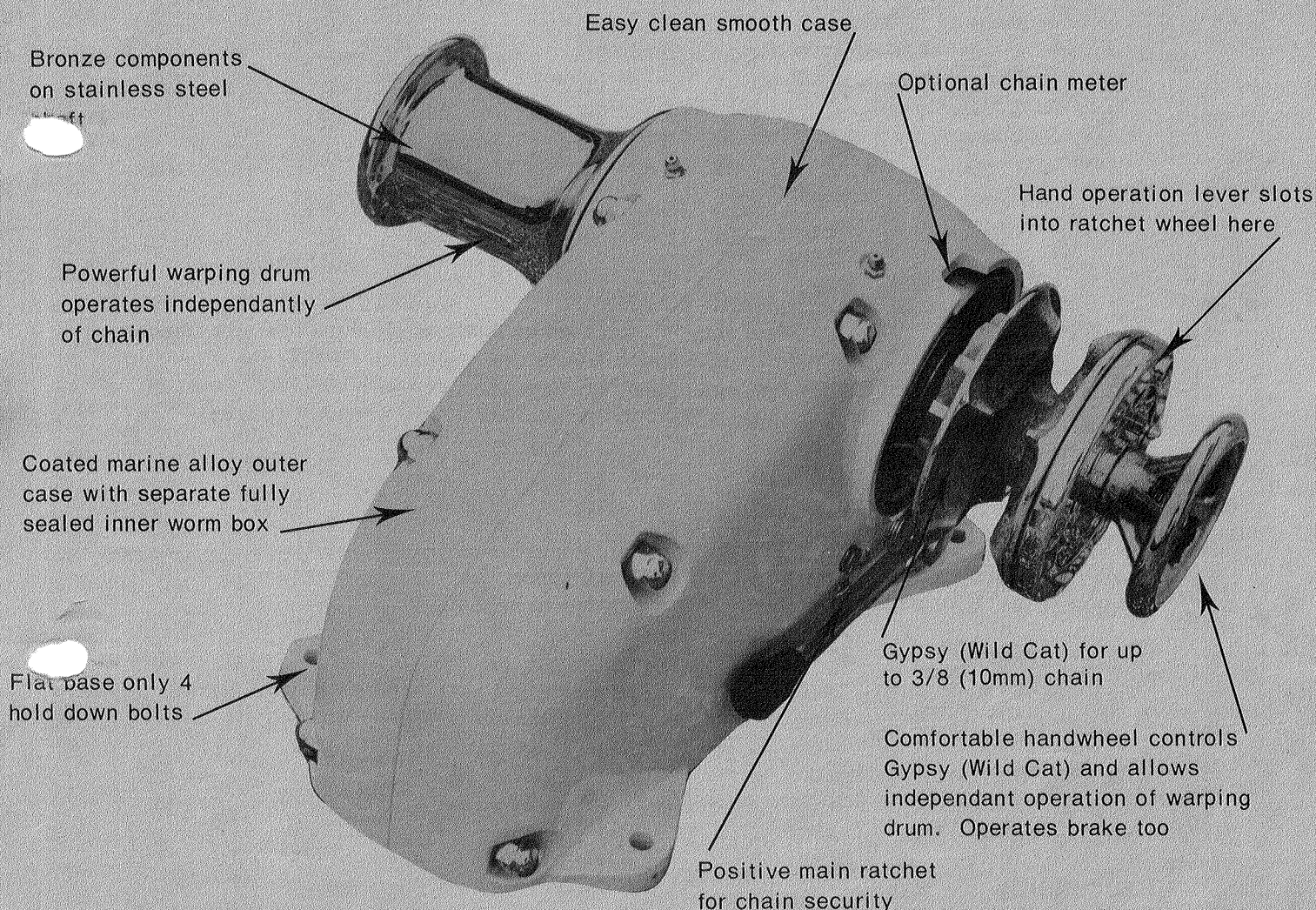




NILSSON WINCHES LTD.

69 HILLSIDE ROAD, TAKAPUNA, AUCKLAND 10, NEW ZEALAND
Telephone 444-9329 Telex NZ21382 Cables & Grams "Winches Auckland"

ELECTRIC OR HYDRAULIC POWERED H700 ANCHOR WINDLASS for 40ft (12m) boats



DRIVE : Sealed Gearbox, Bronze Worm Wheel, Steel Worm

MOTOR : 12 or 24 volt DC or hydraulic

STANDARD BUILD : Gypsy (Wild Cat) starboard, Drum Port

STANDARD ACCESSORIES : Chain Pipe with Stripper, Footswitch (electric) and emergency Hand Lever

OPTIONAL BUILDS : Gypsy Port, Drum Starboard, Chain Meter, Single or Double Drum only

