

INSTRUCTIONS AND PARTS MANUAL

CYPRESS CARRIAGES AND 3-JAW EXPANDABLE CHUCKS

Please record your equipment identification information below for future reference. This information can be found on your machine nameplate.

Model Number _____

Serial Number _____

Date of Purchase _____

Whenever you request replacement parts or information on this equipment, always supply the information you have recorded above.

LIT-CARRIAGES-IPM-0309



CYPRESS WELDING EQUIPMENT INC.

CE

ADIVISION OF WELD TOOLING CORPORATION

280 Technology Drive • Canonsburg, PA 15317-9564 USA
Telephone: 1-412-331-1776 • 1-800-245-3186 • Fax: 1-412-331-0383
<http://www.cypressweld.com>

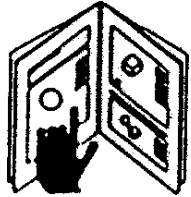
SAFETY

PROTECT YOURSELF AND OTHERS FROM SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.



ELECTRIC SHOCK CAN KILL.

- 1) The equipment is not waterproof. Using the unit in a wet environment may result in serious injury. Do not touch equipment when wet or standing in a wet location.
- 2) The unused connectors have power on them. Always keep the unused connectors covered with the supplied protective panels. Operation of the machine without the protective panels may result in injury.
- 3) Never open the equipment without first unplugging the power cord or serious injury may result.
- 4) Verify the customer supplied power connections are made in accordance with all applicable local and national electrical safety codes. If none exist, use International Electric Code (IEC) 950.
- 5) Never remove or bypass the equipment power cord ground. Verify the equipment is grounded in accordance with all applicable local and national electrical safety codes. In none exist, use International Electric Code (IEC) 950.



READ INSTRUCTIONS.

Read the instruction manual before installing and using the equipment.



EQUIPMENT DAMAGE POSSIBLE.

- 1) Do not plug in the power cord with out first verifying the equipment is OFF and the cord input voltage is the same as required by the machine or serious damage may result.
- 2) Always verify both the pinion and wheels are fully engaged before applying power or equipment damage may occur.
- 3) Do not leave the equipment unattended.
- 4) Remove from the worksite and store in a safe location when not in use.



FALLING EQUIPMENT can cause serious personal injury and equipment damage.

Faulty or careless user installation is possible. As a result, never stand or walk underneath equipment.



MOVING PARTS can cause serious injury.

- 1) Never try to stop the pinion from moving except by removing power or by using the STOP control.
- 2) Do not remove any protective panels, covers or guards and operate equipment.

HIGH FREQUENCY WARNINGS

SPECIAL PRECAUTIONS ARE REQUIRED WHEN USING PLASMA, TIG OR ANY WELDING PROCESS THAT USES HIGH FREQUENCY TO STRIKE AN ARC.



WARNING: HIGH FREQUENCY CAN EFFECT MACHINE OPERATION AND THEREFORE, WELD QUALITY.

Read the precautions below before installing and using the equipment.

PRECAUTIONS:

- 1) Some plasma or welding cables are strong sources of high frequency interference. NEVER lay a plasma or welding cable across the controls of the machine.
- 2) Always physically separate the plasma or welding cable leads from the machine cables. For example, the plasma or welding cable leads should NEVER be bundled with a pendant cable or the machine power cord. Maximize the separation between any machine cables and the plasma or welding cables.
- 3) Strictly follow the grounding procedures specified for the plasma or welding unit. NOTE: Some plasma and welding units produce exceptionally large amounts of high frequency noise. They may require a grounding rod be driven into the earth within six feet (2 meters) of the plasma or welding unit to become compatible with an automatic cutting or welding process.
- 4) If the high frequency is produced using a spark gap, adjust the points so the gap is as small as possible. The larger the gap, the higher the voltage and the higher the interference.
- 5) Some plasma or welding units will inject high frequency interference into the AC power line. Use separate power line branches whenever possible to power the plasma or welding source and the machine. Do not plug them into the same outlet box.
- 6) High frequency noise may enter the machine through the plasma or welding supply remote contactor leads. Some plasma and welding sources can produce noise spikes of up to several thousand volts. These sources are not compatible with automated cutting and welding equipment. It is recommended that the remote contactor leads on these plasma or welding sources not be connected to the machine. An alternate solution is to purchase a separate remote contactor isolation box.

CYPRESS CARRIAGES AND 3-JAW EXPANDABLE CHUCKS

INSTRUCTIONS AND PARTS MANUAL

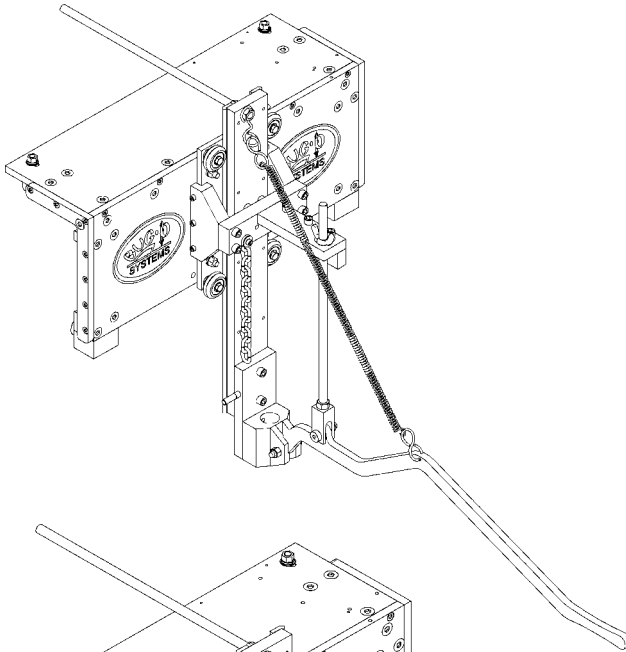
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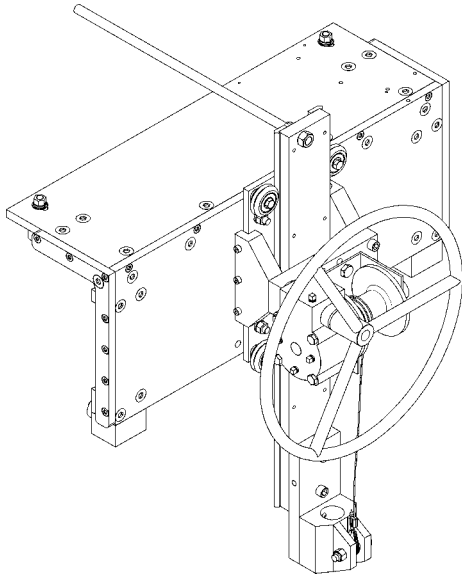
CARRIAGES

(For use on CW-5 / CW-5AX Circle Welders and on CB-1P Circle Burner)



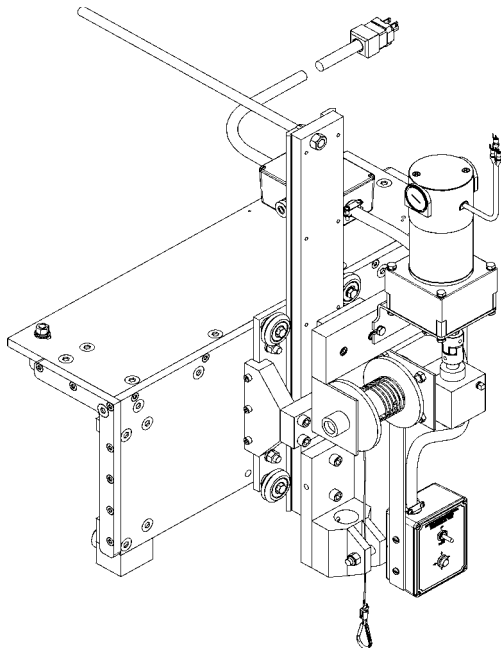
CWO-4530 151 Carriage

The 151 Carriage mounts on a standard monorail. The carriage allows the operator to move the machine the length of the pipe, while utilizing a lever to position the machine vertically.



CWO-4540 151P Carriage

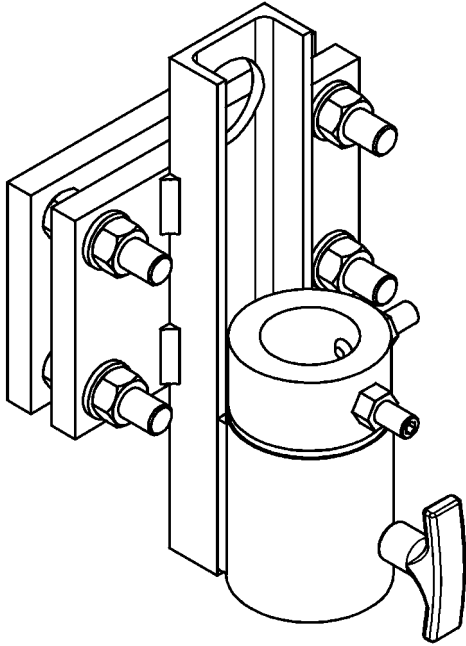
The 151P Carriage mounts on a standard monorail. The carriage allows the operator to move the machine the length of the pipe, while utilizing a winch to position the machine vertically.



CWO-4550 151M Carriage

The 151M Carriage mounts on a standard monorail. The carriage allows the operator to move the machine the length of the pipe, while utilizing an electric motorized winch to position the machine vertically.

MANIPULATOR BRACKET
(For use on CB-3 Circle Burner)



CWO-3744 MANIPULATOR BRACKET

The Manipulator Bracket is a non-adjustable fixturing device designed for use on an existing column and boom set-up.

SET-UP INSTRUCTIONS FOR CARRIAGES USED IN SPRINKLER FABRICATION.

INSTALLING CARRIAGES AND MACHINES ON THE MONORAIL.

Assemble carriages and put them on the monorail.

The CW-5/CW-5AX welder is put on the carriage that is nearest to the welding power source and the CB-1P cutter nearest to the plasma power source.

