Founded 1875

GOETZ

ENGINEERS · DIEMAKERS

OPERATING INSTRUCTIONS & PARTS LISTS

MODEL No. 15C.

SERIAL No. CJ 5665-2.

W. G. GOETZ AND SONS LIMITED
136-140 Hall Street, Spotswood, Melbourne. Telegraphic Address: "Getzsons." Telephone: 65-2331-2-3-4

W. G. GOETZ & SONS LTD.

GOETZ MELBOURNE

WORKING INSTRUCTIONS
GOETZ "15C" POWER PRESS WITH AIR CLUTCH

CLUTCH PRESSURE:

Set Clutch Air Pressure at 70 lbs./□".

BRAKE SETTING:

Refer Drawing No.15C-366.

DATA FOR TOOL DESIGNERS		
MAXIMUM AVAILABLE	1/8"	15 Tons
PRESS CAPACITY	1/4"	11.2 Tons
WHEN SLIDE IS THE DISTANCE SHOWN FROM BOTTOM OF STROKE	3/8"	9.8 Tons
	1/2"	9.2 Tons
	5/8"	9.1 Tons
STROKE OF SLIDE		1 1/4"
SHUT HEIGHT. ADJUSTMENT UP		6 1/8"
ADJUSTMENT OF SLIDE		2"
STROKES PER MINUTE		250

ATTEND TO ALL LUBRICATION BEFORE OPERATING PRESS

LUBRICATION :

The main crankshaft bearings, connecting-rod, and slide gibways are all lubricated by means of the metered oiling system and hand-operated pump on the press. The pump container should be filled with Shell "OMALA 79" oil or one of the equivalent oils listed overleaf.

Oil holes are provided for the lubrication of the clutch throwout camplate, clutch shaft and treadle mechanism, and a good medium grade oil should be regularly applied to these points. For the slide ball-connection, use Shell "MYTILUS B" or equivalent grease.

IMPORTANT :

After installing and/or after the press has been lying idle for any period due to intermittent use, the oil pump MUST be operated until oil can be seen running out of the ends of each bearing. The press may then be put into service.

When operating pump, depress the handle FULLY and allow it to return in its own time; DO NOT FORCE the pump. See that the container is KEPT FILLED with correct oil.

NORMAL WORKING CONDITIONS :

Before starting press each morning, the oil pump MUST be given one stroke to ensure a supply of lubricant to the major bearings, and thereafter the pump must be operated once every two hours when running. ~~Lubricate the ball-connection once daily through grease nipple at front of slide. Oil the clutch and treadle mechanism regularly.~~

~~It is also recommended that each morning (with the power switched off) the clutch be engaged and the press pulled over by hand until the slide is at bottom stroke. The clutch key will then be visible at the top of the shaft and machine oil should be applied to the key and along the edges of the key slot.~~

LUBRICATION :

UNGEARED PRESSES :

Flywheels are mounted on anti-friction bearings and only require greasing every six months. Inject Shell "ALVANIA GREASE 2" or equivalent grease into nipple in hub of flywheel.

GEARED PRESSES :

The Gear Wheel is mounted on Anti Friction Bearings and these Bearings should be cleaned out and re-packed with Shell "ALVANIA GREASE 2" or equivalent every Twelve Months.

The Pinion Drive Shaft runs on Anti Friction Bearings and require greasing with Shell "ALVANIA GREASE 2" or equivalent every six months.

NOT APPLICABLE

NOT APPLICABLE

For the Gears themselves, apply Shell "Mytilus B" compound or equivalent grease, to the teeth at regular intervals.

	OIL		GREASE	
	Oil Pump	Ball Connection	Anti-Friction Bearings	Gear Teeth
SHELL	OMALA-79	~~MYTILUS B~~	ALVANIA-2	MYTILUS B
VACUUM	EP COMPOUND DD	~~SOVAREX-LO~~	BRB-3	SOVAREX-LO
WAKEFIELD	ALPHA 817	~~SPHEEROL-L~~	SPHEEROL-L	SPHEEROL-L

* * * * * * * * * * * *

N O T E ; Do not run the press continuously (with the Clutch engaged) under 'no load' conditions, i.e. when not actually stamping.

When a press is stamping articles, the crankshaft bearings are to a great extent relieved of the weight of the flywheel (or gearwheel) which helps the oil to circulate around the bearings.

ADJUSTMENTS ON PRESS

DIE SPACE :

To adjust the die space, slacken both the clamping screws on the lower end of the connecting rod, insert the tommy bar in adjusting-screw collar and adjust the slide up or down as required. Relock the adjusting screw by SECURELY TIGHTENING both clamping screws. This precaution must always be taken before tripping the press. FAILURE TO LOCK UP THE CONNECTING ROD MAY RESULT IN A STRIPPED THREAD, OR BREAKAGE.

