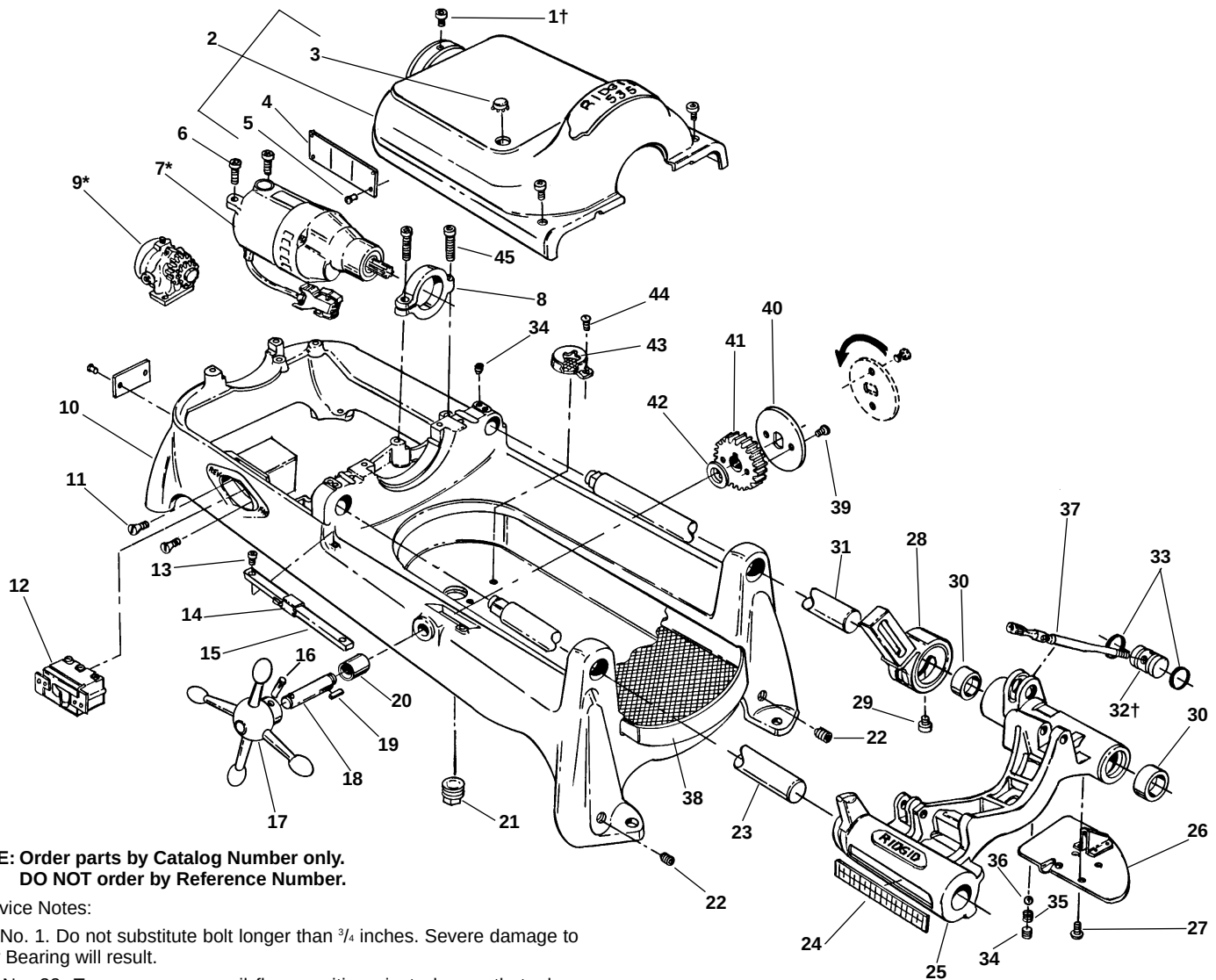


Main Components – Early Style



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

†Service Notes:

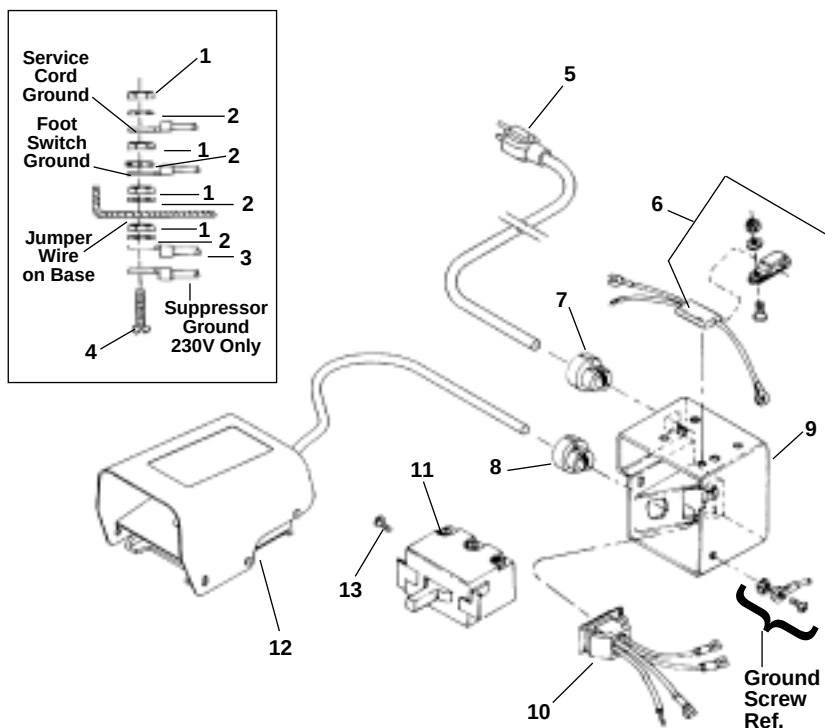
Ref. No. 1. Do not substitute bolt longer than $\frac{3}{4}$ inches. Severe damage to Rear Bearing will result.

Ref. No. 32. To assure proper oil flow, position pivot plug so that when spout is in up position, oil flow hole is visible in carriage slot below spout.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1†	46760	E-900 Screw $\frac{3}{8}$ " - 16 x $\frac{3}{4}$ " (3)	24	46370	E-591 Scale
2	43190	B-947 Cover (Incls. Ref. No. 3, 4, 5)	25	62057	Carriage Assy. (Includes Ref. Nos. 24, 26, 27, 28, 29, 30, 34, 35, 36)
3	89310	E-3082 Plug Button	26	45195	E-2963 Drip Plate
4	88690	E-1238 Warning Plate	27	46270	E-5228 Screw $\frac{1}{4}$ " - 20 x $\frac{1}{2}$ " Pan Head (4)
5	85920	E-10006 Pop Rivet (8)	28	43690	D-224-2 Cutter Arm
6	46745	E-891 Screw $\frac{3}{8}$ " - 16 x $1\frac{1}{4}$ " (2)	29	44930	E-2398 Screw, $\frac{5}{16}$ " x $\frac{9}{32}$ "
7*	88125	Motor Model 1177, 115V	30	46720	E-887 Oil Seal (2)
	88165	Motor Model 2377, 230V	31	45220	E-3027 Support Bar - Rear
8	43795	D-400 Motor Bracket	32†	44340	E-1228 Pivot Plug
9*	47195	Model A Oil Pump	33	44470	E-1373 O-Ring (2)
10	43030	B-268X Base (Incls. Ref. No. 20, 21, 22, 44)	34	46800	E-902 Set Screw $\frac{3}{8}$ " - 16 x $\frac{3}{8}$ " (3)
11	45280	E-3144 Screw #8-32 x $\frac{5}{8}$ " Flat Head (2)	35	46680	E-879 Spring
12	44505	E-1417 Switch	36	46925	E-928 Ball
13	45615	E-4251 Screw #10-32 x $\frac{1}{2}$ " Flat Head (2)	37	44495	E-1409 Oil Spout Assembly
14	47110	F-636 Indicator Slide	38	43355	B-474 Chip Tray
15	47105	F-635 Indicator Bar	39	46785	E-899 Screw #10-32 x $\frac{3}{8}$ "
16	47165	F-744 Pin	40	47120	F-639 Lock Plate
17	46510	E-632 Handwheel	41	45430	E-354 Pinion
18	47115	F-638 Pinion Shaft	42	47145	F-677 Spacer
19	46930	E-929 Key $\frac{3}{16}$ " Square	43	46655	E-856-1-X Filter
20	46540	E-666 Bushing	44	45420	E-3467 Screw #10-24 x $\frac{3}{8}$ "
21	44485	E-1376-1 Drain Plug	45	44220	E-1088 Screw $\frac{3}{8}$ " - 16 x $1\frac{1}{2}$ "
22	42037	Set Screw $\frac{1}{2}$ " - 13 x $\frac{1}{2}$ " (4)			
23	45440	E-356-X Support Bar - Front			

*Refer to Motor Model No./Refer to Model "A" Oil Pump for Component Parts

Electrical Components – Early Style

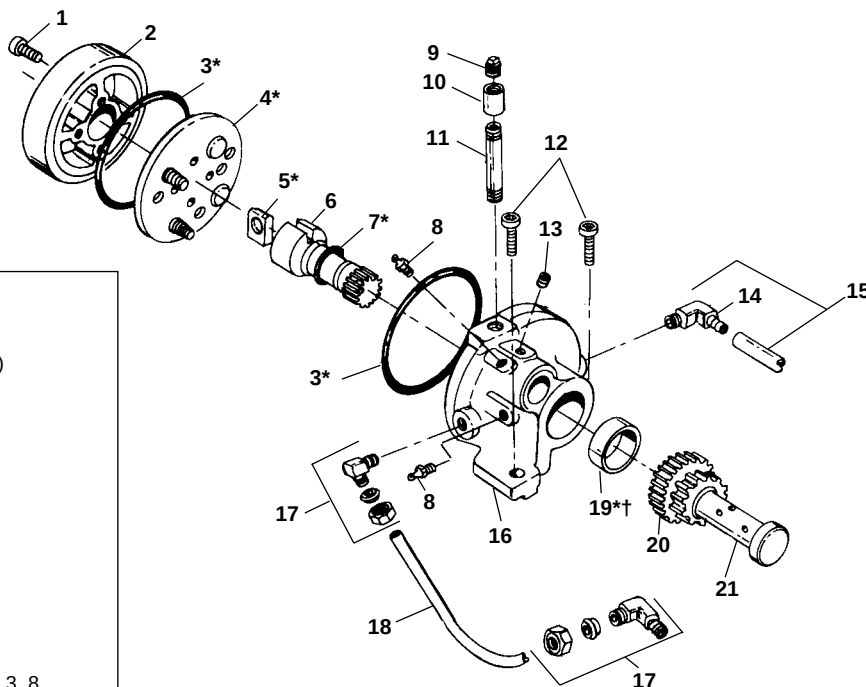


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
1	44695	Hex Nut #10 - 24 (4)
2	46985	Ext. Tooth Washer #10 (4)
3	85925	Jumper Wire
4	92455	Screw #10 -24 x 3/4"
5	46740	Power Cord w/Plug (115V)
	46410	Power Cord w/Plug (230V)
	75045	Power Cord less Plug (230V Europe/S. Africa)
6	46320	Suppressor Kit (230V Europe)
	99170	Suppressor (230V S. Africa)
7	46735	Cord Grommet
	46730	Cord Grommet (230V Europe/S.Africa)
8	46735	Cord Grommet
9	50612	Switch Box
10	50617	Outlet Jumper Assembly
11	44505	Switch
12	36642	B-294 Foot Switch
13	44180	Screw

† Refer to Page 21 for Wiring Diagram.

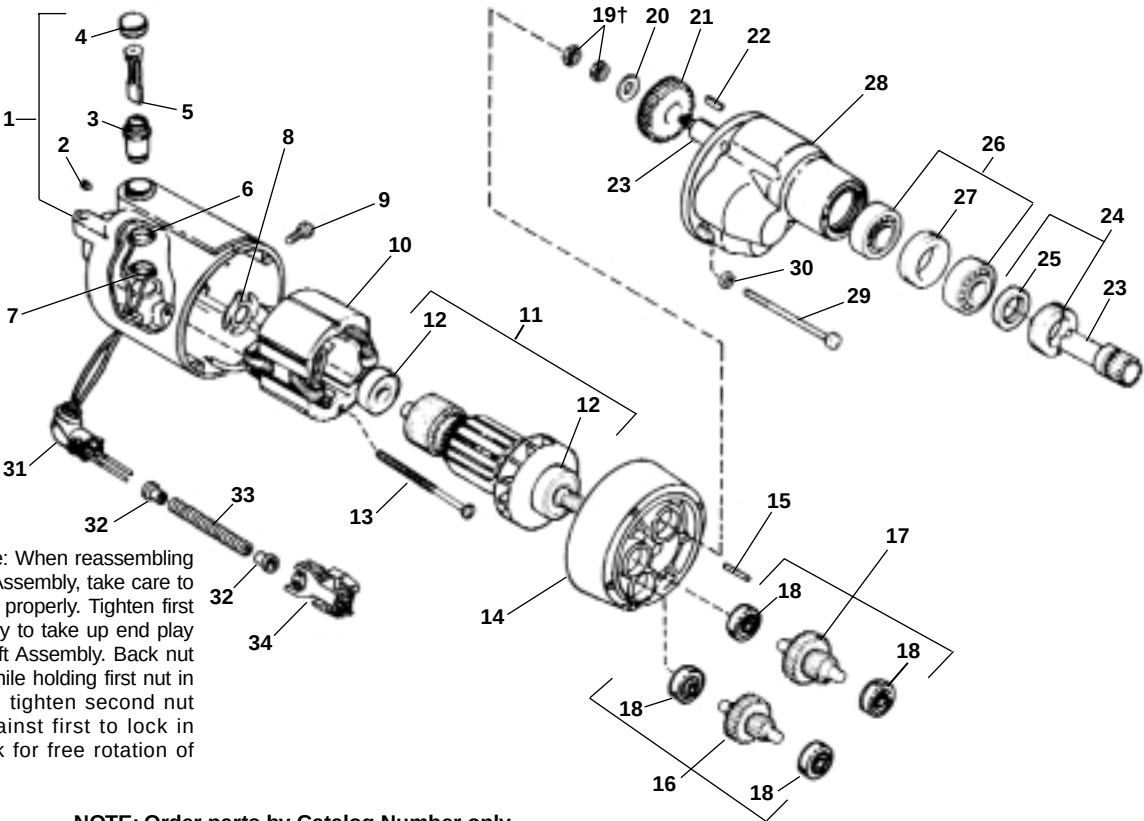
Model "A" Pump



Ref. No.	Catalog No.	Description
—	47195	Pump Complete
1	46770	E-896 Screw #10-32 x 1" SHCS (4)
2	46350	E-557-1 Cover
3*	44650	E-1552 O-Ring (2)
4*	46645	E-850-1X Valve Assembly
5*	47100	F-610 Rotor Blade
6	46355	E-557-2 Pinion Shaft
7*	44645	E-1551 O-Ring
8	46860	E-912 Grease Fitting
9	46815	E-904 Pipe Plug
10	89725	E-1159 Coupling
11	89730	E-3246 Nipple
12	46750	E-892 Screw 3/8"-16 x 1" SHCS (2)
13	44455	E-1370 Set Screw 5/16" x 3/8"
14	87945	E-1325 90° Fitting
15	75065	E-1326X Intake Line
16	43470	C-445-1X Pump Body (Incls. Ref. Nos. 3, 8, 16, 19, Roller Bearing)
17	46840	E-907-1 90° Fitting (2)
18	44105	D-864 Feed Line
19*†	46715	E-886-1 Oil Seal
20	44350	E-1266 Idler Gear
21	44345	E-1265-1 Gear Shaft
—	91055	E-10484 Repair Kit (Includes items marked with *)

†Service Note: When replacing Oil Seal, open side should face towards outside of Pump Body. Use care in installing Seal so that lip is not damaged.

Motors



†Service Note: When reassembling Drive Pinion Assembly, take care to set Jam Nuts properly. Tighten first nut moderately to take up end play in Pinion Shaft Assembly. Back nut off 1/2 turn. While holding first nut in this position, tighten second nut securely against first to lock in place. Check for free rotation of Drive Pinion.

NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	43160	B-822-1X Housing	18	45060	E-2630 Gear Bearing (4)
2	39770	E-3145 Set Screw 1/4" - 20 x 1/4" (2)	19†	40350	E-1721 Lock Nut 3/8" - 24 (2)
3	45025	E-2606 Brush Holder Set	20	45035	E-2610 Washer
4	44545	E-1493-1 Brush Cap Set	21	See Chart	Main Drive Gear
5	44540	E-1491-X Brush Set	22	45015	E-2604 Key 5/32" Sq.
6	87865	E-10144 White Upper Lead	23	44960	E-2596 Drive Pinion
7	87870	E-10145 Red Lower Lead	24	45010	E-2603X Lock Nut w/Seal
8	44580	E-1501 Loading Spring	25	45085	E-2753 Seal
9	83500	E-1749 Screw 1/4" - 20 x 3/4"	26	45040	E-2616-X Bearing Set w/Spacer
10	44015	D-733 Field - 115V	27	45045	E-2618 Spacer
	44035	D-740 Field - 230V	28	43170	B-824 Housing
11	44010	D-696-X Armature - 115V	29	45075	E-2748 Screw 1/4" - 20 x 3"
	44030	D-739-X Armature - 230V	30	45150	E-2887 Lock Washer (4)
12	44565	E-1497 Armature Bearing (2)	31	46900	E-923 Connector 90°
13	44555	E-1495 Mounting Screw (2)		46905	E-923-1 Connector 45°
14	43165	B-823-1X Fan Housing Assembly	32	46890	E-918 Insulator (2)
15	45165	E-2893 Dowel Pin	33	47412	Flexible Conduit
16	See Chart	1st Gear Assembly	34	50552	Plug
17	See Chart	2nd Gear Assembly			

1157

1177

2357

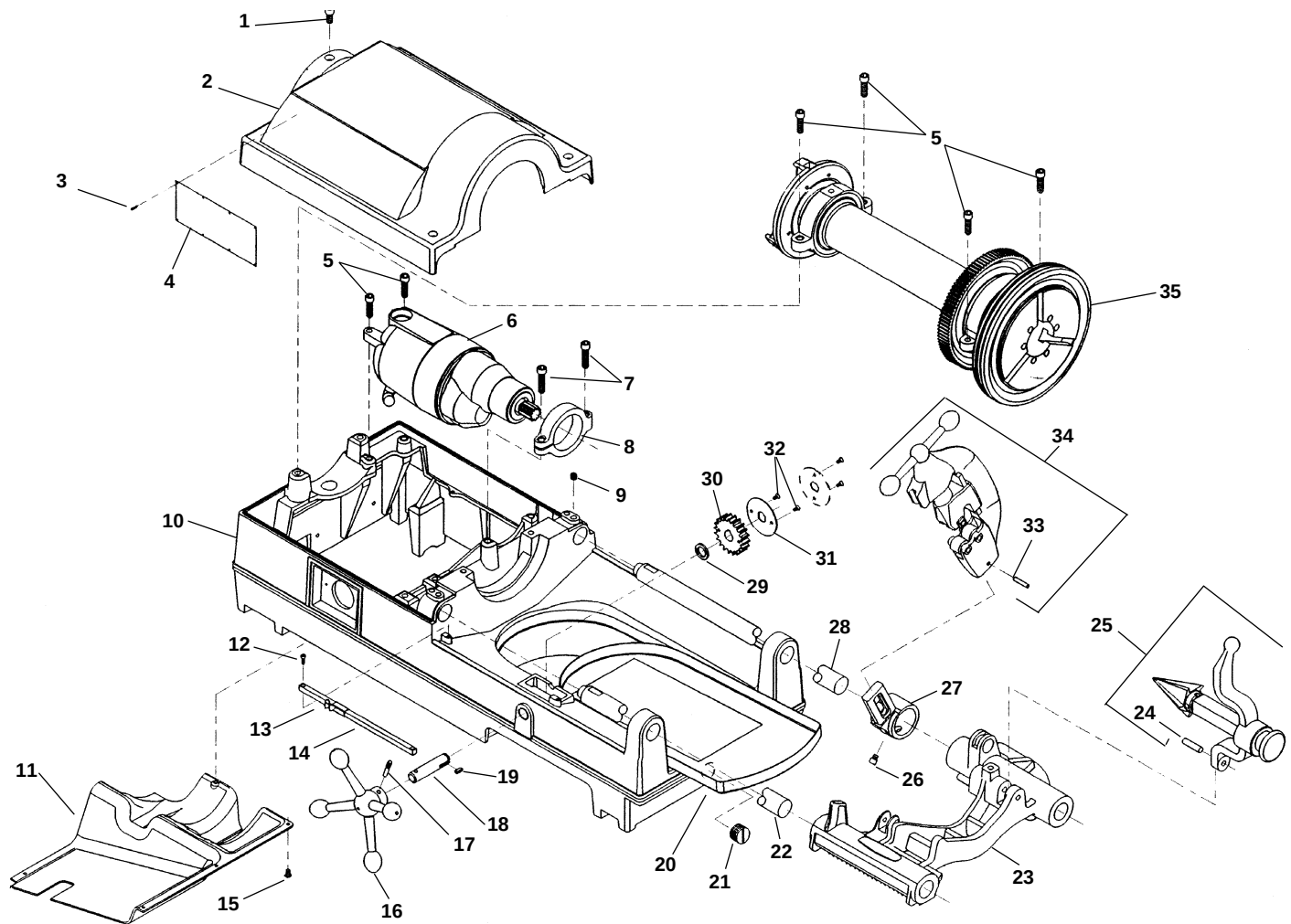
2377

SPEED CHANGE GEAR CHART MACHINE MODEL NO. 400A - 535 - 802

Motor No.	Model No.	Volts	Spindle Speed	Ref. #11	Ref. No. 16 - 1st Intermediate Gear Assembly	Ref. No. 17 - 2nd Intermediate Gear Assembly	Ref. No. 21 Drive Gear
88125 88165	1177 2377	115V 230V	36 STD.	Armature Pinion - 14 T.	PART NO. 44985 (E-2600-X) 51 T. GEAR 12 T. PINION	PART NO. 45005 (E-2601-X) 42 T. GEAR 13 T. PINION	PART NO. 44965 (E-2597) 48 T.
88135 88175	1177A 2377A	115V 230V	54 STD. ON 802		PART NO. 44985 (E-2600-X) 51 T. GEAR 12 T. PINION	PART NO. 44990 (E-2601-AX) 42 T. GEAR 18 T. PINION	PART NO. 44865 (E-1926) 43 T.
88145	1177B	115V	72		PART NO. 44975 (E-2600-BX) 51 T. GEAR 15 T. PINION	PART NO. 44995 (E-2601-BX) 39 T. GEAR 18 T. PINION	PART NO. 44865 (E-1926) 43 T.
88155 88195	1177C 2377C	115V 230V	102		PART NO. 44980 (E-2600-CX) 51 T. GEAR 19 T. PINION	PART NO. 45000 (E-2601-CX) 35 T. GEAR 18 T. PINION	PART NO. 44865 (E-1926) 43 T.