Proper installation will require the use of an 8" diameter pipe.

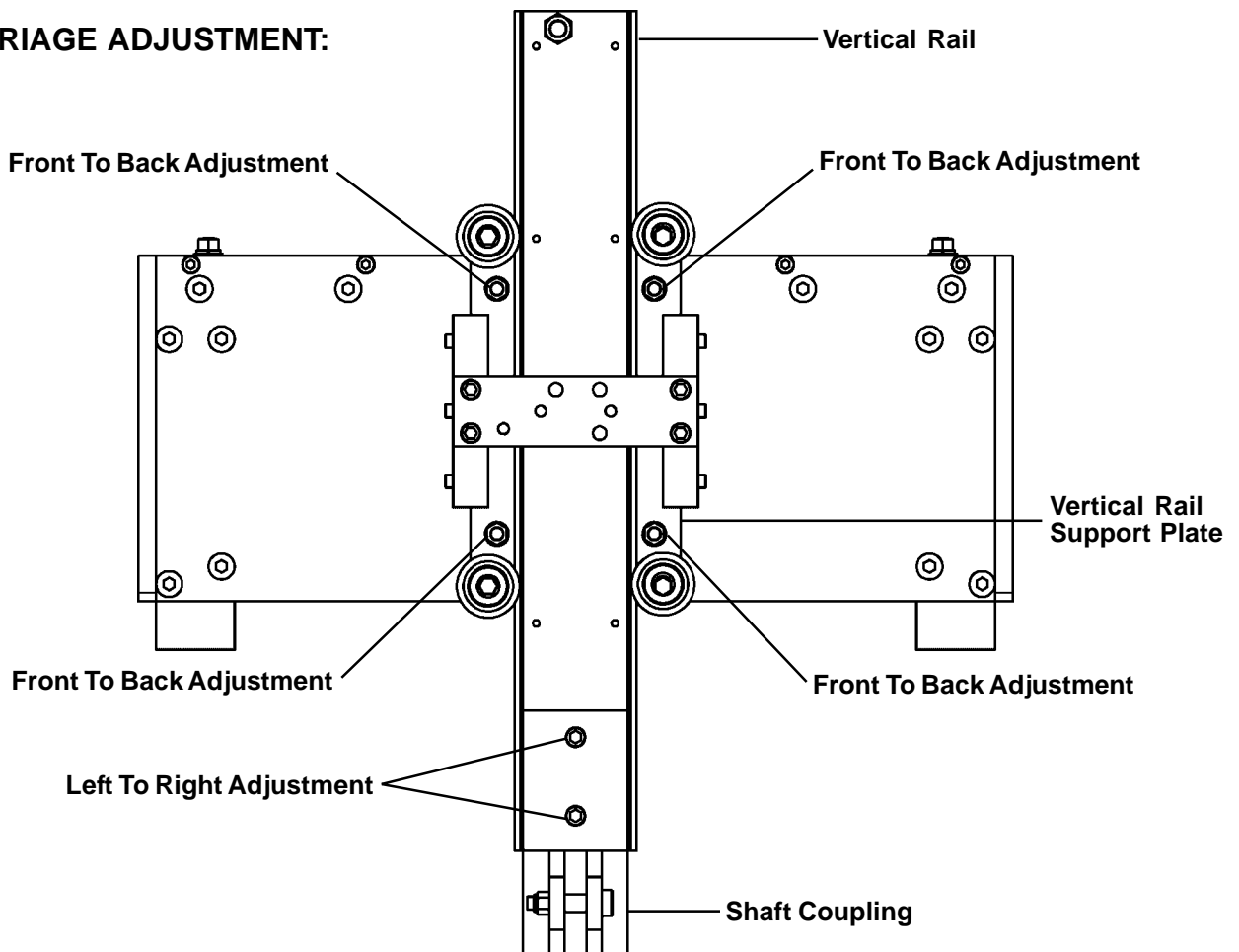
Put the CB-1P cutter machine on the 8" pipe in the stands and bring the carriage to the machine. Lower the shaft coupling over the main shaft on the cutter. Ensure that shaft is fully inserted into the shaft coupling. Rotate the machine so that the plasma leads are in front and parallel to the carriage and tighten the set screws in the shaft coupling to secure the main shaft to the vertical slide assembly.

Next put the CW-5/CW-5AX welder on the 8" pipe and bring its carriage to it. Lower the shaft coupling down on the main shaft. Rotate the machine so that the welding lead on top of the machine will be on your left. This will put the electrical connector on the right. Tighten the set screws in the shaft coupling to secure the main shaft to the vertical slide assembly.

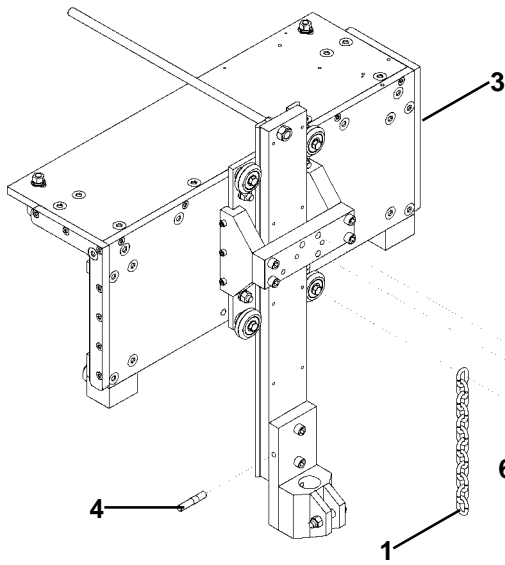
It is important for the machines to hang plumb. Left to right adjustments are made by loosening the two bolts that connect the shaft coupling to the vertical rail. Front to back adjustments are done by adjusting the position of the vertical rail support plate. Move the plate by adjusting the eight nuts on the four studs.

NOTE: Once machines are plumb, verify that the machines are centered over the pipe stand.

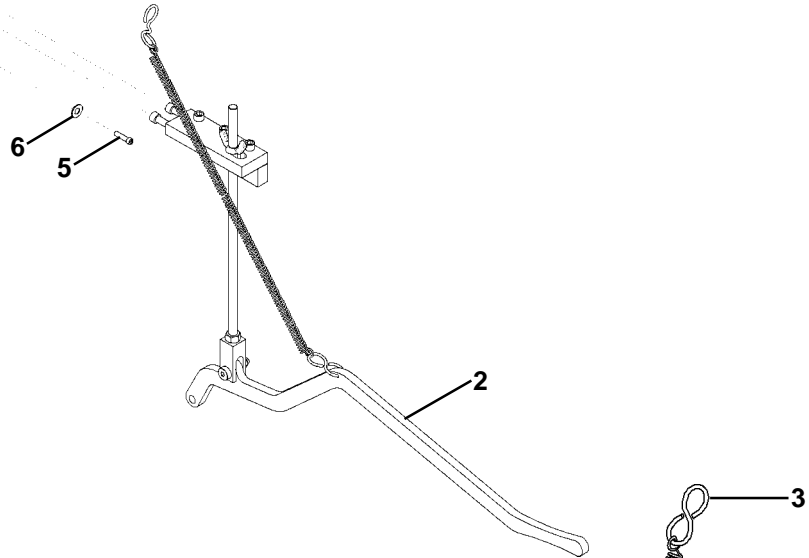
CARRIAGE ADJUSTMENT:



(CWO-4530) 151 CARRIAGE ASSEMBLY / EXPLODED VIEW / PARTS LIST

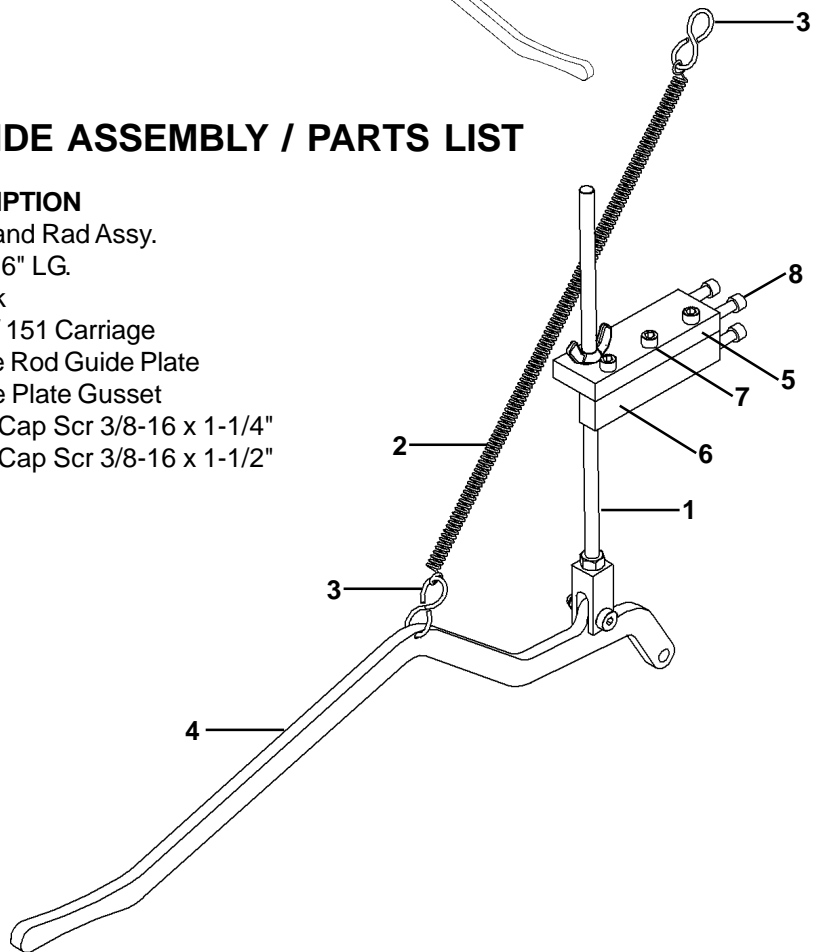


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	BUG-3199	Chain 3/16"
2	1	CWO-3919	Carriage Guide Assy.
3	1	CWO-3925	151 Common Carriage
4	1	CWO-5047	Stud 3/8-16 x 5/8" x 1"
5	1	FAS-0599	Soc Hd Cap Scr 3/8-16 x 1"
6	1	WAS-0260	3/8" Washer

