

OPERATOR MANUAL

Includes Safety, Service and Replacement Part Information

**Model MDF15 and MDF35
Long Reach Air Tool**

**Form: GOM6019801
Version 1.0**

Do not discard this manual. Before operation, read and comprehend its contents. Keep it readily available for reference during operation or when performing any service related function. When ordering replacement parts, please supply the following information: model number, serial number and part number. For customer service assistance, telephone 800.533.0524, +507.451.5510. Our Customer Service Department telefax number is 877.344.4375 (DIGGER 5), +507.451.5511. There is no charge for customer service activities .

Internet address: <http://www.generalequip.com>.
E-Mail location: general@generalequip.com.

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620 Alexander Dr. S.W. • PO Box 334
Owatonna, Minnesota 55060
800.533.0524 • +507.451.5510
Fax +507.451.5511
Toll-Free Fax 877.344.4375 (Digger 5)
Web: www.generalequip.com
E-mail: general@generalequip.com
Can you really afford anything less?



Congratulations on your decision to purchase a General light construction product. From our humble beginnings in 1955, it has been a continuing objective of General Equipment Company to manufacture equipment that delivers uncompromising value, service life and investment return. Because of this continuous commitment for excellence, many products bearing the General name actually set the standards by which competitive products are judged.

When you purchased this product, you also gained access to a team of dedicated and knowledgeable support personnel that stand willing and ready to provide field support assistance. Our team of sales representatives and inhouse factory personnel are available to ensure that each General product delivers the intended performance, value and investment return. Our personnel can readily answer your concerns or questions regarding proper applications, service requirements and warranty related problems.

General Equipment Company places great emphasis upon not only product performance, but also on product safety. It is important to remember that this product will only be as safe as the operators which utilize it. It just makes good, common sense to take the time to read and fully understand the contents of this manual before attempting to utilize this product in service. If you ever do have any questions or concerns about this product, please feel free to contact our Customer Service Department at the telephone numbers listed below for assistance.

If there is anything that I can do to assist your efforts when utilizing this product, please do not hesitate to contact me. For assistance after normal business hours, telephone me at 507.451.9409 or 507.363.1033. If I am not immediately available, I will attempt to return your call as soon as possible.

Sincerely,

GENERAL EQUIPMENT COMPANY

Dennis Von Ruden
President

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Notice to Operators

IF YOU CAN NOT READ OR DO NOT FULLY UNDERSTAND THE CONTENTS OF THIS MANUAL, PLEASE CONTACT THE FACTORY FOR PROPER ASSISTANCE BEFORE ATTEMPTING TO OPERATE THIS PRODUCT.

SI TU NO PUEDES LE'ER O NO COMPRENDES EL CONTENIDO DE ESTE MANUAL FAVOR DE PONERSE EN CONTACTO CON LA FABRICA PARA ASISTENCIA- A PROPIA ANTES DE INTENTAR PARA OPERAR ESTE PRODUCTO.

SOLLTEN SIE DIESE GEBRAUCHSANWEISUNG NICHT LESEN KOENNEN ODER ES NICHT VOLLKOMMEN VERSTEHEN, WENDEN SIE SICH BITTE AN DEN HERSTELLER FUER RICHTIGE HILFE EHE SIE VERSUCHEN DIESES PRODUKT ZU OPERIEREN.

SI VOUS NE LISEZ OU NE COMPRENDRE ENTIEREMENT LES MATIERES DE CE MANUEL, S'IL VOUS PLAIT, CONTACTEZ L'USINE POUR L'ASSISTANCE APPROPRIEE AVANT D'UTILISER LE PRODUIT.



DANGER



CAUTION

These safety alert symbols identify important safety messages in this manual. When you see these symbols, be alert to the possibility of personal injury and carefully read the message that follows.

Do not allow anyone to operate the Long Reach Air Tool without first reading this Operator Manual and becoming familiar with its operation. The manufacturer of this Long Reach Air Tool has gone to great extremes to provide the owner(s) and/or operator(s) with the finest equipment available for its intended job function of removing materials from vertical and horizontal surfaces. Yet, the possibility exists that the Long Reach Air Tool can be utilized in and/or subjected to job applications not perceived and/or anticipated by the manufacturer. Such misuse and/or misapplication of the Long Reach Air Tool can lead to the possibility of serious damage, injury or even death. It is the responsibility of the owner(s) and/or operator(s) to determine that the Long Reach Air Tool is being utilized and/or operated within the scope of its intended job function. It is the responsibility of the owner(s) and/or operator(s) to establish, monitor and constantly upgrade all safety programs and/or practices utilized in and for the operation of the Long Reach Air Tool. The purpose of such programs is to provide for owner(s)' and/or operator(s)' safety. Operators must be instructed to recognize and avoid unsafe conditions associated with their work (29 CFR 1926.21 (b)(2)) and/or applicable updated revisions. It is the responsibility of the owner(s) and/or operator(s) to determine that no modifications and/or alterations have been made to the Long Reach Air Tool. Modifications and/or alterations can lead to the possibility of serious damage, injury or even death. It is the responsibility of the owner(s) and/or operator(s) to make this Operator Manual available for consultation during all phases of operation. Refer to OSHA 2207 and/or applicable updated revisions which contains all OSHA job safety and health rules and regulations (1926 and 1910) covering construction.



CAUTION

The concept of portable, pneumatically powered, long reach type air tools has been successfully utilized for many years as a practical solution to removing materials from vertical and horizontal surfaces. The basic concept is proven and well accepted within the associated marketplaces. Use of a Long Reach Air Tool requires strenuous work activity. This type of work activity can be considered to be greater in magnitude than that experienced with the use of many other types of both light

construction and lawn and garden related equipment. This type of work activity should only be attempted by operators of adequate physical size and stature, mental awareness and physical strength and condition. The body parts most noticeably affected during the material removal process are the arms, hands, wrists, shoulders, lower back and legs. The process can also produce excessive stress/strain directly to the back muscles, spinal vertebrae and many other body parts. Back and wrist related pain can be side effects of utilizing a Long Reach Air Tool. A potential operator with a chronic back related problem or a history of back and/or other medically related problems should not attempt to utilize the Long Reach Air Tool. Use of the Long Reach Air Tool may only aggravate this and any other medically related problem. Because of the diverse type of prevailing job applications, job site conditions, operator experience levels and operator physical characteristics, no warranty, guarantee, representation and/or liability is made by the manufacturer as to the absolute correctness or sufficiency of any operational procedure, operational position and/or technique. There is no absolute guarantee that an operator of any given experience level, physical size and/or physical condition will be immune to the possibility of and/or probable physical side effects of the normal use of the Long Reach Air Tool. Each potential operator must be made aware of and assume the operational and physical liability described and/or associated with the use of the Long Reach Air Tool. Improper use of the Long Reach Air Tool can result in property damage and/or personal injury, including death. Each potential operator not willing to assume the operational and physical liability described and/or associated with the use of the Long Reach Air Tool, should not operate it. Proper levels of operator experience, skill and common sense are essential for maximizing the safe and efficient operation of the Long Reach Air Tool.

Record the Long Reach Air Tool serial number in the spaces provided below.

_____ Model Number

_____ Serial Number

_____ Date of Purchase

Specifications and design are subject to change without notice or obligation. All specifications are general in nature and are not intended for specific application purposes. General Equipment Company reserves the right to make changes in design, engineering or specifications and to add improvements or discontinue manufacture at any time without notice or obligation. General Equipment Company and its agents accept no responsibility for variations which may be evident in actual products, specifications, pictures and descriptions contained in this publication.

Operator Instructional Data Sheet

The following undersigned operators of the Long Reach Air Tool described and/or pertaining to this Operator Manual have received formal safety and operational information/instruction from the undersigned owner(s)/instructor(s) in accordance to OSHA 29 CFR 1926.21 (b)(2) and/or applicable updated revisions pertaining to, but not necessarily limited to the:

1) READING, COMPREHENSION AND ACKNOWLEDGEMENT OF THE MATERIAL COMPRISING THE ENTIRE CONTENTS OF THE APPLICABLE OPERATOR MANUAL AND THE APPLICABLE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE FOR THE LONG REACH AIR TOOL.

2) FORMALIZED OPERATOR SAFETY PROGRAM TO BE DEvised BY THE OWNER OF THE LONG REACH AIR TOOL IN CONJUNCTION WITH THE CONTENTS OF THE APPLICABLE OPERATOR

MANUAL AND THE APPLICABLE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE FOR THE LONG REACH AIR TOOL.

3) OSHA RULES AND REGULATIONS RESEARCHED FOR AND/OR BY THE OWNER OF THE LONG REACH AIR TOOL AND DEEMED APPLICABLE TO THE SAFE AND PROPER USE AND/OR OPERATION OF THE LONG REACH AIR TOOL FOR ANY SPECIFIC JOB APPLICATION.

4) LOCAL LAWS, REGULATIONS AND CUSTOMS RESEARCHED FOR AND/OR BY THE OWNER OF THE LONG REACH AIR TOOL AND DEEMED APPLICABLE TO THE SAFE AND PROPER USE AND/OR OPERATION OF THE LONG REACH AIR TOOL FOR ANY SPECIFIC JOB APPLICATION.

5) FORMALIZED MAINTENANCE PROGRAM FOR THE LONG REACH AIR TOOL TO BE DEvised BY THE OWNER OF THE LONG REACH AIR TOOL IN ACCORDANCE WITH, BUT NOT NECESSARILY LIMITED TO, THE SPECIFICATIONS, GUIDELINES AND OPERATIONAL INFORMATION CONTAINED IN THE APPLICABLE OPERATOR MANUAL.

6) COMPREHENSIVE OPERATIONAL INSTRUCTIONS FOR THE CORRECT AND PROPER USE OF THE LONG REACH AIR TOOL AS PER THE CONTENTS OF THE APPLICABLE OPERATOR MANUAL AND THE APPLICABLE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE.

_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date

NOTE: INSERT COPIES OF THIS PAGE WITHIN THE OPERATOR'S MANUAL IF SPACE FOR ADDITIONAL OPERATORS IS REQUIRED.

Safety Precautions

DANGER

THE FOLLOWING SAFETY PRECAUTIONS PROVIDE SOME COMMON SENSE GUIDES TO PROMOTE SAFETY AND EFFICIENCY WITH THE LONG REACH AIR TOOLS. NO WARRANTY, GUARANTEE OR REPRESENTATION IS MADE BY THE MANUFACTURER AS TO THE ABSOLUTE CORRECTNESS OR SUFFICIENCY OF ANY INFORMATION OR STATEMENT. THESE SAFETY PRECAUTIONS ARE INTENDED TO DEAL PRINCIPALLY WITH COMMON PRACTICES AND CONDITIONS ENCOUNTERED IN THE USE OF THE LONG REACH AIR TOOLS AND ARE NOT INTENDED TO BE ALL INCLUSIVE. PROPER LEVELS OF OPERATOR EXPERIENCE, SKILL AND COMMON SENSE ARE ESSENTIAL FOR SAFE AND EFFICIENT OPERATION.

DANGER

THE BY PRODUCTS CREATED FROM THE OPERATION OF LONG REACH AIR TOOLS CAN CONTAIN CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. THIS STATEMENT IS MADE IN COMPLIANCE TO CALIFORNIA PROPOSITION 65.

DANGER

INCORRECT USE OF THE LONG REACH AIR TOOL CAN RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH. TO REDUCE THIS POSSIBILITY, GIVE COMPLETE AND UNDIVIDED ATTENTION TO THE JOB AT HAND AND FOLLOW THESE SAFETY PRECAUTIONS:

PREPARATION.

1) The Long Reach Air Tools are a specialized type of powered equipment, designed for specific job functions and require adequate and thorough instruction BEFORE they are operated. The size, power, complexity and operating characteristics of these types of powered equipment would dictate that each operator

must receive adequate, professional instruction regarding the proper operation of the Long Reach Air Tool before being allowed to utilize it. BEFORE attempting to utilize a Long Reach Air Tool read this Operator's Manual and watch the applicable Safety and Operational Information Video Tape to familiarize each operator with its correct operating procedures. Avoid the urge not to take the necessary time to read this Operator's Manual before operating the Long Reach Air Tool. DO NOT OPERATE THE LONG REACH AIR TOOL UNTIL EACH OPERATOR COMPLETELY COMPREHENDS THE CONTENTS OF THIS MANUAL, THE APPLICABLE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE, AND APPLICABLE SUPPLEMENTAL INFORMATION.

2) Develop a comprehensive program for the safe operation of the Long Reach Air Tool by its owner(s) and/or operator(s). Such a program will include, but is not limited to: instructional requirements for operation, applicable OSHA requirements, local laws and regulations, job site safety and a Long Reach Air Tool maintenance program. Constantly examine and upgrade this program to guarantee owner(s) and/or operator(s) safety. Each operator must be fully instructed regarding the specifics of this safety program.

