

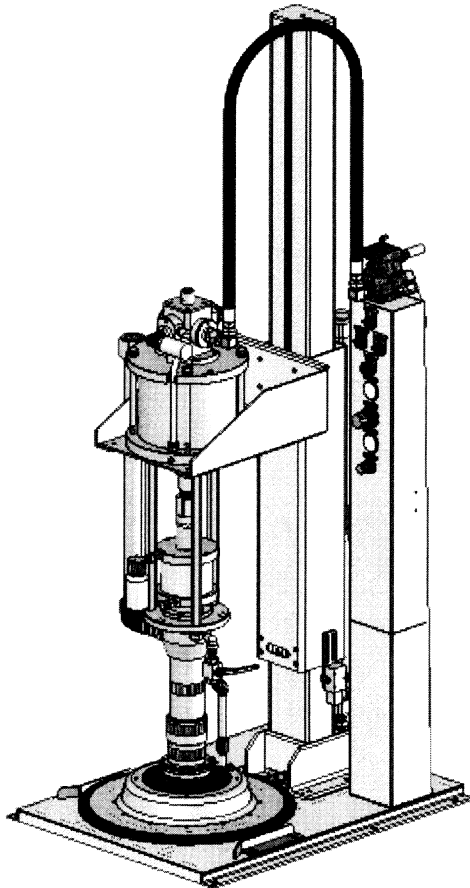
# Yamada

## OPERATION MANUAL

(DRUM TYPE INK SUPPLY PUMP)

Type: 200 25:1      Model No. 881032

Type: 250 20:1      Model No. 881033



### WARNING

For safe operation, be sure to read this OPERATION MANUAL thoroughly before using the pump to understand the "Warnings and Cautions" particularly. Be sure to keep this OPERATION MANUAL handy for future reference.

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# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

## Model 881032, 881033

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#### – Introduction

This OPERATION MANUAL describes the correct operation procedures and contains notes on usage, so that you can operate this pump effectively without any problems. Do not operate this pump before reading this manual. Be sure to read all of the warnings and cautions. Keep this manual handy for future reference.

If you have any questions on the operation of this pump or if the pump operates improperly, contact your dealer or our office (see back page of this manual for our contact information).

◇ If your manual is damaged or lost, additional copies may be purchased from your dealer, or from Yamada directly.

#### – For Safe Operation

This document describes the items that are necessary to operate this product safely, correctly, and efficiently. Before operating this product, read this manual thoroughly, in particular the “Warnings and Cautions” section at the beginning of the manual. Store this manual in an easy-to-access place so that the user may refer to it whenever necessary.

#### – Warnings and Cautions

For safe use of this product, be sure to note the following: In this document, warnings and cautions are indicated by symbols. These symbols are for those who will operate this product and for those who will be nearby, for safe operation and the prevention of personal injury and/or property damage. The following warning and caution symbols are described below.

If you ignore the warning described and operate the product in an improper manner, there is danger of serious bodily injury or death.



**WARNING**

If you ignore the caution described and operate the product in an improper manner, there is danger of personal injury or property damage.



**CAUTION**

# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

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### – Operating Cautions

For safe use of the pump, be sure to follow the warnings and cautions described below.



### CAUTION

#### [Usage - environment and conditions]

- For safe operation, read and understand all cautions described in this manual thoroughly before operating the pump.
- An operator or maintenance person has to read this manual thoroughly until he/she is familiar with it before operating or performing maintenance of the pump and/or related pump(s).
- If you happen to lose or damage this manual, order it from your dealer or our office.

#### [On installation and piping]

- If you detect any danger or any problem while operating the pump, stop operating the pump, and then recover it from the dangerous or error condition.
- Before maintenance operation, be sure to stop air from being supplied to the pump, and release the internal pressure (imposed on air and any other fluid) of the pump.
- Carefully install only pipes whose material and size are appropriate as instructed in the "Cautions" so that no air/fluid can leak and no pipe can be damaged.

#### [When you do not use the pump or store it]

- If the pump is left unused for a long time (a week or longer), remove all fluid from the pump, clean it, and release the internal pressure of the air pipes and fluid hoses.



### WARNING

#### [On operation]

- An operator or maintenance person has to read this manual thoroughly until he/she is familiar with it before operating or performing maintenance of the pump and/or related pump(s).

#### [On installation]

- Use six lift base fixing holes to fix the lift with the anchors securely. If you do not fix the lift in this manner, the lift may fall down and cause injury or damage to the pump itself.
- If you do not use the pump as instructed in this manual or in accordance to the specifications, it may cause injury or damage to the pump itself.

#### [On disassemble, maintenance and inspection]

- If you remodel the pump, it may cause injury or may cause the pump to malfunction. Never remodel the pump. It is very dangerous.
- If you perform the maintenance operation of the pump while air is being supplied to the pump, fluid may gush out along with air. Before maintenance operation, be sure to stop air supply, stop the pump and release the internal pressure (imposed on air and fluid) of the pump.
- Fluid released from the pump may be hazardous to humans. Do not discharge such fluid to the ground directly, but put fluids into a dedicated container.

#### [On lifetime of consumable parts]

- The lifetime of each consumable part varies depending on the type of fluid you use and the pump operation condition. If the regulated performance decreases greatly, replace the part(s) with a new one(s).

# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

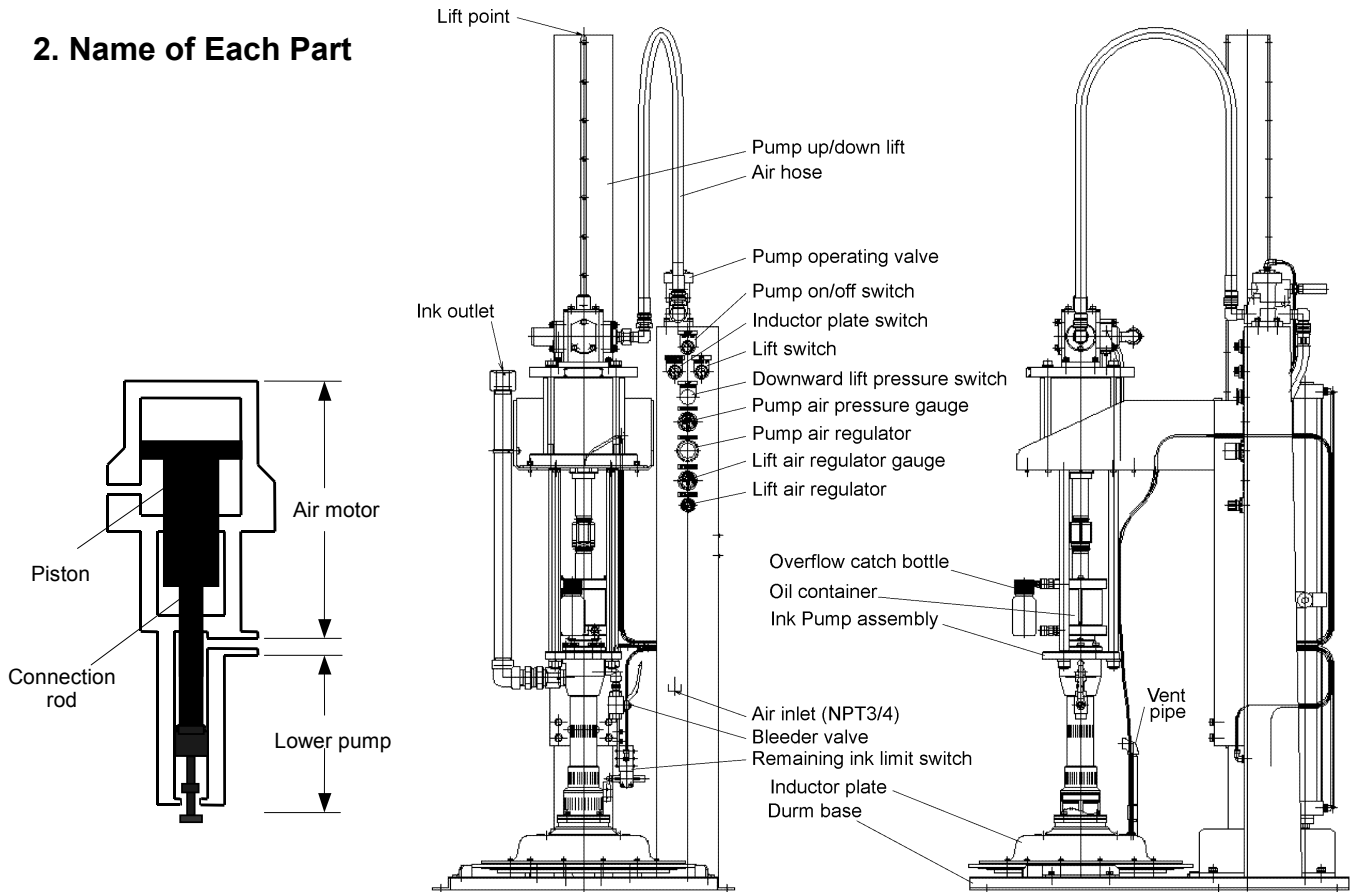
## Model 881032, 881033

### 1. Purpose

This pump is a device for a 200-kg drum and consists of the compressed-air-driven lift on which the air-powered pump is attached. It is optimal for flowing and supplying ink with compressed air.

