

Factory Service Manual

Model 760 (Drop Hammer)

This manual is intended as an informational guide in servicing Crosman products. It is not instructional material and we therefore assume no responsibility for those who use same without proper factory training.

CROSMAN ARMS

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MODEL 760 (HAMMER DROP) SERVICE

General operating instructions for this model are contained in the Owner's Manual and should be read thoroughly. The detailed drawings, repair instructions and Disassembly/Assembly procedures must be studied carefully before any repair work is started. This will insure quicker and more precise repair of gun.

It is not always necessary to disassemble the entire gun in repair work it is hoped that this section will assist you in diagnosing the repair problem and will speed up repair time.

TROUBLE SHOOTING

PROBLEM I — Gun Will Not Fire

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Interlock 760-087 damaged or not working properly.	1. See Disassembly/Assembly Procedures Receiver Group (VI). 2. Inspect Interlock 760-087 for wear or damage. 3. If necessary to replace, pry off Interlock Retainer 760A090 and remove Interlock Spring 760A088 Interlock 760-087 and Interlock Bushing 760-089 .
2. Bolt Lever 760-091 is open or not completely in closed position.	1. If Bolt Lever 760-091 is open or not completely closed it will interfere with Interlock 760A087 and prevent gun from firing.

PROBLEM II — Leaks

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Defective Valve Stem Assembly 1322-011 .	1. See Disassembly/Assembly Procedures — Valve and Tube Group (X) 2. Valve Stem Assembly 1322-011 , must be replaced if damaged or defective.
2. Defective Check Valve 1400A029 .	1. If Lever kicks back when pumping gun, it will indicate that the Check Valve 1400A029 is defective. 2. See Disassembly/Assembly Procedures — Valve and Tube Group (X). 3. Replace Check Valve 1400A029 .

PROBLEM III — Low Power

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Seal on Valve Stem Assembly 1322-011 is distorted allowing too little air pressure into Exhaust Hole.	1. See Disassembly/Assembly Procedures — Valve and Tube Group (X). 2. Check Seal on Valve Stem Assembly 1322-011 and replace entire Assembly if necessary.
2. Valve Leaks	1. See Problem I — Leaks — Trouble Shooting Section.
3. Compressed or defective Pump Cup 766-035 .	1. See Disassembly/Assembly Procedures — Lever and Pump Group (III). 2. Inspect and replace Pump Cup 766-035 if necessary.
4. Defective or missing Gasket 130-036 .	1. See Disassembly/Assembly Procedures — Valve and Tube Group (X). 2. Replace Breech Gasket 130-036 if necessary.
5. Connecting Rod Assembly 1322-019 is too short and will not compress air in Valve Assembly.	1. One way to check for this cause is to pump gun two times and fire. If gun does not expel pellet, then connecting Rod Assembly 1322-019 may need to be replaced. 2. See Disassembly/Assembly Procedures — Lever and Pump Group (III).

PROBLEM IV — Gun Fails To Exhaust Air

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Gun has been over-pumped.	1. If gun pumps very hard, compression build-up will indicate gun has been over-pumped, not allowing Hammer to exhaust any air. 2. See Disassembly/Assembly Procedures — Valve and Tube Group (X). NOTE: Place Valve Assembly 760A101 on bench with Valve Stem Assembly 1322-011 facing up and exhaust hole away from you. Then hit Valve Stem Assembly 1322-011 , thereby expelling the air.

2. Distorted Seal or Compressed ring on Valve Stem Assembly 1322-011.

1. See Disassembly/Assembly Procedures — Valve and Tube Group (X).
 2. Inspect Seal on Valve Stem Assembly 1322-011 and replace if necessary.
 NOTE: Before turning Valve Assembly 769A101 apart follow instructions as given in Repair Procedures of Problem IV, -1.

PROBLEM V — Lever Does Not Stay In Locked Position

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Worn Detent Plug 760-063.	1. See Disassembly/Assembly Procedures — Lever and Pump Group (III). 2. Inspect Detent Plug 760-063 and replace if necessary. 3. To replace Detent Plug 760-063, punch it out of Lever/Link Assembly 760A043. 4. If new Detent Plug 760-063 is not available, compress Lever/Link Assembly 760A043 opening with pliers so that inside of Lever/Link Assembly 760A043 will be tightened against Detent Plug 760-063.

