

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL
LATHE, ENGINE, BENCH MOUNTED, SOLID BED TYPE,
10 INCH SWING, NO. 2 MORSE TAPER CENTER,
1-3/8 SPINDLE HOLE, 110-VOLTS, 60 CYCLE,
SINGLE PHASE 3/4-HORSEPOWER, W/ARMY
DWG NO. 7550151 BENCH
(STANDARD-MODERN TOOL
SERIES 2,000 MODEL 11 INCH)
(3416-517-0955)

**This reprint includes all changes in effect at the time of
publication - Changes 1 and 2.**

HEADQUARTERS, DEPARTMENT OF THE ARMY

NOVEMBER 1965

Changes in force: C 1 and C 2

Change }
No. 2 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 26 April 1973

**Organizational Maintenance
Manual
LATHE, ENGINE, BENCH MOUNTED, SOLID BED TYPE,
10 INCH SWING, NO. 2 MORSE TAPER CENTER,
1-3/8 SPINDLE HOLE, 110-VOLTS, 60-CYCLE,
SINGLE PHASE, 3/4-HORSEPOWER W/ARMY
DWG NO. 7550151 BENCH
(STANDARD-MODERN TOOL SERIES 2000 MODEL 11 INCH)
(3416-517-0955)**

This change is current as of 16 March 1973.

TM 9-3416-225-12, 8 November 1965, is changed as follows:

Page ii. Add the following paragraph:

COMPONENTS OF THE END ITEM:

Parts included with the end item and considered as components of the end item configuration are listed in the following table.

TABLE 1. COMPONENT OF END ITEM

<i>Component</i>	<i>Part No.</i>	<i>Component</i>	<i>Part No.</i>
BELT, V:	25472:5L330	GEAR, SPUR:	36195:B-40386
CENTER, LATHE:	41672:295	GEAR, SPUR:	36195:B-40379
CENTER, LATHE:	36195:BD 3"	GEAR, SPUR:	36195:B-40380
CHUCK, COLLET:	75078.91-C-3	GEAR, SPUR:	36195:B-40381
CHUCK, DRILL:	75078:34-3406	GEAR, SPUR:	36195:B-40382
CHUCK, LATHE:	55130:9608-D3	GEAR SPUR:	36195:B-40387
CHUCK, LATHE:	55130:5606-D3	GEAR, SPUR:	36195:B-40384
COLLET SET:	75078:J-900-8	GEAR, SPUR:	36195:B-40385
COLLET, MACHINE:	75078:J-910	GEAR, SPUR:	36195:B-40377
COLLET, MACHINE:	75078:J-911	HOLDER, LATHE TOOL:	65814:8
COLLET, MACHINE:	75078:J-912	HOLDER, LATHE TOOL:	65814:30L
COLLET, MACHINE:	75078:J-913	HOLDER, LATHE TOOL'	65814:30R
COLLET, MACHINE:	75078:J-914	HOLDER, LATHE TOOL:	65814:20
COLLET, MACHINE:	75078:J-915	HOLDER, LATHE TOOL:	65814:0-L
COLLET, MACHINE:	75078:J-916	HOLDER, LATHE TOOL:	65814:0-R
COLLET, MACHINE:	75078:J-917	HOLDER, LATHE TOOL:	65814:0-S
DOG, LATHE:	03914:2-H	KNURLING TOOL:	65814:3-K-0
DOG, LATHE:	03914:3-H	KNURLING TOOL:	65814:0-K
DOG, LATHE:	03914:4-H	PIN, SHEAR:	36195:A30398
DOG, LATHE:	03914:5-H	PIN, SHEAR:	36195:A30750
DOG, LATHE:	03914:6-H	REST, FOLLOW:	36195:C-32223
DOG, LATHE:	03914:4	REST, STEADY:	36195:C-30339
FACE PLATE:	36195:50159	SLEEVE, SPINDLE:	36195:A32063
FACE PLATE:	36195:50161	STOP, CARRIAGE:	36195:B-32290
GEAR SET: C/O		WRENCH, COMPOUND.	65814:3
GEAR, SPUR:	36195:B-40378	WRENCH, TAILSTOCK:	65814:805
		WRENCH, TOOL POST:	65814:583

Page AI-1 Appendix I (with the exception of Figure 6 is superseded as follows:

APPENDIX I
BASIC ISSUE ITEMS LIST
AND
ITEMS TROOP INSTALLED OR AUTHORIZED LIST

Section I. INTRODUCTION

1. Scope

This appendix lists basic issue items and items troops installed or authorized.

- a. *Basic Issue Items List* - Not applicable.
- b. *Items Troop Installed or Authorized List* - Not applicable.

2. Reporting of Equipment Publication Improvements

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to: Commander, US Army Weapons Command, ATTN: AMSWE-MAS, Rock Island, IL 61201. A reply will be furnished directly to you.

By Order of the Secretary of the Army:

CREIGHTON W. ABRAMS
General, United States Army
Chief of Staff

Official:

VERNE L. BOWERS
Major General, United States Army
The Adjutant General

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 USACOMZEUR (3)
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 USACRREL (1)
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 WRAMC (1)
 VFGH (1)
 MFSS (1)
 USAAPSA (1)
 USMR (3)
 USAS/TC&FG (1)
 USATCFE (1)
 USAMERDC (1)
 USDB, Ft Leavenworth (2)
 USA Sig R&D Lab (2)

NG: State AG (3)

USAR: Same as active Army except allowance is one copy to ea unit

For explanation of abbreviations used, see AR 310-50.

CHANGE }
No. 1 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 24 June 1969

Organizational Maintenance Manual

**LATHE, ENGINE, BENCH MOUNTED, SOLID BED TYPE,
10 INCH SWING, NO. 2 MORSE TAPER CENTER, 1-3/8 SPINDLE
HOLE, 110-VOLTS, 60-CYCLE, SINGLE PHASE, 3/4-HORSEPOWER
W/ARMY/DWG NO. 7550151 BENCH
(STANDARD-MODERN TOOL SERIES 2,000 MODEL 11 INCH)
(3416-517-09556)**

TM 9-3416-225-12, 8 November 1965, is changed as follows:

Page AI-5, Section II BASIC ISSUE ITEMS LIST. Delete the following spur gears under "GEAR SET" change, for metric transposing and special threads"

GEAR, SPUR	45 teeth (36195:B-32251)
GEAR, SPUR	55 teeth (36195:B-32252)
GEAR, SPUR	65 teeth (36195:B-32253)
GEAR, SPUR	75 teeth (36195:B-32254)
GEAR, SPUR	95 teeth (36195:B 40393)

GEAR, SPUR	108 teeth (36195:B 40392)
GEAR, SPUR	120 teeth (36195:B 40391)

Page AIII-1, paragraph 3a(2). Opposite code "C" change "Organizational maintenance" to read "Obtain through local procurement".
Paragraph 3a(3). Opposite code "O" change "Obtain from local procurement" to read "Organizational maintenance".

By Order of the Secretary of the Army

W. C. WESTMORELAND,
General, United States Army,
Chief of Staff

Official.

KENNETH G. WICKHAM.
Major General, United States Army.
The Adjutant General

Distribution

Active Army

DCSLOG (1)	Armies (3) except	USACDCEC (10)	VFGH (1)
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CofEngrs (3)	Eighth (5)	Gen Dep (2)	USAAPSA (1)
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ACSC-E (1)	Ft Lee (3)	LEAD (4)	APG (2)
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USAMC (2)	USATSCH (1)	USACOMZEUR (3)	USAMERDC (1)
USAWECOM (75)	USAOC&S (1)	USABIOLABS (1)	USDB, Ft. Leavenworth (2)
ARADCOM (2)	USAQMS (1)	NLABS (1)	USATACOM (3)
ARADCOM Rgn (2)	USASCS (1)	USACRREL (1)	Units org under fol TOE:
USAREUR (1)	USAARMS (2)	USA Sig R&D Lab (2)	9-500 (1A) (2)
LOGCOMD (3)	USAINTS (1)	Engr FLDMS (3)	0-510 (DA) (2)
USARABD (1)	USAADS (1)	Sig FLDMS (1)	11 58 (2)
	Ft Knox FLDMS (1)	WRAMC (1)	

NG: State AG (3)

USAR: Same as active Army except allowance is one copy to each unit
For explanation of abbreviations used, see AR 320-50.

TECHNICAL MANUAL }
No. 9-3416-225-12 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 8 November 1965

ORGANIZATIONAL MAINTENANCE MANUAL
LATHE, ENGINE, BENCH MOUNTED, SOLID BED TYPE,
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SINGLE PHASE 3/4-HORSEPOWER, W/ARMY
DWG NO. 7550151 BENCH
(STANDARD-MODERN TOOL SERIES 2,000 MODEL 11 INCH)
(3416-517-0955)

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COMPONENTS OF THE END ITEM:

Parts included with the end item and considered as components of the end item configuration are listed in the following table.

TABLE 1. COMPONENT OF END ITEM

<i>Component</i>	<i>Part No.</i>	<i>Component</i>	<i>Part No.</i>
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CHUCK, LATHE:	55130:9608-D3	GEAR SPUR:	36195:B-40387
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COLLET, MACHINE:	75078:J-910	GEAR, SPUR:	36195:B-40377
COLLET, MACHINE:	75078:J-911	HOLDER, LATHE TOOL:	65814:8
COLLET, MACHINE:	75078:J-912	HOLDER, LATHE TOOL:	65814:30L
COLLET, MACHINE:	75078:J-913	HOLDER, LATHE TOOL:	65814:30R
COLLET, MACHINE:	75078:J-914	HOLDER, LATHE TOOL:	65814:20
COLLET, MACHINE:	75078:J-915	HOLDER, LATHE TOOL:	65814:0-L
COLLET, MACHINE:	75078:J-916	HOLDER, LATHE TOOL:	65814:0-R
COLLET, MACHINE:	75078:J-917	HOLDER, LATHE TOOL:	65814:0-S
DOG, LATHE:	03914:2-H	KNURLING TOOL:	65814:3-K-0
DOG, LATHE:	03914:3-H	KNURLING TOOL:	65814:0-K
DOG, LATHE:	03914:4-H	PIN, SHEAR:	36195:A30398
DOG, LATHE:	03914:5-H	PIN, SHEAR:	36195:A30750
DOG, LATHE:	03914:6-H	REST, FOLLOW:	36195:C-32223
DOG, LATHE:	03914:4	REST, STEADY:	36195:C-30339
FACE PLATE:	36195:50159	SLEEVE, SPINDLE:	36195:A32063
FACE PLATE:	36195:50161	STOP, CARRIAGE:	36195:B-32290
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AND
ITEMS TROOP INSTALLED OR AUTHORIZED LIST

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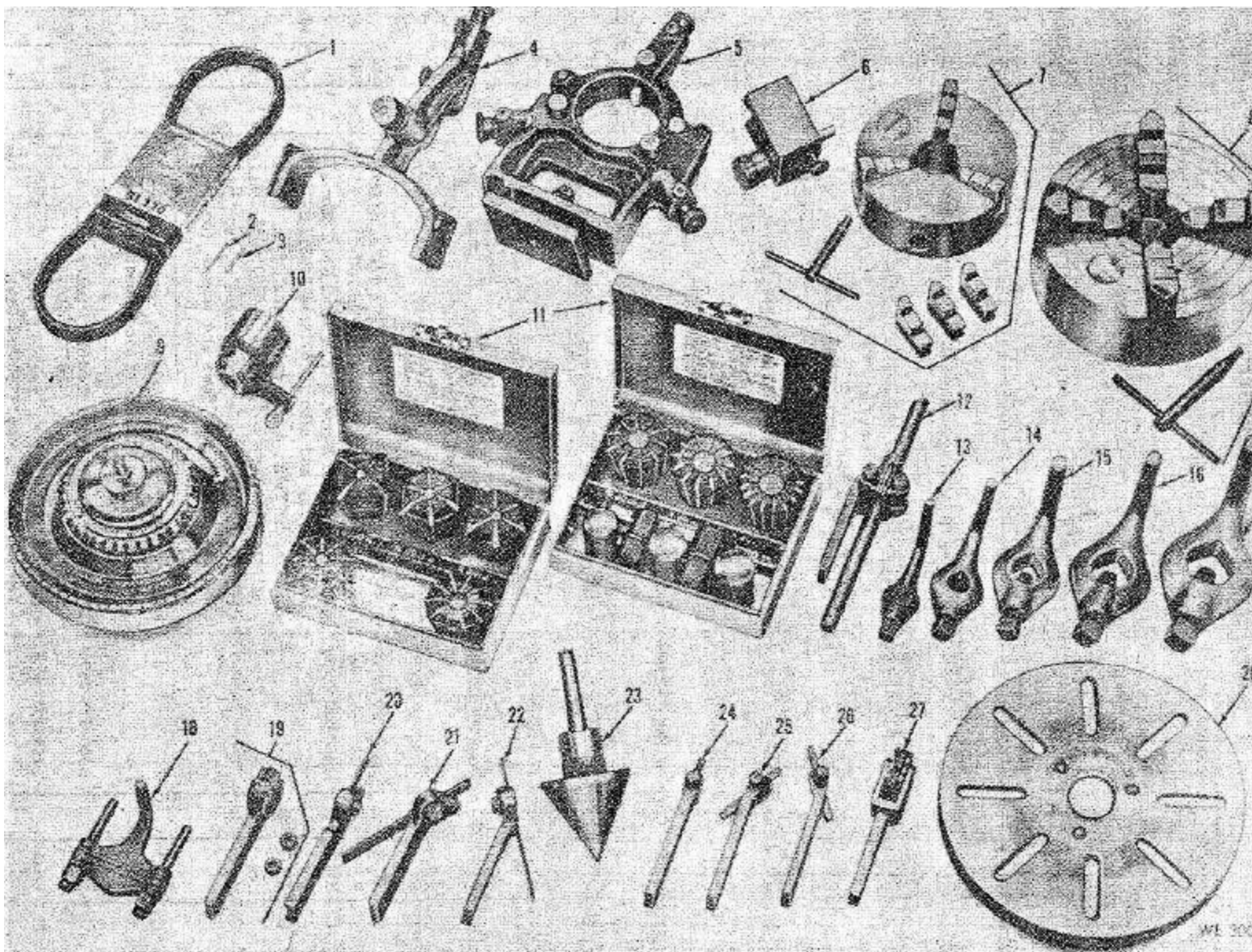


