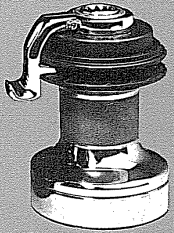


WINCHES AND HANDLES



ENKES



Enkes Winches Built to work better and last longer

Each Enkes winch is designed and constructed to give you the highest level of winch quality in the world.

Enkes' superb quality results from total emphasis on four considerations. Metallurgical strength. Mechanical advantage. Maximum friction reduction. And corrosion resistance.

From models numbered 18 through 36, Enkes gear housings are nickel aluminum bronze (NiAlBr). Gears are either stainless steel (S.S.) or, more frequently, nickel aluminum bronze, an alloy that surpasses the less durable and more commonly used manganese bronze by 44% in tensile strength and 87% in yield.

Along with their higher inherent strengths, Enkes winches have high effective power ratios that permit maximum ease of sail handling. Each winch is designed to contain a minimum number of components . . . for optimum trouble-free performance, lower friction resistance, and to greatly simplify and encourage routine maintenance.

All Enkes winches are built to stringent standards in the Netherlands. Every Enkes alloy winch is guaranteed to be totally free from defects in materials and workmanship. And every Enkes alloy winch is fully certified for quality by Lloyd's Register of Shipping.

The following Winch Guide sets forth recommended winch sizes which are guided by extensive experience world-wide. Suggestions are based on a masthead, mono-hulled sloop with 150% genoa. Naturally, other less standard configurations (split rigs with jib topsail and foresail combinations, for example) may differ in requirements.

The Winch Guide takes into account that the majority of modern yacht designs are best grouped by waterline length, beam, and displacement rather than overall length, and our recommendations are intended to produce optimum efficiency. If your budget is restrictive, instead of reducing winch size, we recommend reducing the number of winches you need through multiple winch use aided by sheet and halyard stoppers.

You will notice that no winch size differentiations are made between racing and cruising boats. The *number* of winches a boat needs may vary from racer to cruiser. But the *sizes* should not. Where under-size winches are inefficient on a fully manned racing boat, they are more noticeably inefficient on a cruising boat where wives and children may be called on to do the winching. For the racer, *proper winches make sail handling faster*. For cruisers, *proper winches make sail handling easier*.

You will also notice that Enkes does not offer reel halyard winches. Instead, Enkes strongly advocates conventional winches for their greater control and reliability.

Enkes encourages you to make your winch selection properly the first time. This will avoid time-consuming and more costly modifica-

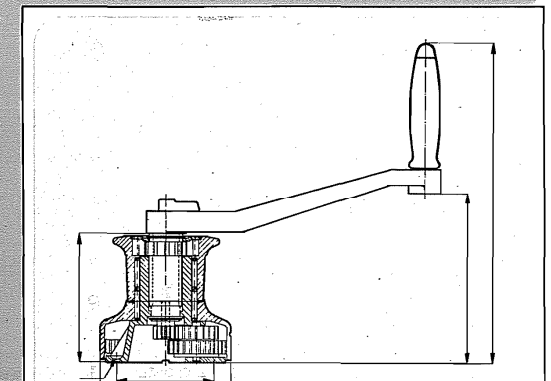
winch no.	single speed		two speed					three speed		
	6	8	12	18	20	22	26	28	32	36
POWER RATIO 1	8.80:1	8.46:1	7.25:1	7.25:1	7.05:1	6.68:1	5.64:1	4.88:1	4.46:1	3.57:1
POWER RATIO 2	—	—	—	14.50:1	28.83:1	40.10:1	42.33:1	15.37:1	20.96:1	20.63:1
POWER RATIO 3	—	—	—	—	—	—	—	50.90:1	59.61:1	70.71:1
GEAR RATIO 1	1.00:1	1.00:1	1.00:1	1.00:1	1.00:1	1.00:1	1.00:1	1.00:1	1.00:1	1.00:1
GEAR RATIO 2	—	—	—	2.00:1	4.09:1	6.00:1	7.63:1	3.15:1	4.70:1	5.78:1
GEAR RATIO 3	—	—	—	—	—	—	—	10.40:1	13.50:1	19.80:1
A BASE DIA.	3.15 in. 80 mm	3 ⁷ / ₈ in. 98 mm	4 in. 102 mm	4 ³ / ₄ in. 120 mm	5 in. 126 mm	5 ⁷ / ₈ in. 150 mm	6 ⁷ / ₈ in. 175 mm	8 ¹ / ₄ in. 210 mm	9.45 in. 240 mm	11.02 in. 280 mm
B DRUM DIA.	1.77 in. 45 mm	2 ³ / ₈ in. 60 mm	2 ³ / ₄ in. 70 mm	2 ³ / ₄ in. 70 mm	2 ¹³ / ₁₆ in. 72 mm	3 in. 76 mm	3 ⁹ / ₁₆ in. 90 mm	4 ¹ / ₈ in. 104 mm	4.49 in. 114 mm	5.59 in. 142 mm
C WINCH HEIGHT	2.83 in. 72 mm	3 ⁵ / ₈ in. 92 mm	3 ¹³ / ₁₆ in. 95 mm	4 ³ / ₈ in. 110 mm	4 ⁷ / ₈ in. 124 mm	5 ³ / ₄ in. 147 mm	6 ³ / ₄ in. 172 mm	8 ³ / ₈ in. 213 mm	9.25 in. 235 mm	11.10 in. 282 mm
D HANDLE HEIGHT	9.33 in. 237 mm	10 ⁷ / ₈ in. 276 mm	11 ¹ / ₁₆ in. 281 mm	11 ⁹ / ₁₆ in. 294 mm	12 ¹ / ₈ in. 308 mm	13 in. 330 mm	14 in. 356 mm	15 ⁵ / ₈ in. 397 mm	16.46 in. 418 mm	18.31 in. 465 mm
E HANDLE CLEARANCE	3.66 in. 93 mm	5 ³ / ₁₆ in. 132 mm	5 ³ / ₈ in. 137 mm	5 ⁷ / ₈ in. 150 mm	6 ⁷ / ₁₆ in. 164 mm	7 ³ / ₈ in. 187 mm	8 ³ / ₈ in. 212 mm	10 in. 253 mm	10.08 in. 256 mm	11.91 in. 303 mm
F MOUNTING HOLE DIA.	1/4 in. 6 mm	1/4 in. 6 mm	1/4 in. 6 mm	1/2 in. 6 mm	1/4 in. 6 mm	5/16 in. 8 mm	5/16 in. 8 mm	5/16 in. 8 mm	3/8 in. 10 mm	3/8 in. 10 mm
NUMBER MOUNTING HOLES	3	5	4	5	5	5	5	6	6	6
B.C.D.	1.97 in. 50 mm	2 ³ / ₈ in. 70 mm	2 ¹ / ₂ in. 66 mm	3 ⁵ / ₈ in. 92 mm	3 ¹⁵ / ₁₆ in. 100 mm	4 ¹³ / ₃₂ in. 112 mm	5 ¹ / ₈ in. 130 mm	6 ²⁷ / ₃₂ in. 174 mm	8.03 in. 204 mm	9.45 in. 240 mm

