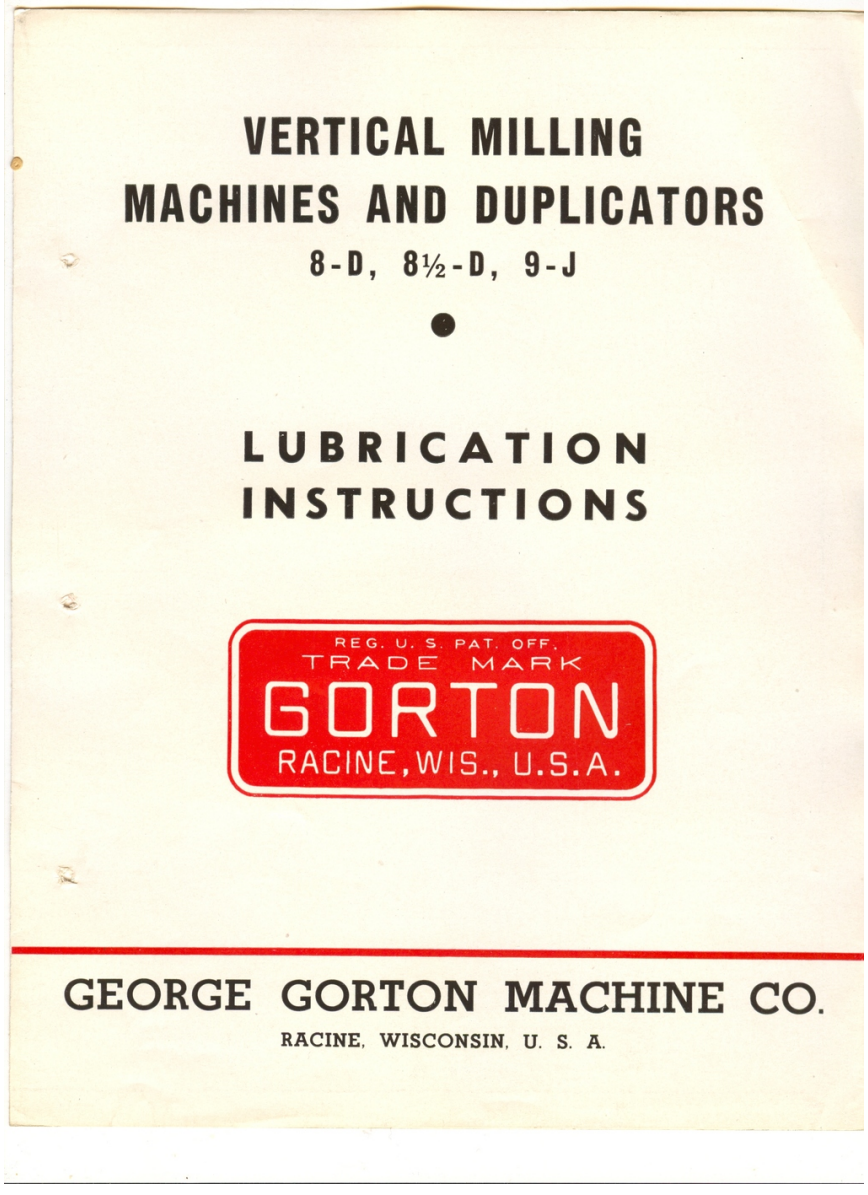
Photo 1



VERTICAL MILLING
MACHINES AND DUPLICATORS
8-D, 8½-D, 9-J

●

LUBRICATION
INSTRUCTIONS

REG. U. S. PAT. OFF.
TRADE MARK
GORTON
RACINE, WIS., U.S.A.

GEORGE GORTON MACHINE CO.
RACINE, WISCONSIN, U. S. A.

