HORNET INDUSTRIES LIMITED

"Hornet" Power Chain Saws

HORNET
TRADE MARK
INDUSTRIES LIMITED

INSTRUCTION AND PARTS MANUAL

HORNET INDUSTRIES LIMITED
GUELPH, ONT., CANADA

Please add Additional Sheets when Received.

STARTING AND OPERATING INSTRUCTIONS

1. To Assemble Machine

(a) Attach blade to strut on gear box and tighten nuts down securely.

(b) Attach tailstock to outer end of blade.

(c) Slack off adjusting nut in tailstock and put on sawing chain.

(d) Tighten adjusting nut until chain can be pulled out of groove, approximately 2 inches, using thumb and one finger. The tension on the chain should be enough to prevent it from slipping on the driving sprocket and to prevent it from falling out of the groove. If the chain is too tight, it will cause excessive wear on rivet bearing surfaces, driving sprocket and idler.

(e) Fill the chain lubricating oil tank with light oil, S.A.E. 10 or 20.

(f) Use air pump in tank to put oil under pressure.

(g) Open shut-off valve in oil line. Be sure that oil is coming through the blade to the chain.

2. To Start Engine

(a) Fill gasoline tank (for instructions on correct oil-gasoline mixture see Article #4, Lubrication).

(b) Open shut-off valve to carburetor.

(c) Turn choke handle (on side of airfilter) so that choke is on full. (Handle is all the way IN). **DO NOT use choke when engine is warm.**

(d) Put rope on starting wheel and pull engine over clockwise two or three times with a sharp, quick pull. **W A R N I N G** — To prevent the engine from kicking and to make easier starting, turn the starting wheel anticlockwise by hand, so that piston is not on compression, then pull starting rope in clockwise direction.

(e) Pull choke handle all the way OUT and lock in running position.

(f) The engine should start with next pull. In cold weather the engine may require more choking than noted above.

(g) Rev. up engine to half throttle and engage clutch.

(h) Let machine run at half speed for half an hour with the chain running. **W A R N I N G** — When operating the engine as specified here, do not set it on concrete. Set the machine on the ground.

3. Application

(a) Place strut on motor against log and set chain into wood.

(b) Open throttle to full open.

(c) Control r.p.m.'s of motor by increasing or decreasing pressure on sawing chain.
If you push too hard, the motor will stall.
If you do not push hard enough, the motor will rev. up too fast.

NOTE: Do not overwork engine for first two or three days. If engine heats up and shows sign of stalling, stop and let it cool down. In a few hours the engine will be broken in.

The Hornet Power Chain saw is manufactured in its entirety in a modern plant with modern equipment. It is produced on a production basis, and replacement parts are interchangeable. It is designed and manufactured to do the job for which it is intended. The first two or three days of use will have a decided bearing on the life of the machine. Use it as you would a new automobile.

GUARANTEE: This machine is guaranteed for a period of thirty days against defective workmanship and materials. Hornet Industries Limited reserve the right of judgment of whether a part or a machine is defective.

4. Lubrication

This is a two-cycle engine and its lubrication depends on the mixture of oil with the gasoline.

Care should be taken that the right proportions of oil and gasoline are well mixed.

USE BEST GRADE S.A.E. BODY #50 OIL. MIX ONE PART OIL TO E I G H T PARTS GASOLINE. MIX THOROUGHLY IN CONTAINER BEFORE PUTTING INTO GASOLINE TANK. USE GOOD GRADE ORDINARY GASOLINE FROM 70 TO 80 OCTANE.

W A R N I N G — Do not use gasoline without oil mixture.

ENGINE TROUBLE CHART

1. Engine Fails To Start.

Symptom	Cause	Remedy
A. Engine fails to start.	1. Gas tank empty.	
	2. Water in gasoline.	
	3. Feed line plugged.	Clean.
	4. Carburetor dirty.	Clean carburetor, especially the high speed jet.
	5. Needle valve not opened enough.	
	6. Faulty ignition.	Remove the spark plug, attach the ignition wire again to the plug. Ground the plug by placing it on the cylinder head. Turn over the engine by hand. If no spark, trace back through ignition wire to magneto. If spark plug fouled, clean or replace.
	7. Dirt under reeds in crankcase.	Take off reed plate, clean, inspect reeds to see that they are closing properly.
	8. Breaker points dirty or pitted.	Clean. If the points are pitted, replace them.
	9. Engine flooded due to the flooding of the carburetor.	First, clean any dirt from under the plunger valve in the float chamber, then reset the float to its proper position. Close off the needle valve (high speed jet) in the carburetor. Remove the spark plug. Turn the engine over several times with the starting rope to blow out the cylinder. Replace the plug and open the needle valve 1 to 1½ turns.

ENGINE TROUBLE CHART

2. Engine Runs Imperfectly.

Symptom	Cause	Remedy
A. Engine apparently runs properly but has no power.	1. If engine hard to start and has no power there may be a leak in the crankcase or leak in cylinder head.	To locate leak in crankcase: Turn crankshaft anti-clockwise by hand until piston is compressing in base. If there is a leak it is possible to hear air coming out, or very likely to find oil seeping out. To locate leak in cylinder head: Turn engine sharply on compression using your hand on flywheel. If the pressure is good in the head it will be hard to turn over and, when released, will have spring action. If compression is poor, use the following test: Turn piston to bottom of stroke and put a tablespoon of heavy oil in the exhaust port. Turn engine on its side letting the oil flow in on top of piston. Work piston up and down to allow the oil to get around the rings. Now turn the flywheel sharply on compression using your hand. If there is still no compression then there is a leak in cylinder head gasket or around spark plug. If it has compression then it is indicated that the engine needs a new set of piston rings.
	2. If engine is fairly difficult to start and loses power over a period of time, the exhaust ports may be plugged with carbon.	Clean exhaust ports thoroughly. With normal use of engine, exhaust ports should be cleaned weekly. Since most of the carbon is due to the oil in the oil-gasoline mixture, use only a high grade body #50 oil.
B. Engine will open up and has r.p.m.'s, but will not pull under load.	1. Mixture too lean.	Open up high speed jet to richer mixture.

ENGINE TROUBLE CHART

2. Engine Runs Imperfectly (Cont'd.).

Symptom	Cause	Remedy
C. Engine will start and run at slow speeds, but when throttle opened out, engine will start to miss.	1. Defective spark plug.	Spark plug may spark when tested as in remedy #6 under "Engine Fails to Start", but it may have no spark or too weak a spark when the engine operates at full speed. Insert a new plug and try engine.
	2. Magneto breaker points pitted by burning.	If points are burned, replace.
D. Engine will not rev up and will smoke in excess. Adjustment of high speed jet will not change it greatly.	1. Flooding the carburetor.	Clean any dirt from under plunger valve in float. Reset float to proper level.
	2. Too much oil in gasoline mixture.	Use only one part oil to 12 parts gasoline.
E. Engine has tendency to gallop when throttle opened quickly, and will not rev-up satisfactorily. Engine will smooth out and most of smoke will disappear as soon as it is put under load.	1. Carburetor out of adjustment.	Adjust carburetor while engine under load as follows: Allow the engine a rich mixture, then set the chain in the wood. With the engine pulling under load, adjust the needle valve to a leaner mixture, at the same time allowing the engine to settle down to its best load and cutting speed.

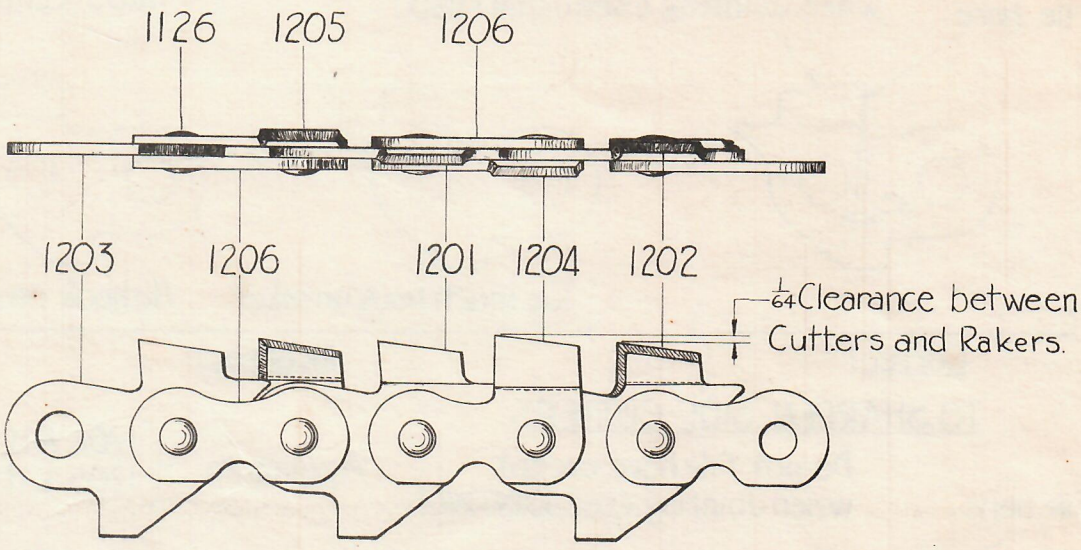
SAWING CHAIN TROUBLE CHART

Symptom	Cause	Remedy
A. Saw "runs" when cutting.	1.  Guide bar worn on one side as shown, causing the chain to tip over slightly.	File the guides square with the side of the bar.
	2.  Groove is worn open at the top. This also causes the chain to tip over.	When the groove is worn as shown, a new guide bar is necessary.
	3. Dull teeth.	See instructions on "Sharpening and Jointing" Chain.
	4. Side cutters high on one side.	See instructions on "Sharpening and Jointing" Chain.
	5. More set on one side of chain than the other.	See instructions on "Setting". The use of the jointing and setting tool will prevent this cause.
B. Chain "hooks" or "grabs".	1. Loose rivet in side cutter.	Always replace loose rivets.
	2. A stiff link.	Replace the rivet.
	3. High rakers.	See instructions on "Sharpening and Joining" Chain.
	4. Too much hook on rakers.	See instructions on "Sharpening and Joining" Chain.
C. Saw feeds into wood with some difficulty when normal pressure applied to blade.	1. Dull teeth. 2. Not enough hook on rakers. 3. Teeth not uniform in height.	See instructions on "Sharpening and Jointing" Chain.