WINCH GUIDE

LENGTH OF BOAT	20 ft.	25 ft.	30 ft.	32 ft.	34 ft.	36 ft.	38 ft.	40 ft.	43 ft.	50 ft.
	6.1 m	7.6 m	9.1 m	9.8 m	10.4 m	11.0 m	11.6 m	12.2 m	13.1 m	15.2 m
GENOA SHEET	12	18	20	22	26	26	28	28	32	36
SPINNAKER SHEET	12	12	18	20	22	22	22	26	28	32
MAIN SHEET	—	12	12	12	12	18	18	20	20	22
GENOA HALYARD	12	12	12	18	20	20	22	22	22	26
SPINNAKER HALYARD	—	—	12	12	18	18	20	20	22	22
MAIN HALYARD	12	12	12	12	12	12	18	18	20	22
SPINNAKER TOPPING LEFT	—	—	—	—	12	12	18	18	20	20
FORE GUY	—	—	12	12	12	18	18	20	20	22
OUT HAUL	—	—	—	—	—	12	12	12	12	18
DOWN HAUL	—	—	—	—	—	—	12	12	12	18

SAIL AREA RECOMMENDATION

WINCH	6	8	12	18	20	22	26	28	32	36
GENOA SHEET	19	24	28	33	42	56	70	84	139	SQ FT
	200	250	300	350	450	600	750	900	1500	SQ FT



ARNITE

Arnite winches are ideal for primary and secondary use on small boats. They also make an ideal accessory winch on larger boats for reefing, topping lifts, outhauls, etc. Arnite is a glass reinforced material that yields excellent durability and light weight. All bases are black anodized aluminum for ultimate strength. Pawls and pawl springs are stainless steel. Arnite winches have the same appearance as black anodized aluminum.



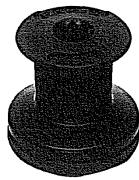
NO. 2 (Snubbing)
Dimensions
 Drum dia. 50 mm (1.97 in.)
 Base dia. 65 mm (2.56 in.)
 Height 60 mm (2.36 in.)
 Drum circ. 157 mm (6.19 in.)
 Weight .2 kg (.5 lbs.)
Mounting
 4 x 5 mm (.197 in.) countersunk head screws on 30 mm (1.18 in.) bolt circle.

Features
 Single pawl and spring mechanism.



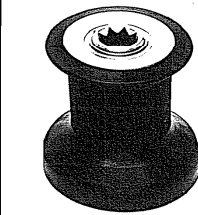
NO. 4 (Snubbing)
Dimensions
 Drum dia. 49 mm (1.93 in.)
 Base dia. 80 mm (3.15 in.)
 Height 75 mm (2.95 in.)
 Drum circ. 153 mm (6.06 in.)
 Weight .3 kg (.7 lbs.)
Mounting
 3 x 6 mm (.25 in.) recessed hexagonal head bolt, maximum width head 9.5 mm (.375 in.), or 50 mm (1.97 in.) bolt circle.

Features
 Single pawl and spring mechanism. Knurled drum for positive sheet gripping.



NO. 6 (Direct Action & Non-Ratcheting)
Dimensions
 Drum dia. 49 mm (1.93 in.)
 Base dia. 80 mm (3.15 in.)
 Height 76 mm (2.99 in.)
 Drum circ. 154 mm (6.06 in.)
 Weight .3 kg (.6 lbs.)
Mounting
 3 x 6 mm (.25 in.) recessed hexagonal head bolt, maximum width head 9.5 mm (.375 in.), or 50 mm (1.97 in.) bolt circle.

Features
 Single pawl and spring mechanism. Knurled drum for positive sheet gripping.



NO. 8 (Direct Action & Ratcheting)
Dimensions
 Drum dia. 60 mm (2.36 in.)
 Base dia. 98 mm (3.86 in.)
 Height 90 mm (3.54 in.)
 Drum circ. 188 mm (7.41 in.)
 Weight .7 kg (1.5 lbs.)
Mounting
 4 x 6 mm (.25 in.) countersunk head screws on 70 mm (2.75 in.) bolt circle.

Features
 This is the only Arnite winch with two double-pawl spring mechanisms. S.S. center-shaft contains anti-friction sleeve. Knurled drum for positive sheet gripping.

TWO SPEED

The most popular line of multiple-purpose winches. Counter rotation automatically produces gear and speed changes. All center shafts are stainless steel. All principal gears, housings, and bases are nickel aluminum bronze.



NO. 18 (Gearing)
Dimensions
 Drum dia. 70 mm (2.75 in.)
 Base dia. 120 mm (4.75 in.)
 Height 110 mm (4.38 in.)
 Drum circ. 220 mm (8.64 in.)
 Weight Al 2.6 kg (5.8 lbs.)
 S.S. 3.8 kg (8.3 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
Mounting
 5 x 6 mm (.25 in.) countersunk head screw on 92 mm (3.63 in.) bolt circle.

Features
 Power ratios 7:1 & 15:1
 Gear ratios 1:1 & 2:1



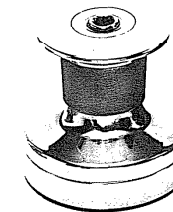
NO. 20 (Gearing)
Dimensions
 Drum dia. 72 mm (2.81 in.)
 Base dia. 126 mm (5.00 in.)
 Height 124 mm (4.88 in.)
 Drum circ. 226 mm (8.83 in.)
 Weight Al 3.0 kg (6.6 lbs.)
 S.S. 4.4 kg (9.8 lbs.)
 BrCrP 4.7 kg (10.3 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
 Bronze chrome plated
Mounting
 5 x 6 mm (.25 in.) countersunk head screw on 100 mm (3.94 in.) bolt circle.