*Supplied with Motor Complete

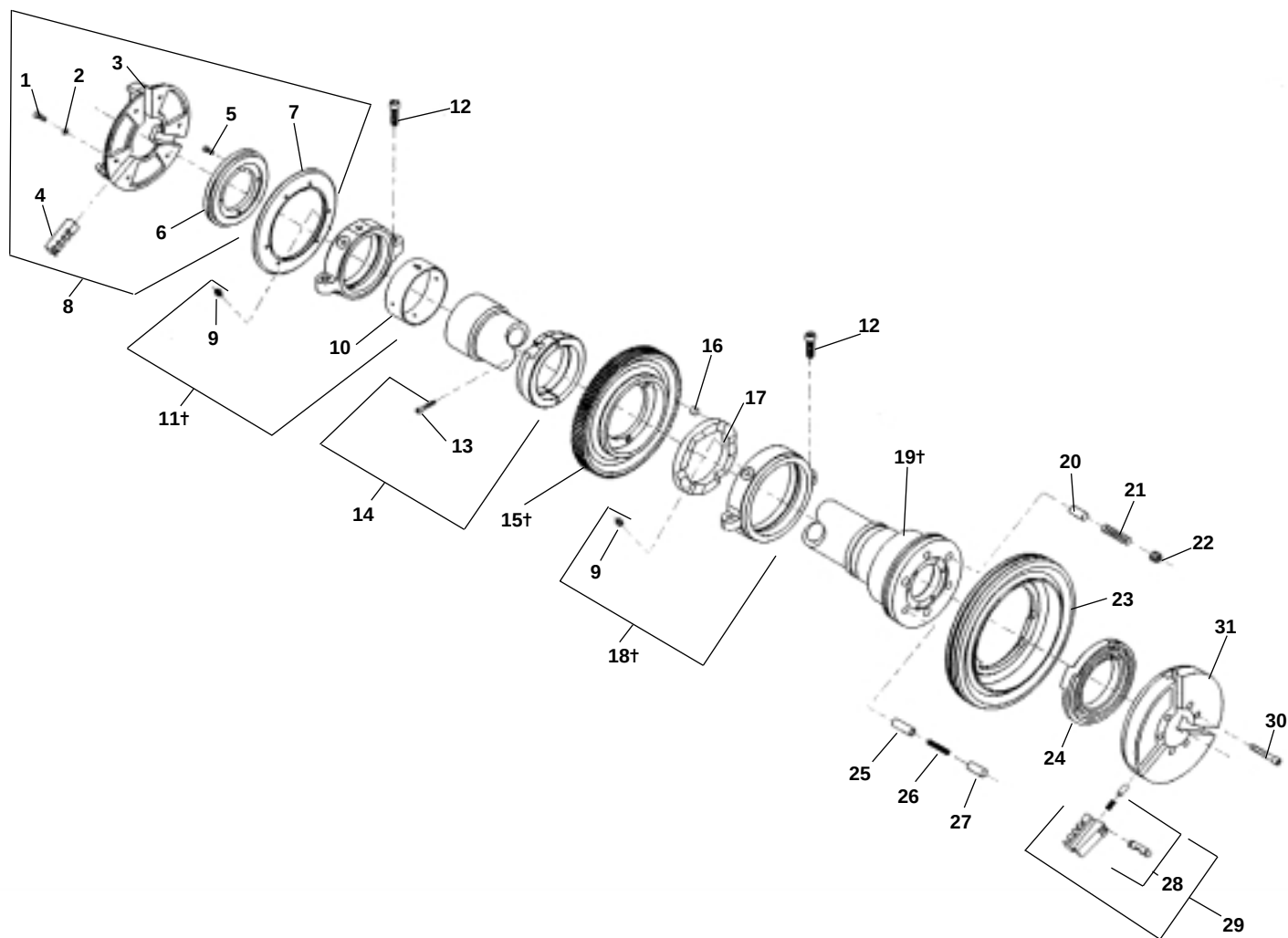
Main Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	46760	Screw (3)	18	47115	Pinion Shaft
2	62062	Top Cover	19	46930	Key $\frac{3}{16}$ " Sq. x $\frac{1}{2}$ "
3	85920	Pop Rivet (8)	20	43355	Chip Tray
4	88690	Warning Plate	21	48337	Drain Plug
5	46745	Screw	22	45440	Front Support Bar
6	64447	1194 Motor, 115V, 36 RPM	23	62057	Carriage Assembly
—	64452	1194 A Motor, 115V, 54 RPM	24	47065	Hinge Pin
—	64457	2394 Motor, 230V, 36 RPM	25	42365	341 Reamer Assembly
7	44220	Screw (2)	26	44930	Stop Screw
8	43795	Motor Bracket	27	43690	Cutter Arm
9	46800	Set Screw (2)	28	45220	Rear Support Bar
10	61952	Base	29	47145	Spacer
11	61947	Bottom Cover	30	45430	Pinion Gear
12	45615	Screw (2)	31	47120	Lock Plate
13	47110	Indicator Slide	32	46785	Screw 10 - 32 x $\frac{3}{8}$ " (2)
14	47105	Indicator Bar	33	47135	Stop Pin
15	45420	Screw (5)	34	42390	820 Cutter Assembly
16	46510	Handwheel	35	47585	Drive Shaft Assembly
17	47165	Pin			

Drive Shaft



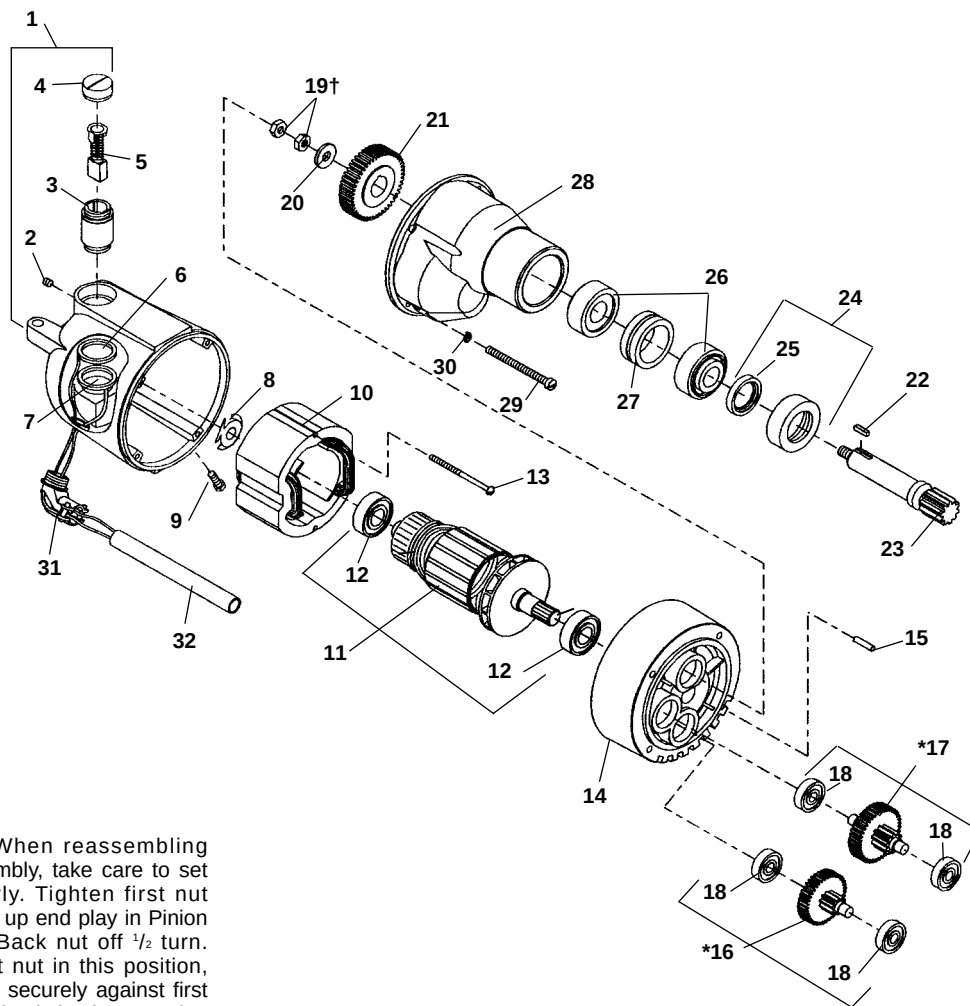
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	47585	Drive Shaft Assembly	16	44490	Drive Plug (3)
1	46790	Screw (6)	17	43895	Pressure Plate
2	40270	Lock Washer (6)	18†	43455	Front Bearing Assembly
3	43735	Centering Head	19†	43105	Drive Shaft
	19346	Centering Head (Europe)	20	44320	Pressure Plunger (3)
4	46500	Centering Jaw Set	21	44325	Pressure Spring (3)
5	46765	Screw 10 – 32 x 1/2"	22	44330	Pressure Set Screw (3)
6	43750	Scroll	23	43420	Handwheel
7	43740	Back Plate	24	43450	Scroll
	19356	Back Plate (Europe)	25	44315	Drive Wedge
8	47570	Centering Head Assembly	26	44310	Drive Spring
9	46860	Grease Fitting	27	44305	Drive Cap
10	46545	Bearing Sleeve	28	44715	Jaw Insert Set
11†	43730	Rear Bearing Assembly		97365	Jaw Insert Set f/Plas. Coated Pipe
12	46745	Screw 3/8" – 16 x 1 1/4" (4)	29	43900	Chuck Jaw Set
13	90255	Screw 10 – 32 x 1 1/4"	30	45160	Screw 5/16" – 18 x 2" (6)
14	83525	Split Ring Assembly	31	43440	Chuck Cap
15†	43460	Drive Gear			

† Service Notes: Ref. Nos. 15 & 19 - When installing gear on shaft, align "O" mark on front of gear with "O" mark on the rear of the drive shaft flange.

Ref. Nos. 11 & 18 - When replacing the front or rear bearing brackets, position grease fittings toward the operator's side of the machine.

Motor



†Service Note: When reassembling Drive Pinion Assembly, take care to set Jam Nuts properly. Tighten first nut moderately to take up end play in Pinion Shaft Assembly. Back nut off 1/2 turn. While holding first nut in this position, tighten second nut securely against first to lock in place. Check for free rotation of Drive Pinion.

**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

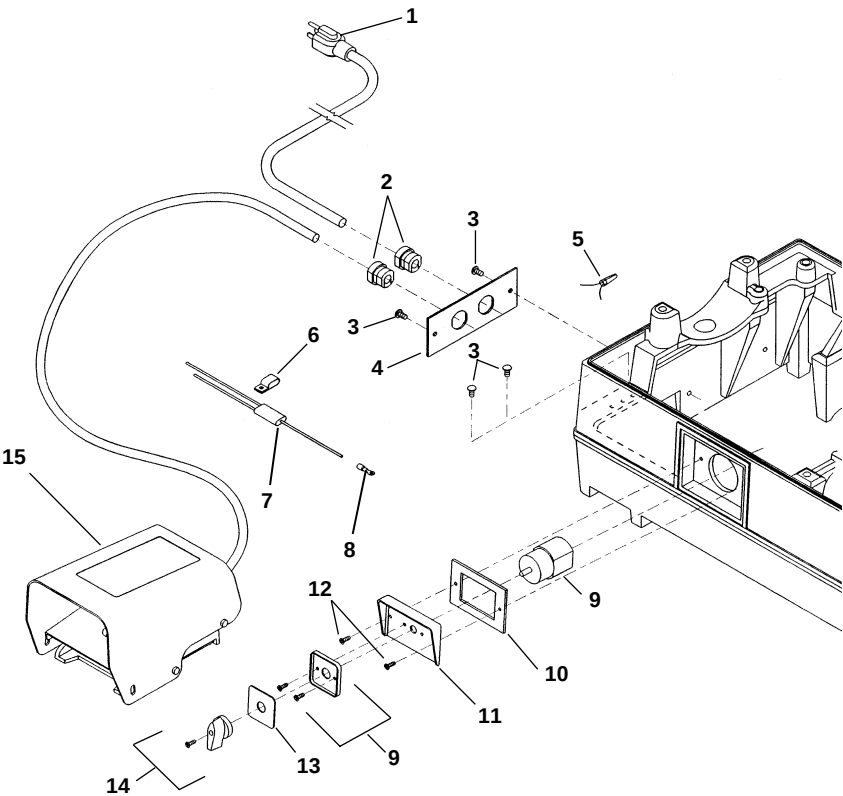
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	64447	1194 Motor, 115V, 36RPM	16*	62022	1st. Int. Gear Assy.— 36RPM
—	64452	1194A Motor, 115V, 54RPM		44985	1st. Int. Gear Assy.— 54RPM
—	64457	2394 Motor, 230V, 36RPM	17*	52527	2nd. Int. Gear Assy.— 36RPM
1	43160	Field Housing		44990	2nd. Int. Gear Assy.— 54RPM
2	39770	Set Screw 1/4" x 20 x 1/4" (2)	18	45060	Bearing (4)
3	45025	Brush Holder Set	19†	40350	Lock Nut 3/8" – 54
4	44545	Brush Cap Set	20	45035	Washer
5	44540	Brush Set	21	44965	Drive Gear – 36RPM
6	87865	White Upper Lead		44865	Drive Gear – 54RPM
7	87870	Red Lower Lead	22	45015	Key 3/32" Square
8	44580	Load Spring	23	44960	Drive Pinion
9	83500	Screw 1/4" x 20 x 3/4"	24	45010	Lock Nut w/Seal
10	44015	Field 115V	25	45085	Seal
	44035	Field 230V	26	45040	Bearing Set w/Spacer
11*	52497	Armature – 115V - 36RPM	27	45045	Spacer
*	52492	Armature – 230V	28	43170	Gear Housing
	44010	Armature – 115V - 54RPM	29	45075	Screw 1/4" - 20 x 3" (4)
12	44565	Armature Bearing (2)	30	45150	Lock Washer (4)
13	44555	Mounting Screw (2)	31	46900	Right Angle Connector
14	43165	Fan Housing Assembly	32	64462	PVC Tubing
15	45165	Dowel Pin			

Note: *Helical gear not interchangeable with old style 535 machines.

Electrical Components

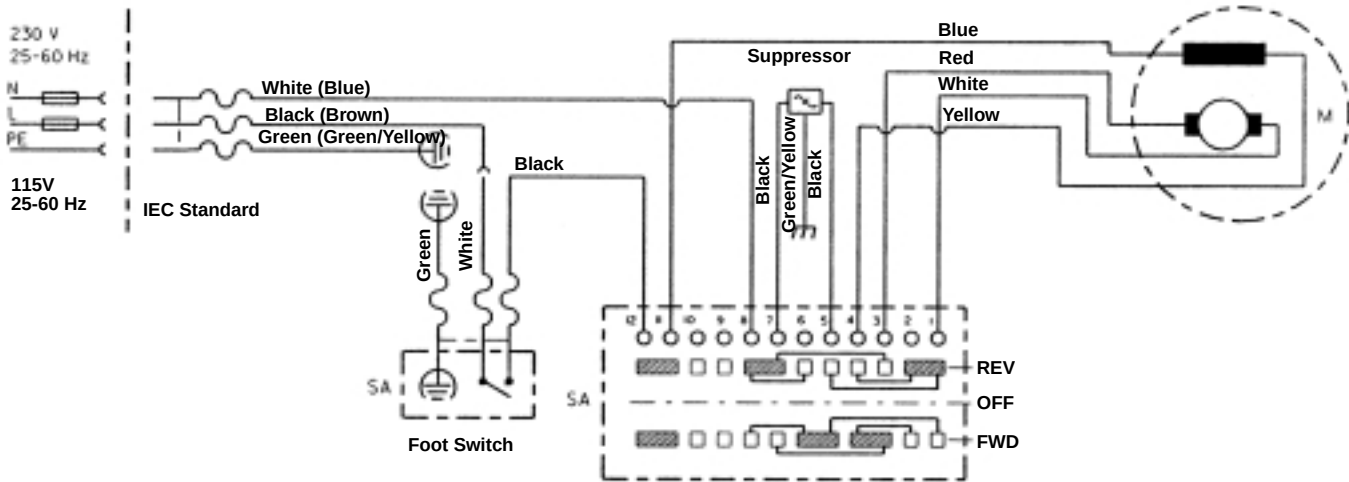
NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description
1	46740	Power Cord 115V
—	46410	Power Cord 230V
—	75045	Power Cord 230V Export
2	46735	Grommet (2)
3	45420	Screw (4)
4	62037	Cord Mounting Plate
5	44635	End Splice Connector
6	61962	Clamp (230V)
7	36502	Suppressor (230V)
8	54192	Connector (230V)
9	54157	Switch Assy. (Includes Ref. No. 14)
10	54172	Gasket
11	61917	Switch Plate
12	54162	Screw (2)
13	61967	Switch Face Plate
14	61397	Switch Knob
15	36642	B-294 Foot Switch Assembly

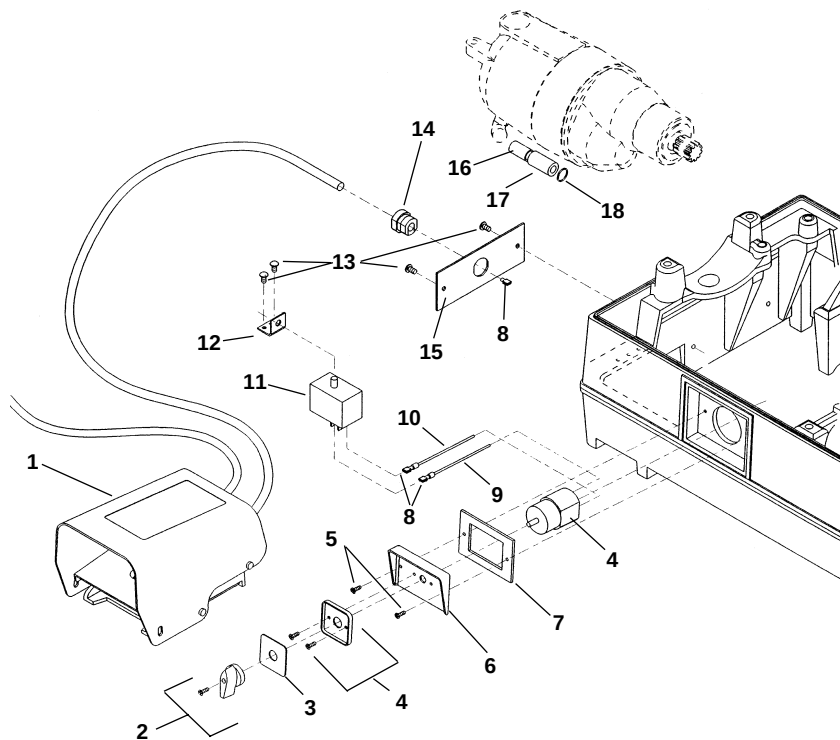


Wiring Diagram

1194 Motor (115V)
2394 Motor (230V)
1194A Motor (115V)



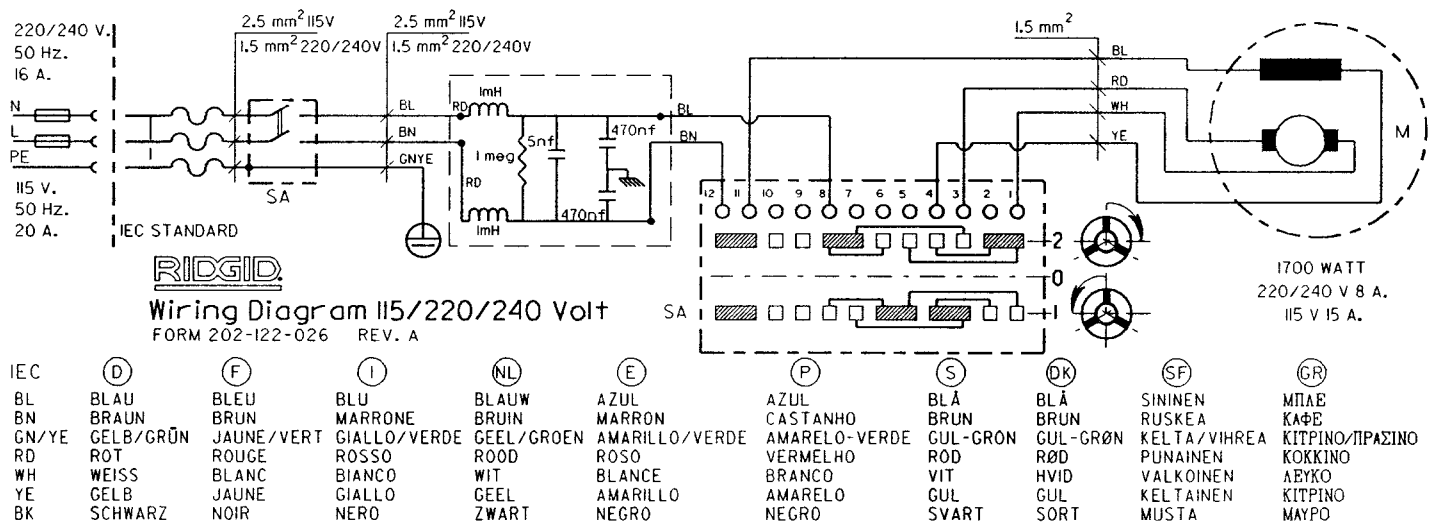
European Electrical Components



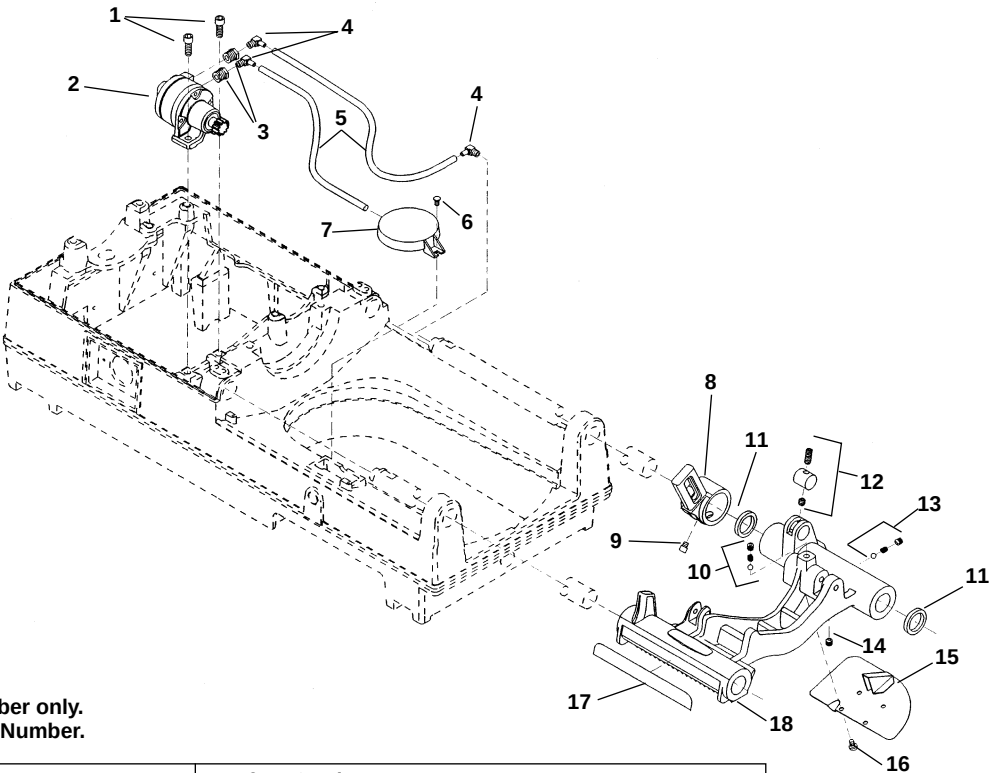
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
1	36652	B-296 Foot Switch
2	61397	Switch Knob
3	57517	Switch Face Plate
4	54157	Switch Assy. (includes Ref. No. 2)
5	54162	Screw (2)
6	61917	Switch Plate
7	54172	Gasket
8	89190	Quick Disconnect Terminal (4)
9	63392	Blue Wire
10	63387	Brown Wire
11	63372	Suppressor
12	61987	Mounting Bracket
13	45420	Screw (4)
14	54177	Grommet
15	62042	Cord Mounting Plate
16	64462	PVC Tubing
17	63377	Ferrite Bead
18	64467	Cable Tie

