



159.6000
159.6001

MHS-11

Multi-Head Scabbler

OPERATIONS AND MAINTENANCE



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Specifications subject to changes without notice!

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OPERATION AND MAINTENANCE MANUAL FOR

MHS-11 MULTI-HEAD SCABBLER

NOTICE

The Novatek's MHS-11 Multi-Head Scabblers is used to provide a sound keying finish to established concrete surfaces both indoors and outdoors.



WARNING



IMPORTANT SAFETY INFORMATION ENCLOSED.

READ AND UNDERSTAND THIS MANUAK BEFORE OPERATING THIS PRODUCT.

IT IS YOUR RESPONSIBILITY TO MAKE THIS SAFETY INFORMATION AVAILABLE TO OTHERS THAT WILL OPERATE THIS PRODUCT.

FAILURE TO OBSERVE THE FOLLOWING WARNING COULD RESULT IN INJURY.



PLACING TOOL IN SERVICE

- Always install, operate, inspect and maintain this product in accordance with all applicable standards and regulations (local, state, country, federal, etc.).
- Always use clean, dry air at 90 psi (6.2bar/620kPa) maximum air pressure at the inlet. Higher pressure may result in hazardous situations including excessive speed, rupture, or incorrect output torque or force.
- Be sure all hoses and fittings are the correct size and are tightly secured. See DWG. TPD905-1 for a typical piping arrangement.
- Ensure an accessible emergency shut off valve has been installed in the air supply line, and make others aware of its location.
- Do not use damaged, frayed, or deteriorated air hoses and fittings.
- Always use proper gauge electrical cords with correct connections. (When applicable.)
- Do not use damaged, frayed, or deteriorated electrical cords or connections. (When applicable.)
- Keep clear of whipping air hoses. Shut off the compressed air before approaching a whipping hose.
- Always turn off the power supply and disconnect the tool from power supply before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel. Use only recommended lubricants.
- Keep work area clean, uncluttered, ventilated and illuminated.
- Keep all electrical connections clear of water or other liquids. (When applicable.)
- Do not operate the machine while flammable or volatile liquids such as gasoline, diesel or jet fuel are present. Failure to do so can result in explosion. (When applicable.)
- Do not remove any labels. Replace any damaged label.

