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Tractor Test and Power Museum, The Lester F. Larsen

January 1928

Repair Parts Price List for Lauson Tractor 20-35 Test 148

Tractor Museum

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Exhibit C

Repair Parts Price List

FOR THE

LAUSON

20-35

16-32

TRACTOR

Effective April 1, 1927

THE JOHN LAUSON MFG. CO.
NEW HOLSTEIN, WIS., U. S. A.

INSTRUCTIONS FOR ORDERING REPAIRS

All prices subject to change without notice.

THIS LIST SUPERSEDES ALL PREVIOUS LISTS

Always give both TRACTOR and MOTOR NUMBER. The tractor number is found on the name plate on the dash. The motor number is located on the right side of the motor.

State whether to ship via FREIGHT, EXPRESS or PARCEL POST. Unless you do, we will use our own judgment and expect you to abide by it.

Write orders on separate sheet from other business. Be sure and give both NUMBER AND NAME of parts.

Write name and address plainly, where to ship, name of station, county and state.

In telegraphing use CODE WORD. PREPAY ALL TELEGRAMS.

If remittance does not accompany order shipment will be made C. O. D.

INSPECT ALL SHIPMENTS ON RECEIPT. If damaged file CLAIM with TRANSPORTATION COMPANY before ACCEPTING shipment.

Never order by PAIRS or SETS. Give quantity of parts wanted. Example: One set of piston rings might mean THREE RINGS or TWELVE RINGS.

When CLAIM is made for defective parts under our Warranty it is necessary that the parts be returned to factory, TRANSPORTATION CHARGES PREPAID. TAG and MARK PLAINLY such parts so we will know WHO sent them and write us.

If in doubt as to parts needed, send in old parts PLAINLY MARKED TRANSPORTATION CHARGES PREPAID. Also write the factory of shipment stating WHEN and HOW made, CONTENTS and WHY returned.

THE JOHN LAUSON MFG. CO.
NEW HOLSTEIN, WIS., U. S. A.

Cylinder Assembly

See Instruction Book for Illustrations of Motor 4 Bores Enbloc

Part No.	Code Word	No. Req.	Name of Part	Price
1105	Aagock.....	1	Water inlet gasket.....	\$.10
1374A	Aagadge.....	2	Water inlet stud.....	.10
2155	Aagodo.....	1	1/4" pet cock.....	.55
5350	Bjabo.....	1	Cylinder "stripped" 4 1/4" bore.....	144.00
8-913	Tjaculate....	4	Crabs for valve tappet guides.....	.45
	Tjade.....		Complete cylinder assembly with pistons, rings, bushing and piston pins.....	190.50
2323A	Bjaboto.....	2	Cylinder hand hole cover.....	2.25
2326	Tjab.....	2	Cylinder hand hole cover studs.....	.10
2330A	Tjabot.....	2	Cylinder hand hole cover gasket.....	.20
2377	Aagotom....	4	Studs for Crabs.....	.05
3003	Tjacana.....	2	3/8" 16 U.S.S. hex. nuts.....	.05
3580	Tjacinth.....	8	1/4" 20x1/4" headless set screw.....	.05
3023	Tjacob.....	6	3/8" SAE hex. nuts.....	.05
3634	Tjack.....	6	3/8" lockwashers A. L.....	.05
4071	Tjaconet....	1	1/4" pipe plug.....	.15

Cylinder Head Assembly

6-17	Ashoma.....	4	Priming cups.....	.55
1097	Tjadish.....	2	Water outlet gasket.....	.10
1374	Tjadestone...	3	End cover and conduit stud.....	.10
1374A	Tjael.....	4	Water outlet stud.....	.10
1374B	Aagiskd.....	10	Intake and exhaust manifold stud.....	.10
1807A	Aagisl.....	8	Valve spring.....	.70
1808	Aagisla.....	8	Valve spring seat.....	.10
1809	Aagisle.....	8	Valve spring seat keys.....	.10
2095A	Tjaina.....	1	Cylinder head "stripped".....	83.25
2161	Aagisma.....	8	Valve spring washer.....	.10
2163	Tjaguar.....	11	Cylinder head stud "long".....	.20
2164	Tjalap.....	6	Cylinder head stud "short".....	.20
2165	Tjalapin.....	2	Cylinder head stud "intermediate".....	.20
2181	Aagism.....	8	Valve stem guide.....	1.15
2182	Aagiso.....	4	Rocker arm shaft bracket.....	1.35
2183	Aagisoa.....	4	Rocker arm shaft cap stud "short".....	.15
2184	Rocker.....	4	Rocker arm shaft cap stud "long".....	.15
2188	Tjambrose...	1	Conduit.....	1.65
2243A	Tjames.....	1	End cover plate.....	.80
2303B	Tjanus.....	2	Cylinder head cover.....	6.65
	Tjapan.....		Cylinder head assembly with valves springs, and caps.....	116.25
2304	Tjanitor.....	1	Cylinder head gasket.....	2.25
2322B	Aagisoe.....	8	Valves Silcrone.....	2.75
3003	Aabloop.....	12	3/8" 16 hex. nuts.....	.05
3023	Aabloor.....	5	3/8" 24 SAE hex. nuts.....	.05
3025	Tjangle.....	19	1/2" 20 SAE hex. nuts.....	.05
3634	Aabloos.....	5	3/8" lockwashers A. L.....	.05
3654	Tjansen.....	1	3/8" lockwashers A. H.....	.05

Crank Case Top Assembly

1715	Aablotch....	12	Main bearing studs.....	.15
1837	Aablon.....	1	Magneto and pump drive bushing.....	2.25
2008	Aablona.....	2	Water pump bracket studs long.....	.20
2009	Aablonta....	1	Water pump bracket stud short.....	.15
2087	Aablue.....	1	Front camshaft bearing retainer.....	3.50
2088	Aabluet.....	1	Front camshaft bushing.....	2.70
2096A	Asbluff.....	1	Rear camshaft bearing cover plate.....	.70

Always Give Model and Tractor Number When Ordering Repairs.

Part No.	Code Word	No. Req.	Name of Part	Price
2135A	Tjape.....	1	Special pipe plug for oil line.....	.10
2186A	Aablunt.....	2	Hand hole cover.....	1.65
2189	Aablur.....	2	Hand hole cover gasket.....	.10
2240	Aablurt.....	1	Water pump bracket.....	2.50
2300E	Aablush.....	1	Crank case top with bushing studs and caps.....	195.00
2307	Aaboa.....	2	Front and center main bearing cap.....	2.00
2308	Aaboor.....	1	Rear main bearing cap.....	2.25
2309	Aaboot.....	2	Front and center main bearing upper half.....	3.95
2309A	Aabab.....	2	Front and center main bearing lower half.....	3.95
2310	Aabode.....	1	Rear main bearing upper half.....	5.00
2310A	Aabodice.....	1	Rear main bearing lower half.....	5.00
2317	Ambody.....	12	Cylinder hold down studs.....	.15
2331	Tjarl.....	1	Crankcase gasket cylinder face.....	.60
2367	Aabog.....	1	Center camshaft bearings 2 1/2" bore.....	2.65
2368	Aaboggy.....	1	Rear camshaft bearing.....	2.25
3003	Aaboggus.....	3	Hex. nut for bracket stud.....	.05
3025	Aaboil.....	12	Nuts for cylinder hold down studs.....	.05
3047	Aabolar.....	2	Hex. cast. nuts for main bearing studs.....	.10
3061	Aabold.....	8	Hex. head cap screws for hand hole cover.....	.05
3662	Aabale.....	8	Lockwashers for hand hole covers.....	.05
3656	Aaband.....	12	Lockwashers for cylinder hold down studs.....	.05
4101	Tasan.....		1/8" grease cup.....	.35
5073	Aabone.....	8	Bell housing bolts.....	.45
5104	Tjasey.....	1	Cam shaft bearing cover plate gasket.....	.15
5229	Aabonng.....	2	Rear main bearing laminated shim.....	.95
5230	Aabonnus.....	4	Front and center main brg. shim laminated.....	.90
5344	Aabooby.....	12	Bearing retainer screws.....	.05
5510	Tjamine.....	1	Motor bell housing.....	62.00
6-051	Aabook.....	1	Water pump bracket cap.....	1.35
6-07	Tjaunt.....	1	Timing inspection hole cover.....	.15
6-765	Tjava.....	1	1/8" pet cock.....	.55

Crank Case Bottom Assembly

2046B	Tjavelin.....	1	Lower cover splash plate steel plate.....	2.25
2111	Aaborder.....	1	Crank case bottom cover steel.....	5.60
2160A	Aabore.....	1	Oil screen plate.....	1.15
2190A	Aaborn.....	1	Oil screen.....	1.65
2305A	Aaborne.....	1	Crank case bottom.....	56.00
2320	Aabosh.....	1	Crank case bottom gasket R. H.....	.25
2321	Aabossy.....	1	Crank case bottom gasket L. H.....	.25
3022	Aabotch.....	4	Plain hex. nuts for plate studs.....	.05
3023	Aabath.....	19	Plain hex. nuts.....	.05
3060	Aabather.....	8	Hex. head cap screws for oil tray.....	.05
3083	Tjaw.....		Hex. head cap screw 3/8" X.....	.05
3222	Tjay.....		3/8" 24 SAE hex. nuts.....	.05
3224	Tjalous.....		3/8" 24x1 1/4" SAE hex. head cap screws.....	.10
3344	Aabout.....	19	Hex. head cap screws.....	.10
3633	Aabou.....	4	Lockwashers for plate studs.....	.05
5018	Tjean.....		Oil screen plate and crankcase bottom stud.....	.10
5548	Aabower.....		Oil screen plate studs.....	.05
5049	Aabowl.....	1	Crank case bottom gasket.....	.55
5050	Aabox.....	1	Oil screen plate gasket.....	.10
5082	Aaboy.....	1	Oil screen plate disc.....	.15
	Aabrad.....	1	Square head pipe plug.....	.05
6-765	Ambrac.....	2	Pet cock.....	.55

Crank Shaft Assembly

1768	Aabrag.....	6	Flywheel bolts.....	.35
2079	Aabraid.....	1	Crankshaft.....	100.00
2159	Starey.....	1	Starting pin.....	.25

Always Give Model and Tractor Number When Ordering Repairs

S280
S633
S634
T601
T607
T617
T617
S627
S663
S666

JR9
JR1
T62
T62
S65
T65
T65

182
183

Part No.	Code Word	No. Req.	Name of Part	Price
2361	Aabrake	1	Crankshaft gear	7.15
3045	Aabran	6	1/2" 20 SAE Castle nuts	.10
3863	Aabrass	2	Cotter pins 2 for	.05
4033	Aabrant	1	No. A woodruff key	.05
5512	Tjeer	1	Flywheel	46.50

Piston and Connecting Rod Assembly

2139	Aabravo	4	Connecting rod clamp bolts	.25
2172A	Tjennett		Piston pin bushings	.55
2380A	Aabray	4	Connecting rod stripped	11.25
2381	Aabread	8	Connecting rod bearing upper half	2.25
2381	Aabreak	8	Connecting rod bearing lower half	2.25
2387A	Tjerboa	8	Piston rings 4 1/4" plain	.45
3045	Habreve	16	Hex. nuts for con. rod bolts	.10
3863	Aabreu	16	Cotter pins for con. rod bolts, 3 for	.05
5231	Aabribes	8	Connecting rod bearing laminated shims	.80
5344	Aabrief	16	Bearing retainer screws	.05
5355	Tjess	4	Piston 4 1/4" with bushing	7.25
5359	Tjerk	4	Piston pins for 4 1/4" pistons	2.25
5514	Tjergon		Special oil control piston ring 4 1/4"	1.15
8152	Aabrier		Connecting rod bolts	.40
	Tjessey	4	Complete piston with rings and 2 bushings	9.25
	Aabig	4	Connecting rod complete	20.00

Cam Shaft Group

1076	Aabring	1	Slotted hex. nut special	.35
1777	Aabrink	1	Oil pump drive gear	2.70
2365B	Aabriad	1	Cam shaft	36.00
2366	Aabrisk	1	Cam shaft gear	11.75
3793	Aabroad	1	Taper pin	.05
3884	Aabrail	1	Cotter pin for gear cover	.05
4029	Aabrake	1	Woodruff key	.05
4031	Aabroad	1	Woodruff key for cam gear	.05

Water Pump and Magneto Drive Assembly

B74-1	Aabroda	2	Metallic packing	.85
1745	Aabroak	1	Water pump body with bushing	10.25
1746	Aabroom	1	Water pump cover with bushing	8.00
1747A	Aabrath	1	Water pump impeller	4.00
1748C	Aabrow	1	Water pump shaft	1.35
1749	Aabrown	1	Water pump gland nut front	.65
1750	Aabruin	1	Water pump gland nut rear	.65
1751	Aabruit	1	Water pump front bearing	1.35
1752	Aabrut	1	Water pump rear bearing	1.35
1753	Aabrush	1	Water pump spacing collar	.60
1754	Aabrute	1	Water pump gasket	.10
3001	Aabruck	2	Hex. nuts	.05
3060	Aahuffe	8	Hex. head cap screws for pump	.05
3632	Aahuff	2	Lockwashers	.05
3693	Aabug	1	Taper pin	.05
3714	Ashulb	1	Taper pin	.05
3716	Aahulcd	1	Taper pin	.05
4029	Aahulse	2	Woodruff keys	.05
4101	Aahulk	1	Grease cup No. 000	.35
5104	Aahull	2	Water pump gland packing	.15
5126	Aahully	8	Copper washers	.05
6-765	Aabunk	1	Pet cock	.55

Always Give Model and Tractor Number When Ordering Repairs

Part No.	Code Word	No. Req.	Name of Part	Price
5160	Aabun.....	1	Water pump drive shaft nut.....	.40
	Aabung.....		Water pump complete with coupling.....	33.35

Rocker Arm Assembly

1846	Aagisme.....	8	Valve tappet adjusting screw nut.....	.10
2335A	Aago.....	4	Rocker arm shaft cap.....	1.35
2336	Aablosh.....	4	Rocker arm L. H.....	1.65
2337	Aablong.....	4	Rocker arm R. H.....	1.65
2338	Aablooh.....	8	Rocker arm bushing.....	.55
2350	Aabloom.....	8	Rocker arm shaft washers.....	.05
2351	Aabloon.....	2	Rocker arm shaft.....	2.65
2364A	Aabloone.....	8	Valve adjusting screw.....	.10
3884	Aablor.....	8	1 8"x1 1/4" cotter pin.....	.05

Manifold and Breather Assembly

S626	Tjester.....	1	Manifold elbow.....	1.75
1398B	Tjetty.....	1	Breather tube.....	2.25
2333	Tjewel.....	3	Exhaust manifold gasket.....	.25
2334	Tjewfish.....	2	Intake manifold gasket.....	.25
5407	Tjib.....	1	Breather cap.....	1.65
5459	Tjimson.....	1	Intake manifold.....	5.65
5460	Tjingle.....	1	Exhaust manifold.....	15.60

Valve Tappet Assembly

6-94	Aacafe.....	8	Valve tappet rollers.....	.45
6-95	Aacage.....	8	Valve tappet roller pins.....	.35
1726A	Aacairn.....	8	Push rod ball socket ends.....	.40
2354A	Aacape.....	8	Push rod for cylinder height 12 1/8".....	.55
2354B	Aaclaosh.....	8	Push rod for cylinder height 12 3/8".....	.55
2393	Aacalf.....	8	Valve tappets.....	1.70
2392	Aacalk.....	8	Valve tappet guides.....	2.00
8-913	Aacall.....	4	Crabs for valve tappet guides.....	.45

Gear Cover Group

2264	Aacalla.....		Flange coupling on water pump drive shaft.....	2.80
2318F	Aacallow.....	1	Gear cover.....	20.00
2319B	Aacalm.....	1	Gear cover gasket.....	.40
2342	Aacalmer.....	1	Flange coupling on water pump shaft.....	2.25
2349A	Aacalve.....	1	Gear on water pump drive shaft.....	7.25
3081	Aacamel.....	4	Hex. head cap screws.....	.05
3106	Aacamp.....	11	Hex. head cap screws.....	.05
3633	Aacan.....	4	Lock washer.....	.05
3634	Aacant.....	11	Lock washer.....	.05
3716	Aacanto.....	1	Taper pin.....	.05
4029	Aacanton.....	3	Woodruff key.....	.05
5150A	Aacap.....	1	Water pump drive shaft.....	6.20
5160	Ascape.....	1	Water pump drive shaft nut.....	.40
5197A	Ascaper.....	1	Outboard bearing.....	2.65
5311	Ascapon.....	1	Outboard bearing gasket.....	.10
5490	Aacaput.....		Fan pulley on water pump drive shaft.....	9.95

Oil pump and Oil Pipe Connection Group

6-67	Aacapovs.....	1	Oil pump shaft bushing.....	.40
6-68	Aacar.....	1	Pin for oil pump.....	.05

Always Give Model and Tractor Number When Ordering Repairs.

