



**CRACK-VAC**

**MODEL 150**

**PART MANUAL - 26368**

**REV. B**



**CRACK-VAC  
MODEL 150**

**ADD PHOTO**

**CRACK-VAC  
MODEL 150**

**ADD PHOTO**

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# CRACK-VAC MODEL 150

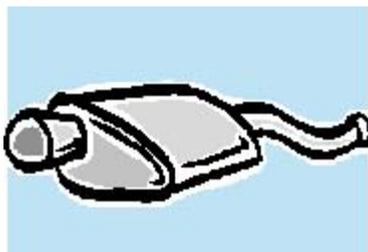
This manual is furnished with each new **CRAFCO CRACK-VAC MODEL 150**. The manual will help your machine operators learn to run the Crack-Vac properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO CRACK-VAC MODEL 150** is designed to give excellent service and save maintenance expense. However, as with all specially engineered equipment, you can get best results at minimum costs if:

1. You operate your machine as instructed in this manual.
2. Maintain your machine regularly as stated in this manual.

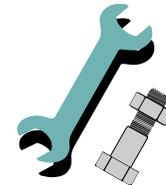


**WARNING:** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Operate in well ventilated area only. Engine exhaust is deadly.



# SAFETY PRECAUTIONS

- High operating temperatures of engine and machine require protective clothing, hard soled shoes, and heat resistant gloves be worn by operator.
- Wear eye protection at all times.
- Observe all **CAUTION AND WARNING** signs posted on machine.
- Avoid the entrance of water into any part of the machine.
- Read Operator Manual thoroughly before operating machine.
- Make sure operator is familiar with machine operation.
- Shutdown engine prior to refueling gasoline tank.
- Keep hands, feet, and clothing away from all moving parts.
- Always keep a fire extinguisher near the unit. Maintain extinguisher properly and be familiar with its use.
- Replace any hoses which show signs of wear, fraying, or splitting. Assure all fittings and joints are tight and leak proof.
- Precaution is the best insurance against accidents.
- Tighten all bolts and screws after every 100 hours of operation.
- CRAFCO, Inc. assumes no liability for an accident or injury incurred through improper use of the machine.
- Refer to the Rotary Air Blower for operating procedures and safety precautions.
- The “Chamber-Absorption Silencer” will be hot to the touch. Do not touch hot surfaces.
- Avoid extended exposure in close proximity to machinery with high intensity noise levels. Noise level may require ear protection. Do not operate equipment without adequate silencing devices since high noise level may cause hearing damage.
- Do not operate without guards in place. Before performing any repairs, disconnect the power.
- Blower heat can cause burns if touched. Blower casing and associated piping or accessories may become hot enough to cause major skin burns on contact.
- Internal and external rotating parts of the blower and driving equipment can produce serious physical injuries. Do not touch the equipment in motion.
- Do not start the blower until you are sure oil has been put in the gear housing.
- A good maintenance program will add years of service to your equipment.



# LIMITED WARRANTY

Crafco, Inc., through its authorized distributor, will replace for the original purchaser free of charge any parts found upon examination by the factory at Mesa, Arizona, to be defective in material or workmanship. This warranty is for a period within 60 days of purchase date, but excludes engine or components, tires, and battery as these items are subject to warranties issued by their manufacturers.

After 60 days, Crafco, Inc. warrants structural parts, excluding hydraulic components, hoses, and electrical components for a period of one (1) year from date of delivery. Crafco, Inc. shall not be liable for parts that have been damaged by accident, alteration, abuse, improper lubrication/maintenance, normal wear, or other causes beyond our control.

The warranty provided herein extends only to the repair and/or replacement of those components on the equipment covered above and does not cover **labor** costs. The warranty does not extend to incidental or consequential damages incurred as a result of any defect covered by this warranty.

All transportation and labor costs incurred by the purchaser in submitting or repairing covered components must be born by the purchaser.

Crafco, Inc. specifically disavows any other representation, warranty, or liability related to the condition or use of the product.



**WARNING:** Use of replacement parts other than genuine Crafco parts may impair the safety or reliability of your equipment and nullifies any warranty.

## WARRANTY CLAIM INSTRUCTIONS

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures may be cause to void the warranty.

1. Call your local Crafco Distributor. If you do not know who your local distributor is, call a Crafco Customer Service Representative, (Toll Free 1-800-528-8242) for name, location, and telephone number.
2. On contacting the Distributor be prepared to identify the machine type, model number, and serial number and the date of purchase if available.
3. Should the cause of the malfunction be a defective part, the Distributor will advise you of the procedure to follow for a replacement.
4. The warranty is valid only for parts which have been supplied or recommended by Crafco, Inc.

If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242.

CRAFSCO, INCORPORATED  
25527 S. Arizona Avenue  
Chandler, AZ. 85248  
480-655-8333  
480-655-1712(FAX)  
Toll Free 1-800-528-8242

# SPECIFICATIONS

Holding Tank Capacity.....	150 Gallons Maximum
Tank Construction.....	Heavy Duty Steel Structure
Tank Opening Size.....	16" Full Opening
Engine - Kohler.....	Two Cylinder
Model 3LD1C - Gas	25 BHP @ 3,600 rpm
Dry Weight.....	Approximately 1,500 lb.
Filter- Pleated Spun Bonded Polyester Filter Element.....	10-Micron Filtration
Fuel (Gasoline) Tank Capacity.....	17 Gallons
Hydraulic Tank Capacity.....	2.0 Gallons
Hydraulic Pump.....	D.C. Hydraulic Power System -12 Volts pump/motor/reservoir valve. Check Valve 4-way/3-position solenoid valve. Externally adjustable relief valve.
Hydraulic Dump.....	Electric over hydraulic dump system with truck side control switch.
Blower.....	Positive displacement rotary air blower. Air flow CFM @ 3600 RPM with 7 inch Hg. Vacuum. Air velocity 12,000 RPM through 2.5 inch diameter inlet.
Pivotal Suction Boom.....	Over cab boom with 3' suction line for easy operation in front of the truck.
Suction Hose.....	35' of 3" hose with cam lock disconnect ends.
Suction Tube.....	2.5" and 1.5" lightweight wands.
Blower Discharge Silencer.....	A multi-chamber containing a high frequency absorption device to effectively reduce excessive converting noise energy.
LG 16" Pressure Manhole Access Door.....	14 psi maximum working pressure. Safety catch. Pull opening. Four quick opening adjustable cam levers.
Heavy Duty Welded Support Frame Structure.....	"C"-channel welded frame structure.

# CRACK-VAC MODEL 150 OPERATING INSTRUCTIONS

## INTRODUCTION

Air quality, workers' safety, and the safety of the motoring public are most important in today's road maintenance operations. The CRAFCO CRACK-VAC MODEL 150 was designed to thoroughly clean pavement cracks while maintaining a dust free environment. With a filter system that contains particulate matter down to 10 microns, the Crack-Vac complies with the strict PM 10 air quality standards in effect today. This new concept in crack sealing preparation limits worker exposure to dust and improves visibility problems that dust can cause for motoring traffic. The Crack-Vac is the future of crack cleaning operations.

**DO NOT** operate machine without following these instructions:

1. Fill fuel tank with unleaded gasoline fuel.
2. Check engine crankcase oil level (refer to Engine Operator's Manual).
3. Check hydraulic fluid level in the hydraulic pump (d.c. hyd. power system) at 70° F. Add fluid if necessary.
4. Check positive displacement rotary air blower fluid level. At ambient temperature the oil should run out the plug on the housing side. (Refer to the Blower's Manual).
5. All toggle switches and keys should be turned in the "OFF" position before doing any work on the equipment. This will help prevent injuries.
6. Remember that safe operation of this equipment is the operator's responsibility.



**CAUTION:**



Extreme care must be used when operating this equipment. Safety is the result of being careful and paying attention to details. Remember the gasoline flame is about 2,200° F. Certain exposed parts of this machine, when operating, reach 200° F and the hydraulic fluid may reach 200° F. Always wear protective clothing, hard-soled shoes, and eye protection. Be sure that all joints and fittings are tight and leak proof. Immediately replace any hose which shows any signs of wear, fraying, or splitting. Tighten all bolts, nuts, and screws every 250 hours.

