MODEL 75
Power Cable Feed Section

Operating & Maintenance Instructions

Power Cable Feed Section
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Introduction

The Spartan Tool Model 75 Power Cable Feed with “dial-a-cable” reflects the latest improvements in the marketplace. The operation, repair and maintenance of the Model 75 are simple to accomplish. These features allow a quick change for cable size and provide easy maintenance. The Model 75, which weighs just over 10 pounds, will feed and retrieve a cable up to 30 feet per minute.

A universal mounting plate allows adaptation to current Spartan Model 1065’s, 200’s, 300’s, and 100’s. (The Model 2001 does not need a mounting plate.) The power cable feed can be used on cable size from 5/16” through 3/4”.

Spartan Tool, L.L.C. strongly recommends the use of a Spartan Cable Safety Guide (44225300) with the Model 75 Power Cable Feed unit. (See Fig. 1) The Cable Safety Guide attaches to the front of the Model 75 unit, and is intended to help protect the operator from possible cable buckling and other hazards associated with handling rotating cable. Contact Spartan Tool, L.L.C. (800 435 3866) or www.spartantool.com with questions regarding the Cable Safety Guide.

Attaching the Cable Safety Guide To The Power Cable Feed

Disconnect the cable machine from its power source to avoid accidental starting. Pick up the Cable Safety Guide and place the spring against the hub on the Power Cable Feed and turn it counterclockwise until the spring rests against the plate behind the hub.

Reconnect the power by plugging in the machine. Insure the electrical switch on the machine is in the forward position. Insure the adjusting knob on the feed has been tightened until it makes contact with the cable. Place the lever (actuator assembly) midway between the “N” (Neutral) and “F” (Forward) position to allow the cable to enter the Cable Safety Guide slowly. Depress the foot pedal to engage the machine and allow the end of the cable to exit the Cable Safety Guide. Release the footpedal.

Disconnect the machine from its power source, and attach the selected tool to the cable. Move the machine as close to the entry point of the pipe as possible. The end of the Cable Safety Guide and attachment should be within inches of the pipe. Reconnect the power.

Warning: Unexpected machine start up can cause death or severe injury.

Disconnect the machine from its power source before installing, servicing or removing the Power Cable Feed, Cable Safety Guide, cable tools and cutters, or other machine components.

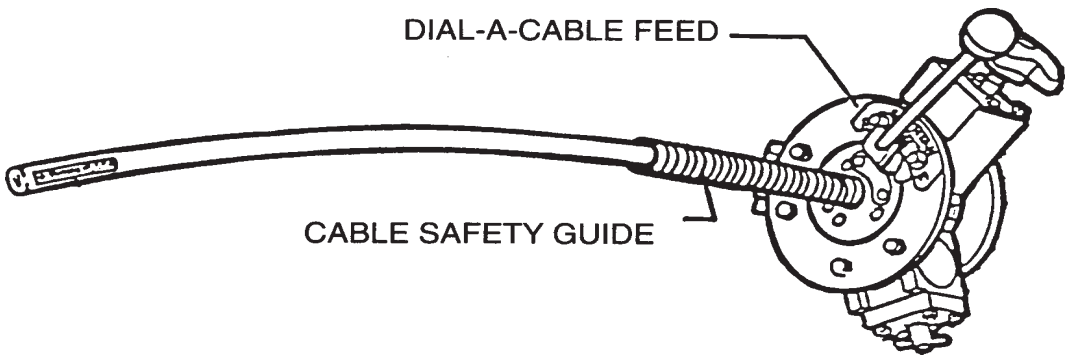


Fig. 1

Setting Your Spartan Power Cable Feed for Cable Size

(Refer to Fig. 2 for details)

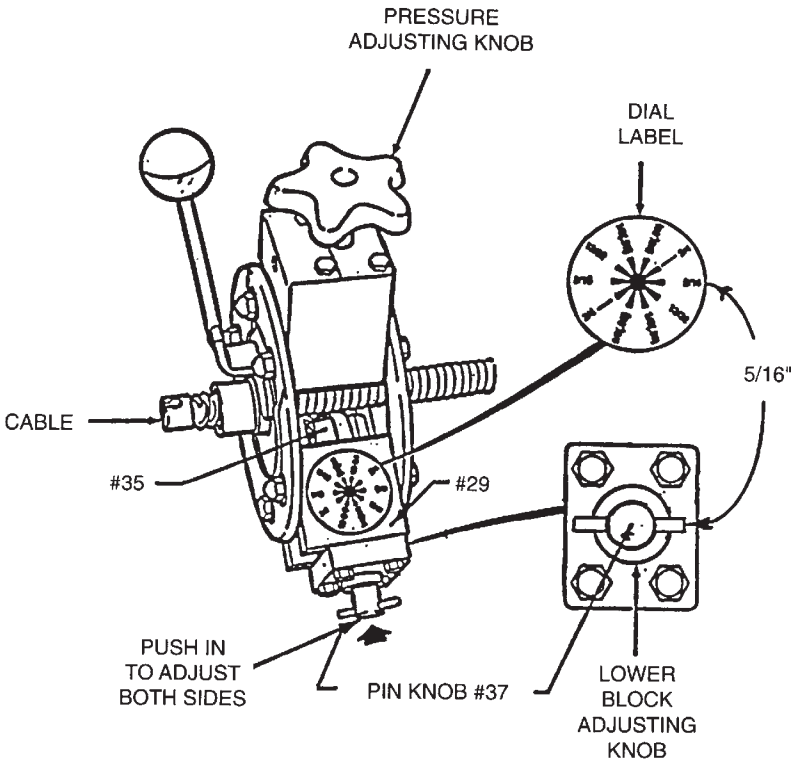


Fig. 2

To adjust for cable size, push in on the pin knob (#37) located on the bottom of the bearing blocks (#29) to unlock from setting. Turn pin knob right/clockwise and pull out. As each cable setting is reached the knob can be felt locking in. The body assembly (#35) will move in for smaller cable diameters and out for the larger diameter. As a starting point, push in and turn the pin knob so the pin in the knob is horizontal (in line with the cable). This setting should match the dial label for 5/16" cable setting. (The figure in the center of the dial label indicates pin knob setting if viewed from the block end.) The body assembly should be in to it's farthest point. Now, by pushing in and turning the pin knob right/clockwise pulling out at the next step should lock into the 13/32" setting, the next 1/2", etc. The body assembly will become longer with each rotational movement until returned to the 5/16" setting (horizontal). Rotating your Dial-A-Cable through the various settings and matching the dial label will make it easy to adjust cable size by feel.