Part No.
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Part No.	Code Word	No. Req.	Name of Part	Price
1353	Aacord.....	2	Oil line tube straight fitting.....	.20
1369	Aacorn.....	2	Oil line tube connection hex. nut.....	.10
1370	Aacoret.....	2	Oil line tube connection ferrule.....	.10
1771	Aacarnal.....	1	Oil pump body.....	6.70
1774	Aacarob.....	1	Oil pump shaft short.....	.25
1775	Aacorom.....	1	Oil pump gear plain.....	2.25
1775A	Aacarp.....	1	Oil pump gear keywayed.....	2.25
1778	Aacapel.....	1	Oil pump spiral gear.....	2.80
2372	Aacarrot.....	1	Oil pump column.....	5.60
2373	Aacarry.....	1	Oil pump shaft.....	1.70
3084	Aacart.....	3	Hex. head cap screws.....	.05
3546	Aacarve.....	6	Round head machine screws.....	.05
3633	Aacase.....	3	Lockwashers.....	.05
3692	Aacash.....	1	Taper pin for drive gear.....	.05
4025	Aacask.....	2	Woodruff keys for oil line tube pump to oil feed.....	.05
5448	Aacast.....	1	Oil pressure relief assembly complete.....	1.70
6-634	Aacastor.....	1	Oil pump body gasket.....	.10
XJ	Aacatch.....	1	Oil pump complete.....	20.00

Starting Crank Assembly

2093	Aacattle.....	1	Starting crank shaft jaw.....	3.50
2135A	Aacove.....	1	Starting crank shaft collar.....	.90
2337A	Aacovil.....	1	Starting crank shaft pin.....	.25
2150B	Aacvotr.....	1	Starting crank bracket.....	3.30
3103	Aacease.....	1	Hex. head cap screws.....	.05
3634	Aacedor.....	1	Lockwasher.....	.05
3717	Aacede.....	1	Taper pin for jaw.....	.05
4029	Aacell.....	1	Woodruff key.....	.05
5473	Aacellor.....	1	Starting crank shaft.....	1.35
6-431	Aacent.....	1	Starting crank shaft spring.....	.25
T00302	Aacenter.....	1	Starting lever.....	.75
T0307	Aacestas.....	1	Starting handle.....	.20
T6024	Aachafe.....	1	Starting lever pin.....	.10
T6162	Aacahll.....	1	Crank handle pin.....	.10

Always Give Model and Tractor Number When Ordering Repairs.

Differential Assembly Group

See Fig. 18 in Instruction Book

Part No.	Code Word	No. Req.	Name of Part	Price
T200A	Natty.....	3	Differential bevel pinion.....	2.70
S201A	Naught.....	2	Differential bevel gear.....	8.25
T208A	Nausea.....	1	Differential spider.....	9.65
T209A	Needy.....	2	Differential spider plates.....	2.65
T568	Negate.....	3	Outer washer for diff. shaft.....	.05
T6053A	Nircosis.....	3	Differential pinion shaft.....	.80
S6252A	Nelofer.....	6	Differential plate stud.....	.15
T6253A	Decree.....	6	Differential spider studs.....	.15
S6297	Nervine.....	1	Differential shaft locating washer.....	.10
			$\frac{1}{4}$ " SAE castellated nuts.....	.05
	Nervinal.....	1	Complete differential assembly consisting of the above parts.....	24.65

Transmission Group

See Fig. 18 in Instruction Book

BC61	Bjab.....	1	Oil check ring spring.....	.10
R19	Bjabot.....	1	Victor gasket for S6045A.....	.05
S202	Dado.....	1	Double differential spur gear.....	40.50
S219C	Daft.....	1	Transmission case.....	35.00
S220	Dagger.....	1	Transmission case cover.....	7.75
S223A	Daily.....	1	L. H. pulley shaft bearing housing.....	3.70
S224	Daisy.....	1	L. H. pulley shaft bearing housing end plate.....	.95
S227A	Daine.....	1	R. H. pulley shaft bearing housing.....	4.30
S228C	Dannis.....	1	R. H. pulley shaft bearing end plate.....	1.30
S229B	Danish.....	1	Transmission bell housing.....	12.25
S237	Danube.....	1	R. H. diff. shaft bearing sleeve.....	8.85
S238	Dapple.....	2	R. and L. end plate for diff. shaft.....	1.80
S239	Dard.....	1	L. H. differential shaft bearing sleeve.....	9.40
S257A	Dare.....	1	Hub for bevel gear.....	2.25
S262	Dark.....	1	Transmission hand hole plate.....	.75
S270	Bajacana.....	1	Washer for diff. brg. housing.....	.55
S271A	Dekist.....	2	Thrust collar.....	1.20
S272	Dash.....	1	L. H. pulley retainer.....	.65
S488	Data.....	1	Belt pulley 16x7".....	12.00
S513B	Daunt.....	1	R. H. foot pedal for brake.....	1.20
S514B	Day.....	1	L. H. foot pedal for brake.....	1.20
S515	Dazz.....	2	Brake drum.....	5.00
T517A	Dazzie.....	2	Brake shoe.....	3.20
S562A	Deaf.....	2	Footpedal adjusting lever.....	.60
S565A	Deal.....	1	Washer for belt pulley.....	.25
S566B	Deam.....	1	Bell housing hand hole cover.....	.75
T572	Debar.....	1	Reverse gear spacing sleeve.....	.80
S577B	Debate.....	1	Pulley shaft packing sleeve.....	1.45
S612	Debauch.....	1	Oil check ring.....	.75
S6045A	Debaucher.....	1	Pulley shaft.....	11.50
S6047	Debon.....	1	Reverse gear shaft.....	.90
S6057C	Debonery.....	1	Main drive bevel gear.....	19.50
S6059	Decay.....	1	High speed spur gear.....	13.50
S6060	Decant.....	1	Low speed spur gear.....	10.50
S6135	Decaul.....	1	Key for bevel gear.....	.10
S6172	Decayen.....	1	Bearing retainer screw.....	.05
S6175A	Decantor.....	2	Brake shoe spreader pin.....	.60
S6201	Decent.....	1	Reverse gear bushing.....	1.35
S6215	Declare.....	2	Differential sleeve washer.....	.50
S6218A	Decease.....	2	Bull pinion.....	12.85
S6230	Decimal.....	1	Long differential shaft.....	9.25
S6231	Decipher.....	1	Short differential shaft.....	8.50
S6232	Declaim.....	1	End thrust bearing for pulley shaft.....	1.95
S6251	Decoct.....	1	Reverse gear.....	21.65

Always Give Model and Tractor Number When Ordering Repairs.

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S6229
S6430
S6431
S6432
S6568
S6569
S6570
S6573
S6574
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A-358
A-359

M40
S214
S215
S583
S569A
6017
S6063
S6064
S6004
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S6434
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S217E
T218
S6108
S6133
S6166
S6198
T628
S6496
S6498
T259
T603

S41
ZA17
ZA17
JR17
S340

Part No.	Code Word	No. Req.	Name of Part	Price
S6253A	Decrown	6	Diff. spur gear screws	.10
S6254	Deduce	8	Cap screws for No. 6057B bevel gear	.10
S6256	Decoy	2	Cap screw for end of diff. shaft	.10
S6256A	Deglute	1	Screw for end of pulley shaft	.15
S6299	Decuple	5	Gasket for 229 bell housing steel	.15
S6300	Decuan	1	Gasket for 223 pulley shaft brg. housing L. H.	.20
S6301	Deed	6	Gasket for 224 end plate L. H.	.20
S6302	Deer	1	Gasket for 227 pulley shaft brg. housing R. H.	.25
S6303	Deern	1	Gasket for 228 end plate R. H.	.15
S6305	Deface	2	Gasket for 237 and 239 diff. sleeves	.20
S6306	Defame	1	Gasket for 262 hand hole plate	.20
S6383	Default	2	Gasket for 238 diff. end plate	.30
S6478	Defaultis	1	Felt washer for clutch shaft S6046B	.10
S6480	Defect	1	Pulley shaft inner retainer	.35
S6508	Defile	1	Gasket for 569 shifter housing	.25
S6518A	Defer	1	Bull pinion washer	.15
S6527	Deflect	1	Gasket for 220 trans. case cover	.25
S6575	Defrand	3	Oil check ring drive stud	.15
S6587	Defaun	2	Bull pinion screw clip	.15
S27126	Defunct	1	Hyatt bearing for pulley shaft gear end	6.70
S27132	Degarnish	2	Hyatt bearing for differential shaft inner end	8.85
S27176	Degust	1	Hyatt bearing for pulley shaft pulley end	10.15
S27182	Deglut	2	Hyatt bearing for differential shaft outer end	14.15

Bell Housing and Control Group

See Fig. 8 in Instruction Book

	Aacpromcak	1	Clamp screw for 505A 1/2x1 1/2" SAE hex. head cap screw	.05
S229B	Danish	1	Bell housing	12.25
S246D	Aacpromd	1	Clutch operating fork and clamp screw	3.50
S250B	Aacpromda	1	Clutch crank arm	.90
S252A	Aacpryp	2	Clutch rod fork	1.15
S505A	Aacpst	1	Clutch operating lever	1.05
S566B	Aacpsu	1	Bell housing hand hole cover	.75
S616	Aaecij	1	Clutch lever bracket	.65
T637	Aaedct	1	Thrust collar for clutch shaft	.80
S6004	Aacpsve	2	Clutch rod fork pin	.15
S6046B	Aacrowl	1	Clutch shaft	6.10
S6058B	Aacrib	1	Main drive bevel pinion	10.25
S6074C	Aacrest	1	Clutch connecting rod	.70
S6079	Aacrime	1	Clutch shaft nut	.05
S6081B	Aacrisp	1	Clutch handle	.50
S6221A	Aacrone	1	Clutch operating shaft	1.00
T6233A	Grooved	1	Thrust bearing for clutch shaft	3.95
S6224B	Bjade	1	Felt washer for bell housing	.10
S6595	Aacrowd	1	Greaseless bushing in flywheel	1.95
S6616	Aacrown	1	Felt packing washer retainer	.10
S27030	Aaecfg	1	Hyatt bearing for clutch shaft	5.30

Clutch Group

Model B-11 1/2 No. 5129 Twin Disc Clutch

See Fig. 8 in Instruction Book

This model engages by pulling lever on dash out of way from motor

	Barendo	1	Hub and back plate assembly	17.25
100B1	Bario	1	P. O. hub	11.00
109B1	Barulet	1	Back plate	4.95
110B1	Bathetic	1	Plate pins	.25
111B1	Baton	1	Plate key	.15
	Batonear	1	Adjusting yoke assembly	8.15
104B1	Battue	1	Adjusting yoke	4.15
103B1	Batten	4	Fingers	.55

Always Give Model and Tractor Number When Ordering Repairs

Part No.	Code Word	No. Req.	Name of Part	Price	Part No.
106B1	Bateau.....	4	Finger pins.....	.15	T5053
105B1	Beatific.....	1	Cotters.....	.05	R6141
114B1	Becket.....	1	Adjusting lock pin.....	.30	T6141
115B1	Beduddle.....	1	Adjusting lock pin spring.....	.15	TA6163
	Bedreder.....	1	Cone assembly.....	10.65	TA6166
102B29	Beebread.....	1	Cone.....	5.00	GT6211
117-C8	Bedight.....	1	Cone collar.....	4.50	TA6833
118-C8	Beget.....	2	Bolts and nuts.....	.10	TA6836
120	Belial.....	2	Shims.....	.15	
	Bediale.....	1	Drive plate assembly.....	10.50	
116B1	Begrime.....	1	Driving plate.....	2.50	
112B1	Bellicose.....	2	Friction disc.....	3.75	
122B1	Bellana.....	12	Tubular rivets.....	.05	
108B1	Beluga.....	1	Floating plate.....	5.40	
113B1	Beltone.....	4	Release spring.....	.25	
5129	Bagnio.....	1	Model B11½ complete clutch.....	40.00	TA6836 TA6837 AF10B

Governor Group

See Fig. 7 in Instruction Book

3-U-1	Galiot.....	1	No. 3x1¼" Taper pin.....	.05	
4-O	Galinule.....	4	¼" SAE hex. nut.....	.05	20" CV
5-W	Gallnut.....	5	⅝" lockwasher.....	.05	D-624
8-M	Gamma.....	1	½" SAE hex. cat. nut.....	.10	D-594
20-V-06	Gambit.....	5	⅝" S0—18 round head machine screw.....	.05	C2016
GT133	Gaglion.....	1	Control bell crank.....	.25	C-589
GT134A	Gauntry.....	1	Speed control plunger.....	.20	C-2750
GT135	Gaumut.....	1	Gov. control bell crank pin.....	.10	C-2283
GT139	Gambrel.....	1	Top plate.....	.60	C-3296
GT158B	Gabbro.....	1	Governor shaft.....	1.25	C-3676
GT159C	Gader.....	1	Fork and lever shaft.....	.35	C-3977
TA163	Wain.....	2	½" ball bearing.....	.40	C-2389
TA164	Gaddbee.....	1	⅝" ball bearing.....	.65	C-2388
TA165A	Gadroon.....	2	Governor ball pin.....	.10	C-3814
TA169A	Goffer.....	1	Governor control spring.....	.15	T6252
TA171	Baca.....	1	Speed reg. nut.....	.10	B3949
TA173	Gala.....	1	Governor fork pin.....	.05	5356
TA175A	Bait.....	1	Governor spring eye bolt.....	.10	2346A
TA184	Bano.....	2	Toggle link.....	.10	
TA185	Badera.....	2	Toggle link pin.....	.05	
GT315C	Gozzella.....	1	Fork and lever shaft housing.....	.50	
TA316A	Wimiper.....	2	Fork and lever shaft bushing.....	.20	
GT438C	Gzela.....	1	Governor housing.....	6.50	
TA439D	Gemel.....	1	Governor housing cover.....	2.25	41
TA443A	Geez.....	1	Governor head.....	.75	S651A
TA444A	Gavial.....	2	Governor ball.....	.45	TA652
TA445	Geest.....	1	Governor sleeve.....	.65	S653
TA446C	Gecko.....	1	Governor fork.....	.45	TA6166
GT447C	Gehia.....	1	Governor lever.....	.30	S6533E
GT448A	Gemsbok.....	1	Spring housing.....	3.25	TA6801
TA489A	Genesis.....	1	Throttle lever.....	.30	TA6802
			Complete governor including throttle valve assembly.....	26.25	TA6821 TA6822

Throttle Valve Group

See Fig. 6 in Instruction Book

GT156E	Ajaunt.....	1	Butterfly shaft.....	.25	355
GT449A	Bjaunt.....	1	Throttle valve body.....	2.50	X9
T450B	Thjarl.....	1	Throttle link.....	.45	235
GT451D	Bjapan.....	1	Butterfly valve.....	.15	T500
T2334	Bjasan.....	1	Gasket between throttle valve and manifold.....	.20	506

Always Give Model and Tractor Number When Ordering Repairs

Part No.	Code Word	No. Req.	Name of Part	Price
T5053	Bjambrose	1	Gasket between throttle valve and carburetor	.20
R6141	Bjalap	1	Felt washer	.05
T6141	Bjames	1	Asbestos washer	.05
TA6168	Bjetty	2	Ball bearings	.45
TA6160	Bjocko	2	Ball joints	.40
GT6213C	Bjimson	1	Throttle rod	.20
TA6833	Bjoke	1	$\frac{3}{8}$ " SAE cat. nut	.05
TA6836	Bjolly	1	Cap plate	.05
		1	$\frac{3}{8}$ " SAE cat. nut	.05
		4	$\frac{1}{4}$ " SAE hex. nut	.05
		1	$\frac{1}{4} \times \frac{5}{8}$ " round head machine screw	.05
		1	10-24 $\times \frac{3}{4}$ " round head machine screw	.05
		1	10-24 hex. nut	.05
		1	$\frac{1}{2} \times \frac{1}{2}$ " woodruff key	.05
		2	8-32 $\times \frac{1}{2}$ " brass screws	.05
TA6830	Bjonah	1	Butterfly shaft machine washer	.05
TA6831	Bjohn	1	Butterfly shaft machine tension washer	.05
AF10B	Bjingle	1	Complete throttle valve assembly	4.50

Automotive Fan Parts B3949

See Fig. 4 in Instruction Book

20" CW	2A Xebec	1	Blade assembly	3.50
D-624	Xenon	4	Cap screw	.15
D-594	Xylic	4	Lock washer	.10
C2016	Xyloid	1	Gasket	.15
C-589	Xyst	1	Oil plug	.10
C-2750	Xylem	1	Slotted nut	.15
C-2283	Edil	1	Cotter pin	.10
C-3296	Durar	2	Timken bearing assembly	1.85
C-3676	Ecumol	1	Hub	3.35
C-3977	Edad	1	Spindle	3.05
C-2389	Dosm	1	Felt retaining washer	.25
C-2388	Dulcera	1	Felt retainer	.35
C-3814	Donde	1	Felt washer	.20
T6252	Dona	1	Leather fan belt	3.50
B3949	Doneda	1	Complete fan without bracket and eccentric	10.00
5356	Donedat	1	Fan bracket	5.00
2346A	Adona	1	Fan eccentric	2.50

Governor Control Group

41	Dietary	1	Governor control complete assembly	2.50
S651A	Dieses	1	Governor control segment	.80
TA652	Differ	1	Governor control bell crank	.60
S653	Difficult	1	Governor control bracket	.60
TA6169	Diffuse	1	Governor control spring	.15
S6533B	Dierffuse	1	Governor control cable	.15
TA6802	Ware	1	Governor control bell crank pin	.05
TA6803	Warm	1	Governor control friction spring	.05
TA6824	Warren	1	Governor control segment pin	.05
TA6825	Warrior	1	Governor control friction pin	.05

Set of Tools for 16-32 Tractor

355		1	Mossberg ratchet handle	1.55
X9		1	Mossberg adjustable wrench	.65
235		1	S wrench $\frac{1}{2}$ " and $\frac{3}{4}$ " openings	.65
T500		1	Front wheel hub cap wrench	.60
506		1	6" sure grip pliers	.35

Always Give Model and Tractor Number When Ordering Repairs.