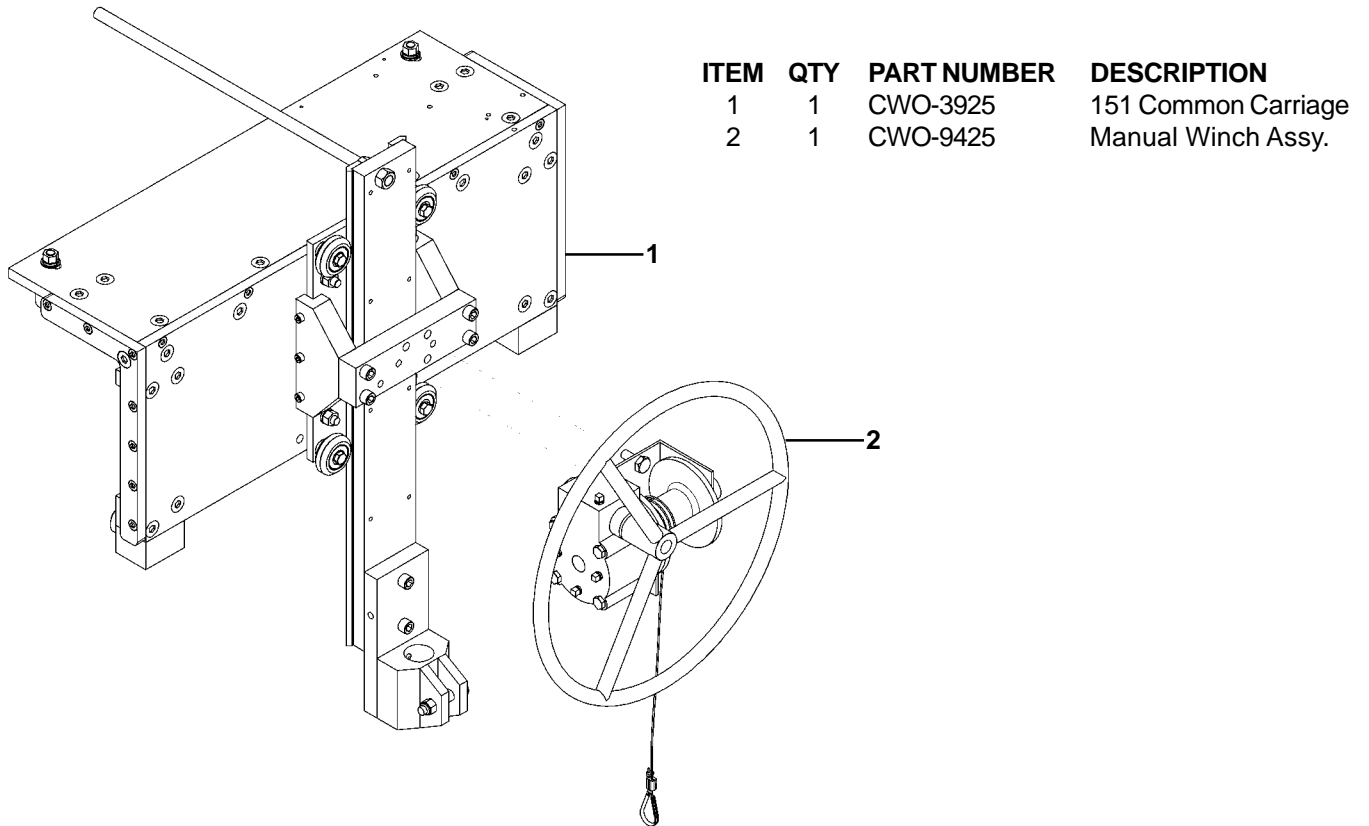


(CWO-3919) CARRIAGE GUIDE ASSEMBLY / PARTS LIST

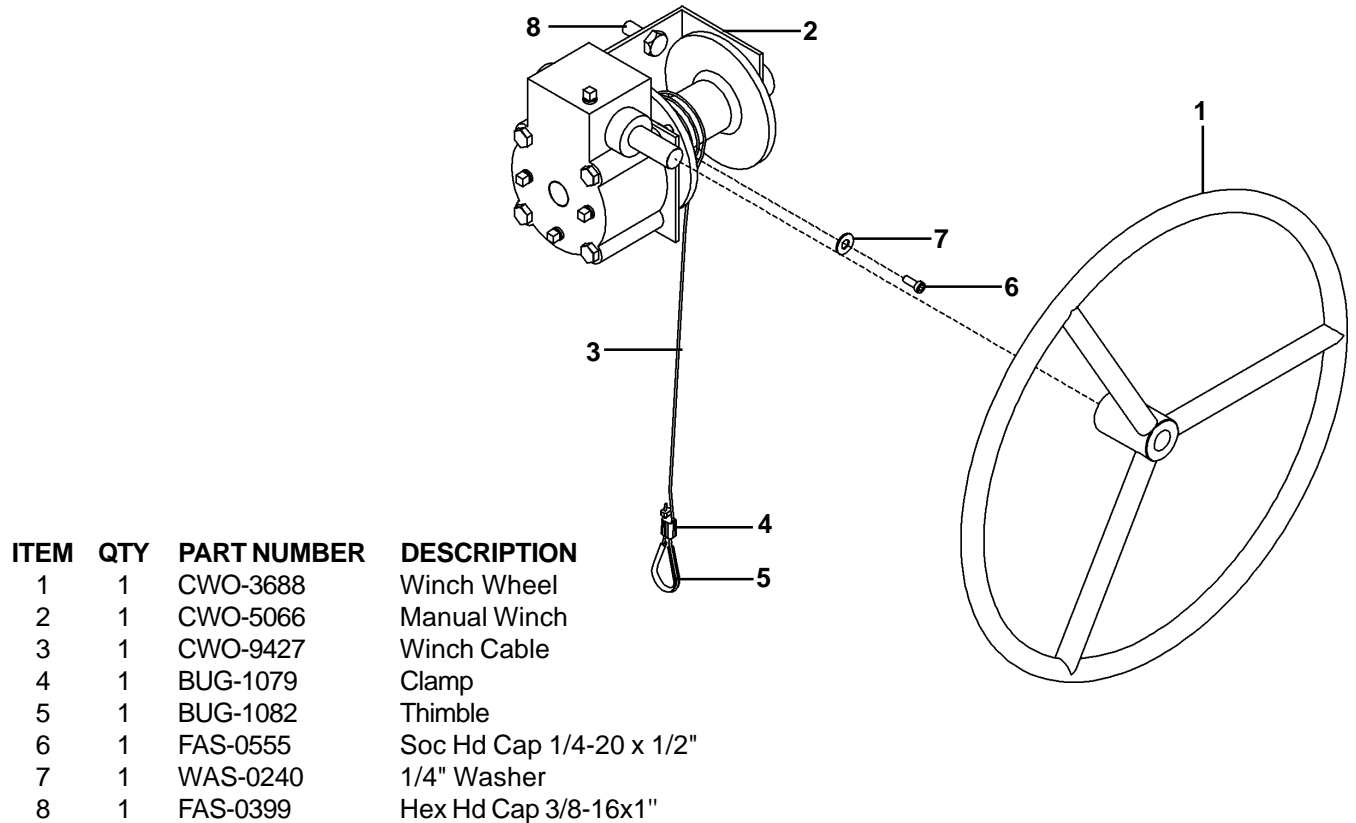
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3924	Cleves and Rad Assy.
2	1	CWO-5036	Spring 16" LG.
3	2	CWO-5037	"S" Hook
4	1	CWO-5039	Handle / 151 Carriage
5	1	CWO-9013	Carriage Rod Guide Plate
6	1	CWO-9014	Carriage Plate Gusset
7	3	FAS-2591	Soc Hd Cap Scr 3/8-16 x 1-1/4"
8	3	FAS-2593	Soc Hd Cap Scr 3/8-16 x 1-1/2"



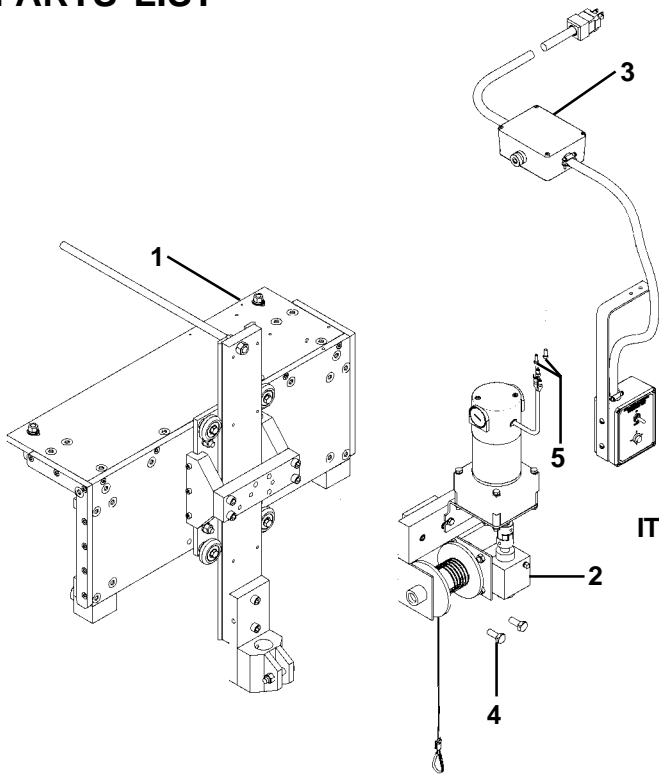
(CWO-4540) 151P CARRIAGE ASSEMBLY / EXPLODED VIEW / PARTS LIST