3) Determine that the Long Reach Air Tool is in its original, factory configuration and has not been modified in any manner. Many modifications can result in potentially dangerous configurations that can lead to property damage and/or personal injury. If there are any questions about possible modifications made to the Long Reach Air Tool, contact the Customer Service Department for specific information BEFORE utilization. There is no charge for this service.

4) Minors should never be allowed to operate the Long Reach Air Tool. Bystanders, especially children and animals, should not be allowed in the area where the Long Reach Air Tool is in use. The hole digging process can result in flying particles being emitted at high velocity and striking the operator and/or onlookers. This can lead to the possibility of property damage and/or personal injury. Keep all body parts, loose clothing, foreign objects and onlookers clear of the rotating auger and/or auger extensions.

5) Operators must be in proper physical condition, mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair vision, dexterity or judgment. Working with the Long Reach Air Tool is strenuous. If you have any condition that might be aggravated by strenuous work, check

with your doctor BEFORE operating the Long Reach Air Tool. Guard against the possibility of back related injuries. Always lift the Long Reach Air Tool with leg muscles and not with the back.

6) Prolonged use of the Long Reach Air Tool (or other, similar machines) exposes the operator to vibrations which may produce Whitefinger Disease (Raynaud's Phenomenon). This phenomenon reduces the hand's ability to feel and regulate temperature, produces numbness and burning sensations and may cause nerve and circulation damage and tissue necrosis. Antivibration systems do not guarantee that you will not sustain Whitefinger Disease. Therefore, continuous and regular users should closely monitor the condition of their hands and fingers. After each period of use, exercise to restore normal blood circulation. If any of the symptoms appear, seek medical advice immediately. It is recommended that special gloves, designed to reduce the effects of Whitefinger Disease be worn whenever possible and practical. Contact the Customer Service Department for additional information. There is no charge for this service.

7) Clothing must be sturdy and snug fitting, but allow complete freedom of movement. Never wear loose fitting jackets, scarves, neckties, jewelry, flared or cuffed pants or anything that could become caught on controls or moving parts. Wear long pants to protect your legs. Protect your hands with heavy duty, nonslip gloves to improve your grip. Good footing is most important when operating the Long Reach Air Tool. Wear sturdy boots with nonslip soles. Steel-toed safety shoes are highly recommended. Keep shoes properly laced. Never wear tennis shoes or other, similar type shoes which afford little or no protection. Wear an approved safety hard hat to protect the operator(s) head(s) where there is a danger of head injuries. Noise generated by the Long Reach Air Tool and the actual operating process itself can damage your hearing. Wear approved sound barriers (ear plugs or ear muffers) to protect your hearing. Continuous and regular operators should have their hearing checked regularly.

8) Visually inspect the Long Reach Air Tool and accessory tools for damaged or worn parts. Look for loose and/or damaged handle grips. Check for loose and/or broken parts. Determine that operator controls work freely, all safety devices are operative and information/safety decals are readable. Check to determine that the Long Reach Air Tool and all related accessories are in good mechanical condition BEFORE utilization.

9) Contact appropriate representatives to determine if/where electrical cables, gas lines and other hazardous items are buried under the work surface BEFORE utilization. The Long Reach Air Tool and related accessories are not classified as being insulated. Contact with buried electrical cables, gas lines and other hazardous items can result in electrocution and/or an explosion.

10) Know how the controls operate. Know how to stop the Long Reach Air Tool quickly in an emergency.

11) Never exceed the recommended capacities of the Long Reach Air Tool. Refer to the **Specifications** section of this manual for more detailed information. Always utilize the correct accessory tool designed for use with the Long Reach Air Tool. Use of an incorrect accessory tool can result in property damage and/or personal injury.

OPERATION.

1) Give complete and undivided attention to the job at hand. Do not chew gum, smoke and/or use smokeless tobacco while utilizing the Long Reach Air Tool. Do not attempt to eat and/or drink while utilizing the Long Reach Air Tool. Determine that eyeglasses, hearing aid devices and other medical related devices are properly secured. Keep shoes properly laced. Use of the Long Reach Air Tool is strenuous and causes fatigue. Help prevent the cause of an accident. Plan to take work breaks as required to help maintain proper mental and physical alertness.

2) The MDF Series Long Reach Air Tools are not sealed or insulated. Do not operate any Long Reach Air Tool in an explosive atmosphere or near combustible materials. Refer to current OSHA and National Electric Code® rules and regulations.

3) The MDF Series Long Reach Air Tools are designed for use by one operator. Use of the Long Reach Air Tool by more than one operator can lead to confusion and loss of control, resulting in property damage and/or personal injury. Never operate the Long Reach Air Tool with an improper number of operators. If it is felt that more than one operator is required to furnish additional "down pressure" to the accessory tool STOP and contact the Customer Service Department for specific operational and service/maintenance information. There is no charge for this service.

4) Do not operate the Long Reach Air Tool with onlookers close by. Caution all onlookers to stand clear. The operational process can result in flying

particles being emitted at high velocity and striking the operator and/or onlookers. This can lead to the possibility of property damage and/or personal injury. Keep all body parts, loose clothing and foreign objects clear of the accessory tool.

5) Do not utilize a shovel and/or foreign object to remove loose material from around the work area while the Long Reach Air Tool is in use. Such a practice can result in the shovel and/or foreign object to become entrapped by the accessory tool, leading to property damage and/or personal injury.

6) Operate the Long Reach Air Tool only in a well ventilated area. Dusts created as a by product of the operating process can be hazardous. Breathing these dusts can result in property damage and/or personal injury. Operate the Long Reach Air Tool only when/where visibility and light are adequate for the job at hand. Work carefully. Always hold the Long Reach Air Tool firmly with both hands. Wrap your fingers around the barrel, keeping it cradled between your thumbs and fingers. Always make sure the handle grips are in good condition and free of moisture, pitch, oil or grease. Wear gloves to improve your grip. Never leave the Long Reach Air Tool operating unattended.

7) Stop the Long Reach Air Tool when moving it on the job site. Allowing the Long Reach Air Tool to remain operating while moving it substantially increases the potential for property damage and/or personal injury. Special care must be exercised on slippery conditions and on difficult, uneven surfaces. Watch for cracks, high spots and other, surface irregularities. Keep proper footing and balance at all times. The normal use of the Long Reach Air Tool is on level surfaces. Other terrains can be dangerous and should be avoided. Only properly trained operators should attempt these techniques.

8) Because the Long Reach Air Tool is classified as a low cost, hand held, portable type machine, it is limited in the number of practical and/or suitable job applications. A particular job site, actual surface conditions, job specifications and operator skill/common sense may dictate that a different type of machine (with characteristics of higher purchase cost, being mounted to a carrier vehicle, with greater horsepower and less mobility), method and/or process be utilized to properly complete the job with the degree of efficiency and safety required. Contact the Customer Service Department for specific information regarding suitable job applications, job site surface conditions and operator experience/skill/common sense recommendations for the Long Reach Air Tool BEFORE utilization. There is no charge for this service.

MAINTENANCE, REPAIR AND STORAGE.

1) Use only genuine, approved replacement parts and accessories for maintenance and repair. Use of parts and accessories manufactured by others can result in property damage and/or personal injury.

2) Follow the **Service** instructions as outlined in the appropriate section of this manual.

3) Always stop and disconnect the compressed air source BEFORE checking or working on the Long Reach Air Tool.

4) Always properly maintain the Long Reach Air Tool. Frequently check all fasteners and individual parts. Built in safety features are effective only if they are maintained in good working condition. Replace any questionable part or assembly with a genuine, factory approved, replacement part. Do not forsake proper maintenance for the price of a few replacement parts. Proper maintenance does not cost...it actually pays dividends. Do not attempt any maintenance repair work not described in this manual. Have such work performed at your dealer's service facility.

5) Determine the throttle control is not damaged and allows for complete freedom of movement to allow it to perform its intended job function. Do not operate the Long Reach Air Tool with a damaged throttle control.

6) Maintain all safety and operation decals in proper condition. If any decal becomes damaged and/or unreadable, replace with a genuine, factory approved, replacement part only.

7) The Long Reach Air Tool may utilize self locking type hexagon head nuts to minimize the effects of vibration. Replace all self locking hardware with genuine, factory approved, replacement parts only.

8) Replace the accessory tool when signs of excessive wear is seen. When such components are not replaced at proper intervals, excessive wear will occur. Utilizing accessory tools that are past their useful service life or that have not been properly maintained can result in substandard productivity, excessive property damage and/or personal injury. Accessory tool service life can be greatly extended with a consistent maintenance program.

Assembly

Open the shipping carton immediately upon receipt. Visually inspect the contents of the carton for freight damage and/or missing parts. If shipping damage is evident, contact the delivering carrier immediately to arrange for an inspection of the damage by their claims representative. Federal law requires that a claim be filed within a specific time period. If missing parts are detected, notify your dealer or contact the Customer Service Department for assistance in obtaining them.

Included in the shipment for all models of Long Reach Air Tools should be the following:

- 1 each, Long Reach Air Tool Assembly.
- 1 each, air hose assembly, complete with support spring.

Accessory tools and/or replacement parts will be shipped in separate shipping containers.

INSTALLING THE AIR HOSE ASSEMBLY.

Applications: All models.

Tools Required:

- 1 each, long nose pliers.
- 1 each, small, adjustable wrench.

Parts Required:

- 1 each, 1/4 inch female quick type coupling device of operator's choice, complete with appropriate retention mechanism.

The Long Reach Air Tool is shipped from the factory complete with a 60 inch nominal length air hose assembly. No device for direct coupling to the air source is provided, given the variances in job site applications, available power sources and mechanisms for delivering the required air flow to the air tool.

All coupling devices utilized with the air tool must comply with all applicable OSHA and/or industry standards for configuration, capacity and safety.



UTILIZING COUPLING DEVICES NOT MEETING APPLICABLE OSHA AND/OR INDUSTRY

STANDARDS FOR CONFIGURATION, CAPACITY AND SAFETY CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

The assembly of the air hose to the Long Reach Air Tool will require a level working platform of sufficient size and appropriate height.

- 1) Inspect the air hose to determine it is free of any cuts, tears, abrasions or other damage. If any damage is detected, replace the hose assembly with a factory approved replacement only. The hose material is designed to withstand the internal forces developed by the specified operating pressure of the air tool.



DO NOT UTILIZE ANY HOSE MATERIAL WITH THE LONG REACH AIR TOOL UNLESS IT IS OF THE IDENTICAL DIMENSIONS AND PROPERLY MARKED WITH A MINIMUM WORKING PRESSURE OF 100 PSI. USE OF IMPROPER HOSE MATERIAL CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

- 2) The air hose may utilize a coil spring assembly. The coil spring is designed to provide additional support for the hose where it is crimped to the attach fitting. The spring slides over the perimeter of the attach fitting and is held in place by an interference fit. If physical damage prevents the spring from being properly secured to the attach fitting, replace it with a factory approved replacement only, FIGURE 1.



FIGURE 1



DANGER

DO NOT OPERATE THE LONG REACH AIR TOOL WITHOUT THE PROPER SUPPORT SPRING SECURED TO THE ATTACH FITTING IF THE AIR HOSE IS NOT OF THE WIRE REINFORCED TYPE. USE OF THE TOOL WITHOUT THE SUPPORT SPRING PROPERLY ATTACHED CAN RESULT IN DAMAGE TO THE HOSE WHERE IT IS CRIMPED TO THE ATTACH FITTING. SUCH AN OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

3) The air hose can be of a wire reinforced construction. This type of material incorporates an internal wire reinforcement similar to that of a hydraulic hose. A wire reinforced air hose does not utilize an external support spring, FIGURE 2.



FIGURE 2

4) Using the long nose pliers, remove the protective closure from the manifold. Determine the manifold is clear of dirt or any foreign material accumulation, FIGURE 3.



FIGURE 3

5) Insert the attach fitting into the manifold and secure tight. There is no gasket or O type ring utilized for sealing purposes. Inspect the attach fitting and manifold area for proper fit and security. If you feel the attach fitting and manifold do not have proper fit and security, do not proceed further with the assembly process. Contact the Customer Service Department for assistance. There is no charge for this service.

6) Install the coupling device of choice to the open end of the hose assembly. The coupling device must be of the following type:

a) Male, quick type design of sufficient capacity to couple with the appropriate female design. The female coupler will immediately stop the airflow from the compressed air source in the event that it becomes disconnected for any reason while the air tool is in use, FIGURE 4. Various safety type lanyards can also be utilized for redundancy.



FIGURE 4

b) A standard air tool coupling device (sometimes referred to as a Chicago type coupler) equipped with a safety pin connection or a short connecting cable. These safety mechanisms are designed to prevent escaping, high pressure air from uncontrollably whipping the hose in the event that it becomes disconnected for any reason while the air tool is in use, FIGURE 5.



FIGURE 5

Follow the manufacturer's instructions for proper installation of the coupling device of choice. If you require additional assistance with the installation process, contact the Customer Service Department for specific information. There is no charge for this service.



