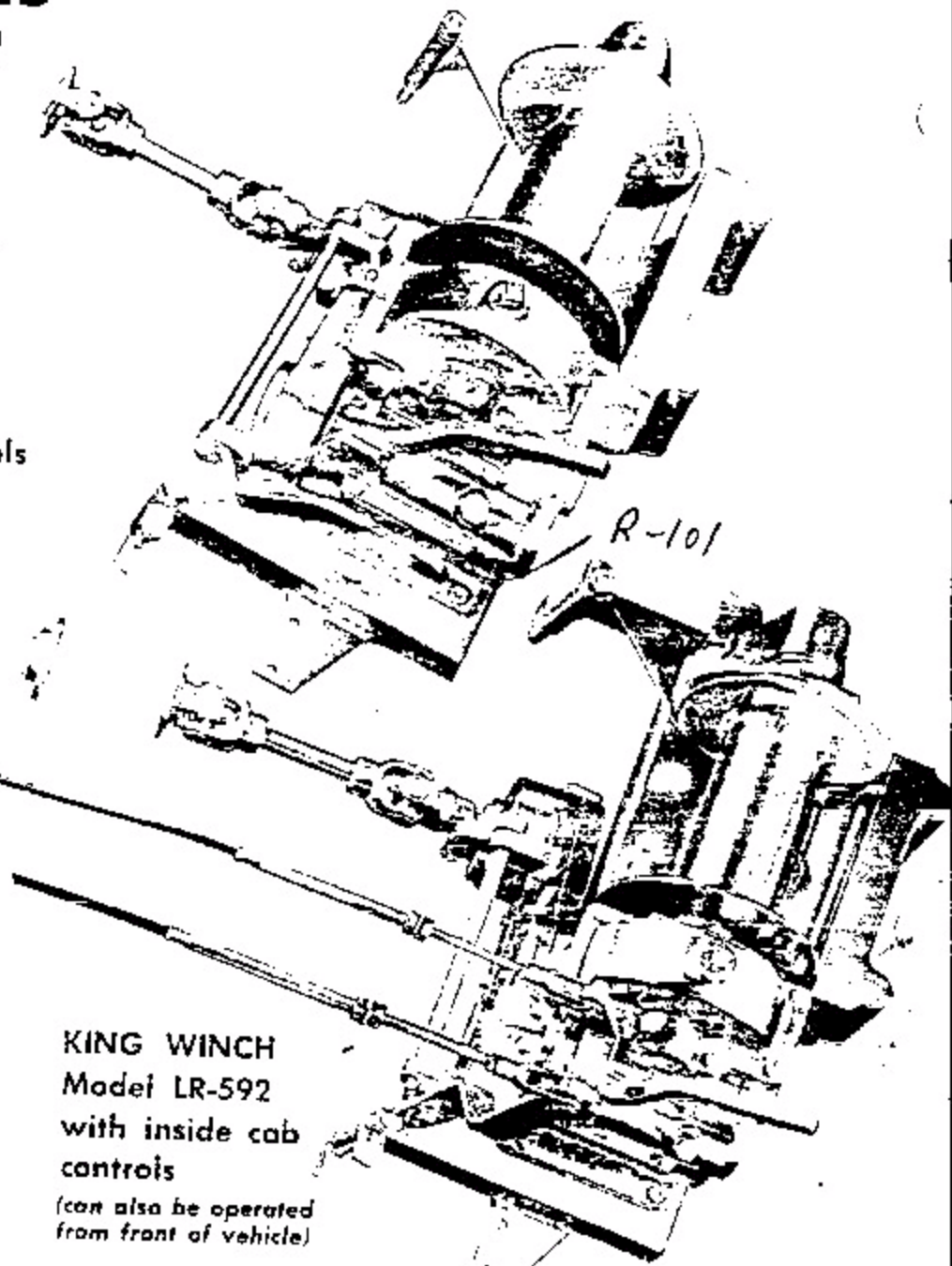
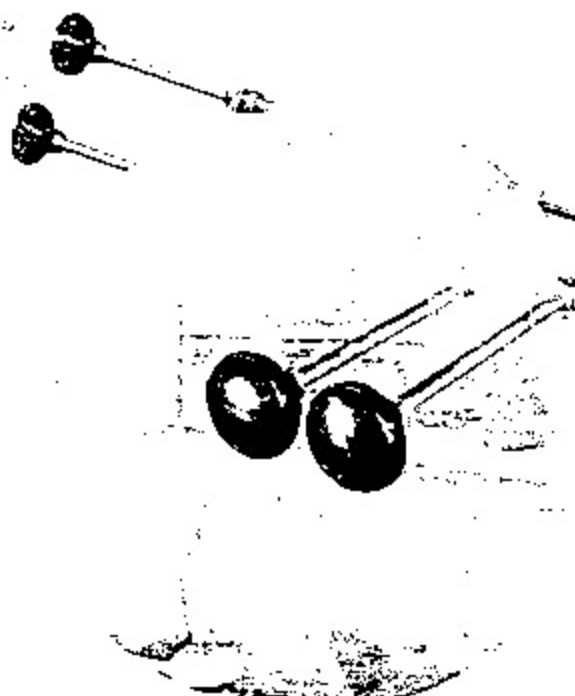


KING WINCHES

for Series II

LAND ROVER

KING WINCH
Model LR-591
with outside controls



KING WINCH
Model LR-592
with inside cab
controls

(can also be operated
from front of vehicle)

FEATURES:

- LIGHTWEIGHT**—Housing and brackets are cast from high-strength silicon aluminum.
- VIRTUALLY INDESTRUCTIBLE CABLE DRUM**—Fabricated from seamless tubing and steel flanges. Drum is free-spooling by means of forged-steel clutch.
- DEPENDABLE, LONG-WEARING GEARING**—Hardened and ground steel worm . . . nickel-bronze ring gear mounted on forged-steel spider.
- HIGH-STRENGTH SHAFTING**—Worm and drum shafts of ground and polished stress-proof steel.

