

**When ordering parts, please provide:**

1. Complete nameplate readings. Serial number is the most accurate method of identifying replacement parts.
2. Name and quantity of parts required.
3. Complete motor nameplate readings (for motor parts)

Email or Fax orders to:

The David Round Company
Attn: Parts Department
32405 Aurora Rd.
Solon, Ohio 44139

Email: info@davidround.com
Fax: 440-248-8544
Tele: 440-248-4700



DAVID ROUND

202 SERIES WINCH (ELECTRIC)

Models: 202JR & 202SR
Electrically Powered with Pendant Control

NOTE: This manual covers both 202 series winch models. Verify the model number before use.



All products sold by The David Round Company are warranted to be free from defects in material and workmanship, under normal use and service, for a period of 1 year from date of shipment by David Round.

The product must be used in accordance with manufacturer's recommendations and must not have been subject to abuse, lack of maintenance, misuse, negligence, or unauthorized repairs or alterations.

Should any defect in material or workmanship occur during the above time period in any product, as determined by David Round's inspection of the product, David Round agrees, at its discretion, to remedy the defect by either replacing (not including installation) or repairing the part. No unauthorized returns will be accepted at David Round. Customer must obtain a Return Goods Authorization (RGA) as directed by David Round prior to shipping product for warranty evaluation. A written explanation of the complaint must accompany the product. Product must be returned freight prepaid. Upon repair, the product will be covered for the remainder of the original warranty period. If it is determined that there is no defect, or that the defect resulted from causes not within the scope of David Round's warranty, the customer will be responsible for the costs of inspection and return of the product. This warranty covers only repairs made necessary due to defects in material or workmanship.

The David Round Company makes no other warranty, and any implied warranties of merchantability or fitness for a particular purpose are limited to the duration of the expressed warranty period as set forth above. The David Round Company's MAXIMUM LIABILITY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND IN NO EVENT SHALL DAVID ROUND AND SON, INC. BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, OR SPECIAL DAMAGES OR INJURIES OF ANY NATURE ARISING FROM THE SALE OR USE OF THE PRODUCT, WHETHER BASED ON CONTRACT, TORT, OR OTHERWISE INCLUDING LOSS OF PROFITS OR REVENUE, RENTAL OF SUBSTITUTE EQUIPMENT OR OTHER COMMERCIAL LOSS.

Warning! Any mechanism or load held in position by the brake should be secured to prevent possible injury to personnel or damage to equipment before any disassembly of the brake is attempted or the manual release lever is operated on the brake.

To prevent an electrical hazard, disconnect power source before working on the brake. If power disconnect point is out of sight, lock disconnect in the off position and tag to prevent accidental application of power.

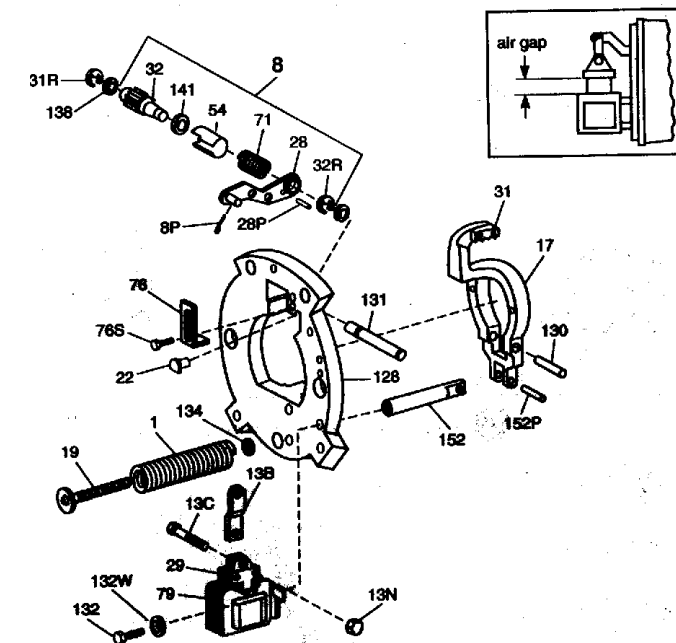
After usage, the brake interior will contain burnt and degraded friction material dust. This dust must be removed before servicing or adjusting the brake. DO NOT BLOW OFF DUST using an air hose. It is important to avoid dispersing dust into the air and to avoid inhalation, as this may be dangerous to your health. a) Wear a filtered mask or a respirator while removing dust from the inside of a brake. b) Use a vacuum cleaner or a soft brush to remove dust from the brake. When brushing, avoid causing the dust to become airborne. Collect the dust in a container, such as a bag, which can be sealed off.