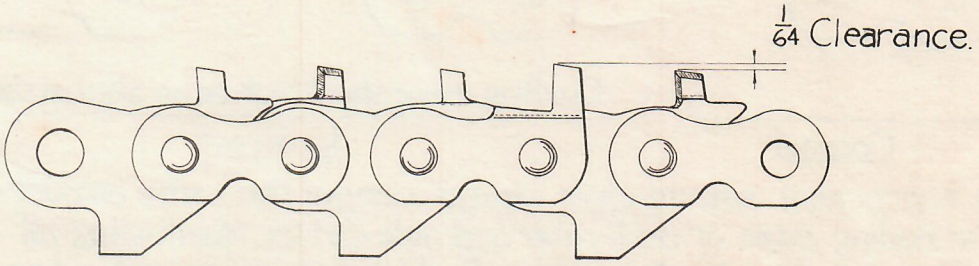
THE PROPER CARE OF YOUR SAWING CHAIN

1. Before sharpening, read carefully the instructions laid out for sharpening, jointing and setting the saw.
2. Sharpen the saw at least once a day — in hardwood sharpen twice daily.
3. Use light oil on the sawing chain. If the groove in the guide bar builds up with sawdust or pitch, mix kerosene or diesel oil with the lubricating oil. **USE PLENTY OF OIL.**
4. After each twenty-four hours of operation, put chain in an oil bath and leave over night. This lubricates the rivet bearing surfaces.

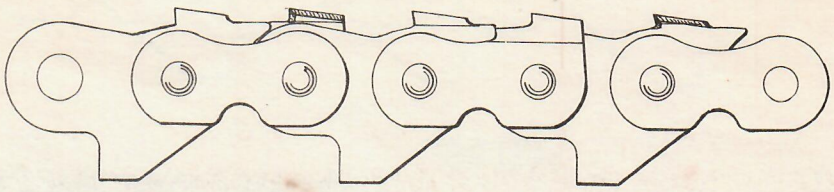
HOW TO SHARPEN SAWING CHAIN



Above - Your Chain, As You Buy It.



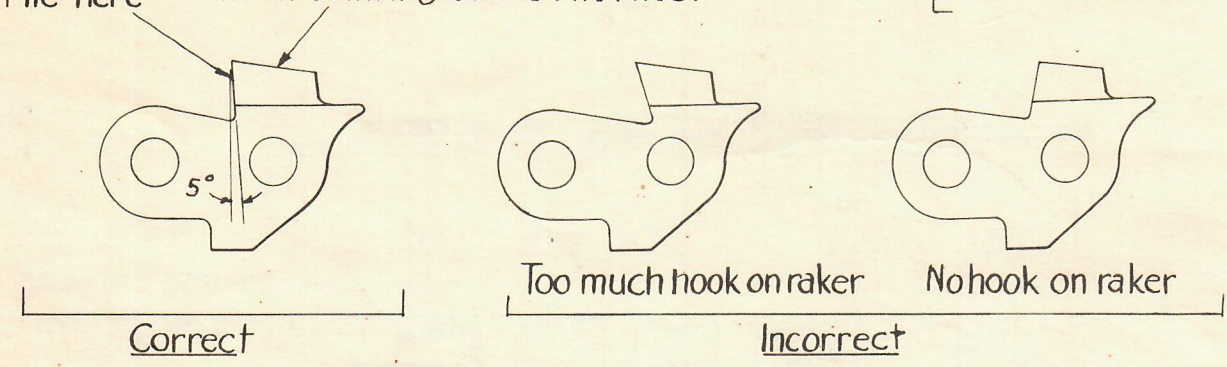
CORRECT - A much used sawing chain which has been properly sharpened. This chain still gives excellent service.



INCORRECT Because of improper sharpening, these cutters and rakers were filed down so low as to make the chain practically useless. A new chain is necessary. For best results, read carefully the following instructions on sharpening and jointing the "HORNET" power chain saw.

TO SHARPEN RAKERS.

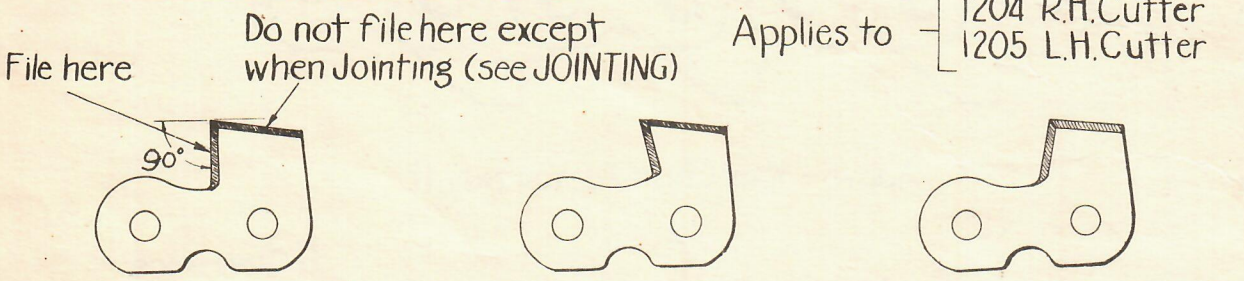
Applies to — 1201 R.H. Raker; 1202 L.H. Raker; 1203 Centre Raker



Correct — Incorrect

TO SHARPEN SIDE CUTTERS.

Applies to — 1204 R.H. Cutter; 1205 L.H. Cutter



Correct — Incorrect.

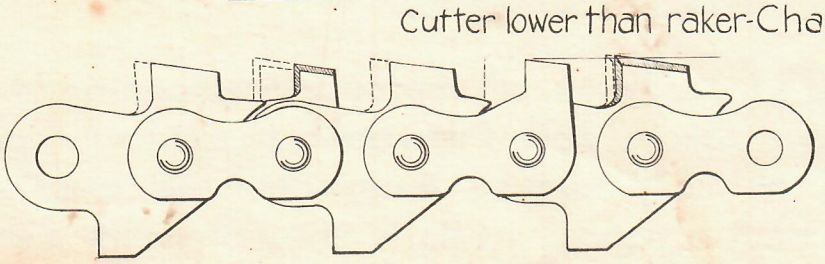
When sharpening sawing chain, always remove the same amount of metal from the leading edge of each raker and side cutter, maintaining all original angles. Sharpen along the top edges of rakers and cutters only when Jointing

Solid line shows how metal is removed equally from all cutters and rakers

Note that after sharpening, $\frac{1}{64}$ clearance is maintained

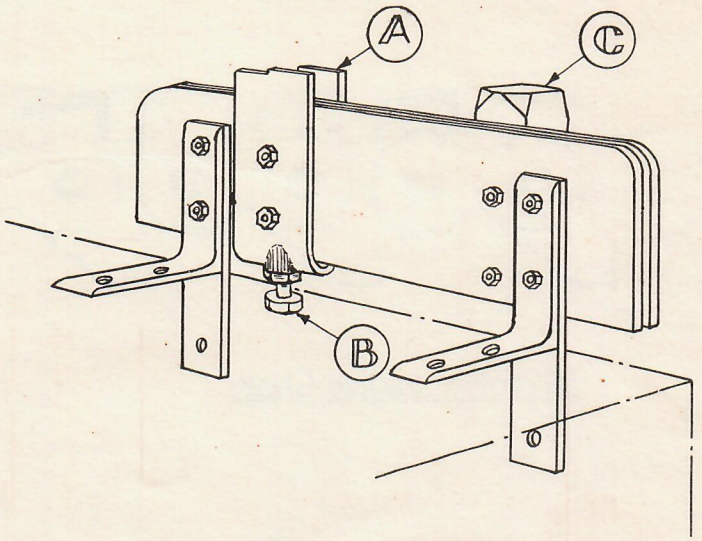
Correct

Effect of not removing equal amounts of metal from each cutter and raker. Note that there is no Clearance



Incorrect

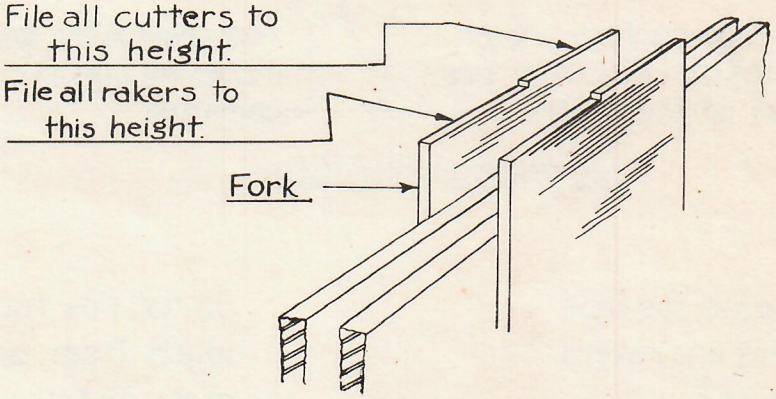
JOINTING



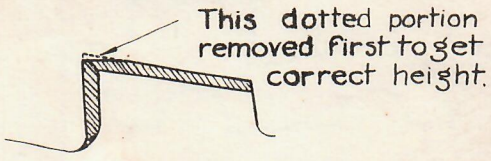
Jointing and Setting Tool.

Use of Jointing and Setting Tool.

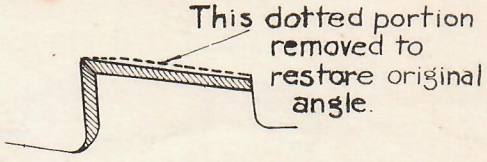
1. Place chain in groove of Tool.
2. Adjust height of fork "A" by means of thumbscrew "B"
3. File tips of rakers and cutters on a level with the top of fork "A" as indicated in the following sketch.



4. The tooth then looks like this (see sketch below)



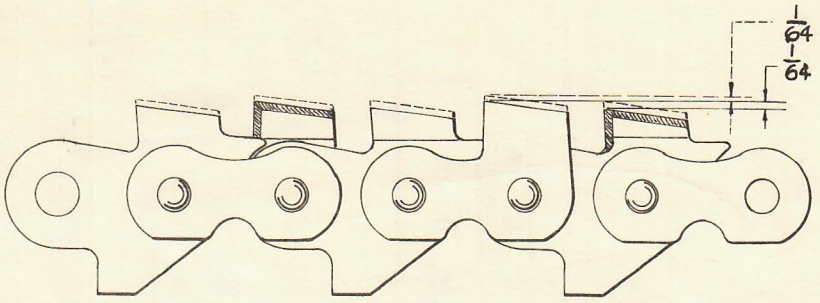
5. Finally, file top of tooth as shown below.



Care MUST be taken to maintain ALL ANGLES originally ground on rakers and cutters.

