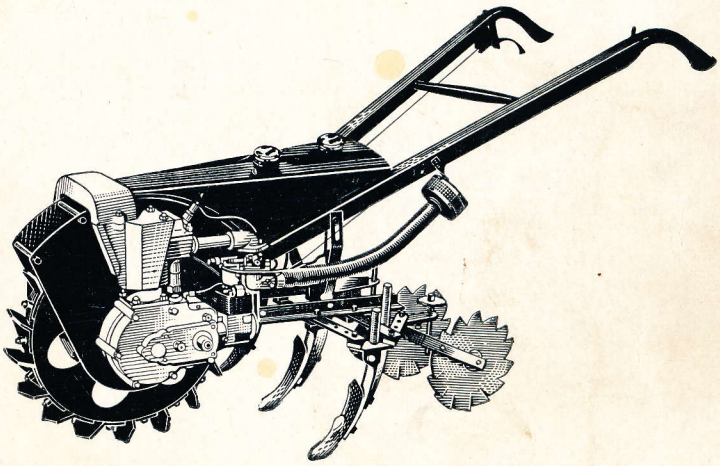
The GRAVELY

PARTS LIST AND INSTRUCTION MANUAL



for the

2½ H.P. MODEL "D"

GRAVELY OVERSEAS LTD.
BUCKFASTLEIGH · DEVON

Gravely Model "D" Cultivator

SPECIFICATION

ENGINE—Gravely single cylinder, air cooled, four stroke motor. Bore 2½ in. Stroke 3 in. Rated Power 2½ H.P. Lubrication by splash, with plunger pump circulation to separate oil tank. Magneto, Wico type A.1 Carburettor, Zenith type 24 T-2.

TRANSMISSION—Hand controlled clutch between engine and gearbox. Gearbox reduction from engine to land wheel 51 : 1. All gear drive.

DIMENSIONS

Height (not including handles)	25 in.
Width (,, ,, ,,)	14½ in.
Length (,, ,, ,,)	33 in.
Length including handles	61 in.

CONTROLS—Hand operated clutch lever on right handle, with neutral lock catch.

Hand operated throttle on left handle, giving a speed of from 1 to 3 m.p.h.

Choke for cold starting attached to carburettor.

Ignition cut out button on side of magneto for stopping engine.

Starting strap operating from starter pulley on right of machine.

INSTRUCTIONS

TAKING DELIVERY.

If the cultivator is delivered crated it is an easy matter to re-assemble the handles, controls and toolframe.

The toolframe follow wheels will be found in the bottom of the crate complete with their brackets. These should be bolted to the ends of the parallel links, which for package purposes will be found close in to the sides of the cultivator.

The handles should then be assembled together on the wood crossmember and secured by means of the tie rod which is passed through a hole in each handle just behind the crossmember. It should be noted that the handle with the large clutch lever is fitted on the right of the machine, the handle with the small throttle lever and enclosed wire control on the left. This

assembly should then be mounted on the cultivator by means of two cross bolts, the ends of which protrude from either side of the tank shield.

The throttle and clutch controls may next be attached and adjusted. The end of the throttle wire should be entered into the eye clamp on the carburettor lever and the pinch screw tightened. Make certain the handle lever can operate the whole carburettor lever movement. To secure the clutch control first remove the outer nut which is loosely screwed to the clutch rod on the right of the machine. The right angled bracket at the end of the handle control rod should then be pushed along the clutch rod until it butts with the inner nut. It should then be locked in this position by tightening the outer nut against it.

BEFORE STARTING.

It is *essential* before starting the new Gravely Cultivator to plenish the engine and gearbox with lubricating oil.

First remove the forward tank cap and two-thirds fill with engine oil. We recommend Triple Shell oil, and about four pints will be required to fill the tank to this level. The rear tank should be filled with petrol.

Next remove the gearbox oil filler plug. This is on the right side of the machine towards the top of the countershaft gear housing. The gearbox should be supplied at this point with one-third of a pint of Shell Spirax " C " gear oil.

Overseas customers will find the appropriate engine and gearbox oil recommendations printed on their tractor name plate.

A small level check plug is fitted at the front and near the bottom of the gearcase inside the right hand frame plate. Do not overfill beyond this point, and it should be noted that cold gear oil will take a long time to flow to the bottom of the gearcase, so that although enough oil is supplied it will not show for some time at the level plug. An excess of lubricant in this gearbox will cause bad clutch slip.

If this machine is in daily use we recommend that the oil levels be regularly checked, the engine oil daily, and the gearbox at least weekly.

Finally the air cleaner should be removed, dipped in clean engine oil, drained and re-fixed on the handle.

STARTING.

The machine, if it has been supplied with lubricants as detailed in the previous paragraph, may now be started.

First switch on the oil and petrol supply by turning down the tank taps into the vertical position. Both these taps will be found under the petrol and oil tanks.

The clutch lever should then be fully withdrawn, and held in that position by rotating the catch lever, which is just in front of the clutch lever, backwards until it engages with the notch cut in the clutch lever. This ensures that the machine is locked in neutral and will not run away directly the engine is started.

With a cold engine the choke should be closed for starting. To do this the small loop attached to the lower carburettor lever should be hooked over

the pin projecting from the aluminium reducer socket to the rubber air cleaner connector.

The throttle should then be opened 1/5 to 1/4 of its movement from the top end of the lever stroke on the handle.

Finally take the starting strap, and fix the hole in the end of the strap over the pin in the starter pulley.

Wrap the strap around the pulley in a clock-wise direction, stand to the right of the machine at the side of the handles and face forward. Steady the machine by placing a foot on the toolframe and give the strap a sharp pull up.

The engine should now start. After a few seconds running, release the choke. Should the machine tend to stall rapidly, close the choke for a second or two, and repeat until the engine runs smoothly with the choke fully open.

Should the engine fire but not run on after two or three pulls with the strap, open the choke and also move the throttle to about half open. A few pulls should now start the engine, which may be kept from stalling by use of the choke, as previously described, until the engine is warm enough to run evenly.

When starting a warm engine there should be no need to close the choke as this would cause over richness of the mixture and probably choke the engine. A heavy black exhaust and uneven firing will indicate too rich a mixture.

These starting instructions are applicable under climatic conditions in Great Britain, and where the machine is used in other types of climate it should be understood that carburettor settings may need adjustment to suit local conditions.

With the engine running smoothly the machine may be set in motion.

Pull the right-hand clutch lever in order to relieve the load on the catch lever which may now be pivoted forward to clear the clutch lever movement.

As the clutch lever is gradually released the machine will start moving forward, and speed may be adjusted by use of the throttle lever.

Here we would remind the operator that his machine, although it has been thoroughly tested at the factory, still requires running in. We would advise that the machine be used for light work during its first 10 hours' running, after which the load may be gradually increased until it will tackle the heaviest work within its range. A machine which is carefully run in will last a great deal longer before requiring overhaul.

STOPPING.

It is just as important to stop the machine correctly as it is to start correctly.

First, to stop the machine, raise the clutch lever and lock it in that position with the catch lever. Close the throttle until the engine idles.

