

## SERVICE INSTRUCTIONS AND PARTS LIST

# *Fairmont*

### MT 19 SERIES A

### INSPECTION CARS



This bulletin contains instructions for the operation and care of standard MT19 Series A inspection cars and lists parts for them. See engine manufacturers' bulletin for engine operating instructions and repair parts.

## **FAIRMONT RAILWAY MOTORS, Inc.**

**FAIRMONT, MINNESOTA, U. S. A.**

**DISTRICT OFFICES**

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**IN CANADA: Fairmont Railway Motors, Ltd., Toronto, Ont.**

- GENERAL INFORMATION** This bulletin contains operating instructions and lists repair parts for MT19-A motor cars. See engine bulletin for engine parts and operating instructions.
- PREPARING CAR FOR SERVICE** Inspect everything for possible damage in transit. If in bad condition make a full report to supervising officials at once. Be sure switch button on car seat is down, and connect the loosened wire on the battery. Examine all bolts, nuts and electrical connections for tightness. See that all cotter pins are spread open.
- Fill grease gun with a grease which will not congeal at 40° below zero and will not flow at temperatures of 275° F. All major oil companies can furnish such lubricant. Lubricate the four main axle bearings, drive axle center bearing, brake shaft bearings, differential axle and idler sprocket.
- Remove gas tank filler cap at rear of car and fill tank with gasoline, then replace filler cap. When filling tank, strain fuel through a fine mesh screen funnel or clean cloth free from lint. Open shut-off under gas tank. Open drain cock under carburetor, see that gasoline flows, then close it tightly.
- Starter switch button is located at the right rear corner of control panel. Just ahead of starter switch is a push-pull ignition switch. The switch is in the "on" position when switch button is pulled up from control panel and in the "off" position when pushed down. At the right front corner of control panel is the choke control. Brake lever is the long lever through center and throttle control is on the left. Ammeter and oil pressure gauges are to the right of brake lever.
- Extending through the seat top, just ahead of the control panel are two shift levers. These levers control the shifting of the transmission. The front lever controls the "Forward" and "Reverse" shifting. The rear lever controls the "High" and "Low" speed shifting. Located in tool tray directly in front of operator is the clutch pedal.
- Set car on the track and operate the control to become familiar with them. Release brake, shift transmission to neutral and see that car rolls freely. Be sure wheels and axles run true, and brake shoes do not drag.
- HANDLING THE CAR** Pull out extension lift handles when setting car on and off the track. Be careful not to strike axle sprocket on rails. Use care in setting off at crossings, switches and frogs so axles are not sprung by pinching wheels in flange ways. Avoid heavy jars and rough handling at all times.
- STARTING THE CAR** See engine bulletin for detailed instructions covering starting, operating and stopping.
- Always drive with engine ahead in normal service. After starting and warming up the engine, seat passengers, operator facing ahead. Depress clutch pedal and shift "Forward" and "Reverse" lever to Forward. Also with clutch pedal depressed shift "High" and "Low" lever to low, then release the brake. Gradually open throttle.
- DRIVING THE CAR** After car gets underway, use throttle to regulate speed. Accelerate to a speed of 12 to 18 miles per hour, close throttle, depress clutch and shift "High" - "Low" shift lever to "High", release clutch and open throttle. Carefully shift back to "Low" for heavy grades and slow speeds.
- Always run in "High" wherever possible. Do not operate the car at speeds above 20 miles per hour when in Low gear, as excessive engine speeds should be avoided. Drive a new car slowly and carefully until thoroughly familiar with the controls. A speed of 20 to 30 miles per hour for the first 500 miles is recommended.
- STOPPING THE CAR** Close throttle and apply hand brake bringing car to a complete stop. Depress clutch and shift "High" - "Low" lever to neutral position. Shut off ignition if car is to be removed from the track.
- REVERSING THE CAR** Bring car to a complete stop. Depress clutch pedal and shift "Forward" - "Reverse" lever to the Reverse position and "High" - "Low" lever in Low position. Open throttle gradually and drive car in the reverse direction using "High" or "Low" as conditions indicate.
- LUBRICATION** Engine crankcase capacity 7 pints. Maintain level to "full" mark on oil indicator. Use a good quality detergent oil classified for service MS or MS/DG. Do not use service DS at any time. Use the proper SAE number of oil for expected temperature conditions. See engine manufacturer's bulletin for recommendations.
- Transmission capacity 2-1/2 pints. Maintain lubricant to level plug on side of case. Use SAE 140 gear lubricant in summer, and SAE 90 in winter.

Caution. When any welding is done disconnect both battery terminals.

Once a month force some grease into fittings on main axle bearings, center bearing, brake shaft bearings, idler sprocket and differential axle.

## CHAIN

CAR NO. 231225 AND HIGHER--Motorcycle type roller chain. Keep chain tight with adjustable idler sprocket. Later cars also have adjustable dampener rails on the upper and lower strands to eliminate chain whip at higher speeds. This chain must be lubricated as explained below.

LUBRICATION--Fluid lubricant must be applied to the chain to assure an oil supply to minimize metal to metal contact. Lubrication, if supplied in sufficient volume, also provides effective cooling and impact damping at higher speeds. Therefore, it is IMPORTANT THAT THE CHAIN BE LUBRICATED EVERY 8 HOURS, preferably at the end of each days run, using a lubricant as recommended below.

Use a lubricant that contains molybdenum disulfide with rust and oxidation inhibitors in a light oil or vehicle that will evaporate. This type of lubricant leaves a residue on the working surfaces that will resist picking up and holding abrasive particles. Following are four such lubricants:

1. Molub-Ally Spindle Oil Light
2. Molylube Special Spindle Oil Light
3. Molylube #70
4. Whitmore's Open Chain Lubricant

If it is not practical to obtain the above products, an automotive or hydraulic oil of about SAE 10 viscosity should be used. Oils that leave a sticky or gummy residue should, of course, be avoided.

## GENERAL SUGGESTIONS-- SAFETY FIRST

Inspect the car before starting out each day, and make sure it is in good operating condition. Once a week clean the entire car thoroughly, examining gasoline joints, electrical connections, bolts, screws, etc., and tighten all loose parts.

When making inspection, see that:

- (1) Wheel tires are not worn dangerously thin.
- (2) Wheels and axles run true.
- (3) Axle end nuts are secured by cotters.
- (4) Wheel hub bolts are tight.
- (5) All wheels are tight on axles.
- (6) All sprockets are aligned and chain runs true.
- (7) Brake is in first class working condition.

Load baggage and tools carefully to prevent their working into moving parts or falling off the car.

Drive slowly with car under full control where there is not a clear view ahead, over road crossings, through gangs of workmen, through railroad yards, and over frogs, and switches. Don't drive during rain or snowstorms or foggy weather unless necessary and then only with a lineup and extra precaution. When following other motor cars or trains, remain 500 feet or more behind. Adhere strictly to local railroad motor car rules.

## AXLES AND BEARINGS

The axles run on a double row taper roller bearing at each end and a steady bearing supports the drive axle next to the sprocket. When axle bearings require adjustment, it is best to remove them from the car. Unbolt and remove wheel, axle and bearing assemblies. Take off wheels, then jar the bearing assemblies off the axles. If but one bearing requires adjustment, block up end of car and take off brake shoe and wheel adjacent to the bearing, then unbolt and remove bearing.

Take bearings apart and clean with gasoline if the lubricant is dirty or old, then lubricate with light oil. To remove bearings from axle casing, take off the cover, and with a heavy punch, drive against the inner race from the opposite end of the casing. If necessary, remove remaining outer race by jarring the casing against a heavy wood block. Reassemble in reverse order. Sufficient shims should be used under the cover to obtain .003" to .005" bearing end play with cover bolted tight.

When replacing drive axle on car, be sure all three bearings are in line. If necessary shim under the low one. A slightly sprung axle can usually be straightened cold, but one badly bent should be replaced. Never heat axles.

Two thrust collars on each axle take up end play. To adjust a thrust collar, loosen set

screw and clamp bolt, then tap collar snugly against axle bearing. When correctly set, tighten clamp bolt first, then set screw, and finally apply lock wire.

**DIFFERENTIAL AXLE** Cars are equipped with the FAIRMONT differential axle. It accommodates two tight insulated wheels which turn independently of each other with their respective halves of the axle.

