TITAN-360

PARTS MANUAL



CHIEF'S LIMITED ONE-YEAR WARRANTY & LIABILITY

Chief Automotive Technologies warrants for one year from the date of installation and/or purchase any of its products which do not perform satisfactorily due to defect caused by faulty material or workmanship. Chief's obligation under this warranty is limited to the repair or replacement of products which are defective and which have not been misused, carelessly handled, or defaced by repairs made or attempted by others.

CHIEF AUTOMOTIVE TECHNOLOGIES DOES NOT ASSUME RESPONSIBILITY FOR ANY DEATH, INJURY OR PROPERTY DAMAGE RESULTING FROM THE OPERATOR'S NEGLIGENCE OR MISUSE OF THIS PRODUCT OR ITS ATTACHMENTS. CHIEF MAKES NO WRITTEN, EXPRESS OR IMPLIED WARRANTY WHATSOEVER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE REGARDING THE EQUIPMENT OR ANY PART OF THE PRODUCT OTHER THAN THE LIMITED ONE-YEAR WARRANTY STATED ABOVE.



PARTS INFORMATION

To order replacement parts for the Chief Titan-360, contact an authorized representative of Chief Automotive Technologies, 308-384-9747 (or toll free 800-445-9252 – USA only)

The parts lists in the Titan-360 Parts Manual (Part no. 687019) represent what Chief Automotive Technologies. considers to be user installed. Other repairs should be deferred to an authorized representative.

When contacting Chief Automotive Technologies by telephone or mail, provide the following information: name, name of business, business telephone number, and business address. Additional information needed when ordering: description of part (s) and part number(s). Also include the model number for which the part is intended.

NOTE: Chief reserves the right to alter product specifications and/or package components without notice.



CAUTION: Always use Chief Automotive Technologies authorized replacement parts with the Titan-360. When replacing any part make certain the part meets the original equipment requirements.

Electrical Components

All electrical cords and components must be replaced with Chief Automotive Technologies authorized replacement parts.

Hydraulic Hoses

The ¼ inch I.D., two wire hoses furnished with this product meet the requirements of SAE 100R2, and have a working pressure of 5,000 PSI. They should not be used with any other system having a higher than 5,000 PSI output.

All hydraulic components must be replaced with Chief Automotive Technologies authorized replacement parts.

Bolts/Fasteners

All bolts and fasteners must be replaced with Chief Automotive Technologies, authorized replacement parts and must not be less than Grade 5 (Class 8.8).

Any bolt used in a pulling clamp that is frequently tightened must be Grade 8 (Class 10.9).

All bolt lengths and diameters must be equal to those installed at the factory.

Chain

The ½ inch tower chains furnished with this product are a special alloy frame straightening chain designed exclusively for Chief Automotive Technologies, to meet the rigid requirements of the collision repair industry. If replacement is required, purchase only the original Chief product from an authorized Chief Automotive Technologies representative.

The auxiliary 3/8-inch chains available for this product are a special alloy frame straightening chain designed exclusively for Chief Automotive Technologies to meet the rigid requirements of the collision repair industry. If replacement is required, purchase on the original Chief product from an authorized Chief Automotive Technologies representative.



CAUTION: DO NOT use the 3/8-inch chain on towers.