Follow the chart (Fig. 3) to set your Dial-A-Cable for the cable size you have selected. Make sure both right and left block settings are the same.

Cable Diameter (Inches)	Set Power Cable Feed
5/16"	5/16"
3/8" or 13/32"	13/32"
1/2" or .55"	1/2"
5/8" or .66"	5/8"
3/4"	3/4"

Fig. 3

(Universal Unit Fits 100-200-300-1065 Machines)

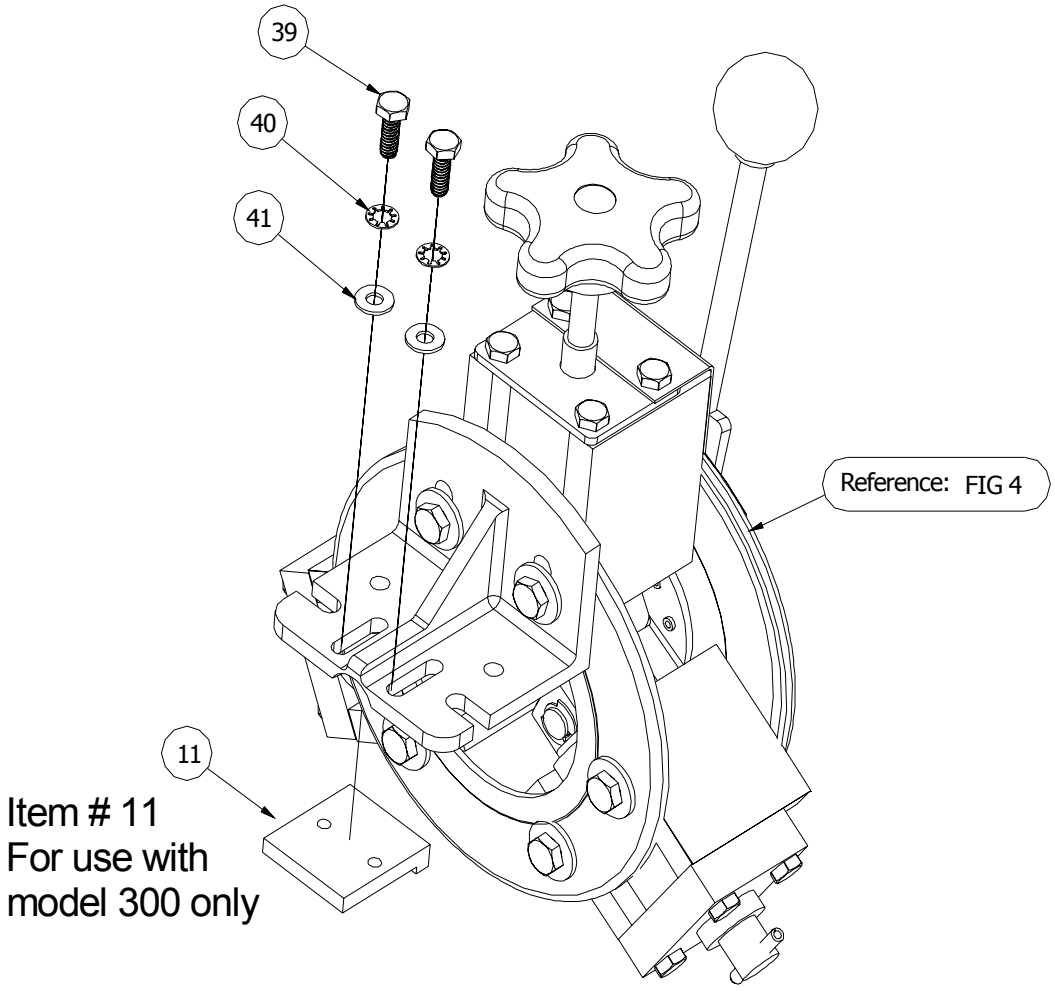


Fig. 14

ITEM	QTY	PART NUMBER	DESCRIPTION
11	1	03409000	Bushing Lock
39	2	00113600	Screw, Hex Hd 1/4-20 x 3/4
40	2	00162400	Washer, Flat 3/16 USS
41	2	00167000	Lockwasher, Internal Tooth
FIG 4	1	04217500	Power Feed Model 75