(CWO-9425) MANUAL WINCH ASSEMBLY / EXPLODED VIEW / PARTS LIST



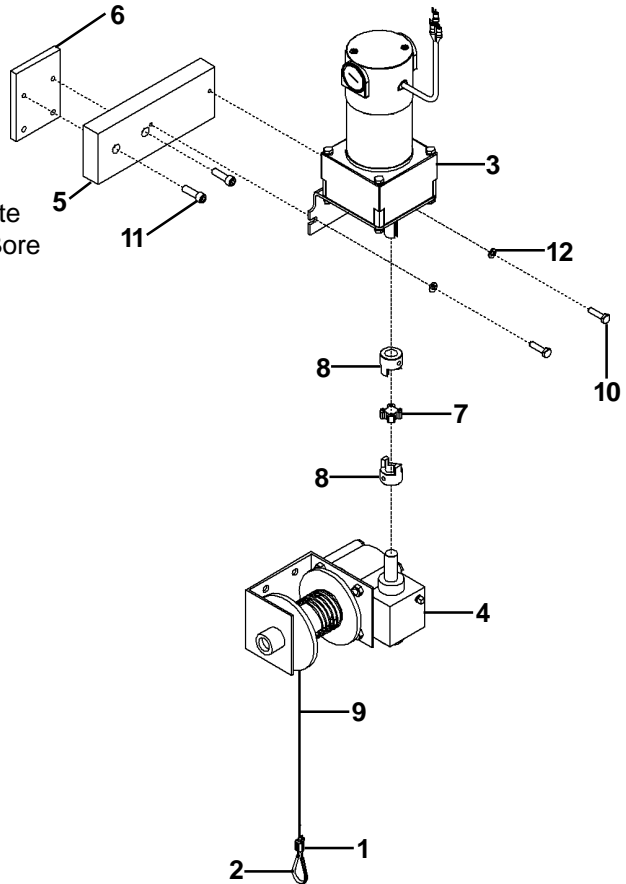
(CWO-4550) 151M MOTORIZED CARRIAGE ASSEMBLY / EXPLODED VIEW / PARTS LIST



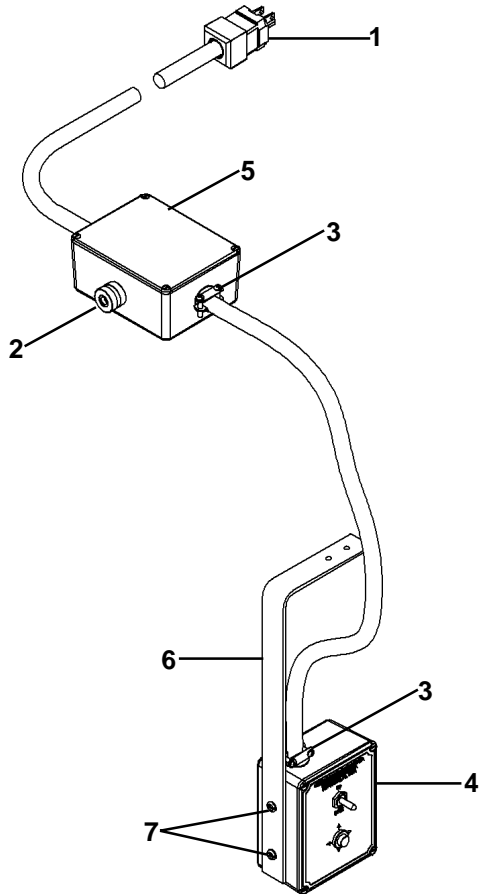
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3925	151 Common Carriage
2	1	CWO-9430	151M Motor Assy.
3	1	CWO-3190	Motorized Carriage Control
4	2	FAS-0399	Hex Hd Cap Scr 3/8-16 x 1"
5	1	FAS-0555	Hex Hd Cap Scr 1/4-20 x 1/2"

(CWO-9430) 151M MOTOR ASSEMBLY / EXPLODED VIEW / PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	BUG-1079	Clamp
2	1	BUG-1082	Thimble
3	1	CWO-3380	P.M. Motor Assy. #154
4	1	CWO-5066	Thern Winch #462
5	1	CWO-5692	Slide Mount Motor Plate
6	1	CWO-5693	Carriage Slide Attachment Plate
7	1	CWO-5929	Spider/Lovejoy Coupling 5/8" Bore
8	2	CWO-5931	Lovejoy Coupling
9	1	CWO-9427	Winch Cable
10	2	FAS-0359	Hex Hd Cap Scr 1/4-20 x 1"
11	2	FAS-0579	Soc Hd Cap Scr 5/16-18 x 1"
12	2	WAS-0243	1/4" Split Lockwasher

