



W. W. Patterson Company
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OPERATIONS/PARTS MANUAL
FOR
PATTERSON'S
WWP75H-10
HYDRAULIC WINCH.

Please fill in the following blanks and then keep this manual in a safe and convenient location. When calling with either questions or replacement part needs, always refer to the Model and Serial Number of the winch.

WINCH MODEL #: _____ **WINCH SERIAL #:** _____

MOTOR MFG.: _____ **MOTOR SERIAL #:** _____

BRAKE SERIAL #: _____ **DATE PURCHASED:** _____

DISTRIBUTOR INFORMATION

NAME: _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

PHONE: _____ **FAX:** _____



IMPORTANT!

Prior to installing and operating the winch, please read this manual thoroughly and carefully. Keep this manual and all other instructions accessible at all times.

Although this manual will help you become familiarized with the operating procedures for the winch, it is by no means a substitute for proper training and the safe use of winches, barge rigging and other marine equipment. Because owners and operators are solely responsible for determining whether a particular usage is acceptable, only individuals trained in the proper use of winches, barge rigging and other marine equipment should operate winches.

The typical operational environment of winches includes very high forces, and the potential hazards associated with these forces should not be underestimated. Improper installation or misuse of the winch may result in injury to persons or cause equipment failure or damage.

ALWAYS OBSERVE THESE BASIC SAFETY PRECAUTIONS:

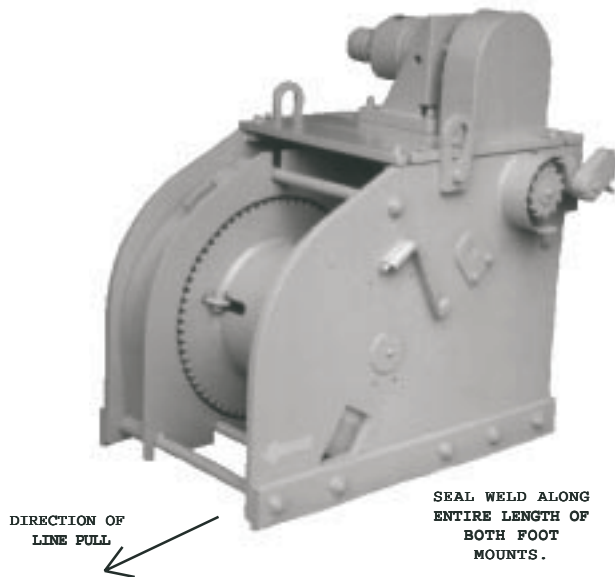
- To reduce potential of injury, turn off and lock out or tag out power source before initiating any maintenance or repairs.
- Keep all fingers, loose clothing and any foreign objects away from winch while in operation.
- During operation of the winch, always remain to the side of the winch, slightly behind the gear motor.
- Never operate the winch from the front or when bystanders are in front of it.
- Operators and bystanders should stay clear of any load and the wire rope while the winch is operating.
- Under no circumstances, should any winch be used to move, raise or lower a person(s) or equipment.
- Do not operate the winch unless you have a firm stance on a non-slippery surface.
- Do not apply tension to the winch unless there are at least four complete wraps of rope on the drum.
- Motorized operation of the winch with the hand crank engaged in the Number One Shaft is improper and a misuse of the winch. Instead, the hand crank should be placed in its designated place prior to motorized operation.
- Inspect the winch carefully at least once a month for worn gears and pawls, cracked welds, and other damaged parts. If any worn, cracked or damaged parts are found, stop use immediately and remove the winch from service until all appropriate repairs are completely made.

1. INSTALLATION

1.1. All winches must be installed on flat, rigid and non-slippery surfaces. Deck and structure must be strong enough to withstand the weight and holding capacity of the winch, and the forces likely to occur during operation.

1.2. Place the winch in the mounting area, in line with the direction of cable pull. Check to make sure there is enough clearance and Fleet Angle Distance for proper operation. (Refer to Diagram on Page 7.)

1.3. Weld to deck along the complete length of both foot mounts. Use seal welding to protect the weld against corrosion. Remember, the weld has to be strong enough to withstand loads equal to, at least, the Brake/Dog Holding Capacity of the winch.



WARNING! ONLY SOMEONE QUALIFIED IN HYDRAULICS SHOULD BE ALLOWED TO PLUMB THE WINCH. W. W. PATTERSON COMPANY IS NOT LIABLE FOR DAMAGE CAUSED BY UNAUTHORIZED OR UNQUALIFIED PERSONNEL ATTEMPTING TO PERFORM SUCH WORK.

WARNING! MOTOR FAILURE MAY OCCUR IF THE HYDRAULIC OIL FLOW EXCEEDS 20 GPM, THE INTERMITTENT PRESSURE EXCEEDS 2,500 PSI AND THE CONTINUOUS PRESSURE EXCEEDS 2,000 PSI.

