



LANDING GEAR

FASTGEAR™ GEARBOX REBUILD PROCEDURES

FastGear Gearbox - Replacement Kits & Rebuild Procedures

Models 50,000 & 51,000

INTRODUCTION

These inspection and rework instructions are intended to assist the installer in the disassembly and reassembly of a FastGear™ gearbox. Repairs may be required due to normal use or accidental damage.

NOTE: This procedure and the kits listed apply only to Holland FastGear landing gear with part numbers that begin with the letters FG, GD4R or GD5R. This procedure does not cover any landing gear part numbers that begin with the letters LG, GD4E, or GD5E. This procedure covers only the components of the gearbox. Other parts, including grease and standard tools are required but not included in these kits. Other components of Holland landing gear are covered in the Holland Parts Reference guides XL-AM1000 and XL-AM109. The rest of the landing gear should be inspected; any parts that are broken, loose, or missing should be repaired or replaced as needed.

PRECAUTIONS

Before performing any landing gear repair or rebuild procedure, the following precautions must be taken:

IMPORTANT: Position the trailer on a firm level surface clear of people and obstacles.

1. It is recommended the vehicle be unloaded. Chock trailer wheels to prevent rolling.

⚠ WARNING Failure to chock tires prior to beginning maintenance could allow vehicle rollaway which, if not avoided, could result in death or serious injury.

2. Set the trailer brakes, if not already engaged.
3. Support the front of the trailer with supports adequate to carry the weight of the front of the trailer.
4. Retract (raise) landing gear until off ground.

SAFETY INSTRUCTIONS

General Safety Instructions

- **Keep Work Area Clean.** Cluttered areas and benches invite accidents.
- Keep fingers away from all potential pinch points in the landing gear.
- All landing gear maintenance must be performed by a qualified service technician using proper tools and safe procedures.
- Use only Holland Original Parts.
- **Use Safety Goggles.** Glasses or goggles not in compliance with ANSI or CSA can cause serious injury when damaged or broken.
- **Wear Proper Apparel.** Do not wear loose clothing, gloves, neckties, jewelry (rings, wristwatches, etc.) that can get caught in moving parts. Non-slip footwear is recommended.
- Do not use any landing gear that fails to operate properly.

KIT IDENTIFICATION WITHOUT PART NUMBER

Determine if Landing Gear is a FastGear

1. See **FIGURE 1** to determine if the landing gear is a FastGear.
2. See **FIGURE 2** to identify if the FastGear is a Current Model or if it was built prior to the applicable cutoff date in 2000. The pin in question is a 1/4" spring pin which is hollow. If the pin is present the landing gear requires a current rebuild kit.

NOTE: See Step C (page 3) for kit identification. If it does not have the pin as shown, then it is necessary to determine the model of landing gear.

3. Determine if the landing gear is a Model 51,000 or a 50,000. See **FIGURE 3**. The 51,000 has a rectangular mounting plate and eight bolt holes. For a Model 51,000 see Step A (below). The Model 50,000 has a tapered mounting plate and ten bolt holes. For Model 50,000 see Step B (page 3).

Step A — for Model 51,000 built prior to 2000.

1. Determine if the landing gear is reverse mounted or conventionally mounted. Reverse mounted landing gear has the gearbox facing the center of the trailer. If the gearbox is facing the outside it is conventionally mounted.
2. For reverse mounted landing gear measure the length of the shift shaft extension. See **FIGURE 4** for how to measure the length of the shift shaft extension. If the extension is 8.9 inches long use kit RK-11074-04 and go to the procedure on page 5. If the extension is 7.4 inches long use kit RK-11074-07 and go to the procedure on page 5.

continued

FIGURE 1 - IDENTIFYING A FASTGEAR

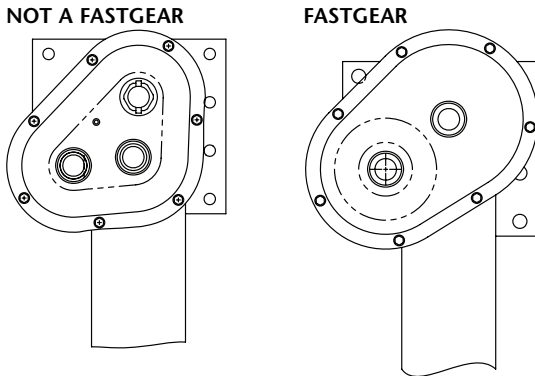


FIGURE 2 - CURRENT MODEL FASTGEAR OR MODEL BEFORE 2000 CUTOFF DATE

CURRENT MODEL - IF THIS PIN IS PRESENT;
PRIOR TO 2000 MODEL - IF THIS PIN AND HOLE ARE ABSENT

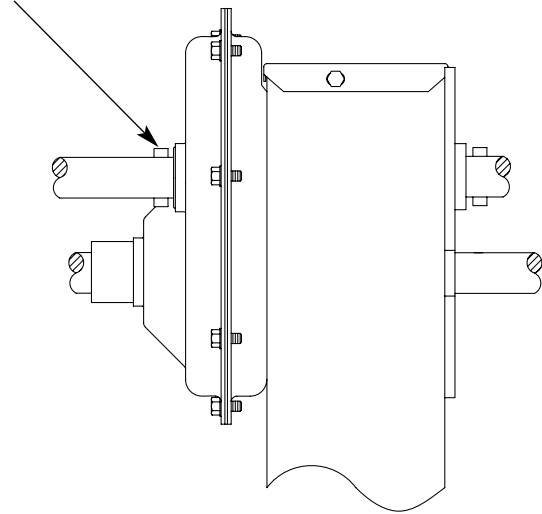


FIGURE 3 - DETERMINE FASTGEAR MODEL: 50,000 OR 51,000

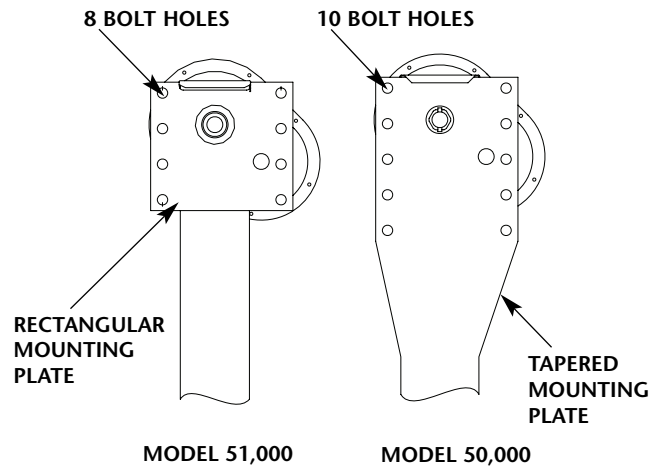
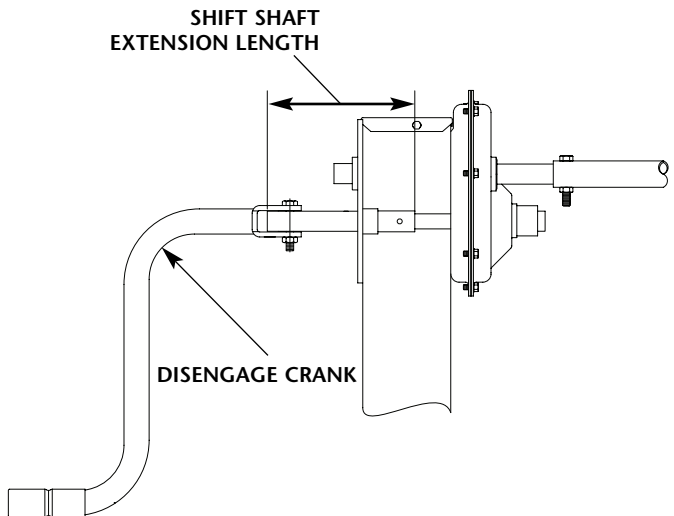


FIGURE 4 - SHIFT SHAFT EXTENSION LENGTH



KIT IDENTIFICATION WITHOUT PART NUMBER *continued*

- For conventional mounted legs, it is necessary to measure the length of the jack shaft toward the inside of the leg. See **FIGURE 5** for how to measure the jack shaft. See **TABLE 1** to select the proper kit using the jack shaft length.

