



Electronic Service Manuals

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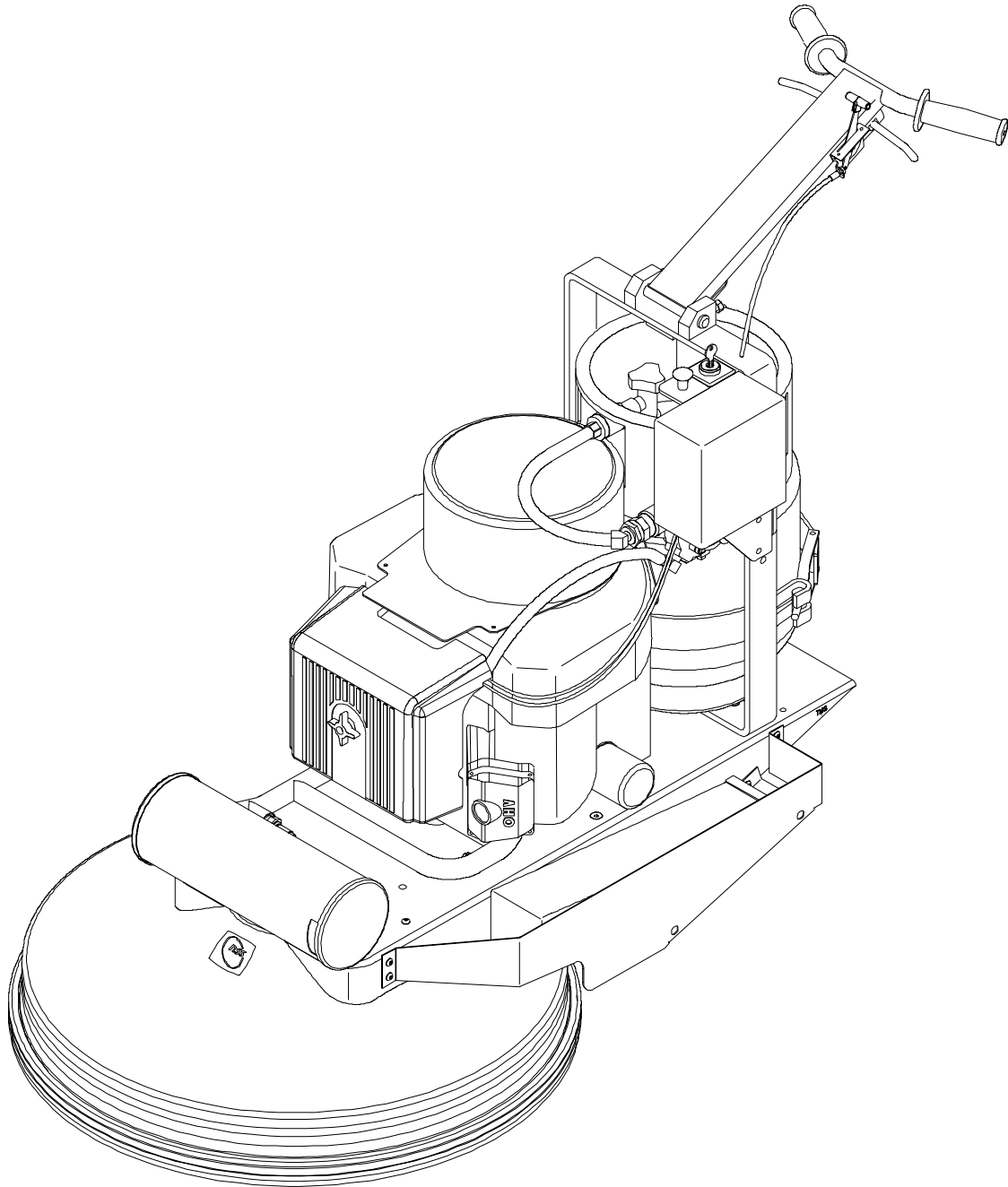
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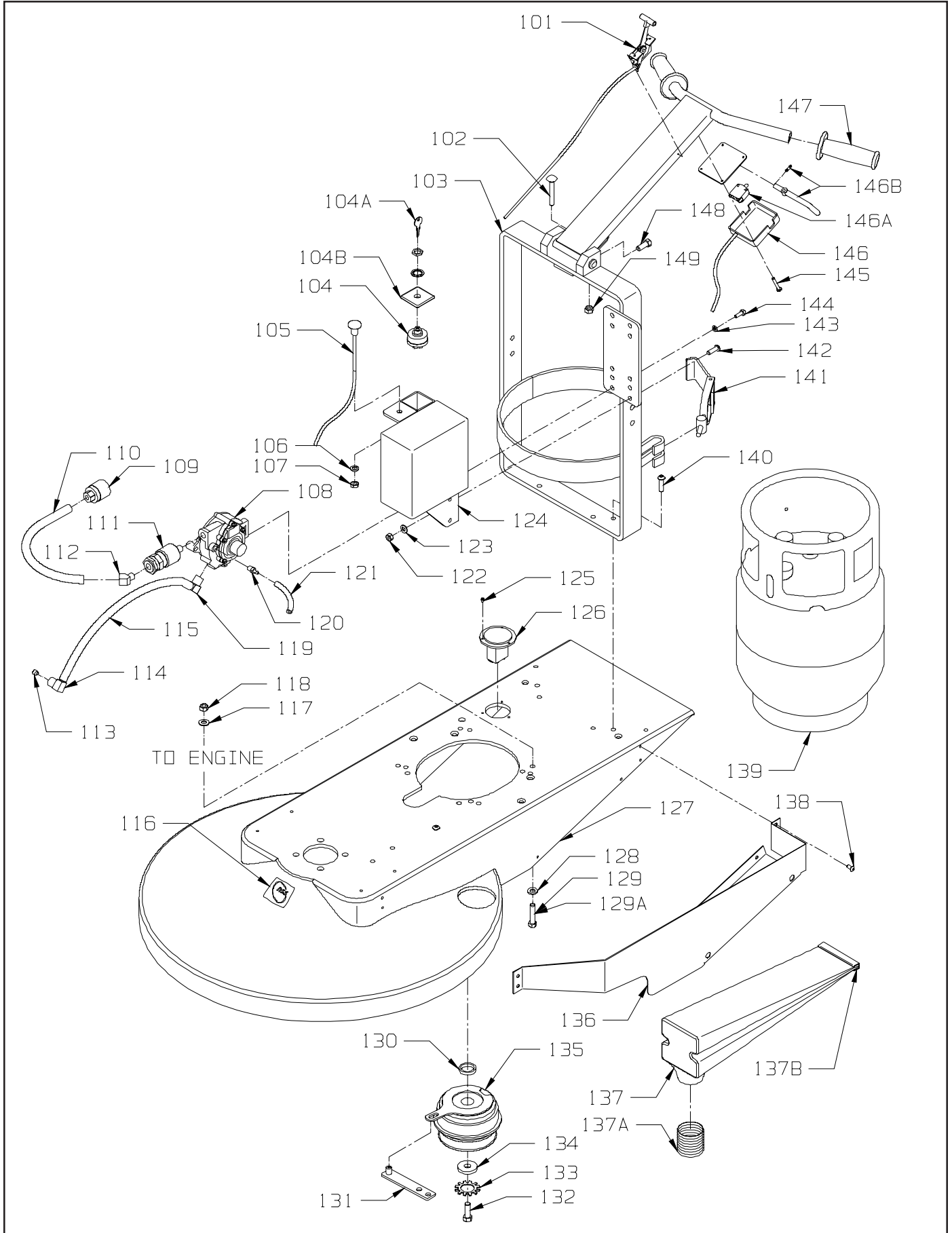
PARTS LIST
COMMANDER 27 VAC-TRAC
COMMANDER 20 VAC-TRAC
FH 500 V



