

LANDING GEAR

FAST GEAR BALL & SPRING REPLACEMENT



SYMPTOM: FAST GEAR WILL NOT STAY IN HIGH GEAR WHEN CRANKING.

Recommended repair would be to replace the shift ball and spring.

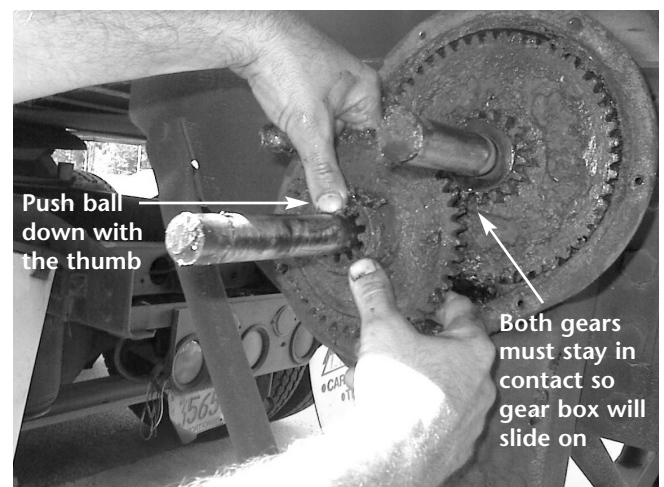
Repair Procedure:

1. Remove all paint, rust and any burrs from shift shaft and output shaft nearest to the gear box cover. Use a file to remove burrs at the hole for the crank handle (cross shaft). **This is necessary for proper removal and installation of the gear box cover.**
2. Remove the screws holding the gear box cover.
3. Tap the gear box cover several times around the edges to break cover loose from the gasket. **Note: There will be a noticeable difference in sound when cover is loose. This will also minimize damage to the gasket and cover.**



4. Remove the gear box cover.
5. When the gear box cover is removed, the shift ball will usually fly out of the hole and lodge in the grease. **This ball must be found and discarded.** (Using a magnet may help find the ball in the grease.) **Note: If the ball is stuck in the shaft hole, drill a hole on the opposite side (180°) of the hole, using a 3/16" drill bit. Use a small punch to push the ball out.**

6. Remove the spring from the hole.
7. Remove excess grease from the gear box and coat any uncoated metal parts with grease. Excessive grease can cause hard shifting.
 1. It is recommended to refill the gear box with all-weather grease that is designed to operate in temperatures between approximately 65° below to 250° above zero. This offers the best all-weather protection of the landing gear mechanism. **Note: If the grease is too heavy in cold weather, the landing gear will shift and crank very hard.**
8. Coat ball and spring with grease.
9. Push shift shaft in as far as it will move. **Important:** The shaft must be all the way in for side gear cover installation.
10. Install the new galvanized spring (XB-SPG-020-36) and stainless steel ball (XB-BAL-023-07). Put 2 fingers behind the floating gear at the top and push the ball down with your thumb. Using your other hand, put a finger behind the gear towards the bottom of the gear. Keep even pressure on the floating gear as you pull the gear over the ball, making sure the floating gear stays in contact with the large output gear to its right.



11. Install the new gear box gasket (if needed).
12. Install the gear box cover carefully until approximately 3/8 gap remains between the inside and outside covers. Check to ensure proper alignment of the gasket and cover. Apply a fast, steady pressure to the gear box cover, to seat the ball in the cover, and install two (2) screws to hold the cover in place.
13. Operate the leg up and down with the shift shaft in the out position, to assure the proper operation of the leg and that the shift shaft doesn't shift while cranking.
14. Install the remaining screws in the gear box. Do not use impact to install screws in cover; it can strip the holes out. Torque screws to 65-90 inch pounds.
15. Install the crank handle (cross shaft) taking care not to tighten the nut against the handle (cross shaft) (use either lock nut or double nuts). The crank handle (cross shaft) must be able to float on the shaft.

