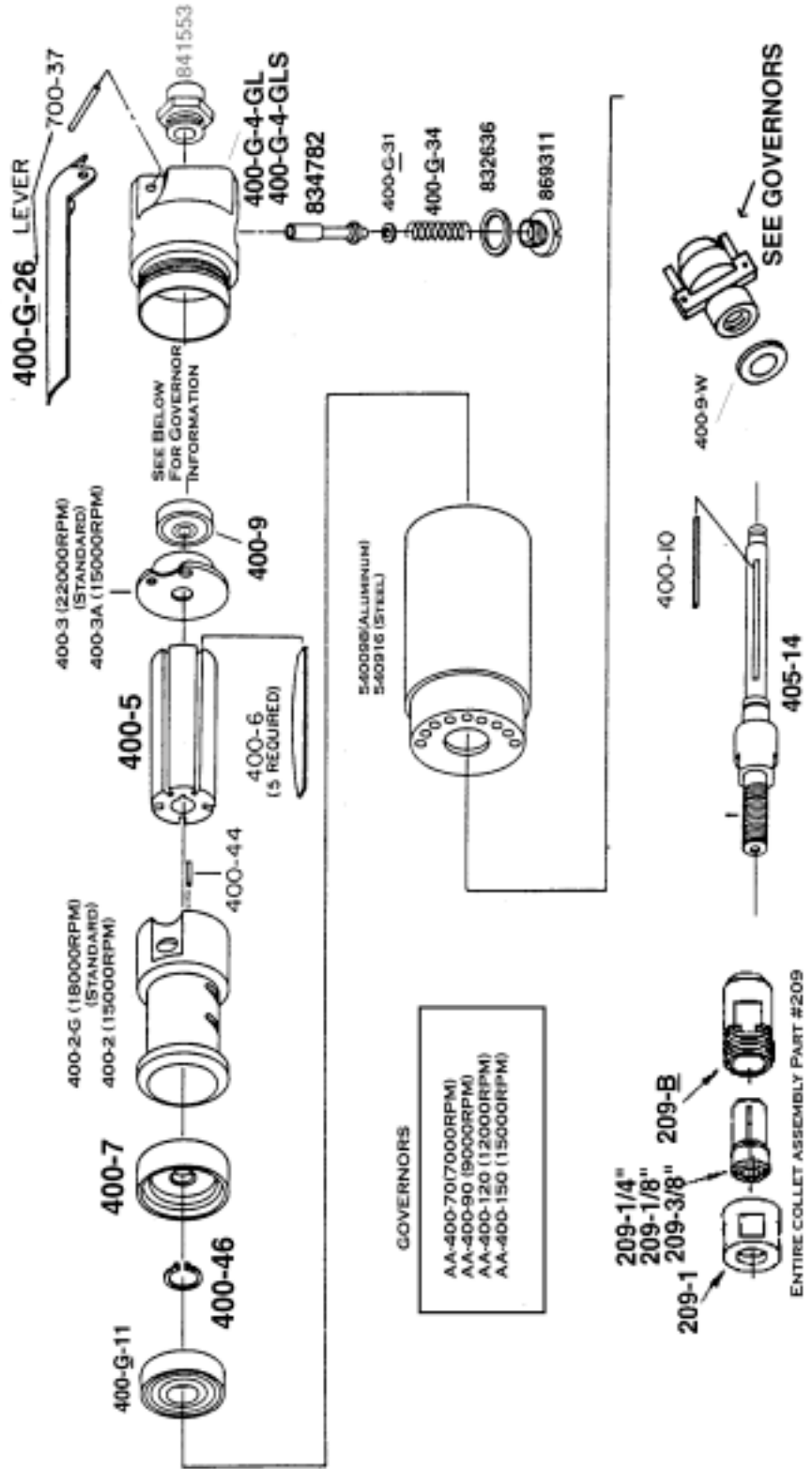




Model 4710 GLS
with Erickson Collet
Front exhaust not shown

**Governed Models
FRONT EXHAUST**

MODELS
4710 GL
4710 GLS



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HENRY AIR TOOLS

MODELS

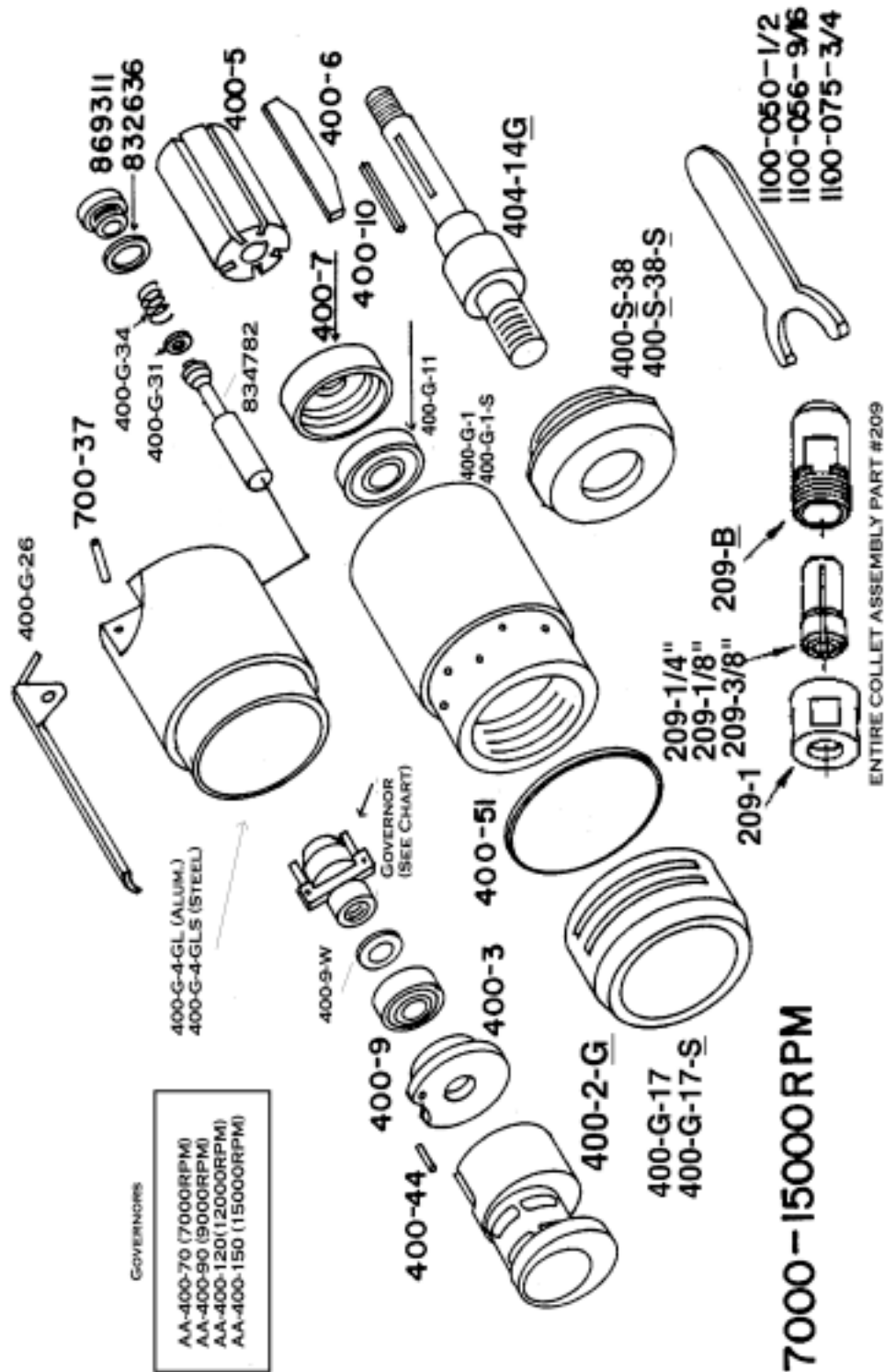
4721 GL

4721 GLS



**Governed Models
SIDE EXHAUST**

Model 4721GLS
with Erickson Collet



HENRY TOOLS SAFETY RECOMMENDATIONS²

PERSONAL PROTECTION Always wear protective equipment and clothing.

Impact resistant eye protection such as safety goggles and a face shield must be worn as required.

Gloves and other protective clothing should be worn as required.

Do not wear loose fitting clothing.

Personal hearing protection is recommended.