UPPER ASSEMBLY

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------|-----------------|--|-------------|
| 101 | 6190481 | THROTTLE CABLE WITH CHOKE - INCLUDES: | 1 |
| 101A | 6190751 | THROTTLE CABLE ONLY | 1 |
| 102 | 6190921 | 3/8-16 X 2 1/2 CARRIAGE BOLT | 1 |
| 103 | 6190501 | HANDLE | 1 |
| 104 | 6190411 | KEY SWITCH COMPLETE - INCLUDES: | 1 |
| 104A | 6190511 | REPLACEMENT KEY | 1 |
| 104B | 6190421 | KEY SWITCH HOUSING | 1 |
| 105 | 6190521 | CHOKE CABLE | 1 |
| 106 | 9122100 | 3/8 SPLIT LOCK WASHER | 1 |
| 107 | 9121990 | 3/8-16 HEX JAM NUT | 1 |
| 108 | 6190441 | REGULATOR | 1 |
| 109 | 6190471 | QUICK COUPLING | 1 |
| 110 | 6190461 | HOSE LP TANK TO REGULATOR | 1 |
| 111 | 6190451 | FUEL LOCK WITH FILTER - 12 VOLT | 1 |
| 112 | 6590171 | 45° STREET ELBOW 1/4 | 1 |
| 113 | 6191411 | FUEL VENTURE (BRASS PLUG 1/8 - #32) | 1 |
| 114 | 6190731 | 3/8 HOSE X 1/4 MP ELBOW | 1 |
| 115 | 6190531 | HOSE - 3 FOOT - FUEL | 1 |
| 116 | 7690931 | DECAL - NSS LOGO | 1 |
| 117 | 6190151 | 5/16 FLAT WASHER | 2 |
| 118 | 9121450 | 5/16-18 HEX NUT WITH NY-LOK INSERT | 2 |
| 119 | 6190541 | 90° BRASS ELBOW - 3/8 NPT X 5/16 HOSE | 1 |
| 120 | 6190551 | FITTING 1/4 BARB X 1/4 NPT | 1 |
| 121 | 6190561 | HOSE - 3 FOOT - VAC | 1 |
| 122 | 9121450 | 5/16-18 HEX NUT WITH NY-LOK INSERT | 5 |
| 123 | 6190161 | 5/16 SAE WASHER | 5 |
| 124 | 6190401 | BATTERY BOX | 1 |
| | 6190331 | BATTERY - 12 VOLT (NOT SHOWN) | 1 |
| 125 | 2391751 | 1/8 X 5/8 DOME HEAD POP RIVET - STEEL | 3 |
| 126 | 6190321 | HOUR METER | 1 |
| 127 | 6191511 | DECK - 20" - VAC-TRAC | 1 |
| 127 | 6190031 | DECK - 27" - VAC-TRAC | 1 |
| 128 | 9121390 | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK FLAT WASHER (5/16) | 4 |
| 129 | 9121760 | 5/16-18 X 1 3/4 HEX BOLT - 3 PLACES | 3 |
| 129 | 9121800 | 5/16-18 X 2 HEX BOLT - 1 PLACE | 1 |
| 130 | 6190571 | CLUTCH SPACER | 1 |
| 131 | 6190581 | CLUTCH ARM HOLDER | 1 |
| 132 | 6190931 | 7/16-20 X 1 HEX BOLT | 1 |
| 133 | 6190781 | 7/16 EXTERNAL STAR LOCK WASHER | 1 |
| 134 | 6190591 | CLUTCH WASHER | 1 |
| 135 | 6190201 | ELECTRIC CLUTCH | 1 |
| 136 | 6191551 | BAG TRAY 20" - VAC-TRAC | 1 |
| 136 | 6190041 | BAG TRAY 27" - VAC-TRAC | 1 |
| 137 | 6190051 | BAG - INCLUDES: | 1 |
| 137A | 6190061 | 2" I. D. HOSE | 1 |
| 137B | 6190741 | BAG CLAMP ONLY | 1 |
| 138 | 6190941 | 1/4-20 X 1/2 BUTTON HEAD CAP SCREW | 6 |
| 139 | 6190381 | LP TANK | 1 |
| 140 | 6190951 | 5/16-18 X 1 1/4 BUTTON HEAD CAP SCREW | 4 |
| 141 | 6590111 | CLAMP - TANK | 1 |
| 142 | 6190961 | 5/16-18 X 1 BUTTON HEAD CAP SCREW | 2 |
| 143 | 9120880 | 1/4 SPLIT LOCK WASHER | 2 |
| 144 | 9121210 | 1/4-20 X 5/8 HEX BOLT | 2 |
| 145 | 6190911 | 8 X 1 1/2 HEX HEAD SELF TAPPING SCREW | 3 |
| 146 | 6190631 | CLUTCH SWITCH ASSEMBLY - COMPLETE - INCLUDES: | 1 |
| 146A | 6190711 | SWITCH (CLUTCH) | 1 |
| 146B | 6190721 | ARM AND SPRING | 2 |
| 147 | 6190491 | HANDLE GRIP | 2 |
| 148 | 9122260 | 3/8-16 X 1 HEX BOLT - GRADE 8 | 2 |
| 149 | 9122140 | 3/8-16 HEX NUT WITH NY-LOK INSERT | 1 |

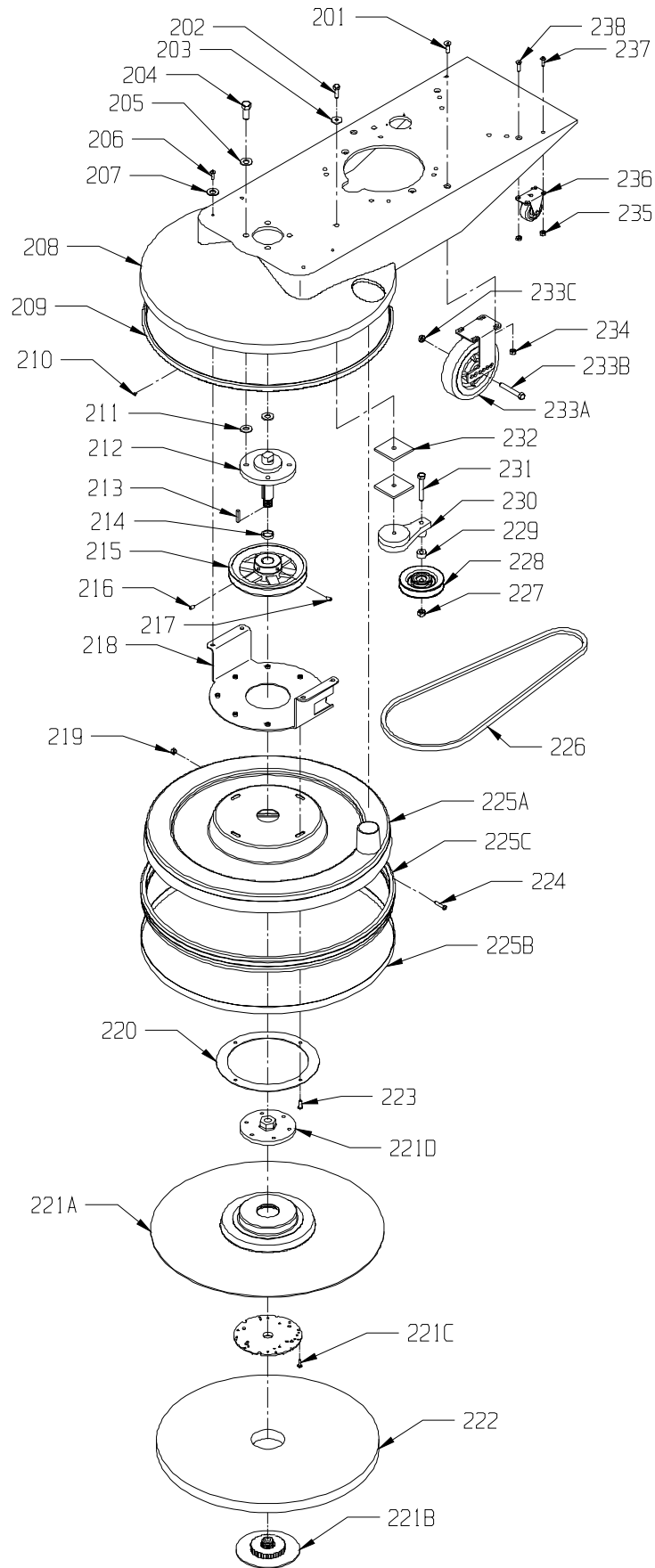
UPPER ASSEMBLY



LOWER ASSEMBLY 20"