Step B — for Model 50,000 built prior to 2000.

- Determine if the landing gear is reverse mounted or conventionally mounted. Reverse mounted landing gear has the gearbox facing the center of the trailer. If the gearbox is facing the outside it is conventionally mounted.
- For reverse mounted landing gear the kit is RK-11075-04.
- For conventional mounted legs the kit is RK-11075-02.

Step C — for Current Model landing gear.

- Determine if the landing gear is reverse mounted or conventionally mounted. Reverse mounted landing gear has the gearbox facing the center of the trailer. If the gearbox is facing the outside it is conventionally mounted.
- For reverse mounted landing gear measure the length of the shift shaft extension. See **FIGURE 4** for how to measure the length of the shift shaft extension. If the extension is 8.9 inches long use kit RK-10966-04 and go to the procedure on page 5. If the extension is 7.4 inches long use kit RK-10966-06 and go to the procedure on page 5.
- For conventional mounted legs use kit RK-10966-02.

FIGURE 5 - JACK SHAFT LENGTH

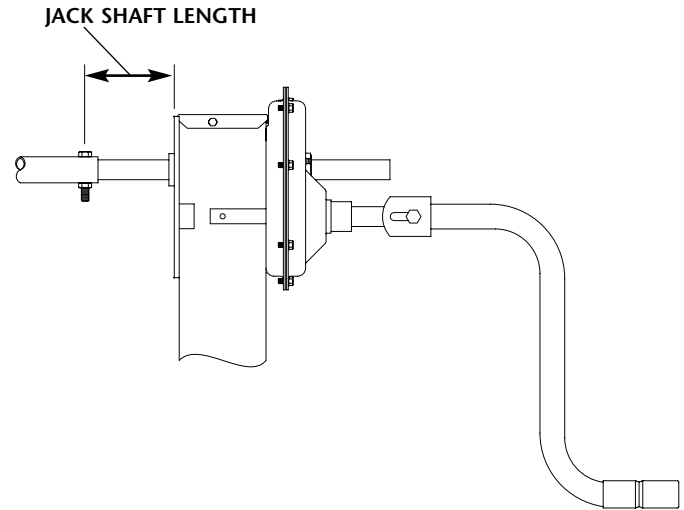


Table 1

JACK SHAFT LENGTH	KIT PART NO.
4.5"	RK-11074-03
6.5"	RK-11074-02
10"	RK-11074-05

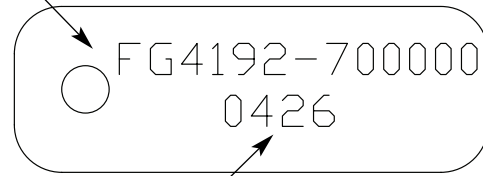
IDENTIFICATION OF THE LANDING GEAR

Identify Landing Gear by Part Number

1. All Holland landing gears are supplied with part number identification information.
 - a. On models built on or before 2006 a separate identification tag is attached to the upper side of the leg, either at one of the two grease fittings or at screw attaching the cover.
 - b. On models built on or after 2005 the identification information is engraved on the side of the leg near the top.
 - c. If the tag is missing or illegible and the landing gear appear to be original equipment, contact the trailer manufacturer with the Vehicle Identification Number and ask for the Holland landing gear part number.
 - d. See page 2 if the part number cannot be determined.
2. Identify the year the landing gear was made. If the landing gear was made in 2001 or later proceed to Step 4. If the year is 2000 it will be necessary to determine which week of the year (see **TABLE 2** this page). If the landing gear was made in the year 2000 or earlier it will be necessary to determine whether the landing gear is a Model 51,000 or 50,000. The third digit of the part number indicates the model, 4 = Model 51,000, and 5 = Model 50,000. In the example part number, FG4192-720000, the model number is the number '4' making this a Model 51,000.
3. Identify the shaft digit. The fifth digit indicates the shaft option. The only possible numbers are 0 (zero), 1, 2, 9, A, E or N. In the example part number, FG4192-720000, the shaft digit is the number '9'.
4. If the landing gear part number cannot be determined, please see page 2.

FIGURE 6A - OLD TAG: USE THE 6 DIGITS TO THE LEFT OF THE DASH TO IDENTIFY GEARBOX PARTS

PART NUMBER:
THIS IS THE LANDING GEAR PART NUMBER.
ONLY THE 6 DIGITS TO THE LEFT OF THE DASH ARE NEEDED TO IDENTIFY GEARBOX PARTS.



DATE CODE:
THE FIRST 2 DIGITS ARE THE LAST 2 DIGITS OF THE YEAR;
THE LAST 2 DIGITS REPRESENT THE WEEK OF THE YEAR, IN THIS CASE THE 26TH WEEK.

FIGURE 6B - NEW TAG: USE THE 6 DIGITS TO THE LEFT OF THE DASH

THIS IS THE LANDING GEAR PART NUMBER.
ONLY THE 6 DIGITS TO THE LEFT OF THE DASH ARE NEEDED.



DATE CODE:
ALL FASTGEAR WITH THIS STYLE OF DATE CODE ARE CURRENT.

Table 2: Fastgear Gearbox Change Over to Current Production Date

DATE	MODEL 51000	MODEL 50000
1999 or earlier	See Table 3	See Table 4
2000 week 39 or earlier	See Table 3	
2000 week 48 or earlier		See Table 4
2000 week 40 or later	See Table 5	
2000 week 49 or later		See Table 5
2001 or later	See Table 5	See Table 5

SELECTING THE REBUILD KIT

Table 3: Model 51,000 FastGear*

SHAFT DIGIT	KIT PART NO.	MOUNTING STYLE
0	RK-11074-01	Universal
2	RK-11074-02	I-Beam 6.5"
9	RK-11074-03	Conventional
1	RK-11074-04	Reverse
A	RK-11074-05	I-Beam 10.00"
E	RK-11074-06	Universal
N	RK-11074-07	Reverse

*Model 51,000 built in 1999 or earlier and those built on or before week 39 of 2000. See page 5 for the rebuild procedure.

Table 4: Model 50,000 FastGear*

SHAFT DIGIT	KIT PART NO.	MOUNTING STYLE
0	RK-11075-01	Universal
2	RK-11075-04	Reverse
9	RK-11075-02	I-Beam 6.5"

*Model 50,000 built in 1999 or earlier and those built on or before week 48 of 2000. See page 5 for the rebuild procedure.

Table 5: All FastGear*

SHAFT DIGIT	KIT PART NO.	MOUNTING STYLE
0	RK-10966-01	Universal
1	RK-10966-04	Reverse
2	RK-10966-02	I-Beam 6.5"
9	RK-10966-02	Conventional
A	RK-10966-02	I-Beam 10.00"
N	RK-10966-06	Reverse, Short

*Applies to all FastGear built in 2001 or later and Model 50,000 built in week 49 of 2000 or later and Model 51,000 built in week 40 of 2000 or later. See page 8 for the rebuild procedure.

FASTGEAR GEARBOX DISASSEMBLY PROCEDURE - 2000 OR EARLIER*

*See note at beginning of "Disassembly of the Gearbox."

Disassembly of the Gearbox

NOTE: This procedure only applies to FastGear landing gear built in 1999 or earlier, or Model 51,000 built on or before week 39 of 2000, or Model 50,000 built on or before week 48 of 2000. For later production FastGear landing gear, see page 8.

1. Remove the crank from the shift shaft by removing the 3/8" bolt, nut, and washers. Retain these parts.
2. Remove the cross drive shaft that connects the gearbox leg with the leg on the other side by removing the nuts and bolts from each end. Retain these parts.
3. For landing gears that are reverse mounted—where the gearbox faces the middle of the trailer—the shift shaft extension must be removed. Cut the shift shaft close to the end of the shift shaft extension (**FIGURES 9A & 9B**).

NOTE: Be careful not to damage the bushing in the gearbox or the housing when cutting the shift shaft. If the bushing is damaged replace with a new bushing from SAF-HOLLAND part number XB-LG0931.

