

# **COMMON SPARE PARTS LIST FOR ALL MACHINES**

2018 JUNE REVISION 22

ALWAYS HAVE THE MODEL AND SERIAL NUMBER OF MACHINE WHEN LOOKING FOR PARTS

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This following list contains information on supported machines only. If the part number is not on the list go to [Challengemachinery.com](http://Challengemachinery.com) to use "Manuals/Year-Built/Support Status" link for more information

If the machine is not on the above list it is a not supported. Only the manual is available. Go to [Challengemachinery.com](http://Challengemachinery.com) then use "Manuals/Year-Built/Support Status" link for the manual

# SPARTAN 150 M weights 80 lb.

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.  
The model and serial number are mandatory. It is in a pdf format.

Knife – Standard H.S.S.	60011-1	Measures 18 ¼" x 1 5/8" x ¼" "Minimum Height 1 ½"
Cutting Stick	60057	pkg. of 12measures ½" x ½" x 16"
Cut Stick Puller	5064	
Jogging Aid	60058	
Knife Lifter Assembly	60061	
Knife Bolts	H-6910-403	6 required
Knife Bolt Wrench	W-189	5/32" Hex 'T' Allen Wrench

## ELECTRICAL/ ELECTRONIC

Cut Button	E-3129	1 N.O. Contact
Wall Transformer	E-3078	
Jack Assembly	EE-3077	
Encoder Cable	EE-2899-2	
Encoder	E-2467-2	
Display Board	EE-3065	
Line Light Board	EE-3126	

## MECHANICAL

Knife Latch Replacement Kit	K-61074	
Knife Latch Torsion Spring	61071	
Back gauge Assembly	60203	
Back gauge Nut	61045-1	
Back gage floating fingers	60204	8 per machine, plastic order (1) 61045-1 and (1) 60214
Lead screw Nut	60214	
Lead screw	61047	
Guide Shaft	61044	
Belt	61063	
Encoder Pulley	60208	
Front Crank Handle	60043	
Knife Bar Link	61020	
Clamp	61025	
Clamp Lead screw	61026	
Three-Arm Hand wheel – Clamp	61033	
Clamp Nut	61066	
Hood (Formed Plastic)	61052	
Tilt Shield Stiffener	61060	
Hood Torsion Spring	61075	

# SPARTAN 150 SA / A weights 170 lb.

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

The model and serial number are mandatory. It is in a pdf format

Knife – Standard H.S.S.	60011-1	measures 18 ¼" x 1 5/8" x ¼" ,min 1 ½" Minimum Height 1 ½"
Cutting Stick	60057	pkg. of 12, measures ½" x ½" x 16"
Cut Stick Puller	5064	
Jogging Aid	60058	
Knife Lifter Assembly	60061	
Knife Bolts	H-6910-403	6 required
Knife Washers	8815-1	6 required
Knife Bolt Wrench	W-189	5/32" Hex 'T' Allen Wrench

## ELECTRICAL/ ELECTRONIC

Cut Buttons (round)	E-3129	! n.o. contact
Circuit Breaker – 8A	E-3074	
Hood Magnet Coil Assembly	EE-3111	
Hood Switch	E-866-9	
Display Board	EE-3065	no E-prom.
Knife Limit Switches	E-3112	For either UP or DOWN
Motor & Brake Assembly	E-1600-197	
Motor & Gearbox Assembly	K-60005	
Brake replacement kit	K-3455	
Encoder Cable	EE-2899	
Encoder	E-2467-2	
Preset Micro switch	E-866-4	
Transformer (120v)	EE-3115	
Relay PC Board	EE-3061-1	
Line Light Board	EE-3081	
Power Cord – 120V	EE-3188	

## MECHANICAL

Back gauge Nut (Machined)	60202-1	
Back gage floating fingers	60204	8 per machine, plastic
Lead screw Nut	60214	
Guide Shaft	61044	
Belt – MXL	60211	
Front Crank Handle	60043	
Pull-Down Link	60010	
Clamp	61025	
Clamp Lead screw	61026	order 2 each 20075-10
Clamp Hand wheel	60093.	
Clamp Nut	61066	
Tilt Shield (Formed Plastic)	60035	
Handle – Tilt Shield	60047	
Gib Insert (051260 and down)	56256	
Gib Insert (051261 and up)	60074	

# SPARTAN 185 SA, A, AEP weights 650 lb.

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

The model and serial number are mandatory. It is in a pdf format

Knife – Standard H.S.S.	63017-1	measure 22 ½ "x 2 5/8"x 3/8", min 2 3/8"
Cutting Stick	60015	pkg. of 12,measures 18 ¾ " x ½ " x ½ "
Cut Stick Puller	5064	
Jogging Aid	A-12608-2	
Knife Lifter Assembly	63073	
Knife Bolts	H-6910-505	6 required
Knife Bolt Wrench	W-191	3/16" Hex 'T' Allen Wrench
Machine Lifter Handles (4)	H-6913-1048	

## ELECTRICAL/ ELECTRONIC

Left Cut / Clamp Down Button	E-3073 (1 N.O.)	SA uses Qty. 2 (1 - left, 1 - right)
Clamp Down Button	E-3073-1 (2 N.O.)	
Right Cut / Clamp Up Button	E-3073-3 (1 N.O. & 1 N.C.)	
Cir. Breaker w/On-Off Switch	E-3074-5 (120V Option/25Amp)	E-3074-1 (230V Option/15Amp)
Hood Coil	EE-3111	
Hood Switches	E-866-9	two per machine
Display Board	EE-3157	AEP
Display Board	EE-3065	SA, A, no E-prom.
Clamp Up Limit Switch	E-3112 (	A, AEP
Knife Down Limit Switch	E-3112-1	
Knife Up Limit Switch	E-3112-2	
Power Cord (120V 60Hz)	EE-3163	
Cut Motor	E-1600-104	071059 and up
Cut Motor	E-1600-103	071058 and down
Motor, Brake & Gearbox Assy.	63002	
Gearbox Assembly Only	63002-GB	
Clamp Motor	E-1600-39	consult manual for wiring
Back gauge Motor	E-1600-167 (120V Option) E-1600-166 (230V Option)	
Encoder Cable	EE-2534-3	
Encoder	E-2467	
Preset Proximity Switch	E-2204-1	AEP
Main board	EE-3132-1	120v
Main board	EE-3165	230v
Line Light PC Board	EE-3162	

## MECHANICAL

Lead screw Nut - Manual	63216	
Lead screw Nut – Power	63206	
Front Hand Wheel B/G	63047	SA, A, 4 ' diameter
Clamp	63019	
Clamp Lead screw	63023	SA
Clamp Lead screw	63075	A, AEP
Clamp hand Wheel	63045	SA, 6" diameter
Clamp Nut	63029-2	
Tilt Shield (Formed Plastic)	63040	
Handle – Tilt Shield	60047	
Back gauge	63204	does not include fingers and dowel pin
Back gage fingers	60204	10 required
Back gage dowel pin	H-5246-406	
Knife Bar Replacement Kit	K-63016-1	

# TITAN 200M weights 800lb

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window. The model and serial number are mandatory. It is in a pdf format

