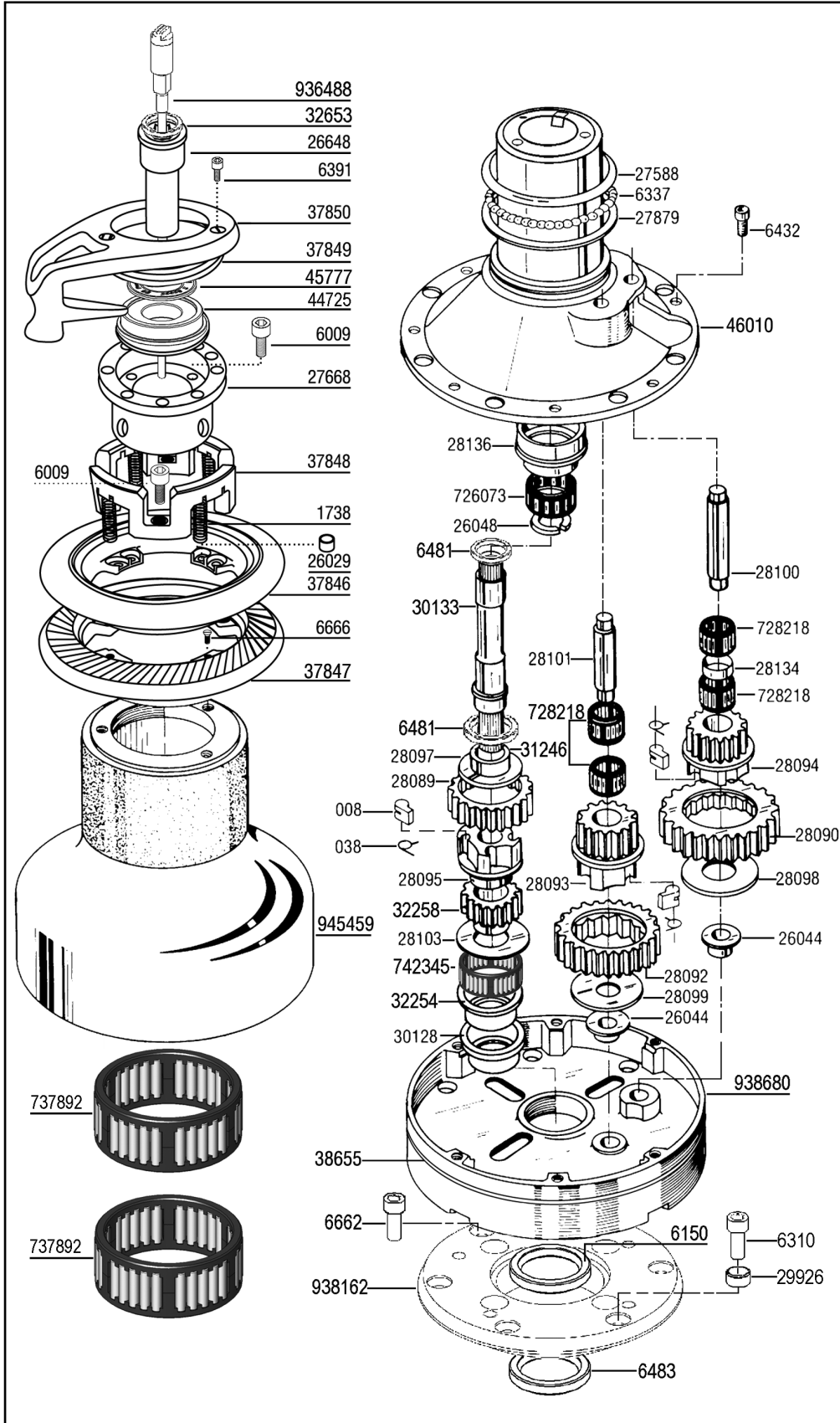


59.2ST E/HY

Electric/Hydraulic Self-Tailing Winch

HARKEN®

Winch Parts Installation Service



Required Tools

Screwdriver
Plastic Head Hammer or Mallet
Small Knife
Brush
Rags
Solvent
Oil
Grease