4. Remove all rough edges and burrs from the cut surface so that the shift shaft will slide through the bushing without damaging the bushing.
5. Remove excessive paint and rust from all the shafts with an emery cloth (**FIGURE 10A**). Use a file to remove any burrs and rough edges from the shafts and around the holes. (**FIGURE 10B**). Apply a light coating of grease or oil to the shafts to make it easier to move them. This is necessary for proper removal and reassembly of the gearbox cover.
6. Shift the gearbox into low gear. Do so by pulling the shift shaft towards you while facing the front of the gearbox. This will help retain the detent ball and spring while disassembling the gearbox.
7. Remove the seven (7) screws holding the gearbox halves together (**FIGURE 10B**). Discard the screws.
8. Using a small hammer, tap the gearbox cover several times around the edge to help break the gasket loose from the cover. There will be a noticeable difference in sound when the cover is loose.
9. Remove the gearbox outer half. All the input gears should move with the outer cover, including the shift shaft.

NOTE: If there is a pin in the jack shaft on the outside of the gearbox, go to page 8.

10. Check the shift shaft to make sure the detent ball and spring are still in place. If the detent ball and spring are not in place, make sure they are not left in the gearbox.
11. Remove the jackshaft. The one-piece output and pinion gear should be attached to the jack shaft and will slide out with the jack shaft.
12. Discard all the gears and shafts. Discard the outside gearbox cover.
13. Clean out the inside of the gearbox.

Disassembly of the Gearbox *continued*

NOTE: Do not pressure wash or use solvent to clean the inside of the gearbox as this may contaminate the rest of the leg.

14. Clean the gasket surface of the gearbox half still attached to the leg.

FIGURE 9A - FASTGEAR LEG - SHIFT SHAFT EXTENSION

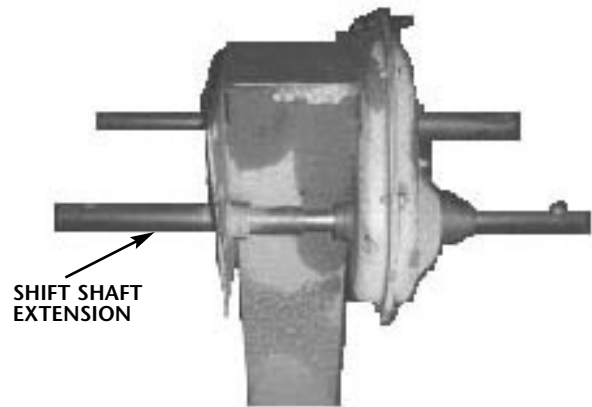


FIGURE 9B - FASTGEAR LEG - REMOVED EXTENSION

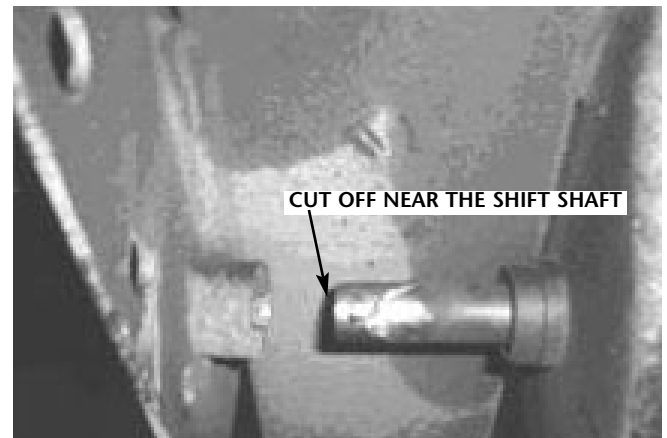
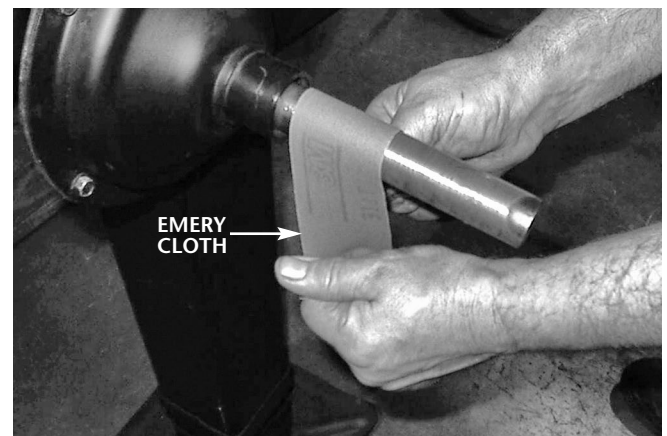


FIGURE 10A - REMOVE PAINT FROM ALL SHAFTS



continued

FASTGEAR GEARBOX REASSEMBLY PROCEDURE - 2000 OR EARLIER*

*See note at beginning of "Reassembly of the Gearbox."

Reassembly of the Gearbox

NOTE: This procedure only applies to FastGear landing gear built in 1999 or earlier, or Model 51,000 built on or before week 39 of 2000, or Model 50,000 built on or before week 48 of 2000. For later production FastGear landing gear, see page 8.

1. Lightly wipe all shafts and the inside of each bushing with a light coat of oil or grease. This will make assembly easier and make operation smoother.
2. Assemble the parts on the jack shaft as shown on page 13 or 14 as applicable.

NOTE: Note that there are two Woodruff keys on each jack shaft. These two key grooves are closer to one of the small (1/4" diameter) holes than the other. The output gear should be installed as shown on the keyway nearer to the small hole. First insert one Woodruff key in this slot, and then slide the output gear over the key.

3. Slide the washers from the other end until they butt against the output gear. The order the washers are installed is not important.
4. Install the second Woodruff key in the second slot. Slide the pinion gear on this shaft. The small end of the pinion gear should point away from the output gear. This is the complete jack shaft assembly. Compare this to the jack shaft assembly removed in Step 11 on page 5 for correct orientation of the gears.
5. Install the jack shaft assembly by sliding it into the large hole in the inside gearbox half and into the bushing on the opposite side of the landing gear. The pinion gear should engage the bevel gear in the top of the leg. Pack the area around the gears both inside the gearbox and on the top of the leg with all-season grease.
6. Install the roll pin on the outside of the leg in the jack shaft on the side opposite the gearbox. The roll pin may be driven in place with a hammer.
7. Assemble the high input gear on the shift shaft (**FIGURE 13**).
8. Coat the detent ball and spring with grease. Place the spring and ball in the hole in the shift shaft and compress the spring by pressing on the ball.

NOTE: Coating the spring and ball with grease help to ensure their smooth operation. Corrosion of the ball and spring may result in failure to hold the shift shaft in the gear selected.

FIGURE 10B - REMOVE BURRS WITH FILE

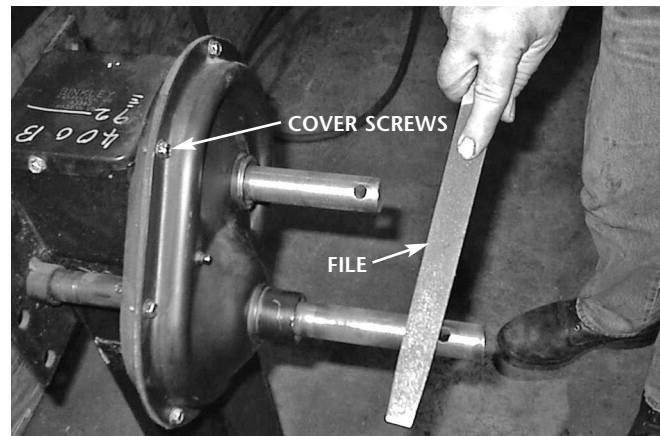


FIGURE 11 - SHIFT SHAFT

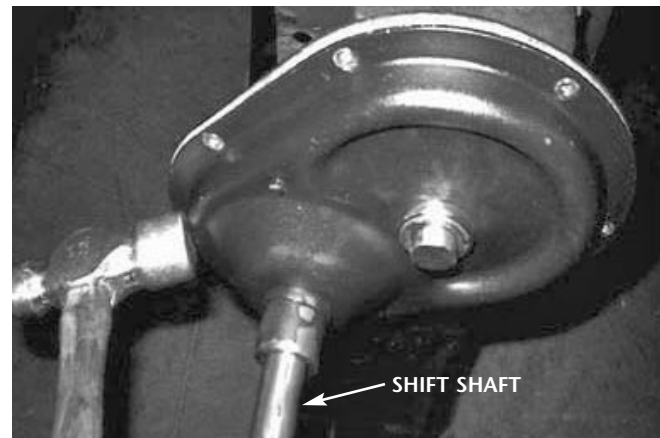
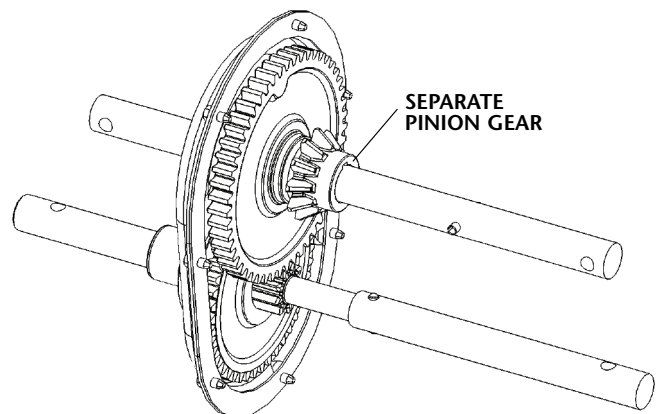