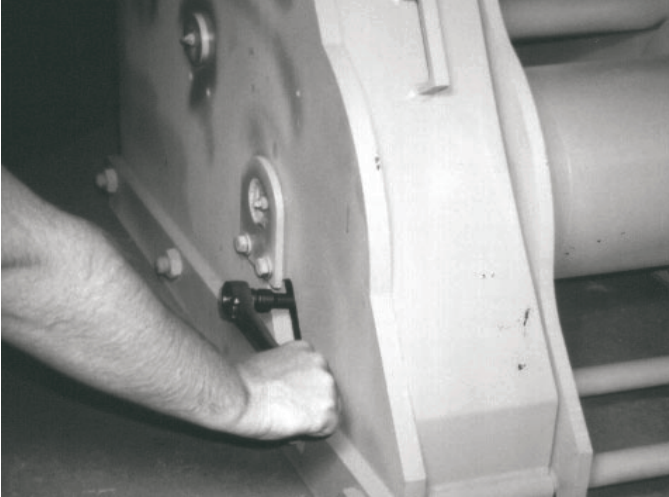
1.4. Prior to operation, test to make sure the winch drum turns in the appropriate direction; **the rope must reel in from the bottom of the winch drum.** Should the winch drum turn in the opposite direction than desired, replumb the winch. The winch drum should now turn in the proper direction.

1.5. Coat all gear teeth with heavy-duty gear grease and lubricate both sprockets and the roller chain.

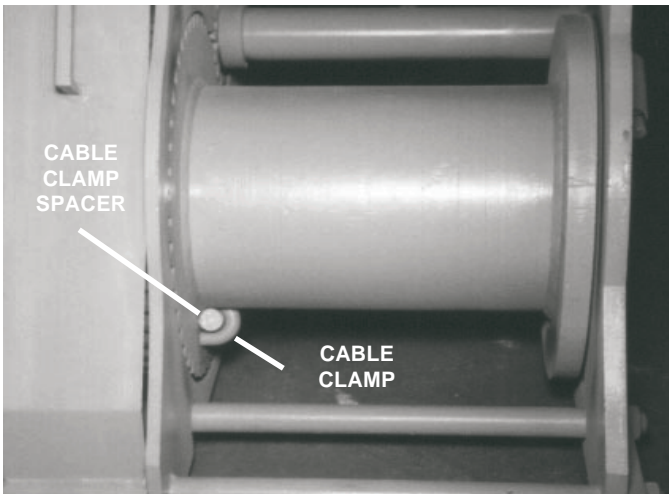
1.6. The gear reducer must be filled with EP-90 gear oil or suitable equivalent recommended by a quality lubricant manufacturer.

WARNING! FAILURE TO FILL THE GEAR REDUCER PER THE INSTRUCTIONS WILL RESULT IN CATASTROPHIC FAILURE OF THE GEAR REDUCER.

2. ATTACHING THE WIRE ROPE



2.1. Rotate the drum until the cable clamp nuts appear in the slot on the side plate. Using a standard socket wrench with extension, loosen the nuts.



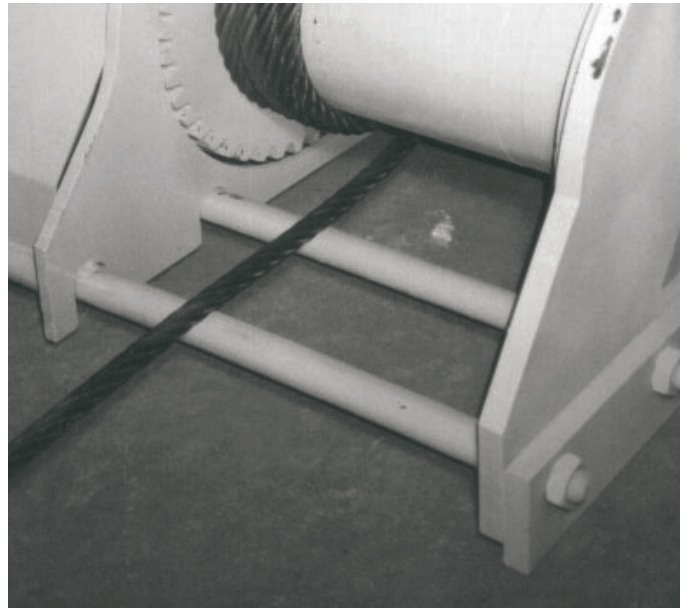
2.2. If installing a new winch, remove and discard the cable clamp spacer. If replacing worn out wire rope, remove the rope from the cable clamp and dispose of the wire rope properly. Insert the new wire rope from the front of the winch into the cable clamp until 3 to 4 inches of rope extends through the clamp. Tighten the nuts evenly.

WARNING! PERIODICALLY RETIGHTEN THE NUTS ON THE CABLE CLAMP TO INSURE CABLE IS SNUG AGAINST DRUM FLANGE.

