

PARTS CATALOG

FOR

BARDONS & OLIVER

No. 7

UNIVERSAL TURRET LATHE

BARDONS & OLIVER, Inc.

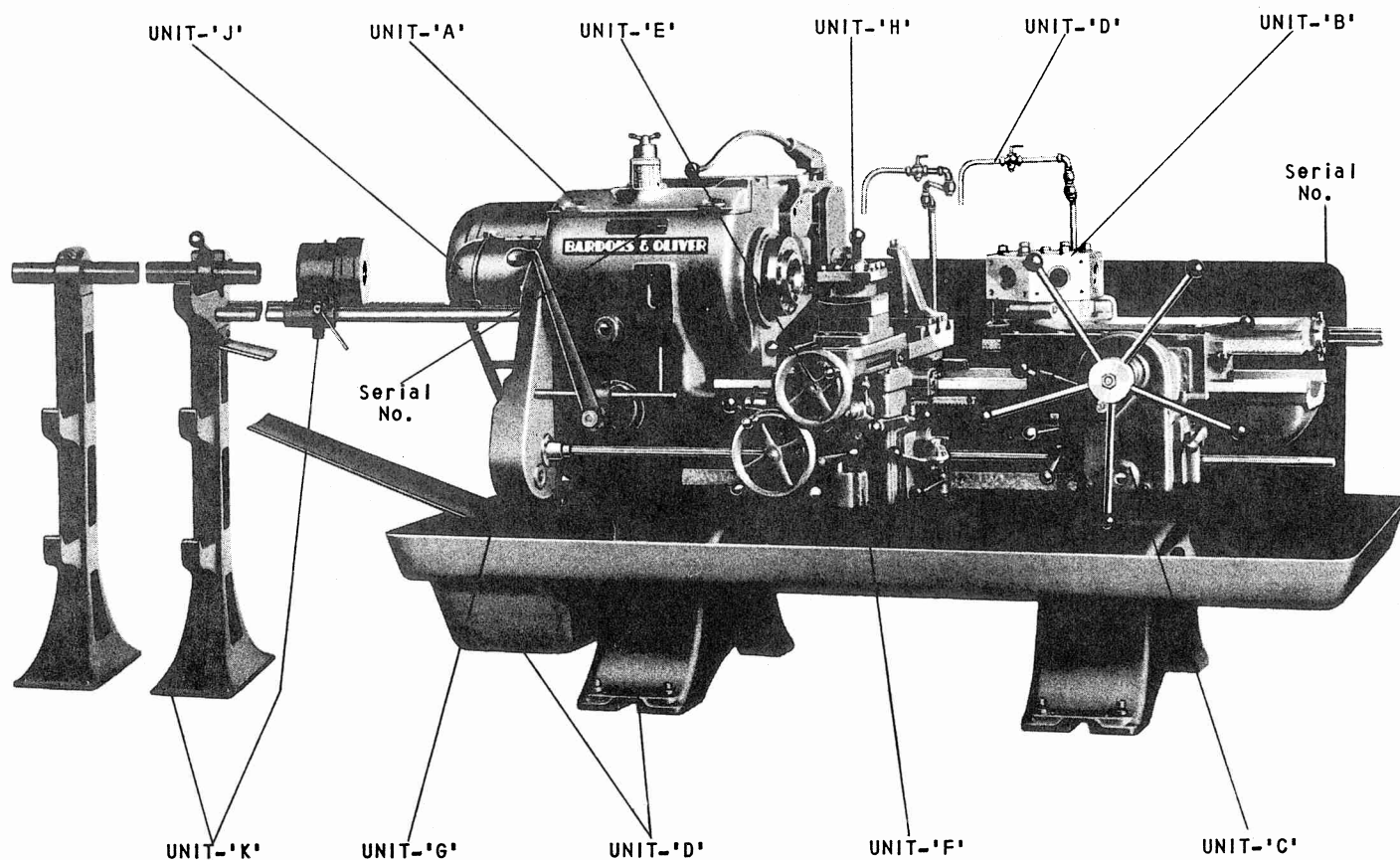
BARDONS & OLIVER, INC. OHIO

5800 HARPER ROAD

SOLON, OHIO 44139

440-498-5800 FAX 440-498-2001

#7 UNIVERSAL TURRET LATHE PARTS CATALOG



In order to maintain accuracy and finish requirements of today, it is necessary and economical to replace worn parts. This catalog has been prepared to simplify the ordering of repair parts.

WHEN ORDERING: -

1. SPECIFY QUANTITY WANTED
2. GIVE SERIAL NUMBER OF MACHINE *
3. GIVE NUMBER AND NAME OF PART EXACTLY AS SHOWN IN CATALOG

EXAMPLE: -

Required: - Pawl for Turret, Slide & Saddle.

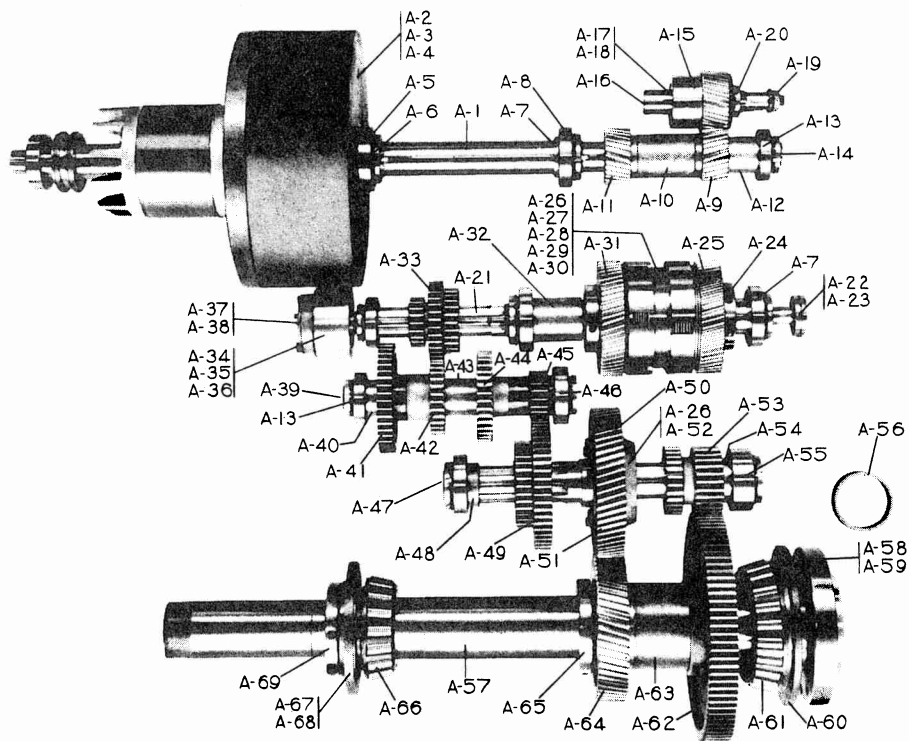
ORDER: -

1. Repair part for #7 U.T.L.
Serial 18120
B-50 Pawl

As some parts are fitted in assembly, these parts will be sent finished as far as possible with allowance for fitting where required.

* THE SERIAL NUMBER OF EACH MACHINE IS STAMPED ON THE NAME PLATE AND ON THE END OF THE REAR BEDWAY.

HEAD — UNIT 'A'



MOTOR SHAFT ASSEMBLY

A- 1	Motor Shaft
A- 2	Motor Bracket
A- 3	V - Belt Sheave
A- 4	Oil Retainer
A- 5	Ball Bearing MRC 210-SF
A- 6	Locknut N-10 - Lockwasher W-10
A- 7	Ball Bearing Collar
A- 8	Ball Bearing MRC 209-S
A- 9	Gear 29T
A-10	Gear Spacer
A-11	Gear 27T
A-12	Bearing Spacer
A-13	Ball Bearing MRC 207-S
A-14	Locknut N-07 - Lockwasher W-07

IDLER GEAR ASSEMBLY

A-15	Idler Gear 32T
A-16	Gear Stud
A-17	Ball Bearing MRC 206-S
A-18	Bearing Spacer
A-19	Collar
A-20	Locknut N-06 - Lockwasher W-06

FORWARD & REVERSE CLUTCH SHAFT ASSEMBLY

A-21	Reverse Clutch Shaft
A-22	Clutch Plunger
A-23	Plunger Spool
A-24	Adjusting Nut
A-25	Reverse Clutch Gear 60T
A-26	Ball Bearing MRC 5211-K
A-27	Steel Clutch Disc
A-28	Bronze Clutch Disc
A-29	Clutch Spacer
A-30	Clutch Finger
A-31	Forward Clutch Gear 62T
A-32	Bearing Spacer
A-33	Three Cluster Gear 20T-34T-27T
A-34	Brake Cup
A-35	Brake Cone

FORWARD & REVERSE CLUTCH SHAFT ASSEMBLY-- Continued

A-36	Brake Spring
A-37	Inner Shoe
A-38	Outer Shoe

INTERMEDIATE SHAFT ASSEMBLY

A-39	Intermediate Shaft
A-40	Bearing Spacer
A-41	Gear 46T
A-42	Gear 32T
A-43	Center Gear Spacer
A-44	Gear 39T
A-45	Gear 20T
A-46	Ball Bearing MRC 307-S