European Wiring Diagram



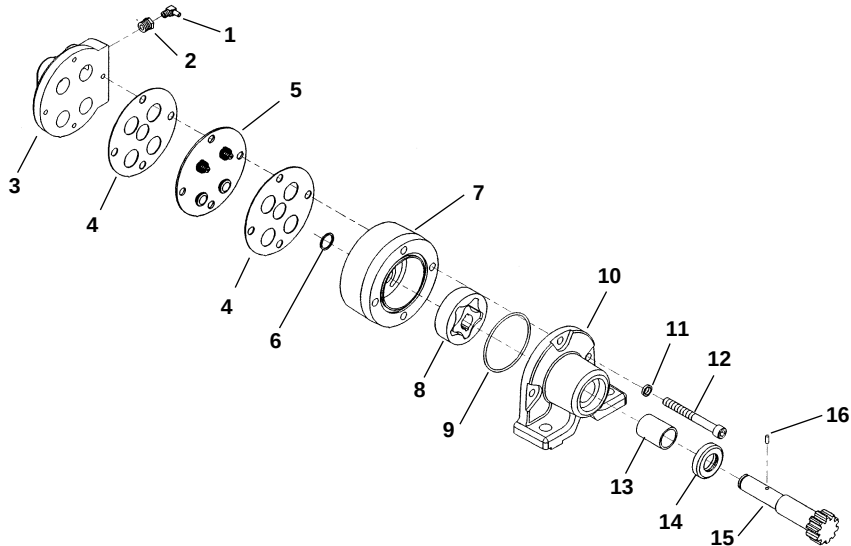
Carriage and Oiling System



NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

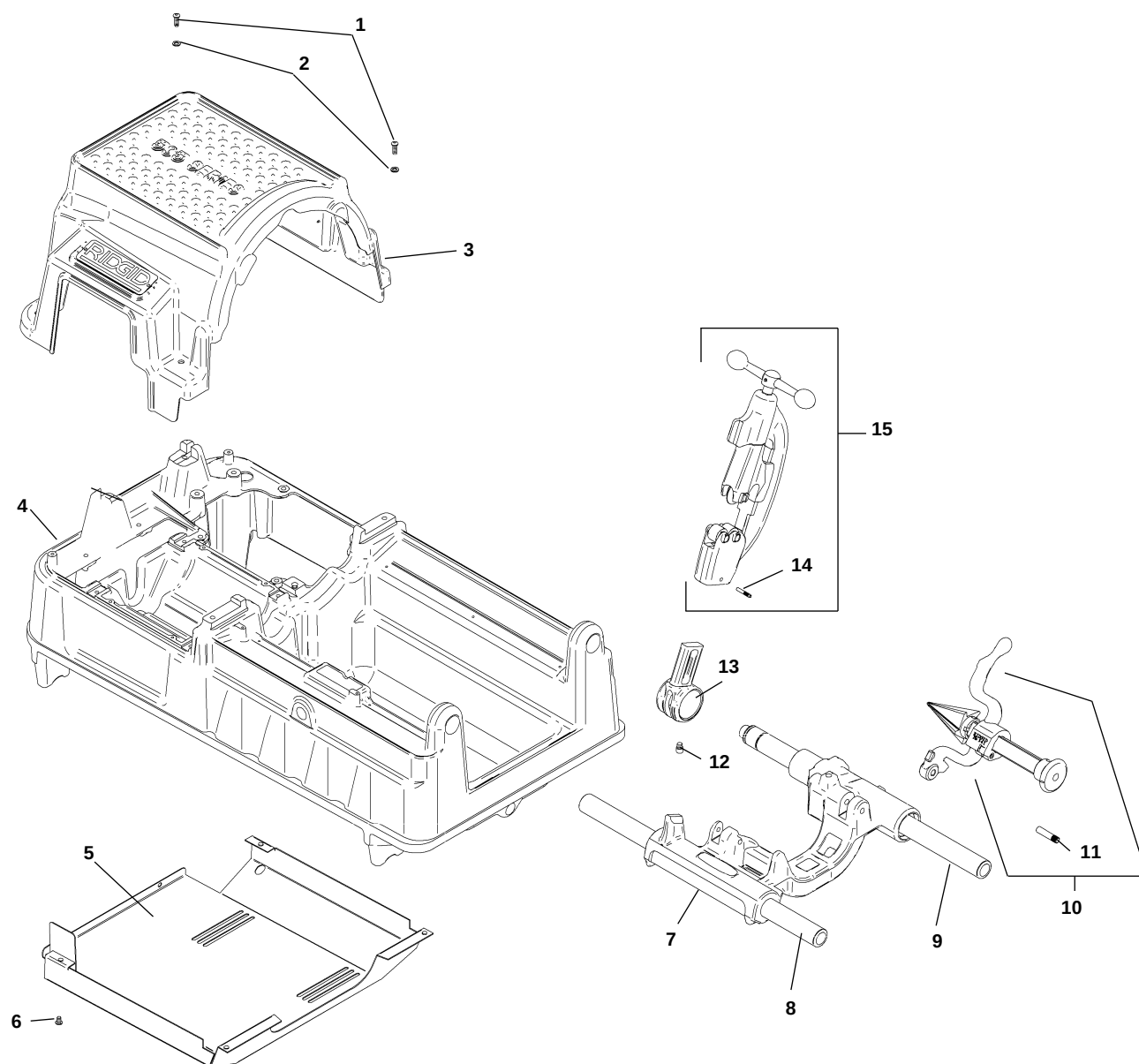
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	46750	Screw (2)	10	46810	Detente Assembly
2	62052	Model MJ Oil Pump	11	46720	Oil Seal (2)
3	62047	Reducing Bushing (2)	12	61957	Plug Assembly
4	87945	Right Angle Fitting (3)	13	35307	Pressure Relief Assembly
5	87950	Oil Line (2)	14	46815	Pipe Plug 1/8" NPT
6	45420	Screw	15	45195	Drip Plate
7	58467	Oil Filter Assembly	16	46270	Screw (4)
8	43690	Cutter Arm	17	46370	Scale
9	44930	Stop Screw	18	62057	Carriage Assy. (Includes Ref. No. 8-17)

Model MJ Oil Pump



Ref. No.	Catalog No.	Description
—	62052	Model MJ Oil Pump
1	87945	Right Angle Fitting (2)
2	62047	Reducing Bushing (2)
3	33442	Valve Body
4	33457	Gasket (2)
5	33452	Valve Body Assembly
6	61997	Retaining Ring
7	62002	Gerotor Housing
8	62007	Gerotor Set
9	33477	O-Ring
10	62012	Pump Body
11	45150	Lock Washer (3)
12	62017	Screw (3)
13	61972	Bushing
14	33472	Oil Seat
15	61982	Pump Shaft
16	26907	Drive Pin
17	61977	Pump Repair Kit (Includes Ref. No. 4-6, 9, 13, 14, and 16)

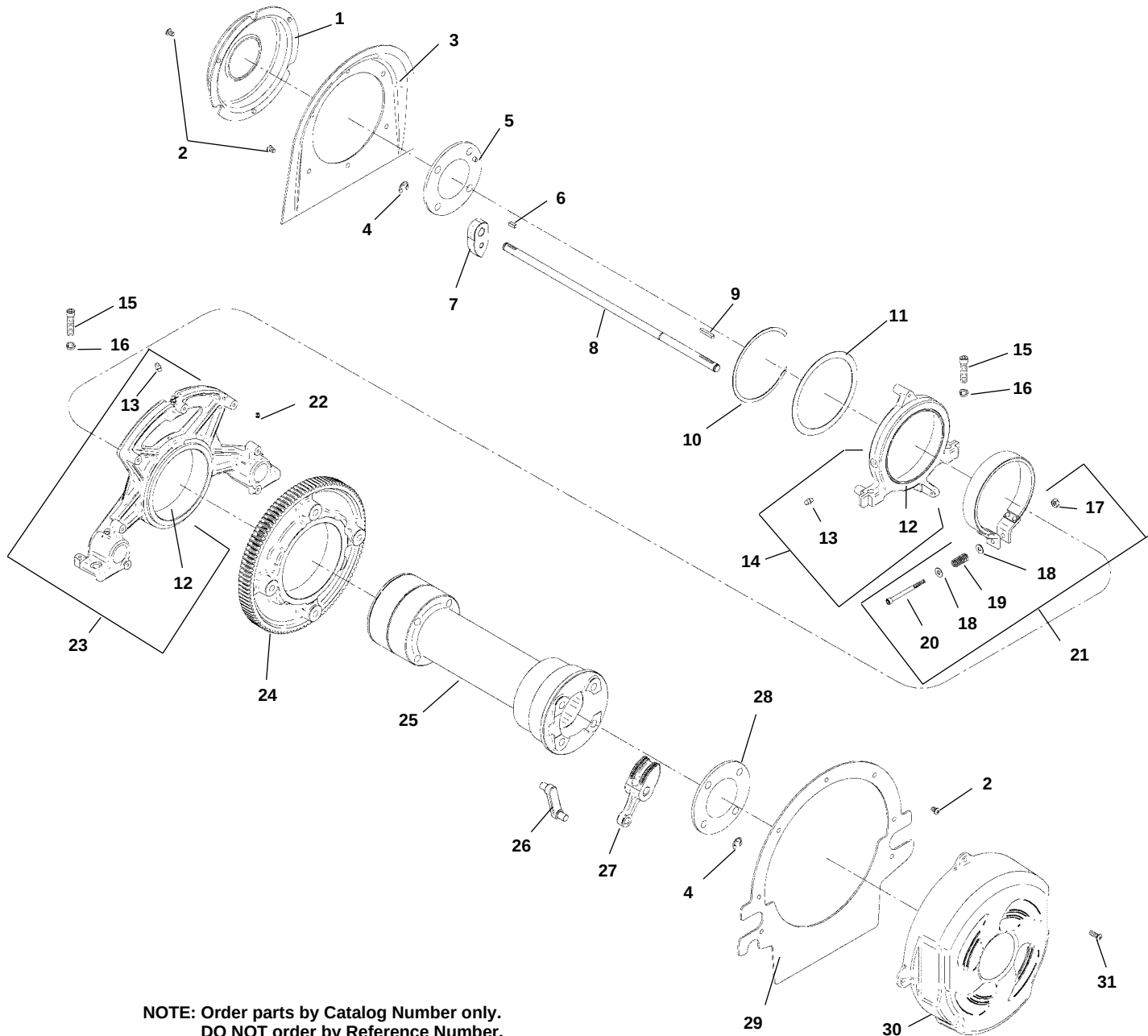
Main Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	94332	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " (4)	9	45220	Rear Support Bar
2	94322	Washer, Flat $\frac{1}{4}$ " (4)"	10	42365	341 Reamer Assembly
3	94432	Top Cover	11	47065	Pin
4	94042	Base	12	44930	Stop Screw
5	94147	Bottom Cover	13	43690	Cutter Arm
6	94312	Screw, Pan Head #6 - 32 x 2" (4)	14	47135	Stop Pin
7	94357	Carriage Assembly	15	42390	820 Cutter Assembly
8	45440	Front Support Bar			

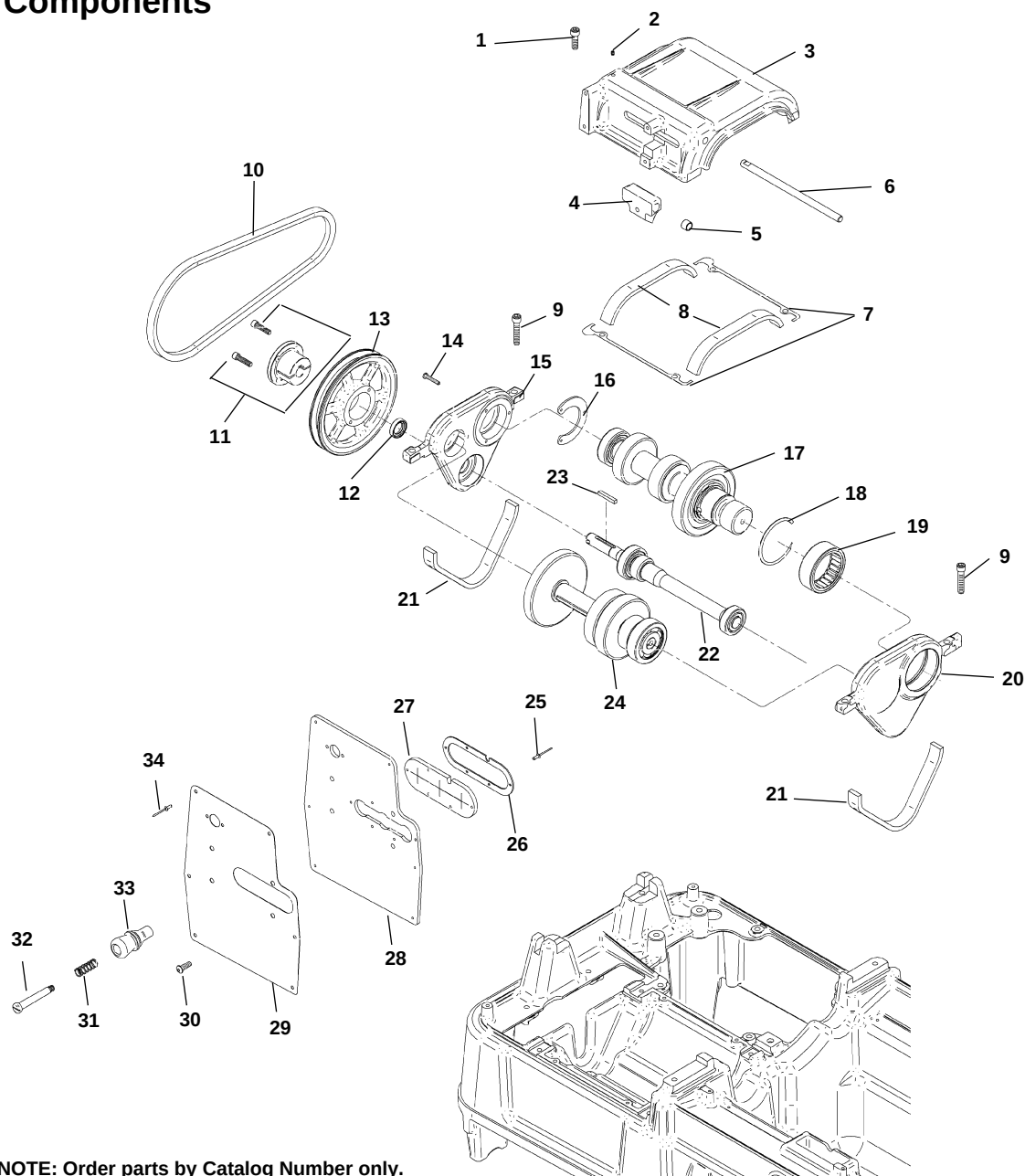
Drive Shaft Assembly



NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	94337	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{8}$ " (7)	17	77710	Lock Nut $\frac{1}{4}$ " - 20
2	94082	Rear Cover	18	45895	Spring
3	94077	Rear Plate	19	27402	Washer, Lock $\frac{1}{4}$ " (2)
4	26937	Retaining Ring (8)	20	94327	Screw, Socket Head $\frac{1}{4}$ " - 20 x $2\frac{1}{2}$ "
5	94022	Rear Pivot Rod Support	21	94002	Brake Assembly
6	94267	Key, $\frac{3}{16}$ " Square x $\frac{1}{2}$ " (4)	22	40910	Set Screw $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " (4)
7	93987	Rear Jaw (4)	23	94027	Front Bracket Assembly
8	93977	Pivot Rod (4)	24	94087	Drive Gear
9	94197	Key, $\frac{3}{16}$ " Square x $1\frac{3}{16}$ " (4)	25	94032	Drive Shaft
10	94397	Retaining Ring	26	94047	Connecting Link (4)
11	94392	Thrust Washer	27	94017	Front Jaw (4)
12	93957	Spindle Bearing (2)	28	93992	Front Pivot Rod Support
13	46860	Grease Fitting (2)	29	94072	Front Plate
14	94037	Rear Bracket Assembly	30	94097	Front Cover
15	46745	Screw, $\frac{3}{8}$ " - 16 x $1\frac{1}{4}$ " (4)	31	94332	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " (9)
16	40930	Washer, Lock $\frac{3}{8}$ " (4)			

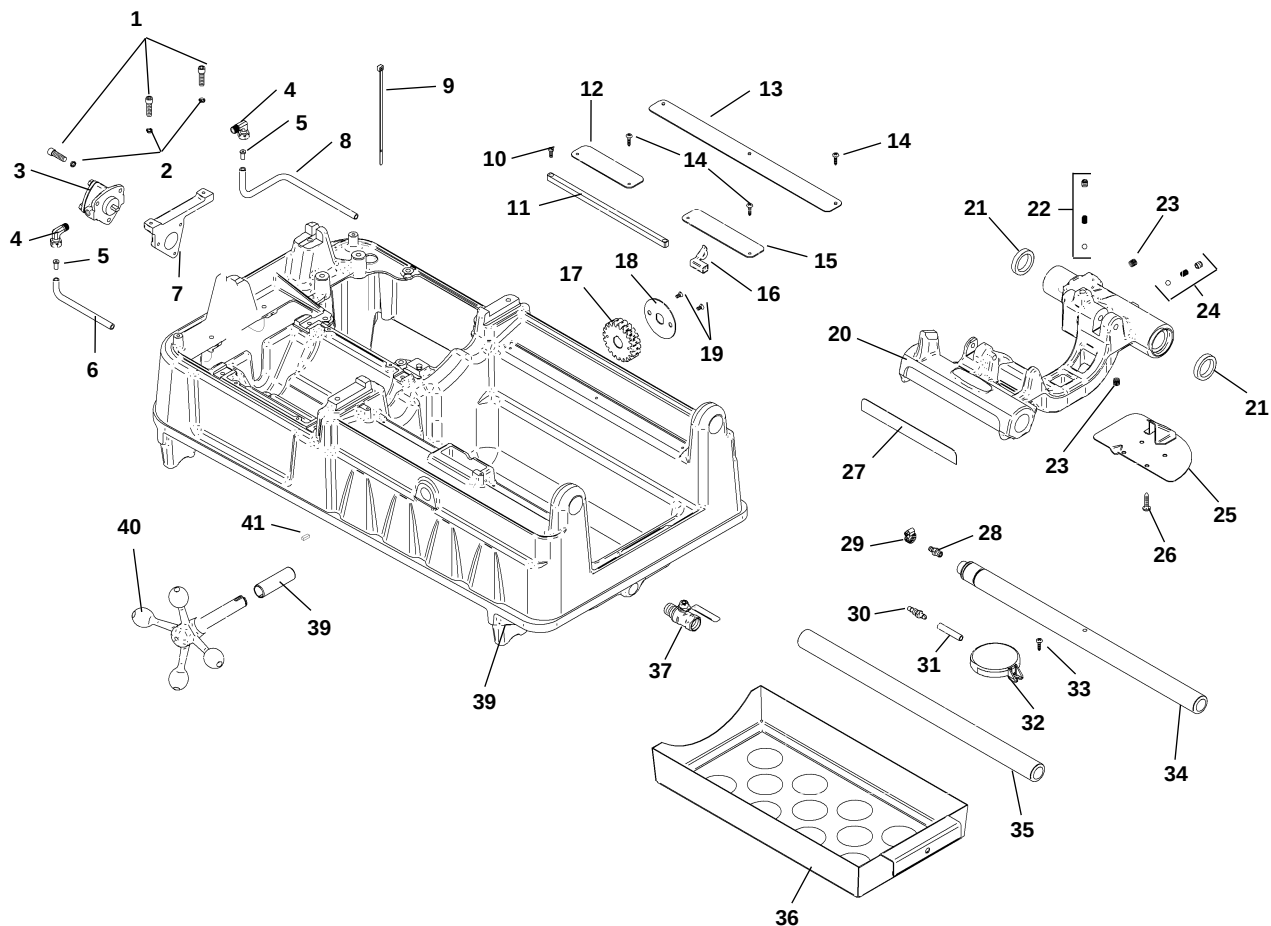
Gearbox Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	40910	Screw, Socket Head $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " (4)	18	94062	Retaining Ring
2	34892	Set Screw $\frac{1}{4}$ " - 20 x $\frac{1}{2}$ "	19	94052	Bearing
3	94107	Transmission Cover	20	94167	Front Transmission Bracket
4	94227	Shifter Fork	21	94247	Gasket (2)
5	26447	Bushing (2)	22	93967	Input Shaft Assembly
6	94132	Shifter Rod	23	94277	Key, $\frac{3}{16}$ " Square x $\frac{1}{4}$ "
7	94252	Gasket (2)	24	94182	Intermediate Shaft Assembly
8	94242	Gasket (2)	25	94387	Pop Rivet (5)
9	40367	Screw, Socket Head $\frac{5}{16}$ " - 18 x $1\frac{1}{4}$ " (4)	26	94367	Gasket
10	94262	V Belt	27	94372	Gasket
11	94217	Bushing f/Input Pulley	28	94187	Control Panel
12	94202	Seal	29	94207	Control Panel Label
13	94102	Input Pulley	30	94332	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " (4)
14	94317	Screw, Pan Head #8 - 32 x 1" (3)	31	94292	Spring
15	94172	Rear Transmission Bracket	32	94137	Shifter Shaft
16	94177	Bearing Retainer	33	94142	Shifter Knob
17	93972	Output Shaft Assembly	34	94427	Pop Rivet (6)