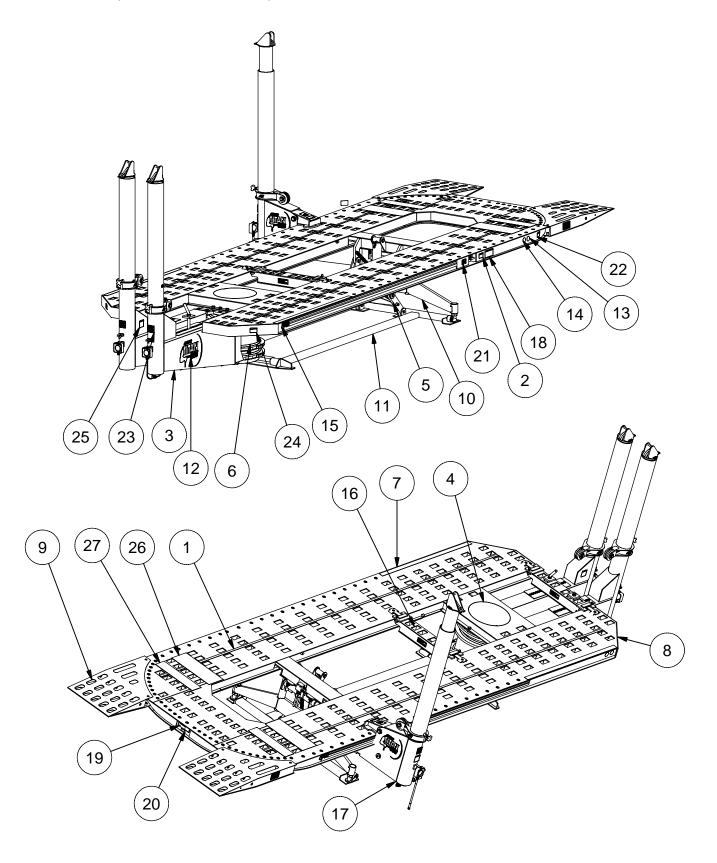
Labels

Replacement SAFETY and WARNING labels are available in several languages, and may be ordered by contacting an authorized Chief Automotive Technologies representative.





TITAN-360 (21 SERIES SHOWN)

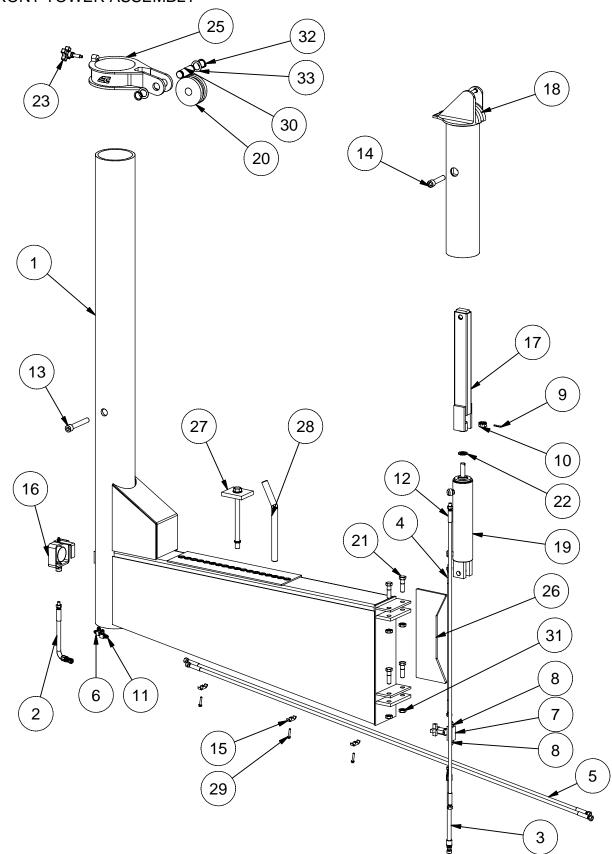




		Parts List	
ITEM	P/N DESCRIPTION		
1	305084	Tape, Black Striping 1"	
2	305093	Label, Caution - Excelerator Wheel Stops	
3	600066	S21M Tower Assembly	
4	602281	Lid, Pump S21	
5	610204	Lift Leg Assembly, S21	
6	610751	Assembly, S21M Complete 20 Series Pedestal	
7	620875	Anti-Skid Tape, 2 x 10	
8	687020	Weldment, Titan 360 Mainframe	
9	687060	Ramp Complete, Titan 360, (Single)	
10	687070	Weldment, Titan 360 Stiff Leg	
11	687080	Weldment, Titan-360 Porta-Frame	
12	687082	Decal, Titan-360 Tower Large Black	
13	687083	Label, OEM Approved Round 2"	
14	687084	Label, DRP Recommended 2" Star	
15	687089	Decal, Mainframe Titan-360	
16	687099	Assembly, Crossmember TITAN-360	
17	687100	Assembly, 360-10 Ton Tower	
18	692090	Label, Caution Operation	
19	692107	Label, Serial Number	
20	692135	Label, Patent Pending	
21	692143	Label, Caution -Lift of Persons Prohibited	
22	692154	Label, Caution Protect Foot	
23	693337	Label, Warning, Do Not Position Yourself	
24	693339	Label, Caution -Egress/Ingress	
25	693345	Label, Important to Prevent Damage	
26	693425	ANTI-SKID TAPE	
27	693433	Anti-Skid Tape, 5 5/8 x 21 3/4 Mainframe	