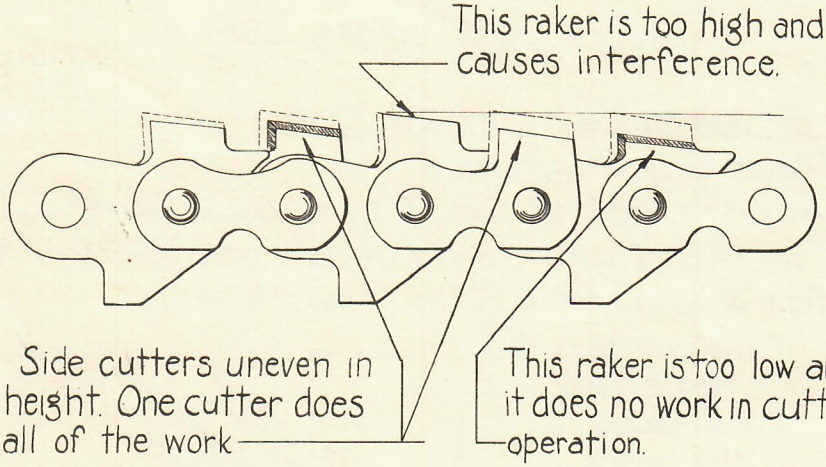
JOINTING (cont'd)

Note that all clearances and and angles are the same after jointing as before

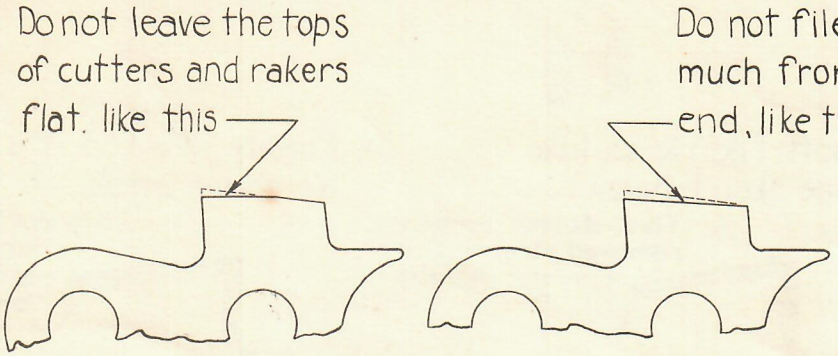


Correctly Jointed Chain

When a jointing tool is not used cutters and rakers become very uneven in height and 1/64 clearance no longer exists

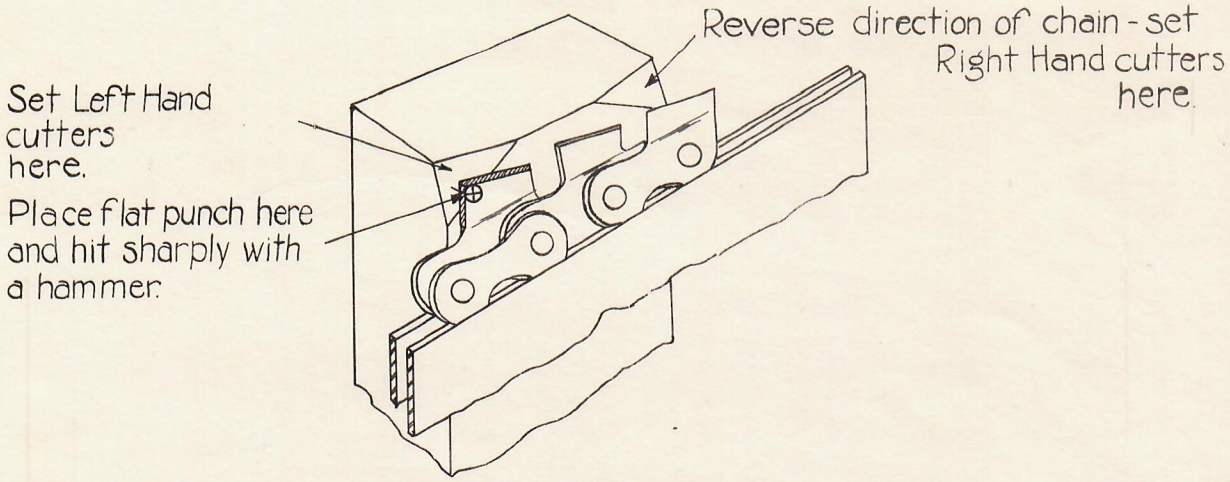


Incorrectly Jointed Chain



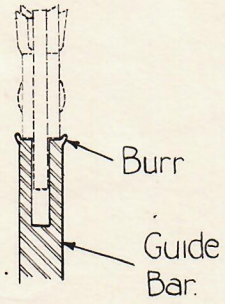
Incorrect Tooth Profiles.

SETTING



Part "C" Setting Bar (see sketch of Jointing and Setting Tool)

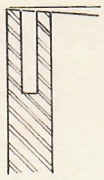
THE CUTTING CHAIN GUIDE BAR.



Since the chain is slightly narrower than the guide bar there is often a burr formed on the edge of the guide bar after the saw has been in operation for some time. This sometimes prevents the blade from cutting through the wood, and it must be removed.

Remove ONLY the burr from the guide bar. Do NOT attempt to file the smooth surface where the chain passes along the bar.

Do NOT file here – or this will result (see sketch below.)

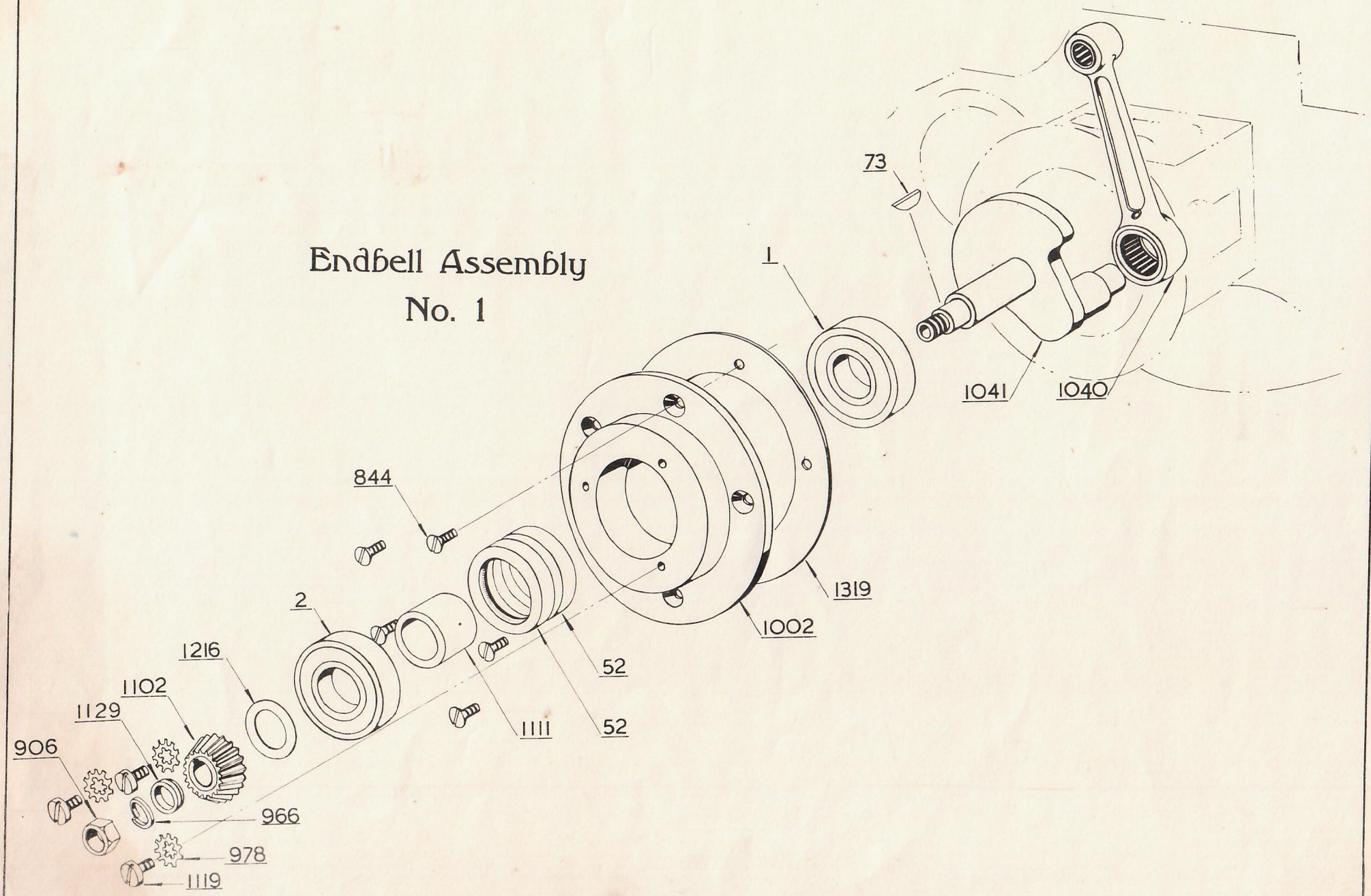


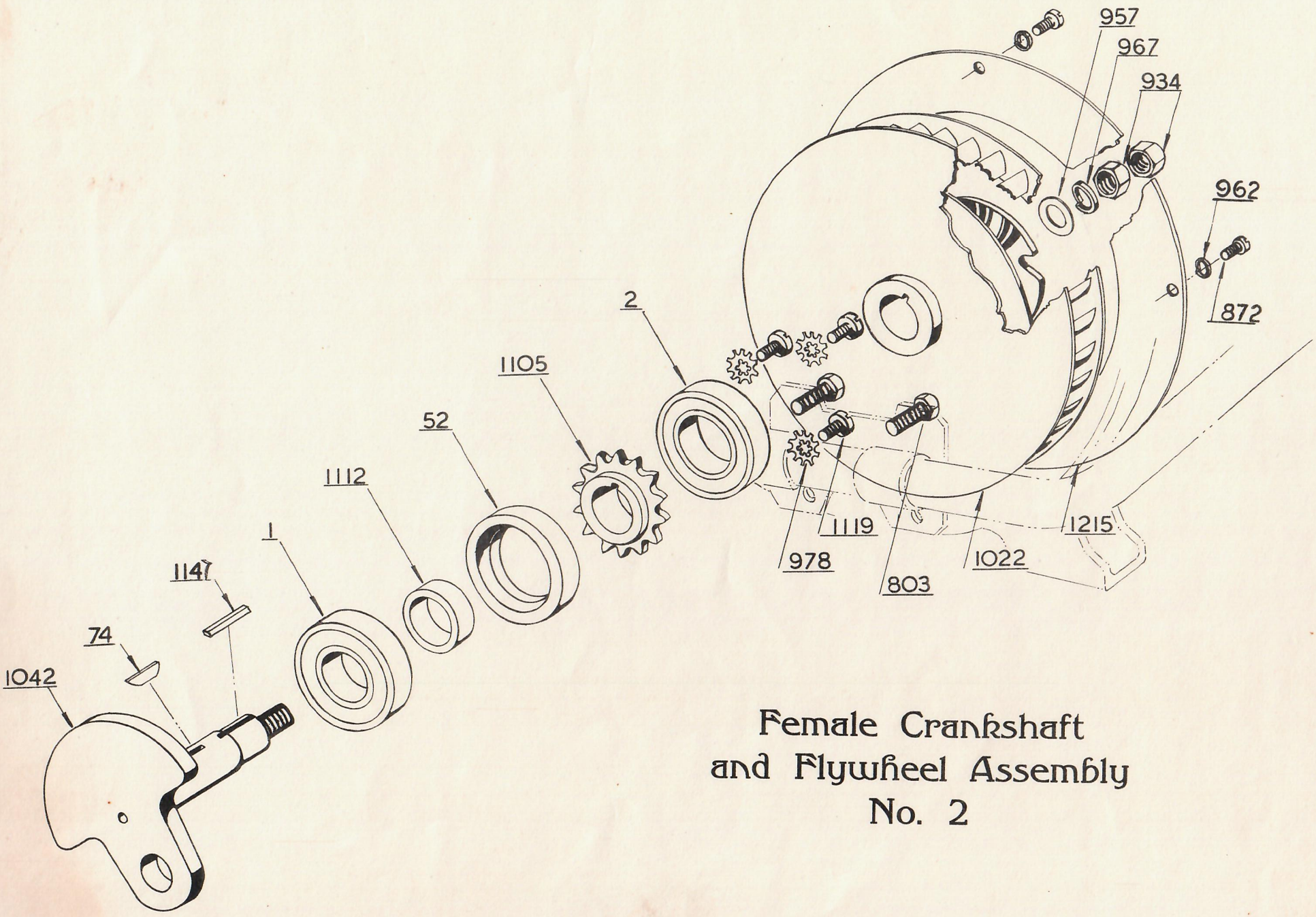
Correct

Incorrect

This causes saw to "run" when cutting.