DANGER

DO NOT UTILIZE ANY COUPLING DEVICE WITHOUT AN APPROPRIATE SAFETY DEVICE PROPERLY INSTALLED TO PREVENT ESCAPING, HIGH PRESSURE AIR FROM UNCONTROLLABLY WHIPPING THE HOSE IN THE EVENT IT BECOMES DISCONNECTED OR SEVERED FOR ANY REASON WHILE THE AIR TOOL IS IN USE. SUCH AN OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

6) Inspect the individual components of the Long Reach Air Tool. Inspect all fasteners for security. Consult a fastener torque chart for the proper value if any fastener is found to require retorquing.

Before Operating the Long Reach Air Tool

INFORMATION RELATIVE TO MINIMUM SAFETY, OPERATIONAL STANDARDS AND PARAMETERS FOR THE USE OF THE LONG REACH AIR TOOL.

Applications: All models.

Before operating the Long Reach Air Tool, it is essential that a comprehensive safety and operational information program be established to increase personal safety and help maximize overall productivity. Such a program will include, but not be limited to the following:

a) Determine the compressed air power source is in proper mechanical condition, including power source, reservoir, valves, connections, couplers, etc. Determine the air reservoir has a current inspection by an appropriate government and/or testing agency.

b) Inspect all hoses, valves, connections, couplers, etc to determine that each is of appropriate structural integrity and/or proper rating and/or capacity.

c) Use of a compressed air power source equipped with a gasoline/diesel engine can create Carbon Monoxide, an odorless, poisonous gas. Breathing Carbon Monoxide fumes can cause personal injury. If the Long Reach Air Tool is to be operated in a closed area near the compressed air power source, determine if supplemental ventilation is required to minimize the potential effects of Carbon Monoxide to personnel. Follow current OSHA regulations pertaining to ventilation.

d) Use of the Long Reach Air Tool can create dusts and other hazardous classified by-products which can contaminate the atmosphere within the work space area. Determine each operator and/or support personnel is provided with appropriate respiratory equipment. Follow current OSHA regulations pertaining to ventilation

e) Each operator and/or support personnel must be provided with appropriate safety equipment as deemed necessary for the job application. Typical equipment may include, but not be limited to, the following: specialty glove types, safety eyewear, safety type shoes, special clothing, safety headwear and hearing protection.

- f) Operate the air tool with operator positions which enhance stability, productivity and overall productivity.
- g) Do not operate the air tool without a suitable accessory tool properly installed. Damage to the air tool can result.
- h) Do not install/remove accessory tools with the air tool connected to the air source. Properly shutting off the air source and/or releasing air pressure from the hose BEFORE installing/removing accessory tools will maximize safety and overall productivity.
- i) For proper operation and extended service life, the Long Reach Air Tool will require a compressed air source which provides:

- 1) Clean air free of moisture, dirt, sand and other foreign substances.
- 2) Optimum air flow rate for each tool delivered at the specified pressure level.
- 3) The addition of lubrication oil at specific intervals to provide for the necessary lubrication between moving parts.

INSTALLING THE MODEL MDF-1000 AIR CADDY.

Application: All models.

Tools Required:

- 1 each, small, clean funnel.
- 1 each, small, adjustable wrench (if required).

Parts Required:

- 1 each, quantity of pneumatic tool lubrication oil conforming to ISO 3498 HM.32. Refer to the **Specifications** section for additional information.

The MDF-1000 Air Caddy is an optional accessory designed to be placed between the compressed air source and the Long Reach Air Tool. The function of the Air Caddy is to provide clean, lubricated air at the specified pressure level and is composed of the following components:

- a) An inline air filter designed to remove contaminants such as water, dirt, etc.
- b) An adjustable regulator designed to allow the air

pressure to the Long Reach Air Tool to be constantly regulated to a maximum 90 PSI (600 kPa), regardless of the air pressure being developed by the compressed air source.

c) An adjustable oiler unit designed to provide the necessary lubrication to the moving components of the Long Reach Air Tool. Lubrication oil is utilized to minimize component wear and to allow the tool to produce the stated blow frequency and blow force.

1) The filter is located at the inlet. Remove or loosen the drain plug located on the bottom of the filter reservoir to remove all contamination. Variances in specific design configurations can exist. Replace or tighten the drain plug after all the contamination has properly drained from the reservoir. FIGURE 6.



FIGURE 6

2) Turn the screw located on the bottom of the pressure regulator out in a counterclockwise direction to release all air pressure from the internal diaphragm. Variances in specific design configurations can exist. Do not allow the screw to become loose from the regulator. FIGURE 7.

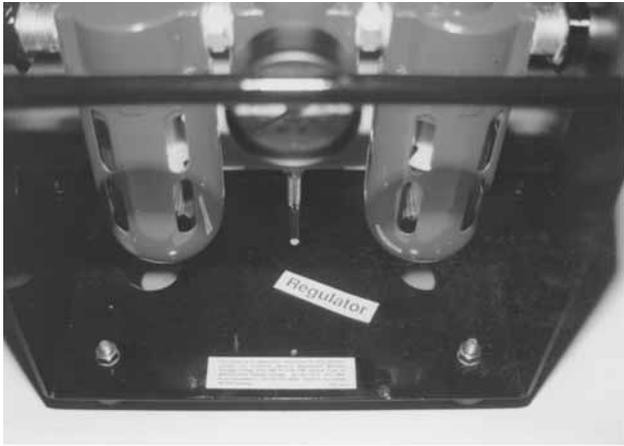


FIGURE 7

3) Visually inspect the oil level in the oiler unit. Variations in specific design configurations can exist. If the reservoir requires the addition of oil, carefully clean the filler plug located on top of the unit and surrounding area to insure no dirt or debris falls into the reservoir. Using the funnel, fill the reservoir to the specified level with air tool lubrication oil conforming to ISO 3498 HM.32. This oil can usually be obtained from an industrial air tool distributor or automotive parts store. Do not substitute hydraulic or motor oil. Inspect the oil filler plug gasket for property security. If necessary, replace the gasket with a factory approved replacement part only. Reinstall the oil filler plug. Tighten securely. Wipe off any excess oil spilled on the oiler unit and/or Air Caddy. FIGURE 8.



FIGURE 8

4) The Air Caddy utilizes 1/2 inch NPT male nipples to facilitate the addition of connecting devices to the air hose assemblies. Most operating configurations will allow for air hose (of specific lengths) to be attached to

the inlet and outlet nipples by use of direct, permanent fittings or coupling type devices. All coupling devices utilized with the Air Caddy must comply with all applicable OSHA and/or industry standards for configuration, capacity and safety. FIGURE 9.

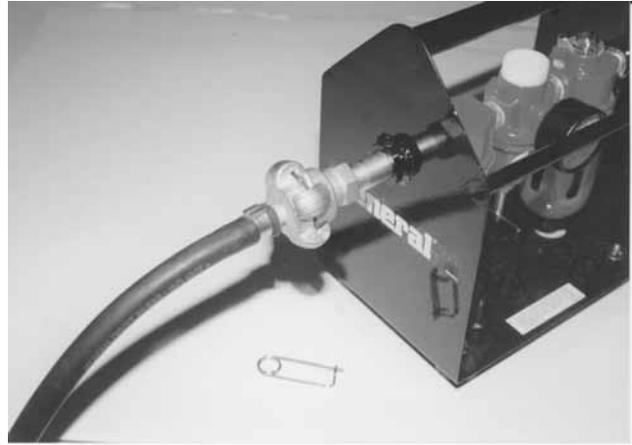


FIGURE 9

DANGER

UTILIZING COUPLING DEVICES NOT MEETING APPLICABLE OSHA AND/OR INDUSTRY STANDARDS FOR CONFIGURATION, CAPACITY AND SAFETY CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

DANGER

OPERATING THE AIR CADDY WITH THE COMPRESSED AIR INLET AND OUTLET LOCATIONS MISMATCHED CAN RESTRICT THE AIR FLOW RATE AND PRESSURE VALUES. THIS OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

Operation

OPERATIONAL DISCLAIMER.

Applications: All models.

THE MANUFACTURER OF THIS LONG REACH AIR TOOL MAKES NO WARRANTY OR GUARANTEE THAT IT IS MERCHANTABLE FOR ANY SPECIFIC

JOB APPLICATION AND THAT IT WILL HAVE SUFFICIENT POWER AND PRODUCTIVITY TO PERFORM ANY SPECIFIC JOB APPLICATION.

IT IS THE RESPONSIBILITY OF THE OPERATOR(S) AND/OR OWNER(S) OF THE LONG REACH AIR TOOL TO DETERMINE OPERATION FOR ANY SPECIFIC JOB APPLICATION IS IN COMPLIANCE WITH ALL APPLICABLE OSHA AND/OR EPA REGULATIONS REGARDING ITS USE.

CALIFORNIA PROPOSITION 65 DISCLAIMER

Applications: All models.

DANGER

DUSTS AND BYPRODUCTS FROM THE OPERATIONAL PROCESS OF THIS PRODUCT CONTAIN CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.

SAFETY RELATED EQUIPMENT AND APPAREL DISCLAIMER.

DANGER

OPERATION OF THE LONG REACH AIR TOOL REQUIRES THE USE OF SPECIFIC SAFETY RELATED EQUIPMENT AND APPAREL INCLUDING, BUT NOT LIMITED TO: SAFETY EYEWEAR, HARD HAT, HEARING PROTECTION, PROTECTIVE BREATHING MASK, ANTI-VIBRATION GLOVES, SAFETY CLOTHING AND SAFETY FOOTWEAR. IT IS THE RESPONSIBILITY OF THE OWNER(S) AND/OR OPERATOR(S) TO DETERMINE THE REQUIRED AND/OR APPROPRIATE SAFETY RELATED EQUIPMENT AND APPAREL FOR ANY SPECIFIC JOB APPLICATION. FAILURE TO WEAR THE REQUIRED AND/OR APPROPRIATE SAFETY RELATED EQUIPMENT AND APPAREL FOR ANY SPECIFIC JOB APPLICATION CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

INFORMATION RELATIVE TO MINIMUM COMPONENT STANDARDS FOR THE OPERATION OF THE LONG REACH AIR TOOL.

For operational safety and overall productivity

considerations, it is required that specific Long Reach Air Tool components meet minimum acceptable operational standards BEFORE utilization:

1) The air hose assemblies and coupling devices are of proper type and structural condition that allow them to perform their intended job function as outlined within this manual.

2) Throttle valve control is in a proper mechanical condition that allows it to perform its intended job function as outlined in this manual. A throttle valve with a damaged or bent lever, a sticking or damaged valve mechanism must be replaced with a factory approved replacement only.

3) The protective cover for the throttle valve control is in proper structural condition to afford protection for the valve in the event it comes in direct contact with a foreign object, thereby preventing inadvertent actuation.

4) The tool receiver is in a structural condition that allows it to perform its intended job function of properly containing the accessory tool shank as outlined within this manual.

5) The tool retainer assembly (cover and retaining bushing) is in a structural condition that allows it to perform its intended job function of properly retaining the accessory tool as outlined within this manual.

DANGER

OPERATION OF A LONG REACH AIR TOOL UTILIZING COMPONENTS NOT MEETING MINIMUM COMPONENT STANDARDS CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

SET UP FOR OPERATION.

Applications: All models.

In order to minimize the possibility of damage to the Long Reach Air Tool, always transport it to the job site disconnected from the air hoses and/or Air Caddy. All equipment must be secured in/on vehicles with suitable strapping or tie downs. Personnel should not be transported in the same compartment as equipment and fuel supplies. Consult applicable OSHA regulations.

1) The Long Reach Air Tool is designed to be utilized by one operator.



CAUTION

NEVER UTILIZE THE LONG REACH AIR TOOL WITH AN IMPROPER NUMBER OF OPERATORS. USE OF MORE THAN ONE PERSON TO OPERATE THE LONG REACH AIR TOOL CAN LEAD TO CONFUSION AND LOSS OF CONTROL, RESULTING IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.



DANGER

UNLESS CLEARLY MARKED WITH PROPER IDENTIFICATION, THE LONG REACH AIR TOOL AND ACCESSORY TOOLS ARE NOT DESIGNED TO BE OPERATED IN A HAZARDOUS CLASSIFIED LOCATION (AS DEFINED BY THE NATIONAL ELECTRIC CODE®). OPERATION OF THE LONG REACH AIR TOOL AND ACCESSORY TOOL NOT DESIGNED FOR USE IN A HAZARDOUS CLASSIFIED LOCATION CAN RESULT IN A RANDOM SPARK BEING THE IGNITION SOURCE OF AN EXPLOSION. SUCH AN OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.



DANGER

OPERATION OF THE LONG REACH AIR TOOL AND ACCESSORY TOOL THAT RESULTS IN DIRECT AND/OR INDIRECT CONTACT WITH A SUBSURFACE HAZARD CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

DETERMINATION OF POTENTIAL SUBSURFACE HAZARDS IN THE PROPOSED WORK LOCATION(S).