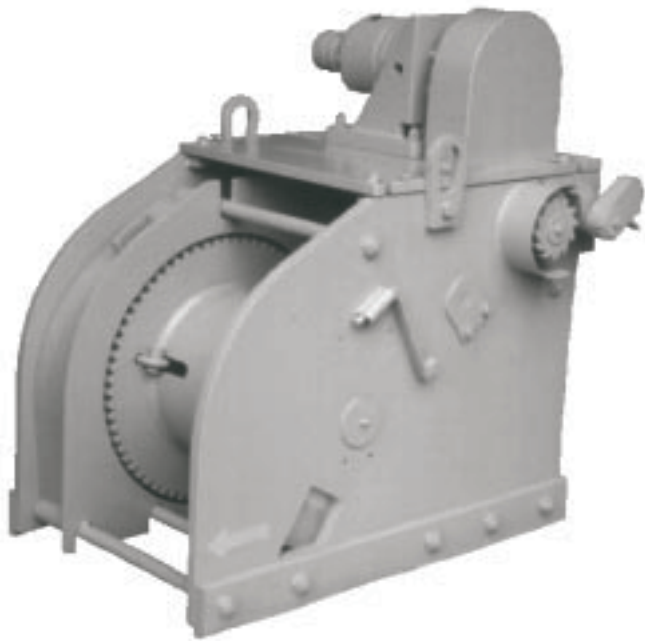
2.3. Slowly start to reel the rope onto the drum. Maintain enough tension on the rope to be sure the first coil begins snugly against the side of the drum and each successive coil is snug against the previous coil. Check to make sure the rope is reeled in from the bottom of the drum.

2.4. Continue to spool the rope until at least four (4) complete coils of wire rope are snugly on the drum.

WARNING! FOUR (4) COMPLETE COILS OF THE WIRE ROPE MUST BE ON THE DRUM AT ALL TIMES IN ORDER FOR THE WINCH TO ATTAIN ITS FULL HOLDING CAPACITY.



3. OPERATION OF WINCH



3.1. The W. W. Patterson hydraulic winch is designed for easier operation and long life. If sized correctly, installed properly and maintained regularly, this winch will last many years.

3.2. The hydraulic brake is a disc type, normally set by mechanical spring pressure. It is released by hydraulic pressure.

3.3. REEL-OUT: Check to see if the Locking Dog is engaged. If it is not, pay-out the wire to the desired length. If the Locking Dog is engaged, manually rotate the counterweight towards the back of the winch. Reel in the winch until the counterweight rotates the locking dog out of engagement. Pay-out of the wire to the desired length.

3.3.1. If the counterweight does not rotate the locking dog out of engagement the usual cause is that tension on the wire rope exceeds the stall pull of the winch. In this case, reposition the equipment to decrease the tension on the wire rope and then repeat 3.3.

WARNING! FAILURE TO DISENGAGE THE LOCKING DOG PRIOR TO REELING OUT CAN RESULT IN MOTOR/WINCH FAILURE.

WARNING! KEEP ALL FINGERS, LOOSE CLOTHING AND ANY FOREIGN OBJECTS AWAY FROM WINCH WHILE IN OPERATION.

4. EMERGENCY MANUAL OPERATION

WARNING! MANUAL OPERATION OF AN HYDRAULIC WINCH IS EXTREMELY DANGEROUS AND SHOULD ONLY BE DONE IN EMERGENCY SITUATIONS. VERY HIGH TENSIONS ARE COMMON AND THE HAZARDS ASSOCIATED WITH THESE FORCES CANNOT BE UNDERESTIMATED.

4.1. In the event you lose hydraulic power to your winch, slack in the wire rope can be taken up manually but this operation should only be done with extreme caution.

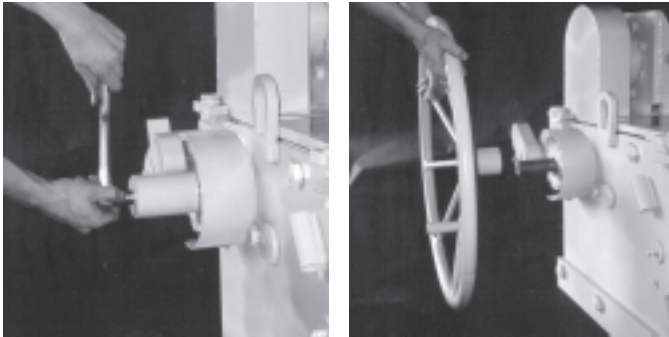
WARNING! TO REDUCE POTENTIAL OF INJURY, LOCK OUT OR TAG OUT HYDRAULIC POWER SOURCE BEFORE INITIATING MANUAL OPERATION OF WINCH.

4.1.1. To manually take up slack in the wire rope, should you lose hydraulic power, first check to make sure there is no tension on the wire rope.

WARNING! FAILURE TO CHECK TO MAKE SURE THERE IS NO TENSION ON THE WIRE ROPE COULD RESULT IN INJURY.

4.1.2. Moving to the side of the winch, rotate the counterweight toward the front of the winch, rotating the locking dog into engagement. Then, moving to the back of the winch, disengage the 2-jaw clutch.

4.1.3. Now remove the bolt, washer and keyed spacer from the #1 shaft taking care not to lose the key. Slide the handwheel over the #1 shaft lining up the key way of the handwheel with the key way of the #1 shaft.



4.1.4. With the locking dog in engagement, turn the handwheel to take up slack in the wire rope until the desired tension is reached.

WARNING! NO ONE SHOULD STAND IN FRONT OF THE WINCH WHILE SLACK IN THE WIRE ROPE IS TAKEN UP.

4.2. Once tension has been reached manually and only if the hydraulic pressure is still lost, tension on the wire rope can be released manually.

WARNING! TO REDUCE POTENTIAL OF INJURY, LOCK OUT OR TAG OUT HYDRAULIC POWER SOURCE BEFORE INITIATING MANUAL OPERATION OF WINCH.