# MACHINE START UP

1. Clean the pleated spun bond polyester filter element before starting the Crack-Vac. A clogged air filter can seriously affect the efficiency of the blower and cause over heating and excessive oil usage.
2. Cleaning the filter element will help protect the life of the positive displacement rotary air blower.
3. Check to make sure that all the suction hoses are free from debris.
4. Check fluid levels on the positive displacement rotary air blower. (See Rotary Air Blower Manual). Proper oil level cannot be over-emphasized. A good maintenance program will add years of service to your blower. Oil reservoir capacity is 7.0 fluid ounces.
5. Dump all debris from the 150 gallon Storage Tank. This will allow the air to flow properly. (See page 12.)
6. Check the hydraulic fluid level in D.C. Hydraulic Power System located under the 150 gal. holding tank.
7. Check the pivotal boom assembly to be sure the boom swivels properly.
8. Check gasoline tank to be sure level is full before you start.
9. Check LG 16" pressure manhole access door to be sure it is properly locked in place on the storage holding tank.
10. Be sure intake piping is clean and free from all obstructions for the pivotal boom assembly.
11. Keep hands and clothing away from rotating machinery, inlet, and discharge openings.
12. Start engine per Engine Manual.
13. Check for unusual noise or vibration for the air rotary blower.

# UNLOADING THE 150 GAL. STORAGE HOLDING TANK

When unloading the 150 gal. storage tank, make sure that the engine is stopped. This will help prevent damage to the blower. Unlatch the LG 16" manhole cover safety catches very slowly to relieve the pressure in the holding tank. Unlatch the three (3) cam levers first before unlatching the cam lever with the safety catch protective wire. The safety catch protective wire will help keep the LG 16" manhole cover from opening too quickly. Once the LG 16" manhole cover is opened, raise the storage holding tank. Use the toggle switch mounted in support frame. Lifting the toggle switch up will raise the storage holding tank. This will allow the dirt, rocks, mud and other contents to fall out. After the tank is dumped, move the toggle switch down to lower the unit into place. **Use caution not to pinch an extremity or any part of the body.** Latch the LG 16" manhole cover using the cam lever. Do not slam your finger under the cam levers.

## SHUTDOWN AND CLEAN-OUT PROCEDURE

Crafco recommends cleaning the 150 gal. storage holding tank after each use. This will make it easier to clean the tank and the material will not lodge inside of it. Crafco recommends cleaning the pleated spun bond polyester filter element and cleaning the bag house after every use. It is essential to keep the filter element and the 150 gal. storage tank clean to help protect the rotary air blower.

1. Remove filter element from bag house.
2. Gently blow compressed air through the pleates on the filter element.
3. Wash the filter element gently with water.
4. Let the filter element dry for 10 hours before using it again.
5. Store the filter in a safe place to prevent damage.
6. Install the other filter provided in the bag house. This will insure that the Crack-Vac is ready for use.
7. Filtration efficiency and pressure drop performance is very dependent on cleaning the filter element.
8. Check the rotary air blower oil capacity. Fill if necessary. Grease the rotary air blower as recommended.
9. Be sure intake piping is clean and free from all obstruction.

## STORING MACHINE

The Crack-Vac should be stored in an area where moisture cannot enter the machine. Taking proper care of the Crack-Vac will add years of life to the equipment. The Crack-Vac has been built to exacting standards and if properly maintained will give you many years of reliable service. We urge you to take time to read and follow every step of these instructions when installing and maintaining your Crack-Vac. The buyer shall have no claim whatsoever and no product or part shall be deemed to be defective by reason of failure to resist erosive or corrosive action. Problems resulting from build-up of material within the unit or problems due to incompatibility with the materials of construction will not be reason for a claim.

## INSTRUCTIONS FOR ORDERING PARTS

Parts may be ordered from your local CRAFCO Distributor or directly from CRAFCO, Inc. if a Distributor is not available in your area. When ordering parts give the following information:

1. Part Number
2. Machine Model
3. Serial Number

**Write, fax, or telephone:**

CRAFCO, INCORPORATED  
25527 S. Arizona Avenue  
Chandler, AZ. 85248  
Phone: 480-655-8333  
Fax: 480-655-1712  
Toll Free: 1-800-528-8242

# MAINTENANCE INSTRUCTIONS



## ENGINE

See engine manufacturer's Owner's Manual for operating and maintenance instructions.

## HYDRAULIC SYSTEM

Check hydraulic fluid level weekly. Change hydraulic fluid every 100 hours of operation or twice a year. Set up a hydraulic maintenance schedule and follow it diligently. Do not return to the system any fluid which has leaked out. Use clean containers, hoses, and funnels when filling the reservoir. Make sure that all clean-out holes, filler caps, and breather cap filters on the reservoir are properly fastened. Make certain that the fluid used in the system is of a type recommended by the manufacturers of the system of components. Use Dextron II transmission fluid in the power pack. The best trouble shooting tip is to learn how the circuit or component functions.

## ROTARY AIR BLOWER

- Lubricate every 40 hours with good quality, high temperature grease.
- Do not start the blower until you are sure oil has been put in the gear housing.
- Do not inject grease too fast to avoid blowing out the drive shaft seal. Using a pressure gun, force new grease into each bearing until traces of clean grease come out of the relief fitting.
- Drain and refill after the first 100 hours of operation and thereafter every 200 hours of operation under normal service and more frequently depending on the type of oil and oil operating temperature. Use a good grade industrial type, anti-rust, oxidation and form inhibited, non-detergent oil.
- A good maintenance program will add years of service to your blower.
- Oil capacity for model Number 4007 is 0.21 liters. If the blower is stored outdoors be sure to protect it from weather and corrosion. (See Positive Displacement Rotary Air Blower Manual).

## SUCTION HOSES

Be sure hoses are free of debris. Hoses must be free of debris for efficient blower operation and to prevent damage to blower. Inspect all hoses for damage. Replace any damaged section of the hose. Any blockage of the hose prevents the vacuum from operating properly.

# MAINTENANCE CHART

		HOURS			
LOCATION	PROCEDURE	8	50	100	500
Engine check oil level.	See engine instruction manual.	**			
Other engine maintenance	See engine operating and maintenance instructions.	**			
Battery	Check water level weekly.		**		
Hydraulic Oil (Dextron II) Transmission Fluid	First change (10 hours)			**	
Hydraulic Oil (Dextron II) Transmission Fluid	Check oil	**			
Hydraulic Oil (Dextron II) Transmission Fluid	Change oil			**	

## SERVICE INSTRUCTIONS

1. Conduct a general inspection of your machine at least once a week. Replace all worn or damaged parts; make any necessary adjustments and tighten all loose nuts or screws.
2. Keep regular replacement items in stock for emergency repairs to avoid costly "down" time.
3. Watch for leaks. Tighten fittings or repair as necessary.
4. Clean machine externally periodically.
5. Follow recommended maintenance procedures on maintenance chart.