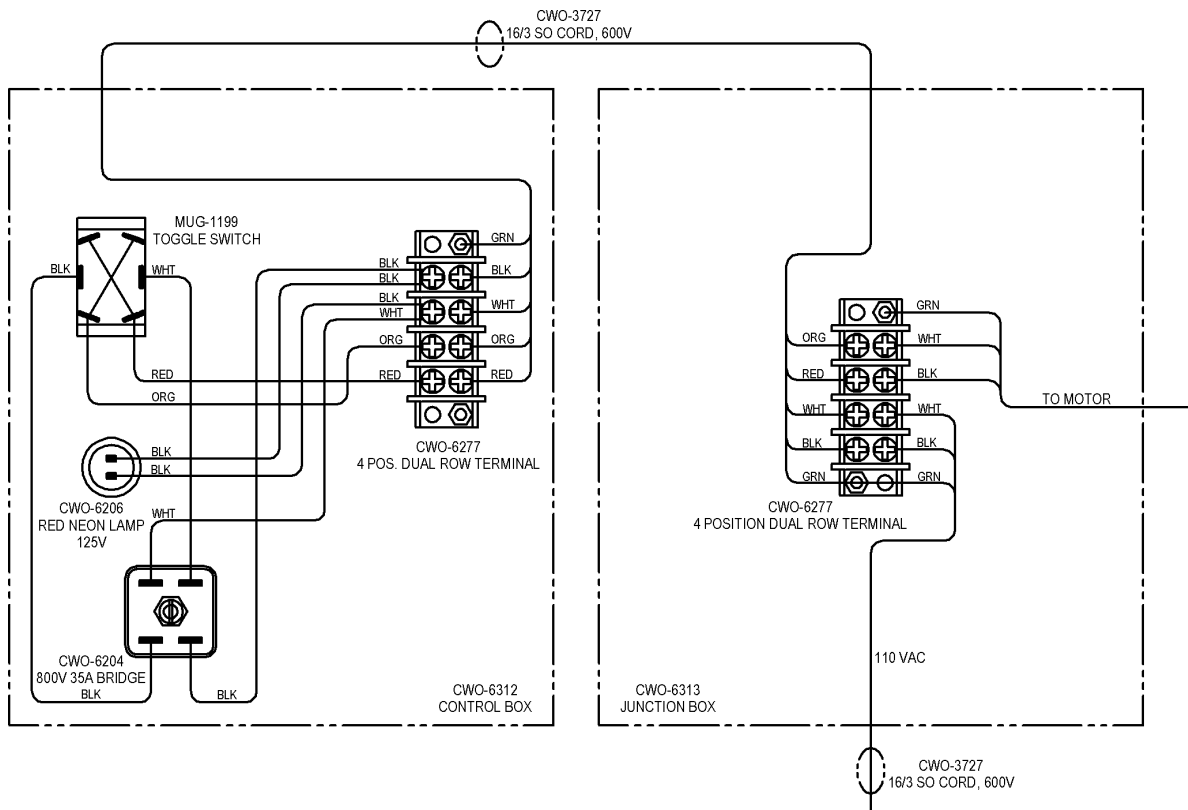


(CWO-3190) MOTORIZED CARRIAGE CONTROL / PARTS LIST

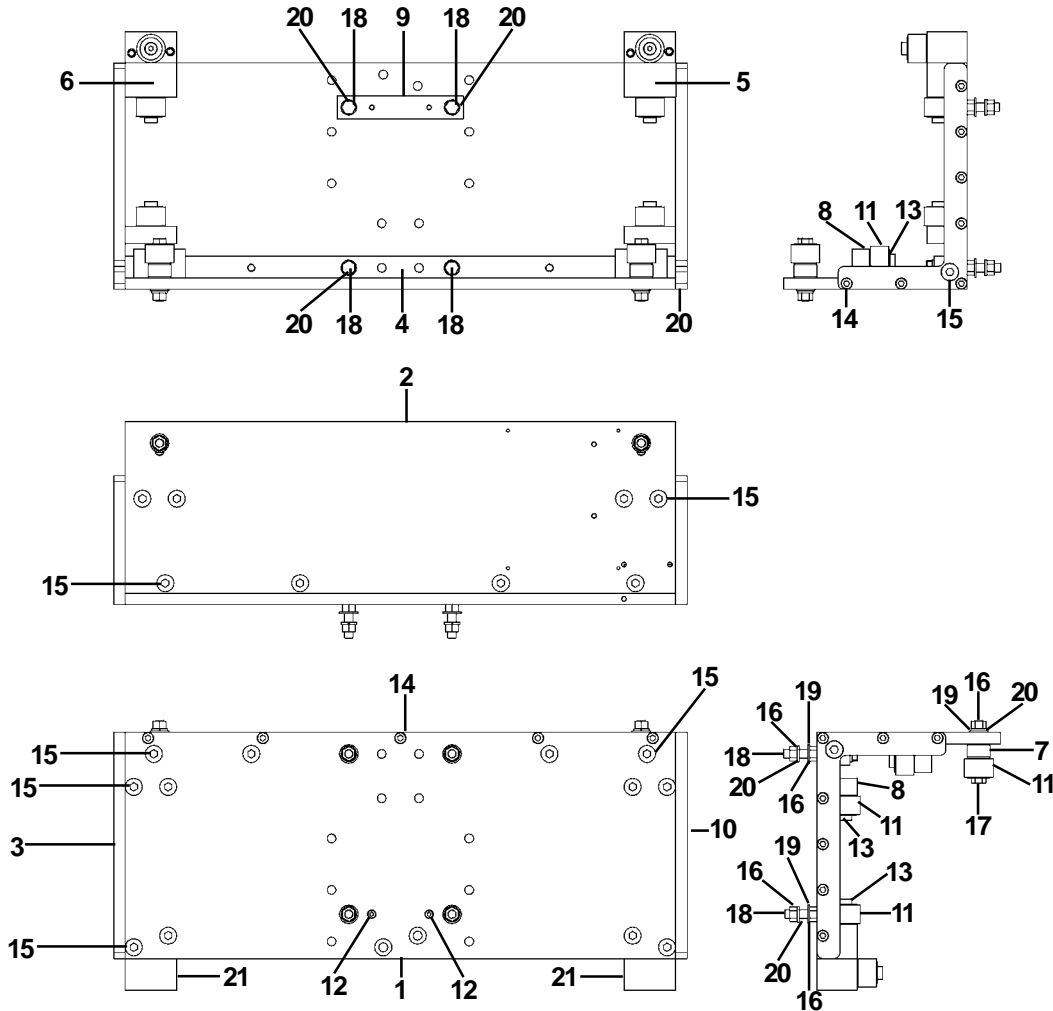


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	BUG-2271	120V Valise Plug
2	1	BUG-9216	Cord Grip
3	3	CWO-6278	Cord Grip 3/8" Romex
4	1	CWO-6312	Control Box Enclosure
5	1	CWO-6313	Junction Box Enclosure
6	1	CWO-9483	"L" Mounting Bracket
7	2	FAS-0146	Pan Hd Scr 10-32 x 5/8"

(CWO-3190) MOTORIZED CARRIAGE CONTROL / WIRING DIAGRAM

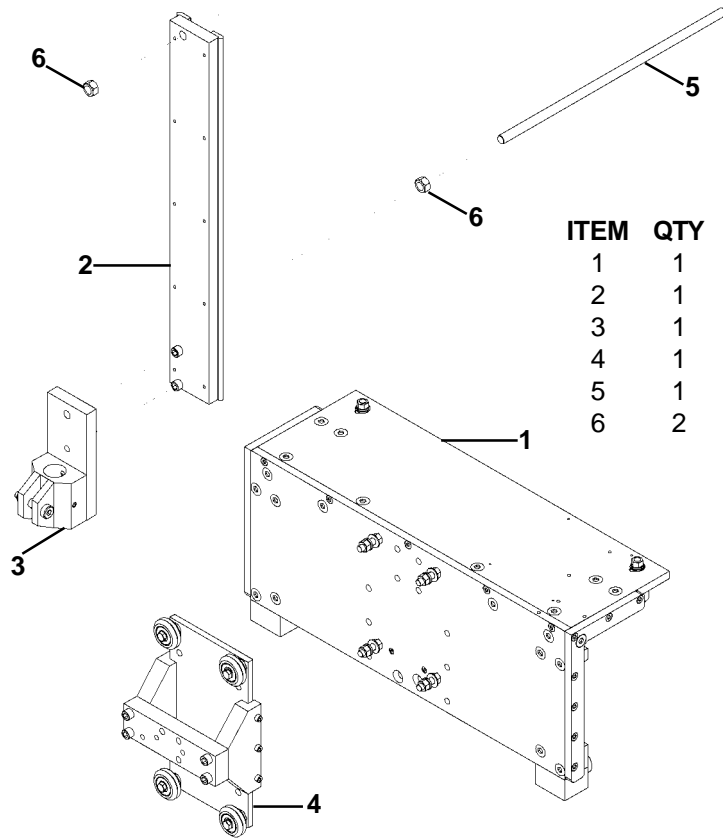


(CWO-3918) CARRIAGE ASSEMBLY / PARTS LIST



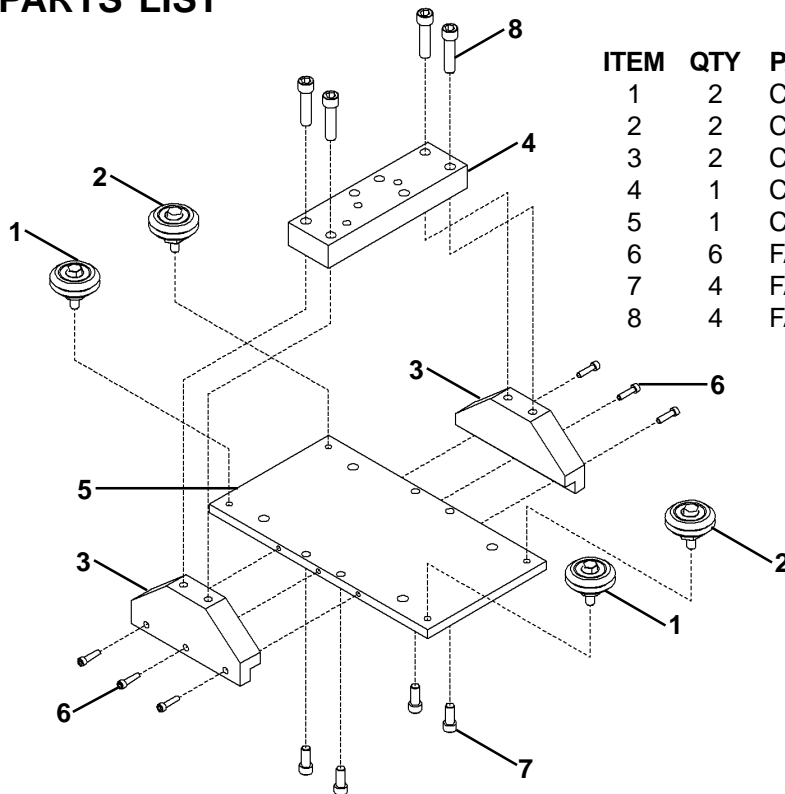
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-9001	Carriage Front Plate
*2	1	CWO-9002	Carriage Top Plate
3	1	CWO-9003	Carriage End Plate (LH)
4	1	CWO-9004	Carriage Reinforcement Bar
5	1	CWO-9005	Wheel & Clamp Mounting Block, Right
6	1	CWO-9006	Wheel & Clamp Mounting Block, Left
7	2	CWO-9007	Cam Roller Spacer
8	4	CWO-9008	Wheel Mount Block
9	1	CWO-9011	Carriage Back-Up Bar
10	1	CWO-9194	Carriage End Plate (RH)
11	8	CWO-4884	Cam Roller
12	2	FAS-0557	Soc Hd Cap Scr 1/4-20 x 3/4"
13	6	FAS-0679	Soc Hd Cap Scr 3/8 x 1 x 5/16-18
14	19	FAS-0959	Flt Hd Soc Scr 1/4-20 x 1"
15	22	FAS-0999	Flt Hd Soc Scr 3/8-16 x 1"
16	10	FAS-1390	Hex Nut 3/8-16
17	2	FAS-2397	Hex Hd Cap Scr 3/8-16 x 2-1/2"
18	4	FAS-2399-FT	Hex Hd Cap Sce 3/8-16 x 3-1/2" F.T.
19	6	WAS-0260	3/8" Washer
20	10	WAS-0262	3/8 Split Lockwasher
21	2	CWO-9490	Lower Cam Roller Assembly

(CWO-3925) COMMON CARRIAGE ASSEMBLY / EXPLODED VIEW / PARTS LIST



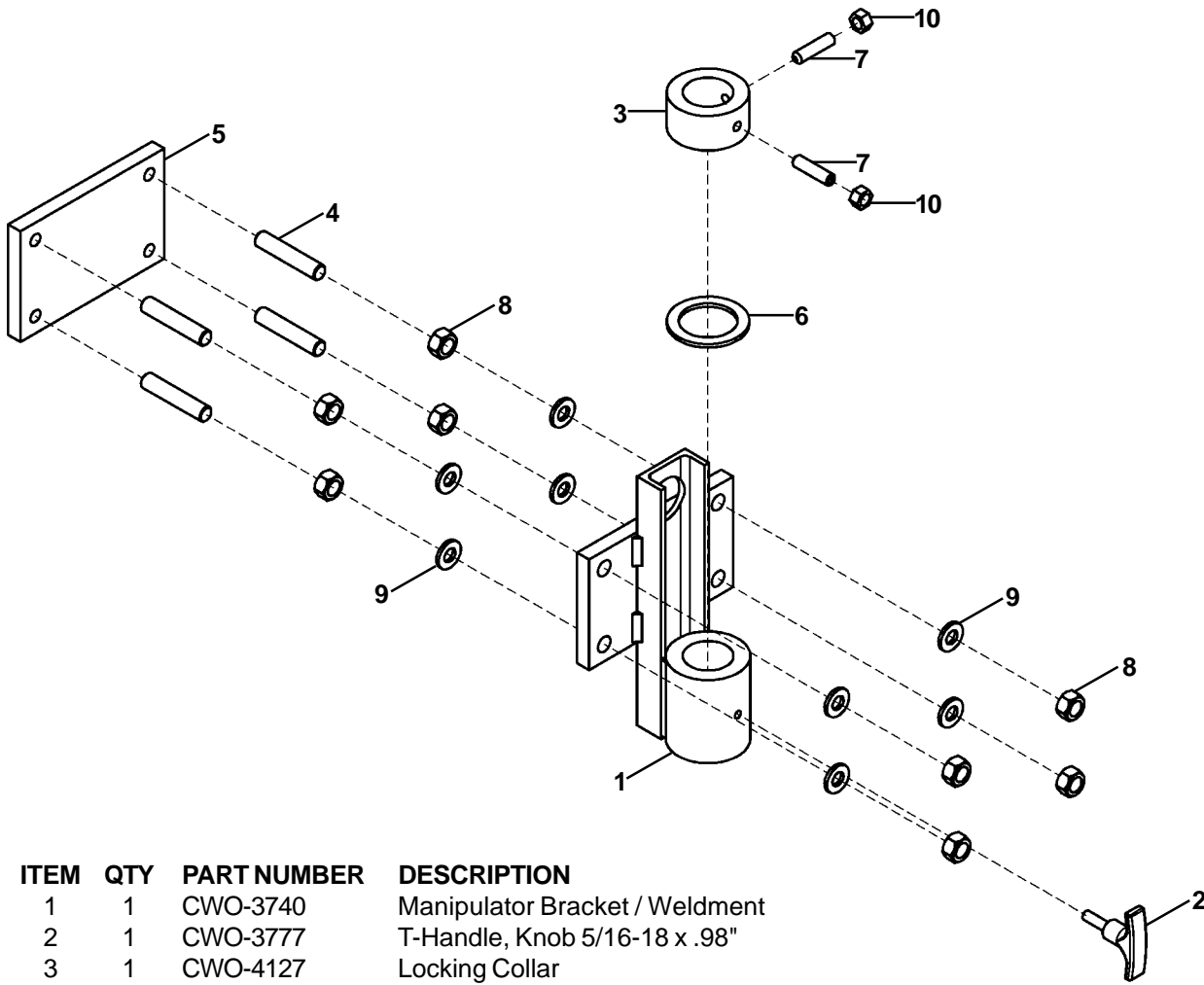
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3918	Carriage Assy.
2	1	CWO-3928	Vertical Slide Bar Assy.
3	1	CWO-3929	Carriage Machine Support Assy.
4	1	CWO-3946	Carriage Slide Bridge Assy.
5	1	CWO-9023	Cord Support
6	2	FAS-1301	Hex Nut 1/2-13

