

# **Supply Systems**

313527V

E١

For transferring or dispensing sealants, adhesives, or other medium to high viscosity fluids. For professional use only.

Not approved for use in European explosive atmosphere locations.

## L20c 2 inch single post elevator

20 liter (5 gallon) size 100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure

## S20 3 inch single post

20 liter (5 gallon) size 125 psi (0.9 MPa, 9 bar) Maximum Air Inlet Pressure

## D60 3 inch dual post

60 liter (16 gallon) size 150 psi (1.0 MPa, 10 bar) Maximum Air Inlet Pressure

## D200 3 inch dual post

200 liter (55 gallon), 115 liter (30 gallon), 60 liter (16 gallon) size, 30 liter (8 gallon), 20 liter (5 gallon) sizes 150 psi (1.0 MPa, 10 bar) Maximum Air Inlet Pressure

# D200S 6.5 inch dual post

200 liter (55 gallon), 115 liter (30 gallon) 125 psi (0.9 MPa, 9 bar) Maximum Air Inlet Pressure

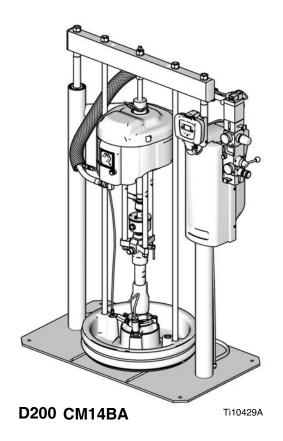


## Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions.

See page 6 for model information and approvals.

The Graco Control Architecture Electric Components are Listed in Intertek's Directory of Listed Products.





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# **Related Manuals**

The following manuals are available at www.graco.com. Component manuals in English:

Manual	Description
313526	Supply Systems Operation
313528	Tandem Supply Systems Operation
313529	Tandem Supply Systems Repair-Parts
312375	Check-Mate <sup>®</sup> Displacement Pumps Instructions-Parts
312376	Check-Mate <sup>®</sup> Pump Packages Instruction-Parts
311827	Dura-Flo <sup>™</sup> Displacement Pumps (145cc, 180cc, 220cc, 290cc) Instructions-Parts Manual
311825	Dura-Flo <sup>™</sup> Displacement Pumps (430cc, 580cc) Instructions-Parts Manual
311717	Carbon Steel Displacement Pump (1000cc) Instructions-Parts Manual
311828	Dura-Flo <sup>™</sup> Pump Packages (145cc, 180cc, 220cc, 290cc) Instructions-Parts Manual
311826	Dura-Flo <sup>™</sup> Pump Packages (430cc, 580cc) Instructions-Parts Manual
311833	Two-Ball NXT <sup>™</sup> Pump Packages (1000cc) Instructions-Parts Manual
312889	60 cc Check-Mate Displacement Pump Repair Parts Manual
312467	100 cc Check-Mate Displacement Pump Repair Parts Manual
312468	200 cc Check-Mate Displacement Pump Repair Parts Manual
312469	250 cc Check-Mate Displacement Pump Repair Parts Manual
312470	500 cc Check-Mate Displacement Pump Repair Parts Manual
311238	NXT <sup>™</sup> Air Motor (Nxxxxx models) Instructions-Parts
312796	NXT <sup>™</sup> Air Motor (Mxxxxx models) Instructions-Parts
308213	Premier <sup>®</sup> Air Motor Instructions-Parts
312374	Air Controls Instructions-Parts
312491	Pump Fluid Purge Kit
312492	Drum Roller Kit Instruction
312493	Light Tower Kit Instruction
406681	Platen Cover Kit

# Warnings

# **WARNING**



#### **SKIN INJECTION HAZARD**

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.** 



- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the dispense outlet.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow Pressure Relief Procedure in this manual, when you stop dispensing and before cleaning, checking, or servicing equipment.



## **MOVING PARTS HAZARD**

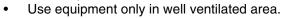
Moving parts can pinch or amputate fingers and other body parts.

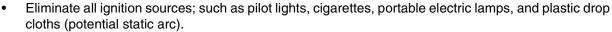
- · Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in this manual. Disconnect power or air supply.



#### **FIRE AND EXPLOSION HAZARD**

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent a fire and explosion:





- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.



## **EQUIPMENT MISUSE HAZARD**

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the **Pressure Relief Procedure** in this manual when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

# **WARNING**



#### **ELECTRIC SHOCK HAZARD**

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power cord before servicing equipment.
- Use only grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.



#### SPLATTER HAZARD

Hot or toxic fluid can cause serious injury if splashed in the eyes or on skin. During blowoff of platen splatter may occur.

• Use minimum air pressure when removing platen from drum.



#### **TOXIC FLUID OR FUMES HAZARD**

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
- Always wear impervious gloves when spraying or cleaning equipment.



#### PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:

- Protective eyewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

# **Models**

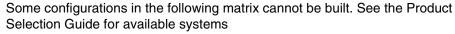
Check the identification plate (ID) for the 6-digit part number of the supply system. Use the following matrix to define the construction of the supply system, based on the six digits. For example, Part No. **CM14BA** represents a Check-Mate supply system (**CM**), a carbon steel Check-Mate 100 MaxLife<sup>®</sup> displacement pump with an NXT 2200 air motor with remote DataTrak (pump code **14**), a 3 in. dual post ram with integrated air controls (**B**) and a 55-gallon, uncoated platen with a neoprene seal (**A**).

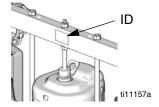
#### **NOTICE**

To prevent damage to DataTrak soft key buttons, do not press the buttons with sharp objects such as pens, plastic cards, or fingernails.



Systems with the **GD** as the first and second digits are Dura-Flo supply systems





To order replacement parts, see **Parts** section in manual 313527. The digits in the matrix on the next page do not correspond to the Ref. Nos. in the Parts drawings and lists.

All supply systems with DataTrak and 24 Vdc or 100-240 Vac power supplies are ETL approved.



CM	14				В				Α		
First and Second Digit	Third and Fourth Digit		Fifth Digit					Sixth D	Digit		
				Ran	n Options			Plate	n and Se	al Optio	ns
	Pump Code		Size	Style	DataTra k Voltage	Air Controls		Platen Size	Platen Style	Platen Materi al	Seal Material
CM (Supply	(See Table 1 for 2-digit	1	2 in.	L20c	no volt	Air Control Panel	В	20 L (5 Gal)	F, SW	CS	Nitrile
System with Check-Mate displacement	Check-Mate Pump Code)	2	3 in.	S20c	no volt	INT	С	20 L (5 Gal)	F, SW	cs	Polyure- thane
pump)		3	3 in.	S20	no volt	INT	F	20 L (5 Gal)	F, SW	SST	PTFE coated
		4	3 in.	D60	no volt	INT	G	20 L (5 Gal)	F, DW	cs	Nitrile
GD (Cumple	(See Table 2	5	3 in.	D200	no volt	INT	н	20 L (5 Gal)	F, DW	cs	Polyure- thane
(Supply System with Dura-Flo	for 2-digit Dura-Flo	6	3 in	D200i	no volt	2-Button Inter- lock	J	30 L (8 Gal)	F, SW	cs	Nitrile
displacement pump)	Pump Code)	7	6.5 in.	D200s	no volt	INT	κ	30 L (8 Gal)	F, SW	cs	Polyure- thane
F - F7		8	6.5 in.	D200si	no volt	2-Button Inter- lock	L	30 L (8 Gal) 30 L	F, SW	SST	PTFE coated
		9	3 in.	D200	24 Vdc	INT 2-Button Inter-	М	(8 Gal)	F, DW	cs	Nitrile Polyure-
		Α	3 in.	D200i	24 Vdc	lock	R	(8 Gal)	F, DW	CS	thane
		В	3 in.	D200	100-240 Vac	INT	s	60 L (16 Gal)	F, SW	cs	Nitrile
		С	3 in.	D200i	100-240 Vac	2-Button Inter- lock	т	60 L (16 Gal)	F, SW	cs	Polyure- thane
		F	6.5 in.	D200s	24 Vdc	INT	U	60 L (16 Gal)	F, SW	SST	PTFE coated
		G	6.5 in.	D200si	24 Vdc	2-Button Inter- lock	w	60 L (16 Gal)	F, DW	cs	Nitrile
		н	6.5 in.	D200s	100-240 Vac	INT	Υ	60 L (16 Gal)	F, DW	cs	Polyure- thane
		J	6.5 in.	D200si	100-240 Vac	2-Button Inter- lock	7	115 L 30 Gal	D	CS PTFE	EPDM
		L	3 in.	S20	100-240 Vac	INT	8	200 L (55 Gal)	DR	coated AL	EPDM
		М	3 in.	S20	24 Vdc	INT	9	200 L (55 Gal)	DR	AL	EPDM
	,	R	3 in.	D60	100-240 Vac	INT	Α	200 L (55 Gal)	DR	AL	Neoprene
		Т	3 in.	D60i	100-240 Vac	2-Button Inter- lock					
		U	3 in.	D60	24 Vdc	INT					
		w	3 in.	D60i	24 Vdc	2-Button Inter- lock					
		Υ	3 in.	D60i	no volt	2-Button Inter- lock					

## KEY:

S = Single post ram i = 2-Button Interlock F = Flat SW = Single wiper c = Cart mounted s = 6.5 inch D = D Style DW = Double wiper

D = Dual post ram INT = Integrated air controls DR = Dual o-ring

<sup>\*</sup> Other Available Models: 262868. This model is the same as CM-\_ \_-3-B models, such as CM-11-3-B, but uses Check-Mate Pump P40DCS (NXT2200/CM 100) instead of the other pumps listed on page 8.

Table 1: Check-Mate Pump Code/Part No. Index

	Dumm Dort No.
Pump	Pump Part No. (see manual
Code	312376)
NXT 20	00/CM 60
4A	P05LCS
4B	P05LCM
4C	P05LSS
4F	P05LSM
NXT 40	00/CM 60
6A	P11LCS
6B	P11LCM
6C	P11LSS
6F	P11LSM
6G	P11RCS
6H	P11RCM
6J	P11RSS
6K	P11RSM
61	P11SCS
62	P11SCM
63	P11SSS
64	P11SSM
	00/CM 60
7A	P20LCS
7B	P20LCM
7C	P20LSS
7F	P20LSM
7G	P20RCS
7H	P20RCM
7J	P20RSS
7K	P20RSM
71	P20SCS
72 73	P20SCM P20SSS
73	P20SSS P20SSM
	P20SSM 200/CM 60
8A	P38LCS
8B	P38LCM
8C	P38LSS
8F	P38LSM
8G	P38RCS
8H	P38RCM
8J	P38RSS
8K	P38RSM
	1 00110101

	e 1: Check-wate
Pump Code	Pump Part No. (see manual 312376)
81	P38SCS
82	P38SCM
83	P38SSS
84	P38SSM
NXT 18	800/CM 60
9A	P61LCS
9B	P61LCM
9C	P61LSS
9F	P61LSM
9G	P61RCS
9H	P61RCM
9J	P61RSS
9K	P61RSM
91	P61SCS
92	P61SCM
93	P61SSS
94	P61SSM
NXT 22	200/CM 100
11	P40LCS
12	P40LCM
1F	P40LSS
1G	P40LSM
13	P40RCS
14	P40RCM
1H	P40RSS
1J	P40RSM
10	P40SSS
1A	P40SSM
19	P40SCS
NXT 34	00/CM 100
15	P63LCS
16	P63LCM
1T	P63LSS
1U	P63LSM
17	P63RCS
18	P63RCM
1W	P63RSS
1Y	P63RSM
1B	P63SSS
1C	P63SSM

Pump	Pump Part No. (see manual
Code	312376)
NXT 22	200/CM 200
21	P23LCS
22	P23LCM
23	P23RCS
24	P23RCM
25	P23LSS
26	P23LSM
27	P23RSS
28	P23RSM
NXT 34	100/CM 200
29	P36LCS
2A	P36LCM
2B	P36RCS
2C	P36RCM
2F	P36LSS
2G	P36LSM
2H	P36RSS
2J	P36RSM
NXT 65	500/CM 200
2L	P68LCS
2M	P68LCM
2R	P68RCS
2S	P68RCM
2T	P68LSS
2U	P68LSM
2W	P68RSS
2Y	P68RSM
20	P68SCS
	00/CM 250
31	P29LCS
32	P29LCM
33	P29RCS
34	P29RCM
35	P29LSS
36	P29LSM
37	P29RSS
38	P29RSM

	Pump Part No.
Pump	•
Code	312376)
NXT 65	00/CM 250
39	P55LCS
3A	P55LCM
3B	P55RCS
3C	P55RCM
3F	P55LSS
3G	P55LSM
3H	P55RSS
<b>3</b> J	P55RSM
Premie	r/CM 250
3L	P82LCS
3M	P82LCM
3R	P82LSS
38	P82LSM
	00/CM 500
51	P14LCS
52	P14LCM
53	P14RCS
54	P14RCM
55	P14LSS
56	P14LSM
57	P14RSS
58	P14RSM
	500/CM 500
59	P26LCS
5A	P26LCM
5B	P26RCS
5C	P26RCM
5F	P26LSS
5G	P26LSM
5H	P26RSS
5J Dromio	P26RSM er/CM 500
5L 5M	P39LCS
5M 5R	P39LCM
5K 5S	P39LSS P39LSM
No Pur	
NN NN	пр
IAIA	

See manual 312375 or the ID plate on the pump to determine pump identification code.

Table 2: Dura-Flo Pump Identification Code/Part No. Index

	Pump Part No.		
Pump	(see manual		
Code			
NXT 22	200/DF 145SS		
A1	P31LSS		
A2	P31LSM		
А3	P31HSS		
A4	P31HSM		
NXT 34	00/DF 145SS		
B1	P46LSS		
B2	P46LSM		
В3	P46HSS		
B4	P46HSM		
NXT 34	100/DF 180SS		
B5	P41LSS		
В6	P41LSM		
B7	P41HSS		
B8	P41HSM		
	100/DF 220SS		
C1	P30LSS		
C2	P30LSM		
C3	P30HSS		
C4	P30HSM		
NXT 65	00/DF 220SS		
CA	P57LSS		
СВ	P57LSM		
CC	P57HSS		
CD	P57HSM		
	00/DF 290SS		
D1	P45LSS		
D2	P45LSM		
D3	P45HSS		
D4	P45HSM		
	er/DF 290SS		
DL	P67LSS		
DM	P67LSM		
DR	P67HSS		
DS	P67HSM		

bic 2. Buid-1 io 1 ump i			
	Pump Part No.		
Pump	(see manual		
Code	311826)		
<b>NXT 34</b>	100/DF 430CS		
E1	P15LCS		
E2	P15LCM		
E3	P15HCS		
E4	P15HCM		
NXT 34	100/DF 430SS		
E5	P15LSS		
E6	P15LSM		
E7	P15HSS		
E8	P15HSM		
NXT 65	00/DF 430CS		
E9	P32LCS		
EA	P32LCM		
EB	P32HCS		
EC	P32HCM		
NXT 65	00/DF 430SS		
EF	P32LSS		
EG	P32LSM		
EH	P32HSS		
EJ	P32HSM		
Premie	er/DF 430		
EL	P44LSS		
EM	P44LSM		
ER	P44LCS		
ES	P44LCM		
ET	P44LCS		
NXT 34	00/DF 580CS		
F1	P12LCS		
F2	P12LCM		
F3	P12HCS		
F4	P12HCM		
NXT 34	100/DF 580SS		
F5	P12LSS		
F6	P12LSM		
F7	P12HSS		
F8	P12HSM		

Pump Code	Pump Part No. (see manual 311826)
NXT 65	500/DF 580CS
F9	P22LCS
FA	P22LCM
FB	P22HCS
FC	P22HCM
NXT 65	00/DF 580SS
FF	P22LSS
FG	P22LSM
FH	P22HSS
FJ	P22HSM
Premie	er/DF 580CS
FL	P34LSS
FM	P34LSM
FR	P34LCS
FS	P34LCM
FT	P34LCS