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------|-----------------|---|-------------|
| 201 | 6190971 | 5/16-18 X 1 FLAT HEAD SOCKET CAP SCREW | 4 |
| 202 | 9122075 | 3/8-16 X 1 1/2 HEX HEAD BOLT | 1 |
| 203 | 9122110 | 3/8 I.D. X 1 1/2 O.D. FENDER WASHER | 1 |
| 204 | 6190801 | 7/16-20 X 1 1/4 HEX BOLT | 4 |
| 205 | 6190811 | 7/16 SAE FLAT WASHER | 4 |
| 206 | 6190991 | 1/4-20 X 3/4 BUTTON HEAD CAP SCREW | 4 |
| 207 | 6190821 | # 8 SAE FLAT WASHER | 4 |
| 208 | 6191511 | DECK - 20" - VAC-TRAC | 1 |
| 209 | 6190641 | BUMPER MOLDING | 1 |
| 210 | 2391751 | 1/8 X 5/8 DOME HEAD POP RIVET | 7 |
| 211 | 6190811 | 7/16 SAE FLAT WASHER | 1 |
| 212 | 6190701 | FRONT BEARING AND SHAFT ASSEMBLY - 20" - VAC-TRAC - INCLUDES: | 1 |
| 212A | 6190651 | FRONT BEARING HOUSING | 1 |
| 212B | 6190691 | DRIVEN SHAFT - 20" - VAC-TRAC | 1 |
| 212C | 6190671 | SNAP RING | 2 |
| 212D | 6190681 | 205pp BEARING | 2 |
| 213 | 6190981 | 1/4 SQUARE X 1 1/4 LONG KEY | 1 |
| 214 | 6191741 | PAD DRIVER SPACER - 1/4 | 1 |
| 215 | 6191701 | PULLEY 7.0 - 20" - VAC-TRAC | 1 |
| 216 | 9121380 | 5/16-18 X 3/8 SET SCREW - KNURL POINT | 1 |
| 217 | 6190831 | 5/16-18 X 1/2 SET SCREW FULL DOG | 1 |
| 218 | 6190021 | FLEXIWALL SHIELD MOUNT | 1 |
| 219 | 9120660 | 10-32 HEX NUT WITH NY-LOK INSERT | 1 |
| 220 | 6191541 | FLEXIWALL SHIELD MOUNTING RING - 20" - VAC-TRAC | 1 |
| 221 | 6191731 | 20" PAD DRIVER COMPLETE - INCLUDES: | 1 |
| 221A | 6191721 | PAD DRIVER 20" | 1 |
| 221B | 6190251 | CENTER LOCK PAD HOLDER - BLACK | 1 |
| 221C | 9120450 | 10-24 X 1 ROUND HEAD PHILLIPS MACHINE SCREW | 3 |
| 221D | 6190261 | FLANGE | 1 |
| 222 | ----- | PAD - FOR INFORMATION SEE ACCESSORIES PAGE | 1 |
| 223 | 6190941 | 1/4-20 X 1/2 BUTTON HEAD CAP SCREW | 4 |
| 224 | 6190171 | 10-32 X 1 1/2 PAN HEAD PHILLIPS MACHINE SCREW - VAC-TRAC | 1 |
| 225 | 6191531 | FLEXIWALL SHIELD ASSEMBLY - 20" - VAC-TRAC | 1 |
| 225A | 6191521 | FLEXIWALL SHIELD ONLY 20" | 1 |
| 225B | 6490732 | BUMPER STRAP ONLY 20" | 1 |
| 225C | 6490191 | BUMPER BRUSH ONLY 20" | 1 |
| 226 | 6190861 | BELT BX-43 - 20" VAC-TRAC | 1 |
| 227 | 9122140 | 3/8-16 HEX NUT WITH NY-LOK INSERT | 1 |
| 228 | 6190301 | PULLEY - IDLER | 1 |
| 229 | 6190871 | SHOULDER BUSHING - #1232 | 1 |
| 230 | 6190311 | TENSIONER ARM | 1 |
| 231 | 9122080 | 3/8-16 X 2 1/2 HEX BOLT | 1 |
| 232 | 6190601 | TENSIONER ARM SPACER | 2 |
| 233 | 6190271 | 6" X 1 1/2" WHEEL WITH BRACKET - FOR 20" VAC-TRAC - INCLUDES: | 2 |
| 233A | 6190281 | WHEEL ONLY | 2 |
| 233B | 6190611 | WHEEL AXLE BOLT | 2 |
| 233C | 9121990 | 3/8-16 HEX JAM NUT | 2 |
| 233D | 6190621 | WHEEL BEARING KIT | 2 |
| 234 | 9121450 | 5/16-18 HEX NUT WITH NY-LOK INSERT | 4 |
| 235 | 9120900 | 1/4-20 HEX NUT WITH NY-LOK INSERT | 4 |
| 236 | 6190291 | 2" CASTER WITH GRAY WHEELS | 2 |
| 237 | 6190991 | 1/4-20 X 3/4 BUTTON HEAD CAP SCREW | 2 |
| 238 | 6191001 | 1/4-20 X 3/4 FLAT HEAD SOCKET CAP SCREW | 2 |

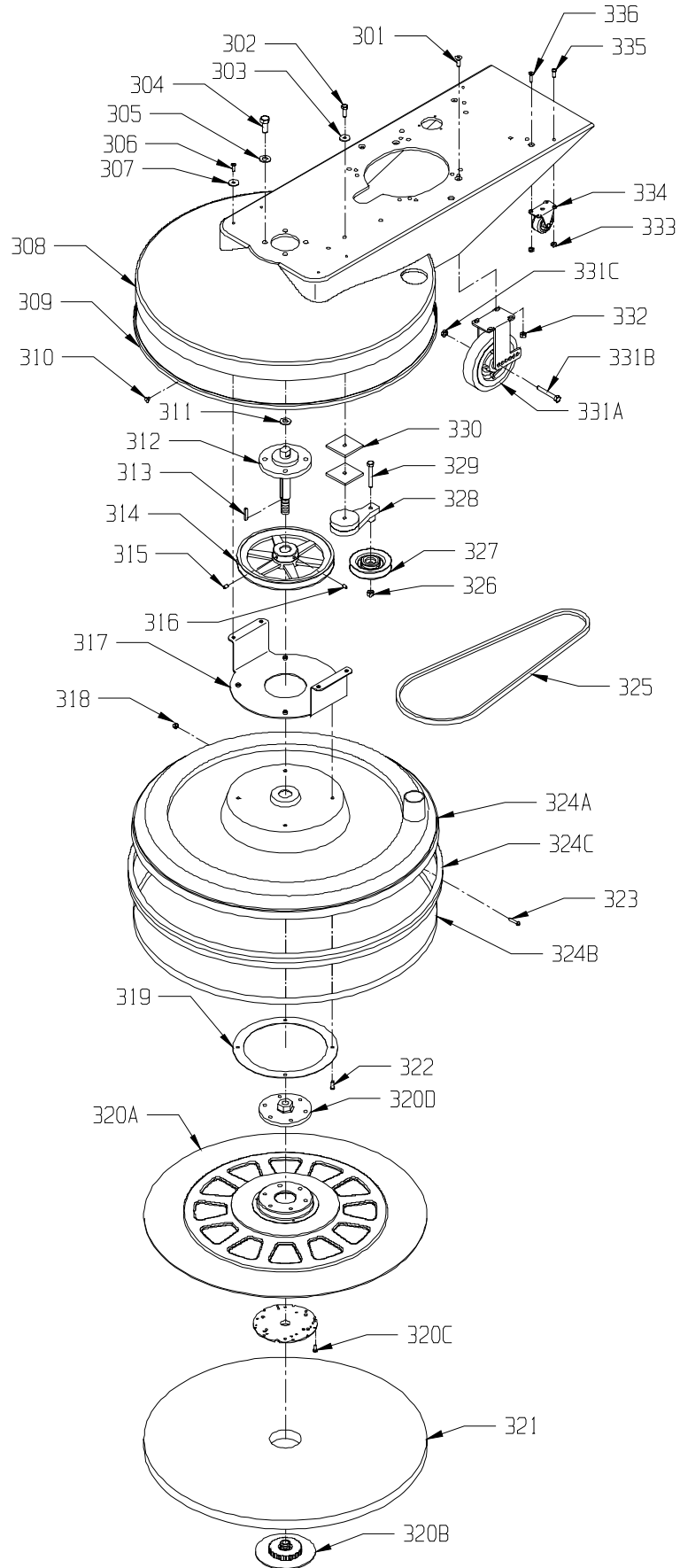
LOWER ASSEMBLY 20"



LOWER ASSEMBLY 27"

