

John Henry Grace 6400 Type 3 # 232155

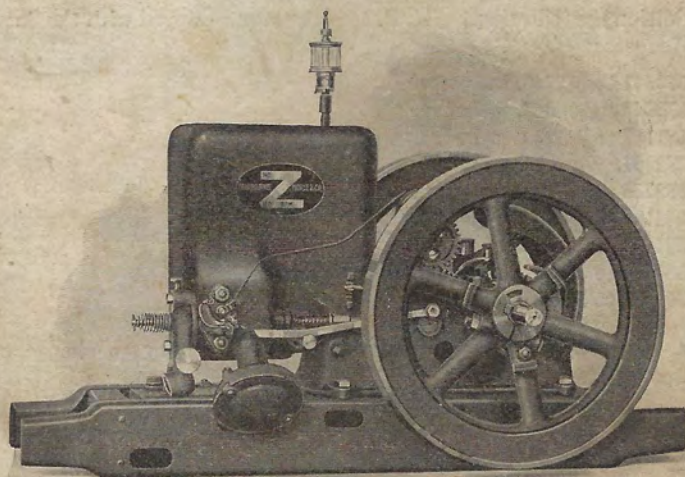
VOL. 2-A

REPAIR PRICE LIST No. 9625B

Fairbanks-Morse

1½, 3 and 6 H. P. Type "Z" Engines

WITH SUMTER ROTARY MAGNETO



(3142G)

1½ H. P. "Z" Engine with Sumter Gear Driven Magneto

FAIRBANKS, MORSE & CO.
(Incorporated)
CHICAGO

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The gear driven Sumter Magneto was built previous to Engine #361679, except #345865, which used a Sumter Plug Oscillating Magneto.

In addition the following 1½ H. P. Engines were equipped with the Sumter Rotary Magnetos:

373541 to 373740, inclusive.

378548 to 378647, inclusive.

381137 to 381236, inclusive.

382007.

382256 to 382355, inclusive.

384138 to 384237, inclusive.

384607 to 384706, inclusive.

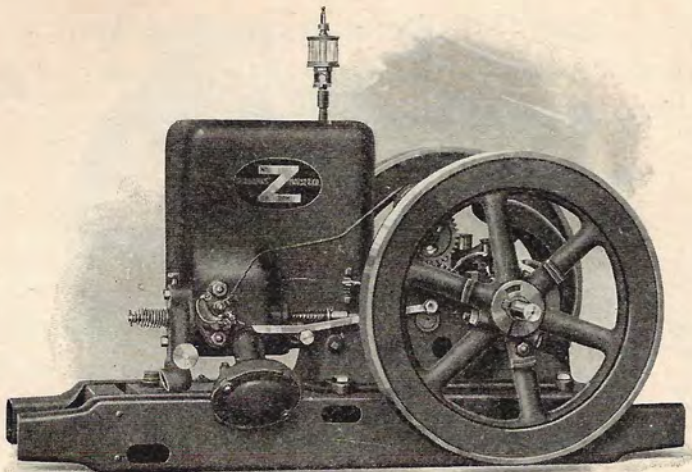
384923 to 385922, inclusive.

391124 to 391323, inclusive.

Note.—See Vol. 1 (latest edition) for parts necessary to change over Sumter Rotary Magneto to Type R" High Tension Magneto.

FAIRBANKS-MORSE

1½ H. P. "Z" ENGINE WITH SUMTER GEAR DRIVEN MAGNETO



(3142G)

This shows the 1½ H. P. Hit and Miss "Z" Engine with gear driven Sumter Magneto. (See the opposite page for engine numbers).

On this type of engine it will be noted that the rotary, or gear driven magneto, is located on a bracket cast on the engine base near the crankshaft.

Below will be found a brief description of the changes made, in this engine, affecting repairs.

Effective on engine #286859.

Igniter

A heavier type of igniter was adopted. On orders for igniter body or igniter complete for an engine previous to this number the new igniter 138A-C will be furnished. On orders for smaller parts of the old style igniter, parts will be furnished as shown in Group 138-C.

Effective on engine #267896.

**Igniter Trip
Rod Blade**

An igniter trip rod with blade for adjustment was adopted. These will be furnished complete on all orders for the one piece rod. (See 143A-C).

Previous to engine #160361.

Crankshaft

The crank shaft was turned down on the end for the starter crank A14. These parts, crankshaft 25 and starter crank A14, will be furnished when ordered.

Effective on engine #261679.

**Governor
Fulcrum Pin**

A governor fulcrum pin with a compression spring was adopted to replace the pin with washer and cotter. The new pin (33A), with spring (817A), will be furnished to replace old pin (254), with washer (251).

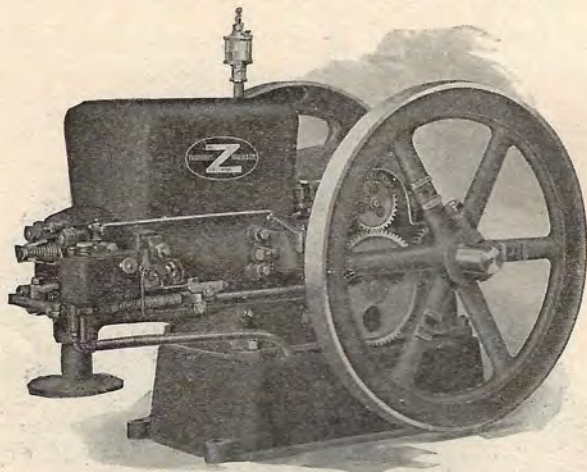
Effective on engine #176709.

**Governor Weight
Spring**

A governor weight spring, #752, having only one hook was adopted; this required spring nut (262), new adjusting screw (256A), and adjusting screw eye screw (255A). These replaced the governor weight spring, #634, which had two hook using a governor spring and adjusting screw (256) and eye screw (255). Parts 634 and 256 will be furnished as ordered, but 255 will be replaced by 255A on repair orders. See cut, page 31.

FAIRBANKS-MORSE

3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO



(3204G)

This shows the 3 and 6 H. P. "Z" Engines with gear driven Sumter Magneto. Built previous to 3 H. P. engine #268918, and 6 H. P., #267230. On this type of engine it will be noted that the Rotary, or gear driven magneto is located on a bracket cast on the engine base near the crankshaft. Below will be found a brief description of the changes made in these engines affecting repairs.

Cylinder Heads

On 3 H. P. engine, #290867 and 6 H. P., #319858, with Sumter Oscillating Magneto, the cylinder head and pump lever (66), were changed to put the pump lever on the outside of the exhaust rod. This new head with new pump lever (66A) will be furnished with heads ordered for these engines:

Reservoirs

Effective on 3 H. P. engine #185864.
Effective on 6 H. P. engine #185978.
These reservoirs were changed to eliminate removable pump barrel No. 64.
Effective on 3 H. P. engine #259198.
Effective on 6 H. P. engine #259154.
A further change was made to eliminate brass check ball seat #68.

