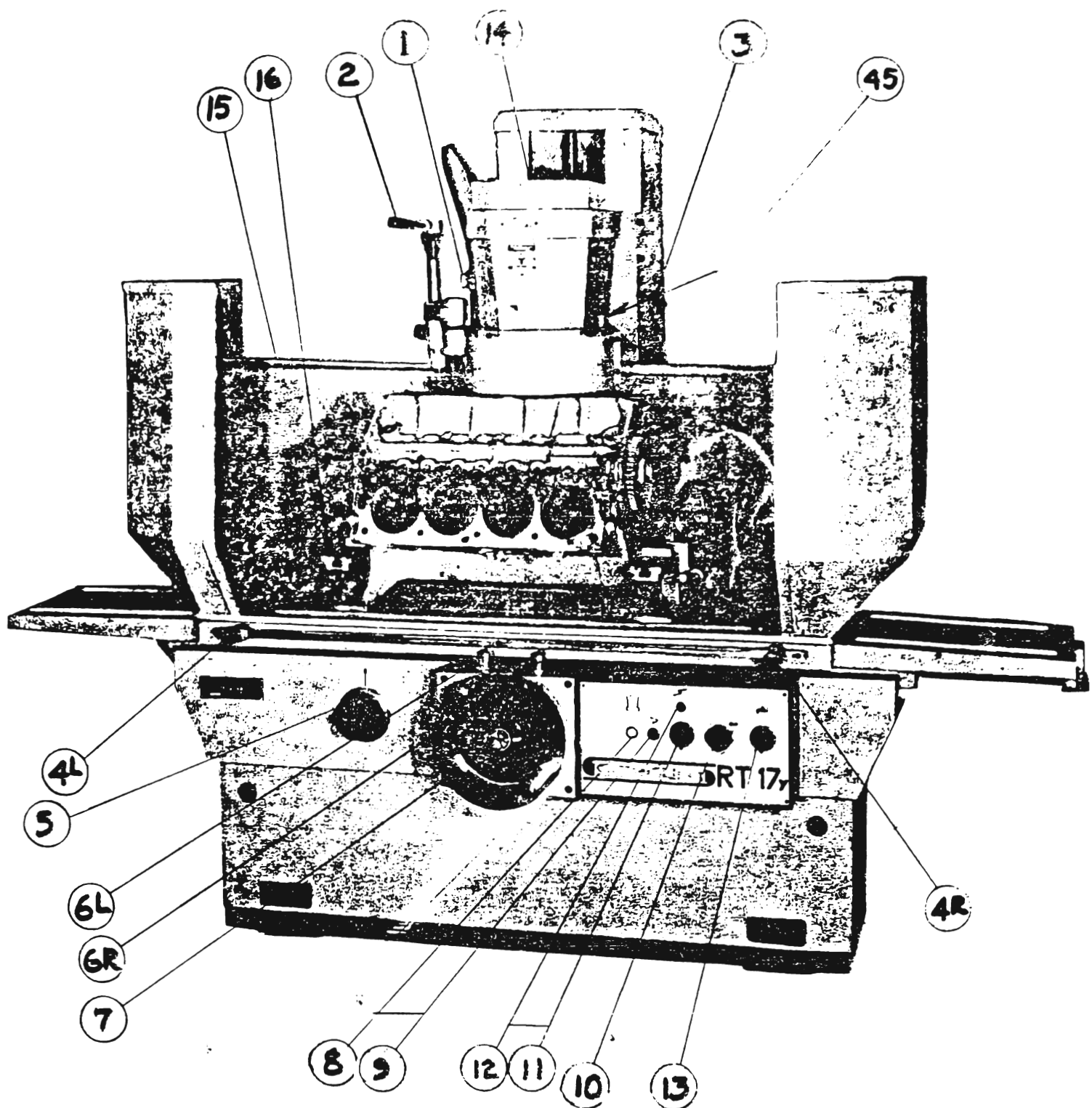
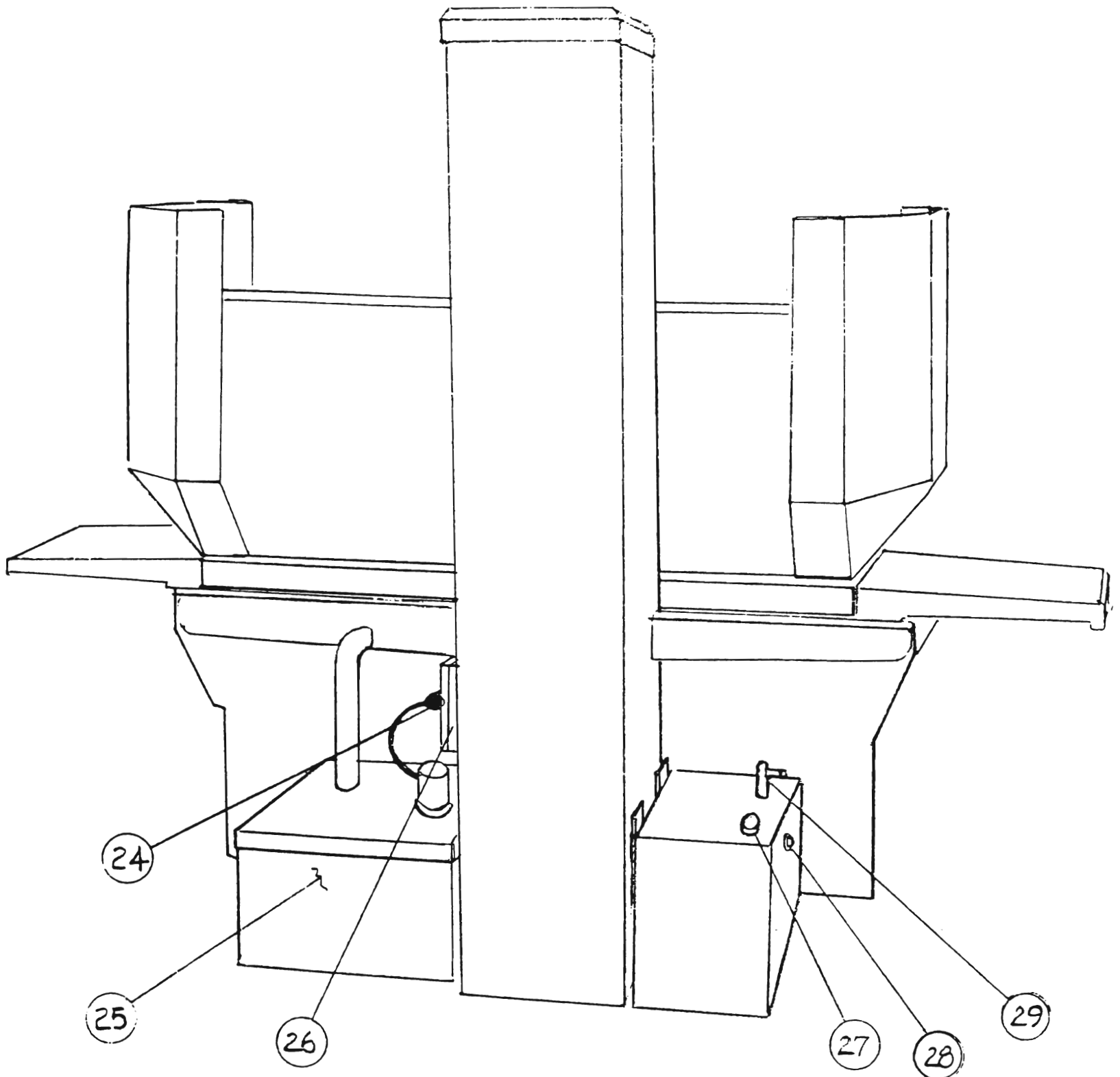


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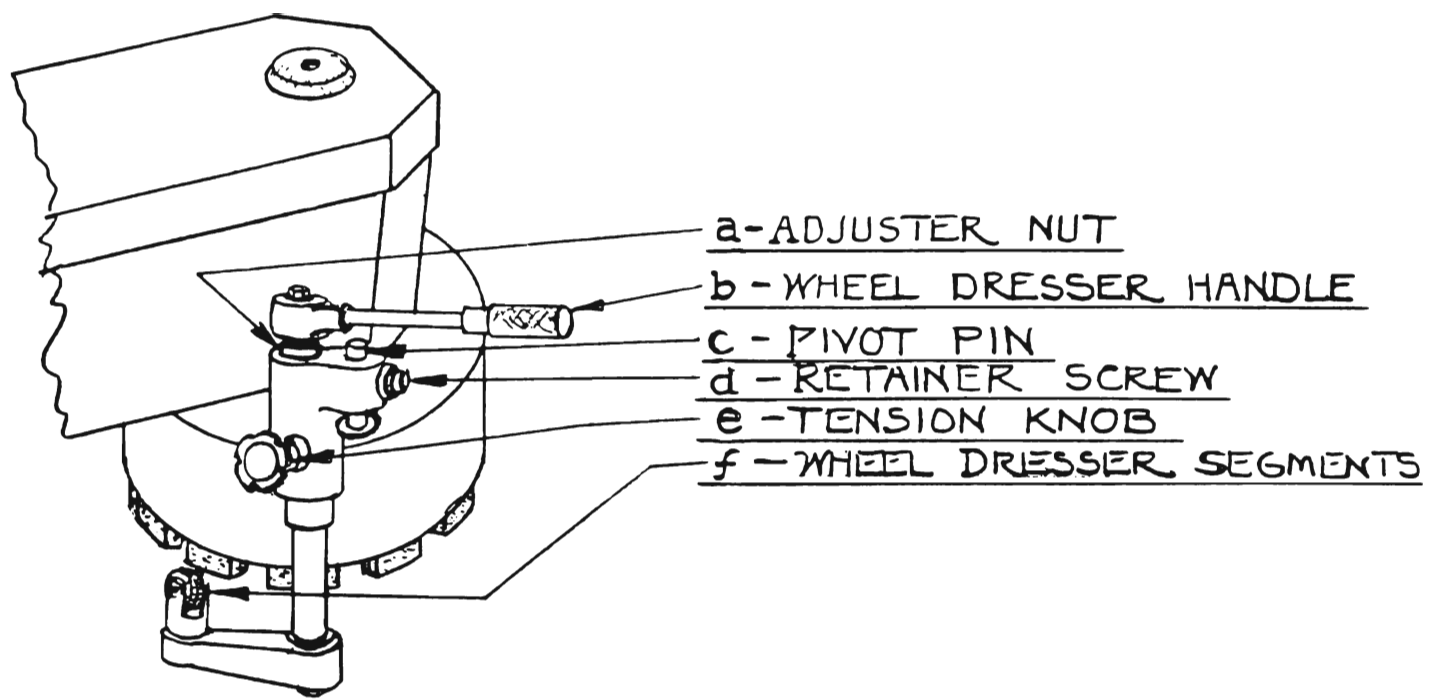
IDENTIFICATION OF COMPONENTS

- | | |
|--|--|
| <u>1. COOLANT FLOW CONTROL VALVE</u> | <u>9. WORKHEAD "ON" BUTTON</u> |
| <u>2. WHEEL DRESSER (REMOVE WHEN NOT DRESSING WHEEL.)</u> | <u>10. TABLE TRAVERSE OFF-ON SWITCH</u> |
| <u>3. WORKHEAD TIGHTENING SCREW.</u> | <u>11. MAIN POWER SUPPLY OFF-ON SWITCH</u> |
| <u>4L TRAVERSE STOP SET SCREW LEFT HAND.</u> | <u>12. POWER "ON" LIGHT</u> |
| <u>4R " " " " RIGHT HAND.</u> | <u>13. COOLANT PUMP OFF-ON SWITCH</u> |
| <u>5. TRAVERSE SPEED SETTING DIAL - INFINITE VARIATION FROM STOP TO FULL SPEED</u> | <u>14. HAND TURNING WHEEL. (ON WORKHEAD (USE WHEN BRINGING GRINDING WHEEL DOWN TO WORK))</u> |
| <u>6L TRAVERSE STOP AND REVERSE CONTACTOR</u> | <u>15. SPLASH CURTAIN (2 PROVIDED)</u> |
| <u>6R TRAVERSE STOP AND REVERSE CONTACTOR</u> | <u>16. TEE BOLT RISER - 2. FURNISHED APPROXIMATELY 8" HIGH.</u> |
| <u>7. WORKHEAD FEED DIAL</u> | |
| <u>8. WORKHEAD "OFF" BUTTON</u> | |