PROBLEM VI — Fails To Shoot Pellets or BBs

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Barrel 760-093 is jammed with BBs or Pellets.	1. See Disassembly/Assembly Procedures — Barrel Group (IV). 2. Inspect inside of Barrel 760-093 to make sure that outer shells of Pellet is not in Barrel and that no other obstructions are visible. 3. Inspect for jammed BBs. Oversized or reused BBs may be the cause of jamming. NOTE: Customer should be advised that Crosman Super BBs should be the only ammunition used and that reused BBs may jam gun.

PROBLEM VII — Gun Fails To Cock

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Worn or defective Sear 760-084.	1. See Disassembly/Assembly Procedures — Trigger and Sear Group (VIII). 2. Inspect Sear 760-084 and replace if necessary.
Disconnected or improperly installed Trigger Spring 761A005.	1. See Disassembly/Assembly Procedures — Trigger and Sear Group (VIII). 2. Inspect Trigger Spring 761A005 and replace Assembly if necessary.

PROBLEM VIII — BBs Fail To Drop Into Chambers

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Magnet on Bolt Assembly 760-098 is too long or loose.	1. See Bolt Lever Bolt Assembly and Hammer Group (IX). 2. Inspect Bolt Assembly 760-098 and replace if necessary.
2. Foreign material or Pellets in BB Chamber or Magazine.	1. See Disassembly/Assembly Procedures — Receiver Group (VI). 2. Inspect Chamber and Magazine and clear areas.

PROBLEM IX — BBs Roll Out Of Magazine When Bolt Is Pulled Back; BBs Roll Back Into Reservoir

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Magnet on Bolt Assembly 760-098 is missing.	1. See Disassembly/Assembly Procedures — Bolt Assembly and Hammer Group (IX). 2. Replace Bolt Assembly 760-098 if magnet is missing.
2. BB Retainer 760A021 is broken or worn.	1. See Disassembly/Assembly Procedures — BB Retainer Group (VII). 2. Remove Right Hand Receiver 760-095 replace BB Retainer 760A021.

PROBLEM X — BBs Roll Out Of Barrel When Bolt Is Closed

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Magnet on Bolt Assembly 760-098 is weak or missing.	1. See Disassembly/Assembly Procedures — Bolt Lever, Bolt Assembly and Hammer Group (IX). 2. Replace Bolt Assembly 760-098 if magnet is weak or missing.

PROBLEM XI — Pellets Move Into Barrel Chamber With Difficulty

POSSIBLE CAUSES	REPAIR PROCEDURES
1. Defective Barrel Chamber.	1. See Disassembly/Assembly Procedures — Barrel Group (IV). 2. Inspect Chamber of Barrel 760-093 for burrs, deformities and foreign matter. 3. Replace Barrel 760-093 if necessary.
2. Burrs on Exhaust hole on Barrel Support 760-074.	1. See Disassembly/Assembly Procedures — Barrel Group (IV). 2. Inspect Barrel Support 760-074 and replace if necessary.

1. Put together Connecting Rod Assembly 1322-019 and Pump Cup 766-035.
2. Place Pump Guide Pin 101-033 through Connecting Rod Assembly 1322-019 and Lever/Link Assembly 760A043.
3. With Pump Assembly parts together, slide the unit into Pump Tube 760-094.
4. Test for compression before continuing assembly. Place $\frac{3}{16}$ " punch through hole in Pump Tube 760-094 and Pivot Pin 760-071 hole on Lever. Remove Unit from vise, pump gun and fire to check for proper operation. If operation is correct continue to next step. Otherwise recheck steps 1-3.
5. With Lever open about 2", place Pump Tube 760-094 back in vise.
6. Slide front Barrel Guide 760B008 back onto Pump Tube 760-094.
7. Carefully drive Pivot Pin 760-071 through Pump Tube 760-094 and Lever/Link Assembly 760A043 and replace Pivot Pin Retainer 760-072.
8. Remove from Vise and replace Front Set Screw 760A027.

IV BARREL GROUP

A. DISASSEMBLY

NOTE: Barrel 760-093 can be removed without disassembling Group I, II, and III.

1. Remove two (2) Rear Sight Screws 160-029, Rear Sight 160-020 and Elevator 160-021.
2. Remove rear and front Set Screws 760A027.
3. Slide out Barrel 760-093 and unjam or replace if necessary.