FRONT TOWER ASSEMBLY





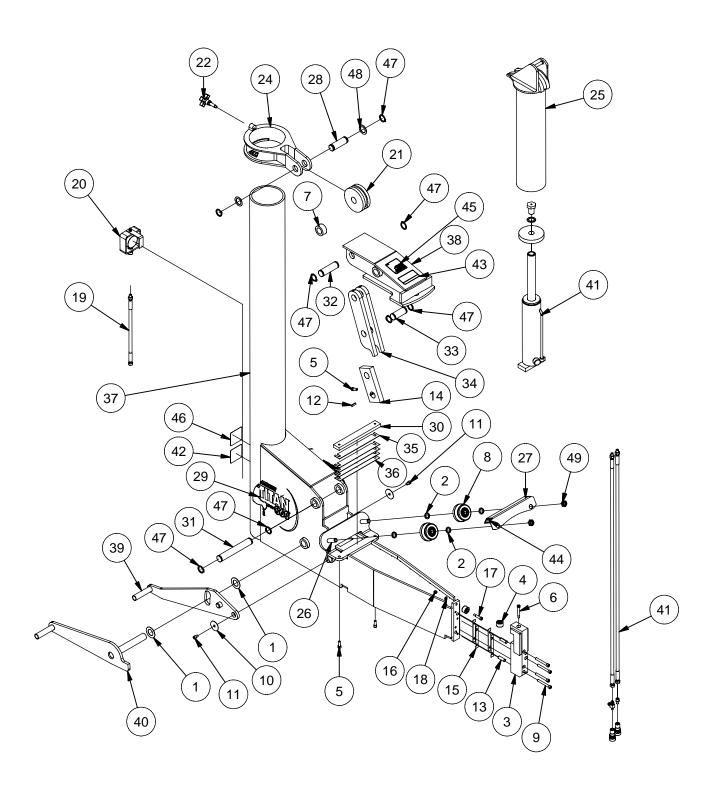
		Parts List		
ITEM	P/N DESCRIPTION			
1	600066	Weldment, S21M Tower		
2	601001	Hose, 16" - 6MPX - 6FJX		
3	601002	Hose, 15.5" - 6FJX - 6FJX		
4	601004	Hose, 26" - 4MB - 6FJX		
5	601006	Hose, 82.5" - 6FJX - 4MPX		
6	601042	Fitting, Hyd -6MJ -6MJ Run T		
7	601045	Needle Valve		
8	601046	Straight Adapter, 6400-6-6		
9	601050	Pin, 3/16 x 1 1/4" Spring		
10	601055	Nut, 3/4-16 Hex Slotted		
11	601056	Fitting, Hyd -6MJ -6MJ Elbow		
12	601057	Hose, 54" 4MB-6FJX		
13	601069	Screw, 3/4-10 x 5" SHCS		
14	601070	Screw, 3/4-10 x 3.5 Socket Head Cap		
15	601071	Double Hose Clamp		
16	601130	Portable Gauge Assembly, Front S21		
17	601162	Clevis Assembly, S21M		
18	601170	Tower Head Front, S21M		
19	601191	Ram, Tower - 3" bore x 10 1/8" stroke, Double Ear		
20	601201	Roller, 5" x 1/2" Chain - S21/POSI TRAK Collar		
21	601666	Bolt, 5/8-11 NC x 2-1/4" lg		
22	601738	Washer, 3/4 Flat		
23	602829	Assembly, Tower Collar Locking Knob		
24	602870*	Tower Chain w/Hook, 1/2"		
25	607161	Machined Collar, S21		
26	607338	Gusset, EZ Liner Tower Leg		
27	610255	Tower Tie Bolt Assembly		
28	618708	Tower Lock Pin, S21		
29	649210	Self-Tapping Screw #14 x 1 1/2		
30	680747	Pin, Grooved for Cast Collar		
31	692334	Nut, 5/8-11 Hex Jam		
32	693468	Snap Ring, HD for 1 1/4" shaft		
33	707487	Washer, Flat - 1.25"IDx1.875"ODx14GA-plated		

