3395 SHOT BLASTER

SERVICE MANUAL

Read Manual Before Servicing Machine

402966 Rev G

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Specifications

Product Specifications						
Width	**Max. Length**	**Max. Height**	**Weight**	**Working Width**	**Blasting Capacity**	**Power**
12” (30 cm)	40” (102 cm)	40” (102 cm)	100 lb (45.4 kg)	8” (20 cm)	Up to 430 ft^2/hr	1.5 HP (1.12 Kw)

Machine Variants				
Region	**Serial Number**	**Input Power**	**Max. Amps**	**Body Panels**
Domestic	3395-10XXXX	120V / 60 Hz	17	Silver Vein
	3395-12XXXX	120V / 60 Hz	17	Green
	3395-23XXXX	120V / 60 Hz	17	Silver Vein
International	3395-11XXXX	230V / 50 Hz	12	Silver Vein
	3395-20XXXX	110V / 50 Hz	17	Silver Vein
	3395-28XXXX	100V / 50/60 Hz	15	Silver Vein

GENERAL RULES FOR SAFE OPERATION

Before use, anyone operating or performing maintenance on this equipment must read and understand this manual, as well as any labels packaged with or attached to the machine and its components. Read the manual carefully to learn equipment applications and limitations, as well as potential hazards associated with this type of equipment. Keep manual near machine at all times. If your manual is lost or damaged, contact National Flooring Equipment (NFE) for a replacement.

Personal

Dress properly and use safety gear.
Do not wear loose clothing; it may be caught in moving parts. Anyone in the work area must wear safety goggles or glasses and hearing protection. Wear a dust mask for dusty operations. Hard hats, face shields, safety shoes, etc. should be worn when specified or necessary.

Maintain control; stay alert.
Keep proper footing and balance, and maintain a firm grip. Observe surroundings at all times. Do not use when tired, distracted, or under the influence of drugs, alcohol, or any medication that may cause decreased control.

Keep hands away from all moving parts and tooling.
Wear gloves when changing tooling. Remove tooling when machine is not in use and/or lower cutting head to the floor.

Do not force equipment.
Equipment will perform best at the rate for which it was designed. Excessive force only causes operator fatigue, increased wear, and reduced control.

Environment

Avoid use in dangerous environments.
Do not use in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust, or flammable materials). Remove materials or debris that may be ignited by sparks. Keep work area tidy and well-lit - a cluttered or dark work area may lead to accidents.

Protect others in the work area and be aware of surroundings.
Provide barriers or shields as needed to protect others from debris and machine operation. Children and other bystanders should be kept at a safe distance from the work area to avoid distracting the operator and/or coming into contact with the machine. Operator should be aware of who is around them and their proximity. Support personnel should never stand next to, in front of, or behind the machine while the machine is running. Operator should look behind them before backing up.

Guard against electric shock.
Ensure that machine is connected to a properly grounded outlet. Prevent bodily contact with grounded surfaces, e.g. pipes, radiators, ranges, and refrigerators. When scoring or making cuts, always check the work area for hidden wires or pipes.

Maintenance & Repairs

Begin maintenance work only when the machine is shut down, unplugged, and cooled down.

Use proper cleaning agents.
Ensure that all cleaning rags are fiber-free; do not use any aggressive cleaning products.

Schedule regular maintenance check-ups.
Ensure machine is properly cleaned and serviced. Remove all traces of oil, combustible fuel, or cleaning fluids from the machine and its connections and fittings. Retighten all loose fittings found during maintenance and repair work. Loose or damaged parts should be replaced immediately; use only NFE parts.

Do not weld or flame-cut on the machine during repairs, or make changes to machine without authorization from NFE.

Equipment

Use proper parts and accessories.
Only use NFE-approved or recommended parts and accessories. Using any that are not recommended may be hazardous.

Ensure accessories are properly installed and maintained.
Do not permanently remove a guard or other safety device when installing an accessory or attachment.

Inspect for damaged parts.
Check for misalignment, binding of moving parts, loose fasteners, improper mounting, broken parts, and any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the machine off immediately. Do not use damaged equipment until repaired. Do not use if power switch does not turn machine on and off. For all repairs, insist on only identical NFE replacement parts.

Maintain equipment and labels.
Keep handles dry, clean, and free from oil and grease. Keep cutting edges sharp and clean. Follow instructions for lubricating and changing accessories. Motor and switches should be completely enclosed at all times with no exposed wiring. Inspect cord regularly. Labels carry important information; if unreadable or missing, contact NFE for a free replacement.

Avoid accidental starting; store idle equipment.
When not in use, ensure that the machine is unplugged; do not turn on before plugging in. Store in a dry, secured place. Remove tooling when storing, and keep away from children.

Safety

SHOT BLASTER SAFETY GUIDELINES

Before use, anyone operating this equipment must read and understand these safety instructions.

Shot Blasting

Beware of hidden obtrusions.
Watch out for hidden dangers and protrusions in flooring. Do not use on largely uneven surfaces.

Avoid contact with hot shroud.
Do not touch the shroud without proper hand protection. Both become hot during operation and remain hot after stopping the machine.

Provide barriers, shields, or safety glasses as needed to protect others from debris.

Use for correct applications.
Do not force equipment to do heavier duty work than it was made for.

Use a magnetic sweep immediately after blasting.
Steel shot that is left on the walking surfaces creates a hazard for falling unexpectedly.

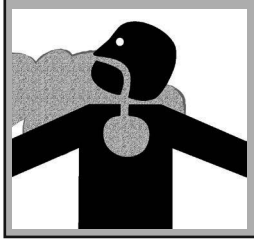
Dust Collection

Turn off machine before working with dust collector.
Do not switch off or remove the dust collector while the machine is running.

Use with appropriate dust collecting system.
Do not operate machine designed for use with a dust collector without the dust collector. Ensure dust collector is on and operating properly while grinding.

Dispose of collected waste.
Do not leave the dust collector bag full of waste. Handle and dispose of bag and waste in accordance with all applicable local, state, and federal regulations. The dust bin of a connected dust collector must be emptied before transportation.

WARNING: GRINDING/CUTTING/DRILLING OF MASONRY, CONCRETE, METAL AND OTHER MATERIALS CAN GENERATE DUST, MISTS AND FUMES CONTAINING CHEMICALS KNOWN TO CAUSE SERIOUS FATAL INJURY OR ILLNESS, SUCH AS RESPIRATORY DISEASE, CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. IF YOU ARE UNFAMILIAR WITH THE RISKS ASSOCIATED WITH THE PARTICULAR MATERIAL BEING CUT, REVIEW THE MATERIAL SAFETY DATA SHEET AND/OR CONSULT YOU EMPLOYER, THE MATERIAL MANUFACTURER/SUPPLIER, GOVERNMENTAL AGENCIES SUCH AS OSHA AND NIOSH AND OTHER AUTHORITIES ON HAZARDOUS MATERIALS. CALIFORNIA AND SOME OTHER AUTHORITIES, FOR INSTANCE, HAVE PUBLISHED LISTS OF SUBSTANCES KNOWN TO CAUSE CANCER, REPRODUCTIVE TOXICITY, OR OTHER HARMFUL EFFECTS. CONTROL DUST, MIST AND FUMES AT THE SOURCE WHERE POSSIBLE. IN THIS REGARD USE GOOD WORK PRACTICES AND FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER/SUPPLIER, OSHA/NIOSH, AND OCCUPATIONAL AND TRADE ASSOCIATIONS. WHEN THE HAZARDS FROM INHALATION OF DUST, MISTS AND FUMES CANNOT BE ELIMINATED, THE OPERATOR AND ANY BYSTANDERS SHOULD ALWAYS WEAR A RESPIRATOR APPROVED BY OSHA/MSHA FOR THE MATERIAL BEING CUT.



RECOMMENDED ELECTRICAL PRACTICES

CAUTION: ALWAYS FOLLOW APPLICABLE ELECTRICAL CODES, STANDARDS AND/OR REGULATIONS. CONSULT YOUR LOCAL ELECTRICAL AUTHORITY OR A LICENSED ELECTRICIAN BEFORE ATTEMPTING TO MODIFY AN ELECTRICAL INSTALLATION. ENSURE THAT CIRCUIT AND GROUND FAULT PROTECTION DEVICES AND ALL OTHER ELECTRICAL SAFETY EQUIPMENT ARE FUNCTIONING PROPERLY.

Power Cord Sizing

All cords should be sized appropriately to reduce the risk of damage, fire or reduced performance. Reference the tables in this section for recommended cord sizes.

Table Information

These tables are based on a <10% voltage loss, data from the U.S. National Electrical Code Tables 400.5(A) & 400.5(B) and typical resistances for standard copper wire.

How To Use This Table

1. Determine your supply voltage.
2. Determine the total length of your cord including any extension cords.
3. Determine the maximum amp draw for your machine.
4. Trace your voltage across the top of the table to the first length that is greater than or equal to your cord length.
5. Follow the column down to the first row that contains a maximum amp draw greater than or equal to yours.
6. This cell contains the minimum recommended wire size for your application.

Example

Application: Max Amps = 13A, Length = 60ft, Voltage = 120V

Solution: 60ft is between the 50ft and 75ft columns, so the larger of the two columns is chosen. Likewise, 13A is between the 12A and 14A rows, so the larger of the two rows is chosen. 12 AWG (4mm^2) is the minimum recommended wire size for this example.

Single-Phase Equipment					
Max Length	100V Supply	20ft (6m)	40ft (12m)	60ft (20m)	80ft (2
	120V Supply	25ft (7.5m)	50ft (15m)	75ft (25m)	100ft (
	230V Supply	50ft (15m)	100ft (30m)	150ft (45m)	200ft (
Max Amps		Minimum Wire Size			
8		16 AWG (1.5mm^2)	16 AWG (1.5mm^2)	14 AWG (2.5mm^2)	12 AWG (
10		16 AWG (1.5mm^2)	14 AWG (2.5mm^2)	12 AWG (4mm^2)	12 AWG (
12		14 AWG (2.5mm^2)	14 AWG (2.5mm^2)	12 AWG (4mm^2)	10 AWG (
14		14 AWG (2.5mm^2)	12 AWG (4mm^2)	12 AWG (4mm^2)	10 AWG (
16		12 AWG (4mm^2)	12 AWG (4mm^2)	10 AWG (6mm^2)	10 AWG (

RECOMMENDED ELECTRICAL PRACTICES—CONTINUED

Single-Phase Equipment					
Max Length	100V Supply	20ft (6m)	40ft (12m)	60ft (20m)	80ft (25m)
	120V Supply	25ft (7.5m)	50ft (15m)	75ft (25m)	100ft (30m)
	230V Supply	50ft (15m)	100ft (30m)	150ft (45m)	200ft (60m)
Max Amps		Minimum Wire Size			
8		16 AWG (1.5mm^2)	16 AWG (1.5mm^2)	14 AWG (2.5mm^2)	12 AWG (4mm^2)
10		16 AWG (1.5mm^2)	14 AWG (2.5mm^2)	12 AWG (4mm^2)	12 AWG (4mm^2)
12		14 AWG (2.5mm^2)	14 AWG (2.5mm^2)	12 AWG (4mm^2)	10 AWG (6mm^2)
14		14 AWG (2.5mm^2)	12 AWG (4mm^2)	12 AWG (4mm^2)	10 AWG (6mm^2)
16		12 AWG (4mm^2)	12 AWG (4mm^2)	10 AWG (6mm^2)	10 AWG (6mm^2)
18		12 AWG (4mm^2)	12 AWG (4mm^2)	10 AWG (6mm^2)	8 AWG (10mm^2)
20		12 AWG (4mm^2)	12 AWG (4mm^2)	10 AWG (6mm^2)	8 AWG (10mm^2)
25		12 AWG (4mm^2)	10 AWG (6mm^2)	8 AWG (10mm^2)	8 AWG (10mm^2)
30		10 AWG (6mm^2)	10 AWG (6mm^2)	8 AWG (10mm^2)	6 AWG (16mm^2)

Single-Phase Equipment					
Max Length	100V Supply	100ft (30m)	120ft (35m)	140ft (40m)	160ft (48.5m)
	120V Supply	125ft (40m)	150ft (45m)	175ft (50m)	200ft (61m)
	230V Supply	250ft (75m)	300ft (90m)	350ft (105m)	400ft (122m)
Max Amps		Minimum Wire Size			
8		12 AWG (4mm^2)	10 AWG (6mm^2)	10 AWG (6mm^2)	10 AWG (6mm^2)
10		10 AWG (6mm^2)	10 AWG (6mm^2)	8 AWG (10mm^2)	8 AWG (10mm^2)
12		10 AWG (6mm^2)	8 AWG (10mm^2)	8 AWG (10mm^2)	8 AWG (10mm^2)
14		8 AWG (10mm^2)	8 AWG (10mm^2)	8 AWG (10mm^2)	6 AWG (16mm^2)
16		8 AWG (10mm^2)	8 AWG (10mm^2)	6 AWG (16mm^2)	6 AWG (16mm^2)
18		8 AWG (10mm^2)	8 AWG (10mm^2)	6 AWG (16mm^2)	6 AWG (16mm^2)
20		8 AWG (10mm^2)	6 AWG (16mm^2)	6 AWG (16mm^2)	6 AWG (16mm^2)
25		6 AWG (16mm^2)	6 AWG (16mm^2)	4 AWG (25mm^2)	4 AWG (25mm^2)
30		6 AWG (16mm^2)	4 AWG (25mm^2)	4 AWG (25mm^2)	4 AWG (25mm^2)

MAINTENANCE AND INSPECTION

Safety and service life of the machine depend on proper maintenance. The following table shows recommendations about time, inspection, and maintenance for the normal use of the machine. The time indications are based on uninterrupted operation. When the indicated number of working hours is not achieved during the corresponding period, the period can be extended. However, a full overhaul must be carried out at least yearly. Due to different working conditions, the frequency for inspections will vary. Prepare a suitable inspection schedule adhering to the specific working conditions.

Operating Hours/Time Period	Inspection Points and Maintenance Instructions
1-12 hours after repairing	• Check the efficiency of all safety devices. • Check all accessible screw connections for tight seals.
Before, during, and after operation	• Check whether there is any foreign matter in the abrasive hopper, the feed spout or in the blast wheel unit. • Check the amount of abrasive in the hopper, refill if necessary.
Daily and prior to starting work	• Check the hose connection for tightness and fixed seals. • Check dust hose and filter for damage. • Ensure dust collector has been emptied. • Check blast wheel, feed spout, liners, and fasteners for wear and damage. • Check the separator parts for wear and damage. • Remove foreign parts and dust deposits. • Check magnets and brush seals for wear. • Check the electrical connections for sediments of dirt or foreign bodies. • Check the electrical motor for dirt and other contaminants.
Annually	• Full overhaul and cleaning of the machine.

Inspections Interval	Part	Sign of Wear	Repairing Action
Daily	Brush seals	Wear at the lower end	Replace brush seals.
	Fixing screws of the liners	Wear on the fixing screws	Replace screws.
10-20 hours	Blast wheel and control cage	Blades of the blast wheel are worn 1/3, deep groves	Replace blast wheel and control cage.
50 hours	Liners in the wheel housing	Partly worn up to 1/3 of the original thickness	Replace liners.
100 hours	Rebound plate in the separator	Wear of the rebound plate	Replace rebounding plate.
200 hours	Feed spout	Worn out feed spout	Replace feed spout.

Troubleshooting Guide

GENERAL ERRORS

Problem	Cause	Solution
Unusual vibrations.	Uneven wear of the blast wheel.	Replace blast wheel set.
	Unbalance due to broken parts or blades.	Check separator and all other sections of the machine. Remove all broken parts.
	Wheel hub worn out.	Replace wheel hub.
Unusual noise.	Low clearances or bad adjustments of turning parts.	Check parts adjustments (blast wheel and control cage).
	Loose or lost screws.	Replace and/or tighten necessary bolts and/or screws.
	Sqeaking wheels.	Apply oil or grease, or replace if worn.
	Motor bearings worn out.	Replace motor.
Reduced or no performance.	Insufficient flow of abrasive to the blast wheel.	Clean wire mesh.
	Not enough abrasive in storage hopper.	Fill up abrasive.
	Loose valve lever.	Tighten set screw.
	Valve adjustment.	Adjust valve lever and valve disk.
	Too much dust in hopper.	Check all seals and dust hose and that the dust collector is functioning properly.
	Blast wheel or control cage is worn out.	Replace worn items.
	Valve does not close properly and abrasive is blocking the blast wheel when switched on.	Close valve and stop motor. Readjust valve.
	Too much abrasive admitted when switched on.	Ensure motor reaches maximum speed before opening the valve.
	Feed motion is too fast.	Reduce speed.
Losing abrasive.	Bad seals.	Check base seals. Readjust and replace when worn.
	Elevation adjustment of magnets.	Check elevation. Should not be higher than 5/16” (8 mm).
	Magnets lost field.	Replace magnets.
	Dust collector removing shot.	Contact NFE Customer Service for proper selection of dust collector.
Dumping abrasive.	Poor abrasive quality.	Use quality abrasives.
	Blast wheel worn.	Replace blast wheel.
	Worn seals.	Replace seals.
	Incorrect elevation of magnets.	Re-adjust elevation of magnets and adjust seals.
	Too much dust in shot hopper.	Check dust collector filter.
	Incorrect orientation of control cage.	Re-adjust orientation of control cage.
Too much dust or other particles present.	Insufficient air flow towards dust collector.	Check rated performance of the filter unit connected.
		Check all seals.
		Check dust hoses.
		Check differential pressure and replace filter elements if pressure is too high.

ELECTRICAL ERRORS

Problem	Cause	Solution
Motor does not start up.	Emergency stop is locked.	Unlock emergency stop button.
	Missing phase.	Check power supply.
	Faulty switch or relays.	Diagnosis and replacement by electrician.
Motor stops during operation.	Current is too high. Power supply circuit breaker disengaged.	Turn off machine and disconnect plug.
		Reset circuit breaker or replace fuse.
		Adjust maximum abrasive feeding.
	Motor is damaged.	Check and replace motor.

Maintenance

CHANGING THE BLAST WHEEL

Removal (Figure 1)

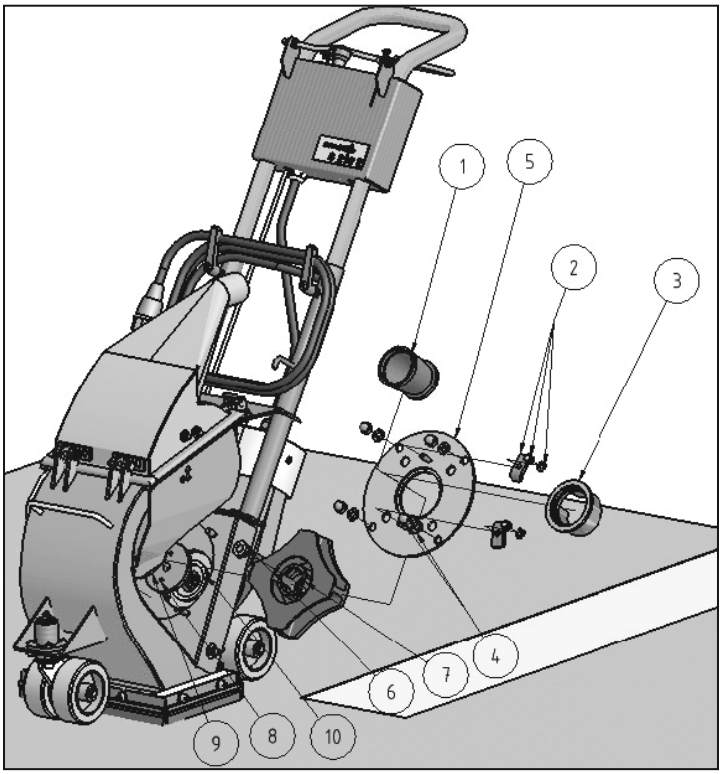


FIG. 1

1. Remove the feed spout (1) by pulling it out of the housing.
2. Loosen the control cage clamps (2).
3. Remove the control cage (3).
4. Unscrew the screws (4) of the front plate (5) and remove them.
5. Fix the wheel (7) with a piece of wood.
6. Loosen blast wheel nut (6).
7. Remove the blast wheel (7).
8. Check the wheel hub (8) for wear.
9. Inspect the seal (10) for wear.

Installation (Figure 2)

Before installing, clean all threads and use a new blast wheel fixing screw.

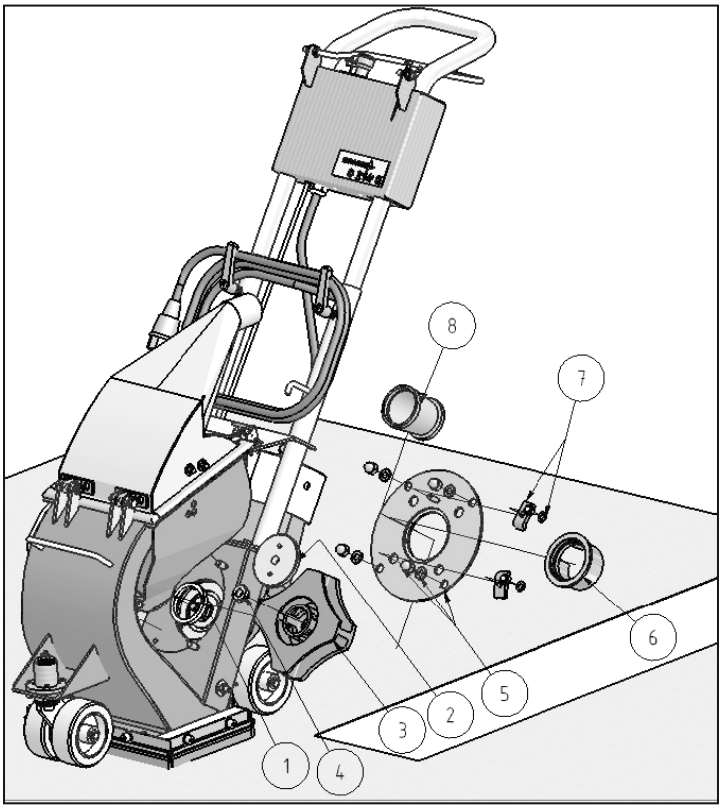


FIG. 2

1. Replace the seal (1) if it is worn.
2. Place the wheel hub (2) on the shaft of the wheel motor. Make sure that it is on boths sides in the right position. In order to control it, turn the wheel hub. It must turn the wheel motor as well.
3. Put the blast wheel (3) through the opening of the housing on the pins of the wheel hub (2).
4. Fix the wheel (3) with the blast wheel nut (4).
5. Reattach the front plate (5) with the four bolts.
6. Put in the control cage (6).
7. Clamp the control cage with the cage clamps (7); check the distance to the impeller of the wheel and make sure the wheel can rotate freely. Fix the cage clamps if necessary.
8. Re-place the feed spout.

CHANGING THE LINERS

Removal (Figure 3)

Before removing the liners, remove the blast wheel and the wheel hub.

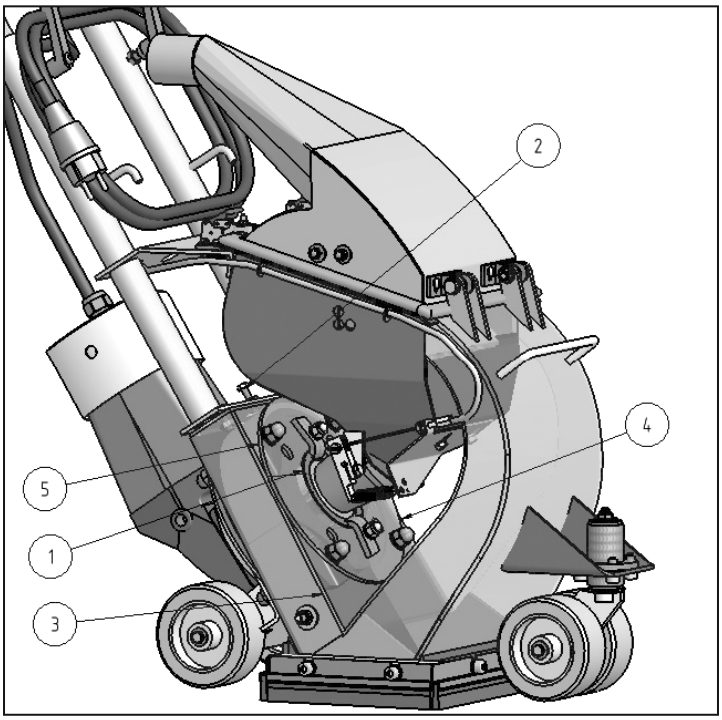


FIG. 3

1. Loosen the fastening screw of the left hand (3) and right hand (4) liner.
2. Turn the liners toward the inside of the blast housing and take them out at the bottom of the housing.
3. Loosen the counter screw (2) of the pressure screw of the top liner (5) and turn it completely up.
4. Loosen the pressure screw (2) of the top liner (5) to the end and turn it back until it can be removed.
5. Put a small nail through the thread opening and hit it down onto the top liner (5) until it slides downward.
6. Turn the top liner around the motor shaft and take it out through the bottom opening of the housing.

Installation (Figure 4)

Before installing new liners, check the wheel housing and its corners for wear.

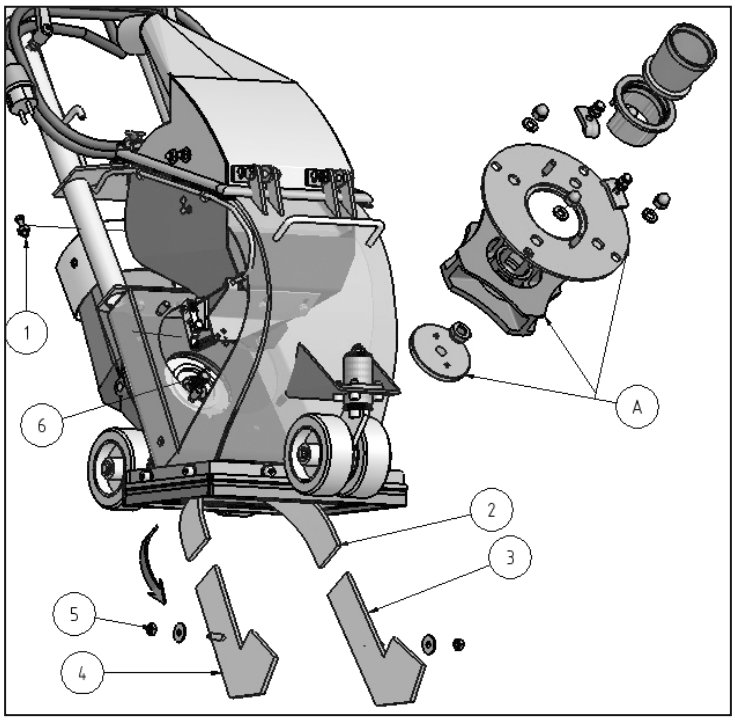


FIG. 4

1. Put the pressure screw (1) for the top liner (2) in place.
2. Move the top liner (2) through the opening of the wheel housing and turn it around the motor shaft (6) into the upper part of the housing.
3. Place the side liners (3 & 4) in the housing, so the bolts can be pushed through the holes in the side of the housing.
4. Put the screws (5) on the bolts and tighten them slightly.
5. Place the side liners (3 & 4) inside the housing so the liner sticks out at the bottom of the housing approximately 3/32” (2 mm).
6. Fasten the side liners with the screws.
7. Fix the pressure screw (1) s the edges of the top liner are sitting on the upper edges of the slide liners.
8. Mount the remaining components (A) of the blast wheel.
9. Set the control cage for operation.

Maintenance

RECOMMENDED SPARE PARTS LIST

To avoid long downtimes of the machine, NFE recommends to keeping the following spare parts in stock.

Part #	Description	Quantity
3395-201000145	Service Kit, Blast Wheel, 20mm x 165mm	2
3395-201000201	Liner, Top	1
3395-201000199	Liner, Side, Left	1
3395-201000200	Liner, Side, Right	1
3395-201000202	Brush, Side	2
3395-201000203	Brush, Front/Rear	2
3395-201000186	Seal, Drive Motor	1
3395-201000210	Nut, Blast Wheel	1
3395-201000204	Cable, Valve Control	1

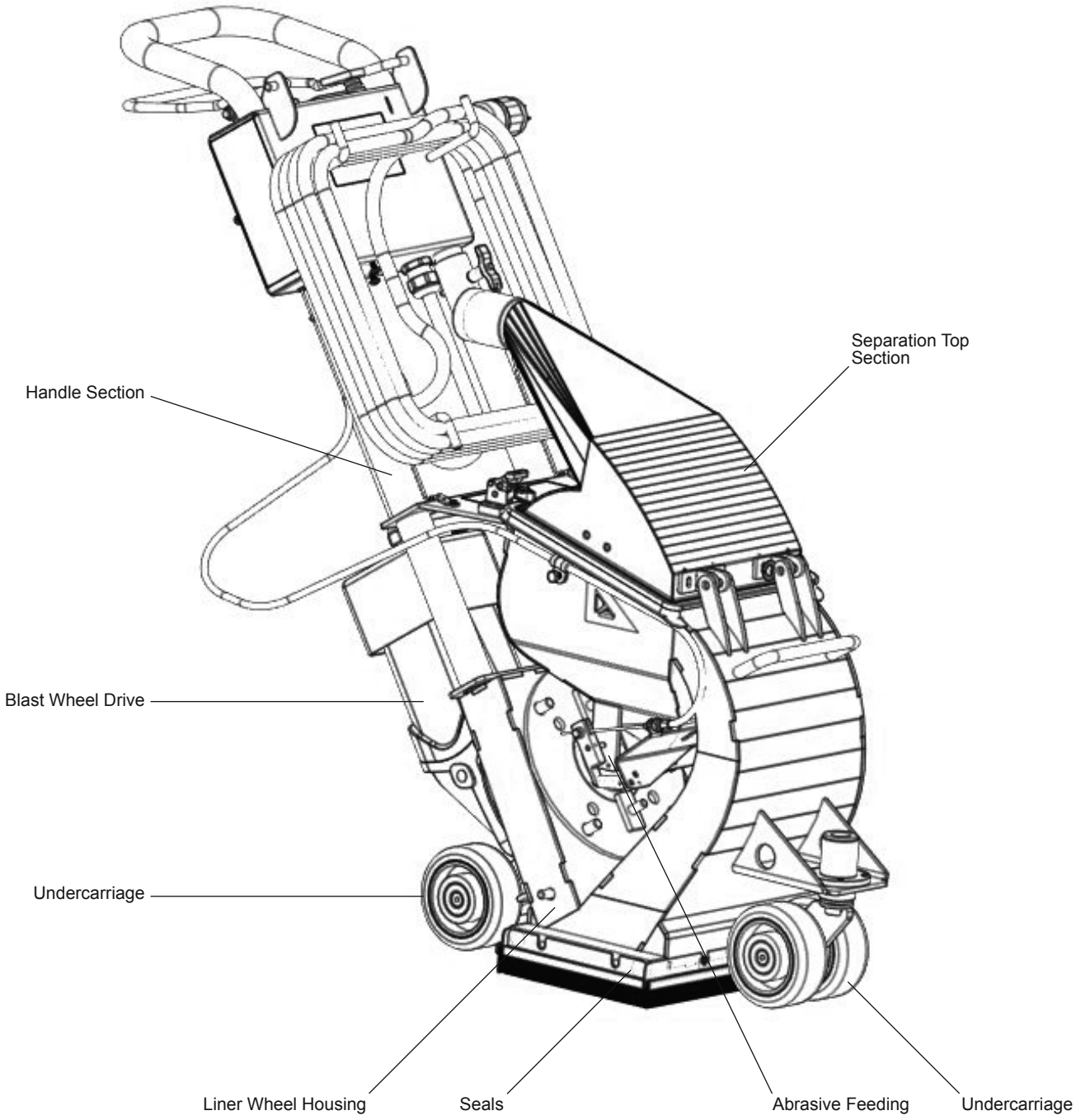
NFE offers a tool kit (3395kit) which contains all parts listed above and the tools needed for some maintenance work.

Complete Parts List

	PART#	DESCRIPTION	QTY
1	74619	WASHER, LOCK, M6	10
2	74638	BOLT, HH CAP THREAD ZINC M8-1.25X25MM8.8	2
3	74655	WASHER, FLAT, M10	8
4	74657	WASHER, LOCK, M10	8
5	401300	NUT, ACORN, M6-1.0	6
6	401302	NUT, ACORN, M10-1.5	10
7	401306	NUT, M6-1.0	2
8	401315	SCREW, HEX HEAD CAP, M8-1.25 X 20	2
9	401316	SCREW, HEX HEAD CAP, M8-1.25 X 30	4
10	401319	SCREW, SOCKET HEAD CAP, M4-0.7 X 30	2
11	401321	SCREW, SOCKET HEAD CAP, M5-0.8 X 50	4
12	401326	WASHER, FLAT, M4	22
13	401327	WASHER, FLAT, M5	4
14	401328	WASHER, FLAT, M6	17
15	401329	WASHER, FLAT, M8	19
16	401330	WASHER, LOCK, M4	2
17	401331	WASHER, LOCK, M5	4
18	401332	WASHER, LOCK, M8	8
19	401339	NUT, M4-0.7	2
20	401342	WASHER, SHIM, 22 X 30 X 1	1
21	401350	NUT, HEX, M8 X 1.25	5
22	401443	METER, AMP	1
23	401509	NUT, NYLOC, M8-1.25	12
24	401641	MOTOR, DRIVE, 120V	1
25	401642	O-RING	1
26	401643	HANDLE, TOP, S210E	1
27	401644	COVER, REAR	1
28	401645	PLATE, CLAMPING	1
29	401646	CONTACT, ELEMENT	1
30	401647	LABEL, EMERGENCY STOP	1
31	401649	SEAL, FELT	2
32	401650	INSERT, SEAL SEP	1
33	401651	SCREW, SELF DRILLING	2
34	401652	SHCS, M6-1.0 X 12	7
35	401653	SHCS, M4-0.7 X 12	8
36	401654	HHCS, M6-1.0 X 40	1
37	401655	SHCS, M4-0.7 X 10	2
38	401656	HHCS, M8-1.25 X 45	2
39	401657	HHCS, M6-1.0 X 16	8
40	401658	SHCS, M5-0.8 X 12	4
41	401659	SHCS, M4-0.7 X 18	8
42	401660	HHCS, M6-1.0 X 25	1
43	401661	SHCS, M8-1.25 X 16	12
44	3395-201000127	HOUSING, WHEEL	1
45	3395-201000131	SPRING, TENSION	1
46	3395-201000142	SUPPORT, MOTOR	1
47	3395-201000145	WHEEL KIT, 165MM	1
48	3395-201000186	SEAL, FELT	1
49	3395-201000192	CLAMP, C CAGE	2
50	3395-201000199	LINER, SIDE, LEFT	1
51	3395-201000200	LINER, SIDE, RIGHT	1
52	3395-201000201	LINER, TOP	1
53	3395-201000202	SEAL, BRUSH	2
54	3395-201000203	SEAL, BRUSH, FRONT/REAR	2
55	3395-201000204	CABLE, ABRASIVE CONTROL	2
56	3395-201000205	GUARD, MOTOR	1
57	3395-201000207	RING, SPACER	4
58	3395-201000208	RING	1
59	3395-201000209	ADAPTER, WHEEL, 165 SE	1
60	3395-201000210	NUT, WHEEL	1
61	3395-201000211	CASTER, SWIVEL	1
62	3395-201000212	BUSHING, SWIVEL	1
63	3395-201000213	MAGNET, 19 X 25 X 228	1
64	3395-201000214	MAGNET, SIDE, WITH SUPPORT BAR	2
65	3395-201000215	HINGE, TOP SECTION	2
66	3395-201000216	PLATE, CONTROL CAGE	1
67	3395-201000218	VALVE, FEED	2
68	3395-201000219	PLATE, VENTILATION	1
69	3395-201000220	INSERT, TRAY, WIRE MESH	1
70	3395-201000221D	HANDLE, TOP	1
71	3395-201000222	PIPE SECTION, PUSH IN	1
72	3395-201000223	LEVER, SWITCH, COMPLETE	1
73	3395-201000224	SPOUT, FEED	1
74	3395-201000225	LEVER, FEED VALVE	1
75	3395-201000226	BRACKET, CONTROL CABLE	1
76	3395-201000227	BRACKET, REAR WHEEL	1
77	3395-201000228	COVER, SEPARATOR	1
78	3395-201000229	PLATE, SPACER	4
79	3395-201000230	FITTING, CABLE BARREL	2
80	3396-201000231	ADJUSTER, CABLE	2
81	3395-304000013	WHEEL, CASTER	4
82	3395-308000008	SEAL, RUBBER, U-SHAPED	1
83	3395-311000009	HANDLE, CLAMPING	2
84	3395-311000012	CLAMP, HORIZONTAL	2
85	3395-314000002	BUSHING, FLANGE	2
86	3395-605000005	SWITCH, MICRO	1
87	3395-605000006	SWITCH, EMERGENCY STOP	1
88	3395-606000002	RELAY, CONTACTOR, 120V	1
89	3395-612000008	STRAIN RELIEF, 6-12MM	1
90	3395-612000009	NUT, FLAT M20	1
91	3395-612000017	SUPPORT, CABLE	1
92	3395-612000018	NUT, CABLE SUPPORT	1
93	403719	PLUG, NEMA 5-15 STYLE, FOLDING GROUND, JAPAN (3395-28XXXX ONLY)	1
94	401486	PLUG, MALE, IEC 60309, 110-130V, 32A, 3W, YELLOW (3395-20XXXX ONLY)	1
95	401438	PLUG, MALE, EU1-16P, 250V, 16A, EUROPE (3395-11XXXX ONLY)	1

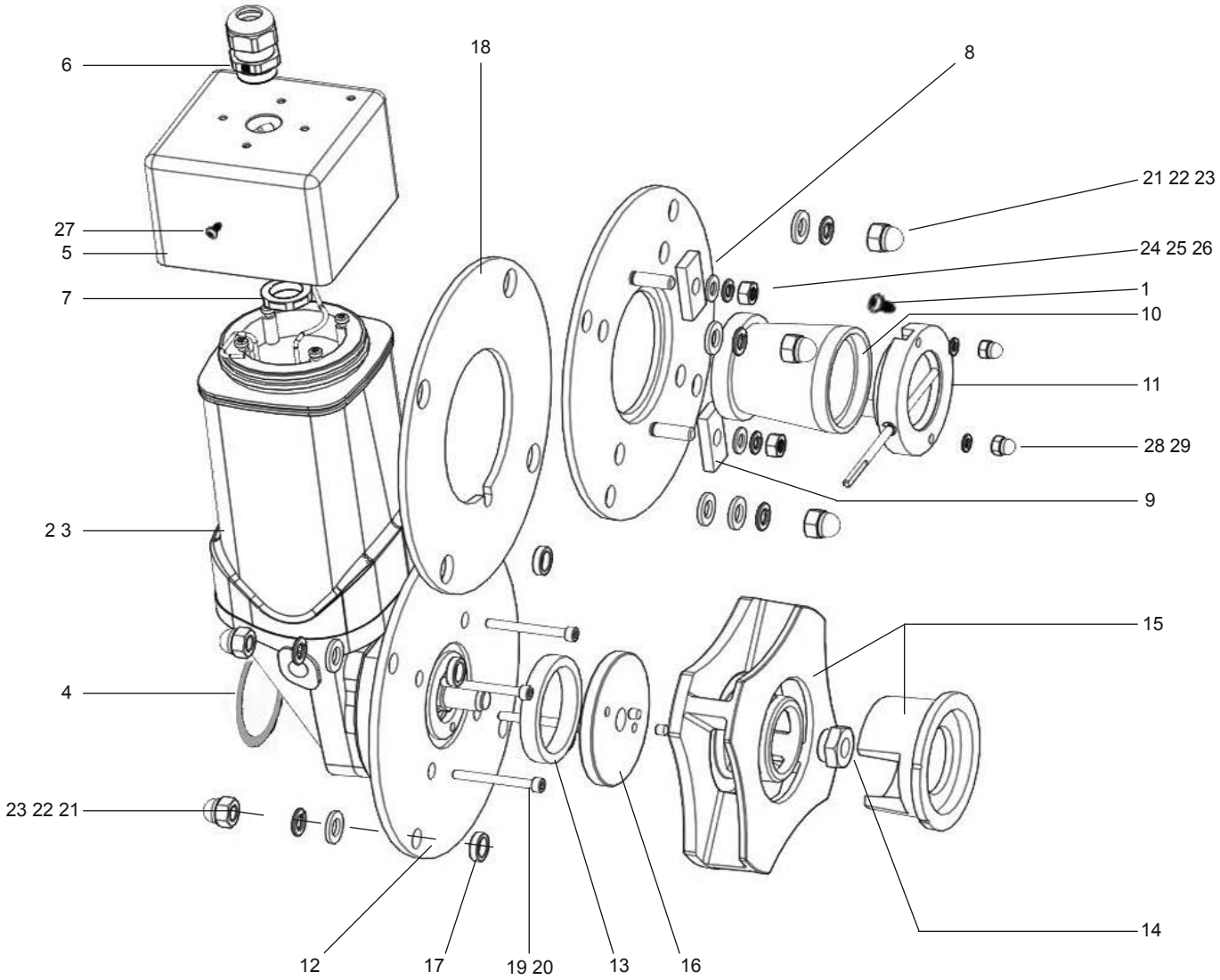
Complete Parts List

	PART#	DESCRIPTION	QTY
1	400406	SEPARATOR COVER	1
2	400447	SEAL, SEPARATOR	2
3	400438	MAGNETIC VALVE ASSEMBLY	1
4	400416	BOTTOM HANDLE	1
5	400419	TOP HANDLE	1
6	400420	LEVER, ON/OFF	1
7	400455	ACCESS COVER, CONTROL BOX	1
8	400421	CABLE, POWER, MOTOR	1
9	400550	STRAIN RELIEF, BUSHING	1
10	400540	SWITCH, E-STOP	1
11	400428	MAGNET, FRONT, ASSEMBLY	1
12	400494	SPACER, CLAMP	2
13	400402	HINGE, SEPARATOR	2
14	400536	CLAMP, CONTROL CAGE	2
15	400404	TRAY, WELDMENT	1
16	400407	SEPARATOR	1
17	400413	CABLE, VALVE CONTROL	1
18	400542	AMP METER	1
19	400410	LINER, RH	1
20	400409	LINER, LH	1
21	400473	LINER, TOP	1
22	400577	CABLE SUPPORT	1
23	400551	RELIEF, PULL	1
24	400541	RELAY, CONTACTOR	1
25	400411	PLATE, CONTROL CAGE	1
26	400531	CAGE, CONTROL	1
27	400486	SEAL, RING	1
28	400502	BRACKET, CONTROL, VALVE	1
29	400496	SPOUT, FEED, SHOT	1
30	400509	LEVER, FEED, VALVE	1
31	400483	BUSHING, SWIVEL	1
32	400484	BUSHING, FLANGE	2
33	400426	CASTER MOUNT	1
34	400457	BRUSH, LONG, F/R	2
35	400458	BRUSH, SHORT, SIDE	2
36	400429	MAGNET, SIDE, ASSY	2
37	400544	SWITCH, MICRO LIMIT	1
38	400512	SPRING, EXTENSION	1
39	400418	MOTOR, DRIVE, ASSY	1
40	400454	PIN, T-HANDLE, W/TETHER	2
41	400611	TRIM-SEAL, EDGE	1
42	400596	WHEEL	4
43	400427	BRACKET, REAR WHEEL, MOUNTING	1
44	400574	PLATE, BACKING, MOTOR	1
45	400495	CLAMP, OVER CENTER	2
46	400551	NUT, STRAIN	1
47	400453	SCREEN, TRAY, HOPPER	1
48	400463	COLLAR, HOSE	1
49	400546	PLATE, BEZEL, E-STOP	1
50	400553	GROMMET	1
51	L265	LABEL, SILICA DUST	1
52	L175	LABEL, NATIONAL SMALL	1
53	L189	LABEL, ASBESTOS HD	1
54	L95J	LABEL, 110V	1
55	L192	LABEL, EAR PROTECTION	1
56	L335	LABEL, 3395	1
57	400440	LABEL, HAZARD SHOCK	1
58	400442	LABEL, PROTECTIVE EYEWEAR	1
59	400446	LABEL, SERIAL NUMBER	1
60	400450	LABEL, MAX. 20A	1
61	401345	HHCS, M6-1.0 X 10	1
62	401346	HHCS, M3-0.5 X 10	1
63	400553	WASHER, FLAT, M3	1
64	401317	HHCS, M8-1.25 X 40	2
65	401304	NUT, LOCK, INSERT M8X1.25	6
66	401312	HHCS, M6-1.0 X 14	4
67	401300	NUT, ACORN, M6-1.0	4
68	74619	WASHER, LOCK, M6	8
69	401328	WASHER, FLAT, M6	10
70	401320	HSHCS, M5-0.8 X 14	4
71	401331	WASHER, LOCK, M5	9
72	401327	WASHER, FLAT, M5	4
73	401319	HSHCS, M4-0.7 X 30	2
74	401330	WASHER, LOCK, M4	16
75	401326	WASHER, FLAT, M4	16
76	401329	WASHER, FLAT, M8	14
77	401314	HHCS, M6-1.0 X 30	1
78	401306	NUT, M6-1.0	2
79	401313	HHCS, M6-1.0 X 20	1
80	401303	NUT, NYLOCK, M6-1.0	1
81	401305	NUT, M5-0.8	1
82	401327	WASHER, FLAT M5	1
83	400551	NUT, PLASTIC, M20	3
84	401310	PPH-MS, M4-0.8	8
85	401302	NUT, ACORN, M10-1.5	8
86	74657	WASHER, LOCK, M10	8
87	74655	WASHER, FLAT, M10	8
88	401324	HSHCS, M8-1.25 X 14	12
89	401332	WASHER, LOCK, M8	12
90	401308	SFHS, M8-1.25 X 35	6
91	401321	HSHCS, M5-0.8 X 50	4
92	401315	HHCS, M8-1.25 X 20	2
93	401322	HSHCS, M6-1.0 X 14	2
94	401300	NUT, ACORN, M6-1.0	2
95	401307	SFHS, M6-1.0 X 16	4
96	401338	HHCS, M4-0.7 X 10	4
97	401339	NUT, M4-0.7	1
98	401316	HHCS, M8-1.25 X 30	1
99	74635	NUT, M8-1.25	3
100	401318	HSHCS, M4-0.7 X 20	8
101	401312	HHCS, M6-1.0 X 14	2
102	401344	SSS, M3-0.5 X 6	1
103	401325	WASHER, FLAT, .75	2
104	404555	LABEL, 230V, 50/60HZ, 12A	1


Separation Top Section
Handle Section
Blast Wheel Drive
Undercarriage
Liner Wheel Housing
Seals
Abrasive Feeding
Undercarriage

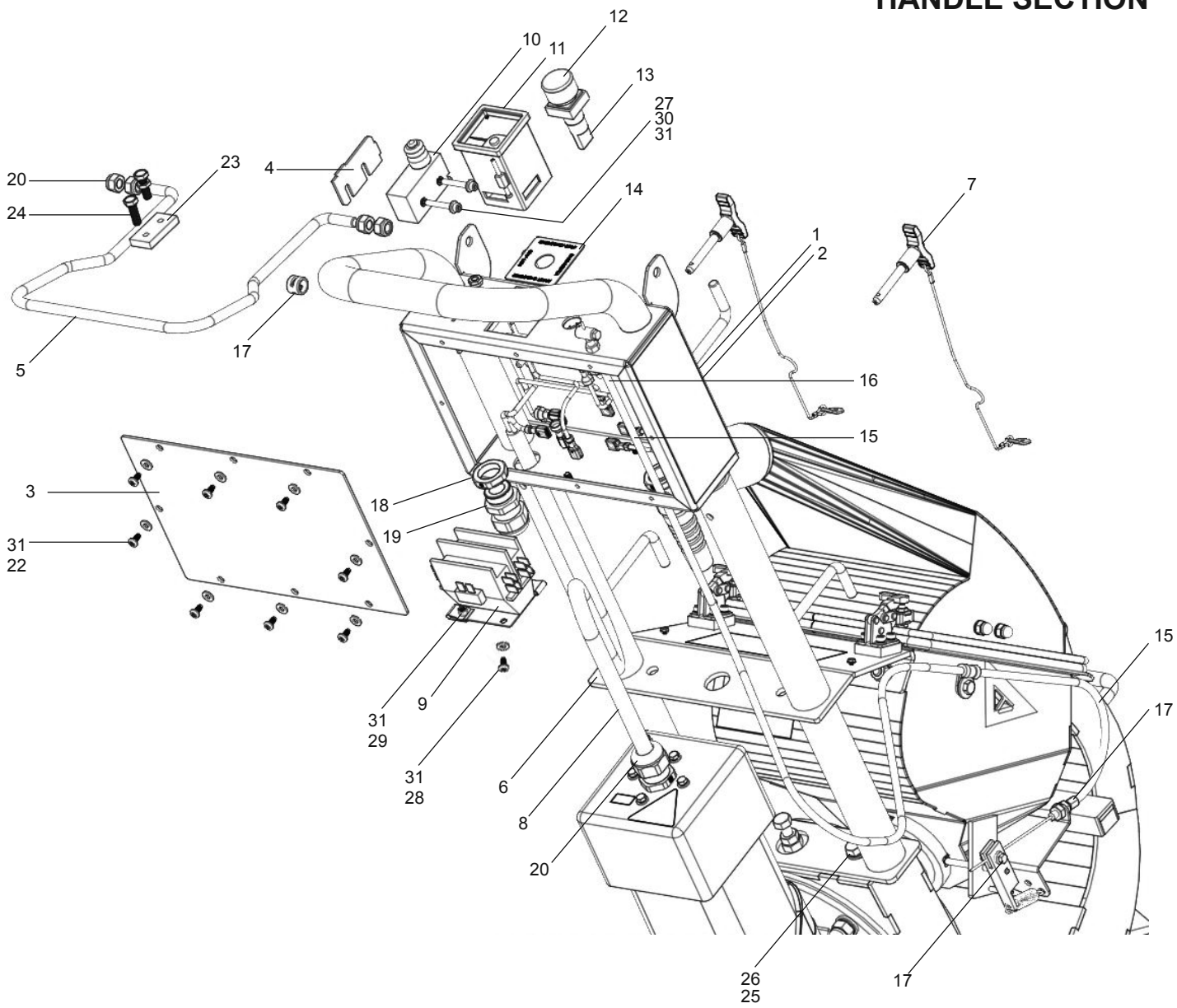
Parts List and Diagrams

BLAST WHEEL DRIVE



	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	401652	SHCS, M6-1.0 X 12	2	**16**	3395-201000209	ADAPTER, WHEEL, 165 SE	1
2	3395-601000009	MOTOR, WHEEL, 240 V/50 HZ	1	**17**	3395-201000207	RING, SPACER	4
3	401641	MOTOR, 110V	1	**18**	3395-201000208	RING	1
4	401642	O-RING	1	**19**	401321	HSHCS, M5-0.8 X 50	4
5	3395-201000205	GUARD, MOTOR	1	**20**	401331	WASHER, LOCK, M5	4
6	3395-612000008	CABLE, GLAND 6-12MM	1	**21**	401302	NUT, ACORN, M10-1.5	8
7	3395-612000009	NUT, FLAT M20	1	**22**	74657	WASHER, SPLIT LOCK M10	8
8	3395-201000216	PLATE, FRONT, C CAGE	1	**23**	74655	WASHER, FLAT M10	8
9	3395-201000192	CLAMP, C CAGE	2	**24**	401350	NUT, HEX, M8 X 1.25	2
10	3395-201000224	SPOUT, FEED	1	**25**	401332	WASHER, LOCK, M8	2
11	3395-201000218	VALVE, FEED	1	**26**	401329	WASHER, FLAT, M8	2
12	3395-201000142	SUPPORT, MOTOR	1	**27**	401651	SCREW, SELF DRILLING	2
13	3395-201000186	SEAL, FELT	1	**28**	74619	WASHER, SPLIT LOCK M6	2
14	3395-201000210	NUT, WHEEL	1	**29**	401300	NUT, ACORN, M6-1.0	2
15	3395-201000145	WHEEL KIT, 165MM	1				

HANDLE SECTION

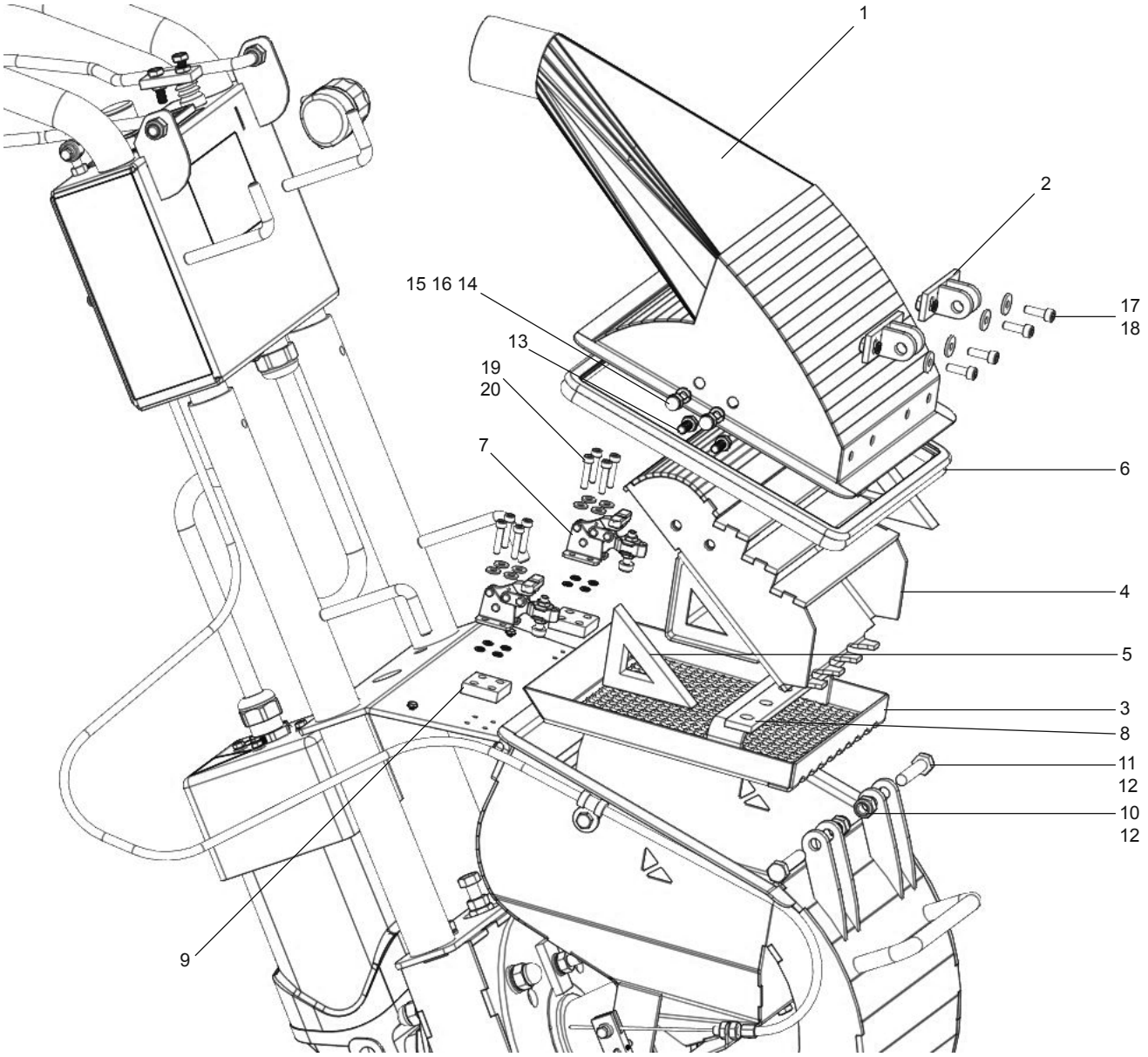


	PART#	DESCRIPTION	QTY
1	401643	HANDLE, TOP, S210E	1
2	3395-201000221D	HANDLE, TOP	1
3	401644	COVER, REAR	1
4	401645	PLATE, CLAMPING	1
5	3395-201000223	LEVER, SWITCH, COMPLETE	1
6	3395-201000222	PIPE SECTION, PUSH IN	1
7	3395-311000009	HANDLE, CLAMPING	2
8	3395-602000008	CABLE, FEED 3X1, 5MM	1
9	3395-606000002	RELAY, 120V, AC, 30A	1
10	3395-605000005	SWITCH, MICRO	1
11	401443	AMP METER	1
12	3395-605000006	STOP, EMERGENCY	1
13	401646	CONTACT, ELEMENT	1
14	401647	LABEL, EMERGENCY STOP	1
15	3395-201000204	CABLE, ABRASIVE CONTROL	1
16	3395-201000231	SCREW, ADJUSTER, NON SLOTTED	2

	PART#	DESCRIPTION	QTY
17	3395-201000230	NIPPLE, 10 X 18 X 3	2
18	3395-612000018	RELIEF, PULL, M 20X1.5	1
19	3395-612000017	SUPPORT, CABLE	1
20	3395-612000008	CABLE, GLAND 6-12MM	2
21	401509	NUT, M8-1.25 NYLOCK	4
22	401653	SHCS, M4-0.7 X 12	8
23	401306	NUT, M6-1.0	2
24	401654	HHCS, M6-1.0 X 40	1
25	401315	HHCS, M8-1.25 X 20	2
26	401329	WASHER, FLAT, M8	2
27	401319	HSHCS, M4-0.7 X 30	2
28	401655	SHCS, M4-0.7 X 10	2
29	401339	NUT, M4-0.7	2
30	401330	WASHER, LOCK, M4	2
31	401326	WASHER, FLAT, M4	14

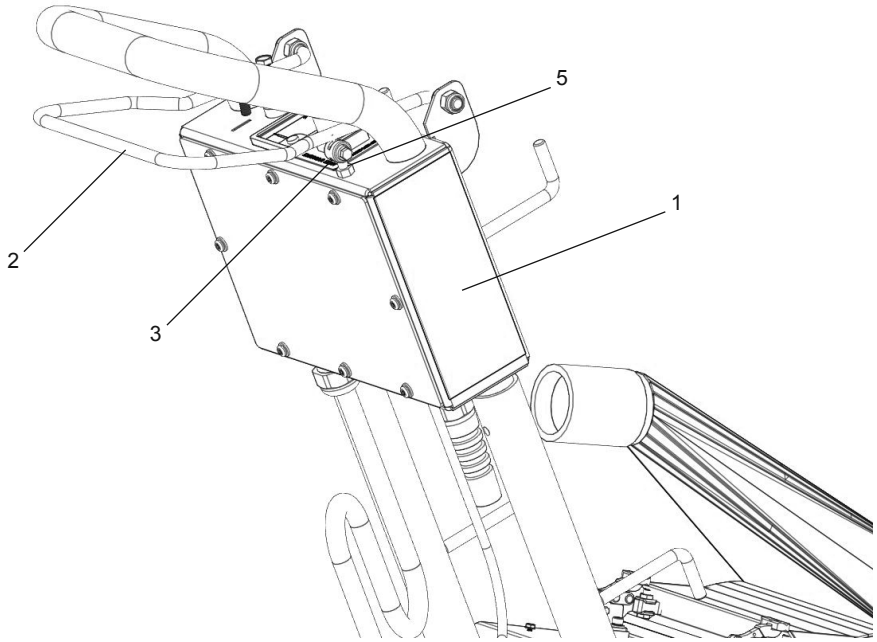
Parts List and Diagrams

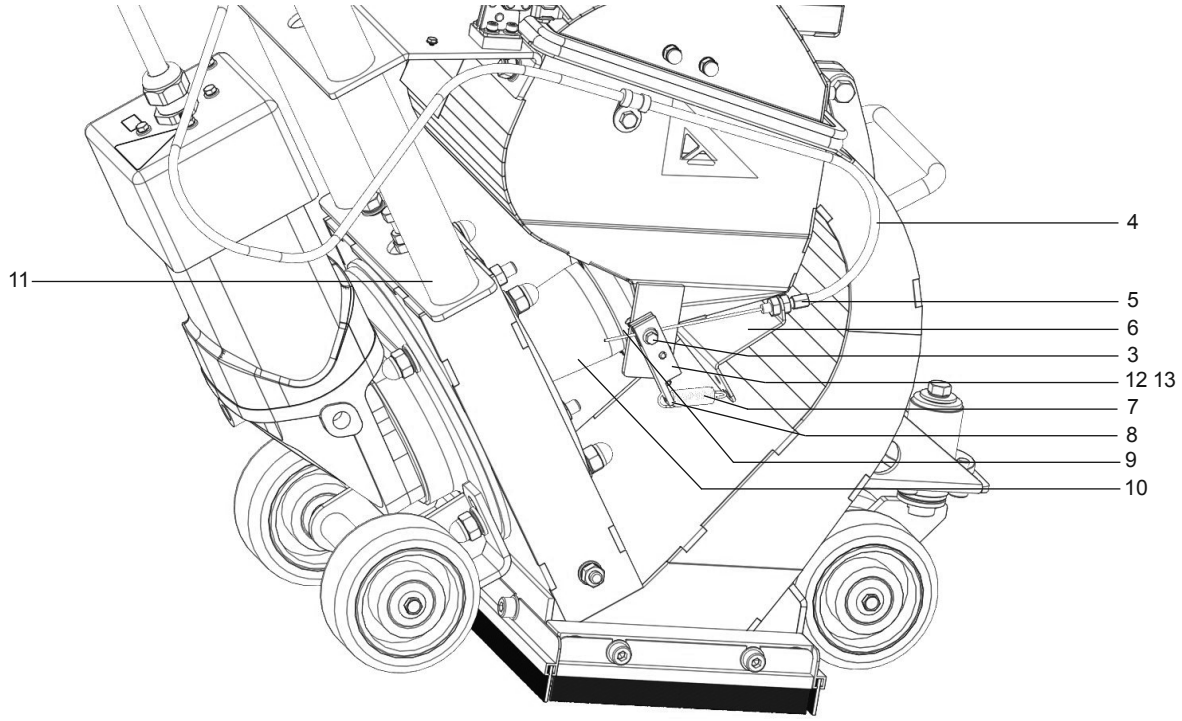
SEPARATION TOP SECTION



	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	3395-201000228	COVER, SEPARATOR	1	**11**	401656	HHCS, M8-1.25 X 45	2
2	3395-201000215	HINGE, TOP SECTION	2	**12**	401329	WASHER, FLAT, M8	4
3	3395-201000220	INSERT, TRAY, WIRE MESH	1	**13**	401657	HHCS, M6-1.0 X 16	4
4	3395-201000219	PLATE, VENTILATION	1	**14**	401300	NUT, ACORN, M6-1.0	4
5	401649	SEAL, FELT	2	**15**	401328	WASHER, FLAT, M6	4
6	3395-308000008	SEAL, RUBBER, U-SHAPED	1	**16**	74619	WASHER, SPLIT LOCK M6	4
7	3395-311000012	CLAMP, HORIZONTAL	2	**17**	401658	SHCS, M5-0.8 X 12	4
8	401650	INSERT, SEAL SEP	1	**18**	401327	WASHER, FLAT, M5	4
9	3395-201000229	PLATE, SPACER	4	**19**	401326	WASHER, FLAT, M4	8
10	401509	NUT, M8-1.25 NYLOCK	7	**20**	401659	SHCS, M4-0.7 X 18	8

ABRASIVE FEEDING

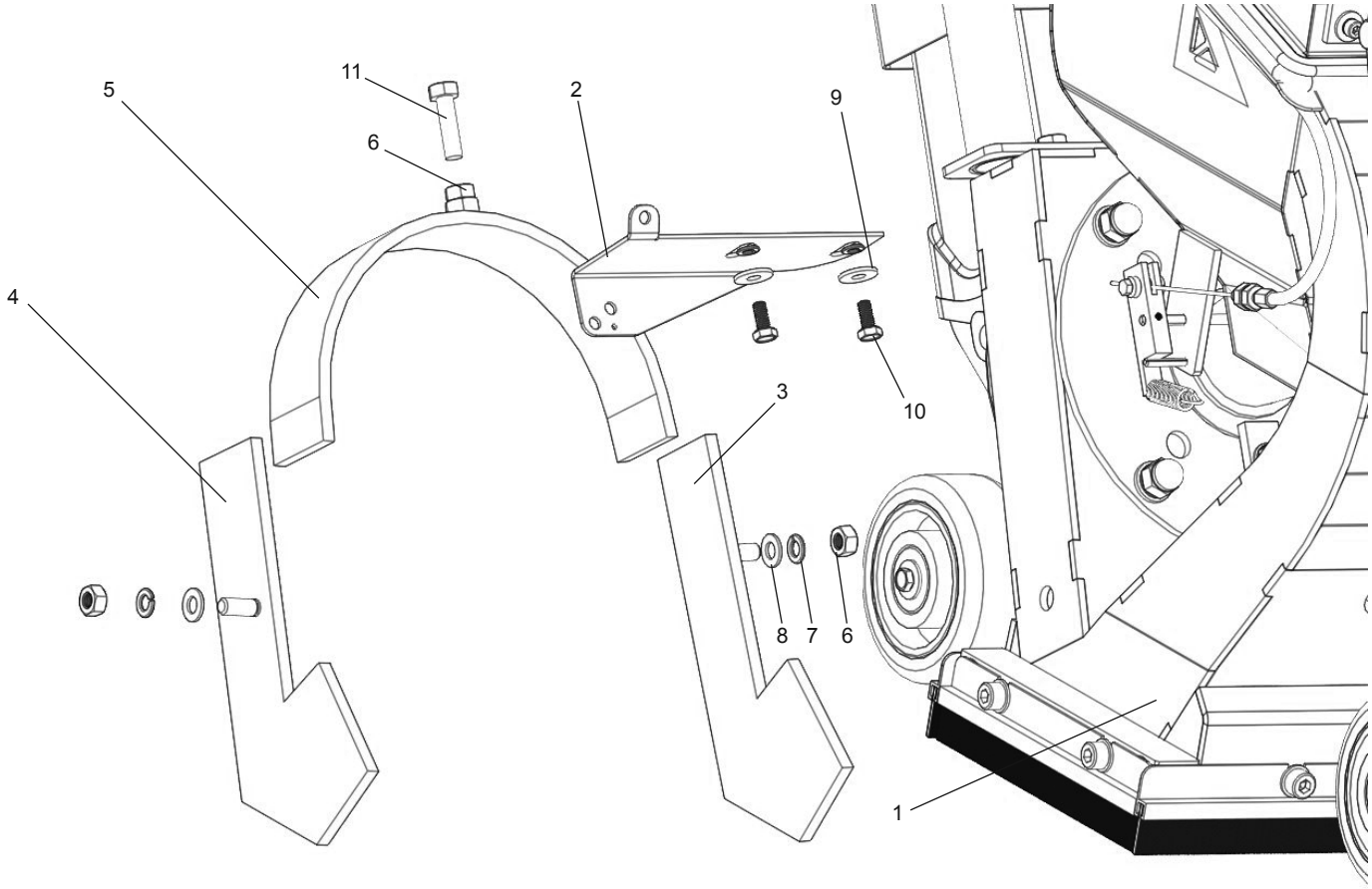




	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	3395-201000221D	HANDLE, TOP	1	**8**	3395-201000225	LEVER, FEED VALVE	1
2	3395-201000223	LEVER, SWITCH, COMPLETE	1	**9**	3395-201000218	VALVE, FEED	1
3	3395-201000230	NIPPLE, 10 X 18 X 3	2	**10**	3395-201000224	SPOUT, FEED	1
4	3395-201000204	CABLE, ABRASIVE CONTROL	1	**11**	3395-201000222	PIPE SECTION, PUSH IN	1
5	3395-201000231	SCREW, ADJUSTER, NON SLOTTED	2	**12**	401328	WASHER, FLAT, M6	5
6	3395-201000226	BRACKET, CONTROL CABLE	1	**13**	401652	SHCS, M6-1.0 X 12	3
7	3395-201000131	SPRING, TENSION	1				

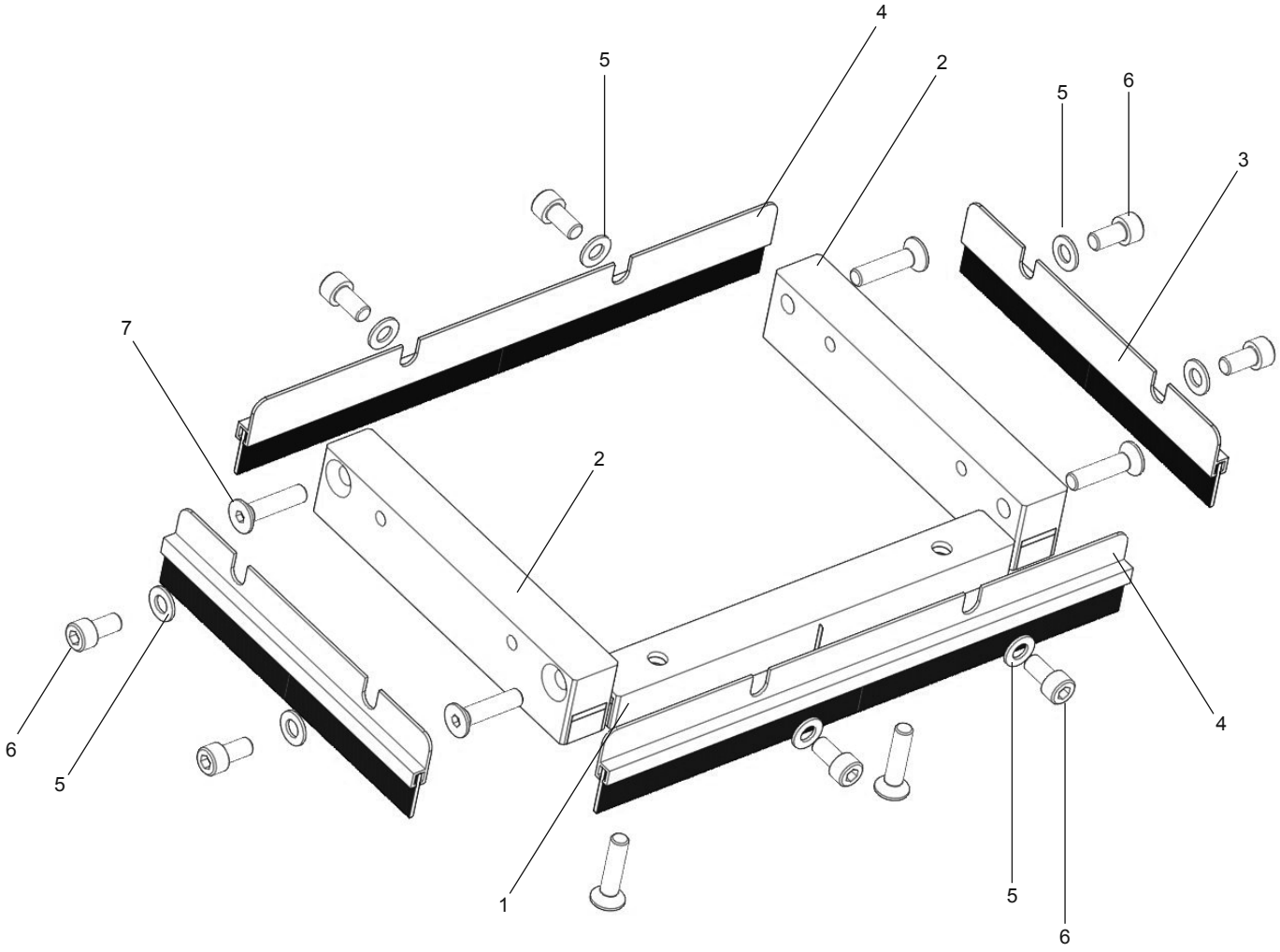
Parts List and Diagrams

LINER WHEEL HOUSING



	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	3395-201000127	HOUSING, WHEEL	1	**7**	401332	WASHER, LOCK, M8	2
2	3395-201000226	BRACKET, CONTROL CABLE	1	**8**	401329	WASHER, FLAT, M8	2
3	3395-201000200	LINER, SIDE, RH	1	**9**	401328	WASHER, FLAT, M6	2
4	3395-201000199	LINER, SIDE, LH	1	**10**	401652	SHCS, M6-1.0 X 12	2
5	3395-201000201	LINER, TOP	1	**11**	401660	HHCS, M6-1.0 X 25	1
6	401350	NUT, HEX, M8 X 1.25	3				

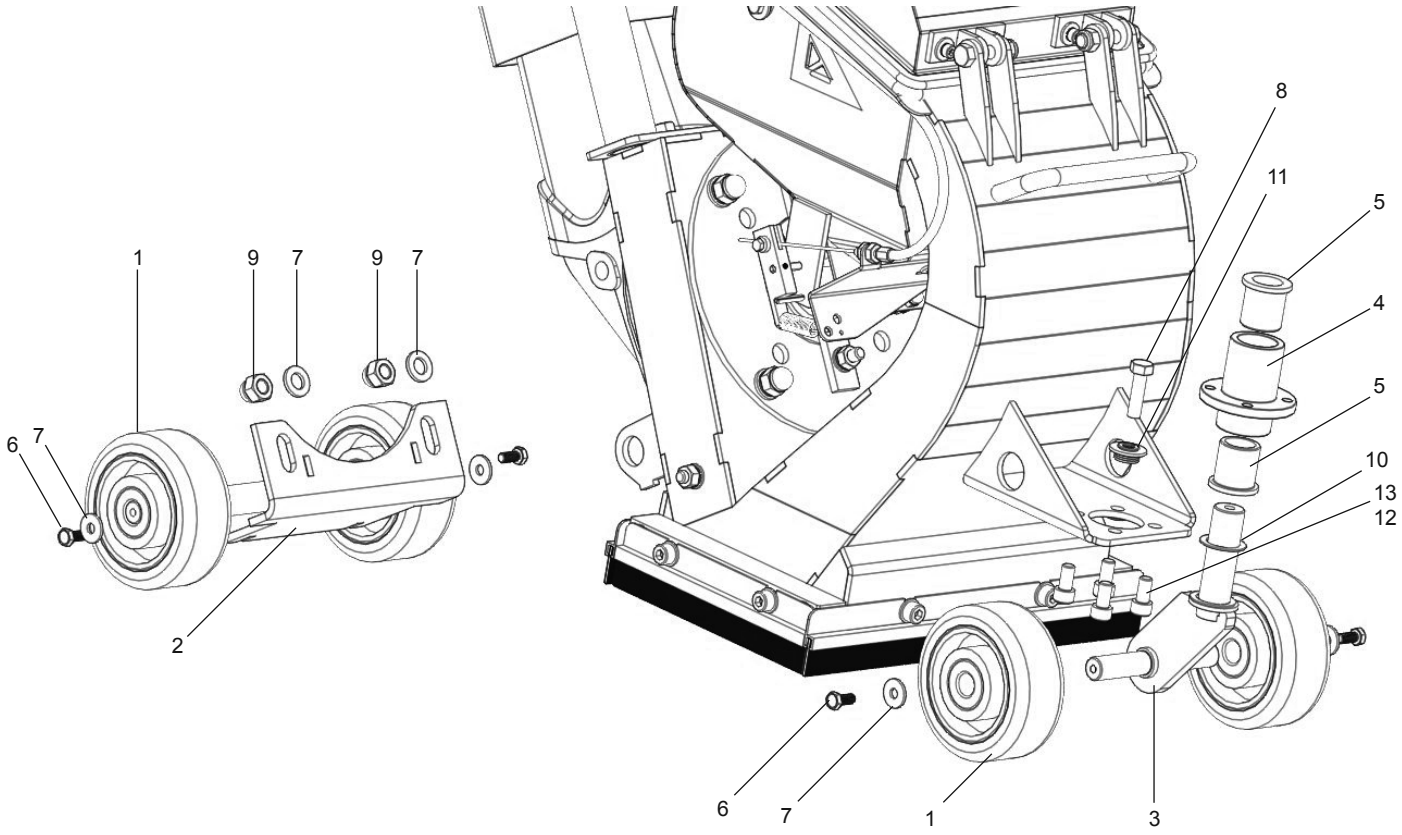
SEALS



	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	3395-201000213	MAGNET, 19 X 25 X 228	1	**5**	401329	WASHER, FLAT, M8	8
2	3395-201000214	MAGNET, SIDE, WITH SUPPORT BAR	2	**6**	401661	SHCS, M8-1.25 X 16	8
3	3395-201000202	SEAL, BRUSH	2	**7**	401316	HHCS, M8-1.25 X 30	4
4	3395-201000203	SEAL, BRUSH, FRONT/REAR	2	**8**	74638	HHCS, M8-1.25X25MM8.8	2

Parts List and Diagrams

UNDERCARRIAGE



	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	3395-304000013	WHEEL	4	**8**	401509	NUT, M8-1.25 NYLOCK	1
2	3395-201000227	BRACKET, REAR WHEEL	1	**9**	401302	NUT, ACORN, M10-1.5	2
3	3395-201000211	CASTER, SWIVEL	1	**10**	401342	WASHER, SHIM, 22 X 30 X 1	1
4	3395-201000212	BUSHING, SWIVEL	1	**11**	401329	WASHER, FLAT, M8	1
5	3395-314000002	BUSHING	2	**12**	401661	SHCS, M8-1.25 X 16	4
6	401657	HHCS, M6-1.0 X 16	4	**13**	401332	WASHER, LOCK, M8	4
7	401328	WASHER, FLAT, M6	6				

National Flooring Equipment Inc. (referred to as “The Company”) warrants that each new unit manufactured by The Company to be free from defects in materials and workmanship in normal use and service for a period of twelve (12) months from date of shipment from The Company to the end user. If shipment to end user is from a Distributor, The Company may honor warranty for up to 15 months from initial shipment from the Company if the end user can provide documentation of receipt date. Accessories or equipment furnished and installed on the product by the Company but manufactured by others, including but not limited to: engines, motors, electrical components, transmissions etc., shall carry the accessory manufacturers own warranty. Battery warranties are prorated over the warranty period. Customer is responsible for the inspection of equipment or parts upon delivery. **Freight damages are excluded from this warranty.**

The Company, at its determination of defect, will repair or replace any product or part deemed to be defective in material or workmanship within specified warranty time period. All product determinations and / or repairs will take place at The Company repair facility or at a certified warranty location designated by The Company. The Company will coordinate and be responsible for all freight expenses associated with valid warranty claims. Freight and shipping expenses associated with abuse or misuse will be back charged to the Distributor/Customer. The Company reserves the right to modify, alter or improve any part / parts without incurring any obligation to replace any part / parts previously sold without such modified, altered or improved part / parts. In no event shall the seller or manufacturer of the product be liable for special, incidental, or consequential damages, including loss of profits, whether or not caused by or resulting from the negligence of seller and / or the manufacturer of the product unless specifically provided herein. **This warranty shall not apply to any products or portions there of which have been subjected to abuse, misuse, improper installation or operation, lack of recommended maintenance, electrical failure or abnormal conditions, and to products which have been tampered with, altered, modified, repaired, reworked by anyone not approved or authorized by the Company or used in any manner inconsistent with the provisions of the above or any instructions or specifications provided with or for the product.** Any and all unauthorized onsite warranty work conducted by unauthorized personnel or any outside person(s), is not covered by The Company unless the work has been pre-authorized by a predetermined manufacturer representative. This warranty excludes wearable parts and/or consumables.

Defective or failed material or equipment shall be held at the purchaser’s premises until authorization has been granted by The Company to return or dispose of defective products. Products returned to The Company for inspection must be returned with a manufacturer authorized Return Material Authorization (RMA), and must be packaged to The Company’s specifications to avoid damage during shipment. Any unauthorized return of equipment will be declined at the dock by The Company. Any non-approved items returned with approved returned items are subject to rejection and will not be credited. Credit will be issued for material found to be defective upon The Company’s inspection based on prices at time of purchase.

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MACHINE SERIAL NUMBER: _____

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