| ITEM | PART NO. | DESCRIPTION | QTY. |
|-------------|-----------------|---|-------------|
| 301 | 6190971 | 5/16-18 X 1 FLAT HEAD SOCKET CAP SCREW | 4 |
| 302 | 9122075 | 3/8-16 X 1 1/2 HEX HEAD BOLT | 1 |
| 303 | 9122110 | 3/8 I.D. X 1 1/2 O.D. FENDER WASHER | 1 |
| 304 | 6190801 | 7/16-20 X 1 1/4 HEX BOLT | 4 |
| 305 | 6190811 | 7/16 SAE FLAT WASHER | 4 |
| 306 | 6190841 | 1/4-20 X 1 BUTTON HEAD CAP SCREW | 4 |
| 307 | 6190821 | #8 SAE FLAT WASHER | 4 |
| 308 | 6190031 | DECK - 27" - VAC-TRAC | 1 |
| 309 | 6190641 | BUMPER MOLDING | 1 |
| 310 | 2391751 | 1/8 X 5/8 DOME HEAD POP RIVET | 7 |
| 311 | 6190811 | 7/16 SAE FLAT WASHER | 1 |
| 312 | 6190111 | FRONT BEARING AND SHAFT ASSEMBLY - 27" - VAC-TRAC - INCLUDES: | 1 |
| 312A | 6190651 | FRONT BEARING HOUSING | 1 |
| 312B | 6190121 | DRIVEN SHAFT - 27" - VAC-TRAC | 1 |
| 312C | 6190671 | SNAP RING | 2 |
| 312D | 6190681 | 205pp BEARING | 2 |
| 313 | 6190981 | 1/4 SQUARE X 1 1/4 LONG KEY | 1 |
| 314 | 6190181 | PULLEY 9.4 - 27" - VAC-TRAC | 1 |
| 315 | 9121380 | 5/16-18 X 3/8 SET SCREW - KNURL POINT | 1 |
| 316 | 6190831 | 5/16-18 X 1/2 SET SCREW FULL DOG | 1 |
| 317 | 6190021 | FLEXIWALL SHIELD MOUNT | 1 |
| 318 | 9120660 | 10-32 HEX NUT WITH NY-LOK INSERT | 1 |
| 319 | 6190081 | FLEXIWALL SHIELD MOUNTING RING - 27" - VAC-TRAC | 1 |
| 320 | 6190241 | 27" PAD DRIVER COMPLETE - INCLUDES: | 1 |
| 320A | 6190231 | PAD DRIVER 27" | 1 |
| 320B | 6190251 | CENTER LOCK PAD HOLDER - BLACK | 1 |
| 320C | 6190851 | 10-24 X 1 ROUND HEAD PHILLIPS MACHINE SCREW | 3 |
| 320D | 6190261 | FLANGE | 1 |
| 321 | ----- | PAD - FOR INFORMATION SEE ACCESSORIES PAGE | 1 |
| 322 | 6190841 | 1/4-20 X 1 BUTTON HEAD CAP SCREW | 4 |
| 323 | 6190171 | 10-32 X 1 1/2 ROUND HEAD PHILLIPS MACHINE SCREW - VAC-TRAC | 1 |
| 324 | 6190019 | FLEXIWALL SHIELD ASSEMBLY - 27" - VAC-TRAC - INCLUDES: | 1 |
| 324A | 6190011 | FLEXIWALL SHIELD ONLY 27" | 1 |
| 324B | 6592552 | BUMPER STRAP ONLY 27" | 1 |
| 324C | 6592531 | BUMPER BRUSH ONLY 27" | 1 |
| 325 | 6190191 | BELT BX-55 | 1 |
| 326 | 9122140 | 3/8-16 HEX NUT WITH NY-LOK INSERT | 1 |
| 327 | 6190301 | PULLEY - IDLER | 1 |
| 328 | 6190311 | TENSIONER ARM | 1 |
| 329 | 6190791 | 3/8-16 X 2 1/4 HEX BOLT | 1 |
| 330 | 6190601 | TENSIONER ARM SPACER | 2 |
| 331 | 6190131 | 6" X 1 1/2" WHEEL WITH BRACKET - FOR 27" VAC-TRAC - INCLUDES: | 2 |
| 331A | 6190281 | WHEEL ONLY | 2 |
| 331B | 6190611 | WHEEL AXLE BOLT | 2 |
| 331C | 9121990 | 3/8-16 HEX JAM NUT | 2 |
| 331D | 6190621 | WHEEL BEARING KIT | 2 |
| 332 | 9121450 | 5/16-18 HEX NUT WITH NY-LOK INSERT | 4 |
| 333 | 9120900 | 1/4-20 HEX NUT WITH NY-LOK INSERT | 4 |
| 334 | 6190291 | 2" CASTER WITH GRAY WHEELS | 2 |
| 335 | 6190991 | 1/4-20 X 3/4 BUTTON HEAD CAP SCREW | 2 |
| 336 | 6191001 | 1/4-20 X 3/4 FLAT HEAD SOCKET CAP SCREW | 2 |

LOWER ASSEMBLY 27"



CYLINDER / VALVE ASSEMBLY

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------|-----------------|--|-------------|
| 11008 | 6191281 | HEAD - COMPLETE - CYLINDER # 1 - INCLUDES: | 1 |
| | 6191441 | CYLINDER HEAD ONLY #1 | 1 |
| 130B | 6193161 | M8 X 50 BOLT - FLANGED | 17 |
| 130C | 6193171 | M8 X 75 BOLT - FLANGED | 2 |
| 172 | 6193181 | M8 X 18 BOLT - STUD | 4 |
| 11004 | 6191301 | GASKET - CYLINDER HEAD | 2 |
| 11060 | 6191311 | GASKET - ROCKER CASE | 2 |
| 11060B | 6193191 | BREATHER GASKET | 1 |
| 12004 | 6193551 | VALVE - INTAKE | 2 |
| 12005 | 6193561 | VALVE - EXHAUST | 2 |
| 12009 | 6193571 | RETAINER - VALVE SPRING | 4 |
| 12011 | 6193581 | COLLET | 8 |
| 12016 | 6193591 | ARM - ROCKER | 4 |
| 13070 | 6193611 | GUIDE | 2 |
| 49078 | 6193671 | SPRING - ENGINE VALVE | 4 |
| 92009 | 6193691 | SCREW | 4 |
| 92015 | 6193701 | NUT | 4 |
| 92049 | 6193101 | SEAL - OIL | 4 |
| 92151 | 6193741 | BOLT | 4 |
| 11008A | 6191291 | HEAD - COMPLETE - CYLINDER # 2 - INCLUDES: | 1 |
| | 6191451 | CYLINDER HEAD ONLY #2 | 1 |
| 130B | 6193161 | M8 X 50 BOLT - FLANGED | 17 |
| 130C | 6193171 | M8 X 75 BOLT - FLANGED | 2 |
| 172 | 6193181 | M8 X 18 BOLT - STUD | 4 |
| 11004 | 6191301 | GASKET - CYLINDER HEAD | 2 |
| 11060 | 6191311 | GASKET - ROCKER CASE | 2 |
| 11060B | 6193191 | BREATHER GASKET | 1 |
| 12004 | 6193551 | VALVE - INTAKE | 2 |
| 12005 | 6193561 | VALVE - EXHAUST | 2 |
| 12009 | 6193571 | RETAINER - VALVE SPRING | 4 |
| 12011 | 6193581 | COLLET | 8 |
| 12016 | 6193591 | ARM - ROCKER | 4 |
| 13070 | 6193611 | GUIDE | 2 |
| 49078 | 6193671 | SPRING - ENGINE VALVE | 4 |
| 92009 | 6193691 | SCREW | 4 |
| 92015 | 6193701 | NUT | 4 |
| 92049 | 6193101 | SEAL - OIL | 4 |
| 92151 | 6193741 | BOLT | 4 |
| 130 | 6192581 | M6 X 12 BOLT - FLANGED | 4 |
| 130A | 6193151 | M6 X 40 BOLT - FLANGED | 4 |
| 11060A | 6193021 | GASKET - CRANK CASE COVER | 1 |
| 11022 | 6193011 | CASE - ROCKER | 2 |
| 12032 | 6193601 | TAPPET | 4 |
| 13070A | 6193621 | GUIDE | 1 |
| 13116 | 6193631 | ROD - PUSH | 4 |
| 13270 | 6193641 | PLATE | 1 |
| 13271 | 6193651 | PLATE | 1 |
| 14090 | 6193041 | COVER - BREATHER | 1 |
| 42036 | 6193661 | SLEEVE | 1 |
| 49015 | 6193051 | COVER - CRANK CASE | 1 |
| 49109 | 6193061 | ELEMENT - BREATHER | 1 |
| 49118 | 6193681 | CAMSHAFT COMPLETE | 1 |
| 49120 | 6193071 | CRANK CASE - COMPLETE | 1 |
| 92033 | 6193081 | RING - SNAP | 2 |
| 92043 | 6193091 | PIN | 6 |
| 92140 | 6193721 | BALL | 6 |
| 92145 | 6193731 | SPRING | 1 |
| 92200 | 6193751 | WASHER | 1 |
| 92049A | 6193111 | SEAL - OIL | 1 |
| 92049B | 6193121 | SEAL - OIL | 1 |
| 92049C | 6193131 | SEAL - OIL | 1 |

CONTROL EQUIPMENT

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--------------------|------------------------|--|--------------------|
| 49113 | 6192761 | PANEL - COMPLETE - CONTROL - INCLUDES: | 1 |
| 130 | 6192581 | M6 X 12 BOLT - FLANGED | 2 |
| 16169 | 6192721 | LINK - CHOKE | 1 |
| 92009 | 6192771 | M4 X 30 SCREW | 1 |
| 92145 | 6192781 | SPRING | 1 |
| 92150 | 6192801 | M5 X 18 BOLT | 2 |
| 92170 | 6192821 | CLAMP | 2 |
| 214 | 6192831 | M4 X 8 PAN HEAD SCREW | 2 |
| 311 | 6192841 | M6 HEX NUT | 1 |
| 411 | 6192851 | M6 WASHER - PLAIN | 1 |
| 13107 | 6192511 | SHAFT | 1 |
| 13270 | 6192711 | PLATE | 1 |
| 16171 | 6192731 | LINK | 1 |
| 39129 | 6192741 | SPRING - GOVERNOR | 1 |
| 49103 | 6192751 | ARM - GOVERNOR | 1 |
| 92151 | 6192811 | M6 X 30 BOLT | 1 |
| 92145A | 6192791 | SPRING | 1 |

