

# DUSTMASTER® 28,000 CFM TIER III DIESEL DUST COLLECTOR





PART NUMBERS AND SCHEMATICS GUIDE

#### **Company Profile**

Since 1944, Marco has developed a strong tradition of providing innovative and reliable products and services to the surface preparation and protective coatings industries. We are the world's premier provider of Abrasives, Blasting Equipment, Coating and Painting Equipment, Engineered Systems, Rental Equipment, Safety Equipment, Service, and Repair.

Through innovative designs and a total commitment to quality, Marco manufactures products that increase production rates, create a safer workplace, and reduce maintenance costs. Marco's industry experience, manufacturing capabilities, legendary customer service, product availability, logistics services, and technology leadership is your assurance that we deliver high quality products and services, providing the best value to you, our customer.

#### The Marco Difference

- Industry Experience With Marco on your team, you have access to expertise which can only come from decades of industry leadership. We have organized our engineering department, production specialists, customer operations, and safety support into a "Center of Competence." As a Marco customer, you have access to hundreds of years of cumulative experience related to your operations.
- Manufacturing Excellence Marco is a U.S. based, ISO 9001:2008 certified manufacturer of equipment for the Surface Preparation and Protective Coatings industries. Marco's engineers benchmark the industry to ensure that we design and manufacture superior products that set the "Gold Standard" for performance, safety, and quality.
- Legendary Customer Service Marco's legendary customer service team is staffed by friendly, highly-trained individuals who are focused on providing the highest level of product support, order accuracy, and customer satisfaction.
- Product Availability We stock over 10,000 SKU's and have over 45 shipping locations to serve North American
  and International markets for all major brands of blasting and painting equipment. As the largest provider of surface
  preparation and protective coatings equipment in the world, our inventory levels and product availability are
  unmatched.
- Logistics Services Marco's in-house logistics team is dedicated to moving your shipment anywhere in the world.
   We move over 14,000 truckloads every year, allowing you to save on freight costs by leveraging our buying power.
   Lower your process costs with a single invoice, which includes product and freight.
- Technology Leadership Our website provides: Operator's Manuals, Part Numbers and Schematics Guides,
  MSDS information, and Features, Advantages, and Benefits Guides, providing access to information 24/7. Our
  Extranet application allows you to receive quotes and place orders online. Our Intranet maintains a complete record
  of your purchase history to assist with ongoing support of your existing equipment and future purchasing decisions.

#### **Vision Statement**

Marco is the world's premier provider of Abrasives, Blasting Equipment, Coating and Painting Equipment, Engineered Systems, Rental Equipment, Safety Equipment, Service, and Repair.

#### Mission Statement

Marco provides strong leadership and innovation to the surface preparation and protective coatings industries. We dedicate our efforts to the continuous improvement of our products, services, processes, people, and most importantly, the quality of our customer's experience.

#### **Quality Statement**

Marco is committed to providing superior quality in the design, manufacturing, distribution, rental, service, and repair of our products. Our ISO 9001:2008 certification extends throughout all operations in all locations. Continuous improvement of our processes and supply chain Integration comprise the core of our business strategy for delivering exceptional quality and value in all Marco products and services.

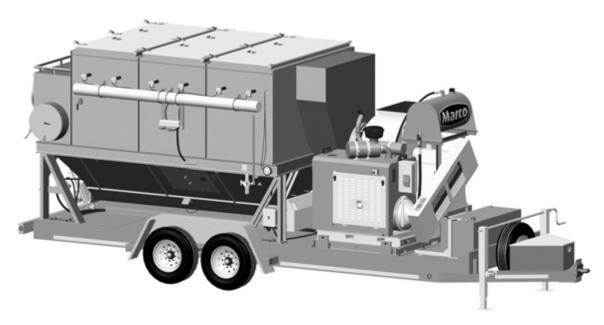
#### Management Philosophy

We are a company dedicated to the success of every customer and associate. We discuss, debate, challenge, measure, and test our ideas. We will be boundless and limitless in our passion to improve. Through sound leadership and dedicated associates, we will ensure a long term, profitable future for Marco, our associates, customers, and suppliers.

#### **TABLE OF CONTENTS**

| CONTENTS                                   | Inlet Door Assembly                           |
|--|---|
| Part Numbers                               | Dust Collector Filter Cartridge Pulsers       |
| Specifications                             | Dust Collector Filter Cartridge Hatch Door 35 |
| ·<br>Assembly Part Numbers and Schematics5 | Emergency-Stop Stations                       |
| Front Assembly                             | 5 Trailer                                     |
| Fuel Tank                                  | Diaphragm Valve                               |
| Hydraulic Oil Tank                         | Optional Accessories                          |
| Hydraulic Oil Filter Assembly              | Literature References 41                      |
| Hydraulic Hoses                            |   |
| Fan Belt Assembly                          | ı   |
| Fan Belt Guard Back Assembly               | 3   |
| Fan Assembly and Battery Box               | 1   |
| Main Auger Drive Assembly                  | 5   |
| Main Auger Bearing                         | 5   |
| Main Auger Motor                           | 7   |
| Main Auger                                 | 3   |
| Access Panel Assembly                      |   |
| Main Auger Protective Grate                |   |
| Pneumatic Ball Vibrators                   |   |
| Pulser System Assembly 21                  | ı   |
| Pulser Regulator and Timer Assembly 23     | 3   |
| Pulser Solenoid Enclosure Assembly 24      | 1   |
| Discharge Auger Assembly                   | 5   |
| Discharge Auger Drive Assembly             | 7   |
| Discharge Auger Clean-out Assembly 29      |   |
| Discharge Auger Assembly 30                |   |
| Hydraulic Pump                             | I   |
| Hydraulic Control Assembly                 | 2   |

#### **PART NUMBERS**



Complete unit with tier III diesel engine no longer available. See Tier 4 options.

#### **SPECIFICATIONS**

**Capacity:** CFM = 16,990 - 28,140

W.C. = 0 - 16"

Filter Cartridge Style: Open Top with Flange, Closed Bottom

36 Required

Filter Cleaning: Pulse System, 5–15 second intervals

Pulse Duration: 200-350 millisecond

**Air to Cloth Ratio:** 2.72:1 @ 20,000 CFM

Filter Area: 7,361 square feet

Efficiency: 85/15 Blend Filters – 99.8% @ 0.5 micron

HEPA Filters - 99.99% @ 0.3 micron

Fire Retardant Filters – 96.8% @ 2.0 micron

Spunbond Filters – 97% @ 3.0 micron

**Ducting Connections:** 20" I.D., Quantity of Four

Clean-out Ports: One

**Dust Removal Conveyor:** Main Auger, 6" Discharge Auger, Hydraulic Motor Drive

**Fan:** Backward Inclined, non-overloading, spark resisting

**Engine:** Diesel, Tier III, 114 Horsepower (Tier 4 Optional)

Fuel Capacity: Type: Diesel

Capacity: 80 Gallons

Air Requirements: Clean, Dry, Compressed Air 24 CFM @ 90 PSI

Electrical System: 12-Volt DC

**Engine Protection:** Engine Monitoring System with automatic shutdown measures: coolant

temperature, intake air temperature, engine intake manifold pressure, engine oil

pressure, pressure in fuel rail, engine speed and timing.

Fluid Specifications: Hydraulic Oil: H46 or equivalent, 40 Gallons

Diesel Fuel: See Engine Operator's Manual for type, 80 Gallons

Grease/Lubricator: Shell Alvania Grease EP or equivalent

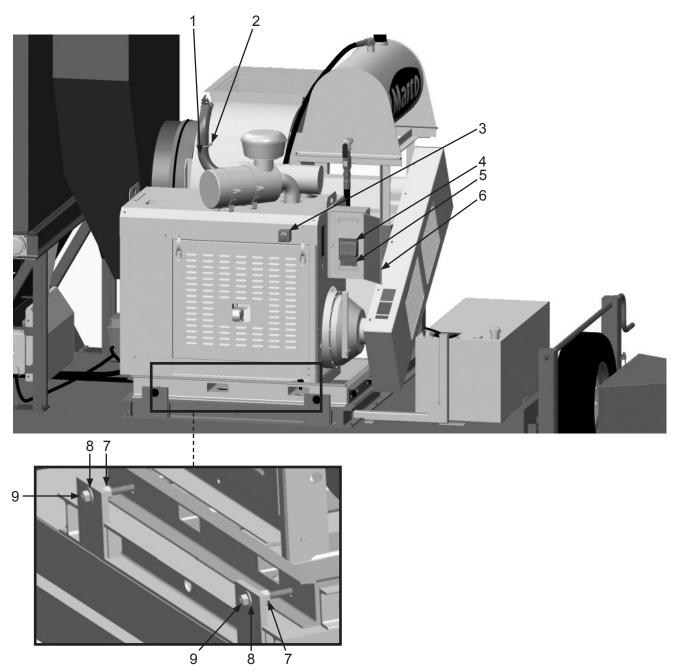
**Unit Dimensions:** Weight: 12,500 pounds (empty)

Tongue Weight: 2620 pounds

Length: 25' 7" Width: 8' Height: 9' 6"

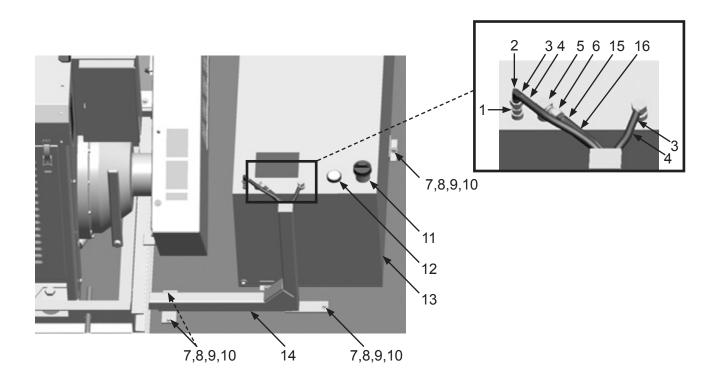
## **ASSEMBLY PART NUMBERS AND SCHEMATICS**