USING THE TOOL

- Always wear protection when operating or performing maintenance on this tool.
 - Always wear hearing protection when operating this tool.
 - Always use Personal Protective Equipment appropriate to the tool used and material worked. This may include dust mask or other breathing apparatus, safety glasses, ear plugs, gloves, apron, safety shoes, hard hat and other equipment,
 - Prevent exposure and breathing of harmful dust and particles created by power tool use:
 - Some dust created by power sanding, sawing, and grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead based paints,
 - Crystalline silica from bricks and cement and other masonry products, and
 - Arsenic and chromium from chemically treated lumber
- Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- Keep others a safe distance from your work area, or ensure they use appropriate Personal Protective Equipment.
- This tool is not designed for working in explosive environments, including those caused by fumes and dust, or near flammable materials.
- This tool is not insulated against electric shock.
- Be aware of buried, hidden or other hazards in your work environment. Do not contact or damage cords, conduits, pipes, or hoses that may contain electrical wires, explosive gases or harmful liquids.
- Keep hands, loose clothing, long hair and jewelry away from working end of tool.
- Power tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advices before resuming use.
- Keep body stance balanced and firm. Do not overreach when operating this tool. Anticipate and be alert for sudden changes in motion, reaction torques, or forces during startup and operation.
- Tool and/or accessories may briefly continue their motion after throttle is released,
- To avoid accidental starting – ensure tool in “off” position before applying air pressure, avoid throttle when carrying, and release throttle with loss of air.
- Ensure work pieces are secure. Use clamps or vises to hold work piece whenever possible.
- Do not carry or drag the tool by the hose.
- Do not use power tools when tired, or under the influence of medication, drugs, or alcohol.
- Never use a damaged or malfunctioning tool or accessory,
- Do not modify the tool, safety devices, or accessories.
- Do not use this tool for purposed other than those recommended.
- Use accessories recommended by Novatek Corp.
- Never operate a percussion Tool unless an accessory is properly installed and the tool is held firmly against the work,
- Always use a retainer, when furnished, in addition to proper barriers to protect persons in surrounding or lower areas from possible ejected accessories.
- When wearing gloves and operating models with inside trigger, always be sure that the gloves will not prevent the trigger from being released.
- Wear safety shoes, hard hat, safety goggles, gloves, dust mask and any other appropriate protective clothing while operating the tool.
- Do no indulge in horseplay. Distraction can cause accidents.
- Keep hands and fingers away from the throttle lever until it is time to operate the tool.
- Never rest the tool or chisel on your foot.
- Never point the tool at anyone.
- Compressed air is dangerous. Never point an air hose at yourself or others.
- Never blow clothes free of dust with compressed air.
- Be sure all hose connections are tight. A loose hose not only leaks but can come completely off the tool and while whipping under pressure, can injure the operator and other ins the area. Attach safety cables to all hosed to prevent injury in case a hose is accidentally broken.
- Never disconnect a pressurized air hose. Always turn off the air supply and bleed the tool before disconnecting a hose.
- The operator must keep limbs and body clear of the chisel. If a chisel breaks, the tool with the broken chisel projecting from the tool will suddenly surge forward.
- Do not ride the tool with one leg over the handle. Injury can result if the chisel breaks while riding the tool.
- Know what is underneath the material being worked. Be alert for hidden water, gas, sewer, telephone or electric lines.
- Use only proper cleaning solvents to clean parts. Use only cleaning solvents which meet current safety and health standards. Use cleaning solvents in a well ventilated area.
- Do not flush the tool or clean any parts with diesel fuel. Diesel fuel residue will ignite in the tool when the tool is operated, causing damage to internal parts. When using models with outside triggers or throttle levers, take care when setting the tool down to prevent accidental operation.
- Do not operate the tool with broken or damaged parts.
- Never start the tool when it is lying on the ground.
- This tool is not designed for working in explosive atmospheres.
- This tool is not insulated against electric shock.



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SECTION I

GENERAL

This operation and maintenance manual is for the Multi-Head Scabblers, MHS-11.

READ ALL INSTRUCTIONS AND DATA IN THIS OPERATION AND MAINTENANCE MANUAL PRIOR TO OPERATION OF THIS EQUIPMENT.

These instructions are for your protection and convenience. Please read them carefully since failure to follow the precautions could result in injury. Whenever using electric powered equipment, basic safety precautions should be followed.

If after reading this manual anything seems unclear, contact a **NOVATEK** authorized distributor or **NOVATEK** directly by dialing 1-866-563-7800.

SECTION II

BEFORE USE

This operation and maintenance manual must be read and understood before use. If you have questions contact a **Novatek** sales representative or technician before use.

- Remove all packaging and cut clear cable tie to spate handle halves.
- Slide top handle half onto spigot of bottom handle and align. Tighten cap head screw until tight with Allen Key provided.
- Push formed end of control inner cable into control lever and ensure control cable out is not kinked and forms a smooth radius from control lever.
- With adjuster screwed fully home, connect inner cable through valve end stop plate and trigger "eye".
- Select one 8mm wrench and clamp tightly with a hexagon screw and fasten control out cable to the handle with the black cable ties provided. (Two on the top, one on the bottom.)
- Adjust the inner cable until slack is removed but not so that valve stem is depressed.
- Put a liberal quantity of a recommended lubricant into the air inlet of the tool.

IN USE

- The tool is primarily designed to provide a sound keying finish to established concrete surfaces both indoors and outdoors but:
 - It is not intended to be used in potentially explosive atmospheres.
 - Care must be taken to reduce noise level and dust to acceptable levels (Vacuum shrouds are available.)
 - Be aware of others working around you.
- Depress the foot release mechanism to release the handle. Never run the tool with the handle fastened to the main body.
- To operate tool, pull control lever fully against hand grip.
- Optimum performance will be achieved after 15 minutes running in of the brush seals.
- The most efficient scabbling action is to move the tool back and forth until the desired finish is achieved.

NOTE: NEVER run the tool continuously in the same place or use on soft material for the risk of cutter head breakage!