4.2.1. Make sure the areas around the winch and load are clear.

4.2.2. Rotate the counterweight to the back of the winch. Apply enough pressure to the handwheel to allow the locking dog to fall out of engagement with the locking dog gear. Gradually and carefully decrease the tension on the wire rope.

WARNING! IF TENSION IS TOO MUCH TO BE CONTROLLED WITH REASONABLE FORCE BY THE OPERATOR, THEN MANEUVER THE LOAD TO RELIEVE TENSION.

WARNING! DO NOT JUMP OR STAND ON THE HANDWHEEL SPOKES TO TIGHTEN THE WIRE ROPE OR ADJUST TENSION. SEVERE INJURY COULD RESULT.

4.2.3. Once hydraulic power has been restored and **prior to operating winch**, remove the handwheel from the winch and store the handwheel in the designated area.

4.2.4. Reinstall the bolt, washer and keyed spacer onto the #1 shaft.

WARNING! FAILURE TO REMOVE THE HANDWHEEL FROM THE WINCH MAY RESULT IN INJURY AND/OR DAMAGE TO THE WINCH.

5. LUBRICATION AND INSPECTION

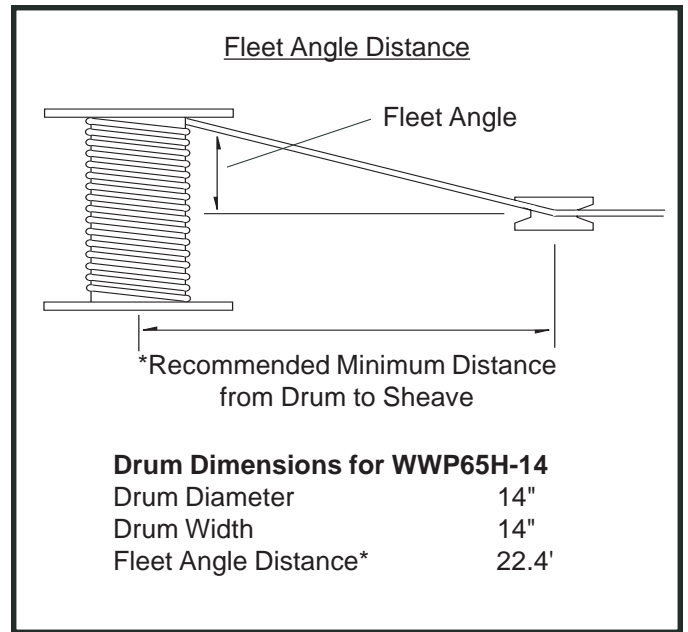
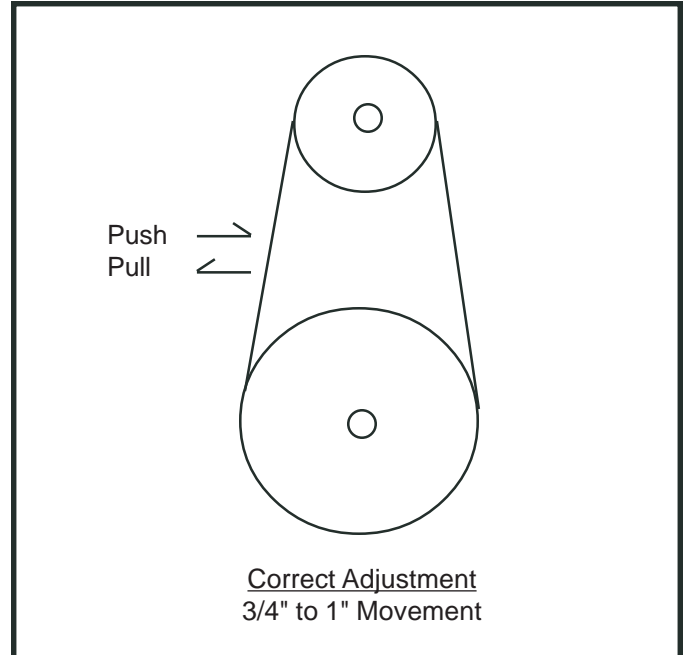
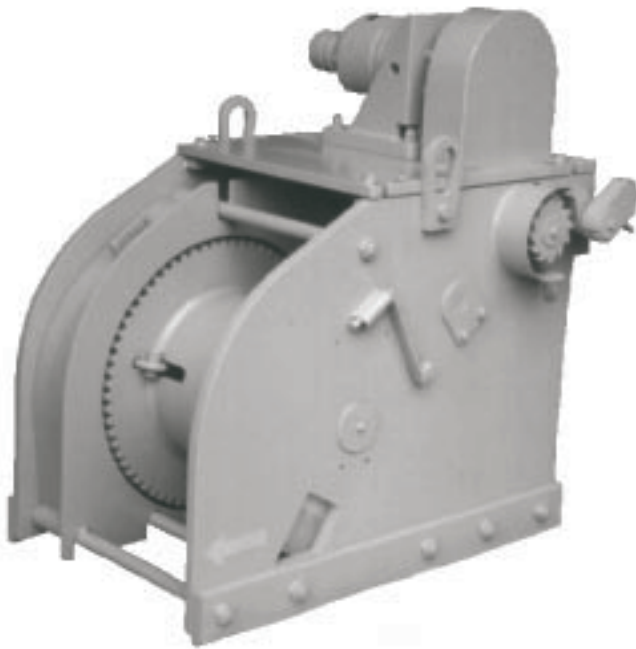
5.1. All grease fittings should be lubricated **once a week** using a heavy-duty grease such as Keystone Moly 29.