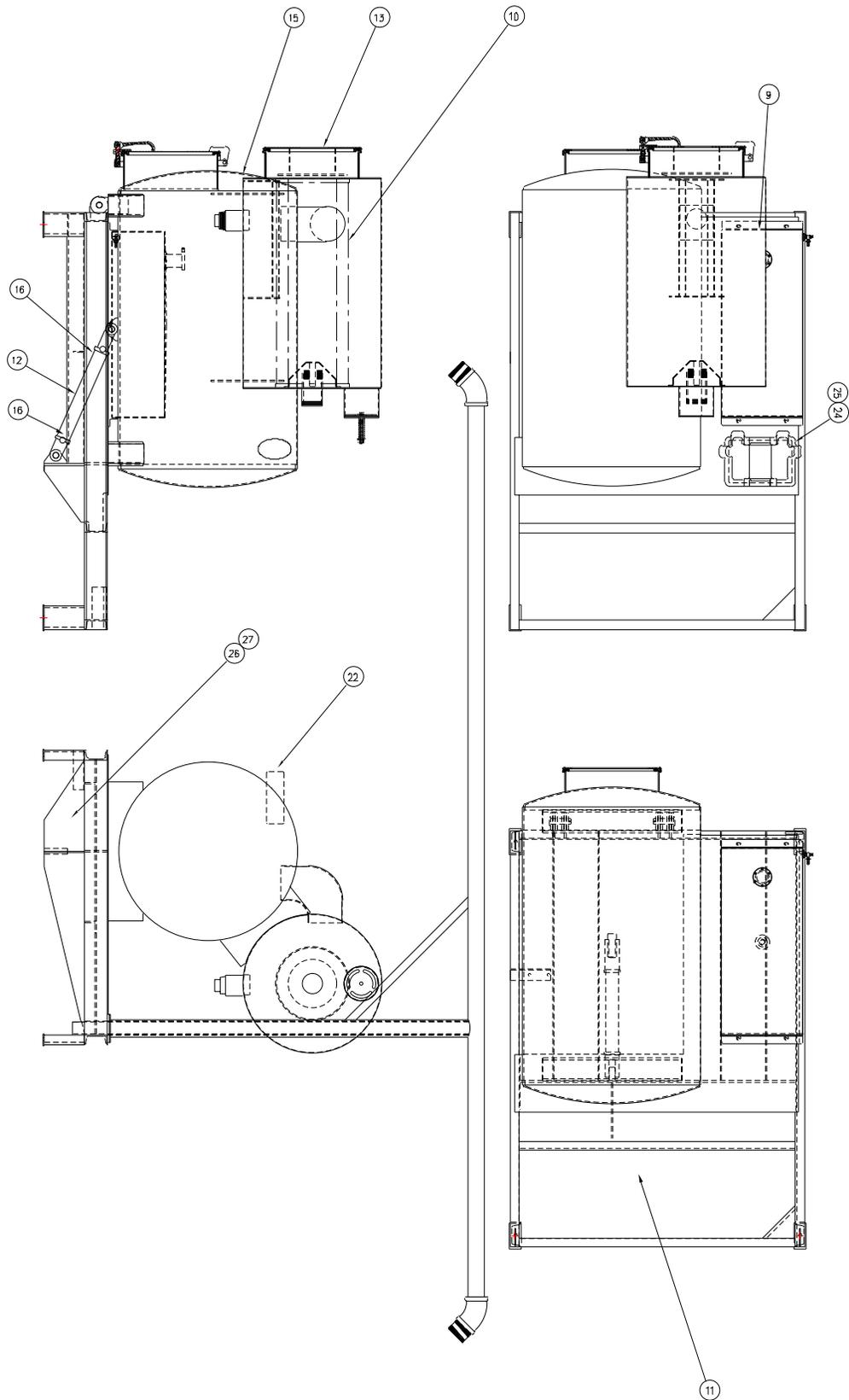


# RECOMMENDED FLUIDS AND LUBRICANTS

The following is a list of suitable lubricants to be used in Crafcoc equipment.

APPLICATION	RECOMMENDED	FULL POINT
Engine Oil	Refer to Kohler Owner's Manual	6.32 Liters 6.7 Qts.
Unleaded Fuel (Gasoline)	Octane 92	64.3 Liters 17 Gal.
Hydraulic Oil (Dextron II)	Dextron II- Transmission Oil	20.7 mL 0.7 Ounces
Oil Reservoir Capacity (Air Rotary Blower)	Oil Grade SAE 50 (Oil Viscosity Range SSU @ 100 Deg F 1000-1200)	.18 Gal. 0.68 Liters
Air Rotary Blower	NLGI #2 premium grade	Petroleum base grease with high temperature resistance and good mechanical stability.  Using a pressure gun, force new grease into each bearing until traces of clean grease come out of the relief fitting.

# CRACK VAC ASSEMBLY-PART NUMBER-60100



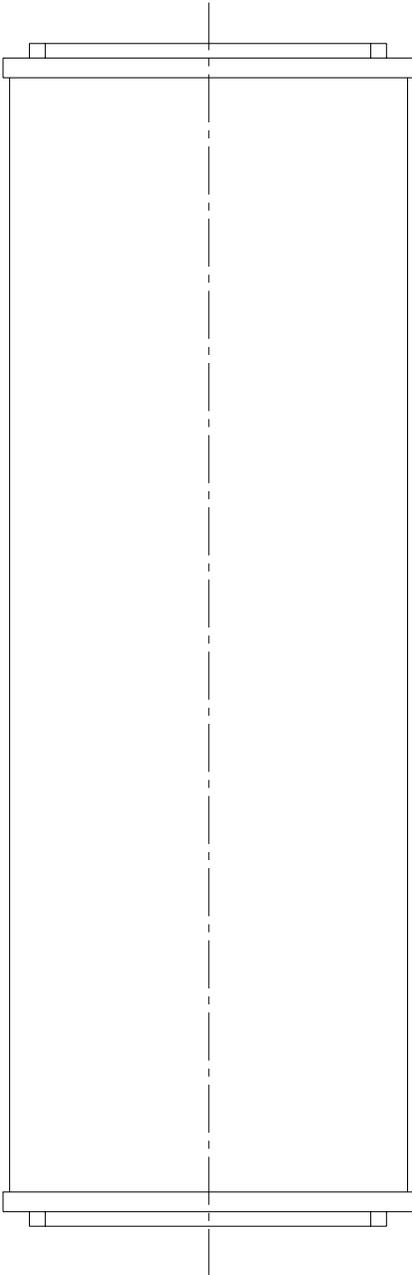
**CRACK VAC ASSEMBLY-PART NUMBER-60100**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	26150	2	DECAL - CRAFTCO WHITE (NOT SHOWN)
2	26157	1	DECAL - EXHAUST WARNING (NOT SHOWN)
3	26158	1	DECAL - AIR CLEANER SERVICE (NOT SHOWN)
4	26159	1	DECAL - GASOLINE ONLY (NOT SHOWN)
5	26197	3	EAR & EYE WARNING PLATE (NOT SHOWN)
6	26380	3	DECAL - CAUTION HEAR/PROTECTION (NOT SHOWN)
7	26381	3	DECAL - PINCH POINTS WATCH (NOT SHOWN)
8	40520	2	DECAL - SMALL CRAFTCO LOGO (NOT SHOWN)
9	44225	1	GAS TANK ASSEMBLY
10	60113	2	FILTER ELEMENT
11	60186	1	POWER PACK ASSEMBLY
12	60118	1	HYDRAULIC CYLINDER - VAC ASSEMBLY
13	60139	1	BAGHOUSE WELDMENT ASSEMBLY
14	XXXXX	X	N/A
15	60145	1	VAC-TANK PIVOT BRACKET ASSEMBLY
16	60162	2	REDUCER FITTING FLOW CONTROL HYD. CYL.
17	XXXXX	X	N/A
18	60177	1	SERIAL # I.D. PLATE CRACK VAC (NOT SHOWN)
19	60182	1	ABRASIVE VACUUM HOSE ASSEMBLY (NOT SHOWN)
20	60183	1	ABRASIVE VACUUM HOSE ASSEMBLY (NOT SHOWN)
21	60184	1	ABRASIVE VACUUM HOSE ASSEMBLY (NOT SHOWN)
22	60159	1	CAM & GROOVE M X F
23	XXXXX	X	N/A
24	24000	1	BATTERY
25	24002	1	BATTERY BOX

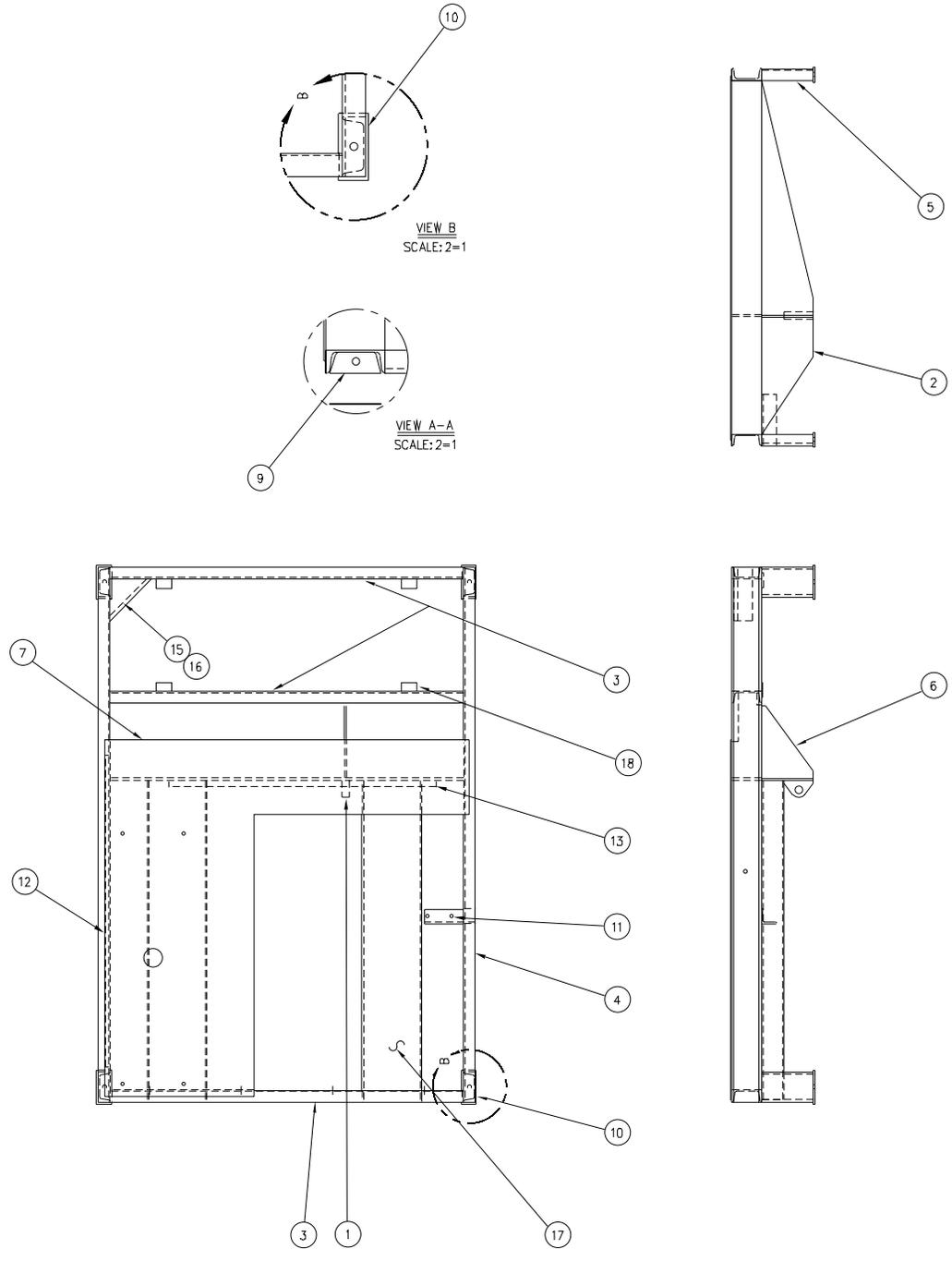
**CRACK VAC ASSEMBLY-PART NUMBER-60100**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
26	28106	2	3" PIPE X 8" LG.
27	28215	1	3" 90° ELBOW
28	AX6-6FJ-6FJ-34	2	3/8" HOSE ASSY (N/A)
29	XXXXX	X	N/A