Figure 6. Tools and equipment

SECTION II BASIC ISSUE ITEMS LIST

(1) Source, Maintenance, and Recoverability Code				(2) Federal Stock No.	(3) Description	(4) Unit Issue	(5) Quantity Authorized	(6) Illustration	
(a) Material Code	(b) Source	(c) Maintenance Level	(d) Recoverability					(a) Figure No.	(b) Item No.
		AA	R	8416-517-0955	<p>MAJOR COMBINATION</p> <p>The following item is to be requisitioned for initial use only.</p> <p>LATHE, ENGINE: bench m, solid bed type, 10 in swing, No 2 Morse taper center, 1 3/8 spdl hole, 110-v, 60-c, sgle-ph, 3/4 hp (Standard-Modern Tool Co. Ltd., Series 2,000, Model 11 in.) (3416-517-0955)</p> <p>COMPONENTS OF MAJOR COMBINATION None authorized</p> <p>SPARE PARTS</p> <p>BELT, V: plain type, rubberized fabric, 33 od circ, 21/32 top w, 40 deg angle (25472:5L330)</p> <p>PIN, SHEAR: br, gear train (36195:A30398).....</p> <p>PIN, SHEAR: br, lead screw (36195:A30450)</p> <p>TOOLS AND EQUIPMENT FOR:</p> <p>LATHE, ENGINE: (36195:Series 2,000, Model 11 in.)</p> <p>CENTER, LATHE: ded type HSS tipped male pt hd, No. 2 Morse taper, 4 3/4 lg o/a (41672:295)</p> <p>CENTER, LATHE: live, rotor type, No. 2 Morse taper shank (36195:BD 3")</p> <p>CHUCK, COLLET: spdl nose, 1/16 to 1 3/8 cap., for Jacobs Rubberflex collets (75078:91-C-3)</p> <p>CHUCK, DRILL: 3-jaw 0 to 1/2 cap., No. 2 Morse taper, w/key and arbor (75078:34-3406)</p> <p>CHUCK, LATHE: 4-jaw, independent, 8 in. cap., w/reversible jaws and wrench (55130:9608-D3)</p> <p>CHUCK, LATHE: 3-jaw, universal, 6 in. cap., w/ internal and external jaws and wrench (55130:5606-D3)</p> <p>COLLET SET: Jacob Rubberflex, w/2 metal carrying eases, c/o one each of the following 8 collet sizes (75078:J-900-8)</p> <p>COLLET, MACHINE: flexible, rubber bonded, tapered, 1/16 to 1/8 cap. (75078:J-910).....</p> <p>COLLET, MACHINE: flexible, rubber bonded, tapered, 1/8 to 1/4 cap. (75078:J-911).....</p> <p>COLLET, MACHINE: flexible, rubber bonded, tapered, 1/4 to 3/8 cap. (75078:J-912).....</p> <p>COLLET, MACHINE: flexible, rubber bonded, tapered, 3/8 to 1/2 cap. (75078:J-913).....</p>				
	C	O/C	---	3030-180-2127	BELT, V: plain type, rubberized fabric, 33 od circ, 21/32 top w, 40 deg angle (25472:5L330)	ea	1	6	1
	C	O/C	---	---	PIN, SHEAR: br, gear train (36195:A30398).....	ea	1	6	2
	C	O/C	---	---	PIN, SHEAR: br, lead screw (36195:A30450)	ea	1	6	3
	C	O/C	---	3460-223-3768	CENTER, LATHE: ded type HSS tipped male pt hd, No. 2 Morse taper, 4 3/4 lg o/a (41672:295)	ea	2	---	---
	C	O/C	---	---	CENTER, LATHE: live, rotor type, No. 2 Morse taper shank (36195:BD 3")	ea	1	6	23
	C	O/C	R	3480-378-3790	CHUCK, COLLET: spdl nose, 1/16 to 1 3/8 cap., for Jacobs Rubberflex collets (75078:91-C-3)	ea	1	6	9
	C	O/C	R	3460-231-2260	CHUCK, DRILL: 3-jaw 0 to 1/2 cap., No. 2 Morse taper, w/key and arbor (75078:34-3406)	ea	1	6	10
	C	O/C	R	---	CHUCK, LATHE: 4-jaw, independent, 8 in. cap., w/reversible jaws and wrench (55130:9608-D3)	ea	1	6	8
	C	O/C	R	---	CHUCK, LATHE: 3-jaw, universal, 6 in. cap., w/ internal and external jaws and wrench (55130:5606-D3)	ea	1	6	7
	C	O/C	---	---	COLLET SET: Jacob Rubberflex, w/2 metal carrying eases, c/o one each of the following 8 collet sizes (75078:J-900-8)	set	1	6	11
	C	O/C	---	3480-378-3800	COLLET, MACHINE: flexible, rubber bonded, tapered, 1/16 to 1/8 cap. (75078:J-910).....	ea	1	6	---
	C	O/C	---	3460-378-3801	COLLET, MACHINE: flexible, rubber bonded, tapered, 1/8 to 1/4 cap. (75078:J-911).....	ea	1	6	---
	C	O/C	---	3460-378-3802	COLLET, MACHINE: flexible, rubber bonded, tapered, 1/4 to 3/8 cap. (75078:J-912).....	ea	1	6	---
	C	O/C	---	3460-378-3803	COLLET, MACHINE: flexible, rubber bonded, tapered, 3/8 to 1/2 cap. (75078:J-913).....	ea	1	6	---

SECTION II BASIC ISSUE ITEMS LIST - Continued

(1) Source, Maintenance, and Recoverability Code				(2) Federal Stock No.	(3) Description	(4) Unit Issue	(5) Quantity Authorized	(6) Illustration	
(a) Material Code	(b) Source	(c) Maintenance Level	(d) Recoverability					(a) Figure No.	(b) Item No.
	C	O/C	---	3460-378-3804	COLLET, MACHINE: flexible, rubber bonded, tapered, 1/2 to 5/8 cap (75078:J-914).....	ea	1	6	---
	C	O/C	---	3460-378-3805	COLLET, MACHINE: flexible, rubber bonded, tapered, 5/8 to 3/4 cap. (75078:J-915). ...	ea	1	6	---
	C	O/C	---	3460-378-3806	COLLET, MACHINE: flexible, rubber bonded, tapered, 3/4 to 7/8 cap. (75078:J-916)	ea	1	6	---
	C	O/C	---	3460-378-3807	COLLET, MACHINE: flexible, rubber bonded, tapered, 7/8 to 1 cap. (75078:J-917).....	ea	1	6	---
	C	O/C	---	3460-243-1955	DOG, LATHE: bent tail, sgle hds screw, 1/2 cap. (03914:2-H).....	ea	1	6	13
	C	O/C	---	3460-243-1956	DOG, LATHE: bent tail, sgle hdls screw, 3/4 cap. (03914: 4-H).....	ea	1	6	14
	C	O/C	---	3460-243-1957	DOG, LATHE: bent tail, sgle hdls screw, 1 cap. (03914: 4-H)	ea	1	6	15
	C	O/C	---	3460-248-9874	DOG, LATHE: bent tail, sgle hdls screw, 1 1/4 cap. (03914:5-H)	ea	1	6	16
	C	O/C	---	3460-243-1958	DOG, LATHE: bent tail, sgle hdls screw, 1 1/2 cap. (03914:6-H)	ea	1	6	17
	C	O/C	---	3460-187-2216	DOG, LATHE: clamp, bent tail, dble screw (03914:4)	ea	1	6	18
	C	O/C	---	---	FACE PLATE: large (36196:50159)	ea	1	6	28
	C	O/C	---	---	FACE PLATE: small (36196:50161).....	ea	1	---	---
	C	O/C	R	---	GEAR SET: change, for metric transposing and special threads.....	---	---	---	---
	C	O/C	---	---	GEAR, SPUR: 48 teeth (36195:B-40378).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 50 teeth (36195:B-40386).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 52 teeth (36195:B-40379).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 56 teeth (36195:B-40380).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 60 teeth (36195:B-40381).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 64 teeth (36195:B-40382).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 70 teeth (36195:B-40387).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 80 teeth (36195:B-40384).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 88 teeth (36195:B-40385).....	ea	1	---	---
	C	O/C	---	---	GEAR, SPUR: 127 teeth (36195:B-40377)....	ea	1	---	---
	C	O/C	---	---	HOLDER, LATHE TOOL: boring bar, c/o holder and boring bar (65814:8).....	ea	1	6	12

SECTION II BASIC ISSUE ITEMS LIST - Continued

(1) Source, Maintenance, and Recoverability Code				(2) Federal Stock No.	(3) Description	(4) Unit Issue	(5) Quantity Authorized	(6) Illustration	
(a) Material Code	(b) Source	(c) Maintenance Level	(d) Recoverability					(a) Figure No.	(b) Item No.
	C	O/C	---	---	HOLDER, LATHE TOOL: cutting off, left hand offset, 3/8 w, 7/8 h, 3 1/4 lg, w/blade and wrench (65814:30L).....	ea	1	6	22
	C	O/C	---	3460-234-2231	HOLDER, LATHE TOOL: cutting of, right hand offset, 3/8 w, 7/8 h, 3 1/4 lg, w/blade and wrench (65814:30R).....	ea	1	6	21
	C	O/C	---	---	HOLDER, LATHE TOOL: cutting off, stght, w/ blade and wrench (65814:20).....	ea	1	6	20
	C	O/C	---	3460-189-9106	HOLDER, LATHE TOOL: turning, left band offset, 3/8 w, 7/8 h, 5 lg, 1/4 sq bit accommodated w/wrench (65814:O-L).....	ea	1	6	26
	C	O/C	---	3460-222-4012	HOLDER, LATHE TOOL: turning, right and offset, 3/8 w, 7/8 h, 5 lg, 1/4 sq bit accommodated (65814:O-R).....	ea	1	6	25
	C	O/C	---	3460-189-9114	HOLDER, LATHE TOOL: turning, stght, 3/8 w, 7/8 h, 1/4 sq bit accommodated (65814-O-S)	ea	1	6	24
	C	O/C	---	---	KNURLING TOOL: 3/8 w, 7/8 h, 5 1/2 lg, revolving hd, w/standard face, diamond pattern knurls (65814: 3-K-O).....	ea	1	6	27
	C	O/C	---	---	KNURLING TOOL: 3/8 w, 7/8 h, 5 1/2 lg, w/ fine, med, and coarse knurls (65814: O-K)....	ea	1	6	19
	C	O/C	---	---	REST, FOLLOW: adj jaws (36195: C-32223).....	ea	1	6	4
	C	O/C	---	---	REST, STEADY: adj jaws (36195: C-36339).....	ea	1	6	5
	C	O/C	---	---	SLEEVE, SPINDLE: headstock, No. 2 Morse taper id (36195:A32063).....	ea	1	---	---
	C	O/C	---	---	STOP, CARRIAGE: micrometer, screw adj, 3/4 screw travel (36195:B-32290).....	ea	1	6	6
	C	O/C	---	---	WRENCH, COMPOUND: sgle open end, 11/16 opgn (65814: 3).....	ea	1	---	---
	C	O/C	---	---	WRENCH, TAILSTOCK: sgle hd, hexagon box, 7/8 opng (65814: 805).....	ea	1	---	---
	C	O/C	---	---	WRENCH, TOOL POST: sgle hd, sq box, 3/8 opgn (65814: 583).....	ea	1	---	---

APPENDIX II

MAINTENANCE ALLOCATION

1. General

The maintenance allocation chart allocates maintenance operations to the proper category of maintenance. Allocations of maintenance operations is made on the basis of time, tools, and skills normally available to the various categories of maintenance in combat situation and influenced by maintenance policy and sound maintenance practices, as outlined in AR 750-5.

2. Explanation of Format

Purpose and use of the maintenance allocation chart format are as follows:

- a. *Column 1, Group Number.* Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies and modules with the next higher assembly.
- b. *Column 2, Functional Group.* Column 2 lists the noun names of components, assemblies, subassemblies, and modules on which maintenance is authorized.
- c. *Column 3, Maintenance Functions.* Column 3 lists the category of maintenance.
- d. *Column 4, Tools and Equipment.* This column will be used to specify, by code, those tools and test equipment required to perform the designated function.
- e. *Column 5, Remarks.* Self-explanatory.

3. Maintenance Functions

Maintenance functions will be limited to and defined as follows:

- INSPECT.....To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.
- SERVICETo clean, to preserve, to charge, and to add fuel, lubricants, cooling agent, and air.