The engine may then be stopped by pressing the cut out button on the side of the magneto.

Finally turn off both petrol and oil supplies by turning the tap levers until they are both horizontal.

RUNNING ADJUSTMENTS.

When the machine is working one of the most important items to maintain in correct adjustment is the clutch.

If, when the clutch lever is fully withdrawn, the machine tries to move forward on starting the engine, this will be due to insufficient withdrawal of the clutch members from each other. To remedy this the nuts clamping the right-angled connector bracket to the clutch rod will need adjustment. Unscrew the inner nut a few turns towards the clutch, then tighten the other nut down to it. Repeat this if necessary until the machine no longer tries to move forward when the engine is running with the clutch lever withdrawn.

The other adjustment to the clutch is that required if clutch slip occurs when the machine is working. This fault is symptomised by the machine remaining stationary or moving only very slowly when the clutch lever is released, even though the engine is set at full throttle and revolves at high speed. This slippage will be due to either one or more of the following three causes. Firstly the clutch may be held slightly withdrawn, even when the clutch lever is fully released.

To cure this, the outer nut on the clutch rod should be unscrewed a few turns away from the clutch and the inner nut then tightened against it. Repeat this until no slip occurs when the engine is driving the cultivator. After making this adjustment withdraw the clutch lever and observe if there is any tendency for the machine to inch forward. If this occurs the clutch has been slightly over adjusted and the nuts on the clutch rod should be moved back a turn or two to cure this.

Secondly the clutch lining may have worn sufficiently to require adjustment of the control. This should be carried out as described for the first fault.

Lastly the friction faces in the clutch may have become oily due to an excess of oil from the gearbox having seeped between the clutch members.

To cure this, first drain any excess of oil from the gearbox. Next remove the fan, which is also the female clutch cone, and clean off both working faces of the clutch with clean petrol.

The fan removal is achieved by first removing the fan cover, which is held in position on the right of the machine by six cheese headed screws into the gearcase and one hexagon head screw into the air manifold. Next the starter pulley may be removed by removing the two screws securing it to the fan. Finally the central nut securing the fan should be removed and the fan carefully prised from its taper seating. Care should be taken not to lose the key fitted in the taper on the fan shaft.

In addition to this, several adjustments should be made at regular intervals of not less than one month if the best performance is to be obtained from the cultivator engine.

First the sparking plug should be removed and thoroughly cleaned. The plug gap should be checked and set at .015—.018 in. by use of a feeler gauge. (As the cultivator may be left stationary for considerable periods in the open, it is advisable to keep a spare plug available.)

Next remove the cover over the end of the magneto, and clean off the contact breaker assembly. Rotate the engine until the points are fully open and check the gap between them. This should be set to .015 in.

The tappet settings should then be checked. First unscrew the lower sleeve over the inlet valve and slide it up over the upper valve sleeve. Revolve the engine until the inlet valve is shut. Unscrew the inlet valve plunger guide and remove it complete with plunger.

The lower sleeve over the exhaust valve may now be unscrewed. Revolve the engine until the exhaust valve is closed and check the clearance under the valve with a feeler gauge. This should be set by adjustment of the screw and locknut in the top of the plunger to .006 in. When this has been completed, revolve the engine until the exhaust valve is raised, then replace the lower exhaust valve sleeve.

Next replace the inlet valve plunger and guide. Adjust the gap under the inlet valve to .006 in. and replace the lower inlet valve sleeve.

These adjustments are vital to the efficient running of your machine, but in addition the machine should be regularly cleaned and all exposed working parts greased and oiled. These include follow wheel hubs, depth adjusting screws, clamp bolts, clutch rod and control rod joints and linkages, etc. Lubrication of these points will increase the life of the machine and greatly reduce the fatigue of operation.

Every two or three months the air and oil filters should receive attention.

The air cleaner should be removed and washed out in clean petrol or paraffin to remove all particles of dirt. It should then be dipped in clean engine oil, removed and drained, then replaced on the handle. The film of oil will afford a sticky surface to which particles of dust will adhere.

The oil filter is situated underneath the oil tank. The knurled edge of the filter core should be gripped and turned anti-clockwise until the core, complete with the felt filter washers, can be removed. Wash off the felt washers in clean petrol and remove all foreign matter from both filter body and core. Re-assemble the washers on the core and tightly screw home the latter into the filter body.

A most important item to be kept in correct working order is the carburettor. This instrument is adjusted to suit the engine before each machine leaves the factory, and should not be tampered with unless absolutely necessary, as adjustment by a person not familiar with them may lead to poor engine response and heavy fuel consumption.

Keep the carburettor clean. Regularly clean off all dirt, grass or leaves which may become stuck to it. If when the engine is warm the throttle is closed, but the subsequent idling is uneven, then the slow running adjustment screw should be adjusted in or out, half a turn at a time, until the engine is idling smoothly. This screw is at the top of the carburettor facing forward, and has a knurled head with a screwdriver slot.

If the engine idles at too great a speed the throttle stop screw should be set back a little. This screw is the one with the hexagon head facing backwards above the throttle lever. Conversely if the engine idles too slowly or cuts out when the throttle is closed set this screw in a little.

Either of these adjustments may require further setting of the slow running adjusting screw.

The main jet is at the bottom of the carburettor facing forward, and has a needle adjustment controlled by a screw with a fixed tommy bar. This jet

may become blocked, by any dirt in the petrol, and cause the engine to stall. In this case remove the jet needle with its body by unscrewing the narrow hexagon on the body. This will expose the main jet which may be removed with a screwdriver. After cleaning both the jet and needle replace them in the carburettor.

The needle will then require adjustment. Screw the needle right home by turning the tommy bar clockwise as far as it will go. Then unscrew the needle $1\frac{1}{4}$ full turns. This will be near the correct setting which may then be finely adjusted by trying the machine with the needle set a little either side of this position.

MAINTENANCE.

At regular intervals, of about six months, but depending on the amount of work the machine has done, certain overhaul tasks should be performed.

First the engine should be decarbonised and the valves reground on their seats. This is best carried out by completely removing the cylinder head. To do this the air manifold and cylinder cover should be detached. Disconnect the sparking plug lead and remove the cylinder head, being careful not to damage the gasket between the head and cylinder. Tap off the exhaust pipe. Unscrew the lower valve covers and remove both plungers and plunger guides. The cylinder holding down nuts may now be released and the cylinder removed, taking care not to damage the joint washer under the cylinder.

The valve gear should then be removed from the cylinder and all carbon removed from in the ports and also from the cylinder head, piston crown and the valves. Care should be taken not to allow any dirt or carbon to enter the crankcase whilst the cylinder is removed.

The valves should be re-ground on their seats and then all parts washed off with clean petrol or paraffin.

On re-assembly care should be taken with the gasket and joint washers to ensure that no oil or gas leaks occur, also the tappets and sparking plug should be adjusted to their correct settings.

The clutch should also receive attention at this time. It should be removed, cleaned and inspected for wear. A new lining is 3/16 in. thick, and this may be used as a basis for judging wear. Replace the clutch after this overhaul and adjust the operating rod.