Brake Servicing

Note: This information is for use with standard 7.5 HP 202SR motors. These instructions are based on Stearns model# 1-087-041-00-xxx brakes. Winches with non-standard motors may use alternate brakes. Verify brake model number (located under brake cover) before any maintenance is performed.

The brake provided on this unit is self adjusting. If any reduction in braking force is noticed, inspect air gap (see below). If correcting air gap does not correct problem, request brake service instructions (ref.. 8-078-928-01). Do not attempt any adjustments other than air gap correction without complete brake servicing instructions.

To check air gap, depress solenoid plunger and allow it to snap out several times. Factory set air gap is 13/16" to 15/16". If correction is needed, air gap is increased by raising or decreased by lowering wrap spring stop (76). Retighten screws (76s) and recheck air gap as above. If lever arm has over-traveled, install two screws and lock washers in the support plate holes at each side of pressure spring. Engage screws into endplate at least three full threads. Place third screw and lock washer in remaining hole. Push on support plate at left of screw and engage at least three threads. Tighten the screws evenly.





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To prevent an electrical hazard, disconnect power source before working on the brake. If power disconnect point is out of sight, lock disconnect in the off position and tag to prevent accidental application of power.

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Brake Servicing

Note: This information is for use with standard 3 HP 202JR motors. These instructions are based on Stearns model# 1-056-041-00-xxx brakes. Winches with non-standard motors may use alternate brakes. Verify brake model number (located under brake cover) before any maintenance is performed.

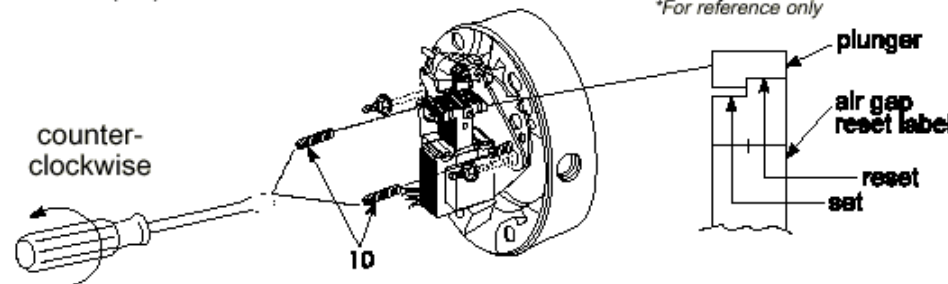
The brake provided on this unit will require periodic adjustment. As the friction disc wears, the solenoid plunger air gap will increase. When plunger reaches the RESET position, the air gap must be adjusted. See below for adjustment procedure. Note: If air gap is within limits or if correcting air gap does not correct braking problem, request complete brake service instructions (ref 8-078-905-10). Do not attempt any adjustments other than air gap correction without complete brake servicing instructions.

Air Gap Settings*

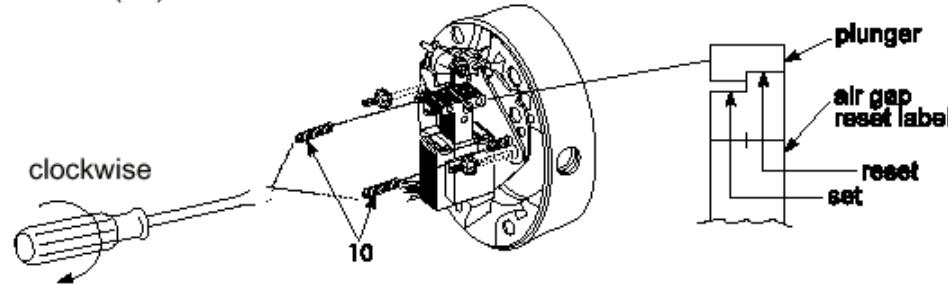
Torque (lb-ft)	56,X00 Series
1.5, 3 & 6	.385" ± .030"
10 & 15	.450" ± .030"
20 & 25	.500" ± .030"

*For reference only

To increase air gap, turn adjusting screw (10) counterclockwise.