Part No.	Code Word	No. Req.	Name of Part	Price	Part No.
351		1	Socket extension	.75	S6253
402		1	Hex. spark plug 29/32" socket	.35	S6254
1		1	Alligator wrench	.20	S6250
1500		1	Steel oiler	.25	S6250
271		1	S wrench	.50	S6299
276		1	S wrench	.50	S6300
		1	31/32" socket	.25	S6301
		1	25/32" socket	.25	S6302
		1	1 1/8" socket	.25	S6303
		1	1 1/4" socket	.25	S6304
		1	5/8" socket	.25	S6305
		1	1/2" socket	.25	S6388
		1	1 1/4" socket	.25	S6478
		1	7/8" SAE Champion Spark Plug	.90	S6480
		1	No. 5 Elliot Screw driver 6"	.30	S6508
		1	Dixie Switch Key	.75	S6518
		1	Magneto wrench	.50	S6527
AB11			Tool box	2.50	S6577
1043		1	Alemite Grease Gun	2.00	S6587

Main Frame Group

See Fig. 15 in Instruction Book

S406C	Discharge	1	Front plate	15.00
S620A	Aakern	1	Motor bracket	1.85
S6235E	Aaaken	1	R. H. channel	8.40
S6236E	Aaken	1	L. H. channel	8.40
6524B	Aekerl	1	Front motor bracket shims	.15
8-A-22	Aakev	2	Bolts for 620A	.10
10-E-21	Aakeemp		Main frame rivets	.10

Radiator Group

BC109	Aaaken	2	1/2" radiator drain cock	.75
S6200C	Aakeeper	1	Perfex radiator	66.75
S6200D	Aajess	1	Perfex radiator on twin block motor	66.75
T6339	Bjoint	2	Radiator springs	.15
T6356A	Calomel	1	Radiator cap. oval type	.75
S6494	Eve	2	Radiator cap screws	.20
S6510	Aakeel	1	Upper radiator hose	.55
S6511	Aaakarn	1	Lower radiator hose	.75
S6579A	Bjerk	1	Radiator anchor strap	.25

Front Axle Group

See Back Cover of Instruction Book

T232B	Discursive	2	Steering arm	1.95
S240A	Disdain	1	Front axle	18.50
S241A	Disease	2	Steering knuckle	8.75
			Specify right or left	
S287B	Disembody	1	Steering bell crank	4.75
S482A	Disenable	2	Front wheel hub cap	1.20
S534	Disengage	2	Front wheel dust ring	.75
S573A	Aakible	1	Center tie rod fork	1.05
S574A	Aaakid	2	Tie rod fork	1.35
T3120				
T3196	Bjimson		Small timken bearing	3.50
T3520				
T3554	Bjean		Large timken bearing	4.60
S6008A	Disgrace	3	Tie rod fork pin	.75
T6007A	Disguise	1	Steering bell crank pin	.45
S6042	Dishevel	2	Steering knuckle shaft	1.20
S6133A	Dishful	1	Bell crank ball	.60
S6189B	Disinter	1	King bolt	1.25
T6191	Disincline	2	Washer for steering knuckle shaft	.05

Always Give Model and Tractor Number When Ordering Repairs.

Part No.	Code Word	No. Req.	Name of Part	Price
T6192A	Disjoin.....	2	Nut for steering knuckle shaft.....	.10
S6239	Dismast.....	2	Front wheel.....	25.65
S6229	Dismal.....	2	Felt washer for front wheel.....	.10
S6430	Bjolly.....	1	L. H. tie rod.....	.80
S6431	Dismember..	1	R. H. steering knuckle tie rod.....	.60
S6432	Dismort.....	1	L. H. steering knuckle tie rod.....	.45
S6568	Disobey.....	3	Tie rod fork dowel.....	.10
S6569	Disorder....	4	Steering knuckle shaft dowel.....	.15
S6570	Disown.....	2	King bolt dowel.....	.20
S6573	Dispair.....	4	Steering knuckle bushing.....	.30
S6574	Disparate... 2		Steering arm bushing.....	.15
A-336	Dickler.....	2	1/8" Straight alemite fitting.....	.15
A-358	Dieler.....	1	1/8" Elbow alemite fitting.....	.20
A-359	Diltong.....	6	1/4" —45 degree street ell.....	.15

Shifter Housing Group

See Back Cover of Instruction Book

M40	Diabolic.....	1	Shifter assembly.....	15.20
S214	Diaconal....	1	High and reverse gear shifter.....	3.00
S215	Diadem.....	1	Low speed gear shifter.....	2.75
S583	Diagonal....	1	Cover for shifter housing.....	.35
S569A	Diagram.....	1	Shifter housing.....	3.95
6017	Bjaw.....	1	Shifter lever bracket pin.....	.20
S6063	Bjavelin....	1	High and reverse gear shifter rod.....	.35
S6064	Diagraph....	1	Shifter rod low speed.....	.45
S6004	Dial.....	1	Low gear shifter rod.....	.35
S6415	Dialect.....	1	Ring for gear shifter handle.....	.85
S6434	Dialist.....	1	Fulcrum ball for shifter handle.....	.35
S6435	Dialog.....	1	Hand ball for shifter handle.....	.40
S6437	Diarist.....	1	Shifter rod locking plug.....	.10
S6449	Diariel.....	1	Shifter rod locking plug.....	.10
S6467	Diaper.....	1	Locking ball for shifter rod.....	.05
S6492	Diamond....	2	Spring for shifter rod ball.....	.05
S6500	Diaphram... 1		Fulcrum ball fastening pin.....	.05
S6514	Diary.....	1	Gear shifter handle.....	.90
S6520	Diable.....	2	Screws for shifter rod springs.....	.15
S6633	Dalyer.....	1	Shifter lock bracket pin.....	.30
A1T59	Diastole....	1	Air relief valve gasket.....	.05
A1T60	Diant.....	1	Air relief valve.....	.05

Steering Column Group

S217B	Dispassion... 1		Steering column bracket.....	1.75
T218	Dispel.....	1	Steering wheel.....	3.35
S6108	Dispense....	1	Steering wheel shaft.....	1.25
S6133B	Dispeople... 1		Drag link ball.....	.45
S6166	Dispirit....	1	Steering spindle drag link.....	1.15
S6198	Displace....	1	Steering column pipe.....	1.45
T6285	Disport.....	1	Steering column pipe cap.....	.55
S6496	Dispute.....	1	Steering shaft coupling sleeve.....	.50
S6498	Disregard... 1		Pin for steering gear.....	.05
T259	Bkaaba.....	1	Handle for steering wheel.....	.25
T6032	Bkafir.....	1	Steering wheel handle pin.....	.15

Gasoline Tank Group

			Gasoline tank filler hole cover.....	.35
S41	Fajadura....	1	Needle valve complete with fitting and guide.....	1.85
ZA171	Falange.....	1	Needle valve guide.....	.15
ZA172	Falaz.....	1	Brass stuffing nut.....	.15
JR173	Falca.....	1	Needle valve stem.....	.20
S340	Falcidia....	1	Gasoline tank (stripped).....	10.75

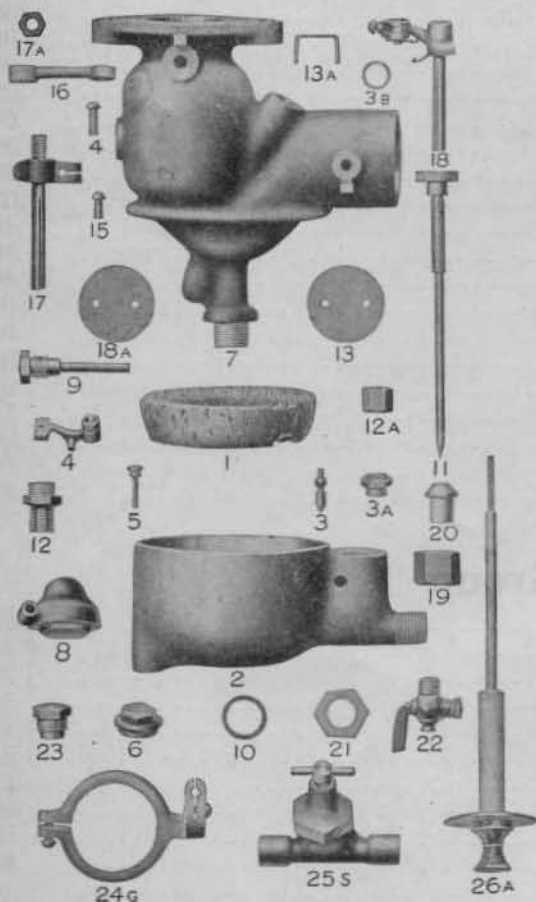
Always Give Model and Tractor Number When Ordering Repairs.

Part No.	Code Word	No. Req.	Name of Part	Price	Part No.
S468	Falicinel.....	1	Needle valve guide fitting.....	.75	1353
S6217	Falta.....	2	Fuel tank saddle.....	.75	1369
S6226	Falleba.....	1	Gasoline tube $\frac{3}{8}$ "x $34\frac{1}{4}$ ".....	.40	1370
S6412	Famoso.....	2	Fuel tank strap ends.....	.10	1771
S6458	Famulo.....	2	Gasoline tank binding strap.....	.35	1774
S6459	Fanatico.....	1	R. H. gasoline tank supporting angle.....	.50	1775
S6460	Fengo.....	1	L. H. gasoline tank supporting angle.....	.50	1775A
					1778
					2372
					2373
					3084
					3546

Carburetor Group

5053	Expose.....	2	Kingston carburetor model L-1 $\frac{1}{4}$ ".....	16.65
S6291D	Expound.....	1	Copper gasket for carburetor flange.....	.80
T6077	Experde.....	1	Carburetor air tube.....	1.50
S6390	Expulse.....	1	Lead seals.....	.05
S6493A	Exquisite.....	1	Choke valve spring.....	.05
S6512	Extant.....	1	Choker hook.....	.10
S6532	Extensive.....	1	Carburetor air tube clamp $\frac{1}{2}$ ".....	.25
			Choker cable.....	.25

Model L-3 Kingston Carburetor Parts



S1	Extol.....	1	Float.....	1.15
S2	Extorter.....	1	Fuel chamber.....	7.50
S2B	Extract.....	1	Cork gasket.....	.05
S3	Extrador.....	1	Fuel valve.....	.45
S3A	Extraneous.....	1	Fuel valve seat.....	.40
S4	Extreme.....	1	Float lever.....	.25
S5	Extrude.....	1	Float lever shaft.....	.25
S6	Exude.....	2	Float lever screw and nut.....	.05
S7	Eult.....	1	Mixing chamber.....	9.00
S8	Exutony.....	1	Air valve.....	1.50
S9	Exuvial.....	1	Air valve shaft.....	.50
S10	Eye.....	1	Gasket (mixing chamber).....	.25
S11	Eyeball.....	1	Needle valve (adjusting).....	.75
S12	Eye brow.....	1	Needle valve guide.....	.60
S12A	Eyelid.....	1	Needle valve lock nut.....	.25
S18	Facil.....	1	Choke throttle lever stem and spring asse.....	.75
S18A	Facistol.....	1	Choke throttle gate.....	.30
S18B	Factoria.....	1	Staple choke throttle gate.....	.05
S19	Facula.....	1	SAE fuel connection nut.....	.40
S20	Facundo.....	1	Fuel intake elbow.....	.30
S21	Facha.....	1	Lock nut (fuel chamber).....	.25
S22	Fachenda.....	1	Drain valve body.....	.20
S22A	Fadado.....	1	Drain valve needle.....	.15
S23	Faisan.....	1	Air valve stop.....	.40
			Carburetor complete model L-3 $1\frac{1}{2}$ ".....	16.65

Air Washer Parts

A251	Ajoy.....	1	Air washer body.....	5.75
A2T2	Quack.....	1	Air washer body cover.....	3.50
A2S6A	Aajowl.....	1	Outlet elbow.....	.65
A2S7A	Quadric.....	1	Air inlet fitting.....	.65
A2T8A	Quadrill.....	2	Drain hole cover clamp.....	.15

Always Give Model and Tractor Number When Ordering Repairs

Part No.	Code Word	No. Req.	Name of Part	Price
A2T9	Quadroon	2	Drain hole and filler cover	.10
A2T11	Quaff	1	Filler fitting	.40
A2T12	Qualify	1	Water gauge body	.55
A2S15	Qualm	1	Inlet screen cover	.85
A2S50	Quanite	1	Spray tube	1.75
A2T51	Quarter	1	Water gauge cap	.20
A2T52	Quartile	2	Water gauge screws	.10
A2T53	Quartern	1	Water gauge glass	.25
A2T54	Quarto	2	Water gauge glass gasket	.05
A2T55	Quartum	2	Water gauge body gasket	.05
A2T56	Quarris	2	Drain and filler cover gasket	.05
A2T67	Quaver	2	Spring for drain hole cover	.15
A2T74	Quay	1	Water separator complete	1.85
A2T74A	Queasy	1	Water separator (washer board)	.65
A2T79A	Quenelle	1	Water deflector	.80
A2T80	Querciner	1	Water deflector bracket	.10
A2S81	Querist	1	Air inlet screen	.45
A2S82	Query	2	Inlet screen cover stud	.10
S6291D	Aajove	1	Steel tube	2.50
T660	Aajot	2	Air washer packing sleeve	.40
S661	Aajoss	1	Carburetor fitting	1.00
	Quene	6	$\frac{1}{16}$ "x $1\frac{1}{4}$ " SAE hex. head cap screw	.05
	Queutis	10	$\frac{1}{16}$ " lock washers	.05
	Quinic	6	$\frac{1}{8}$ " hex. SAE nuts	.05
	Quipu	1	$\frac{1}{4}$ "x $\frac{5}{8}$ " round head machine screws	.05
	Quoit	1	$\frac{1}{4}$ " lock washer	.05
	Quiver	1	$\frac{1}{4}$ " U. S. jamb nut	.05
	Quiesce	2	$\frac{1}{16}$ "x1" U. S. cap screw hex.	.05
A2S75	Aajolt	2	$\frac{1}{2}$ "x $1\frac{1}{4}$ " 13 thread cap screws	.05
	Quillai	2	$\frac{1}{2}$ " plain washers	.05
	Quinary	2	$\frac{1}{16}$ " wing nuts	.05
	Quoinery	2	$\frac{1}{16}$ "x1" fill head cap screws	.05
	Quitrent	1	Complete air washer and fittings	30.00

Rear Axle and Platform Group

See Fig. 18 in Instruction Book

C41	Bkeel	1	Platform assembly	...
S248A	Epsome	1	Rear axle housing	35.00
S256	Aajwa	2	Rear axle cap	.75
S273B	Equerry	2	Bull gear	20.50
S563	Equipage	1	L. H. platform support bracket	3.80
S564	Era		R. H. platform support bracket	4.60
S570	Eradicate	2	Final drive oil supply fitting	1.15
S601	Erasor	2	Rear wheel hub caps	1.00
S605A	Aajilt	2	Final drive gear thrust washer $\frac{1}{2}$ "	1.20
S619	Bkepi	1	Draw bar guide	2.85
S622	Aajig	1	Draw bar post	.30
S632	Aajibe	2	Draw bar slide rail spacing collar	.20
S6105A	Aajib	1	Platform plate	17.25
S6107	Ergot	1	R. H. platform angle	2.40
S6120A	Aajeu	1	Draw bar angle	4.55
S6142	Error	2	Rear axle cap pins	.10
S6181	Eruca	1	L. H. platform angle	2.40
S6210	Erndate	1	Rear axle shaft	25.35
S6227	Eruptive	2	Felt strip for 6420	.35
S6234	Escalop	2	Washer for rear axle	.35
S6237C	Aajet	1	Rear wheel R. H. drilled for 2" lug spacing	57.50
S638C	Aajest	1	Rear wheel L. H. drilled for 2" lug spacing	57.50
S6240	Escort	1	Forward bottom angle	1.75
S6241A	Aajess	1	Sliding draw bar	2.35
S6242A	Aajerk	1	Drawbar slide rail	1.50
S6420A	Aajelly	2	Final drive gear housing	15.80
S6421	Aajeer	2	Final drive gear housing plate	8.50
S6455B	Aajiel	16	Final drive gear studs	.25

Always Give Model and Tractor Number When Ordering Repairs

Part No.	Code Word	No. Req.	Name of Part	Price	Part No.
S6501	Estimate....	2	Cab and platform strip.....	.35	236
S6519	Estop.....	2	Oil ring for bull gear housing.....	.60	304
S6597	Aajean.....	1	Draw bar bushing.....	.05	386
S6599	Aajay.....	2	Draw bar brace.....	.90	403
S49655	Estreat.....	2	Hyatt roller bearing for rear axle.....	9.00	551