On orders for reservoirs or for #64 pump barrel for engines previous to these numbers, 4A-C reservoir with necessary extra piping will be sent. (See Group 4-C.)

Subbase, Fuel Tanks and Fuel Piping

Previous to 3 H. P. engine #185864.
Previous to 6 H. P. engine #185978.

These parts were arranged so that piping connected with the end of the fuel tank instead of the top.

For subbase repairs, see repair #62.
For fuel tank, see repair group #15.
For fuel piping, see repair group #304.

Silencer

Previous to 3 H. P. engine #185864.
Previous to 6 H. P. engine #185978.

A three piece silencer was used. Separate parts for this silencer will be furnished (see Group 26-C), but when complete silencer is ordered silencer 26A will be sent.

Butterfly Valve and Shaft

Previous to 3 H. P. engine #288351.
Previous to 6 H. P. engine #287103.

The butterfly valve was soldered to small shaft, and two bushings were inserted in cylinder head. For repairs on butterfly valve or shaft, the later valve and shaft screwed together will be sent. Bushing 207, shaft lever 206, washer 201, will be furnished as ordered.

REPAIR PRICE LIST

FOR

1½, 3 AND 6 H. P. "Z" ENGINES

WITH

SUMTER GEAR DRIVEN MAGNETO

To avoid delay, give the complete description of the part or parts wanted as shown in the following example:

1. Quantity of parts wanted, "one."
2. Repair number, "1."
3. Name of part, "cylinder."
4. Size of engine, "1 1/2 H. P."
5. Type of engine, "throttling governor."
6. Engine serial No., "576189."

Description of
Part

The repair order, in this case, should read: "One #1 cylinder for 1 1/2 H. P. throttling governor engine, serial number 576189." Repair Order

IMPORTANT: The most important items of the above information are the repair number and the engine serial number. The latter is stamped on the hopper of the engine. Engine Serial Number

HOW TO USE THE REPAIR LIST AND THE REPAIR CHARTS.

The first column at the left of each page shows the repair numbers of all complete groups and all separate parts, arranged in numerical order. Numerical Arrangement

The repair number, when shown in bold-faced type and followed by a dash and the letter "C" (indicating complete), is a group number which covers all the items to the next horizontal line. Complete Group

The second column from the left contains the repair numbers of all of the parts included in each of these groups. "Group Part" Column

Parts, which are followed by the words "always with" are **not** furnished separately, but only with the parts included within the brackets. Bracketed Group

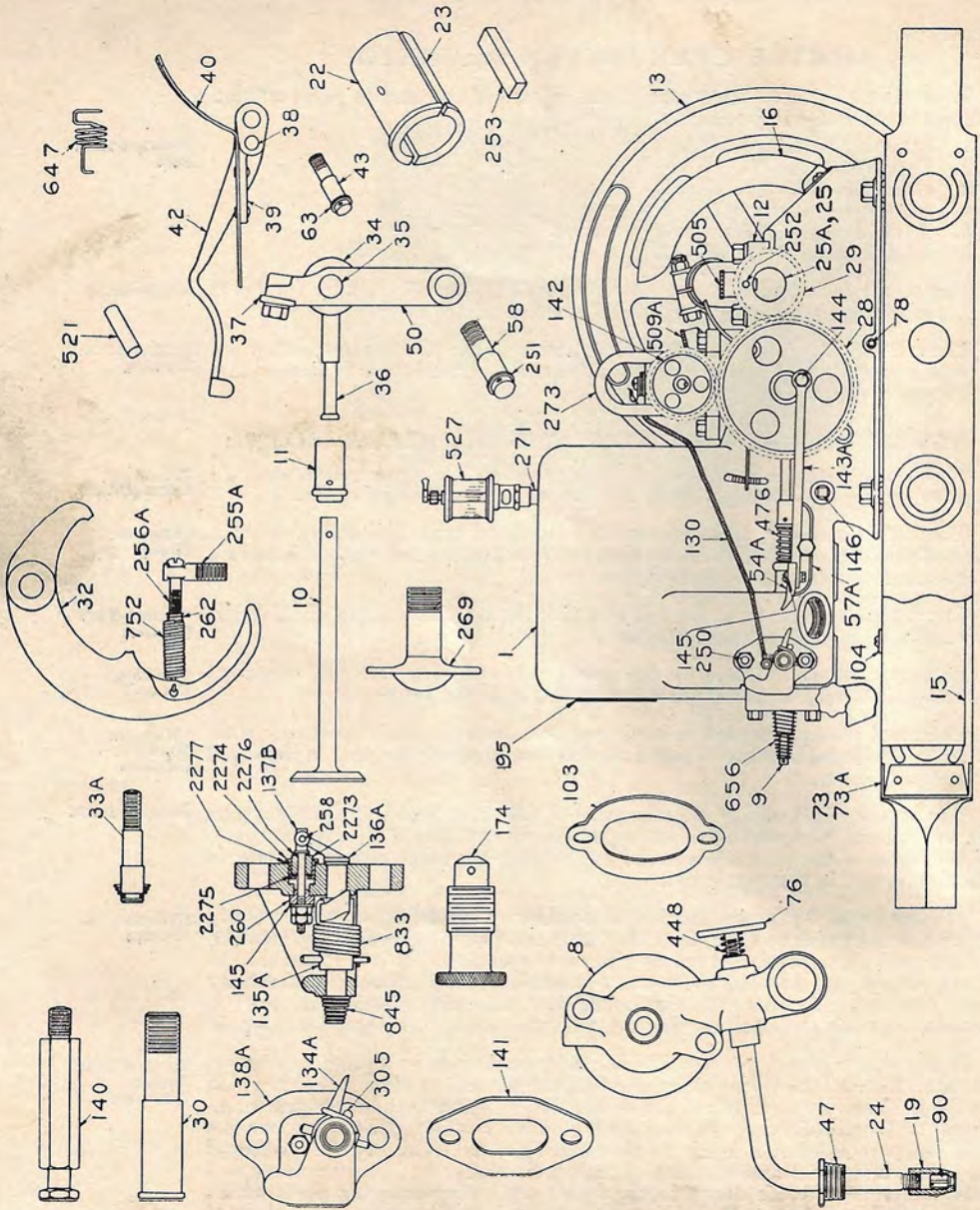
The number of parts used in each group is shown in the "Number Used" column. The **total** number of parts used is shown when the part is arranged in numerical order. "Number Used" Column

The repair charts show all the parts which have repair numbers. The part wanted can be found by locating its repair number on the repair chart, and the name of the part when found by locating the same repair number, in numerical order, in the repair list. Repair Charts