DANGER

BEFORE ATTEMPTING TO UTILIZE THE LONG REACH AIR TOOL, DETERMINE THE POTENTIAL OF SURFACE AND SUBSURFACE HAZARDS WHICH MAY EXIST AND HOW THE IDENTIFIED HAZARDS MAY AFFECT OPERATION IN THE PROPOSED WORK LOCATION(S). POTENTIAL

SURFACE AND SUBSURFACE HAZARDS MAY INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

- 1) BURIED PRESSURIZED PIPELINES CONTAINING SUCH MATERIALS AS NATURAL GAS, PROPANE, ETC.
- 2) BURIED POWER CABLES.



DANGER

BEFORE OPERATING THE LONG REACH AIR TOOL AND ACCESSORY TOOL IN THE PROPOSED LOCATION(S), CONTACT ALL APPROPRIATE AGENCIES TO DETERMINE THE EXACT LOCATION(S) OF ALL BURIED PIPELINES, POWER CABLES AND OTHER HAZARDS AND HOW THE HAZARDS MAY AFFECT OPERATION.

- 3) SURFACE AND/OR SUBSURFACE MATERIALS SUCH AS ASBESTOS OR OTHER, SIMILAR TYPE MATERIALS CLASSIFIED AS HAZARDOUS.

INSTALLING AN ACCESSORY TOOL.

Applications: All models.



DANGER

DO NOT INSTALL AN ACCESSORY TOOL WHILE THE LONG REACH AIR TOOL IS DIRECTLY CONNECTED TO AN AIR SOURCE UNDER PRESSURE. SUCH A CONFIGURATION CAN ALLOW THE THROTTLE VALVE CONTROL TO EXPERIENCE ACCIDENTAL ACTUATION FROM AN EXTERNAL FORCE, RESULTING IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

- 1) Select the accessory tool of proper size and configuration for the intended job application. The male hexagon shank of the accessory tool must be of the identical nominal size of that of the tool receiver. If there are any questions regarding the selection of an accessory tool for a specific job application, consult the Customer Service Department for assistance BEFORE operation. There is no charge for this service.

- 2) Inspect the accessory tool for proper structural integrity. Do not utilize a worn or damaged accessory tool. Properly discard a worn or damaged accessory

tool. The end of the male hexagon shank should be flat and perpendicular to the axis of the tool. FIGURE 10. Properly discard any tool of a bent, crowned or "mushroomed" configuration.



FIGURE 10



DANGER

USE OF AN ACCESSORY TOOL OF IMPROPER SIZE AND/OR CONFIGURATION FOR THE INTENDED JOB APPLICATION, OR AN ACCESSORY TOOL WHICH IS WORN AND/OR DAMAGED CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

3) Remove the tool retainer from the barrel. The tool retainer incorporates a right hand thread configuration. Remove the retaining bushing. FIGURE 11.



FIGURE 11

4) Insert the male hexagon shank of the accessory tool through the opening of the tool retainer. Install the retaining bushing over the round shank of the accessory tool with the shoulder of the retaining bushing against the upset collar. The retaining bushing incorporates a split to facilitate installation. FIGURE 12.



CAUTION

DO NOT OPERATE THE LONG REACH AIR TOOL WITHOUT THE PROPER RETAINING BUSHING INSTALLED WITHIN THE TOOL RETAINER. USE OF THE LONG REACH AIR TOOL WITHOUT THE PROPER RETAINING BUSHING INSTALLED CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.



FIGURE 12

5) Install the male hexagon shank of the accessory tool into the tool receiver. If the accessory tool is of a chisel configuration, determine the desired orientation of the chisel blade in relationship to the throttle valve control to facilitate maximum comfort and control during operation. FIGURE 13.



FIGURE 13

6) Install the tool retainer to the tool receiver assembly. The tool retainer incorporates a right hand thread configuration. Tighten by hand only until the retainer bottoms against the plastic gasket. Do not operate the Long Reach Air Tool without a tool receiver gasket of proper structural integrity and without the tool retainer properly attached to the tool receiver assembly.



CAUTION

HAND TIGHTEN THE TOOL RETAINER AGAINST THE TOOL RECEIVER GASKET BY HAND ONLY. USE OF A WRENCH CAN RESULT IN DAMAGE TO THE THREADED COMPONENTS.



DANGER

DO NOT OPERATE THE LONG REACH AIR TOOL WITHOUT THE TOOL RETAINER PROPERLY ATTACHED TO THE TOOL RECEIVER ASSEMBLY. WITHOUT THE TOOL RETAINER PROPERLY ATTACHED TO THE TOOL RECEIVER ASSEMBLY, SIGNIFICANTLY REDUCED OPERATOR CONTROL OF THE ACCESSORY TOOL WILL RESULT. SUCH OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

7) Accessory tool removal is accomplished by reversing the installation process. The PN MDF15-7010 Service Tool can be utilized to help separate the retaining bushing from the tool retainer. A 1/8 inch long handle Allen wrench can also be utilized. FIGURE 14.



FIGURE 14

ATTACHING THE LONG REACH AIR TOOL TO THE AIR CADDY AND AIR HOSE ASSEMBLIES.

1) Position the Long Reach Air Tool and installed accessory tool on a suitable horizontal surface that allows the throttle control valve to be protected from unexpected actuation by an external force.



DANGER

UNEXPECTED THROTTLE VALVE ACTUATION FROM AN EXTERNAL FORCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

2) Disconnect the air hose from the compressed air source.

3) Turn the screw located on the bottom of the pressure regulator out in a counterclockwise direction to release pressure from the internal diaphragm. Variances in specific design configurations can exist. Do not allow the screw to separate from the regulator. FIGURE 15.



FIGURE 15

- 4) Determine the location of the compressed air inlet and outlet of the Air Caddy. Connect the air hose from the compressed air source to the inlet of the Air Caddy.
- 5) Connect the air hose (if utilized) to the outlet of the Air Caddy.
- 6) Connect the air hose of the Long Reach Air Tool to the outlet hose (if utilized) from the Air Caddy.
- 7) Connect the air hose attached to the inlet of the Air Caddy to the compressed air source.
- 8) Turn the screw located on the bottom of the pressure regulator in a clockwise direction to increase the operating pressure to a maximum 90 PSI (600 kPa). Lock the screw in position. Variances in specific design configurations can exist. The Long Reach Air Tool has an operating pressure range of 40-90 PSI (400-600 kPa). Do not exceed 90 PSI (600 kPa) maximum operating pressure.

DANGER

OPERATING THE LONG REACH AIR TOOL WITH AN AIR PRESSURE IN EXCESS OF 90 PSI (600 kPa) CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

- 9) Adjust the oiler to deliver 1 drop of lubrication oil to the Long Reach Air Tool per minute of operation. FIGURE 16. Variances in specific design configurations can exist.

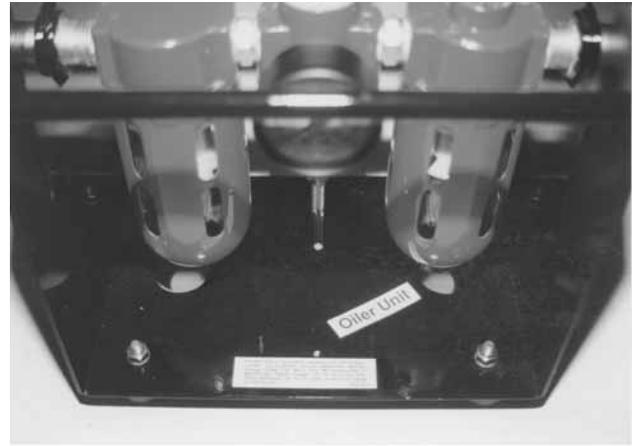


FIGURE 16

- 10) If the Air Caddy is not being utilized for the job application, proceed to manually lubricate the Long Reach Air Tool with the following procedure:
 - a) Disconnect the air hose from the compressed air source.
 - b) Disconnect the Long Reach Air Tool from the air hose.
 - c) Insert 5 to 10 drops of pneumatic air tool lubrication oil into the air hose supplied with the tool.
 - d) Reconnect the Long Reach Air Tool to the air hose.
 - e) Reconnect the air hose to the compressed air power source.
 - f) Give the tool a short burst to allow the oil to penetrate the moving components and to expell excess oil before commencing with normal work.
 - f) Repeat the procedure every 30 minutes to maximize tool service life and productivity. Improper lubrication can significantly reduce service life and overall productivity.
- 11) Even if the Air Caddy is utilized, it is recommended that the manual lubricating procedure be utilized as it ensures adequate starting lubrication for the moving components. Care must be exercised not to over oil the tool or excess oil will be blown out and mark/stain the work surface. Lubrication oil must be clean and of the correct grade. A heavy or dirty oil will only gum up the moving components.



CAUTION

DO NOT OPERATE THE LONG REACH AIR TOOL WITHOUT PROPER LUBRICATION. IMPROPER LUBRICATION TO THE MOVING PARTS OF THE LONG REACH AIR TOOL CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

OPERATING THE LONG REACH AIR TOOL.

Applications: All models.

Operation of the Long Reach Air Tool involves a combination of air flow rate in CFM (lit/sec) and pressure in PSI (kPa) to control the frequency rate and energy by which the piston strikes the accessory tool. FIGURE 17.

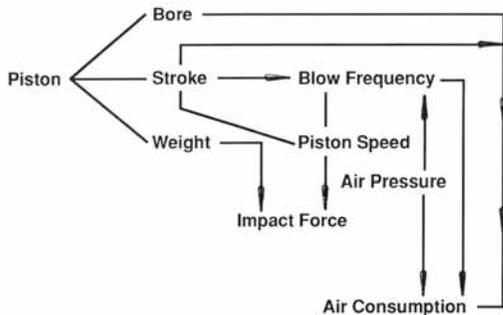


FIGURE 17

FIGURE 17

1) The operator places the tip, chisel or blade of the accessory tool in contact with the work surface in the desired location.



DANGER

DO NOT OPERATE THE LONG REACH AIR TOOL WITHOUT AN ACCESSORY TOOL PROPERLY INSTALLED IN THE TOOL RECEIVER ASSEMBLY AND/OR IF THE TIP, CHISEL OR BLADE OF THE ACCESSORY TOOL IS NOT IN CONTACT WITH THE WORK SURFACE. THIS OPERATING CONFIGURATION CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

2) Keep a firm, but steady, grip on the handle grips. Wrap the fingers around the grips, keeping the grips cradled between the thumbs and forefingers.



CAUTION

ALWAYS DETERMINE THE GRIPS ARE IN GOOD CONDITION AND FREE OF MOISTURE, PITCH, OIL OR GREASE. WEAR GLOVES TO IMPROVE THE GRIP. GRIPS SHOULD BE REPAIRED AND/OR REPLACED WHEN THEY BECOME WORN AND/OR DAMAGED FROM USE. DO NOT OPERATE THE LONG REACH AIR TOOL UNTIL SUCH GRIPS ARE REPAIRED AND/OR REPLACED WITH FACTORY APPROVED REPLACEMENT PARTS ONLY. OPERATION OF THE LONG REACH AIR TOOL WITH IMPROPER HANDLE GRIPS CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

3) The operator positions himself in relation to the Long Reach Air Tool as depicted in FIGURE 18. The Long Reach Air Tool should be placed as close to the body as practical and possible for the specific job application. Assume a position which allows reactive "body english" against the energy produced during each blow. Operators should position their backs as vertical as possible by bending the legs as required during the job process. This procedure will help minimize back related problems with use. Positioning one foot in front of the other will enhance proper body position. Maintaining proper operating positions is one of the most IMPORTANT and EFFECTIVE procedures for controlling fatigue, body stress and productivity rates. Improper operating positions only aggravate the side effects upon the operator. FIGURE 19 and FIGURE 20 depict typical improper operator positions which reduce machine control.



FIGURE 18

4) The throttle control valve is depressed to begin the flow of compressed air to the piston. The piston will begin to strike the accessory tool and provide energy for the specific job process. Depressing the throttle control valve to its maximum open position will maximize the air flow rate and corresponding frequency rates and blow force values. Normal operation of the Long Reach Air Tool is with the throttle control valve in its maximum depressed position. FIGURE 21.



FIGURE 19



FIGURE 20

5) Do not depress the throttle control valve unless the tip, chisel or blade of the accessory tool is in contact with the work surface.



FIGURE 21



DANGER

DO NOT OPERATE THE LONG REACH AIR TOOL WITHOUT AN ACCESSORY TOOL PROPERLY INSTALLED IN THE TOOL RECEIVER ASSEMBLY AND/OR THE TIP, CHISEL OR BLADE OF THE ACCESSORY TOOL IS IN CONTACT WITH THE WORK SURFACE. THIS OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

DANGER

DO NOT DEPRESS THE THROTTLE CONTROL VALVE WITH THE ACCESSORY TOOL POINTING TO PERSONNEL OR ANY OTHER, NON WORK OBJECT. OPERATION OF THE LONG REACH AIR TOOL IN THIS CONFIGURATION CAN EXPEL THE ACCESSORY TOOL FROM THE TOOL RECEIVER AT HIGH VELOCITY AND WITH SIGNIFICANT FORCE. THIS OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

6) Release the throttle control valve to the maximum closed position when carrying or moving the Long Reach Air Tool around on the job site. Remove your hand from the throttle control valve area to minimize the potential for accidental actuation. Special care must be exercised in slippery conditions and in difficult terrain to minimize any trip and fall potential. Proper attire, including shoes and the removal of any trip and fall hazard BEFORE attempting to utilize the Long Reach Air Tool on the job site can substantially reduce the potential for this occurrence.

