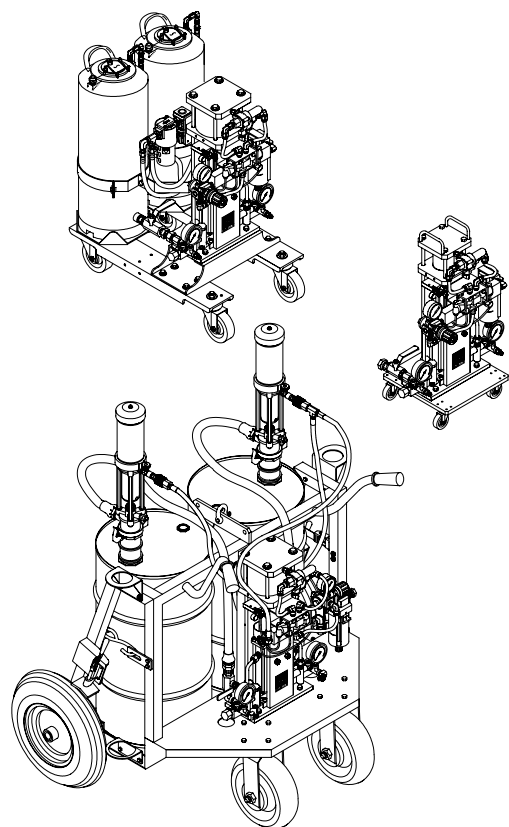




Predator/ Multi-Purpose Proportioning Unit

Parts Identification Manual

46942-ID

September 9, 2004

Issue 7

GUSMER CORPORATION[®]

One Gusmer Drive

Lakewood, New Jersey, USA 08701-8055

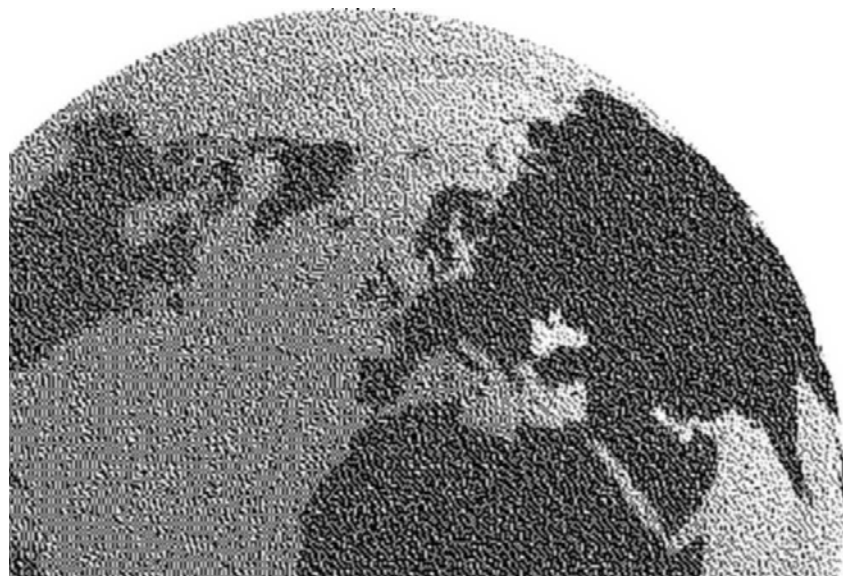
Toll Free 1-800-367-4767 (USA & Canada)

Phone: (732) 370-9000

Fax: (732) 905-8968

Copyright 2004, GUSMER CORPORATION[®]

<http://www.gusmer.com/>



NOTICE: This manual contains important information about your GUSMER equipment. Read and retain for future reference.

NOTICE: *The equipment described in this technical manual must only be operated or serviced by properly trained individuals, thoroughly familiar with the operating instructions and limitations of the equipment. For technical service, call your local distributor. Call: 1-800-FOR-GSMR (1-800-367-4767) for the name and telephone number of your local distributor.*

NOTICE: *All statements, information, and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind expressed or implied. Statements or suggestions concerning possible use of GUSMER equipment are made without representation or warranty that any such use is free of patent infringement, and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated or that other measures may not be required for a particular circumstance or application.*

CONTENTS

LIST OF FIGURES.....	4
LIST OF TABLES.....	5
WARRANTY	6
ASSEMBLIES.....	7
46000 FINAL ASSEMBLY	8
46000-1 FINAL ASSEMBLY.....	10
46000-2 FINAL ASSEMBLY.....	12
46000-3 FINAL ASSEMBLY (PREDATOR)	14
46000-4 FINAL ASSEMBLY (PREDATOR WITH HEAT)	16
46000-5 FINAL ASSEMBLY.....	18
ELECTRIC CONSOLE (46000-4 ONLY)	20
AIR MOTOR ASSEMBLIES	22
46000, 46000-3, 46000-4 Only	22
46000-1 Only.....	24
46000-5 Only.....	26
AIR CONTROL SYSTEM ASSEMBLIES	28
46000, 46000-1, 46000-2, and 46000-5 Only.....	28
46000-3, 46000-4 Only.....	30
PRIMARY HEATER ASSEMBLY (46000-4)	32
PROPORTIONING PUMP ASSEMBLIES	34
Proportioning Pump Assembly (All units except 46000-5).....	34
Proportioning Pump Assembly (46000-5 Only).....	36
5-GALLON SUPPLY TANK ASSEMBLY (46000-2 ONLY).....	38
REVERSING SWITCH ASSEMBLY	40
PNEUMATIC SCHEMATIC	41
ELECTRICAL SCHEMATICS	42
46000-4.....	42
NOTES.....	44
INSTRUCTION MANUAL DISCREPANCY REPORT.....	45

LIST OF FIGURES

FIGURE 1. PREDATOR / MULTI-PURPOSE PROPORTIONING UNITS	7
FIGURE 2. FINAL ASSEMBLY (PART NO. 46000), EXPLODED VIEW.....	8
FIGURE 3. FINAL ASSEMBLY (PART NO. 46000-1), EXPLODED VIEW	10
FIGURE 4. FINAL ASSEMBLY (PART NO. 46000-2), EXPLODED VIEW	12
FIGURE 5. PREDATOR FINAL ASSEMBLY (PART NO. 46000-3), EXPLODED VIEW	14
FIGURE 6. PREDATOR WITH HEAT FINAL ASSEMBLY (PART NO. 46000-4), EXPLODED VIEW	16
FIGURE 7. FINAL ASSEMBLY (PART NO. 46000-5), EXPLODED VIEW	18
FIGURE 8. ELECTRIC CONSOLE (PART NO. 46650), EXPLODED VIEW	20
FIGURE 9. AIR MOTOR ASSEMBLY (PART NO. 46755), EXPLODED VIEW	22
FIGURE 10. AIR MOTOR ASSEMBLY (PART NO. 46796), EXPLODED VIEW.....	24
FIGURE 11. AIR MOTOR ASSEMBLY (PART NO. 46745), EXPLODED VIEW	26
FIGURE 12. AIR CONTROL SYSTEM ASSEMBLY (PART NO. 46756), EXPLODED VIEW	28
FIGURE 13. AIR CONTROL SYSTEM ASSEMBLY (PART NO. 46746), EXPLODED VIEW	30
FIGURE 14. PRIMARY HEATER ASSEMBLY (PART NO. 46300), EXPLODED VIEW.....	32
FIGURE 15. PROPORTIONING PUMP ASSEMBLY (46400/46450/46450A-60), EXPLODED VIEW.....	34
FIGURE 16. PROPORTIONING PUMP (PART NO. 13400/13450-60), EXPLODED VIEW	36
FIGURE 17. 5-GALLON SUPPLY TANK ASSEMBLY (PART NO. OP905-1), EXPLODED VIEW.....	38
FIGURE 18. REVERSING SWITCH ASSEMBLY, EXPLODED VIEW.....	40
FIGURE 19. PNEUMATIC SCHEMATIC, EXPLODED VIEW	41
FIGURE 20. ELECTRICAL SCHEMATIC.....	42

LIST OF TABLES

TABLE 1. FINAL ASSEMBLY (PART NO. 46000), PARTS	9
TABLE 2. FINAL ASSEMBLY (PART NO. 46000-1), PARTS	11
TABLE 3. FINAL ASSEMBLY (PART NO. 46000-2), PARTS	13
TABLE 4. PREDATOR FINAL ASSEMBLY (PART NO. 46000-3), PARTS	15
TABLE 5. PREDATOR WITH HEAT FINAL ASSEMBLY (PART NO. 46000-4), PARTS	17
TABLE 6. FINAL ASSEMBLY (PART NO. 46000-5), PARTS	19
TABLE 7. ELECTRIC CONSOLE (PART NO. 46650), PARTS	21
TABLE 8. AIR MOTOR ASSEMBLY (PART NO. 46755), PARTS	23
TABLE 9. AIR MOTOR ASSEMBLY (PART NO. 46796), PARTS	25
TABLE 10. AIR MOTOR ASSEMBLY (PART NO. 46745), PARTS	27
TABLE 11. AIR CONTROL SYSTEM ASSEMBLY (PART NO. 46756), PARTS	29
TABLE 12. AIR CONTROL SYSTEM ASSEMBLY (PART NO. 46746), PARTS	31
TABLE 13. PRIMARY HEATER ASSEMBLY (PART NO. 46300), PARTS	33
TABLE 14. PROPORTIONING PUMP ASSEMBLY (46400/46450/46450A-60), PARTS.....	35
TABLE 15. PROPORTIONING PUMP (PART NO. 13400/13450-60), PARTS	37
TABLE 16. 5-GALLON SUPPLY TANK ASSEMBLY (PART NO. OP905-1), PARTS.....	39
TABLE 17. REVERSING SWITCH ASSEMBLY, PARTS	40
TABLE 18. PNEUMATIC SCHEMATIC, PARTS.....	41
TABLE 19. ELECTRICAL SCHEMATIC, PARTS	43

WARRANTY

Gusmer Corporation (Gusmer) provides a limited warranty to the original purchaser (Customer) of Gusmer manufactured parts and equipment (Product) against any defects in material or workmanship for a period of one year from the date of shipment from Gusmer facilities.

In the event Product is suspected to be defective in material or workmanship, it must be returned to Gusmer, freight prepaid. If Product is found to be defective in material or workmanship, as determined solely by Gusmer, Gusmer will issue full credit to Customer for the freight charges incurred in returning the defective Product, and either credit will be issued for the replacement cost of the Product or a replacement part will be forwarded no-charge, freight prepaid to Customer.

This warranty shall not apply to Product Gusmer finds to be defective resulting from: installation, use, maintenance, or procedures not accomplished in accordance with our instructions; normal wear; accident; negligence; alterations not authorized in writing by Gusmer; use of "look alike" parts not manufactured or supplied by Gusmer; or Product used in conjunction with any other manufacturer's pumping or proportioning equipment. For such Product, a written estimate will be submitted to the Customer at a nominal service charge, itemizing the cost for repair. Disposition of Product will be done in accordance with the terms stated on the written estimate.

The warranty provisions applied to product that are not manufactured by Gusmer will be solely in accordance with the warranty provided by the original manufacturer of the product.

GUSMER MAKES NO WARRANTY WHATSOEVER AS TO THE MERCHANTABILITY OF, OR SUITABILITY FOR, ITS PRODUCT TO PERFORM ANY PARTICULAR PURPOSE. CREDIT FOR, OR REPLACEMENT OF, PRODUCT DEFECTIVE IN MATERIAL OR WORKMANSHIP SHALL CONSTITUTE COMPLETE FULFILLMENT OF GUSMER OBLIGATIONS TO CUSTOMER. NO OTHER WARRANTY, EXPRESS OR IMPLIED ON ANY PRODUCT IT MANUFACTURES AND/OR SELLS, WILL BE RECOGNIZED BY GUSMER UNLESS SAID WARRANTY IS IN WRITING AND APPROVED BY AN OFFICER OF GUSMER.

Under no circumstances shall Gusmer be liable for loss of prospective or speculative profits, or special indirect, incidental or consequential damages. Further, Gusmer shall have no liability for any expenses including, but not limited to personal injury or property damage resulting from failure of performance of the product, use of the product, or application of the material dispensed through the product. Any information provided by Gusmer that is based on data received from a third source, or that pertains to product not manufactured by Gusmer, while believed to be accurate and reliable, is presented without guarantee, warranty, or responsibility of any kind, express or implied.

Gusmer through the sale, lease, or rental of Product in no way expresses or implies a license for the use of, nor encourages the infringement of any patents or licenses.

To ensure proper validation of your warranty, please complete the warranty card and return it to Gusmer within two weeks of receipt of equipment.