Figure 1: Front Assembly



| Item#  | Part#    | Description                          |
|--------|----------|--------------------------------------|
| Fig. 1 |          |                                      |
| 1      | 10103920 | 2-1/2" Exhaust Pipe Elbow            |
| 2      | 10103821 | 2-1/2" Exhaust Pipe Clamp            |
| 3      | 10104062 | Emergency-Stop Station (See Fig. 28) |
| 4      | 10103969 | Murphy® PowerView™ Gauge             |
| 5      | 10103974 | Engine Control Panel Key Switch      |
|        | 10103970 | Engine Start-up Key                  |
| 6      | 10104072 | Engine Control Door Panel            |
| 7      | 10103440 | 3/4-10 Draw Bolt (Two Required)      |
| 8      | 10103718 | 3/4" Washer (Four Required)          |
| 9      | 10103420 | 3/4-10 Nut (Four Required)           |
|        | 10106772 | Clutch Arm Extension                 |

Figure 2: Fuel Tank



| Item # | Part #         | Description                                    |
|--------|----------------|--|
| Fig. 2 | ,              |  |
| 1      | 10SME025       | 1/4" NPT (M) x 1/4" NPS (F) Straight Swivel    |
| 2      | 10103421       | 3/8" Barb x 1/4" NPT Elbow Fitting             |
| 3      | 10104065       | Hose Clamp - 3/8" i.d. Hose                    |
| 4      | 10103423       | 3/8" Fuel Hose (Per Foot)                      |
| 5      | 20PFHA60SA0606 | Swivel Union - 3/8" (M) x 3/8" (F)             |
| 6      | 10103618       | 3/8" NPT x 1/2" Barb Hose Fitting              |
| 7      | 10101059       | 3/8-16 x 1-1/4" Galvanized Bolt (Six Required) |
| 8      | 10101942       | 3/8" Galvanized Flat Washer (12 Required)      |
| 9      | 1012318        | 3/8-16 Hex Nut (Six Required)                  |
| 10     | 10101936       | 3/8" Zinc Lock Washer (Six Required)           |
| 11     | 10103968       | Locking Fuel Cap with Key                      |
| 12     | 10103424       | Sight Gauge                                    |
| 13     | 10103251       | Fuel Tank - 80 gallon                          |
| 14     | 10103677       | Fuel Line Guard                                |
| 15     | 10104064       | Hose Clamp - 1/2" i.d. Hose                    |
| 16     | 10103619       | 1/2" Fuel Hose (Per Foot)                      |
| _      | 10103617       | Withdraw Tube - 16"                            |
| —      | 10103620       | 3/8" Inline Filter (Not Shown)                 |
| _      | 10103961       | Fuel Tank Rubber Cushioning Pad (Not Shown)    |
|        |                |  |

# **Hydraulic Oil Tank**

| Item # | Part #         | Description                                |
|--------|----------------|--|
| Fig. 3 |                |  |
| 1      | 10103942       | Sight Level Gauge                          |
| 2      | 1011747        | Bolt - 3/8-16 x 1" - (Four Required)       |
| 3      | 10101942       | 3/8" Flat Washer (Eight Required)          |
| 4      | 10101936       | 3/8" Zinc Lock Washer (Four Required)      |
| 5      | 1012318        | 3/8-16 Hex Nut (Four Required)             |
| 6      | 10103314       | Straight Adapter - 3/4" NPT x 12 JIC       |
| 7      | 20PFHA24SB1612 | Reducing Bushing - 1" NPT x 3/4" NPT       |
| 8      | 20PFHA25UG1616 | Street Elbow - 90° - 1" NPT (Two Required) |
| 9      | 10105031       | Hydraulic Oil Reservoir - 40 Gallon        |
| 10     | 1011213        | Close Nipple - 3/4" NPT - Galvanized       |
| 11     | 10L8074C       | Full Port Ball Valve - 3/4" NPT            |
| 12     | 10DSHP75       | Pipe Plug - Square Head - 3/4" NPT         |
| 13     | 10102479       | Street Elbow - 90° - 3/4" NPT - Galvanized |
| 14     | 10103971       | Filler/Breather Cap                        |
| 15     | 10102958       | Hydraulic Oil Tank Mount                   |
| 16     | 20PFHA24SA1616 | Hex Nipple - 1" NPT                        |
| 17     | 1011601        | Full Port Ball Valve - 1" NPT              |
| 18     | 10103312       | Straight Adapter - 1" NPT x 16 JIC         |

Figure 3: Hydraulic Oil Tank

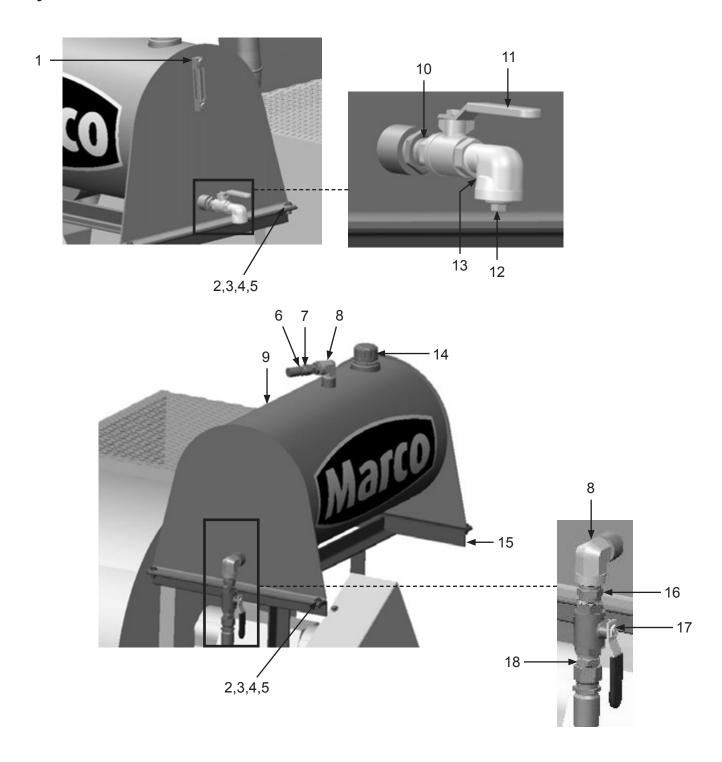
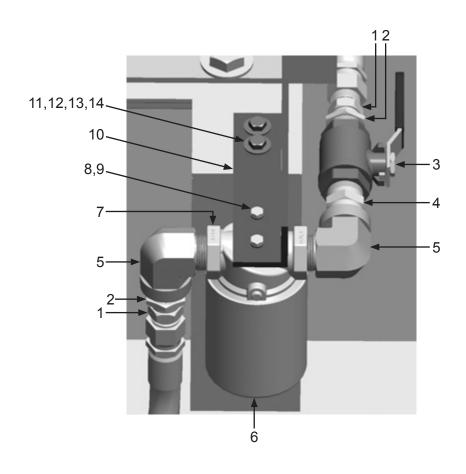
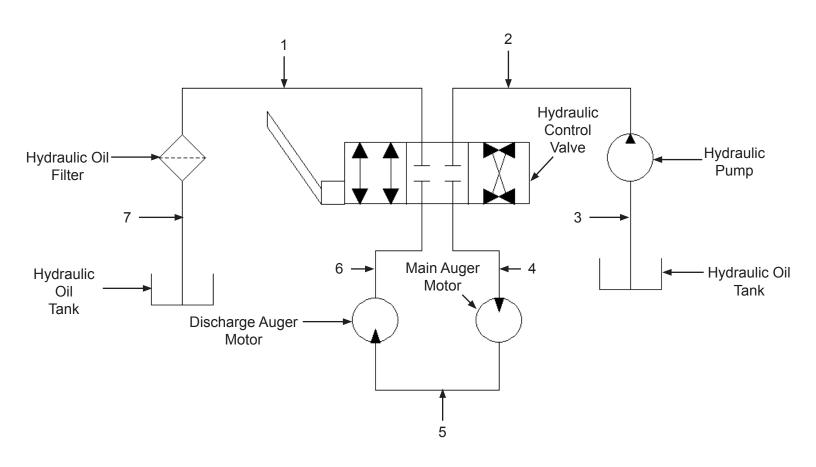


Figure 4: Hydraulic Oil Filter Assembly



| Item#  | Part #         | Description   |
|--------|----------------|---|
| Fig. 4 |                |   |
| 1      | 10103314       | Straight Adapter - 3/4" NPT x 12 JIC (Two Required) |
| 2      | 20PFHA24SB1612 | Reducing Bushing - 1" x 3/4" (Two Required)         |
| 3      | 1011601        | Full Port Brass Ball Valve - 3/4"                   |
| 4      | 20PFHA24SA1616 | Hex Nipple - 1"                                     |
| 5      | 20PFHA25UG1616 | Street Elbow - 1" (Two Required)                    |
| 6      | 10104058       | Hydraulic Oil Filter                                |
| 7      | 10104057       | Hydraulic Oil Filter Head                           |
| 8      | 1012153        | Lock Washer - 1/4"                                  |
| 9      | 20100125       | Bolt - 1/4-20 x 3/4" - Zinc                         |
| 10     | 10104051       | Bracket - Hydraulic Oil Filter Head                 |
| 11     | 10101059       | Bolt - 3/8-16 x 1-1/4" - Galvanized                 |
| 12     | 10101942       | Flat Washer - 3/8" - Galvanized                     |
| 13     | 10101936       | Lock Washer - 3/8" - Zinc                           |
| 14     | 1012318        | Hex Nut - 3/8-16 -                                  |