Photo 2

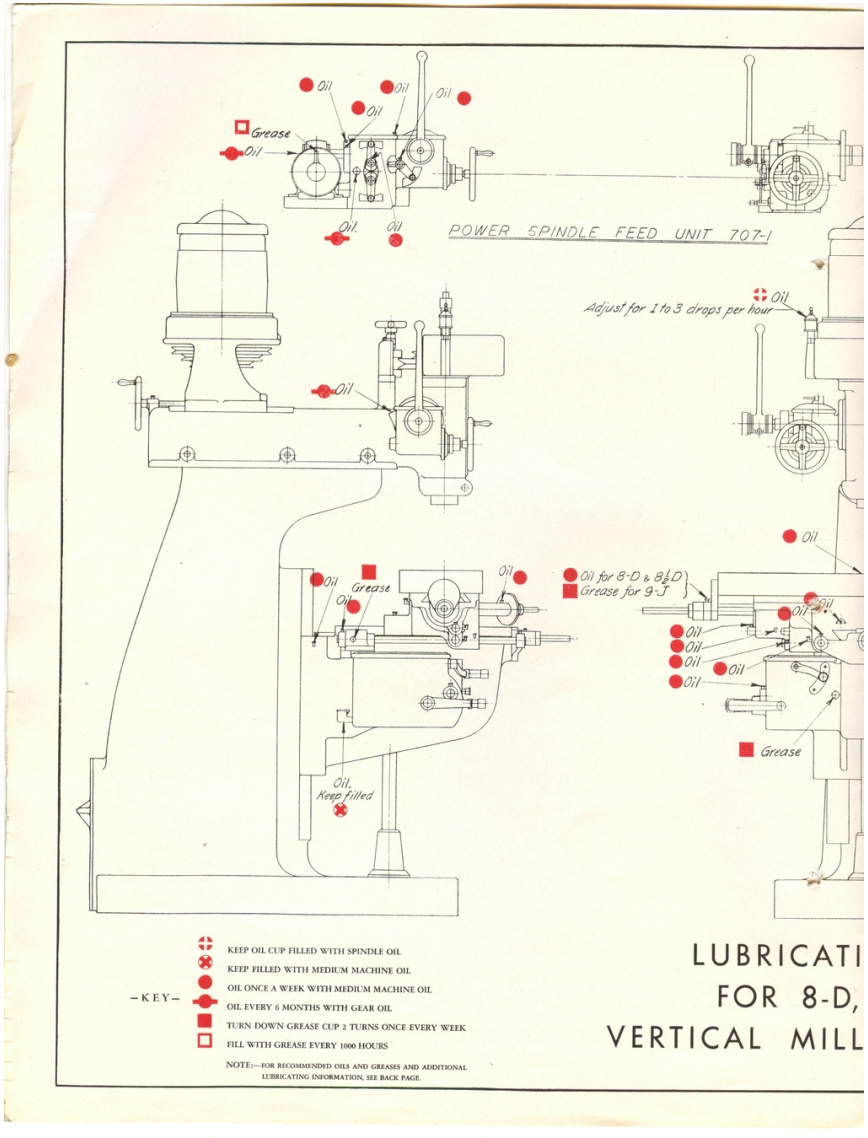

POWER SPINDLE FEED UNIT 707-1
Oil
Grease
Adjust for 1 to 3 drops per hour
Oil for 8-D & 8½D
Grease for 9-J
Oil, Keep Filled
KEY
KEEP OIL CUP FILLED WITH SPINDLE OIL
KEEP FILLED WITH MEDIUM MACHINE OIL
OIL ONCE A WEEK WITH MEDIUM MACHINE OIL
OIL EVERY 6 MONTHS WITH GEAR OIL
TURN DOWN GREASE CUP 2 TURNS ONCE EVERY WEEK
FILL WITH GREASE EVERY 1000 HOURS
NOTE:—FOR RECOMMENDED OILS AND GREASES AND ADDITIONAL LUBRICATING INFORMATION, SEE BACK PAGE.
LUBRICATI
FOR 8-D,
VERTICAL MILL