(CWO-3946) CARRIAGE SLIDE BRIDGE ASSEMBLY / EXPLODED VIEW / PARTS LIST



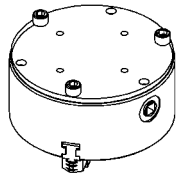
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CWO-4326	Fixed Leg & Wheel Assy.
2	2	CWO-4327	Adjustable Leg & Wheel Assy.
3	2	CWO-9012	Bridge Support
4	1	CWO-9015	Bridge Plate
5	1	CWO-9016	Carriage Wheel Mount Plate
6	6	FAS-0557	Soc Hd Cap Scr 1/4-20 x 3/4"
7	4	FAS-0577	Soc Hd Cap Scr 5/16-18 x 3/4"
8	4	FAS-0593	Soc Hd Cap Scr 3/8-16 x 1-1/2"

(CWO-3744) MANIPULATOR BRACKET / EXPLODED VIEW / PARTS LIST

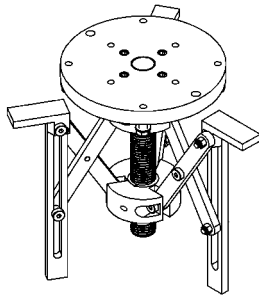


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3740	Manipulator Bracket / Weldment
2	1	CWO-3777	T-Handle, Knob 5/16-18 x .98"
3	1	CWO-4127	Locking Collar
4	1	CWO-4421	1/2-13 x 2-1/2" All Thread Rod
5	1	CWO-5551	Bracket / Mount Plate
6	1	CWO-5982	Oilite Thrust Bearing
7	2	FAS-2493	Soc Set Scr 3/8-16 x 1-1/2"
8	8	FAS-1301	Hex Nut 1/2-13
9	12	WAS-0280	1/2" Washer
10	2	FAS-1390	Hex Nut 3/8-16"

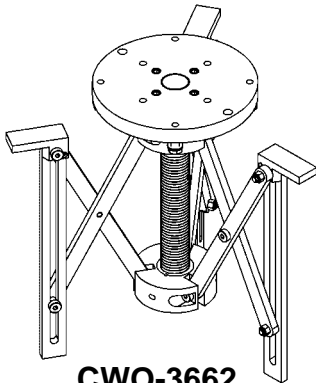
3-JAW EXPANDABLE CHUCKS (For use on CW-5AX/CW-7/CW-11 Circle Welders)



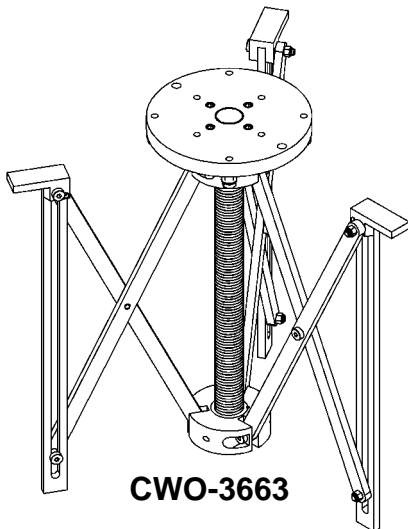
CWO-3660



CWO-3661



CWO-3662

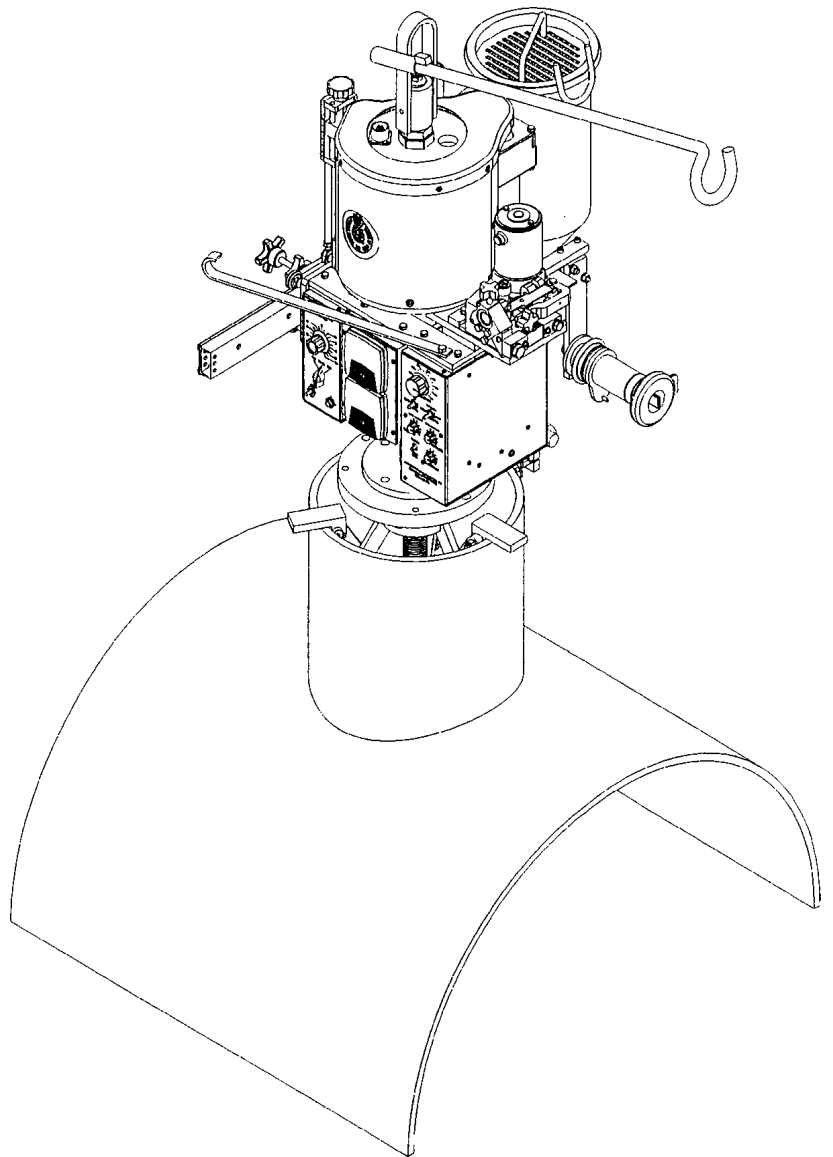


CWO-3663

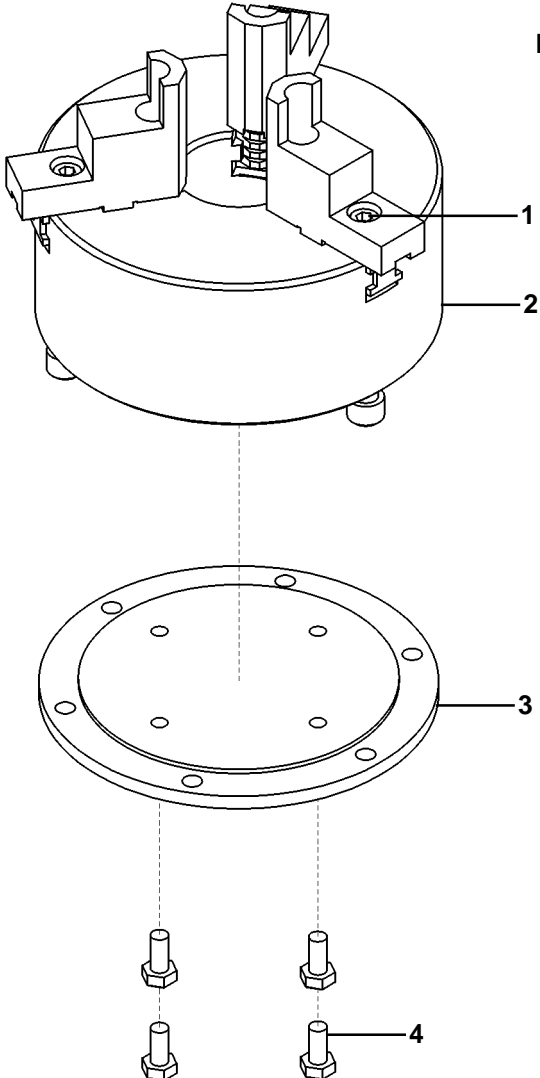
3-Jaw Expandable Chucks

Mounts and automatically centers the Circle Welder on nozzles with or without flanges. As shown below.