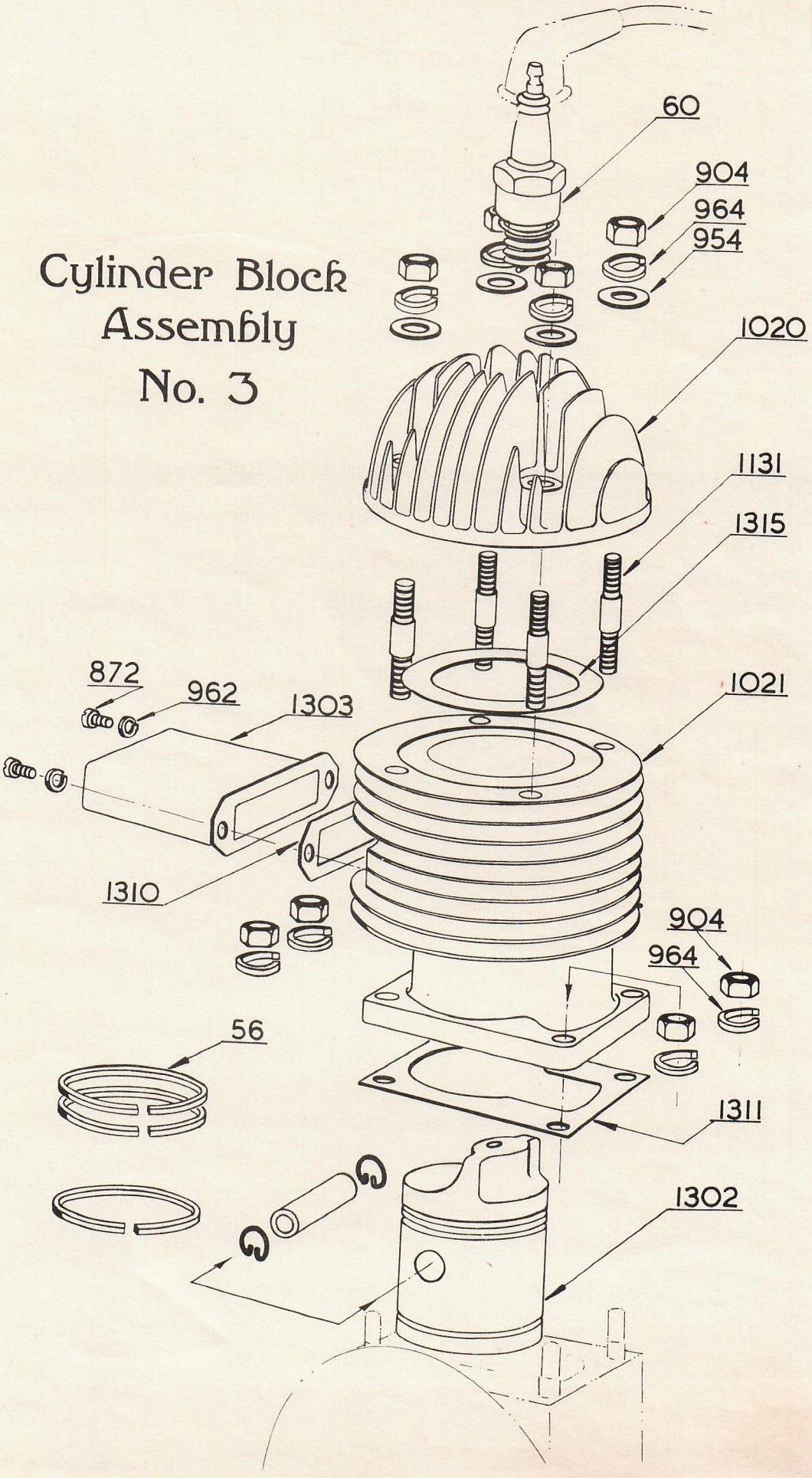
Endbell Assembly
No. 1

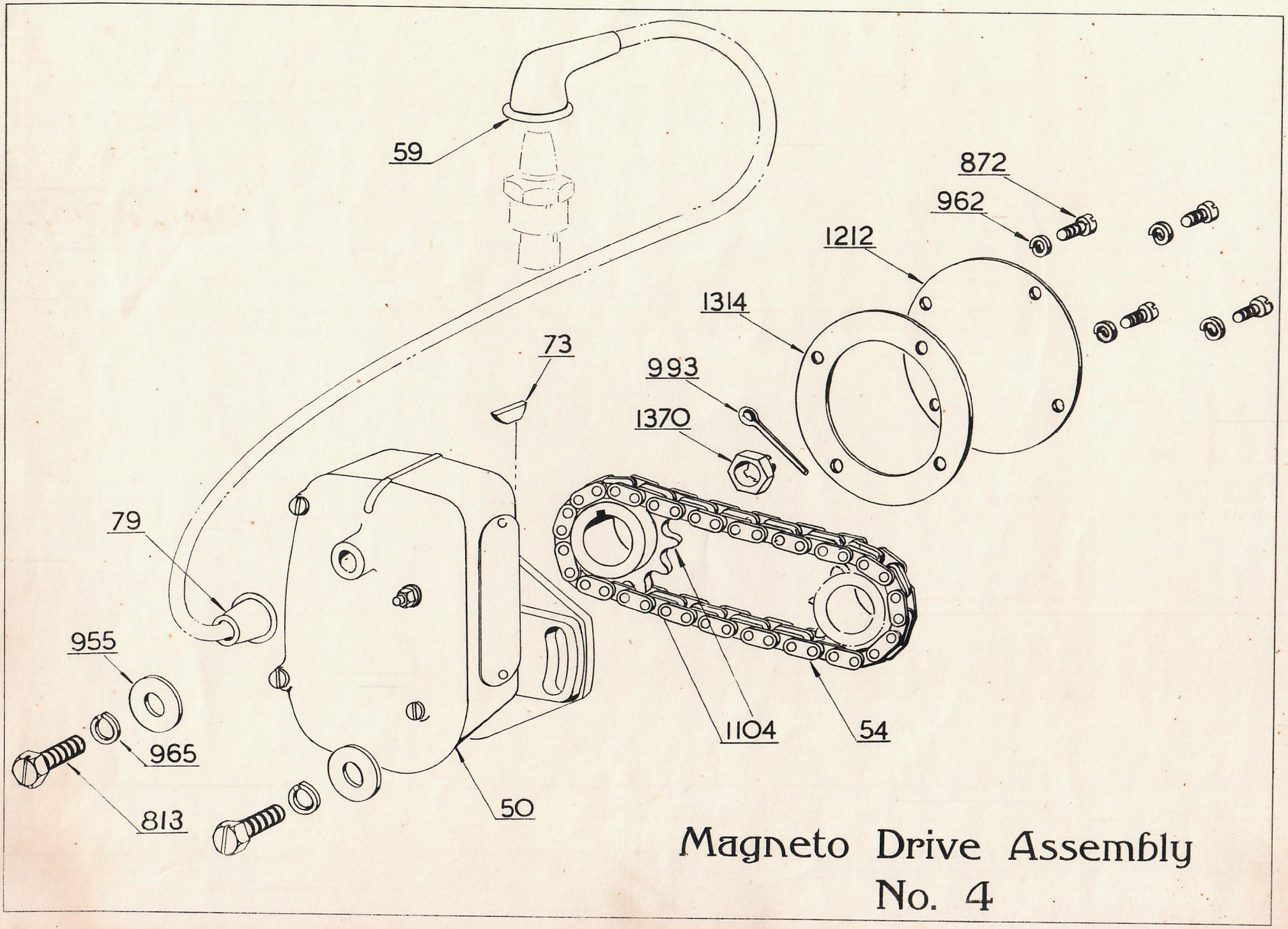




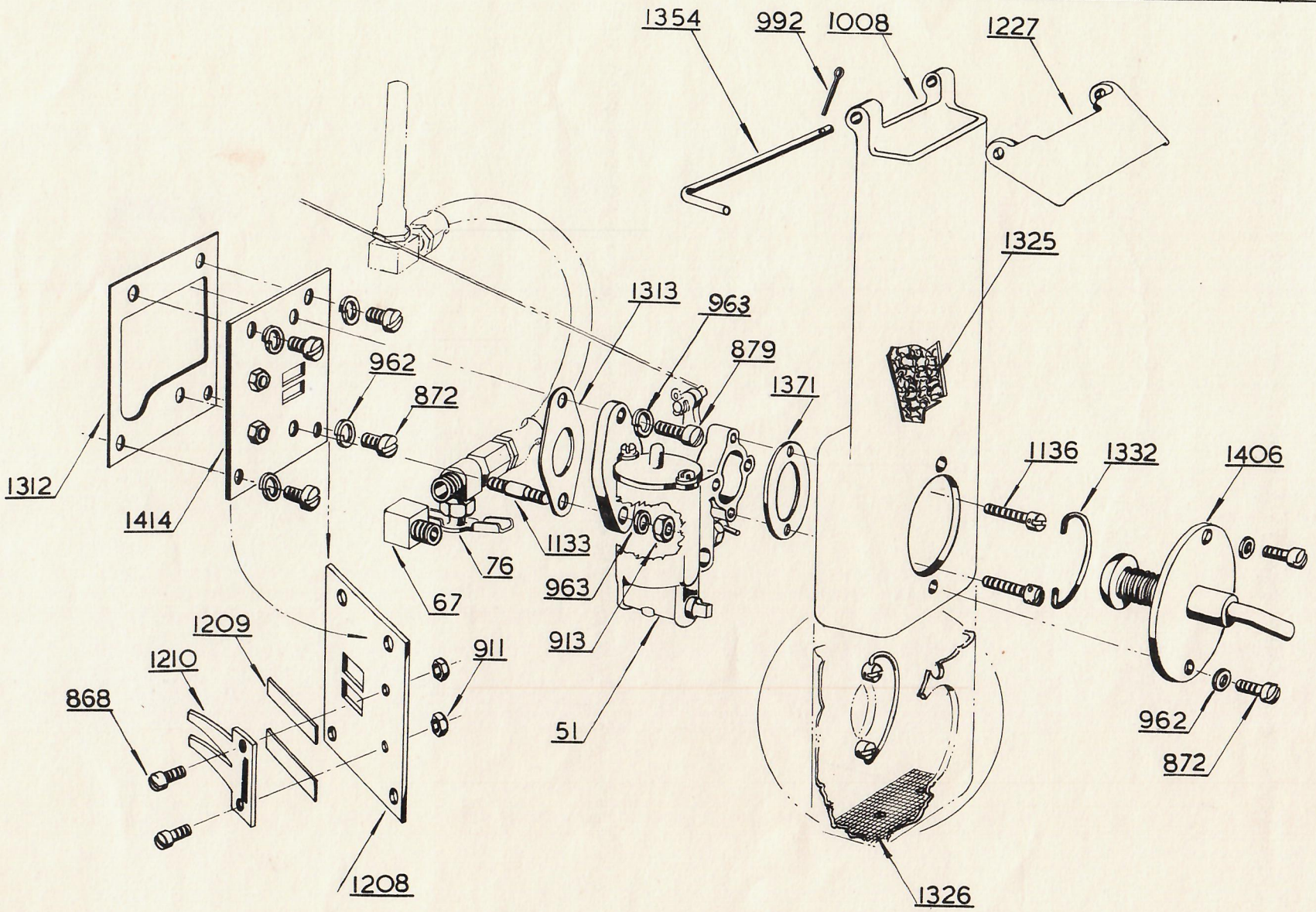
Female Crankshaft and Flywheel Assembly No. 2