Parts List

008	Pawl
038	Pawl Spring
1738	Spring
6009	Screw
6150	Base Ring
6310	Screw
6337	Stainless Steel Ball
6391	Screw
6432	Screw
6481	Washer
6483	Seal
6662	Screw
6666	Screw
26029	Plastic Washer
26044	Bushing
26048	Split Washer
26648	Handle Socket
27588	Thrust Bearing
27668	Stripper Arm Base
27879	Thrust Washer
28089	Ratchet Gear
28090	Ratchet Gear
28092	Ratchet Gear
28093	Pawl Gear
28094	Pawl Gear
28095	Pawl Gear
28097	Washer
28098	Washer
28099	Washer
28100	Gear Shaft
28101	Gear Shaft
28103	Washer
28134	Spacer
28136	Spindle Guide
29926	Plastic Bushing
30128	Bushing
30133	Spindle
31246	Bushing
32254	Bushing
32258	Gear
32653	Plastic Washer
37846	Upper Jaw ST
37848	Spring Support
37849	Cover
37850	Stripper Arm
38655	Red Line Ring
46010	Center Stem
44725	Logo Support
37847	Lower Jaw ST
45777	Top Cap
726073	Bearing
728218	Bearing
737892	Bearing
742345	Bearing
936488	Disconnect Rod Assy
938162	Mounting Plate
938680	Base
945459	Chrome Drum

Suggested Service Kits

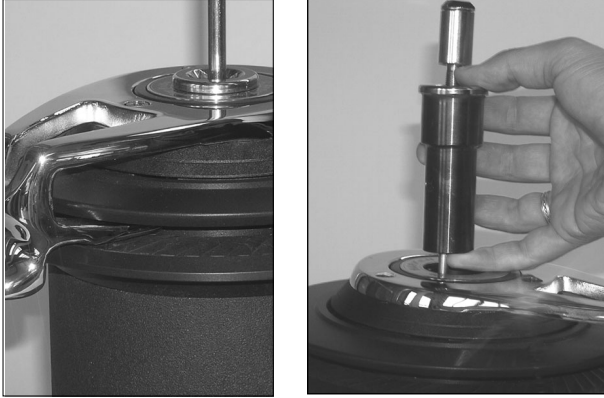
BK4512	10	008 Pawls
	10	038 Springs
BK4513	100 ml	Grease

When ordering parts, please include a "B" before each number (i.e. B008).

1 Remove Disconnect Rot and Handle Socket

Loosen disconnect rod using flethead screw driver as shown below

Remove Disconnect Rod and handle cocket.



2 Remove Stripper Arm and name Ring

Loosen the three (3) allen screws

Remove stripper arm

Remove Name Ring and black cover ring.

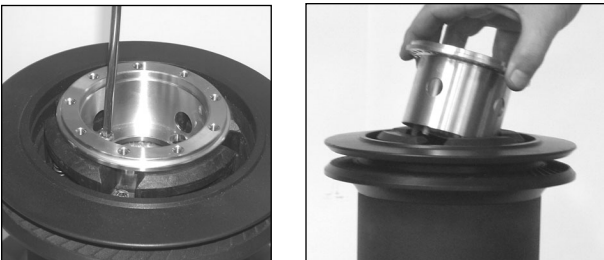


3 Remove Drum Assembly

Loosen the four (4) allen screws inside the stripper arm support

Remove stripper arm support

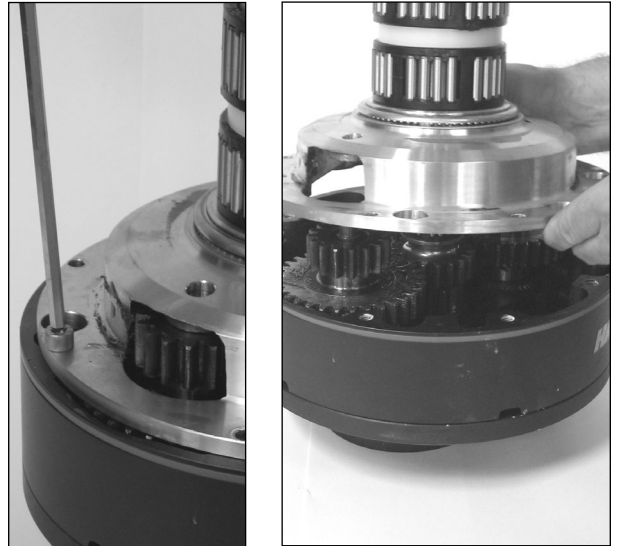
Carefully lift off drum assembly, main bearings may remain inside drum due to oil and grease