IMPORTANT :

The adjusting-screw must never be screwed out of the connecting rod a distance greater than 2". when measured from the top of the collar to the bottom face of the connecting rod.

CAUTION :

Always pull the press over by hand when setting dies; never set with flywheel running. Make sure that all adjustments are correct by slowly turning the press a complete revolution before putting under power.

KNOCKOUT BAR :

The knockout bar must be brought into operation to eject stampings which remain in the top tool.

When the die has been set, bring the slide to its TOPMOST POSITION and adjust the ejector screws down EVENLY to give the bar the requisite travel. LOCK UP the ejector screws afterwards. When carrying out this adjustment TURN THE PRESS BY HAND - DO NOT ADJUST UNDER POWER.

NOT APPLICABLE

NOT APPLICABLE

Where the ejector is not required on any particular job, the adjusting screws should be backed off and locked in their topmost position clear of the knockout bar.

SLIDE :

The slide is correctly adjusted before the press leaves our factory. When, at a later date, adjustment for wear becomes necessary, it should be carried out as follows: -

With press on top centre, disconnect the flexible oil hose on the connecting rod, place wooden packing under the slide so that the slide will not drop onto the bed, then screw the adjusting screw out of the connecting rod. Swing up the connecting rod and tie back out of the way. Now slightly slacken the front retaining setscrews on both gibs and adjust slide hard over by means of jack screws on left hand side of press to ensure that the right hand fixed gib is correctly seated, then TIGHTEN RIGHT HAND RETAINING SCREWS. Back-off jack screws and again adjust in EVENLY TOP AND BOTTOM. The correct adjustment is reached when the slide will move slowly downward and continue to move throughout its travel, when started with a slight bump. Use a piece of timber as a lever to move the slide up and down during adjustment.

Although the slide should be set up "neatly", it must not be adjusted too tightly as no room will then be left for the oil film and the faces of the Vee-ways will become damaged.

Before re-connecting the connecting rod, TIGHTEN LEFT HAND GIB RETAINING SCREWS, LOCK UP JACK SCREWS AND AGAIN CHECK MOVEMENT OF THE SLIDE TO SEE THAT THE SETTING REMAINS UNALTERED

BRAKE :

The spring loaded brake is adjusted by means of the knurled nut thereon. When adjusting same, sufficient pressure should be applied to prevent the slide from over-running top centre after the clutch has been dis-engaged. More pressure will, however, be required to check the slide when using heavy die buffers.

NOT APPLICABLE

NOT APPLICABLE

Adjust the pressure accordingly :- DO NOT ALWAYS RUN WITH THE BRAKE SET HARD ON. Examine the adjustment periodically.

SPARE PARTS

REFER to Assembly Drawing Provided

When ordering replacements always quote the Press Serial Number, together with the Part Number required and description of same. Such information will ensure the correct item being supplied.

* * * * * * * * *

DO NOT OVERLOAD THE PRESS

Before setting up a die in any press, the pressure required should be properly calculated and not just guessed.

15C - 13	Cap - Main Bearing
15C - 25	Rod - Crank
15C - 26	Cap - Crank Rod
15C - 27	Screw - Slide Adjusting
15C - 28	Cap - Ball Socket
15C - 29	Slide
15C - 30	Block - Gland
15C - 31	Bolt - Gland Block Draw
7C - 32	Nut - Drawbolt
15C - 33	Gib - Slide R.H.
15C - 34	Gib - Slide L.H.
15C - 35	Block - Ejector Adjusting Screw
15C - 37	Screw - Ejector Adjusting
15C - 38	Bar - Ejector
15C - 40	Leg - R.H.
15C - 41	Leg - L.H.
15C - 42	Washer - Leg Locking
15C - 43	Rod - Leg Tie
15C - 59	Bar - Podger
7C - 60	Washer - Die Clamping
15C - 62	Pin - Motor Plate Pivot
15C - 106	Bush - Main Bearing
15C - 107	Bush - Crank Rod
15C - 187	Bolt - Die Clamping
15C - 194	Bolt - Crank Rod Cap
15C - 195	Bolt - Crank Rod Clamp (Special Head)
15C - 196	Bolt - Main Bearing Cap
15C - 197	Bolt - Gib Clamp
15C - 198	Bolt - Ball Socket Cap
15C - 199	Screw - Gib Adjusting

PLEASE QUOTE SERIAL NUMBER OF MACHINE WHEN ORDERING SPARE PARTS.

