REPAIR MANUAL FOR GODIN

MODELS 3720/30 SMALL ROUND

MODELS 3721/31 LARGE ROUND

SPECIAL TOOLS REQUIRED

Soft-faced hammer

10 mm combination wrench (Sears)

14 mm combination wrench (Sears)

8" vein clamp (any surgical supply house, or well-stocked drugstore)

putty knive and stove cement

double-sided Scotch tape

NOTE: Any repairs requiring the removal of the base of the unit can be made easier by placing the stove horizontally on a pair of supports made from 2x4's.

Part
No. Part Name

1. Decorative Top

The defective decorative top is removed by first removing the two clips of the hinge pins with plyers. Remove the hinge pins carefully, supporting the old decorative top. Place the new decorative top in position on the stove and slip the hinge pins into position. Replace the clips. If the decorative top does not seat properly, slightly enlarge the holes in the decorative top ONLY and try again. This will usually seat the top but will not cause an objectionable amount of looseness.

3. Collar

Remove the decorative top as described above. Move the three nuts which hold the top plate (4), and the collar (3), and the hinge bracket (6), to the barrel (7) of the stove. (If the nuts resist, do not force them; the threads may strip. Instead try Liquid Wrench™.) Lift off the hinge bracket (6), and the top loading lid (5). Gently tap the underside of the collar (3), with a soft-faced hammer to loosen the seal of the collar (3) to the barrel (7). This also loosens the top plate (4). Remove the top plate (4). Remove the collar (3). (It may be necessary to tap the collar gently again with a soft-faced hammer.) Clean the old stove cement from the top of the barrel (7), the top of the fire brick, and the underside of the top plate (4). Place between 1/8 and 1/4-inch of good grade stove cement on the top of the fire brick, taking care not to allow

any stove cement to interfere with the air flow of the air conduit (23). Place the collar (3) in position. Put a thin layer of stove cement on the underside of the top plate (4) and put it in position on top of the collar (3). Replace the top loading lid (5) and the hinge bracket (6). Replace the nuts and washers previously removed. Tighten the nuts sequentially so that the collar (3) and top plate (4) are brought evenly into contact with the top of the barrel (7). Replace the decorative top (1).

4. Top Plate

Follow the directions under 3. Collar above, except tap only the top plate (4) with a soft-faced hammer by gently hitting the inside of the opening with a slight upward swing. Do so carefully so as not to disturb the seal between the collar (3) and the barrel (7).

5. Top Loading Lid

6. Hinge Bracket

Remove the nut holding the hinge bracket (6) in place and remove the top loading lid (5). Replacement is self-evident.

5B. Viewing Lid

6B. Viewing Lid Hinge

Lift the decorative top (1) and the top loading lid (5). With a metric wrench or a metric socket, remove the hex head bolts which are inserted vertically from below up into threaded holes located in the top plate (4). The viewing lid and hinge assembly will now come free. Place the assembly on a flat surface with the top side up.

Slide the viewing lid hinge (6B) to one side, and using a hack saw, cut the exposed hinge pin. Remove the cut section of the hinge pin. (You may have to drive this piece out.) The other piece of the cut pin will fall out. Replace the defective part and reassemble in the reverse order.

Do not start this repair unless you have spare viewing lid pins. If you do not, it is possible to make one from a door hinge by cutting off the end which has the groove into which the clip fits. Remove 3/8 to 1/2 an inch.

8. Escutcheon

Remove the two screws holding the escutcheon in place. The nuts are captive. Take care when replacing the new escutcheon that you do not over-tighten the screws and chip the enamel.

10. Fire Door Frame

11. Fire Door Inner Frame

12. Fire Door

13. Fire Door Back Plate

14. Air Regulator

15. Fire Door Lintel

Disconnect the stove from the flue. Clean thoroughly. Remove shaker ring (27) by unscrewing. Open the door and remove front grate (21) and shaker grate (20). Remove shaker rod (28). Lay the stove on its back, supporting it in two places so it does not roll.

Position the stove so that the base is above the work surface. (The stove support described in SPECIAL TOOLS REQUIRED will make this job easier.)

There are two screws which hold the fire door lintel (15) in place. They are on the left and right side of the fire door frame (10) and are the second screw down from each upper corner. Note the diameter and length of the screws as you remove them. If the stove has been fired heavily, it may be necessary to cut the nuts off of these screws using a cold chisel and hammer.