**FILTER ELEMENT-PART NUMBER-60113**



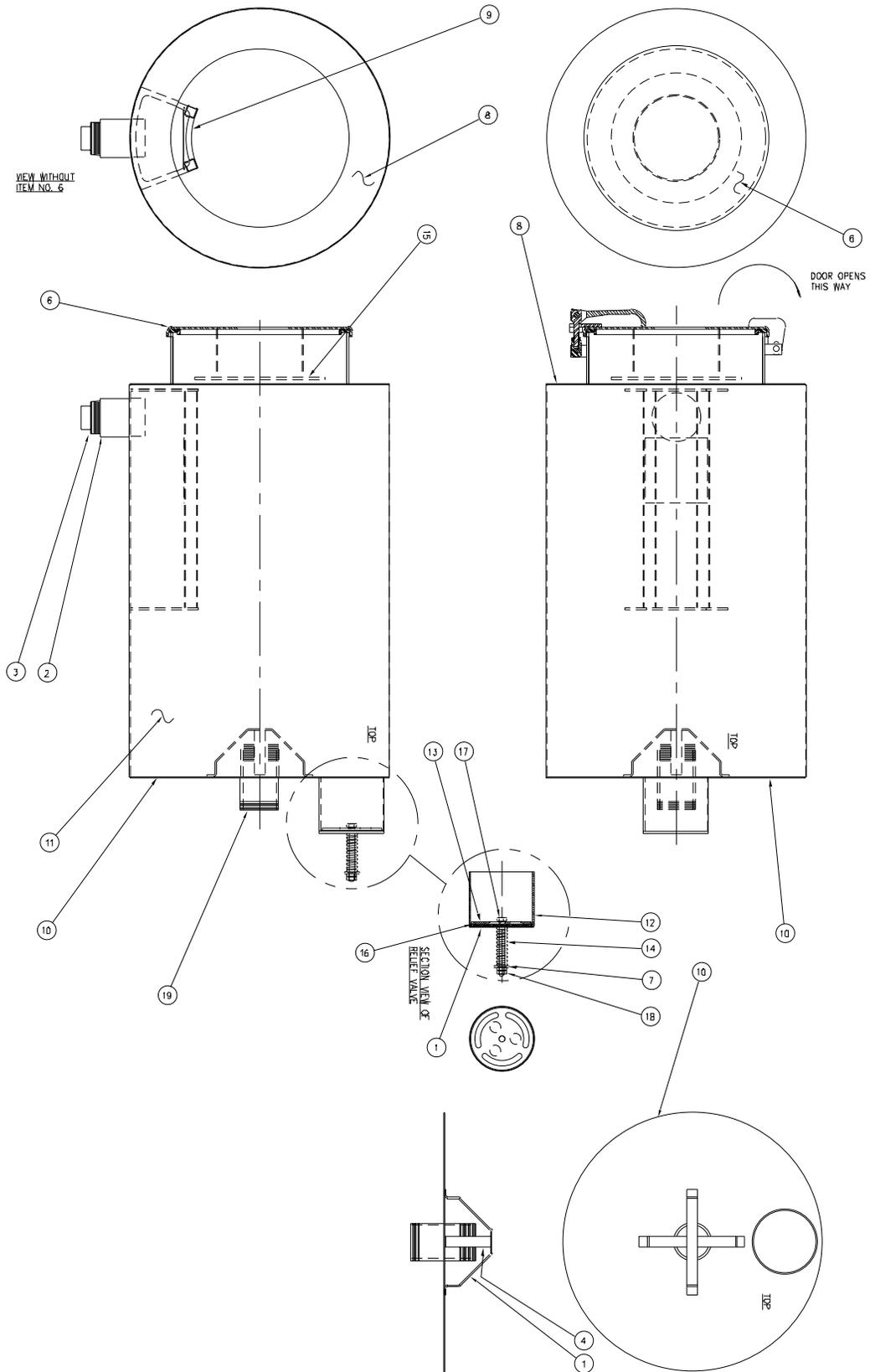
# SUPPORT FRAME ASSEMBLY-PART NUMBER-60115



**SUPPORT FRAME ASSEMBLY-PART NUMBER-60115**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	60108	1	HYDRAULIC CYLINDER MOUNTING TANG
2	60122	1	CYL. SUPRT. BRACE GUSSET
3	60106	3	LARGE CHAIN SUPPORT BRACKET-FRAME
4	60107	2	SIDE RAIL LONG CHAIN SUPPORT
5	60105	4	VERTICAL SUPPORT LEG - FRONT ASSEMBLY
6	60103	1	SUPPORT GUSSET-FRONT ASSEMBLY
7	60109	1	TOP SHEET COVER - FRONT ASSEMBLY
8	XXXXX	X	N/A
9	60101	1	SWITCH MOUNTING PLATE
10	60104	4	FOOT MTG. PAD- FR ASSY.
11	60102	1	MOUNTING SPRT ANG-PWR PK
12	42556	1	SHORT CONDUIT 24" LG.
13	29376	1	CONDUIT 3/4" X 36" LG.
14	XXXXX	X	N/A
15	60175	1	SUPPORT BRACE BOT-FRAME
16	60174	1	SUPPORT GUSSET BOOM-FRAME
17	60124	2	LIFTING SUPPORT TUBE
18	20111	4	STEP RISER BLOCK