FIGURE 12 - REPAIR KIT THAT INCLUDES A PINION GEAR

REPAIR KITS THAT HAVE A SEPARATE PINION GEAR:
MODEL 50,000 BEFORE NOVEMBER 2000 &
MODEL 51,000 BEFORE SEPTEMBER 2000



continued

FASTGEAR GEARBOX REASSEMBLY PROCEDURE - 2000 OR EARLIER *continued*

Reassembly of the Gearbox *continued*

9. Slide the input gear over the ball so that the ball is retained by the inner teeth of the output gear (**FIGURE 14**).
10. Insert the shift shaft with the high input gear, ball, and spring, in the inner gearbox half (which is attached to the leg). Move the shaft as far as possible into the inner half, being careful to retain the detent ball and spring inside the high input gear. Pack the area around the gears with all-season grease.
11. If desired, coat the gearbox gasket with a light coating of grease in order to hold it in place.
12. Install the new gearbox gasket on the inside gearbox half. Be certain to line up the holes in the gasket and cover.
13. Slide the gearbox cover over both shafts. Carefully slide the cover on the shafts until the gap between the gearbox cover halves is about $3/8$ ". Check to be sure that the gasket is correctly aligned. Apply a fast steady motion to the outer cover until the halves touch. This will seat the shift lock ball and spring. Install two (2) of the seven (7) screws holding the halves together. If the self-tapping screws will not engage, $1/4$ " -20 nuts may be used with the screws.
14. Turn the shift shaft. A punch or screw driver in the hole in the shaft should provide sufficient grip to turn and shift the shaft. Turn the shaft to make sure it rotates smoothly. Shift the shift shaft by sliding it out (away from the gearbox) and check for smooth rotation. You should feel a detent in both high and low while trying to shift. If you do not sense a detent, the ball and spring may not be in the shaft. This will require disassembly of the cover and repeating Steps 6 through 11 after retrieving the detent ball and spring.
15. Install the remaining five (5) screws to fasten the inner and outer gearbox covers together.

IMPORTANT: Do not use an impact wrench to install these screws as it will cause the threads to fail. Do not exceed 90 inch pounds of torque.

16. Install the grease fitting in the hole in the outside gearbox cover.
17. Add at least one pound of all-weather grease that is designed to operate in temperatures from approximately -65° F to 250° F. This offers good all-weather lubrication for the landing gear.
18. Install a roll pin on the jack shaft at the end outside the gearbox cover.
19. If required, install the shift shaft extension on the shift shaft. Line up the hole in the two parts and connect together with the $1/4$ " groove pin.

NOTE: This is a solid pin. The spiral pins used in the other shaft must not be used here. Drive the pin in until it is centered.

NOTE: If the pin is off center it may hit the upper housing of the leg and make operation difficult.

20. Reinstall the cross drive shaft using the nuts and bolts.

Reassembly of the Gearbox *continued*

21. Reinstall the crank using the bolt, self-locking nut and washers. Proper operation requires that this bolt be loose enough that the crank can slide in and out on the shift shaft.
22. Check for proper operation of the landing gear.

NOTE: Proper operation means the gears and shafts rotate smoothly with moderate input torque, and the detent is fully engaged when shifted into high and low gear.

IMPORTANT: If the landing gear does not operate smoothly inspect the gears and shafts for binding and/or obstructions. Do not continue operation until the landing gear operates properly.

WARNING Use of landing gear that does not function as designed could result in death or serious injury.

FIGURE 13 - SHIFT SHAFT WITH BALL, SPRING & HIGH INPUT GEAR

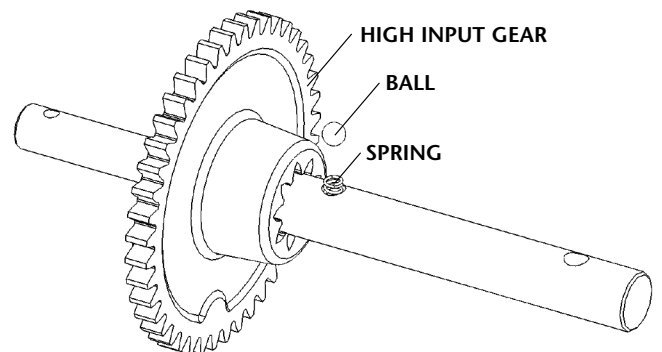
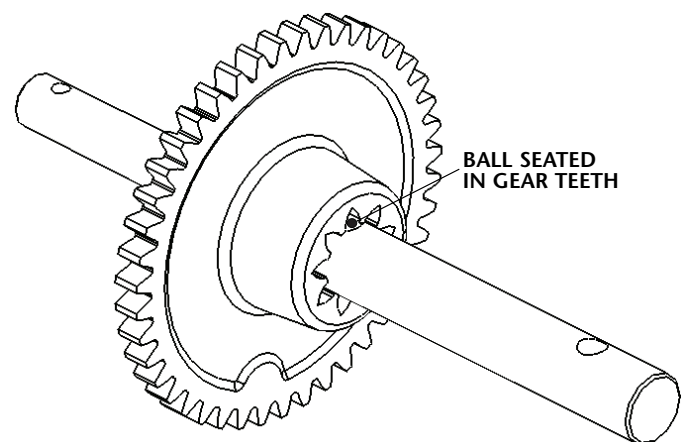


FIGURE 14 - SHIFT SHAFT WITH BALL, SPRING & HIGH INPUT GEAR IN POSITION



continued

FASTGEAR GEARBOX DISASSEMBLY PROCEDURE - 2001 OR LATER*

*See note at beginning of "Disassembly of the Gearbox."

Disassembly of the Gearbox

NOTE: This procedure only applies to FastGear landing gear built in 2001 or later, or Model 51,000 built in 2000 on or after the 40th week, or Model 50,000 built on or after the 49th week of 2000. For earlier production, see page 5.

1. Remove the crank from the shift shaft by removing the 3/8" bolt, nut, and washers. Retain these parts.
2. For landing gears that are reverse mounted—where the gearbox faces the middle of the trailer—the shift shaft extension must be removed. Cut the shift shaft close to the end of the shift shaft extension (see **FIGURES 15A & 15B**).

NOTE: Be careful not to damage the bushing in the gearbox or the housing when cutting the shift shaft. If the bushing is damaged replace with a new bushing from SAF-HOLLAND part number XB-LG0931.

In addition for landing gears with shift shaft extensions, as described above, remove the cross drive shaft by removing the 3/8" nut and bolt and the cross drive shaft. Retain the cross drive shaft, nuts, and bolts.