GOETZ
MELBOURNE

MODEL "15C" POWER PRESS

AIR CLUTCH

15C - 201	Bolt - Bolster Plate (Front)
15C - 202	Bolt - Bolster Plate (Back)
25C - 228	Block-Support
25C - 229	Strap - Support
25C - 238	Gauge - Pressure
15C - 300	Frame (Air Clutch)
15C - 301	Crankshaft - 1-1/4" Stroke (Air Clutch)
15C - 302	Plate - Motor
15C - 304	Pulley - Motor
15C - 305	Guard - Wedgrope
15C - 306	Bracket - Wedgrope Guard Top
15C - 307	Motor (Special)
15C - 308	Wedgropes (Special)
15C - 309	Plate - Bolster
15C - 310	Box - Electrical Control
15C - 311	Guard - Timing Switch
15C - 312	Sprocket - Crankshaft
15C - 313	Chain - Timing Switch
15C - 314	Shim - Timing Switch Mounting Bracket
15C - 315	Bracket - Timing Switch Mounting
15C - 316	Sprocket - Timing Switch
15C - 317	Flywheel
15C - 318	Hub - Clutch Driving
15C - 319	Washer - Crankshaft
15C - 320	Race - Flywheel
15C - 321	Seal - Flywheel Grease
15C - 322	Key - Clutch Hub
15C - 323	Sleeve - Flywheel Race Adjusting

PLEASE QUOTE SERIAL NUMBER OF MACHINE WHEN ORDERING SPARE PARTS.

MODEL "15C" POWER PRESS

AIR CLUTCH

15C - 324	Plate - Flywheel Seal Retaining
15C - 325	Shim - Flywheel Race Adjusting
15C - 326	Cylinder - Air Clutch
15C - 327	Ring - Clutch Mounting
15C - 328	Piston - Air Clutch
15C - 329	Plate - Friction Clutch
15C - 330	Spring - Friction Plate Release
15C - 331	"O" Ring - Air Clutch Piston
15C - 332	Screw - Crankshaft Washer
15C - 333	Lining - Clutch
15C - 334	Seal - Clutch Rotary
15C - 335	Receiver - Air
15C - 336	Silencer - Air
15C - 337	Valve - Poppet
15C - 338	Spacer - Air Receiver
15C - 339	Valve - Safety
15C - 340	Plate - Manifold Mounting
15C - 341	Spacer - Control Box (Short)
15C - 342	Spacer - Control Box (Long)
15C - 343	Strap - Brake Release
15C - 344	Strap - Brake Pressure
15C - 345	Drum - Brake
15C - 346	Lining - Brake
15C - 347	Stud - Brake Anchor
15C - 348	
15C - 349	Bolt - Brake Spring
15C - 350	Washer - Brake Spring Inner
15C - 351	Washer - Brake Spring Outer
15C - 352	Spring - Brake Pressure
15C - 353	Piston - Brake

PLEASE QUOTE SERIAL NUMBER OF MACHINE WHEN ORDERING SPARE PARTS.

GOETZ MELBOURNE

MODEL "15C" POWER PRESS

AIR CLUTCH

15C - 354	Pad - Brake Piston
15C - 355	Seal - Brake Piston
15C - 356	Circlip - Brake Piston Retaining
15C - 357	Screw - Brake Adjusting
15C - 358	Circlip - Brake Strap Retaining
15C - 359	Drum - Brake (Special)
15C - 360	Bracket - Wedgrope Guard (Back)
15C - 361	Bracket - Wedgrope Guard (Front)
15C - 363	Strap - Manifold Mounting (Short)
15C - 363	Strap - Manifold Mounting (Long)
15C - 364	Spacer - Manifold Mounting Strap
15C - 371	Plug - Sliding Clutch Bore
15C - 372	Block - Brake Stop
15C - 373	Plate - Baffle
15C - 374	Plate - Clutch Pressure Data
15C - 375	Nipple - Control Valve Reducing
15C - 377	Cock - Drain
40C - 391	Plug - Air Receiver
40C - 392	Washer - Air Receiver Plug
40C - 396	Valve - Main Supply Control
40C - 397	Filter - Air
40C - 402	Regulator - Air Receiver
40C - 403	Lubricator - Clutch
40C - 405	Cushion - Manifold Mounting
40C - 414	Station - Electrical Push Button
40C - 420	Switch - Timing
40C - 421	Cam - Timing Switch
40C - 423	Valve - Quick Exhaust
40C - 467	Plate - Operator Instruction
40C - 475	Plate - Rotary Switch Instruction

PLEASE QUOTE SERIAL NUMBER OF MACHINE WHEN ORDERING SPARE PARTS.

