MÜLLER-WERKZEUG

KFZ-SPEZIALWERKZEUGE AUTOMOTIVE SPECIAL TOOLS

Operating Instructions • Warning Information • Parts Breakdown

No. 294 118: 1" Dr. Impact Wrench with 2" Anvil

No. 294 119: 1" Dr. Impact Wrench with 6" Extended Anvil

SPECIFICATIONS

Maximum Free Speed	4,500 RPM
Maximum Torque	1,600 Ft.-Lbs.(2200 Nm)
Air Inlet	1/2" NPT
Recommended Hose Size	3/4" I.D.
Average Air Consumption	7.9 CFM (223 l/min)
Recommended Air Pressure	90 psig (6.2 bar)
Length (No. 294 118)	12.75" (323mm)
Length (No. 294 119)	18.4" (467mm)
Weight (No. 294 118)	13.55 Lbs. (6.14 kgs.)
Weight (No. 294 119)	6.30 Lbs. (2.9 kgs.)
Sound Level	94 dBA

⚠WARNING

ALWAYS READ INSTRUCTIONS BEFORE USING POWER TOOLS

ALWAYS WEAR SAFETY GOGGLES

WEAR HEARING PROTECTION

AVOID PROLONGED EXPOSURE TO VIBRATION

⚠WARNING

Some dust created by power sanding, sawing, 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.

⚠WARNING

FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.

THIS INSTRUCTION MANUAL CONTAINS IMPORTANT SAFETY INFORMATION.

READ THIS INSTRUCTION MANUAL CAREFULLY AND UNDERSTAND ALL INFORMATION BEFORE OPERATING THIS TOOL.

- It is the responsibility of the owner to make sure all personnel read this manual prior to using these impact wrenches. It is also the responsibility of the air tool owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact your tool representative for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code of Portable Air Tools (ANSI B186.1) and any other applicable safety codes and regulations.
- For safety, top performance and maximum durability of parts, operate this tool at 90 psig; 6.2 bar max air pressure with 3/4" diameter air supply hose.

- Always wear impact-resistant eye and face protection when operating or performing maintenance on this tool (users and bystanders).

- Always wear hearing protection when using this tool (users and bystanders). High sound levels can cause permanent hearing loss. Use hearing protection as recommended by your employer or OSHA regulation.
- Keep the tool in efficient operating condition.
- Operators and maintenance personnel must be physically able to handle the bulk, weight and power of this tool.

- Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions over extended periods of time may be harmful to your hands and arms. Discontinue use of tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.

- Air under pressure can cause severe injury. Never direct air at yourself or others. Always turn off the air supply, drain hose of air pressure and detach tool from air supply before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool. Failure to do so could result in injury. Whip hoses can cause serious injury. Always check for damaged, frayed or loose hoses and fittings, and replace immediately. Do not use quick detach couplings at tool. See instructions for correct set-up.

- Slipping, tripping and/or falling while operating air tools can be a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.
- Keep body working stance balanced and firm. Do not overreach when operating the tool.
- Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.

- Do not carry tool by the hose. Protect the hose from sharp objects and heat.
- Tool shaft may continue to rotate briefly after throttle is released. Avoid direct contact with accessories during and after use. Gloves will reduce the risk of cuts or burns.

- Keep away from rotating end of tool. Do not wear jewelry or loose clothing. Secure long hair. Scalping can occur if hair is not kept away from tool and accessories. Choking can occur if neckwear is not kept away from tool and accessories.
- Please the tool on the work before starting the tool. Do not point or indulge in any horseplay with this tool.
- Note direction of tool BEFORE operating tool.
- Use only accessories recommended.

- Keep out of reach of children.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.

- This tool is not insulated against electric shock.
- This tool must not be used in explsive atmospheres.