SPECIFICATIONS:

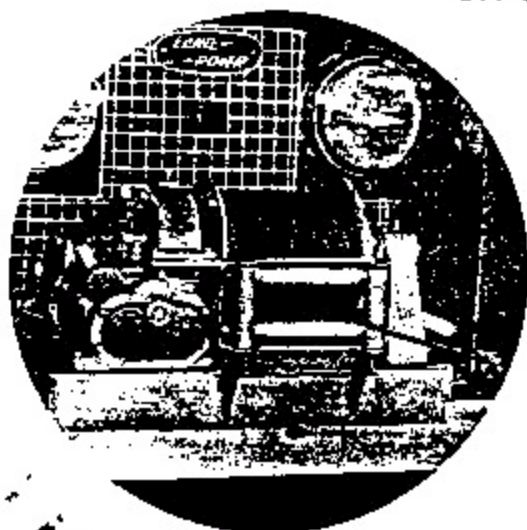
Gear ratio	36:1
Recommended cable	$\frac{3}{16}$ " 6x19 fmp. plow steel hemp center
Drum capacity	150'
Pulling capacity	8,000 lbs.
Hoisting capacity	1,500 lbs.
WEIGHTS (complete installation with cable):	
Model LR-591	163 lbs. (74 kilos)
Model LR-152	170 lbs. (77 kilos)

King Winches for Series II Land Rovers can be easily transferred from one vehicle to another with minimum effort.

SIMPLE AND COMPLETE INSTALLATION INSTRUCTIONS WITH EACH MODEL

See your nearest ROVER dealer, or write . . .

INSTALLATION INSTRUCTIONS FOR MODEL LR-591 ON SERIES II LAND ROVER

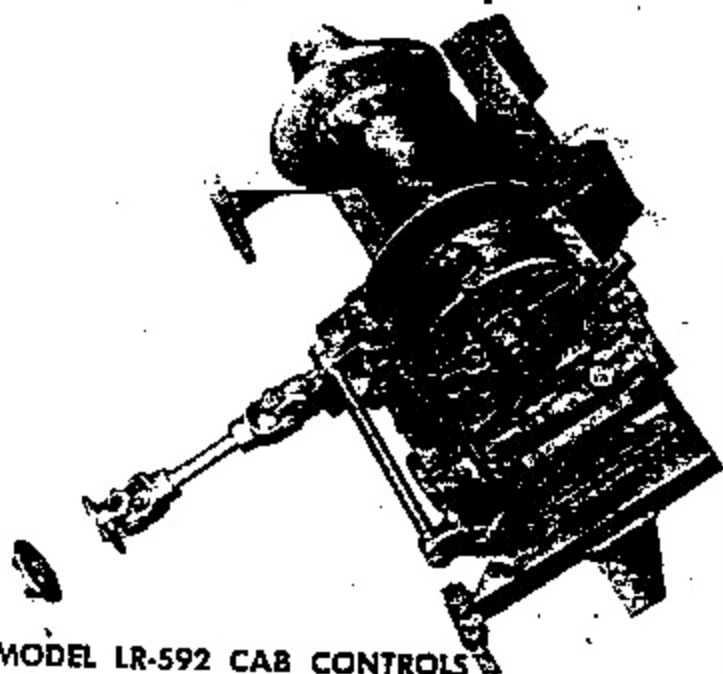


1. Remove crankshaft pulley retaining bolt and install LR58-310 motor connection flange with LR591-11 capscrew and lock-washer.
2. Put LR58-392 U-joint on winch input shaft and tighten setscrew. Secure setscrew by center punching.
3. Remove four bolts from top of bumper and set winch in position. Install $\frac{3}{8}$ " x $4\frac{1}{4}$ " bumper bolts and install clamps at rear of winch mounting platform.
4. Using existing holes in front of winch platform as a template, drill through bumper and install $\frac{3}{8}$ " x 1" N.F. capscrews.
5. Insert $\frac{3}{4}$ " shaft (LR591-06 with rear universal joint attached) in front U-joint, and bolt rear universal joint to LR58-310 motor connection flange, making sure Woodruff key is in place in front of shaft. DO NOT put setscrew in rear yoke of front U-joint.
6. **IMPORTANT** — Replace plug in top of winch cover with vented plug supplied.

7. Install the winch cable. It is advisable to place the coil of cable on a rotating drum or stand to prevent kinking. If this is not available, unwind the coil of cable by rolling it along the shop floor. Insert the end opposite hook, through 4-way rollers, and through hole in winch drum flange. Remove one of the $\frac{3}{8}$ " x $\frac{1}{8}$ " capscrews holding the cable clamp to winch drum. Loosen the other $\frac{3}{8}$ " x $\frac{1}{8}$ " capscrew until it is almost out of the winch drum. Place cable under clamp and replace capscrew. Pull cable under the clamp, back through hole in winch drum until the end of cable is even with top of the cable clamp. Tighten the capscrews in cable clamp. Cut off the capscrews smooth with inside of winch drum with a sharp chisel or hacksaw.