Photo 3

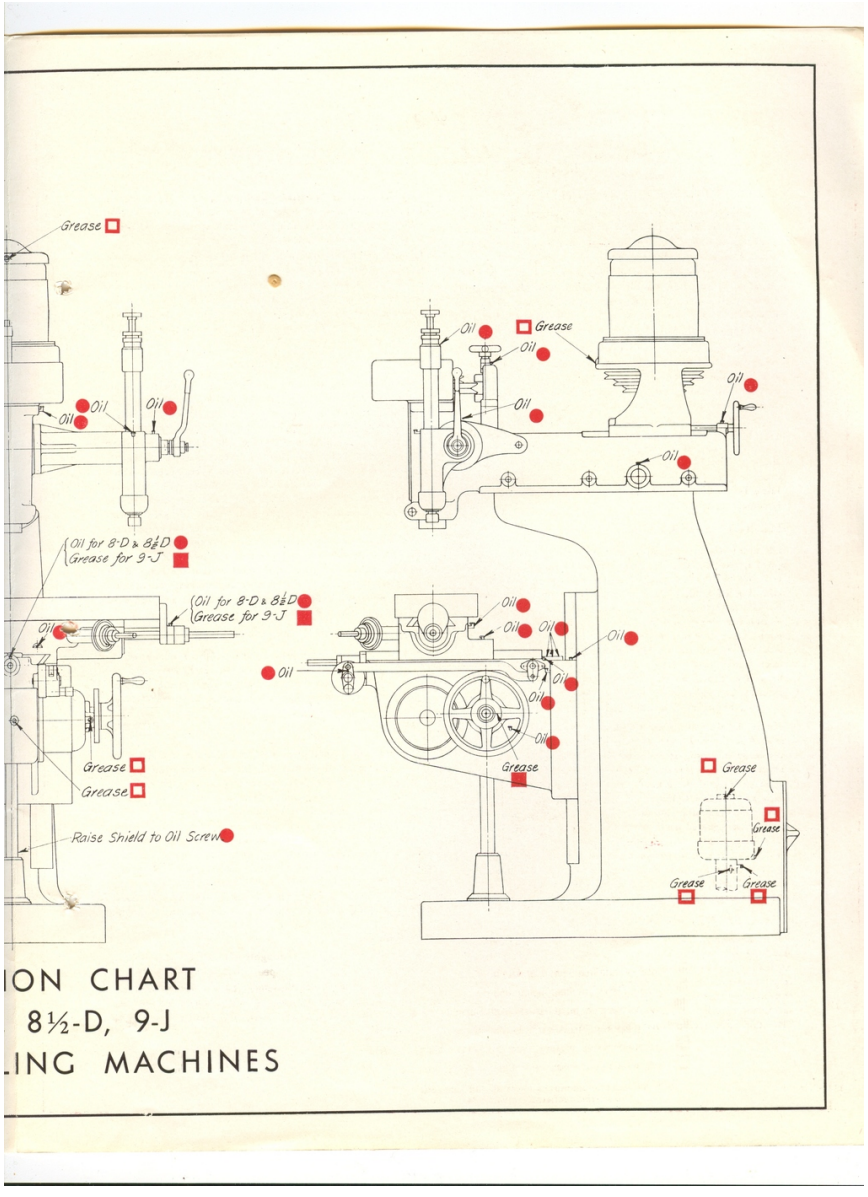
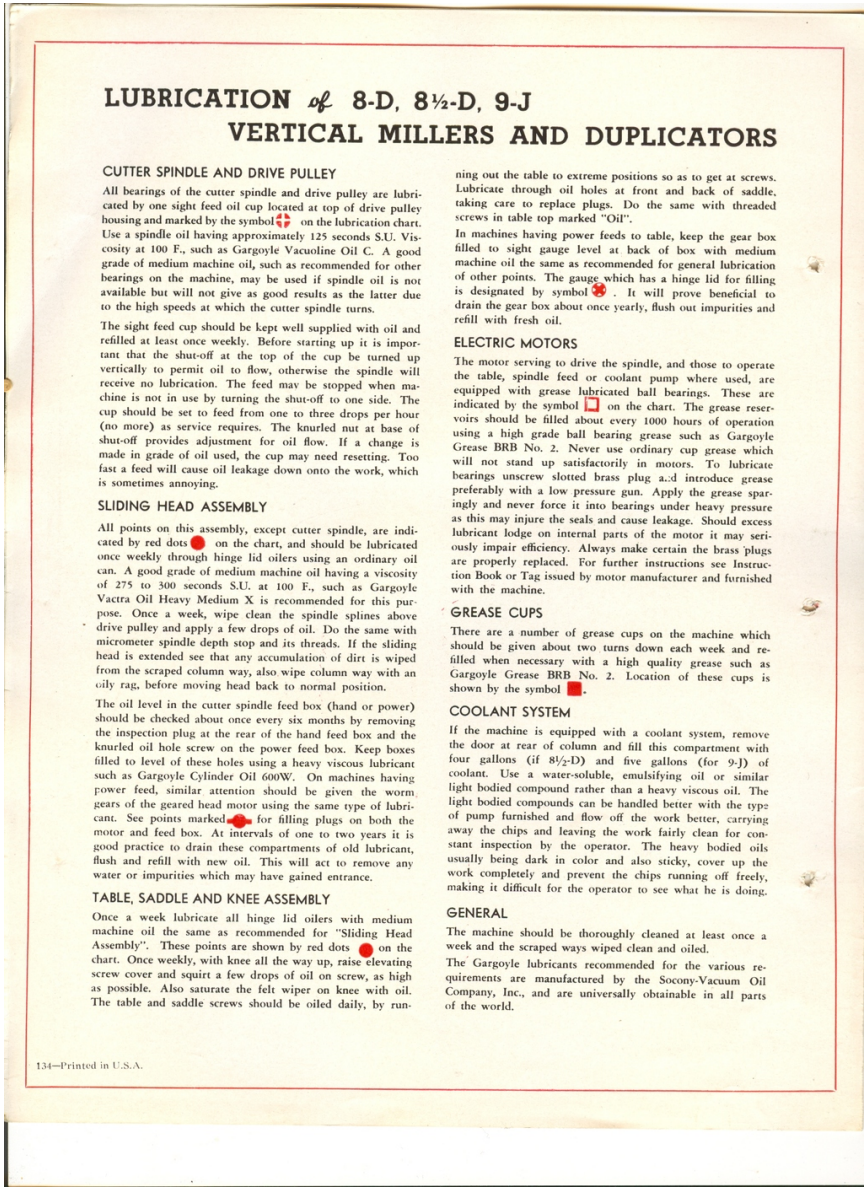