^{*} NOT SHOWN IN EXPLODED VIEW





360-10 TON TOWER ASSEMBLY



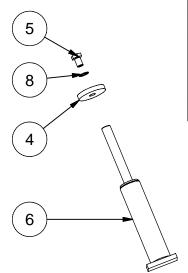


Parts List			Parts List		
ITEM	P/N	DESCRIPTION	ITEM	P/N	DESCRIPTION
1	305030	Washer, Thrust-1.25"IDx2.25"ODx.0625"	26	629773	Bolt, 3/4-10 NC x 2 3/4" Long
2	305063	Washer, 3/4"id x 1 1/8 OD x .093" Thick Shim	27	638321	Guard, Fuzion Tower, Outside Roller
3	450014	HOOK, 360 TOWER	28	680747	Pin, Grooved for Cast Collar
4	450146	Roller, Inside Tower	29	687086	Decal, Tower Small Titan-360
5	450195	Screw, 3/8-16NC x 1.00" Socket Head Cap	30	687101	Spacer, 360-10 Ton Tower Outrigger
6	450227	Bolt, 3/8" x 2" Shoulder - 5/16-18 Thread	31	687102	Pin, 360-10 Ton Tower Linkage Long
7	450234	Spacer, Tower Force Clamp	32	687103	Pin, 360-10 Ton Tower Linkage Medium
8	450235	Assembly, Tower Outside Wheel	33	687104	Pin, 360-10 Ton Tower Linkage Short
9	450236	SCREW, 3/8-16NC X 3" SHCS	34	687105	Bar, 360-10 Ton Tower Float Linkage
10	450241	Washer, 2" OD x 13/32" ID x .047" Thick	35	687106	Shim, 360-10 Ton Tower Outrigger .0598"
11	450243	Screw, 3/8-16 Socket Head Cap	36	687107	Shim, 360-10 Ton Tower Outrigger .0164"
12	450244	Key, 1/4 x 1/4 x 1"	37	687110	Weldment, 360-10 Ton Tower
13	450259	Dowel Pin, .50015003 Dia. x 1.5"	38	687125	Weldment, 360-10 Ton Sure Lock
14	450279	Bar, Tower Linkage Driver	39	687137	Weldment, 360-10 Ton Sure Lock Release
15	450281	SHIM, 360 TOWER - 16 GA	40	687143	Weldment, Wide Sure Lock Shaft
16	450282	LOCK NUT, 5/16-18THD NYLON LOCK INSERT	41	687145	Assembly, 360-10 Ton Cylinder
17	450283	Bolt, 3/8" x 1.25" SHOULDER, 5/16-18THD	42	692057	DECAL, CAUTION ON ANGLE PULLS
18	450284	WASHER, FLAT 5/16" TRIMMED	43	692091	Label, Warning, Force Clamp, Impulse
19	601001	Hose, 16" 6MPX-6FJX	44	692093	Label, Caution, Pinch-Point, Impulse
20	601130	Portable Gauge Assembly, Front S21	45	692096	LABEL, CAUTION CROSSMEMBER POSITION
21	601201	Roller, 5" x 1/2" Chain - S21/POSI TRAK Collar	46	693337	Label, Warning, Do Not Position Yourself
22	602829	Assembly, Tower Collar Locking Knob	47	693468	Snap Ring, HD for 1 1/4" shaft
23	602870*	Tower Chain w/ Hook, 1/2" x 12'	48	707487	Washer, Flat - 1.25"IDx1.875"ODx14GA-plated
24	607161	Machined Collar, S21	49	770016	NUT, 3/4-10NC LOCK JAM GR5 PL
25	610001	Tower Head, 1/2" Chain 10-Ton			

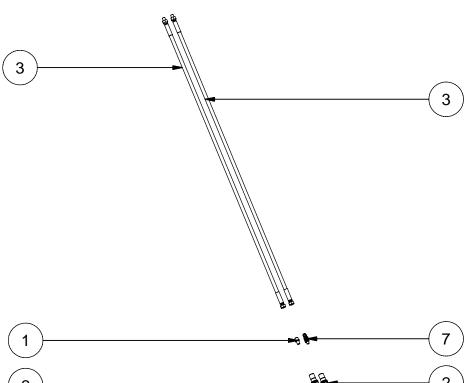
^{*} NOT SHOWN IN EXPLODED VIEW



10-TON CYLINDER ASSEMBLY



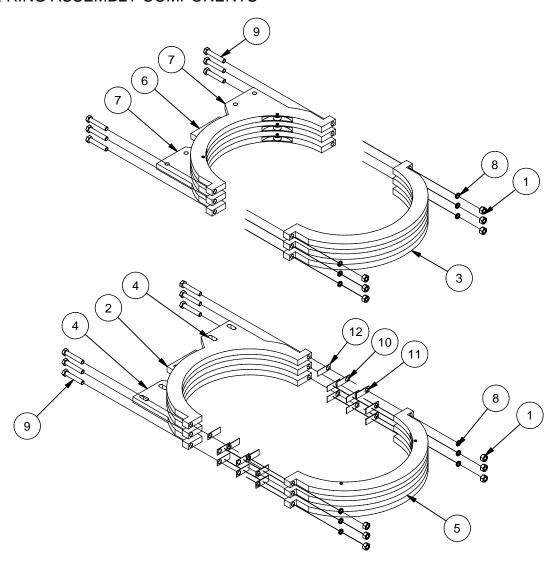
	Parts List			
ITEM	P/N	P/N DESCRIPTION		
1	601027	Adapter, -4MP - 6MJ		
2	601053	Female Coupling, 1/4" NPT		
3	601057	Hose, 54" 4MB-6FJX		
4	601238	Flange, 4 3/4" Diameter		
5	602619	Ram Bolt		
6	687151	Ram, Tower-3"borex10.125"stroke Dual Acting		
7	687154	Run T, 4MP-6MJ-6MJ, 2605-4-6-6		
8	770147	Washer, 1" Internal Tooth Lock		







