



# **Fitting Instructions and Parts List**

**Part No.  
RTC 7013  
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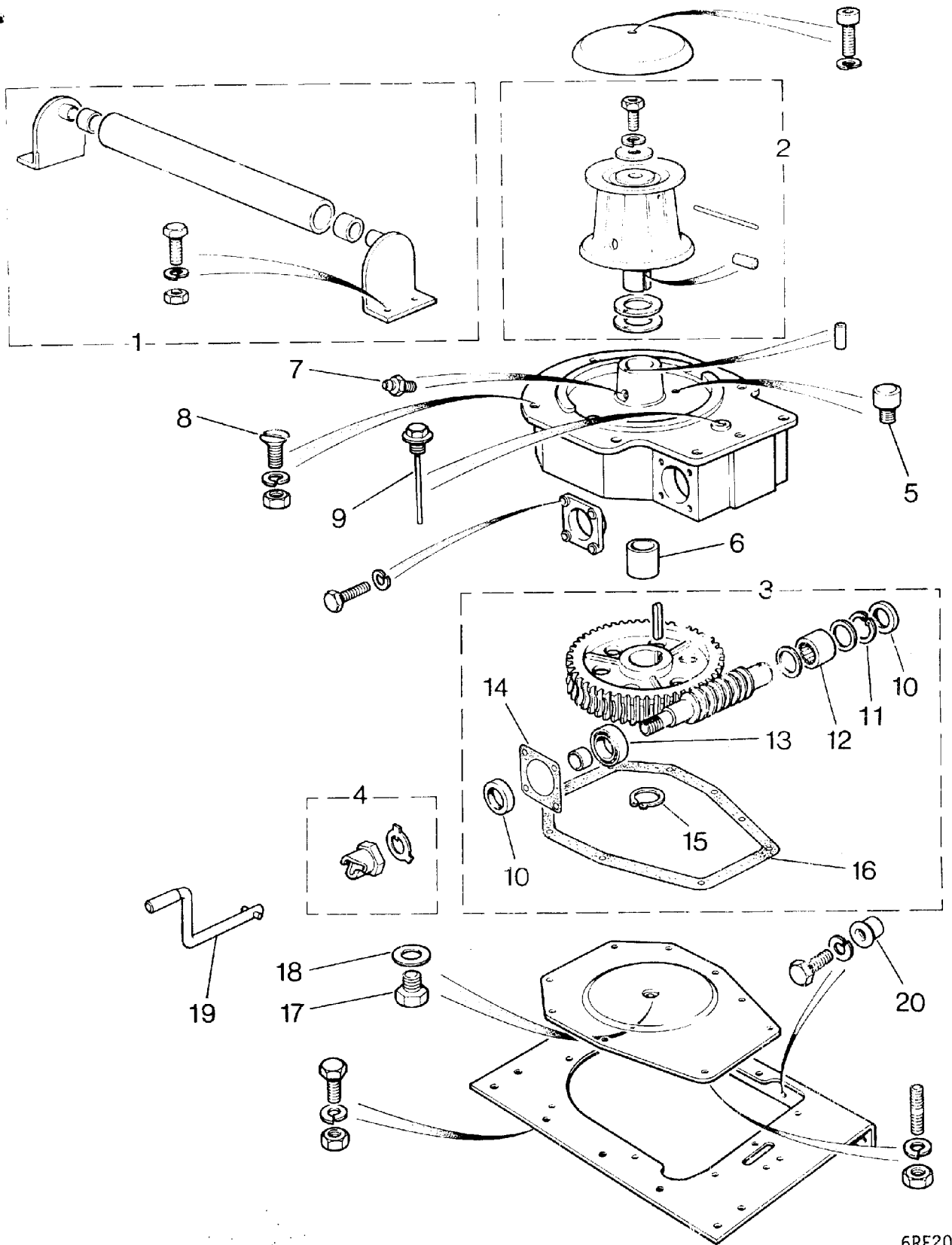
## **FRONT RECOVERY CAPSTAN WINCH**

**Kit Part No. GLR 101**

**for the**

**LAND-ROVER**

**SERIES II IIA and III**



6RE20

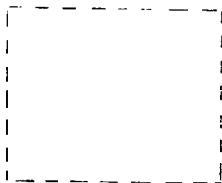
Fig.1

The Kit RTC8001 comprises all parts illustrated above and those on page 4.

