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## **Trajan 20**

Cut Off Saw



**Parts and Service Manual**

**Order Parts From**

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**713-884-1101**

## Parts List

| CODE_NO | PART_NO | DESCRIPTION               | SPECIFICATION       | QTY |
|---------|---------|---------------------------|---------------------|-----|
| 1A      | 133062A | Swivel Arm                |                     | 1   |
| 2       | 133063  | Swing Spindle             |                     | 1   |
| 3       | HB501   | Oil Nozzle                | PT1/8               | 1   |
| 4       | 133064  | Pad                       |                     | 1   |
| 5       | 133065  | Rear Sight Base           |                     | 1   |
| 6A      | 133066A | Degree-Meter              |                     | 1   |
| 7       | HH001   | Rivet                     | Ø2                  | 2   |
| 8       | S483    | Hex. Socket Head Screw    | 1/4"X1-1/4"L        | 2   |
| 9       | S608    | Hex.Socket Headless Screw | 5/16"X3/4"L         | 1   |
| 10      | S414    | Hex. Socket Head Screw    | 5/16"X1"L           | 1   |
| 11      | 133067  | Chunk                     |                     | 1   |
| 12      | S084    | Hex. Head Screw           | 1/2"X3-1/2"L        | 1   |
| 13      | 133068  | Press Board               |                     | 1   |
| 14      | W002    | Washer                    | 1/2"X27.5Xt2.2      | 4   |
| 15      | W201    | Spring Washer             | 1/2"                | 1   |
| 16      | HB811   | Net                       | 1/2"                | 1   |
| 17      | 133069  | Cam                       |                     | 1   |
| 18A     | 133070  | Knob W/Shaft              |                     | 1   |
| 20      | 133072  | Plastic Round Knob        |                     | 1   |
| 21      | S076    | Hex. Head Screw           | 1/2"X3-3/4"L        | 1   |
| 22      | 133073  | Shaft                     |                     | 1   |
| 23      | HCS22   | C-Retaniner Ring          | S38                 | 2   |
| 24      | 133074  | Washer                    |                     | 2   |
| 25      | S481    | Hex. Socket Head Screw    | 1/2"X1-1/2"L(20NUF) | 2   |
| 26      | N001    | Hex. Nut                  | 1/2"                | 1   |
| 27      | S485    | Hex. Socket Head Screw    | 1/2"X2-1/2L"        | 1   |
| 29      | W046    | Washer                    | 1/2"X27.5Xt2.5      | 1   |
| 30      | HB811   | Hex. Nut                  | 1/2"                | 1   |
| 31      | 133060S | Cylinder Assembly         |                     | 1   |
| 32      | 133051  | Spring Support            |                     | 1   |
| 33      | 133052  | Spring                    |                     | 1   |
| 34      | 133175  | Cardan Shaft              | 1/2"X1-1/2(20NUF)   | 2   |
| 35      | N002    | Hex. Nut                  | 1/2"                | 2   |
| 36      | 133053  | Washer                    |                     | 1   |
| 37      | W002    | Washer                    | Ø1/2XØ27Xt2         | 1   |
| 38      | W201    | Spring Washer             | Ø1/2                | 1   |