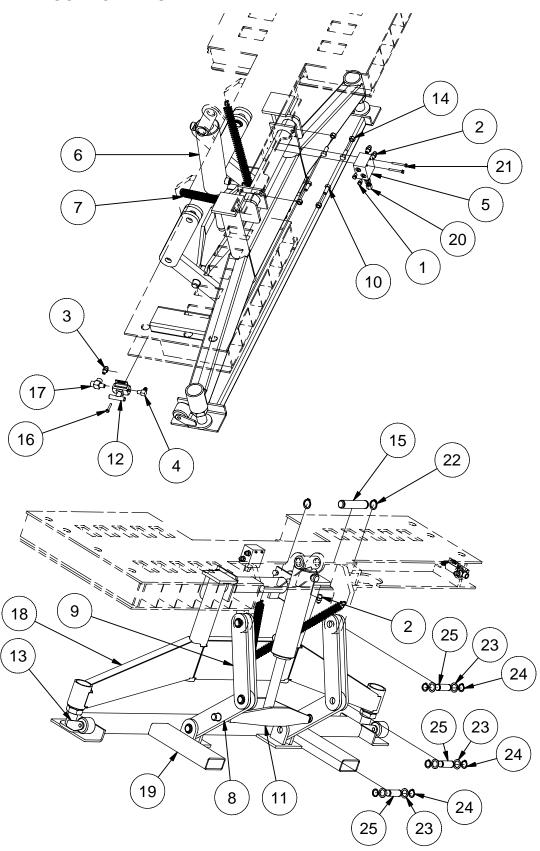
TOWER RING ASSEMBLY COMPONENTS



	Parts List					
ITEM	P/N	P/N DESCRIPTION				
1	601682	NUT, 5/8-11NC, GR 8, PL, HEX				
2	607056	RING HALF, S21M, FRT, UPPER, CTR				
3	607064	RING HALF, S21M, RR, LWR				
4	607072	RING HALF, S21M, FRT, UPPER, RT/L				
5	607400	REAR HALF RING MACH./BEARING, NEW STYLE				
6	607419	FRONT CENTER HALF RING MACH./BEARING, NEW STYLE				
7	607427	LEFT - RIGHT RING MACH/BEARING, NEW STYLE				
8	629263	WASHER, 5/8" LOCK, SPRING, BLACK				
9	629271	BOLT, 5/8-11 NC x 3 1/2", GR 5, BL				
10	681205	Shim, 16 ga. (.0598) Tower Ring				
11	681213	Shim, 12 ga. (.1046) Tower Ring				
12	681221	Shim, 20 ga. (.0359) Tower Ring				



LIFT ASSEMBLY COMPONENTS







LIFT ASSEMBLY COMPONENTS

	Parts List			
ITEM	P/N	P/N DESCRIPTION		
1	601013	Plug, 6408-4		
2	601034	Straight Adapter, 6400-6-6 w/ Orifice		
3	601044	Straight Adapter, 2404-6-6		
4	601047	Fitting, Hyd -6MJ -6MP Elbow		
5	601188	HOSE BLOCK, REAR, S21		
6	601193	Ram, Lift 3" bore x 10 1/8" stroke		
7	602570	Spring, Stiff Leg .105" Wire		
8	603205	BOTTOM LIFT LEG W/BUSHINGS		
9	603215	Top Lift Leg		
10	604656	Bolt, 1/2"-13NC x 1 1/4" gr. 5 Hex		
11	610115	Weldment, Bolster Bar		
12	610415	Valve Assembly, W/ Bracket Lift		
13	610677	Stiff Leg Adjustment Screw Assembly		
14	620736	NUT, 1/2"		
15	649036	Pin, S21M Lift Cylinder to Deck		
16	649210	Self-Tapping Screw #14 x 1 1/2		
17	649282	Street T, Thompkins 5602-06		
18	687070	Weldment, Titan 360 Stiff Leg		
19	687080	Weldment, Titan-360 Porta-Frame		
20	687152	ADAPTER, 4MB - 4FP - 6405-4-4		
21	687157	Bolt, 1/4-20 NC x 2 1/4" Long, Gr. 2 Plated		
22	693468	Snap Ring, HD for 1 1/4" shaft		
23	707479	Washer, 1" Thrust Plated		
24	770105	HD Retaining Ring		
25	770155	Pin, 17 foot Cylinder Retainer		