To decrease air gap, turn adjusting screw (10) clockwise.



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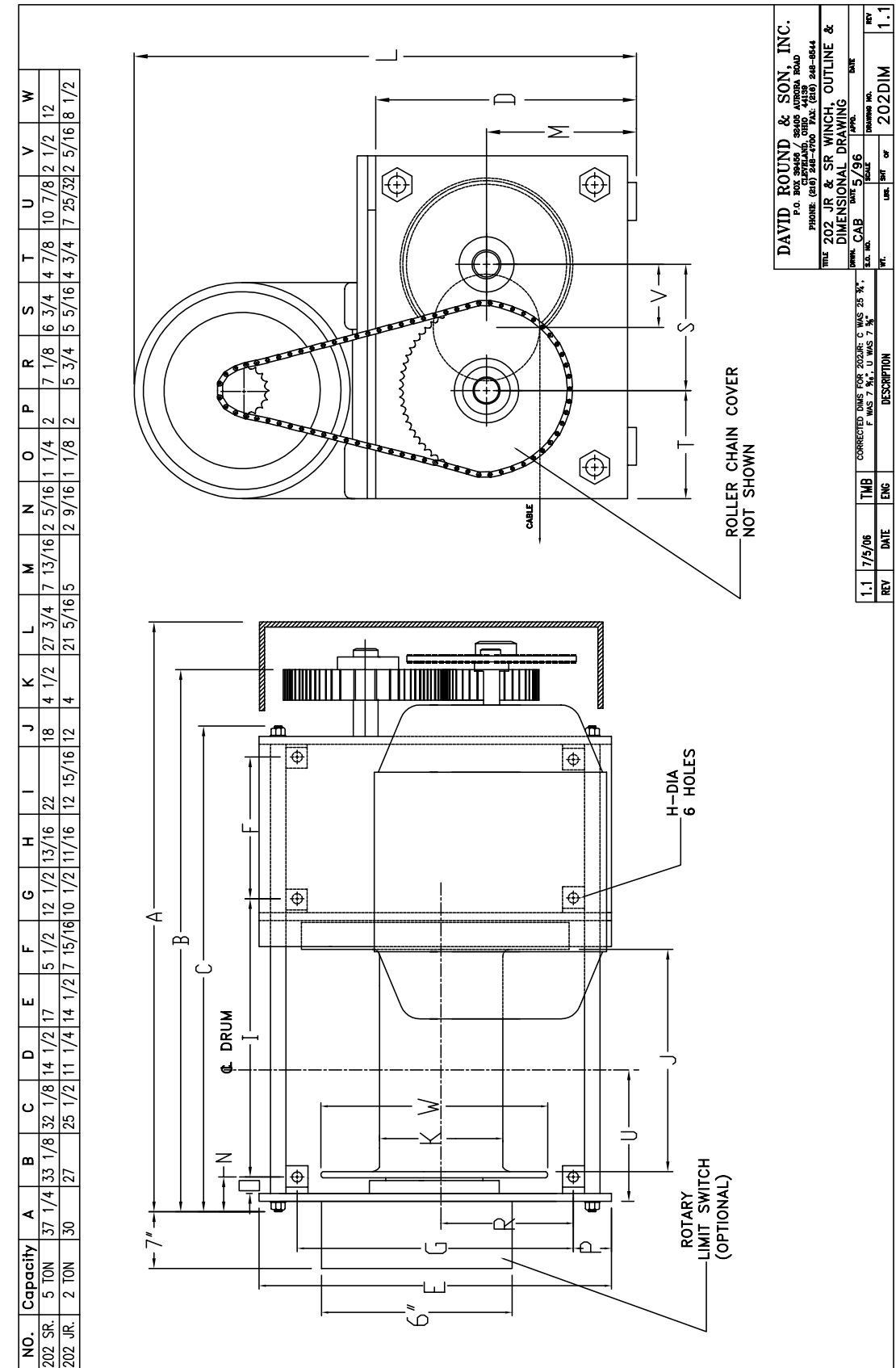


Many companies already have safety programs in place. In the event that a conflict exists between a safety guideline in this manual and an existing guideline set forth in an existing safety program, the more stringent of the two guidelines should be followed.

