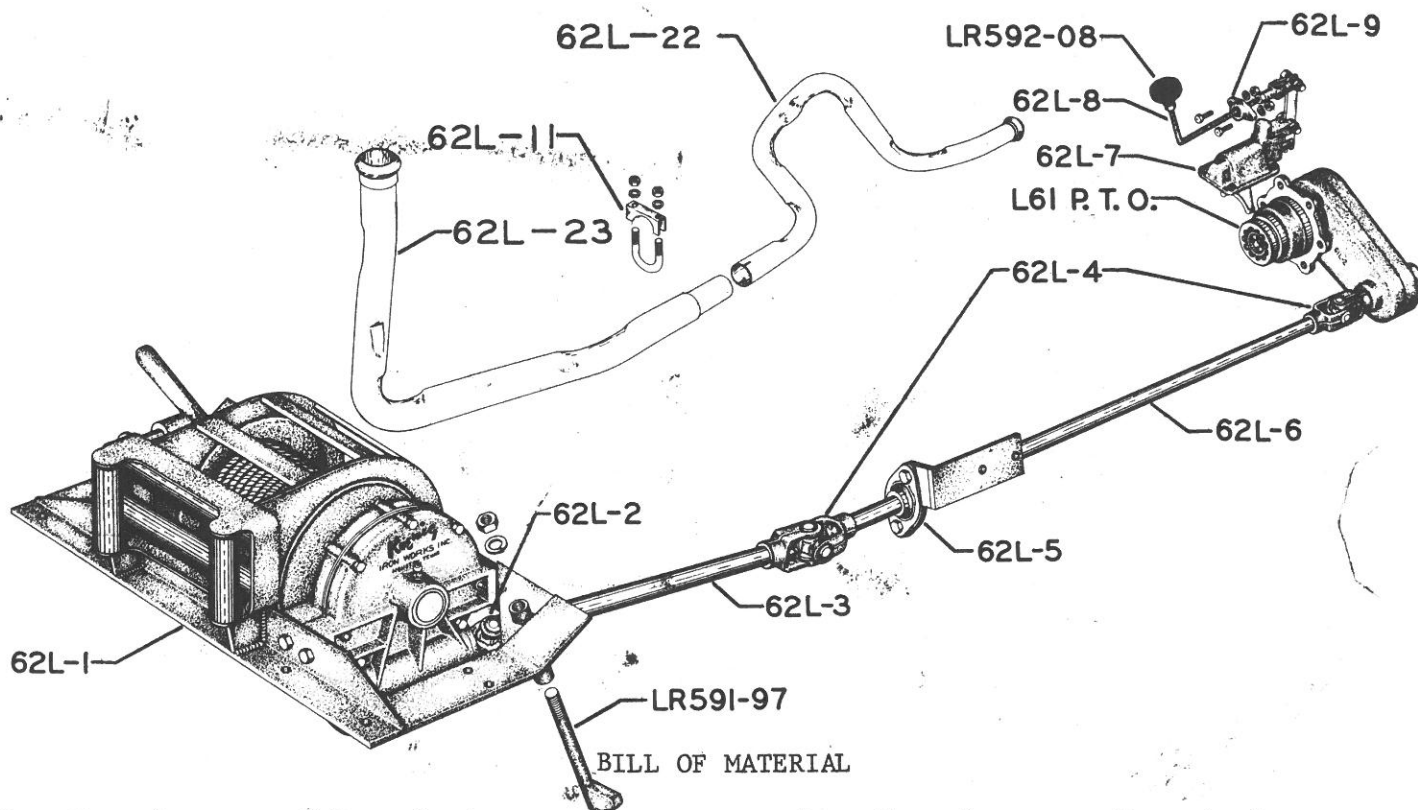


MODEL L621 KING WINCH FOR LAND ROVER SERIES II AND IIA



BILL OF MATERIAL

Part No.	Quan.	Description	Part No.	Quan.	Description
62L-1	1	Winch and mounting assembly	62L-99	1	Bag of bolts consisting of:
62L-2	1	Front universal joint (short type) 7/8"-3/16" KW x 7/8"-3/16" KW	4 - 3/8" x 4-1/2" N.F. bolt		
62L-3	1	Front drive shaft 14-3/8" long	4 - 3/8" x 1" N.F. bolt		
62L-4	2	Center and rear universal joint 7/8"-3/16" KW x 7/8"-3/16" KW	2 - 5/16" x 3-3/4" N.F. bolt		
62L-5	1	Bearing bracket assembly	2 - 1/4" x 3/4" N.F. bolt		
62L-6	1	Rear drive shaft, 41-1/4" long	11 - 3/8" N.F. nut		
62L-7	1	PTO shifter assembly	2 - 5/16" N.F. nut		
62L-8	1	PTO shifter rod	2 - 1/4" N.F. nut		
62L-9	1	PTO shifter rod support	9 - 3/8" lockwasher		
62L-11	1	Exhaust pipe clamp	2 - 5/16" lockwasher		
62L-12	1	Clevis	2 - 1/4" lockwasher		
61L-18	1	Gasket (between PTO and transfer case)	6 - 3/8" x 3/8" N.C. socket set screw		
61L-20	1	Gasket (between shifter assembly and transfer case)	5 - 3/16" No. 11 Woodruff key		
62L-23	1	Exhaust pipe, front section			
62L-22	1	Exhaust pipe, rear section			
L61	1	Power take-off			
LR591-97	2	Platform clamp bolt (including lockwasher & nut)			
LR592-08	1	Shifter knob			
15312	1	Coil of winch cable with hook (150-feet long - if ordered)			



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INSTALLATION INSTRUCTIONS - MODEL L621 KING WINCH ON
LAND ROVER SERIES II AND SERIES IIA
2½ LITER PETROL ENGINE

1. Unpack entire unit and check each item against Bill of Material.
2. Remove front bumper, splash pan between bumper and radiator grille, and splash pan brackets. The splash pan and splash pan brackets will not be re-used.
3. Check the welds along top of the vehicle frame. If rough, grind smooth and repaint. (See Illustration #1) Replace front bumper to original position but DO NOT replace the four bolts.
4. On 88" wheelbase vehicles with exhaust pipe INSIDE of vehicle frame, remove front section. On 88" wheelbase vehicles with exhaust pipe OUTSIDE of vehicle frame, no alterations are necessary. On 109" wheelbase vehicles it is necessary to heat the exhaust pipe directly below exhaust manifold and bend pipe toward engine 3/4" (measured at bottom of frame rail).
