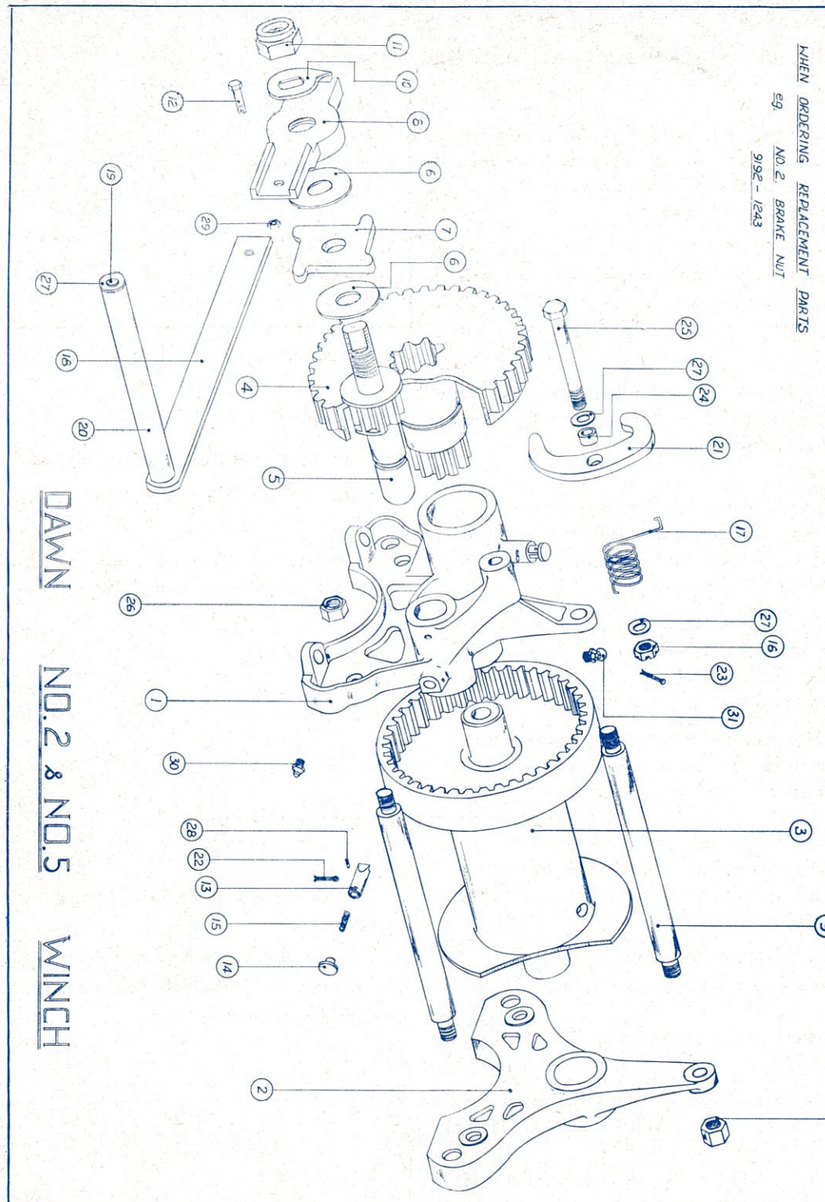
ORDER REPLACEMENT PARTS BY NAME AND PART NUMBERS

DAWN NO.2 & NO.5 WINCH



WHEN ORDERING REPLACEMENT PARTS
EG. NO.2. BRAKE NUT
9/92 - 1243

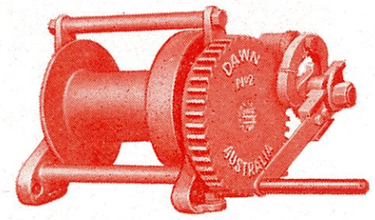
3rd ANGLE PROJECTION

WINCH	PRODUCT CODE
NO.5	9/93
NO.2	9/92

NO.	TITLE	REQ.	CODE
1	END FRAME	1	5004
2	END FRAME	1	5002
3	WINDING DRUM	1	5101
4	GEAR	1	5102
5	PINION	1	2096
6	FIBRE BRAKE DISC	2	7804
7	RATCHET	1	2536
8	BRAKE NUT	1	1243
9	TIE BAR	3	2613
10	RELEASE WASHER	1	623
11	NUT "NYLOC"	1	540-660
12	BOLT INCLUDES 29	1	165-273
13	PLUNGER	2	112
14	PLUNGER CAP	2	6202
15	SPRING PLUNGER	2	703
16	NUT "CASTLE"	1	540-640
17	SPRING PAWL	1	705
18	HANDLE BAR	1	2638
19	HANDLE PIN	1	435
20	HANDLE GRIP	1	452
21	PAWL DOUBLE ACTING	1	4108
22	SPLIT PIN	2	576-016
23	SPLIT PIN	1	576-004
24	SPACER	1	6517
25	BOLT SAE	1	165-731
26	NUT SAE	6	540-410
27	WASHER	3	860-417
28	PIN	2	3307
29	NUT INCLUDES 12.	1	165-273
30	GREASE NIPPLE STR.	3	535-329
31	GREASE NIPPLE 90°	1	535-341
32	PINION HIGH RATIO	1	2093
33	EXTENSION COUPLING	1	4209