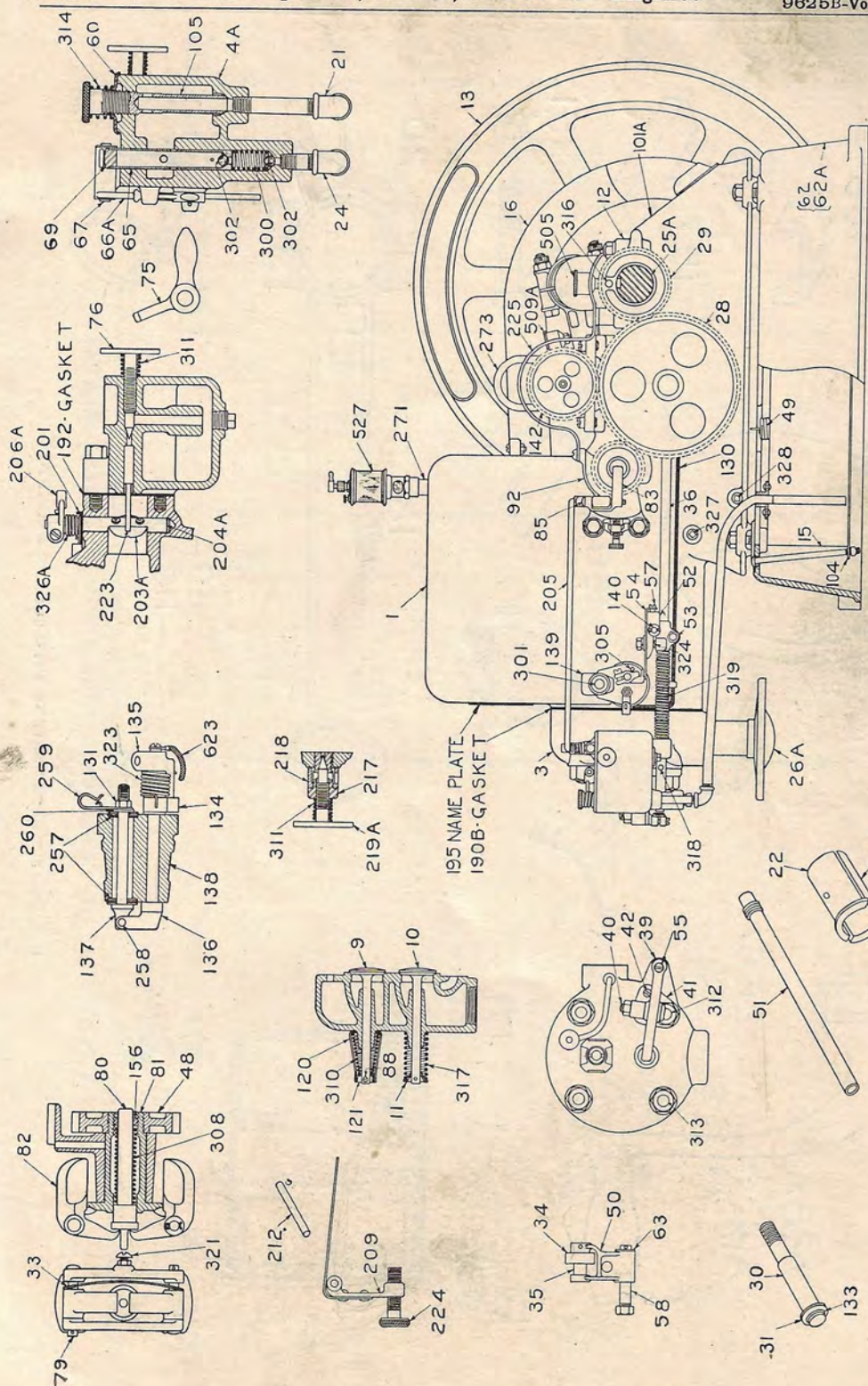
Always order by group number if possible. Before doing so, carefully check over the group to make sure that all parts included therein are wanted, for they will all be furnished unless otherwise specified. If it is found that in a group every part but one or two are wanted, order the group and specify "less" the repair numbers not wanted; i. e., in the 5-C group every part is wanted except the piston rings; the order should read: 5-C piston less rings 6. Ordering by Groups

If any part without a repair number is wanted, such as a stud, cap screw, bolt, etc., refer to the repair chart and find the number of the part with which it is used. Then by referring to the repair list, the part without a repair number will be found following the numbered part with which it is used. In some cases, the part without a repair number will be found following the numbered part in the numerical arrangement of the repair numbers. Use the name and the size of the parts, as shown in the repair list, when ordering parts which have no repair numbers. If the size of these parts is the same on all sizes of the product, only one dimension is shown following the part (in the "NAME OF PART" column) when arranged in numerical order. If the sizes of the parts without repair numbers are different, each dimension is listed in the same order as in the "Number Used" column. Parts without Repair Numbers

An asterisk (*) preceding a repair number or group number indicates that the parts marked are included in the "Z" Engine Service Cabinet.

