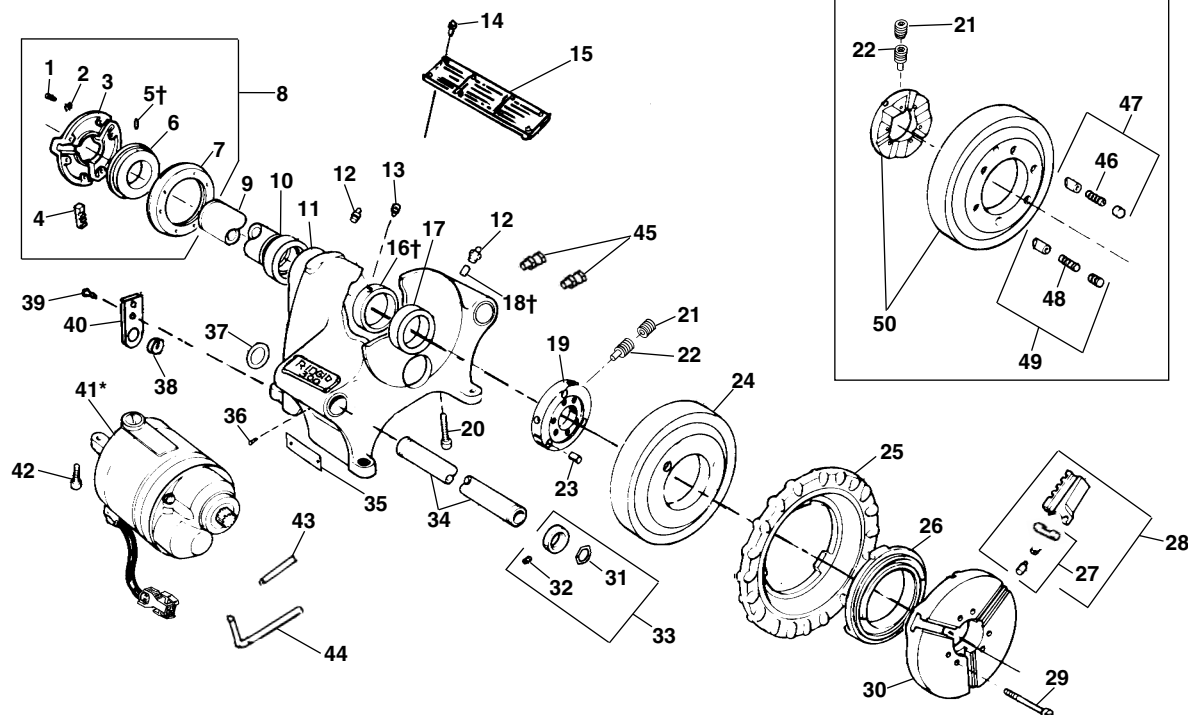


Main Components



Early Style

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

For Information on Cutters, Die Heads and Reamers SEE INDEX

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	46790	Screw, 12 - 24 x 3/4" (6)	27	44715	Jaw Insert Set
2	40270	Lock Washer (6)		97365	Jaw Insert Set F/Coated Pipe
3	43735	Centering Head	28	44090	Chuck Jaw Set
	19346	Centering Head (Europe)	29	45295	Screw 5/16" - 18 x 2 3/4" (6)
4	46500	Rear Jaw (3)	30	43525	Cap
5†	45260	Step Pin (3)	31	44720	Snap Ring (2)
6	44095	Scroll	32	46050	Set Screw 1/4" - 18 x 1/4" (2)
7	43740	Back Plate	33	44725	Ring Assembly (2)
	19356	Back Plate (Europe)	34	44425	Support Bar (Incl. Ref. No. 37)
8	44165	Rear Centering Assembly	35	90392	FOR/OFF/REV Label
9	44100	Drive Shaft	36	45280	Screw #8 - 32 x 5/8" (2)
10	45335	Rear Bearing-Bronze	37	44525	Spring Ring (2)
11	42845	300 Body Assembly (Incl. Ref. No. 10, 11, 12, 13, 14, 15, 17, 18, 38, 39, 40)	38	46735	Cord Grommet
	19056	300A Body Assy.- Europe (Incl. Ref. No. 10, 11, 12, 13, 14, 15, 17, 18, 38, 39, 40, 43, 44, 45)	39	44735	Screw 1/4" - 20 x 5/8" (2)
	96805	300A Body Assy. (Incl. Ref. No. 10, 11, 12, 13, 14, 15, 17, 18, 38, 39, 40, 43, 44, 45)	40	45825	Strain Relief Plate
12	46860	Grease Fitting	41*	87740	3177 Motor 115V (300)
13	33785	Set Screw 5/16" - 24 x 1/4" (2)		87780	3277 Motor 230V (300)
14	85920	Pop Rivet (10)		96910	3181 Motor 115V (300A)
15	88690	Warning Plate		96975	3281 Motor 230V (300A)
16†	45345	Thrust Ring		61202	3177-CE Motor 115V (300CE)
17	45270	Front Bearing-Bronze		61207	3277-CE Motor 230V (300CE)
18†	45310	Split Roll Pin		61192	3181-CE Motor 115V (300A CE)
19	30027	Drive Ring, Type II		61197	3281-CE Motor 230V (300A CE)
20	46035	Screw 5/16" - 18 x 1 3/4"	42	46745	Screw 3/8" - 16 x 1 1/4" (2)
21	45300	Set Screw 5/16" - 24 x 1/4" (2)	43	96850	Tubing (300A)
22	45265	Set Screw 5/16" - 24 x 1/2" (3)	44	96855	Tubing (300A)
23	30022	Drive Pin, Type II (3)	45	96860	Bulkhead Union (2) (300A)
24	30017	Ring Gear, Type II	46	44310	Drive Spring (3)
25	89150	Hand Wheel	47	91552	Drive Wedge Kit
26	43540	Scroll	48	45285	Pressure Spring (3)
			49	91557	Plunger Kit
			50	91562	Conversion Kit (Includes Ref. Nos. 19-24)

* Refer to Motor Model No. for Component Parts

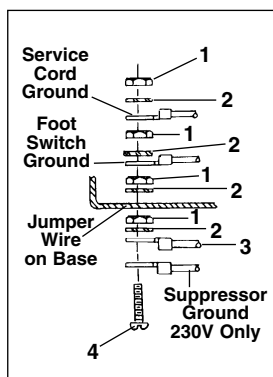
Service Notes:

†Ref. 5 Stop Pins are easily removed by pushing from inside to outside.

†Ref. 18 Before removing front bearing sleeve (Ref. No. 17), dowel pin and grease fitting must be pushed out from inside.

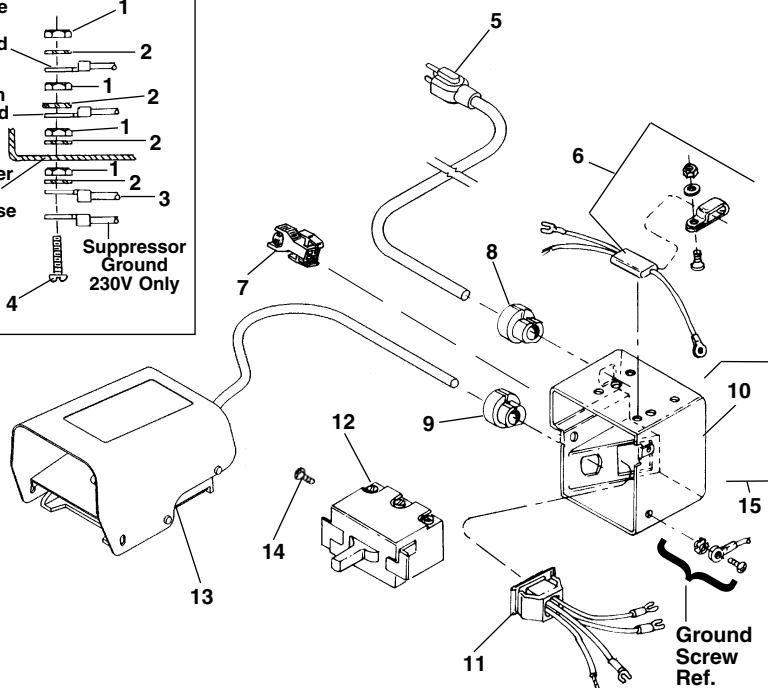
†Ref. 16 Position thrust ring so that offset screw holes are closer to chuck.