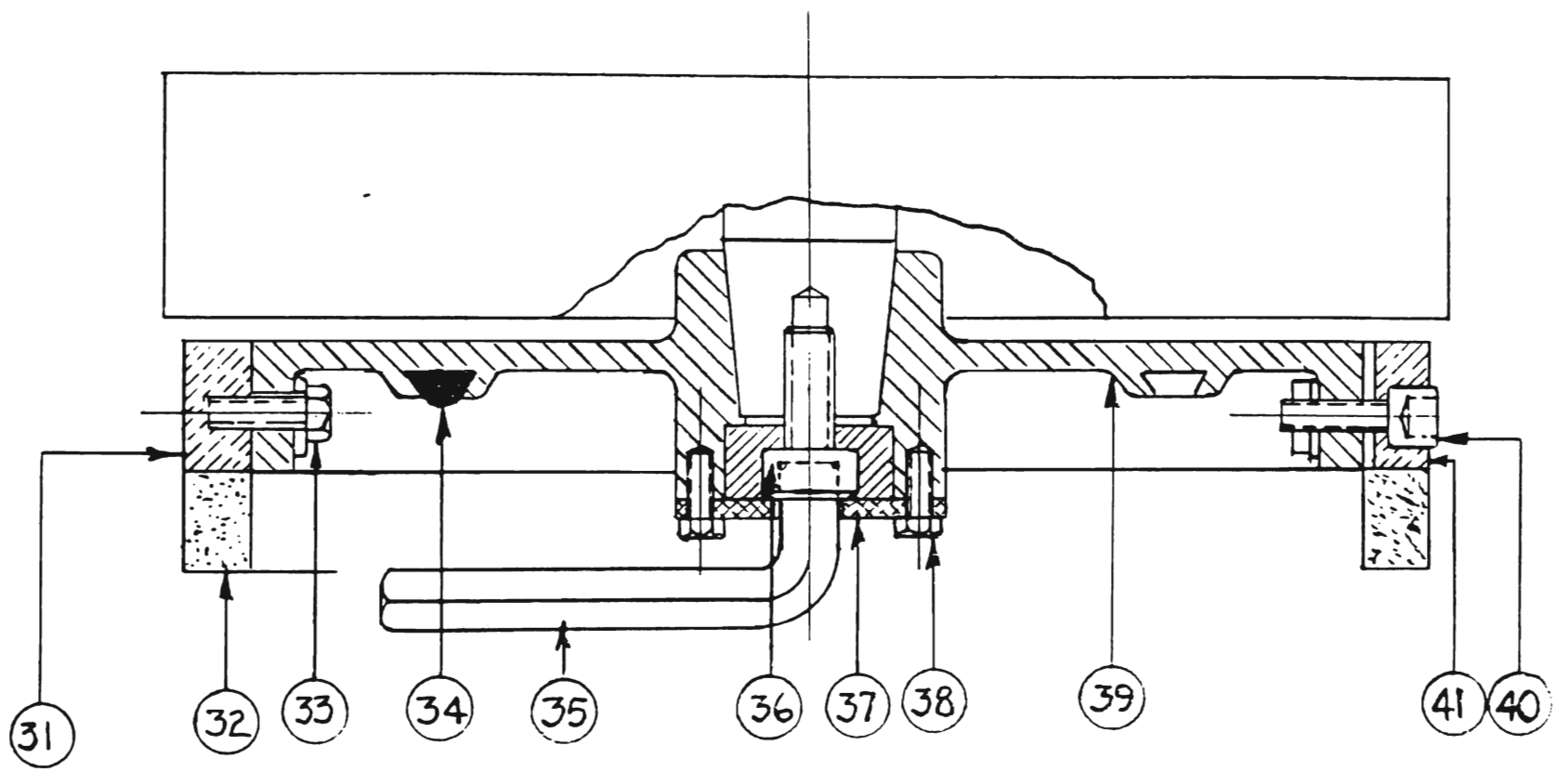


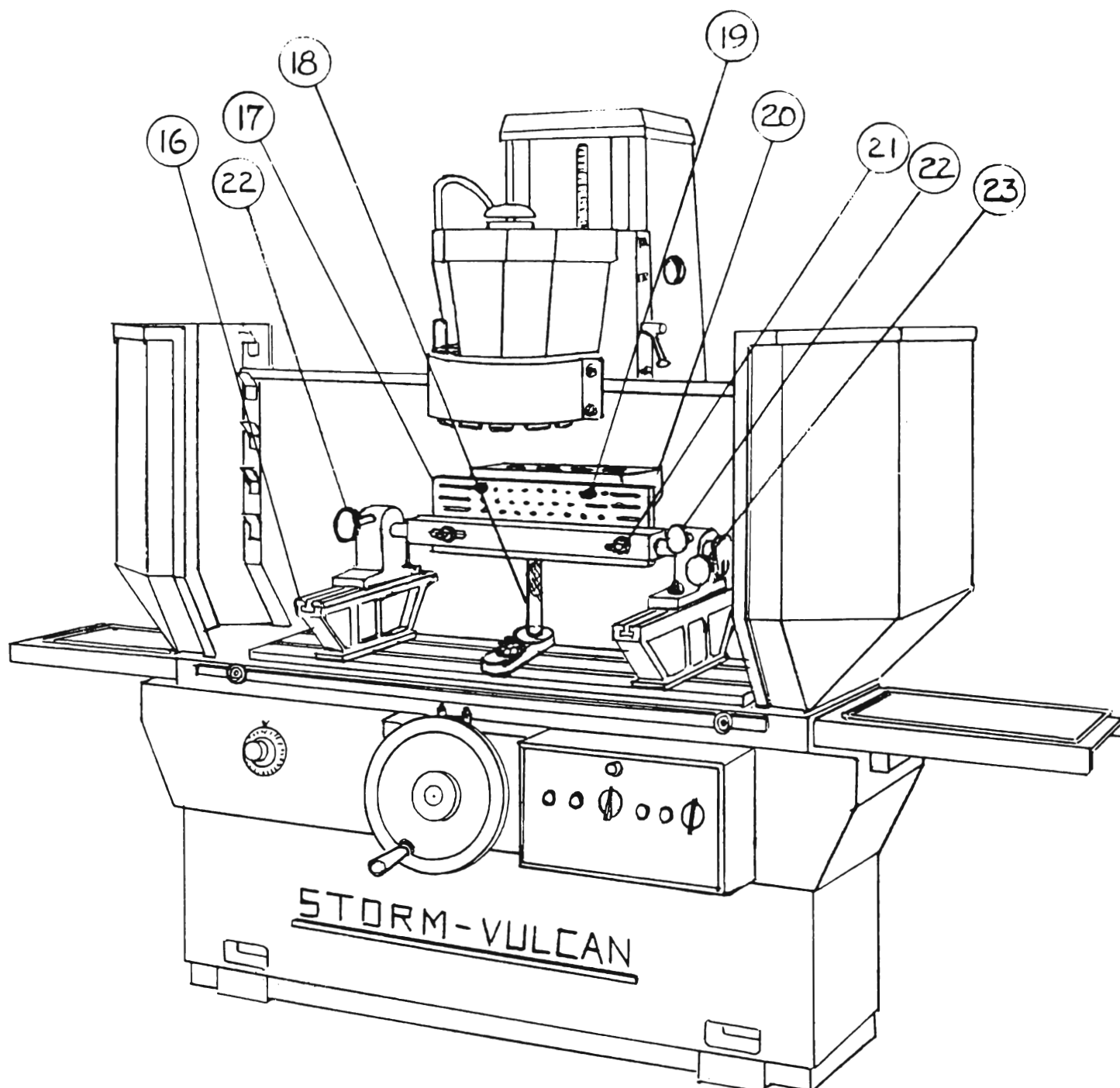
COMPONENTS AT REAR OF MACHINE

- 24 - ELECTRIC PLUG - COOLANT PUMP CONNECTION.
- 25 - COOLANT TANK (NOT FASTENED TO MACHINE)
- 26 - ELECTRIC BOX.
- 27 - HYDRAULIC FILLER PLUG
- 28 - HYDRAULIC FLUID LEVEL SIGHT GAGE
- 29 - PRESSURE REGULATING / RELIEF VALVE.



WHEEL DRESSER (2)





IDENTIFICATION OF COMPONENTS - UNIVAR FIXTURE

16. TEE BOLT RISER - 8" (2 FURNISHED)

17. UNIVAR MOUNT PLATE

18. RISER FIXTURE WITH BOLT.

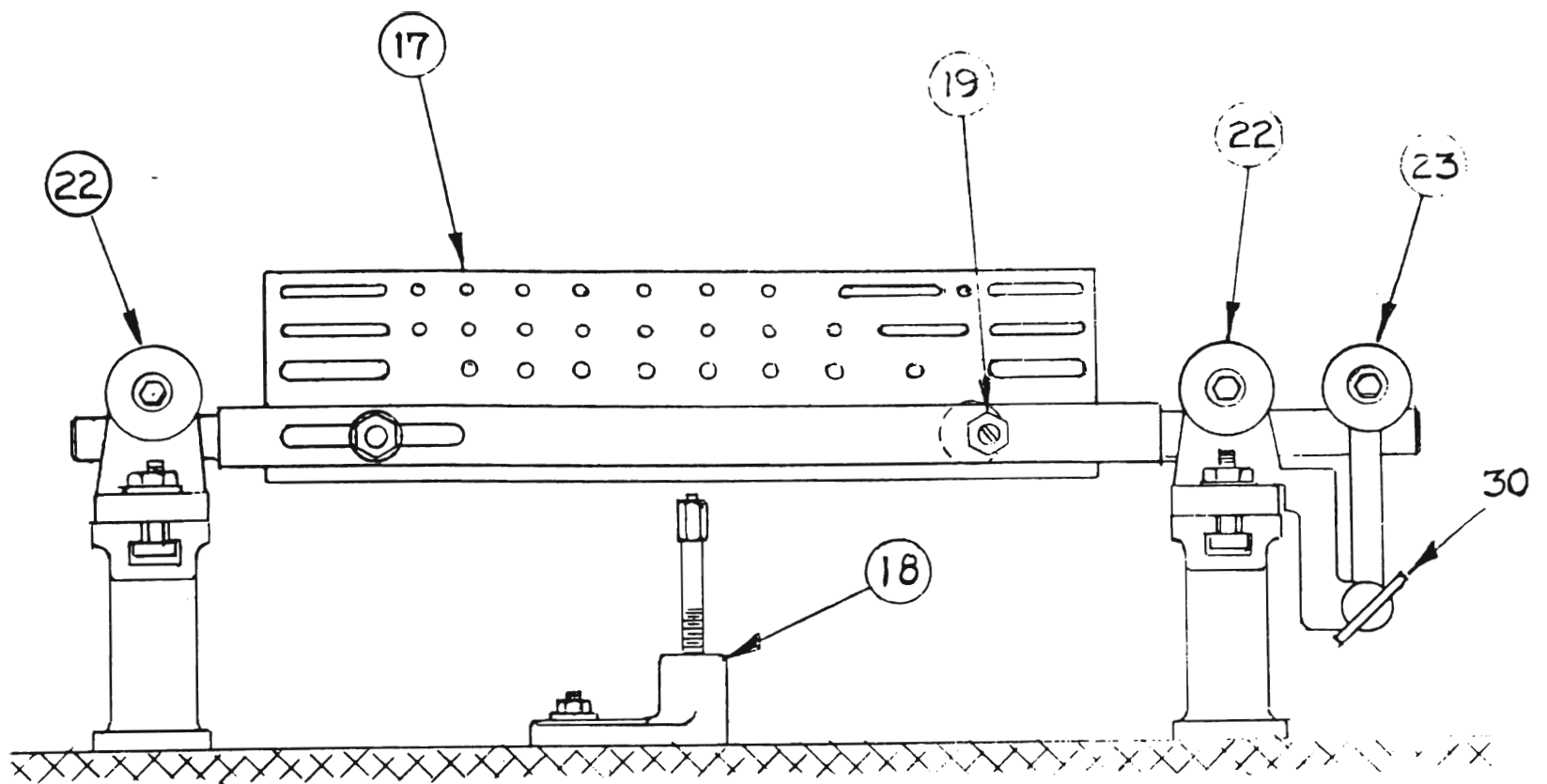
19. BOLT FASTENING CYLINDER HEAD
TO UNIVAR PLATE (2 REQ'D)

20. CYLINDER HEAD

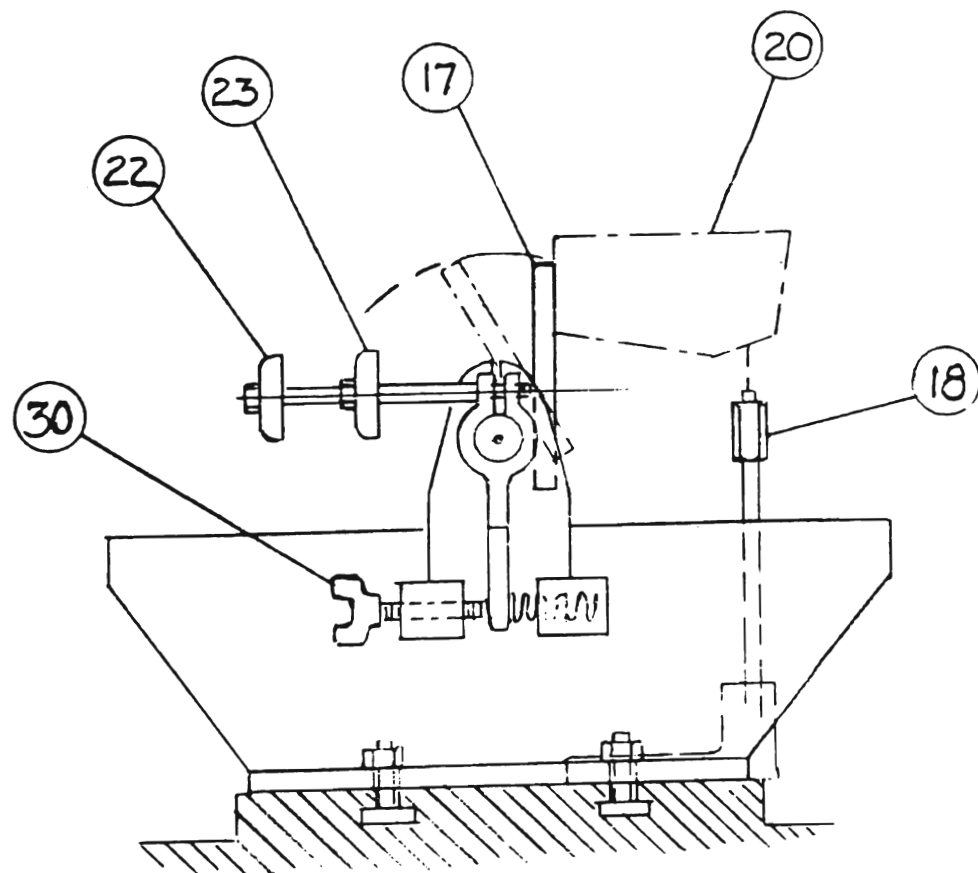
21. CAM BOLT FOR ADJUSTING LONGITUDINAL
LEVEL OF WORK

22. FIXTURE ROTATION LOCK SCREWS (2)

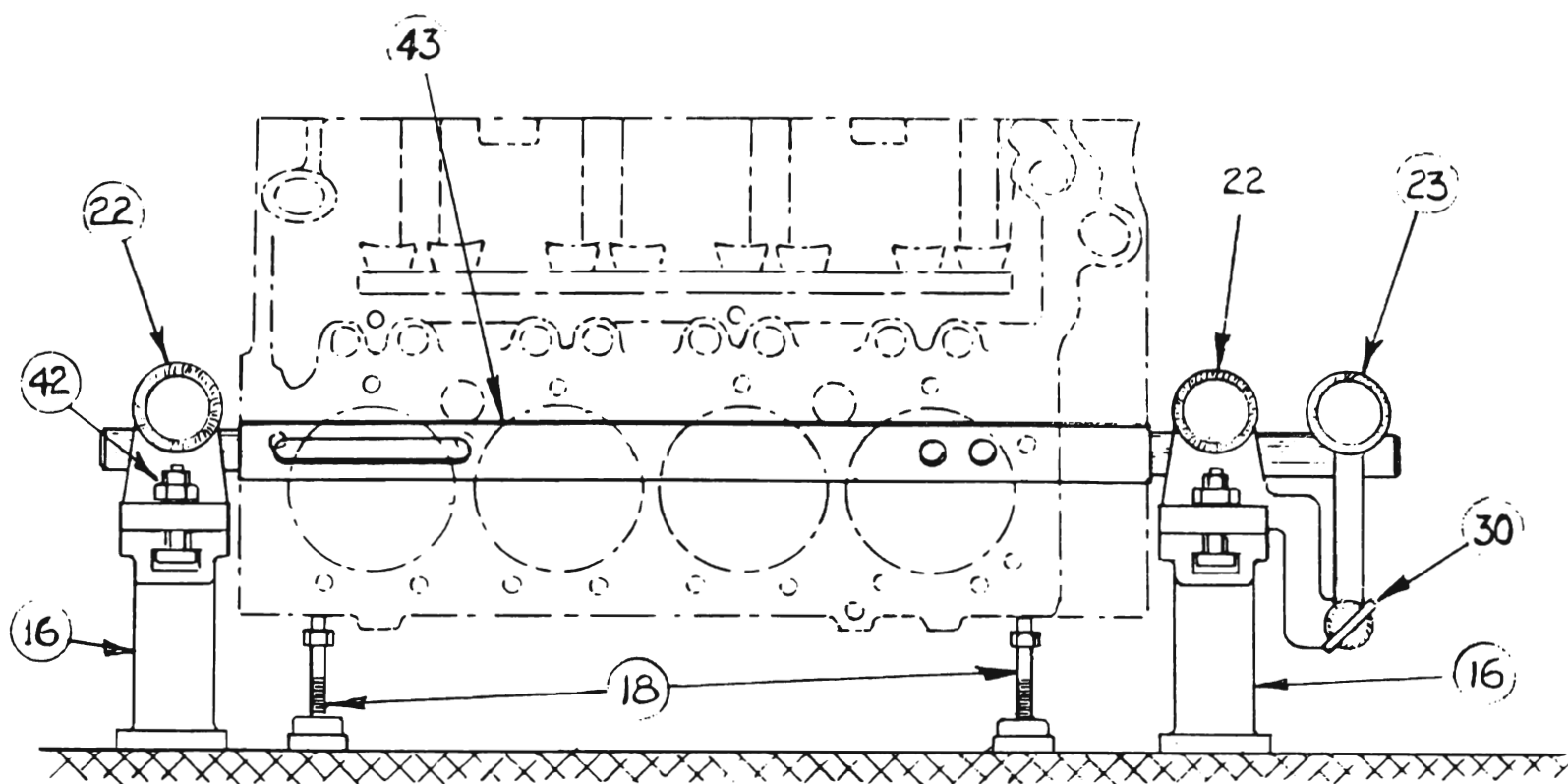
23. FIXTURE ROTATION PRECISION ADJUSTMENT
LOCK.