Open the fire door (12) and remove the two screws just inside the upper edge of the fire door opening. Remove all of the screws now holding the fire door frame (10). It may be necessary to apply some pressure outward to the screws with your fingers or with a screwdriver as you remove the screws. This will be particularly true for the upper three screws of the fire door frame (10). This procedure causes the nut to remain in contact with the barrel so that there is enough friction to resist the turning of the screw. Do not be concerned about losing the nut.

From the underside of the stove, remove the nuts which hold the base (24) to the barrel (7). Tap gently with a soft-faced hammer to break the seal, and remove the base (24). When the base is removed, the fire door frame (10) is now free to be removed.

It is now necessary to move the front edge of the shaker grate

support (22) down towards the bottom of the stove. This also moves the fire door inner frame (11), as they are interlocked. Move the fire door inner frame (11) down 1½ to 2 inches. Using double-sided Scotch tape, apply flat fiberglass gasket material, 1/8-inch thick and 3/4-inch wide to the three sides of the fire door opening of the barrel (7). (The double-sided Scotch tape makes assembly easier.) Remove the fire door (12) from the fire door frame (10) of the new set. (This makes handling of the parts easier.)

Inspect the fire door inner frame (11) for defects and reinstall at this time.

Put the door frame in place gently over the gasketing material aligning the holes of the door frame with the holes in the barrel. Clamp a nut in the jaws of the 8" vein clamp. Starting with a corner hole first, carefully insert the nut into the cavity in the firebrick until you see that it is aligned through the hole in the door frame. Then put the bolt in place, turning it gently until it engages the nut, but do not tighten. Repeat for the other corner hole. Using the 8" vein clamp again, insert a nut into the air conduit (23), aligning the nut with the center hole in the fire door frame (10). Again, insert the bolt and engage the nut, but do not tighten.

Lift the lower edge of the fire door frame (10), and slide the shaker grate support (22) and the fire door inner frame (11) into position. Be sure that the shaker grate support (22) seats firmly

against the bottom of the firebrick (check that no ash or debris prevents it from doing so), and that the grate support (22) is above the two projections on the fire door frame (10) that hold the support in place in service. Place nuts and screws in the two holes located just inside the upper surface of the fire door frame opening and the two holes on the fire door frame just below the shaker grate support. Again, do not tighten.

Fill the groove of the base (24) with stove cement. At the front of the base, slope stove cement from front to rear, allowing enough so that the stove cement will ooze out as the base (24) is tightened in place. Reassemble the base (24) to the barrel (7), replace the washers and nuts and tighten sequentially so that the base (24) is brought into even contact with the barrel (7) and the fire door frame (10). Now tighten all of the screws installed in the fire door frame (10). It may be necessary, with the top three screws, to apply some outward pressure to hold the nut while you are turning the screw.

Position the fire door lintel (15). Insert 6 x 40 mm screws. Work the lintel and the screws into position, and apply the nuts. Tighten. (Caution: In tightening the screws do not tighten so much that you crack the enamel; i is easy to do.)

Replace the shaker rod (28) and the shaker grate (20). Install the front grate (21), replace the fire door (12), and reinstall the shaker ring (27). Remove the air regulator (14) from the old door

and install on the new. Note that it is necessary to remove the pin which prevents the air regulator from opening too wide in service.

13. Door Back Plate

Remove the fire door (12) from the fire door frame (10) by removing the clips and the hinge pins. Remove the air regulator (14). Remove the fire door back plate by removing the four screws and the nuts that hold them into position. (If the nuts are frozen, try Liquid Wrench™.) This gives you access to the mica and/or the gasket for replacement. Reinstallation of the fire door back plate is self-evident.

14. Air Regulator with Stem

The air regulator is easily removed, but first it is necessary to drive out the pin which restricts the opening of the air regulator. A nail and hammer work very well for this purpose. Reinstall the new air regulator and replace the pin.

15. Lintel

The lintel replacement is covered in the section on the fire door frame set (10-15). It is only necessary to remove the two 6 x 40 mm screws which are found on either side of the fire door frame. They are the second screws down.

16. Manifold Sole

It is not recommended that the manifold sole be replaced. This involves complete striping of the stove, including removal of the fire brick, and it is a very difficult task.

17. Manifold

The manifold is removed by the four screws holding it in place. Before installing the new manifold, clean the stove cement off the manifold sole (16). Apply stove cement to the manifold mating surfaces, and reinstall. Tighten the four screws carefully and evenly so as not to crack the manifold.

18. Flue Grate

The flue grate is a captive part and is installed at the same time as the manifold sole (16). (See comments under 16. Manifold Sole.)

