

INTRODUCTION

FOR

ATV WINCH

LDS3000-A/LDS3500-A/LDS4000-A
LDS4500-A/LDS5000-A/LDS6000-A

INTRODUCTION

Thank you for purchasing a 3000lbs/3500lbs/4000lbs winch from our company. Please read and understand this owner's manual prior to installing and using your winch.

GENERAL DESCRIPTION

Each winch is equipped with a permanent magnet motor and is designed for intermittent duty general use. The winches are not designed to be used in industrial or hoisting applications and the manufacturer does not warrant it to be suitable for such use. Free spool clutch is operated by a pull and turn knob which disengages the gearbox to allow the wire rope to be pulled out without using electric power. A tension plate reduces backlash and snarling when pulling out the wire rope.

GENERAL SAFETY INFORMATION

1. Never lift people or hoist loads over people. Do not lift items vertically. The winch was designed for horizontal use only.
2. Do not overload. For loads over 1000lbs/1250lbs/1500lbs, we recommend the use of the optional pulley block to double line the wire rope.
3. Do not attempt to prolonged pulls at heavy loads. The electric winch is designed for intermittent use only, and should not be used in a constant duty application. The duration of the pulling job should be kept

as short as possible. If the winch motor becomes very hot to the touch, stop the winch and let it to cool down for several minutes. Never pull for more than one minute at or near the rated load.

4. Never winch with less than 5 turns of wire rope around the winch drum since the wire rope end fastener may not withstand full load.

5. Avoid continuous pull from extreme angles as this will cause the wire rope to pile up on one end of the drum. This can jam the wire rope in the winch, causing damage to the rope or the winch.

6. Be sure the input voltage between the terminals of motor is always DC 12V in order to reach the max rated line pull during the operation, and please note that it only can reach the max rated line pull by first layer of cable around the drum when pulling the loads.

7. Never hook the wire rope back to itself because you could damage the wire rope. Use a nylon sling.

8. Be sure the winch mounted on the vehicle or other objective before operation.

9. When moving a load, slowly take up the wire rope slack until it becomes taut. Stop, recheck all winching connections. Be sure the hook is properly seated. If a nylon sling is used, check the attachment to the load.

10. It is a good idea to lay a heavy blanket or jacket over the wire rope near the hook end when pulling heavy loads. If a wire rope failure should occur, the cloth will act as a damper and help prevent the rope from

whipping..

11. Do not move your vehicle to assist the winch in pulling the load. The combination of the winch and vehicle pulling together could overload the wire rope and the winch.
12. Never work on or around the winch drum when winch is under load (keep away the winch at least 1.5M during the operation).
13. Do not cross over or under the wire rope when the winch is under load.
14. When using your winch to move a load, place the vehicle transmission in neutral, set vehicle brake, and chock all wheels. The vehicle engine should be running during winch operation. If considerable winching is performed with the engine off, the battery may be too weak to restart the engine.
15. Never release free spool clutch when there is a load on the winch.
16. After operation, please release the load. Do not allow the cable tight any more.
17. Always stand clear of wire rope, hook and winch.
18. Inspect wire rope and equipment frequently, a frayed wire rope with broken strands should be replaced immediately. Use only factory approved switches, remote controls and accessories, use heavy leather gloves when handling wire rope. Do not let wire rope slide through your

hands.

19. Keep clear of winch, taut wire rope and hook when operation winch, never put your finger through the hook. If your finger should become trapped in the hook, you could lose your finger. Always use the safe strap when guiding the wire rope in or out.
20. After operated the winch, re-spool the cable around the drum tightly.
21. Do not operate winch when under the influence of drugs, alcohol or medication. Always stay alert during the operation.
22. Use eye and ear protection, always wear impact safety goggles, wear a full face shield if you are producing metal filings or wood chips, wear a dust mask or respirator when working around metal, wood, and chemical dusts and mists.
23. Do not machine or weld any part of the winch. Such alterations may weaken the structural integrity of the winch and could void your warranty.
24. Make some maintenance frequently for the winch.

INSTALLATION

Correct installation of your winch is required for proper operation.

1. Mount the winch on the vehicle or other object using screw M8 × 30, lockwasher, washer-flat offered. Other similar screw can be instead. **WARNING:** This winch must be mounted with the wire rope in the

underwind direction. Improper mounting could damage your winch and void your warranty.

