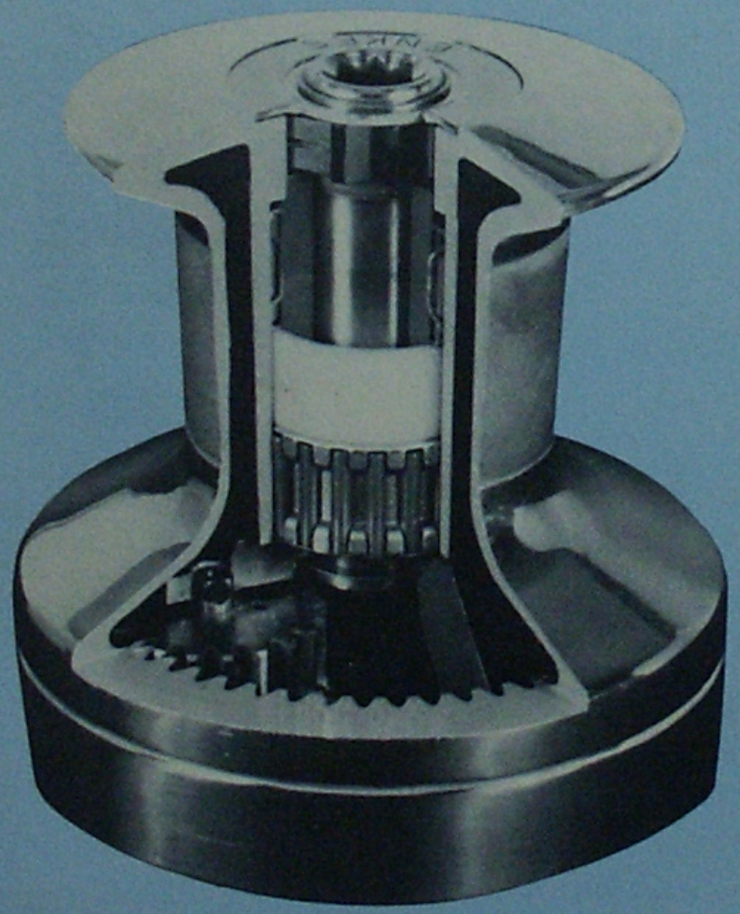
ENKES



WINCHES

* high performance with
* greater safety

* reliable quality with
* lloyd's certificate

One- two and three speed winches
for touring- racing- and motorsailing

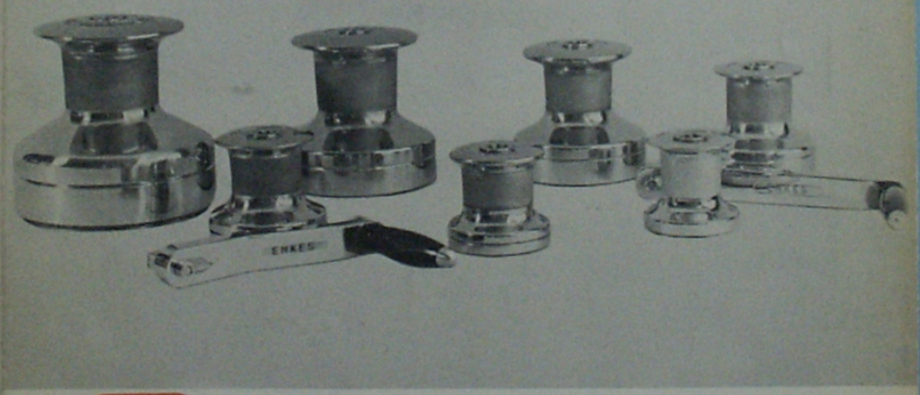
Technical information

WINCH	ER 8	12	18	20	22	26	28
BASE	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
DRUM DIA.	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
HEIGHT	3 5/8 in. 92 mm	3 13/16 in. 97 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
GEAR RATIO 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
GEAR RATIO 3	–	–	–	–	–	–	9.53:1
POWER RATIO 1	8.46:1	7.25:1	7.25:1	7.05:1	6.68:1	5.64:1	4.88:1
POWER RATIO 2	–	–	14.50:1	28.83:1	40.10:1	42.33:1	15.37:1
POWER RATIO 3	–	–	–	–	–	–	46.50:1

ENKES Winch Guide

LENGTH OF BOAT	20 ft. 6.1 m	25 ft. 7.6 m	30 ft. 9.1 m	32 ft. 9.8 m	34 ft. 10.4 m	36 ft. 11.0 m	38 ft. 11.6 m	40 ft. 12.2 m	43 ft. 13.1 m	50 ft. 15.2 m
GENOA SHEET	12 –	18 –	20 22	22 26	26 –	26 28	28 –	28 32*	32* –	36* –
SPINNAKER SHEET	12 –	12 –	18 –	20 –	22 –	22 –	22 26	26 28	28 –	32* –
MAIN SHEET	– –	12 –	12 –	12 –	12 –	18 –	18 –	20 –	20 –	22 –
GENOA HALYARD	12 –	12 –	12 18	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 –	18 –	20 22	22 –
SPINNAKER TOPPING LIFT	–	–	–	–	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

* Information on inquiry



ENKES®
ENKES N.V.
P.O.B. 4
VOORBURG - HOLLAND
Tel. 070 - 86 44 40
Telex 32052

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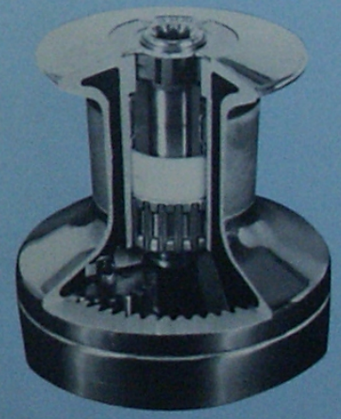
ENKES

WINCHES



* high performance with
* greater safety
* reliable quality with
* lloyd's certificate

One- two and three speed winches for touring- racing- and motorsailing

ENKES

Enkes N.V. was established in 1912 and became a well-known manufacturer of precision gear systems.
In the Enkes machineshop all kinds of specialty products, including all components for yacht winches, are manufactured.