- Impact wrenches are not torque control devices. Fasteners with specific torque requirements must be checked with suitable torque measuring devices after installation with an impact wrench.
- Use only impact wrench sockets and accessories on this tool. Do not use hand sockets and accessories.
- Do not force tool beyond its rated capacity.
- Do not use (or modify) the tool for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.
- Servicing and repairs should only be made by an authorized service center.
- Do not remove any labels. Replace damaged labels.
- This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands thoroughly after handling.*

OPERATION

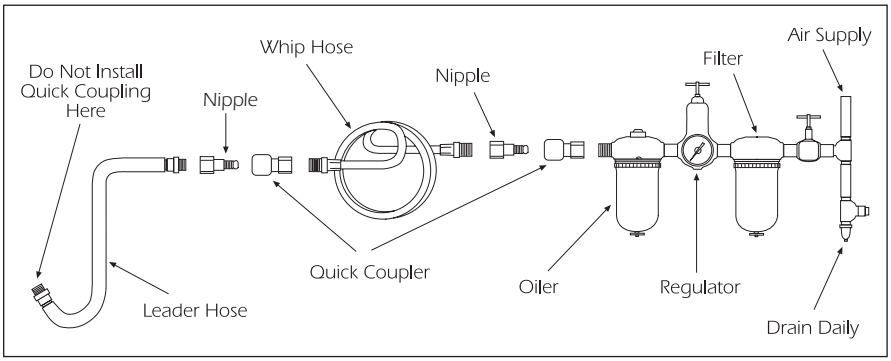
This tool is an impacting tool and not a torque meter. When specific torque is required, it must be checked with a torque meter after fitting the fastener with the Impact.

If a nut does not move within five seconds, use a larger size Impact. Do not use Impact Wrench beyond rated capacity, as this can drastically reduce the tool life.

Always turn off the air supply, drain hose of air pressure and detach tool from air supply before installing, removing or adjusting any part or accessory on this tool, or before performing any maintenance on this tool.

NOTE: Actual torque on a fastener is directly related to joint hardness, tool speed, condition of socket and the time the tool is allowed to impact.

Use the simplest possible tool-to-socket hook up. Every connection absorbs energy and reduces power.



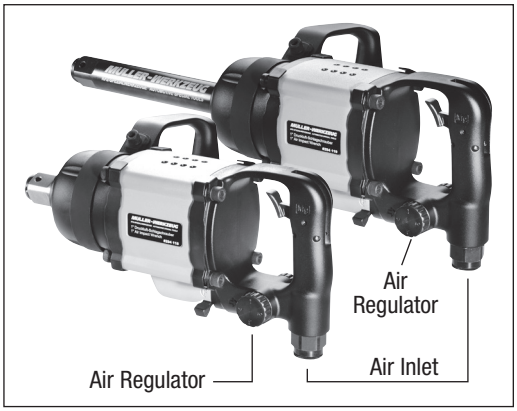


Figure 1

AIR SUPPLY

Tools of this class operate on a wide range of air pressures. We recommend that air pressure measures 90 psig at the air inlet while in use. Low pressure (less than 90 psig 6.2 bar) reduces the speed and performance of all air tools. High pressure (over 115 psig 8.0 bar) exceeds the rated capacity of the tool, which will shorten tool life through faster wear and could cause injury.

Always use clean, dry air. Dust, corrosive fumes, and/or water in the air line will cause damage to the tool. Drain the air tank daily. Clean the air inlet filter screen at least per week.

The air inlet used for connecting air supply, has standard 1/2" NPT American Thread. Line pressure should be increased to compensate for unusually long air hoses (over 25 feet). Minimum hose diameter should be 3/4" I.D. Fittings should have the same inside dimensions and should be tightly secured.

Ensure an accessible emergency shut off valve has been installed in the air supply line and make others aware of its location.