This pump is designed to supply various places of a factory with ink through pipes and/or hoses. You can, therefore, obtain ink as desired by only operating the outlet valve at the workplace.

### 2. Name of Each Part



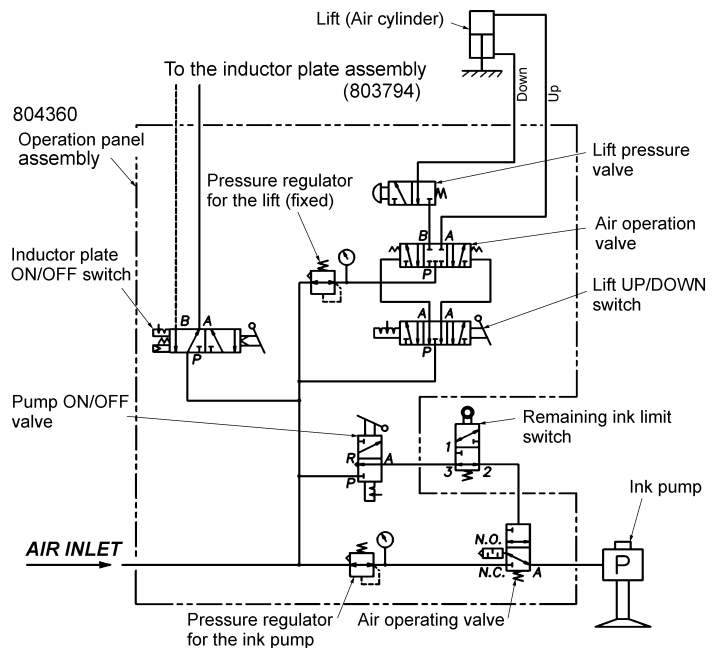
### 3. Operation Mechanism

The Yamada air-powered pump is a reciprocate type pump that is driven by the compressed air.

As shown in the figure to the top, this pump consists of the air motor section that drives the pump and the lower pump section that pumps up fluid.

When the compressed air is supplied from the compressor to the air motor, the air piston starts moving up and down depending on the operation of the air switching mechanism built into the air piston itself. Movement of the air piston is conveyed to the piston of the lower pump via the joint rod that connects the air piston of the air motor and that of the lower pump to generate a reciprocal movement: up and down.

Up/down movements of the lower pump cause fluid to be sucked up into the lower pump, and then released from the discharge port by the compressed air.



# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

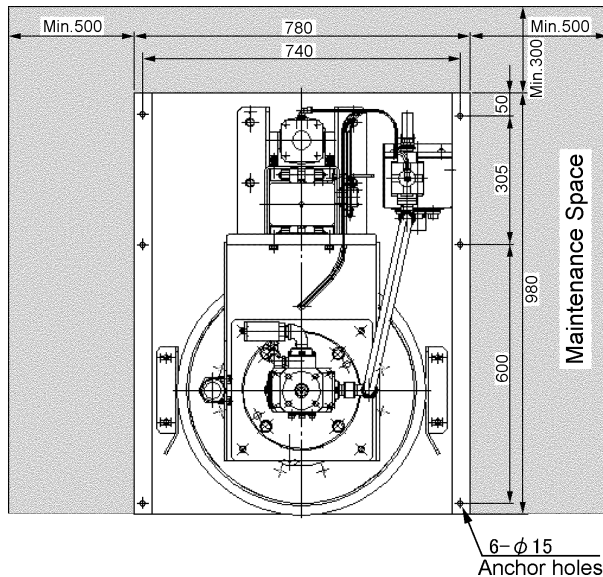
## Model 881032, 881033

### 4. Preparations before operating the pump

#### 4-1. Selecting the appropriate installation place

Install the machine at a place that satisfies the following requirements:

- Horizontal floor
- Height that allows the lift to extend to its upper limit: 2.8 m or higher
- 0.3 m or wider clearance behind the lift and 0.5 m or wider clearance on both sides of the lift to allow you to perform maintenance on the ink pump unit.



#### 4-2. Fixing the lift base

Fix six anchor holes of the lift base with anchor bolts whose outer diameter is 1/2 inch.

#### 4-3. Connecting to the ink delivery pipe

- Use a flexible pipe such as a hose to connect the ink outlet of the pump and the fixed pipe.
- Select a hose whose length allows the lift to move up and down without any problems.
- Select a hose that can withstand pressure and accommodate the highest ink discharge pressure of the ink pump.

**CAUTION**

- Connect the hose to the ink supply pipe so that the hose cannot be bent excessively when the lift moves up or down to the corresponding limit. Otherwise, the hose may be damaged.

#### 4-4. Connecting to the air pipe

- Be sure to attach a set of three parts (filter, regulator and lubricator) onto the pipe that supplies air to the pump.  
When you install two or more pumps, be sure to attach this set of parts on each pump.  
(Install this set for each air line go to the each pipe from the main air line.)

- Follow the instruction manual of filter, regulator and lubricator.

**NOTE:** Use ISO grade 32 turbine oil (additive-free) for the lubricator.

- An auxiliary device for supplying air such as a set of the parts described above should satisfy the following specification:

For Type 200 25:1 1500 L/min (ANR)

For Type 250 20:1 3000 L/min (ANR)

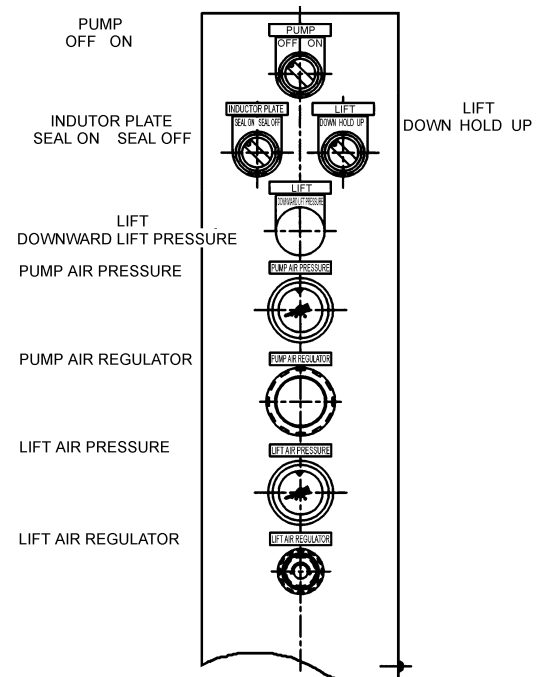
- Connect an air hose to the air connector (NPT3/4 female) located on the rear of the "Operation panel."

**CAUTION**

- Attach a valve to the air supply for safety maintenance/inspection.

#### 4-5. Adjusting the air pressure that operates the lift

Pull the knob of the "Lift air regulator" and adjust the pressure within the range from 60 to 75 psi (0.41 to 0.52 MPa) to lock the knob.