	Pump Part No.
Pump	(see manual
Code	311833)
NXT 34	00/DF 1000CS
G1	P06LCS
G2	P06LCM
G3	P06HCS
G4	P06HCM
NXT 34	00/DF 1000SS
G5	P06LSS
G6	P06LSM
G7	P06HSS
G8	P06HSM
NXT 65	00/DF 1000CS
G9	P10LCS
GA	P10LCM
GB	P10HCS
GC	P10HCM
NXT 65	00/DF 1000SS
GF	P10LSS
GG	P10LSM
GH	P10HSS
GJ	P10HSM
Premie	r/DF 1000
GL	NR
GM	NR
GR	NR
GS	NR

NR = Not released

# **Component Identification**

## D200 3 in. and D200s 6.5 in. Dual Post

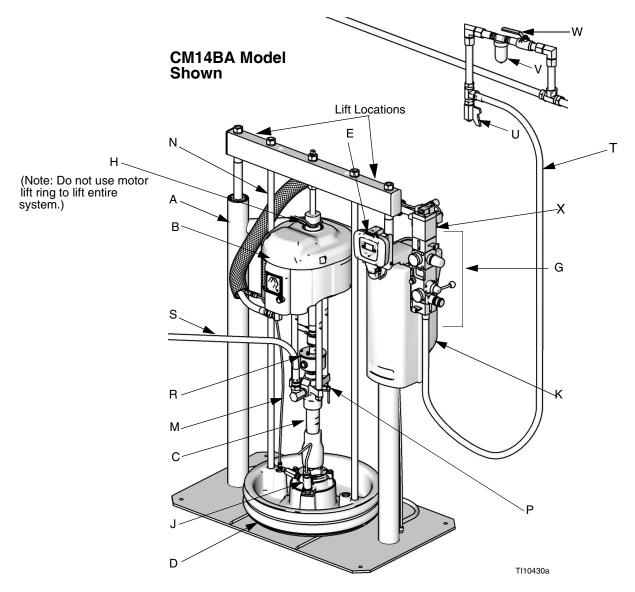


Fig. 1

## Key:

- A Ram Assembly
- B Air Motor
- C Displacement Pump
- D Platen
- F Remote DataTrak (single ram systems) or Display Module (tandem systems)
- G Integrated Air Controls (see Fig. 3)
- H Air Motor Lift Ring
- J Platen Bleed Port
- K Power Supply Box (under shrouding)
- M Blowoff Air Supply Line

- N Platen Lift Rod
- P Pump Bleed Valve
- R Enclosed Wet Cup
- S Fluid Line (not supplied)
- T Air Line (not supplied)
- U Air Line Drain Valve (not supplied)
- V Air Filter (not supplied)
- W Bleed Type Air Shutoff Valve (not supplied)
- X Air Motor Solenoid

# S20 3 in. Single Post and D60 3 in. Dual Post

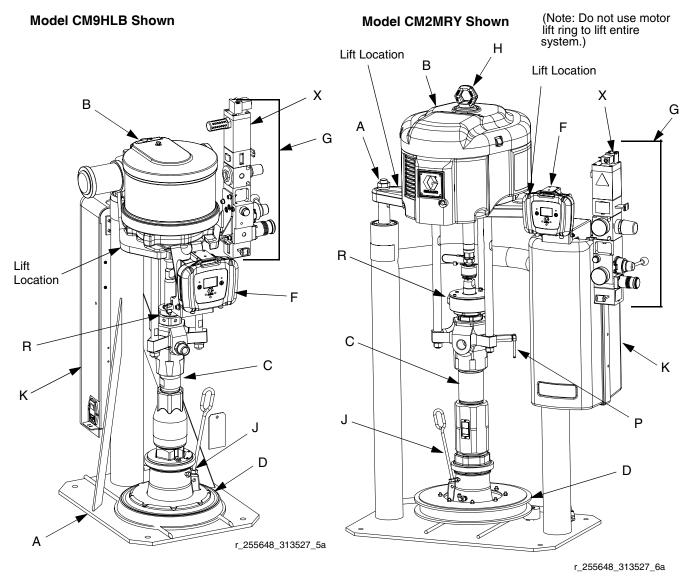


Fig. 2

## Key:

- A Ram Assembly
- B Air Motor
- C Displacement Pump
- D Plater
- F Remote DataTrak (single ram systems) or Display Module (tandem systems)
- G Integrated Air Controls (see Fig. 3)
- H Lift Ring
- J Platen Bleed Port
- K Power Supply Box (under shrouding)
- P Pump Bleed Valve
- R Enclosed Wet Cup
- S Fluid Line (not supplied, see Fig. 1)
- T Air Line (not supplied, see Fig. 1)
- U Air Line Drain Valve (not supplied, see Fig. 1)

- V Air Filter (not supplied, see Fig. 1)
- W Bleed Type Air Shutoff Valve (not supplied, see Fig. 1)
- X Air Motor Solenoid

## **Integrated Air Control Module**

D200, D200s, D60, and S20 Models

The integrated air controls include:

- Main air slider valve (BA): turns air on and off to the system. When closed, the valve relieves pressure downstream.
- Ram air regulator (BB): controls ram up and down pressure and blowoff pressure.
- Ram director valve (BC): controls ram direction.
- Exhaust port with muffler (BD)
- Air motor regulator (BE): Controls air pressure to motor.
- Air motor slider valve (BF): turns air on and off to the air motor. When closed, the valve relieves air trapped between it and the air motor. Push the valve in to shutoff. Remote DataTrak: The air solenoid, the air motor slider valve (BF), and the main air slider valve (BA) must be open for air to flow. (See Remote DataTrak Setup, in manual 312371)
- Blowoff button (BG): turns air on and off to push the platen out of an empty drum.

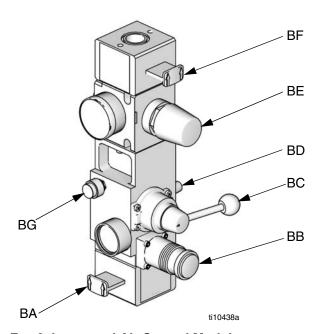


Fig. 3. Integrated Air Control Module

## Integrated Air Line Accessories

See Fig. 1.

- Air line drain valve (U)
- Air line filter (V): removes harmful dirt and moisture from compressed air supply.
- Second bleed-type air valve (W): isolates air line accessories for servicing. Locate upstream from all other air line accessories.
- Air relief valve (not visible): automatically relieves excessive pressure.

# 2-Button Interlock Air Controls

D200i, D200si, and D60i Models

Units that have 2-Button Interlock controls have the following additional components:

- **2-Button Module:** See manual 312374 for information.
- Roller switch (CA): shuts off air supply when it contacts the bracket actuator. Operator must push and hold buttons to resume ram movement.

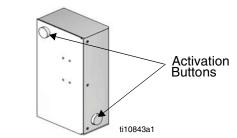


Fig. 4

Bracket actuator (CB): attaches to the platen lift rod. When ram is near the top, actuator makes contact with the roller switch.

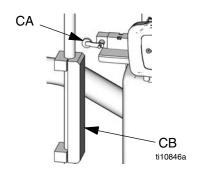
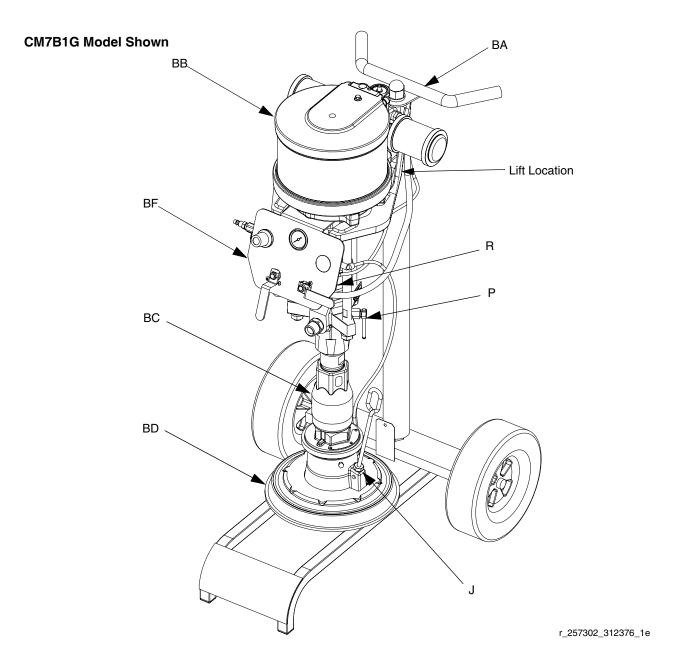


Fig. 5

# L20c 2in. Elevator



## Fig. 6

## Key:

BA Elevator Cart

BB Air Motor

BC Displacement Pump

BD Platen

BF Elevator and Pump Air Controls

J Platen Bleed Port

P Pump Bleed Valve

R Enclosed Wet Cup (behind air controls)

## L20c 2 in. Air Controls

- Air motor regulator (DA): Controls air pressure to motor.
- **Blowoff button (DB):** turns air on and off to push the platen out of an empty drum.
- Air motor shutoff valve (DC): turns air on and off to the air motor.
- Elevator director valve (DD): controls elevator direction.

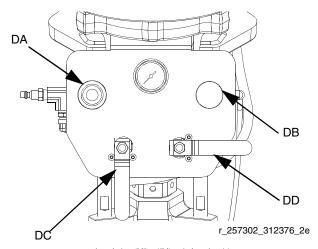


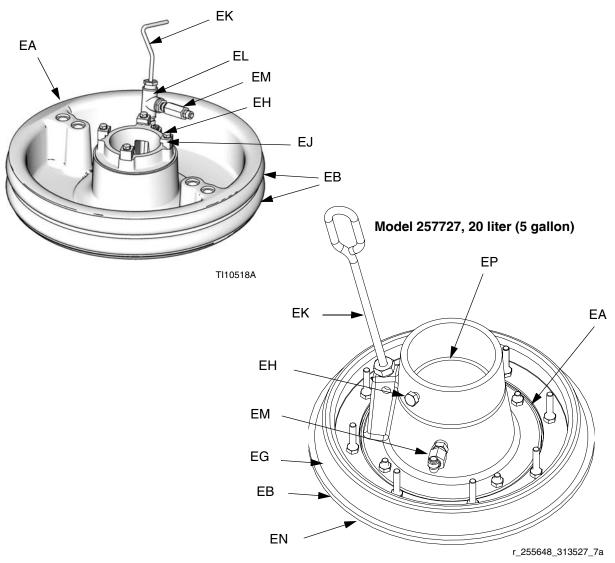
Fig. 7: Elevator Air Controls

## Air and Fluid Hoses

Be sure all air hoses (AI) and fluid hoses (AH) are properly sized and pressure-rated for your system. Use only electrically conductive hoses. Fluid hoses must have spring guards on both ends. Use of a short whip hose and a swivel between the main fluid hose and the gun/valve allows freer gun/valve movement.

# **Platen Component Identification**

## Model 255664, 200 liter (55 gallon)



#### Fig. 8

## Key:

- EA Plate
- EB Wipers
- EG Spacer
- EH Cap Screws
- EJ Clamps
- EK Bleed Handle
- EL Bleed Valve
- EM Air Assist Body Check Valve
- EN Wiper Plate (under wiper)
- EP O-ring Seal

# **Before Beginning Repair**

# Grounding











The equipment must be grounded. Grounding reduces the risk of static and electric shock by providing an escape wire for the electrical current due to static build up or in the event of a short circuit.

**Pump:** use a ground wire and clamp. Loosen grounding lug locknut and washer. Insert one end of a 1.5 mm<sup>2</sup> (12 ga) minimum ground wire into the slot in lug and tighten the locknut securely. Connect the other end of the wire to a true earth ground.



Fig. 9

Air hoses: use only electrically conductive hoses.

Fluid hoses: use only electrically conductive hoses.

**Air compressor:** follow manufacturer's recommendations.

**Spray gun/dispense valve:** ground through connection to a properly grounded fluid hose and pump.

Fluid supply container: follow local code.

Object being sprayed: follow local code.

All solvent pails used when flushing: follow local code. Use only conductive metal pails placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts the grounding continuity.

To maintain grounding continuity when flushing or relieving pressure, always hold a metal part of the gun/valve firmly to the side of a grounded metal pail, then trigger the gun/valve.

## **Pressure Relief Procedure**



- Lock the gun/valve trigger.
- For D200s, D200, S20, and D60 Air Controls: See Fig. 3, page 12.
  - a. Close the air motor slider valve (BF) and the main air slider valve (BA).
  - b. Set the ram director valve to DOWN. The ram will slowly drop.
  - c. Jog the director valve (BC) up and down to bleed air from ram cylinders.
- 3. For L20c Air Controls: See Fig. 7, page 14.
  - a. Close the air motor valve (DC) and the elevator director valve (DD). The ram will slowly drop.
- 4. Unlock the gun/valve trigger.
- 5. Hold a metal part of the gun/valve firmly to the side of a grounded metal pail, and trigger the gun/valve to relieve pressure.
- 6. Lock the gun/valve trigger.
- Open the fluid line drain valve and the pump bleeder valve (P). Have a container ready to catch the drainage.
- 8. Leave the pump bleeder valve (P) open until ready to spray again.

If you suspect that the spray tip/nozzle or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, very slowly loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. Now clear the tip/nozzle or hose.

# Flush Before Using Equipment

The pump was tested with lightweight oil, which is left in the fluid passages to protect parts. To avoid contaminating your fluid with oil, flush the pump with a compatible solvent before use. See your pump manual for flushing directions.

# **Maintenance Procedures**



To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief** procedure.

## **Platen Maintenance**

See Fig. 10. If the platen does not come out of the pail easily when the pump is being raised, the air assist tube (F), or check valve may be plugged. A plugged valve prevents air from reaching the underside of the plate to assist in raising it from the pail.

- 1. Relieve pressure. Refer to parts illustration on page 56 and disassemble air assist valve as shown.
- 2. Clear air assist tube (F) in platen. Clean all parts of valve and reassemble.
- 3. Remove bleed stick (EK) from platen. Push bleed stick through bleed relieve ports to remove material residue.

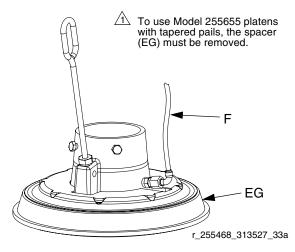


Fig. 10

## **Adjust Spacers**

# Use Platen with Tapered and Straight Sided Pails

The platen is supplied for use with 20 liter (5 gallon), 30 liter (8 gallon), and 60 liter (16 gallon) straight sided pails, but only single wiper platens can be easily modified for use with tapered pails.

## Use platen with tapered pails

- 1. Working from the bottom, use screwdriver to pry spacer (EG) loose. Work spacer upward completely above the flange of the platen. See Fig. 11.
- 2. By hand, angle spacer (EG) and work it off the plate, pulling it down over the flange and bottom wipers (EB). See Fig. 12.
- Save spacer (EG), as it is required for other applications.

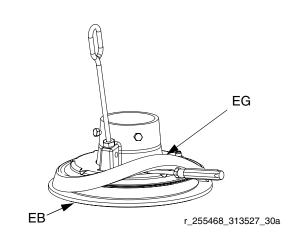


Fig. 11

## Use platen with straight sided pail

- Ensure large diameter of spacer (EG) is facing down. Work spacer (EG) up over the platen by hand completely above the flange of the platen. See Fig. 12.
- 2. Working from the top, use screwdriver to position spacer (EG) between flange and wipers (EB). See Fig. 13.