ENKES QUALITY

Constant research and development are behind the Enkes products and therefore a wide range of winches of the finest materials at considerably lower prices than you bargained for is available.

ENKES MATERIALS

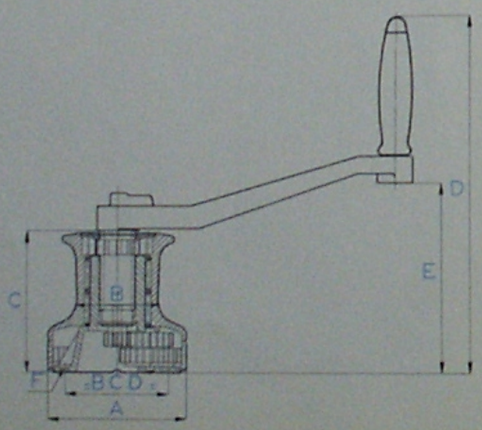
The following specifications are given to show you the quality of the Enkes winches. We draw your attention to the fact, that the specified nickel aluminium bronze has a tensile strength of 115,000 lbs. psi and a yield of 75,000 lbs. psi.

- Drums 316 stainless steel *
- Bearing cage, roller bearings and shafts stainless steel
- Gear housing nickel aluminium bronze
- Gears nickel aluminium bronze or stainless steel, on the No. 20 the main gear is super strength monel
- Cir-clips stainless steel
- Pawls 431 stainless steel
- Springs 316 stainless steel
- Handles forged bronze
- All parts durable against corrosion

* (except ER types)

DESIGN FEATURES

- Drives free-wheel without moving handle
- Self-draining center shafts
- Self-draining bases
- Drum lifts off by removing one cir-clip
- Mounting holes and all lubricating points accessible with drum removed
- Drum sand blasted for sure line grip
- Interchangeable lock-in handles for all types of Enkes winches
- Supplied with extra pawl springs and cir-clip



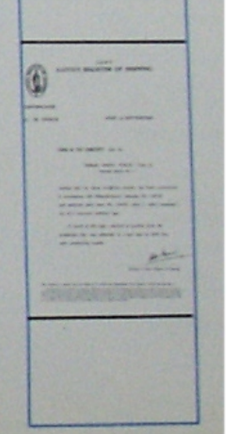
ENKES GUARANTEE

Enkes guarantees top quality. Any part, which proves to be defective in the normal use of equipment, according to the Enkes Winch Guide, may be returned by the original owner and be repaired or replaced without charge. This guarantee does not apply to damage resulting from accident, neglect or misuse, including repairs or alterations made by firms other than Enkes N.V. or its official representatives.

Dimensions of ENKES winches

	WINCH No.	ER 8	12	18	20	22	26	28
A	BASE DIA.	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
B	DRUM DIA.	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
C	WINCH HEIGHT	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
D	HANDLE HEIGHT	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
E	HANDLE CLEARANCE	5 5/16 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
F	MOUNTING HOLE DIA.	1/4 in. 6 mm	1/4 in. 6 mm	1/4 in. 6 mm	1/4 in. 6 mm	5/16 in. 8 mm	5/16 in. 8 mm	5/16 in. 8 mm
	NUMBER MOUNTING HOLES	5	4	5	5	5	5	6
	B.C.D.	2 3/4 in. 70 mm	2 19/32 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