Hood and Fender Group

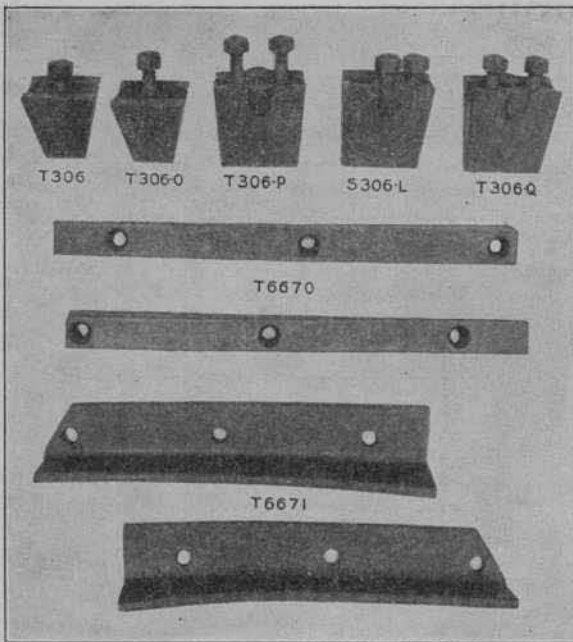
A42	Aajava.....	1	Center hood bow assembly.....	4.25	213
S290	Enring.....	2	Dash bracket.....	.75	217
S289	Aajarl.....	4	Corner castings.....	.40	238
S587A	Aajar.....	1	Dash.....	10.30	238
S656	Bkck.....	1	Dash extension.....	1.75	238
T6035	Bkidnap.....	1	Hood rod guide studs.....	.30	238
S6083A	Aajam.....	2	Top hood bow.....	.60	304
S6084A	Aajalap.....	2	Right and left hood side member.....	1.40	386
S6143	Entarl.....	1	R. H. cab side sheet.....	4.35	523
S6144	Entagle.....	1	L. H. cab side sheet.....	4.90	534
S6145	Enter.....	1	R. H. fender.....	2.40	535
S6146	Enthall.....	1	L. H. fender.....	2.40	535
S6153	Enthrone.....	1	L. H. outside angle for fender.....	.80	551
S6154	Entice.....	1	R. H. inside angle for fender.....	.85	815
S6155	Deky.....	1	Top angle for dash.....	.75	
S6156	Entrance.....	1	R. H. bottom angle for fender.....	.30	
6157	Entrak.....	1	L. H. bottom angle for fender.....	.30	
S6276B	Aajail.....	1	R. H. rear roof sheet.....	1.75	
S6287	Eplia.....	1	R. H. corner filler for fender.....	.35	
S6288	Ephemera.....	1	L. H. corner filler for fender.....	.35	
S6411	Ekeystone.....	1	U. S. oil gauge.....	2.50	
S6428	Ephod.....	1	R. H. outside angle for fender.....	.85	107
S6429	Epic.....	1	L. H. inside angle for fender.....	.95	177
S6461A	Aajag.....	1	R. H. front roof sheet.....	1.80	236
S6462A	Ekermes.....	1	L. H. front roof sheet.....	1.80	236
S6463B	Aajacle.....	1	L. H. rear roof sheet.....	1.75	379
S6202	Ekemel.....	2	Oil line clips.....	.15	388
S6665	Ekaro.....	1	R. H. center hood fastening clip.....	.25	402
S6666	Ekeen.....	1	Rear hood fastening clip.....	.25	403
S6667	Ekeaver.....	1	L. H. center hood fastening clip.....	.25	

Seat Post Group

T455	Lentando.....	1	Seat post bracket.....	5.00	B7
T456	Lumbagon.....	1	Seat post flange.....	.60	174
T457	Lettuce.....	1	Seat post collar.....	.45	174
T6015	Aahome.....	1	Seat post collar pin.....	.05	174
S6140	Libbard.....	1	Seat post.....	1.75	174
T6202	Aahamec.....	1	Upper seat post pin.....	.05	175
T6203	Aahamede.....	1	Lower seat post pin.....	.05	175
T6269	Lifeboy.....	1	Pressed steel seat.....	1.75	175
T6270	Lignum.....	1	Seat spring.....	1.00	175

Always Give Model and Tractor Number When Ordering Repairs.

Tractor Lugs



Part No.	Code Word	No. Req.	Name of Part	Price
S306L	Rclag.....	64	Farm tractor lug closely spaced studs.....	\$.70
T306Q	Rcatigate....	64	Farm tractor lug wide spaced studs.....	.75
Balance of lugs illustrated are not used on 16-32 tractor....				

Pulley Brake Group

See Fig. 4A in Instruction Book

S280	Rclaw.....	1	Pulley brake with lining.....	2.95
S633	Rcarman....	1	Pulley brake pedal.....	1.05
S634	Rcavil.....	1	Pulley brake bracket.....	1.30
T6016A	Rchock.....	1	Pulley brake bracket pin.....	.45
T6075A	Bicker.....	1	Pulley brake connecting rod.....	.30
T6177	Bufocal....	1	Pulley rod yoke pin.....	.10
T6178	Bilge.....	1	Pulley rod yoke.....	.35
S6274B	Rcark.....	1	Pulley brake lining.....	.65
S6633	Rcare.....	1	Pulley brake pedal hanger.....	.45
S6669	Rcity.....	1	Spring for pulley brake.....	.20

Ignition Group

JR90	Aahmog.....	1	Fanstock terminal for magneto.....	.10
JR180	Aahamak....	1	Spring for spark adjusting handle.....	.10
T6208	Aahmor.....	1	Spark adjusting rod.....	.10
T6209	Aahmos.....	1	Spark adjusting handle and nut.....	.10
S6509	Aahmot.....	1	Switch wire.....	.50
T6528	Rcornet....	2	Spark plug cable No. 1 and No. 4 cylinder.....	.40
T6529	Rclause....	2	Spark plug cable No. 2 and No. 3 cylinder.....	.40
		1	Dixie magneto model 46c.....	60.00
18276	Aahmube....	1	Splitdorf switch.....	1.95
18348	Aahmud....	1	Splitdorf switch key.....	.75
			7/8" SAE champion spark plug.....	.90

Always Give Model and Tractor Number When Ordering Repairs.

Steering Gear Group

Part No.	Code Word	No. Req.	Name of Part	Price	Part No.
B-8	Bgoffer.....	1	Ball arm special.....	4.75	
S-B-8	Bgemsl.....	1	Trunnion shaft.....	12.95	
S-B-9	Bgadroid....	2	Trunnion shaft blocks.....	1.00	
S-B-37	Bgecko.....	2	Trunnion shaft bushing.....	1.70	
S1578	Bgehia.....	1	Trunnion shaft lock washer.....	.10	1105
S1579	Bgerboil....	1	Trunnion shaft nut.....	.30	1374
S1603	Bgolfer.....	1	Grease cup.....	.30	2155
S1616	Bgala.....	4	Housing cap screw nuts.....	.10	5350
S1617	Bgzela.....	4	Housing cap screw.....	.15	8-913
S1619	Bgambit....	1	Grease plug.....	.10	
S1700	Bgeez.....	1	Housing.....	6.40	2323
S1701	Bgeest.....	1	Housing cap.....	4.85	2326
S1702	Bgerbille...	1	L. H. sliding head.....	8.35	2330
S1702	Bgeryon....	1	R. H. sliding head.....	8.35	2377
S1703	Bgerent....	1	Worm.....	9.20	3003
S1707	Bgamma.....	1	Adjusting screw lock nut.....	.60	3580
S1725	Bagliot.....	1	Adjusting screw.....	1.25	3023
					3634
					4071

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1837
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2009
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2096A

Always Give Model and Tractor Number When Ordering Repairs.

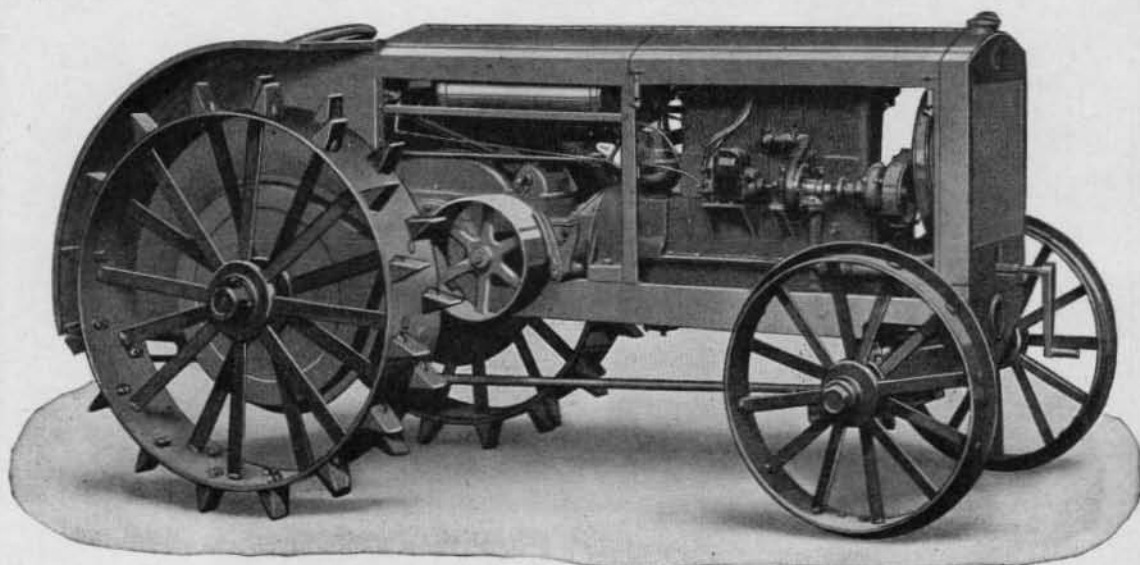
Exhibit F.

Instruction Book
for the
LAUSON
20-35
16-32
Tractor

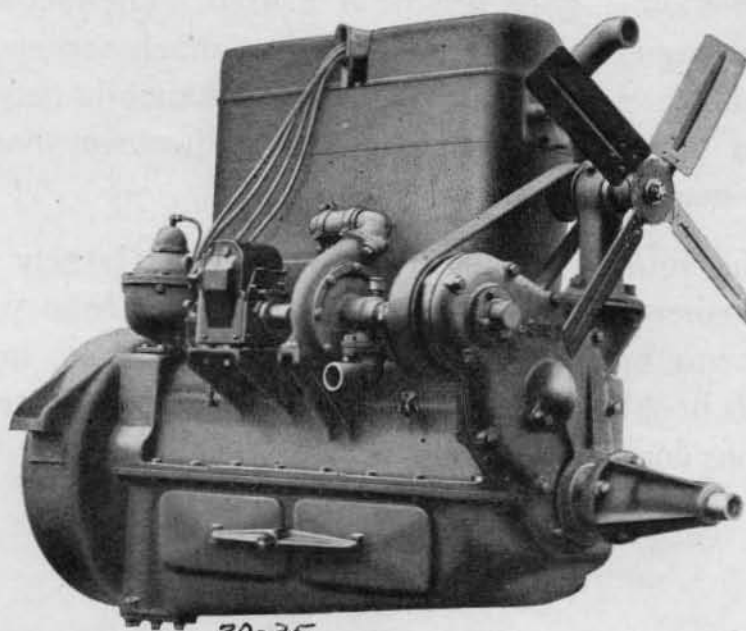
April 10
1927

THE JOHN LAUSON MFG. CO.
NEW HOLSTEIN, WIS., U. S. A.

Printed in U.S.A.



20-35
The ~~16-32~~ Farm Tractor



20-35
The ~~16-32~~ Valve in Head Motor

PREPARING THE TRACTOR FOR WORK

Attention Needed

Before trying to do any actual work, the operator should thoroughly familiarize himself with all its parts also its method of control and care. Do not take out your new machine and put it to your hardest work immediately after taking it home, but rather work it lightly for a day or two until all of the parts have found

themselves. A little care exercised on a new machine will be amply repaid later.

Remember that although the machine has been designed to require a minimum amount of attention, such attention as is required must, however, be given freely.

Before starting your tractor be sure that you have given careful attention to the four things you must do before starting the motor.

FOUR THINGS TO DO BEFORE STARTING MOTOR

1. Close all drain cocks. There are two cocks on left hand side of cylinder, one cock in bottom of water pump and another below on the pipe from pump to radiator.

2. Fill radiator with clean water, rain water if possible. Ordinary well water is liable to contain foreign matter which is liable to clog up radiator.

3. Examine the amount of oil in the crankcase by opening pet cocks on rear left side of motor. Oil should run out of bottom cock. If crankcase has been filled with two gallons of oil it should drip from top pet cock. The engines are filled with two gallons at the factory, but the amount should be checked as some may have been stolen in shipment.

4. Remove the valve covers from top of motor and oil rocker arms with an oil can. This is only necessary on a new motor or on one that has stood idle for several weeks or longer. Normally, the valve mechanism is oiled from the crankcase automatically.

Lubrication in Service

Correct lubrication is essential to the long life and satisfactory performance of any tractor. The following instructions should be followed consistently. Remember that good oil is cheaper than repairs—if you neglect lubrication with good oil, you may have to spend money for repairs and new parts that could have been saved with a little care and good oil.

Engine Crankcase

We recommend the use of Gargoyle Mobiloil "BB" in summer, and Gargoyle Mobiloil "A" in winter (where average weather is below freezing) or high grade oils of similar body and character. When the weather is below 0°F., use Gargoyle Mobiloil Arctic.

The oils recommended have been chosen because they best meet the operating conditions of our engines. As the choice of the correct grade of oil is a matter dependent on many factors of design and service, we feel that you will get best results by using those specified since we are in the best position to consider the engineering and technical phases of the subject.

Draining Crankcase

As the oil gradually accumulates fuel, foreign matter and impurities in service, the crankcase should be drained regularly and refilled with fresh oil as recommended above. When gasoline is used as fuel, drain after every 50 hours of operation. If kerosene is used as fuel, drain after every 10 hours of operation. Do not flush the crankcase with kerosene when draining it.

Oil Screen

Twice a year the oil screen should be removed from the bottom of the crankcase and thoroughly washed in kerosene or gasoline.

Replenishment

Examine the oil level daily by testing the petcocks and add enough oil to bring the level to the top petcock. Do not overfill as this causes excessive consumption. Do not allow the level of the oil to fall below the bottom petcock as this may result in scored piston and cylinder walls, or burned out bearings.

Water Pump

Screw down the grease cups on the water pump every day, and refill the cups when empty with a good grade of grease, such as Mobilubricant.

Fan

Oil the fan bearing every time the crankcase is drained. Engine oil should be put in the oil hole in the fan hub.

Magneto

Put three or four drops only of light engine oil in the magneto oil holes, every month. The magneto needs very little oil.

Governor

Oil the governor daily thru the snap oiler on top of it, using engine oil.

Transmission Bull Gears, Etc.

In transmission or gear case use Mobiloil "C" or equivalent. Keep oil level high enough so that lower edge of main drive bevel gear, No. 6057 Fig. 11 dips into the oil at least one inch.

Bull gear housing No. 478 should also be supplied with Mobiloil "C" or equivalent. Convenient filling holes are provided on top of housing directly over bull pinions. Use about two quarts for each housing.

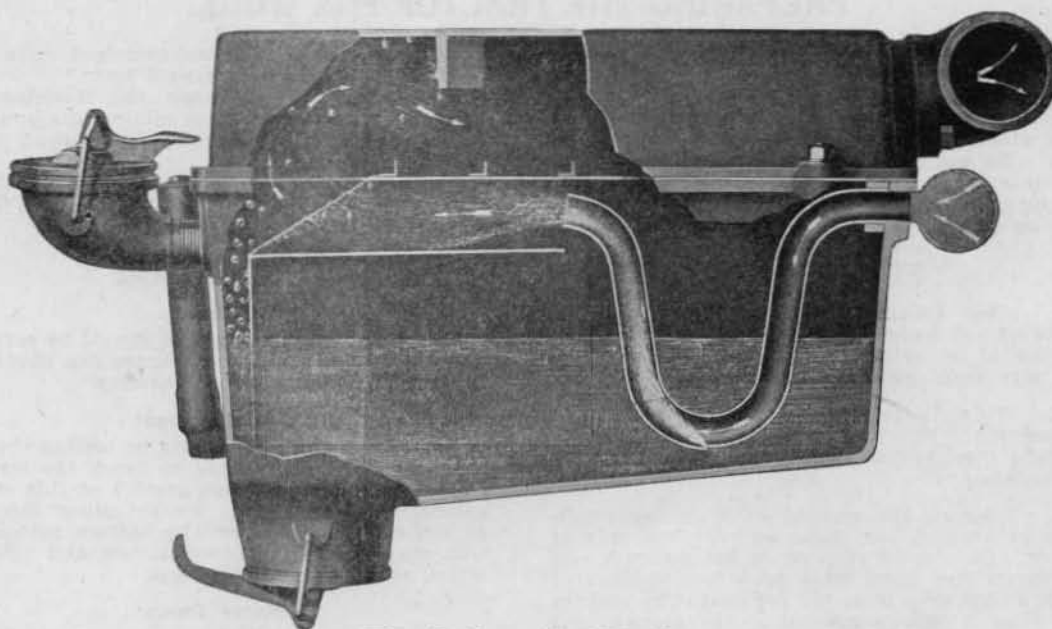
Oil in bull gear housings should be changed occasionally to insure long life. Although they are made dust proof as possible a small amount of grit will eventually work into them. Also natural wear will leave foreign matter in the oil. Changing the oil after a month's plowing or field work will insure clean oil and life of gears will be prolonged. All late date tractors are equipped with drain plugs in bull gear housing.