5. On Series IIA LEFT-HAND DRIVE vehicles only, it is necessary to make the following changes on the steering linkage.

Be sure the bolt (#256465) which secures the relay lever, lower, to shaft for steering relay levers, is installed with the thread portion toward left side of vehicle, (Illustration #1). On vehicles where the ball joint assembly on steering drag link assembly enters the relay lever, lower, FROM THE TOP, be sure that the bolt through clip for ball joint is on BOTTOM of steering drag link assembly (Illustration #1).
6. Remove protective tape from winch worm shaft. Place winch assembly in position on vehicle frame. Insert four 3/8" x 4-1/2" N.F. bolts, lock washers, and nuts through winch assembly, front bumper and vehicle frame. Insert the two 5/8" x 6-3/8" N.F. clamp bolts, lock washers and nuts. Drill four 3/8" holes in bumper through front crossmember of winch mounting. Insert four 3/8" x 1" N.F. bolts, lock washers and nuts. Tighten all bolts holding the winch assembly to vehicle frame.
7. Install power take-off. Remove the complete housing assembly, rear mainshaft bearing, and cover plate for power take-off selector from transfer case. Remove the gaskets from both openings. Remove protective tape from power take-off output shaft. Place gasket (#61L-18) over studs at power take-off opening. Be sure sliding ring (#61L-13) is in correct position (relieved teeth toward front) on main power take-off shaft. Place power take-off in position and replace the lock washers and nuts. Tighten securely. Place shifter housing gasket (#61L-20) in position. Place shifter housing assembly in position making sure the shifter yoke (#61L-5) correctly engages the sliding ring on main power take-off shaft. Replace bolts, lock washers and nuts. Tighten securely.
8. Install power take-off shifter. Drill seat base according to Illustration #2. Bolt shifter shaft support (#62L-9) in place using two 1/4" x 3/4" N.C. bolts lockwashers and nuts. Insert shifter rod (#62L-8) through bushing, and install one 3/8" N.F. nut on shifter rod. Install clevis (#62L-12) on shifter rod. Place clevis on shifter arm (#62L-25) and insert 3/8" x 1" N.F. bolt (#61L-27) through clevis and shifter arm. Install locknut (#1087) on bolt and tighten securely. Hold shifter knob (#LR592-08 in upright position and tighten 3/8" N.F. nut against clevis.