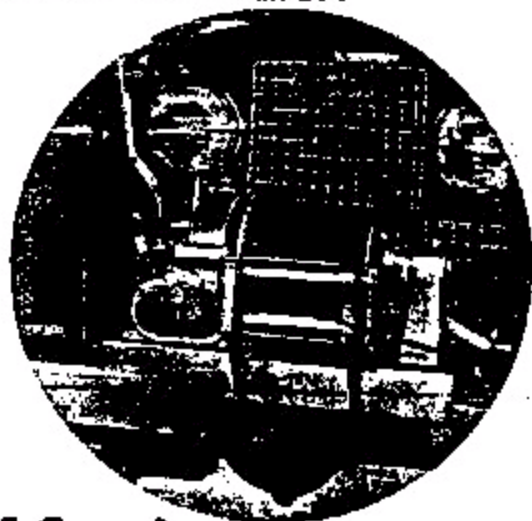
8. Wind cable in on underside of winch drum. Care should be taken to wind the cable evenly and as tightly as possible. If enough room is available, attach the hook to a solid anchor, pull the emergency brake slightly, and wind cable on the drum by allowing the winch to pull the vehicle across the shop floor. After all the cable is on the drum, place hook on the bumper flange. Disengage drum clutch by pressing down on drum clutch lever (Part 199). The drag brake will prevent cable from unwinding.

IMPORTANT — BE SURE the drum clutch is **DISENGAGED** when the winch is not being used.

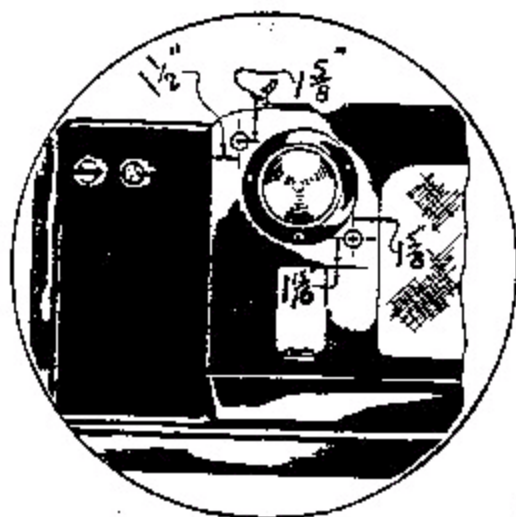


INSTALLATION INSTRUCTIONS FOR MODEL LR-592 CAB CONTROLS ON SERIES II LAND ROVER WINCH AND DRIVE INSTALLS IDENTICAL TO MODEL LR-591

1. Drill holes in front of body as shown in Sketch "A".
2. Remove air filter.
3. Using a drill $\frac{1}{2}$ " x 9" or longer, drill existing holes in voltage regulator bracket to $\frac{1}{2}$ ". (See Sketch "B".) Holes in voltage regulator bracket are used as a template to drill holes through fire wall. Hold drill parallel to top of fender. (See Sketch "C".) BE SURE all wires are cleared from where holes are to be drilled to prevent cutting.



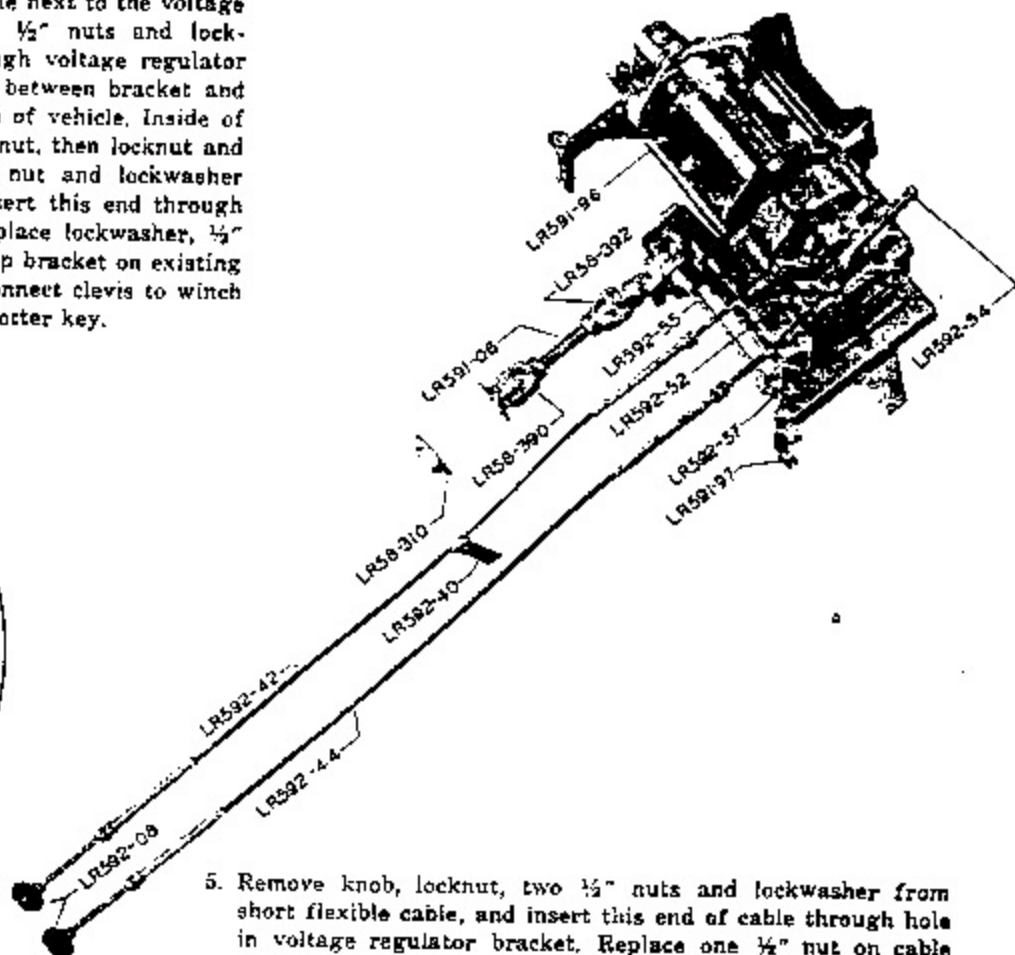
4. The longest flexible cable goes in the hole next to the voltage regulator. Remove knob, locknut, two $\frac{1}{2}$ " nuts and lockwasher. Insert this end of cable through voltage regulator bracket. Replace one $\frac{1}{2}$ " nut on cable between bracket and fire wall before inserting cable into cab of vehicle. Inside of vehicle cab, replace lockwasher and $\frac{1}{2}$ " nut, then locknut and knob. Remove clevis, locknut, one $\frac{1}{2}$ " nut and lockwasher from opposite end of flexible cable. Insert this end through lower hole in front of vehicle body. Replace lockwasher, $\frac{1}{2}$ " nut, locknut, and clevis. Place cable clamp bracket on existing bolt on battery mounting (Sketch D). Connect clevis to winch clutch handle (LR592-54) with pin and cotter key.