Revised 09/02

ASSEMBLIES

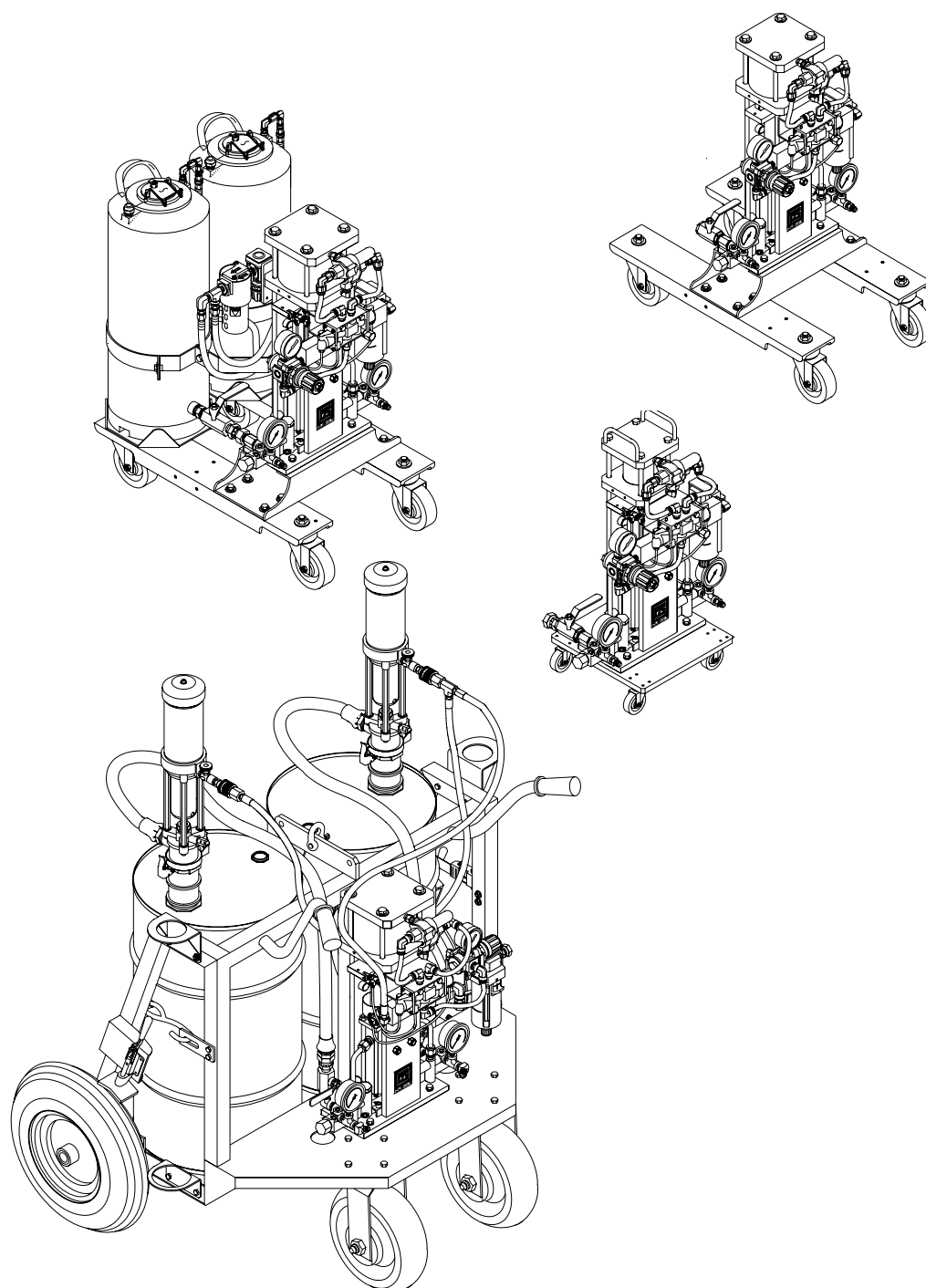


Figure 1. Predator / Multi-Purpose Proportioning Units

46000 FINAL ASSEMBLY

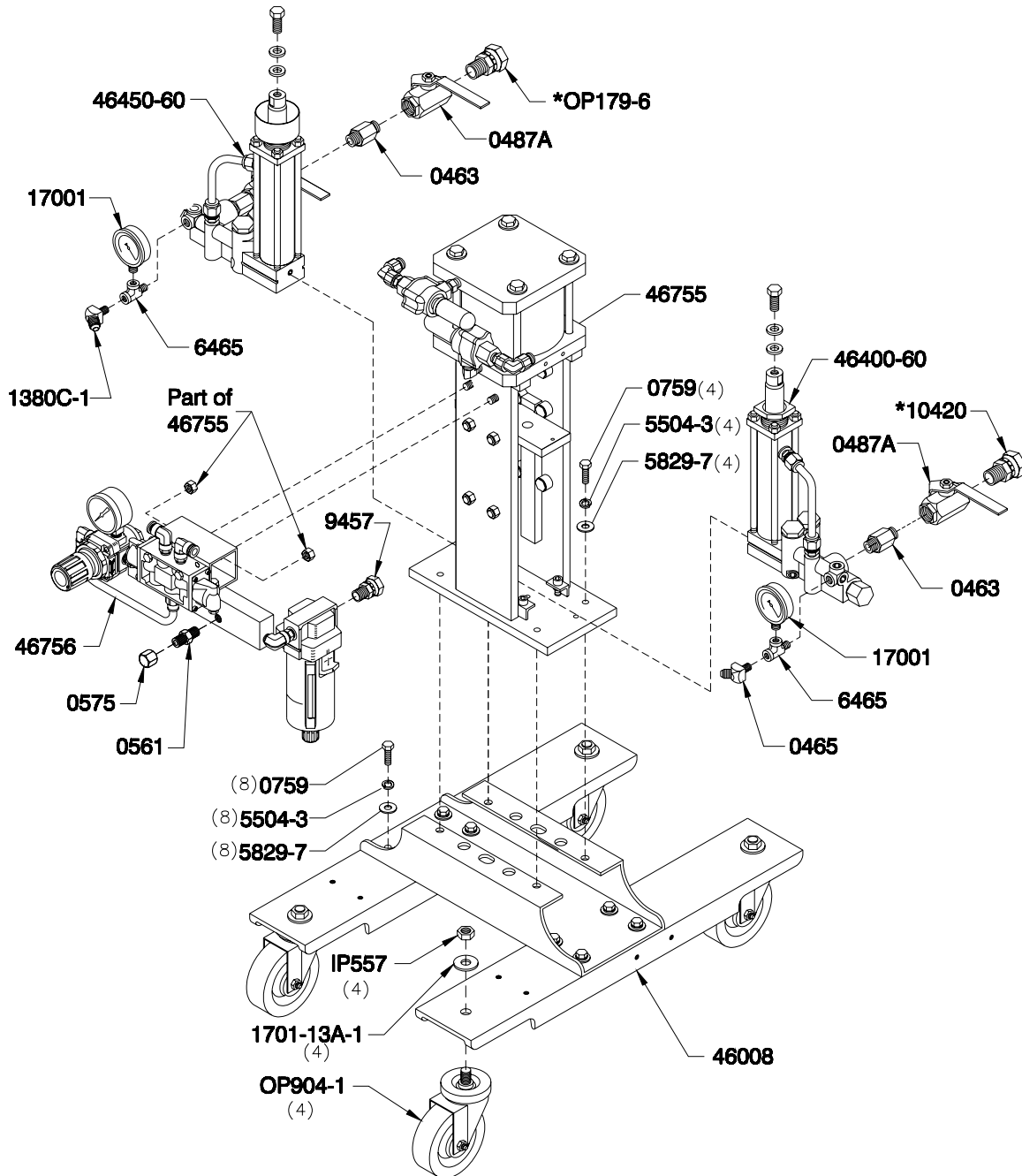


Figure 2. Final Assembly (Part No. 46000), Exploded View

TABLE 1. FINAL ASSEMBLY (PART NO. 46000), PARTS

Part Number	Description	Quantity
0463	Hex Nipple	2
0465	JIC Elbow	1
0487A	Ball Valve	2
0561	Hex Nipple	1
0575	Pipe Cap	1
0759	Hex Head Cap Screw	12
1380C-1	JIC Elbow	1
1701-13A-1	Internal Lockwasher	4
5504-3	Helical Lockwasher	12
5829-7	Flat Washer	12
6465	Pipe Tee	1
9457	Swivel Fitting	1
*10420	Swivel Union	1
17001	0-3000 PSI Liquid Filled Gauge	2
46008	Base Assembly	1
46400-60	Resin Proportioning Pump Assembly	1
46450-60	Iso Proportioning Pump Assembly	1
46755	Air Motor Assembly	1
46756	Air Control System	1
IP557	Hex Nut	4
OP904-1	Swivel Castor	4
*OP179-6	Swivel Union	1

** Part of MP-01 Accessory Package (Part No.AP46000)*

46000-1 FINAL ASSEMBLY

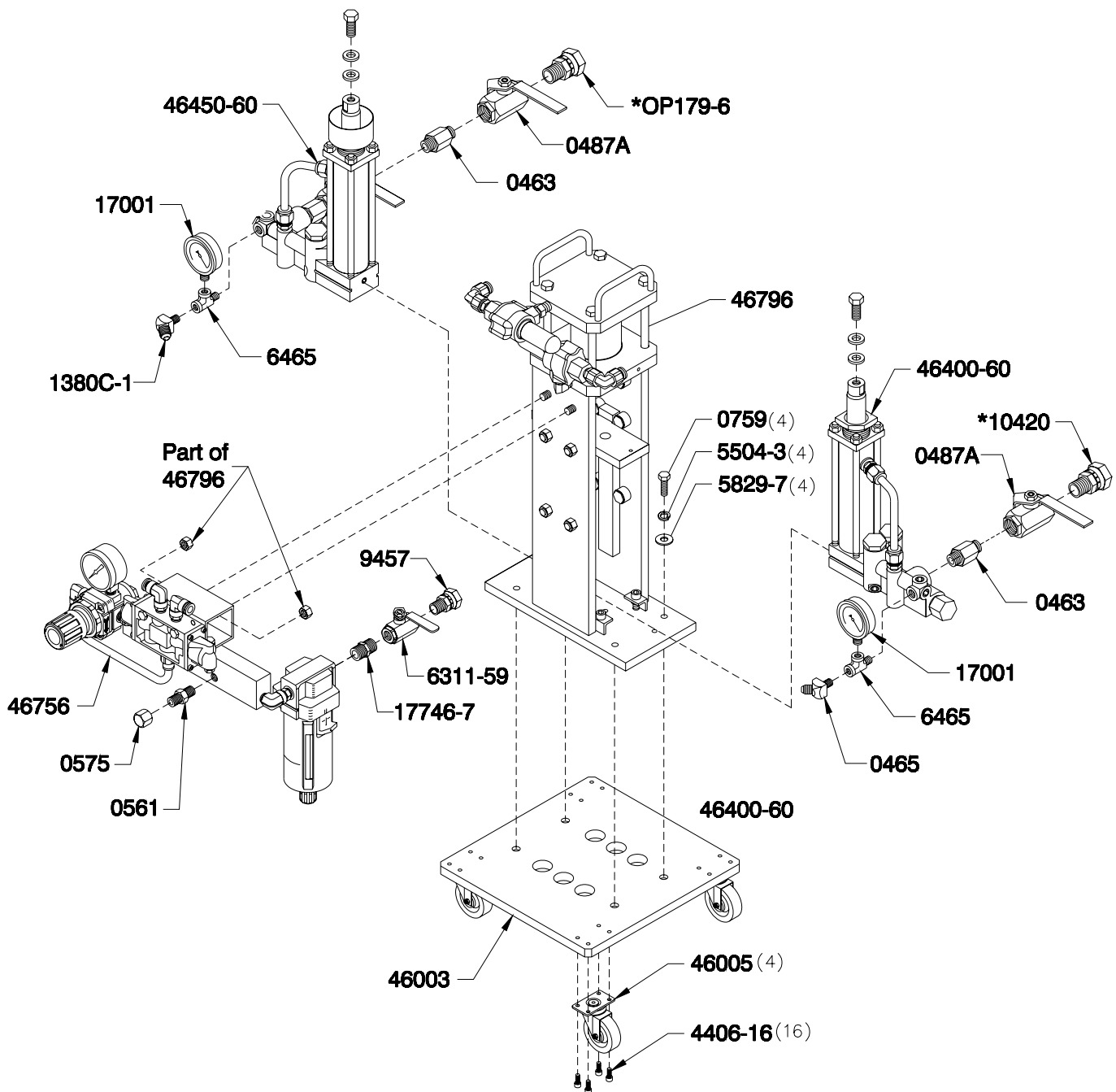


Figure 3. Final Assembly (Part No. 46000-1), Exploded View

TABLE 2. FINAL ASSEMBLY (PART NO. 46000-1), PARTS

Part Number	Description	Quantity
0463	Hex Nipple	2
0465	JIC Elbow	1
0487A	Ball Valve	2
0561	Hex Nipple	1
0575	Pipe Cap	1
0581	Reducing Bushing	1
0759	Hex Head Cap Screw	4
1380C-1	JIC Elbow	1
4406-16	Socket Head Cap Screw	16
5504-3	Helical Lockwasher	4
5829-7	Flat Washer	4
6311-59	Ball Valve	1
6465	Pipe Tee	1
9457	Swivel Fitting	1
*10420	Swivel Union	1
17001	0-3000 PSI Liquid Filled Gauge	2
17746-7	Hex Nipple	1
46003	Caulk/Adhesive Unit Base	1
46005	Swivel Castor	4
46400-60	Resin Proportioning Pump Assembly	1
46450-60	Iso Proportioning Pump Assembly	1
46756	Air Control System	1
46796	Air Motor Assembly	1
*OP179-6	Swivel Union	1

* Part of MP-01 Accessory Package (Part No.AP46000)