Safe operating instructions are provided as a reference for winch operators in order to avoid some common unsafe winch operating practices. These instructions are only a summary. Safe winch operating practice is not limited to the guidelines introduced in this manual.

1. Only allow personnel trained in safety and operation on this winch to operate and maintain this winch.
2. Only operate this winch if you are physically fit to do so.
3. When this winch has been locked / tagged-out or a "Do Not Operate" sign is placed on the winch, do not operate the winch until the sign, lock or tag has been removed by designated and qualified personnel.
4. Before each shift, the operator should inspect the winch for signs of wear or damage.
5. Never use a worn or damaged winch.
6. Do not use winch if hook safety latch has been sprung, damaged or is found to be missing.
7. Only pull or lift loads less than or equal to the rated winch capacity. Load capacity refers to the total load being pulled or lifted by the winch including all live loads, friction, rope, fittings and additional equipment.
8. Check that the hook latch has been re-engaged after loading cables, slings, clamps and eyes prior to use.
9. When using two winches on one load, ensure that each winch has a rated capacity equal to or more than the total load.

10. Never place your hand in the throat area of a hook or in the vicinity of the wire rope as the rope spools onto the drum.
11. Position load correctly. Do not attach load on hook except in a straight pulling line. Do not side load winch.
12. Keep hands, clothing, etc. clear of moving parts.
13. Replace any removed guards prior to operation.
14. Do not operate the winch with air lines loose, leaking or disconnected.
15. Do not force the hook into place by hammering.
16. Be certain the load (slings, cables, eyes, etc.) are properly seated in the saddle of the hook prior to operation.
17. Do not pull or lift a load with the load supported on the tip of the hook.
18. Never run the wire rope over a sharp edge - use a sheave instead.
19. Pay attention to the load at all times when operating the winch.
20. Make sure that people and debris are clear from path of load travel.
21. Never allow anyone to stand, sit or rest on a moving load.
22. Ease the slack out of the wire rope when starting operation.
23. Never cut or weld on a load held in position by the winch.
24. Do not operate the winch if jamming, overloading or binding occurs.
25. Secure the winch after use.
26. Follow established rigging procedures.



DAVID ROUND & SON, INC.
 P.O. BOX 1000 AURORA ROAD
 SOLON, OH 44139
 PHONE: (440) 248-4700 FAX: (440) 248-8544
 TITLE: 202 JR & SR WINCH, OUTLINE & DIMENSIONAL DRAWING
 DRAWING NO. 202DIM
 DATE 5/96
 SCALE
 DESIGNED BY
 CHECKED BY
 APPROVED BY

REV	DATE	ENG	TMB	DESCRIPTION
1.1	7/5/06			CORRECTED DIMS FOR 202JR: C WAS 25 3/4", F WAS 7 3/4", U WAS 7 3/4"



Standard Air Operated A202JR/A202SR Winches

Inspection and General Maintenance

Periodic inspection, cleaning and service of this unit is crucial for safe and reliable operation. Material handling equipment is often subject to damaging factors such as vibration and destructive environments. Routine general maintenance should ensure that the unit is kept clean and free of corrosion. All accessible fasteners should be periodically checked for security.

At regular intervals, inspect the drivetrain components for signs of wear such as:

- Excessive gear backlash
- Loose chain
- Worn, cracked or pitted gears.
- Worn, cracked sprocket teeth.

Lubrication Schedule

100 hour intervals:

-- Remove the large sheetmetal chain cover. Lubricate roller chain (item #61) using a light grade machine oil.

500 hour (or six month intervals for light duty usage):

-- Remove flat sheetmetal gear cover on pawl side. Brush a liberal amount of Dow Corning 1122 (or equivalent) open gear grease on all accessible gear surfaces including drive pinion, pinion gear and internal gear.

-- Using a light grade machine oil, lubricate pawl (item #14) at pivot point. Also lubricate friction nut spring (item #24).

-- Apply Dow Corning 1122 (or equivalent) open gear grease to the two zerk fittings. A fitting located on gear side assembly plate (item #1) provides lubricant to the internal gear teeth in drum. A second zerk fitting lubricates the clutch assembly (item #5). Do not over-lubricate this fitting as grease will be forced onto the brake surface.