SKETCH A

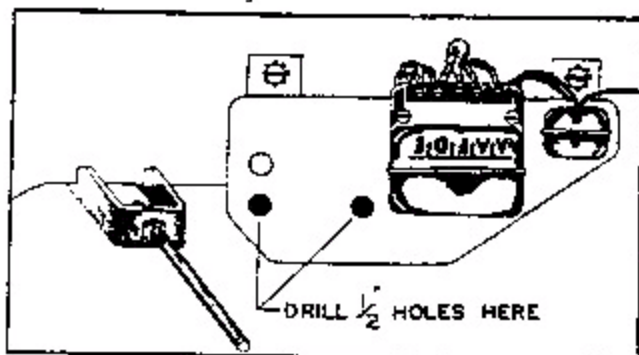


SKETCH D

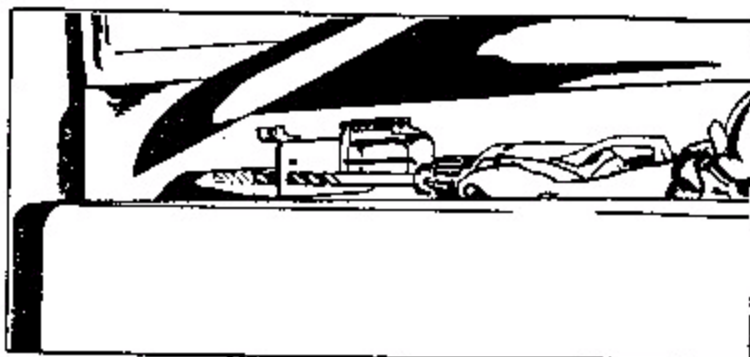


5. Remove knob, locknut, two $\frac{1}{2}$ " nuts and lockwasher from short flexible cable, and insert this end of cable through hole in voltage regulator bracket. Replace one $\frac{1}{2}$ " nut on cable between bracket and fire wall before inserting cable into cab of vehicle. Inside vehicle cab, replace lockwasher and $\frac{1}{2}$ " nut; then locknut and knob. Remove clevis, locknut, one $\frac{1}{2}$ " nut and lockwasher from opposite end of flexible cable. Insert this end through upper hole in front of vehicle body. Replace lockwasher, $\frac{1}{2}$ " nut, locknut and clevis. Bolt engine clutch shifter handle (LR592-57) to engine handle bracket (LR592-52) with $\frac{3}{8}$ " locknut. Attach clevis to engine shifter handle (LR592-57) with pin and cotter key.

6. Replace air filter.



SKETCH B



SKETCH C

OPERATING INSTRUCTIONS FOR LR-591

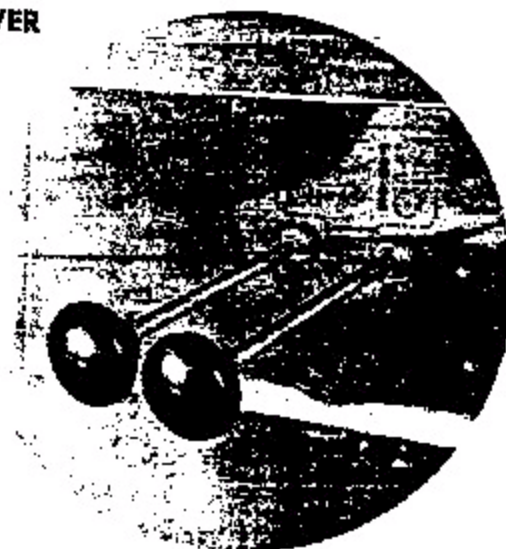
1. Before starting engine, be sure the 199 lever is locked down, and the LR55-355 handle is pulled up. THESE LEVERS SHOULD BE LEFT IN THESE POSITIONS WHENEVER WINCH IS NOT IN USE.
2. Pull the cable out and attach to whatever object is to be raised or is to be used as an anchor for pulling the vehicle. Pull out the 197 pin which will release the 199 lever, thereby engaging the clutch with the drum. Should the clutch not fully engage, rotate drum by hand until the pins enter slots in the drum clutch.

3. Place LR52-364 winch shifter handle in the center of neutral position. To engage the drive, push down on LR55-355 handle. The cable can now be pulled in by pushing down on the LR52-364 handle. To slack off the line, pull up on handle, which will reverse the winch.