**WHEELS** Standard Cars use four 16" x 1/4" demountable steel wheels, taper bore for insulation. Insulated wheels are mounted on the tapered axle ends with fibre sleeves in the hubs and fibre washers next to the outer face to provide electrical insulation. Each group is drawn tight by the axle end nut and a steel washer.

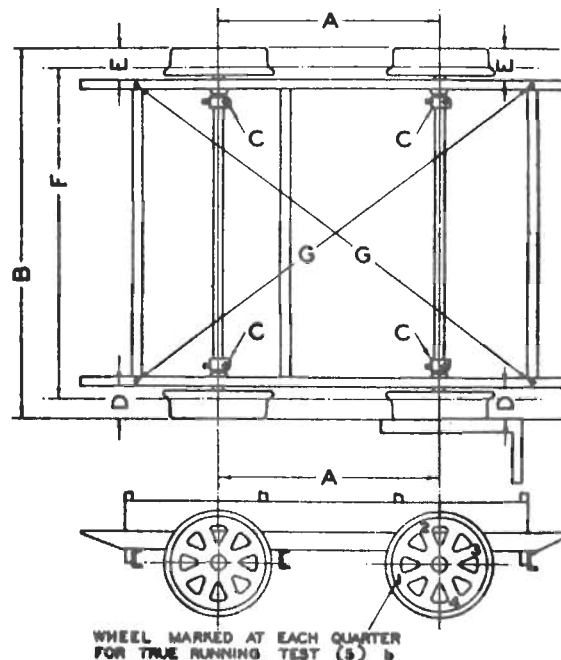
Each wheel tire is tightly held on the hub by four heat treated bolts. Removing these bolts and swinging the brake shoe clear permits quickly exchanging a tire without taking the complete wheel off the axle. Insulated 16" demountable wheels are easily removed from axles by using M19509 demountable wheel puller, or a shock wheel puller.

Before applying insulation, smooth all burrs in the wheel hub and wipe clean. Then carefully drive the insulating sleeve in until flush with outer hub face; and tighten wheel on the axle with end nut and steel washer, being sure the fiber washer is next to outer hub face. If wheels come too close together (under gauge), tough paper can be wrapped around the axle taper; if too far apart (over gauge), slightly ream the bushing with a taper reamer. Be sure insulated wheels are tight on the taper and all wheels run true.

**WHEEL ALIGNMENT**

NOTE--Sometimes a small difference in drive wheel circumferences causes a car to run to one side even though perfectly aligned. Again, another car will operate satisfactorily with drive wheels showing more variation. Track conditions, direction of wind, car loading and windshield have some effect on a car, and it may tend to run to one side even when in alignment.

Careful observance of these instructions insures a safe running car. This diagram represents the running gear of any motor car, but the instructions apply to cars with FAIRMONT 16" demountable wheels.



- (1) Replace bent or sprung frame members and check frame for squareness. Measurements "G" across corners should be the same if frame is square. Tighten all frame bolts.
- (2) Carefully block up under the car frame so all wheels turn freely and frame is level.
- (3) Examine wheels and replace tires with badly worn flanges.

- (4). Drive wheel tires must be approximately the same size. Measure them with a steel tape around the tread, being careful to keep it equidistant from the flanges at all points.
- (5) (a). Rotate wheel and axle assembly, and hold a piece of chalk steady so it just touches outer face of each wheel. If wheel and axle run true, chalk will mark evenly around wheel-- if wheel is sprung or axle is bent, chalk will mark the high spot on wheel. Wheels or axles badly out of true usually must be replaced, though axles can sometimes be straightened. A maximum tolerance of  $1/32$ " out of true is recommended on wheel tread, and up to  $1/16$ " out of true on wheel face or flange.
- (b). Another method of check is with a straight edge or two-foot carpenter's square across outer wheel faces (see diagram). Mark each wheel face in quarters and measure from the square to the side sill at each quarter turn of the wheel. The measurements should be the same for each wheel, if the wheel and axles run true.
- (6). Axle center distance "A" should be the same on both sides of car. Axle bearing bolts can be loosened to permit shifting the wheel and axle assemblies a trifle if necessary.
- (7). Cars have the wheels assembled on the axles with a tolerance of  $1/8$ " to  $1/4$ " under standard 56 $\frac{1}{2}$ " gauge. This enables them to operate on under gauge track or canted rail without change. The measurement over outside faces of wheels at "B" is 62- $3/4$ " when wheels are  $3/16$ " under standard 56 $\frac{1}{2}$ " gauge. It is preferable to have both axle assemblies drawn to the same gauge when aligning wheels.
- (8). New insulating sleeves are sometimes necessary to bring wheels to gauge. Fit them carefully so wheels run true.
- (9). With frame approximately centered between the four wheels, the outside faces of left wheels should be in line and parallel with axle bearing sill. Check with a straight edge, tight cord or carpenter's square, being sure distances "E" are both the same. If necessary, loosen and shift thrust collars "C".
- (10). Next, check right side of car where distances "D" should also be equal and approximately the same as "E".
- (11). Carefully set all thrust collars "C" against bearings. First tighten clamp bolts, then set screws and lock wires.
- (12). After thrust collars are set, make another check of wheels to be sure alignment has not been disturbed.

**BRAKE**

To bring the car to a quick stop, apply the brake with firm, steady pressure, yet allowing the wheels to revolve. Go over the brake when weekly car inspection is made, and tighten bolts and adjust shoes if necessary. Be sure cotters are spread.

To adjust brake, disengage adjustable toggles on both sides of car, unscrew the eyebolt or yoke on each toggle 2 or 3 turns, then reengage parts. Try the brake and, if necessary, make further adjustment until all four shoes take hold equally. Be sure the lever can be latched in the first notch in the guide. Install replacement liners when old ones wear thin. Be sure liners and bolts holding them do not touch other metal brake parts, as electric signals might be operated.

**CAR FRAME AND HOUSING**

Keep all frame bolts tight. In case frame members become damaged, straighten them or if badly out of shape, replace. Unlatching and raising the seat top permits inspection and adjustments to be quickly and easily made.

**ENGINE MOUNTING**

The engine is held on the engine sills by four bolts with nuts and lock washers. They should be kept tight.

**CLUTCH PEDAL CLEARANCE**

Adjust clutch pedal linkage so clutch pedal has approximately  $1/2$  inch of free travel.

### INSTRUCTIONS FOR ORDERING PARTS

When this bulletin is received, complete the following motor car record from the FAIRMONT name plates on the car and on the engine. Always mention these factory serial numbers when writing about the car or ordering parts.

Factory Car No. \_\_\_\_\_ Class \_\_\_\_\_ Series \_\_\_\_\_  
 \_\_\_\_\_ Group \_\_\_\_\_ Special \_\_\_\_\_  
 Factory Engine No. \_\_\_\_\_ H. P. \_\_\_\_\_ Type \_\_\_\_\_  
 \_\_\_\_\_ Group \_\_\_\_\_ Special \_\_\_\_\_

#### TO INSURE PROMPT AND CORRECT SHIPMENT of parts, always give:

- (1) Quantity of each part wanted.
- (2) Symbol number of part as shown in this book.
- (3) Description of part as shown in this book.
- (4) Factory serial numbers recorded above.
- (5) Car gauge if other than 56½" standard.
- (6) State whether shipment is to be by mail, express, or freight.

All parts are shipped f.o.b. factory, transportation charges to be paid by customer. Terms are strictly cash with order.

Parts are listed by description, symbol and quantity, and all important items are illustrated. Quantities in right-hand columns show the number of parts in each assembly or group. Items printed in capitals are assemblies which include all parts listed immediately following and indented to the right. When assemblies can be used, always order them to save work of fitting separate parts. If in doubt as to any part wanted, send full description or sketch, or send old part with order.

For descriptive purposes the engine end of car is named front, and right and left are determined by looking from rear to front.

Common bolts, nuts and washers are not listed in this bulletin, as they can be obtained from any railroad store department.

The numerical part list on page 7 contains all items shown in the parts section covering standard battery ignition cars. Spare parts for accessories, and parts used on special cars only, are not listed in this index.

Spare parts of accessory groups are given on pages 22 through 27. Items used only on cars having figures in the space on the name plate marked "Special" are listed according to car designation, starting on page 28.

### CAR IDENTIFICATION

(Found on Car Name Plate)

To accurately identify cars, all units carry the designation "Class MT14 - Series L - Group \_\_\_\_\_ Special \_\_\_\_\_." The group number is always shown, and cars having changes to customers' specifications also have figures in the space marked "Special." When the letter "Z" appears in the designation it indicates either broad or narrow gauge.