Before replacing the fan cover clean out the air passage to the cylinder.

Inspect the whole machine and tighten up any screws or bolts which may have worked loose.

Drain the lubricating oil tank and clean out with petrol to remove any dirt or metal which may have found its way into the tank. Refill with fresh lubricating oil.

Wash off all painted surfaces, and touch up with paint where required. Finally when the paint is dry rub a clean oily rag over the machine.

A machine serviced in this manner will have a very much longer life than one that is neglected and allowed to rust away.

When it becomes necessary through wear to replace or repair any part of the engine or gearbox, we would advise the owner, unless he has skilled labour

available, to approach the distributor from whom the machine was purchased, who will advise him as to the amount of repair work required.

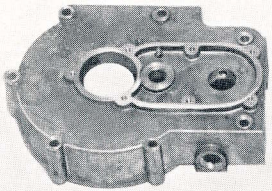
The maintenance bill will be a minimum if the following points are observed :—

1. Keep the machine clean.
2. Use the correct grades of lubricating oils and make sure that all oil and petrol supplied to the machine is clean.
3. Change the lubricating oil at regular intervals; if the machine is working every day then this should be carried out at least once a month.
4. Keep all working parts that are exposed to the atmosphere greased or oiled to prevent rust and consequent seizure of wheels, screw threads, etc.
5. Maintain the engine and transmission adjustments regularly.
6. If at any time the engine or machine shows any signs of bad performance, excessive noise or seizure, never force the engine or work it hard until you have ascertained its cause. To work a machine not in proper order is very expensive. It might be no more than a blocked oil pipe, but even that would mean virtually a new engine if immediate action was not taken to free it. If you cannot locate any trouble which may arise then consult your distributor.

Not interchangeable with American Machine
Interchangeable with American Machine
Interchangeable as Complete Assemblies

LIST OF PARTS

	Part No.	Photograph Number	Name		No. per Machine
CRANKCASE ASSEMBLY	1101	3	Inner Crankcase	Not obtainable separately. Only as Assembly	1
	1102	1	Outer Crankcase		1
	1108	2	Sleeve		1
	1108A	38	Dowel for Sleeve		1
	2101		Actuating Stud for Sleeve		1
	1309	33	Drive Shaft bush—Inner Crankcase ..		1
	1310	36	Bush for Sleeve		1
	1508	30	Inner Camshaft Bush		1
	2518	34	Oil Connection Elbow—Inner Crankcase		2
	701 P	35	Oilway Plug—Inner Crankcase		1
	1507	31	Outer Camshaft Bush		1
	1812	29	Drain Plug—Outer Crankcase		1
	1814	32	Drain Plug Washer		1
	2518	34	Breather Outlet Elbow—Outer Crankcase		1
	1711		Breather Pipe		1
	129 S	37	Crankcase Bolts		6
	1208	28	Cylinder Base Stud		4
	211 N		Nut for Stud		4
	304 W		Washer		4
CRANKSHAFT ASSEMBLY	1301	39	Flywheel		2
	1302	40	Drive Shaft		1
	1303	43	Crank Pin		1
	1501	41	Crank Pinion		1
	503 K		Key for Shaft and Pinion		2
	1304	24	Nut		4
	1308	42	Ballrace for Pinion		1
	1511	49	Locking Washer		4
	121 S		Lock Screw		4
	301 W		Spring Washers		4



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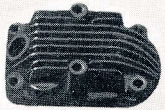

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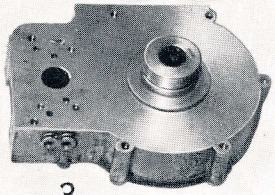

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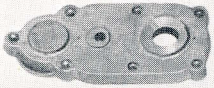

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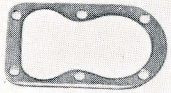

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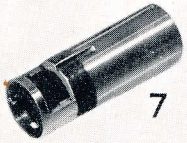

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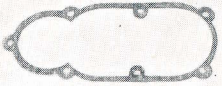

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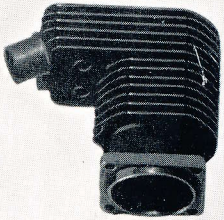

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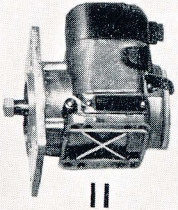

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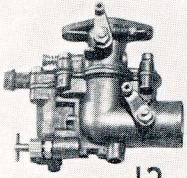

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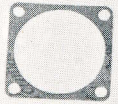