B. ASSEMBLY

1. Replace Barrel 760-093.
NOTE: When replacing Barrel 760-093, be sure that detent spot in Barrel 760-093 is located properly over Set Screw holes for proper alignment.
2. Replace rear and front Set Screws 760A027.
3. Replace Rear Sight 160-020, Elevator 160-021 and Rear Sight Screws 160-029.
NOTE: Rear Sight Assembly must be replaced before test firing.

V BB PORT COVER GROUP

A. DISASSEMBLY

1. Turn BB Port Cover 760-082 counterclockwise and pry it out.

B. ASSEMBLY

1. Place BB Port Cover 760-082 over hole and press into place.

VI RECEIVER GROUP

A. DISASSEMBLY

1. Remove Bolt Knob 760-050.
2. Remove two (2) Receiver Screws 760-025 and one (1) Receiver Screw 110-049.
3. Place Bolt Lever 760-091 in upright posi-

tion and lift off Right Hand Receiver Assembly 760A102.

4. Inspect parts inside Right Hand Receiver Assembly 760A102. If necessary pry off Interlock Retainer 760A090; and remove Interlock Spring 760A088, Interlock 760-087 and Interlock Bushing 760-089. Replace worn parts.

B. ASSEMBLY

1. Replace Interlock Assembly into Right Hand Receiver 760-095 in reverse order of disassembly.
2. NOTE: Before replacing Right Hand Receiver Assembly 760A102, make sure that all parts located in Left Hand Receiver 760-096 are in proper position. Pull back Bolt Lever 760-091 and Bolt Assembly 760-098 so that Sear 760-084 latches on last click in cocked position. This will move Bolt Assembly 760-098 away from Interlock 760-087.
3. Replace Right Hand Receiver Assembly 760A102.

NOTE: If difficulty is encountered in assembling Right Hand Receiver 760A102, check to see if Barrel Support 760-074 is lined up with hole in Right Hand Receiver 760A102. It is helpful to put Lever Assembly in open position and to make sure that Bolt Assembly is back completely.

VII BB RETAINER GROUP

A. DISASSEMBLY

1. NOTE: To repair this group, it is necessary to remove Receiver Group VI.
Remove BB Retainer 760A021 (see Receiver Group (VI)).

NOTE: If BB Retainer 760A021 moves back and forth too freely, this will indicate that detent button on BB Retainer 760A021 is broken or worn and part must be replaced.

VIII TRIGGER AND SEAR GROUP

A. DISASSEMBLY

NOTE: To repair this part of gun it is only necessary to remove Receiver Group (VI) and BB Retainer Group VII.

1. Pry Trigger Spring 761A005 forward and remove Safety 760-017 from Left Hand Receiver 760-096.
2. Lift Trigger Spring 761A005 from Trigger Assembly 760A100 and unhook from Sear 760-084.
3. Pull out Trigger Pivot Pin 760-016 from Sear 760-084 and remove Sear 760-084.
4. Lift out Trigger Pivot Pin 760-016 from Left Hand Receiver 760-096 and remove Trigger Assembly 760A100.
5. Remove Trigger Return Spring 760-104.

B. ASSEMBLY

1. Replace Trigger Return Spring 760-104 over rear Trigger boss with hooked end down and to rear of casting as shown in E.V.P.

2. Place Trigger Pivot Pin **760-016** in rear boss.
3. Slide Trigger Assembly **760A100** over Trigger Pivot Pin **760-016** and hook Trigger Return Spring **760-104** on top rear of Trigger Assembly **760A100**.
NOTE: Test Trigger Assembly **760A100** for spring tension.
4. Place Trigger Pivot Pin **760-016** in hole forward of Trigger Assembly **760A100**.
5. Place Sear **760-084** over Pivot Pin **760-016** and make sure hole in Sear **760-084** is located over Pivot Pin **760-016** on Trigger Assembly **760A100**.
6. Hook Trigger Spring **760A005** in small hole in Sear **760-084** and at same time slide Trigger Spring **761A005** over Pivot Pin **760-016**. Allow Trigger Spring **761A005** to rest against casting and over Safety hole.
7. Slide Safety **760-017** in from left side of Left Hand Receiver **760-096**, moving Trigger Spring **761A005** forward so that it will hold the Safety **760-017** in place.

IX BOLT LEVER AND BOLT ASSEMBLY AND HAMMER GROUP

A. DISASSEMBLY

NOTE: It is only necessary to remove Groups VI and VII to work on this group.

