

Brake Lathes

Repair Procedures—Disc Feed Mechanism Model 7751-B

Models 4000, 4100 & 7500 Only

Crossfeed Assembly

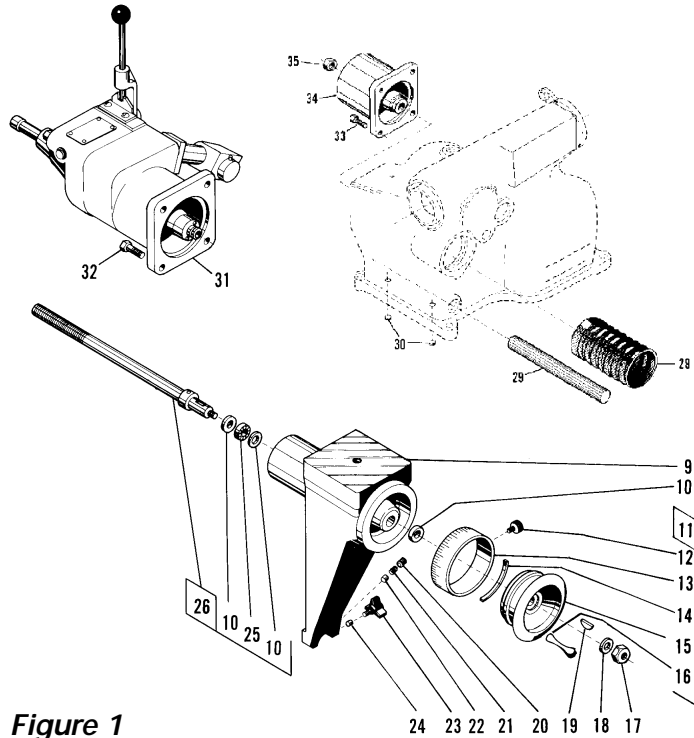


Figure 1

Item	Qty	Part No.	Description
9	1	909835	Crossfeed
10	3	906874	Race
11	1	909626	Crossfeed Handwheel Assembly
12	1	906839	Screw, Set
13	1	909634	Dial
14	1	909611	Spring, Dial
15	1	909633	Handwheel
16	1	903026	Crank, Handwheel
20	1	900220	Screw, Set
21	1	902064	Spring
22	1	909836	Plug
25	1	906873	Bearing, Needle Thrust
26	1	903211-1	Lead Screw Assembly
29	1	910346	Bar, Guide
31	1	907751B	Gearbox Assy., 4000/4100/7500
32	4	900237	Screw, Cap 4000/4100/7500
33	4	901127	Screw, Cap 3000/7700
34	1	903007	Cap, Lead Screw, 3000/7700
35	1	900237	Nut, 3000/7700

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Removal Procedure 7751-B

(Refer to figure 1 & 2)

1. Turn the power to the machine off.
2. Place #46 Shifter Handle (fig. 2) on #31 Gearbox into slow feed and hold it in place.
3. Turn #11 Crossfeed Handwheel at least ten (10) turns counterclockwise to disengage #7 Universal Coupling (fig. 2) from #26 Lead Screw.
4. Continue turning #11 Crossfeed Handwheel, until #9 Crossfeed no longer feeds out of the frame.
5. Remove (4) #32 Cap Screws holding #31 Gearbox to the frame of the lathe.
6. Remove #31 Gearbox from the frame.
7. If needed, replace the lead screw nut using the #73 Lead Screw Nut Kit (fig. 2).

Disassembly Procedure 7751-B

(Refer to figure 2)

1. Remove (2) #43 and (2) #42 Screws.
2. Separate item #35 Gear Case Cover from item #1 Gear Case.
3. Remove #52 Set Screw.
4. Remove #46 Shifter Handle and #27 Key from #34 Shaft.
5. Remove #40 Screw, and #39 Washer.
6. Remove (2) #37 Screws.
7. Remove #6 Drive Rod and Coupling.



Do not allow #14 Drive Rod to separate from #18 Drive Gear, unless repair is needed. This prevents disengagement of #15 Dowel Pins from #14 Drive Rod and #18 Drive Gear.

8. Remove items #A, #B, #C, #D, and #E from #71 Shifter and Intermediate Gear Assembly.
9. Retrieve #20 Bone Shim Washer.
10. Remove #21 Shifter Shaft.
11. Remove #34 Shifter Shaft in the direction of #24 Retaining Ring and retrieve #27 Key before completely removing #34 Shifter Shaft from housing.
12. Retrieve #F shift half.
13. Retrieve #30 Coarse Feed Gear.

Notes On Disassembly:

A. Item #21 Shifter Shaft should be replaced as an assembly (except #29) due to the internal Retaining Ring #26 holding #28 Fine Feed Gear to #25 Clutch Shaft. Disassembly usually results in breakage of #25 Clutch Shaft.

B. Items #A, #B, #C, #D, #E, and #F are sold as assembly #924516 only.

Disassembly and cleaning - 45 minutes.

