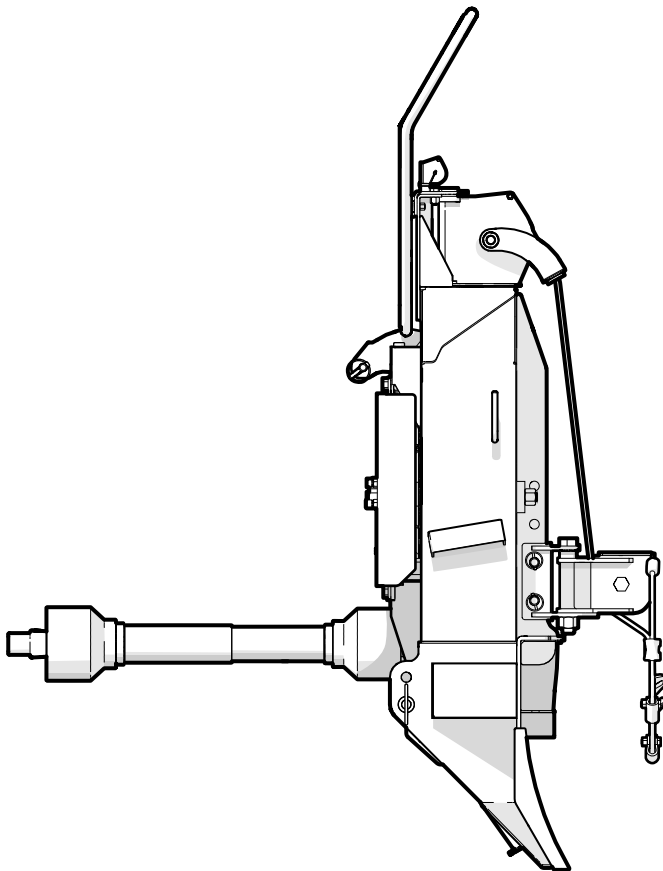


PARTS MANUAL

Serial Number 514094 & up

FX140 / FX140R **PTO-driven Log Skidding Winch**



Foreword

This Wallenstein parts manual is prepared to assist customers in ordering quality OEM replacement parts.

Regular maintenance combined with replacing old, worn or broken parts with the correct OEM parts is essential in prolonging the life of your Wallenstein product. Refer to this manual to identify replacement parts.

To order parts, contact your Wallenstein dealer or distributor. Have the product model and serial number handy.

If your dealer is no longer available, please go to our website: <http://wallensteinequipment.com> and click on the [Dealer Locator](#) to find the nearest dealer.

All information contained in this parts manual is current as per the revision date at the bottom of the page. Wallenstein reserves the right to change product specifications at any time without notice.

If your product specifications differ from those contained in this manual, contact Wallenstein for current information.

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WARNING!

Refer to the operators manual for safe operation and maintenance.

Maintenance should be performed by trained personnel only.

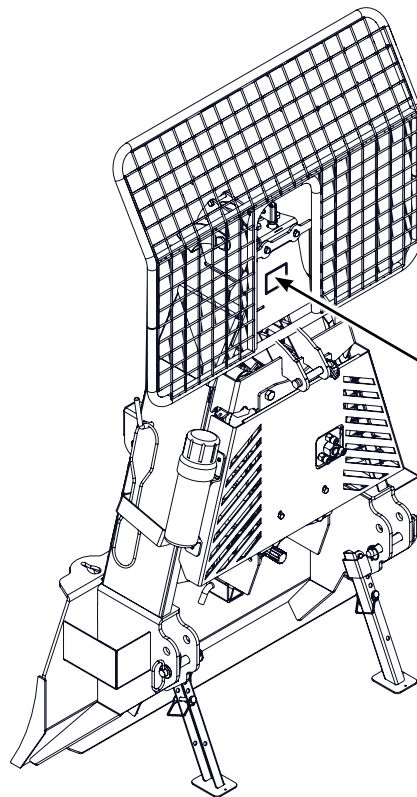
Serial Number Location

Always provide the model and serial number of your Wallenstein product when ordering parts or requesting service or other information. This information is found on the product information plate as shown below.

Record your product information here for future reference.

Model _____

Serial Number _____

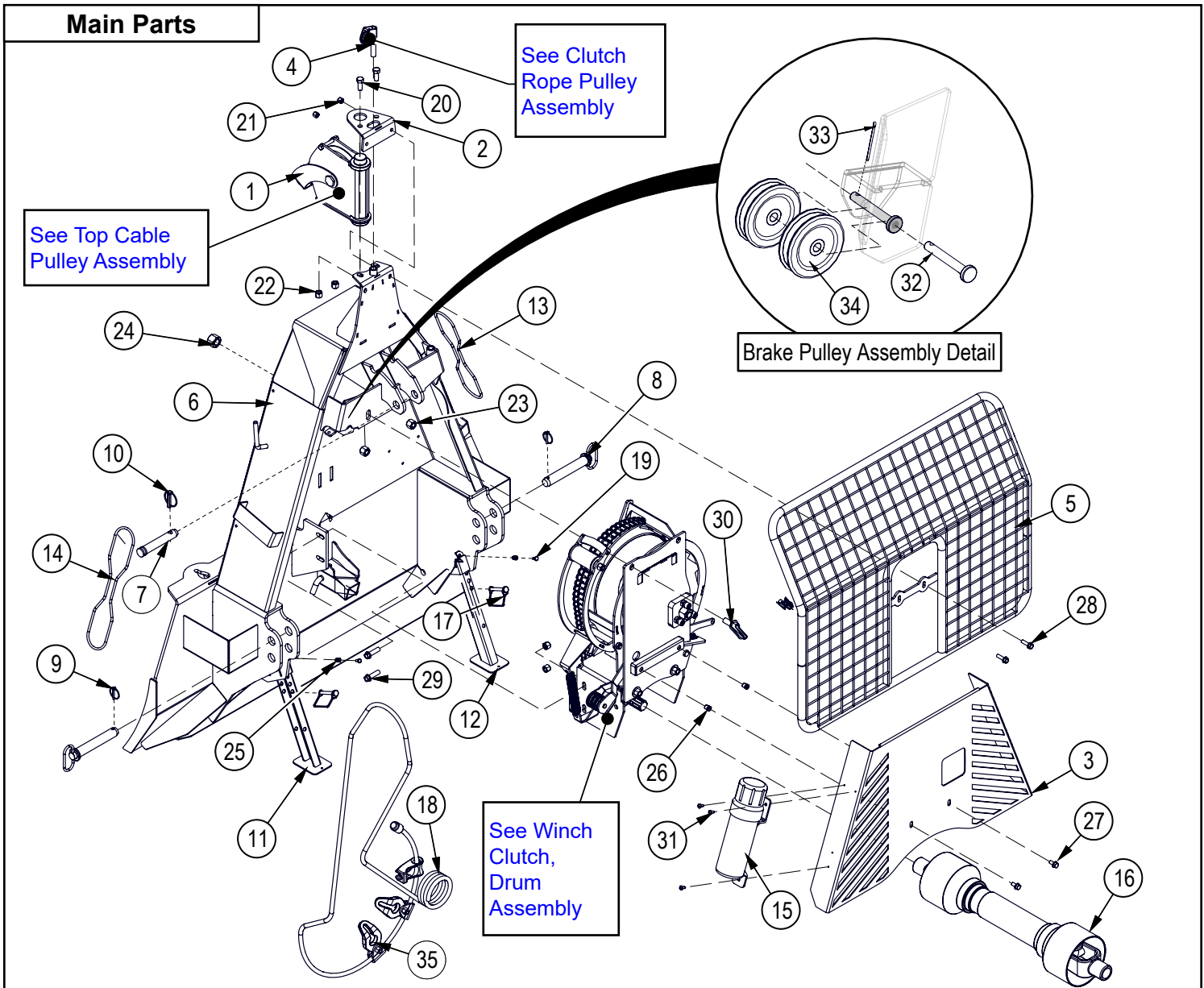


**Model and Serial
Number Location**

www.wallensteinequipment.com

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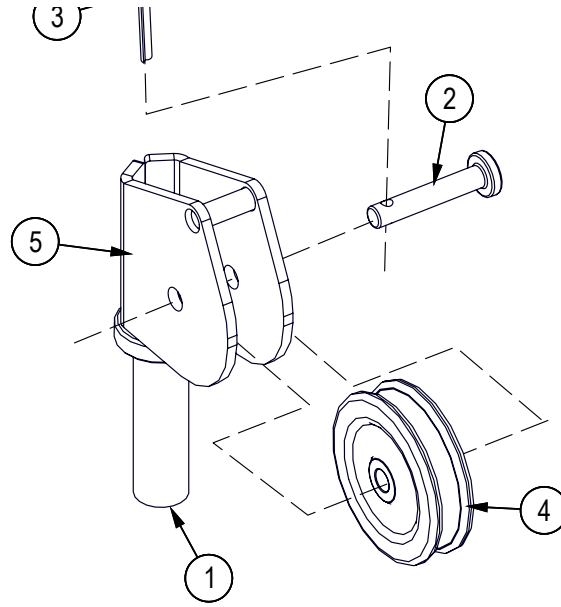
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Item No.	Part No.	Description	Qty
1	5012A205	Top Cable Pulley Assembly	1
2	5012L285	Top Pulley Capture Bracket	1
3	5013L327	Lower Protective Shield	1
4	5012A207	Clutch Rope Pulley	1
5	5012W226	Safety Screen	1
6	5013W325	Main Frame	1
7	Z11142	Toplink Pin, 1" x 4-5/16"	1
8	Z11271	Hitch Pin, 1-1/8" x 6-1/4"	2
9	Z12110	Lynch Pin, 3/16"	2
10	Z12140	Lynch Pin, 7/16"	1
11	5012W217	Support Leg, RH	1
12	5012W218	Support Leg, LH	1
13	Z92201	Green Nylon Rope, 1/4" x 9-1/2ft	1
14	Z92205	White Nylon Rope, 1/4" x 18ft	1
15	Z96503	Manual Tube, 3-1/2" Short	1
16	Z44402	PTO Shaft, Series B4 x 32.402"	1
17	Z12432	Snap Lock Pin, 3/8" x 2-1/2"	2
18	Z92121-1	Winch Cable, 1/2" x 165ft with Forged End	1