04217500
Power Feed Assembly

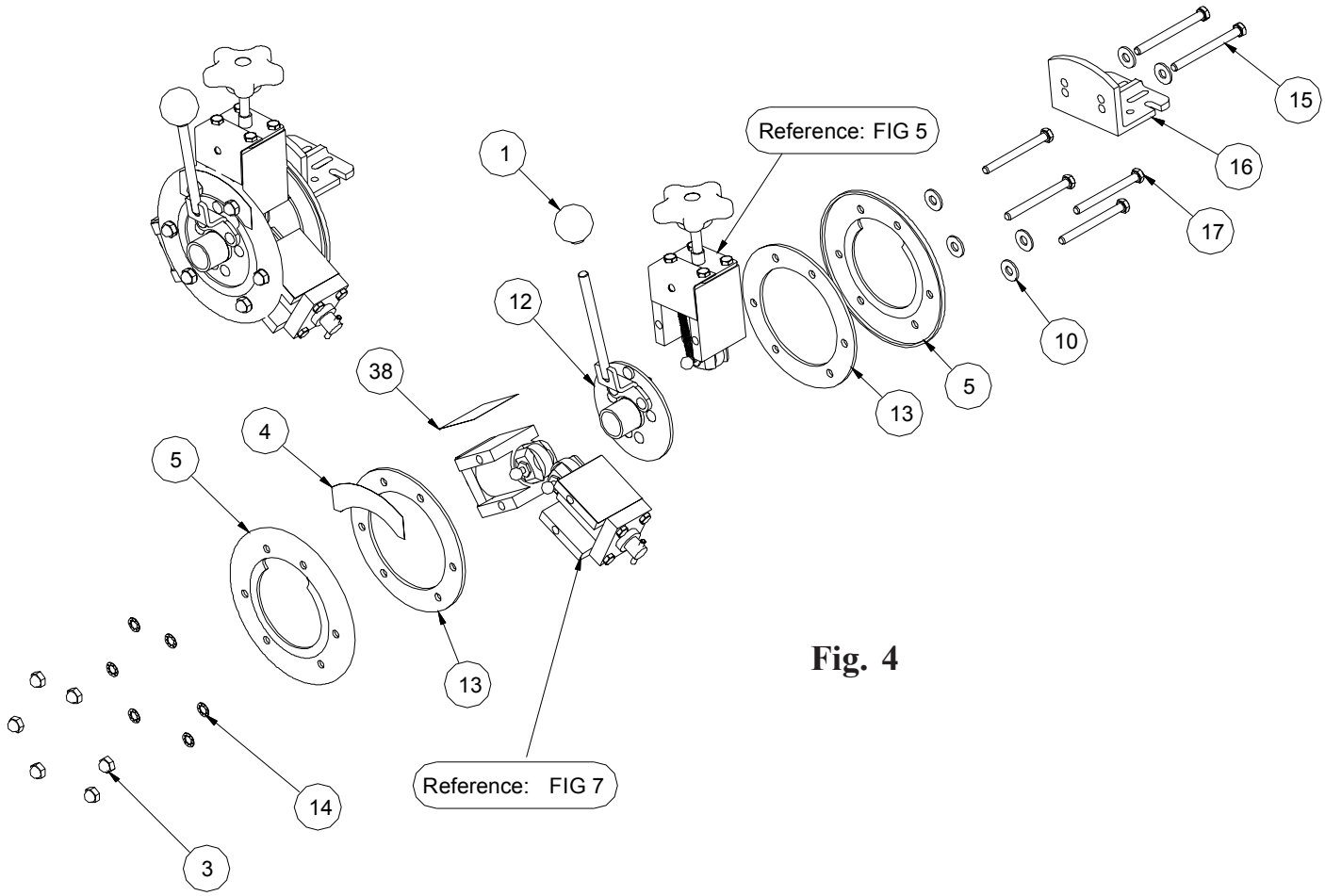


Fig. 4

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	02856900	KNOB
3	6	04134900	NUT ACORN CAP 5/16-18
4	1	04220000	DECAL BRG PLATE MOD 75 FEED
5	2	44224100	BEARING PLATE
10	6	00162600	WASHER, FLAT 5/16 USS
12	1	44223900	2001 ACTURATOR ASSY
13	2	04218300	PLATE STATIONARY 75 FEED
14	6	00167100	INTERNAL TOOTH LOCKWASHER
15	2	00169500	SCREW, HEX HD CAP 5/16-18x3-1/2
16	1	04218700	MOUNTING PLATE, MODEL 300/1065
17	4	00480300	SCREW, HEX HD CAP 5/16-18x3-1/4
38	2	44220100	DIAL A CABLE LABEL
FIG 5	1	04224000	BEARING BLOCK ASSY - LONG
FIG 7	2	44219900	BEARING BLOCK ASSY - SHORT