Knife Blade	A-10034-1	measures 23 3/4" x 3" x 3/8"; min. 2 5/8"
Cutting Stick	4166	Pkg. of 12 measures 1/2" x 1/2" x 20"
Cut Stick Puller	5064	
Jogging Aid	A-12608-2	
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Bolt Wrench	W-164	
Knife Lifter Assembly	43108	
Knife Bolts	H-6918-608	4 required
Knife Bolt Washers	8815	4 required
Line/Cut Light Bulbs	E-967-1	
False Clamp Plate	AA-10061	mounted with 2 wing nuts

## ELECTRICAL/ ELECTRONIC 200M

Cut Button – Recessed	E-3073-3	n.o./n.nc
Cut Button – Mushroom	E-3127-3	s/n 05285 and up, n.o./n.nc
Cut Solenoid	E1069-19	
Knife Latch Assembly	41120-4	
Preset Board	EE-1688-1	
Encoder	E-2467-1	
Display Board	EE-1675-1	
Relay Board	E-2897-1	
Starter-Motor relay	K-3325	s/n 09608 and below
Starter-Motor relay	E-2805-2	s/n: 09609 and up
Auxiliary Contact-NC	E-2376-4	s/n: 09609 and up
Encoder coupling	47053	1" long rubber tubing
Safety eyes	K-3453	s/n 103478 and down
	EE-3370	s/n 103479 and up, repairs only

## MECHANICAL

Back gauge Nut	8826	S/N 09609 and below.
Knife Latch	41120-4	
Lead screw	K-43505	for repairs
Back gauge Nut	8826-1	S/N 09610 and up
Cut stick stop repair	K-43058-2	Repair broken screw/stop
Clamp pull down rods	10075-1	2 per machine
Left Side Guide	43058-1	Repair broken cut stick stop

## HYDRAULIC

Oil Replacement Kit	K-43093	
Hydraulic Fluid	S-1991-4 (5 gal)	1 gal. Capacity, 100 weight
Cut Valve	H-200-2	
Clamp Up Seq. Valve	H-203-6	
Knife Seq. Valve	H-203-17	
Clamp Press. Valve	H-203-13	
Pressure Gauge	8P-629-3	clear oil filled
Oil Tank Seal	S-1810-37	"O" ring,
Manifold O'Ring	S-1810-10	3/4" O.D.
Manifold O'Ring	S-1810-15	7/8" O.D.
Hyd Power Unit	H-220-6	120VAC/60Hz
Hyd Power Unit	H-220-5	240VAC/60Hz
Clamp Cylinder	H-211-1	
Knife Cylinder	K-10018-1	200M s/n 11633 and below
Knife Cylinder	H-210-3	200M s/n 11634 and up

## TITAN 200BC weights 800lb

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife Blade	A-10034-1	measures 23 ¾" x 3" x 3/8"; min. 2 5/8"
Cutting Stick	4166	Pkg. of 12 measures ½" x ½" x 20"
Cut Stick Puller	5064	
Jogging Aid	A-12608-2	
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Bolt Wrench	W-164	
Knife Lifter Assembly	43108	
Knife Bolts	H-6918-608	4 required
Knife Bolt Washers	8815	4 required
Line/Cut Light Bulbs	E-967-1	
False Clamp Plate	AA-10061	mounted with wing nuts

### ELECTRICAL/ ELECTRONIC

Cut buttons	E-3073-3	2 per machine, n.o./h.nc
Power switch	E-1140-8	
Knife change switch	E-1140-19	
Display board	EE-3418	
Encoder	E-2467-2	
Tilt shield switch	E-866-9	
Cut Solenoid	E1069-19	
Knife Latch Assembly	41120-4	
Preset Board	EE-1688-1	
Encoder coupling	47053	1" long rubber tubing
Relay Board	E-2897-1	
Safety eyes	EE-3370	repairs only

### MECHANICAL

Knife Latch	41120-4	
Back gauge Nut	8826-1	plastic
Clamp pull down rods	10075-1	2 per machine
Left Side Guide	43058-1	Repair broken cut stick stop
Cut stick stop repair	K-43058-2	Repair broken screw/stop

### HYDRAULIC

Oil Replacement Kit	K-43093	
Hydraulic Fluid	S-1991-4 (5 gal)	1 gal. Capacity, 100 weight
Cut Valve	H-200-2	
Clamp Up Seq. Valve	H-203-6	
Knife Seq. Valve	H-203-17	
Clamp Press. Valve	H-203-13	
Pressure Gauge	8P-629-3	clear oil filled
Oil Tank Seal	S-1810-37	"O" ring,
Manifold O'Ring	S-1810-10	3/4" O.D.
Manifold O'Ring	S-1810-15	7/8" O.D.
Clamp Cylinder	H-211-1	
Knife Cylinder	H-210-3	

# TITAN 200 standard and TC weights 800lb

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife Blade	A-10034-1	measures 23 3/4" x 3" x 3/8"; min. 2 5/8"
Cutting Stick	4166	Pkg. of 12, measures 1/2" x 1/2" x 20"
Cut Stick Puller	5064	
Jogging Aid	A-12608-2	
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Bolt Wrench	W-164	
Knife Lifter Assembly	43108	
Knife Bolts	H-6918-608	4 required
Knife Bolt Washers	8815	4 required
Line/Cut Light Bulbs	E-967-1	
False Clamp Plate	AA-10061	mounted with wing nuts

## ELECTRICAL/ ELECTRONIC

Cut Button Kit	K-2874	s/n 981342 dn., contains 2 buttons
Cut Buttons (Green)	E-3073-6	Non-Mushroom cap style, 3 n.o. contacts
Cut Buttons	E-3127-4	Mushroom cap style, 3 n.o. contacts
Keypad Control Console	43102	
Keyboard Interface board	EE-2764-1	s/n 083331 & dn.
Display Assembly	EE-2758-1	s/n 083331 & dn
Display Assembly	EE-3439	white back ground
Interlock Switches	E-2457-6	2 required + order qty. 6 E-1214-65
Main Board	EE-2807-2	
Preset Board	EE-1688-1	
Encoder	E-2467	
Encoder coupling	47053	1" long rubber tubing
Proximity Switch	E-2204-1	universal, must cut wire to length
Cut Solenoid	E-1069-17	24vac
Knife Latch Assembly	41120-4	
LED Line Light Assembly	EE-3081-1	S/N: 083319 and up
Safety eyes	K-3337	s/n 03245 to 08330, upgrade from tilt shield
	K-3337-1	s/n 08331 & up, upgrade from tilt shield
	EE-3370	s/n 103479 and up and upgraded tilt shields, repairs only

## TC electronics

Display board	EE-3400	board behind LCD panel
Motor control board	EE-3432	
"CAN" cable	EE-3460-1	interface cable between display/motor boards
Hand wheel potentiometer	EE-3213	with soldered cable

## MECHANICAL

Knife Latch	41120-4	
Back gauge Nut	43005-1	sn113559 & up
Back gauge Nut		sn113558 & dn., 43005-1 & 43004-1
Clamp pull down rods	10075-1	2 per machine
Left Side Guide	43058-1	Repair broken cut stick stop
Back gage floating fingers	10065	4 per machine
Back gage squaring kit	30010	
Cut stick stop repair	K-43058-2	Repair broken screw/stop