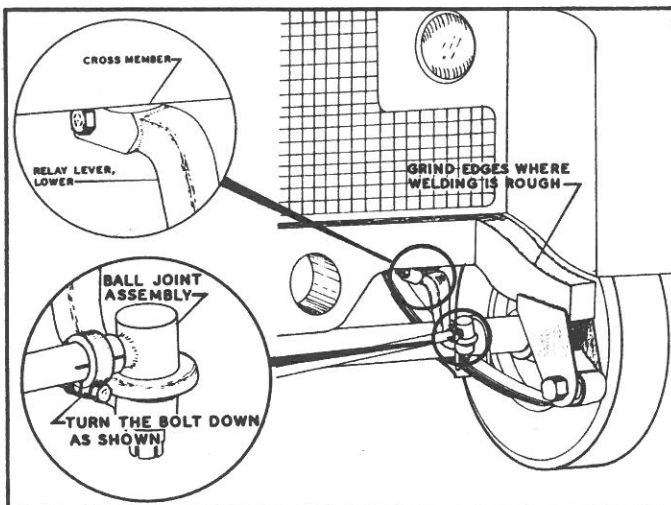


ILLUSTRATION I.

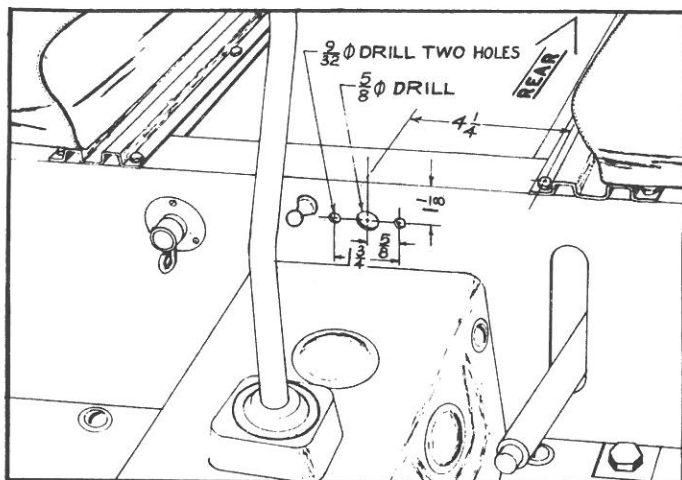


ILLUSTRATION 2.

9. Install drive line between power take-off and winch. Bolt bearing assembly (#62L-5) to vehicle frame, using two 5/16" x 3-3/4" N.F. bolts, lock washers and nuts, using existing holes in vehicle frame. The bracket on the bearing assembly goes toward the rear of vehicle and attaches to frame directly behind engine front support (Illustration #3). Securely tighten bolts holding bearing assembly to vehicle frame. Do not, at this time, tighten bolts which clamp bearing in assembly.

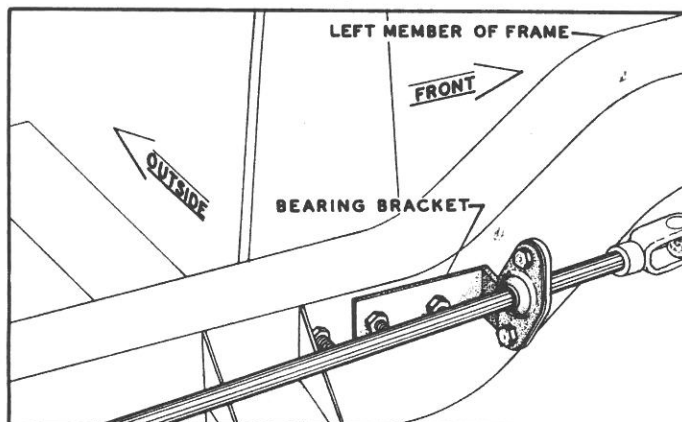


ILLUSTRATION 3.

Insert Woodruff key in power take-off output shaft, and place universal joint (#62L-4) on power take-off output shaft as far as possible.