Avoid inhaling dust resulting from the grinding operation. **Wear a respirator if ventilation is inadequate.**

Henry grinders are designed to operate on **90 psi (6.2 bar) maximum air pressure**. The installation of a filter-regulator-lubricator in the air supply line ahead of the tool is highly recommended

IMPORTANT: Before the tool is connected to the air supply, the throttle should be checked for proper operation (i.e., throttle valve moves freely and returns to closed position). Before mounting or removing any grinding wheel or accessory, adjusting a guard, or removing a tool from service, make sure the air line is shut off and drained of air. This will prevent the grinder from operating if the throttle lever is accidentally engaged .

Before connecting a tool to the air hose, the hose should be cleared of accumulated abrasive dust and moisture. Be careful not to endanger adjacent personnel. Use protective barriers where necessary--hot sparks can burn. Barriers also help reduce noise levels.

ALWAYS HAVE THE PROPER WHEEL GUARD ON THE GRINDER.

The wheel guard is designed to prevent serious injury to the operator in the event of wheel failure and must not be modified in any way. Any wheel guard that is damaged or bent must be replaced.

NOTE: The grinder must be held so that the opening in the guard is oriented to be directly **opposite** the operator

The guard must be securely attached to the grinder with the bolt, nut, and lockwasher in place and torqued to 30 - 40 in.- lbs.

CHECK RPM WITHOUT GRINDING WHEEL

The speed rating and warning information found on the tool should be maintained and not obscured.

Before mounting a wheel or accessory, after all tool repairs, and when ever a grinder is issued for use, check the free speed of the grinder with a tachometer to make certain that the actual free speed at 90 psi (6.2 bar) does not exceed the rated free speed stamped on the tool. Grinders in use on the job must be similarly checked at least once every twenty hours of operation, or once every week, whichever is more frequent.

INSPECT THE WHEEL OR ACCESSORY

Check the maximum safe RPM marked on the wheel or accessory. **Never use a wheel or accessory rated below the actual tool speed.** Cracked, dropped, faulty, or bent accessories are dangerous. Suspect accessories should not be used and should be disposed of. Inspect wheel for cracks or chips, water stains, or signs of abuse or improper storage. Cracked or faulty grinding wheels are dangerous. They must be destroyed rather than risk their use by someone who may not notice that they are damaged.

WARNING: FRAGMENTS FROM AN ABRASIVE WHEEL THAT BREAKS OR COMES APART WHILE ROTATING CAN CAUSE SERIOUS INJURY OR EVEN DEATH. NEVER OPERATE A WHEEL TYPE GRINDER WITHOUT A GUARD.

Causes of abrasive wheel failures have been traced to such factors as: Dropping, bumping, or abuse (careless handling of the grinder or wheel) Improper mounting, Imbalance, Improper shipment or storage

Exposure to water, solvents, high humidity, freezing and extreme temperatures, Mismatched speed ratings Age

Abrasive wheels known to have been subjected to any of the above conditions **must not be used.**

CHECK FLANGE

On right angle depressed center wheel grinders the spindle and driving flange should be checked for signs of damage or abuse. The shape of a Type 27 wheel requires a special flange. Use the correct flange substitutions can be dangerous. The adapter nut (spindle end nut) fits into the depressed center portion of the wheel to prevent interference with the work. The spindle must not be bent and the threads should be free of any damage that might keep an abrasive wheel and its mount from locating centrally or seating properly against the driving flange.

On right angle Type 1 wheel grinders, the flanges must be the relieved type, free of nicks and burrs or other flaws that might create stress

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Before beginning operations or after mounting a wheel, the tool must be run for one (1) minute in a protected enclosure to **check the** integrity of the wheel. During this time or any other time, no one should stand in front of or in line of the wheel. When starting work with a cold wheel, apply it gradually to the workpiece until the wheel becomes warm.

DO NOT CONTINUE TO USE A GRINDER IF:

- It is not equipped with the proper wheel guard**
- The speed rating of the wheel is less than the speed of the grinder**
- It starts to vibrate**
- You sense any changes in tool speed or an unusual increase in noise output that would indicate the tool is running at excessive speed.**
- You notice excessive end play in the spindle**
- You hear any unusual sound from the Grinder.**

RETURN THE TOOL TO THE TOOL CRIB FOR SERVICE IMMEDIATELY!