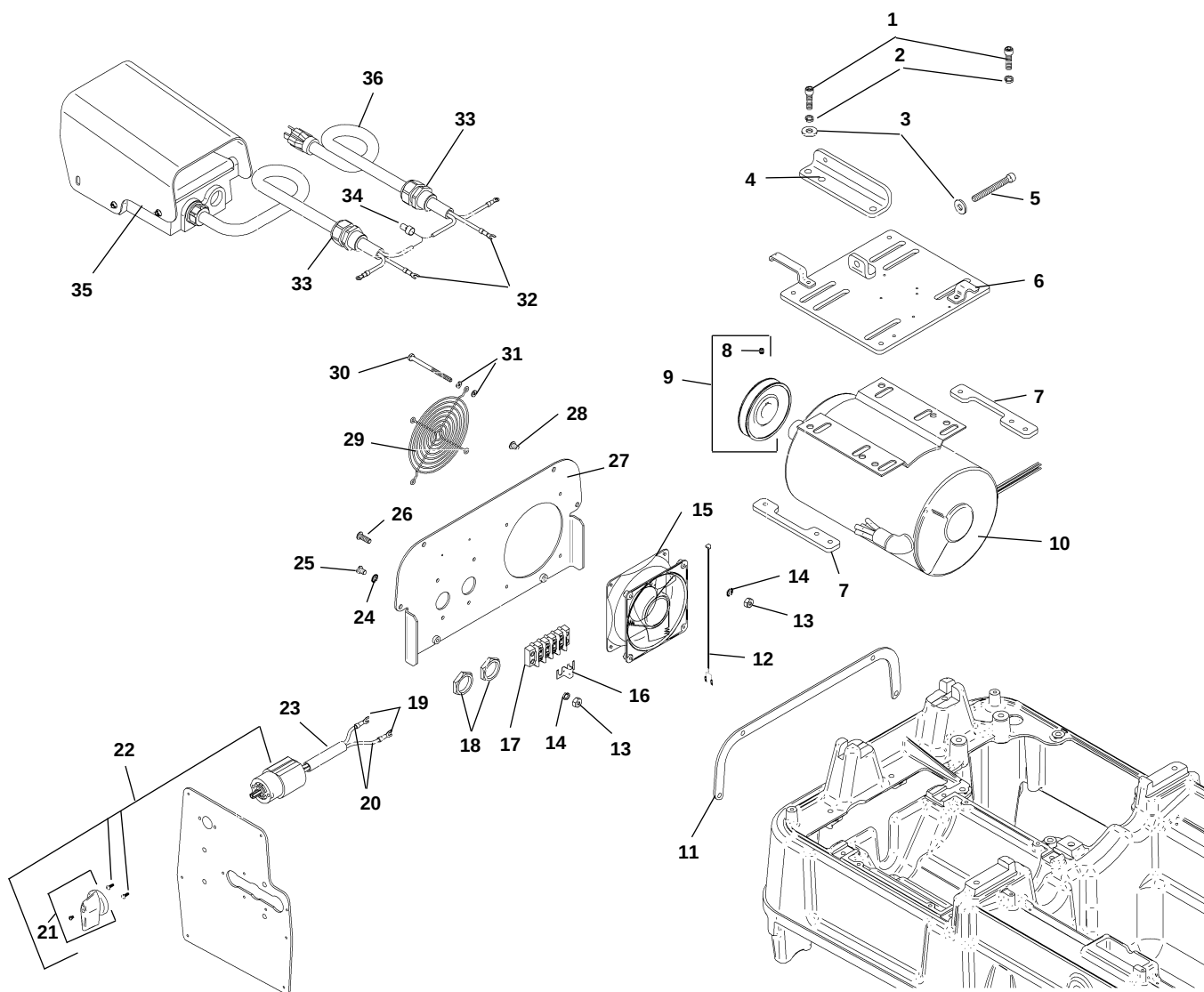
Carriage and Oiling Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	83685	Screw, Socket Head $\frac{1}{4}$ " - 20 x 1" (5)	22	46810	Die Head Détente
2	44740	Lock Washer, $\frac{1}{4}$ " (5)	23	46815	Pipe Plug, $\frac{1}{8}$ " NPT (2)
3	94092	Oil Pump	24	35307	Pressure Relief Set
4	35122	Fitting (2)	25	45195	Drip Tray
5	35117	Tube Insert	26	46270	Screw, $\frac{1}{4}$ " - 20 x $\frac{1}{2}$ " (4)
6	26822	Oil Hose	27	46370	Length Gauge
7	94067	Oil Pump Bracket	28	69167	Barbed Fitting
8	94362	Oil Hose	29	35142	Hose Clamp
9	94407	Cable Tie	30	54142	Bulkhead Fitting
10	45615	Screw, Flat Head #10 - 32 x $\frac{1}{2}$ " (2)	31	87950	Hose
11	47105	Length Indicator Bar	32	58467	Filter Screen Assembly
12	94122	Drip Edge	33	45420	Screw, #10 - 32 x $\frac{3}{8}$ "
13	94127	Drip Edge	34	45220	Support Bar, Rear
14	43367	Screw, #8 x $\frac{3}{4}$ "	35	45440	Support Bar, Front
15	94117	Drip Edge	36	94112	Chip Tray
16	47110	Indicator Slide	37	94347	Valve, Oil Drain
17	45430	Pinion	38	94042	Base
18	47120	Pinion Lock Ring	39	94222	Bushing
19	46785	Screw, Flat Head #10 - 32 x $\frac{3}{8}$ " (2)	40	94012	Handwheel
20	94357	Carriage Assembly (Includes Ref. Nos. 21 - 27)	41	94267	Key, $\frac{3}{16}$ " Square x $\frac{1}{2}$ "
21	46720	Oil Seal (2)			

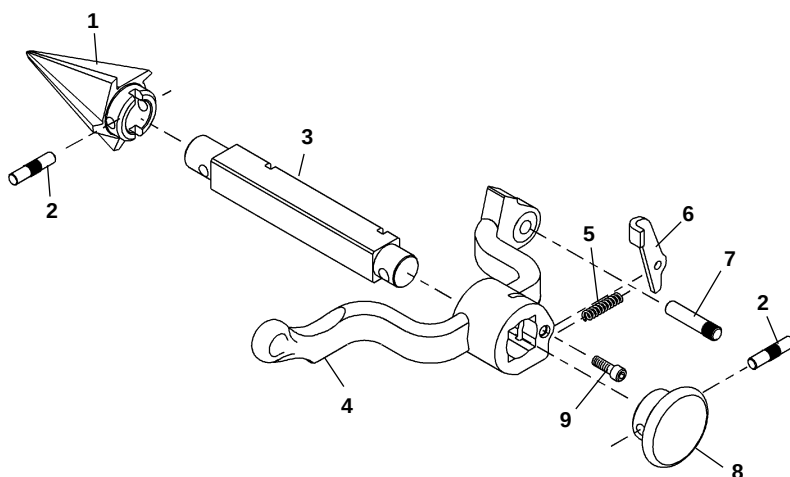
Electrical Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

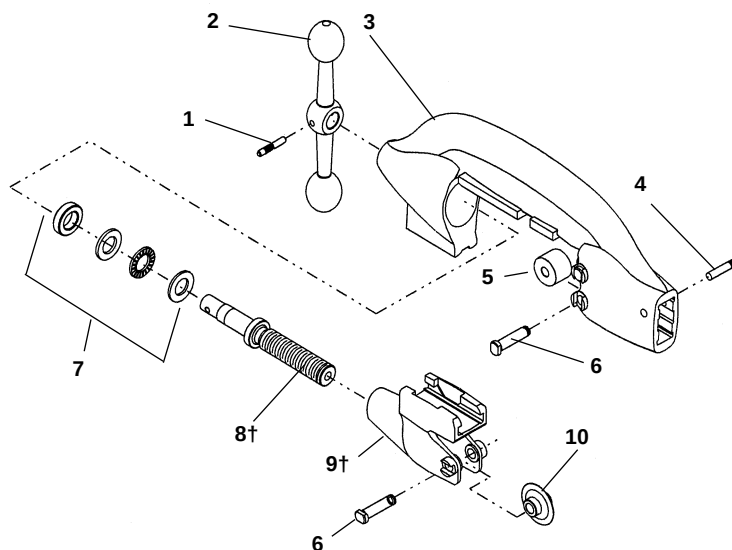
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	40367	Screw, Socket Head $\frac{5}{16}$ " - 18 x $1\frac{1}{4}$ " (8)	19	46875	Spade Terminal (2)
2	40770	Washer, Split Lock $\frac{5}{16}$ " (12)	20	93947	Wire Set
3	96740	Washer, Flat $\frac{5}{16}$ " (5)	21	59702	Switch Knob
4	94162	Adjuster Bracket	22	94257	Switch Assembly
5	94402	Screw, Socket Head $\frac{5}{16}$ " - 18 x $\frac{3}{4}$ "	23	59342	Insulator Sleeve
6	94192	Motor Table	24	46985	Washer, Lock Ext. Tooth #10 (2)
7	94157	Motor Bracket (2)	25	47147	Screw, Button Head #10 - 32 x $\frac{3}{8}$ " (2)
8	35307	Set Screw $\frac{5}{16}$ " - 18 x $\frac{1}{4}$ "	26	34667	Screw, Button Head #10 - 32 x $\frac{3}{4}$ " (2)
9	94237	Pulley	27	94152	Back Cover
10	94007	Motor	28	94337	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{8}$ " (4)
11	94422	Gasket	29	94232	Fan Guard
12	94447	Fan Cord	30	94312	Screw, Pan Head #6 - 32 x 2" (4)
13	34722	Nut, Hex #10 - 32 (4)	31	94302	Washer, Flat #6 (8)
14	58542	Washer, Lock #10 (4)	32	93952	Spade Terminal (2)
15	94212	Fan	33	75952	Strain Relief (2)
16	94377	Jumper	34	44635	End Splice
17	94382	Terminal Block	35	74272	Foot Switch, B-294HD
18	93962	Lock Nut (2)	36	75902	Power Cord 115V

No. 341 Reamer



Ref. No.	Catalog No.	Description
—	42365	341 Reamer Complete
1	36277	Cone (R.H.)
	46660	Cone (L.H. & R.H.)
2	47155	Pin
3	43790	Reamer Bar
4	43230	Reamer Arm
5	44700	Latch Spring
6	46665	Reamer Latch
7	47065	Hinge Pin
8	46585	Reamer Knob
9	46515	Screw $\frac{3}{16}$ " - 20 x $\frac{3}{4}$ "

No. 820 Cutter



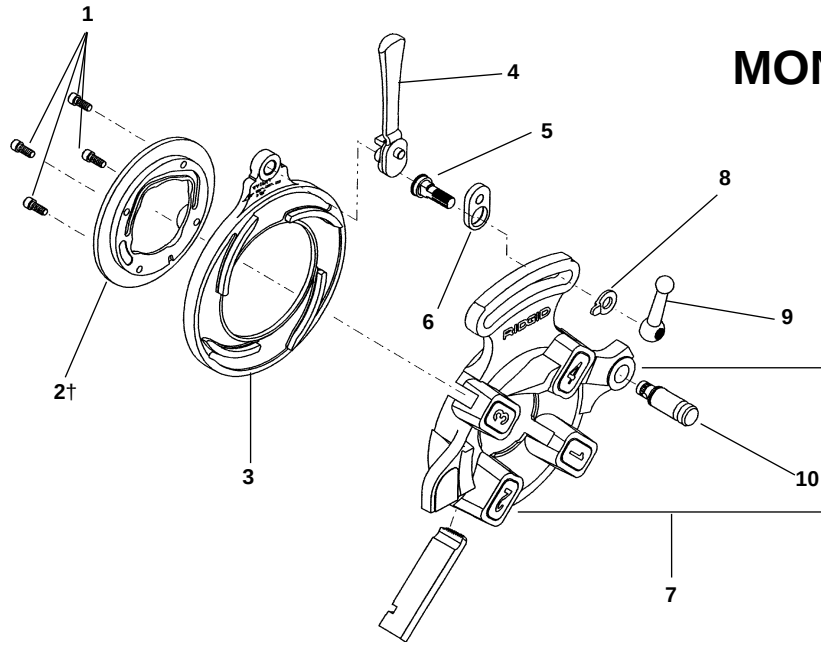
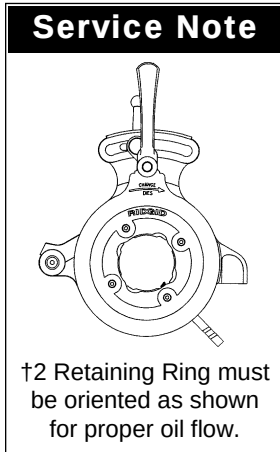
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
—	42390	820 Cutter Complete
1	47160	Crank Pin
2	45765	Feed Screw Crank
3	43040	Cutter Frame
4	47135	Stop Pin
5	34775	Cutter Roll (2)
6	34780	Cutter & Roll Pin (3)
7	46725	Thrust Bearing Assembly
8†	45780	Feed Screw
9†	43245	Wheel Housing
10	44185	Cutter Wheel
	44190	Cutter Wheel f/Stainless

† Service Note: When replacing parts on early style (fine thread) cutters, both feed screw and wheel housing must be replaced.

**811A
842
555
531B
532B**

MONO (A-SERIES)



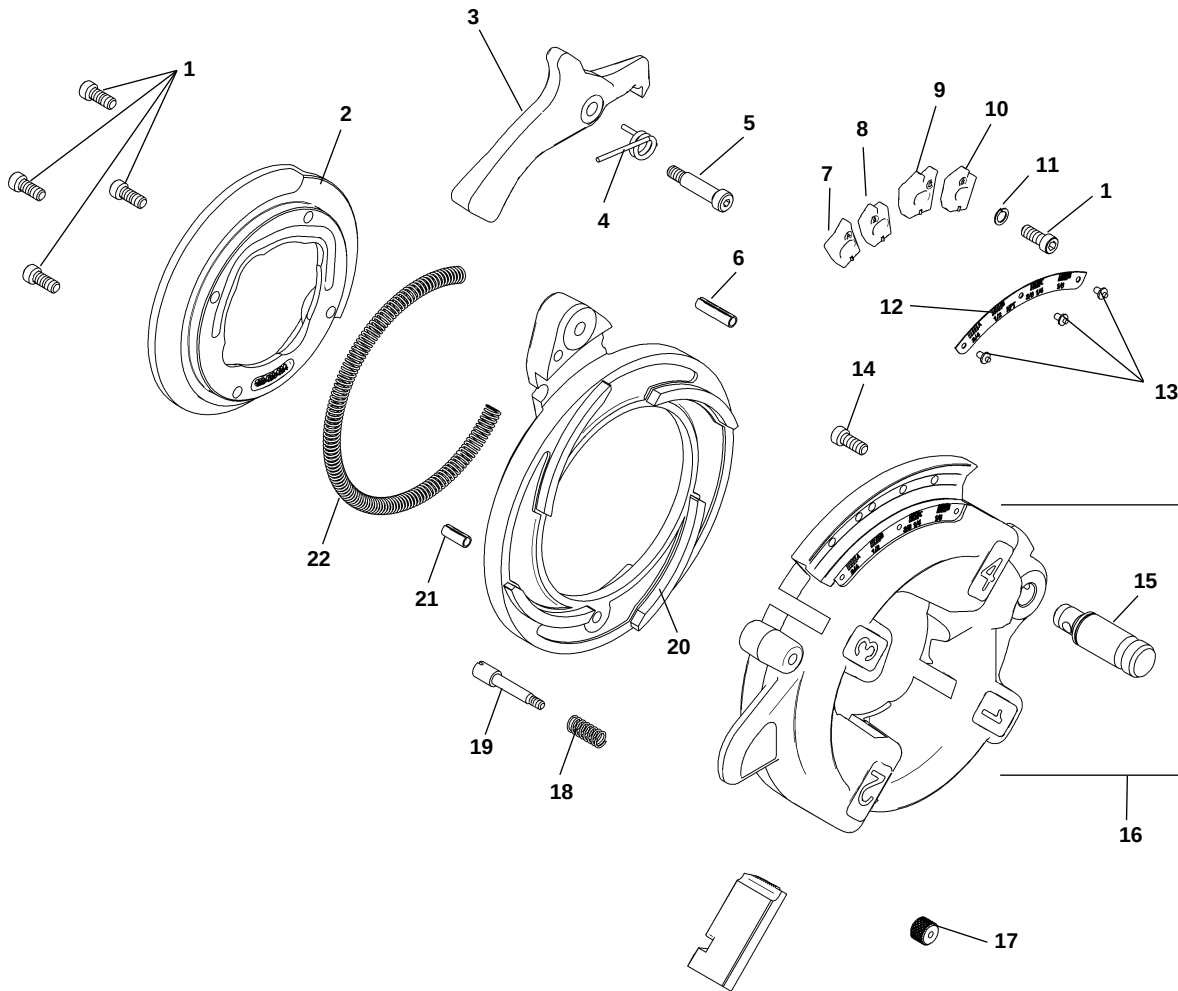
QUICK OPENING DIE HEADS

**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	1	2†	3	1	5	6	7	8	9	10
Die Head & Catalog No.	Screw	Retaining Ring	Cam Plate	Throw-Out Lever	Lock Screw	Link	Head/w Post	Lever Washer	Clamp Lever	Post
811A (97065) 1/8"-2" RH NPT	32205	97020	43360	46520	39860	39950	40922	26957	39970	59832
842 (23282) 1/8"-2" LH NPT	32205	23292	43360	46520	39860	39950	23287	26957	39970	59832
555 (10491) 1/8"-3/4"	32205	24256	43365	46555	39860	39950	24006	26957	39970	59832
531B (97045) 1/4"-1" RH/LH	32205	46620	43405	46555	39955	39950	97055	26957	39970	59832
532B (97050) 1 1/8"-2" RH/LH	32205	46625	43410	46555	39955	39950	97060	26957	39970	59832
811A (97070) 1/8"-2" BSPT	32205	97020	43360	46520	39860	39950	40957	26957	39970	59832
842 (23297) 1/8"-2" LH (BSPT)	32205	23292	43360	46520	39860	39950	23202	26957	39970	59832
Mono (1/8"-3/8") RH 1/8" (41032) 1/4" (41037) 3/8" (41042)	32205	1/8"-41862 1/4"-41867 3/8"-41872	43305	46555	47140	39950	41907	26957	46820*	59832
Mono (1/2"-3/4") RH 1/2" (41047) 3/4" (41062)	32205	1/2"-41877 3/4"-41882	43300	46555	47140	39950	41912	26957	46820*	59832
Mono (1"-1 1/4") RH 1" (41057) 1 1/4" (41062)	32205	1"-41887 1 1/4"-41892	43295	46555	47140	39950	41917	26957	46820*	59832
Mono (1 1/2"-2") RH 1 1/2" (41067) 2" (41072)	32205	1 1/2"-41897 2"-41902	43290	46555	47140	39950	41922	26957	46820*	59832

*Hex Nut For Mono Die Heads

816/817 Die Head

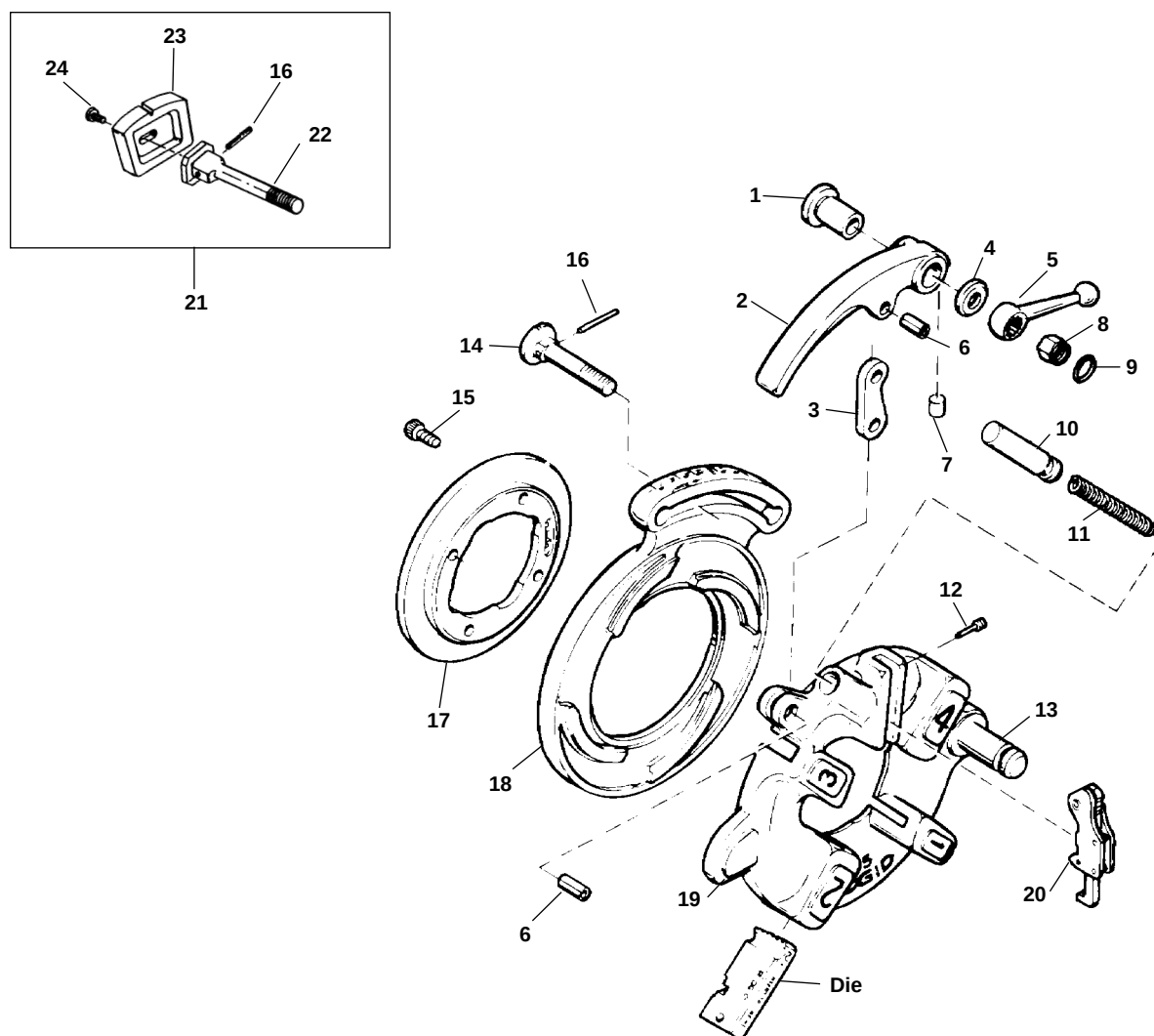


NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	84537	816 Die Head $\frac{1}{8}$ " - $\frac{3}{4}$ "	11	44740	Split Lock Washer, $\frac{1}{4}$ " (4)
—	84532	817 Die Head 1" - 2"	12	92722	Size Plate 816 $\frac{1}{8}$ " - $\frac{3}{4}$ "
1	40910	Screw, $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " S.H.C.S. (8)		92777	Size Plate 817 1" - 2"
2	92767	Retaining Ring	13	85920	Pop Rivet $\frac{3}{32}$ " (3)
3	92822	Handle	14	32145	Screw, $\frac{1}{4}$ " - 20 x $\frac{1}{2}$ " S.H.C.S.
4	92817	Spring	15	59832	Die Head Post
5	92812	Shoulder Bolt	16	92757	Die Head Body w/Post
6	92832	Roll Pin $\frac{1}{4}$ " x $\frac{5}{16}$ "	17	92802	Plunger Knob
7	92782	Adjusting Block 816/817 $\frac{3}{4}$ ", 2" Type A	18	92807	Plunger Spring
8	92787	Adjusting Block 816 $\frac{1}{2}$ " Type B	19	92797	Plunger Shaft
	92782	Adjusting Block 817 $1\frac{1}{2}$ " Type A	20	92762	Cam Plate
9	92792	Adjusting Block 816 $\frac{1}{4}$ ", $\frac{3}{8}$ " Type C	21	58090	Roll Pin $\frac{1}{4}$ " x 1"
	92787	Adjusting Block 817 $1\frac{1}{4}$ " Type B	22	92827	Spring
10	92787	Adjusting Block 816/817 $\frac{1}{8}$ ", 1" Type B			

815A NPT Self-Opening Through-Head Oiling Die Head

815A BSPT Self-Opening Through-Head Oiling Die Head

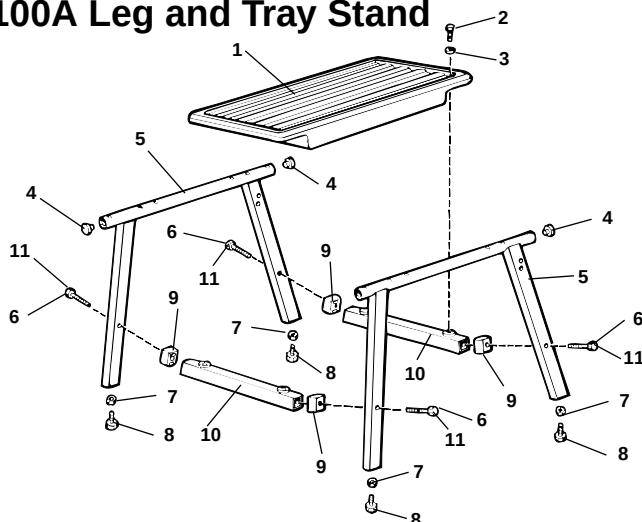


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	97075	815A Self-Opening (Through-Head-Oiling) Die Head (NPT)	13	59832	Post
	97080	815A Self-Opening (Through-Head-Oiling) Die Head (BSPT)	14	44235	Lock Screw
1	44240	Bushing	15	32205	Screw (4)
2	43830	Throw-Out Lever	16	45050	Pin
3	44265	Throw-Out Link	17	97020	Retaining Ring
4	44245	Washer	18	40942	Cam Plate (815A NPT)
5	44260	Clamp Lever		97040	Cam Plate (815A BSPT)
6	44270	Roll Pin (2)	19	40932	Head w/Post
7	45055	Insert	20	44285	Trigger Assembly
8	44250	Nut		32982	Adj. Trigger Assembly (Europe)
9	44255	Retaining Ring		45327	Trigger Assembly (Europe)
10	44275	Throw-Out Plunger	21	45332	Gauge Plate Assembly
11	11565	Spring	22	46722	Adj. Lock Screw
12	44290	Trigger Screw	23	46717	Gauge Plate
			24	47147	Buttonhead Screw

Note: Early Style 815/845 parts interchangeable with 815A NPT
Early Style 855 parts interchangeable with 815A BSPT

No. 100A Leg and Tray Stand

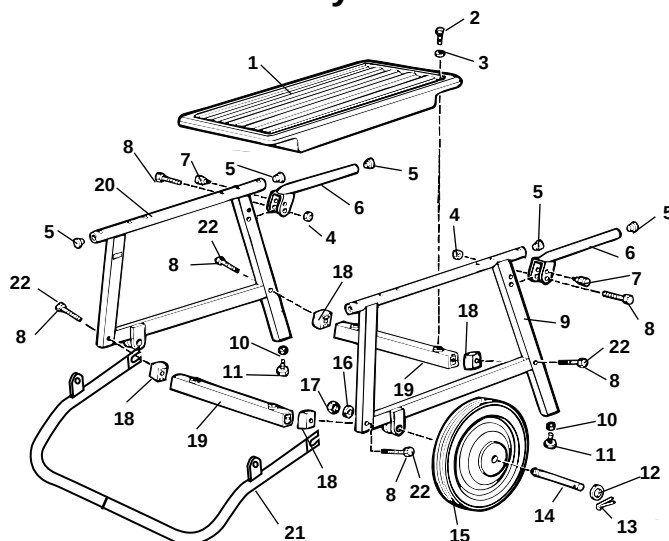


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
—	92457	Leg Stand Assembly
1	56872	Tray
2	80030	Hex Bolt $\frac{3}{8}$ " - 16 x 1" (4)
3	44230	Flat Washer $\frac{3}{8}$ " (4)
4	58037	End cap (4)
5	58022	Leg (2)
6	58052	Hex Bolt $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ " (4)
7	44225	Hex Nut $\frac{3}{8}$ " - 16 (4)
8	58027	Leveling Pad (4)
9	58042	Spacer (4) - (1224 Machine Only)
10	58032	Cross Member (2)
11	58047	Hex Bolt $\frac{3}{8}$ " - 16 x 4" (4) (1224 & 535 Auto Machine Only)

NOTE: $\frac{3}{8}$ " - 16 x 4" Bolts and spacers used when mounting 1224 & 535 Auto machines.