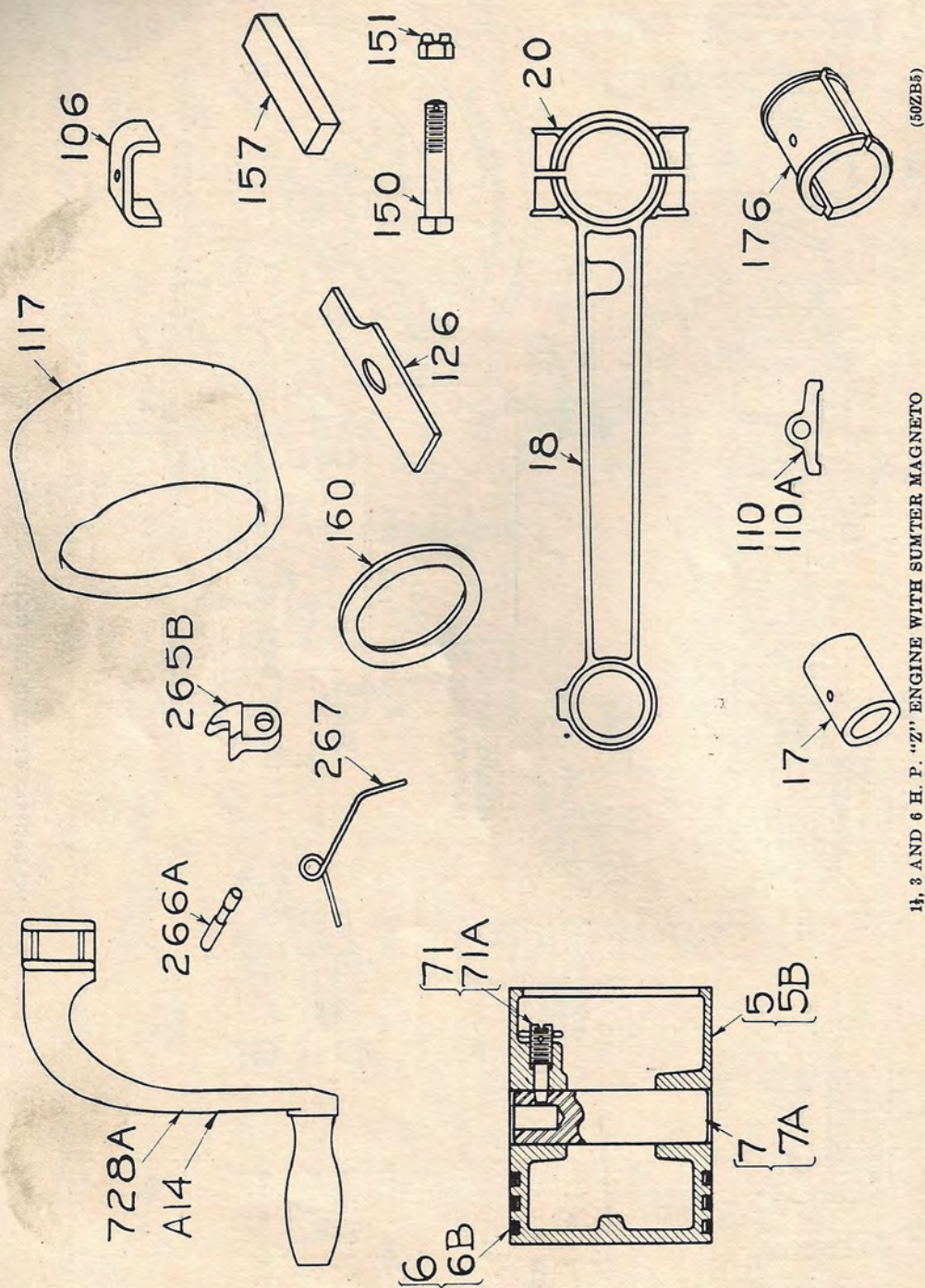


1½ H. P. "Z" ENGINE WITH SUMTER GEAR DRIVEN MAGNETO (80DJ)



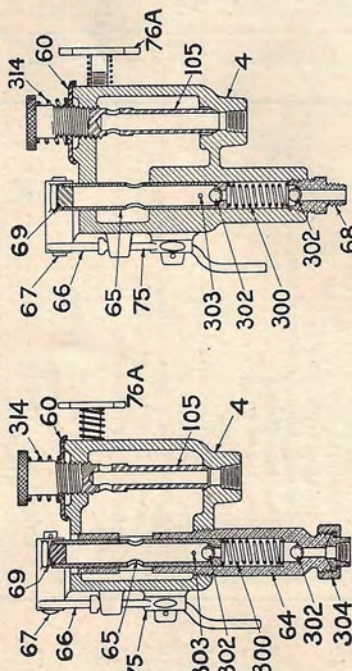
3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO

(502B6)



1½, 3 AND 6 H. P. "Z" ENGINE WITH SUMTER MAGNETO

1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.		Before Ordering Repair Parts Read the Instructions on Page 5		1½ H. P.		3 H. P.		6 H. P.	
Arranged Numerically	Group Parts	NAME OF PART		Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
4-C		Reservoir, 1915 Pattern.....				\$			\$
		Previous to 3 H. P. Engine #185864							
		Previous to 6 H. P. Engine #185978							
4-C		Reservoir, 1916 Pattern.....							
		Used on 3 H. P. Engines #185864 to 259198.							
		Used on 6 H. P. Engines #185978 to 259154.							
									
		1915 Pattern							
		1916 Pattern							
		These reservoirs are not furnished, but are replaced by 4A-C Reservoir, with the following piping:							
		Brass Close Nipple.....				.10			.10
		Brass Union.....				.40			.40
		Brass Bushing.....				.10			.10

1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.	Before Ordering Repair Parts Read the Instructions on Page 5		1½ H. P.		3 H. P.		6 H. P.	
Arranged Numerically	Group Parts	NAME OF PART	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
8-C 8	{ 8 108 76 448	8-C Suction Elbow.....	1	DJ8F	\$ 3.10			
		Suction Elbow, always with.....	1	DJ108	2.40			
		Suction Elbow Baffle Plate.....	1	9-C	.53			
		Suction Valve.....	1	DJ76A	.11			
		Suction Elbow Throttle Valve Spring.....	1	#448	.04			
9-C *9	{ 122A 310 656 121 88 120	Suction Elbow Cap Screw.....	2	3/8" x 1 5/8"	.02			
		9-C Suction Valve.....	1	DJ9	.53	1	ZB410	.97
		Suction Valve Spring Collar Lock.....	1		.45	1	ZBA122A	.65
		Suction Valve Spring.....				1	#749A	.08
		Suction Valve Spring.....	1	#648	.08			
		Suction Valve Spring Collar.....				1	ZB121	.08
		Suction Valve Spring Collar Pin.....				1	ZB88	.02
		Suction Valve Spring Cotter.....	1	1/8" x 5/8"				
		Suction Valve Spring.....				1	ZB120	.25
		Suction Valve Friction Spring.....						
10-C *10 *11	{ 10 122 11 309 317 476	10-C Exhaust Valve.....	1	DJ10	.79	1	ZC410	.91
		Exhaust Valve Spring Collar Lock.....	1		.50	1	ZBA122	.68
		Exhaust Valve Spring Collar.....				1	ZB11	.04
		Exhaust Valve Spring Collar Cotter.....	1	DJ11	.23			
		Exhaust Valve Spring Collar Pin.....	1	3/8" x 3/4"		1	1/4" x 1 1/8"	.02
		Exhaust Valve Spring.....				1	#759A	.15
		Exhaust Valve Spring.....	1	#476B	.06			
12	{	Main Bearing Cap.....	2	DJ12	.46	2	ZC12	1.14
		Main Bearing Cap Cap Screw.....	4	1/2" x 1 3/4"	.06	4	5/8" x 2 1/4"	.11
		Main Bearing Cap Lockwasher.....	4	3/4"	.02	4		.02

13	{ 13	Flywheel Opposite Governor with..... Flywheel Clamp Bolt with Nut..... Flywheel Gib Head Key.....	1 1 1	DJ13 ¾" x 4" TG869	6.60	1 1	ZB13B ⅝" x 5½"	11.20	1 1	ZC13 ¾" x 6¾"	21.70
13A	{ 13A	Flywheel Governor Side with..... Flywheel Clamp Bolt with nut..... Flywheel to Crankshaft Pinion Pin #252..... Flywheel Gib Head Key.....	1 1 1 1	DJ13A ¾" x 4" #513 TG869	6.60	1 1 1 1	ZB13C ⅝" x 5½"	11.20	1 1 1	ZC13A ¾" x 6¾"	21.70
A14		One Piece Starter Crank, for Engines with Crankshaft turned down, previous to #160361 Starter Crank.....	1	VB14B	1.25						
14C		Starter Crank After 1½ H. P. Engine #160361. For Repair, see Group 728A-C.....	1		1.14	1		1.52	1		1.90
15	{ 15 264 104	Fuel Tank..... Fuel Tank Flange..... Fuel Tank Flange Rivet..... Fuel Tank Filler Opening Neck..... Fuel Tank Filler Opening Cap..... Fuel Tank Straps..... Fuel Tank Strap Rivet.....	1 1 1 1 1 2 4	DJ15A 23ZK 5# F.H. 1" ZB44 DJ104 4#F.H.	1.71						
		Fuel Tank Strap Stove Bolt..... Fuel Tank Strap Lockwasher.....	4 4	1" x ½" 1" x 1"	.02 .02						
15	{ 15	Fuel Tank..... Fuel Tank Flange..... Fuel Tank Flange Flat Head Rivet..... Filler Opening Screw Neck..... (Group continued on next page)				1 1 2 1	ZB15C ZB47A 1½" x ⅝" 1"		1 1 2 1	ZC15B ZB47A 1½" x ⅝" 1"	