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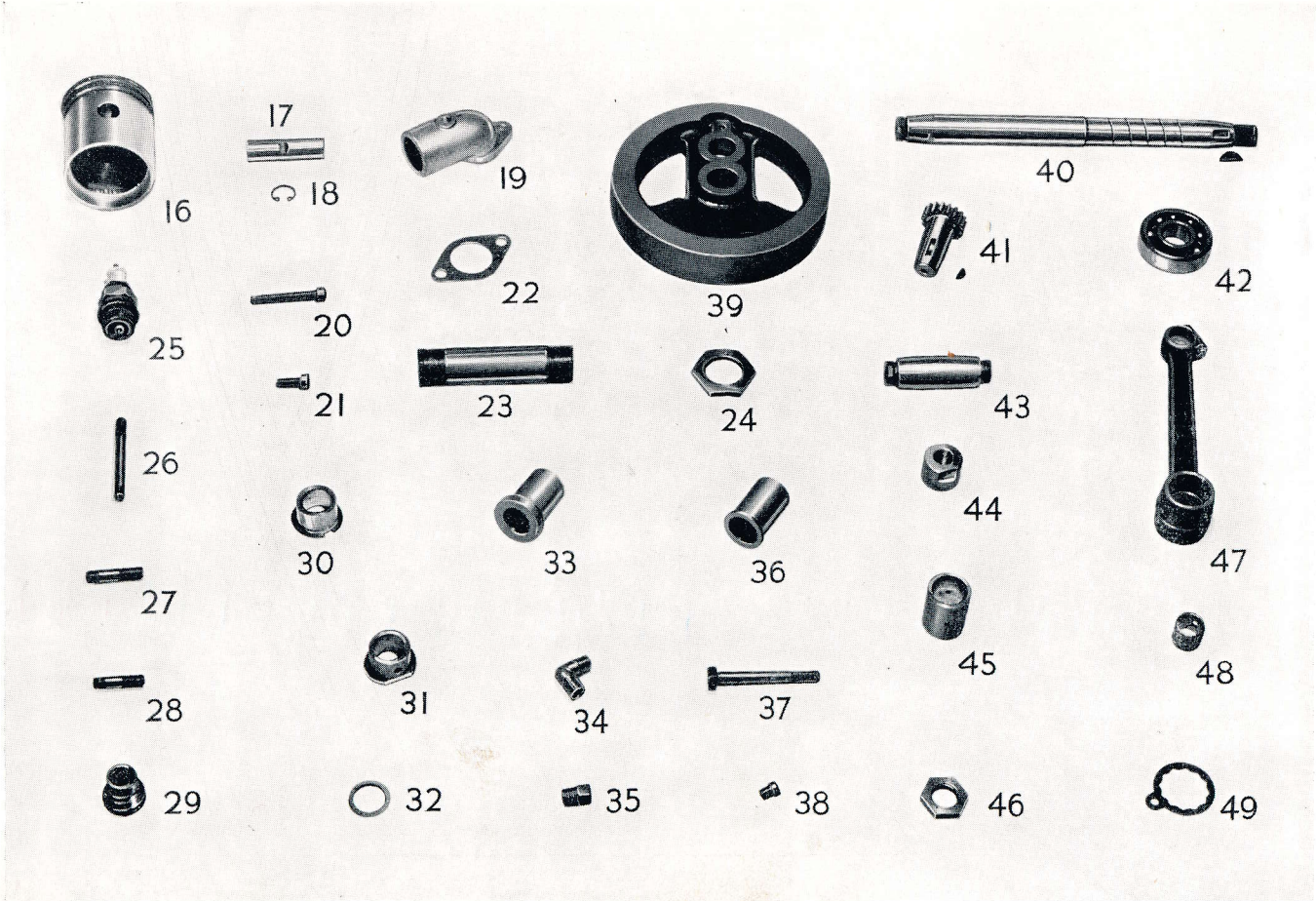
	Part No.	Photograph Number	Name	No. per Machine
CONNECTING ROD ASSEMBLY	1312A	47	Connecting Rod	1
	1311	45	Big End Bush	1
	1311A	48	Little End Bush	1
PISTON ASSEMBLY	1401	16	Piston	1
	1402A		Piston Ring—Compression	2
	1402B		Piston Ring—Scraper	1
	1403B	17	Gudgeon Pin	1
	1404	18	Circlip	2
ROCKERSHAFT ASSEMBLY	1610	85	Rocker Lever	2
	1611	86	Rocker Shaft	1
	211 N		Nut for Shaft	1
	1613	87	Long Spacer	1
	1612	88	Short Spacer	1
IDLER GEAR ASSEMBLY	1502	59	Idler Wheel	1
	1509	60	Bush for Wheel	1
	1516	61	Bearing Stud for Idler	1
	213 N	62	Nut for Stud	1
	305 W		Spring Washer	1
CAMSHAFT ASSEMBLY	1506	63	Camshaft	1
	1504	64	Camshaft Mitre Gear	1
	1503	66	Camshaft Drive Gear	1
	501 K		Key for Gears	2
	1510	68	Nut for Camshaft	1
	1511	67	Lockwasher	1
TIMING COVER	1103	4	Timing Cover	1
	1104	8	Gasket for Cover	1
	123 S		Retain Screw for Cover	7
MAGNETO ASSEMBLY	1701	11	Magneto	1
	1702		Backplate for Magneto	1
	1703	15	Gasket	1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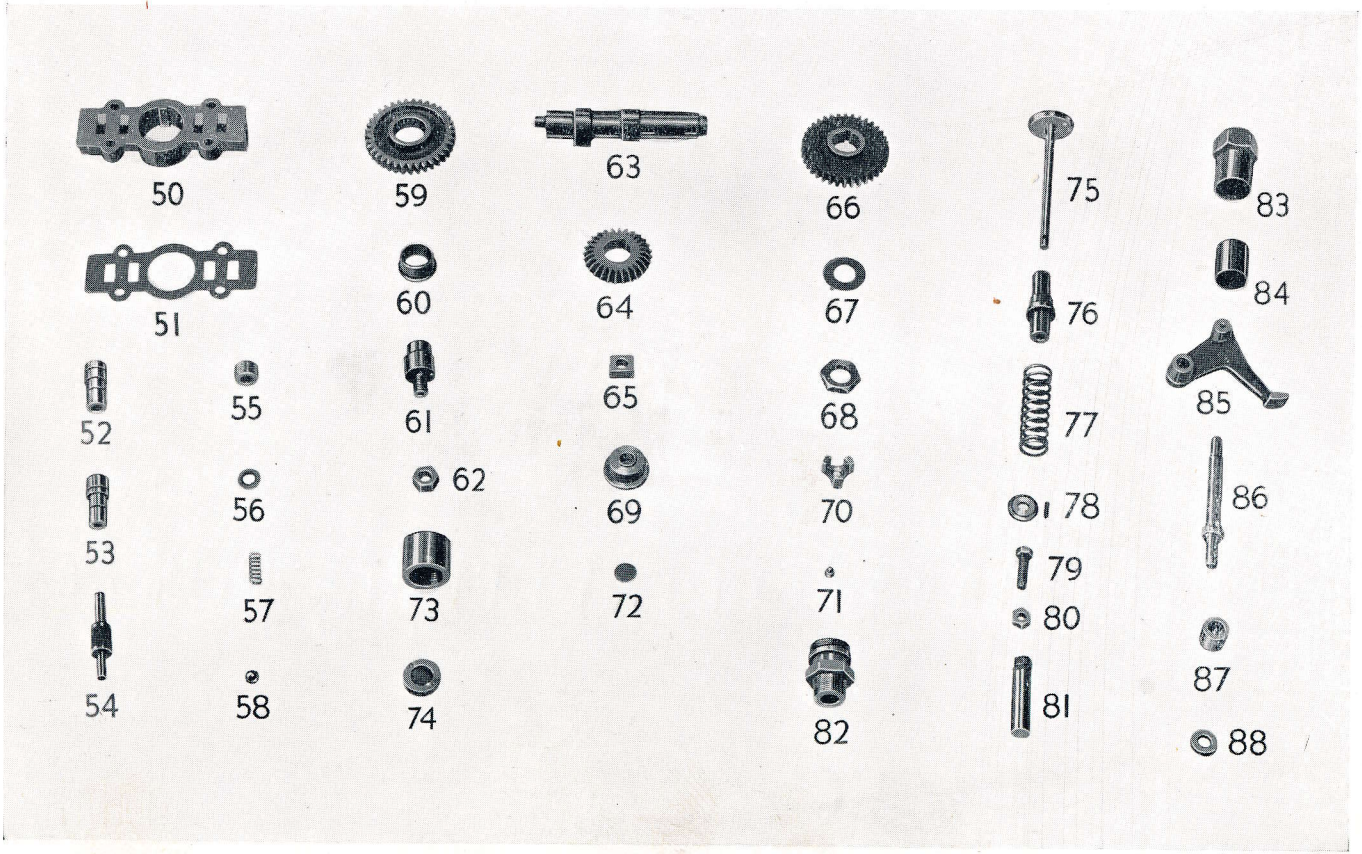
	Part No.	Photograph Number	Name	No. per Machine
MAGNETO (Cont.)	127 S		Retain Screw	4
	1505A	14	Magneto Gear	1
	1701A		Sleeve for Gear	1
	1709	25	Sparking Plug	1
	1709A	10	Magneto Lead	1
CYLINDER BARREL AND HEAD ASSEMBLY	1201A	9	Cylinder Barrel	1
	1605A	76	Valve Guide	2
	1601	75	Valve	2
	1614	84	Upper Valve Spring Sleeve	2
	1602	77	Valve Spring	2
	1603	78	Valve Spring Collar	2
	1604		Pin for Collar	2
	1615	83	Lower Valve Spring Sleeve	2
	1205	26	Cylinder Head Stud—long	2
	1206	27	Cylinder Head Stud—short	4
	211 N		Nut for Studs	6
	1207	13	Cylinder Base Washer	1
	1607	82	Valve Plunger Guide	2