4 Remove Housing

Loosen the six (6) allen screws holding the housing to the aluminium base

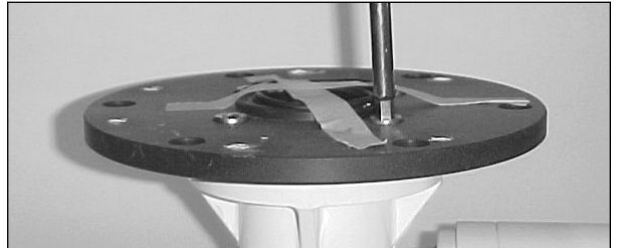
Lift off housing.



5 Remove Mounting Plate from Motor/Gearbox Assy

Loosen the four (4) allen screws

Lift off mounting plate:



6 Drive Position

Place winch base on mounting plate, making sure fastener holes re corresponding

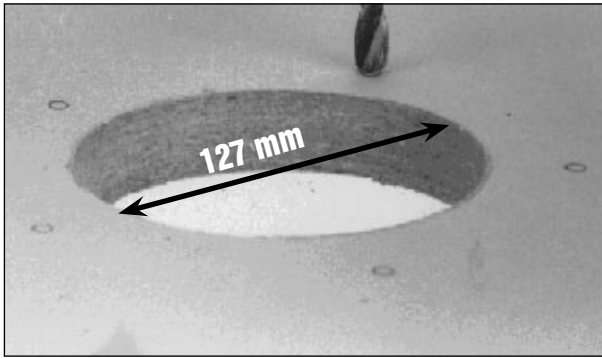
Mark drive position.



Mount the Winch

7 Determine Winch Location

Make sure there is clearance for Motor and Reduction Gearbox.
Drill an 127 mm hole through the deck.



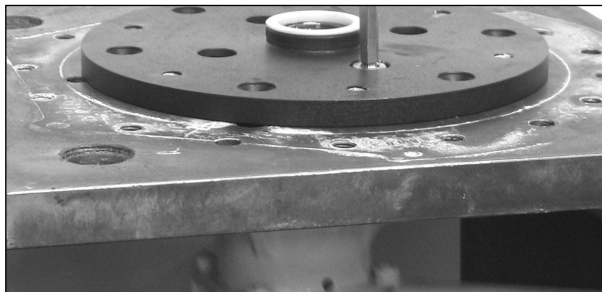
8 Position Drive Gear/Secure Mounting Base

Make sure Mounting Base sits flat on deck.
Position so Drive Gear aligns to sheet load (see Step 13)
Mark the six (6) mounting holes, drill deck.
Use bedding compound/sealant to prevent leakage.
Secure Mounting Base using five (5) 8 mm (B56) or 10 mm (B64 and up) countersunk screws.



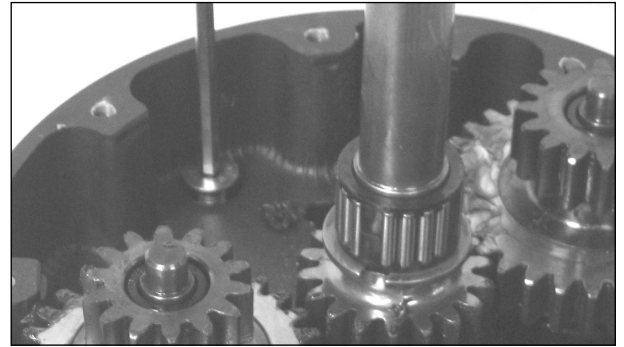
9 Attach Motor/Gearbox Assembly to Mounting Base

Have another person below deck to position gearbox underneath winch.