OPTIONAL EXTRAS NOT SHOWN

"DAWN"
ALL STEEL HAND WINCHES



FULLY APPROVED FOR MOUNTING ON VEHICLES

For Tow Trucks, Carriers, Builders, Structural and Industrial Engineers, Factories, Warehouses, Store Yards, Etc.

- Constructed throughout of high grade electric cast steel designed without keys or set screws to shear or strip
- Generously proportioned bearings.
- No. 2 and No. 5 Winches are fitted with an automatic safety load brake which applies when under load, immediately the operator releases the winding handle.
- Construction of these winches allows the operator to disengage the pinion, thereby giving free run out of cable eliminating manual winding.
- Another feature of these winches is the simplicity of operation. The handle can be turned in either direction without manually releasing any locking mechanism.
- The brake is of a weston screw type designed so that at no stage or position can the double acting pawl to be disengaged. (This ensures maximum safety.)
- Brake lining is of selected disc fibre giving maximum wear and efficiency.

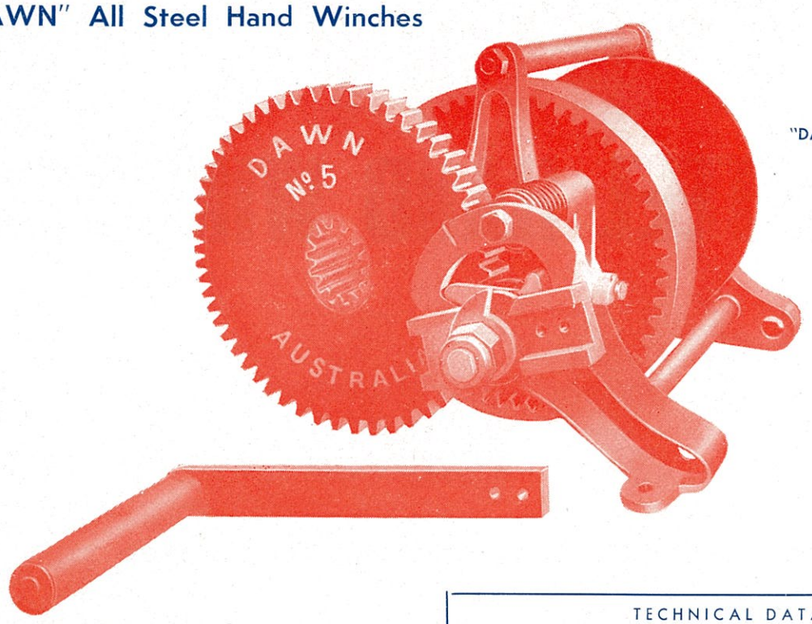
MANUFACTURED TO AND APPROVED BY LIFTS AND CRANES REGULATIONS AND TO S.A.A. CRANE AND HOIST CODE

Manufactured in Australia by:

DAWN TOOLS & VICES

1 NORRIS STREET, NORTH COBURG, VICTORIA, 3058 TELEPHONE: 350 3811

"DAWN" All Steel Hand Winches



"DAWN", No 5 WINCH

TECHNICAL DATA (Illustration Page 1)

DAWN, No. 2 CODE 9192 CLASS 2

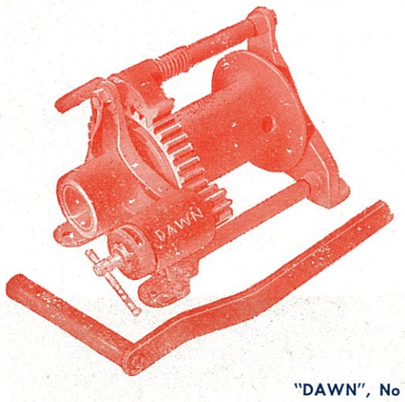
★ Capacity – Safe working load	25 Cwts.	1270 Kg.
Diameter of Drum	4 Ins.	102 mm.
Length of Drum	8 Ins.	204 mm.
☆ Speed Ratio – High	4 to 1	
– Low	22 to 1	
Drum Wire Capacity	120 Ft.	36.5 M.
Rope Diameter	3/8 Ins.	9.5 mm.
Rope Construction	6/22WF – IWRC	
Weight	76 Lbs.	34 Kg.
Approx. Dimensions Excluding Handle	15" x 13" x 11"	381 mm. x 330 mm. x 279 mm.
Effort required on Handle to Raise Full Load	37 Lbs.	17 Kg.