Insert long drive shaft (#62L-6) through bearing assembly, insert Woodruff key in shaft and insert shaft in universal joint on power take-off as far as possible.

Insert Woodruff key in front end of long drive shaft and place universal joint (#62L-4) on long drive shaft as far as possible.

Be sure key is in winch worm shaft and place universal joint (#62L-2) on worm shaft as far as possible.

Insert Woodruff key in each end of short driveshaft (#62L-3). Insert this shaft first in universal joint on long drive shaft, and then in universal joint on winch worm shaft.

Adjust position of each universal joint so that all keys in all shafts are fully engaged in each universal joint. Be sure the front and rear universal joints will not rub either winch housing or the power take-off. Rotate drive line by hand to be sure there are no obstructions to drive line. Countersink all shafts with a 5/16" (.312") drill bit through setscrew hole in each end of each universal joint. This countersink needs to be only deep enough to allow cup point on setscrew to enter the shaft. Insert a 3/8" x 3/8" setscrew and tighten securely immediately after drilling each countersink.

Tighten the two 3/8" bolts that clamp the self-aligning bearing in bearing bracket.

10. Install exhaust pipe (on vehicles that required removal of front section (See Step 4 of these instructions). Cut in two, removed exhaust pipe and retain the clamp plates from each end. Care should be taken to be sure the clamp plates are identified as to the one that goes on manifold and the one that goes on intermediate pipe. There is only a slight difference in these plates.

Place clamp plate that originally was on front end of old exhaust pipe on front section exhaust pipe (#62L-23) and install on vehicle replacing bolts holding exhaust pipe to manifold. The new rear section of exhaust pipe (#62L-22) installs ABOVE rear engine support cross-member. Place clamp plate that originally was on rear end of old exhaust pipe on rear section exhaust pipe (#62L-22) and install on vehicle inserting over front exhaust section and replacing bolts holding this section to intermediate exhaust pipe.

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Place exhaust pipe clamp (#62L-11) over point where the front and rear sections join. Do not tighten.

Check exhaust pipe clearance throughout entire length, then tighten the clamp as well as bolts on manifold and intermediate ends of new exhaust pipe.

For a stronger exhaust pipe it is recommended that the front and rear sections be welded together eliminating the use of clamp (#62L-11). If this is done follow the above installation procedure plus the following:

Remove the bolts holding the exhaust pipe to manifold and intermediate exhaust pipe. Carefully remove the front and rear sections while clamped together. Weld the two sections together, remove clamp and reinstall on vehicle.

11. Fill power take-off with same grade of oil used in the transfer case for your climate. Fill plug is provided in rear of power take-off housing and is the level to which this housing is to be kept filled.

12. Lubricate winch and drive line, using a grease gun filled with the same lubricant as used in similar points of lubrication on the Land Rover (propeller shaft splines, clutch and brake pedal shafts, etc.) Lubricate the following points:

- 3 Universal joints
- Drive Line Bearing
- 3 Points on Winch

Using an oil can filled with motor oil lubricate sliding clutch on winch drum shaft, clutch shifter yoke and safety pin.

The winch gear housing should be filled to the filler plug level with EP-140 gear oil.

13. Install cable on winch drum. Remove one of the 3/8" x 7/8" bolts that fasten cable clamp (#115) to winch drum, and loosen the other 3/8" x 7/8" bolt until it is almost out of winch drum flange. Place the cable through the cable guide roller assembly, and out through hole in winch drum until the end of the cable is even with the top of cable clamp. Replace the 3/8" x 7/8" bolt and tighten cable clamp to winch drum flange.

Cut off the portion of the two 3/8" x 7/8" bolts that extends inside of winch drum flange by using either a sharp chisel or hacksaw.

The cable spools in on TOP of winch drum. Care should be taken to wind the cable on the winch drum as evenly and as tightly as possible. Unless a revolving stand is available, we recommend unwinding the coil of cable by rolling it along the shop floor. If enough room is available, attach the cable hook to a solid anchor, and apply the vehicle emergency brake slightly.

Wind the cable onto the winch drum by allowing the winch to pull the vehicle across the shop floor. (See Operating Instructions)

After the cable is wound on the winch drum place the cable hook in the bumper flange.