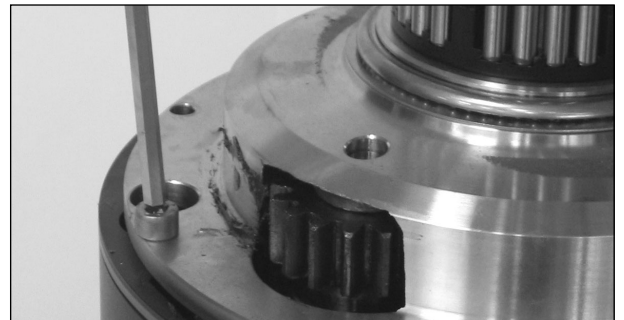
10 Attach Winch

Tighten the six (6) bolts securing Winch to Mounting Base.
Use blue Loctite® on threads.
Use brush to lightly lubricate gear with grease



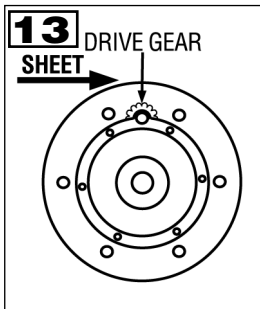
11 Assemble Winch

Use steps 1 - 9 in reverse order to assemble winch.

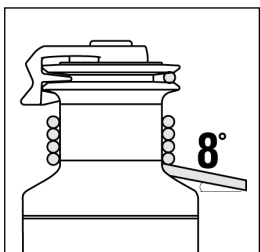


12 IMPORTANT - Test Winch Operation

After winch is assembled, **test operation in manual mode only, before sailing. Important - use a lock-in winch handle.**
Using a **locking** winch handle, check winch operation.
Disconnect rod must disconnect gearbox when lock-in winch handle is inserted in Handle Socket.



Position drive gear where sheet enters winch drum.



Sheet entry angle must be at least 8°.

Service winch before the sailing season begins and once during

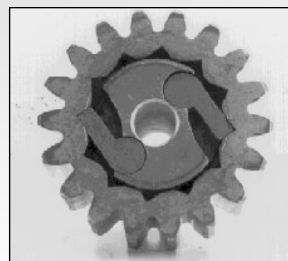
Servicing Winch



Clean all parts, except 37383 and 38598, with solvent.

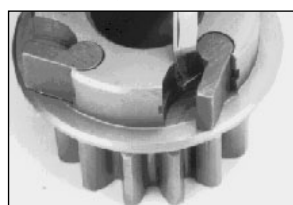


Use a brush to spread a light, even coat of grease.

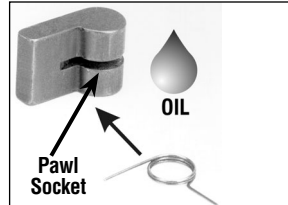


If ratchet gear is mounted backwards, winch will slip.

Servicing Pawls



Use knife to free captive Pawl Spring.



Insert Pawl Spring with straight leg against Pawl. Use oil for lubrication.

Minimum/Maximum Line Diameter

Harken winches feature spring-loaded self-tailing jaws which adjust automatically to the following line sizes:

Minimum	$\frac{7}{16}$ " (8 mm)
Maximum	$\frac{1}{2}$ " (12 mm)

Positioning Stripper Arm

Loosen top Screw.
Remove Handle Socket.
Lift Stripper Arm and position as desired.

Opening Winch

Remove top Screw.
Lift off Drum and Stripper Arm.