Cylinder Block Assembly No. 3

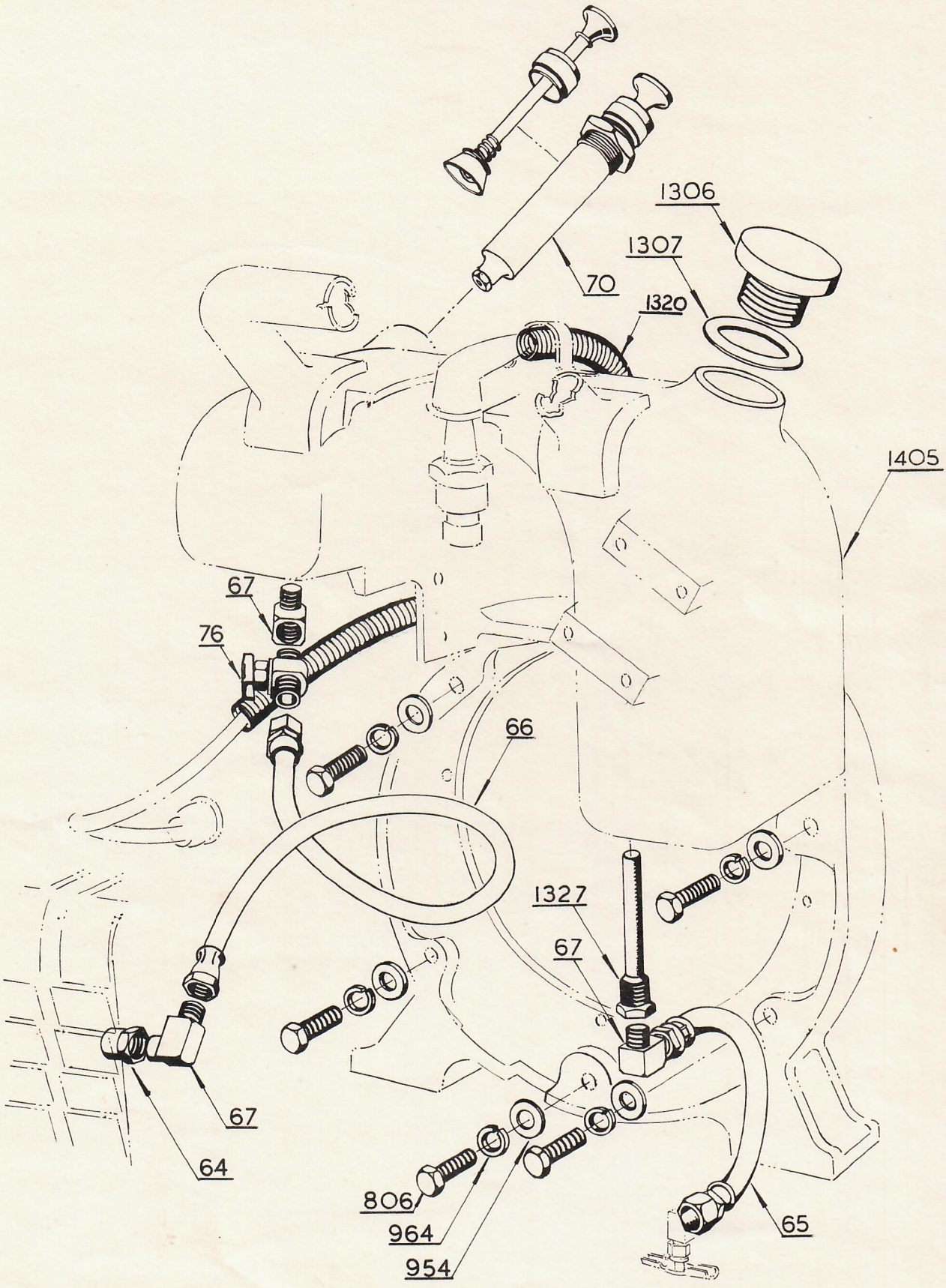




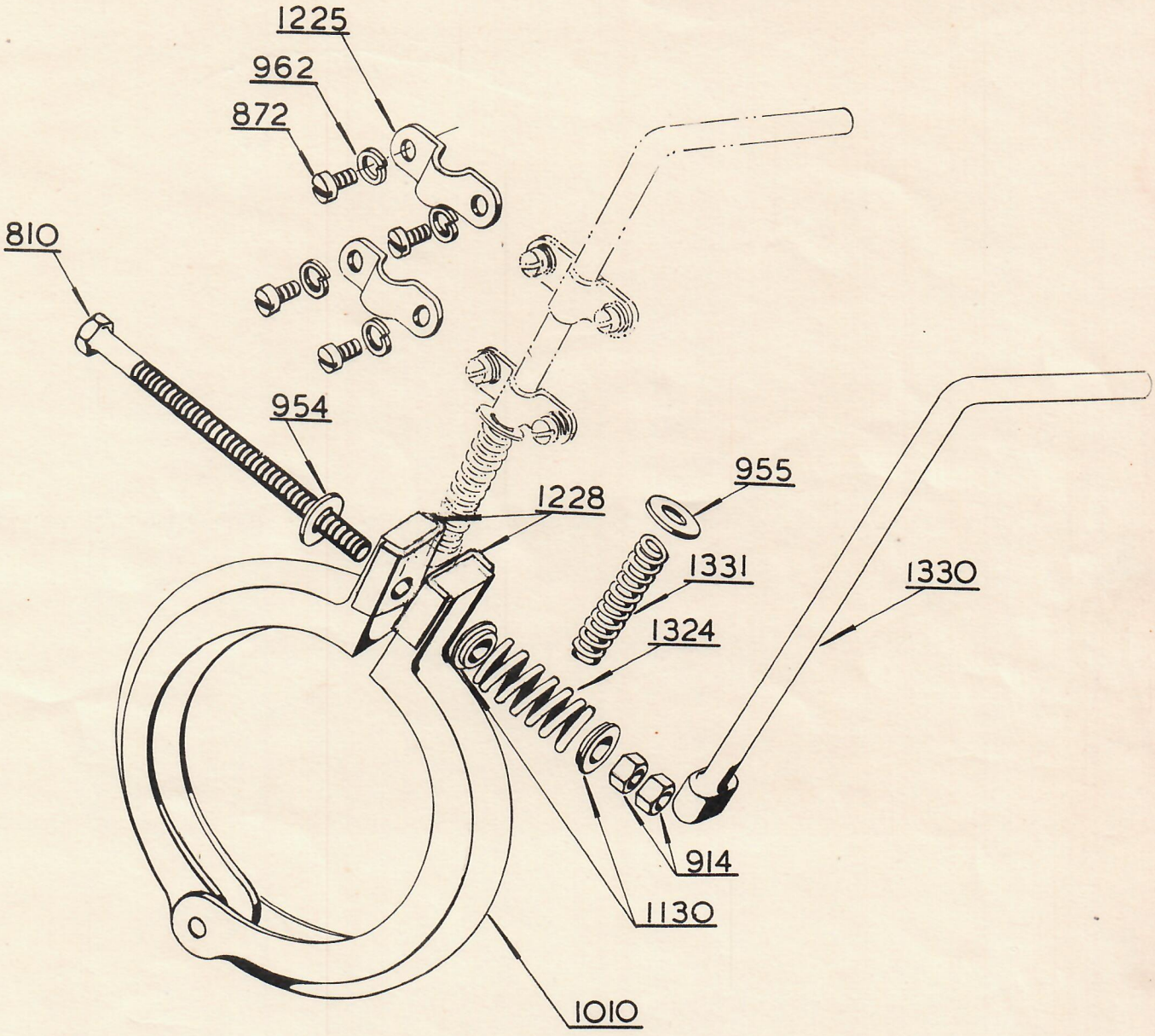
Magneto Drive Assembly No. 4



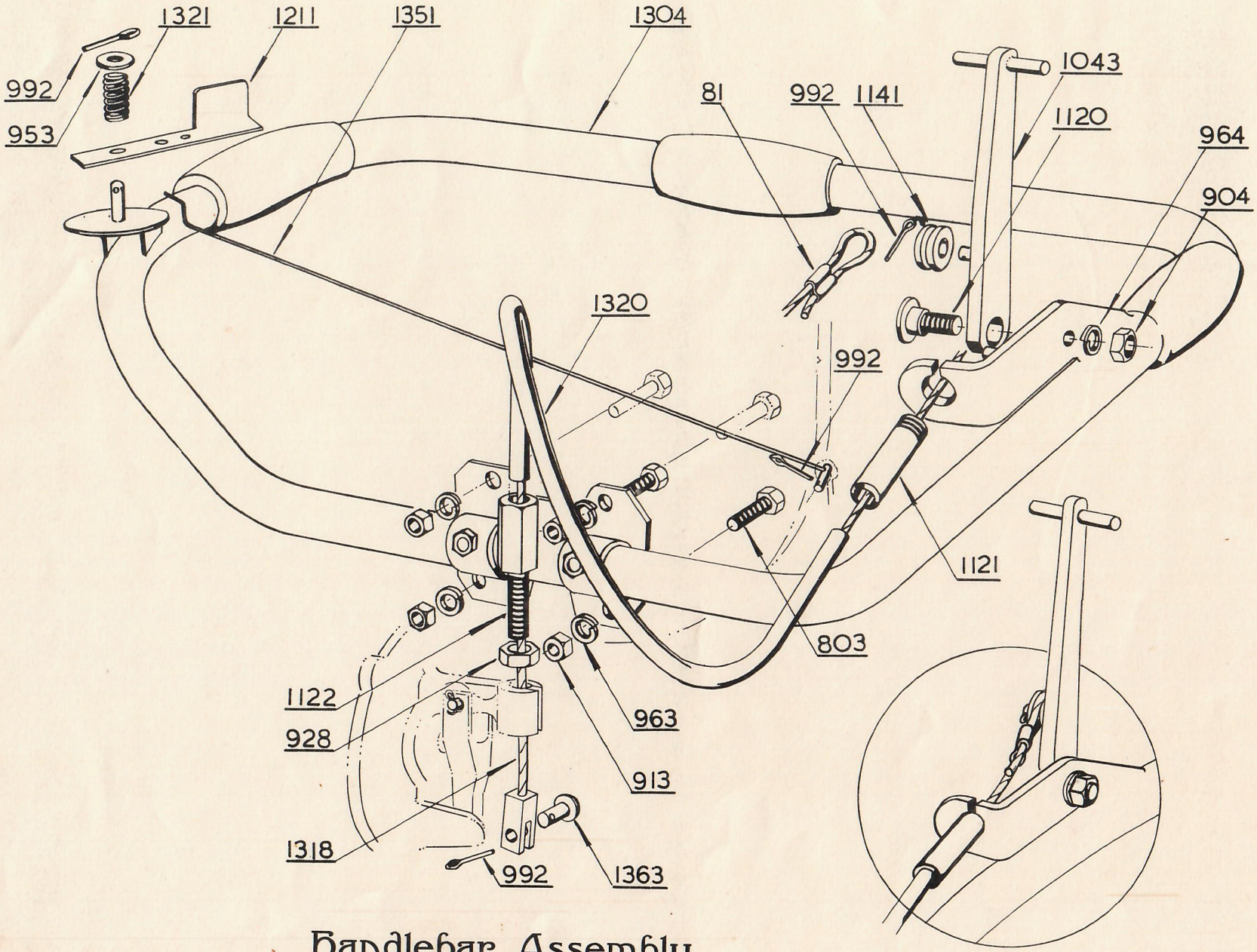
Carburetor and
Airfilter Assembly
No. 5



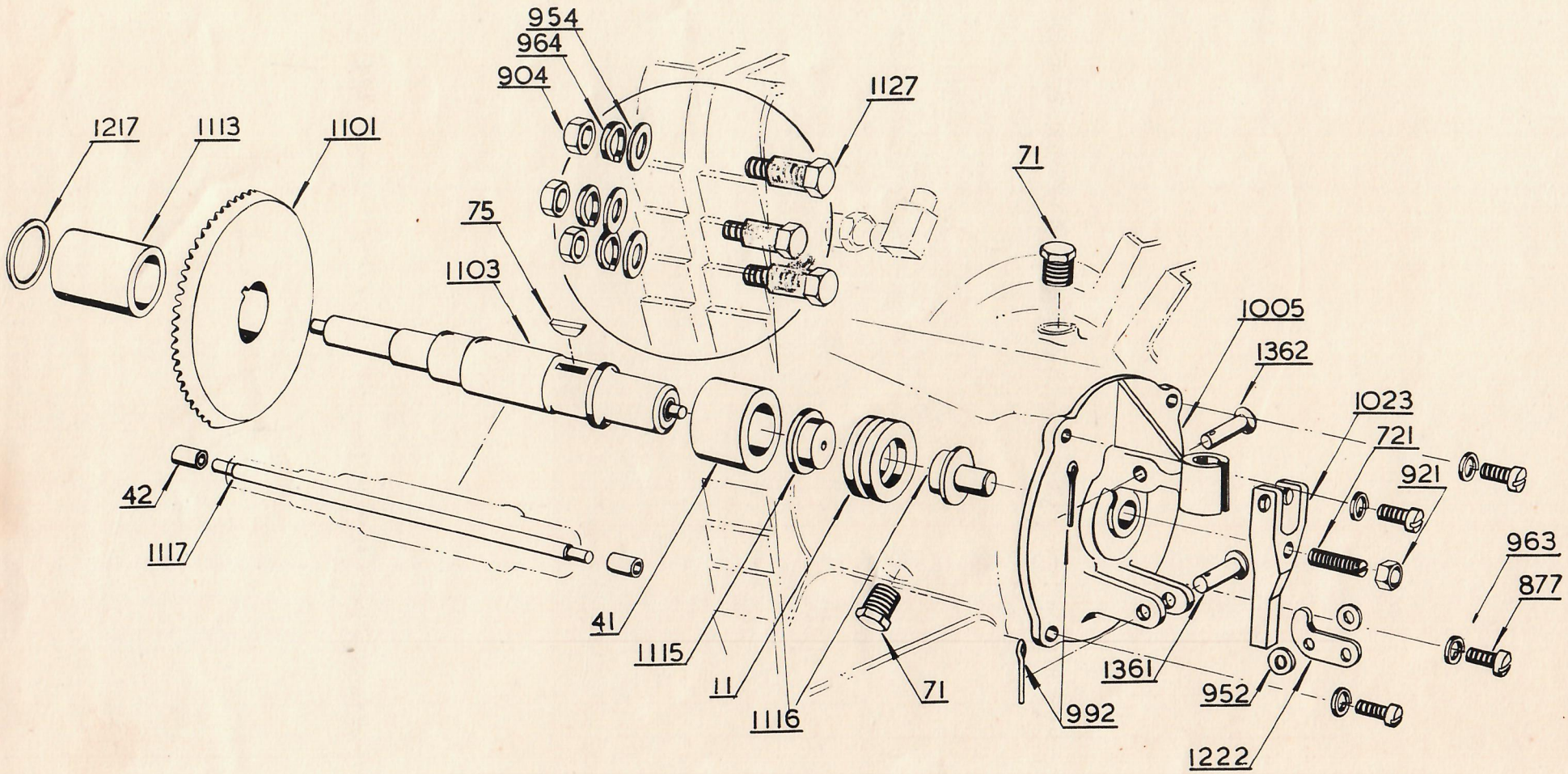
Ventilator Housing Assembly No. 6



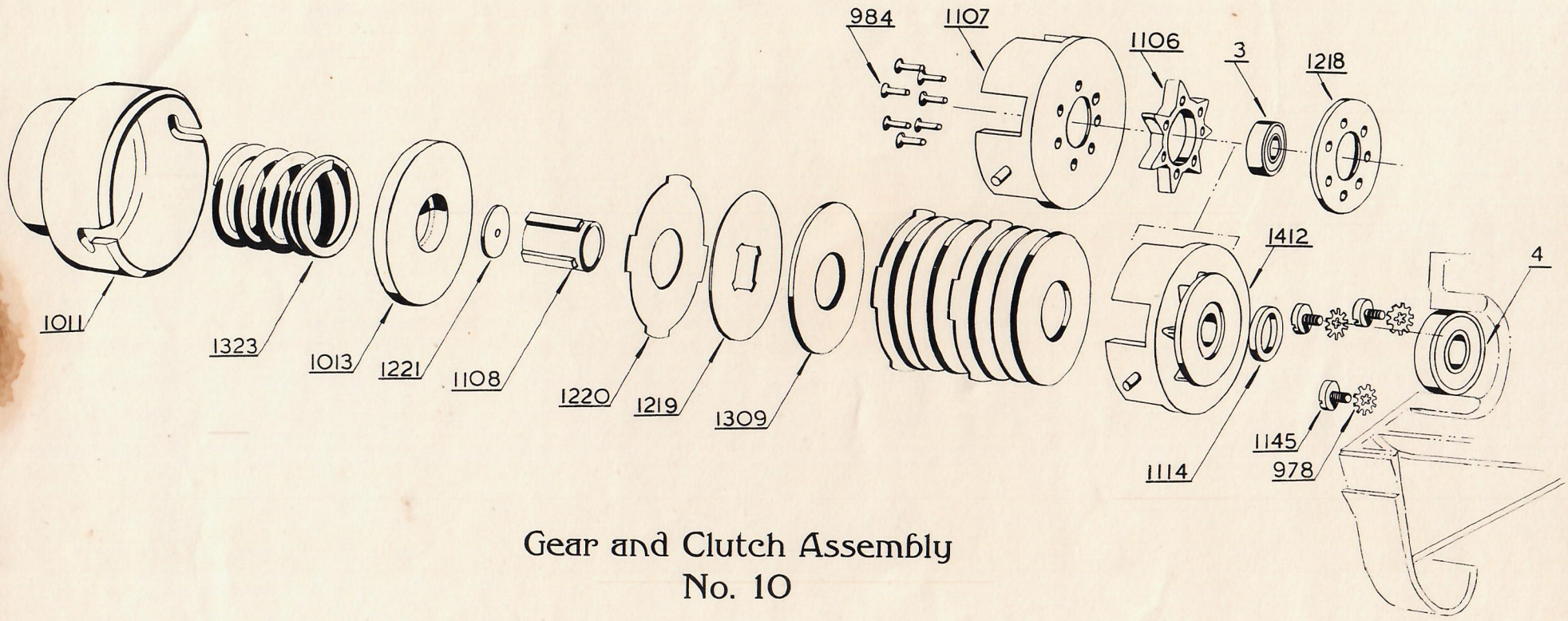
Clamping Ring Assembly
No. 7



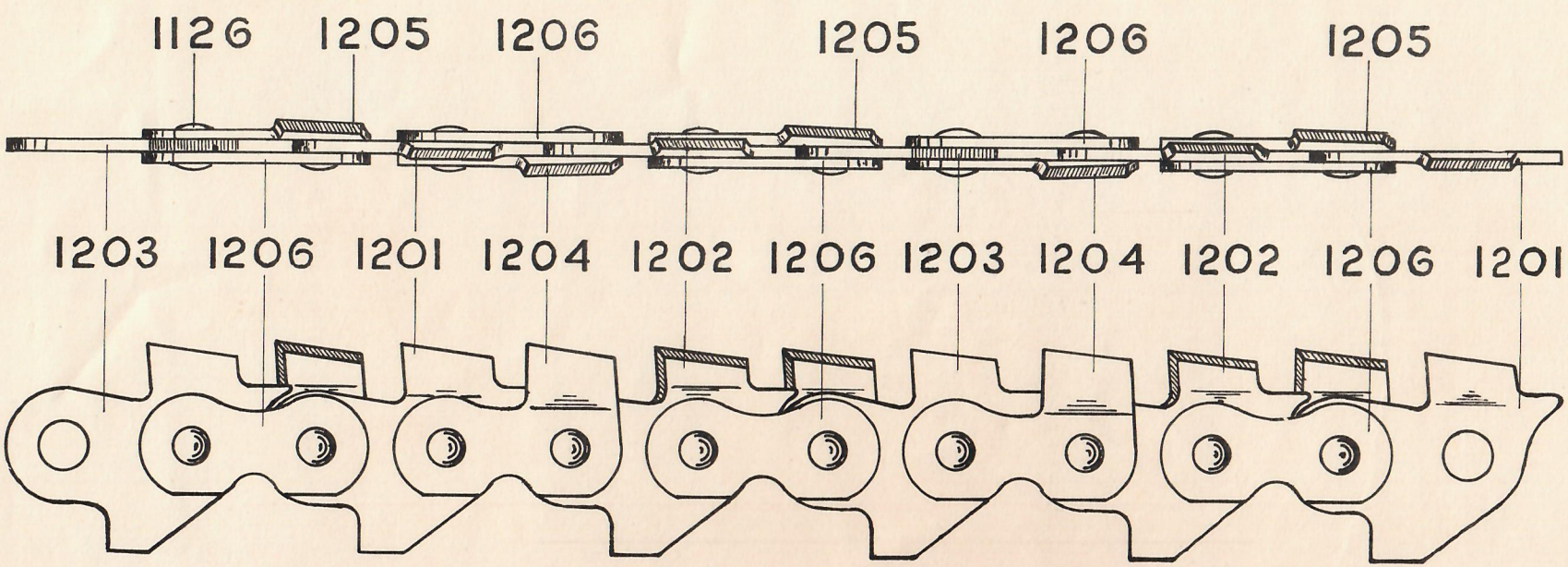
Handlebar Assembly
No. 8



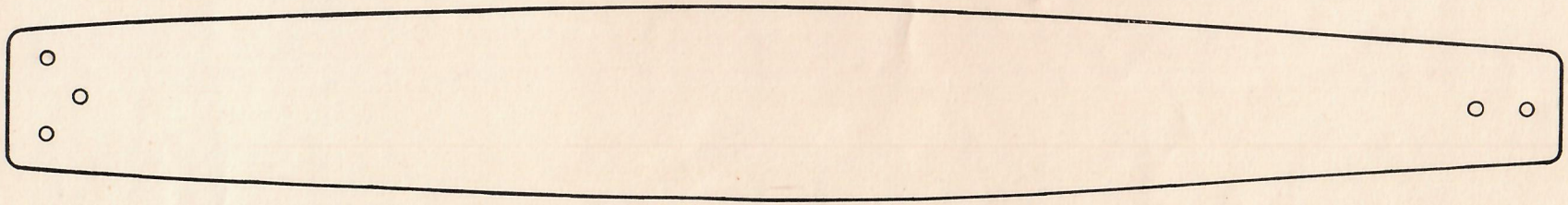
Gearhousing Assembly
No. 9



Gear and Clutch Assembly
No. 10

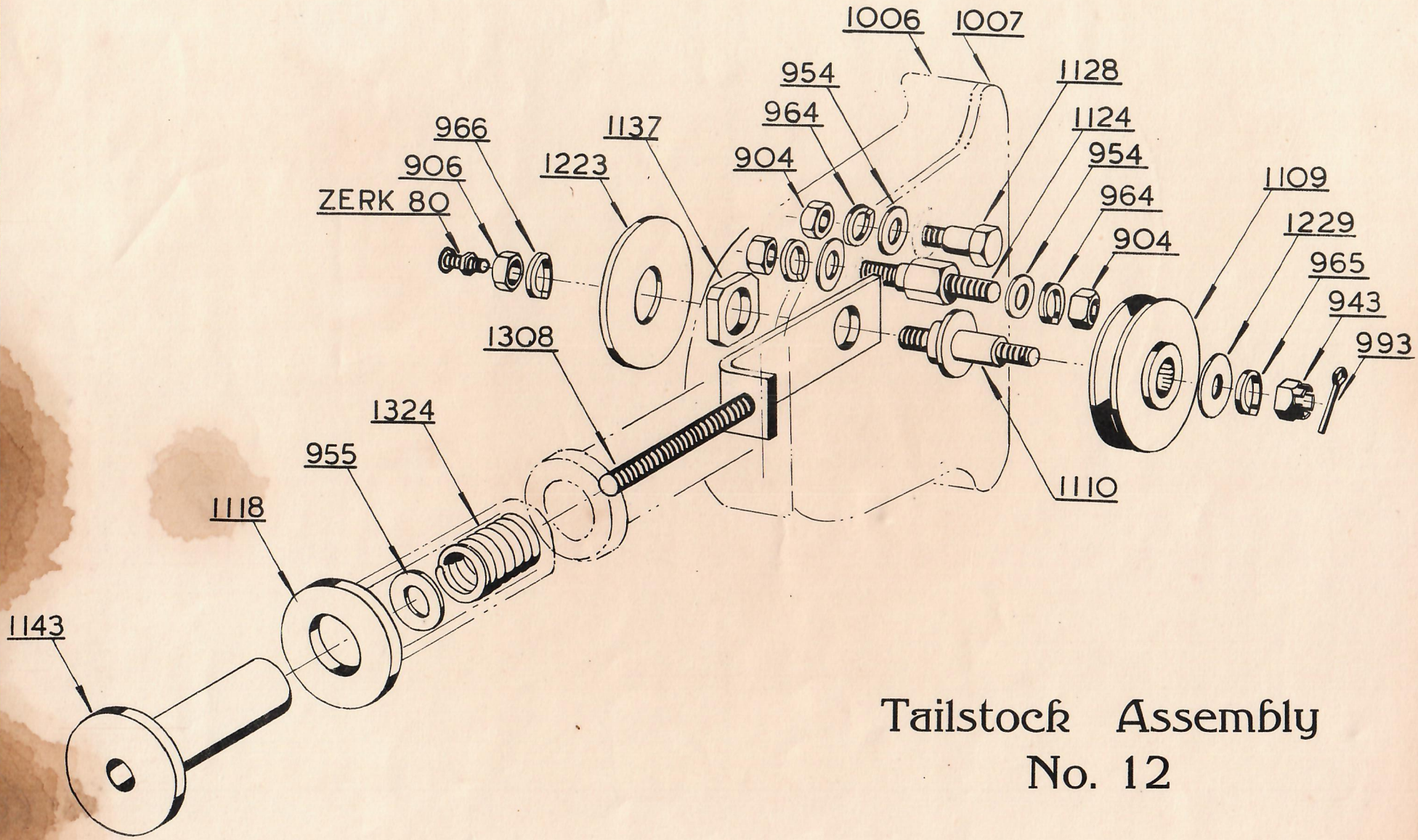


1404 Cutting Chain



1224 Guide Bar

Cutting Chain
No. 11



Tailstock Assembly
No. 12

HORNET SINGLE—PARTS LIST

Part No.	Description	Quantity
1	204-K Ball Bearing	2
2	304-KDD Ball Bearing	2
3	202-KDD Ball Bearing	1
4	204-KDD Ball Bearing	1