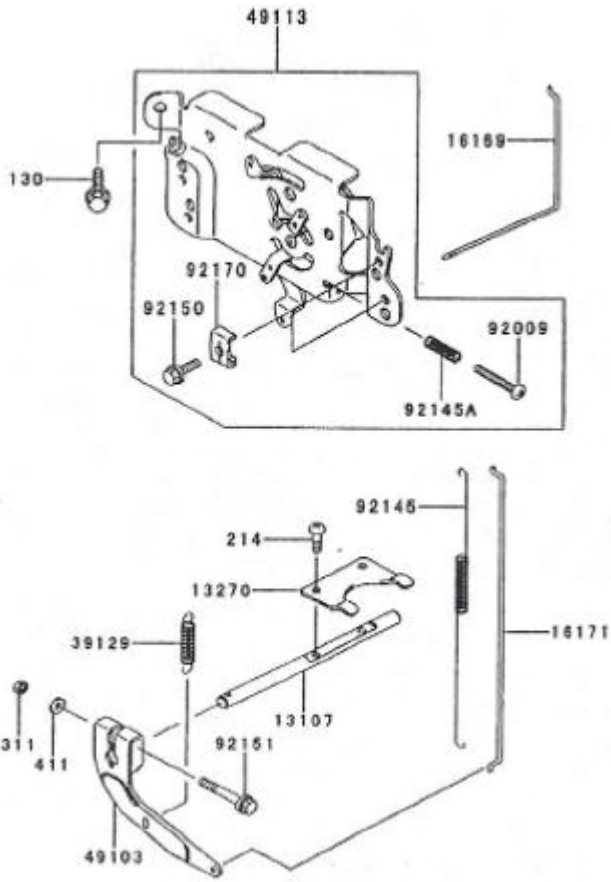
COOLING EQUIPMENT

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--------------------|------------------------|---------------------------|--------------------|
| 130 | 6192581 | M6 X 12 BOLT - FLANGED | 5 |
| 130A | 6192951 | M6 X 16 BOLT - FLANGED | 1 |
| 130B | 6192961 | M6 X 20 BOLT - FLANGED | 1 |
| 130C | 6192971 | M6 X 25 BOLT - FLANGED | 2 |
| 130D | 6192981 | M8 X 16 BOLT - FLANGED | 1 |
| 311 | 6192841 | M6 HEX NUT | 2 |
| 13270 | 6192861 | PLATE | 1 |
| 49089 | 6192871 | SHROUD - ENGINE | 1 |
| 49089A | 6192881 | SHROUD - ENGINE | 1 |
| 49089B | 6192891 | SHROUD - ENGINE | 1 |
| 59041 | 6192901 | FAN | 1 |
| 59066 | 6192911 | HOUSING - FAN | 1 |
| 92004 | 6192921 | STUD | 2 |
| 92026 | 6192931 | SPACER - 6.2 X 7.9 X 5 | 3 |
| 92026A | 6192941 | SPACER - 6.5 X 7.9 X 10.5 | 1 |

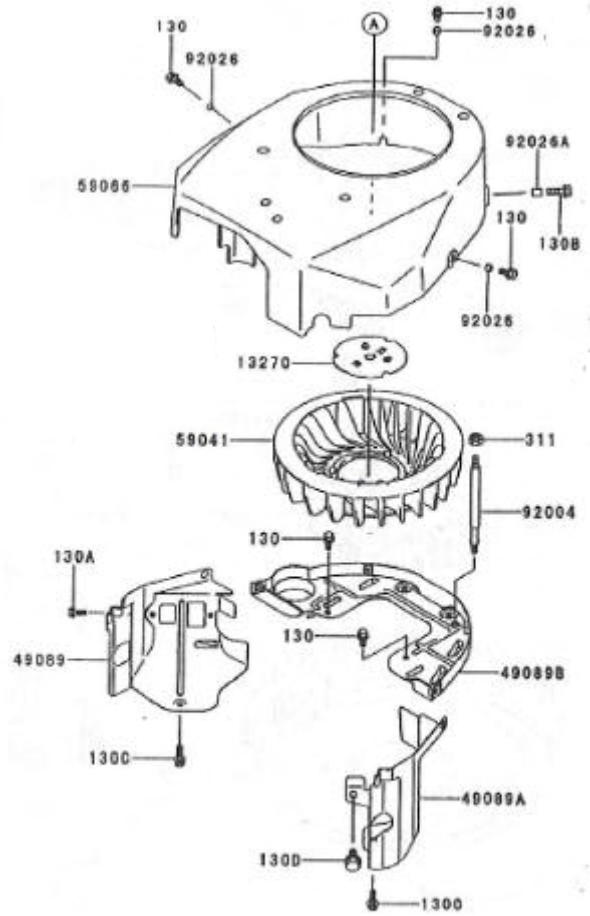
FUEL LOAD BLOCK - CARBURETOR

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--------------------|------------------------|------------------------------------|--------------------|
| 130 | 6192641 | M6 X 35 BOLT - FLANGED | 4 |
| 16073 | 6191431 | INSULATOR - INTAKE VACUUM PORT | 1 |
| 59076 | 6192651 | MANIFOLD INTAKE | 1 |
| 11060A | 6191351 | GASKET - INSULATOR - INTAKE | 2 |
| 11060C | 6192661 | GASKET | 2 |
| 1 | 6192671 | CARBURETOR ASSEMBLY - INCLUDES: | 1 |
| | 6193031 | GASKET, COMBUSTION CHAMBER | 1 |
| 2 | 6191111 | FUEL LOAD BLOCK | 1 |
| 3 | 6191101 | 1/4 RUBBER CAP | 1 |
| 4 | 6191431 | INSULATOR - INTAKE | 1 |
| 5 | 6192681 | VACUUM TUBE | 1 |
| 6 | 6191351 | GASKET - INSULATOR - INTAKE VACUUM | 1 |
| 7 | 6191081 | M-6 X 130 STUD | 1 |
| 8 | 6192691 | 1/8 BRASS PLUG | 1 |
| 9 | 6192701 | 3/8 HOSE X 1/4 MP ELBOW | 1 |
| 10 | 6191201 | GASKET AIR FILTER | 1 |