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Assembly Procedure 7751-B

(Refer to figure 2)

1. Install #34 Shifter Shaft, #27 Key, and #F Shifter Half in #35 Gear Case Cover.
2. Install #24 Retaining Ring on #34 Shifter Shaft.
3. Install #27 Key and #46 Shifter Handle on #34 Shifter Shaft.
4. Install and tighten #52 Set Screw in #46 Shifter Handle.
5. Install #A, #B, #C, #D, #E from #71 Shifter and Intermediate Gear Assembly.
6. Install #6 Drive Rod and Coupling.



Do not separate #14 Drive Rod from #18 Drive Gear.

7. Install (2) #37 Screws and tighten.
8. Install #39 Washer and #40 Screw.
9. Place #30 Coarse Feed Gear into #35 Gear Case Cover and line up hole in #30 Coarse Feed Gear with bore in #35 Gear Case Cover.
10. Install #21 Shifter Shaft.



Make sure #29 Clutch meshes properly with #28 Fine Feed Gear.

11. Install #20 Bone Shim Washer on #71 Shifter and Intermediate Gear Assembly.

Note: To insure all parts are well lubricated apply a light coat of AMMCO p/n 926391 grease to all parts prior to assembly. Fill gear case with grease before final assembly.

12. To assemble #35 Gear Case Cover (with all the gears in place) and #1 Gear Case, line up #D and #25 Clutch Shafts with the two bores on the inside of #1 Gear Case and close the gear box.
13. Install (2) #43 and (2) #42 Screws and tighten.

Installation Procedure 7751-B

(Refer to figure 1)

1. Mount the gear box to the frame with the four #32 Screws. Do not tighten.
2. Before tightening #32 Screws, align #65 Coupling (fig. 2) with the pin in the driven pulley by rotating the #31 Gearbox on its axis (the amount of rotation is limited by the mounting bolts).
3. Now tighten #32 Screws.
4. Crank #11 Crossfeed Handwheel clockwise to engage the #9 cross feed with #31 Gearbox.
5. Continue to turn #11 Crossfeed Handwheel until #9 Crossfeed is about halfway engaged with the frame.
6. Place #46 Shifter Handle (fig. 2) into the slow feed position.
7. Insert a 10" drive extension into the tube, protruding from the back of #35 Gear Case Cover (fig. 2).
8. Exert light pressure against #40 Screw (fig. 2) (installed on #14 Drive Rod (fig. 2), inside the tube, with the wrench extension. This makes contact between #7 Universal Coupling (fig. 2) and #26 Lead Screw. Continue to apply light pressure.
9. Turn #11 Crossfeed Handwheel slowly counterclockwise a few turns to locate lead threads on #7 Universal Coupling (fig. 2) and #26 Lead Screw.
10. Now turn #11 Crossfeed Handwheel clockwise to engage the threads.
11. Tighten with #11 Crossfeed Handwheel while holding #46 Shifter Handle (fig. 2) in slow feed.

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Disc Brake Feed Mechanism 7751-B

Part				Part			
Item	Qty	No.	Description	Item	Qty	No.	Description
1	1	910870	Gear Case Assembly	46	1	907742	Shifter Handle Assy.
2	4	903221	Screw, Socket Head	47	1	907746	Pin, Shifter Handle
3	2	903910	Washer, Lock	48	1	906451	Washer
5	1	907790	Case, Gear	49	1	907699	Spring
4	1			50	1	907744	Body, Shifter Handle
*6	1	940718	Drive Rod and Coupling Assy.	51	1	900320	Knob, Ball
*7	1	940719	Universal Coupling Assy.	52	1	900220	Screw, Set
*9	1	940717	Coupler	53	1	909815	Driven Assy., Right Angle Drive
*10	1	940403	Pin, Roll	54	1	924241	Worm Drive Assy.
14	1	907774	Rod, Drive	*55	1	940401	Worm Shaft Repair Kit
15	2	906937	Pin, Dowel	*56	1	905639	C Clip
16	2	906973	Washer, Thrust	*57	2	906872	Washer, Travel
17	1	907775	Trap	58	1	906871	Bearing, Needle Thrust
18	1	907778	Gear, Drive	59	1	907998	Housing, Drive
20	1	906350	Washer, Bone Shim	60	1	906749	Bushing, Oilite
21	1	909814	Shifter Shaft Assy.	*61	1	907997	Worm Drive Assy.
22	1	907994	Gear, Helix	62	2	906834	Screw, Cone Point Set
23	1	904006	Pin, Roll	63	1	907996	Shear Gear And Ring Assy.
24	2	905613	Ring, Retaining	64	1	906446	Plug, Dot
25	1	907764	Shaft, Clutch	65	1	909821	Coupling Assy.
26	1	906138	Ring, Retaining	66	1	903174	Ring, Retaining
27	5	903176	Key, Woodruff	67	1	909825	Spacer And Bushing Assy.
28	1	909816	Gear, Fine Feed	68	1	909822	Coupling And Gear Assy.
29	1	909813	Clutch	69	1	904096	Pin, Roll
30	1	909812	Gear, Coarse Feed	70	2	907908	Shim, 0.005"
34	1	907748	Shaft, Shift		2	907903	Shim, 0.010"
35	1	907902	Gear Case Cover and Tube Assy.		2	907904	Shim, 0.020"
36	1	907783	Tube		2	907905	Shim, 0.030"
37	2	903221	Screw, Socket Hd. Cap	71	1	924516	Shifter & Intermediate Gear Assy.
39	1	904789	Washer	72	2	928367	Screw, Cap
40	1	906254	Screw, Socket Hd. Cap	73	1	928529	Lead Screw Nut Kit
41	1	906974	Cap, Tube				
42	2	906392	Screw, Hex Hd. Machine				
43	2	906391	Screw, Hex Hd. Machine				
44	1	907747	Plate, Index				
45	2	904508	Screw, Round Hd. Machine				