- The tool will ride surface irregularities of up to 13mm (1/2"). Any greater will risk cutter head breakage.
- The "claw" coupling to the valve is designed so that the handles do not bear the weight of the airline. Take care not to scabble the airline.

WARNING Do not under any circumstances "wire" or "tape" the control lever to the hand grip. The hold-to-run device is there for YOUR protection.

AIR SUPPLY

The compressed air should be free from water and dirt. The installation of a filter/regulator/lubricator air preparation set (with moisture trap) is strongly recommended.

- Always blow out the airline before connection. Ensure that no moisture is present in the airline.
- Ensure that a minimum 19mm (3/4") bore airline is used with a correctly fitted quick release 1/4" turn "claw" coupling. Check that the coupling is in good condition and secure tightly to valve.
- Limit the length of airline to 10m (33ft). Where extra length is necessary, for each additional 15m (50ft) of airline, the pressure drop is approximately 4psi (at 100psi).
- The correct operating pressure is 6.2bar (90psi).
 - Do not let the operating pressure fall below 5.9bar (85psi) or rise above 6.9 bar (100psi)

NOTE: The compressor must be able to supply 55cfm.

SECTION III

SERVICING

Servicing must be carried out by a **Novatek** technician.

NOTE: Always disconnect the tool from the air supply before beginning any servicing.

To replace or change the cutter heads without dismantling the tool

- Lay the tool on its side.
- Select a 19mm wrench and one 27mm wrench flats on the piston and cutter head respectively.
- Unlock the head and continue to unscrew until it is free from the piston.
- Ensure the new head is tightly fastened and that the mating faces are in contact.

To replace a brush seal without dismantling the tool

- Lay the tool on its side.
- Select one 19mm wrench and unlock 5 hexagon head bolts.
- Remove bolts and withdraw sealing plate up to shoulder on cutter head.
- Remove worn brush seal with thin needle node pliers and discard.
- Twist new brush seals by 45 degrees and push over piston diameter.
- Twist back so that brush seal fits into recess and assemble sealing plate with hexagon head bolts.
- Tighten initially by hand, and then torque tight bolts to 60 lb. ft.

To fit vacuum shroud assembly

- Lay the tool on its side.
- Unlock handle and pull cylinder block assembly onto lifting handles.
- Select a 19mm socket wrench; unlock the 5 hexagon head screws, and remove.
- Select an 8mm wrench and unlock the front 3 hexagon head screws.
- Remove along with associate front clamp plate.
- Thread tube on vacuum shroud assembly through sub-frame.
- Align holes and refit 5 hexagon bolts, tightening initially by hand and then torque tighten to 60 ft. It.
- Refit clamp plate with screws ensuring that rubber seal is square and firmly clamped.
- The seal overlap should be at the rear of the tool.
- A suitable vacuum system must be connected to the vacuum shroud assembly.

RECOMMENDED LUBRICANTS

Oil the tool daily during use. Put a liberal quantity of the following biodegradable air tool lubricants through the air inlet:

SHELL	Naturelle HF
CASTROL	Carelube HTG 22

Always use clean oil from a sealed container whenever possible.

MANUAL HANDLING

- The complete tool weighs 70kg. Where possible use a hoist with correctly rated chains, slings, and shackles with the eye-bolt supplied. (Ensure that the eye-bolt is hand tight.)
- Two lifting handles are fitted on the cylinder head. A two man lift requires a man on either side of the cylinder head with a lifting handle in one hand and hand grip in the other.
- Never lift the tool mechanically by anything other than the eye-bolt.
- Always ensure that the handle is locked during any handling operation.

- Take care over rough terrain or steps to avoid damage to the valve assembly.

CLEANING

- At intervals of no more than 50 hours, or if operation becomes sluggish and pistons show signs of sticking, dismantle and clean with a highly refined paraffin such as Lowtoxane or Pronature Orange Oil.
- Immediately after cleaning, thoroughly oil the tool with one of the recommended lubricants.
- At intervals of no more than 100 hours, or if the control mechanism becomes difficult to operate, remove inner control cable and clean with a highly refined paraffin.
- Before assembly, lubricate with water resistant grease. At the same time, put a few drops of a recommended lubricant onto all pivot points, particularly the valve trigger, wheel axles and foot release assembly.
- Periodically clean the area around the valve trigger to ensure trouble free operation.

