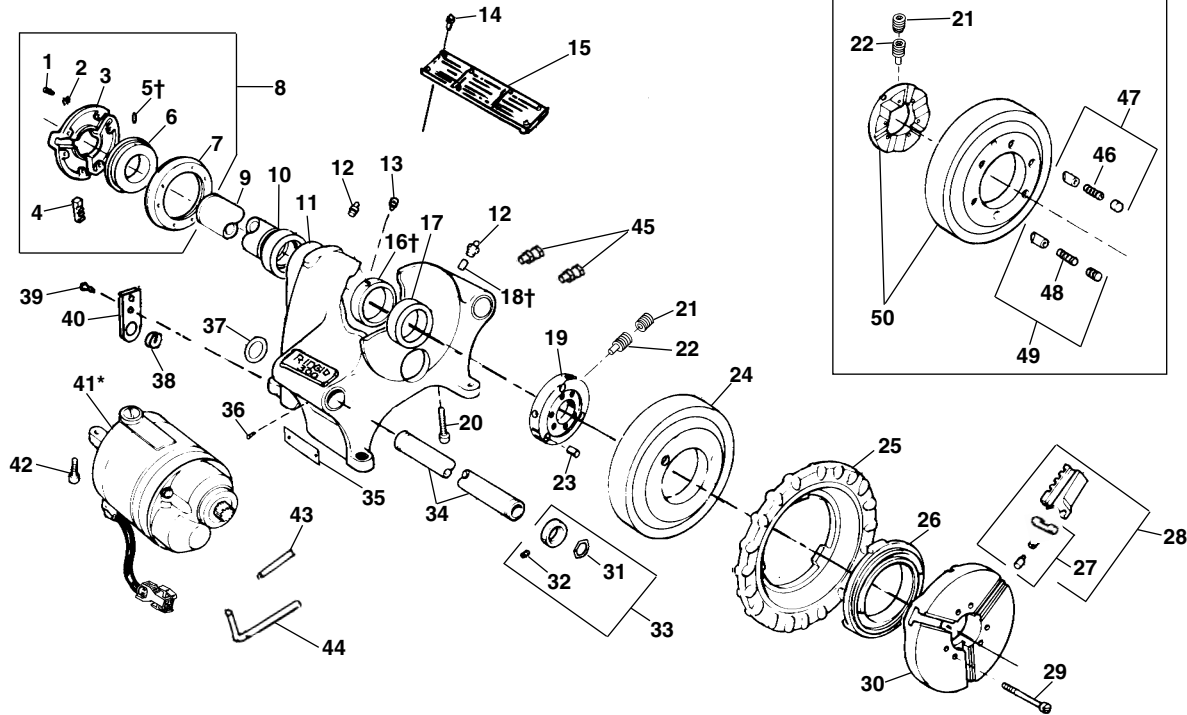




**Main Components**



**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

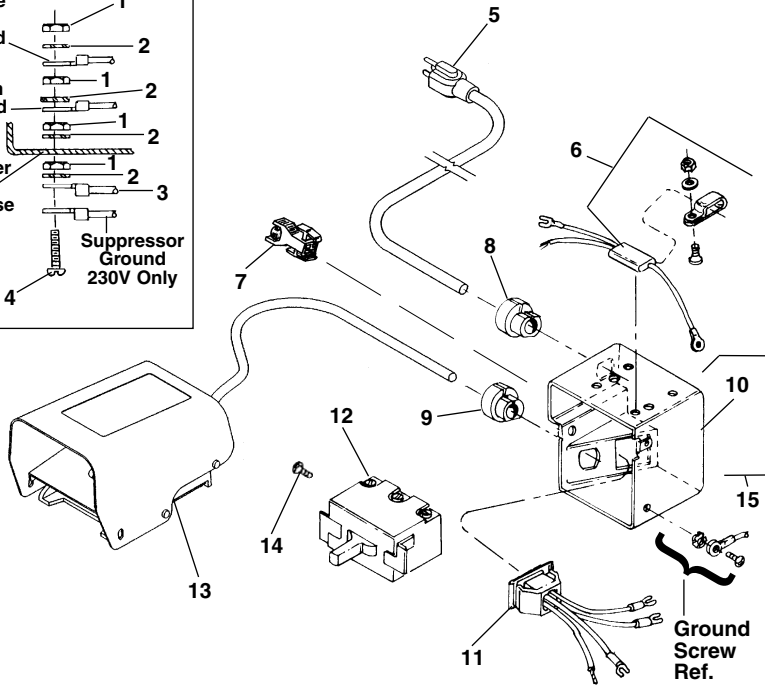
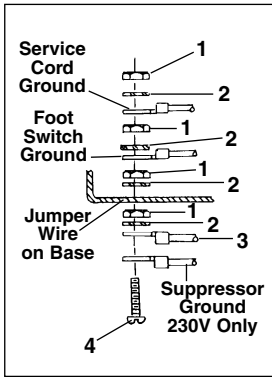
**Service Notes:**