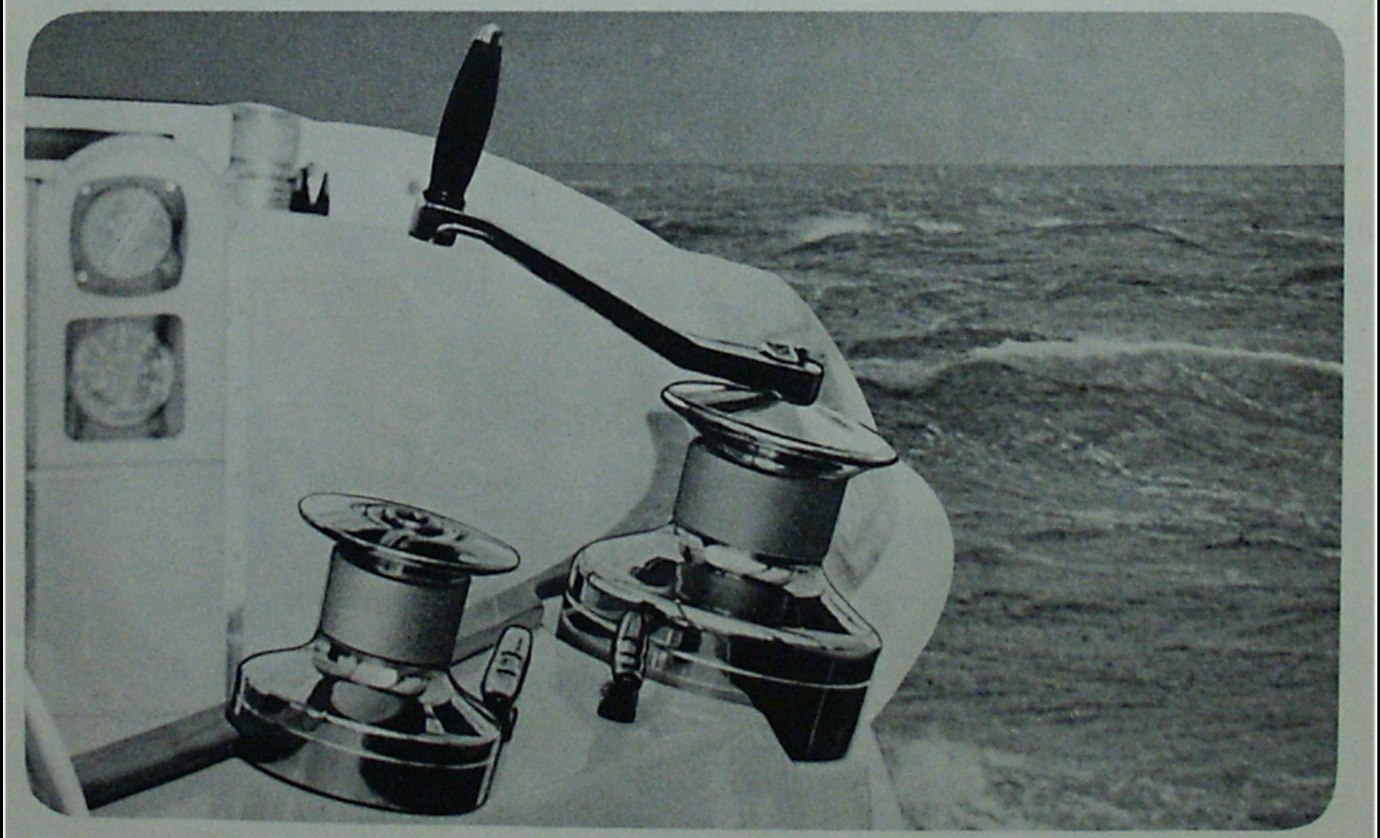
QUALITY CONTROL



ONE- TWO- AND THREE-SPEED WINCHES FOR CRUISING- RACING- AND MOTORSAILING

ENKES winches

HIGH PERFORMANCE * GREATEST SAFETY * RELIABLE QUALITY * LLOYDS CERTIFICATE



TECHNICAL INFORMATION

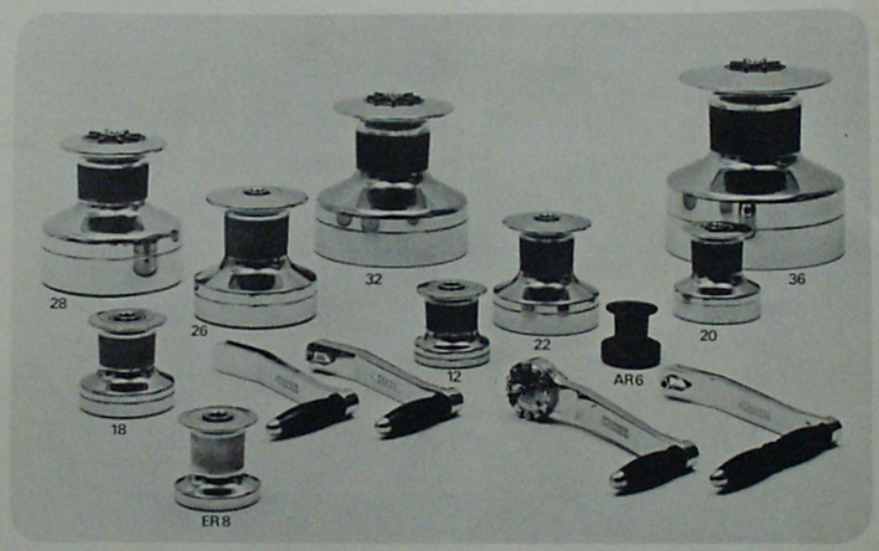
WINCH	AR 6	ER 8	12	18	20	22	26	28	32	36
BASE	3.15 in. 80 mm	3 7/8 in. 98 mm	4 in. 102 mm	4 3/4 in. 120 mm	5 in. 126 mm	5 7/8 in. 150 mm	6 7/8 in. 175 mm	8 1/4 in. 210 mm	9.45 in. 240 mm	11.02 in. 280 mm
DRUM DIA.	1.77 in. 45 mm	2 3/8 in. 60 mm	2 3/4 in. 70 mm	2 3/4 in. 70 mm	2 13/16 in. 72 mm	3 in. 76 mm	3 9/16 in. 90 mm	4 1/8 in. 104 mm	4.49 in. 114 mm	5.59 in. 142 mm
HEIGHT	2.83 in. 72 mm	3 5/8 in. 92 mm	3 13/16 in. 97 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
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
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