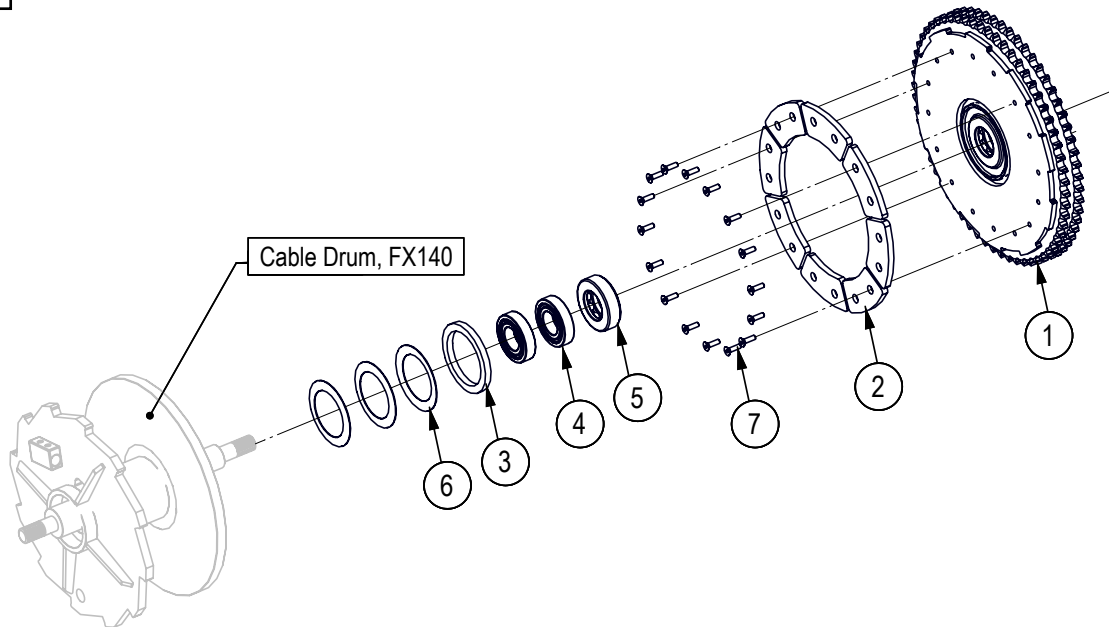
Item No.	Part No.	Description	Qty
19	Z71105	Hex Bolt, 1/4NC x 1/2"	2
20	Z71512	Hex Bolt, 1/2NC x 1-1/4"	2
21	Z72231	Hex Lock Nut, 3/8NC	2
22	Z72251	Hex Lock Nut, 1/2NC	4
23	Z72261	Hex Lock Nut, 5/8NC	2
24	Z72281	Hex Lock Nut, 7/8NC	1
25	Z72955	Rivet Nut, 1/4NC x 165	2
26	Z72958	Rivet Nut, 3/8NC x 150	2
27	Z76133	Flange Bolt, 3/8NC x 3/4"	2
28	Z76137	Flange Bolt, 3/8NC x 1-1/4"	2
29	Z76155	Flange Bolt, 1/2NC x 1-3/4"	2
30	Z76161	Flange Bolt, 5/8NC x 1-1/2"	2
31	Z76721	Self-tapping Screw, 1/4" x 3/4"	3
32	Z11312	Clevis Pin, 1/4" x 1-5/8"	1
33	Z12305	Cotter Pin, 1/16" x 1"	1
34	Z92203	Groove Pulley, 2" x 1/4"	2
35	Z92301	Keyhole Slider, 3/8" Chain	1

Clutch Rope Pulley



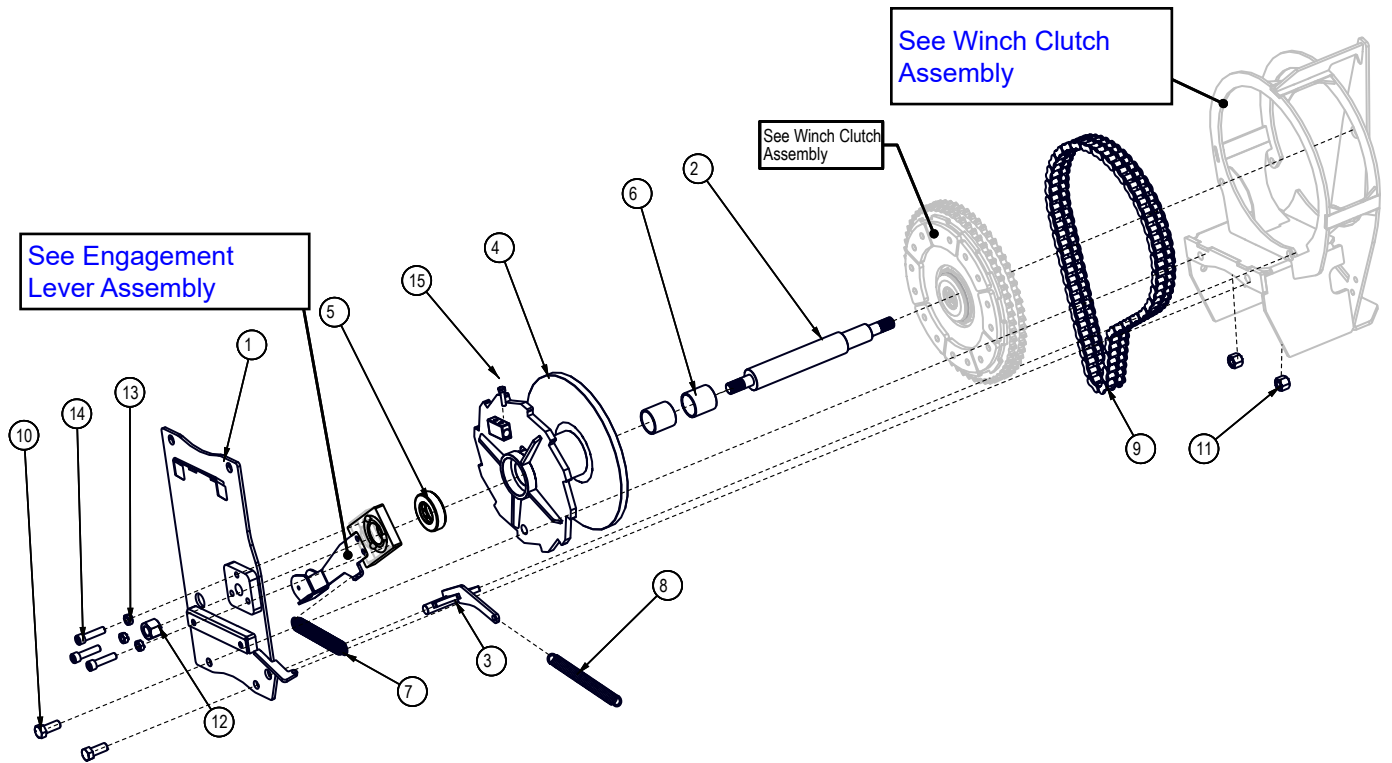
Item No.	Part No.	Description	Qty
1	5012A207	Clutch Rope Pulley	1
2	Z11311	Clevis Pin, 1/4" x 1-1/8"	1
3	Z12311	Cotter Pin, 1/8" x 1"	1
4	Z92203	1/4 Groove Pulley 2 Diam.	1
5	5012W215	Clutch Rope Pulley Housing	1

Clutch Assembly



Item No.	Part Number	Description	Qty
1	5013W309	60 Tooth Double Sprocket	1
2	5012M215	Clutch Pad Set (8 pieces)	1
3	5012M228	Nylon Bearing Washer	1
4	Z21202	Ball Bearing 6207-2RS	2
5	Z22101	1-3/4 Bore Shielded Thrust Bearing	1
6	Z34101	Cup Spring, 2-3/4" ID x 4" OD x 1mm	3
7	Z75211	FHCS, 1/4NC x 7/8"	16

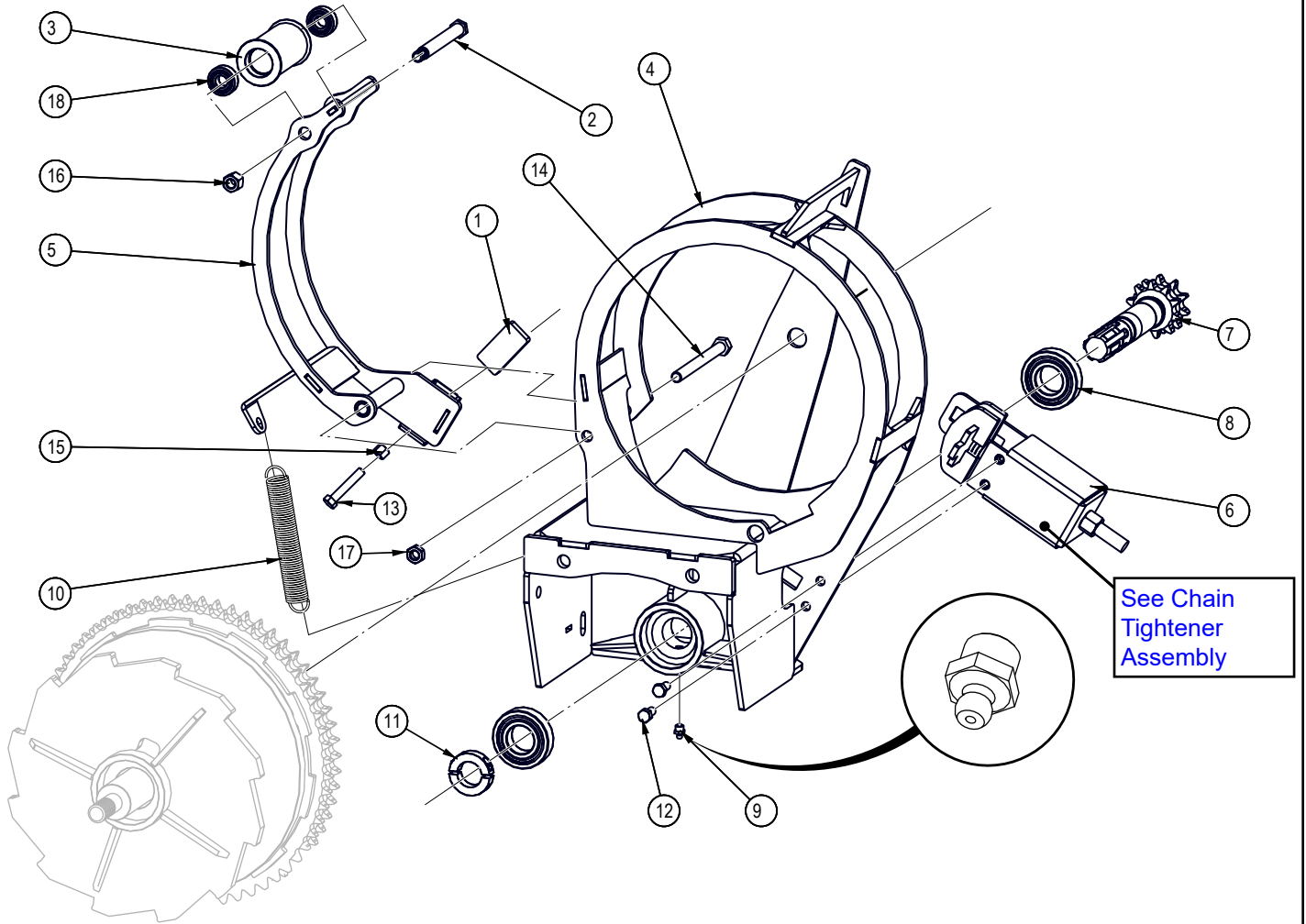
Cable Drum Assembly



Item	Part Number	Description	Qty
1	5012W203	Drum Frame Capture Plate	1
2	5012M214	Main Drum Shaft	1
3	5012W206	Lock Dog	1
4	5013W307	FX120 Cable Drum	1
5	Z22101	1-3/4 Bore Shielded Thrust Bearing	1
6	Z27101	Fiberglide Bearing 1-3/4" ID x 2" long x 1/8" wall	2
7	Z31403	Ext Spring, 27mm OD x 178mm x 0.105"	1
8	Z31405	Ext Spring, 7/8" OD x 7" x 0.125"	1

Item	Part Number	Description	Qty
9	Z42251	#60 Double Chain 76 Links	1
10	Z76161	Flange Bolt, 5/8NC x 1-1/2"	2
11	Z72261	Hex Lock Nut, 5/8NC	2
12	Z72281	Hex Lock Nut, 7/8NC	1
13	Z72352	Jam Nut, 1/2NF	3
14	Z75151	SHCS, 1/2NF x 2"	3
15	Z71212	Hex Bolt, 5/16NC x 1-1/4"	1