3. Remove all rough edges and burrs from the cut surface so that the shift shaft will slide through the bushing without damaging the bushing.
4. Remove excessive paint and rust from all the shafts with an emery cloth (**FIGURE 16A**). Use a file to remove any burrs and rough edges from the shafts and around the holes (**FIGURE 16B**). Apply a light coating of grease or oil to the shafts to make it easier to move them. This is necessary for proper removal and reassembly of the gearbox cover.
5. Shift the gearbox into low gear. Do so by pulling the shift shaft towards you while facing the front of the gearbox. This will help retain the detent ball and spring while disassembling the gearbox.
6. Remove the 1/4" x 1" roll pin in the output shaft that is closest to the gearbox. Retain this part.

continued

FIGURE 15A - FASTGEAR LEG - SHIFT SHAFT EXTENSION

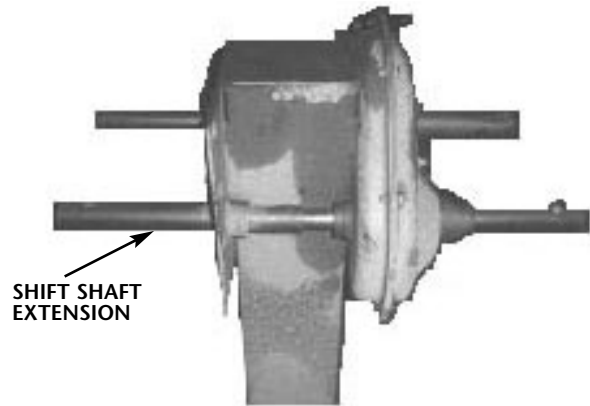


FIGURE 15B - FASTGEAR LEG - REMOVED EXTENSION

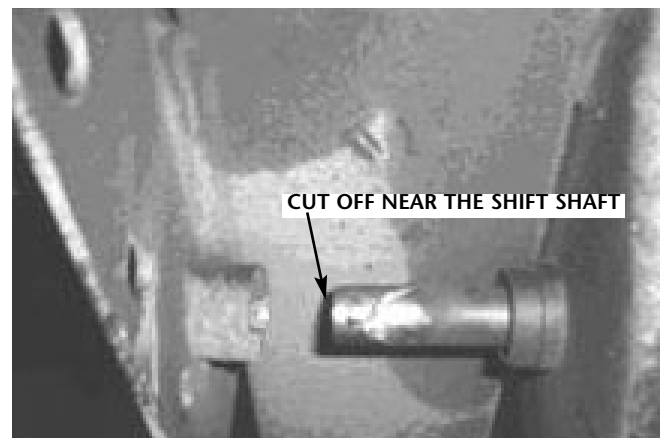
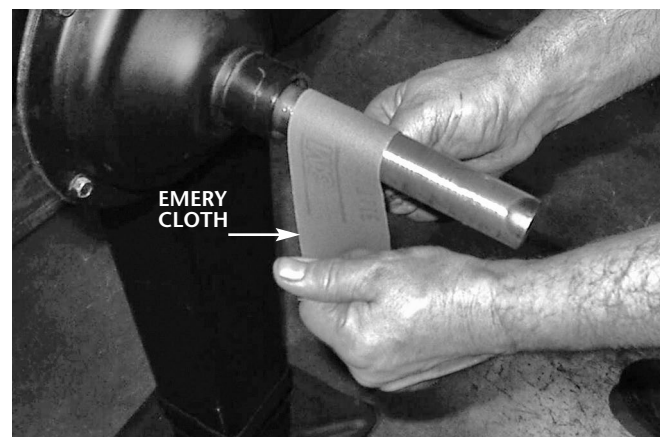


FIGURE 16A - REMOVE PAINT FROM ALL SHAFTS



FASTGEAR GEARBOX DISASSEMBLY PROCEDURE - 2001 OR LATER *continued*

Disassembly of the Gearbox *continued*

7. Remove the seven (7) screws holding the gearbox halves together (**FIGURE 16B**). Discard the screws.
8. Using a small hammer, tap the gearbox cover several times around the edge to help break the gasket loose from the cover. There will be a noticeable difference in sound when the cover is loose.
9. Remove the gearbox outer half. All the input gears should move with the outer cover, including the shift shaft.
10. Check the shift shaft to make sure the detent ball and spring are still in place. If the detent ball and spring are not in place, make sure they are not left in the gearbox.

NOTE: If the detent ball and spring are left in the gearbox they may cause the gears to jam or break at a later time.

11. Discard the input gears, ball, spring, and shift shaft. Discard the outside gear box cover.
12. Slide the output gear off the jack shaft. Remove the Woodruff key that is now visible on the jack shaft. Discard the output gear and the Woodruff key.

NOTE: The jack shaft will not be replaced.

13. Clean out the inside of the gearbox.

NOTE: Do not pressure wash or use solvent to clean the inside of the gearbox as this may contaminate the rest of the leg.

14. Clean the gasket surface of the gearbox half still attached to the leg.

FIGURE 16B - REMOVE BURRS WITH FILE

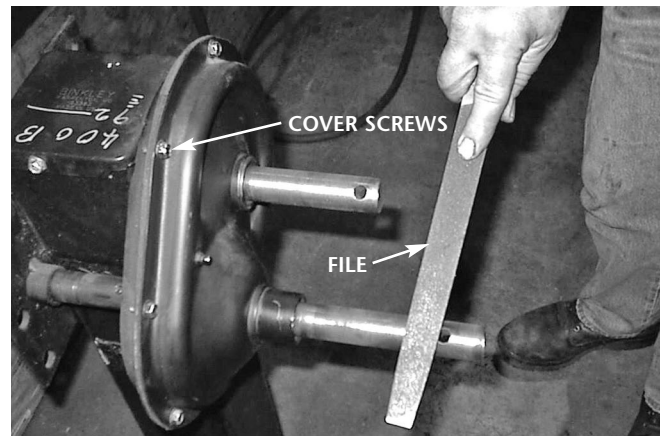
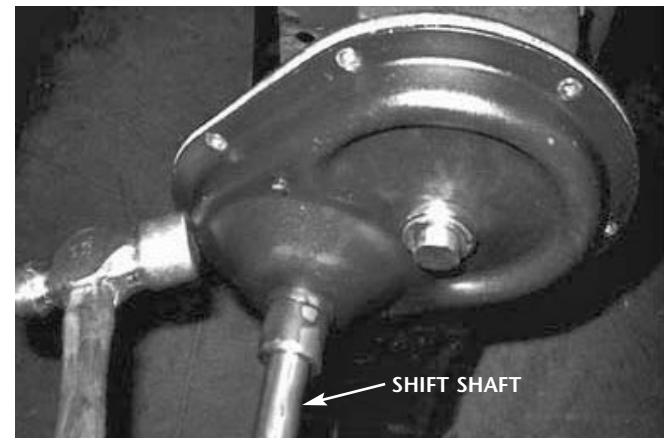


FIGURE 17 - SHIFT SHAFT



FASTGEAR GEARBOX REASSEMBLY PROCEDURE - 2001 OR LATER*

*See note at beginning of "Reassembly of the Gearbox."

Reassembly of the Gearbox

NOTE: This procedure only applies to FastGear landing gear built in 2001 or later, or Model 51,000 built in 2000 on or after the 40th week, or Model 50,000 built on or after the 49th week of 2000. For earlier production, see page 5.

1. Lightly wipe all shafts and the inside of each bushing with a light coat of oil or grease. This will make assembly easier and make operation smoother.
2. Install a new Woodruff key on the output shaft. Slide the output gear over the shaft until it engages the key and pressed against the inner gearbox half. Install the spacer on the output shaft. Pack the area around the gears both inside the gearbox and on the top of the leg with all-season grease.

3. Assemble the high input gear on the shift shaft (**FIGURE 18**).
4. Coat the detent ball and spring with grease. Place the spring and ball in the hole in the shift shaft and compress the spring by pressing on the ball.

NOTE: Coating the spring and ball with grease help to ensure their smooth operation. Corrosion of the ball and spring may result in failure to hold the shift shaft in the gear selected.