TECALEMIT

OPERATING AND MAINTENANCE INSTRUCTIONS

BIJUR SEMI-AUTOMATIC LUBRICATOR – TYPE D

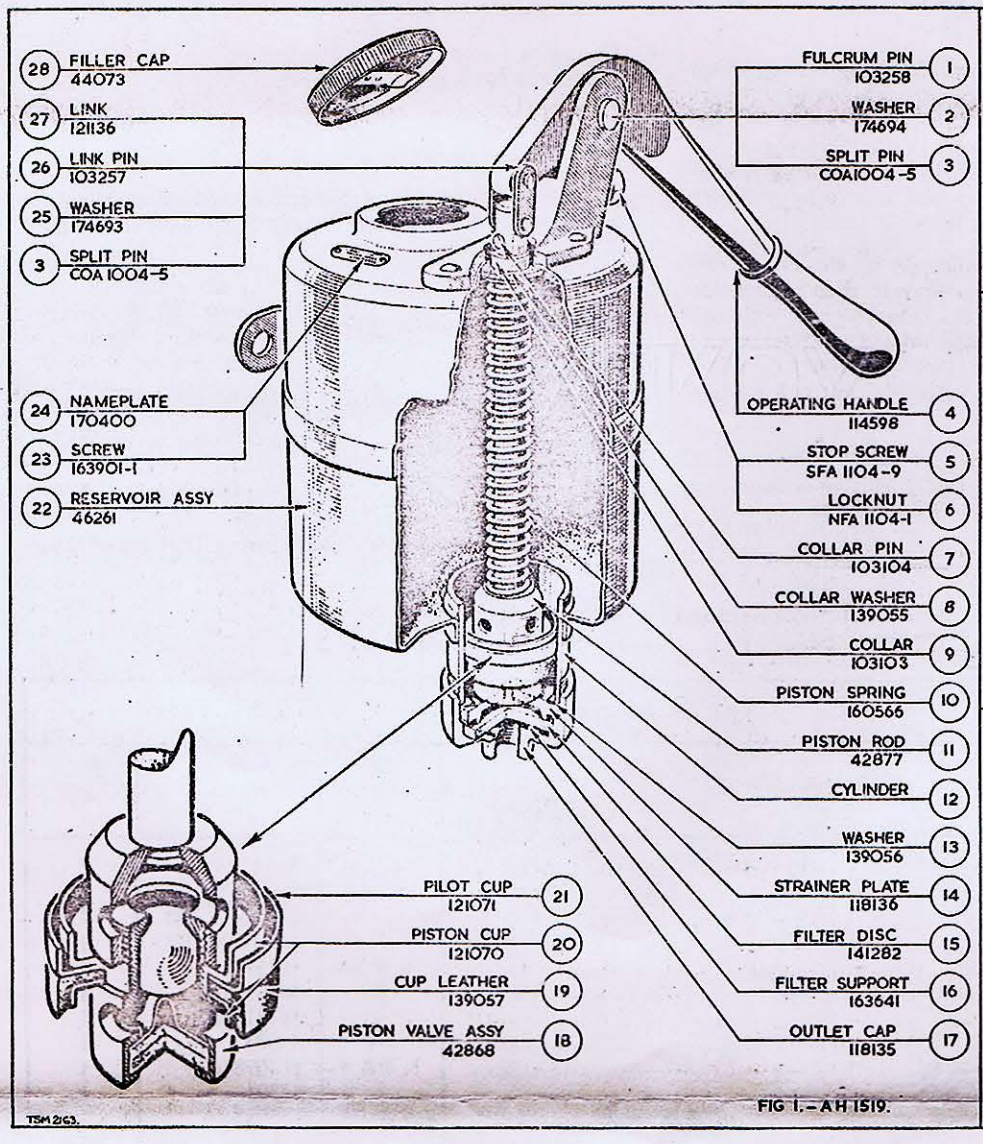


FIG 1. – AH 1519.