## Parts List

|     |         |                            |                    |   |
|-----|---------|----------------------------|--------------------|---|
| 39  | S002    | Hex. Head Screw            | 1/2"X1-1/2L(20NUF) | 1 |
| 40  | HP042   | Pin                        | Ø6X1-3/4"L         | 1 |
| 41  | 133056  | Bushing                    |                    | 1 |
| 42  | S016    | Hex. Head Screw            | 3/8"X3/4"L         | 1 |
| 43  | HD107   | Plug                       | Ø25                | 1 |
| 44  | S484    | Hex. Socket Head Screw     | 1/2"X2"L           | 1 |
| 50  | HD505   | Hex. Socket Flat Head Scwv | 3/4"X1-1/2"L       | 2 |
| 51  | 133087  | Lifting Vise               |                    | 1 |
| 52  | 133085  | Fixed Board                |                    | 1 |
| 53  | 133084  | Spring                     |                    | 1 |
| 54  | 133086  | Vise Giude Chunk           |                    | 2 |
| 55  | W013    | Washer                     | 3/8"XØ20"Xt2       | 4 |
| 56  | S410    | Hex. Socket Head Screw     | 3/8"X1-1/2"L       | 4 |
| 57  | 133080  | Fixed Ring                 |                    | 1 |
| 58  | 133079  | Bushing                    |                    | 2 |
| 59  | S636    | Hex.Socket Headless Screw  | 5/16"X1-3/4"L      | 1 |
| 60  | 133078  | Location Shaft             |                    | 1 |
| 61  | S610    | Hex.Socket Headless Screw  | 5/16"X5/16"L       | 2 |
| 62  | 133076  | Knob W/Shaft               |                    | 2 |
| 63  | 133037  | Plastic Round Knob         |                    | 2 |
| 64  | 133075  | Camshaft                   |                    | 1 |
| 65  | S635    | Hex.Socket Headless Screw  | 5/16"X1-1/4"L      | 1 |
| 66  | N007    | Hex. Nut                   | 5/16"              | 3 |
| 67  | 133055  | Self-moist Bearing         |                    | 2 |
| 68  | 133081  | Vise Arbor                 |                    | 1 |
| 69  | 133184  | Hex. Nut                   | 1-1/4"             | 1 |
| 70  | S609    | Hex.Socket Headless Screw  | 5/16"X3/8"L        | 1 |
| 72  | S420    | Hex. Socket Head Screw     | 5/16"X5/8"         | 2 |
| 75A | 133021A | Column                     |                    | 1 |
| 76  | S479    | Hex. Socket Head Screw     | 3/8"X3/4"L         | 5 |
| 77  | HP039   | Pin                        | Ø6X25L             | 1 |
| 78  | 133022  | Left Pivot Bracket         |                    | 1 |
| 79  | 133023  | Fixed Handle               |                    | 2 |
| 80  | 133024  | Tight Chunk                |                    | 2 |
| 81  | 133025  | Plate                      |                    | 1 |
| 82  | HT009   | Cross Round Head Screw     | 3/16"X3/8"L        | 2 |
| 83  | 133026  | Fixed Handle               |                    | 2 |

|     |         |                           |                |   |
|-----|---------|---------------------------|----------------|---|
| 84  | 133120  | Tray Type Spring          | φ9.7Xφ19Xt1    | 6 |
| 85  | 133027  | Location Screw            |                | 2 |
| 86  | N006    | Hex. Nut                  | 3/8"-24UNF     | 2 |
| 87  | 133028  | Steel Guide Base          |                | 2 |
| 88  | 133105  | Plastic Round Knob        |                | 2 |
| 89  | 133030  | Carbide Guide             |                | 2 |
| 90  | HD506   | Hex. Socket Flat Head Scw | 5/16"X1/2"L    | 2 |
| 91  | 133031  | Right Pivot Bracket       |                | 1 |
| 92  | W038    | Washer                    | 1/4"X3/4"X1.5t | 1 |
| 93  | S402    | Hex. Socket Head Screw    | 1/4"X1/2"L     | 1 |
| 94  | 133090  | Idler Wheel Cover         |                | 1 |
| 95  | 133089  | Wheel Cover               |                | 1 |
| 96A | 133088A | Body Frame                |                | 1 |
| 97  | 133091A | Control Box               |                | 1 |
| 98  | 133092  | Switch Cover              |                | 1 |
| 99  | 133014  | Drive Wheel               |                | 1 |
| 100 | 133015  | Interval Ring             |                | 1 |
| 101 | 133016  | Block Cover               |                | 1 |
| 102 | W206    | Spring Washer             | 5/8"           | 1 |
| 104 | 133098  | Flow Control Valve        |                | 1 |
| 103 | S077    | Hex. Head Screw           | 5/8"X1-1/2"L   | 1 |
| 105 | HP043   | Pin                       | Ø3X35L         | 4 |
| 106 | HP046   | Pin                       | Ø4X35L         | 2 |
| 109 | 133104  | Blade Guard               |                | 1 |
| 110 | 133179  | Hose                      | Ø8X4800MM      | 1 |
| 111 | 133045  | Brush Shaft               |                | 1 |
| 112 | 133046  | Bearing Shaft             |                | 1 |
| 113 | 133047  | Drive Wheel               |                | 1 |
| 114 | 133048  | Brush                     |                | 1 |
| 115 | W002    | Washer                    | 1/2"X27Xt2.5   | 2 |
| 116 | N001    | Hex. Nut                  | 1/2"           | 1 |
| 117 | S602    | Hex.Socket Headless Screw | 1/4"X1/4"L     | 1 |
| 118 | 133049  | Spring                    |                | 2 |
| 119 | W013    | Washer                    | 3/8"X20.5Xt1.8 | 4 |
| 120 | S486    | Hex. Socket Head Screw    | 3/8"X4-5/16"L  | 2 |
| 121 | S633    | Hex.Socket Headless Screw | 3/8"X3-1/2L    | 1 |
| 122 | N005    | Hex. Nut                  | 3/8"           | 1 |