2. Route the two couple of lines from the switch to the motor and battery respectively. Connect the red line to the positive(+) terminal and the green(or black) line to the negative(-) terminal of the 12V battery. Connect the rest two line to the terminal on the motor of the electric winch

3. Check the direction of the drum turning. Pull and turn the clutch knob to the "OFF" position(drum can be turning free), pull out the cable from the drum then engaged the clutch by turning the knob to the "IN" position. Push the "cable in" button on the switch, if the cable is re-spooling then it is right way for connected. Otherwise please change the line connected the motor, and repeat the abovementioned operate.

OPERATION

1. Pull and turn the clutch knob to the "Off" position, so the drum can turn free by hand.

2. Grab the cable assembly hook and pull the cable to the desired length by handsaver bar. Then attach to item being pulled **WARNING: check that there are at least five turns of wire rope left on the drum before operation.**

3. Engaged the clutch by turning the clutch knob to the "in"

position. **WARNING: clutch must be fully engaged before winching, never engage clutch knob while drum is turning, the clutch knob has been adjusted and permanently locked in place with a thread locking compound at the factory. Do not attempt to re-adjust the knob.**

4. Push and hold the "cable in" button on the handheld and the cable was re-spooled.

Push and hold the "cable out" button to reverse directions, wait until the motor stops before reversing directions.

Re-spooling cable after finished operation.

MAINTENANCE

1. Periodically check tightness of mounting bolts and electrical connections. Remove all the dirt of corrosion that may have accumulated on the electrical connections.

2. Do not attempt to disassembly the gearbox. Disassembly will void warranty. Repairs should be done manufacturer or authorized repaired center.

3. The gearbox having been lubricated using high temperature lithium grease at the factory.

No internal lubrication is required.

REPLACE THE WIRE ROPE

1. Engaged the clutch by turning the clutch knob to the "in" position.

2. When inserting the rope into the drum, insert it into the correct end of the hole provided, tighten the set screw securely.

3. Operate the winch and re-spool the wire rope around the drum.

CAUTION: always replace damaged wire rope with manufacture's identical replacement part.

LDS3000-A

Performance specifications

Single line rated pull	3000lbs(1363kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With 1.2hp output
Cable length	φ4.8mm×15.2m
mounting dimensions	76mm×124mm
overall dimensions	330x120x117mm
brake	mechanical brake
fairlead	roller fairlead
drum length	80mm

performance data

Line pull(lbs/kgs)	Line speed(FT/min,M/min)	Motor current(Amps)	Pull by layer layer/lbs(kgs)
0	9.5(2.9)	11	1/3000(1361)
500	9.2(2.8)	30	2/2640(1198)
1000	8.5(2.6)	40	3/2320(1052)
1500	7.9(2.4)	60	4/2040(925)
2000	7.2(2.2)	70	
2500	6.6(2.0)	80	
3000	5.2(1.6)	95	

LDS3500-A

Performance specifications

Single line rated pull	3500lbs(1590kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With 1.2hp output
Cable length	ø5.5mm×12.2m
mounting dimensions	76mm×124mm
overall dimensions	330x120x117mm
brake	mechanical brake
fairlead	roller fairlead
drum length	80mm

performance data

Line pull(lbs/kgs)	Line speed(FT/min,M/min)	Motor current(Amps)	Pull by layer layer/lbs(kgs)
0	9.5(2.9)	11	1/3500(1590)
500	9.2(2.8)	30	2/2640(1198)
1000	8.5(2.6)	40	3/2320(1052)
1500	7.9(2.4)	60	4/2040(925)
2000	7.2(2.2)	70	
2500	6.6(2.0)	80	
3000	5.2(1.6)	95	
3500	4.6(1.4)	180	