Electrical Components

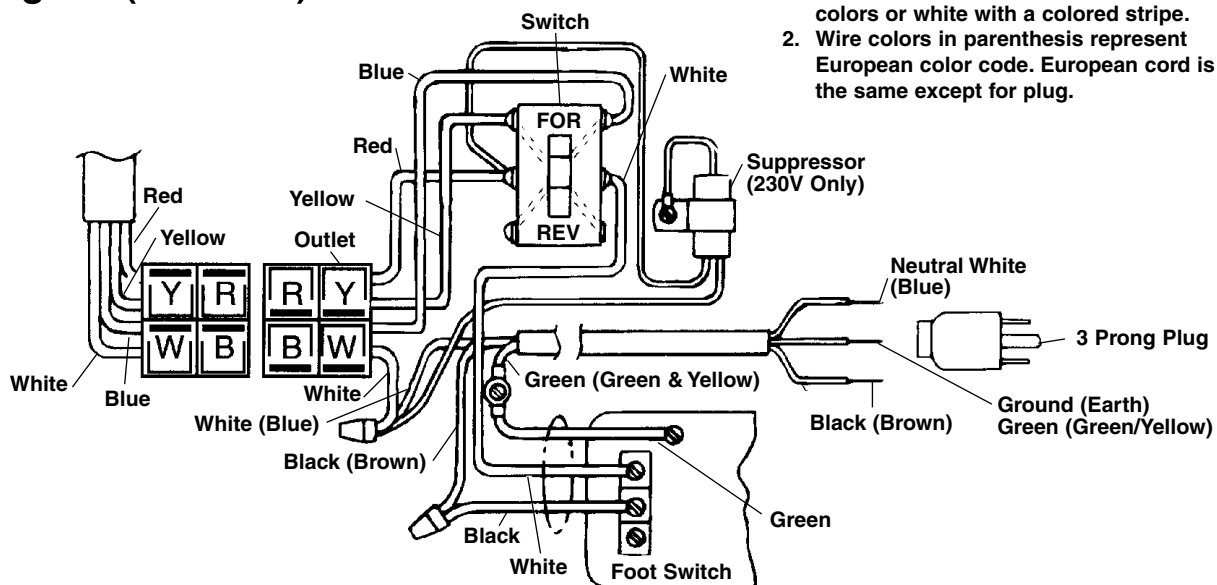


NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

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 Cordless Plug (230V Europe/S. Africa)
6	46320	Suppressor Kit (230V Europe)
	99170	Suppressor (230V S. Africa)
7	50552	Plug
8	46735	Cord Grommet
	46730	Cord Grommet (230V Europe/S. Africa)
9	46735	Cord Grommet
10	50612	Switch Box
11	50617	Outlet Jumper Assembly
12	44505	Switch
13	36642	B-294 Foot Switch
14	44180	Screw
15	91187	Switch Box Kit (Includes Ref. Nos. 7-11)



Wiring Diagram (115/230V)

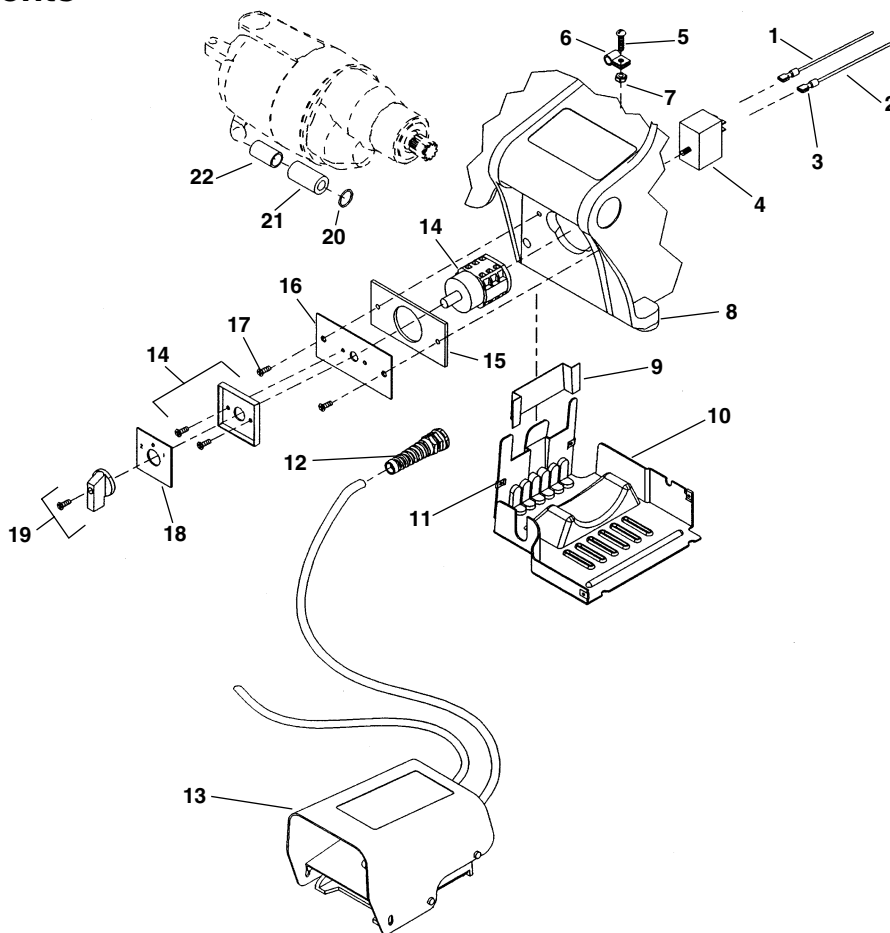


1. Brush and Armature Leads may be solid colors or white with a colored stripe.
2. Wire colors in parenthesis represent European color code. European cord is the same except for plug.

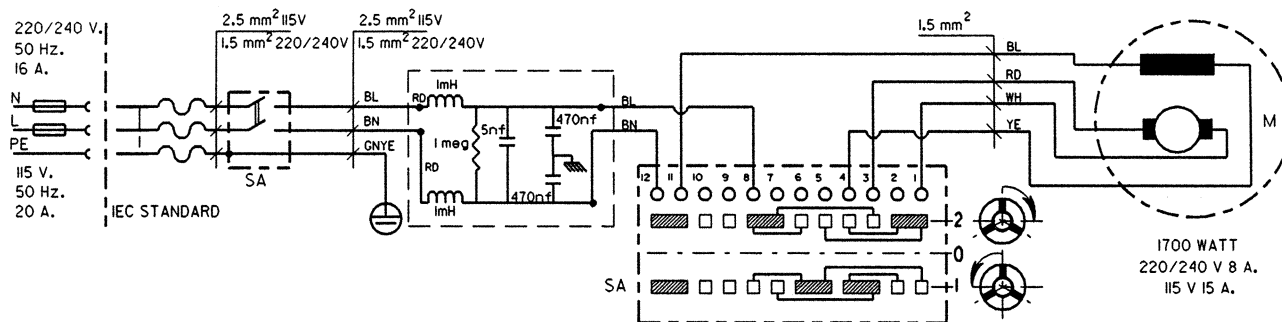
European Electrical Components

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

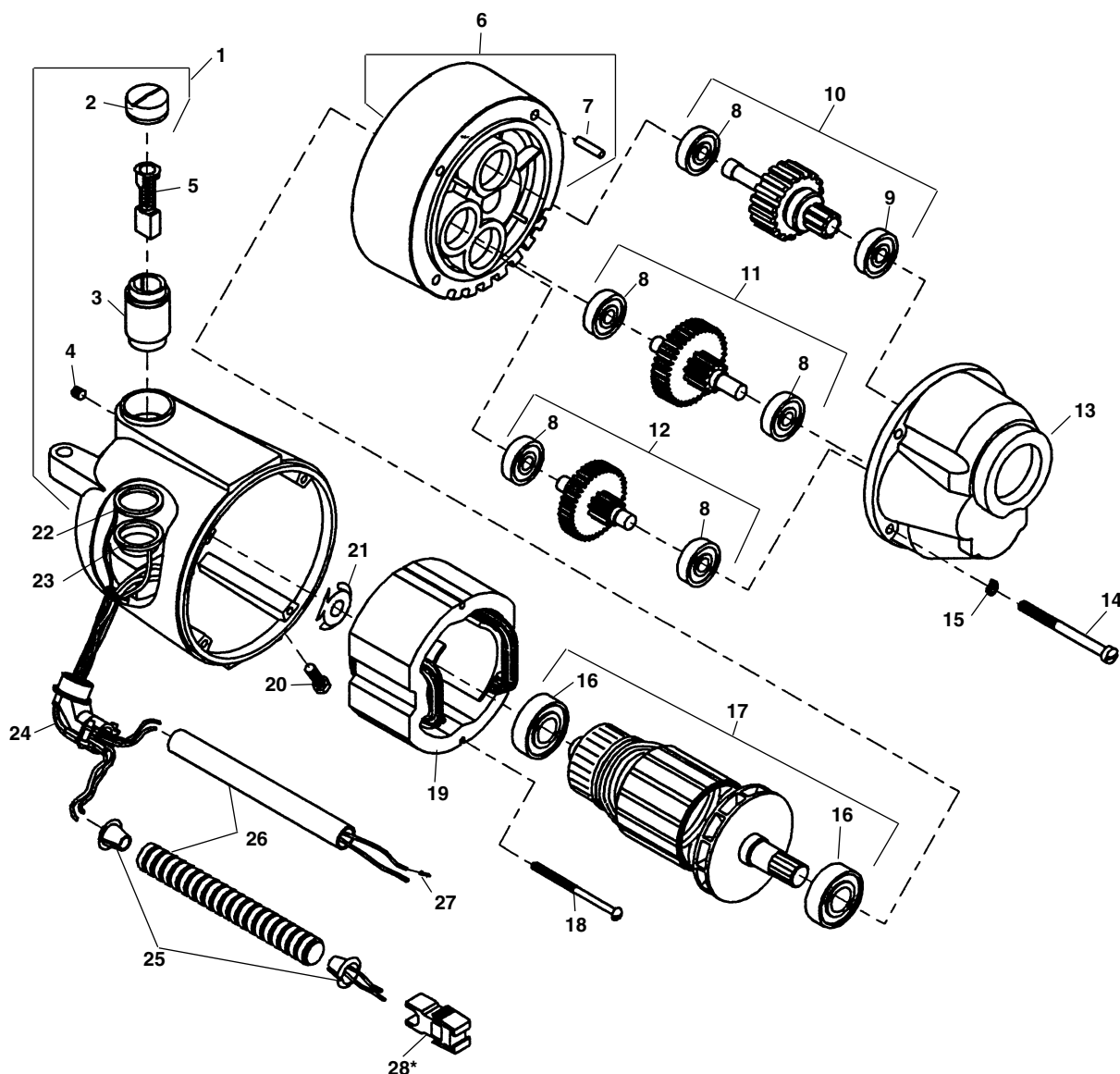
Ref. No.	Catalog No.	Description
1	63387	Brown Lead Wire
2	63392	Blue Lead Wire
3	62027	Quick Disconnect Terminal (4)
4	63372	Suppressor
5	92455	10 - 24 x 3/4" Screw
6	54222	Cord Clamp
7	44695	Nut
8	63417	Base
9	64067	Shield
10	64062	Bottom Cover
11	43362	"J" Clips (6)
12	54177	Strain Relief
13	36652	B- 296 Foot Switch Assembly
14	54157	Switch
15	64052	Switch Plate
16	64057	Switch Gasket
17	41597	12 - 24 x 3/4" Screw
18	57517	Switch Face Plate
19	61397	Switch Knob
20	64467	Cable Tie
21	46880	Plastic Tube
22	63377	Ferrite Bead