Disengage the winch drum clutch by pulling UP on the drum clutch lever (#199). The drag brake (#198) will prevent the cable from unwinding.

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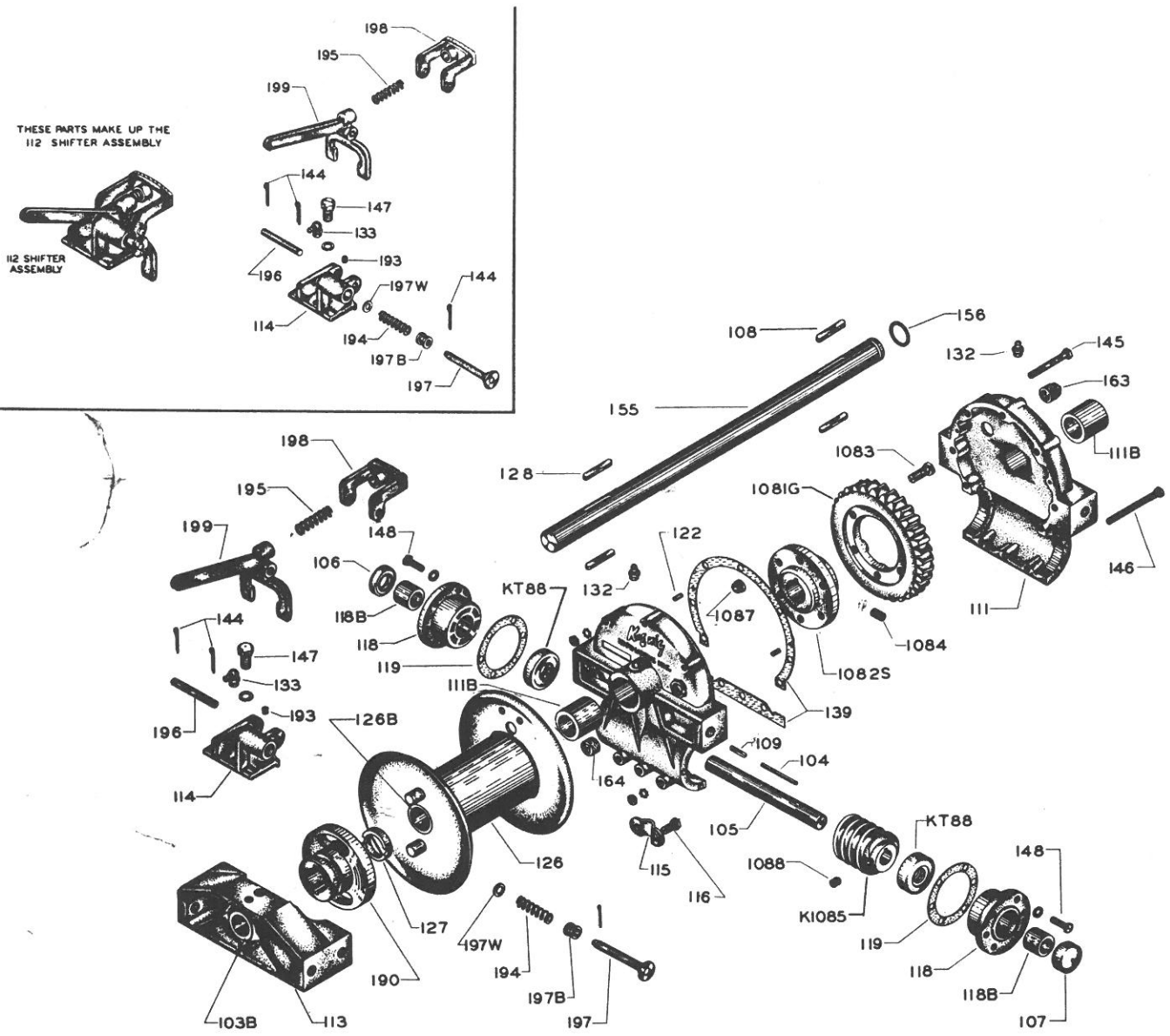
OPERATING INSTRUCTIONS
MODEL L621 KING WINCH ON LAND ROVER
SERIES II AND SERIES IIA

IMPORTANT - The winch drum clutch should always be DISENGAGED when the winch is not in use.