04224000
Bearing Block Assy (Long)

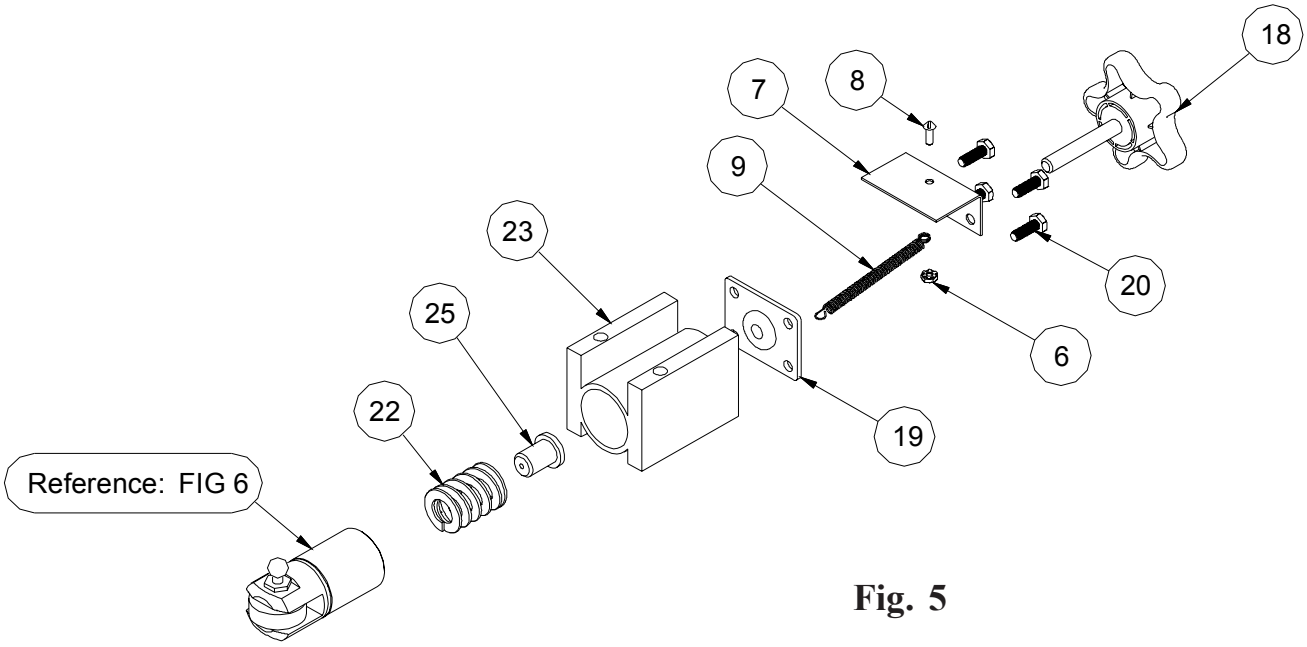


Fig. 5

ITEM	QTY	PART NUMBER	DESCRIPTION
6	1	03312001	Nut Kep #8-32 Zinc Plated
7	1	44221900	2001 Cover Spring
8	1	01921801	Screw, Mach Rd Hd Sl 8-32 x 1/2
9	1	44230100	2001 Spring Feed Ext
18	1	03415800	Knob and Screw Assy
19	1	04219000	Cap End Weld Assy 75
20	4	00113700	Screw, Hex Hd 1/4-20 X 3/4
22	1	04220100	Spring Hvy Duty Mod 75 Feed
23	1	04217900	Block Bearing Long Mod 75 Feed
25	1	03415700	Bushing & Ball Assembly
FIG 6	1	44119600	Wheel Carrier Body Comp (Long)

44219900
Bearing Block Assy (Short)

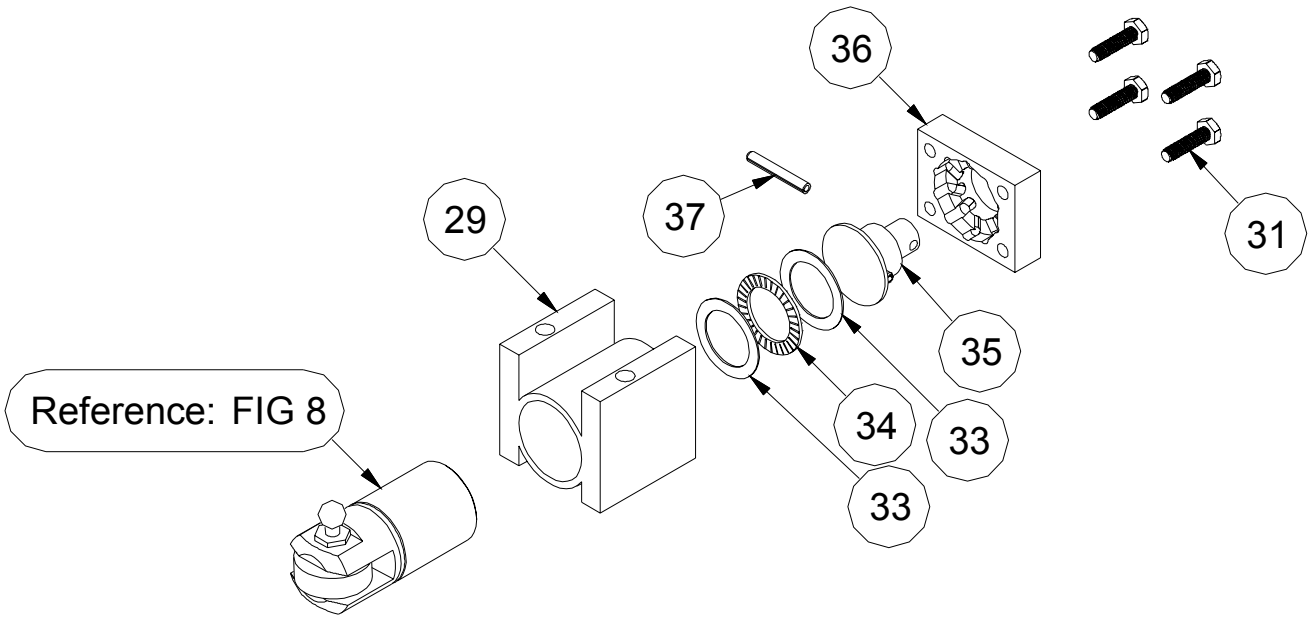
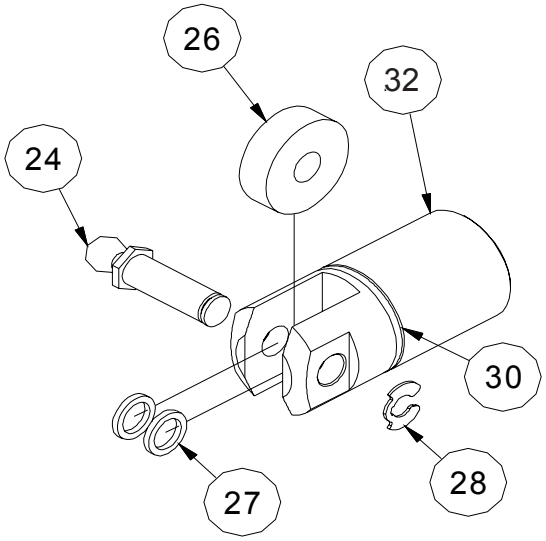


Fig. 7

ITEM	QTY	PART NUMBER	DESCRIPTION
29	1	04217800	Block Bearing Short Mod 75 Feed
31	4	00113901	Screw, Hex Hd 1/4-20 x 1
33	2	04219600	Thrust Race
34	1	04219500	Thrust Bearing
35	1	44222100	2001 Knob
36	1	44213800	Dial A Cable Block
37	1	44222200	Roll Pin 2001
FIG 8	1	44119700	Wheel Carrier Body Comp (Short)