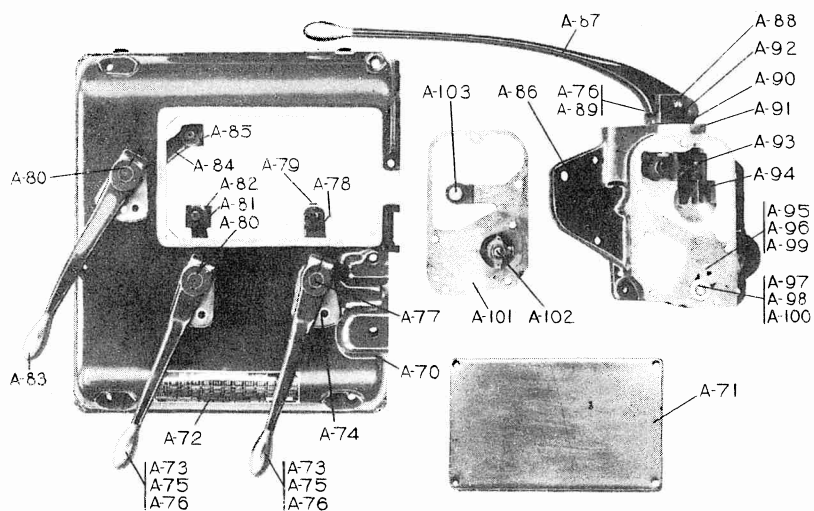
HIGH & LOW TOOTH CLUTCH SHAFT ASSEMBLY

A-47	Hi-Lo Clutch Shaft
A-48	Bearing Spacer
A-49	Cluster Gear 35T-54T
A-50	Tooth Clutch Gear 62T
A-51	Bearing Retainer
A-52	Locknut
A-53	Tooth Clutch Pinion 27T-28T
A-54	Bearing Spacer
A-55	Ball Bearing MRC 5209-K
A-56	Bearing Spacer

SPINDLE ASSEMBLY

A-57	Spindle
A-58	Driving Button
A-59	Button Screw
A-60	Bearing Closer
A-61	Timken Roller Bearing Front
A-62	Spindle Gear 94T
A-63	Gear Spacer
A-64	Spindle Gear 59T
A-65	Adjusting Nut
A-66	Timken Roller Bearing Rear
A-67	Oil Retainer
A-68	Bearing Closer
A-69	Adjusting Nut

THREE LEVER SHIFT HEAD — UNIT 'A'



HOUSING ASSEMBLY

A-70	Housing
A-71	Top Cover
A-72	Name Plate
A-73	Gear Shift Lever "B" or "C"
A-74	Hardened Detent
A-75	Detent Spring
A-76	Steel Ball
A-77	Lever Shaft "B"

A-78	Fork Lever
A-79	Shifter
A-80	Lever Shaft "A" or "C"
A-81	Fork Lever
A-82	Fork
A-83	Gear Shift Lever "A"
A-84	Fork Lever
A-85	Fork

REVERSE CLUTCH LEVER BRACKET ASSEMBLY

A- 86	Bracket
A- 87	Lever
A- 88	Pivot Pin
A- 89	Spring
A- 90	Lever Lock Stud
A- 91	Lock Block
A- 92	Lever Shaft
A- 93	Fork Lever
A- 94	Plunger Fork
A- 95	Pump Pinion Bushing
A- 96	Pump Pinion
A- 97	Pump Gear
A- 98	Gear Stud
A- 99	Pinion Plate
A-100	Gear Plate
A-101	Bracket Cover
A-102	Oil Filter CUNO-TS
A-103	Oiler Stud

SINGLE LEVER PRESELECTOR HEAD — UNIT 'A'

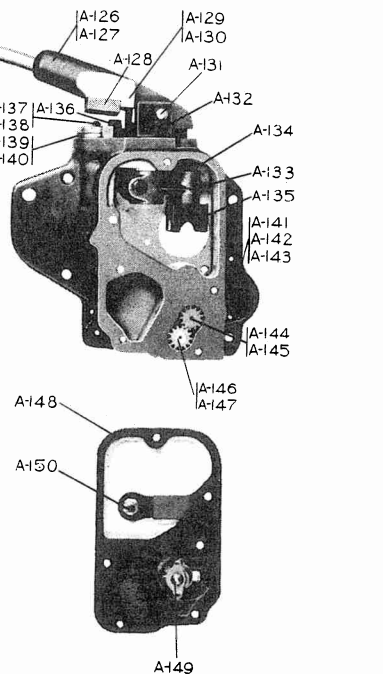
HOUSING ASSEMBLY

A-104	Housing
A-105	Master Valve Unit
A-106	Double Cylinder Unit
A-107	Fork Lever
A-108	Fork
A-109	Bushing
A-110	Detent Plate
A-111	Steel Ball
A-112	Spring
A-113	Single Cylinder Unit
A-114	Fork Lever
A-115	Fork
A-116	Detent Plate
A-117	Fork Lever
A-118	Fork
A-119	Detent Plate
A-120	Drum
A-121	Drum Chart Plate
A-122	Drum Guard
A-123	Drum Guard Plate

REVERSE CLUTCH LEVER BRACKET ASSEMBLY

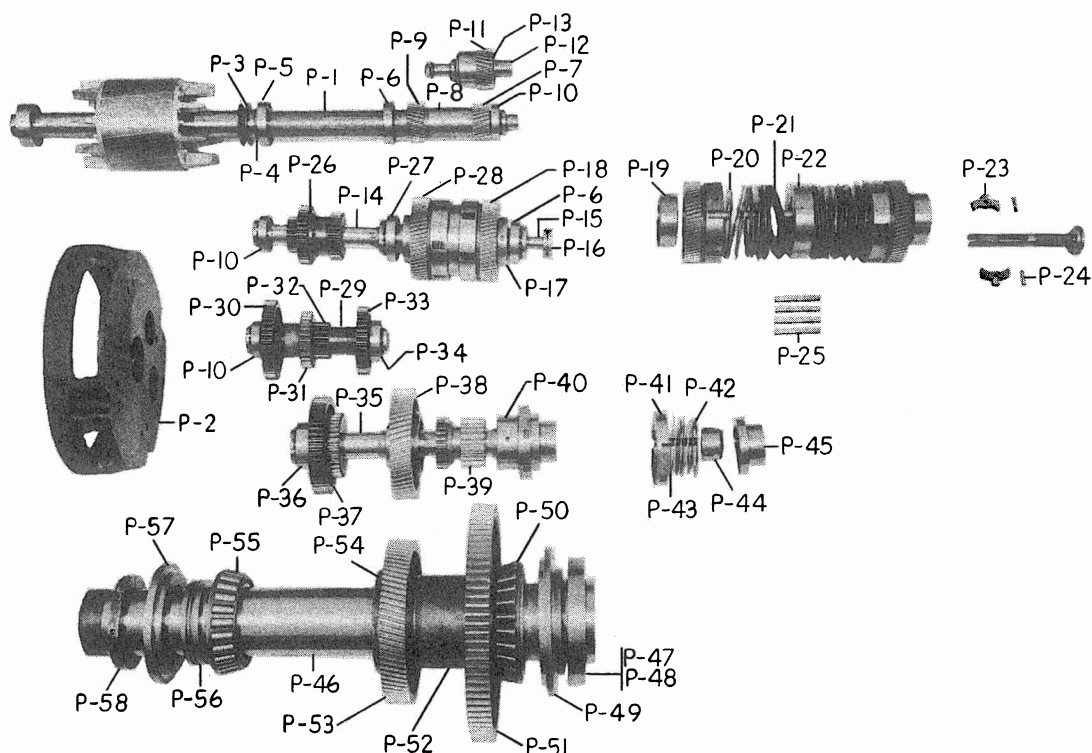
A-124	Bakelite Ball
A-125	Lever
A-126	Lever Head
A-127	Lever Nut
A-128	Lever Block
A-129	Steel Ball
A-130	Spring
A-131	Pin
A-132	Lever Shaft
A-133	Fork Lever
A-134	Lever Collar
A-135	Plunger Fork
A-136	Valve Finder Block

A-137	Valve Plunger
A-138	Valve Spring
A-139	Body
A-140	Cover
A-141	Relief Valve Plug
A-142	Valve Spring
A-143	Plunger



A-144	Pump Pinion Bushing
A-145	Pump Pinion
A-146	Pump Gear
A-147	Gear Stud
A-148	Bracket Cover
A-149	Oil Filter CUNO-TS
A-150	Oiler Stud

HEAD UNIT P



MOTOR SHAFT ASSEMBLY

P-1	Motor Shaft
P-2	Motor Bracket
P-3	V-Belt Sheave
P-4	Oil Retainer
P-5	Ball Bearing MRC 210-SF
P-6	Ball Bearing MRC 209-S
P-7	Gear
P-8	Gear Spacer
P-9	Gear
P-10	Ball Bearing MRC 207-S

IDLER GEAR ASSEMBLY

P-11	Idler Gear 32T
P-12	Gear Stud
P-13	Ball Bearing MRC 206-SG

FORWARD & REVERSE CLUTCH SHAFT ASSEMBLY

P-14	Reverse Clutch Shaft
P-15	Clutch Plunger
P-16	Plunger Spool
P-17	Adjusting Nut
P-18	Reverse Clutch Gear 60T
P-19	Ball Bearing MRC 5211-K
P-20	Bronze Clutch Disc
P-21	Steel Clutch Disc
P-22	Clutch Spacer
P-23	Clutch Finger
P-24	Clutch Finger Pin
P-25	Clutch Key
P-26	Three Cluster Gear 20T-34T-27T
P-27	Ball Bearing MRC 210-S
P-28	Forward Clutch Gear 62T

INTERMEDIATE SHAFT ASSEMBLY

P-29	Intermediate Shaft
P-30	Gear 46T
P-31	Gear 32T
P-32	Gear 20T
P-33	Gear 39T
P-34	Ball Bearing MRC 307-S