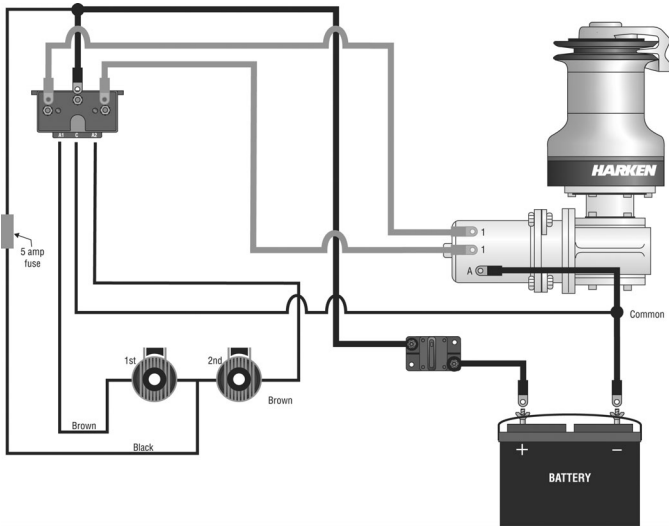
Servicing Winch

Remove Pawls and Springs - service as below.
Remove Bearing, Gear Shaft and Gears.
Clean all parts except 37383 and 38598 with rag and solvent.
Important: Use freshwater only on parts 37383 and 38598
Use brush to lubricate all moving parts lightly with grease.
Replace Pawls and Springs and lubricate lightly with oil.
Assemble and close winch.

Servicing Pawls

Catch Spring with knife and hold against Pawl.
Lift out Pawl. Clean and check for wear.
Place "straight leg" of Pawl Spring against Pawl.
Hold Spring closed and slip Pawl into Pawl Socket.
Lubricate Pawls using oil.

Wiring



WIRE SIZE CHART

(distance in meters from battery to winch and back battery)

Amps	3	4.6	6.1	7.6	9.1	12.2	15.2
	Section mm ²						
5*	0.8	1	2	3	3	5	5
30	5	8	13	13	19	19	32
40	8	13	13	19	19	32	32
50	13	13	19	19	32	32	40
60	13	19	19	32	32	40	50
70	13	19	32	32	40	50	62
80	13	19	32	32	40	50	81
90	19	32	32	40	50	62	81
100	19	32	32	40	50	62	81
120	19	32	40	50	62	81	103
140	32	32	50	62	62	103	103

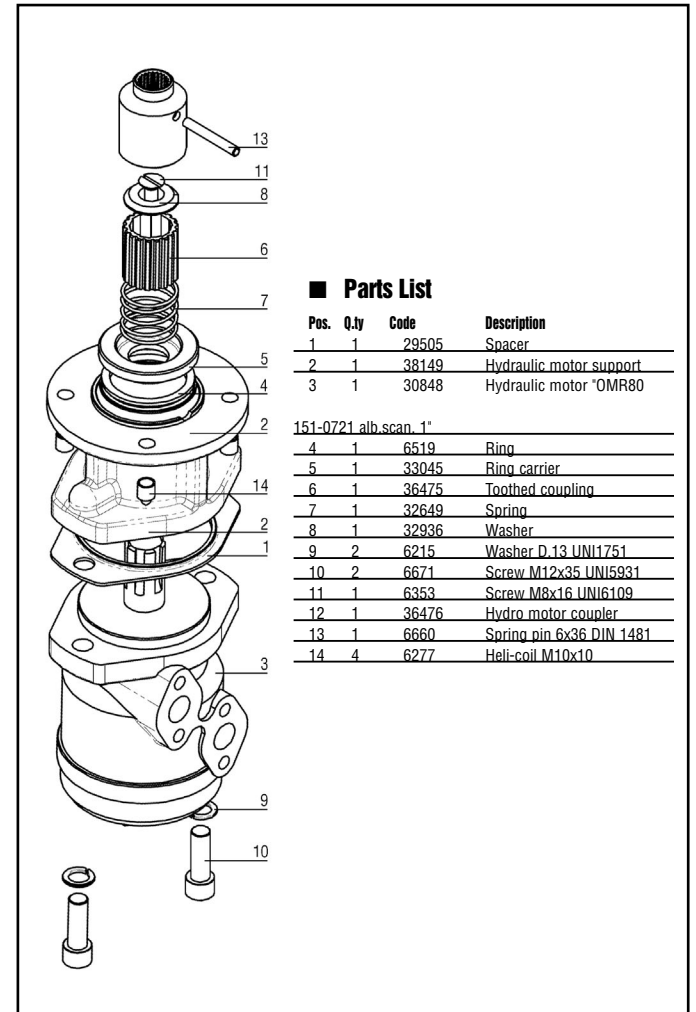
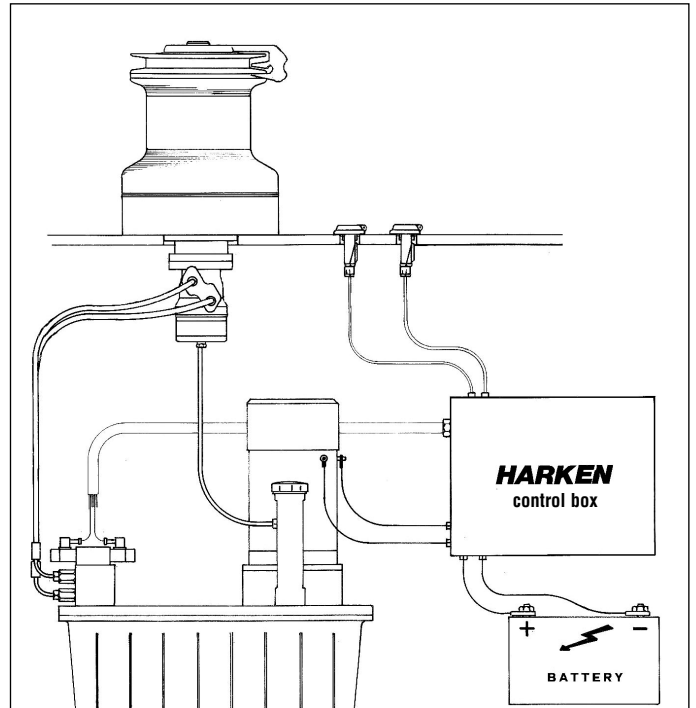
* Push buttons require 2 mm² cable