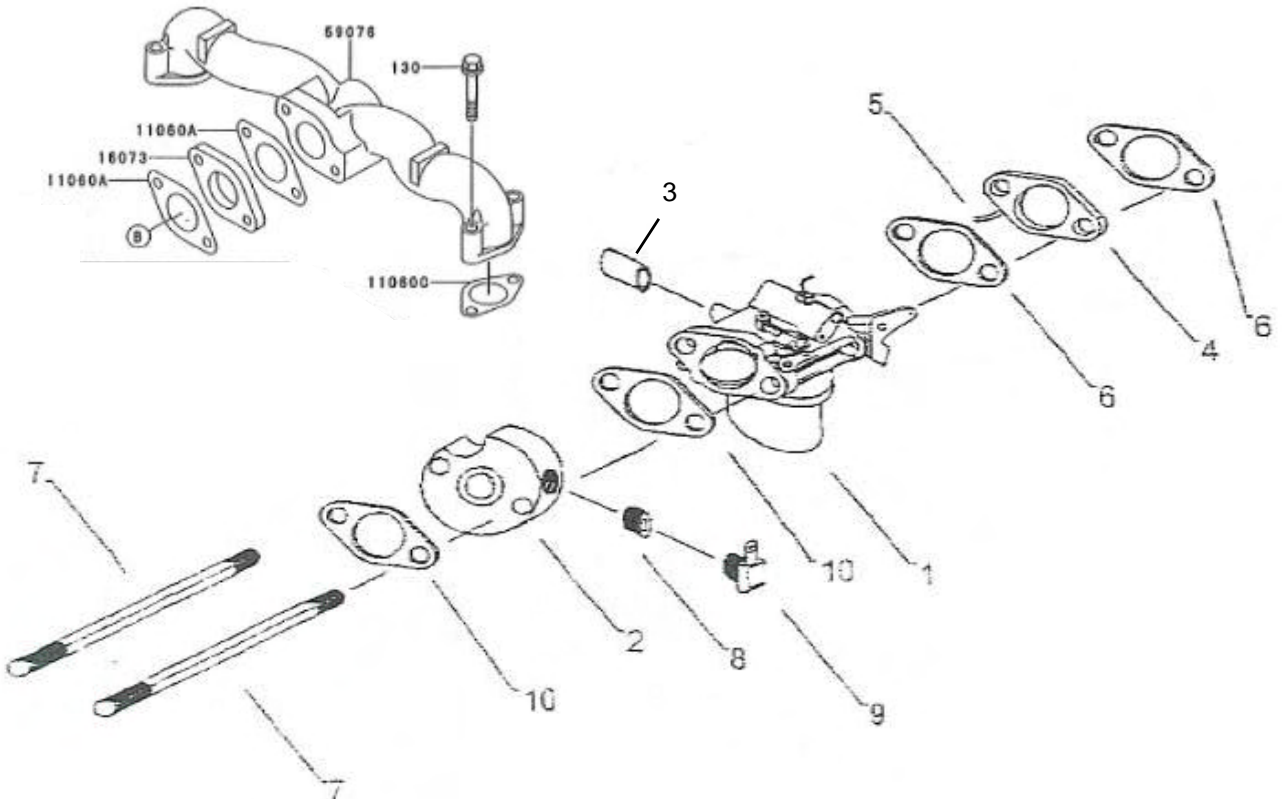
CONTROL EQUIPMENT



COOLING EQUIPMENT



FUEL LOAD BLOCK - CARBURETOR



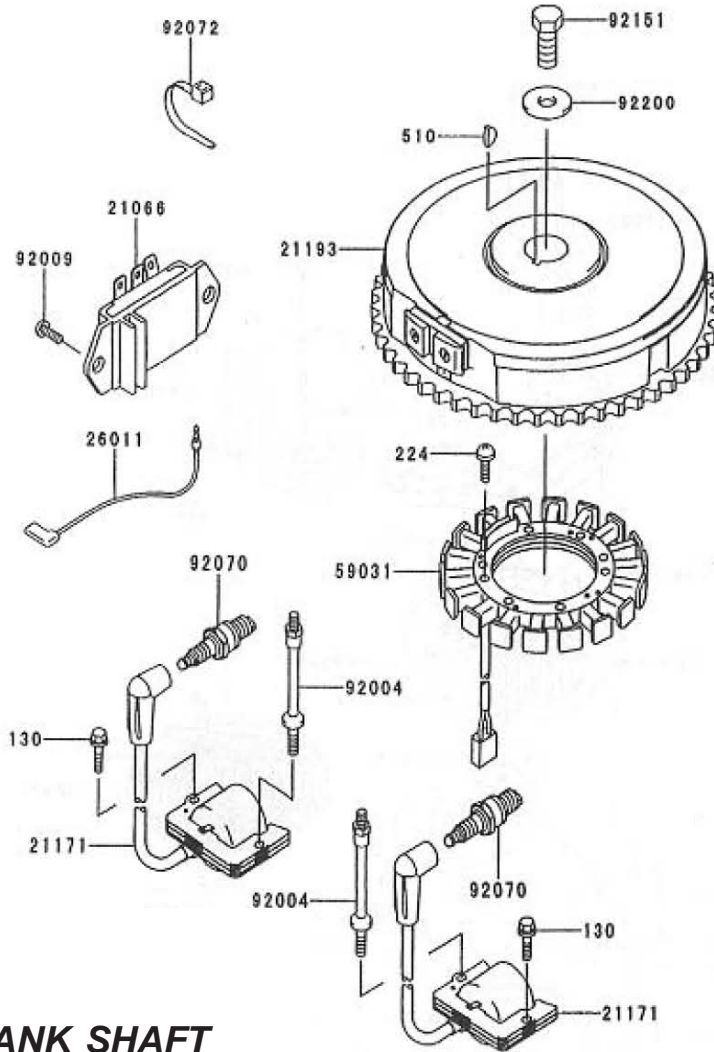
ELECTRIC EQUIPMENT

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--------------------|------------------------|---------------------------|--------------------|
| 130 | 6192961 | M6 X 20 BOLT - FLANGED | 2 |
| 224 | 6193291 | M5 X 20 PAN HEAD SCREW | 4 |
| 510 | 6193301 | WOODRUFF KEY | 1 |
| 21066 | 6191391 | REGULATOR - VOLTAGE | 1 |
| 21171 | 6191381 | COIL ASSEMBLY - IGNITION | 2 |
| 21193 | 6193211 | FLYWHEEL ASSEMBLY | 1 |
| 26011 | 6193221 | WIRE LEAD | 1 |
| 59031 | 6191401 | COIL - CHARGING | 1 |
| 92004 | 6193231 | STUD | 2 |
| 92009 | 6193241 | SCREW | 2 |
| 92070 | 6191251 | SPARK PLUG | 2 |
| 92072 | 6193261 | BAND | 2 |
| 92151 | 6193271 | M12 X 30 BOLT | 1 |
| 92200 | 6193281 | WASHER | 1 |

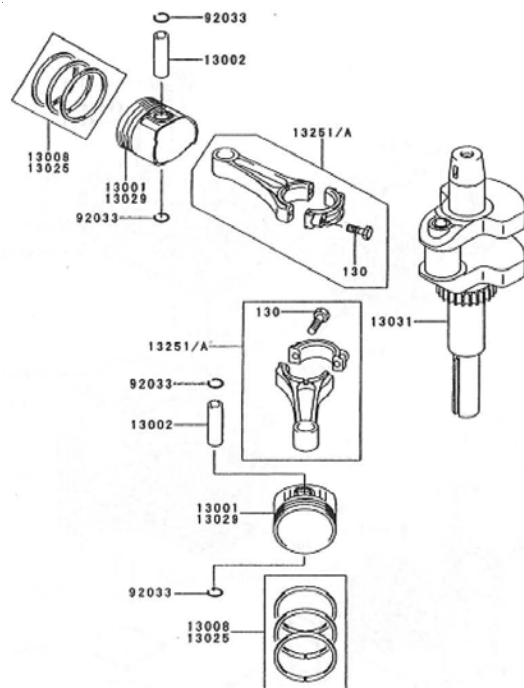
PISTON / CRANK SHAFT

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--------------------|------------------------|----------------------------------|--------------------|
| 130 | 6193541 | M6 X 30 BOLT - FLANGED | 4 |
| 13001 | 6193451 | PISTON - ENGINE | 2 |
| 13002 | 6193461 | PIN - PISTON | 2 |
| 13008 | 6193471 | RING - SET - PISTON | 2 |
| 13025 | 6193481 | RING - SET - PISTON L-.5 | AR |
| 13029 | 6193491 | PISTON - ENGINE L - .5 | AR |
| 13031 | 6193501 | CRANK SHAFT COMPLETE | 1 |
| 13251 | 6193511 | ROD ASSEMBLY - CONNECTING | 2 |
| 13251A | 6193521 | ROD ASSEMBLY - CONNECTING, US=.5 | AR |
| 92033 | 6193531 | RING - SNAP | 4 |

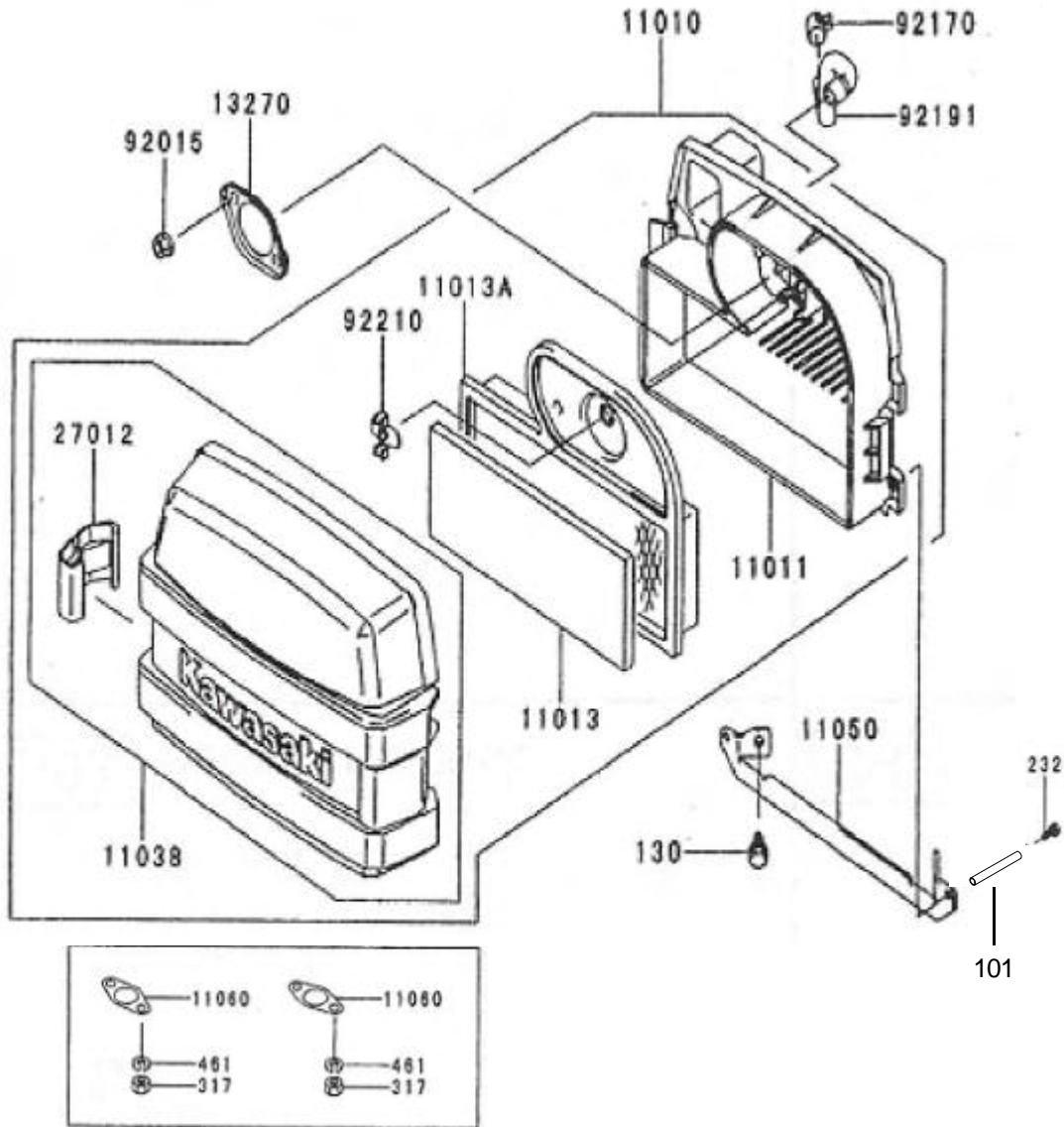
ELECTRIC EQUIPMENT



PISTON / CRANK SHAFT

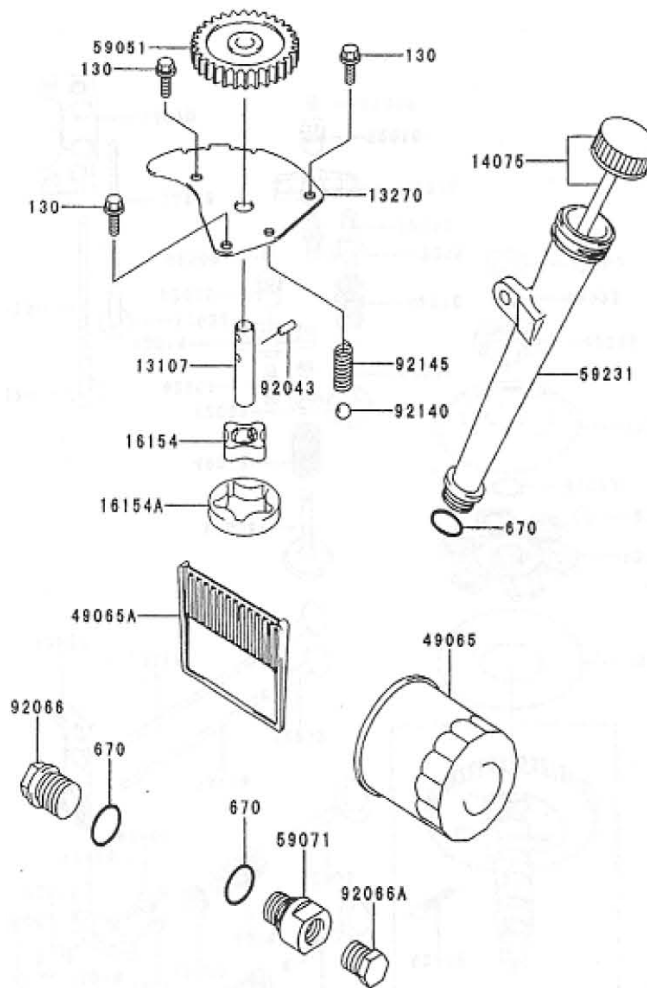


AIR FILTER



| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------|-----------------|--|-------------|
| 11010 | 6193141 | FILTER ASSEMBLY COMPLETE - INCLUDES: | 1 |
| 101 | 6191071 | SPACER 1 1/8 | 2 |
| 130 | 6192581 | M6 X 12 BOLT - FLANGED | 2 |
| 232 | 6192571 | M5 X 14 SCREW - PAN HEAD | 1 |
| 317 | 6192631 | M8 NUT - HEX - SMALL | 4 |
| 461 | 6192621 | M8 WASHER - SPRING | 4 |
| 11011 | 6192551 | CASE - AIR FILTER | 1 |
| 11013 | 6191221 | ELEMENT - AIR FILTER | 1 |
| 11038 | 6191321 | CASE - ASSEMBLY - AIR FILTER - INCLUDES: | 1 |
| 27012 | 6191331 | HOOK - AIR FILTER | 2 |
| 11050 | 6192561 | BRACKET | 1 |
| 11060 | 6192611 | GASKET, MUFFLER | 2 |
| 13270 | 6192601 | PLATE | 1 |
| 92015 | 6192591 | M11 NUT | 2 |
| 92170 | 6192521 | CLAMP | 1 |
| 92191 | 6192531 | TUBE | 1 |
| 92210 | 6192541 | NUT | 1 |
| 11013A | 6191231 | ELEMENT - AIR FILTER | 1 |

