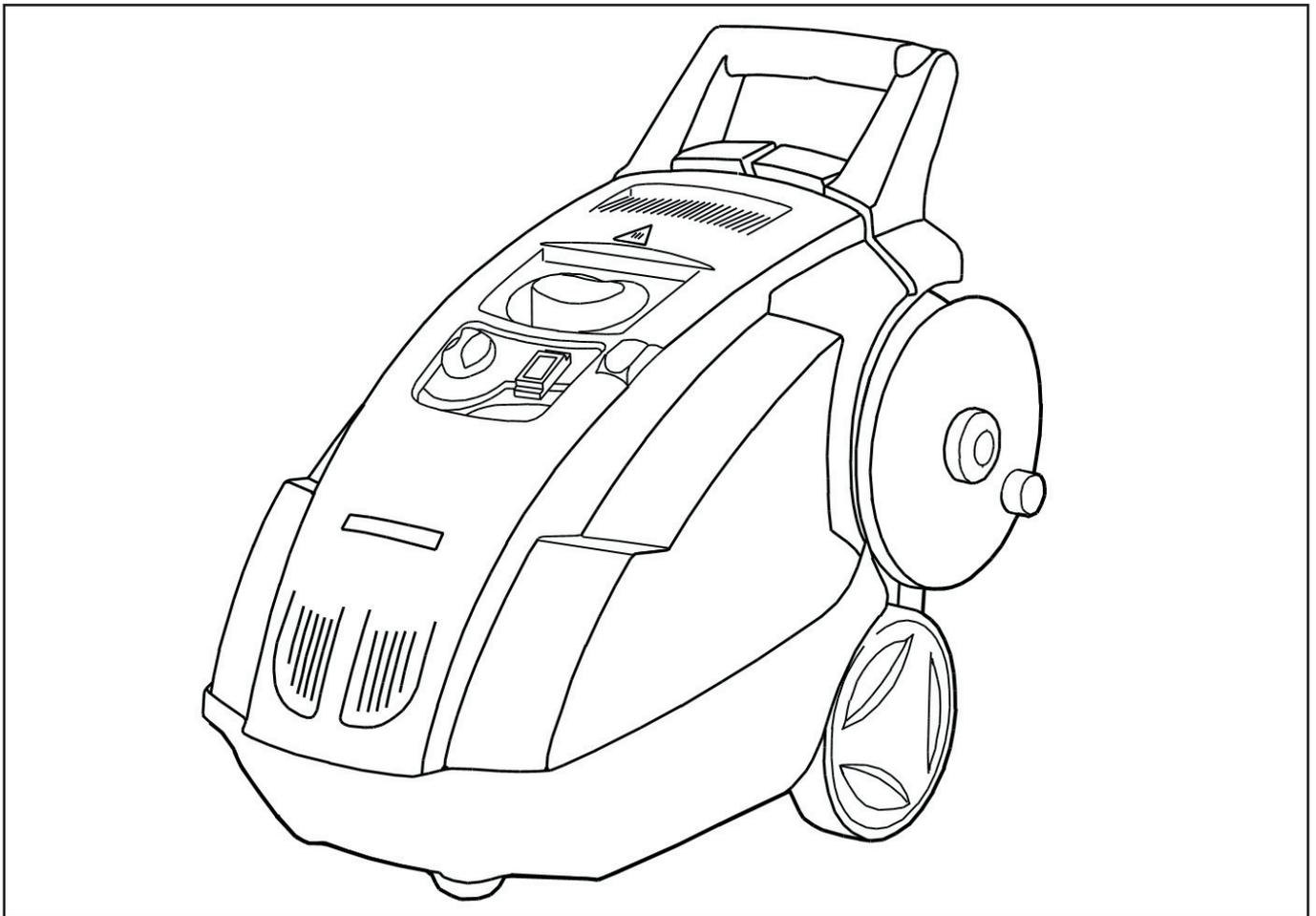




HOT / COLD WATER PRESSURE WASHER SCOUT



Item 157596



NORTHERN[®]
Tool & Equipment Co.

P.O. Box 1499
Burnsville, MN 55337-0499
1-800-270-0810

NORTH STAR - SCOUT

Pressure Washer

HOT- COLD

Congratulations on your purchase of the **SCOUT** 157596 Pressure Washer!

Your pressure washer is made of high quality components to ensure the top performance you demand. Take the time to read this entire manual so you better understand the machine, how to operate it, the maintenance required and the safety precautions. You will find the assembly, operating, maintenance and troubleshooting instructions included. Be sure everyone who operates and/or maintains the equipment has read and understands this manual, the engine operations and the safety precautions. **The time you take now will prolong the life of your machine and prepare you for its safe operation.** Enjoy the exceptional performance of your



Pressure Washer, the industry leader!



**This symbol means CAUTION, WARNING OR DANGER!
Read and understand the instruction because it has to do with safety.**

Failure to comply with the instruction may result in personal injury or damage to the product.

If an injury ever occurs, seek medical attention immediately.

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SAFETY INSTRUCTIONS



Read and understand these instructions because they have to do with safety. Pay particular attention to the safety symbol throughout this manual. Failure to comply with these instructions may result in personal injury or product damage.

ELECTRICAL SAFETY

1. Properly ground this unit. Failure to ensure proper grounding can cause serious personal injury. Never use a two-prong adapter on the three-prong electrical plug that is installed.
2. Be certain all switches are “OFF” before plugging the unit into a compatible 120 volt power source.
3. Always turn off and unplug the unit from the power source if leaving unattended. Never leave unit unattended while running.
4. **Never** allow an electrical cord or connections to lay in water, it can cause a serious/fatal shock.
5. Do not use this unit on or near any electrical installations, including electrical outlets, light bulbs, fuse boxes or transformers. Severe electrical shock can occur.
6. Unplug the unit from power source **before** attempting any repairs. Electrical repairs are best suited to a licensed electrician.
7. Follow all local, state and federal electrical installation codes.

VENTILATION AND FIRE SAFETY

8. Use only No. 1 or No. 2 Diesel, to fill the fuel tank. Never use kerosene, gasoline, crankcase drainings or oil containing gasoline/solvents, these can ruin your pressure washer.
9. Fill the fuel tank slowly and only when the unit is **COOL**.
10. Never operate the unit near dust, gases, flammable vapors or other ignitable materials.
11. Always operate the pressure washer with the hood cover in place.
12. Allow the unit to cool down after stopping the pressure washer before leaving it unattended. See cool down procedure in STOPPING THE PRESSURE WASHER section.
13. Consult a qualified heating contractor for permanent installation. Follow all local, state and federal codes.
14. Always be sure there is adequate oxygen and ventilation during indoor use. Carbon monoxide gas is odorless and colorless, it can cause serious illness end even death. Vent all burner exhaust outside the building. Poorly ventilated areas cause bad combustion, motor overheating and **serious danger**.
15. Never alter or modify the unit or its safety features. Be sure all components can handle the high pressure this unit generates.
16. Be sure all connections are secure before operating the unit. Do not over tighten pressure washer adjustments; excess pressure, irregular unloader operation and wear may occur.