### LIMITED WARRANTY

FAIRMONT products are designed to give the utmost service and are manufactured from high grade material, by competent workmen under careful supervision. FAIRMONT warrants products of its manufacture to be free of defects in material and workmanship, under normal use and service, for a period of 90 days from date of delivery to the original user. FAIRMONT'S obligation under this warranty is limited to repairing or replacing at its factory, or other location designated by us, any part or parts thereof which shall, within 30 days of the date when failure occurs or defect is noted, be returned with transportation charges prepaid, and which upon examination shall appear to FAIRMONT'S satisfaction to have been defective. Such free repair or replacement does not include transportation charges, or the cost of installing the new part or any other expenses incident thereto. FAIRMONT shall not be liable for other loss, damage, or expense directly or indirectly arising from the use of its products.

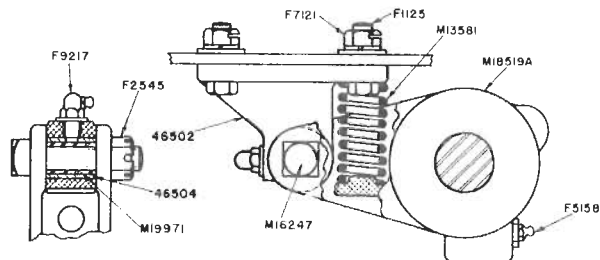
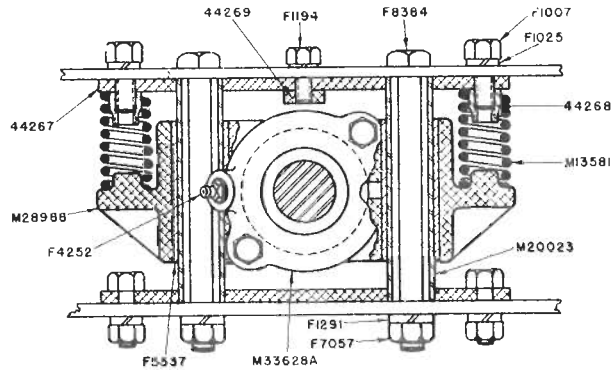
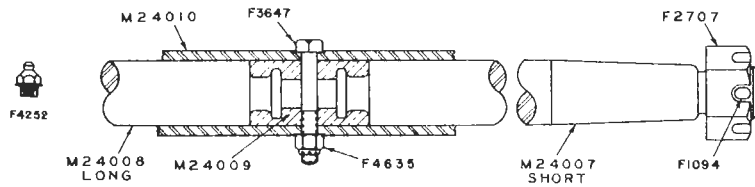
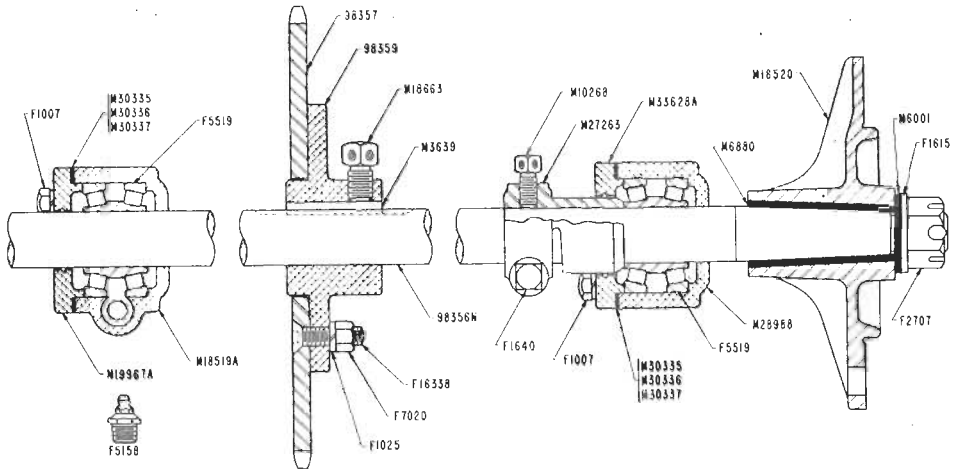
Ordinary wear and tear, abuse, misuse, neglect or alteration are not covered by this warranty. FAIRMONT assumes no liability for expenses or repairs made outside its factory except by written consent. Warranty is null and void if instructions and operating procedures specifically referring to warranty coverage are not followed.

Equipment or parts not manufactured by this company, but which are furnished in connection with FAIRMONT products, are covered directly by the warranty of the manufacturer supplying them. However, FAIRMONT will assist in obtaining adjustment on such equipment or parts when necessary.

This warranty is in lieu of all other warranties expressed or implied including any implied warranties of merchantability or fitness for a particular purpose and any liability for special or consequential damages.

## NUMERICAL PART INDEX

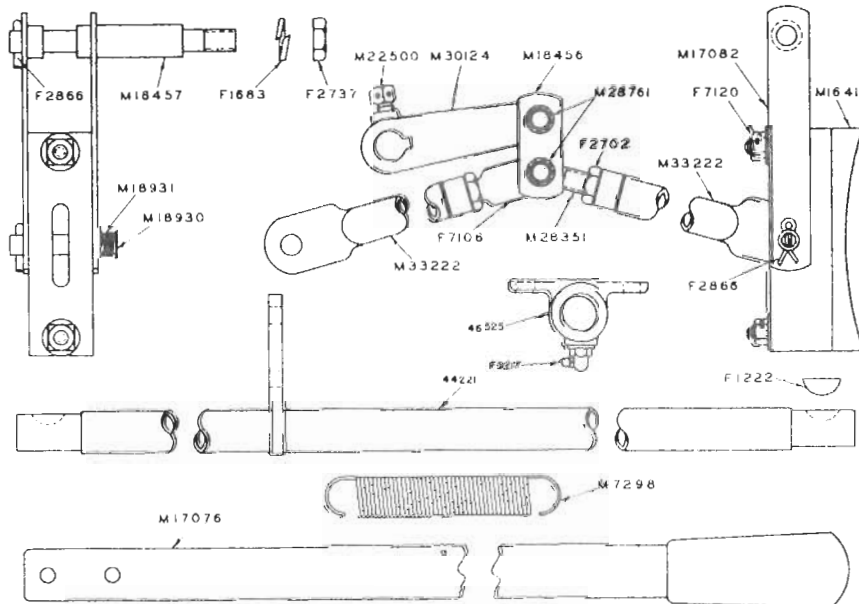
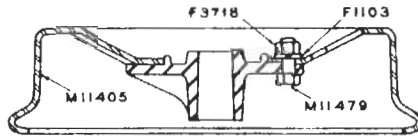
SYMBOL	PAGE	F7955	19	M18456	11	54316	21	98447	17
L 1R	17	F7956	19	M18457	11	54319	21	98448	17
C 48	19	F7957	19	M18519A	9	54320	21	98574	17
TF 68F	19, 21	F8237	19	M18520	11	56235	11	98577	17
PH 90F	19	F8305	21	M18528	11	66426	15	98631	17
F1007	9	F8384	9	M18930	11	68186	21	98632	17
F1040	9	F8692	19	M18931	11	69552	13	98633	17
F1103	11	F8708	21	M19967A	9	69555	13	98634	17
F1125	9	F8905	13	M19971	9	69559	13	98635	17
F1192	17	F9217	9, 11, 13	M20023	9	69565	11	98636	17
F1222	11	F9552	21	M20862	13	69584	21	98637	17
F1291	9	F10189	19	M20863	13	69594	21	98638	17
F1615	11	F10200	19	M20879D	11	73882	13	98639	17
F1640	9	F10201	15, 19	M21894	15, 19	75802	13	98640	17
F1688	19	M10268	9	M21899	11	85450	21	98641	17
F1708	17	F10332	17	M22500	11	90869	17	98642	17
F2035	19	F10387	15	M23738	19	91727	13	98643	17
F2219	15	F10529	17	M24007	9	93556	15	98644	17
F2220	15	F10722	15	M24008	9	98149	19	98645	17
F2368	17	F10825	21	M24009	9	98344	13	98646	17
F2493	11	F10991	15	M24010	9	98345	13	98647	17
F2545	9	F11250	17	M24174	19	98349	13	98648	17
F2632	21	F11323	17	M24615	19	98350	13	98649	17
F2702	11	M11405	11	M27263	9	98351	13	98650	17
F2707	9	M11479	11	M28351	11	98352	13	98651	17
F2866	11	F11686	17	M28761	11	98353	13	98652	15
F2945	19	F12845	15, 19	M28988	9	98354	13	98653	17
F2946	19	F13126	17	M29229	11	98355	13	98654	17
F2948	19	F13407	17	M29230	11	98356N	9	98929	21
F3003	15	M13581	9	M30124	11	98357	9	98930	13
F3054	9	F13601	17	M30335	9	98359	9	98931	21
F3114	13	F14260	15	M30336	9	98360	9	98932	21
F3413	15	M14579	19	M30337	9	98361	11	98933	21
F3543	21	F15488	17	M30839	21	98362	13	98934	21
F3558	21	M16247	9	M31455	21	98367	13	98935	21
F3613	19	F16338	9	M33222	11	98368	13	98936	21
F3614	19	F16340	15	M33628A	9	98369	13	98937	21
M3639	9	F16341	15	M33650	9	98371	17	98938	21
F3647	9	F16342	15	M34410	19	98373	17	99046	15
F3651	19	F16344	15	M34724N	9	98374	17	99208	17
F3718	11	F16345	15	M34725A	9	98375	15	99440	21
F3998	19	F16346	15	M34727A	9	98376	15	99486	17
F3999	15, 19	F16348	15	M35540	11	98377	15	99726	15
F4125	19	F16349	21	M36399	19	98378	15	100123	19
F4252	9	F16350	19	M37165	13	98379	15	100128	17
F4413	19	F16351	19	M37166	13	98380	15	100130	17
F4635	9	F16352	19	37264	19	98381	15	100131	17
F4791	21	F16353	19	38822A	13	98384	21	100171	19
F5146	17	F16369	17	38824A	13	98385	21	100173	19
F5147	17	F16370	17	40598	17	98388	21	100174	15, 19
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F5378	19	F16372	17	44268	9, 13	98393	21	100177	15
F5519	9	F16373	17	44360	13	98394	21	100179	15
F5537	9	F16374	17	44361	12	98396	21	100197	19
F5603	19	F16387	17	44362	13	98397	21	102895	15
M6001	11	F16388	17	46500	13	98399	21	102897	15
F6015	13, 15	F16389	17	46501	13	98400	21	102898	15
M6334	11	F16390	17	46502	9	98401	21	102899	9
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M6880	11	F16457	15	46517	13	98409	21	103822	15
F7057	9	F16459	15	46518	13	98410	21	103823	15
F7106	11	F16463	17	46525	11	98411	15	103826	21
F7120	11	F16579	15	46537	21	98415	19	103977	15
F7121	9	F16581	17	46547	21	98416	21	116644	15, 19
F7179	19	M16734	11	46565	19	98418	21	116708	15
M7298	11	F16976	15	46569	19	98419	21	116709	15
F7876	19	F16977	15	46570	19	98441	17		
F7877	19	F17968	21	46571	19	98442	17		
F7953	19	M17076	11	48963	21	98443	17		
F7954	19	M17082	11	50917	15	98445	17		