## HYDRAULIC

Oil Replacement Kit	K-43093	
Hydraulic Fluid	S-1991-4 (5 gal)	1 gal. Capacity, 100 weight
Cut Valve	H-200-2	
Clamp Up Seq. Valve	H-203-6	
Knife Seq. Valve	H-203-17	
Clamp Press. Valve	H-203-33	Electronic controlled
Elect clamp Press. Valve	H-203-13	
Elect clamp Press. Valve Coil	E-1069-19	

Pressure Gauge  
Oil Tank Seal  
Clamp Cylinder  
Knife Cylinder  
Knife Cylinder

8P-629-3  
S-1810-37  
H-211-1  
K-10018-1  
H-210-3

clear oil filled  
"O" ring,  
200 s/n 113512 and below  
200 s/n 113513 and up



## TITAN 230 standard and TC weights 1000lb

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife Blade – HSS (230)	42007-1	measures 26 ¾ "x 3" x 3/8"; <b>min. 2 5/8"</b>
Cutting Stick (230)	42008 (pkg. of 12)	measures ½" x ½" x 23"
Cut Stick Puller	5064	
Jogging Aid	A-12608-2	
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Bolt Wrench	W-164	
Knife Lifter Assembly	42014	
Knife Bolts	H-6918-608	4 required (200, 200M), 5 (230), 6 (265)
Knife Bolt Washers	8815	4 required (200, 200M), 5 (230), 6 (265)
Line/Cut Light Bulbs	E-967-1	
False Clamp Plate	42013	mounted with wing nuts

### ELECTRICAL/ ELECTRONIC 230

Cut Buttons	E-3127-4	
Cut Solenoid	E-1069-17	24vac
Main Board	EE-2807-2	
Preset Board	EE-1688-1	
Encoder	E-2467	
Encoder coupling	47053	1" long rubber tubing
Proximity Switch	E-2204-1	cut wire to length
LED Line Light Assembly	EE-3081-1	
Knife Latch Assembly	41120-4	
Safety eyes	K-3450	s/n 100189 and down, upgrade existing system
	EE-3370	s/n 100190 and up, repairs only

### TC electronics

Display board	EE-3400	board behind LCD panel
Motor control board	EE-3432	
"CAN" cable	EE-3460-1	interface cable between display/motor boards
Hand wheel potentiometer	EE-3213	with soldered cable

### MECHANICAL

Knife Latch	41120-4	
Back gauge Nut	43005-1	sn110233 & up
Back gauge Nut		sn113552 & dn, order 43005-1 & 42019-1
Back gage floating fingers	10065	8 per machine
Clamp pull down rods	10075-1	

### HYDRAULIC

Oil Replacement Kit	K-43093	
Hydraulic Fluid	S-1991-4 (5 gal)	1 gal. Tank, 100 weight
Cut Valve	H-200-2	
Clamp Up Seq. Valve	H-203-6	
Knife Seq. Valve	H-203-17	
Clamp Press. Valve	H-203-33	
Elect clamp Press. Valve	H-203-13	
Elect clamp Press. Valve Coil	E-1069-19	
Pressure Gauge	8P-629-3	clear oil filled
Oil Tank Seal (200,230)	S-1810-37	"O" ring,
Manifold O Ring	S-1810-10	3/4" OD
Manifold O Ring	S-1810-15	7/8" OD
Hydraulic Power Unit	H-220-8	240VAC/60Hz
Clamp Cylinder	H-211-1	
Knife Cylinder	K-10018-1	s/n 110205 and below
Knife Cylinder	H-210-3	s/n 110206 and up

# TITAN 265 standard and TC weights 1680lb

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife Blade	2263-3	measures 30 3/4" x 4" x 3/8"; <b>min. 3 3/8"</b>
Cutting Stick	4165	Pkg. of 12) measures 1/2" x 1/2" x 26 1/2"
Cut Stick Puller	5064	
Jogging Aid	A-12608-4	
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Bolt Wrench	W-164	
Knife Lifter Assembly	44183	
Knife Bolts	H-6918-608	6 required
Knife Bolt Washers	8815	6 required
Line/Cut Light Bulbs	E-967-1	
False Clamp Plate (265)	44027	mounts using 3 set screws

## ELECTRICAL/ ELECTRONIC 265 XD, XG, XT, TC

Encoder	E-2467	
Encoder coupling	47053	1" long rubber tubing
Encoder Cable	EE-2534-1	
Main Board	EE-2807-2	
Preset Board	EE-1688-1	
Proximity Switch	E-2204-1	cut wire to length
Electronic clamp board	EE-2813	s/n 071754 & down
Cut Solenoid	E-1069-17	24vac
Cut Button (Green)	E-3073-6	s/n 051553 & down
Cut Button Kit	K-3386	s/n 051554 – 101888 contains 2 buttons
Cut Button	E-3127-4	s/n 101887 7 & up
Air Valve/Solenoid Kit	K-47645-1	replaces solenoid valve black connector style
Safety eyes	K-3452	s/n 101889 and down
	EE-3370	s/n 101890 and up, repairs only
Single phase motor	K-44131	converts to three phase includes phase converter

## TC electronics

Display board	EE-3400	board behind LCD panel
Motor control board	EE-3432	
"CAN" cable	EE-3460-1	interface cable between display/motor boards
Hand wheel potentiometer	EE-3213	with soldered cable
TC upgrade of XT & XG	K-3493	

## MECHANICAL

Back gage Nut	43005-1	sn111917 & up
Back gage Nut		sn11191 & dn, order 43005-1 & 44003-1
Knife Latch	44010-1	s/n971004 to 98102
Knife Latch	47568-1	s/n981083 & up
Clamp Pull down Rods	44013	
Back gage floating fingers	10065	10 per machine
Left Side Guide	K-44118	Repair broken cut stick stop

## HYDRAULIC

Hydraulic Fluid	S-1991-3 (5 gal)	5 gal. Capacity, 46 weight
Elect clamp pressure valve	H-203-33	
Elect clamp pressure valve coil	E-10696-19	24vdc
Knife down sequence valve	H-203-24	
Pressure Gauge	8P-629-3	clear oil filled
Manifold O Ring	S-1810-10	3/4" O.D.
Manifold O Ring	S-1810-15	7/8" O.D.
Oil Filter	H-227-1	
Gasket-Tank	13947	
Gasket-Motor	13946	
Clamp Cylinder	H-505	
Knife Cylinder	K-44058-1	s/n 971004 to 981082
Knife Cylinder	K-44058-3	s/n 981083 to 111902.
Knife Cylinder	H-506-4	s/n 111903 and up

## 305 CHAMPION “X, XD, XG, XT, TC” weights 2500lb

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in “Customer Support” window.  
The model and serial number are mandatory. It is in a pdf format

Knife	47507	measures 35 ¾ x 4 x 3/8”; min. 3”
Knife – HSS (standard s/n: 09x1514^)	47508	measures 35 ¾ x 4 x 3/8”; min. 3”
Cutting Sticks	4171 (pkg. of 6)	measures 1/2 x 1/2 x 30 1/2”
Cut Stick Puller	5064	
Jogging Aid	A-12608-4	3 5/8” high
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3” x 15”
Knife Lifter Assembly	47575	
Knife Bolts	H-6918-608	6 required
Knife Bolt Washers	8815	6 required
Knife Bolt Wrench	W-164	
X, XD, XG Line Light Bulb	E-967-1	12v automotive, #1156
Cutter Care Kit	16077	non-plated table finishing kit
- Table Wax	16078	2 pound
- Silicone Release	16079	1 quart
- Rust-B-Gone	16080	
Back gage Tape	K-49007	eliminates back gage scraping table, 11 ft of tape