Features
 Two roller bearings.
 Power ratios 7:1 & 29:1
 Gear ratios 1:1 & 4:1



NO. 22 (Gearing)
Dimensions
 Drum dia. 76 mm (3.00 in.)
 Base dia. 150 mm (5.88 in.)
 Height 147 mm (5.75 in.)
 Drum circ. 239 mm (9.42 in.)
 Weight Al 4.3 kg (9.5 lbs.)
 S.S. 6.9 kg (15.3 lbs.)
 BrCrP 7.4 kg (16.3 lbs.)
Alloys
 Bronze chrome plated
 Black anodized aluminum
 Stainless steel
Mounting
 5 x 8 mm (.31 in.) hexagonal head bolt on 112 mm (4.41 in.) bolt circle.

Features
 Two roller bearings with synthetic anti-friction spacer ring.
 Power ratios 7:1 & 40:1
 Gear ratios 1:1 & 6:1



NO. 26 (Gearing)
Dimensions
 Drum dia. 90 mm (3.56 in.)
 Base dia. 175 mm (6.88 in.)
 Height 172 mm (6.75 in.)
 Drum circ. 283 mm (11.18 in.)
 Weight Al 6.4 kg (14.0 lbs.)
 S.S. 9.0 kg (19.8 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
Mounting
 5 x 8 mm (.31 in.) hexagonal head bolt on 130 mm (5.13 in.) bolt circle.

Features
 Two roller bearings with synthetic anti-friction spacer ring.
 Power ratios 6:1 & 42:1
 Gear ratios 1:1 & 8:1

SINGLE SPEED

Enkes single-speed winches are designed to superbly fulfill primary and secondary winch needs on smaller boats. They are also excellent for accessory and fine tuning requirements on larger boats.

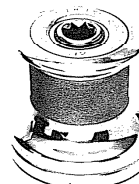


NO. 6 (Direct Action & Non-Ratcheting)
Dimensions
 Drum dia. 45 mm (1.77 in.)
 Base dia. 80 mm (3.15 in.)
 Height 72 mm (2.83 in.)
 Drum circ. 141 mm (5.56 in.)
 Weight Al .5 kg (1.0 lbs.)
Mounting
 3 x 6 mm (.25 in.) recessed hexagonal head bolt, maximum width head 9.5 mm (.375 in.), on 50 mm (1.97 in.) bolt circle.

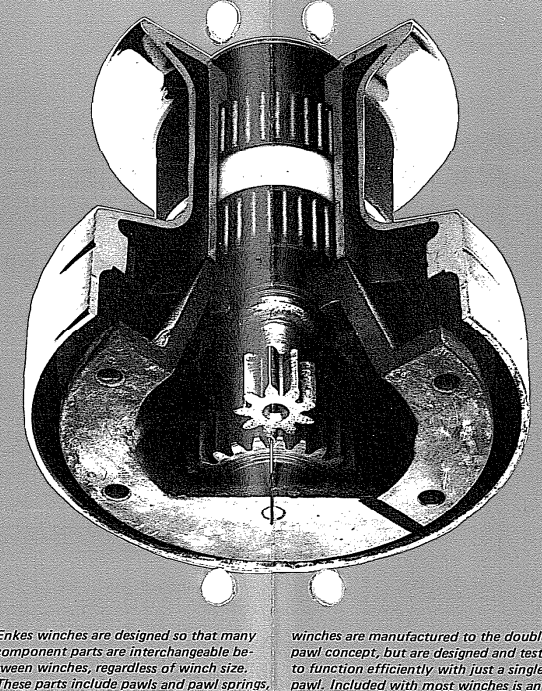
Alloy
 Aluminum, black anodized
Features
 Anti-friction sleeve around center-shaft. Synthetic disc acts as thrust bearing between base and drum to reduce friction. Winch base black anodized aluminum.
 Power ratio 9:1
 Gear ratio 1:1



NO. 8 (Direct Action & Ratcheting)
Dimensions
 Drum dia. 60 mm (2.38 in.)
 Base dia. 98 mm (3.88 in.)
 Height 92 mm (3.63 in.)
 Drum circ. 188 mm (7.48 in.)
 Weight Al 1.0 kg (2.2 lbs.)
 BrCrP 1.9 kg (4.2 lbs.)
Alloys
 Bronze chrome plated
 Black anodized aluminum
Mounting
 6 mm (.25 in.) countersunk head screw on 70 mm (2.75 in.) bolt circle. 5 head screws for BrCrP model, 4 for Aluminum.
Features
 S. S. center-shafts contain anti-friction sleeve. S. S. roller bearings. BrCrP model has NiAlBr base with synthetic thrust-bearing disc to reduce friction. Aluminum model has black anodized base.
 Power ratio 9:1



NO. 12 (Direct Action & Ratcheting)
Dimensions
 Drum dia. 70 mm (2.75 in.)
 Base dia. 102 mm (4.00 in.)
 Height 95 mm (3.81 in.)
 Drum circ. 220 mm (8.64 in.)
 Weight Al 1.4 kg (3.0 lbs.)
 S.S. 3.0 kg (6.6 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
Mounting
 4 x 6 mm (.25 in.) countersunk head screw on 66 mm (2.60 in.) bolt circle.
Features
 Aluminum model has black anodized base;
 Stainless model, NiAlBr base. Both models have synthetic disc acting as an anti-friction thrust-bearing between base and drum.

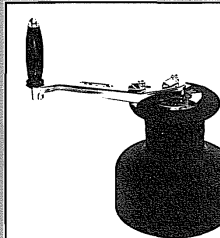


Enkes winches are designed so that many component parts are interchangeable between winches, regardless of winch size. These parts include pawls and pawl springs.

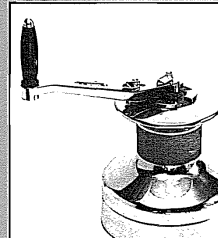
Winches are manufactured to the double pawl concept, but are designed and tested to function efficiently with just a single pawl. Included with most winches is an

THREE SPEED

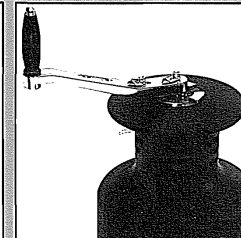
These winches provide the ultimate in primary and secondary sheet handling to accommodate all sailing conditions. All gear changes are automatic, with the exception of first gear which must be manually engaged. All center shafts are stainless steel. All principal gears, housing, and bases are nickel aluminum bronze.