Wiring Diagram – Europe



3177
3277
3177-CE
3277-CE

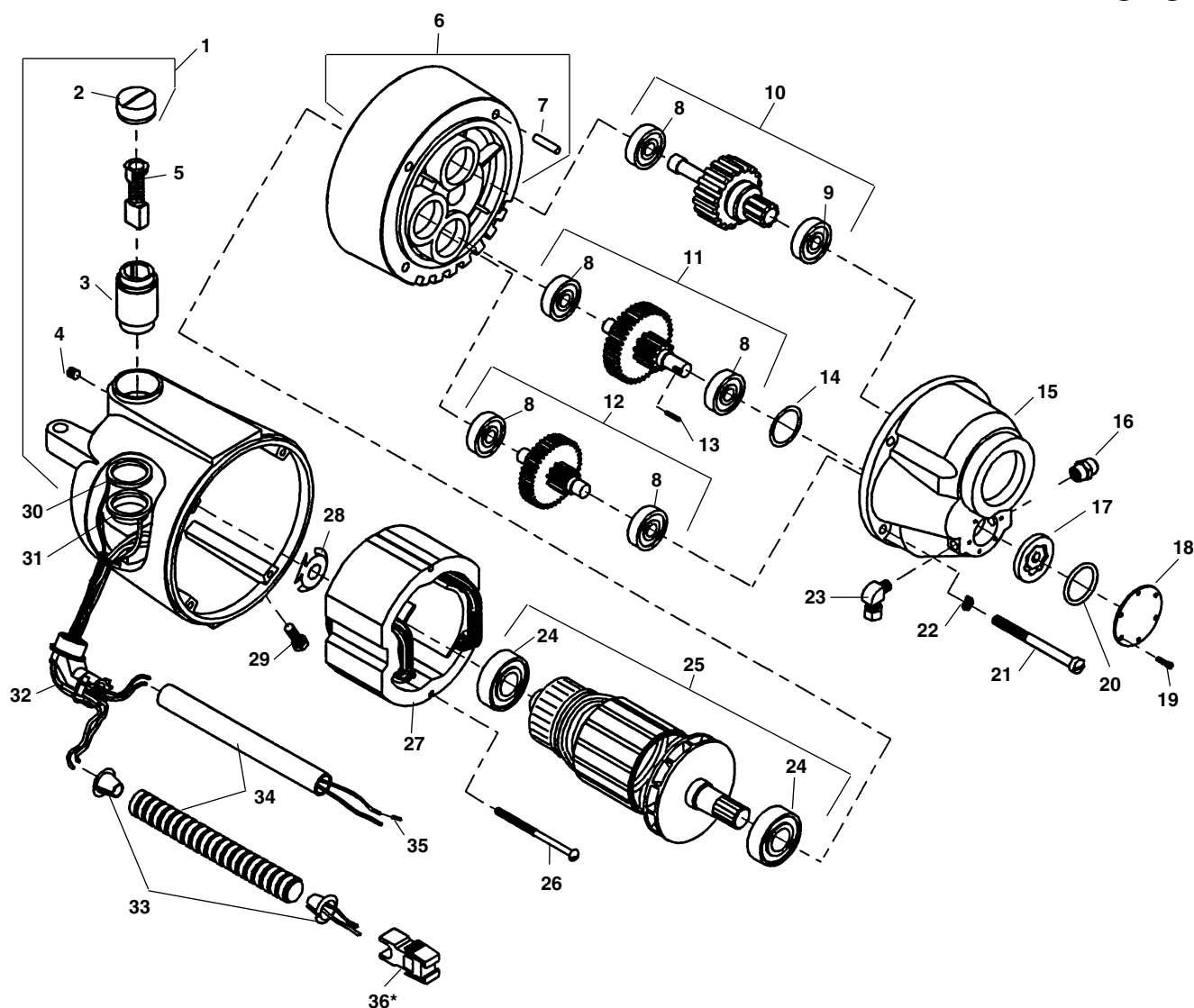


NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
†	87740	3177 Motor 115V	10	45370	Drive Gear	20	83500	Locking Screw
†	87780	3277 Motor 230V	11	44985	1st Gear Assembly	21	44580	Loading Spring
†	61202	3177-CE Motor 115V	12	45005	2nd Gear Assembly	22	86680	White Upper Lead
†	61207	3277-CE Motor 230V	13	42875	Gear Housing	23	86685	Red Lower lead
1	43160	Housing Assembly		19066	Gear Housing (Europe)	24	46900	Connector 90 Degree
2	44545	Brush Cap Set	14	45075	Screw (4)	25	46890	E-918 Insulator (2)
3	45025	Brush Holder Set	15	45150	Lock Washer	26	47407	Flexible Conduit
4	39770	Set Screw (2)	16	44565	Armature Bearing (2)		46880	Plastic Tube (CE Only)
5	44540	Brush Assembly Set	17	44010	Armature (115V)	27	88402	Wire Terminal (4) (CE Only)
6	43165	Fan Housing Assembly		44030	Armature (230V)	28*	50552	Plug (Included in Switch Box Assy. 91187)
7	45165	Dowel Pin	18	44555	Mounting Screw (2)			
8	45060	Gear Bearings (5)	19	44015	Field (115V)			
9	45315	Front Bearing		44035	Field (230V)			

† Refer to Speed Change Chart for Optional Speeds on Page 8

3181
3281
3181-CE
3281-CE



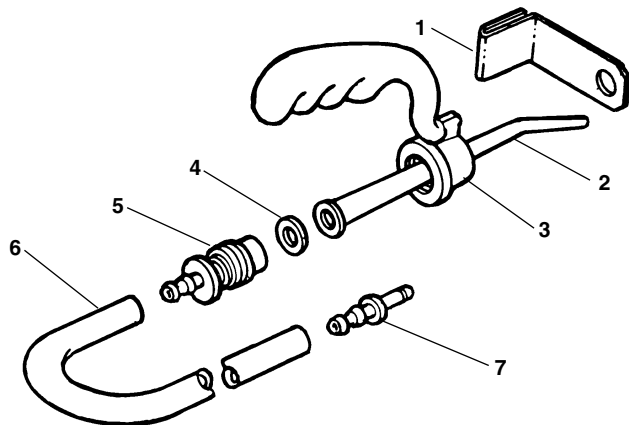
NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
†	96810	3181 Motor 115V	12	45005	2nd Gear Assembly	26	44555	Mounting Screw (2)
†	96975	3281 Motor 230V	13	96885	Pin	27	44015	Field (115V)
†	61192	3181-CE Motor 115V	14	96880	Oil Seal		44035	Field (230V)
†	61197	3281-CE Motor 230V	15	96830	Gear Housing	28	44580	Loading Spring
1	43160	Housing Assembly	16	46830	Male Connector	29	83500	Locking Screw (2)
2	44545	Brush Cap Set	17	96870	Gerotor Set	30	86680	White Upper Lead
3	45025	Brush Holder Set	18	96840	Cover Plate	31	86685	Red Lower lead
4	39770	Set Screw (2)	19	96890	Screw (6)	32	46900	Connector 90
5	44540	Brush Assembly Set	20	96875	O Ring	33	46890	E-918 Insulator (2)
6	43165	Fan Housing Assembly	21	45075	Screw (4)	34	47407	Flexible Conduit
7	45165	Dowel Pin	22	45150	Lock Washer		46880	Plastic Tube (CE Only)
8	45060	Gear Bearings (5)	23	96910	Male Elbow	35	88402	Wire Terminal (4) (CE Only)
9	45315	Front Bearing	24	44565	Armature Bearing (2)	36*	50552	Plug (Included in Switch Box Assy. 91187)
10	45370	Drive Gear	25	44010	Armature (115V)			
11	97000	1st Gear Assembly		44030	Armature (230V)			