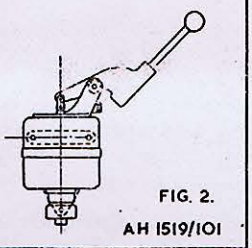


FIG. 2.
AH 1519/101

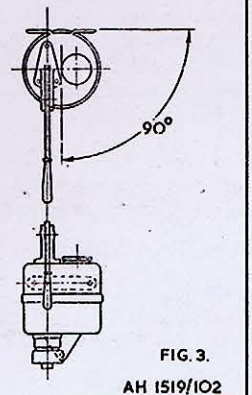


FIG. 3.
AH 1519/102

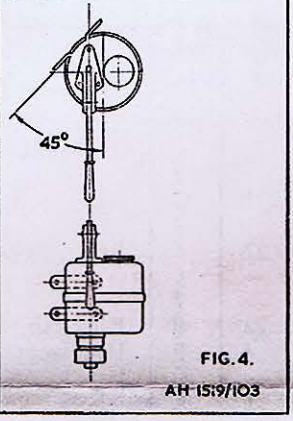


FIG. 4.
AH 1519/103

The Bijur hand-operated semi-automatic lubricator Type D is a means whereby a metered volume of lubricant at a predetermined pressure can be fed into a distribution system for the purpose of lubricating machinery bearings, etc. Four models of this lubricator are available; the variations being as illustrated above. Each pump is mounted in an oil reservoir of two pints capacity, the lubricant output per stroke can be varied by adjustment of the piston stroke and all output of lubricant is passed through a filter to protect the system and bearings from dirt.

The oil outlet is threaded $\frac{1}{8}$" B.S.P. but a connector (7606-3) is available suitable for $\frac{5}{32}$" O.D. pipe.

DESCRIPTION

The lubricator comprises a spring-loaded manually-operated piston contained in a cylinder (12) which carries the oil outlet cap (17), filter (15) and strainer plate (14) at the bottom.

The piston rod (11) carries a check valve assembly (18) at its lower end and is connected to an operating handle (4) where it projects through the top of the reservoir. When the operating handle is depressed the piston spring is compressed and lubricant is drawn into the cylinder through the check valve (18). Immediately the handle is released, the piston spring starts to return the piston to its original position, thereby pressurizing the lubricant contained in the cylinder, closing the non-return valve and forcing the lubricant into the delivery circuit via the filter (15).

The time taken for the piston to complete its pressure stroke is entirely dependent upon the restriction to the lubricant flow in the delivery circuit; during this time, however, the lubricator will maintain a constant delivery pressure of approximately 60 lb. p.s.i. The check valve (18) prevents reverse flow and maintains the distribution system tubing full of lubricant at all times.

An adjustable stop (5) permits the output per stroke to be varied, clockwise rotation to increase and anti-clockwise to decrease, maximum delivery 24 c.c.'s per stroke.

MAINTENANCE

Daily

1. Check oil level in reservoir.

Weekly

2. With the lubricator feeding the system, inspect the tubes and connections for evidence of oil leaks and rectify as necessary.

3. Ensure that the breather hole (hollow rivet) in the filler cap is clear and free from dirt. Remove filler cap for this check, do not poke dirt from the filler cap breather into the reservoir.

Monthly

4. Inspect and clean or renew filter (15).

Three monthly

5. Free and withdraw the lubricator from its installed

position. Remove the filler cap and empty the reservoir. Unscrew the oil outlet connector (17) and remove the lower pin from the piston rod link to the operating handle. The piston rod assembly can then be removed from the reservoir through the cylinder (12). Unscrew the check valve assembly from the piston, which action will free the piston cup leather. Blow out the check valve assembly with dry compressed air and examine the valve ball for signs of pitting. If pitted, renew the whole valve assembly. Examine the cup leather and renew it if in poor condition. Reassemble the piston and valve assembly in the reverse order to dismantling.

Prise out the filter disc (15) from the oil outlet connector (17), and clean it by washing it thoroughly in petrol until it is clean and white, or alternatively renew it. Reassemble the oil outlet connector in the following order: filter disc support (16), filter (15), one leatheroid washer (13), the strainer plate (14) (raised centre uppermost), and then the other leatheroid washer.

Examine the Oakenstrong washer (8) on the piston rod collar, and if in poor condition, renew it, then reassemble the piston rod assembly into the reservoir and refit the pin through the operating handle link. Finally screw the oil outlet connector on to the lower end of the cylinder, re-install the lubricator, refill with lubricant and replace the filler cap (28).

Operations 3, 4 and 5 may require to be performed at more frequent intervals when the lubricator is operating in a dust-laden atmosphere.

FAULT DIAGNOSIS

Fault 1
No lubricant issues from the oil outlet connector on the pump when the handle is operated.

Cause 1a
Reservoir empty or filter disc (15) clogged.

Remedy 1a
Refill reservoir or remove filter and clean or renew it.

Cause 1b
Dirt on valve ball seating in check valve assembly (18).

Remedy 1b
Remove and clean by vigorously shaking in clean kerosene, or renew check valve assembly.