Grease
Oil
Oil
Oil
Oil
Oil
Grease
Oil
Oil
Oil
Oil
Oil for 8-D & 8&D
Grease for 9-J
Oil for 8-D & 8&D
Grease for 9-J
Oil
Oil
Oil
Oil
Oil
Oil
Oil
Oil
Grease
Grease
Grease
Grease
Grease
Grease
Grease
Raise Shield to Oil Screw
ION CHART
8½-D, 9-J
LING MACHINES

Photo 4



LUBRICATION of 8-D, 8½-D, 9-J VERTICAL MILLERS AND DUPLICATORS

CUTTER SPINDLE AND DRIVE PULLEY

All bearings of the cutter spindle and drive pulley are lubricated by one sight feed oil cup located at top of drive pulley housing and marked by the symbol on the lubrication chart. Use a spindle oil having approximately 125 seconds S.U. Viscosity at 100 F., such as Gargoyle Vacuoline Oil C. A good grade of medium machine oil, such as recommended for other bearings on the machine, may be used if spindle oil is not available but will not give as good results as the latter due to the high speeds at which the cutter spindle turns.

The sight feed cup should be kept well supplied with oil and refilled at least once weekly. Before starting up it is important that the shut-off at the top of the cup be turned up vertically to permit oil to flow, otherwise the spindle will receive no lubrication. The feed may be stopped when machine is not in use by turning the shut-off to one side. The cup should be set to feed from one to three drops per hour (no more) as service requires. The knurled nut at base of shut-off provides adjustment for oil flow. If a change is made in grade of oil used, the cup may need resetting. Too fast a feed will cause oil leakage down onto the work, which is sometimes annoying.