ENKES WINCH GUIDE

LENGTH OF BOAT	20 ft. 6.1 m	25 ft. 7.6 m	30 ft. 9.1 m	32 ft. 9.8 m	34 ft. 10.4 m	36 ft. 11.0 m	38 ft. 11.6 m	40 ft. 12.2 m	43 ft. 13.1 m	50 ft. 15.2 m
GENOA SHEET	12 —	18 —	20 22	22 26	26 —	26 28	28 —	28 32	32 —	36 —
SPINNAKER SHEET	12 —	12 —	18 —	20 —	22 —	22 —	22 26	26 28	28 —	32 —
MAIN SHEET	— —	12 —	12 —	12 —	12 —	18 —	18 —	20 —	20 —	22 —
GENOA HALYARD	12 —	12 —	12 18	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 —	18 —	20 22	22 —
SPINNAKER TOPPING LIFT	—	—	—	—	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	AR 6	ER 8	12	18	20	22	26	28	32	36	
GENOA SHEET		19 200	24 250	28 300	33 350	42 450	56 600	70 750	84 900	139 1500	SQ M. SQ FT
SPINNAKER SHEET	24 250	37 400	43 450	47 500	56 600	74 800	112 1200	186 2000	276 3000	372 4000	SQ M. SQ FT



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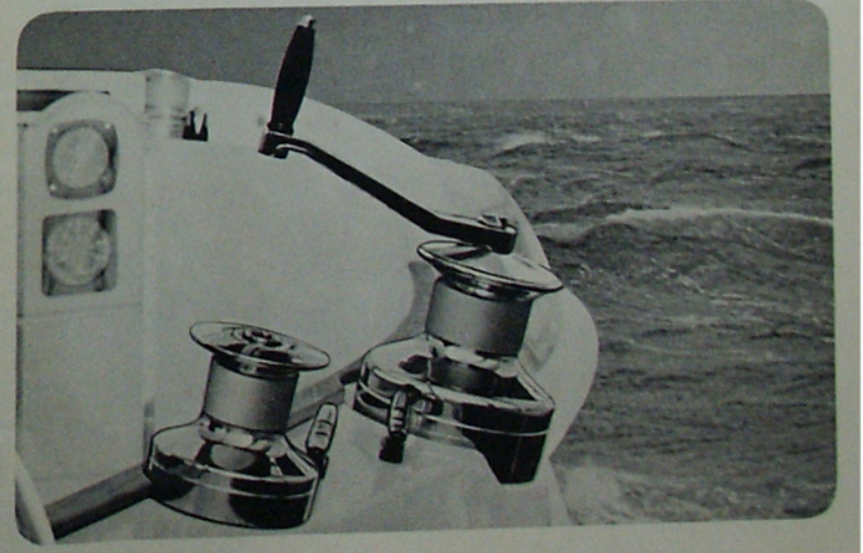

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Printed in the Netherlands

ENKES

ENKES N.V. fondé en 1912 est une fabrique d'usinage de pièces d'engrenage bien connue.
Dans la fabrique toutes les pièces pour winches de voiliers et d'autres pièces spéciales sont usinées.

LA QUALITE ENKES

Un développement continuel et des études constantes sont à la base des produits ENKES, aussi une gamme étendue de winches, dont les matériaux utilisés sont de premières qualités, est offerte à des prix plus que compétitifs.

LES MATERIAUX UTILISES CHEZ ENKES

La liste suivante vous démontre la qualité des matériaux qu'utilise ENKES. Nous aimerions attirer votre attention sur le fait que le Nickel Aluminium Bronze spécifié contient moins de 1% de zinc, éliminant ainsi les risques de corrosion.

- poupée faite d'acier inox (316) sauf types AR et ER
- cages de roulements, roulements et axes en acier inoxydable
- base nickel aluminium bronze
- engrenage nickel aluminium bronze ou acier inoxydable
- clips acier inox
- cliquets en acier inox (416)
- ressorts en acier inox (316)
- manivelles en bronze ou aluminium
- toutes les pièces étudiées contre la corrosion

ENTRETIEN

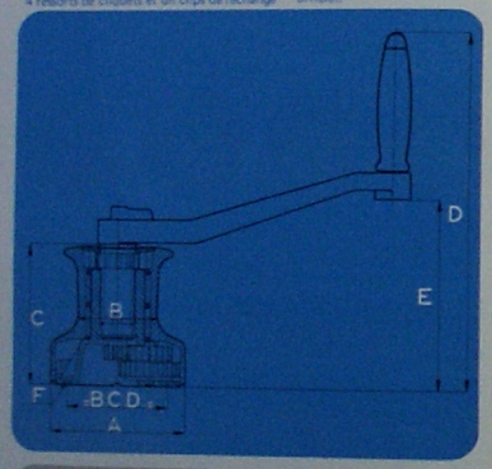
Durant une saison de régates actives les winches ENKES devraient être nettoyés et graissés environ 3 fois. Les winches ENKES doivent être nettoyés, vérifiés et lubrifiés à la fin de chaque saison.
Pour lubrifier nous recommandons la graisse "MOLYKOTE" spéciale pour winches.
La poupée de tous les winches ENKES est montée d'un clips (sauf winches AR 6) facilement démontable avec un tournevis ou une lame de couteau. Une fois la poupée démontée, l'accessibilité de toutes les autres pièces est facile.