|      |           |                           |                  |   |
|------|-----------|---------------------------|------------------|---|
| 123  | 133050    | Brush Shaft Base          |                  | 1 |
| 124  | HK103     | Key                       | 10x14x2-1/2      | 1 |
| 128  | 133137    | Scale                     |                  | 1 |
| 129  | S626      | Hex.Socket Headless Screw | 3/8"X3/8"L       | 1 |
| 130  | 133035    | Blade Tension Bar         |                  | 1 |
| 131  | 133121    | Tray Type Spring          | 26X50.6X2.5      | 6 |
| 132  | 133033    | Sleeve                    |                  | 1 |
| 133  | 133034    | Limit Board               |                  | 1 |
| 134  | CA4462    | Bearing                   | 4462-00          | 1 |
| 135  | 133036    | Knob W/Shaft              |                  | 1 |
| 136  | 133037    | Round Knob                |                  | 2 |
| 137  | 133038    | Press Board               |                  | 2 |
| 138  | S409      | Hex. Socket Head Screw    | 3/8"X1"L         | 8 |
| 139  | W204      | Spring Washer             | 3/8"             | 8 |
| 140  | 133039    | Sliding Plate Draw Block  |                  | 1 |
| 141  | 133040    | Shaft                     |                  | 1 |
| 142  | S078      | Hex. Head Screw           | 3/8"X2"24UNF     | 3 |
| 143  | S626      | Hex.Socket Headless Screw | 3/8"X3/8"L-24UNF | 4 |
| 144  | W204      | Spring Washer             | 3/8"             | 3 |
| 145  | 133041    | Anchor Block              |                  | 1 |
| 146  | 133042    | Idler Wheel               |                  | 1 |
| 147  | CA63072RS | Ball Bearing              | 63072RS          | 2 |
| 148  | 133043    | Interval Ring             |                  | 1 |
| 149  | HCR12     | C-Retainer Ring           | R80              | 1 |
| 150  | 133044    | Washer                    |                  | 1 |
| 151  | W201      | Spring Washer             | 1/2"             | 1 |
| 152  | S002      | Hex. Head Screw           | 1/2"X1-1/2"L     | 1 |
| 159  | W205      | Spring Washer             | 5/16"            | 4 |
| 160  | 133010    | Motor Plate               |                  | 1 |
| 161  | M623TC    | Motor                     | 2HP / 220/440V   | 1 |
| 162  | S022      | Hex. Head Screw           | 5/16"X3/4"L      | 4 |
| 163  | W040      | Washer                    | 5/16"XØ18Xt2     | 2 |
| 164  | 133017    | Packing                   |                  | 2 |
| 165A | N012      | Nut                       | 5/16"            | 2 |
| 166  | S079      | Hex. Head Screw           | 5/16"X2"L        | 2 |
| 167  | 133171    | Warning mark              |                  | 2 |
| 168  | HD610     | Binder                    | Ø8               | 1 |