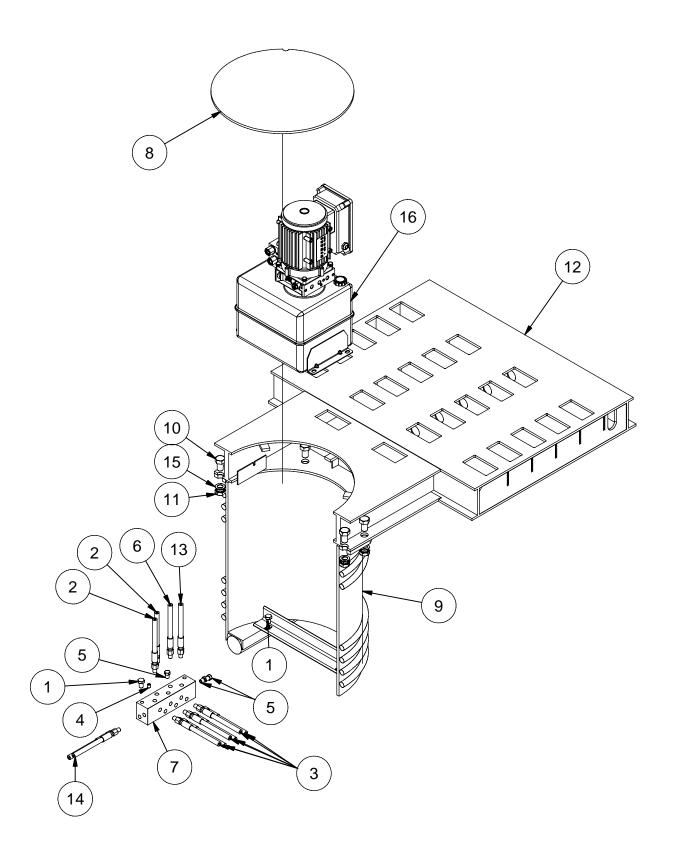
HOSES NOT SHOWN IN EXPLODED VIEW:

- 1) 601066 HOSE 60" RUNS BETWEEN TO HIGH SIDE ITEM #2 / ITEM #3
- 2) 687153 HOSE 176" RUNS BETWEEN ITEM #17 / MANIFOLD BLOCK
- 3) 305747 HOSE 63" RUNS BETWEEN ITEM #4 / ITEM #2 ON CYLINDER
- 4) 601063 HOSE 236" RUNS BETWEEN LOW SIDE ITEM #2 / MANIFOLD BLOCK





PEDESTAL ASSEMBLY COMPONENTS





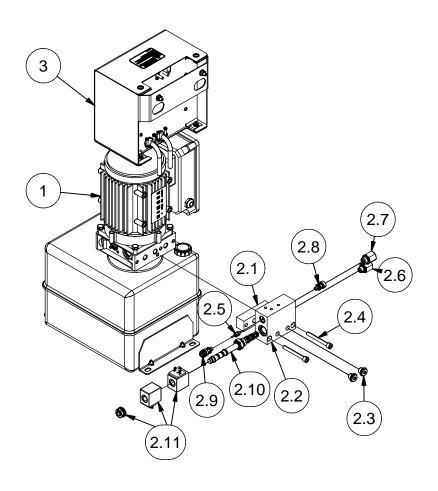
PEDESTAL ASSEMBLY PARTS LIST

	Parts List			
ITEM	P/N DESCRIPTION			
1	305048	BOLT, HEX, 1/2-13 x 3/4" Gr5, ZP		
2	601005	Hose, 45" 6MB - 4 MPX		
3	601006	Hose, 82.5" 6FJX-4MPX		
4	601012	Plug, 1/8" NPT Socket Head Hex		
5	601026	Plug, 1/4 NPT		
6	601063	Hose, 236" 6FJX90M - 4MPX		
7	601141	MANIFOLD BLOCK		
8	602281	Lid, Pump S21		
9	610327	Weldment, Pedestal S21M		
10	629802	Bolt, 3/4-10NC x 1 1/4 Hex, Black gr. 5		
11	629896	Nut, 3/4-10NC Hex Jam Gr 5 Black		
12	687020	Weldment, Titan 360 Mainframe		
13	687153	Hose, 176" 6MPX - 4MPX		
14	687170	Auxiliary Line Assembly, Titan		
15	707452	Washer, 3/4", Thrust		
16	OS601190	Assembly, Oil Sistems Titan/S21M Power Unit		