- ADJUST.....To rectify to the extent necessary to bring into proper operating range.
 - ALIGN.....To adjust specified variable elements of an item to bring to optimum performance.
 - INSTALLTo set up for use in operational environment such as an emplacement, site, or vehicle.
 - REPLACETo replace unserviceable items with unserviceable assemblies, subassemblies, or parts.
 - REPAIRTo restore an item to serviceable condition. This includes, but is not limited to, inspection, cleaning, preserving, adjusting, replacing, welding, riveting, and strengthening.
 - OVERHAUL.....To restore an item to a completely serviceable condition as prescribed by maintenance serviceability standards.
 - REBUILDTo restore an item to a standard as nearly as possible to original or new condition in appearance, performance and life expectancy. This is accomplished through complete disassembly of the item, inspection of all part or components, repair or replacement of worn or unserviceable element (items) using original manufacturing tolerances and specifications, and subsequent reassembly of the item.
- MAINTENANCE LEVEL.....The arabic numeral placed in the appropriate column indicates the level responsible for performing that particular maintenance function.

MAINTENANCE ALLOCATION CHART
 FOR
 LATHE, ENGINE: (SHELDON MACHINE
 COMPANY, INC. MODEL XL)
 (3416-517-0955)

(1) Group No.	(2) Functional Group	(3) Maintenance Function									(4) Tools and Equipment	(5) Remarks
		Inspect	Service	Adjust	Align	Install	Replace	Repair	Overhaul	Rebuild		
1	Lathe engine	1	1	2	3	3	-	-	4	5		
2	Headstock.....	1	1	2	-	-	-	3	4	-		
3	Tailstock	1	1	1	-	-	3	3	-	-		
4	Carriage.....	1	1	-	-	-	-	3	-	-		
5	Change gears.....	1	1	1	-	-	4	4	4	-		
6	End and metric gears	1	1	1	-	1	3	-	-	-		
7	Electric motor	1	1	-	2	-	2	-	3	4		
8	V-Belts.....	1	-	1	2	-	2	-	-	-		
9	Sheet pins	1	-	-	-	-	2	-	-	-		

APPENDIX III

REPAIR PARTS AND SPECIAL TOOL LIST

SECTION I. INTRODUCTION

1. General

a. This appendix is a list of repair parts which may be required by the using organization for performing organizational maintenance but are not authorized to be stocked. These items are to be requisitioned as required for immediate use only.

b. For prices of items listed herein, see the appropriate supply catalog management data list (ML).

c. Additional applications of items in this manual are listed in the supply catalog cross-reference list (XL).

normally furnished by supply on an exchange basis.

b. *Federal Stock Number (col. 2).* Self-explanatory.

c. *Description (col. 5).* This column indicates the Federal item name (shown in capital letters) and any additional description required for supply operations. The manufacturer's code and part number is also included for reference.

2. Requisition Notes

See appendix I, paragraph 2.

3. Explanation of Columns

a. *Source, Maintenance, and Recoverability Code (col. 1).*

- (1) *Material numerical codes (col. 1a).* This column is not required.
- (2) *Source (col. 1b).* This column indicates the selection status and source for the listed item. Source code used in this list is -

<i>Code</i>	<i>Explanation</i>
C	Obtain through local procurement. If not obtainable from local procurement, requisition through normal supply channels with a supporting statement of nonavailability from local procurement.

- (3) *Maintenance level (col. 1c).* This column indicates the category of maintenance authorized to install the listed item. Maintenance level code used in this list is -

<i>Code</i>	<i>Explanation</i>
O	Organizational Maintenance.

- (4) *Recoverability (col. 1d).* This column indicates whether unserviceable items should be returned for recovery or salvage. When no code is indicated, the item will be considered expendable. Recoverability code used in this list is -

<i>Code</i>	<i>Explanation</i>
R	Items which are economically repairable at direct and general support maintenance activities and are

<i>Code</i>	<i>Explanation</i>
25472:.....	B. F. Goodrich Co.
36195:.....	Standard-Modern Tool Co., Ltd.
93369:.....	Robbins & Meyers Inc.

d. *Unit of Issue (col. 4), Quantity Incorporated in Unit (col. 5), and Illustration (col. 7).* Self-explanatory.

e. *15-Day Maintenance Allowance (col. 6).* Repair parts which may be required for performing authorized maintenance, but are not authorized for stockage in the prescribed load, are indicated by an asterisk. These items are to be requisitioned, as required, for immediate use only.

4. Special Information

Basic issue items are listed in appendix I.

5. Abbreviations

<i>Abbreviations</i>	<i>Explanation</i>
amp	ampere(s)
brg	bearing(s)
c	centrigrade
circ	circumference
c	cycle(s)
deg	degree(s)
ph	phase
v	volt(s)
w	wide, width

6. Errors, Comments, and/or Suggestions

Reports of errors, comments and/or suggestions are encouraged. They should be reported on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, Headquarters, U. S. Army Weapons Command, ATTN: AMSWE-SMM-P, Rock Island Arsenal, Rock Island, Ill. 61202.

SECTION II. REPAIR PARTS AND SPECIAL TOOLS

(1) Source, Maintenance and Recoverability Code				(2)	(3)	(4)	(5)	(6)	(7) Illus- tration	
(a) Material Code	(b) Source	(c) Maintenance Level	(d) Recover- ability	Federal Stock No.	Description	Unit of Issue	Quantity Incorporated in Unit	15-day Maintenance Allowance per 100 Equipments	(a) Figure No.	(b) Item No.
REPAIR PARTS FOR LATHE ENGINE (36195:Series 2,000, Model 11 in.)										
	C	O	--	3030-180-2127	BELT, V: plain type, rubberized fabric, 33 od circ, 21/22 top w, 40 deg angle (25642:5L330).....	ea	1	*	6	1
	C	O	R	---	MOTOR, ELECTRICAL: 3/4 hp, 115/230-v, 60-c, sgle-ph, 1725 rpm, ball brg fan cooled, capacitor start, frame 562 (NEMA 56), 12/6 amp fungus proof, 5 deg C temperature use, continuous run (98369:3/4)	ea	1	*	---	---
	C	O	---	---	PIN, SHEAR: br, gear train (36195:A30398)	ea	1	*	6	2
	C	O	--	---	PIN, SHEAR: br, lead screw (361965:A30460).....	ea	1	*	6	3

Lifting and Installation Instructions

1. Lifting the Machine:

To lift the machine by the use of chain slings, run the carriage down to the tailstock and place the slings around wood blocks. (See Fig. 1). Protect painted surfaces with thick pads and wood blocks.

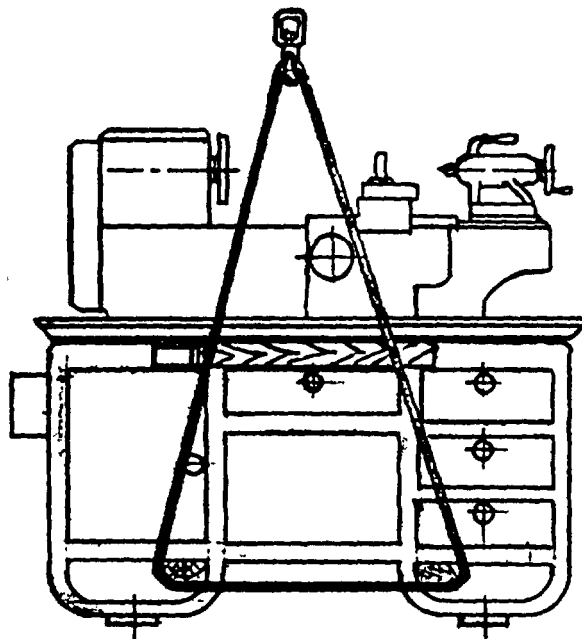


FIGURE 1

Do not attempt to lift this machine with a hoist having less than one ton capacity. The shipping weight of the machine including electrics is 1200 lbs.

Do not remove skids from the machine until it is brought to its final position especially if the machine is to be moved on rollers.

2. Cleaning:

All unpainted parts of the machine have been coated with an anti-rust compound. This should be thoroughly removed after the machine is installed, and before moving the carriage, compound rest or tailstock on their respective slides.

To remove the anti-rust compound use a wiper dipped in Varsol or Kerosene.

All unpainted surfaces should immediately be coated with a film of light machine oil to prevent rust. If the finished surfaces are kept clean and well coated with oil, the lathe will retain its new appearance indefinitely.

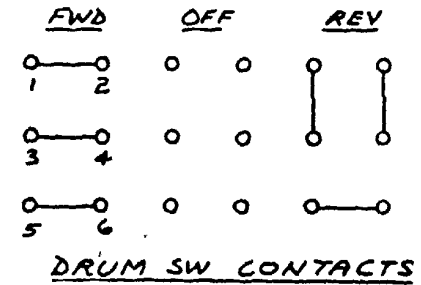
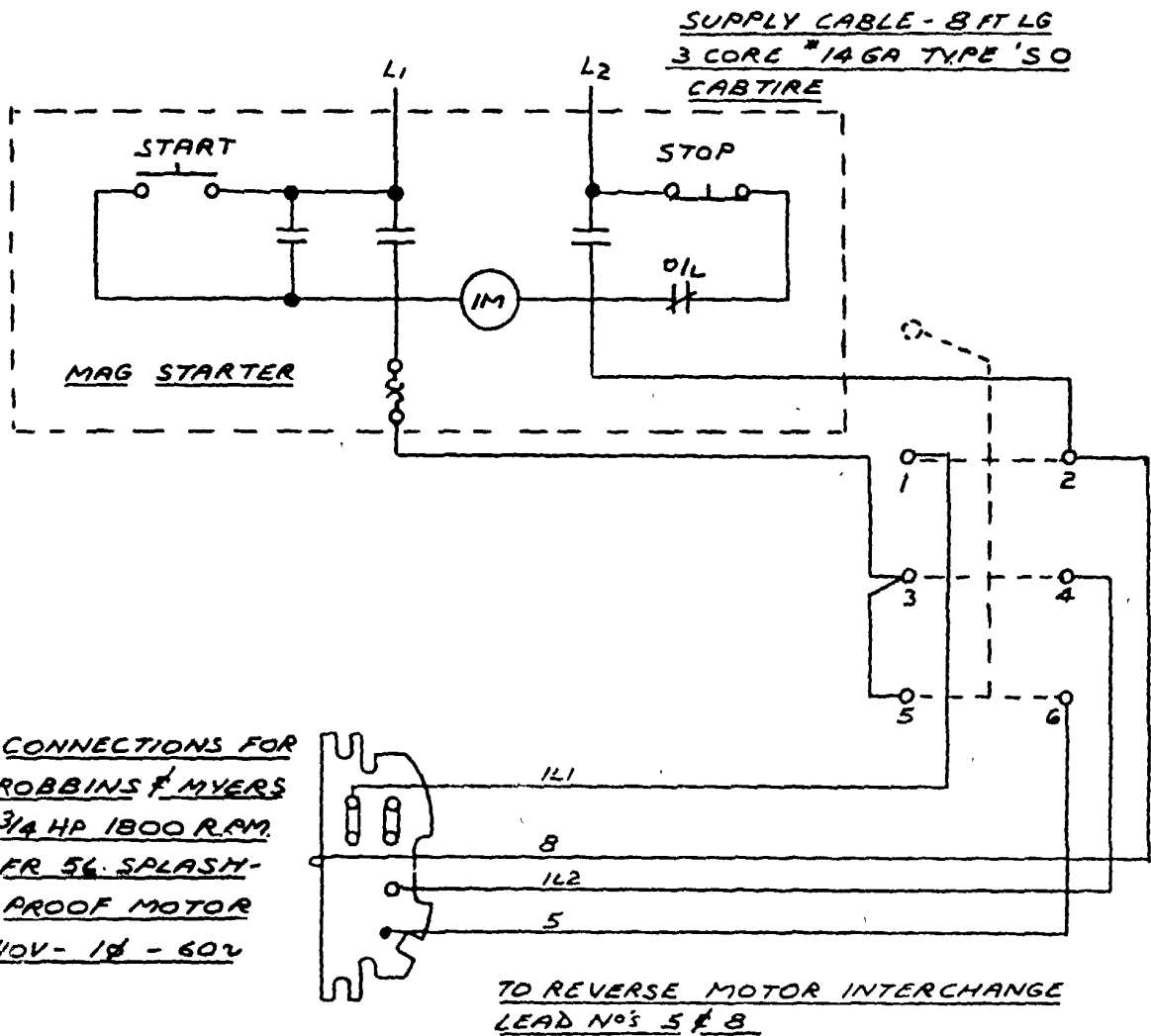
3. Inspection:

Check your delivery slip against the accessories that were ordered with the machine. If there is a shortage or error, report it to Standard-Modern Tool Co. Limited immediately, giving the serial number of the machine which is stamped on the recessed face, on the top of the bed at the tailstock end.

4. Installation

For proper operation the lathe with bench should be set on substantial floor capable of supporting the weight safely. To secure the lathe in its foundation, use bolts and screws supplied.

For mounting particulars see Ordnance Corps Dept. of Army Sketch S 10004 Rock Island Arsenal.



ELECTRICAL DIAGRAM 11" X 30"
LATHE FOR US ARMY
SPECIAL CABINET BASE

LUBRICATION

All machines are shipped with the lubricating oil drained from the oil sumps in the headstock and apron, and must be serviced before being put in use.