Third: Fuel

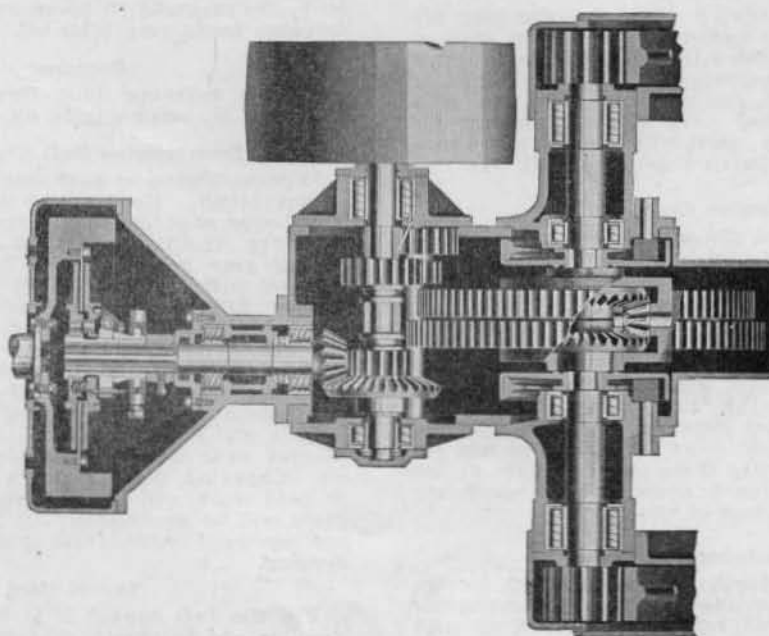
Fill the fuel tank. It is best to strain the gasoline and be sure it contains no water. The water will be at the bottom of your filling can.

Fourth: Fill Air Washer

Supply water to the siphon air washer. Note level of water in gauge glass. Fill in water



The Siphon Air Washer



The Improved Transmission

until water shows up to top gauge glass. Never run tractor without water in air washer.

After having done these four things motor is ready to start. Open needle valve on carburetor about one and one half times. Place governor control lever on steering column about in center of the segment. Pull out choker on front plate at right hand of starting crank. This closes the air choker in carburetor. Pull up three times on starting crank. Do not try spinning motor. Release choker on front plate. Insert switch lever on dash and turn to starting

position. Pull up once more on starting crank and motor should start.

To stop motor throw off switch on dash.

Do not attempt to start motor by first putting switch in starting position and then hooking up the choker.

This is liable to flood the motor and prevent starting. Always start as per above directions. Never push down on starting crank. This is dangerous for in case of pre-ignition it is liable to result in a broken arm. Always start by upward pulls.

TO PUT TRACTOR IN MOTION

Engage the gears by moving the gear set lever on the dash to the proper slot. These are marked; high, low and reverse. Then pull the clutch lever towards the rear allowing the clutch to engage slowly and evenly. When the clutch is engaged it will remain in this position until released.

When shifting gears from high to low or reverse the clutch must be disengaged before the gears can be shifted. Never shift gears with pulley running. Stepping on the foot pedal at right of steering column will apply the brake

and stop the pulley. If gears do not shift easily never attempt to force them. By engaging clutch just a little the gears can be rotated very slowly until the teeth are in position to slide into mesh and will shift without forcing.

A tractor is ordinarily driven in high gear, the lower speed gear being used for negotiating steep grades or extremely hard spots which require more power and since it is for this purpose that low speed gears are provided, the driver should not hesitate to use them. It is bad practice to strain engine in trying to pull in high gear where lower gear should be used.

THINGS TO WATCH WHEN OPERATING TRACTOR

Lubrication is the most important point to watch on a tractor. Therefore when operating tractor watch the oil gauge on dash. Oil pressure on gauge should register fifteen pounds or more. Do not run motor if oil pressure is too low.

If oil pressure goes below ten pounds examine oil line for leak; if found to be leak proof examine main and connecting rod bearings. If these are loose adjust same and oil pressure should go up.

If all connections have been looked over and oil pressure is still too low it can be raised by screwing up screw No. 5447 on by pass valve of oil pump. See Fig. 1. This oil pump can be

gotten at by removing rear hand hole cover of crank case.

Watch the amount of water in gauge of air cleaner. This is important, for the air cleaner if kept properly supplied with water will prevent almost all dust and grit from entering motor and thereby save the motor from the otherwise resultant destructive wear. Be sure and have water in the radiator at all times. Remember that to allow water to get too low will cause overheating. Whenever possible use rain water only. Hard water or dirty water is liable to clog up the radiator and engine and cause overheating.

In freezing weather when no dust is present it is safe to run tractor without water in air washer and thus avoid water freezing in same.

CLEAN AIR WASHER

When operating tractor under conditions where floating particles of chaff or thistledown are present as in threshing, air cleaner should

be occasionally cleaned by removing upper half and cleaning screen of all foreign matter.

Clogged air washer will cause loss of power and irregular running of motor.

KEEP FAN BELT TIGHT

Cooling is mainly accomplished by a current of air through radiator produced by a belt driven fan. It is therefore, important to keep fan belt tight in order that a proper current of air thru radiator is maintained. Be careful not to accidentally or by rough handling bend the blades of the fan out of shape. Inspect them frequently. They should be of correct shape

and curvature. Fan blades bent and damaged are the most frequent causes of overheating. In cold weather water should be drained from motor and radiator when not running to prevent cracking by frost. To drain motor and radiator, open cocks under radiator and water pump at left hand side of cylinder. Air washer should also be drained in cold weather.

MISSING MOTOR

Never allow the motor to run unless all cylinders are firing. If one cylinder misses, that is, does not fire its charge of gas it can easily be noticed by the irregular pulsation of the motor. The cause should at once be located and corrected. Give spark plugs your first attention and clean them thoroughly. To do this

it is best to take them apart and clean off all carbon and oil residue. The porcelain should receive special attention and all carbon wiped off with a piece of waste soaked in gasoline. It is not considered good practice to remove carbon from porcelain with a piece of emery cloth since this is liable to mar and scratch the

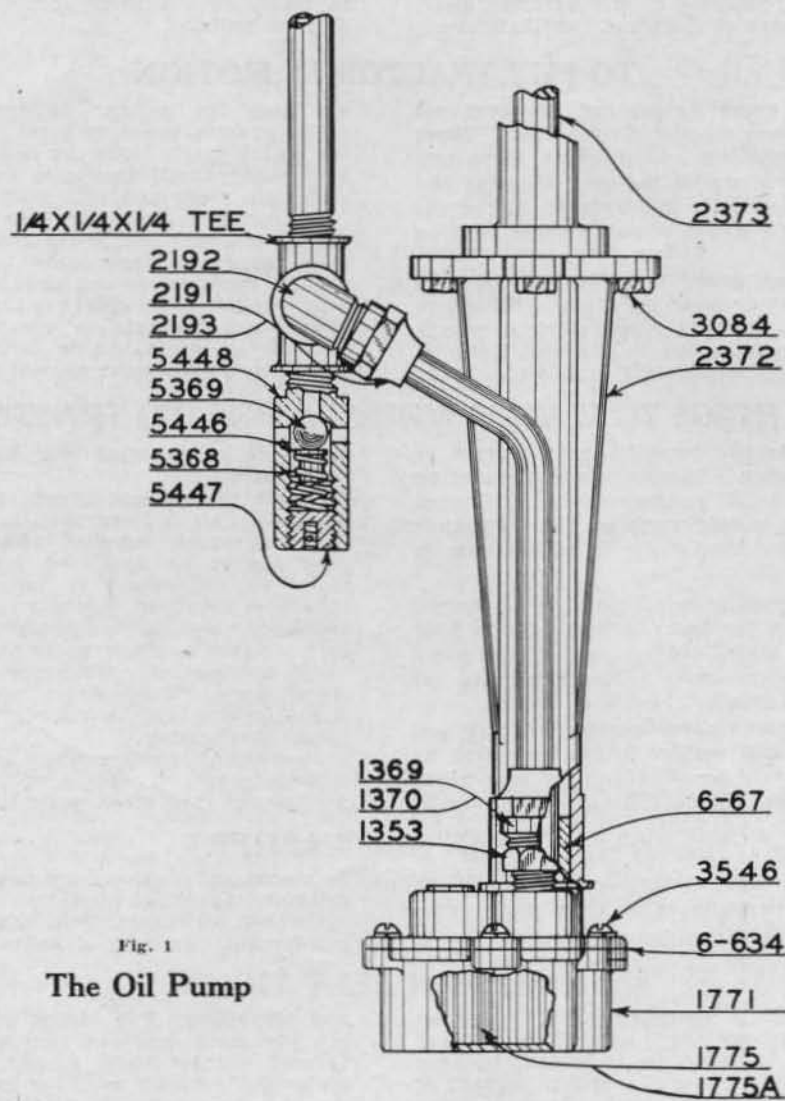


Fig. 1
The Oil Pump

porcelain surface and thus invite a fresh accumulation of carbon when plug is replaced. Look carefully for cracked porcelains. Cracked porcelains should be discarded and new plugs or porcelains installed.

Missing motor is sometimes caused by one cylinder having no compression due to a bit of carbon or foreign matter lodged under valve

head. Try compression by turning motor over slowly (Switch should be off when doing this) and note where there is a resistance due to compression at every one half revolution of the starting crank. When there is not compression remove head and examine valve. (See page 16 Regrinding valves.) Regrind same and remove carbon.

HOW TO CARE FOR AND ADJUST THE TRACTOR

Lubrication is of the greatest importance. This item has been treated previously and a few additional hints is all that is deemed necessary. It is necessary to exercise great care in winter especially when tractor has been standing idle for some time. The oil in pump will congeal or stiffen in cold weather and it is best to drain it all out when tractor is laid up for some time. When starting up again in cold weather, heat the oil slightly before pouring into the motor in order to make sure that lubrication

will start as soon as motor is started. If motor is started with oil frozen and stiff serious damage to bearings is liable to result.

When motor has stood idle for some time it is also a good practice before starting again to remove each spark plug and put a little oil into each cylinder with an ordinary oil can.

Oil screen No. 2190A on base of motor should be occasionally removed and cleaned. It is located on bottom of motor. To remove screen, remove hexagon head cap screws holding plate to motor.

CHANGE OIL IN BULL GEAR HOUSINGS

Oil in bull gear housing should be changed occasionally to insure long life. Although they are made as dust proof as possible a small amount of grit will eventually work into same. Also natural wear will leave abrasions in the

oil. Changing the oil after a month's plowing or field work will insure clean oil and life of gears will be prolonged. All late date tractors are equipped with drain plugs in bull gear housings.

SETTING UP BEARINGS ON LAUSON BEAVER MOTORS

See Figs. 2 and 3.

All machinery is subject to wear, and no matter how well built and how large and ample bearings are, the time will come when they must be set up, and all slack looseness taken out of them.

On our Motors this is easily accomplished by removing the bottom pan, whereby all bearings are exposed, and when the work can be readily done.

To remove pan first loosen front motor bracket No. 620A, see Fig. 15, and slide it forward about 2" so motor will rest on same and next remove all cap screws from pan and remove same.

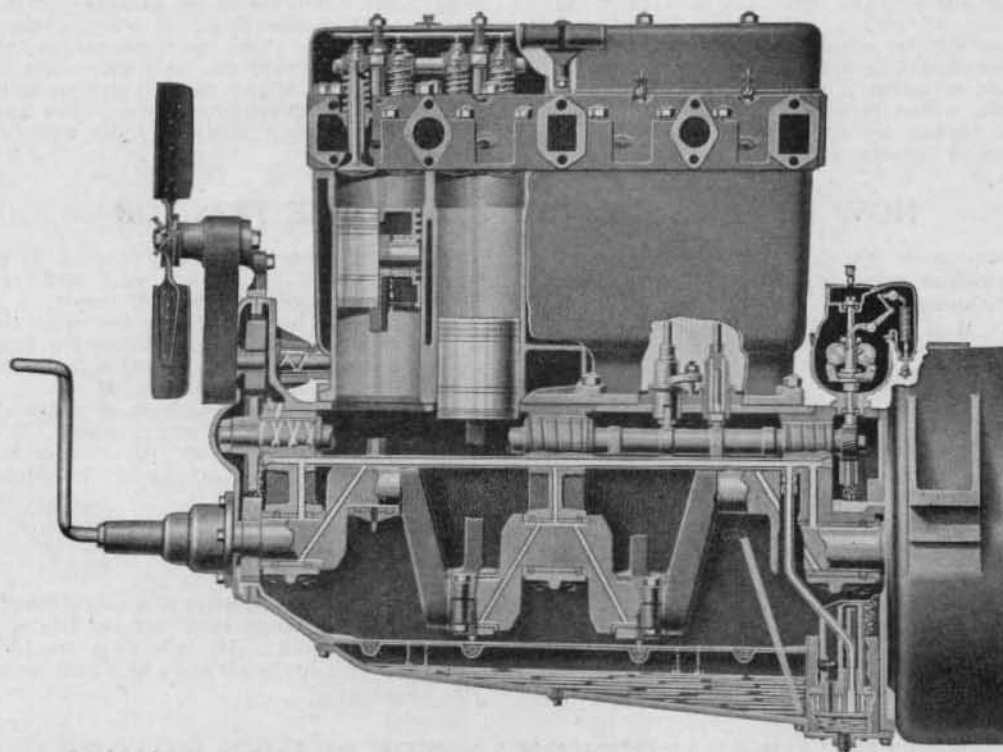
The crankshaft and connecting rod bearings are now exposed very nicely and can be worked on to advantage. Remove all connecting rods with their pistons attached from the engine. They will slide out the bottom end of cylinder very easily. Carefully note whether these pistons are numbered. If not, it is best to mark them so that they may be returned to their respective cylinder. Also mark them as to their position in the cylinders in order that they may not be turned. They should go back just as they came out.

After all pistons have been removed it is now best to set up the main bearings as there will now be no hindrance of the connecting rods dragging thereon. Start with the flywheel bearings. Note how loose the shaft is and remove enough shims from each side of the cap as you deem in your judgment is best. Then replace, tighten all nuts carefully, and be careful to have them good and tight and try to spin the shaft by taking hold of the flywheel. If the flywheel

can be spun very easily take off the cap and remove another light shim from each side and replace as before. This should be repeated until it can be noted that the flywheel can hardly be turned. It is at this point that the final close adjustment should take place. A light shim should either be replaced or renewed until the flywheel can very easily be turned by taking hold of it with the hands.

It is always best to remove enough shims at first to get the shaft tight and keep on replacing possibly a shim at a time until just the right tightness has been secured. When cap is in place and nuts screwed down, strike the cap with a block of wood or a mallet. Never use a steel hammer as this is liable to distort the cap. Also when making a trial adjustment, cap should always be given a couple of blows with a mallet as this will assist materially in securing a good fit. Do not in any case attempt to secure the correct adjustment by varying the tension of the nuts. Nuts should be turned down as tight as they will go and the correct adjustment must be always secured by inserting or removing shims.

After this flywheel bearing has been properly set up loosen the nuts on the bearing but do not take the cap off, and proceed to set up the next bearing. It is very important that the nuts in the flywheel bearing should be loose when setting up the center bearing or front bearing, in order not to be misled by the tightness in the flywheel bearings. Set up the center bearing in the same manner and when the correct set up has been arrived at, loosen this also and then set up the front bearing in a like manner. After the front bearing has been thoroughly



Cut Open Motor

adjusted keep it tight and insert split keys in each stud. Tighten up the center and flywheel bearing and insert split keys also. Then again try the flywheel. Even with the friction of the three bearings the flywheel should be easily turned.

The next step is to set up the connecting rod bearings. In setting up connecting rod bearings do not push the piston up into the cylinder but put the rod onto the shaft and let the piston hang to one side. Now remove shims and proceed in the same manner as you would with the main bearings.

Connecting rods should be set up just so tightly that if the rod is lifted up to one side the weight of the piston should easily bring the rod down to a hanging position. It is well to be very careful that the shims are all properly placed upon the studs and that none of the steel shims scrape against the crankshaft. If they do, they should be carefully filed or cut off.

When adjusting caps to rods and after nuts have been screwed down strike both cap and rod a few blows with a mallet or block of wood. This tends to "right" the cap and assists materially in the adjustment. However, never use a steel hammer for this purpose as this will be liable to distort the cap and result in poor bearing fit.

After one connecting rod has been carefully set up remove it from the shaft and lay it aside. Proceed the same way with the next and so on

until all have been carefully set up, being careful to keep their respective shims. After this has been done the last connecting rod worked on can now be loosened, the piston entered in the cylinder, cap put in place, all nuts screwed tight as they will go and secured with cotter pins. Replace the other three pistons in a like manner, being very careful to put them back in the cylinder the way they came out.

We would once more warn against the practice of securing correct adjustment by loosening the nuts a trifle when bearing is a little too tight. This should never be done. Enough shims should be supplied so that the nuts can be screwed down as tight as they will go. The practice of loosening the nuts even a trifle is liable to result in a very serious accident. Engines have been completely wrecked on account of thus neglecting this item.

In setting up bearings be very careful about all small items. Be careful not to nick up the crankshaft bearings or damage them in any way. In setting up bearings be sure to slush every bearing with oil. Before replacing pistons each piston should be carefully cleaned, carbon removed from its closed end, thoroughly slushed with oil as well, before replacing.

Also, the lower crankcase should now be carefully examined, old oil removed, the pan very carefully cleaned out, the pump screen removed, also carefully cleaned, and all exposed parts carefully examined for any possible break or defect.