NO. 28 (Gearing)
Dimensions
 Drum dia. 104 mm (4.13 in.)
 Base dia. 210 mm (8.25 in.)
 Height 213 mm (8.38 in.)
 Drum circ. 327 mm (12.97 in.)
 Weight Al 13.3 kg (29.3 lbs.)
 S.S. 17.6 kg (38.7 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
Mounting
 6 x 8 mm (.31 in.) hexagonal head bolt on 174 mm (6.84 in.) bolt circle.
Features
 Uses three primary roller bearings, four secondary rollers, a thrust bearing, and a synthetic anti-friction spacer ring.
 Power ratios 5:1, 21:1 & 60:1



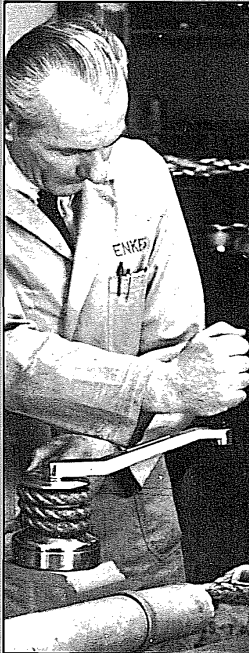
NO. 32 (Gearing)
Dimensions
 Drum dia. 114 mm (4.49 in.)
 Base dia. 240 mm (9.45 in.)
 Height 235 mm (9.25 in.)
 Drum circ. 358 mm (14.11 in.)
 Weight Al 18.0 kg (39.6 lbs.)
 S.S. 25.3 kg (55.8 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
Mounting
 6 x 10 mm (.38 in.) hexagonal bolt on 204 mm (8.03 in.) bolt circle.
Features
 Four primary roller bearings, four secondary rollers, a thrust bearing, and a synthetic anti-friction spacer ring.
 Power ratios 5:1, 21:1 & 60:1



NO. 36 (Gearing)
Dimensions
 Drum dia. 142 mm (5.59 in.)
 Base dia. 280 mm (11.02 in.)
 Height 282 mm (11.10 in.)
 Drum circ. 446 mm (17.56 in.)
 Weight Al 26.6 kg (58.7 lbs.)
 S.S. 37.0 kg (81.5 lbs.)
Alloys
 Black anodized aluminum
 Stainless steel
Mounting
 6 x 10 mm (.38 in.) hexagonal bolt on 240 mm (9.45 in.) bolt circle.
Features
 Four primary roller bearings, four secondary rollers, a thrust bearing, and synthetic anti-friction spacer rings between rollers.

SELF-TAILING

Designed to let one crew member do what normally requires two, these uniquely superior winches are the choice of cruisers and racers alike. The feeder arm is designed for strength and for minimum line abrasion. Ridges are staggered, angled, and tapered. They feed multiple rope diameters at a rate precisely compatible with drum rotation. Designed to provide maximum line gripping even as sheets elongate under a load. Easy to load and release.



SELF-TAILING

SINGLE SPEED NO. 18
(Geared & Ratcheting)

Dimensions
Drum dia. 70 mm (2.75 in.)
Base dia. 120 mm (4.75 in.)
Height 140 mm (5.5 in.)
Drum circ. 220 mm (8.64 in.)
Weight Al 3.4 kg (7.5 lbs.)
S.S. 4.6 kg (10.1 lbs.)

Alloys
Black anodized aluminum
Stainless steel

Mounting
5 x 6 mm (.25 in.) countersunk head screw on 92 mm (3.63 in.) bolt circle.

Features
Power ratio 15:1
Gear ratio 2:1

SELF-TAILING

TWO SPEED NO. 20 (Geared)

Dimensions
Drum dia. 72 mm (2.81 in.)
Base dia. 126 mm (5.00 in.)
Height 180 mm (7.06 in.)
Drum circ. 226 mm (8.83 in.)
Weight Al 4.75 kg (10.3 lbs.)
S.S. 6.0 kg (13.2 lbs.)

Alloys
Black anodized aluminum
Stainless steel

Mounting
6 x 6 mm (.25 in.) countersunk head screw on 100 mm (3.94 in.) bolt circle.

Features
Two roller bearings.
Power ratios 15:1 - 29:1
Gear ratios 2:1 - 4:1

SELF-TAILING

TWO SPEED NO. 22 (Geared)

