



# Parts Manual

**Our energy working for you.™**



## **Generator Set** **with PowerCommand® Supervisor PCS3100** **GQKA (Spec A–B)**

## MODEL IDENTIFICATION

This catalog covers models produced under the Cummins®/Onan® and Cummins Power Generation brand names.

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Cummins Power Generation nameplate.

For handy reference, insert your nameplate information in the spaces below.

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION  
AND DATE (IF APPLICABLE)

## SAFETY PRECAUTIONS

The following symbols are used in Cummins Power Generation manuals to alert users to the potentially dangerous conditions relating to maintenance of equipment and replacement of parts. Please read and observe.



*This symbol warns of immediate hazards which will result in severe personal injury or death.*



*This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.*



*This symbol refers to a hazard or unsafe practice which can result in severe personal injury or product or property damage.*

## PRODUCT SAFETY PRECAUTIONS



***Service and repair of Cummins Power Generation equipment must be performed by trained, experienced personnel only. Improper service or repair may result in property damage, severe personal injury or death. Do not use this catalog as a guide to servicing your equipment. Read and follow the IMPORTANT SAFETY INSTRUCTIONS in the Service Manual appropriate for the equipment you are working on.***



***Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.***



***Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!***



***Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives or using solvents take all necessary precautions not to ingest, breathe the fumes or contact the liquids. Use adequate ventilation and wear protective gloves, masks and protective clothing!***

## Introduction

This catalog applies to Cummins Power Generation Generator Models GQKA as listed in the Generator Set Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding to the same reference number in the parts list. Parts illustrations are typical. Unless otherwise mentioned in the description or page heading, parts are interchangeable between models. Throughout this catalog left and right sides are determined by facing the engine end (front) of the set unless noted in the description column.

Engine parts that have been modified or added by Cummins Power Generation are identified in this catalog. All other engine replacement parts must be ordered from the engine manufacturer by referring to the engine manufacturer's name-plate and supplying all available information. Contact your nearest engine parts distributor for assistance in ordering replacement parts.

## Replacement Engine

| Cummins Power Generation<br>Generator Model | Cummins Engine Model |
|---------------------------------------------|----------------------|
| GQKA                                        | GQSK60G              |

## Generator Set Data Table

| Model and<br>Specification | Electrical Data |       |       |      |       | Battery<br>Voltage |
|----------------------------|-----------------|-------|-------|------|-------|--------------------|
|                            | Watts           | Volts | Hertz | Wire | Phase |                    |
| 1160GQKA/*                 | 1,160,000       | #     | 50    | 12   | 3     | 24VDC              |
| 1400GQKA/*                 | 1,400,000       | #     | 60    | 12   | 3     | 24VDC              |

\* – The diagonal line (/) in the model and specification number separates generator set characteristics from the specification number and letter. The specification number denotes customer requested options or deviations from the standard model. The specification letter advances (A to B, B to C, etc.) with major manufacturing changes.

# – Broad range reconnectible

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## Abbreviations

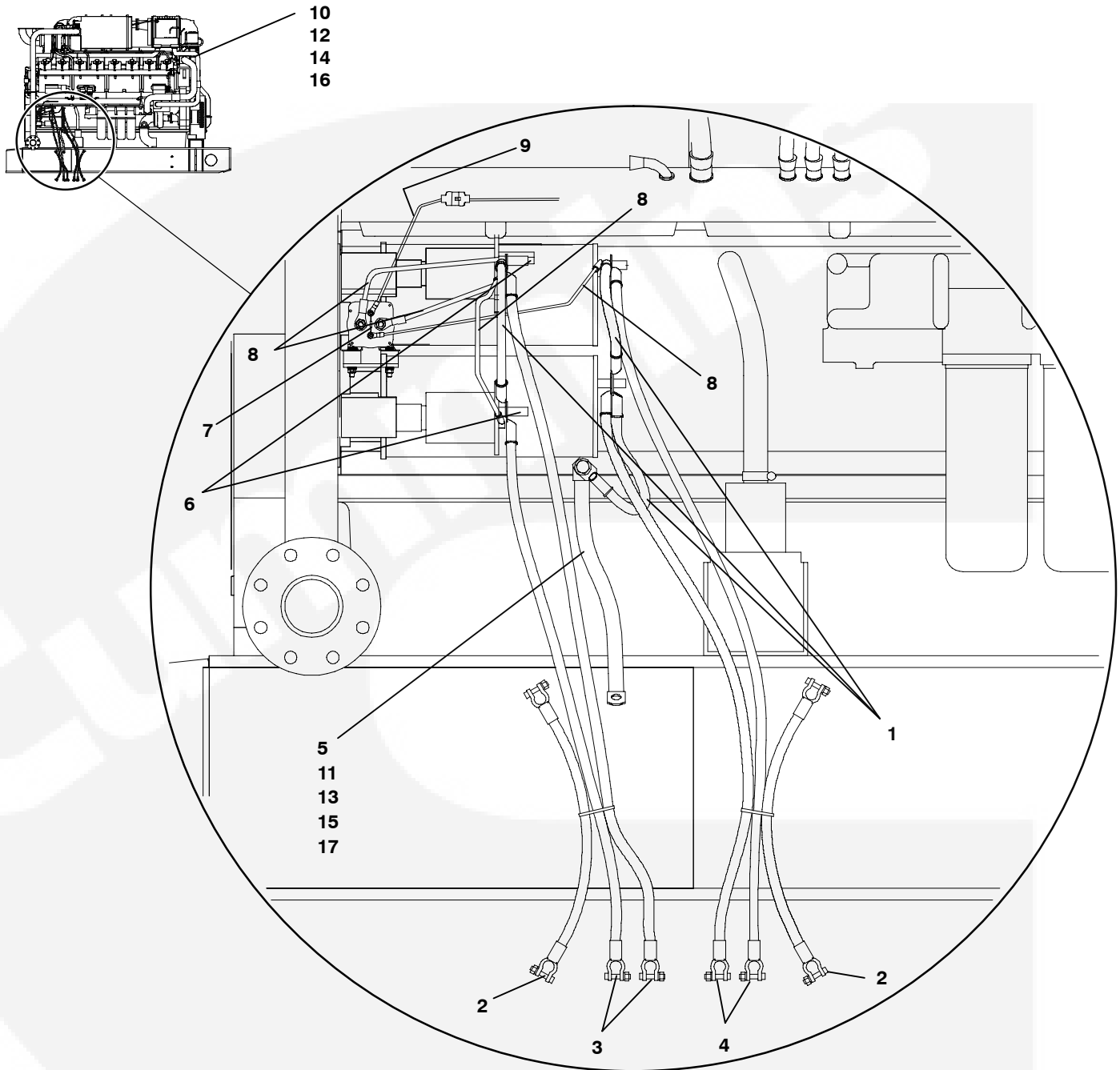
Some of the following abbreviations may be used throughout this Parts Catalog:

|                 |                                              |                 |                                              |
|-----------------|----------------------------------------------|-----------------|----------------------------------------------|
| AC              | Alternating Current                          | mm              | Millimeter                                   |
| Amp             | Ampere                                       | MOH             | Mobile Off Highway                           |
| A/R             | As Required                                  | NFS             | Not For Sale                                 |
| AVR             | Automatic Voltage Regulator                  | NPT             | National Pipe Thread                         |
| AWG             | American Wire Gauge                          | OD              | Outside Diameter                             |
| DC              | Direct Current                               | oz.             | Ounce                                        |
| Deg             | Degree                                       | PC              | Printed Circuit                              |
| EFC             | Electronic Fuel Control                      | Ph              | Phase                                        |
| EIT             | External/Internal Tooth                      | PMG             | Permanent Magnet Generator                   |
| EPROM           | Erasable Programmable Read<br>Only Memory    | PT/CT           | Potential Transformer/Current<br>Transformer |
| ET              | External Tooth                               | RFI             | Radio Frequency Interference                 |
| GFI             | Ground Fault Interrupter                     | RT              | Right                                        |
| ID              | Inside Diameter                              | Spec            | Specification                                |
| IEC             | International Electrotechnical<br>Commission | Thk             | Thick                                        |
| IT              | Internal Tooth                               | UL              | Underwriters Laboratories Inc.               |
| kW              | Kilowatt                                     | UNC             | Union National Coarse                        |
| LPG             | Liquid Petroleum Gas                         | UNF             | Union National Fine                          |
| LT              | Left                                         | VAC             | Volts Alternating Current                    |
| M(meter number) | Meter                                        | VDC             | Volts Direct Current                         |
|                 |                                              | W/(ET, IT, EIT) | With                                         |

## Paint and Thread Sealant

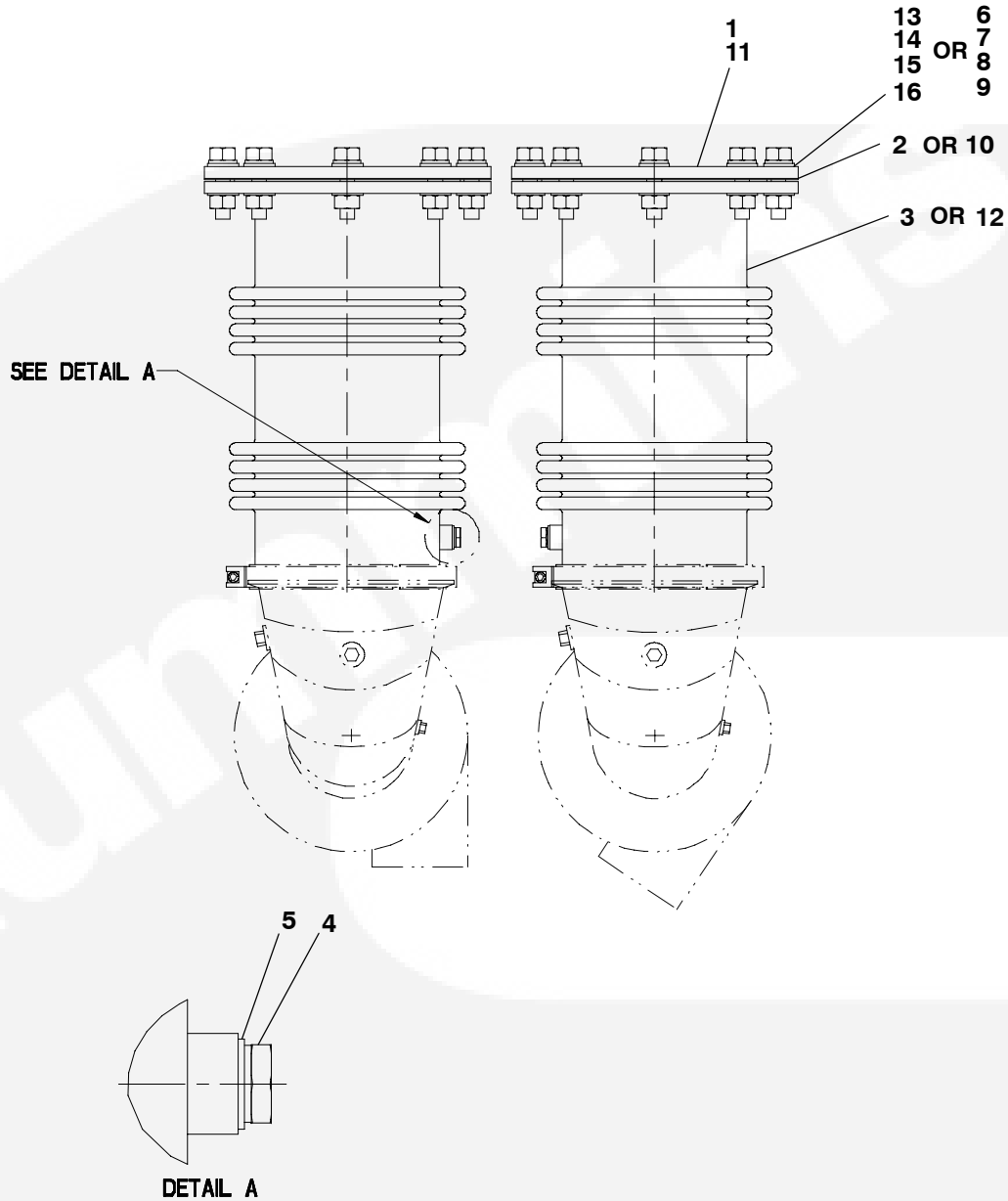
| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                 | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION         |
|------------|-------------|-------------|-------------------------------------|------------|-------------|-------------|-----------------------------|
|            |             |             | Onan Green Enamel<br>(Non-Metallic) | 518-0601   | -           |             | Sealant, Thread (6 ml Tube) |
|            | 525-0305    | -           | 12 oz. Pressurized<br>Spray Can     |            |             |             |                             |
|            | 525-0306    | -           | Quart Can                           |            |             |             |                             |
|            | 525-0304    | -           | Gallon Can                          |            |             |             |                             |

## Engine Accessories



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION               | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|--------------------------------|---------|-------------|----------|-----------------------------------|
| 1       | 416-0680    | 3        | Cable, Starter                 | 11      | 800-3017-53 | 1        | Screw, Hex Head (M12 x 1.75 x 25) |
| 2       | 416-0446    | 2        | Cable, Jumper                  | 12      | 800-3017-73 | 2        | Screw, Hex Head (M16 x 2.0 x 45)  |
| 3       | 416-0639    | 2        | Cable, Battery                 | 13      | 526-0399-64 | 1        | Washer, Flat (M12)                |
| 4       | 416-0639    | 2        | Cable, Battery                 | 14      | 526-0399-66 | 2        | Washer, Flat (M16)                |
| 5       | 337-0090-01 | 1        | Strap, Electrical              | 15      | 850-0114-56 | 1        | Washer, Lock - Spring (M12)       |
| 6       | 416-1074    | 2        | Boot, Terminal - Starter Motor | 16      | 850-0114-57 | 2        | Washer, Lock - Spring (M16)       |
| 7       | 338-3894    | 1        | Harness, Diode                 | 17      | 853-0040-57 | 1        | Washer, Lock - W/ET (M12)         |
| 8       | 338-4422    | 1        | Harness, Starter               |         |             |          |                                   |
| 9       | 338-4370    | 1        | Harness, Starter               |         |             |          |                                   |
| 10      | 148-1286-02 | 1        | Guard, Regulator - EMC Shield  |         |             |          |                                   |

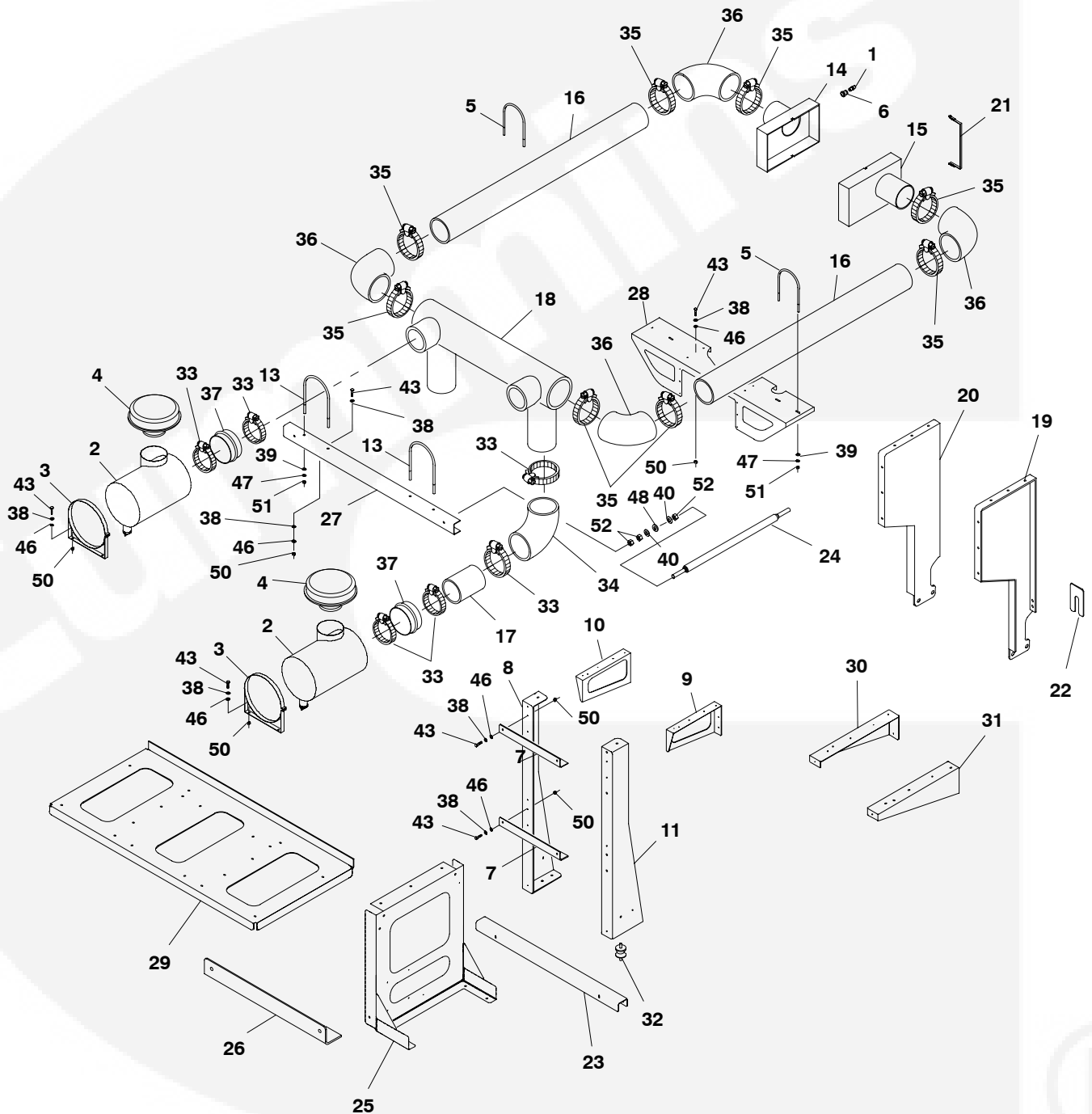
## Exhaust Kit



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                   | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                   |
|---------|-------------|----------|------------------------------------|---------|-------------|----------|------------------------------------|
| 1       | 155-1141    | 2        | * Flange, Plate                    | 11      | 155-4139    | 2        | ^ Flange, Exhaust                  |
| 2       | 155-4125    | 2        | * Gasket, Exhaust                  | 12      | 155-4589-02 | 2        | ^ Adaptor, Exhaust                 |
| 3       | 155-4589-01 | 2        | * Adapter, Exhaust                 | 13      | 526-0399-66 | 32       | ^ Washer, Flat (M16)               |
| 4       | 505-2204    | 2        | Plug, Pipe (M18 x 1.5 x 9)         | 14      | 800-3017-78 | 16       | ^ Screw, Hex Head (M16 x 2.0 x 70) |
| 5       | 509-0394    | 2        | Washer, Sealing (M18 Copper)       | 15      | 850-0114-57 | 16       | ^ Washer, Lock (M16)               |
| 6       | 526-0399-70 | 32       | * Washer, Flat (M20)               | 16      | 862-0026-58 | 16       | ^ Nut, Hex (M16)                   |
| 7       | 800-3017-93 | 16       | * Screw, Hex Head (M20 x 2.5 x 70) |         |             |          |                                    |
| 8       | 850-0114-58 | 16       | * Washer, Lock (M20)               | *       | 8" ANSI     |          |                                    |
| 9       | 862-0026-59 | 16       | * Nut, Hex (M20)                   | ^       | 8" BS.10    |          |                                    |
| 10      | 155-3483    | 2        | ^ Gasket                           |         |             |          |                                    |



**Air Cleaner  
4 Filters  
Spec A**



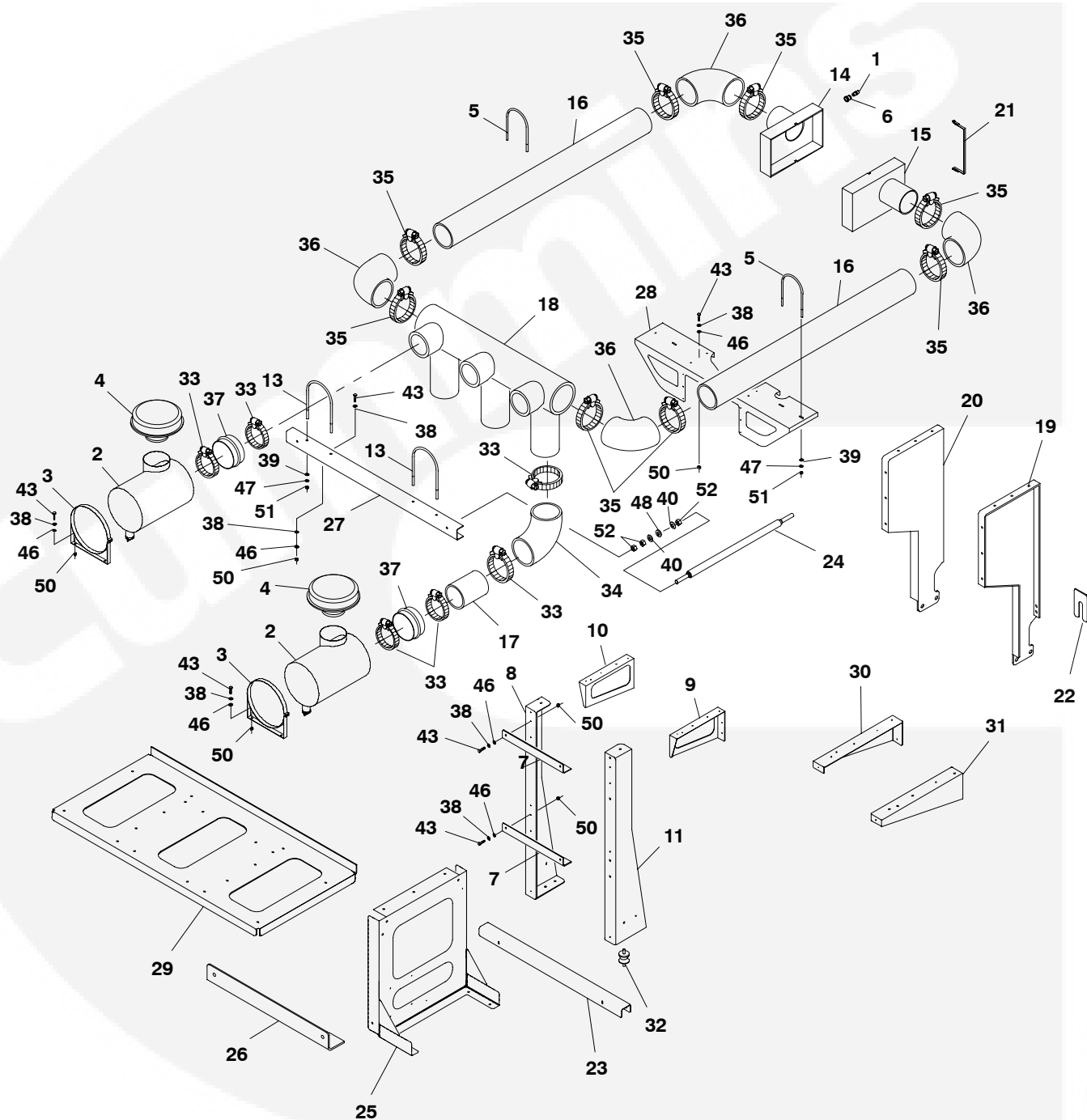
**Air Cleaner  
4 Filters  
Spec A**

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                             | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                |
|---------|-------------|----------|--------------------------------------------------------------|---------|-------------|----------|-----------------------------------------------------------------|
| 1       | 140-1260    | 1        | Fitting, Safety Filter                                       | 26      | 140-3748-02 | 1        | Bracket, Air Cleaner – Cross Member – Circuit Breaker Box Frame |
| 2       | 140-3230    | 4        | Cleaner, Air – 8" Outlet                                     | 27      | 140-3749-02 | 1        | Base, Air Cleaner – Duct Support                                |
| 3       | 140-3357    | 8        | Band, Air Cleaner                                            | 28      | 140-3750-02 | 1        | Bracket, Air Cleaner – Tube Support                             |
| 4       | 140-3370    | 4        | Cap, Rain                                                    | 29      | 140-3751-02 | 1        | Base, Air Cleaner – Lower Platform                              |
| 5       | 140-3626-02 | 2        | Support, Pipe – "U" Bolt                                     | 30      | 140-3753-02 | 1        | Base, Air Cleaner – Brace – Lower Left Side                     |
| 6       | 140-3764    | 1        | Indicator, Service                                           | 31      | 140-3754-02 | 1        | Base, Air Cleaner – Brace – Lower Right Side                    |
| 7       | 140-3700-02 | 2        | Base, Air Cleaner – Cross Member – Circuit Breaker Box Frame | 32      | 402-0844    | 6        | Isolator, Vibration                                             |
| 8       | 140-3704-02 | 1        | Base, Air Cleaner – Upright – Left Side                      | 33      | 503-1870-15 | 12       | Clamp, Hose                                                     |
| 9       | 140-3706-02 | 1        | Base, Air Cleaner – Brace – Upper – Left Side                | 34      | 503-2455    | 2        | Elbow, Hose (8" x 90°)                                          |
| 10      | 140-3707-02 | 1        | Base, Air Cleaner – Brace – Upper – Right Side               | 35      | 503-2479    | 8        | Clamp, Hose                                                     |
| 11      | 140-3709-02 | 1        | Base, Air Cleaner – Upright – Right Side                     | 36      | 503-2480    | 4        | Elbow, Hose (10" x 90°)                                         |
| 12      | 140-3710-02 | 1        | Bracket, Air Cleaner – Upper Platform (Not Illustrated)      | 37      | 503-2508    | 4        | Hose, Air – Hump (8" x 8")                                      |
| 13      | 140-3713-02 | 2        | Clamp, Air Cleaner                                           | 38      | 526-0399-62 | 146      | Washer, Flat (M10)                                              |
| 14      | 140-3714-02 | 1        | Adapter, Air Cleaner – Left Side                             | 39      | 526-0399-64 | 12       | Washer, Flat (M12)                                              |
| 15      | 140-3715-02 | 1        | Adapter, Air Cleaner – Right Side                            | 40      | 526-0399-66 | 8        | Washer, Flat (M16)                                              |
| 16      | 140-3716-02 | 2        | Tube, Air Cleaner                                            | 41      | 526-0399-70 | 4        | Washer, Flat (M20)                                              |
| 17      | 140-3717-02 | 2        | Tube, Air Cleaner                                            | 42      | 800-3017-38 | 36       | Screw, Hex Head (M10 x 30)                                      |
| 18      | 140-3718-02 | 1        | Tube, Air Cleaner – Header                                   | 43      | 800-3017-39 | 34       | Screw, Hex Head (M10 x 35)                                      |
| 19      | 140-3722-02 | 1        | Bracket, Air Cleaner – Support – Right Side                  | 44      | 800-3017-54 | 4        | Screw, Hex Head (M12)                                           |
| 20      | 140-3723-02 | 1        | Bracket, Air Cleaner – Support – Left Side                   | 45      | 800-3017-87 | 4        | Screw, Hex Head (M20 x 40)                                      |
| 21      | 140-3725    | 4        | Clamp, Air Cleaner                                           | 46      | 850-0114-55 | 76       | Washer, Lock (M10)                                              |
| 22      | 140-3738-02 | 1        | Spacer, Air Cleaner                                          | 47      | 850-0114-56 | 12       | Washer, Lock (M12)                                              |
| 23      | 140-3745-02 | 1        | Bracket, Air Cleaner – Circuit Breaker Box Frame             | 48      | 850-0114-57 | 4        | Washer, Lock (M16)                                              |
| 24      | 140-3746-02 | 2        | Base, Air Cleaner – Tie Rod                                  | 49      | 850-0114-58 | 4        | Washer, Lock (M20)                                              |
| 25      | 140-3747-02 | 2        | Base, Air Cleaner – Circuit Breaker Box Frame                | 50      | 862-0026-56 | 76       | Nut, Hex (M10)                                                  |
|         |             |          |                                                              | 51      | 862-0026-57 | 8        | Nut, Hex (M12)                                                  |
|         |             |          |                                                              | 52      | 862-0026-58 | 12       | Nut, Hex (M16)                                                  |

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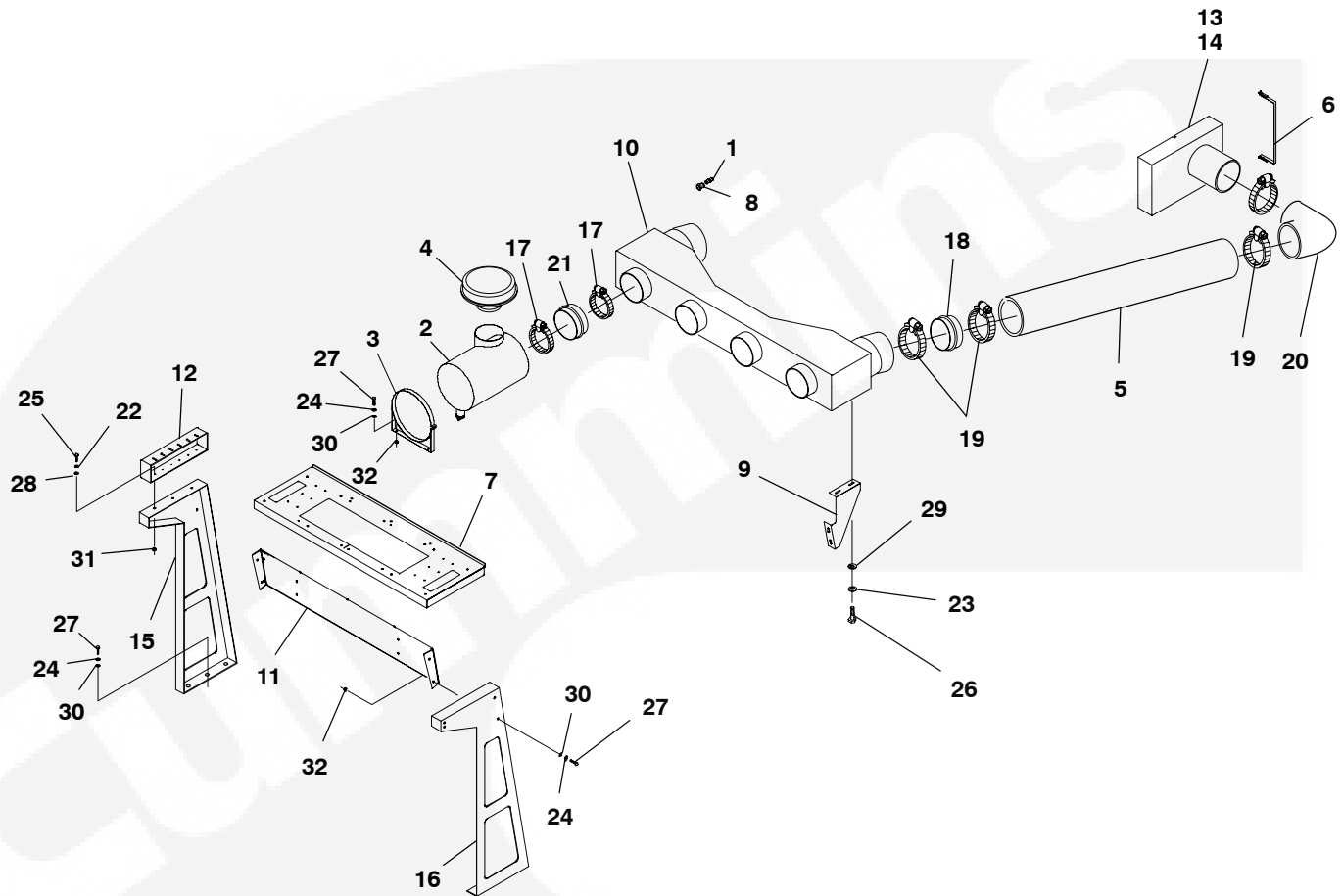
# Air Cleaner 6 Filters Spec A



**Air Cleaner  
6 Filters  
Spec A**

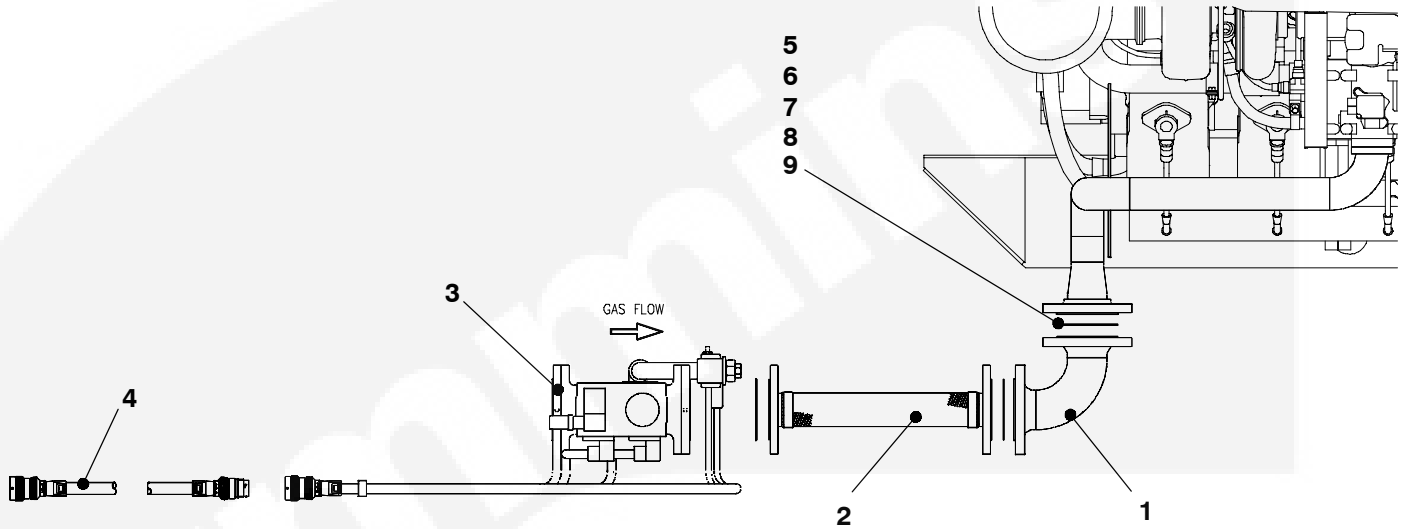
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                             | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                |
|---------|-------------|----------|--------------------------------------------------------------|---------|-------------|----------|-----------------------------------------------------------------|
| 1       | 140-1260    | 1        | Fitting, Safety Filter                                       | 26      | 140-3748-02 | 1        | Bracket, Air Cleaner – Cross Member – Circuit Breaker Box Frame |
| 2       | 140-3230    | 6        | Cleaner, Air – 8" Outlet                                     | 27      | 140-3749-02 | 1        | Base, Air Cleaner – Duct Support                                |
| 3       | 140-3357    | 12       | Band, Air Cleaner                                            | 28      | 140-3750-02 | 1        | Bracket, Air Cleaner – Tube Support                             |
| 4       | 140-3370    | 6        | Cap, Rain                                                    | 29      | 140-3751-02 | 1        | Base, Air Cleaner – Lower Platform                              |
| 5       | 140-3626-02 | 2        | Support, Pipe – "U" Bolt                                     | 30      | 140-3753-02 | 1        | Base, Air Cleaner – Brace – Lower Left Side                     |
| 6       | 140-3764    | 1        | Indicator, Service                                           | 31      | 140-3754-02 | 1        | Base, Air Cleaner – Brace – Lower Right Side                    |
| 7       | 140-3700-02 | 2        | Base, Air Cleaner – Cross Member – Circuit Breaker Box Frame | 32      | 402-0844    | 6        | Isolator, Vibration                                             |
| 8       | 140-3704-02 | 1        | Base, Air Cleaner – Upright – Left Side                      | 33      | 503-1870-15 | 18       | Clamp, Hose                                                     |
| 9       | 140-3706-02 | 1        | Base, Air Cleaner – Brace – Upper – Left Side                | 34      | 503-2455    | 3        | Elbow, Hose (8" x 90°)                                          |
| 10      | 140-3707-02 | 1        | Base, Air Cleaner – Brace – Upper – Right Side               | 35      | 503-2479    | 8        | Clamp, Hose                                                     |
| 11      | 140-3709-02 | 1        | Base, Air Cleaner – Upright – Right Side                     | 36      | 503-2480    | 4        | Elbow, Hose (10" x 90°)                                         |
| 12      | 140-3710-02 | 1        | Bracket, Air Cleaner – Upper Platform (Not Illustrated)      | 37      | 503-2508    | 6        | Hose, Air – Hump (8" x 8")                                      |
| 13      | 140-3713-02 | 2        | Clamp, Air Cleaner                                           | 38      | 526-0399-62 | 162      | Washer, Flat (M10)                                              |
| 14      | 140-3714-02 | 1        | Adapter, Air Cleaner – Left Side                             | 39      | 526-0399-64 | 12       | Washer, Flat (M12)                                              |
| 15      | 140-3715-02 | 1        | Adapter, Air Cleaner – Right Side                            | 40      | 526-0399-66 | 4        | Washer, Flat (M16)                                              |
| 16      | 140-3716-02 | 2        | Tube, Air Cleaner                                            | 41      | 526-0399-70 | 4        | Washer, Flat (M20)                                              |
| 17      | 140-3717-02 | 3        | Tube, Air Cleaner                                            | 42      | 800-3017-38 | 36       | Screw, Hex Head (M10 x 30)                                      |
| 18      | 140-3755-02 | 1        | Tube, Air Cleaner – Header                                   | 43      | 800-3017-39 | 42       | Screw, Hex Head (M10 x 35)                                      |
| 19      | 140-3722-02 | 1        | Bracket, Air Cleaner – Support – Right Side                  | 44      | 800-3017-54 | 4        | Screw, Hex Head (M12)                                           |
| 20      | 140-3723-02 | 1        | Bracket, Air Cleaner – Support – Left Side                   | 45      | 800-3017-87 | 4        | Screw, Hex Head (M20 x 40)                                      |
| 21      | 140-3725    | 4        | Clamp, Air Cleaner                                           | 46      | 850-0114-55 | 84       | Washer, Lock (M10)                                              |
| 22      | 140-3738-02 | 1        | Spacer, Air Cleaner                                          | 47      | 850-0114-56 | 12       | Washer, Lock (M12)                                              |
| 23      | 140-3745-02 | 1        | Bracket, Air Cleaner – Circuit Breaker Box Frame             | 48      | 850-0114-57 | 4        | Washer, Lock (M16)                                              |
| 24      | 140-3746-02 | 2        | Base, Air Cleaner – Tie Rod                                  | 49      | 850-0114-58 | 4        | Washer, Lock (M20)                                              |
| 25      | 140-3747-02 | 2        | Base, Air Cleaner – Circuit Breaker Box Frame                | 50      | 862-0026-56 | 84       | Nut, Hex (M10)                                                  |
|         |             |          |                                                              | 51      | 862-0026-57 | 8        | Nut, Hex (M12)                                                  |
|         |             |          |                                                              | 52      | 862-0026-58 | 12       | Nut, Hex (M16)                                                  |

**Air Cleaner  
4 Filters  
Begin Spec B**



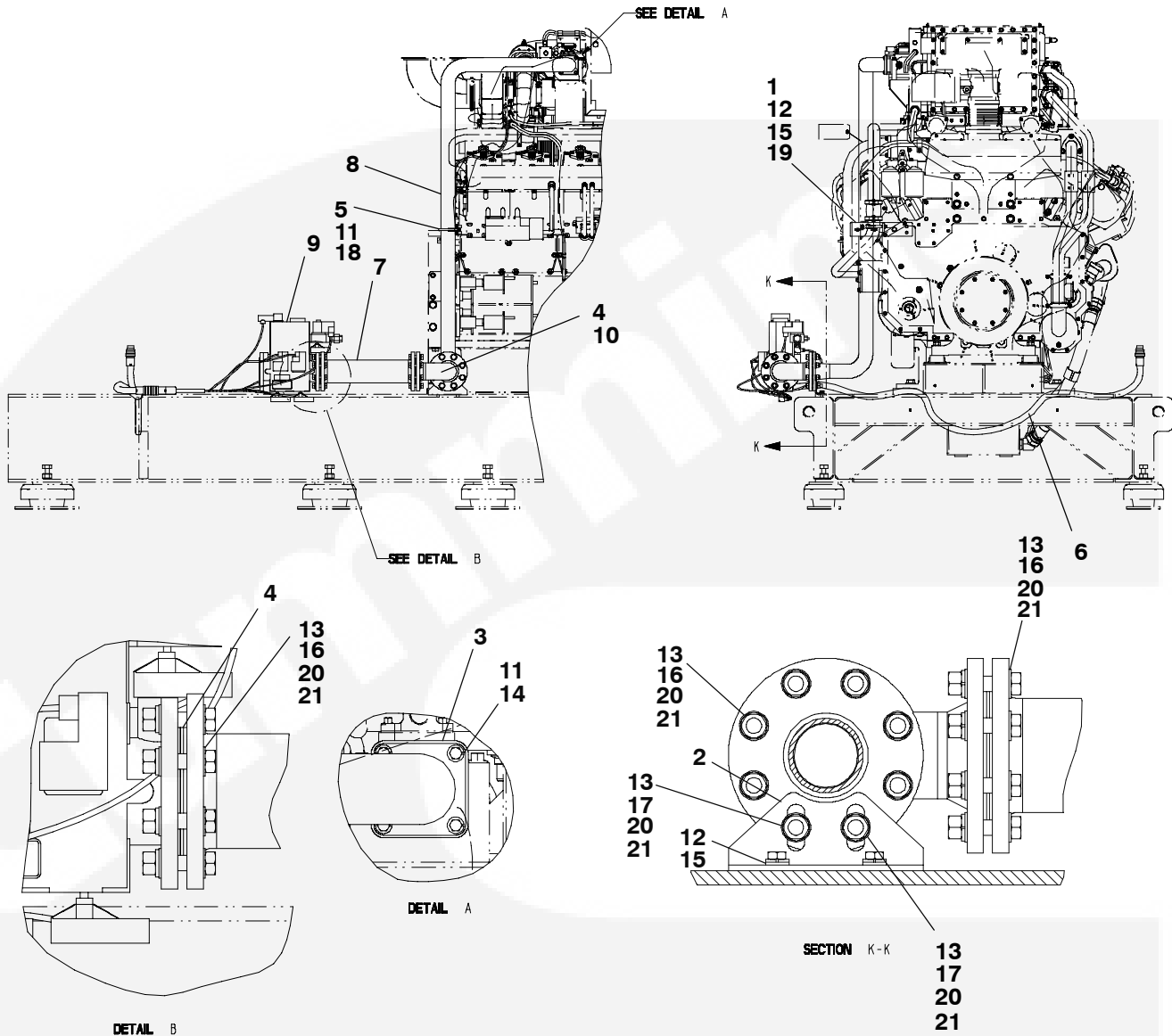
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                       | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|----------------------------------------|---------|-------------|----------|-----------------------------------|
| 1       | 140-1260    | 2        | Fitting, Safety Filter                 | 17      | 503-1870-15 | 8        | Clamp, Hose                       |
| 2       | 140-3230    | 4        | Cleaner, Air - 8" Outlet               | 18      | 503-2478    | 2        | Hose, Intake (10" x 10" Hump)     |
| 3       | 140-3357    | 8        | Band, Air Cleaner                      | 19      | 503-2479    | 8        | Clamp, Hose (250mm-280mm)         |
| 4       | 140-3370    | 4        | Cap, Rain                              | 20      | 503-2480    | 2        | Elbow, Hose (10" x 90°)           |
| 5       | 140-3629-40 | 2        | Tube, Air Cleaner                      | 21      | 503-2508    | 4        | Hose, Air - Hump (8" x 8")        |
| 6       | 140-3725    | 4        | Clamp, Air Cleaner                     | 22      | 526-0399-60 | 24       | Washer, Flat (M8)                 |
| 7       | 140-3735-02 | 1        | Base, Air Cleaner (Tray)               | 23      | 526-0399-62 | 4        | Washer, Flat (M10)                |
| 8       | 140-3764    | 2        | Indicator, Service                     | 24      | 526-0399-64 | 62       | Washer, Flat (M12)                |
| 9       | 140-3967-02 | 2        | Bracket, Air Cleaner                   | 25      | 800-3017-21 | 12       | Screw, Hex Head (M8 x 1.25 x 30)  |
| 10      | 140-3968-02 | 1        | Baffle, Air Cleaner                    | 26      | 800-3017-35 | 4        | Screw, Hex Head (M10 x 1.5 x 16)  |
| 11      | 140-3970-02 | 1        | Base, Air Cleaner (Cross Beam)         | 27      | 800-3017-56 | 34       | Screw, Hex Head (M12 x 1.75 x 40) |
| 12      | 140-3980-02 | 2        | Bracket, Air Cleaner (Channel Section) | 28      | 850-0114-54 | 24       | Washer, Lock (M8)                 |
| 13      | 140-3982-02 | 1        | Adapter, Air Cleaner (Left Hand)       | 29      | 850-0114-55 | 4        | Washer, Lock (M10)                |
| 14      | 140-3983-02 | 1        | Adapter, Air Cleaner (Right Hand)      | 30      | 850-0114-56 | 38       | Washer, Lock (M12)                |
| 15      | 140-3995-02 | 1        | Bracket, Air Cleaner                   | 31      | 862-0026-55 | 12       | Nut, Hex (M8)                     |
| 16      | 140-3996-02 | 1        | Bracket, Air Cleaner                   | 32      | 862-0026-57 | 28       | Nut, Hex (M12)                    |

## Gas Valve Spec A



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION            | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|----------|----------|-----------------------------|---------|-------------|----------|----------------------------------|
| 1       | 505-2174 | 1        | Elbow, Pipe – Gas Connector | 6       | 800-3017-76 | 24       | Screw, Hex Head (M16 x 2.0 x 60) |
| 2       | 501-0838 | 1        | Line, Fuel                  | 7       | 862-0026-58 | 24       | Nut, Hex (M16)                   |
| 3       | 504-0263 | 1        | Valve, Solenoid             | 8       | 850-0114-57 | 24       | Washer, Lock – Spring (M16)      |
| 4       | 338-4443 | 1        | Harness, Extension          | 9       | 526-0399-66 | 48       | Washer, Flat – Steel (M16)       |
| 5       | 155-4109 | 3        | Gasket, Connection          |         |             |          |                                  |

## Gas Valve Begin Spec B

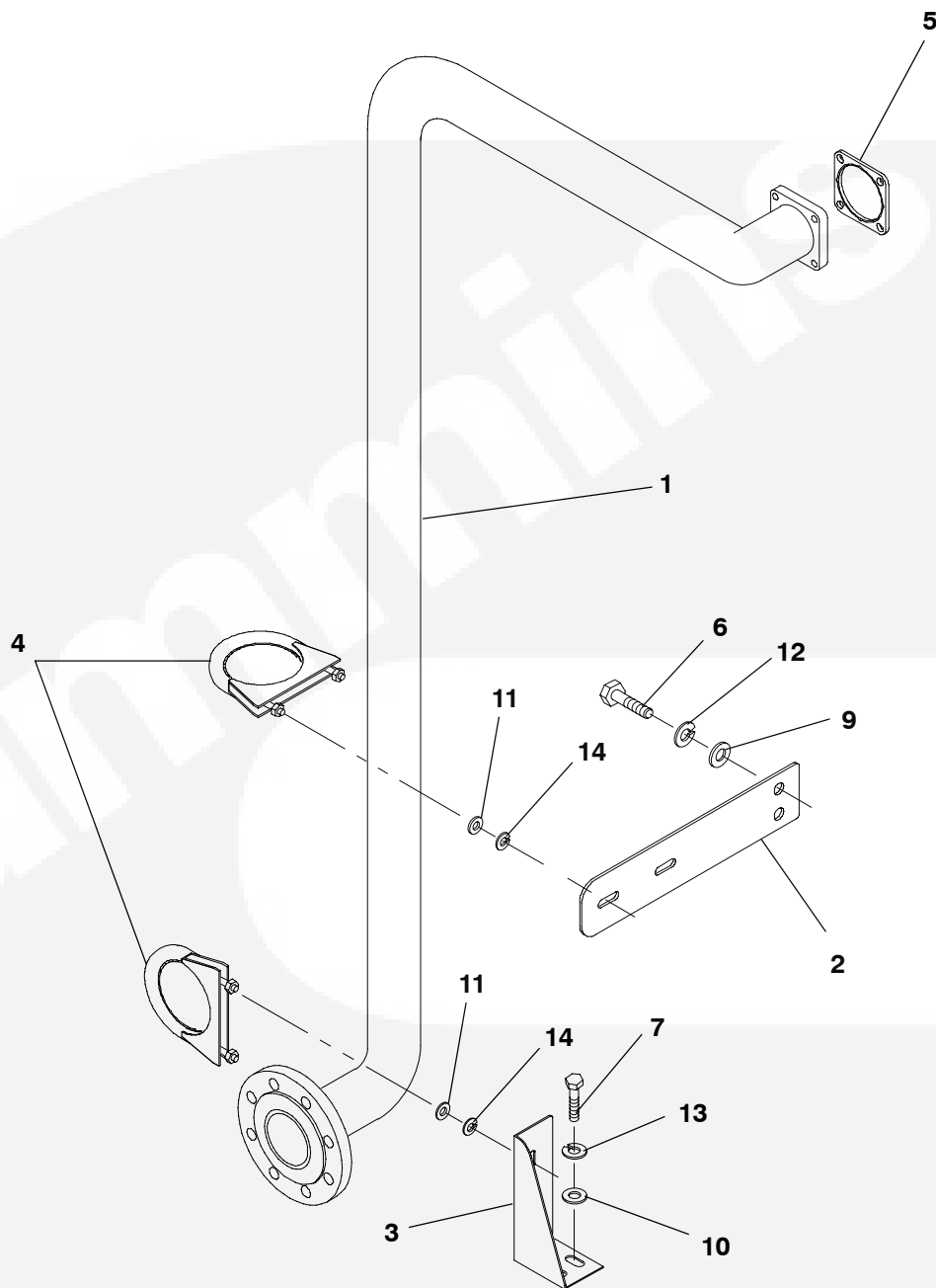


| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                         | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|----------------------------------------------------------|---------|-------------|----------|-----------------------------------|
| 1       | 148-1280-02 | 1        | Bracket, Fuel System – Support                           | 11      | 526-0399-60 | 6        | Washer, Flat (M8)                 |
| 2       | 148-1326    | 1        | Bracket, Fuel System                                     | 12      | 526-0399-64 | 4        | Washer, Flat (M12)                |
| 3       | 154-3182    | 1        | Gasket, Flange – Fuel Line                               | 13      | 526-0399-66 | 48       | Washer, Flat (M16)                |
| 4       | 155-4109    | 3        | Gasket, Flange                                           | 14      | 800-3017-21 | 4        | Screw, Hex Head (M8 x 1.25 x 30)  |
| 5       | 155-4180    | 1        | Clamp, Exhaust                                           | 15      | 800-3017-53 | 4        | Screw, Hex Head (M12 x 1.75 x 25) |
| 6       | 338-4443    | 1        | Harness, Extension                                       | 16      | 800-3017-76 | 22       | Screw, Hex Head (M16 x 2.0 x 60)  |
| 7       | 501-0838    | 1        | Line, Fuel                                               | 17      | 800-3017-78 | 2        | Screw, Hex Head (M16 x 2.0 x 70)  |
| 8       | 501-0846    | 1        | Line, Fuel                                               | 18      | 850-0114-54 | 6        | Washer, Lock (M8)                 |
| 9       | 504-0263    | 1        | Valve, Solenoid – Sub Assembly (Includes Parts Marked *) | 19      | 850-0114-56 | 4        | Washer, Lock (M12)                |
|         | 504-0256    | 1        | * Valve, Solenoid                                        | 20      | 850-0114-57 | 24       | Washer, Lock (M16)                |
|         | 308-1128    | 3        | * Actuator, Switch                                       | 21      | 862-0026-58 | 24       | Nut, Hex (M16)                    |
|         | 505-2228    | 1        | * Coupling, Pipe (3/4")                                  |         |             |          |                                   |
|         | 505-1574    | 1        | * Elbow, Pipe (3/4")                                     |         |             |          |                                   |
|         | 338-4374    | 1        | * Harness, Valve                                         |         |             |          |                                   |
| 10      | 505-2174    | 1        | Elbow, Pipe                                              |         |             |          |                                   |