†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.

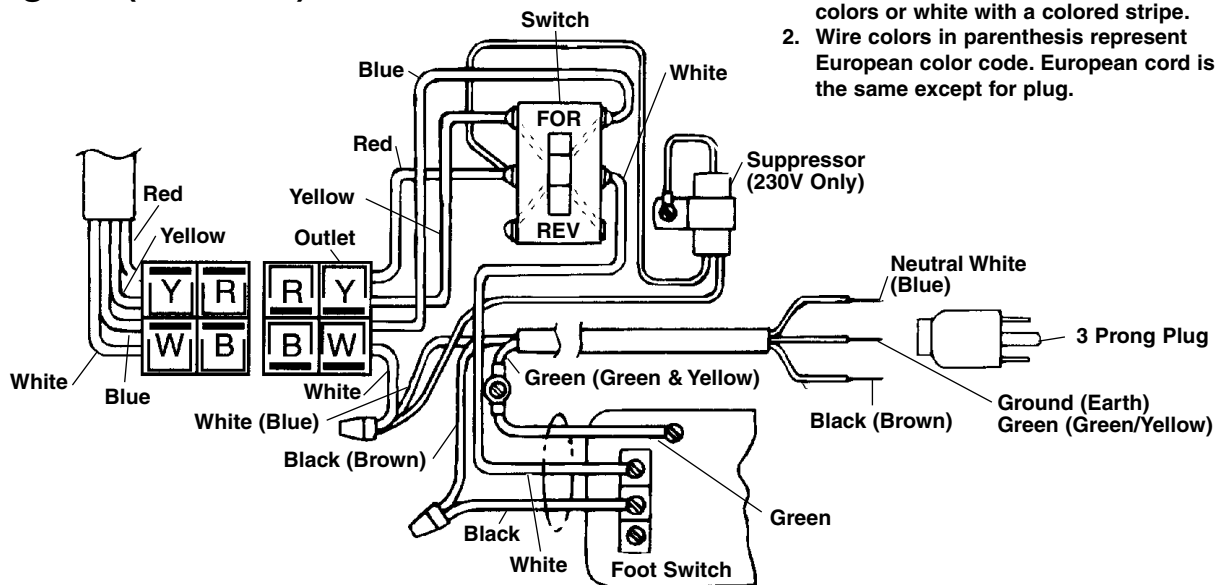
## Electrical Components



**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)

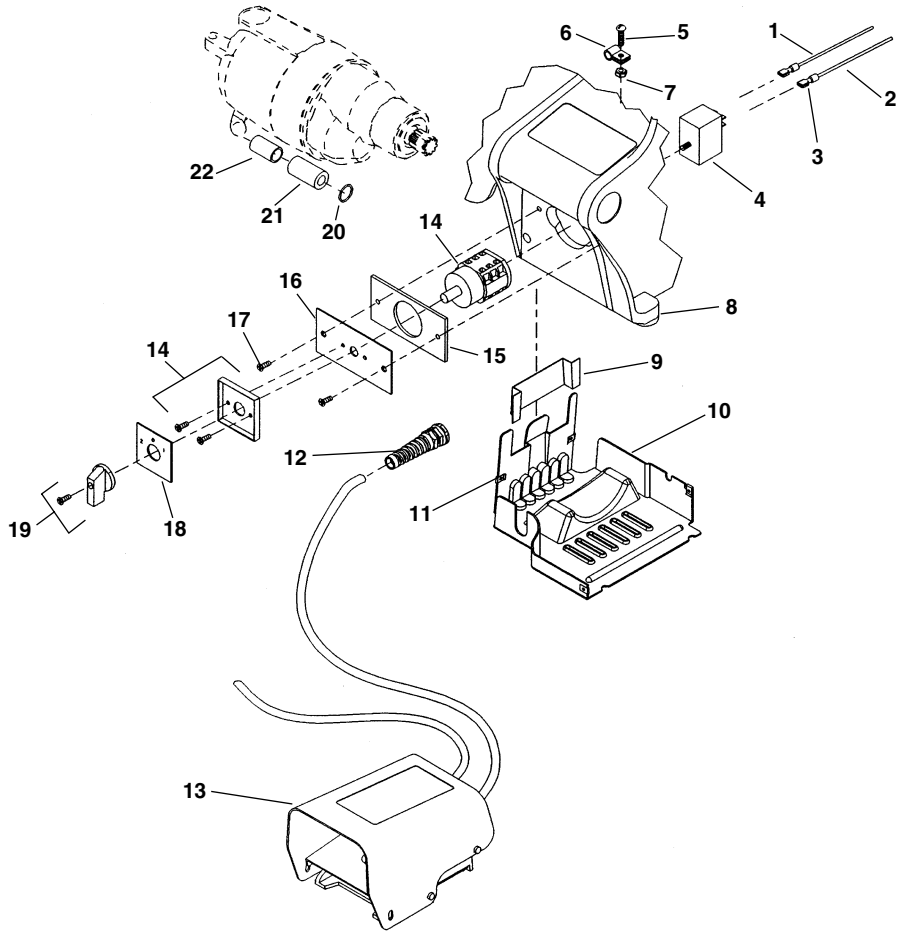


1. Brush and Armature Leads may be solid colors or white with a colored stripe.
2. Wire colors in parenthesis represent European color code. European cord is the same except for plug.