## AXLES - AXLE BEARINGS - THRUST COLLARS

DRIVE AXLE 1-3/16" (inc nuts and cotters) .....	98356A	1
Axle End Nut (use F1094 Cotter) .....	F2707	2
AXLE SPROCKET WITH HUB (car No. 231225 and higher) (Ill. 98357) .....	102899	1
Hub only Ill. 98359 .....	103988	1
Sprocket 50T (two piece - ill. 98357 - car No. 231225 and higher) .....	102900	1
Cap Screw 3/8 x 1-1/2" flat head (car No. 231225 and higher) .....	F16338	4
Set Screw 3/8 x 3/4" (car No. 231225 and higher) .....	M10268	1
Drive Key 1/4 x 1/4 x 3" .....	M3639	1
AXLE SPROCKET WITH HUB (cars below No. 231225) superceded by 102899 .....	98357	1
Hub only superceded by 103988 .....	98359	1
Sprocket 48T (two piece - ill. 98357 - cars below 231225) superceded by 102900 .....	98360	1
DIFFERENTIAL AXLE 1-3/16" (inc nuts and cotters) .....	M34724N	1
Axle Half (short) .....	M24007	1
Axle Half (long) .....	M24008	1
Split Bushing (halves not sold) .....	M24009	1
Sleeve (axle) .....	M24010	1
Grease Fitting .....	F4252	1
Center Cap Screw 5/16 x 2" .....	F3647	1
Hex Elastic Stop Nut 5/16" .....	F4635	1
Axle End Nut (use F1094 cotter) .....	F2707	2
Guide (axle bearing) .....	M20023	8
Plate (positions guide) .....	44267	8
Nut (positions upper end of spring) .....	44268	8
Cap Screw 3/8 x 1" .....	F1007	16
Bolt (guide) 7/16 x 5-1/2" .....	F8384	8
Hex Nut 7/16" .....	F7057	8
Lock Washer 7/16" .....	F1291	8
Spring (extra heavy - front axle bearing) .....	M33650	4
AXLE BEARING 1-3/16" (assembled) .....	M34725A	4
CASING WITH BUSHINGS .....	M28988	4
Bushings (bearing casing - Oillite) .....	F5537	8
Bearing with Races .....	F5519	4
Cover (bearing casing) .....	M33628A	4
Cover Shim .010 steel .....	M30335	4
Cover Shim .007 steel .....	M30336	8
Cover Shim .005 steel .....	M30337	12
Cap Screw (cover) .....	F1007	8
Grease Fitting .....	F4252	4
CENTER BEARING 1-3/16" (assembled) .....	M34727A	1
Casing only .....	M18519A	1
Bearing with Races .....	F5519	1
Cover (bearing casing) .....	M19967A	1
Cover Shim .010 steel .....	M30335	1
Cover Shim .007 steel .....	M30336	2
Cover Shim .005 steel .....	M30337	3
Cap Screw (cover) .....	F1007	2
Grease Fitting .....	F5158	1
SUPPORT (center bearing - with bushing) .....	46502	1
Bushings (Oillite) .....	46504	1
Grease Fitting .....	F9217	1
Cap Screw 3/8 x 1-1/4" hex head .....	F1125	2
Hex Nut 3/8" self-locking .....	F7121	2
Spring (axle bearing) .....	M13581	1
Spacer Tube (hinge bolt) .....	M19971	1
Bolt (center bearing hinge) .....	M16247	1
Hex Slotted Nut 1/2" .....	F2545	1
THRUST COLLAR 1-3/16" (complete) .....	M27263	4
Clamp Bolt (thrust collar) .....	F1640	4
Hex Half Nut (clamp bolt) .....	F1040	4
Set Screw (thrust collar) .....	M10268	4
Lock Wire (specify length) .....	F3054	24