1. This winch is driven from the power take-off on the transfer case using the four speeds forward and one speed reverse of the Land Rover transmission. First and second gear of the transmission should be used for winching. Reverse gear is used for lowering loads and to release tension on winch cable so the winch drum clutch can be disengaged.
2. After the winch has been properly installed and lubricated according to the Installation Instructions, it is ready to use.
3. With the winch drum clutch disengaged, pull out the winch cable and attach hook to the anchor point or to object to be hoisted. Care should be taken not to allow winch cable to come in contact with sharp steel edges as this will damage or even cut the cable.
4. Re-engage winch drum clutch by pulling out on safety pin (#197). Drum clutch lever will spring down moving drum clutch toward winch drum to engage drum drive pins. Should the drum drive pins not be in proper alignment to enter slots in drum clutch, rotate winch drum slightly by hand.
5. Shift transfer case to NEUTRAL. Engage power take-off by moving the power take-off shifter knob TOWARD REAR. It is possible that the power take-off will not engage without slight rotation of the gears. Shift the Land Rover transmission to first gear and release vehicle engine clutch pedal enough to rotate the gears slightly which will allow the sliding ring on power take-off main shaft to mesh with the driving gear in transfer case.
6. Do not use excessive engine speed for pulling or hoisting. Always allow all slack to be taken up at idling speed. Sudden and high speed applying of load to the winch cable could cause damage to the cable, winch, and even to the vehicle.
7. To stop the winch - depress vehicle clutch pedal and shift transmission to NEUTRAL. To lower the load being hoisted or to release tension on the winch cable in pulling operations - shift transmission to REVERSE and release engine clutch pedal.
8. When the winching operation is completed and the vehicle is to be moved by wheel traction, disengage the power take-off by moving power take-off shifter knob FORWARD. Re-engage transfer case in range desired.
9. Remember - Be sure winch drum clutch is disengaged when winch is not in use.

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KING WINCH PARTS



PART. NO. DESCRIPTION

- 103B Bushing
- 104 Worm key
- 105 Worm shaft
- 106 Oil Seal
- 107 Plug
- 108 Spider key
- 109 Worm shaft key
- 111 Housing with bushing (2 required)
- 111B Bushing (2 required)
- 112 Shifter assembly (see note on drawing)
- 113 Drum shaft bracket
- 114 Shifter bracket
- 115 Cable clamp
- 116 Cable clamp bolt (2 required)
- 118 Bearing holder w/bushing (2 required)
- 118B Bushing (2 required)
- 119 Gasket (4 required)