46000-2 FINAL ASSEMBLY

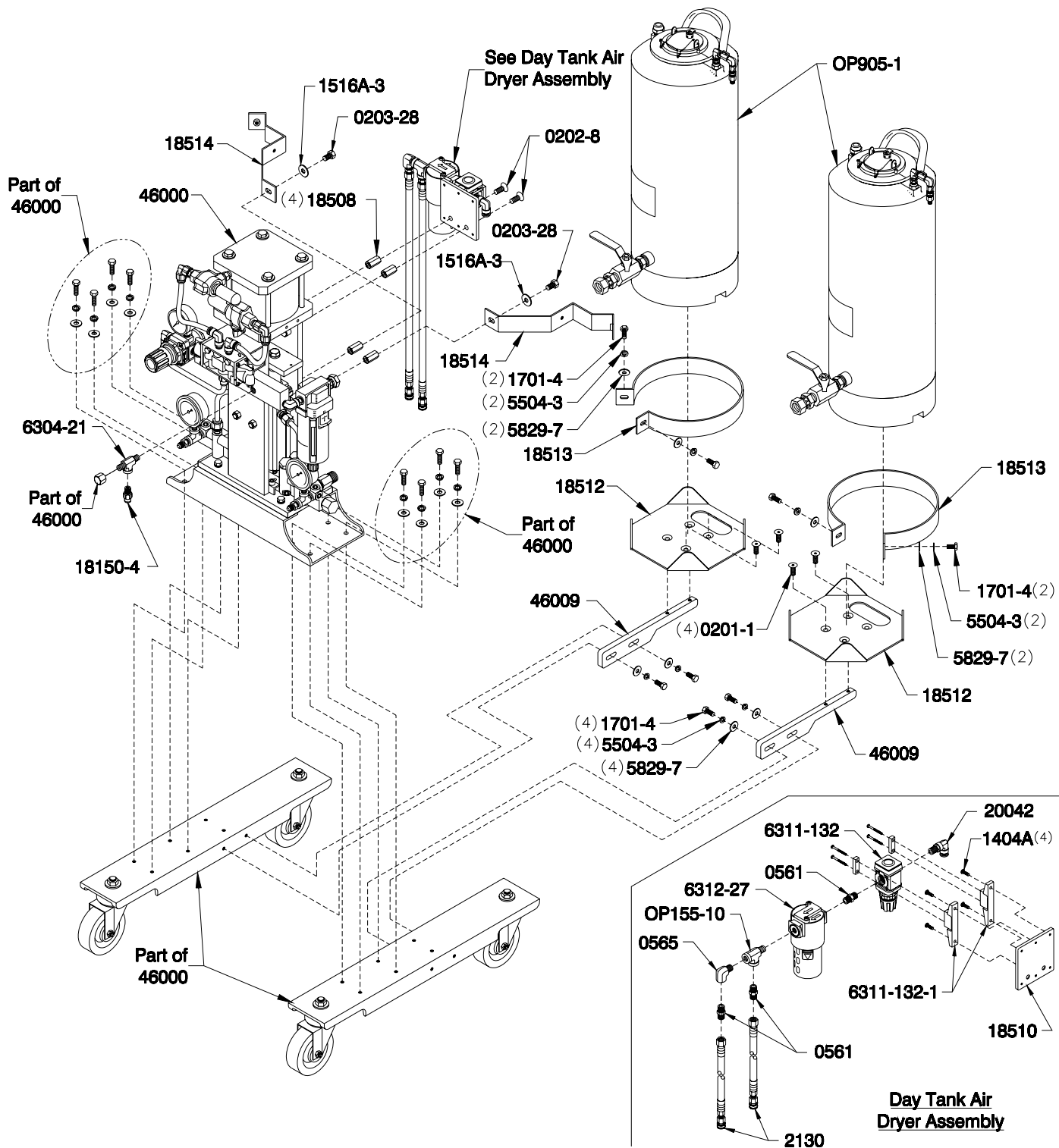


Figure 4. Final Assembly (Part No. 46000-2), Exploded View

TABLE 3. FINAL ASSEMBLY (PART NO. 46000-2), PARTS

Part Number	Description	Quantity
0201-1	Button Head Cap Screw	4
0202-8	Flat Head Cap Screw	2
0203-28	Hex Head Cap Screw	2
0561	Hex Nipple	3
0565	Street Elbow	1
1404A	Button Head Cap Screw	4
1516A-3	Washer	2
1701-4	Hex Head Cap Screw	8
2130	Air Hose	2
5504-3	Helical Washer	8
5829-7	Washer	8
6304-21	Pipe Branch Tee	1
6311-132	Air Regulator	1
6311-132-1	Regulator Bracket	2
6312-27	Dryer with Desiccant	1
18150-4	Tube Connector	1
18508	Coupling Hex Nut	4
18510	Mounting Plate	1
18512	Day Tank Nest	2
18513	Day Tank Support Ring	2
18514	Day Tank Support Arm	2
20042	Tube Fitting	1
46000	MP-01 Multi Purpose Unit (See Page 8)	1
46009	Day Tank Adj. Bracket	2
OP155-10	Pipe Tee	1
OP905-1	5 Gallon Supply Tank	2

46000-3 FINAL ASSEMBLY (PREDATOR)

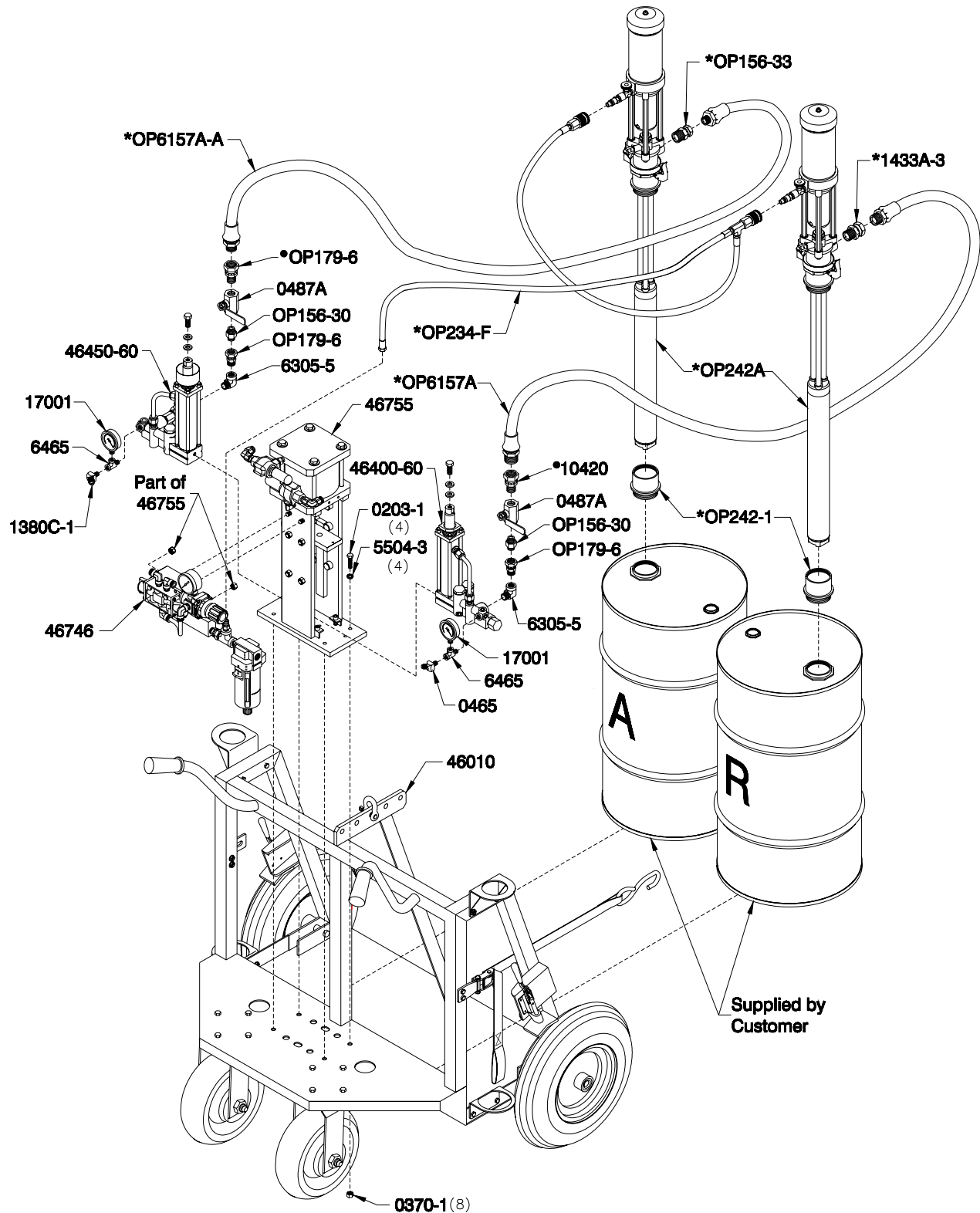


Figure 5. Predator Final Assembly (Part No. 46000-3), Exploded View

TABLE 4. PREDATOR FINAL ASSEMBLY (PART NO. 46000-3), PARTS

Part Number	Description	Quantity
0203-1	Hex Head Cap Screw	4
0370-1	Hex Nut	8
0465	JIC Elbow	1
0487A	Ball Valve	2
1380C-1	JIC Elbow	1
*1433A-3	Swivel Union	1
5504-3	Helical Lockwasher	4
6305-5	Elbow	2
6465	Pipe Tee	2
●10420	Swivel Union	1
17001	0-3000 PSI Liquid Filled Gauge	2
46010	Mobile Cart Assembly	1
46400-60	R- (Resin) Proportioning Pump Assembly	1
46450-60	A- (Iso) Proportioning Pump Assembly	1
46746	Air Control System	1
46755	Air Motor Assembly	1
OP156-30	Hex Nipple	2
*OP156-33	Swivel Union	1
●OP179-6	Swivel Union (Qty. of 1 part of AP46000)	3
*OP234-F	Transfer Pump Air Hose Assembly	1
*OP242A	Transfer Pump	2
*OP242-1	Bung Adapter-Riser	2
*OP6157A	R- (Resin) Supply Hose	1
*OP6157A-A	A- (Iso) Supply Hose	1

* Part of Material Supply Package (Part No. MP-M)

● Part of Accessory Package (Part No. AP46000)

46000-4 FINAL ASSEMBLY (PREDATOR WITH HEAT)

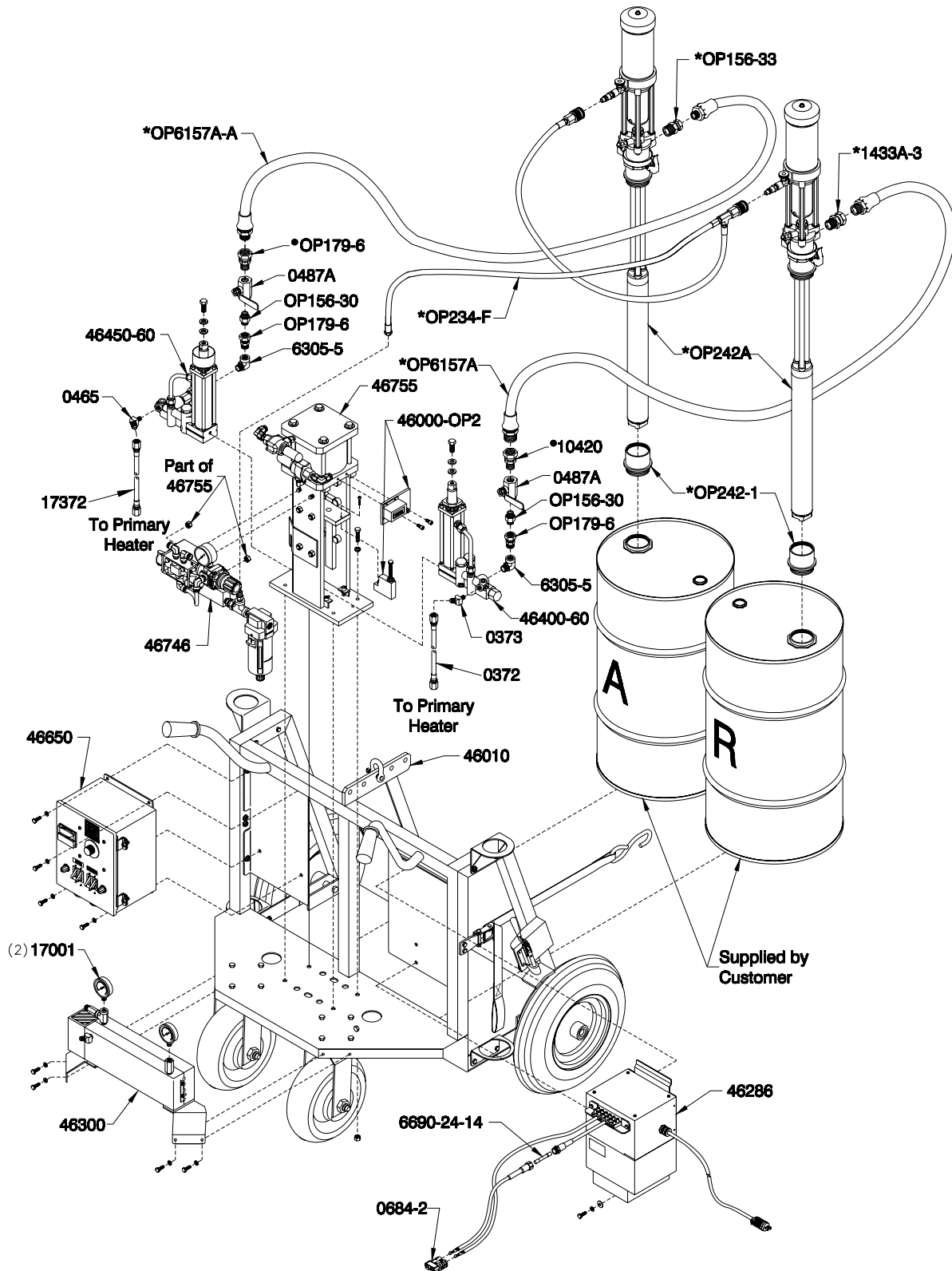


Figure 6. Predator with Heat Final Assembly (Part No. 46000-4), Exploded View

TABLE 5. PREDATOR WITH HEAT FINAL ASSEMBLY (PART NO. 46000-4), PARTS

Part Number	Description	Quantity
0372	Interconnect Hose	1
0373	JIC Elbow	1
0465	JIC Elbow	1
0487A	Ball Valve	2
0684-2	Power-Lock Connector	1
*1433A-3	Swivel Union	1
6305-5	Elbow	2
6690-24-14	50 Amp Fuse	1
●10420	Swivel Union	1
17001	0-3000 Gauge	2
17372	Iso Pump-Heater Hose	1
46010	Mobile Cart Assembly	1
46286	30V Power Pack Assembly	1
46300	Primary Heater Assembly	1
46400-60	R- (Resin) Proportioning Pump Assembly	1
46450-60	A- (Iso) Proportioning Pump Assembly	1
46650	Electrical Console	1
46746	Air Control System	1
46755	Air Motor Assembly	1
46000-OP2	Counter Assembly	1
OP156-30	Hex Nipple	2
*OP156-33	Swivel Union	1
●OP179-6	Swivel Union (Qty. of 1 part of AP46000-4)	3
*OP234-F	Transfer Pump Air Hose Assembly	1
*OP242A	Transfer Pump	2
*OP242-1	Bung Adapter-Riser	2
*OP6157A	R- (Resin) Supply Hose	1
*OP6157A-A	A- (Iso) Supply Hose	1