Figure 5: Hydraulic Hoses



| Item # | Part #   | Description                                       |
|--------|----------|---|
| Fig. 6 |          |   |
| 1      | 10104069 | Hydraulic Hose - 3/4" I.D. x 17 feet - 3045 psi   |
| 2      | 10103406 | Hydraulic Hose - 3/4" I.D. x 21 feet - 3045 psi   |
| 3      | 10103405 | Hydraulic Hose - 1" I.D. x 9.5 feet - 2000 psi    |
| 4      | 10103407 | Hydraulic Hose - 1/2" x 14' - 2000 psi            |
| 5      | 10103501 | Hydraulic Hose - 1/2" x 18'8" - 2000 psi          |
| 6      | 10103409 | Hydraulic Hose - 1/2" I.D. x 7.08 feet - 2000 psi |
| 7      | 10104055 | Hydraulic Hose - 3/4" I.D. x 7 feet - 3045 psi    |

## **Fan Belt Assembly**

| Item # | Part #   | Description   |
|--------|----------|---|
| Fig. 6 |          |   |
| 1      | 10103400 | 3/8-16 x 3/4" Bolt (Six Required)                     |
| 2      | 10101942 | 3/8" Galvanized Flat Washer (16 Required)             |
| 3      | 10103324 | 8" Sheave   |
| 4      | 10103327 | 3-Band Fan Drive Belt – 125"                          |
| 5      | 10103323 | 8" Sheave Bushing with Key Includes Mounting Hardware |
| 6      | 10102964 | Belt Guard Cover                                      |
| 7      | 10103325 | 12-1/2" Sheave Bushing Includes Mounting Hardware     |
| 8      | 10103644 | 1/2" x 1/4" x 5/8" x 5/16" Step Key                   |
| 9      | 10103326 | 12-1/2" Sheave  |
| 10     | 10103417 | 3/4-10 x 1-3/4" Bolt (Four Required)                  |
| 11     | 10103418 | 3/4" Washer (Four Required)                           |
| 12     | 1028617  | 3/8-16 x 1-3/4" Shoulder Bolt (Five Required)         |
| 13     | 10101936 | 3/8" Zinc Lock Washer (Five Required)                 |
| 14     | 1012318  | 3/8" Hex Nut (Five Required)                          |
| 15     | 10102967 | Belt Guard Back                                       |

Figure 6: Fan Belt Assembly

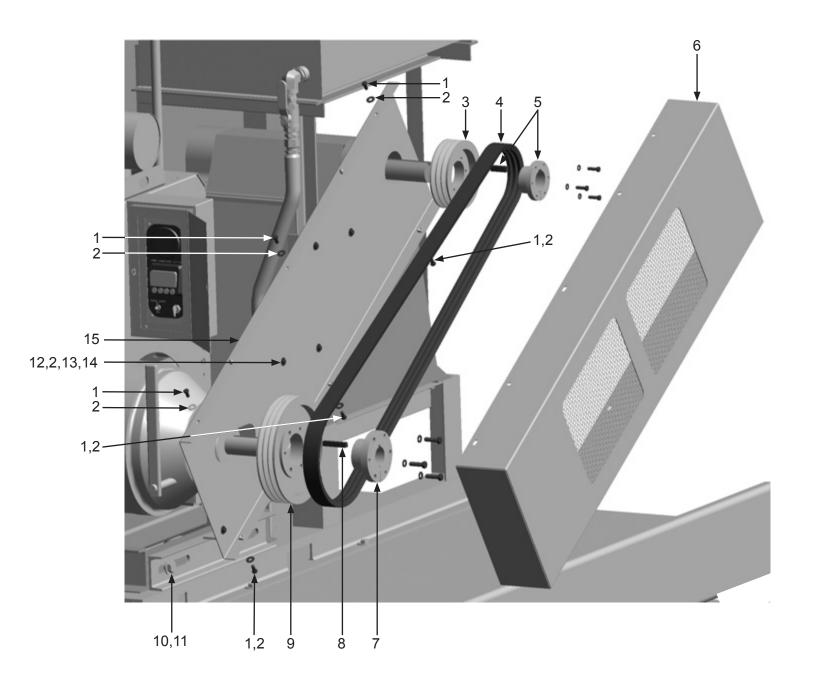
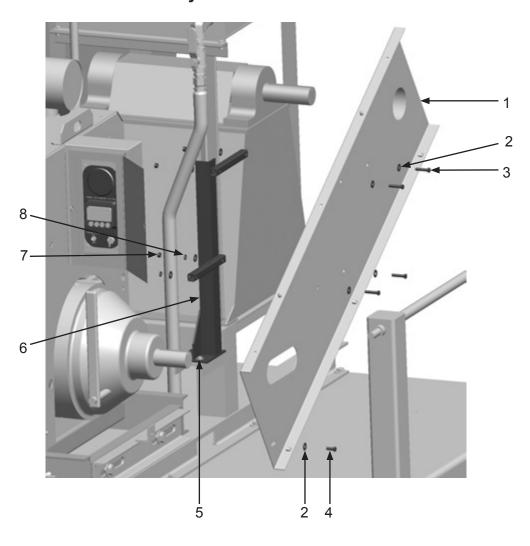
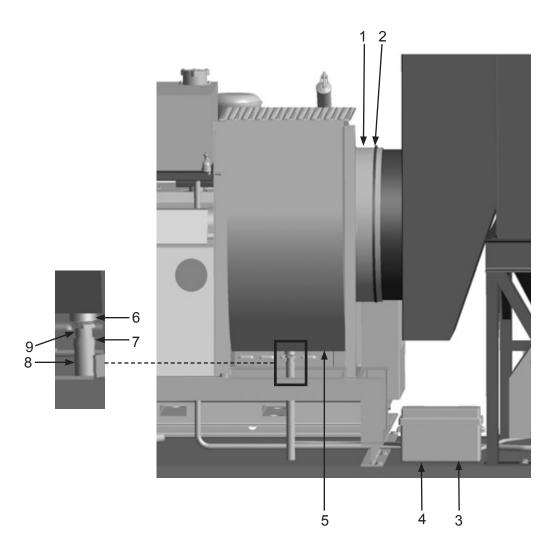


Figure 7: Fan Belt Guard Back Assembly



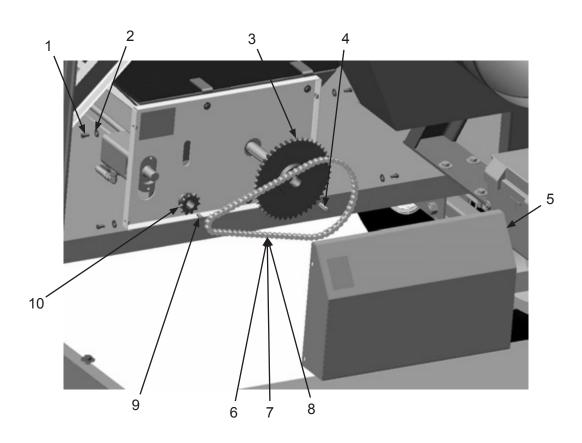
| Item # | Part #   | Description                                     |
|--------|----------|---|
| Fig. 7 |          |   |
| 1      | 10102967 | Belt Guard Back                                 |
| 2      | 10101942 | 3/8" Galvanized Flat Washer (18 Required)       |
| 3      | 1028617  | 3/8-16 x 1-3/4" Shoulder Bolt (Four Required)   |
| 4      | 1011747  | 3/8-16 x 1" Bolt                                |
| 5      | 10101059 | 3/8-16 x 1-1/4" Galvanized Bolt (Four Required) |
| 6      | 10103354 | Belt Guard Mount                                |
| 7      | 1012318  | 3/8-16 Hex Nut (Nine Required)                  |
| 8      | 10101936 | 3/8" Zinc Lock Washer (Nine Required)           |

Figure 8: Fan Assembly and Battery Box



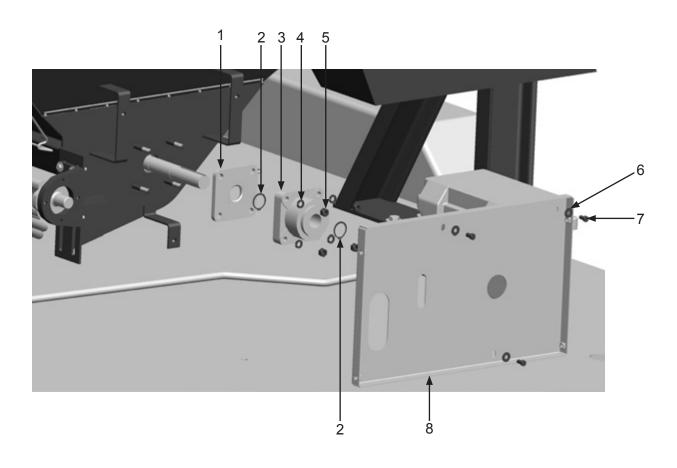
| Item # | Part #         | Description                              |
|--------|----------------|--|
| Fig. 8 |                |  |
| 1      | 10103962       | Connection Rubber Gasket                 |
| 2      | 10103623       | Adjustable Clamp Fastener (Two Required) |
| 3      | 10103342       | Battery Box                              |
| 4      | 10103963       | Rubber Cushioning Pad                    |
| 5      | 10103626       | Fan                                      |
| 6      | 20PFHA24SB2016 | 1-1/4" x 1" Reducing Bushing             |
| 7      | 10104136       | T-Bolt Clamp 1-9/16" x 1-11/16" OD       |
| 8      | 10103654       | 1-1/4" I.D. Hose (Per Foot)              |
| 9      | 10105207       | 1" NPT x 3" Toe Nipple                   |
| _      | 10105867       | Battery Cables (Not Shown)               |
| _      | 10103341       | Battery (Not Shown)                      |