|      |         |                           |                       |    |
|------|---------|---------------------------|-----------------------|----|
| 169  | S706    | Cross Round Head Screw    | 3/16"X1/2"L           | 1  |
| 171  | 133018  | Motor Pulley              |                       | 1  |
| 172  | HK101   | Key                       | 3/16"X3/16X30         | 1  |
| 173  | 133012  | Belt                      | 4L-320                | 1  |
| 174  | 133013  | Spindle Pulley            |                       | 1  |
| 175  | 133001S | Gear Box Set              |                       | 1  |
| 177  | HK100   | Key                       | 3/16"X3/16"X50L       | 1  |
| 178  | W204    | Spring Washer             | 3/8"                  | 2  |
| 179  | S010    | Hex. Head Screw           | 3/8"X1"L              | 2  |
| 180  | 133011  | Motor Pulley Cover        |                       | 1  |
| 181A | 133100  | Blade                     | 4-6TX4220mmX27mmX0.91 | 1  |
| 182  | S013    | Hex. Head Screw           | 3/8"X1-1/4"L          | 2  |
| 183  | 133120  | Tray Type Spring          | 3/8"X3/4X1高1.55       | 8  |
| 184  | N005    | Hex. Nut                  | 3/8"                  | 2  |
| 185  | W041    | Washer                    | 3/8"XØ21Xt2           | 1  |
| 186  | HB501   | Oil Nozzle                | 90°                   | 1  |
| 188  | HP039   | Pin                       | Ø6X2"                 | 4  |
| 189  | S732    | Cross Round Head Screw    | 3/16"X3/4"L           | 12 |
| 190  | WO45    | Plastics Washer           | 3/16"                 | 12 |
| 191  | S601    | Hex.Socket Headless Screw | 1/4"X1/2"L            | 2  |
| 192  | S081    | Hex. Head Screw           | 3/8"X.3"L             | 1  |
| 193  | N005    | Hex. Nut                  | 3/8"                  | 2  |
| 194  | W042    | Washer                    | 3/8"XØ25Xt2           | 2  |
| 195A | 133061N | Stand Complete Assembly   |                       | 1  |
| 196  | 133113  | Pad Board                 |                       | 1  |
| 197  | HD506   | Hex. Socket Flat Head Scw | 5/16"X1/2"L           | 8  |
| 198  | 133111  | Roller                    |                       | 3  |
| 199  | 133110  | Roller Arbor              |                       | 3  |
| 200A | 133115B | Bracket                   |                       | 1  |
| 201  | S638    | Hex.Socket Headless Screw | 3/8"X2-1/4"L 20UNF    | 4  |
| 205  | HP045   | Pin                       | Ø10X1"                | 4  |
| 206A | 133112A | Roller Cover              |                       | 1  |
| 207  | W038    | Washer                    | Ø1/4"X3/4"Xt1.5       | 4  |
| 208  | S006    | Hex. Head Screw           | 1/4"X1/2"L            | 4  |
| 209  | 133124  | Guide Holder              |                       | 1  |
| 210  | W041    | Washer                    | 3/8"XØ21Xt2           | 3  |