### ELECTRICAL

Line/Cut Light	E-967-1	
Table Light	S-845	15 watt 18” Fluorescent Lamp
Proximity Switch	E-2204-1	rectangle block, cut wire to length
Proximity Switch	E-2204	threaded rod, cut wire to length
Cut Button Kit	K-3374	s/n 10X1549 and below, both buttons
Cut Button	E-3127-4	s/n 10X1550 & up
“X” Encoder	E-2467	
“X” Encoder Cable	EE-2838	97X104 to 06X1277
“X” Encoder Cable	EE-2838-3	06X1278 & up
“X” Preset Board	EE-2427-S	s/n 07x1358 & down
“X” Preset Board	EE-2817-1	s/n 07X1359 & up
“X” Main Board	EE-2807-2	s/n 06X1278 & up
“X” Main Board	EE-2807-2	s/n 06X127 & dn. Call Challenge Tech Support
XD, XG, XT Encoder	E-2468	
TC Encoder S/N 171197 and up	E-2468-3	
XD, XG, XT Encoder Cable	EE-3030-1	
XD, XG, XT Preset Board	EE-2817-1	
XD, XG, XT Main Board	EE-2807-2	No EPROM
XD, XG Electronic Clamp Board	EE-2813	s/n 07X1360 & Down
XT Console Repair/Upgrade		Call Challenge Tech Support
Air Valve/Solenoid Kit	K-47645-1	replaces solenoid valve black connector style
Auxiliary Starter Contact	E-2376-1	K-2892 upgrade
Safety eyes	K-3451	s/n 02X299 to 11X1558, upgrade original Banner
	EE-3370	s/n 11X1559 and up, repairs only

### TC electronics

Display board	EE-3400	board behind LCD panel
Motor control board	EE-3432	
“CAN” cable	EE-3460	interface cable between display/motor boards
Hand wheel potentiometer	EE-3213	with soldered cable
Preset proximity	E-2204-6	must be cut to length
TC upgrade of XT & XG	K-3484	s/n 02X999 to 13X1664
TC upgrade of XT & XG	K-3484-1	s/n 97X104 to 02X998

### Motor phase conversion (208/230) - must replace motor /starter /overload

3 Phase Motor	E-1600-181	
3 Phase Starter	E-2805	
3 Phase Overload	E-2441-11	
1 to 3 Phase converter	K-3482	converts to three phase includes phase converter

## HYDRAULIC

Knife Cylinder	H-342-2	
Clamp Cylinder	H-431-2	
Elec. Clamp Reducer Valve	H-203-33	
4-Way Valve	H-423-1	s/n: 02X986 & down
AC to DC Conversion Kit	K-3000	Converts from ac to dc valves
4-Way Valve	H-557	s/n: 02X987 & up, <b>or</b> K-3000 Kit
Hydraulic Fluid	S-1991-3 (5 gal)	13.5 gallon tank, 46 weight
Oil Filter	H-227-1	
Filter Head	H-226-1	
Pressure Gauge	8P-629-3	clear oil filled
Hydraulic Pump	H-387	50HZ use H-387-1
O-Ring Top Manifold	S-1810-8	
Hydraulic. O Ring Kit	H-504-SK	Includes O-rings, Backup Rings, and SAE Plugs.
Lower knife cylinder connector	H-434	Knife cylinder to pilot check valve

## MECHANICAL

Back gauge Tape Kit	K-49007	apply to bottom of back gage
Back gauge Nut	47028	XD, XG, XT
Back gauge Nut	47029	X, manual back gage
Back gage floating fingers	10065	10 per machine, metal
Back gage floating fingers	60204	10 per machine, plastic
Knife Latch	47568-1	
Pin Locks	S-1244	round eyelet
	8835	square, pin keeper
	4449	
Knife Adj. Screw		
Air Jet	P-207-1	07X1300 & down
Air Jet	P-207-2	07X1301 & up
Clamp Cylinder Top Pin	47063	add 2 H-6451-050
Clamp Return Spring (14" long)	47136-2	
Clamp Return Spring (3" long)	47136-1	located under front cabinet
Clamp pull down cable	47549-2	0X1039 & up
Clamp pull down cable	K-47549-2	0X1038 & down
Left Side Guide	47661	Repair broken cut stick stop
Upper pin for clamp return spring	47090	Has plastic boss, order one H-6451-0500

## 420 PB, LED, CRT (420- 5700lb)

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife (420)	10-142-1	measures 49 1/2 x 5 x 7/16"; min. 3 1/2"
Cutting Stick	4174	Pkg. of 6, measures 1/2 x 1/2 x 42"
Cut Stick Puller	5064	
Jogging Aid	A-12608-8	5 5/8" high
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Bolt Wrench	W-164	
Knife Lifters	S-1245-5	2 per cutter
Knife Bolts	H-6918-608	
Knife Washers	8815	
Knife Adj. Screw	S-68-5	req 4
Cutter Care Kit	16077	table finishing kit
- Table Wax	16078	2 pound
- Silicone Release	16079	
- Rust-B-Gone	16080	
Back gage Tape	K-49007	eliminates back gage scrapping table, 11 ft of tape

### ELECTRICAL/ ELECTRONIC

Cut Button Micro Switch	E-866-4	
Proximity Switch	EE-2204	threaded mount, cut to length
Line Light	E-933-3	
Power Panel Board	EE-2240	
Preset PCB	E-1574-5S	
Encoder	E-1527-6	
Encoder Cable	EE-2242	for E-1527-6 encoder
Key Board	EE-2157-3	PB, LED
Console PCB	EE-2540	PB, LED
Relay PCB	EE-2251	Not available anymore. See Service Dept. for repairs.
LC & RC Relay	E-2112-1	located on EE-2251
LP Relay	E-2112-2	located on EE-2251
CR Relay	E-2112-3	located on EE-2251

### CRT

Console PCB	EE-2248	CRT
Monitor	NLA	
Tri-Volt Power Supply	EE-2523	CRT
Key Board	EE-2253-2	CRT
Soft Keyboard	EE-2254-2	CRT, under the monitor
Starter and Heaters		Call Challenge Tech support
Back gauge Nut	8083-2	
Paper Defector Spring	A-8398	
Pin Locks	S-1244	eyelet
	8835	square

### HYDRAULIC/ OILING SYSTEM

Oil Filter	H-227	
Hydraulic Fluid	S-1991-4 (5 gal)	15 gal capacity, 100 weight
Bijur Pump Oil	6629	1 qt
Compression Fitting	0S2-B-2759	
Nylon Tubing	0S11-5N25	length in feet
Flexible Hose	0S5-B-4588	5/32 x 12" assembly, covered with rubber tubing.
Compression Sleeve (5/32)	0S10-B-8272	
Compression Nut (5/32)	0S8-B-1095	
Clamp Cylinder	A-8427-4	
Bijour Lubricator Pump	0S1-D-3204	