Cause 1c
Piston cup leather (19) perished.

Remedy 1c
Renew piston cup leather.

Access to the filter and check valve assembly may be gained by following the instructions in para. 5 of MAINTENANCE.

Fault 2
Excessive oil consumption.

Cause 2a
Incorrect meter or regulator fitting calibration.

Remedy 2a
Install fittings of correct calibration.

Cause 2b
Defective piston valve seat (18) causing drainage of reservoir when not in use.

Remedy 2b
Renew piston valve assembly (18).

SPARE PARTS

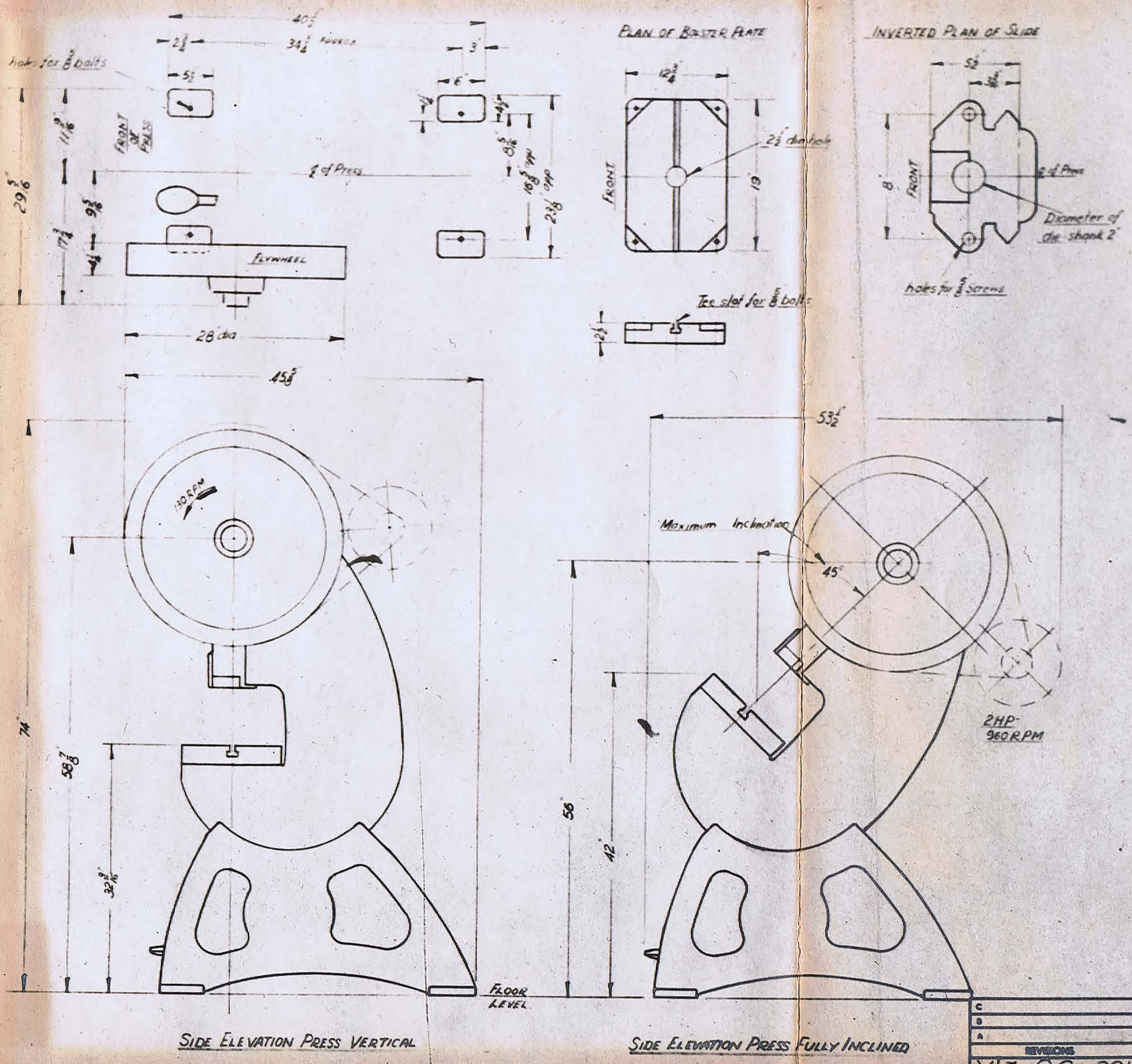
Fig. ref.	Item No.	Description	To fit Item	Part No.	No. off
	1	**Bijur Semi-Automatic Lubricator—Type D** Fig. 1		AH.1519	1
	2	" " " " Fig. 2		AH.1519/101	1
	3	" " " " Fig. 3		AH.1519/102	1
	4	" " " " Fig. 4		AH.1519/103	1
22	5	Reservoir assy.	1 & 2	46261	1
—	6	" "	3	46261/101	1
—	7	" "	4	46261/102	1
28	8	Filler cap	1-4	44073	1
4	9	Handle, operating	1, 3 & 4	114598	1
—	10	Handle, operating	2	42891	1
1	11	Pin, fulcrum	9 & 10	103258	1
2	12	Washer	11	174694	2
27	13	Link	9 & 10	121136	2
26	14	Pin, link	13	103257	2
25	15	Washer	14	174693	4
3	16	Split pin	11 & 14	COA.1004/5	6
5	17	Screw, stop	1-4	SFA.1104/9	1
6	18	Locknut	17	NFA.1104/1	1
24	19	Nameplate	1-4	170400	1
23	20	Screw, hammer drive	19	163901-1	2
—	21	**Piston rod assy.**	1-4	42876	1
18	22	Piston valve assy.	21	42868	1
20	23	Cup, piston	21	121070	2
21	24	Pilot cup, piston	21	121071	1
19	25	Cup leather	21	139057	1
10	26	Spring, piston	21	160566	1
9	27	Collar, spring	21	103103	1
7	28	Pin, collar	21	103104	1
11	29	Rod, piston	21	42877	1
8	30	Washer, collar	21	139055	1
17	31	Cap, outlet	1-4	118135	1
15	32	Filter disc	31	141282	1
16	33	Support, filter disc	32	163641	1
14	34	Strainer plate	31	118136	1
13	35	Washer, strainer plate	34	139056	2