5.2. All gear teeth should be coated **once a week** with heavy-duty gear grease.

5.3. **At least once a month**, inspect the winch carefully and completely for worn gears and pawls, cracked welds and other damaged or worn parts. If any worn, cracked or damaged parts are found, stop use immediately and remove the winch from service until all appropriate repairs are completely performed.

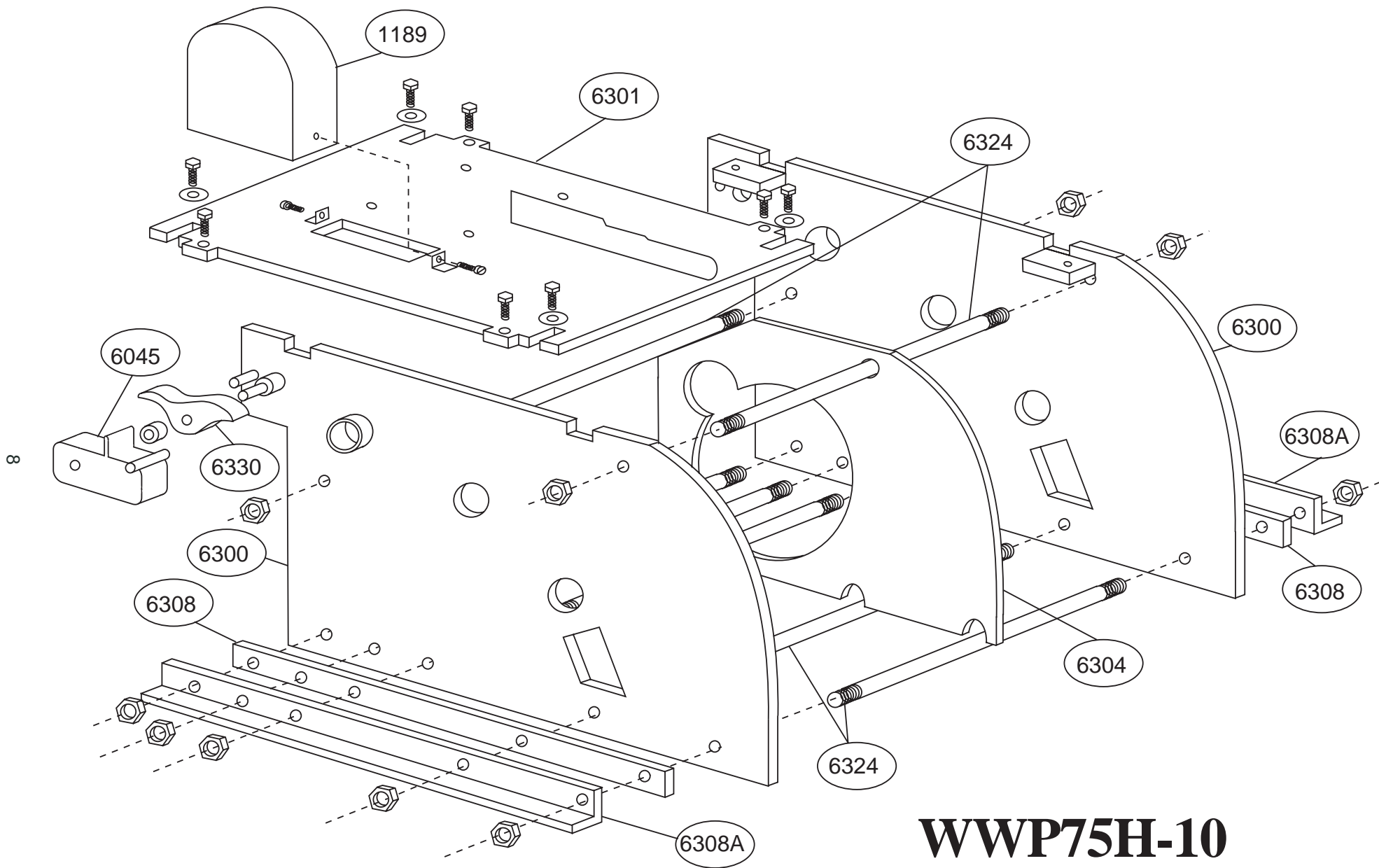
5.4. **At least once a month**, check roller chain tension. Correct tension is movement back and forth of the roller chain, when pushed and pulled by hand, between 3/4" and 1". Adjust top-plate bolts until correct tension is achieved.

5.5. **At least once a month**, oil roller chain using brush or spout can.