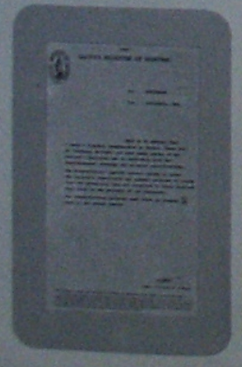
AVANTAGE DES WINCHES ENKES

- embrayage à la volée sans que la manivelle tourne
- axe central et base auto-videuse
- la poupée se démonte simplement en enlevant un clips
- boulons de montage et points de lubrification tous accessibles une fois la poupé démontée
- poupée sablés pour une meilleure adhérence de l'écoute
- toutes les manivelles ENKES, blocantes ou non, s'adaptent à tous les winches de la gamme et d'autres marques de qualité
- tous les winches sont livrés avec 4 ressorts de cliquets et un clips de rechange

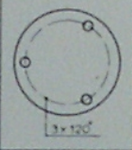
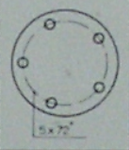
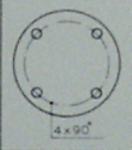
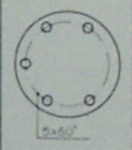
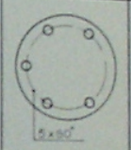
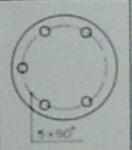
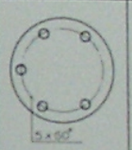
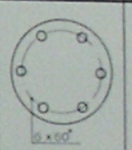
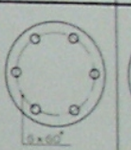
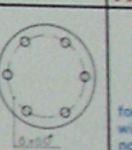
LA GARANTIE ENKES

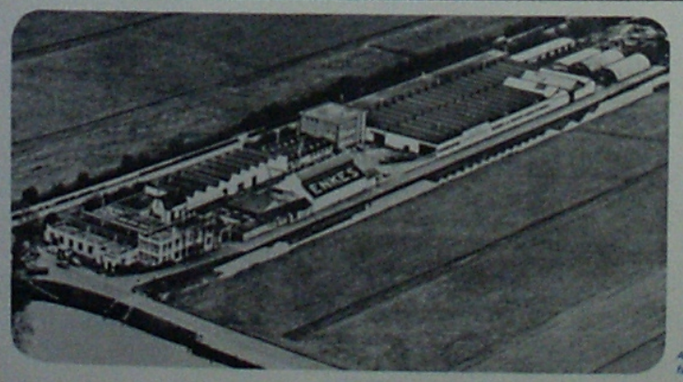
ENKES N.V. garantit que ses produits sont de la plus haute qualité. Tous winches utilisés suivant les normes données dans le ENKES "WINCH GUIDE", présentant des faiblesses ou défauts seront remplacés ou réparés sans frais.
Cette garantie ne s'applique pas aux dommages survenus lors d'un accident d'utilisation erronée ou manque d'entretien ou réparation faites par personnes autres que ENKES N.V. ou leur représentant officiel.



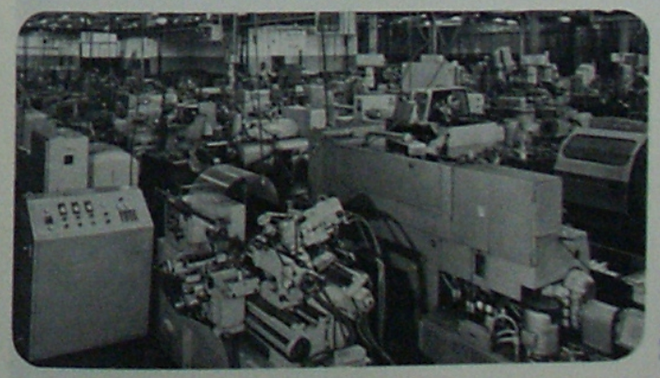


DIMENSIONS OF ENKES WINCHES

winch	single speed			two speed				three speed			handles
no.	AR6	ER8	12	18	20	22	26	28	32	36	for winch no.
											AR 6 — 6" LOCK-IN ALUMINIUM
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	ER 8, 12, 18, 20 — 6" PLAIN OR 8" LOCK-IN
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	22, 26 — 10" PLAIN OR 10" LOCK-IN
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	28, 32, 36 — 10" LOCK-IN DOUBLE GRIP
F MOUNTING HOLE DIA.	$^{1}/_{4}$ in. 6 mm	$^{1}/_{4}$ in. 6 mm	$^{1}/_{4}$ in. 6 mm	$^{1}/_{4}$ 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	10" LOCK-IN RATCHET HANDLE
B.C.D.	1.97 in. 50 mm	$2^{3}/_{4}$ in. 70 mm	$2^{19}/_{32}$ 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	