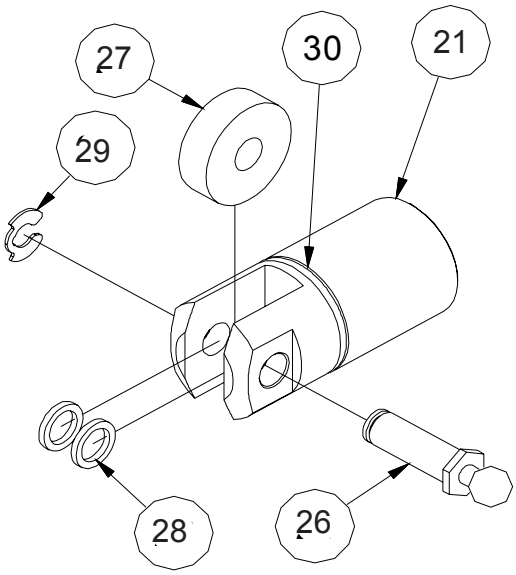
44119600
Wheel Carrier Body Comp (Long)



ITEM	QTY	PART NUMBER	DESCRIPTION
24	1	04217700	Pin Drive Mod 75 Feed
26	1	04219700	Bearing Drive Mod 75 Feed
27	2	04219800	Washer 75 Feed Stainless
28	1	04219900	Ring Retaining-External
30	1	44250200	O-Ring Seal, Wheel Carrier
32	1	04218400	Body Wheel Carrier w/ Hole Long (Includes item 30)

Fig. 6

44119700
Wheel Carrier Body Comp (Short)



ITEM	QTY	PART NUMBER	DESCRIPTION
21	1	04218500	Body Wheel Carrier w/ Hole Long (includes item 30)
26	1	04217700	Pin Drive Mod 75 Feed
27	1	04219700	Bearing Drive Mod 75 Feed
28	2	04219800	Washer 75 Feed Stainless
29	1	04219900	Ring Retaining-External
30	1	44250200	O-Ring Seal, Wheel Carrier

Fig. 8

Installation Instructions for Model 1065 & 2001

(See: Fig. 4 and Fig 5)

The following instructions are for manual machines, delete step 1 through 4 when replacing older power feed units.

1. Remove set collar on distributor arm and remove bearing assembly by removing screw in bottom.

2. Install new thrust bearing (inner race facing forward) on distributor arm.

3. Install new bearing assembly on distributor arm with swing bolts forward. Replace bottom screw and lockwasher, push bearing assembly back against thrust bearing and tighten lower screw.

4. Replace set collar and tighten.

   ATTENTION Model 1061 users only: Replace upper front casting assembly with 03414700.

5. Set Dial-A-Cable adjusters for 3/4" cable size (full open) and turn knob #18 counter clockwise (left) to raise upper wheel carrier. Place actuator handle #12 to "N" neutral position.

6. Place cable through back of power feed while sliding power feed unit over cable into proper position on new bearing assembly. Bring swing bolts up into slots on universal mounting plate #16 and tighten hand tight.

7. Position cable forward to the point where the smallest diameter of cable will come in contact with the drive bearings, adjust your Dial-A-Cable for your cable size. Turn knob #18 clockwise (right) until contact is made with drive bearing.

8. Apply grease through grease fitting on bearing assembly. Installation is complete. Refer to operating instructions for safe operation.

   Special Note: 2001 Dial-A-Cable Power Feed Replacement. When Replacing Dial-A-Cable power feed unit on 2001 machines, the two (2) long screws #15 must be used for old unit.

(See: Fig. 4, Fig. 5 & Fig 14)

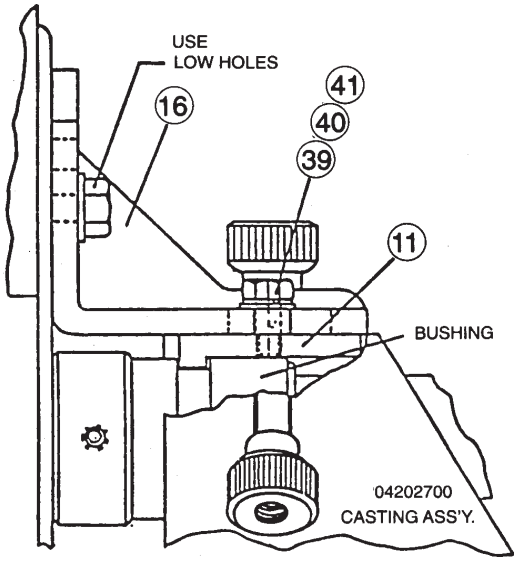


Fig. 9

The following instructions are for manual machines, delete step 1 through 3 when replacing older power feed units.

1. Remove upper front casting assembly.

2. Install new upper front casting assembly (04202700).

3. Install busing lock (#11) to mounting plate (#16) on drive unit. Use items #39, 40, and 41. Position as per Fig. 5. Place screws in bushing lock ***finger tight only.***

4. Set Dial-A-Cable adjusters for 3/4" cable size (full open) and turn knob (#18) counter clockwise (left) to raise upper wheel carrier. Place actuator handle (#12) to "N" neutral position.

5. Place cable through back of power feed while sliding power feed unit over cable into proper position on upper front casting assembly. Make certain lip of bushing lock engages slot in distributor arm bushing (Fig. 9). Swing up clamps on upper front casting into slots provided on mounting plate lock down tight. Now, tighten bushing lock screws.

6. Position cable forward to the point where the smallest diameter of cable will come in contact with the drive bearings, adjust your Dial-A-Cable for your cable size. Turn knob (#18) clockwise (right) until contact is made with drive bearing.

7. Installation is complete. Refer to operating instructions for safe operation.

Installation Instructions For Model 100

(See: Fig. 4 and Fig. 5)

The following instructions are for manual machines, delete step 1 through 3 when replacing older power feed units.

1. Remove mounting plate (#16) from Dial-A-Cable power feed and reposition bolts in upper holes in (#16) plate.

2. Remove thumb screws and latch assembly from trunnion on machine.

3. Position drum into place on power drive unit.

4. Set Dial-A-Cable adjusters for 3/4” cable size (full open) and turn knob (#18) counter clockwise (left) to raise upper wheel carrier. Place actuator handle (#12) to “N” neutral position.