5. Slide the input gear over the ball so that the ball is retained by the inner teeth of the output gear (**FIGURE 19**).
6. Insert the shift shaft with the high input gear, ball, and spring, in the inner gearbox half (which is attached to the leg). Move the shaft as far as possible into the inner half, being careful to retain the detent ball and spring inside the high input gear. Pack the area around the gears with all-season grease.
7. If desired coat the gearbox gasket with a light coating of grease in order to hold it in place.
8. Install the new gearbox gasket on the inside gearbox half. Be certain to line up the holes in the gasket and cover.
9. Slide the gearbox cover over both shafts. Carefully slide the cover on the shafts until the gap between the gearbox cover halves is about $\frac{3}{8}$ ". Check to be sure that the gasket is correctly aligned. Apply a fast steady motion to the outer cover until the halves touch. This will seat the shift lock ball and spring. Install two (2) of the seven (7) screws holding the halves together. If the self-tapping screws will not engage, $\frac{1}{4}$ "-20 nuts may be used with the screws.
10. Turn the shift shaft. A punch or screw driver in the hole in the shaft should provide sufficient grip to turn and shift the shaft. Turn the shaft to make sure it rotates smoothly. Shift the shift shaft by sliding it out (away from the gearbox) and check for smooth rotation. You should feel a detent in both high and low while trying to shift. If you do not sense a detent, the ball and spring may not be in the shaft. This will require disassembly of the cover and repeating Steps 6 through 11 after retrieving the detent ball and spring.

FIGURE 18 - SHIFT SHAFT WITH BALL, SPRING & HIGH INPUT GEAR

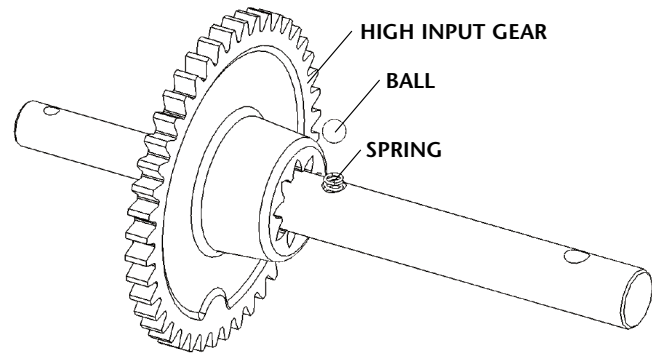
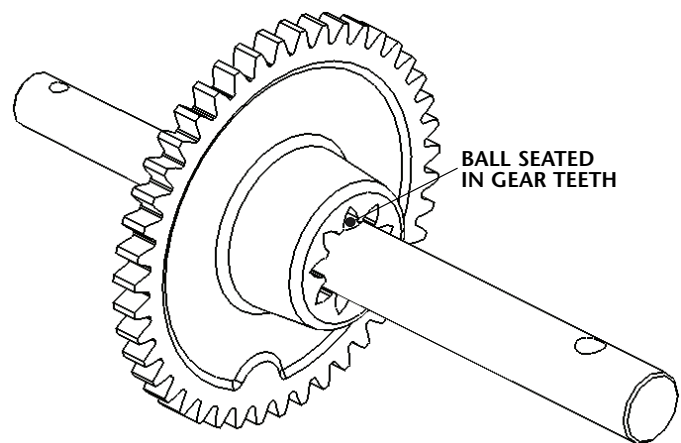


FIGURE 19 - SHIFT SHAFT WITH BALL, SPRING & HIGH INPUT GEAR IN POSITION



continued

FASTGEAR GEARBOX REASSEMBLY PROCEDURE - 2001 OR LATER *continued*

Reassembly of the Gearbox *continued*

11. Install the remaining five (5) screws to fasten the inner and outer gearbox covers together.

IMPORTANT: Do not use an impact wrench to install these screws as it will cause the threads to fail. Do not exceed 90 inch pounds of torque.

12. Install the grease fitting in the hole in the outside gearbox cover.
13. Add at least one pound of all-weather grease that is designed to operate in temperatures from approximately -65° F to 250° F. This offers good all-weather lubrication for the landing gear.
14. Install a roll pin on the jack shaft at the end outside the gearbox cover.
15. If required, install the shift shaft extension on the shift shaft. Line up the hole in the two parts and connect together with the 1/4" groove pin.

NOTE: This is a solid pin. The spiral pins used in the other shaft must not be used here. Drive the pin in until it is centered.

NOTE: If the pin is off center it may hit the upper housing of the leg and make operation difficult.

continued

Reassembly of the Gearbox *continued*

16. Reinstall the cross drive shaft using the nuts and bolts.
17. Reinstall the crank using the bolt, self-locking nut and washers. Proper operation requires that this bolt be loose enough that the crank can slide in and out on the shift shaft.
18. Check for proper operation of the landing gear.

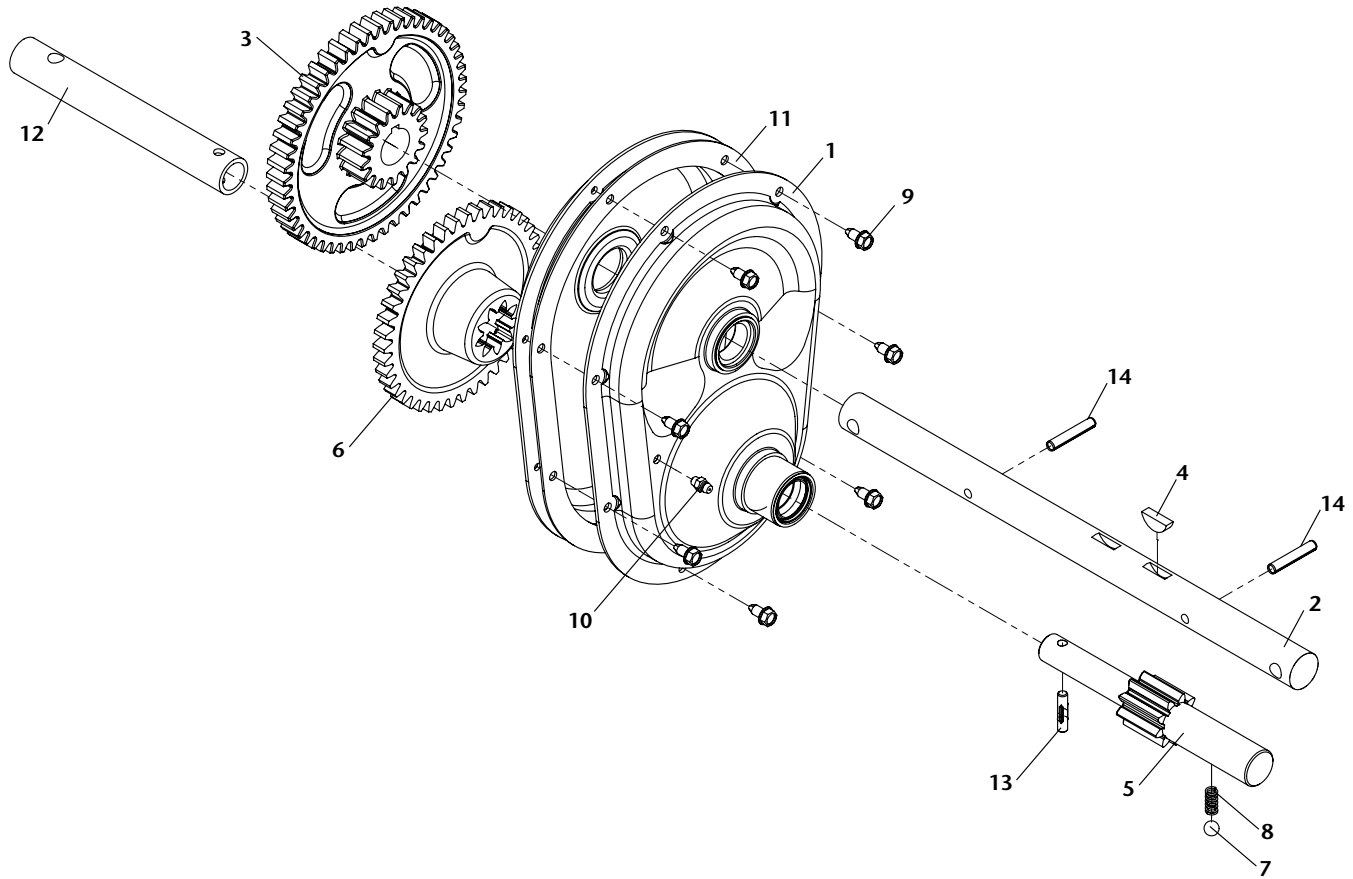
NOTE: Proper operation means the gears and shafts rotate smoothly with moderate input torque, and the detent is fully engaged when shifted into high and low gear.