| 211  | S016    | Hex. Head Screw           | 3/8"X3/4L             | 3  |

|      |           |                           |                 |   |
|------|-----------|---------------------------|-----------------|---|
| 212  | S639      | Hex.Socket Headless Screw | 1/4"X1/4"-28UNF | 2 |
| 213  | 133106    | Guide Shaft               |                 | 1 |
| 214  | W206      | Spring Washer             | 5/8"            | 1 |
| 215  | S014      | Hex. Head Screw           | 5/8"X1-3/4"L    | 1 |
| 216  | 133117    | Scale Index               |                 | 1 |
| 217  | WO44      | Washer                    | 3/16"XØ11Xt1    | 2 |
| 218  | S407      | Hex. Socket Head Screw    | 3/16"X3/8"L     | 2 |
| 219  | S082      | Hex. Head Screw           | 1/2"X1-3/4"L    | 2 |
| 220  | N001      | Hex. Nut                  | 1/2"            | 2 |
| 221  | MB110W    | Cooling Pump              |                 | 1 |
| 222  | 1031285-8 | Spray                     |                 | 1 |
| 223A | 133178    | Hose                      | Ø10X26000MM     | 1 |
| 224  | 133125    | Coolant Tank              |                 | 1 |
| 225  | 133126    | Filter                    |                 | 1 |
| 226  | 133107    | Block Board               |                 | 1 |
| 227A | S027      | Hex. Head Screw           | 1/2"X1"L        | 2 |
| 228  | WO35      | Washer                    | 1/2XØ25X1.8t    | 2 |
| 229  | 133108    | Coupler                   |                 | 1 |
| 230  | 181857A   | Nozzle                    | PT1/4"X12"      | 1 |
| 236  | 133037    | Plastic Round Knob        |                 | 1 |
| 237  | 133118    | Speed plate               |                 | 1 |
| 237  | 133118A   | Speed plate               |                 | 1 |
| 237  | 133118B   | Speed plate               |                 | 1 |
| 237  | 133118C   | Speed plate               |                 | 1 |
| 238  | S002      | Hex. Head Screw           | 1/2"X1-1/2"L    | 1 |
| 239  | N001      | Hex. Nut                  | 1/2"            | 3 |
| 240  | 133109    | Bearing Base              |                 | 6 |
| 242  | 133093D   | Control Plate             |                 | 1 |
| 243  | 133127    | Plastic Round Knob        |                 | 2 |
| 244A | HD109     | Plug                      | Ø45             | 1 |
| 245  | S416      | Hex. Socket Head Screw    | 5/16"X1-1/4"L   | 1 |
| 246A | N012      | Washer                    | 5/16"           | 1 |
| 247  | S086      | Hex. Head Screw           | 1/2"X2-3/16"L   | 1 |
| 248  | 133130    | Hex. Nut                  |                 | 1 |
| 249  | 133131    | Tray Type Spring          | Ø28XØ14.2X0.8t  | 2 |
| 250  | 133054    | Screw                     |                 | 4 |
| 251  | S068      | Hex. Head Screw           | 3/8"X2-1/2      | 4 |