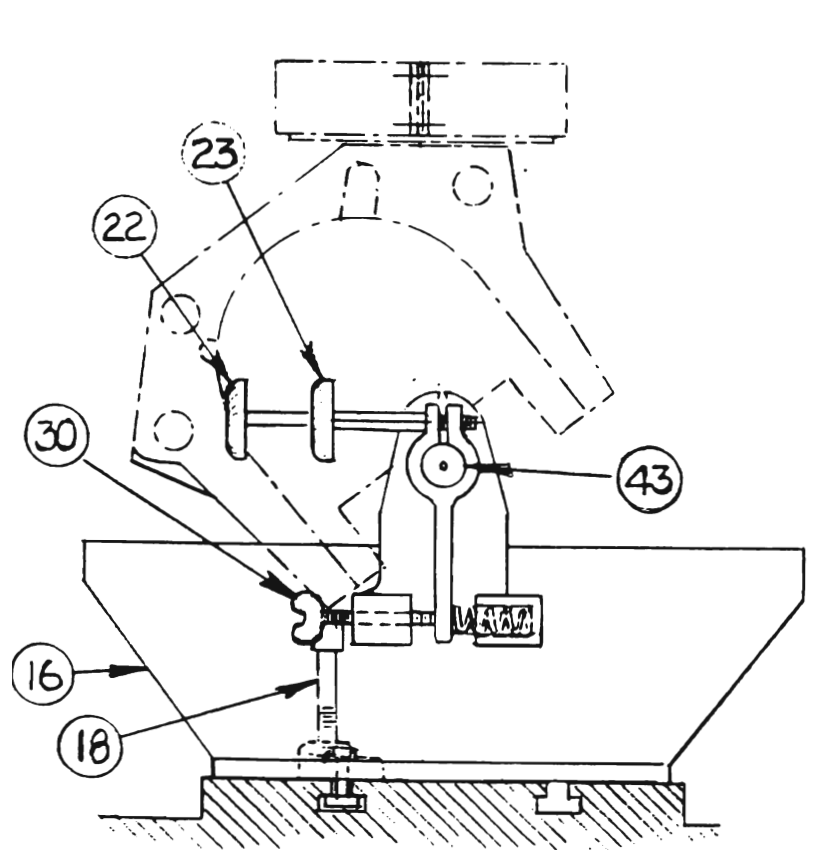
VIEW OF UNIVAR MOUNT PLATE ATTACHED TO ROLLOVER FIXTURE.



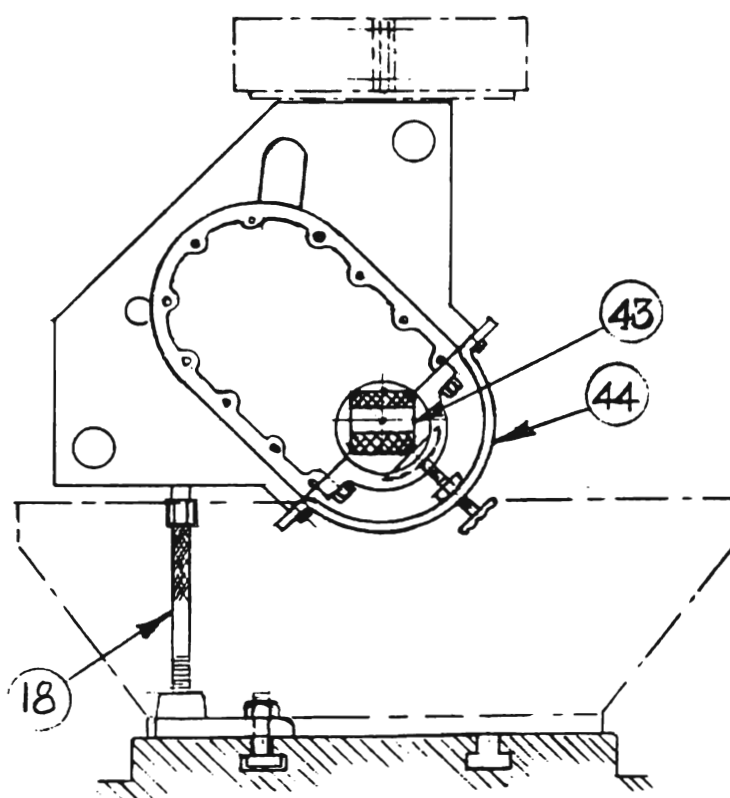
VIEW OF FINE LEVEL ADJUSTMENT



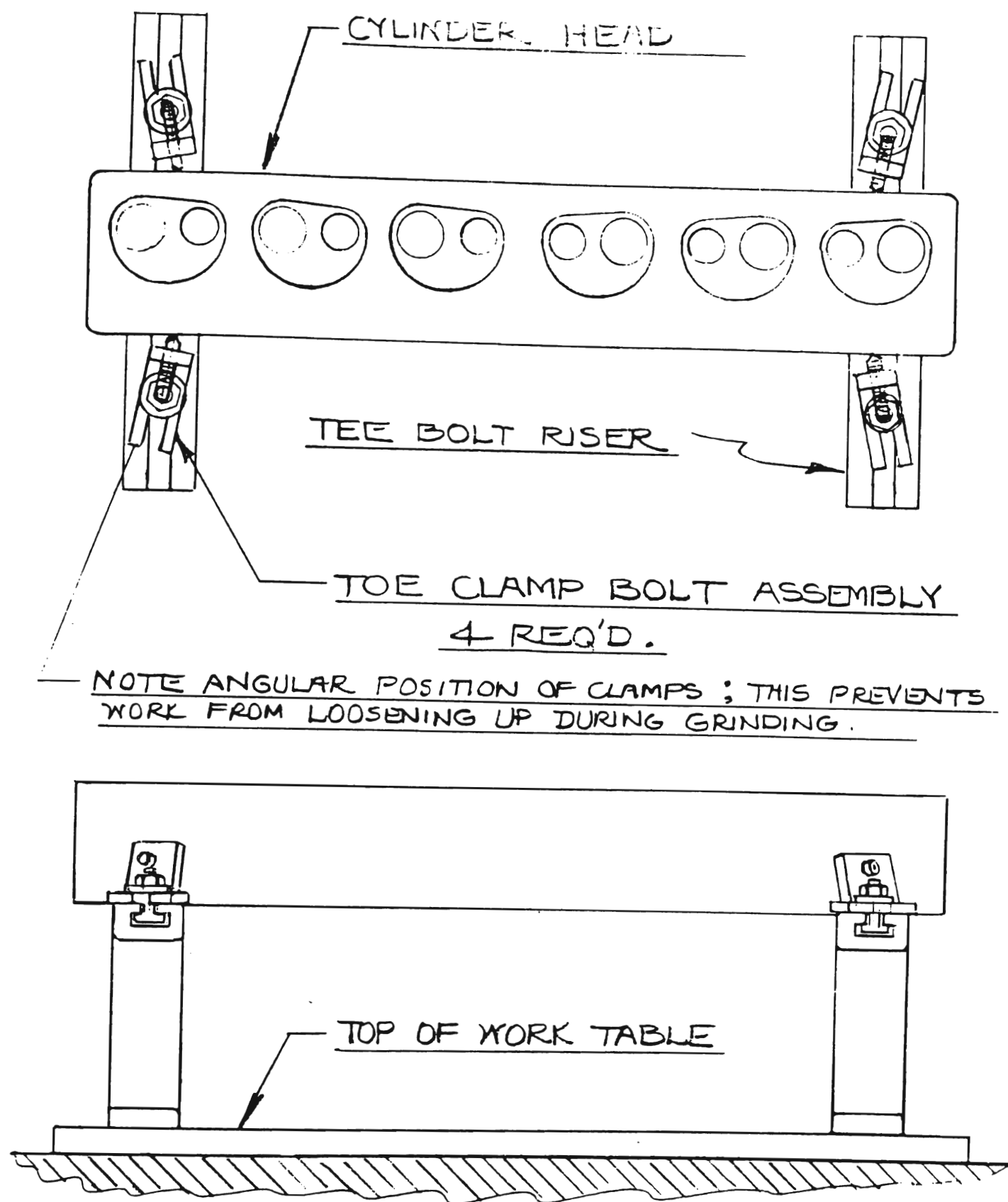
VIEW OF UNIVERSAL HEAD & BLOCK
ROLL-OVER FIXTURE



VIEW OF FINE LEVEL
ADJUSTMENT



BLOCK SETUP



DIRECT MOUNTING

CYLINDER HEAD TO TEE BOLT RISER

II. HOW TO INSTALL

A. PACKING LIST

A sample packing list showing all items available with the RT 17 Y Surface Grinder is included with this manual. A packing list is included with the machine showing all items actually shipped.

Check carefully to be sure every item listed is received in good order.

Claims for shortages should be made immediately to your STORM-VULCAN Representative or to the factory.

Claims for damages in transit should be made to the carrier and the factory should be notified of the claim.

B. Positioning Machine

Total work area needed is approximately 7' x 14'.

Your RT 17 Y Surface Grinder is 73" high, 40" wide and 95" long. The full longitudinal work table travel requires 144" length area.

Several feet of clearance should be allowed behind the machine to provide access for cleaning and service.

Allow adequate space in front for loading and unloading machine and for operator to stand.

Carefully remove machine from skid using a forklift under entire bed or a sling through lift holes provided in main bed.

Do not bolt machine to floor.

C. Lighting

Best lighting effect for machine can be achieved by placing 8' 2-bar fluorescent fixture parallel to work table above front edge of machine.

Both work surface and controls are well illuminated from this location.

D. Preparation

1. Remove all hold downs.
2. Remove blocks from workhead assembly.
3. Use naphtha (or equivalent) and shop towels to remove all rust inhibitor from machine.

E. Levelling

1. Grinder must be exactly level to insure proper operation and minimum work setup time.
2. Use a machinist's level on worktable; level machine in both planes.
3. Shim base under 3 mounting feet on bed to achieve exact level.
4. Check level of worktable daily to be sure of accuracy of work setups.

F. Coolant System

1. Remove coolant tank from skid.
2. Place tank in location against column at right rear of machine.
3. Pour coolant solution provided with machine into tank; fill tank with water to within 1/2" of top of tank.
4. Connect coolant output hose to pump.
5. Connect 2" coolant return hose between tank and table trough.
6. Connect electric motor plug to receptacle provided at rear of workhead of machine.

G. Electrical Service

220 Volt - 60 Cycle - Three Phase - 20 Amp Capacity

Connect electrical supply to main electrical box on column at rear of machine.

BE SURE ALL CONNECTIONS MEET THE REQUIREMENTS OF LOCAL CODES.

H. Hydraulic Power System

The Hydraulic Power System is built into the grinder and is wired into grinder electrical system.

All hydraulic connections are factory made and system is filled with oil when shipped.

Check all connections for damage in shipment.

Check fluid level in sight gauge (#28, Page 3) on tank.

Hydraulic oil is added, when necessary, at filler plug (#27, Page 3).

Do not change setting of valve (#29, Page 3) unless system does not function properly. Erratic travel or hesitation of worktable indicates need for increased pressure.

Make adjustments by turning valve only small amounts at a time.

Turn clockwise (In) to increase pressure.

Turn counterclockwise (Out) to decrease pressure.

I. Air Service

Connect air supply to Filter-Regulator-Lubricator unit located at rear of machine. Set pressure at 15 psi.

Check to see that lubricator is filled with oil.

III. HOW IT WORKS

A. Controls

1. Main Power Supply

Main Power Supply Switch (#11, Page 2) and Power ON Light (#12, Page 2) cut off all systems when turned OFF.

When power supply is ON, all systems are actuated by their separate controls.

2. Traverse Controls

- a) Traverse Stop Set Screw (#4R, Page 2) controls table travel to the right.
- b) Traverse Stop Set Screw (#4R, Page 2) controls table travel to the left.
- c) Traverse Speed Control Dial (#5, Page 2) controls range from dead stop to full speed.

Normal Surface Finish Setting is 7 to 8 on dial.

Fine Surface Finish Setting is 4 to 5 on dial.

- e) Contact buttons for Traverse Stop and REVERSE (#6L & #6R, Page 2) may be operated manually.

3. Workhead Feed Controls

- a) Workhead Feed Handwheel (#7, Page 2) has graduated vernier dial.

Turning handwheel to the right (clockwise) feeds head down toward work.

Turning handwheel to the left (counterclockwise) raises away from work.

Each mark on dial equals eight ten thousands of an inch (.0008").

Major graduations dial are in increments of 10 (dial is marked 10-20-30, etc.) Each major division (from 20 to 30 or from 30 to 40, etc.) is eight thousandths of an inch (.008").

EXAMPLE: It is desired to remove .010" from a surface.
The feed wheel would be moved 12-1/2 marks
from point of original contact with surface to
point of final cut.

b) Workhead Tightening Screw (#3, Page 2)

In theoretical operation, this handscrew is loosened each time the workhead is raised or lowered and tightened each time a cut is made. This practice may be followed if the operator is sure to loosen the handscrew each time the workhead is moved.

In actual operation, it has been found quite satisfactory to leave this handscrew barely snug at all times, which does not inhibit the free travel of the workhead up and down.

4. Coolant System

- a) Coolant Pump OFF-ON Switch (#13, Page 2) is on Control Panel.
- b) Coolant Flow Valve (#1, Page 2) regulating flow from completely off to full on is located on workhead.
- c) Splash curtains are provided and should be set at the highest position permitting lateral traverse without interference.

Good quality work is closely related to coolant quality. Use a good coolant and keep it clean by draining and cleaning the tank when the coolant gets dirty.

Machines continuously in production may require coolant change several times a week.

Use plenty of coolant when dressing wheel to prolong life of star dresser.

B. Balancing Grinding Wheel Assembly

The grinding wheel may be balanced while it is in position on spindle. Three balancing weights (#34, Page 5) are located on underside of wheel (#39, Page 5).

Start by setting weights equidistant apart. Start wheel in rotation (Push Button 9, Page 2) and check for vibration.

If vibration occurs, move 2 of the 3 weights slightly and again check for vibration.

Continue adjustment until vibration is eliminated.

Optional Method Using Balancing Arbor

Where the optional balancing arbor and fixture are supplied, the following procedure may be followed:

Remove grinding wheel from spindle; thoroughly clean wheel of dirt and residue.

Install arbor and snug up threaded collar hand tight.

Set 3 weights equidistant apart.

Set assembly on fixture and rotate slowly at least 3 times, marking high side with figures 1-2-3, etc. If the same point comes to the top time after time, loosen two counterweights nearest the top. Move each one up about an inch.

Repeat the rotation procedure and moving of weights until wheel does not repeat to same high spot.

NOTES:

- a) To balance to best standards of accuracy after installing new stones, the stones should be dressed and then balanced.
- b) Be sure to clean grinding wheel of dirt and residue before balancing by either method.