	1814	32	Washer for Guide	2
	1606	81	Valve Plunger	2
	1608	79	Plunger Adjusting Screw	2
	1609	80	Locking Nut	2
	1202A	2	Cylinder Head	1
	V 229	5	Gasket for Head	1
	1204	141	Cylinder Cover	1
	2715	6	Exhaust Pipe	1
CARBURETTOR ASSEMBLY	1712 Z	12	Carburettor	1
	1728	19	Intake Elbow	1
	126 S	20	Carburettor Retaining Screw—long	1
	122 S	21	Carburettor Retaining Screw—short	1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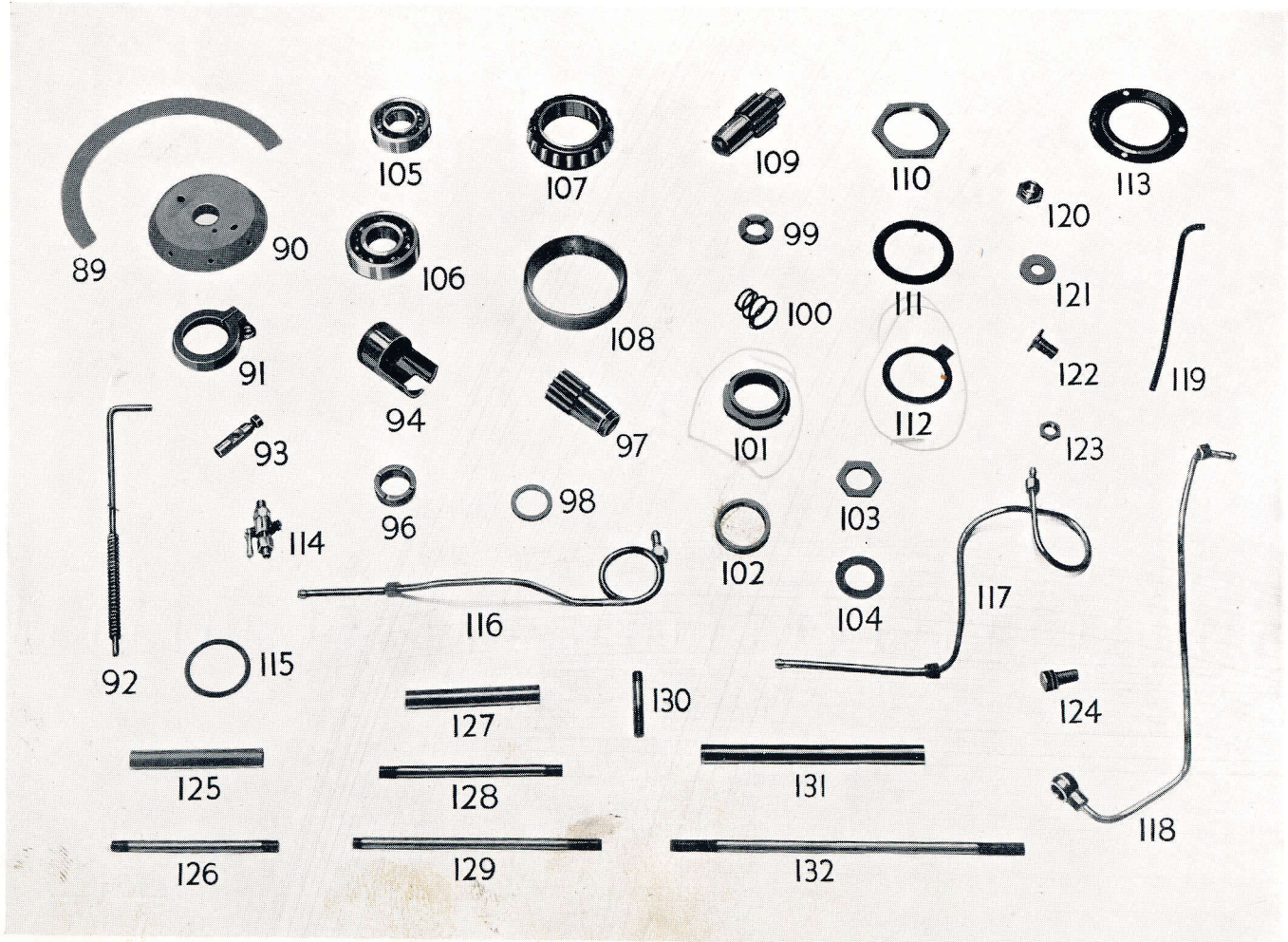
	Part No.	Photograph Number	Name	No. per Machine
Induction System	L 807B	22	Joint Washer	1
	1713	23	Induction Pipe	1
	2006	24	Lock Nut for Pipe	1
	1729A	178	Choke Wire	1
	1729	165	Air Hose Connection	1
Oil Pump Assembly	1801	50	Oil Pump Housing	1
	1811	54	Oil Pump Piston	1
	1804	53	Upper Cylinder	1
	1805	52	Lower Cylinder	1
	1809	58	Ball Valve	2
	1810	57	Spring for Ball	2
	1806A	55	Retaining Plug	2
	4025	56	Gasket for Plug	2
	1815	65	Crank Brass	1
	1802	51	Gasket for Housing	1
	122 S		Retaining Screw for Housing	4
L. H. Frame Plate	2401	133	L.H. Frame Plate	1
	2305	156	Hub Dust Washer Retainer	1
	2307	149	Hub Dust Washer	2
	128 S		Retaining Screw	5
Drive Wheel Assembly	2205	144	Main Drive Wheel	1
	2206	155	Cleat	18
	131 S		Cleat Bolt	18
	305 W		Spring Washer	18
	2208	107 108	Bearing for Main Wheel	2
	2209	110	Adjusting Nut	2
	2210	111	Lock Washer	1
	2301	147	Drive Gear Housing	1
	2307	149	Hub Dust Washer	2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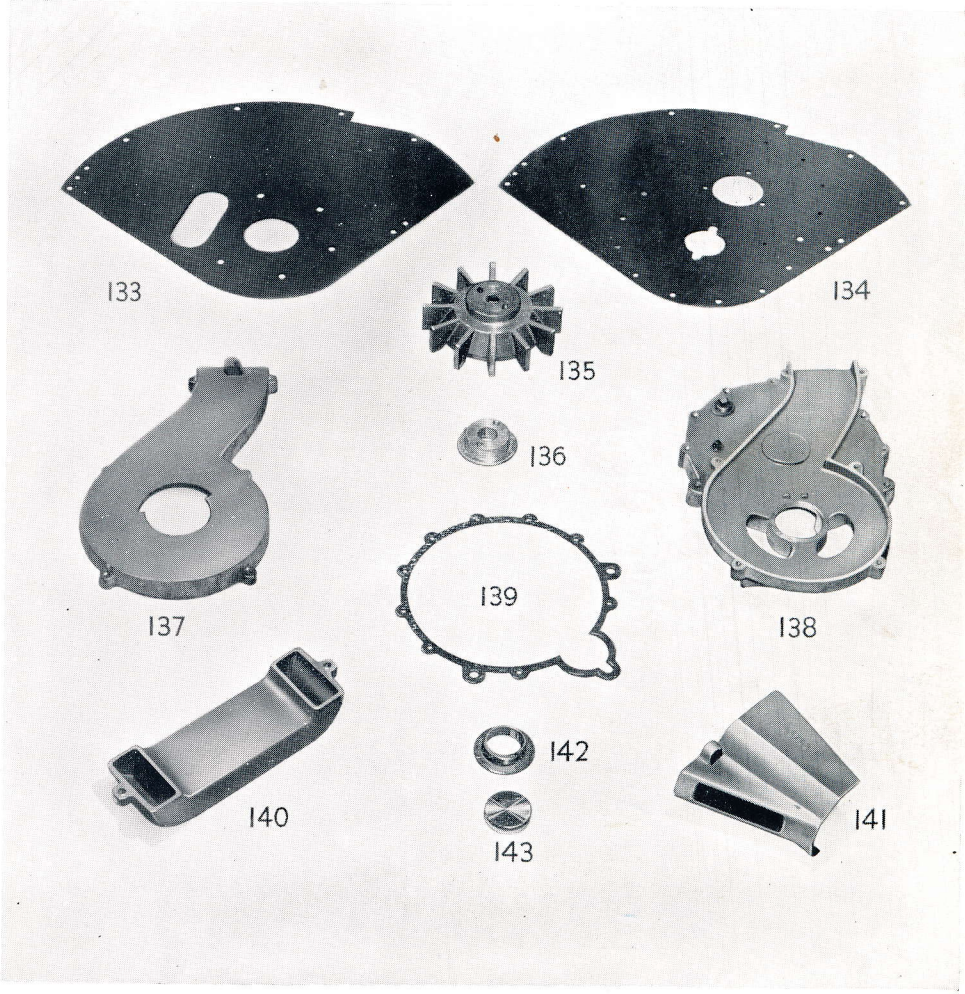
	Part No.	Photograph Number	Name	No. per Machine
DRIVE WHEEL ASSEMBLY (Cont.)	701 P	35	Drain and Level Plug	1
	2212	105	Inner Ballrace	1
	2203	109	Countershaft	1
	2213	106	Outer Ballrace	1
	2006	103	Nut for Countershaft	1