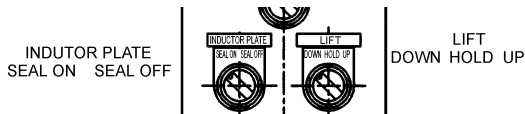


# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

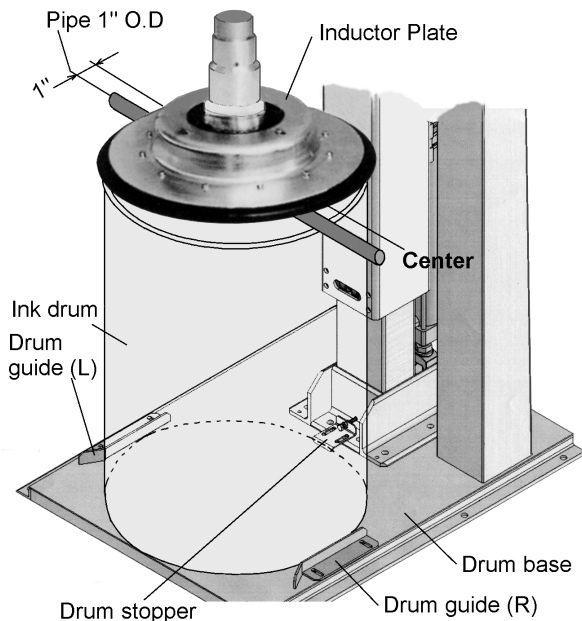
## Model 881032, 881033

### 4- 6. Positioning the drum

- If you set a drum for the first time, you have to position it correctly. To position it, use a round bar or pipe whose diameter is 30 to 40 mm. The length of such a bar or pipe should be approximately 1 m.
  - To position a drum, use a light-weighted empty drum you can handle easily instead of a heavy drum containing ink.
- 1) Set the "LIFT" switch to "UP" to move up the lift.



- 2) Set the "INDUCTOR PLATE" switch to "SEAL OFF."
- 3) Check the positioning parts located at three positions of the drum base, and loosen the bolts to widen these parts in advance.
- 4) Feed an empty drum to almost the center of the drum base.
- 5) Bridge a round bar over the position approximately 1 inch back from the center of the drum.



- 6) Set the "LIFT" switch to "DOWN" to lay down the inductor plate on the round bar.
- 7) Position the drum until the opening lines up perfectly with the inductor plate wiper.

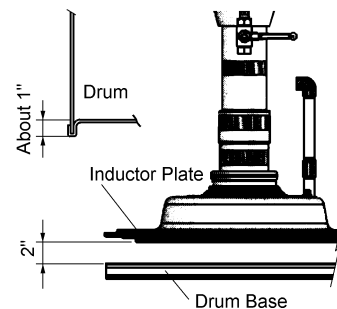
- 8) Fix the three positioning parts tightly at the position where the entire edge of the drum is aligned with the outer rubber. (If you mark these positions with a felt-tipped pen (or similar pen), it allow for an easy reset of the drum position should the positioning parts become misaligned.)
- 9) Move up the lift and remove the empty drum.
- 10) You have positioned the drum here. Set a drum containing ink by aligning it with the three positioning parts. However, if you are to set a drum whose size is different from that of the empty drum you used, follow this procedure again to readjust the drum position.

**⚠ WARNING**

- Check to see if the base is fixed with anchors before operating the lift. You may be injured if you touch the lift while it is moving. Do not touch any movable part of the lift.

### 4-7. Adjusting the position of the lower limit switch

- a) Measure the dimension of the false bottom of a drum and add this dimension to the gap between the bottom side of the inductor plate and the drum base, that is, calculate "2 inches" to set the limit switch position.



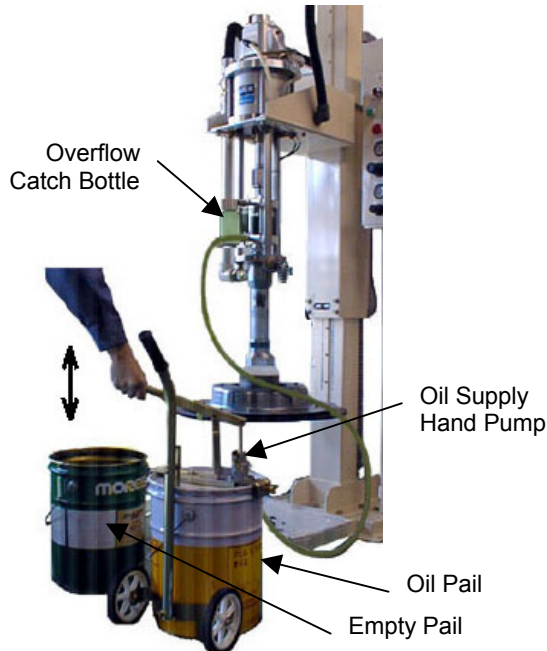
- b) To adjust the position in another way, set the inductor plate in the "SEAL OFF" condition. Lower the pump all the way down until the inductor plate contacts the inside bottom of the drum. Loosen the bolts and move the low point sensor valve up. Raise the pump one inch and adjust the lower sensor position. Turn the pump on then move the sensor down until it engages with the block. At this point, the pump shuts off. Tighten the bolts.

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## 4- 8. Filling the oil container

The pump is equipped with the fluid containers that prevent any fluid from being stuck to the plunger rod or gland packing. Follow the procedure below to fill the pump with oil appropriate for ink.

- A pail of off-the-shelf general-purpose spindle oil (additive-free) ISO grade 10) is required.
- Attach the dedicated oil supply hand pump onto the pail.
- Connect the mouthpiece of the hose to the lower coupler of the solvent cup, and move the handle of the oil supply hand pump up and down to supply oil to the container until approximately half of the container is filled with oil.



## CAUTION

- When you use the ink supply pump for a long time, ink overflows mainly because the gland packing is worn out and then ink has accumulated in the collection container. This phenomenon indicates when to replace the gland packing with a new one. Check to see whether ink is accumulating in the catch bottle periodically.

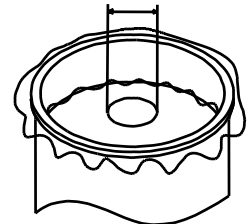
## 4-9. Preparation of an ink drum

- Check to make sure that there are no dents on the exterior of the ink drum. You must not use any drum that has a dent.
- If the ink drum is not covered with a vinyl sheet, cover it with a vinyl sheet (approximately 1.2 m × 1.2 m, thickness: 0.07 to 0.08 mm) to make ink stick to all areas of the inside of the drum.
- Make an opening whose diameter is approximately 25 cm in the center of the vinyl sheet, and remove the cut vinyl portion.

### NOTE:

- If you do not smooth out wrinkles of a vinyl sheet completely, it may block the intake port when ink is supplied and may cause the pump to idle.

25 cm dia.



## WARNING

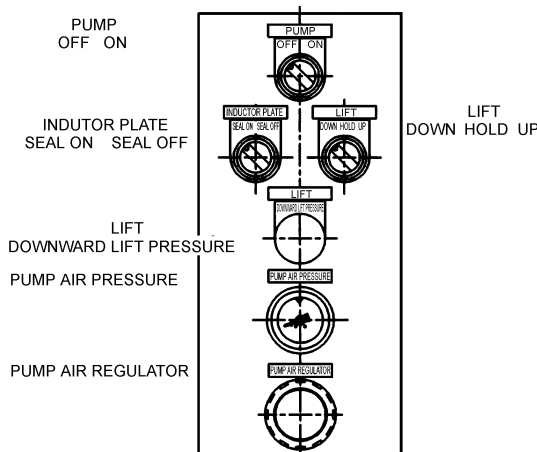
- All packing used for the pump is NBR type. Do not use any solvent that corrodes NBR type packing.
- Be sure to attach the overflow catch bottle to the pump. When packing is worn out and ink leaks, the internal pressure of the oil container increases. This may damage the container if you do not attach this bottle to the pump.
- Do not put any oil into the overflow catch bottle before attaching it to the pump. When ink leaks due to worn-out packing, ink cannot be released in the normal way and may gush out from the hole of the container top.

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### 4- 10. Setting the ink drum

- Set the "LIFT" switch to "UP," and move up the lift to its upper limit.
- Push the ink drum along the drum guide until it touches the rear drum stopper.
- Pull out the plastic sheet drooping from the top side of the drum so that it cannot be wound into the inductor plate.
- Set the "INDUCTOR PALTE" switch to "SEAL OFF" and lower the lift. Immediately after the inductor plate touches ink (in two seconds), set this switch to "SEAL ON."
- Arrange the plastic sheet spread over the edge of the drum so that it can wrap the inductor plate.

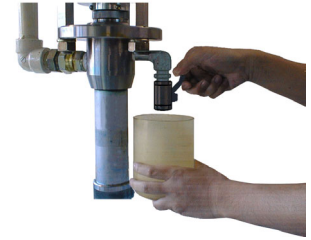


### ⚠ CAUTION

- When attaching the inductor plate onto the drum, be careful not to catch your hand or finger between the inductor plate and the drum. If your hand or finger is caught between these parts, it may be injured.
- If you cannot set the inductor plate switch same time as contact ink surface, or if you forget to set this switch, ink may overflow onto the inductor plate.