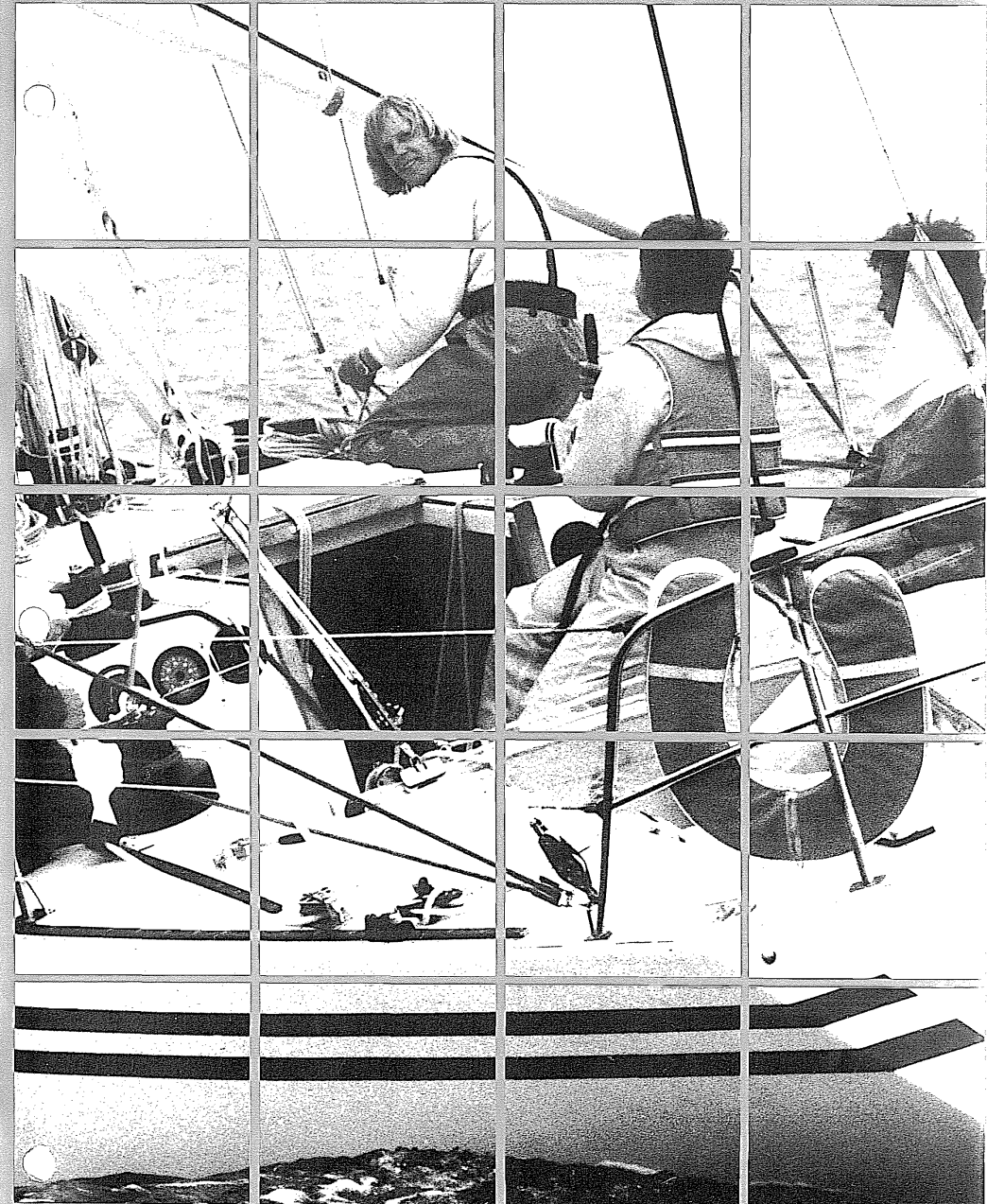
Dimensions
Drum dia. 76 mm (3.00 in.)
Base dia. 150 mm (5.88 in.)
Height 201 mm (7.94 in.)
Drum circ. 239 mm (9.42 in.)
Weight Al 6.3 kg (13.9 lbs.)
S.S. 9.0 kg (19.8 lbs.)

Alloys
Black anodized aluminum
Stainless steel

Mounting
5 x 8 mm (.31 in.) hexagonal head bolt on 112 mm (4.41 in.) bolt circle.

Features
Two roller bearings with synthetic anti-friction spacer ring.
Power ratios 15,91:1 - 44,96:1
Gear ratios 2.4:1 - 6.78:1

Before each winch passes inspection, it must pass static and dynamic load tests, including a safety factor in excess of 100%.



SELF-TAILING

TWO SPEED NO. 26 (Geared)

Dimensions
Drum dia. 90 mm (3.56 in.)
Base dia. 175 mm (6.88 in.)
Height 226 mm (8.88 in.)
Drum circ. 283 mm (11.18 in.)
Weight Al 8.5 kg (18.7 lbs.)
S.S. 11.4 kg (25.1 lbs.)

Alloys
Black anodized aluminum
Stainless steel

Mounting
5 x 8 mm (.31 in.) hexagonal head bolt on 130 mm (5.13 in.) bolt circle.

Features
Two roller bearings with synthetic anti-friction spacer ring.
Power ratios 25.8:1 - 49:1
Gear ratios 4.6:1 - 8.8:1

SELF-TAILING

TWO SPEED NO. 28 (Geared)

Dimensions
Drum dia. 104 mm (4.13 in.)
Base dia. 210 mm (8.25 in.)
Height 245 mm (9.64 in.)
Drum circ. 327 mm (12.97 in.)
Weight Al 16.2 kg (35.7 lbs.)
S.S. 20.5 kg (45.1 lbs.)

Alloys
Black anodized aluminum
Stainless steel

Mounting
6 x 8 mm (.31 in.) hexagonal head bolt on 174 mm (6.84 in.) bolt circle.

Features
Three primary, four secondary rollers, a thrust bearing, and a synthetic anti-friction spacer ring.
Power ratios 15:1 & 51:1
Gear ratios 3:1 & 10:1

SELF-TAILING

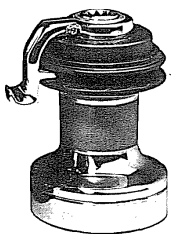
TWO SPEED NO. 32 (Geared)

Dimensions
Drum dia. 114 mm (4.49 in.)
Base dia. 240 mm (9.45 in.)
Height 280 mm (11.02 in.)
Drum circ. 358 mm (14.11 in.)
Weight Al 21.9 kg (48.2 lbs.)
S.S. 29.2 kg (64.4 lbs.)