1. Lift Barrel **760-093**, Pump Tube **760-094**, Lever/Link Assembly **76A043**, Bolt Assembly **760-098** and Bolt Lever **760-091** as one unit from Left Hand Receiver **760-096**.
2. Remove Bolt Assembly **760-098** and Bolt Lever **760-091** from Pump Tube **760-094**.
3. Slide from rear of Pump Tube **760-094**, the Tube Plug **760-081**, Hammer Spring **760-080** and Hammer Assembly **760B099**.
4. NOTE: All parts should be inspected for damage, wear or any other defect and replace if necessary.

B. ASSEMBLY

1. Slide Hammer Assembly **760B099**, Hammer Spring **760-080** and Tube Plug **760-081** into rear of Pump Tube **760-094**.
2. Properly line up Tube Plug **760-081** with Hole in Pump Tube **760-094**.
3. Place Bolt Lever **760-091** in slot on top of Bolt Assembly **760-098**.
4. Place Bolt Assembly **760-098** on top of Pump Tube **760-094** and over Hammer cocking pin on Hammer Assembly **760B099**. Cocking pin must be in slot of Bolt Assembly **760-098** so that Hammer Assembly **760B099** can cock properly.
5. As one unit, place Pump Tube **760-094** and Bolt Assembly **760-098** into Left Hand Receiver **760-096** making sure locating hole in Pump Tube **760-094** is over boss on Left Hand Receiver **760-096**.
6. Pull Bolt Assembly **760-098** back slightly to check for tension and proper location.

7. Assembly Trigger and Sear Group (VIII) and Receiver Group (VI) per Assembly instructions in those sections.

X VALVE AND TUBE GROUP

A. DISASSEMBLY

NOTE: Groups III, VI, VIII and IX must be removed to work on this unit.

1. Remove Breech Gasket **130-036** from exhaust hole in Pump Tube **760-094**.
2. With $\frac{1}{2}$ " rod or dowel, gently push out from rear of the pump Tube **760-094**, Valve Assembly **760A101**.
3. Disassemble Valve Assembly **760A101** as follows:
CAUTION: Be sure all air is exhausted from Valve Assembly **760A101**. Tap Valve Stem on bench to make sure all air is exhausted.
 - a. Grip Valve Body **760-075** with a pair of vise grips.
 - b. Apply a small amount of heat at center of Valve Assembly **760A101** to loosen Loctite.
 - c. With a pair of pliers loosen two parts, **760-075** and **130B005**, of the Valve Assembly **760A101** and separate.
 - d. Remove Valve Stem Assembly **1322-011**, check Valve Spring **760-103**, Valve Spacer **760-086** and Check Valve **1400A029**.
 - e. Remove O Rings **130-034** and **130-035** from Check Valve Body **130B055**.

B. ASSEMBLY

NOTE: Before reassembly, inspect all parts for wear or damage. It is recommended that O Ring **130-034** and **130-035**, Check Valve **1400A029** and Valve Stem Assembly **1322-011** be replaced with new parts.

1. Place O Rings **130-034** and **130-035** on Check Valve Body **130B005**.
2. Reassemble Valve Stem Assembly **1322-011**, Check Valve Spring **760-103**, Valve Spacer **760-086** and Check Valve **1400A029** into Valve Assembly **760A101** as shown on E.V.P.
3. Apply a small amount of Loctite to thread on Check Valve Body **130B005** and turn two valve parts together and tighten with pliers.
4. Slide Valve Assembly **760A101** into Pump Tube **760-094**.

NOTE: Be sure to line up exhaust hole in Valve Assembly **760A101** with exhaust hole in Pump Tube **760-094**.