Fasten electric control box containing solenoids to bulkhead or wall.
Install remote circuit breaker between power supply and electric control box.

Locate pushbuttons in a convenient spot for easy winch operation.
Pushbutton wire size is #14.

Refer to wiring diagram for wire size and connection information.

Schematics Piping



Parts List

Pos.	Q.ty	Code	Description
1	1	738156	Assy painted worm reduction
4	4	6208	Nut M6 UNI5588
4	4	6213	Washer D.6 ISO 7089
1	1	36461	Lower cover
4	4	36460	Screw stud M6 x 20
1	1	31279	Worm reduction unit VF49
1	1	38156	Support
4	4	6277	Heli-coil M10x10
2	1	36478	Shaft
3	1	6519	Ring
4	1	36479	Ring
5	1	33056	Spring
6	1	31074	Connecting coupling
7	1	6353	Screw M8x16 UNI6109
8	1	33043	Washer
9	1	6178	Spring pin 6x36 DIN 1481
10	1	6281	Key 8x7x35
11	1	831249	Electric Motor 12V 600W assy painted
1	1	31249	Electric motor 12V 600W 2800rpm
4	4	31281	Screw stud M6
4	4	6208	Nut M6 UNI5588
4	4	6213	Washer D.6 ISO 7089
11	1	831250	Electric Motor 24V 600W assy painted
1	1	31250	Electric motor 24V 600W 2800rpm
4	4	31281	Screw stud M6
4	4	6208	Nut M6 UNI5588
4	4	6213	Washer D.6 ISO 7089

Parts List

Pos.	Q.ty	Code	Description
1	1	29505	Spacer
2	1	38149	Hydraulic motor support
3	1	30848	Hydraulic motor *OMR80
151-0721 alb. scan. 1"			
4	1	6519	Ring
5	1	33045	Ring carrier
6	1	36475	Toothed coupling
7	1	32649	Spring
8	1	32936	Washer
9	2	6215	Washer D.13 UNI1751
10	2	6671	Screw M12x35 UNI5931
11	1	6353	Screw M8x16 UNI6109
12	1	36476	Hydro motor coupler
13	1	6660	Spring pin 6x36 DIN 1481
14	4	6277	Heli-coil M10x10

HARKEN®

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