\* – Parts Included in 504-0263 Sub Assembly

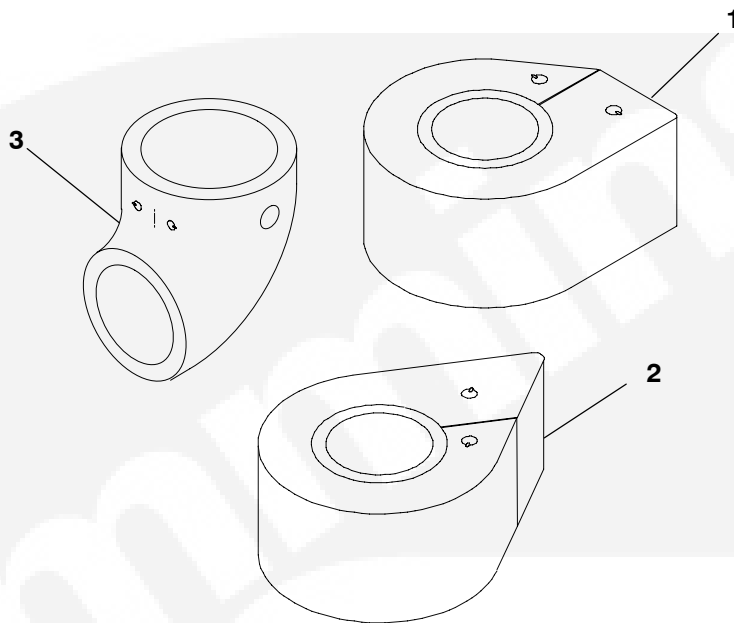


## Fuel Line Spec A



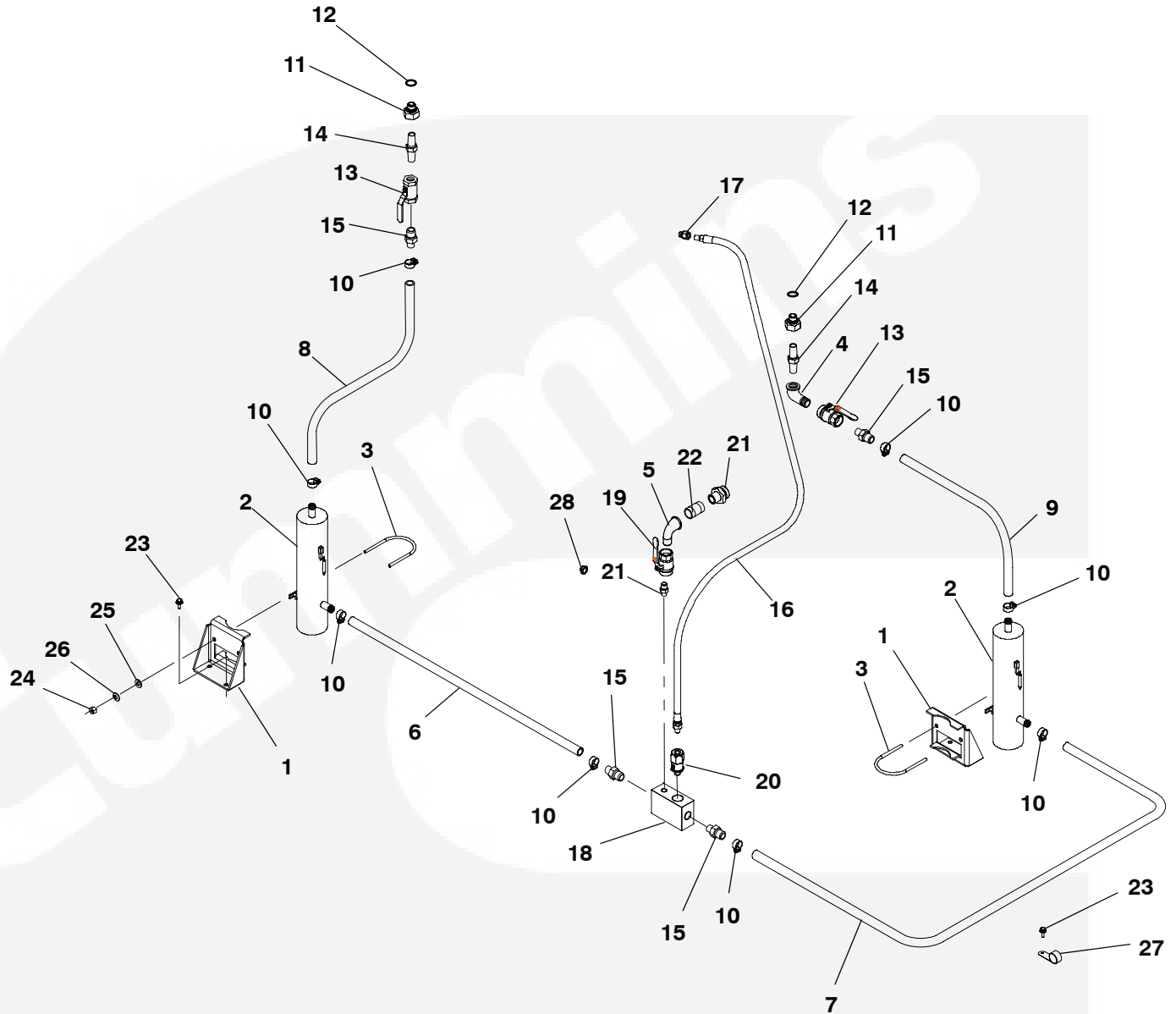
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                   | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|------------------------------------|---------|-------------|----------|----------------------------------|
| 1       | 501-0846    | 1        | Line, Fuel - Gas                   | 8       | 821-6003-03 | 4        | Screw, Hex Head (M8 x 1.25 x 25) |
| 2       | 148-1280-02 | 1        | Bracket, Fuel System - Support     | 9       | 526-0399-64 | 2        | Washer, Flat (M12)               |
| 3       | 148-1281-02 | 1        | Bracket, Fuel System - Support Bed | 10      | 526-0399-62 | 2        | Washer, Flat (M10)               |
| 4       | 155-4180    | 2        | Clamp, Exhaust                     | 11      | 526-0399-60 | 8        | Washer, Flat (M8)                |
| 5       | 154-3182    | 1        | Gasket, Manifold - Fuel Line       | 12      | 850-0114-56 | 2        | Washer, Lock - Spring (M12)      |
| 6       | 800-3017-53 | 2        | Screw, Hex Head (M12 x 1.75 x 25)  | 13      | 850-0114-55 | 2        | Washer, Lock - Spring (M10)      |
| 7       | 800-3017-38 | 2        | Screw, Hex Head (M10 x 1.5 x 30)   | 14      | 850-0114-54 | 8        | Washer, Lock - Spring (M8)       |

## Heat Shield



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                    | REF NO. | PART NO. | QTY USED | PART DESCRIPTION            |
|---------|----------|----------|-------------------------------------|---------|----------|----------|-----------------------------|
| 1       | 155-4470 | 1        | Insulation, Exhaust – Turbo – Left  | 3       | 155-4472 | 2        | Insulation, Exhaust – Elbow |
| 2       | 155-4471 | 1        | Insulation, Exhaust – Turbo – Right |         |          |          |                             |

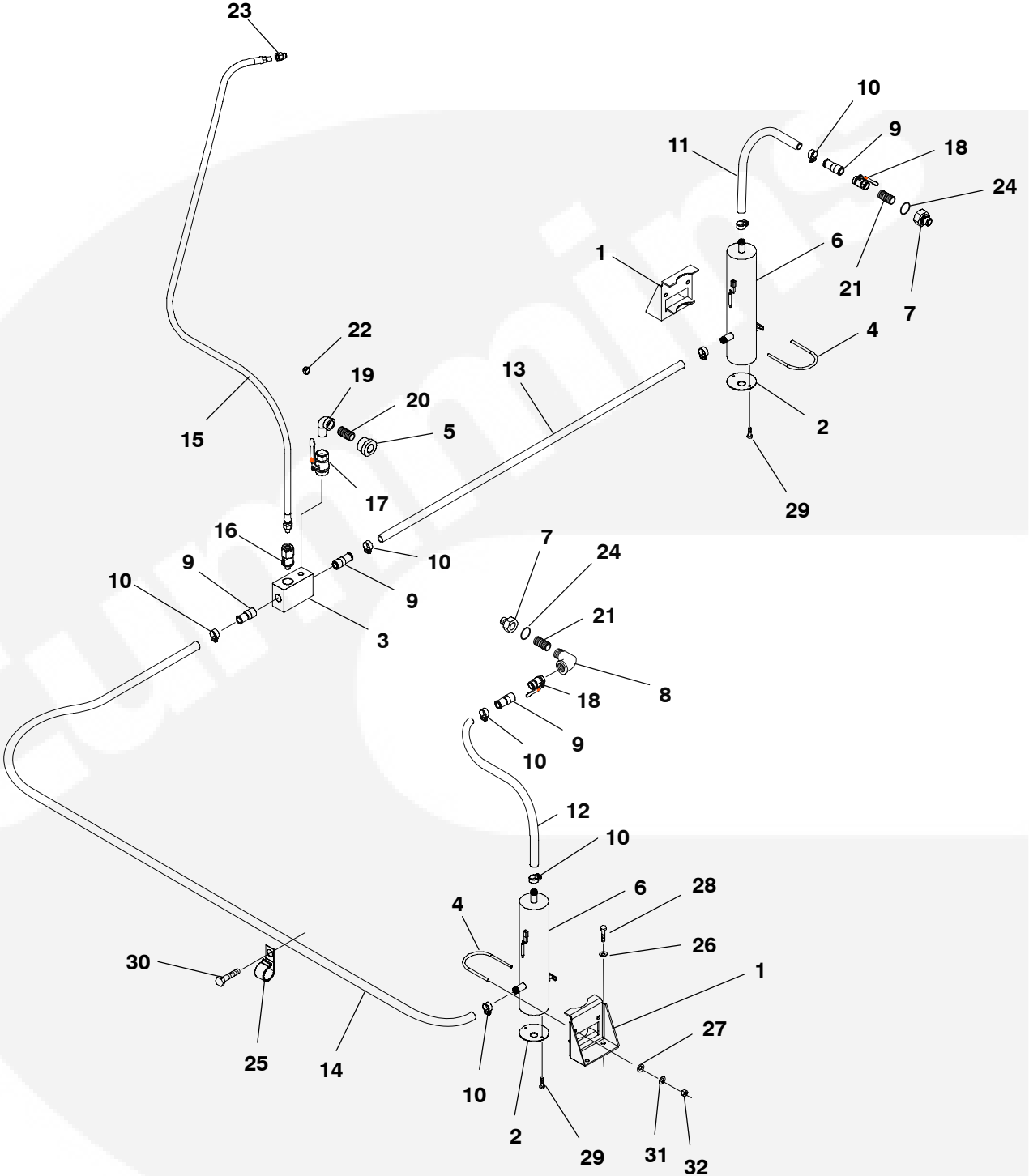
## Coolant Heater Spec A



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                |
|---------|-------------|----------|---------------------------------|
| 1       | 130-4546-01 | 2        | Bracket, Water Heater           |
| 2       | 333-0634-02 | 2        | Heater, Coolant - 6420 Watt     |
| 3       | 155-3451    | 2        | Clamp, Water Heater - 90° (M10) |
| 4       | 502-1369    | 1        | Elbow, M/F - 90° (1/2)          |
| 5       | 505-1574    | 1        | Elbow, M/F - 90° (3/4)          |
| 6       | 503-2204-08 | 1        | Hose, Steam (19mm x 1000)       |
| 7       | 503-2204-09 | 1        | Hose, Steam (19mm x 1700)       |
| 8       | 503-2204-06 | 1        | Hose, Steam (19mm x 300)        |
| 9       | 503-2204-07 | 1        | Hose, Steam (19mm x 800)        |
| 10      | 503-1872-01 | 8        | Clamp, Hose                     |
| 11      | 502-1315    | 2        | Adapter, Pipe - Stor to Female  |
| 12      | 509-0360    | 2        | Seal - "O" Ring                 |
| 13      | 504-0247    | 2        | Valve, Ball (1/2)               |
| 14      | 505-2180    | 2        | Nipple, Pipe (1/2)              |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|----------------------------------|
| 15      | 505-1475    | 4        | Adapter, Hose (1/2)              |
| 16      | 503-2518    | 1        | Hose, Vent                       |
| 17      | 505-2207    | 1        | Adapter, Pipe (M16 x 1.5 x 1/4)  |
| 18      | 133-0233    | 1        | Manifold, Heater                 |
| 19      | 504-0239    | 1        | Valve, Ball (3/4")               |
| 20      | 504-0215    | 1        | Valve, Check (1/4)               |
| 21      | 231-0402-02 | 1        | Adapter, Pipe (M42 x 3/4")       |
| 22      | 505-2086    | 2        | Nipple, Pipe (3/4")              |
| 23      | 821-6003-02 | 6        | Screw, Hex Washer Head (M8 x 20) |
| 24      | 526-0399-63 | 4        | Washer, Flat (M10)               |
| 25      | 862-0026-56 | 4        | Nut, Hex (M10)                   |
| 26      | 850-0114-55 | 4        | Washer, Lock - Spring (M10)      |
| 27      | 518-0548-05 | 2        | Clamp, Hose                      |
| 28      | 505-2203    | 1        | Plug, Pipe (M14 x 1.5)           |

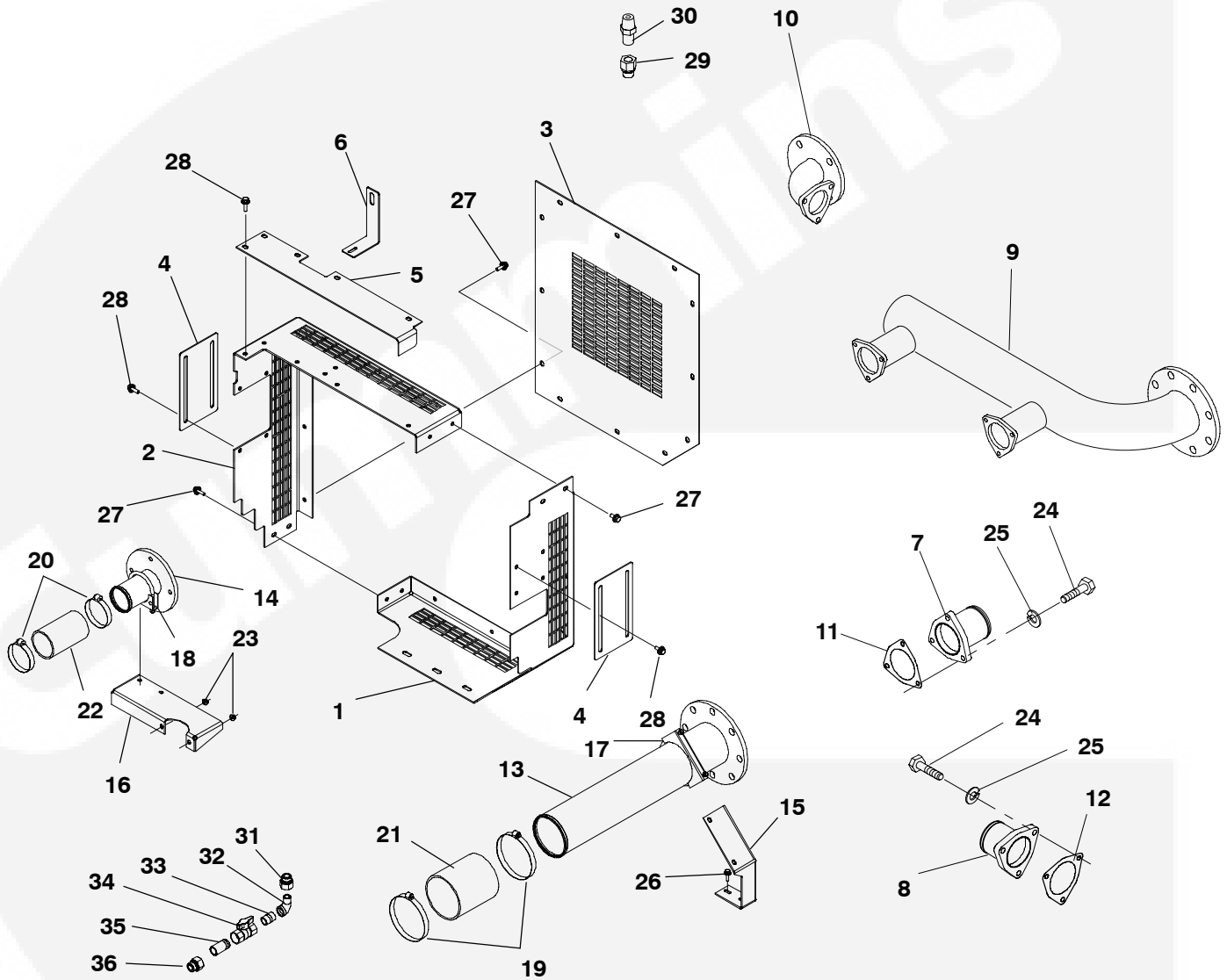
Coolant Heater  
Begin Spec B



## Coolant Heater Begin Spec B

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                        |
|---------|-------------|----------|---------------------------------|---------|-------------|----------|---------------------------------------------------------|
| 1       | 130-4546-01 | 2        | Bracket, Water Heater           | 18      | 504-0247    | 2        | Valve, Ball (1/2)                                       |
| 2       | 130-5391-02 | 2        | Cover, Water Heater             | 19      | 504-1574    | 1        | Elbow, Pipe – 90° (3/4)                                 |
| 3       | 133-0233    | 1        | Manifold, Heater                | 20      | 505-2086    | 2        | Nipple, Pipe (3/4)                                      |
| 4       | 155-3451    | 2        | Clamp, Water Heater – 90° (M10) | 21      | 505-2098    | 2        | Nipple, Pipe (1/2)                                      |
| 5       | 231-0402-02 | 1        | Adapter (M42 x 3/4)             | 22      | 505-2203    | 1        | Plug, Pipe (M14 x 1.5 x 9)                              |
| 6       | 333-0634-02 | 2        | Heater, Coolant – 6420 Watt     | 23      | 505-2207    | 1        | Adapter, Pipe (M16 x 1.5 x 1/4)                         |
| 7       | 502-1315    | 2        | Adapter, Pipe – Stor to Female  | 24      | 509-0360    | 2        | Seal – “O” Ring                                         |
| 8       | 502-1369    | 1        | Elbow, M/F – 90° (1/2)          | 25      | 518-0548-05 | 3        | Clamp, Hose                                             |
| 9       | 502-1475    | 4        | Adapter, Hose (1/2 x 19)        | 26      | 526-0399-62 | 4        | Washer, Flat (M10)                                      |
| 10      | 503-1872-01 | 8        | Clamp, Hose                     | 27      | 526-0399-63 | 4        | Washer, Flat (M10)                                      |
| 11      | 503-2204-06 | 1        | Hose, Steam (19mm x 300)        | 28      | 800-3017-37 | 4        | Screw, Hex Head (M10 x 1.5 x 25)                        |
| 12      | 503-2204-07 | 1        | Hose, Steam (19mm x 800)        | 29      | 815-0464    | 4        | Screw, Round Head – Thread Cutting – W/IT (#8-32 x 1.0) |
| 13      | 503-2204-08 | 1        | Hose, Steam (19mm x 1000)       | 30      | 821-6003-02 | 3        | Screw, Hex Washer Head (M8 x 20)                        |
| 14      | 503-2204-09 | 1        | Hose, Steam (19mm x 1700)       | 31      | 850-0114-55 | 4        | Washer, Lock – Spring (M10)                             |
| 15      | 503-2518    | 1        | Hose, Vent                      | 32      | 862-0026-56 | 4        | Nut, Hex (M10)                                          |
| 16      | 504-0215    | 1        | Valve, Check (1/4)              |         |             |          |                                                         |
| 17      | 504-0239    | 1        | Valve, Ball (3/4)               |         |             |          |                                                         |

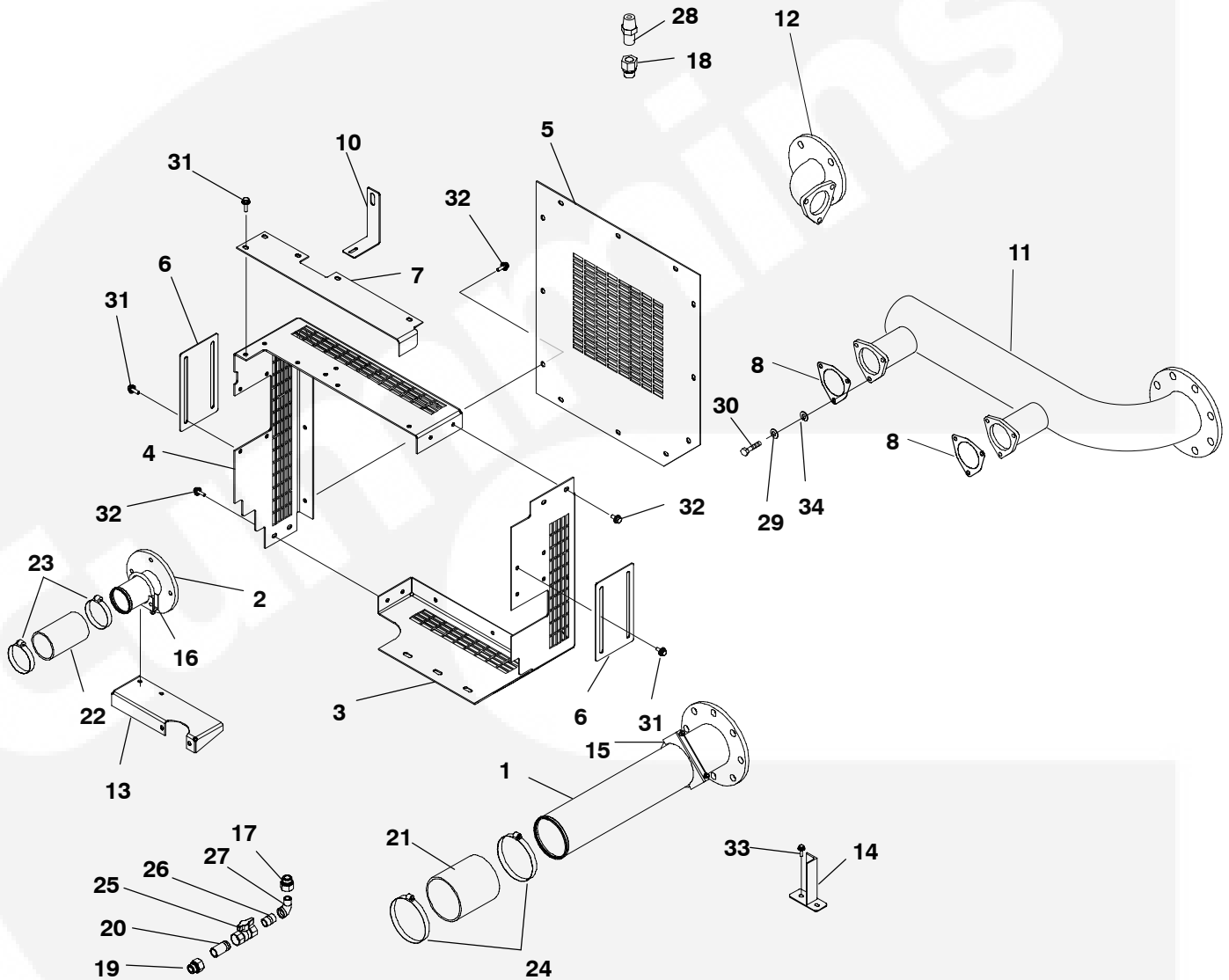
# Remote Radiator Spec A



## Remote Radiator Spec A

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                          |
|---------|-------------|----------|-------------------------------------------------|---------|-------------|----------|-------------------------------------------|
| 1       | 130-5279-02 | 1        | Guard, Damper (Left Side)                       | 16      | 130-6902-02 | 1        | Bracket, Water Inlet (LTA)                |
| 2       | 130-5280-02 | 1        | Guard, Damper (Right Side)                      | 17      | 155-3290    | 1        | Clamp, Muffler (5")                       |
| 3       | 130-5282-02 | 1        | Cover, Damper                                   | 18      | 155-4180    | 1        | Clamp, Muffler (3")                       |
| 4       | 130-5390-02 | 2        | Plate, Cover                                    | 19      | 503-1872-09 | 2        | Clamp, Hose                               |
| 5       | 130-5393-02 | 1        | Plate, Cover (Top)                              | 20      | 503-1872-05 | 2        | Clamp, Hose                               |
| 6       | 130-5995-02 | 1        | Bracket, Support                                | 21      | 503-1726    | 1        | Hose, Radiator (5.00 x 6.00)              |
| 7       | 505-2125-02 | 2        | Flange, Pipe – Water Outlet<br>(No Flanges)     | 22      | 503-1728    | 1        | Hose, Radiator (3.00 x 5.50)              |
| 8       | 505-2124-02 | 1        | Flange, Pipe – Water Outlet<br>LTA (No Flanges) | 23      | 870-2065-03 | 2        | Nut, Hex – Flange (M8)                    |
| 9       |             |          | Tube, Water (HT Outlet)                         | 24      | 800-3017-38 | 9        | Screw, Cap – Hex Head (M10 x<br>1.5 x 30) |
|         | 130-6052-02 | 1        | ANSI                                            | 25      | 850-0114-55 | 9        | Washer, Lock – Split (M10)                |
|         | 130-6051-02 | 1        | BS10                                            | 26      | 821-6003-03 | 3        | Screw, Hex Head (M8 x 1.25 x<br>25)       |
| 10      |             |          | Tube, Water (LTA Outlet)                        | 27      | 821-6003-02 | 18       | Screw, Hex Head (M8 x 1.25 x<br>20)       |
|         | 130-6053-02 | 1        | ANSI                                            | 28      | 821-6003-01 | 13       | Screw, Hex Head (M8 x 1.25 x<br>16)       |
|         | 130-6054-02 | 1        | BS10                                            | 29      | 502-1318    | 2        | Adapter, Pipe (M14 x 1/4)                 |
| 11      | 130-5900    | 2        | Gasket, Radiator (Water Outlet)                 | 30      | 505-2131    | 2        | Adapter, Pipe (1/4 x 1/4)                 |
| 12      | 130-5899    | 1        | Gasket, Radiator (Water Outlet<br>LTA)          | 31      | 231-0402-02 | 1        | Adapter, Pipe (M42 x 3/4)                 |
| 13      |             |          | Tube, Water Inlet                               | 32      | 505-1574    | 1        | Elbow, Pipe (3/4 x 90°)                   |
|         | 130-4517-01 | 1        | ANSI                                            | 33      | 505-0102    | 2        | Nipple, Pipe (3/4 x 1.38)                 |
|         | 130-5993-02 | 1        | BS10                                            | 34      | 504-0239    | 2        | Valve, Ball (3/4)                         |
| 14      |             |          | Tube, Water Inlet                               | 35      | 502-1457    | 2        | Hose, Connector (3/4)                     |
|         | 130-5081-02 | 1        | LTA – ANSI                                      | 36      | 502-1326    | 1        | Adapter, Pipe (M33 x 3/4)                 |
|         | 130-5994-02 | 1        | BS10                                            |         |             |          |                                           |
| 15      | 130-6903-02 | 1        | Bracket, Tube                                   |         |             |          |                                           |

# Remote Radiator Begin Spec B

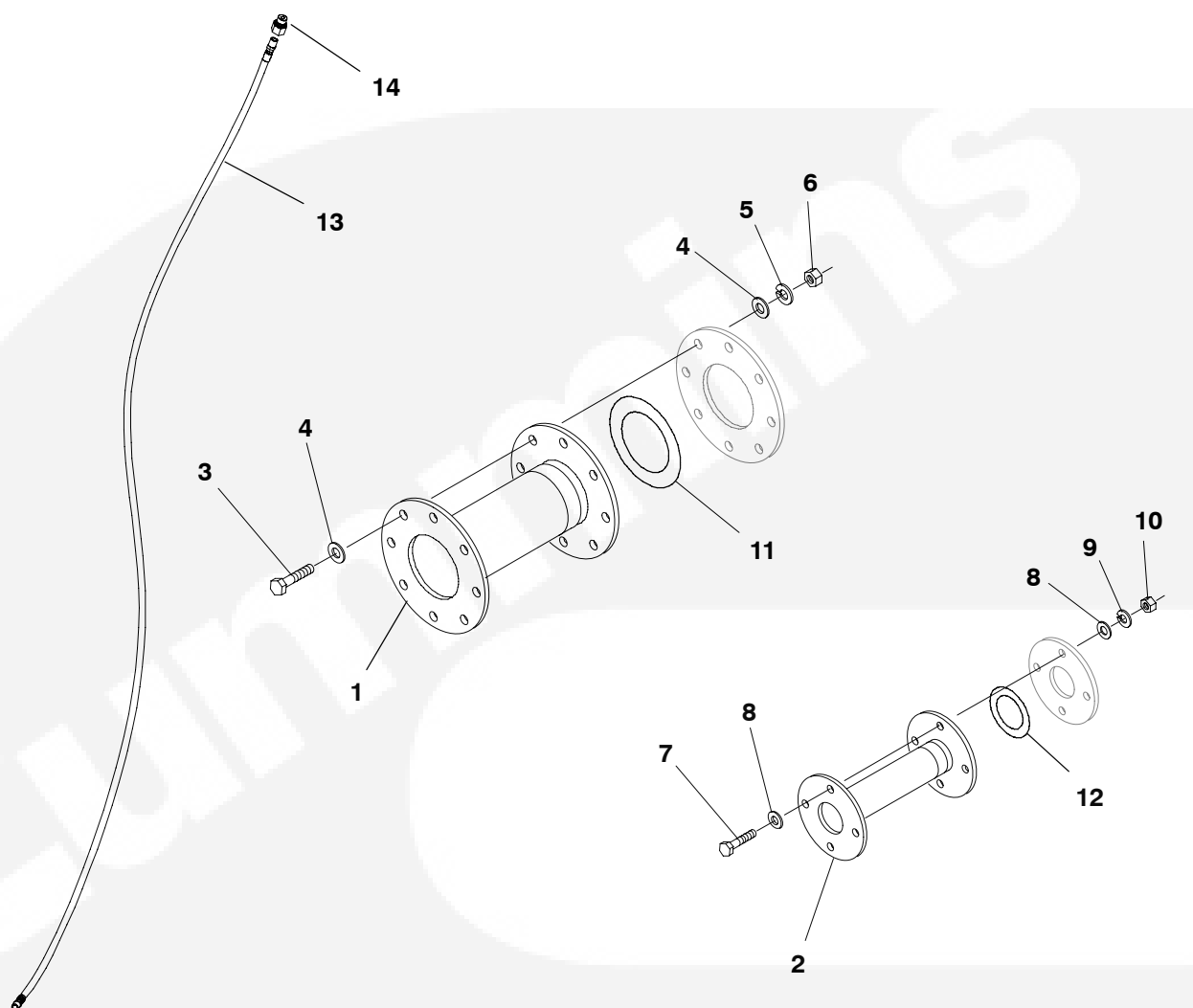




## Remote Radiator Begin Spec B

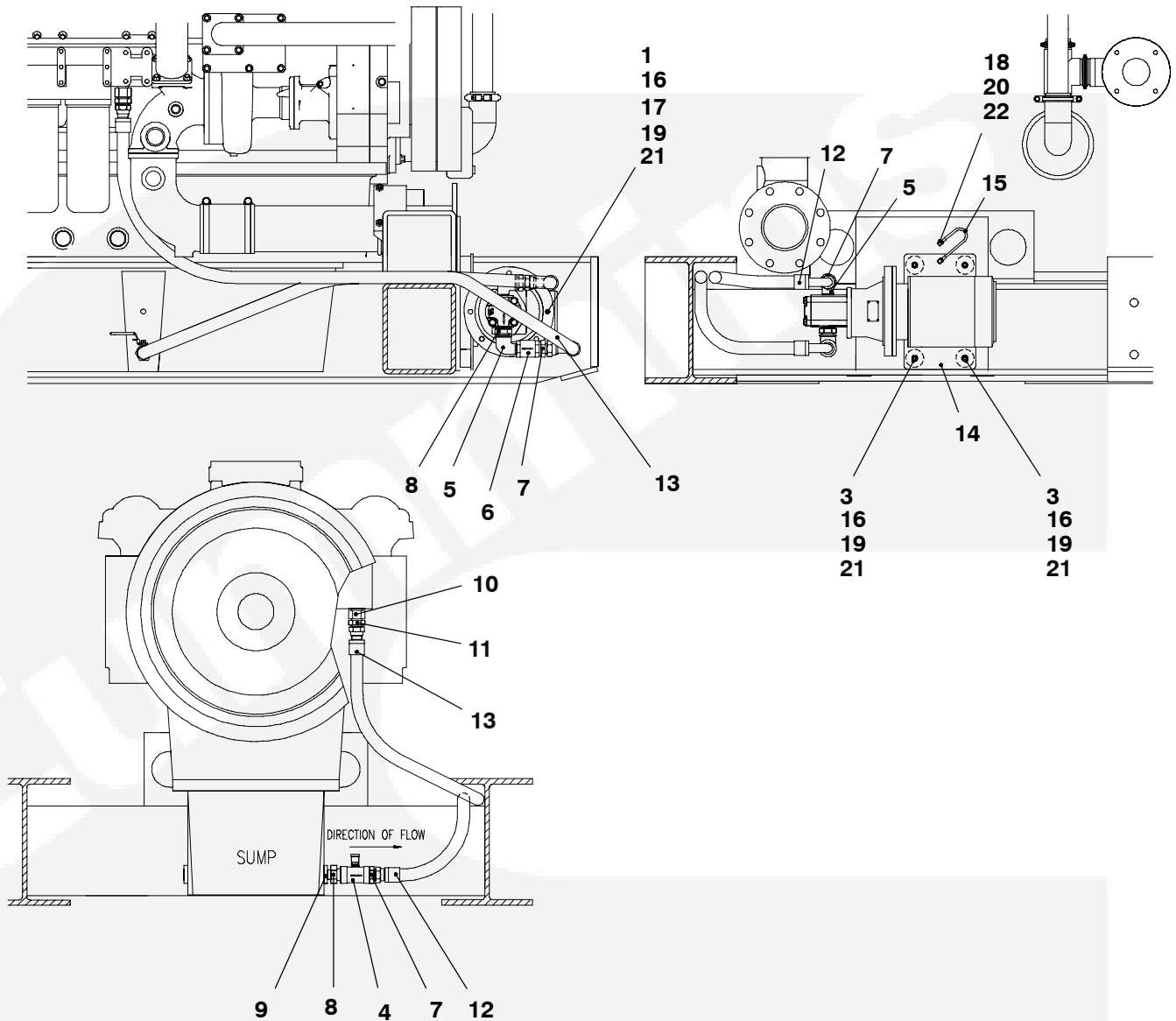
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                    | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                       |
|---------|-------------|----------|-------------------------------------|---------|-------------|----------|----------------------------------------|
| 1       |             |          | Tube, Water Inlet                   | 17      | 231-0402-02 | 1        | Adapter, Pipe (M42 x 3/4)              |
|         | 130-4517-01 | 1        | ANSI                                | 18      | 502-1318    | 2        | Adapter, Pipe (M14 x 1/4)              |
|         | 130-5994-02 | 1        | LTA-BS10                            | 19      | 502-1326    | 1        | Adapter, Pipe (M33 x 3/4)              |
|         | 130-5993-02 | 1        | BS10                                | 20      | 502-1457    | 2        | Hose, Connector (3/4)                  |
| 2       |             |          | Tube, Water Inlet                   | 21      | 503-1726    | 1        | Hose, Radiator (5.00 x 6.00)           |
|         | 130-5081-02 | 1        | LTA - ANSI                          | 22      | 503-1728    | 1        | Hose, Radiator (3.00 x 5.50)           |
|         | 130-6051-02 | 1        | BS10                                | 23      | 503-1872-05 | 2        | Clamp, Hose                            |
| 3       | 130-5279-02 | 1        | Guard, Damper (Left Side)           | 24      | 503-1872-09 | 2        | Clamp, Hose                            |
| 4       | 130-5280-02 | 1        | Guard, Damper (Right Side)          | 25      | 504-0239    | 2        | Valve, Ball (3/4)                      |
| 5       | 130-5282-02 | 1        | Cover, Damper                       | 26      | 505-0102    | 2        | Nipple, Pipe (3/4 x 1.38)              |
| 6       | 130-5390-02 | 2        | Plate, Cover                        | 27      | 505-1574    | 1        | Elbow, Pipe (3/4 x 90°)                |
| 7       | 130-5393-02 | 1        | Plate, Cover (Top)                  | 28      | 505-2131    | 2        | Adapter, Pipe (1/4 x 1/4)              |
| 8       | 130-5899    | 2        | Gasket, Radiator (Water Outlet LTA) | 29      | 526-0399-62 | 9        | Washer, Flat (M10)                     |
| 9       | 130-5900    | 1        | Gasket, Radiator (Water Outlet)     | 30      | 800-3017-38 | 9        | Screw, Cap - Hex Head (M10 x 1.5 x 30) |
| 10      | 130-5995-02 | 1        | Bracket, Support                    | 31      | 821-6003-01 | 13       | Screw, Hex Head (M8 x 1.25 x 16)       |
| 11      | 130-6052-02 | 1        | Tube, Water (HT Outlet) - ANSI      | 32      | 821-6003-02 | 19       | Screw, Hex Head (M8 x 1.25 x 20)       |
| 12      |             |          | Tube, Water                         | 33      | 821-6003-03 | 2        | Screw, Hex Head (M8 x 1.25 x 25)       |
|         | 130-6054-02 | 1        | LTA Outlet - ANSI                   |         |             |          |                                        |
|         | 130-6053-02 | 1        | HT Outlet - BS10                    |         |             |          |                                        |
| 13      | 130-6902-02 | 1        | Bracket, Tube (Water Inlet)         | 34      | 850-0114-55 | 9        | Washer, Lock - Split (M10)             |
| 14      | 130-7130-02 | 1        | Bracket, Tube (Water Outlet)        | 35      | 130-5993-02 | 1        | Tube, Water Inlet - BS10               |
| 15      | 155-3290    | 1        | Clamp, Muffler (5")                 | 36      | 130-6053-02 | 1        | Tube, Water Outlet - BS10              |
| 16      | 155-4180    | 1        | Clamp, Muffler                      |         |             |          |                                        |

## Radiator Kit



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|-------------|----------|----------------------------------|---------|-------------|----------|----------------------------|
| 1       | 501-0833    | 2        | Hose Assembly (5")               | 8       | 526-0399-70 | 32       | Washer, Flat (M20)         |
|         | 501-0834    | 2        | ANSI                             | 9       | 850-0114-58 | 16       | Washer, Lock - Split (M20) |
| 2       | 501-0835    | 2        | Hose Assembly (3")               | 10      | 862-0026-59 | 16       | Nut, Hex (M20 x 2.0)       |
|         | 501-0836    | 2        | ANSI                             | 11      | 130-6165    | 2        | Gasket, Radiator (5")      |
| 3       | 800-3017-76 | 8        | BS10                             |         | 130-6164    | 2        | ANSI                       |
| 4       | 526-0399-66 | 16       | Screw, Hex Head (M16 x 2.0 x 60) | 12      | 130-6163    | 2        | BS10                       |
| 5       | 850-0114-57 | 8        | Washer, Flat (M16)               |         | 130-6162    | 2        | Gasket, Radiator (3")      |
| 6       | 862-0026-58 | 8        | Washer, Lock - Spring (M16)      | 13      | 503-2129-04 | 2        | ANSI                       |
| 7       | 800-3017-92 | 16       | Nut, Hex (M16 x 2.0)             | 14      | 502-1318    | 2        | BS10                       |
|         |             |          | Screw, Hex Head (M20 x 2.5 x 65) |         |             |          | Line, Radiator Vent        |
|         |             |          |                                  |         |             |          | Adapter, Pipe (M14 x 1/4") |

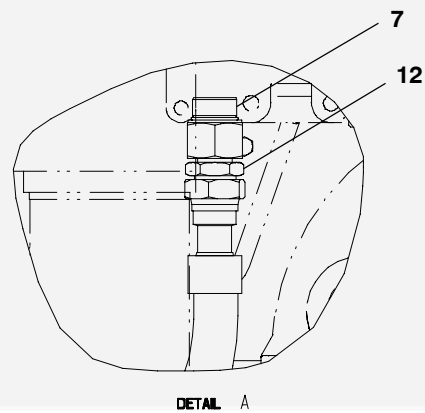
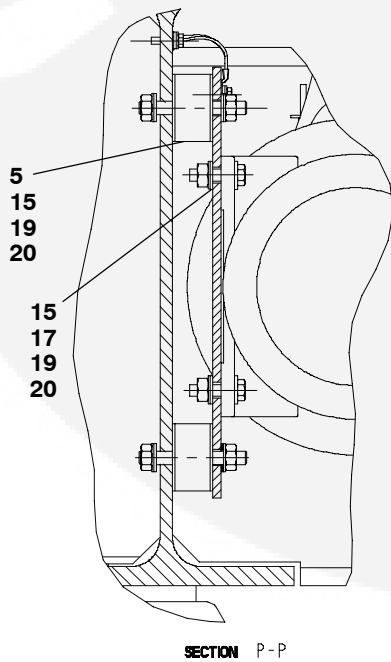
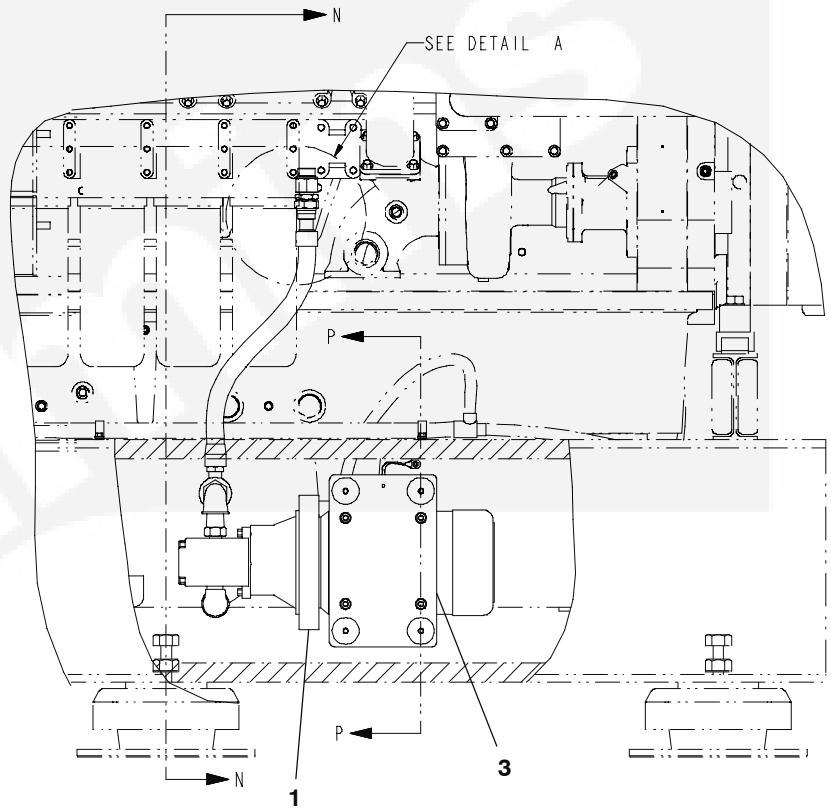
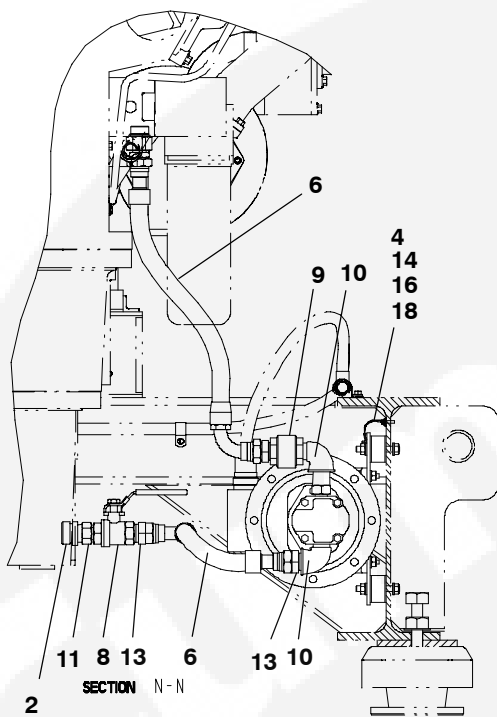
# Oil System Priming Spec A



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|-------------|----------|----------------------------|
| 1       | 120-1351    | 1        | Pump, Oil                  |
| 2       | 403-4910    | 2        | Pad, Mounting - Purple     |
| 3       | 403-4909    | 2        | Pad, Mounting - Yellow     |
| 4       | 504-0227    | 1        | Valve, Ball                |
| 5       | 505-2061    | 2        | Elbow, Pipe (1" x 90°)     |
| 6       | 504-2061    | 1        | Valve, Check               |
| 7       | 505-2085    | 2        | Adapter, Pipe (1" x 1")    |
| 8       | 505-2077    | 2        | Adapter, Pipe (1" x 3/4")  |
| 9       | 231-0402-02 | 1        | Adapter, Pipe (M42 x 3/4") |
| 10      | 502-1326    | 1        | Adapter, Pipe (M33 x 3/4") |
| 11      | 505-2083    | 1        | Adapter, Pipe (3/4" x 1")  |
| 12      | 501-0820    | 1        | Hose Assembly (1665 mm)    |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|----------------------------------|
| 13      | 501-0819    | 1        | Hose Assembly (2280 mm)          |
| 14      | 319-4671-02 | 1        | Plate, Mounting                  |
| 15      | 337-3582-06 | 1        | Strap, Ground                    |
| 16      | 862-0026-56 | 12       | Nut, Hex (M10 x 1.5)             |
| 17      | 800-3017-40 | 4        | Screw, Hex Head (M10 x 1.5 x 40) |
| 18      | 800-3017-03 | 2        | Screw, Hex Head (M6 x 1.0 x 16)  |
| 19      | 526-0399-62 | 16       | Washer, Flat (M10)               |
| 20      | 526-0399-58 | 2        | Washer, Flat (M6)                |
| 21      | 850-0114-55 | 12       | Washer, Lock - Split (M10)       |
| 22      | 850-0114-53 | 2        | Washer, Lock - Split (M6)        |

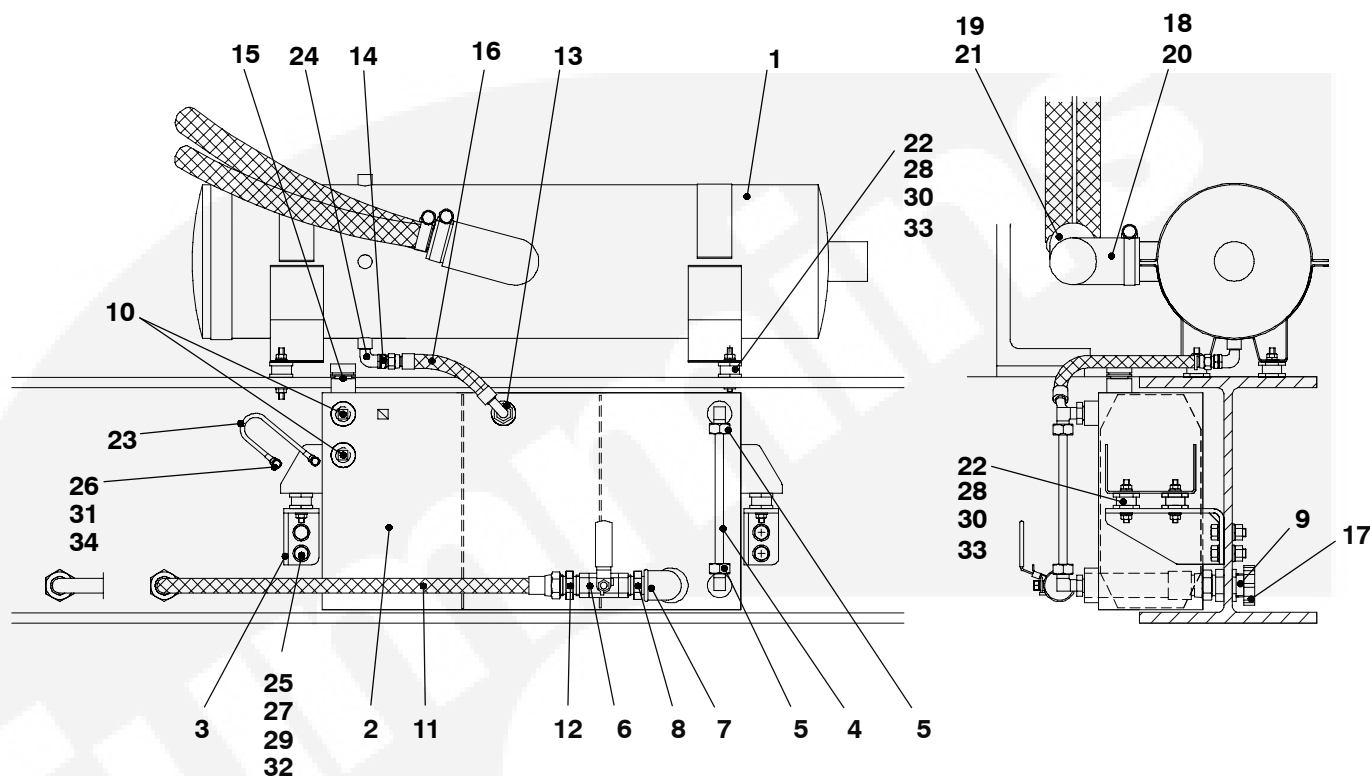
# Oil System Priming Begin Spec B



**Oil System  
Priming  
Begin Spec B**

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION        | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION              |
|------------|-------------|-------------|----------------------------|------------|-------------|-------------|----------------------------------|
| 1          | 120-1351    | 1           | Pump, Oil – Prelube        | 12         | 505-2083    | 1           | Adapter, Pipe (3/4" x 1")        |
| 2          | 231-0402-02 | 1           | Adapter, Pipe (M42 x 3/4") | 13         | 505-2085    | 3           | Adapter, Pipe (1" x 1")          |
| 3          | 319-4671-02 | 1           | Plate, Mounting            | 14         | 526-0399-58 | 2           | Washer, Flat (M6)                |
| 4          | 337-3582-06 | 1           | Strap, Ground              | 15         | 526-0399-62 | 16          | Washer, Flat (M10)               |
| 5          | 403-4910    | 4           | Pad, Mounting – Purple     | 16         | 800-3017-04 | 2           | Screw, Hex Head (M6 x 1.0 x 20)  |
| 6          | 501-0760    | 2           | Hose                       | 17         | 800-3017-39 | 4           | Screw, Hex Head (M10 x 1.5 x 35) |
| 7          | 502-1326    | 1           | Adapter, Pipe (M33 x 3/4") | 18         | 850-0114-53 | 2           | Washer, Lock – Split (M6)        |
| 8          | 504-0227    | 1           | Valve, Ball                | 19         | 850-0114-55 | 12          | Washer, Lock – Split (M10)       |
| 9          | 504-0261    | 1           | Valve, Check               | 20         | 862-0026-56 | 12          | Nut, Hex (M10 x 1.5)             |
| 10         | 505-2061    | 2           | Adapter, Pipe (1" – 90°)   |            |             |             |                                  |
| 11         | 505-2077    | 2           | Adapter, Pipe (1" x 3/4")  |            |             |             |                                  |