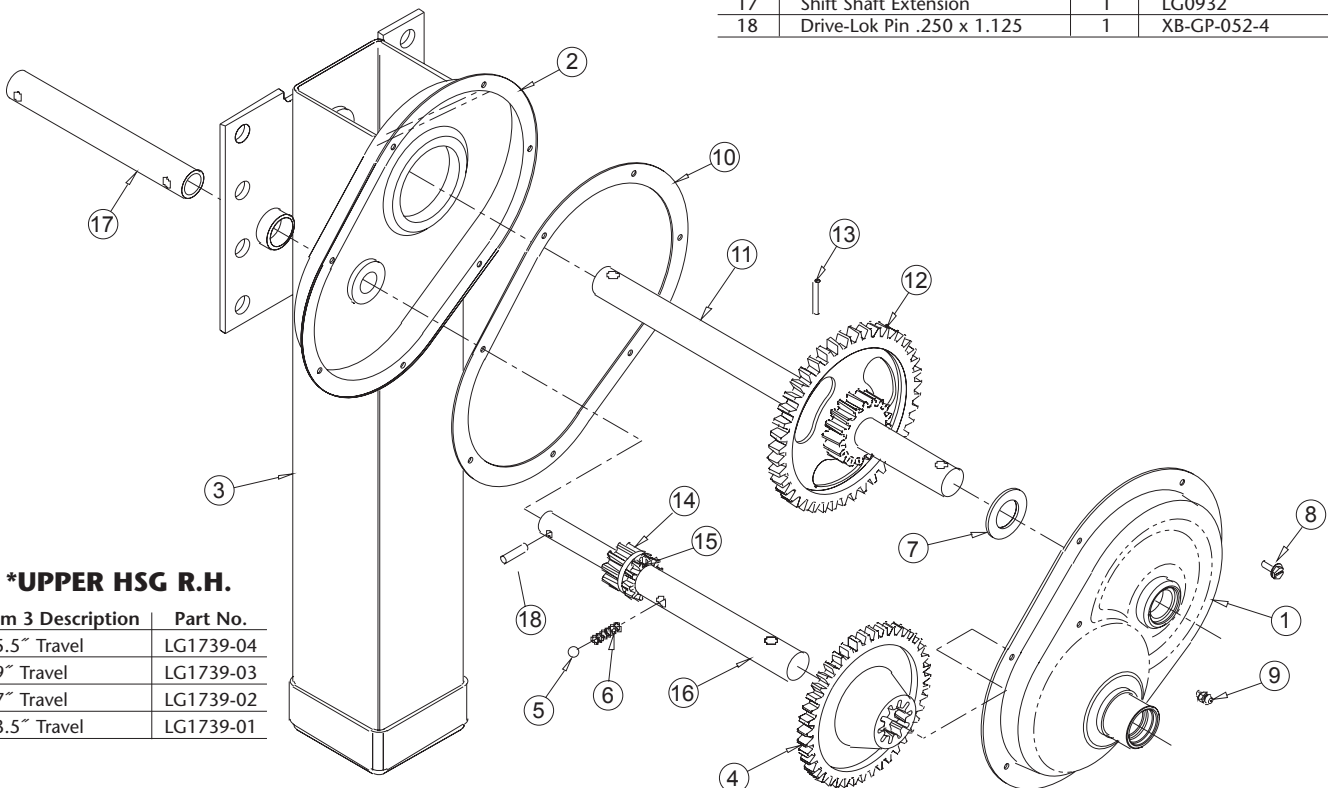
Kit Part #LG2145-999

Parts included in the kit (per leg):

- Ball XB-BAL-023-07
- Spring XB-SPG-020-36
- Gasket LG0891
- Crank Handle Bolt 3/8-16/2_XB-HHC-050-42
- Crank Handle Lock Nut 3/8-16XB-SLN-012-04
- 12" long x 2" wide #40 Grit Emery Cloth

Individual Parts

Item	Description	Qty	Part No.
1	Ass'y. Gearbox Half (Outside)	1	XB-LG0944
2	Ass'y. Gearbox Half (Inside)	1	XB-LG0945
3	Upper HSG w/Gearbox Half	1	*See Below
4	Input Gear	1	LG0934
5	Shift Lock Ball	1	XB-BAL-023-07
6	Shift Lock Spring	1	XB-SPG-020-36
7	Flat Washer	1	XB-PW-016-51
8	Self-Tapping Screw	7	XB-ST5-008-11
9	Grease Fitting	1	XB-GRF-022-16
10	Gasket	1	LG0891
11	Universal Jack Shaft	1	LG0890
11	I-Beam Jack Shaft	1	LG1924
11	Reverse Jack Shaft	1	LG1926
12	Output Gear w/Pinion	1	LG0936-10
13	Groove Pin 3/8 x 2	1	XB-GP-052-21
14	Input Low Gear	1	LG0933-01
15	Drive-Lok Pin .250 x .969	1	XB-GP-052-11
16	Reverse Shift Shaft	1	LG1925
16	Conv/I-Beam Shift Shaft	1	LG0910
17	Shift Shaft Extension	1	LG0932
18	Drive-Lok Pin .250 x 1.125	1	XB-GP-052-4



***UPPER HSG R.H.**

Item 3 Description	Part No.
15.5" Travel	LG1739-04
19" Travel	LG1739-03
17" Travel	LG1739-02
13.5" Travel	LG1739-01

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