C. Installation Of Grinding Wheel On Spindle

Remove flange (#37, Page 5) from grinding wheel.

Align keyway in tapered hub with key on shaft.

Push grinding wheel up into full engagement on shaft.

Thread screw (#36, Page 5) into tapped hole by hand until snug.

Finish tightening screw using wrench (#35, Page 5) tapping with an 8 oz. hammer lightly in the maximum tight position.

D. Removal Of Grinding Wheel From Spindle

Fasten removal flange (#37, Page 5) to hub of grinding wheel (#39, Page 5) using metric screws (#38, Page 5) provided.

Using large metric allen wrench provided with machine, back center screw (#36, Page 5) out of grinding wheel spindle against flange (#37, Page 5) pulling grinding wheel of spindle.

NOTE: Grinding wheel is quite heavy; be careful it does not drop on work table or freshly ground work surface.

E. Replacing Segments in Grinding Wheel

Grinding segments are held in place by a retaining wedge (#41, Page 5) that is drawn up by a socket head cap screw (#40, Page 5).

Loosen wedges to relieve compression on segments (#2, Page 5) and remove segments.

Place 2 new segments in sockets and tighten cap screw in the wedge.

Align top edge of segment with upper edge of wheel (to eliminate wasteful dressing of extra long segments).

After replacing all segments, dress wheel to bring all surfaces flush.

NOTE: When replacing all segments at once, it is recommended that wheel be removed from spindle, all residual dirt be removed and wheel with new segments be re-balanced.

Do not loosen fixed grinding segment retained (#31, Page 5) bolts (#33, Page 5) at any time.

F. Wheel Dressing

Refer to view of wheel dresser (Page 4) in enlarged view showing components.

Place wheel dresser on pivot pin (C) on wheel housing.

Tighten retainer screw (D) with hex wrench, making sure screw sets in counterbore provided in pivot pin.

Adjust height of wheel dresser segments (F) to a light contact with cutting surfaces of wheel segments; height of wheel dresser segments is controlled by turning adjuster nut by hand - clockwise to raise - counterclockwise to lower.

Tighten Tension Knob (E).

Start grinding wheel rotation (#9, Page 2).

Start coolant flow (#1 & #13, Page 2).

Holding wheel dresser handle (B), rotate dresser segments under grinding wheel.

NOTE: BE SURE DRESSER PASSES OVER TRAILING SIDE OF WHEEL. DO NOT ADVANCE DRESSER INTO WHEEL. SEE ENLARGED VIEW OF WHEEL DRESSER (PAGE 4).

Move dresser across wheel in a firm, rapid motion.

Move over and back one time.

Move adjuster nut $1/8$ turn to raise dresser segments and move over and back across wheel again.

Do not move dresser across wheel too slowly as this will tend to clog grits in grinding segments.

When sound of wheel dresser across segments is even (no skips), wheel is properly dressed.



IV. HOW TO OPERATE

A. Grinding Cylinder Heads On Univar Plate Fixture

The Univar Plate Fixture provides production shop work setup ease for the general machine shop user. The plate is mounted on the universal roll over fixture which provides lateral angular adjustment for 360° of travel; the cam bolt (#21, Page 6) in the Univar Plate provides longitudinal adjustment of up to 1° to provide means to exactly level the cylinder head.

Mounting practice shown on the view entitled "Identification Of Components - Univar Fixture" is the method recommended for mounting cylinder heads. Note that the cylinder head is toward the inside of the machine - the roll over fixture bar towards the outside. Always follow this practice in mounting heads.

The cylinder head resurfacing data sheets following this instruction give specific mounting information on cylinder heads. Add 5" to all machine heights and jack sizes shown to allow for riser (#16, Page 6) used with machines RT 7 Y, RT 17 Y and RSP 2200, instead of 3-1/8" riser shown.

Here is step by step procedure for mounting a cylinder head (Chevrolet 3774682 used):

1. Install 2 all thread studs 3/8" x 2" in end tapped holes in exhaust surface face - 17-3/8" apart.
2. Mount cylinder head to Univar Plate in second row of holes from top (bolts #19, Page 7).
3. Loosen lock screws (#22 & #23, Page 7) and roll head over until deck surface is visually level. Tighten (#23, Page 7) only to hold fixture. Check lateral level of work table with machinists level; now set level on deck surface. Loosen (#23, Page 7) to bring surface into approximate level condition, then again tighten. Using fine adjustment (#30, Page 7) bring bubble to same reading as work table.
4. Using machinists level, check work table longitudinally.

Now check deck surface longitudinally.

Adjust this surface to match reading of work table by rotating cam screw (#21, Page 6). After this adjustment is made, recheck lateral reading and readjust if necessary.

5. Tighten lock screws (#22, Page 7) firmly.

Leave machinists level on deck surface in lateral position.

6. Set jack (#18, Page 7) in position – preferably to locate in outboard stud hole.

Bring up to light contact.

Tighten tee bolt holding jack to work table.

Now screw stud up to contact cylinder head, observing bubble in level.

Do not change level adjustment.

Tighten stud retainer screw.

7. Position left hand end of cylinder head under left hand edge of grinding wheel.

Bring workhead down to deck surface.

Rotate spindle by hand using hand bell (#14, Page 2) to feel light contact of wheel with surface.

Read workhead feed dial to locate, then raise workhead a half turn of handwheel.

8. Position right hand end of cylinder head under left hand edge of grinding wheel (move work table to left).

Repeat contact of wheel of work surface.

Reading on workhead feed dial should not vary more than 3 marks from end to end.

9. Raise workhead.

Traverse work to left to clear wheel by 2 inches.

Set stop screw (#4R, Page 2) against contactor (#6R, Page 2).

Lower workhead to a point 2 marks below previously indicated contact point.

Set splash curtains (#15, Page 15) front and rear.

10. Turn ON spindle rotation switch (#9, Page 2) and coolant flow switch (#13, Page 2). Adjust coolant flow at valve (#1, Page 2).

Set traverse dial (#5, Page 2) at about 4 on the dial to move table slowly to left. When table has traversed left to the point where the left end of the cylinder head is at about the center line of the grinding wheel.

Stop the traverse movement by setting dial (#5, Page 2) on "0."

Set traverse stop screw (#4L, Page 2) to contact contactor (#6L, Page 2).

Now traverse table rapidly to left until stop screw (#4R, Page 2) contacts (#6L, Page 2) and bring table to stop.

Bring workhead down (up to 5 marks on dial).

Set traverse speed dial at 7-1/2 and grind.

NOTE: IT IS POSSIBLE TO BRING GRINDING WHEEL DOWN NOT MORE THAN 2 MARKS WHEN WORK IS AT THE EXTREME LEFT HAND POSITION (STOP SCREW (#4R) CONTACTING STOP BUTTON (#6R) ON FINAL CLEAN-UP STROKE, HOWEVER, DO NOT DOWNFEED AT THIS POSITION.

11. If it is desired to resurface either the intake or exhaust manifold surfaces, follow the mounting instructions shown on Page 2 of the mounting data, setting work surface level in same manner indicated above, and following wheel locating and downfeed procedure as done on deck surface.

B. Grinding Cylinder Heads Without Univar Fixture

Certain cylinder heads have rocker arm cover surfaces that are machined parallel to the deck surface. These heads can be mounted directly onto the tee bolt riser surface with the deck surface up and held in place by 4 toe clamp bolts. Typical of this type of cylinder head is the International Red Diamond, Chevrolet 217-235-261 6 cylinder, and Chrysler Slant 6 head. See view of direct mounting, cylinder head, toe bolt riser, for details.

C. V8 Engine Block Setup On Roll-Over Fixture With Bearing Caps On

The Universal Roll-Over Fixture speeds setup and grinding. It locates engine block on main bearing saddles to guarantee exact parallelism of cylinder head surface with crankshaft. Engine block setup is possible without removal of main bearing caps; saving process time on the block and by permitting main bearing bolts to remain at proper torque, allowing normal internal stresses to be present during surfacing operation.

It is assured that there is a floor crane or overhead hoist available to handle the fixture and engine block weight.

When mounting engine block with main bearing caps in place, the following steps are necessary:

- a) Loosen 4 tee bolts (#42, Page 8) holding roll over fixture assembly to risers (#16, Page 8). Remove fixture from risers.
- b) Loosen fixture rotation lock screw (#22, Page 8) on left hand side only. Remove bearing assembly from bar (#43, Page 8).
- c) Put bar thru main bearings; reinstall bearing assembly on left hand side, using crane or hoist slide roll over fixture with engine block back on risers (#16, Page 8). Position bar (#43, Page 8) on approximate center line of grinding wheel and tighten tee bolts (#42, Page 8).
- d) Allow block to roll towards rear of machine until one deck surface is approximately level. Place a riser jack under block so it cannot roll over and damage table; bolt engine block tie-down fixture (#44, Page 8) to pan rail and tighten lock screw snugly against bar (#43, Page 8). DO NOT TIGHTEN HARD ENOUGH TO DEFLECT BAR.

- e) Place machinists level on deck surface

Level surface as much as possible and bring riser jack (#18, Page 8) into contact with engine block surface.

Remove chain or cable supporting engine block to floor crane or hoist.

Level engine block to exact level with riser jacks.

Lock bar in position with (#22 & #23, Page 8) fixture lock screws

- f) Follow procedure outlined for cylinder heads in machining deck surface number 1.
- g) With this surface done, replace hoist chain or cable; loosen fixture lock screws (#22 & #23). Swing engine block over to expose other deck; place riser jacks at front of machine. Position block in same manner outlined above and machine deck surface.
- h) Reverse order of procedure shown for installation of engine block to remove it from machine.

D. V8 Engine Block Setup On Roll-Over Fixture With Main Bearing Caps Off

V8 engine blocks without caps may be set directly on roll over fixture bar (#43, Page 8).

Turn bar so that one corner is in the vertical position.

Screw from tiedown fixture (#44, Page 8) will bear against a flat surface of bar.

Then, follow all procedures outlined above.

E. Inline Engine Block Setup

Inline blocks may be mounted with the pan rail resting on the tee bolt risers (#16, Page 8) or where possible, with the pan rail directly on the worktable.

Toe clamp engine block into position, following procedure shown for cylinder heads.

F. General Operating Practices

1. Check level of worktable frequently - it is your basic plane of reference in work setup.
2. Dress stones only as often as is needed - overdressing is wasteful and unnecessary.
3. Each mark on workhead feed dial equals eight tenths of one thousandth of an inch. Five marks equals four thousandths of an inch.
4. It is recommended that work feeds be limited to not over five marks per cut (.004").
5. Best surface finish for cylinder heads is obtained with traverse feed dial set at 7-1/2. Fine finish can be obtained at dial settings of 4-1/2 to 5. Fine finish is not recommended for deck surfaces.
6. Clean coolant tank frequently - clean coolant means good work.
7. Check hydraulic oil level frequently - maintain oil level up to sight glass. Low oil supply means overheating - overheating ruins pumps, valves, cylinders.
8. Clean and oil work surfaces and ways after using.

V. MAINTENANCE

A. General Maintenance

1. Daily

- a) A grinding machine generates a great deal of highly abrasive residue.

The majority of this residue is trapped in the coolant stream and is carried into the worktable trough, where much of it finds its way into the coolant tank.

Proper placing of the splash curtains (#15, Page 2), particularly at rear, will help prevent this residue from getting on column ways or riser screw.

However, the riser screw and column ways surfaces should be cleaned and oiled daily.

- b) Examine flat and vee ways under table to be sure no dirt or foreign matter has accumulated there.

Fill reservoir troughs with oil daily to keep oil level up for easy pickup. Failure to maintain this oil system can result in expensive damage to table ways.

- c) Oil the workhead lifting screw located in front of column daily.

Be sure to keep this screw well lubricated and clean.

- d) Use LPS[#] Spray Lubricant over table and riser surfaces at the close of each workday - after machine has been cleaned.

2. Weekly

- a) Grease cap on right hand side of wheel housing is used for lubricating workhead spindle.

Fill cap with grease.

Force grease into bearing by turning cap clear down on stud.

Use 1 capfull of grease each week - no more.

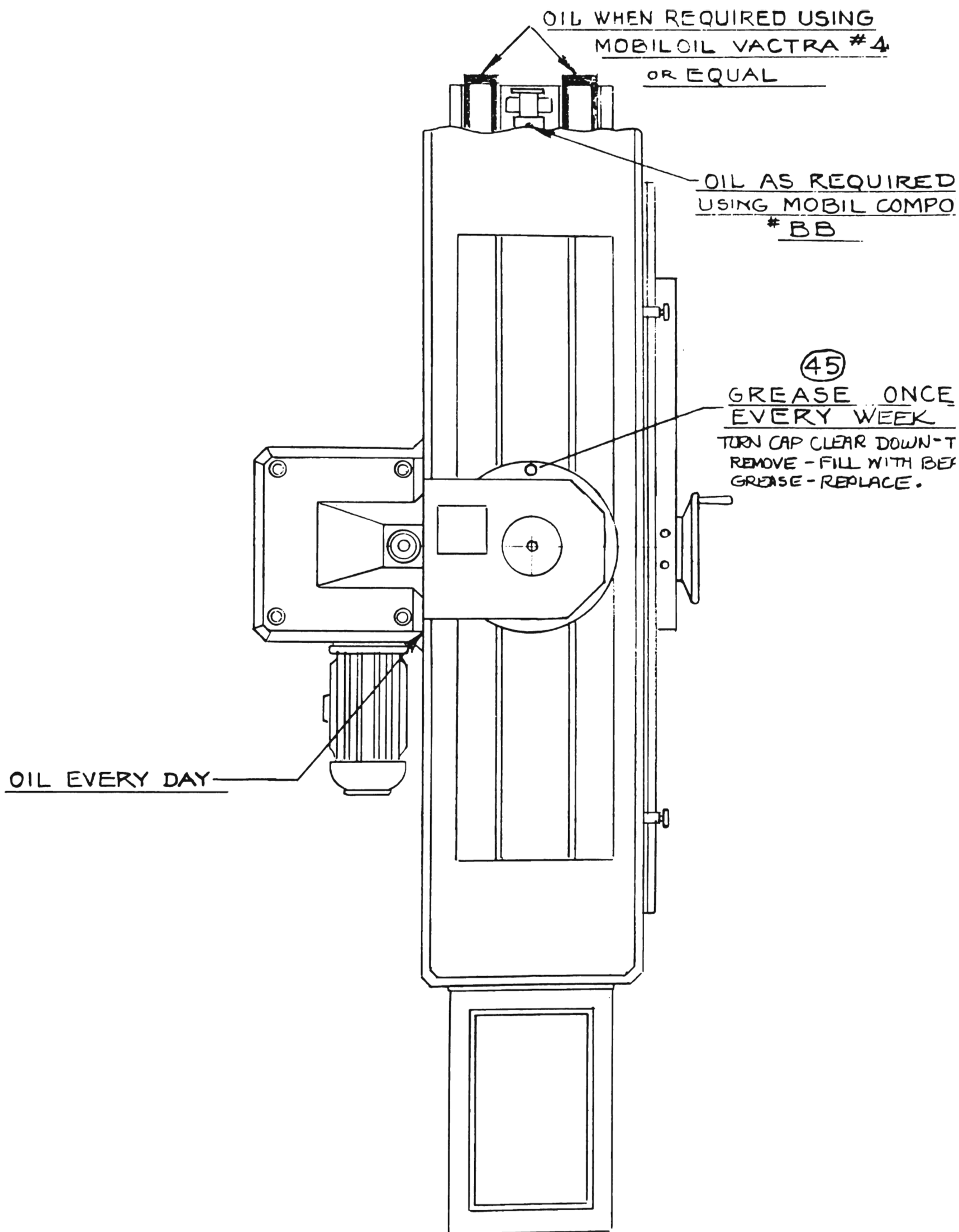
3. As Needed

Keep grinding residue out of coolant return trough at back of worktable.
Otherwise, it will accumulate and cut off return flow of coolant to tank.