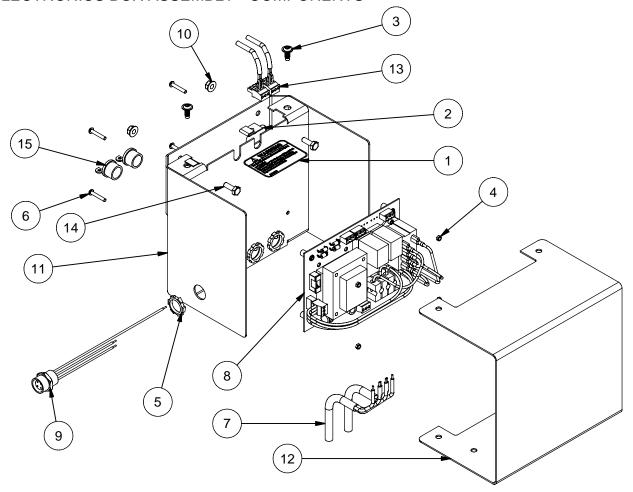
OIL SYSTEMS PUMP ASSEMBLY



	Parts List			
ITEM	P/N	DESCRIPTION		
1	687210	Assembly, Oil Sistems Basic Pump		
2	687230	Assembly, Dual Acting/PO Check Module		
2.1	687252	Block, Dual Acting/PO Check Adapter		
2.2	687231	Block, Dual Acting/PO Check		
2.3	687243	Assembly, 1/4 BSPP Plug		
2.4	687244	Bolt, M8 x 1.25 x 70mm Socket Head Cap		
2.5	687245	PO Check Piston		
2.6	687246	Adapter, 1/4" BSPP to 1/4 NPT		
2.7	687247	Adapter, 3/8" BSPP to 1/4 NPT		
2.8	687248	PO Check, Oil Systems Inside		
2.9	687249	PO Check, Oil Systems Outside		
2.10	IT601208	Cartridge Valve, Oil Systems 3 Pos/4 Way		
2.11	IT601209	Coil, Oil Systems 24V RAC DC		
3	687236	Electronics Assy S21		



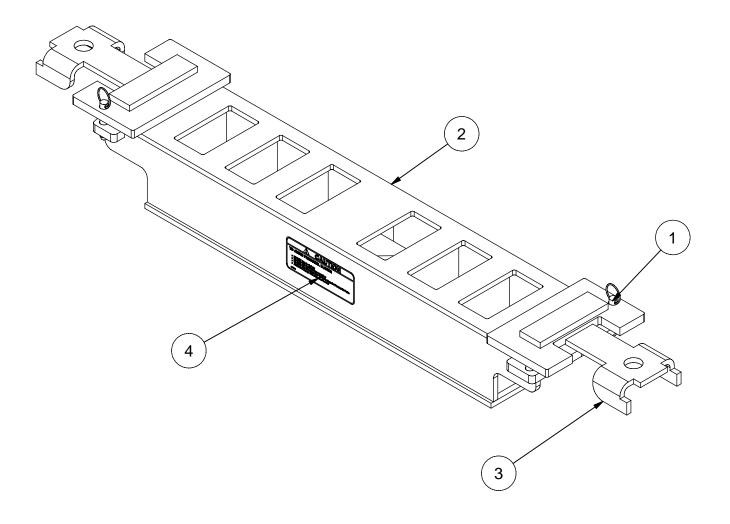
ELECTRONICS BOX ASSEMBLY - COMPONENTS



	Parts List				
ITEM	P/N	DESCRIPTION			
1	305094	Decal, Warning - Entering Enclosure			
2	450453	Nut, 1/4-20 NC J Style Clip			
3	450459	Screw, 1/4-20 x 3/4" Button Head Torx Plus			
4	450957	Nut, #8-32 Nylock			
5	450979	1/2 Conduit Lock, Tooth Nut			
6	450982	Screw, 8-32 x 1 Button Head Hex			
7	450989	Power Cord, 12/3 SO			
8	601208	Assembly, S21M/Titan-360 Control Board			
9	620242	Pig-Tail, Female Mini-Line Cord			
10	629423	Nut, 1/4-20 NC, Whiz Flange Lock, Pl			
11	687235	Weldment, Oil Sistems Pump Bracket			
12	687262	Formed Cover, Oil Sistems Pump Bracket			
13	687272	Connector, 3 Pos header 5.08 Pitch			
14	706409	Bolt, 1/4-20NC x 3/4" Gr2 Plated			
15	798498	STRAIN RELIEF CONNECTOR, 1/2"			