Figure 9: Main Auger Drive Assembly



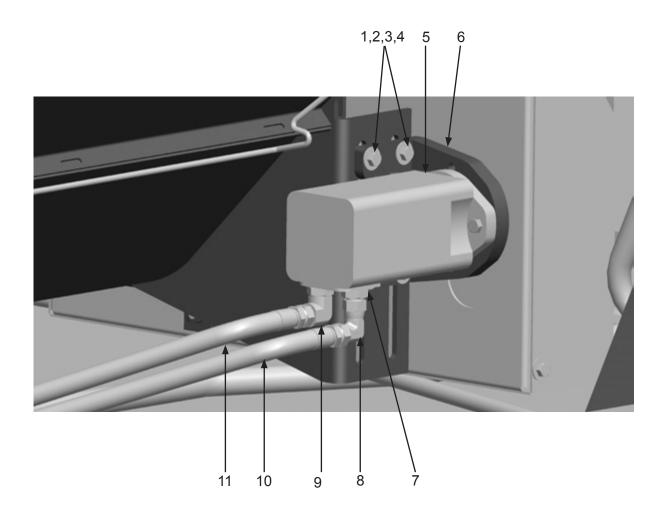
| Item #  | Part #   | Description   |
|---------|----------|---|
| Fig. 10 |          |   |
| 1       | 10103400 | 3/8-16 x 3/4" Bolt (Four Required)                  |
| 2       | 10101942 | 3/8" Galvanized Flat Washer (Four Required)         |
| 3       | 10104218 | 45-Tooth Sprocket                                   |
| 4       | 10103641 | 3/8" Key Cut  |
| 5       | 10102952 | Main Auger Motor Cover                              |
| 6       | 10103391 | 60# Cottered Roller Chain (Per Foot)                |
| 7       | 10103392 | 60# Connecting Link                                 |
| 8       | 10103614 | 60# Offset Link                                     |
| 9       | 10103642 | 5/16" x 1/4" x 1/8" x 1/8" Key                      |
| 10      | 10103265 | 11-Tooth Sprocket                                   |
| _       | 10104192 | Main Auger Chain Kit Includes Item #'s: 7, 8, and 9 |

Figure 10: Main Auger Bearing



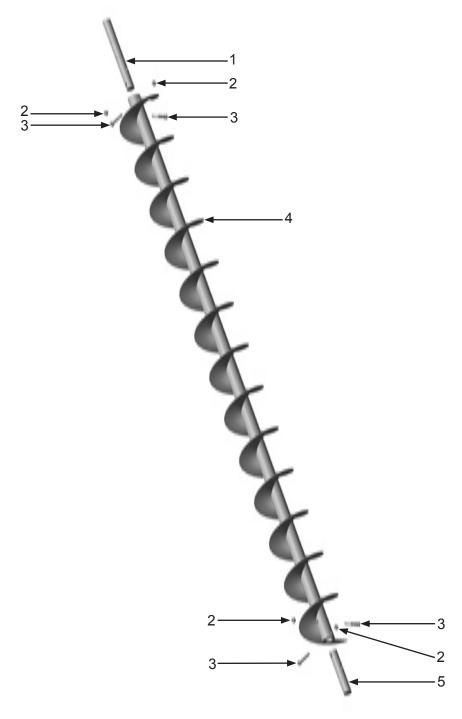
| Item #  | Part #   | Description                                  |
|---------|----------|--|
| Fig. 10 |          |  |
| 1       | 10102902 | Seal Plate                                   |
| 2       | 10103605 | Snap Ring (Two Required)                     |
| 3       | 10102903 | Thrust Bearing                               |
| 4       | 10100675 | 1/2" Lock Washer (Four Required)             |
| 5       | 1014022  | 1/2-13 Hex Nut (Four Required)               |
| 6       | 10101942 | 3/8" Galvanized Flat Washer (Three Required) |
| 7       | 10103400 | 3/8-16 x 3/4" Bolt (Three Required)          |
| 8       | 10102955 | Main Auger Guard Back                        |

Figure 11: Main Auger Motor



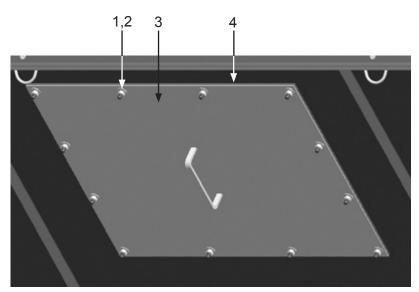
| Item # | # Part # | Description                                    |
|--------|----------|--|
| Fig. 1 | 1        |  |
| 1      | 1028617  | 3/8-16 x 1-3/4" Shoulder Bolt (Four Required)  |
| 2      | 10101942 | 3/8" Galvanized Flat Washer (Eight Required)   |
| 3      | 10101936 | 3/8" Zinc Lock Washer (Four Required)          |
| 4      | 1012318  | 3/8-16 Hex Nut (Four Required)                 |
| 5      | 10103266 | 18.7 Displacement Hydraulic Motor              |
| 6      | 10102881 | Hydraulic Motor Mount with Hardware            |
| 7      | 10103612 | JIC 8 x SAE 10 Straight Adapter                |
| 8      | 10103611 | JIC 8 x JIC 8 90° Elbow                        |
| 9      | 10103308 | JIC 8 x SAE 10 90° Elbow                       |
| 10     | 10104224 | 1/2" x 24' Hydraulic Hose                      |
| 11     | 10103502 | 1/2" x 20' Hydraulic Hose - 4500 PSI           |
| _      | 10103941 | Seal Kit for 18.7 Displacement Hydraulic Motor |

Figure 12: Main Auger



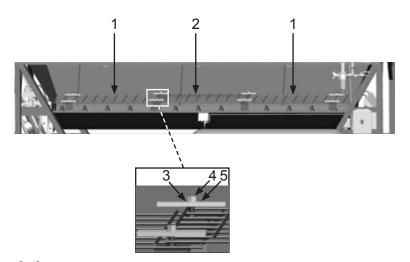
| Item #  | Part #   | Description                                 |
|---------|----------|---|
| Fig. 12 |          |   |
| 1       | 10103306 | Drive Shaft                                 |
| 2       | 10101941 | 1/2-13 Galvanized Hex Nut (Four Required)   |
| 3       | 10103401 | 1/2-13 x 3" Galvanized Bolt (Four Required) |
| 4       | 10103262 | 118" x 9" Standard Pitch Auger              |
| 5       | 10102910 | Auger Shaft End                             |

Figure 13: Access Panel Assembly



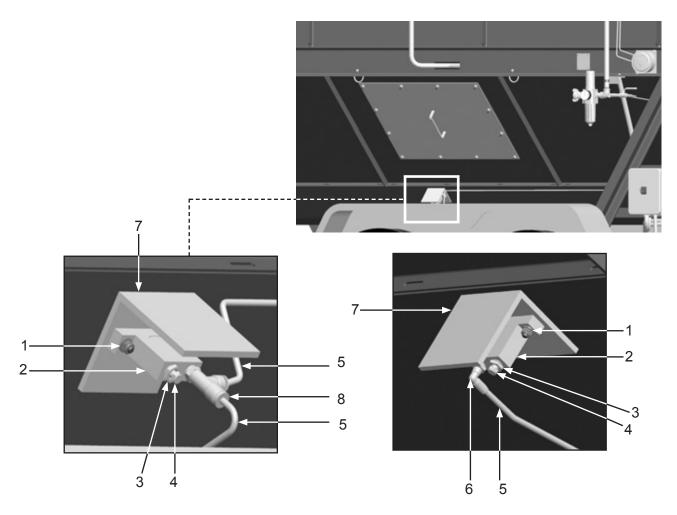
| Item    | # Part # | Description                                     |
|---------|----------|---|
| Fig. 13 |          |   |
| 1       | 1012318  | 3/8-16 Hex Nut (12 Required)                    |
| 2       | 10101942 | 3/8" Flat Washer (12 Required)                  |
| 3       | 10102933 | 20" Access Panel Door                           |
| 4       | 10103344 | 1/4" x 1-1/2" Adhesive-Backed Gasket (Per Foot) |

**Figure 14: Main Auger Protective Grate** 



| item # | F Part # | Description                                 |
|--------|----------|---|
| Fig. 1 | 4        |   |
| 1      | 10103966 | Protective Grate - 44 Inches (Two Required) |
| 2      | 10103967 | Protective Grate - 36 Inches                |
| 3      | 10100674 | Flat Washer - 1/2" (Eight Required)         |
| 4      | 1014022  | 1/2-13 Heax Nut (Eight Required)            |
| 5      | 10102936 | Protective Grate Bracket (Eight Required)   |

**Figure 15: Pneumatic Ball Vibrators** 



| Item #  | Part #         | Description  |
|---------|----------------|--|
| Fig. 15 |                |  |
| 1       | 1012323        | 1/4-20 Zinc Lock Nut with Nylon Insert (Four Required) |
| 2       | 10103258       | Pneumatic Ball Vibrator (Two Required)                 |
| 3       | 20PFHA24SB0402 | 1/4" x 1/8" Reducing Bushing                           |
| 4       | 1012905        | 1/8" Breather Muffler (Two Required)                   |
| 5       | 10103322       | 1/4" I.D. Black Urethane Tubing (Per Foot)             |
| 6       | 20PFBA31095614 | 1/4" Tube x 1/4" NPT 90° Fitting                       |
| 7       | 10103609       | Vibrator Shield (Two Required)                         |
| 8       | 10103261       | 1/4" Male Push-to-connect Tee                          |