TROUBLESHOOTING

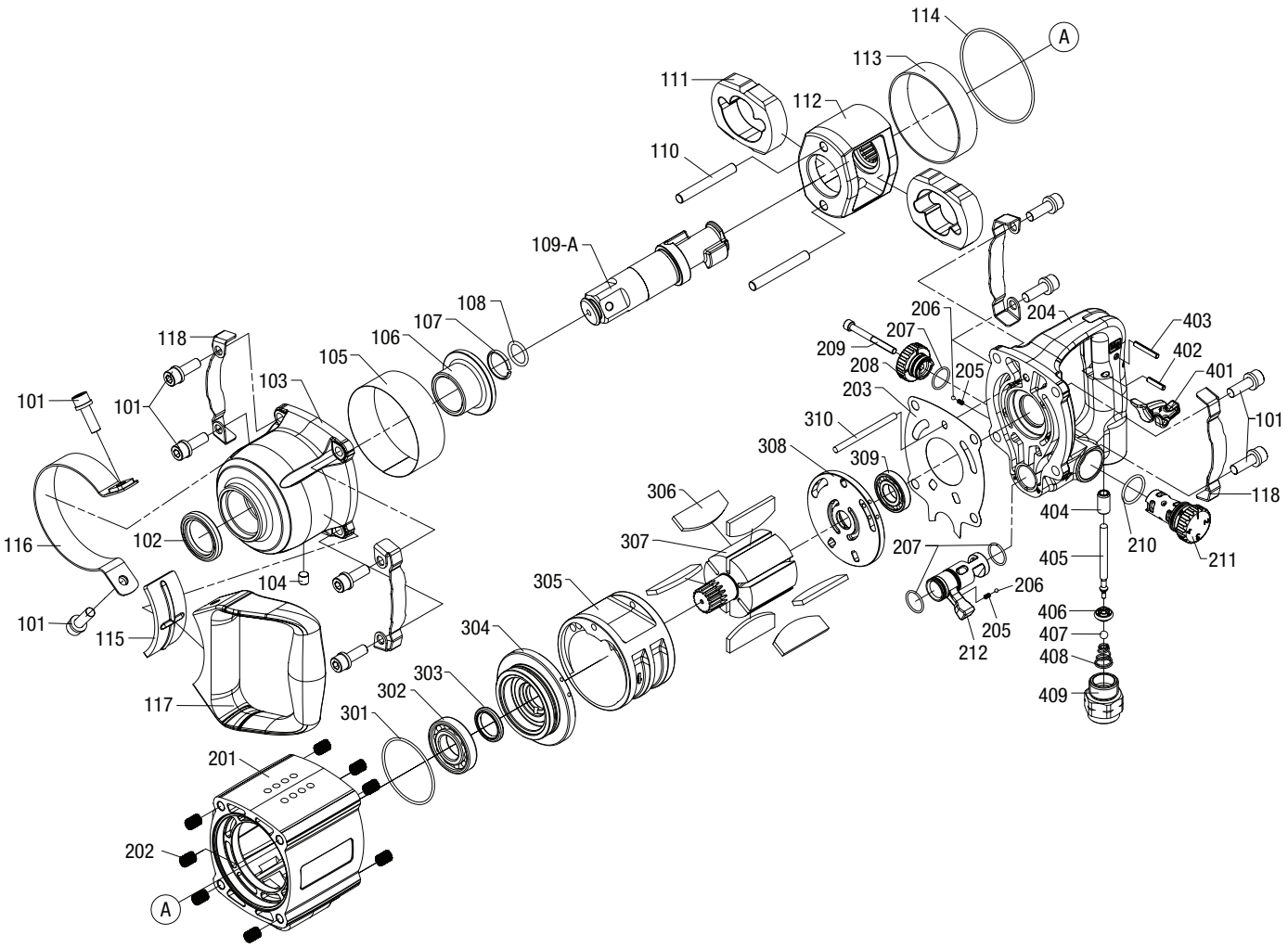
Other factors outside the tool may cause loss of power or erratic action. Reduced compressor output, excessive drain on the air line, moisture or restrictions in air pipes or the use of hose connections of improper size or poor conditions may reduce air supply. If outside conditions are in order, and the tool still performs erratically, disconnect tool from hose and take tool to your nearest authorized service center.

LUBRICATION & MAINTENANCE

Lubricate the air motor daily with quality air tool oil. If no air line oiler is used, run 1/2 ounce of air tool oil through the tool by squirting oil into the tool's air inlet or into the nearest connection to the air inlet, reconnecting air supply, and then running tool. Do not use more than 1/2 ounce of oil, as overfilling will reduce the performance of the tool.

Warning: After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. The exhaust port must be covered with a towl before applying air pressure to prevent serious inury.