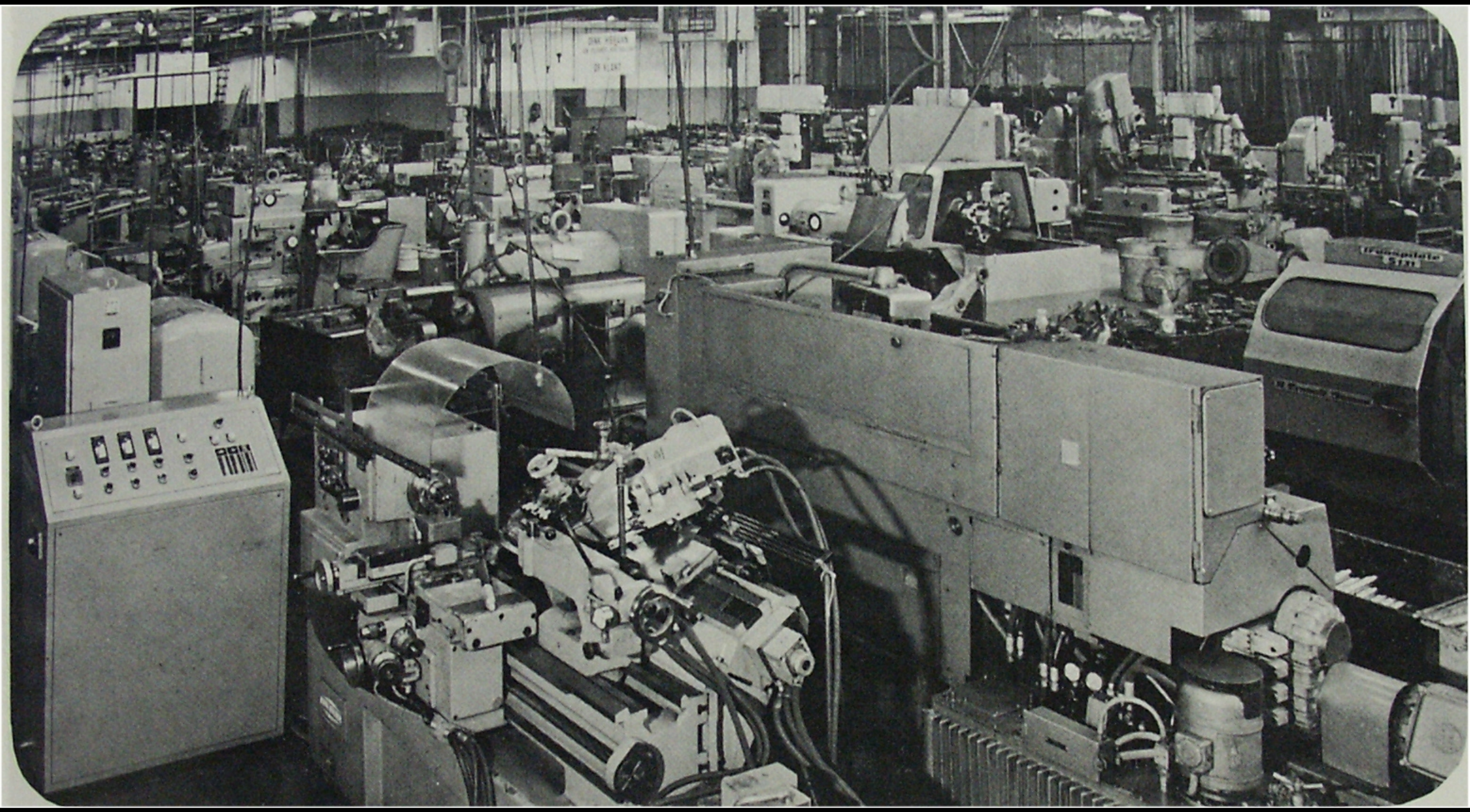


Aerial view of our factory



View of a part of our half-automatic machine capacity

MOLYKOTE
321R



enkes

ENKES

telefoon 070-864440 telegram-adres: enkes voorburg - telex 32052 - postgiro 74841
postbus 4, voorburg bankgiro: amsterdam-rotterdam bank n.v., den haag 43.00.13.043
afleveradres: pierson, heldring & pierson, amsterdam 24.08.16.102
westvlietweg 60 handelsregister 's-gravenhage 4849

handelmaatschappij-machinefabriek-reparatiebedrijf

uw schrijven d.d. :
uw ref. :
onze ref. :
behandeld door :
toestel nr. :

PRIJSLIJST / PRICE LIST / PREISLISTE

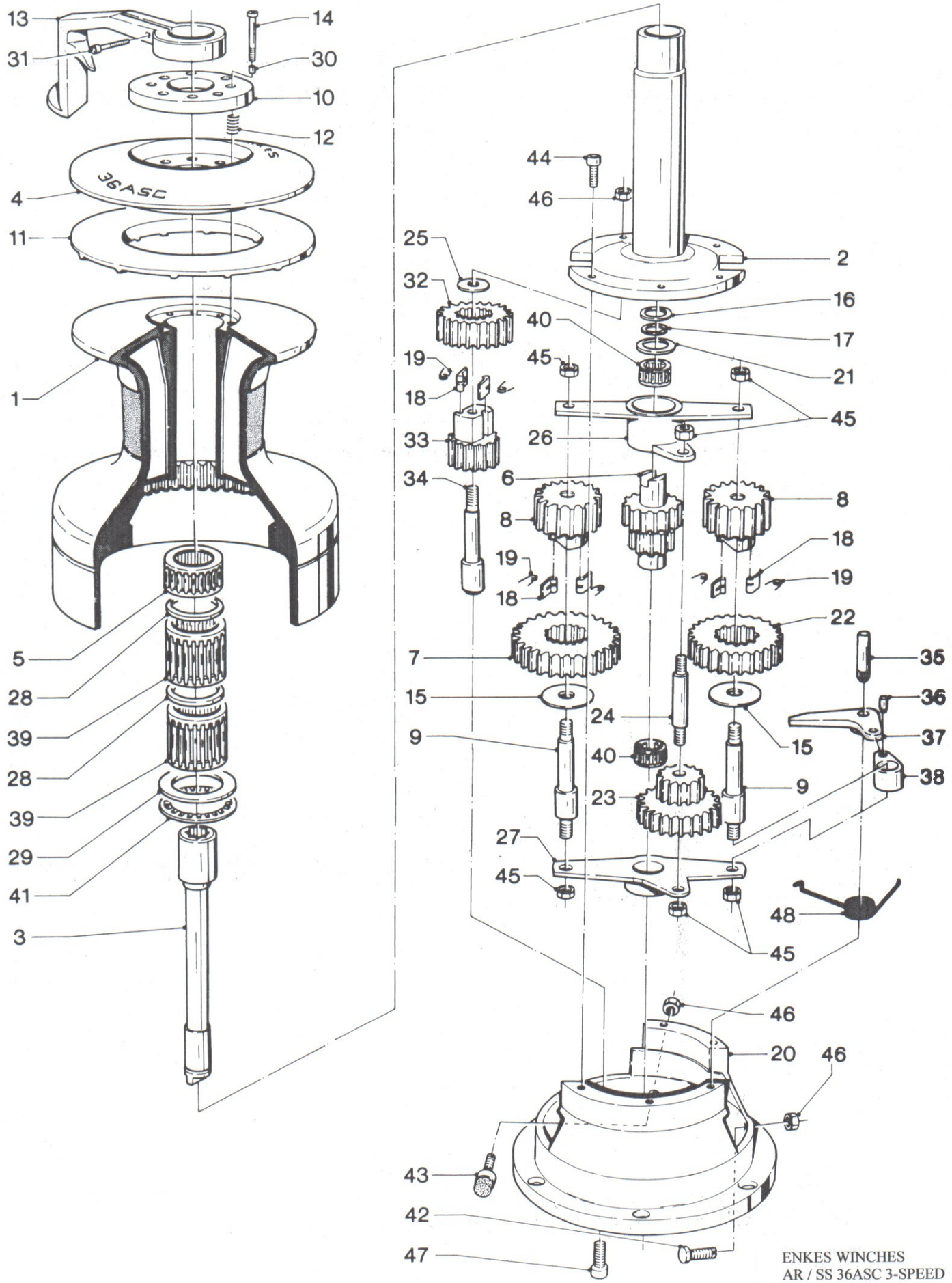
in guldens per stuk
in Dutch guilders each
in Hollandgulden pro Stück