# **Pulser System Assembly**

| Item # | # Part #       | Description  |
|--------|----------------|--|
| Fig. 1 | 6              |  |
| 1      | 1011601        | 1" Full Port Ball Valve  |
| 2      | 10103318       | 1" x 2" Pipe Nipple (Seven Required)                                       |
| 3      | 10103322       | 1/4" O.D. Black Urethane Tubing (Per Foot)                                 |
| 4      | 20100579       | 1/4" O.D. Tube x 1/8" NPT Swivel (Six Required)                            |
| 5      | 1028607        | 1/4" NPT Pressure Relief Valve – 125 PSI                                   |
| 6      | 10102948       | 6" Pipe Header   |
| 7      | 10103394       | 3/8-16 x 6" U-Bolt Assembly (Five Required)                                |
| 8      | 20PFBA31095614 | 1/4" Tube x 1/4" NPT 90° Fitting (Two Required)                            |
| 9      | 20PFHA24SB1612 | 1" x 3/4" Reducing Bushing   |
| 10     | 10103315       | 3/4" x 36" Pipe Nipple   |
| 11     | 10103608       | Magnehelic Differential Pressure Gauge Mounting Bracket                    |
| 12     | 10103259       | Magnehelic Differential Pressure Gauge Assembly Includes Mounting Hardware |
| 13     | 10104136       | T-Bolt Clamp 1-9/16" x 1-11/16" OD   |
| 14     | 10103654       | 1-1/4" I.D. Marine Hose – 100 PSI (Per Foot)                               |
| 15     | 10105207       | 1" x 3" Toe Nipple (Six Required)  |
| 16     | 10103255       | 1" Diaphragm Valve   |
| 17     | 10103304       | 3/4" I.D. Flexible Conduit   |
| 18     | 10108373       | 1/8" NPT Inline Air Filter   |
| _      | 10103954       | 1" Diaphragm Valve Service Kit (Not Shown)                                 |

Figure 16: Pulser System Assembly

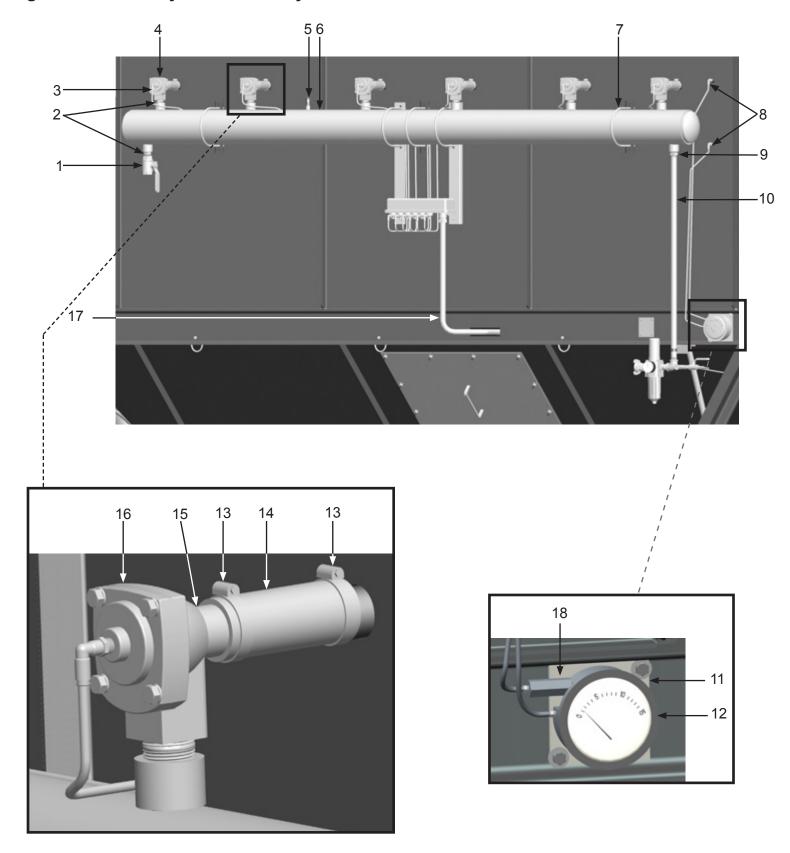
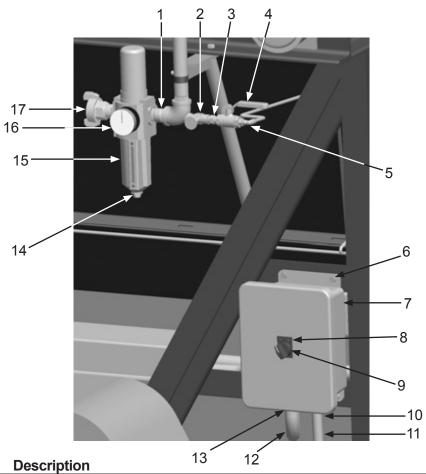
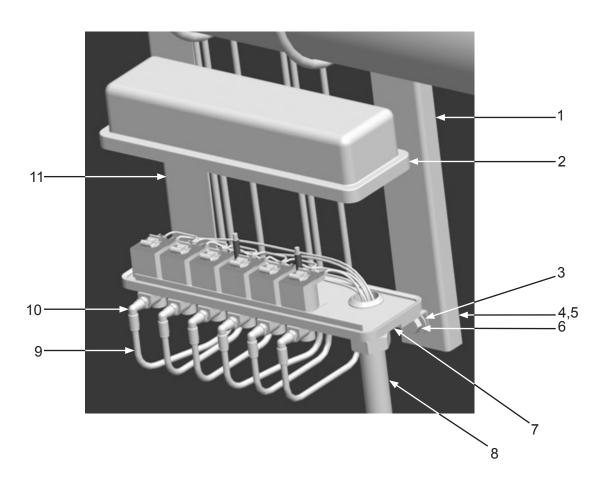


Figure 17: Pulser Regulator and Timer Assembly



| Item   | # Part #                         | Description 12 12  |
|--------|----------------------------------|--|
| Fig.   | 17                               |  |
| 1      | 10103317                         | 3/4" x 2" Pipe Nipple                                      |
| 2      | 10103292                         | 1/4" Needle Valve  |
| 3      | 1017019                          | 1/4" x 1/4" Hex Nipple                                     |
| 4      | 1080050                          | 1/4" Ball Valve  |
| 5      | 20PFBA31095614                   | 1/4" Tube x 1/4" NPT 90° Fitting (Three Required)          |
| 6      | 20100125                         | 1/4-20 x 3/4" Zinc Hex Bolt (Four Required)                |
| 7<br>— | 10103254<br>10103935<br>10103948 | Timer Box with Timer Board Timer Box Only Timer Board Only |
| 8      | 10103414                         | On/Off Name Plate  |
| 9      | 10103305                         | 2-Way Selector Switch                                      |
| 10     | 20RST50                          | Straight Liquid Tite Connection Fitting (Two Required)     |
| 11     | 20RSEL050UL                      | 1/2" UL/UA Seal-Tite Conduit Pipe (Per Foot)               |
| 12     | 10103304                         | 3/4" Flexible Conduit                                      |
| 13     | 10103303                         | 3/4" Conduit Hub   |
| 14     | 10103952                         | Filter Auto Drain  |
| 15     | 10103257                         | Excelon 74 Series Filter/Regulator                         |
| 16     | 10103953                         | Sight Glass Kit  |
| 17     | 10ME1                            | 3/4" Male 2-lug Coupling                                   |
| _      | 10103950                         | Excelon 74 Series Filter/Regulator Service Kit             |
| _      | 10103951                         | Filter Element (Not Shown)                                 |
|        |                                  |  |

Figure 18: Pulser Solenoid Enclosure Assembly

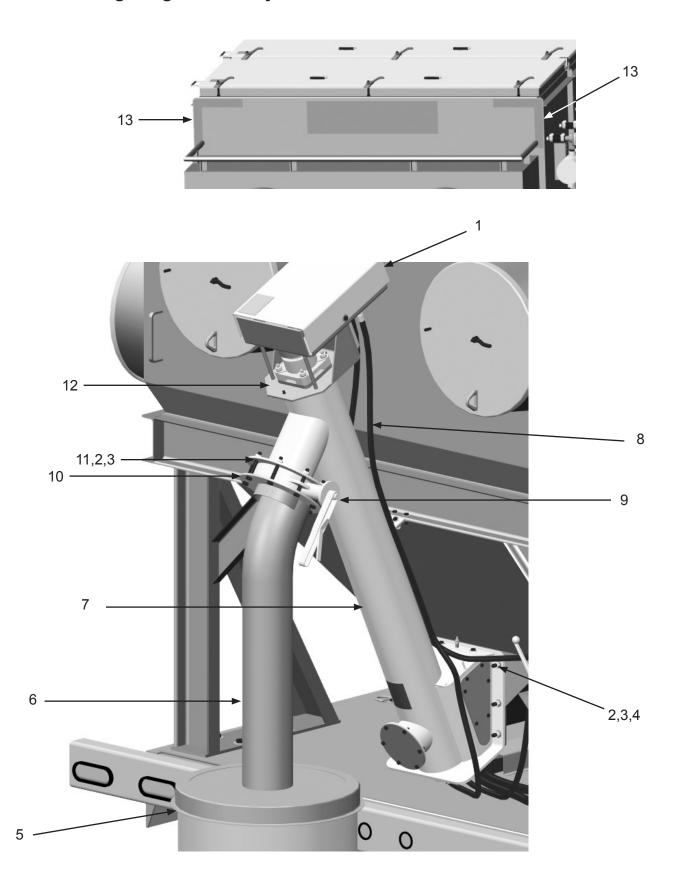


| Item #  | Part #   | Description   |
|---------|----------|---|
| Fig. 18 |          |   |
| 1       | 10102970 | Solenoid Enclosure Mount – Right                                |
| 2       | 10103256 | Solenoid Pilot Valve Enclosure                                  |
| 3       | 10101942 | 3/8" Galvanized Flat Washer (Four Required)                     |
| 4       | 10101936 | 3/8" Zinc Lock Washer (Two Required)                            |
| 5       | 1012318  | 3/8-16 Hex Nut (Two Required)                                   |
| 6       | 1011747  | 3/8-16 x 1" Bolt  |
| 7       | 10103303 | 3/4" Conduit Hub  |
| 8       | 10103304 | 3/4" Flexible Conduit   |
| 9       | 10103322 | 1/4" O.D. Black Urethane Tubing (Per Foot)                      |
| 10      | 20100579 | 1/4" O.D. Tube x 1/8" NPT Swivel (Six Required)                 |
| 11      | 10102969 | Solenoid Enclosure Mount – Left                                 |
| _       | 10103955 | Solenoid Valve (Six Required)                                   |
| _       | 10103956 | Solenoid Coil (One Required per Solenoid)                       |
| _       | 10103957 | Solenoid Service Kit Includes: O-ring, Plunger, Spring, Ferrule |

