
OWNER'S MANUAL

CHEETAH AIR POWERED CHAIN HOIST TCS SERIES

¼ Ton, ½ Ton and 1 Ton Capacity

Code, Lot and Serial Number

⚠ WARNING

This equipment should not be installed, operated or maintained by any person who has not read and understood all the contents of this manual. Failure to read and comply with the contents of this manual can result in serious bodily injury or death, and/or property damage.

HARRINGTON
HOISTS AND CRANES

10.1 Motor, Valve Body and Controls

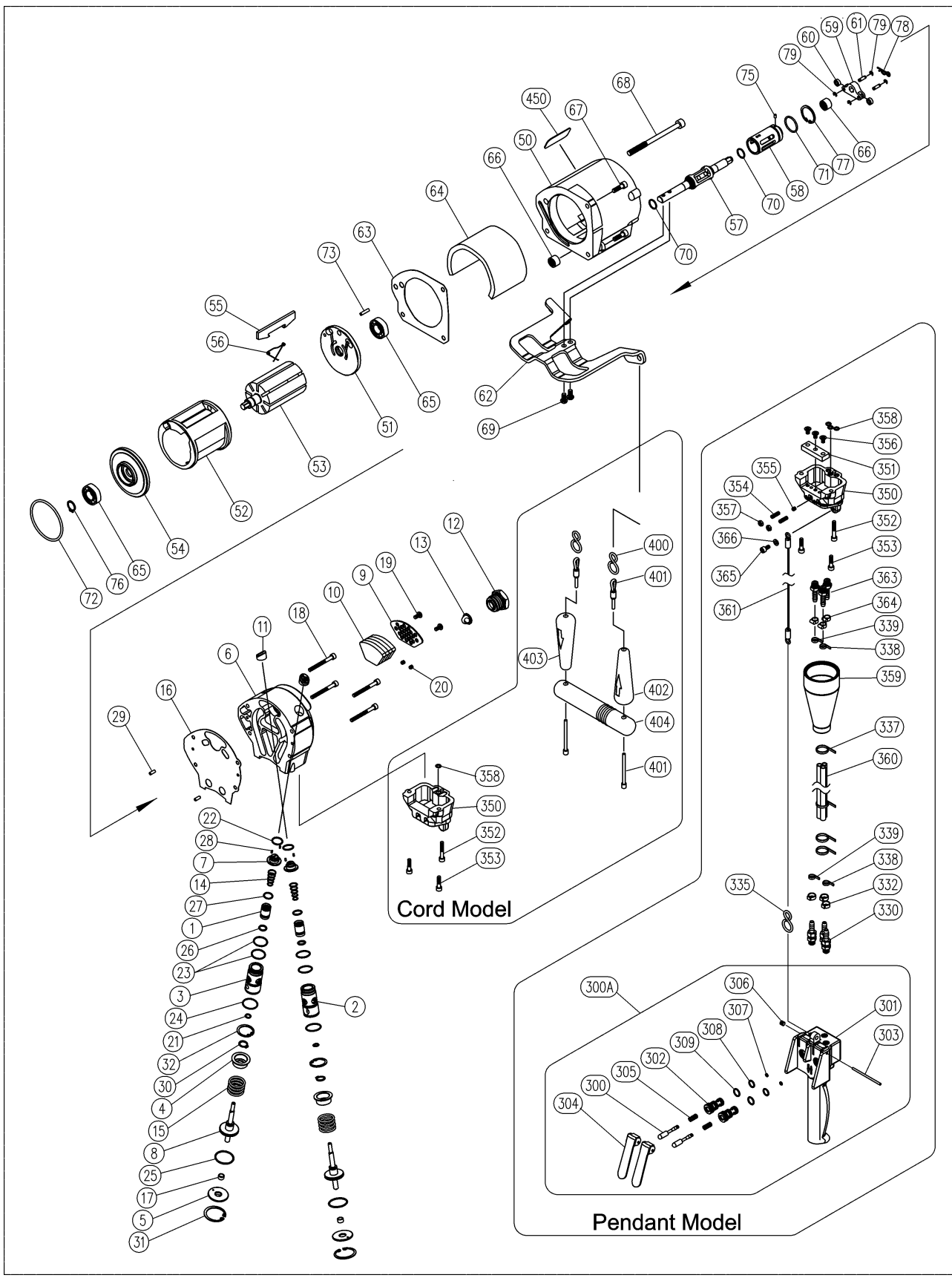


Figure 10-1 Motor, Valve Body and Controls

Figure Number	Name	Parts per hoist	Part Number	
1	Throttle Valve	2	AH420215VB0	
2	Valve Bushing (Up)	1	TCS426230E90	
3	Valve Bushing (Down)	1	TCS426230F00	
4	Spring Seat	2	TCS426230C70	
5	Valve Cap	2	TCS426230A20	
6	Valve Body	1	TCS426230060	
7	Bush Cap	2	TCS426230A30	
8	Piston	2	TCS426230C60	
9	Exhaust Plate	1	TCS426230810	
10	Silencer (S)	4	TCS137402023	
11	Adjust Cap	2	TCS426230A10	
12	Inlet Bushing	1	TCR134703070	
13	Screen	1	TCR136803032	
14	Valve Spring	2	AH130802030	
15	Spring	2	TCS130802224	
16	Valve Gasket	1	TCS136102165	
17	Bushing	2	TCS130219705	
18	Socket Bolt	4	9091235	
19	Button-Head Screw	2	AH131905010	
20	Set Screw	2	TCR132105005	
21	O-Ring	2	TCR131103005	
22	O-Ring	2	AH131103013	
23	O-Ring	4	AH131103016	
24	O-Ring	2	AH131103017	
25	O-Ring	2	TCS131117023	
26	O-Ring	2	AH131118012	
27	O-Ring	2	TCS131103011	
28	Spring Pin	4	9148101	
29	Spring Pin	2	TCR130604010	