† Refer to Speed Change Chart for Optional Speeds on Page 8

309
330
331

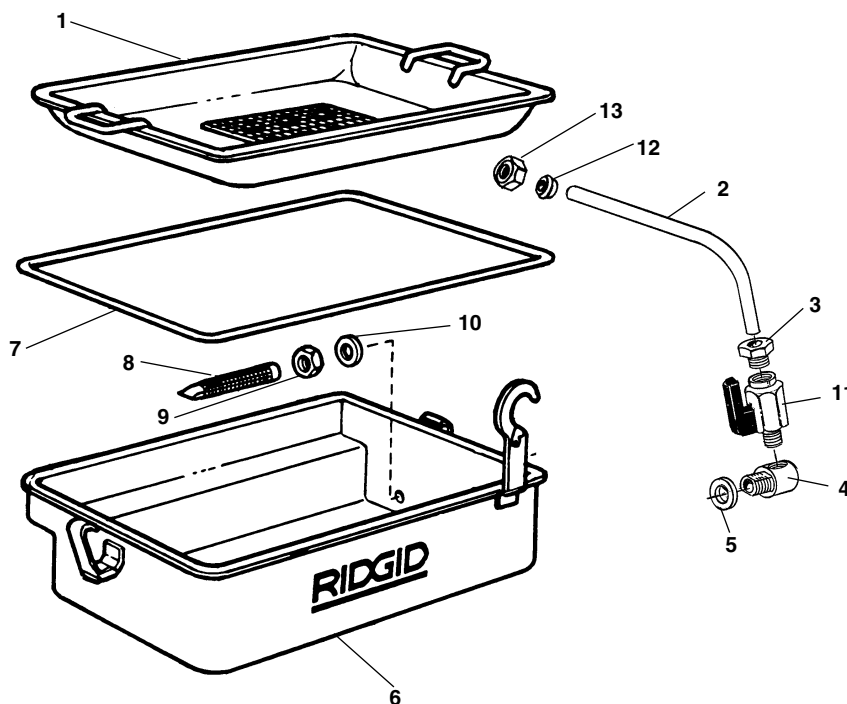
No. 309 Oil Spout (300A Power Drive)



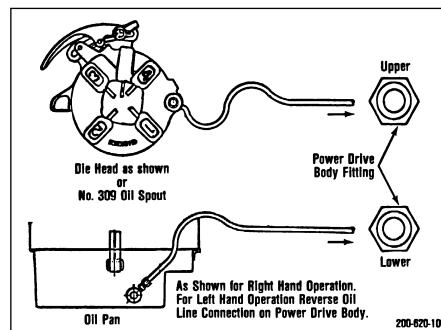
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
—	97090	309 Oil Spout
1	97110	Spout Bracket Assembly
2	97095	Oil Spout
3	41690	Handle
4	41715	Spout Washer
5	97100	Handle Adapter
6	97195	Hose
7	97105	Hose Adapter

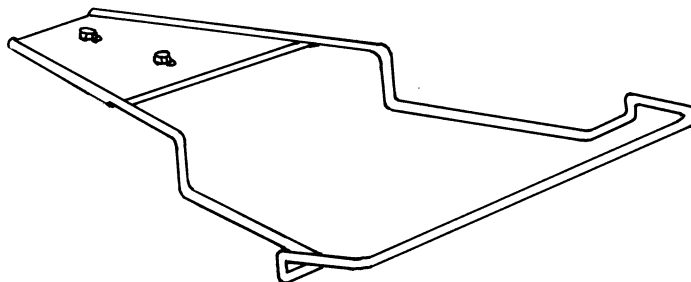
No. 330 Oil Pan (300A Power Drive)



Ref. No.	Catalog No.	Description
—	97245	330 Oil Pan and Chip Tray
1	96925	Chip Pan Assembly
2	19946	300 Oil Line
3	96930	Union
4	41705	Coupling
5	41780	Washer
6	96920	Oil Pan Assembly
7	96905	Gasket
8	41765	Strainer
9	40640	Hex Jam Nut
10	41790	Washer
11	19936	Valve (Europe)
—	26846	Bolt (Europe) (Not Shown)
12	19966	Ferrule
13	19956	Nut



No. 331 Oil Pan Support Tray Catalog No. 97250 (300A Power Drive)

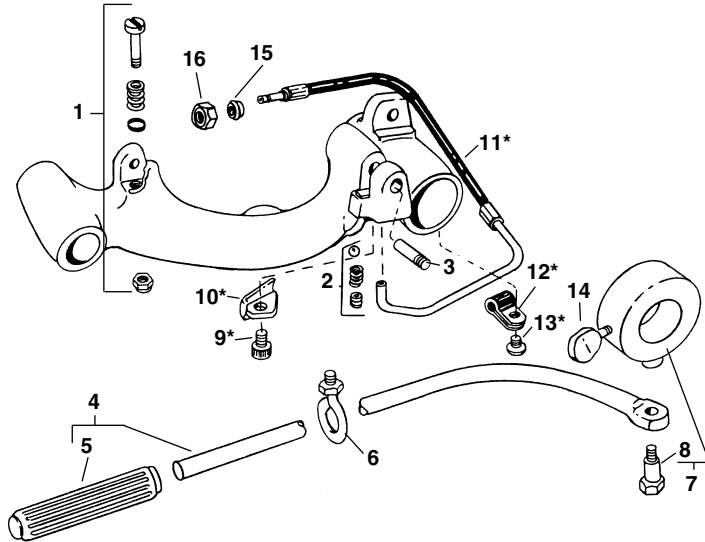


No. 311 Carriage w/Lever (200, 300 Power Drive)

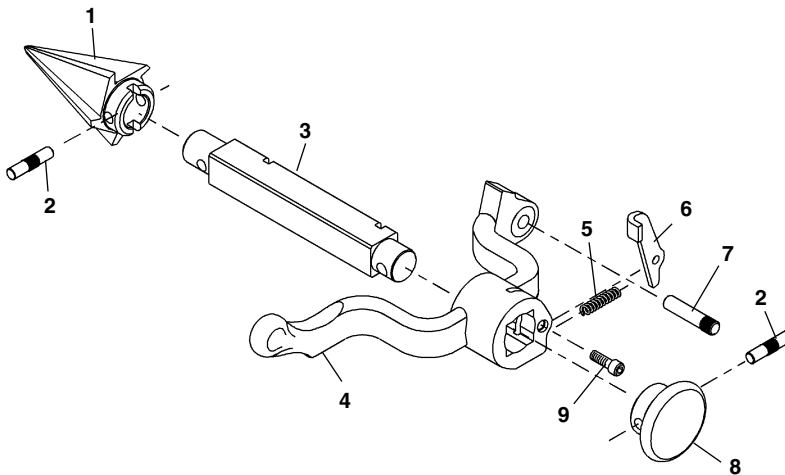
No. 311A Carriage w/Lever (300A, 304 Retrofit)

311
311A
341
360

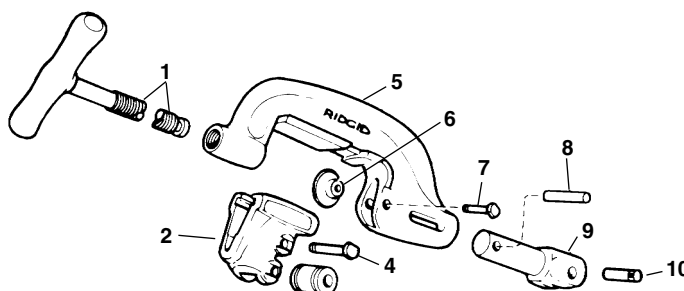
**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**



Ref. No.	Catalog No.	Description
—	68815	311 Carriage w/Lever
—	96945	311A Carriage w/Lever
—	42385	312 Lever Kit (incl. Ref. No. 4, 6, 7, 14)
1	45515	Stop Bolt Assembly
2	46810	Detente Assembly
3	47065	Reamer Hinge Pin
4	43400	Lever Arm Assembly
5	46235	Handgrip
6	46205	Eye Bolt Assembly
7	46215	Collar Assembly
8	46210	Shoulder Bolt
9	96900	Screw
10	96970	Oil Line Cover
11	96965	Hose Assembly
	19336	Hose Assembly (Europe)
12	96895	Clamp
13	96915	Screw
14	46220	Thumbscrew
15	19966	Ferrule
16	19956	Nut

No. 341 Reamer


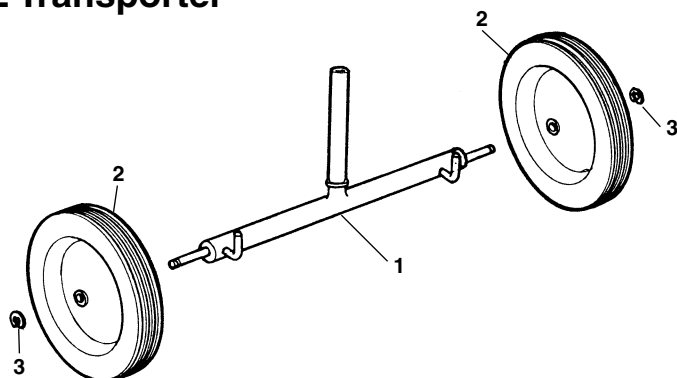
Ref. No.	Catalog No.	Description
—	42365	341 Reamer Complete
1	36277	Cone (R.H.)
	46660	Cone (L.H. & R.H.)
2	47155	Pin
3	43790	Reamer Bar
4	43230	Reamer Arm
5	44700	Latch Spring
6	46665	Reamer Latch
7	47065	Hinge Pin
8	46585	Reamer Knob
9	46515	Screw 1/4" - 20 x 3/4"

No. 360 Cutter


Ref. No.	Catalog No.	Description
—	42370	360 Cutter Complete
1	43625	Screw Handle
2	33400	Roll Housing Assembly
3	34305	Roll (2)
4	34310	Roll Pin (2)
5	43595	Cutter Frame
6	33100	Cutter Wheel Thin
	33105	Cutter Wheel H.D.
	44185	Cutter Wheel Std.
7	34780	Wheel Pin
8	45435	Retaining Pin
9	45505	Support Arm
10	45520	Pin