GENERAL SAFETY

17. Always wear safety glasses or goggles when operating the unit.
18. Always point the wand away from people and animals. High pressure streams will penetrate the skin. Seek medical attention immediately if fluid penetrates skin. **Do not** treat as a simple cut.
19. Always release system pressure after shutting off the pressure washer by squeezing the wand trigger. Never leave the unit unattended with system still pressurized.
20. High pressure spray will shatter fragile materials. Never spray directly at glass or other breakable objects.
21. Be firmly braced before squeezing the wand trigger “on”. High pressure stream may cause loss of balance.
22. Never operate the pressure wand in high levels unless the proper safety equipment to prevent fails is in place.
23. Inspect pressure hose daily for signs of wear. Never lay hose on the heat coil or drag over abrasive surfaces.
Replace hose and other components promptly when leaks or wear is discovered. Never place your hand over a pressurized leak.
24. Repair any leaks before operating the unit. Any fuel oil, pump oil or water leaks should be serviced at your nearest Northern store or call customer service at 1-800-222-5381.
25. Use only Northern parts for replacements in your pressure washer. Other brand components may cause hazardous operating conditions and will void warranty.

DETERGENT SAFETY

26. Do not alter the soap injecting system on the unit or use it in any manner not described in this manual.
27. Always wear safety goggles when operating the unit and other safety attire recommended by the detergent manufacturer. Protective clothing like rubber gloves, rubber suits and respirators may be necessary.
28. Never use acid type cleaners or other highly corrosive detergents with this pressure washer.
29. Know your detergents! Follow all appropriate instructions for preparation, use, safety and transportation of the detergent. Keep all detergents away from children. In an emergency, tell the physician exactly what detergent you are using.

UNPACKING

Closely inspect all the contents of the **SCOUT** 157596 carton.

- | | |
|---------------------|-----------------------------------------------------------------------|
| Damaged components? | Contact the freight company that delivered the unit and file a claim. |
| Missing components? | Contact our Customer Service department at 1-800-222-5381. |

ELECTRICAL REQUIREMENTS

“The supply and internal wiring of portable high pressure spray washing machines shall have ground-fault-circuit-interpreter (GFCI) which is designed to protect people from line-ground shock hazards”, National Electric Code (NEC) 1987, 422, 8 (d) (3).

- All equipment and power cords connected down-line from the GFCI **are protected**.
- GFCI **does not protect** against line-to-line or line-to-neutral faults.
- GFCI **does not protect** against short circuits or overloads. Use a fuse or circuit breaker to guard against these occurrences.

Northern recommends that all electrical service be performed by a licensed electrician.

- All electrical connections must be made according to local, state, and federal codes to maintain a valid warranty.
- Connect the cord to a circuit that is wired for the 120 volts shown on the identification plate of the unit and properly electrically ground the connection.

GROUNDING INSTRUCTIONS

This pressure washer must be grounded. Grounding provides a path of least resistance for electric current to reduce the risk of shock if the unit should malfunction or breakdown. For your safety, plug the cord equipped with an equipment-grounding conductor and a grounding plug into an appropriate outlet. The outlet should be properly installed and grounded according to local electrical codes and ordinances.

GROUND-FAULT-CIRCUIT-INTERRUPTER

A GFCI is built into the plug of the pressure washer power supply cord. This GFCI provides additional protection from electrical shock. Use only the identical replacement parts that include GFCI protection when replacing the plug or power cord.

EXTENSION CORDS

Only use outdoor approved, 3-wire extension cords with 3-prong grounding-type plugs and 3-pole cord connectors that accept the plug from the unit. Outdoor cords are identified by: “Acceptable for outdoor appliances; store indoors while not in use”. Extension cord must have an electrical rating not less than the rating of the product. Do not use a damaged extension cord or abuse the cord by yanking. Keep cord away from heat sources and sharp objects. Always disconnect the extension cord from the power supply before disconnecting the unit from the extension cord,



Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a licensed electrician if you doubt whether an outlet is properly grounded. Do not modify the product plug, install a proper outlet with a licensed electrician. Reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch with wet hands.

VENTILATION REQUIREMENTS

Permanent installation in an enclosed area or indoors should be performed by a qualified contractor. The burner exhaust must be stacked to the outside atmosphere and a barometric draft regulator is required as well.

INSTALLATION INSTRUCTIONS

If installing the **SCOUT** 157596 indoors or in an enclosed area, observe the following guidelines:

- Operate the unit on a level surface to ensure proper lubrication to the water pump.
- Be certain the ambient temperature of the environment does not exceed 100°F. This ensures adequate air supply for the burner,
- Do not expose the unit to rain, snow or freezing temperatures.
- Do not install where dust, vapors or combustible materials will be present.

PRE-OPERATION CHECK

CLOTHING

Proper clothing is essential for your safety. Use whatever is necessary to protect your eyes, ears, feet and skin. Additional safety accessories (like a respiratory mask) may be required when using detergents with this washer.

PUMP

If oil is needed, fill with SAE 80-90 non-detergent oil AGIP ROTRA MULTI THT or correspondent products:

- U.T.T.O. Lubricants (Universal Tractor Transmission Oil)
- SHELL DONAX TD
- MOBIL MOBILFLUID 422
- FORD M2C-86 B - M2C-134B/C
- JOHN DEERE J20A
- MASSEY - FERGUSON M-1135
- ESSO TORQUE FLUID 62
- API GL-4

Quantity: 0,26 lb (do not overfill)

WATER SUPPLY

1. Connect the water supply to the 3/4" female garden hose swivel on the water inlet port of the unit. Connect the other end of the hose to the pressurized water supply. The supply hose should have a 3/4" inside diameter (ID) and be no longer than 50 feet.
2. The water supply pressure must be a minimum of 20 pounds per square inch (PSI) and a maximum of 125 PSI. The flow rate must be at least 3 gallons per minute (GPM).
3. Use a water softener if there is high mineral content in the water of your area. High mineral content causes excessive scale build-up in the coil/heat exchanger.
4. Un-roll the hose reel and then connect one end of the high pressure discharge hose to the water-gun assembly.



Be sure all connections are securely tightened.

Sudden release of high pressure streams can cause serious injury.

OPERATING INSTRUCTIONS

STARTING THE PRESSURE WASHER

BEFORE STARTING THE PRESSURE WASHER

1. Read all safety instructions throughout this manual.
2. Be sure the motor switch is in the “OFF” position, red button pushed.
3. Ensure outlet is the proper voltage (120 volts).
4. Insert the male power plug into a grounded AC outlet.
5. Press and release the “RESET” button on the GFCI power cord.
6. Press “RESET” each time after plugging the GFCI power cord into a power source.

COLD WATER OPERATION

1. After following all preparation instructions, turn the water supply on.
2. Turn the unit on by pushing the pump switch on the control panel. Once the unit starts, squeeze the trigger gun “ON” for 2 minutes to purge all air and mineral deposits from the system. This operation is to be done without lance terminal end.
3. Turn the pump switch to OFF position, release the trigger gun and lock in the “OFF” position. Fit the lance terminal end. To ensure you are in the high pressure mode, turn the nozzle holder to the right.
4. Your **SCOUT** 157596 is now ready to be used as a cold water pressure washer. Turn the unit “ON” by pushing the pump switch on the control panel. Squeeze the trigger-gun to spray a high pressure stream and release the trigger to stop the stream.
5. Every time you release the trigger-gun, the machine automatically stops thanks to TOTAL STOP System. The machine will re-start automatically once you press again the trigger-gun.



In case that TOTAL STOP is not working correctly, please note not allow the unit to operate in bypass mode (with trigger released in the “OFF” position) for more than 3 minutes.

Premature failure of pump packing may occur if left in bypass mode for longer than 3 minutes.

Never look directly into the nozzle unless it is disconnected from the spray wand.

HOT WATER OPERATION

1. Fill fuel tank with 4,3 gallons of #1 or #2 Diesel.
2. Be sure trigger gun is locked in the “OFF” position and remove the nozzle/wand assembly.
3. Turn the unit on by pushing the pump switch on the control panel. Once the unit starts, squeeze the trigger gun “ON” for 2 minutes to purge all air and mineral deposits from the system.
4. Turn the pump switch to “OFF” position, release the trigger gun and lock in the “OFF” position. Connect the nozzle-wand assembly to the gun assembly. To ensure you are in the high pressure mode, turn the nozzle to the right.
5. Turn the pump switch to “ON” position, turn the burner knob located on the control panel to “ON” (position 1) Squeeze the trigger gun to spray, burner only fires when the trigger is squeezed.
6. The unit is now ready to be used as a hot water pressure washer. Squeeze the trigger-gun to spray a high pressure stream, and release the trigger to stop the stream.
7. Cool down the heat exchanger by turning the burner knob “OFF” (0 position). Allow unit to run with trigger in the squeezed, “ON” position for at least 3 minutes.

NOTE:

On initial startup, water will begin turning hot in 30 seconds, reaching maximum temperature in 3 minutes with trigger squeezed. Burner stops firing when the trigger is released or when water exceeds the temperature setting.



CAUTION!
EXPOSED METAL EXHAUST OUTLET AND HOSE
CONNECTIONS DURING HOT OPERATION ARE EXTREMELY
HOT!

STOPPING THE PRESSURE WASHER



To protect your safety and the service of your **SCOUT 157596**, you must follow the procedure for stopping the pressure washer outlined below:

1. Run one gallon of clean water through the used detergent lines. (If detergent has been used during this operation run).
2. Turn burner switch to “OFF” (0 position).
3. Squeeze the trigger and discharge cool water for 3 minutes to cool the burner component.
4. Turn the unit “OFF” with the main switch on the control panel.
5. Turn off the water supply immediately.
6. Squeeze the trigger gun to relieve system pressure and drain excess water.
7. Disconnect power cord and unit hoses.

USING THE DETERGENT INJECTOR

This feature is designed for use with mild detergents. North Star detergents are highly recommended for use with all North Star pressure washers.

1. Prepare cleaning solution according to the detergent label directions.
2. Fill Detergent tank with detergent solution
- 3 Turn the nozzle at the end of the wand to the left for low pressure.
4. Start the unit as directed in the OPERATING INSTRUCTIONS. Brace yourself and the triggered gun. The detergent and water mixture will exit the low pressure nozzle.
5. Apply the solution by spraying from low surface and move up; use long, overlapping strokes. Applying from the bottom, up helps avoid streaking. Do not allow the detergent solution to dry on any surface.
6. Turn nozzle at the end of the wand to the right for the high pressure rinse mode. It takes 30 seconds to purge all detergent from the system lines.
6. Start at the top and work down for the best rinsing results.

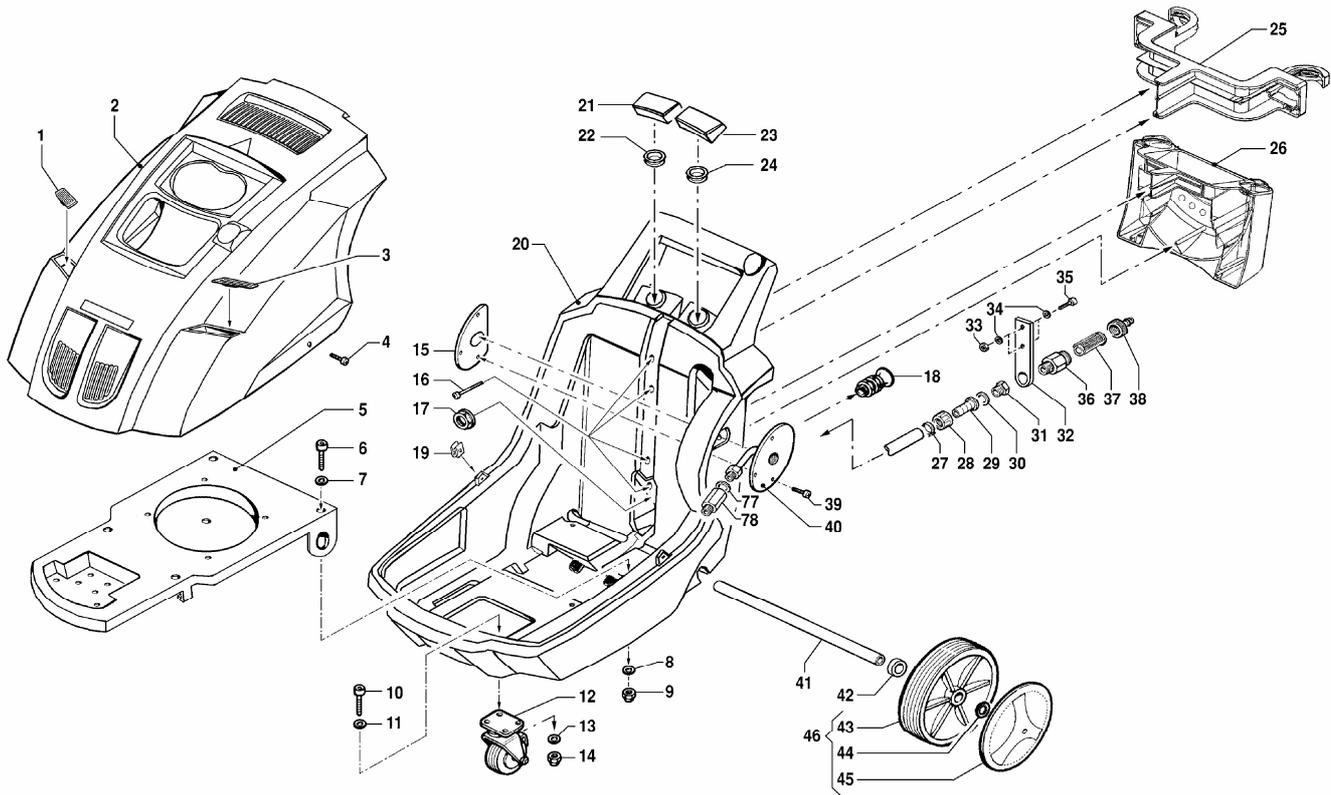
MAINTENANCE

1. Inspect and clean the water intake screen on the unit before each use.
2. Always be sure the unit is receiving the proper 120 volts. Be certain the cord is equipped with the appropriate ground prong plug to ensure proper grounding. Electrical cords and connections should not contact water.
3. Always follow STOPPING THE PRESSURE WASHER instruction outlined on page 10 of this manual.
4. Only run pump with water supply turned on all the way. Never allow pump to run dry.
5. Run a gallon of clean water through the injection line after each use. This flushes out any corrosive chemicals and prevents residue from damaging moving parts.
6. Use a water softener if the water supply has a high mineral content. This will avoid accumulation of mineral deposits in the coil/heat exchanger. If a softener is not available it is necessary to “de-scale” the coil occasionally. See your nearest Northern store or call 1-800-222-5381 for customer service.
7. Detergents are corrosive. It may be necessary to repair or replace components on the detergent injector system periodically as part of standard maintenance.
8. Never pump acids, alkalines or abrasive fluids through the unit.
9. Never operate the unit without the hood cover.
10. Eliminate leaks found in the pumping system by removing suspect parts, applying sealant to the threads and reinstalling. If using Teflon tape, be sure no tape gets into any plumbing, this causes a plugged spray nozzle and internal problems.
11. Change pump crankcase oil after first 50 hours of use, then every 200 hours (see Oil data on page 7)
12. Change fuel filter to burner every 6 months and screen in the fuel pump on the burner each year. Be sure to use only high quality No. 1 or No. 2 Diesel.
13. Never spray water directly into the unit or store outdoors where it can be exposed to rain or other adverse weather conditions.
14. Never store the unit in a freezing environment. This causes the coil/heat exchanger to rupture and the water pump to “lock up”.. Never pour hot water on a frozen pump, a temperature change greater than 150°F can crack the water pump. Again, do not store the unit in a freezing environment.

TROUBLESHOOTING

SYMPTOMS	CAUSES	REMEDIES
The water pump will not start	The motor thermic protection is open	Check the mains voltage (+/- 5% tolerance). Check the phases in the plug are connected well.
The machine is not going in TOTAL STOP mode (unit in by-pass)	The no-return valve does not seal	Replace the valve or the gasket and check the pressure valve body wear.
	Leakage from the water system of the gun	Eliminate the leaks
The water pump does not reach maximum pressure	Nozzle worn	Replace the nozzle
	Pressure ball or adjustment housing worn or spring broken	Replace the faulty part
	Pressure valve gaskets worn	Replace the valve gaskets
	Pistons seal gasket worn	Replace the gaskets
	Nozzle holding head in position low pressure	Turn the head on high pressure
Strong vibrations on the water pump	Water supply insufficient	Check the water supply flow and the relative pressure (2÷10)
		Check the water filter and clean it if necessary
	Alien matter under a check valve	Prime the pump without the lance Check the valves, clean and reassemble
The burner will not start	Diesel filter blocked	Clean the filter
	Diesel nozzle blocked	Clean the filter
	Worn or broken electrodes	Replace the electrodes
	The pressure switch remains open	Replace the pressure switch
Anormal noise of Diesel pump	Low diesel	Fill diesel tank or work on cold water
No detergent suction	High viscosity of the employed detergent	Further dilute the detergent
	Detergent filter blocked	Clean the filter

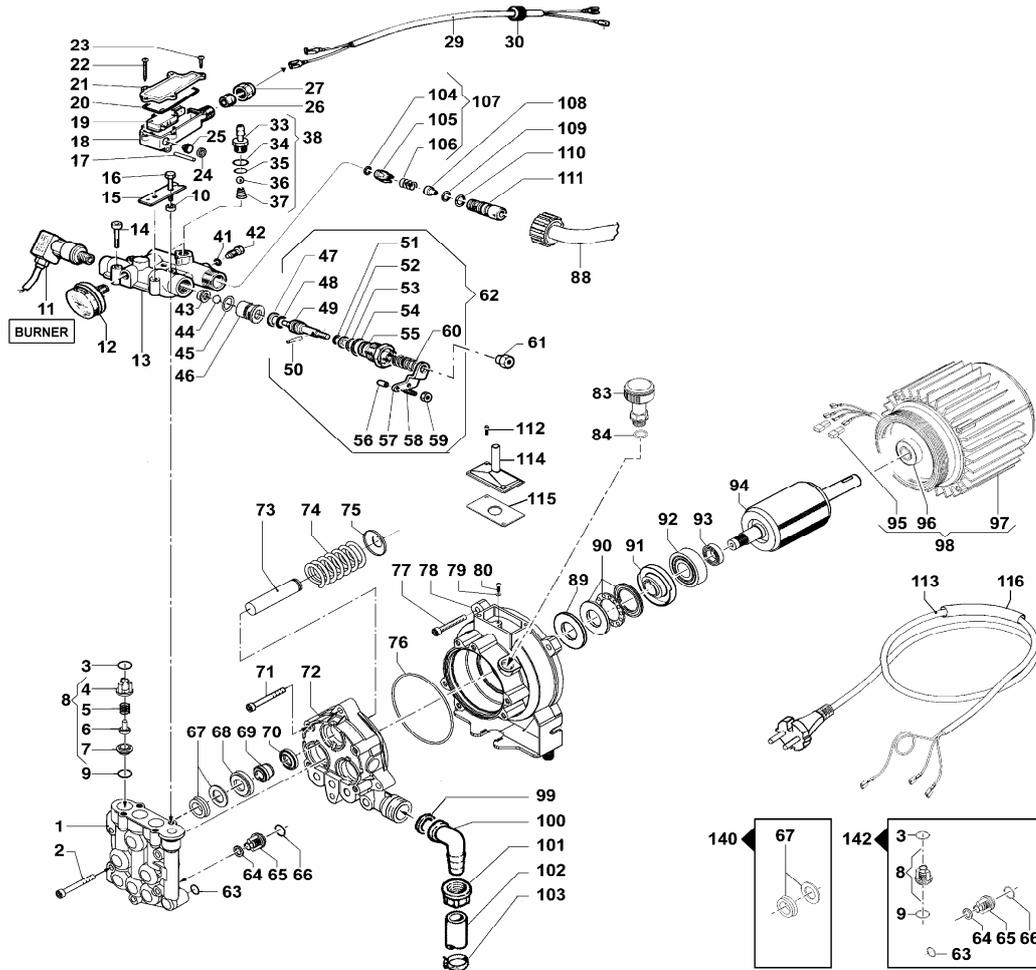
FRAME, COWLING ASSEMBLY EXPLODED VIEW



Pos	Code	Description	Note	Q.Ty
1	0402 0283	Right Grid Cover		1
2	0477 0266	Complete Cover with Sticker	gray	1
3	0402 0282	Left Grid Cover		1
4	3623 0031	Screw	M5x16	2
5	3206 0282	Central Frame		1
6	3609 0058	Screw	M8x22	6
7	2811 0016	Washer	Ø8,4x17x1,6	6
8	2811 0016	Washer	Ø8,4x17x1,6	6
9	0604 0039	Nut	M8x9,5	6
10	3609 0058	Screw	M8x22	3
11	2811 0016	Washer	Ø8,4x17x1,6	3
12	2810 0067	Wheel	Ø100	1
13	2811 0016	Washer	Ø8,4x17x1,6	3
14	0604 0039	Nut	M8x9,5	3
15	3002 0587	Internal Hose Reel Support		1
16	3605 0103	Special Screw	4x20	4
17	1227 0003	Ring Nut for Cable Holder		1
18	2434 0022	Cable Holder		1
19	2403 0084	Plate for screw		2
20	3206 0283	Tank / Frame		1
21	3200 0091	Diesel Plug	black	1
22	2434 0051	Gasket	Ø36xØ46x18"	1
23	3200 0090	Detergent Plug	red	1
24	2434 0050	Gasket	Ø32xØ42x18"	1
25	3002 0581	Upper Accessories Support		1
26	3002 0580	Lower Accessories Support		1
27	1003 0069	Hose Clamp	Ø26	1
28	1223 0052	Wing Nut	G3/4	1
29	2800 0098	Straight Hose Tail	Ø19 - G3/4F	1
30	1209 0111	Gasket	Ø14,5x24,5x3,5	1
31	2825 0051	M/F Reduction	G3/4 - G1/2	1
32	2404 0170	Suction Plate		1
33	0604 0039	Nut	M8x9,5	2
34	2811 0016	Washer	Ø8,4x17x1,6	4
35	3609 0058	Screw	M8x22	2

Pos	Code	Description	Note	Q.Ty
36	2000 0105	Nipple		1
37	1002 0132	Suction Filter		1
38	2800 0074	Coupling		1
39	3621 0013	Special Screw	M6x20	3
40	3002 0586	External Hose Reel Support		1
41	0017 0013	Wheel Axle	Ø20 L=500	1
42	2812 0070	Washer	Ø20	2
43	2810 0035	Wheel	250x52	2
44	0009 0179	Ring	Ø20	2
45	0402 0284	Wheel Cover - Ø250	grigio / grey	2
46	2810 0074	Wheel Kit	grigio / grey	1
77	1209 0091	Copper Washer	3/8"	1
78	2417 0054	Coupling	M-F 3/8"	1

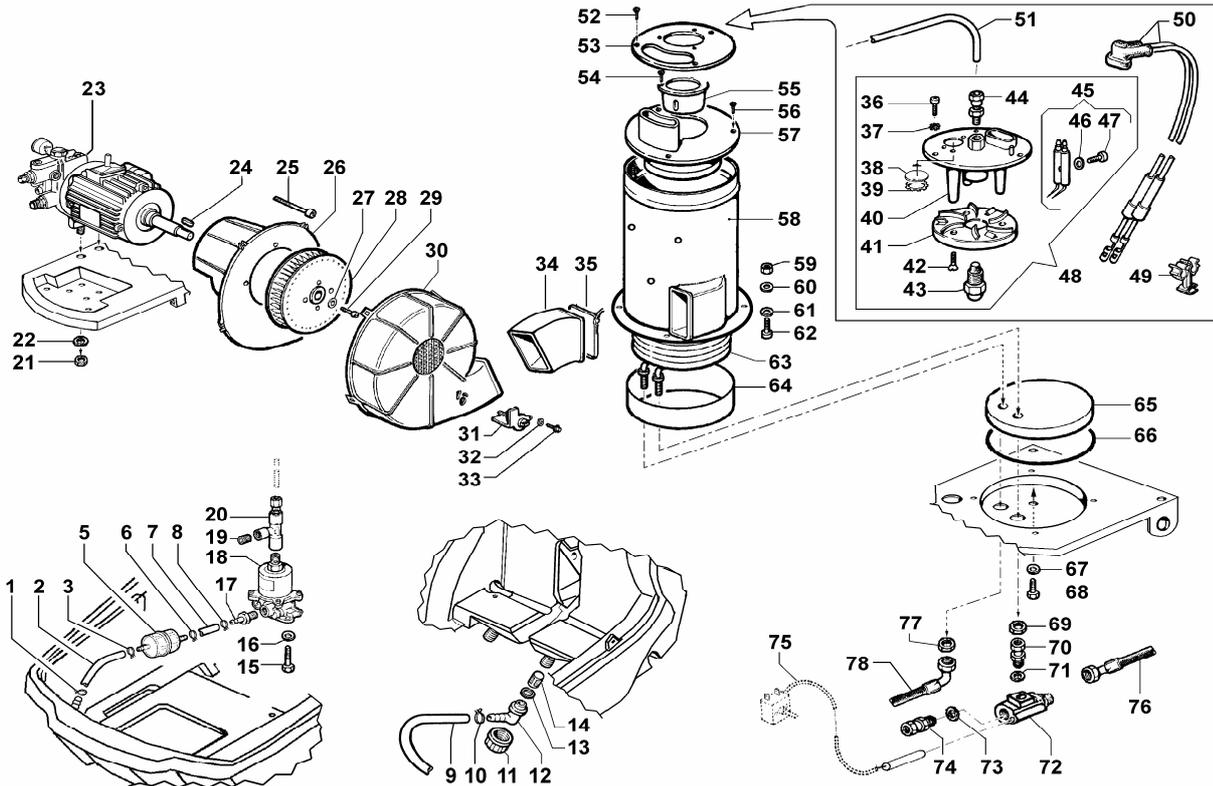
PUMP, MOTOR ASSEMBLY EXPLODED VIEW



Pos	Code	Description	Note	Q.Ty
1	3218 0114	Manifold	brass	1
2	3609 0150	Screw	M6x35	5
3	1210 0392	O-Ring	2,0x16	4
4	1205 0031	Suct./Del. Valve Cage		3
5	1802 0175	Suct./Del. Valve Spring		3
6	3604 0026	Suct./Del. Valve		3
7	3009 0121	Suct./Del. Valve Seat		3
8	1220 0039	Suct./Del. Valve Ass.y kit		3
9	1210 0415	O-Ring	1,78x12,42	3
10	0601 0274	Spacer		2
11	2421 0010	Pressure Switch (Red)	G1/8 - 25 bar	1
12	1816 0125	Gauge	Ø40 G1/8	1
13	0424 0418	Body		1
14	3609 0148	Screw	M5x35	2
15	2403 0081	Plate		1
16	3607 0103	Hexagonal Screw	M5x40	2
17	3005 0023	Pin	3,5x29,8	1
18	3001 0133	T.S. Electrical Box		1
19	1825 0011	Total Stop Switch		1
20	1201 0136	Gasket		1
21	0402 0200	Cover		1
22	3625 0047	Screw	2,9x31,7	2
23	3625 0048	Screw	3x10	3
24	0009 0229	Ring		1
25	2416 0112	Protection		1
26	1201 0137	Gasket		1
27	1200 0056	Wing Nut		1
29	0456 0308	T.S. Cable Kit		1
30	2434 0040	Cable Holder		1
33	2803 0383	Detergent Coupling		1
34	1210 0014	O-Ring	1,78x4,48	1
35	1210 0039	O-Ring	1,78x7,66	1
36	3003 0024	Ball	7/32"	1
37	1802 0254	Conic Spring		1

Pos	Code	Description	Note	Q.Ty
38	2803 0514	Detergent Coupling Suction Kit		1
41	3605 0087	Special Screw	M6	1
42	1210 0220	O-Ring	2x4	1
43	3009 0153	Easy-Start Seat		1
44	3003 0028	Ball	9/32"	1
45	1210 0152	O-Ring	1,78x9,25	1
46	3009 0148	Valve Seat		1
47	0009 0112	Packing Retainer	1,78x8,7	1
48	1210 0041	O-Ring	1,78x8,73	1
49	0015 0190	Rod		1
50	3021 0035	Elastic Pin		1
51	1210 0055	O-Ring	1,78x6,07	1
52	0009 0110	Packing Retainer	1,78x6,07	1
53	1210 0049	O-Ring	1,78x2,42	1
54	1210 0390	O-Ring	2x17	1
55	3605 0089	Special Screw		1
56	0432 0044	Electrode Cap		1
57	1600 0072	Total Stop Lever		1
58	3622 0047	Total Stop Adjustable Nut	M4x20	1
59	0604 0087	Nut	M4	1
60	1802 0249	Spring	Ø3,2	1
61	3202 0241	Cap		1
62	1215 0348	Regulation Valve Ass.y		1
63	1210 0433	O-Ring	2x8	1
64	0601 0261	Shim	Ø11xØ16x0,7	3
65	1220 0039	Suct./Del. Valve Ass.y kit		3
66	1210 0432	O-Ring	2x12	3
67	1241 0041	Packing	14x22x5	3
68	0009 0201	Packing Retainer		3
69	0601 0310	Spacer		3
70	0019 0123	Oil Seal	14x22x5/7	3
71	3609 0100	Screw	M6x35	3
72	2432 0014	Pump Crankcase		1
73	2409 0108	Piston	Ø14 L=62	3
74	1802 0174	Spring		3
75	0009 0195	Spring Spacer		3
76	1210 0391	O-Ring	2,62x75,87	1
77	3609 0114	Screw	M6x30	4
78	1009 0211	Motor Flange Kit		1
79	2807 0013	Special Washer	4,3x8x1,5	1
80	3625 0072	Screw	M4x8	1
83	3200 0087	Plug		1
84	1210 0093	O-Ring	1,78x14	1
88	3208 1000	Pump - Coil Hose		1
89	2816 0089	Bearing Ring		1
90	0436 0029	Bearing	42x60x13	1
91	0001 0540	Eccentric Shaft		1
92	0438 0069	Ball Bearing	1CSF 20x52x15	1
93	0019 0113	Oil Seal	20x32x7	1
94	0001 0539	Rotor Shaft	Ø65x22 H90	1
95	0422 0057	Fast-On		2
96	0438 0083	Ball Bearing	20x47x14	1
97	3041 0210	Stator		1
98	3041 0209	Stator Kit	115/60 125x65 H90	1
99	1209 0111	Gasket	Ø14,5x24,5x3,5	1
100	2801 0074	Elbow Coupling	Ø19 - G3/4F	1
101	1223 0052	Wing Nut	G3/4	1
102	3208 1006	Water Suction Hose	10BAR Ø19x26 L=650	1
103	1003 0069	Hose Clamp	Ø26	1
104	1210 0220	O-Ring	2x4	1
105	3600 0087	Check Valve		1
106	1802 0177	Spring		1
107	5027 0025	Check Valve Kit		1
108	3400 0287	Detergent Nozzle	Ø1,80	1
109	1210 0041	O-Ring	1,78x8,73	1
110	1210 0152	O-Ring	1,78x9,25	1
111	2000 0087	Nipple		1
112	3625 0046	Screw	M5x12	2
113	0456 0116	Electrical Cable		1
114	0402 0281	Cover		1
115	1201 0153	Gasket		1
116	1229 0025	Sheet	Øint12mm L=0,59	1
140	5019 0033	Piston Seal Kit		1
142	5025 0019	Suction/Delivery Valve kit		1

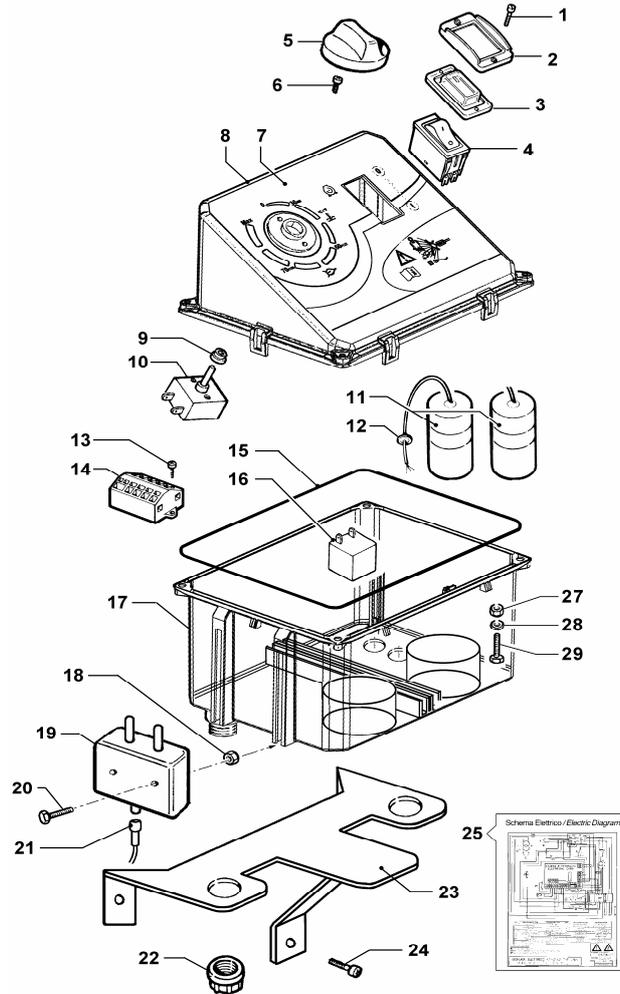
BURNER, BOILER EXPLODED VIEW



Pos	Code	Description	Note	Q.Ty
1	1003 0003	Hose Clamp		1
2	3208 0997	Diesel Hose	Ø6x12 L=390	1
3	1003 0003	Hose Clamp		1
5	1002 0120	Diesel Filter		1
6	1003 0003	Hose Clamp		1
7	3208 1044	Diesel Hose	Ø6x12 L=170	1
8	1003 0003	Hose Clamp		1
9	3208 0705	Detergent Hose	Ø7x10 L=750	1
10	1003 0059	Hose Clamp		2
11	1223 0052	Wing Nut	G3/4	1
12	2803 0371	Coupling	90°	1
13	1209 0104	Gasket	18x24x3	1
14	1002 0078	Detegrent Suction Filter		1
15	3607 0106	Hexagonal Screw	M6x10	2
16	2807 0011	Special Washer	Ø6,4x11x2	2
17	2803 0408	Coupling	G1/4 PG Ø7	1
18	2422 0022	Diesel Pump		1
19	3200 0017	Plug	G1/8	1
20	2803 0486	Coupling	G1/8	1
21	0604 0079	Nut	M10	2
22	2811 0016	Washer	Ø8,4x17x1,6	2
23	7301 0342	Motorpump		1
24	1602 0060	Key	5x3x20	1
25	3625 0070	Screw	M5x20	4
26	0466 0031	Shraud Cover		1
27	2807 0011	Special Washer	6,4x11x2	1
28	3632 0090	Fan	Ø145x52	1
29	3609 0034	Screw	M6x18	1
30	0404 0033	Shraud Cover		1
31	0466 0026	Fly Valve		1
32	2811 0006	Washer	4,3x9	1
33	3625 0049	Screw	3,5x9,5	1
34	1810 0024	Sleeve		1
35	1003 0076	Hose Clamp	4,8x450	2
36	3625 0038	Screw	4,2x16	3
37	2807 0013	Special Washer	4,3x8x1,5	3
38	3200 0074	Plug		1
39	3019 0035	Outer Seeger	Ø22	1