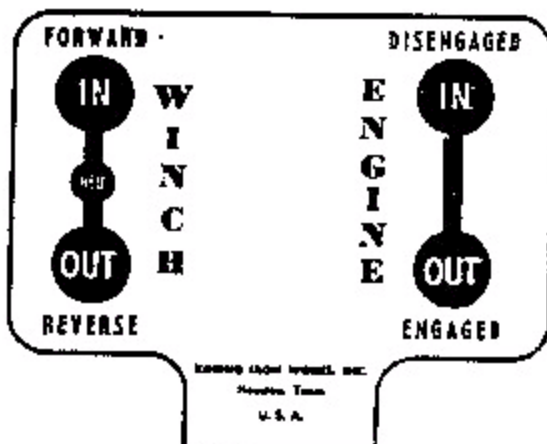
REMEMBER—When the winch is not in use the 199 Lever should be DOWN, the LR55-355 handle should be UP, and the LR52-364 handle should be in neutral. This will protect the winch against damage from accidental engagement of the drive.

OPERATING INSTRUCTIONS FOR LR-592 ON SERIES 11 LAND ROVER

1. Before starting engine, BE SURE the 199 lever is locked DOWN, the winch shifter knob is in NEUTRAL and engine shifter knob is all the way IN. THIS LEVER AND SHIFTER KNOBS SHOULD BE LEFT IN THESE POSITIONS WHENEVER WINCH IS NOT IN USE.
2. Pull the cable out and attach to whatever object to be raised or is to be used as an anchor for pulling the vehicle. Pull out the 197 pin which will release the 199 lever; thereby engaging the clutch with the drum. Should the clutch not fully engage, rotate drum by hand until the pins enter slots in drum clutch.



DECAL LOCATION

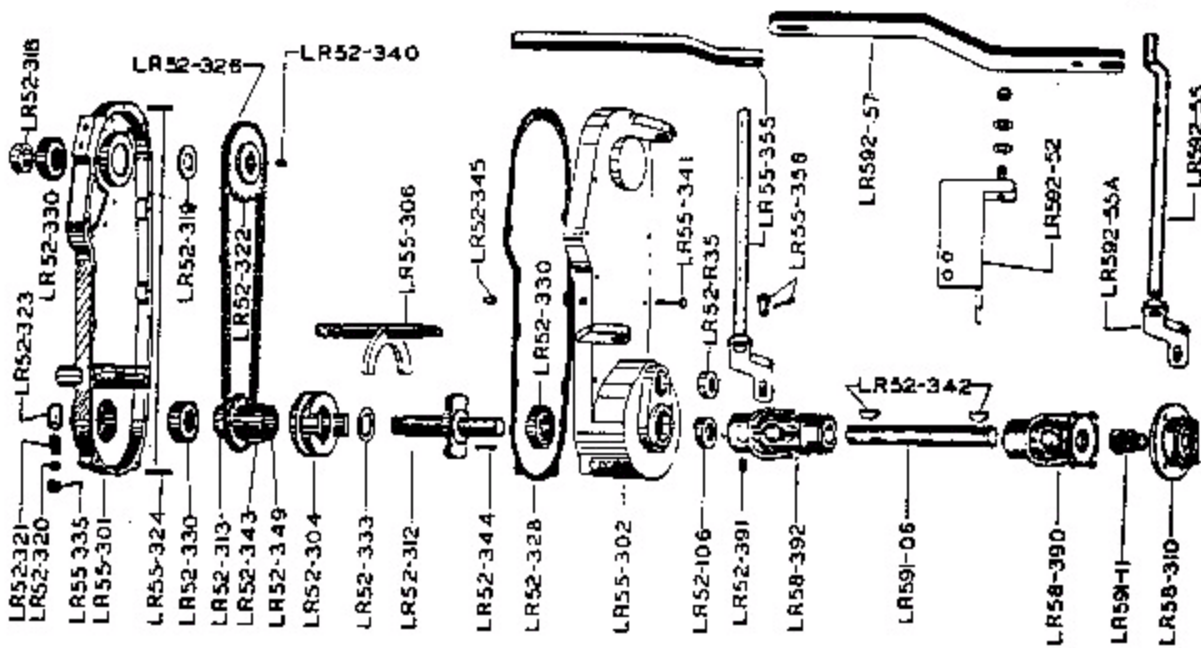
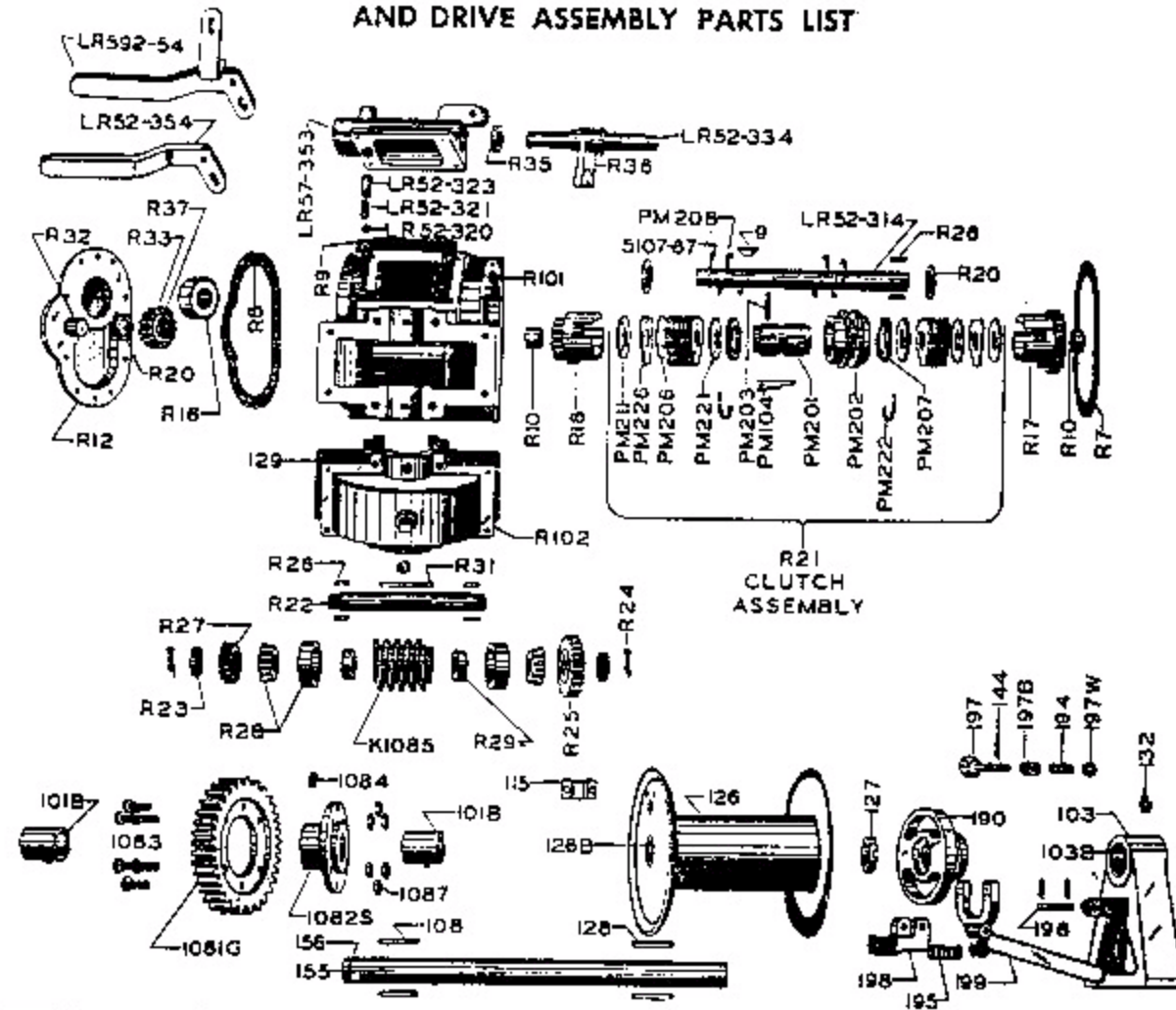