# 370 CHAMPION XG, XT, TC weights 3700lb

**CONSUMABLES** Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife	49055	measures 43 1/4" x 4 1/2" x 3/8"; min. 3"
Cutting Sticks	4173	Pkg. of 6, measures 1/2 x 1/2 x 37"
Cut Stick Puller	5064	
Jogging Aid	A-12608-6	4 5/8" high
Book Guides	5-7-M361	each, 2 required
Magnetic clamping pad	50082	2 each 3" x 15"
Knife Lifter Assembly	49226	
Knife Bolts	H-6919-608	9 required
Knife Bolt Washers	8815	9 required
Knife Bolt Wrench	W-164	
Cutter Care Kit	16077	non-plated table finishing kit
- Table Wax	16078	2 pound
- Silicone Release	16079	
- Rust-B-Gone	16080	
Back gage Tape	K-49007	eliminates scrapping on table, 11 ft of tape

## ELECTRICAL

Proximity Switch	E-2204-1	rectangle block, cut wire to length
Proximity Switch	E-2204	threaded rod, cut wire to length
Encoder	E-2468	
Encoder Cable	EE-3030	
Preset Board	EE-2817	
Main Board	EE-2807-2	No EPROM
XD, XG Electronic Clamp Board	EE-2813	s/n 07273 & Down
Line Light Bulb	E-967-1	
Cut Buttons	K-3374	s/n 10314 & down
Cut Buttons	E-3127-4	s/n 10315 & up
3 Phase Starter	E-2805-1	
3 Phase Overload	E-2441-12	
Auxiliary Starter Contact	E-2376-1	
Auxiliary Starter Contact up grade	K-2892	
XT Flash Card & XT Upgrade Kit		Call Challenge Tech Support
Safety eyes	K-3451	s/n 03230 to 11315, upgrade original Banner
	EE-3370	s/n 11316 and up, repairs only

## TC electronics

Display board	EE-3400	board behind LCD panel
Motor control board	EE-3432	
"CAN" cable	EE-3460	interface cable between display/motor boards
Hand wheel potentiometer	EE-3213	with soldered cable
Preset proximity	E-2204-6	must be cut to length
TC upgrade of XT & XG	K-3491	s/n 03230 & up
TC upgrade of XT & XG	K-3491-1	s/n 98101 to 03229

## HYDRAULIC

Clamp Cylinder	H-499	
Knife Cylinder	H-500-1	
Clamp Cylinder Damper	49109	
Clamp Counter Balance Kit	K-49215	
Knife Flow Kit	K-49194	
Hydraulic Fluid	S-1991-3 (5 gal)	15 gallons, 46 weight
Oil Filter	H-227-1	
Pressure Gauge	8P-629-3	Clear oil filled
Damper Assembly	49109	

## MECHANICAL

Back gage Nut	49041	
Back gage floating fingers	10065	12 per machine, metal
Back gage floating fingers	60204	12 per machine, plastic
Knife Latch	49228-1	
Pin Locks	S-1244	eyelet
	8835	square
Chain Cable Carrier	49200	Approx. 44 7/8" in length.
Knife Adj. Screw	49145	

Air Jet  
Air Jet

P-207-1  
P-207-1

07265 & down  
07266 & up

# DAEHO

## CONSUMABLES

Call Challenge Tech Support

### Manuals

#### Knives

34" / 860mm	DA-10000-860, 43 5/16" x 5 1/2"
40" / 1016mm	DA-10000-1016, 51 3/16" x 5 1/2"
45" / 1160mm	DA-10000-1160, 56 5/8" x 5 1/2", s/n 32361 & down
45" / 1160mm	DA-10000-1-1160, 54 3/4" x 6 5/16", s/n 32362 & up
52" / 1320mm	DA-10000-1320, 63 7/8" x 5 1/2"
54" / 1370mm	DA-10000-1370, 63 3/16" x 6 5/16"
61" / 1550mm	DA-10000-1550, 70 7/8" x 6 5/16", s/n 52359 & down
61" / 1550mm	DA-10000-1550, 74" x 6 5/16", s/n 52360 & up

#### Cut sticks

34" / 860mm	DA-10001-860
40" / 1016mm	DA-10001-1016
45" / 1160mm	DA-10001-1160
52" / 1320mm	DA-10001-1320
54" / 1370mm	DA-10001-1370
61" / 1550mm	DA-10001-1550

#### Jogging Aid

#### Jogging Aid

#### Magnetic pads

#### Book Guides

#### 30mm Knife Spacer Pin

#### 20mm Knife Spacer Pin

#### Waste Wagon

#### Hydraulic Fluid

#### Line light halogen bulbs

#### Fluorescent table light bulb

A-12608-8	40" / 1016mm & less
A-12608-20	45" / 1160mm & more
50082	pkg. of 2, 3" x 15"
5-7-M361	
DA-1200605	only used on 1160 with polar style knife
DA-1200400	used on 860, 1016, 1160, 1320, 1550
41058	
S-1991-3 (5 gal)	46 weight
DA-6100036	2 per machine, 12v @ 30w
DA-6100121	



## **CMT-130** weights 1500 lbs.

### **CONSUMABLES**

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Knife – High Speed Steel	59051	use 59051-2
Knife – Tungsten Carbide	59051-1	optional
Knife – DMD 5X	59051-2	standard
Knife dimensions	17.5" x 2.75"	minimum height 2.50"
Knife Bolt	H-6910-606	7 per knife
Knife Bolt Wrench	W-180	
Cut Stick	59050	
Cut Stick Puller	5064	
Knife Lifter	59070	
Reflective Tape – 1" wide	56180	Sold by the foot
Lamp	E-967-1	3 per machine
Jogger Plate UHMW Tape	56523-1000	2
Grease (black)	SU-30-103	bearing tubes only
Grease (red)	SU-30-104	
Clamp Pad	59032	
Gripper Pad	59153-1	
Waste Bin	41058	

### **ELECTRICAL**

Main PCB	EE-2939-2	No EPROM
Display	EE-3439	White background
Encoder – Registration/Gripper	E-2467-1	
Fan	E-2483	

### **PNEUMATICS**

Air Filter	56041	included in K-56040
¼" O.D. Nylon Tubing	P-303	order per/ft solid white or transparent blue
¼" O.D. Flex Tubing)	P-303-1	order per/ft transparent yellow/ blue
3/8" O.D. Nylon Tubing	P-303-2	order per/ft solid white or transparent blue
3/8" O.D. Flex Tubing	P-303-4	order per/ft transparent yellow/ blue

### **HYDRAULIC**

Oil Change Kit	K-56040	contains next three items and disposal canisters
Hydraulic Fluid	S-1993-3	included in K-56040, 46 weight
Hydraulic Filter	H-227-1	included in K-56040

### **MECHANICAL**

Timing Belt – Gripper (white)	59036	78 ½" long order per/ft qty. 7 (84")
Knife Bar Shim – 0.020"	59198	
Knife Bar Shim – 0.005"	59199	