WARNING: EXPOSURE TO HIGHLY REPETITIVE MOTIONS AND/ OR VIBRATION MAY BE HARMFUL

Some individuals are susceptible to disorders of the hands and arms when exposed to high intensity vibration and/or tasks which involve highly repetitive motions. Those individuals predisposed to vasculatory or circulatory problems may be particularly susceptible. Cumulative trauma disorders such as carpal tunnel syndrome and tendinitis can be caused or aggravated by repetitious, forceful exertions of the hands and arms. These disorders develop gradually over periods of weeks, months, and years. Tasks should be performed in such a manner that the wrists are maintained in a neutral position, which is not flexed, hyperextended, or turned side to side. Stressful postures should be avoided and can be controlled through tool selection and work location. Any person who experiences prolonged symptoms of tingling, numbness, blanching of fingers, clumsiness or weakened grip, inability to hold objects, nocturnal pain in the hand, or who is known to be susceptible to vibration disorders is advised to consult a physician prior to operating any power tool.

The proper selection of the correct type of grinder is an important ergonomic consideration. Each application should be carefully considered and the tool chosen that will minimize the stresses on the operator that can lead to the onset of cumulative trauma disorders. Some tasks require more than one type of tool to obtain the optimum operator/tool/ task relationship.

Henry Tools has a complete selection of tools including vertical, straight, angle, and extended grinders that make possible the correct ergonomic match of the operator, tool, and task.

The following recommendations will help reduce or moderate the effects of extended vibration exposure. The operator of any portable grinder should:

- Use a minimum hand grip force consistent with proper control and safe operation**
- Keep body and hands warm and dry**
- Avoid anything that inhibits blood circulation**
- Avoid Cold Temperatures**
- Avoid Certain Drugs**
- Avoid continuous vibration exposure (exposure to vibration should be interrupted with rest intervals).**

WORK GLOVES

Special work gloves with vibration reducing liners and wrist supports are available from many manufacturers of industrial work gloves. These gloves are designed to reduce and moderate the effects of extended vibration exposure and repetitive wrist trauma. Proper fit of gloves is important. Improperly fitted gloves may restrict blood

USE QUALITY ABRASIVE WHEELS

The primary source of vibration when using a portable grinder is an abrasive wheel that is out of balance, out of round, untrue, or possibly any combination of all three.

The use of quality abrasive wheels which are well balanced, round, and true is highly recommended as they have been found to significantly reduce vibration. Some abrasive wheels lose their balance, roundness, and truth as they wear from use.

(continued)

These wheels are more susceptible to failure. Excessive vibration may signal eminent wheel failure. Out of balance abrasive wheels are dangerous. Flat spotting of the abrasive wheel, caused by grinding the wheel to a stop after the power has been shut off can result in changes to the balance and shape of the wheel. Be sure the grinding wheel has stopped before setting the tool down. Set the tool in a tool rest or tool holder when not in use.

WIREBRUSHES

If a grinder is used for wire brushing applications the same problems of balance, roundness, and truth as experienced with abrasive wheels prevail. Use quality wire brushes.

USE A PREVENTIVE MAINTENANCE PROGRAM

Tool abuse or poor maintenance procedures can amplify and contribute to the vibration produced by the abrasive wheel. A preventive maintenance program featuring scheduled periodic inspections and proper maintenance is the best way to assure safety in your portable grinding operations. A well managed program can, for example, detect such things as speed variations due to wear, flanges or spindles that have been damaged from abuse, or bad bearings damaged by foreign matter or lack of lubrication. Problems such as these can affect the wheel trueness when the grinder is running and contribute to the vibration. Proper repair procedures and the use of original Henry service parts and bearings rather than substitutes will return the tool to factory specifications of precision and balance, and minimize vibration.

SAFETY INFORMATION

Read, understand, and practice the requirements of the latest ANSI B186.1 Safety Code for Portable Air Tools.

Read the latest edition of ANSI Z87.1 Occupational and Educational Eye and Face Protection.[^]

Read, understand, and practice the requirements of the latest ANSI B7.1 Safety Code for the Use, Care, and Protection of Abrasive Wheels.

^{*}These standards are available from the American National Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018.

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