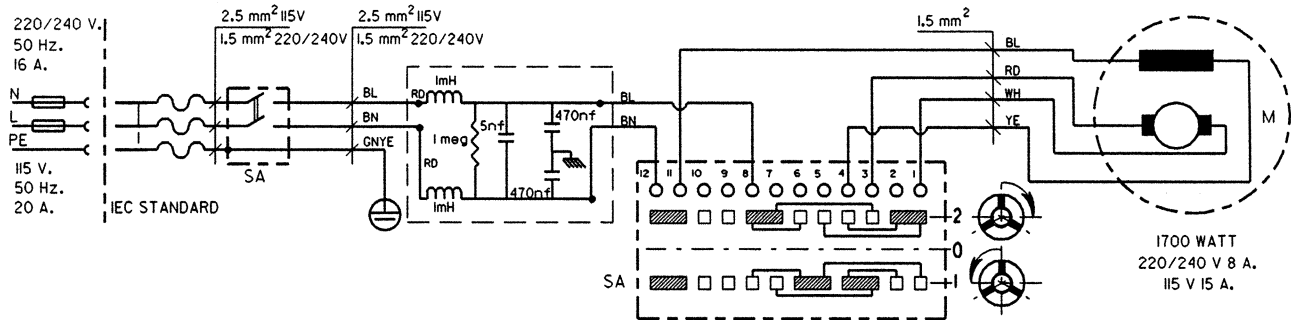
**European Electrical Components**

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

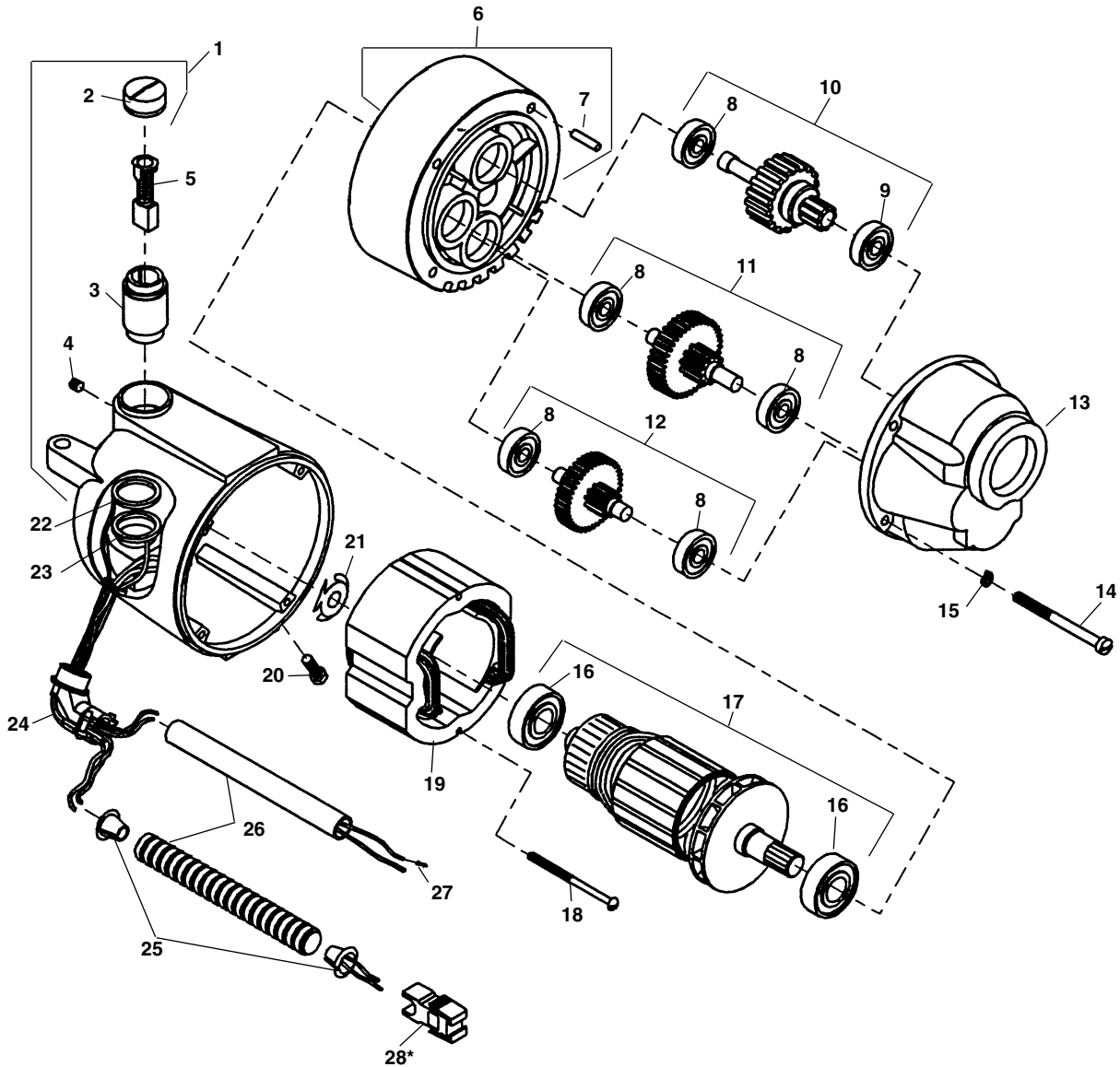
| Ref. No. | Catalog No. | Description                   |
|----------|-------------|-------------------------------|
| 1        | 63387       | Brown Lead Wire               |
| 2        | 63392       | Blue Lead Wire                |
| 3        | 62027       | Quick Disconnect Terminal (4) |
| 4        | 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**