Alloys
Black anodized aluminum
Stainless steel

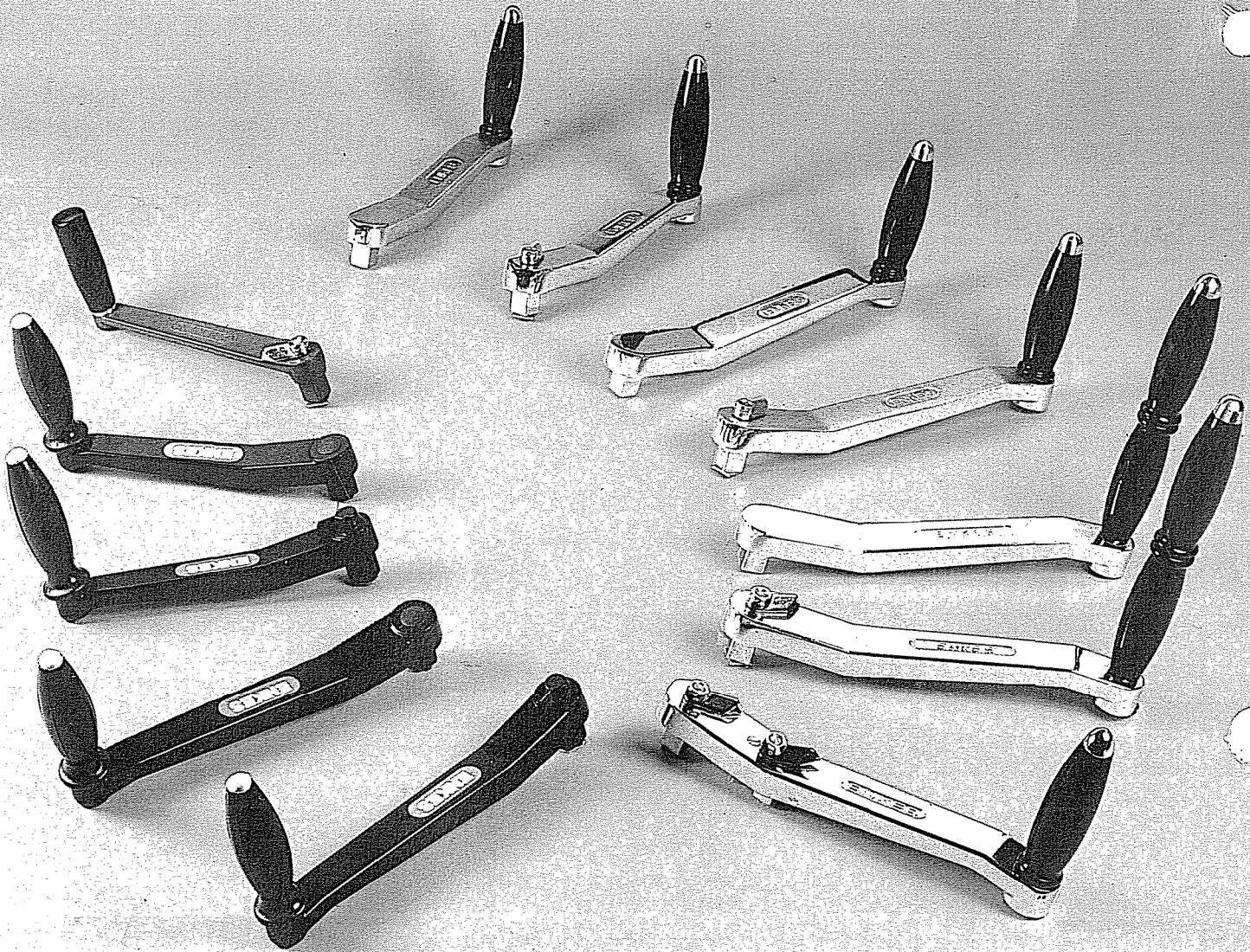
Mounting
6 x 10 mm (.38 in.) hexagonal bolt on 204 mm (8.03 in.) bolt circle.

Features
Four primary roller bearings, four secondary rollers, a thrust bearing, and a synthetic anti-friction spacer ring.
Power ratios 21:1 & 60:1
Gear ratios 5:1 & 14:1



HANDLES

All Enkes chrome plated (BrCrP) winch handles are of forged bronze construction. Superior to any cast bronze handle, forging assures you of consistent strength and maximum longevity. Stud measurements on all handles conform to the international standard.



Enkes fully guarantees the quality of each alloy winch you buy. Should any part prove to be defective during normal use, it may be returned for repair or replacement without charge. Naturally, this guarantee does not apply to damage resulting from lack of maintenance, improper installation, accident, or misuse, nor does it apply to failure caused by applications which do not conform with Enkes' recommendations. Nor does it cover work done by firms other than Enkes.



Lloyd's Certificate

Enkes quality control is under the supervision and inspection of Lloyd's Register of Shipping. For identification purposes, each winch is stamped next to the serial number.



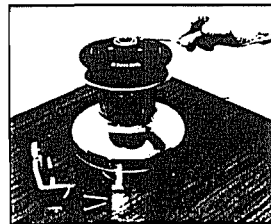
**MEMBER
OF
D.M.P.**

*Dutch
Machine
Products*

Maintenance

Before the beginning of the sailing season the winches have to be thoroughly cleaned inside with paraffin. For lubrication of the gear we recommend Molykote.

"An Enkes winch supplies instant easy power, making sailing a real pleasure".



Um eine optimale Funktion der Winde zu bekommen, sollte man nachstehendes beachten:

Montage

Für die Montage auf dem Boot ist die Trommel mit dem Schotführungsbügel vom Gehäuse abzuziehen.

Dieses geschieht durch lösen der Imbusschraube, die seitlich am Schotführungsbügel sitzt (Abb. 1). Ein passender Imbusschlüssel wird mitgeliefert.

Schotführungsbügel und Trommel werden gleichzeitig angehoben (Abb. 2).

Man demontiert das Gehäuse durch lösen der fünf Bolzen (Abb. 3).

Nunmehr kann das Gehäuse mit Sankkopfschrauben oder Bolzen am Boot montiert werden (Abb. 4).

Danach wird der Schotführungsbügel mit der Trommel wieder

gleichzeitig auf das Gehäuse montiert (Abb. 5). Die Winde ist richtig montiert am Boot, wenn die Anordnung so ist, dass die holende Part der Schot leicht abschüssig zur Winde läuft.

Bei der Montage ist zu beachten, dass der Schotführungsbügel so steht, dass die Schot von dem Schotgreifring in einem geeignetem Abstand, sich selber aufschiesst (Abb. 6).

Gebrauchsanweisung

Für ein einwandfreies Funktionieren der Winde ist es



wichtig, dass die V-förmige Öffnung des Schotgreifringes richtig eingestellt ist. Die Einstellung ist abhängig vom Schottyp und Durchmesser dieser Schot. Die V-förmige Öffnung kann mittels Füllringe, die bei jeder Winde in verschiedenen Stärken mitgeliefert sind, eingestellt werden. Damit diese Füllringe nicht verloren gehen, sind diese bei einer neuen Winde gleich montiert. Dadurch ist die Winde auf keine bestimmte Schot, bezw. Durchmesser dieser Schot,

Füllringe

Winde	Diameter Schot			
	12	14	16	18
28	0-1	1-1.5	1.5-2	-
32	-	0-1	1-1.5	1.5-2

eingestellt. Die Einstellung müsste daher selber nach eigener Erfahrung vorgenommen werden. Um an die Füllringe zu gelangen, ist der Schotführungsbügel zu entfernen, sodass dann die Druckplatte, durch lösen der Imbusschrauben, anzuheben ist (Abb. 7). Danach einen oder mehrere freikomende Füllringe entfernen, um die

richtige Einstellung zu bekommen (Abb. 8).