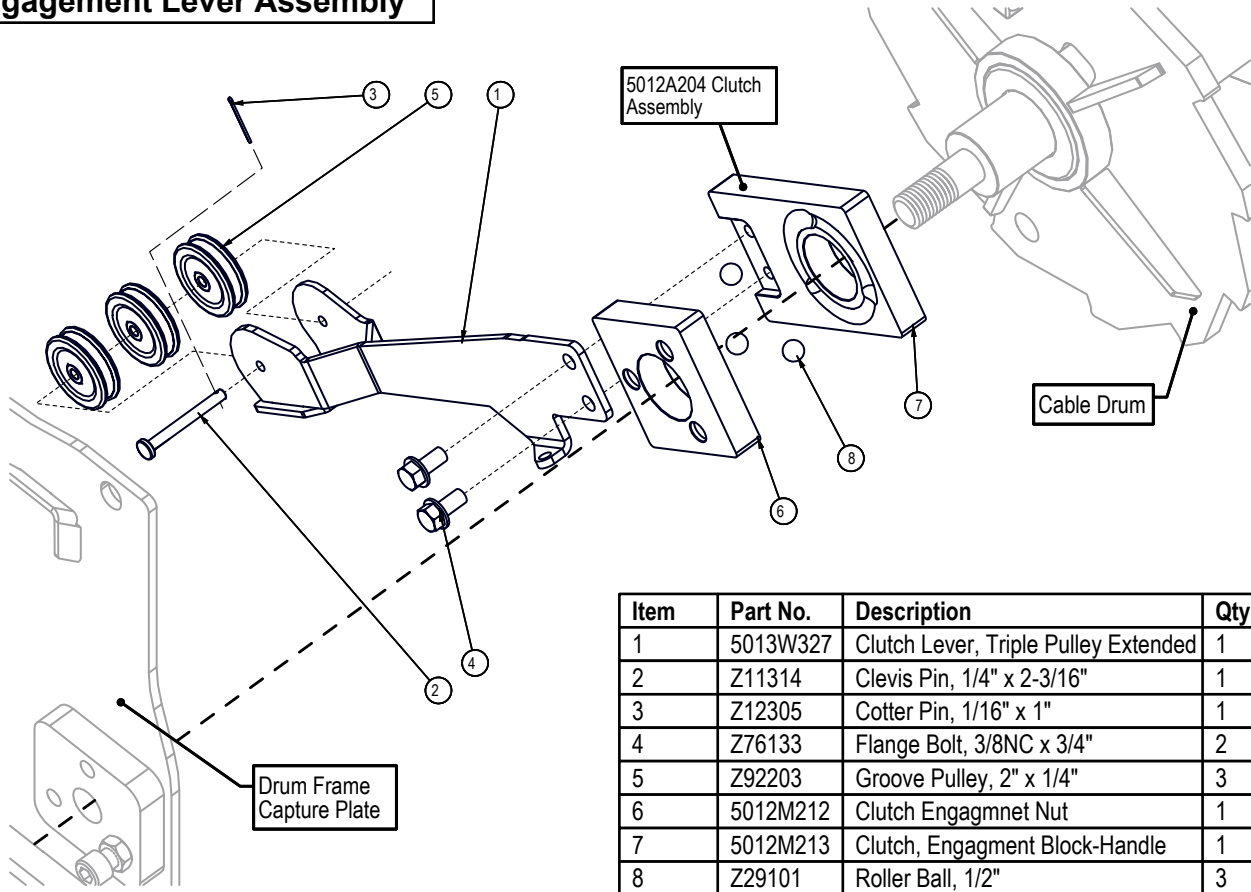
Drum Frame Assembly



Item	Part Number	Description	Qty
1	5012M204	Block, Drum Brake	1
2	5012M205	Cable Roller Pin	1
3	5012M206	Brake Arm Cable Roller	1
4	5012W202	Drum Frame Base	1
5	5012W204	Drum Brake Arm	1
6	5013A303	Double Auto Chain Tightener	1
7	5013W308	PTO Spline Shaft w/ Sprocket	1

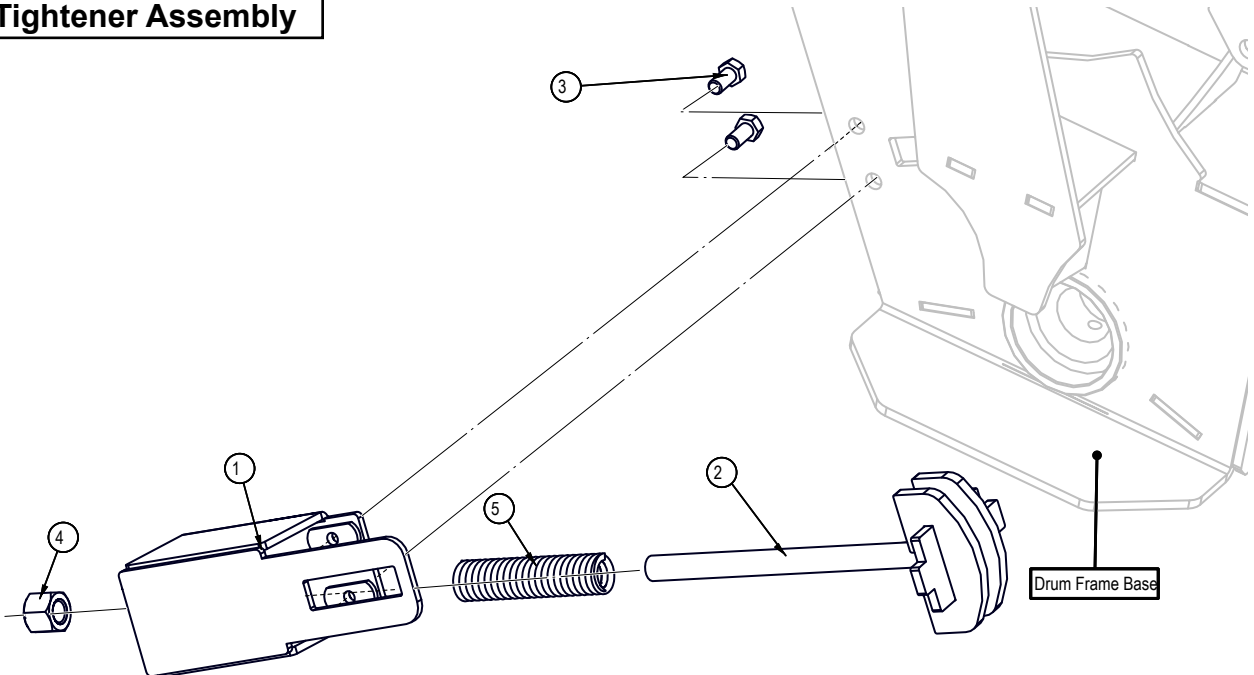
Item	Part Number	Description	Qty
8	Z21202	Ball Bearing 6207-2RS	2
9	Z29201	Grease Fitting, 1/8NPT	1
10	Z31403	Ext Spring, 27mm OD x 178mm x 0.105"	1
11	Z46311	Clamp-on Shaft Collar	1
12	Z71307	Hex Bolt, 3/8NC x 3/4"	2
13	Z71320	Hex Bolt, 3/8NC x 2"	1
14	Z71555	Hex Bolt, 1/2NC x 5-1/2"	1
15	Z72531	Serrated Flange Locknut, 3/8NC	1
16	Z72251	Hex Lock Nut, 1/2NC	1
17	Z72351	Jam Nut, 1/2NC	1
18	Z21203	Ball Bearing 6202 2RS	2

Engagement Lever Assembly



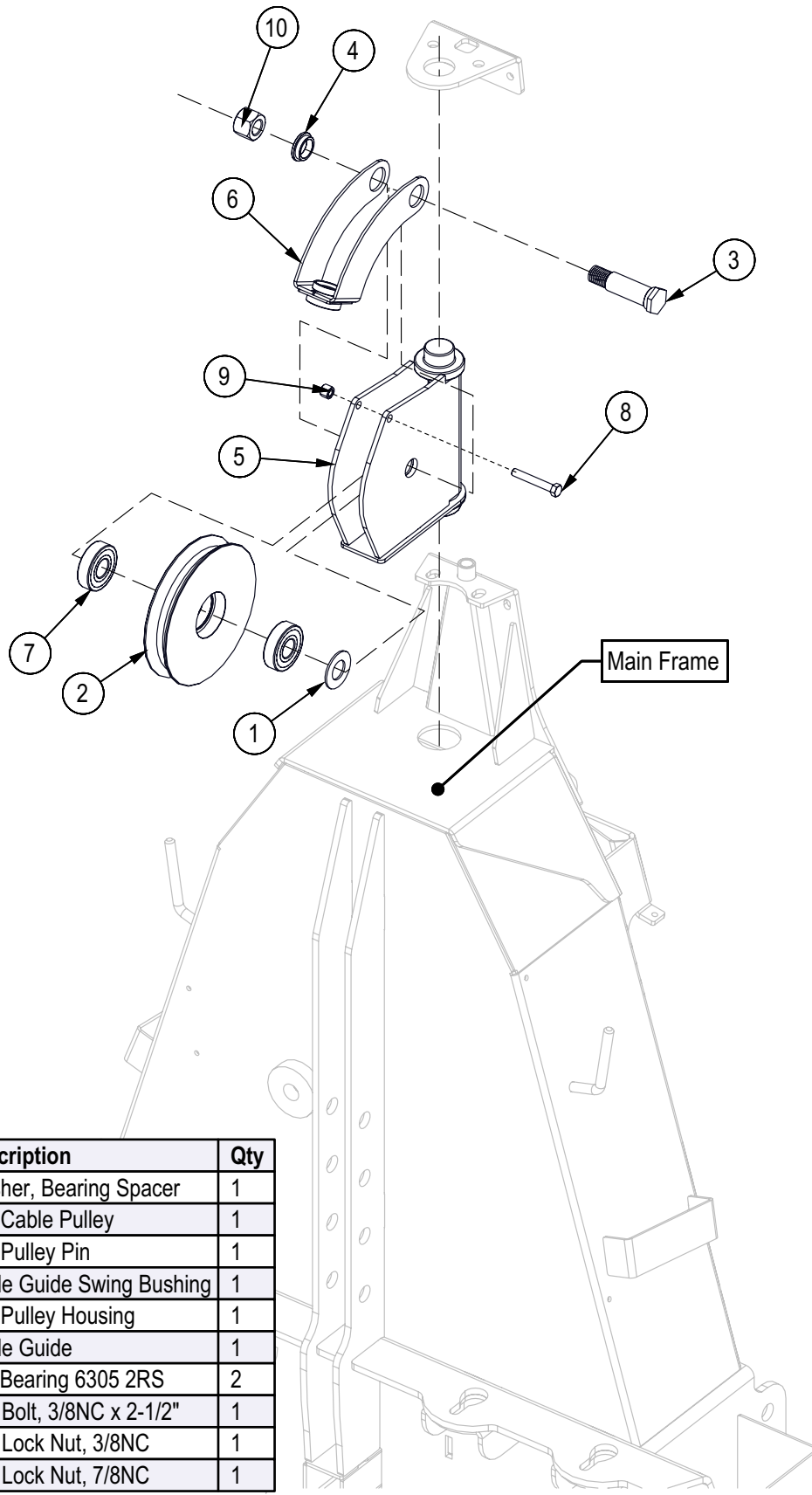
Item	Part No.	Description	Qty
1	5013W327	Clutch Lever, Triple Pulley Extended	1
2	Z11314	Clevis Pin, 1/4" x 2-3/16"	1
3	Z12305	Cotter Pin, 1/16" x 1"	1
4	Z76133	Flange Bolt, 3/8NC x 3/4"	2
5	Z92203	Groove Pulley, 2" x 1/4"	3
6	5012M212	Clutch Engagmnet Nut	1
7	5012M213	Clutch, Engagment Block-Handle	1
8	Z29101	Roller Ball, 1/2"	3