32
1452
1206

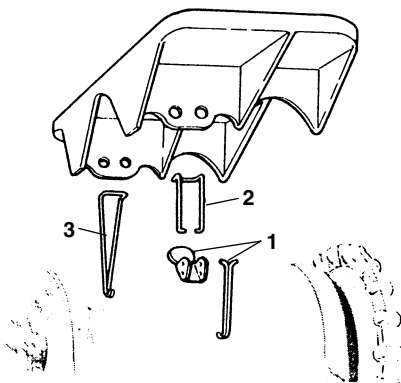
No. 32 Transporter



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

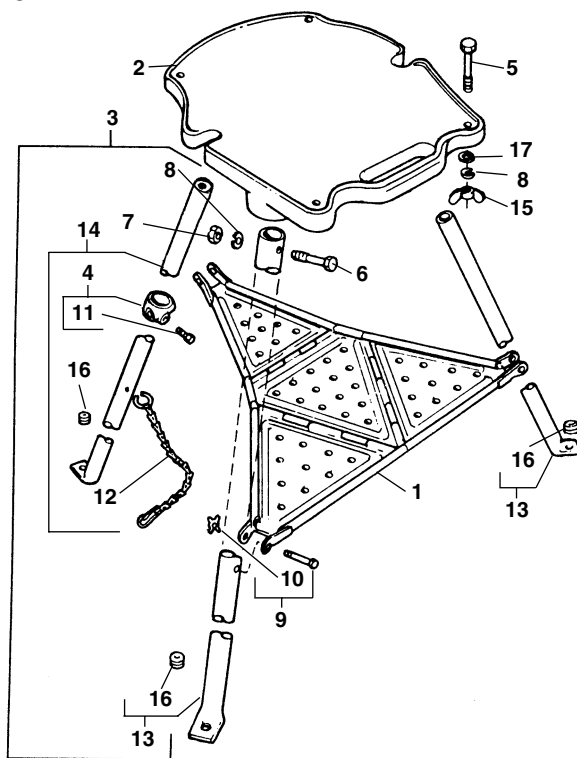
Ref. No.	Catalog No.	Description
—	42575	No. 32 Transporter
1	42590	Axle & Support Tube Assembly
2	42585	Wheel (2)
3	42580	Retaining Ring (2)

No. 1452 Clip-On Tool Tray



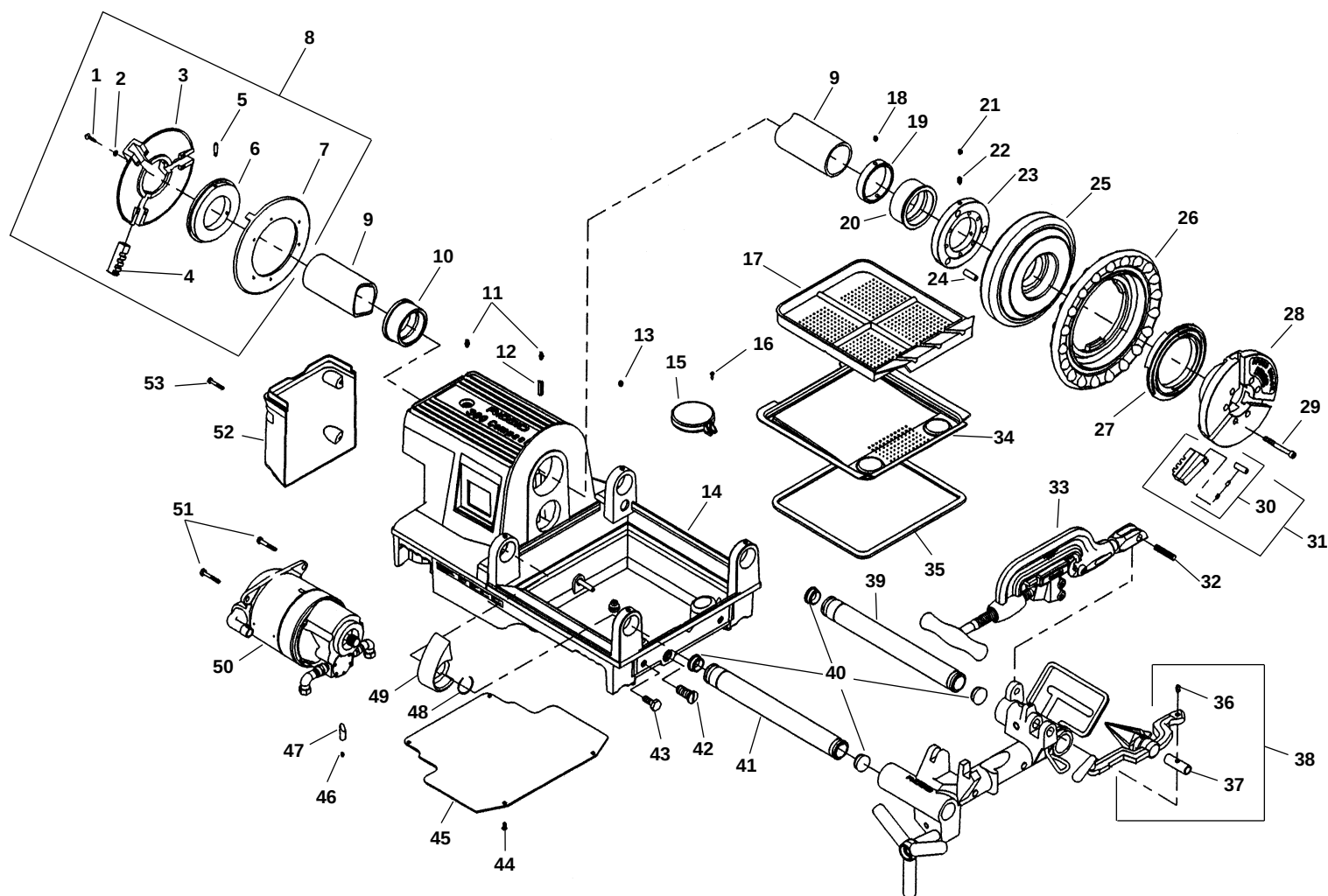
Ref. No.	Catalog No.	Description
—	22638	No. 1452 Tool Tray
1	45535	Hook & Lever Assembly
2	45540	Top Hook
3	45545	Side Hook
4	78367	Warning Decal (Not Shown)

No. 1206 Stand



Ref. No.	Catalog No.	Description
—	42360	1206 Stand Complete
—	83540	1206 Stand Export
1	43475	B-547 Tool Tray
2	42870	B-1058 Base
3	42990	B-1983-X Tray & Leg Assembly
4	41235	D-488-X Tray Support
5	46670	E-867 Bolt $\frac{3}{8}$ " - 16 x 2" (4)
6	46675	E-868 Bolt $\frac{3}{8}$ " - 16 x $2\frac{3}{4}$ " (3)
7	44225	E-1094 Nut $\frac{3}{8}$ " - 16 (3)
8	40930	E-1095 Lock Washer $\frac{3}{8}$ " (7)
9	41265	E-1375-X Pin w/Washer (1 $\frac{1}{8}$ " Long)
10	89720	E-10396-X Pin w/Washer (1 $\frac{5}{8}$ " Long)
11	41270	E-1377 X-Washer (6)
12	41245	E-1380 Set Screw $\frac{3}{8}$ " - 16 x 1"
13	40945	E-1444-X Chain Assembly
14	45325	E-1336-X Front Leg (2)
15	45330	E-3237-X Rear Leg
16	45385	E-3328 Wing Nut $\frac{3}{8}$ " - 16 (4)
17	40940	F-532 Grommet (3)
18	44230	E-1096 Washer $\frac{3}{8}$ " (4)