PART NUMBER	FOR NOZZLE I.D.'S	WEIGHT
CWO-3660	2"-8" (51-204mm)	68 lbs. (31 kg)
CWO-3661	8"-16" (204-405 mm)	36 lbs. (16 kg)
CWO-3662	10"-24" (255-610 mm)	51 lbs. (23 kg)
CWO-3663	16"-42" (406-1065 mm)	64 lbs. (29 kg)

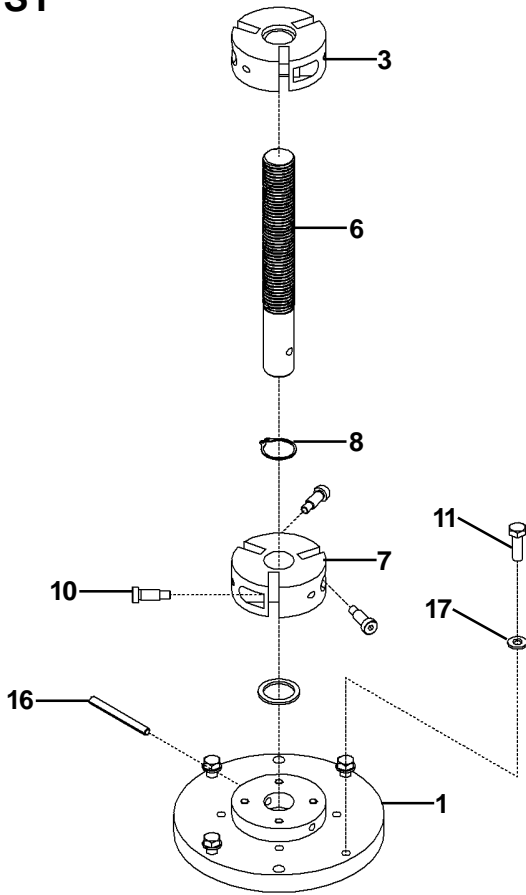


(CWO-3660) 2/10 3 JAW EXPANDABLE CHUCK / EXPLODED VIEW / PARTS LIST



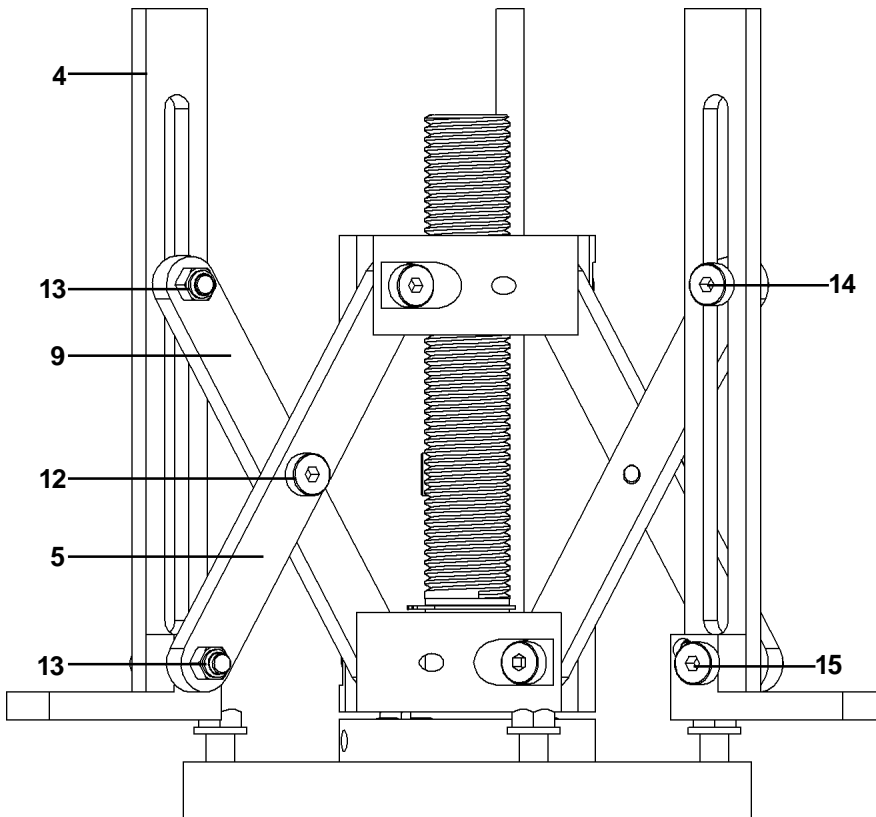
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3668	Extension Jaw
2	1	CWO-4978	Chuck 10" 3-Jaw
3	1	CWO-3666	10" Chuck Mount Plate
4	4	FAS-0309	Hex Hd Cap Scr 1/2-13 x 1"

(CWO-3661) 8/16 3 JAW EXPANDABLE CHUCK / EXPLODED VIEW / PARTS LIST

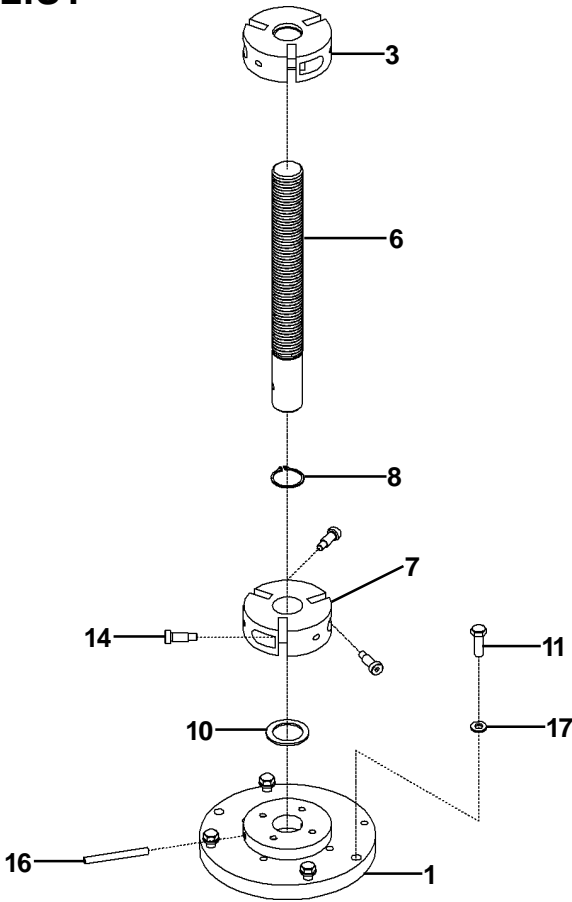


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3292	8/16 Plate & Hub Assy.
*2	1	CWO-3664	Tightening Bar Assy.
3	1	CWO-3867	8/16 Lower Hub Assy.
4	3	CWO-3868	8/16 Slide Arm Bracket
5	3	CWO-5687	Inside Arm 8/16
6	1	CWO-5895	Chuck Screw 8/16
7	1	CWO-5911	Upper Hub 8/16
8	1	CWO-5954	External Retaining Ring
9	3	CWO-5969	Outside Arm 8/16
10	1	CWO-5981	Oilite Thrust Washer
11	4	FAS-0308	Hex Hd Cap Scr 1/2-13 x 1-1/2"
12	3	FAS-0695	Soc Hd Shd 1/2" x 1/2" x 3/8-16
13	12	FAS-1394	Hex Jam Nut 3/8"-16"
14	6	FAS-2693	Soc Hd Shd 1/2" x 1" x 3/8-16
15	3	FAS-2697	Soc Hd Shd 1/2" x 2" x 3/8-16
16	1	RPS-2139	Roll Pin 3/8" x 3-3/4"
17	4	WAS-0280	1/2" SAE Flat Washer