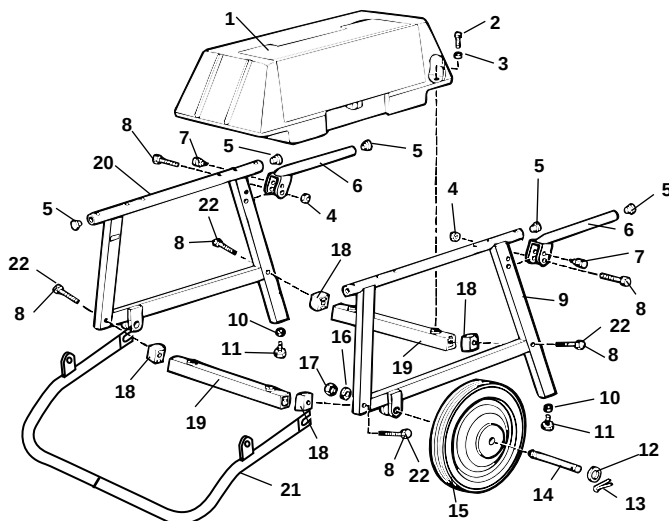
No. 150A Wheel and Tray Stand



Ref. No.	Catalog No.	Description
—	92462	Wheel and Tray Assembly
1	56872	Tray
2	80030	Hex Bolt $\frac{3}{8}$ " - 16 x 1" (4)
3	44230	Flat Washer (4)
4	79985	Locknut $\frac{3}{8}$ " - 16 (2)
5	58037	End Cap (6)
6	58067	Handle (2) includes Ref. No. 5 & 7
7	61567	Plunger Assembly (2)
8	58052	Hex Bolt $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ " (6)
9	58057	Front Leg
10	44225	Hex Nut $\frac{3}{8}$ " - 16 (4)
11	58027	Leveling Pad
12	47180	Washer (2)
13	47030	Cotter Pin (2)
14	58072	Axle (2)
15	27442	Wheel (2)
16	84150	Lock Washer $\frac{1}{2}$ " (2)
17	44745	Locknut $\frac{1}{2}$ " (2)
18	58042	Spacer (4) (1224 machine only)
19	58032	Cross Member (2)
20	58062	Rear Leg
21	63652	Stand Stop Assembly
22	58047	Hex Bolt $\frac{3}{8}$ " - 16 x 4" (4) (1224 & 535 Automatic Machine Only)

NOTE: $\frac{3}{8}$ " - 16 x 4" bolts and spacers used when mounting 1224 & 535 Auto machines.

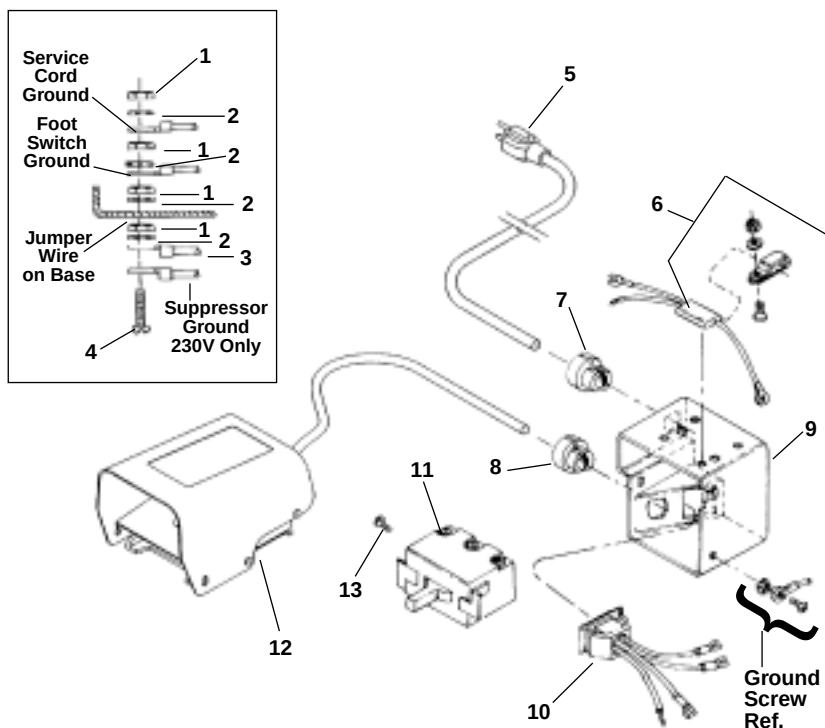
No. 200A Wheel and Cabinet Stand



Ref. No.	Catalog No.	Description
—	92467	Wheel Stand Assembly
1	56887	Cabinet
2	80030	Hex Bolt $\frac{3}{8}$ " - 16 x 1" (4)
3	44230	Flat Washer (4)
4	79985	Locknut $\frac{3}{8}$ " - 16 (2)
5	58037	End Cap (6)
6	58067	Handle (2) Includes Ref. No. 5 & 7
7	61567	Plunger Assembly (2)
8	58052	Hex Bolt $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ " (6)
9	58057	Front Leg
10	44225	Hex Nut $\frac{3}{8}$ " - 16 (4)
11	58027	Leveling Pad
12	47180	Washer (2)
13	47030	Cotter Pin (2)
14	58072	Axle (2)
15	27442	Wheel (2)
16	84150	Lock Washer $\frac{1}{2}$ " (2)
17	44745	Locknut $\frac{1}{2}$ " (2)
18	58042	Spacer (4) (1224 Machine Only)
19	58032	Cross Member (2)
20	58062	Rear Leg
21	63652	Stand Stop Assembly
22	58047	Hex Bolt $\frac{3}{8}$ " - 16 x 4" (4) (1224 & 535 Auto Machine Only)

NOTE: $\frac{3}{8}$ " - 16 x 4" bolts and spacers used when mounting 1224 & 535 Auto machines.

Electrical Components – Early Style

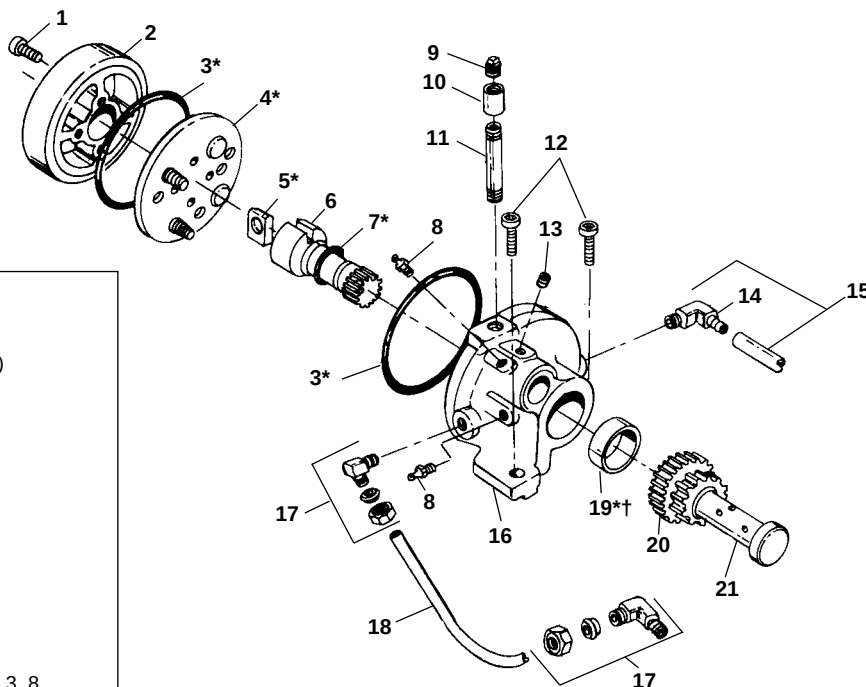


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
1	44695	Hex Nut #10 - 24 (4)
2	46985	Ext. Tooth Washer #10 (4)
3	85925	Jumper Wire
4	92455	Screw #10 -24 x 3/4"
5	46740	Power Cord w/Plug (115V)
	46410	Power Cord w/Plug (230V)
	75045	Power Cord less Plug (230V Europe/S. Africa)
6	46320	Suppressor Kit (230V Europe)
	99170	Suppressor (230V S. Africa)
7	46735	Cord Grommet
	46730	Cord Grommet (230V Europe/S.Africa)
8	46735	Cord Grommet
9	50612	Switch Box
10	50617	Outlet Jumper Assembly
11	44505	Switch
12	36642	B-294 Foot Switch
13	44180	Screw

† Refer to Page 21 for Wiring Diagram.

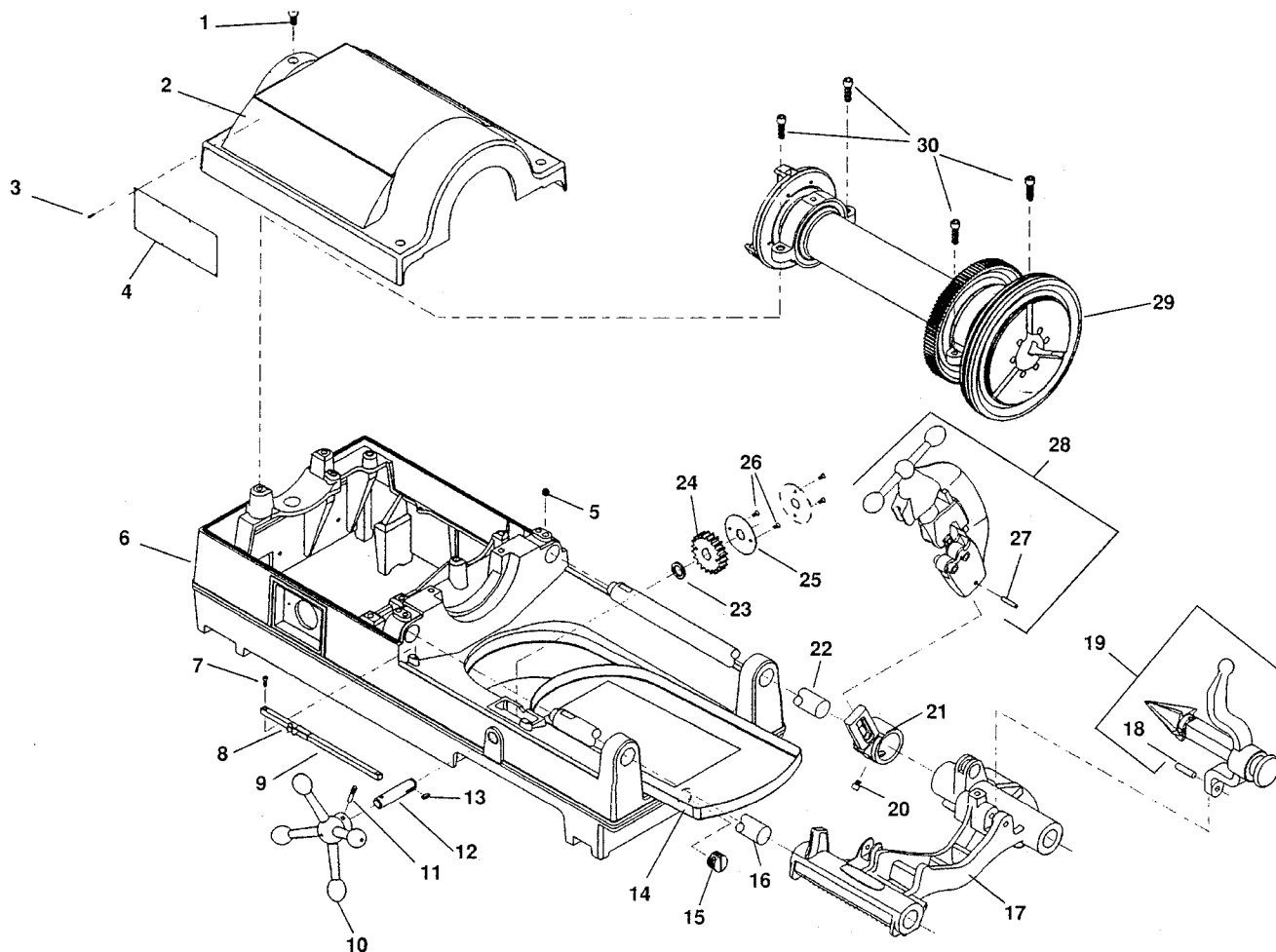
Model "A" Pump



Ref. No.	Catalog No.	Description
—	47195	Pump Complete
1	46770	E-896 Screw #10-32 x 1" SHCS (4)
2	46350	E-557-1 Cover
3*	44650	E-1552 O-Ring (2)
4*	46645	E-850-1X Valve Assembly
5*	47100	F-610 Rotor Blade
6	46355	E-557-2 Pinion Shaft
7*	44645	E-1551 O-Ring
8	46860	E-912 Grease Fitting
9	46815	E-904 Pipe Plug
10	89725	E-1159 Coupling
11	89730	E-3246 Nipple
12	46750	E-892 Screw 3/8"-16 x 1" SHCS (2)
13	44455	E-1370 Set Screw 5/16" x 3/8"
14	87945	E-1325 90° Fitting
15	75065	E-1326X Intake Line
16	43470	C-445-1X Pump Body (Incls. Ref. Nos. 3, 8, 16, 19, Roller Bearing)
17	46840	E-907-1 90° Fitting (2)
18	44105	D-864 Feed Line
19*†	46715	E-886-1 Oil Seal
20	44350	E-1266 Idler Gear
21	44345	E-1265-1 Gear Shaft
—	91055	E-10484 Repair Kit (Includes items marked with *)

†Service Note: When replacing Oil Seal, open side should face towards outside of Pump Body. Use care in installing Seal so that lip is not damaged.

Main Components



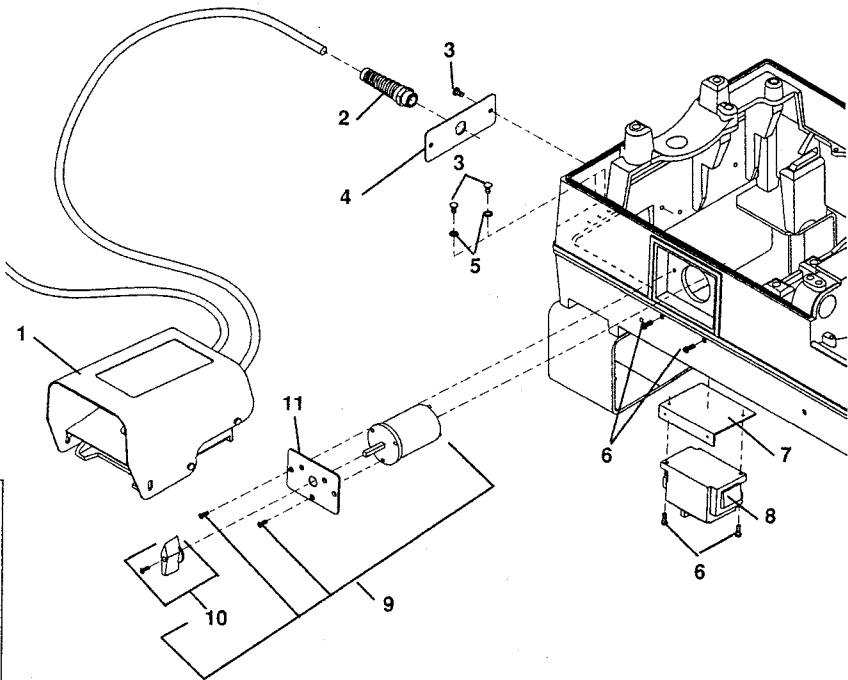
NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	46760	Screw (3)	16	45440	Front Support Bar
2	62062	Top Cover	17	62057	Carriage Assembly
3	85920	Pop Rivet (8)	18	47065	Hinge Pin
4	88690	Warning Plate	19	42365	341 Reamer Assembly
5	46800	Set Screw (2)	20	44930	Stop Screw
6	61952	Base	21	43690	Cutter Arm
7	45615	Screw (2)	22	45220	Rear Support Bar
8	47110	Indicator Slide	23	47145	Spacer
9	47105	Indicator Bar	24	45430	Pinion Gear
10	46510	Handwheel	25	47120	Lock Plate
11	47165	Pin	26	46785	Screw 10 - 32 x 3/8" (2)
12	47115	Pinion Shaft	27	47135	Stop Pin
13	46930	Key 3/16" Sq. x 1/2"	28	42390	820 Cutter Assembly
14	43355	Chip Tray	29	47585	Drive Shaft Assembly
15	48337	Drain Plug	30	46745	Screw

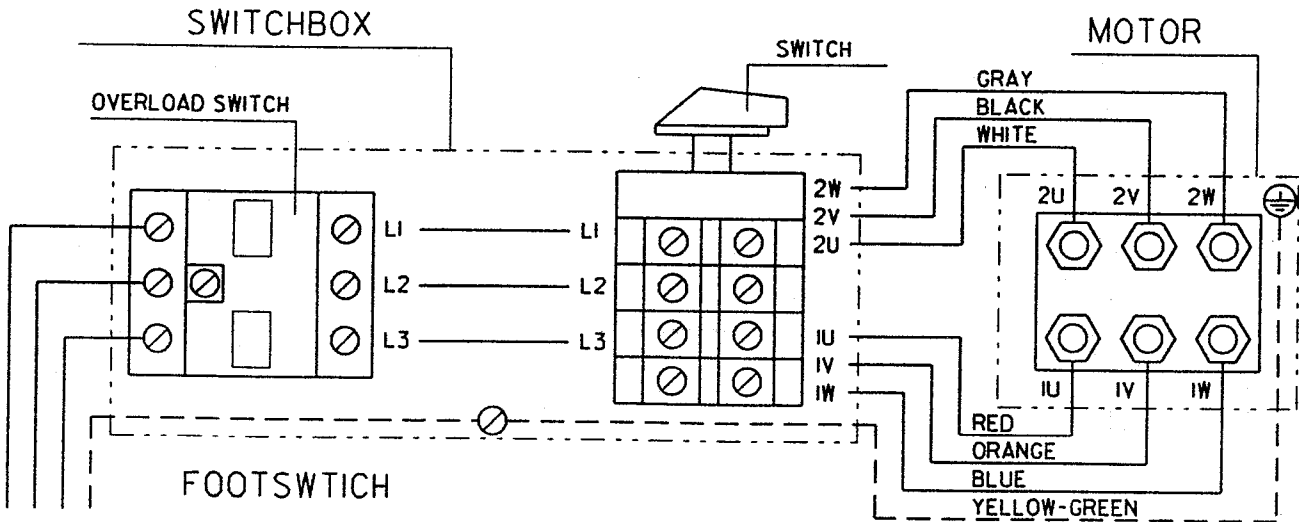
Electrical Components

NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

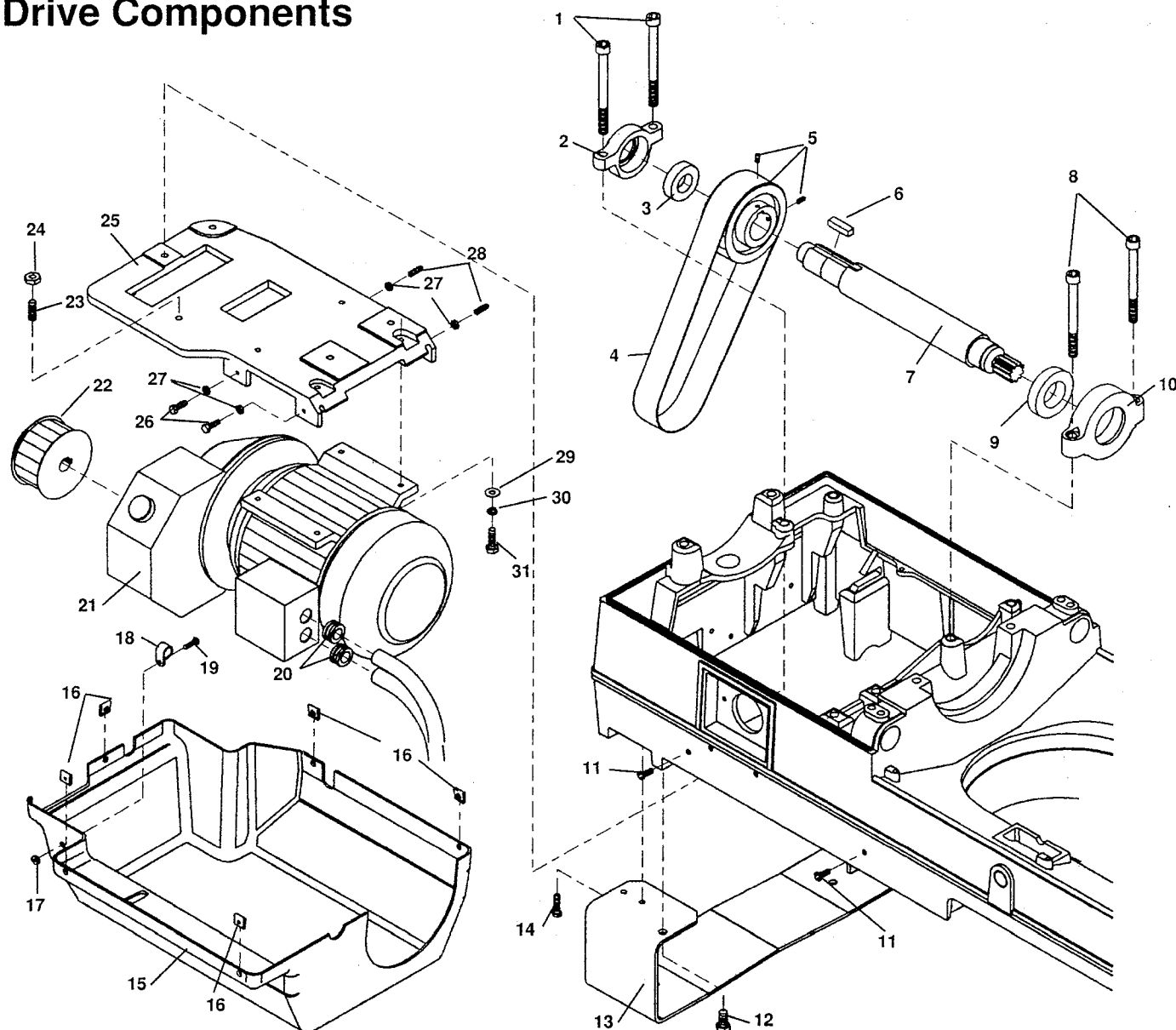
Ref. No.	Catalog No.	Description
1	30306	Foot Switch Assembly
2	54177	Strain Relief
3	45420	Screw 10 - 24 x 3/8"
4	66717	Retainer Plate
5	46985	Ext. Tooth Lock Washer
6	16906	Screw
7	66712	Mounting Plate
8	17936	Relay
9	17416	Switch Assy w/Knob
10	59702	Switch Knob
11	66702	Switch Plate