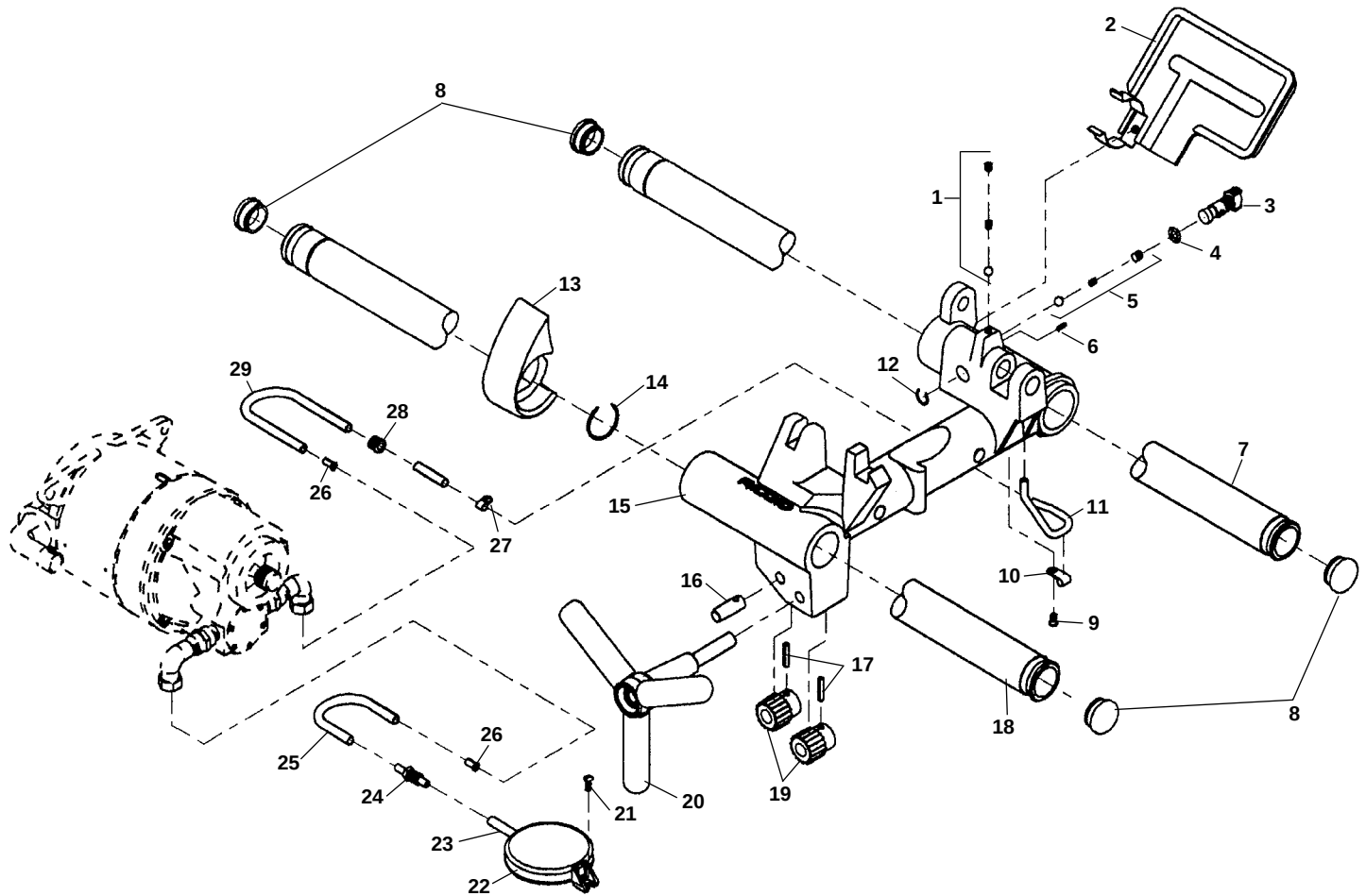
Main Drive Components



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

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	46790	Screw 12 - 24 x 3/4" (6)	29	45295	Screw 5/16" x 2 3/4" (6)
2	40270	Lock Washer (6)	30	44715	Jaw Insert Set (3)
3	43735	Rear Centering Head		97365	Jaw Insert Set f/Coated Pipe (3)
	19346	Rear Centering Head (Europe)	31	44090	Chuck Jaw Set
4	46500	Rear Jaw	32	45520	Hinge Pin
5	45260	Step Pin	33	42370	360 Cutter Complete
6	44095	Scroll	34	54052	Oil Pan Liner
7	43740	Back Plate	35	75632	Oil Pan Liner Gasket
	19356	Back Plate (Europe)	36	36262	Shoulder Screw
8	44165	Rear Centering Assembly	37	36267	Pivot Pin
9	44100	Drive Shaft	38	34612	344 Reamer
10	45335	Rear Bearing	39	54112	Rear Rail
11	46860	Grease Fitting (2)	40	35162	Rail Plug (4)
12	88230	Pin Split Roll	41	54117	Front Rail
13	60025	Set Screw 5/16"- 18 (4)	42	54302	Drain Plug
14	54522	Base	43	54042	M10-1.5 Hex Hd. Cap Screw
	76342	Base N.A.	44	87730	Screw 1/4" x 3/8" (4)
15	58467	Filter Screen Assembly	45	61937	Bottom Cover
16	45420	Screw 10 - 24 x 3/8"	46	77905	Set Screw 5/16" x 1/4"
17	54047	Chip Tray	47	54037	Motor Wedge
18	33785	Set Screw 5/16" x 24 x 1/2" (3)	48	87620	Retaining Ring
19	45345	Thrust Ring	49	54507	Carriage Stop
20	54502	Front Bearing	50	72122	Model 2192, 115V
21	45300	Set Screw 5/16" x 24 x 1/4" (3)		72127	Model 2292, 230V
22	45265	Set Screw 5/16" x 24 x 1/2" (3)		54797	Model 2192, 115V
23	30027	Drive Ring		54802	Model 2292R, 230V
24	30022	Drive Pin (3)		75897	Model 2199R, 115V, 52 RPM
25	30017	Ring Gear	51	85915	Motor Mounting Bolt (2)
26	89150	Hand Wheel	52	54527	Motor Cover
27	43540	Chuck Scroll	53	54532	Motor Cover Screw (4)
28	43525	Chuck Cap			

Carriage and Oil System

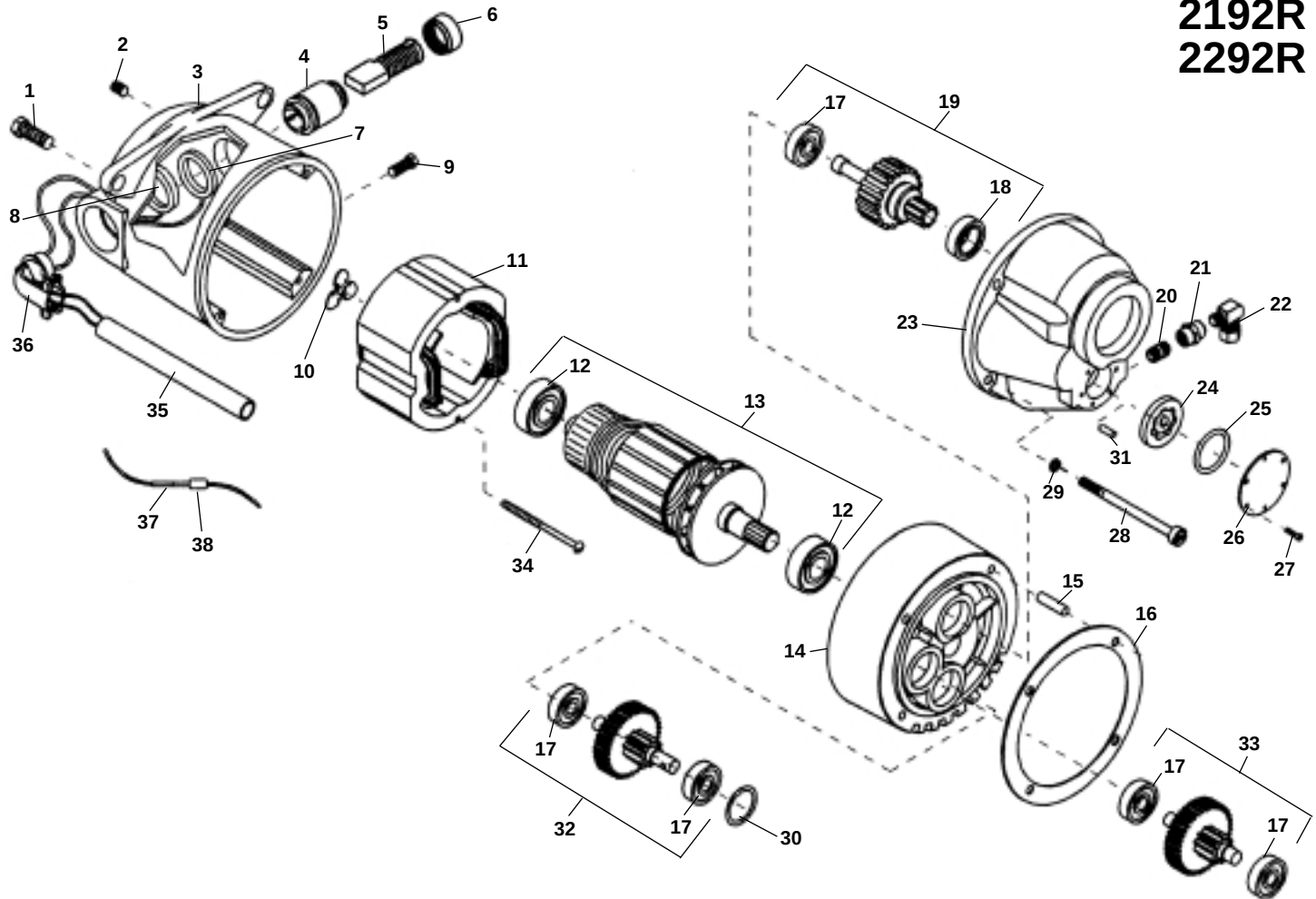


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description
1	46810	Detente Assembly
2	54517	Drip Pan
3	54097	Spool Valve
4	54102	O-Ring
5	35307	Oil Pressure Relief Set
6	58417	Roll Pin $\frac{1}{8}$ " x $\frac{3}{8}$ "
7	54112	Rear Rail
8	35162	Rail Plug (4)
9	79965	Screw 10 - 32 x $\frac{1}{2}$ "
10	35062	Oil Line Clamp
11	35067	Oil Tube
12	54107	Retaining Ring
13	54507	Carriage Stop
14	87620	Retaining Ring
15	54512	Carriage
16	35187	Pinion Idler Shaft
	54122	Cap Plug (not shown)
17	34342	Roll Pin
18	54117	Front Rail
19	57097	Pinion
20	35182	Hand Wheel
21	45420	Screw 10 - 24 x $\frac{3}{8}$ "
22	58467	Filter Screen Assembly
23	61897	Oil Filter Tube
24	54142	Bulkhead Fitting
25	54152	Oil Intake Line
26	35117	Oil Line Insert
27	35142	Hose Clamp
28	47080	Oil Line Grommet
29	61282	Carriage Oil Line