TECHNICAL DATA

DAWN, No. 5 CODE 9193 CLASS 2

★ Capacity – Safe working load	55 Cwts.	2794 Kg.
Diameter of Drum	5-5/8 Ins.	143 mm.
Length of Drum	10 Ins.	254 mm.
☆ Speed Ratio – High	4.3 to 1	
– Low	24 to 1	
Drum Wire Capacity	250 Ft.	76.2 M.
Rope Diameter	9/16 Ins.	14.2 mm.
Rope Construction	6/26WF – IWRC	
Weight	134 Lbs.	61 Kg.
Approx. Dimensions Excluding Handle	20" x 17" x 15"	508 mm. x 432 mm. x 381 mm
Effort required on Handle to Raise Full Load	39 Lbs.	18 Kg.

☆ For use of High Speed Ratio, additional Pinion and Extension Shaft is required.



"DAWN", No 1 WINCH

TECHNICAL DATA

★ Capacity – Safe working load	10 Cwts.	508 Kg.
Diameter of Drum	3½ Ins.	89 mm.
Length of Drum	6 Ins.	153 mm.
Speed Ratio – High	Direct onto Drum Shaft	
– Low	4.2 to 1	
Drum Wire Capacity	80 Ft.	24.4 M.
Rope Diameter	5/16 Ins.	7.9 mm.
Rope Construction	6/25 FW IWRC 6/24/B100 – IWRC	
Weight	40 Lbs.	18 Kg.
Approx. Dimensions Excluding Handle	12" x 9" x 9"	305 mm. x 229 mm. x 229 mm.
Effort required on Handle to Raise Full Load	40 Lbs.	18 Kg.

★ Above capacities are governed by a single fall of rope, however capacity can be increased by different pulley block arrangements.

Operating & Maintenance Instructions

INSTALLATION

(i) The mounting base to which the winch is secured must be reasonably flat, so that when the hold-down bolts are tightened the end frames do not distort. This can cause the winch to seize.

(ii) To attach cable to winch drum feed it through the small hole, along and inside the journal so that the rope can be attached on the outside and is visible at all times. The large hole in the drum will assist this operation.

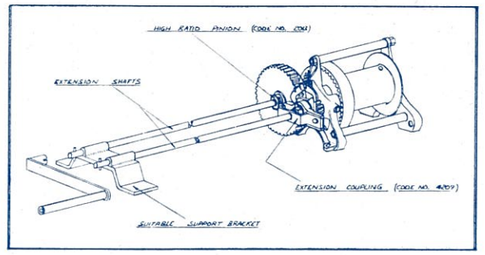
(iii) The cable is to be wound on the drum so that, to raise the load the gear must rotate in the direction of the arrow shown on its face.

OPERATION

(i) To raise the load, wind the handle in the clockwise direction rotating the gear in the direction of the cast arrow shown on its face. To lower simply rotate the handle in the opposite direction.

(ii) To obtain free run out of cable, line up the unshrouded section of the pinion teeth with the gear and lift the plunger. Extraction of the pinion from the gear enables the winding drum to rotate freely.

(iii) To use high ratio for rapid wind-up another type pinion with extended shaft is required. (Illustration shows typical tow truck application).



Suggested method of using high and low ratio gears.

MAINTENANCE

(i) Regularly grease through grease nipples

(ii) Keep teeth on gears and pinion well covered in grease.

N.B. Care must be taken not to get any oil or grease on ferrodo brake discs as this can tend to bind the winch when lowering under load.

TO INCREASE THE LIFTING CAPACITY

The lifting capacity can be increased by the installation of different pulley block arrangements, without effecting the safe working load of the winch.

In "A" the "DAWN" winch is lifting a load through a return pulley and no additional advantage is achieved.

In "B" with two falls of lifting ropes (a and b) the load can be doubled.

(Dawn No. 2, 25 Cwt., 1270 Kg. SWL x 2 = 50 Cwt., 2540 Kg.)
(Dawn No. 5, 55 Cwt., 2794 Kg. SWL x 2 = 110 Cwt., 5588 Kg.)

In "C" with three falls of lifting rope (a,b,c) the load can be trebled.

(Dawn No. 2, 25 Cwt., 1270 Kg. SWL x 3 = 75 Cwt., 3810 Kg.)
(Dawn No. 5, 55 Cwt., 2794 Kg. SWL x 3 = 165 Cwt., 8382 Kg.)

In "D" with four falls of lifting rope (a,b,c,d) the load can be quadrupled.

(Dawn No. 2, 25 Cwt., 1270 Kg. SWL x 4 = 100 Cwt., 5080 Kg.)
(Dawn No. 5, 55 Cwt., 2794 Kg. SWL x 4 = 220 Cwt., 11176 Kg.)

NOTE:

(i) By increasing the falls of rope the speed of lift decreases.

(ii) At the head of each of the pulley block arrangements (W) shows the point from where the entire load is suspended.