GREAT WEST ROAD
BRENTFORD
MIDDLESEX

TECALEMIT
LIMITED

Grams: TECALEMIT
WESPHONE, LONDON
Telephone: EALing 6661

Printed in England



WEIGHT:

Fitted with Vee Belt Drive including motor	13 1/2 Cwt

CAPACITY -

Pressure exerted at bottom of stroke	15 Ton

DIE SPACE -

Stand stroke down & adjustment up	5 1/8"
Adjustment of Stroke	2"
Die shank	2" dia × 2 1/8" long

FRAME DIMENSIONS -

Hole through bed of Frame Right to Left	9"
Front to Back	8 1/2"

DRIVE

Standard strokes per minute	130 RPM
Power required	2HP
Speed of Motor	960 RPM

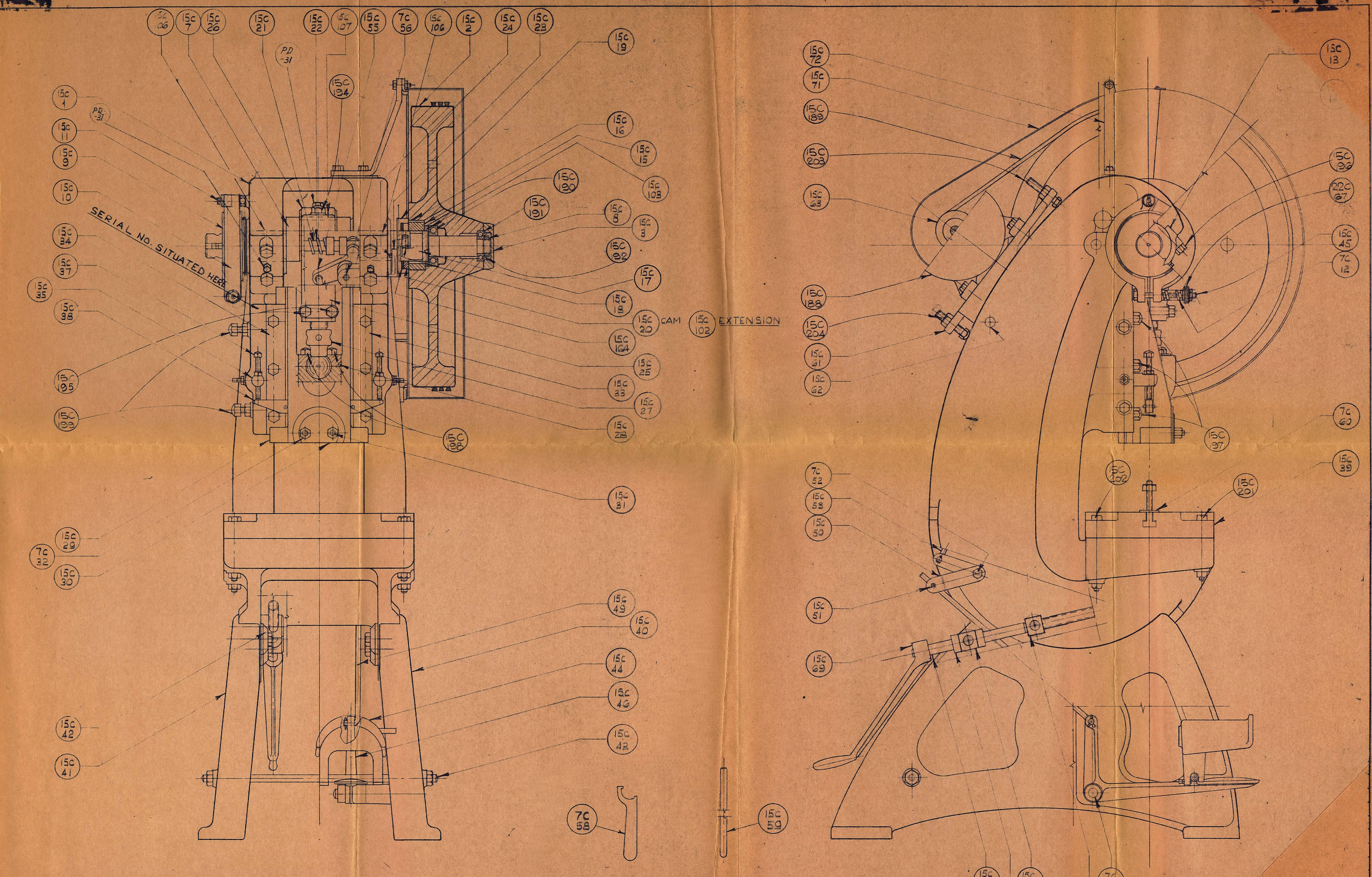
FOUNDATION

Level up feet on machine & bolt firmly to joists on wooden floor or bolt to concrete foundation.

15C - INCLINABLE POWER PRESS FOUNDATION DIAGRAM

15C-98

C		REF-SUB ASSBY.	
B		W. G. GOETZ & SONS LTD. — MELBOURNE —	SUPERSEDING
A	2		
REVISIONS	DATE / ISSUE		
	SERIAL NUMBER 309-	"15C" PRESS DETAILS	15C-98-E



STANDARD TYPE 15c POWER PRESS
GENERAL ASSEMBLY

USE THIS PRINT WITH SERIAL No:-

C			
B			
A		2	3
REVISIONS	DATE	ISSUE	
15C - 200 - E/X	SERIAL NUMBER 324-		