LDS4000-A

Performance specifications

Single line rated pull	4000lbs(1818kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With 1.3hp output
Cable length	ø5.5mm×12.2m
mounting dimensions	76mm×124mm
overall dimensions	330x120x117mm
brake	mechanical brake
fairlead	roller fairlead
drum length	80mm

performance data

Line pull(lbs/kgs)	Line speed(FT/min,M/min)	Motor current(Amps)	Pull by layer layer/lbs(kgs)
0	19.8(6.0)	11	1/4000(1818)
500	14.8(4.5)	30	2/3520(1600)
1000	10.9(3.3)	40	3/3098(1408)
1500	9.2(2.8)	60	4/2726(1239)
2000	7.6(2.3)	70	
2500	6.9(2.1)	80	
3000	5.9(1.8)	95	
3500	5.3(1.6)	180	
4000	3.6(1.1)	310	

LDS4500-A(1)

Performance specifications

Single line rated pull	4500lbs(2045kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With1.3hp output
Cable length	∅ 5.5mmx15.2m
Mounting dimensions	76mmx124mm
Overall dimensions	351x120x117mm
Brake	mechanical brake
Fairlead	roller fairlead
Drum length	80mm

Pull,Speed,Amperes,Volts(First Layer)

Line Pull(lbs/kg)	Line speed (FT/min,M/min)	Motor (Amps)	Pull by layer layer/lbs(kgs)
0	18.63(5.68)	24	1/4500(2045)
1000(454)	14.13(4.31)	86	2/3600(1636)
2000(909)	12.33(3.76)	155	3/3130(1423)
3000(1363)	7.25(2.21)	229	4/2745(1248)
4000(1818)	4.1(1.25)	256	
4500(2045)	2.98(0.91)	278	

LDS5000-A(1)

Performance specifications

Single line rated pull	5000lbs(2268kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With1.5hp output
Cable length	∅ 6.3mmx15.2m
Mounting dimensions	76mmx124mm
Overall dimensions	351x120x117mm
Brake	mechanical brake
Fairlead	roller fairlead
Drum length	80mm

Pull,Speed,Amperes,Volts(First Layer)

Line Pull(lbs/kg)	Line speed (FT/min,M/min)	Motor (Amps)	Pull by layer layer/lbs(kgs)
0	20.5(6.2)	30	1/5000(2268)
1000(454)	16.1(4.9)	83	2/4080(1851)
2000(907)	12.8(3.9)	136	3/3450(1565)
3000(1361)	10.7(3.3)	168	4/2985(1354)
4000(1814)	8.6(2.6)	232	
5000(2268)	6.1(1.9)	296	

LDS4500-A(2)

Performance specifications

Single line rated pull	4500lbs(2045kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With 1.3hp output
Cable length	∅ 5.5mmx15.2m
Mounting dimensions	76.mm x 168mm
Overall dimensions	395x120x117mm
Brake	mechanical brake
Fairlead	roller fairlead
Drum length	120mm

Pull, Speed, Amperes, Volts (First Layer)

Line Pull (lbs/kg)	Line speed (FT/min, M/min)	Motor (Amps)	Pull by layer layer/lbs(kgs)
0	18.63(5.68)	24	1/4500(2045)
1000(454)	14.13(4.31)	86	2/3600(1636)
2000(909)	12.33(3.76)	155	3/3130(1423)
3000(1363)	7.25(2.21)	229	4/2745(1248)
4000(1818)	4.1(1.25)	256	
4500(2045)	2.98(0.91)	278	

LDS5000-A(2)

Performance specifications

Single line rated pull	5000lbs(2268kg)
Gear reduction ratio	166:1
Motor	permanent magnet DC 12V motor With 1.5hp output
Cable length	∅ 6.3mm x 15.2m
Mounting dimensions	76.mm x 168mm
Overall dimensions	395x120x117mm
Brake	mechanical brake
Fairlead	roller fairlead
Drum length	120mm

Pull, Speed, Amperes, Volts (First Layer)

Line Pull (lbs/kg)	Line speed (FT/min, M/min)	Motor (Amps)	Pull by layer layer/lbs(kgs)
0	20.5(6.2)	30	1/5000(2268)
1000(454)	16.1(4.9)	83	2/4080(1851)
2000(909)	12.8(3.9)	136	3/3450(1565)
3000(1361)	10.7(3.3)	168	4/2985(1354)
4000(1814)	8.6(2.6)	232	
5000(2268)	6.1(1.9)	296	