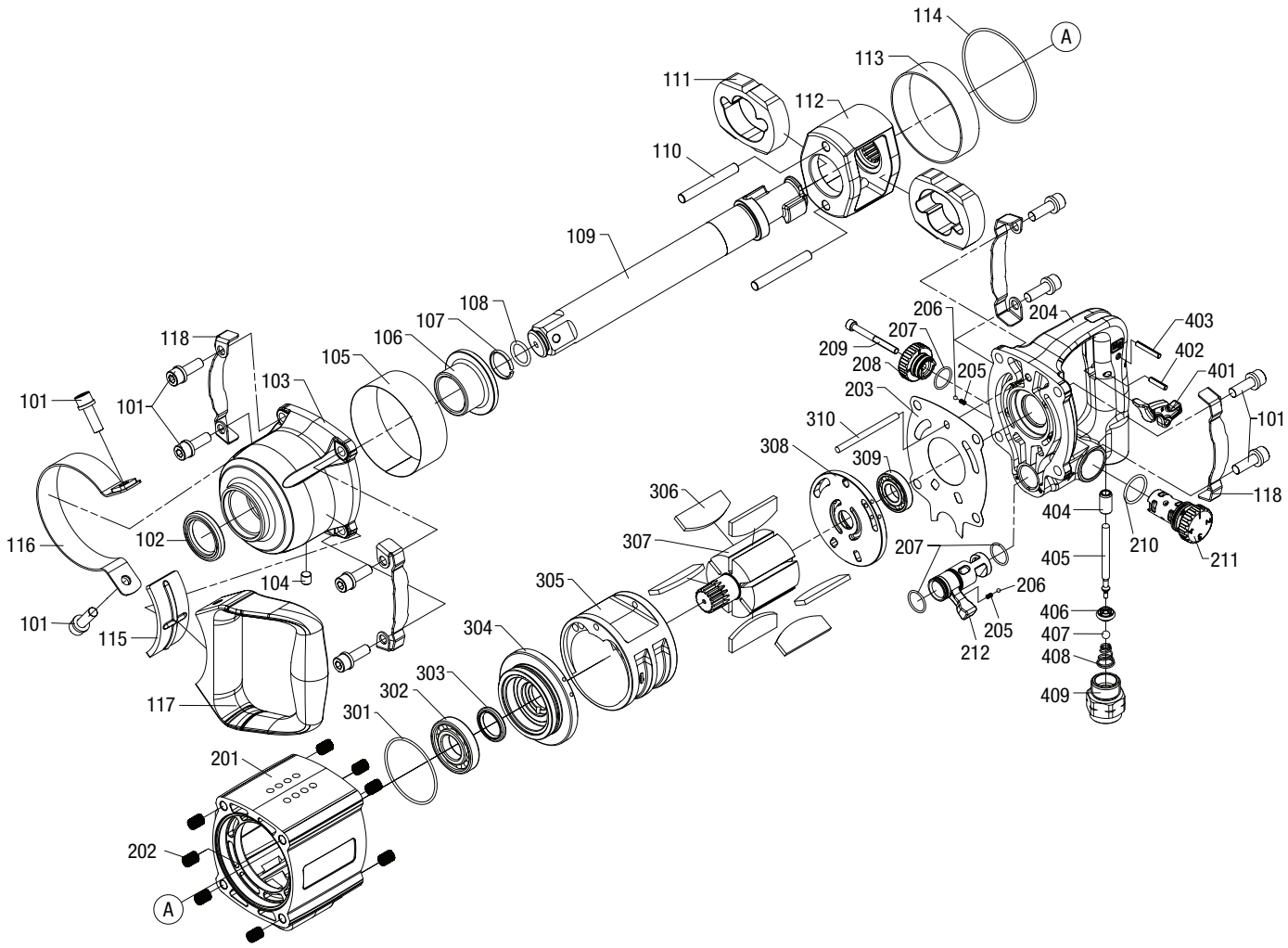
No. 294 118: 1" Dr. Impact Wrench with 2" Anvil