	2217	104	Lock Washer	1
	2204	145	Drive Gear	1
	2218		Key for Drive Gear	1
R. H. FRAME PLATE ASSEMBLY	2402	134	R.H. Frame Plate	1
	D 2947	148	Joint Washer	1
	2214	113	Ballrace Retainer	1
	123 S		Retaining Screw—to Drive Gear Housing	10
	302 W		Spring Washer	10
	2316	130	Gear Housing Stud	2
	213 N		Nut for Stud	2
	2202	146	Countershaft Gear	1
	504 K		Key for Gear	1
	2302	138	Countershaft Gear Housing	1
	C 2912	139	Joint Washer	1
	702 P		Oil Filler Plug	1
	2518	34	Elbow for Breather	1
	1711		Breather Pipe	1
	125 S		Retaining Screw—Countershaft Gear Housing	10
	1109	101	Spindle Nut	1
	2104	102	Actuating Sleeve Seal Washer	1
	1110	112	Lock Washer for Spindle Nut	1
FAN & STARTER PULLEY ASSEMBLY	2001	135	Fan and Clutch Cone	1
	503 K		Key for Fan	1
	2004	44	Nut for Fan	1
	2002	136	Starter Pulley	1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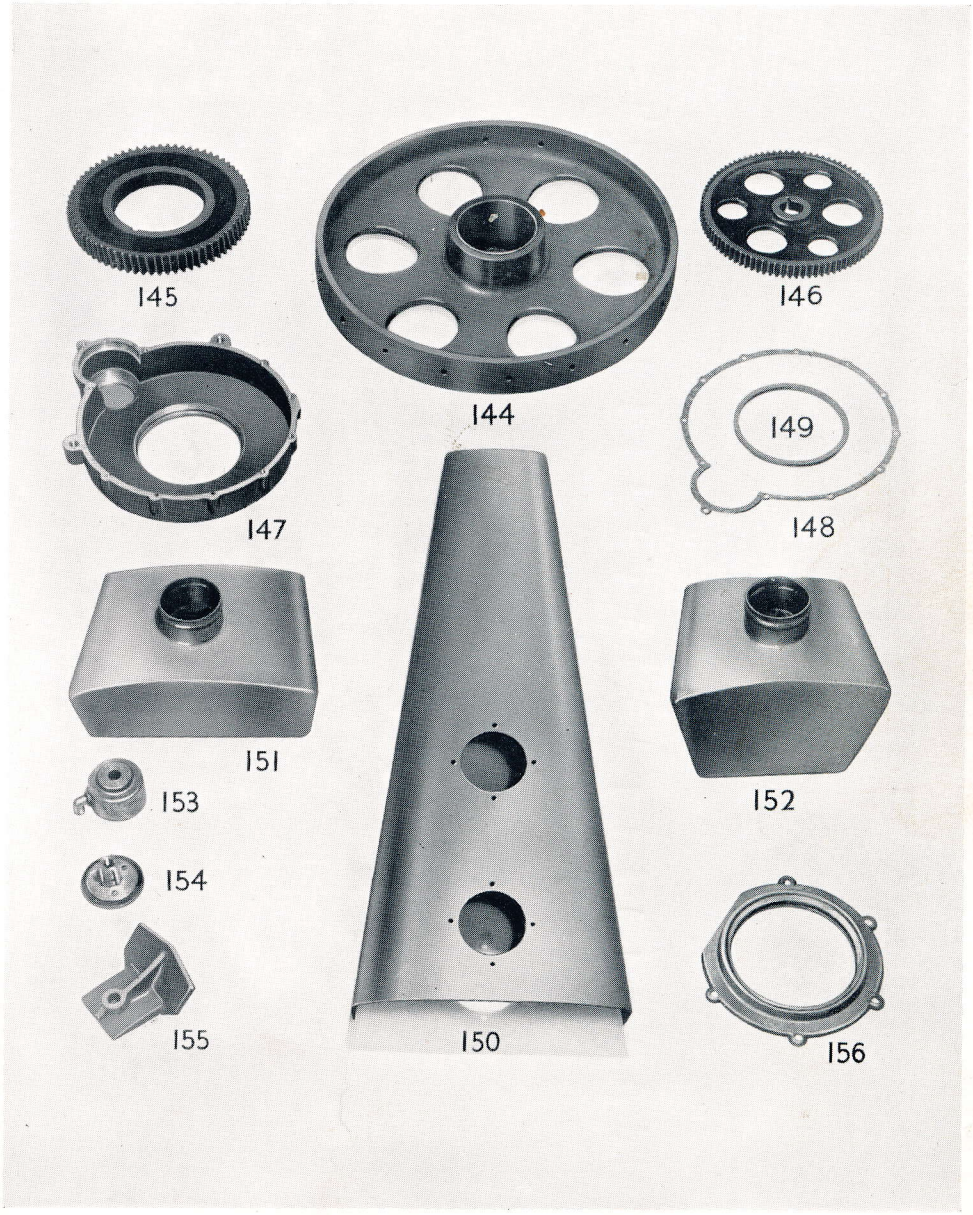
	Part No.	Photograph Number	Name	No. per Machine
STARTER PULLEY ASSEMBLY (Cont.)	2003		Pin for Pulley	1
	130 S		Retaining Bolt for Pulley	2
CLUTCH ASSEMBLY	2005	90	Inner Clutch Cone	1
	2008	89	Clutch Lining	1
	2009		Rivets for Lining	9
	2006	103	Nut for Cone	1
	2217	104	Lock Washer	1
	502 K		Key for Cone	1
	2201	97	Clutch Pinion	1
	2107	98	Clutch Spring Thrust Collar	1
	2106	100	Clutch Pressure Spring	1
	2105	99	Clutch Pinion Thrust Collar	1
CLUTCH ACTUATING MECHANISM ASSEMBLY	2102	94	Clutch Actuating Sleeve	1
	2103	96	Actuating Sleeve Bearing	1
	2108		Clutch Actuating Collar	1
	132 S		Clamp Screw for Collar	1
	2111		Clutch Actuating Spring Rod	1
	602 C		Split Pin for Rod	2
	401 W		Washer	1
	2110		Actuating Spring	1
	210 N		Adjusting Nut	2
	2113		Guide Stud for Rod	1
	211 N		Nut for Stud	1
	304 W		Spring Washer	1