HIGH & LOW TOOTH CLUTCH SHAFT ASSEMBLY

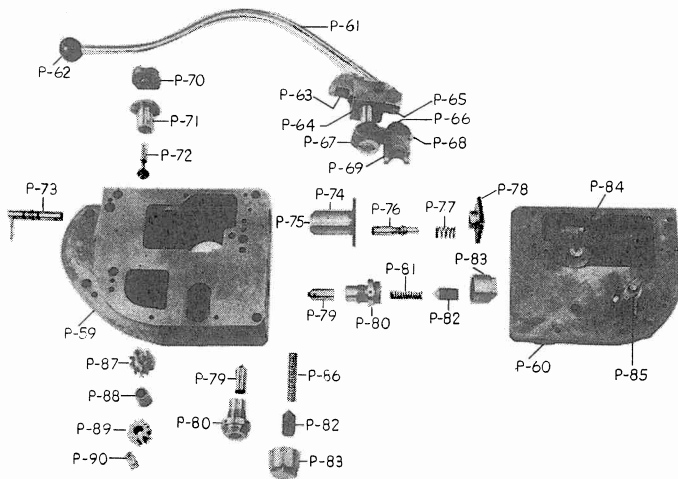
P-35	Hi-Low Clutch Shaft
P-36	Ball Bearing MRC 5209-K
P-37	Cluster Gear 54T - 35T
P-38	Clutch Gear
P-39	Clutch Pinion 19T - 28T
P-40	Ball Bearing MRC 5309
P-41	Brake Disc Cup
P-42	Bronze Clutch Disc
P-43	Steel Clutch Disc
P-44	Brake Coupling
P-45	Brake Piston

SPINDLE ASSEMBLY

P-46	Spindle
P-47	Driving Button
P-48	Button Screw
P-49	Front Bearing Closer
P-50	Front Timken Roller Bearing
P-51	Large Spindle Gear
P-52	Gear Spacer
P-53	Small Spindle Gear
P-54	Adjusting Nut
P-55	Rear Timken Roller Bearing
P-56	Oil Retainer
P-57	Rear Bearing Closer
P-58	Adjusting Nut

CLUTCH LEVER BRACKET UNIT P

CLUTCH LEVER BRACKET ASSEMBLY

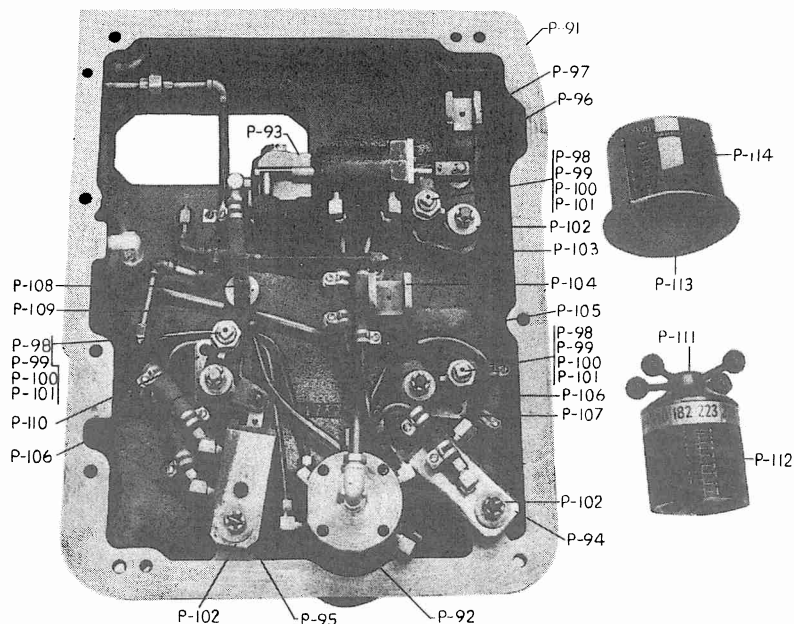


- P-59 Clutch Lever Bracket
- P-60 Clutch Lever Bracket Cover
- P-61 For. & Rev. Lever & Head
- P-62 Bakelite Ball
- P-63 Finder Stud
- P-64 Clutch Lever Fork
- P-65 Lever Lock Stud
- P-66 Brake Lock
- P-67 Clutch Bracket Lever
- P-68 Lever Button
- P-69 Clutch Shifter Rod Fork
- P-70 Finder Cover
- P-71 Valve Body
- P-72 Valve Plunger
- P-73 Valve
- P-74 Valve Body
- P-75 Valve Closer
- P-76 Valve Plunger
- P-77 Valve Spring
- P-78 Oil Pump Pinion
- P-79 Pump Pinion Bushing
- P-80 Oil Pump Gear
- P-81 Oil Pump Gear Stud
- P-82 Valve Screw
- P-83 Relief Valve Cap
- P-84 Rev. Shaft Oil Stud
- P-85 Oil Filter Cuno-TS
- P-86 Valve Spring
- P-87 Oil Pump Pinion
- P-88 Pump Pinion Bushing
- P-89 Oil Pump Gear
- P-90 Oil Pump Gear Stud

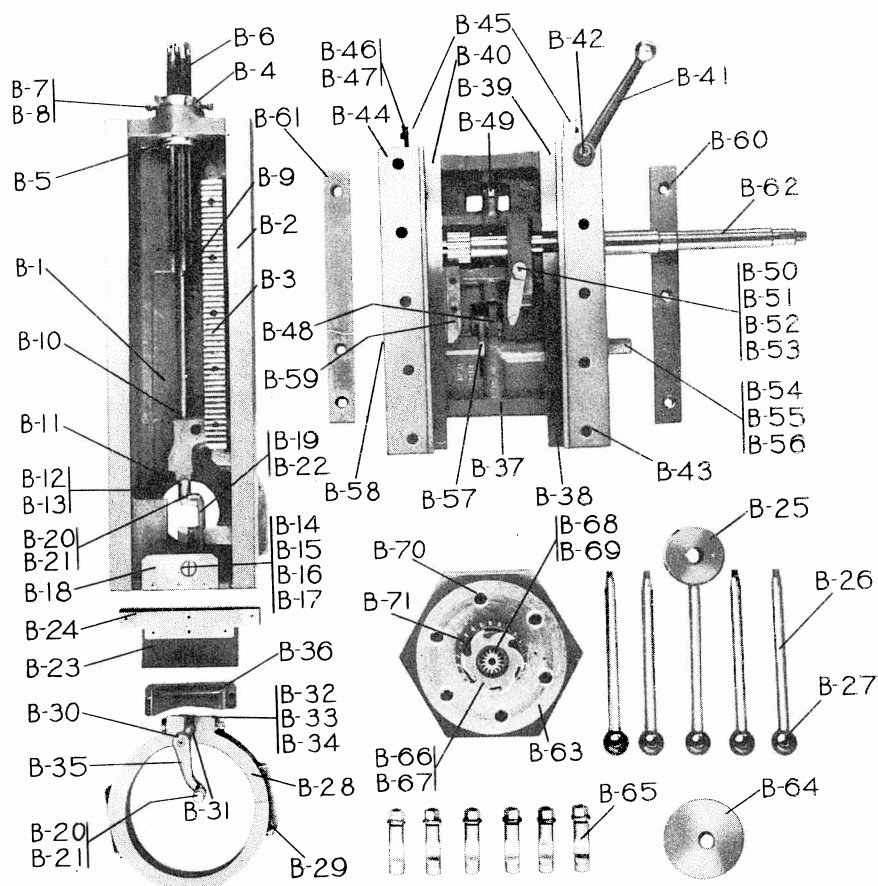
PRESELECTOR UNIT P

PRESELECTOR ASSEMBLY

- P- 91 Housing
- P- 92 Master Valve Unit
- P- 93 Double Cylinder Unit
- P- 94 Single Cylinder Unit
- P- 95 Single Cylinder Unit
- P- 96 Gear Shift Lever
- P- 97 Triple Cluster Fork
- P- 98 Detent
- P- 99 Detent Spring
- P-100 Spring Retainer
- P-101 Hex Nut
- P-102 Bushing
- P-103 Detent Plate
- P-104 Clutch Pinion Fork
- P-105 Gear Shift Lever
- P-106 Bushing
- P-107 Detent Plate
- P-108 Two Gear Fork
- P-109 Gear Shift Lever
- P-110 Detent Plate
- P-111 Drum Unit
- P-112 Drum Chart Plate
- P-113 Drum Guard
- P-114 Drum Guard Plate



TURRET, SLIDE & SADDLE - UNIT 'B'



TURRET SLIDE ASSEMBLY

B- 1	Turret Slide
B- 2	Slide Way
B- 3	Rack
B- 4	Stop Screw Carrier
B- 5	Carrier Nut
B- 6	Stop Screw
B- 7	Binder Screw
B- 8	Binder Shoe
B- 9	Bevel Gear Shaft
B-10	Bevel Gear Shaft Collar
B-11	Bevel Gear 15T
B-12	Locating Ring
B-13	Ring Pin and Spring
B-14	Lockbolt
B-15	Lockbolt Spring
B-16	Lockbolt Sleeve
B-17	Sleeve Screw
B-18	Chip Guard
B-19	Lockbolt Lever
B-20	Lever Roller
B-21	Lever Collar
B-22	Lever Pivot Pin
B-23	Neoprene Apron Guard
B-24	Guard Support
B-25	Turnstile Hub
B-26	Turnstile Handle
B-27	Bakelite Ball

CLAMP RING ASSEMBLY

B-28	Clamp Ring
B-29	Clamp Bolt
B-30	Clamp Spreader
B-31	Spreader Plate
B-32	Clamp Spring
B-33	Clamp Spring Bolt
B-34	Washer
B-35	Clamp Lever
B-36	Guard