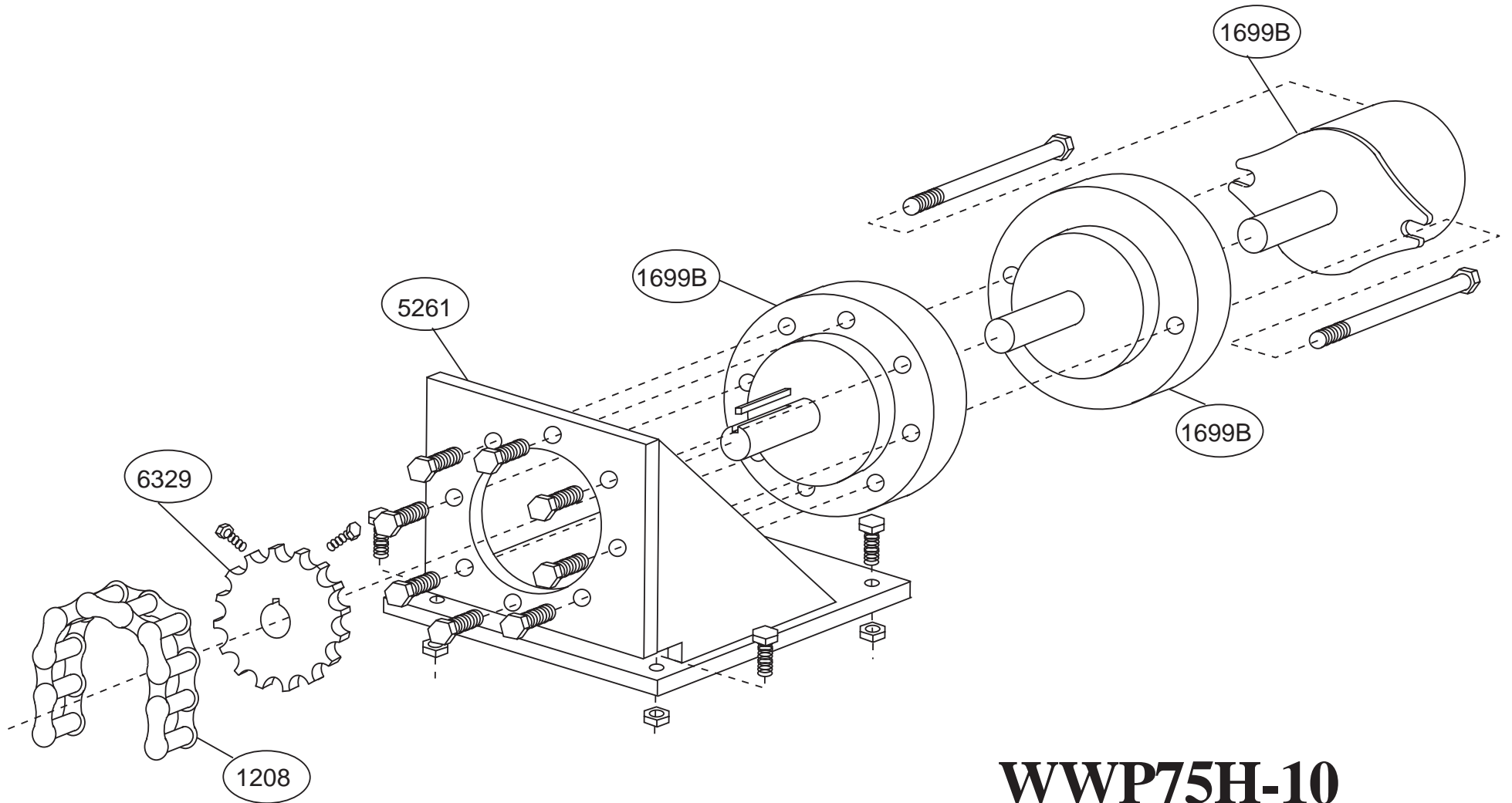


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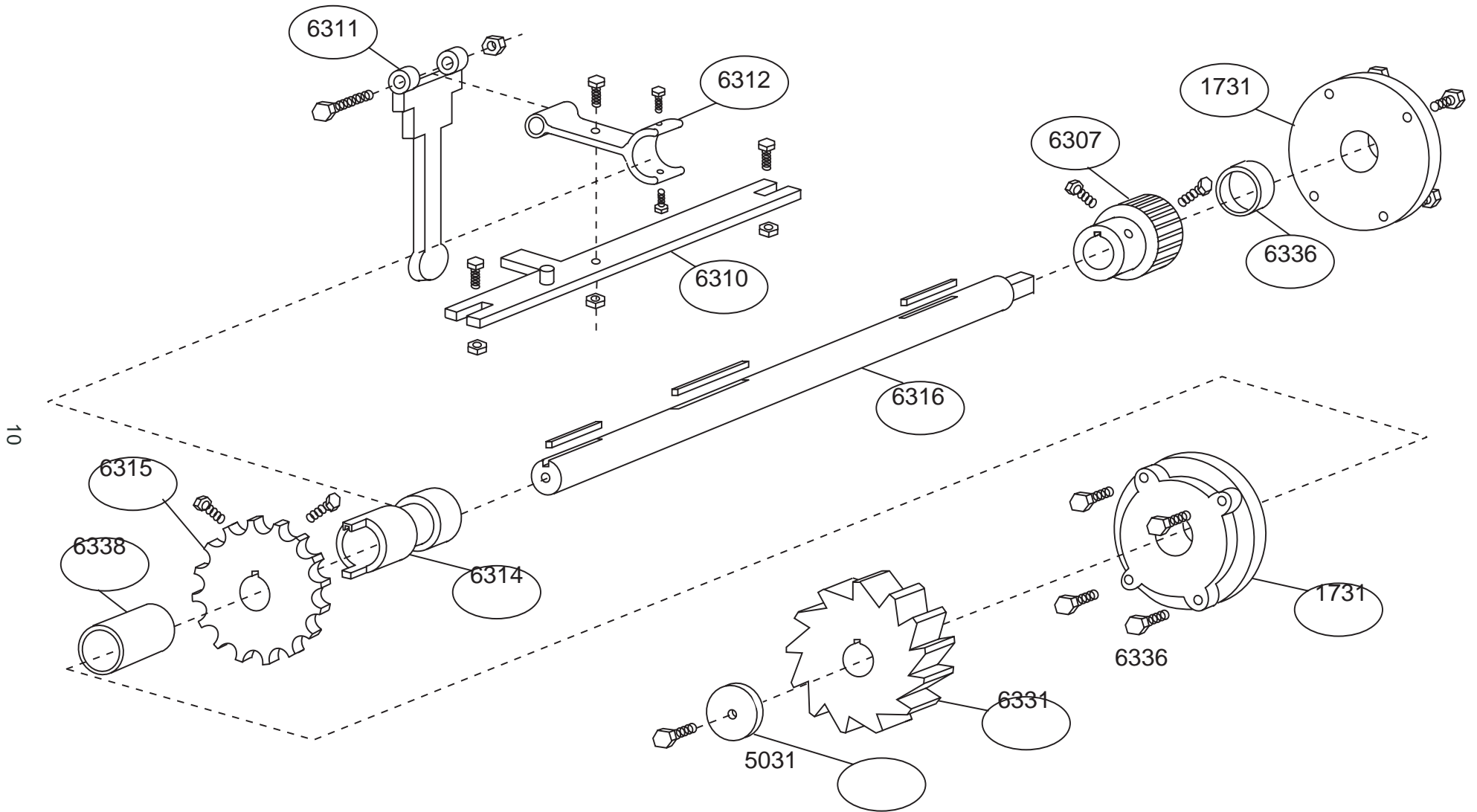
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WWP75H-10 Frame Components