Chain Tightener Assembly



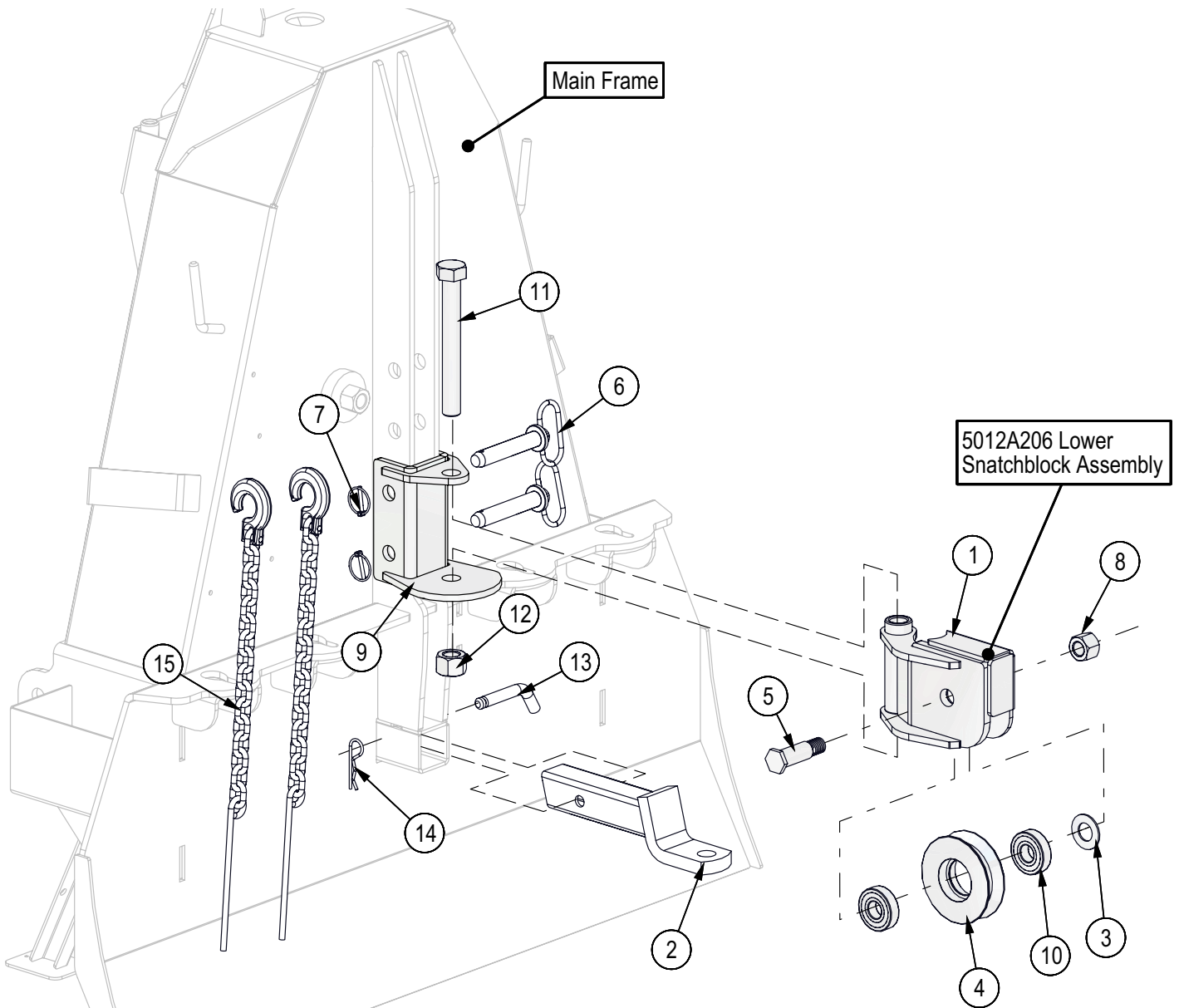
Item	Part Number	Description	Qty
1	5013W321	Chain Tightener Housing	1
2	5013W305	Chain Tightener Plunger	1
3	Z76133	Flange Bolt, 3/8NC x 3/4"	2
4	Z72261	Hex Lock Nut, 5/8NC	1
5	Z32401	Comp Spring, 1" OD x 7" x 0.162"	1

Top Cable Pulley



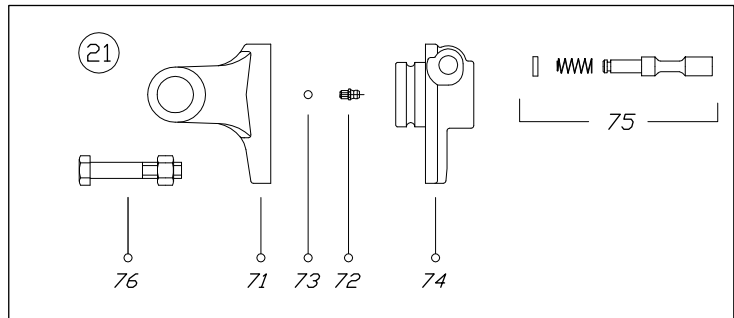
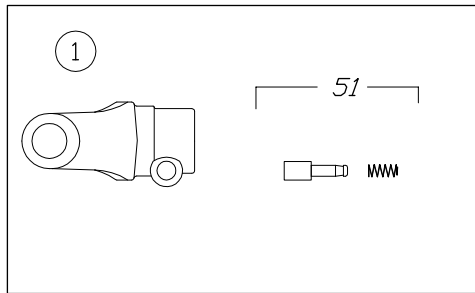
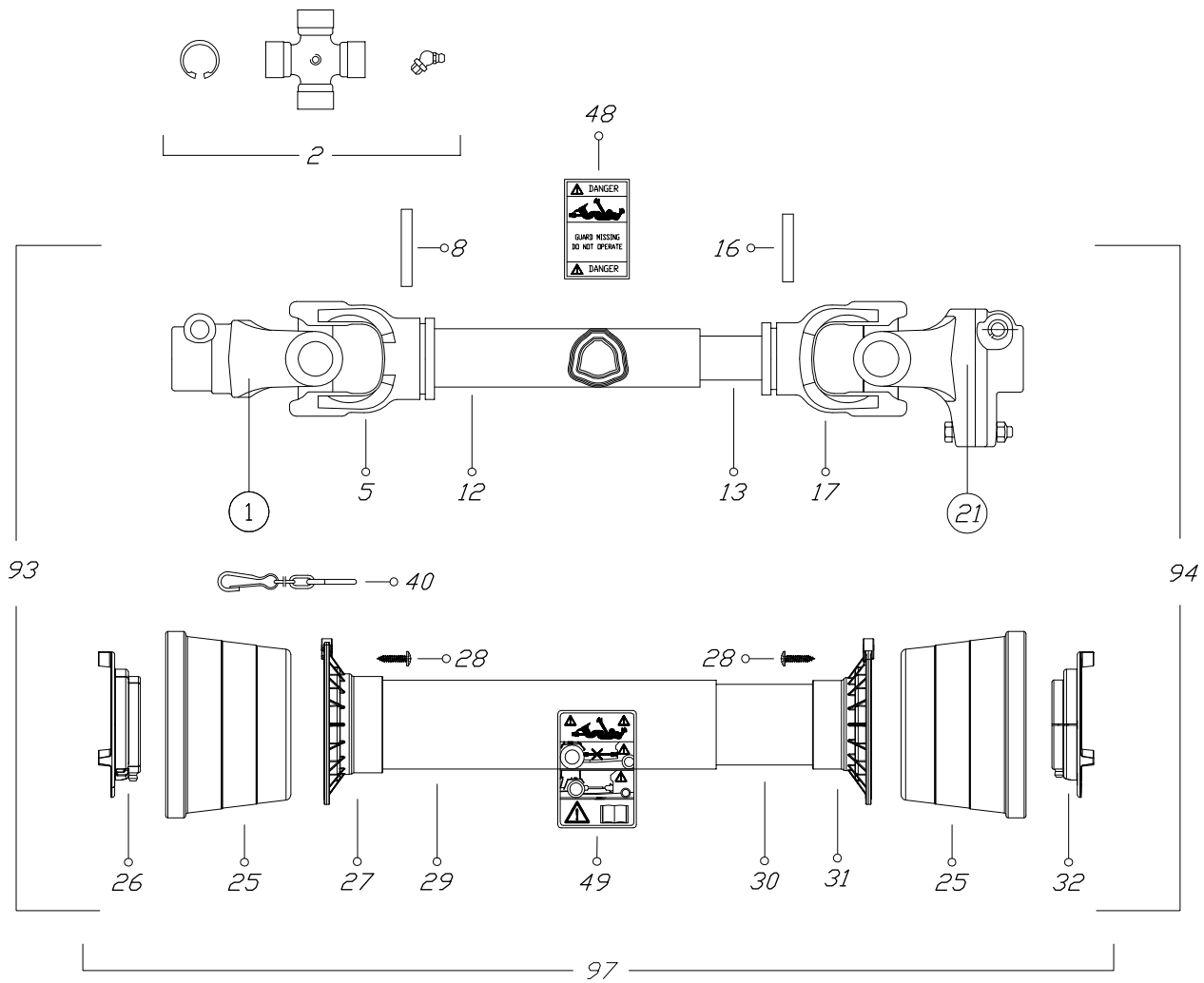
Item No.	Part No.	Description	Qty
1	5012L264	Washer, Bearing Spacer	1
2	5012M220	Top Cable Pulley	1
3	5012M221	Top Pulley Pin	1
4	5012M222	Cable Guide Swing Bushing	1
5	5012W210	Top Pulley Housing	1
6	5012W211	Cable Guide	1
7	Z21201	Ball Bearing 6305 2RS	2
8	Z71325	Hex Bolt, 3/8NC x 2-1/2"	1
9	Z72231	Hex Lock Nut, 3/8NC	1
10	Z72281	Hex Lock Nut, 7/8NC	1

Snatch Block Assembly



Item No.	Part No.	Description	Qty
1	5012W213	Snatchblock Swivel Housing	1
2	Z91641	Ball Mount for 2" Receiver	1
3	5012L264	Washer, Bearing Spacer	1
4	5012M223	Snatch Block Pulley	1
5	5012M224	Snatch Block Pulley Pin	1
6	Z11251	Hitch Pin, 7/8" x 4-1/4"	2
7	Z12110	Lynch Pin, 3/16"	2
8	Z72281	Hex Lock Nut, 7/8NC	1
9	5012W212	Snatchblock Base	1
10	Z21201	Ball Bearing 6305 2RS	2
11	Z71915	Hex Bolt, 1NC x 8"	1
12	Z72291	Hex Lock Nut, 1NC	1
13	Z91641-2	Pin for Z91641	1
14	Z91641-3	Clip for Z91641	1
15	Z92318	Choker Chain, 5/16" x 90"	2