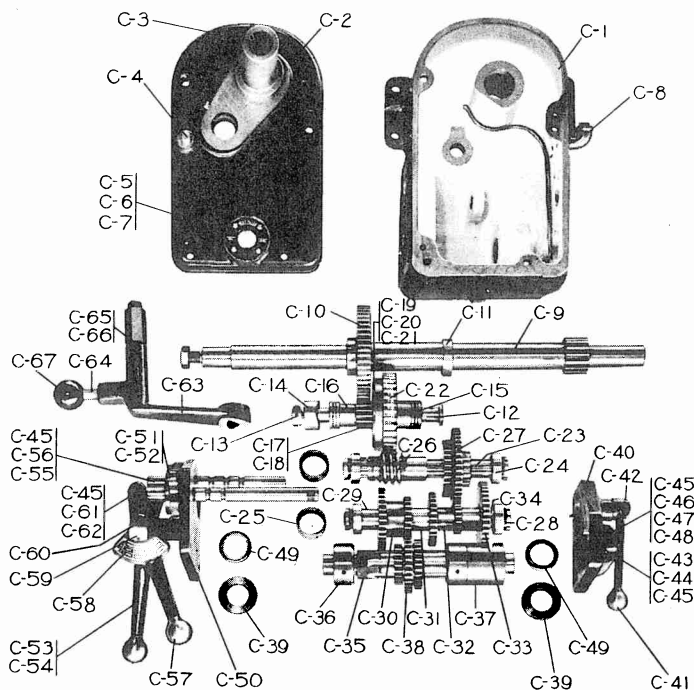
SADDLE ASSEMBLY

B-37	Saddle
B-38	Long Front Way
B-39	Short Front Way
B-40	Rear Way
B-41	Binder Lever
B-42	Binder Stud
B-43	Front Upper Saddle Cap
B-44	Rear Upper Saddle Cap
B-45	Gib
B-46	Gib Stud
B-47	Gib Nut
B-48	Stop Rod
B-49	Indexing Screw Stop
B-50	Pawl
B-51	Pawl Pivot
B-52	Pawl Stop Pin
B-53	Pawl Spring
B-54	Feed Knockout Rod
B-55	Knockout Spring
B-56	Knockout Rod Plug
B-57	Tumbler
B-58	Tumbler Screw
B-59	Clamp Cam
B-60	Front Lower Saddle Cap
B-61	Rear Lower Saddle Cap
B-62	Pinion Shaft

HEXAGON TURRET ASSEMBLY

B-63	Turret
B-64	Turret Cover
B-65	Binder Bolt
B-66	Ratchet
B-67	Ratchet Pin
B-68	Bevel Gear 15T
B-69	Bevel Gear Nut
B-70	Lockbolt Bushing
B-71	Timken Roller Bearing Cone #495

SADDLE APRON — UNIT 'C'



COVER ASSEMBLY

C- 1 Apron Gear Box
 C- 2 Apron Cover
 C- 3 Turnstile Sleeve
 C- 4 Stop Pin
 C- 5 Oil Gage Cover
 C- 6 Gage Glass
 C- 7 Gage Gasket
 C- 8 Street Ell

HOLLOW FEED SHAFT ASSEMBLY

C-35 Hollow Feed Shaft
 C-36 Roller Bearing Hyatt C-305
 C-37 Slotted Spacer
 C-38 Three Cluster Gear 22T-32T-27T
 C-39 Bearing Retainer

PINION SHAFT ASSEMBLY

C- 9 Pinion Shaft 16T
 C-10 Gear 58T
 C-11 Locating Sleeve

PUMP BRACKET ASSEMBLY

C-40 Pump Bracket
 C-41 Pump Lever
 C-42 Lever Bushing
 C-43 Lever Plunger
 C-44 Packing Gland
 C-45 Steel Ball
 C-46 Spring
 C-47 Spring Plunger
 C-48 Screw Plug
 C-49 Oil Seal

WORM GEAR SHAFT ASSEMBLY

C-12 Worm Gear Shaft
 C-13 Binder Nut
 C-14 Lever Cam
 C-15 Thrust Bearing MRC 898-E
 C-16 Bronze Bushing
 C-17 Friction Gear 15T
 C-18 Friction Gear Bushing
 C-19 Friction Clutch
 C-20 Clutch Plug
 C-21 Clutch Spring
 C-22 Worm Gear 37T

LEVER BRACKET ASSEMBLY

C-50 Lever Bracket
 C-51 Bracket Cover
 C-52 Oil Seal
 C-53 Lower Lever
 C-54 Lever Bushing
 C-55 Lower Shift Rod
 C-56 Detent Spring
 C-57 Upper Lever
 C-58 Lever Feed Plate
 C-59 Feed Plate Arrow
 C-60 Lever Stud
 C-61 Upper Shift Rod
 C-62 Detent Spring

WORM SHAFT ASSEMBLY

C-23 Worm Shaft
 C-24 Ball Bearing MRC 204-S
 C-25 End Bearing Spacer
 C-26 Worm
 C-27 Three Cluster Gear 32T-46T-18T

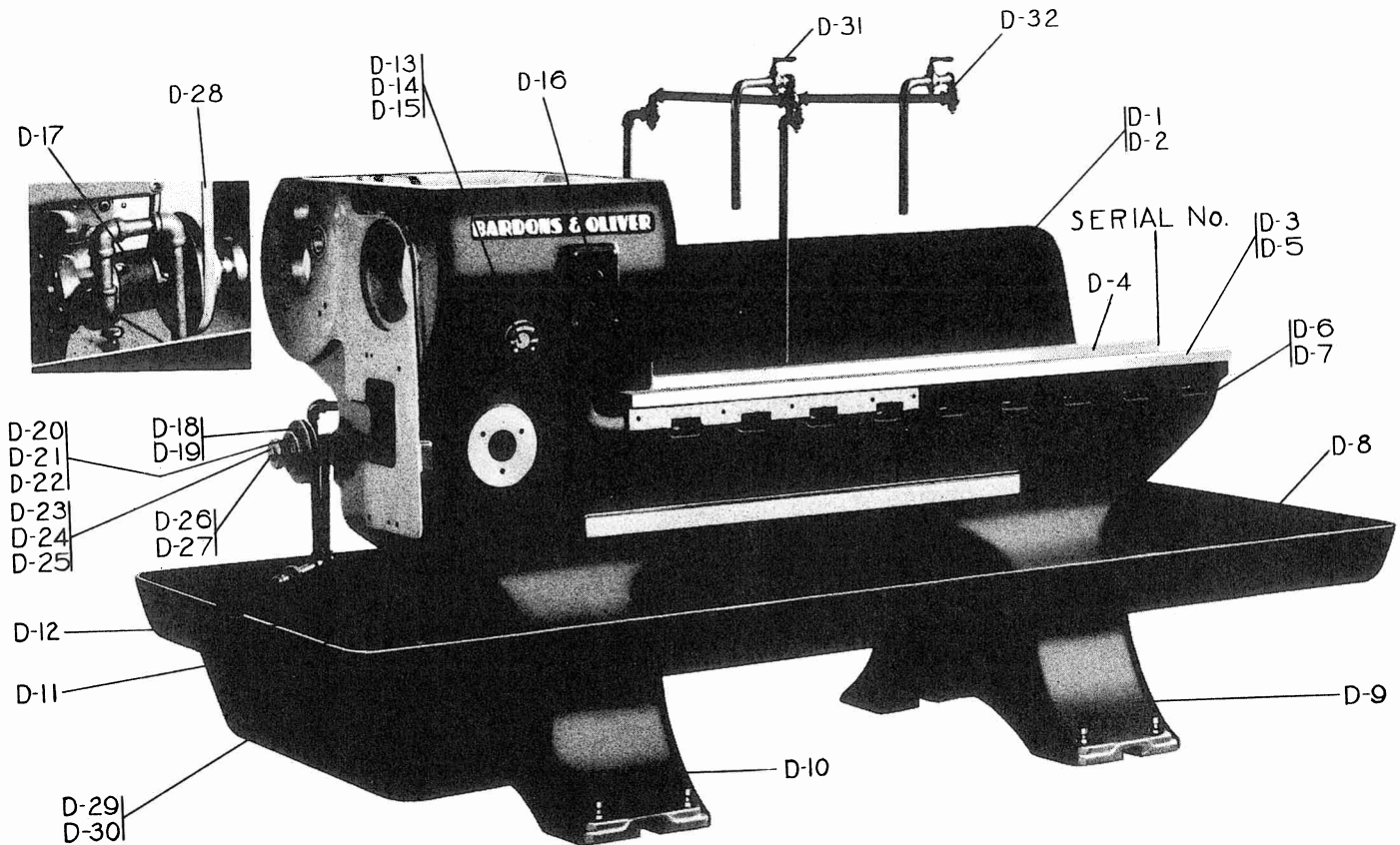
INTERMEDIATE SHAFT ASSEMBLY

C-28 Intermediate Shaft
 C-29 End Gear Spacer
 C-30 Two Cluster Gear 35T-25T
 C-31 Center Gear Spacer
 C-32 Two Cluster Gear 30T-16T
 C-33 Gear 43T
 C-34 End Gear Spacer

POWER FEED LEVER ASSEMBLY

C-63 Power Feed Lever
 C-64 Handle
 C-65 Plunger
 C-66 Plunger Spring
 C-67 Bakelite Ball

BED, PAN & LEGS—COOLANT PUMP & PIPING—UNIT 'D'