IMPORTANT: If the landing gear does not operate smoothly inspect the gears and shafts for binding and/or obstructions. Do not continue operation until the landing gear operates properly.

WARNING Use of landing gear that does not function as designed could result in death or serious injury.

FASTGEAR GEARBOX EXPLODED VIEW

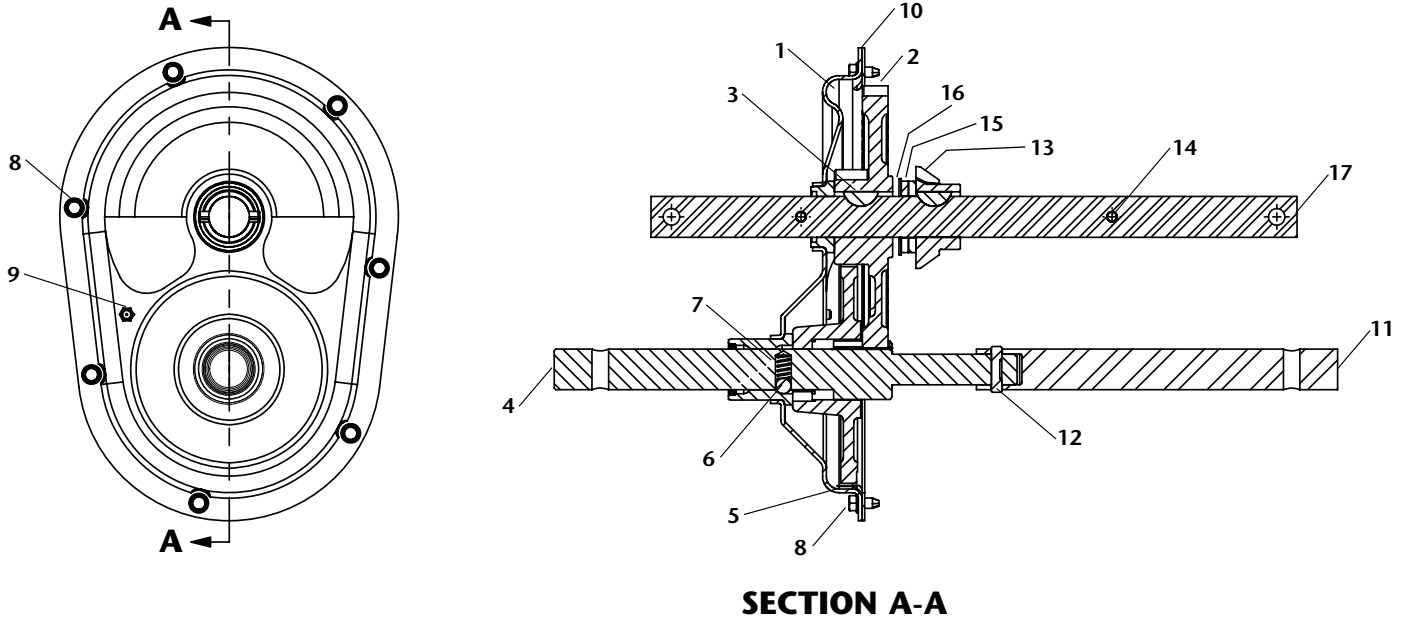
FIGURE 20 - EXPLODED VIEW OF A FASTGEAR GEARBOX



FastGear Gearbox Parts Identification

ITEM NO.	DESCRIPTION
1	Outside Gearbox Half Assembly
2	Jack Shaft
3	Output Gear
4	Woodruff Key
5	Shift Shaft (with gear)
6	High Input Gear
7	Detent Ball
8	Detent Spring
9	Self-Tapping Screw, 1/4"-20
10	Grease Fitting
11	Gasket
12	Shift Shaft Extension (not used on all)
13	Groove Pin
14	Pin, Spring

RK-11074: 51,000 KIT PARTS LIST (BEFORE SEPTEMBER 2000)



FastGear Gears Replacement Kit Components

ITEM NO.	DESCRIPTION	SAF-HOLLAND PART NUMBER	QTY.
1	Gearbox Half, Assy - Outside	LG0944-100	1
2	Gear, Output, Machined	LG0936-51	1
3	Key, Woodruff 0.250" x 0.875"	XB-KEY-018-02	2
4	Shift Shaft and Gear	See Chart	1
5	Gear, Input High - Machined	LG2465-01	1
6	Ball, 3/8" dia.	XB-BAL-023-07	1
7	Spring, Compression	XB-SPG-020-36	1
8	Screw, Selftap 1/4"-20 x 1/2" HX Wash CDPT WX	XB-ST5-008-11	7
9	Fitting, Grease - 1/4" - 28 Straight	XB-GRF-022-16	1
10	Gasket, FastGear	XB-LG0891	1
11	Shaft, Extension, Shift	See Chart	1
12	Pin, Grooved 1/4" dia. x 1.125" Type E	XB-GP-052-49	See Chart
13	Gear, Pinion - Machined	XB-LG1823-01	1
14	Pin, Spring Ø 0.25" x 1.5"	XB-SP-014-27	2
15	Washer, Plain Thrust	XB-PW-016-14	2
16	Washer, Thrust	XB-PW-016-19	1
17	Shaft, RH Jack - Universal	See Chart	1
18	FastGear Rebuild Procedure	XL-LG371	1

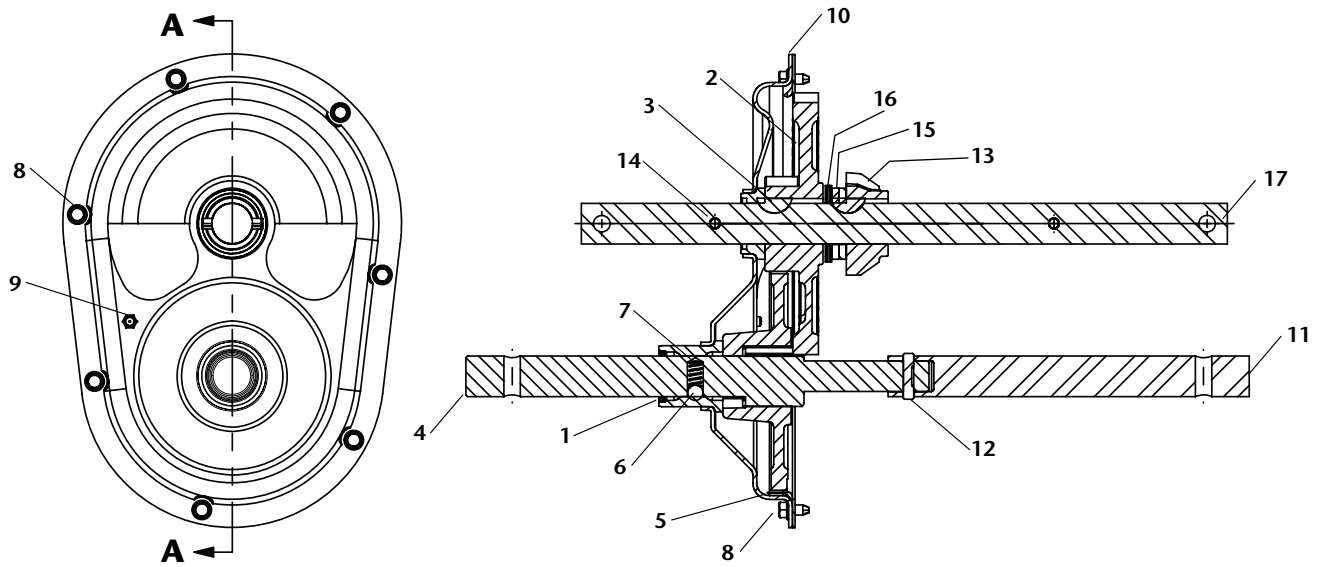
NOTE: Add one pound (1 lb.) of all-weather grease that is designed to operate in temperatures from -65° F to 250° F.