11	1503S Thrust Bearing	1
20	Large Needle Bearing in Con Rod	1
20-1	Needle Bearing Inner Race	1
20-2	Needle Bearing Outer Race	1
21	Needle Bearing for Idler and Wrist Pin	2
41	Oilite Bearing in Gearhousing cover	1
42	Oilite Bearing Gear Shaft	2
50	Magneto	1
51	Carburetor	1
52	Oil Seal	3
54	Magneto Chain	1
55	Connecting Link (Mag. Chain)	1
56	Piston Ring	3
59	Spark Plug Insulator	1
60	Spark Plug	1
61	Ignition Wire	1
64	1/4 x 1/8 N.P.T. Reducer	1
65	Fuel Line	1
66	Oil Line	1
67	Elbow 1/8 x 1/8 N.P.T.	4
69	1/8 Pipe Plug	1
70	Oil Pump	1
71	1/4 Pipe Plug	3
73	#3 Woodruff Key	2
74	#5 Woodruff Key	1
75	#6 Woodruff Key	1
76	Shut-off Cock	2
78	Ignition Insulation	1
79	Mag. Terminal Insulator	1
80	1/4 Alemite Fitting	1
81	Cable Clamp	1
721	1/4—28 x 3/4 Slotted Set Screw	1
803	1/4—20 NC x 3/4 Hex. Hd. Cap Screw	4
806	5/16—18 NC x 3/4 Hex. Hd. Cap Screw	5