Siehe hierzu nebenstehende Tabelle (Richtlinie). Nachdem nunmehr die Winde in umgekehrter Reihenfolge wieder montiert wurde, ist diese betriebsbereit.

Die Schot soll minimal 3 Törns um die Trommel gelegt werden und dann über den Schotführungsbügel in die V-förmige Öffnung des Schotgreifringes greifen, dem eigentlichen "Self-Tailer".

Instandhaltung

Vor Beginn der Segelsaison sollte man die Winde demontieren und sorgfältig mit Petroleum reinigen. Anschliessend erfolgt die Schmirung mit Spezial-Enkes-Windenfett (Molykote). Eine "Enkes-Winde" verrichtet Schwerarbeit federleicht und macht das Segeln zu einem wahren Vergnügen.



Enkes Marine B.V.
p.b.2 - 5720 AA Asten/Holland
Tel. 04936-1446 - Telex: oybel 51736 nl

Montage en gebruiksaanwijzing Selftailing Lieren Typen 28 - 32



Installation and directions for use of Enkes selftailing Winches 28 - 32



Montage und Gebrauchsanweisung selftailing Enkes Winden 28 - 32

Om verzekerd te zijn van een goede werking van de lier, dient men het onderstaande in acht te nemen.

Montage

Om de lier op het schip te kunnen monteren, moet de bolder en de schootgeleider worden afgenomen. Hiertoe lost men met de meegeleverde imbusseutel de klembout van de schootgeleider (fig. 1).

De schootgeleider en de bolder kunnen nu gelijktijdig worden afgenomen (fig. 2).

Vervolgens demonteert men de standaard van de grondring, door het losdraaien van de vijf cilinderkopbouten (fig. 3).

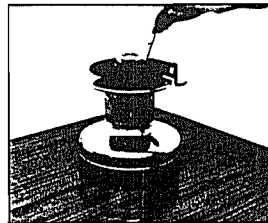
De grondring kan nu met verzonken kopschroeven of bouten stevig op het schip worden bevestigd (fig. 4).

Bolder en schootgeleider worden weer gelijktijdig op de standaard aangebracht (fig. 5).

De lier is juist gemonteerd wanneer het halende part van de schoot schuin olopend de lier bereikt. De stand van de schootgeleider moet zodanig gekozen worden, dat het losse part van de schoot vrij kan vallen in een daarvoor geschikte ruimte (fig. 6).

toewijzing

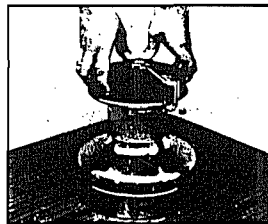
Voor een goede werking is het van het grootste belang de V-vormige opening van het schootgeleider te



1

op de juiste maat is ingesteld.

Deze maat is afhankelijk van de kwaliteit en diameter van de te gebruiken schoot. De V-vormige opening is instelbaar door middel van vulringen, die bij elke lier in verschillende diktes worden meegeleverd. Deze ringen worden aangebracht tussen de bovenschijf en de bolder. Om verlies tijdens de verzending te voorkomen, zijn alle vulringen aangebracht. Dit betekent dat de lier voor geen enkele schootdikte is ingesteld. Dit instellen dient door uzelf te geschieden. Daartoe demonteert men eerst de



2

schootgeleider en vervolgens de bovenschijf. De bovenschijf kan worden afgenomen door het losnemen van de vier bevestigingsbouten. (fig. 7). Waarna men de gewenste vulring(en) aanbrengt (fig. 8).

Uit onderstaande tabel volgt welke ringen moeten worden gebruikt. (richtlijn)

Lier No.	Schootdiameter			
	12	14	16	18
28	0-1	1-1.5	1.5-2	-
32	-	0-1	1-1.5	1.5-2

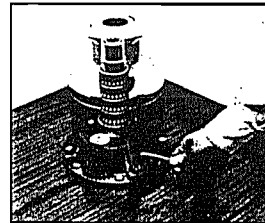
Nadat alles is gemonteerd is de lier voor gebruik gereed.

De schoot moet minimaal drie slagen om de bolder worden gelegd en vervolgens over de schootgeleider in de V-vormige opening van het zelftallend worden getrokken.

Onderhoud

Voor elk zellseizoen dient men de lier te demonteren, zuiver te wassen met petroleum en de draaiende delen licht in te vetten met Molykote-vet.

Een Enkes lier geeft dag en nacht Behouden vaart en goede wacht.



3

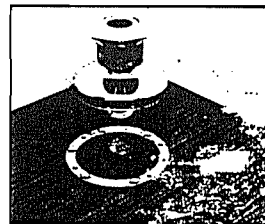
To acquire an optimum operating of the winches, the Enkes self-tailing winches, some recommendations:

Mounting

To install the winch on the boat first the feeder arm and the drum has to be removed. Therefore unscrew with the supplied Allen-bolt key, the Allen-bolt of the feeder arm (Fig. 1).

The feeder arm and the drum can be taken off simultaneously (Fig. 5).

The next step is to dismount the housing from the baseplate by unscrewing the five bolts (Fig. 3).



4

The baseplate can be mounted with countersunk headscrews or bolts on the boat (Fig. 4).

Drum and feeder arm are replaced simultaneously on the base (Fig. 5).

The winch is well mounted if the sheet is coming to the drum on a slight rising level.

The position of the feeder arm has to be chosen in a way that the loose part of the sheet that passed the jaws, well "tails" into a suitable space. (Fig. 6).

Directions for use

For a good self-tailing performance it is very important that the jaws are adjusted to the proper V-size. An adjustment to the most frequently used rope diameter of the sheets or lines. The jaws are adjustable by means of washers, various sizes of spacer rings supplied with the winch. These washers are fitted between the jaws and the drum. To avoid loss during transport, all the washers are fitted on a new winch.