For proper lubrication follow the instructions listed in this manual.

Oil capacities listed under lubrication instructions are based on British Imperial Measure.

Headstock

An automatic splash type of lubrication provides an even distribution of oil to all gears and bearings in the Headstock.

To service the headstock, fill the reservoir to the centre of the oil sight gauge through the oil cap on the cover plate.

A high grade S.A.E. No. 30 oil should be used.

The reservoir capacity of the headstock is ?? quarts.

Depending on operating conditions, usually about every six months, the headstock should be drained and thoroughly flushed out, before adding new oil.

A light blending oil to which a small percentage of kerosene has been added may be used to flush out any dirt or sediment.

Run the machine for several minutes without load so that the flushing oil can circulate through the reservoir and remove the dirt.

The flushing oil must then be drained and new oil added.

Do not flush with solvents, which will soften and remove the paint.

Quick Change Gear Box

Two oilers located at the top ends of the Gear Box Casting, and one oiler located in Bearing Bush (inside the Belt Guard) lubricate all bearings and gears in the quick change gear box.

Fill the three oilers with machine oil at least once per eight hours of operation. Use an S.A.E. #30 oil.

Carriage

On the right hand side of the carriage two oilers lubricate the bearing surfaces of the carriage on the bed ways.

The oil flows down through the oilers to the ways, and along the length of the carriage through oil grooves. The oil is retained at the bearing surfaces by felt seals located at either end of the carriage which also provides even distribution of the lubricant over the ways.

Apron

The box construction of the apron completely encloses all moving parts and prevents the entry of dust or dirt.

The lower half of the apron forms a large oil reservoir in which all the gears run to provide an even distribution of lubricant.

Service the apron reservoir through the 1/4" pipe plug in the saddle casting.

Fill with oil to the centre of the oil sight gauge using an S.A.E. No. 30 oil. The reservoir capacity of the apron is 1 pint.

The apron oil reservoir should be drained, flushed with kerosene, and refilled with fresh clean oil at least once every 6 months.

Two individual oilers service the half-nut and the feed dial.

LUBRICATION (Contd.)Tailstock

The spindle and screw are lubricated by an oiler located on top of the spindle housing.

The bed ways on which the tailstock slides should be cleaned and oiled frequently.

Dry red lead mixed with machine oil to a creamy consistency is an excellent lubricant for the tailstock centre when machining work between centres.

Compound Slide and Cross Slide

On the compound slide one flush-type oiler lubricates both ways and screw, while another lubricates the screw bearing.

On the cross feed, the screw bearing is lubricated by an oiler behind the cross feed dial. Lift chip guard and apply a small amount of oil to the cross feed screw before using.

Two oilers on the cross slide lubricate the saddle ways individually.

Leadscrew Bracket and Leadscrew

A single oiler located on top of the lead screw end bracket lubricates both the end of the feed shaft and the end of the leadscrew.

Taper attachment

Apply a small amount of oil to the taper attachment slide before using.

Miscellaneous Lubrication

For all oilers on the machine use a medium S.A.E. No. 30 machine oil. Before filling reservoirs or oil cups, always wipe off with a clean rag any accumulation of old oil, grease or dirt that might get into a part being lubricated.

Operating Instructions

1. Motor Control

The magnetic starter located just below tray at left of cabinet base governs the operation of the motor. With "Reverse" lever in central (vertical) position - press "Start" button pulling in starter to connect power to lathe. Move the lever to "Forward" and the motor turns the spindle in the normal direction for turning drilling, boring, etc. Move the lever to central (vertical) position and the motor is shut off. Move the lever to "Reverse" and the spindle direction is reversed. Press "Stop" button and starter disconnects power to lathe.

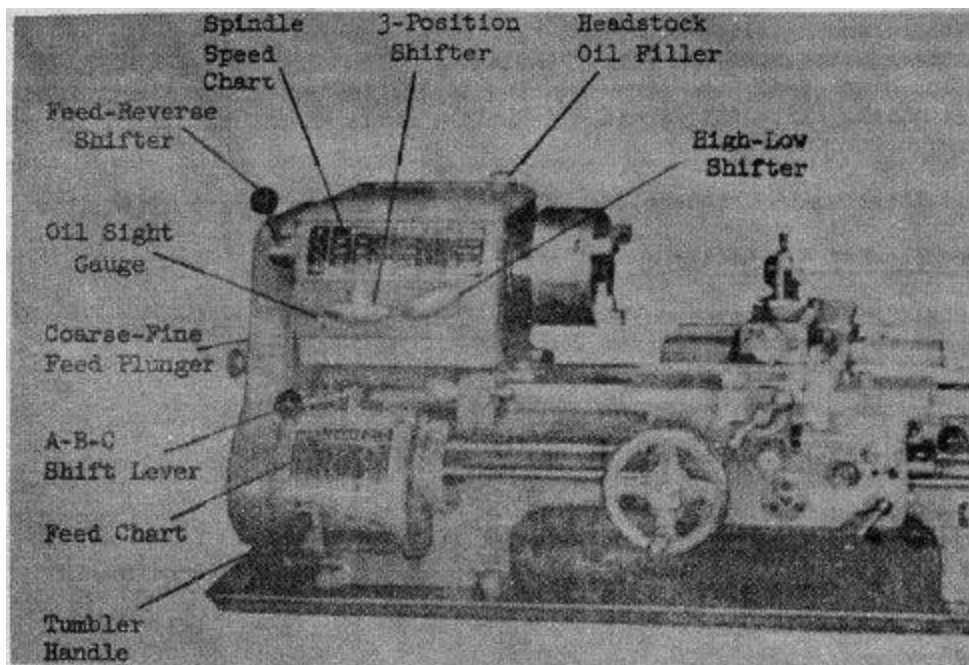


FIGURE 3

2. Spindle Speed Control Handles.

At the left front of the headstock, Fig. 3 is the three position shift handle.

Immediately above, on the front of the headstock, is the Direct Reading Spindle Speed Chart.

The desired spindle speed is obtained by (i) Placing the three position shift handle in one of the three positions; (ii) Moving the high-low shift lever to either the high or low range; (iii) Running the input V-belt over either the slow or the fast pulley.

The resultant spindle speed may be noted directly from the chart.

For free hand rotation of the spindle, move the High-low shift handle to its neutral position.

Do not operate the shift handles while the spindle is revolving.

Operating Instructions (contd.)

3. Power Feeds

For longitudinal power feed or cross power feed, arrange the shift handles on the headstock and the Quick Change Gear Box, to correspond to the desired feed rate as shown on the feed chart, Fig. 3.

Set the "Feed-Reverse" lever located on the left hand side of the headstock to "Feed", for L.H. Feed, or to "Reverse", for R.H. feed. For coarse feed range, pull out plunger protruding through belt guard, and for fine feed, push plunger in, as indicated on Thread and Feed Chart. Do not engage the coarse feeds when spindle speeds are over 100 r.p.m.

The A-B-C shift handle located on top of the Feed Box, and the tumbler lever at the bottom, are used to obtain the required thread or feed indicated on Feed Chart.

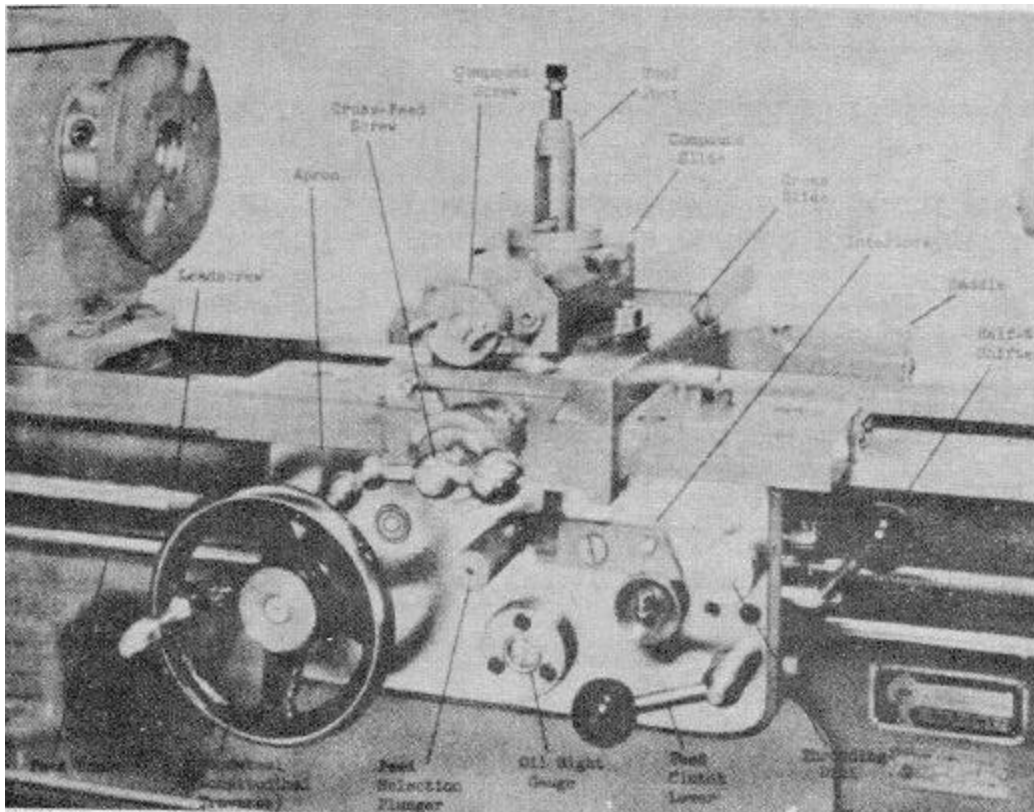


FIGURE 4

For longitudinal power feed, push in the Feed Selection Plunger located on the front centre of the apron to obtain the feed indicated on Chart.

For cross power feed, pull out the Plunger, which will produce a feed at half the rate indicated on Chart.

An interlock is fitted so that it is impossible to engage the Feed Selection Plunger if the half-nut is already engaged and vice versa.

After setting the Feed Selection Plunger the power should be clutched in by the Feed Clutch Handle located on the front lower right corner of the apron.

Do not use Feed Selection Plunger for clutching in.

Operating Instructions (contd.)

4. Half Nut Control and Thread Chasing Dial

For cutting screw threads, set the A-B-C handle and the tumbler handle to give the required T.P.I. on the Feed Chart.

To engage Apron for Threading, the Half-Nut is pushed into mesh with the leadscrew by the Half-Nut Shifter located on the right end of the Apron. At the end of the first cut, disengage the Half-Nut, withdraw the tool from the work and return the carriage to its starting position. The tool is then set to the next depth of cut and the Half-Nut is re-engaged with the correct line on the Dial lined up with the Index Line (See below).

5. Thread Chasing Dial Instructions

The Dial on the left front of the Apron has 4 divisions marked 1, 2, 3, 4, and 4 unmarked half-divisions. A 4" traverse of the carriage gives one complete turn of this Dial.

- (i) When the number of threads per inch is divisible by 8, disregard the Dial.
- (ii) When the thread has an even number of T.P.I., e.g., 12, 22, T.P.I., engage the Half-Nut at any graduation.
- (iii) For an odd number of T.P.I., e.g., 11, 13, T.P.I., engage only on numbered graduations.
- (iv) For half T.P.I., e.g., 3 1/2, 4 1/2 T.P.I., engage the Half-Nut only on opposite numbered lines, i.e., 1 and 3, or 2 and 4.
- (v) For quarter T.P.I., e.g., 5-3/4, 3 1/4 T.P.I., engage Half-Nut on the same numbered line each time.
- (vi) For metric threads (See Page 14).

Camlock Stud Adjustment

Camlock studs, required for all face-plates, chuck adapters etc., must be properly adjusted in order to be held securely by the cams in the spindle nose

1. Turn studs in until reference line is flush with finished face of plate or adapter.
2. Continue turning stud in until groove lines up with lock screw hole. (Ref. line must be flush or below).
3. Insert lock screw and tighten.

Lead Screw Shear Pin

This brass shear pin is located at the left-hand end of the lead screw (see below) and is provided to prevent damage to the lead screw should the carriage be allowed to come in contact with the headstock or some other obstruction which acts as a positive stop. When the stoppage takes place the lead screw continues to turn in the half nuts and will begin to move endwise thus shearing the pin longitudinally. The shear pin can be readily replaced by first withdrawing the lead screw from the coupling to remove the three portions of broken pin. It is then returned to the coupling and rotated by hand until the zero line on the screw coincides with that on the coupling. A new shear pin, which is provided with the machine, is then driven into place.

Gear Train Shear Pin

This brass shear pin is located in the feed gear shaft and drives the top gear (see below) of the end gear train under the belt guard. It is provided to prevent damage to the feed compound gears in the headstock due to a possible seizure in the feed box. A new pin, which is provided with the machine, can be readily fitted by first removing the gear and knocking the broken portions out of the shaft and gear. The new pin is then fitted to the shaft and gear. It is essential, of course, to locate and remedy the cause of the seizure.