Motor

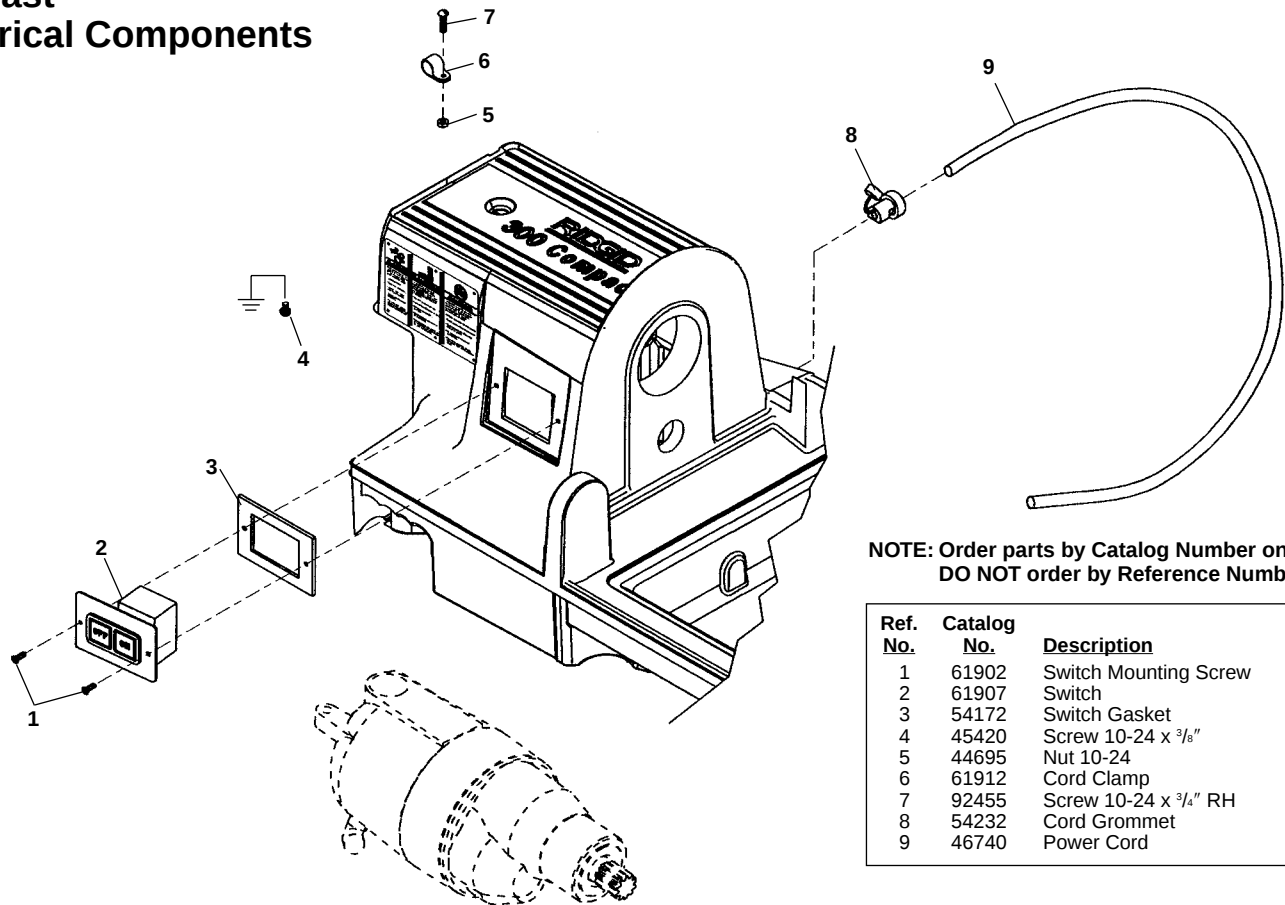
2192
2292
2192R
2292R



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

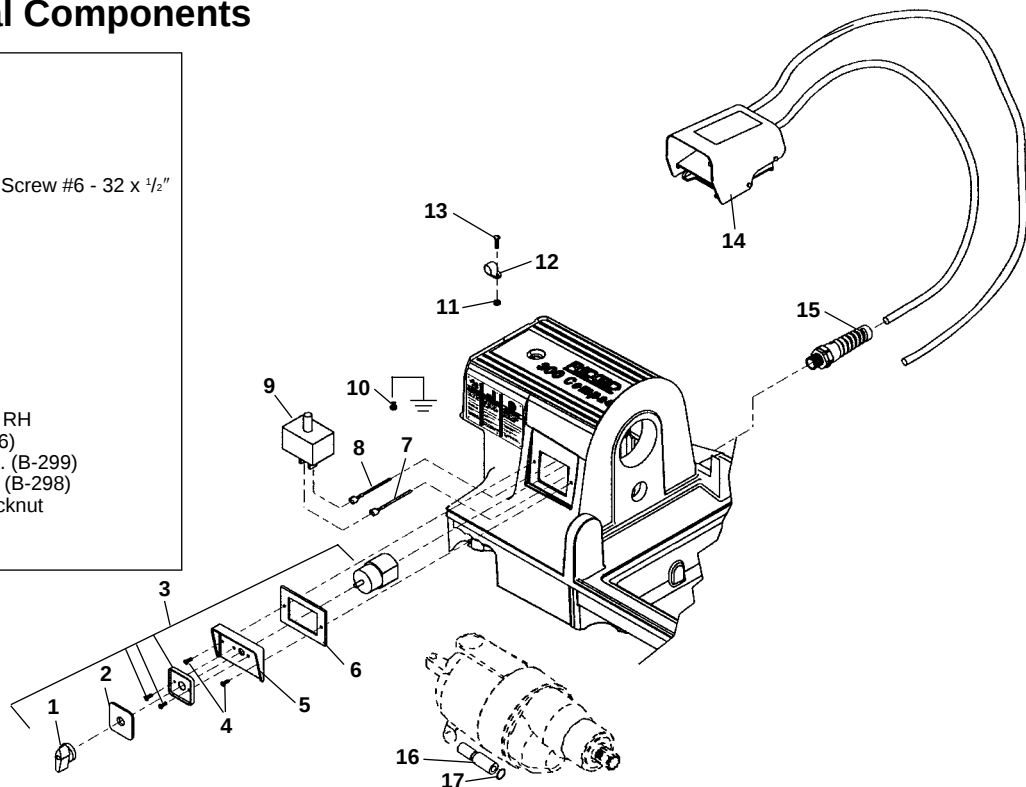
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	72122	Motor Model 2192, 115V	12	44565	Armature Bearing (2)	26	96840	Cover Plate
—	72127	Motor Model 2292, 230V	13	52497	115V Armature	27	96890	Screw #4 x 3/8" (6)
—	54797	Motor Model 2192, 115V	—	54542	230V Armature	28	45075	Screw 1/4" - 20
—	54802	Motor Model 2292R, 230V	14	54552	Fan Housing Assembly	29	45150	Lock Washer 1/4"
1	85915	Motor Mounting Bolt (2)	15	45165	Dowel Pin	30	96880	Oil Seal
2	39770	Set Screw 1/4" - 20 x 1/4" (2)	16	52502	Gasket	31	96885	Pin
3	52482	Motor Housing	17	44760	Gear Bearing	32	52522	1st Gear Assembly
4	45025	Brush Holder Set (2)	18	45315	Front Bearing	33	54547	2nd Gear Assembly
5	44540	Brush Assembly Set (2)	19	54537	Main Drive Gear Assembly	34	44555	Screw 10 - 24 x 3"
6	44545	Brush Cap Set (2)	20	52507	1/8" NPT Close Nipple (2)	35	63382	Plastic Tube
7	86685	Red Brush Lead	21	52512	1/8" Coupling (2)	36	46900	90 Connector
8	86680	White Brush Lead	22	52517	Elbow Compression Fitting (2)	—	47412	Male Wire Connector
9	83500	Field Locking Screw	23	96830	Gear Case	—	52537	Female Wire Connector
10	44580	Loading Spring	24	96870	Gerotor Set	37	16946	Male Connector
11	44015	Field 100/115V	25	96875	"O" Ring	38	16956	Female Connector
	44035	Field 230V						

Far East Electrical Components



European Electrical Components

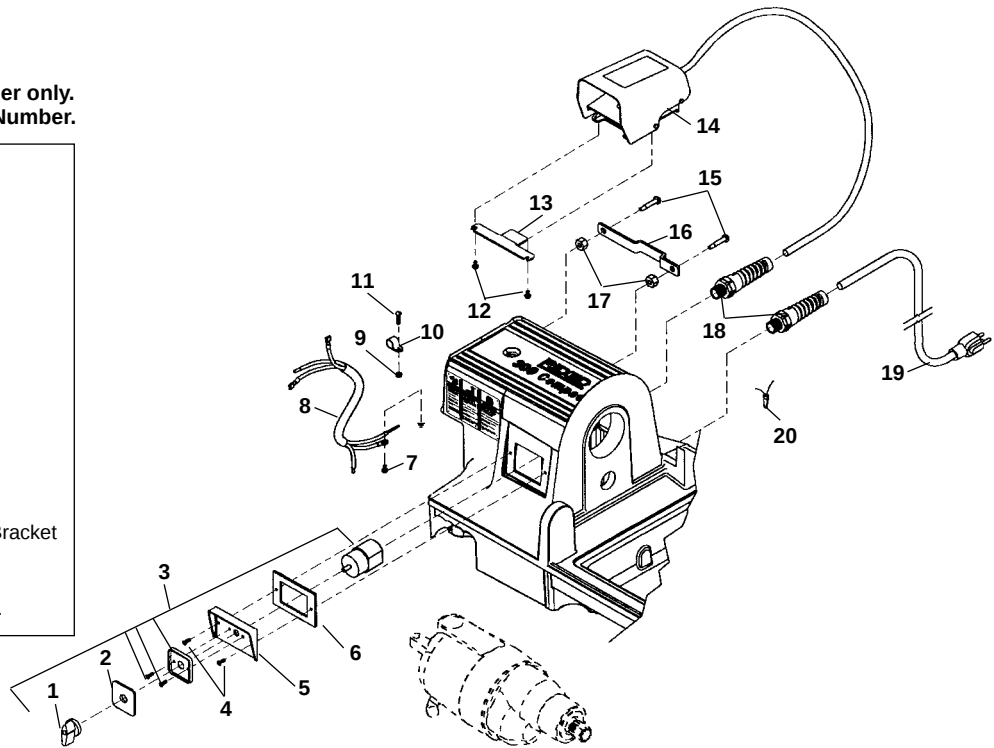
Ref. No.	Catalog No.	Description
1	61397	Switch Knob
2	54167	Switch Face Plate
3	54157	Switch & Screws
4	61902	Slotted Pan Head Screw #6 - 32 x 1/2"
5	61917	Switch Plate
6	54172	Switch Gasket
7	63387	Brown Wire
8	63392	Blue Wire
9	63372	Suppressor
—	63387	Brown Lead Wire
—	63392	Blue Lead Wire
10	45420	Screw 10-24 x 3/8"
11	44695	Nut 10-24
12	61912	Cord Clamp
13	92455	Screw 10-24 x 3/4" RH
14	36652	Foot Switch (B-296)
	40022	Foot Switch f/Aust. (B-299)
	40017	Foot Switch f/U.K. (B-298)
15	54177	Strain Relief w/Locknut
16	63377	Ferrite Bead
17	43552	Cable Tie