## **CMT-330** weights 2540 lbs.

### **CONSUMABLES**

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Reflective tape – 1" wide	56180	Sold by the foot
Lamp	E-967-1	6 per machine
Table Tape	56527-4700	2
Jog Tape	56523-1000	2
Grease (black)	SU-30-103	bearing tubes only
Grease (red)	SU-30-104	
Face Clamp Pad	56228	
Left Clamp Pad	56181	
Right Clamp Pad	56181-1	
Center Pad	56178	
Knives	56246	3 in a set, standard
Knives (tungsten carbide)	56246-1	3 in a set
Knives (super high speed)	56246-2	3 in a set
Knife dimensions	14.5" x 2.75"	minimum height 2.60"
Knife Bolt	H-6910-605	6 per knife
Knife Bolt Wrench	W-180	
Cut Stick	56303	
Cut Plate (A series)	56304	2 per machine
Cut Plate (B & C series)	56305	2 per machine
Cut Stick Puller	5064	
Knife Lifter	56028	56026 handle only
Waste Bin	56143	3 per machine
<b>PNEUMATICS</b>		
Air Filter	56041	included in K-56040
¼" OD Nylon Tubing	P-303	order per/ft solid white or transparent blue
¼" OD Flex Tubing)	P-303-1	order per/ft transparent yellow/ blue
3/8" OD Nylon Tubing	P-303-2	order per/ft solid white or transparent blue
3/8" OD Flex Tubing	P-303-4	order per/ft transparent yellow/ blue
<b>ELECTRICAL</b>		
Main PCB	EE-2939-2	No EPROM
?#Display Assembly	EE-2758-1	green back ground display
Display Assembly	EE-3439	white background display
Encoder	E-2467-1	
Fan	E-2483	
<b>HYDRAULIC</b>		
Oil Change Kit	K-56040	contains next three items and disposal canisters
Hydraulic Fluid	S-1993-3	included in K-56040, 46 weight
Hydraulic Filter	H-227-1	included in K-56040
<b>MECHANICAL</b>		
Knife Bar Shim – 0.005"	56199	

## SCM/MSCM weight 265 lb.

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

	Knife	Die	
1/8"	6721-2	6722-2	radius like a credit card
1/4"	6721-4	6722-4	radius like a dime
3/8"	6721-6	6722-6	radius like a quarter
1/2"	6721-8	6722-8	radius like a half dollar
5/8"	6721-10	6722-10	radius like a silver dollar
Straight Diagonal (45degree)	6761	6762	
Knife/Die Wrench		W-164-2	5/16 hex wrench
Challenge sharpening service	Must order through Challenge dealer. Must be inspected by Challenge. Knives must over 3 5/8" long, Dies must not be cracked		

### ELECTRICAL

Bulb – 25 watt	E-1278	qty 2 per machine s/n: 2166 and down
Bulb – 75 watt Clear	E-933-2	qty 1 per machine s/n: 2159A, 2160A, 2167A and up

### MECHANICAL

Knife Change Block	8315	wood block
Pressure Foot Spring – outer	83020	Added to inner spring for more pressure.
Pressure Foot Spring – inner	6727	
Foot – Pressure	6724-1	diameter = 7/8"
Foot – Pressure	6724-2	diameter = 1 1/4"

### HYDRAULIC

S/n 2167 and up & 2159, 2160		
Down valve	H-200-5	
Down valve coil	E-1069-13	
Hydraulic Fluid	S-1991-3 (5 gal)	1 1/2 qt. capacity
Table sensor	EE-3295-2	

## HANDY-DRILL weight 70lb.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Customer Support" window.

Drill Drift	4681	remove drill bit from spindle
Lube Stick	4688	for lubricating drill bits
1/8 Hex Wrench	W-190	
9/16 x 1/2 Wrench	W-170	
3/16 Hex Wrench	W-130	
3/32 Hex Wrench-Short	W-192	
Wood Drill Blocks	A-4682	pkg. of 12, 1 1/2" diameter
<b>ELECTRICAL</b>		
Main Power Switch	E-1140-11	rocker switch
Fuse Holder	E-530-13	
Fuse – 3A Slow Blow	E-889-4	
Micro Switch	E-866-4	used for RH & LH chip cup and up limit switch
Spindle Motor	64050	
Power Cord – 115VAC	EE-3159	
<b>MECHANICAL</b>		
Spindle	64052	Order qty. 2 of H-6940-404 1/4-20 x 1/4 flat soc set screw
Pressure Foot	64017	
Spring – Pressure Foot	64018	2 per machine
E-Ring	S-1193-37	2 per machine, hold pressure foot in place
Return Spring	6385	13/16" x 6"

**JO** weights 54LB

## CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

1 ½" Wood Block	A-4682	12 ea. per pkg., 3/4" thick
1 ½" Fiber Block	KK-474	12 ea. per pkg, for cornering
Drift Hole Cover	K-85	
Side Guide Stop	S-1611-1R	includes H-6938-102404 screw
Drill Drift	4687	remove drill bit from spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	

## ELECTRICAL

Motor with toggle switch	E-1600-187	s/n 985056 & up
Motor with toggle switch	E-1600-15	s/n 98055 & dn, add 46009-1
Light Bulb	E-933-2	

## MECHANICAL

Safety Shield	A-6897	
Return Spring	6385	¾" X 6"
Cross Shaft Assembly	46012	s/n 74046 up
Taper Pin	H-6633-414	#4 x 1 3/4" pins cast arm to cross shaft
Handle	14023-1	s/n 68584 up

## **JF** weights 160LB

### **CONSUMABLES**

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Wood Drilling Block	A-4682	pkg. of 12, 1 1/2" diameter
Fiber Cornering Block	KK-474	pkg. of 12, 1 1/2" diameter
Drift Hole Cover	K-85	
Drill Drift	4687	remove drill bit from spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	

### **ELECTRICAL**

Light Bulb	E-933-4
Light Bulb	E-933-2
Spindle Motor	E-1600-21

### **MECHANICAL**

Side Guide Stop	S-1611-1R	w/ screw
Pressure Foot only	A-4626	requires 2, S-1518-37
Side Guide Face	A-4791	
Safety Shield	A-6891	plastic guard front of bit

### **OPTIONS**

<u>Heavy Duty Rd. Cornering</u>	A-4980	Cornermatic
1/8" Radius Knife	4981-2	radius like a credit card
1/4" Radius Knife	4981-4	radius like a dime
3/8" Radius Knife	4981-6	radius like a quarter
7/16" Radius Knife	4981-7	radius between a quarter and half dollar
1/2" Radius Knife	4981-8	radius like a half dollar
Diagonal Knife	4982	

## **EH-3C** weights 520 lbs.

### **CONSUMABLES**

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Drill Blocks	KK-473-3	3" diameter
Spindle Belt	S-1661-1	flat belt
Drift Hole Cover	K-85	
Drill Drift	4687	removes drill bits from spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	pkg/12
Waste Bin	5739	

### **ELECTRICAL**

Lamp	E-933-4	
Start Button	E-3073	N.O. (Green)
Stop Button	E-3073-5	N.C. (Red)
Two hand control		Call Challenge Tech support
Starter and Heaters	K-3494	S/n 082278 & dn

### **MECHANICAL**

Safety Shield	48004	
Pressure Foot Assembly	A-4626-7	
Spindle	K-16-4	
Spindle Bearing	S-706	2 required per spindle
Front Drill Scale	5859	
Index Stop	R-4654	
Two hand control		Call Challenge Tech support
Side head adjuster		5710 knob, 5711 screw, H-6424-8 nut
Left side head block for adjuster	5716-2	
Right side head block for adjuster	5716-2	
Rubber Insert (only)	5087	s/n 66781 & down
Drill head return springs	K-250-8	2 per machine
Table	5734	