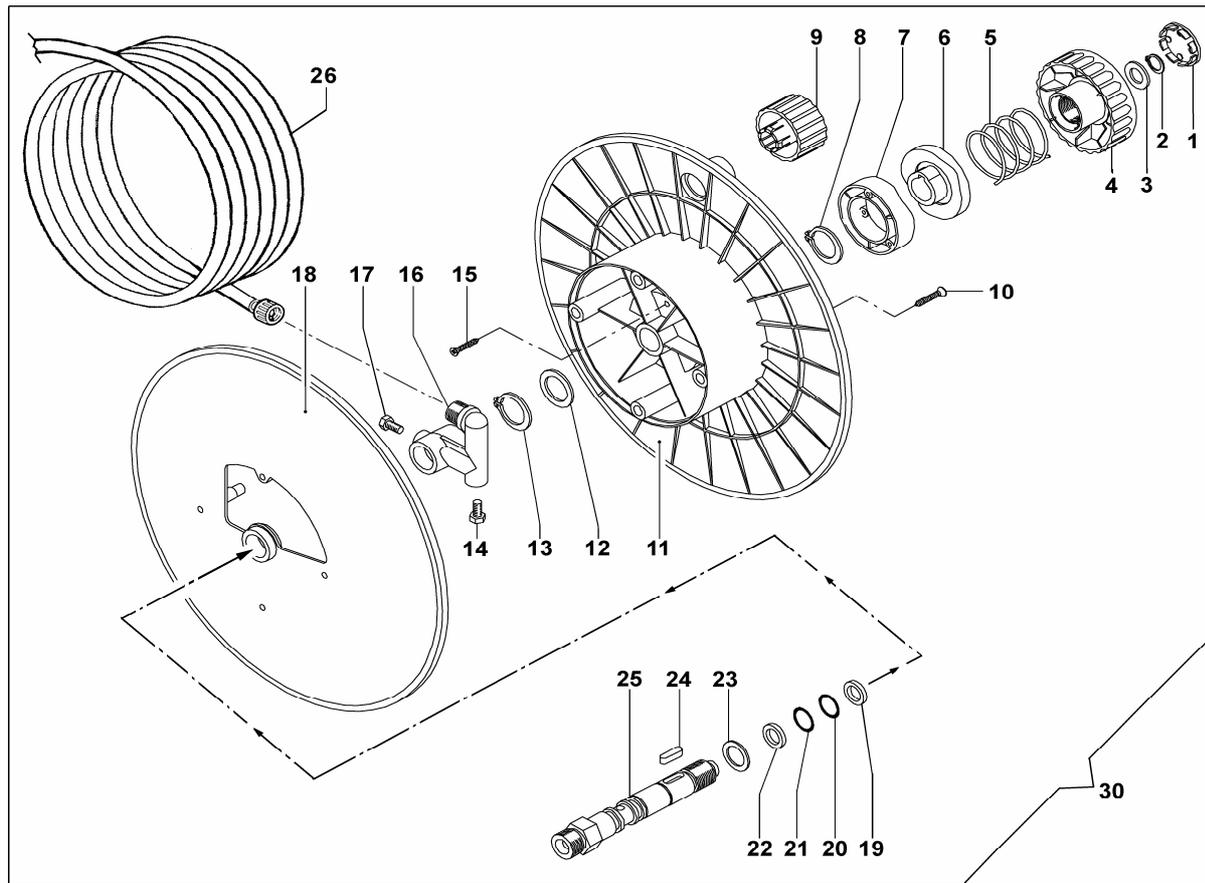
Pos	Code	Description	Note	Q.Ty
40	0602 0047	Electrode Holder Disc		1
41	0602 0057	Air Turbulence Ring		1
42	3608 0004	Screw	M3x6	3
43	3400 0331	Diesel Nozzle	0,75 - 60°A CT	1
44	2803 0322	Coupling	Ø4 GC1/8"	1
45	0805 0023	Bifilar Electrode Kit		1
46	2819 0020	Spring Washer	D.15x5,2x0,4	1
47	3625 0046	Screw	M5x12	1
48	0335 0031	Burner Kit		1
49	1202 0052	Hook		2
50	0535 0073	H.T. Cable Kit	L=53	1
51	3208 0998	Copper Diesel Hose	Ø4	1
52	3625 0028	Screw	3,5x25	3
53	0402 0287	Cover		1
54	3625 0037	Screw	3,5x13	3
55	0218 0012	Air Nozzle		1
56	3625 0028	Screw	3,5x25	3
57	0402 0286	Cover		1
58	0424 0405	Boiler Body		1
59	0604 0095	Nut	M6	4
60	2811 0030	Washer	Ø6,4x12,5x1,6	4
61	2811 0030	Washer	Ø6,4x12,5x1,6	4
62	3609 0112	Screw	M6x16	4
63	3044 0020	Coil		1
64	0009 0295	Bottom Body	Ø22	1
65	2822 0015	Refractory Pad		1
66	1210 0554	O-Ring	3,53x247,26	1
67	2811 0030	Washer	Ø6,4x12,5x1,6	1
68	3607 0106	Hexagonal Screw	M6x10	1
69	1227 0015	Coil-Lock Nut	G3/8x5	1
70	0011 0006	Adapter	M/F G1/4-G3/8+OGV	1
71	1209 0113	Copper Gasket		1
72	0424 0377	Thermostat Body		1
73	1209 0097	Copper Gasket	G1/4"	1
74	1215 0361	Safety Valve	MG2100 G1/4 MM 2	1
75	3230 0032	Thermostat		1
76	3208 1004	Coil - Hose Reel Hose		1
77	1227 0015	Coil-Lock Nut	G3/8x5	1
78	3208 1000	Pump - Coil Hose		1

ELECTRIC SYSTEM EXPLODED VIEW



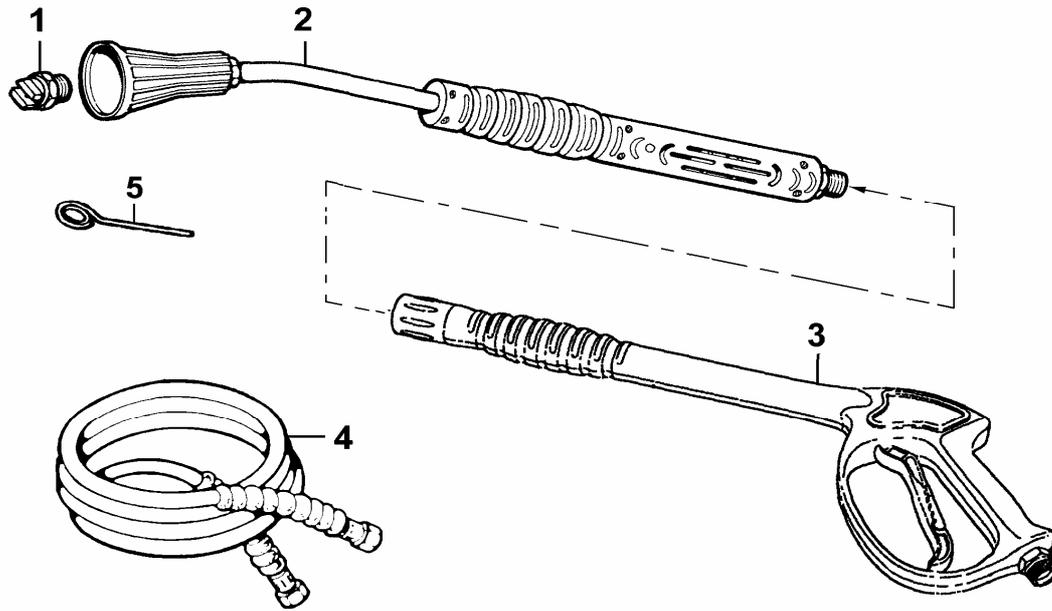
Pos	Code	Description	Note	Q.Ty
1	3625 0003	Screw	2,9x16	2
2	0460 0030	Switch Cover		1
3	2416 0095	Switch Protection		1
4	1410 0061	Switch	16 Amp	1
5	1817 0066	Thermostat Knob		1
6	3623 0007	Screw	M4x10	2
7	0457 0042	Electrical Panel Sticker		1
8	0402 0280	Cover		1
9	0204 0041	Thermostat Bushing		1
10	3230 0032	Thermostat		1
11	0434 0021	Condenser	50 mcf	2
12	2434 0040	Cable Holder	Ø19xØ15x2xH	2
13	3625 0074	Screw	2,9x13	2
14	1805 0044	Wire Connector		1
14	1805 0045	Wire Connector		3
14	1805 0047	End Wire Connector		1
15	1210 0555	O-Ring	2,62x215,57	1
16	3043 0037	Burner Delayer		1
17	3001 0523	Electrical Box		1
18	0604 0061	Nut	M5x5	2
19	3226 0083	H.T. Transformer	115V-50/60HZ	1
20	3609 0199	Screw	M5x40	2
21	0456 0305	H.T. Transformer Cable		1
22	1223 0052	Wing Nut	G3/4	2
23	3002 0590	Support		1
24	2815 0015	Rivet	3,4x7	3
25	1610 1146	Electric Diagram		1
27	0604 0061	Nut	M5x5	3
28	2811 0037	Washer	5,3X10X1	1
29	3607 0234	Screw	M5x30	1