# **Discharge Auger Assembly**

| Item #  | Part #   | Description                                   |
|---------|----------|---|
| Fig. 19 |          |   |
| 1       | 10103363 | Discharge Chain Cover                         |
| 2       | 10101941 | 1/2-13 Hex Nut (14 Required)                  |
| 3       | 10100674 | 1/2" Flat Washer (22 Required)                |
| 4       | 10100675 | 1/2" Lock Washer (14 Required)                |
| 5       | 10103650 | Discharge Collection Drum Cover (Optional)    |
| 6       | 10103777 | 6" Flexible Discharge Hose (Per Foot)         |
| 7       | _        | Discharge Auger (See Fig. 20)                 |
| 8       | 10103411 | 1/2" I.D. x 4' Hydraulic Hose with Fittings   |
| 9       | 10103302 | 6" Series Wafer Butterfly Valve               |
| 10      | 10102471 | Discharge Hose Connector                      |
| 11      | 10102703 | 1/2-13 x 3-1/2" Grade 5 Bolt (Eight Required) |
| 12      | 10104195 | Discharge Auger Motor Mounting Bracket        |
| 13      | 10103880 | White Conspicuity Tape (Per Inch)             |
|         | 10103881 | Red Conspicuity Tape (Per Inch)               |

Figure 19: Discharge Auger Assembly



# **Discharge Auger Drive Assembly**

| Item #  | Part #   | Description   |
|---------|----------|---|
| Fig. 20 |          |   |
| 1       | 10103363 | Chain Cover   |
| 2       | 10103400 | 3/8-16 x 3/4" Bolt (Seven Required)   |
| 3       | 10101942 | 3/8" Galvanized Flat Washer (Three Required)  |
| 4       | 10104217 | 22-Tooth Sprocket   |
| 5       | 10104197 | Chain Cover Base  |
| 6       | 10101933 | 3/8" - 16 x 2-1/2" Hex Bolt   |
| 7       | 1012318  | 3/8-16 Hex Nut (Four Required)  |
| 8       | 10104199 | Sliding Motor Mount   |
| 9       | 10103308 | JIC 8 x SAE 10 90° Elbow (Two Required)   |
| 10      | 10101059 | 3/8-16 x 1-1/4" A307 Bolt Galv (Two Required)   |
| 11      | 10102887 | Hydraulic Motor   |
| 12      | 10102902 | Seal Plate  |
| 13      | 10103605 | Snap Ring (Two Required)  |
| 14      | 10102903 | Thrust Bearing  |
| 15      | 10100675 | 1/2" Lock Washer (Four Required)  |
| 16      | 1014022  | 1/2-13 Hex Nut (Four Required)  |
| 17      | 1035046  | 5/16"- 18 Nut (Two Required)  |
| 18      | 10101346 | 5/16-18 x 3/4" L GR 5 Bolt (Three Required)   |
| 19      | 10103641 | 3/8 Key Cut   |
| 20      | 10102886 | 13-Tooth Sprocket   |
| 21      | 10104191 | Discharge Auger Chain Kit<br>Includes 60# Connecting Chain Link, 60# Cottered Roller Chain (Quantity of Three), and<br>60# Offset Chain Link. |
| _       | 10103392 | 60# Connecting Chain Link   |
| _       | 10103391 | 60# Cottered Roller Chain (Per Foot)  |
| _       | 10103614 | 60# Offset Chain Link   |
| _       | 10103940 | Seal Kit for Hydraulic Motor  |

Figure 20: Discharge Auger Drive Assembly

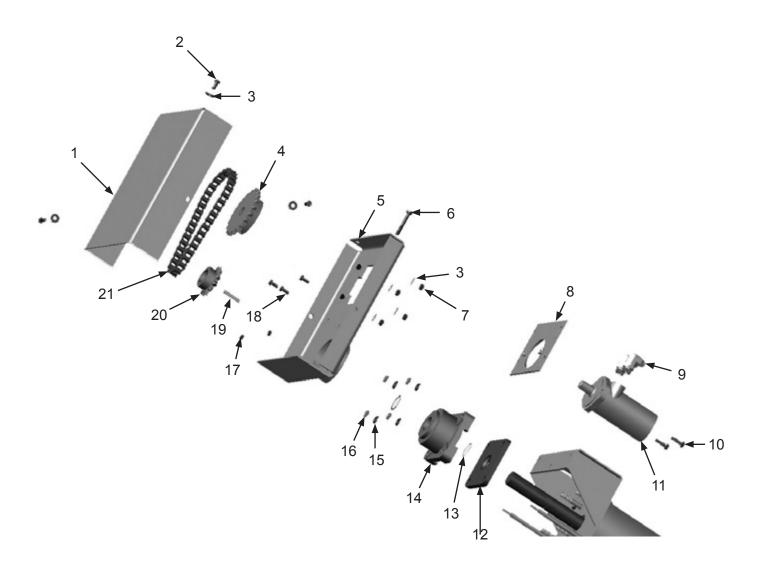
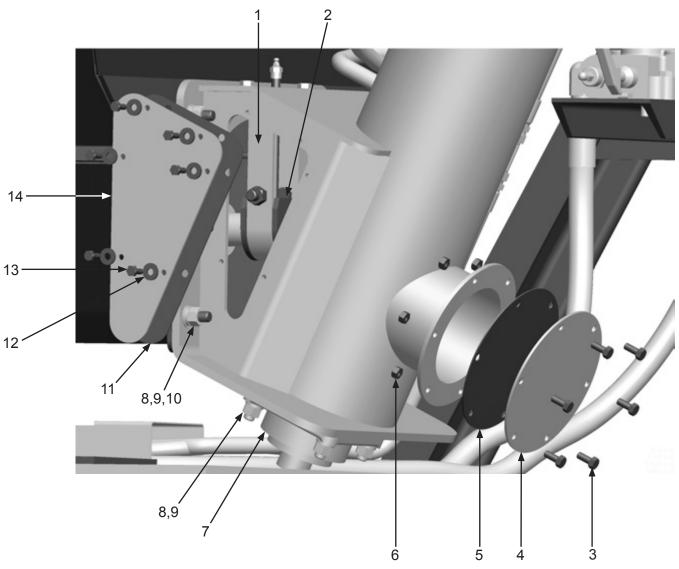
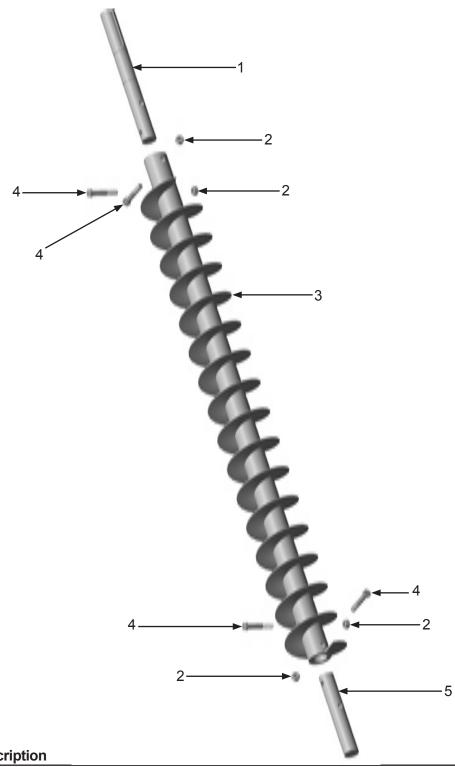


Figure 21: Discharge Auger Clean-out Assembly



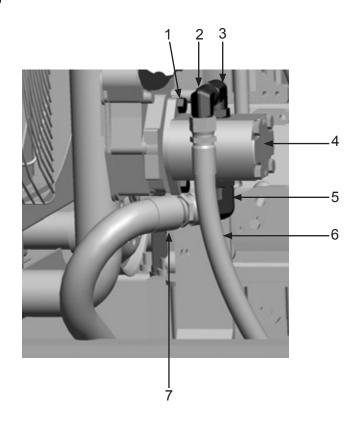
| Item #  | Part #   | Description                                |
|---------|----------|--|
| Fig. 21 |          |  |
| 1       | 10102896 | Bearing Hanger                             |
| 2       | 10103413 | Bearing                                    |
| 3       | 10101346 | 5/16-18 x 3/4" Bolt (Six Required)         |
| 4       | 10103235 | Auger Clean-out Cover                      |
| 5       | 10103716 | Neoprene Auger Clean-out Gasket            |
| 6       | 1035046  | 5/16-18 Nut (Six Required)                 |
| 7       | 10102880 | Discharge Auger Lower Bearing Assembly     |
| 8       | 10101941 | 1/2-13 Galvanized Hext Nut (10 Required)   |
| 9       | 10100675 | 1/2" Lock Washer (10 Required)             |
| 10      | 10100674 | 1/2" Flat Washer (6 Required)              |
| 11      | 10103717 | Discharge Auger Side Gasket (Two Required) |
| 12      | 10101940 | 1/4" Galvanized Flat Washer (12 Required)  |
| 13      | 20100125 | 1/4-20 x 3/4" Zinc Hex Bolt (12 Required)  |
| 14      | 10103236 | Discharge Auger Side Cover (Two Required)  |