*Sold as assembly only.

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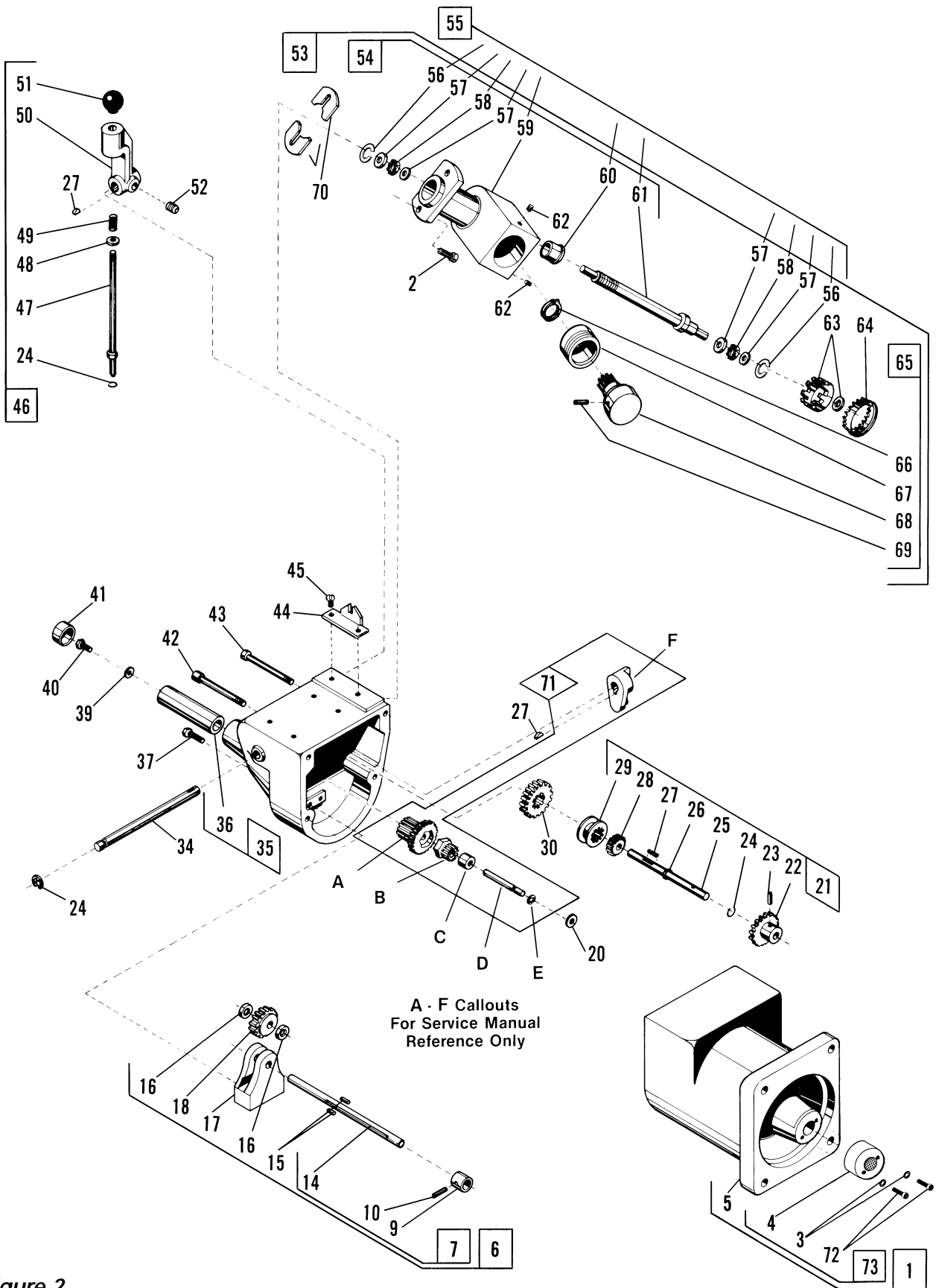


Figure 2