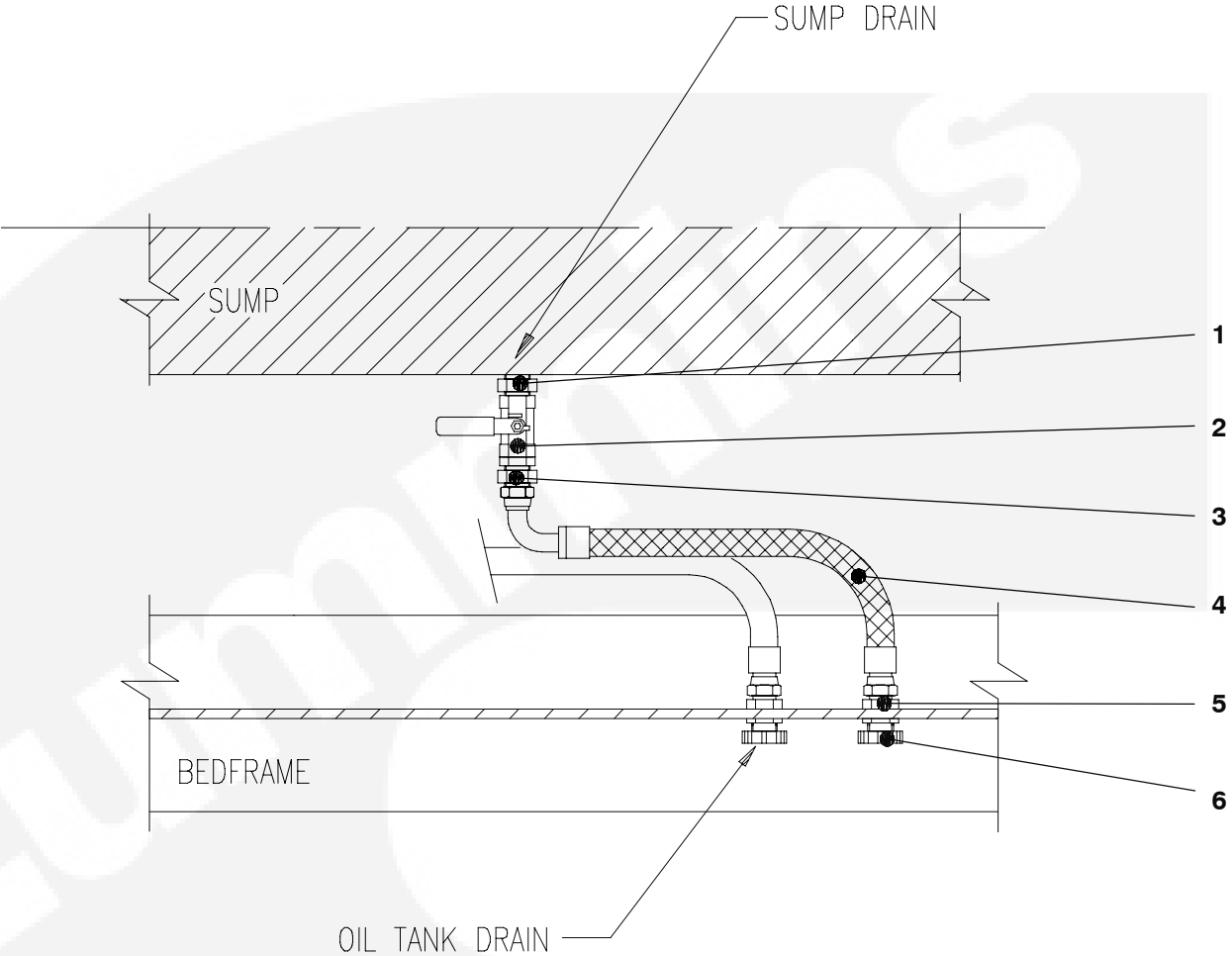
## Oil System Breather



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION            |
|---------|-------------|----------|-----------------------------|
| 1       | 122-0862-01 | 1        | Filter, Oil                 |
| 2       | 102-1507-02 | 1        | Tank, Oil - Dirty           |
| 3       | 403-5251-02 | 2        | Bracket, Tank               |
| 4       | 123-2205    | 1        | Tube, Oil Indicator         |
| 5       | 505-2069    | 2        | Elbow, Pipe (1/2")          |
| 6       | 504-0227    | 1        | Valve, Ball                 |
| 7       | 505-2061    | 1        | Elbow, Pipe (1" x 90°)      |
| 8       | 505-2068    | 1        | Adapter, Pipe (1" x 1")     |
| 9       | 505-2070    | 1        | Adapter, Pipe               |
| 10      | 193-0566    | 2        | Sensor, Level               |
| 11      | 501-0821    | 1        | Hose Assembly               |
| 12      | 505-2085    | 1        | Adapter, Pipe (1" x 1")     |
| 13      | 502-1441    | 2        | Adapter, Pipe (1/2" x 1/2") |
| 14      | 505-2052    | 1        | Adapter, Pipe (1/2" x 1/4") |
| 15      | 123-2204    | 1        | Adapter, Breather           |
| 16      | 501-0823    | 1        | Hose, Assembly              |
| 17      | 123-2198    | 1        | Cap, Oil Fill               |
| 18      | 503-2364    | 1        | Elbow, Hose                 |

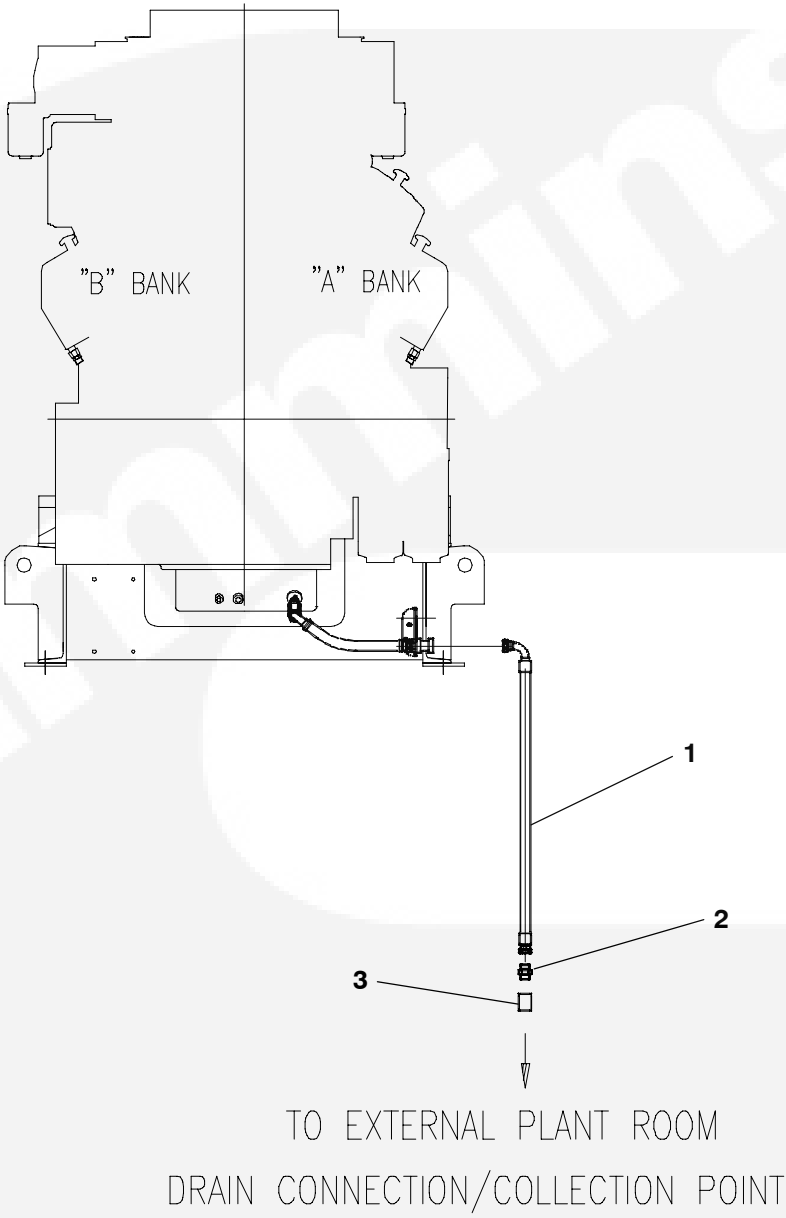
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|-----------------------------------|
| 19      | 123-2241-02 | 1        | Tube, Breather                    |
| 20      | 503-2373    | 2        | Clamp, Hose                       |
| 21      | 503-1870-02 | 2        | Clamp, Hose                       |
| 22      | 403-4916    | 8        | Pad, Mounting                     |
| 23      | 337-3582-06 | 1        | Strap, Ground                     |
| 24      | 505-2231    | 1        | Elbow, Pipe (1/4" x 90°)          |
| 25      | 800-3017-56 | 4        | Screw, Hex Head (M12 x 1.75 x 40) |
| 26      | 800-3017-03 | 2        | Screw, Hex Head (M6 x 1.0 x 16)   |
| 27      | 862-0026-57 | 4        | Nut, Hex (M12 x 1.75)             |
| 28      | 862-0026-55 | 12       | Nut, Hex (M8 x 1.25)              |
| 29      | 526-0399-64 | 4        | Washer, Flat (M12)                |
| 30      | 526-0399-60 | 12       | Washer, Flat (M8)                 |
| 31      | 526-0399-58 | 2        | Washer, Flat (M6)                 |
| 32      | 850-0114-56 | 4        | Washer, Spring (M12)              |
| 33      | 850-0114-54 | 12       | Washer, Spring (M8)               |
| 34      | 850-0114-53 | 2        | Washer, Lock - Spring (M6)        |

Oil Drain  
Sump  
Spec A



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION         | REF NO. | PART NO. | QTY USED | PART DESCRIPTION        |
|---------|-------------|----------|--------------------------|---------|----------|----------|-------------------------|
| 1       | 505-2167-02 | 1        | Adapter, Pipe (M27 x 1") | 4       | 501-0821 | 1        | Hose Assembly (1" x 1") |
| 2       | 504-0227    | 1        | Valve, Ball              | 5       | 505-2070 | 1        | Adapter, Pipe (1")      |
| 3       | 505-2085    | 1        | Adapter, Pipe (1" x 1")  | 6       | 123-2198 | 1        | Cap, Oil Fill           |

Oil Drain  
Sump  
Begin Spec B



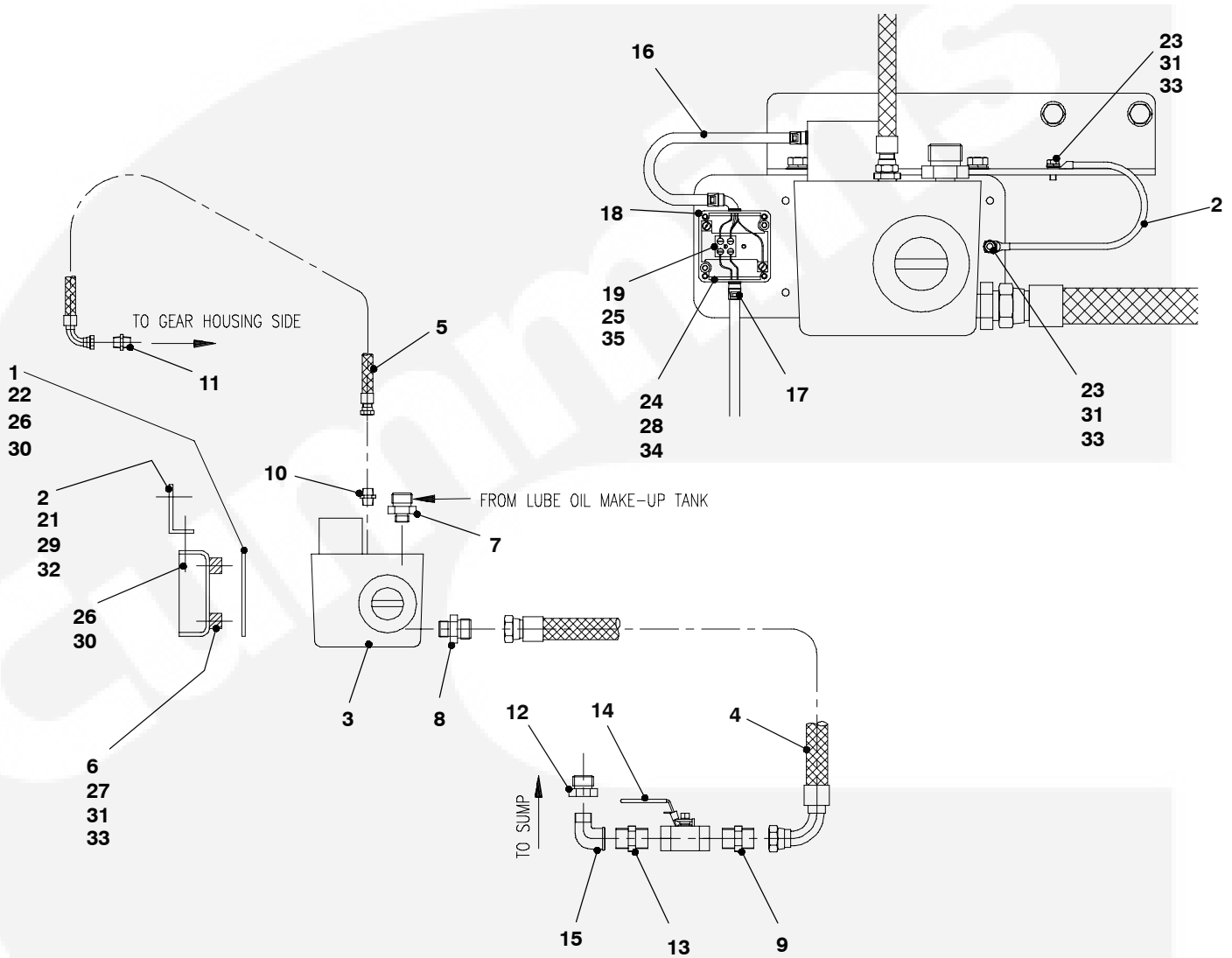
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION | REF NO. | PART NO. | QTY USED | PART DESCRIPTION |
|---------|----------|----------|------------------|---------|----------|----------|------------------|
| 1       | 501-0769 | 1        | Hose             | 3       | 502-1442 | 1        | Adapter, Hose    |
| 2       | 505-2085 | 1        | Adapter, Pipe    |         |          |          |                  |



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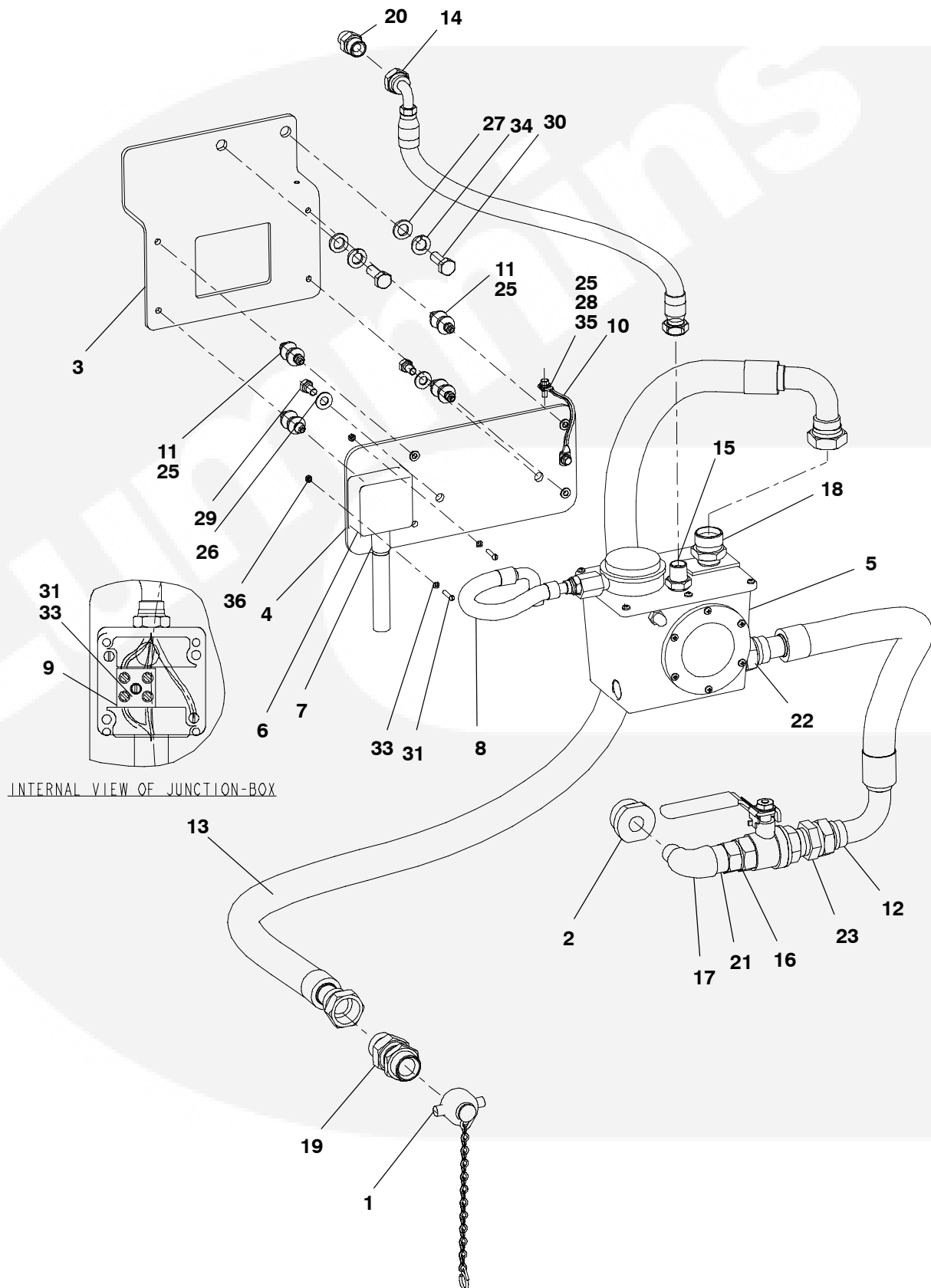
# Oil System Oil Make-Up Spec A



**Oil System  
Oil Make-Up  
Spec A**

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION            | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                        |
|------------|-------------|-------------|--------------------------------|------------|-------------|-------------|--------------------------------------------|
| 1          | 305-1011-02 | 1           | Bracket, Regulator             | 21         | 800-3017-54 | 2           | Screw, Hex Head (M12 x 1.75 x 30)          |
| 2          | 305-1019-02 | 1           | Bracket, Oil - Make-Up Support | 22         | 800-3017-35 | 2           | Screw, Hex Head (M10 x 1.5 x 16)           |
| 3          | 309-0679    | 1           | Switch, Level                  | 23         | 800-3017-03 | 2           | Screw, Hex Head (M6 x 1.0 x 16)            |
| 4          | 501-0760    | 1           | Hose Assembly                  | 24         | 815-1540-21 | 2           | Screw, Flat Head - Slotted (M4 x 0.7 x 20) |
| 5          | 501-0781    | 1           | Hose Assembly                  | 25         | 815-1540-08 | 1           | Screw, Flat Head - Slotted (M3 x 0.5 x 20) |
| 6          | 403-4911    | 4           | Pad, Mounting                  | 26         | 862-0026-56 | 2           | Nut, Hex (M10 x 1.5)                       |
| 7          | 505-2048    | 1           | Adapter, Pipe (1/2" x 1")      | 27         | 862-0026-54 | 8           | Nut, Hex (M6 x 1.0)                        |
| 8          | 505-2083    | 1           | Adapter, Pipe (3/4" x 1")      | 28         | 862-0026-52 | 2           | Nut, Hex (M4 x 0.7)                        |
| 9          | 505-2085    | 1           | Adapter, Pipe (1" x 1")        | 29         | 526-0399-64 | 2           | Washer, Flat (M12)                         |
| 10         | 502-1441    | 1           | Adapter, Pipe (1/2" x 1/2")    | 30         | 526-0399-62 | 4           | Washer, Flat (M10)                         |
| 11         | 505-2074    | 1           | Adapter, Pipe (M18 x 1/2")     | 31         | 526-0399-58 | 10          | Washer, Flat (M16)                         |
| 12         | 231-0402-02 | 1           | Adapter, Pipe (M42 x 3/4")     | 32         | 850-0114-56 | 2           | Washer, Lock - Spring (M12)                |
| 13         | 505-2077    | 1           | Adapter, Pipe (1" x 3/4")      | 33         | 850-0114-53 | 10          | Washer, Lock - Spring (M6)                 |
| 14         | 504-0227    | 1           | Valve, Ball                    | 34         | 850-0114-51 | 3           | Washer, Lock - Spring (M4)                 |
| 15         | 505-1574    | 1           | Elbow, Pipe (3/4" x 90°)       | 35         | 850-0114-50 | 1           | Washer, Lock - Spring (M3)                 |
| 16         | 331-0617    | 1           | Conduit                        |            |             |             |                                            |
| 17         | 331-0614    | 1           | Adapter, Conduit               |            |             |             |                                            |
| 18         | 330-0159    | 1           | Box, Junction                  |            |             |             |                                            |
| 19         | 332-3023    | 1           | Block, Terminal                |            |             |             |                                            |
| 20         | 337-3582-06 | 1           | Strap, Ground                  |            |             |             |                                            |

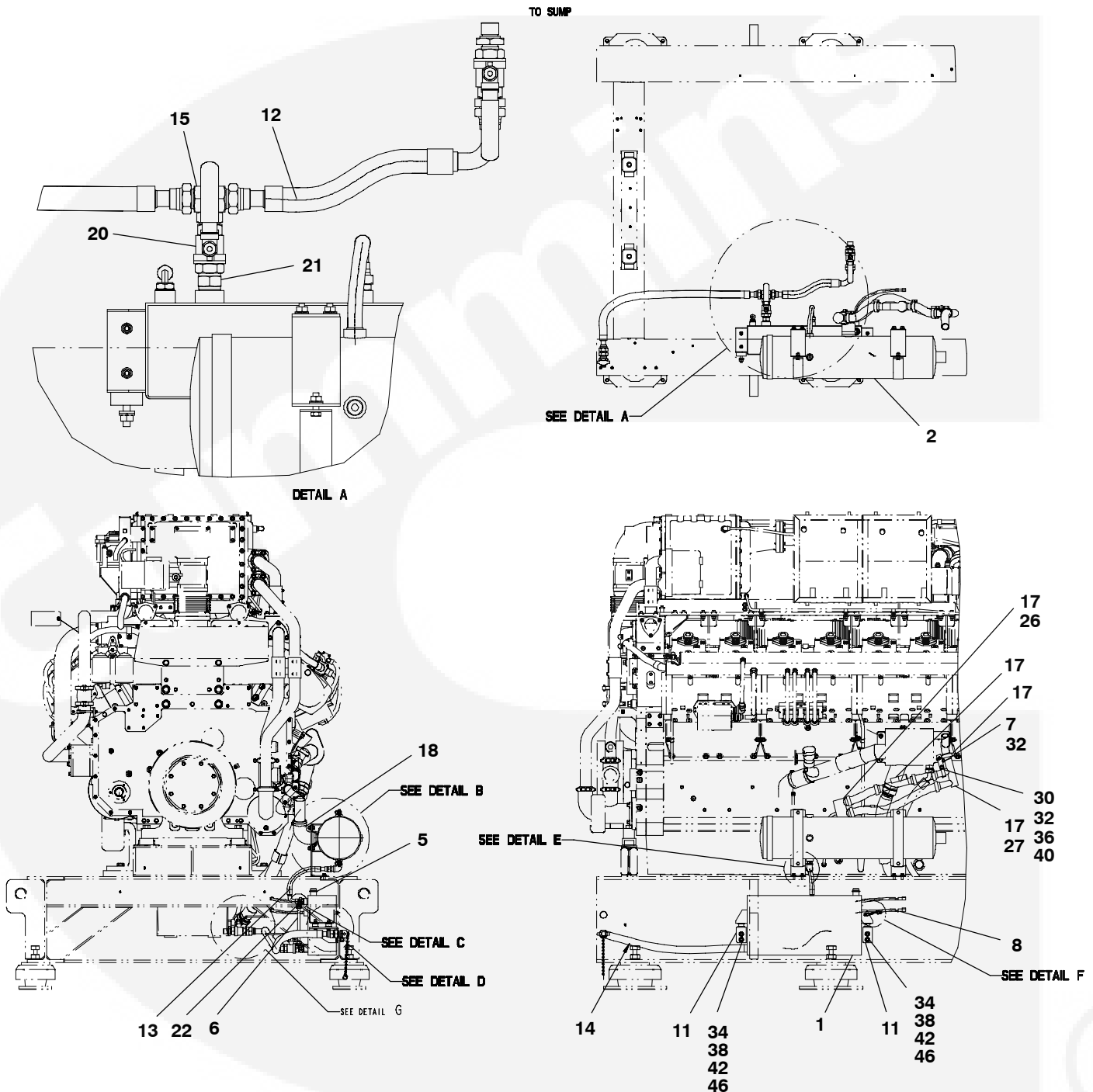
# Oil System Oil Make-Up Begin Spec B



**Oil System  
Oil Make-Up  
Begin Spec B**

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION          | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION               |
|------------|-------------|-------------|------------------------------|------------|-------------|-------------|-----------------------------------|
| 1          | 123-2198    | 1           | Cap, Oil Fill                | 21         | 505-2077    | 1           | Adapter, Pipe (1" x 3/4")         |
| 2          | 231-0402-02 | 1           | Adapter (M42 x 3/4)          | 22         | 505-2083    | 1           | Adapter, Pipe                     |
| 3          | 305-1019-02 | 1           | Bracket, Oil Make-Up Support | 23         | 505-2085    | 1           | Adapter, Pipe                     |
| 4          | 305-1032-02 | 1           | Bracket, Regulator           | 24         | 526-0399-58 | 10          | Washer, Flat (M6) (Not Shown)     |
| 5          | 309-0679    | 1           | Switch, Level                | 25         | 526-0399-62 | 2           | Washer, Flat (M10)                |
| 6          | 330-0159    | 1           | Box, Junction                | 26         | 526-0399-64 | 2           | Washer, Flat (M12)                |
| 7          | 331-0614    | 1           | Adapter, Conduit             | 27         | 800-3017-03 | 2           | Screw, Hex Head (M6 x 1.0 x 16)   |
| 8          | 331-0617    | 1           | Conduit (Oil Make-Up)        | 28         | 800-3017-35 | 2           | Screw, Hex Head (M10 x 1.5 x 16)  |
| 9          | 332-3023    | 1           | Block, Terminal              | 29         | 800-3017-54 | 2           | Screw, Hex Head (M12 x 1.75 x 30) |
| 10         | 337-3582-06 | 1           | Strap, Ground                | 30         | 815-1540-08 | 1           | Screw, Slotted Head (M3 x 20)     |
| 11         | 403-4911    | 4           | Pad, Mounting                | 31         | 815-1540-21 | 2           | Screw, Slotted Head (M4 x 20)     |
| 12         | 501-0760    | 1           | Hose                         | 32         | 850-0114-50 | 1           | Washer, Lock (M3) (Not Shown)     |
| 13         | 501-0767    | 1           | Hose                         | 33         | 850-0114-51 | 2           | Washer, Lock (M4)                 |
| 14         | 501-0781    | 1           | Hose                         | 34         | 850-0114-53 | 2           | Washer, Lock (M6)                 |
| 15         | 502-1441    | 1           | Adapter, Hose                | 35         | 850-0114-56 | 2           | Washer, Lock (M12)                |
| 16         | 504-0227    | 1           | Valve, Ball                  | 36         | 862-0026-52 | 2           | Nut, Hex (M4)                     |
| 17         | 505-1574    | 1           | Elbow, Pipe (3/4") - 90°     |            |             |             |                                   |
| 18         | 505-2048    | 1           | Adapter, Pipe (1/2" x 1")    |            |             |             |                                   |
| 19         | 505-2070    | 1           | Adapter, Pipe (1")           |            |             |             |                                   |
| 20         | 505-2074    | 1           | Adapter, Pipe (M18)          |            |             |             |                                   |

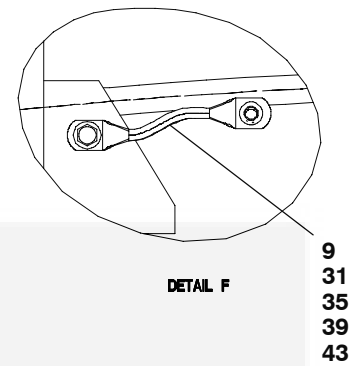
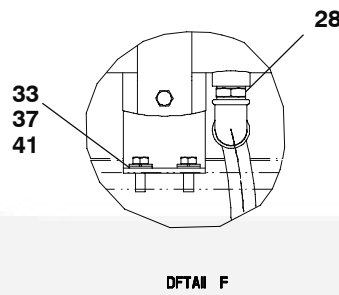
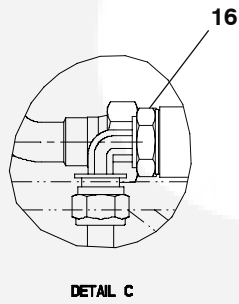
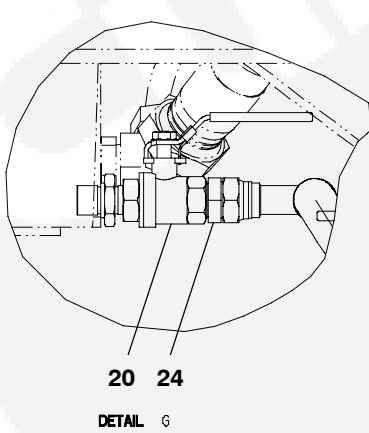
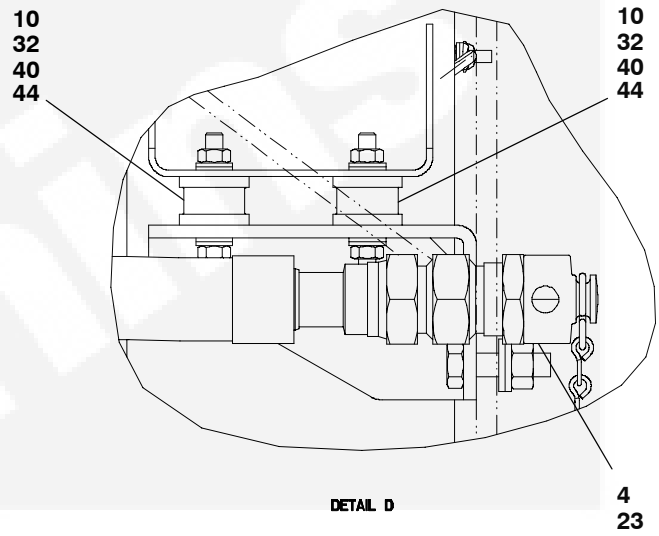
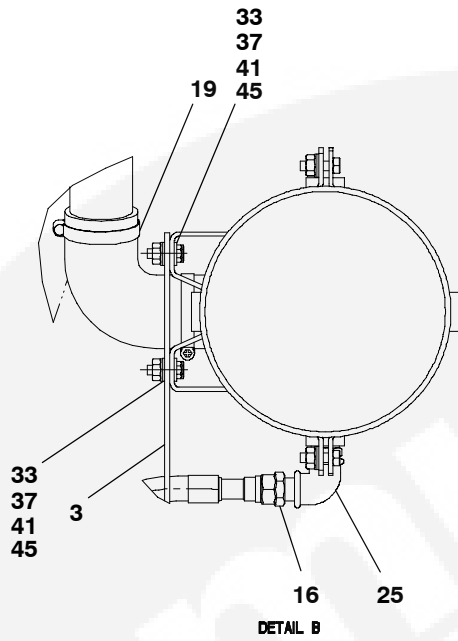
**Oil System  
Dirty Oil  
(Illustration #1)  
Begin Spec B**



**Oil System  
Dirty Oil  
Begin Spec B**

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION      | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|-----------------------|---------|-------------|----------|-----------------------------------|
| 1       | 102-1507-02 | 1        | Tank, Oil – Dirty Oil | 26      | 505-2266-02 | 1        | Tee, Pipe – Lower                 |
| 2       | 122-0862-01 | 1        | Filter, Oil           | 27      | 505-2267-02 | 1        | Tee, Pipe – Upper                 |
| 3       | 122-0899-02 | 2        | Bracket, Oil Filter   | 28      | 505-2317    | 1        | Adapter, Pipe                     |
| 4       | 123-2198    | 1        | Cap, Oil Fill         | 29      | 505-2350    | 1        | Adapter, Pipe                     |
| 5       | 123-2204    | 1        | Adapter, Breather     | 30      | 518-0548-05 | 1        | Clamp, Hose                       |
| 6       | 123-2205    | 1        | Tube, Oil Indicator   | 31      | 526-0399-58 | 3        | Washer, Flat – Steel (M6)         |
| 7       | 123-2269-02 | 1        | Bracket, Crank Vent   | 32      | 526-0399-60 | 10       | Washer, Flat – Steel (M8)         |
| 8       | 193-0566    | 2        | Sensor, Level         | 33      | 526-0399-62 | 20       | Washer, Flat – Steel (M10)        |
| 9       | 337-3582-06 | 1        | Strap, Ground         | 34      | 526-0399-64 | 4        | Washer, Flat – Steel (M12)        |
| 10      | 403-4916    | 4        | Pad, Mounting         | 35      | 800-3017-03 | 2        | Screw, Hex Head (M6 x 1.0 x 16)   |
| 11      | 403-5251-02 | 2        | Bracket, Tank         | 36      | 800-3017-21 | 1        | Screw, Hex Head (M6 x 1.25 x 30)  |
| 12      | 501-0775    | 1        | Hose                  | 37      | 800-3017-37 | 12       | Screw, Hex Head (M10 x 1.5 x 25)  |
| 13      | 501-0823    | 1        | Hose                  | 38      | 800-3017-56 | 4        | Screw, Hex Head (M12 x 1.75 x 40) |
| 14      | 501-0950    | 1        | Hose                  | 39      | 850-0114-53 | 2        | Washer, Lock – Steel (M6)         |
| 15      | 502-1433    | 1        | Tee, Hose             | 40      | 850-0114-54 | 9        | Washer, Lock – Steel (M8)         |
| 16      | 502-1441    | 2        | Adapter, Hose         | 41      | 850-0114-55 | 12       | Washer, Lock – Steel (M10)        |
| 17      | 503-1870-02 | 7        | Clamp, Hose           | 42      | 850-0114-56 | 4        | Washer, Lock – Steel (M12)        |
| 18      | 503-2364    | 1        | Elbow, Hose           | 43      | 862-0026-54 | 1        | Nut, Hex (M6)                     |
| 19      | 503-2373    | 2        | Clamp, Hose           | 44      | 862-0026-55 | 8        | Nut, Hex (M8)                     |
| 20      | 504-0227    | 2        | Valve, Ball           | 45      | 862-0026-56 | 8        | Nut, Hex (M10)                    |
| 21      | 505-2068    | 1        | Adapter, Pipe         | 46      | 862-0026-57 | 4        | Nut, Hex (M12)                    |
| 22      | 505-2069    | 2        | Elbow, Pipe           |         |             |          |                                   |
| 23      | 505-2070    | 1        | Adapter, Pipe         |         |             |          |                                   |
| 24      | 505-2085    | 1        | Adapter, Pipe         |         |             |          |                                   |
| 25      | 505-2141    | 1        | Elbow – 90°           |         |             |          |                                   |

**Oil System  
Dirty Oil  
(Illustration #2)  
Begin Spec B**

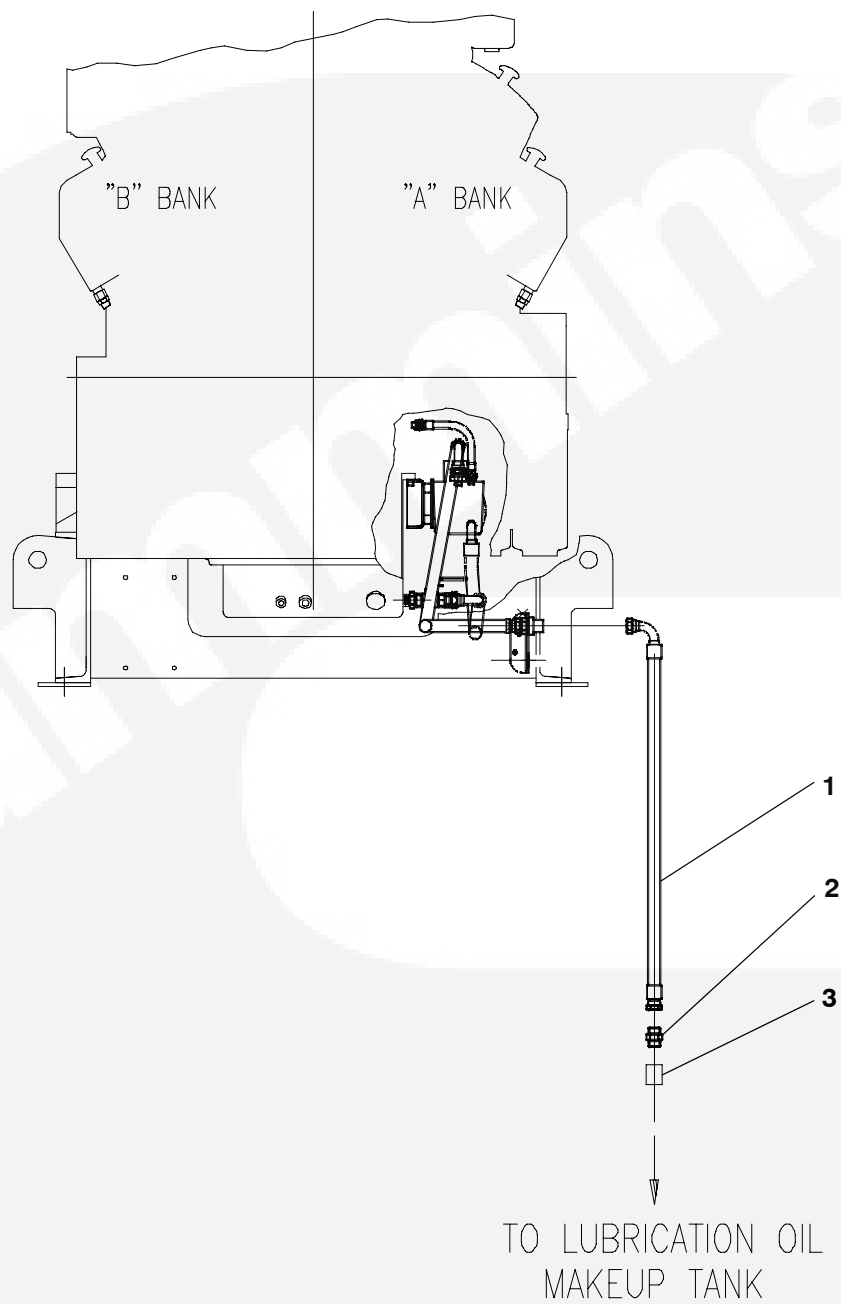




**Oil System  
Dirty Oil  
Begin Spec B**

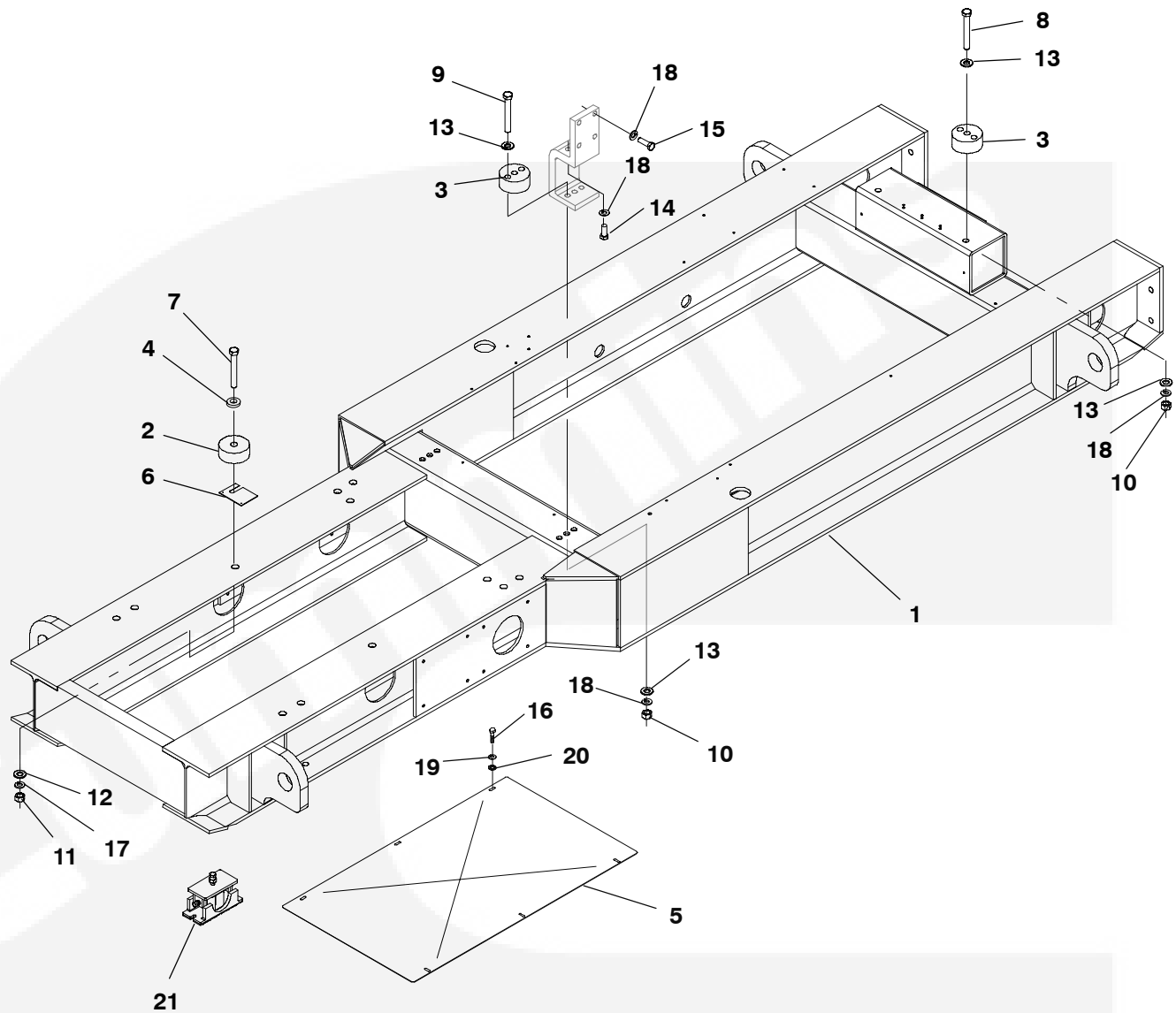
| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION   | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION               |
|------------|-------------|-------------|-----------------------|------------|-------------|-------------|-----------------------------------|
| 1          | 102-1507-02 | 1           | Tank, Oil – Dirty Oil | 26         | 505-2266-02 | 1           | Tee, Pipe – Lower                 |
| 2          | 122-0862-01 | 1           | Filter, Oil           | 27         | 505-2267-02 | 1           | Tee, Pipe – Upper                 |
| 3          | 122-0899-02 | 2           | Bracket, Oil Filter   | 28         | 505-2317    | 1           | Adapter, Pipe                     |
| 4          | 123-2198    | 1           | Cap, Oil Fill         | 29         | 505-2350    | 1           | Adapter, Pipe (Not Shown)         |
| 5          | 123-2204    | 1           | Adapter, Breather     | 30         | 518-0548-05 | 1           | Clamp, Hose                       |
| 6          | 123-2205    | 1           | Tube, Oil Indicator   | 31         | 526-0399-58 | 3           | Washer, Flat – Steel (M6)         |
| 7          | 123-2269-02 | 1           | Bracket, Crank Vent   | 32         | 526-0399-60 | 10          | Washer, Flat – Steel (M8)         |
| 8          | 193-0566    | 2           | Sensor, Level         | 33         | 526-0399-62 | 20          | Washer, Flat – Steel (M10)        |
| 9          | 337-3582-06 | 1           | Strap, Ground         | 34         | 526-0399-64 | 4           | Washer, Flat – Steel (M12)        |
| 10         | 403-4916    | 4           | Pad, Mounting         | 35         | 800-3017-03 | 2           | Screw, Hex Head (M6 x 1.0 x 16)   |
| 11         | 403-5251-02 | 2           | Bracket, Tank         | 36         | 800-3017-21 | 1           | Screw, Hex Head (M6 x 1.25 x 30)  |
| 12         | 501-0775    | 1           | Hose                  | 37         | 800-3017-37 | 12          | Screw, Hex Head (M10 x 1.5 x 25)  |
| 13         | 501-0823    | 1           | Hose                  | 38         | 800-3017-56 | 4           | Screw, Hex Head (M12 x 1.75 x 40) |
| 14         | 501-0950    | 1           | Hose                  | 39         | 850-0114-53 | 2           | Washer, Lock – Steel (M6)         |
| 15         | 502-1433    | 1           | Tee, Hose             | 40         | 850-0114-54 | 9           | Washer, Lock – Steel (M8)         |
| 16         | 502-1441    | 2           | Adapter, Hose         | 41         | 850-0114-55 | 12          | Washer, Lock – Steel (M10)        |
| 17         | 503-1870-02 | 7           | Clamp, Hose           | 42         | 850-0114-56 | 4           | Washer, Lock – Steel (M12)        |
| 18         | 503-2364    | 1           | Elbow, Hose           | 43         | 862-0026-54 | 1           | Nut, Hex (M6)                     |
| 19         | 503-2373    | 2           | Clamp, Hose           | 44         | 862-0026-55 | 8           | Nut, Hex (M8)                     |
| 20         | 504-0227    | 2           | Valve, Ball           | 45         | 862-0026-56 | 8           | Nut, Hex (M10)                    |
| 21         | 505-2068    | 1           | Adapter, Pipe         | 46         | 862-0026-57 | 4           | Nut, Hex (M12)                    |
| 22         | 505-2069    | 2           | Elbow, Pipe           |            |             |             |                                   |
| 23         | 505-2070    | 1           | Adapter, Pipe         |            |             |             |                                   |
| 24         | 505-2085    | 1           | Adapter, Pipe         |            |             |             |                                   |
| 25         | 505-2141    | 1           | Elbow – 90°           |            |             |             |                                   |

Oil Fill



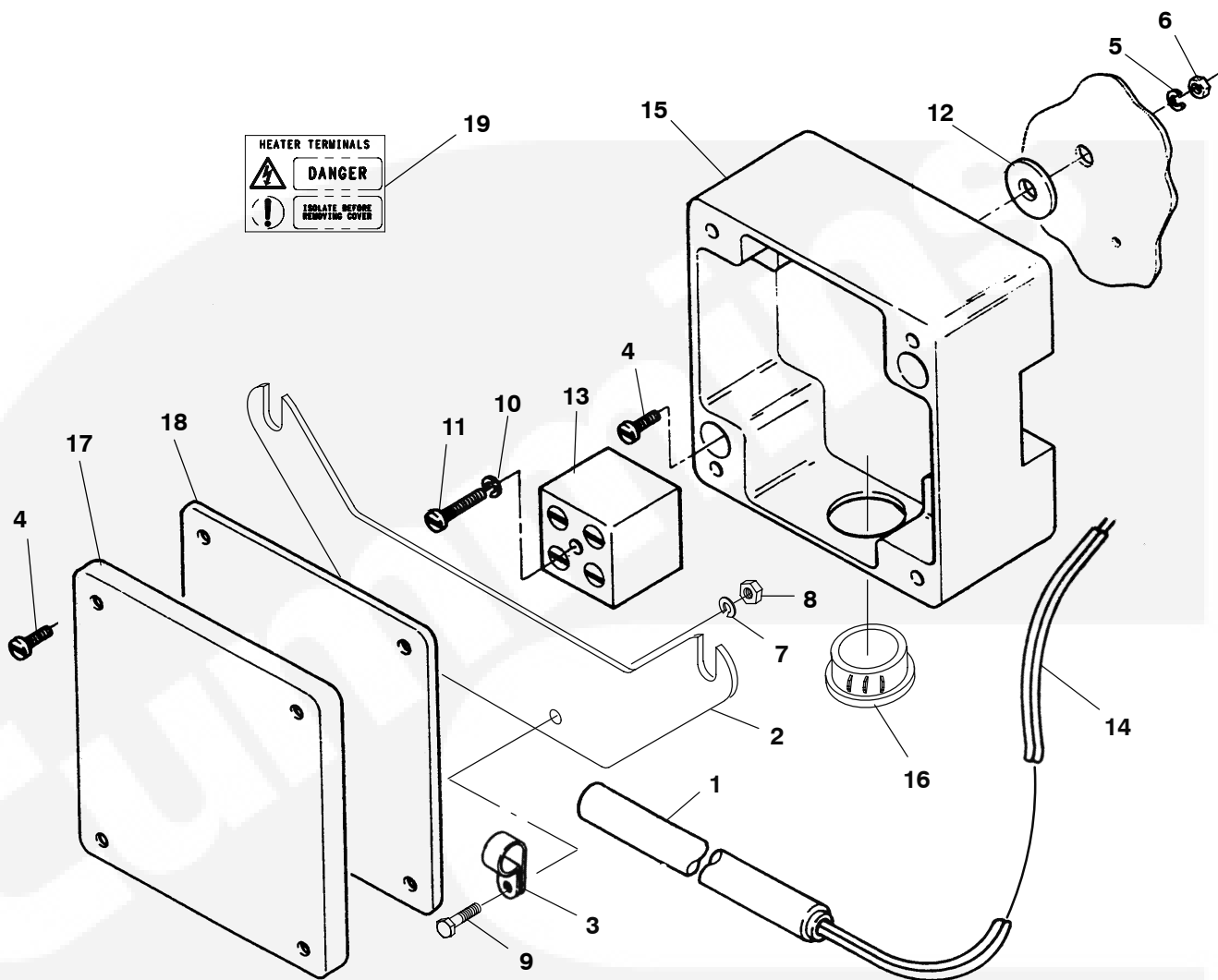
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION | REF NO. | PART NO. | QTY USED | PART DESCRIPTION |
|---------|----------|----------|------------------|---------|----------|----------|------------------|
| 1       | 501-0769 | 1        | Hose             | 3       | 502-1442 | 1        | Adapter, Hose    |
| 2       | 505-2085 | 1        | Adapter, Pipe    |         |          |          |                  |

## Skid



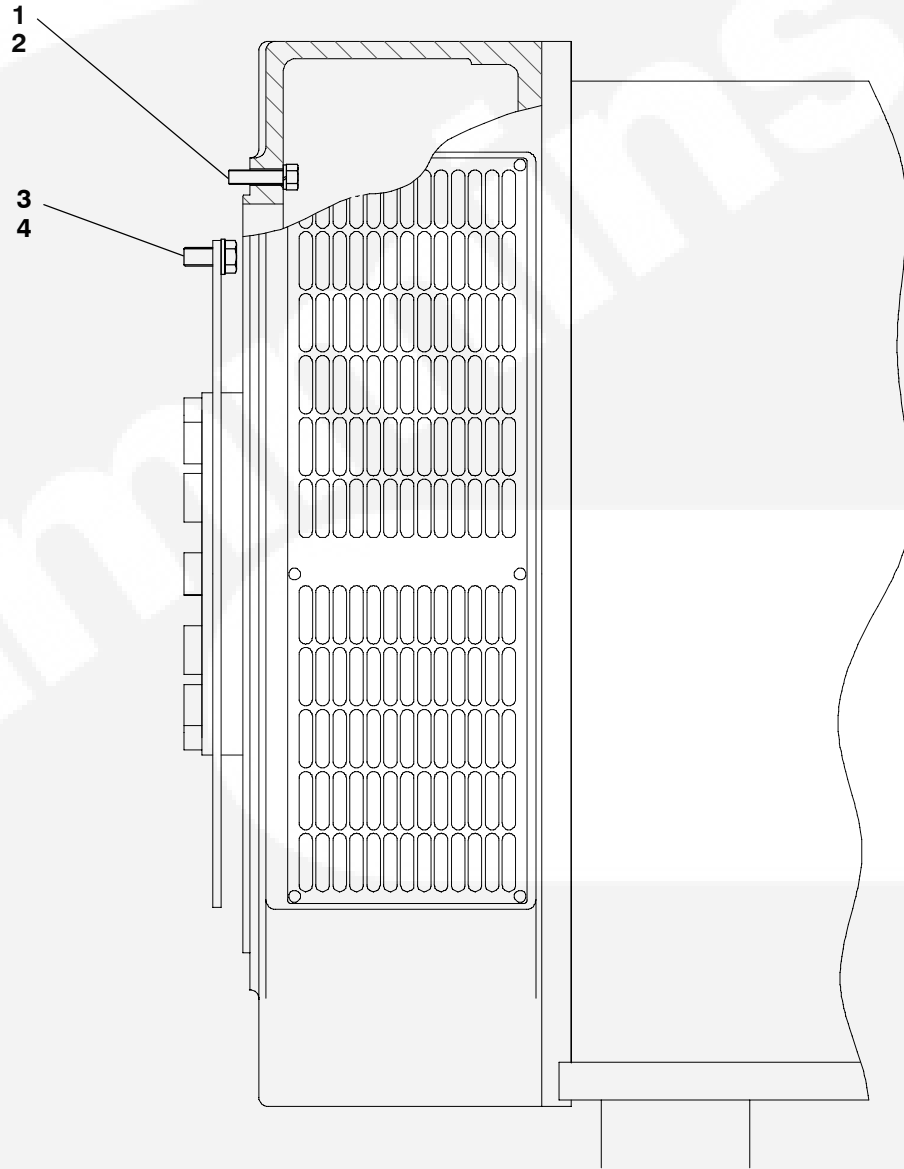
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                             | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                          |
|---------|-------------|----------|--------------------------------------------------------------|---------|-------------|----------|-------------------------------------------|
| 1       |             |          | Skid                                                         | 8       | 800-3047-02 | 2        | Screw, Cap – Hex Head (M20 x 160mm)       |
|         | 403-5146-02 | 1        | Spec A                                                       | 9       | 800-3047-03 | 4        | Screw, Cap – Hex Head (M20 x 2.5 x 130mm) |
|         | 403-6143-02 | 1        | Begin Spec B                                                 | 10      | 860-2023-01 | 6        | Nut, Hex (M20)                            |
| 2       | 232-4061    | 4        | Spacer, Generator Mounting (1-1/16" ID x 5" OD x 2-1/8" Thk) | 11      | 860-2024-01 | 4        | Nut, Hex (M24)                            |
| 3       | 403-4332    | 4        | Spacer, Engine Mounting (1" ID x 5" OD x 2-9/32" Thk)        | 12      | 526-0399-78 | 4        | Washer, Flat (M24)                        |
| 4       | 526-0460-02 | 4        | Washer, Generator Mounting                                   | 13      | 526-0399-76 | 12       | Washer, Flat (M20)                        |
| 5       | 405-8293-02 | 1        | Tray, Cable                                                  | 14      | 800-3017-93 | 4        | Screw, Cap – Hex Head (M20 x 2.5 x 70mm)  |
| 6       |             |          | Shim, Generator Mounting (Quantity Used As Required)         | 15      | 800-3017-91 | 8        | Screw, Cap – Hex Head (M20 x 2.5 x 60mm)  |
|         | 232-3710-01 | 1        | .0239" Thk                                                   | 16      | 800-3017-17 | 6        | Screw, Cap – Hex Head (M8 x 1.25 x 12mm)  |
|         | 232-3710-02 | 1        | .0747" Thk                                                   | 17      | 850-0114-59 | 4        | Washer, Lock – Spring (M24)               |
|         | 232-3710-03 | 1        | .1345" Thk                                                   | 18      | 850-0114-58 | 18       | Washer, Lock – Spring (M20)               |
|         | 232-3710-07 | 1        | .0149" Thk                                                   | 19      | 850-0114-54 | 6        | Washer, Lock – Spring (M8)                |
| 7       | 800-3048-01 | 4        | Screw, Cap – Hex Head (M24 x 3 x 170mm)                      | 20      | 526-0399-61 | 6        | Washer, Flat (M8)                         |
|         |             |          |                                                              | 21      | 402-0750-01 | 8        | Isolator, Vibration – Spring              |