First Layer Max. Load Capacity	A202JR: 5000 lb A202SR: 12000 lb
Layers 2-3 Max. Load Capacity	A202JR: 4000 lb A202SR: 10000 lb
Max. Wire Rope Storage	A202JR (>4000lb load): 100ft 9/16" dia. A202JR (<4000lb load): 130ft 1/2" dia. A202JR (<3000lb load): 225ft 7/16" dia. A202SR (>9000lb load): 175ft 3/4" dia. A202SR (<9000lb load): 275ft 5/8" dia. A202SR (<6000lb load): 335ft 9/16" dia.
Speed (Single Line)	A202JR: 15 fpm A202SR: 11 fpm
Air Requirements	90 PSI @ 100 cfm
Motor Size	A202JR: 8AM (4HP) A202SR: 16AM (8HP)
Geartrain Lubrication	Brush-Applied Dow 1122
Mechanical Brake	Weston Style
Motor Brake	Not Supplied as Standard
Free-Spooling	Not Supplied as Standard
Factory Supplied Controls	3 Position Momentary Toggle-Lever
Rotary Limit Switch	Not Supplied as Standard
Shipping Weight	A202JR: 275LB A202SR: 420LB

**IMPORTANT!**

Please read all instructions prior to installing or operating any material handling product. Injury and damage may occur if your recently purchased David Round product is not installed or operated properly. Please contact David Round, your David Round equipment dealer or your local sales representative to discuss any questions that you may have.

Caution should be taken before modifying this winch. Call factory before making any adjustments not covered in this manual.

Note: For safe operation and to maintain factory warranty, the installer is responsible for properly mounting the winch. This includes accounting for fastener grade, thread engagement, load tightening torque and means of torque retention. Inadequate or insufficient mounting can cause premature failure of mechanical components.

David Round products are not for lifting people or for lifting items over people. Do not install this product if application involves transporting people.

Mounting:

Warning: The winch must be installed, reeved and wired so that when the load is lowered, the pawl is engaged. The Weston style mechanical load brake prevents over-speed when lowering and will hold a suspended load only when the pawl is engaged.

202JR:

Four 11/16" mounting holes are provided. The use of 5/8" diameter grade 5 or better fasteners is recommended. This unit can be mounted either vertically or horizontally.

202SR:

Four 13/16" mounting holes are provided. The use of 3/4" diameter grade 5 or better fasteners is recommended. This unit can be mounted either vertically or horizontally.

Installation and Initial Operational Check:

202 Series winches are typically factory configured with a 2 position reversible pendant. Various electrical options including emergency stop, brakes and limit switches are available. A detailed, order-specific electrical drawing is shipped inside the front cover of the electrical enclosure. A qualified electrician should use this drawing to connect line voltage. Standard industrial electrical practices as well as conformance to all applicable codes and standards is required to ensure safe operation.

After initial electrical connection and prior to use in other than jogging mode, it is the installer's responsibility to set and check any installed limit switches (see optional rotary limit switch adjustment procedure on page 14 of this manual.) Ensure both upper and lower limit switches are correctly adjusted and that the direction of travel corresponds to the pendant button selected.

Note: "FWD", "UP" or "-" are used to denote the direction of travel that winds the rope onto the drum. If drum direction is opposite of the pendant button selected, reverse two MOTOR lead connections. Do not change pendant wiring as this would disable limit switches.

Individuals responsible for installation and operational checks should conduct a thorough training session with all personnel responsible for operating this equipment. Operation, maximum capacities, features and safety considerations should be fully understood before the unit is certified for on-site use.



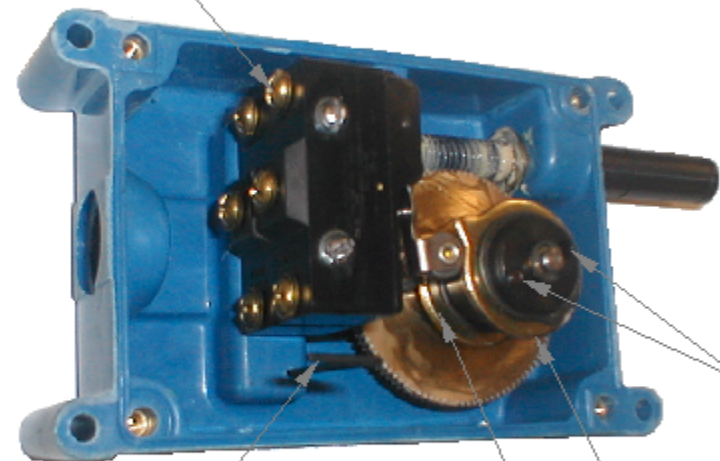
Regular inspections, testing and maintenance of material handling equipment is important to ensure safety and reliability.