REF-SUB ASSBY.

W. G. GOETZ & SONS LTD.
MELBOURNE

LIMITS UNLESS OTHERWISE STATED	FRACTION ± .005	DECIMAL ± .0005

SUPERSEDING	DWN	JDV	20-7-58
Issue 2	TCD		
	CHK.	RSK	4-8-58

15c PRESS

15c-200-E X

15C -358

15C -345

15C -343

15C -346

15C -350

15C -352

15C -351

15C -347

15C -300

REF. SUB ASSBY 15C-370-

15C -344

15C -346

15C -312

REF. SUB ASSBY 15C-369.

15C -349

15C -357

15C -379

$4\frac{1}{16}$"

BRAKE SPRING LENGTH WHEN BRAKE IS ENGAGED.

NOTE: BRAKE SHOWN IN ENGAGED POSITION.

TO AIR RECEIVER

REF. SUB ASSBY 15C-365

40C -423

15C -353

15C -355

15C -356

15C -354

$\frac{3}{8}$" B.S.P. M & F ELBOW (BRASS).

PISTON TO HAVE $\frac{3}{16}$" TRAVEL TO RELEASE BRAKE

SUB-ASSEMBLY - BRAKE (AIR CLUTCH)

$\frac{3}{8}$" B.S.P. M.&F. BRASS ELBOW.	1	
MATERIAL	Nº	

C			
B			
A			1
REVISIONS		DATE	ISSUE
X	15C - 366-C	SERIAL NUMBER	325-

REF-SUB ASSBY.

W. G. GOETZ & SONS LTD.
MELBOURNE

LIMITS UNLESS OTHERWISE STATED	FRACTION ± .005	DECIMAL ± .0005

"15C" PRESS DETAIL

SUPERSEDING

Dwn. R.S.X. 2/9/44

Tcd.

Chk.

15C- 366 C/x