5. Slide Dial-A-Cable power feed unit over cable end. Position mounting plate on trunnion using the two (2) round holes and locking in place with the two (2) thumb screws removed in step 2. Tighten securely.

6. Position the cable forward to the point where the smallest diameter of cable will come in contact with the drive bearings, adjust your Dial-A-Cable for your cable size. Turn knob (#18) clockwise (right) until contact is made with drive bearing.

7. Installation is complete. Refer to operating instructions for safe operation.

Operating Instructions For Model 75 Dial-A-Cable Power Feed

(See: Fig. 4, Fig. 5, Fig. 6 & Fig. 8)

WARNING! Follow all safety instructions as outlined in your operator's manual supplied with your machine. If a new operator manual is required, contact Spartan Tool (800-435-3866) or download it at www.spartantool.com.

The following instructions refer to the use of the Spartan cable safety guide (44225300) (Fig. 1) which we recommend for safer operation. Always wear Spartan riveted gloves when operating machines.

Upon completion of installation instructions for your machine and before actual sewer cleaning, it is recommended you become familiar with your power feed operation. By moving the actuator assembly (#12) by use of the knob (#1) you will note the wheel carrier blocks (#21) and (#32) will turn. When the drum and cable are rotating the movement will feed the cable in and out by the slanting of the drive bearings (#26). The decal (#4) on the front bearing plate (#5) is marked from left to right "R" (reverse), "N" (neutral), and "F" (forward).

1. Place the actuator handle to the midway point between "N" and "F" on the name plate.

2. No cutter should be attached to the cable at this time.

3. The forward/reverse electrical switch should be placed in the forward "F" with the machine plugged in to a power supply. **Note:** If drum rotation is reversed, feed of cable will be reversed.

4. Momentarily step on foot switch and check machine rotation. Drum and cable should rotate left or counter clockwise from cable end of machine.

WARNING! Use care when performing the next operation as cable will be fed out and if allowed to feed too long may whip. Do not feed cable out more than 12 inches from feed unit.

5. With left hand on actuator assembly knob and right hand on adjusting knob #18, step on footswitch and slowly tighten (turn clockwise) knob #18. When cable is driving steadily forward, stop turning knob. Move actuator assembly knob to "R" position on name plate and cable should now retrieve. Cable movement will stop feeding in or out when actuator assembly knob is placed in the "N" position. You will note the farther the actuator assembly knob is moved to the forward or reverse position, the faster the cable will move out or in.

Cleaning Operation

WARNING! Make sure to keep downward pressure on the cable safety guide at all times since flexible cable is subject to buckling under high torque conditions.

If cable slips or whenever a stoppage is encountered, knob #18 may be tightened down until cable is moving steadily. Caution! Do not tighten knob anymore than is necessary to cause cable to move in a steady motion in or out. Excessive tightening may damage cable or feed unit or overload motor. If at any time when cable is feeding into sewer line and torque build-up occurs, immediately move actuator control handle to the “R” (reverse) position to pull cable back. As soon as torque is relieved, move handle again to the “F” (forward) position. Repeat until stoppage is cleared.

Note: The electrical switch is to be placed in the reverse position for a few seconds only to release an entangled blade or to negotiate a difficult turn or trap. Never continue operating the machine in the reverse position. The cable may exit the drum prematurely causing injury.

How To Disassemble and Reassemble Model 75 Power Feed Unit

1. Remove top two (2) acorn nuts #3 from screws #15 that holds feed unit to mounting plate #16. (On 2001 unit, remove two (2) #15 screws at bottom that holds feed unit to upper front casting).

2. Remove feed unit from mounting screw #15 by pulling forward.

3. Lay unit flat on back.

4. Remove remaining acorn nuts #3.

5. Remove bearing plate #5 (with decal).

6. Remove handle assembly #12.

7. Remove stationary plate #13.

8. Remove the two (2) short bearing blocks #29 as assemblies.

9. Remove the long bearing block #23 as an assembly.

10. Remove bottom stationary plate #13.

11. Remove back bearing plate #35 (without decal).

Disassembly of Short Bearing Blocks

(See: Fig.10 and Fig. 11)

1. Pull wheel carrier bodies #21 from blocks #29.
2. Remove the two (2) thrust races #33 and one (1) thrust bearing #34 from each unit.
3. Remove four screws #31 holding Dial-A-Cable assembly #35, 36, and 37 to bearing block #29. (Do not disassemble unit)
4. Remove retaining rings #28 from drive pins #24 and pull pins from carrier bodies #32. This will release the drive roller #26 and two (2) spacers #27. Remove “O” ring #30 from carrier body grooves, use care not to damage same.

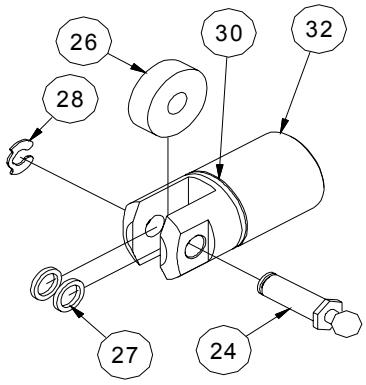


Fig. 10

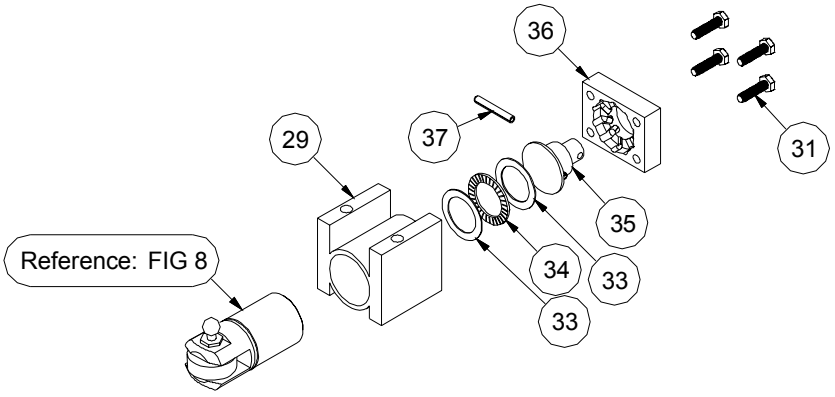


Fig. 11

Disassembly of Long Bearing Blocks

(See: Fig.12 and Fig. 13)

1. Remove the two (2) screws #20 holding spring cover #7 to top of long bearing block #23. Leave remaining two (2) screws.

2. Pull wheel carrier body #32 from block #23 with cove #7 and spring #9 attached.

3. Remove spring #22 and ball and bushing assembly #25 from long wheel carrier body.

4. Remove retaining ring #28 from drive pin #24 and pull pin from carrier body with feed spring and cover attached. This will release the drive roller #26 and two (2) spacers #27. Remove “O” ring #30 from carrier body groove, use care not to damage same.

5. Unscrew knob #18 and remove two (2) remaining screws #20 from end cap #19.

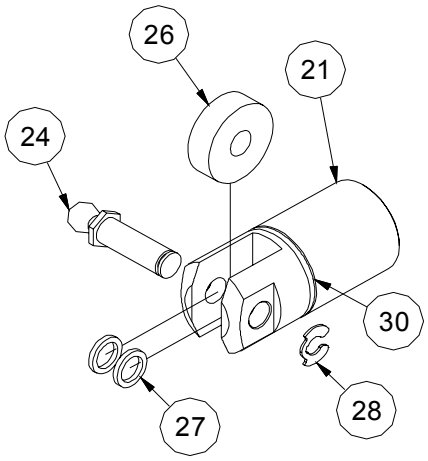


Fig. 12

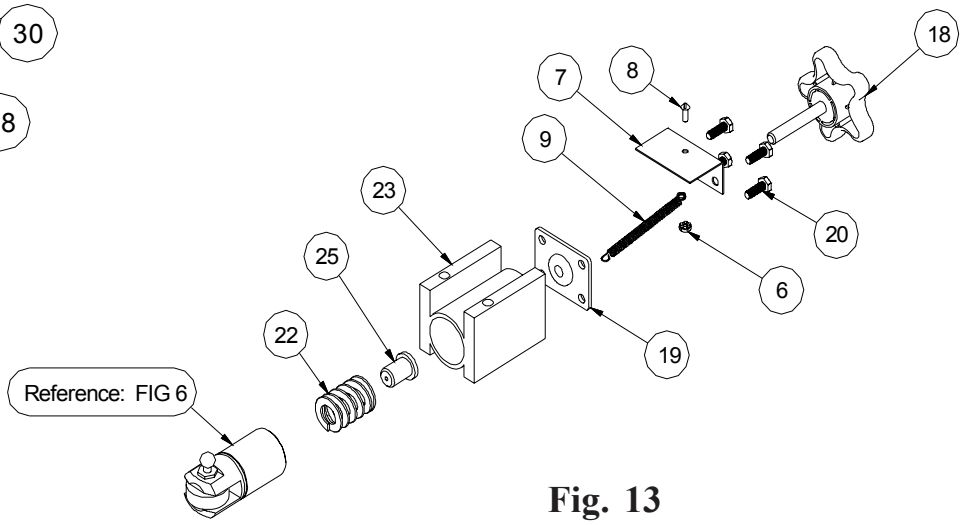


Fig. 13

Cleaning and Lubricating Instructions

WARNING!

The cleaning of parts in this instruction section recommends the use of kerosene for parts cleaning which is combustible and care should be used. Always work in a well ventilated area away from fire or open flame. When parts cleaning, always wear eye protection, rubber gloves and plastic or rubber apron. When cleaning of parts is complete dispose of all cleaning rags and waste cleaner in proper manner. NEVER USE GASOLINE OR ANY OTHER HIGHLY COMBUSTIBLE SUBSTANCE FOR CLEANING PARTS.

After unit disassembly, all parts with the exception of the drive rollers #26 and “O” rings #20 should be soaked and cleaned in kerosene to remove grease and grime. Wipe parts and allow to dry completely before lubricating in assembly. Drive rollers #26 and “O” rings #30 should be wiped clean only and not placed in cleaner. Rollers are prelubricated and sealed if drive bearings are rough turning or frozen and don’t turn, replace with new parts. We recommend the purchase of three (3) extra drive bearings #26 and three (3) extra “O” rings for replacement when necessary.

Lubrication of drive parts should be done as parts are reassembled. We recommend using a multipurpose lithium grease NLGI #2 which is water resistant and is available in tubes and aerosol cans.

Re-Assembly of Short Bearing Blocks

1. Replace “O” rings #30 into groove in short wheel carrier block #21. (Spring bottom on block)

2. Place drive wheels #26 in short blocks. BE SURE SPACERS #27 ARE ON EACH SIDE OF WHEEL. Slip drive pin #24 through hole and replace retaining ring #28.

3. Lubricate inside cylindrical section of short bearing blocks #29, covering inside wall with thin film of grease.

4. Lubricate “O” rings and lower section of wheel carrier blocks #21 and slide wheel carrier assembly into blank untreaded end of short bearing blocks until drive wheel cut-out is flush with top of bearing block allowing room for thrust bearing.

5. Turn assembly over and place one (1) race #33 on bottom. Lubricate thrust bearing #34 and place on top of race. Place second race on top of thrust bearing.

6. Place Dial-A-Cable block assembly #36 on bottom of short bearing block. Insert four (4) long hex screws #31 through holes and screw into block, tighten hex screws securely. Assembly is complete.