The following guidelines are useful in developing an inspection program to suit the application:

1. All parts subject to wear should be inspected at regular intervals. Unsafe conditions should be corrected immediately. Inspection intervals are dependant on frequency of use, typical working load and environmental conditions. Intervals between inspections should be short enough to ensure that the equipment will never be operated when in an unsafe condition.
2. To ensure proper and safe operation all replacement parts should be obtained from David Round. Include serial number on all parts requests.
3. Limit switches should be tested without a load. Extreme care should be exercised, and where possible, the limit should be actuated manually for testing. When it is not possible to actuate the limit switch manually, the unit should be "inched" into the limit.
4. Motor brake(s) installed on this unit are self adjusting. Brake(s) should be inspected by noting *any* decrease in typical stopping time. As soon as the brake begins to "drift" the unit should be locked-out and the brake condition should be examined and repaired.
5. Part of every good inspection routine includes periodic cleaning with particular attention to wire rope, sheaves and other moving parts.
6. Wire rope should be inspected regularly (once each day if equipment is in continuous use). Inspect for signs of wear or damage such as broken strands, abrasion, flatness, reduction in diameter, kinks, corrosion, etc. Less frequent, but equally rigorous inspection should be made on dead-end and drum fittings of wire rope.
7. Hooks, sheaves, and drum require careful inspection. When the groove of a sheave becomes worn excessively over the nominal rope diameter the sheave should be replaced. Sheaves or drums having scored, crushed or worn surfaces should be replaced. Sheaves or drums having cracked or broken flanges, rims, spokes or hubs should be replaced.
8. Inspection and repair of electrical components should be done only by competent electricians.



LIMIT SWITCHES



ALLEN SCREWS

INNER CAM

OUTER CAM

ADJUSTMENT WRENCH

Note: Rotary limit switches are installed as a factory option. Standard units are not equipped with this device.

CAUTION: A *minimum* of 3 wraps of wire rope is required on drum at all times. Do not adjust limit switch to allow drum to rotate beyond this point.

Use the following adjustment procedure after wire rope has been reeved onto drum.

1. Manually actuate both limit switches to verify correct connections.
2. Identify which of the two switches interrupts the circuit requiring adjustment.
3. Using supplied adjustment wrench loosen the appropriate Allen screw to adjust the actuating cam. The exposed Allen screw allows movement of the outer cam. The inner cam can be adjusted by loosening the recessed Allen screw.
4. Turn appropriate cam to the desired position and tighten corresponding Allen screw.
5. Test unit for proper operation prior to operating the unit under load.



CAUTION: Proper selection, installation and care of wire rope is essential for safe operation of this unit. The person installing the wire rope is responsible for ensuring that the rope provides an adequate design factor to handle the actual working load, and meets all applicable industry, trade association, federal, state and local regulations. When considering wire rope requirements the actual working load must include not only the static or dead load but also loads resulting from acceleration, retardation and shock loading.

Note: A minimum of three wraps of wire rope is required on the drum at all times.

Unloading, Unreeling and Uncoiling

Suitable precautions should be taken to prevent dropping of reels or coils during unloading and moving. If the reel should collapse, it may be impossible to remove the rope without serious damage.

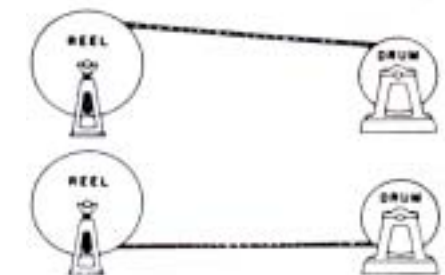
A coil without a reel should never be laid flat and the free end pulled out. Coils should be unwound by rolling along the floor like a hoop.



Special care should be taken in unreeling wire rope to avoid kinking, which can result in permanent damage to the rope. The reel should be mounted on jacks or a turntable so that it will move freely. It should be unreeled straight and under enough tension to keep it from starting a loop.