Figure 22: Discharge Auger Assembly



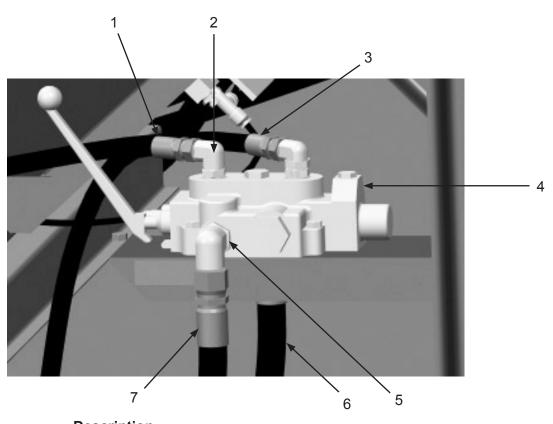
| Item #  | Part #   | Description                                 |  |
|---------|----------|---|--|
| Fig. 22 |          |   |  |
| 1       | 10103306 | Drive Shaft                                 |  |
| 2       | 10101941 | 1/2-13 Galvanized Hex Nut (Four Required)   |  |
| 3       | 10102883 | 58" x 6" Half Pitch Auger                   |  |
| 4       | 10103401 | 1/2-13 x 3" Galvanized Bolt (Four Required) |  |
| 5       | 10102910 | Auger Shaft End                             |  |

Figure 23: Hydraulic Pump



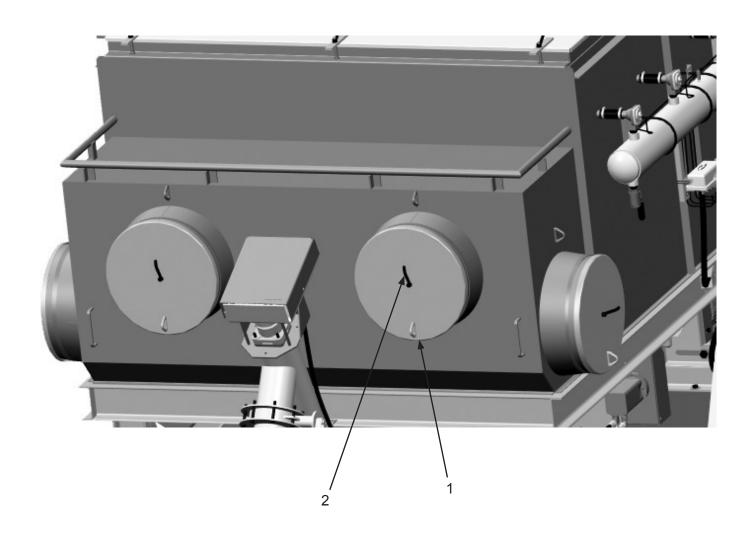
| Item #  | Part #   | Description                                       |
|---------|----------|---|
| Fig. 23 |          |   |
| 1       | 10103615 | M10 x 25 mm Zinc Bolt (Two Required)              |
| 2       | 10103610 | JIC 12 x JIC 12 90° Elbow                         |
| 3       | 10103310 | JIC 12 x SAE 12 90° Elbow                         |
| 4       | 10103269 | 2B Series 2.08 CI/REV Gear Pump                   |
| 5       | 10103311 | JIC 6 x SAE 16 90° Elbow                          |
| 6       | 10103406 | 3/4" I.D. x 21' Hydraulic Hose with Fittings      |
| 7       | 10103405 | 1-1/4" I.D. x 9-1/2" Hydraulic Hose with Fittings |
| _       | 10105869 | Flange Gasket                                     |

Figure 24: Hydraulic Control Assembly



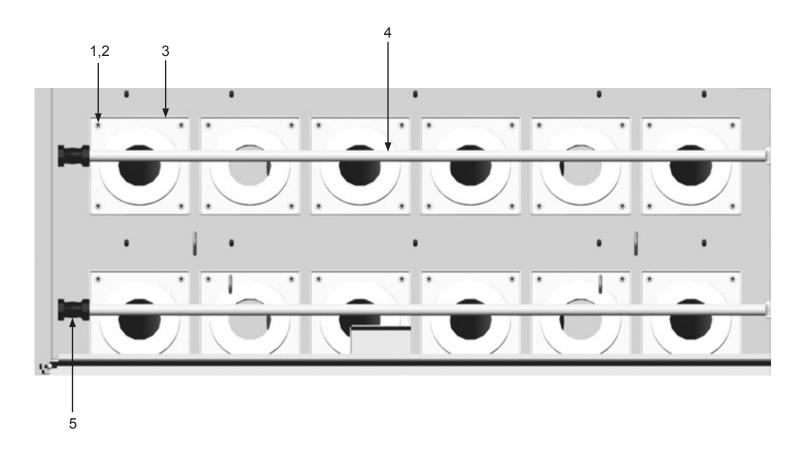
| Item   | # Part # | Description   |
|--------|----------|---|
| Fig. 2 | 24       |   |
| 1      | 10103408 | 1/2" x 12'6" Hydraulic Hose with Fittings               |
| 2      | 10103309 | JIC 8 x SAE 8 90° Elbow (Two Required)                  |
| 3      | 10103409 | 1/2" x 7'1" Hydraulic Hose with Fittings                |
| 4      | 10103267 | Cross Hydraulic Control Valve with Handle               |
| 5      | 10103310 | JIC 12 x SAE 12 90° Elbow (Two Required. One not shown) |
| 6      | 10103707 | 3/4" I.D. x 17.7' Hydraulic Hose with Fittings          |
| 7      | 10103710 | 3/4" I.D. x 13' Hydraulic Hose with Fittings            |
| _      | 10108331 | Cross Hydraulic Control Valve Seal Kit                  |
| _      | 10108332 | Cross Hydraulic Control Valve HAndle Kit                |
| _      | 10108333 | Cross Hydraulic Control Valve Relief Assembly           |

Figure 25: Inlet Door Assembly



| Item # | Part #   | Description                        |
|--------|----------|------------------------------------|
| Fig. 2 | 5        |                                    |
| 1      | 10105945 | 20" Inlet Cover (Four Required)    |
| 2      | 10105960 | 3/8-16 Handle Zinc (Four Required) |

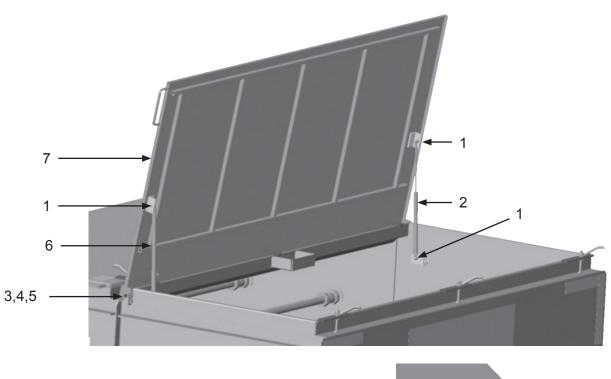
Figure 26: Dust Collector Filter Cartridge Pulsers

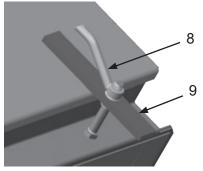


| Item | n# Part# | Description                                  |
|------|----------|--|
| Fig. | 24       |  |
| 1    | 10101942 | 3/8" Flat Washer (48 Required)               |
| 2    | 1012318  | 3/8" Hex Nut (48 Required)                   |
| 3    | 10105939 | Filter Bolt-Down (12 Required)               |
| 4    | 10105942 | Small Filter Blowpipe (Two Required)         |
| 5    | 10102599 | Compression Coupling Assembly (Two Required) |
|      |          |  |

Quantities specified are per hatch opening

Figure 27: Dust Collector Filter Cartridge Hatch Door

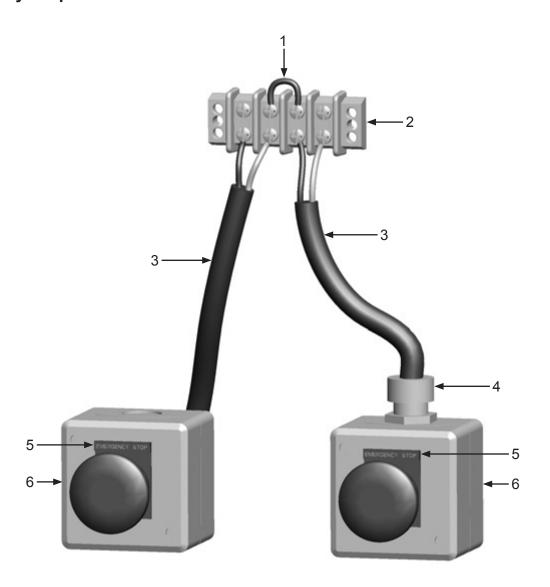




| Item #  | Part #   | Description                                  |
|---------|----------|--|
| Fig. 27 |          |  |
| 1       | 1035046  | 5/16-18 Hex Nut (Four Required)              |
| 2       | 10103454 | Non-Locking Gas Spring                       |
| 3       | 1028617  | 3/8-16 x 1-3/4" Shoulder Bolt (Two Required) |
| 4       | 10101942 | 3/8" Flat Washer (Four Required)             |
| 5       | 1012318  | 3/8"-16 Hex Nut (Two Required)               |
| 6       | 10103455 | Locking Gas Spring                           |
| 7       | 10102916 | Hopper Lid                                   |
| 8       | 10103395 | 1/2-13 Zinc Plated Handle (Three Required)   |
| 9       | 10104377 | Latch Bar (Three Required)                   |
|         |          |  |