SECTION IV

DISMANTLING

After ensuring that the air supply is turned off, remove the air-line from the tool. Clean all debris from the outside of the tool.

Exhaust Chamber Removal

- Remove cutter heads, sealing plate, and brush seals.
- Using a soft faced mallet, strike the exhaust chamber on all sides with a controlled blow. (This should free the location dowels.) Additional leverage between mating faces may be required.
- Take care not to lose the dowels should they become loose.

Remove Cylinder Block from Sub-Frame

- Lay tool down with the handle uppermost.
- Select an 8mm wrench and unlock the hexagon screw.
- Withdraw the control inner cable from the trigger and adjuster in end stop plate.
- Select a ¾" wrench and unlock nut.
- Unscrew nut and remove both the nut and washer.
- Repeat for other 3 mountings.
- Carefully guide sub-frame over valve assembly.

Cylinder Head Removal

- Repeat the above and set cylinder block vertical.
- Select a 100 hexagon key and unlock 7 cap head screws.
- Withdraw screws and using a soft faced mallet, strike the cylinder head on all sides with controlled blows.
- This should free the location dowels. Additional leverage between mating faces may be required.
- Using handles, lift head clear of cylinder body.
- Take care not to lose the dowels should they become loose.

Cylinder and Piston Removal

- Repeat the above steps and remove cutter heads as before.
- Remove O-rings and discard. From the bottom of the cylinder block, push up and remove the piston and cylinder.
- Repeat for the other pistons/cylinders.

Valve Assembly Removal

- Remove cylinder block from sub-frame and selecting one 1 ½" wrench loosen the locknut.
- Unscrew the valve body by hand until it becomes free.

Valve Stem Removal

- Select an 8mm wrench and unlock hexagon screw.
- Withdraw control inner cable from trigger and adjuster in end stop plate.
- Select one 1 5/16" wrench to unlock the claw coupling and remove.
- Select one 1" wrench to unlock the adaptor and remove.
- Remove end stop plate and withdraw spring from valve body.
- Allow trigger to pivot around pivot pin.
- Push up on the protruding valve stem until spring seat and O-ring are exposed.
- Withdraw valve stem using this needle nose pliers.

Wheel Removal

- Lay tool on it side.
- Close split pin and remove from hole in axle.
- Remove outer washer, slide wheel off axle and remove the inner washer.
- Repeat for other wheel as necessary.

Remove Handle Assembly from Sub-Frame

- Lay tool down with handle uppermost.
- Select two 15/16" wrenches to fit bole and nut.
- Unscrew and remove both the nut and washer.
- Withdraw bolt and washer.
- Depress foot release assembly to free handle from sub-frame

NOTE: DO NOT remove foot release assembly from handle assembly! (There are no user serviceable parts and the torsion spring is under extreme load.)

Remove Control Lever from Handle Assembly

- Select one Phillips screw driver and unlock retaining screws.
- Remove screws and top half of bracket to release the control lever from handle assembly.

ASSEMBLY

Ensure all parts are clean and internal parts have a film of recommended lubricant, unless specified otherwise. Replace any parts that show signs of wear. If the tool is being fully serviced it is strongly recommended to change rubber mountings along with O-rings. It is a good practice to replace split pins and pivot pins during assembly as well.

Assembly of Cutter Head-Sealing and Exhaust System

- Lay cylinder body on side.
- Fit piston into cylinder and insert all pairs into body.
- Offer exhaust chamber to body ensuring alignment of dowels and tap into place with a soft faced mallet.
- Put new brush seals into recess on sealing plate and thread pistons through sealing plate.
- Check seals are flush in recess before tightening sealing plate with hexagon head bolts through exhaust chamber and into cylinder body.
- Tighten initially by hand, and then torque the bolts tight to 60 ft. lb. Screw on cutter heads and fasten securely using the two wrench flats.