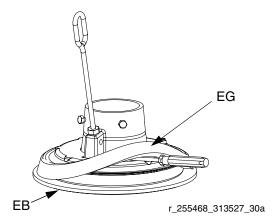


Fig. 12: Sliding spacer

EG r\_255468\_313527\_32a

Fig. 13: Installing Spacer

# **Remove and Reinstall Wipers**

# Disassemble 20, 30, and 60 Liter Wiper Assemblies

- 1. Remove wiper assembly; see Fig. 14:
  - a. For all single wiper platens: Remove two clips (470) with needle nose pliers and remove platen cover (469).

- Remove eight nuts (459) that hold wiper assembly to platen casting (451) and remove wiper assembly.
- See Reassemble 20, 30, and 60 Liter Wiper Assemblies to change wiper sizes, styles, or a complete wiper assembly.
- 2. Remove eight nuts (459) on wiper assembly.
- 3. Separate top plate (457), spacer (452), wiper(s) (453), wiper support (454), and bottom plate (455).
- 4. Clean, inspect, and replace worn components.

# Reassemble 20, 30, and 60 Liter Wiper Assemblies

- 1. Assemble wiper assembly.
  - a. For single wiper assemblies: Place bottom plate (455) on flat surface. Place wiper support (454), wiper (453), spacer (452), and top plate (457) on bottom plate (455).
  - b. For single wiper assemblies with SST platens: Place bottom plate (455) on flat surface. Place wiper support (454), wiper (453), flowered wiper support (460), PTFE spacer (452), and top plate (457) on bottom plate (455).
- c. For double wiper assemblies: Place bottom plate (455) on flat surface. Place wiper support (454), wiper (453), spacer (452), wiper (453) and top plate (457) on bottom plate (455).
- d. Install eight nuts (409) on outer ring. Torque to 45 in-lbs (61 N•m).
- e. Replace o-ring (456), or install new o-ring under platen casting (451). Use lubricant to hold in place.
- f. Install platen casting (451). Tighten with four nuts (509).

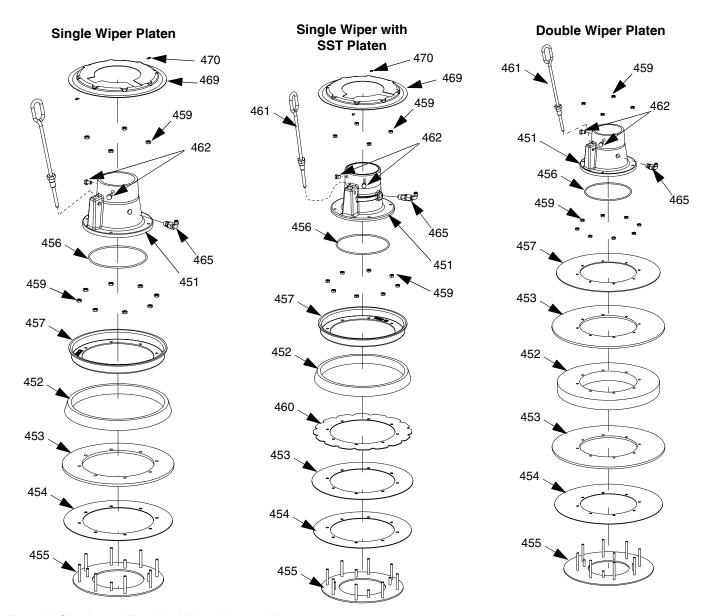


Fig. 14: Single and Double Wiper Assemblies

## Remove 30 and 55 Gallon Platen Wipers

- To replace worn or damaged wipers (EB), raise platen up out of drum. Remove drum from base. Wipe fluid off of platen.
- 2. Cut top and bottom wipers with knife and remove from platen. See Fig. 15.

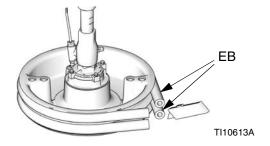


Fig. 15

## Reinstall 30 and 55 Gallon Platen Wipers

- 1. Using a wooden or plastic tool to prevent damage to the wiper (EB), clean all material from seal grooves.
- 2. Working from the bottom, angle one wiper (EB) over back of platen. See Fig. 16.
- 3. Insert wiper (EB) in top groove and run front of wiper into groove.
- 4. 55 gallon wiper only: Insert second wiper (EB) in lower groove and run front of wiper into groove.
- 5. Lubricate outside of wiper with lubricant compatible with material being pumped. Check with material supplier.

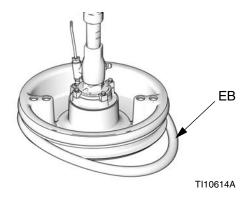


Fig. 16

# **Troubleshooting**

Check all possible problems before disassembling the ram, pump, or platen. Refer to **Supply Unit Operation** manual 313526 for descriptions of DataTrak diagnostic codes. Refer to **Check-Mate Pump Packages** manual 312376 for pump troubleshooting.

## Ram

Problem	Cause	Solution
Ram will not raise or lower.	Closed air valve or clogged air line.	Open, clear.
	Not enough air pressure.	Increase.
	Worn or damaged piston.	Replace. See <b>Supply Unit Repair</b> on page 30.
	Hand valve closed or clogged.	Open, clear.
Ram raises and lowers too fast.	Air pressure is too high.	Decrease.
Air leaks around cylinder rod.	Worn rod seal.	Replace. See <b>Supply Unit Repair</b> on page 30.
Fluid squeezes past ram plate wipers.	Air pressure too high.	Decrease.
	Worn or damaged wipers.	Replace. See Remove and Reinstall Wipers on page 18.
Pump will not prime properly or pumps air.	Closed air valve or clogged air line.	Open, clear.
	Not enough air pressure.	Increase.
	Worn or damaged piston.	Replace. See pump manual.
	Hand valve closed or clogged.	Open, clear. See Platen Maintenance on page 17.
	Hand valve is dirty, worn, or damaged.	Clean, service.
Air assist valve will not hold drum down or push plate up.	Closed air valve or clogged air line.	Open, clear. See Platen Maintenance on page 17.
	Not enough air pressure.	Increase.
	Valve passage clogged.	Clean. See <b>Platen Maintenance</b> on page 17.

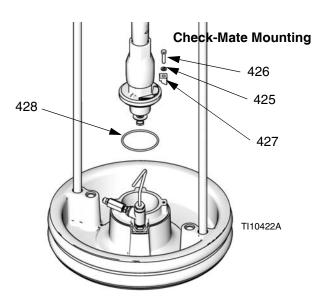
# Repair

# **Disconnect Pump from Platen**

The pump is mounted to the platens by mounting kit 255392 or 257630. See the **Repair Kits** on page 64.

## 30 and 55 Gallon Platen

- 1. Remove four hex screws (426), four clamps (427), and washers (425).
- 2. Carefully pull pump away to prevent damage to pump inlet and remove o-ring (428)



**Dura-Flo Mounting** 

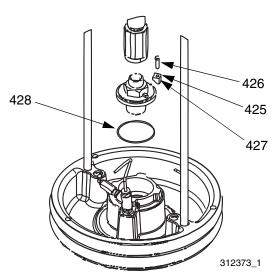
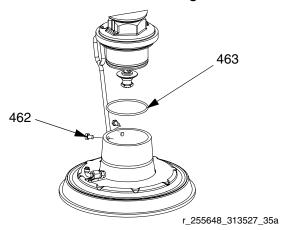


Fig. 17: 55 and 30 Gallon Mounting Kit

## 20, 30, and 60 Liter Platen

- 1. Loosen two 5/16 in. screws (462) from platen.
- 2. Carefully pull pump away to prevent damage to pump inlet. If using a pump with intake adapter, remove screws (472), adapter (471), and o-rings (473, 463) from pump inlet.

## **Check-Mate Mounting**



### **Dura-Flo Mounting**

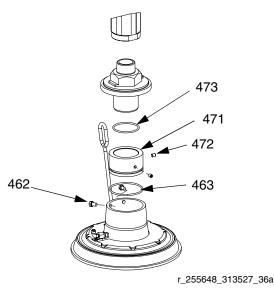


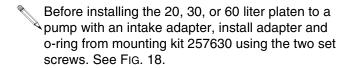
Fig. 18: 20, 30, and 60 liter mounting kit

## **Connect Platen**

### 30 and 55 Gallon Platen

- Place o-ring (428) from mounting kit 255392 on the platen. If attached to plate, place displacement pump onto platen. See Fig. 17.
- 2. Secure pump's intake flange to plate with screws (426), washers (425), and clamps (427) included in mounting kit 255392.

## 20, 30, and 60 Liter Platen



- 1. Place o-ring (473) from mounting kit 257630 on pump intake. Loosen mounting bracket screws (401) and carefully lower pump onto o-ring (463) and platen.
- 2. Secure pump's intake flange to plate with screws (401).

# **Remove Wipers**

See Remove and Reinstall Wipers on page 17.

# **Install Wipers**

See Remove and Reinstall Wipers on page 17.

# **Remove Displacement Pump**



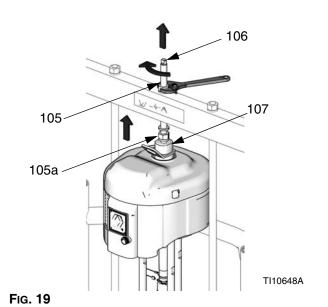
The procedure for removing your displacement pump depends on which air motor and platen your unit uses. Find your ram unit, air motor, and platen below to remove the displacement pump. Refer to your Check-Mate Displacement Pump 312376 manual to repair the displacement pump.

If the air motor does not require servicing, leave it attached to its mounting. If the air motor does need to be removed, see page 26.

## D200 3 in. and D200s 6.5 in. Supply Units

#### **NXT Air Motors:**

- See Disconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
- 2. Raise the air motor:
  - a. For NXT 2200-6500 with 55 gallon platen: Loosen nut (105a) under ram bar and thread it down the threaded rod (106) to the lift ring adapter (107) holding the motor. Use wrench on nut (105) on top of ram bar to raise air motor.



- b. For NXT 200-1800 with 55 gallon platen: Go to step 3.
- For NXT with smaller platens and all supply units: See procedure for D60 3 in. Dual Post, S20 3 in. Single Post, and L20c 2 in. Supply Units.
- 3. See **Disconnect Pump from Platen** on page 22 to disconnect the platen from the displacement pump.
- 4. Use two people to lift out the displacement pump.

#### **Premier Air Motors:**

1. Remove nuts and washers (102, 103) from top of platen lift rods (101). See Fig. 20.

#### **NOTICE**

Do not remove or adjust the nuts (102) below the brackets. See Fig. 20. If the nuts are adjusted the pump will not fully engage with the platen or the smaller distance will put stress on the motor, tie rods, and displacement pump.

- 2. See **Disconnect Displacement Pump** in Check-Mate Pump Packages manual 312376.
- 3. See **Disconnect Pump from Platen** on page 22 to disconnect the platen from the displacement pump.
- 4. Raise ram to ensure air motor assembly is clear of lower pump assembly and platen.
- Remove displacement pump and service as needed.

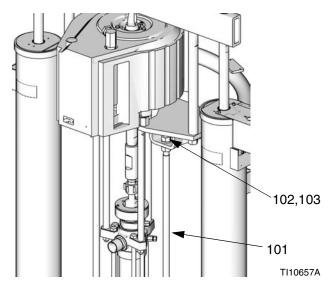


Fig. 20

# D60 3 in. Dual Post, S20 3 in. Single Post, and L20c 2 in. Supply Units

#### **NXT Air Motors:**

- See Disconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
- 2. See **Disconnect Pump from Platen** on page 22 to disconnect the platen from the displacement pump.
- 3. Raise the ram assembly to lift the air motor away from the displacement pump.
- Remove displacement pump and service as needed.

# **Install Displacement Pump**

## D200 3 in. and D200s 6.5 in. Supply Units

#### **NXT Air Motors**

- 1. Insert displacement pump on platen. Follow **Connect Platen** steps on page 23.
- See Reconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
- 3. Reconnect ground wire and air motor harness (units with Remote DataTrak) if they were disconnected.

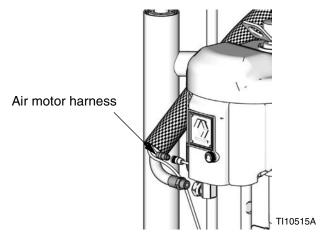


Fig. 21: NXT 2200-6500 Air Motor Harness

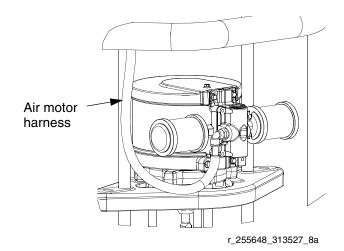


Fig. 22: NXT 200-1800 Air Motor Harness

#### 4. Connect air motor:

- a. For NXT 2200-6500 with 55 gallon platen: Use wrench on nut (105) on top of ram bar to lower air motor onto displacement pump. See Fig. 19 on page 23. Thread nut (105) up and tighten it under ram bar. Tighten nut (105) below the crossbar to 25 ft-lb (34 N•m) maximum.
- For NXT with smaller platen: If the motor was removed, tighten set screws (111) and washers (110) on mounting bracket (109). See Fig. 26 on page 26.

## **Premier Air Motors**

- 1. Raise ram to install displacement pump to platen.
- Insert displacement pump on platen. Follow Connect Platen steps on page 23.
- 3. See **Reconnect Displacement Pump** in Check-Mate Pump Packages manual 312376.
- 4. Tighten nuts (103) and washers (102) to top of platen lift rods (101). See Fig. 20.

#### NOTICE

Do not remove or adjust the nuts (103) below the brackets. If the nuts are adjusted the pump will not fully engage with the platen or the smaller distance will put stress on the motor, tie rods, and displacement pump.

# D60 3 in. Dual Post, S20 3 in. Single Post, and L20c 2 in. Supply Units

### **NXT Air Motors:**

- 1. Raise ram to install displacement pump to platen.
- Insert displacement pump on platen. Follow Connect Platen steps on page 23.
- See Reconnect Displacement Pump in Check-Mate Pump Packages manual 312376.

## **Remove Air Motor**



## **NXT Air Motors**

- See Disconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
- Disconnect air hose from air motor. If using a remote DataTrak, detach electrical connections from the air motor.
- 3. Disconnect air motor:
  - a. For NXT 2200-6500 with 55 gallon platen (D200 3 in. and D200s 6.5 in. supply units): Loosen nut (105a) below crossbar. Use wrench to hold lift ring adapter (107) in place and loosen threaded rod (106) above crossbar with another wrench. See Fig. 23.

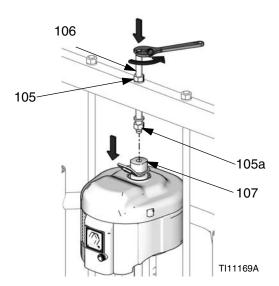


Fig. 23: NXT 2200-6500 with 55 Gallon Platen

b. For NXT 200-1800 with 55 gallon platen (D200 3 in. and D200s 6.5 in. supply units): Remove screws (111) and washers (110) securing motor to mounting plate. See Fig. 24.

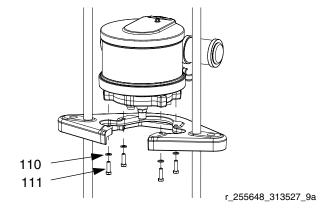


Fig. 24: NXT 200-1800 with 55 Gallon PLaten

c. For NXT with smaller platen (D200 3 in., D200s 6.5 in., and D60 3 in. supply units): Remove screws (111) and washers (110) securing motor to mounting plate.

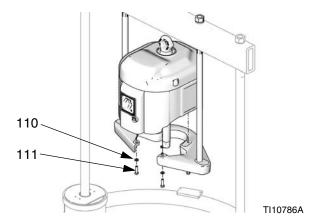
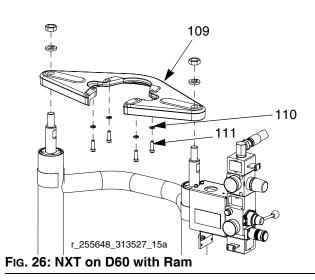


Fig. 25: NXT on D200 with Small Platen



d. For NXT on S20 3 in. supply unit and L20c 2 in. elevator: Remove screws (111) and washers (110) securing motor to mounting bracket.