810	5/16—18 NC x 4 Hex. Hd. Cap Screw	1
813	3/8—16 NC x 1 1/2 Hex. Hd. Cap Screw	2
844	12—24 x 5/8 LG. NC Flat Hd. Screw	5
868	8—32 x 3/8 Fillister Hd. Screw	2
871	10—24 NC x 3/8 Fillister Hd. Screw	4
872	10—24 NC x 1/2 Fillister Hd. Screw	16
877	1/4—20 NC x 5/8 Fillister Hd. Screw	4
879	1/4—20 NC x 1 Fillister Hd. Screw	1
903	1/4—28 NF Light Nut	1
904	5/16—24 NF Light Nut	15
906	7/16—20 NF Nut	2
911	8—32 Light Nut	2
913	1/4—20 NC Light Nut	4
914	5/16—18 NC Light Nut	2
921	1/4 NF Jam Nut	1
928	3/8—16 NC Jam Nut	1
934	1/2—20 NF L. H. Jam Nut	2
943	3/8—24 NF Slotted Nut	1
952	#10 Flat Washer	2
953	1/4 S. A. E. Flat Washer	1
954	5/16 S. A. E. Flat Washer	18
955	3/8 S. A. E. Flat Washer	3
955-R	3/8 Regular Flat Washer	1
957	1/2 S. A. E. Flat Washer	1
962	#10 Lock Washer	20
963	1/4 Lock Washer	10
964	5/16 Lock Washer	20
965	3/8 Lock Washer	4