Assembly of Cylinder Head

- Ensure cylinder is fully home into cylinder body and that new O-rings are in place.
- Offer cylinder head onto body ensuring alignment of dowels is correct and taking care not to damage rubber mountings.
- Using a soft faced mallet tap into place and secure with 7 cap head screws.
- Tighten initially by hand and then torque tight to 100 ft. lb.

Valve Assembly to Cylinder Block

- Screw lock nut onto valve body and align with cylinder block assembly.
- Screw in by hand until tight, and then back off until valve inlet is 45 degrees to the left of vertical.
- Then tighten lock nut to secure position.
- Final adjustment can be made later if claw coupling fouls either sub-frame or handle assembly.

Valve Stem into Valve Assembly

- Assembly is the reverse of dismantling. Having firstly ensured that the O-ring and pivot pin are replaced.
- Ensure that the adaptor and claw couplings are tight and that the end stop plate and trigger are aligned for the control inner cable.

Sub-Frame to Cylinder Block Assembly

- Lay cylinder block face down so that rubber mountings are uppermost.
- Ensure that these are tight and align studs with mounting holes on sub-frame.
- Fasten by hand and then torque tight to 40 ft. lb.

Wheel to Sub-Frame

- Slide inner washer, wheel and outer washer onto sub-frame axle and insert a new split pin into the hole.

- Separate legs on pin and bend around with needle nose pliers.
- Repeat for other wheel as necessary.

Handle to Sub-Frame

- Insert rubber mountings into handles and fit washer onto bolt.
- Offer handle to sub-frame and with holes aligned, insert bolt through sub-frame and handle.
- Guide bolt through rubber mountings and sub-frame on other side and fit washer and nut as the bolt protrudes.
- Tighten so that no more than 3/8" of the thread protrudes from the nut.
- This ensures that the sub-frame does not twist and that the rubber mountings function correctly.

Control Lever to Handle Assembly

- Assembly is the reverse of dismantling.
- For fitting and adjustment of control inner cable, see "before use" section.

Disposal

When the tool and its accessories are taken out of service for disposal, it is recommended that:

- That they be rendered unusable to prevent improper re-use by persons un-known.
- They be dismantled and disposed of according to specific material recycling process.

WARNING Flammable material such as plastic, rubber or composite materials must NOT be incinerated. They should be disposed of properly.

SECTION V

Working Practices

Do's:

- Always wear personal protective equipment including safety goggles, footwear, ear protection and gloves. Safe working practices should be observed at all times.
- Ensure that all airlines are in good condition securing fitted and that the air pressure is correct for the tool.

Don'ts:

- Mechanically lift the tool by the handle or anything other than the eye-bolt. (Ensure that the handle is locked)
- Perform maintenance on the tool with the airline connected.
- Use gasoline, thinners or any high flash solvent to flush or clean the tool.
- Use tool for extended periods due to vibration level. If any discomfort is felt then stop working with the machine until normal condition returns.

Specifications

Specification	MHS-11
Piston Diameter	1.125" (28.6mm)
Piston Length	5.22" (132.6mm)
Piston Stroke	1.535" (39.0mm)
Blows per Minute	11 x 2200
Air Consumption	70 cfm (1982 lpm)
Working Height	51" (1295mm)
Packaged Height	32" (813mm)
Packaged Footprint	12" x 14" (305mm x 356mm)
Weight	160 lbs (70 kg)
Air Hose Bore	¾" (19mm)
Vibration	5.0 m/s ²
Removal Rate	300 ft ² /hr
Depth of Cut (Average)	0.125"