* See CWO-3664 Tightening Bar Exploded View

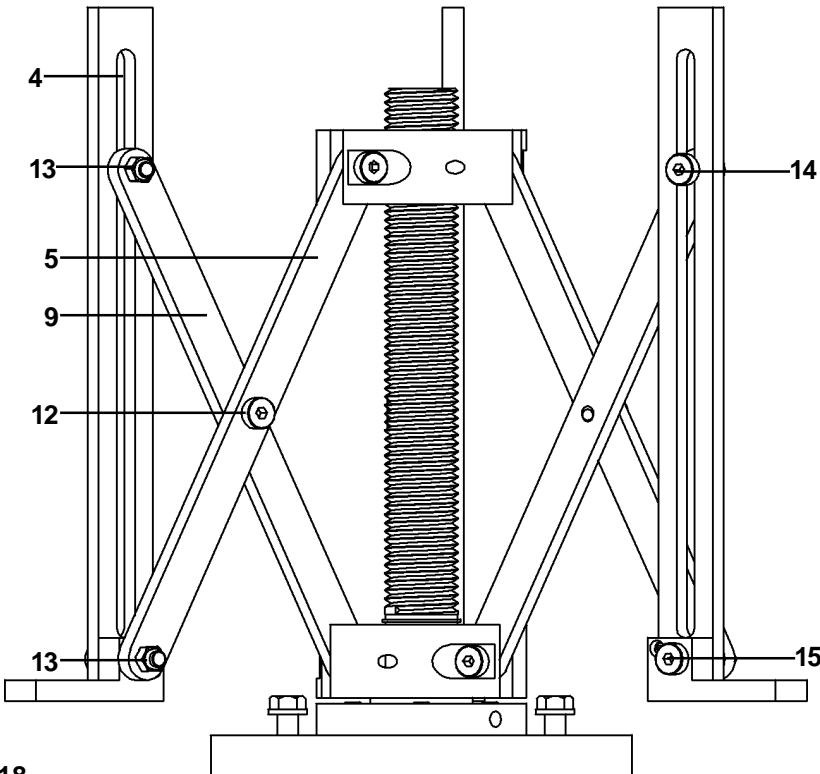


(CWO-3662) 10/24 3 JAW EXPANDABLE CHUCK / EXPLODED VIEW / PARTS LIST

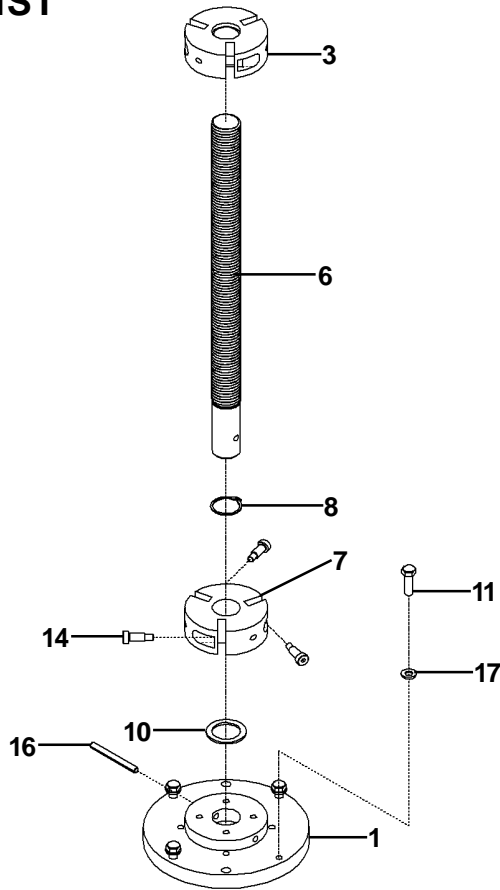


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3293	10/24, 24/42 Plate & Hub Assy.
*2	1	CWO-3664	Tightening Bar
3	1	CWO-3861	10/24, 24/42 Lower Hub Assy.
4	3	CWO-3869	10/24 Slide Arm Bracket
5	3	CWO-5688	Inside Arm 10/24
6	1	CWO-5896	Chuck Screw 10/24
7	1	CWO-5912	Upper Hub 10/24, 24/42
8	1	CWO-5956	External Retaining Ring
9	3	CWO-5971	Outside Arm 10/24
10	1	CWO-5981	Oilite Thrust Washer
11	4	CWO-0308	Hex Hd Cap Scr 1/2-13 x 1-1/2"
12	3	FAS-0695	Soc Hd Shr 1/2" x 1/2" x 3/8-16
13	12	FAS-1394	Hex Jam Nut 3/8"-16"
14	9	FAS-2693	Soc Hd Shr 1/2" x 1" x 3/8-16
15	3	FAS-2697	Soc Hd Shr 1/2" x 2" x 3/8-16
16	1	RPS-2139	Roll Pin 3/8" x 3-3/4"
17	4	WAS-0280	1/2" Washer

* See CWO-3664 Tightening Bar Exploded View

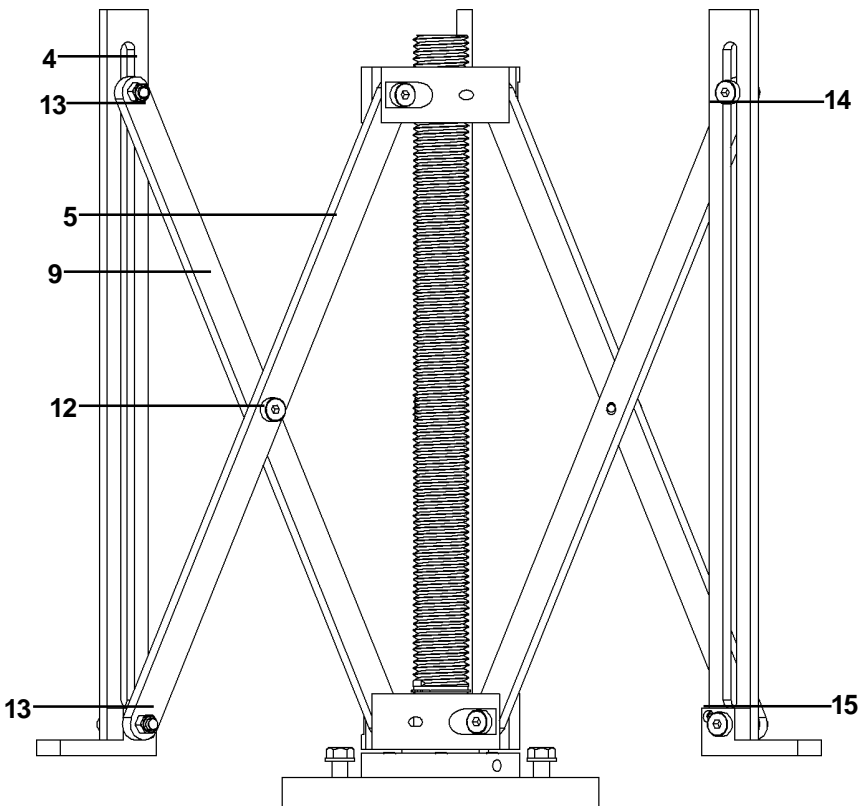


(CWO-3663) 24/42 3 JAW EXPANDABLE CHUCK / EXPLODED VIEW / PARTS LIST

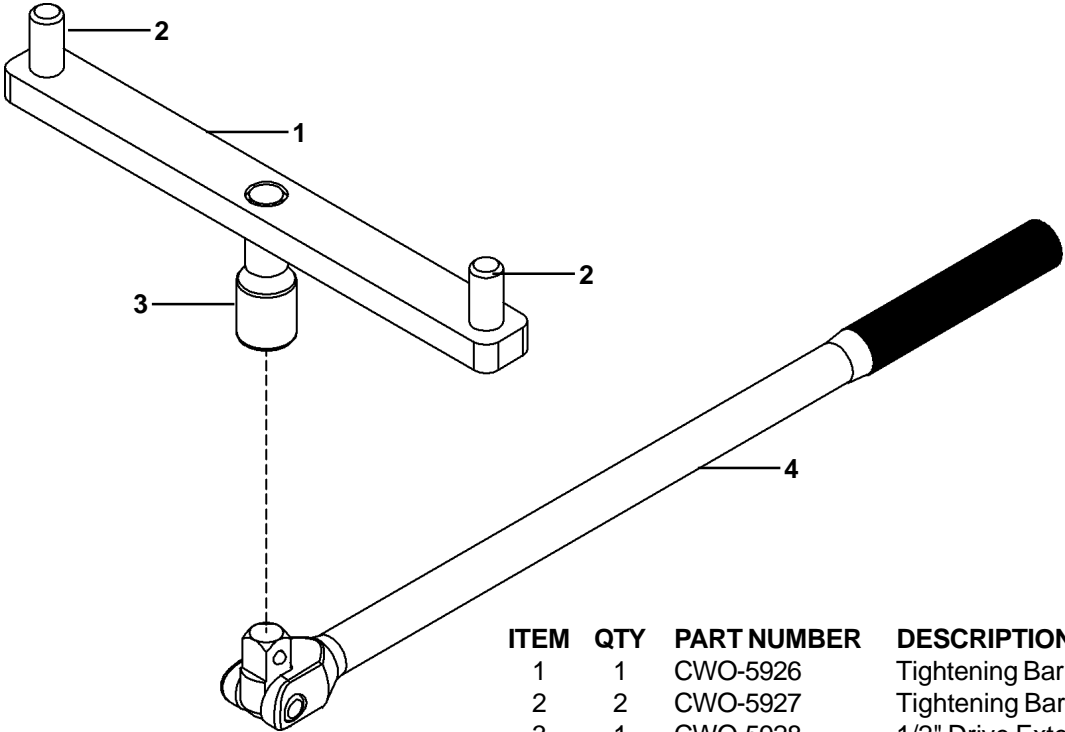


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-3293	10/24, 24/42 Plate & Hub Assy.
*2	1	CWO-3664	Tightening Bar
3	1	CWO-3861	10/24, 24.42 Lower Hub Assy.
4	3	CWO-3871	24/42 Slide Arm Bracket
5	3	CWO-5689	Inside Arm 24/42
6	1	CWO-5897	Chuck Screw 24/42
7	1	CWO-5912	Upper Hub 10/24, 24/42
8	1	CWO-5956	External Retaining Ring
9	3	CWO-5972	Outside Arm 24/42
10	1	CWO-5981	Oilite Thrust Washer
11	4	FAS-0308	Hex Hd Cap Scr 1/2-13 x 1-1/2"
12	3	FAS-0695	Soc Hd Shr 1/2" x 1/2" x 3/8-16
13	12	FAS-1394	Hex Jam Nut 3/8"-16"
14	9	FAS-2693	Soc Hd Shr 1/2" x 1" x 3/8-16
15	3	FAS-2697	Soc Hd Shr 1/2" x 2" x 3/8-16
16	1	RPS-2139	Roll Pin 3/8" x 3-3/4"
17	4	WAS-0280	1/2" Washer

* See CWO-3664 Tightening Bar Exploded View



(CWO-3664) TIGHTENING BAR / EXPLODED VIEW / PARTS LIST



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CWO-5926	Tightening Bar Handle
2	2	CWO-5927	Tightening Bar Dowel Bar
3	1	CWO-5928	1/2" Drive Extension
4	3	CWO-5930	1/2" Drive Hinge Handle

WARRANTY

Limited Warranty

Model _____
Serial No. _____
Date Purchased: _____

For a period of twelve (12) months from delivery, Cypress Welding warrants to the original purchaser (does not include authorized distributors), that a new machine is free from defects in material and workmanship and agrees to repair or replace, at its option, any defective parts or machine. This warranty does not apply to machines, which after our inspection, are determined to have been damaged due to neglect, abuse, overloading, accident or improper usage. All shipping and handling charges will be paid by customer.

Cypress Welding makes no warranty of merchantability and makes no other warranty, expressed or implied, beyond the warranty expressly set forth above. Buyer's remedy for breach of warranty, hereunder, shall be limited to repair or replacement of non-conforming parts and machines. Under no circumstances shall consequential damages be recoverable.

HOW TO OBTAIN SERVICE:

If you think this machine is not operating properly, re-read the instruction manual carefully, then call your Authorized Cypress dealer/distributor. If he cannot give you the necessary service, write or phone us to tell us exactly what difficulty you have experienced. BE SURE to mention the MODEL and SERIAL numbers.

NOTES: