

# **D42 Engine**

## **Safety, Operation, Maintenance & Parts Manual**

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|                    |                          |
|--------------------|--------------------------|
| <b>LT60/70</b>     | <b>rev.A1.00-A4.00</b>   |
| <b>LT60HD/70HD</b> | <b>rev. A1.00- A4.00</b> |
| <b>LT80HD</b>      | <b>rev.A1.00-A4.00</b>   |

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**Safety is our #1 concern!** Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

*February 1998*

*Form #916*

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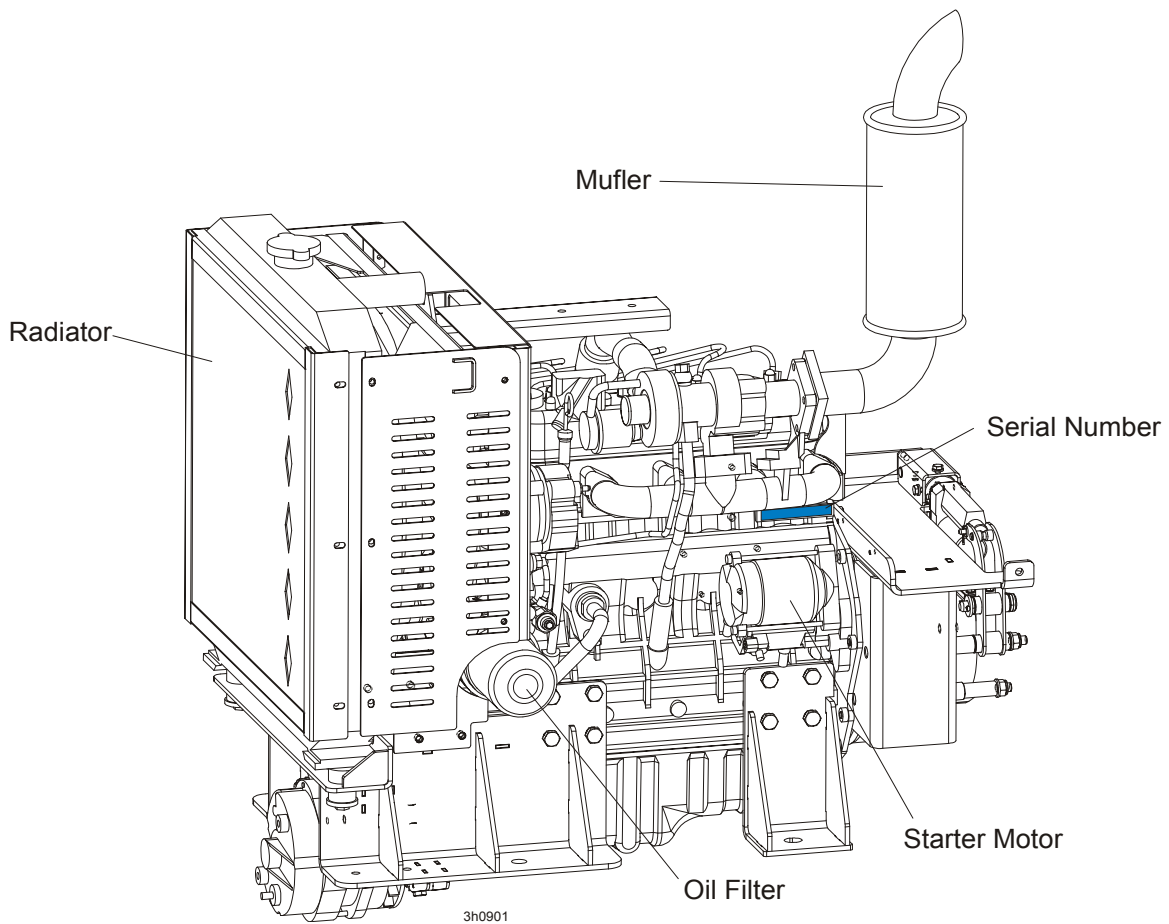
# ABOUT THIS MANUAL

This manual is provided as a supplement to the equipment manufacturer's manuals. This manual provides information specific to the use of this equipment on the Wood-Mizer® sawmill. Refer to the sawmill operator's manual and manufacturer's manual before attempting to operate this equipment.



**IMPORTANT!** Read the sawmill operator's manual and engine manufacturer's manual for instructions and safety precautions before operating this equipment.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.




## ENGINE COMPONENTS

## SECTION 1 OPERATION


### 1.1 Starting The Engine

#### Control Lights


See **Figure 1-1**. The following indicator lights are located on the sawmill control panel.

 *Alternator Charge Indicator*: Lights up if the alternator is not charging the battery.




 *Engine Temperature Indicator*: Lights up if the engine is overheating. A circuit breaker assembly in the engine harness will shut the engine off if the engine overheats. Turn the key switch off and allow the engine to cool for a period of time before restarting. If the overheating condition persists, stop operating the engine until the condition is corrected. The engine will automatically switch to low idle if an overheating condition occurs.




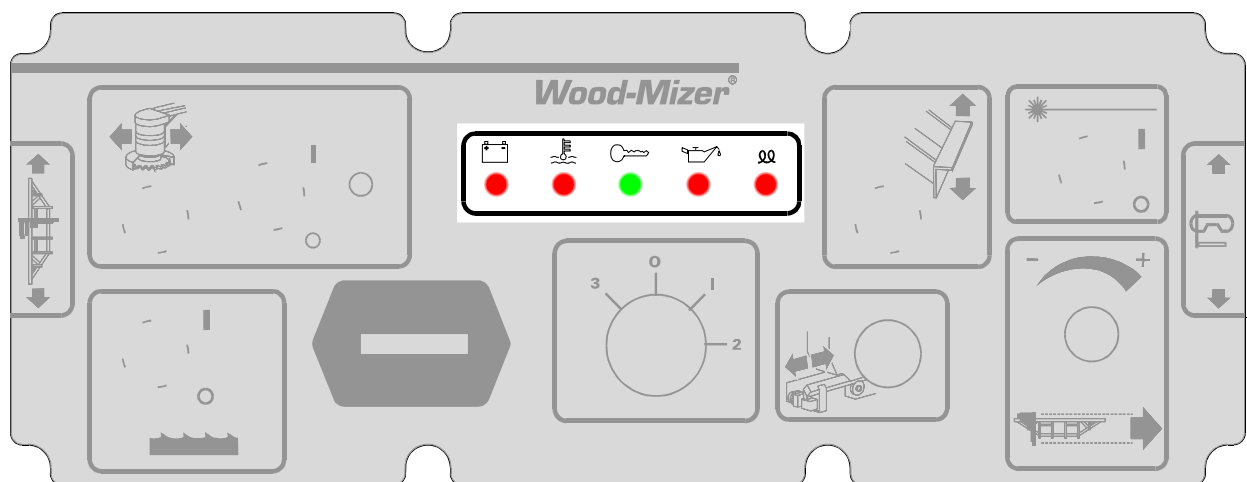
 *Key Switch Indicator*: Lights up when the key is in either the on or accessory (#1 or #3) position.



 *Oil Indicator*: Lights up if the oil pressure is too low.



 *Glow Plug Indicator*: Lights up after the key has been turned to the on (#1) position.



**FIG. 1-1**

## Engine Start



**DANGER!** Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the engine. Failure to do so will result in serious injury.

**DANGER!** Operate your engine/machine only in well ventilated areas. The exhaust gases of your engine can cause nausea, delirium and potentially death unless adequate ventilation is present.

**DANGER!** Never operate an engine with a fuel or oil leak. The leaking fuel or oil could potentially come in contact with hot surfaces and ignite into flames.



**WARNING!** Be sure the power feed switch is in the neutral position before turning the key switch to the on (#1) or accessory (#3) position. This prevents accidental carriage movement which may cause serious injury or death.

**WARNING!** Do not operate engine without proper and operational spark arrester/muffler. Sparks emitted from the engine exhaust could ignite surrounding materials, causing serious injury or death.



**CAUTION!** Do not crank starter for more than 7 seconds at one time during starting attempts. Damage to the engine may result.

**CAUTION!** Let engine idle for 2 minutes before applying load to prevent engine damage.

1. See the engine manufacturer's manual for lubricating oil recommendations for specific temperature ranges.
2. Use the best quality diesel fuel for below freezing starting.
3. Turn the key switch on the control panel to the on (#1) position.
4. Wait until the glow plug indicator goes out.
5. Turn the key switch to the start (#2) position and release.

**Engine Shutoff**

**CAUTION!** A minimum 2 minute idle time is recommended to allow the battery charge to recover before the engine is shut off.

Turn the key switch to the off (#0) position.

## SECTION 2 MAINTENANCE

Refer to the manufacturer's manual for maintenance intervals and procedures unless otherwise instructed in this manual. Follow the manufacturer's recommendations for dusty conditions.



**IMPORTANT!** This manual only provides information about additional procedures or procedures to be performed at different time intervals than found in the manufacturer's manuals. Refer to the manufacturer's manual for complete maintenance instructions.

### 2.1 Safety

Use caution when performing maintenance or service to the engine.



**DANGER!** Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc. Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members resulting in possible injury.

**DANGER!** Engine components can become very hot during operation. Avoid contact with any part of a hot engine. The exhaust components of your engine are especially hot during and following operation. Contact with hot engine components can cause serious burns. Therefore, never touch or perform service functions on a hot engine. Allow the engine to cool sufficiently before beginning any service function.



**WARNING!** Remove the blade before performing any engine service. Failure to do so may result in serious injury.

**WARNING!** Always wear proper and necessary safety equipment when performing service functions. Proper safety equipment includes eye protection, breathing protection, hand protection and foot protection.



**This symbol** identifies the interval (hours of operation) at which each maintenance procedure should be performed. "AR" signifies maintenance procedures which should be performed as required.

## 2.2 Cooling System



Clean the radiator fins every 8 hours of operation. Spray the radiator with water from a hose or compressed air to clean sawdust from the radiator fins. Do not use a pressure sprayer.



**CAUTION!** Failure to keep the radiator fins clear of sawdust and/or dirt may cause the engine to overheat resulting in damage to the engine.



## 2.3 Fuel Filter



**See Figure 2-1. Replace the primary fuel filter and prefilter cartridge every 200 hours.** After replacing any of the two filter cartridges, loosen the air bleed screw on the main filter and turn the key switch on the control panel to #1 position and wait until fuel begins to flow from the valve and is free of air bubbles. Turn the key to #0 position. Tighten the bleed screw.

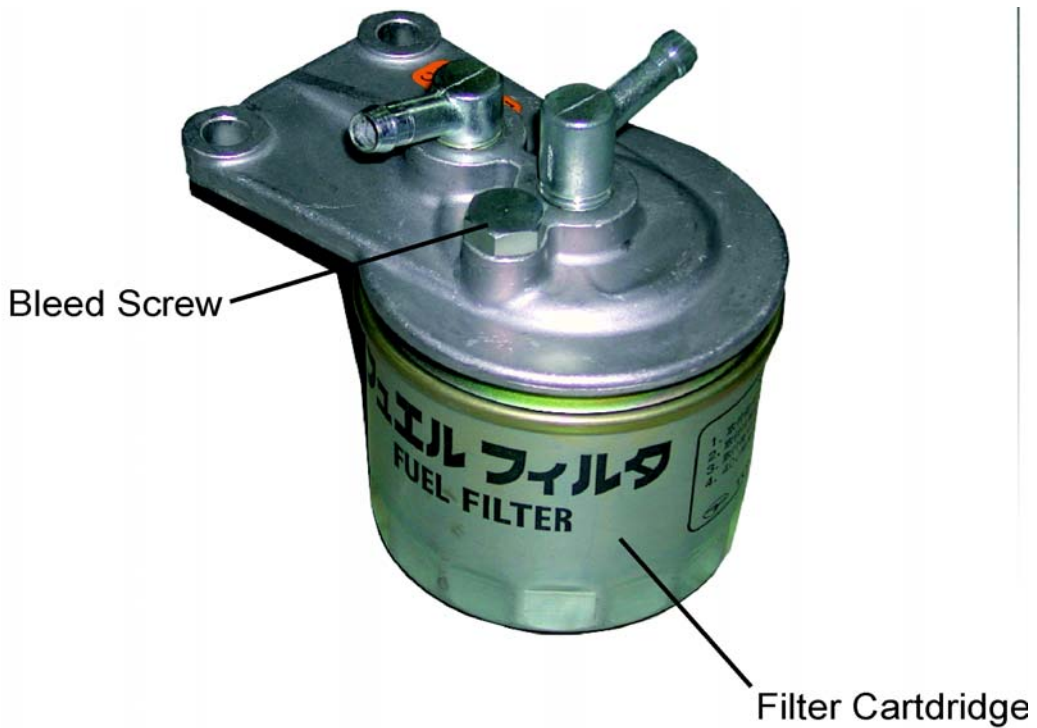


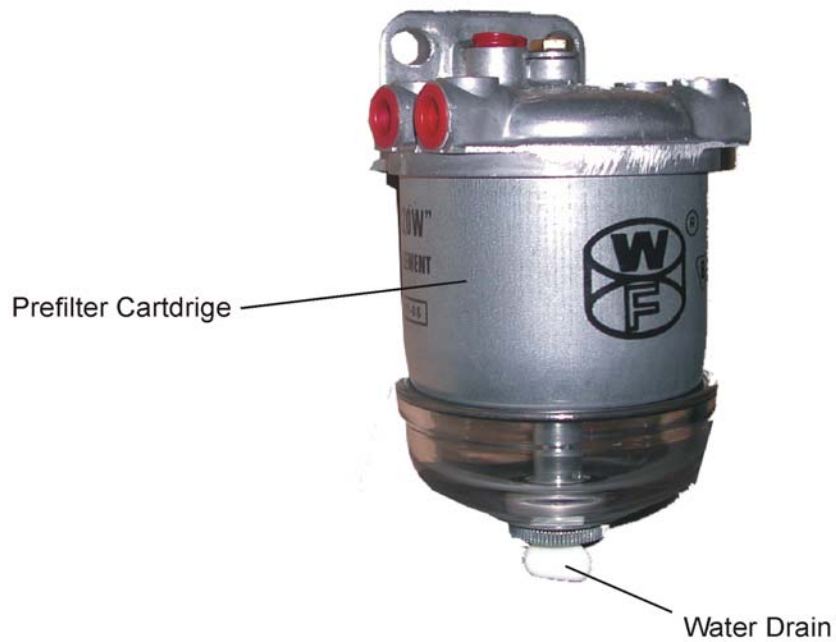
FIG. 2-1

## 2 Maintenance

### Fuel Filter

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See **Figure 2-2**. Inspect the water separator bowl on the prefilter periodically and drain the bowl as required by turning the drain cap counterclockwise as viewed from the bottom.



**FIG. 2-2**

## 2.4 Battery



Check the battery electrolyte level every 50 hours of operation. See manufacturer's manual for instructions.



**DANGER!** Batteries expel explosive gases. Keep sparks, flames, burning cigarettes, or other ignition sources away at all times. Always wear safety goggles and a face shield when working near batteries. Failure to do so will cause serious injury.<sup>1</sup>



**WARNING!** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

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1. Battery Council International, copyright 1987

## 2.5 Alternator Belt



The belt tension should be checked after the first 100 hours of operation, when the battery is not charging properly or when the alternator belt is squealing. If the battery continues to not charge properly or the belt continues to squeal after the initial belt adjustment, replace the belt.

1. Turn the key switch to OFF (#0) and remove the key.
2. Remove the alternator cover.

See Figure 2-3.

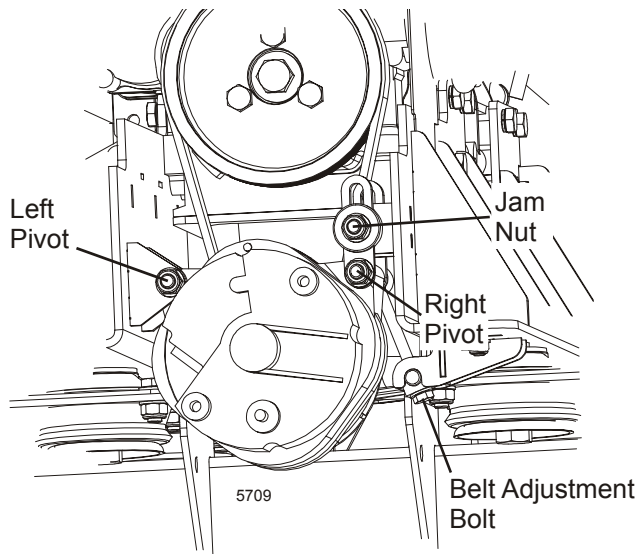


FIG. 2-3

3. Loosen the left pivot, right pivot and jam nut.
4. Turn the belt tension adjustment bolt clockwise to tighten the belt, counterclockwise to loosen the belt. Adjust the bolt until the proper belt tension is achieved.



**CAUTION!** Do not overtighten the alternator belt. Damage to the alternator will occur.

5. After the alternator belt has been tensioned, tighten the jam nut. Tighten the left and right pivots and replace the belt covers.

## 2.6 Radiator Fan Belt Adjustment



The fan belt tension should be checked after the first 100 hours of operation, when the engine is overheating or when the fan belt is squealing. If the engine continues overheating or the belt continues to squeal after the initial belt adjustment, replace the belt.

1. Turn the key switch to OFF (#0) and remove the key.
2. Remove the radiator covers.
3. Loosen the jam nut ( shown below ).
4. Tension the fan belt properly by hand.
5. Tighten the jam nut and replace the radiator covers.

See Figure 2-4.

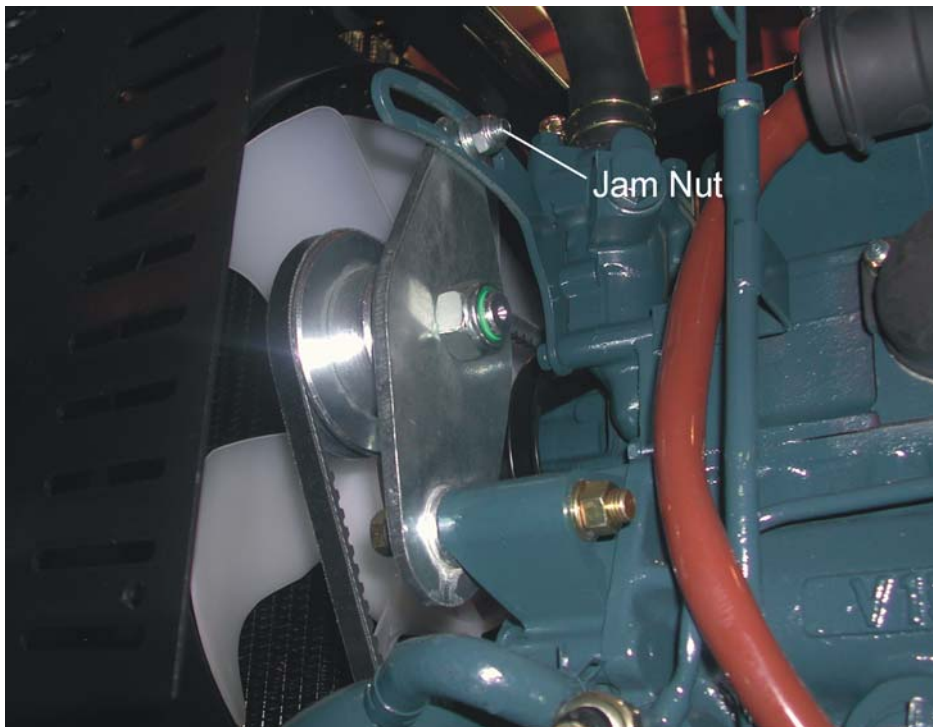




FIG. 2-4

## 2.7 RPM Adjustments


 **WARNING!** Remove the blade before performing any engine service. Failure to do so may result in serious injury.

 Check the RPM with a tachometer after the first 20 hours of operation and every 200 hours thereafter. High-end RPM should be 3000 RPM and low-end RPM should be 1150 RPM.

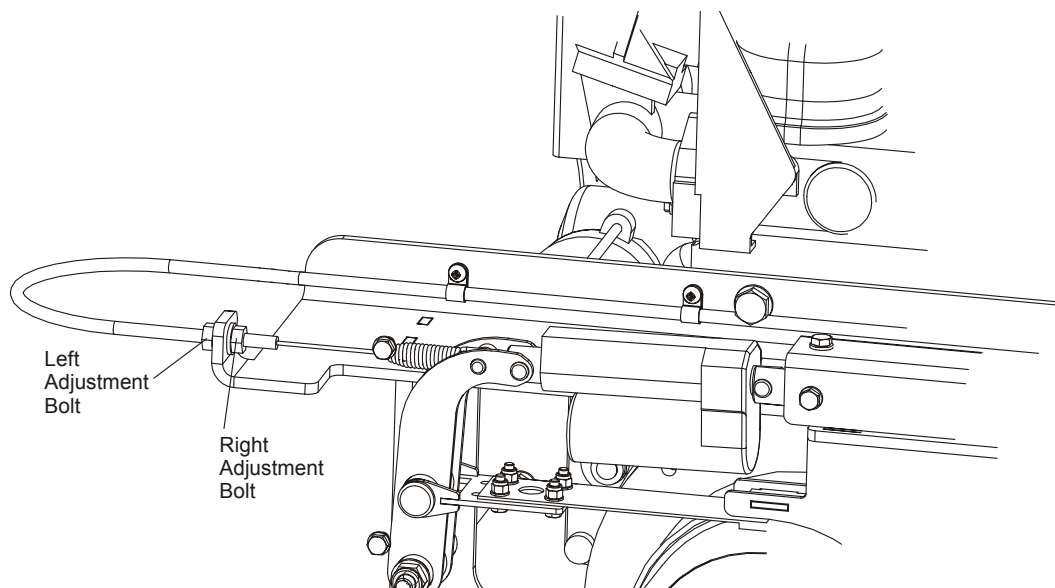
Before checking the RPM, make sure belt and brake strap tensions are correct (See Saw-mill Maintenance). Also check oil, fuel, and coolant levels.

Make sure the throttle cable does not affect the engine RPM when the blade switch is disengaged. Make sure the cable is not bent or kinked.


1. When the blade switch is disengaged, the throttle cable should be taut but the spring not extended. **When the blade switch is engaged, the throttle spring should extend 1/8" to 1/4".**

 **CAUTION!** Do not extend the throttle spring over 1/4". Excessive tension may cause the throttle cable to fail prematurely.

**See Figure 2-5.** Use the adjustments shown below to adjust the engine RPM (3000[+0, -50] high-end, 1150[±50] idle).



**FIG. 2-5**

 **CAUTION!** Do not adjust the high-end RPM above 3200. Doing so may cause damage to the engine.

2. After the RPM settings are made, shut the engine off. Tighten the throttle cable by engaging the blade switch. Check the throttle cable at the upper cable mounting bracket. The cable should be centered in the cable housing. If necessary, loosen the upper bracket mounting bolts and adjust the bracket so the cable housing is centered around the cable. Retighten the upper cable bracket mounting bolts.

See Figure 2-6.

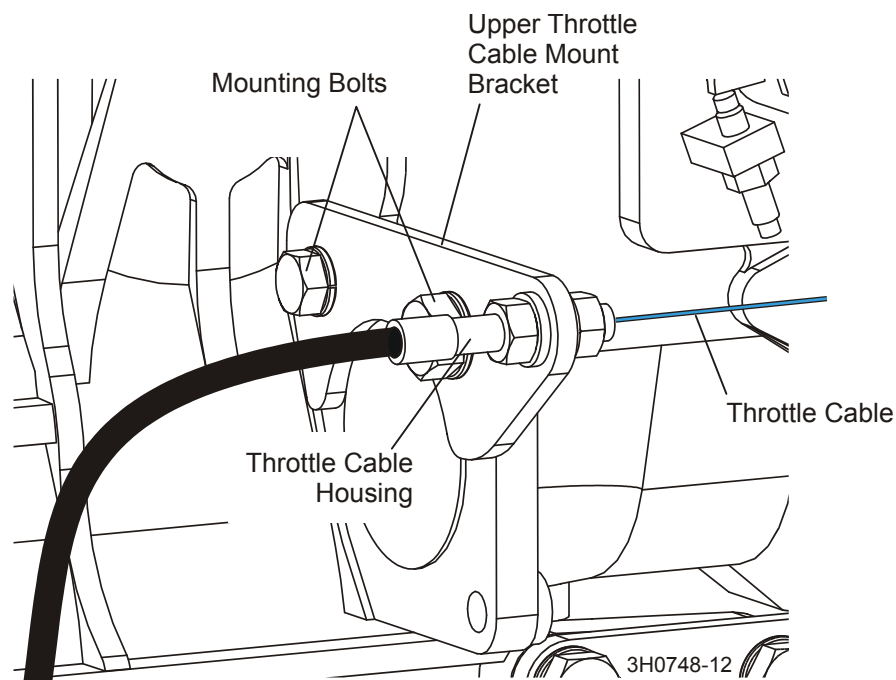

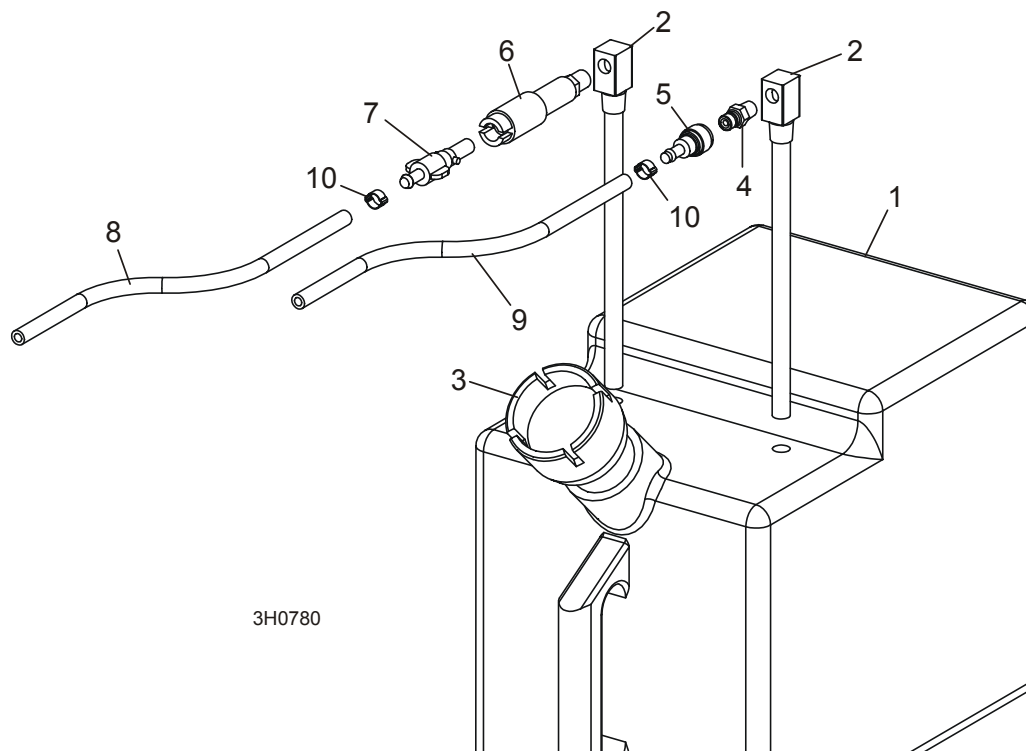


FIG. 2-6

 **CAUTION!** Failure to properly center the throttle cable in the cable housing may result in premature cable wear.

## SECTION 3 REPLACEMENT PARTS

### 3.1 Fuel Tank

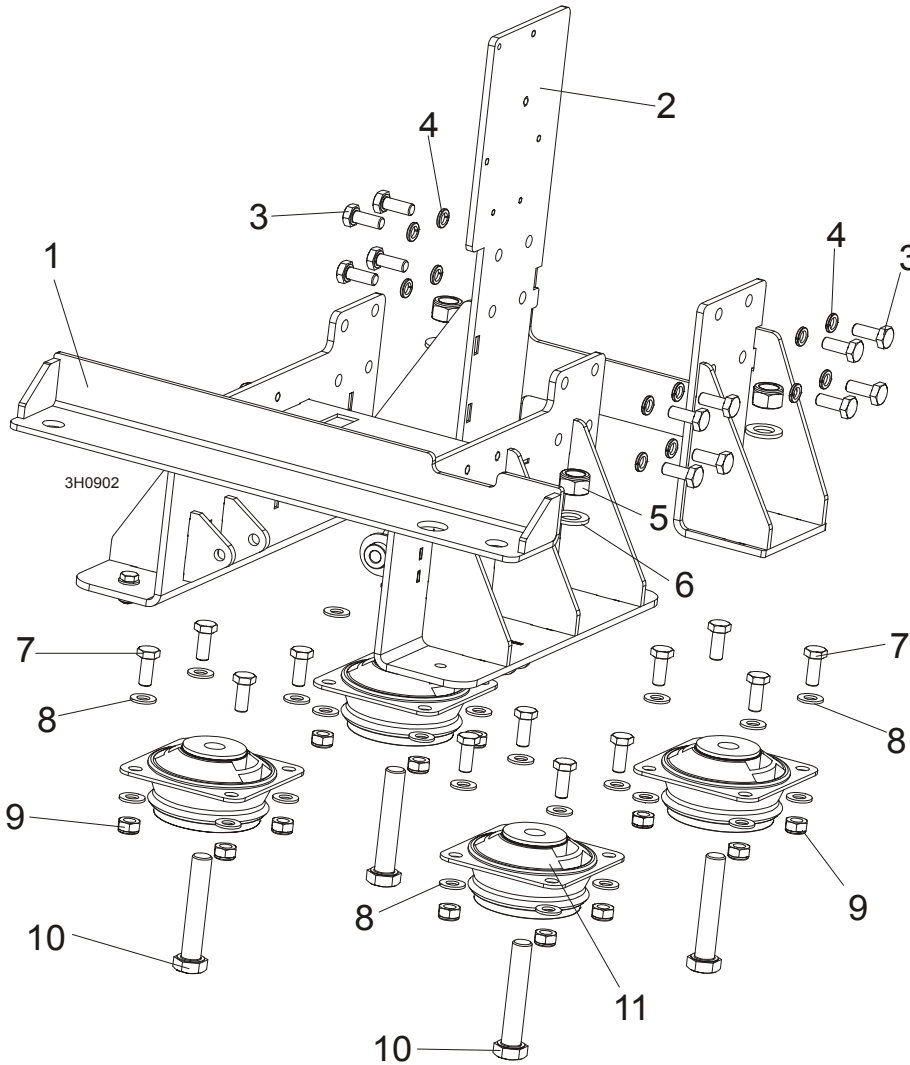


| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #              | QTY.    |   |
|-----|--|---------------------|---------|---|
|     | <b>TANK ASSEMBLY, 5 GALLON GREEN DIESEL</b>                  | A12132              | 1       |   |
| 1   | Tank, 5 Gallon Green Fuel                                    | P12166              | 1       | ◆ |
| 2   | Pickup, 9" Fuel  | P12172              | 2       |   |
| 3   | Cap, 3/5 Gallon Fuel Tank                                    | P09683              | 1       |   |
| 4   | Fitting, 1/4" NPT Male Quick Disconnect                      | 015583              | 1       |   |
| 5   | Fitting, Female Quick Disconnect Barb                        | 015582              | 1       |   |
| 6   | Fitting, 1/4" NPT Plastic Female Disconnect                  | P12175              | 1       |   |
| 7   | Fitting, 1/4" Barb Plastic Male Disconnect                   | P12176              | 1       |   |
| 8   | <b>HOSE, 1/4" ID FUEL</b>                                    | P642                | 7.17 Ft |   |
| 9   | <b>HOSE, 5/16" ID FUEL</b>                                   | 016338              | 9 Ft.   |   |
| 10  | <b>CLAMP, 7/32 - 1/2 HOSE</b>                                | P649                | 6       |   |
|     | <b>ADDITIVE, DIESEL FUEL 16OZ BOTTLE</b>                     | 004878 <sup>1</sup> | 1       |   |

<sup>1</sup> Stanadyne Performance Formula helps eliminate contaminants and water in fuel, prevents gelling in cold weather, and improves lubrication of fuel system parts. 16 oz. bottle treats 60 gallons of diesel fuel.



### 3.2 Engine Mount Assembly

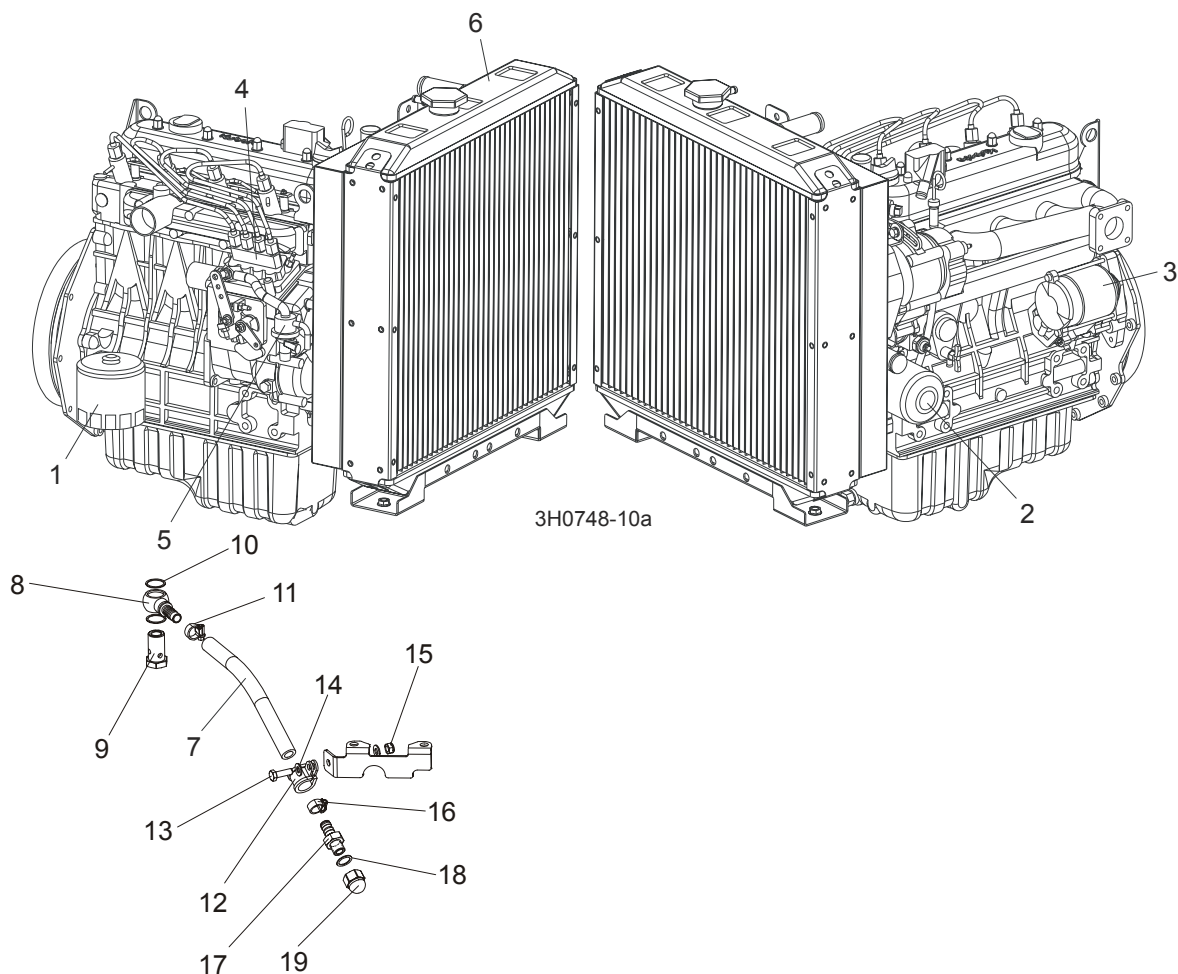


| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #    | QTY. |   |
|-----|--|-----------|------|---|
| 1   | MOUNT WELDMENT, REAR D42 ENGINE                              | 089468-1  | 1    | ◆ |
| 2   | MOUNT WELDMENT, FRONT D42 ENGINE                             | 089459-1  | 1    | ◆ |
| 3   | BOLT, M10X1.25X25-8.8-A HEX HEAD FULL THREAD ZINC            | F81003-29 | 16   |   |
| 4   | WASHER, 10.2 ZINC SPLIT                                      | F81055-2  | 16   |   |
| 5   | NUT, M16-8 HEX NYLON ZINC LOCK                               | F81036-2  | 4    |   |
| 6   | WASHER, 17 ZINC FLAT   | F81058-1  | 4    |   |
| 7   | BOLT, M10X25 8.8 HEX HEAD FULL THREAD                        | F81003-31 | 16   |   |
| 8   | WASHER, 10.5 ZINC FLAT                                       | F81055-1  | 32   |   |
| 9   | NUT, M10-8-B HEX NYLON ZINC LOCK                             | F81033-1  | 16   |   |
| 10  | BOLT, M16X90-8.8 HEX HEAD ZINC                               | F81006-17 | 4    |   |
| 11  | SHOCK ABSORBER MEGI-LAGER 742 062 S1 STEEL, RUBBER           | 088570    | 4    |   |

# 3 Replacement Parts

## Engine Assembly

### 3.3 Engine Assembly



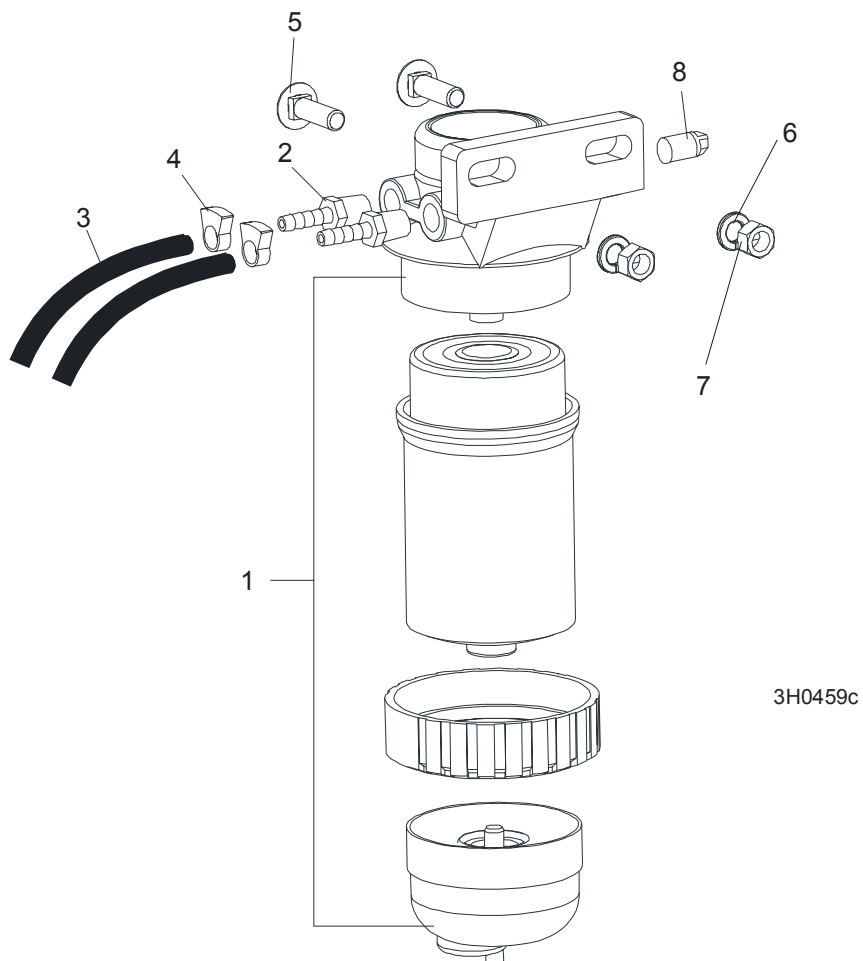
| REF      | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART # | QTY. |
|----------|--|--------|------|
|          | <b>ENGINE, KUBOTA 1505TE</b>                                 | 088022 | 1    |
|          | Belt, Kubota Fan #16282-97010                                | 028514 | 1    |
|          | Filter, Kubota D42 Air B53/207(16617-11001)                  | 088025 | 1    |
| <b>1</b> | Filter, Kubota D42 Fuel, Complete                            | 088024 | 1    |
|          | Filter, Kubota Fuel 16616-43001(D52/184)                     | 028560 | 1    |
| <b>2</b> | Filter, Kubota Oil #16271-32090                              | 018050 | 1    |
|          | Gasket Kit, Kubota Lower #07916-29265                        | 028519 | 1    |
|          | Gasket Kit, Kubota Upper #16285-99352                        | 028572 | 1    |
|          | Gasket, Kubota Exhaust #15263-12370                          | 028513 | 1    |
|          | Gasket, Kubota Fuel Injector #15841-53622                    | 028516 | 1    |
|          | Gasket, Kubota Fuel Transfer Pump #16264-52140               | 028518 | 1    |
|          | Gasket, Kubota Head #16292-03310                             | 028571 | 1    |
|          | Gasket, Kubota Muffler #15263-12371                          | 028549 | 1    |

|           |  |          |   |  |
|-----------|--|----------|---|--|
|           | Gasket, Kubota Oil Drain Plug #15451-96670         | 028543   | 1 |  |
|           | Gasket, Kubota Stop Solenoid #16299-60150          | 028544   | 1 |  |
|           | Gasket, Kubota Thermostat #15313-7320              | 028545   | 1 |  |
|           | Gasket, Kubota Valve Cover #16241-14520            | 028524   | 1 |  |
|           | Gasket, Kubota Water Pump #16259-73430             | 028526   | 1 |  |
|           | Glow Plug, Kubota #16851-65510                     | 028562   | 1 |  |
|           | Injector, Kubota Fuel #16032-53000                 | 028515   | 1 |  |
| <b>3</b>  | Motor, Kubota Starter #37560-63010                 | 028522   | 1 |  |
| <b>4</b>  | Pump, Kubota Fuel Injector #16060-51010            | 028540   | 1 |  |
| <b>5</b>  | Pump, Kubota Fuel Transfer #16285-52032            | 028517   | 1 |  |
|           | Pump, Kubota Water #16241-73032                    | 028525   | 1 |  |
| <b>6</b>  | Radiator Parts ( <a href="#">See Section 1.5</a> ) |          |   |  |
|           | Sending Unit, Kubota Heat Sensor #TM9A230RQCG      | 028510   | 1 |  |
|           | Solenoid, Kubota Stop #17454-60010                 | 028523   | 1 |  |
|           | Switch, Kubota Oil Pressure #15841-39010           | 028547   | 1 |  |
|           | Thermostat, Kubota #19434-73010                    | 028546   | 1 |  |
|           | <b>HARNESS ASSEMBLY, KUBOTA DIESEL ENGINE</b>      | 024594   | 1 |  |
|           | Breaker Assembly, Water Temp Max Circuit           | 024453   | 1 |  |
|           | Socket, Glow Plug Relay w/Fuse Holder              | 024554   | 1 |  |
|           | Fuse Link, 50 Amp                                  | 024597   | 1 |  |
|           | Relay, Glow Plug                                   | 088143   | 1 |  |
|           | RELAY, 40A, 12V                                    | 021238   | 1 |  |
|           | <b>HOSE, D42 ENGINE OIL DRAIN</b>                  | 091774   | 1 |  |
| <b>7</b>  | Hose, Oil Drain                                    | 091777   | 1 |  |
| <b>8</b>  | End, BANJO M22x1.5x1/2 ZMB 600-22-08               | 091773   | 1 |  |
| <b>9</b>  | Bolt, BANJO M22x1.5 ZMB 610-22/1.5                 | 091772   | 1 |  |
| <b>10</b> | Washer, 22 Copper                                  | F81061-5 | 2 |  |
| <b>11</b> | Clamp, 12-20mm Diameter Hose                       | F81080-3 | 1 |  |
| <b>12</b> | Ring, RSGU 1.20/20 Hose Bracket                    | F81087-2 | 1 |  |
| <b>13</b> | Bolt, M8x25-8.8-B Hex Head Full Thread Zinc        | F81002-5 | 1 |  |
| <b>14</b> | Washer, 8.4 Flat Zinc                              | F81054-1 | 2 |  |
| <b>15</b> | Nut, M8-8-B Hex Nylon Zinc Lock                    | F81032-2 | 1 |  |
| <b>16</b> | Clamp, 12-20mm Diameter Hose                       | F81080-3 | 1 |  |
| <b>17</b> | End, Oil Drain Hose                                | 091776   | 1 |  |
| <b>18</b> | Washer, 16 Copper                                  | F81058-3 | 1 |  |
| <b>19</b> | Nut, M16x1.5 Hex Domed Cap Zinc                    | F81036-7 | 1 |  |

# 3 Replacement Parts

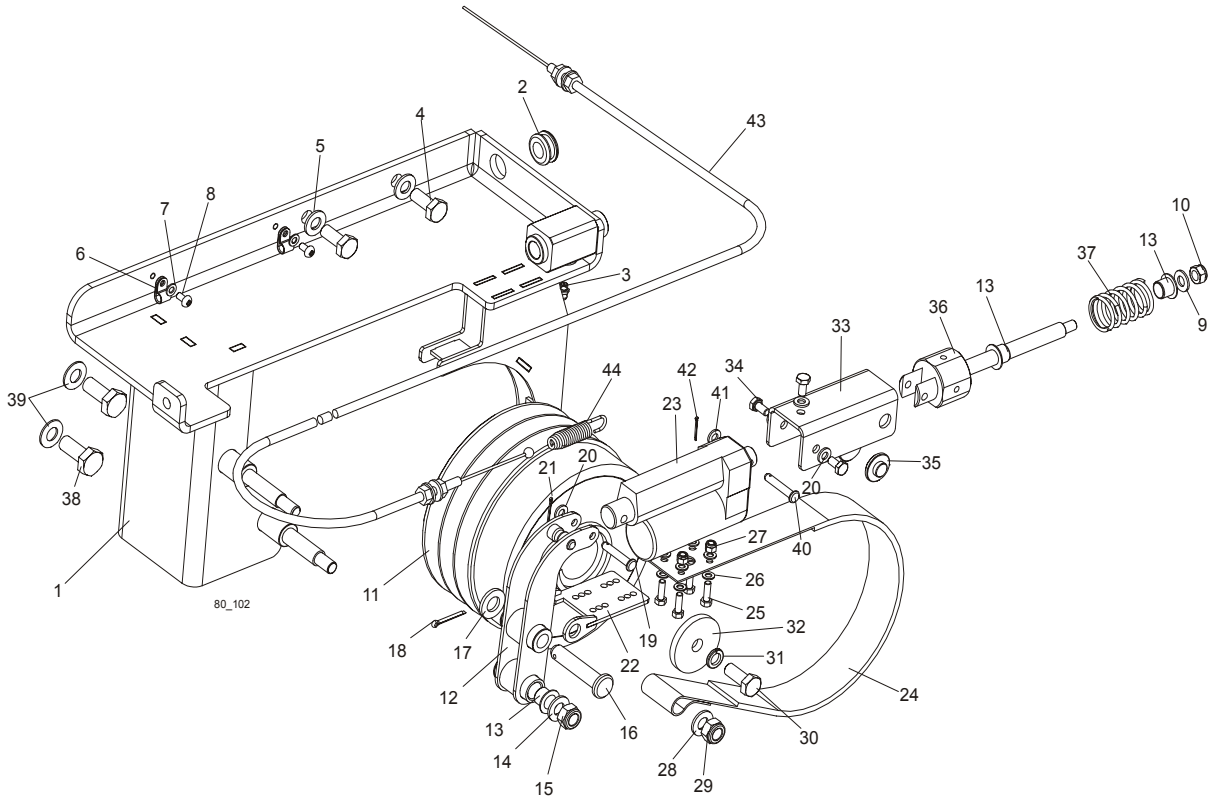
## Primary Fuel Filter

### 3.4 Primary Fuel Filter



| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #    | QTY. |  |
|-----|--|-----------|------|--|
| 1   | FILTER ASSEMBLY, STANDADYNE FUEL FPV-5,7 04WP40/3            | 088101    | 1    |  |
| 2   | FITTING, 8MM, FILTR FPV-5,7                                  | 088094    | 2    |  |
| 3   | HOSE, 5/16" ID FUEL  | R80703-2  | 2m   |  |
| 4   | CLAMP, 11-17MM HOSE  | F81080-3  | 2    |  |
| 5   | BOLT, 3/8-16 X 1 1/4" CARRIAGE HEAD                          | F05007-11 | 6    |  |
| 6   | WASHER, 3/8" SPLIT LOCK                                      | F05011-4  | 6    |  |
| 7   | NUT, 3/8-16 HEX  | F05010-1  | 6    |  |
| 8   | FITTING, 1/4" NPT PLUG                                       | P05498    | 2    |  |

### 3.5 Acceleration/Brake Assembly



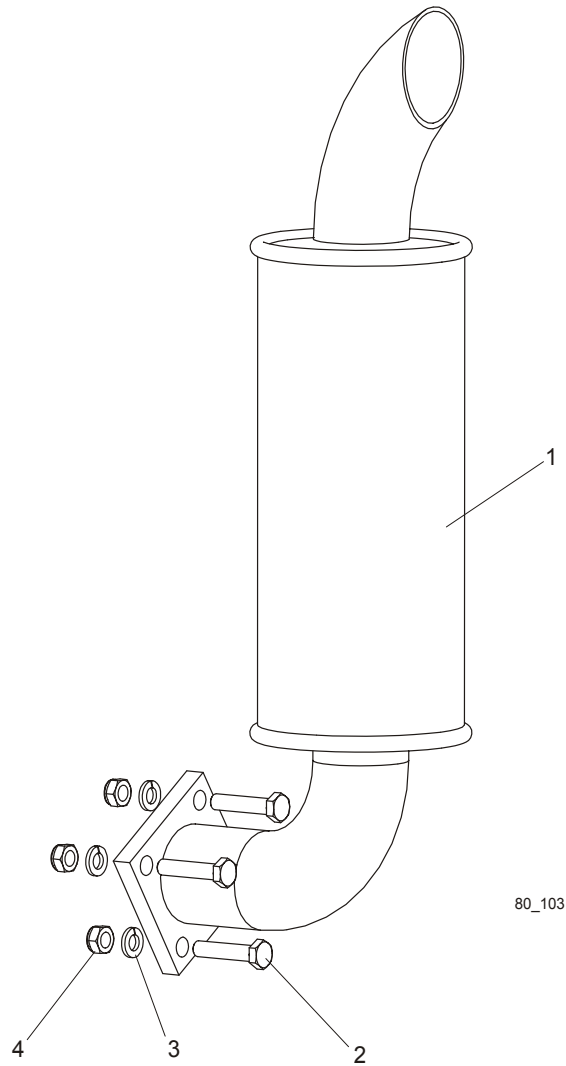
| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #    | QTY. |
|-----|--|-----------|------|
| 1   | <b>ACCELERATION/BRAKE ASSEMBLY, D42</b>                      | 088936    | 1    |
| 2   | Grommet, 20/13 Rubber  | 086188    | 1    |
| 3   | Fitting, M6 Straight Grease                                  | 086280    | 1    |
| 4   | Bolt, M10x1.25x25-8.8-A Hex Head Full Thread Zinc            | F81003-29 | 2    |
| 5   | Washer, 10.5 Zinc Flat                                       | F81055-1  | 2    |
| 6   | Clamp, EE63 Throttle Cable                                   | F81080-4  | 2    |
| 7   | Washer, 5.3 Zinc Flat  | F81052-1  | 2    |
| 8   | Screw, H M5x10 8.8 Cross Recessed Pan Head Zinc              | F81000-13 | 2    |
| 9   | Washer, 8.4 Zinc Flat  | F81054-1  | 1    |
| 10  | Nut, M8-8-B Hex Nylon Zinc Lock                              | F81032-2  | 1    |
| 11  | Clutch, Type 140-1139 (RADIUS-RADPOL) Centrifugal            | 089467    | 1    |
|     | Clutch Repair Kit, 140-1139 type                             | 084109-1  |      |
|     | Friction Linings Kit, 140-1139 type                          | 084109    | 2    |
|     | Spring, Centrifugal Clutch                                   | 091649    | 4    |
| 12  | Lever, Strap Brake   | 088943-1  | 1    |
| 13  | Bushing, XFM-1214-12 Flanged                                 | 088934    | 3    |
| 14  | Washer, 10.5 Zinc Flat                                       | F81055-1  | 1    |

## 3 Replacement Parts

### Acceleration/Brake Assembly

|    |   |           |   |  |
|----|---|-----------|---|--|
| 15 | Nut, M10-8-B Hex Nylon Zinc Lock            | F81033-1  | 1 |  |
| 16 | Pin, B 6X35/30 Clevis w/Head Zinc           | F81045-4  | 1 |  |
| 17 | Washer, 13 Zinc Flat                        | F81056-1  | 1 |  |
| 18 | Pin, 3.2x25 Zinc Cotter                     | F81043-4  | 1 |  |
| 19 | Pin, B 6X35/30 Clevis W/Head Zinc           | F81045-4  | 1 |  |
| 20 | Washer, 6.4 Zinc Flat                       | F81053-1  | 4 |  |
| 21 | Pin, 1.6x16 Zinc Cotter                     | F81040-1  | 1 |  |
| 22 | Plate, Brake Strap Mount                    | 088946-1  | 1 |  |
| 23 | Actuator, LA1 S12-17A-08-01 Linear          | 089428    | 1 |  |
| 24 | Strap, K140ER Clutch/Brake                  | 088935    | 1 |  |
| 25 | Bolt, M5x16 -8.8 Hex Head Full Thread Zinc  | F81000-20 | 4 |  |
| 26 | Washer, 5.3 Zinc Flat                       | F81052-1  | 8 |  |
| 27 | Nut, M5-8 DIN 985 Zinc                      | F81030-2  | 4 |  |
| 28 | Washer, 10.5 Zinc Flat                      | F81055-1  | 1 |  |
| 29 | Nut, M10-8-B Hex Nylon Zinc Lock            | F81033-1  | 1 |  |
| 30 | Bolt, M10x25 8.8 Hex Head Full Thread       | F81003-31 | 1 |  |
| 31 | Washer, 10.2 Zinc Split                     | F81055-2  | 1 |  |
| 32 | Washer, Zinc Special                        | 088956-1  | 1 |  |
| 33 | Guard, Acceleration/Brake Spring            | 089435-1  | 1 |  |
| 34 | Bolt, M6x12-8.8 Hex Head Full Thread Zinc   | F81001-7  | 3 |  |
| 35 | Pad, Linear Actuator Slide                  | 089436    | 2 |  |
| 36 | Block, Actuator Mount w/Shaft Zinc          | 088954-1  | 1 |  |
| 37 | Spring, 60x23x3 Zinc                        | 088992    | 1 |  |
| 38 | Bolt, M8x20-8 8-B Hex Head Full Thread Zinc | F81002-4  | 2 |  |
| 39 | Washer, 8.4 Flat Zinc                       | F81054-1  | 2 |  |
| 40 | Pin, B 6x35/30 Clevis w/Head Zinc           | F81045-4  | 1 |  |
| 41 | Washer, 6.4 Flat Zinc                       | F81053-1  | 1 |  |
| 42 | Pin, 1.6x16 Zinc Cotter                     | F81040-1  | 1 |  |
| 43 | <b>CABLE, THROTTLE</b>                      | 089450    | 1 |  |
| 44 | <b>SPRING, 40X9X2.2 SPECIAL</b>             | 089451    | 1 |  |

### 3.6 Muffler Assembly

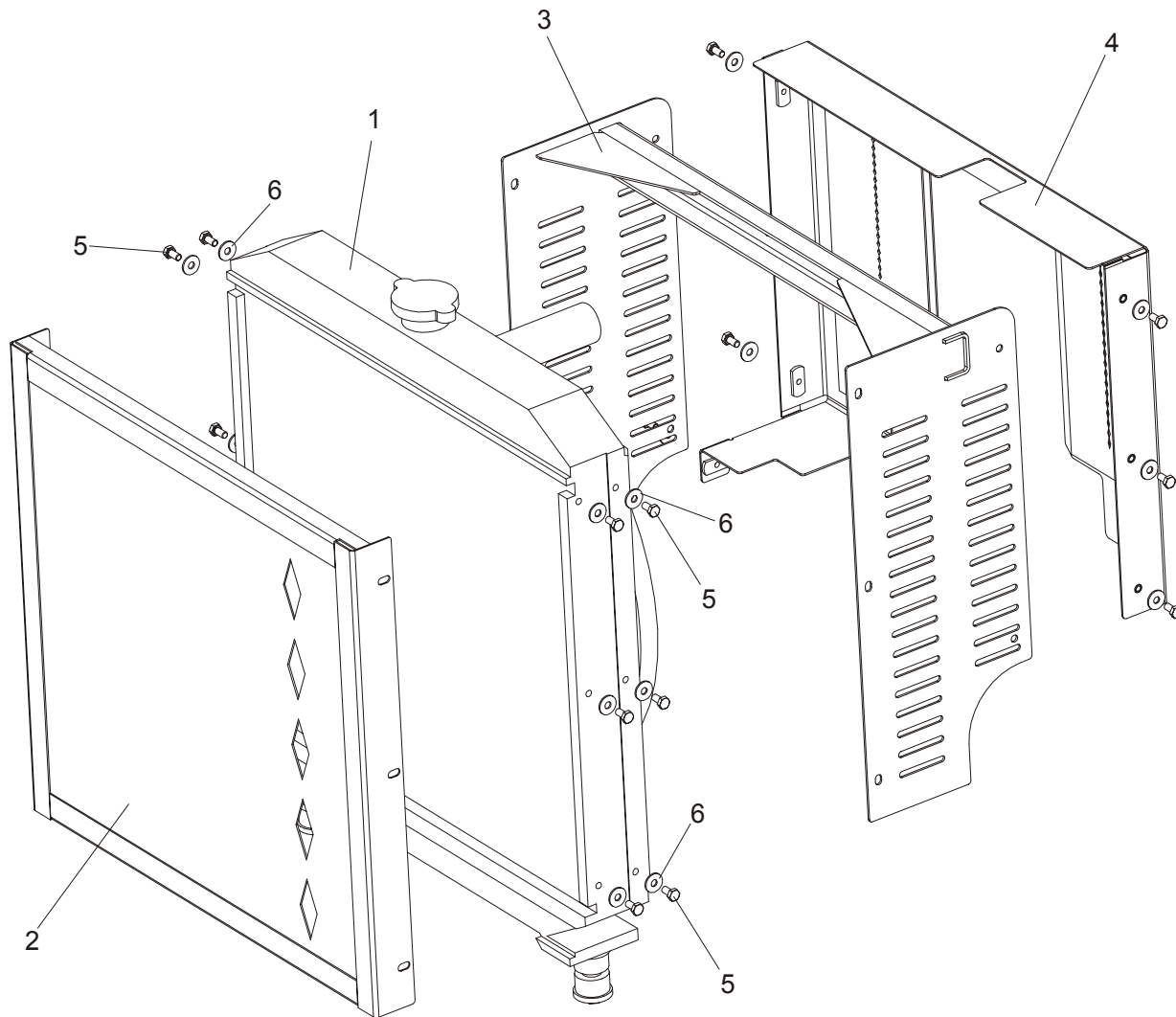


| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #    | QTY. |  |
|-----|--|-----------|------|--|
| 1   | MUFFLER, KUBOTA ENGINE                                       | 088100    | 1    |  |
| 2   | BOLT, M8X40-8.8 HEX HEAD FULL THREAD ZINC                    | F81002-15 | 4    |  |
| 3   | WASHER, 8.2 ZINC SPLIT LOCK                                  | F81054-4  | 4    |  |
| 4   | NUT, M8 HEX WELD   | F81032-3  | 4    |  |

# 3 Replacement Parts

## Radiator Assembly

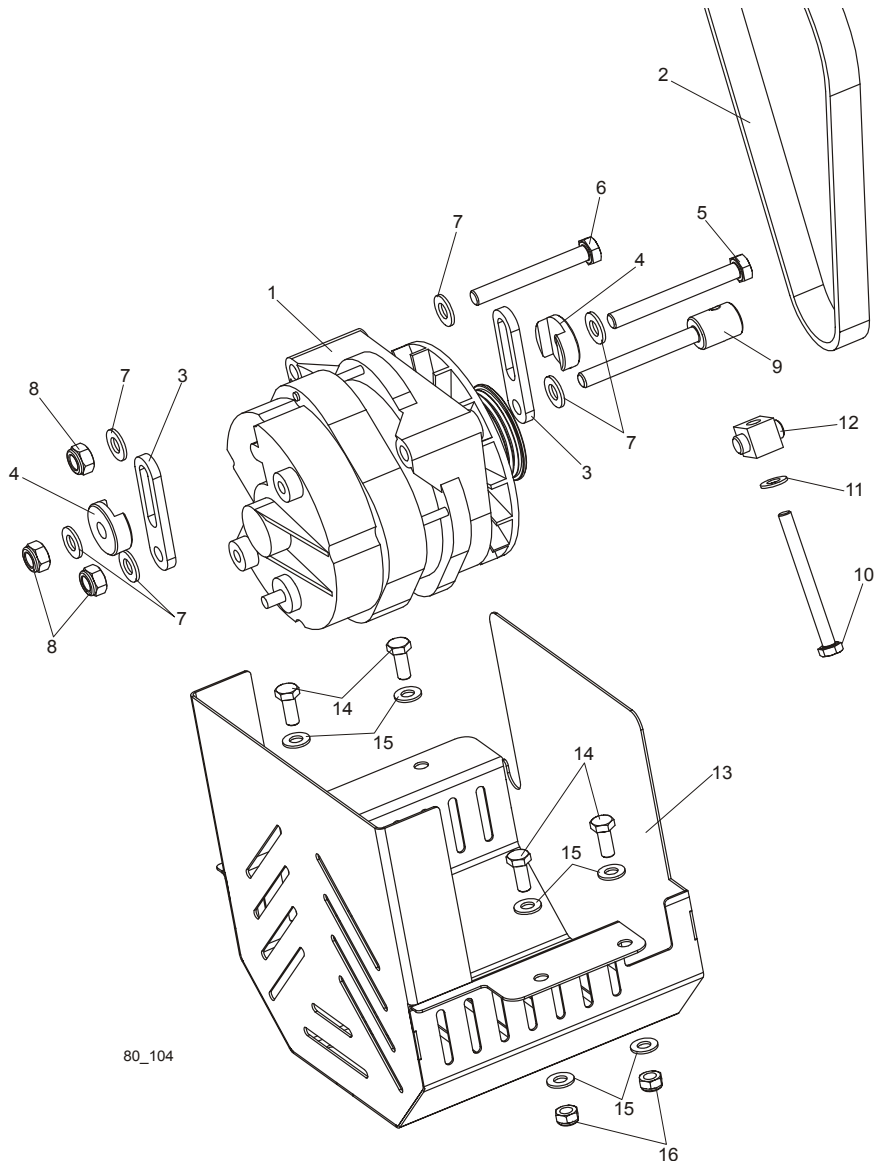
### 3.7 Radiator Assembly



| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #    | QTY. |
|-----|--|-----------|------|
| 1   | <b>RADIATOR ASSEMBLY, D42 A21/349(16292-72001)</b>           | 088023    | 1    |
| 2   | GUARD, KUBOTA RADIATOR FRONT                                 | 087967-1  | 1    |
| 3   | <b>BRACKET, RADIATOR MOUNT</b>                               | 088083-1  | 1    |
| 4   | <b>GUARD, KUBOTA RADIATOR REAR</b>                           | 088126-1  | 1    |
| 5   | BOLT, M6X12-8.8 HEX HEAD FULL THREAD ZINC                    | F81001-7  | 19   |
| 6   | <b>WASHER, 6.5 FLAT ZINC</b>                                 | F81053-11 | 19   |



### 3.8 Alternator Assembly



| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #    | QTY. |
|-----|--|-----------|------|
| 1   | ALTERNATOR, 190A (FOR LT60)                                  | 089466    | 1    |
| 2   | BELT, 6PK 775 ALTERNATOR                                     | 089465    | 1    |
| 3   | PLATE, D190 ALTERNATOR BELT TENSIONER                        | 088933-1  | 2    |
| 4   | WASHER, SPECIAL  | 088932-1  | 2    |
| 5   | BOLT, M10X90-8.8-B HEX HEAD ZINC                             | F81003-66 | 1    |
| 6   | BOLT, M10X80-8.8 HEX HEAD ZINC                               | F81003-51 | 1    |
| 7   | WASHER, 10.5 ZINC FLAT                                       | F81055-1  | 6    |
| 8   | NUT, M10-8-B HEX NYLON ZINC LOCK                             | F81033-1  | 3    |

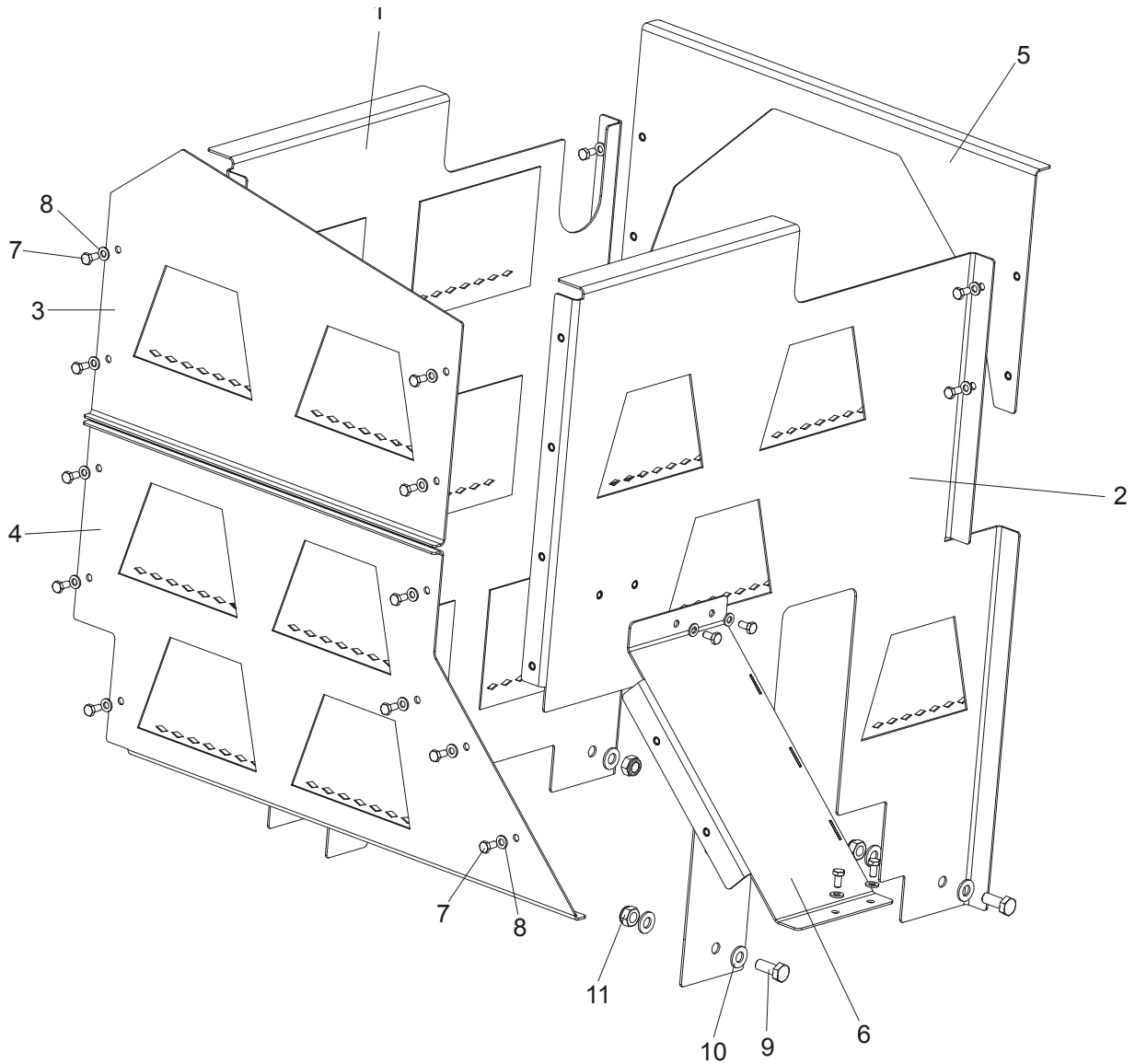
# 3 Replacement Parts

## *Alternator Assembly*

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|    |   |           |   |  |
|----|---|-----------|---|--|
| 9  | BOLT, M10 SPECIAL                           | 089472-1  | 1 |  |
| 10 | BOLT, M8X90-8.8 HEX HEAD FULL THREAD ZINC   | F81002-16 | 1 |  |
| 11 | WASHER, 8.4 ZINC FLAT                       | F81054-1  | 1 |  |
| 12 | BLOCK, ALTERNATOR BELT TENSIONER            | 089473-1  | 1 |  |
| 13 | GUARD, 190A ALTERNATOR                      | 089491-1  | 1 |  |
| 14 | BOLT, M8X20-8.8-B HEX HEAD FULL THREAD ZINC | F81002-4  | 4 |  |
| 15 | WASHER, 8.4 ZINC FLAT                       | F81054-1  | 8 |  |
| 16 | NUT, M8-8-B HEX NYLON ZINC LOCK             | F81032-2  | 4 |  |

### 3.9 Engine Guards



| REF | DESCRIPTION (◆ Indicates Parts Available In Assemblies Only) | PART #   | QTY. |
|-----|--|----------|------|
|     | D42 ENGINE GUARDS  | 089497   | 1    |
| 1   | Guard Weldment, Right Side Painted                           | 088984-1 | 1    |
| 2   | Guard, Left Side Painted                                     | 088985-1 | 1    |
| 3   | <b>Guard Weldment, Front Upper Painted</b>                   | 089496-1 | 1    |
| 4   | <b>Guard, Front Lower Painted</b>                            | 088988-1 | 1    |
| 5   | <b>Guard Weldment, Rear Painted</b>                          | 088980-1 | 1    |
| 6   | <b>Guard, D42 Main Drive Belt Side Painted</b>               | 088983-1 | 1    |
| 7   | Bolt, M6x12-8.8 Hex Head Full Thread Zinc                    | F81001-7 | 17   |

# 3 Replacement Parts

## *Engine Guards*

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|    |   |           |    |  |
|----|---|-----------|----|--|
| 8  | Washer, 6.4 Zinc Flat                             | F81053-1  | 17 |  |
| 9  | <b>BOLT, M10X25-8.8 HEX HEAD FULL THREAD ZINC</b> | F81003-11 | 4  |  |
| 10 | <b>WASHER, 10.5 ZINC FLAT</b>                     | F81055-1  | 4  |  |
| 11 | <b>NUT, M10-8-B HEX NYLON ZINC LOCK</b>           | F81033-1  | 4  |  |

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## SECTION 4 ELECTRICAL WIRING DIAGRAMS, D42



**IMPORTANT!** When using a sawmill with the rewired control panel it is very important not to switch between saw head forward/backward movement until the saw head stops. Failure to do so may result in serious sawmill damage.



**WARNING!** When using the variable reverse speed wiring it is recommended that the operator should stop the head, turn the potentiometer to zero, engage reverse and then increase speed. Failure to do this may result in damage to the circuit. There is a protection in the circuit and if this is activated it will not allow the head to start the return movement until the potentiometer is set to zero.

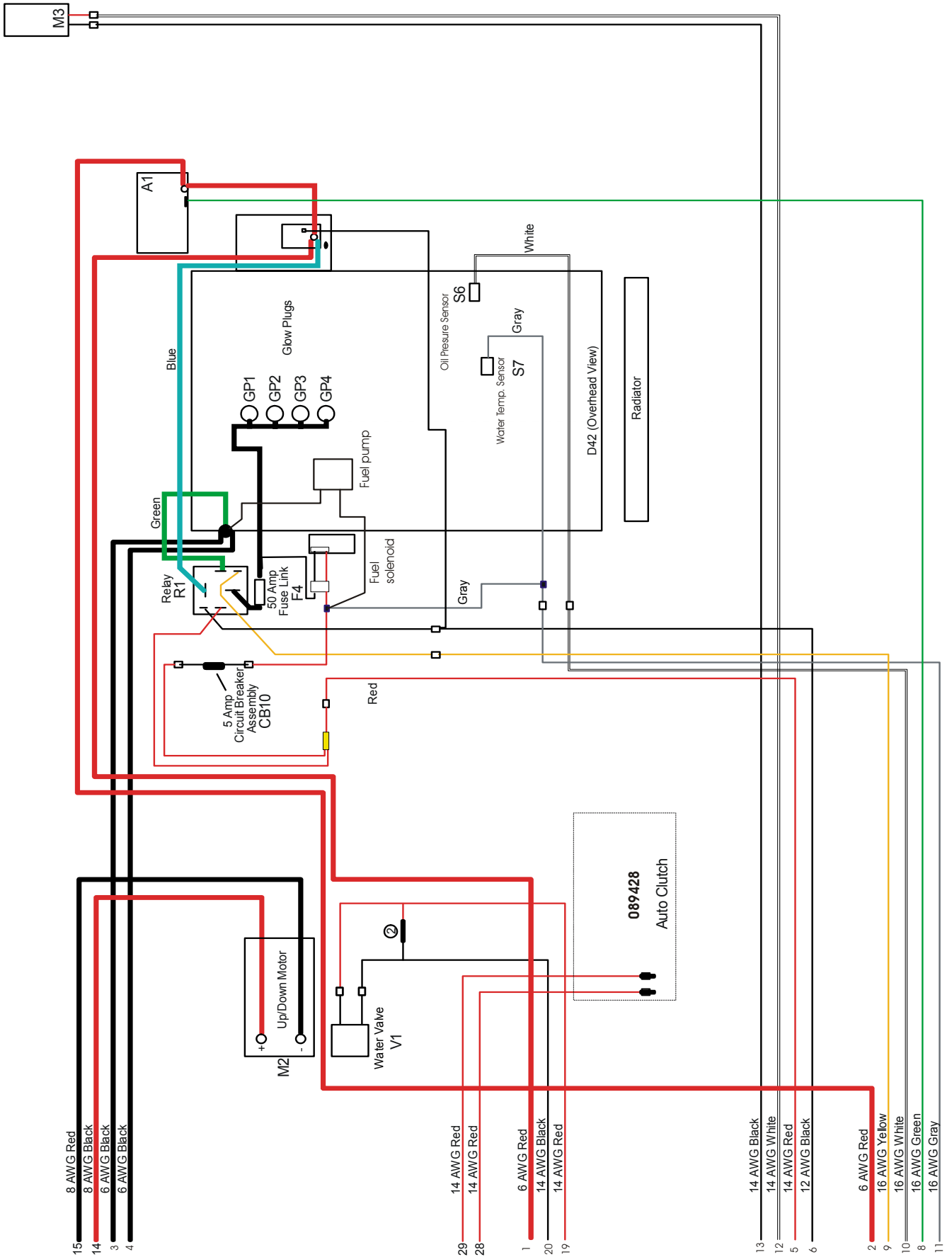


FIG. 4-1 D42 WIRING DIAGRAM (LT60/70/80 SAWMILLS).

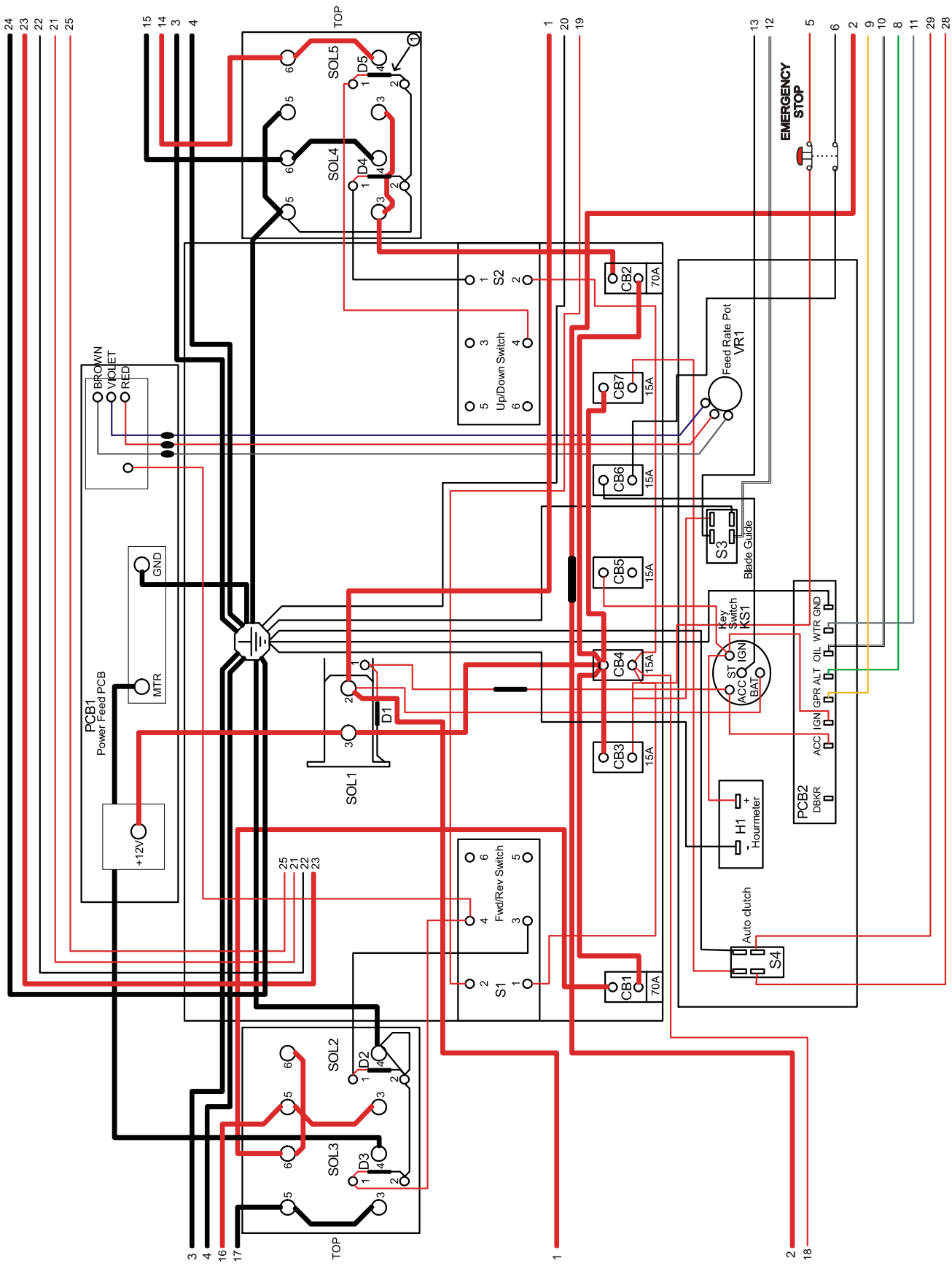


FIG. 4-2 D42 CONTROL BOX DIAGRAM).