Weight : 50lbs — 23kg

Length : 14 inch — 355mm

Width : 17 inch — 430mm

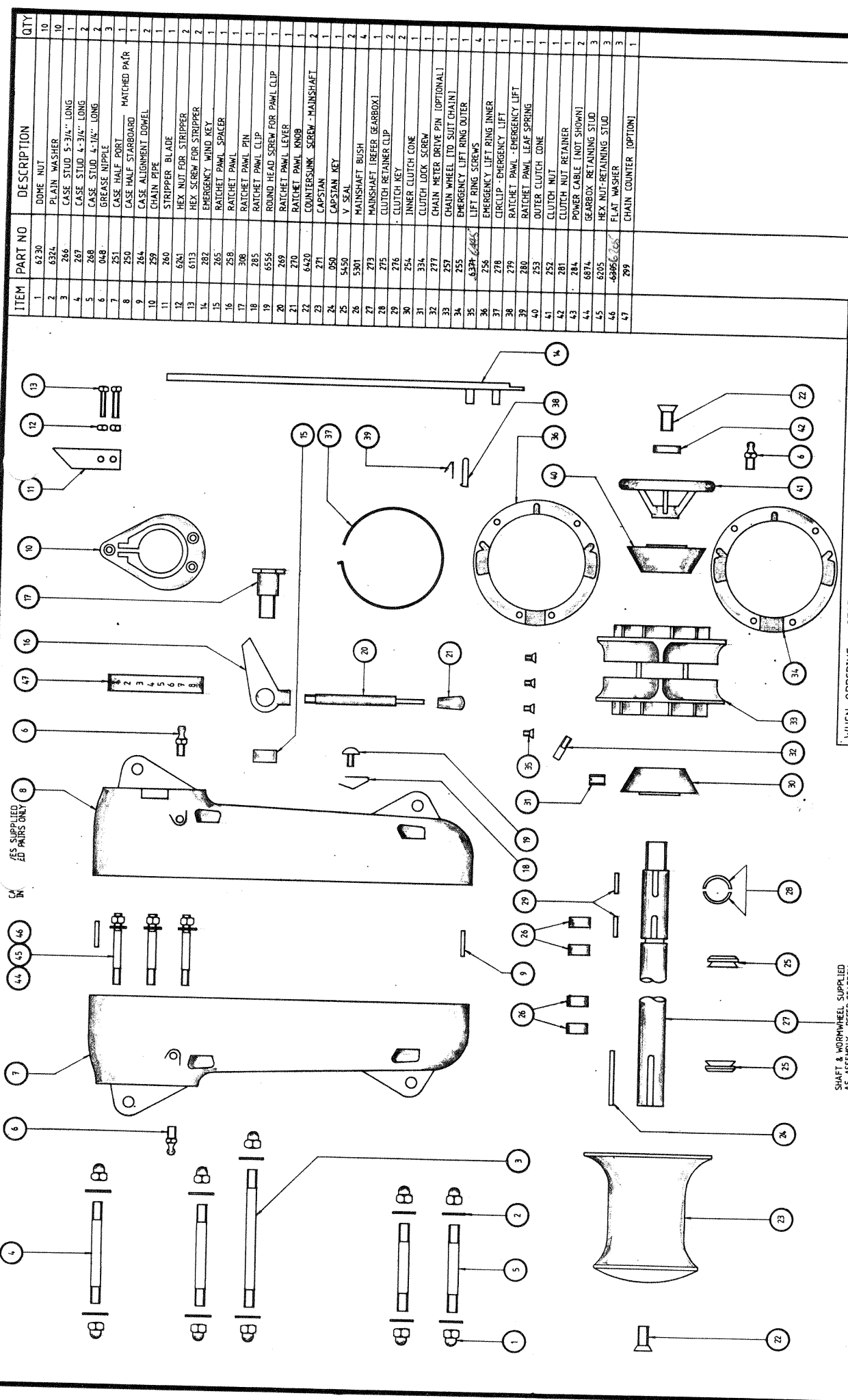
Height : 7.5 inch — 190mm

Av. Amps : 50

No Load Speed : 60/70 fpm
20 m/m

We reserve the right to change specification without notice.