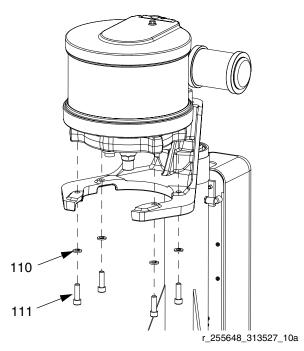
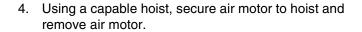


Fig. 27



#### **Premier Air Motors**

- 1. Remove air hose.
- 2. See **Disconnect Displacement Pump** in Check-Mate Pump Packages manual 312376.
- 3. Remove nuts (103), washers (102), and cross bar (1c).
- 4. Remove nuts (114) and washers (113) under the mounting plate.
- 5. Using a capable hoist, secure air motor lift ring to hoist and lift air motor off of mounting plate (109).

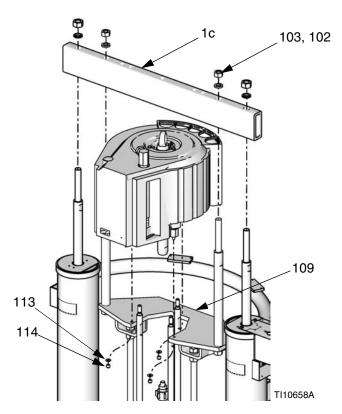


Fig. 28: Premier Air Motors

## **Install Air Motor**

## D200 3 in. and D200s 6.5 in. Supply Units

## NXT with 55 gallon platen:

- For NXT2200-6500: Using a capable hoist, insert tie rods into displacement pump and secure air motor to pump.
  - See Reconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
  - b. Install threaded rod (106) through center hole in the crossbar. Install lock washers (104) and nuts (105) onto threaded rod (106), both above and below crossbar. Use wrench to hold lift ring adapter (107) and tighten threaded rod (106) into lift ring adapter (107) using another wrench. See Fig. 29.
  - c. Tighten nut (105) below crossbar to 25 ft-lb (34 N•m) maximum.
  - d. Tighten nut (105) above crossbar to lock motor in place.

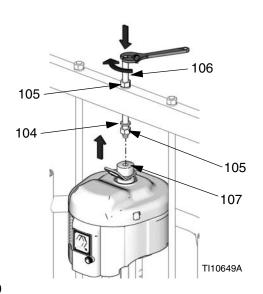


Fig. 29

- 2. For NXT200-1800: Attach motor to mounting bracket with screws (111) and washers (110). See Fig. 24 on page 26.
- Connect air hose to motor. If using a remote Data-Trak, connect electrical connections to the air motor. See Fig. 21 and Fig. 22 on page 25.

### NXT with smaller platens:

- Position mounting plate (109) to ensure top of motor will clear the crossbar. See Fig. 25. Using a capable hoist, attach motor to mounting plate (109) using screws (111) and washers (110).
  - See Reconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
  - Connect air hose to motor. If using a remote DataTrak, connect electrical connections to the air motor. See Fig. 24 on page 26.

#### **Premier Air Motors**

- 1. Using a capable hoist, lower air motor on the mounting plate (109). See Fig. 28.
- 2. Secure motor to mounting plate (109) with nuts (114) and washers (113).
- 3. Install cross bar (1c), nuts (103), and washers (102).
- 4. See Reconnect Displacement Pump in Check-Mate Pump Packages manual 312376.
- 5. Connect air hose to motor. If using a remote Data-Trak, connect electrical connections to the air motor. See Fig. 21 on page 25.

## D60 3 in. Dual Post Supply Unit

#### **NXT Air Motors**

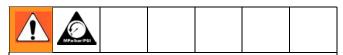
- Using a secure hoist, attach motor to mounting plate (109) with screws (111) and washers (110). See Fig. 26 on page 26.
- 2. See **Reconnect Displacement Pump** in Check-Mate Pump Packages manual 312376.
- 3. Connect air hose to motor. If using a remote Data-Trak, connect electrical connections to the air motor. See Fig. 24 on page 26.

# S20 3 in. Single Post Supply Unit and L20c 2 in. Elevator

#### **NXT Air Motors**

- 1. Attach motor to mounting bracket with screws (111) and washers (110). See Fig. 27.
- 2. See **Reconnect Displacement Pump** in Check-Mate Pump Packages manual 312376.
- 3. Connect air hose to motor. If using a remote Data-Trak, connect electrical connections to the air motor. See Fig. 24 on page 26.

# **Supply Unit Repair**



To reduce the risk of serious injury whenever you are instructed to relieve pressure always follow the **Pressure Relief Procedure** on page 16. Do not use pressurized air to remove the guide sleeve or the piston.

### D200s 6.5 in. Ram Piston Rods

Always service both cylinders at the same time. When you service the lift rod always install new o-rings in the piston rod seal and ram piston.

#### **Disassemble Piston Rod Seal**

- 1. Relieve pressure.
- 2. Remove the nuts (1a) and lockwashers (1b) holding the tie bar (1c) to the piston rods (1d). See parts illustration on page 38.
- 3. Remove nuts (103, 105) and washers (102, 104). See parts illustration on page 42.
- 4. Lift tie bar (1c) off of rods.
- Remove retaining ring (1h) by gripping the ring tab with a pair of pliers and rotating the ring out of its groove.
- 6. Remove snap ring (1e) and rod wiper (1f).
- 7. Remove guide sleeve (1g) by sliding it off of rod (1d). Four 1/4 in -20 holes are provided to ease removal of the guide sleeve.
- 8. Inspect parts for wear or damage.

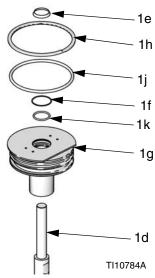


Fig. 30: 6.5 in. Piston Rod Seal

#### Assemble Piston Rod Seal

- 1. Install new o-rings (1j,1k), rod wiper (1f), and snap ring (1e). Lubricate packings with o-ring lubricant.
- 2. Slide guide sleeve (1g) onto rod (1d) and push it into cylinder. Replace retaining ring (1h) by feeding it around the guide sleeve groove.
- 3. Reinstall tie bar (1c) using nuts (1a) and lockwashers (1b). Torque to 40 ft-lb (54 N•m).
- 4. Reinstall washers (102, 104) and nuts (103, 105).

#### **Disassemble Ram Piston**

- 1. Relieve pressure.
- 2. Remove nuts (1a) and lockwashers (1b) holding the tie bar (1c) to the piston rods (1d). See page 38.
- 3. Remove nuts (103, 105) and washers (102, 104). See parts illustration on page 42.
- 4. Lift tie bar (1c) off rods.
- Remove retaining ring (1h) by gripping the ring tab with a pair of pliers and rotating the ring out of its groove.
- 6. Remove guide sleeve (1g) and slide it off piston rod (1d).

#### NOTICE

**Do not** tilt the piston rod to one side when removing it from the base or when installing it. Such movement can damage the piston or inside surface of the base cylinder.

7. Carefully lay piston (1r) and rod (1d) down so rod will not be bent. Remove bottom retaining ring (1n) and o-ring (1p). Remove piston guide band (1q). Slide piston (1r) off piston rod (1d).

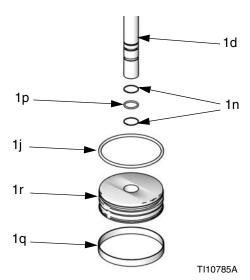


Fig. 31: 6.5 in. Ram Piston

#### **Assemble Ram Piston**

- Install new o-rings (1p, 1j) on piston rod (1d) and piston (1r). Lubricate the piston (1r) and o-rings (1p, 1j). Reinstall piston (1r) and lower retaining ring (1n) onto piston rod (1d). Install piston guide band (1q) onto piston (1r).
- Carefully insert piston (1r) into cylinder and push rod (1d) straight down into cylinder. Add three ounces of lubricant to each cylinder after inserting the piston (1r).
- 3. Slide guide sleeve (1g) onto piston rod (1d).
- 4. Install retaining ring (1e) and tie bar (1c) as explained in **Disassemble Ram Piston**.

## D200, D60, and S20 3 in. Ram Piston Rods

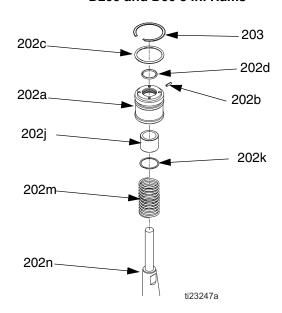
Always service both cylinders at the same time. When you service the piston rod always install new o-rings in the piston rod seal and ram piston.

#### Disassemble Piston Rod Seal and Bearing

- Relieve pressure.
- 2. Access piston rod seal and bearing.
  - a. For D200 3 in. Ram: Remove nuts (206) and lockwashers (205) holding the tie bar (204) to the piston rods (202n). Refer to parts illustration on page 40. Remove nuts (105) and washers (104). Remove tie bar (204). See page 40.
  - b. For D60 3 in. Ram: Ensure ram is in lowest position. Remove nuts (383) and lockwashers (382) from piston rods (302n). Remove entire pump package, including the mounting plate (381) off of the piston rods (302n). Secure pump package so pump and platen will not fall. See pages 45 and 47.
  - c. For S20 3 in. Ram: Ensure ram is in lowest position. Remove nut (857) and lockwasher (858) from piston rod (802n). Remove entire pump package, including the mounting plate (851) off of the piston rod (802n). Secure pump package so pump and platen will not fall. See page 50.
- 3. Remove retaining ring (203, 803).
- Remove piston rod seal and bearing.
  - a. For D200 and D60 3 in. Rams: Slide end cap (202a), pin (202b), o-ring (202c), and spring (202m) up off of the piston rod (202n). Remove retaining ring (202k) and bearing (202j) from end cap (202a) and remove o-ring (202d).
  - For S20 3 in. Ram: Disassemble Ram Piston to remove end cap (802a). See page 31. Slide end cap (802a) off of the piston rod (802n). Remove retaining ring (802k) and bearing (802j) from end cap (802a). Remove seal (802d) and spacer (802p) from bearing.

- Inspect parts for wear or damage. Replace as necessary.
  - Do not reinstall end cap assembly if the ram piston (202e, 802e) needs to be removed from the piston rod. See the next page for ram piston repair instructions.

#### D200 and D60 3 in. Rams



S20 3 in. Ram

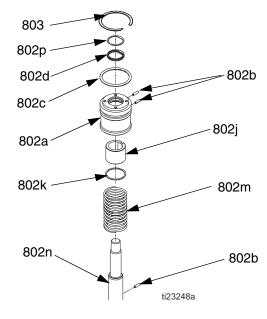


Fig. 32: 3 in. Piston Rod Seal

### **Assemble Piston Rod Seal and Bearing**

See Fig. 32 on page 32.

- 1. For S20 3 in. Ram: Lubricate seal (802d) and spacer (802p) and install in bearing (802j).
  - a. Align groove on bearing with pin (802b) and install bearing (802j) into end cap (802a). Lubricate o-ring (802c) and end cap (802a).
  - b. Slide spring (802m) and end cap (802a) on bottom of piston rod.
- 2. For D200 and D60 3 in. Rams: Lubricate o-ring (202d) and bottom bearing (202j).
  - a. Install o-ring (202d), bottom bearing (202j), and retaining ring (202k) into end cap (202a).
  - b. Install new o-ring (202c) and pin (202b) on end cap (202a). Lubricate o-ring (202c) and end cap (202a).
  - c. Slide spring (202m) and end cap (202a) on piston rod (202n, 302n).
- 3. Install retaining ring (203).
- 4. For D200 3 in Ram: Install tie bar (204), washers (204, 205), and nuts (205, 206).
- For D60 3 in. Ram: Remount mounting plate (381) and attach nuts (383) and lockwashers (382). Torque to 40 ft-lb (54 N•m).
- 6. For S20 3 in. Ram: Remount mounting plate (851) and attach nut (857) and lockwasher (858). Torque to 40 ft-lb (54 N•m).

#### **Disassemble Ram Piston**

 Complete steps 1-4 from Disassemble Piston Rod Seal and Bearing to remove the end cap from the piston rod.

### NOTICE

**Do not** tilt the piston rod to one side when removing it from the base or when installing it. Such movement can damage the piston or inside surface of the base cylinder.

2. Carefully lay piston (202e, 802e) and rod (202n, 302n, 802n) down so piston rod will not be bent.

- Remove nut (202f, 802f), washer (202g, 802g), piston (202e, 802e), outer o-ring (202c, 802c), and inner o-ring (202h, 802h).
- 3. Inspect parts for wear or damage. Replace as necessary.

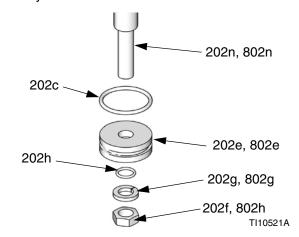


Fig. 33: 3 in. Ram Piston

#### Assemble Ram Piston

- 1. Install new o-rings (202h, 802h, 202c, 802c) and lubricate piston (202e, 802e) and o-rings.
- Apply medium strength thread sealant. Install piston (202e, 802e), washer (202g, 802g), and nut (202f, 802f) on piston rod (202n, 302n, 802n).
- 3. Carefully insert piston (202e, 802e) into cylinder and push piston rod (202n, 302n, 802n) straight down into cylinder.
- 4. Slide spring (202m, 802m) and end cap (202a, 802a) onto piston rod (202n, 302n, 802n).
- 5. For D200 3 in. Rams: Install retaining ring (203), tie bar (204), washers (204, 205), and nuts (205, 206).
- 6. For D60 and S20 3 in. Rams: Install retaining ring (203) and install mounting plate with nuts (383, 857) and washers (382, 858) with pump package and platen.

## L20c 2 in. Elevator

### Disassemble Piston Rod Seal, Bearing, and Piston

- Remove air motor. See Remove Air Motor on page 26.
- 2. Remove nut (522), lock washer (521), handle (520), washer (519), and air motor mounting bracket (518) from end cap (516).
- 3. Remove retaining ring (510).
- 4. Remove cylinder end cap (516). Remove o-ring (513) and replace if necessary.
- 5. Remove screw (514) from inside cylinder (515) and lift cylinder assembly off of elevator cart (501).
- 6. Remove piston (511) from cylinder (515). Remove o-rings (512, 513) and inspect for damage. Replace as necessary.
- 7. Remove retaining ring (510) from bottom of cylinder (515).
- Remove nut (509), screw (508), and bearing (505) from cylinder (515). Inspect bearing for damage. Replace as necessary.

### Assemble Piston Rod Seal, Bearing, and Piston

- Install screw (508) in bearing (505). Install bearing in cylinder (515) and tighten with nut (522).
- 2. Install retaining ring (510) in bottom of cylinder (515) and wave spring (507) on top of bearing (505).
- Ensure screw (508) faces backwards and install cylinder with bearing on elevator cart (501).
- 4. Install piston (511) with new o-rings (513) and press on to rod.
- 5. Install screw (514) into cart rod.
- 6. Install new o-ring (513) on cylinder end cap (516) and install in cylinder (515).
- 7. Use screwdriver to install retaining ring (510) in top of cylinder (515).
- 8. Install air motor mount (518) on cylinder end cap (516).
- 9. Install washer (519), handle (520), lock washer (521), and nut (522).