30	Retaining Ring	2	9047112	
31	Retaining Ring	2	9047232	
32	Retaining Ring	2	9047225	
50	Motor Case	1	TCS426230790	
51	Rear Plate	1	TCS426230180	
52	Cylinder	1	TCS426230160	
53	Rotor	1	TCS426230150	
54	Front Plate	1	TCS426230170	
55	Vane	8	TCS137102032	
56	Lift Spring	8	TCR130802212	
57	Limit Shaft	1	TCS426230460	
58	Limit Shaft Bushing	1	TCS426230A40	
59	Limit Lever	1	TCS426230140	
60	Bearing	2	TCS130128104	
61	Roller Shaft	2	TCS426230120	
62	Chain Lever	TCS 1000C2/P2	1	TCS426251110
63	Motor Gasket	1	TCS136102166	
64	Silencer (M)	1	TCS137402024	
65	Bearing	2	9000102	
66	Needle Bearing	2	TCS130151210	
67	Socket Bolt	3	9091250	
68	Socket Bolt	1	90912147	
69	Socket Bolt	2	9091248	
70	O-Ring	2	TCS131103012	
71	O-Ring	1	TCS131103019	
72	O-Ring	1	TCS131102009	
73	Spring Pin	1	9148152	
75	Spring Pin	1	91481169	
76	Retaining Ring	1	9047115	
77	Retaining Ring	1	9047228	

Figure Number	Name	Parts per hoist	Part Number
78	Hair Pin Cotter	1	AH130790008
79	Retaining Ring	4	TCS130303003
450	Brand Name Plate	1	AH137309264

Cord Model Only:

Figure Number	Name	Parts per hoist	Part Number	
62	Chain Lever	TCS 250/500	1	TCS426230110
350	Under Cover	1	TCS426233470	
352	Socket Bolt	1	9091231	
353	Socket Bolt	2	9091229	
358	O-Ring	3	TCR131103004	
400	S-Type Wire	2	TCR130802081	
402	Grip (White, Up)	1	AH136602625	
403	Grip (Red, Down)	1	AH136602626	
404	Handle	1	AH136602627	
401R	Red Cord (Down)	2	9013102	
401W	White Cord (Up)	2	9013101	

Pendant Model Only:

Figure Number	Name	Parts per hoist	Part Number	
62	Chain Lever	TCS 250/500	1	TCS426351110
300A	Pendant Valve Assembly	1	TCS420226VRD	
300	Throttle Valve	2	TCS420218VB0	
301	Valve Body	1	TCS420226VR0	
302	Bushing	2	TCS420218VF0	
303	Lever Pin	1	TCS130402071	
304	Lever	2	TCS420218VH0	
305	Spring	2	TCS130802220	
306	Set Screw	1	TCS132106006	
307	O-Ring	2	TCS131109001	
308	O-Ring	2	TCR131103008	
309	O-Ring	2	TCS131103009	
330	Hose Fitting	3	TCS135106302	
332	Hose Clamp	3	TCS137501013	
335	S-Type Wire	1	TCR130802081	
337	Cable Tie - Red	4	TCS137502034	
338	Cable Tie - White	2	TCS137502036	
339	Cable Tie - Black	2	TCS137502037	
350	Under Cover	1	TCS426230470	
351	Pendant Air Silencer	1	TCS137402033	
352	Socket Bolt	1	9091231	
353	Socket Bolt	2	9091229	
354	Set Screw	2	TCS132105016	
355	Set Screw	1	TCR132105005	
356	Flat Head Machine Screw	3	9096566	
357	Hex Nut	2	9093417	
358	O-Ring	3	TCR131103004	
359	Boot	1	AH136608250	
360	Pendant Hose	3@FT	9013156	
361	Strain Relief Wire	1	9013120	
363	Hose Fitting	3	TCS135106301	
364	Hose Clamp	3	9013155	
365	Socket Bolt	1	9091225	
366	Washer	1	9012511	
350	Under Cover	1	TCS426230470	
358	O-Ring	1	TCR131103004	