# BAG HOUSE WELDMENT ASSEMBLY-PART NUMBER-60139

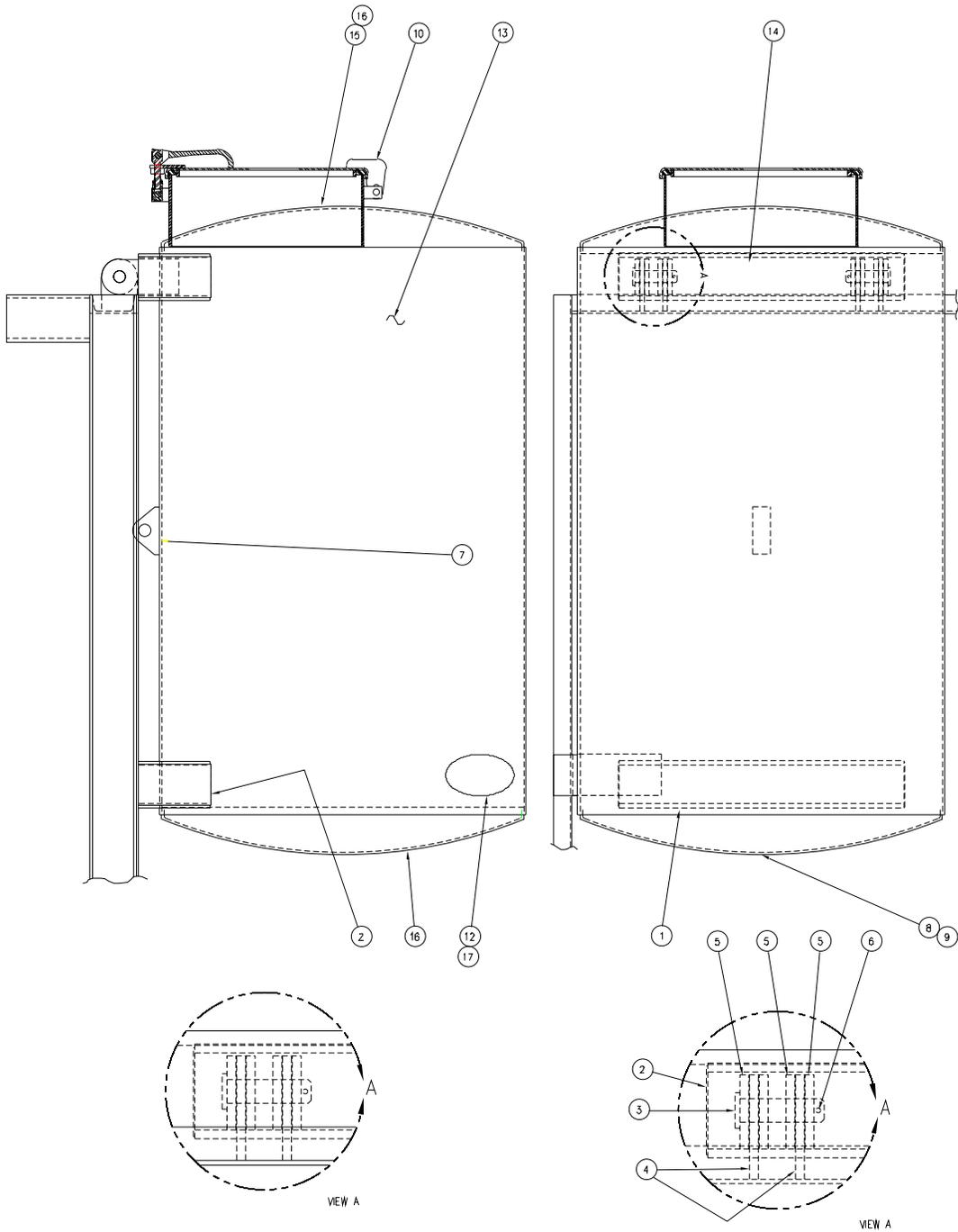


**BAG HOUSE WELDMENT ASSEMBLY-PART NUMBER-60139**

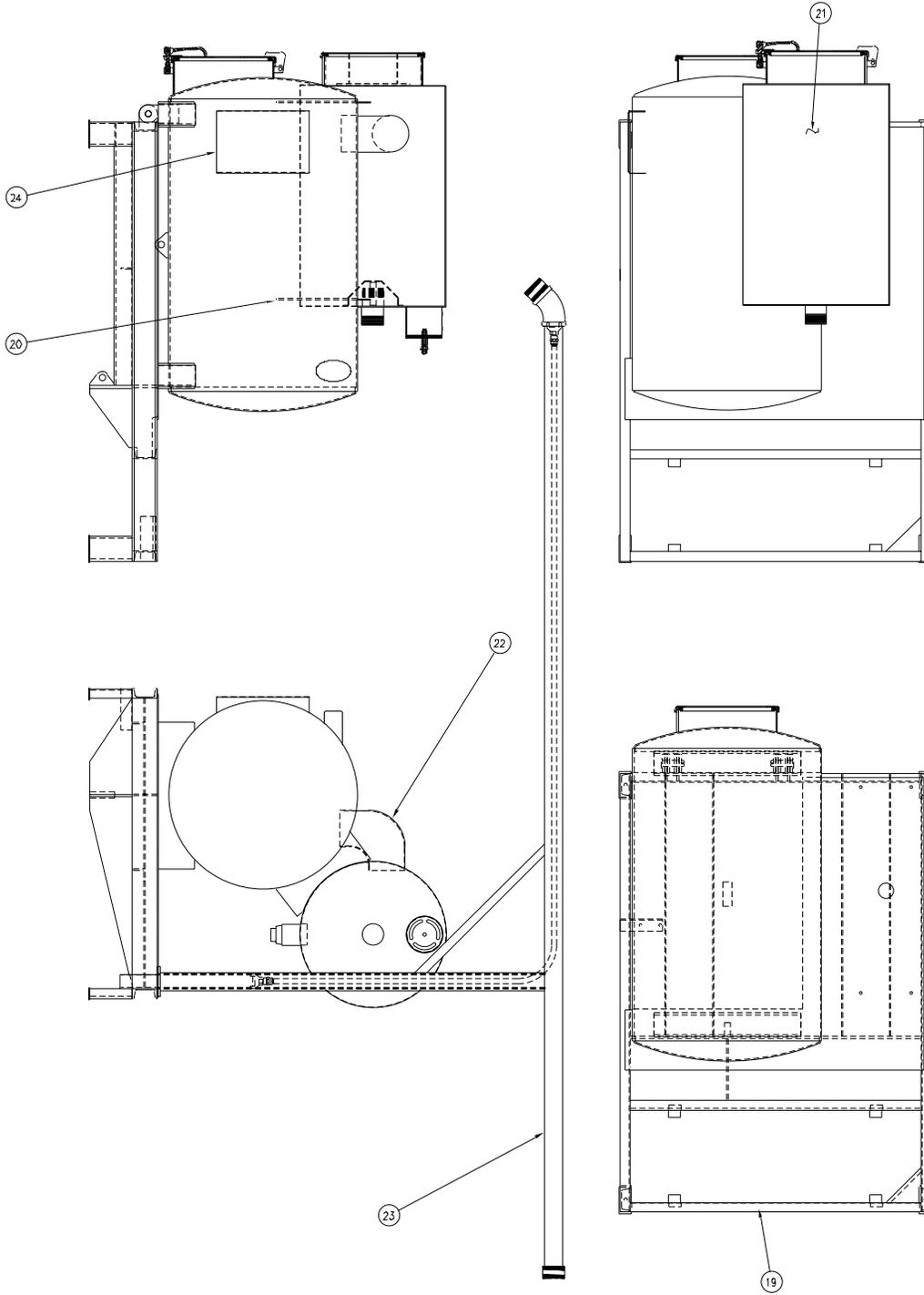
<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	60127	1	CAP PRESSURE RELIEF
2	28185	1	3" COUPLING PIPE
3	28290	1	3" SQUARE HEAD PIPE PLUG-BLACK
4	60148	1	BRACE INSIDE BOT-BAG H
5	XXXXX	X	N/A
6	60112	1	16" MANHOLE COVER
7	28636	1	1/2" FLAT STEEL WASHER
8	60133	1	FRONT PLATE - BAG HOUSE
9	60135	1	FILTER RADIUS SUPPORT PLATE (NOT SHOWN)
10	60146	1	REAR END CAP
11	60128	1	BAG HOUSE WELDMENT
12	60131	1	TUBE, RELIEF EXTENSION
13	60129	1	INSIDE RELIEF PLATE
14	60168	1	SPRING RELIEF VALVE
15	60171	1	INSIDE FILTER SEAL PLATE ASSEMBLY
16	60178	1	PRESS RELIEF CAP RUBBER
17	28773	1	1/2-13 NC X 4-1/2 HX HD BT
18	28504	2	1/2" - 13 N.C. HEX-NUT
19	28077	1	3" PIPE NIPPLE X 6" LG.