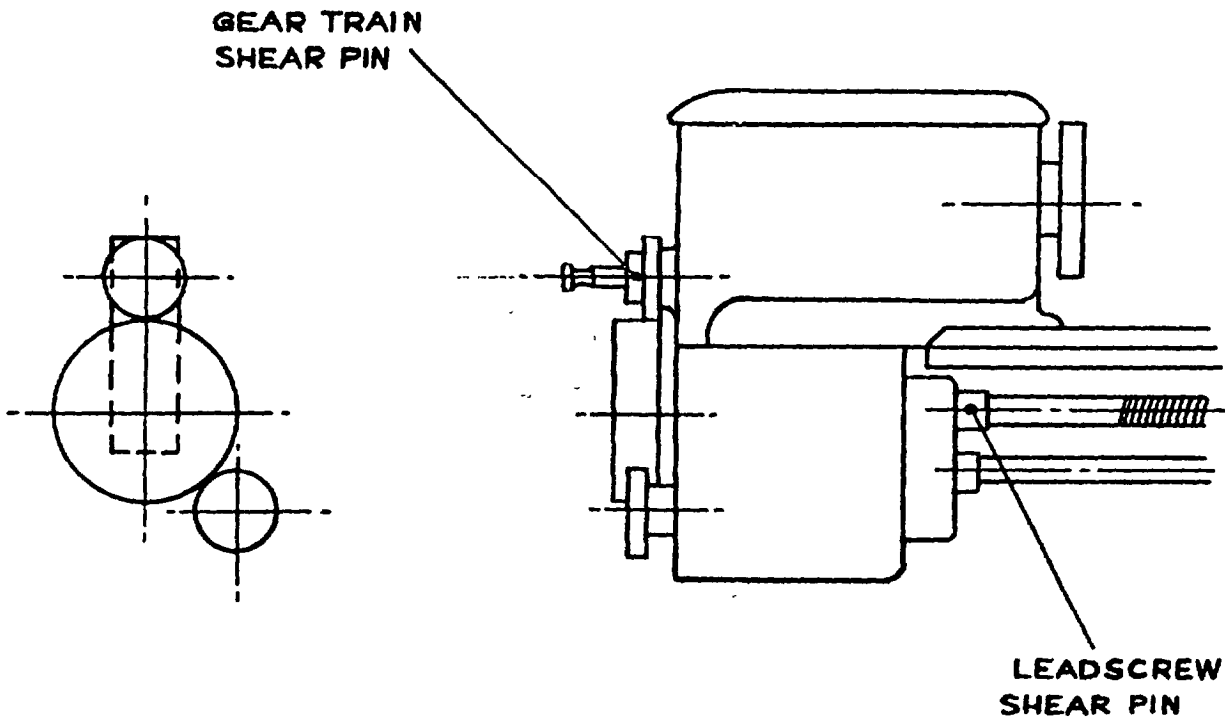


FIGURE 5

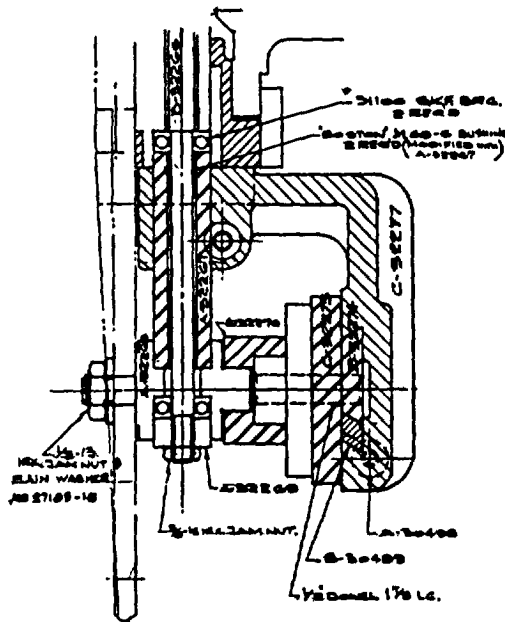
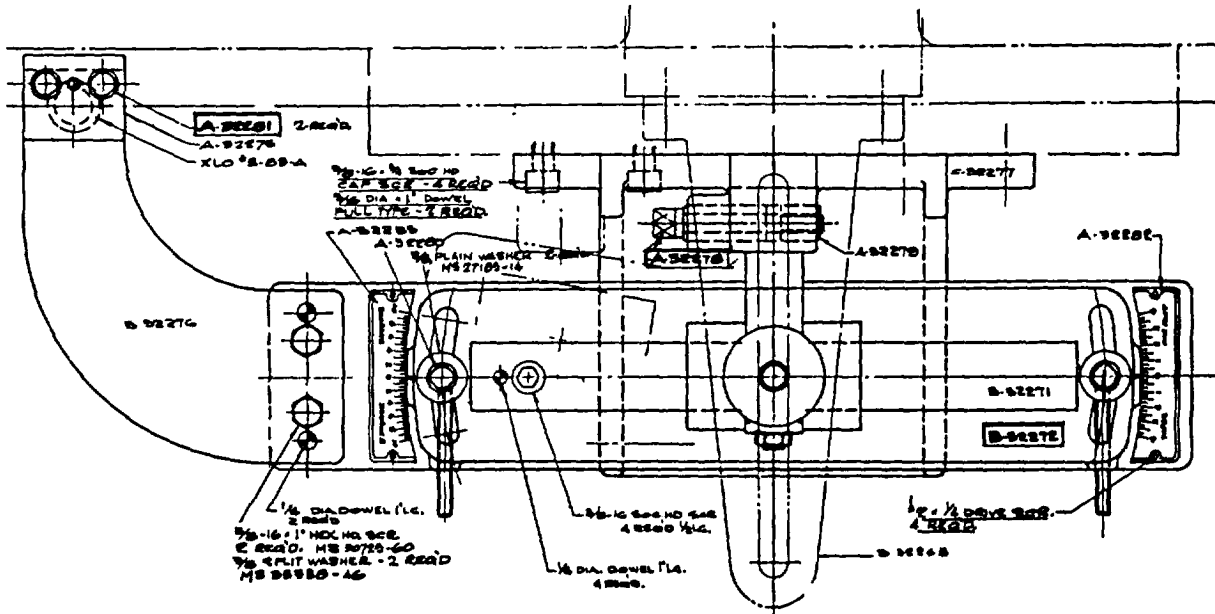
For Taper Turning

When using taper attachment, loosen Screw A-32278 and tighten Screws A-32281.

For Straight Turning

When taper attachment is not in use, loosen Screws A-32281 and tighten A-32278.

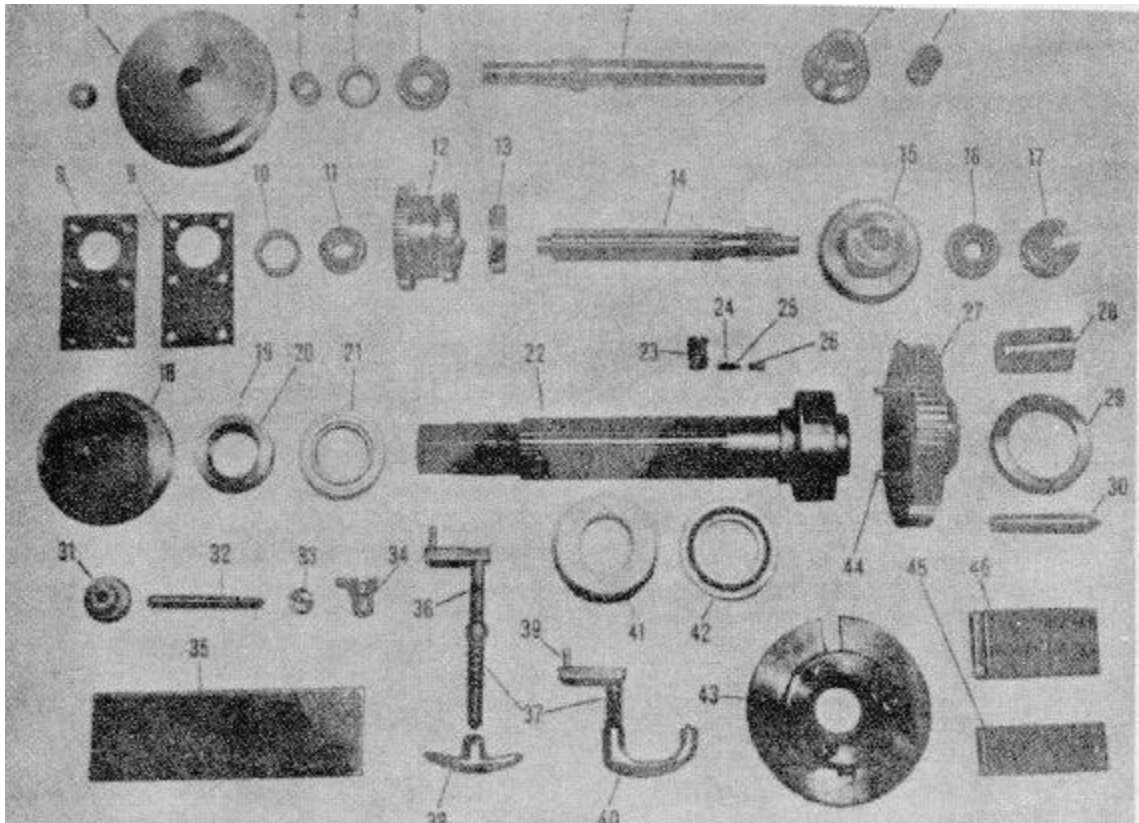
Also Swivel bar B-32272 must be set and locked at a slight angle, so that the taper attachment will move with the saddle.



HEADSTOCK PARTS LIST

ITEM	NAME	PART NO.
1	HEADSTOCK PULLEY	B-30348
	SPECIAL WASHER	A-30566
2	TORRINGTON INNER RACE	IR-1212
3	PERFECT OIL SEAL	1481
4	SKF BEARING	6204
5	PULLEY SHAFT	B-30534
6	26T & 37T DOUBLE GEAR	A-30535
7	OILITE BEARING	AA1049
8	BEARING RETAINER PLATE	A-30533
9	GASKET FOR RET. PLATE	A-30553
10	BEARING SPACER	A-30540
11	SKF SEARING	6203
12	56T & 48T DOUBLE GEAR	B-32054
13	37T GEAR	B-32055
14	INTERMEDIATE SHAFT	B-32057
15	56T GEAR	B-32056
16	SKF BEARING	6303
17	BEARING RETAINER	A-30541
18	MOTOR PULLEY (3/4 HP-1800)	4034
	MOTOR PULLEY (1-HP-1800)	B-32095
19	BRASS PAD	A-30564
20	SPINDLE NUT	A-32066
21	SKF BEARING	6009-2RS
22	CAM-LOCK SPINDLE	C-32064
23	CAMS FOR 3"-DI (3)	
24	PLUNGERS (3)	A-30613
25	SPRINGS (3)	A-30611
26	SCREWS (3)	A-30612
27	72T BULL GEAR	B-30643

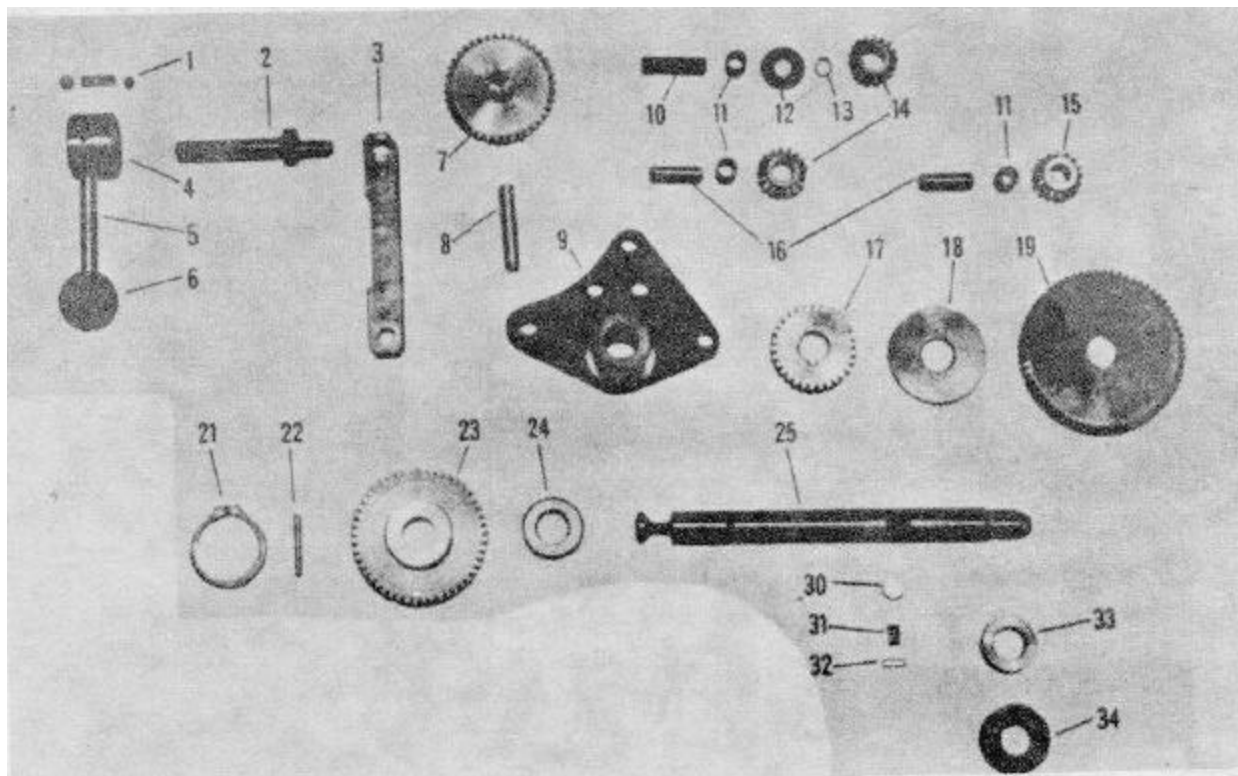
ITEM	NAME	PART NO.
28	SPINDLE NOSE SLEEVE	A-32063
29	SPINDLE FRONT COVER	A-30546
30	LATHE CENTRE	A-0545
31	KNOB FOR GUARD	A-1120
32	STUD FOR GUARD	A-30552
33	BIJUR OIL SIGHT	B-5095
34	GITS OIL FILLER	307
35	SPINDLE R.P.M. NAMEPLATE	A-30380
36	THREE-POSITION SHIFTER	A-30549
37	SHIFTER SPRINGS (2 REQ'D)	A-21122
38	INDICATOR KNOBS	50733
39	HIGH-LOW SHIFTER	A-30548
40	SHIFT LEVER	50734
41	SHIFTING GEAR	A-32065
42	TIMKEN BEARING 18790, 18720	NO.3 PREC.
43	DOG PLATE ASSEMBLY COMPLETE WITH DI-3 CAM LOCK STUDS & SCREWS (3)	50161
44	HARDENED DOWEL (2 REQ'D)	A-34051
45	CLAMPING PLATE (FRONT)	A-30530
46	CLAMPING PLATE (REAR)	A-30532
THE FOLLOWING ITEMS ARE NOT SHOWN		
	HEADSTOCK CASTING-11 INCH	E-32061
	HEADSTOCK COVER	C-30343
	WASHER FOR HEADSTOCK PULLEY	A-30566
		5L-350
	VEE-BELT (3/4 HP) 11"	5L-330
	CAM WRENCH (CAM LOCK SPINDLE)	B-30610