PTO Shaft



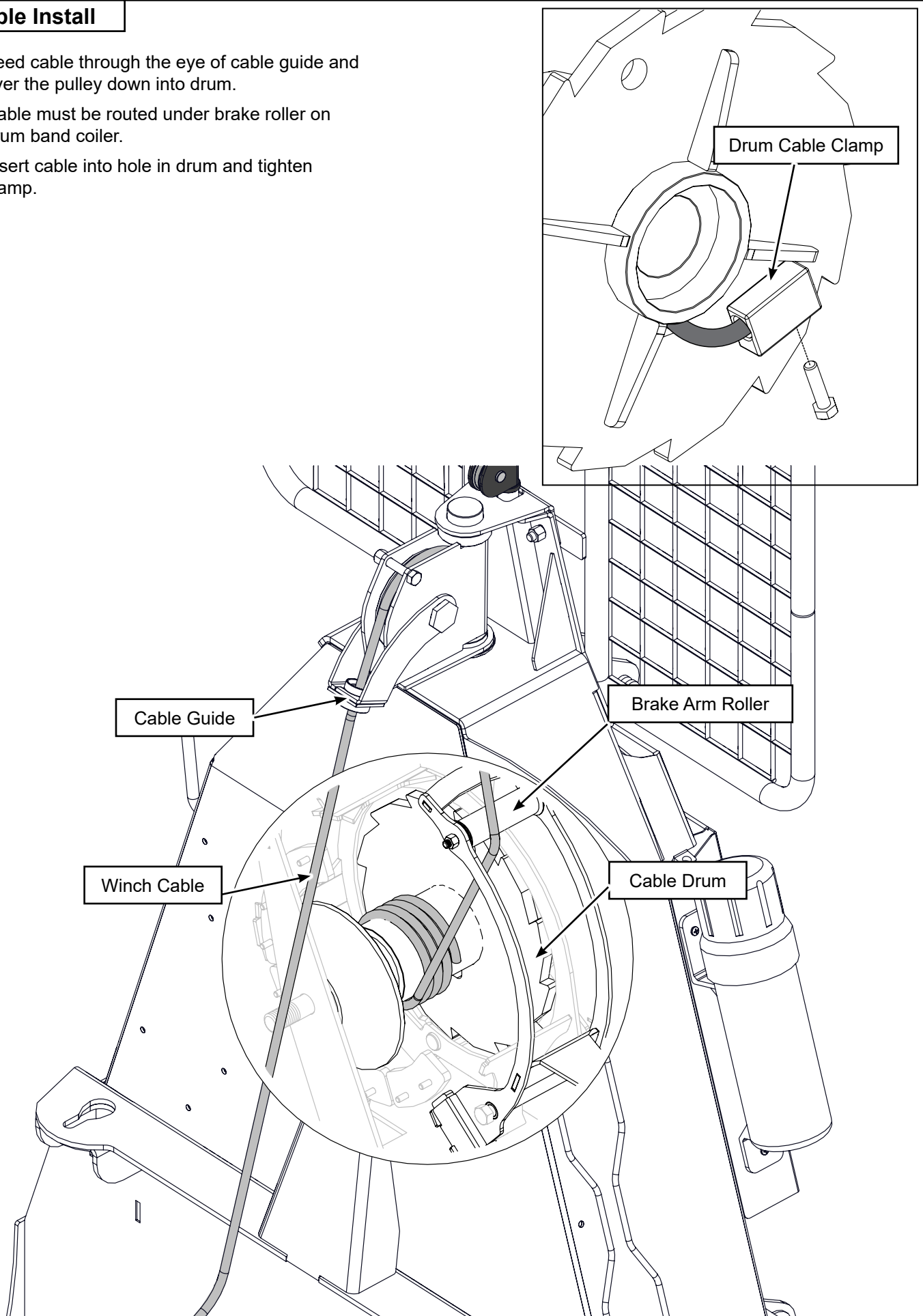
PTO Shaft – P/N Z44402

Item.	Description	Qty.	Part Number
1	YOKE	1	0800403
2	CROSS JOURNAL ASS.	2	08204
5	OUTER TUBE YOKE	1	08004021
8	FLEXIBLE PIN	1	098700860
12	CM. 100 CARDAN TUBE(*)	1	09881433100
13	CM. 100 CARDAN TUBE(*)	1	09881364100
16	FLEXIBLE PIN	1	098700855
17	INNER TUBE YOKE	1	08004011
21	SHEAR BOLT YOKE	1	08805A604633
25	CONE SHIELD BELL 03-04	2	021904C001
26	OUTER BEARING 03-04	1	025504C001
27	OUTER BASE CONE 03-04	1	025404C001
28	SCREW	6	0998052242
29	OUTER SAFETY TUBE	1	0988966NB4061
30	INNER SAFETY TUBE	1	0988961NB4061

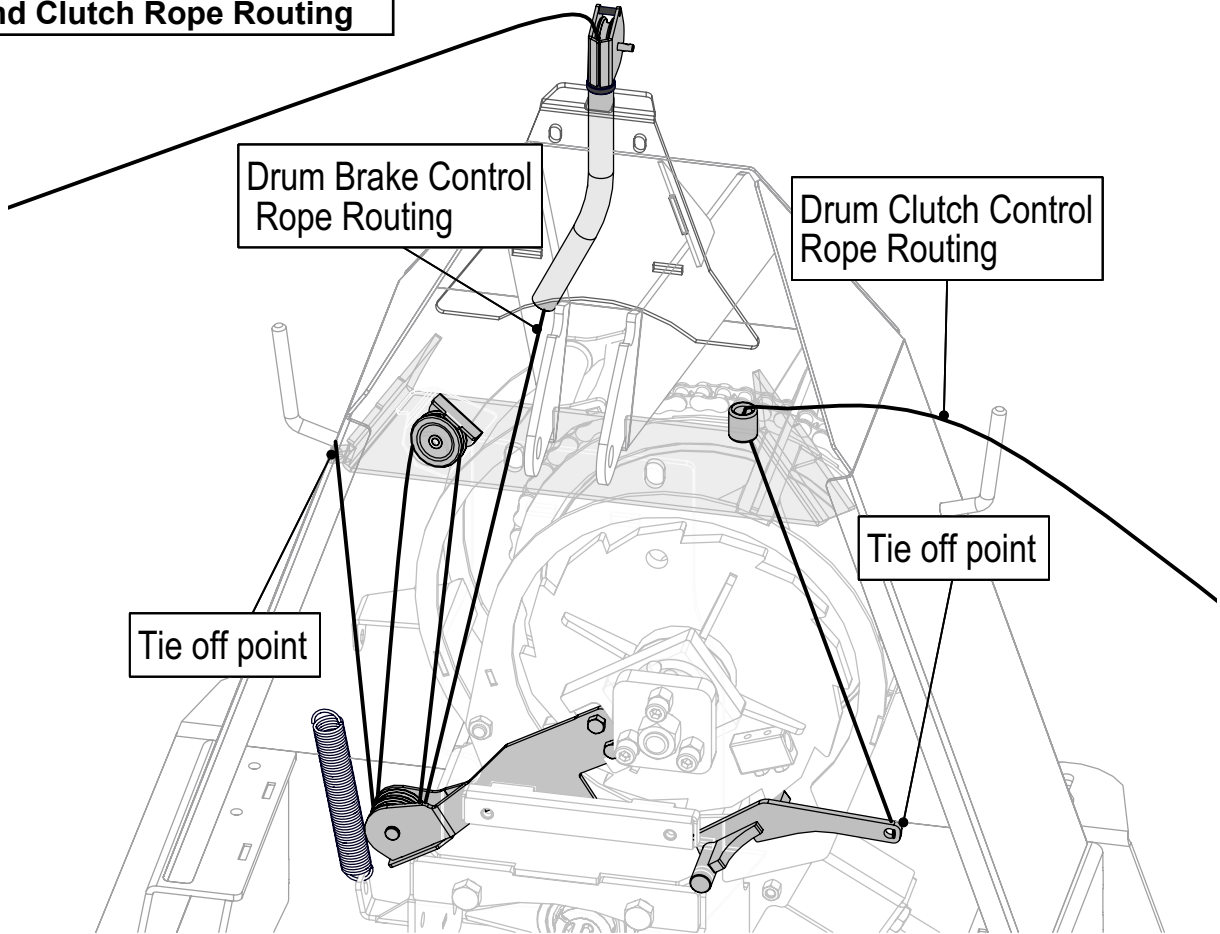
Item.	Description	Qty.	Part Number
31	INNER BASE CONE 03-04	1	025404C002
32	INNER BEARING 03-04	1	025504C002
40	CHAIN	1	0252000001
48	LABEL DANGER OUTER DRIVE TUBE	1	09872006
49	EXTERNAL SHIELD LABEL	1	09872003
51	COMPLETE PUSH BUTTTON	1	0986014047
71	YOKE FOR LB4	1	08896904
72	GREASE NIPPLE	1	0984010150
73	STEEL BALL	23	098680104
74	HUB	1	088964
75	PUSH PIN SET	1	0986014075
76	SHEARBOLT AND NUT M8 x 1.25 x 45 10.9	1	Z44902 (Package of 5)
93	OUTER HALF SHAFT	1	B4N061US2
94	INNER HALF SHAFT	1	B4N061US1098
97	SAFETY GUARD	1	083US04061

Cable Install

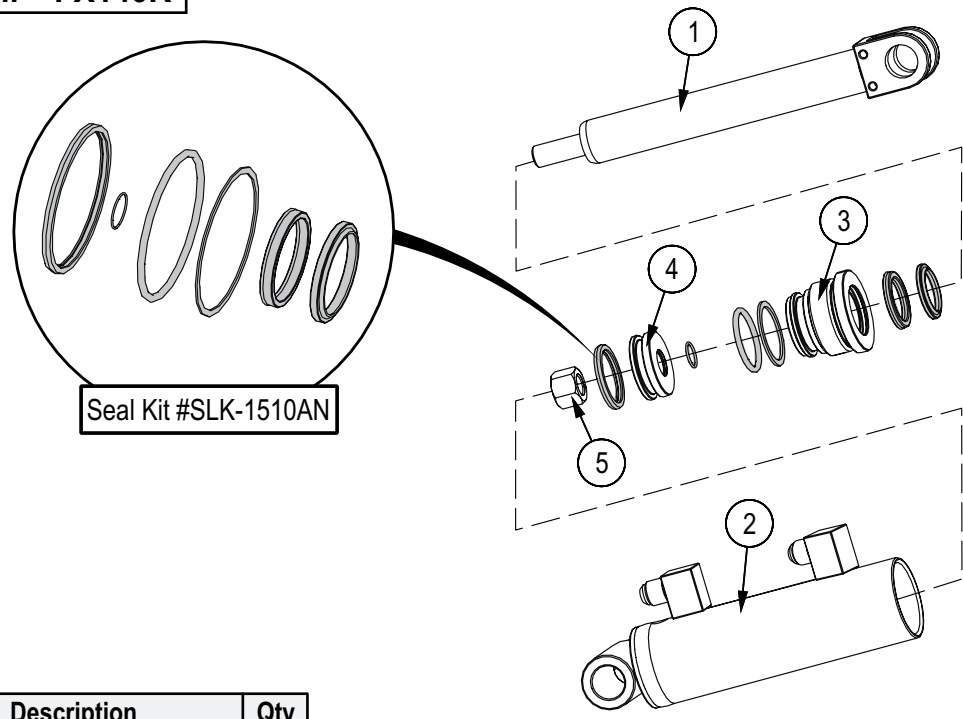
- Feed cable through the eye of cable guide and over the pulley down into drum.
- Cable must be routed under brake roller on drum band coiler.
- Insert cable into hole in drum and tighten clamp.



Brake and Clutch Rope Routing

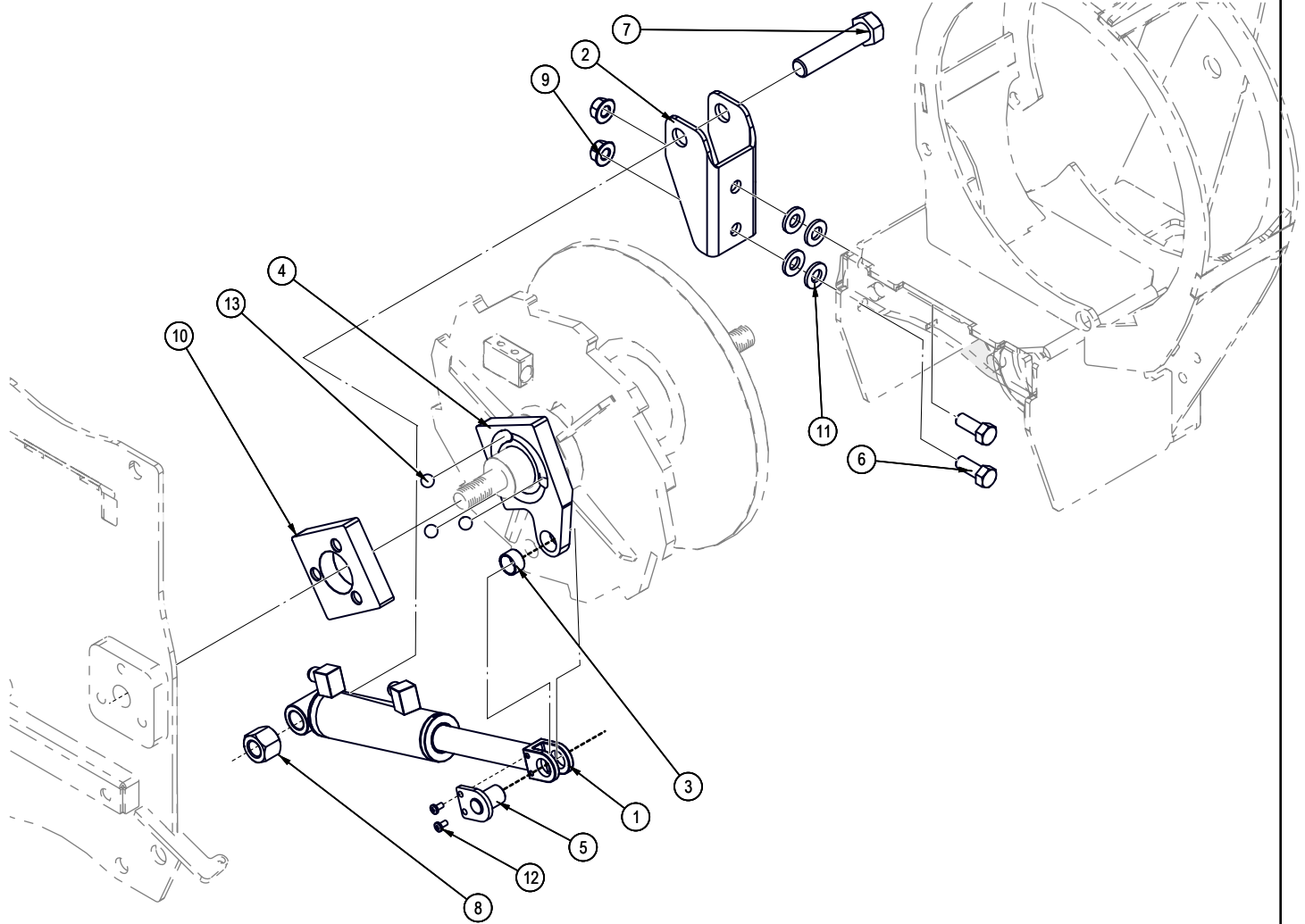


Hydraulic Cylinder Detail – FX140R



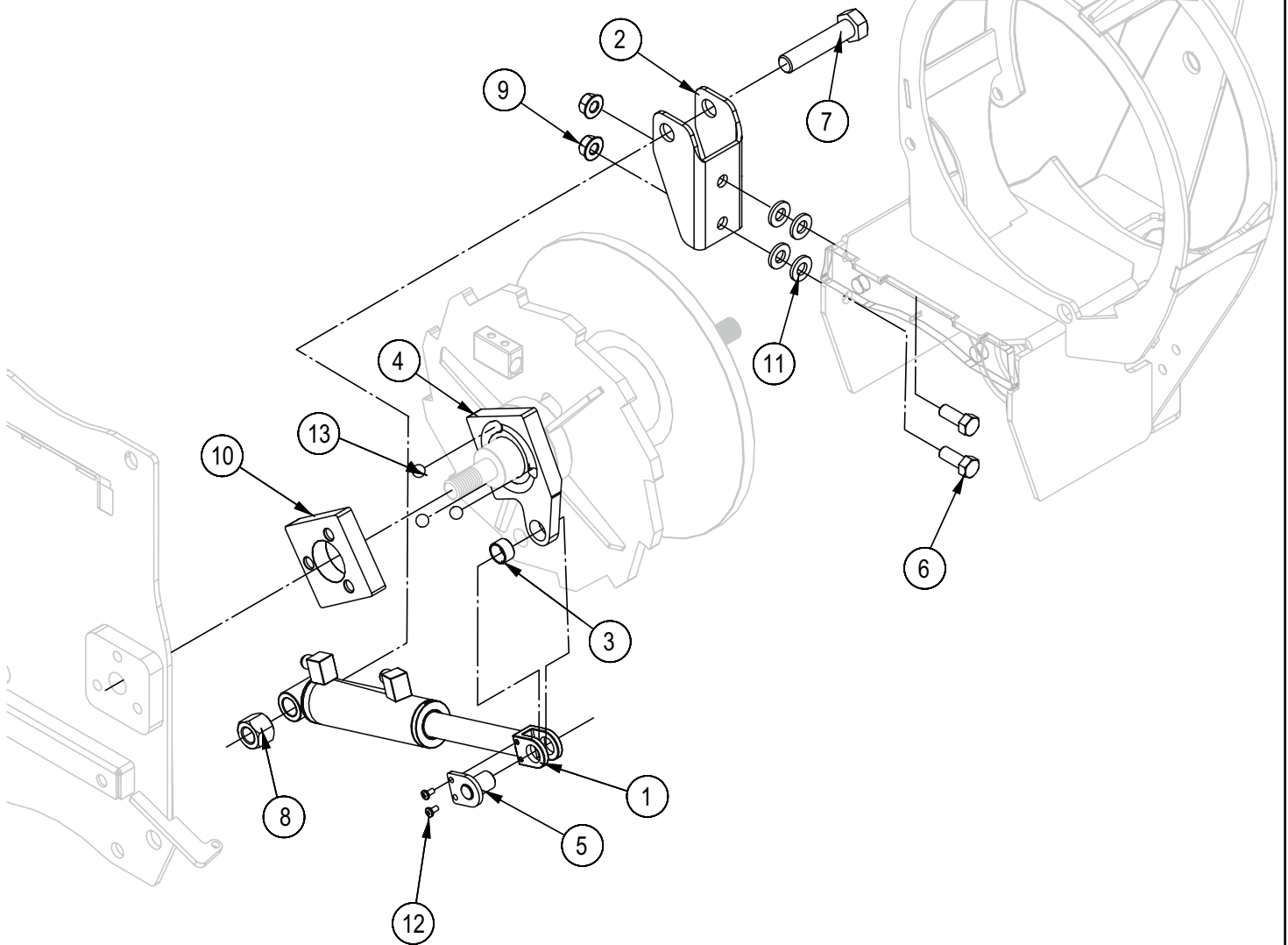
Item No.	Part No.	Description	Qty
1	5089C2023	Rod, 1" x 1/2"	1
2	5089C2024	Barrel, 1-1/2" Bore	1
3	G150-075S	Gland, 1-1/2" X 3/4"	1
4	P500-150SP	Piston, 1-1/2" Bore	1
5	Z72251	Hex Lock Nut, 1/2NC	1

Cylinder / Clutch Plate Assembly – FX140R; S/N 514094–5140224



Item	Part No.	Description	Qty
1	5089C201	Cylinder, 1-1/2" x 3-1/2 Stroke	1
2	5089L201	Cylinder Base	1
3	5089M202	Bushing	1
4	5089M203	Remote Control Clutch Plate	1
5	5089W201	Cylinder Pin	1
6	Z71512	Hex Bolt, 1/2NC x 1-1/4"	2
7	Z71735	Hex Bolt, 3/4NC x 3-1/2"	1
8	Z72271	Hex Lock Nut, 3/4NC	1
9	Z72551	Serrated Flange Locknut, 1/2NC	2
10	5012M212	Clutch Engagement Nut	1
11	Z73151	SAE Washer, 1/2"	4
12	Z78302	Machine Screw, #10NF x 3/8"	2
13	Z29101	Roller Ball, 1/2"	3

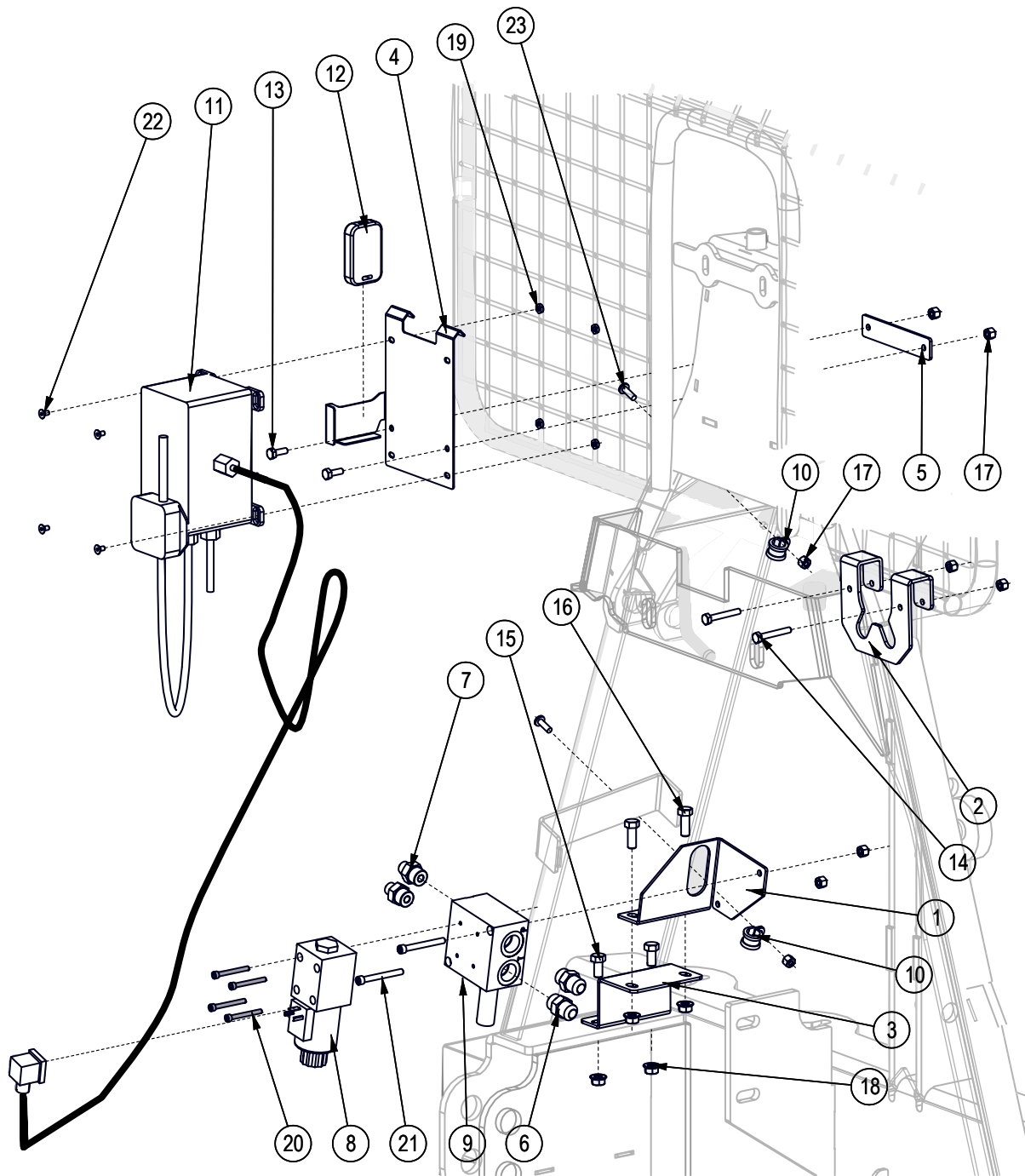
Cylinder / Clutch Plate Assembly – FX140R; S/N 5140225 & Up



ECN0415

Item No.	Part No.	Description	Qty
1	5089C202	Cylinder, 1-1/2" x 3-1/2 Stroke	1
2	5089L201	Cylinder Base	1
3	5089M202	Bushing	1
4	5089M203	Remote Control Clutch Plate	1
5	5089W201	Cylinder Pin	1
6	Z71512	Hex Bolt, 1/2NC x 1-1/4"	2
7	Z71735	Hex Bolt, 3/4NC x 3-1/2"	1
8	Z72271	Hex Lock Nut, 3/4NC	1
9	Z72551	Serrated Flange Locknut, 1/2NC	2
10	5012M212	Clutch Engagement Nut	1
11	Z73151	SAE Washer, 1/2"	4
12	Z78302	Machine Screw, #10NF x 3/8"	2
13	Z29101	Roller Ball, 1/2"	3