PART. NO. DESCRIPTION

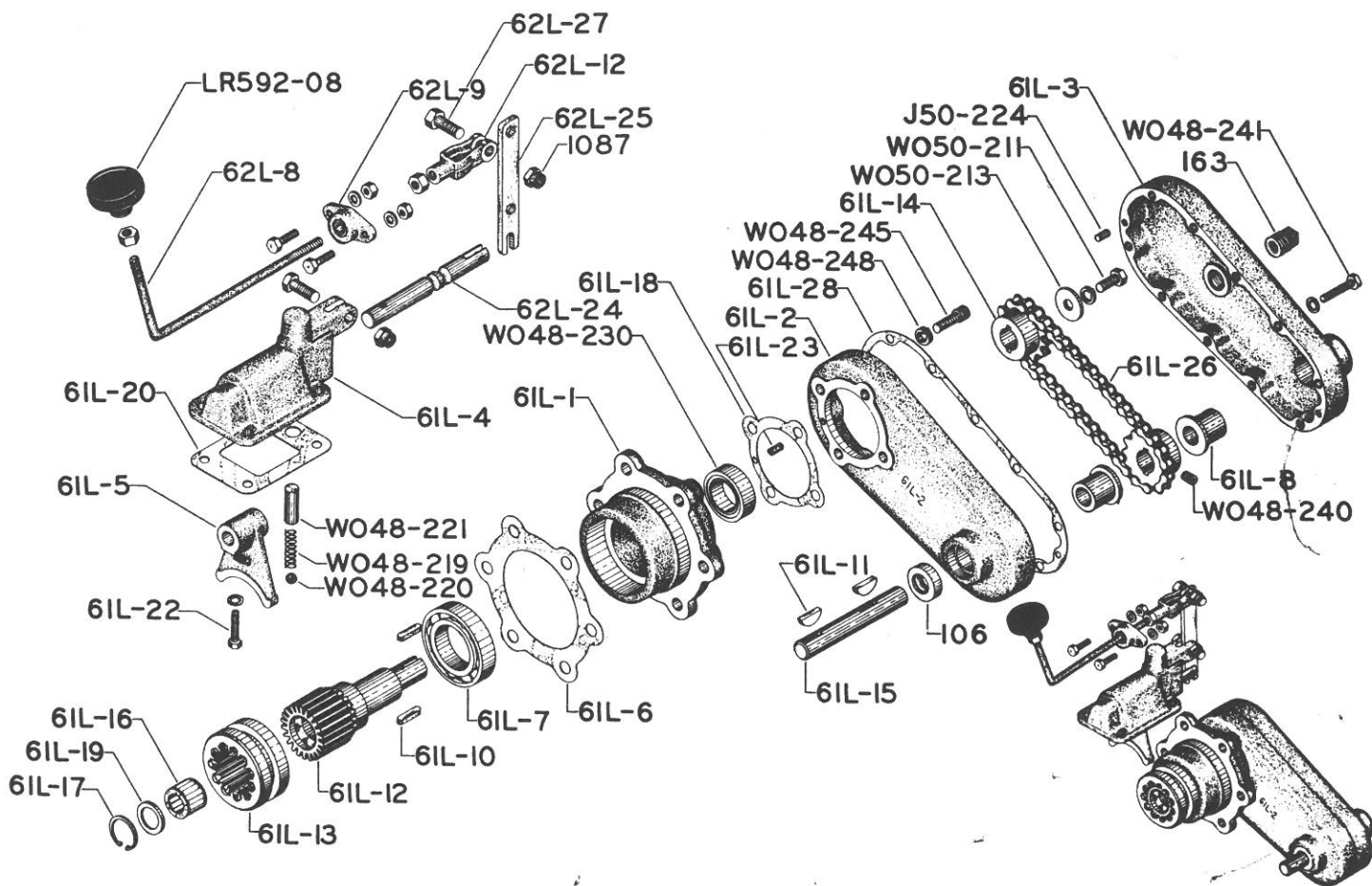
- 122 Dowel pin (2 required)
- 126 Drum w/bushings
- 126B Bushing (2 required)
- 127 Drum set collar
- 128 Clutch key (2 required)
- 132 Zerk fitting (2 required)
- 133 Zerk fitting
- 139 Gasket (2 pieces)
- 144 Cotter pin (3 required)
- 145 Housing bolt (7 required)
- 146 Housing bolt (3 required)
- 147 Shifter bracket bolt
- 148 Bearing holder bolt (12 required)
- 155 Drum shaft with keys
- 156 'O' ring
- 163 Grease plug
- 164 Countersunk grease plug

PART. NO. DESCRIPTION

- 190 Drum clutch
- 193 Set screw for 197
- 194 Spring
- 195 Brake spring
- 196 Pin
- 197 Pin
- 197B Bushing
- 197W Washer
- 198 Brake shoe
- 199 Shifter lever
- KT88 Thrust bearing (2 required)
- 1081G Right hand gear
- 1082S Spider
- 1083 Bolt (6 required)
- 1084 Set screw for spider
- K1085 Right hand worm
- 1087 Lock nut (6 required)
- 1088 Set screw for worm

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MODEL L61 POWER TAKE-OFF FOR LAND ROVER