TANK & SHIELD ASSEMBLY	2501	150	Tank Shield	1
	2502	152	Oil Tank	1
	2503	151	Petrol Tank	1
	2509		Gasket between Oil Tank and Shield ..	1
	2526		Gasket between Petrol Tank and Shield ..	1
	2504	142	Filler Cap Neck	2 pairs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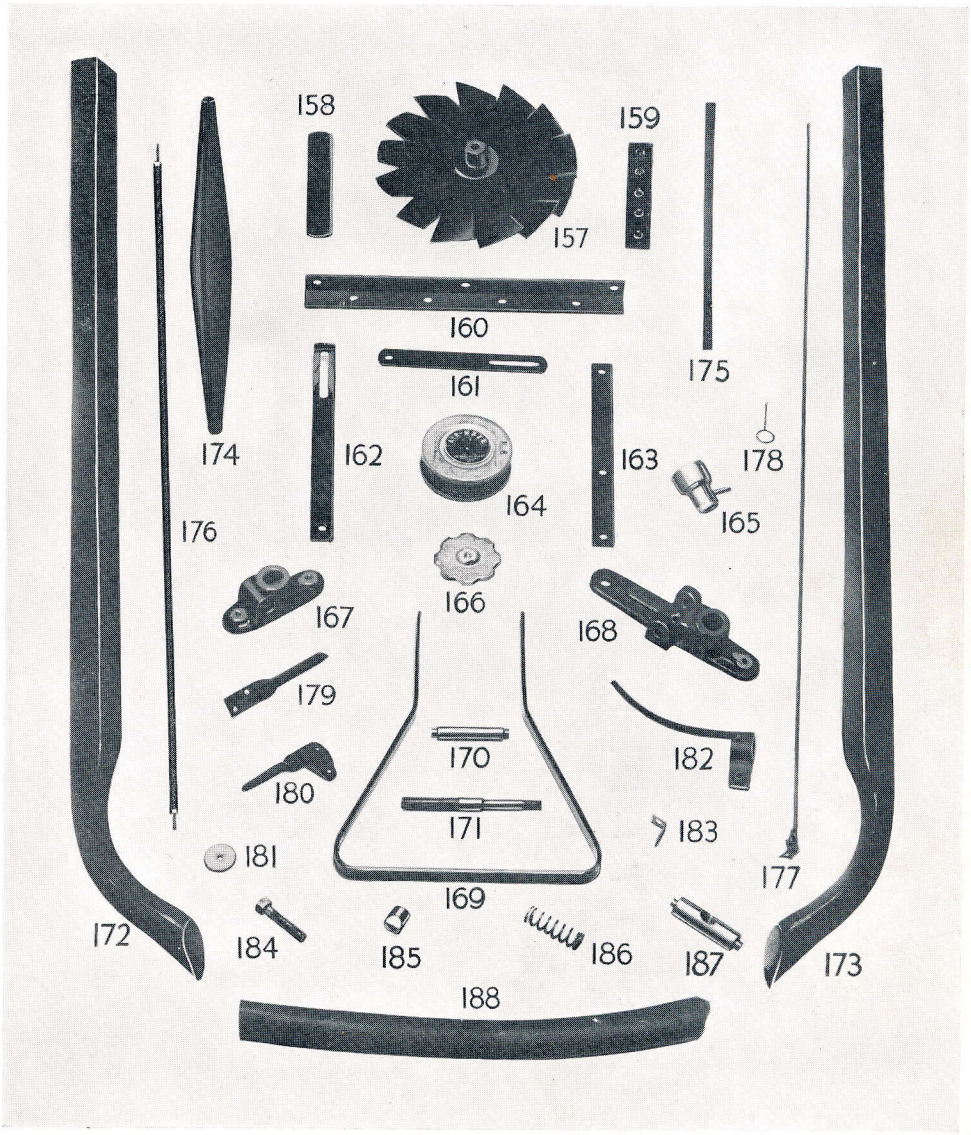
	Part No.	Photograph Number	Name	No. per Machine
TANK ASSEMBLY (Cont.)	2505	143	Filler Cap	
	2524		Collar with Lock Nut	2 pairs
	2520	114	Petrol and Oil Taps	2
	2520A		Fibre Washer for Taps	2
OIL FILTER ASSEMBLY	1901	153	Oil Filter Case	1
	1903	122	Connecting Nipple	1
	1904	123	Nut for Nipple	1
	1905	119	Oil Return Sight Tube	1
	1907	121	Gasket for Nipple	1
	1902	154	Oil Filter Core	1
	1908	115	Gasket for Core	1
	1906		Felt Filter Washer	4
	2518	34	Elbow Connector to Case	1
FRAME SPACERS & BOLTS	1607A	128	Hitch Brace Spacer Bolt	2
	2404	126	Frame Plate Spacer Bolt	3
	2512	129	Tank Spacer Bolt	1
	2412	132	Handle Spacer Bolt	1
	2403	127	Frame Spacer Tube	4
	2510	125	Tank Spacer Tube—short	2
	2511	131	Tank Spacer Tube—long	1
	2716		Handle Clamp Washer	2
	2702A		Spacing Washer for Hitch Bolt	2
	305 W		Spring Washer for Hitch Bolt	2
	403 W		Washer for Spacer Bolts	10
	213 N		Nut for Spacer Bolt	14
FUEL & OIL PIPES	2519	118	Petrol Pipe	1
	2515	116	Oil Pipe—Feed	1
	2516	117	Oil Pipe—Return	1
WOODEN HANDLES	2406	172	Wooden Handles. L.H. and R.H.	1 pair
	2408		Wooden Crossmember	1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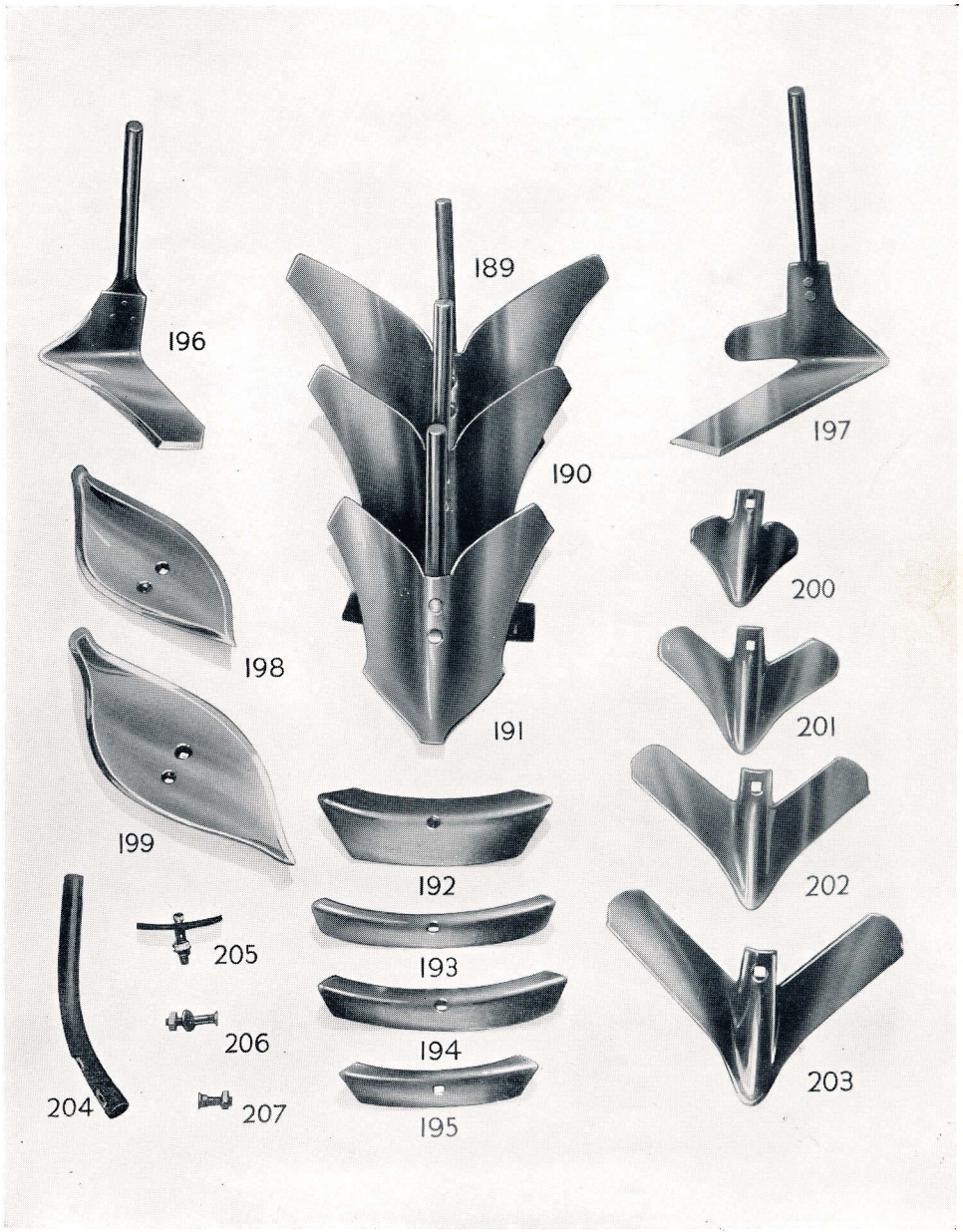
	Part No.	Photograph Number	Name	No. per Machine
Items assembled on wooden handles	2409	176	Tie Rod	1
	210 N		Nut for Tie Rod	2
	410 W		Washer	2
	2612	179	Catch Lever	1
	2607	182	Clutch Lever	1