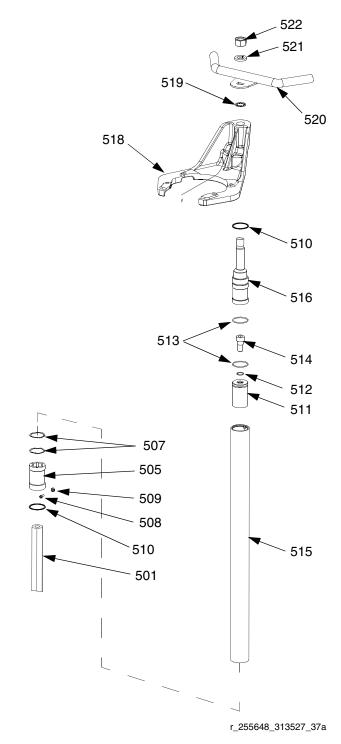
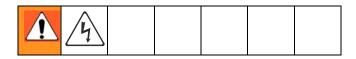


Fig. 34: L20c Piston Rod Seal, Bearing, and Piston

# **Power Supply**



## **Remove 24 Vdc Module**

- 1. Turn external 24 Vdc power source off.
- 2. Remove shrouding covers. See DataTrak Kit parts illustrations on page 61-62.
- 3. Remove two screws (156), two washers (164), and press cover plate (160) up from the bottom. Then slide to front of ram to remove.

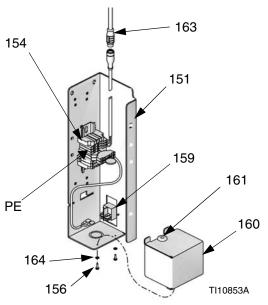


Fig. 35

- 4. Disconnect power supply output cable from CAN cable (163).
- Remove quick disconnects from rocker switch terminals 1 and 4.

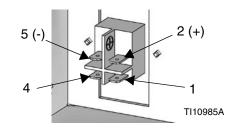


Fig. 36

- 7. Remove screws (159) and 24 Vdc power supply module (154) from power supply mounting bracket (151. See parts illustration on page 53.
- 8. Remove screws (155) and power switch (157) from power supply mounting bracket (151).
- 9. Clean and inspect all parts for wear or damage. Replace as needed.

## Replace 24 Vdc Fuses

- Complete steps 1 and 2 from Remove 24 Vdc Module.
- 2. Open the fuse holder and remove two fuses. Install new fuses (165).

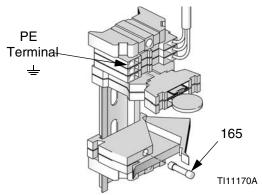


Fig. 37

## Install 24 Vdc Module

- 1. Ensure that the external 24 Vdc power source is off.
- 2. Mount 24 Vdc module (154) on mounting bracket (151).
- 3. Mount power switch (159) on mounting bracket (151).
- 4. Attach quick disconnects on cable from 24 Vdc module (154) to terminals on power switch (157).
  - a. The black wire connects to terminal 4, adjacent to terminal marked (-).
  - b. The red wire connects to terminal 1, adjacent to terminal marked (+).
- 5. Install power supply output cable to CAN cable (163).

- 7. Install cover plate (160), screws (156), and washers (164).
- 8. Install shrouding covers. See DataTrak Kit parts illustrations on page 61-62.

## Remove 100-240 Vac Power Supply

- 1. Turn power supply OFF and Disconnect power.
- 2. Remove shrouding covers (506, 507). See Data-Trak Kit parts illustrations on page 61-62.
- 3. Remove two screws (156), two washers (164), and press cover plate (160) up from the bottom. Then slide to front of ram to remove.

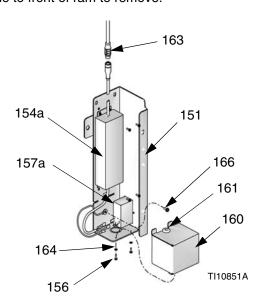


Fig. 38

- 4. Disconnect power supply output cable.
- 5. Remove quick disconnects from rocker switch.
- 6. Remove ground screw (166).
- 7. Remove screws (156) and 100-240 Vac power supply (154a) from power supply mounting bracket (151).

8. Inspect all parts for wear or damage. Replace as needed.

## Replace 100-240 Vac Fuses

- 1. Turn power supply OFF and Disconnect power.
- 2. Use screwdriver to remove two fuses (165) from module and install new fuses.

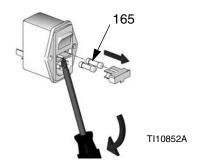


Fig. 39

## Install 100-240 Vac Power Supply

- 1. Turn power supply OFF and Disconnect power.
- 2. Mount power entry module (157a) and 100-240 Vac power supply (154a) on mounting bracket (151).
- 3. Install power supply output cable to CAN cable (509). See Fig. 38.
- 4. Connect power supply input quick disconnects to power switch terminals (157a).

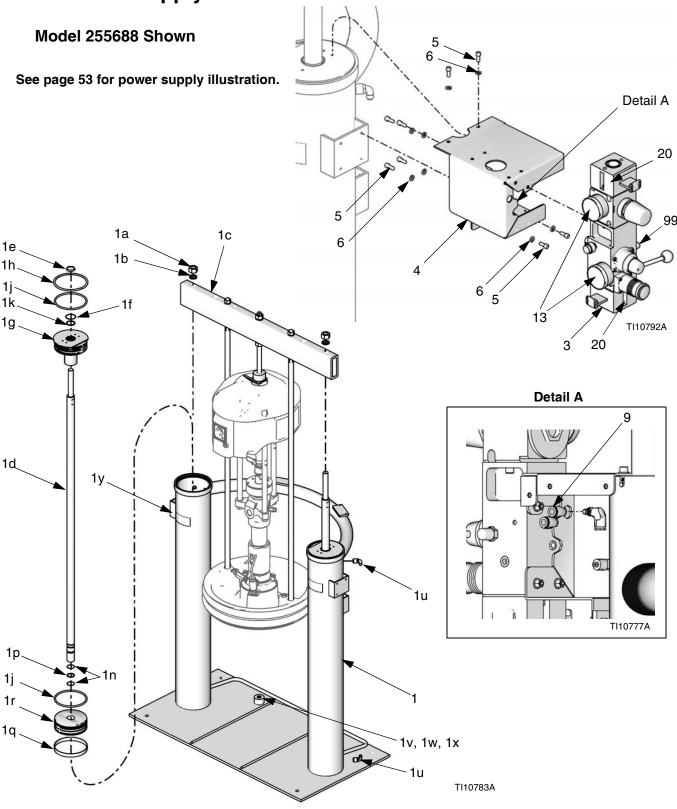
  - b. Connect brown wire to Line (L).
  - c. Connect blue wire to Neutral (N).
- 5. Install grounding screw (166) through eyelet terminal of power supply ground (green) pigtail wire and fasten to power supply enclosure (151).
- 6. Install cover plate (160), screws (156), and washers (164).
- 7. Install shrouding covers. See DataTrak Kit parts illustrations on page 61-62.

## **Parts**

Use this table to identify which pump mounting kit and platen are compatible with each air motor and supply system. See page 39 for relief valve for your pump package.

	Pump Moun	ting Kit	Platens	Pump Mounting	Platens
Supply System	Air Motor Size	Kit	Gallons (liters)	Kit Page	Plateris
	NXT200	257627	55 (200)	pg. 42	pg. 55
	NXT400	257620	5 (20), 8 (30), 16 (60)	ng 44	pg. 56
		257628	30 (115)	pg. 44	pg. 55
	NXT700	257625	55 (200)	pg. 42	pg. 55
D200 3 in. Dual Post	NXT1200 NXT1800	257626	5 (20), 8 (30), 16 (60)	ng 44	pg. 56
(see page 40)	IVXTTOOO	237020	30 (115)	pg. 44	pg. 55
	NXT3400 NXT6500	255308	5 (20), 8 (30), 16 (60)	pg. 43	pg. 56
	NXT2200	255309	30 (115)		pg. 55
	NXT2200 NXT3400 NXT6500	255305	55 (200)	pg. 42	pg. 55
Dura-Flo D200 3 in. Dual Post (see page 40)	NXT2200 NXT3400 NXT6500	256235	55 (200)	pg. 42	pg. 55
D200s 6.5 in. Dual Post (see page 38)	NXT2200 NXT3400 NXT6500	255315	55 (200)	pg. 42	pg. 55
	NXT2200	255317		pg. 43	
	NXT3400 NXT6500	255316	30 (115)	pg. 43	pg. 55
	Premier	255306	55 gallon	pg. 44	pg. 55
D60 3 in. Dual Post	NXT2200	257623			pg. 56
(see page 45)	NXT3400 NXT6500	257624	5 (20), 8 (30), 16 (60)	pg. 47	pg. 56
S20 3 in. Single Post (see page 48)	NXT2200 NXT 3400	257666			
	NXT700 NXT1200 NXT1800	257664	5 (20)	pg. 50	pg. 56
	NXT200 NXT400	257664			
L20c 2in. Single Post	NXT200 NXT400	257613			
	NXT700 NXT1200 NXT1800	257613	5 (20)	pg. 52	pg. 56

## D200s 6.5 in. Supply Units



#### D200s 6.5 in. Supply Units, 255688

Ref			
No.	Part No.	Description	Qty
1		RAM, 6.5 in. (includes 1a - 1z)	1
1a	113939	NUT, jam, hex	2
1b	113993	WASHER, lock, helical	2
1c	15M538	BEAM, tie	1
1d			2
1e*		RING, snap	2 2
1f*	C31001	WIPER, rod	2
1g	617414		2
1h*	C32409	RING, retaining	2
1j*	C38132		4
	156593		2
		RING, retaining	4
	158776		2
1q*		BAND, guide	2
1r		PISTON, elevator air	2
1s <b>≭</b>		PLUG, pipe	2
1u		ELBOW, male, swivel	2
1v	C32467	STOP, drum	2
1w			2
1x	C38185	WASHER, lock	2
		LABEL, safety	4
1z <b>≭</b>	C14023	LABEL, ram, up-down	1
2 <b>*</b>	C12509	TUBE, nylon, 14.6 ft (4.45 m)	1

Ref			
No.	Part No.	Description	Qty
3	255650	CONTROL, air; see 312374	1
4		BRACKET, mounting, air control	1
5	101682	SCREW, cap, sch	8
6	100016	WASHER, lock	8
9	113318	ELBOW, plug in	3
13	101689	GAUGE, pressure, air	2
20▲	15V954	LABEL, valve shut-off aircontrol	1
27 <b>×</b>		HOLDER, cable tie, rotating	1
99		VALVE, safety relief	1

- ▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.
- \* Parts included in Supply Units Repair Kit 918432 (purchase separately).

See Power Supply - D200s, D200, D60, and S20 3 in. Supply Unit on page 53 for 24 Vdc and 100-240 Vac power supply parts.

See manual 312374 for two-button interlock parts.

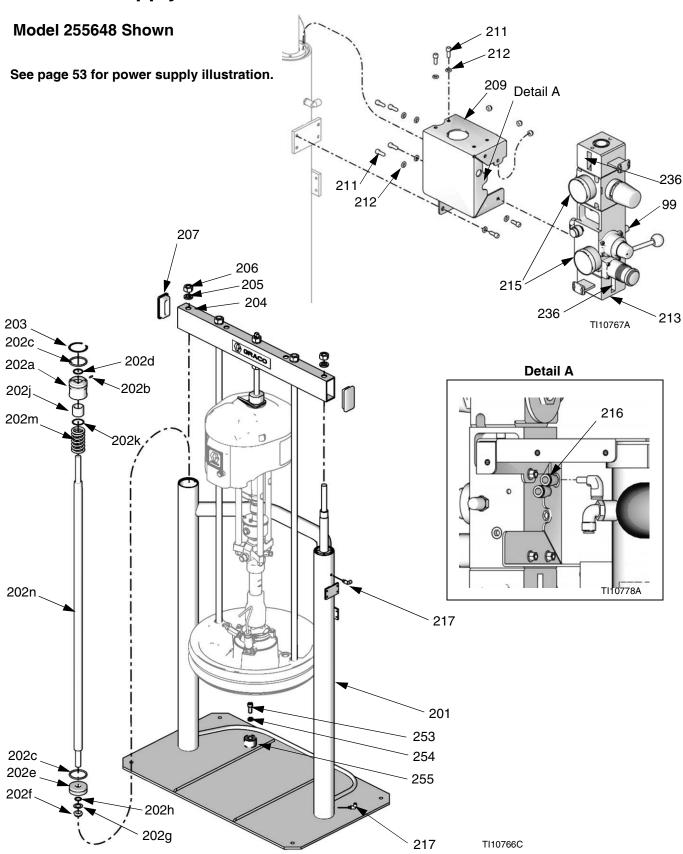
\* Not shown.

#### Relief Valve Part No. (99)

Part	For Systems With Pump Part No. (Pump Ratio)			
103347	P05xxx (5:1) P06xxx (6:1) P10xxx (10:1) P11xxx (11:1) P12xxx (12:1) P14xxx (14:1) P15xxx (15:1) P20xxx (20:1) P22xxx (22:1) P23xxx (23:1) P26xxx (26:1) P29xxx (29:1) P31xxx (31:1)	P32xxx (32:1) P34xxx (34:1) P36xxx (36:1) P38xxx (38:1) P39xxx (39:1) P40xxx (40:1) P44xxx (44:1) P45xxx (45:1) P46xxx (46:1) P55xxx (55:1) P57xxx (57:1) P61xxx (61:1) P63xxx (63:1)		

Part	For Systems With Pump Part No. (Pump Ratio)
120306	P67xxx (67:1)
116643	P68xxx (68:1)
108124	P82xxx (82:1)

## D200 3 in. Supply Units



#### D200 3 in. Supply Units, 255648

Ref No.	. Part No.	Description	Qty
201		RAM, 3 in.	1
202		PISTON, assembly 3 in. ram;	2
		includes 202a - 202m	
202a		BEARING, ram end cap	2
202b	107092	PIN, spring, straight	2 2 4
202c*	160258	O-RING	4
202d*	156698	O-RING	2
202e	183943	PISTON	2
202f*		NUT, jam	2
202g*		WASHER, split	2
202h*	156401	O-RING	2
202j*		BEARING, ram end cap	2
202k*		RETAINER, retaining ring	2
202m*		SPRING, compression	2
202n	167651	ROD, piston, ram	2 2 2 2 2 2 2 2 2 2 2 1
203*	127510	RING,retaining	2
204	167646	BEAM, tie	
205	101533	WASHER, spring lock	2
206	101535	NUT, full hex	2
207	189559	CAP, end	2
209	404000	BRACKET, mounting, air control	1
211	101682	SCREW, cap, sch	8
212	100016	WASHER, lock	8
213 215	255650	CONTROL, air; see 312374	1
216	101689 113318	GAUGE, pressure, air	2 3
217	597151	ELBOW, plug in ELBOW	2
217 220 <b>*</b>	C12509	TUBE, nylon, 14.60 in. (370.84	1
220	C12309	• •	ı
236▲	15V954	mm) LABEL	1
250 <b>a</b>	C19853	SCREW, cap, socket, hd	
253	C38185	WASHER, lock	2
254 255	C32467	STOP, drum	2 2 2 2
	15J074	LABEL, safety	2
99	130074	VALVE, safety relief; see page 39	1
33		VALVE, Salety Teller, See page 33	1

- ▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.
- \* Parts included in Supply Units Repair Kit 255687 (purchase separately).
- \* Not shown.

See Power Supply - D200s, D200, D60, and S20 3 in. Supply Unit on page 53 for 24 Vdc and 100-240 Vac power supply parts.

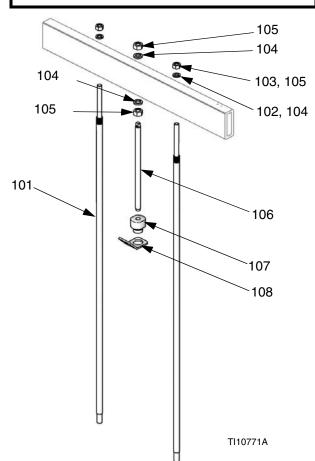
See manual 312374 for two-button interlock parts.