PARTS LIST

Plate Ref.	Description	Qty.	Part No.	Remarks
1	Rope guide bar kit	1	RTC7004	
2	Bollard and shaft kit	1	RTC7000	
3	Worm and wheel kit	1	RTC7001	
4	Starting dog kit	1	RTC7003	
5	Breather cup for housing	1	543688	
6	Bush for bollard shaft	2	219161	
7	Grease nipple for bollard shaft	1	219696	
8	Screw (winch to support plate)	9	252120	
9	Dip stick	1	219179	
10	Oil seal for worm shaft	2	219624	
11	Circlip for worm shaft	1	235647	
12	Roller bearing for worm shaft	1	235646	
13	Bearing for worm shaft	1	219088	
14	Joint washer for oil seal retainer	1	RTC7002	
15	Circlip for worm wheel	1	219691	
16	Joint washer for cover plate	1	219116	
17	Drain plug	1	536577	
18	Washer for drain plug	1	243959	
19	Starting handle	1	234402	
20	Riv-nut (5/16" BSF) support plate to cross-member	5	268703	

Note: Parts not carrying a plate reference are NSS (not supplied separately).



Encloses parts which form an assembly or kit.

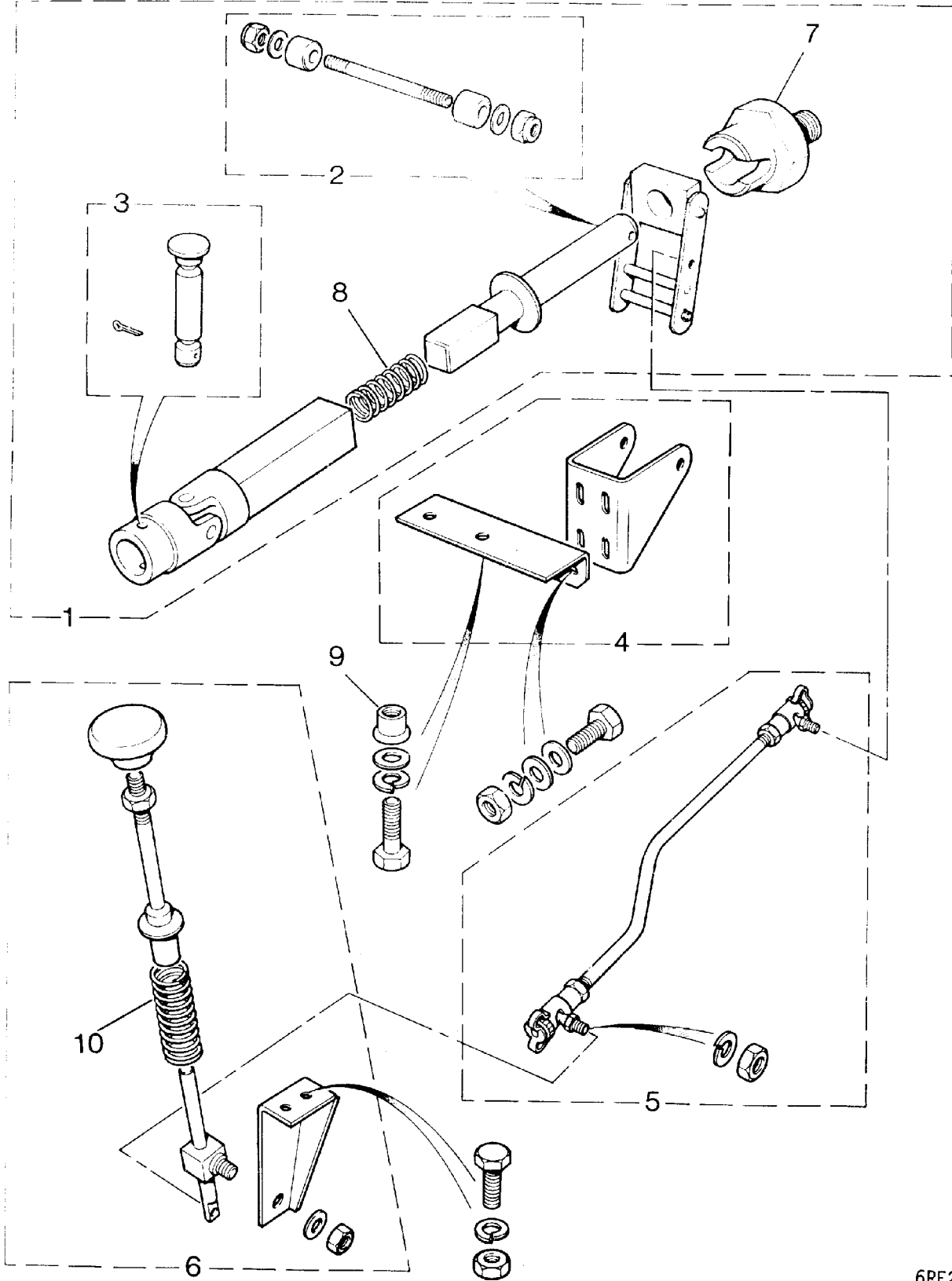


Fig.2

The Kit RTC8001 comprises all parts illustrated above and those on page 2.

### PARTS LIST

Plate Ref.	Description	Qty.	Part No.	Remarks
1	Drive shaft and coupling kit	1	RTC7006	
2	Drive coupling kit	1	RTC7008	
3	Shear pin kit	1	RTC7005	
4	Support bracket kit	1	RTC7009	
5	Selector linkage kit	1	RTC7012	
6	Selector lever kit	1	RTC7010	
7	Engine starting dog	1	RTC7015	3 bearing engines
8	Drive shaft spring	1	RTC7007	
9	Riv-nut ( 1/4" UNF) fixing selector support bracket to crossmember	2	514929	
10	Selector lever spring	1	RTC7011	
11	Engine starting dog	1	RRC1582	5 bearing engines

SEPT. 1983

Note: Parts not carrying a plate reference are NSS (not supplied separately).



Encloses parts which form an assembly or kit.

-6-  
FITTING INSTRUCTIONS

<p>1. Discard front apron panel. Mark and drill one hole.</p>	<p>2. Position riv-nut in crossmember and expand.</p>	<p>3. Fit support plate with one bolt. Mark and drill remaining 9 holes.</p>

Countersunk Fixings (9)