Wiring Diagram



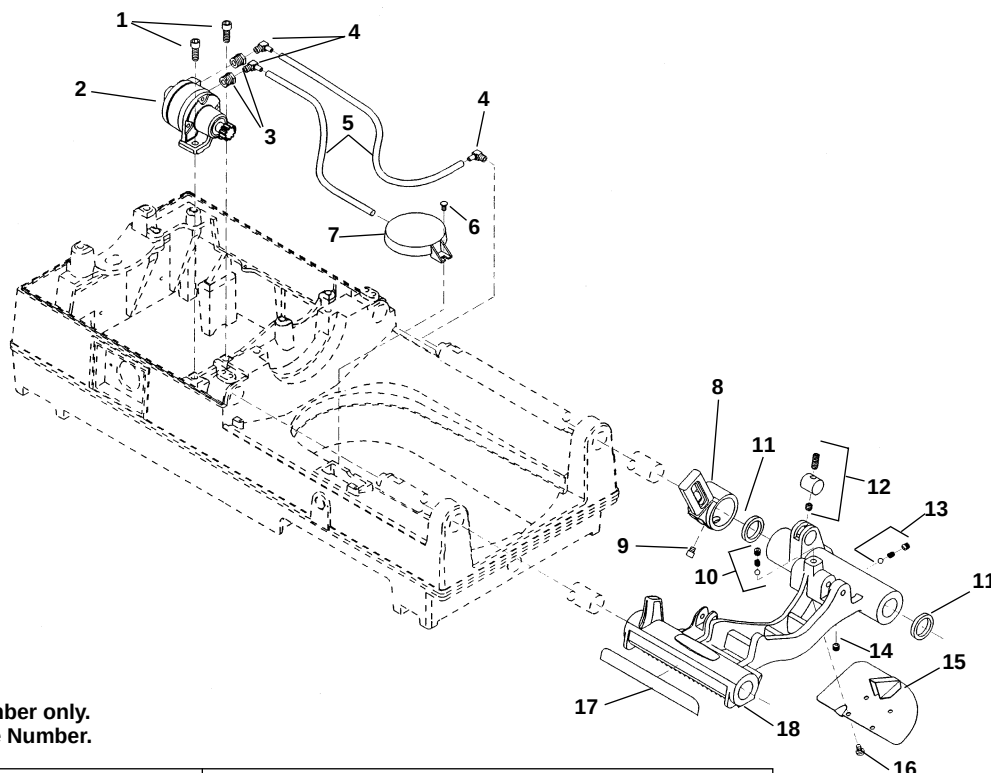
Drive Components



NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	18286	Bolt	17	18196	Hex Nut 10-24
2	17496	Bearing Mount	18	61912	Cord Clamp
3	17526	Bearing	19	92455	Screw 10-24 x 3/4"
4	18036	Drive Belt	20	47080	Cord Grommet
5	18016	Pulley	21	18086	Motor/Gearbox Assy
6	18006	Key	22	18026	Pulley
7	17996	Shaft	23	18186	Screw
8	18066	Screw	24	18196	Nut
9	17526	Bearing	25	18136	Motor Table
10	17506	Bearing Mount	26	18056	Stop Screw 6mm (2)
11	92455	Screw 10-24 x 3/4"	27	18176	Nut 6mm (4)
12	66722	Screw	28	66727	Set Screw M6x1-20mm (2)
13	66707	Base Support (2)	29	18216	Flat Washer
14	85915	Screw	30	18226	LockWasher
15	66697	Bottom Cover W/Clips	31	18206	Screw
16	65857	Retaining Clip (5)			

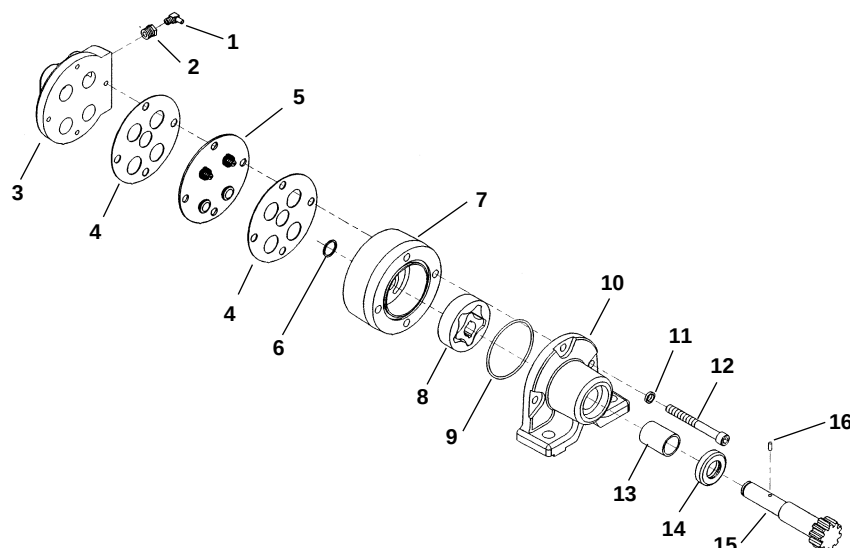
Carriage and Oiling System



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

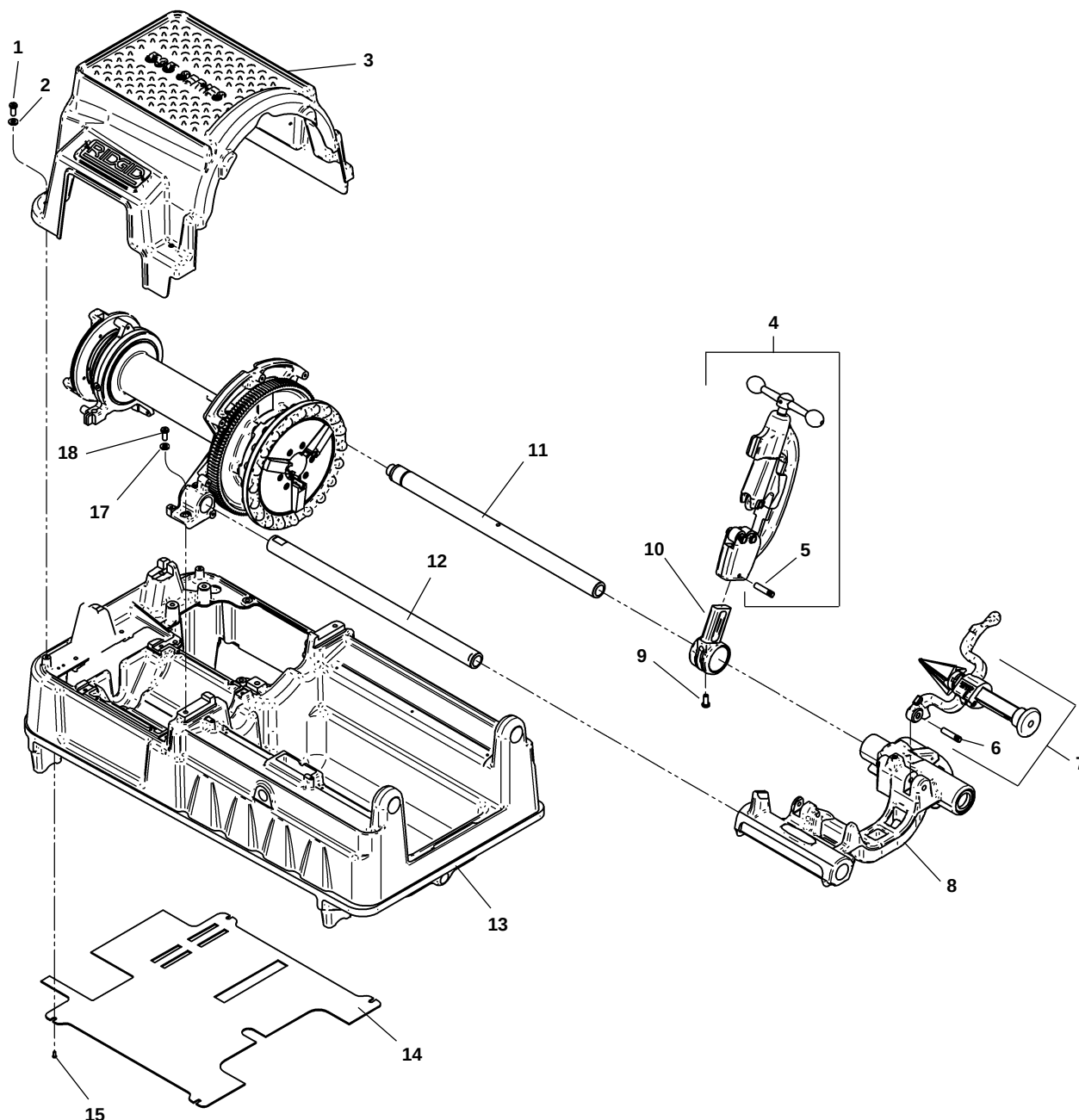
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	46750	Screw (2)	10	46810	Detente Assembly
2	18296	Model MJ Oil Pump LS	11	46720	Oil Seal (2)
3	62047	Reducing Bushing (2)	12	61957	Plug Assembly
4	87945	Right Angle Fitting (3)	13	35307	Pressure Relief Assembly
5	87950	Oil Line (2)	14	46815	Pipe Plug 1/8" NPT
6	45420	Screw	15	45195	Drip Plate
7	58467	Oil Filter Assembly	16	46270	Screw (4)
8	43690	Cutter Arm	17	46370	Scale
9	44930	Stop Screw	18	62057	Carriage Assy. (Includes Ref. No. 8-17)

Model MJ Oil Pump



Ref. No.	Catalog No.	Description
—	18296	Model MJ Oil Pump LS
1	87945	Right Angle Fitting (2)
2	62047	Reducing Bushing (2)
3	33442	Valve Body
4	33457	Gasket (2)
5	33452	Valve Body Assembly
6	61997	Retaining Ring
7	62002	Gerotor Housing
8	75782	Gerotor Set LS
9	33477	O-Ring
10	62012	Pump Body
11	45150	Lock Washer (3)
12	62017	Screw (3)
13	61972	Bushing
14	33472	Oil Seal
15	61982	Pump Shaft
16	26907	Drive Pin
17	61977	Pump Repair Kit (Includes Ref. No. 4-6, 9, 13, 14, and 16)

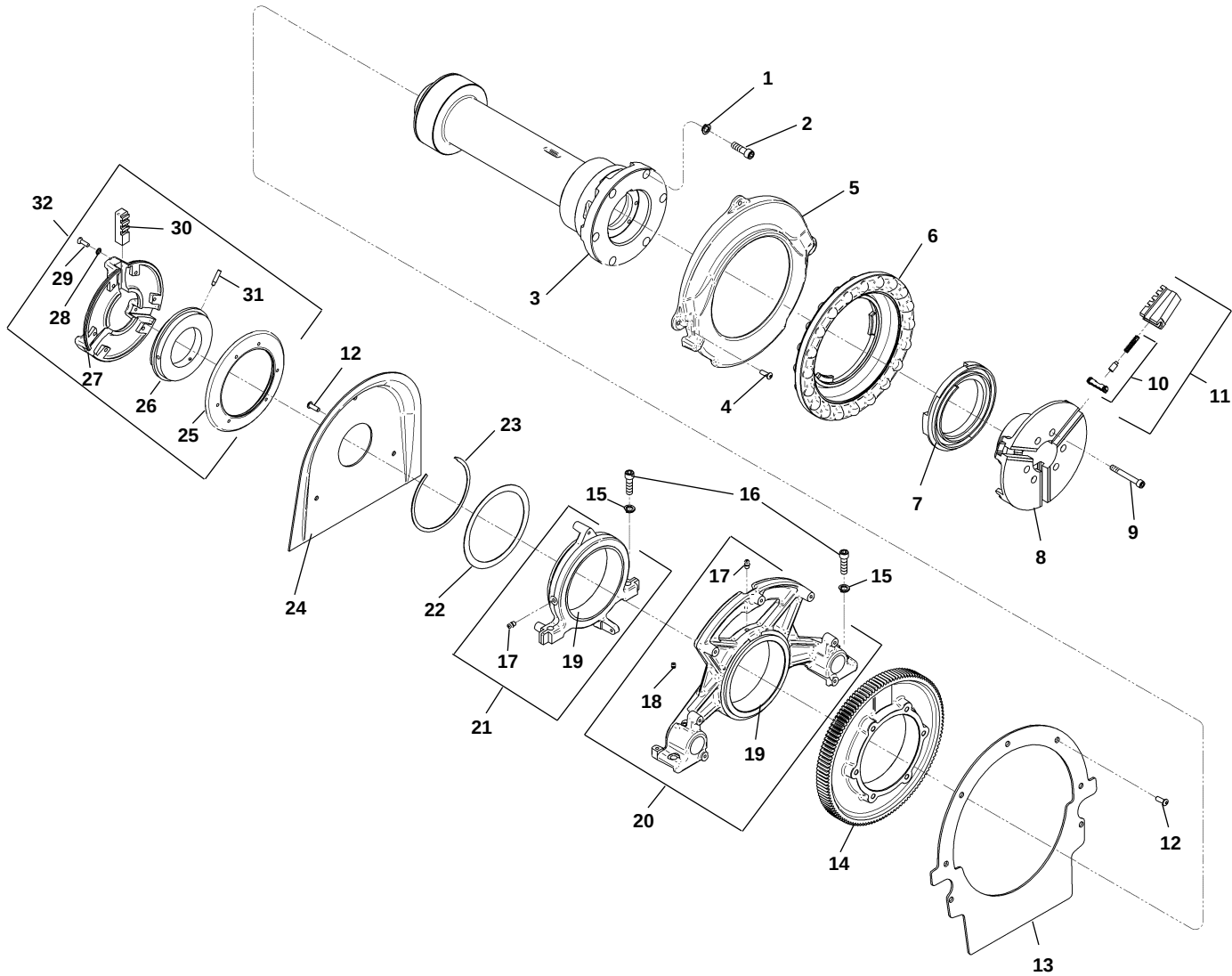
Main Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

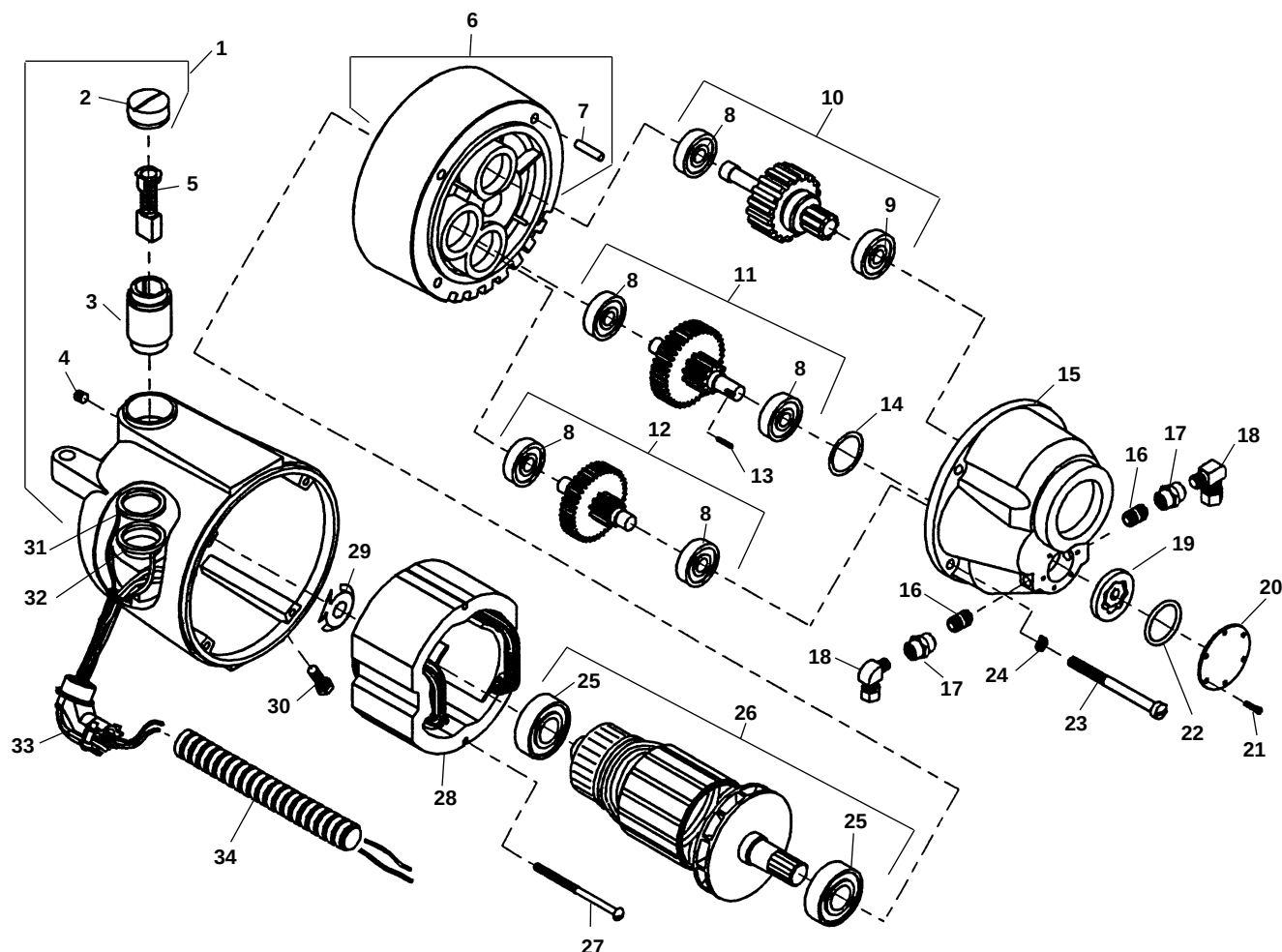
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	94332	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " (4)	9	44930	Stop Screw
2	94322	Washer, Flat $\frac{1}{4}$ " (4)	10	43690	Cutter Arm
3	94432	Top Cover	11	45220	Rear Support Bar
4	42390	820 Cutter Assembly	12	45440	Front Support Bar
5	47135	Stop Pin	13	94042	Base
6	47065	Pin	14	96432	Bottom Cover
7	42365	341 Reamer Assembly	15	94312	Screw, Pan Head #6 - 32 x 2" (4)
8	94357	Carriage Assembly			