Part No.	Description	Quantity
966	7/16 Lock Washer	2
967	1/2 Lock Washer	1
978	Star Washer for retainer screw	9
984	5/32 x 5/8 Steel Rivet	7
986	3/16 x 7/16 Rd. Hd. Rivet	6
992	1/16 x 1/2 Cotter Pin	6
993	1/16 x 3/4 Cotter Pin	2
1001	Crankcase	1
1002	Endbell	1
1004	Gearhousing	1
1005	Gearhousing Cover	1
1006	Tailstock with cover	1
1007	Tailstock Cover Only	1
1008	Airfilter Body	1
1010	Clamping Ring	1
1011	Clutch Cover	1
1012	Strut	1
1013	Clutch Pressure Plate	1
1014	Magneto Shield	1
1015	Cover Clutch Mechanism	1
1020	Cylinder Head	1
1021	Cylinder Block	1
1022	Fan and Starting Pulley	1
1023	Pressure Bar	1
1040	Connecting Rod—Complete	1
1041	Crankshaft (Pinion)	1
1042	Crankshaft (Fan Drive)	1
1043	Clutch Lever Arm	1
1101	Crown Bevel Gear	1
1102	Pinion Bevel Gear	1
1103	Gearshaft	1
1104	Magneto Sprocket	1
1105	Crankshaft Sprocket	1
1106	Chain Drive Sprocket	1
1107	Clutch Cup	1
1108	Spline	1
1109	Idler	1
1110	Idler Shaft	1
1111	Long Crankshaft Spacer	1
1112	Short Crankshaft Spacer	1
1113	Long Gearshaft Spacer	1
1114	Short Gearshaft Spacer	1
1115	Thrust Bearing Washer	1
1116	Pressure Pin	1
1117	Spindle Bolt	1
1118	Tension Adjusting Handle	1
1119	Bearing Retainer Screw	6
1120	Clutch Lever Bolt	1
1121	Cable Casing Adapter	1
1122	Casing Adjusting Screw	1
1124	Spacer Guide Bar Bolt	1
1126	Chain Rivets	
1127	Long Guide Bolt	3
1128	Short Guide Bolt	1
1129	Pinion Washer	1
1130	Clamping Ring Spring Washer	2
1131	Cylinder Block Studs	4
1132	Crankcase Stud	4
1133	Carburetor Stud	1
1136	Carburetor Bolt	2
1137	Idler Shaft Spacer	1
1141	Cable Pulley	1
1143	Tension Lock Nut	1
1145	Gearhousing Retainer Screw	3
1147	Fan Key	1
1201	R. H. Raker	
1202	L. H. Raker	

HORNET SINGLE—PARTS LIST

Part No.	Description	Quantity
1203	Centre Raker	
1204	R. H. Cutter	
1205	L. H. Cutter	
1206	Link	
1208	Reed Plate	1
1209	Reed	2
1210	Reed Support	1
1211	Throttle Lever	1
1212	Chain Box Cover (Magneto)	1
1215	Blower Shield	1
1216	Pinion Gear Shims	2
1217	Crown Gear Shims	2
1218	Sprocket Bearing Retainer	1
1219	Inner Steel Clutch Plate	3
1220	Outer Steel Clutch Plate	3
1221	Spindle Bolt Washer	1
1222	Toggle	1
1223	Idler Shaft Washer	1
1224	Guide Bar — lengths 24", 30", 36", 42", 48", 60"	
1225	Swivel Control Clip	2
1227	Airfilter Lid	1
1228	Clamping Ring Clip	2
1229	Idler Retainer Washer	1
1230	Ignition Insulation Clamp	1
1302	Piston (with Wrist Pin and lock rings)	1
1302-3	Wrist Pin Lock Ring	2
1303	Exhaust Manifold	1
1304	Handle Bars	1
1306	Fuel Cap	1
1307	Fuel Cap Gasket	1
1308	Adjusting Screw	1
1309	Fibre Clutch Plate	5
1310	Exhaust Gasket	1
1311	Cylinder Block Gasket	1
1312	Reed Plate Gasket	1
1313	Carburetor Gasket	1
1314	Chain Box Cover Gasket	1
1315	Cylinder Head Gasket	1
1318	Clutch Cable	1
1319	Endbell Gasket	1
1320	Cable Casing	1
1321	Throttle Lever Spring	1
1323	Clutch Spring	1
1324	Chain Tension Spring	1
1325	Airfilter Mesh	2
1326	Airfilter Base Screen	1
1327	Fuel Filter	1
1330	Swivel Control (Cam Rod)	1
1331	Swivel Control Spring	1
1332	Spring for Carburetor bolts	1
1351	Throttle Wire	1
1354	Hinge Pin for Airfilter	1
1360	Pin for Tailstock Cover	1
1361	Toggle Pin	1
1362	Pressure Bar Pin	1
1363	Clevis Pin	1
1370	Magneto Nut	1
1371	Airfilter Gasket	1
1374	Retaining Screw Tie Wire	2
1403	Tailstock Assembly	1
1404	Sawing Chain, lengths 24", 30", 36", 42", 48", 60"	
1405	Blower Housing	1
1406	Choke Assembly	1
1408	Gear Housing Assembly	1
1411	Clutch Cable Assembly	1
1412	Clutch Cup Assembly	1
1414	Reed Valve Assembly	1
1417	Idler & Shaft Assembly	1

HORNET SINGLE—SUPPLEMENT

MAGNETO SUB-PARTS

Part No.	Description
50-6767	#10 Lock Washer for Distributor Plate Screws.
50-9179	1/8" Woodruff Key for Magneto Rotor Shaft.
50-9407	#8 Lock Washer for Ground Terminal Post.
50-9980	Plain Washer for Distributor Plate Screws.
50-15126	#6 Lock Washer for 17183 Screw.
50-17183	#6 x 32 Screw for Condenser Strap.
50-18058	Plain Washer for 24104 Breaker.
50-18613	#8 Plain Washer for 23659 Screw.
50-20107	Lock Washer for 24301 Nut.
50-20131	Hex. Nut for Condenser and Ground Terminal.
50-20476	Retaining Clip for Breaker Lever.
50-20485	.006" Shim Washer for Breaker Lever.
50-20490	Solder Clip for primary lead.
50-20547	.016" Shim Washer for Breaker Lever.
50-21032	Screw for Timing Hole and Breaker Plate.
50-21163	#10 x 32 Fastening Screw for Housing End Plate.
50-21492	#8 x 32 Fastening Screw for Winding Clamp.
50-21961	Spring Clip for High Tension Cable.
50-22615	#6—1/32" Lock Washer for 22944 Nut.
50-22640	1 7/16" Fastening Screw for Distributor Plate.
50-22654	Plain Spacing Washer for 21032 Screw.
50-22936	Outer Round Nut for Condenser Post.
50-22944	#6 Hex. Nut for 23514 Screw.
50-22985	Small Bakelite Washer for 23514 Screw.
50-22986	Large Bakelite Washer for 23514 Screw.
50-23467	1" Fastening Screw for Distributor Plate.
50-23509	Square Bakelite Plate for 23514 Screw.
50-23510	Tension Spring for Breaker Lever.
50-23512	#6 Plain Washer for 23514 Screw.
50-23514	#6 Square Head Primary Conductor Screw.
50-23682	Short Circuiting Spring to Ground Terminal.
50-23691	Gasket for Distributor Plate (Magneto Cover).
50-23696	Fastening Nut for Pinion Gears.
50-23697	Spacing Bushing for Condenser Post.
50-23710	Breaker Cam ,Clockwise.
50-23711	Split Rivet for Lubricating Felt.
50-23714	Lubricating Felt for Breaker Cam.
50-23724	Woodruff Key for Breaker Cam and Pinion Gear.
50-23725	Cable Holder with Ground Terminal (Bakelite Cover).
50-23928	21/32" Ground Terminal Screw.
50-24104	Breaker, complete.
50-24118	Oil Slinger.
50-24120	Spring-type Oil Seal for Magneto Rotor Shaft.
50-24179	End Plate with 3507 Ball Bearing only.

MAGNETO PARTS—Continued

Part No.	Description
50-24227	No. 8—3/64" Lock Washer for 24192 Screw.
50-24229	Flexible Primary Lead (Breaker to Condenser).
50-24301	Nut for Drive Shaft.
50-24924	Condenser.
50-24968	Terminal Clip.
50-26825	Winding (Coils).
50-26835	Clamp for 26825 Winding.
50-26933	#6 Screw for 24104 Breaker.
50-26980	6—32" Nut for 24104 Breaker.
50-26986	#8 Nut.
50-27508	Magneto Rotor w/Ball Bearings.
50-27509	Magneto Housing 3/Ball Bearing.

CARBURETOR SUB-PARTS

Part No.	Description	Quant. Used
51-07781	Body	1
51-02531	Body Welch Plug	1
51-0244	Body Channel Pipe Plug	1
51-05591	Flange Gasket	1
51-04636	Float	1
51-05425	Float Retaining Cotter Pin	2
51-0164	Float Bowl Drain Screw	1
51-0648	Float Bowl Drain Plug Gasket	1
51-07216	Float Bowl Cover	1
51-07198	Float Bowl Cover Gasket	1
51-054	Float Bowl Cover Screw	2
51-0992	Float Bowl Cover Screw Lockwasher	2
51-06910	Idle Adjustment Screw	1
51-06243	Idle Adjustment Screw Locknut	1
51-0759	Idle Adjustment Screw Lockwasher	1
51-06905	Idle Tube	1
51-06569	Idle Tube Gasket	1
51-06941	Inlet Valve and Seat	1
51-0212	Inlet Valve Seat Gasket	1
51-02395	Inlet Valve Channel Plug Screw	1
51-04152	Main Adjustment Screw	1
51-0702	Main Adjustment Screw Gland	1
51-0676	Main Adjustment Screw Gland Gasket	1
51-0705	Main Adjustment Screw Packing	1
51-0703	Main Adjustment Screw Packing Nut	1
51-07417	Throttle Shaft and Lever (Assembled)	1
51-07369	Throttle Shutter	1
51-01462	Throttle Shutter Screw	1
51-01675	Throttle Shutter Screw Lockwasher	1
51-07231	Gasket and Packing Set	
51-08120	Repair Parts Kit	

OIL PUMP SUB-PARTS

Part No.	Description	Quant. Used
70-217	Pump Barrel	1
70-1810	Lead Washer	1
70-219	Plunger Complete	1
70-1610A	Handle	1
70-2621	Cap	1
70-1613	Plunger Shaft	1
70-1815	Plunger Spring	1
70-1812	Leather	1
70-1813	Plunger Washer	1
70-1814	Plunger Nut	1
70-1817	Valve Spring	1
70-165	Valve	1
70-164	Nozzle	1
70-1816	Valve Cork	1

EXTRA EQUIPMENT

Part No.	Description
321	Axe Head.
322	Axe Handle.
323	Jointing and Setting Tool.
301	Starting Rope.
302	Spark Plug Wrench.

INSTRUCTIONS FOR ORDERING

1. Give Part No. and description of part with order.
2. Give Serial No. of machine.
3. Parts #'s 721 to 993 sold only in one dozen lots.
4. Give complete shipping instructions with order.