* Part of Material Supply Package (Part No. MP-M)

● Part of Accessory Package (Part No. AP46000-4)

46000-5 FINAL ASSEMBLY

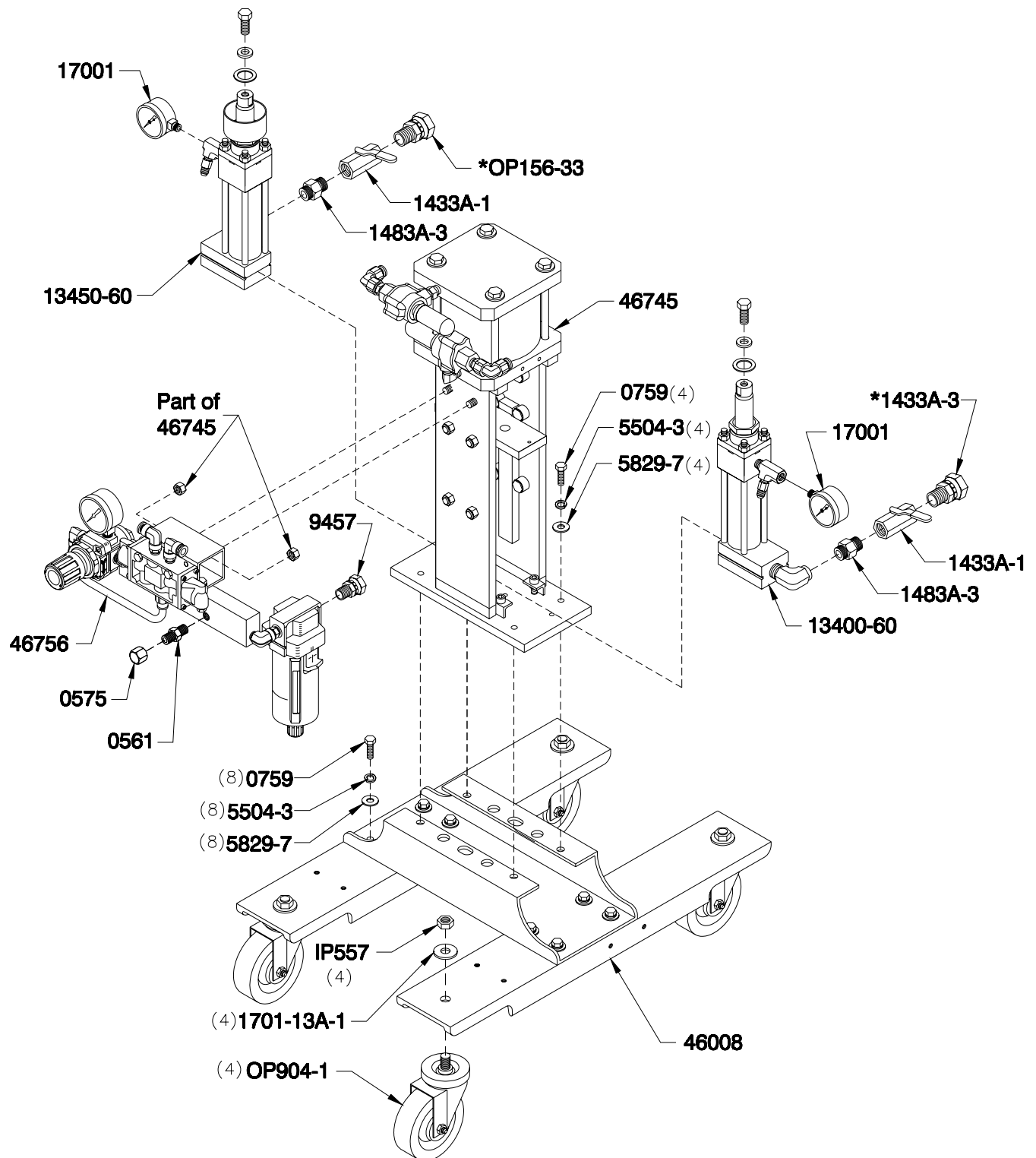


Figure 7. Final Assembly (Part No. 46000-5), Exploded View

TABLE 6. FINAL ASSEMBLY (PART NO. 46000-5), PARTS

Part Number	Description	Quantity
0561	Hex Nipple	1
0575	Pipe Cap	1
0759	Hex Head Cap Screw	12
1483A-3	Hex Nipple	2
1433A-1	Ball Valve	2
*1433A-3	Swivel Union	1
1701-13A-1	Internal Lockwasher	4
5504-3	Helical Lockwasher	12
5829-7	Flat Washer	12
9457	Swivel Fitting	1
13400-60	Resin Proportioning Pump Assembly	1
13450-60	Iso Proportioning Pump Assembly	1
17001	0-3000 PSI Liquid Filled Gauge	2
46008	Base Assembly	1
46745	Air Motor Assembly	1
46756	Air Control System	1
IP557	Hex Nut	4
OP904-1	Swivel Castor	4
*OP156-33	Swivel Union	1

** Part of MP-01 Accessory Package (Part No.AP46000-5)*

ELECTRIC CONSOLE (46000-4 ONLY)

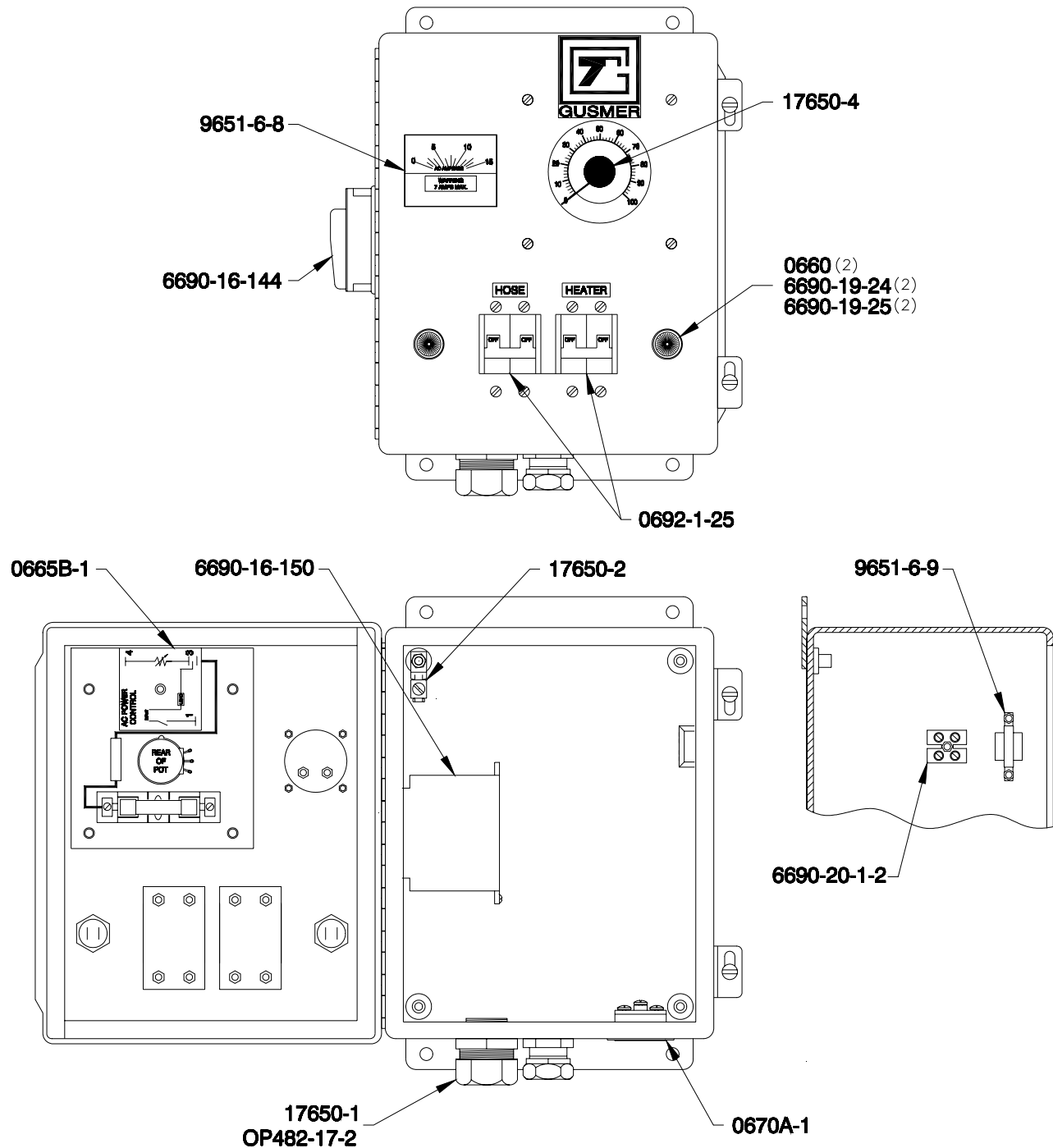


Figure 8. Electric Console (Part No. 46650), Exploded View

TABLE 7. ELECTRIC CONSOLE (PART NO. 46650), PARTS

Part Number	Description	Quantity
0660	Amber Lens	2
0665B-1	Phase Control Assembly	1
0670A-1	Socket	1
0692-1-25	Circuit Breaker	2
6690-16-144	Operator Handle	1
6690-16-150	40A Disconnect	1
6690-19-24	Bulb	2
6690-19-25	Light Base	2
6690-20-1-2	Terminal block	1
9651-6-8	Ammeter	1
9651-6-9	Transformer	1
17650-1	Strain Relief	1
17650-2	Terminal Lug	1
17650-4	Knob	1
OP482-17-2	Locknut	1

AIR MOTOR ASSEMBLIES

46000, 46000-3, 46000-4 Only

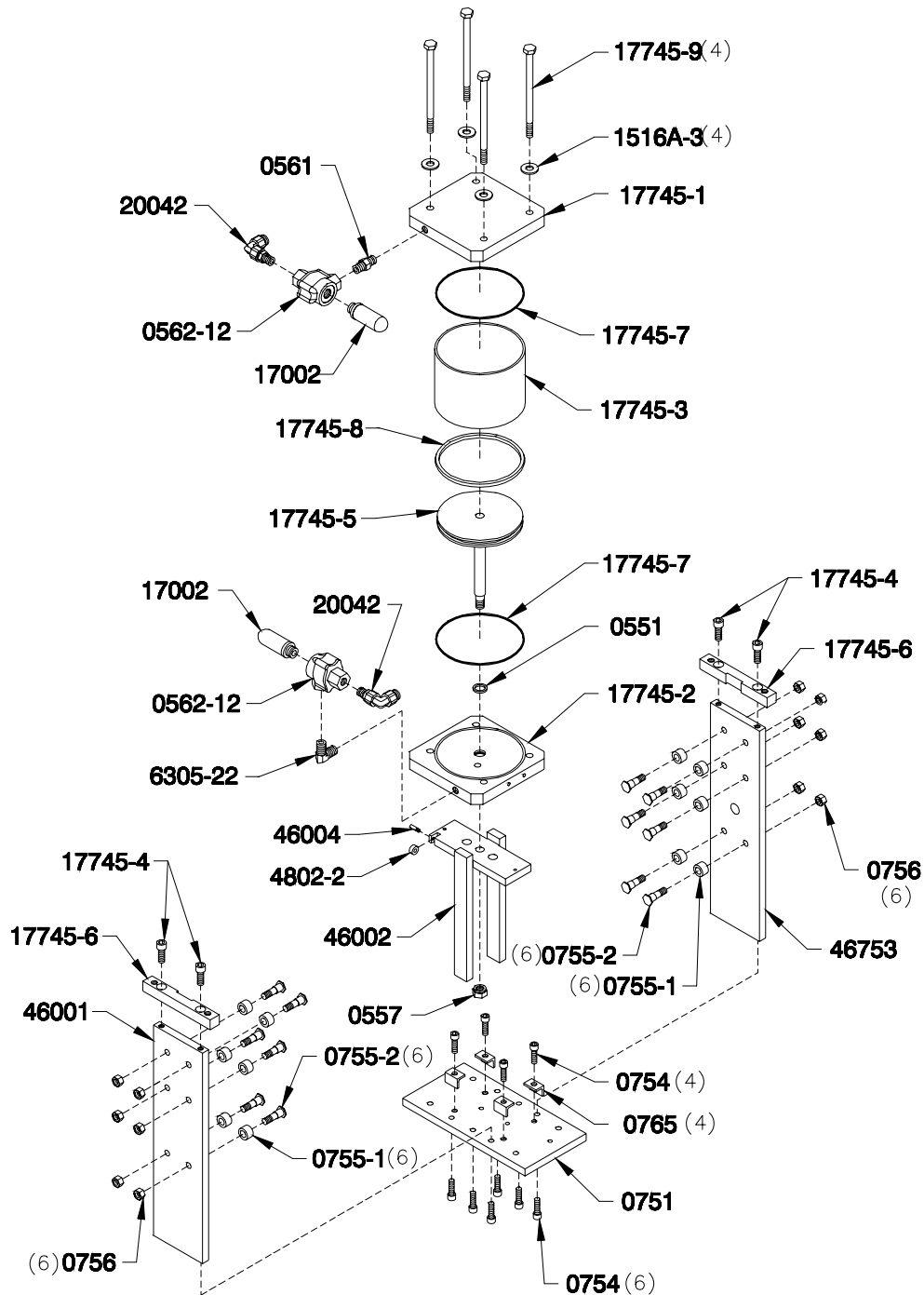


Figure 9. Air Motor Assembly (Part No. 46755), Exploded View

TABLE 8. AIR MOTOR ASSEMBLY (PART NO. 46755), PARTS

Part Number	Description	Quantity
0551	O-Ring	1
0557	Piston Rod Nut	1
0561	Hex Nipple	1
0562-12	Quick Exhaust Valve	2
0751	Proportioning Unit Base	1
0754	Socket Head Cap Screw	10
0755-1	Bearing	12
0755-2	Cam Roller Stud	12
0756	Guide Roller Bearing Nut	12
0765	Pump Mounting Bracket	4
4802-2	Operating Roller	1
6305-22	Elbow	1
1516A-3	Washer	4
17002	Muffler	2
17745-1	Air Cylinder Top Plate	1
17745-2	Air Cylinder Bottom Plate	1
17745-3	Air Cylinder	1
17745-4	Socket Head Cap Screw	4
17745-5	Air Piston with Rod	1
17745-6	Air Cylinder Adapter	2
17745-7	O-Ring	2
17745-8	O-Ring	1
17745-9	Hex Head Cap Screw	4
20042	Tube Fitting	2
46001	Side Plate	1
46002	Pump Yoke	1
46004	Operating Stud	1
46753	Air Cylinder Upright	1