END GEAR TRAIN

ITEM	NAME	PART NO.
1	COMPRESSION SPRING 5/16- 18 X 1/4 SET SCREW & 1/4 DIA. STEEL BALL	A-30454
2	ECCENTRIC	A-369
3	TUMBLER LINK	A-370
4	SHIFT LEVER HUB	A30446
5	SHIFT LEVER HANDLE	A-30451
6	DIMCO BLACK BAKELITE KNOB	NO. 95
7	40T TUMBLER GEAR A-32072	ASSEM
	11T TUMBLER PINION A-32074	32075
8	HARDENED STEEL DOWEL	3/8 X 2
9	TUMBLER REVERSE BRACKET	C-32068
10	TUMBLER PIN	A-32077
11	(3) OILITE BRG.	AA-552-10
12	3/8 FLAT WASHER	
13	TRU ARC RING	5100-37
14	17T TUMBLER GEARS (2)	A-32073
15	16T IDLER TUMBLER GEAR	A-32078
16	HARDENED STEEL DOWEL (2)	3/8X 1 1/4
17	30T FEED GEAR	A-32071
18	WASHER	A-30388
19	66T FEED GEAR	A32076
21	TRU ARC RING	5100-156
22	BRASS SHEAR PIN	A-30398

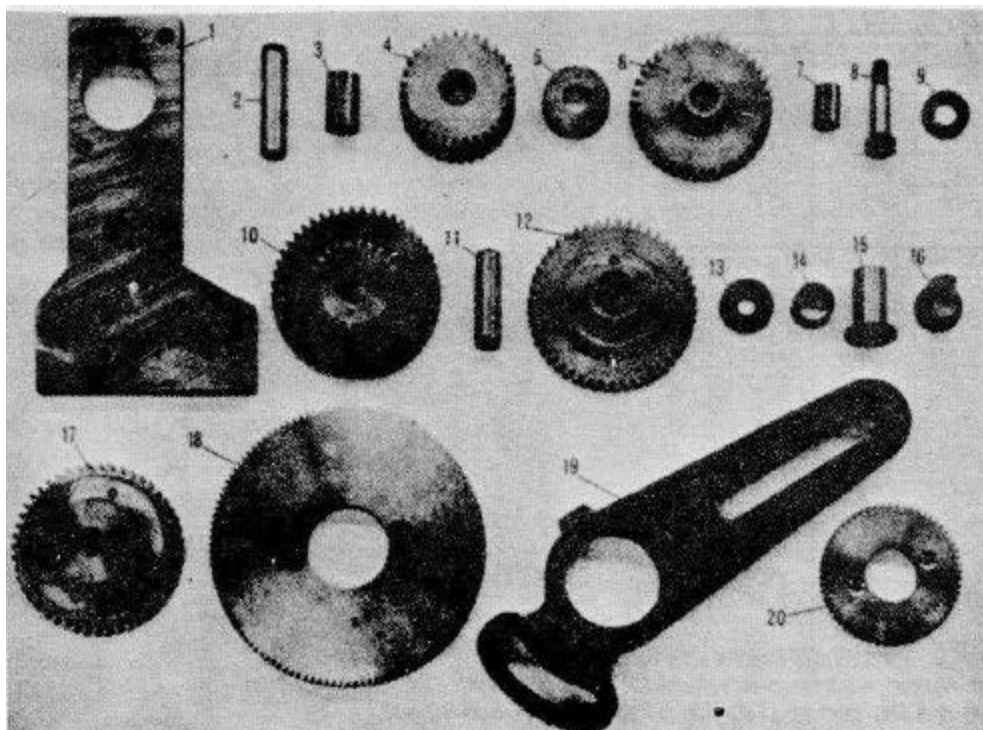
ITEM	NAME	PART NO.
23	48T FEED TRAIN GEAR	A-30392
24	PERFECT OIL SEAL	13524
25	FEED GEAR SHAFT	B-30381
30	CIRCULAR SPRING KEY	A-30390
31	KEY SPRING	A-30531
32	SPRING HOLDER	A-30397
33	SPACING COLLAR	A-30389
34	STOP COLLAR	A-30391
THE FOLLOWING ITEMS ARE NOT SHOWN		
	REAR END GUARD 11 INCH	D-32067
	STANDARD 3 1/2 STEEL BUTT	
	HINGE	



END GEAR TRAIN

ITEM	NAME	PART NO.
1	GEAR TRAIN ARM	B-32245
2	1/2 DIA. X 2 HARD DOWEL	
3	OILITE # AA-607-3	
4	32T. IDLER GEAR	A-32246
5	RETAINING COLLAR (2)	A-30393
6	40 T IDLER GEAR	A-32247
7	OILITE # AA-521	
8	SHOULDER SCR. 3/8 I.D. X 1" LG.	
9	WASHER X LO #FW - 40	
10	CLUSTER GEAR SUB-ASSY.	A-32248
11	1/2 DIA. X 1 3/4 LG. HARD DOWEL	
12	48 T. COMPOUND GEAR	B-40372
13	WASHER FOR IDLER GEAR	B-40374
14	BOST. BRONZE NO.-1012-4 (2)	
15	SLEEVE FOR IDLER GEAR	B-40376
16	NUT FOR SWING BRKT.	B-40375
17	48 T INPUT GEAR	B-40373
18	CHANGE GEARS 'B' 127 T. CHANGE GEAR 'B' (ONE FOR ILLUSTRATION ONLY) 120 T. CHANGE GEAR 'B' 108 T. CHANGE GEAR 'B' 95 T. CHANGE GEAR 'B'	
19	SWING BRKT.	B-40369

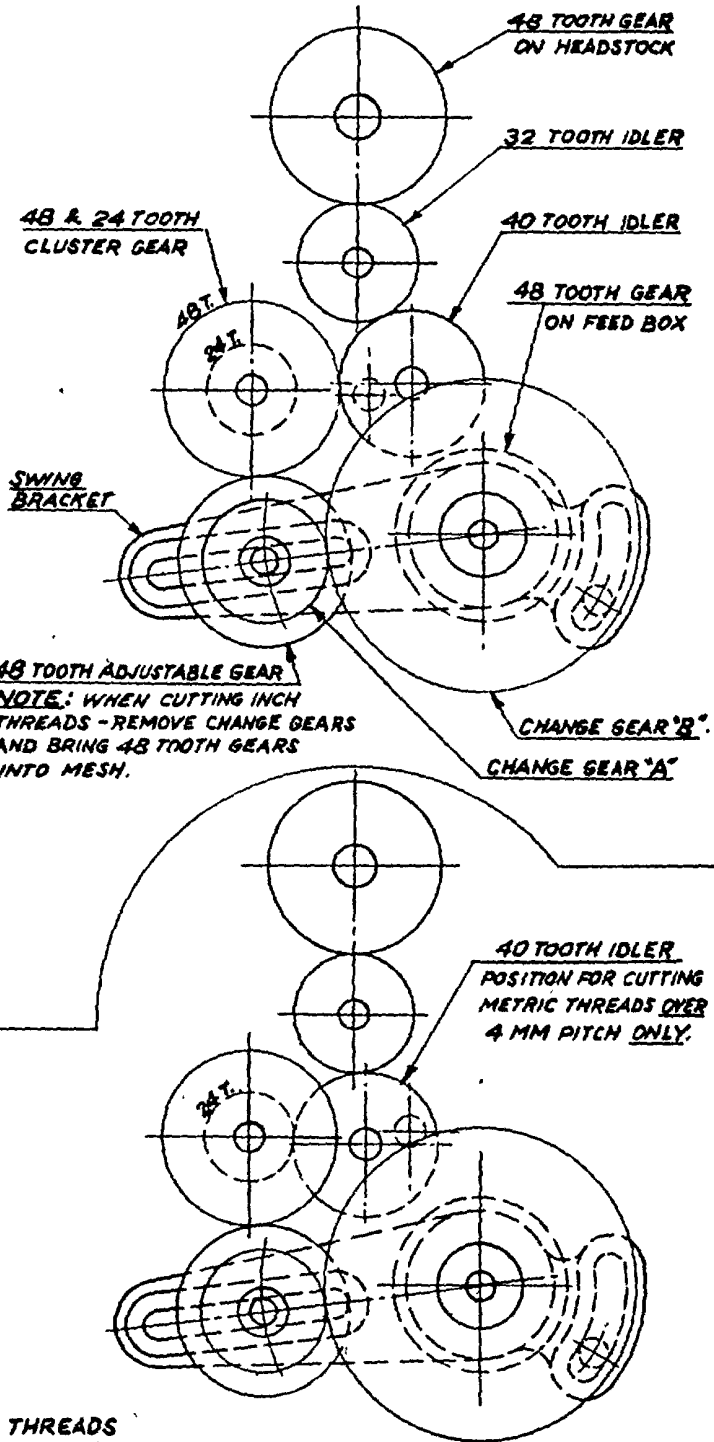
ITEM	NAME	PART NO.
20	CHANGE GEARS 'A' 48 T. CHANGE GEAR 'A' 52 T. CHANGE GEAR 'A' 56 T. CHANGE GEAR 'A' 60 T. CHANGE GEAR 'A' 64 T. CHANGE GEAR 'A' 72 T. CHANGE GEAR 'A' 80 T. CHANGE GEAR 'A' 88 T. CHANGE GEAR 'A' 50 T. CHANGE GEAR 'A' 70 T. CHANGE GEAR 'A' 45 T. CHANGE GEAR 'A' 55 T. CHANGE GEAR 'A' 65 T. CHANGE GEAR 'A' 75 T. CHANGE GEAR 'A'	B-40378 B-40379 B-40380 B-40381 B-40382 B-40383 B-40384 B-40385 B-40386 B-40387 B-32251 B-32252 B-32253 B-32254
THE FOLLOWING ITEMS ARE NOT SHOWN		
	#10 - 32 X 3/8 SOC. SET SCR. (2) #10 - 32 X 3/4 SOC. HD CAP SCR. (4) #10 - 32 X 1/2 SOC. SET SCR. (2) 5/16 - 18 X 2 SOC. HD CAP SCR. (2) STUD. 3/8 - 16 X 1 3/4 WASHER A-30566 3/8 - 16 HEAVY HEX NUT	



END GEAR TRAIN

**TABLE OF METRIC PITCHES WITH PARTICULARS OF CHANGE GEARS
AND FEED BOX SETTINGS.**

PITCH IN MM	CHANGE GEAR 'A'	CHANGE GEAR 'B'	FEED BOX SETTING
.2	64	127	64
.25	80	↑	64
.3	48		32
.35	56		32
.4	64		32
.45	72		32
.5	80		32
.55	88		32
.6	48		16
.65	52		16
.7	56		16
.75	60		16
.8	64		16
.9	72		16
1.0	80		16
1.25	50		8
1.5	60		8
1.75	70		8
2.0	80		8
2.5	50		4
3.0	60		4
3.5	70		4
4.0	80	127	4
SPECIAL THREADS PER INCH			
19 T.P.I.	80	95	16
27 --	64	108	16
30 --	80	120	20
50 --	48	120	20
60 --	80	120	40
METRIC PITCHES OVER 4 MM			
PITCH IN MM	CHANGE GEAR 'A'	CHANGE GEAR 'B'	FEED BOX SETTING
4.5	45	127	4
5.0	50	↑	4
5.5	55		4
6.0	60		4
6.5	65		4
7.0	70		4
7.5	75		4
8.0	80	127	4