# VAC-TANK & FRAME ASSEMBLY-PART NUMBER-60145



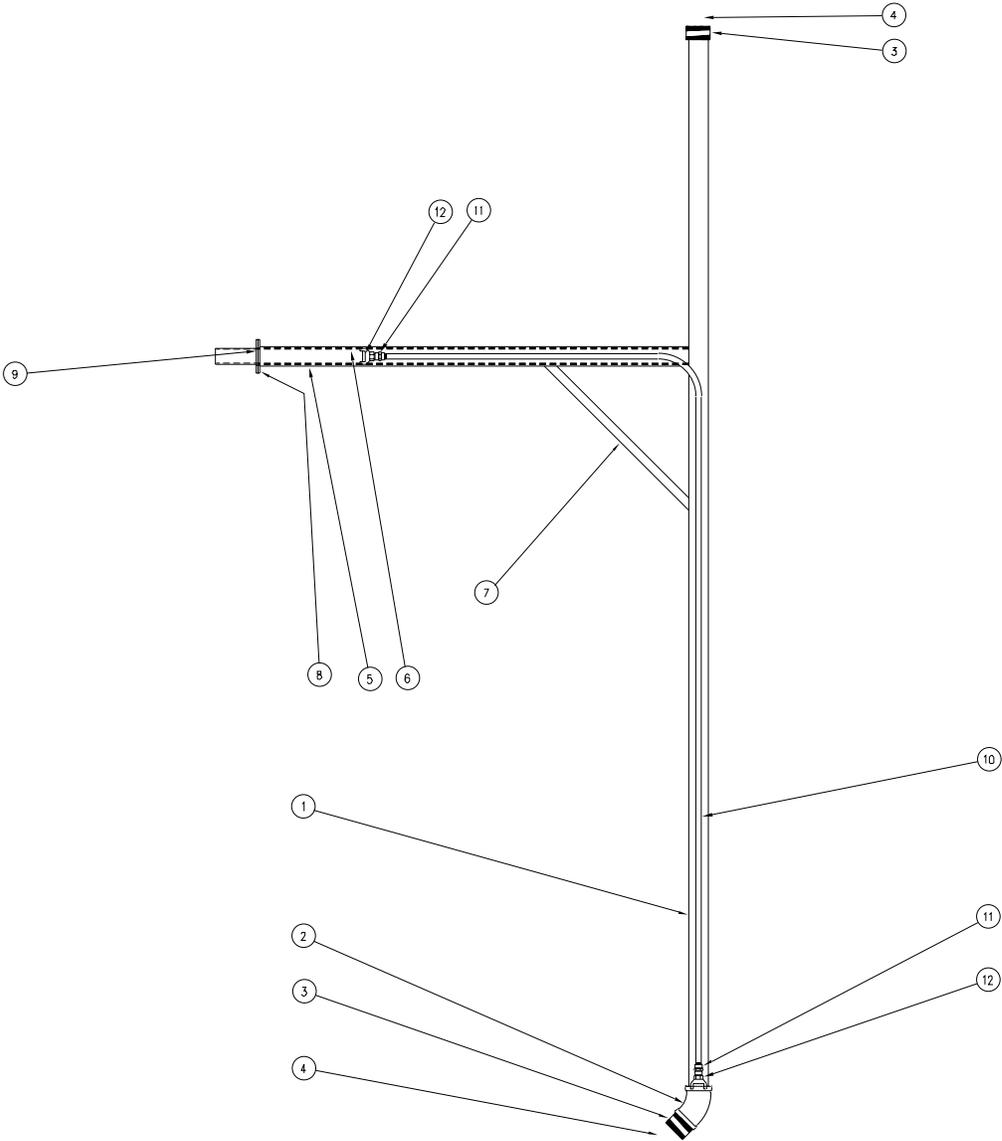
# VAC-TANK & FRAME ASSEMBLY-PART NUMBER-60145



**VAC-TANK & FRAME ASSEMBLY-PART NUMBER-60145**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	60121	4	SUPPORT BRACKET - VAC TANK
2	60123	4	END CAP-FRONT ASSEMBLY
3	60144	2	CLEVIS PIN-PLAIN STEEL
4	60120	4	HORIZONTAL PIVOT - TANK SUPPORT
5	60119	8	VERT PIVOT - SUPPORT PIVOT
6	60143	2	SPRING CLIP
7	60108	1	HYDRAULIC CLYINDER MOUNTING TANG
8	28311	1	1/4" PHOENIX FLANGE
9	27990	1	1/4" COUNTERSUNK PLUG
10	60112	1	16" PRESS MANHOLE COVER
11	XXXXX	X	N/A
12	28122	1	3" PIPE NIPPLE X 9" LONG
13	60166	1	VAC-TANK HOLD CONTAINER
14	60134	1	FRONT DUMP PLATE STORAGE TANK
15	60110	1	FLANGED AND DISHED VAC TANK
16	60111	1	FLANGED AND DISHED VAC TANK
17	28122	1	3" PIPE NIPPLE X 9" LG
18	XXXXX	X	N/A
19	60115	1	SUPPORT FRAME ASSEMBLY
20	60141	2	SUPPORT BRACKET AIR CLEANER
21	60139	1	BAGHOUSE WELDMENT ASSEMBLY
22	28401	1	6" 90 DEGREE - WELD ELBOW
23	60176	1	VACUUM BOOM PIVOTAL ASSEMBLY
24	60269	1	RECORD MOUNTING BOX PLATE

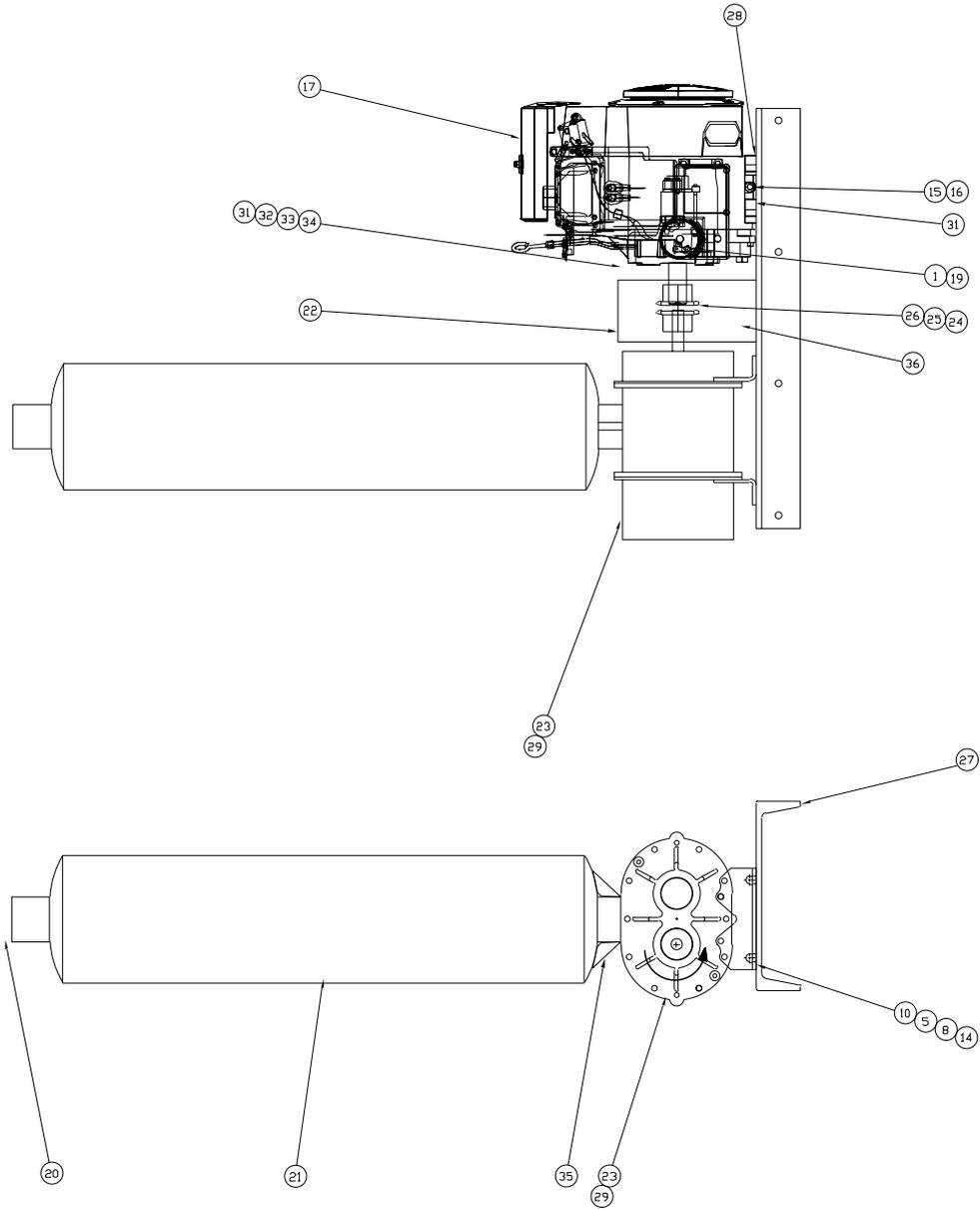
VACUUM BOOM PIVOTAL ASSEMBLY-PART NUMBER-60176



**VACUUM BOOM PIVOTAL ASSEMBLY-PART NUMBER-60176**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	60185	1	PIPE POST 2-7/8" X 13' LG.
2	28377	1	3" 45° WELD ELBOW
3	28010	2	3" CLOSE NIPPLE
4	60159	2	CAM & GROOVE ADAPTER
5	60189	1	OUTSIDE VERTICAL PIVOTAL TUBE
6	60190	1	INSIDE VERTICAL STATIONARY TUBE ASSEMBLY
7	60187	1	VACUUM BOOM ANGLE BRACE
8	60173	1	BOTTOM PIVOT TOP PLATE
9	60172	1	INSIDE BOTTOM PIVOT PLATE
10	60286	1	AIR LINE - PIVOTAL BOOM
11	28178	2	1/2 COUPLING
12	42643	2	HOSE CONNECTOR