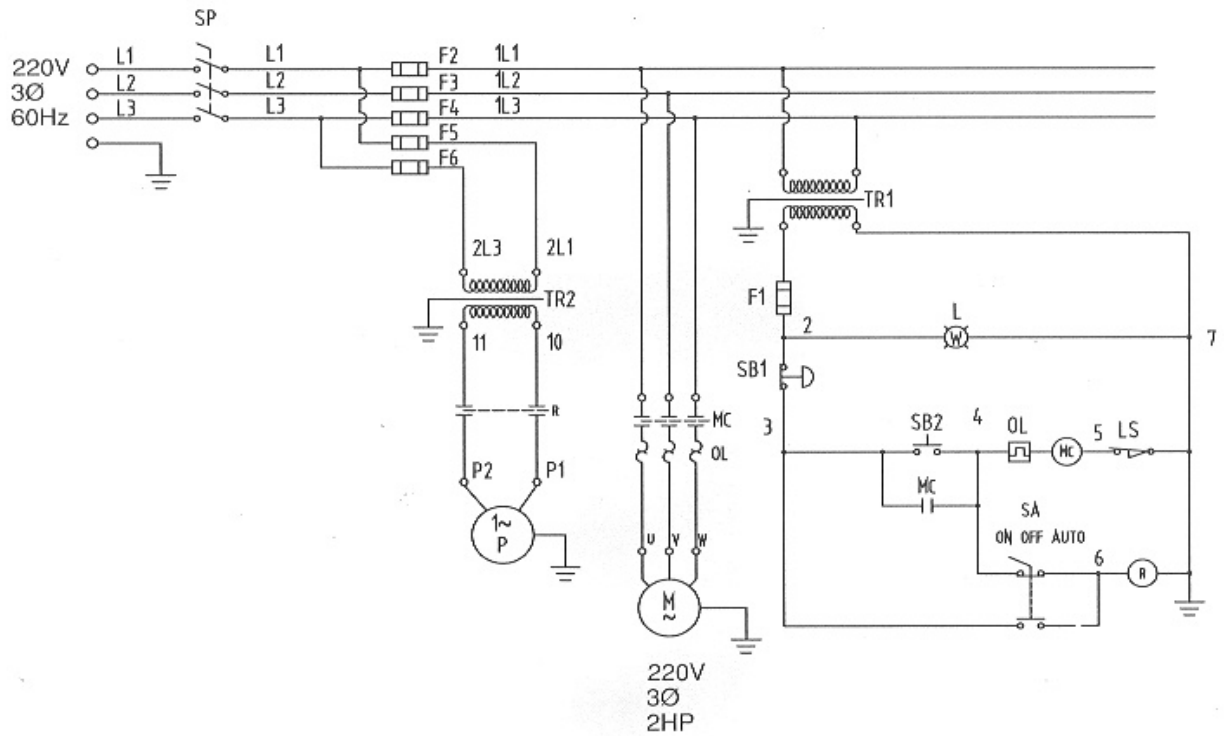
|      |        |                           |                 |   |
|------|--------|---------------------------|-----------------|---|
| 252  | W008   | Washer                    | 3/8"            | 4 |
| 253  | 133134 | Electril Lower board      |                 | 1 |
| 254  | S708   | Cross Round Head Screw    | 3/16"X3/8"L     | 4 |
| 255  | 133133 | Plug                      |                 | 4 |
| 256  | N005   | Hex. Nut                  | 3/8"            | 1 |
| 257  | N001   | Hex. Nut                  | 1/2"            | 4 |
| 258  | W043   | Washer                    | Ø1/2XØ35Xt3     | 4 |
| 259  | 133116 | Harrow                    |                 | 1 |
| 260  | 133176 | Hose                      | 600X10mm        | 1 |
| 261  | 133177 | Hose                      | 600X8mm         | 1 |
| 264  | S420   | Hex. Socket Head Screw    | 5/16"X5/8"L     | 2 |
| 265  | 103003 | Hanger Plate              |                 | 1 |
| 266  | W205   | Spring Washer             | 5/16"           | 2 |
| 267  | N007   | Hex. Nut                  | 5/16"           | 2 |
| 268  | 133150 | Hanger Plate              |                 | 1 |
| 269  | W204   | Spring Washer             | 3/8"            | 2 |
| 270  | S016   | Hex. Head Screw           | 3/8X3/4"L       | 2 |
| 271  | 133141 | Bracket                   |                 | 4 |
| 272  | S640   | Hex.Socket Headless Screw | 3/8"X1"L        | 4 |
| 273  | 133154 | 4 way valve               |                 | 1 |
| 275  | 133183 | Pin                       |                 | 1 |
| 276  | 133146 | Shaft                     |                 | 2 |
| 277  | 133148 | Spring                    |                 | 2 |
| 278  | 133147 | Shaft                     |                 | 2 |
| 279  | 133145 | Plate                     |                 | 2 |
| 280A | S706   | Cross Round Head Screw    | 3/16"X1/2"L     | 4 |
| 281  | 133143 | Support Lump(Right)       |                 | 1 |
| 282  | W007   | Washer                    | 3/16"x12xt0.8mm | 2 |
| 283  | S902   | Hex. Socket Head Screw    | 3/16"X3/8"L     | 2 |
| 284  | 133144 | Support Lump(Left)        |                 | 1 |
| 285  | S735   | Cross Round Head Screw    | 1/8"X5/16"L     | 2 |
| 286  | 133136 | Scale                     |                 | 1 |
| 287  | 133135 | Scale Base                |                 | 1 |
| 288  | W047   | Washer                    | 1/4"x5/8"x1.5t  | 2 |
| 289A | S423   | Cross Round Head Screw    | 1/4"X5/8"L      | 2 |
| 290  | S737   | Cross Round Head Screw    | 3/16"X3/16"L    | 8 |
| 291  | 103213 | Bracket                   |                 | 2 |
| 292  | 133181 | Ring                      |                 | 2 |