## Generator Heater



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|-------------|----------|-----------------------------------|---------|-------------|----------|---------------------------------------|
| 1       | 333-0438-05 | 1        | Cartridge, Heater (300 Watt)      | 10      | 850-2003    | 1        | Washer, Lock - Spring (M3)            |
|         | 333-0438-06 | 1        | 110/125 Volts                     | 11      | 822-3047    | 1        | Screw, Machine - Pan Head (M3 x 20mm) |
| 2       | 232-3849    | 1        | 220/260 Volts                     | 12      | 508-0228    | 1        | Grommet                               |
| 3       | 332-3024-14 | 2        | Bracket, Mounting - Heater        | 13      | 332-3023    | 1        | Block, Terminal                       |
| 4       | 822-3075    | 6        | Clamp, Loop                       | 14      | 898-1254-25 | 1        | Sleeving - Heater Leads (59")         |
|         |             |          | Head (M4 x 16mm)                  | 15      | 330-0142    | 1        | Box, Terminal                         |
| 5       | 850-2004    | 2        | Screw, Machine - Slotted Pan      | 16      | 517-0021    | 1        | Plug, Dot Button                      |
| 6       | 860-2005    | 2        | Head (M4 x 16mm)                  | 17      | 330-0141-03 | 1        | Cover, Box                            |
| 7       | 850-2005    | 2        | Washer, Lock - Spring (M4)        | 18      | 330-0141-04 | 1        | Gasket, Cover                         |
| 8       | 860-2006    | 2        | Nut, Hex (M4)                     | 19      | 098-7281    | 1        | Label, Heater Warning                 |
| 9       | 800-2008    | 2        | Washer, Lock - Spring (M5)        |         |             |          |                                       |
|         |             |          | Nut, Hex (M5)                     |         |             |          |                                       |
|         |             |          | Screw, Cap - Hex Head (M5 x 16mm) |         |             |          |                                       |

## Generator Fasteners Spec A



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                        | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                       |
|---------|-------------|----------|-----------------------------------------|---------|-------------|----------|----------------------------------------|
| 1       | 800-3017-58 | 16       | Screw, Cap – Hex Head (M12 x 1.75 x 50) | 3       | 800-3017-71 | 6        | Screw, Cap – Hex Head (M16 x 2.0 x 35) |
| 2       | 850-0114-56 | 16       | Washer, Lock – Spring (M12)             | 4       | 526-0399-66 | 6        | Washer, Flat (M16)                     |

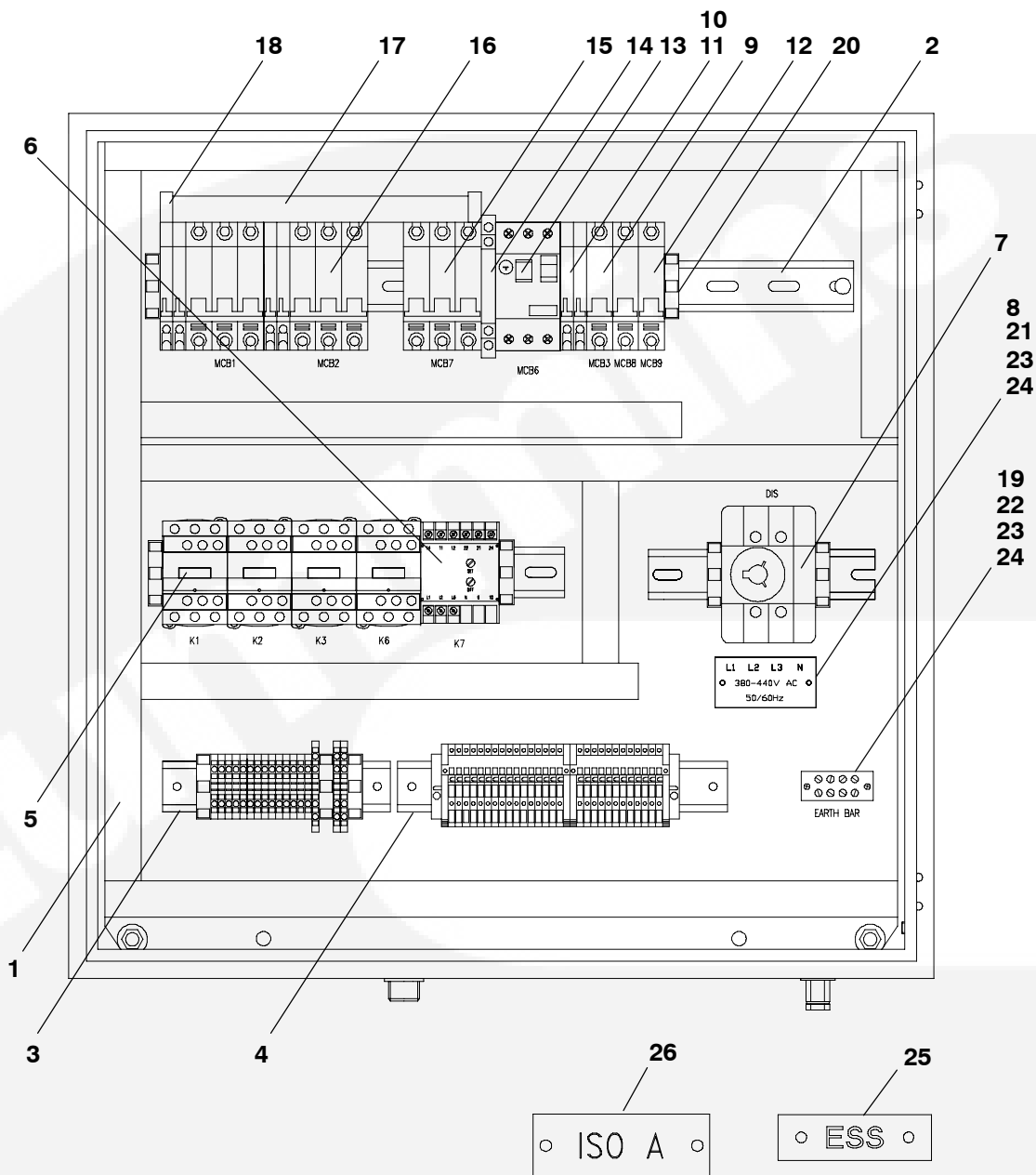
## Generator

Generator component parts cannot be ordered from Cummins Power Generation. Refer to the Newage nameplate and supply all available information. Contact your nearest Newage distributor for assistance in ordering component parts. For COMPLETE generator replacement use the 200-XXXX-XX Cummins Power Generation identification number listed below.

| <b>Cummins Power Generation Identification Number</b> | <b>Generator Model Number</b> |
|-------------------------------------------------------|-------------------------------|
| 200-3070-03                                           | HC734F                        |
| 200-3070-14                                           | HC734F                        |
| 200-3070-15                                           | HC734G                        |
| 200-3070-17                                           | HC734H                        |
| 200-3070-25                                           | HC734G                        |
| 200-3071-03                                           | CG734F                        |
| 200-3071-14                                           | CG734F                        |
| 200-3071-15                                           | CG734G                        |
| 200-3071-17                                           | CG734H                        |
| 200-3071-25                                           | CG734G                        |
| 200-3100-05                                           | MV734G                        |
| 200-3100-07                                           | MV734H                        |
| 200-3101-05                                           | MV734G                        |
| 200-3101-07                                           | MV734H                        |
| 200-3105-01                                           | HC734E                        |
| 200-3105-03                                           | HC734F                        |
| 200-3105-14                                           | HC734F                        |
| 200-3105-15                                           | HC734G                        |
| 200-3105-17                                           | HC734H                        |
| 200-3105-25                                           | HC734G                        |
| 200-3106-03                                           | CG734F                        |
| 200-3106-14                                           | CG734F                        |
| 200-3106-15                                           | CG734G                        |
| 200-3106-17                                           | CG734H                        |
| 200-3106-25                                           | CG734G                        |
| 200-3107-15                                           | HC736G                        |
| <b>Continued...</b>                                   |                               |

| Cummins Power Generation Identification Number | Generator Model Number |
|------------------------------------------------|------------------------|
| <b>Continued...</b>                            |                        |
| 200-3109-02                                    | HVSI814C               |
| 200-3109-12                                    | HVSI814C               |
| 200-3109-13                                    | HVSI814D               |
| 200-3110-02                                    | HVSI814C               |
| 200-3110-12                                    | HVSI814C               |
| 200-3110-13                                    | HVSI814D               |
| 200-3200-01                                    | PE734C                 |
| 200-3200-02                                    | PE734C                 |
| 200-3200-03                                    | PE734C                 |
| 200-3200-06                                    | PE734C                 |
| 200-3200-07                                    | PE734D                 |
| 200-3200-08                                    | PE734D                 |
| 200-3200-09                                    | PE734D                 |
| 200-3200-10                                    | PE734D                 |
| 200-3200-11                                    | PE734E                 |
| 200-3200-12                                    | PE734E                 |
| 200-3200-15                                    | PE734E                 |
| 200-3200-16                                    | PE734E                 |
| 200-3200-17                                    | PE734E                 |
| 200-3200-30                                    | PE734F                 |
| 200-3200-31                                    | PE734F                 |
| 200-3200-66                                    | MVWI734G               |
| 200-3200-67                                    | MVWI734H               |
| 200-3212-11                                    | HVSI804R               |
| 200-3212-13                                    | HVSI804R               |
| 200-3212-15                                    | HVSI804R               |
| 200-3212-17                                    | HVSI804R               |
| 200-3212-67                                    | LVSI804R               |

# AC Control Spec A

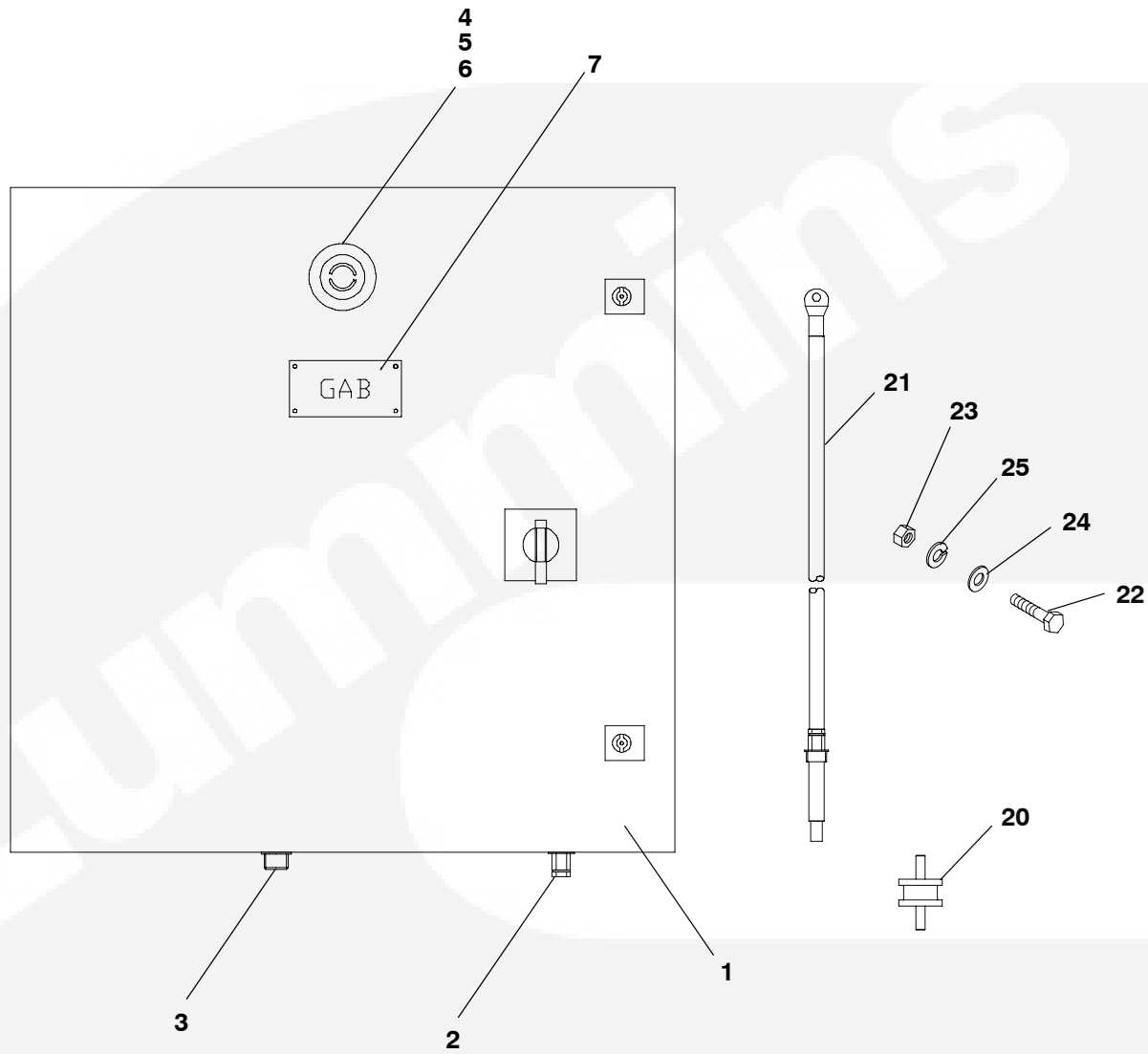




## AC Control Spec A

| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                     | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                           |
|---------|----------|----------|------------------------------------------------------|---------|-------------|----------|--------------------------------------------|
| 1       | 331-0576 | -        | Conduit - 3M                                         | 13      | 320-2248    | 1        | Breaker, Circuit (10A)                     |
| 2       | 332-3895 | -        | Rail, Terminal Block - 1.5M                          | 14      | 249-0844    | 1        | Motor, Circuit Breaker                     |
| 3       | 332-4013 | 1        | Rail, Terminal Block                                 | 15      | 249-0845    | 1        | Breaker, Circuit - Miniature (2A, 3 Pole)  |
| 4       | 332-4014 | 1        | Rail, Terminal Block                                 | 16      | 249-0836    | 2        | Breaker, Circuit - Miniature (16A, 3 Pole) |
| 5       | 306-4945 | 4        | Contactor                                            | 17      | 249-0843    | 1        | Starter, Comb Bus Bar Motor                |
| 6       | 307-3048 | 1        | Relay, Voltage                                       | 18      | 337-3636    | 2        | Bus Bar - Comb End Caps                    |
| 7       |          |          | Switch, Disconnect                                   | 19      | 332-4073    | 1        | Block, Terminal                            |
|         | 320-2139 | 1        | 4 Pole Isolator                                      | 20      | 332-3926    | 6        | Block, Terminal                            |
|         | 320-2244 | 1        | 6 Pole Isolator - Interlocked                        | 21      | 800-0309-73 | 6        | Screw, Hex Head (M4 x 8)                   |
| 8       |          |          | Label, Information                                   | 22      | 850-0114-51 | 8        | Washer, Lock - Spring (M4)                 |
|         | 098-8242 | 1        | 380-440V                                             | 23      | 526-0399-54 | 8        | Washer, Flat (M4)                          |
|         | 098-8243 | 1        | 480/120V                                             | 24      | 800-0309-77 | 2        | Screw, Hex Head (M4 x 20)                  |
| 9       | 320-2198 | 1        | Breaker, Circuit - Miniature (6A)                    | 25      | 098-8308    | 1        | Label, Information - Emergency Stop        |
| 10      | 249-0839 | 3        | Breaker, Circuit - Auxiliary Switch - Miniature (SD) | 26      | 098-8314    | 1        | Label, Unit ID                             |
| 11      | 249-0838 | 3        | Breaker, Circuit - Auxiliary Switch - Miniature (OF) |         |             |          |                                            |
| 12      | 249-0846 | 2        | Breaker, Circuit - Miniature (10A)                   |         |             |          |                                            |

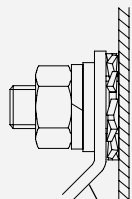
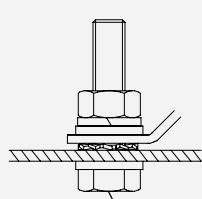
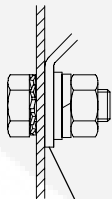
# AC Control Box Spec A



DOOR

GLAND PLATE

CONTROL BOX



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12  
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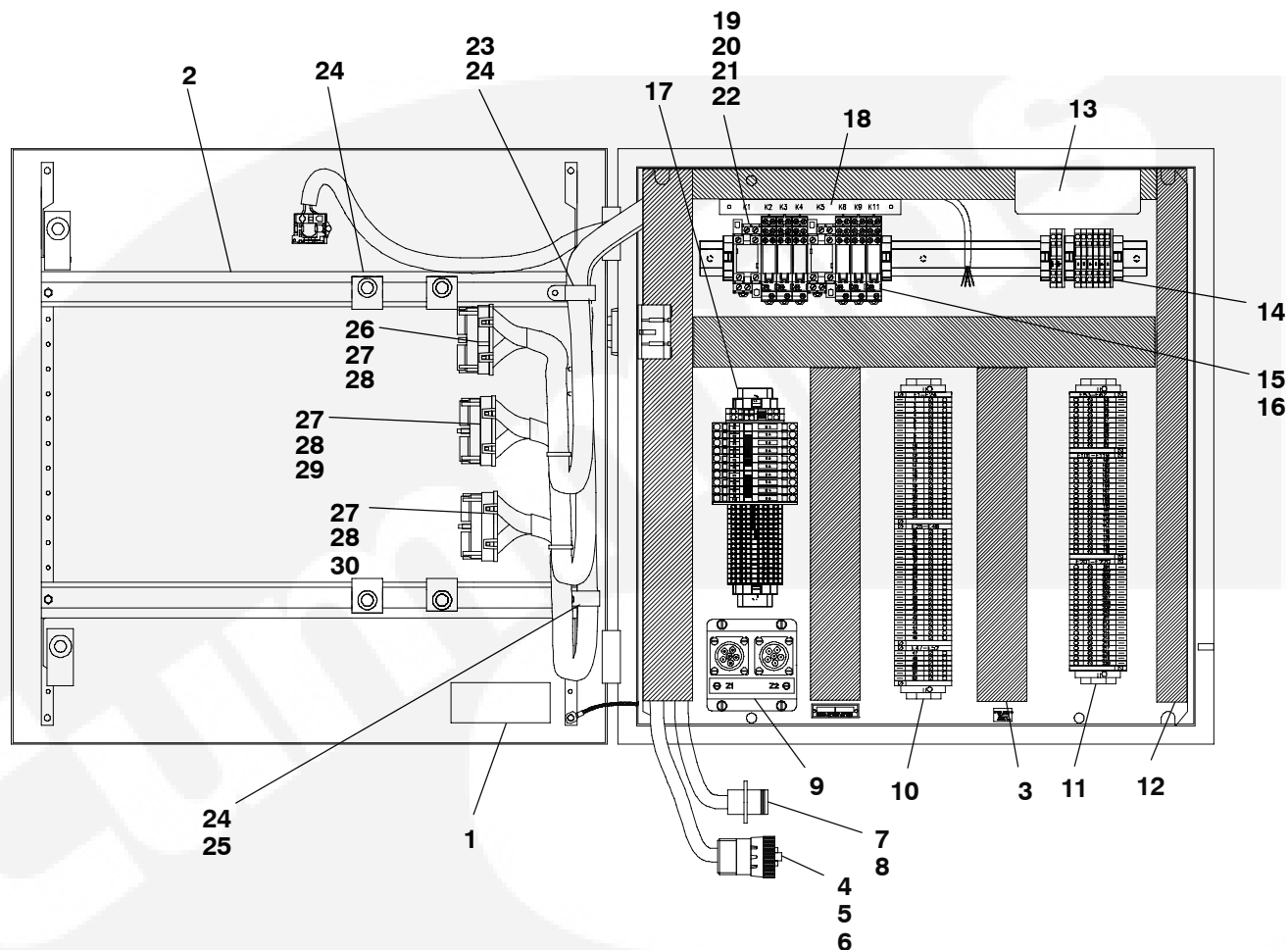
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14  
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17  
18

## AC Control Box Spec A

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                  | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                 |
|------------|-------------|-------------|--------------------------------------|------------|-------------|-------------|-------------------------------------|
| 1          | 319-5148    | 1           | Box, Terminal                        | 14         | 332-3919-09 | 2           | Ring, Terminal (M8)                 |
| 2          | 332-4026    | 1           | Clamp, Cable                         | 15         | 526-0399-60 | 1           | Washer, Flat (M8)                   |
| 3          | 323-2149    | 1           | Connector, Receptacle                | 16         | 850-0114-54 | 1           | Washer, Lock – Spring (M8)          |
| 4          | 308-1186    | 1           | Switch, Pushbutton                   | 17         | 853-0040-55 | 1           | Washer, Lock – W/ET (M8)            |
| 5          | 306-4944    | 1           | Contact, Auxiliary                   | 18         | 862-0026-55 | 1           | Nut, Hex (M8)                       |
| 6          | 098-8238    | 1           | Label, Unit ID                       | 19         | 800-3017-02 | 1           | Screw, Hex Head (M6 x 12)           |
| 7          | 098-8248    | 1           | Label, Unit ID (AC Auxiliary<br>Box) | 20         | 403-4916    | 6           | Pad, Mounting                       |
| 8          | 800-3017-05 | 1           | Screw, Hex Head (M6 x 25)            | 21         | 226-4929-01 | 1           | Lead – Earth                        |
| 9          | 862-0026-54 | 2           | Nut, Hex (M6)                        | 22         | 800-3017-19 | 1           | Screw, Hex Head (M8 x 1.25 x<br>20) |
| 10         | 526-0399-58 | 3           | Washer, Flat (M6)                    | 23         | 862-0026-55 | 12          | Nut, Hex (M8 x 1.25)                |
| 11         | 850-0114-53 | 2           | Washer, Lock – Spring (M6)           | 24         | 526-0399-60 | 13          | Washer, Flat (M8)                   |
| 12         | 856-0023    | 2           | Washer, Lock – W/ET (M6)             | 25         | 850-0114-54 | 13          | Washer, Lock – Spring (M8)          |
| 13         | 332-3919-08 | 2           | Ring, Terminal (M6)                  |            |             |             |                                     |

## DC Control Spec A

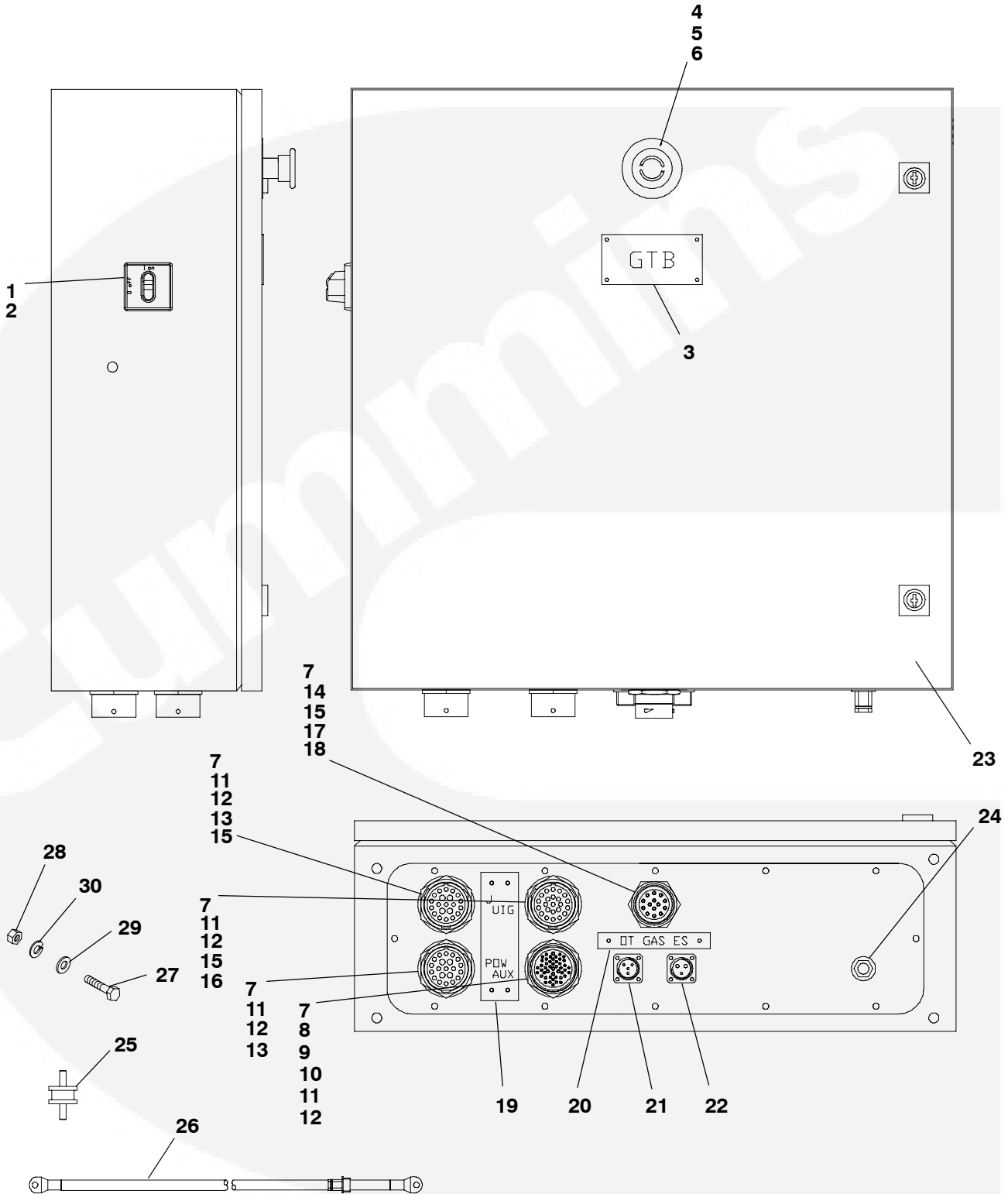


| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                         | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                          |
|---------|-------------|----------|------------------------------------------|---------|-------------|----------|-------------------------------------------|
| 1       | 098-8240    | 1        | Label, Instruction – Stay in Boot Option | 18      | 098-8236    | 1        | Label, Information (Terminal Designation) |
| 2       | 332-4029-01 | 1        | Rail, Terminal – G Type                  | 19      | 307-3043    | 2        | Base, Relay                               |
| 3       | 331-0613-04 | –        | Duct, Wiring (50mm x 50mm)               | 20      | 307-3044    | 2        | Relay, Control                            |
| 4       | 323-2007    | 5        | Contact, Socket                          | 21      | 249-0819    | 4        | Cup, Relay                                |
| 5       | 323-2119    | 1        | Plug, Connector                          | 22      | 305-1007    | 2        | Rectifier                                 |
| 6       | 323-1591    | 19       | Plug, Connector                          | 23      | 518-0724    | 1        | Clip, Tube                                |
| 7       | 323-2020    | 56       | Contact, Pin                             | 24      | 306-4941    | 6        | Bracket, Rail                             |
| 8       | 323-2144    | 1        | Connector, Receptacle                    | 25      | 518-0723    | 1        | Clip, Tube                                |
| 9       | 323-2150    | 1        | Bracket, Connector                       | 26      | 323-2022-01 | 1        | Connector, Receptacle                     |
| 10      | 332-4012    | 1        | Rail, Terminal Block                     | 27      | 323-2021    | 62       | Contact, Socket                           |
| 11      | 332-4011    | 1        | Rail, Terminal Block                     | 28      | 323-2023    | 88       | Seal, Connector                           |
| 12      | 331-0613-02 | –        | Duct, Wiring (25mm x 50mm)               | 29      | 323-2022-02 | 1        | Connector, Receptacle                     |
| 13      | 300-5858    | 1        | Supply, Power                            | 30      | 323-2022-03 | 1        | Connector, Receptacle                     |
| 14      | 332-3998    | 1        | Rail, Terminal Block                     | 31      | 350-1259    | 1        | Resistor (150Ω) (Not Illustrated)         |
| 15      | 249-0813    | 6        | Relay (2 Pole, 24V, 5A, W/Diode)         | 32      | 350-1245    | 2        | Resistor (120Ω) (Not Illustrated)         |
| 16      | 249-0814    | 6        | Relay (2 Pole Base)                      | 33      | 332-3895    | A/R      | Rail, Terminal Block (Not Illustrated)    |
| 17      | 332-3997    | 1        | Rail, Terminal Block                     |         |             |          |                                           |

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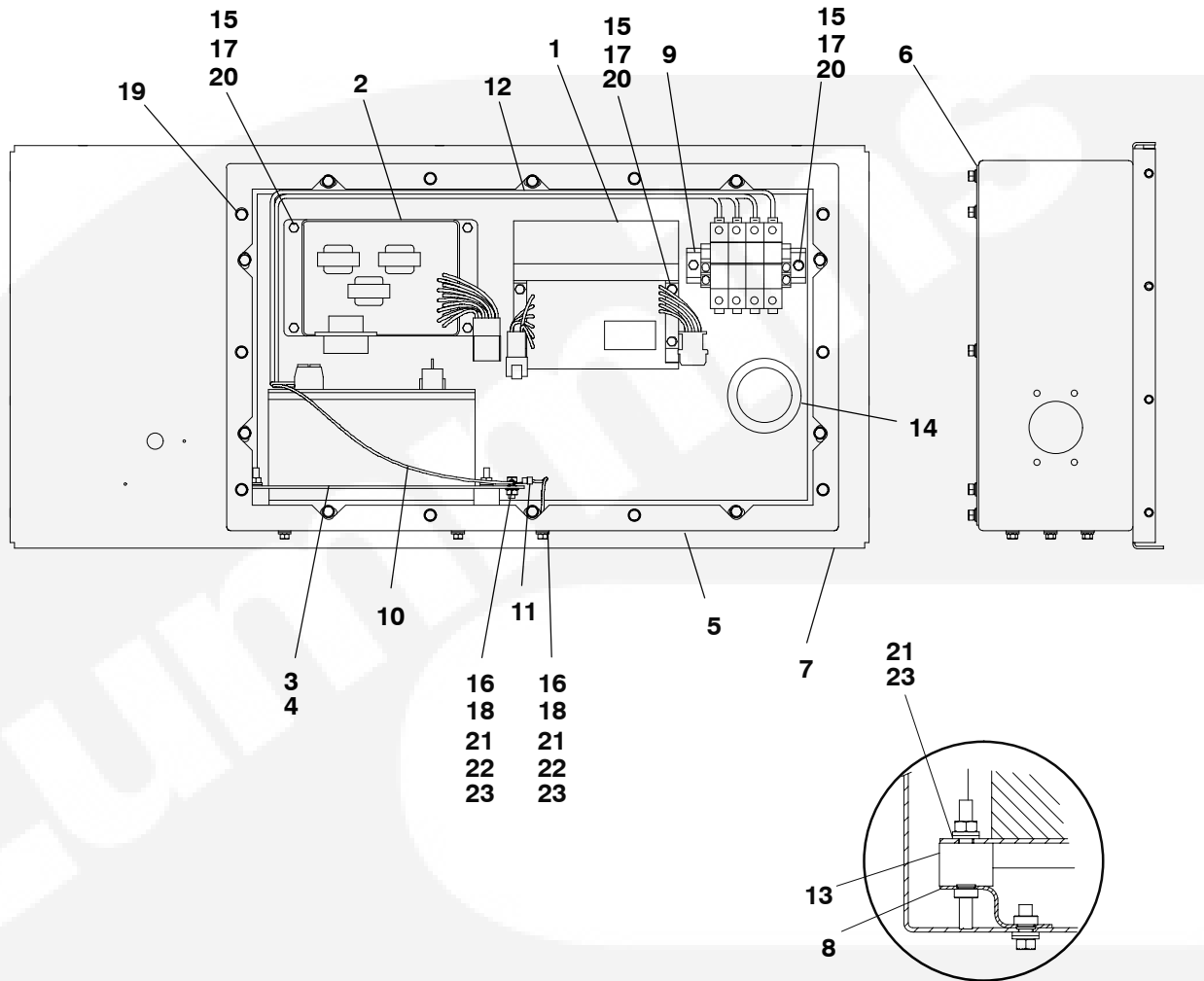
# DC Control Box Spec A



## DC Control Box Spec A

| REF NO. | PART NO. | QTY USED | PART DESCRIPTION      | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|----------|----------|-----------------------|---------|-------------|----------|---------------------------------------|
| 1       | 308-1184 | 1        | Switch, Rotary        | 18      | 323-2148    | 1        | Lock, Connector                       |
| 2       | 308-1185 | 1        | Knob, Switch          | 19      | 098-8234    | 1        | Label, Information – Cable Connection |
| 3       | 098-8231 | 1        | Label, Unit ID        | 20      | 098-8235    | 1        | Label, Information – Gas Connection   |
| 4       | 098-8238 | 1        | Label, Unit ID        | 21      | 323-2130    | 1        | Connector, Receptacle                 |
| 5       | 308-1186 | 1        | Switch, Pushbutton    | 22      | 323-2149    | 1        | Connector, Receptacle                 |
| 6       | 306-4944 | 1        | Contact, Auxiliary    | 23      | 319-5149    | 1        | Box, Terminal                         |
| 7       | 323-2020 | 56       | Pin, Contact          | 24      | 332-4026    | 1        | Clamp, Cable                          |
| 8       | 323-2120 | 32       | Pin, Contact          | 25      | 403-4916    | 6        | Pad, Mounting                         |
| 9       | 323-2125 | 1        | Connector, Receptacle | 26      | 226-4929-02 | 1        | Lead – Earth                          |
| 10      | 323-2023 | 88       | Seal, Connector       | 27      | 800-3017-19 | 1        | Screw, Hex Head (M8 x 1.25 x 20)      |
| 11      | 323-2127 | 4        | Lock, Connector       | 28      | 862-0026-55 | 13       | Nut, Hex (M8 x 1.25)                  |
| 12      | 323-2126 | 4        | Lock, Connector       | 29      | 526-0399-60 | 14       | Washer, Flat (M8)                     |
| 13      | 323-2123 | 2        | Connector, Receptacle | 30      | 850-0114-54 | 14       | Washer, Lock – Spring (M8)            |
| 14      | 323-2122 | 1        | Connector, Receptacle |         |             |          |                                       |
| 15      | 323-1591 | 19       | Plug, Connector       |         |             |          |                                       |
| 16      | 323-2145 | 1        | Connector, Receptacle |         |             |          |                                       |
| 17      | 323-2147 | 1        | Lock, Connector       |         |             |          |                                       |

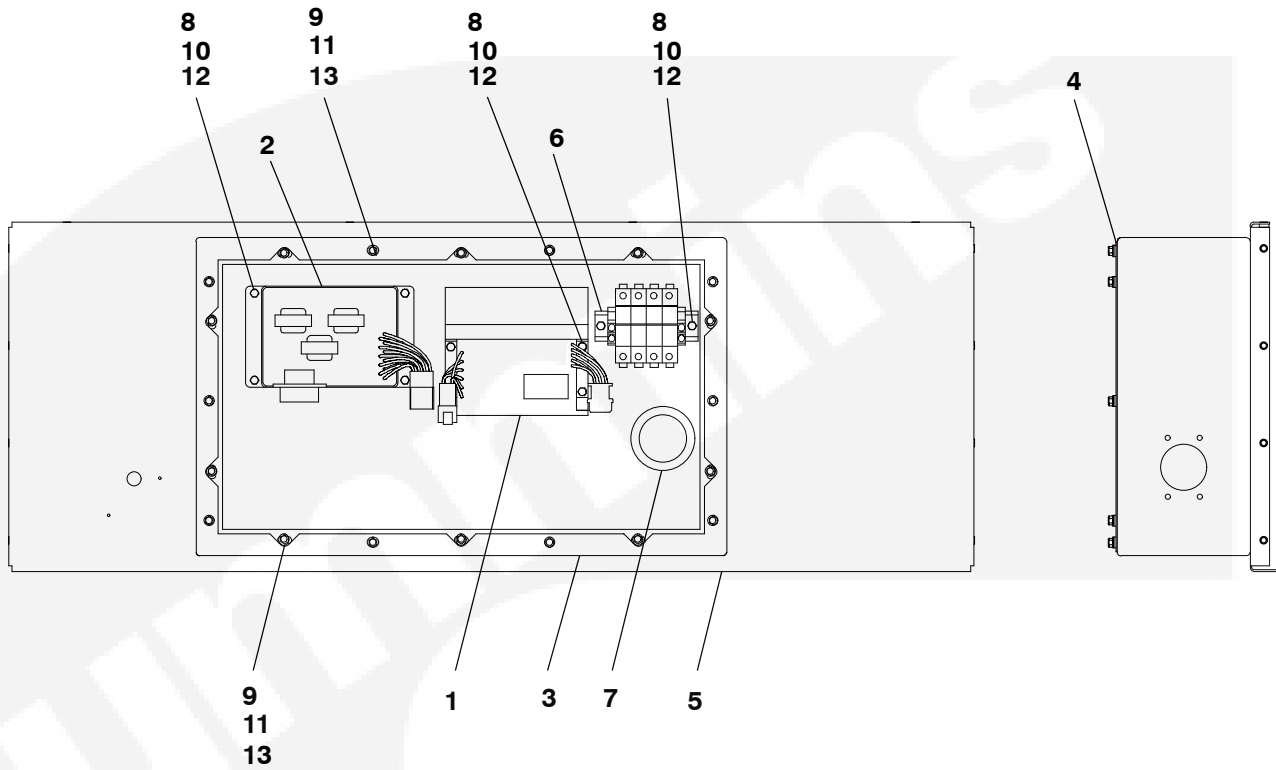
**Control Panel  
HC/CG7  
Spec A**



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                   |
|---------|-------------|----------|-------------------------------------------------|---------|-------------|----------|----------------------------------------------------|
| 1       | 300-4306    | 1        | Regulator, Auto Volt                            | 13      | 402-0830    | 4        | Pad, Mounting – With Transformer                   |
| 2       | 300-4308-01 | 1        | Board, Printed Circuit – PT/CT With Transformer | 14      | 508-1119    | 1        | Grommet                                            |
|         | 300-4308-02 | 1        | Without Transformer                             | 15      | 526-0399-56 | 10       | Washer, Flat (M5)                                  |
| 3       | 315-1632    | 1        | Transformer, Voltage                            | 16      | 526-0399-58 | 10       | Washer, Flat (M6) – With Transformer               |
| 4       | 319-5372-02 | 1        | Base, Transformer                               | 17      | 800-0309-87 | 10       | Screw, Cap – Hex Head (M5 x 0.8 x 10)              |
| 5       | 319-5373-02 | 1        | Box, Terminal – Alternator                      | 18      | 800-3017-03 | 6        | Screw, Cap – Hex Head (M6 x 16) – With Transformer |
| 6       | 319-5374-02 | 1        | Box, Cover – Alternator                         | 19      | 821-6002-02 | 20       | Screw, Hex Head (M6 x 1.0 x 12)                    |
| 7       | 319-5375-02 | 1        | Bracket, Control Box – Alternator               | 20      | 850-0114-52 | 10       | Washer, Lock (M5)                                  |
| 8       | 319-5448-02 | 2        | Bracket, Saddle – With Transformer              | 21      | 850-0114-53 | 10       | Washer, Lock (M6) – With Transformer               |
| 9       | 332-4030    | 1        | Rail, Terminal Block                            | 22      | 853-0040-54 | 2        | Washer, Lock – W/ET – With Transformer             |
| 10      | 335-0238    | 1        | Cable (M6 x 350) – With Transformer             | 23      | 862-0026-54 | 6        | Nut, Hex (M6) – With Transformer                   |
| 11      | 335-0239    | 1        | Cable (M6 x 100) – With Transformer             |         |             |          |                                                    |
| 12      | 338-4456    | 1        | Harness, Transformer – With Transformer         |         |             |          |                                                    |

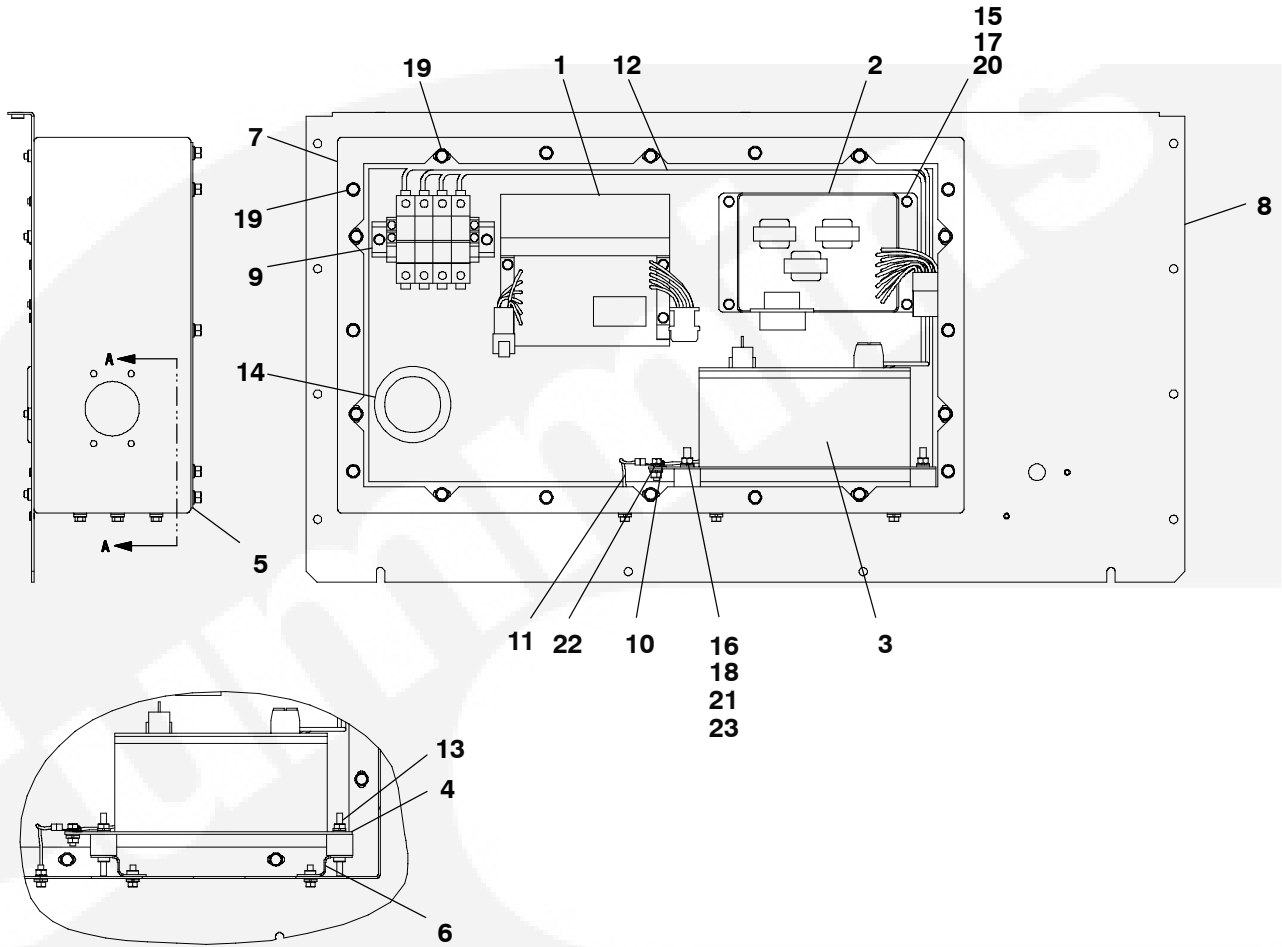


**Control Panel  
MV7  
Spec A**



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|-------------|----------|-----------------------------------|---------|-------------|----------|---------------------------------------|
| 1       | 300-4306    | 1        | Regulator, Auto Volt              | 8       | 526-0399-56 | 10       | Washer, Flat (M5)                     |
| 2       | 300-4308-01 | 1        | Board, Printed Circuit - PT/CT    | 9       | 526-0399-58 | 20       | Washer, Flat (M6)                     |
| 3       | 319-5373-02 | 1        | Box, Terminal - Alternator        | 10      | 800-0309-87 | 10       | Screw, Cap - Hex Head (M5 x 0.8 x 10) |
| 4       | 319-5374-02 | 1        | Box, Cover - Alternator           | 11      | 800-3017-03 | 20       | Screw, Cap - Hex Head (M6 x 16)       |
| 5       | 319-5376-02 | 1        | Bracket, Control Box - Alternator | 12      | 850-0114-52 | 10       | Washer, Lock (M5)                     |
| 6       | 332-4030    | 1        | Rail, Terminal Block              | 13      | 850-0114-53 | 20       | Washer, Lock (M6)                     |
| 7       | 508-1119    | 1        | Grommet                           |         |             |          |                                       |

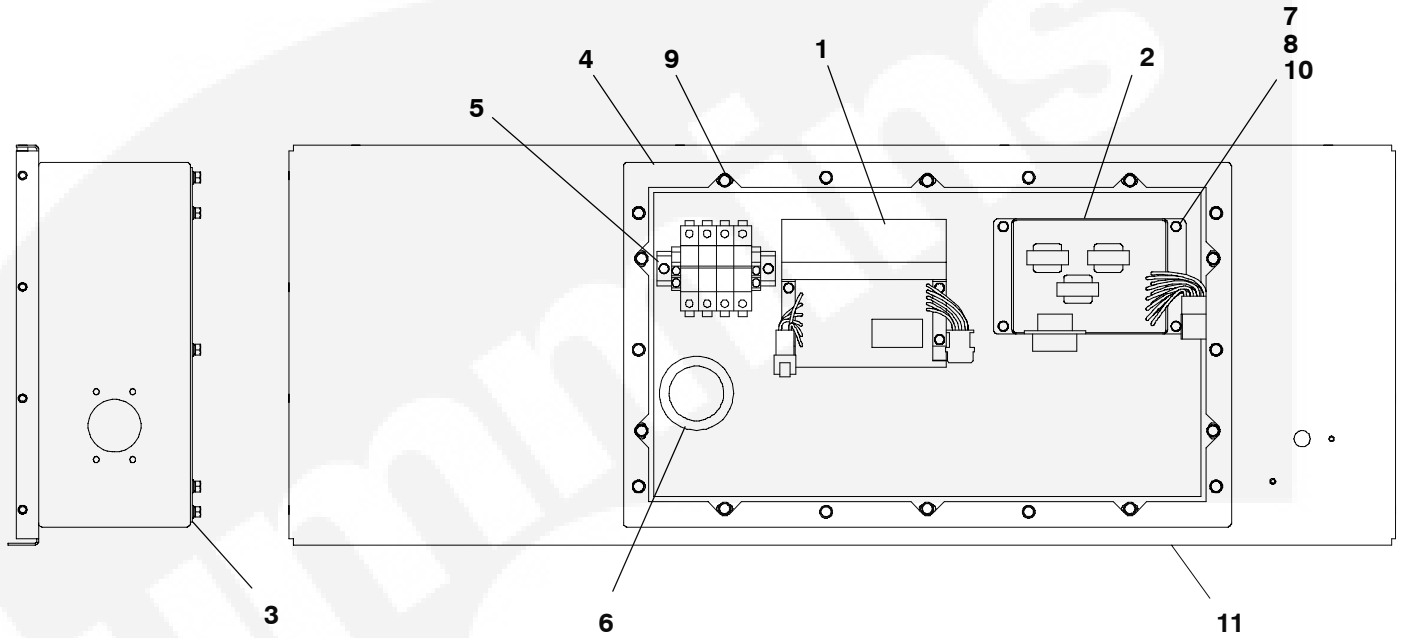
**Control Panel**  
**P7**  
**Begin Spec B**



**SECTION A-A**

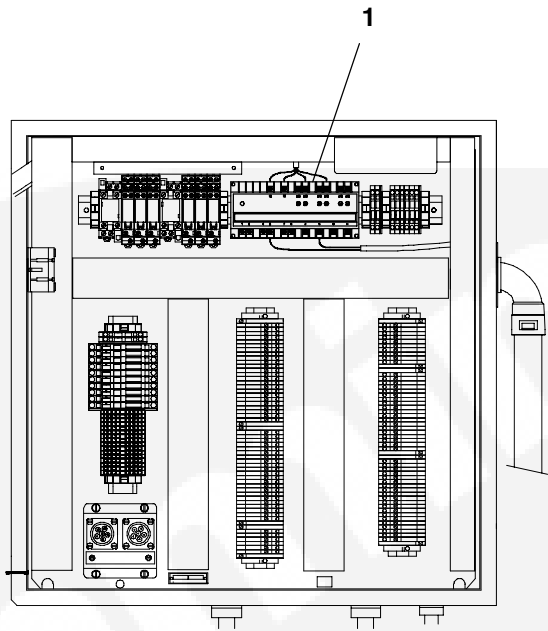
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                        | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                   |
|---------|-------------|----------|-----------------------------------------|---------|-------------|----------|----------------------------------------------------|
| 1       | 300-4306    | 1        | Regulator, Auto Volt                    | 14      | 508-1119    | 1        | Grommet                                            |
| 2       | 300-4308-01 | 1        | Board, Printed Circuit – PT/CT          | 15      | 526-0399-56 | 10       | Washer, Flat (M5)                                  |
|         | 300-4308-02 | 1        | With Transformer                        | 16      | 526-0399-58 | 10       | Washer, Flat (M6) – With Transformer               |
| 3       | 315-1632    | 1        | Without Transformer                     | 17      | 800-0309-87 | 10       | Screw, Cap – Hex Head (M5 x 0.8 x 10)              |
| 4       | 319-5372-02 | 1        | Transformer, Voltage                    | 18      | 800-3017-03 | 6        | Screw, Cap – Hex Head (M6 x 16) – With Transformer |
| 5       | 319-5374-02 | 1        | Base, Transformer                       | 19      | 821-6002-02 | 20       | Screw, Hex Head (M6 x 1.0 x 12)                    |
| 6       | 319-5448-02 | 2        | Cover, Box – Alternator                 | 20      | 850-0114-52 | 10       | Washer, Lock (M5)                                  |
|         |             |          | Bracket, Saddle – With Transformer      | 21      | 850-0114-53 | 10       | Washer, Lock (M6) – With Transformer               |
| 7       | 319-6196-02 | 1        | Box, Control                            | 22      | 853-0040-54 | 2        | Washer, Lock – W/ET – With Transformer             |
| 8       | 319-6197-02 | 1        | Panel, Control Box                      | 23      | 862-0026-54 | 6        | Nut, Hex (M6) – With Transformer                   |
| 9       | 332-4030    | 1        | Rail, Terminal Block                    |         |             |          |                                                    |
| 10      | 335-0238    | 1        | Cable (M6 x 350) – With Transformer     |         |             |          |                                                    |
| 11      | 335-0239    | 1        | Cable (M6 x 100) – With Transformer     |         |             |          |                                                    |
| 12      | 338-4456    | 1        | Harness, Transformer – With Transformer |         |             |          |                                                    |
| 13      | 402-0830    | 4        | Pad, Mounting – With Transformer        |         |             |          |                                                    |