FastGear Reference Chart*

SHAFT DIGIT	KIT PART NO.	MOUNTING STYLE	ITEM 4 SHIFT SHAFT	ITEM 11 JACK SHAFT	ITEM 12 PIN	ITEM 17 SHIFT SHAFT EXTENSION
0	RK-11074-01	Universal	LG2463-01	LG2147	1	LG2462
2	RK-11074-02	I-Beam, 6.5"	LG2463-01	LG2187	None	None
9	RK-11074-03	Conventional	LG2463-01	LG2187-01	None	None
1	RK-11074-04	Reverse	LG2464-01	LG2197	1	LG2462
A	RK-11074-05	I-Beam, 10.00"	LG2463-01	LG2187-02	None	None
E	RK-11074-06	Universal	LG2463-01	LG2147-02	1	LG2462
N	RK-11074-07	Reverse	LG2464-01	LG2197	1	LG2462-01

* Applies to Model 51,000 FastGear built in 1999 or earlier and those built on or before week 39 of 2000. See page 5 for the rebuild procedure.

RK-11075: 50,000 KIT PARTS LIST (BEFORE NOVEMBER 2000)



SECTION A-A

FastGear Gears Replacement Kit Components

ITEM NO.	DESCRIPTION	SAF-HOLLAND PART NUMBER	QTY.
1	Gearbox Half, Assy - Outside	LG0944-100	1
2	Gear, Output, Machined	LG0936-51	1
3	Key, Woodruff 0.250" x 0.875"	XB-KEY-018-02	2
4	Shift Shaft and Gear	See Chart	1
5	Gear, Input High - Machined	LG2465-01	1
6	Ball, 3/8" dia.	XB-BAL-023-07	1
7	Spring, Compression	XB-SPG-020-36	1
8	Screw, Selftap 1/4"-20 x 1/2" HX Wash CDPT WX	XB-STS-008-11	7
9	Fitting, Grease - 1/4" - 28 Straight	XB-GRF-022-16	1
10	Gasket, FastGear	XB-LG0891	1
11	Shaft, Extension, Shift	See Chart	1
12	Pin, Grooved 1/4" dia. x 1.125" Type E	XB-GP-052-49	See Chart
13	Gear, Pinion - Broached	LG0531-02	1
14	Pin, Spring Ø 0.25" x 1.5"	XB-SP-014-27	2
15	Washer, Plain Thrust	XB-PW-016-14	2
16	Washer, Flat	XB-PW-016-71	3
17	Shaft, RH Jack - Universal	See Chart	1
18	FastGear Rebuild Procedure	XL-LG371	1

NOTE: Add one pound (1 lb.) of all-weather grease that is designed to operate in temperatures from -65° F to 250° F.

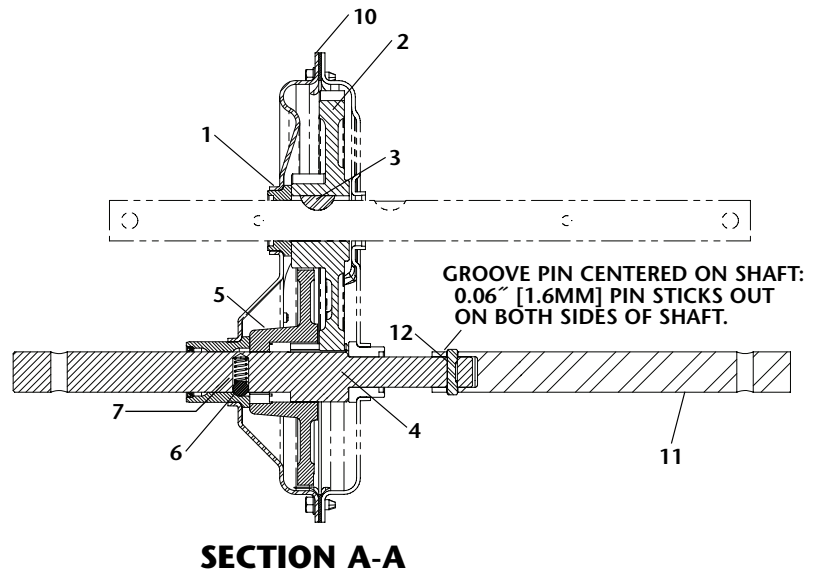
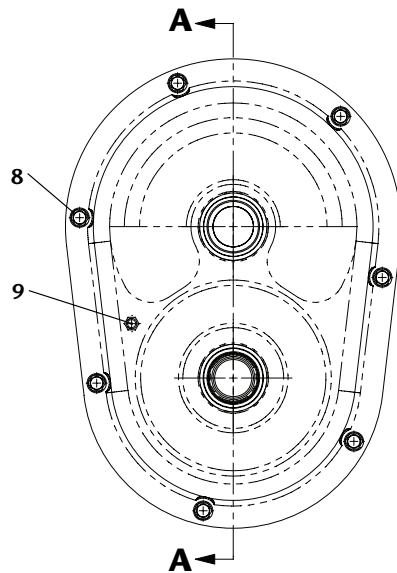
FastGear Reference Chart*

SHAFT DIGIT	KIT PART NO.	MOUNTING STYLE	ITEM 4 SHIFT SHAFT	ITEM 11 JACK SHAFT	ITEM 12 PIN	ITEM 17 SHAFT EXTENSION
0	RK-11075-01	Universal	LG2463-01	LG2147-50	1	LG2462
1	RK-11075-04	Reverse	LG2464-01	LG2197-50	1	LG2462
2	RK-11075-02	I-Beam, 6.5"	LG2463-01	LG2187-50	None	None

* Applies to Model 50,000 FastGear built in 1999 or earlier and those built on or before week 48 of 2000. See page 5 for the rebuild procedure.

RK-10966: 50,000 & 51,000 KIT PARTS LISTS (CURRENT†)

† Model 50,000 - made after November 2000; Model 51,000, made after September 2000.



FastGear Gears Replacement Kit Components

ITEM NO.	DESCRIPTION	SAF-HOLLAND PART NUMBER	QTY.
1	Gearbox Half, Assy - Outside	LG0944-100	1
2	Gear, Output, Machined	LG0936-51	1
3	Key, Woodruff 0.250" x 0.875"	XB-KEY-018-02	1
4	Shift Shaft and Gear	See Chart	1
5	Gear, Input High - Machined	LG2465-01	1
6	Ball, 3/8" dia.	XB-BAL-023-07	1
7*	Spring, Compression	XB-SPG-020-36	1
8**	Screw, Selftap 1/4"-20 x 1/2" HX Wash CDPT WX	XB-STS-008-11	7
9	Fitting, Grease - 1/4" - 28 Straight	XB-GRF-022-16	1
10	Gasket, FastGear	XB-LG0891	1
11	Shaft, Extension, Shift	See Chart	1
12	Pin, Grooved 1/4" dia. x 1.125" Type E	XB-GP-052-49	See Chart
13	FastGear Rebuild Procedure	XL-LG371	1

* Coat detent spring with grease before assembly.

** Torque screw to 65 - 90 in. lbs. at assembly.

NOTE: Add one pound (1 lb.) of all-weather grease that is designed to operate in temperatures from -65° F to 250° F.

FastGear Reference Chart*

SHAFT DIGIT	KIT PART NO.	MOUNTING STYLE	ITEM 4 SHIFT SHAFT	JACK SHAFT	ITEM 11 SHAFT EXTENSION	ITEM 12 PIN
0	RK-10966-01	Universal	LG2463-01	Not Included	LG2462	1
1	RK-10966-04	Reverse	LG2464-01	Not Included	LG2462	1
2	RK-10966-02	I-Beam, 6.5"	LG2463-01	Not Included	None	None
9	RK-10966-02	Conventional	LG2463-01	Not Included	None	None
A	RK-10966-02	I-Beam, 10.00"	LG2463-01	Not Included	None	None
N	RK-10966-06	Reverse, Short	LG2464-01	Not Included	LG2462-01	1

* Applies to all FastGear built in 2001 or later, and Model 50,000 FastGear built in week 49 of 2000 or later, and Model 51,000 built in week 40 or later of 2000. See page 8 for the rebuild procedure.



SAF-HOLLAND USA, Inc.
888.396.6501 Fax 800.356.3929

SAF-HOLLAND Canada Limited
519.537.3494 Fax 800.565.7753
Western Canada
604.574.7491 Fax 604.574.0244