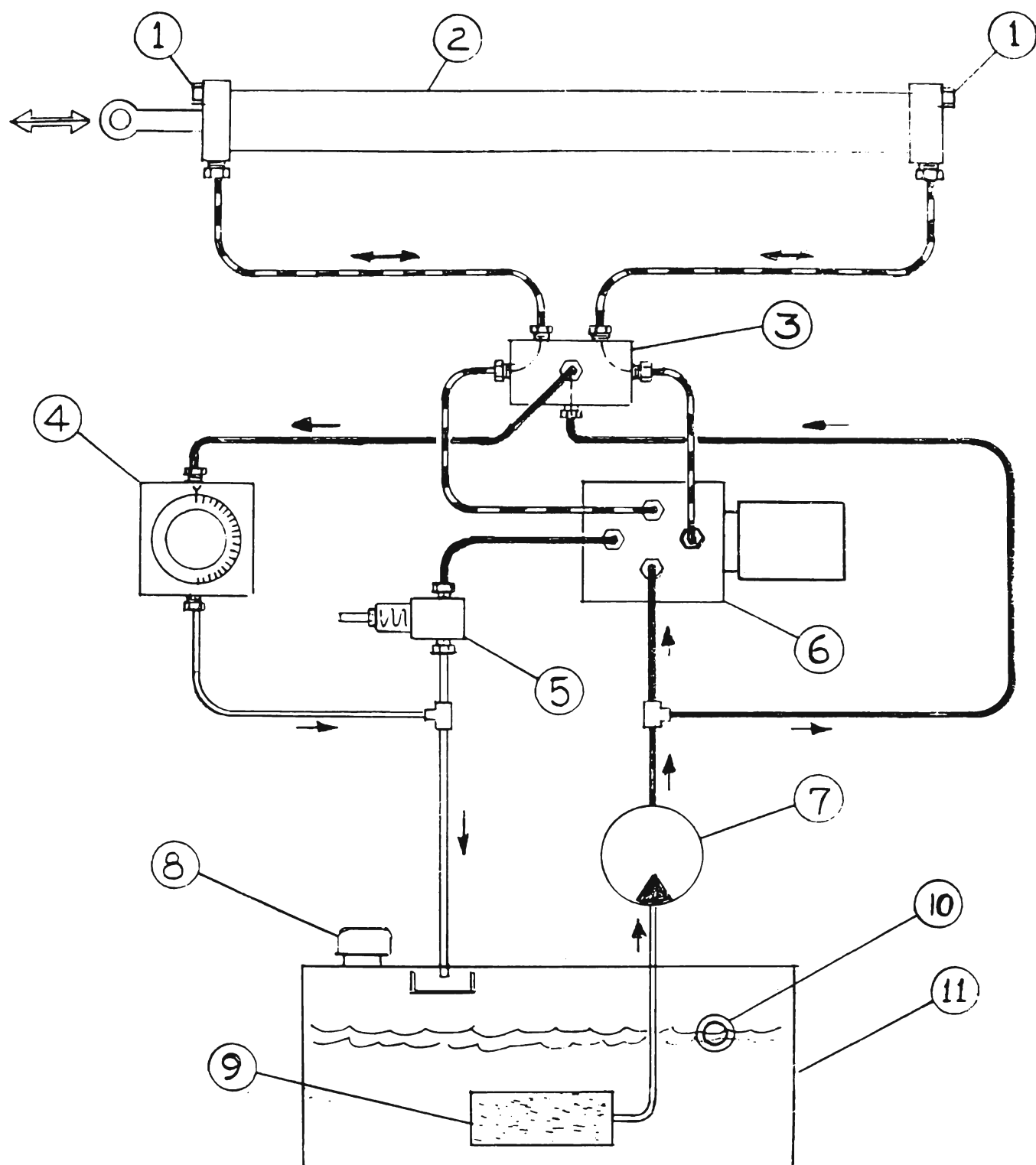
Refer to comments on Coolant System on Page 14.

B. Lubrication

Refer to the following illustration for lubrication details and specifications.



RT17 LUBRICATION CHART



RT 174
HYDRAULIC SYSTEM AND COMPONENTS

- | | |
|--------------------------------|-------------------------|
| ① BLEED VALVES ON CYLINDER | ⑦ PUMP |
| ② TRAVERSE CYLINDER | ⑧ TANK FILLER |
| ③ MANIFOLD | ⑨ SUMP STRAINER |
| ④ TRAVERSE SPEED CONTROL VALVE | ⑩ TANK LEVEL SIGHT GAGE |
| ⑤ PRESSURE RELIEF VALVE | ⑪ HYDRAULIC TANK |
| ⑥ DIRECTIONAL SOLENOID VALVE | |

PACKING LIST

RT 17 Y SURFACE GRINDER

Ack. No. _____

Date _____ 19__

Ser. No. _____

Filed By _____

NO. REQ.	NO. ISS.	B/O	CODE NO.	PART NO.	DESCRIPTION
2					Tee Bolt Riser, 7-7/8" High
1					Wheel Dresser Assembly, Complete
1					Extra Set Star Wheel For Dresser
1					V8 Roll Over Fixture - Consisting Of:
					1 - Locking End Journal
					1 - Locking End Journal W/Mic. Adj.
					1 - Mount Bar RT 17 - C1
2				B3504-101-1	Jack Housing, 1-7/8" High
2				B3504-101-2	Jack Housing, 4-7/8" High
2				3504-102-1	Jack Bolt, 1-15/16" Long
2				3504-102-2	Jack Bolt, 3-7/16" Long
2				3504-102-3	Jack Bolt, 7-15/16" Long
					Coolant Tank Assembly
				3504-13	Hold Down Assembly
4				3504-15	Hold Down Screw
					Open End Wrench, Approximately 3/4"
					Tee Bolts - Metric, Approximately 1/2 x 2-3/8"
8					Nuts for Tee Bolts - Metric
8					Flat Washers for Tee Bolts
					Wrench-Allen-Metric-4 mm

4-24-72

-1-

PACKING LIST

RT 17 Y SURFACE GRINDER

Ack. No. _____

Date _____ 19 ____

Ser. No. _____

Filled By _____

QTY.	NO. ISS.	B/O	CODE NO.	PART NO.	DESCRIPTION
1					Wrench-Allen-Metric-5 mm
1				85-80	Angle Gauge
1					Splash Curtain - Front
1					Splash Curtain - Rear
1					Wrench-Allen-Metric-6 mm
1					Wrench-Allen-Metric-8 mm
1					Wrench-Allen-Metric-10 mm
1					Wrench-Allen-Metric-14 mm
1				85-80-1	Precision Straight Edge, 36"
1			L-4-102		Machinists Level
1				280-61-6	Engine Block Hold Down Bar
1				280-61-7C2	Screw Assembly
1				D3504-51-C1	Univar Head Fixture
1				B3504-52	Cam Stud Assembly
6				A3504-1A	Levelling Plates HRS 1/4" x 6" x 6"
4			B-19-111		Tee Bolts, 1/2 - 13 UNC x 2-1/2
1			C-19-103		Coolant, Gallon Can
4					Set Screw - Allen, 3/8 - 16 x 2
4					Set Screw - Allen, 5/16 - 18 x 2
2					Bolt - Hex Head, 1/2 - 13 UNC x 5

PACKING LIST

RT 17 Y SURFACE GRINDER

Ack. No. _____

Date _____ 19 ____

Ser. No. _____

Filled By _____

QTY.	NO. EQ.	NO. ISS.	B/O	CODE NO.	PART NO.	DESCRIPTION
3						Bolt - Hex Head, 1/2 - 13 UNC x 3-1/2
2						Bolt - Hex Head, 7/16 - 14 UNC x 5
2						Bolt - Hex Head, 7/16 - 14 UNC x 3-1/2
2						Bolt - Hex Head, 3/8 - 16 UNC x 5
2						Bolt - Hex Head, 3/8 - 16 UNC x 3-1/2
2						Bolt - Hex Head, 3/8 - 16 UNC x 2-1/2
2						Bolt - Hex Head, 5/16 - 18 UNC x 5-1/2
2						Bolt - Hex Head, 5/16 - 18 UNC x 4-1/2
2						Bolt - Hex Head, 5/16 - 18 UNC x 3-1/2
18						Nuts - Hex, 1/2 - 13 UNC
4						Nuts - Hex, 7/16 - 14 UNC
4						Nuts - Hex, 3/8 - 16 UNC
4						Nuts - Hex, 5/16 - 18 UNC
4						Nuts - Wing, 3/8 - 16 UNC
4						Nuts - Wing, 5/16 - 18 UNC
8						Washers - Flat, 1/2" Std.
8						Washers - Flat, 7/16" Std.
8						Washers - Flat, 3/8" Std.
8						Washers - Flat, 5/16" Std.
2					A3504-21	Tee Bolts - Special

RT 17 Y SURFACE GRINDER

Date _____ 19____

Filled By _____

-4-

CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE 1

MAKE	BUICK	BUICK V8	BUICK V8
MODEL	61 thru 63	53 thru 66	67 UP
CASTING NO.	195/225 cu.in.	322/364/401/425 cu.in.	400/430/455 cu.in.
CASTING NO.	1354391	1196914 J	1231109
RISER HEIGHT	3 1/8	3 1/8	3 1/8

DECK SURFACE UP

MACHINING HGT.	10 3/4"	11 5/8	10 7/8
MOUNT ON	X-haust FACE to Plate USE stud holes nearest deck surface -	X-haust face to PLATE. Use stud holes furthest from deck surface	Xhaust face to PLATE Use stud holes further from deck surface
BOLT CENTERS	11 5/8	14 7/8	14 1/16
BOLT SIZE	3/8	3/8	3/8
JACK SIZE	8 1/2	11 1/4	7 1/2
REMARKS	USE 2 - 3/8" std. WASHERS BETWEEN CYL. HEAD AND MOUNT PLATE ON ATTACHING BOLTS.		MOUNT ON Second Row of holes in Plate.

INTAKE SURFACE UP

MACHINING HGT.	10 5/8	11 1/2	11
MOUNT ON	SEE ABOVE	DECK TO PLATE. USE STUD HOLES NEAREST INT. SURFACE - EXTREME LEFT & 2nd from RT.	DECK TO PLATE. USE ST HOLES NEAREST TO INTAK SURFACE. EXTREME L.H. HOL SECOND FROM R. HI
BOLT CENTERS	" "	14 3/8	14 1/4
BOLT SIZE	" "	7/16 x 5 1/2	1/2 x 3 1/2 (L.H.) 1/2 x 5 (R.I)
JACK SIZE	NONE USED	NONE USED	5 3/8
REMARKS	SAME SETUP AS ABOVE BUT ROTATE FIXTURE TO BRING INTAKE FACE UP.	RESURFACING INTAKE REQUIRES REMOVAL OF VALVES - GUIDES - DDWS PINS (EXCEPT WITH 174 74 & 2200)	

EXHAUST SURFACE UP

MACHINING HGT.	12"	11 1/2"	10 3/4
MOUNT ON	DECK SURFACE TO PLATE USE STUD HOLES NEAREST TO PUSHROD HOLES	DECK SURFACE TO PLATE USE STUD HOLES NEAREST TO Xhaust Surface.	DECK TO PLATE. USE STUD HOLES NEAREST X SURFACI EXTREME L.H. HOLE SECOND FROM R.H. HOLE
BOLT CENTERS	12 11/16	12 7/16	14 1/4
BOLT SIZE	7/16	3/8 x 5	3/8 x 3 1/2
JACK SIZE	NONE USED		3"
REMARKS	MOUNT ON THIRD ROW OF HOLES IN PLATE. LIP TYPE SURFACE : CAN BE CLEANED UP ON 174 74 & 2200 ONLY.	MOUNT ON FIRST ROW OF HOLES IN PLATE	MOUNT ON FIRST ROW OF HOLES IN PLATE. NOTE - STUD HOLES ON INTAKE SURFACE ARE AT ANGLE WITH SURFACE.

NOTES

CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE 2

MAKE	CHEVROLET V8	CHEVROLET V8	CHEV. 6 CYL.
MODEL	265-283-327	396-427 CANTED	63 UP
	VARIOUS YEARS	VALVE-VARIOUS YEARS	194-230-250-292 cu
CASTING NO.	3774682	3904390	3962084
RISER HEIGHT	3 1/8	3 1/8	3 1/8

DECK SURFACE UP

MACHINING HGT.	11 5/16	11 3/8	10 7/8
MOUNT ON	X-haust face to PLATE. EXTREME END STUD HOLES	X-haust face to PLATE EXTREME R.H. HOLE AND L.H. HOLE ON CENTER SHOWN	INT-XHAUST FACE. HOLES 1 3/4" FROM DECK SURFACE.
BOLT CENTERS	17 3/8	14 1/2	17 7/16
BOLT SIZE	3/8	3/8	3/8
JACK SIZE	9 1/4	7 3/4	7 5/8 - USE 2.
REMARKS	MOUNT ON SECOND ROW OF HOLES IN PLATE.	MOUNT ON SECOND ROW OF HOLES IN PLATE.	MOUNT ON FIRST R OF HOLES IN PLAT

INTAKE SURFACE UP

MACHINING HGT.	11 5/16	—	11 1/8
MOUNT ON	DECK TO PLATE. USE END STUD HOLES IN MIDDLE ROW ON CYLINDER HEAD	DECK TO PLATE. USE END STUD HOLES IN CENTER LINE OF CYL. HEAD	DECK TO PLATE. USE EXTREME L.H. & 2nd SEC RT. VALVE GUIDE HOLES.
BOLT CENTERS	17 5/8	19 1/4	
BOLT SIZE	7/16 DIA. x 3 1/2 LONG	7/16 x 4 1/2 LONG	5/16 x 5 1/2
JACK SIZE	6 1/2	4 3/4	5 1/2 - USE 2
REMARKS	MOUNT ON THIRD ROW OF HOLES IN PLATE	MOUNT ON THIRD ROW OF HOLES IN PLATE	MOUNT ON SECOND R OF HOLES IN MOUNT PLATE

EXHAUST SURFACE UP

MACHINING HGT.	11 1/4	—	USE ABOVE SETUP.
MOUNT ON	TURN HEAD 180° ON MOUNT PLATE USING SAME HOLES AS ABOVE.	ROTATE FIXTURE ON ABOVE SETTING TO BRING X-HAUST SURFACE UP.	
BOLT CENTERS	SAME AS ABOVE		
BOLT SIZE	" " "		
JACK SIZE	NONE USED.		
REMARKS	SAME AS ABOVE. THIS SURFACE HAS A LIP AND CAN ONLY BE DONE ON A 174, 74, OR 2200.		
NOTES			

CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE 3

MAKE	CHEVROLET 6 cyl.		
MODEL	1955 THRU '61 235 / 261		
CASTING NO.	3836848		
RISER HEIGHT	3 1/8		

DECK SURFACE UP

MACHINING HGT.	10 7/8		
MOUNT ON	INT/Exhaust face to PLATE USE END MANIFOLD HOLES. NEED NOT REMOVE DOWELS.		
BOLT CENTERS	20 7/16		
BOLT SIZE	3/8		
JACK SIZE	7 1/4 (USE 2)		
REMARKS	MOUNT ON FIRST ROW OF HOLES IN PLATE. REMOVE INTAKE VALVES TO RESURFACE.		