### **HYDRAULIC**

Hydraulic Fluid	S-1991-4 (5 gal)	1 gal capacity
Down valve	H-200-5	
Down coil	E-1069-17	

## **EH-3D** weights 520 lbs.

### **CONSUMABLES**

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Drill Blocks	KK-473-3	3" diameter
Spindle Belt	S-1661-1	flat belt
Drill Drift	4687	
Drift Hole Cover	K-85	
Drill Drift	4687	removes drills from the spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	pkg/12
Waste Bin	5739	

### **ELECTRICAL**

On/Off Switch	E-3255	s/n 085279 to 105487
Start Button N.O. (Green)	E-3073	s/n: 105488 & up
Stop Button N.C. (Red)	E-3073-5	s/n: 105488 & up
Two hand control		Call Challenge Tech support

### **MECHANICAL**

Safety Shield	48004	
Pressure Foot Assembly	A-4626-7	
Spindle	K-16-4	
Spindle Bearing	S-706	2 required per spindle
Front Drill Scale	5859	
Index Stop	R-4654	
Side head adjuster		5710 knob, 5711 screw, H-6424-8 nut
Left side head block for adjuster	5716-2	
Right side head block for adjuster	5716-2	
Rubber Insert (only)	5087	s/n 66781 & down
Drill head return springs	K-250-8	2 per machine
Table	5734	

### **HYDRAULIC**

Hydraulic Fluid	S-1991-4 (5 gal)	1 gal capacity
Down valve	H-200-5	
Down coil	E-1069-17	

## **MS-5** weights 830 lbs.

### **CONSUMABLES**

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Drill Blocks	A-6626-24	24 per pkg
Drill Head Belt	45160	flat belt s/n 75237 & up - 63 ¼"
Drill Head Belt	45034	flat belt s/n 75236 & dn - 65"
Drill Drift Hole Cover	K-85	
Drill Drift	4687	removes drills from the spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	pkg/12

### **ELECTRICAL**

Start Button N.O. (Green)	E-3073	
Stop Button N.C. (Red)	E-3073-5	
Down Coil	E-1069-13	s/n 965599 dn., 120vac
Down Coil	E-1069-17	s/n 965600 up, 24vac
Two hand control		Call Challenge Tech support

### **MECHANICAL**

Drill Head	45152	standard, 1 7/8" on center and head width
Drill Head	45200	narrow, 1 3/8" on center and head width
Drive Belt	45160	s/n 75237 and up, 63 1/4" x 1 1/2"
Drive Belt	45034	s/n 75236 and dn., 65" x 1 1/2"
Height Adjuster Chain	45135	22.5" s/n 75236 dn.
Height Adjuster Chain	45135-1	24.9" s/n 75237 up
Adjuster Sprocket	45139	s/n 75236 dn. 1 1/2" dia
Adjuster Sprocket	45139-1	s/n 75237 up 3 1/2" dia or if updated w/45164
Cylinder sprocket	45138	installs with 2 screws
Drill head adjuster (std or narrow)	45157	adjust each drill head height
Drill head grease	6614	early heads

### **HYDRAULIC**

Hydraulic Fluid	S-1991-4 (5 gal)	1 1/2 qt. capacity
Down Valve	H-200-5	
Hyd. Unit (230/1ph/50hz/60hz)	H-450-3	s/n: 73614 – 965590
Hyd. Unit (230/3ph/50hz/60hz)	H-405-2	s/n: 73614 – 965590, order coil E-1069-13
Hyd. Unit (230/1ph/50hz/60hz)	H-372-5	s/n: 965600 & up
Hyd. Unit (230/3ph/50hz/60hz)	H-405-2	s/n: 965600 & up



## MS-10A weights 1350LB

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Drill Blocks	A-6626-24	24 per pkg 1 1/4x 6x 3/8"
Cornering Blocks	6669 each	
Drill Heads	A-6594-6	
Drift Hole Cover	K-85	
Table Light	S-845	
Light Ballast	S-1429	
Drill Drift	4687	removes drills from the spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	pkg /12
Gib Lube	6629	pint, ISO VG 220

### ELECTRICAL

Push Button	E-1045-6	red/stop
Push Button	E-1045-5	white/light
Push Button	E-1045-4	green/start

### MECHANICAL

Return Spring	6513-2	2 per machine
Latch Spring	16523	replaces K-300-4
Belt	S-1716	
Taper Pin #5 x 1 1/4"	H-6633-510	

### MS-10A Standard Drill Head parts below

Shim	A-6600-4	
Spindle Gear	S-1721	
Helical Gear	S-1722	
Spindle	6596-3	
Upper Bushing	S-1720	
Lower Bushing	S-1719	
Thrust Bearing	S-1723	
Plunger	6609	Teflon
Drill Head Grease	6614	

Large Hole and Triple Drill Heads parts call Challenge Tech Support

### HYDRAULIC

Tank Drain Fitting	6768	
Motor Coupling insert	5087	
Motor Coupling	5009	insert, two end pieces
Cylinder	H-340	add H-237-7, 2 ea H-233
Oil	S-1991-4 (5 gal)	1-1/2 qt. capacity

### OPTIONS

Cornermatic Cornering Attachment	AA-4980-3	1"/25.4 mm capacity <b>Note:</b> Knife must be purchased separately.
Cornermatic Knives		
1/8"/3.2mm	#4981-2	radius like a credit card
1/4"/6.3mm	#4981-4	radius like a dime
3/8"/9.5mm	#4981-6	radius like a quarter
7/16"/11 mm	#4981-7	radius between a quarter and half dollar
1/2"/13 mm	#4981-8	radius like a half dollar
Straight Diagonal	#4982	

## MS-10B weights 1350LB

### CONSUMABLES

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Drill Blocks	A-6626-24	pkg. of 24, 1 1/4x 6x 3/8"
Cornering Blocks	6669 each	
Drill Heads	A-6594-6	
Drift Hole Cover	K-85	
Table Light	S-845	
Light Ballast	S-1429	
Drill Drift	4687	removes drills from the spindle
"T" Drill Drift	A-6588	"T" handle version of 4687
Lube Stick	4688	pkg/12
Gib Lube	6629	pint

### ELECTRICAL

Push Button	E-3129-2	red/stop
Push Button	E-3129-3	black/light
Push Button	E-3129-	green/start
Foot pedal	EE-3246	
Fuse	E-1075-1SB	
Two hand control		Call Challenge Tech support

### MECHANICAL

Belt	S-1716	
Return Spring	6513-2	2 per machine

### HYDRAULIC

Oil	S-1991-4 (5 gal)	1-1/2 qt. Capacity
Down valve	H-200-5	
Down coil	E-1069-17	

### MS-10A Standard Drill Head parts below

Shim	A-6600-4	
Spindle Gear	S-1721	
Helical Gear	S-1722	
Spindle	6596-3	
Upper Bushing	S-1720	
Lower Bushing	S-1719	
Thrust Bearing	S-1723	
Plunger	6609 Teflon	
Drill Head Grease	6614	
Large Hole and Triple Drill Heads parts		call Challenge Tech support