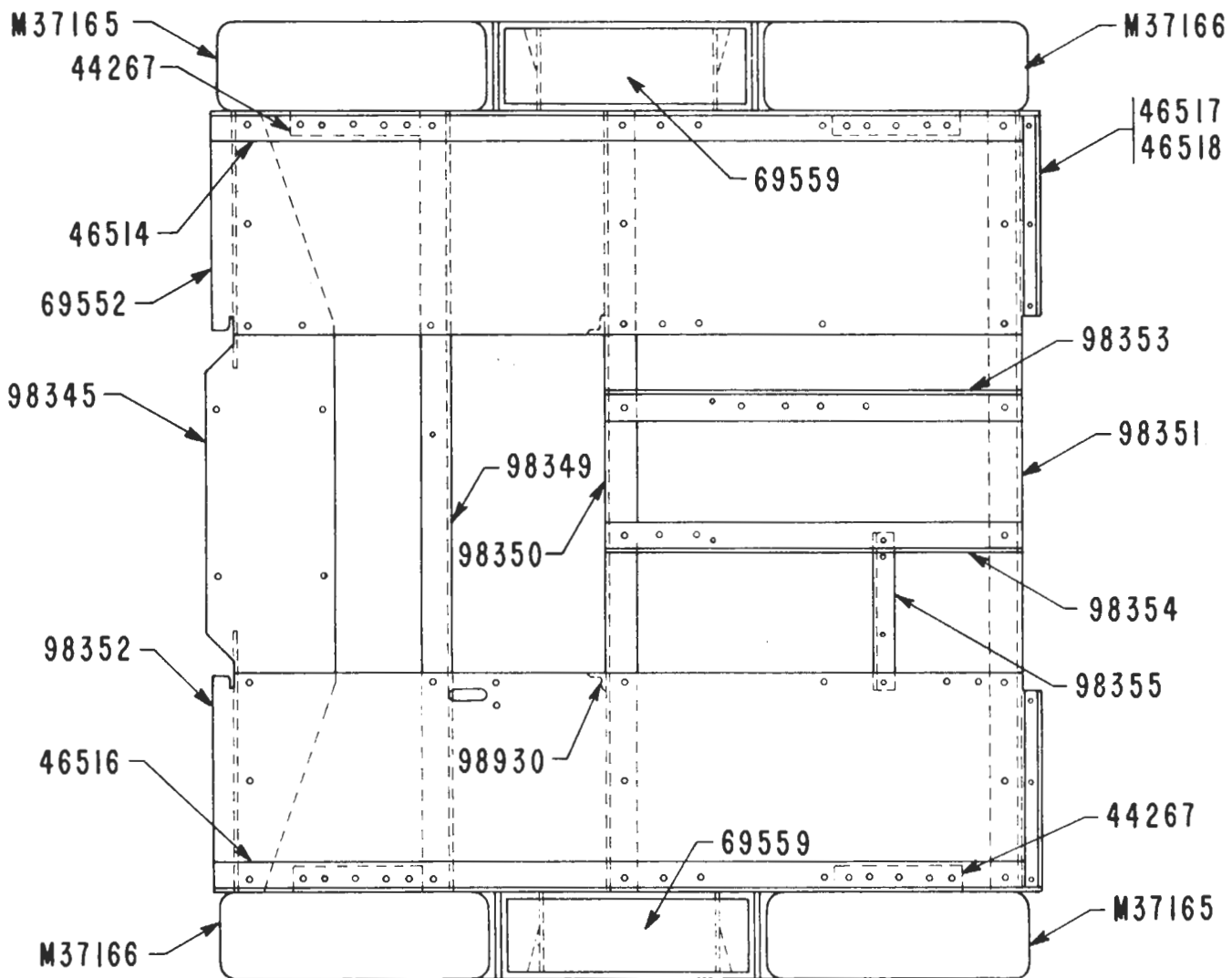


## WHEELS - INSULATION

16 x 1/4 x 4-1/2" DEMOUNTABLE WHEEL (taper bored for ins.) .....	M20879D	4
Hub only (taper bore) .....	M18520	4
16 x 1/4 x 4-1/2" Demountable Tire only .....	M11405	4
BOLT SET (4 each hub bolt, nut, and lock washer) .....	M21899	4
Tire Bolt (alloy steel, SAE) .....	M11479	16
Lock Washer 5/8" .....	F1103	16
Hex Nut 5/8" SAE .....	F3718	16
INSULATION SET 1-3/16" (complete) .....	M6334	4
Insulating Sleeve .....	M6880	4
Insulating Washer .....	M6001	4
Steel Washer .....	F1615	4

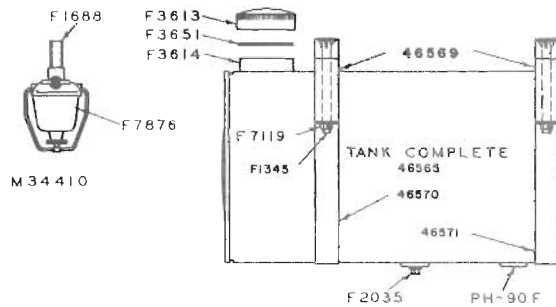
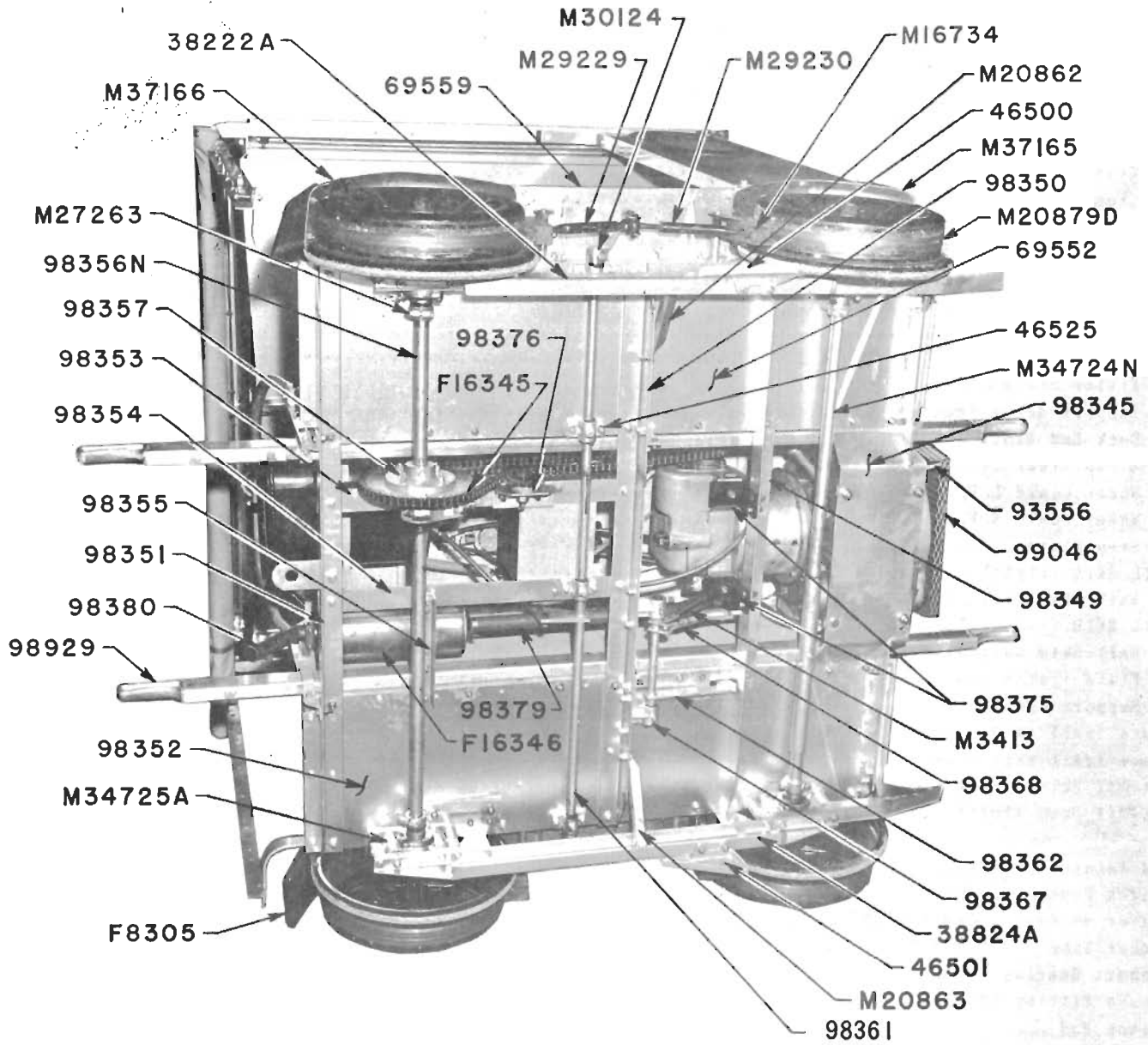
## BRAKE

Brake Shaft (ill. 44221) .....	98361	1
Spacer (brake shaft bearing) .....	69565	3
BEARING (brake shaft with grease fitting) .....	46525	4
Grease Fitting .....	F9217	4
Brake Lever (with grip) .....	M17076	1
Bolt 3/8 x 1" (brake lever to shaft) .....	M35540	2
Hex Castle Nut 3/8" .....	F2493	2
Spring Anchor (brake lever) .....	56235	1
Spring (brake release) .....	M7298	1
End Arm (brake shaft) .....	M30124	2
Key (end arm) .....	F1222	2
Set Screw (end arm - use 16" of F3054 lock wire) .....	M22500	2
Toggle Link .....	M18456	4
Pin (toggle link) .....	M28761	4
BRAKE SHOE WITH LINER (assembled) .....	M16734	4
Liner .....	M16411	4
Hex Nut 5/16" self locking .....	F7120	8
Pivot Stud (3/4" threaded end) .....	M18457	4
Wrot Washer (pivot stud) .....	M18528	4
Cotter 3/16 x 1" .....	F2866	12
TOGGLE ARM (with eye bolt) .....	M29230	2
Body only (toggle arm) .....	M33222	2
Eye Bolt (toggle arm) .....	M28351	2
Jam Nut 1/2" - 12 thds. .....	F2702	2
TOGGLE ARM (with yoke) .....	M29229	2
Body only (toggle arm) .....	M33222	2
Yoke (toggle arm) .....	F7106	2
Jam Nut 1/2" - 12 thds. .....	F2702	2
Shoe Hanger .....	M17082	8
Hanger Pin .....	M18930	4
Spring (hanger pin) .....	M18931	4