# POWER PACK ASSEMBLY-PART NUMBER-60186



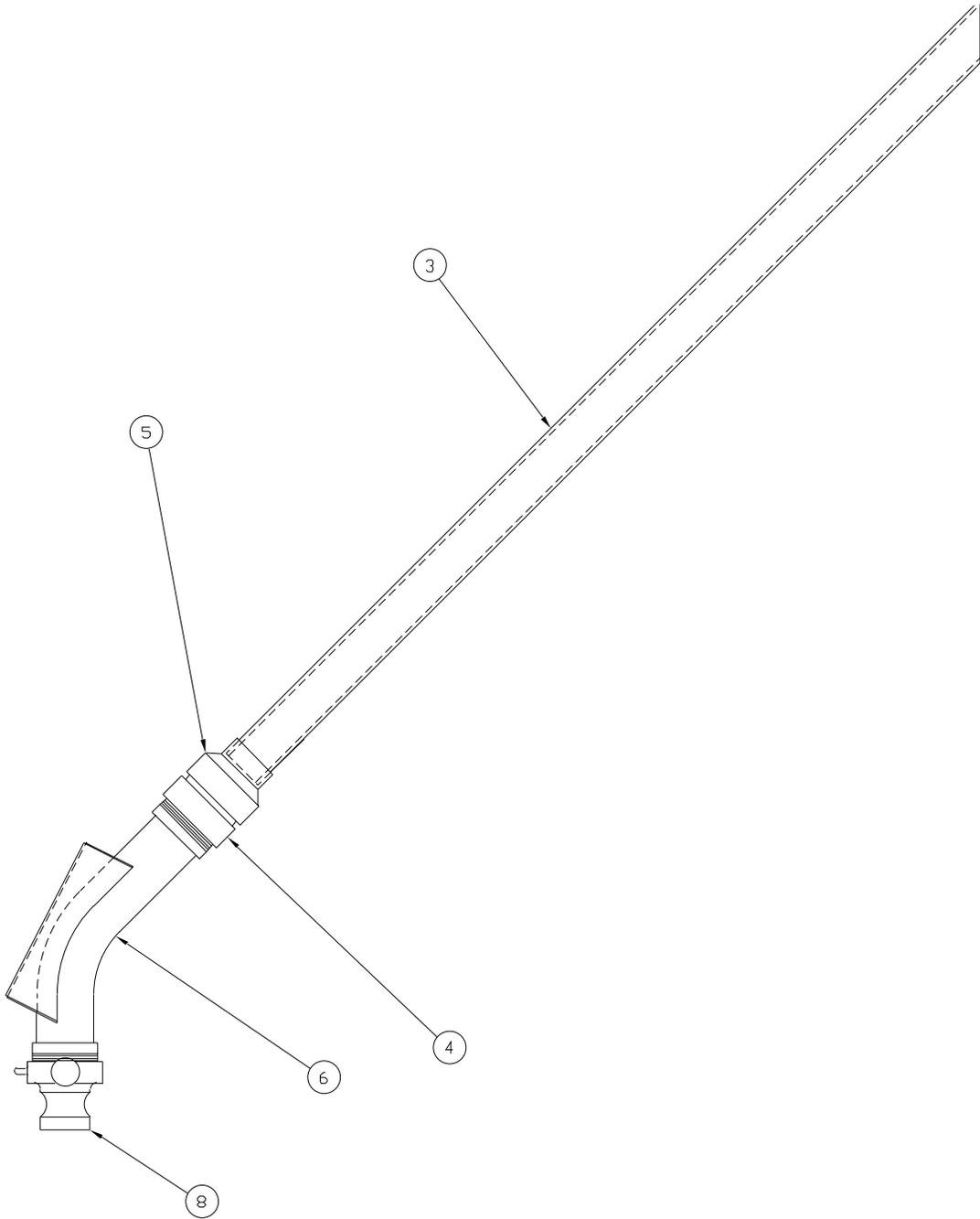
**POWER PACK ASSEMBLY-PART NUMBER-60186**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	24054	1	BATTERY CABLE X 20" RED
2	28268	1	1/2" PIPE CAP STD BLK (NOT SHOWN)
3	28500	4	1/4" - 20 THRD. HEX NUT (NOT SHOWN)
4	28502	8	3/8" - 16 NC HEX NUT (NOT SHOWN)
5	28504	4	HEX NUT 1/3 - 13 NC
6	28645	4	1/4" SPLIT SPRING WASHER (NOT SHOWN)
7	28647	12	3/8" LOCK WASHER (NOT SHOWN)
8	28649	4	1/2" LOCK WASHER
9	28670	4	1/4" SAE FLAT WASHER (NOT SHOWN)
10	28674	4	1/2" SAE FLAT WASHER
11	28702	4	1/4" - 20 X 1" BOLT (NOT SHOWN)
12	28731	4	3/8"-16 THREAD X 1" BOLT (NOT SHOWN)
13	28735	4	3/8" - 16 THREAD X 2" BOLT (NOT SHOWN)
14	28762	4	1/2" - 13 X 1-1/2 BOLT
15	AX6-8FJ9	1	AX6-8FJ-8MP-6.75
16	29803	1	CONNECTOR 3/8 PIPE TO 1/2
17	31292	1	25 HP KOHLER ENG
18	32602	1	20" CRESCENT BATTERY CABLE (NOT SHOWN)
19	37038	1	BATTERY CABLE
20	60114	1	3.625 RAIN CAP
21	60116	1	CHAMBER ABSORPTION SILENCER
22	60132	1	PROT GUARD-POWER PAC
23	60151	1	POSTV DISPLCMNT ROTRY ARB
24	60152	1	COUPLING ELEMENT
25	60154	1	HUB

**POWER PACK ASSEMBLY-PART NUMBER-60186**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
26	60155	1	SURE-FLEX SLEEVE
27	60240	1	POWER PACK MNTG BASE
28	60167	2	ENGINE ALIGN SPACER
29	60191	.18	OIL ROTARY AIL BLW
30	60193	2	ENGINE MOUNT SPACER (NOT SHOWN)
31	60194	1	EXHAUST DEFLECTOR
32	60195	1	EXHAUST CLAMP
33	60196	1	EXHAUST GUARD KIT
34	60197	1	EXHAUST MUFFLER - FILTER SIDE
35	60210	4	GUSSET SUPT ANG SILENCER
36	60241	1	HOSE GUARD