INTAKE SURFACE UP

MACHINING HGT.	10 3/4		
MOUNT ON	DECK TO PLATE. BOLT THRU INTAKE VALVE GUIDE AT ENDS OF HEAD.		
BOLT CENTERS	20 1/8		
BOLT SIZE	5/16 x 5 1/2 LG.		
JACK SIZE	3" (USE 2)		
REMARKS	USE 3RD ROW OF BOLT HOLES IN PLATE. REMOVE DOWEL PINS AT END.		

EXHAUST SURFACE UP

MACHINING HGT.			
MOUNT ON	SEE ABOVE.		
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			
NOTES			

MAKE	CHRYSLER/DODGE/PLY.	← SAME	← SAM
MODEL	SLANT 6 - ALL YEARS 170/198/225 CU. IN.	V8-318 (273-340) 64 & UP	V8-361-383 440 WEDGE 1-
CASTING NO.	2843169	2465315-1	2406516
RISER HEIGHT	3 1/8	3 1/8	3 1/8

DECK SURFACE UP

MACHINING HGT.	10 5/8	11 1/2	10 3/4
MOUNT ON	INT/Xhaust Surface to Plate. Use extreme end studs in head.	Xhaust surface to PLATE. USE HOLES SECOND FROM EACH END IN CYL. HEAD.	Xhaust surface TO DECK SURF. USE BOLT HOLES
BOLT CENTERS	23 3/8	15 7/8	14 1/16
BOLT SIZE	5/16-18 NUTS ONLY	5/16 (SOME MODELS 3/8)	3/8
JACK SIZE	7"	7 3/8	9
REMARKS	HEAD MOUNTS ON INSIDE SIDE OF PLATE. TIGHTEN FIXTURE FIRMLY; LIMIT CUTS TO .010" ON MILL - .004" ON GRINDER.	MOUNT ON FIRST ROW OF HOLES IN PLATE. PLACE 1/2" STD. NUT BETWEEN HEAD AND PLATE AT EACH BOLT TO ACT AS SHIM.	MOUNT ON FIRE HOLES IN MOUNT

INTAKE SURFACE UP

MACHINING HGT.	10 3/4	10 3/4	
MOUNT ON	DECK TO PLATE - USE END STUD HOLES FURTHEST FROM INTAKE SURFACE	DECK TO PLATE; USE STUD HOLES EXTREME LEFT AND SECOND FROM RIGHT. HOLES NEAREST INTAKE SURFACE	DECK TO PLATE HOLES NEAREST (RECESSED) EXT.
BOLT CENTERS	23 15/16		14 3/8
BOLT SIZE	3/8 x 5	1/2 x 4 1/2 & 1/2 x 5	3/8 x 2 1/2 L
JACK SIZE	8 5/8 - USE 2.	6 1/4	6 3/4
REMARKS	BOLT ON TRAILING (NORMAL) SIDE OF PLATE.	BOLT ON THIRD ROW OF HOLES IN PLATE.	BOLT THRU FIRE HOLES IN

EXHAUST SURFACE UP

MACHINING HGT.			
MOUNT ON	SAME AS ABOVE	TURN HEAD ON PLATE 180° - SAME HOLES AS ABOVE.	VERY SPECIFIC CAN ONLY BE ON A PLANE SHAPER.
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS		EXHAUST FACE HAS A LIP AND CANNOT BE DONE ON 85-85B-300. IT CAN BE DONE O.K. ON 174, 74, & 2200	
NOTES			

MAKE	FORD V8	FORD V8	FORD V8
MODEL	272-292-312-317 THRU 1961	302 PORCUPINE VALVE TUNNEL PORT 68 & UP	352-390 63 & UP
CASTING NO.	ECG-D 0609	C9VEA - 8L25	EDC 6090C
RISER HEIGHT	3 1/8	3 1/8	3 1/8

DECK SURFACE UP

MACHINING HGT.	11 1/16	10 11/16	11 1/4
MOUNT ON	Xhaust face to PLATE 2nd hole from each end in bolt pattern on head.	Xhaust face to PLATE EXTREME END BOLT HOLES	Xhaust face to PLATE HOLES FURTHEST FROM DECK SURFACE
BOLT CENTERS	11 5/8	17 1/4	15
BOLT SIZE	3/8	3/8	3/8
JACK SIZE	9 5/8	7 1/4 - USE 2	7 7/8 - USE 2
REMARKS	USE FIRST ROW OF BOLT HOLES IN PLATE.	USE SECOND ROW OF HOLES IN PLATE.	USE FIRST ROW OF HOLES IN PLATE

INTAKE SURFACE UP

MACHINING HGT.	10 7/8	10 13/16	11 3/16
MOUNT ON	DECK TO PLATE. USE STUD HOLES NEAREST TO INTAKE SURFACE-EXTREME END	DECK TO PLATE. USE END STUD HOLES NEAREST INTAKE SURFACE	DECK TO PLATE. USE VALVE GUIDE HOLES-EXTRE L.H. & SECOND FROM R.H.
BOLT CENTERS	16 3/4	19 5/8	14 1/4
BOLT SIZE	7/16 x 5	1/2	5/16 x 5 1/2
JACK SIZE	6 1/2	5	5 1/2
REMARKS	USE 3rd ROW OF HOLES IN PLATE.	USE SECOND ROW OF HOLES IN PLATE.	USE THIRD ROW OF HOLE IN PLATE (1 1/32 DIA.) DU TO VALVE GUIDE ANGLE TAKE SLACK OUT OF MOUN ON DOWNWARD SIDE.

EXHAUST SURFACE UP

MACHINING HGT.	10 3/4	10 1/8	10 3/4
MOUNT ON	DECK TO PLATE. USE END STUD HOLES NEAREST TO EXHAUST SURFACE	DECK TO PLATE. USE END HOLES NEAREST Xhaust surface	TURN HEAD 180° ON PLATE MOUNT THRU SAME HOLES
BOLT CENTERS	19 5/8 OR 17 5/8	19 5/8	SAME
BOLT SIZE	3/8 x 3	3/8 x 5	SAME
JACK SIZE	NONE	NONE	6 3/4
REMARKS	USE FIRST ROW OF HOLES IN PLATE. HAS LIP ; CAN RESURFACE ONLY ON 174, 74, 2200.	USE FIRST ROW OF HOLE IN MOUNT PLATE. HAS LIP - CAN RESURFACE ONLY ON 174, 74, & 2200	}
NOTES			

CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE 6

MAKE	FORD V8	FORD 6	
MODEL	260 (221-289) 1964-66	170-200-250 1960 UP	
CASTING NO.	C40E-A	CIDE-A	
RISER HEIGHT	3 1/8	3 1/8	

DECK SURFACE UP

MACHINING HGT.	11 3/16	10 7/8	
MOUNT ON	EXHAUST SURFACE TO PLATE USE 3/8 STUDS AT EXTREME ENDS OF EXHAUST SURFACE.	EXHAUST SURFACE TO PLATE USE 3/8 BOLT HOLES AT EXTREME ENDS	
BOLT CENTERS	15 1/8	23 5/16	
BOLT SIZE	3/8	3/8	
JACK SIZE	8 3/8	8 5/8	
REMARKS	USE SECOND ROW OF HOLES IN MOUNT PLATE	HEAD MOUNTS ON INSWEPT SIDE OF PLATE; TIGHTEN FITURE FIRMLY. LIMIT CUTS TO .010 ON MILL - .004 ON GRINDER.	

INTAKE SURFACE UP

MACHINING HGT.	10 3/8		
MOUNT ON	ROLL FIXTURE OVER 180° TO BRING INTAKE SURFACE UP	NOT REQUIRED.	
BOLT CENTERS	SAME		
BOLT SIZE	SAME		
JACK SIZE	NONE USED		
REMARKS	LIP TYPE SURFACE - CAN BE PROCESSED IN 174, 74, & 2200 ONLY.		

EXHAUST SURFACE UP

MACHINING HGT.			
MOUNT ON	CANNOT RESURFACE EXCEPT IN MILL OR SHAPER.	CANNOT RESURFACE EXCEPT IN 174, 74, AND 2200	
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			
NOTES			

CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE 7

MAKE	PONTIAC V8		
MODEL	400/428		
CASTING NO.	143		
RISER HEIGHT	3 1/8		

DECK SURFACE UP

MACHINING HGT.	10 9/16		
MOUNT ON	INT. FACE TO PLATE. 3/8" BOLTS IN EXTREME END HOLES		
BOLT CENTERS	17 1/4		
BOLT SIZE	3/8		
JACK SIZE	7 7/8		
REMARKS	USE SECOND ROW OF HOLES IN MOUNT PLATE.		

INTAKE SURFACE UP

MACHINING HGT.	11 5/16		
MOUNT ON	3/8 BOLTS THRU OUTER END STUD HOLES IN ROCKER ARM CAGE		
BOLT CENTERS	18 1/8		
BOLT SIZE	3/8		
JACK SIZE	5 5/8		
REMARKS	USE FIRST ROW OF HOLES IN MOUNT PLATE		

EXHAUST SURFACE UP

MACHINING HGT.	11 3/8		
MOUNT ON	SAME STUD HOLES AS ABOVE. SEE BOLT SIZE CHANGE		
BOLT CENTERS	18 1/8		
BOLT SIZE	1/2 DIA. x 4 1/2		
JACK SIZE	7 3/8		
REMARKS	BOLT THRU 3rd ROW OF HOLES IN PLATE.		
NOTES			

CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE

MAKE			
MODEL			
CASTING NO.			
RISER HEIGHT			

DECK SURFACE UP

MACHINING HGT.			
MOUNT ON			
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			

INTAKE SURFACE UP

MACHINING HGT.			
MOUNT ON			
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			

EXHAUST SURFACE UP

MACHINING HGT.			
MOUNT ON			
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			

NOTES			
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CYLINDER HEAD RESURFACING

MOUNTING DATA

PAGE

MAKE			
MODEL			
CASTING NO.			
RISER HEIGHT			

DECK SURFACE UP

MACHINING HGT.			
MOUNT ON			
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			

INTAKE SURFACE UP

MACHINING HGT.			
MOUNT ON			
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			

EXHAUST SURFACE UP

MACHINING HGT.			
MOUNT ON			
BOLT CENTERS			
BOLT SIZE			
JACK SIZE			
REMARKS			

NOTES			
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Officine Meccaniche
NICOLA RUARO & FIGLIO s.n.c.
P.O. Box 142
36015 SCHIO (Italy)

ELENCO PEZZI RICAMBIO PER RETTIFICA
LISTE DES PIECES DE RECHANGE POUR RECTIFIEUSE
SPARE PARTS LIST FOR GRINDER MACHINE
ERSATZTEILLISTE FUR DIE SCHLEIFMASCHINE

MOD. SCLEDUM RT 17 Y
=====

VALID FOR MACHINES WITH REGISTERED NUMBER FROM 205 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 205 BIS
ZUR MATRIKELNUMMER

RIF. DISEGNO N° 1/RT 17 Y
REF. DESSIN N° 1/RT 17 Y
REF. DRAWING N° 1/RT 17 Y
SIEHE ZEICHNUNG N° 1/RT 17 Y

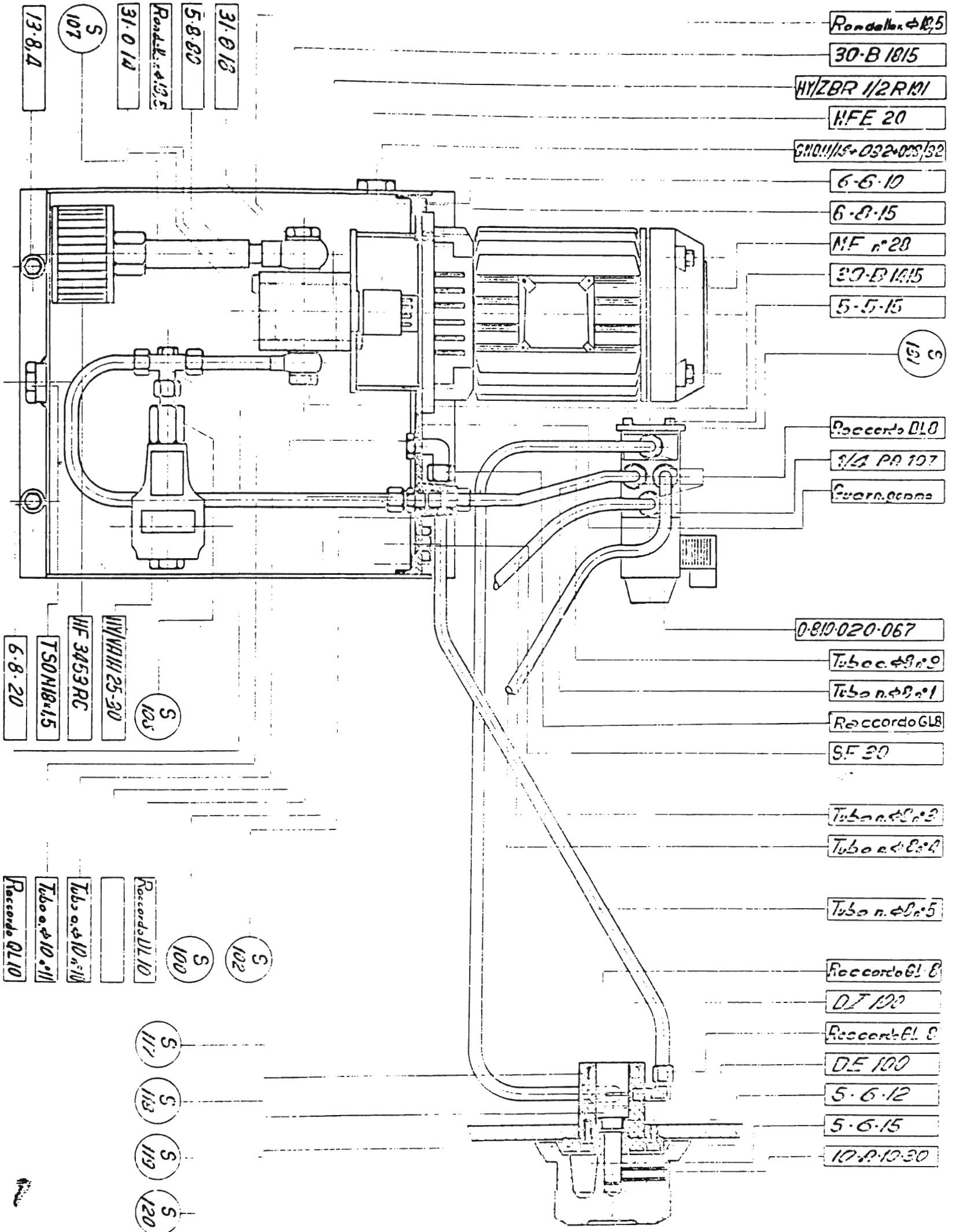
A 014/RT 17 Y	S 115/RT 17 Y
E 143/RT 17 Y	5.5.12/RT 17 Y
B 132/RT 17 Y	5.5.10/RT 17 Y
E 143/RT 17 Y	R. R. 5, 5/RT 17 Y
11. A. 12 /RT 17 Y	S 049/RT 17 Y
S 034/RT 17 Y	S 035/RT 17 Y
10c. 10. 45 /RT 17 Y	Kelwin 8917/RT 17 Y
11. A. 12 /RT 17 Y	Breter 5100 N/RT 17 Y
13. 13/RT 17 Y	Breter 5100 R/RT 17 Y
13. 13/RT 17 Y	Kelwin 8913/RT 17 Y
S 003/RT 17 Y	Breter 5301/RT 17 Y
2007. 0160 /RT 17 Y	Kelwin 8913/RT 17 Y
S 041/RT 17 Y	Kelwin 8913/RT 17 Y
5. 4. 40 /RT 17 Y	8. 4. 10/RT 17 Y
5. 8. 25 /RT 17 Y	
S 124/RT 17 Y	
S 108/RT 17 Y	
S 122/RT 17 Y	
13. 13/RT 17 Y	
11. A. 12/RT 17 Y	
5. 10. 25/RT 17 Y	
10. 14. 70 /RT 17 Y	
Tubo n. Ø 8 n° 7 /RT 17 Y	
Raccordo DL8/RT 17 Y	
S 116/RT 17 Y	
OR 139/RT 17 Y	
5. 8. 10 /RT 17 Y	
10c. 12. 12/RT 17 Y	
S 103/RT 17 Y	
Merkel 2012. 0160/RT 17 Y	