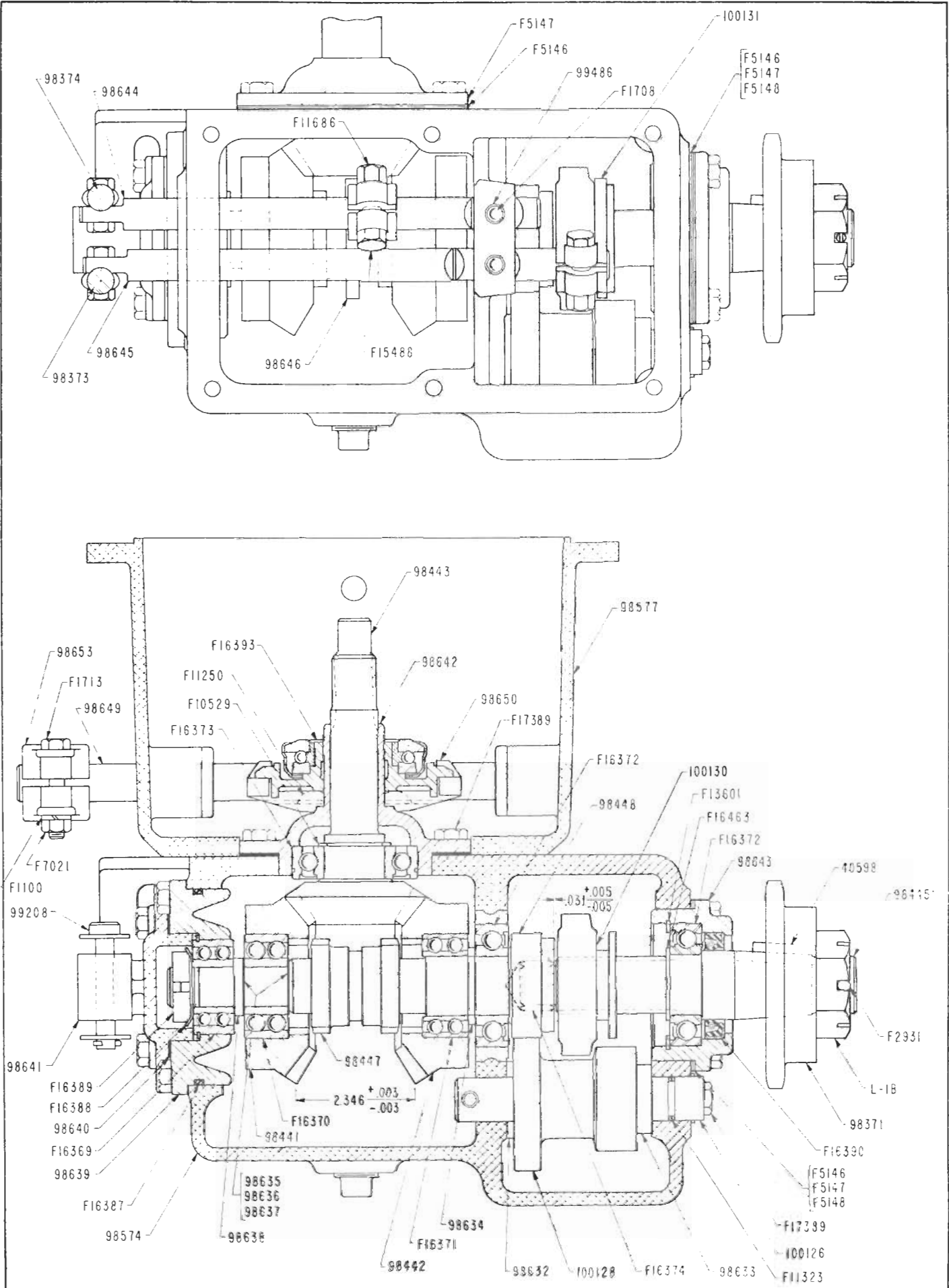


## FRAME AND DECK

FRAME AND DECK (assembled) .....	98344	1
Support (engine) .....	98345	1
Side Sill only (right) .....	46514	1
Side Sill only (left) .....	46516	1
Plate (positions guide) .....	44267	4
Nut (positions upper end of spring) .....	44268	8
Cross Angle (front - transmission support) .....	98349	1
Cross Angle (center) .....	98350	1
Cross Angle (rear) .....	98351	1
Support Angle (axle center bearing) .....	98353	1
Support Angle (left - brake shaft bearing) .....	98354	1
Support Angle (muffler) .....	98355	1
Deck (right) .....	69552	1
Deck (left) .....	98352	1
Filler Strip .....	69555	4
Support Angle (center) .....	98930	2
Deck End Block (rear) .....	46517	2
Strap (rear deck end block) .....	46518	2
Wheel Guard L. F. & R. R. ....	M37166	2
Wheel Guard R. F. & L. R. ....	M37165	2
Step Plate .....	69559	2
RAIL SKID (right) .....	38822A	1
Rail Skid only (right) .....	44369	1
RAIL SKID (left) .....	38824A	1
Rail Skid only (left) .....	44362	1
Plate (guide pin) .....	44267	4
Support Gusset .....	44361	4
Brace (rail skid - right) .....	M20862	1
Brace (rail skid - left) .....	M20863	1
Set-Off Skid (right) .....	46500	1
Set-Off Skid (left) .....	46501	1
Pad (clutch pedal) .....	F6015	1
Clutch Pedal .....	98362	1
Spacer 49'64 x 1-1/4 x 5'16" .....	75802	1
Spacer Tube 1" OD x 5/8" .....	91727	1
Support Bearing .....	98367	2
Grease Fitting 90° 1/8" P.T. ....	F9217	2
Clutch Rod .....	<del>120391</del>	1
Pin 3/8 x 1-7/32" .....	73882	1
Spring Clip .....	98369	1
Hex Half Nut 3'8"-16 .....	F1040	1
Yoke .....	120393	1