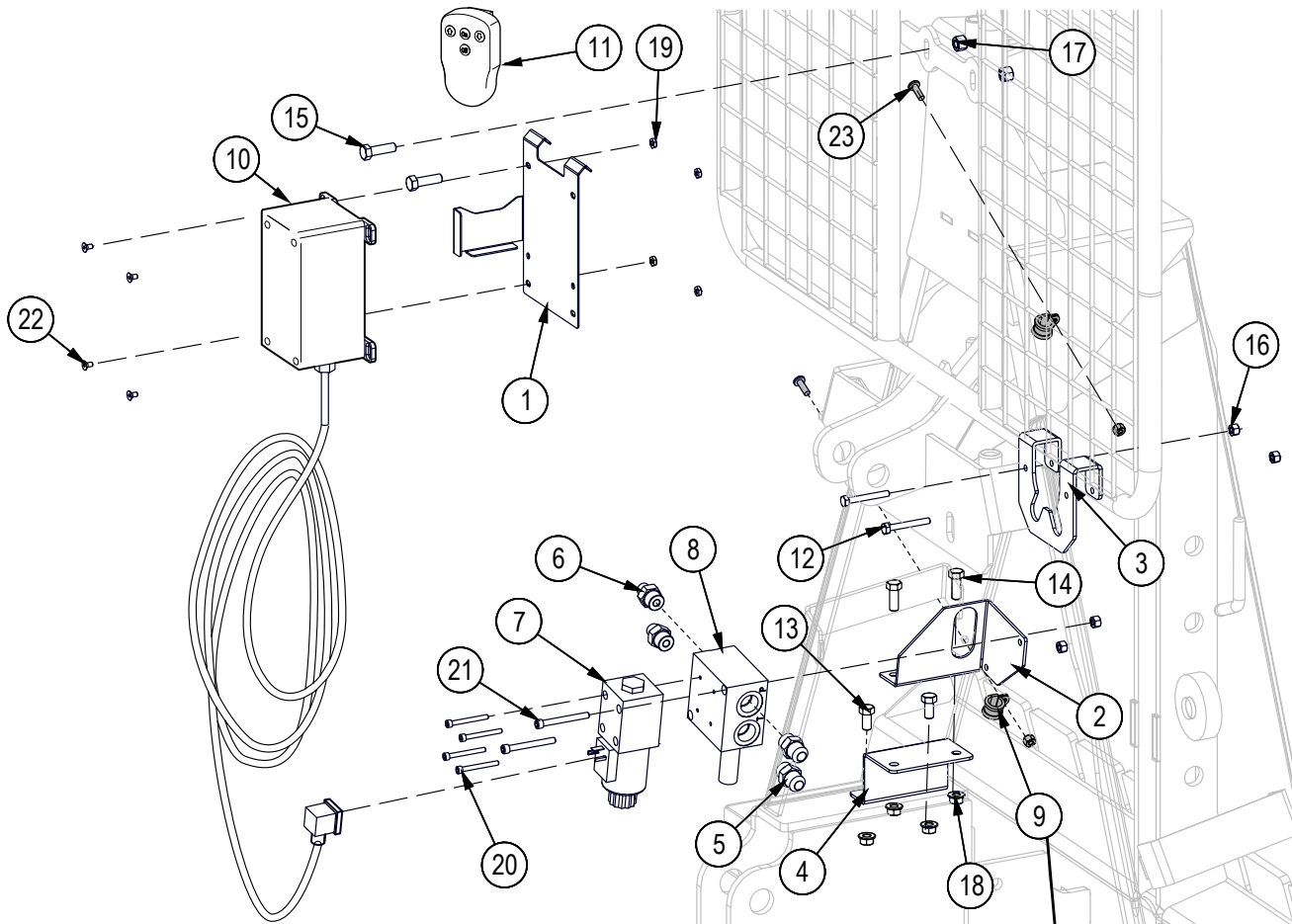
Remote Control Components – FX140R; S/N 514094–5140224



Item	Part No.	Description	Qty
1	5089L208	Hydraulic Mount Base	1
2	5089L209	Hose Hanger	1
3	5089L210	Valve Mount Extension	1
4	5089L215	Remote Box Mount	1
5	5089L216	Trap Plate	1
6	Z51643	Straight, MJIC x MORB 0808	2
7	Z51644	Straight, MJIC x MORB 0608	2
8	Z56509	Single Spool Valve, OC Motor SOL x 18GPM	1
9	Z56511	Subplate, Relief x 3000PSI	1
10	Z62819	Rubberized Wire Clamp, 1/2"	2
11	Z66208	Dual State Remote Receiver	1

Item	Part No.	Description	Qty
12	Z66209	Remote Handset for Z66208	1
13	Z71107	Hex Bolt, 1/4NC x 3/4"	2
14	Z71117	Hex Bolt, 1/4NC x 1-3/4"	2
15	Z71307	Hex Bolt, 3/8NC x 3/4"	2
16	Z71310	Hex Bolt, 3/8NC x 1"	2
17	Z72211	Hex Lock Nut, 1/4NC	8
18	Z72531	Serrated Flange Locknut, 3/8NC	4
19	Z72752	Machine Nut, #10NF	4
20	Z75102	SHCS, #10NC x 1-3/4"	4
21	Z75117	SHCS, 1/4NC x 2-1/4"	2
22	Z75202	FHCS, #10NF x 3/8"	4
23	Z78301	Machine Screw, 1/4NC x 3/4"	2

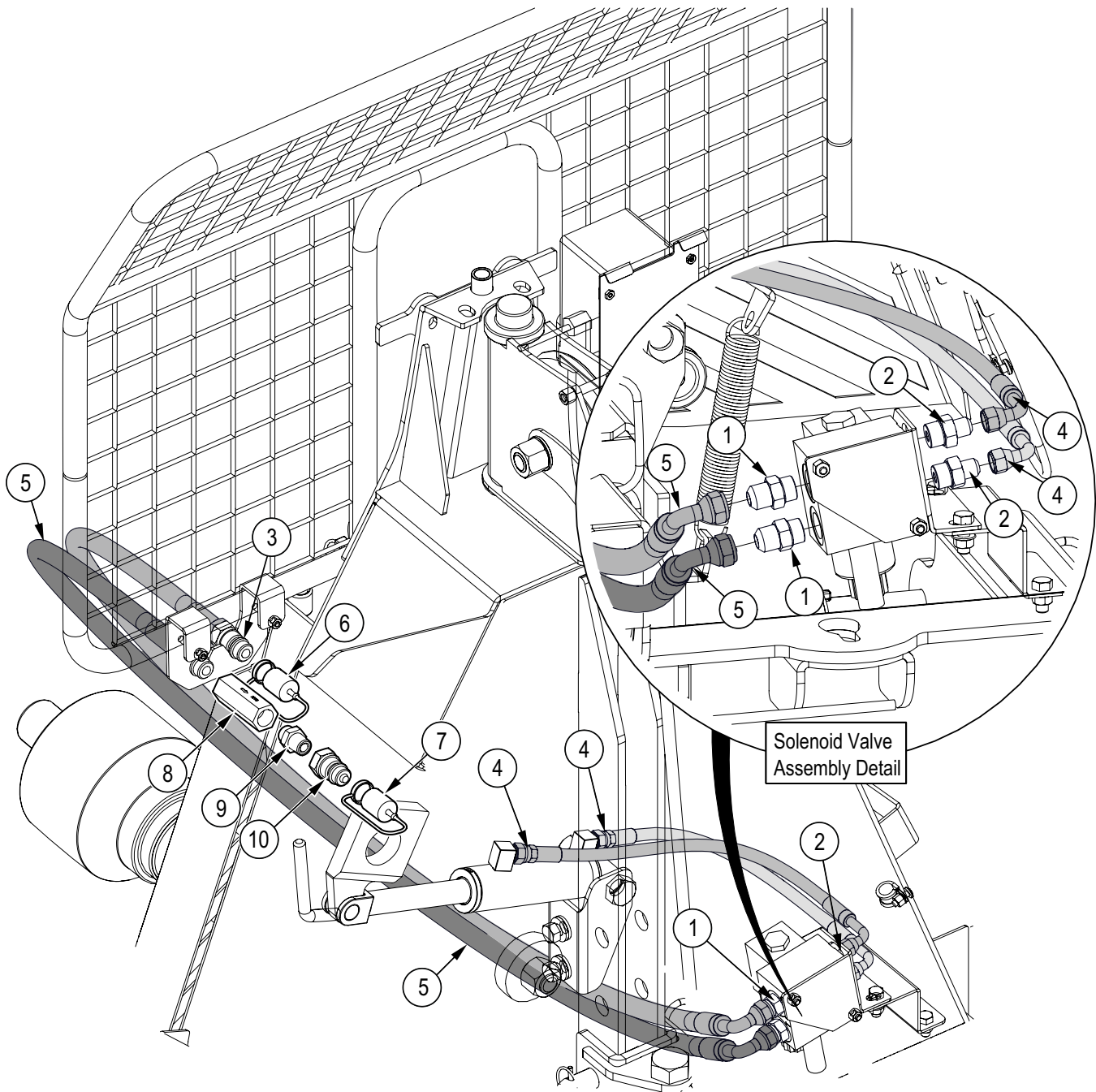
Remote Control Components – FX140R; S/N 5140225 & Up



ECN0415

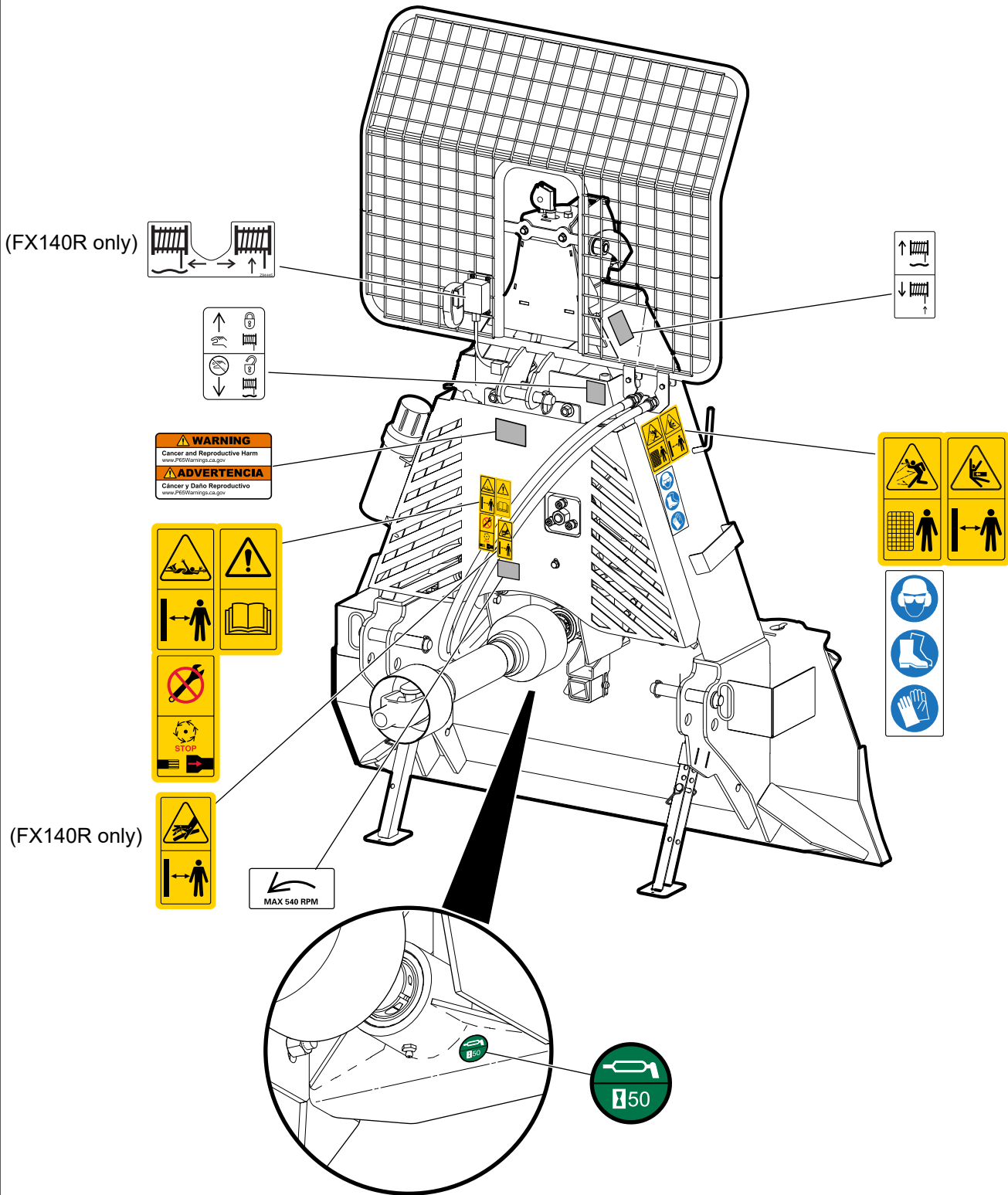
Item No.	Part No.	Description	Qty
1	5089L217	Remote Box Mount	1
2	5089L208	Hydraulic Mount Base	1
3	5089L209	Hose Hanger	1
4	5089L210	Valve Mount Extension	1
5	Z51643	#8ORB x #8JIC	2
6	Z51644	#8ORB x #6JIC	2
7	Z56509	Solenoid 4-2 Valve - Motor Spool	1
8	Z56510	SubPlate with Relief	1
9	Z62819	Rubberized Wire Clamp, 1/2"	2
10	Z66218	Dual State Remote Receiver	1
11	Z66219	Remote Handset for Z66218	1
12	Z71120	Hex Bolt, 1/4NC x 2	2
13	Z71307	Hex Bolt, 3/8NC x 3/4	2
14	Z71310	Hex Bolt, 3/8NC x 1	2
15	Z71312	Hex Bolt, 3/8NC x 1-1/4	2
16	Z72211	Hex Lock Nut, 1/4NC	6
17	Z72231	Hex Lock Nut, 3/8NC	2
18	Z72531	Flange Nut 3/8NC	4
19	Z72752	Machine Nut, #10-32NF	4
20	Z75102	SHCS, #10-24NC x 1-3/4	4
21	Z75117	SHCS, 1/4NC x 2-1/4	2
22	Z75202	FHCS, #10-32NF x 3/8	4
23	Z78301	Machine Screw, 1/4-20NC x 3/4	2