TITAN MOVABLE CROSSMEMBER

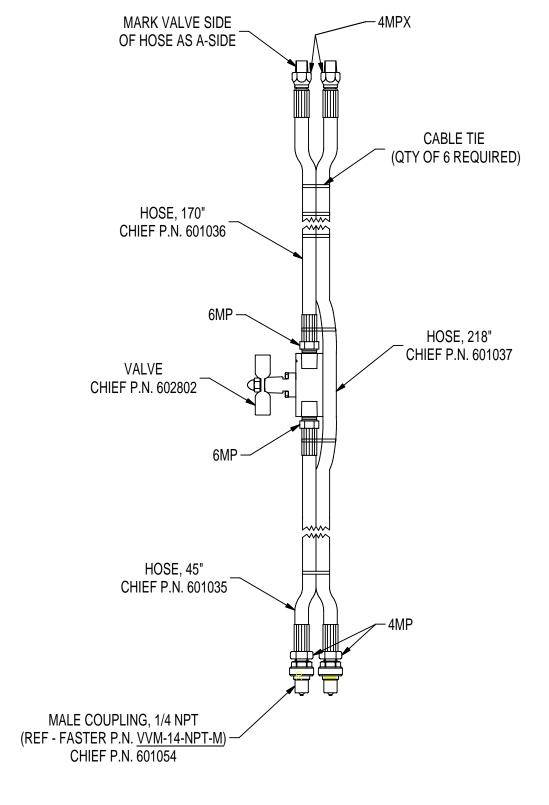


Parts List				
ITEM	P/N DESCRIPTION			
1	450267	PIN, CROSSMEMBER LOCK		
2	687090	Weldment, TITAN-360 Crossmember		
3	687098	Crossmember Lock, Titan-360		
4	692092	Label, Caution Crossmember, Personal Injury		



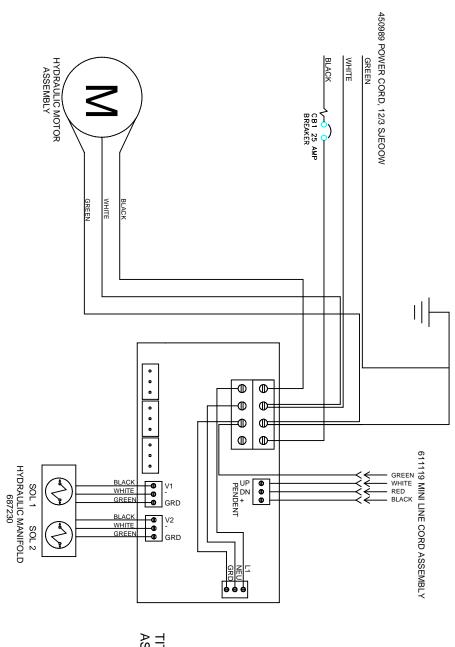


AUXILIARY LINE ASSEMBLY COMPONENTS





TITAN WIRING BLOCK SCHEMATIC

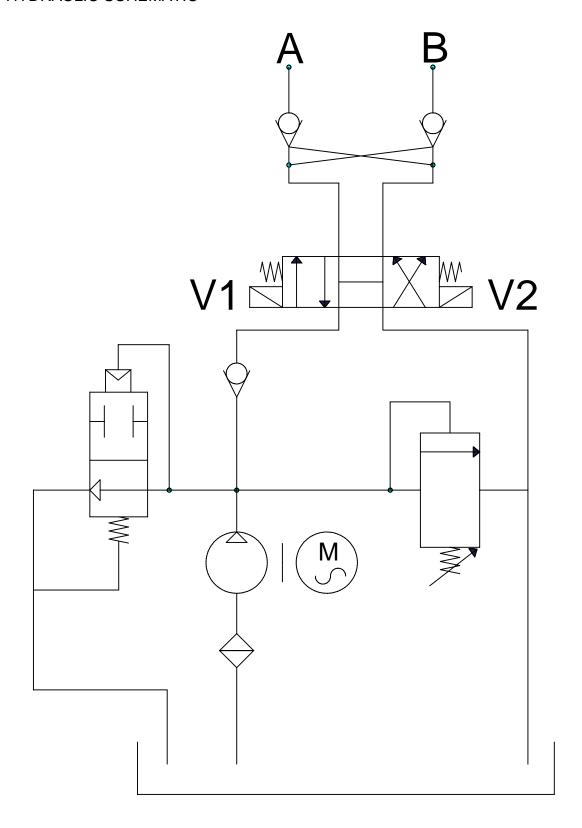


TITAN PCB ASSEMBLY

ITEM	PART NO.	REQ'D	DESCRIPTION
CB1	638270	1	CIRCUIT BREAKER PUMP MOTOR 120V 25A
SOL1	NA	1	ELECTRIC SOLENOID WITH HYD VALVE
SOL2	NA	1	ELECTRIC SOLENOID WITH HYD VALVE



HYDRAULIC SCHEMATIC





NOTES:



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www.chiefautomotive.com

Chief reserves the right to alter product specifications and/or package components without notice.