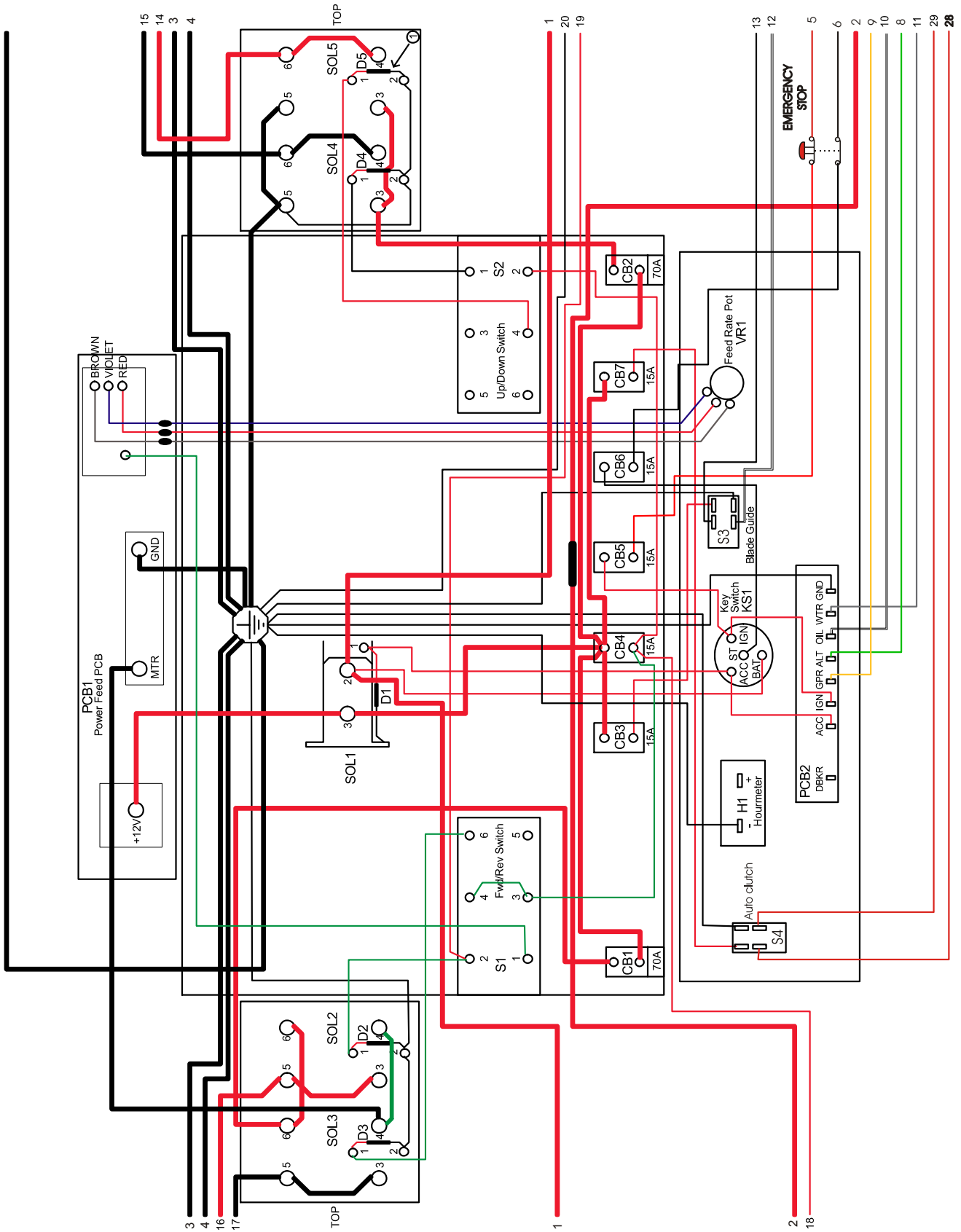


FIG. 4-4 D42 CONTROL BOX DIAGRAM (VARIABLE REVERS MOVEMENT SPEED).

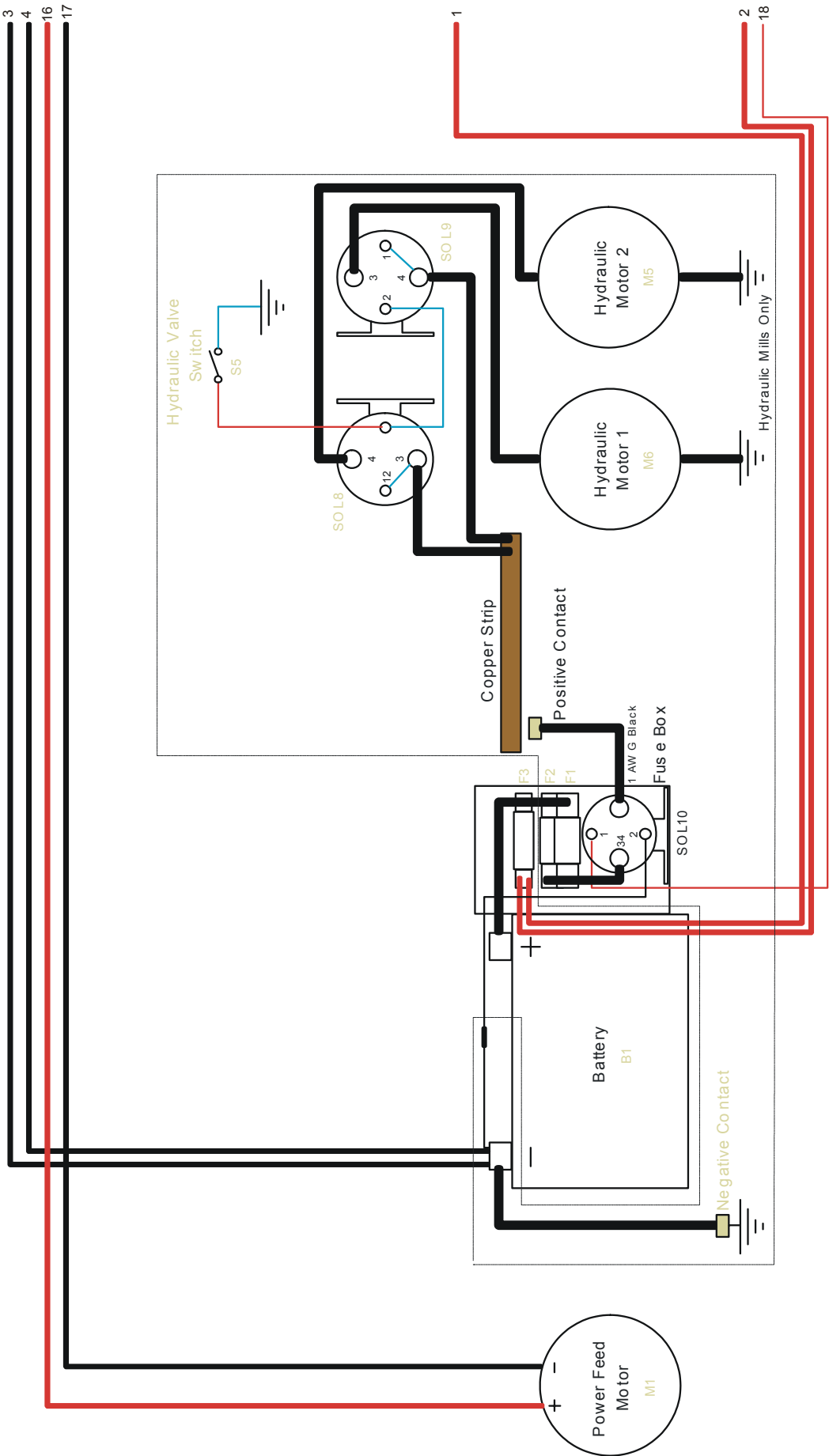


FIG. 4-5 D42 HYDRAULIC DIAGRAM.

| Component List                 |               |             |                     |   |
|--------------------------------|---------------|-------------|---------------------|---|
| Item                           | Mfg. Part No. | Mfg.        | Wood-Mizer Part No. | Description   |
| A1                             | 023 730       | Wood-Mizer  | 023730              | Alternator, 140 Amp   |
| B1                             | 1231 PMF      | Deka        | 015475              | Battery, 12 Volt ( <a href="#">See Battery Specifications</a> ) |
| CB1                            | 70-1648-009   | Mech. Prod. | 015527              | Breaker, 70 Amp Manual Reset Panel Mount, Power Feed            |
| CB2                            | 70-1648-009   | Mech. Prod. | 015527              | Breaker, 70 Amp Manual Reset Panel Mount, Up/Down               |
| CB3                            | CH30407-15    | Cole-Hersee | E20430              | Breaker, 15 Amp Manual Reset, Blade Guide                       |
| CB4                            | CH30407-15    | Cole-Hersee | E20430              | Breaker, 15 Amp Manual Reset, Accessory                         |
| CB5                            | CH30407-15    | Cole-Hersee | E20430              | Breaker, 15 Amp Manual Reset, Ignition                          |
| CB6                            | CH30407-15    | Cole-Hersee | E20430              | Breaker, 15 Amp Manual Reset, Start                             |
| CB7                            | CH30407-15    | Cole-Hersee | E20430              | Breaker, 15 Amp Manual Reset, Board Return                      |
| CB10                           | 024 453       | Wood-Mizer  | 024453              | Breaker Assy, Water Temp Max Circuit                            |
| D1 - D5                        | 087496        | Wood-Mizer  | 087496              | Diode Assembly, Solenoid Coil Chassis                           |
| D7                             | 024 123       | Wood-Mizer  | 024123              | Diode Assembly, Inductive Kick Protection (Setworks Only)       |
| F1, F2 <sup>1</sup>            | RL-225        | Gould       | P11550              | Fuse Link, 225 Amp, 250 Volt For Hydraulic + 12 Volt Circuit    |
| F3                             | RL-150        | Gould       | 023361              | Fuse Link, 150A 250V For Main + 12 Volt Starter, Alternator     |
| F4                             | N/A           | N/A         | 024597              | Fuse Link, 50 Amp Kubota Glow Plug                              |
| GP1-GP4                        | 16851-65510   | Kubota      | 092277              | Glow Plug   |
| H1                             | T14BH517BC9   | ENM Corp.   | 015401              | Hour Meter, 12 Volt, Low Power T14 Series                       |
| KS1                            | 121801        | General     | P04350              | Key Switch, 4-position (Accessory, Off, Ignition, Start)        |
| M1                             | 108677.00     | Leeson      | 024169              | Motor, 3/4HP 12VDC TEFC Power Feed w/o Base                     |
| M2                             | 108678.00     | Leeson      | 015174              | Motor, 3/4HP 12VDC TEFC Up/Down w/Base                          |
| M3                             | P09698-1      | Klauber     | A10365              | Motor, 12 Volt Blade Guide Arm 53:1 Gear                        |
| M4                             | P09698-1      | Klauber     | A10365              | Motor, 12 Volt Board Return 53:1 Gear                           |
| M5, M6 <sup>1</sup>            | 8111          | Monarch     | P09955              | Motor, 12 Volt Hydraulic Pump                                   |
| PCB1                           | 024412        | Wood-Mizer  | 024412              | Circuit Board, Control Box Power Feed                           |
| PCB2                           | 089694        | Wood-Mizer  | 089694              | Board, LED Circuit (Diesel)                                     |
| R1                             | 191911261C    | Bosch       | 088143              | Relay, Glow Plug Timer  |
| S1                             | 2601-AF-2-S11 | Square D    | E20438              | Drum Switch, Power Feed Fwd/Reverse Motor                       |
| S2                             | 2601-AF2-S12  | Square D    | E20440              | Drum Switch, Up/Down Motor                                      |
| S3                             | 34-591Q       | Pollak      | 024200              | Toggle Switch, Blade Guide In/Out Motor                         |
| S4                             | 34-591Q       | Pollak      | 024200              | Toggle Switch, Board Return Motor                               |
| S5 <sup>1</sup>                | 024 198       | Wood-Mizer  | 024198              | Switch, Hydraulic Pump Levers                                   |
| S6                             | 15841-39010   | Kubota      | 028547              | Switch, Oil Pressure Sensor                                     |
| S7                             | TM9A230RQCG   | Kubota      | 028510              | Switch, Water Temp Sensor                                       |
| SOL1                           | 120-943       | Stancor     | P10449              | Solenoid, Accessory Circuit                                     |
| SOL2-SOL5                      | 586-911       | Stancor     | 015417              | Solenoid, 200 A 12V DPST  |
| SOL7                           | 17454-60010   | Kubota      | 028523              | Solenoid, Fuel  |
| SOL8, SOL9, SOL10 <sup>1</sup> | 586-902       | Stancor     | 015470              | Solenoid, 200 A 12V SPST Hydraulic Pump Motor                   |
| V1                             | G51190145     | Parker      | 016280              | Valve, Waterlube Solenoid                                       |
| VR1                            | E20519        | Wood-Mizer  | E20519              | Potentiometer, Variable Resistance Power Feed                   |