		1	DJ20	1.14	1	ZB20	1.41	1	ZC20	1.90
20	Connecting Rod Cap.....	1								
21	21 Fuel Overflow Pipe..... Effective on 3 H. P. Engine #185864. Effective on 6 H. P. Engine #185978.				1		.38	1		.42
21	Fuel Overflow Pipe..... Fuel Overflow Pipe Nipple..... Fuel Overflow Pipe Elbow.....				1 1 1	ZB21 1" x 2 1/8"	.38	1 1 1	ZC21 1" x 2 1/8"	.42
22	Main Bearing Liner, Upper (Furnished in pairs only).....									
23	Main Bearing Liner, Lower (Furnished in pairs only).....	1 Pr.	DJ22	.68	1 Pr.	ZB23	1.26	1 Pr.	ZC23	1.90
24	Fuel Suction Pipe..... Effective on 3 H. P. Engine #185864. Effective on 6 H. P. Engine #18578.	1 Pr.	DJ23	.68	1 Pr.	ZB23	1.26	1 Pr.	ZC23	1.90
24	Fuel Suction Pipe..... Fuel Suction Pipe Nipple..... Fuel Suction Pipe Elbow.....				1 1 1		.34	1 1 1		.38
24-C	24-C Fuel Suction Pipe.....									
24	Fuel Suction Pipe..... Fuel Suction Pipe Bushing..... Fuel Check Valve.....	1 1 1	DJ24B DJ47 19-C	1.06 .34 .10 .63						
25	Crankshaft with End Turned Down for Starter Crank Previous to Engine #160361. Crankshaft.....	1	DJ25	6.80						

1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

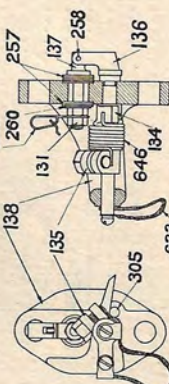
Repair Nos.		Before Ordering Repair Parts Read the Instructions on Page 5	1½ H. P.				3 H. P.				6 H. P.			
Arranged Numerically	Group Parts		Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
37			Detent Plate.....	1	DJ37	\$.06					\$			
			Detent Plate Hex. Head Cap Screw.....	1	1½" x ⅝"	.04								
38			Detent Plate Lockwasher.....	1	1½"	.02								
			Detent Fulcrum Pin.....	1	DJ38	.13								
39	39		Detent Fulcrum Pin Cotter.....	1	3½" x ¼"									
	40		Detent Fulcrum—with.....	1	DJ39A									
			Detent Fulcrum Blade.....	1	DJ40A	.49								
			Detent Fulcrum Rivet.....	2	1½" x ⅜"									
39-C			39-C Exhaust Valve Rocker Arm.....											
39	39		Exhaust Valve Rocker Arm.....											
	55		Exhaust Valve Rocker Arm Headless Set Screw.....											
			Exhaust Valve Rocker Arm Jamb Nut.....											
			Exhaust Valve Rocker Arm Lockwasher.....											
329			Exhaust Valve Rocker Arm Return Spring.....											
			Detent Blade (not furnished separately).....											
40			Exhaust Valve Rocker Arm Fulcrum Pin.....	1	DJ40A									
40			Exhaust Valve Rocker Arm Fulcrum Pin Nut.....											
41			Exhaust Valve Rocker Arm Bracket.....											
42			Exhaust Valve Rocker Arm Bracket Dowel Pin.....											
42-C			42-C Detent Carrier and Speed Regulator Handle.....											
	42		Detent Carrier and Speed Regulator Handle.....	1	DJ42C	1.62								
	43		Detent Carrier Fulcrum Pin.....	1	DJ43	.76								
			Detent Carrier Fulcrum Pin Washer.....	1	DJ63	.15								
	63		Detent Carrier Fulcrum Pin Cotter.....	1	3½" x ¼"									
	39		Detent Fulcrum.....	1	DJ39A									
	40		Detent Blade.....	1	DJ40A	.49								
			Detent Blade Rivet.....	2	1½" x ⅜"									
			Detent Fulcrum Pin.....	1	DJ38	.13								
	38		Detent Fulcrum Pin Cotter.....	1	3½" x ¼"									
			Detent Fulcrum Spring.....	1	#831	.08								

1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.	Arranged Numerically	Group Parts	Before Ordering Repair Parts Read the Instructions on Page 5	1½ H. P.			3 H. P.			6 H. P.		
				Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
*54A 55			NAME OF PART	1	DJ54A	\$.08			\$	1	½" x 1½"	.04
57 57A			Igniter Trip Rod Blade..... Exhaust Valve Rocker Headless Screw..... Exhaust Valve Rocker Headless Screw Jamb Nut..... Igniter Trip Blade Adjusting Screw..... Igniter Trip Rod Spring.....				1	½" x 1½"	.04	1	½" x 1½"	.04
							1	½"	.04	1	½"	.04
							1	ZC57	.04	1	ZC57	.04
				1	DJ57A	.10						
58-C 58			58-C Exhaust Rod Rocker Fulcrum Pin Exhaust Rod Rocker Fulcrum Pin..... Exhaust Rod Rocker Fulcrum Pin Nut..... Exhaust Rod Rocker Fulcrum Pin Washer..... Exhaust Rod Rocker Fulcrum Pin Washer..... Exhaust Rod Rocker Fulcrum Pin Cotter.....	1	DJ58	.29	1		.34	1		.38
				1		.23	1	ZB58	.29	1	ZC58	.32
				1	1½"	.02	1	½"	.02	1	½"	.02
				1	15UK	.04						
60 62			Reservoir Cover..... Sub-base..... Previous to 3 H. P. engine #185864. Previous to 6 H. P. engine #185978.				1	ZB63	.04	1	ZB63	.04
				1	3½" x 1"		1	3½" x 1"		1	3½" x 1"	
							1	ZB60B	.06	1	ZB60B	.06
							1	ZB62B	7.70	1	ZC62B	12.60
62A			Sub-base..... Effective on 3 H. P. engine #185864. Effective on 6 H. P. engine #185978. Exhaust Rod Rocker Fulcrum Pin Washer..... Fuel Pump Body—not furnished for repairs. Reservoir 4A-C will be sent.				1	ZB62C	7.70	1	ZC62C	12.60
							1	ZB63	.04	1	ZB63	.04
65-C 65			65-C Fuel Pump Plunger..... Fuel Pump Plunger..... Fuel Pump Plunger Ball..... Fuel Pump Plunger Cap.....				1		.80	1		.80
							1	ZB65C	.68	1	ZB65C	.68
							1	1½"	.04	1	1½"	.04
							1	ZB69A	.08	1	ZB69A	.08