### D200s and D200 Pump Mounts for 55 Gallon (200 Liter) Platen

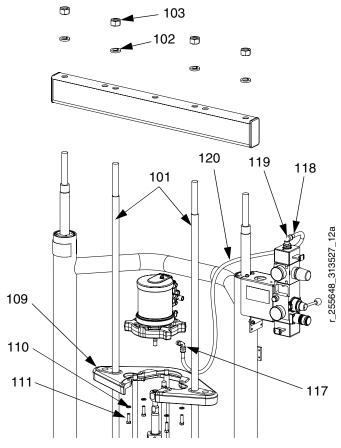
Kits - 255315, 255305, and 256235

Kits - 257625 and 257627

Note: See page 37 for kit configuration table.



Note: See page 37 for kit configuration table.



Ref.	Part	Description	Qty
101	15M531 <b>√</b>	ROD, platen	2
	167652✿∜	*	
102	101015✓	WASHER, lock	2
103	C19187	NUT, hex	2
104	101533	WASHER, spring lock	2
105	101535	NUT, full hex	2
106		ROD, threaded	1
	15J992 <b>☆</b> ∜	ROD, threaded	1
107	15J991	ADAPTER, lift, ring	1
108	15J993	RING, lift, plate	1
124 <b>×</b>	160327	FITTING, 3/4 nptf x 3/4 npsm, 90°	1
125🗱	C12034	HOSE, coupled; 72 in.	1
126 <b>×</b>	552071	SLEEVE, protective, 6 ft	1
127 <b>×</b>	105281	FITTING, 3.4 nptf x 3/4 npsm, 45°	1

- ✓ Pump Mount 255315 only.
- Pump Mount 255305 only.
- Pump Mount 256235 only.
- \* Not shown.

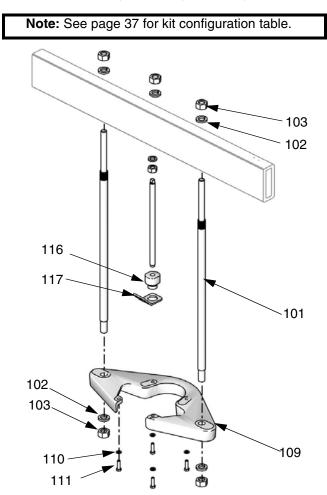
Ref.	Part	Description	Qty
101	167652	ROD, platen	2
102	101533	WASHER, spring lock	2
103	101535	NUT, hex	2
109		BRACKET, shelf	1
110	100133	WASHER, lock	4
111		SCREW, cap, hex hd	4
117	114128	ELBOW, swivel, male; 257627	1
		only	
118	100896	BUSHING, pipe	1
119		ELBOW, 1/2 OD x 1/2 in. npt	1
120	061513	TUBE, nylon, 1/2 OD x 3/8 ID; 45	1
		in.	
121#		SLEEVE, protective; 45 in.	1
122*		STRAP, tie	2
123*		HOLDER, cable tie, rotating	2
		, ,	

\* Not shown.

313527V 42

# D200s and D200 Pump Mounts for 5 Gallon (20 Liter), 8 Gallon (30 Liter), 16 Gallon (60 Liter), and 30 Gallon (115 Liter) Platens

Kits - 255316, 255317, 255308, 255309



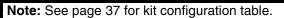
Ref.	Part	Description	Qty
101	15M298 <b>♦</b> 15M297‡	ROD, tie bar, shelf	2
102	101015 <b>♦</b> 101533‡	WASHER, lock	4
103	C19187◆ 101535‡	NUT, hex	4
109		BRACKET, shelf 6500, 3400;	1
		255316 and 255308 only	
		BRACKET, shelf 2200; 255317	1
		and 255309 only	
110	100133	WASHER, lock	4
111		SCREW, cap, hex hd	4
115		ROD, threaded	1
116		ADAPTER, lift, ring	1
117		RING, lift, plate	1
124 <b>×</b>	160327	FITTING, union adapter, 90°	1
125¥	C12034	HOSE, coupled; 72 in.	1
126 <b>×</b>	552071	SLEEVE, protective, 6 ft	1
127 <b>×</b>	105281	FITTING, 3.4 nptf x 3/4 npsm, 45°	1

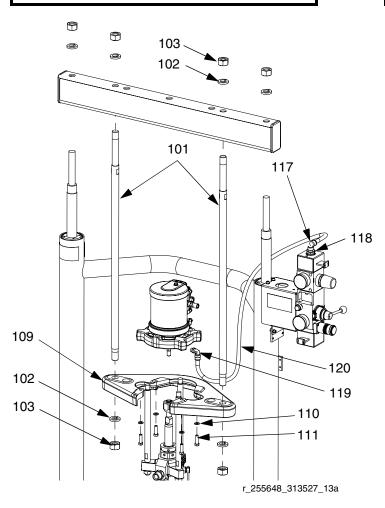
- ◆ Pump Mounts 255316 and 255317 only.
- ‡ Pump Mounts 255308 and 255309 only.
- ✗ Not shown.

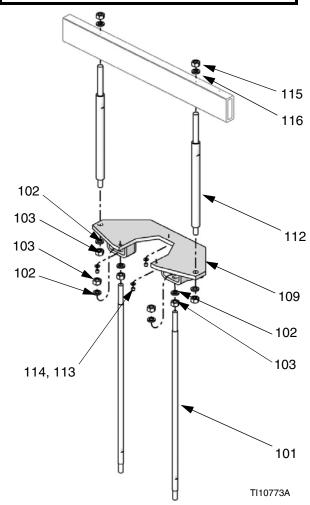
#### Kits - 257626 and 257628

## Pump Mount 255306 (Premier motors on 6.5 in. supply units only)

Note: See page 37 for kit configuration table.







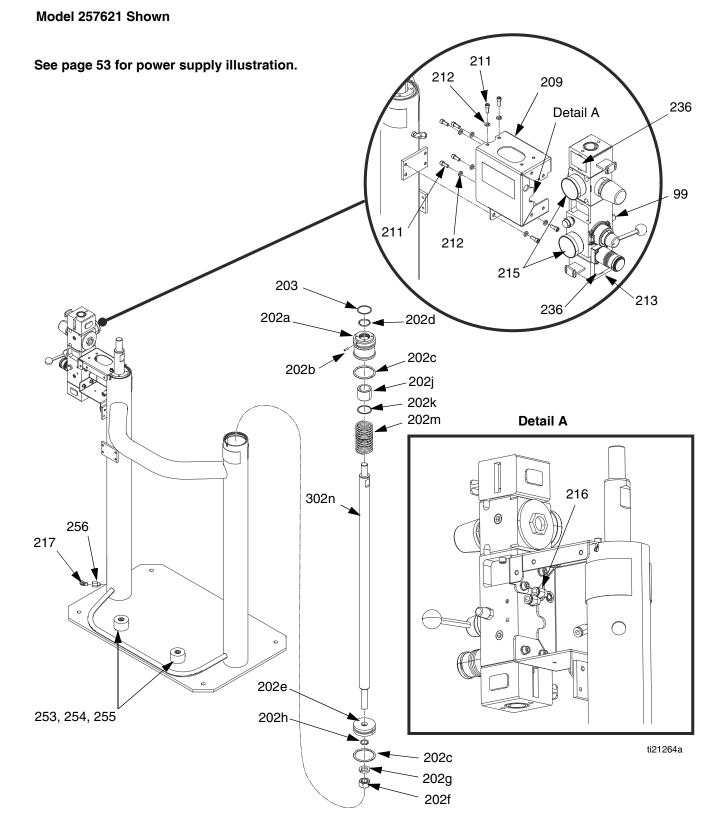
Ref.	Part.	Description	Qty	Ref.	Part	Description	Qty
101	257726	ROD, tie bar, shelf	2	101	15M686	ROD, lower, platen	2
102	101533	WASHER, spring lock	4	102	101533	WASHER, spring lock	6
103	101535	NUT, hex	4	103	101535	NUT, full hex	6
109		BRACKET, shelf	1	109	617193	PLATE, pump mounting	1
110	100133	WASHER, lock	4	112	617275	ROD, upper tie #(cold cm2100)	2
111		SCREW, cap, hex hd	4	113	100023	WASHER	3
117	114128	ELBOW, swivel, male; 257628 only	1	114	101566	NUT, lock	3
118	100896	BUSHING, pipe	1	115	113939	NUT, jam, hex	2
119		ELBOW, 1/2 OD x 1/2 in. npt	2	116	113993	WASHER, lock, helical	2
120	061513	TUBE, nylon, 1/2 OD x 3/8 ID; 45 in.	. 1	124 <b>×</b>	160327	FITTING, union adapter, 90°	1
121*	•	SLEEVE, protective; 45 in.	1	125₩	C12034	HOSE, coupled; 72 in.	1
122 <b>×</b>	•	STRAP, tie	2	126🗱	552071	SLEEVE, protective, 6 ft	1
123 <b>×</b>	:	HOLDER, cable tie, rotating	2	127 <b>≭</b>	105281	FITTING, 3.4 nptf x 3/4 npsm, 45°	1

**★** Not shown.

**★** Not shown.

## D60 3 in. Dual Post Supply Unit

### oo o nii Baari oot oappiy onii



#### D60 3 in. Supply Units, 257621

			Qty
Ref.	Part	Description	
202		PISTON, ram, subassembly;	1
		includes 202a-202m	
202a*		BEARING, ram end cap	2
202b*	107092	PIN, spring, straight	2
202c*		O-RING	4
202d*		O-RING	2
202e*	183943	PISTON	2
202f*		NUT, jam	2
202g*		WASHER, split	2 2
202h*		O-RING	2
202j*		BEARING, ram end cap	2
202k*		RETAINER, retaining ring	2
202m <sup>2</sup>		SPRING, compression	2
		ROD, piston, ram	2
203*	127510		2
301		RAM	1
209		BRACKET, mounted	1
		SCREW, cap, sch	8
		WASHER, lock	8
213	255650	CONTROL, air; see manual	1
		312374	
215	101689	GAUGE, pressure, air	2

			Qty
Ref.	Part	Description	
216	113318	ELBOW, plug in	2
217	597151	ELBOW	2
236▲	15V954	LABEL, valve shutoff air control	4
253	C19853	SCREW, cap, socket hd	2
254	C38185	WASHER, lock	2
255	C32467	STOP, drum	2
256	16T421	ADAPTER, pipe hex; 5/8 in.	1
99		VALVE, safety relief; see page 39	1

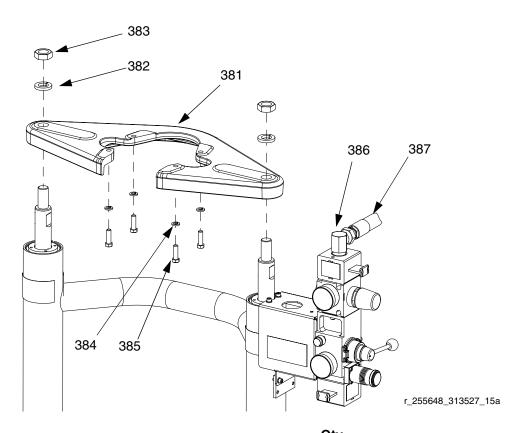
- ▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.
- Not shown.
- \* Parts included in Supply Units Repair Kit 257622 (purchase separately).

See Power Supply - D200s, D200, D60, and S20 3 in. Supply Unit on page 53 for 24 Vdc and 100-240 Vac power supply parts.

See manual 312374 for two-button interlock parts.

# D60 Pump Mounts 257623 and 257624 for 5 Gallon (20 Liter), 8 Gallon (30 Liter), and 16 Gallon (60 Liter) Platens

**Note:** See page 37 for kit configuration table.



			Qty	
Ref.	Part	Description		
381	‡	BRACKET, shelf, NXT2200	1	
	*	BRACKET, shelf, NXT3400 and		
		NXT6500		
382	101533	WASHER, spring lock	2	
383	101535	NUT, hex	2	
384	100133	WASHER, lock	4	
385	C38372	SCREW, cap, hex head	4	
386	105281	FITTING, 3.4 nptf x 3/4 npsm, 45°	1	
387	C12034	HOSE, coupled 72 in.	1	
388	<b>t</b>	SLEEVE, protective; 72 in.	1	
389	<b>t</b>	STRAP, tie	2	
390	<b>t</b>	HOLDER, cable tie, rotating		
391	160327	FITTING, 3/4 nptf x 3/4 npsm, 90°	1	

- ‡ For 257623 only.
- ★ For 257624 only.
- \* Not shown.

## S20 3 In. Single Post Ram

#### S20 Single Supply Unit Cart Shown

See page 53 for power supply illustration.

#### 257619 Ram Piston 803 802p 802 802d 802c 837 802b 811 802a 810 802j 819 804 802k - 837 802m 801 802b 836 835 0 802n 813 838 816 804 806 817 802h 802c 802e 802f 802g 818 ti21265b 812 814

#### S20 Single Supply Unit, 257620

			Qtv				Qty
Ref.	Part	Description		Ref.	Part	Description	
801		RAM	1	802k	15F453	RETAINER, retaining ring 1.88	1
802	257619	PISTON, S20 ram, subassembly;	1			bore	
		includes 802a-802p		802m	160138	SPRING, compression	1
802a	15V032	BEARING, rod top	1	802n	15U202	ROD, ram, w/flat	1
802b		PIN, spring, straight	3	802p	15U006	SPACER, d seal backup ring	1
802c	160258	O-RING	2	803	127510	RING, retaining, 3.06 dia	1
802d	15U189	SEAL, d-shaped u cup	1	804	597151	FITTING, elbow	2
802e	183943	PISTON	1	805▲	15J074	LABEL, safety, crush & pinch	2
802f	101535	NUT, hex	1	806	16T421	ADAPTER, pipe hex; 5/8 in.	1
802g	101533	WASHER, spring lock	1	99		VALVE, safety relief; see page 39	1
802h	156401	O-RING	1				
802j	15U546	BEARING, ram end cap max flat	1	▲ Re	olacemen	t Danger and Warning labels, tags,	and

1 A Replacement Danger and Warning labels, tags, and cards are available at no cost.

#### S20 Single Supply Unit Cart Kit, 257618

			Qty
Ref.	Part	Description	
805▲		LABEL, safety, crush & pinch	2
816		CHASSIS, elevator	1
817		WHEEL, semi pneumatic	2
818		BOLT, 5/8 x 2-1/2 shoulder	2
819		HANDLE	1
810		WASHER, lock	1
811		BOLT, hex hd	1
812		BRACKET, cart	2
813		SCREW, cap, hex hd	4
814		NUT, hex, lock, nylon, thin	4
815		CAP, tube, square	4
835		WASHER, lock	2
836		SCREW, cap, sch	2
837		CAP, handle	2
838		WASHER, wrought	4

▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.

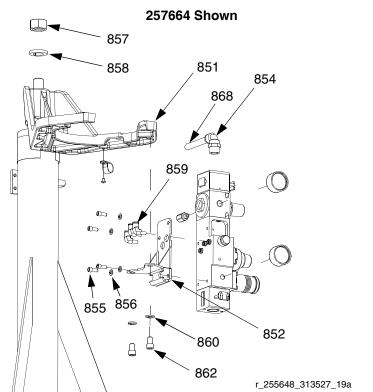
See Power Supply - D200s, D200, D60, and S20 3 in. Supply Unit on page 53 for 24 Vdc and 100-240 Vac power supply parts.

### S20 3 In. Single Post Ram Mounting Kit

257664 - For NXT200 and NXT400 NXT700, NXT1200, and NXT 1800

257666 - For NXT2200 and NXT3400

257612 - Air controls sold separately for S20 ram. Includes 2 gauges (113911) and 2 labels (15V954).