46000-1 Only

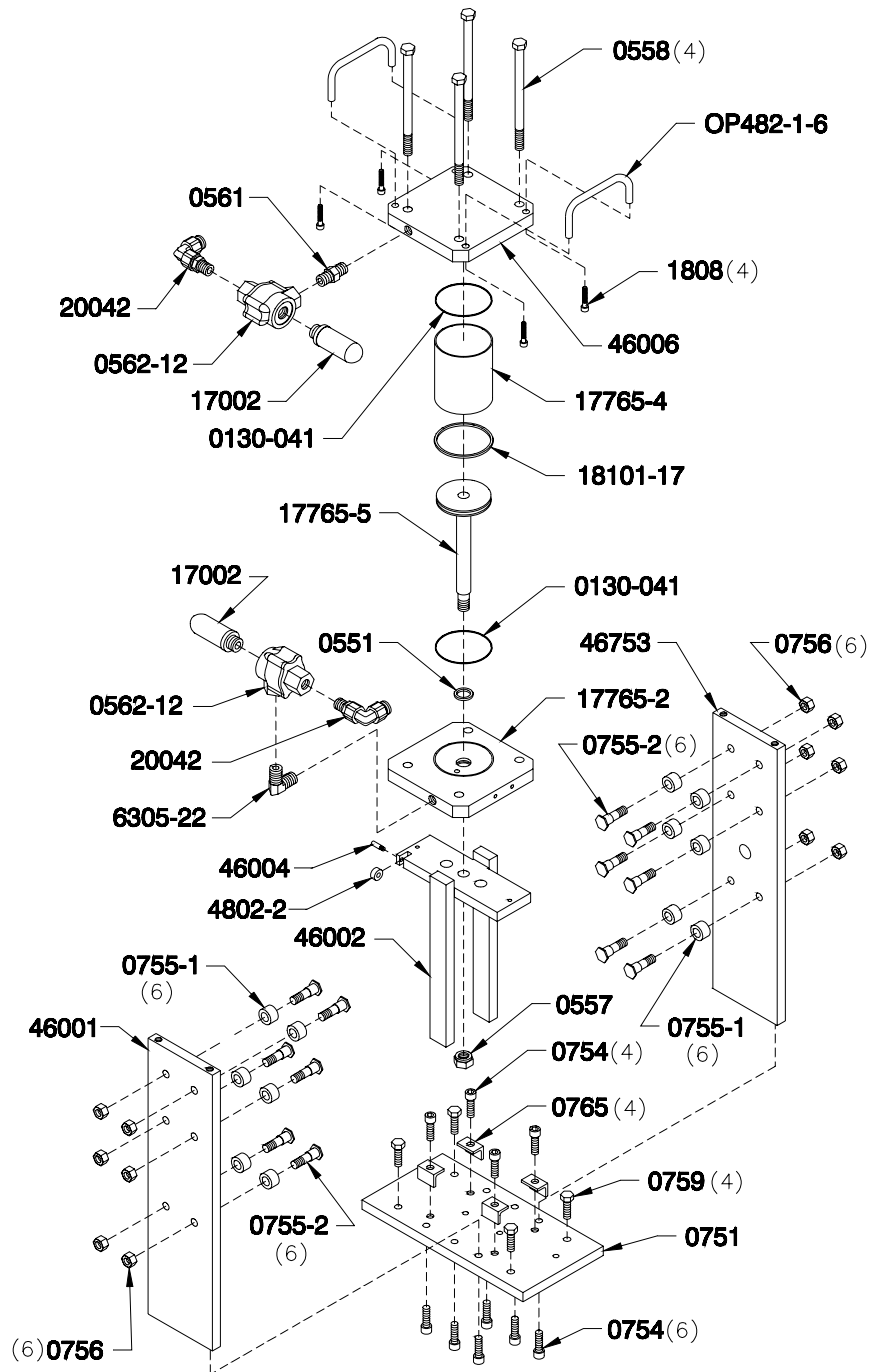


Figure 10. Air Motor Assembly (Part No. 46796), Exploded View

TABLE 9. AIR MOTOR ASSEMBLY (PART NO. 46796), PARTS

Part Number	Description	Quantity
0130-041	O-Ring	2
0551	O-Ring	1
0557	Piston Rod Nut	1
0558	Tie Bolt	4
0561	Hex Nipple	1
0562-12	Quick Exhaust Valve	2
0751	Proportioning Unit Base	1
0754	Socket Head Cap Screw	10
0755-1	Bearing	12
0755-2	Cam Roller Stud	12
0756	Guide Roller Bearing Nut	12
0759	Hex Head Cap Screw	4
0765	Pump Mounting Bracket	4
1808	Socket Head Cap Screw	4
4802-2	Operating Roller	1
6305-22	Elbow	1
17002	Muffler	2
17765-2	Air Cylinder Bottom Plate	1
17765-4	Air Cylinder	1
17765-5	Air Piston Assembly	1
18101-17	O-Ring	1
20042	Tube Fitting	2
46001	Side Plate	1
46002	Pump Yoke	1
46004	Operating Stud	1
46006	Air Cylinder Top Plate	1
46753	Air Cylinder Upright	1
OP482-1-6	Handle	2

46000-5 Only

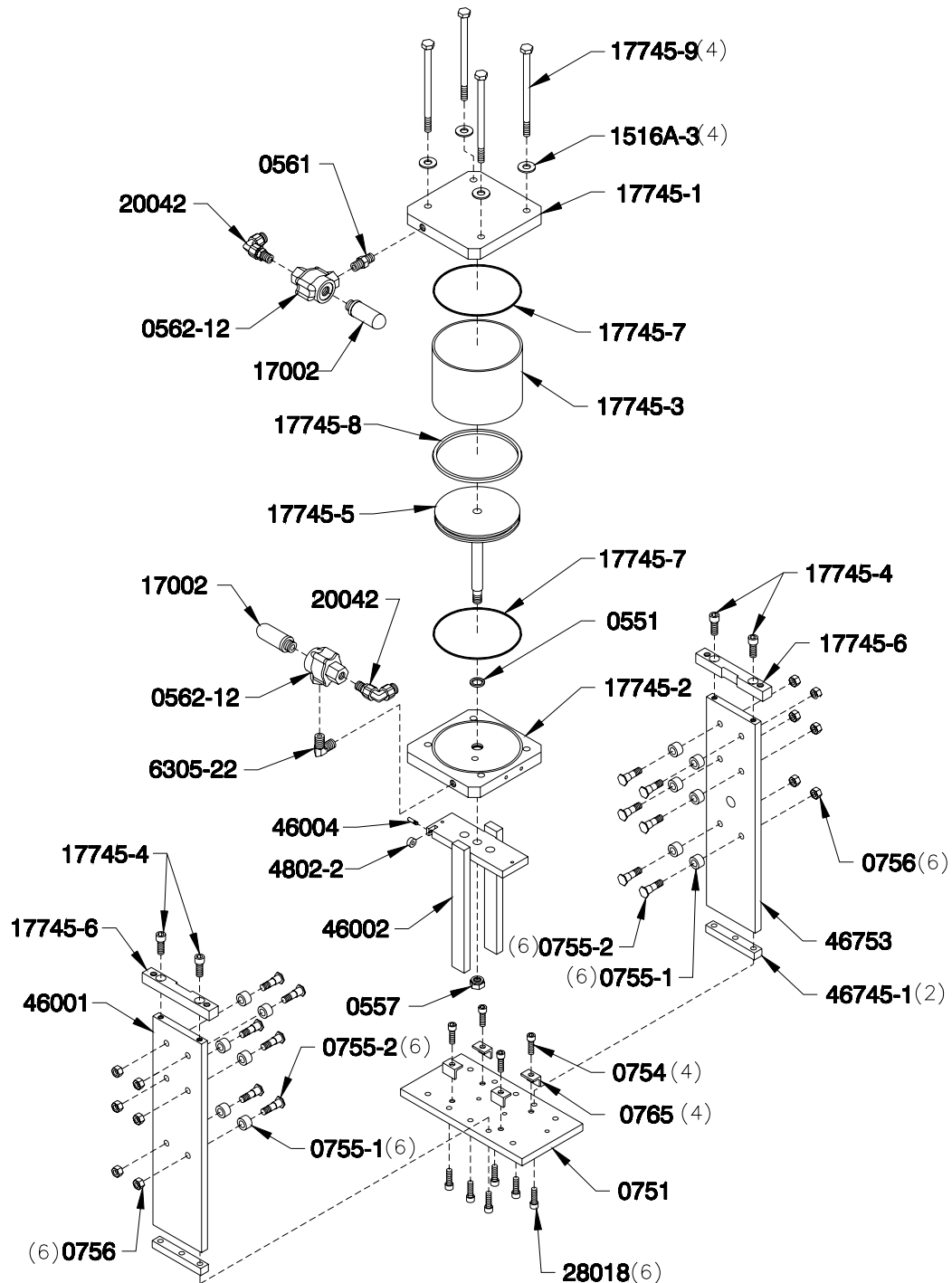


Figure 11. Air Motor Assembly (Part No. 46745), Exploded View

TABLE 10. AIR MOTOR ASSEMBLY (PART NO. 46745), PARTS

Part Number	Description	Quantity
0551	O-Ring	1
0557	Piston Rod Nut	1
0561	Hex Nipple	1
0562-12	Quick Exhaust Valve	2
0751	Proportioning Unit Base	1
0754	Socket Head Cap Screw	4
0755-1	Bearing	12
0755-2	Cam Roller Stud	12
0756	Guide Roller Bearing Nut	12
0765	Pump Mounting Bracket	4
4802-2	Operating Roller	1
6305-22	Elbow	1
1516A-3	Washer	4
17002	Muffler	2
17745-1	Air Cylinder Top Plate	1
17745-2	Air Cylinder Bottom Plate	1
17745-3	Air Cylinder	1
17745-4	Socket Head Cap Screw	4
17745-5	Air Piston with Rod	1
17745-6	Air Cylinder Adapter	2
17745-7	O-Ring	2
17745-8	O-Ring	1
17745-9	Hex Head Cap Screw	4
20042	Tube Fitting	2
28018	Socket Head Cap Screw	6
46001	Side Plate	1
46002	Pump Yoke	1
46004	Operating Stud	1
46745-1	Side Frame Extension	2
46753	Air Cylinder Upright	1