	1607A		Pivot Spacer for Levers	4
	2601	180	Throttle Lever	1
	2603	181	Friction Washer	1
	401 W		Washer	1
	134 S	184	Bolt for Levers	3
	210 N		Nut for Bolt	3
	2604	177	Clutch Rod	1
	2604A		Throttle Inner Cable complete with Swivel	1
	2605		Throttle Outer Cable	1
	2611		Retaining Staple for Throttle Control Wire	10
	2717	183	Guide Bracket and Clutch Rod Bracket	2
	1717		Air Cleaner Bracket	1
	1718		Wood Screw	3
	1716	164	Air Cleaner	1
	132 S		Bolt to Retain Cleaner	1
	210 N		Nut	1
	302 W		Washer	1
	1729	188	Air Hose	1
	2417	169	Folding Stand	1
Toolframe supports	2702	163	Rear Hitch Brace	2
	2703	162	Front Hitch Brace	2
	2702		Tool Holder Strut	2
	135 S		Bolt—Strut to Hitch Brace	2
	213 N		Nut for Bolt	2
	305 W		Spring Washer	2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	Part No.	Photograph Number	Name	No. per Machine
TOOL-FRAME	2707		Parallel Clamp Bar	2
	2708		Parallel Bar	8
	130 S		Screw for Toolframe	14
TOOL SHANK HOLDERS	2710	167	Tool Shank Holder	3
	2902		Clamp Bolt	3
	2726		Clamp Nut	3
	602 C		Split Pin	3
DEPTH WHEEL BRACKET ASSEMBLY	2709	168	Depth Wheel Bracket	2
	2902		Clamp Bolt	2
	2726		Clamp Nut	2
	602 C		Split Pin	2
	2720	171	Depth Adjusting Screw	2
	2721	166	Depth Adjusting Knob	2
	231 N		Lock Nut for Knob	2
	2723	186	Depth Adjusting Spring	2
	2715	157	Depth Wheel Pressing	2
	2716		Depth Wheel Hub	2
	2717		Rivet for Wheel	8
	2718		Depth Wheel Link	2
	2719		Link Spacer	2
	2113		Depth Adjusting Nut	2
	2712	204	Tool Shank—1 Hole	1
	2712A	204	Tool Shank—2 Hole	4
	2304A		Name Plate	1
	2304B		Retaining Screws	4
	2503A		Transfer	1
	2801		Starting Strap	1
	2802		Handle for Strap	1
	133 S		Bolt	1
	210 N		Nut	1
	401 W		Washer	2


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