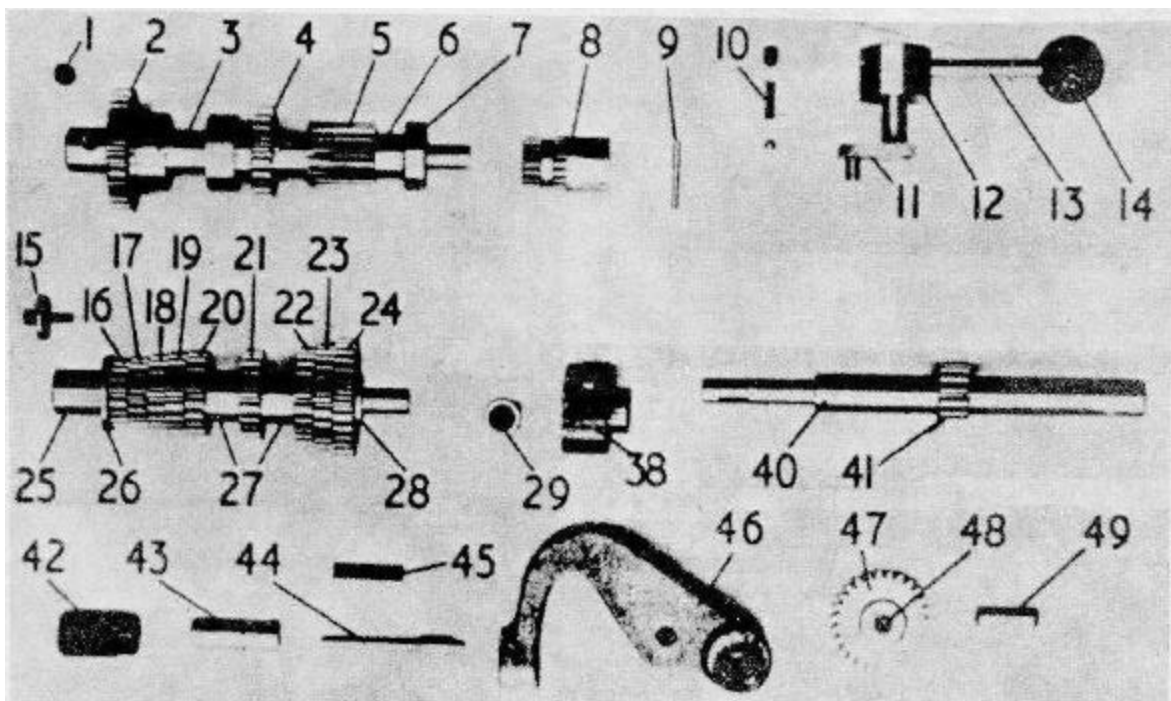


NOTE: FOR CUTTING METRIC THREADS OVER 4 MM PITCH - BRING 40T. IDLER GEAR INTO MESH WITH 24 T. CLUSTER GEAR AS SHOWN.

FEED BOX ASSEMBLY

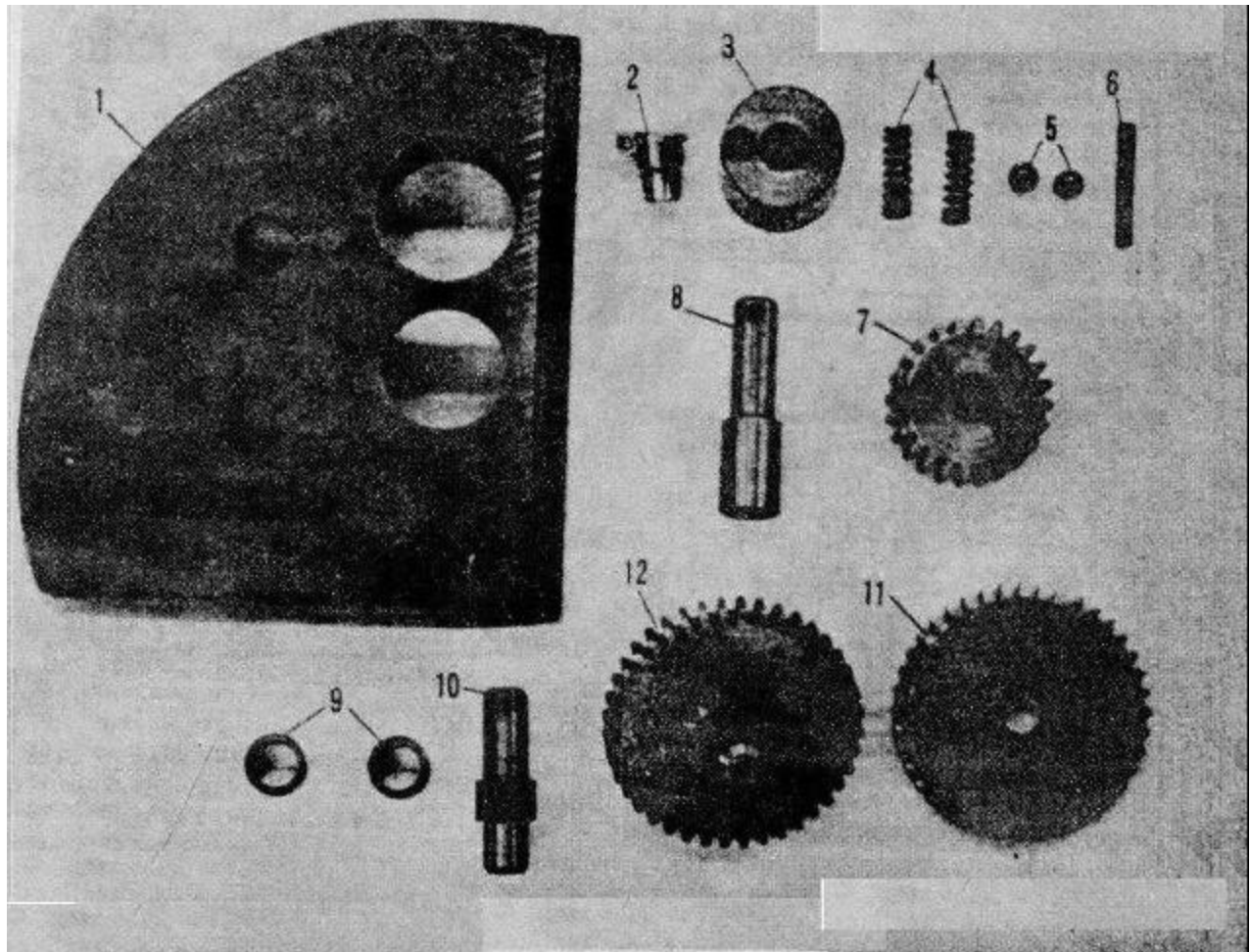
ITEM	NAME	PART NO.
1	STANDARD 1/8 PIPE PLUG	
2	32T CLUTCH GEAR	A-30420
3	CLUTCH SHAFT	A-30419
4	24T DOUBLE CLUTCH GEAR	A-30424
5	16T CLUTCH GEAR	A-30421
6	SPACER COLLAR	A-30440
7	S.K.F. BEARING	SKF-3202
8	LEAD SCREW COUPLING GEAR	A-30422
9	BRASS SHEAR PIN	A-30450
10	COMPRESSION SPRING	A-30454
11	HOLLOW SET SCREW & 1/4 STEEL BALL	
12	SHIFTER	A-30445
13	SHIFT LEVER HUB	A-30446
14	SHIFT LEVER HANDLE	A-30451
15	DIMCO BLACK BAKELITE KNOB	95
16	SHAFT RETAINING WASHER	A-30452
17	16T SPUR GEAR	A-30428
18	18T SPUR GEAR	A-30429
19	20T SPUR GEAR	A-30430
20	22T SPUR GEAR	A-30431
21	3T SPUR GEAR	A-30432
22	24T SPUR GEAR	A-30433
23	26T SPUR GEAR	A-30434
24	2T SPUR GEAR	A-30435
25	32T SPUR SEAR	A-30436
26	CLUSTER GEAR SHAFT	A-30427
27	SPACER WASHER	A-30437
28	SPACER COLLAR (2)	A-30439

ITEM	NAME	PART NO.
28	SPACER WASHER	A-30438
29	OILITE BEARING	AA-742
38	BEARING BUSHING	A30444
40	POWER INPUT SHAFT	A-30441
41	16T SLIDING GEAR	A-30442
42	PLUNGER HANDLE	A-30449
43	PLUNGER HOUSING	A-30448
44	PLUNGER	A-30447
45	COMPRESSION SPRING	A-30455
46	TUMBLER BRACKET	C-30360
47	27T IDLER GEAR	A-30443
48	OILITE BEARING	AA-507-5
49	HARDENED STEEL DOWEL	3/8X 1 1/4
THE FOLLOWING ITEMS ARE NOT SHOWN		
	FEED BOX CASTING	D-32236
	FEED AND T.P.I. NAMEPLATE	A-32257



FEED SHAFT ASSY.

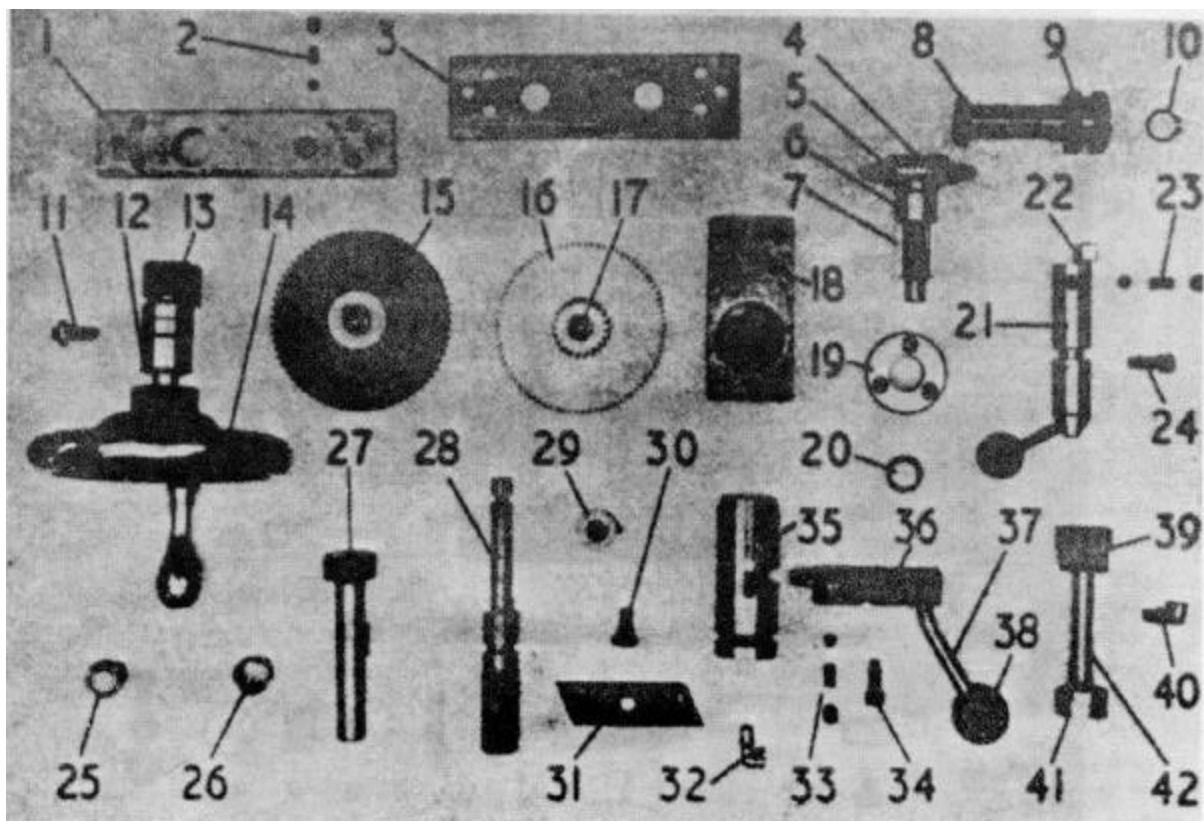
ITEM	NAME	PART NO.
1	GEARING HOUSING	B-32237
2	GITS OILER #303	
3	FEED SHAFT CLUTCH COUPLING	B-32239
4	INDENT SPRING (2)	A-30454
5	1/4 STEEL BASE (2)	
6	NO. 0 X 1 1/4 TAPER PIN	
7	FEED SHAFT CLUTCH GEAR	A-32238
8	STUB SHAFT	A-32240
9	BOSTON # B68-3 (2)	
10	IDLER SHAFT	A-32241
11	40 T. SPUR GEAR	A-32243
12	CLUSTER GEAR	A-32244



APRON ASSEMBLY

ITEM	NAME	PART NO.
1	BEARING PLATE	B-30458
2	INDENT SPRING	A-30484
3	SET SCREW AND 5/16 STEEL BALL	
3	GIB PLATE	B-30459
4	56T BEVEL GEAR	B-30456
5	PERFECT OIL SEAL	09916
6	GEARING BUSHING	A-30476
7	??? INION	A-30464
8	22T BEVEL PINION	B-30467
9	COLLAR (2)	A-30469
10	TRU ARC RING	5100-68
11	5-16-16 X 1 HOLLOW SET SCREW CONE POINT AND JAM NUT	
12	NEW DEPARTURE BEARING ASSEMBLY	885140
13	17T PINION	A-30462
14	BALCRANK HANDWHEEL	B-30481
15	67T GEAR	B-30378
16	PINION AND GEAR	B-30460
17	OILITE BEARING	AA-628
18	BEVEL GEAR BRACKET	B-30377
19	HOUSING FOR OIL SIGHT	A-30479
20	BIJUR OIL SIGHT	B-5095
21	FEED SHIFTER - HANDLE	A-30635
22	SHIFTER SHOE	A-30636