SECTION VI

MHS-11 Multi Head Scabblers Parts List

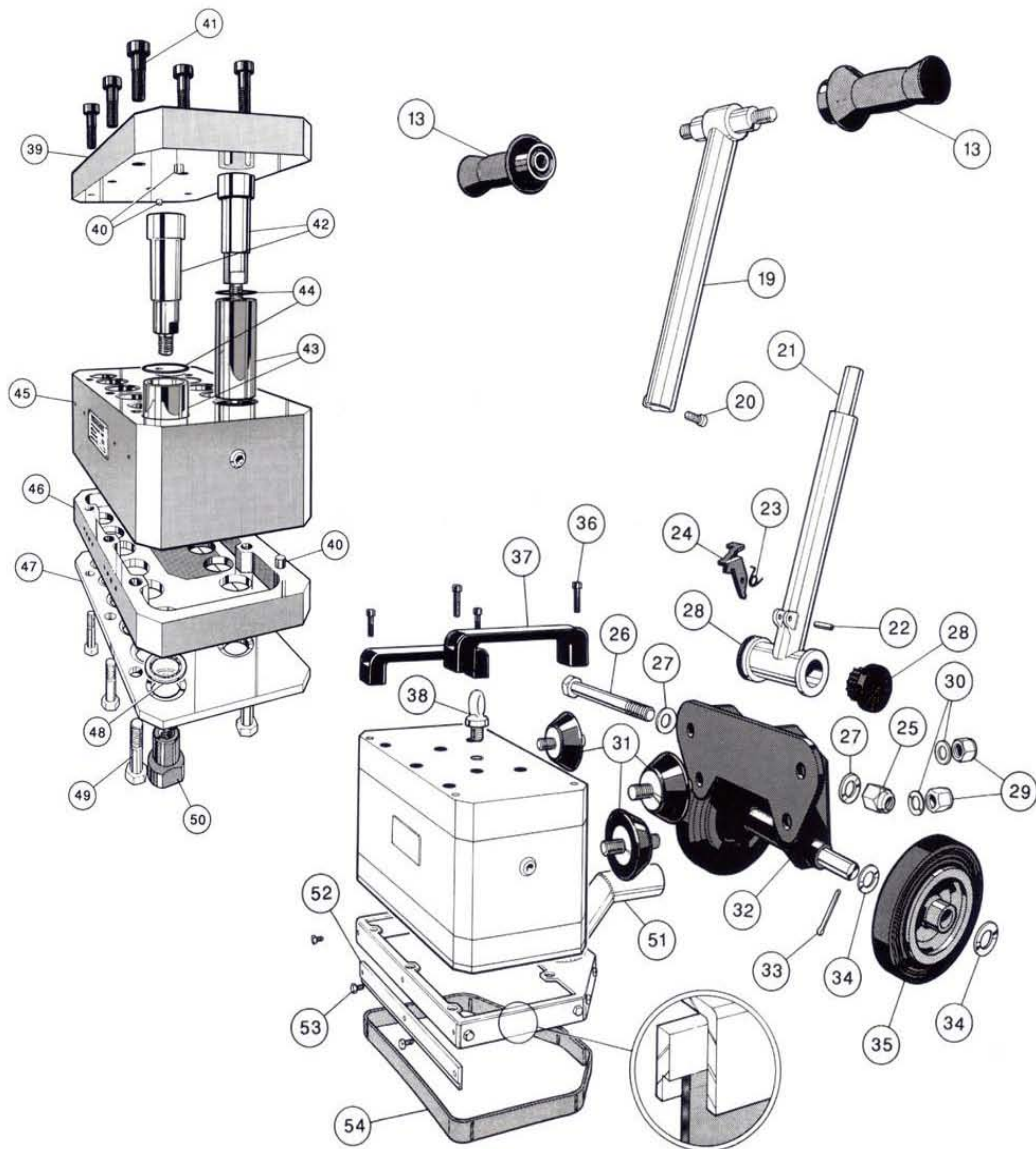
Description	Part No.
Multi-Head Scabblers (11 heads)	159.6000
Multi-Head Scabblers (11 heads) c/w Dust Collection Shroud	159.6001

MHS11 Spares

Item Number	Description	Part No.
1	Whip Hose Assembly Including Fittings	421.0199
2	Ball Valve	828.1000
3-4	"U" Bolt Assembly (Set of 2)	505.3102
5	Threaded Adaptor	826.5004
13	Handle Grip x 2	490.0200
19-20	Top Handle Including Clamp	491.4000
21	Bottom Handle	422.2120
22-24	Foot Release Assembly	491.4100
25-27	Handle Mounting Pivot Bolt Assembly	491.2000
28	Rubber Mountings x 2	490.1000
29-31	Rubber Block Mounting Assembly	491.0200
32	Sub-Frame	440.0120
33-35	Wheel Assembly x 2	491.1100
36-37	Lifting Handle Including Fixings	491.3100
38	Eye Bolt	831.4120
39/40/45/46	Doweled Cylinder Block Assembly	491.5000
40	Dowel x 4	490.2000
41	Cap Head Screw x 7	490.3000
42	Piston	612.0120
43	Cylinder	613.3001
44	O-ring Cylinder (Pack of 10)	809.0289
47	Sealing Plate	654.1120
48	Brush Seals (Pack of 11)	614.5302
49	Hex Bolt (Pack of 10)	490.3100
50	Cutter Heads (Bush Hammer/Cruciform)	See Below
51	Shroud Assembly	499.6011
52	Brush Channels	731.1001
53	Rivets (Not Supplied)	Call for Details
54	Brushes for Shroud (2 piece set)	731.1002