ENGINE		
ENGINE WITH TRANSMISSION AND CLUTCH .....		116708 1
ENGINE (with extended crankcase drain) .....		116709 1
Nipple 1/2 x 2" .....	F2219	1
Coupling 1/2" .....	F3003	1
Rivnut .....	F10387	4
Cable 39" (starter to battery) .....	F6536	1
Battery Terminal .....	F3999	1
Wire 56" (starter solenoid to starter switch) .....	116644	1
Wire 5" (starter switch to ignition switch) .....	103781	1
Cable 13" (battery to ammeter) .....	100174	1
Wire 48-1/2" (ignition switch to regulator) .....	M21894	1
Snap Terminal .....	F10201	1
Wire 51" (alternator output to ammeter) .....	100177	1
Spring - Clutch throw out bearing .....	98652	1
CLUTCH .....	F16340	1
Driven Plate Assembly .....	F16341	1
Pressure Plate Assembly .....	F16342	1
Release Sleeve with Bearing .....	F16393	1
Cap Screw 5/16-24 x 3/4" hex head .....	F10991	6
Pilot Bearing (clutch pilot - Fafner 203KD - ND7503).....	F16579	1
Ball (shaft lever) .....	F14260	2
Guard (engine - front) .....	99046	1
Spacer 1/2 x 2" (engine guard) .....	93556	4
Support Angle (transmission) .....	98375	2
IDLER SPROCKET AND SUPPORT (car No. 231225 and higher) (ill. 98376) .....	102895	1
Support Angle .....	98377	1
Shaft (idler - car No. 231225 and higher) .....	102898	1
Race (sprocket bearing - car No. 231225 and higher) .....	102897	1
Needle Bearing sprocket - car No. 231225 and higher) .....	F16976	1
Sprocket 19T (idler - car No. 231225 and higher) .....	102896	1
Grease Fitting 90° 1/4"-28 .....	F10722	1
Chain (roller - car No. 231225 and higher) (ill. F16345) .....	F16977	1
Offset Link (roller chain - car No. 231225 and higher) .....	F2220	1
CHAIN DAMPENER .....	103977	1
Support Plate (chain dampener rail) .....	103821	1
Support Angle (chain dampener rail) .....	103822	2
Spacer .....	50917	4
Dampener Rail (chain) .....	103823	2
IDLER SPROCKET AND SUPPORT (cars below No. 231225) .....	102895	1
Support Angle .....	98377	1
Shaft (idler - cars below No. 231225) .....	98378	1
Sprocket 17T (idler - cars below 231225) .....	F16344	1
Grease Fitting 90° 1/4"-28 .....	F10722	1
Chain 5/8 pitch - 128 pitches (self lubricating - cars below No. 231225) .....	F16977	1
Offset Link (roller chain cars below No. 231225) .....	F2220	1
Exhaust Pipe .....	98379	1
Muffler .....	F16346	1
Tail Pipe .....	98380	1
Clamp (muffler) .....	F16459	3
U-Bolt .....	98381	1
Gauge (oil pressure) .....	F16348	1
Connector (oil pressure gauge) .....	F16457	1
Clamp 7/16" (oil pressure hose) .....	F12845	1
Yoke Pin 5/16 x 31/32".....	F6619	1
Spring (clutch return) .....	M3413	1
Support Angle (clutch pad) .....	98411	1
Pad (clutch pedal) .....	F6015	1
FUEL SYSTEM		
FUEL TANK (with cap) .....	46565	1
Threaded Bushing (solders in tank) .....	PH-90F	2
Bayonet Catch (neck for F3613) .....	F3614	1
FILLER CAP (bayonet type - with gasket) .....	F3613	1
Gasket filler cap .....	F3651	1
Pipe Plug .....	F2035	1
Saddle fuel tank .....	46569	2
Strap fuel tank - front .....	46571	1
Strap fuel tank - rear .....	46570	1
FUEL STRAINER WITH NIPPLE .....	M34410	1
Nipple 1/8 x 3/4 brass .....	F1688	1
Bowl (glass - strainer) .....	F7876	1
Screen (strainer).....	F8692	1
Gasket (strainer bowl) .....	F7877	1
Flexible Fuel Line 51 .....	98149	1
Half union (fuel line) .....	F7179	1
Elbow 90° 1/8 MPT x 7/16"-20 .....	F10189	1
Clamp (hose) .....	F8237	1

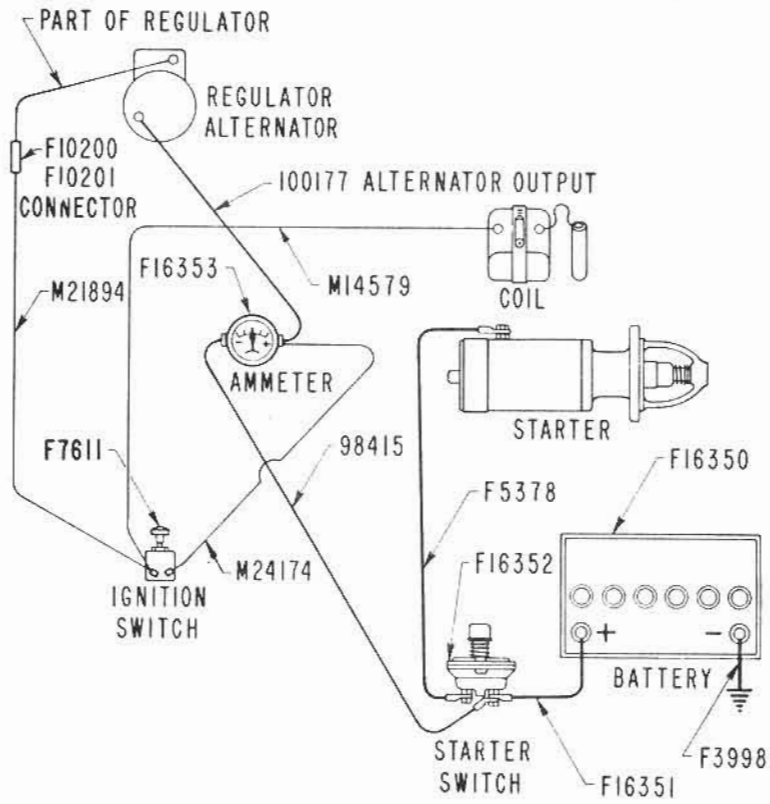




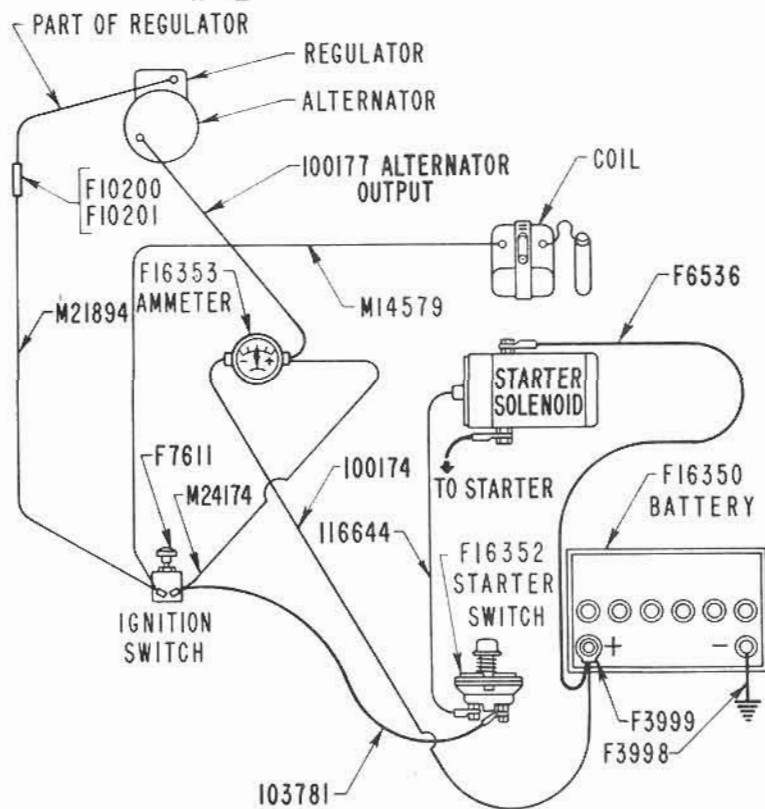
## TRANSMISSION

TRANSMISSION WITHOUT CLUTCH .....	113077	
TRANSMISSION WITH CLUTCH HOUSING .....	100176	1
Case (transmission) .....	98574	1
SHAFT WITH "O" RING .....	98631	1
"O" Ring 11/16 x 7/8 x 3/32"-70 .....	F11323	1
Thrust Washer (countershaft) .....	98632	1
SPUR GEAR WITH BEARING 21T and 15T .....	100128	1
Bearing (oilite) .....	F16581	2
Thrust Sleeve (spur gear) .....	98633	1
Pinion .....	98448	1
Needle Bearing (pinion) .....	F16374	1
Ball Bearing (out put shaft - inner) .....	F16372	1
Spacer .....	98634	1
Ball Bearing (double row) .....	F16371	1
Bevel Gear (right) .....	98442	1
Gear (clutch) .....	98447	1
Shim .010" .....	98635	1
Shim .003" .....	98636	2
Shim .002" .....	98637	2
Bevel Gear (left) .....	98441	1
Ball Bearing (double row) .....	F16370	1
Shim .010" .....	98635	2
Shim .003" .....	98636	2
Shim .002" .....	98637	1
Spacer .....	98638	1
Carrier (bearing) .....	98639	1
"O" Ring 3-5/8 x 3-7/8 x 1/8"-70 .....	F16387	1
Ball Bearing (double row - with snap ring) .....	F16369	1
Lock Washer .....	F16388	1
Lock Nut .....	F16389	1
Gasket (bearing cover) .....	98640	1
Cover (bearing) .....	98641	1
Pinion (bevel) .....	98443	1
Ball Bearing (pinion) .....	F16373	1
Retaining Ring (pinion bearing) .....	F10529	1
Carrier (pinion) .....	98642	1
Set Screw #10-24 x 1/4" .....	F13407	2
Shim .005" .....	F5146	2
Shim .007" .....	F5147	1
Out Put Shaft .....	98445	1
Ball Bearing (out put shaft) .....	F16372	1
Retaining Ring (out put shaft bearing) .....	F16463	1
Carrier (out put shaft) .....	98643	1
Oil Seal (out put shaft) .....	F16390	1
Retaining Ring (out put shaft bearing) .....	F13601	1
Spur Gear 21T & 15T (shifter) .....	100130	1
Shim .005" .....	F5146	1
Shim .007" .....	F5147	1
Shim .020" .....	F5148	1
Shifter Rail (front) .....	98644	1
Shifter Rail (rear) .....	98645	1
Shifter Fork (forward and reverse) .....	98646	1
Shifter Fork (low and high) .....	100131	1
Bolt 5/16-24 x 1-1/2" hex head .....	F15488	2
Hex Nut 5/16"-24 Huglock .....	F11686	2
Steel Ball 3/8" .....	F1708	2
Spring .....	99486	2
Gasket .....	98647	1
Cover .....	98648	1
Breather Vent .....	F16391	1
CLUTCH HOUSING WITH OILITE BEARINGS .....	98577	1
Bearing (oilite) .....	F10332	2
Shaft (clutch release) .....	98649	1
Yoke (clutch release) .....	98650	1
Woodruff Key 1/8 x 3/4" .....	F11250	2
Set Screw 1/4 x 3/4" square head .....	F1192	1
Hex Half Nut 1/4" .....	F2368	1
Clip (spring) .....	98651	1
Clutch Lever 3" .....	98653	1
Woodruff Key 1/8 x 3/4" .....	F11250	1
Cover .....	98654	1
Plug 1/2" MPT .....	F13126	2
Key 3/8 x 1-1/4" .....	40598	1
Sprocket 19T .....	98371	1
Hex Slotted Nut 1-1/8" .....	L-1B	1
Shift Lever (rear - High - Low - ill. 100132) .....	98373	1
Shift Lever (front - Forward - Reverse - ill. 100134) .....	98374	1
Pin (shift levers) .....	99208	1