MANUFACTURERS OF MARINE & INDUSTRIAL WINCHES. GENERAL ENGINEERS
NON FERROUS PRODUCTION AND JOBBING CASTINGS



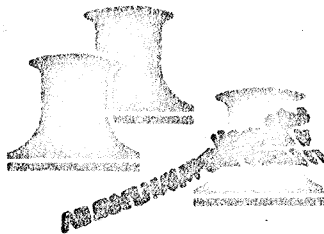
ITEM	PART NO	DESCRIPTION	QTY
1	6230	DOME NUT	10
2	5324	PLAIN WASHER	10
3	266	CASE STUD 5-3/4" LONG	1
4	267	CASE STUD 4-3/4" LONG	2
5	268	CASE STUD 4-1/4" LONG	2
6	048	GREASE NIPPLE	2
7	251	CASE HALF PORT	3
8	250	CASE HALF STARBOARD	1
9	264	CASE ALIGNMENT DOWEL	1
10	259	CHAIN PIPE	2
11	260	STRIPPER BLADE	1
12	6241	HEX NUT FOR STRIPPER	2
13	6113	HEX SCREW FOR STRIPPER	2
14	262	EMERGENCY WIND KEY	1
15	265	RATCHET PAWL SPACER	1
16	258	RATCHET PAWL	1
17	308	RATCHET PAWL PIN	1
18	285	RATCHET PAWL CLIP	1
19	6556	ROUND HEAD SCREW FOR PAWL CLIP	1
20	269	RATCHET PAWL LEVER	1
21	270	RATCHET PAWL KNOB	1
22	6420	COUNTERSUNK SCREW - MAINSHAFT	2
23	271	CAPSTAN	1
24	050	CAPSTAN KEY	1
25	5450	V SEAL	2
26	5301	MAINSHAFT BUSH	4
27	273	MAINSHAFT REFRER GEARBOX	1
28	275	CLUTCH RETAINER CLIP	2
29	276	CLUTCH KEY	2
30	254	INNER CLUTCH CONE	1
31	334	CLUTCH LOCK SCREW	1
32	277	CHAIN METER DRIVE PIN [OPTIONAL]	1
33	257	CHAIN WHEEL [TO SUIT CHAIN]	1
34	255	EMERGENCY LIFT RING OUTER	1
35	6334	LIFT RING SCREWS	4
36	256	EMERGENCY LIFT RING INNER	1
37	278	CIRCLIP - EMERGENCY LIFT	1
38	279	RATCHET PAWL - EMERGENCY LIFT	1
39	280	RATCHET PAWL LEAF SPRING	1
40	253	OUTER CLUTCH CONE	1
41	252	CLUTCH NUT	1
42	281	CLUTCH NUT RETAINER	1
43	284	POWER CABLE [NOT SHOWN]	2
44	6874	GEARBOX RETAINING STUD	3
45	6205	HEX NUT-RETAINING STUD	3
46	6956	FLAT WASHER	3
47	299	CHAIN COUNTER [OPTION]	1

WHEN ORDERING - STATE MODEL YEAR OF PURCHASE

MAINTENANCE--KEEP CLEAN. STRIP ALL PARTS EXTERNAL TO CASE AND GREASE OR OIL ALL SURFACES TWICE PER SEASON.
NOTE--STANDARD BUILD IS CHAIN WHEEL TO STARBOARD. SPECIFY IF YOUR WINDLASS HAS CHAINWHEEL TO PORT SIDE

PARTS LIST FOR H700
CASE AND EXTERNAL COMPONENTS

NILSSON WINCHES LTD
69 HILLSIDE ROAD
AUCKLAND 10, NEW ZEALAND



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INSTALLATION AND OPERATION INSTRUCTIONS

HORIZONTAL POWERED WINDLASS

LOCATION Any position giving a clear run from fairlead to winch so that angle of chain entering gypsy (wildcat) does not exceed 5 degree misalignment. (Angle approx 1/9).

Provided the warp does not foul the winch case, the capstan will work satisfactorily at much greater angles and therefore priority should be given to chain alignment.

INSTALLATION The base of the winch is drilled to take four bolts which should be 303, 304 or 316 grade stainless steel with matching nuts and washers. Do not use brass or bronze nuts, bolts or washers. It is preferable to mount the winch and navel pipe on a 1" (25mm) base to create best drainage and a wearing strip may be advisable to protect the deck from chain rub.

The Navel pipe should be positioned under the aft end of gypsy so that the chain falls straight down through the centre of the pipe.

If the Navel pipe cannot be positioned directly over the chain locker, heavy wall flexible plastic tube can be used to direct the chain to the required area. If the plastic tube system is to be used, a trial should be made to ensure that the chain will slip through completely unaided to avoid jamming. The chain locker must be of such size that the chain will heap up and feed out naturally without fouling.

Allowance must be made for electric power cables or hydraulic lines to be conveniently connected under the deck after installation.

The chain stripper is to ensure that the anchor chain will always peel off the gypsy smoothly and some adjustment may be necessary to obtain a correct installation. Due to wide variations in chain sizes used on this type of windlass, the centre groove of the gypsy will vary in height above the deck. It may be necessary to pack up (or sometimes lower) the height of the navel pipe so that the stripper aligns correctly with the centre line of the gypsy groove. It may also be necessary to modify the end of the stripper to ensure clearance at the bottom of the groove and a minimum of metal should be filed off. Adjustment of the navel pipe is made after bolting down of the windlass.