### 4-11. Sucking ink and removing air

- Close the valve of the delivery pipe and open the bleeder valve of the suction pump.
- Place a container that saves ink discharged by the bleeder valve under the bleeder valve.
- Since ink spatters when discharged if air is mixed into ink, use a deep container, and place it almost directly under the bleeder valve.
- Press the "DOWNWARD LIFT PRESSURE" push-button for two to three seconds.
- Set the "PUMP ON/OFF" switch to "ON" and gradually increase a value of the "PUMP AIR REGULATOR" to start operating the pump. Then, adjust the operating speed within the range from 8 to 10 CPM.
- Keep operating the pump in this condition until ink starts being discharged from the bleeder valve.
- If no ink is discharged from the bleeder valve even after a while, push the "DONWARD LIFT PRESSURE" push-button for two to three seconds again.
- When ink starts being discharged, set the "PUMP ON/OFF" switch to "OFF," and close the bleeder valve.



### ⚠ WARNING

- Do not touch any movable part of the pump nor let any part of your body come in contact with it while the pump is working.
- When ink is discharged from the bleeder valve, the compressed air may gush out as well. Be careful not to cause any ink to get in your eyes.
- Do not block the discharge port of the bleeder valve with your hand or finger.



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### 4- 12. Adjusting the air pressure that operates the pump

- Set the "PUMP AIR REGULATOR" to the regulated operation air pressure, and push the knob to lock it.
- Check to see how the pump plunger moves up and down. If the pump plunger moves down clearly faster than it moves up, it means that the suction capability of the pump cannot handle this condition. So, decrease the operation air pressure to adjust the pump so that it can operate normally.

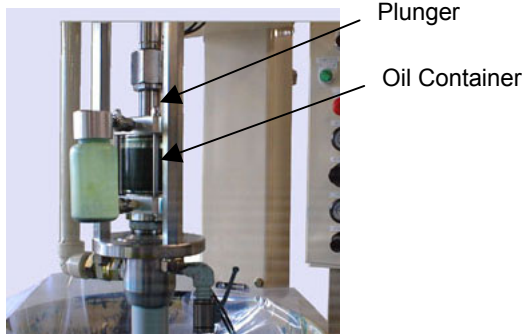
#### NOTES

- If the plunger moves down faster than it moves up, the pump cannot discharge sufficient ink, and but the life of the pump is shortened if you continue operating the pump under this condition.
- The range of the normal operational air pressure changes depending on the viscosity and temperature of ink.

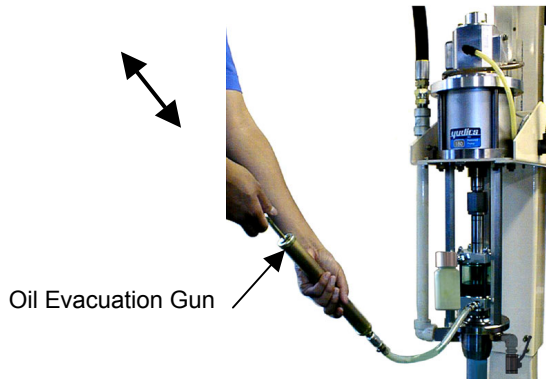
 <b>CAUTION</b>
<ul style="list-style-type: none"><li>- The maximum available pressure of the pump is 0.7 MPa. If you try to set the higher pressure, the pump may be damaged or it may cause injury or damage the surrounding. Never increase the pressure to 0.7 MPa or higher.</li><li>- Operate the pump with the lowest possible pressure (air pressure). This reduces meaningless movements and prevents each part from being worn out.</li></ul>


### 4-13. Cleaning the inside of the oil container and replacing solvent

The plunger sliding section and oil container of the pump are sealed with packing. When the plunger slides up and down repeatedly, solvent is accumulated at the rim of the plunger. Clean the plunger periodically.



- Connect the hose mouthpiece of the dedicated oil evacuation gun to the lower coupler of the oil container, and suck oil by pulling the handle of the solvent removing device to discard it into the waste oil tank.
- Follow Section 8 "Filling the oil container" to pour new oil from the upper coupler of the oil container into the container until the container is filled half-full with oil.
- When you move the handle of the oil removing device connected to the lower coupler back and forth, oil poured into the container is stirred, and it cleans the inside of the container. When you replace the used oil with new oil and repeatedly stir the container several times, the container is cleaned.
- Finally, pour new oil into the container until approximately half of the container is filled with oil.



 <b>CAUTION</b>
<ul style="list-style-type: none"><li>- To clean the plunger, stop the pump at its upper movable limit. If you try to clean the plunger while it is moving, your finger may be caught between the plunger and the oil container, and could result in an injury.</li></ul>

### 4-14. Maintenance and inspection

- As part of your the routine inspection, check to see how much oil has accumulated in the container due to leakage. Replace the oil with new oil according to the amount of the increased liquid.
- Further tighten each connection of the pump:
  - (1) During the regular maintenance operation
  - (2) If air leak or ink leak is detected during routine inspection.
- Since packing and other similar parts of the pump are worn out depending on how frequently they are used, check them regularly and replace them with new ones when necessary.

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### 5. Troubleshooting

State	Cause	Action to be taken
Pump does not run	Air is not supplied.	Operate the compressor.
	The supply pressure is low.	Set the air pressure to 30 psi or more.
	The discharge flow valve is not open.	Open the ink delivery valve.
	Icing inside exhaust port.	Install air line coalescing filter to remove moisture.
Pump does not prime ink during start up.	The supply air pressure is too high.	Until pump discharge ink from bleeder valve, run pump 8 – 10 cycles per minute.
The pump does not deliver ink.	If the plunger operates faster during the moving-up process, the seat of the piston valve malfunctions (the seat section is worn out or a foreign substance is mixed into the valve), or the packing or similar part is damaged.	Replace the malfunctioning part with a new one, or remove the foreign substance.
	If the plunger operates faster during the moving-down process, the seat of the foot valve malfunctions (the seat section is worn out or a foreign substance is mixed into the valve), the packing or similar part is damaged, or the shovel rod is bent.	Replace the malfunctioning part with a new one, or remove the foreign substance.
	If the plunger operates faster during the moving-down process, the pump operates at a speed too high for the lower pump to suck ink (the lower pump is evacuated).	Decrease the air pressure so that this phenomenon cannot occur (under this condition, the air pressure you set at this point is the upper limit the pump can operate at normally).
	The screw or other part that fix the air motor and the plunger of the lower pump is loosened, and then removed completely (a part located inside the lower pump may be damaged).	After checking the inside of the lower pump, replace the damaged part with a new one, and tighten the removed screw(s) securely.
The pump does not stop.	Ink leakage from the ink delivery pipe connection.	Tighten the screw fixed at the malfunctioning section further or replace the damaged part with a new one.
	Ink leakage from the parts-connecting section of the suction pump assembly.	
Air leakage from the air motor	The screws that connects parts are loosened, or the O-ring or packing or similar part is damaged.	Tighten the screw fixed at the malfunctioning section further or replace the damaged part with a new one.
Air leakage from the silencer during stop.	A foreign substance is caught between the block inside the switching valve (804355 or 804358) and the sliding section of the switching valve seat (705688). the seat is worn out, or the gasket (772331) is damaged.	Replace the damaged part with a new one, or remove the foreign substance.
Ink leakage from the suction pump	The screws that connect parts is are loosened, or the O-ring, back-up ring, packing or other similar part is damaged.	Tighten the screw fixed at the malfunctioning section further, or replace the damaged part with a new one dissolve.
Air entrained in ink	The screws that connect parts of the lower pump are loosened, or the O-ring, back-up ring or gasket is damaged.	Tighten the screw fixed at the malfunctioning section further, or replace the damaged part with a new one.
The oil container swells (is dissolved)	Without Overflow catch bottle.	Put in Overflow catch bottle, when you operate pump.
	Solvent attacks acrylic resin.	Use spindle oil (ISO viscosity grade 10).
The amount of liquid increases rapidly in the oil container.	The gland seal is worn out or damaged.	Replace the gland seal with a new one.