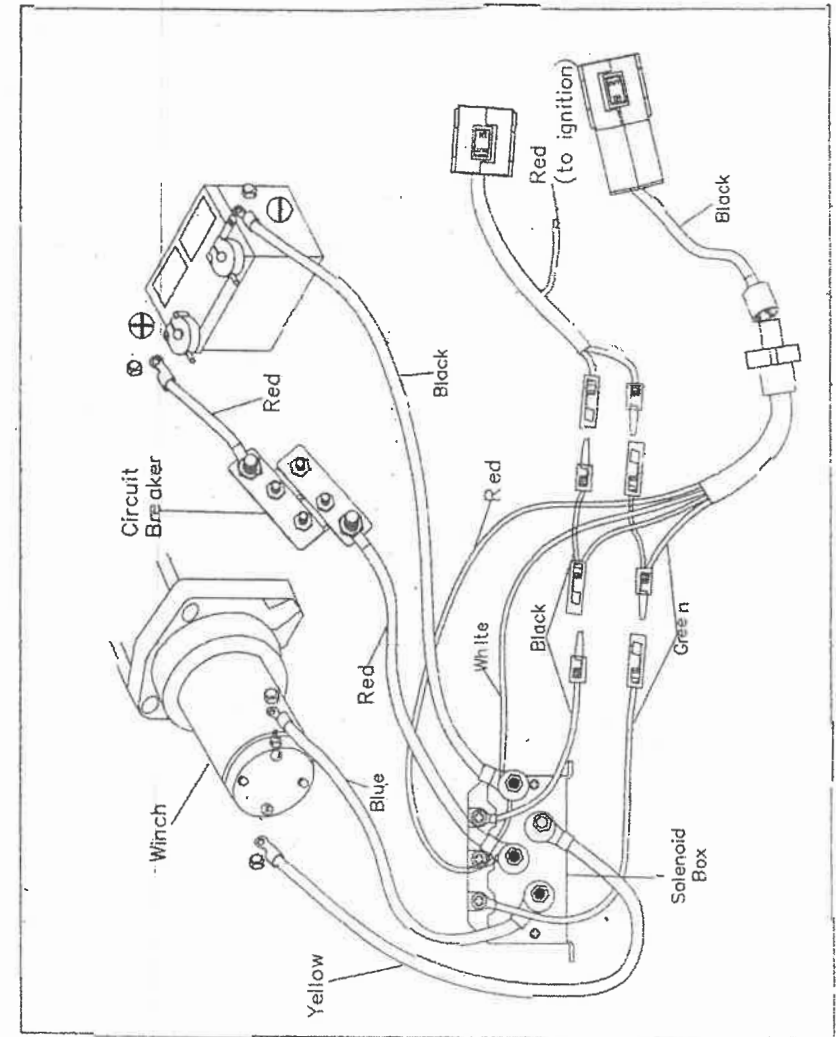
LDS6000-A

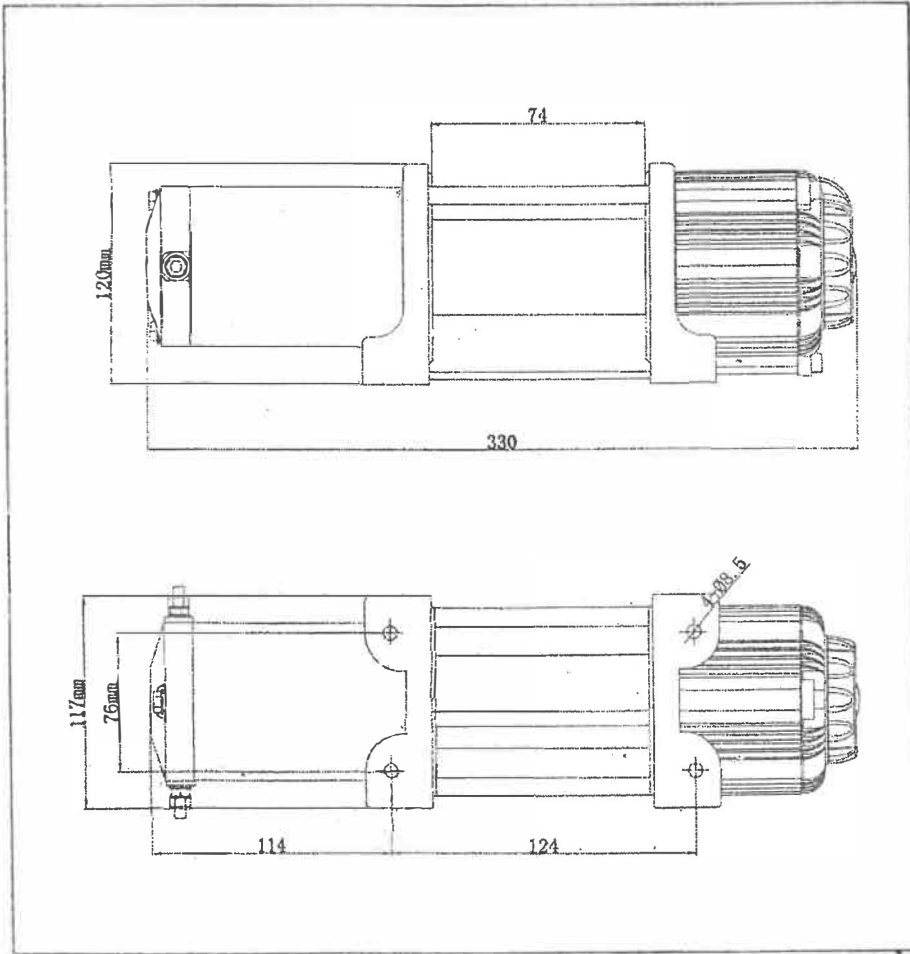
Performance Specifications

Single line rated pull	6000lbs(2720kgs)
Gear reduction ratio	218:1
Motor	Permanent magnet DC 12V motor With 5.2 hp output
Cable length	Φ7.2mmx24m
Mounting dimensions	190mmx130mm
Overall dimensions	440x160x218mm
Brake	Automatic IN-THE Drum
Fairlead	Aluminium Hawse fairlead
Drum length	120mm