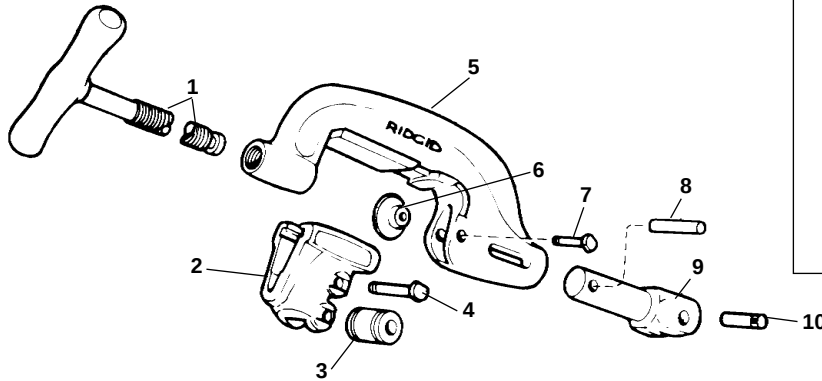
120V 60Hz Electrical

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

Ref. No.	Catalog No.	Description
1	61397	Switch Knob
2	61967	Switch Face Plate
3	54157	Switch Assembly
4	54162	Screw (2)
5	44695	Switch Plate
6	54172	Gasket
7	45420	Screw #10 - 24 x 3/8"
8	72132	Connecting Cord
9	44695	Hex Nut #10 - 24
10	61912	Cord Retainer
11	92455	Screw #10 - 24 x 3/4"
12	54357	Screw 5/16" - 18 (2)
13	58602	Foot Switch Hook
14	36642	B-294 Foot Switch
15	54137	Screw (2)
16	58267	Foot Switch Hanger Bracket
17	96730	Hex Nut 5/16" - 18
18	72107	Strain Relief
19	46740	Power Cord
20	44635	End Splice Connector



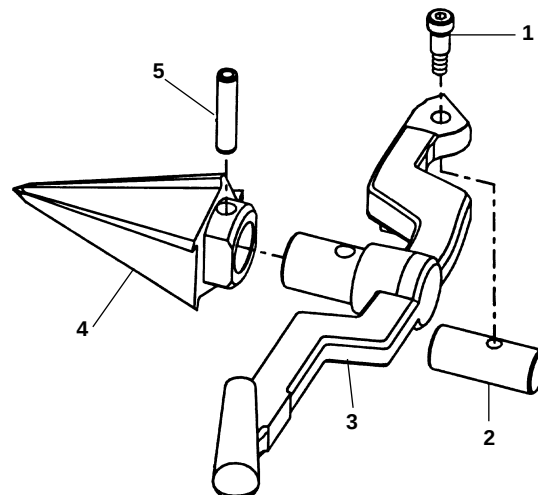
No. 360 Cutter



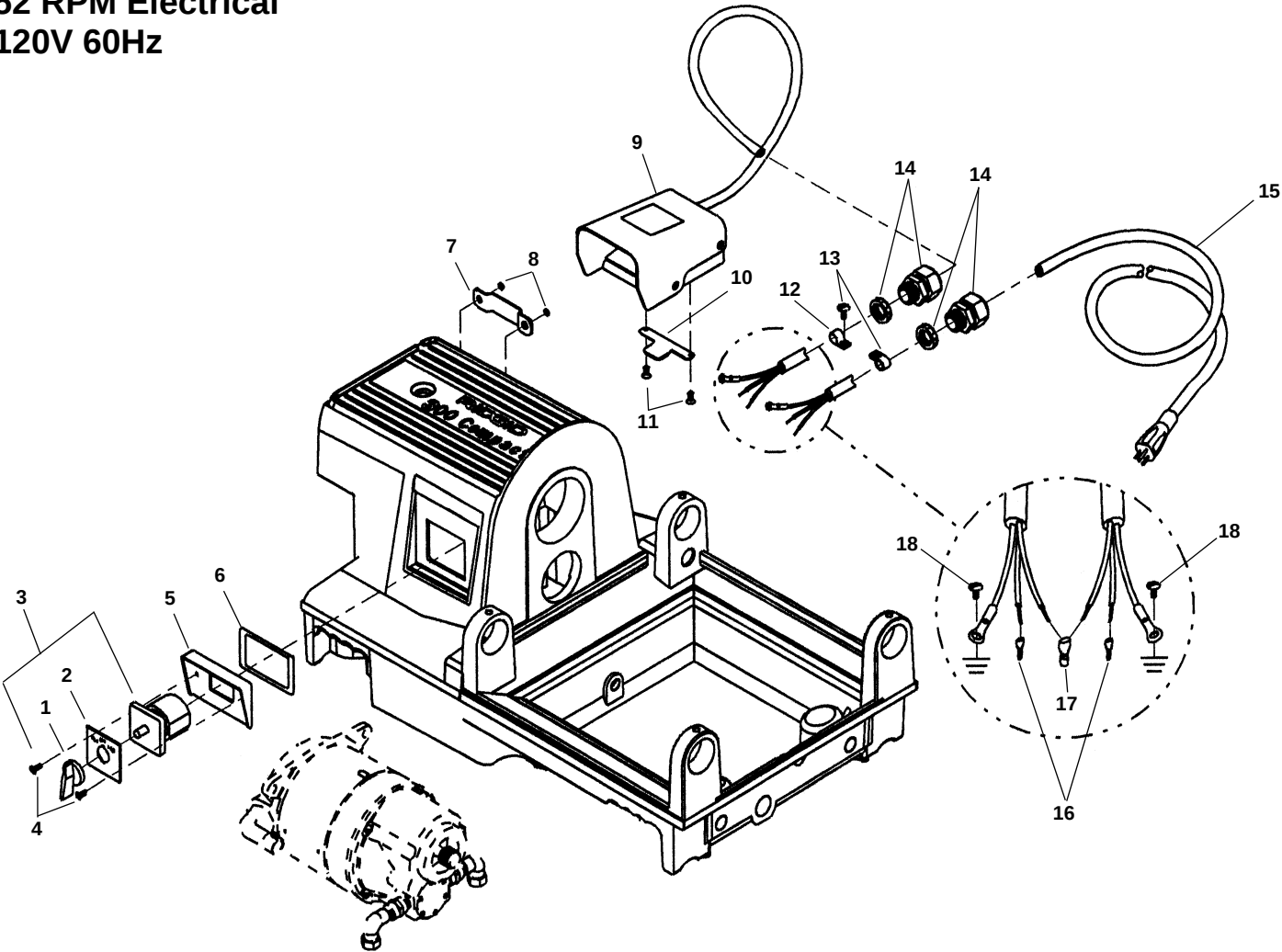
Ref. No.	Catalog No.	Description
—	42370	360 Cutter Complete
1	43625	D-1024-X Screw Handle
2	33400	C-878-X Roll Housing Assembly
3	34305	E-1751 Roll (2)
4	34310	E-1752 Roll Pin (2)
5	43595	C-877 Cutter Frame
6	33100	F-514 Cutter Wheel Thin
	33105	F-3 Cutter Wheel H.D.
	44185	E-1032 Cutter Wheel Std.
7	34780	F-9 Wheel Pin
8	45435	E-3549 Retaining Pin
9	45505	E-3759 Support Arm
10	45520	E-3819 Pin

No. 344 Reamer

Ref. No.	Catalog No.	Description
—	34612	344 Reamer Complete
1	36262	Shoulder Screw
2	36267	Pivot Pin
3	36272	Reamer Arm
4	36277	Reamer Cone
5	35355	Split Roll Pin



52 RPM Electrical
120V 60Hz



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

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	61397	Switch Knob	10	58602	Foot Switch Hook
2	61967	Switch Face Plate	11	54357	Screw $\frac{3}{16}$ " - 18 (2)
3	54157	Switch Assembly	12	75937	Cable Clamp (2)
4	54162	Screw (2)	13	92455	Screw #10-24 x $\frac{3}{4}$ "
5	44695	Switch Plate	14	75952	Strain Relief with Nut
6	54172	Gasket	15	75972	Power Cord
7	58267	Foot Switch Hanger Bracket	16	76347	Wire Terminals (6)
8	54137	Screw (2)	17	44635	Wire End Splice
9	75962	B294 HD Foot Switch	18	45420	Grand Screw #10-24 x $\frac{3}{8}$ " (2)

115V Domestic