20. Shaker Grate

The shaker grate is easily removed by opening the fire door (12), lowering the front grate (21), and lifting the shaker grate with a twisting motion. This will disconnect it from the shaker rod (28). Reinstall in a similar manner.

21. Front Grate

The front grate is easily removed by moving the left side of the grate upward and back at the same time, and then up and over the shaker grate (20).

22. Shaker Grate Support

The shaker grate support is removed as part of the sequence for the fire door frame set (10-15). Refer to those instructions.

23. Air Conduit

The air conduit is removed by first removing the collar (3). (Refer to instructions for the collar.) When the collar is removed, clean all stove cement carefully from around the air conduit. Tap vertically on the air conduit to dislodge it, and then slide it up.

Clean the old stove cement and reapply new cement where the air conduit meets the firebrick. Reinstall the new air conduit, gently tapping it home with a soft-faced hammer. Reinstall the collar.

24. Base

The instructions for removal and reinstallation of the base are covered under the instructions for the fire door frame set (10-15). Follow those instructions as appropriate.

27. Shaker Ring

28. Shaker Rod

The shaker ring is secured to the shaker rod by threading. To replace the shaker rod, unscrew the shaker ring, lift out the shaker grate (20) as described in 20. Shaker Grate, and remove the rod. Reinstall the rod in the reverse order.

31-37. Firebrick Set

To replace the brick, it is first necessary to remove the collar (3) and the air conduit (23). (Refer to instructions for those parts.)

The key brick is the brick that houses the air conduit. It is necessary to drive this brick a short distance up in order to break the seal with the rest of the bricks. The difficulty is in moving this brick without breaking it. Once this key brick is removed, the other bricks can be removed in turn.

Before any brick is reused, the stove cement should be carefully cleaned off. When reinstalling the bricks start at the rear of the stove, working forward, reinstalling them in the reverse order of removal.

38. Fire Door Mica

39. Fire Door Gasket

Refer to instructions for removal of fire door back plate (13). Replacement of the fire door mica is self-evident.

Replace the original gasket with any loose-woven fiberglass gasket that is approximately 3/8-inch thick and 3/4-inch wide. (This can usually be obtained from wholesalers.) Cohen & Peck stocks, and recommends, a special gasket made by Bently Harris (their specification number is 602 007). It is two 3/8-inch round fiberglass gaskets sewn together. The Bently Harris gasket should be replaced in a continuous strip starting at the lower hinge side corner.

40. Inside Heat Shield

See instructions for removal of base (24). When the base is removed, remove the screw holding the inside heat shield in place, and replace the shield.

SHAKER ROD BUSHING FOR GODIN STOVES

The purpose of the bushing supplied with this kit is to reduce the diameter of the shaker rod hole in the door frame of your Godin stove. The hole has enlarged with wear because the anthracite coal you have been using contains more than the 8-10% ash content we recommend, and so has required more frequent and vigorous shaking. The bushing is of a costly bearing material and should give long service life. Marine-Tex adhesive is supplied to hold the bushing in place and to fill small gaps between the bushing and the cast iron.

Installation

> CAUTION: Install the bushing in a cold stove only. Failure to heed this warning may result in burns, and will greatly accelerate the cure time of the adhesive, making installation difficult.

Remove the shaker ring from the shaker rod. The ring can be unscrewed either by hand or by inserting a screw driver and turning gently to the left. When the ring is off, slip the bushing over the rod and test fit the bushing into the hole in the door frame. If the bushing does not fit because the hole is too small, then it is not yet time to install the bushing. If it does not fit because of a protrusion in the hole, continue to use the stove, but concentrate the wear of the shaker rod on the protrusion. In time, the protrusion will wear down and the bushing will fit.

Cut a strip of wax paper about two inches wide and about three inches long. Roll it so that it resembles a cigarette about two inches long, and slip it over the shaker rod until it is halfway in the hole in the door frame and halfway out. This will protect the shaker rod from any adhesive that may fall while you are installing the bushing.

To enhance adhesion, clean the bushing with mineral spirits, laquer thinner, denatured alcohol, or fingernail polish remover. Mix a very small portion of Marine-Tex adhesive: a thimble-full is enough. Work the mixture into the groove of the bushing, and insert the bushing over the shaker rod and wax paper and into the hole.

Carefully clean off any excess adhesive. Clean up your tools and hands in the manner described on the Marine-Tex bottle. Allow the bushing to sit for the period prescribed on the can so the adhesive will cure.

When the adhesive has fully hardened, remove the wax paper and replace the shaker ring. Your stove is now better than new, and is ready once again for use.