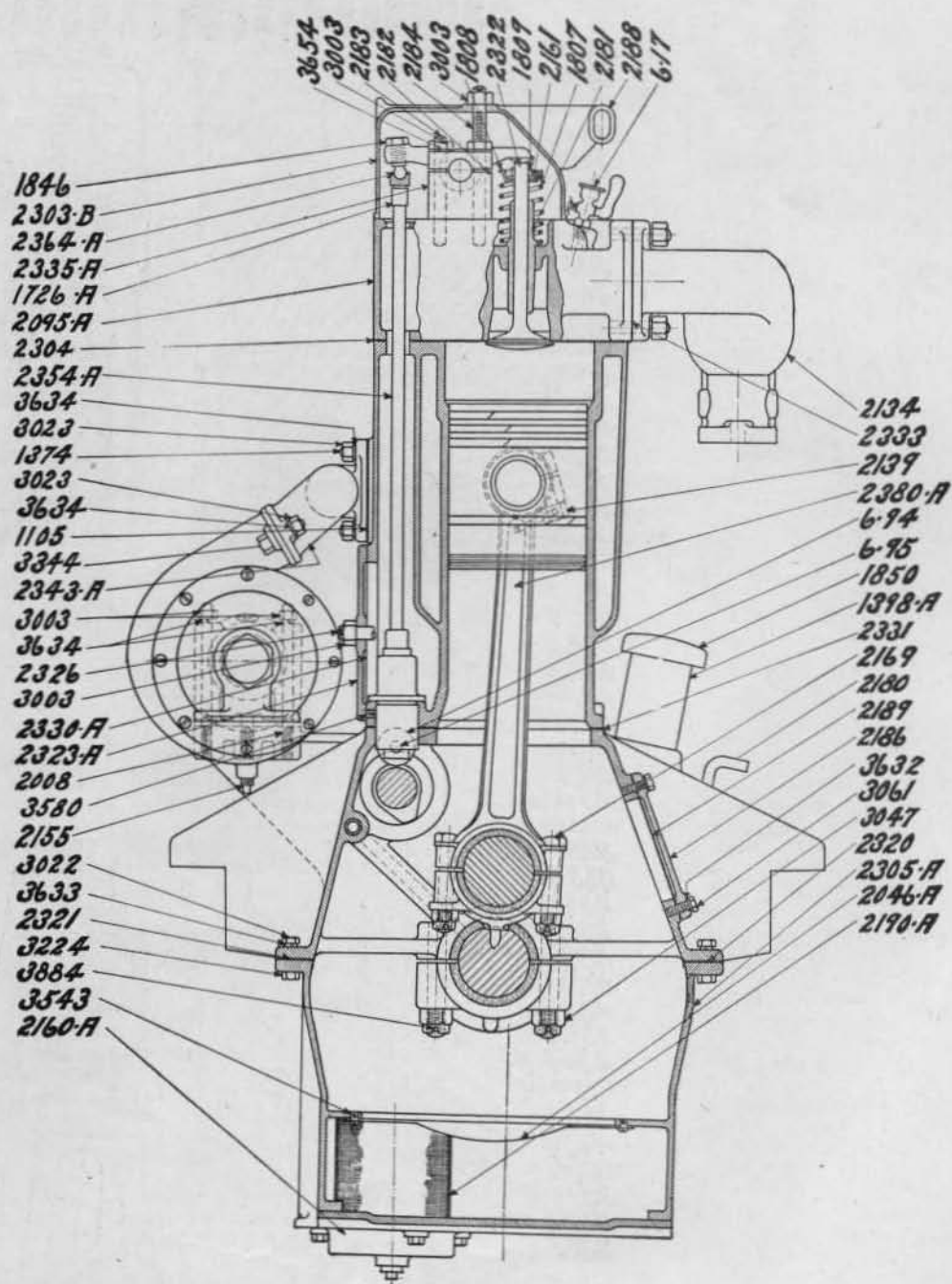


Fig. 2

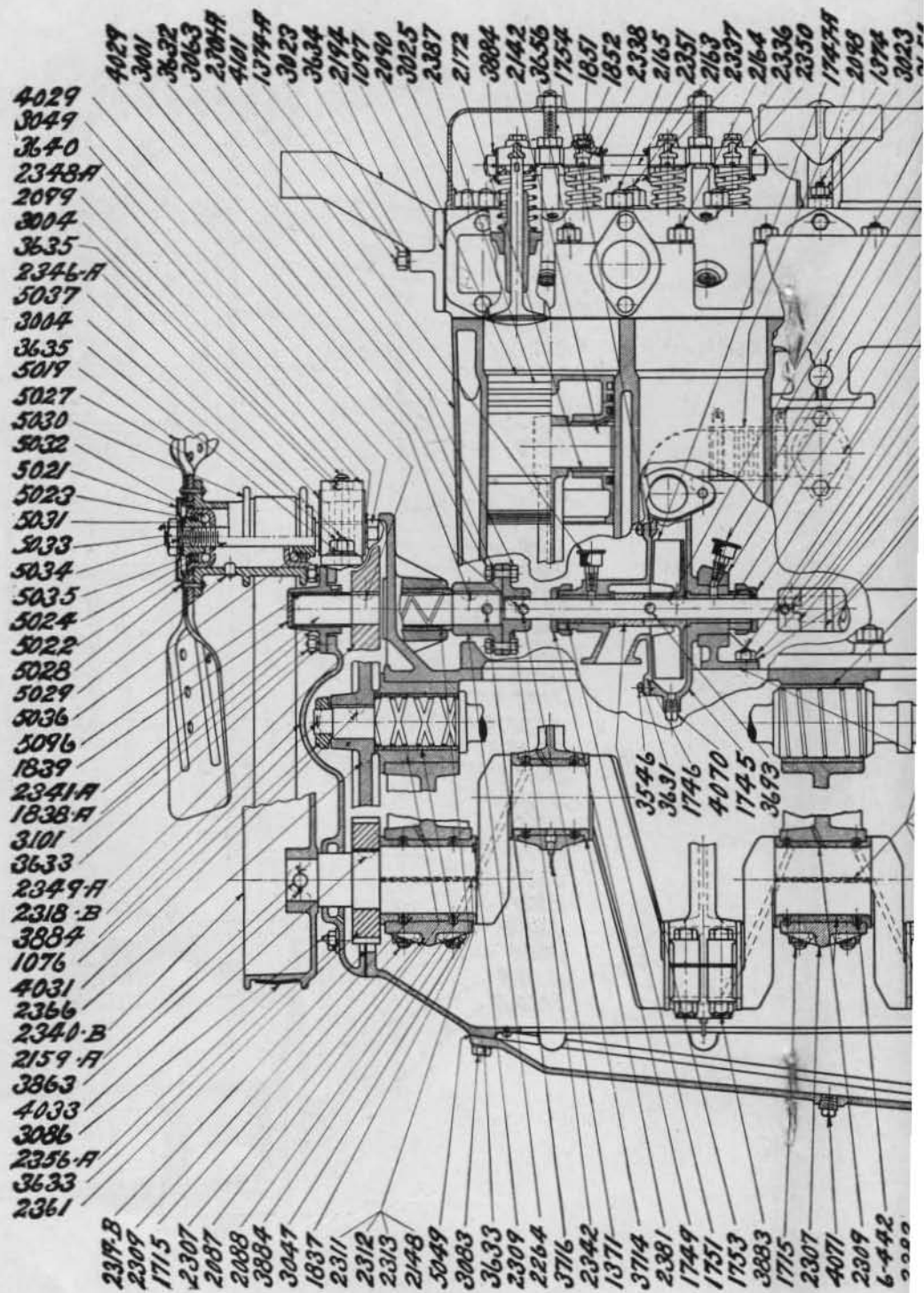
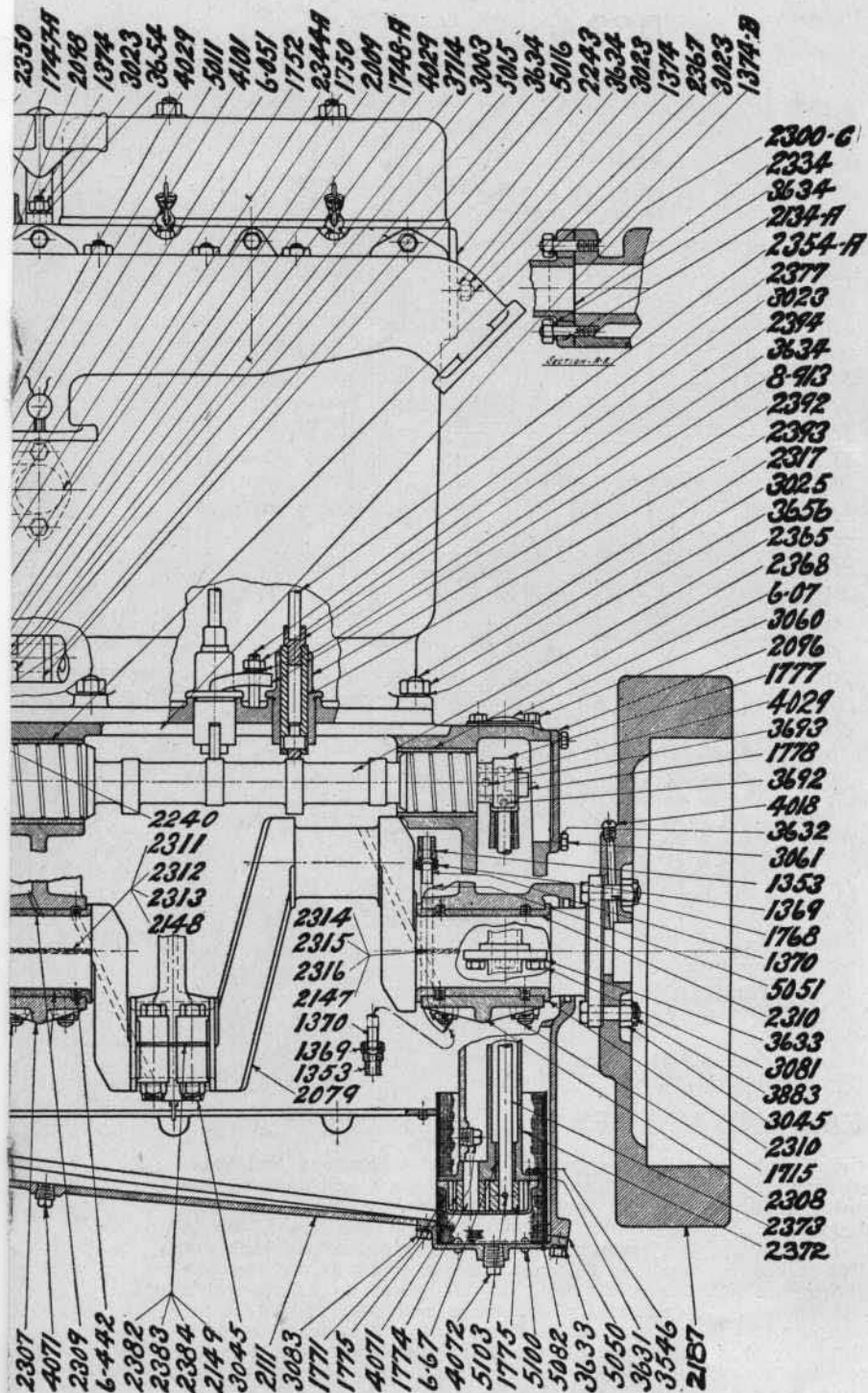


Fig. 3



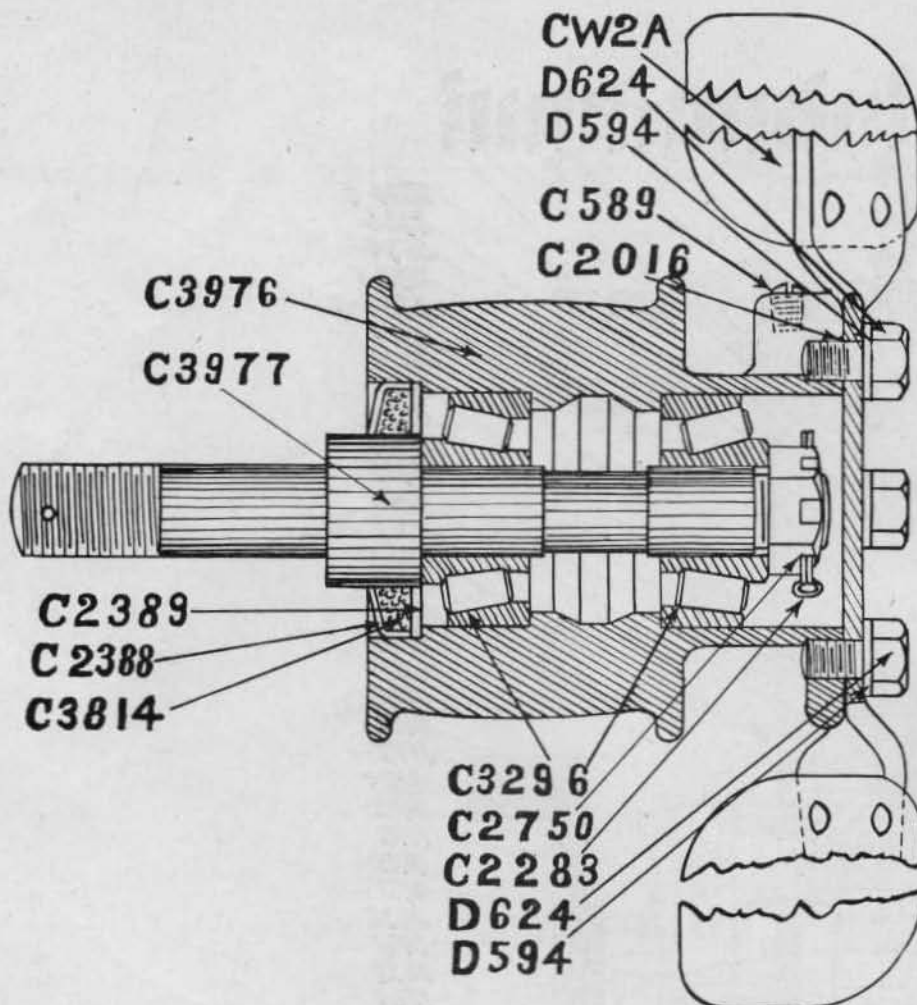


Fig. 4

The Fan

HEAD AND VALVES

Head should be removed, valves reground and carbon cleaned out about every 200 hours of running. Don't think because the motor still runs nicely that valves do not need regrounding. If regrounding is delayed valves will pit and warp badly, frequently making renewal of valves necessary and sometimes the head. If they are ground frequently, only slight labor is necessary to put them back into first class shape. If delayed it is a long and tiresome job.

When removing head never wedge chisels, screw drivers or any metal tool between head and cylinders. This will seriously damage the packing surfaces and result in a leaky head. Remove head by tapping with a block of wood at the same time turning motor against compression.

To reground valves remove springs and valve caps. Carefully clean off stem and head so that they are free from carbon. Apply a thin coat of grinding compound or oil and fine emery to the bevel face of the valve and rotate back and forth on the seat. Use a screw driver or screw driver bit held in bit brace to rotate valve. Occasionally the valve and seat should be inspected and condition noted. Do not attempt to grind out all the little pin points as this is not necessary. After a good seat has again been secured clean off the valve and seat and replace. When replacing head be sure to have face of head and cylinder perfectly clean. Wash with gasoline and brush off. Do not screw nuts down solidly one at a time but gradually draw all of them up.

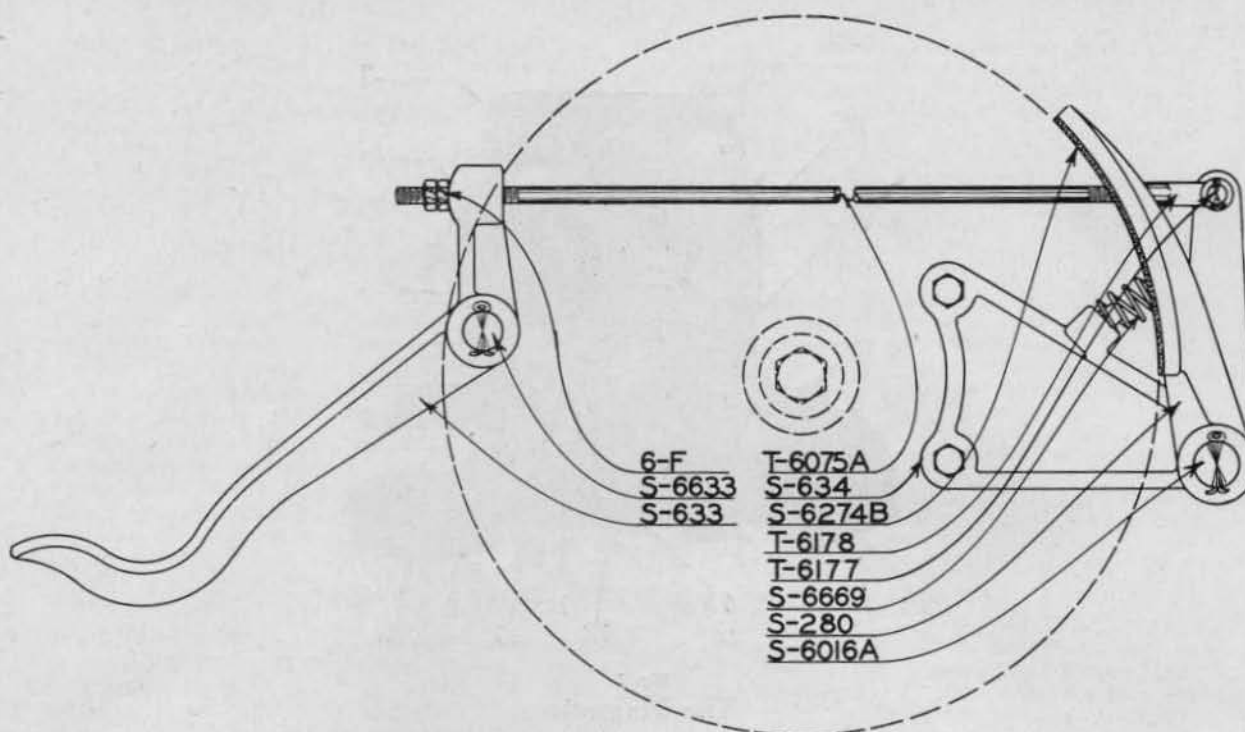


Fig. 4A

Pulley Brake

PUSH ROD ADJUSTMENT

Push Rod adjustment is provided for by adjusting screws in the rocker arms. By this means the proper clearance between rocker arms and valve stems may be maintained. All valves

in the closed position may be adjusted. The proper adjustment is between .005 and .008 of one inch clearance for both intake and exhaust valves when the motor is hot.