LUBRICATION EQUIPMENT

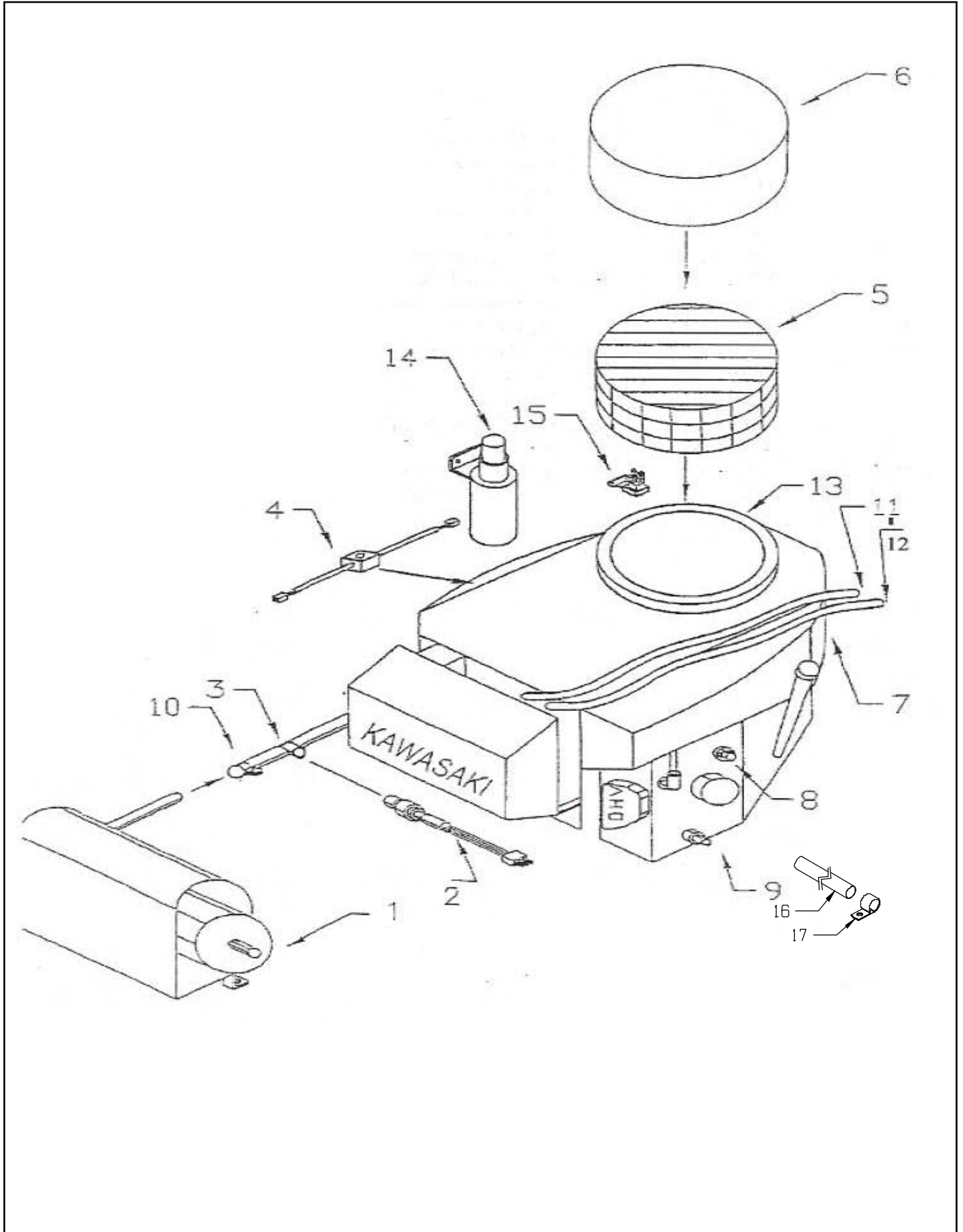


| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------|-----------------|-------------------------|-------------|
| 130 | 6192581 | M6 X 12 BOLT - FLANGED | 3 |
| 670 | 6193441 | O RING | 3 |
| 13107 | 6193311 | SHAFT - OIL PUMP | 1 |
| 13270 | 6193321 | PLATE | 1 |
| 14075 | 6191371 | DIPSTICK - CAP ASSEMBLY | 1 |
| 16154 | 6193331 | ROTOR - PUMP IN | 1 |
| 16154A | 6193341 | ROTOR - PUMP OUT | 1 |
| 49065 | 6191241 | FILTER - OIL | 1 |
| 49065A | 6193351 | FILTER - OIL | 1 |
| 59051 | 6193361 | GEAR - SPUR | 1 |
| 59071 | 6193371 | JOINT | 1 |
| 59231 | 6193381 | FILLER | 1 |
| 92043 | 6193391 | PIN | 1 |
| 92066 | 6193401 | PLUG | 1 |
| 92066A | 6193411 | PLUG | 1 |
| 92140 | 6193421 | BALL | 1 |
| 92145 | 6193431 | SPRING | 1 |

SHUT DOWN SYSTEM

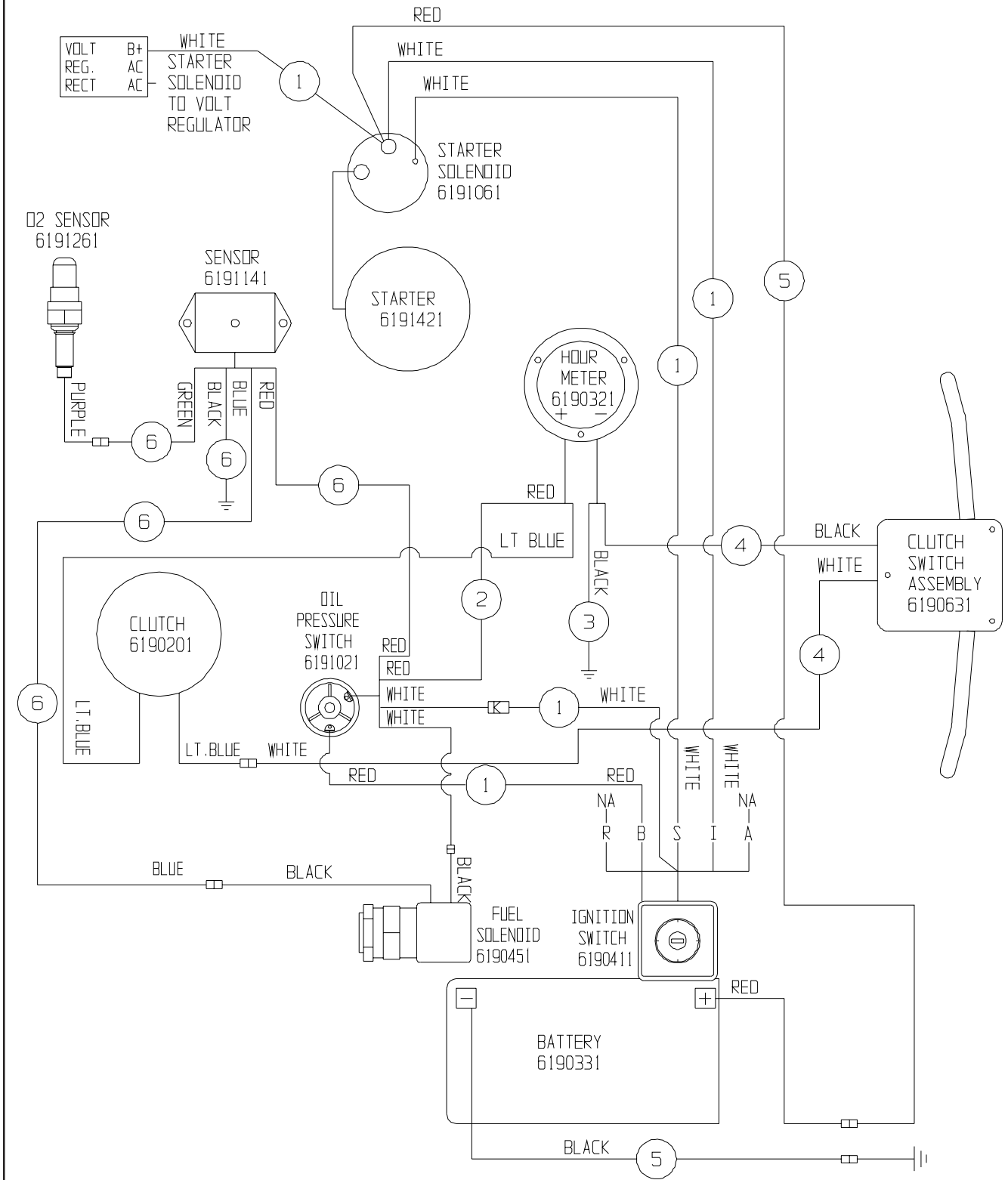
| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--------------------|------------------------|--|--------------------|
| 1 | 6191011 | MUFFLER - KAWASAKI | 1 |
| 2 | 6191261 | OXYGEN SENSOR | 1 |
| 3 | 6191211 | EXHAUST MANIFOLD - INCLUDES: | 1 |
| 3A | 6191361 | MANIFOLD GASKET | 2 |
| 4 | 6191141 | AUTOMATIC SHUTDOWN SYSTEM - COMMANDER | 1 |
| 5 | 6191051 | AIR PRECLEANER SUPPORT - KAWASAKI | 1 |
| 6 | 6191041 | AIR PRECLEANER - FOAM COOLING AIR FILTER | 1 |
| 7 | 6191191 | CONVERTED ENGINE - KAWASAKI | 1 |
| 8 | 6191021 | OIL PRESSURE SWITCH - COMMANDER | 1 |
| 9 | 6192121 | OIL DRAIN VALVE - COMMANDER | 1 |
| 10 | 6191121 | MUFFLER CLAMP - COMMANDER | 1 |
| 11 | 6190531 | HOSE 3 FOOT FUEL | 1 |
| 12 | 6190561 | HOSE 3 FOOT VAC | 1 |
| 13 | 6191131 | RECOIL FILTER SUPPORT GASKET | 1 |
| 14 | 6191421 | STARTER-KAWASAKI 17HP | 1 |
| 15 | 6191061 | STARTER SOLENOID - KAWASAKI | 1 |
| 16 | 8791180 | OIL DRAIN HOSE | 12" |
| 17 | 2395761 | OIL DRAIN HOSE CLAMP | 1 |

SHUT DOWN SYSTEM



WIRING DIAGRAM

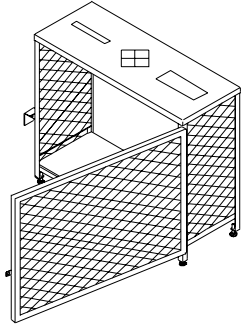
- 1 - 6191031 - WIRING HARNESS
- 2 - 6191171 - HOUR METER WIRE
- 3 - 6191151 - GROUND WIRE
- 4 - 6190881 - CLUTCH WIRE
- 5 - 6191161 - BATTERY CONNECTION COMPLETE
- 6 - 6191141 - SENSOR



ACCESSORIES



| PART NO. | PART DESCRIPTION |
|-----------------|---|
| NOTE: | ALL PADS COME 5 PADS PER CASE |
| 7992051 | 20" LITE BLUE POLISH / BURNISH PAD - FOR SOFT FINISH |
| 7992061 | 20" LITE HAIR BURNISH PAD - FOR ALL FINISHES |
| 7992081 | 20" ULTRA HAIR HARD FINISH PAD - FOR HARD FINISH |
| 7992091 | 20" ULTIMATE HAIR PAD - HARD FINISH AGGRESSIVE BURNISHING |
| 7992751 | 27" LITE BLUE POLISH / BURNISH PAD - FOR SOFT FINISH |
| 7992761 | 27" LITE HAIR BURNISH PAD - FOR ALL FINISHES |
| 7992781 | 27" ULTRA HAIR HARD FINISH PAD - FOR HARD FINISH |
| 7992791 | 27" ULTIMATE HAIR PAD - HARD FINISH AGGRESSIVE BURNISHING |



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