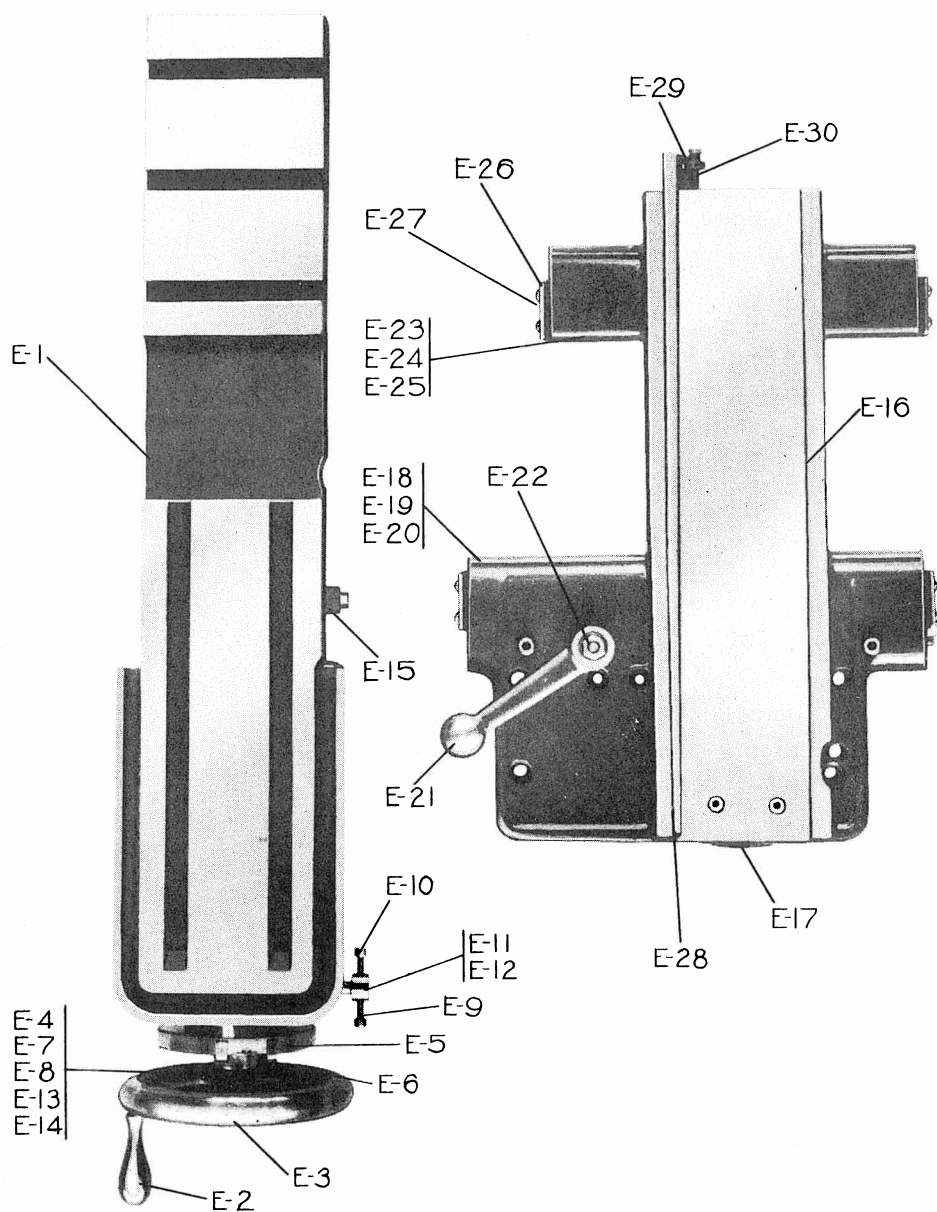
BED, PAN & LEGS

D- 1	Rear Splash Guard
D- 2	Side Splash Guard
D- 3	Front Steel Bedway
D- 4	Rear Steel Bedway
D- 5	Bedway Stud
D- 6	Bed with Integral Cast Ways
D- 7	Bed with Steel Bedways
D- 8	Chip Pan
D- 9	Front Leg
D-10	Rear Leg
D-11	Pan Plate
D-12	Strainer Plate
D-13	Oil Gage Cover
D-14	Gage Glass
D-15	Gage Gasket
D-16	Bakelite Switch Cover

COOLANT PUMP & PIPING

D-17	Viking Pump	EGCC
D-18	V - Belt	Sheave
D-19	Ball Bearing	MRC-5205F
D-20	Driving Clutch	
D-21	Locknut	N-05
D-22	Lockwasher	W-05
D-23	Driven Clutch	
D-24	Detent Spring	
D-25	Steel Ball	
D-26	Stop Screw	
D-27	Shaft	
D-28	V - Belt	
D-29	Strainer Body	
D-30	Strainer Screen	
D-31	Stop Cock	
D-32	Swing Joint	

CROSS SLIDE & CARRIAGE—UNIT 'E'



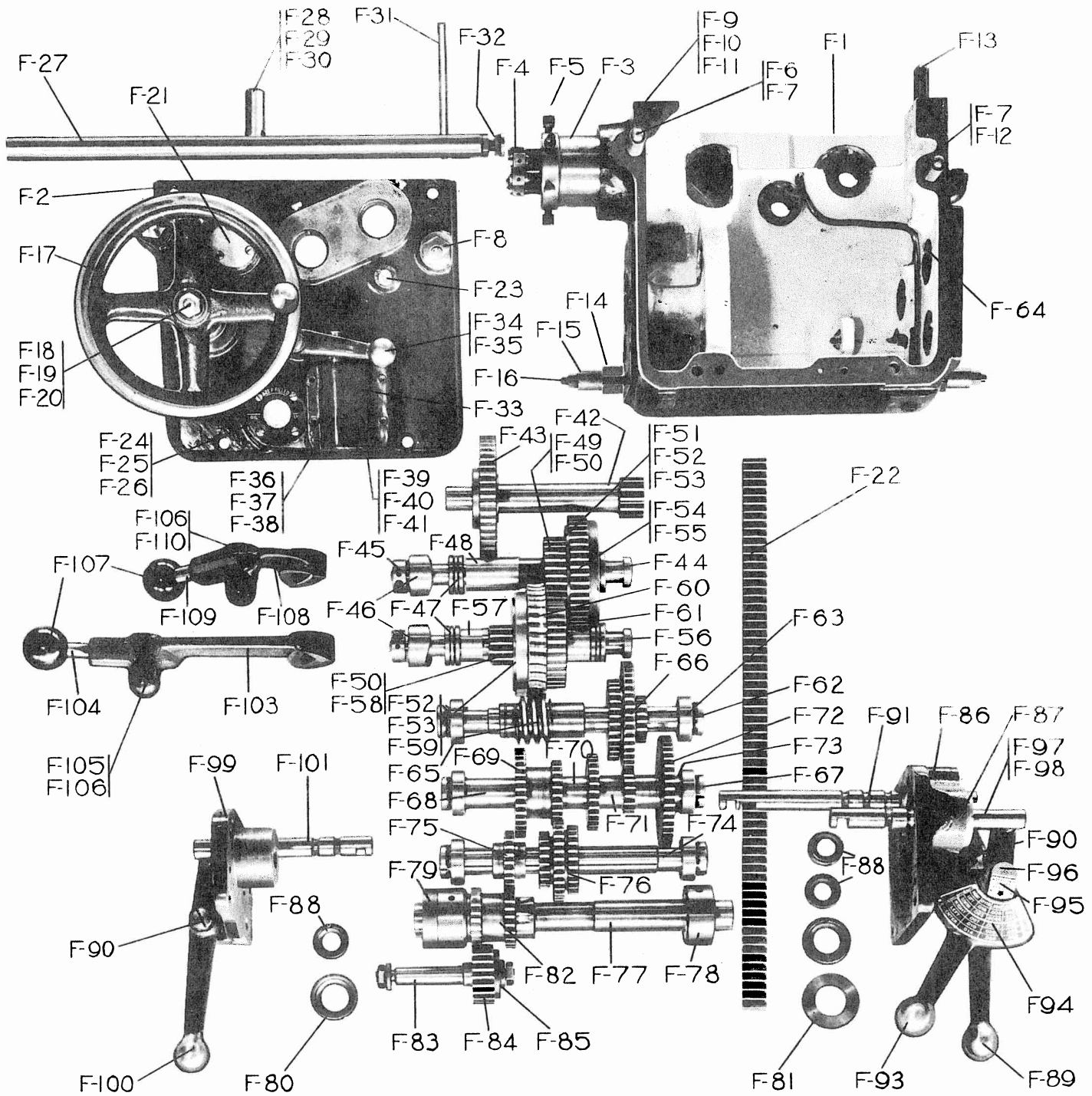
CROSS SLIDE ASSEMBLY

E- 1	Cross Slide
E- 2	Balcrank Handle
E- 3	Handwheel
E- 4	Feed Screw
E- 5	Micrometer Dial
E- 6	Dial Clip
E- 7	Ball Bearing MRC #7305
E- 8	Bearing Spacer
E- 9	Binder Handle
E-10	Binder Collar
E-11	Binder Screw
E-12	Binder Shoe
E-13	Binder Bearing Spacer
E-14	Feed Screw Gear
E-15	Trip Dog

CARRIAGE ASSEMBLY

E-16	Carriage
E-17	Feed Screw Nut
E-18	Front Cap
E-19	Front Cap Gib
E-20	Gib Screw
E-21	Binder Handle
E-22	Binder Stud
E-23	Rear Cap
E-24	Rear Cap Gib
E-25	Gib Screw
E-26	Felt Wiper
E-27	Wiper Cap
E-28	Cross Slide Gib
E-29	Gib Nut
E-30	Gib Stud

CARRIAGE APRON — UNIT 'F'



CARRIAGE APRON UNIT 'F'

APRON COVER ASSEMBLY

F-1 Apron Gear Box
F-2 Apron Cover
F-3 Stop Screw Roll
F-4 Stop Screw
F-5 Binder Screw
F-6 Longitudinal Knockout Rod
F-7 Knockout Spring
F-8 Knockout Plug
F-9 Steel Ball
F-10 Detent Spring
F-11 Detent Screw
F-12 Cross Feed Knockout Rod
F-13 Trip Pin
F-14 Side Way Gib
F-15 Gib Nut
F-16 Gib Stud
F-17 Handwheel
F-18 Pinion Shaft
F-19 Pinion 15T
F-20 Handwheel Sleeve
F-21 Pinion Shaft Cover
F-22 Rack
F-23 Cross Feed Stop Pin
F-24 Oil Gage Cover
F-25 Gage Glass
F-26 Gage Gasket
F-27 Stop Rod
F-28 Plunger
F-29 Plunger Spring
F-30 Screw Plug
F-31 Stop Rod Handle
F-32 Stop Rod Screw

LUBRICATING PUMP ASSEMBLY

F-33 Pump Body
F-34 Pump Lever
F-35 Lever Stud
F-36 Lever Plunger
F-37 Packing Gland
F-38 Steel Ball
F-39 Spring
F-40 Spring Plunger
F-41 Screw Plug

PINION SHAFT ASSEMBLY

F-42 Pinion Shaft 12T
F-43 Pinion Shaft Gear 50T

FRICTION GEAR SHAFT ASSEMBLY

F-44 Friction Gear Shaft
F-45 Binder Nut
F-46 Lever Cam
F-47 Thrust Bearing MRC 898-E
F-48 Bronze Spacer
F-49 Clutch Gear 28T
F-50 Clutch Gear Bushing
F-51 Clutch Friction
F-52 Friction Plug
F-53 Friction Spring
F-54 Friction Gear 45T
F-55 Friction Gear Bushing