Re-Assembly - Long Bearing Blocks

1. Replace “O” rings #30 into groove in long wheel carrier block #32. (Spring hole in bottom)

2. Lubricate inside cylindrical section of long bearing block #23. Install end cap #19 on end of long bearing block with two (2) short screws #20. Place these screws in the short rib side of the bearing block.

3. Lubricate “O” ring #30 and lower section of wheel carrier block #32. Install spring #22 into spring hole and install bushing and ball assembly #25 into spring. Slide wheel carrier unit into bottom of long bearing block.

4. Lay bearing block on bench with short rib side down. Place drive wheel #26 into end of wheel carrier block. BE SURE SPACERS #27 ARE ON EACH SIDE OF WHEEL.

5. Place drive Pin #24 (which has spring and cover attached) through hole and replace retaining ring #28.

6. Drive pin #24 should now be centered between the two (2) long ribs on the bearing block to allow spring #9 to lay between ribs.

7. Pull cover #7 up and place over end cap #19 attach with remaining two (2) short screws. Tighten all screws securely.

8. Replace knob #18 in end cap #19.

Cable Safety Guide Instructions

The Spartan Tool Cable Safety Guide has been designed to improve the operational safety. It's purpose is to prevent direct contact with the rotating cable. To install, place the spring end of the Cable Safety Guide against the hub of the power feed and rotate it counterclockwise under pressure until the spring rests against the wall of the Actuator Assembly.

Figure 1 illustrates the proper positioning and appropriate safety gear when using the machine and Cable Safety Guide:

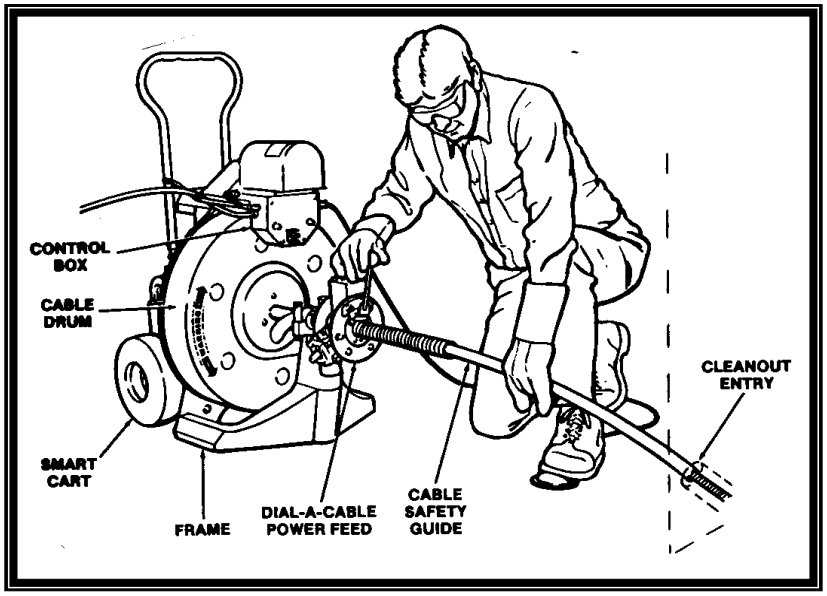


Figure 1

WARNING

Read the appropriate "Operating & Safety Instructions" before operating any Spartan Tool machine. Sewer cleaning can be dangerous if precautions are not taken and rules are not followed.

Before using the machine, make sure the operator's switch is in the "forward" position. [The drum will rotate clockwise when standing behind the machine.]

WARNING

If the operator's switch is in the "Reverse" position, the power feed will operate counter to the labeling on the power feed - "Reverse" will move the cable forward and "Forward will retrieve the cable.

Cable Safety Guide Instructions (cont)

The length of the Cable Safety Guide is the correct distance the machine should be located from the pipe opening. If the machine cannot be located as prescribed, precautions must be taken. A pipe section must be placed in the area between the "cleanout entry" and the end of the Cable Safety Guide to avoid injury.

W A R N I N G

A distance exceeding of 3' between the machine and the pipe opening may cause personal injury from a rotating, swinging cable, if precautions are not taken.

If a "cleanout" is positioned on a wall, then the machine should have support legs, found in the tool box, positioned as in Figure 2. Ensure the appropriate pipe section is placed between the Cable Safety Guide and the Cleanout Entry to avoid injury.

W A R N I N G

Make sure to keep downward pressure on the Cable Safety Guide to keep slack from developing on the cable to prevent looping.

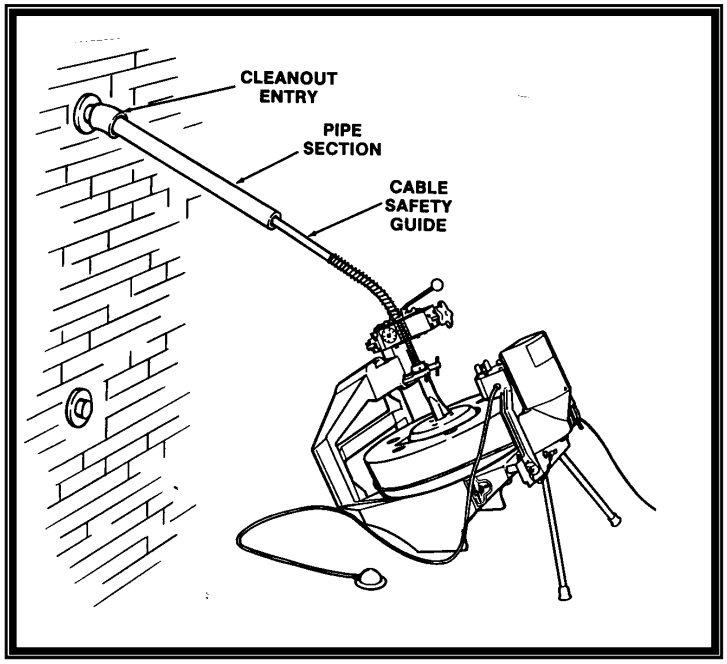


Figure 2