Hydraulic Circuit – FX140R

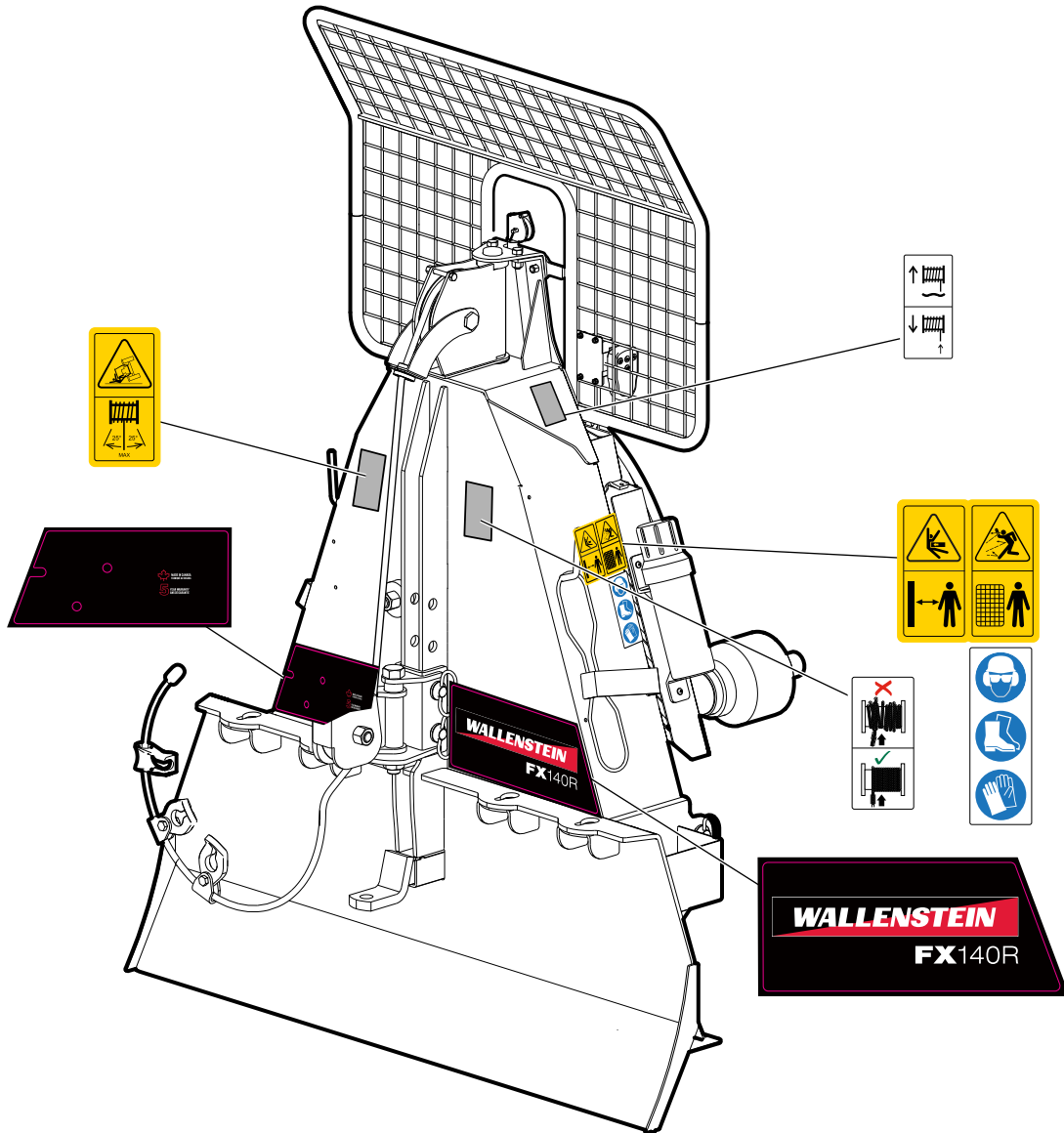


Item No.	Part No.	Description	Qty
1	Z51643	Straight, MJIC x MORB 0808	2
2	Z51644	Straight, MJIC x MORB 0608	2
3	Z51926	Quick Coupler, FP08 x M ISO 7241-1	2
4	Z52124	1/4" Hose, FJIC06 x 90 FJIC06 x 26"	2
5	Z52342	1/2" Hose, 90FJIC08 x MP08 x 60"	2
6	Z52831	Nipple Cap, ISO 7241-1 x Red	1
7	Z52832	Nipple Cap, ISO 7241-1 x Black	1
8	Z56109	Check Valve, ORB08 x 72psi	1
9	Z51615	Straight, MORB x MP 0808	1
10	Z51926	Quick Coupler, FP08 x M ISO 5675 IRV	1

Decal Layout

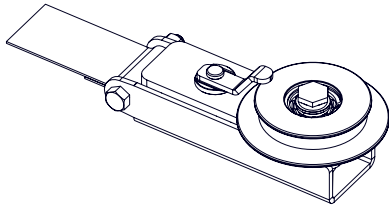


Decal Layout

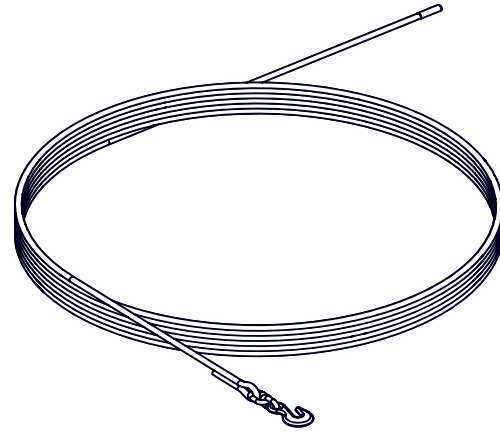


Accessories

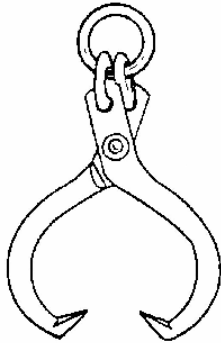
Call your dealer for pricing and availability



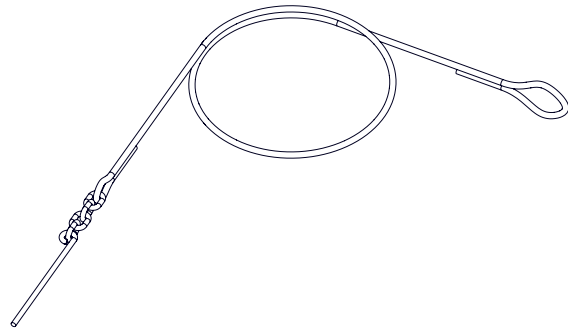
Self Releasing Snatch Block – P/N 5089A100



200 ft (61 m) — 7/16" (11 mm) Synthetic Mainline with Hook – P/N Z92123



Logging Tongs – P/N Z99003



5 ft (1.5 m) Synthetic Choker with Rod Chain End – P/N Z92125

7 ft (2.1 m) Synthetic Choker with Rod Chain End – P/N Z92126


Common Bolt Torque Values

Checking Bolt Torque

The tables shown give correct torque values for various bolts and capscrews. Tighten all bolts to the torque values specified in the table, unless indicated otherwise. Check tightness of bolts periodically.

IMPORTANT! If replacing hardware, use fasteners of the same grade.

IMPORTANT! Torque figures indicated in the table are for non-greased or non-oiled threads. Do not grease or oil threads unless indicated otherwise. When using a thread locker, increase torque values by 5%.

 **NOTE:** Bolt grades are identified by their head markings.

Imperial Bolt Torque Specifications

Bolt Diameter	Torque Value					
	SAE Gr. 2		SAE Gr. 5		SAE Gr. 8	
	lbf•ft	N•m	lbf•ft	N•m	lbf•ft	N•m
1/4"	6	8	9	12	12	17
5/16"	10	13	19	25	27	36
3/8"	20	27	33	45	45	63
7/16"	30	41	53	72	75	100
1/2"	45	61	80	110	115	155
9/16"	60	95	115	155	165	220
5/8"	95	128	160	215	220	305
3/4"	165	225	290	390	400	540
7/8"	170	230	420	570	650	880
1"	225	345	630	850	970	1320



SAE Gr. 2



SAE Gr. 5



SAE Gr. 8

Metric Bolt Torque Specifications

Bolt Diameter	Torque Value			
	Gr. 8.8		Gr. 10.9	
	lbf•ft	N•m	lbf•ft	N•m
M3	0.4	0.5	1.3	1.8
M4	2.2	3	3.3	4.5
M6	7	10	11	15
M8	18	25	26	35
M10	37	50	52	70
M12	66	90	92	125
M14	83	112	116	158
M16	166	225	229	310
M20	321	435	450	610
M30	1,103	1 495	1,550	2 100



8.8



10.9

Hydraulic Fitting Torque Values

Tightening Flare Type Tube Fittings

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Hand-tighten swivel nut until snug.
4. To prevent twisting the tube, use two wrenches. Place one wrench on the connector body and tighten the swivel nut with the second. Torque to values shown.

If a torque wrench is not available, use the FFFT (Flats From Finger Tight) method.

Hydraulic Fitting Torque					
Tube Size OD	Hex Size Across Flats	Torque value		Flats From Finger Tight	
		lbf•ft	N•m	Flats	Turns
3/16	7/16	6	8	2	1/6
1/4	9/16	11–12	15–17	2	1/6
5/16	5/8	14–16	19–22	2	1/6
3/8	11/16	20–22	27–30	1-1/4	1/6
1/2	7/8	44–48	59–65	1	1/6
5/8	1	50–58	68–79	1	1/6
3/4	1-1/4	79–88	107–119	1	1/8
1	1-5/8	117–125	158–170	1	1/8

Values shown are for non-lubricated connections.