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### 6. Specifications

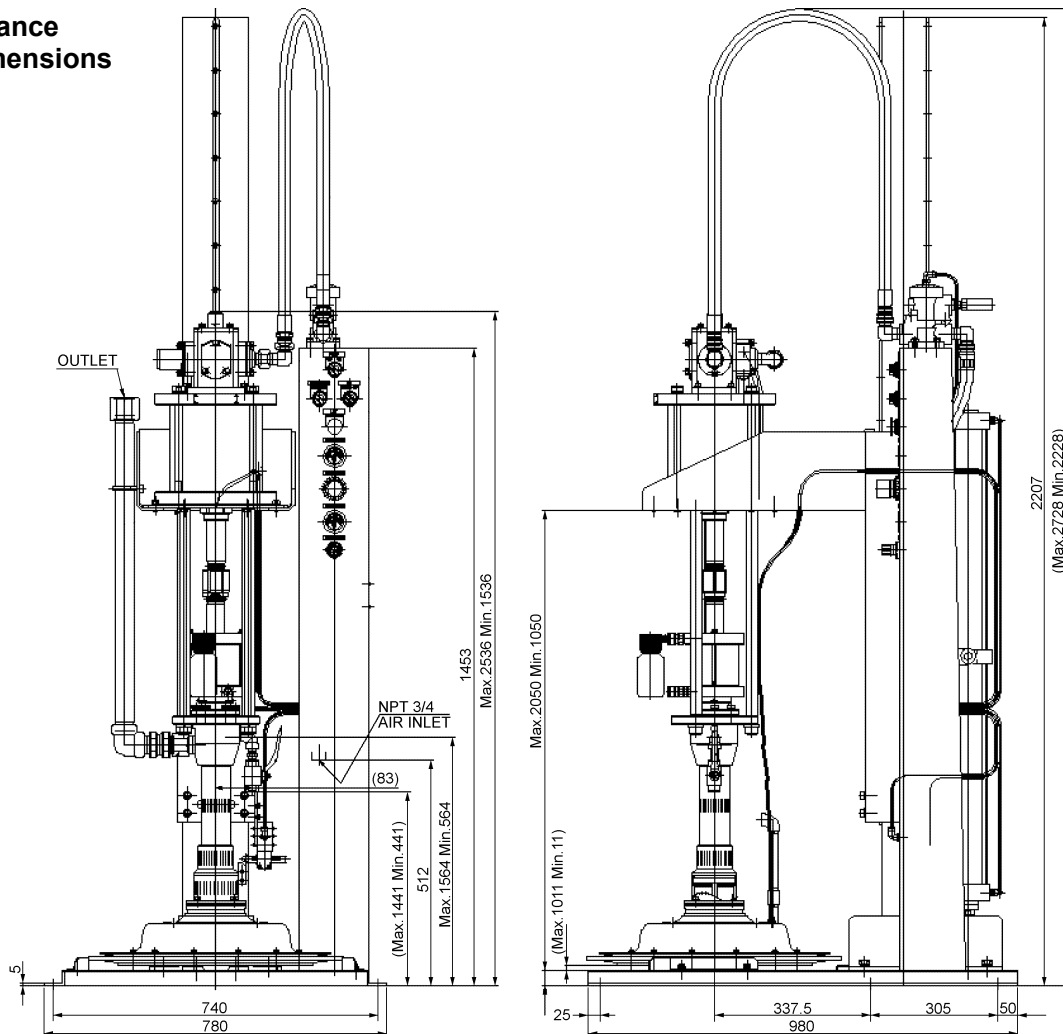
Type (Model)		200 (881032)	250 (881033)
Pump Model		853767	853768
Ratio		25:1	20:1
Out Let		NPT 1-1/4	NPT 1-1/2
Air Inlet		NPT 3/4	
Normal Air Pressure		30 ~ 100 PSI (0.2 to 0.7 MPa)	
Operating Noise		Max. 83 dB (A)	
Operating Temperature Range	Ambient Temp.	32 to 158°F (0 to 70 °C)	
	Fluid Temp.	32 to 176°F (0 to 80 °C)	
Discharge Volume / Cycle *1		320 mL	650 mL
Maximum Discharge	Operating Air Pressure	4.7 GPM (USA)	9.8 GPM (USA)
	44 to 73 PSI	38.8 to 53.0 CFM	67.1 to 116.5 CFM
Air Consumption		552 lbs (250 kg)	602 lbs (273 kg)
Weight			

\* 1: When to replace a part changes depending on its use conditions.

### Materials

Switching Valve Portion	Carbon steel, Aluminum alloy	U-Packing	PUR
Air Motor Portion	Carbon steel, Aluminum alloy	Back up Ring	PTFE
Solvent Cup Portion	Carbon steel, Aluminum alloy and Acrylic resin	Wear Ring	PTFE
Fluid Contact Portion	Carbon steel, Aluminum alloy and Bronze	Throat Bearing	PTFE
O-Ring	NBR		

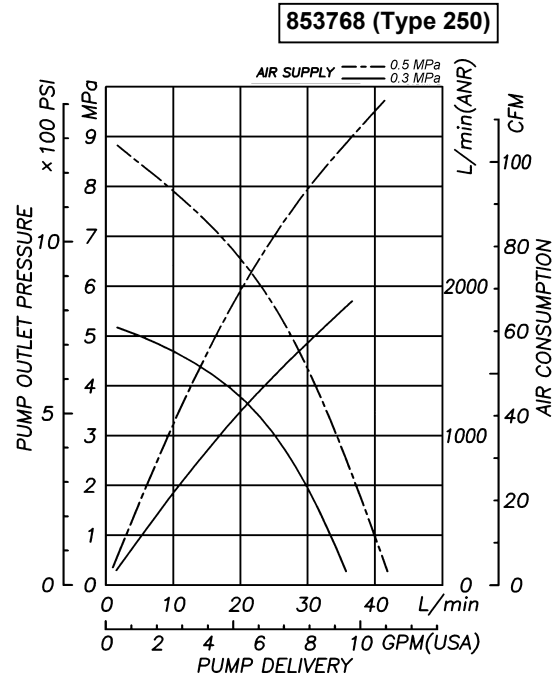
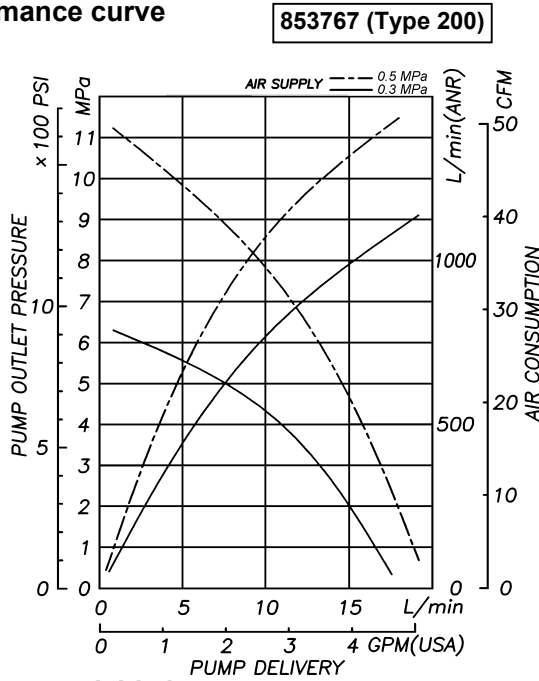
### Appearance and dimensions



# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

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### Performance curve



### Life of expendable items

The explanations of expendable items and the recommended date to replace them are shown below:

Parts number		Parts name	Qty	Guideline of parts life
853767 (Type 200)	853768 (Type 250)			
<b>804355</b>	<b>804358</b>	<b>SWITCHING VALVE</b>		
	705688	Switching Valve Seat	1 p / set	10 million cycles
	705693	Block	1 p / set	10 million cycles
	706612	Spring	1 p / set	10 million cycles
	630313	Ball	1 p / set	10 million cycles
	640015	O-Ring	2 p / set	5 million cycles
<b>804354</b>	<b>804357</b>	<b>AIR MOTOR</b>		
	640013	O-Ring	1 p / set	5 million cycles
	640088	O-Ring	1 p / set	5 million cycles
	640041	O-Ring	1 p / set	5 million cycles
<b>804356</b>	<b>804359</b>	<b>LOWER PUMP</b>		
	772694	Back up Ring	1 p / set	5 million cycles
	772695	Back up Ring	2 p / set	5 million cycles
	772696	Wear Ring	1 p / set	5 million cycles
	685456	Packing	1 p / set	5 million cycles
	685458	U-Packing	1 p / set	5 million cycles
	685459	U-Packing	2 p / set	5 million cycles
	640009	O-Ring	1 p / set	5 million cycles
	643669	Back up Ring	2 p / set	5 million cycles

**NOTE 1:** When to replace parts is a guideline at ordinary temperatures, so is not guaranteed. The life of each part changes depending on its use conditions.