Proper practices for transferring wire rope from reel to drum:

- The reel should be placed as far from the drum as possible in order to avoid putting any turn into the rope.
- Rope should be wound from top-to-top or bottom-to-bottom to avoid reverse bends, which tend to make a rope harder to handle.
- Use enough tension to avoid kinking.



Wire Rope Installation

Note: Use 6 x 37 extra flexible IPS IWRC (or better) wire rope to maintain the safest wire rope conditions. Rope installed on 202JR must have 1-1/4" swedged button on one end and plain end on other end. Rope installed on 202SR must have 1-3/8" swedged button on other end.

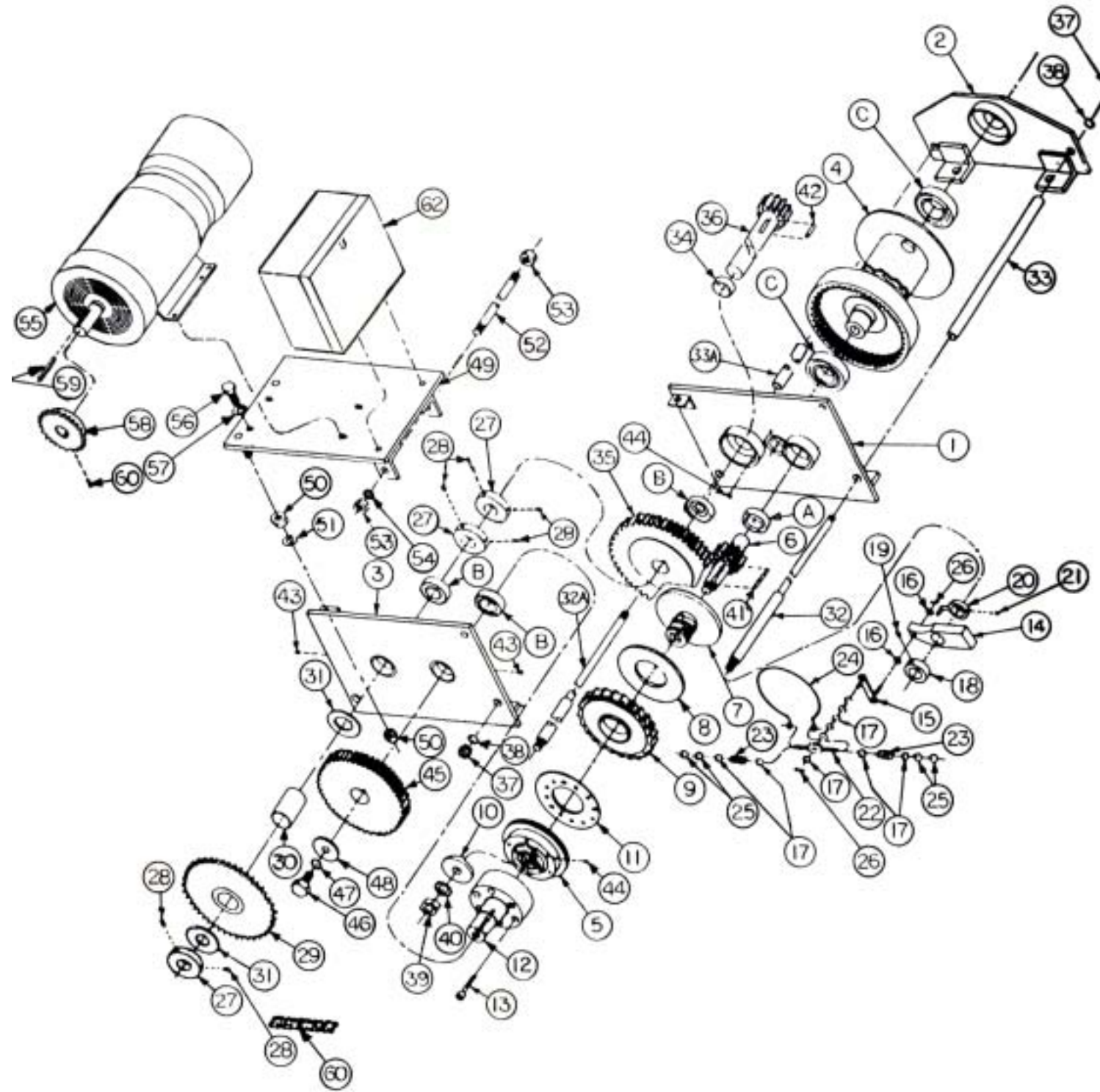
Step 1: Prepare wire rope using above guidelines. If wire rope cannot be wound from reel, rope must be unreeled or uncoiled and laid as straight as possible.