excl. B.T.W. / T.A.V. / Mehrwertsteuer

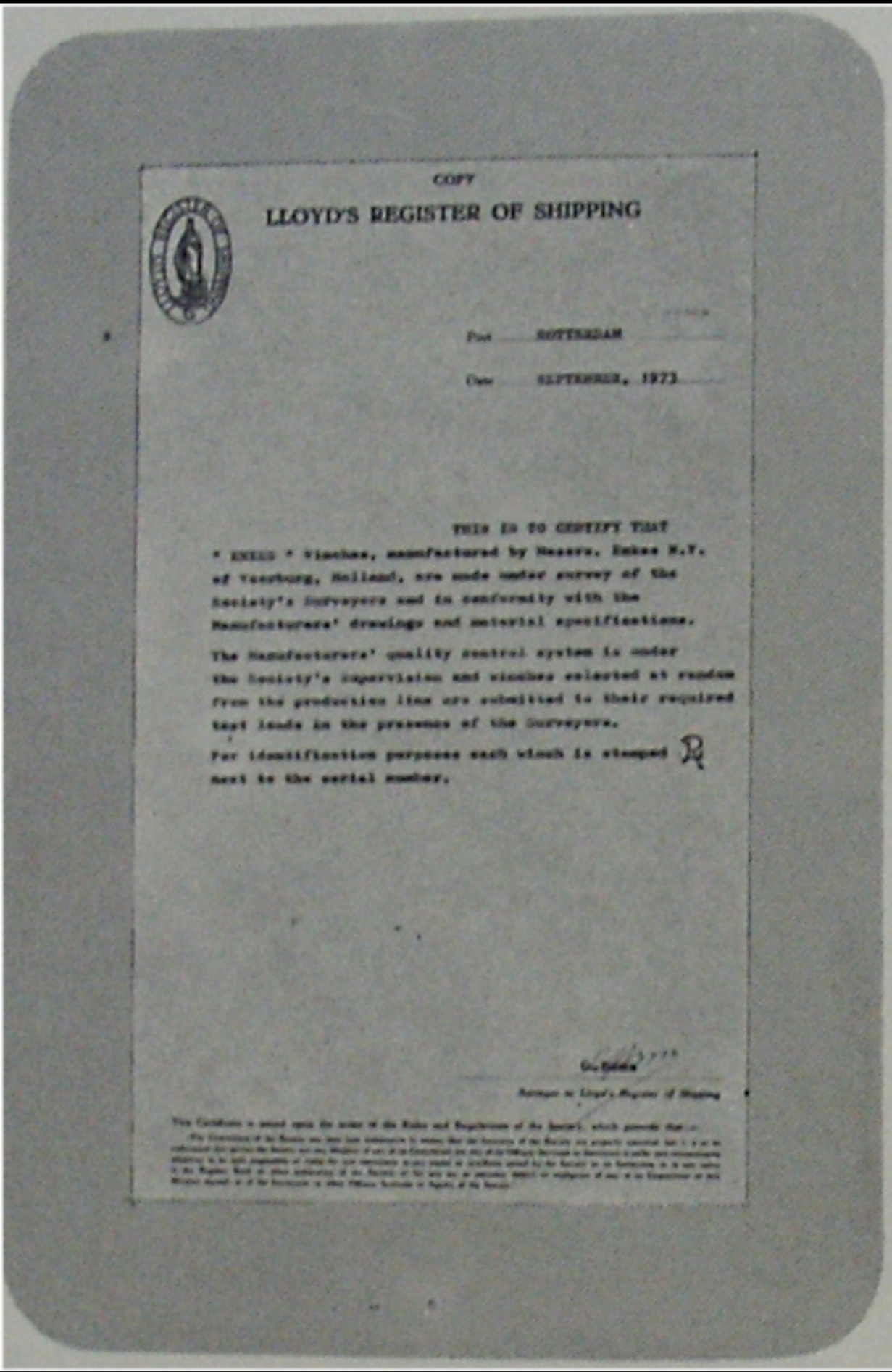
Schootlier no Winch nr Winde nr	Roestvrijstaal Stainless steel Rostfreistahl	Brons verchroomd Chrome bronze Chrombronze	Aluminium Aluminium Aluminium
ER 6	---	---	45,--
ER 8	---	120,--	---
12	190,--	---	---
18	310,--	---	---
20	390,--	---	---
ER 25	---	350,--	---
22	440,--	---	---
ER 40	---	380,--	---
26	630,--	---	---
28	1.475,--	---	---