**----- RETAIN THIS INFORMATION FOR FUTURE REFERENCE-----**

For accurate and speedy shipment of parts, be sure to order the right parts for your model to distributor. Indicate the part numbers, descriptions, and quantities.

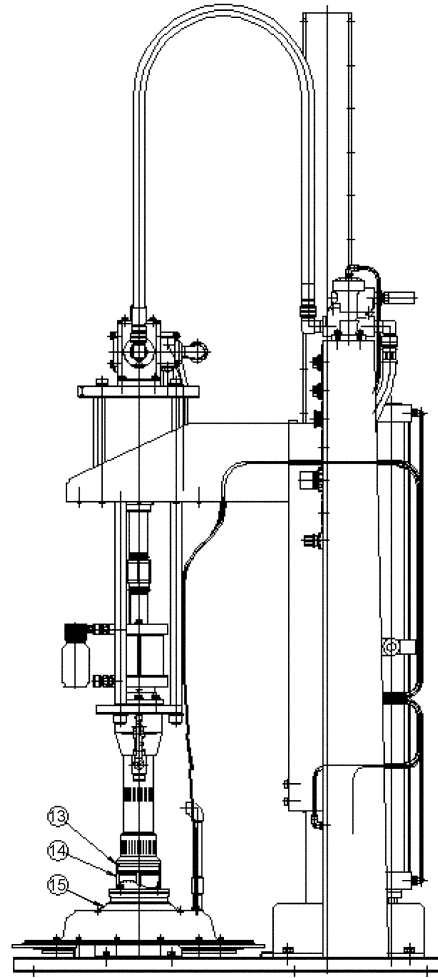
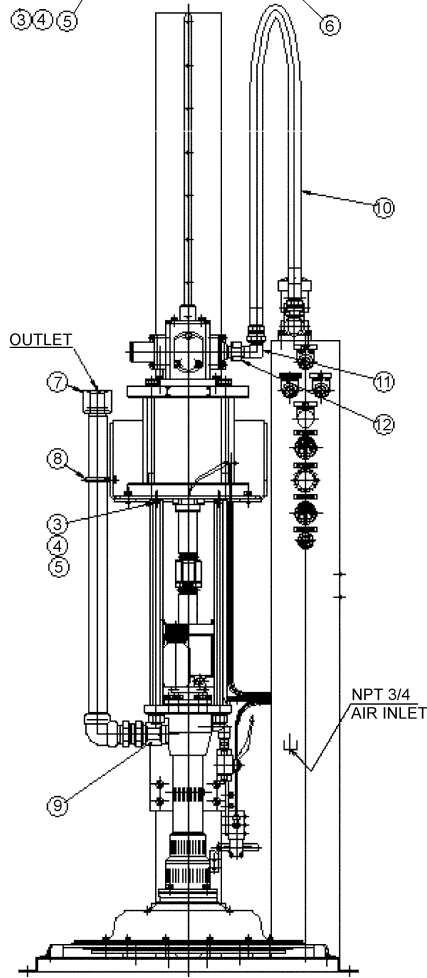
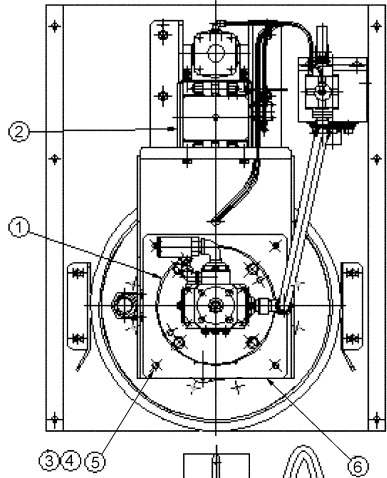
# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

## Model 881032, 881033

### 7.Exploded View and Parts List

**881032 TYPE 200 25:1**  
**881033 TYPE 250 20:1**

801032, 801033 INK PUMP ASSEMBLY Refer to document number "INK-015U".



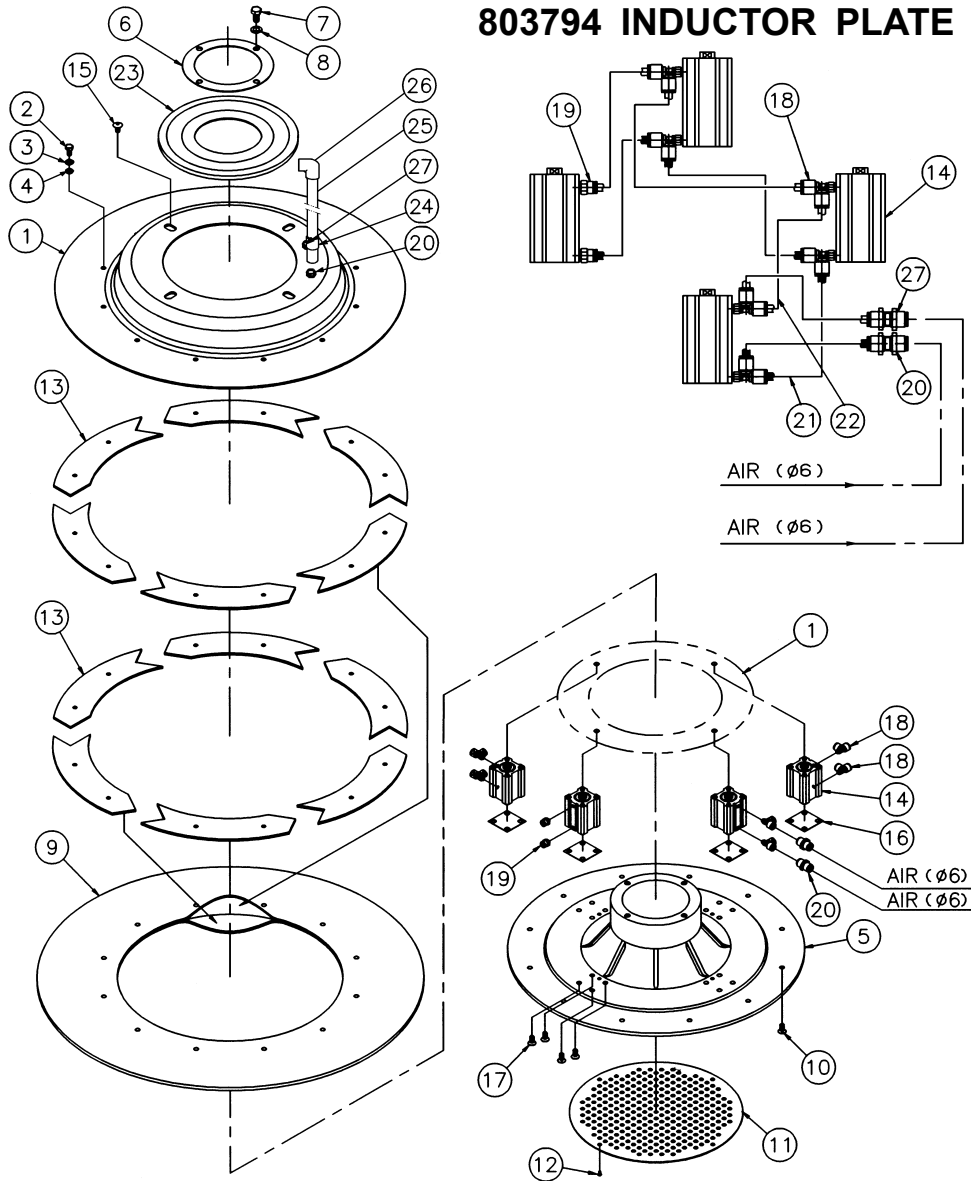
#### PARTS LIST

No.	Part No.		Description	Qty.	No.	Part No.		Description	Qty.
	801032	801033				801032	801033		
1	803767	853768	Ink pump assembly	1	9	714991	715033	Nipple	1
2	853773	←	Drum lift assembly	1	10	695782	←	Hose	1
3	611147	←	Bolt	8	11	680088	←	Elbow	1
4	631013	←	Washer	8	12	715058	←	Bushing	1
5	631420	←	Spring lock washer	8	13	640143	←	O-Ring	1
6	714990	714851	Plate	1	14	714989	←	Suction adapter	1
7	804352	804353	Piping assembly	1	15	803794	←	Inductor plate assembly	1
8	684594	685059	U-Bolt	1					

# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

## Model 881032, 881033

### 803794 INDUCTOR PLATE ASSEMBLY

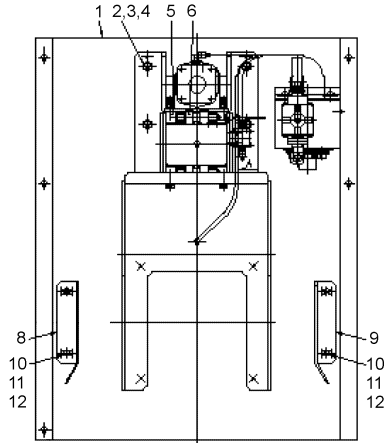


#### PARTS LIST

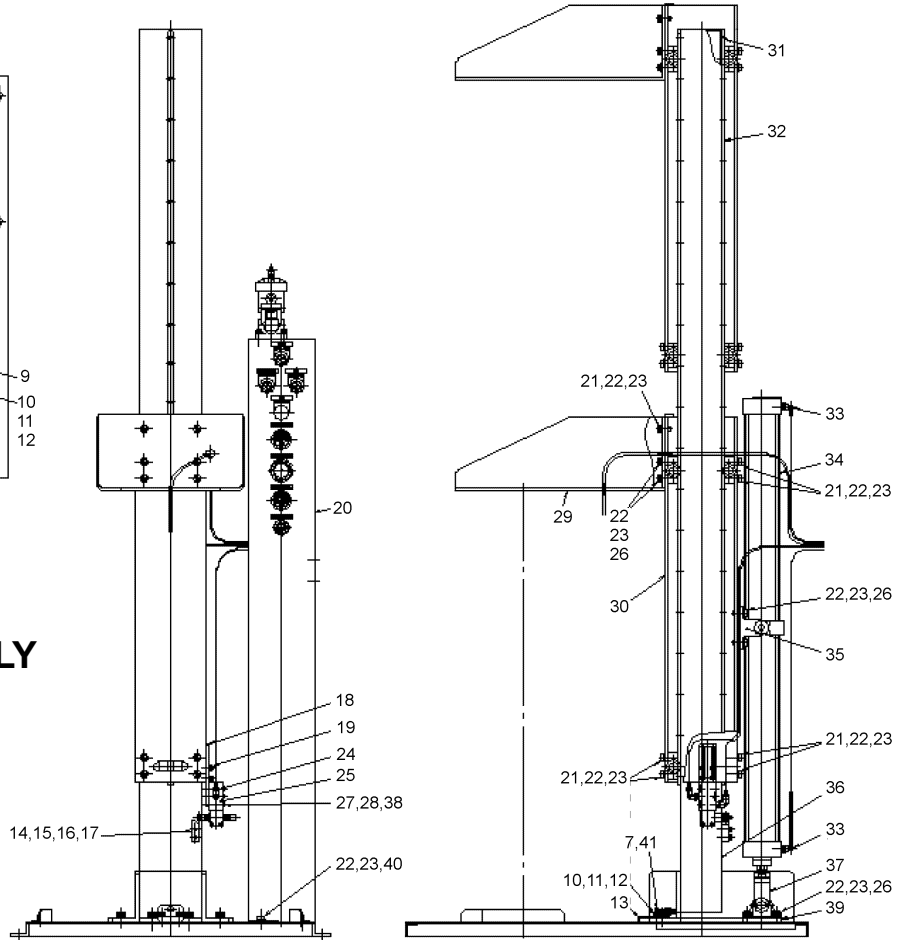
No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	832619	Cover plate assembly	1	15	603033	Screw	4
2	611098	Bolt	12	16	772151	Packing	4
3	631418	Spring lock washer	12	17	602760	Screw	16
4	631012	Washer	12	18	684534	Tees fitting	6
5	713587	Follow plate	1	19	684535	Fitting	2
6	772150	Gasket	1	20	685366	Fitting (blue)	1
7	611148	Bolt	4	21	570072	Tube (black)	1
8	631420	Spring lock washer	4	22	570090	Tube (white)	1
9	772277	Wiper	1	23	772624	Cover	1
10	602759	Screw	12	24	634138	Socket	1
11	714832	Filter	1	25	714870	Long nipple	1
12	602746	Screw	4	26	634003	Elbow	1
13	714833	Plate	12	27	685368	Fitting	1
14	684533	Air cylinder	4				

# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

## Model 881032, 881033



### 853773 DRUM LIFT ASSEMBLY



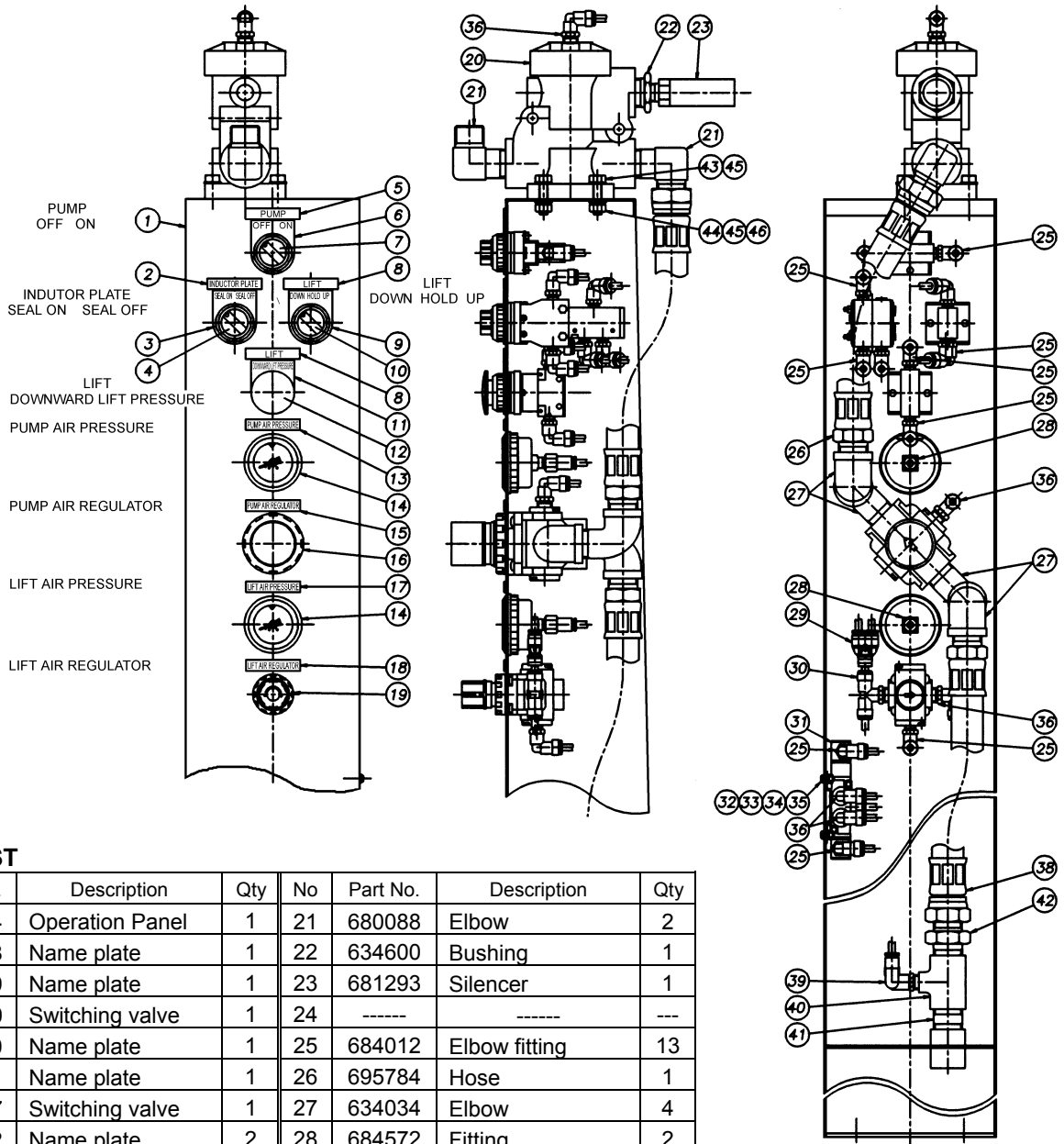
#### PARTS LIST

No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	832670	Drum Base Assembly	1	22	631421	Spring lock Washer	30
2	611197	Bolt	8	23	631014	Washer	30
3	631422	Spring lock Washer	8	24	682649	Elbow Fitting	2
4	631015	Washer	8	25	685465	Switching Valve	1
5	832246	Bearing Assembly	8	26	611175	Bolt	12
6	713610	Roller	4	27	631415	Spring lock Washer	3
7	685500	Bolt	1	28	631009	Washer	3
8	715057	Drum Guide-L	1	29	832671	Pump Base Assembly	1
9	715056	Drum Guide-R	1	30	715061	Roller Base Assembly	1
10	611147	Bolt	6	31	602757	Screw	38
11	631420	Spring lock Washer	6	32	713615	Rail	2
12	631013	Washer	6	33	684550	Elbow Fitting	2
13	832673	Stopper Assembly	1	34	685466	Air Cylinder	1
14	715059	LS Dog	1	35	684552	Trunnion Holder	2
15	611103	Bolt	2	36	832672	Lift Body Assembly	1
16	631418	Spring lock Washer	2	37	684553	Knuckle Joint	1
17	631012	Washer	2	38	602268	Screw	3
18	715060	LS Bracket	1	39	684554	Crevice	1
19	682262	Bolt	4	40	611171	Bolt	4
20	804360	Operation Panel Assembly	1	41	627012	Nut	1
21	611173	Bolt	14				

# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

## Model 881032, 881033

### 804360 OPERATION PANEL ASSEMBLY



#### PARTS LIST

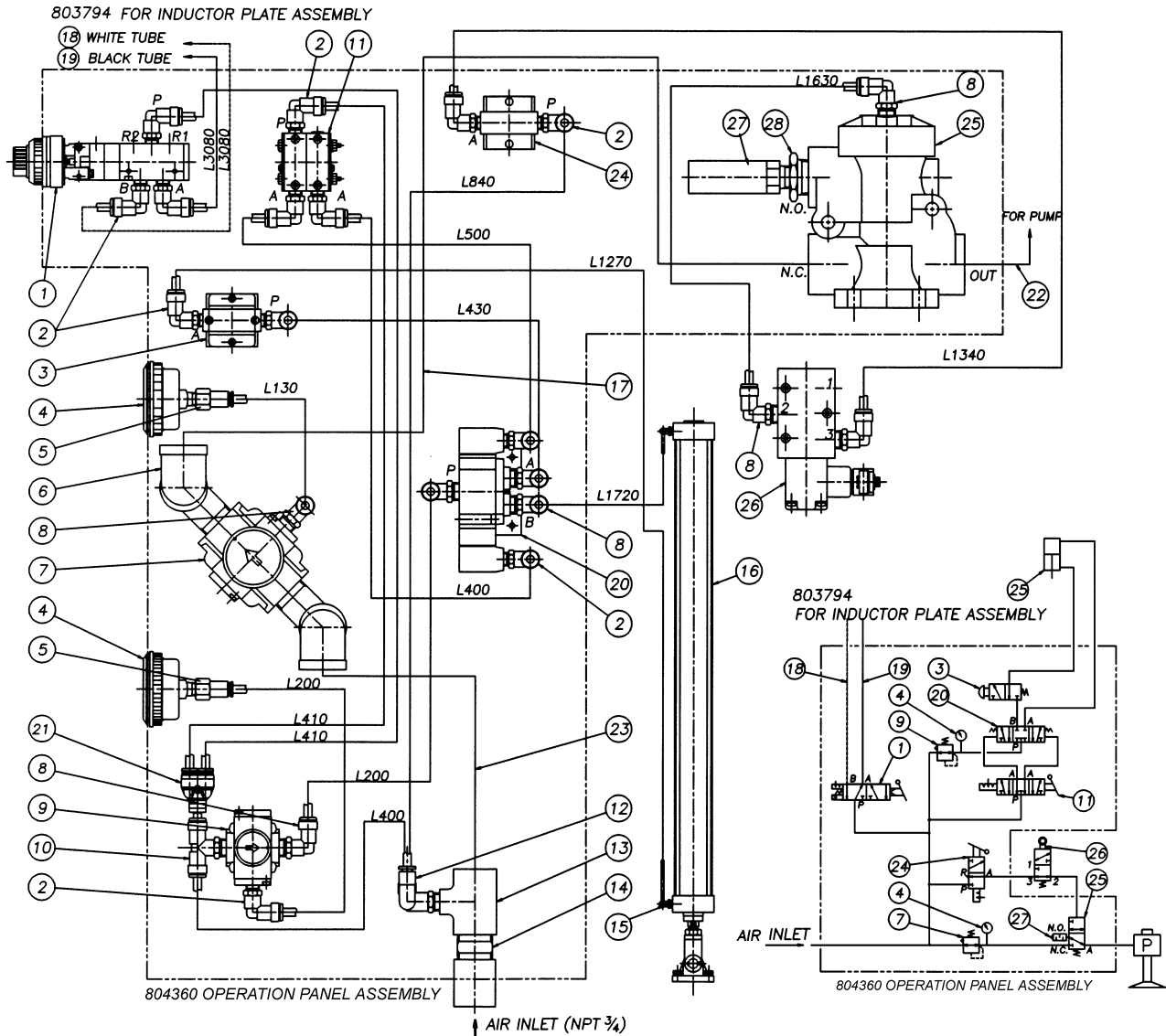
No	Part No.	Description	Qty	No	Part No.	Description	Qty
1	832674	Operation Panel	1	21	680088	Elbow	2
2	791088	Name plate	1	22	634600	Bushing	1
3	791089	Name plate	1	23	681293	Silencer	1
4	684570	Switching valve	1	24	-----	-----	---
5	791090	Name plate	1	25	684012	Elbow fitting	13
6	791091	Name plate	1	26	695784	Hose	1
7	685467	Switching valve	1	27	634034	Elbow	4
8	791092	Name plate	2	28	684572	Fitting	2
9	791093	Name plate	1	29	685408	Fitting	1
10	682577	Switching valve	1	30	682652	Fitting	1
11	791094	Name plate	1	31	685356	Air operate valve	1
12	684714	Switching valve	1	32	602259	Screw	2
13	791095	Name plate	1	33	631009	Washer	4
14	685468	Pressure gauge	2	34	631415	Spring washer	2
15	791096	Name plate	1	35	627007	Nut	2
16	685469	Regulator	1	36	682649	Elbow fitting	6
17	791097	Name plate	1	37	-----	-----	---
18	791098	Name plate	1	38	695783	Hose	1
19	682646	Regulator	1	39	684151	Elbow fitting	1
20	685470	Air operating valve	1	40	634425	Tee	1
				No	Part No.	Description	Qty
				41	634805	Nipple	1
				42	680141	Nipple	1
				43	611151	Bolt	4
				44	631420	Spring washer	4
				45	631013	Washer	8
				46	627012	Nut	4
				47	570090	Tube (W) 6 O.D.	1
				48	570072	Tube (B) 6 O.D.	1



# DRUM TYPE INK SUPPLY PUMP (TYPE 200, 250)

## Model 881032, 881033

### 804361 TUBING SYSTEM



#### PARTS LIST

No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	684570	Switching valve	1	15	684550	Elbow fitting	2
2	684012	Elbow fitting	13	16	685466	Air cylinder	1
3	684714	Switching valve	1	17	685784	Hose	1
4	685468	Pressure gauge	2	18	570090	Tube (white)	1
5	684572	Fitting	2	19	570072	Tube (black)	1
6	634034	Elbow	4	20	685356	Air operate valve	1
7	685469	Regulator	1	21	685408	Fitting	1
8	682649	Elbow fitting	8	22	685782	Hose	1
9	682646	Regulator	1	23	695783	Hose	1
10	682652	Fitting	1	24	685467	Switching valve	1
11	682577	Switching valve	1	25	685470	Air operating valve	1
12	684151	Elbow fitting	1	26	685469	Switching valve	1
13	634415	Tee	1	27	681293	Silencer	1
14	634805	Nipple	1	28	634600	Bushing	1