CHAIN FIT Correct fit of chain to gypsy is essential and can only be guaranteed where a standard chain known to us is used or a 12" (300mm) or 8 links (whichever is longer) sample has been forwarded for testing. Exchange gypsies can be supplied at any time for a charge based on the condition of the unit returned.

BEDDING IN After thoroughly checking position of winch, navel pipe and deck switch or control valve, all the above fittings including winch, should be bedded in, using one of the rubberized sealants intended for this purpose. It is important that the seal between windlass base and deck is waterproof as any leaks at this point would enable water to find its way into the inside of the casing via the exit hole for electric wires or pipes. This could have serious effect of the parts housed therein.

ELECTRICAL WIRING INSTALLATIONS If windlass is within 25ft (8metres) of battery use 37/036 (25squaremm) heavy cable or 490/0076 welding cable. For longer runs use 61/036 (40square mm) heavy cable or 770/0076 welding cable.

It is not important which way the positive and negative cables are connected to the motor cables.

A battery isolator should be fitted in one of the cables to the motor and the deck switch is connected in series.

Ordinary fuses are not supplied or recommended and where an overload protection device is fitted, the manufacturers instructions should be followed. Standard motors fitted are high torque, short rated and are not intended for continuous operation or stalled loads.

HYDRAULIC INSTRUCTIONS See separate instructions.

OPERATION.

Chain - haul in. Tighten clutch nut by hand in a clockwise direction. Heavy loads may require the use of the hand lever being used on one of the clutch nut prongs to give extra grip at the clutches. Depress footswitch or actuate control valve. If anchor is fouled and windlass is stalled or nearly stalled stop immediately and use engine power to free anchor.

Chain - Holding Anchor The ratchet pawl will hold the chain if engaged with the gypsy. It is advisable to slacken clutch nut to allow full weight onto pawl before re tightening clutch.

Chain - Letting go anchor. Release pawl by applying power to winch briefly if necessary. Release clutch nuts carefully and use clutches as a brake to control run of chain. When the anchor is out release clutches and engage ratchet pawl to avoid transmission of shock loads back through gearing.

Warping drum. May be operated at any time by releasing clutches and applying power to winch motor.

Warping drum lock ratchet. (H3000 only where fitted) This ratchet acts as a secondary safety lock. Should the primary reversing lock in the winch fail to hold, the warping drum ratchet will engage and hold the shaft assembly from rotation under load.

ALWAYS Tie off or cleat anchor chains or warps to main bollard or cleats. NEVER use the anchor windlass as a bollard.

EMERGENCY HAND WIND. The pipe lever provided with H3000 models may be used to actuate the emergency lifting lever which drives the gypsy by a secondary pawl. Main gypsy pawl is used to hold the chain between hauls and the clutch nut must be fully released. On the H700, the lever provided is engaged in ratchet ring slot in the gypsy.

MAINTENANCE The gearbox of every winch is filled at the factory prior to despatch and no further attention is necessary. All gears within the gearbox run on needle roller or ball races. Grease nipples are provided on the back side of both main shaft bearing bosses and on the outer gypsy clutch. In the case of double gypsy, double drum models, a further nipple is provided in the waist diameter of the warping drum. These points require 2-3 shots of any general purpose grease every week. If the vessel is used continually every 2nd day would be better. A clutch/brake of this type relies on lubrication to operate effectively. The emergency lifting lever and ratchet pawls will all operate smoother if they are given a drop or 2 of any oil 2 or 3 times a season. The warping drum should be removed once per year, and the shaft and internal diameter of the drum lightly greased and replaced on the shaft. This helps stop any action between drum and shaft. Covering the winch when not in use is not essential. Experience has shown that if a cover is going to be used it must be made of material that will breath and not encourage sweating. An occasional spray with CRC especially where shafts and bolts enter the main casing will help to keep it clean and free from corrosion. Gearbox lubricant is Castol TC or equivalent (Refer guarantee) Refer separate instructions for deckswitch and hydraulics.

STORAGE Prior to installation - store with shaft horizontal and grease well if held for a long period.

On boat - thoroughly lubricate prior to laying up or slipping for long periods.

GUARANTEE We will consider any reasonable claim for failure due in our opinion to faulty workmanship or materials provided the windlass is returned to us or other approved address. Full details of age, usage, evidence of purchase etc are necessary.

Motors and gearbox must not be opened up or attempts at repair made if a claim under guarantee is envisaged as this will adversely prejudice the claim.

Claims related to failure due to fair wear and tear, misuse, incorrect installation or neglect will not proceed.

FINALLY We expect you will have many years of satisfactory operation from your NILSSON windlass. We will welcome any query or suggestion you may have and you are always free to call on us for advice. We manufacture a variety of standard and special winches related to marine and industrial use and product guides are available on request.