WORM GEAR SHAFT ASSEMBLY

F-56 Worm Gear Shaft
F-57 Bronze Spacer
F-58 Friction Gear 15T
F-59 Clutch Friction
F-60 Worm Gear 37T
F-61 Gear 35T

WORM SHAFT ASSEMBLY

F-62 Worm Shaft
F-63 Ball Bearing MRC 204-S
F-64 End Bearing Spacer
F-65 Worm
F-66 Three Cluster Gear 32T-46T-18T

INTERMEDIATE SHAFT ASSEMBLY

F-67 Intermediate Shaft
F-68 End Gear Spacer
F-69 Two Cluster Gear 35T-25T
F-70 Center Gear Spacer
F-71 Two Cluster Gear 30T-16T
F-72 Gear 44T
F-73 End Gear Spacer

THREE CLUSTER GEAR SHAFT ASSEMBLY

F-74 Three Cluster Gear Shaft
F-75 Reverse Gear 23T
F-76 Three Cluster Gear 22T-32T-27T

HOLLOW FEED SHAFT ASSEMBLY

F-77 Hollow Feed Shaft
F-78 Roller Bearing HYATT C-305
F-79 Seal Cup
F-80 Oil Seal
F-81 Bearing Closer
F-82 Two Cluster Gear 23T-23T

IDLER GEAR SHAFT ASSEMBLY

F-83 Idler Shaft
F-84 Idler Gear 23T
F-85 Ball Bearing MRC 203-S

LEVER BRACKET ASSEMBLY

F-86 Bracket
F-87 Cover
F-88 Oil Seal
F-89 Lower Gear Shift Lever
F-90 Lever Stud
F-91 Gear Shift Rod
F-92 Detent Spring
F-93 Upper Gear Shift Lever
F-94 Lever Feed Plate
F-95 Feed Plate Arrow
F-96 Lever Stud
F-97 Gear Shift Rod
F-98 Detent Spring

REVERSE LEVER ASSEMBLY

F-99 Lever Bracket
F-100 Reverse Lever
F-101 Gear Shift Rod
F-102 Detent Spring

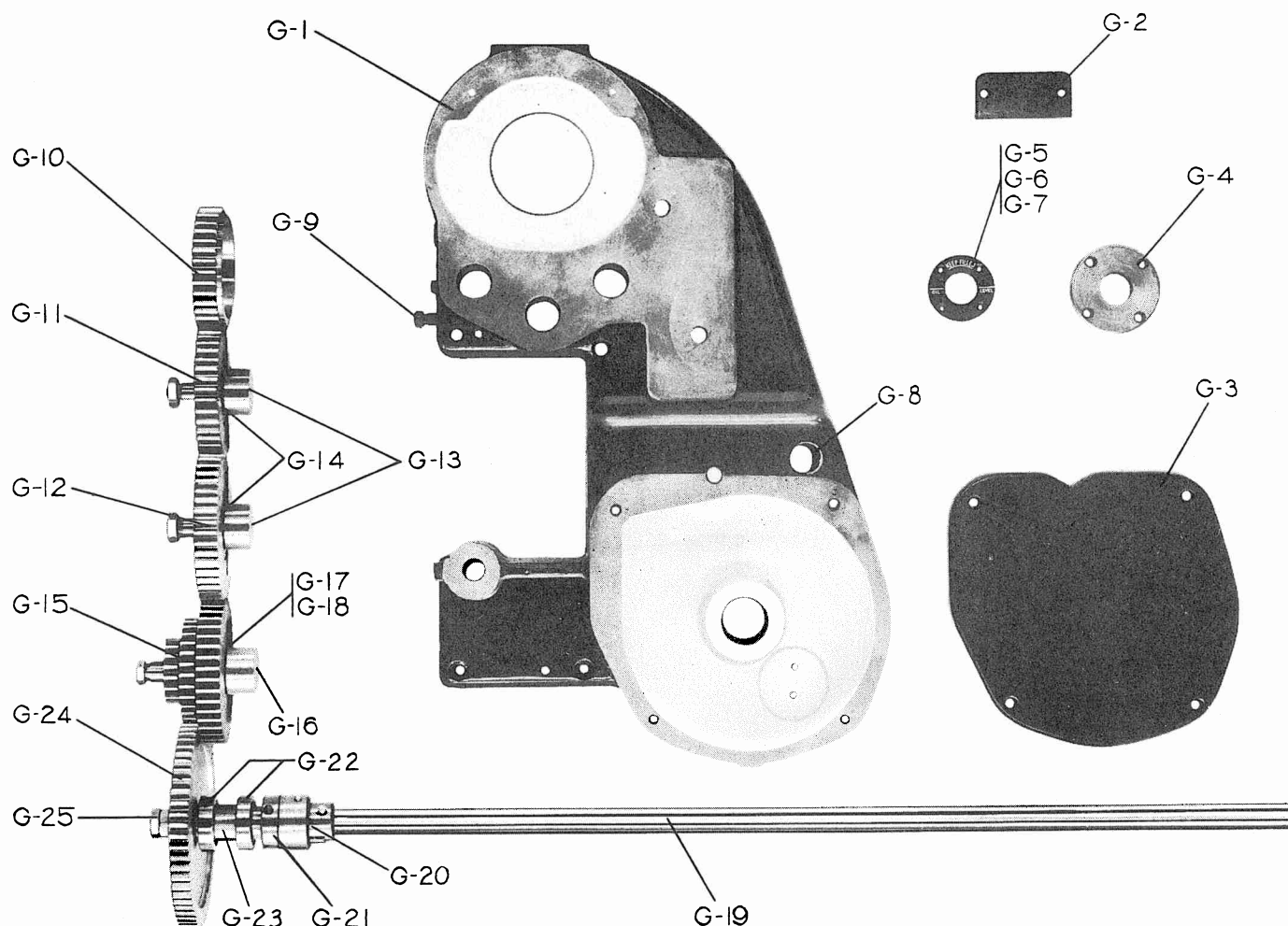
LONGITUDINAL FEED LEVER ASSEMBLY

F-103 Longitudinal Feed Lever
F-104 Handle
F-105 Plunger
F-106 Plunger Spring
F-107 Bakelite Ball

CROSS FEED LEVER ASSEMBLY

F-108 Cross Feed Lever
F-109 Handle
F-110 Plunger

HEAD END BRACKET—UNIT 'G'



GEAR BOX ASSEMBLY

- G- 1 Head End Bracket
- G- 2 Top Cover
- G- 3 End Cover
- G- 4 Bearing Closer
- G- 5 Oil Gage Cover
- G- 6 Gage Glass
- G- 7 Gage Gasket
- G- 8 Sleeve
- G- 9 Feed Bar Screw

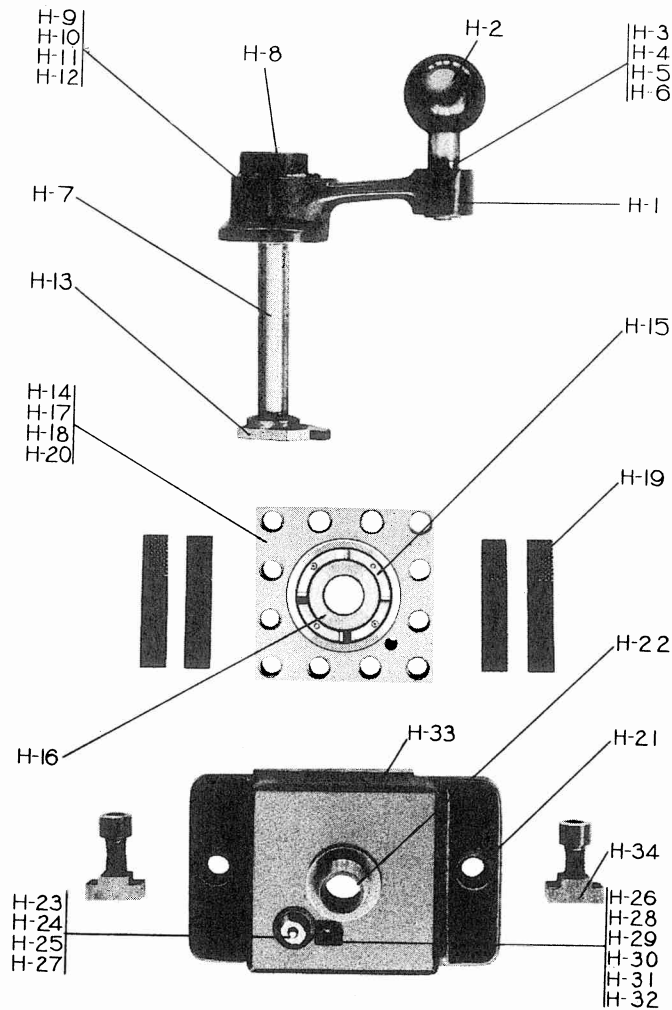
GEAR TRAIN ASSEMBLY

- G-10 Spindle Gear 42T
- G-11 Intermediate Gear 37T
- G-12 Intermediate Gear 44T
- G-13 Intermediate Gear Stud
- G-14 Ball Bearing MRC 5304
- G-15 Three Cluster Gear 18T-30T-42T
- G-16 Three Cluster Gear Stud
- G-17 Ball Bearing MRC 203-S
- G-18 Bearing Spacer

FEED SHAFT ASSEMBLY

- G-19 Feed Shaft
- G-20 Right Hand Safety Coupling
- G-21 Left Hand Safety Coupling
- G-22 Ball Bearing MRC 205-S
- G-23 Bearing Spacer
- G-24 Change Gear 48T or 60T or 72T
- G-25 Feed Shaft Extension

SQUARE TURRET — UNIT 'H'