DANGER

TO REDUCE THE POTENTIAL FOR PERSONAL INJURY, RELEASE THE THROTTLE CONTROL VALVE TO THE MAXIMUM CLOSED POSITION BEFORE CARRYING OR MOVING THE LONG REACH AIR TOOL ON THE JOB SITE. REMOVE THE HAND FROM THE THROTTLE CONTROL VALVE AREA TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL ACTUATION. ELECTING TO KEEP THE THROTTLE CONTROL VALVE DEPRESSED IN THIS CONFIGURATION CAN LEAD TO LOSS OF CONTROL, RESULTING IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

7) The Long Reach Air Tool is not designed to be utilized as a pry bar. Many job applications, especially those involving the use of moil points or narrow type chisels, can promote the use of the Long Reach Air Tool as a pry bar. The length of the barrel can allow the operator to utilize the tool to pry material such as concrete slabs, compacted ground, etc. This practice can produce significant stress forces to the tool retainer, tool receiver and barrel assemblies. This occurrence can be the source of the following problems:

a) Deformation of the tool retainer which will compromise its structural integrity, requiring a factory approved replacement only.

b) Deformation of the tool receiver which will prevent the male hexagon shank of the accessory tool from being properly inserted and retained.

c) Deformation of the barrel which will compromise the structural integrity of the seals, requiring factory approved replacements only.

d) Deformation of the barrel which will result in complete structural failure. This failure will have a high probability of occurring at the intersection of the barrel and the tool receiver assembly. FIGURE 22.

DANGER

DO NOT UTILIZE THE LONG REACH AIR TOOL AS A PRY BAR. SUCH OCCURRENCE CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.



FIGURE 22

8) Utilization of the Long Reach Air Tool with the oiler system in operation produces exhaust containing a fine mist of oil. Prolong usage in a confined work area can result in the oil mist mixing with the fine dust materials produced from the work process. This mixture can significantly impact the breathing process of the human body. Always utilize appropriate breathing equipment as required.



DANGER

IT IS THE RESPONSIBILITY OF THE OPERATOR(S) AND/OR OWNER(S) OF THE LONG REACH AIR TOOL TO DETERMINE OPERATION FOR ANY SPECIFIC JOB APPLICATION IS IN FULL COMPLIANCE WITH ALL APPLICABLE OSHA AND/OR EPA RESPIRATORY AND CONFINED SPACE REGULATIONS.

9) The operational process of the Long Reach Air Tool produces impulse forces (blow force) on a cyclic basis (frequency or blow rate). The vibration levels produced can directly impact upon sensitive objects (building structure, computers, electrically operated components etc.), resulting in damage. This potential occurrence must be taken into consideration when operating the Long Reach Air Tool for any specific job application.

STOPPING THE LONG REACH AIR TOOL.

Applications: All models.

1) Stopping the Long Reach Air Tool is accomplished by releasing the throttle control valve to its maximum closed position. When not in operation, disconnect the Long Reach Air Tool from the compressed air source. FIGURE 23.



FIGURE 23

TEMPORARY STORAGE FOR THE LONG REACH AIR TOOL WHILE ON THE JOB SITE.

Applications: All models.



CAUTION

AN IMPROPER TEMPORARY STORAGE CONFIGURATION FOR THE LONG REACH AIR TOOL CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

Store the Long Reach Air Tool temporarily on the job site in a horizontal position on a suitable surface such as a floor. Storage in a vertical position against a wall is an acceptable alternative if proper support can be afforded to prevent the unit from accidentally falling. When not in operation, store the Long Reach Air Tool:

- a) With the air hose disconnected from the compressed air source.
- b) With the accessory tool removed.
- c) With the air hose disconnected from the Air Caddy.
- d) With the screw located on the bottom of the pressure regulator (if utilizing the Air Caddy) turned out in a counterclockwise direction to release pressure from the internal diaphragm.

Troubleshooting

Applications: All models.

TOOL FAILS TO OPERATE WHEN THROTTLE CONTROL VALVE IS DEPRESSED

TOOL OPERATES AT A REDUCED (SLOWER) FREQUENCY RATE

Dirt, oil or gummy byproducts have accumulated within the internal components. Add a small amount of suitable solvent to the inlet and allow to circulate. After 30 minutes, depress the throttle control valve until the tool functions. After the solvent has completely circulated and exhausted through the outlet port, add 10 drops of pneumatic tool lubrication oil conforming to ISO 3498 HM.32. Depress the throttle control valve until the lubrication oil is exhausting through the outlet port at a steady rate. Repeat the procedure as necessary.

TOOL ACCIDENTLY OPERATES WITHOUT DEPRESSING THE THROTTLE VALVE

Worn throttle control valve. Replace valve.

TOOL PRODUCES REDUCED BLOW ENERGY PER STROKE

Worn distribution valve. Replace distribution valve.

Insufficient pressure from compressed air source. Increase air pressure within the recommended operating range until satisfactory productivity rates are obtained.

Worn piston. Replace piston.

TOOL OPERATES WITH IRREGULAR FUNCTION

Check all air hose connections. Replace and/or repair any affected connection.

ICE FORMATION AROUND EXHAUST PORT

Excessive condensation around the exhaust port. Install filter system to reduce the moisture content of the compressed air.

Add antifreeze solution to oiler system being utilized.

Repair

Inspect the Long Reach Air Tool on a regular basis for loose, worn or damaged parts. Replace any questionable part or assembly with a factory approved replacement part only. Do not attempt any maintenance or repair work not described in the Operator Manual. Have such work performed at your dealer's servicing shop.

With extended use, various internal components can become worn or require periodic maintenance due to the accumulation of lubrication oil residue, the admission of foreign dust contamination or simple wear to the point where individual replacement is necessary. Disassembly of the Long Reach Air Tool is required for cleaning purposes and the replacement of specified components.

Repair related functions for the Long Reach Air Tool will require a level working platform of sufficient size and appropriate height.

DISASSEMBLY OF THE CYLINDER ASSEMBLY FOR GENERAL MAINTENANCE AND/OR REPAIR PURPOSES.

Application: All models.

Tools Required:

- 1 each, 1-5/8 inch (42 mm) wrench (MDF15).
- 1 each, 1-13/16 inch (46 mm) wrench (MDF35).

Parts Required:

- 1 each, MDF15-0140 or MDF35-0090 distribution valve (if required).
- 1 each, MDF15-0130 or MDF35-0130 distribution gauge (if required).
- 1 each, MDF15-0120 or MDF35-0120 disc (if required).
- 2 each, MDF15-0240 roll pin (if required).
- 1 each, MDF15-0090 or MDF35-0080 piston (if required).

1) Disconnect the Long Reach Air Tool from the compressed air source and the Air Caddy (if so equipped).

2) Remove the accessory tool (if so equipped).

3) Clean the Long Reach Air Tool with an appropriate solvent.



CAUTION

OBSERVE ALL APPLICABLE SAFETY PRECAUTIONS FOR THE SOLVENT.

4) Remove the tool retainer assembly PN MDF15-0010 or MDF35-0010 from the cylinder assembly.

5) Unscrew the friction head plug, PN MDF35-0030, from the cylinder assembly (MDF35 only).

6) Position the Long Reach Air Tool in a suitable vice with the vice jaws in contact with the flat surfaces of the cylinder, FIGURE 24.

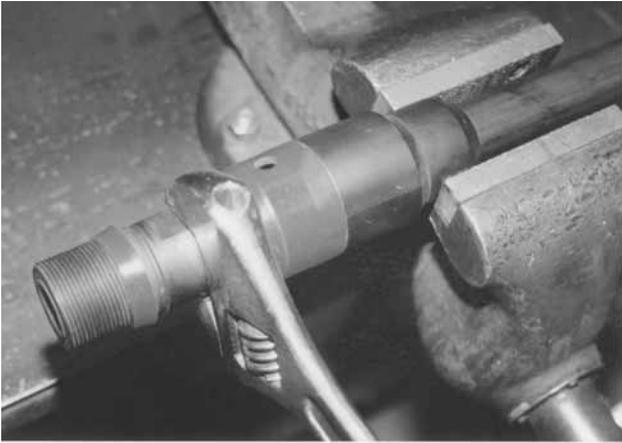


FIGURE 24

7) Using the applicable wrench, remove the cylinder head, PN MDF15-0150 or MDF35-0150, from the cylinder assembly. The assembly incorporates a right hand thread configuration. This sequence will allow direct access to the following components: PN MDF15-0090 or MDF35-0090 distribution valve, PN MDF15-0100 or MDF35-0100 valve distribution disc, PN MDF15-0130 or MDF35-0130 distribution gauge, PN MDF15-0120 or MDF35-0120 disc, PN MDF15-0110 or MDF35-0110 distribution valve cover, PN MDF15-0240 roll pin (fits MDF35 also) and PN MDF15-0090 or MDF35-0080 piston. Clean all components with an appropriate solvent. Inspect each component for damage and/or wear.

CAUTION

OBSERVE ALL APPLICABLE SAFETY PRECAUTIONS FOR THE SOLVENT.

8) Perform the following inspections:

a) Inspect the PN MDF15-0140 (MDF15) or MDF35-0090 (MDF35) valve for distortion or external marks on its surfaces. Replace the valve with a factory approved replacement part only if signs of distortion and/or external marks are present.

b) Inspect the PN MDF15-0090 (MDF15) or MDF35-0080 (MDF35) piston for excessive wear and external marks. Measure the diameter of the piston and replace with a factory approved replacement part only if this

dimension is less than 0.7155 (18.1737) for the MDF15 and 0.8625 inch (21.910 mm) for the MDF35 Long Reach Air Tool.

c) The tool receiver bushing, PN MDF15-0050 (MDF15) or MDF35-0040 (MDF35), must be free of excessive wear around each corner of the internal hexagon configuration. For the MDF15, measure the minor diameter of the receiver and replace with a factory approved replacement part only if this dimension is greater than 0.391 inch (9.931 mm). For the MDF35 Long Reach Air Tool, measure the minor diameter of the receiver and replace with a factory approved replacement part only if this dimension is greater than 0.6102 inch (15.5 mm). The tool receiver of the MDF15 can be removed from the cylinder assembly with a punch 0.485 inch (12.319 mm) diameter x 5 inch (127 mm) long (PN MDF15-7020). The tool receiver of the MDF35 can be removed from the cylinder assembly with a punch 0.700 inch (17.78 mm) diameter x 6-1/2 inch (165 mm) long (PN MDF35-7010). FIGURE 25.



FIGURE 25

CAUTION

WEAR SAFETY EYEGLASSES AND OTHER APPROPRIATE SAFETY APPAREL WHEN REMOVING/INSTALLING THE TOOL RECEIVER OR PERFORMING ANY WORK WITH AN ARBOR PRESS. CAUTION ALL ONLOOKERS ABOUT THE POSSIBILITY OF FLYING DEBRIS AND PERSONAL INJURY.

9) The assembly procedure for the specific components follows the disassembly procedure in reverse order. It is important that the roll pins PN

MDF15-0240 be installed in the proper location within the cylinder head and the PN MDF15-0130 or MDF35-0130 distribution gauge be reinstalled in the proper position to allow the compressed air to properly flow through the Long Reach Air Tool.

DISASSEMBLY OF THE THROTTLE CONTROL VALVE FOR GENERAL MAINTENANCE AND/OR REPAIR PURPOSES.

Application: All models.

Tools Required:

1 each, large flat blade screwdriver.

Parts Required:

1 each, MDF15-0300 valve spool (if required).
1 each, MDF15-0260 O ring (if required).
1 each, PN MDF15-0270 O ring (if required).
1 each, PN MDF15-0290 spring (if required).
1 each, container of pipe joint compound.
1 each, container of pneumatic tool lubrication oil.

- 1) Disconnect the Long Reach Air Tool from the compressed air source and the Air Caddy (if so equipped).
- 2) Remove the accessory tool (if so equipped).
- 3) Clean the Long Reach Air Tool with an appropriate solvent.



CAUTION

OBSERVE ALL APPLICABLE SAFETY PRECAUTIONS FOR THE SOLVENT.

- 4) Using the screwdriver, remove the threaded plug, PN MDF15-0280. The assembly incorporates a right hand thread configuration.
- 5) Remove the valve spool, PN MDF15-0300 from the valve body. Clean the valve spool, spring and valve housing with an appropriate solvent. Inspect the valve spool (PN MDF15-0300) and O rings (PN MDF15-0260 and MDF15-0270) for wear, distortion and external markings. If required, replace the valve and/or the O rings with a factory approved replacement part only. FIGURE 26.



CAUTION

OBSERVE ALL APPLICABLE SAFETY PRECAUTIONS FOR THE SOLVENT.