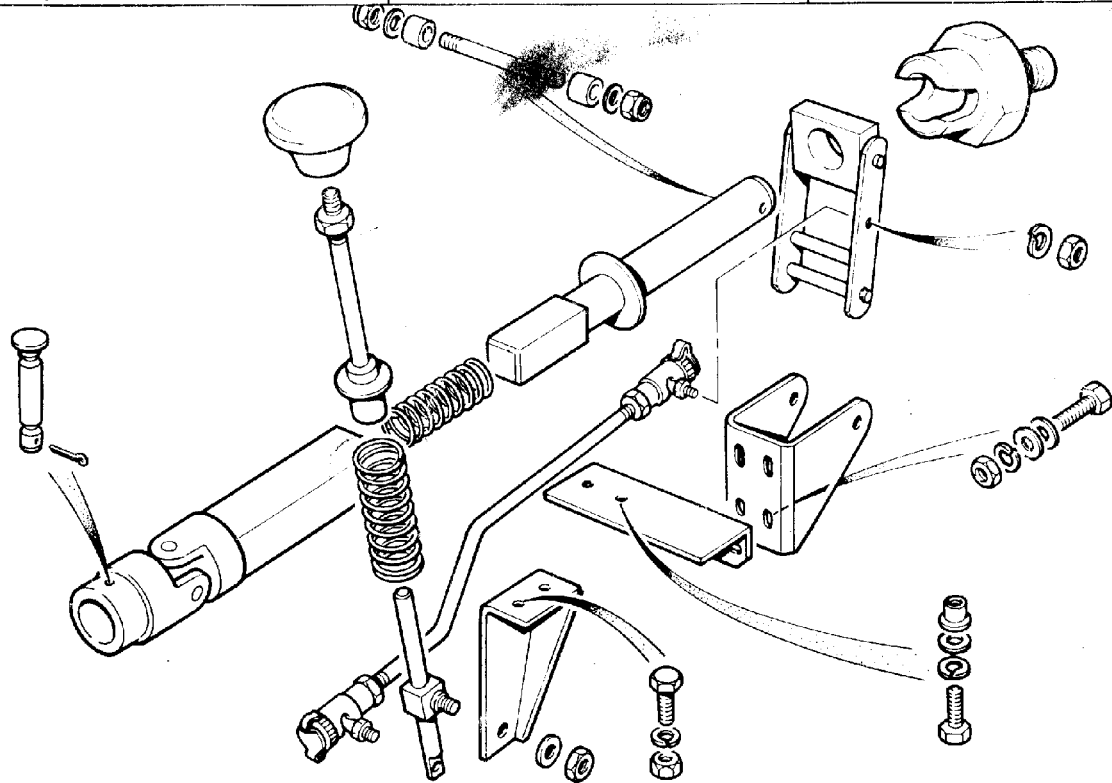
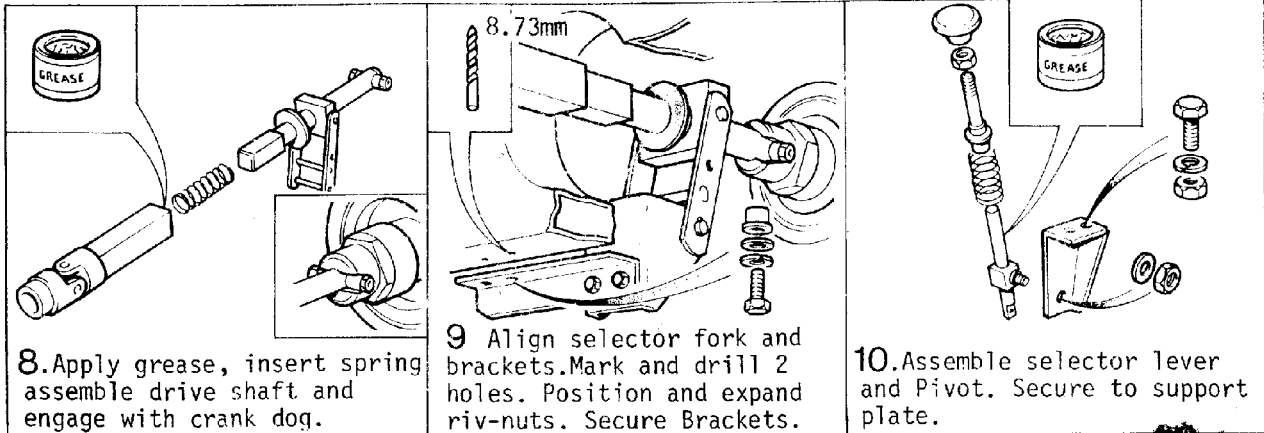
UNF Fixings (7)

BSF Fixings (5)