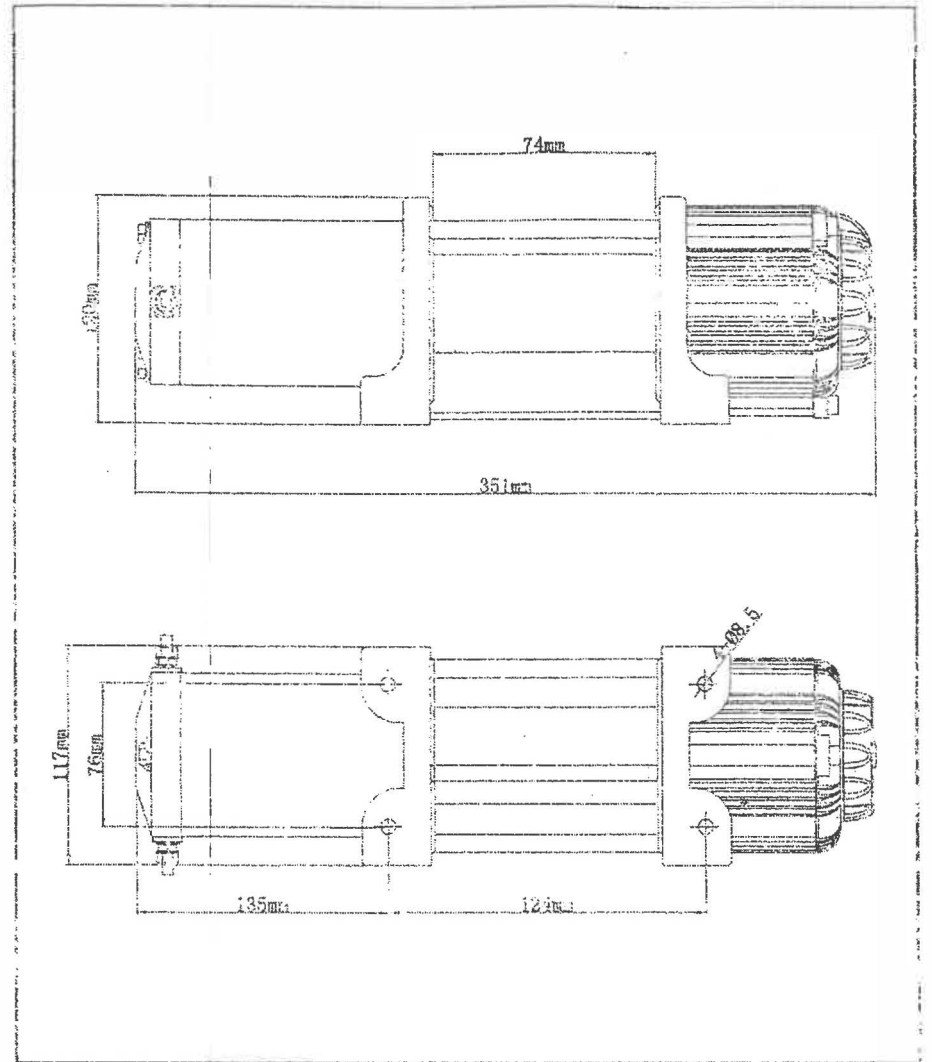
Performance data

Line pull(lbs/kgs)	Line speed (FT/min,M/m in)	Motor current (Amps)	Pull by layer Layer/lbs(kgs)
0	26.24(8)	80	1/6000(2720)
2000(907)	13.57(4.14)	149	2/4990(2265)
4000(1814)	10.03(3.06)	207	3/4280(1940)
6000(2720)	8.65(2.64)	265	4/3730(1690)
			5/3310(1500)