FIGURE 26

- 6) Inspect the throttle valve return spring, PN MDF15-0290, for visible damage, external markings and proper tension. If necessary, replace with a factory approved replacement part only.
- 7) The assembly procedure for the specific components follows the disassembly procedure in reverse order. Apply a coating of pneumatic tool lubrication oil to the valve spool and O rings before reinstalling the O rings to the spool. This will minimize the potential for external damage to the O rings. Apply a small amount of pipe joint compound to the external threads of the throttle valve cover. Secure tight with the screwdriver

Storage

Application: All models.

Proper procedure for long term storage of the Long Reach Air Tool will protect it against the effects of corrosion and damage. If the Long Reach Air Tool is not to be operated for a period of 30 days or more, proceed to store as follows:

- 1) Disconnect the Long Reach Air Tool from the compressed air source.

- 2) Disconnect the Long Reach Air Tool from the Air Caddy (if so equipped).
- 3) Remove the accessory tool (if so equipped).
- 4) Clean all accumulated dirt and grease from the Long Reach Air Tool and accessory tools utilizing an appropriate solvent.



CAUTION

Observe all applicable safety precautions for the solvent.

- 5) Check all visible parts for wear, breakage or damage. Order any part required to make the necessary repair. This will avoid a needless delay when operating the Long Reach Air Tool at next use.
- 6) Fill the Long Reach Air Tool with one ounce of pneumatic tool lubrication oil conforming to ISO 3498 HM.32. Allow the oil to properly circulate within the internal mechanisms. This will prevent the formation of rust and/or corrosion on internal moving components.
- 7) Store the Long Reach Air Tool inside. If the Long Reach Air Tool must be stored outside, protect it with a suitable covering. Outside exposure to the elements can significantly reduce the service life of the air hose assembly.

Specifications

Application: MDF15 Long Reach Air Tool

PISTON BORE	.72 inch (18.5 mm)
PISTON STROKE	1.77 inch (45 mm)
RATED AIR PRESSURE	90 PSI (600 kPa)
OPERATING AIR PRESSURE RANGE	60 to 90 PSI (400-600 kPa). Lower pressure values may not produce required performance for any specific job application.
RATED AIR CONSUMPTION	6 CFM (3.0 lit/sec.)
ENERGY PER BLOW @ RATED AIR CONSUMPTION	5.0 ft. lbs. (3.6 J)

AND PRESSURE

BLOW FREQUENCY @ RATED

AIR CONSUMPTION

AND PRESSURE

3700 blows per minute.

Frequency rates will decrease with reduced air consumption and pressure values.

CONNECTING HOSE CONFIGURATION 3/8 inch (9.5 mm) diameter, 60 inch (1524 mm) nominal length. Quick type connecting coupler not furnished.

ACOUSTICAL PRESSURE LEVEL, Lp dB(a) CEE

89/392

94

ACOUSTICAL POWER LEVEL, Lwa dB(a) CEE

85/409

102

VIBRATION LEVEL PER ISO 8662-5 Less than 8.3 ft/Sec² (2.5 m/sec²).

BARREL CONSTRUCTION

Aluminum

ACCESSORY TOOL RECEIVER

Steel

CONSTRUCTION

ACCESSORY TOOL

.371 inch Industry Standard

HEXAGON CONNECTION

OVERALL LENGTH (LESS

55 inch (1397 mm)

ACCESSORY TOOL)

LUBRICATION OIL

Air tool type conforming to ISO

3498 HM.32. Other approved lubricants include: Shell Clavus 25, BP Energol LPT 80, Esso Zerice 46 and Mobil Almo 525.

WEIGHT (LESS

10 lbs. (4.5 kg)

ACCESSORY TOOL)

Application: MDF35 Long Reach Air Tool

PISTON BORE	.87 inch (22 mm)
PISTON STROKE	1.97 inch (50 mm)
RATED AIR PRESSURE	90 PSI (600 kPa)
OPERATING AIR PRESSURE RANGE	60 to 90 PSI (400-600 kPa). Lower pressure values may not produce required performance for any specific job application.
RATED AIR CONSUMPTION	10.8 CFM (5.0 lit/sec.)

ENERGY PER BLOW @ RATED 7.6 ft. lbs. (5.6 J)
AIR CONSUMPTION
AND PRESSURE

BLOW FREQUENCY @ RATED
AIR CONSUMPTION
AND PRESSURE 3100 blows per minute.
Frequency rates will decrease with reduced air
consumption and pressure values.

CONNECTING HOSE CONFIGURATION 3/8 inch
(9.5 mm) diameter, 60 inch (1524 mm) nominal
length. Quick type connecting coupler not furnished.

ACOUSTICAL PRESSURE LEVEL, Lp dB(a) CEE
89/392 88

ACOUSTICAL POWER LEVEL, Lwa dB(a) CEE
85/409 101

VIBRATION LEVEL PER ISO 8662-5 Less than
8.3 ft/sec² (2.5 m/sec²).

BARREL CONSTRUCTION Steel

ACCESSORY TOOL Steel
RECEIVER CONSTRUCTION

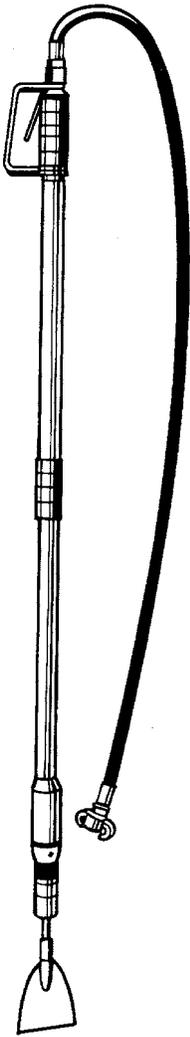
ACCESSORY TOOL .580 inch industry standard
HEXAGON CONNECTION

OVERALL LENGTH (LESS) 55 inch (1397 mm)
ACCESSORY TOOL)

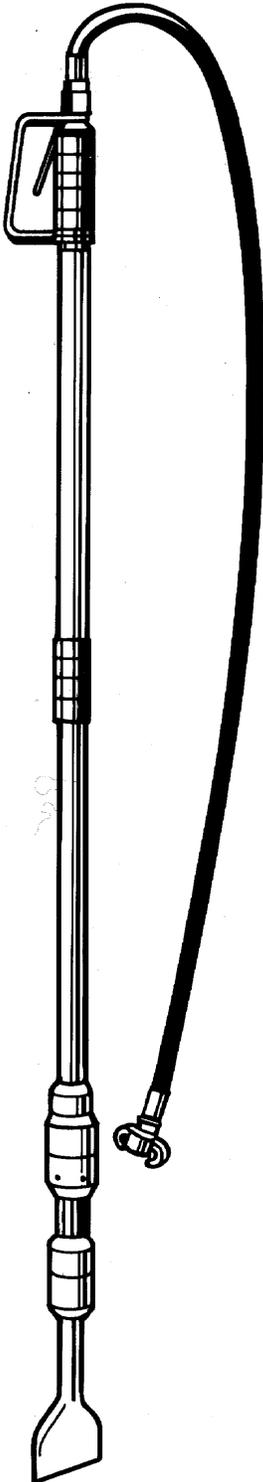
LUBRICATION OIL Air tool type conforming to
ISO 3498 HM.32. Other approved lubricants include:
Shell Clavus 25, BP Energol LPT 80, Esso Zerice 46
and Mobil Almo 525.

WEIGHT (LESS) 18.5 lbs. (8.4 kg)
ACCESSORY TOOL)

Replacement Parts Diagrams
MDF Long Reach Air Tools



MDF15



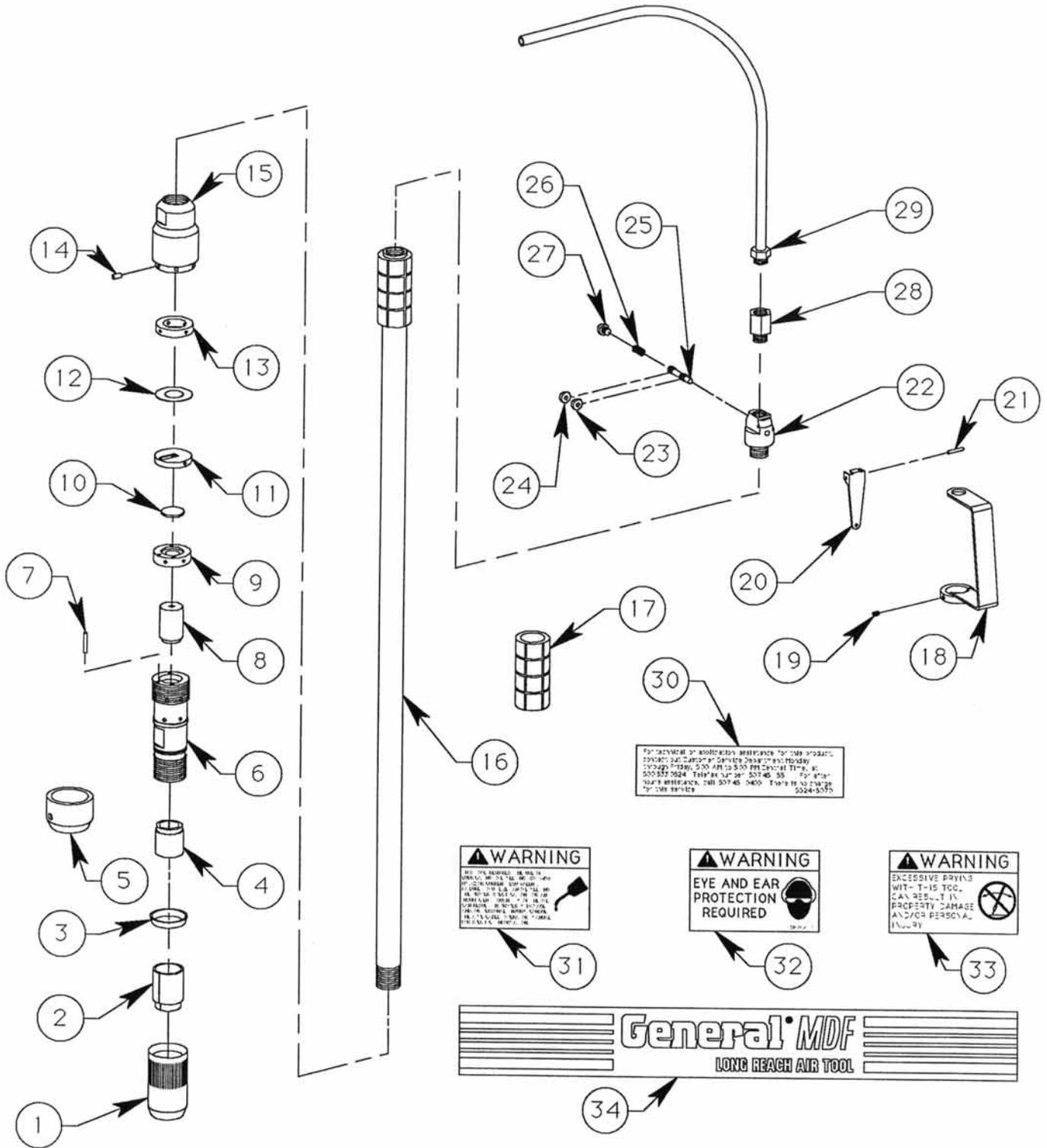
MDF35

Long Reach Air Tool Assembly

Model MDF15

Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF15-0010	Retainer, Tool	1
2	MDF15-0020	Bushing, Retaining	1
3	MDF15-0040	Deflector, Air	1
4	MDF15-0050	Bushing, Tool Receiver	1
5	MDF15-0030	"O" Ring	1
6	MDF15-0060	Cylinder	1
7	MDF15-0070	Pin, Alignment	2
8	MDF15-0080	Nut, Jam	1
9	MDF15-0090	Piston	1
10	MDF15-0140	Valve, Distribution	1
11	MDF15-0100	Disc, Valve Distribution	1
12	MDF15-0120	Disc	1
13	MDF15-0110	Cover, Distribution Valve	1
14	MDF15-0130	Gauge, Distribution	1
15	MDF15-0150	Head, Cylinder	1
16	MDF15-0160	Tube, Extension	1
17	MDF15-0200	Grip, Handle	2
18	MDF15-0210	Guard, Throttle Control Lever	1
19	MDF15-0220	Screw, Set, Socket Head	2
20	MDF15-0230	Lever, Throttle Control	1
21	MDF15-0240	Pin, Roll	1
22	MDF15-0250	Housing, Throttle Control Valve	1
23	MDF15-0260	"O" Ring	1
24	MDF15-0270	"O" Ring	1
25	MDF15-0300	Spool, Valve	1
26	MDF15-0290	Spring	1
27	MDF15-0280	Plug	1
28	MDF15-0310	Adapter	1
29	MDF15-0320	Hose, Air, Wire Reinforced	1
30	SG24-5070	Decal, Assistance	1
31	MDF-5050	Decal, Warning	1
32	SP8-5040	Decal, Warning	1
33	MDF-5040	Decal, Warning	1
34	SP8-5010	Decal, General	1