VALIDO PER LE MACCHINE
CON MATRICOLA DAL N° 205
AL N°

VALIDO PER LE MACCHINE CON MATRICOLA DAL N° 239 AL N0
 VALABLE POUR LES MACHINES AVEC MATRICULE DE Nr. 239 A' Nr.
 VALID FOR MACHINES WITH REGISTERED NUMBER FROM 239 TO
 GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 239 BIS ZUR MATRIKELNUMMER

RIF. DISEGNO N° 2/RT 17 Y
 REF. DESSIN N° 2/RT 17 Y
 REF. DRAWING N° 2/RT 17 Y
 SIEHE ZEICHNUNG N° 2/RT 17 Y

31.0 18/RT 17 Y
 5.8.80/RT 17 Y
 Rondella r. Ø 18,5/RT 17 Y
 31.0 14/RT 17 Y
 S 107/RT 17 Y
 13.8,4/RT 17 Y
 S 106/RT 17 Y
 HY/VA1A 25,30/RT 17 Y
 HF 3453 RC/RT 17 Y
 TSO M18x1,5/RT 17 Y
 6.8.20/RT 17 Y
 S 102/RT 17 Y
 S 100/RT 17 Y
 Raccordo DL 10/RT 17 Y
 Tubo a. Ø 10 n° 10/RT 17 Y
 Tubo a. Ø 10 n° 11/RT 17 Y
 Raccordo QL10/RT 17 Y
 S 117/RT 17 Y
 S 118/RT 17 Y
 S 119/RT 17 Y
 S 120/RT 17 Y
 Rondella r. Ø 18,5/RT 17 Y
 30.B 1815/RT 17 Y
 HY/ZBR 1/2 R 101/RT 17 Y
 HFE 20/RT 17 Y
 GN 011/14+032+009/32/RT 17 Y
 6.6.10/RT 17 Y
 6.8.15/RT 17 Y
 MF n° 18/RT 17 Y
 30.B 1415/RT 17 Y
 5.5.15/RT 17 Y
 S 131/RT 17 Y
 Raccordo DL 8/RT 17 Y
 1/4 PA 107/RT 17 Y
 Guarn.gomma/RT 17 Y
 0.810.020.067/RT 17 Y
 Tubo a. Ø 8 n° 9/RT 17 Y
 Tubo a. Ø 8 n° 1/RT 17 Y
 Raccordo GL 8/RT 17 Y
 SF 30/RT 17 Y
 Tubo n. Ø 8 n° 3/RT 17 Y
 Tubo n. Ø 8 n° 4/RT 17 Y
 Tubo n. Ø 8 n° 5/RT 17 Y
 Raccordo GL 8/RT 17 Y
 DI 100/RT 17 Y
 Raccordo GL 8/RT 17 Y
 DE 100/RT 17 Y
 5.6.12/RT 17 Y
 5.6.15/RT 17 Y



RIF. DISEGNO N° 3/RT 17 Y
REF. DESSIN N° 3/RT 17 Y
REF. DRAWING N° 3/RT 17 Y
SIEHE ZEICHNUNG N° 3/RT 17 Y

VALID FOR MACHINES WITH REGISTERED NUMBER FROM 205 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 205 BIS
ZUR MATRIKELNUMMER

6.16.70/RT 17 Y
13.17/RT 17 Y
N 036/RT 17 Y
S 008/RT 17 Y
6.10.30/RT 17 Y
UNI51105/RT 17 Y
GUK 25 MC/RT 17 Y
19.6.6.20/RT 17 Y
S 031/RT 17 Y
18.5.36/RT 17 Y
22. I. 47/RT 17 Y
UNI 6204/RT 17 Y
S 032/RT 17 Y
S 009/RT 17 Y
6.10.30/RT 17 Y
G 053/RT 17 Y
S 039/RT 17 Y
S 104/RT 17 Y
5.10.25/RT 17 Y
G 053/RT 17 Y
S 040/RT 17 Y
7.6.20/RT 17 Y
G 108/3/RT 17 Y
AEG YS6.1/RT 17 Y
S 030/RT 17 Y
S 038/RT 17 Y
G 075/RT 17 Y
G 108/2/RT 17 Y
G 109/2/RT 17 Y
G 109/1/RT 17 Y
G 108/1/RT 17 Y
10c.8.20/RT 17 Y
I-281/90+X /RT 17 Y
19.6.6.25/RT 17 Y
P 049/RT 17 Y
UNI 6204/RT 17 Y
S 021/RT 17 Y
S 007/RT 17 Y
5.8.20/RT 17 Y

VALIDO PER LE MACCHINE
CON MATRICOLA DAL N° 205
AL N°

14/5/1971

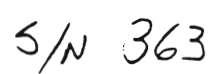
VALIDO PER LE MACCHINE CON MATRICOLA DAL N° 311 AL N°
VALABLE POUR LES MACHINES AVEC MATRICULE DE N° 311 A' N°.
VALID FOR MACHINES WITH REGISTERED NUMBER FROM 311 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 311 BIS ZUR MATRIKE INNUMMER

REF. DESSIN N° 4/RT 17 Y
REF. DRAWING N° 4/RT 17 Y
SIEHE ZEICHNUNG N° 4/RT 17 Y

S 002/RT 17 Y
S 004/RT 17 Y
5.8.60/RT 17 Y
5.5.15/RT 17 Y
11c.10/RT 17 Y
10B.10.25/RT 17 Y
S 026/RT 17 Y
6.10.30/RT 17 Y
S 052/RT 17 Y
S 013/RT 17 Y
S 025/RT 17 Y
B 009/RT 17 Y
5.6.15/RT 17 Y
5.10.25/RT 17 Y
Feltro/RT 17 Y
B 057/2/RT 17 Y
B 048/RT 17 Y
10B.8.10/RT 17 Y
10B.8.10/RT 17 Y
30206/RT 17 Y
B 033/RT 17 Y
B 086/RT 17 Y
Rig 16/RT 17 Y
10c.12.31/RT 17 Y
30210/RT 17 Y
B 044/2/RT 17 Y
6.8.30/RT 17 Y
G 024/2/RT 17 Y
B 088/RT 17 Y
13.12/RT 17 Y
6.12.30/RT 17 Y
G 010/RT 17 Y
S 036/RT 17 Y
MIM 5070/10/RT 17 Y
5.8.20/RT 17 Y
B 023/RT 17 Y
S 046/RT 17 Y
1660x650/RT 17 Y
5.12.30/RT 17 Y
G 023/1/RT 17 Y
13.12/RT 17 Y
11B.12/RT 17 Y

B 079/RT 17 Y
10c.8.10/RT 17 Y
7.4.10/RT 17 Y
19.8.7.35/RT 17 Y
5.18.40/RT 17 Y
B 070/2/RT 17 Y
B 033/RT 17 Y

20/10/1971

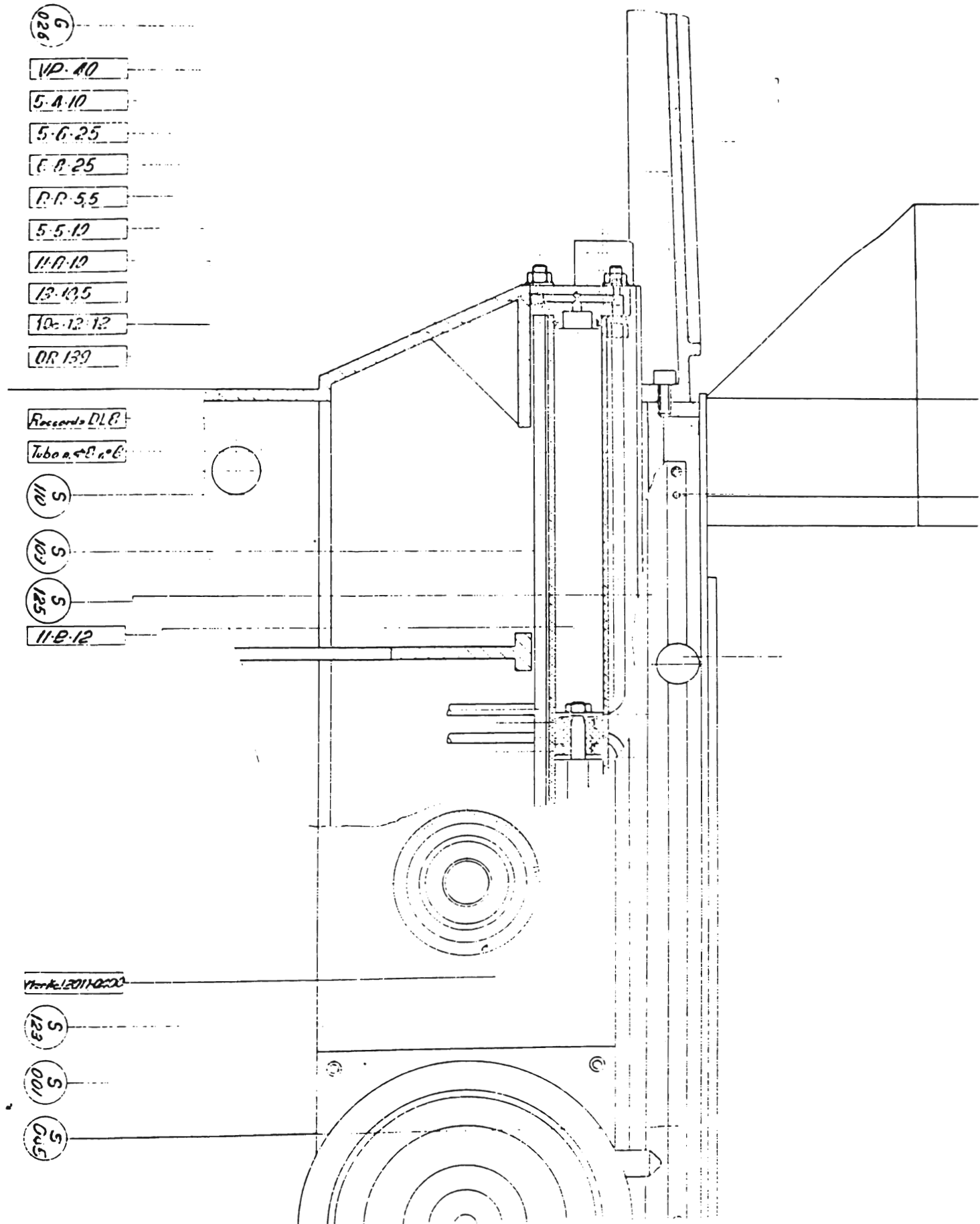


RIF. DISEGNO N° 5/RT 17 Y
REF. DESSIN N° 5/RT 17 Y
REF. DRAWING N° 5/RT 17 Y
SIEHE ZEICHNUNG N° 5/RT 17 Y

VALIDO PER LE MACCHINE CON MATRICOLA DAL N° 239 AL N°
VALABLE POUR LES MACHINES AVEC MATRICULE DE N° 239 A' N°.
VALID FOR MACHINES WITH REGISTERED NUMBER FROM 239 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 239 BIS ZUR MATRIKELNUMMER

G 026/RT 17 Y
V P40/RT 17 Y
5.4.10/RT 17 Y
5.6.25/RT 17 Y
6.8.25/RT 17 Y
R. R. 5,5/RT 17 Y
5.5.10/RT 17 Y
11.A.10/RT 17 Y
13.10,5/RT 17 Y
10c.12.12/RT 17 Y
CR 139/RT 17 Y
Raccordo DL 8/RT 17 Y
Tubo n. Ø 8 n° 8/RT 17 Y
S 110/RT 17 Y
S 109/RT 17 Y
S 125/RT 17 Y
11.B.12/RT 17 Y
Merkel 2011.0400/RT 17 Y
S 123/RT 17 Y
S 001/RT 17 Y
S 045/RT 17 Y

10/12/1971



RIF. DISEGNO N° 6/RT 17 Y
REF. DESSIN N° 6/RT 17 Y
REF. DRAWING N° 6/RT 17 Y
SIEHE ZEICHNUNG N° 6/RT 17 Y

S 140/RT 17 Y
5.5.15/RT 17 Y
S 139/RT 17 Y
B 193/25 p/RT 17 Y
11A .6/RT 17 Y
13.6/RT 17 Y
TRT 200/RT 17 Y
6.6.15/RT 17 Y
G 068/RT 17 Y
S 006/RT 17 Y
S 029/RT 17 Y
G 060/RT 17 Y
7.4.10/RT 17 Y
Jaccard M 10/RT 17 Y
7.4.40/RT 17 Y
G 036/RT 17 Y
Basetta M. Rig/RT 17 Y
TG Ø 18/27/RT 17 Y
RUB. F 1/2" Gas/RT 17 Y
11B .8/RT 17 Y
10c.8.60/RT 17 Y
24. 1/4" Gas/RT 17 Y
G 076/RT 17 Y
5.6.15/RT 17 Y
S 033/RT 17 Y
6.8.20/RT 17 Y
G 084/RT 17 Y
5.8.15/RT 17 Y
1260x600/RT 17 Y

21/7/1971

VALIDO PER LE MACCHINE CON MATRICOLA DAL N° 279 AL N°
VALABLE POUR LES MACHINES AVEC MATRICULE DE Nr. 279
A' Nr.