Hendel Handle Kurbel	zonder borging plain ohne Sicherung	met borging lock-in mit Sicherung	dubbelgreep double grip Doppeltgriff
8"	50,--	70,--	---
10"	50,--	70,--	---
10"	---	---	85,--

Speciaal vet voor ENKES schootlieren Special grease for ENKES winches Spezialfett für ENKES Winden	p/tube	5,--



ENKES WINCHES
AR / SS 36ASC 3-SPEED



COPY

LLOYD'S REGISTER OF SHIPPING

Port ROTTERDAM

Date SEPTEMBER, 1973

THIS IS TO CERTIFY THAT

* ENKES * Winches, manufactured by Messrs. Enkes N.V. of Voorburg, Holland, are made under survey of the Society's Surveyors and in conformity with the Manufacturers' drawings and material specifications.

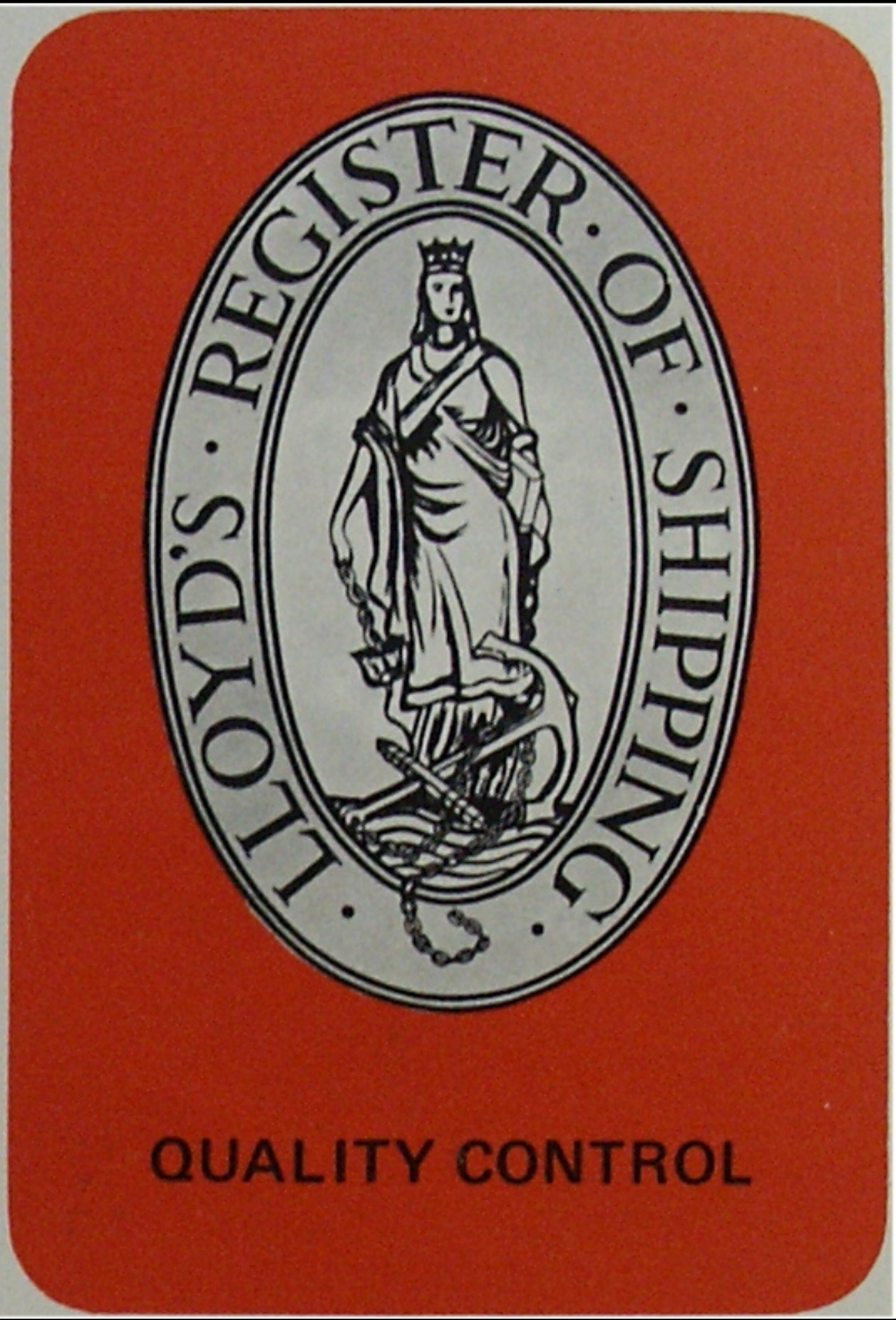
The Manufacturers' quality control system is under the Society's supervision and winches selected at random from the production line are submitted to their required test loads in the presence of the Surveyors.

For identification purposes each winch is stamped R next to the serial number.

Surveyor to Lloyd's Register of Shipping

This Certificate is issued upon the order of the Rules and Regulations of the Society, which provide that:—

[illegible]



QUALITY CONTROL