MAGNETO INSTRUCTIONS

LUBRICATION: The magneto requires very little lubrication—two or three drops of good quality light machine oil in the oil cups every 100 hours is sufficient. More oil than this will cause difficulties. When the Magneto is not provided with oil cups, the bearings are packed in grease and lubrication is not necessary.

INTERRUPTER: The interrupter contacts should be open about 1/64 of an inch the thickness of the gauge on the Bosch Magneto adjusting wrench, when the fiber block on the interrupter lever rests in the center of one of the cams on the interrupter housing. On those magnetos supplied with a cam ring, the contact point opening should be adjusted to the proper distance when the interrupter lever fiber block is on the highest portion of the ring. Proper adjustment may be made by loosening the lock nut on the long contract screw and turning the screw in the proper direction, with the Bosch Magneto Wrench. Be sure to tighten

the lock nut after the adjustment has been made.

If the surface of platinum interrupter contact points becomes pitted, re-surface with a fine flat jeweler's file or a piece of fine sand paper, never use emery cloth on platinum contact points.

Tungsten contact points may be re-surfaced with very fine emery cloth or against the side of a fine emery wheel, finishing on an oil stone. A fine carborundum stone is better for the work.

SPARK PLUG SETTING: In order to insure proper functioning of the Magneto, the distance between the electrodes of the spark plug should not be less than 1/50 of an inch. This distance varies according to the individuality of the engine. Too wide a spark plug gap will cause difficulty in starting an engine and missing at low speeds; it therefore is especially important that the plugs be examined occasionally to see that the gap is not too great.

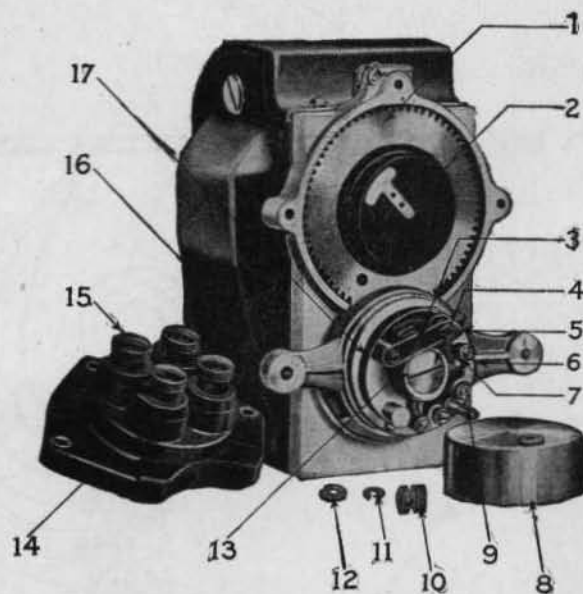


Fig. 5

The Magneto

HOW TO TIME THE MAGNETO

To determine whether the magneto is timed correctly, open the priming cups and turn the Flywheel until No. 4 exhaust valve has closed. (No. 4 exhaust valve is the one next to the Flywheel). The flywheel is marked TC 1 and 4 which means that the No. 1 and No. 4 pistons are at the "Top Center" or "Upper Dead Center" at this point.

Position of flywheel may be noted through inspection hole on top of bell housing.

No. 1 piston is now at the end of its upward stroke and at this point the impulse starter should snap loud enough to be heard. If this

does not occur, remove the retaining screws from the magneto drive shaft coupling and rotate the shaft either backward or forward until the correct alignment is made so that the impulse takes place at the proper time.

The timing of a magneto requires great care as a slight variation in the timing will cause a great difference in the performance of the motor.

If the ignition is too early the motor will knock, it will be dangerous to crank and the bearings will be short lived. If the ignition is too late the engine will not develop its full power and overheating will result.

SETTING THE TIMING LEVER ON THE MAGNETO

When setting the timing lever on the magneto it should be borne in mind that this will not change the time of the snap of the impulse starter. The timing lever is independent of same.

After motor has started the impulse starter ceases to function being automatically cut out. Time of ignition is now controlled by the timing lever. This timing lever should be pushed down as far as it goes.

HOW TO RETIME MAGNETO IF IT HAS BEEN REMOVED

Open the priming cups and turn flywheel until No. 4 exhaust valve is closed. (No. 4 exhaust valve is the one next to flywheel). The flywheel is marked TC1 and 4. Have this mark at the top, which means that the No. 1 and No. 4 pistons are at the top center or upper dead center at this point. Position of flywheel may be noted through inspection hole on top of bell housing.

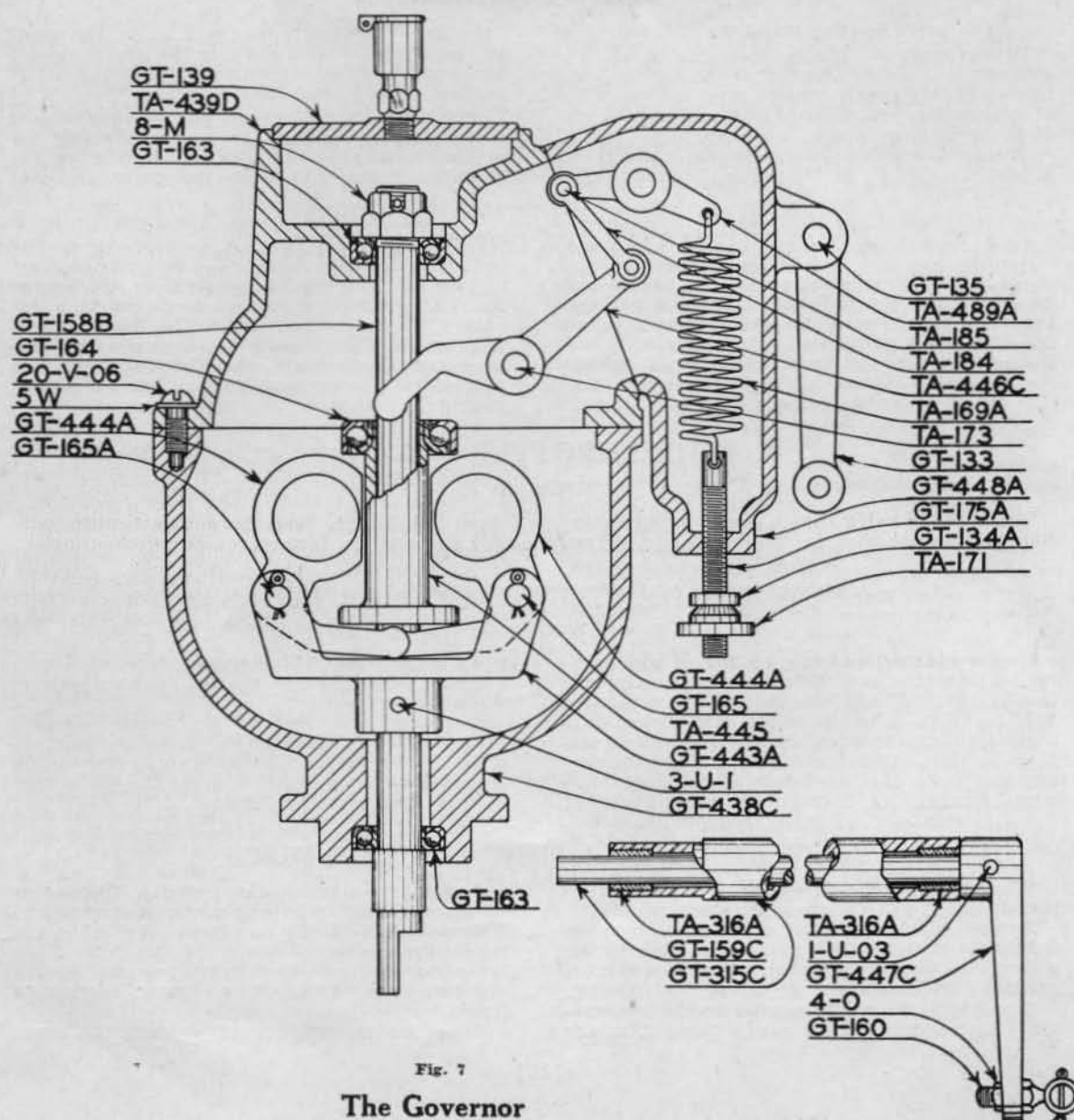
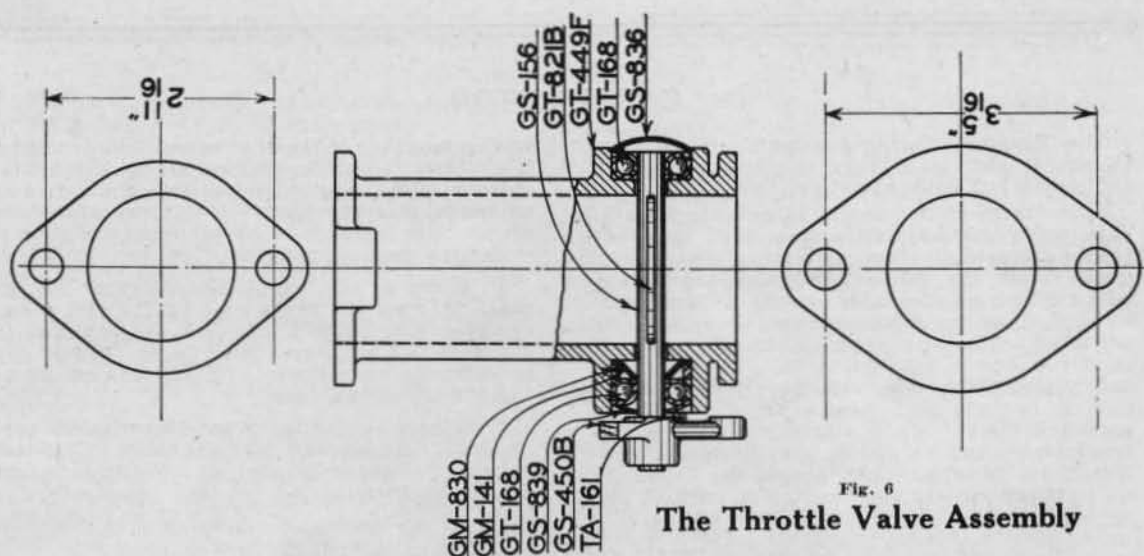
Secure magneto to motor in its place and make sure it is properly aligned with the driving shaft.

Remove the distributor plate and end cap from the magneto and turn the magneto armature in the direction in which it runs until the carbon brush is in the lower left hand corner and the contacts start to open. This occurs

when the interrupter lever fibre block begins to bear against one of the interrupter cams. (Points just opening).

The armature should be held in that position while the magneto drive is connected to the engine. The installation is completed by replacing the distributor plate and end cap and connecting the wires between the magneto and spark plugs.

Connect wire from No. 1 cylinder to terminal in lower left hand corner of the distributor block. Fasten the wire from No. 2 cylinder to next terminal (going clockwise). Fasten the wire from No. 4 cylinder to the third terminal and the wire from No. 3 cylinder to the fourth terminal. The firing order of the motor being 1-2-4-3.



CARBURETOR

The Kingston Carburetor which is used on Lauson tractor is of very simple construction and needs but little attention.

Adjustment of the needle valve is important. This is the only adjustment required. Shut off needle valve to give best power. A black sooty smoke from the exhaust indicates too rich a mixture and needle valve should be gradually screwed down until the exhaust is clear. Do not mind a blue or grayish smoke from exhaust as this is due to lubricating oil. Loud exhaust and popping through carburetor indicates too lean a mixture and needle valve should be opened further. Upon starting a cold motor needle valve can be and is usually opened further than normal. Care should be taken to adjust more closely after motor is warmed up.

The function of the choker on the carburetor is to restrict the passage of air in order that more gasoline may be sucked into the cylinders to make starting easy. If motor refused to start easily examine choker and make sure it closes the passage properly.

If there is any suspicion of water in the gasoline, open the drain cock on the carburetor chamber and allow a little of the contents to run into the hollow of your hand. Water can be detected in this way. It will always go to the bottom of the vessel.

Watch closely for leaky gasoline pipes or connections. Repair any leaks at once. They are extremely dangerous and are liable to cause disastrous fires.

THE GOVERNOR

See Fig. 6 and 7

Do not tamper with the governor unless absolutely necessary. Speed of motor is controlled by the speed control lever on the dash of the tractor. An oiler has been placed on top of the governor. Supply oil daily.

The normal speed of the motor is 1,000 R. P. M. or.....R. P. M. of the belt pulley. The

diameter of the belt pulley is..... The speed of the motor is controlled by the speed control lever on the governor which is connected to the ratchet control lever on the dash.

Pulling back the lever on the steering column increases the speed of the motor. Further adjustment can be obtained by screwing up the thumb nut No. TA171 on the governor.

WHEN THE GOVERNOR SURGES

When the governor continually opens and closes the throttle, a condition known as surging, may be caused by the governor shaft GT159B being too loose in its bearings. Bearings can be adjusted by screwing down the nut No. 8M on the top end of the governor shaft. If still too loose renew bearings GT163.

Surging may also be caused by the spring No. TA169A having become too weak in which case it should be renewed. The lower end of the shaft GT158B should also be examined. The tang end should be a reasonably close fit into the internal spiral gear. If too loose the shaft should be renewed.

THE THROTTLE VALVE

Fig. 3

The throttle valve should occasionally be examined for looseness in the bearings. If too

loose it is best to send the entire throttle valve assembly to the factory for an overhauling.

HOW TO ADJUST TWIN DISC CLUTCHES

See Fig. 8

Remove inspection plate on top of bell housing on transmission. This plate is directly over the clutch. The clutch adjusting yoke No. 104B1. Fig. 8 which is the steel sleeve supporting the four clutch dogs is now nicely exposed to view. Clutch can be adjusted by screwing this yoke further towards the motor. A small locking pin No. 114B1 must be lifted

when doing this. This locking pin is fitted with a spring which returns the pin back to position when it is released.

Be sure this locking pin when released "snaps" back into one of the holes provided for it under the sleeve. The sleeve may have to be turned slightly in order to bring the pin in line with the hole provided for it.

HOW TO INSTALL NEW FRICTION DISCS

Whenever it becomes necessary to renew friction discs No. 112B11 proceed as follows:

Remove hood, front and rear. Loosen upper and lower radiator hose connection next to the motor. Remove the radiator. Disconnect clutch rod from the clutch arm at top of bell housing.

Disconnect the gasoline pipe at the carburetor. Disconnect the oil gauge tube at motor

and wire running to the switch. Disconnect governor control wire and air washer tube.

Remove the 12 cap screws holding bell housing to the motor. Remove the two bolts holding motor to frame at bell housing and remove the two bolts holding front motor bracket to frame.

Slide the motor forward against the front

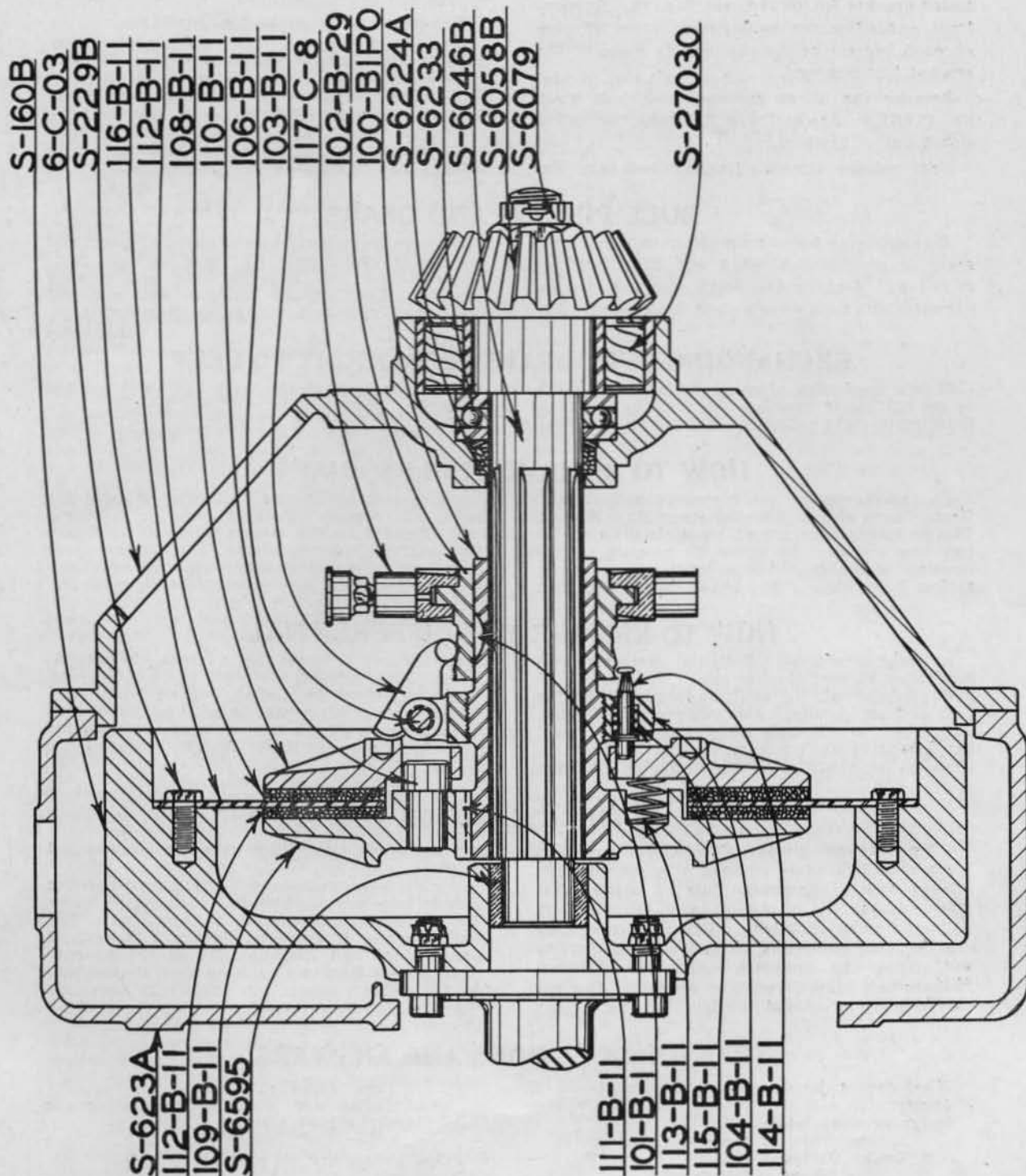


Fig. 8

plate. Raise up front end of motor and remove motor bracket No. S620A, see Fig. 15. Support front end of motor by laying a piece of pipe or wood bar across the channels in place of the bracket just removed.