DECAL FOR DASHBOARD OF VEHICLE,
SHOWING HOW TO OPERATE CAB CONTROL

3. The rest of the winch operation is from the inside of vehicle cab. Place winch knob in neutral position. To engage the winch drive, pull out on engine shifter knob. The cable can now be pulled in by pushing in on the winch shifter knob. To slack off the line, pull out winch shifter knob, which will reverse the winch.

REMEMBER—When the winch is not in use, the 199 lever should be DOWN, the engine shifter knob should be IN, and the winch shifter knob should be in NEUTRAL POSITION. This will protect the winch against damage from accidental engagement of the drive.

MODEL LR-591 AND LR-592 KING WINCH
AND DRIVE ASSEMBLY PARTS LIST



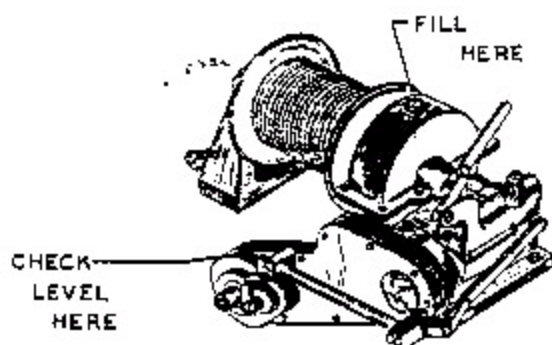
KING WINCH AND DRIVE ASSEMBLY LAND ROVER PARTS LIST

PARTS LIST

PART No.		PART No.	
R-7	Gasket	10823	Spider
R-8	Gasket	1083	Bolts—(6)
R-9	Gasket	1084	Setscrew
R-10	Gear Bushing—(2)	K-1083	Worm R.H.
R-12	Bearing Holder	1087	Locknut—(6)
R-14	Ball Bearing	LR55-301	Front housing
R-17	Gear	LR55-302	Rear housing
R-18	Gear	LR55-303	Housing assembly
R-19	Clutch Shaft Shim	LR52-304	Sliding clutch
R-20	Thrust Washer—(3)	LR55-304	Shifter yoke
R-21	Pullmore Clutch Assy.	LR58-310	Motor connection flange
R-22	Worm Shaft	LR52-312	Main clutch shaft
R-23	Locknut—(2)	LR52-313	Clutch shaft sprocket
R-24	Cotter Pin—(2)	LR52-314	Clutch shaft
R-25	Gear	LR52-318	Spacer washer
R-26	Gear Key—(6)	LR52-319	Spacer washer
R-27	Gear	LR52-320	Shifter ball (2 required)
R-28	Timken Bearing—(2)	LR52-321	Spring (2 required)
R-29	Worm Spacer—(2)	LR52-322	Sprocket
R-31	Worm Key	LR52-323	Bushing (2 required)
R-32	Idler Gear Shaft	LR55-324	Dowel Pins (2 required)
R-33	Gear	LR52-326	Roller chain
R-35	Oil Seal	LR52-328	Housing gasket
R-36	Shifter Yoke	LR52-330	Ball bearing (3 required)
R-37	Gear Bushing	LR52-332	Thrust washer
R-101	Housing	LR52-334	Shifter shaft
R-102	Housing Cover	LR52-335	Shifter plug
5107-57	Snap Ring—(2)	LR52-340	Set screw for LR52-322
PM-201	Clutch Body	LR55-341	Capscrews (12 required)
PM-202	Slipper Sleeve	LR52-342	Woodruff keys (2 required)
PM-203	Anchor Pin	LR52-343	Clutch keys (2 required)
PM-204	Inner Disc—(14)	LR52-344	Main shaft key
PM-207	Adjustment Collar—(2)	LR52-345	Plug
PM-208	Split Ring—(2)	LR52-349	Bushing (2 required)
PM-211	Thrust Plate—(2)	LR57-353	Shifter housing
PM-221	Pressure Plate—(2)	LR52-354	Winch shifter handle
PM-222	Adjustment Spring—(2)	LR55-355	Clutch shifter handle
PM-224	Outer Disc—(16)	LR55-356	Clevis pin and key
PM-104	Dogs—(6)	LR58-390	Flange U-joint (3/8-1/4)