That means that the winch is not yet adjusted to a certain rope diameter. You have to do that yourself. First remove the feeder arm and lift up the jaws. Unscrew the four Allen-bolts on the top and remove the disc. (Fig. 7). Now remove next one or more washers to obtain the right adjustment (Fig. 8) according to the diagram

! everything is assembled the winch is ready to use, for self-tailing use. The sheet has to have at least three

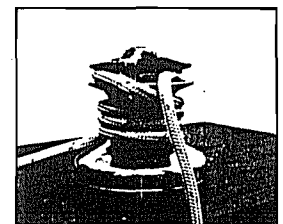


5

turns around the drum and it goes through the feeder arm to the jaws. The jaws are staggered, angled and tapered to feed when necessary also multiple rope diameters. (indication)

Diagram for the appropriate washers to use for various rope diameters

Winch	Rope diameter			
	12	14	16	18
28	0-1	1-1.5	1.5-2	-
32	-	0-1	1-1.5	1.5-2



6

Enkes Winches.

Built for power, guaranteed for life.

U.S.A. Retail Price List

SINGLE SPEED WINCHES

6-A	Alum. Non-Ratcheting	\$ 60.00
8-A	Alum. Ratcheting	105.00
8-C	Chrome Ratcheting	108.00
12-A	Alum. Ratcheting	160.00
12-S	St. St. Ratcheting	205.00

TWO SPEED WINCHES

18-A	Alum. Geared	220.00
18-S	St. St. Geared	325.00
20-A	Alum. Geared	260.00
20-C	Chrome Geared	280.00
20-S	St. St. Geared	340.00
22-A	Alum. Geared	355.00
22-C	Chrome Geared	380.00
22-S	St. St. Geared	540.00
26-A	Alum. Geared	495.00
26-S	St. St. Geared	790.00
28-A	Alum. Geared	880.00
28-S	St. St. Geared	1210.00
32-A	Alum. Geared	1390.00
32-S	St. St. Geared	1695.00
36-A	Alum. Geared	1892.00
36-S	St. St. Geared	2452.00

All Three Speed Winches
Include 10 LT-C Handle

THREE SPEED WINCHES

28-A/3	Alum. Three Speed	\$1020.00
28-S/3	St. St. Three Speed	1350.00
32-A/3	Alum. Three Speed	1530.00
32-S/3	St. St. Three Speed	1835.00
36-A/3	Alum. Three Speed	2032.00
36-S/3	St. St. Three Speed	2592.00

SELF-TAILING WINCHES

18-STA	Alum. One Speed ST	\$ 296.00
18-STS	St. St. One Speed ST	410.00
20-STA	Alum. Two Speed ST	440.00
20-STS	St. St. Two Speed ST	533.00
22-STA	Alum. Two Speed ST	550.00
22-STS	St. St. Two Speed ST	688.00
26-STA	Alum. Two Speed ST	792.00
26-STS	St. St. Two Speed ST	935.00
28-STA	Alum. Two Speed ST	1030.00
28-STS	St. St. Two Speed ST	1390.00
32-STA	Alum. Two Speed ST	1520.00
32-STS	St. St. Two Speed ST	1850.00

Effective
January 1, 1981

All Handles fit the International Standard

CODE: A=Aluminum C=Chrome over Bronze St. St.=Stainless Steel
 L=Lock-in S=Standard D=Double Grip T=Three Speed
 ST=Self-Tailing

WINCH HANDLES

8S-A	8" Standard Alum.	\$ 33.00
8L-A	8" Lock-in Alum.	40.00
10S-A	10" Standard Alum.	37.00
10L-A	10" Lock-in Alum.	44.00
8S-C	8" Standard Chrome	45.00
8L-C	8" Lock-in Chrome	72.00
10S-C	10" Standard Chrome	45.00
10L-C	10" Lock-in Chrome	72.00
10DS-C	10" Dbl. Grip Std. Chrome	55.00
10DL-C	10" Dbl. Grip Lock-in Chrome	82.00
10LT-C	10" 3/Speed Lock-in Chrome	140.00
10LTD-C	10" 3/Speed Dbl. Grip Lock-in Chrome	150.00

TERMS: Prices subject to change without notice. All shipments are F.O.B. nearest ENKES warehouse. All returns are subject to a 10% restocking fee and require return authorization numbers and freight prepayment.

Warehouses:
 Middletown, RI
 TELEX 952069
 San Leandro, CA
 TELEX 336370

Main Office:
 D. B. Follansbee Inc.
 South Harpswell, ME 04079
 (207) 729-4858

Represented Nationwide
 and Worldwide

MEMBER DUTCH MARINE PRODUCTS GROUP

Winch Equivalent Guide

Model # - Speeds (Power Ratio)

	<u>ENKES</u>	<u>LEWMAR</u>	<u>BARIENT</u>	<u>BARLOW</u>	
	6-1	6-1	9-1	14P-1 15-1	
	8-1	7-1 8-1	10P-1 10-1	16-1	
	12-1	10-1	*	20-1	
STANDARD	18-2[15]	16-2	18-2[20]	19-2[18]	
	20-2[29]	30-2	21-2[30]	23-2[26]	
	22-2[40]	40-2 42-2	22-2[33]	25-2[40]	
	26-2[42]	44-3	25-2[44] 26-2[37]	27-2[45]	
	28-2[51]	48-3	28-2[38]	28-2[36]	
	32-2[60]	55-3	32-2[47]	32-2[50]	
	36-2[71]	65-3	35-2[55] 36-2[69]	34-2[54] 36-2[68]	
		*	*	10ST-1	*
	SELF-TAILING	18ST-1[15]	16ST-1	19ST-2[29]	19ST-1[18]
		20ST-2[29]	30ST-1	20ST-1[15]	23ST-1[24]
22ST-2[45]		34ST-1 42ST-2	23ST-2[35]	25ST-2[40]	
26ST-2[49]		44ST-2	27ST-2[46]	27ST-2[45]	
28ST-2[51]		48ST-2	28ST-2[38]	28ST-2[36]	
32ST-2[60]		55ST-2	32ST-2[47]	32ST-2[50]	
	36ST-2[71]	65ST-2	35ST-2[55] 36ST-2[69]	34ST-2[54] 36ST-2[68]	

Enkes fully guarantees the quality of each alloy winch you buy. Should any part prove to be defective during normal use, it may be returned for repair or replacement without charge. Naturally, this guarantee does not apply to damage resulting from lack of maintenance, improper installation, accident, or misuse, nor does it apply to failure caused by applications which do not conform with Enkes' recommendations. Nor does it cover work done by firms other than Enkes.



Lloyd's Certificate

Enkes quality control is under the supervision and inspection of Lloyd's Register of Shipping. For identification purposes, each winch is stamped next to the serial number.