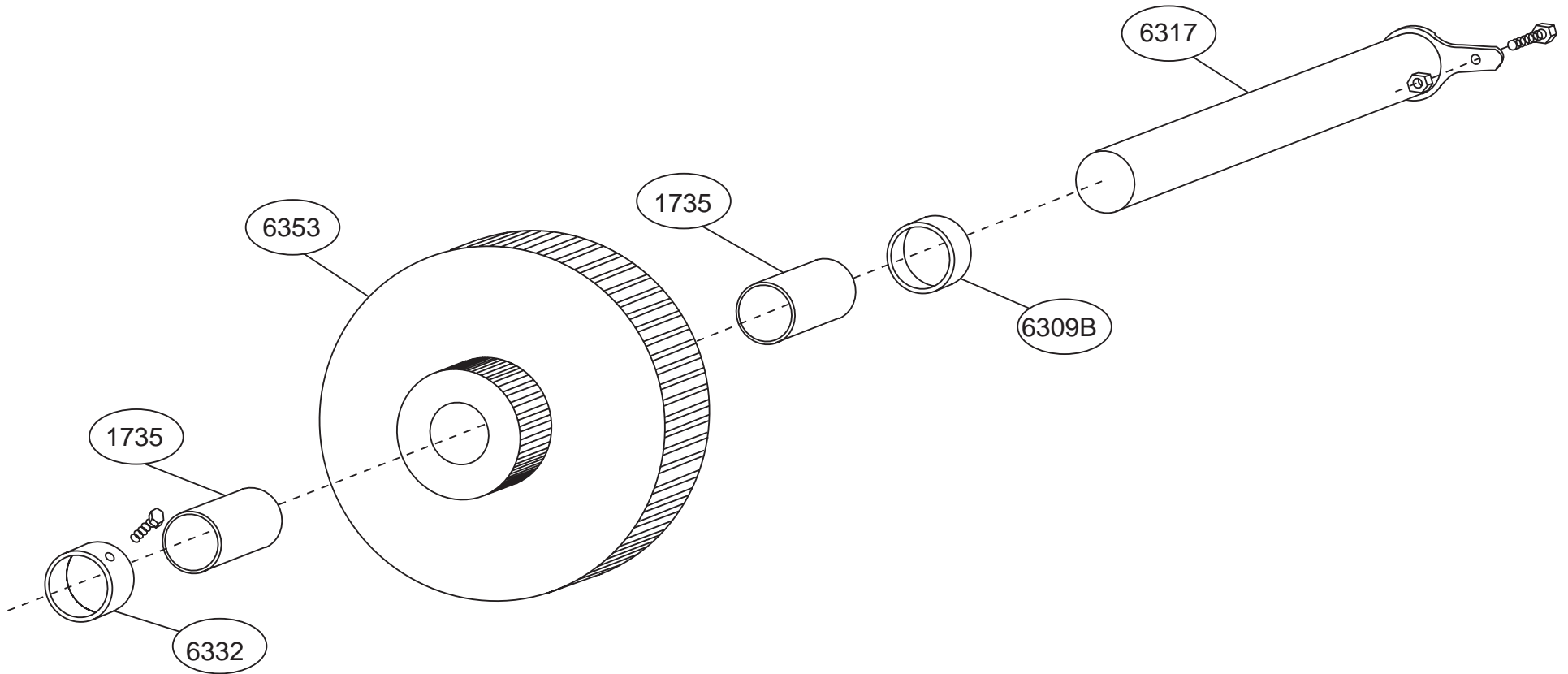


WWP75H-10 Gear/Motor/Brake Components

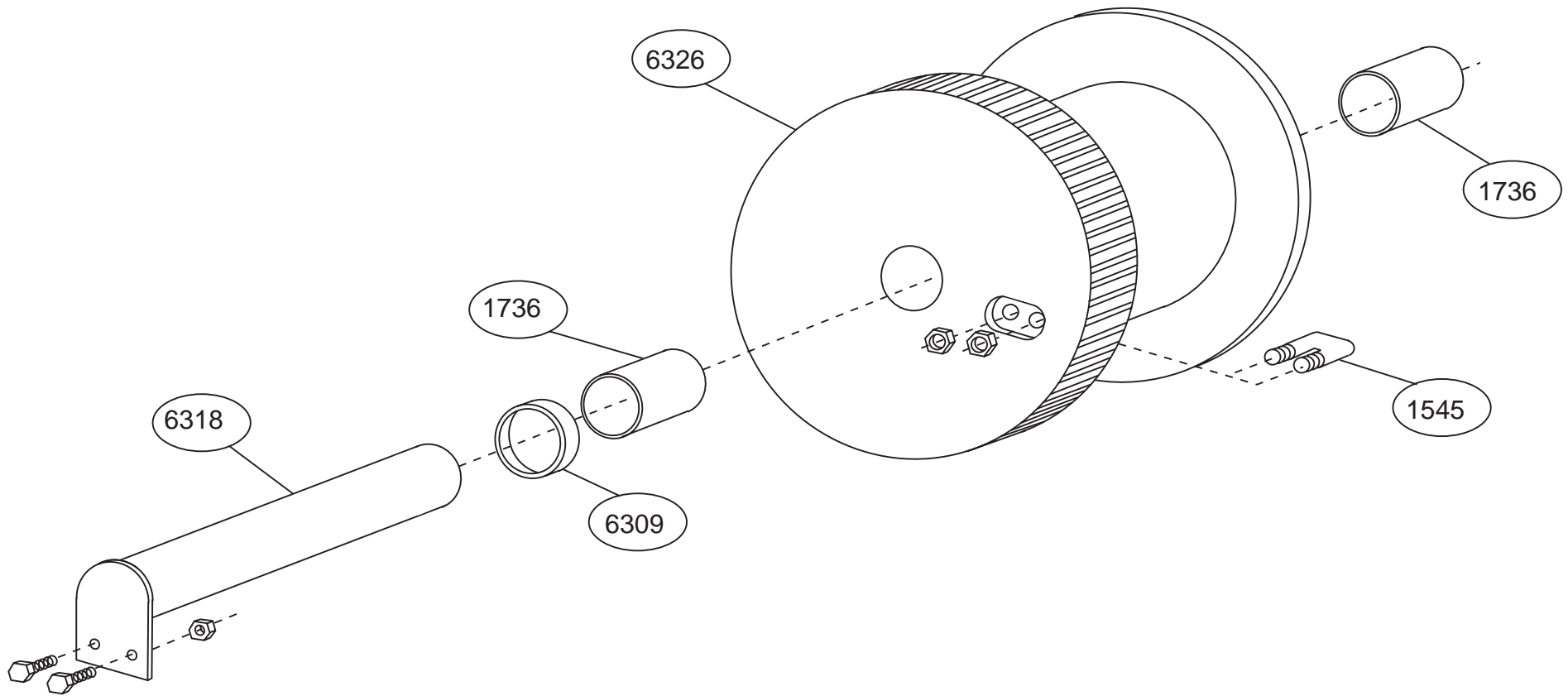


WWP75H-10

#1 Shaft Components



WWP75H-10 #2 Shaft Components



WWP75H-10 #3 Shaft Components

WWP75H-10 WINCH PARTS LIST

Frame Components

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
2	Side Plate	6300
1	Rope Guard	6304
1	Locking Dog	6330
1	Counter Weight	6045
2	Foot Mount	6308
2	Angle Foot Mount	6308A
1	Motor Base Plate	6301
7	Seperator Tube/Tie Rod	6324
1	Sprocket Guard	1189

Gear/Motor/Brake Components

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1	Gear Head, Motor, Brake	1699B
1	Sprocket	6329
1	Roller Chain	1208
1	Torque Hub Mounting Bracket	5261

#1 Shaft Components

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1	Shaft	6316
1	Pinion Gear	6307
2	Roller Bearing	1731
1	Large Spacer	6338
1	Male Clutch	6314
1	Female Clutch/Sprocket	6315
1	Shifter Yoke	6312
1	Pivot Bolt and Handle	6311
1	Support Bar	6310
2	Small Spacer	6336
1	Locking Dog Gear	6331
1	Keyed Spacer	5031

WWP75H-10 WINCH PARTS LIST

#2 Shaft Components

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1	Shaft	6317
1	Combination Spur/Pinion Gear	6353
2	Bushing	1735
1	Retaining Collar	6332
1	Spacer	6309B

#3 Shaft Components

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1	Shaft	6318
1	Rope Drum	6326
2	Bushing	1736
1	Spacer	6309
1	Rope Clip	1545