851	
cards are available at no co	r_255648_313527_20a

Motor mount bracket for 257666

Ref.	Part	Description	
851	†	BRACKET, motor mount	1
050	*	DDAGKET	_
852	_	BRACKET, controls	1
854	†	ELBOW, swivel	1
7	<b>**</b>	ELBOW, swivel	2
855		SCREW, cap, sch	4
856		WASHER, lock	4
857		NUT, cap	1
858		WASHER, spring lock	1
859		ELBOW, plug in	3
860		WASHER, lock	6
861		SCREW, cap, socket hd	4
862		SCREW, cap, socket head	2
864		TUBE, nylon, rnd; 16 in.	1
865₩		SLEEVE, protective	5
866₩		HOLDER, cable tie, rotating	1
867₩		STRAP, tie	2
868		HOSE	1
869₩		ADAPTER	1
871*	†	ADAPTER, elbow, 3/4 npti x 1/2 npte	1
880 <b>×</b>	*	ELBOW, swivel, 3/8T x 1/4 npt(m)	

Replacement Danger and Warning labels, tags, and

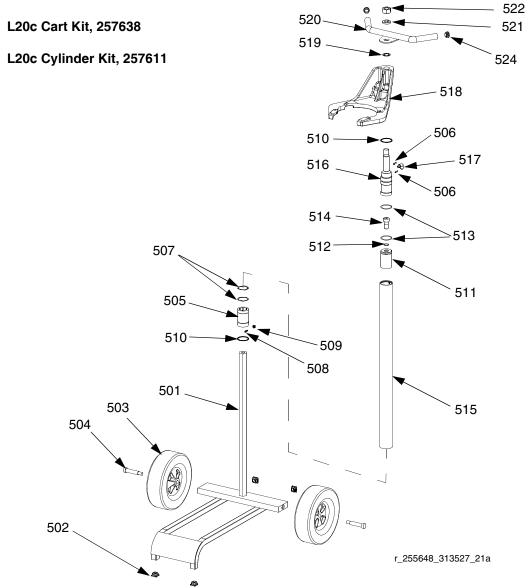
† For 257666 only.

★ For 257664 only.

**★** Not shown.

Qty

### L20c 2 In. Elevator

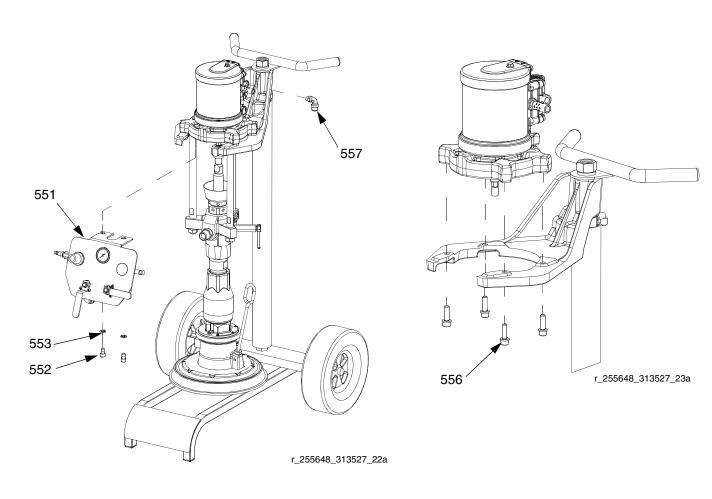


		-	Qtv				Qty
Ref.	Part	Description		Ref.	Part	Description	
501‡	15V711	CHASSIS, elevator	1	515★	15V353	CYLINDER	1
502‡	116895	PLUG	4			Series A, 2.25 in. outer diameter	
503‡	106062	WHEEL, semi-pneumatic	2			Series B, 2.375 in. outer diameter	
504#	15V529	BOLT, 5/8 x 2-1/2 shoulder	2	516★	15V357	CAP, end	1
505★	15V349	BEARING	1			FITTING,ELBOW	1
506★	15U979	PIN, spring, straight	2	518★	15U376	BRACKET, motor mount	1
507★	15V450	SPRING, wave	2	519★	113348	WASHER, lock, internal	1
508★	102598	SCREW, cap, sch	1	520★	256759	HANDLE	1
509★	114231	NUT, lock, hex	1	521★	101533	WASHER, spring lock	1
510	15V449	RING, retaining (for Series A only)	2		101535		1
510★	125179	RING, retaining (for Series B only)	2	523▲	15V557	LABEL, elevator	1
511★	15V348	PISTON	1	524★	15X429	HANDLE, cap	2
513★	514279 166238 122222	O-RING, 018 buna PACKING, o-ring FASTENER, shoulder screw, 5/8-11	1 2 1	ca	rds are av	nt Danger and Warning labels, tags, vailable at no cost. repair kit 257638.	and

#### ★ Included in kit 257611.

#### Air Control Kit- L20c 2 In. Elevator

#### 257613 - For NXT200, NXT400, NXT700, NXT1200, and NXT1800



			Qty
Ref.	Part	Description	
551		PANEL, air control; see manual 312374	1
552		SCREW, cap, socket head	2
553		WASHER, lock	6
554₩		TUBE, nylon, rnd; 52 in.	1
555₩		TUBE, nylon, 1/2 OD X 3/8 ID; 25 in.	1
556		SCREW, cap, socket hd	4
557		ELBOW, male, swivel	1
		ELBOW, male, swivel, 1/2 npt x 1/2 tube	1

▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.

**★** Not shown.

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### Power Supply - D200s, D200, D60, and S20 3 in. Supply Unit

#### Both 24 Vdc and 100-240 Vac Power Supplies Shown

#### Power Supplies on S20 <sup>≥</sup>156 157a 157, 169 154a ti10854a Power Supplies on D200s, D200, and D60 154a æ

313527V 

157, 157a, 169

#### 24 Vdc and 100-240 Power Supply Parts

			(24 Vdc)		(			
Ref. No.	Description	S20	D60	D200s D200	S20	D60	D200s D200	Qty.
151	ENCLOSURE, power supply assy	n/a	n/a	n/a	n/a	n/a	n/a	1
152	WASHER, lock	100016	100016	100016	100016	100016	100016	6
153	SCREW, cap, sch	101682	101682	101682	101682	101682	101682	6
154	MODULE, assembly, 24V	255649	255649	255649				1
154a	POWER SUPPLY, 100-240 Vac				15M293	15M293	15M293	1
155	SCREW, mach, pan head	110637	110637	110637				2
156	SCREW, self-tapping				101845	101845	101845	6
157	SWITCH, power, 24 Vdc	n/a	n/a	n/a				1
157a	SWITCH, power, 120V				121254	121254	121254	1
158	COVER, switch mount				n/a	n/a	n/a	1
159	SCREW, countersunk, 6-32 x 0.38	121255	121255	121255	121255	121255	121255	6
160	COVER, power				n/a	n/a	n/a	1
161	GROMMET				112738	112738	112738	1
162▲	LABEL, caution				196548	196548	196548	1
163	CABLE, power, female,.8M	255673	255673	255673				1
164	WASHER, lock				100272	100272	100272	2
165	FUSE, 250V / 1.2A				121261	121261	121261	2
166	SCREW, grounding				111593	111593	111593	1
167▲	LABEL, symbol, ground				186620	186620	186620	1
168	BRACKET, power supply support		n/a	n/a		n/a	n/a	
169	PLATE, switch mount	n/a	n/a	n/a				1

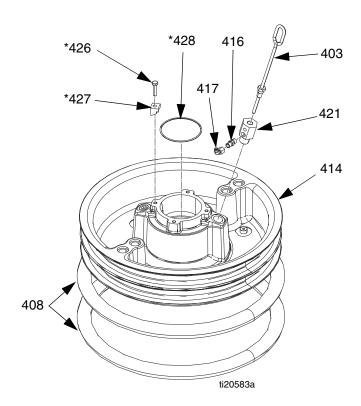
Parts designated n/a are not available separately.

#### 30 and 55 Gallon Platen

#### 115 Liter (30 Gallon) Platen, Model 255661

## 404 417 429 416 411 406 420 408 410 Ti10530A

## 200 Liter (55 Gallon) Platen, 255662, 255663, and 255664



#### 115 Liter (30 Gallon) Platen Parts

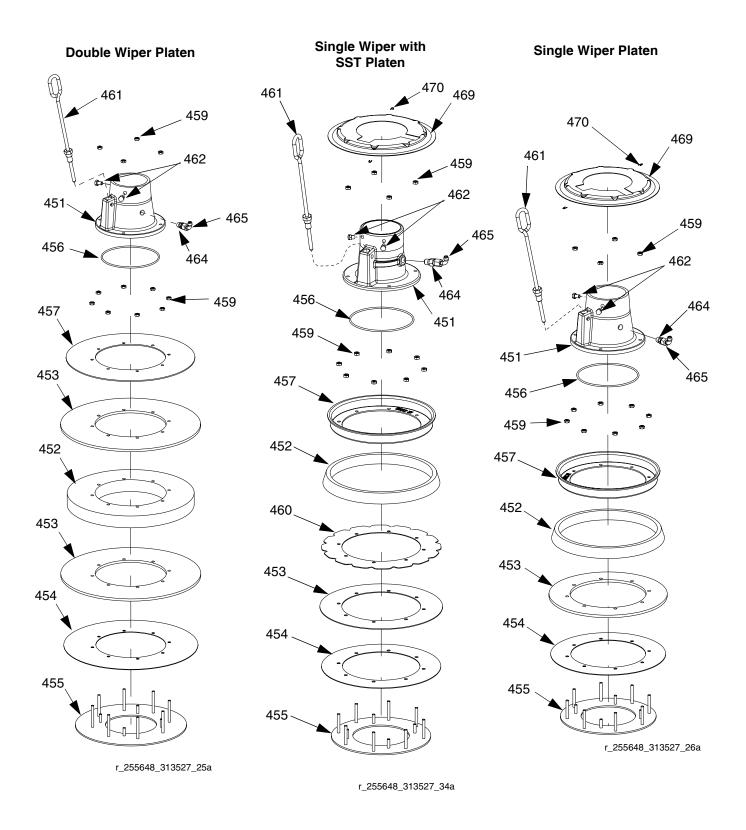
Ref.			Qty
No.	Part No.	Description	
403	166560	STEM, probe	1
404	101831	PIN, spring	1
405	177542	HANDLE	1
406	102040	NUT, lock, hex	8
408	255654	WIPER, seal	1
410	109469	SCREW, machine flat hd	8
411		ADAPTER, 30 gal.	1
414		PLATE, follower, 30 gal.	1
416	114317	VALVE, check	1
417	597151	FITTING, elbow	1
420	C20521	SEAL, thread	8
429	100451	COUPLING	1

#### 200 Liter (55 Gallon) Platen Parts

ty	Ref. No.	Part No.	Description	Qty
1	403		HANDLE, bleed assy	1
1	408		SEAL, wiper, drum, 55 gal., neoprene; for 255664 only.	2
8		255653	SEAL, wiper, drum, 55 gal., EPDM;	2
1			for 255663 and 255662 only.	
8	414		PLATE, ram 55 gal., for 255664	1
1			and 255663 only.	
			PLATE, ram 55 gal., PTFE	1
1	416	122056	VALVE, check, 1/4, for 255662 and	1
8			255663 only	
0		501867	VALVE, check, 5/8, for 255664 only	1
ı	417	C02050	FITTING, TUBE, quick disconnect	1
	421		ADAPTER, for 255662 and 255663	1
			only	
		16W974	ADAPTER, for 255664 only	1
	426*		SCREW, cap	4
		276025	•	4
	428*	109495	_	1
	120	100-00	5 mm	•

Parts included in 255392 Kit (purchase separately).

# 20 Liter (5 Gallon), 30 Liter (8 Gallon), and 60 Liter (16 Gallon) Platens



#### **Platen Descriptions**

Platen	Platen Size	Platen Material	Seal Material	Wiper Assembly Kit
257727🏗	20 Liter	CS	Nitrile	257639
257728	(see page 58)	CS	PolyUrethane	257640
257729		SST	PTFE-coated Nitrile	257641
257730*		CS	Nitrile	257642
257731*	=	CS	PolyUrethane	257643
257732	30 Liter	CS	Nitrile	257644
257733	(see page 58)	CS	PolyUrethane	257645
257734		SST	PTFE-coated Nitrile	257646
257735*		CS	Nitrile	257647
257736*		CS	PolyUrethane	257648
257737	60 Liter	CS	Nitrile	257649
257740🏗	(see page 60)	CS	PolyUrethane	257650
257738		SST	PTFE-coated Nitrile	257651
257739*		CS	Nitrile	257652
257741*		CS	PolyUrethane	257653

#### 🕏 Single wiper

\* Double wiper

See page 58-60 for parts.

Common Parts				Qty
The parts listed below are common among all 20, 30,	Ref.	Part	Description	
and 60 liter platens. Parts that vary are found in the tables on page 58-60.	456	121829	O-RING	1
	459	113504	NUT, keps, hex hd	12
	461	257697	HANDLE, bleed, sst	1
	463	109482	O-RING; see page 60	1
	465	C20350	ELBOW, 90°: 1/4 OD x 1/4 npt1	

#### Varying Parts - 20 Liter (5 Gallon) Platens

The following table indicates which parts (according to reference number) are included with each platen.

			Reference Numbers				
Ref.	Description	257727	257728	257729	257730	257731	Qty:
451	BASE	257665	257665	257662	257665	257665	1
452‡	SPACER	276049	276049	276049	257694	257694	1
453#	WIPER, main	257672	257678	257675	257672 (2)	257678 (2)	1 (2)
454‡	WIPER, PE support	257681	257681	257681	257681	257681	1
455‡	PLATE, bottom	n/a	n/a	n/a	n/a	n/a	1
457‡	PLATE, top	n/a	n/a	n/a	n/a	n/a	1
460#	WIPER, support			257689			1
462#	SCREW, cap, hex hd	16T574	16T574	16T575	16T574	16T574	2
464#	VALVE, check	122056	122056	501867	122056	122056	1
468#	TAG, instructions	n/a	n/a	n/a			1
469‡	COVER	15W184	15W184	15W184			1
470#	PIN, hairpin, cotter (10 pack)	16U740	16U740	16U740			2

Parts designated n/a are not available separately. 

‡ See page 57 for wiper assembly kits.

#### Varying Parts - 30 Liter (8 Gallon) Platens

The following table indicates which parts (according to reference number) are included with each platen.

		Reference Numbers					
Ref.	Description	257732	257733	257734	257735	257736	Qty:
451	BASE	257665	257665	257662	257665	257665	1
452‡	SPACER	194148	194148	194148	257695	257695	1
453‡	WIPER, main	257673	257679	257676	257673 (2)	257679 (2)	1 (2)
454‡	WIPER, PE support	257682	257682	257682	257682	257682	1
455‡	PLATE, bottom	n/a	n/a	n/a	n/a	n/a	1
457‡	PLATE, top	n/a	n/a	n/a	n/a	n/a	1
460#	WIPER, support			257690			1
462‡	SCREW, cap, hex hd	16T574	16T574	16T575	16T574	16T574	2
464#	VALVE, check	122056	122056	501867	122056	122056	1
468‡	TAG, instructions	n/a	n/a	n/a			1
469‡	COVER	15X403	15X403	15X403			1
470#	PIN, hairpin, cotter (10 pack)	16U740	16U740	16U740			2

Parts designated n/a are not available separately.

‡ See page 57 for wiper assembly kits.

#### Varying Parts - 60 Liter (16 Gallon) Platens

The following tables indicates which parts (according to reference number) are included with each platen.

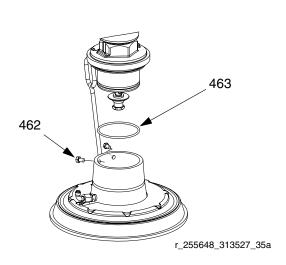
		Reference Numbers					
Ref.	Description	257737	257740	257738	257739	257741	Qty:
451	BASE	257665	257665	257662	257665	257665	1
452‡	SPACER	257684	257684	257684	257696	257696	1
453#	WIPER, main	257674	257680	257677	257674 (2)	257680 (2)	1 (2)
454#	WIPER, PE support	257683	257683	257683	257683	257683	1
455#	PLATE, bottom	n/a	n/a	n/a	n/a	n/a	1
457#	PLATE, top	n/a	n/a	n/a	n/a	n/a	1
460#	WIPER, support			257691			1
462#	SCREW, cap, hex hd	16T574	16T574	16T575	16T574	16T574	2
464#	VALVE, check	122056	122056	501867	122056	122056	1
468#	TAG, instructions	n/a	n/a	n/a			1
469‡	COVER	15X404	15X404	15X404			1
470‡	PIN, hairpin, cotter (10pack)	16U740	16U740	16U740			2

Parts designated n/a are not available separately.