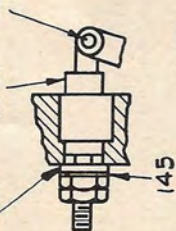
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1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.		Before Ordering Repair Parts Read the Instructions on Page 5		1½ H. P.			3 H. P.			6 H. P.			
Arranged Numerically	Group Parts	NAME OF PART		Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	
*136	{ 136 258 136A 258 135A }	(Continued from preceding page)											
		Igniter Movable Electrode—with.....	1	DJ136A	\$.63	1	ZB136	\$.76	1	ZB136	\$.76		
		Igniter Movable Electrode Point.....	1	DJ136B	1.18	1	.....	.....	1	.....	.....		
		Igniter Movable Electrode—with.....	1	DJ135B	.....	.....	.....	.....	.....	.....	.....		
		Igniter Movable Electrode Collar.....	1	DJ137A	.63	1	ZB137	.61	1	ZB137	.61		
137	{ 137 258 137A }	Igniter Movable Electrode Collar Taper Pin.....	1	DJ137B	1.68	1	.....	.....	.....	.....	.....	.....	
		Igniter Fixed Electrode—with.....	1										
		Igniter Fixed Electrode Point.....	1										
137A	{ 137A 137B }	Igniter Fixed Electrode—with.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	
		Igniter Fixed Electrode Point.....	2	DJ137C	.30								
137B	{ 137B 138-C }	Igniter Fixed Electrode Nuts.....	1	.....	4.26	.....	.....	.....	.....	.....	.....	.....	
138-C		Igniter Fixed Electrode with Point and Nuts.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	
		138-C Igniter Complete..... Previous to 1½ H. P. Engine #286859. 259											
													
138	{ 138 305 136 134 646 623 }	Igniter Body with.....	1	DJ138C	1.71	.....	.....	.....	.....	.....	.....	.....	
		Movable Electrode Pawl Stop Pin.....	1	DJ128									
		Movable Electrode.....	1	DJ136A	.63								
		Movable Electrode Pawl.....	1	DJ134A	.61								
		Movable Electrode Pawl Spring.....	1	#646B	.06								
		Movable Electrode to Body Connector.....	1	VA175B	.04								
		M. Screw.....	1	#10-24 x 1/4"	.02								

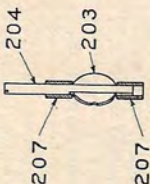
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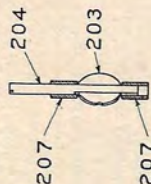
1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.	Group Parts	Before Ordering Repair Parts Read the Instructions on Page 5	1½ H. P.			3 H. P.			6 H. P.		
			Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
		NAME OF PART									
	134A	Movable Electrode Pawl.....	1	DJ134B	\$.61			\$			\$
	833	Movable Electrode Pawl Spring.....	1	#833C	.08						
	845	Movable Electrode Spring.....	1	#845	.04						
		257A 137A 258									
											
		(50DJ2)									
	137A	Fixed Electrode with point and nuts.....	1	DJ137B	1.68						
	257A	Fixed Electrode Fibre Washer.....	1	DJ129	.02						
	145	Fixed Electrode Steel Washer.....	1	DJ145	.02						
		Note:—When 138A-C Igniter is ordered, 138B-C will be furnished.									
*138B-C		138B-C Igniter.....	1	DJ138D	4.22						
138A	138A	Igniter Body with.....	1	#414	1.71						
	305	Movable Electrode Pawl Stop Pin.....	1	DJ136B							
	138A	Movable Electrode with.....	1	DJ258A							
	258	Movable Electrode Point.....	1	DJ135B	1.18						
	135A	Movable Electrode Collar.....	1	#2 x 1½							
		Movable Electrode Collar Taper Pin.....	1	DJ134B	.61						
	134A	Movable Electrode Pawl.....	1	#833C	.08						
	833	Movable Electrode Pawl Spring.....	1	#845	.04						
	845	Movable Electrode Spring.....	1	DJ137C	.30						
	137B	Fixed Electrode with point and nuts.....	1								

Repair Price List—1½ H. P., 3 H. P., 6 H. P. "Z" Engines 27
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1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

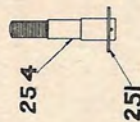
Repair Nos.		Before Ordering Repair Parts Read the Instructions on Page 5	1½ H. P.			3 H. P.			6 H. P.		
Arranged Numerically	Group Parts		Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
(Continued from preceding page)											
156		Governor Spring Adjusting Nut.....	2	#866	\$.06	1	ZB156A	\$.08	1	ZB156A	\$.08
157		Flywheel Key.....	1	DJ160	.04	2	ZB157	.08	2	ZC157	.10
160		End Thrust Washer.....	1			1	ZB160	.04	1	ZC160	.04
174		Suction Elbow Priming Cup—Used Previous to about Engine #166000.....	1	VA174	.32	1 Pr.	ZB176	1.03	1 Pr.	ZC176	1.90
*176		Crank Pin Liner (Halves).....	1 Pr.	DJ176	.68	1	ZBA190A	.48	1	ZCA190A	.53
*190B		Cylinder Head Gasket.....									
192		Reservoir to Head Gasket.....	1	DJ195	.19	1	ZB192	.02	1	ZC192	.02
195		Name Plate.....	2	#10-24 x ½"	.02	2	ZB195	.19	1	ZC195	.19
		Name Plate R. H. M. Screw.....	2	#10-24 x ½"	.02	2	#10-24 x ½"	.02	2	#10-24 x ½"	.02
		Name Plate Rubber Washer.....	2	2NPW	.02	2	2NPW	.02	2	2NPW	.02
		Butterfly Valve and Shaft with Valve Soldered to Shaft. Previous to 3 H. P. Engine #288351. Previous to 6 H. P. Engine #287103.....					#288351			#287103	
											
201		Butterfly Valve Shaft Washer.....				1	ZB201A	.04	1	ZB201A	.04
203		Butterfly Valve.....				1	ZB203	.17	1	ZC203	.17
204		Butterfly Valve Shaft—furnish 203A-C For repairs on 204 Shaft, 203A-C Butterfly Valve complete will be furnished.									