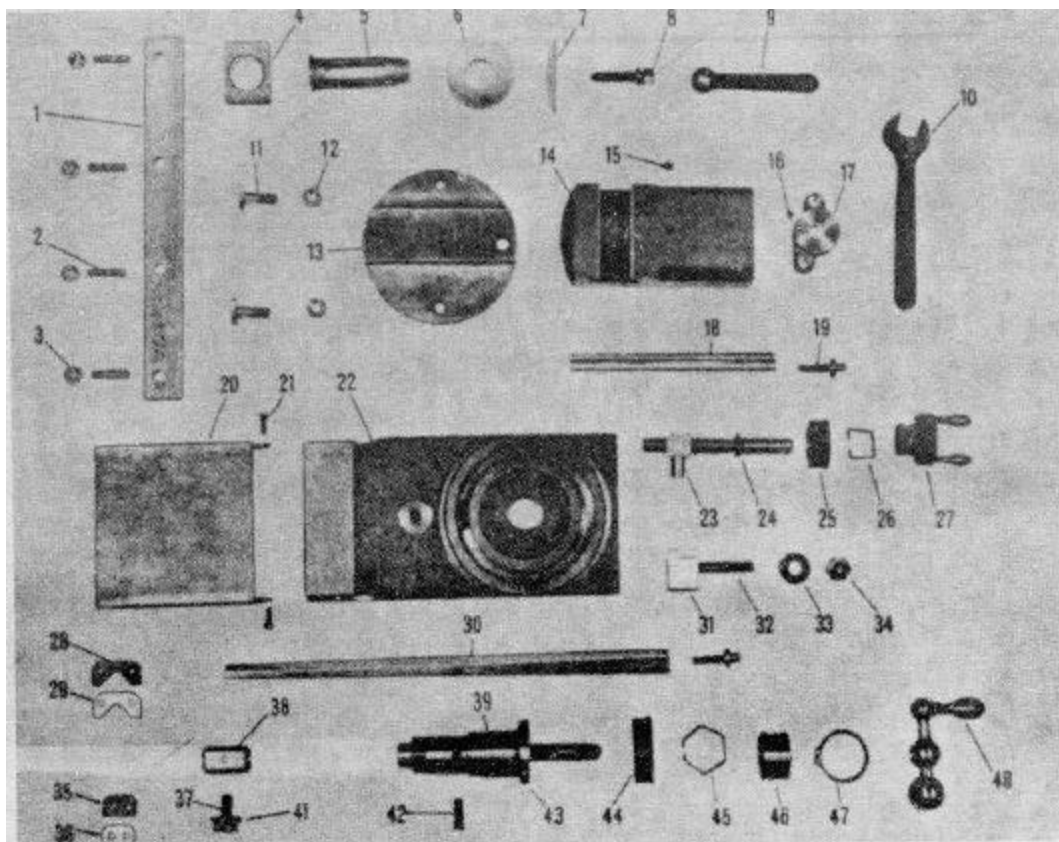
ITEM	NAME	PART NO.
23	INDENT SPRING	A-30483
24	SET SCREW AND 5/16 STEEL BALL	
24	SPECIAL SCREW	A-30480
25	TORRINGTON NEEDLE BEARING	M-1112
26	TORRINGTON NEEDLE BEARING	B-1112
27	RACK PINION SHAFT	A-30463
28	FEED ENGAGING SHAFT	A-30465
29	COLLAR	A-30475
30	EX-CELL-O LOCK SCREW NO. 2	
31	INTERLOCK	A-30473
32	GITS OILER	1228
33	INDENT SPRING	A-30463
	SET SCREW AND 5/16 STEEL BALL	
34	SPECIAL SCREW	A-30480
35	HALF NUT	B-50266
36	HALF NUT SHIFTER	A-30466
37	SHIFTER HANDLE	A-30451
38	DIMCO BLACK BAKELITE KNOB (2)	95
39	32T WORM GEAR	A-50267
40	GITS OILER	1228
41	THREAD CHASING OIL	A-30470
42	DIAL SHAFT	A-30471
THE FOLLOWING ITEMS ARE NOT SHOWN		
	APRON CASTING	D-30376
	ZERO WASHER FOR DIAL	A-30474
	LEAF SPRING FOR INTERLOCK	A-30486



SADDLE ASSEMBLY

ITEM	NAME	PART NO.
1	REAR SADDLE GIB	B-30523
2	5/16-16-18-HUGLOCK NUT (4)	
3	STUD (4)	
4	TOOL POST WASHER	A-30503
5	TOOL POST FOR #0 TOOL HOLDER (11")	A-30500
6	TOOL POST RING	A-30502
7	TOOL POST WEDGE	A-30501
8	3/8-16 X 1 1/2 "MAC-IT" TOOL POST SCREW	
9	WILLIAMS SQUARE BOX WRENCH	NO. 583
10	WILLIAMS #3 OPEN END WRENCH	
11	TEE HEAD BOLT (2 REQ'D)	B-30509
12	3/8-16 HEAVY HEX. NUT (2)	
13	COMPOUND SWIVEL BASE 11"	B-30487
14	COMPOUND SLIDE	B-30486
15	GITS OILER	NO. 522
16	GITS OILER	NO. 521
17	BEARING PLATE	A-30497
18	GIB FOR COMPOUND SLIDE	B-30489
19	GIB SCREW (2 REQ.)	A-30496
20	CHIP GUARD	B-32262
21	#10-32 X 1/2 SOCKET HEAD CAP SCREW (2-REQ'D)	
22	CROSS SLIDE	C-30486
23	COMPOUND FEED NUT	A-30379
24	COMPOUND SCREW	A-30504
25	GRADUATED DIAL	A-30506
26	MARCEL SPRING	A-30606

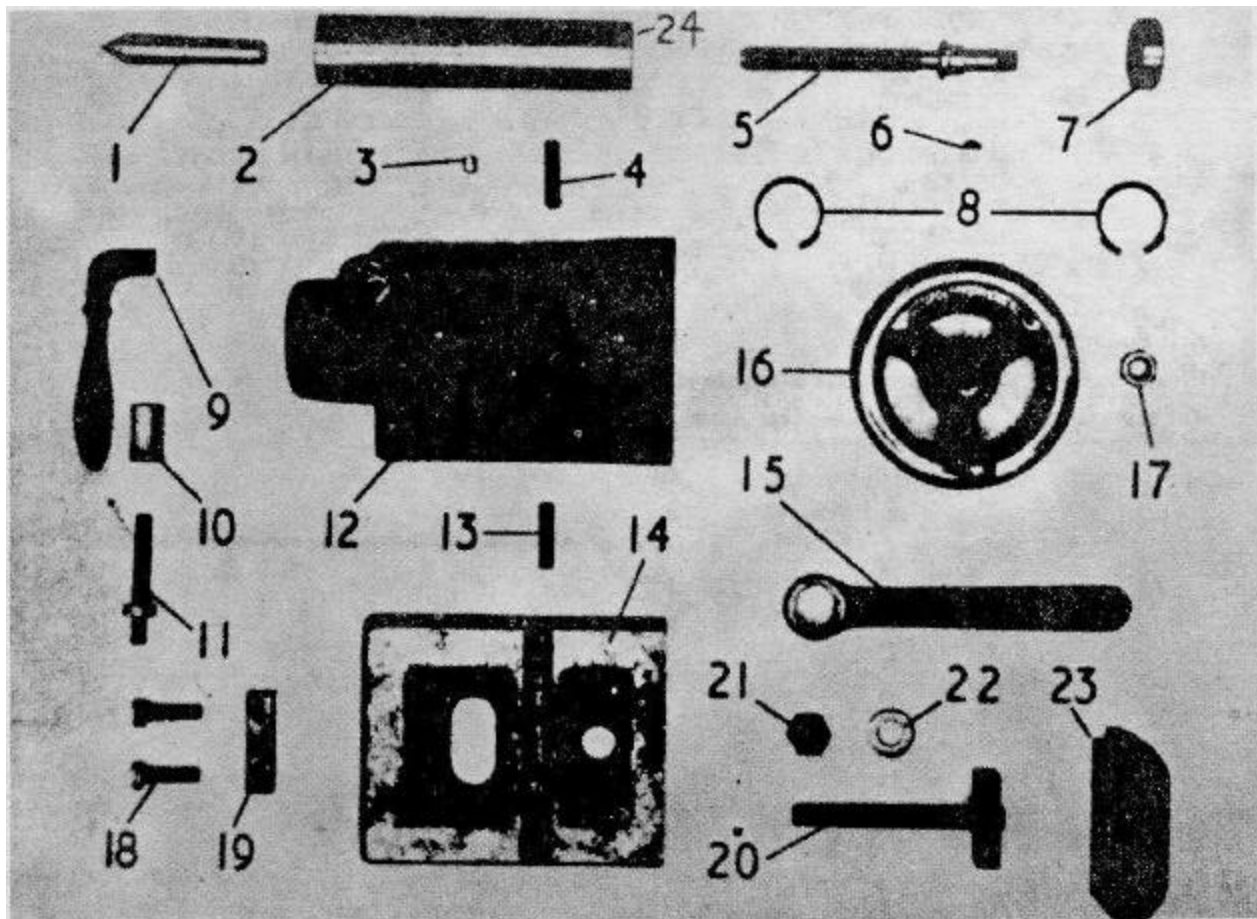
ITEM	NAME	PART NO.
27	SLEEVE FOR SCREW	A-30507
28	FRONT WIPER (2 REQ'D.)	A-30526
29	FRONT WIPER PLATE (2 REQ'D.)	A-30524
30	GIB FOR CROSS SLIDE	B-30489
31	SADDLE CLAMP	A-30520
32	3/8-16 X 2 1/4 MILLED STUD	
33	3/8 STANDARD S.A.E. WASHER	
34	3/8-16 HEAVY HEX. NUT	
35	REAR WIPER (2 REQ'D.)	A-30527
36	REAR WIPER PLATE (2 REQ'D.)	A-30525
37	HEX. HEAD SCREW	A-30518
38	CROSS FEED NUT	A-30372
39	CROSS FEED SCREW ASSY.	32286
41	WASHER FOR HEX. HD. SCREW	A-30566
42	SQUARE HD. SET SCREW 5/16-18 X 3/4	
43	EXTENSION BEARING	A-32261
44	GRADUATED DIAL	A-30514
45	MARCEL SPRING	A-30515
46	SLEEVE FOR SCREW	A-30513
47	TRU ARC RING	5100-150
48	CRANK FOR CROSS FEED	A-30512
THE FOLLOWING ITEMS ARE NOT SHOWN		
	SADDLE CASTING GITS OILER #330 (5)	D-32256



TAILSTOCK ASSEMBLY

ITEM	NAME	PART NO.
1	LATHE CENTRE	A-30545
2	SPINDLE	B-32228
3	GITS OILER	523
4	3/8-16 X 1 1/2 SET SCREW	
5	SPINDLE SCREW	A-30400
6	NO. 4 WOODRUFF KEY	
7	S.K.F. BEARING	6203-2Z
8	TRU ARC RING (2)	5006-156
9	CLAMPING KNOB	A-30637
10	SPINDLE LOCKING WEDGE	B-30402
11	CLAMPING STUD	A-30401
12	SPINDLE HOUSING	D-30364
13	3/8-16 X 1 1/2 SET SCREW	
14	BASE CASTING 11 INCH	C-32231
15	WILLIAMS NO. 805 BOX WRENCH	
16	BALCRANK HANDWHEEL	A-30406
17	1/2-20 HEX. JAM NUT	
18	3/8-16 X 1 1/2 HEX. HD. CAP SCREW (2)	

ITEM	NAME	PART NO.
19	THRUST BLOCK	A-32230
20	CLAMP STUD 11 INCH	A-30401
21	1/2-13 HEAVY HEX. NUT	
22	1/2 S.A.E. WASHER	
23	CLAMPING PLATE	B-30366
24	NUT FOR TAILSTOCK	A-32229
THE FOLLOWING ITEMS ARE NOT SHOWN		
		20" CENTRES
	DIPSTICK	A-30403
	BED CASTING	E-30354
	BED END BRACKET	B-30356
	LEAD SCREW	B-50264
	FEED SHAFT	B-30416
	16 PITCH RACK	B-30417
	LEVELING BUSHINGS	A-30659



By Order of the Secretary of the Army:

HAROLD K. JOHNSON
*General, United States Army,
 Chief of Staff.*

Official:

C. LAMBERT,
*Major General, United States Army,
 The Adjutant General.*

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 Armies (3) except
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 Gen Dep (2)
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 CHAD (3)
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 Sig Fld Maint Shops (1)
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 USAAPSA (1)
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 USASTC (1)
 USATCFE (1)
 USAATC (1)
 USAMERCC (1)
 USDB (Ft Leavenworth) (2)
 Units org under fol TOE:
 9-500 (IA) (2)
 9-510 (DA) (2)
 11-58 (2)

NG: State AG (3)

USAR: Same as Active Army except allowance is one copy to each unit.

For explanation of abbreviation used see AR 320-0.

TM 9-3416-225-12

PIN: 018482-002