Remove the 8 cap screws which bolt plate No. 116B1 to flywheel Fig 8. Take the entire clutch out of flywheel.

Next release clutch adjusting lock pin No.

114B29 until adjusting yoke assembly is entirely free and can be removed.

Remove floating plate No. 108B11.

Remove old lining from driving plate No. 116B11 and replace with new lining.

Re-assemble in reverse order.

When re-assembling be careful that the clutch fork S246D does not catch or is held back by the cone collar No. 117C8 as this may bend it or damage other parts and later result in binding and heating of the cone collar.

BULL PINIONS AND GEARS

Should it ever become necessary to renew bull gears or pinions Nos. 6218 and 273A proceed as follows: Jack up and block rear end of tractor until both rear wheels clear the ground. Re-

move nuts from inner hub of ground wheels and remove ground wheels. Remove all bolts from pressed steel bull gear housing and remove housing. Both pinions and bull gear are now exposed to view and may be easily renewed.

EXCHANGING BULL GEARS FROM RIGHT TO LEFT

It is a good plan after one side of the teeth of the bull gears have become worn to exchange them from right to left. This places the wear

on the other side of the teeth and this prolongs their life.

HOW TO REMOVE PULLEY SHAFT

To remove pulley shaft remove pulley first. Next remove shifter housing assembly. Fig. . . This is fastened to top of transmission case by two cap screws. In order to remove shifter housing assembly it is necessary to remove shifter lever Fig. . . No. 6514. Remove shifter

lever by unscrewing small set screw in retaining collar and remove retaining collar by unscrewing. Remove all cap screws from left hand pulley shaft bearing housing. This is the large round plate on transmission case opposite pulley. Pulley shaft may now be easily removed.

HOW TO REMOVE THE DIFFERENTIAL

In order to remove differential assembly, proceed same as for "How to get at bull gears and bull pinions" but in addition remove gasoline tank and air cleaner. Also remove pipes, wires, etc., which are directly over transmission case. For removing shifter housing see "How to remove pulley shaft". Next remove transmission

case cover. Remove bolts from differential sleeve, and remove end plates. Differential shaft may now be pulled out on each side. When doing this pry up and hold up differential assembly with a crow bar. Differential assembly may now be easily lifted out for inspection or repair.

THE CYLINDERS

Cylinders and pistons are subject to wear. Worn cylinders cause leakage of gases past the pistons with a consequent loss of power. Excessive smoke out of the breather pipes usually indicates worn cylinders. This condition may also be noted by pulling up on the starting crank and noting the compression of each cylinder. If there is a blow through or excessive leak the only remedy is to send the block to the factory

for regrounding and fitting with new pistons and rings.

We do not recommend putting new oversize pistons into worn cylinders. It is the cylinder that is worn and should be reground. The major part of repairs on cylinders is the cost of new pistons and rings and it should be considered poor economy to place new pistons into worn cylinders when for but little more the cylinders can be reground.

TRACTOR QUESTIONS AND ANSWERS

What causes the motor to lack power?

Answer:

1. Ignition too late:

(See "How to Time Magneto".)

2. Leaky Valves:

(See "Head and Valves".)

3. Push Rods adjusted incorrectly:

(See "Push Rod Adjustment".)

4. Clogged Air Washer:

(See "Clean Air Washer".)

5. Motor may not fire in all cylinders:

(See "Missing Motor".)

6. Cylinder and piston worn causing gas leakage past pistons:

(See "The Cylinders".)

What causes low oil pressure?

Answer:

1. Bearings too loose:

(See "How to Adjust Bearings".)

2. Leak in the oil line.

3. Screw No. 5447 may need screwing up:

(See Fig. 1.)

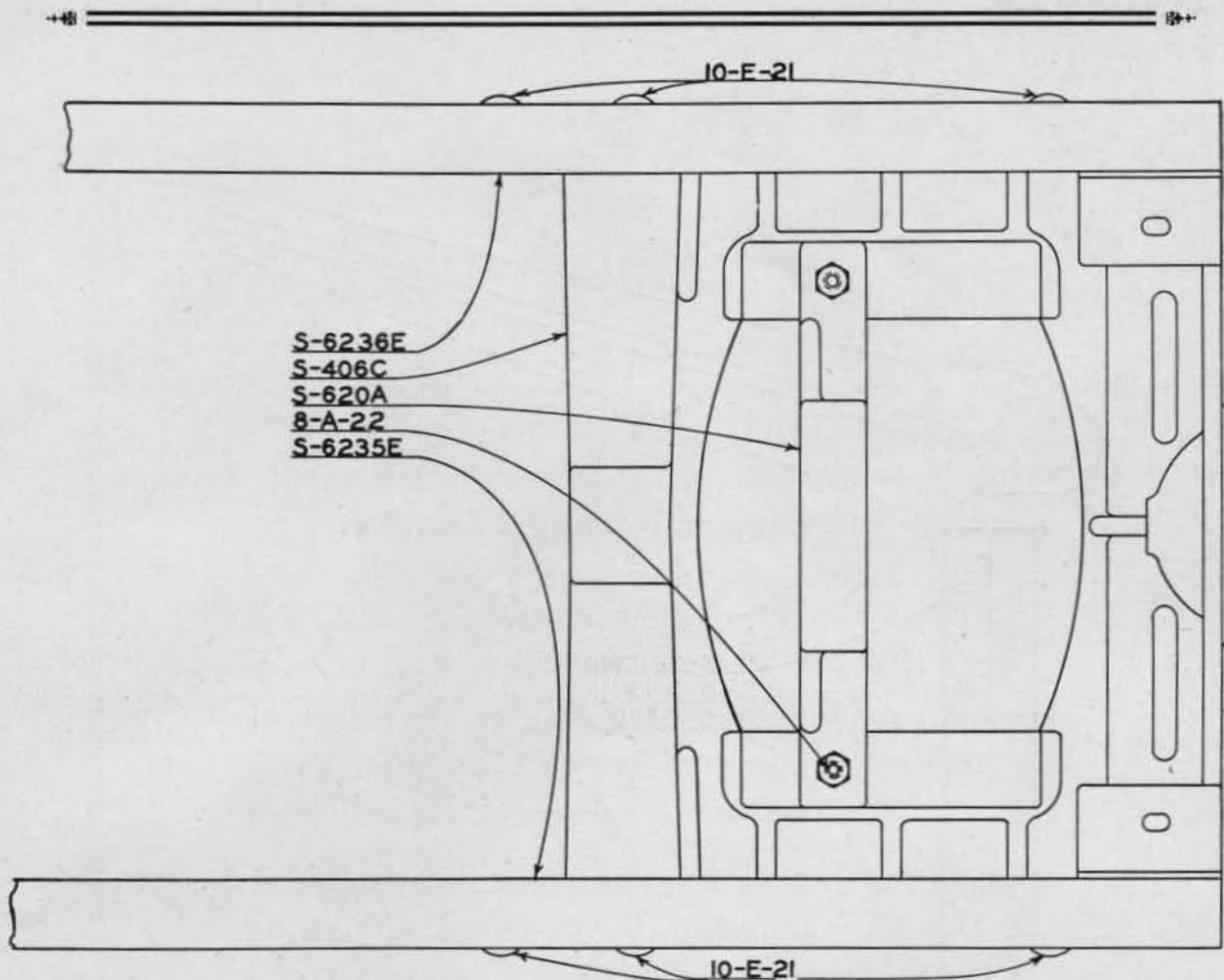


Fig. 15

4. Oil pump worn.
(Should be overhauled.)
5. No oil in sump of motor.

What cause bearings to wear excessively?
Answer:

1. Oil in crankcase sump of motor not changed often enough. Drain out all oil in motor and supply new oil every 40 hour run.
2. Crankshaft excessively worn and no longer truly round. Have bearings on crankshaft refinished or install new crankshaft.
3. Neglecting to keep air cleaner filled with water when running tractor when grit and dust is present.
4. Running motor at excessive speed. The motor should never be run beyond 1060 R. P. M.

What causes water to boil in radiator?

Answer:

1. The fan belt too loose or of poor quality. Always use endless leather fan belts.
2. The blades of the fan not having the proper curvature or angle due to having been damaged or mishandled.
3. Radiator clogged with scale due to using hard water. If possible use rain water in the radiator.
4. Circulating pump on motor worn or damaged. The fan or motor may be loose in the shaft, or the vanes of fan bent by starting the motor with ice in the pump body.
5. Defective hose connections from the radiator to the motor obstructing the flow of the water. Renew hose connections.
6. Ignition too late.
(Read the question: "What causes lack of power and the answers there to". The causes of lack of power also are liable to lead to overheating.

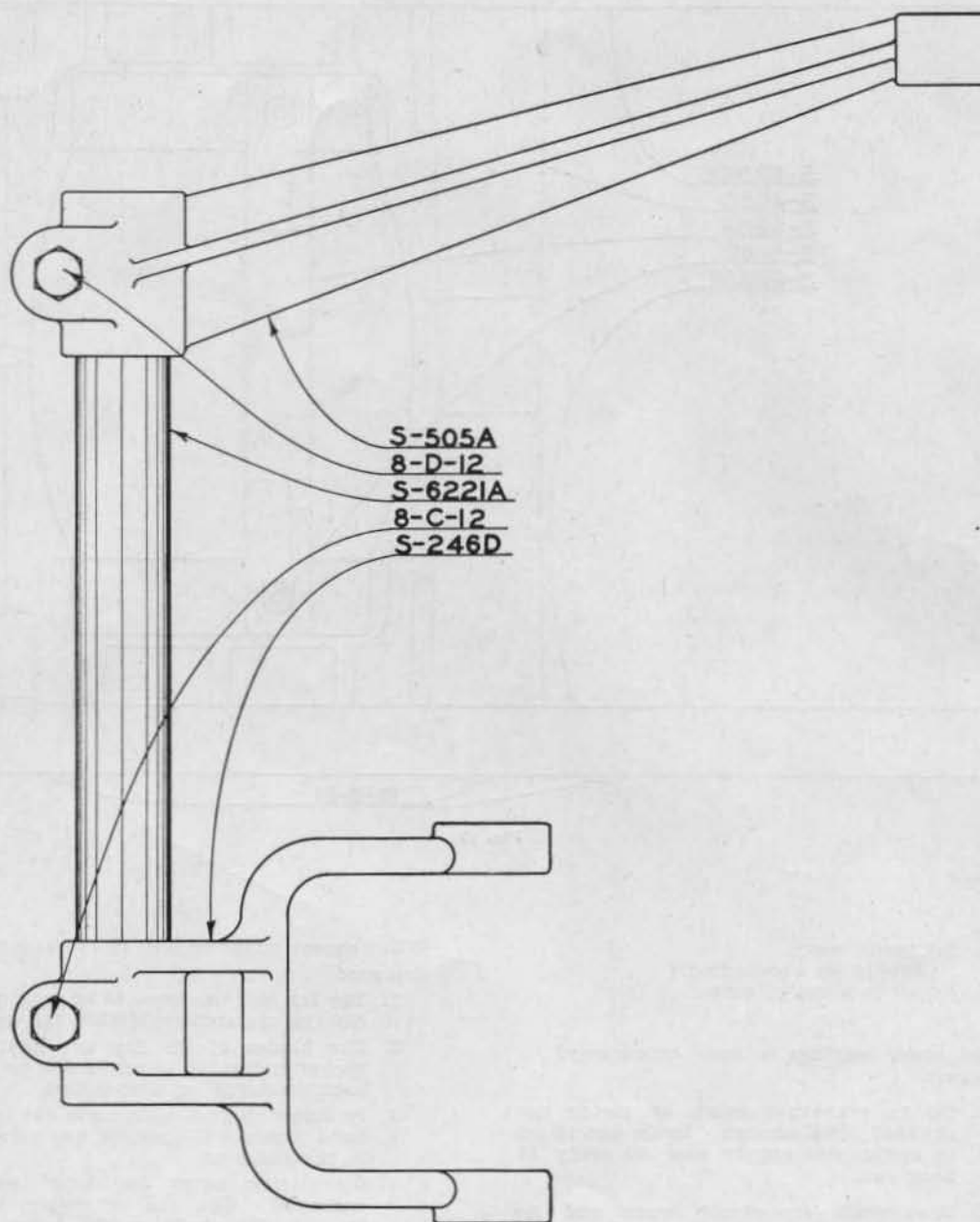


Fig. 17

Clutch Arm

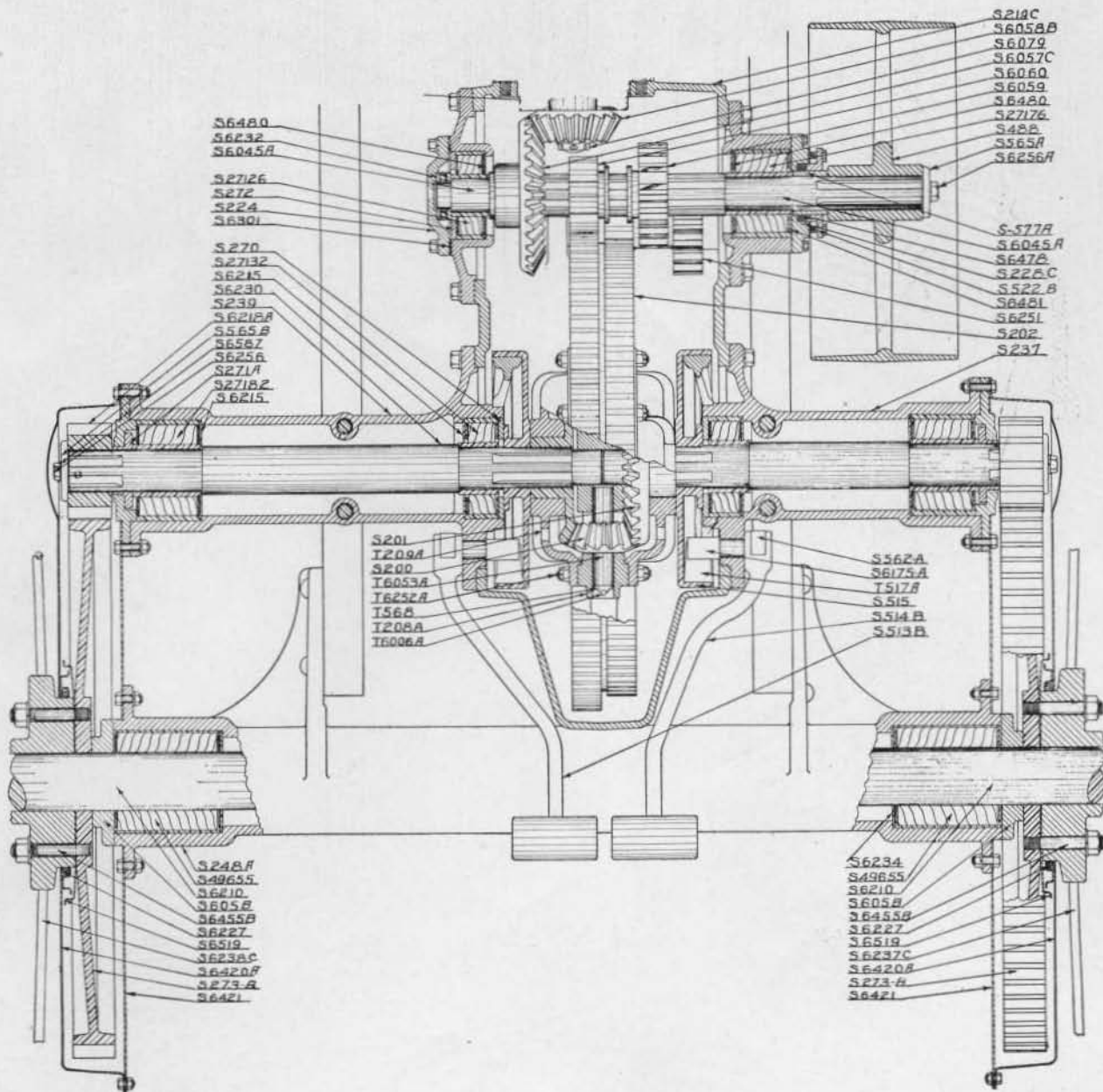


Fig. 18

Transmission and Rear Axle