10.2 Brake, Gears and Load Suspension Components

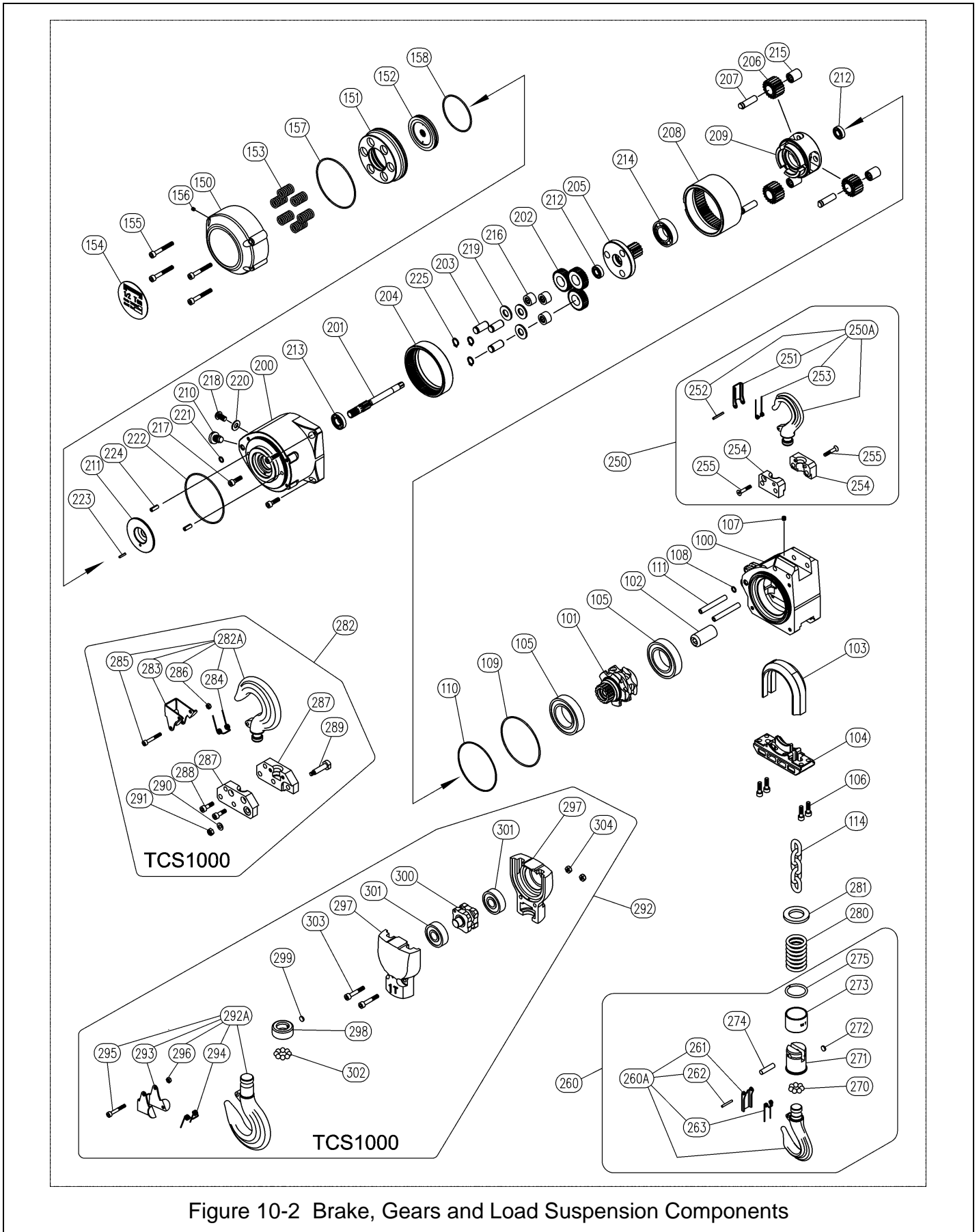


Figure 10-2 Brake, Gears and Load Suspension Components

Brake, Gears and Load Suspension Components

Figure Number	Name	Parts per hoist	Part Number	
100	Center Housing	1	TCS426230A00	
101	Load Sheave	1	TCS426230A50	
102	Coupling	1	TCS426230200	
103	Chain Guide	1	TCS426230350	
104	Chain Separator	1	TCS426230360	
105	Bearing	2	9000508	
106	Socket Bolt	4	9091250	
107	Set Screw	1	TCS132106006	
108	O-Ring	1	TCS131103006	
109	O-Ring	1	TCS131103052	
110	O-Ring	1	TCS131117043	
111	Spring Pin	2	TCS130608060	
113	Chain Container Assembly	0	TCSS2623055C	
114	Load Chain	0	LCER005NP	
150	Brake Cover	1	TCS426230410	
151	Brake Piston	1	TCS426230400	
152	Brake Disk	1	TCS426230430	
153	Disk Spring	6	TCR130802213	
154	Name Plate	TCS 250	1	TCS137301067
		TCS 500	1	TCS137301063
		TCS 1000	1	TCS137301065
155	Socket Bolt	4	9091255	
156	Set Screw	1	TCR132105005	
157	O-Ring	1	TCS131103052	
158	O-Ring	1	TCS131103045	
200	Gear Case	1	TCS426230310	
201	First Pinion	TCS 250	1	TCS426351A60
		TCS 500/1000		TCS426230A60
202	First Star Gear	TCS 250	3	TCS426351A70
		TCS 500/1000		TCS426230A70
203	First Pin	3	TCS426230A80	
204	First Ring Gear	1	TCS426230E10	
205	Second Pinion	TCS 250	1	TCS426351E20
		TCS 500/1000		TCS426230E20
206	Second Star Gear	3	TCS426230E30	
207	Second Pin	3	TCS426230E40	
208	Second Ring Gear	1	TCS426230E50	
209	Cage	1	TCS426230240	
210	Lock Screw	1	TCS426230890	
211	Brake Plate	1	TCS426230900	

Figure Number	Name	Parts per hoist	Part Number	
212	Bearing	2	TCS130113001	
213	Bearing	1	TCS130120004	
214	Bearing	1	9000105	
215	Needle Bearing	3	TCS130131020	
216	Needle Bearing	3	TCS130131212	
217	Socket Bolt	3	9091250	
218	Button Head Screw	1	9738076	
219	Washer	3	TCS131307012	
220	Washer	1	9012513	
221	O-Ring	1	TCS131103006	
222	O-Ring	1	TCS131103052	
223	Spring Pin	1	9148125	
224	Spring Pin	2	9148198	
225	Retaining Ring	3	9047112	
250	Top Hook Complete Set	1	60913	
250A	Top Hook Assembly		1	60914
	251	Hook Latch	1	AH420620P10
	252	Spring Pin	1	TCR130603024
253	Hook Latch Spring	1	TCR130802046	
254	Hook End Piece	1	TCS426230570	
255	Hex Flat Head Mach. Screw	2	9096542	
260	Bottom Hook Block Set	TCS 250	1	60915
		TCS 500	1	60916
260A	Bottom Hook Assembly		1	70007
	261	Hook Latch	1	AH420620P10
	262	Spring Pin	1	TCR130603024
	263	Hook Latch Spring	1	TCR130802046
270	Steel Ball	7	TCR130502020	
271	Bottom Hook Holder	1	TCS426230800	
272	Swivel Hook Plug	1	TCR420846PY0	
273	Sleeve	TCS 250	1	TCS426351760
		TCS 500	1	TCS426230760
274	Sleeve Pin	1	TCS426230E70	
275	Lock Ring	1	TCS130802286	
280	Spring	1	TCR130802219	
281	Washer	1	TCS426230G20	