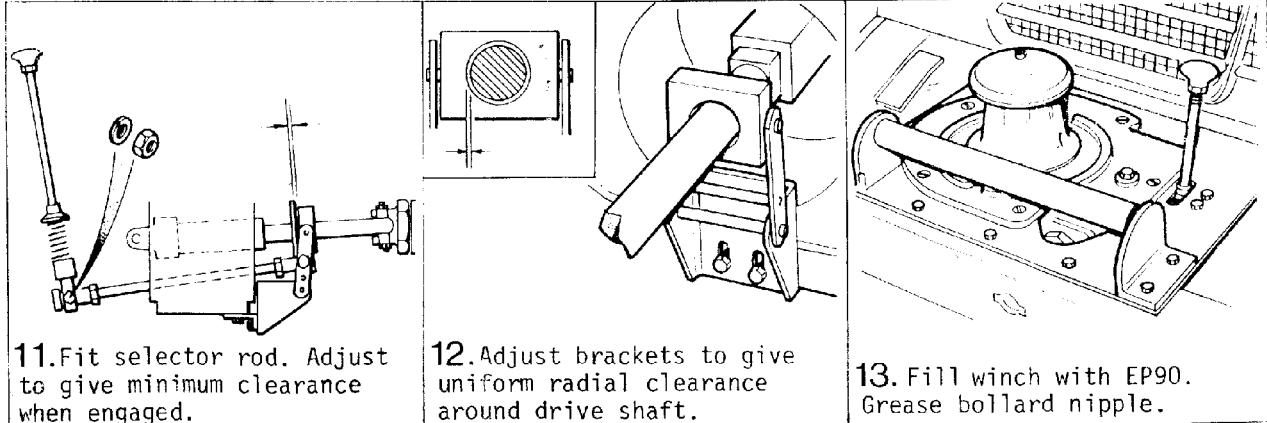
7. Secure support plate and rope guide brackets to bumper and crossmember. Fit Winch to support plate.