AIR CONTROL SYSTEM ASSEMBLIES

46000, 46000-1, 46000-2, and 46000-5 Only

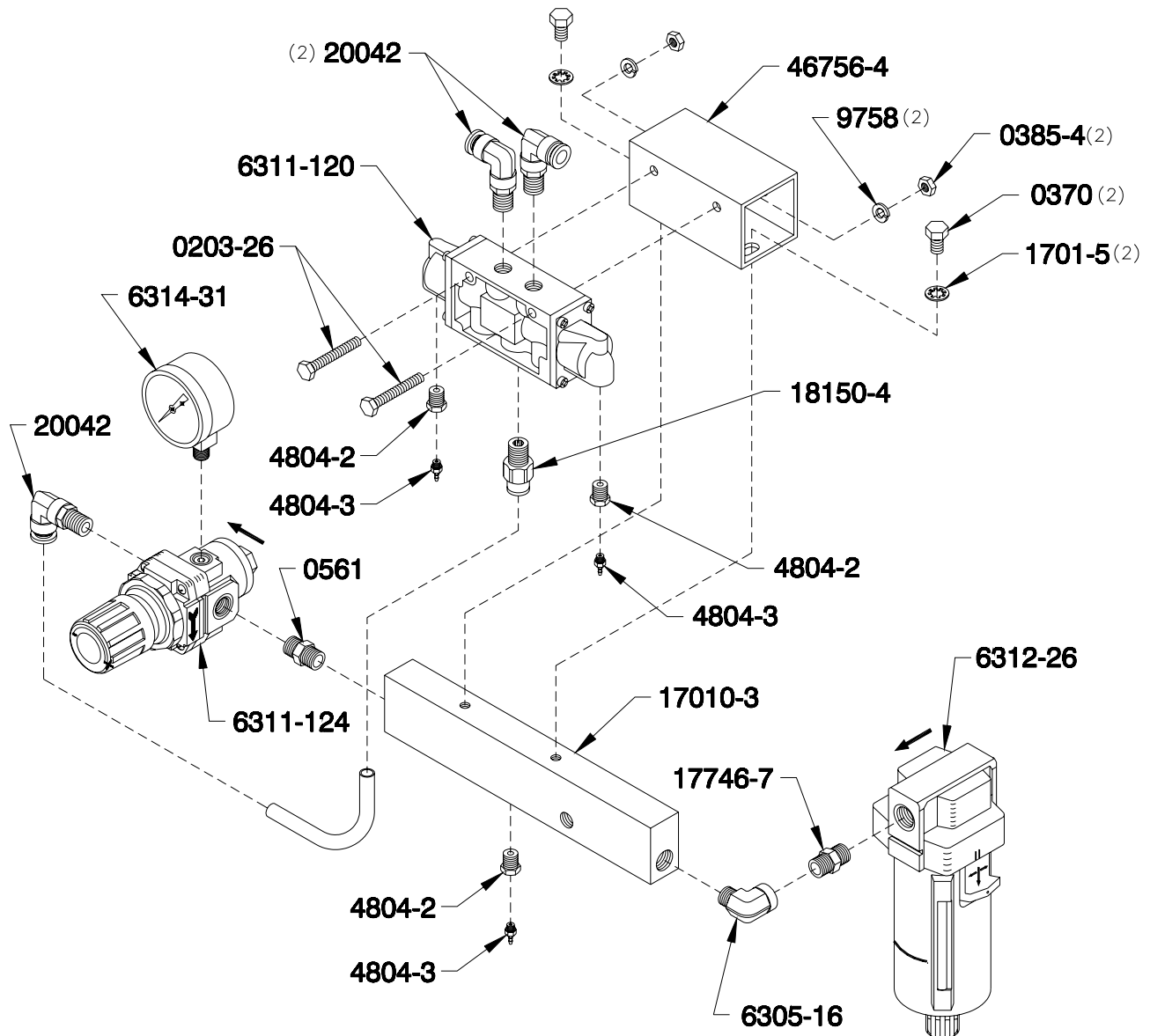


Figure 12. Air Control System Assembly (Part No. 46756), Exploded View

TABLE 11. AIR CONTROL SYSTEM ASSEMBLY (PART NO. 46756), PARTS

Part Number	Description	Quantity
0203-26	Hex Head Cap Screw	2
0370	Hex Head Cap Screw	2
0385-4	Hex Nut	2
0561	Hex Nipple	1
1701-5	Lockwasher	2
4804-2	Reducing Nipple	3
4804-3	Pilot Fitting	3
6305-16	Street Elbow	1
6311-120	4 Way Air Valve	1
6311-124	Regulator	1
6312-26	Air Filter	1
6314-31	Pressure Gauge	1
9758	Helical Lockwasher	2
17010-3	Air Manifold	1
17746-7	Hex Nipple	1
18150-4	Tube Connector	1
20042	Tube Fitting	3
46756-4	Mounting Bracket	1

Regulator Rebuild Kit (Part #MK6311-124-1)- Order as required from your local distributor.

Filter Rebuild Kit (Part #MK6312-26-1)- Order as required from your local distributor.

46000-3, 46000-4 Only

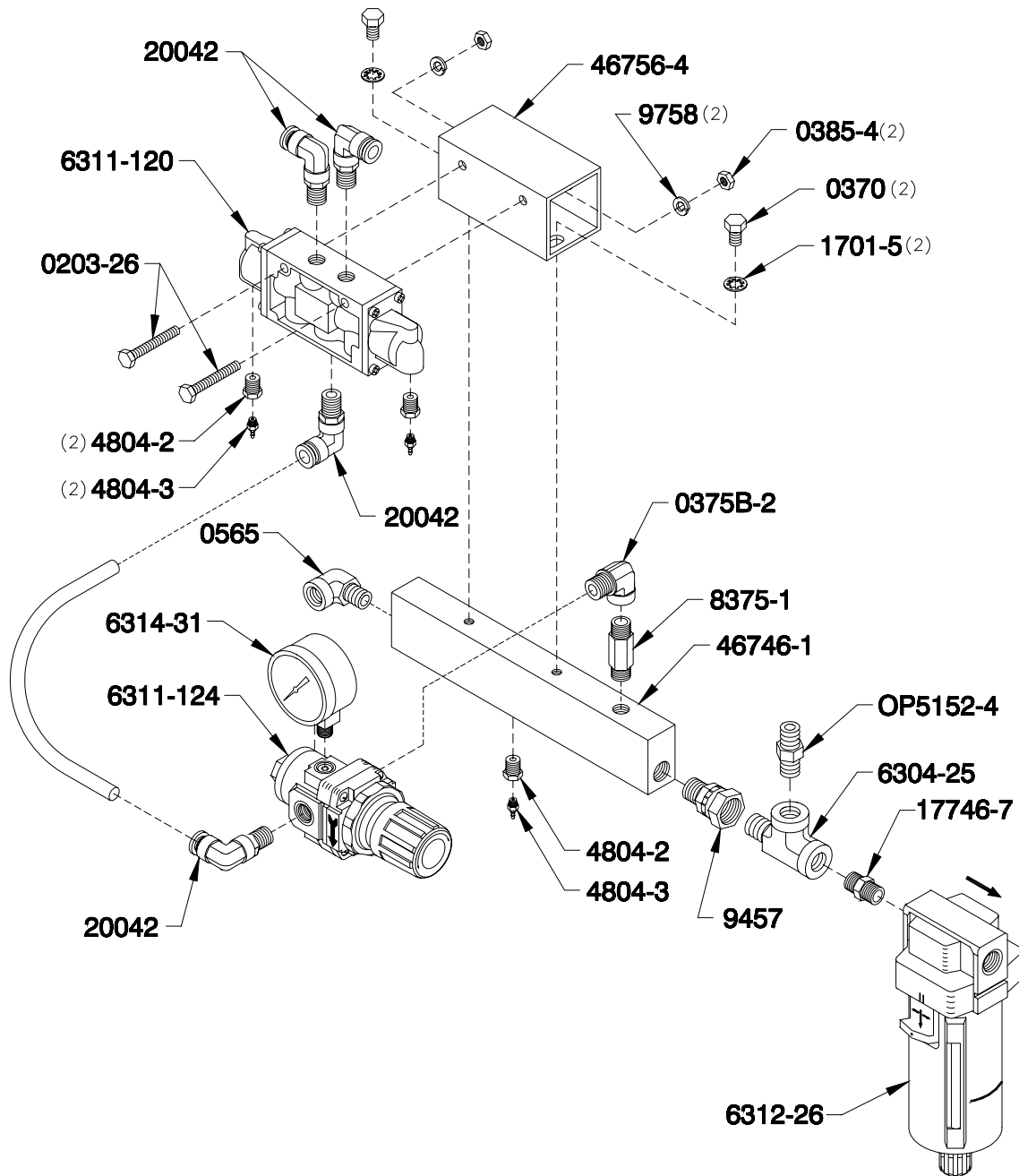


Figure 13. Air Control System Assembly (Part No. 46746), Exploded View

TABLE 12. AIR CONTROL SYSTEM ASSEMBLY (PART NO. 46746), PARTS

Part Number	Description	Quantity
0203-26	Hex Head Cap Screw	2
0370	Hex Head Cap Screw	2
0375B-2	Elbow	1
0385-4	Hex Nut	2
0565	Street Elbow	1
1701-5	Lockwasher	2
17746-7	Hex Nipple	1
4804-2	Reducing Nipple	2
4804-3	Pilot Fitting	2
6304-25	Pipe Tee	1
6311-120	4 Way Air Valve	1
6311-124	Regulator	1
6312-26	Air Filter	1
6314-31	Pressure Gauge	1
8375-1	Hex Nipple	1
9457	Swivel Union	1
9758	Helical Lockwasher	2
20042	Tube Fitting	4
46746-1	Air Manifold	1
46756-4	Mounting Bracket	1
OP5152-4	Hex Nipple	1

Regulator Rebuild Kit (Part #MK6311-124-1)- Order as required from your local distributor.

Filter Rebuild Kit (Part #MK6312-26-1)- Order as required from your local distributor.

PRIMARY HEATER ASSEMBLY (46000-4)

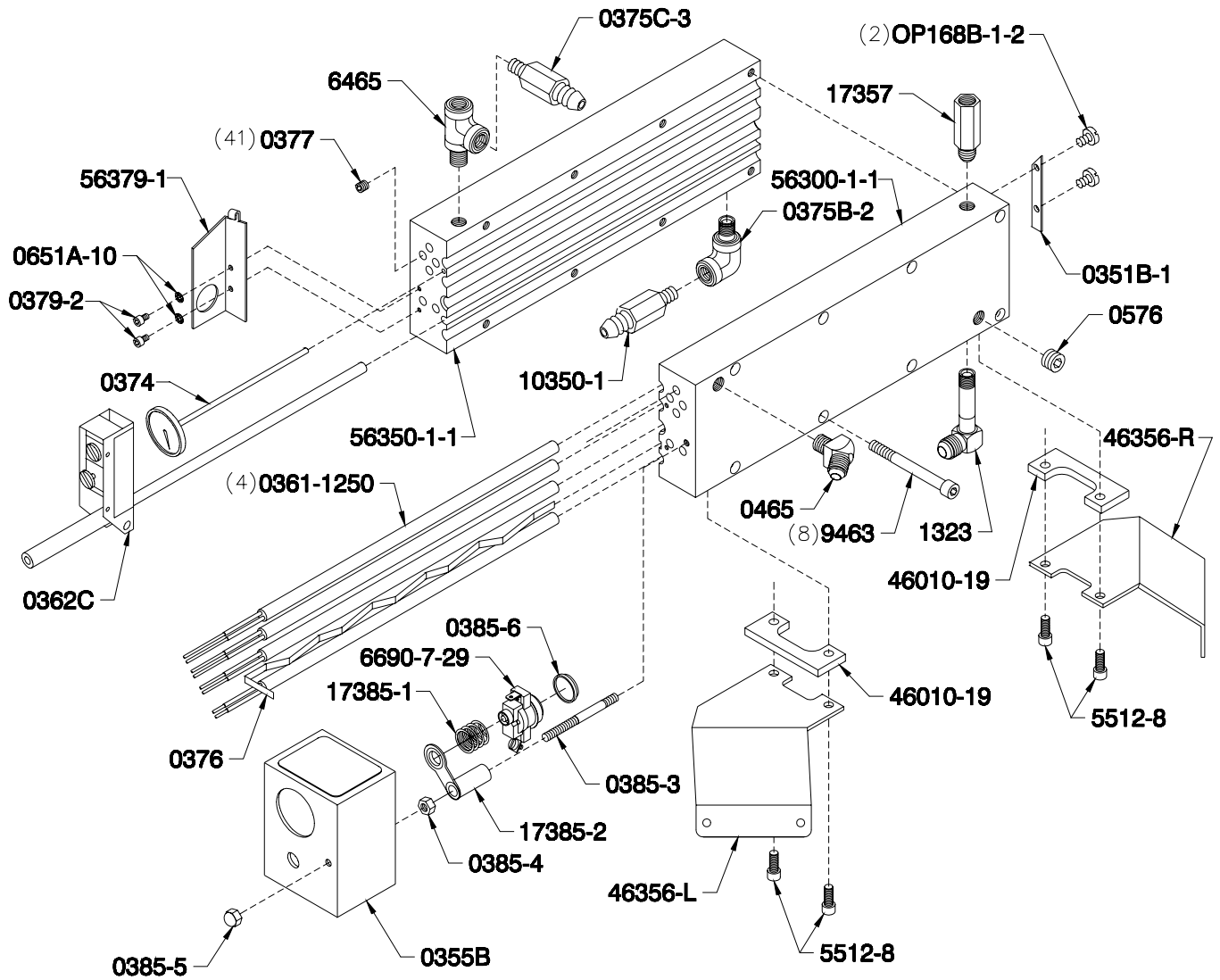


Figure 14. Primary Heater Assembly (Part No. 46300), Exploded View

TABLE 13. PRIMARY HEATER ASSEMBLY (PART NO. 46300), PARTS

Part Number	Description	Quantity
0351B-1	Stop	1
0355B	Thermostat Cover Box	1
0361-1250	Heating Element	4
0362C	Thermostat	1
0374	Dial Thermometer	1
0375B-2	Street Elbow	1
0375C-3	Hose Nipple	1
0376	Leaf Spring	1
0377	Pipe Plug	42
0379-2	Socket Head Cap Screw	2
0385-3	Threaded Stud	1
0385-4	Hex Nut	1
0385-5	Acorn Nut	1
0385-6	Heat Transfer Plate	1
0465	Hose Elbow	1
0576	Pipe Plug	1
0651A-10	Lockwasher	2
1323	Long Male Elbow	1
5512-8	Socket Head Cap Screw	4
6465	Pipe Tee	1
6690-7-29	Thermal Limit Switch	1
* 9463	Socket Head Cap Screw	8
10350-1	Extended Hose Nipple	1
17357	Bushing	1
17385-1	Wave Spring	1
46010-19	Thermo-Insulator	2
46356-L	Heater Fastening Bracket	1
46356-R	Heater Fastening Bracket	1
56300-1-1	R-Primary Heater Half <i>(Includes 0377 & 0576)</i>	1
56350-1-1	A-Primary Heater Half <i>(Includes 0377)</i>	1
56379-1	Thermostat Mounting Bracket	1
OP168B-1-2	Pan Head Machine Screw	1

* Torque Specifications: 125 Inch Pounds.