INDEXING LEVER ASSEMBLY

H- 1	Indexing Lever
H- 2	Bakelite Ball
H- 3	Ball Stud
H- 4	Ball Collar
H- 5	Ball Sleeve
H- 6	Screw Collar
H- 7	Center Stud
H- 8	Stud Collar
H- 9	Collar Plunger
H-10	Collar Plunger Spring
H-11	Index Plunger
H-12	Index Plunger Spring
H-13	Lockbolt Cam
H-14	Square Turret
H-15	Index Plate
H-16	Adjusting Sleeve
H-17	Detent Pin
H-18	Detent Pin Spring
H-19	Tool Rocker

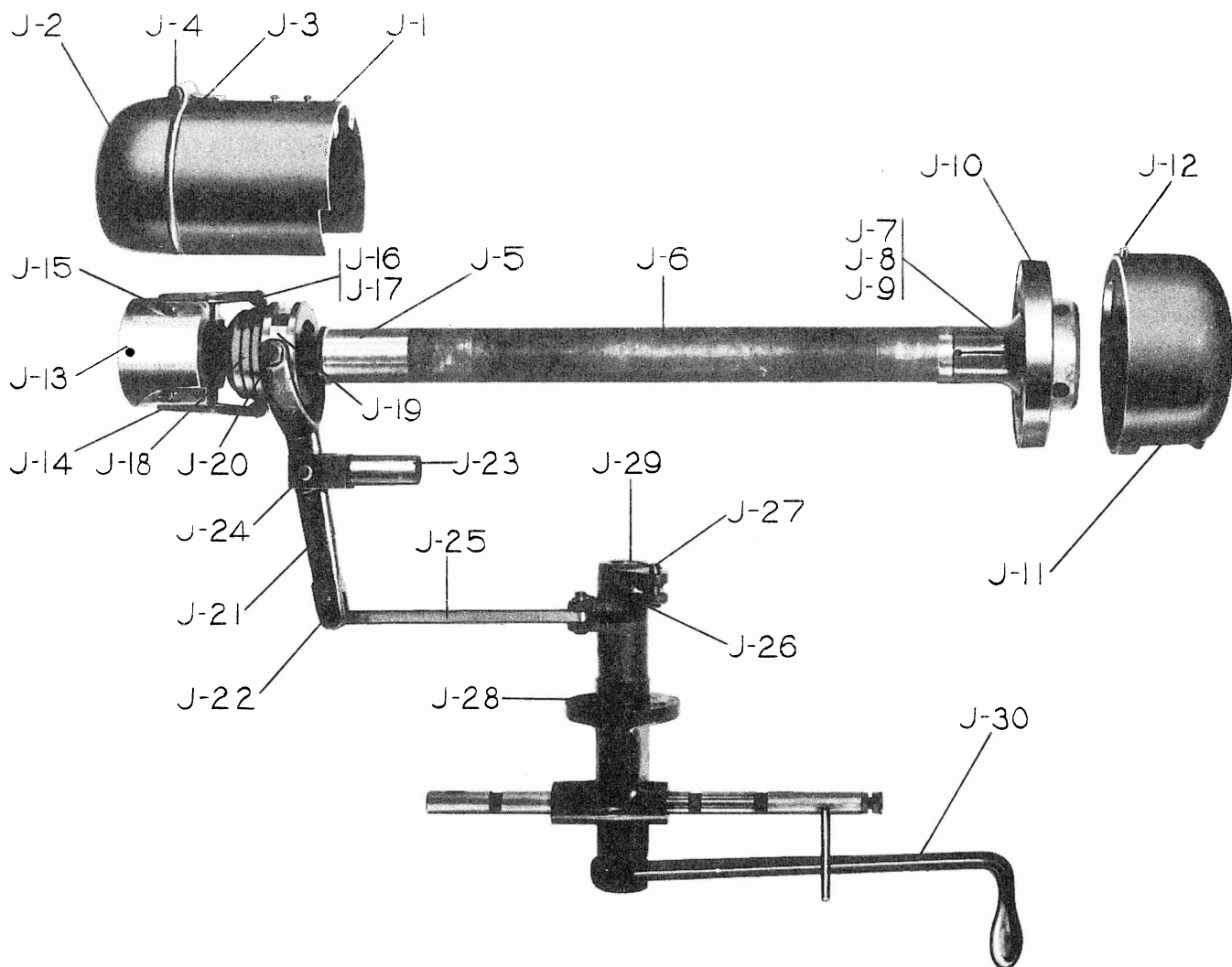
INDEXING LEVER ASSEMBLY--Continued

H-20	Lockbolt Bushing
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BASE ASSEMBLY

H-21	Base
H-22	Sleeve
H-23	Lockbolt
H-24	Lockbolt Spring
H-25	Lockbolt Sleeve
H-26	Lockbolt Lever
H-27	Screw Plug
H-28	Tumbler
H-29	Tumbler Pin
H-30	Tumbler Plunger
H-31	Spring
H-32	Tumbler Pivot Screw
H-33	Bottom Plate
H-34	Tee Nut

AUTOMATIC CHUCK — UNIT 'J'



MASTER COLLET ASSEMBLY

J- 1	Spindle Guard
J- 2	Guard Cap
J- 3	Hinge
J- 4	Hinge Pin
J- 5	Abutment Sleeve
J- 6	Plunger
J- 7	Master Collet
J- 8	False Jaw
J- 9	False Jaw Screw
J-10	Collet Hood
J-11	Collet Hood Guard
J-12	Guard Pin

WEDGE ASSEMBLY

J-13	Finger Holder
J-14	Finger
J-15	Finger Pivot Pin

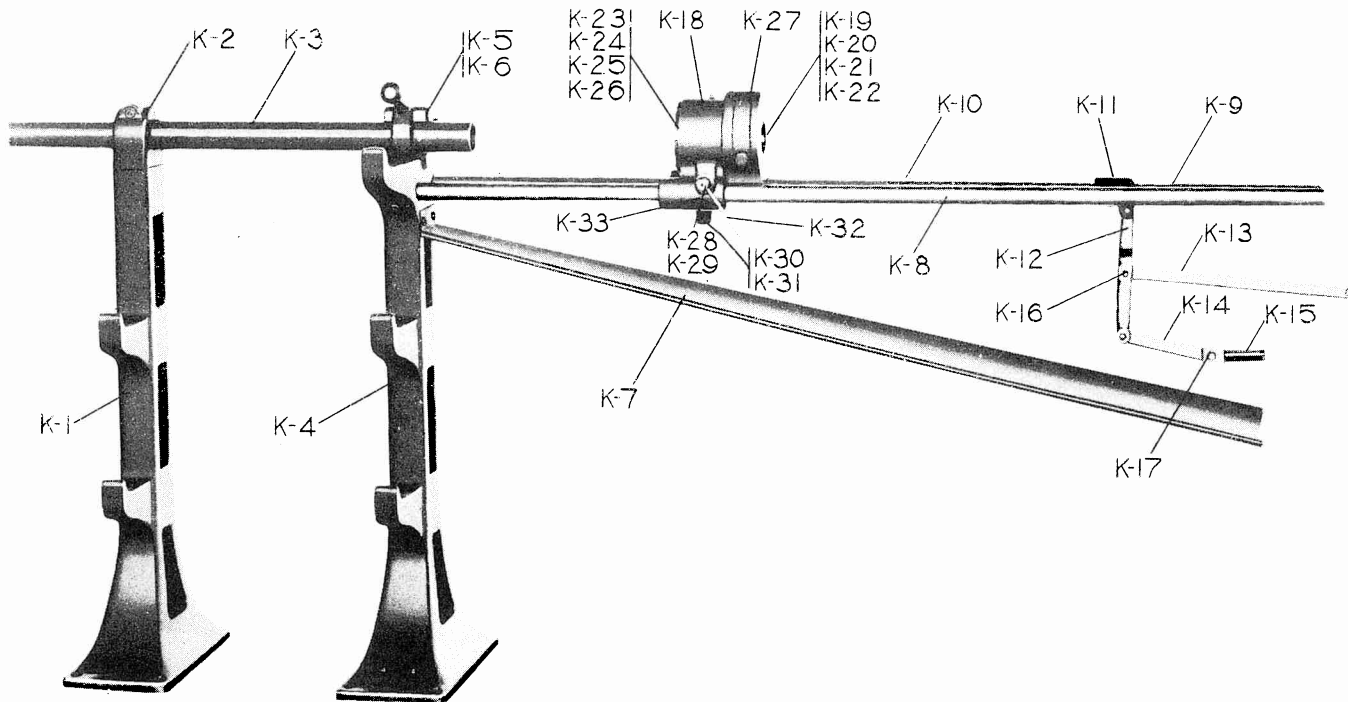
WEDGE ASSEMBLY --Continued

J-16	Finger Roller
J-17	Roller Pin
J-18	Wedge

YOKE ASSEMBLY

J-19	Yoke Shoe
J-20	Yoke Shoe Stud
J-21	Yoke
J-22	Link Pin
J-23	Yoke Pivot Stud
J-24	Yoke Pivot Pin
J-25	Link
J-26	Crank Lever
J-27	Link Pin
J-28	Sleeve
J-29	Lever Shaft
J-30	Lever

RATCHET BAR FEED - UNIT 'K'