206	Butterfly Valve Shaft Lever.....	1	ZB206A #10-24 x 1 ¹ / ₂ "	.44	1	ZB206A #10-24 x 1 ¹ / ₂ "	.44
207	Butterfly Valve Shaft Lever R. H. M. Screw.....	1	ZB207	.02	1	ZB207	.02
	Butterfly Valve Shaft Bushings.....	2		.11	2		.11
203A-C	203A-C Butterfly Valve.....	1		1.14	1		1.14
	Effective on 3 H. P. Engine #288351.						
	Effective on 6 H. P. Engine #287103.						
203A	Butterfly Valve.....	1			1		
	Butterfly Valve Screw.....	1			1		
204A	Butterfly Valve Lockwasher.....	1			1		
206A	Butterfly Valve Shaft.....	2			2		
201	Butterfly Valve Shaft Arm.....	2			2		
	Butterfly Valve Shaft Arm.....	1			1		
	Butterfly Valve Shaft Arm Screw.....	1			1		
	Butterfly Valve Shaft Washer.....	1			1		
	Butterfly Valve Shaft Rivet.....	1			1		
205	Governor Pull Rod with.....	1			1		
206	Governor Pull Rod Cotter.....	2			2		
206A	Butterfly Valve Shaft Lever.....	1			1		
207	Butterfly Valve Shaft Lever R. H. M. Screw.....	1			1		
	Butterfly Valve Shaft Bushing.....	2			2		
209-C	209-C Speed Regulator.....	1			1		
209	Speed Regulator Lever—with.....	1			1		
	Speed Regulator Leaf Spring.....	1			1		
	Speed Regulator Leaf Spring Rivet.....	1			1		
	Speed Regulator Screw.....	1			1		
212	Speed Regulator Fulcrum Pin.....	1			1		
217-C	217-C Water Throttle Fitting.....	1			1		
217	Water Throttle Fitting.....	1			1		
218	Water Throttle Tube.....	1			1		
219A	Water Throttle.....	1			1		
311	Water Throttle Spring.....	1			1		

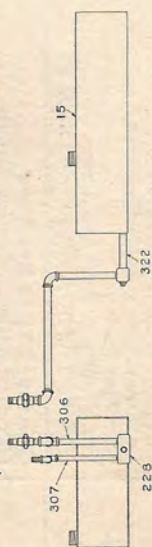
1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.	Before Ordering Repair Parts Read the Instructions on Page 5	1½ H. P.			3 H. P.			6 H. P.		
	Group Parts	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
223	NAME OF PART	.....	.....	\$.....	1	ZC223	\$.10	1	ZC223	.10
224		.....	.....	.....	1	ZB224	.15	1	ZB224	.15
225		.....	.....	.....	1	ZB225	.29	1	ZC225	.29
	Fuel Reservoir Nozzle and Bushing.....	.....	.....	.....	1	#14/20 x 1½"	.02	1	#14/20 x 1½"	.02
228	Speed Regulator Screw.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
228	Gear Guard with Bracket.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Gear Guard R. H. M. Screw.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Fuel Suction and Overflow Fitting.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
250	Previous to Engine.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
251	Fuel Suction and Overflow Fitting.....	.....	.....	.....	1	#185864	.32	1	#185978	.32
	Fuel Suction and Overflow Fitting Plug.....	.....	.....	.....	1	ZB228	.....	1	.....	.....
252	Cylinder to Igniter Stud.....	2	7/8" x 1½"	.06	.....	.....	.....	.....	.....	.....
253	Cylinder to Igniter Stud Nut.....	2	7/8"	.04	.....	.....	.....	.....	.....	.....
	Governor Weight Pin Washer.....	1	15UK	.04	.....	.....	.....	.....	.....	.....
	Crankshaft Pinion Pin.....	1	#513	.04	.....	.....	.....	.....	.....	.....
	Flywheel Key.....	2	#866	.06	.....	.....	.....	.....	.....	.....
	Governor Fulcrum Pin previous to 1½ H. P. Z Engine #261679.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Governor Fulcrum Pin is replaced by #33A with Spring #817A for repairs.....

1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.		Before Ordering Repair Parts Read the Instructions on Page 5				1½ H. P.		3 H. P.		6 H. P.	
Arranged Numerically	Group Parts	NAME OF PART				Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each
273-C Magneto.											
273	273	Sumter Special Magneto.....	1	#15 Imp. 3/8" x 1 1/8"	\$.06	1	#25 Satan. 3/8" x 1 1/8"	\$.06	1	#25 Satan. 3/8" x 1 1/8"	\$.06
		Sumter Special Magneto Fil. Head Screw....	2	3/8" x 1 1/8"	.02	2	3/8" x 1 1/8"	.02	2	3/8" x 1 1/8"	.02
		Sumter Special Magneto Lockwasher.....	2	DJ142	.99	2	ZB142	1.06	2	ZC142A	1.14
142		Sumter Special Magneto Gear.....	1			1			1		
Fuel Pump Plunger Spring.											
300		Igniter Clamp Stud.....	1			1	#783 1/2" x 2 1/4"	.04	1	#783 1/2" x 2 1/4"	.04
301		Igniter Clamp Stud Nut.....	1			1	3/8" x 2 1/4"	.06	1	3/8" x 2 1/4"	.06
302		Fuel Pump Balls.....	2			2	1/4" x 1 1/4"	.04	2	1/4" x 1 1/4"	.04
303		Fuel Pump Ball Pin.....	1			1	#5	.02	1	#5	.02
305		Igniter Pawl Stop Pin.....	1	DJ128	.04	1	#405	.04	1	#405	.04
Previous to 3 H. P. Engine #185864. Previous to 6 H. P. Engine #185978.											
											
Suction Pipe Union (Female Half)											
		Overflow Pipe, Horizontal.....	1	1" x 9 1/2"	.17	1	1" x 12 3/4"	.17	1	1" x 12 3/4"	.17
		Overflow Pipe, Vertical.....	1	1" x 4 1/2"	.15	1	1" x 7 3/4"	.17	1	1" x 7 3/4"	.17
		Overflow Nipple.....	1	1" x 1 1/8"	.10	1	1" x 1 1/8"	.11	1	1" x 1 1/8"	.11
		Overflow Nipple.....	1	1" x 1 1/8"	.04	1	1" x 1 1/8"	.04	1	1" x 1 1/8"	.04
		Overflow Union.....	1	1" x 1 1/8"	.04	1	1" x 1 1/8"	.04	1	1" x 1 1/8"	.04
		Overflow Elbow.....	1	1" x 1 1/8"	.17	1	1" x 1 1/8"	.17	1	1" x 1 1/8"	.17
		Overflow Elbow.....	2	1" x 1 1/8"	.04	2	1" x 1 1/8"	.04	2	1" x 1 1/8"	.04
306											