‡ See page 57 for wiper assembly kits.

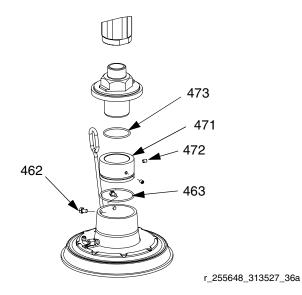
#### **Platen Mounting Kits**

#### **Check-Mate Mounting**



			Qty
Ref.	Part	Description	
463	109482	O-RING	1
471		ADAPTER	1
472		SCREW, socket-hd	2
473	109458	O-RING	1

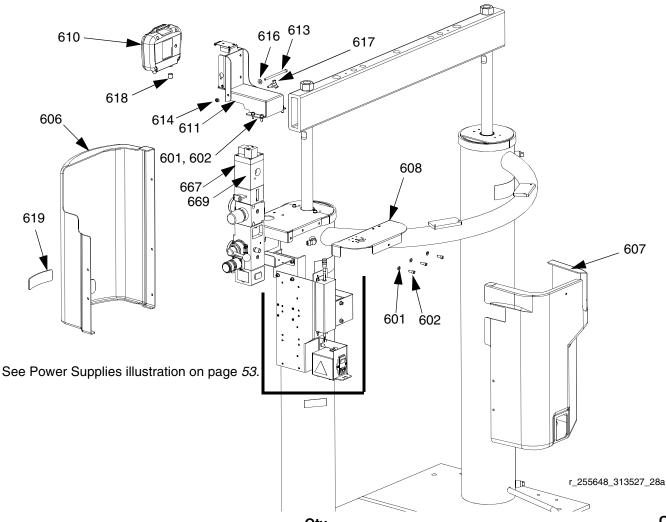
#### **Dura-Flo Mounting Kit 257630**



### **Accessories**

### D200s, D200, and D60 DataTrak Accessory Kits

D200s Supply Units, 255705 (100-240 Vac) and 255758 (24 Vdc)
D200 and D60 Supply Units, 255757 (24 Vdc) and 255704 (100-240 Vac)



			Qty
Ref.	Part	Description	
601		WASHER, lock	7
602		SCREW, cap, sch	7
603		SCREW, captive, slotted	6
604		FASTENER, retainer	6
605		CLIP, u-nut	6
609		CABLE, CAN, male / female, 0.4m	1
610	255415	PENDANT, datatrak, ambient ram	1
611		BRACKET, pendant pivot	1
612		BRACKET, mounting, assembly	1
613		SCREW, shcs, 1/4-20UNC x 4.25	1
614		NUT, lock, hex	1
615		HARNESS, datatrak, ambient ram	1
616		WASHER, plain	1

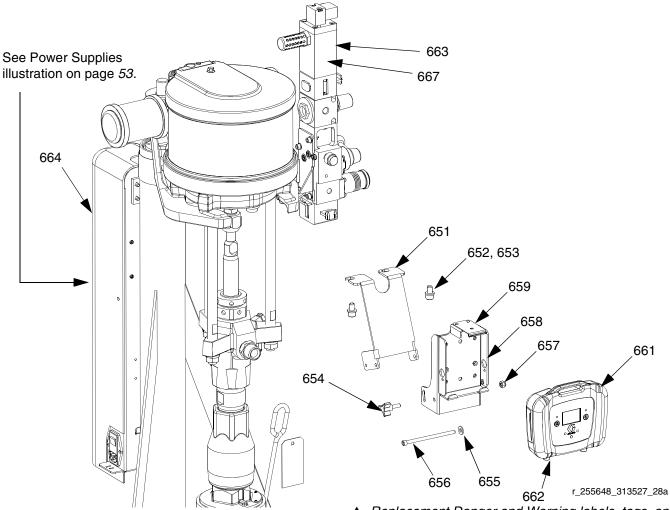
,				Qty
	Ref.	Part	Description	
	617		KNOB, display adj.	1
	618		CAP, vinyl, 0.437 ID x 1/2	1
	619	15R121	LABEL, intelligent pump control	1
;	667▲		LABEL, caution	1
;	669	121235	SOLENOID, air motor, large	1

▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.

For D200s, D200, and D60 Supply Units, disassemble fasteners and washers included with ram and use them to attach bracket (611).

See page 63 for varied parts table.

### S20 3 in. Supply Unit DataTrak Accessory Kit, 257636 and 257635



		<i>""</i>	Qty
Ref.	Part	Description	
651		BRACKET, datatrak	1
652		WASHER, lock	2
653		SCREW, cap, socket head	2
654		KNOB, display adj.	1
655		WASHER, plain	1
656		SCREW, shcs, 1/4-20UNC x 4.25	1
657		NUT, lock, hex	1
658		CARRIAGE, display	1
659		SPRING, latch	1
661	255415	PENDANT, datatrak, ambient ram	1
662		CAP, vinyl, 0.437ID x 1/2	1
663	257657	SOLENOID, air motor, small	1
664		COVER	1
665₩	122487	CABLE, CAN, male-female, 1.5m	1
666₩		HARNESS, datatrak, ambient ram	1
667▲	189285	LABEL, caution	1
668 <b>≭</b>		BRACKET, light tower	1

▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.

\* Not shown.

See page 63 for varied parts table.

## Varied Parts for DataTrak Accessory Kits

#### D200s, D200, and D60 Supply Units

		24 Vdc		100-24	10 Vac	
Ref.		D200 D60	D200s	D200 D60	D200s	
No.	Description	255757	255758	255704	255705	Qty.
606	COVER, shroud front	n/a	n/a	n/a	n/a	1
607	COVER, shroud rear	n/a	n/a	n/a	n/a	1
608	BRACKET, light tower	n/a	n/a	n/a	n/a	1
151*	BRACKET, power supply	n/a	n/a	n/a	n/a	1
154a*	POWER SUPPLY, 100-240 Vac			15M293	15M293	1
157a*	SWITCH, power, 100-240 Vac			121254	121254	1
155*	SCREW, machine, pan hd	110637	110637			2
160*	COVER, power			n/a	n/a	1
165*	FUSE, 250V/1.2A			121261	121261	2
154*	MODULE, assembly, 24V	255649	255649			1
160*	COVER, switch mount	n/a	n/a	n/a	n/a	1
163*	CABLE, pwr, female, 0.8M	255673	255673			1
156*	SCREW, self-tapping			101845	101845	6

<sup>\*</sup> See page 53 for Power Supply illustration.

#### S20 Supply Unit

Ref.		24 Vdc	100-240 Vac	
No.	Description	257636	257635	Qty.
608	BRACKET, light tower	n/a	n/a	1
151*	BRACKET, power supply	n/a	n/a	1
154a*	POWER SUPPLY, 100-240 Vac		15M293	1
157a*	SWITCH, power, 100-240 Vac		121254	1
155*	SCREW, machine, pan hd	110637		2
160*	COVER, power		n/a	1
165*	FUSE, 250V/1.2A		121261	2
154*	MODULE, assembly, 24V	255649		1
160*	COVER, switch mount	n/a	n/a	1
163*	CABLE, pwr, female, 0.8M	255673		1
156*	SCREW, self-tapping		101845	6

<sup>\*</sup> See page 53 for Power Supply illustration.

## Two-Button Interlock Air Control Kit

See 312374 for information.

Supply Unit	Part
D200	255719
D200s	255720
D60	257615

# Drum Roller Kits for D200 and D200S Supply Units, 255627

See 312492 for more information.

## Drum Position Clamp Set for D200 Supply Units, 206537

Includes two clamps.

## Drum Position Clamp for D200S Supply Units

Order quantity 2 of C32463.

#### **Enclosed Wet Cup Recirc Kit**

See 312494 for more information.

## 200 Liter (55 Gallon) Platen Cover Kits, 255691

See 406681 for more information.

#### **Light Tower Kit, 255467**

For D200s, D200, D60, and S20 single supply systems.

See 312493 for more information.

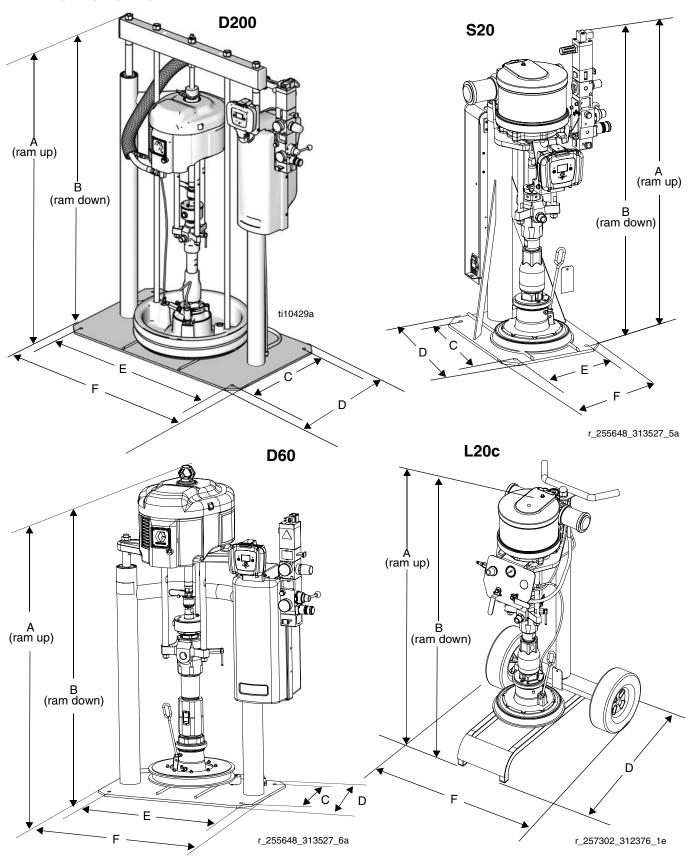
## **Check-Mate Displacement Pump Kits**

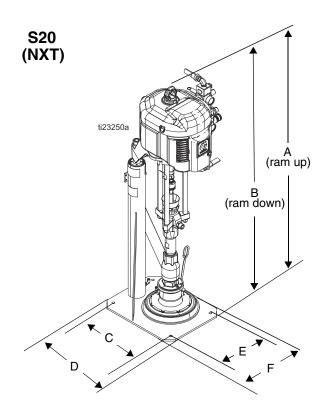
Displacement Pump Size	Manual
60cc	312889
100cc	312467
200cc	312468
250cc	312469
500cc	312470

## **Dura-Flo Displacement Pump Kits**

Displacement Pump Size	Manual
145cc, 180cc, 220cc, 290cc	311827
430cc and 580cc	311825
1000cc	311717

## **Dimensions**





### **Dimensions**

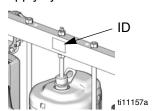
Ram Model	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	F in. (mm)
L20c	69 (1752.6)	44 (1117.6)		21 (533.4)		22 (558.8)
S20 (NXT)	84 (2133.6)	59 (1498.6)	16 (406.4)	19 (482.6)	11 (279.4)	17 (431.8)
S20	59.3 (1506)	35.8 (909)	16 (406.4)	19 (482.6)	11 (279.4)	17 (431.8)
S20c	90 (2286)	65 (1651)		26.0 (661)		22.1 (562)
D60	89 (2260.6)	59 (1498.6)	14 (355.6)	18 (457.2)	24 (609.6)	28 (711.2)
D200	102.3 (2599)	64.8 (1646)	21.0 (533)	25.0 (635)	38.0 (965)	42.0 (1067)
D200s	104.9 (2665)	70.3 (1785)	23.0 (584)	25.0 (635)	45.0 (1143)	48.0 (1219)

## Weight

Use the table below to identify the maximum weight for each available platen size.

Platen Size Gallons (Liters)	Maximum Weight
55 (200)	51 (23)
30 (115)	44 (20)
16 (60)	25 (11.3)
8 (30)	21 (9.5)
5 (20)	19 (8.7)

See the identification plate (ID) for the weight of your supply system.



## **Technical Data**

Max air input pressure (supply system) / Air inlet size L20c - 2 in. elevator, 5 gal. (20 L)	100 psi (0.7 MPa, 7 bar) / 1/2 npsm(f) 125 psi (0.9 MPa, 9 bar) / 1/2 npt(f) 150 psi (1.0 MPa, 10 bar) / 3/4 npt(f) 150 psi (1.0 MPa, 10 bar) / 3/4 npt(f) 125 psi (0.9 MPa, 9 bar) / 3/4 npt(f)		
Max fluid, air working pressure, and weight (displacement pump)	For Check-Mate pump packages, see manual 312376. For Dura-Flo pump packages, see manuals 311826, 311828, 311833.		
Wetted parts (displacement pump)	For Check-Mate displacement pumps, see manual 312375. For Dura-Flo displacement pumps, see manuals		
Plates Codes (see years 7). Post surples w Matted years	311717, 311825, 311827.		
Platen Codes (see page 7): Part number; Wetted parts B: 257727, 5 gal. (20 L) J: 257732, 8 gal. (30 L) S: 257737, 16gal. (60 L)	Electroless nickel, polyurethane, nitrile, carbon steel, polyethylene, zinc plated carbon steel, buna, 316 sst, 17-4PH sst		
<b>C:</b> 257728, 5 gal. (20 L) <b>K:</b> 257733, 8 gal. (30 L) <b>T:</b> 257740, 16gal. (60 L)	Electroless nickel, polyurethane, carbon steel, polyethylene, nitrile, zinc plated carbon steel, buna, 316 sst 17-4PH sst		
<b>F</b> : 257729, 5 gal. (20 L) <b>L</b> : 257734, 8 gal. (30 L) <b>U</b> : 257738, 16gal. (60 L)	Stainless steel, polyurethane, PTFE coated nitrile, polyethylene, nitrile, PTFE, 303 sst, 304 sst, 316 sst, 17-4PH sst		
<b>G:</b> 257730, 5 gal. (20 L) <b>M:</b> 257735, 8 gal. (30 L) <b>W:</b> 257739, 16gal. (60 L)	Electroless nickel, aramind reinforced elastomer, rubber-based PSA, nitrile, polyethylene, zinc plated carbon steel, buna, 1018 carbon steel, 304 sst, 316 sst, 17-4PH sst		
<b>H:</b> 257731, 5 gal. (20 L) <b>R:</b> 257736, 8 gal. (30 L) <b>Y:</b> 257741, 16gal. (60 L	Electroless nickel, aramind reinforced elastomer, rub- ber-based PSA, polyurethane, polyethylene, nitrile, zinc plated carbon steel, buna, 1018 carbon steel, 304 sst,		
,	316 sst, 17-4PH sst		
<b>7:</b> 255661, 30 gal. (115 L)	zinc plated carbon steel, EPDM, sst, fluoroelastomer PTFE, EPDM, PTFE coated aluminum, zinc plated carbon steel, 316 sst		
<b>9:</b> 255663, 55 gal. (200 L)	EPDM, aluminum, zinc plated		
<b>A:</b> 255664, 55 gal. (200 L)	carbon steel, 316 sst PTFE, neoprene, aluminum, zinc plated carbon steel, 316 sst		
Ambient operating temperature range (supply system)  Sound data	32-120 °F (0- 49°C) See separate air motor manual.		
External power supply requirements (DataTrak)  AC power units	100-240 Vac, 50/60 Hz, single phase, 1.2 amps max		
DC power units	draw 24 Vdc, 1.2 amps max draw		

## **Graco Standard Warranty**

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

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