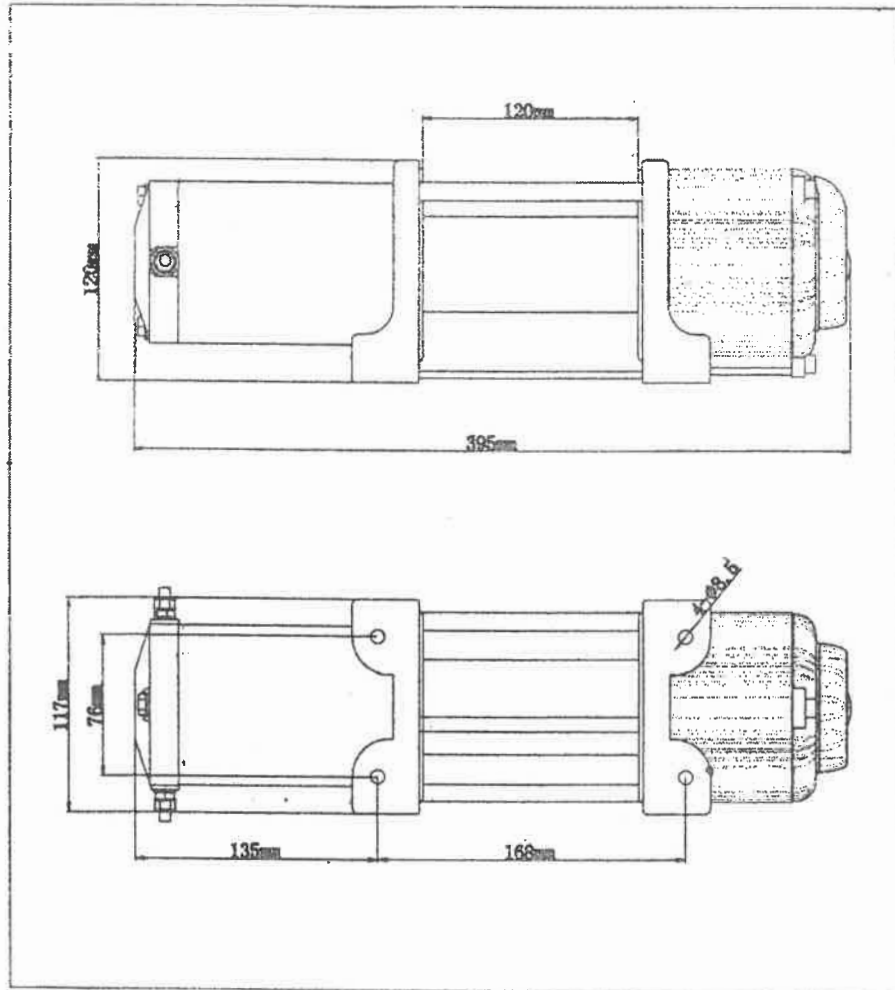




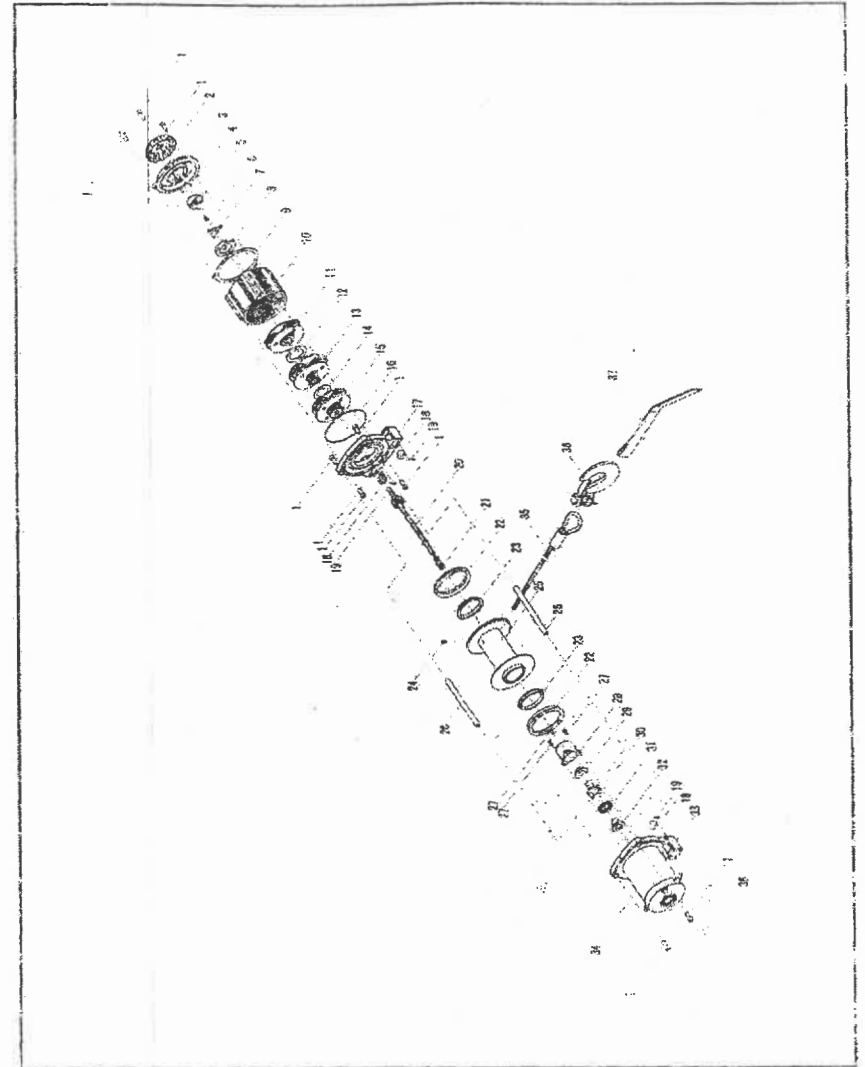
LDS3000/LDS3500/LDS4000



LDS4500/LDS5000



LDS4500Lengthened/LDS5000Lengthened
LDS6000Lengthened



Item No.	Description	Qty
1	Bolt M6*18	10
2	Clutch handle	4
3	End cover	1
4	Seal ring ϕ 26*1.5	1
5	Bracket	1
6	Tap Bolt M4*8	1
7	Central gear	1
8	Central gear cover	1
9	Gear housing end gasket	1
10	Main gear housing	1
11	First gear set	1
12	Spacer 1	1
13	Second gear set	1
14	Spacer 2	1
15	Third gear set	1
16	Gasket 98.6*95*1.8	1
17	Gear housing base	1
18	Nut M8*14*8	4
19	Spring pin	4
20	Transmission shaft	1
21	Clutch spring	1
22	Flat gasket	2
23	Sliding bearing	2
24	Bolt M6*10	1
25	Drum	1
26	Stay bar	2
27	Screw M4*10	3
28	Brake cover	1
29	Brake block ring	1
30	Brake block	1
31	Brake spring	1
32	Brake base	1
33	Motor base	1
34	Motor	1
35	Rope cable	1
36	Hook G70 1/4	1
37	Hand saver strap	1