VALID FOR MACHINES WITH REGISTERED NUMBER FROM 279 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 279
BIS ZUR MATRIKELNUMMER

[illegible]

RIF. DISEGNO N° 7/RT 17 Y
REF. DESSIN N° 7/R T 17 Y
REF. DRAWING N° 7/RT 17 Y
SIEHE ZEICHNUNG N° 7/RT 17 Y

S 043/RT 17 Y

Ticino 223/RT 17 Y

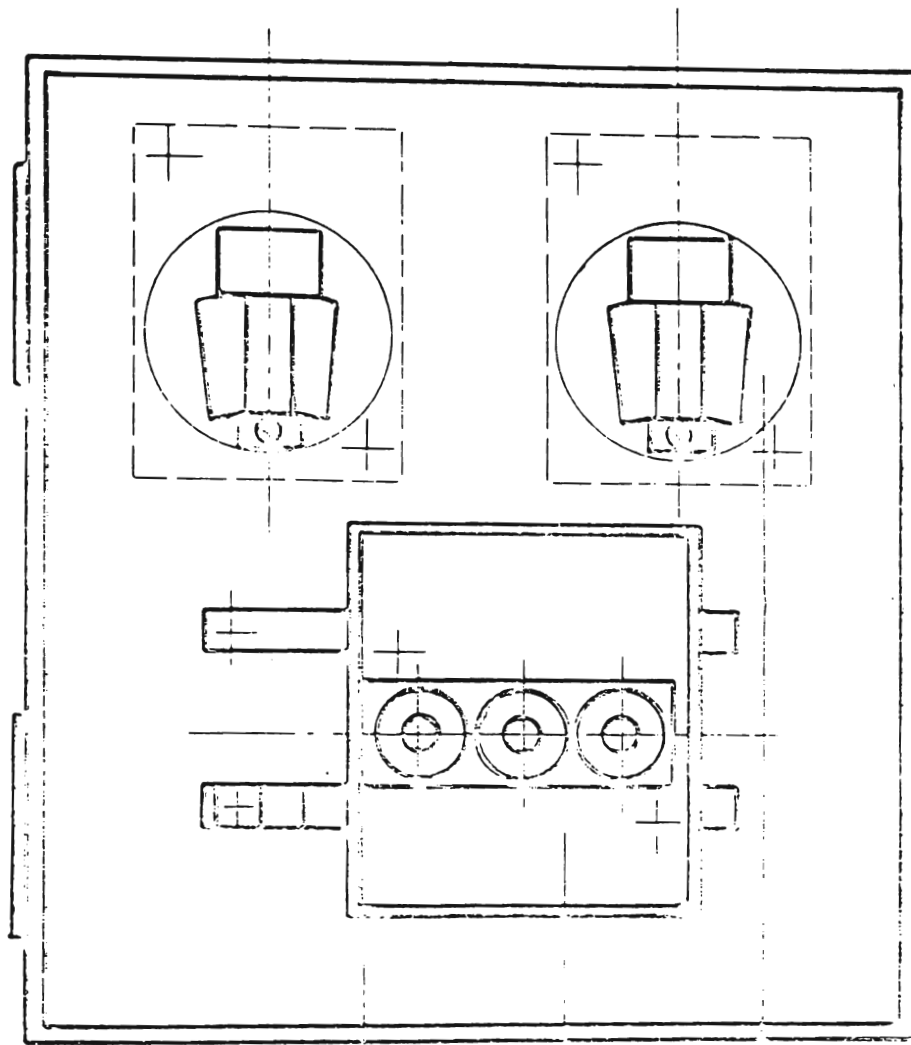
TAIS 411152/RT 17 Y

14/5/1971

VALIDO PER LE MACCHINE CON MATRICOLA
DAL N° 205 AL N°

~~VALID FOR MACHINES WITH REGISTERED NUMBER FROM 205 TO~~
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 205 BIS
ZUR MATRIKELNUMMER

N° 7



5
043

Ticino 223

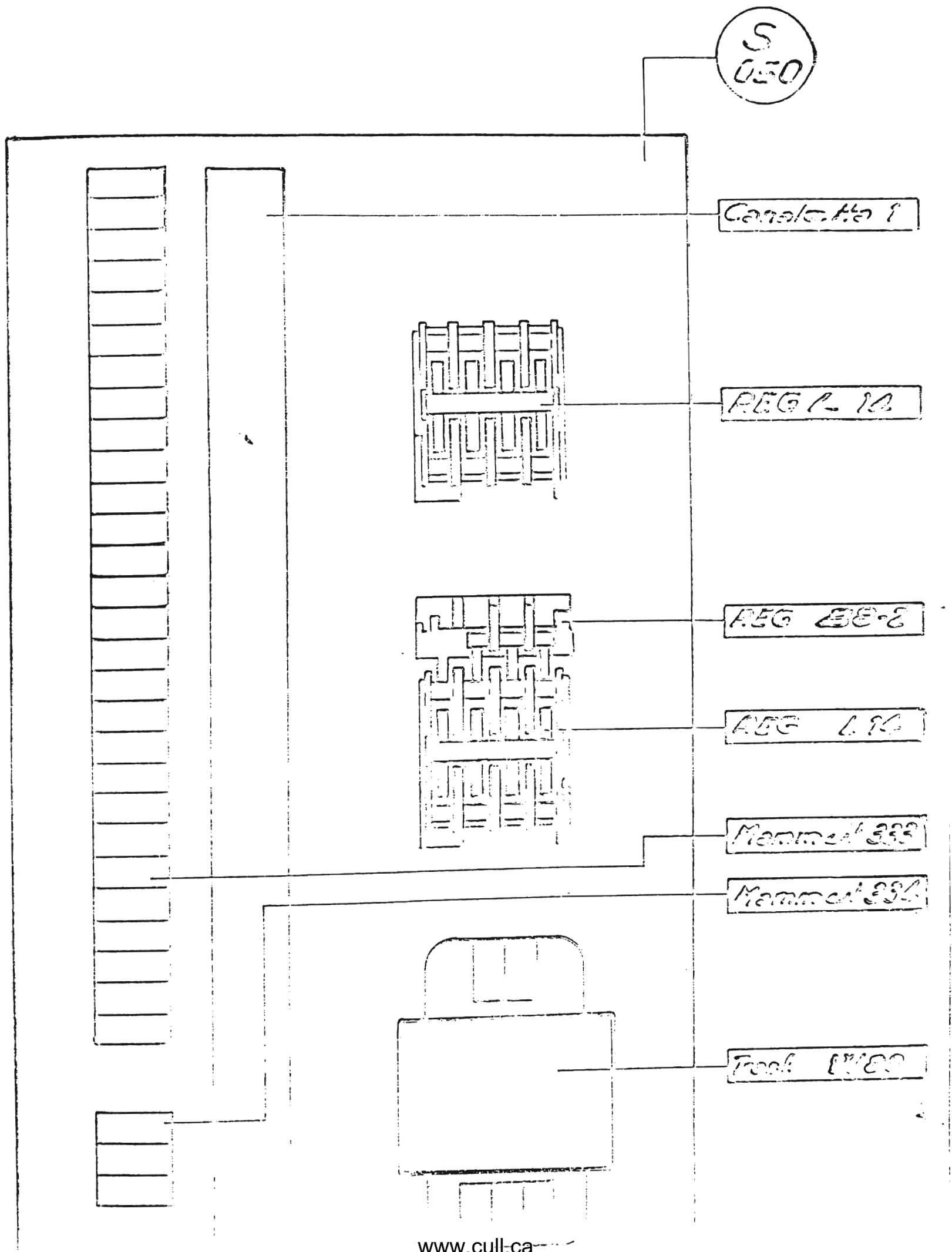
Ticino 223

RIF. DISEGNO N° 8/RT 17 Y
REF. DESSIN N° 8/RT 17 Y
REF. DRAWING N° 8/RT 17 Y
SIEHE ZEICHNUNG N° 8/RT 17 Y

S 050/RT 17 Y
Canaletta 1/RT 17 Y
AEG L 14/RT 17 Y
AEG B 0,2/RT 17 Y
AEG L 14/RT 17 Y
Mammut 333/RT 17 Y
Mammut 334/RT 17 Y
Trasf. W 80/RT 17 Y

10/11/1971

VALIDO PER LE MACCHINE CON MATRICOLA DAL N° 205 AL N°
VALABLE POUR LES MACHINES AVEC MATRICULE DE Nr. 205 A' Nr.
" " " "
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 205 BIS
ZUR MATRIKELNUMMER.
VALID FOR DIE MACHINES WITH REGISTERED NUMBER FROM 205
TO



RIF. DISEGNO N° 9/RT 17 Y
REF. DESSIN N° 9/RT 17 Y
REF. DRAWING N° 9/RT 17 Y
SIEHE ZEICHNUNG N° 9/RT 17 Y

VALID FOR MACHINES WITH REGISTERED NUMBER FROM 205 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 205 BIS
ZUR MATRIKELNUMMER

83/RT 17 Y - MC.25.65
84/RT 17 Y - B 069
85/RT 17 Y - B 030
86/RT 17 Y - 10c.10.12
87/RT 17 Y - 10c.10.20
88/RT 17 Y - B 012
89/RT 17 Y - B 060/2
90/RT 17 Y - VF M 10.30
91/RT 17 Y - B 024
92/RT 17 Y - B 065
93/RT 17 Y - B 025
94/RT 17 Y - B 060/1
95/RT 17 Y - 6.10.30
96/RT 17 Y - 11.6.4
97/RT 17 Y - 5.10.36
98/RT 17 Y - A 041/1
99/RT 17 Y - A 041/2
100/RT 17 Y - RM
101/RT 17 Y - 6.10.28
102/RT 17 Y - 13.10.5
205/RT 17 Y - G 076

14/5/1971

VALIDO PER LE MACCHINE CON MATRICOLA
DAL N° 205 AL N°

RIF. DISEGNO N°10/RT 17 Y
REF. DESSIN N°10/RT 17 Y
REF. DRAWING N°10/RT 17 Y
SIEHE ZEICHNUNG N°10/RT 17 Y

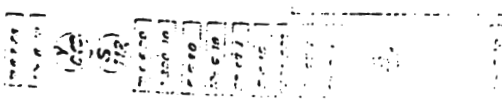
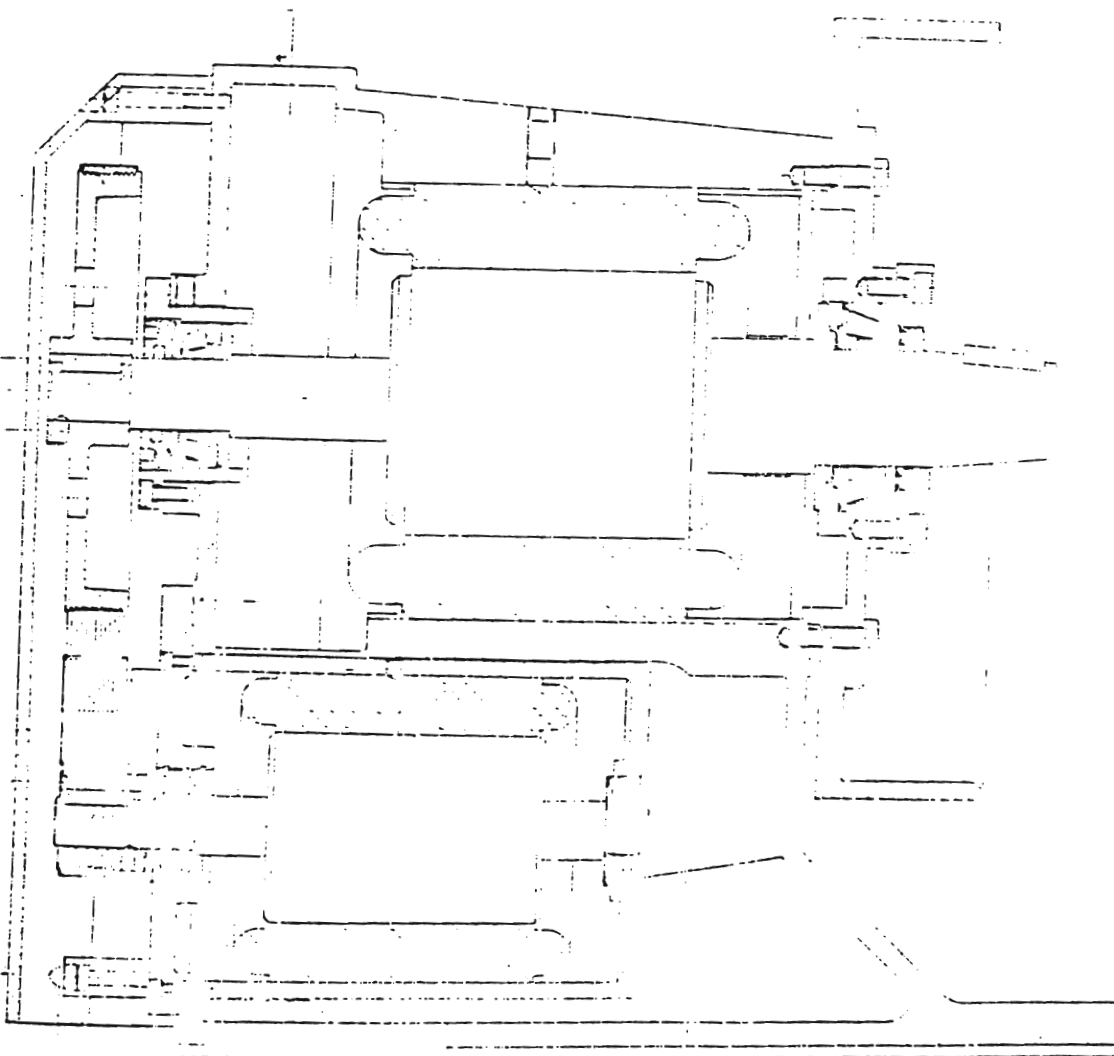
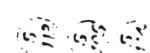
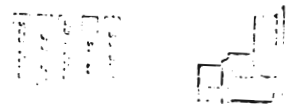
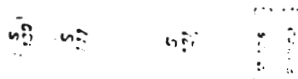
S 130/RT 17 Y
S 111/RT 17 Y
S 121/RT 17 Y
13.10.5/RT 17 Y
6.10.20/RT 17 Y
6 002.2 RS/RT 17 Y
22.15E/RT 17 Y
6 002.2 RS/RT 17 Y
13.13/RT 17 Y
6.12.25/RT 17 Y
S 113/RT 17 Y
S 105/RT 17 Y
S 114/RT 17 Y
19.8.7.25/RT 17 Y
10c.8.10/RT 17 Y
Y 048/RT 17 Y
S 112/RT 17 Y
19.6.6.30/RT 17 Y
J 300.10/RT 17 Y
5.6.50/RT 17 Y
10c.6.10/RT 17 Y
22.471/RT 17 Y
5.4.15/RT 17 Y
6204.2 RS/RT 17 Y
22.471/RT 17 Y
22.20 E/RT 17 Y
S 004/RT 17 Y
10c.8.10/RT 17 Y
Rig. Fr. 23/RT 17 Y
Y 049/RT 17 Y
Y 046/RT 17 Y
6204.2 RS/RT 17 Y
22.20 E/RT 17 Y

VALIDO PER LE MACCHINE
CON MATRICOLA DAL N° 205
AL N°

VALID FOR MACHINES WITH REGISTERED NUMBER FROM 205 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 205 BIS
ZUR MATRIKELNUMMER

14/5/1971

10



RIF. DISEGNO N° 11/RT 17 Y
REF. DESSIN N° 11/RT 17 Y
REF. DRAWING N° 11/RT 17 Y
SIEHE ZEICHNUNG N° 11/RT 17 Y

Y 081/RT 17 Y
RUB. F. 1/2"Gas/RT 17 Y

Y 082/RT 17 Y

21/7/1971

VALIDO PER LE MACCHINE CON MATRICOLA DAL N° 279 AL N°
VALABLE POUR LES MACHINES AVEC MATRICULE DE Nr. 279
A' Nr.
VALID FOR MACHINES WITH REGISTERED NUMBER FROM 279 TO
GÜLTIG FÜR DIE MASCHINEN AUS DER MATRIKELNUMMER 279
BIS ZUR MATRIKELNUMMER