Step 2: Feed plain end of wire rope into large hole in drum and bring out thru small hole.

Step 3: Pull entire length of wire rope thru drum.

Step 4: Facing winch from name cover side, begin winding cable with the drum rotating counterclockwise. The pawl should be disengaged. **Note: If the wire rope is incorrectly spooled onto a clockwise rotating drum (pawl engaged), the mechanical brake will not function. Double check the rotation of the drum.**

Step 5: Spool wire rope onto drum ensuring rope is under light tension and is tracking tightly along side of the preceding turn.



ITEM NO.	PART NAME	QTY	202JR	202SR
1	Gear Side Assembly	1	10100	10108
2	Plain Side Assembly	1	10101	10109
3	Pilot Side Assembly	1	10102	10110
4	Drum Assembly	1	20202	20203
5	Friction Nut	1	10130	10130
6	Drive Pinion	1	10131	10127
7	Disc Hub	1	10132	10132
8	Fibre Disc	1	10133	10133
9	Ratchet Assembly	1	10104	10104
10	Check Washer	1	10136	10136
11	Brass Disc	1	10147	10147
12	Safety Lowering Shaft	1	10137	10126
13	Cap Screw	6	00022	00022
14	Pawl	1	10138	10138
15	Anchor Arm Assembly	1	10105	10105
16	Washer	2	02005	02005
17	Washer	10	02005	02005
18	Collar	1	10140	10140
19	Set Screw	1	00000	00000
20	Stop Collar Assembly	1	10141	10141
21	Set Screw	1	00021	00021
22	Tension Arm	1	10142	10142
23	Coil Compression Spring	2	10146	10146
24	Friction Nut Spring	1	10143	10143
25	Nuts	4	01015	01015
26	Cotter Pin	2	01076	01076
27	Collar (Intermediate Shaft)	3	10144	10128
28	Set Screw	6	00021	00021
29	Sprocket & Pinion Assembly	1	20200	20201
30	—	—	—	—
31	Oilite Washer	2	02098	02100
32	Tie Rod Spacer	Set of 3	20217	20218
33	—	—	—	—
32A & 33A	Tie Rod Assembly	Set of 3	20240	20241
34	Intermediate Pinion Spacer	1	10129	—
35	Intermediate Gear	1	10103	10111
36	Inter. Pinion a Shaft Assy.	1	10207	10206
37	Tie Rod Nut	6	01029	01029
38	Tie Rod Lock-washer	4	02034	02034
39	—	—	—	—
40	—	—	—	—
41	Drive Pinion Key	1	04083	04083
42	Intermediate Gear Key	1	04084	04084
43	—	—	—	—
44	Zerk	2	00703	00703
45	Drive Gear	1	10214	10215
46	Bolt	1	00098	00098
47	Lock-washer	1	02016	02016
48	Washer	1	02018	02018
49	Motor Base Plate	1	20220	20221
50	Tension Nut	2	01006	01006
51	Washer	2	02030	02030
52	Hinge Rod	1	20222	20222
53	Nut	2	01024	01024
54	Lock-washer	1	02024	02024
55	Motor (Std 3-Phase only)	1	69223*	69234*
			69228* (w/brake)	69028* (w/brake)
56	Bolt	4	00058	00087
57	Lock-washer	4	01006	01013
58	Motor Sprocket	1	20224*	20229*
59	Key	1	INCLUDED WITH MOTOR	
60	Set Screw	1	00050	00050
61	Roller Chain	1	06082	06082
62	Electrical Controls	1	ORDER USING SER# OR SCHEMATIC#	
A	Bearing	1	04014	04008
B	Bearing	3	04009	04010
C	Bearing	2	04010	04015
NOT SHOWN	Chain Guard	1	20223	20235

* Due to the wide variety of available speeds and motor options, the part number provided is a base number only. Additional information is required when ordering these items. To ensure shipment of correct replacement parts, consult factory with unit serial number, complete motor nameplate data, sprocket bore and keyway dimensions.