



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.



Standard Air Operated A202JR/A202SR Winches

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 reeved and wired so that when a 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.

A202JR:

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.

A202SR:

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:

This unit is equipped with a manually operated toggle lever control. Connect air supply line meeting minimum air requirements of 90 PSI @ 100 CFM. An air filter and lubricator is recommended for continued safe and reliable operation.

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:

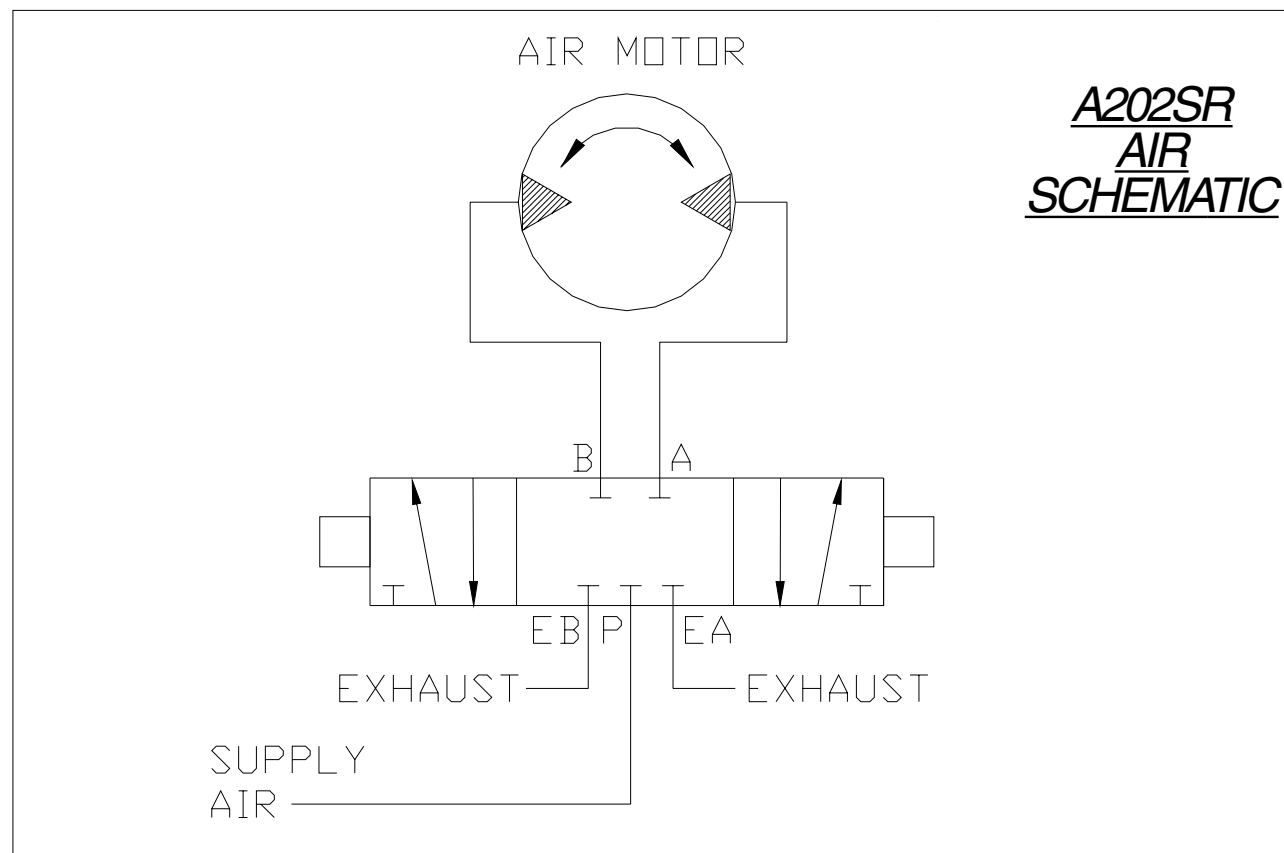
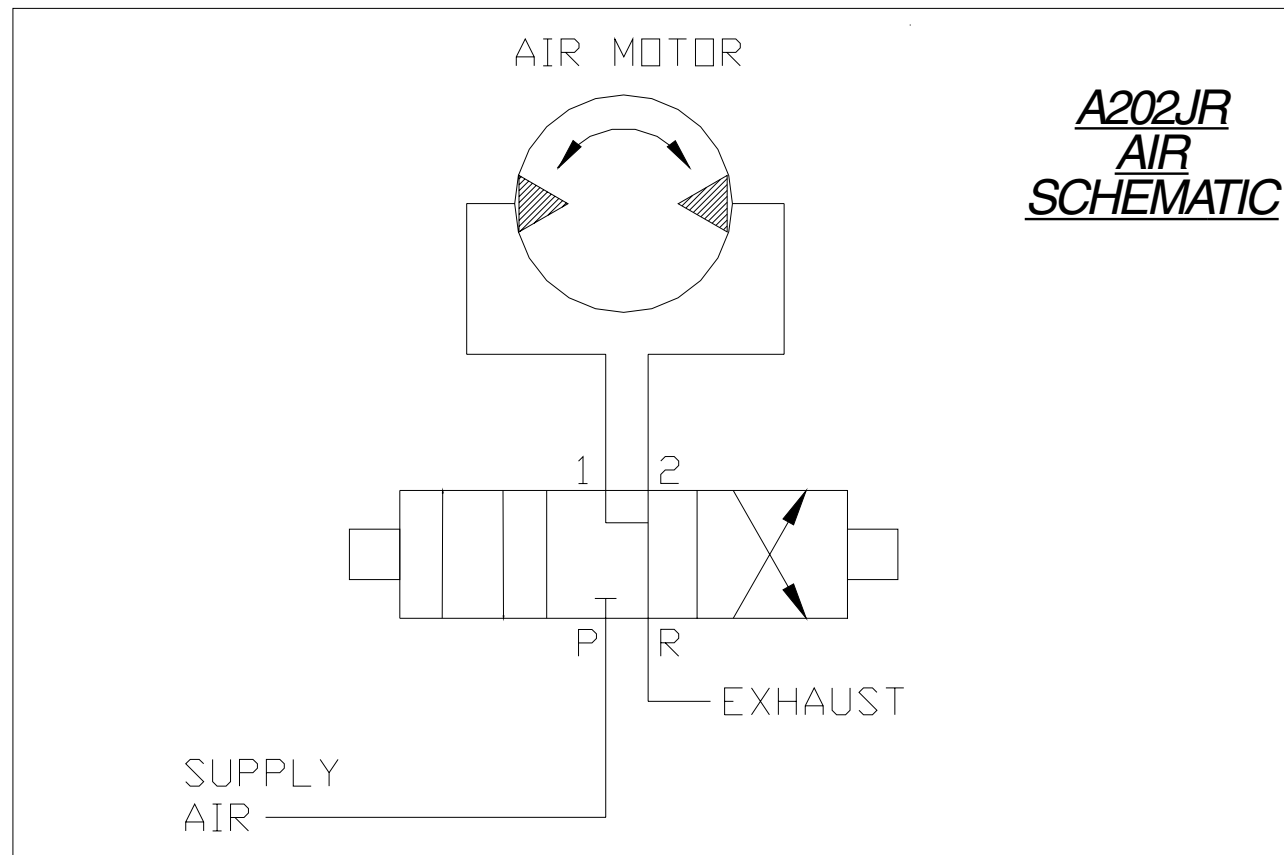
1. All parts subject to wear should be inspected at regular intervals. Unsafe conditions should be corrected immediately. Inspection intervals are dependant on frequency of use, typical working load and environmental conditions. Intervals between inspections should be short enough to ensure that the 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. Optional 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. Optional 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.