**Control Panel  
MVWI  
Begin Spec B**

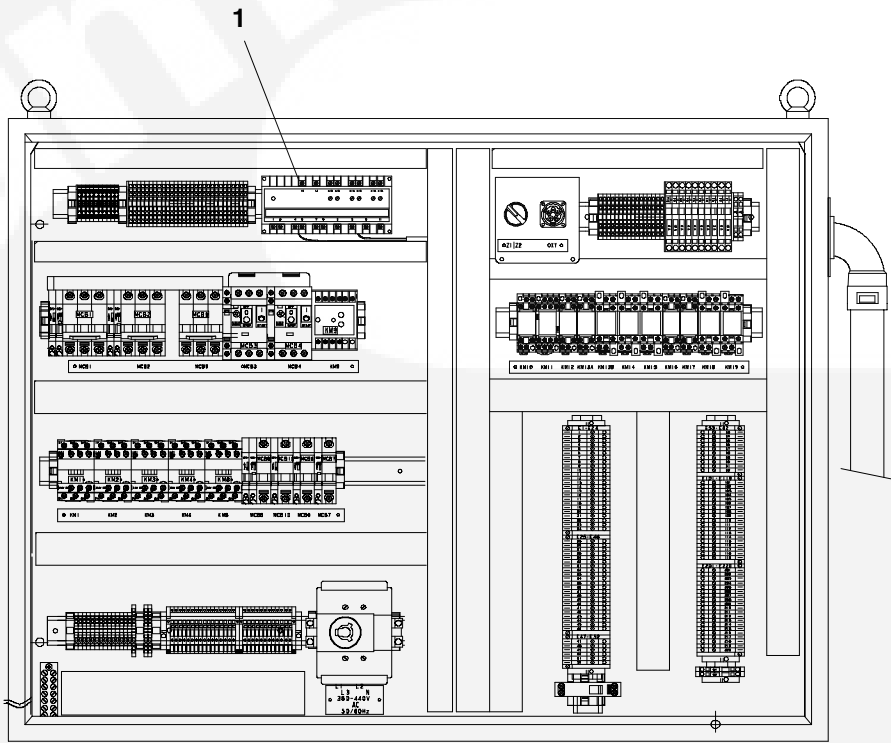


| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION               | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|-------------|----------|--------------------------------|---------|-------------|----------|---------------------------------------|
| 1       | 300-4306    | 1        | Regulator, Auto Volt           | 8       | 800-0309-87 | 10       | Screw, Cap - Hex Head (M5 x 0.8 x 10) |
| 2       | 300-4308-01 | 1        | Board, Printed Circuit - PT/CT | 9       | 821-6002-02 | 20       | Screw, Hex Head (M6 x 1.0 x 12)       |
| 3       | 319-5374-02 | 1        | Cover, Box - Alternator        | 10      | 850-0114-52 | 10       | Washer, Lock (M5)                     |
| 4       | 319-6196-02 | 1        | Box, Control                   | 11      | 319-6202-02 | 1        | Panel, Control Box                    |
| 5       | 332-4030    | 1        | Rail, Terminal Block           |         |             |          |                                       |
| 6       | 508-1119    | 1        | Grommet                        |         |             |          |                                       |
| 7       | 526-0399-56 | 10       | Washer, Flat (M5)              |         |             |          |                                       |

Transducer



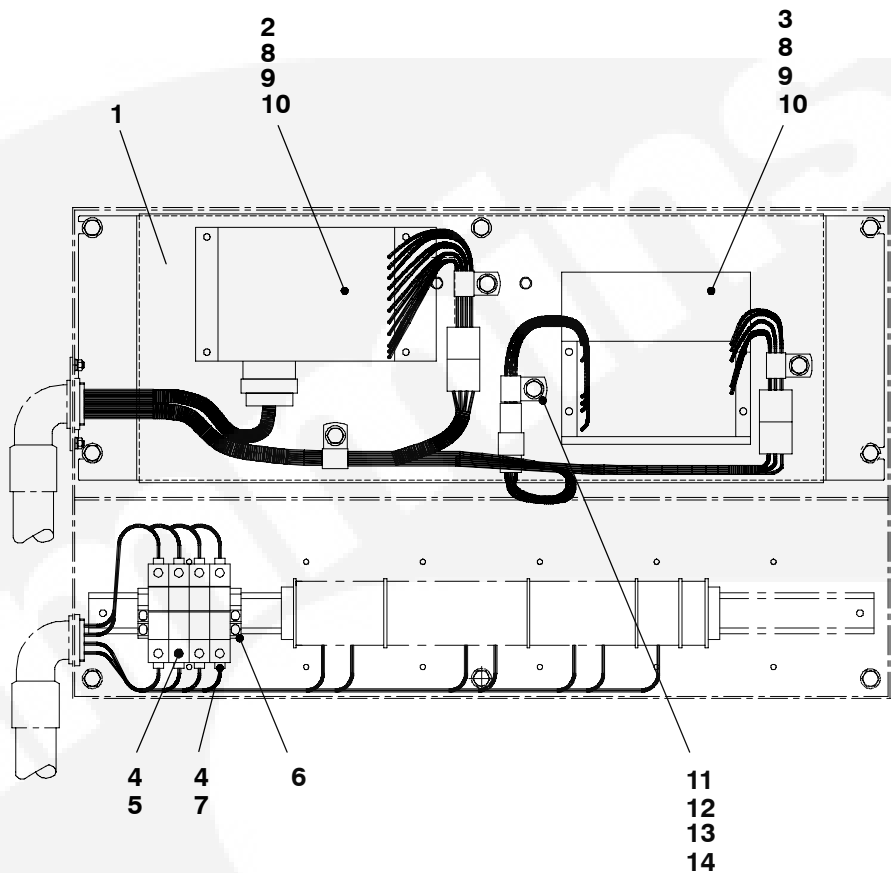
Spec A



Begin Spec B

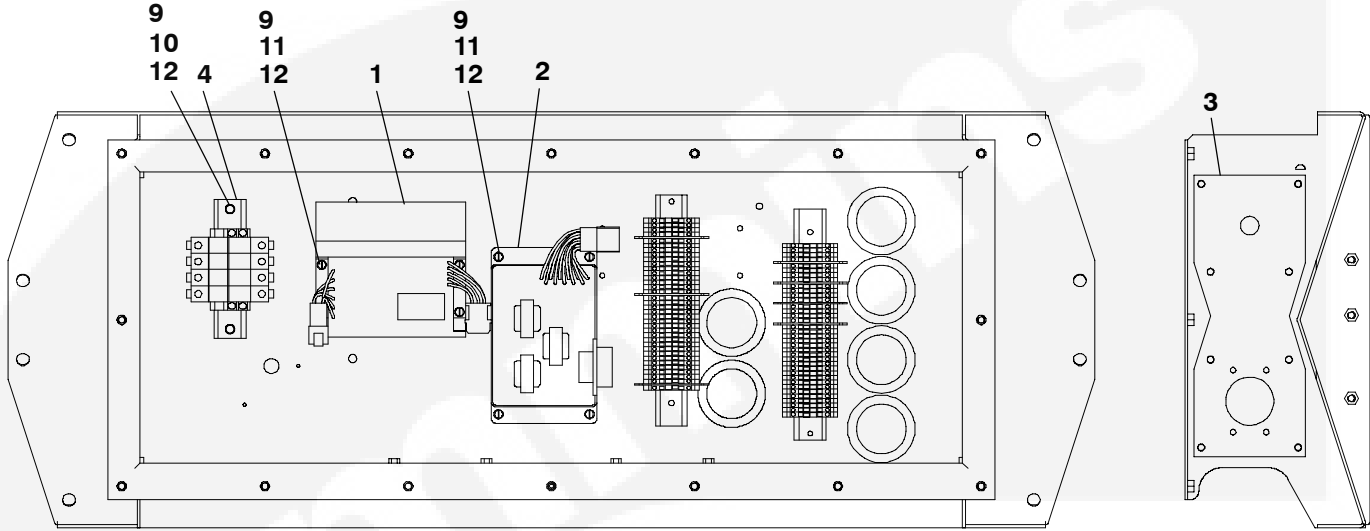
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION       | REF NO. | PART NO. | QTY USED | PART DESCRIPTION |
|---------|-------------|----------|------------------------|---------|----------|----------|------------------|
| 1       |             |          | Transducer (KW 4-20mA) |         |          |          |                  |
|         | 193-0560-01 | 1        | 440V                   |         |          |          |                  |
|         | 193-0560-02 | 1        | 230V                   |         |          |          |                  |

Terminal Box  
Alternator  
Spec A



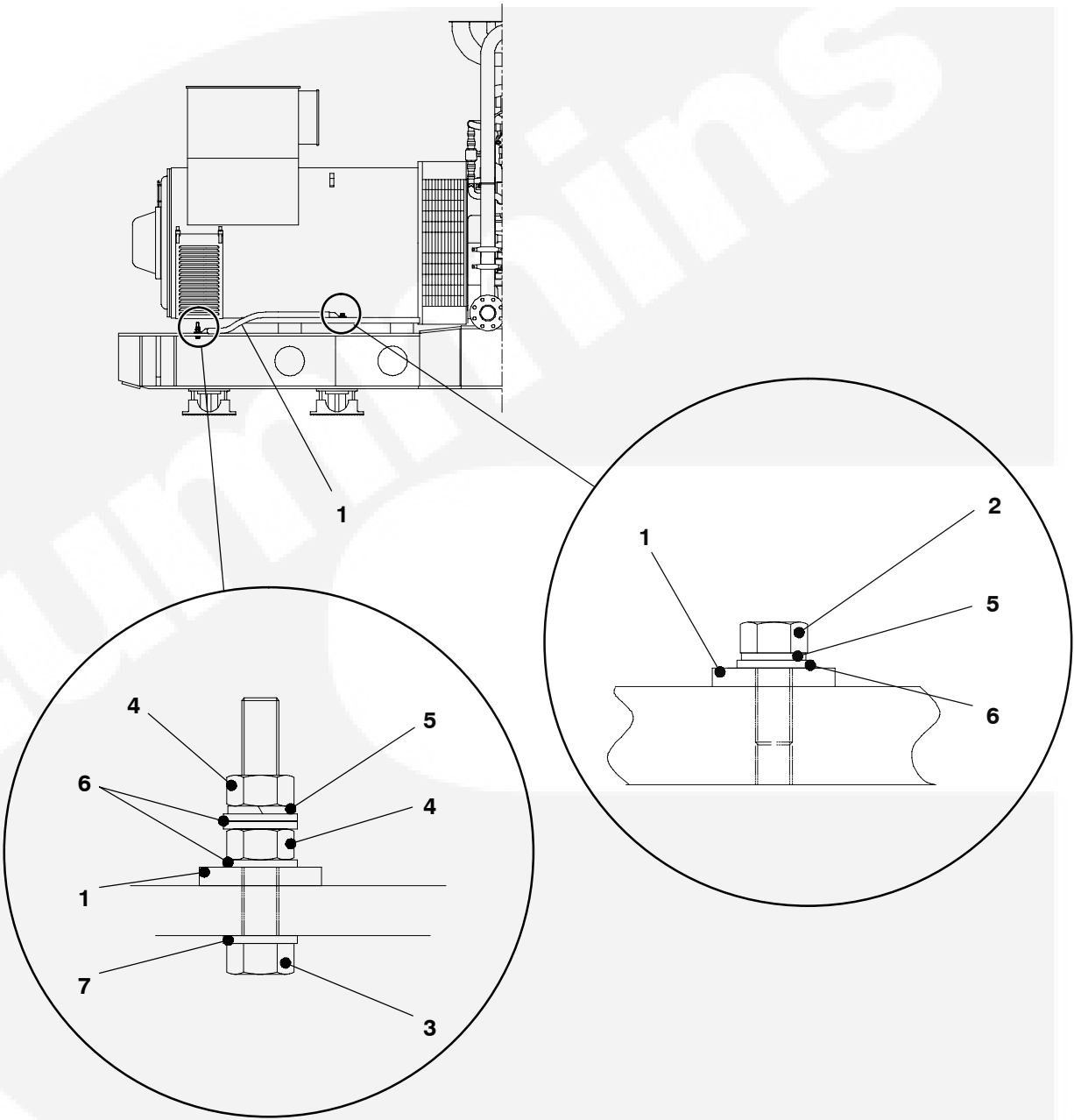
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|---------------------------------|---------|-------------|----------|----------------------------------|
| 1       | 319-5368-02 | 1        | Bracket, Terminal Box           | 9       | 526-0399-56 | 8        | Washer, Flat (M5)                |
| 2       | 300-4308-01 | 1        | Board, Printed Circuit - PT/CT  | 10      | 850-0114-52 | 8        | Washer, Lock - Spring (M5)       |
| 3       | 300-4306    | 1        | Regulator, Auto Volt            | 11      | 800-3017-19 | 4        | Screw, Hex Head (M8 x 1.25 x 20) |
| 4       | 249-0855    | 4        | Holder, Fuse                    | 12      | 526-0399-60 | 4        | Washer, Flat (M8)                |
| 5       | 321-0402-01 | 3        | Fuse - 2A                       | 13      | 850-0114-54 | 4        | Washer, Lock - Spring (M8)       |
| 6       | 332-3890    | 2        | Block, Terminal - End Stop      | 14      | 518-0548-04 | 4        | Clamp, Hose                      |
| 7       | 321-0389    | 1        | Fuse - Neutral Link             |         |             |          |                                  |
| 8       | 800-0309-89 | 8        | Screw, Hex Head (M5 x 0.8 x 16) |         |             |          |                                  |

**Control Panel  
Frame 8 Alternator  
Begin Spec B**



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                   | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|-------------|----------|--------------------------------------------------------------------|---------|-------------|----------|---------------------------------------|
| 1       | 300-4306    | 1        | Regulator, Auto Volt                                               | 7       | 321-0402-01 | 3        | Fuse, 2A                              |
| 2       | 300-4308-01 | 1        | Board, Printed Circuit - PT/CT                                     | 8       | 332-3890    | 2        | Stop, End                             |
| 3       | 319-6203-02 | 1        | Plate, Mounting - Gland Plate                                      | 9       | 526-0399-56 | 10       | Washer, Flat (M5)                     |
| 4       | 332-4179    | 1        | Rail, Terminal Block - Sub Assembly (Includes Items 5, 6, 7 and 8) | 10      | 800-0309-87 | 2        | Screw, Cap - Hex Head (M5 x 0.8 x 10) |
| 5       | 249-0855    | 4        | Holder, Fuse                                                       | 11      | 815-1540-31 | 8        | Screw, Slotted - Fillet Head (M5 x 8) |
| 6       | 321-0389    | 1        | Fuse                                                               | 12      | 850-0114-52 | 10       | Washer, Lock (M5)                     |

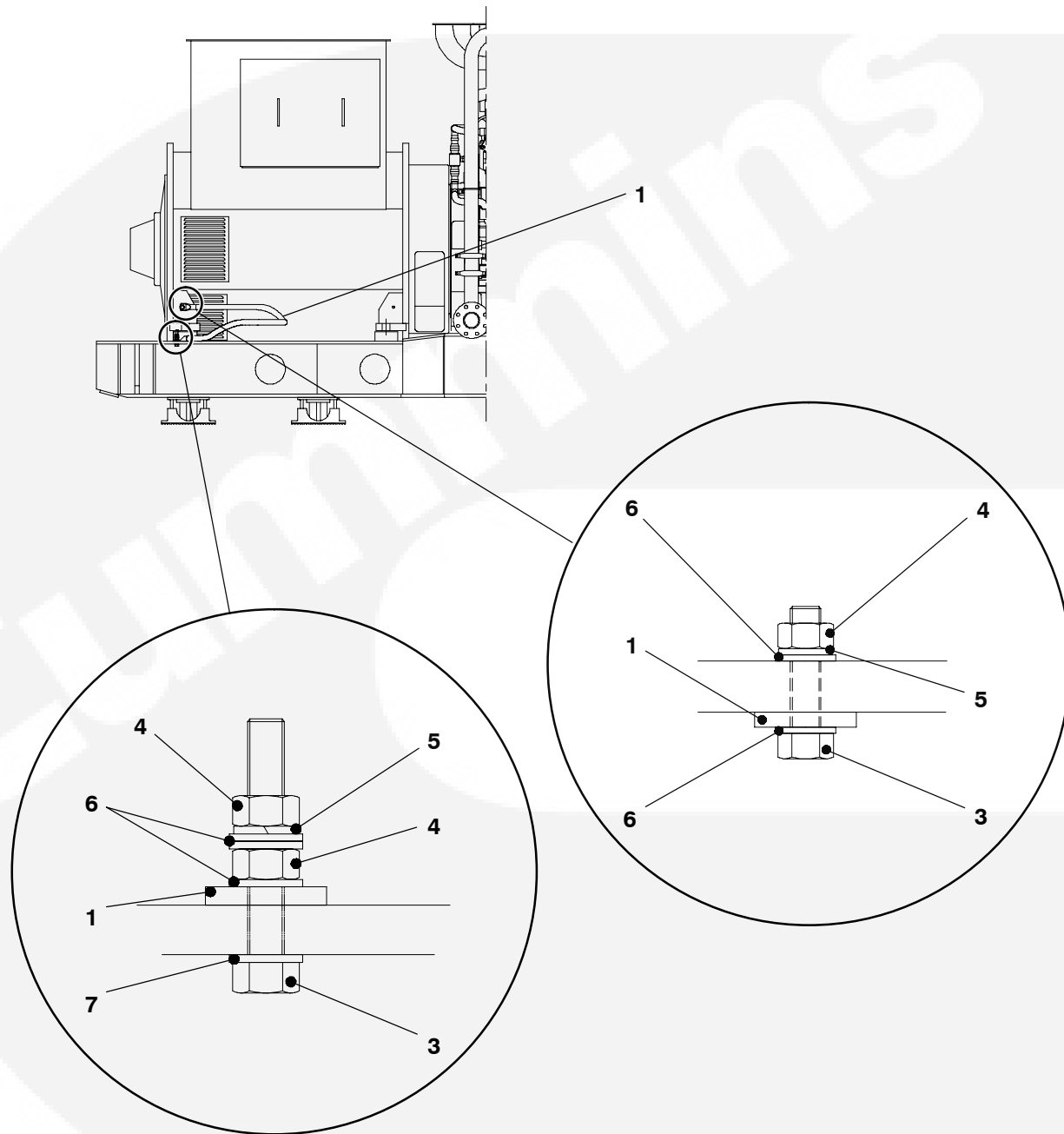
Ground Strap  
 Frame 7  
 Spec A



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                             |
|---------|-------------|----------|----------------------------------------------|
| 1       | 226-4921-01 | 1        | Lead – Earth Strap                           |
| 2       | 800-3017-54 | 1        | Screw, Hex Head (M12 x 1.75 x 30)            |
| 3       | 800-6288-16 | 1        | Screw, Hex Head – Set Bolt (M12 x 1.75 x 80) |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION            |
|---------|-------------|----------|-----------------------------|
| 4       | 862-0026-57 | 2        | Nut, Hex (M12 x 1.75)       |
| 5       | 850-0114-56 | 2        | Washer, Lock – Spring (M12) |
| 6       | 526-0399-54 | 4        | Washer, Flat (M12)          |
| 7       | 853-0040-57 | 1        | Washer, Lock – W/ET (M12)   |

**Ground Strap  
Frame 8  
Spec A**

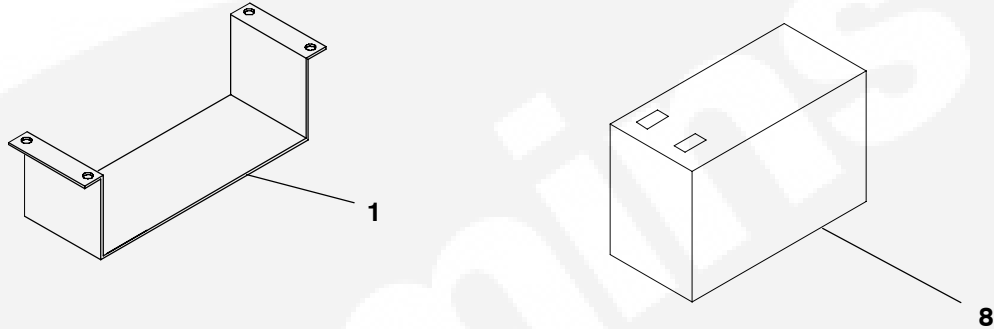


| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                             |
|---------|-------------|----------|----------------------------------------------|
| 1       | 226-4921-01 | 1        | Lead - Earth Strap                           |
| 2       | 800-3017-54 | 1        | Screw, Hex Head (M12 x 1.75 x 30)            |
| 3       | 800-3017-58 | 1        | Screw, Hex Head - Set Bolt (M12 x 1.75 x 50) |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION            |
|---------|-------------|----------|-----------------------------|
| 4       | 862-0026-57 | 3        | Nut, Hex (M12 x 1.75)       |
| 5       | 850-0114-56 | 2        | Washer, Lock - Spring (M12) |
| 6       | 526-0399-54 | 5        | Washer, Flat (M12)          |
| 7       | 853-0040-57 | 1        | Washer, Lock - W/ET (M12)   |

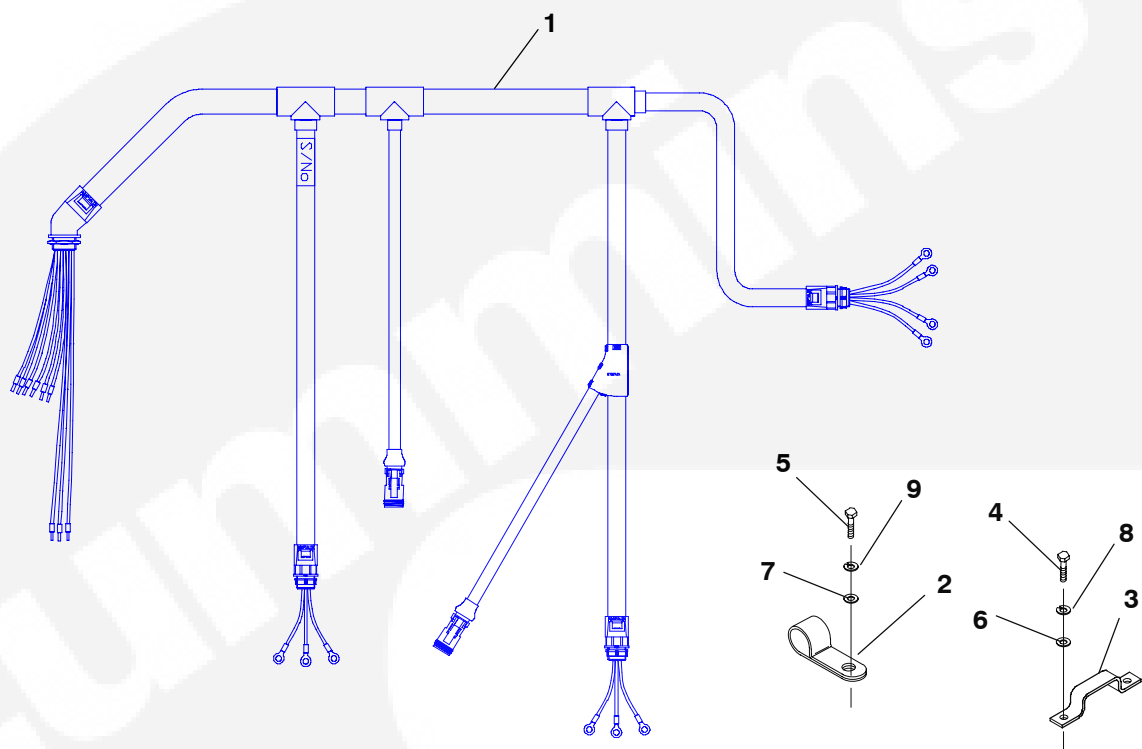


## Engine Power Supply Unit Spec A



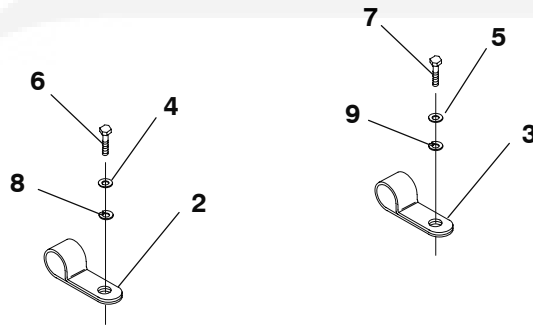
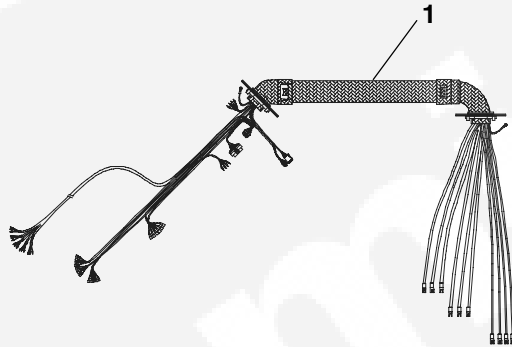
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                              | REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                                             |
|---------|----------|----------|---------------------------------------------------------------|---------|----------|----------|------------------------------------------------------------------------------|
| 1       | 319-4992 | 1        | Bracket, Battery                                              | 6       | 300-5650 | 1        | Bracket, Wall Mounting (RPM 6.00 Module) (Not Illustrated)                   |
| 2       | 331-0576 | 1        | Conduit (25 x 50) (Not Illustrated)                           | 7       | 300-5651 | 1        | Enclosure, Compact (380 x 210mm – Includes Mounting Plate) (Not Illustrated) |
| 3       | 320-2163 | 1        | Breaker, Circuit (16A, 2P, Type C) (Not Illustrated)          | 8       | 416-1138 | 2        | Battery – 12V                                                                |
| 4       | 300-5648 | 1        | Power Supply – Modular (20A, 24V, 100–120V) (Not Illustrated) | 9       | 332-3894 | 1        | Rail, Terminal Block (Not Illustrated)                                       |
| 5       | 300-5649 | 1        | Power Supply – Modular (20A, 24V, 220–240V) (Not Illustrated) |         |          |          |                                                                              |

Heater Harness  
Terminal Block  
Spec A



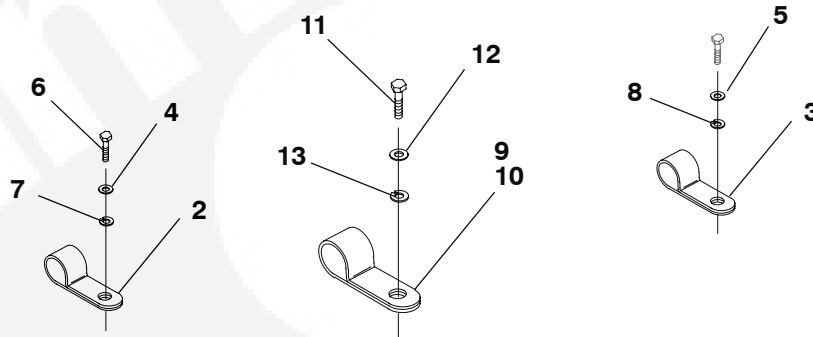
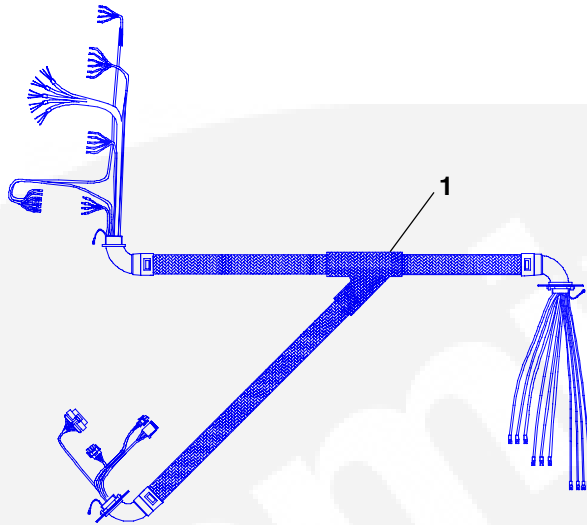
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                |
|---------|-------------|----------|----------------------------------|---------|-------------|----------|---------------------------------|
| 1       | 338-4421    | 1        | Harness, Heater                  | 5       | 800-3017-03 | 7        | Screw, Hex Head (M6 x 1.0 x 16) |
| 2       | 518-0548-05 | 5        | Clamp, Hose 1.312"               | 6       | 526-0399-60 | 3        | Washer, Flat (M8)               |
|         | 518-0548-35 | 4        | 1.0"                             | 7       | 526-0399-59 | 7        | Washer, Flat (M6)               |
| 3       | 331-0615-02 | 1        | Clamp, Conduit – Bedframe        | 8       | 850-0114-54 | 3        | Washer, Lock – Spring (M8)      |
| 4       | 800-3017-18 | 3        | Screw, Hex Head (M8 x 1.25 x 16) | 9       | 850-0114-53 | 7        | Washer, Lock – Spring (M6)      |

# **Wiring Harness Frame 7 Alternator Spec A**



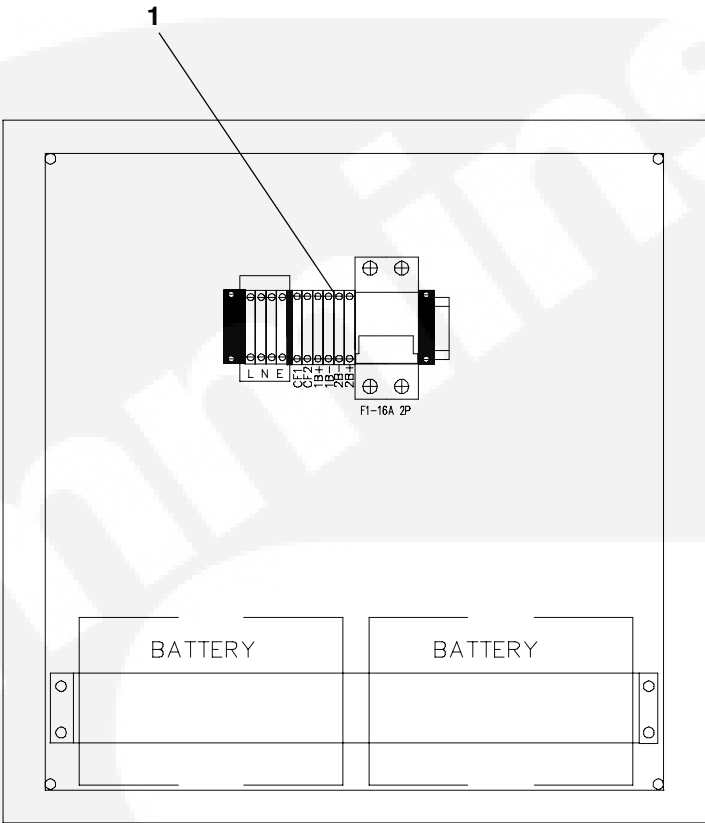
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                       |
|---------|-------------|----------|---------------------------------------|---------|-------------|----------|----------------------------------------|
| 1       | 338-4379    | 1        | Harness, Alternator                   | 7       | 800-3017-37 | 1        | Screw, Cap – Hex Head (M10 x 1.5 x 25) |
| 2       | 518-0548-05 | 1        | Clamp, Hose (.343 Hole Dia.)          | 8       | 850-0114-53 | 1        | Washer, Lock – Spring (M6)             |
| 3       | 518-0548-58 | 1        | Clamp, Hose (.406 Hole Dia.)          | 9       | 850-0114-55 | 1        | Washer, Lock – Spring (M10)            |
| 4       | 526-0399-58 | 1        | Washer, Flat (M6)                     |         |             |          |                                        |
| 5       | 526-0399-62 | 1        | Washer, Flat (M10)                    |         |             |          |                                        |
| 6       | 800-3017-03 | 1        | Screw, Cap – Hex Head (M6 x 1.0 x 16) |         |             |          |                                        |

# **Wiring Harness Frame 8 Alternator Spec A**



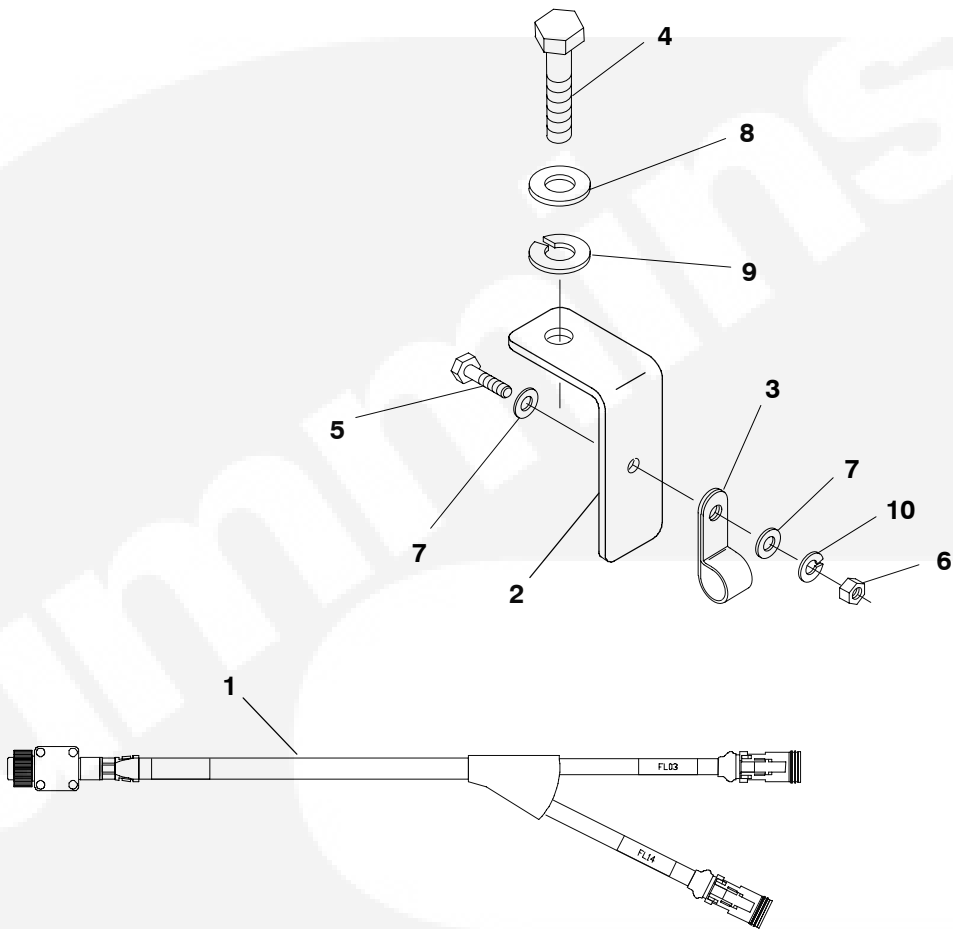
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                       |
|---------|-------------|----------|---------------------------------------|---------|-------------|----------|----------------------------------------|
| 1       | 338-4442    | 1        | Harness, Alternator                   | 9       | 518-0548-04 | 1        | Clamp, Hose (.562 Clamping Dia.)       |
| 2       | 518-0548-05 | 3        | Clamp, Hose (.343 Hole Dia.)          | 10      | 518-0548-35 | 1        | Clamp, Hose (1.000 Clamping Dia.)      |
| 3       | 518-0548-59 | 1        | Clamp, Hose (.531 Hole Dia.)          | 11      | 800-3017-20 | 2        | Screw, Cap - Hex Head (M8 x 1.25 x 25) |
| 4       | 526-0399-58 | 3        | Washer, Flat (M6)                     | 12      | 526-0399-60 | 2        | Washer, Flat (M8)                      |
| 5       | 526-0399-64 | 1        | Washer, Flat (M12)                    | 13      | 850-0114-54 | 2        | Washer, Lock - Spring (M8)             |
| 6       | 800-3017-03 | 3        | Screw, Cap - Hex Head (M6 x 1.0 x 16) |         |             |          |                                        |
| 7       | 850-0114-53 | 3        | Washer, Lock - Spring (M6)            |         |             |          |                                        |
| 8       | 850-0114-56 | 1        | Washer, Lock - Spring (M12)           |         |             |          |                                        |

Control Power Supply  
Spec A



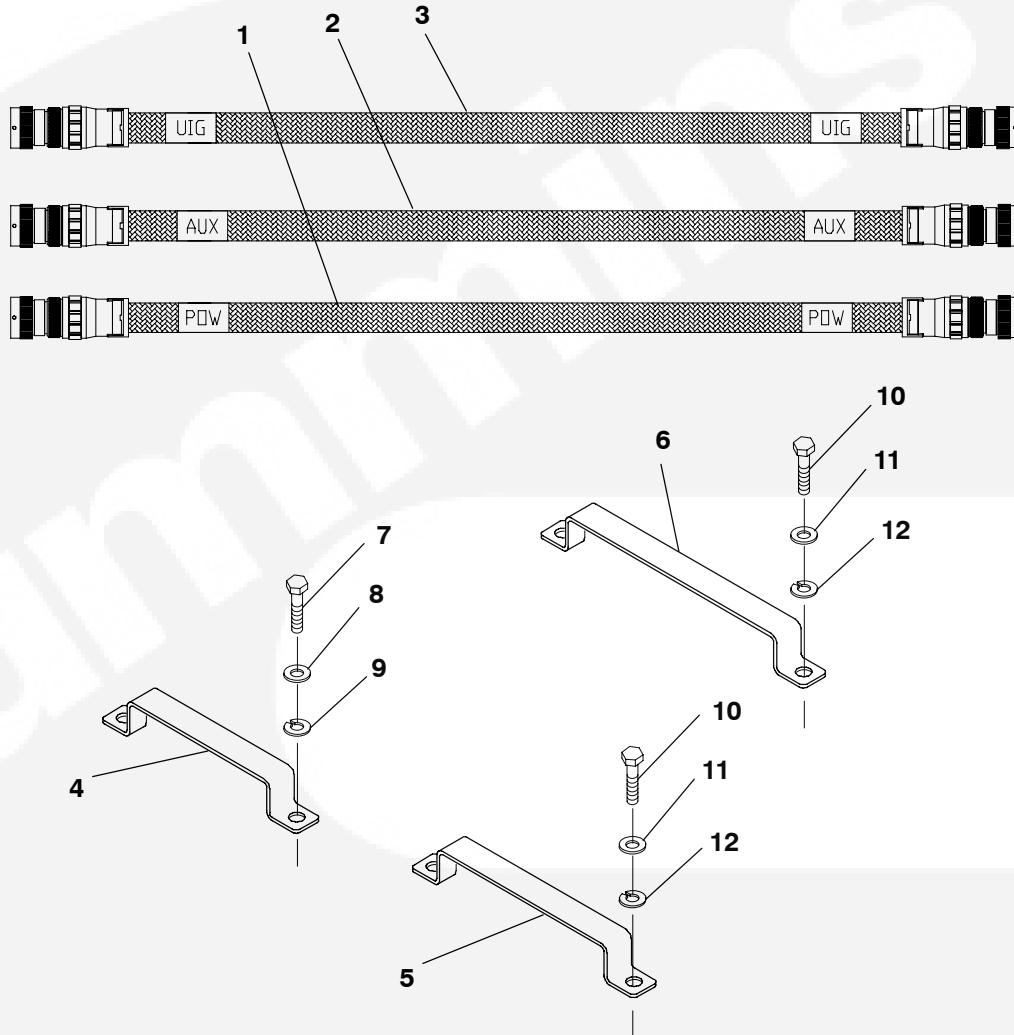
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION       | REF NO. | PART NO. | QTY USED | PART DESCRIPTION |
|---------|----------|----------|------------------------|---------|----------|----------|------------------|
| 1       | 300-5627 | 1        | Power Supply – Control |         |          |          |                  |

Wiring Harness  
Oil Tank



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                |
|---------|-------------|----------|----------------------------------|---------|-------------|----------|---------------------------------|
| 1       | 338-4376    | 1        | Harness, Wiring – Sensor Spec A  | 5       | 800-0309-77 | 2        | Screw, Hex Head (M4 x 0.7 x 20) |
|         | 338-4772    | 1        | Begin Spec B                     | 6       | 862-0026-52 | 2        | Nut, Hex (M4 x 0.7)             |
| 2       | 338-4419-02 | 2        | Bracket, Harness                 | 7       | 526-0399-55 | 4        | Washer, Flat (M4)               |
| 3       | 518-0548-04 | 2        | Clamp, Hose                      | 8       | 526-0399-60 | 2        | Washer, Flat (M8)               |
| 4       | 800-3017-18 | 2        | Screw, Hex Head (M8 x 1.25 x 16) | 9       | 850-0114-54 | 2        | Washer, Lock – Spring (M8)      |
|         |             |          |                                  | 10      | 850-0114-51 | 2        | Washer, Lock – Spring (M4)      |

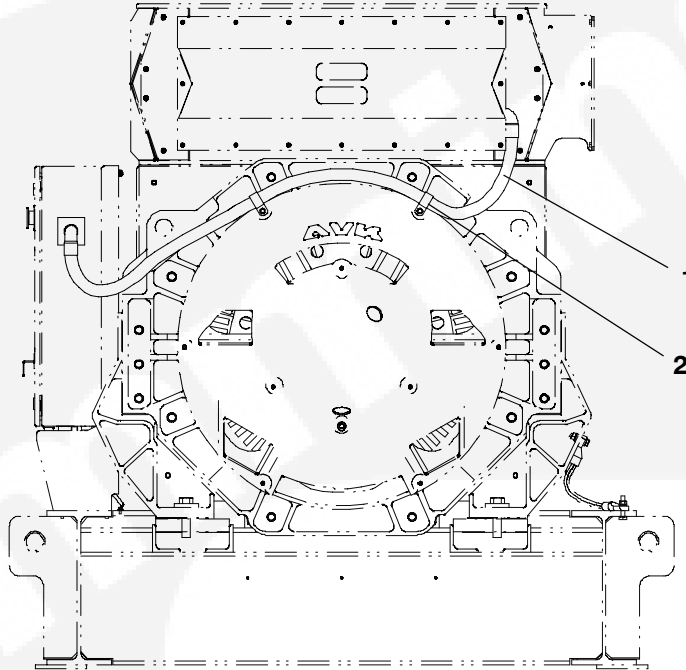
# **Wiring Harness Engine Terminal Box Spec A**



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|-----------------------------------|
| 1       | 338-4373    | 1        | Harness, Wiring – Extension (POW) |
| 2       | 338-4372    | 1        | Harness, Wiring – Extension (AUX) |
| 3       | 338-4371    | 1        | Harness, Wiring – Extension (UIG) |
| 4       | 331-0611-02 | 1        | Clamp, Conduit (Engine)           |
| 5       | 331-0610-02 | 1        | Clamp, Conduit (Bed)              |
| 6       | 331-0616-02 | 1        | Clamp, Conduit (Bedframe)         |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|-----------------------------------|
| 7       | 800-3017-53 | 2        | Screw, Hex Head (M12 x 1.75 x 25) |
| 8       | 526-0399-64 | 2        | Washer, Flat (M12)                |
| 9       | 850-0114-56 | 2        | Washer, Lock – Spring (M12)       |
| 10      | 800-3017-19 | 4        | Screw, Hex Head (M8 x 1.25 x 20)  |
| 11      | 526-0399-60 | 4        | Washer, Flat (M8)                 |
| 12      | 850-0114-54 | 4        | Washer, Lock – Spring (M8)        |

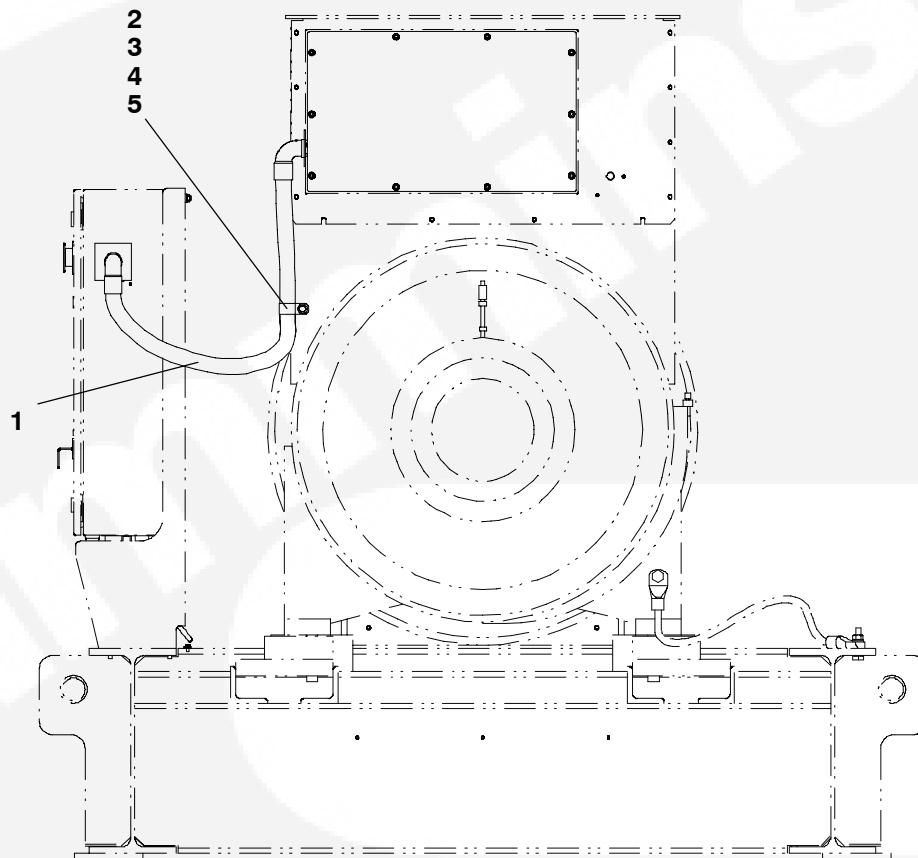
**Wiring Harness  
Alternator Sensor P80  
Begin Spec B**



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                    | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION |
|---------|----------|----------|-------------------------------------|---------|-------------|----------|------------------|
| 1       | 338-4769 | 1        | Harness, Wiring – Alternator Sensor | 2       | 518-0548-43 | 2        | Clamp, Hose      |

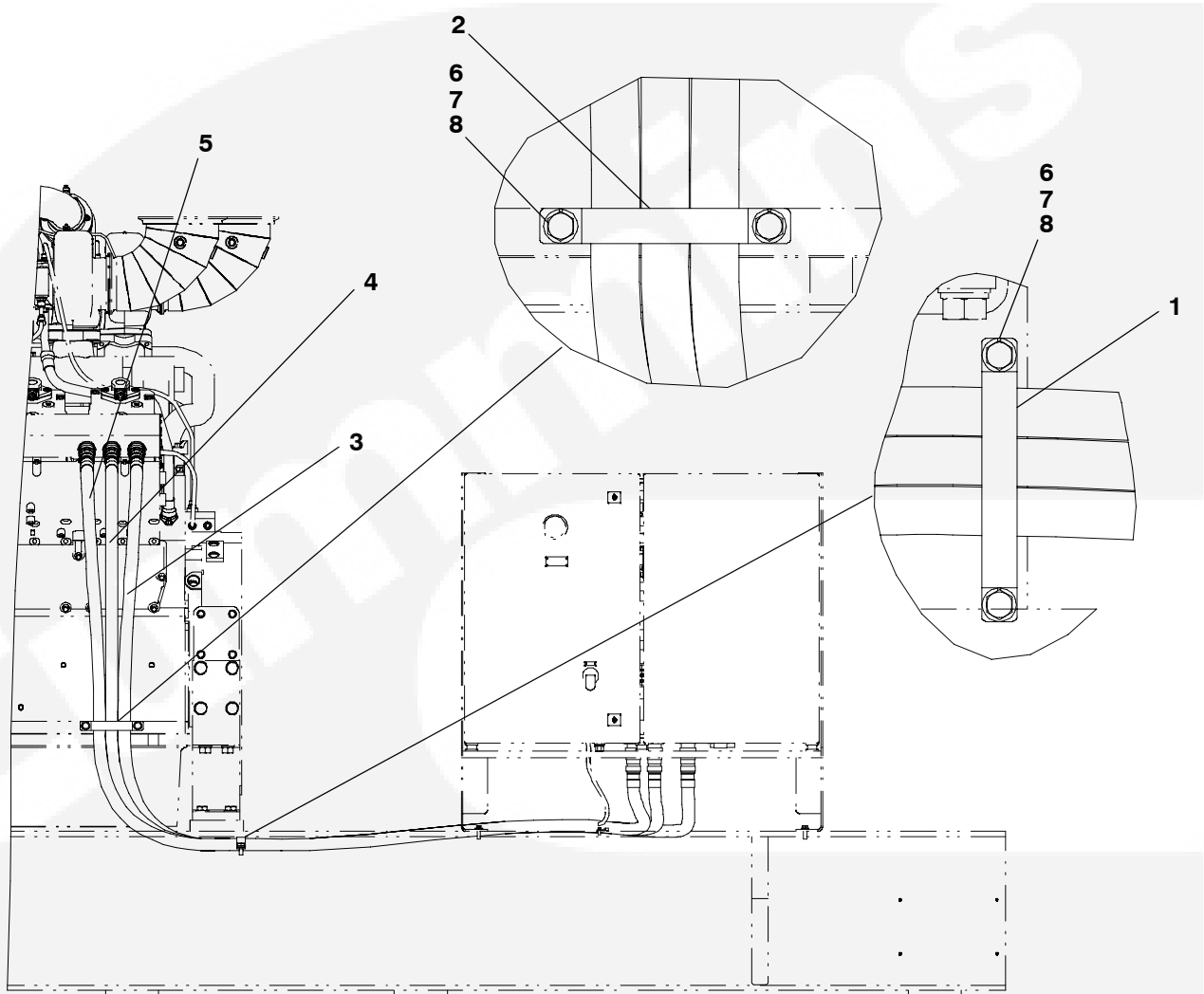


**Wiring Harness  
Alternator Sensor P7  
Begin Spec B**



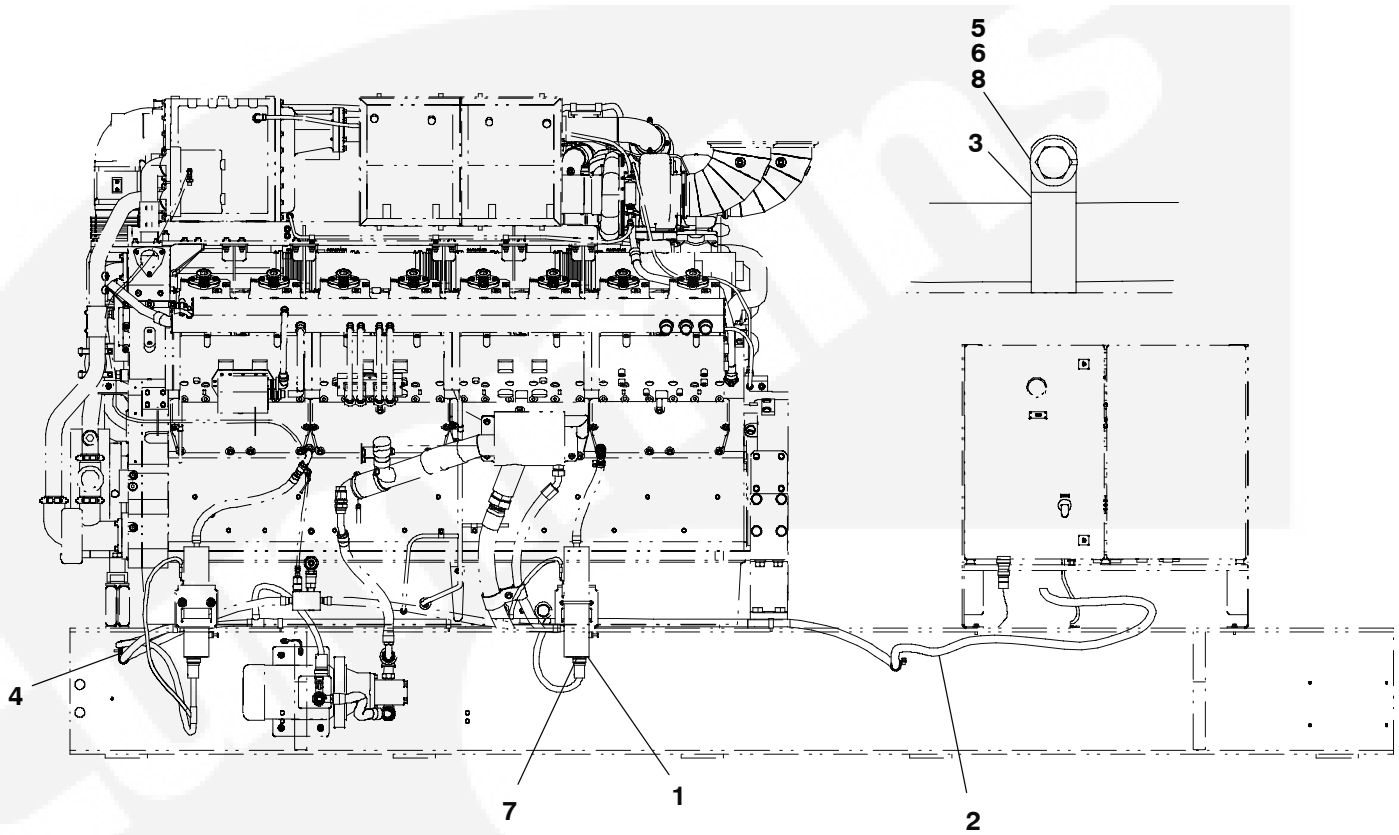
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                    | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|-------------------------------------|---------|-------------|----------|----------------------------------|
| 1       | 338-4770    | 1        | Harness, Wiring – Alternator Sensor | 4       | 800-3017-37 | 1        | Screw, Hex Head (M10 x 1.5 x 25) |
| 2       | 518-0548-58 | 1        | Clamp, Hose                         | 5       | 850-0114-55 | 1        | Washer, Lock (M10)               |
| 3       | 526-0399-62 | 1        | Washer, Flat (M10)                  |         |             |          |                                  |