### DRILL SHARPENERS

Hand	A-4950-2	cutting bit 4952, dowel pin H-5246-216, rubber washer 5312
Handy Sharp	57100	cutting bit 6469, Hone 57108, and chip remover 57108
Electric	NLA	cutting bit 6469, hone 6462

## DRILL BITS

### **2" DRILL BIT** 2" working length, (overall 3 3/16", shank 2 1/4")

1/8"	CD-2-3	5/8" working length
5/32"	CD-52	
3/16"	CD-3	
7/32"	CD-72	
1/4"	CD-4	
17/64"	CD-174	
9/32"	CD-92	
5/16"	CD-5	
11/32"	CD-112	
3/8"	CD-6	
13/32"	CD-132	
7/16"	CD-7	
1/2"	CD-8	

### **Teflon coated**

1/4"	TCD-4
5/16"	TCD-5
3/8"	TCD-6
1/2"	TCD-8

### **2 1/2" DRILL BIT** 2 1/2" working length, (overall 3 11/16", shank 2 3/4")

1/4"	CD-4-2-1/2
5/16"	CD-5-2-1/2
3/8"	CD-6-2-1/2
1/2"	CD-8-2-1/2

### **Teflon coated**

1/4"	TCD-4-2-1/2
5/16"	TCD-5-2-1/2
3/8"	TCD-6-2-1/2
1/2"	TCD-8-2-1/2

### **LARGE HOLE DRILLS** MS-10A w/ large hole conversion only

9/16"	KDG-9
5/8"	KDG-10
3/4"	KDG-12
1"	KDG-16
1 1/8"	KDGB-2
1 1/4"	KDGB-4
1 3/8"	KDGB-6
1 1/2"	KDGB-8

## HANDY JOG weights (15LB)

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

On/Off Switch	E-1140-11	
Spring	57012	4 per machine
Coil/Magnet	E-3052	

## COMPANION (MDJ) JOGGER weights 100LBS.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

On/Off switch	E-1045-7	
Coil	K-6850	replaces original 6884
Coil	6884-1	for K-6850

## **COMBINATION (HDJ) "A" JOGGER** weights 160 lbs.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Casters	S-1755	4 per stand
On/Off Switch	E-963	
Table Isolators	S-1759	4 per machine
Foot Pedal Switch	E-866-3	
Drive Belt	S-1766	
On/off switch	E-963	
Power cord	E-715-3	

## **I-JOG** weights 75 lbs.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window. The model and serial number are mandatory. It is in a pdf format

Rocker switches	E-1140-17	power and blower
Jogger motor	E-1600-201	120v
Table isolators	40016-8	4 per machine
Power cord	EE-3191	120v
Foot pedal	EE-3192	
Vacuum motor	66007	
Vac motor board	EE-3179	

## **HANDY-PADDER** weights 41 lbs.,

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Clamp – Pipe	S-1882	2 per machine
Clamp Bar	65010	1 per machine
Rubber Foot	A-11074	4 per machine
Door	65009	1 per machine
Turntable	65002	1 per machine

## **PADDY WAGON** weights 100lbs.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Clamp	S-1882	2 per machine, Orange slides on pipe, complete
Caster – 3"	S-1881	4 per machine
Caster – 5"	S-1881-1	4 per machine
Door	7401	2 per machine
Clamp Bar	7411	
Door Handle	S-1883	

## **HANDY-CART** weights 72 lbs.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Caster – 5"	S-1881-1	4 per cart
7/16 Nut	H-6414-7	4 per cart

## **PAK-RAK II** weights 170 lbs.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

Caster	S-1881	4 per machine
R H Tray	7489	
L H Tray	7490	

## 820/870-MEDALIST weights 275 lbs.

Manuals are available at [Challengemachinery.com](http://Challengemachinery.com). Look in "Support" window.

### **Basic "Combo" Roller Rebuild Kit K-35294**

Combo Rollers	4	35055	Metal / Rubber Segments
Roller Gears	4	35052	spur, helical not available
Gear Keys	4	H-6121-604	wood drift key
Idle Roller Bushings	6	A-10257-5	
Main Roller Bushings	2	35029	
Sucker Wheel Belt	2	35113	
"O" Ring Drive Belt	5	35179-1	
Out feed Tires	4	A-10249	
Tech Notes	1	MFG 016	

### **Basic "Rubber" Roller Rebuild Kit K-35293**

Rubber Rollers	4	35051	
Roller Gears	4	35052	spur, helical not available
Gear Keys	4	H-6121-604	wood drift key
Idle Rollers Bushings	6	A-10257-5	
Main Roller Bushings	2	35029	
Sucker Wheel Belt	2	35113	
"O" Ring Drive Belt	5	35179-1	
Out feed Tires	4	A-10249	
Tech Notes	1	MFG 016	

### **Basic "820" Roller Rebuild Kit K-35298**

Rubber Rollers	4	35051	
Roller Gears	4	35052	spur, helical not available
Gear Keys	4	H-6121-604	wood drift key
Idle Rollers Bushings	6	35283	
Main Roller Bushings	2	35029	
Roller Spring	6	7922	
Sucker Wheel Belt	2	35113	
"O" Ring Drive Belt	5	35179-1	
Out Feed Tires	4	A-10249	
Tech Notes	1	MFG 016	

#### Delivery/Stacker

Folding Chart	1	A-11091	
Drive Gear	1	35223-1	Steel, used to be plastic
Drive Belts	2	36094	Timing Belt
Delivery Belts	2	35138	Short Delivery
Delivery Belts	2	35138-1	Long Delivery

#### Air Feed Table

Paper Backstop	1	AA-11251-1	Magnetic Stop
Bearings	2	35258	see sucker wheel shaft
Sucker Wheel Shaft	1	35257	see bearing 35258
Separator Plate	1	35120	
Side Guide Bottom Plate	1	35097-2	operator side, plus 1 35277-1
Side Guide Bottom Plate	1	35097-3	non-operator side, plus 1 35277-1
Bottom Plate Strip	1	35277-1	1 per side 6 ¾ long

#### Paper Hold Down

#### Order six items below for 1 paper hold down

1	35084	separator clamp
1	35083	paper guide
1	35082	paper guide clamp
1	8278-1	knob
1	H-7321-#10	#10 washer
2	H-6920-103203	button head screw

#### Drive Belts

Motor to Hand Wheel	1	A-11273	150 x 037
Hand Wheel to Main	1	7954-1	210 x 037

#### Electrical

Power On/Off Switch	1	E-1140-11	
Fuse (motor/display)	1	E-889-6	5A slo-blo
Fuse (vac pump)	1	E-889-31	15A slo-blo
Speed On/Off Switch	1	K-2654	replaces red / green switch
Speed Control PCB (120V)	1	E-1651	Current sensing resistor E-2126-3
Motor	1	E-1600-148	120vac only
Motor Brushes	2	E-812-5	Leeson, Mototronics
Motor Brushes	2	E-812-6	Baldor
Motor Brushes	2	E-812-7	Magnetek / Ind. Gen.
Vacuum Pump Filters	2	P-282	
Vac pump switch	1	E-1140-11	
Vac Pump Power Cord	1	E-2343	
Vac Pump Cord Socket	1	E-2332	power panel socket
Power Cord	1	E-2649	
Counter Sensor	1	EE-2661	
Counter Display	1	EE-2291-1	