## Parts List

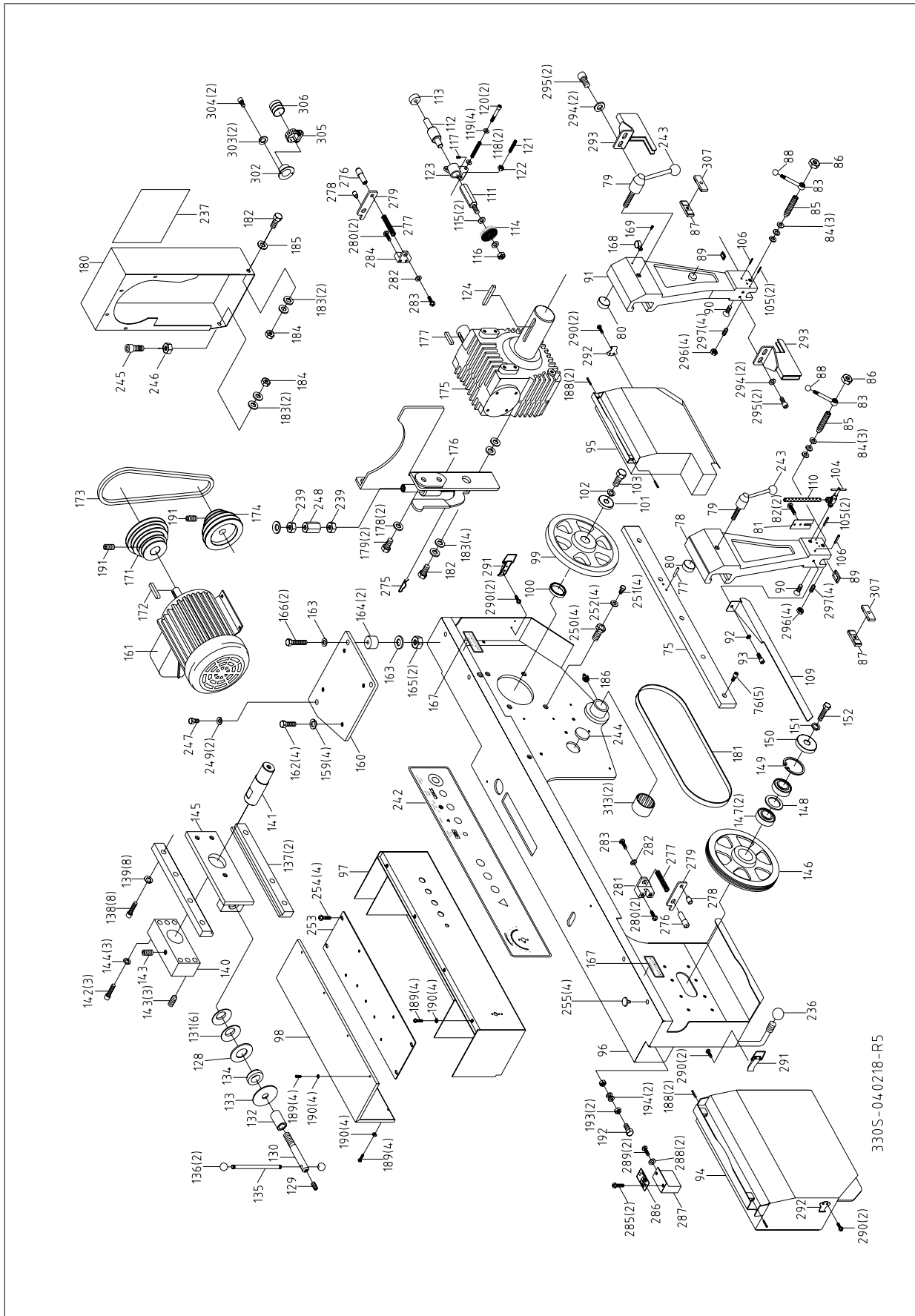
|      |          |                           |                    |   |
|------|----------|---------------------------|--------------------|---|
| 293A | 133142A  | Blade Cover               |                    | 2 |
| 294  | W047     | Washer                    | 1/4"x5/8"x1.5t     | 4 |
| 295  | S901     | Round Head Screw          | 1/4"X3/8L          | 4 |
| 296  | N003     | Hex. Nut                  | 1/4"               | 8 |
| 297  | S632     | Hex.Socket Headless Screw | 1/4"X5/8"L         | 8 |
| 298  | S402     | Hex. Socket Head Screw    | 1/4"X1/2"L         | 2 |
| 299  | W202     | Spring Washer             | 1/4"               | 2 |
| 300  | 133153   | Fixed Block               |                    | 1 |
| 301  | HD613    | Hose Clamp                | 2"                 | 1 |
| 302  | 133152   | Fixed Block               |                    | 1 |
| 303  | W202     | Spring Washer             | 1/4"               | 2 |
| 304  | S402     | Hex. Socket Head Screw    | 1/4"X1/2"L         | 2 |
| 305  | HD613    | Hose Clamp                | 2"                 | 1 |
| 306  | 133180   | Cover                     |                    | 1 |
| 307  | 133029   | Carbide Guide             | Carbide Guide Base | 2 |
| 309  | 133167   | Bracket                   |                    | 1 |
| 310  | 133163   | Ring                      |                    | 2 |
| 311  | S734     | Cross Round Head Screw    | 3/16"X5/16"L       | 2 |
| 312  | 133172   | Chip Tray                 |                    | 1 |
| 313  | CA3830NK |                           | NK38/30            | 2 |
| 314  |          | Electrical Contral Box    |                    | 1 |