## Extension Harness Begin Spec B



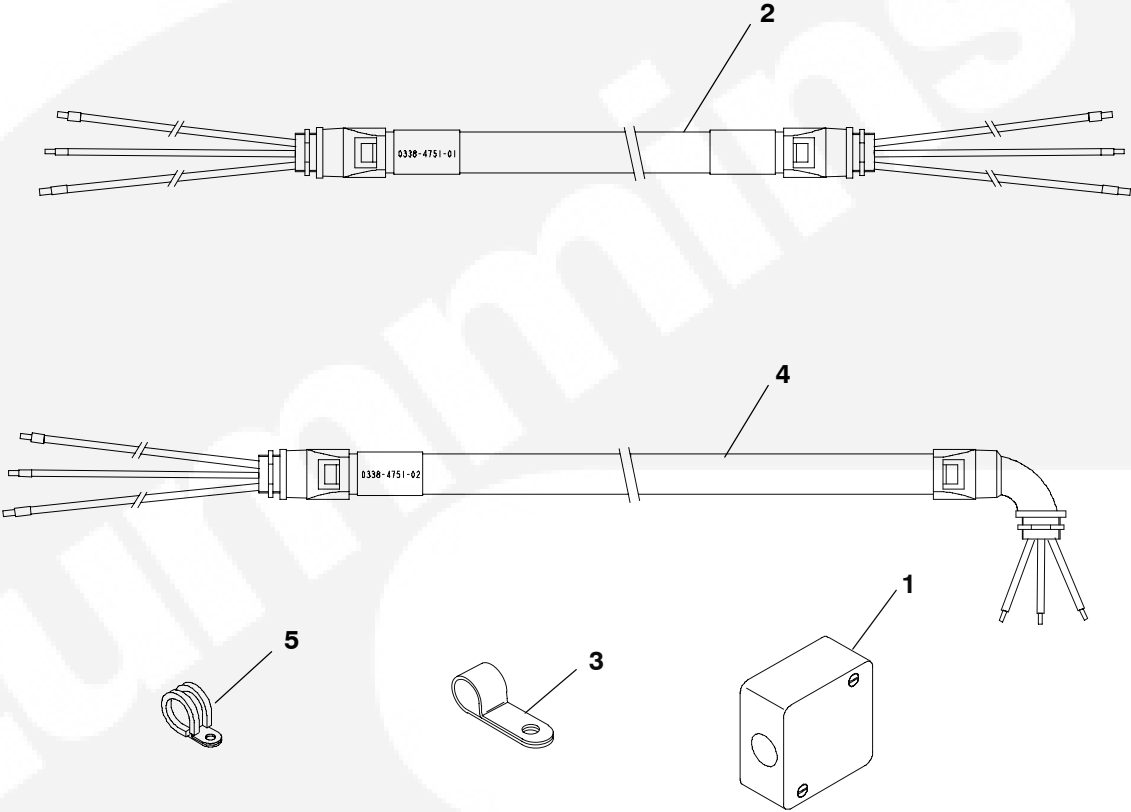
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION         | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  |
|---------|-------------|----------|--------------------------|---------|-------------|----------|-----------------------------------|
| 1       | 331-0610-02 | 1        | Clamp, Conduit - Bed     | 6       | 526-0399-64 | 4        | Washer, Flat (M12)                |
| 2       | 331-0611-02 | 1        | Clamp, Conduit - Engine  | 7       | 800-3017-53 | 4        | Screw, Hex Head (M12 x 1.75 x 25) |
| 3       | 338-4766    | 1        | Harness, Extension - UIG | 8       | 850-0114-56 | 4        | Washer, Lock (M12)                |
| 4       | 338-4767    | 1        | Harness, Extension - AUX |         |             |          |                                   |
| 5       | 338-4768    | 1        | Harness, Extension - POW |         |             |          |                                   |

## AC Harness Begin Spec B



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION    | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                        |
|---------|-------------|----------|---------------------|---------|-------------|----------|---------------------------------------------------------|
| 1       | 130-5391-02 | 2        | Cover, Water Heater | 6       | 800-3017-18 | 5        | Screw, Hex Head (M8 x 1.25 x 16)                        |
| 2       | 338-4759    | 1        | Harness, AC         | 7       | 815-0464    | 4        | Screw, Round Head - Thread Cutting - W/IT (#8-32 x 1.0) |
| 3       | 518-0548-05 | 5        | Clamp, Hose         | 8       | 850-0114-54 | 5        | Washer, Lock (M8)                                       |
| 4       | 518-0548-38 | 2        | Clamp, Hose         |         |             |          |                                                         |
| 5       | 526-0399-60 | 5        | Washer, Flat (M8)   |         |             |          |                                                         |

Wiring Harness  
Alternator  
Begin Spec B

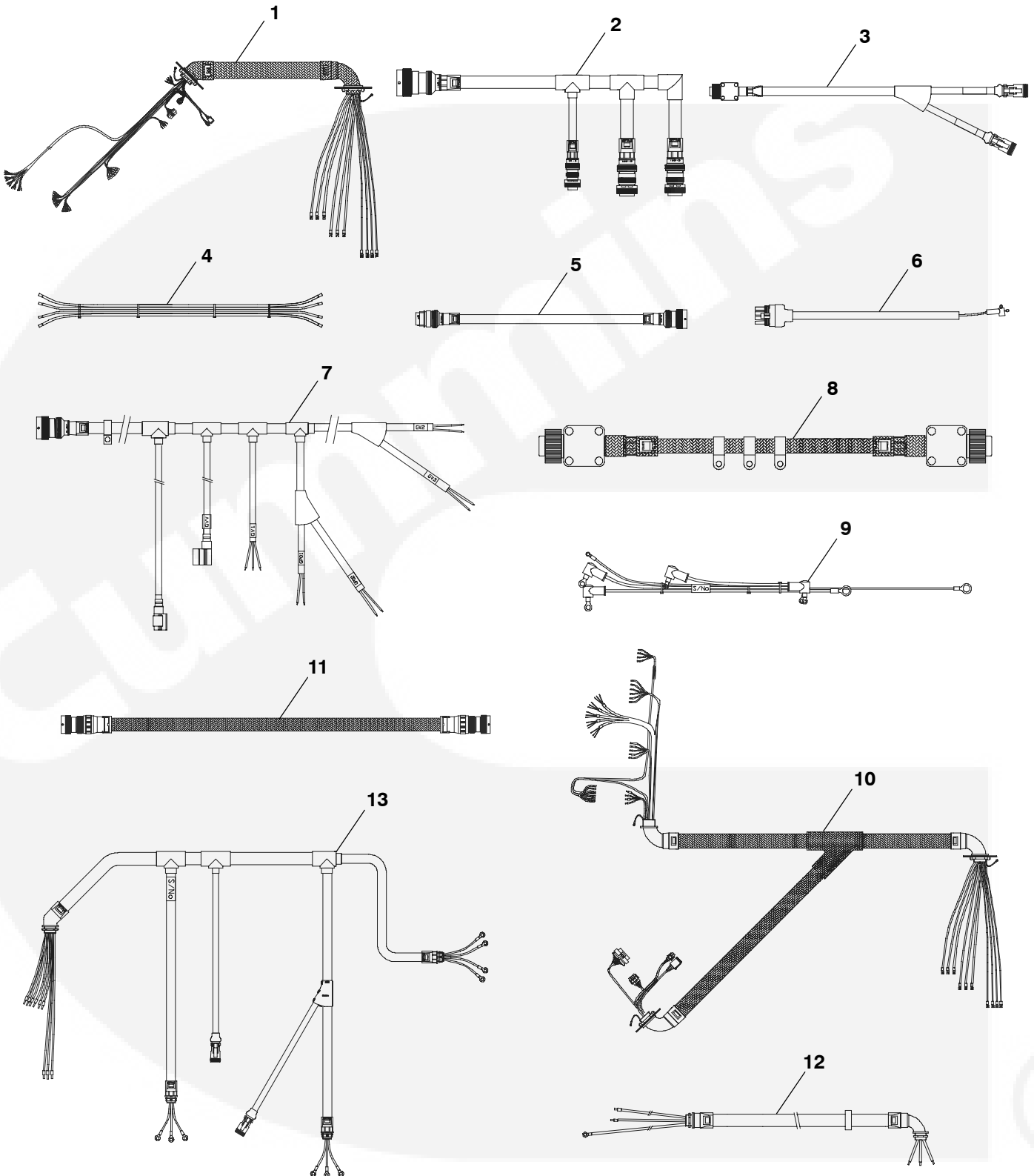


| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION     | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION      |
|---------|-------------|----------|----------------------|---------|-------------|----------|-----------------------|
| 1       | 330-0159    | 1        | Box, Junction – P7   | 4       | 338-4751-02 | 1        | Harness, Heater – P80 |
| 2       | 338-4751-01 | 1        | Harness, Heater – P7 | 5       | 518-0730    | 1        | Clip, Tube – P80      |
| 3       |             |          | Clamp, Hose          |         |             |          |                       |
|         | 518-0548-21 | 4        | P7                   |         |             |          |                       |
|         | 518-0548-21 | 1        | P80                  |         |             |          |                       |

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# Wiring Harnesses Spec A

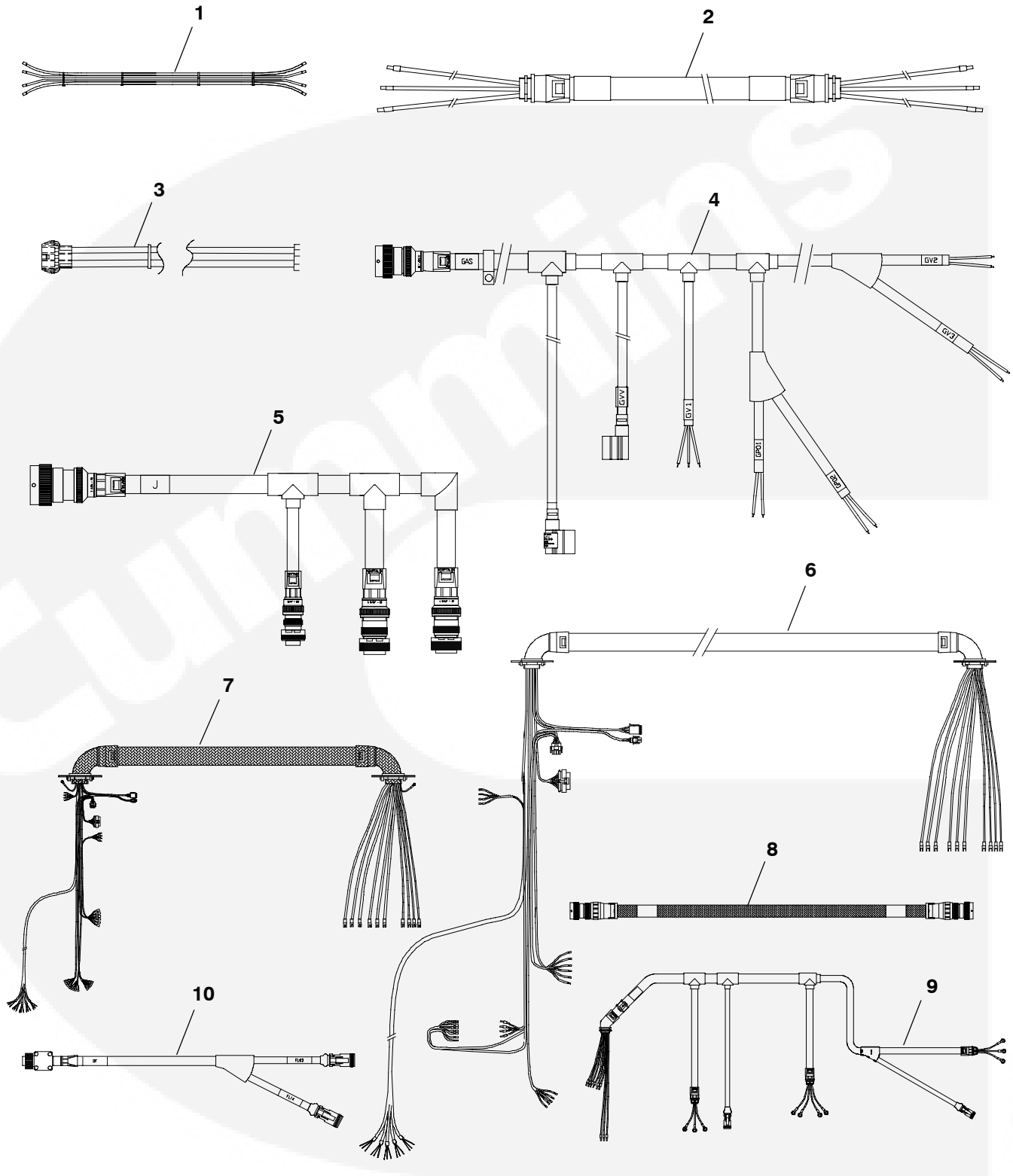


## Wiring Harnesses Spec A

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                       | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                       |
|------------|-------------|-------------|-------------------------------------------|------------|-------------|-------------|-------------------------------------------|
| 1          | 338-4379    | 1           | Harness, Wiring – Alternator –<br>Frame 7 | 9          | 338-4422    | 1           | Harness, Wiring – Starter                 |
| 2          | 338-4375    | 1           | Harness, Wiring – Governor –<br>Proact    | 10         | 338-4442    | 1           | Harness, Wiring – Alternator –<br>Frame 8 |
| 3          | 338-4376    | 1           | Harness, Wiring – Sensor – Oil<br>Tank    | 11         | 338-4372    | 1           | Harness, Wiring – Extension<br>Auxiliary  |
| 4          | 338-4456    | 1           | Harness, Wiring – Transformer             |            | 338-4373    | 1           | POW                                       |
| 5          | 338-4443    | 1           | Harness, Wiring – Extension               |            | 338-4371    | 1           | UIG                                       |
| 6          | 338-4370    | 1           | Harness, Wiring – Starter                 | 12         |             |             | Harness, Wiring – Heater –<br>Alternator  |
| 7          | 338-4374    | 1           | Harness, Wiring – Valve                   |            | 338-4446    | 1           | Frame 8                                   |
| 8          | 338-4378    | 1           | Harness, Wiring – Control –<br>E-Stop     |            | 338-4440    | 1           | Frame 7                                   |
|            |             |             |                                           | 13         | 338-4421    | 1           | Harness, Wiring – AC                      |



# Wiring Harnesses Spec B

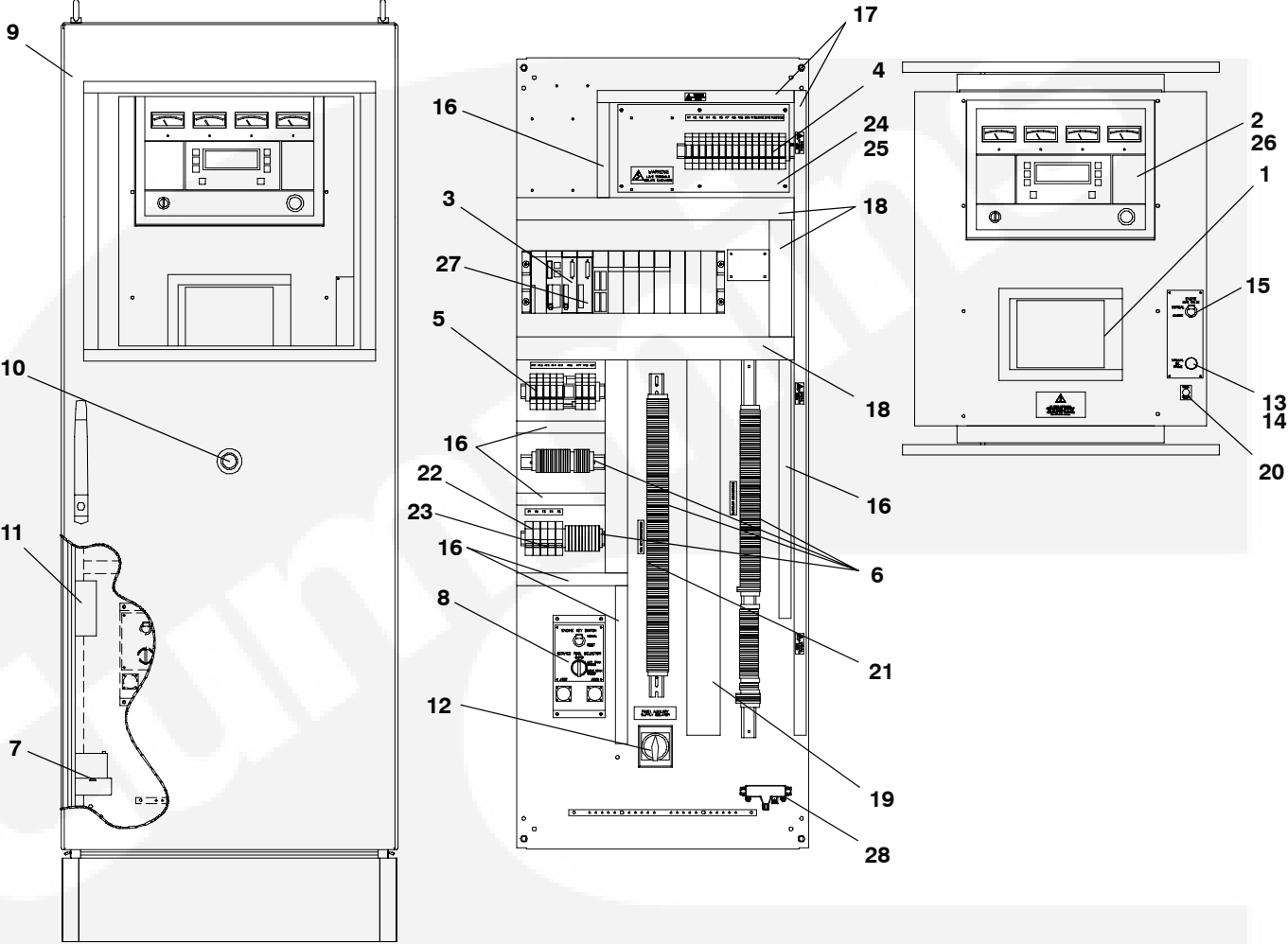




## Wiring Harnesses Spec B

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                              | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                              |
|------------|-------------|-------------|--------------------------------------------------|------------|-------------|-------------|--------------------------------------------------|
| 1          | 338-4456    | 1           | Harness, Wiring – Transformer                    | 7          | 338-4770    | 1           | Harness, Wiring – Alternator<br>Sensor – Frame 7 |
| 2          |             |             | Harness, Wiring – Heater –<br>Alternator         | 8          |             |             | Harness, Wiring – Extension                      |
|            | 338-4751-02 | 1           | Frame 8                                          |            | 338-4767    | 1           | Auxiliary                                        |
|            | 338-4751-01 | 1           | Frame 7                                          |            | 338-4768    | 1           | POW                                              |
| 3          | 338-4510    | 1           | Harness, Wiring – Battery<br>Charger             |            | 338-4766    | 1           | UIG                                              |
| 4          | 338-4374    | 1           | Harness, Wiring – Valve                          | 9          | 338-4759    | 1           | Harness, Wiring – AC                             |
| 5          | 338-4375    | 1           | Harness, Wiring – Governor –<br>PROACT           | 10         | 338-4772    | 1           | Harness, Wiring – Sensor – Oil<br>Tank           |
| 6          | 338-4769    | 1           | Harness, Wiring – Alternator<br>Sensor – Frame 8 |            |             |             |                                                  |

**Genset Control Panel  
Spec A**

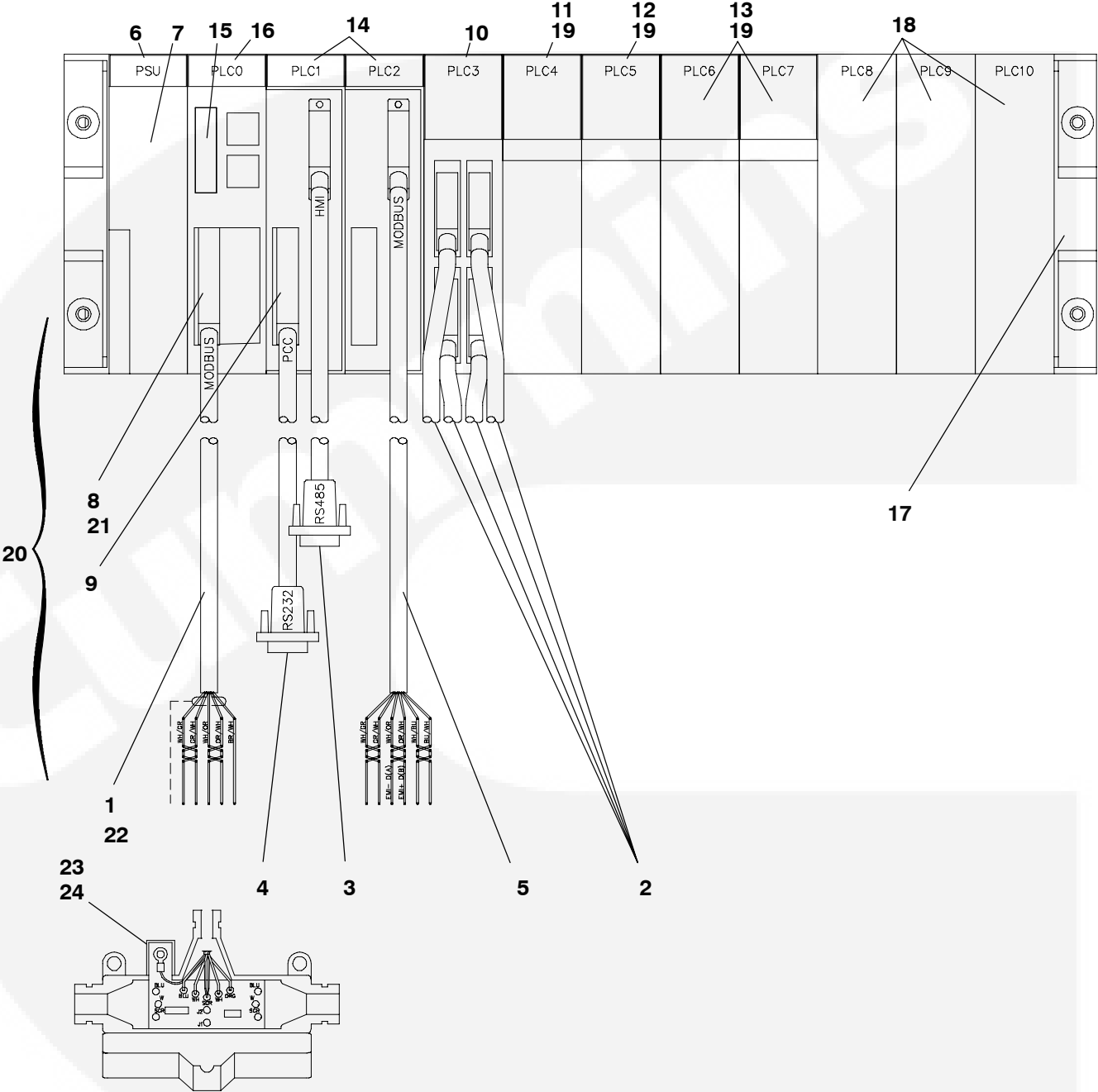


## Genset Control Panel Spec A

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                 | REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                 |
|---------|-------------|----------|------------------------------------------------------------------|---------|----------|----------|--------------------------------------------------|
| 1       | 300-5720    | 1        | * Display, Control – Touchscreen                                 | 12      | 300-5647 | 1        | Switch – Auxiliary Supply Isolator               |
| 2       | 300-5127-02 | 1        | Control, PowerCommand (See 960-0205 For Components)              | 13      | 308-1135 | 1        | Switch, Pushbutton – Operator                    |
| 3       | 300-5732    | 1        | PLC Assembly (See Separate Page For Components)                  | 14      | 308-1136 | 1        | Switch, Pushbutton – Body and N/O Contact        |
| 4       | 307-2998    | 1        | GCP Relay Assembly 1 (See Separate Page For Components)          | 15      | 308-1137 | 1        | Switch, Toggle – 2 Position                      |
| 5       | 307-2999    | 1        | GCP Relay Assembly 2 (See Separate Page For Components)          | 16      | 331-0591 | 1        | Duct, Wiring – Grey (25 x 75)                    |
| 6       | 332-3935    | 1        | GCP DIN Rail Assemblies (See Separate Page For Components)       | 17      | 331-0592 | 1        | Duct, Wiring – Black (25 x 75)                   |
| 7       | 416-1138    | 1        | Battery (12V)                                                    | 18      | 331-0593 | 1        | Duct, Wiring – Grey (50 x 75)                    |
| 8       | 560-2110    | 1        | Selector Switch, Service Tool (See Separate Page For Components) | 19      | 331-0594 | 1        | Duct, Wiring – Grey (75 x 75)                    |
| 9       | 319-4993    | 1        | Frame, Cabinet (See Separate Page For Components)                | 20      | 332-3886 | 1        | Block, Terminal – Electrostatic Bonding Terminal |
| 10      | 098-8025    | 1        | Label, Information – E-Stop (See 960-0205)                       | 21      | 350-1245 | 1        | Resistor – 120Ω                                  |
| 11      | 249-0833    | 1        | Bracket, Wall Mounting – 24VDC, 10A Power Supply                 | 22      | 249-0805 | 2        | Breaker, Circuit – Miniature, 10A, 1 Pole        |
|         |             |          |                                                                  | 23      | 249-0806 | 3        | Breaker, Circuit – Miniature, 4A, 1 Pole         |
|         |             |          |                                                                  | 24      | 319-4763 | 1        | Cover, Box – Relays                              |
|         |             |          |                                                                  | 25      | 319-4764 | 6        | Pillar, Brass                                    |
|         |             |          |                                                                  | 26      | 367-5734 | 1        | IC, Prom                                         |
|         |             |          |                                                                  | 27      | 300-5737 | 1        | DMC Interface Option                             |
|         |             |          |                                                                  | 28      | 326-0174 | 1        | Tap, Cable                                       |

\* – Must Be Programmed Prior To Installation.

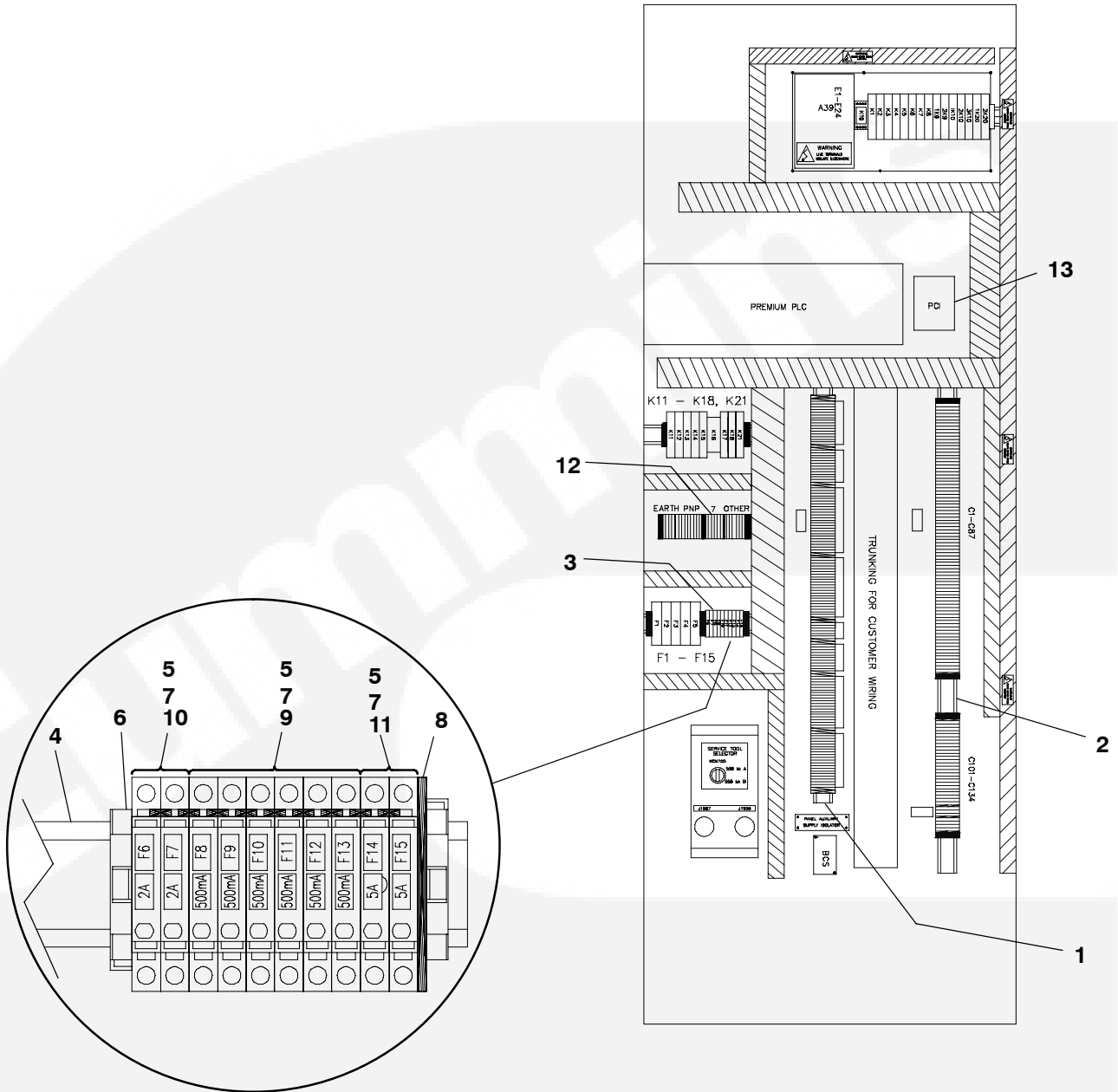
PLC Assembly  
Spec A



## PLC Assembly Spec A

| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                        | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                |
|---------|----------|----------|-----------------------------------------|---------|-------------|----------|-------------------------------------------------|
| 1       | 226-4852 | 1        | Lead – PCMCIA Card Cable 3M             | 13      | 249-0828    | 2        | Module, 16 Digital Output – 24VDC, 50A          |
| 2       | 226-4853 | 4        | Lead – Extension Cable 3M               | 14      | 300-5644    | 2        | PLC – Communication Module                      |
| 3       | 226-4854 | 1        | Lead – HMI RS485 Comms Cable 3M         | 15      | 300-5715    | 1        | PLC – PCMCIA 64K16 Flash Card                   |
| 4       | 226-4855 | 1        | Lead – RS232 Comms Cable 3M             | 16      | 300-5830    | 1        | PLC – Premium CPU 32K                           |
| 5       | 226-4856 | 1        | Lead – RS485 Modbus Comms Cable 3M      | 17      | 319-4751    | 1        | Plate, Mounting – 12 Way Non-Extendable Rack    |
| 6       | 249-0820 | 1        | Unit, Power Supply – 30W, 24VDC         | 18      | 319-4752    | 4        | Cover, Printed Circuit Board – Protective Cover |
| 7       | 249-0821 | 1        | Battery, Lithium – RAM Backup           | 19      | 323-2026    | 4        | Connector, Plug                                 |
| 8       | 249-0823 | 1        | Card, PCMCIA – RS485/422                | 20      | 300-5737    | 1        | DMC Interface Option (Includes Parts Marked *)  |
| 9       | 249-0824 | 1        | Card, PCMCIA – RS232 PowerCommand Comms | 21      | 300-5716    | 1        | * PLC – PCMCIA Modbus Plus Comms Card           |
| 10      | 249-0825 | 1        | Module, 64 Way High Density Input       | 22      | 335-0217    | 1        | * Cable – Modbus Drop Cable 3M                  |
| 11      | 249-0826 | 1        | Module, 16 Digital Input – 24VDC        | 23      | 326-0174    | 1        | * Tap, Cable                                    |
| 12      | 249-0827 | 1        | Card, Resistance Thermometer Input      | 24      | 818-0231-02 | 2        | * Rivet, Pop                                    |

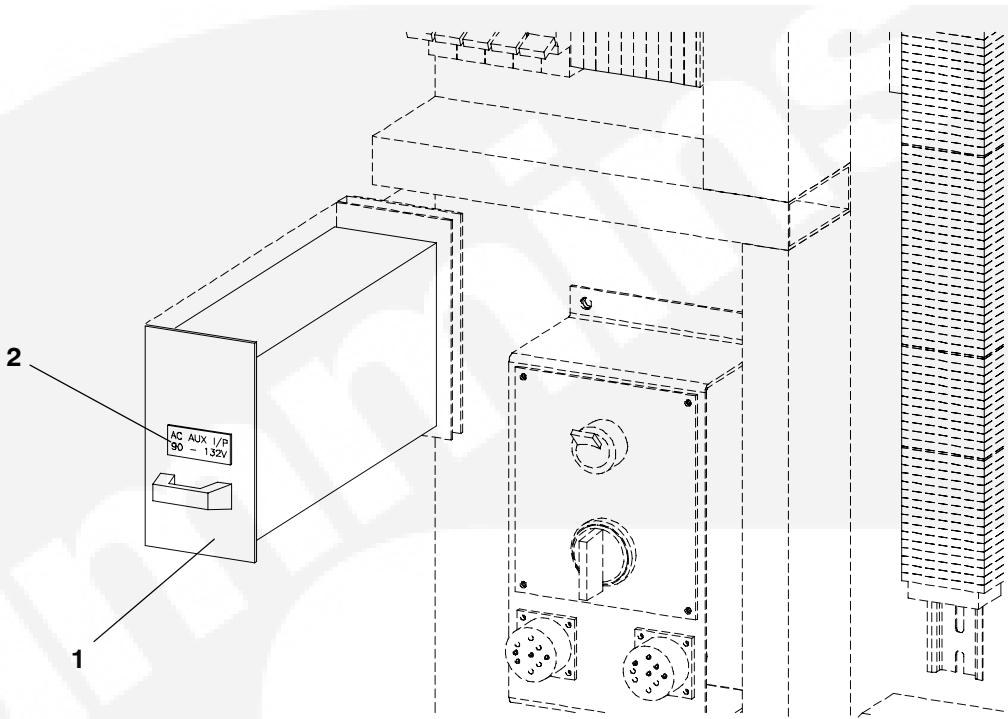
## GCP Rail Assemblies Spec A



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|-------------|----------|---------------------------------------|
| 1       | 332-3934    | 1        | Rail, Terminal Block                  |
| 2       | 332-3922    | 1        | Rail, Terminal Block                  |
| 3       | 321-0392    | 1        | Block, Fuse (Includes Parts Marked *) |
| 4       | 332-4035-02 | 1        | * Rail, Terminal Block                |
| 5       | 332-4071-02 | 1        | * Strip, Marker                       |
| 6       | 332-3925    | 2        | * Stop, End - Terminal Block          |

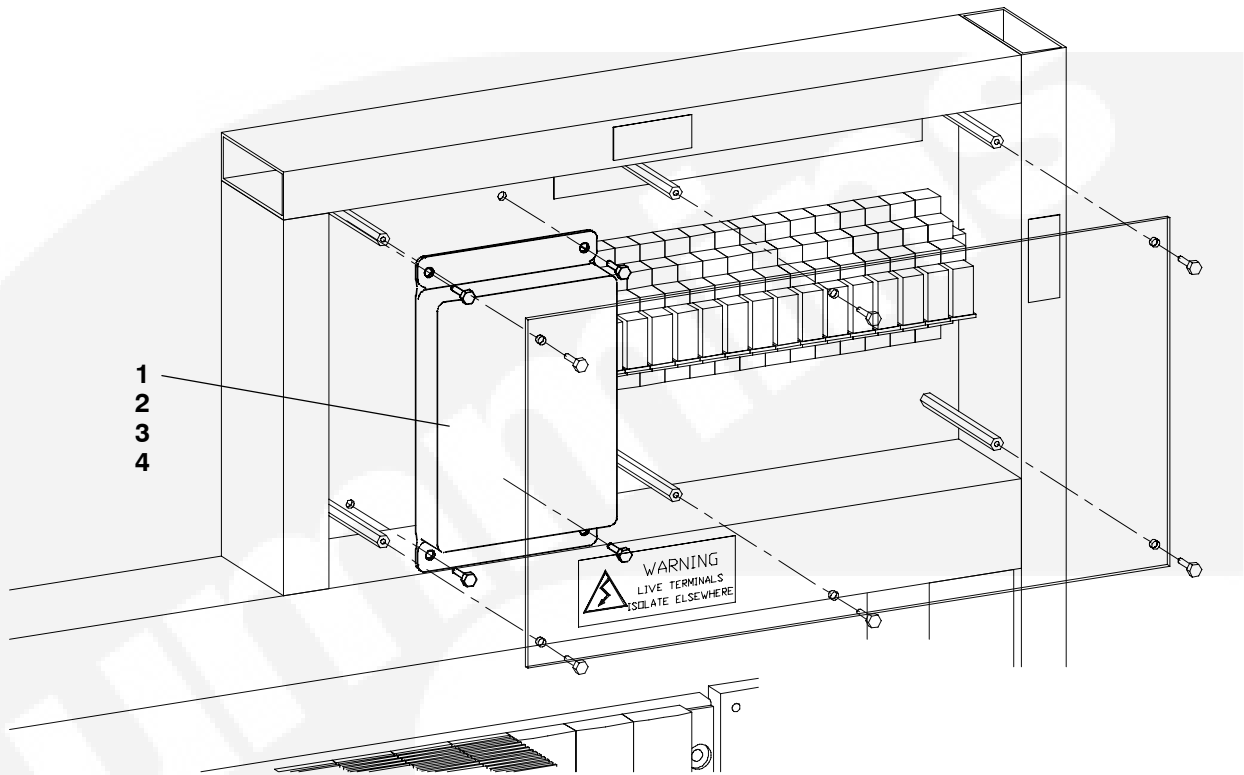
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION              |
|---------|-------------|----------|-------------------------------|
| 7       | 332-3944    | 10       | * Fuse - Terminal Block       |
| 8       | 332-3945    | 1        | * Plate, End - Terminal Block |
| 9       | 321-0386    | 6        | * Fuse (500mA)                |
| 10      | 321-0394-02 | 2        | * Fuse (2A)                   |
| 11      | 321-0394-04 | 2        | * Fuse (5A)                   |
| 12      | 332-3921    | 1        | Rail, Terminal Block          |
| 13      | 300-5145    | 1        | PCI                           |

GCP Power Supply  
Spec A



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION           | REF NO. | PART NO. | QTY USED | PART DESCRIPTION   |
|---------|----------|----------|----------------------------|---------|----------|----------|--------------------|
| 1       | 249-0831 | 1        | Supply, Power – 24VDC, 10A | 2       | 098-8023 | 1        | Label, Information |
|         | 249-0832 | 1        | 198-264VAC                 |         | 098-8024 | 1        | 198-264VAC         |
|         |          |          | 90-132VAC                  |         |          |          | 90-132VAC          |

## GCP L-L Bus Spec A



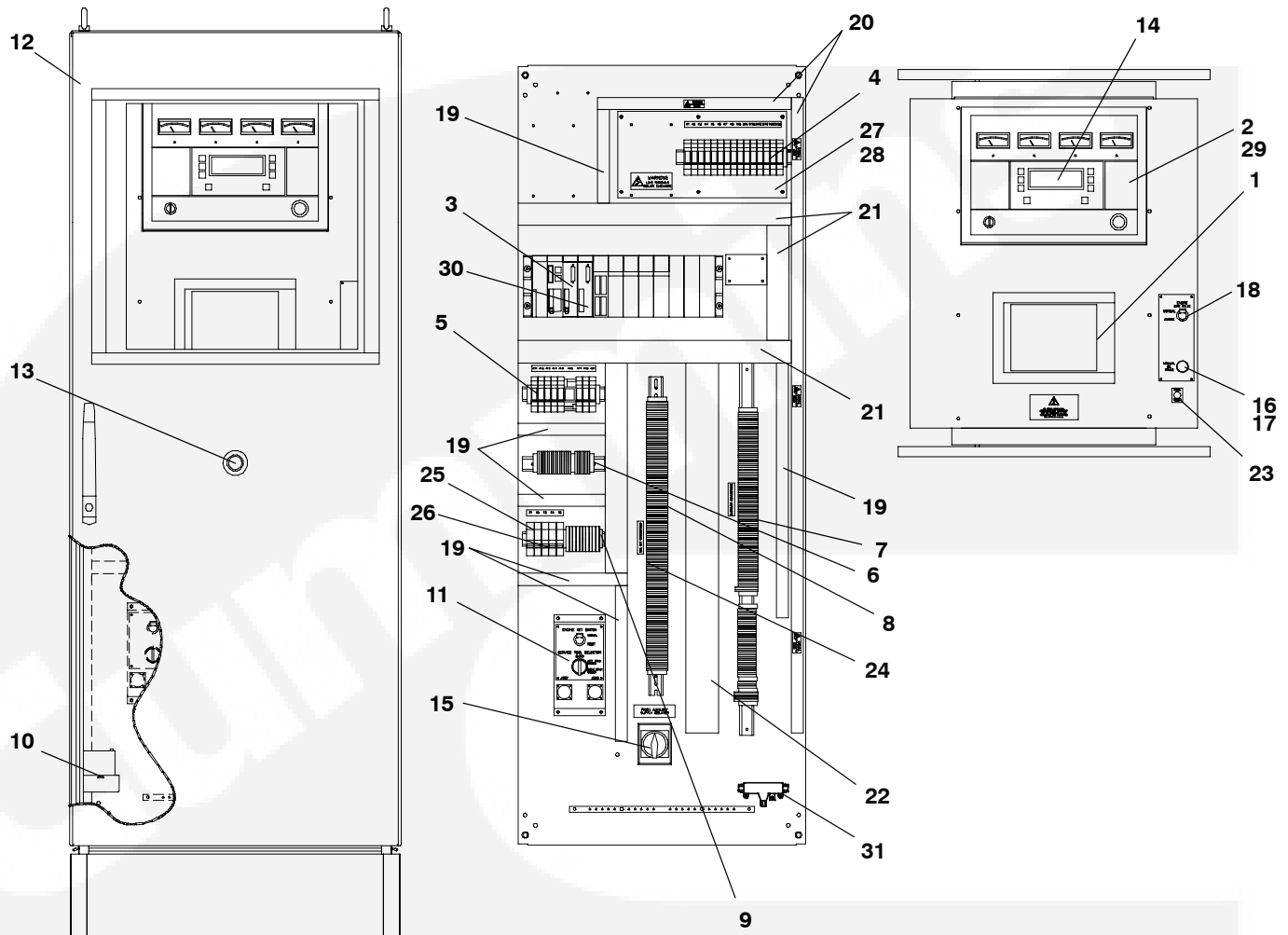
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                           | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|-------------|----------|--------------------------------------------|---------|-------------|----------|----------------------------|
| 1       |             |          | Board, Printed Circuit – Bus / First Start | 2       | 800-0309-77 | 4        | Screw, Hex Head (M4 x 20)  |
|         | 300-4985-04 | 1        | 120V                                       | 3       | 526-0399-54 | 4        | Washer, Flat (M4)          |
|         | 300-4985-01 | 1        | 240V                                       | 4       | 850-0114-51 | 4        | Washer, Lock – Spring (M4) |
|         | 300-4985-02 | 1        | 480V                                       |         |             |          |                            |
|         | 300-4985-03 | 1        | 600V                                       |         |             |          |                            |



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# **Genset Control Panel 1** **Begin Spec B**

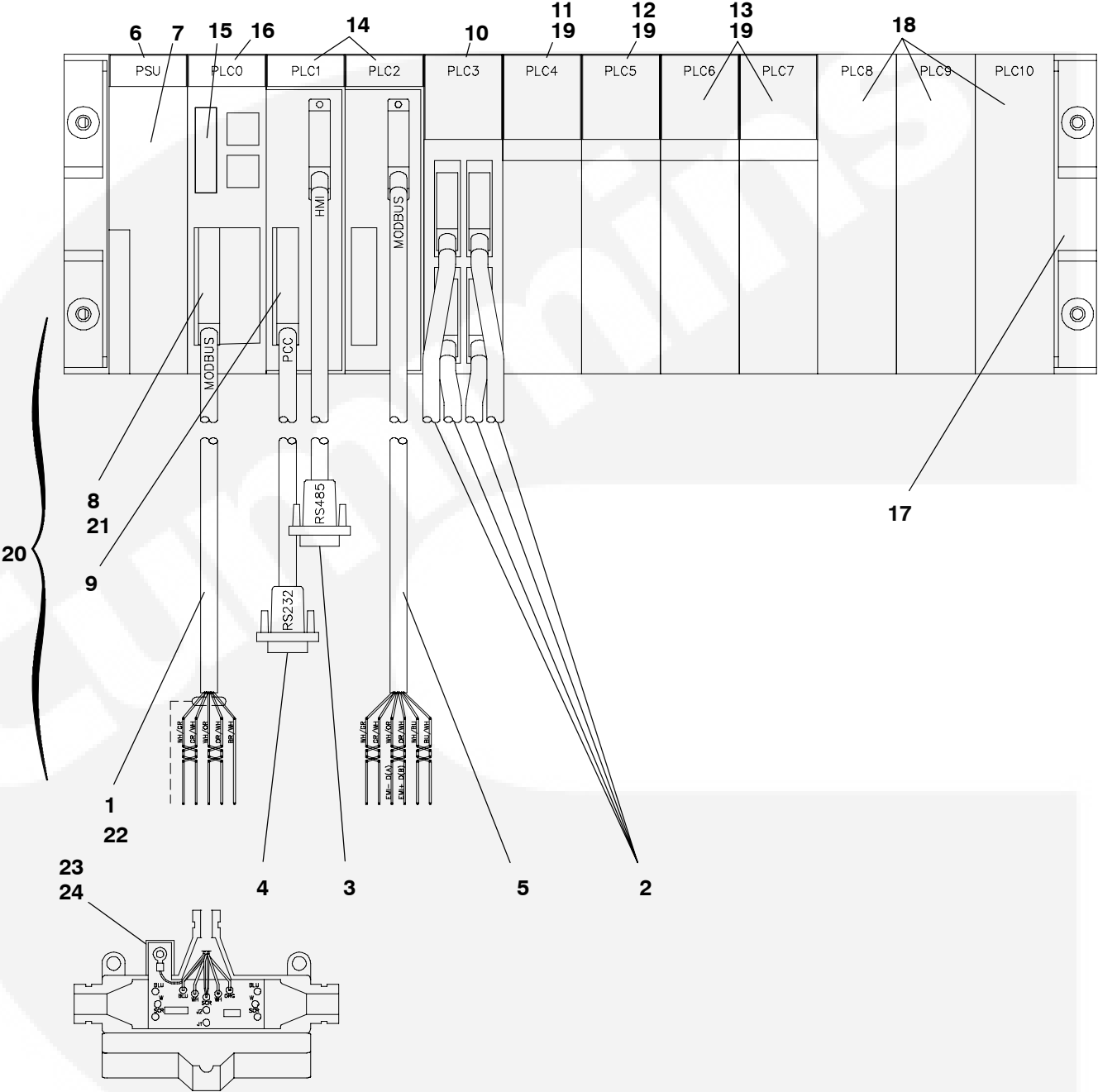


## Genset Control Panel 1 Begin Spec B

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                 | REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                 |
|---------|-------------|----------|------------------------------------------------------------------|---------|----------|----------|--------------------------------------------------|
| 1       | 300-6053    | 1        | * Display, Control – Touchscreen (HMI)                           | 15      | 300-5647 | 1        | Switch – Auxiliary Supply Isolator               |
| 2       | 300-5127-02 | 1        | Control, PowerCommand (See 960-0205 For Components)              | 16      | 308-1135 | 1        | Switch, Pushbutton – Operator                    |
| 3       | 300-6143    | 1        | PLC Assembly (See Separate Page For Components)                  | 17      | 308-1136 | 1        | Switch, Pushbutton – Body and N/O Contact        |
| 4       | 307-2998    | 1        | GCP Relay Assembly 1 (See Separate Page For Components)          | 18      | 308-1137 | 1        | Switch, Toggle – 2 Position                      |
| 5       | 307-2999    | 1        | GCP Relay Assembly 2 (See Separate Page For Components)          | 19      | 331-0591 | 1        | Duct, Wiring – Grey (25 x 75)                    |
| 6       | 332-4202    | 1        | GCP Rail Assembly                                                | 20      | 331-0592 | 1        | Duct, Wiring – Black (25 x 75)                   |
| 7       | 332-4203    | 1        | GCP Rail Assembly                                                | 21      | 331-0593 | 1        | Duct, Wiring – Grey (50 x 75)                    |
| 8       | 332-4204    | 1        | GCP Rail Assembly                                                | 22      | 331-0594 | 1        | Duct, Wiring – Grey (75 x 75)                    |
| 9       | 321-0427    | 1        | Block, Fuse                                                      | 23      | 332-3886 | 1        | Block, Terminal – Electrostatic Bonding Terminal |
| 10      | 416-1138    | 2        | Battery (12V)                                                    | 24      | 350-1245 | 1        | Resistor – 120Ω                                  |
| 11      | 560-2110    | 1        | Selector Switch, Service Tool (See Separate Page For Components) | 25      | 249-0805 | 2        | Breaker, Circuit – Miniature, 10A, 1 Pole        |
| 12      | 319-6289    | 1        | Frame, Cabinet (See Separate Page For Components)                | 26      | 249-0806 | 3        | Breaker, Circuit – Miniature, 4A, 1 Pole         |
| 13      | 098-8025    | 1        | Label, Information – E-Stop (See 960-0205)                       | 27      | 319-4763 | 1        | Cover, Box – Relays                              |
| 14      | 300-5935    | 1        | GCP Interim S/W                                                  | 28      | 319-4764 | 6        | Pillar, Brass                                    |
|         |             |          |                                                                  | 29      | 367-5734 | 1        | IC, Prom                                         |
|         |             |          |                                                                  | 30      | 300-5737 | 1        | DMC Interface Option                             |
|         |             |          |                                                                  | 31      | 326-0174 | 1        | Tap, Cable                                       |
|         |             |          |                                                                  | 32      | 300-6114 | 1        | Power Supply (Not Shown)                         |

\* – Must Be Programmed Prior To Installation.