MHS11 Consumables

Item Number	Description	Part No.
50	Bush Hammer Cutter Head	426.5355
50a	Cruciform Cutter Head	426.5358
50b	11 Bush Hammer Heads with Brush Seal Kit	426.MS1B
50c	11 Cruciform Heads with Brush Seal Kit	426.MS1C



ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Hose Assembly	39/30/45/46	Doweled Cylinder Block Assembly
2	Ball Valve	40	Dowel x 4
3-4	'U' Bolt Assembly (set of 2)	41	Cap Head Screw x 7
5	Threaded Adaptor	42	Piston
6	Ball Valve	43	Cylinder
13	Handle Grip (set of 2)	44	O'Ring Cylinder
19-20	Top Handle C/W Clamp	47	Sealing Plate
21	Bottom Handle	48	Brush Seals 11/Pack
22-24	Foot Release Assembly	49	Hex Bolt x 5
25-27	Handle Pivot Bolt Assembly	50	Cutter Heads
28	Rubber Mountings x 2	51	Shroud Assembly
29-31	Rubber Block Mounting Assembly	52	Brush Channels
32	Subframe	53	Rivets (Not Supplied)
33-35	Wheel Assembly x 2	54	Brushes for Shroud
36-37	Lifting Handle		
38	Eye Bolt		

NOVATEK CORPORATION LIMITED WARRANTY

The **TOOLS** manufactured by **NOVATEK CORPORATION** are warranted to be free from defects in material and workmanship for a period of **180 DAYS** from the date of purchase. This warranty does not apply to accessories. All electrical components of the tool are also warranted to be free from defects in material and workmanship for a period of **180 DAYS**.

This warranty applies only to **TOOLS** purchased new from **NOVATEK CORPORATION** or one of its authorized distributors. This warranty does not apply to any **TOOL** which has been abused, misused, modified or repaired by someone other than **NOVATEK CORPORATION** or its authorized repair center.

If a **TOOL** proves defective in material or workmanship within one year of purchase from **NOVATEK CORPORATION**, it should be returned to **NOVATEK CORPORATION**, transportation pre-paid. The return must be authorized by a **RETURN MERCHANDISE AUTHORIZATION NUMBER (R.M.A. #)** obtained from **NOVATEK CORPORATION** prior to returning the **UNIT**. All packages must show clearly on the outside the return merchandise authorization number. All packages received without any R.M.A. # on the outside will be refused by **NOVATEK CORPORATION** receiving department.

Warranty claims will only be considered upon adequate proof of date of purchase. **NOVATEK CORPORATION** will, at its option, **REPAIR or REPLACE DEFECTIVE PARTS**. Repairs or replacements are warranted as above for the remainder of the original warranty period. The sole liability of **NOVATEK CORPORATION** and the user's exclusive remedy under this warranty is limited to the repair or replacement of the defective product.

THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED AND **NOVATEK CORPORATION** SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OR ANY OTHER EXPENSES OR REPAIR OR REPLACEMENT AS DESCRIBED ABOVE.

All warranty claims should be forwarded to:

NOVATEK CORPORATION
216 Philips Road
Exton, PA 19341

ATTENTION: CLAIM AND SERVICE DEPARTMENT
R.M.A. # _____

CALL Toll Free at 1-866-563-7800 for your RMA number prior to shipping.

Also include a brief description of the problem as well as a phone number, contact name and return address in case **NOVATEK CORPORATION** service personnel has to get in contact with you.