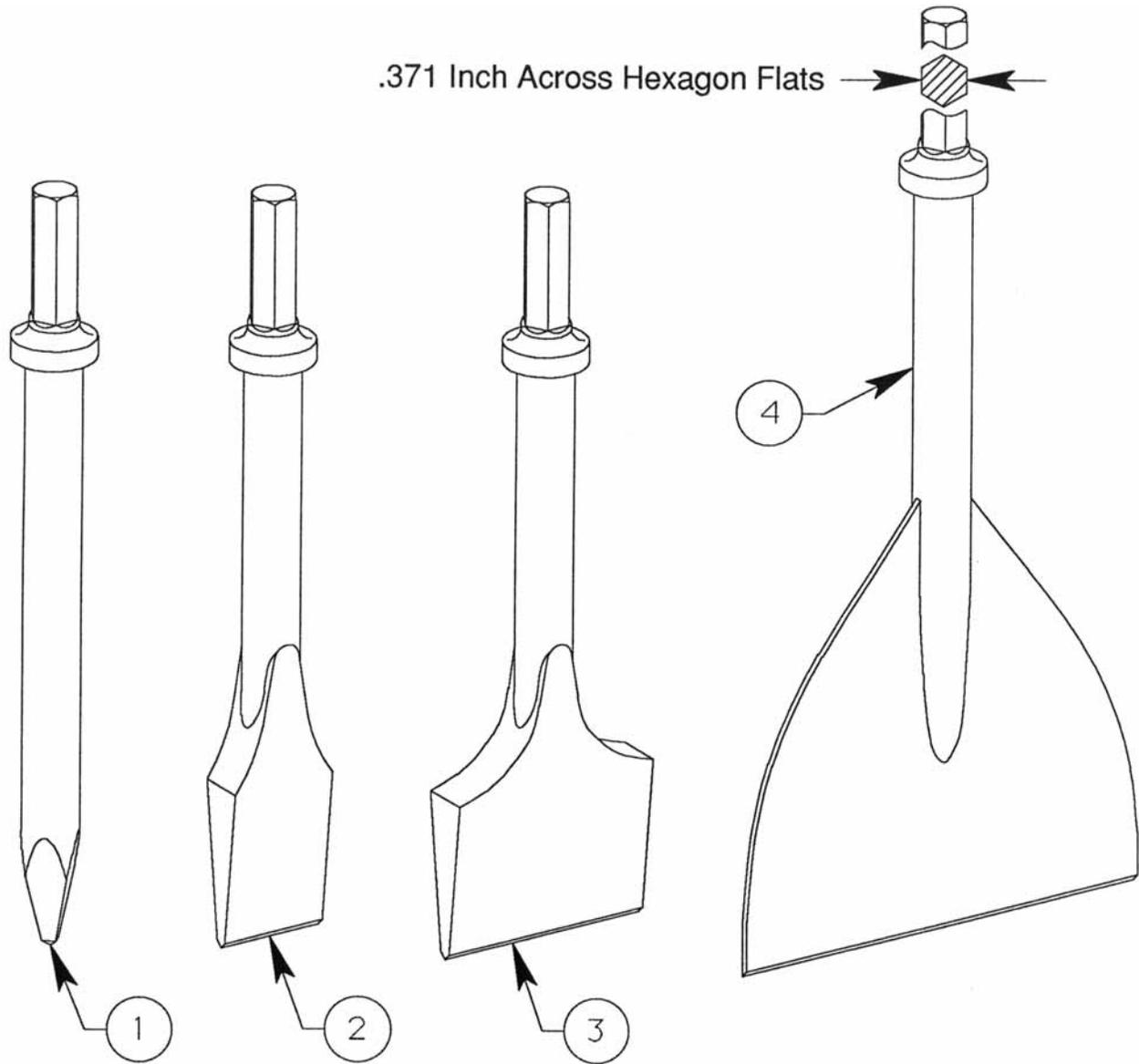
Long Reach Air Tool Assembly Model MDF35



Long Reach Air Tool Assembly Model MDF35

Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF35-0010	Retainer, Tool	1
2	MDF35-0020	Bushing, Retaining	1
3	MDF35-0030	Head Plug, Friction	1
4	MDF35-0040	Bushing, Tool Receiver	1
5	MDF35-0050	Deflector, Air	1
6	MDF35-0060	Cylinder	1
7	MDF35-0070	Pin, Alignment	2
8	MDF35-0080	Piston	1
9	MDF35-0090	Valve, Distribution	1
10	MDF35-0100	Disc, Distribution Valve	1
11	MDF35-0110	Cover, Distribution Valve	1
12	MDF35-0120	Disc	1
13	MDF35-0130	Gauge, Distribution	1
14	MDF35-0140	Pin, Alignment	1
15	MDF35-0150	Head, Cylinder	1
16	MDF35-0160	Tube, Extension	1
17	MDF15-0200	Grip, Handle	2
18	MDF15-0210	Guard, Throttle Control Lever	1
19	MDF15-0220	Screw, Set, Socket Head	2
20	MDF15-0230	Lever, Throttle Control	1
21	MDF15-0240	Pin, Roll	1
22	MDF15-0250	Housing, Throttle Control Valve	1
23	MDF15-0260	"O" Ring	1
24	MDF15-0270	"O" Ring	1
25	MDF15-0280	Spool, Valve	1
26	MDF15-0290	Spring	1
27	MDF15-0300	Plug	1
28	MDF15-0310	Adapter	1
29	MDF15-0320	Hose, Air, Wire Reinforced	1
30	SG24-5070	Decal, Assistance	1
31	MDF-5050	Decal, Warning	1
32	SP8-5040	Decal, Warning	1
33	MDF-5040	Decal, Warning	1
34	MDF-5010	Decal, General	1

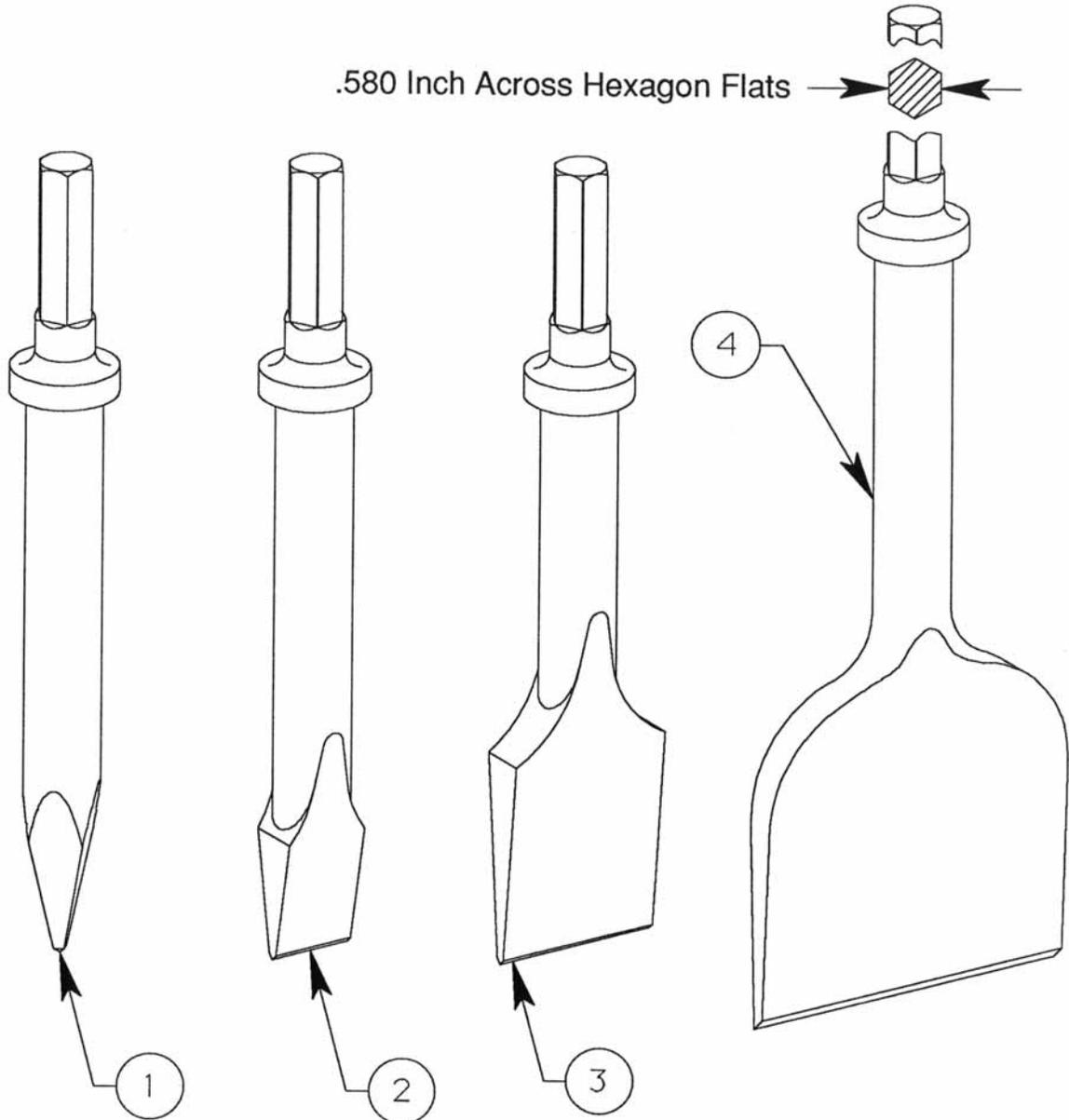
Accessory Tool Diagrams For Use With MDF15 Long Reach Air Tool



Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF15-1100	Moilpoint, .371 Inch Hexagon	1
2	MDF15-1200	1 Inch Chisel, .371 Inch Hexagon	1
3	MDF15-1300	2 Inch Chisel, .371 Inch Hexagon	1
4	MDF15-1400	4 Inch Chisel, .371 Inch Hexagon	1

Consult The Application Chart In This Manual For Specific Application Information.

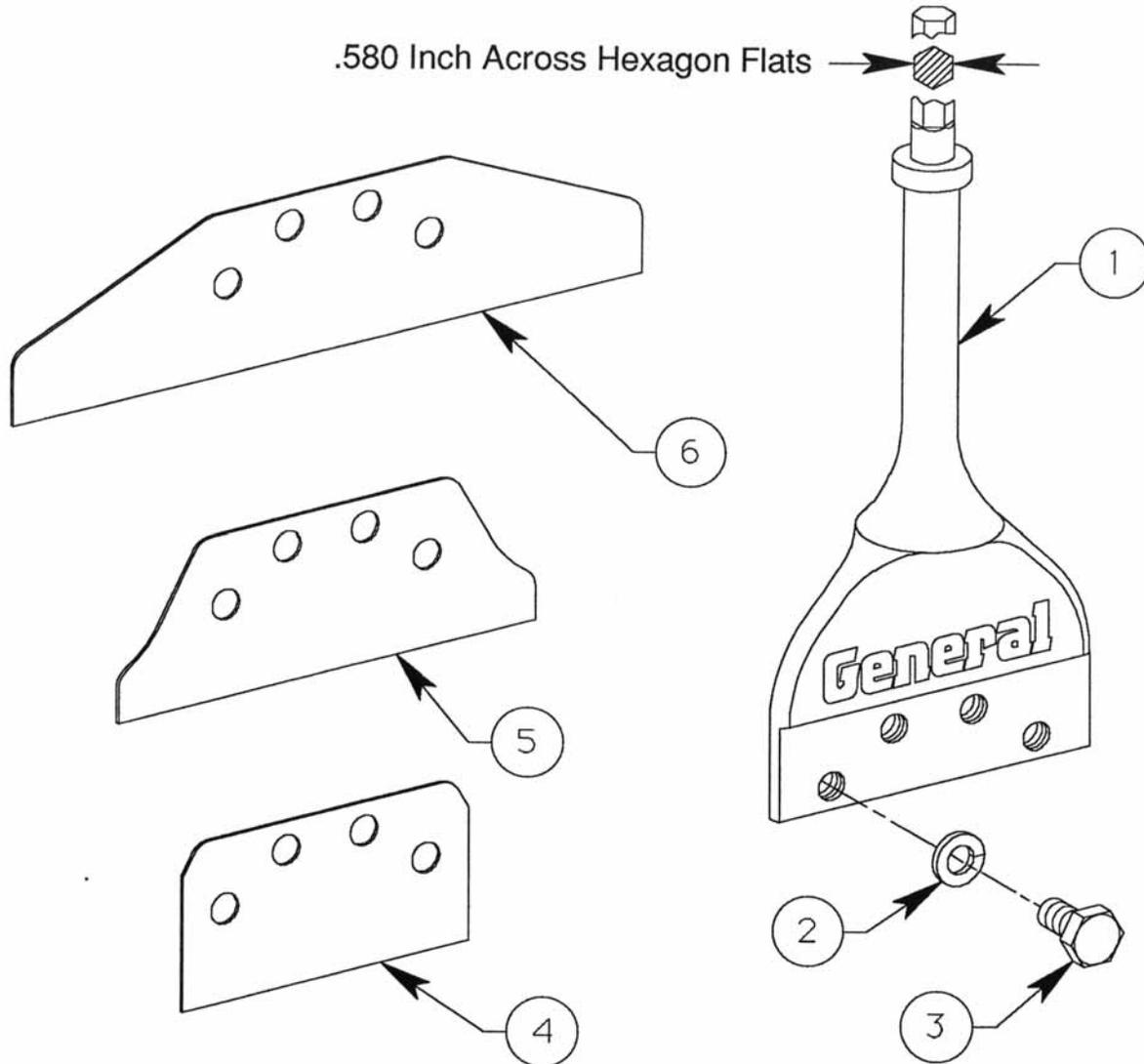
Accessory Tool Diagrams For Use With MDF35 Long Reach Air Tool



Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF35-1100	Moilpoint, .580 Inch Hexagon	1
2	MDF35-1200	1 Inch Chisel, .580 Inch Hexagon	1
3	MDF35-1300	2 Inch Chisel, .580 Inch Hexagon	1
4	MDF35-1400	4 Inch Chisel, .580 Inch Hexagon	1

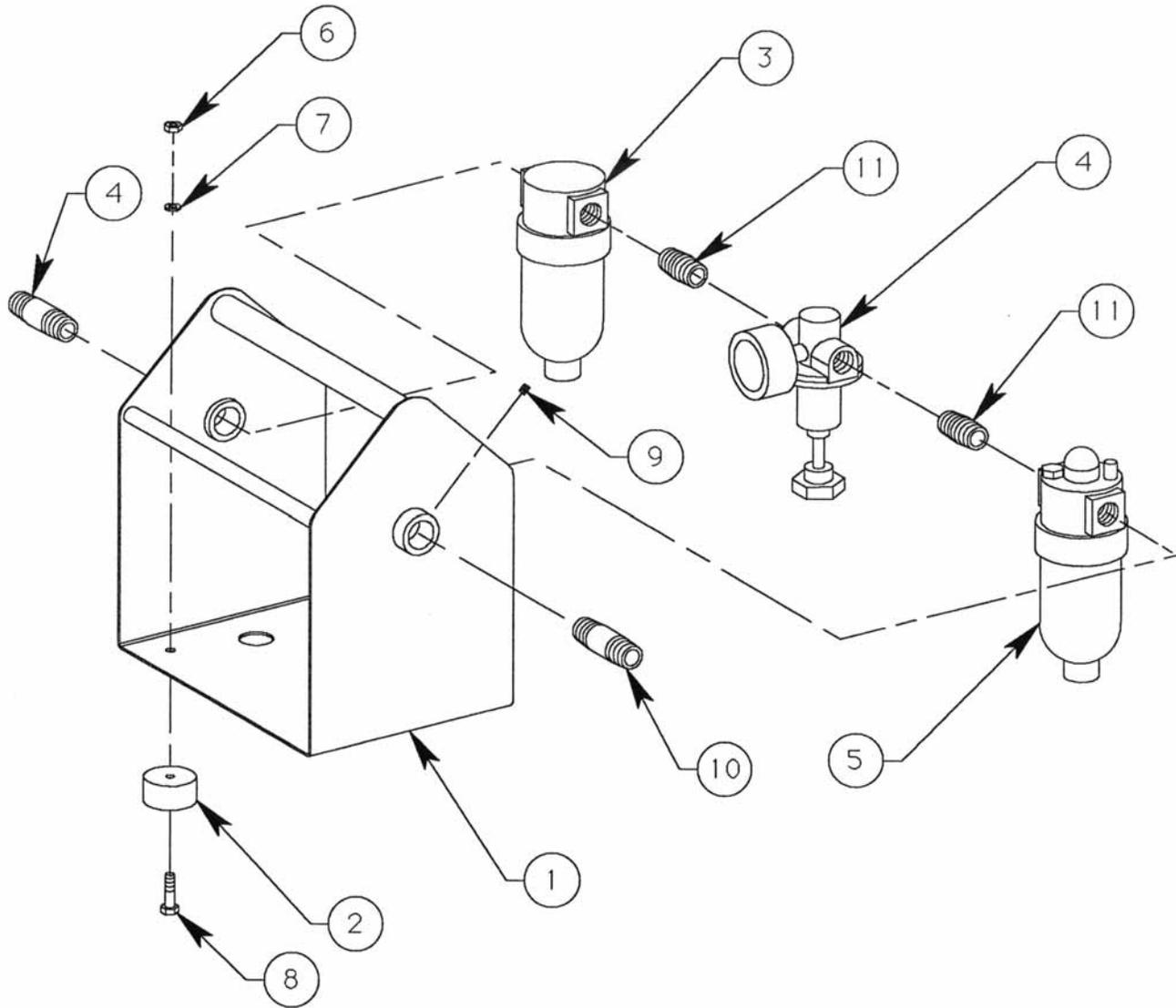
Consult The Application Chart In This Manual For Specific Application Information.

Accessory Tool Diagrams For Use With MDF35 Long Reach Air Tool



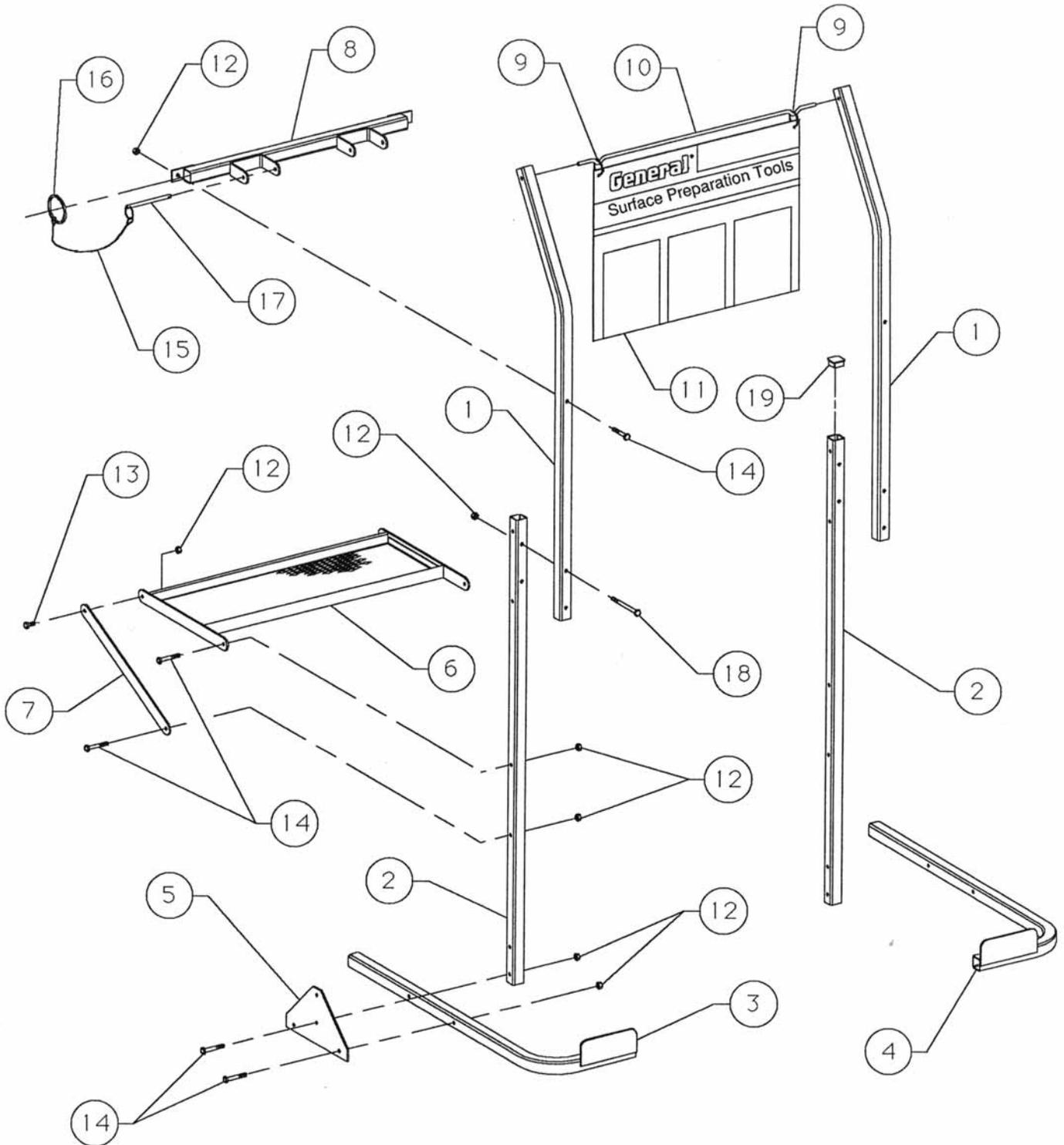
Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF35-1501	Scraper Blade Holder (Less Blades)	1
2	16080000	Washer, Lock, 1/2", Plated	4
3	15080800	Screw, Cap, 1/2" x 1" UNC, Grade 8, Plated	4
4	MDF35-1600	Blade, Scraper, 5/1-2" Wide	1
5	MDF35-1610	Blade, Scraper, 8" Wide	1
6	MDF35-1620	Blade, Scraper, 12" Wide	1

Air Caddy Assembly Model MDF-1000



Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF-1000-010	Frame, Air Caddy	1
2	EP8-0140	Mount, Rubber	4
3	MDF-1000-020	Filter, Air	1
4	MDF-1000-030	Regulator, Air	1
5	MDF-1000-040	Oiler, Air	1
6	18040000	Nut, Hex, 1/4", Plated	4
7	16040000	Washer, Lock, 1/4", Plated	4
8	15040700	Screw, Cap, 1/4-20 x 7/8" UNC, Plated	4
9	30040200	Screw, Set, Oval, 1/4-28 x 1/4 UNF	4
10	EP8HL-0120	Pipe, Nipple, 1/2" NPT x 3"	2
11	MDF-1000-050	Pipe, Nipple, Close, 1/2" NPT	2

Display Stand Assembly MDF Series Air Tools



Display Stand Assembly

MDF Series Air Tools

Reference Number	PART NUMBER	DESCRIPTION	QTY
1	MDF-1100-0110	Leg, Stand	2
2	MDF-1100-0230	Leg, Stand, Lower	2
3	MDF-1100-0140	Base (LH)	1
4	MDF-1100-0130	Base (RH)	1
5	MDF-1100-0150	Plate, Base	2
6	MDF-1100-0100	Tray, Tool Box	2
7	MDF-1100-0180	Strap, Support	4
8	MDF-1100-0160	Tube Weldment	1
9	660-0560	Tie, Nylon, 6" Long	2
10	MDF-1100-0170	Rod, Sign	1
11	MDF-1100-0190	Sign, Display Stand	1
12	52040000	Nut, Hex, 2-Way Lock, 1/4" UNC, Plated	26
13	15040500	Screw, Cap, 1/4" x 5/8" UNC, Grade 5, Plated	4
14	15041200	Screw, Cap, 1/4" x 1-1/2" UNC, Grade 5, Plated	18
15	MDF-1000-0220	Lanyard, Plastic	2
16	MDF-1100-0210	Ring, Split	2
17	MDF-1100-0200	Pin, Detent, 5/16" x 3-1/8"	2
18	15042000	Screw, Cap, 1/4" x 2-1/2" UNC, Grade 5, Plated	4
19	FP-164	Cap, Plug, 1" Square	6

Accessory Tool Application Chart

MDF Long Reach Air Tool

ACCESSORY TOOL PART NUMBER AND DESCRIPTION	OVERHEAD OR ABOVE WAIST COATINGS REMOVAL	GENERAL CONCRETE REMOVAL	FLOOR COATINGS REMOVAL	MATERIAL BUILD-UP REMOVAL	MASTIC OR ADHESIVE REMOVAL	FLOOR TILE REMOVAL
MDF15-1100 Moilpoint		○				
MDF15-1200 1 Inch Chisel	X	○	○	○		
MDF15-1300 2 Inch Chisel	●	○	○	○	○	○
MDF15-1400 4 Inch Chisel	●		X	X	X	○
MDF35-1100 Moilpoint		●				
MDF35-1200 1 Inch Chisel	○	●	○	○		
MDF35-1300 2 Inch Chisel	○	X	X	X	X	X
MDF35-1400 4 Inch Chisel			●	●	●	●
MDF35-1500 Scraper Blade Holder With Appropriate Blade			●	●	●	

- Limited performance or productivity rates for most applications.
- X Acceptable performance or productivity rates for most job applications.
- Preferred method to produce maximum performance or productivity rates for most job applications.

Information depicted is not intended for specific application purposes. Performance or productivity rates for any accessory tool are not guaranteed for any specific job application. Contact our Customer Service Department for specific application assistance. There is no charge for this service.