#9	Hi-pro Keys—(8)	LR52-391	Set screw (2 required)
107B	Bushing—(2)	LR58-392	U-joint (3/8-1/4 x 3/8-1/2)
102	Bracket	LR52-104	Oil seal
103B	Bushing	LR52-433	Oil seal
104	Worm Gear Key—(2)	LR591-99	Bag of bolts
115	Cable Clamp	LR592-04	Clevis (2 required)
126	Drum	LR592-05	Clevis pin (2 required)
126B	Bushings—(2)	LR591-06	Shaft
127	Drum Set Collar	LR592-08	Knob
728	Clutch Keys—(2)	LR591-11	Crankshaft bolt
129	Gasket—1 pr.	LR592-40	Cable clamp
132	Grease Fitting—(3)	LR592-42	Winch clutch cable
144	Cotter Pins—(3)	LR592-44	Engine clutch cable
155	Drum Shaft	LR592-52	Engine handle bracket
156	O-Ring	LR592-54	Winch clutch handle
190	Drum Clutch	LR592-55	Shifter crank
194	Pin Spring	LR592-55A	Shifter crank arm
195	Brake Spring	LR592-57	Engine clutch handle
196	Pin	LR591-96	Platform and roller assembly
197	Pin	LR591-97	Hold down clamps (2 required)
197B	Bushing	LR591-93	Capscrew (ANF x 3/8) w/lockwasher (4 required)
197W	Washer	LR591-95	Capscrew (3/8NF x 4 1/4) w/nut and lockwasher (4 required)
198	Brake Shoe		
199	Lever		
1081G	Worm Gear R.H.		

WEIGHTS

Model	NET WEIGHT LESS CABLE	GROSS WEIGHT LESS CABLE	NET WEIGHT WITH CABLE	GROSS WEIGHT WITH CABLE
LR-591	137 lbs. 62 kilos	181 lbs. 82 kilos	163 lbs. 74 kilos	207 lbs. 94 kilos
LR-592	144 lbs. 65 kilos	188 lbs. 85 kilos	170 lbs. 77 kilos	214 lbs. 97 kilos

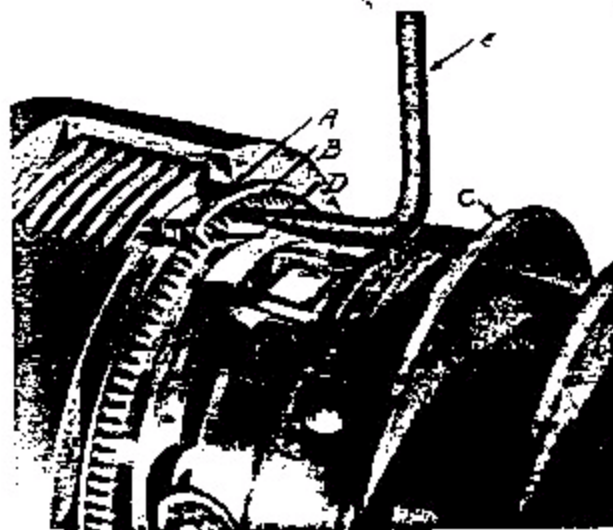


SPECIFICATIONS OF MODEL LR-591 AND LR-592

Gear Ratio — 36:1.
Recommended cable size — $\frac{1}{4}$ " 6 x 19 improved plow steel hemp center.
Drum capacity — 150-feet of $\frac{1}{4}$ " cable.
Pulling capacity — 8000-pounds.
Hoisting capacity — 1500-pounds.
Export crating dimensions — 18" x 19" x 36" 7.2 cubic feet.

IMPORTANT

- TO CHECK OIL IN WINCH AND DRIVE ASSEMBLY remove $\frac{1}{8}$ " plug shown above. (See sketch). If necessary fill with S.A.E. C90 or S.A.E. 90EP oil through top filler plug, until oil runs out of small plug hole. Replace plug.
- TO ADJUST THE CLUTCH, remove LR57-353 shifter housing and see that the shifter sleeve "C" is in neutral. Turn the clutch until the adjusting end of the PM-222 adjustment spring is within the open section of the clutch gear. Next lift Spring "A" with tool "E" resting on the sleeve, as shown. DO NOT use a screw driver. Lift spring just high enough for lip "D" to clear the teeth on collar "B". Then turn collar "B" one notch at a time, clockwise, using a small screw driver.
- REMEMBER — Lifting the PM-222 adjustment spring too high may cause breakage, or allow clutch slippage due to loss of tension of PM-222 adjustment spring on PM-207 Adjustment collar.