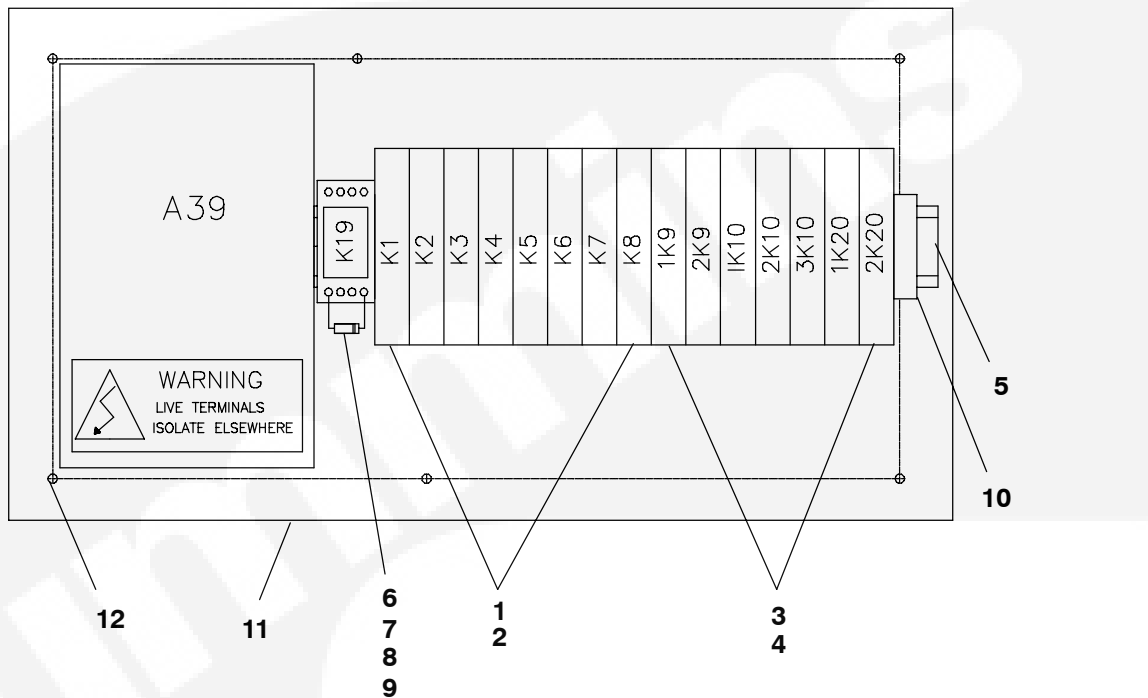
PLC Assembly  
Begin Spec B



## PLC Assembly Begin Spec B

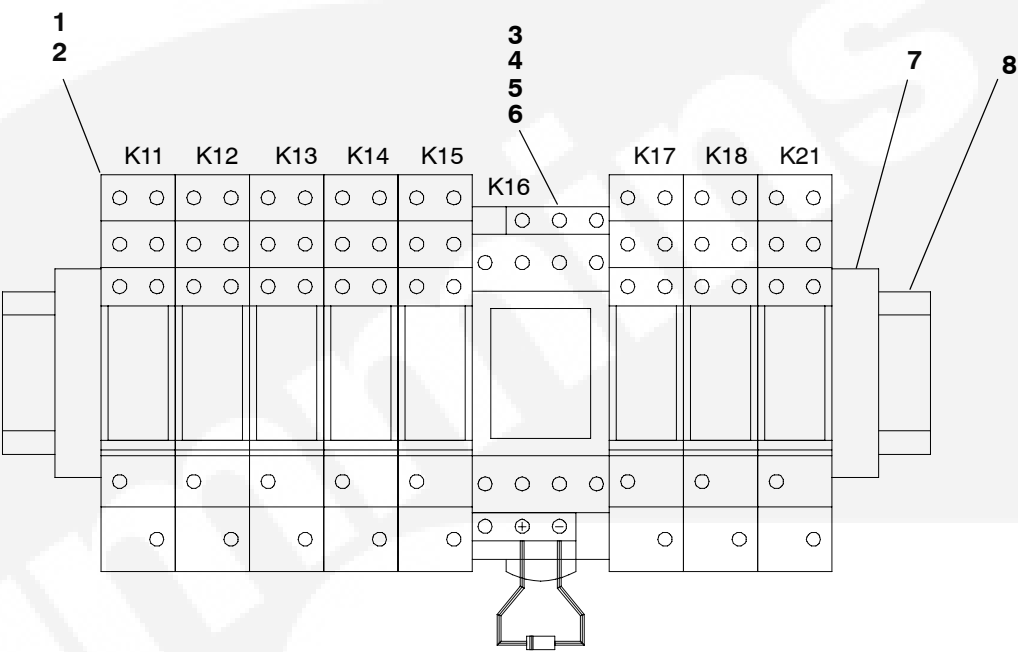
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                        | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                |
|---------|----------|----------|-----------------------------------------|---------|-------------|----------|-------------------------------------------------|
| 1       | 226-4852 | 1        | Lead – PCMCIA Card Cable 3M             | 13      | 249-0828    | 2        | Module, 16 Digital Output – 24VDC, 50A          |
| 2       | 226-4853 | 4        | Lead – Extension Cable 3M               | 14      | 300-5644    | 2        | PLC – Communication Module                      |
| 3       | 226-4956 | 1        | Lead – HMI RS485 Comms Cable 3M         | 15      | 300-6024-02 | 1        | PLC – PCMCIA 64K16 Flash Card                   |
| 4       | 226-4855 | 1        | Lead – RS232 Comms Cable 3M             | 16      | 300-5830    | 1        | PLC – Premium CPU 32K                           |
| 5       | 226-4856 | 1        | Lead – RS485 Modbus Comms Cable 3M      | 17      | 319-4751    | 1        | Plate, Mounting – 12 Way Non-Extendable Rack    |
| 6       | 249-0820 | 1        | Unit, Power Supply – 30W, 24VDC         | 18      | 319-4752    | 4        | Cover, Printed Circuit Board – Protective Cover |
| 7       | 249-0821 | 1        | Battery, Lithium – RAM Backup           | 19      | 323-2026    | 4        | Connector, Plug                                 |
| 8       | 249-0823 | 1        | Card, PCMCIA – RS485/422                | 20      | 300-5737    | 1        | DMC Interface Option (Includes Parts Marked *)  |
| 9       | 249-0824 | 1        | Card, PCMCIA – RS232 PowerCommand Comms | 21      | 300-5716    | 1        | * PLC – PCMCIA Modbus Plus Comms Card           |
| 10      | 249-0825 | 1        | Module, 64 Way High Density Input       | 22      | 335-0217    | 1        | * Cable – Modbus Drop Cable 3M                  |
| 11      | 249-0826 | 1        | Module, 16 Digital Input – 24VDC        | 23      | 326-0174    | 1        | * Tap, Cable                                    |
| 12      | 249-0827 | 1        | Card, Resistance Thermometer Input      | 24      | 818-0231-02 | 2        | * Rivet, Pop                                    |

## GCP Relay Assembly 1



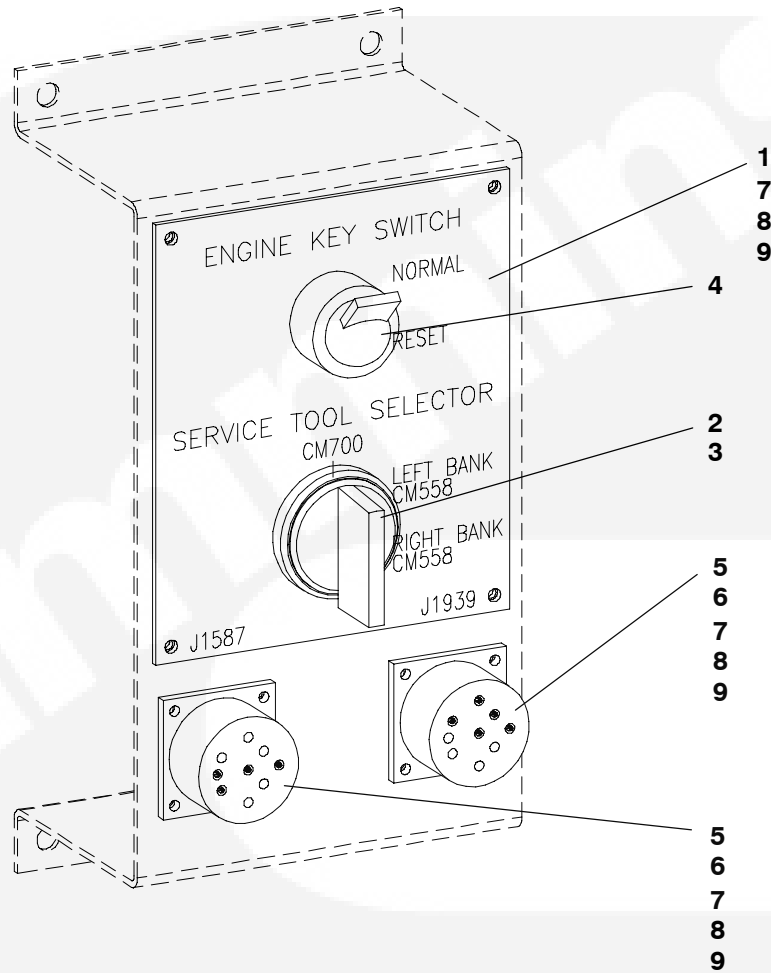
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                           | REF NO. | PART NO. | QTY USED | PART DESCRIPTION               |
|---------|----------|----------|------------------------------------------------------------|---------|----------|----------|--------------------------------|
| 1       | 249-0813 | 8        | Relay – 2P, 24V W/Diode (K1–K8)                            | 5       | 332-3895 | 1        | Rail, Terminal Block           |
| 2       | 249-0814 | 8        | Relay – 2P, 24V Base (K1–K8)                               | 6       | 249-0817 | 1        | Relay – 4P, 24V No Diode (K19) |
| 3       | 249-0815 | 7        | Relay – 1P, 24V W/Diode (1K9,2K9,1K10,2K10,3K10,1K20,2K20) | 7       | 249-0818 | 1        | Relay – Base (K19)             |
| 4       | 249-0816 | 7        | Relay – Base 1P (1K9,2K9,1K10,2K10,3K10,1K20,2K20)         | 8       | 249-0819 | 1        | Relay – Clip (K19)             |
|         |          |          |                                                            | 9       | 305-1007 | 1        | Rectifier (K19)                |
|         |          |          |                                                            | 10      | 332-3890 | 1        | Block, Terminal – End Bracket  |
|         |          |          |                                                            | 11      | 319-4763 | 1        | Cover, Box – Perspex           |
|         |          |          |                                                            | 12      | 319-4764 | 6        | Cover, Box – Supports          |

GCP Relay Assembly 2



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                 | REF NO. | PART NO. | QTY USED | PART DESCRIPTION              |
|---------|----------|----------|--------------------------------------------------|---------|----------|----------|-------------------------------|
| 1       | 249-0813 | 8        | Relay – 2P, 24V W/Diode (K11–K15, K17, K18, K21) | 4       | 249-0818 | 1        | Relay – Base (K16)            |
| 2       | 249-0814 | 8        | Relay – 2P, Base (K11–K15, K17, K18, K21)        | 5       | 249-0819 | 1        | Relay – Clip (K16)            |
| 3       | 249-0817 | 1        | Relay – 4P, 24V No Diode (K16)                   | 6       | 305-1007 | 1        | Rectifier (K16)               |
|         |          |          |                                                  | 7       | 332-3890 | 2        | Block, Terminal – End Bracket |
|         |          |          |                                                  | 8       | 332-3895 | 1        | Rail, Terminal Block          |

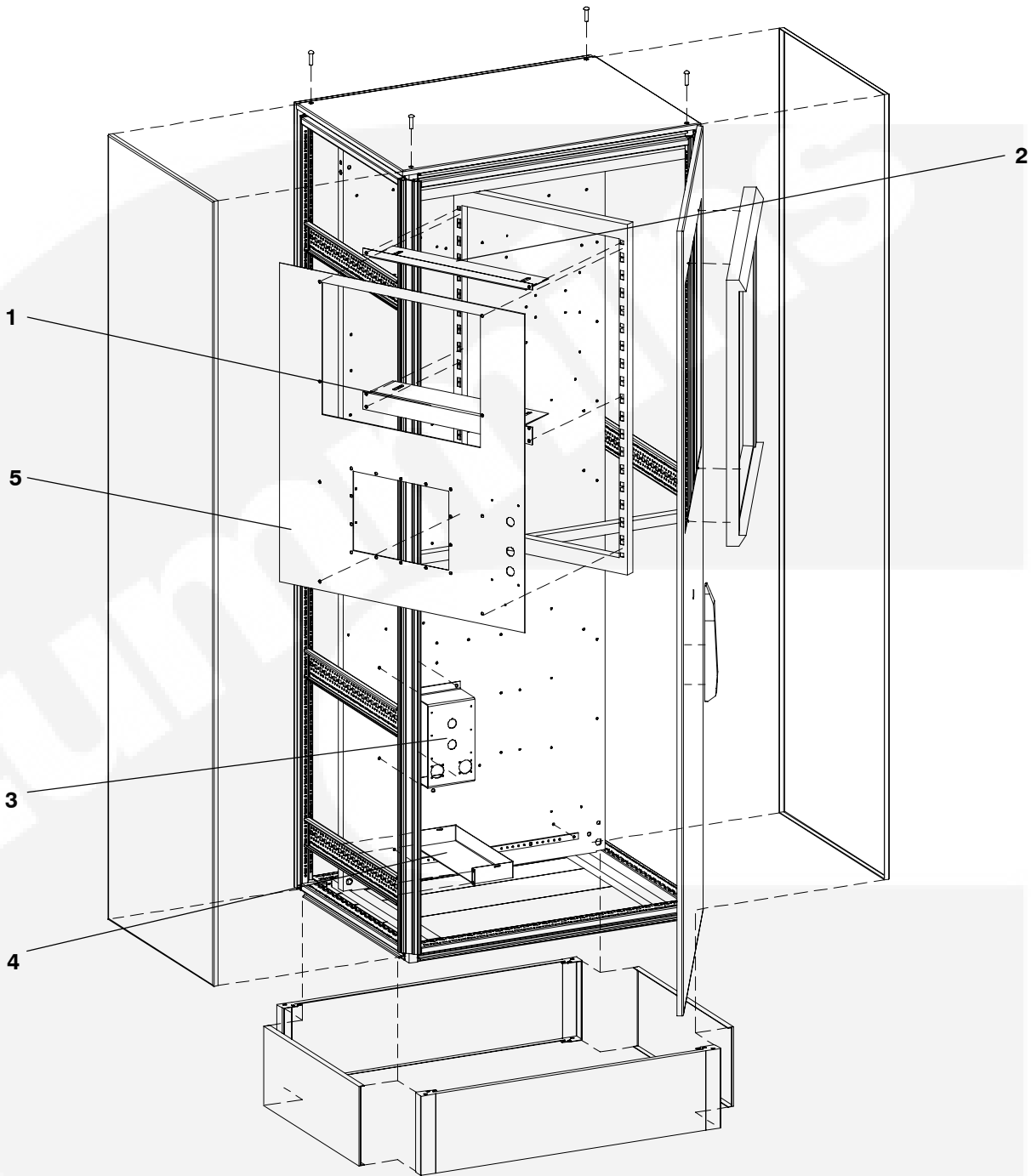
## Service Tool



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION            | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION            |
|---------|----------|----------|-----------------------------|---------|-------------|----------|-----------------------------|
| 1       | 098-8286 | 1        | Label, Information          | 6       | 323-2057    | 2        | Receptacle                  |
| 2       | 308-1138 | 1        | Switch, Rotary              | 7       | 800-0309-55 | 12       | Screw, Hex Head (M2.5 x 20) |
| 3       | 308-1139 | 1        | Switch, Rocker              | 8       | 862-0026-50 | 12       | Nut, Hex (M2.5)             |
| 4       | 308-1137 | 1        | Switch, Toggle – 2 Position | 9       | 562-0399-50 | 12       | Washer, Flat                |
| 5       | 323-2028 | 9        | Connector, Plug             |         |             |          |                             |

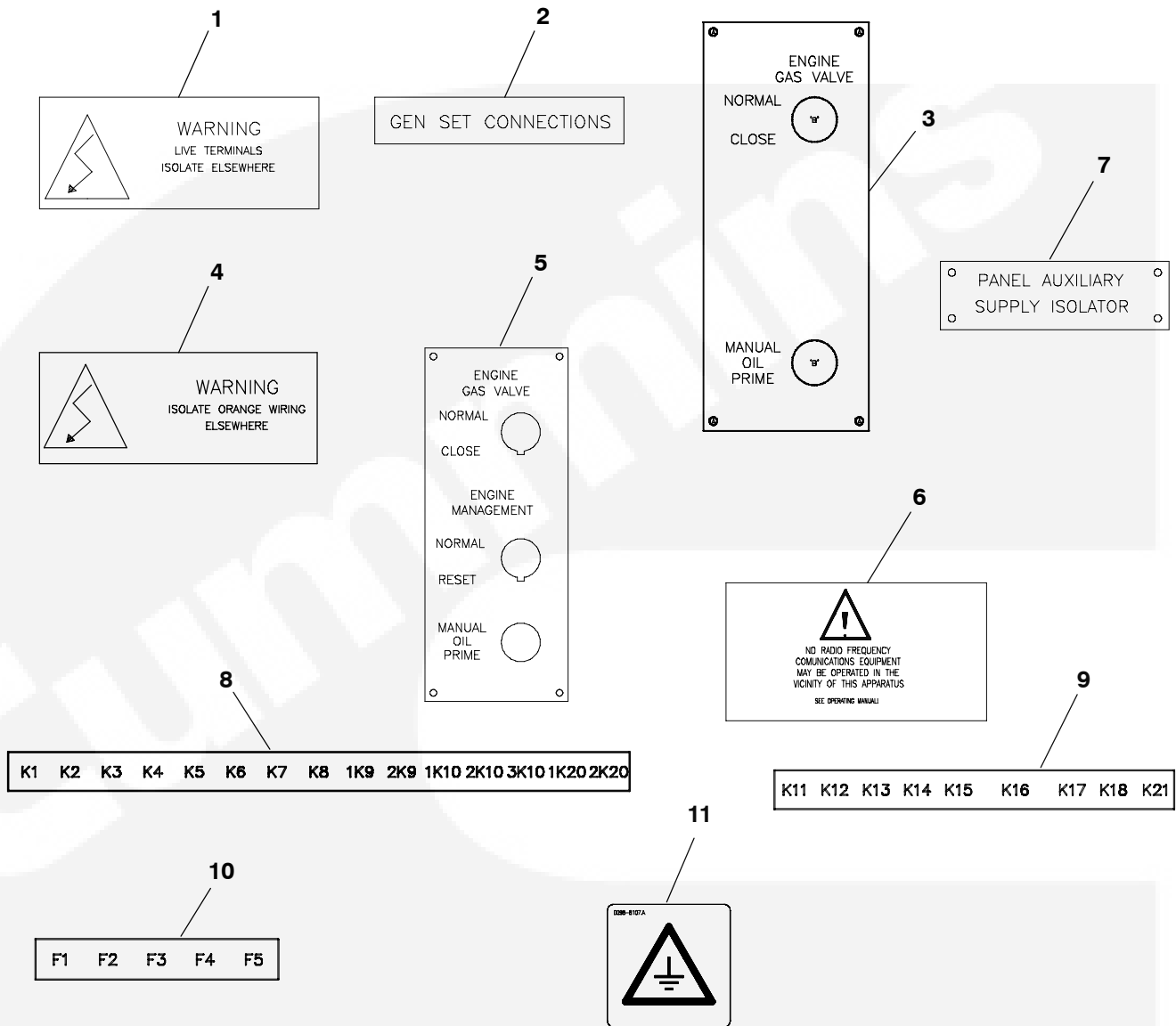


Cabinet Frame



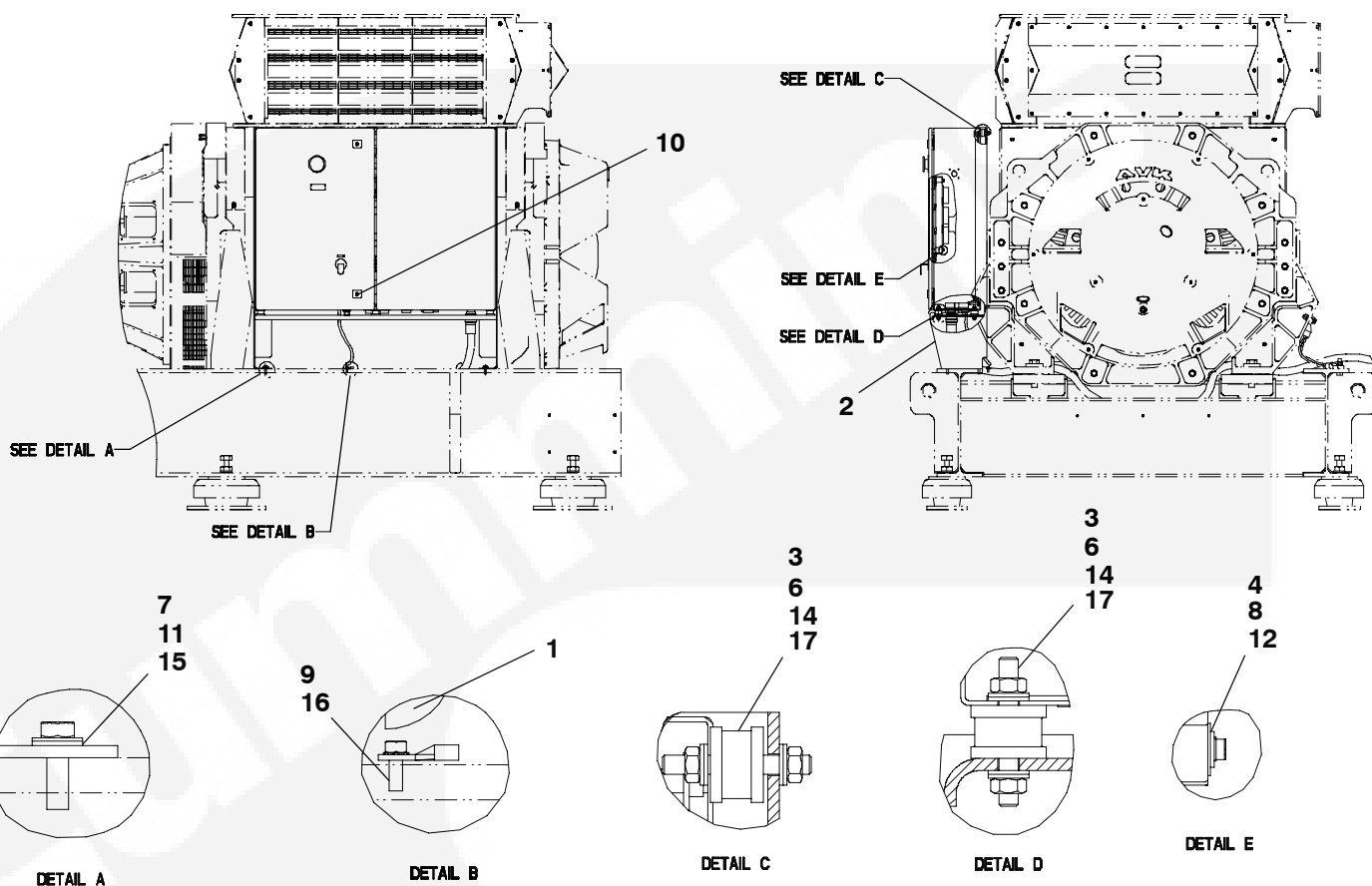
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                              | REF NO. | PART NO. | QTY USED | PART DESCRIPTION           |
|---------|-------------|----------|-----------------------------------------------|---------|----------|----------|----------------------------|
| 1       | 319-4990-01 | 1        | Bracket, Control Box – PCC Support            | 4       | 319-4992 | 1        | Bracket, Battery Charger   |
| 2       | 319-4990-02 | 1        | Bracket, Control Box – PCC Support            | 5       |          |          | Frame, Cabinet – GCP Swing |
| 3       | 319-4745    | 1        | Bracket, Control Box – Switch/Socket Mounting |         | 319-5003 | 1        | Frame Facia Spec A         |
|         |             |          |                                               |         | 319-5990 | 1        | Begin Spec B               |

## Genset Control Panel Labels



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                     | REF NO. | PART NO. | QTY USED | PART DESCRIPTION                            |
|---------|----------|----------|------------------------------------------------------|---------|----------|----------|---------------------------------------------|
| 1       | 098-8026 | 1        | Label, Information – Customer Connections            | 6       | 098-8031 | 1        | Label, Information – RF Warning             |
| 2       | 098-8027 | 1        | Label, Information – Generator Connections           | 7       | 098-8032 | 1        | Label, Information – Warning Live Terminals |
| 3       | 098-8296 | 1        | Label, Information – Engine Management               | 8       | 098-8161 | 1        | Label, Information – K1-2K20                |
| 4       | 098-8029 | 4        | Label, Information – Isolate Orange Wiring Elsewhere | 9       | 098-8162 | 1        | Label, Information – K11-K21                |
| 5       | 098-8030 | 1        | Label, Information – Panel AC Supply Isolator        | 10      | 098-8163 | 1        | Label, Information – F1-F5                  |
|         |          |          |                                                      | 11      | 098-8107 | 1        | Label, Information – Earth                  |

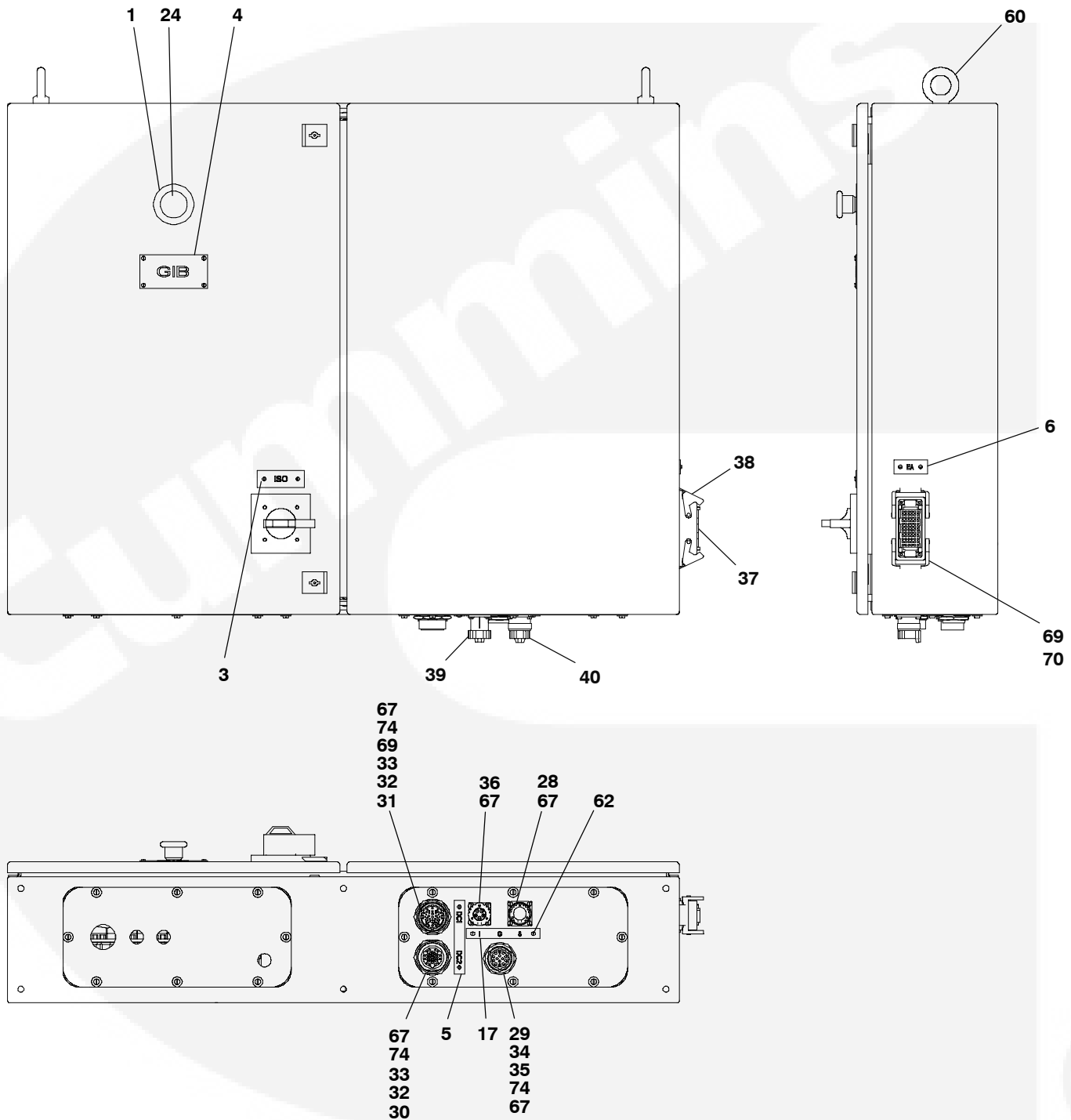
## Control Box Mounting Begin Spec B



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                      |
|---------|-------------|----------|---------------------------------------|
| 1       | 226-4929-02 | 1        | Lead (Earth)                          |
| 2       | 319-6098-02 | 1        | Bracket, Control Box                  |
| 3       | 403-4916    | 8        | Pad, Mounting                         |
| 4       | 526-0399-57 | 4        | Washer, Flat (M5)                     |
| 5       | 526-0399-58 | 4        | Washer, Flat (M6) (Not Shown)         |
| 6       | 526-0399-60 | 16       | Washer, Flat (M8)                     |
| 7       | 526-0399-62 | 4        | Washer, Flat (M10)                    |
| 8       | 800-0309-93 | 4        | Screw, Cap - Hex Head (M5 x 0.8 x 35) |
| 9       | 800-3017-03 | 5        | Screw, Hex Head (M6 x 1.0 x 16)       |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|----------------------------------|
| 10      | 800-3017-17 | 1        | Screw, Hex Head (M8 x 1.25 x 12) |
| 11      | 800-3017-38 | 4        | Screw, Hex Head (M10 x 1.5 x 30) |
| 12      | 850-0114-52 | 4        | Washer, Lock (M5)                |
| 13      | 850-0114-53 | 4        | Washer, Lock (M6) (Not Shown)    |
| 14      | 850-0114-54 | 16       | Washer, Lock (M8)                |
| 15      | 850-0114-55 | 4        | Washer, Lock (M10)               |
| 16      | 853-0040-54 | 2        | Washer, Lock - W/ET (M6)         |
| 17      | 862-0026-55 | 16       | Nut, Hex (M8)                    |

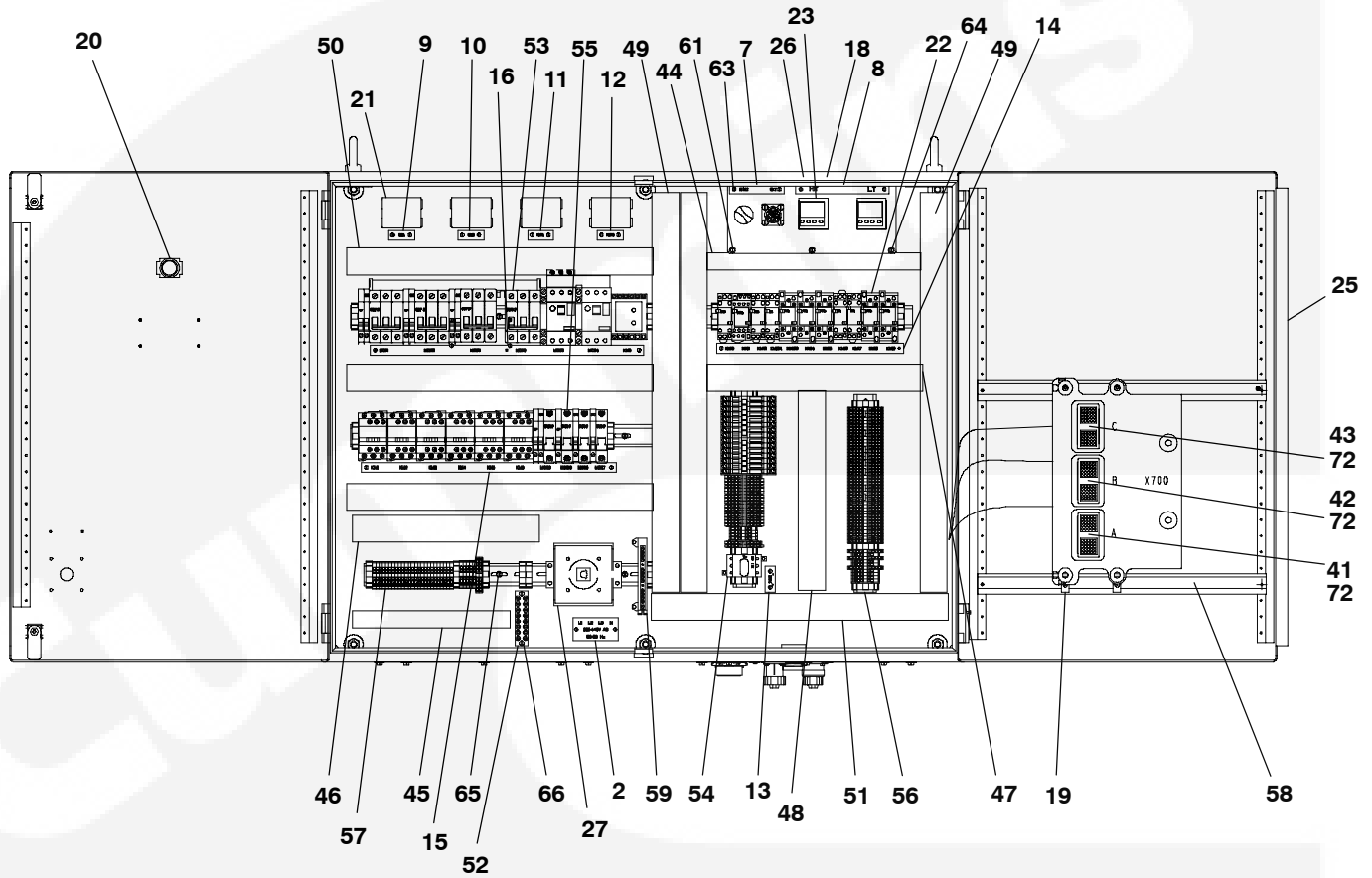
**GIB Box  
Begin Spec B  
(Illustration #1)**



## GIB Box Begin Spec B

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                     | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                    |
|---------|-------------|----------|------------------------------------------------------|---------|-------------|----------|---------------------------------------------------------------------|
| 1       | 098-8238    | 1        | Label, Unit ID                                       | 44      | 331-0634-01 | 1        | Duct, Wiring                                                        |
| 2       | 098-8242    | 1        | Label, Information                                   | 45      | 331-0634-02 | 1        | Duct, Wiring                                                        |
| 3       | 098-8623    | 1        | Label, Information                                   | 46      | 331-0635-02 | 1        | Duct, Wiring                                                        |
| 4       | 098-8624    | 1        | Label, Information                                   | 47      | 331-0635-03 | 1        | Duct, Wiring                                                        |
| 5       | 098-8626    | 1        | Label, Information                                   | 48      | 331-0635-04 | 1        | Duct, Wiring                                                        |
| 6       | 098-8627    | 1        | Label, Information                                   | 49      | 331-0635-05 | 3        | Duct, Wiring                                                        |
| 7       | 098-8628    | 1        | Label, Information                                   | 50      | 331-0635-06 | 3        | Duct, Wiring                                                        |
| 8       | 098-8629    | 1        | Label, Information                                   | 51      | 331-0635-07 | 1        | Duct, Wiring                                                        |
| 9       | 098-8630    | 1        | Label, Information                                   | 52      | 332-4224    | 1        | Block, Terminal                                                     |
| 10      | 098-8631    | 1        | Label, Information                                   | 53      | 332-4226    | 1        | Rail, Terminal Block –<br>Assembly (See Page 104 for<br>Components) |
| 11      | 098-8632    | 1        | Label, Information                                   |         |             |          |                                                                     |
| 12      | 098-8633    | 1        | Label, Information                                   | 54      | 332-4228    | 1        | Rail, Terminal Block –<br>Assembly (See Page 105 for<br>Components) |
| 13      | 098-8634    | 1        | Label, Information                                   |         |             |          |                                                                     |
| 14      | 098-8635    | 1        | Label, Information                                   | 55      | 332-4230    | 1        | Rail, Terminal Block –<br>Assembly (See Page 106 for<br>Components) |
| 15      | 098-8636    | 1        | Label, Information                                   |         |             |          |                                                                     |
| 16      | 098-8637    | 1        | Label, Information                                   | 56      | 332-4310    | 1        | Rail, Terminal Block –<br>Assembly (See Page 107 for<br>Components) |
| 17      | 098-8791    | 1        | Label, Information                                   |         |             |          |                                                                     |
| 18      | 130-7205    | 1        | Bracket, Thermostat (See Page<br>102 for Components) | 57      | 332-4311    | 1        | Rail, Terminal Block –<br>Assembly (See Page 108 for<br>Components) |
| 19      | 306-4941    | 4        | Bracket, Rail                                        |         |             |          |                                                                     |
| 20      | 306-4944    | 1        | Contact, Auxiliary                                   | 58      | 332-4029-02 | 2        | Rail, Terminal Block                                                |
| 21      | 307-3100    | 4        | Relay, Control – With<br>Temperature Control         | 59      | 337-3829    | 1        | Busbar, Neutral                                                     |
| 22      | 307-3110    | 1        | Relay – Assembly (See Page<br>103 for Components)    | 60      | 403-6469    | 2        | Eye, Lifting                                                        |
| 23      | 307-3121    | 2        | Relay, Temperature – With<br>Temperature Control     | 61      | 526-0399-54 | 76       | Washer, Flat (M4)                                                   |
| 24      | 308-1186    | 1        | Switch, Push Button                                  | 62      | 815-1540-03 | 12       | Screw, Slotted – Fillister Head<br>(M3 x 6)                         |
| 25      | 319-6977    | 1        | Box, Terminal                                        | 63      | 815-1540-06 | 29       | Screw, Slotted – Fillister Head<br>(M3 x 12)                        |
| 26      | 319-6428-02 | 1        | Bracket, Control                                     | 64      | 815-1540-18 | 14       | Screw, Slotted – Fillister Head<br>(M4 x 10)                        |
| 27      | 320-2472    | 1        | Switch, Disconnect                                   | 65      | 815-1540-19 | 62       | Screw, Slotted – Fillister Head<br>(M4 x 12)                        |
| 28      | 323-2057    | 1        | Connector, Receptacle                                | 66      | 815-1540-22 | 2        | Screw, Slotted – Fillister Head<br>(M4 x 25)                        |
| 29      | 323-2122    | 1        | Connector, Receptacle                                | 67      | 323-2020    | 51       | Pin, Contact                                                        |
| 30      | 323-2124    | 1        | Connector, Receptacle                                | 68      | 323-2120    | 40       | Pin, Contact                                                        |
| 31      | 323-2125    | 1        | Connector, Receptacle                                | 69      | 323-2414    | 44       | Pin, Contact                                                        |
| 32      | 323-2126    | 2        | Lock, Connector                                      | 70      | 323-2415    | 2        | Pin, Contact                                                        |
| 33      | 323-2127    | 2        | Lock, Connector                                      | 71      | 323-2021    | 87       | Pin, Contact                                                        |
| 34      | 323-2147    | 1        | Lock, Connector                                      | 72      | 323-1591    | 20       | Seal, Connector                                                     |
| 35      | 323-2148    | 1        | Lock, Connector                                      | 73      | 350-1245    | 4        | Resistor (120 Ohm)                                                  |
| 36      | 323-2399    | 1        | Connector, Receptacle                                | 74      | 323-2023    | 72       | Seal, Connector                                                     |
| 37      | 323-2402    | 1        | Connector, Receptacle                                |         |             |          |                                                                     |
| 38      | 323-2403    | 1        | Housing, Connector                                   |         |             |          |                                                                     |
| 39      | 323-2420    | 1        | Cap, Connector                                       |         |             |          |                                                                     |
| 40      | 323-2544    | 1        | Cap, Connector                                       |         |             |          |                                                                     |
| 41      | 323-2022-01 | 1        | Connector, Receptacle                                |         |             |          |                                                                     |
| 42      | 323-2022-02 | 1        | Connector, Receptacle                                |         |             |          |                                                                     |
| 43      | 323-2022-03 | 1        | Connector, Receptacle                                |         |             |          |                                                                     |

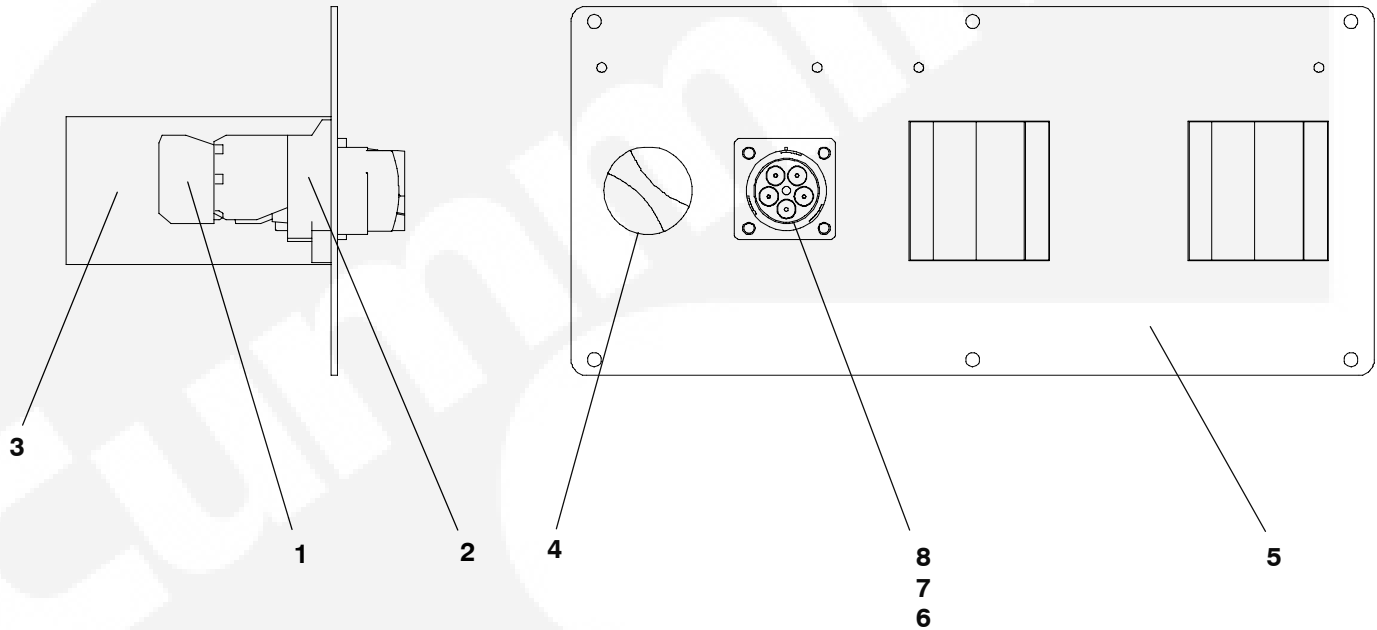
**GIB Box**  
**Begin Spec B**  
**(Illustration #2)**



## GIB Box Begin Spec B

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                           | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                             |
|---------|-------------|----------|------------------------------------------------------------|---------|-------------|----------|--------------------------------------------------------------|
| 1       | 098-8238    | 1        | Label, Unit ID                                             | 43      | 323-2022-03 | 1        | Connector, Receptacle                                        |
| 2       | 098-8242    | 1        | Label, Information                                         | 44      | 331-0634-01 | 1        | Duct, Wiring                                                 |
| 3       | 098-8623    | 1        | Label, Information                                         | 45      | 331-0634-02 | 1        | Duct, Wiring                                                 |
| 4       | 098-8624    | 1        | Label, Information                                         | 46      | 331-0635-02 | 1        | Duct, Wiring                                                 |
| 5       | 098-8626    | 1        | Label, Information                                         | 47      | 331-0635-03 | 1        | Duct, Wiring                                                 |
| 6       | 098-8627    | 1        | Label, Information                                         | 48      | 331-0635-04 | 1        | Duct, Wiring                                                 |
| 7       | 098-8628    | 1        | Label, Information                                         | 49      | 331-0635-05 | 3        | Duct, Wiring                                                 |
| 8       | 098-8629    | 1        | Label, Information                                         | 50      | 331-0635-06 | 3        | Duct, Wiring                                                 |
| 9       | 098-8630    | 1        | Label, Information                                         | 51      | 331-0635-07 | 1        | Duct, Wiring                                                 |
| 10      | 098-8631    | 1        | Label, Information                                         | 52      | 332-4224    | 1        | Block, Terminal                                              |
| 11      | 098-8632    | 1        | Label, Information                                         | 53      | 332-4226    | 1        | Rail, Terminal Block – Assembly (See Page XX for Components) |
| 12      | 098-8633    | 1        | Label, Information                                         |         |             |          |                                                              |
| 13      | 098-8634    | 1        | Label, Information                                         | 54      | 332-4228    | 1        | Rail, Terminal Block – Assembly (See Page XX for Components) |
| 14      | 098-8635    | 1        | Label, Information                                         |         |             |          |                                                              |
| 15      | 098-8636    | 1        | Label, Information                                         | 55      | 332-4230    | 1        | Rail, Terminal Block – Assembly (See Page XX for Components) |
| 16      | 098-8637    | 1        | Label, Information                                         |         |             |          |                                                              |
| 17      | 098-8791    | 1        | Label, Information                                         | 56      | 332-4310    | 1        | Rail, Terminal Block – Assembly (See Page XX for Components) |
| 18      | 130-7205    | 1        | Bracket, Tremostat – Assembly (See Page XX for Components) | 57      | 332-4311    | 1        | Rail, Terminal Block – Assembly (See Page XX for Components) |
| 19      | 306-4941    | 4        | Bracket, Rail                                              | 58      | 332-4029-02 | 2        | Rail, Terminal Block                                         |
| 20      | 306-4944    | 1        | Contact, Auxiliary                                         | 59      | 337-3829    | 1        | Busbar, Neutral                                              |
| 21      | 307-3100    | 4        | Relay, Control – With Temperature Control                  | 60      | 403-6469    | 2        | Eye, Lifting                                                 |
| 22      | 307-3110    | 1        | Relay – Assembly (See Page XX for Components)              | 61      | 526-0399-54 | 76       | Washer, Flat (M4)                                            |
| 23      | 307-3121    | 2        | Relay, Temperature – With Temperature Control              | 62      | 815-1540-03 | 12       | Screw, Slotted – Fillister Head (M3 x 6)                     |
| 24      | 308-1186    | 1        | Switch, Push Button                                        | 63      | 815-1540-06 | 29       | Screw, Slotted – Fillister Head (M3 x 12)                    |
| 25      | 319-6977    | 1        | Box, Terminal                                              | 64      | 815-1540-18 | 14       | Screw, Slotted – Fillister Head (M4 x 10)                    |
| 26      | 319-6428-02 | 1        | Bracket, Control                                           | 65      | 815-1540-19 | 62       | Screw, Slotted – Fillister Head (M4 x 12)                    |
| 27      | 320-2472    | 1        | Switch, Disconnect                                         | 66      | 815-1540-22 | 2        | Screw, Slotted – Fillister Head (M4 x 25)                    |
| 28      | 323-2057    | 1        | Connector, Receptacle                                      | 67      | 323-2020    | 51       | Pin, Contact                                                 |
| 29      | 323-2122    | 1        | Connector, Receptacle                                      | 68      | 323-2120    | 40       | Pin, Contact                                                 |
| 30      | 323-2124    | 1        | Connector, Receptacle                                      | 69      | 323-2414    | 44       | Pin, Contact                                                 |
| 31      | 323-2125    | 1        | Connector, Receptacle                                      | 70      | 323-2415    | 2        | Pin, Contact                                                 |
| 32      | 323-2126    | 2        | Lock, Connector                                            | 71      | 323-2021    | 87       | Pin, Contact                                                 |
| 33      | 323-2127    | 2        | Lock, Connector                                            | 72      | 323-1591    | 20       | Seal, Connector                                              |
| 34      | 323-2147    | 1        | Lock, Connector                                            | 73      | 350-1245    | 4        | Resistor (120 Ohm)                                           |
| 35      | 323-2148    | 1        | Lock, Connector                                            | 74      | 323-2023    | 72       | Seal, Connector                                              |
| 36      | 323-2399    | 1        | Connector, Receptacle                                      |         |             |          |                                                              |
| 37      | 323-2402    | 1        | Connector, Receptacle                                      |         |             |          |                                                              |
| 38      | 323-2403    | 1        | Housing, Connector                                         |         |             |          |                                                              |
| 39      | 323-2420    | 1        | Cap, Connector                                             |         |             |          |                                                              |
| 40      | 323-2544    | 1        | Cap, Connector                                             |         |             |          |                                                              |
| 41      | 323-2022-01 | 1        | Connector, Receptacle                                      |         |             |          |                                                              |
| 42      | 323-2022-02 | 1        | Connector, Receptacle                                      |         |             |          |                                                              |

# **Bracket, Thermostat** **Begin Spec B**

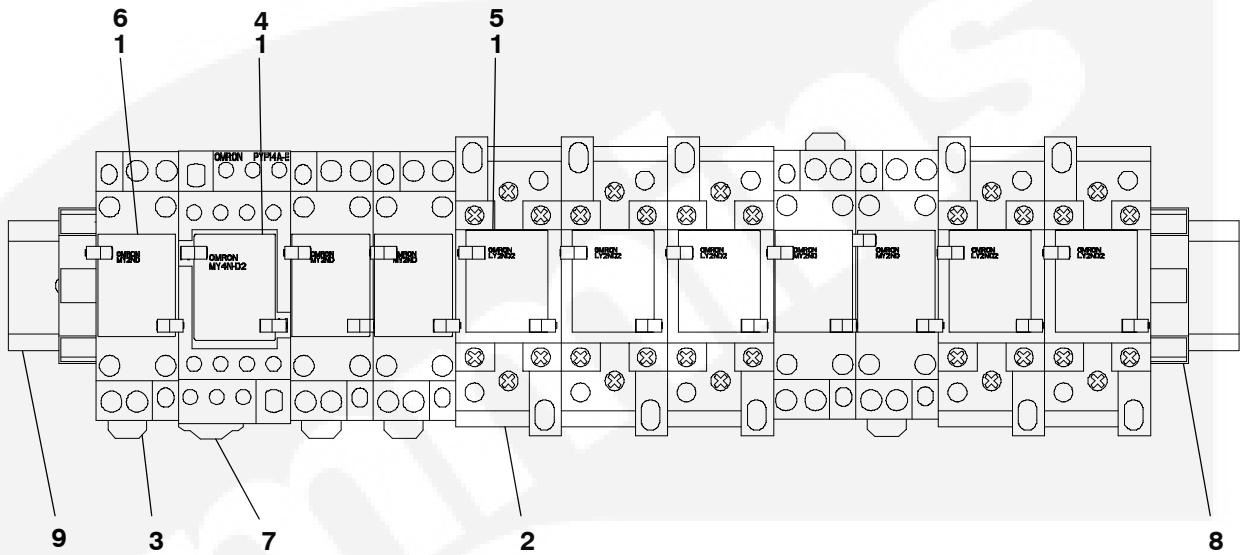


| REF NO. | PART NO. | QTY USED | PART DESCRIPTION   |
|---------|----------|----------|--------------------|
| 1       | 306-5256 | 3        | Contact, Auxiliary |
| 2       | 306-5274 | 1        | Contact, Auxiliary |
| 3       | 307-3120 | 2        | Base, Relay        |
| 4       | 308-1232 | 1        | Switch, Rotary     |
| 5       | 319-6427 | 1        | Plate, Mounting    |

| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                 |
|---------|----------|----------|----------------------------------|
| 6       | 323-1591 | 1        | Plug, Connector                  |
| 7       | 323-2020 | 4        | Contact, Pin<br>(0460-202-16141) |
| 8       | 323-2399 | 1        | Connector, Receptacle            |