HOSE REEL EXPLODED VIEW



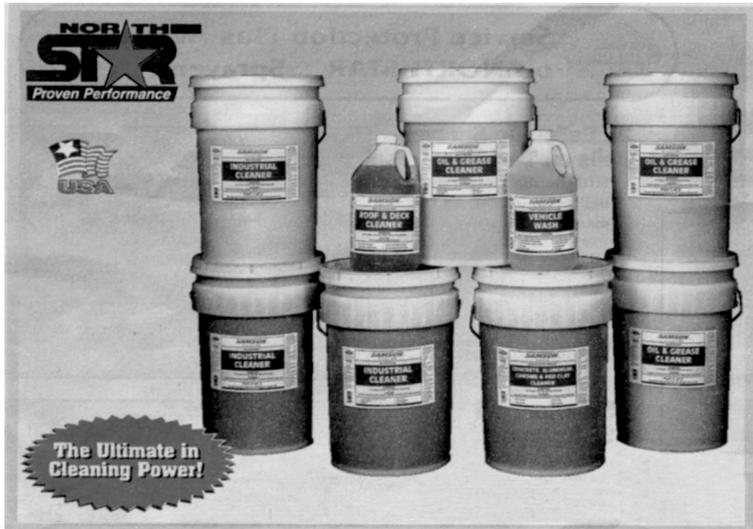
Pos	Code	Description	Note	Q.Ty
1	3202 0270	Cap		1
2	3019 0038	Outer Seeger		1
3	2811 0015	Washer	Ø13x24	1
4	3606 0014	Hose Reel Stop		1
5	1802 0211	Spring		1
6	0468 0002	Mobile Plate		1
7	0468 0001	Fix Plate		1
8	3019 0037	Outer Seeger	Ø20	1
9	2431 0007	Knob		1
10	3623 0015	Screw	5x25	4
11	0602 0052	Disc		1
12	2812 0080	Special Washer	Ø20xØ30x2	1
13	3019 0037	Outer Seeger	Ø20	1
14	3202 0018	Cap	1/8"	1
15	3623 0019	Screw	4x20	3
16	2803 0480	Coupling		1
17	3202 0018	Cap	1/8"	1
18	0602 0051	Disc		1
19	0009 0165	Ring		1
20	1210 0232	O-Ring	Ø2,62x15,08	1
21	1210 0232	O-Ring	Ø2,62x15,08	1
22	0009 0165	Ring		1
23	2812 0080	Special Washer	Ø20xØ30x2	1
24	1602 0059	Key	6x6x18	1
25	2408 0151	Special Coupling	G1/2	1
26	3208 0996	H.P. Hose	R1 - 1/4" L=10mt	1
30	7002 0255	Complete Hose Reel with H.P.Hose	R1 - 1/4" L=10mt	1

GUN, HOSE, WAND ASSEMBLY EXPLODED VIEW



Pos	Code	Description	Note	Q.Ty
1	3400 0450	Water Nozzle	15 04 1/4" Meg (Blister)	1
2	3301 0835	Lance	(Blister)	1
3	2410 0102	Spray Gun	(Blister)	1
4	3208 0996	H.P. Hose	R1 1/4" L=10mt (Part oh HOSE REEL KIT)	1
5	0455 0013	Nozzle Cleaning Pin		1

CONCENTRATED CLEANING PRODUCTS MAKE YOUR PRESSURE WASHING GO FASTER!



Professional Pressure Washer Industrial Detergent

Designed for heavy duty pressure washing applications such as road film removal, dirt, grease and carbon stains. Cleans exterior rubber surfaces and gutters in concentrated form. 18% active ingredient. Five gallons. U.S.A.

Ship Wt. 40 lbs.

Item# 22371-B964

Multi-Purpose Industrial Degreaser

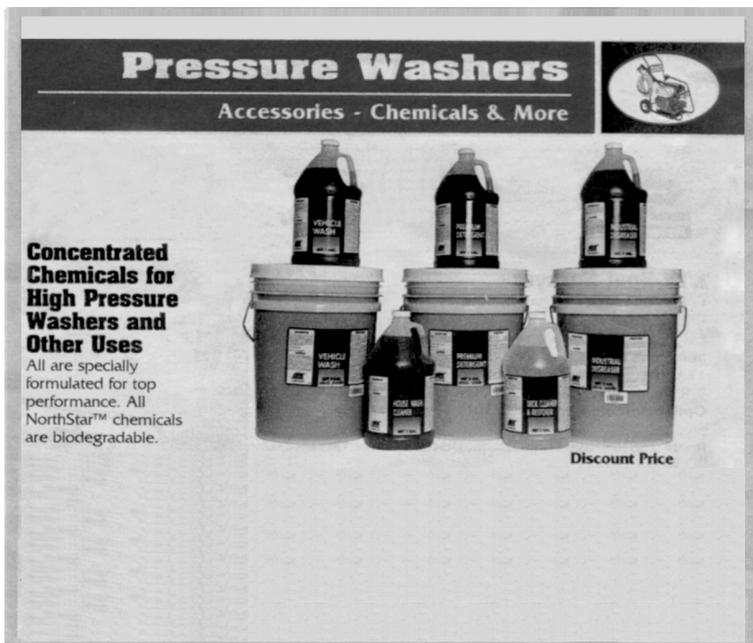
Removes grease from engines, tile and concrete floors. Cleans grease pits, stove hoods, vents and other greasy surfaces. Also cleans off-road vehicles and many other applications. 21% active cleaning ingredient. U.S.A.

Item#	Size	Ship Wt.
22377-B964	1 Gallon	8 lbs.
22373-B964	5 Gallons	40 lbs.

Solvent Cleaners

Concentrate solvent cleaners for a variety of purposes. Made in the U.S.A.

Item#	Type	Quantity	Ship Wt.
22374-B964	Roof and Deck Cleaner	1 gallon	12 lbs.
27741-B964	Roof and Deck Cleaner	5 gallons	40 lbs.
22375-B964	Concrete/Aluminum Cleaner	5 gallons	40 lbs.
22376-B964	Vehicle Wash	1 gallon	9 lbs.



Item#	Description	Feature	Makes Up To	Sh
22201-B964	1 Gallon Liquid Detergent	Corrosion Inhibitor	128 Gallons	1
22202-B964	5 Gallon Liquid Detergent	Corrosion Inhibitor	640 Gallons	5
22207-B964	1 Gallon Degreaser/Cleaner	Corrosion Inhibitor	128 Gallons	1
22208-B964	5 Gallon Degreaser/Cleaner	Corrosion Inhibitor	640 Gallons	4
22209-B964	1 Gallon Carnauba Wax	Silicone Rinse	10 Gallons	1
22210-B964	7-Lb. Bucket of Dry Detergent	USDA Approved	560 Gallons	;
22212-B964	Concrete Cleaner	Removes Rust and Stains	6 Gallons	1
22213-B964	1 Gallon Vehicle Washer	Corrosion Inhibitor	128 Gallons	1
22214-B964	5 Gallon Vehicle Washer	Corrosion Inhibitor	640 Gallons	5
22216-B964	1 Gallon House Wash	Cleans Windows	32 Gallons	1
222161-B964	5 Gallon House Wash	and Stops Mildew	100 Gallons	4
22217-B964	1 Gallon Deck Restorer	Prolongs Wood Life	Variable	1
22216-B964	1 Gallon House Wash	Formulated for Pressure Washer	32 Gallons	1
22218-B964	1 Gallon House Prep	Cleans for Painting	21 Gallons	1
222161-B964	5 Gallon House Wash	Formulated for Pressure Washer	160 Gallons	4
22217-B964	1 Gallon Deck Restorer	Formulated for Pressure Washer	Variable	1



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