MODELS LR-591 AND LR-592 KING WINCHES

FOR LAND ROVER

PART No.		LIST
R-7	Gasket.....	\$.20
R-8	Gasket.....	.20
R-9	Gasket.....	.15
R-10	Gear Bushing—(2).....	.40
R-12	Bearing Holder.....	5.30
R-16	Ball Bearing.....	2.40
R-17	Gear.....	11.55
R-18	Gear.....	13.75
R-19	Clutch Shaft Shim.....	.07
R-20	Thrust Washer—(3).....	.25
R-21	Pullmore Clutch Assy.....	52.60
R-22	Worm Shaft.....	5.75
R-23	Locknut—(2).....	.50
R-24	Cotter Pin—(2).....	.02
R-25	Gear.....	7.75
R-26	Gear Key—(6).....	.10
R-27	Gear.....	6.05
R-28	Timken Bearing—(2).....	4.30
R-29	Worm Spacer—(2).....	.40
R-31	Worm Key.....	.10
R-32	Idler Gear Shaft.....	.55
R-33	Gear.....	5.15
R-35	Oil Seal.....	.65
R-36	Shifter Yoke.....	3.05
R-37	Gear Bushing.....	.40
R-101	Housing.....	38.70
R-102	Housing Cover.....	8.60
5107-87	Snap Ring—(2).....	.20
PM-201	Clutch Body.....	13.70
PM-202	Slipper Sleeve.....	9.50
PM-203	Anchor Pin.....	.45
PM-206	Inner Disc—(14).....	.45
PM-207	Adjustment Collar—(2).....	4.80
PM-208	Split Ring—(2).....	.55
PM-211	Thrust Plate—(2).....	2.10
PM-221	Pressure Plate—(2).....	2.10
PM-222	Adjustment Spring—(2).....	.45
PM-226	Outer Disc—(16).....	.45
PM-104	Dogs—(6).....	.95
#9	Hi-pro Keys—(6).....	.25
101B	Bushing—(2).....	1.85
103	Bracket.....	12.10
103B	Bushing.....	1.95
108	Worm Gear Key—(2).....	.25
115	Cable Clamp.....	.50
126	Drum.....	16.50
126B	Bushings—(2).....	.85
127	Drum Set Collar.....	1.40
128	Clutch Keys—(2).....	.25
129	Gasket—1 pr.....	.20
132	Grease Fitting—(3).....	.15
144	Cotter Pins—(3).....	.02
155	Drum Shaft.....	7.75
156	O-Ring.....	.22
190	Drum Clutch.....	7.75
194	Pin Spring.....	.25
195	Brake Spring.....	.25
196	Pin.....	.25
197	Pin.....	.75
197B	Bushing.....	.25
197W	Washer.....	.10
198	Brake Shoe.....	1.45
199	Lever.....	1.95
1081G	Worm Gear R.H.....	18.25

Koznic IRON WORKS, inc.

PARTS PRICE LIST
 MODELS LR-591 AND LR-592 KING WINCHES
 FOR LAND ROVER

PART No.		LIST
108255	Spider.....	\$ 7.00
1083	Bolts—(6).....	.25
1084	Setscrew.....	.15
K-1085	Worm R.H.....	12.45
1087	Locknut—(6).....	.10
LR55-301	Front housing.....	17.70
LR55-302	Rear housing.....	19.10
LR55-303	Housing assembly.....	38.25
LR52-304	Sliding clutch.....	7.90
LR55-306	Shifter yoke.....	3.05
LR58-310	Motor connection flange.....	6.50
LR52-312	Main clutch shaft.....	15.70
LR52-313	Clutch shaft sprocket.....	9.90
LR52-314	Clutch shaft.....	7.50
LR52-318	Spacer washer.....	.40
LR52-319	Spacer washer.....	.40
LR52-320	Shifter ball (2 required).....	.20
LR52-321	Spring (2 required).....	.15
LR52-322	Sprocket.....	6.40
LR52-323	Bushing (2 required).....	.35
LR55-324	Dowel Pins (2 required).....	.20
LR52-326	Roller chain.....	4.20
LR52-328	Housing gasket.....	.35
LR52-330	Ball bearing (3 required).....	2.40
LR52-333	Thrust washer.....	.25
LR52-334	Shifter shaft.....	3.50
LR52-335	Shifter plug.....	.10
LR52-340	Set screw for LR52-322.....	.10
LR55-341	Capscrews (12 required).....	.10
LR52-342	Woodruff keys (2 required).....	.30
LR52-343	Clutch keys (2 required).....	.20
LR52-344	Main shaft key.....	.20
LR52-345	Plug.....	.10
LR52-349	Bushing (2 required).....	.65
LR57-353	Shifter housing.....	6.80
LR52-354	Winch shifter handle.....	1.85
LR55-355	Clutch shifter handle.....	4.70
LR55-356	Clevis pin and key.....	.25
LR58-390	Flange U-joint (3/8-1/4).....	10.75
LR52-391	Set screw (2 required).....	.10
LR58-392	U-joint (3/8-3/4 x 3/8-1/4).....	10.75
LR52-106	Off seal.....	1.00
LR52-R35	Oil seal.....	.65
LR591-99	Bag of bolts.....	5.25
LR592-04	Clevis (2 required).....	.80
LR592-05	Clevis pin (2 required).....	.10
LR591-06	Shaft.....	2.50
LR592-08	Knob.....	.72
LR591-11	Crankshaft bolt.....	.95
LR592-40	Cable clamp.....	1.25
LR592-42	Winch clutch cable.....	6.00
LR592-44	Engine clutch cable.....	6.00
LR592-52	Engine handle bracket.....	3.45
LR592-54	Winch clutch handle.....	3.00
LR592-55	Shifter crank.....	1.50
LR592-55A	Shifter crank arm.....	3.75
LR592-57	Engine clutch handle.....	2.25
LR591-96	Platform and roller assembly.....	48.00
LR591-97	Hold down clamps (2 required).....	2.25
LR591-93	Capscrew (1/2 NF x 3/4) w/lockwasher (4 required).....	.05
LR591-95	Capscrew (3/8 NF x 4/4) w/nut and lockwasher (4 required).....	.40