## 12. Circuit Diagram

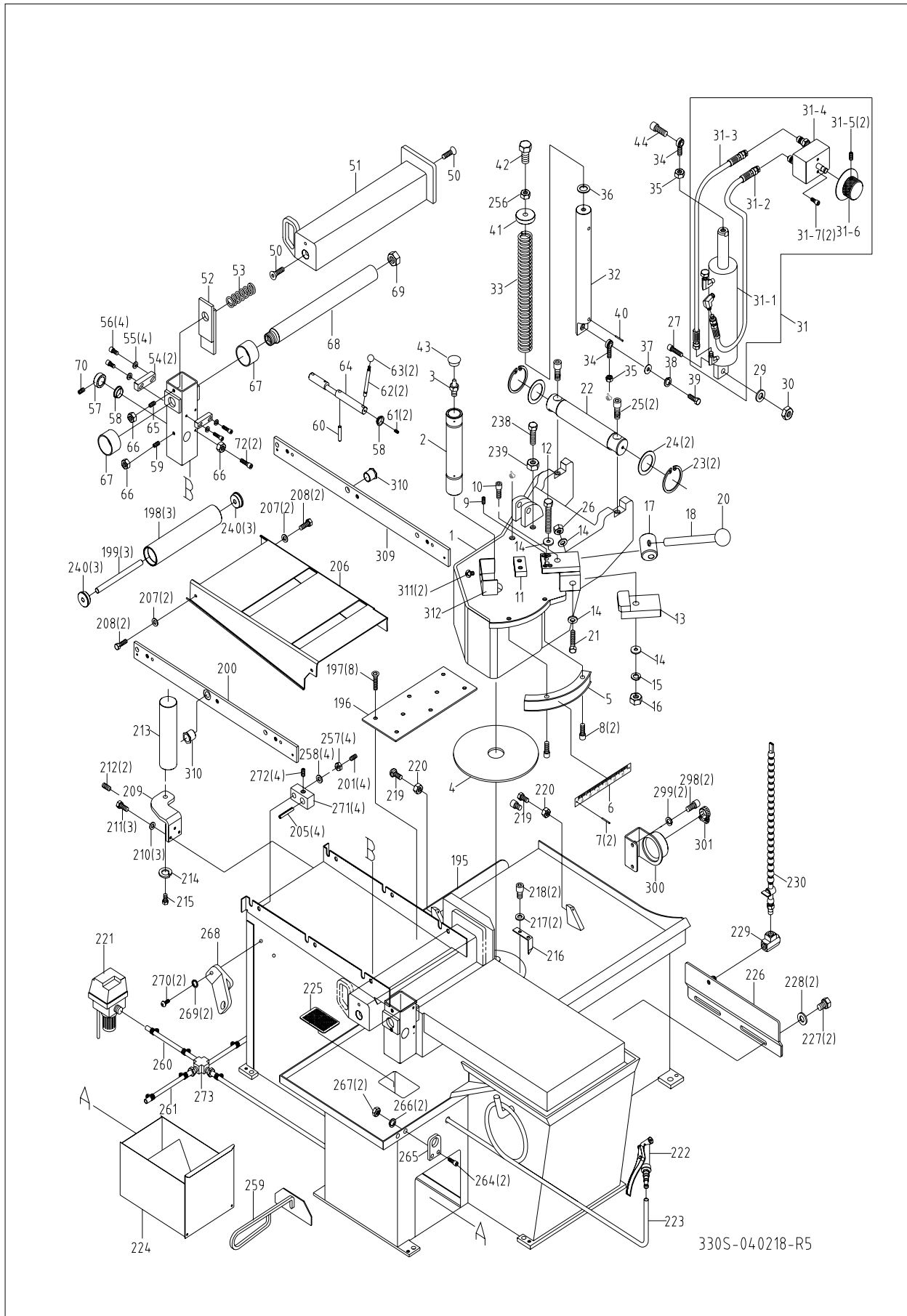


| 330S         |       | SCHEDULE OF ELECTRICAL EQUIPMENT |                |     |
|--------------|-------|----------------------------------|----------------|-----|
| Parts number | Item. | Designation and function         | Technical data | QTY |
| ET1312       | TR1   | Trans former                     | CE 20VA 220V   | 1   |
| ET1310       | TR2   | Trans former                     | 100VA          | 1   |
| ET1813       | F1    | Fuse FS-520                      | 2A             | 1   |
| ET1818       | F2~F6 | Fuse Df6-AB10X3                  | Df6-AB10       | 3   |
| ET1110       | MC    | LCIK091DB7 24V                   | LC1K0910B7     | 1   |
| ET1415       | L     | Light:XB7-EV61                   | TEXB7-EV61     | 1   |
| ET1239       | SB1   | Emergency Stop                   | TEXB5-AS542    | 1   |
| ET1231       | SB2   | Start Switch                     | TEXB7-EA31     | 1   |
| ET1236       | SA    | Choice Switch                    | TEXB7-ED33     | 1   |
| ET1622       | LS    | Limit Switch                     | AZD-1000       | 1   |
| ET2009       | OL    | Overload Relay                   | LR7K           | 1   |
| ET1127       | R     | Relay;RT424524                   | RT424524       | 1   |
| M623TC       | M     | Main Motor                       | 220V/60HZ/3Ø   | 1   |
| MB110W       | P     | Pump                             |                | 1   |
| ET1723       | SP    | Power Switch                     |                | 1   |

# 13 Parts Lists



330S-040218-R5



330S-040218-R5