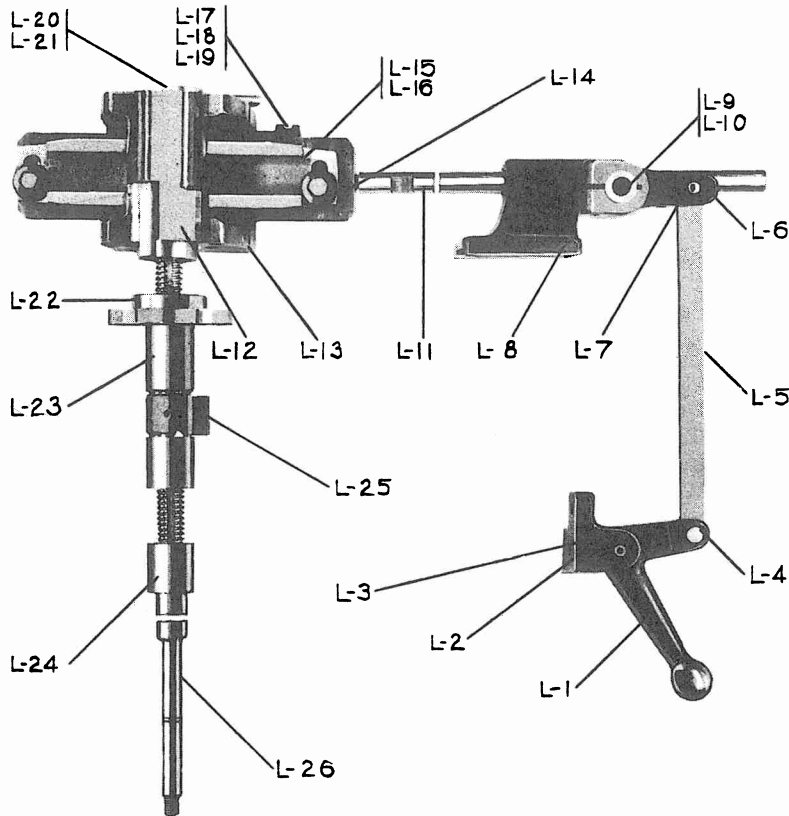
BAR FEED STAND ASSEMBLY

- K- 1 Rear Bar Stand
- K- 2 Stand Head
- K- 3 Support Tube
- K- 4 Front Bar Stand
- K- 5 Lever
- K- 6 Lever Pin
- K- 7 Drip Trough
- K- 8 Support Bar
- K- 9 Ratchet Support Bar
- K-10 Ratchet
- K-11 Ratchet Pusher
- K-12 Feed Bar Lever
- K-13 Link
- K-14 Pivot Link
- K-15 Pivot Fork
- K-16 Link Pin
- K-17 Fork Pin

SLIDING HEAD ASSEMBLY

- K-18 Sliding Head
- K-19 Revolving Head
- K-20 Chuck Jaw
- K-21 Chuck Screw
- K-22 Chuck Plate
- K-23 Ball Bearing MRC 214-MF
- K-24 Bearing Spacer
- K-25 Front Bearing Closer
- K-26 Rear Bearing Closer
- K-27 Chuck Guard
- K-28 Latch
- K-29 Latch Spring
- K-30 Brass Shoe
- K-31 Friction Spring
- K-32 Handle
- K-33 Stop Pin

CARRIAGE TAPER ATTACHMENT — UNIT 'L'



BINDER LEVER ASSEMBLY

- L- 1 Lever
- L- 2 Lever Hinge
- L- 3 Hinge Bushing
- L- 4 Link Pin
- L- 5 Link
- L- 6 Link Pin
- L- 7 Binder Lever
- L- 8 Bracket
- L- 9 Binder Bolt
- L-10 Binder Nut
- L-11 Bar

SWIVEL ASSEMBLY

- L-12 Carriage Bracket
- L-13 Swivel Bracket
- L-14 Swivel Slide
- L-15 Swivel Plate
- L-16 Swivel Stud
- L-17 Gib
- L-18 Gib Nut
- L-19 Gib Stud
- L-20 Dovetail Binder
- L-21 Binder Nut

COMPENSATING NUT ASSEMBLY

- L-22 Compensating Nut
- L-23 Feed Screw Nut
- L-24 Feed Gear Spacer
- L-25 Follower
- L-26 Feed Screw

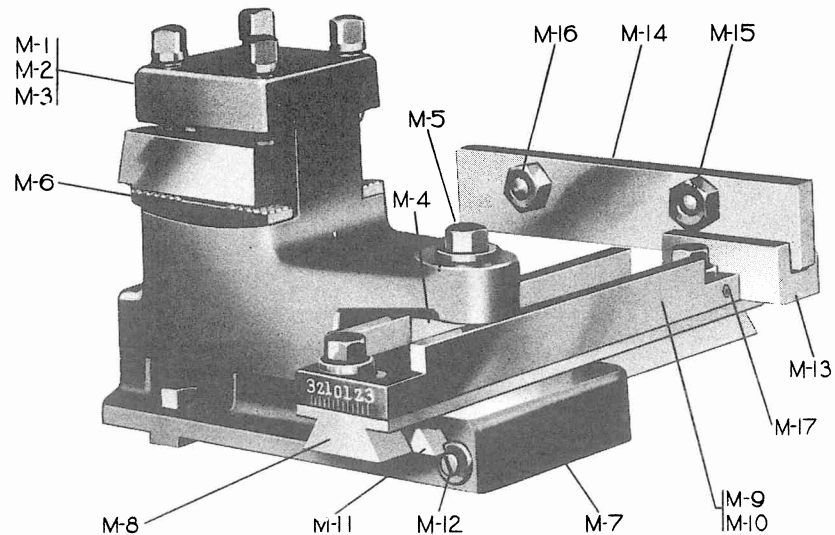
CROSS SLIDE TAPER ATTACHMENT — UNIT 'M'

TOOL SLIDE ASSEMBLY

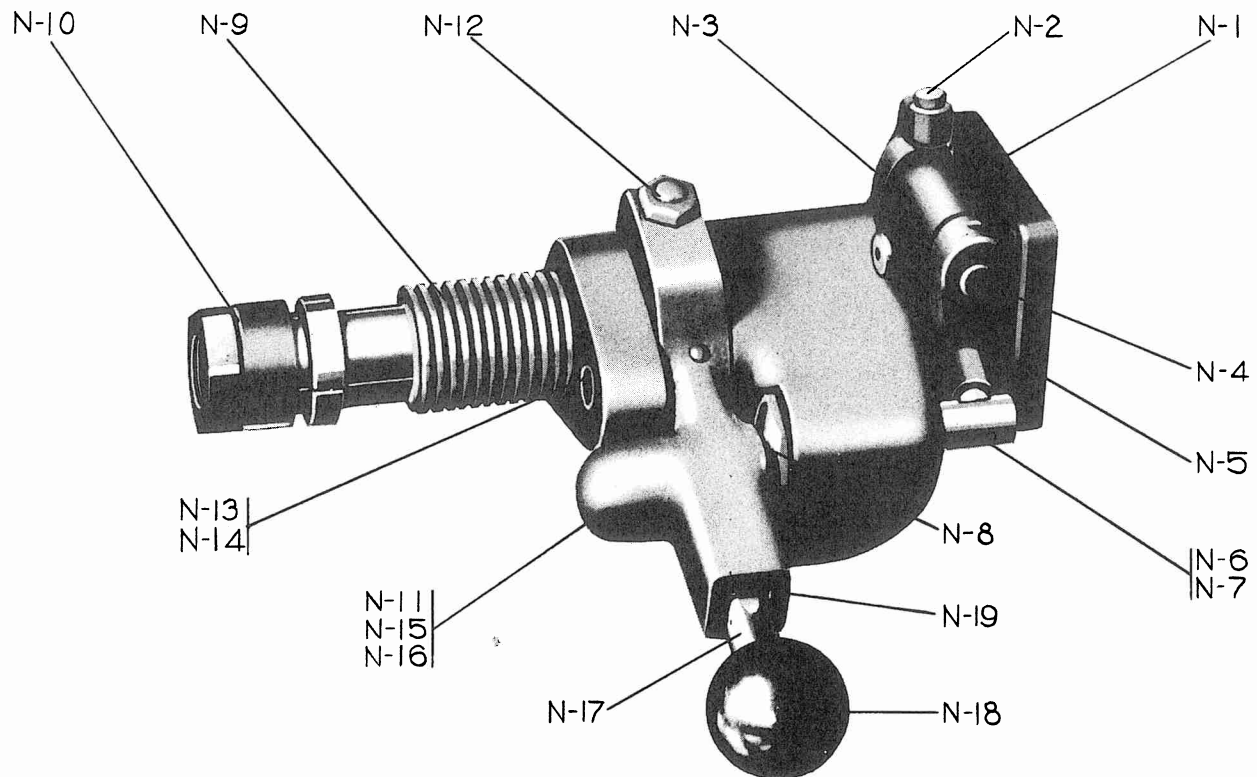
- M- 1 Tool Slide
- M- 2 Gib
- M- 3 Gib Screw
- M- 4 Follower
- M- 5 Follower Stud
- M- 6 Rocker

SWIVEL ASSEMBLY

- M- 7 Base
- M- 8 Swivel Slide
- M- 9 Swivel Plate
- M-10 Swivel Stud
- M-11 Gib
- M-12 Gib Screw
- M-13 Yoke
- M-14 Bracket
- M-15 Short Bracket Stud
- M-16 Long Bracket Stud
- M-17 Adjusting Screw



CARRIAGE THREAD CHASING ATTACHMENT — UNIT 'N'



BRACKET ASSEMBLY

- N- 1 Bracket
- N- 2 Trip Pin
- N- 3 Trip Pin Lever
- N- 4 Trip Lever Shaft
- N- 5 Trip Lever
- N- 6 Knockout Rod
- N- 7 Knockout Rod Spring
- N- 8 Knockout Plug
- N- 9 Leader
- N-10 Leader Nut

FOLLOWER ASSEMBLY

- N-11 Power Feed Lever
- N-12 Follower
- N-13 Pivot Pin
- N-14 Pivot Pin Spring
- N-15 Plunger
- N-16 Plunger Spring
- N-17 Handle
- N-18 Bakelite Ball
- N-19 Stop Pin

WHEN ORDERING:-

1. SPECIFY AMOUNT WANTED
2. GIVE SERIAL NUMBER OF MACHINE *
3. GIVE NUMBER AND NAME OF PART EXACTLY AS SHOWN IN CATALOG

* THE SERIAL NUMBER OF EACH MACHINE IS STAMPED ON THE NAME PLATE AND ON THE END OF THE REAR BED WAY.