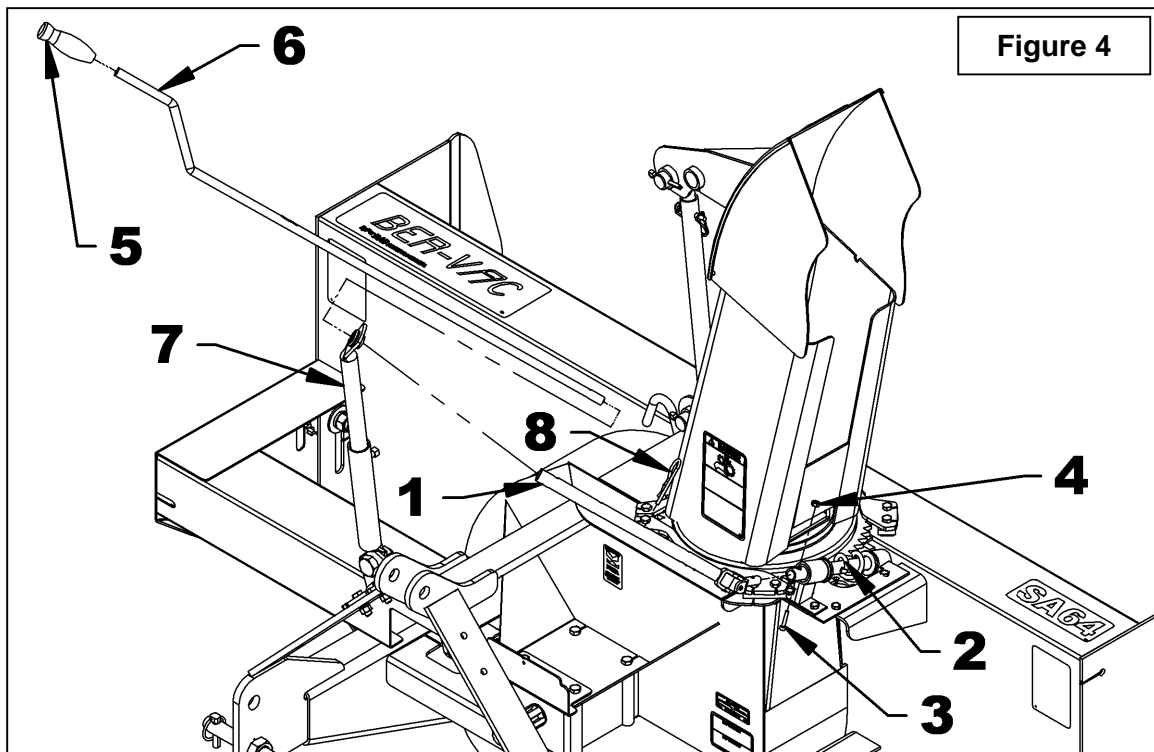
4. **Figure 2:** Install the rotation tube support (item 1) on the chute base and secure using three 1/4" x 5/8" bolts and 1/4" serrated flange nuts (items 6-7). Do not tighten.
5. **Figure 2:** Insert a 1 5/16" plastic bushing (item 2) in the rotation tube support (item 1), then insert the rotation worm (item 3).
6. **Figure 2:** Insert the 1 11/16" plastic bushing (item 5) in the rotation worm support (item 4), and then slide it on the rotation worm. Secure with two 1/4" x 5/8" bolts and 1/4" serrated flange nuts (items 6-7). Do not tighten.
7. **Figure 3:** Install the bracket (item 1) on the left side of the snowblower 3 point hitch using two 3/8"NC x 1 1/4" bolts, 3/8" lockwashers and 3/8" nuts (items 2-3-4). Tighten securely
8. **Figure 3:** Install handle support bracket (item 5) on the bracket (item 1) using a 3/4"NC x 1 1/2" bolt, lockwasher and nut (items 6-7-8) positioning the support bracket (item 5) so it leans toward the tractor while remaining parallel to the top of the three point hitch.
9. **Figure 3:** Install the plastic grommet (item 9) in the handle support (item 10).
10. **Figure 3:** Insert handle support (item 10) inside the handle support bracket (item 5). Adjust the height of the handle support according to your needs and fasten loosely with a 3/8" x 1/2" set screw (item 11).