TCS 1000 Top Hook Assembly

282	Top Hook Set	1	70003
282A	Top Hook Assembly	1	70004
283	Hook Latch	1	TCR426221S30
284	Hook Spring	1	TCR130802258
285	Socket Bolt	1	9091232
286	U Nut	1	E2D853125
287	Hook End Piece	1	TCS426251570
288	Socket Bolt	2	TCS131706020
289	Hook Joint Bolt	1	TCR426244580
290	Washer	1	9012511
291	U Nut	1	9098504

TCS 1000 Lower Hook Assembly

292	Bottom Hook Set	1	70005
292A	Bottom Hook Assembly	1	70006
293	Hook Latch	1	TCR426221S30
294	Hook Spring	1	TCR130802258
295	Socket Bolt	1	9091232
296	U Nut	1	E2D853125
297	Bolt Yoke Assy.	1	TCS426251590
298	Swivel Hook Outer Race	1	TCR420846PW0
299	Swivel Hook Plug	1	TCR420846PY0
300	Free Chain Wheel	1	TCS426251F70
301	Bearing	2	TCS130112003
302	Steel Ball	8	TCR130502020
303	Socket Bolt	2	9091253
304	U Bolt	2	9098504

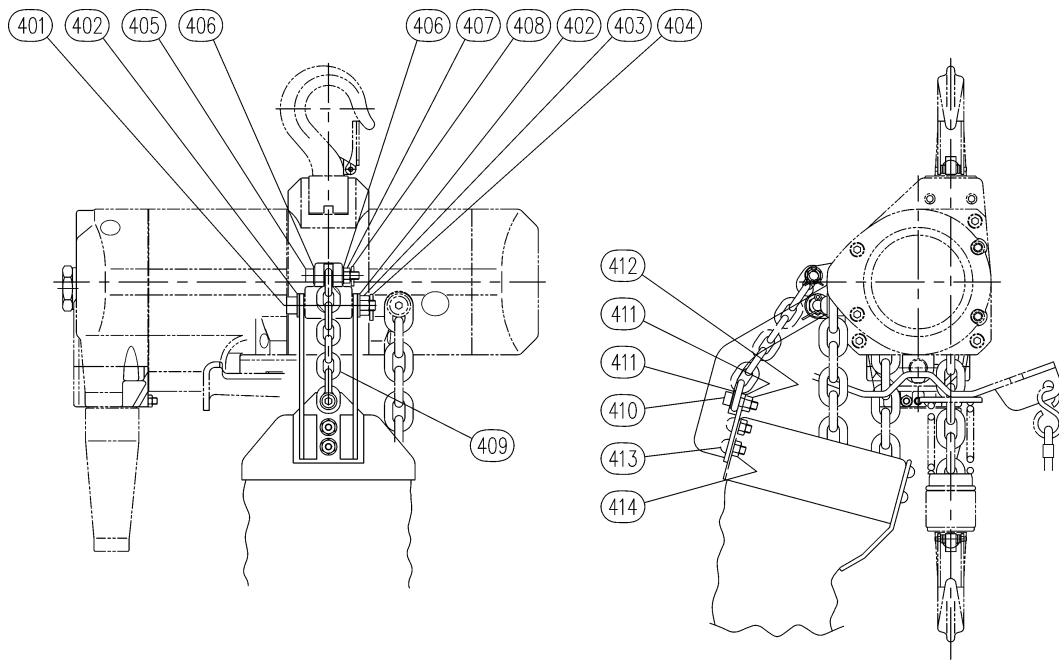


Figure 10-2 Chain Container Assembly (optional)

Figure Number	Name	Parts per hoist	Part Number
400	Chain Container Assembly	1	TCSS2623055C
401	Socket Bolt	1	9091280
402	Flat Washer	2	9012513
403	Hex Nut	1	9093424
404	Split Pin	1	90094165
405	Socket Bolt	1	9091252
406	Flat Washer	2	9012511
407	Hex Nut	1	9093420
408	Split Pin	1	9009413
409	Load Chain	8 Links	LCCF005
410	Socket Bolt	1	9091251
411	Flat Washer	2	9012511
412	Lock Nut	1	9098504
413	Machine Screw	4	9798532
414	Hex Nut	4	9093417