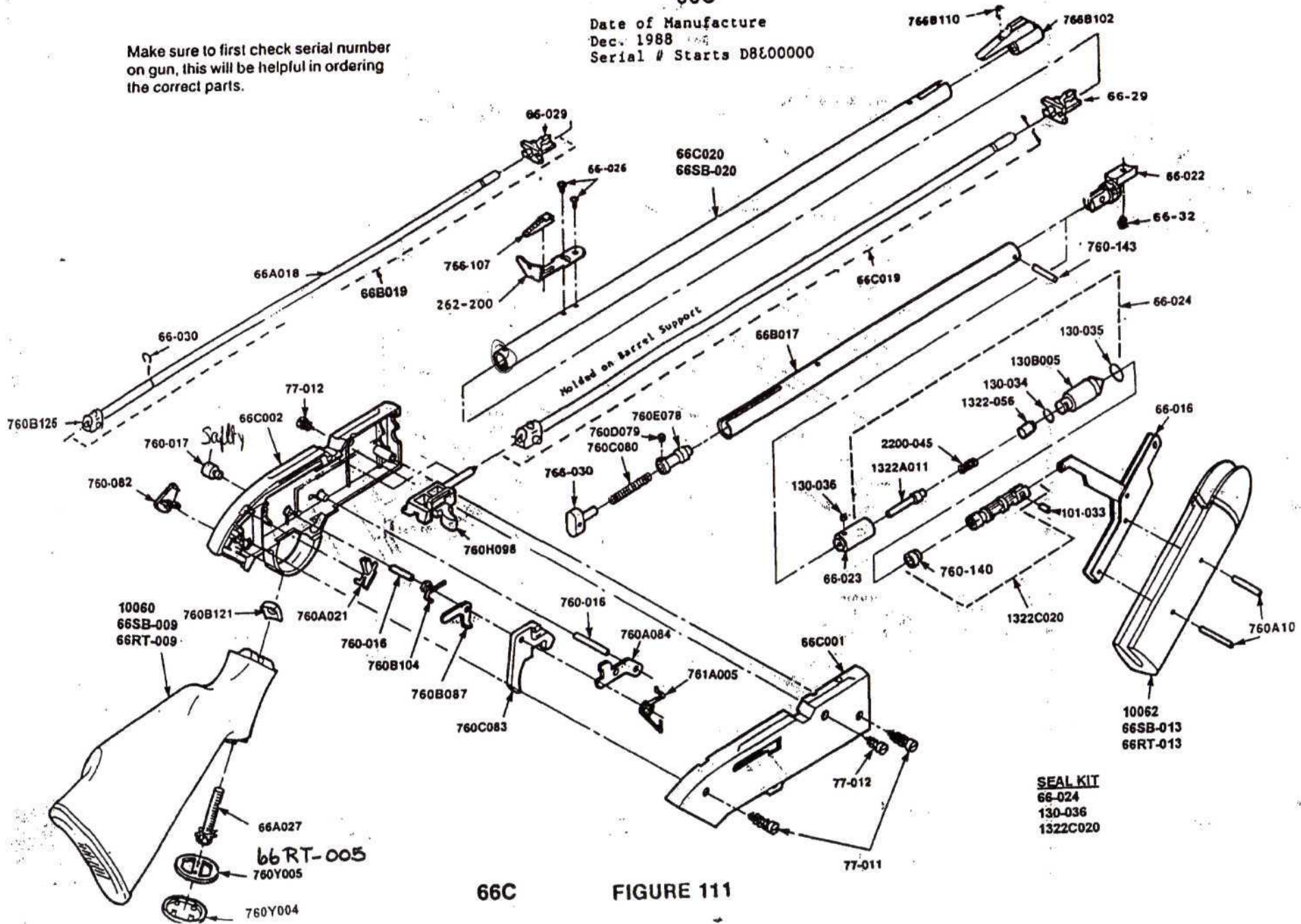
5. Replace Breech Gasket **130-036** in exhaust of Pump Tube **760-094**.
6. Then put pump tube in vise upside down with about one inch of front end of the tube protruding from vise jaws. Slide pump piston and lever assembly as one unit into pump tube. Then place front barrel guide **760B008** in end of tube and properly line up all holes and replace pivot pin through tube, barrel guide and lever pivot hole.

7. Slide Barrel **760-093** through Barrel Guide **760B008**.
8. Place Barrel Support **760-074** as shown on E.V.P. on Barrel **760-093**, making sure it is properly located over detent spot on Barrel. Replace Set Screw **760A027** and tighten.
9. Place Barrel Support **760-074** in exhaust hole on top of Tube on Breech Gasket **130-036**. Line up detent spot properly over hole in Front Barrel Guide **760B008**, replace Set Screw **760A027** and tighten.
10. Assemble as instructed in Bolt Lever and Bolt Assembly Group IX -B and then complete the reassembly of all the above groups.

Make sure to first check serial number on gun, this will be helpful in ordering the correct parts.

66C

Date of Manufacture
 Dec. 1988
 Serial # Starts D8L00000



66C

FIGURE 111

262-200
288

MODEL: 66BX, 664SB, 664GT
7066SB

DATE	REV
1/27/61	1