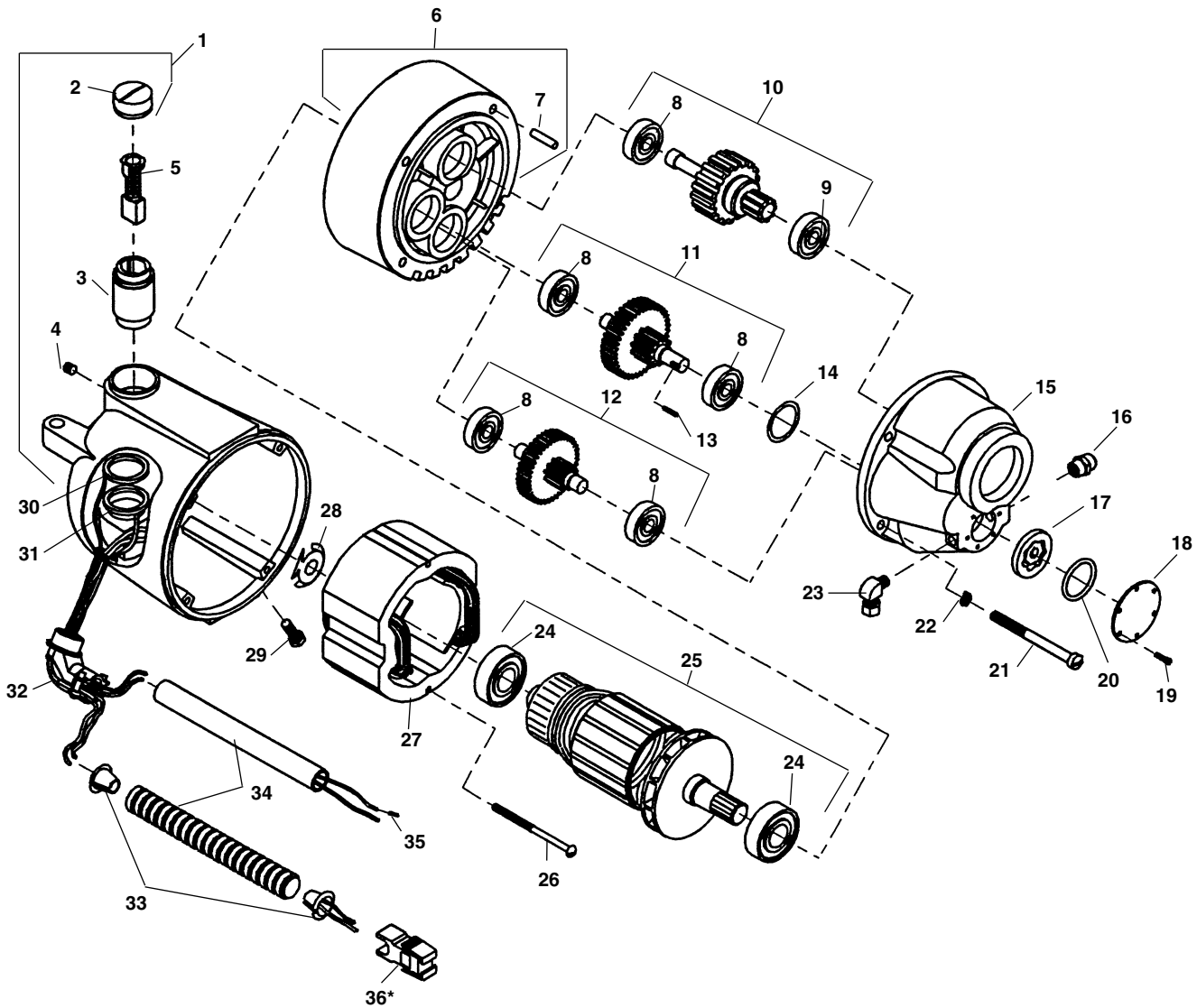


**NOTE: Order parts by Catalog Number only.  
 DO NOT order by Reference Number.**

| 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**



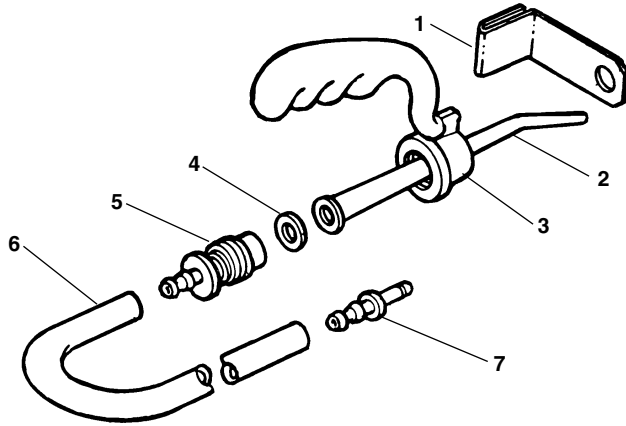
**NOTE: Order parts by Catalog Number only.  
DO NOT order by Reference Number.**