Drive Shaft Assembly



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

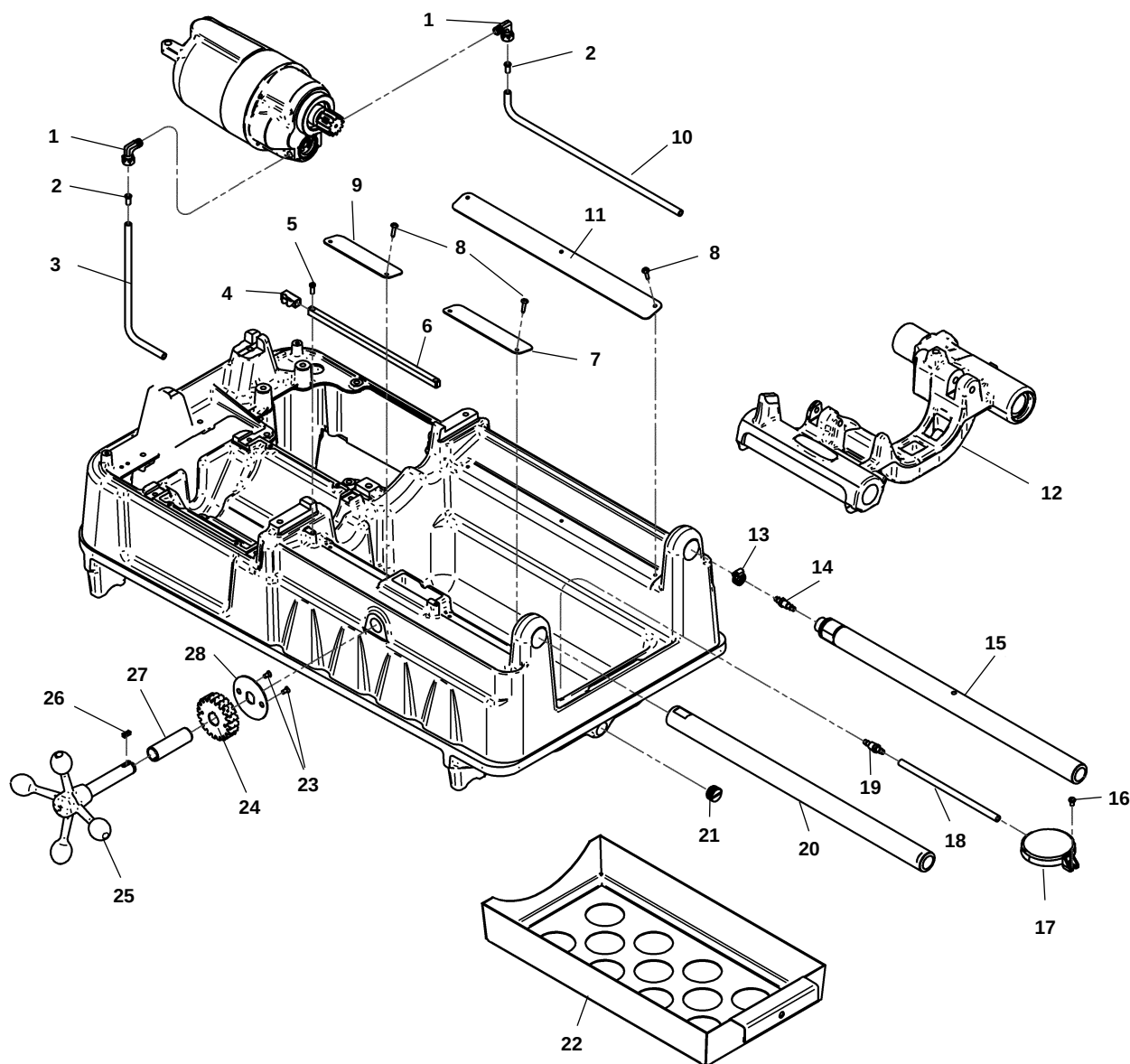
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	40930	Washer, Lock $\frac{3}{8}$ "	18	40910	Set Screw $\frac{1}{4}$ " - 20 x $\frac{3}{16}$ " (4)
2	46475	Screw, Soc. Hd. $\frac{3}{8}$ " - 16 x $1\frac{1}{4}$ "	19	93957	Spindle Bearing (2)
3	96427	Drive Shaft	20	94027	Front Bracket Assembly
4	94332	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{16}$ " (9)	21	94037	Rear Bracket Assembly
5	96407	Front Cover	22	94392	Thrust Washer
6	96422	Handwheel	23	94397	Retaining Ring
7	43450	Scroll	24	96487	Rear Cover
8	43440	Chuck Cap	25	43740	Back Plate
9	45295	Screw, $\frac{1}{16}$ " - 18 x $2\frac{3}{4}$ " (6)		19356	Back Plate - Europe
10	44715	Insert Set	26	44095	Scroll
11	44090	Front Jaw (4)	27	43735	Centering Head
12	94337	Screw, Button Head $\frac{1}{4}$ " - 20 x $\frac{3}{16}$ " (7)		19346	Centering Head - Europe
13	94072	Front Plate	28	40270	Lock Washer (6)
14	96417	Drive Gear	29	46790	Screw, #12-24 x $\frac{3}{16}$ " (6)
15	40930	Washer, Lock $\frac{3}{8}$ " (4)	30	46500	Centering Jaw (3)
16	46745	Screw, $\frac{3}{16}$ " - 16 x $1\frac{1}{4}$ " (4)	31	45260	Step Pin (3)
17	46860	Grease Fitting (2)	32	44165	Centering Head Assembly

Motor
1101


NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	96442	1101 Motor 115V	12	45005	2nd Gear Assembly	24	45150	Lock Washer
1	43160	Housing Assembly	13	96885	Pin	25	52517	Male Elbow
2	44545	Brush Cap Set	14	96880	Oil Seal	26	44565	Armature Bearing (2)
3	45025	Brush Holder Set	15	96830	Gear Housing	27	52497	Armature (115V)
4	39770	Set Screw (2)	16	52507	Pipe Nipple 1/8" NPT (2)	27	44555	Mounting Screw (2)
5	44540	Brush Assembly Set	17	52512	Coupling 1/8" NPT (2)	28	44015	Field (115V)
6	54552	Fan Housing Assembly	18	52517	90° Elbow Fitting (2)	29	44580	Loading Spring
7	45165	Dowel Pin	19	96870	Gerotor Set	30	83500	Locking Screw (2)
8	45060	Gear Bearings (5)	20	96840	Cover Plate	31	96942	White Upper Lead
9	45315	Front Bearing	21	96890	Screw (6)	32	96492	Red Lower lead
10	96437	Drive Gear	22	96875	O Ring	33	46900	Connector 90
11	52522	1st Gear Assembly	23	45075	Screw (4)	34	96482	Flexible Conduit

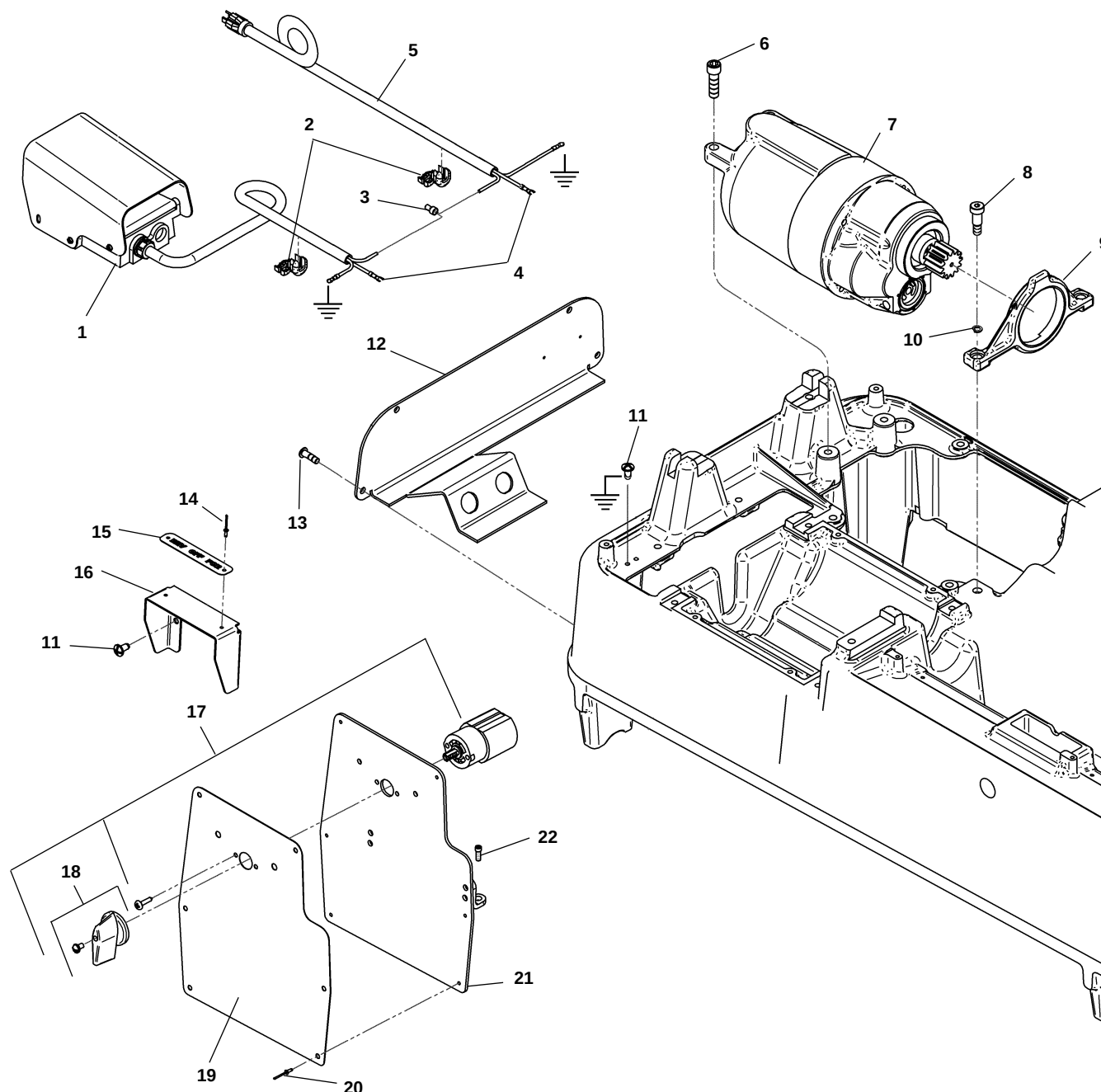
Oiling Components



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	35122	Fitting (2)	15	45220	Support Bar, Rear
2	35117	Tube Insert	16	45420	Screw, #10 - 32 x 3/8"
3	96477	Oil Hose, Input 13"	17	58467	Filter Screen Assembly
4	47110	Indicator Slide	18	87950	Oil Hose, Filter
5	45615	Screw, Flat Head #10 - 32 x 1/2" (2)	19	54142	Bulkhead Fitting
6	47105	Length Indicator Bar	20	45440	Support Bar, Front
7	94117	Drip Edge	21	96447	Drain Plug 1/2" NPT
8	43367	Screw, #8 x 3/4"	22	94112	Chip Tray
9	94122	Drip Edge	23	46785	Screw, Flat Head #10 - 32 x 3/8" (2)
10	58482	Oil Hose, Input 25"	24	45430	Pinion
11	94127	Drip Edge	25	94012	Handwheel
12	94357	Carriage Assembly	26	94267	Key, 3/16" Square x 1/2"
13	35142	Hose Clamp	27	94222	Bushing
14	69167	Barbed Fitting	28	47120	Pinion Lock Ring

Electrical Components



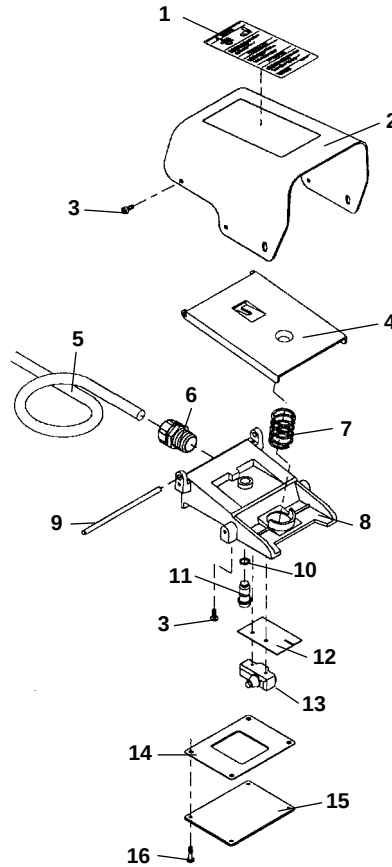
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	36642	Foot Switch, B-294	12	94152	Back Cover
2	75952	Strain Relief (2)	13	47147	Screw, Button Head #10 - 32 x 3/8" (2)
3	44635	End Splice	14	85920	Pop Rivet (2)
4	46875	Spade Terminal (2)	15	96467	Switch Label
5	75902	Power Cord 115V	16	96452	Switch Cover
6	46745	Screw (2)	17	96462	Switch Assembly
7	96442	Motor	18	59702	Switch Knob
8	36262	Shoulder Bolt (2)	19	96472	Warning Label
9	96402	Motor Bracket	20	94427	Pop Rivet (6)
10	75815	Washer, Lock (2)	21	96457	Control Panel
11	45420	Screw (4)	22	40910	Screw

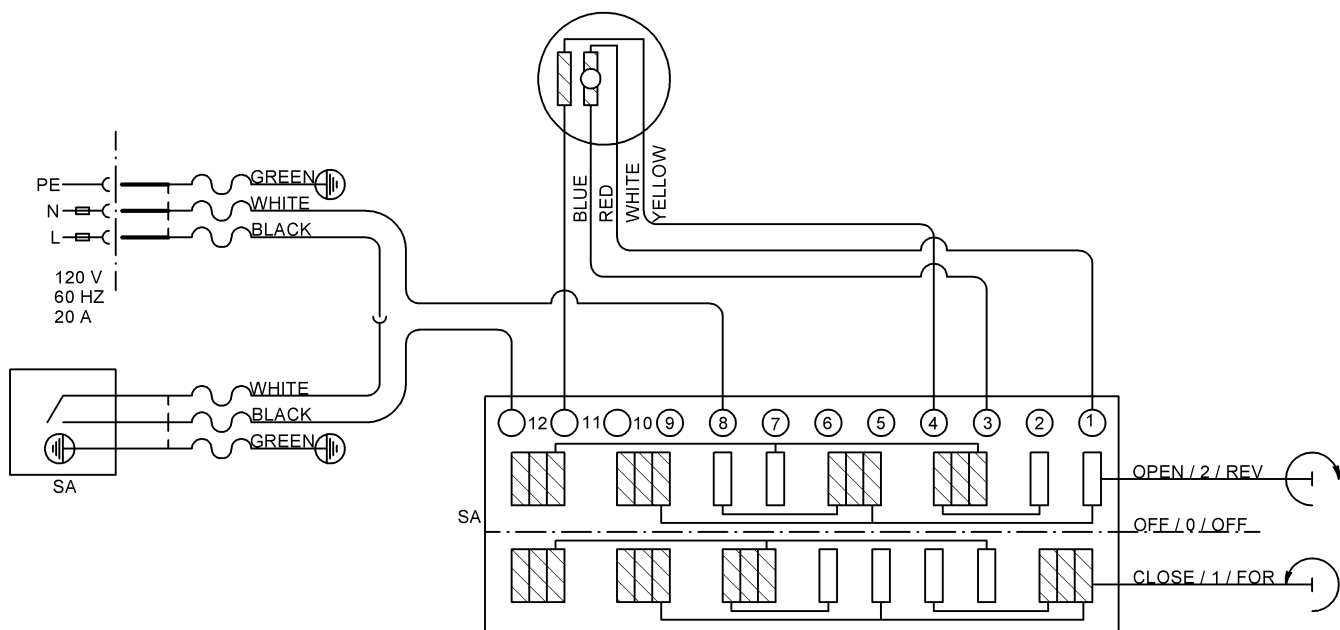
B-294 Foot Switch

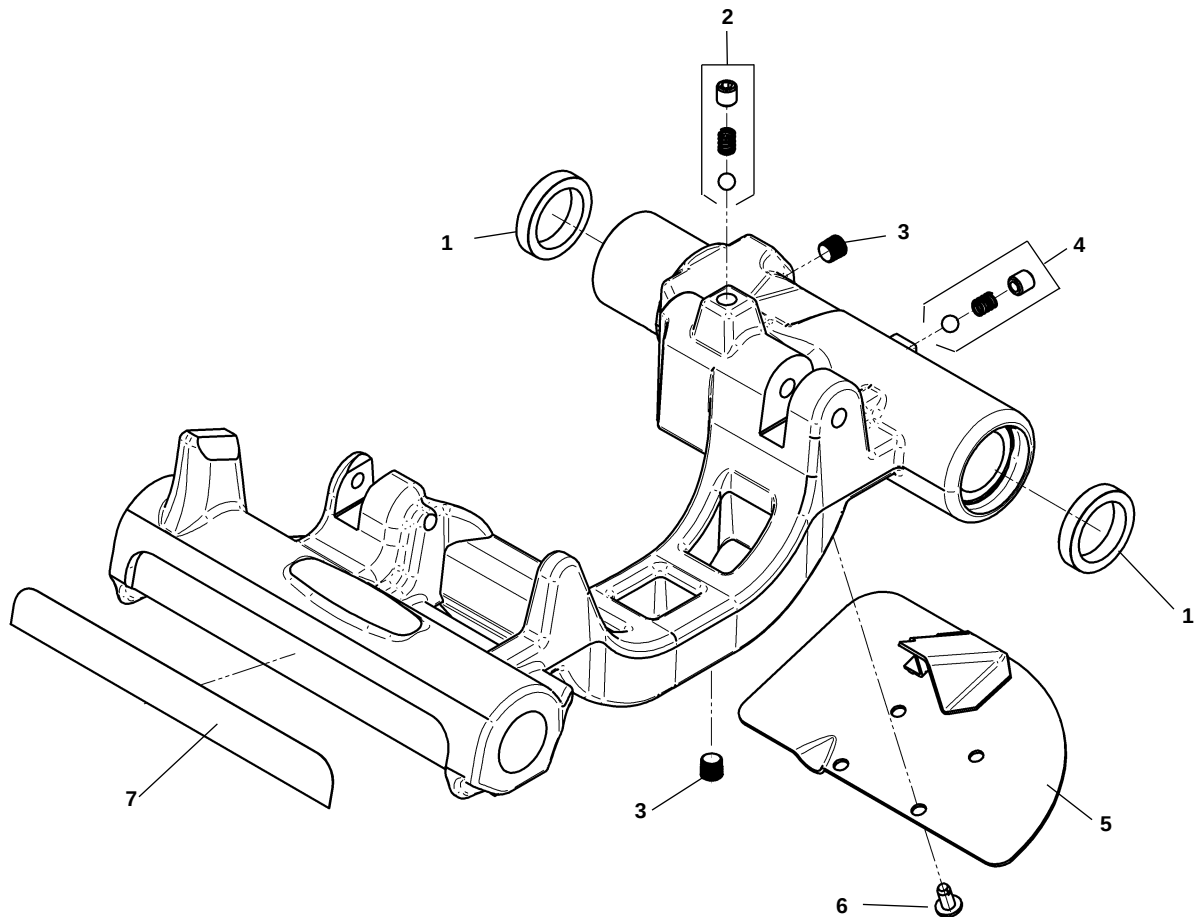
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
—	36642	B-294 Foot Switch
—	36647	B-295 Foot Switch
—	36662	301-A Foot Switch
—	75962	B-294 HD Foot Switch
1	36667	Warning Label (B-294)
	36672	Warning Label (B-295)
	36687	Warning Label (301-A)
	76352	Warning Label (B-294 HD)
2	36692	Cover
3	36787	Screw #10 Self-tapping (5)
4	36697	Foot Pedal
5	68880	Cord (B-294)
	36712	Cord (B-295)
	36727	Cord (301-A)
	75972	Cord (B-294 HD)
6	36732	Cord Connector
	75977	Cord Connector (B-294 HD)
7	36702	Spring
8	54347	Base
9	36747	Pivot Pin
10	36767	O-Ring
11	36772	Poppet
12	54367	Insulator
13	36762	Micro Switch
14	54372	Seal
15	54362	Bottom Cover
16	54357	Bottom Cover Screw (4)



Wiring Diagram

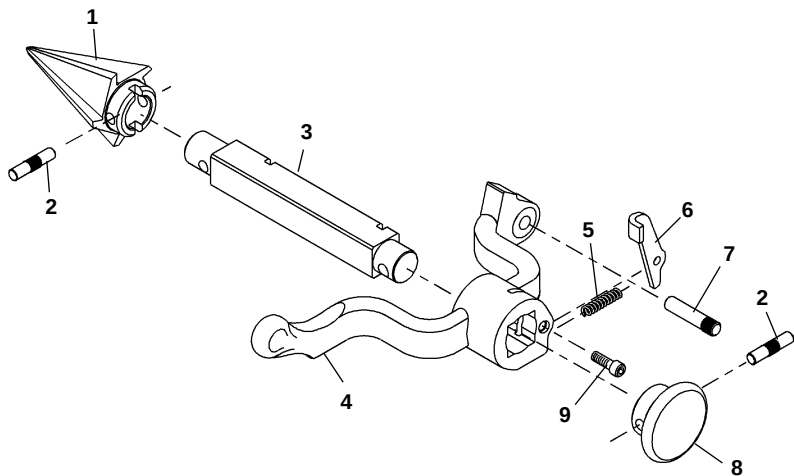


Carriage

**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

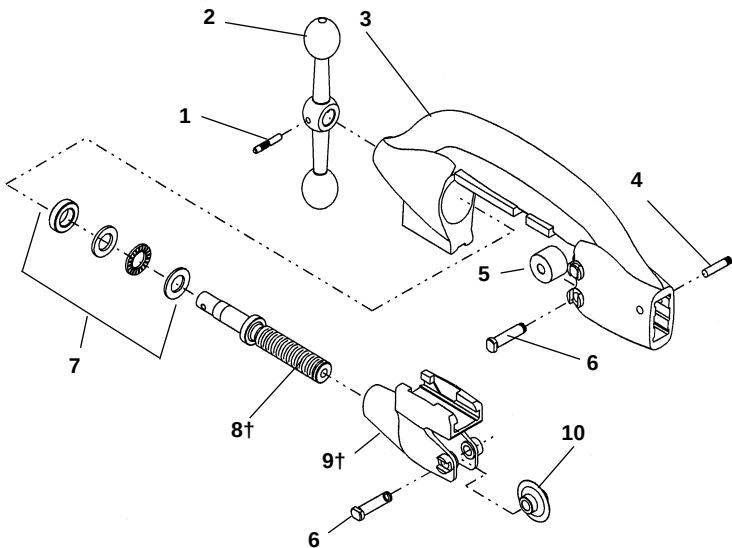
Ref. No.	Catalog No.	Description
—	94357	Carriage Assembly
1	46720	Oil Seal
2	46810	Die Head Detente
3	46815	Pipe Plug, 1/8" NPT (2)
4	35307	Pressure Relief Set
5	45195	Drip Tray
6	46270	Screw, 1/4" - 20 x 1/2" (4)
7	46370	Length Gauge

No. 341 Reamer



Ref. No.	Catalog No.	Description
—	42365	341 Reamer Complete
1	36277	Cone (R.H.)
	46660	Cone (L.H. & R.H.)
2	47155	Pin
3	43790	Reamer Bar
4	43230	Reamer Arm
5	44700	Latch Spring
6	46665	Reamer Latch
7	47065	Hinge Pin
8	46585	Reamer Knob
9	46515	Screw 1/4" - 20 x 3/4"

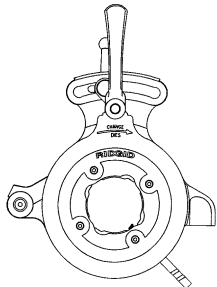
No. 820 Cutter



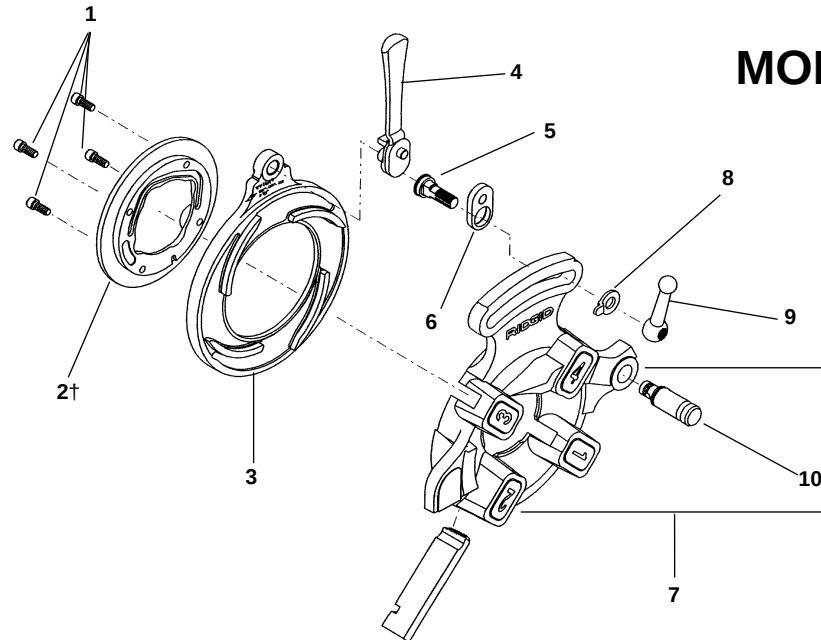
NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description
—	42390	820 Cutter Complete
1	47160	Crank Pin
2	45765	Feed Screw Crank
3	43040	Cutter Frame
4	47135	Stop Pin
5	34775	Cutter Roll (2)
6	34780	Cutter & Roll Pin (3)
7	46725	Thrust Bearing Assembly
8†	45780	Feed Screw
9†	43245	Wheel Housing
10	44185	Cutter Wheel
	44190	Cutter Wheel f/Stainless

† Service Note: When replacing parts on early style (fine thread) cutters, both feed screw and wheel housing must be replaced.