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11. **Figure 4:** Install plastic handle (item 5) on the rotation handle (item 6).
12. **Figure 4:** Insert assembled rotation tube (item 1) in the rotation worm assembly (items 2), align holes and insert a 10-24 x 1" allen socket head capscrew (item 3) making sure the capscrew head sinks in the worm. Secure with a nylon insert locknut (item 4).
13. **Figure 4:** Insert the rotation handle (item 6) in the rotation support (item 7) and in the rotation tube (item 1). Select desired length, align nearest holes and secure with a 4mm x 80mm hairpin (item 8).



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14. **Figure 5:** Adjust the two supports (**fig. 1**, items 1-4) so the tubes are aligned and the worm is tightly secure while turning freely. Tighten firmly the two 1/4" NC x 5/8" bolts and the two 1/4" NC serrated flange nuts (item 2).
15. **Figure 5:** Adjust the rotation handle support by moving it toward the chute to engage the rotation worm between the chute gear teeth. Tighten slightly the three 1/4" NC x 5/8" bolts and the three 1/4" NC serrated flange nuts (item 5).
1. **Figure 5:** Rotate the chute completely to the right then to the left using the rotation handle (item 4).
  - If the chute rotates with difficulty because the rotation worm is engaged too deeply between the gear teeth, move the worm slightly away from the gear teeth and try again.
  - If the chute rotates with difficulty because the teeth do not engage or engage incorrectly, adjust the rotation handle support toward the chute and redo the procedure.

16. **Figure 5:** Make sure the worm engages completely when it reaches the end of the chute gear. The rotation handle is well adjusted when the chute rotates easily without straining. Tighten firmly the three 1/4" NC x 5/8" bolts and the three 1/4" NC serrated flange nuts (item 5).

17. Lubricate the rotation worm.

**NOTE:** Adjust the rotation handle position and height to a comfortable and safe operating position after the snowblower has been mounted to the tractor.



**CAUTION:** To avoid personal injury, check the full lifting range of the snowblower, to ensure that the chute rotation handle is clear of the operator's area when the snowblower is in raised position.

**NOTE:** To insure the manual rotation operates properly, the handle support (**fig.3**, item 10) must be positioned the closest possible to the upper attaching point while making sure the handle does not come into contact with the operator's seat when the snowblower is raised to the maximum.

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## PARTS

REF.	DESCRIPTION	QTY	PART #
1	Rotation handle	1	667425
2	Rotation tube	1	660188
3	Rotation yoke	1	659595
4	Universal block	1	658193
5	Rotation worm	1	665953
6	Rotation worm support	1	665952
7	Spring pin 1/4" x 1 1/4"	2	O/L
8	Hairpin 4mm x 80mm	1	1800002
9	Plastic handle	1	656797
10	Bushing 1 5/16" lg	1	657335
11	Bushing 1 11/16" lg	1	657336
12	Capscrew 10-24NC x 1"	1	0800009
13	Nylon insert locknut 10-24	1	O/L
14	Handle support	1	660187
15	Handle support bracket	1	660269
16	Hex. bolt 3/8" NC x 1 1/4"	2	O/L
17	Hex. nut 3/8" NC	2	O/L
18	Lockwasher 3/8"	2	O/L
19	Setscrew 3/8" x 1/2", square head	1	0600006
20	Plastic grommet	1	657390
21	Bracket	1	660388
22	Hex. bolt 3/4" NC x 1 1/2"	1	O/L
23	Lockwasher 3/4"	1	O/L
24	Hex. nut 3/4" NC	1	O/L
25	Rotation tube support	1	665951
26	Hex. bolt 1/4" NC x 5/8"	5	O/L
27	Serrated flange hex. nut 1/4"	5	0900058