| 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

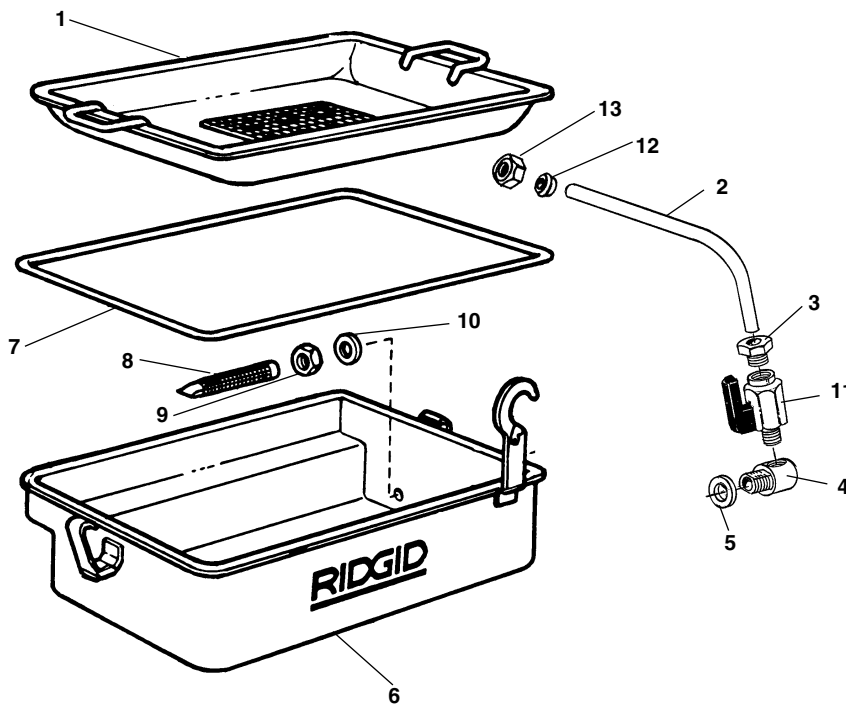
**No. 309 Oil Spout (300A Power Drive)**



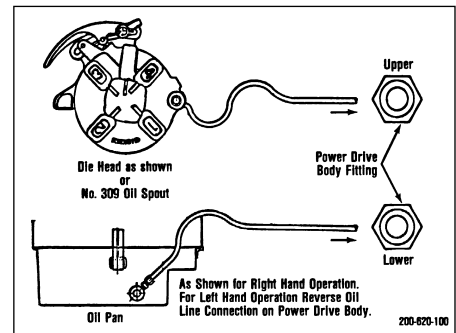
**NOTE: Order parts by Catalog Number only. DO NOT order by Reference Number.**