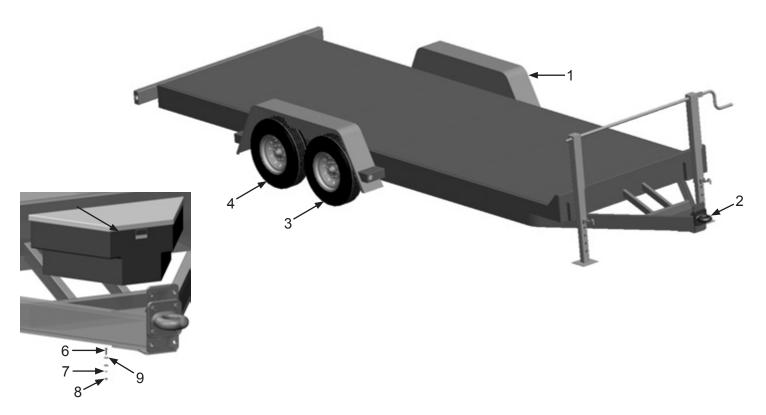
Quantities specified are per hatch opening

Figure 28: Emergency-Stop Stations



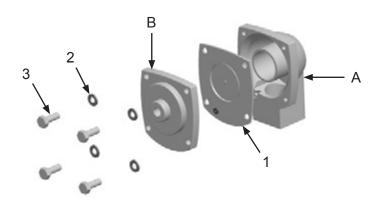
| Item #  | Part #        | Description   |
|---------|---------------|---|
| Fig. 28 |               |   |
| 1       | 20R12AWGBLACK | Stranded Wire - 12 AWG - Black                        |
| 2       | 10104066      | Terminal Strip - 4-Circuit - 30 amp                   |
| 3       | 1015570       | Electric Cord - 12/2 SO (Per Foot)                    |
| 4       | 20RCG5050     | Cord Grip - 1/2" NPT                                  |
| 5       | 10104063      | Legend Plate - Emergency-Stop Station                 |
| 6       | 10104071      | Emergency-Stop Control Station (2 Required)           |
| _       | 1015009       | Screw - 8-32 x 1" - Pan Head Phillips (Four Required) |
| _       | 20000021      | Nut - 8-32 - Zinc (Four Required)                     |
| _       | 20000018      | Lock Washer - #8 - Zinc (Four Required)               |
| _       | 20000019      | Flat Washer - #8 - Zinc (Four Required)               |

Figure 29: Trailer



| Item #  | Part #   | Description   |
|---------|----------|---|
| Fig. 29 |          |   |
| 1       | 10104090 | Left and Right Fenders (Pair)   |
| 2       | 10104079 | Pintle Hitch with Flat Plate  |
| 3       | 10104089 | 16"- 8 Hole Pattern Rim with Tire (Four Required)                             |
| 4       | 10104096 | Tire - ST235/80R/16 - 10-ply  |
| 5       | 10103797 | Tool Box (optional)   |
| 6       | 1012154  | 1/4-20 x 1" Bolt (Five Required) (optional)                                   |
| 7       | 1012153  | 1/4" Lock Washer (Five Required) (optional)                                   |
| 8       | 10101347 | 1/4-20 Hex Nut (Five Required) (optional)                                     |
| 9       | 10101940 | 1/4" Washer (Ten Required) (optional)   |
| _       | 10104081 | Breakaway Kit   |
| _       | 10104083 | Wire Harness  |
| _       | 10104077 | 7000# Axle with Electric Brakes, Hubs, and Springs - 93" x 78" (Two Required) |
| _       | 10104078 | Axle Beam/Tube  |
| _       | 10104080 | 3/8" x 35" Chain with Hook  |
| _       | 10104084 | Red LED Oval Tail Light (Four Required)                                       |
| _       | 10104085 | Rubber Oval Grommet (Four Required)   |
| _       | 10104086 | 2" Round Red LED Clearance Light (Five Required)                              |
|         | 10104087 | 2" Round Amber LED Clearance Light (Four Required)                            |
| _       | 10104088 | 2" Round Rubber Grommet (Nine Required)                                       |
| _       | 10105829 | Cable with Plug   |

Figure 30: Diaphragm Valve



| Item #  | Part #   | Description   |
|---------|----------|---|
| Fig. 30 | )        |   |
| _       | 10103255 | 1" Diaphragm Valve – Complete <i>(Three Required)</i> Includes Items: A,B,1,2,3 |
| 1       | 10103954 | 1" Diaphragm  |
| 2       | 1012153  | 1/4" Lock Washer (Four Required)  |
| 3       | 20101232 | M6 x 1 x 14 HHCS (Four Required)  |
| _       | 10103954 | 1" Diaphragm Valve Service Kit (Not Shown)                                      |

#### **OPTIONAL ACCESSORIES**

|                 | REPLAC         | EMENT DUST COLL | ECTOR FILTER CAF | RTRIDGES |
|-----------------|----------------|-----------------|------------------|----------|
| Part<br>Numbers | Material       | i.D.            | O.D.             | Length   |
| 10103499        | 85/15          | 8.38"           | 12.75"           | 35"      |
| 10103945        | Fire Retardant | 8.38"           | 12.75"           | 35"      |
| 1010008004      | HEPA           | 8.38"           | 12.75"           | 35"      |
| 10103964        | Spunbond       | 8.38"           | 12.75"           | 35"      |

|                 |     | DUCT HOSE |                   |
|-----------------|-----|-----------|-------------------|
|                 |     | gth       | _                 |
| Part<br>Numbers | Ö.  | Leng      | Pitc              |
| 10DH2025HD      | 20" | 25 Feet   | 1-1/2" Heavy-Duty |
| 10DH2050HD      | 20" | 50 Feet   | 1-1/2" Heavy-Duty |

|                 | DUCT HOSE COUPLING AND CLAMPS |             |  |  |
|-----------------|-------------------------------|-------------|--|--|
|                 | Hose I.D.                     |             |  |  |
| Part<br>Numbers | Duct                          | Style       |  |  |
| 1017120         | 20"                           | Coupling    |  |  |
| 10DH062602000   | 20"                           | Screw Clamp |  |  |

# **OPTIONAL ACCESSORIES**

|                 | 3/4" I.D. X 1-1/4" O.D. AIR HOSE WITH COUPLINGS INSTALLED |      |        |                |               |                  |
|-----------------|---|------|--------|----------------|---------------|------------------|
|                 | £   | I.D. | O.D.   | ng<br>ure      | . Color       | ings             |
| Part<br>Numbers | Lengt   | Hose | Hose   | Worki<br>Press | Hose<br>Cover | Coup             |
| 10AH034AC       | 50 Ft.  | 3/4" | 1-1/4" | 200 PSI        | Red           | 2-Lug Crimped On |

|                 |         | 3/4" I.D. | X 1-1/4" O.D. AI | R HOSE              |                     |
|-----------------|---------|-----------|------------------|---------------------|---------------------|
| Part<br>Numbers | Length  | Hose I.D. | Hose O.D.        | Working<br>Pressure | Hose<br>Cover Color |
| 10AH034         | Per Ft. | 3/4"      | 1-1/4"           | 200 PSI             | Red                 |

|                 | MALE HOSE END COUPLING AND GASKET FOR 3/4" I.D. AIR HOSE |             |       |              |            |              |
|-----------------|--|-------------|-------|--------------|------------|--------------|
|                 | _  |             | _     | GASKET       |            |              |
|                 | i.D  | <u>i</u>    | ling  | et           | et         | et           |
| Part<br>Numbers | ose  | later       | oup   | Rubb<br>Gask | sask<br>D. | sask<br>J.D. |
| Humbers         | <u> </u>   |             | ပ     | E 0          | <u> </u>   | <b>0</b> 0   |
| 10HE1           | 3/4"   | Plated Iron | 2-Lug | 10UG2        | 3/4"       | 1-3/8"       |

| 46              | BOSS® CLAMP FOR 3/4" I.D. AIR HOSE |                    |              |  |  |
|-----------------|------------------------------------|--------------------|--------------|--|--|
| No.             | .D.                                | 0.D.               | al           |  |  |
| Part<br>Numbers | Hose                               | Hose (<br>Range    | Materi       |  |  |
| 10A9            | 3/4"                               | 1-8/64" — 1-20/64" | Plated Steel |  |  |

#### LITERATURE REFERENCES

# **Dustmaster® 28,000 CFM Tier III Diesel Dust Collector**

| 105M110 | Features & Specifications Guide – Dustmaster® 28,000 CFM Tier III Diesel Dust Collectors |
|---------|--|
| 106M110 | Part Numbers & Schematics Guide – Dustmaster® 28,000 CFM Tier III Diesel Dust Collectors |
| 1090110 | Operator's Manual – Dustmaster® 28,000 CFM Tier III Diesel Dust Collectors               |
| 109V036 | Operator's Manual - Perkins® Engine  |
| 109V037 | Operator's Manual – Dynamic Fan Corporation  |
| 109V039 | Operator's Manual - Murphy PowerView   |
| 109V040 | Operator's Manual - Hydraulic Motor  |
| 109V582 | Operator's Manual - Behnke Trailer   |

#### **MAINTENANCE NOTES**

| DATE | TYPE OF SERVICE | PART NUMBER |
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