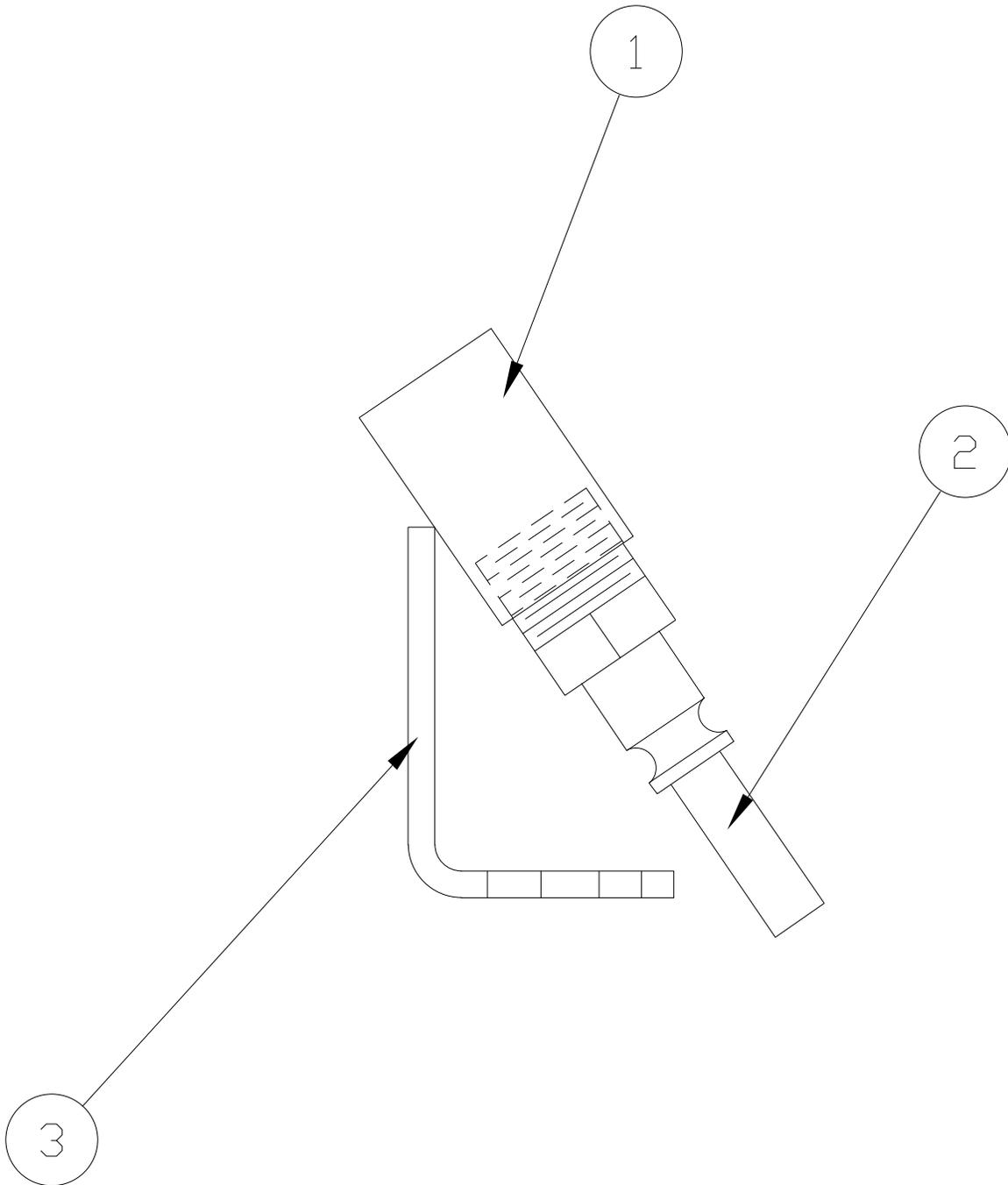
WAND ASSEMBLY-PART NUMBER-60199



**WAND ASSEMBLY-PART NUMBER-60199**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	XXXXX	X	N/A
2	XXXXX	X	N/A
3	60201	1	2" VACUUM PICK-UP TUBE
4	60263	1	3 ABS M THRD XFEX SLIP
5	60264	1	3 ABS FEM SLP J X 2 SLP
6	60265	1	3" BOX ELBOW ASSY
7	XXXXX	X	N/A
8	60238	1	CAM & GROOVE ASSY

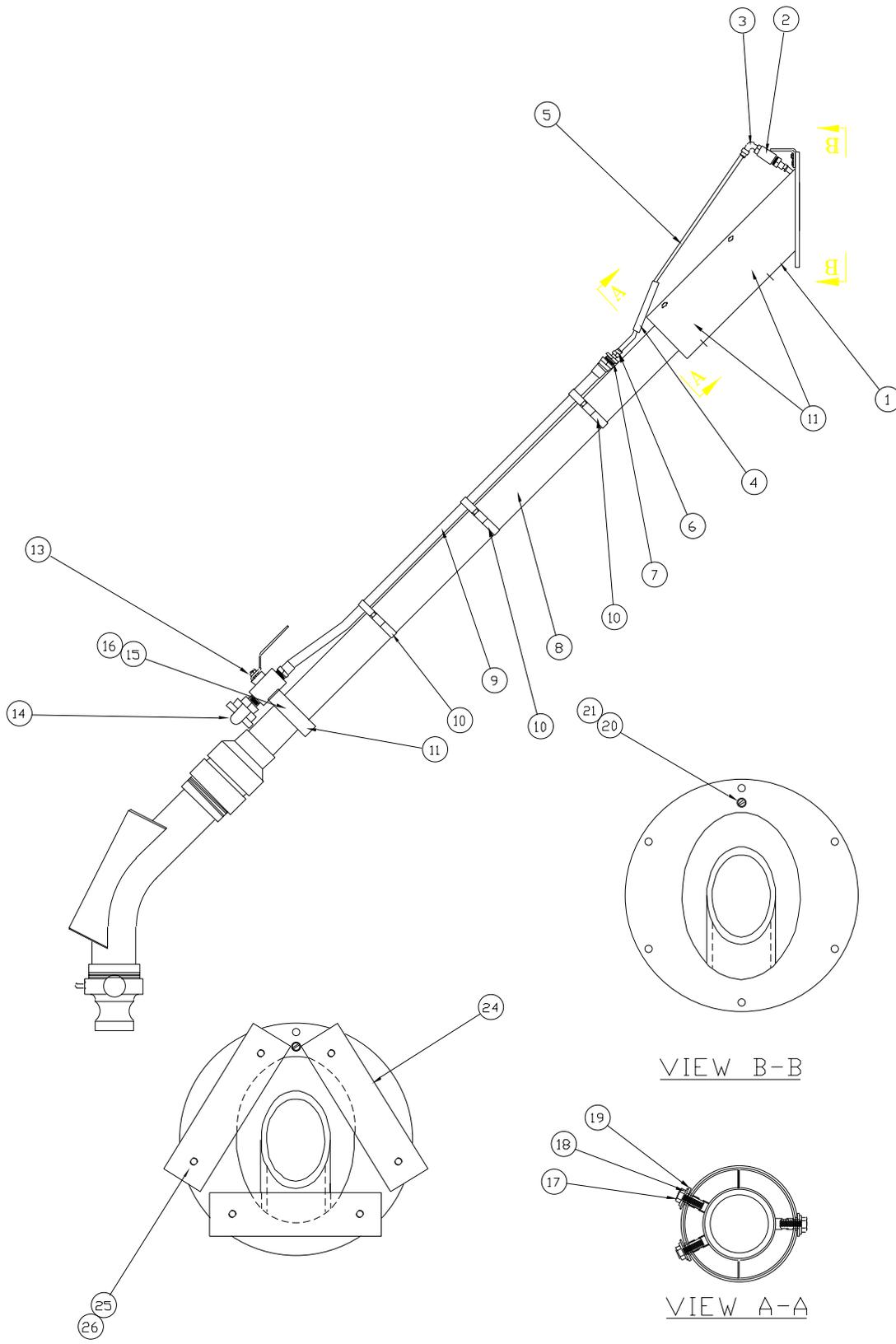
**WELD ASSEMBLY BRACKET FOR AIR INLET-PART NUMBER-60217**



**WELD ASSEMBLY BRACKET FOR AIR INLET-PART NUMBER-60217**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	28176	1	1/4" COUPLER
2	60231	1	1/4" NPT MALE CONN
3	60216	1	MOUNTING BRACKET

# VACUUM WAND ASSEMBLY COMPLETE-PART NUMBER-60226



**VACUUM WAND ASSEMBLY COMPLETE-PART NUMBER-60226**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	60211	1	BOTTOM SUCTION TUBE ASSY
2	60217	1	AIR INLET BRACKET
3	60233	1	1/4" 90° PLASTIC TUBE FIT
4	60236	1	1/4" X 5" PUSH-ON HOSE
5	60235	1	AIR LINE PLASTIC TUBE
6	60234	1	1/4" MALE PLATIC TUBE FIT
7	28344	1	1/4" X 1/2" BUSHING
8	60199	1	PLASTIC TUBE WAND ASSY
9	60212	1	COPPER TUBE ASSY
10	43438	3	HOSE CLAMP
11	60209	3	NYLON COLLAR
12	XXXXX	X	N/A
13	29214	1	1/2" BALL VALVE
14	42643	1	AIR HOSE FITTING
15	50509	1	HANDLE
16	28981	1	3/8"-16 SET SCREW
17	27920	3	3/8"-16 X 3/4" BOLT
18	28647	3	3/8" LOCK WASHER
19	28634	3	3/8" FLAT WASHER
20	28828	1	#10-24 X 3/4" FLAT HEAD
21	28829	1	#10-24 ESNA NUT
22	XXXXX	X	N/A
23	XXXXX	X	N/A
24	60288	3	PLASTIC FEET-WAND-TAPPED
25	28701	6	1/4-20 THRD X 3/4 BOLT
26	28670	6	1/4" LOCKWASHER

VACUUM WAND ASSEMBLY COMPLETE-PART NUMBER-60226



**VACUUM WAND ASSEMBLY COMPLETE-PART NUMBER-60226**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	60211	1	BOTTOM SUCTION TUBE ASSY
2	60288	1	PLASTIC FEET - WAND

**VACUUM WAND ASSEMBLY COMPLETE-PART NUMBER-60226  
SUCTION TUBE ASSEMBLY**



VACUUM WAND ASSEMBLY COMPLETE-PART NUMBER-60226





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