| 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           |

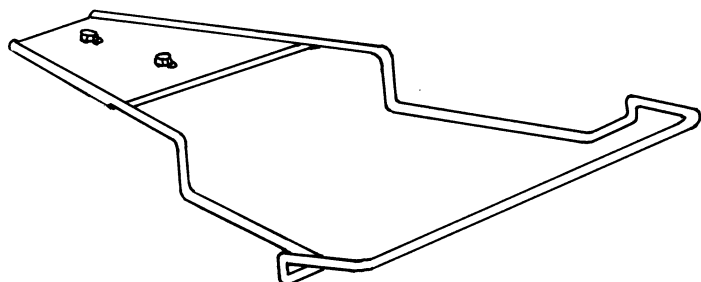
**No. 330 Oil Pan (300A Power Drive)**



| 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)**



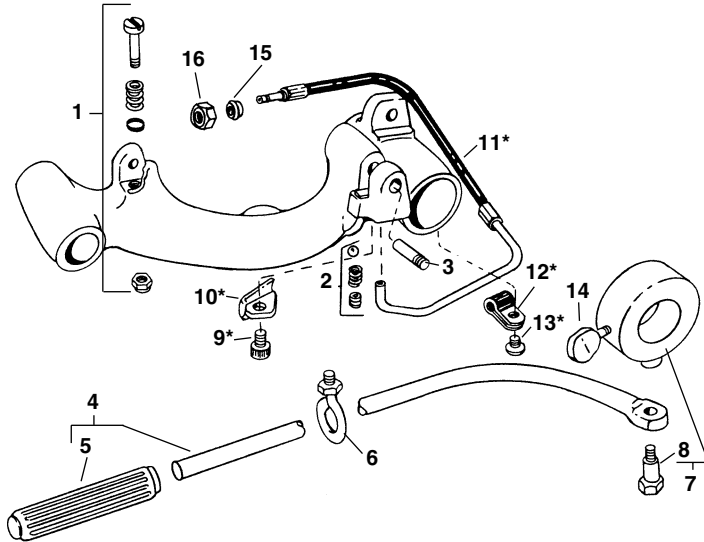


**No. 311 Carriage w/Lever** (200, 300 Power Drive)

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

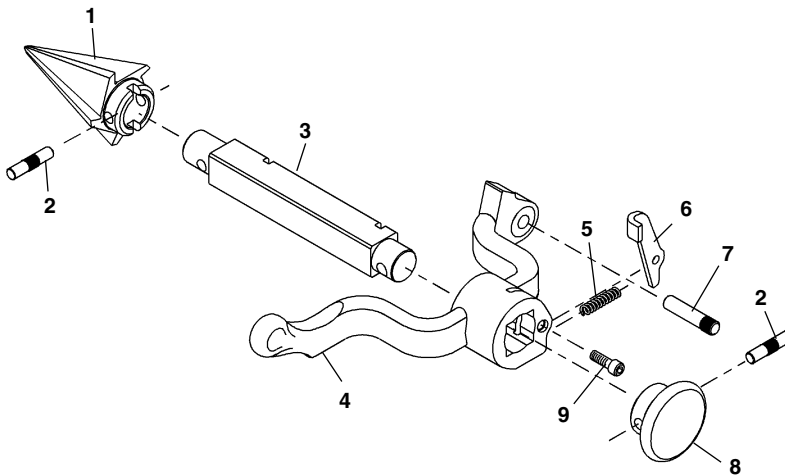
**311**  
**311A**  
**341**  
**360**

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



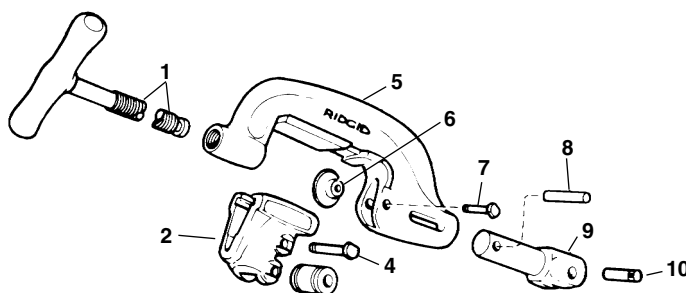
| Ref. No. | Catalog No. | Description                                |
|----------|-------------|--|
| —        | 68815       | 311 Carriage w/Lever                       |
| —        | 96945       | 311A Carriage w/Lever                      |
| —        | 42385       | 312 Lever Kit (incl. Ref. No. 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" |