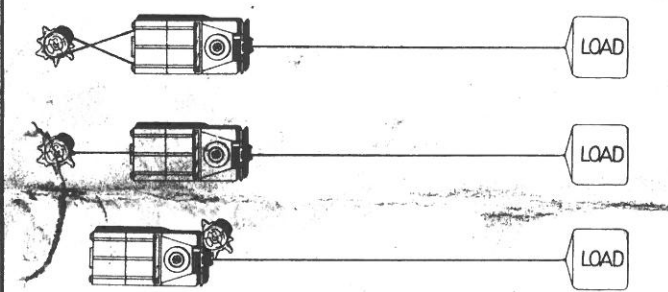


Part No.	Description	Part No.	Description
61L-1	Bearing housing	61L-28	Gasket
61L-2	Chain housing, front	62L-8	Shifter rod
61L-3	Chain housing, rear	62L-9	Shift rod support
61L-4	Shifter housing	62L-12	Clevis
61L-5	Shifter yoke	62L-24	Shifter shaft
61L-6	Gasket	62L-25	Shifter arm
61L-7	Front ball bearing	62L-27	Bolt (2 required)
61L-8	Bronze bearing (2 required)	106	Oil seal
61L-10	Key (2 required)	163	Plug
61L-11	#11 Woodruff key (2 required)	1087	Lock nut (2 required)
61L-12	Main shaft	W050-211	Bolt and lock washer
61L-13	Sliding ring	W050-213	Washer
61L-14	Sprocket (2 required)	W048-219	Spring
61L-15	Output shaft	W048-220	Ball
61L-16	Roller bearing	W048-221	Bushing
61L-17	Snap ring	J50-224	Dowel pin (2 required)
61L-18	Gasket	W048-230	Rear ball bearing
61L-19	Washer	W048-240	Set screw
61L-20	Gasket	W048-241	Bolt and lockwasher (10 required)
61L-22	Bolt and lockwasher	W048-245	Socket cap screw (4 required)
61L-23	Roll pin	W048-248	Hi-collar lock washer (4 required)
61L-26	Roller chain	LR592-08	Shift knob

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MODEL L621 KING WINCH
FOR LAND ROVER SERIES II AND IIA

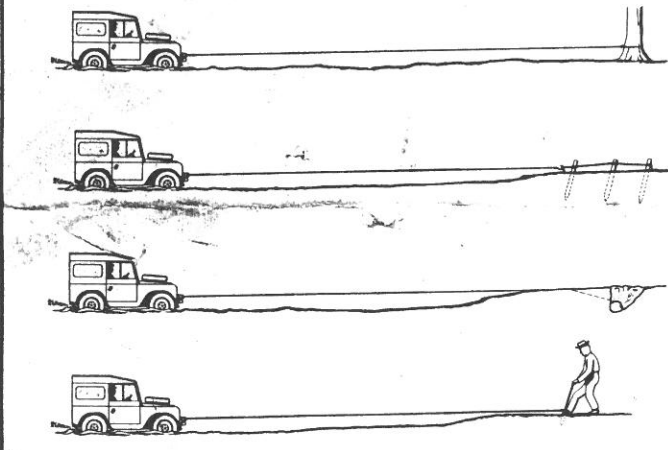
HELPFUL HINTS TO GET MORE WORK FROM YOUR KING WINCH



Chain the vehicle to an anchor.

Fasten each end of the chain to the vehicle frame after crossing ends. This allows the vehicle to center itself with the load AT ANY ANGLE AROUND THE ANCHOR.

Allow vehicle bumper to rest against anchor post or tree.

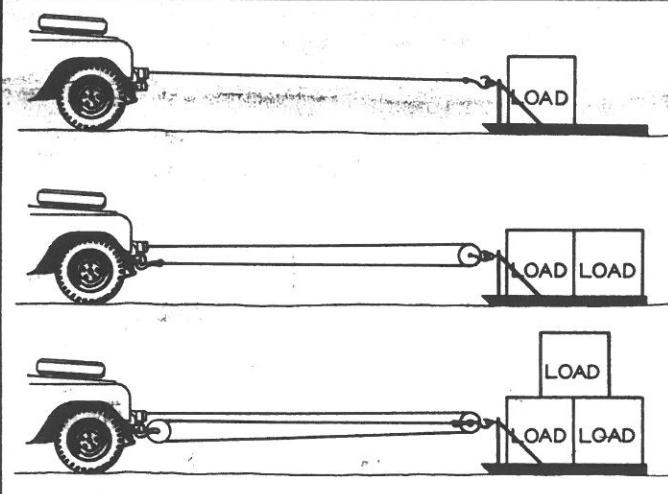


It's always nice to have a large tree handy but if you don't, you can use...

...one or more stakes driven in a line and chained together...

...or you can bury a stake or log...

...or even a sturdy shovel held back by one person will get you out of a stuck position.



The pulling and safe hoisting capacity of any power winch can be increased by doubling or tripling the line as shown in the two bottom illustrations.

Each time the winch line is brought around a sheave block and the winch cable hook is dead ended on the vehicle, anchor post, or first sheave block, the line pull is increased and line speed reduced.

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