<p>4. Fit 4 other riv-nuts to crossmember.</p>	<p>5. From beneath the vehicle cut out radiator cowl.</p>	<p>6. Fit new starter dog to engine.</p>

FITTING INSTRUCTIONS



14. General arrangement.



OPERATING INSTRUCTIONS

1. Engage winch drive by depressing knob to RH side of winch and pulling towards the front of the vehicle - this should only be attempted with the engine stopped. If the drive does not engage, the winch worm should be turned with the starting handle until engagement occurs.
2. Once the winch is engaged start the engine and increase the engine speed to between 750 and 1000 r.p.m. using the hand throttle. This speed is slightly above tick-over.
3. Feed the winch rope between the guide roller and the bumper and coil it in an anti-clockwise direction around the bollard - three turns will be sufficient.
4. Stand about 6 - 10 feet away from the Land-Rover applying a gentle pull to the end of the rope coming off the bollard. When using a nylon rope only a minimal amount of pull on the loose end is required.
5. If during the winch operation the bollard stops turning and the drive shaft can still be seen to be rotating then the brass overload shear pin in the drive line has broken. To replace the pin, stop the engine and then from underneath the winch check that the shear pin which is on the worm shaft input coupling, has broken. Rotate the worm shaft by hand until the drilled hole in the coupling and the drilled hole in the worm shaft are in line, knock out the remaining portion of shear pin and replace with a new one, secure the pin by means of a split pin or a twist of wire.
6. Release the load from the winch rope by flicking the rope off the bollard whilst standing well clear - because of the considerable stretch in a nylon rope it can be dangerous to stand too close to the winch when releasing the load.
7. To obtain maximum performance, the winch should be run in before a large line pull is attempted - a single line pull of a few hundred lbf for a length of 60/70 ft is usually enough to bed in the winch gears.
8. If it is required to turn the engine with the starting handle then it is necessary to change the brass shear pin for a  $\frac{1}{4}$ " dia. steel bolt with nut. The reason for this is that more torque is required to start the engine than to drive the winch. Always remove the steel bolt after use and replace with the correct shear pin.
9. When winching other vehicles or objects it may be necessary to fix the winching vehicle. This can be done by means of Ground Anchors which chock the front wheels or proprietary ground anchors fixed in the ground at a suitable point and connected to the Land-Rover towing attachment with a cable or chain. It is also possible to use trees or other vehicles to anchor the Land-Rover and here the operator must use his discretion because each winching operation produces its own set of circumstances.
10. Under no circumstances should the operator wrap the loose end of the winch rope around any part of his body, as severe injury can be caused if the bollard drive pin shears.



MAINTENANCE

1. Lubricate the telescopic drive-shaft and cross-pin rollers occasionally by oil can.
2. Check oil level and grease bollard shaft after every two hours operation.
3. Change oil after every eight hours operation.

Oil Grade - EP90  
Capacity - 2 litres (3½ pints)

WINCH ACCESSORIES

<u>Description</u>		<u>Part No.</u>
Polypropylene rope	Length 50 ft. Diam 24 mm. 3 strand hawserlaid staple spun complete with hook.	RTC7030
Hook	Galvanised 1½" diam eye. 8 tons minimum breaking load.	RTC7031
Shackle	Galvanised and conforming to B.S.3032. ½" diameter pin. 8 tons minimum breaking load.	RTC7032
Hand throttle kits	Series 111 2.6 Petrol Series 111 2¼ Petrol Series 111 2¼ Petrol	607656 90607682 90607683



For Series 11A vehicles order individual items as detailed in  
Optional Equipment parts catalogue.

Hand throttles are standard equipment on diesel vehicles.