Service Note


†2 Retaining Ring must be oriented as shown for proper oil flow.


MONO (A-SERIES)

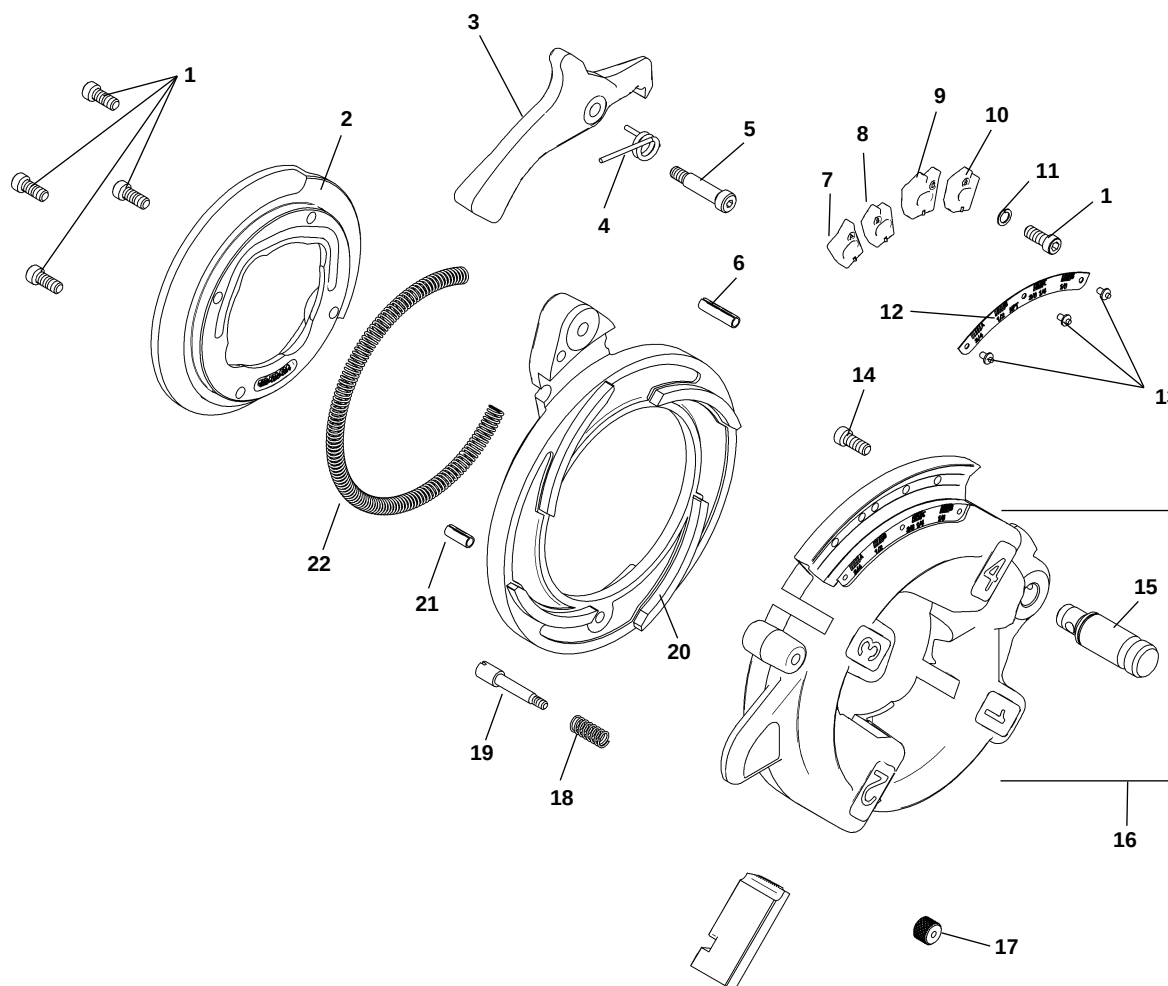
811A
842
555
531B
532B

QUICK OPENING DIE HEADS

NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	1	2†	3	1	5	6	7	8	9	10
Die Head & Catalog No.	Screw	Retaining Ring	Cam Plate	Throw-Out Lever	Lock Screw	Link	Head/w Post	Lever Washer	Clamp Lever	Post
811A (97065) 1/8"-2" RH NPT	32205	97020	43360	46520	39860	39950	40922	26957	39970	59832
842 (23282) 1/8"-2" LH NPT	32205	23292	43360	46520	39860	39950	23287	26957	39970	59832
555 (10491) 1/8"-3/4"	32205	24256	43365	46555	39860	39950	24006	26957	39970	59832
531B (97045) 1/4"-1" RH/LH	32205	46620	43405	46555	39955	39950	97055	26957	39970	59832
532B (97050) 1 1/8"-2" RH/LH	32205	46625	43410	46555	39955	39950	97060	26957	39970	59832
811A (97070) 1/8"-2" BSPT	32205	97020	43360	46520	39860	39950	40957	26957	39970	59832
842 (23297) 1/8"-2" LH (BSPT)	32205	23292	43360	46520	39860	39950	23202	26957	39970	59832
Mono (1/8"-3/8") RH 1/8" (41032) 1/4" (41037) 3/8" (41042)	32205	1/8"-41862 1/4"-41867 3/8"-41872	43305	46555	47140	39950	41907	26957	46820*	59832
Mono (1/2"-3/4") RH 1/2" (41047) 3/4" (41062)	32205	1/2"-41877 3/4"-41882	43300	46555	47140	39950	41912	26957	46820*	59832
Mono (1"-1 1/4") RH 1" (41057) 1 1/4" (41062)	32205	1"-41887 1 1/4"-41892	43295	46555	47140	39950	41917	26957	46820*	59832
Mono (1 1/2"-2") RH 1 1/2" (41067) 2" (41072)	32205	1 1/2"-41897 2"-41902	43290	46555	47140	39950	41922	26957	46820*	59832

*Hex Nut For Mono Die Heads

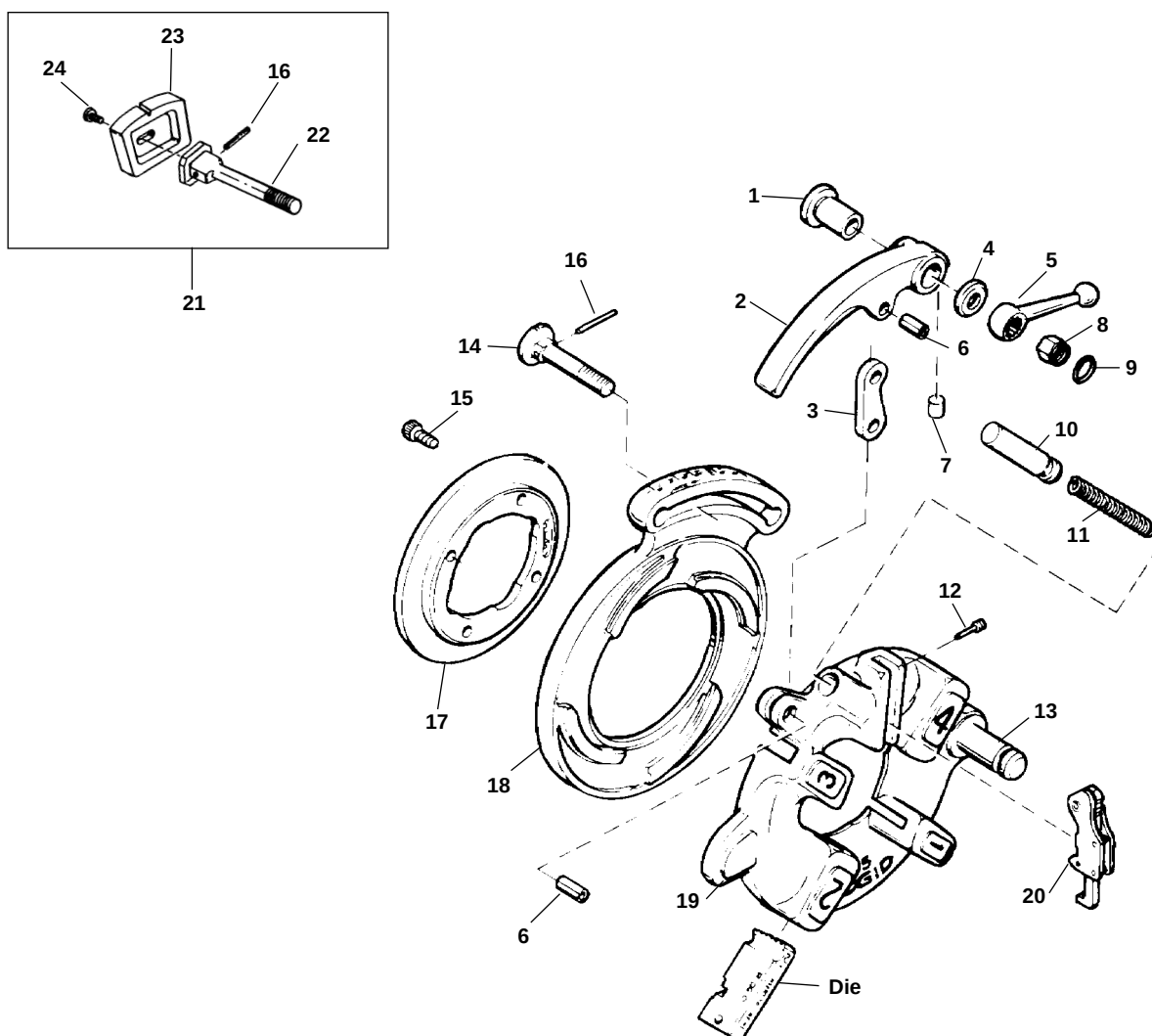
816/817 Die Head


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	84537	816 Die Head $\frac{1}{8}'' - \frac{3}{4}''$	11	44740	Split Lock Washer, $\frac{1}{4}''$ (4)
—	84532	817 Die Head $1'' - 2''$	12	92772	Size Plate 816 $\frac{1}{8}'' - \frac{3}{4}''$
1	40910	Screw, $\frac{1}{4}'' - 20 \times \frac{3}{4}''$ S.H.C.S. (8)		92777	Size Plate 817 $1'' - 2''$
2	92767	Retaining Ring	13	85920	Pop Rivet $\frac{3}{32}''$ (3)
3	92822	Handle	14	32145	Screw, $\frac{1}{4}'' - 20 \times \frac{1}{2}''$ S.H.C.S.
4	92817	Spring	15	59832	Die Head Post
5	92812	Shoulder Bolt	16	92757	Die Head Body w/Post
6	92832	Roll Pin $\frac{1}{4}'' \times \frac{5}{16}''$	17	92802	Plunger Knob
7	92782	Adjusting Block 816/817 $\frac{3}{4}''$, 2" Type A	18	92807	Plunger Spring
8	92787	Adjusting Block 816 $\frac{1}{2}''$ Type B	19	92797	Plunger Shaft
	92782	Adjusting Block 817 $1\frac{1}{2}''$ Type A	20	92762	Cam Plate
9	92792	Adjusting Block 816 $\frac{1}{4}''$, $\frac{3}{8}''$ Type C	21	58090	Roll Pin $\frac{1}{4}'' \times 1''$
	92787	Adjusting Block 817 $1\frac{1}{4}''$ Type B	22	92827	Spring
10	92787	Adjusting Block 816/817 $\frac{1}{8}''$, 1" Type B			

815A NPT Self-Opening Through-Head Oiling Die Head

815A BSPT Self-Opening Through-Head Oiling Die Head

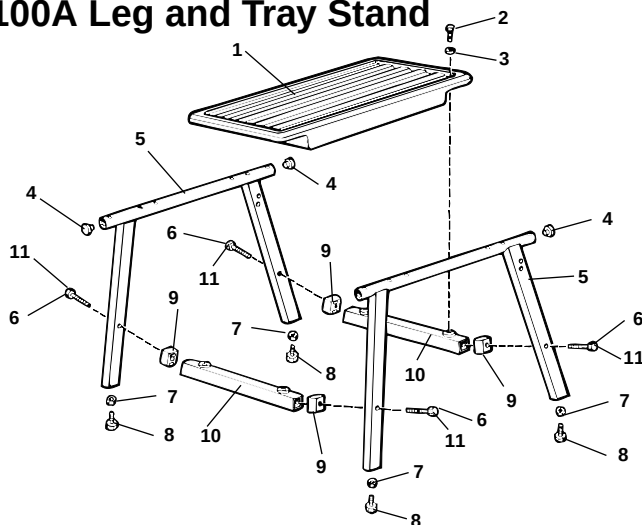


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	97075	815A Self-Opening (Through-Head-Oiling) Die Head (NPT)	13	59832	Post
	97080	815A Self-Opening (Through-Head-Oiling) Die Head (BSPT)	14	44235	Lock Screw
1	44240	Bushing	15	32205	Screw (4)
2	43830	Throw-Out Lever	16	45050	Pin
3	44265	Throw-Out Link	17	97020	Retaining Ring
4	44245	Washer	18	40942	Cam Plate (815A NPT)
5	44260	Clamp Lever		97040	Cam Plate (815A BSPT)
6	44270	Roll Pin (2)	19	40932	Head w/Post
7	45055	Insert	20	44285	Trigger Assembly
8	44250	Nut		32982	Adj. Trigger Assembly (Europe)
9	44255	Retaining Ring		45327	Trigger Assembly (Europe)
10	44275	Throw-Out Plunger	21	45332	Gauge Plate Assembly
11	11565	Spring	22	46722	Adj. Lock Screw
12	44290	Trigger Screw	23	46717	Gauge Plate
			24	47147	Buttonhead Screw

Note: Early Style 815/845 parts interchangeable with 815A NPT
Early Style 855 parts interchangeable with 815A BSPT

No. 100A Leg and Tray Stand

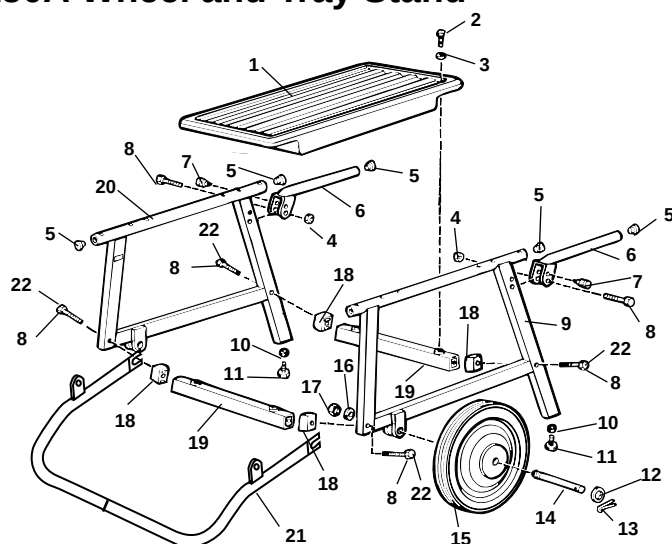


NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description
—	92457	Leg Stand Assembly
1	56872	Tray
2	80030	Hex Bolt $\frac{3}{8}$ " - 16 x 1" (4)
3	44230	Flat Washer $\frac{3}{8}$ " (4)
4	58037	End cap (4)
5	58022	Leg (2)
6	58052	Hex Bolt $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ " (4)
7	44225	Hex Nut $\frac{3}{8}$ " - 16 (4)
8	58027	Leveling Pad (4)
9	58042	Spacer (4) - (1224 Machine Only)
10	58032	Cross Member (2)
11	58047	Hex Bolt $\frac{3}{8}$ " - 16 x 4" (4) (1224 & 535 Auto Machine Only)

NOTE: $\frac{3}{8}$ " - 16 x 4" Bolts and spacers used when mounting 1224 & 535 Auto machines.

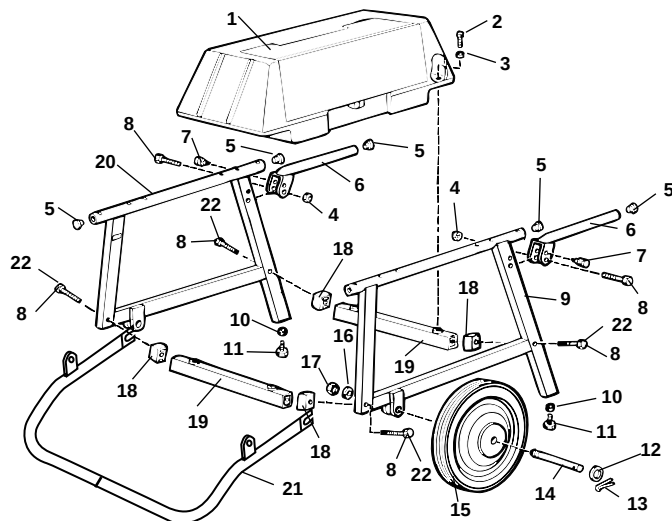
No. 150A Wheel and Tray Stand



Ref. No.	Catalog No.	Description
—	92462	Wheel and Tray Assembly
1	56872	Tray
2	80030	Hex Bolt $\frac{3}{8}$ " - 16 x 1" (4)
3	44230	Flat Washer (4)
4	79985	Locknut $\frac{3}{8}$ " - 16 (2)
5	58037	End Cap (6)
6	58067	Handle (2) includes Ref. No. 5 & 7
7	61567	Plunger Assembly (2)
8	58052	Hex Bolt $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ " (6)
9	58057	Front Leg
10	44225	Hex Nut $\frac{3}{8}$ " - 16 (4)
11	58027	Leveling Pad
12	47180	Washer (2)
13	47030	Cotter Pin (2)
14	58072	Axle (2)
15	27442	Wheel (2)
16	84150	Lock Washer $\frac{1}{2}$ " (2)
17	44745	Locknut $\frac{1}{2}$ " (2)
18	58042	Spacer (4) (1224 machine only)
19	58032	Cross Member (2)
20	58062	Rear Leg
21	63652	Stand Stop Assembly
22	58047	Hex Bolt $\frac{3}{8}$ " - 16 x 4" (4) (1224 & 535 Automatic Machine Only)

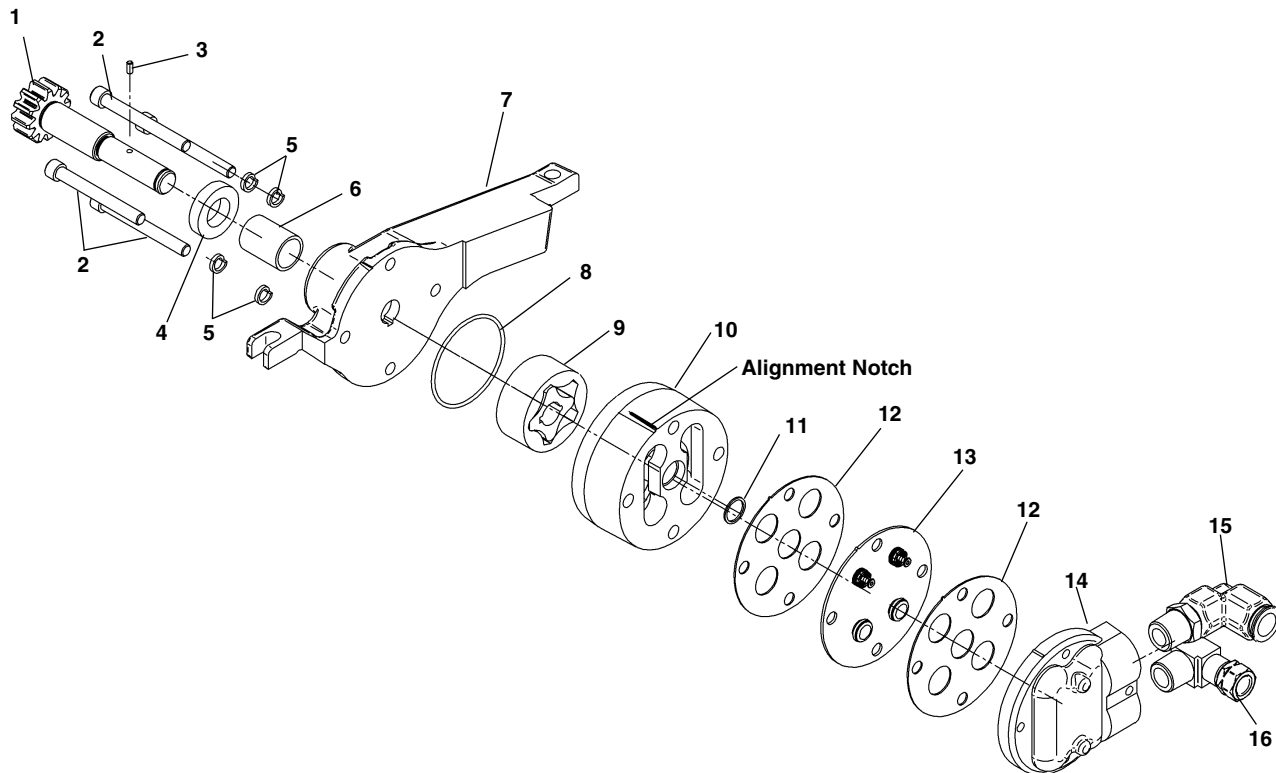
NOTE: $\frac{3}{8}$ " - 16 x 4" bolts and spacers used when mounting 1224 & 535 Auto machines.

No. 200A Wheel and Cabinet Stand



Ref. No.	Catalog No.	Description
—	92467	Wheel Stand Assembly
1	56887	Cabinet
2	80030	Hex Bolt $\frac{3}{8}$ " - 16 x 1" (4)
3	44230	Flat Washer (4)
4	79985	Locknut $\frac{3}{8}$ " - 16 (2)
5	58037	End Cap (6)
6	58067	Handle (2) Includes Ref. No. 5 & 7
7	61567	Plunger Assembly (2)
8	58052	Hex Bolt $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ " (6)
9	58057	Front Leg
10	44225	Hex Nut $\frac{3}{8}$ " - 16 (4)
11	58027	Leveling Pad
12	47180	Washer (2)
13	47030	Cotter Pin (2)
14	58072	Axle (2)
15	27442	Wheel (2)
16	84150	Lock Washer $\frac{1}{2}$ " (2)
17	44745	Locknut $\frac{1}{2}$ " (2)
18	58042	Spacer (4) (1224 Machine Only)
19	58032	Cross Member (2)
20	58062	Rear Leg
21	63652	Stand Stop Assembly
22	58047	Hex Bolt $\frac{3}{8}$ " - 16 x 4" (4) (1224 & 535 Auto Machine Only)

NOTE: $\frac{3}{8}$ " - 16 x 4" bolts and spacers used when mounting 1224 & 535 Auto machines.



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
—	96517	535M Left Hand Threading Kit
1	21813	Pinion Shaft
2	62017	Screw, Soc. Hd. Cap 1/4" - 20 x 2 1/4" (4)
3	26907	Roll Pin 3/32" x 1/4"
4	33472	Oil Seal
5	45150	Lockwasher (4)
6	61972	Bronze Bearing
7	21818	Pump Body
8	33477	O-Ring
9	62007	Gerotor
10	62002	Gerotor Housing
11	61997	Retaining Ring
12	33457	Valve Gasket (2)
13	33452	Valve Retainer
14	33442	Valve Body
15	21823	Elbow Fitting, Swivel
16	21828	Elbow Fitting, Compression