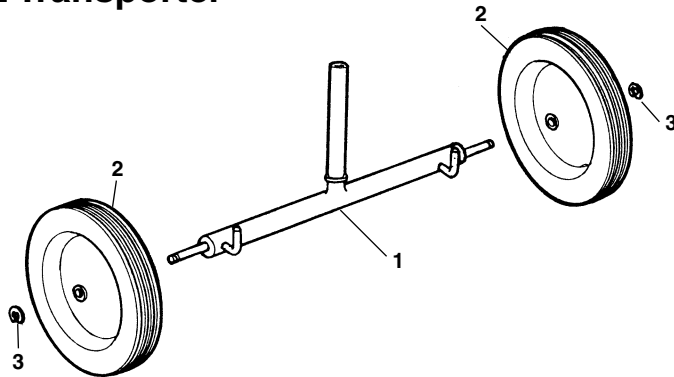
**No. 360 Cutter**



| 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

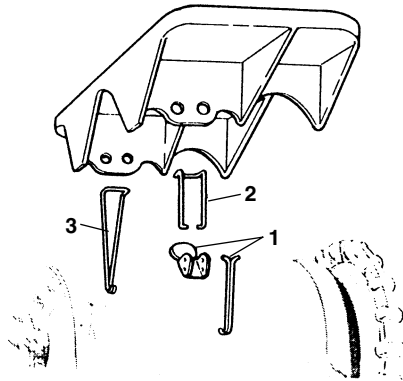
No. 32 Transporter



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

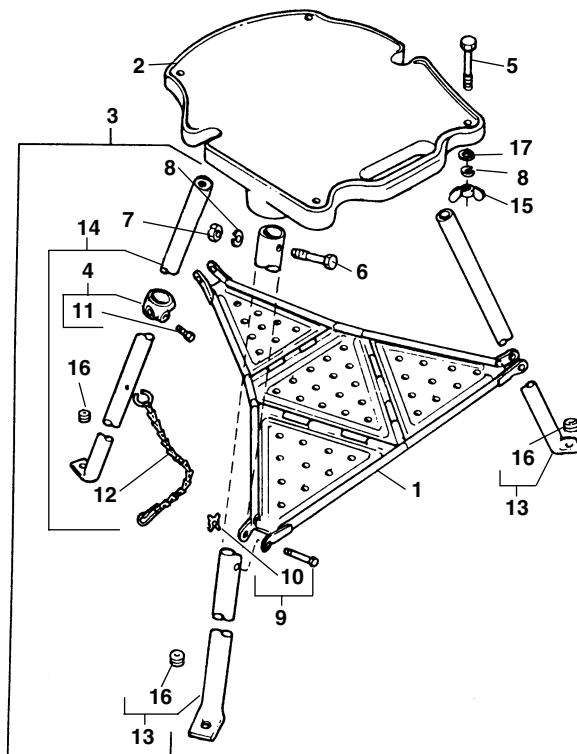
| Ref. No. | Catalog No. | Description                  |
|----------|-------------|------------------------------|
| —        | 42575       | No. 32 Transporter           |
| 1        | 42590       | Axle & Support Tube Assembly |
| 2        | 42585       | Wheel (2)                    |
| 3        | 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 3/8" - 16 x 2" (4)        |
| 6        | 46675       | E-868 Bolt 3/8" - 16 x 2 3/4" (3)    |
| 7        | 44225       | E-1094 Nut 3/8" - 16 (3)             |
| 8        | 40930       | E-1095 Lock Washer 3/8" (7)          |
| 9        | 41265       | E-1375-X Pin w/Washer (1 7/8" Long)  |
| 10       | 89720       | E-10396-X Pin w/Washer (1 5/8" Long) |
| 11       | 41270       | E-1377 X-Washer (6)                  |
| 12       | 41245       | E-1380 Set Screw 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 3/8" - 16 (4)        |
| 17       | 40940       | F-532 Grommet (3)                    |
| 17       | 44230       | E-1096 Washer 3/8" (4)               |