PROPORTIONING PUMP ASSEMBLIES

Proportioning Pump Assembly (All units except 46000-5)

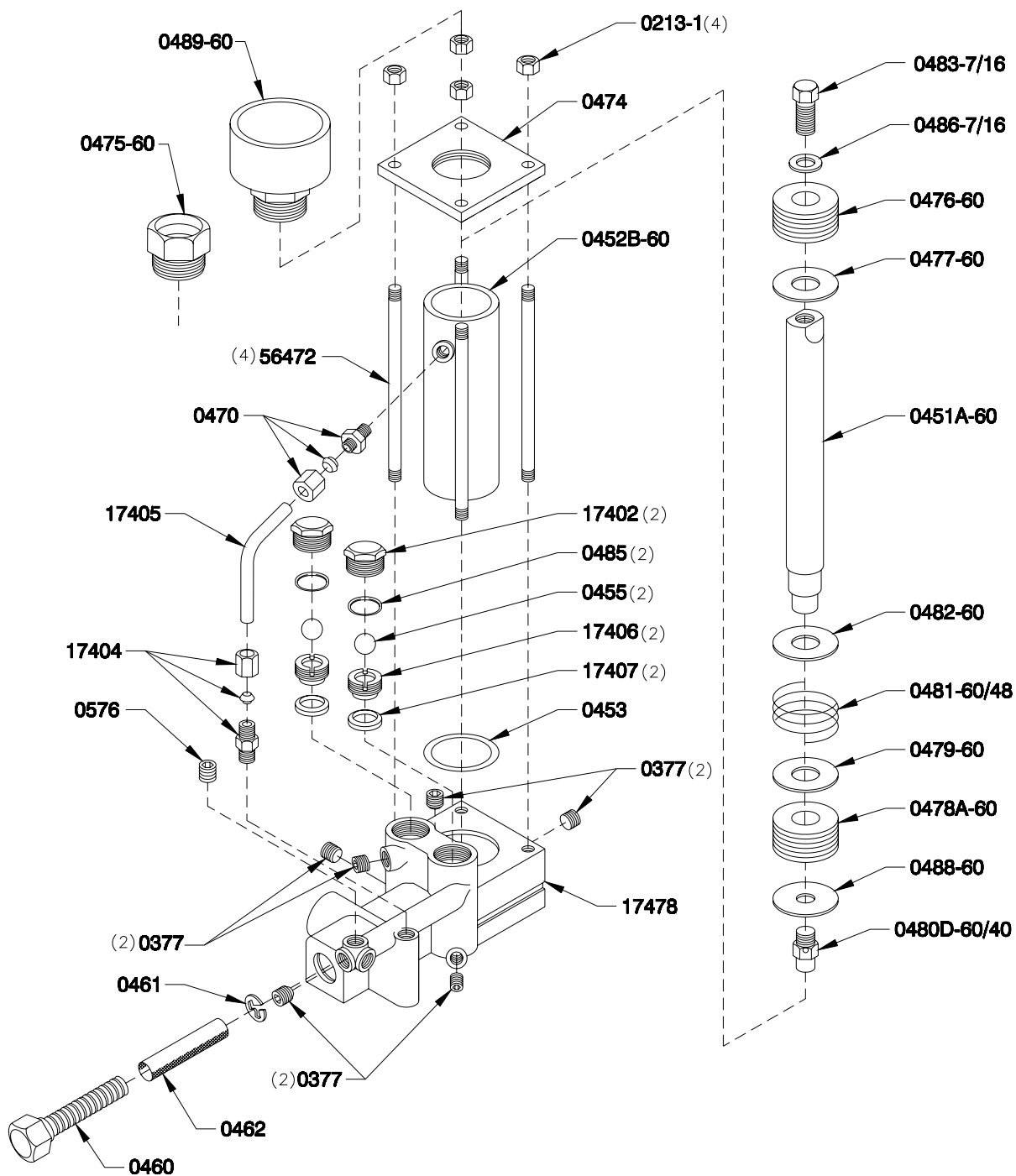


Figure 15. Proportioning Pump Assembly (46400-60/46450-60), Exploded View

TABLE 14. PROPORTIONING PUMP ASSEMBLY (46400-60/46450-60), PARTS

Part Number	Description	Quantity
0213-1	Hex Nut	4
0377	Flush Seal Pipe Plug	6
0451A-60	Pump Piston Rod	1
0452B-60	Pump Cylinder	1
0453	O-Ring	1
0455	Valve Ball	2
0460	Screen Screw	1
0461	Snap Ring	1
0462	Pump Screen	1
0470	Tube Nipple	1
0474	Cylinder Top	1
0475-60	R - Packing Nut (46400-60 Only)	1
0476-60	Packing Set	1
0477-60	Packing Support Washer	1
0478A-60	Packing Set	1
0479-60	Packing Support Washer	1
0480D-60/40	Packing Retainer Bolt	1
0481-60/48	Conical Spring	1
0482-60	Spring Retainer Ring	1
0483-7/16	Hex Head Cap Screw	1
0485	O-Ring	2
0486-7/16	Washer	1
0488-60	Packing Retainer Washer	1
0489-60	A - Packing Nut with Lube Cup (46450-60 Only)	1
0576	Flush Seal Pipe Plug	1
17402	Check Valve Retainer	2
17404	Tube Fitting	1
17405	Crossover Tube with Ferrule	1
17406	Check Valve Seat	2
17407	Check Valve Seal	2
17428	Resin Pump Base (Includes 0377)	1
17478	Iso Pump Base (Includes 0377)	1
56472	Tie Rod	4

Proportioning Pump Assembly (46000-5 Only)

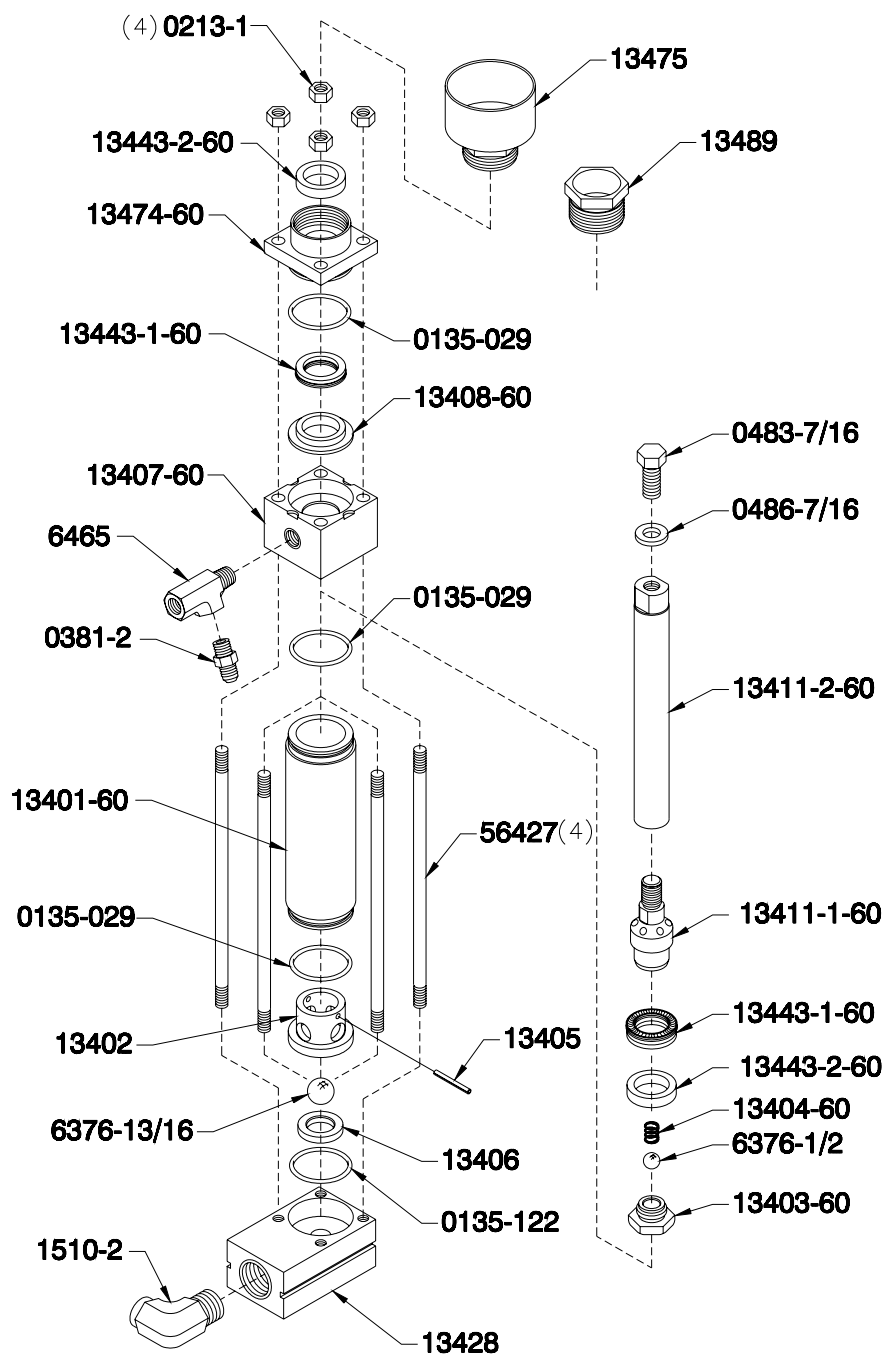


Figure 16. Proportioning Pump (Part No. 13400/13450-60), Exploded View

TABLE 15. PROPORTIONING PUMP (PART NO. 13400/13450-60), PARTS

Part Number	Description	Quantity
0135-029	O-Ring	3
0135-122	O-Ring	1
0213-1	Hex Nut	4
0375	Nipple (13450-60 Only)	1
0381-2	Nipple (13400-60 Only)	1
0483-7/16	Hex Head Cap Screw	1
0486-7/16	Washer	1
1510-2	Street Elbow	1
6376-1/2	½" Steel Ball	1
6376-13/16	13/16" Steel Ball	1
6465	Pipe Tee	1
13401-60	Pump Cylinder	1
13402	Foot Valve Case	1
13403-60	Piston Seat	1
13404-60	Spring	1
13405	Ball Stop	1
13406	Inlet Ball Seat	1
13407-60	Outlet Block	1
13408-60	Support Washer	1
13428	Pump Base	1
13411-1-60	Piston Head	1
13411-2-60	Pump Shaft	1
13443-1-60	Seal	2
13443-2-60	Piston Guide	2
13474-60	Seal Retainer	1
13475	R-Retainer Nut	1
13489	A-Retainer Nut with Lube Cup	1
56427	Tie Rod	4

5-GALLON SUPPLY TANK ASSEMBLY (46000-2 ONLY)

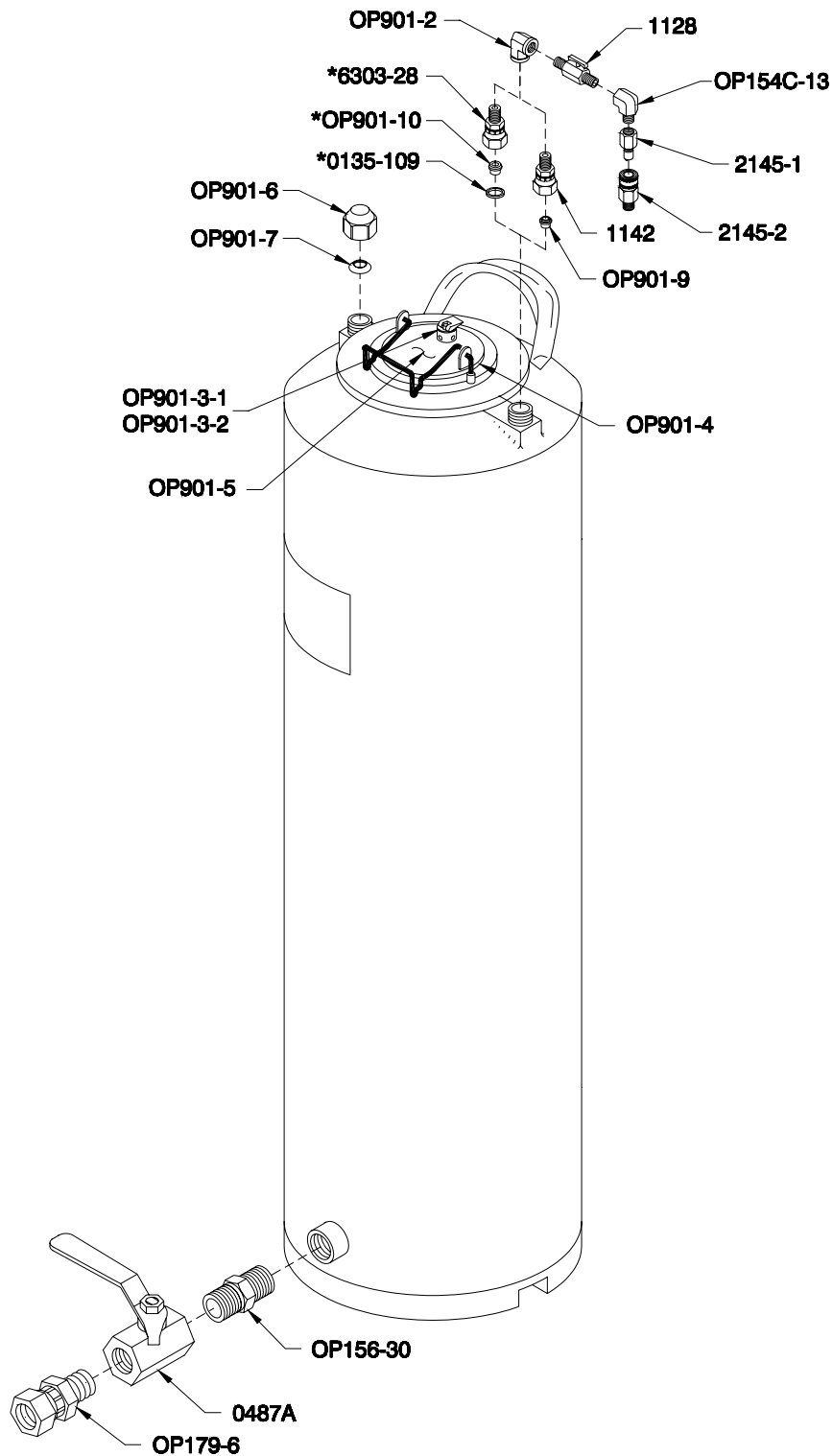


Figure 17. 5-Gallon Supply Tank Assembly (Part No. OP905-1), Exploded View

* Indicates fittings found on tanks produced after 4/1/2000 and stamped with Spartanburg Part No. 29749PS.