307	Suction Pipe, Horizontal.....	1	1" x 9½"	15	1	1" x 13"	17
	Suction Pipe, Vertical.....	1	1" x 4½"	10	1	1" x 7½"	11
	Suction Pipe Nipple.....	1	1" x 1½"	04	1	1" x 1½"	04
	Suction Elbow.....	2	1" x 1½"	04	2	1" x 1½"	04
308	Governor Weight Spring.....	1	#763	08	1	#763	08
*310	Suction Valve Spring.....	1	#750A	06	1	#749A	06
311	Fuel Throttle Valve Spring.....	3	#784	10	3	#784	10
312	Cylinder Head Stud (short).....	1	1" x 4½"	10	1	1" x 5½"	15
313	Cylinder Head Stud (long).....	1	1" x 4½"	10	1	1" x 5½"	15
314	Reservoir Cover Spring.....	1	#742	04	1	#742	04
316	Crankshaft Pinion Pin.....	1	#614	04	1	#619	04
*317	Exhaust Valve Spring.....	1	#717A	11	1	#759A	15
318	Fuel Pump Drive Screw S. A. E. Fil. Head.....	1	1" x ½"	06	1	1" x ½"	06
	Fuel Pump Drive Screw Lockwasher.....	1	See #252	04	1	1" x ½"	06
	Exhaust Rod Spring.....	1	#699	06	1	#699	06
319	Governor Drag Spring Adjusting Screw.....	1	1" x 3½"	20	1	1" x 3½"	20
321	Overflow Fitting to Tank Pipe.....	1	1" x 3½"	08	1	1" x 3½"	08
322	Movable Electrode Pawl Spring.....	1	#743B	04	1	#743B	04
323	Igniter Trip Lever Spring.....	1	#688	06	1	#688	06
324	Butterfly Torsion Spring.....	1	#744B	04	1	#744B	04
326A	Cylinder Drain Plug.....	1	1"	04	1	1"	04
327	Base Drain Plug.....	1	1"	04	1	1"	04
328	Exhaust Valve Rocker Return Spring.....	1	#448	04	1	#762A	06
329	Throttle Valve Spring.....	1	#476B	06	1	#762A	06
*476	Exhaust Valve Spring.....	2	#0	15	2	#1	19
505	Main Bearing Grease Cup.....	1	#521	23	1	#000 x ⅜"	08
506	Cam Gear Grease Cup.....	1	48A32B	04	1	#1	27
509A	Connecting Rod Ratchet Grease Cup.....	1	VA175B	1.43	1	48A53B	1.62
521	Detent Stop Pin.....	1	#10-24 x ⅜"	02	1	VA175B	0.04
527	Cylinder Oil.....	1	1" x 3"	02	1	#10-24 x ⅜"	02
623	Movable Electrode to Igniter Connector.....	1	1" x 3"	02	1	1" x 3"	02
	Movable Electrode to Igniter Connector Screw.....	1	1" x 3"	02	1	1" x 3"	02
	Movable Electrode to Igniter Connector Lockwasher.....	1	1" x 3"	02	1	1" x 3"	02
634	Governor Spring previous to Engine #176709.....	1	#634	04	1	1" x 3"	02
646	Movable Electrode Pawl Spring previous to #286859.....	1	#646B	06	1	1" x 3"	02
*647	Detent Spring.....	1	#831	08	1	1" x 3"	02
*656	Suction Valve Spring.....	1	#648	08	1	1" x 3"	02

1½, 3 AND 6 H. P. "Z" ENGINES WITH SUMTER GEAR DRIVEN MAGNETO.

Repair Nos.	Before Ordering Repair Parts Read the Instructions on Page 5	1½ H. P.				3 H. P.				6 H. P.			
		Group Parts	NAME OF PART	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Used	Symbol or Size	Price, Each	Price, Each
728A-C	728A	{ 728A 265B 266A 267	728A-C Starter Crank.....	1		\$ 1.14	1		\$ 1.52	1		\$ 1.90	1.90
			Starter Crank.....	1	ZA728B	1.14	1	ZB14	1.52	1	ZC14	1.90	
			Starter Crank Pawl.....	1	ZA265A	1.14	1	ZA265A	1.52	1	ZA265A	1.90	
			Starter Crank Pawl Pin.....	1	ZA266	1.14	1	ZA266	1.52	1	ZA266	1.90	
748-C			Starter Crank Pawl Spring.....	1	ZA267A	1.14	1	ZA267A	1.52	1	ZA267A	1.90	.77 .06 .04 .04 .08 .06 .04 .11 .06 .08 .04 .06 .15 .06 .08 .04 .06 .06
			748-C Complete Set of Springs.....	1	.....	.52	1	.....	.73	1	.....	.77	
			Starter Crank Pawl Spring.....	1	ZA267A	.06	1	ZA267A	.06	1	ZA267A	.06	
			Fuel Pump Plunger Spring.....	1	.....	.....	1	#783	.04	1	#783	.04	
			Governor Weight Spring.....	1	.....	.....	1	#763	.04	1	#763	.04	
			Suction Valve Spring.....	1	.....	.....	1	#750A	.08	1	#749A	.08	
			Fuel Throttle Valve Spring.....	1	.....	.....	1	#784	.06	1	#784	.06	
			Fuel Reservoir Cover Spring.....	1	.....	.....	1	#742	.04	1	#742	.04	
			Exhaust Valve Spring.....	1	.....	.....	1	#717A	.11	1	#759A	.15	
			Exhaust Rod Spring.....	1	.....	.....	1	#699	.06	1	#699	.06	
			Movable Electrode Pawl Spring.....	1	.....	.....	1	#743B	.08	1	#743B	.08	
			Igniter Trip Lever Spring.....	1	.....	.....	1	#688	.04	1	#688	.04	
			Butterfly Valve Torsion Spring.....	1	.....	.....	1	#744B	.06	1	#744B	.06	
			Exhaust Valve Rocker Arm Return Spring.....	1	.....	.....	1	#761A	.06	1	#762A	.06	
			Throttle Valve Spring.....	1	.....	.....	1	.....	.....	1	.....	.....	
			Exhaust Valve Spring.....	1	#448	.04	1	#448	.04	1	.....	.....	
			Detent Spring.....	1	#476B	.06	1	#476B	.06	1	.....	.....	
			Suction Valve Spring.....	1	#831	.08	1	#831	.08	1	.....	.....	
			Governor Weight Spring.....	1	#648	.08	1	#648	.08	1	.....	.....	
			Movable Electrode Pawl Spring.....	1	#752	.04	1	#752	.04	1	.....	.....	
			Movable Electrode Seat Spring.....	1	#833	.08	1	#833	.08	1	.....	.....	
			Governor Weight Fulcrum Pin Spring.....	1	#845	.04	1	#845	.04	1	.....	.....	
749-C			749-C Complete Set of Gaskets.....	1		.18	1		.50	1		.55	.08
			Complete Set of Gaskets.....	1	.....	.10	1	.....	.10	1	.....	.10	
			Suction Elbow Gasket.....	1	DJ103	.08	1	DJ103	.08	1		.08	
			Igniter Gasket.....	1	DJ141A	.08	1	DJ141A	.08	1		.08	

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