Ref. #	Item #	DESCRIPTION	QTY
101	294 118-101	Bolt Assembly	10
102	294 118-102	Oil Seal	1
103	294 118-103	Hammer Case	1
104	294 118-104	Hex. Soc. Head Screw	1
105	294 118-105	Steel Ring	1
106	294 118-106	Hammer Case Bushing	1
107	294 118-107	Socket Retainer	1
108	294 118-108	O-Ring	1
109-A	294 118-S	Anvil (2" for No.)	1
110	294 118-110	Hammer Frame Pin	2
111	294 118-111	Hammer	2
112	294 118-112	Hammer Frame	1
113	294 118-113	Collar	1
114	294 118-114	O-Ring	1
115	294 118-115	Washer	1
116	294 118-116	Fixed Ring	1
117	294 118-117	Handle	1
118	294 118-118	Housing Protector	4
201	294 118-201	Housing (Incl. #202)	1
202		Thread Insert (Incl. w/ #201)	8
203	294 118-203	Housing Gasket	1
204	294 118-204	Rear Cover Unit	1
205	294 118-205	Spring	1
206	294 118-206	Steel Ball (3mm)	1
207	294 118-207	O-Ring	3

Ref. #	Item #	DESCRIPTION	QTY
208	294 118-208	Regulator-B	1
209	294 118-209	Hex. Soc. Head Bolt	1
210	294 118-210	O-Ring	1
211	294 118-211	Regulator-A	1
212	294 118-212	Reverse Valve	1
301	294 118-301	O-Ring	1
302	294 118-302	Bearing (R14)	1
303	294 118-303	Oil Seal	1
304	294 118-304	Front End Plate	1
305	294 118-305	Cylinder	1
306	294 118-306	Rotor Blade	6
307	294 118-307	Rotor	1
308	294 118-308	Rear End Plate	1
309	294 118-309	Bearing (R10)	1
310	294 118-310	Pin	1
401	294 118-401	Trigger	1
402	294 118-402	Spiral Pin	1
403	294 118-03	Spiral Pin	1
404	294 118-404	Bushing	1
405	294 118-405	Pin	1
406	294 118-406	Seal	1
407	294 118-407	Ball (6.35mm)	1
408	294 118-408	Spring	1
409	294 118-409	Air Inlet	1

No. 294 119: 1" Dr. Impact Wrench with 6" Extended Anvil



Ref. #	Item #	DESCRIPTION	QTY
101	294 119-101	Bolt Assembly	10
102	294 119-102	Oil Seal	1
103	294 119-103	Hammer Case	1
104	294 119-104	Hex. Soc. Head Screw	1
105	294 119-105	Steel Ring	1
106	294 119-106	Hammer Case Bushing	1
107	294 119-107	Socket Retainer	1
108	294 119-108	O-Ring	1
109	294 119-S	Anvil (6")	1
110	294 119-110	Hammer Frame Pin	2
111	294 119-111	Hammer	2
112	294 119-112	Hammer Frame	1
113	294 119-113	Collar	1
114	294 119-114	O-Ring	1
115	294 119-115	Washer	1
116	294 119-116	Fixed Ring	1
117	294 119-117	Handle	1
118	294 119-118	Housing Protector	4
201	294 119-201	Housing (Incl. #202)	1
202		Thread Insert (Incl. w/ #201)	8
203	294 119-203	Housing Gasket	1
204	294 119-204	Rear Cover Unit	1
205	294 119-205	Spring	1
206	294 119-206	Steel Ball (3mm)	1
207	294 119-207	O-Ring	3

Ref. #	Item #	DESCRIPTION	QTY
208	294 119-208	Regulator-B	1
209	294 119-209	Hex. Soc. Head Bolt	1
210	294 119-210	O-Ring	1
211	294 119-211	Regulator-A	1
212	294 119-212	Reverse Valve	1
301	294 119-301	O-Ring	1
302	294 119-302	Bearing (R14)	1
303	294 119-303	Oil Seal	1
304	294 119-304	Front End Plate	1
305	294 119-305	Cylinder	1
306	294 119-306	Rotor Blade	6
307	294 119-307	Rotor	1
308	294 119-308	Rear End Plate	1
309	294 119-309	Bearing (R10)	1
310	294 119-310	Pin	1
401	294 119-401	Trigger	1
402	294 119-402	Spiral Pin	1
403	294 119-03	Spiral Pin	1
404	294 119-404	Bushing	1
405	294 119-405	Pin	1
406	294 119-406	Seal	1
407	294 119-407	Ball (6.35mm)	1
408	294 119-408	Spring	1
409	294 119-409	Air Inlet	1