SLIDING HEAD ASSEMBLY

All points on this assembly, except cutter spindle, are indicated by red dots on the chart, and should be lubricated once weekly through hinge lid oilers using an ordinary oil can. A good grade of medium machine oil having a viscosity of 275 to 300 seconds S.U. at 100 F., such as Gargoyle Vactra Oil Heavy Medium X is recommended for this purpose. Once a week, wipe clean the spindle splines above drive pulley and apply a few drops of oil. Do the same with micrometer spindle depth stop and its threads. If the sliding head is extended see that any accumulation of dirt is wiped from the scraped column way, also wipe column way with an oily rag, before moving head back to normal position.

The oil level in the cutter spindle feed box (hand or power) should be checked about once every six months by removing the inspection plug at the rear of the hand feed box and the knurled oil hole screw on the power feed box. Keep boxes filled to level of these holes using a heavy viscous lubricant such as Gargoyle Cylinder Oil 600W. On machines having power feed, similar attention should be given the worm gears of the geared head motor using the same type of lubricant. See points marked for filling plugs on both the motor and feed box. At intervals of one to two years it is good practice to drain these compartments of old lubricant, flush and refill with new oil. This will act to remove any water or impurities which may have gained entrance.

TABLE, SADDLE AND KNEE ASSEMBLY

Once a week lubricate all hinge lid oilers with medium machine oil the same as recommended for "Sliding Head Assembly". These points are shown by red dots on the chart. Once weekly, with knee all the way up, raise elevating screw cover and squirt a few drops of oil on screw, as high as possible. Also saturate the felt wiper on knee with oil. The table and saddle screws should be oiled daily, by running out the table to extreme positions so as to get at screws. Lubricate through oil holes at front and back of saddle, taking care to replace plugs. Do the same with threaded screws in table top marked "Oil".

In machines having power feeds to table, keep the gear box filled to sight gauge level at back of box with medium machine oil the same as recommended for general lubrication of other points. The gauge which has a hinge lid for filling is designated by symbol . It will prove beneficial to drain the gear box about once yearly, flush out impurities and refill with fresh oil.

ELECTRIC MOTORS

The motor serving to drive the spindle, and those to operate the table, spindle feed or coolant pump where used, are equipped with grease lubricated ball bearings. These are indicated by the symbol on the chart. The grease reservoirs should be filled about every 1000 hours of operation using a high grade ball bearing grease such as Gargoyle Grease BRB No. 2. Never use ordinary cup grease which will not stand up satisfactorily in motors. To lubricate bearings unscrew slotted brass plug and introduce grease preferably with a low pressure gun. Apply the grease sparingly and never force it into bearings under heavy pressure as this may injure the seals and cause leakage. Should excess lubricant lodge on internal parts of the motor it may seriously impair efficiency. Always make certain the brass plugs are properly replaced. For further instructions see Instruction Book or Tag issued by motor manufacturer and furnished with the machine.

GREASE CUPS

There are a number of grease cups on the machine which should be given about two turns down each week and refilled when necessary with a high quality grease such as Gargoyle Grease BRB No. 2. Location of these cups is shown by the symbol .

COOLANT SYSTEM

If the machine is equipped with a coolant system, remove the door at rear of column and fill this compartment with four gallons (if 8½-D) and five gallons (for 9-J) of coolant. Use a water-soluble, emulsifying oil or similar light bodied compound rather than a heavy viscous oil. The light bodied compounds can be handled better with the type of pump furnished and flow off the work better, carrying away the chips and leaving the work fairly clean for constant inspection by the operator. The heavy bodied oils usually being dark in color and also sticky, cover up the work completely and prevent the chips running off freely, making it difficult for the operator to see what he is doing.

GENERAL

The machine should be thoroughly cleaned at least once a week and the scraped ways wiped clean and oiled.

The Gargoyle lubricants recommended for the various requirements are manufactured by the Socony-Vacuum Oil Company, Inc., and are universally obtainable in all parts of the world.

134—Printed in U.S.A.