TABLE 16. 5-GALLON SUPPLY TANK ASSEMBLY (PART NO. OP905-1), PARTS

Part Number	Description	Quantity
*0135-109	O-Ring	1
0487A	Ball Valve	1
1128	Needle Valve	1
1142	Swivel Fitting	1
2145-1	Quick Disconnect Plug	1
2145-2	Quick Disconnect Coupler	1
*6303-28	Swivel Fitting	1
OP154C-13	Street Elbow	1
OP156-30	Hex Nipple	1
OP179-6	Swivel Union	1
OP901-2	Elbow	1
OP901-3-1	Pressure Relief Valve Assembly (Plastic)	1
OP901-3-2	Pressure Relief Valve Assembly (Metal)	1
OP901-4	O-Ring (Lid)	1
OP901-5	Tank Lid	1
OP901-6	Cap Nut	1
OP901-7	Gasket	1
OP901-9	Bushing	1
*OP901-10	Bushing	1

* Indicates fittings found on tanks produced after 4/1/2000 and stamped with Spartanburg Part No. 29749PS.

REVERSING SWITCH ASSEMBLY

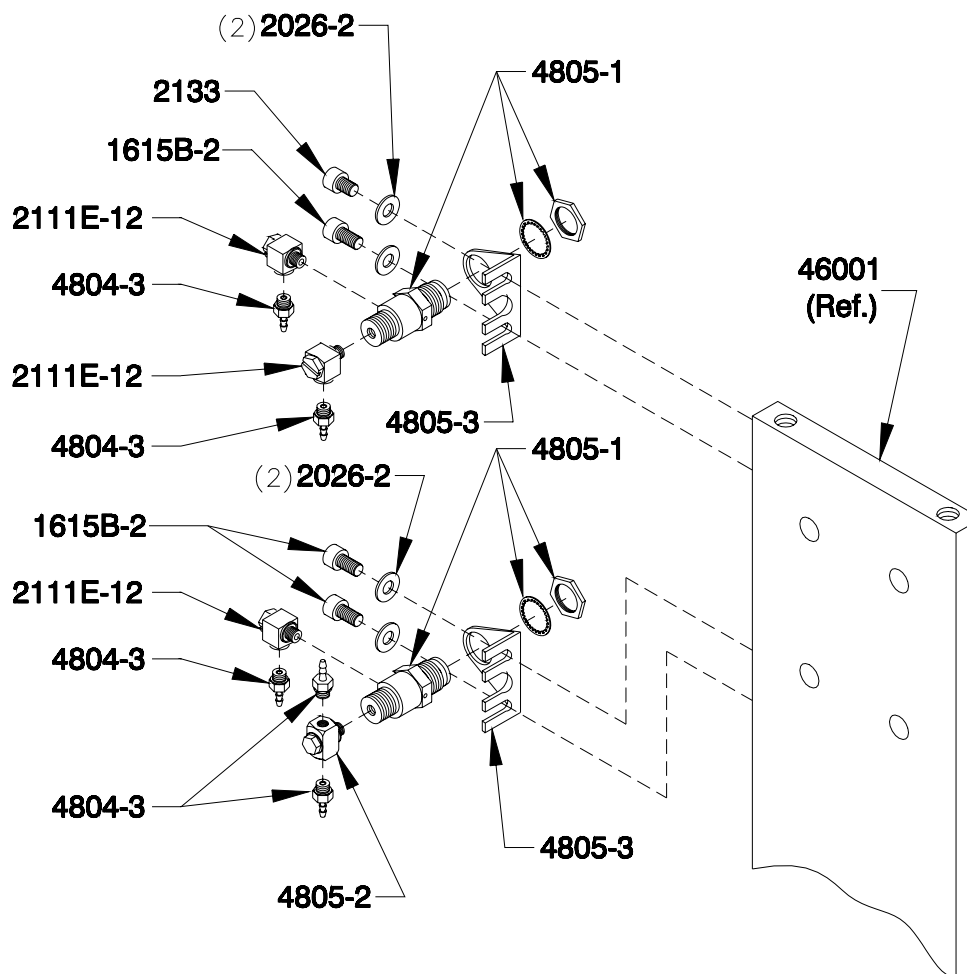


Figure 18. Reversing Switch Assembly, Exploded View

TABLE 17. REVERSING SWITCH ASSEMBLY, PARTS

Part Number	Description	Quantity
1615B-2	Socket Head Cap Screw	3
2026-2	Flat Washer	4
2111E-12	Air Tube Connector Assembly <i>(Includes 4804-3)</i>	3
2133	Socket Head Cap Screw	1
4804-3	Pilot Fitting	5
4805-1	Pilot Valve	2
4805-2	Universal Tee	1
4805-3	Bracket	2

PNEUMATIC SCHEMATIC

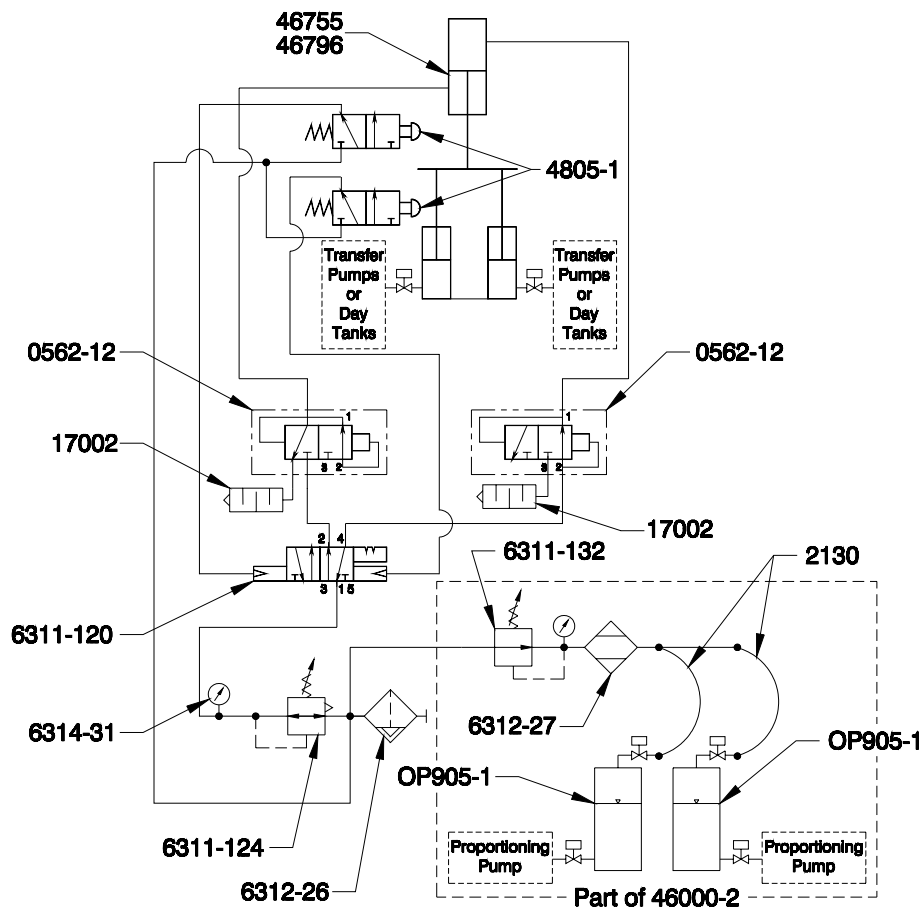


Figure 19. Pneumatic Schematic, Exploded View

TABLE 18. PNEUMATIC SCHEMATIC, PARTS

Part Number	Description	Quantity
0562-12	Pilot Valve	2
2130	Air Hose	1
4805-1	3 Way Valve	1
6312-26	Filter	1
6312-27	Desiccant Dryer	1
6311-120	4 Way Air Valve	1
6311-124	Regulator	1
6311-132	Air Regulator	1
6314-31	Pressure Gauge	1
17002	Muffler	2
46755	Air Motor Assembly (46000 Only)	1
46796	Air Motor Assembly (46000-1 Only)	1
OP905-1	5 Gallon Supply Tanks	4

ELECTRICAL SCHEMATICS

46000-4

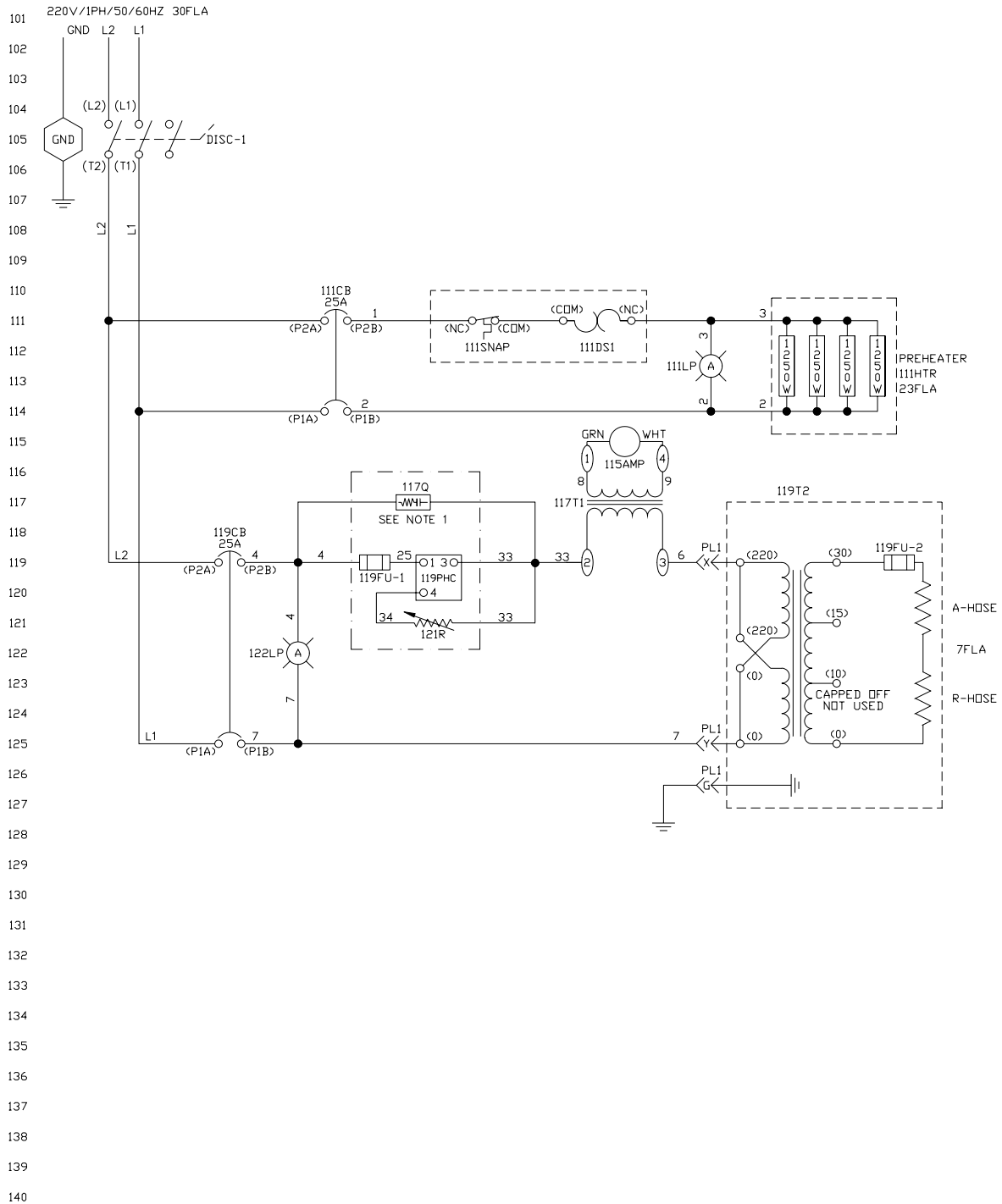


Figure 20. Electrical Schematic

TABLE 19. ELECTRICAL SCHEMATIC, PARTS

Reference Number	Part No.	Description	Qty
	46650-1	Console Box (Not for Sale)	1
GND	17650-2	Terminal Lug	1
DISC-1	6690-16-150	40A Disconnect	1
	6690-16-144	Operator Handle	1
111CB	0692-1-25	25 Amp Circuit Breaker	1
111DS1	0362C	Thermostat	Ref (1)
111SNAP	0385-1	Switch and Bracket Replacement Kit	Ref (1)
111LP	6690-19-25	Light Base	1
	0660	Amber Lens	1
	6690-19-24	Bulb	1
111HTR	0361-1250	Heating Element-1250 Watt	Ref (4)
115AMP	9651-6-8	Ammeter	1
117Q	6690-21-4	Quencharc Assembly	Ref (1)
117T1	9651-6-9	Ammeter Transformer	1
119CB	0692-1-25	25 Amp Circuit Breaker	1
119FU-1	6690-24-1	25 Amp Fuse	Ref (1)
	6690-24-2	30 Amp Fuse Block	Ref (1)
119PHC	6690-26-18	Phase Control	Ref (1)
P1	0670A-1-1	Hose Socket / Wired	1
119T2	6690-15-5	Transformer	Ref (1)
119FU-2	6690-24-13	Fuse Holder	Ref (1)
	6690-24-14	50 Amp Fuse	Ref (1)
A-HOSE		Iso Hose Assembly	Ref
B-HOSE		Resin Hose Assembly	Ref
121R	6690-5-17	Potentiometer	Ref (1)
	17650-4	Knob	1
122LP	6690-19-25	Light Base	1
	0660	Amber Lens	1
	6690-19-24	Bulb	1

NOTES

INSTRUCTION MANUAL DISCREPANCY REPORT

[illegible]

Instructions:

Complete the above fields of the form by following the instructions listed on the reverse side of this sheet and mail to:

Gusmer Corporation
One Gusmer Drive PO Box 2055
Lakewood, NJ 08701

Field Number	Field Title	Description
1	Date	Enter date report is submitted.
2	Name	Enter name of person making report.
3	IM Number	Enter the Part Number of the Instruction Manual from the title page.
4	Issue Number	Enter the Issue number of the Instruction Manual from the title page. If there is no issue number, enter NONE .
5	Date of Issue	Enter the date of Issue of the Instruction Manual from the title page. If there is no issue date, enter NONE .
6	Page Number	Enter the page number containing the discrepancy
7	Discrepancy	Provide a brief description of discrepancy

NOTE: You may send a marked copy of the page as an attachment to your submittal.