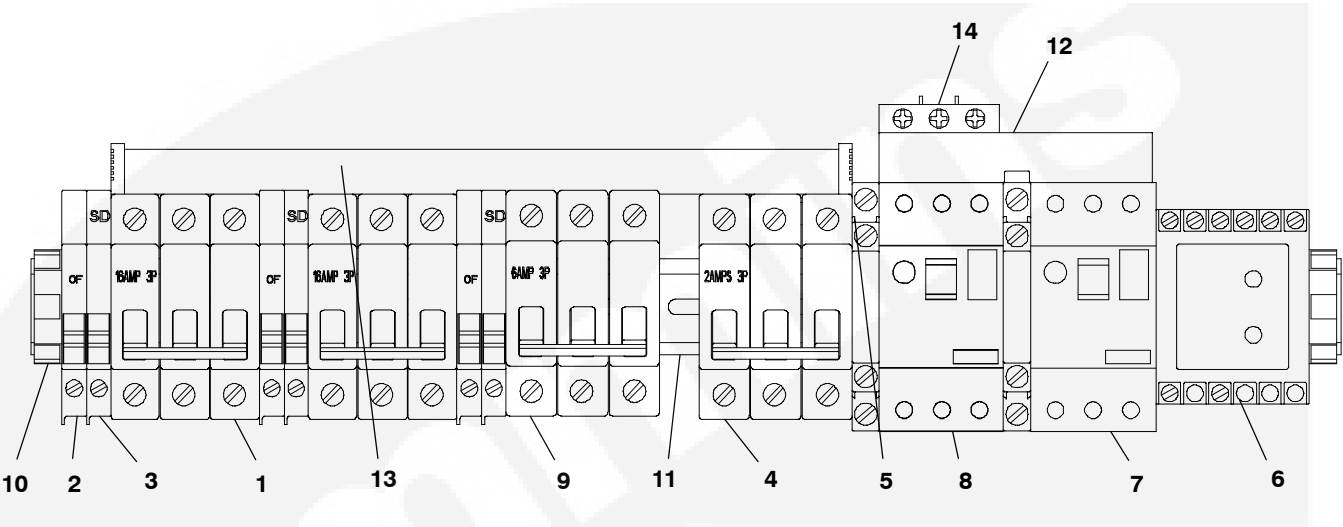


# Relay Assembly Begin Spec B



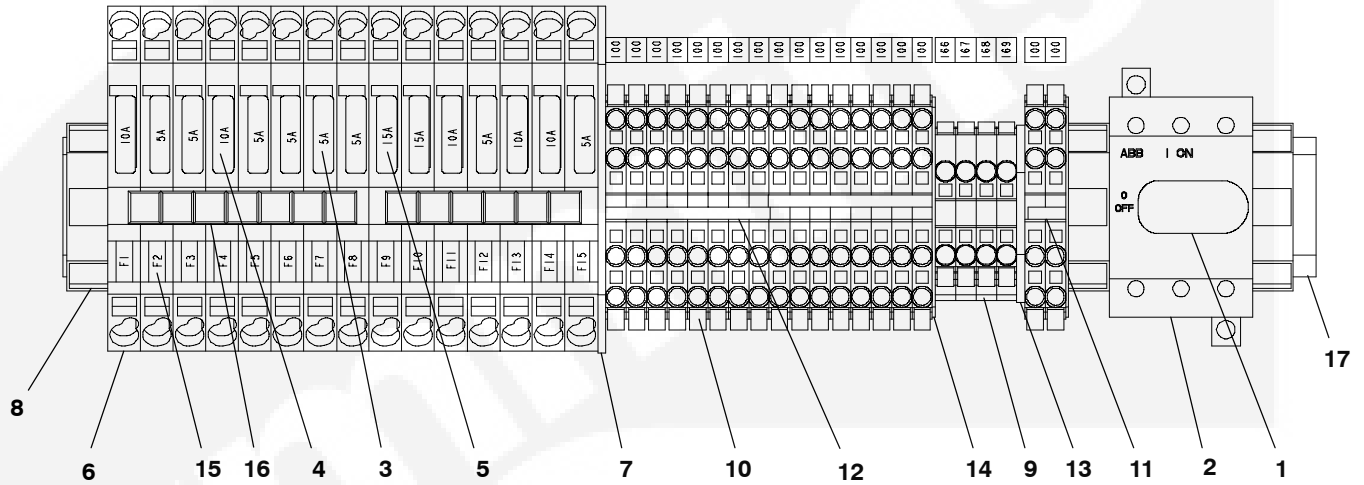
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|----------|----------|------------------|---------|-------------|----------|----------------------------|
| 1       | 249-0819 | 22       | Relay, Clip      | 6       | 307-3118    | 5        | Relay, Control             |
| 2       | 307-3043 | 5        | Base, Relay      | 7       | 307-3119    | 1        | Base, Relay                |
| 3       | 307-3099 | 5        | Base, Relay      | 8       | 332-4021    | 2        | Block, Terminal (End Stop) |
| 4       | 307-3108 | 1        | Relay            | 9       | 332-4218-03 | 1        | Rail, Terminal Block       |
| 5       | 307-3109 | 5        | Relay, Control   |         |             |          |                            |

Terminal Block Rail  
Begin Spec B



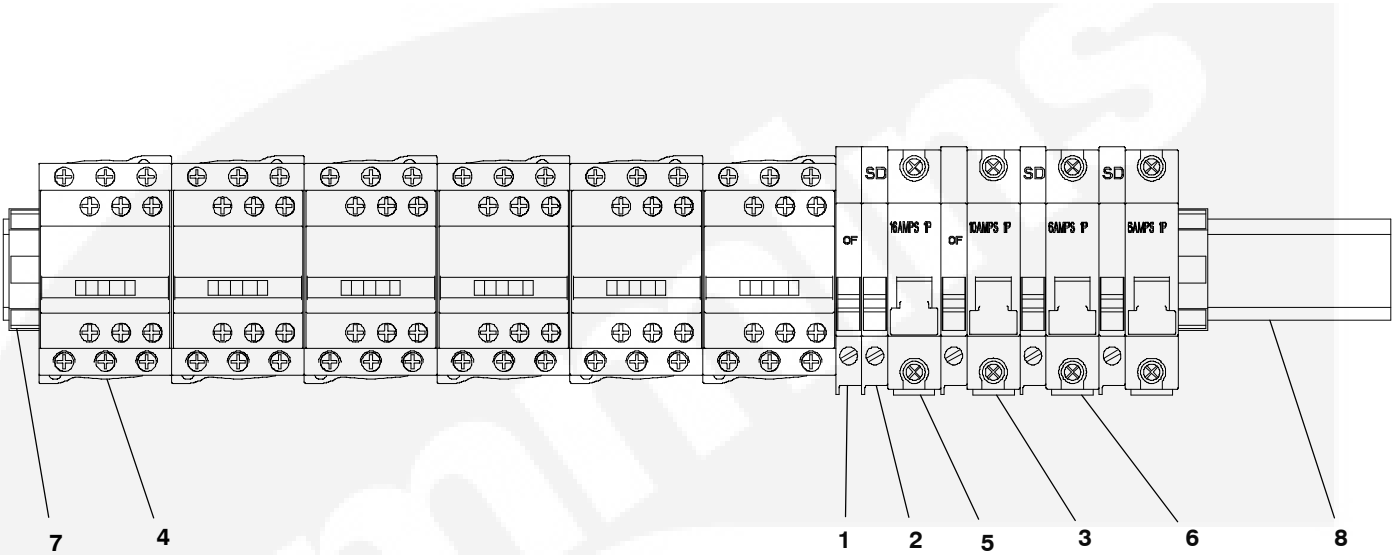
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                              | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|----------|----------|-----------------------------------------------|---------|-------------|----------|----------------------------|
| 1       | 249-0836 | 2        | Breaker, Circuit - Miniature (16A, 3P)        | 7       | 320-2248    | 1        | Breaker, Circuit           |
| 2       | 249-0838 | 3        | Switch, Auxiliary - Miniature Circuit Breaker | 8       | 320-2268    | 1        | Breaker, Circuit           |
| 3       | 249-0839 | 3        | Switch, Auxiliary Trip                        | 9       | 320-2408    | 1        | Breaker, Circuit           |
| 4       | 249-0845 | 1        | Breaker, Circuit - Miniature (2A, 3P)         | 10      | 332-4021    | 2        | Block, Terminal (End Stop) |
| 5       | 306-5210 | 2        | Contact, Auxiliary                            | 11      | 332-4218-01 | 1        | Rail, Terminal Block       |
| 6       | 307-3048 | 1        | Relay - Voltage                               | 12      | 337-3635    | 1        | Bar, Bus                   |
|         |          |          |                                               | 13      | 337-3894    | 1        | Bar, Bus                   |
|         |          |          |                                               | 14      | 337-4000    | 1        | Bar, Bus (Terminal Block)  |

## Terminal Block Rail Begin Spec B



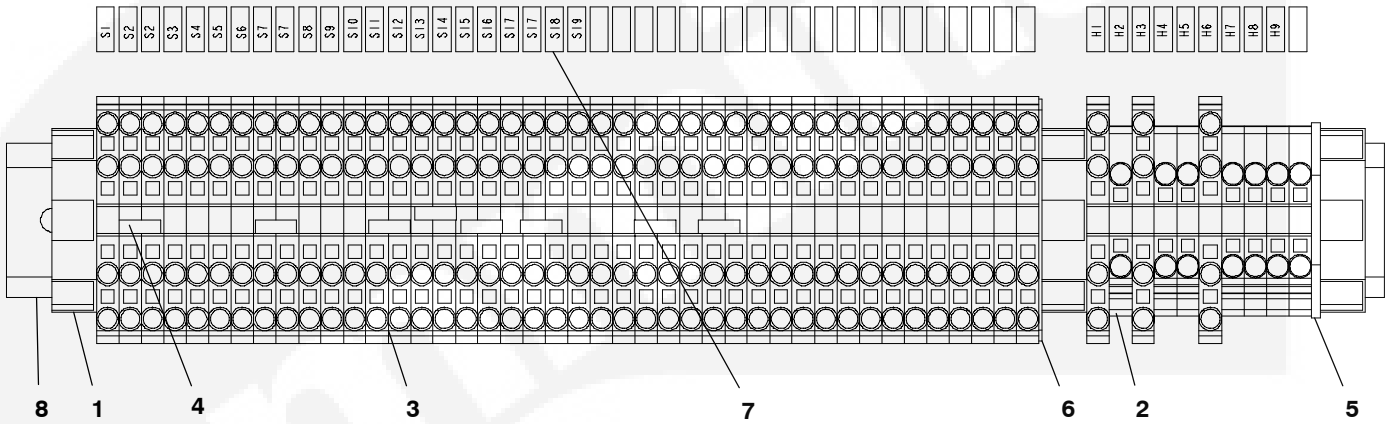
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION            | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION               |
|---------|-------------|----------|-----------------------------|---------|-------------|----------|--------------------------------|
| 1       | 308-1233    | 1        | Knob, Switch                | 10      | 332-3923-03 | 18       | Block, Terminal - Wago         |
| 2       | 320-2397    | 1        | Switch, Disconnect          | 11      | 332-3925-01 | 1        | Jumper, Terminal               |
| 3       | 321-0307-03 | 8        | Fuse - 5A                   | 12      | 332-3925-07 | 2        | Jumper, Terminal               |
| 4       | 321-0307-05 | 5        | Fuse - 10A                  | 13      | 332-3927-01 | 1        | Block, Terminal                |
| 5       | 321-0307-06 | 2        | Fuse - 15A                  | 14      | 332-3927-03 | 2        | Block, Terminal - End Plate    |
| 6       | 332-3936    | 15       | Block, Terminal - Fuse      | 15      | 332-3939-17 | 59       | Tag, Identification - Terminal |
| 7       | 332-3937    | 1        | Block, Terminal - End Plate | 16      | 332-3943-03 | 13       | Jumper, Terminal               |
| 8       | 332-4021    | 3        | Block, Terminal - End Stop  | 17      | 332-4218-04 | 1        | Rail, Terminal Block           |
| 9       | 332-3923-01 | 4        | Block, Terminal - Wago      |         |             |          |                                |

Terminal Block Rail  
Begin Spec B



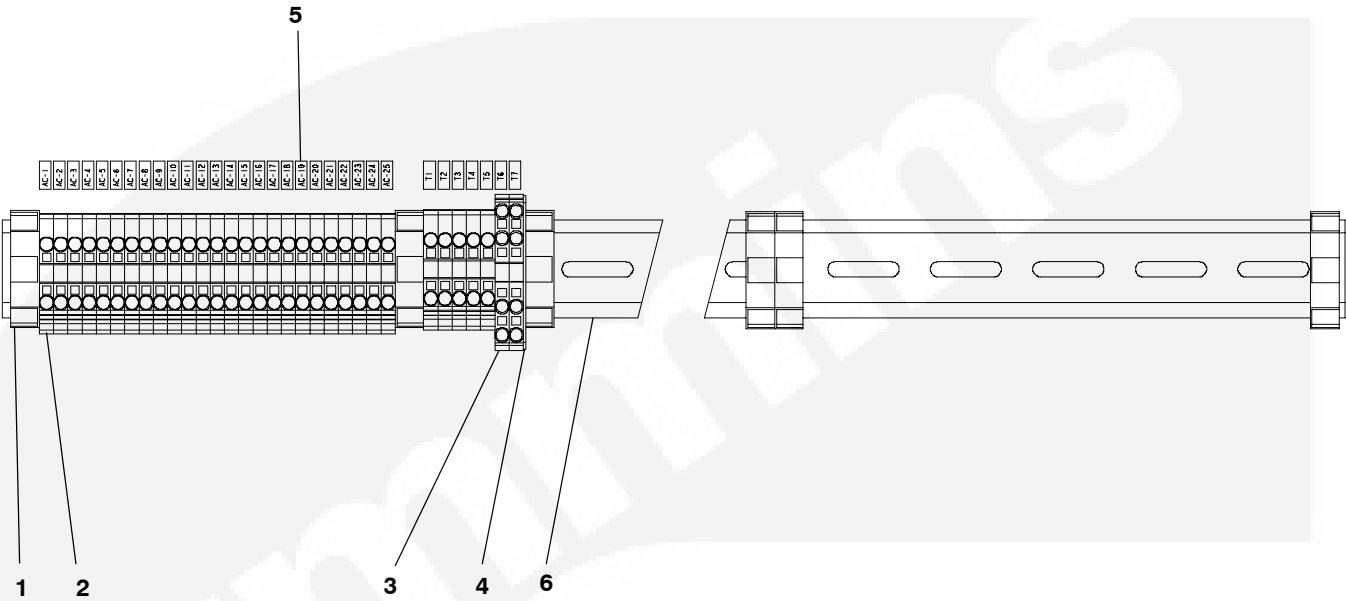
| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                            | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|----------|----------|---------------------------------------------|---------|-------------|----------|----------------------------|
| 1       | 249-0838 | 2        | Switch, Miniature Circuit Breaker Auxiliary | 4       | 306-4945    | 6        | Contactors (LC1-D09BD)     |
| 2       | 249-0839 | 3        | Switch, Auxiliary Trip                      | 5       | 320-2269    | 1        | Breaker, Circuit           |
| 3       | 249-0846 | 1        | Breaker, Miniature Circuit (10A, 1P)        | 6       | 320-2393    | 2        | Breaker, Circuit           |
|         |          |          |                                             | 7       | 332-4021    | 2        | Block, Terminal (End Stop) |
|         |          |          |                                             | 8       | 332-4218-01 | 1        | Rail, Terminal Block       |

Terminal Block Rail  
Begin Spec B



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION               |
|---------|-------------|----------|----------------------------|---------|-------------|----------|--------------------------------|
| 1       | 332-4021    | 3        | Block, Terminal (End Stop) | 5       | 332-3927-01 | 1        | Block, Terminal                |
| 2       | 332-3923-01 | 7        | Block, Terminal (Wago)     | 6       | 332-3927-03 | 1        | Block, Terminal (End Plate)    |
| 3       | 332-3923-03 | 45       | Block, Terminal (Wago)     | 7       | 332-3939-17 | 104      | Tag, Identification (Terminal) |
| 4       | 332-3925-01 | 8        | Jumper, Terminal           | 8       | 332-4218-04 | 1        | Rail, Terminal Block           |

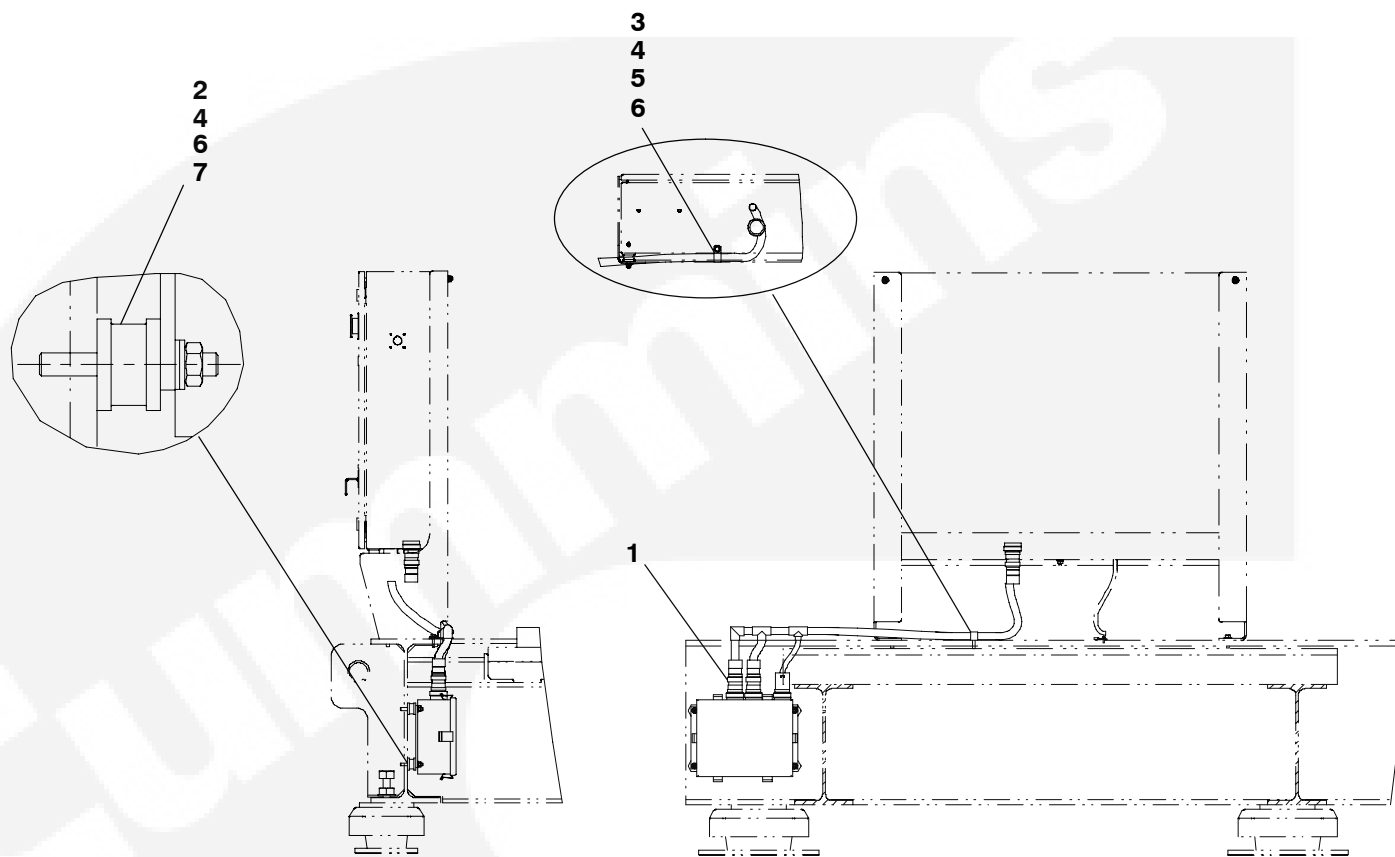
Terminal Block Rail  
Begin Spec B



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION           |
|---------|-------------|----------|----------------------------|
| 1       | 332-4021    | 6        | Block, Terminal (End Stop) |
| 2       | 332-3923-01 | 30       | Block, Terminal (Wago)     |
| 3       | 332-3923-03 | 2        | Block, Terminal (Wago)     |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION               |
|---------|-------------|----------|--------------------------------|
| 4       | 332-3927-03 | 1        | Block, Terminal (End Plate)    |
| 5       | 332-3939-17 | 62       | Tag, Identification (Terminal) |
| 6       | 332-4218-02 | 1        | Rail, Terminal Block           |

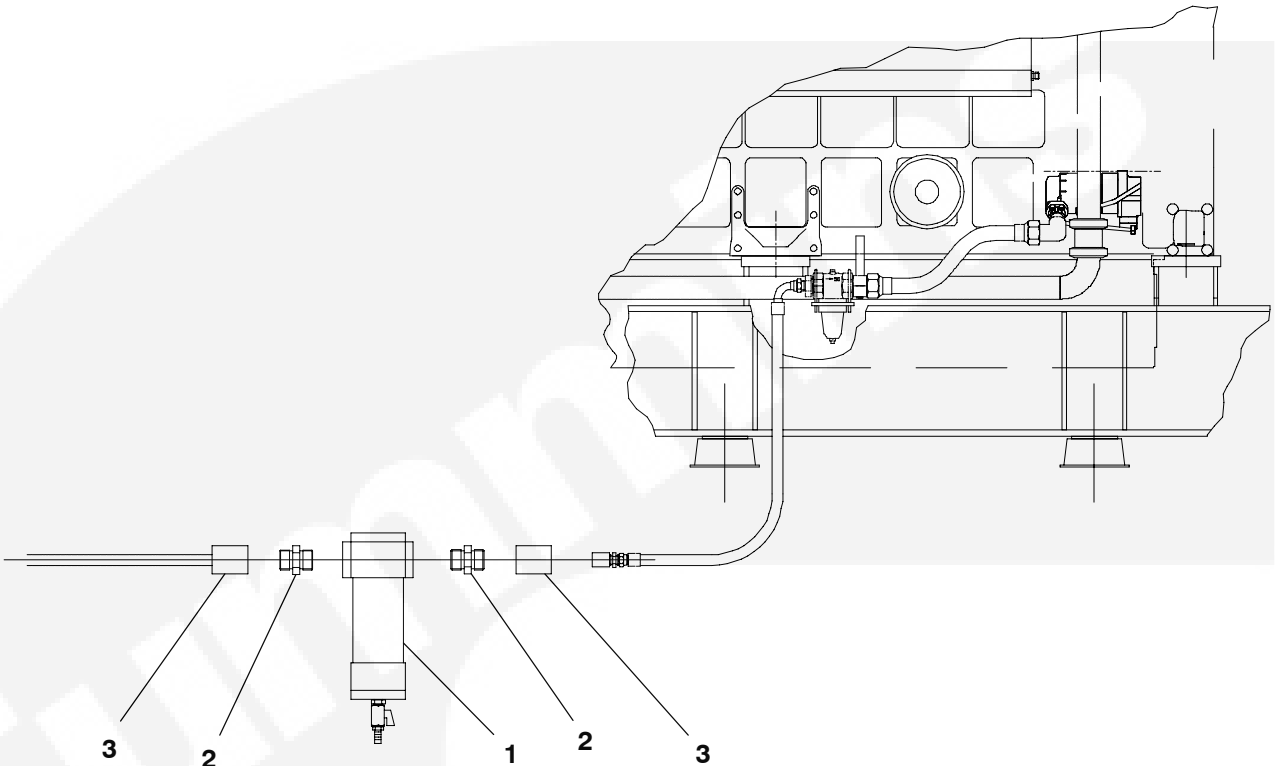
**Control Mounting**  
**PROACT**  
**Begin Spec B**



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION  |
|---------|-------------|----------|-------------------|
| 1       | 338-4761    | 1        | Harness, Governor |
| 2       | 403-4916    | 4        | Pad, Mounting     |
| 3       | 518-0548-38 | 1        | Clamp, Hose       |
| 4       | 526-0399-60 | 5        | Washer, Flat (M8) |

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|----------------------------------|
| 5       | 800-3017-21 | 1        | Screw, Hex Head (M8 x 1.25 x 30) |
| 6       | 850-0114-54 | 5        | Washer, Lock (M8)                |
| 7       | 862-0026-55 | 4        | Nut, Hex (M8)                    |

Air Start Air Cleaner  
Begin Spec B

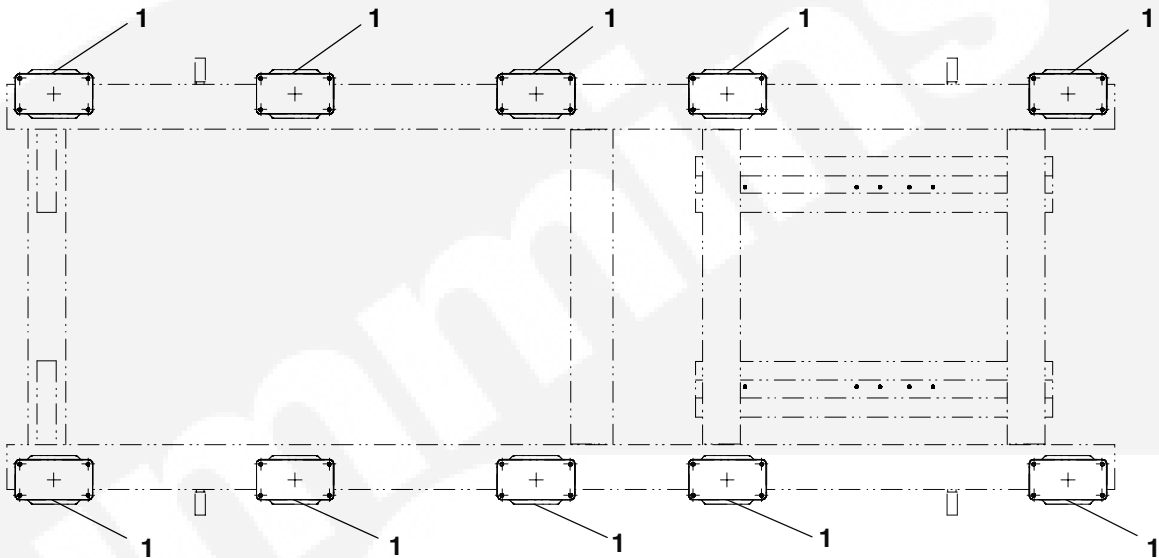


| REF NO. | PART NO. | QTY USED | PART DESCRIPTION | REF NO. | PART NO. | QTY USED | PART DESCRIPTION |
|---------|----------|----------|------------------|---------|----------|----------|------------------|
| 1       | 140-3454 | 1        | Cleaner, Air     | 3       | 502-1442 | 2        | Adapter, Hose    |
| 2       | 505-2085 | 2        | Adapter, Pipe    |         |          |          |                  |





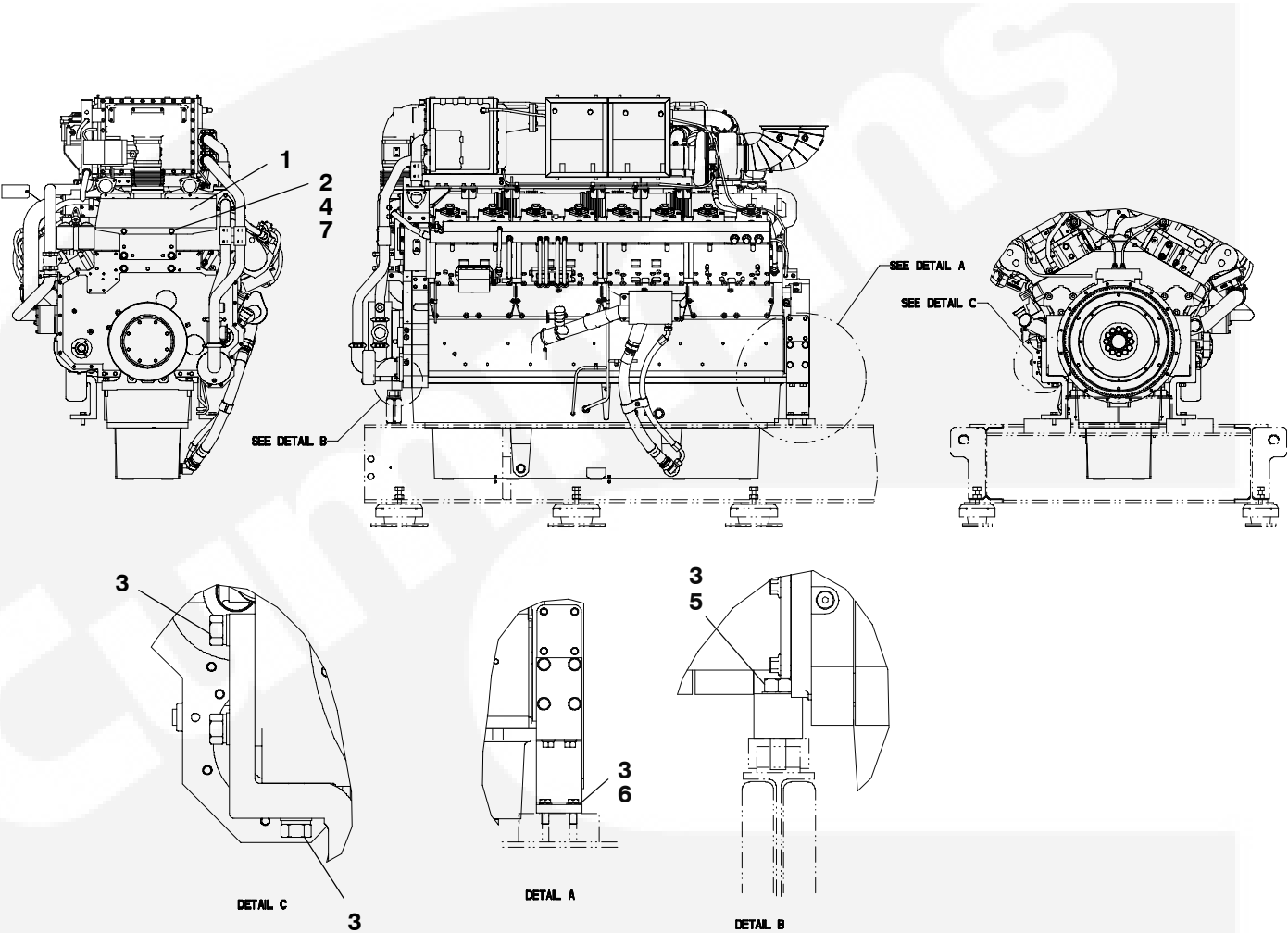
Vibration Isolator



| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                    | REF NO. | PART NO. | QTY USED | PART DESCRIPTION |
|---------|----------|----------|-------------------------------------|---------|----------|----------|------------------|
| 1       | 402-0880 | 10       | Isolator, Vibration (Spring LR4800) |         |          |          |                  |

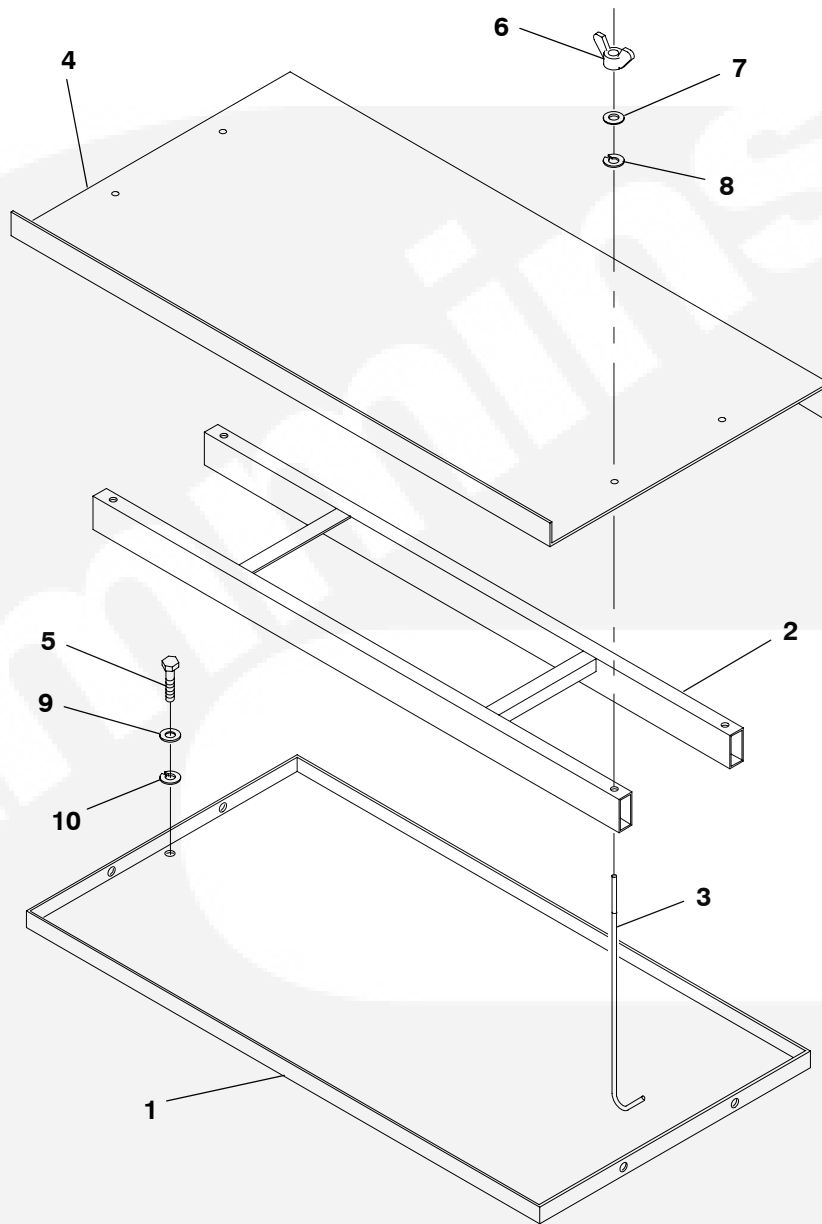


Engine Mounting  
Begin Spec B



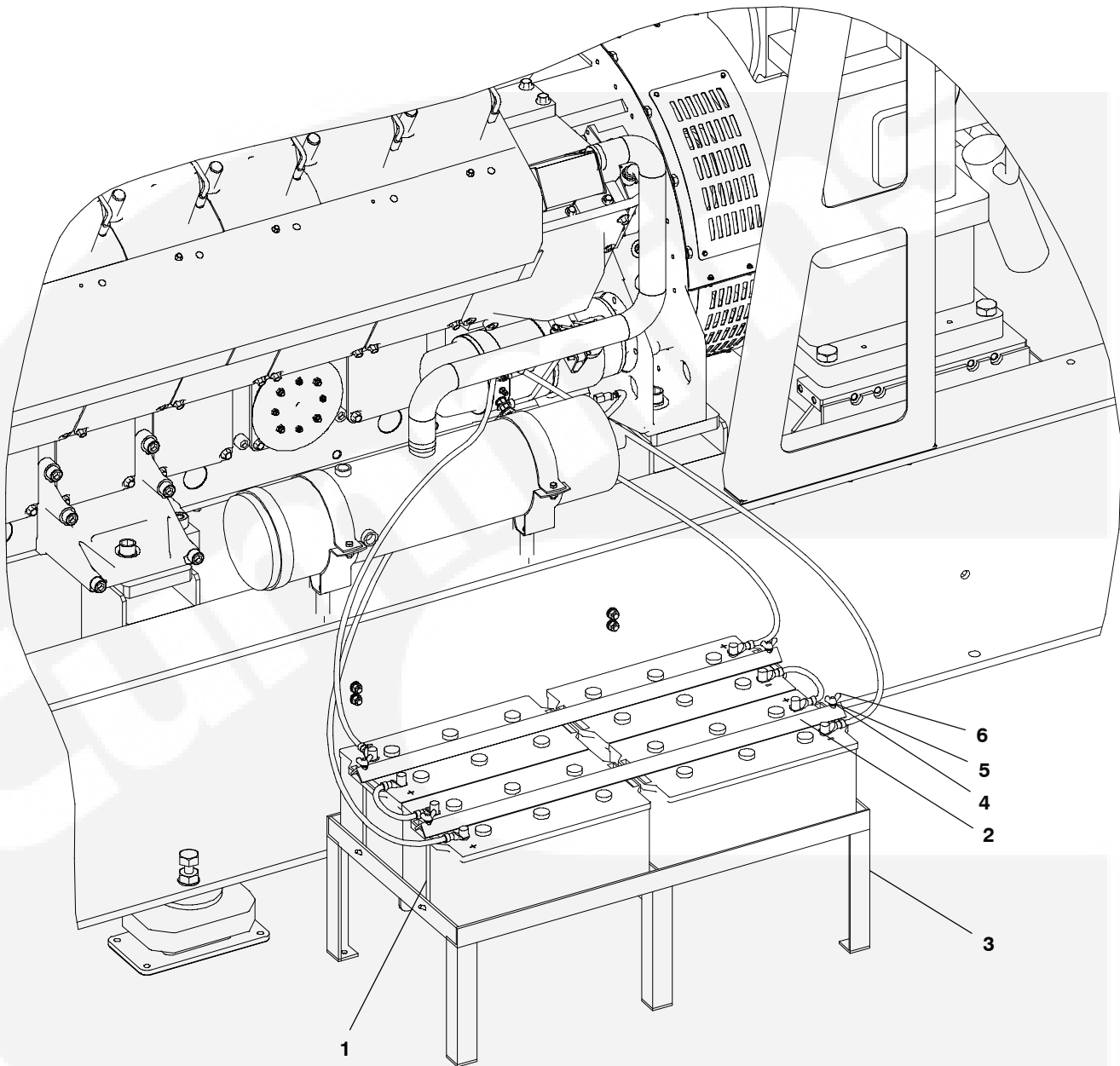
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                 |
|---------|-------------|----------|----------------------------------|---------|-------------|----------|----------------------------------|
| 1       | 148-1286-02 | 1        | Guard, Regulator                 | 5       | 800-3017-97 | 2        | Screw, Hex Head (M20 x 2.5 x 90) |
| 2       | 526-0399-66 | 2        | Washer, Flat (M16)               | 6       | 800-6310    | 4        | Screw, Hex Head (M20 x 60)       |
| 3       | 526-0399-70 | 6        | Washer, Flat (M20)               | 7       | 850-0114-57 | 2        | Washer, Lock (M16)               |
| 4       | 800-3017-73 | 2        | Screw, Hex Head (M16 x 2.0 x 45) |         |             |          |                                  |

## Battery Stand Spec A



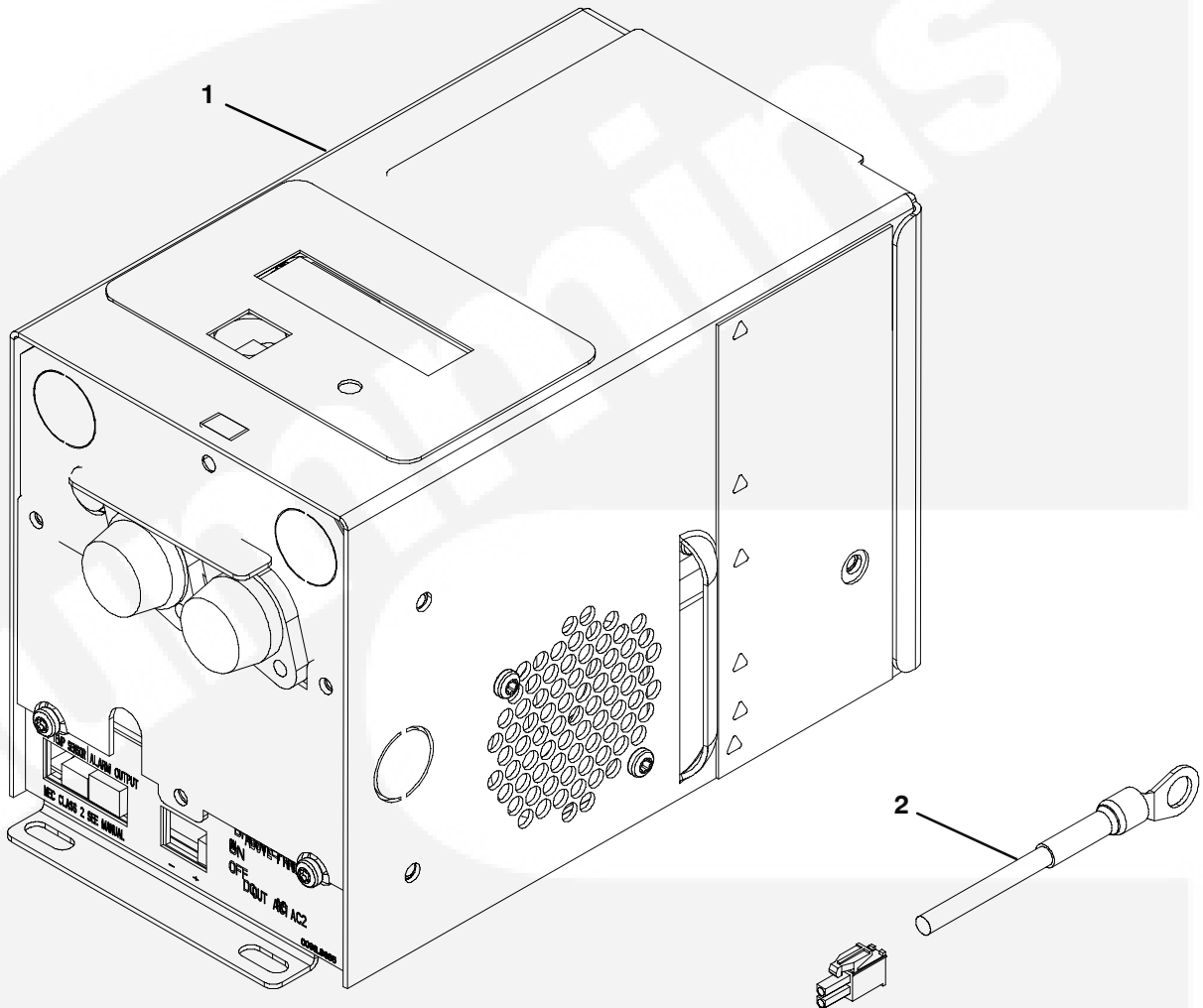
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION          | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION    |
|---------|-------------|----------|---------------------------|---------|-------------|----------|---------------------|
| 1       | 416-1067-02 | 1        | Tray, Battery             | 6       | 865-0030    | 4        | Nut, Wing (M6)      |
| 2       | 416-1066-02 | 1        | Frame, Battery            | 7       | 526-0399-58 | 4        | Washer, Flat (M6)   |
| 3       | 416-1065-02 | 4        | Rod, Battery              | 8       | 850-0114-53 | 4        | Washer, Spring (M6) |
| 4       | 416-1064-02 | 4        | Cover, Battery            | 9       | 526-0399-60 | 2        | Washer, Flat (M8)   |
| 5       | 800-3017-20 | 2        | Screw, Hex Head (M8 x 25) | 10      | 850-0114-54 | 2        | Washer, Spring (M8) |

## Battery Frame



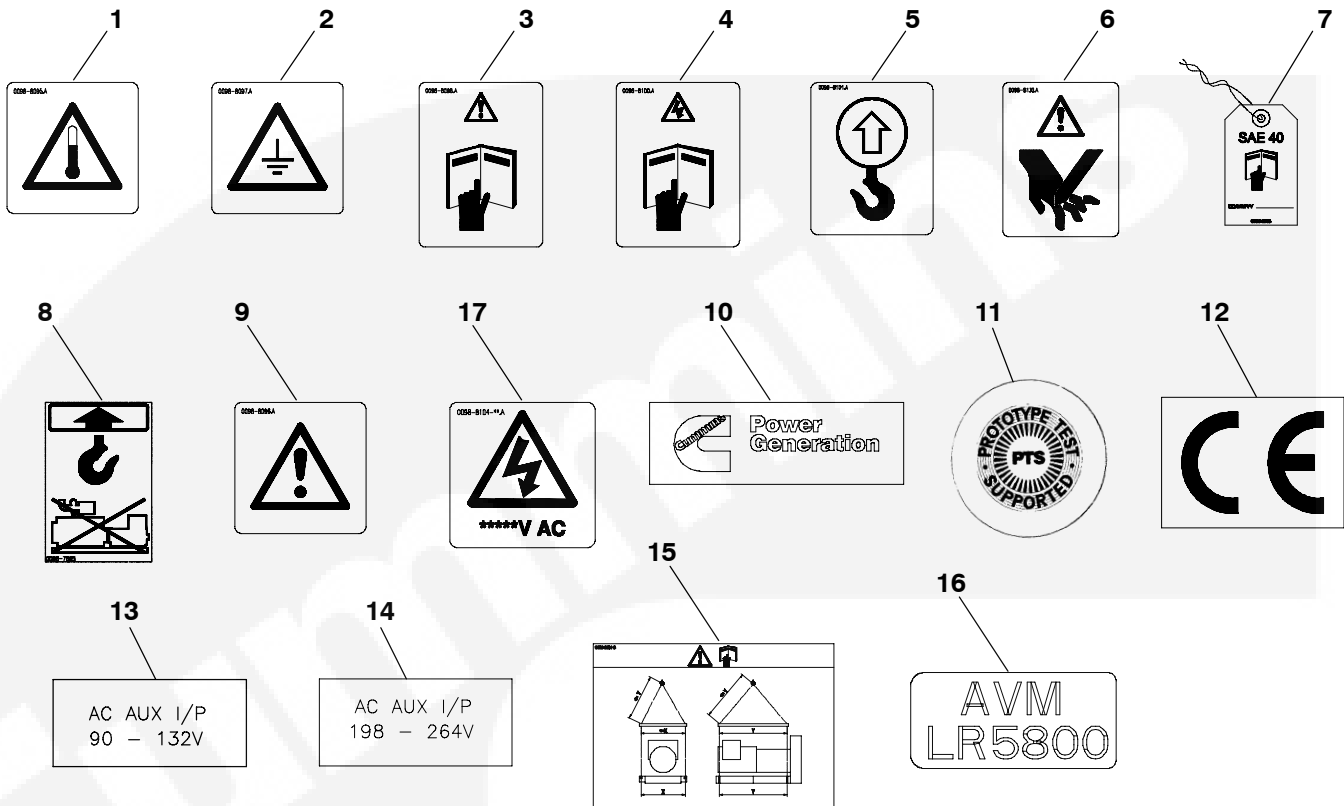
| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION      | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION  |
|---------|-------------|----------|-----------------------|---------|-------------|----------|-------------------|
| 1       | 416-1265-02 | 4        | Rod, Battery Holddown | 4       | 526-0399-60 | 4        | Washer, Flat (M8) |
| 2       | 416-1266-02 | 2        | Holddown, Battery     | 5       | 850-0114-54 | 4        | Washer, Lock (M8) |
| 3       | 416-1267-02 | 1        | Frame, Battery        | 6       | 865-0031    | 4        | Nut, Wing (M8)    |

# **Battery Charger** **15/12 Amp, 12/24 Volt**



| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION | REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION           |
|------------|-------------|-------------|---------------------|------------|-------------|-------------|-------------------------------|
| 1          |             |             | Charger, Battery    | 2          | 193-0530    | 1           | Sensor, Temperature – Battery |
|            | 300-5878-13 | 1           | 120, 208, 240V      |            |             |             |                               |
|            | 300-5878-15 | 1           | 380V                |            |             |             |                               |
|            | 300-5878-16 | 1           | 416V                |            |             |             |                               |
|            | 300-5878-17 | 1           | 480V                |            |             |             |                               |
|            | 300-5878-18 | 1           | 600V                |            |             |             |                               |

## Miscellaneous Labels



| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                  | REF NO.     | PART NO. | QTY USED | PART DESCRIPTION |
|---------|-------------|----------|-----------------------------------|-------------|----------|----------|------------------|
| 1       | 098-8095    | A/R      | Label, Warning – Hot Surface      | 17          |          |          | Label, Warning   |
| 2       | 098-8097    | A/R      | Label, Information – Earth/Ground | 098-8104-20 | 1        |          | 240V             |
| 3       | 098-8098    | A/R      | Label, Instruction                | 098-8104-21 | 1        |          | 110V             |
| 4       | 098-8100    | A/R      | Label, Warning – Service Manual   | 098-8104-01 | 1        |          | 380V             |
| 5       | 098-8101    | A/R      | Label, Information – Lifting Eye  | 098-8104-02 | 1        |          | 480V             |
| 6       | 098-8130    | A/R      | Label, Caution – Rotating Parts   | 098-8104-03 | 1        |          | 415V             |
| 7       | 098-8263    | A/R      | Label, Information – Oil Fill     | 098-8104-04 | 1        |          | 440V             |
| 8       | 098-7895    | A/R      | Label, Warning – Do Not Lift      | 098-8104-05 | 1        |          | 480V             |
| 9       | 098-8096    | A/R      | Label, Warning – General          | 098-8104-06 | 1        |          | 600V             |
| 10      | 098-7902-03 | A/R      | Label, Logo 118.2 x 299.2         | 098-8104-07 | 1        |          | 3300V            |
|         | 098-7902-04 | A/R      | Label, Logo 180.6 x 457.4         | 098-8104-08 | 1        |          | 4160V            |
| 11      | 098-4500    | A/R      | Label – Prototype Tested          | 098-8104-09 | 1        |          | 6000V            |
| 12      | 098-8221    | A/R      | Label, Logo                       | 098-8104-10 | 1        |          | 6300V            |
| 13      | 098-8024    | A/R      | Label, Information                | 098-8104-11 | 1        |          | 6600V            |
| 14      | 098-8023    | A/R      | Label, Information                | 098-8104-12 | 1        |          | 7200V            |
| 15      | 098-8324    | A/R      | Label, Warning – Lifting          | 098-8104-13 | 1        |          | 10000V           |
| 16      | 098-8503    | A/R      | Label, Information                | 098-8104-14 | 1        |          | 10500V           |
|         |             |          |                                   | 098-8104-15 | 1        |          | 11000V           |
|         |             |          |                                   | 098-8104-16 | 1        |          | 11400V           |
|         |             |          |                                   | 098-8104-17 | 1        |          | 12470V           |
|         |             |          |                                   | 098-8104-18 | 1        |          | 13200V           |
|         |             |          |                                   | 098-8104-19 | 1        |          | 13800V           |

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| 098-7281, <b>42</b>      |             | 098-8162, <b>96</b>                 |             | 130-4517-01, <b>21, 23</b> |             | 140-3716-02, <b>8, 11</b>       |             |
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| 098-8104-05, <b>116</b>  |             | 098-8628, <b>99, 101</b>            |             | 130-6903-02, <b>21</b>     |             | 140-3982-02, <b>12</b>          |             |
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| 200-3071-17, <b>44</b>      |             | 200-3212-15, <b>45</b>                             |             | 249-0843, <b>47</b>                        |             | 305-1019-02, <b>33, 35</b>       |             |
| 200-3071-25, <b>44</b>      |             | 200-3212-17, <b>45</b>                             |             | 249-0844, <b>47</b>                        |             | 305-1032-02, <b>35</b>           |             |
| 200-3100-05, <b>44</b>      |             | 200-3212-67, <b>45</b>                             |             | 249-0845, <b>47, 104</b>                   |             | 306-4941, <b>50, 99, 101</b>     |             |
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| 200-3105-01, <b>44</b>      |             | 226-4855, <b>83, 91</b>                            |             | 300-4308-01, <b>54, 55, 56, 57, 59, 60</b> |             | 306-5256, <b>102</b>             |             |
| 200-3105-03, <b>44</b>      |             | 226-4856, <b>83, 91</b>                            |             | 300-4308-02, <b>54, 56</b>                 |             | 306-5274, <b>102</b>             |             |
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| 200-3105-17, <b>44</b>      |             | 226-4929-02, <b>53, 97</b>                         |             | 300-4985-03, <b>86</b>                     |             | 307-3043, <b>50, 103</b>         |             |
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| 200-3106-25, <b>44</b>      |             | 232-3710-07, <b>41</b>                             |             | 300-5647, <b>81, 89</b>                    |             | 307-3109, <b>103</b>             |             |
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