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

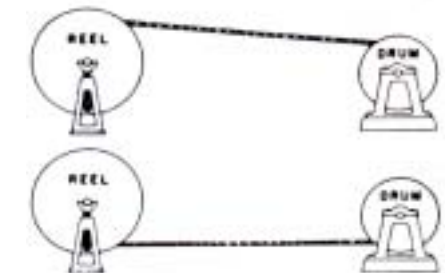
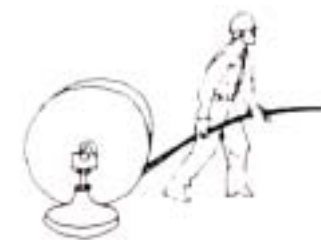
Suitable precautions should be taken to prevent dropping of reels or coils during unloading and moving. If the reel should collapse, it may be impossible to remove the rope without serious damage.

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	20240
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	1	69215	69233
56	Bolt	4	00058	00087
57	Lock-washer	4	01006	01013
58	Motor Sprocket	1	20224	20224
59	Key	1	INCLUDED WITH MOTOR	—
60	Set Screw	1	00050	00050
61	Roller Chain	1	06082	06082
62	Toggle Lever Control	1	51072	69072
A	Bearing	1	04014	04008
B	Bearing	3	04009	04010
C	Bearing	2	04010	04015
63	90 Deg Fitting	2	13274	13274
64	Nipple	2	20272	20272
65	Hose Assy	2	20271	20271
66	Nipple	2	20272	20272
67	90 Deg Fitting	2	13274	13274
68	Coupling	2	20261	20261
69	Nipple	2	20265	20265
NOT SHOWN	Chain Guard	1	20223	20235