MT19-A-1



MT19-A-2



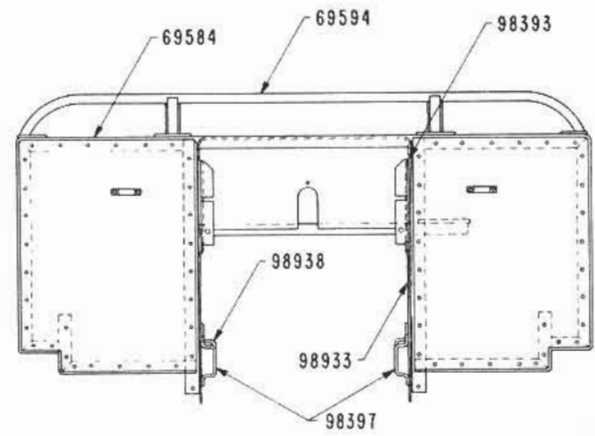
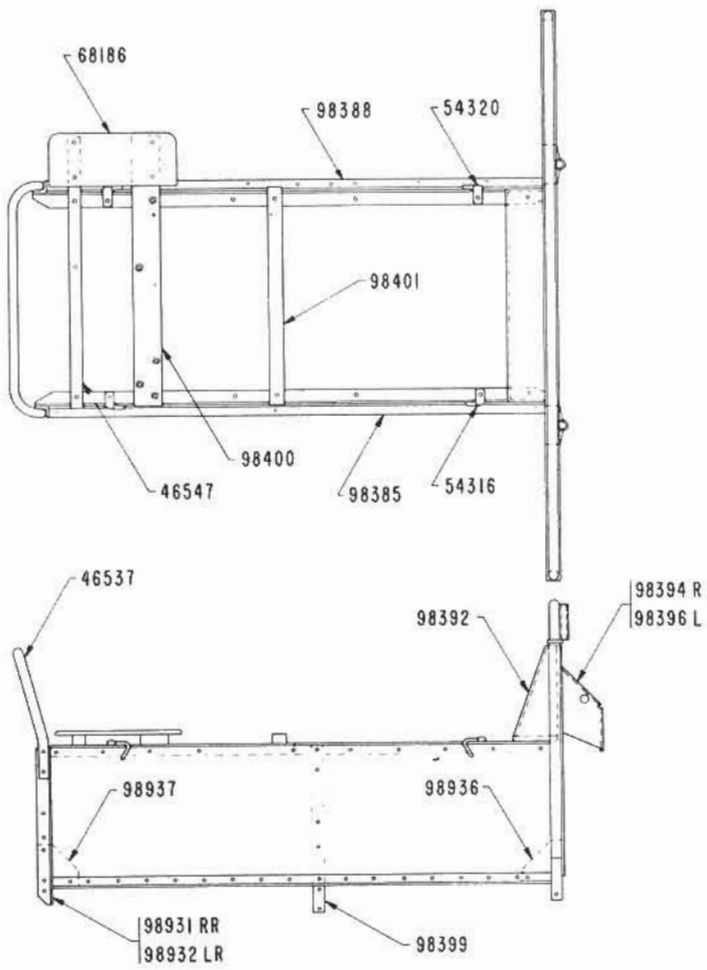
BATTERY IGNITION EQUIPMENT

Battery .....	F16350	1
Clamp Bar (battery hold-down) .....	100173	2
Stud 5/16 x 3-1/4" .....	100123	2
Spring .....	TF-68F	2
Rubber Base (battery) .....	100171	2
Cable 13-5/8" (battery negative to ground) .....	F3998	1
Cable 39" (starter to battery) MT19-A-2 .....	F6536	1
Battery Terminal MT19-A-2 .....	F3999	1
Cable 12-1/2" (battery positive to start switch) MT19-A-1 .....	F16351	1
Wire 56" (starter solenoid to starter switch) MT19-A-2 .....	116644	1
Wire 5" (starter switch to ignition switch) MT19-A-2 .....	103781	1
Cable 13" (battery to ammeter) MT19-A-2 .....	100174	1
Starter Switch .....	F16352	1
Cable 46" (starter switch to starter - MT19-A-1).....	F5378	1
Ammeter .....	F16353	1
Washer (brass) .....	F11314	2
Insulating Disc (fibre - ammeter) .....	37264	1
Ignition Switch .....	F7611	1
Wire 7" (starter switch to ammeter) MT19-A-1 .....	98415	1
Wire 6" (ammeter to ignition switch) .....	M24174	1
Wire 51-1/2" (ignition switch to coil) .....	M14579	1
Wire 48-1/2" (ignition switch to regulator) .....	M21894	1
Snap Terminal .....	F10201	2
Connector (two wire) .....	F10200	1
Wire 51" (alternator output to ammeter) .....	100177	1
Rubber Cap (alternator output terminal) .....	F9182	1
Support Cleat (wire) .....	C-48	6
Clamp 7/16" (starter cable) .....	F12845	1

TOOL BOX - TOOLS

Tool Box .....	M24615	2
Spacer (tool box mounting) .....	M23738	8
Grease Gun .....	F4125	1
TOOL KIT (in bag) .....	M36398	1
Draw String Bag .....	M6738	1
Ball Pein Hammer .....	F2945	1
Pliers - 6" .....	F2946	1
Screw Driver 4" .....	F2948	1
Socket Wrench .....	F4413	1
End Wrench 7/16 & 3/8" openings .....	F7957	1
End Wrench 9/16 & 1/2" openings .....	F7956	1
End Wrench 3/4 & 5/8" openings .....	F7955	1
End Wrench 7/8 & 13/16" openings .....	F7953	1





## HOUSING - LIFT HANDLES

HOUSING (less seat and handles)	98384	1
Safety Rail (front)	69594	1
Safety Rail (rear)	46537	1
Support Bar (center)	98399	2
Support (front-with panels)	69584	1
Inner Hood	98392	1
Spacer Strap 1-1/4 x 6-1/2 x 5/16"	98393	2
Panel (right)	98394	1
Panel (left)	98396	1
Support Angle (right rear)	98931	1
Support Angle (left rear)	98932	1
Wear Strip (front)	98933	2
Wear Strip (R.R.)	98934	1
Wear Strip (L.R.)	98935	1
Side Panel (right)	98385	1
Side Panel (left)	98388	1
Seat Fastener (R.F. & L.R.)	54316	2
Seat Fastener (L.F. & R.R.)	54320	2
Spring (seat fastener)	TF-68F	4
Gusset (R.F. & L.R.)	98936	2
Gusset (L.F. & R.R.)	98937	2
Cap Screw 5/16 x 3/4" flat head	F2543	8
Cap Screw 5/16 x 1" flat head	F4791	5
Guide (lift handle - front and rear)	98397	4
Guide (lift handle - center)	98938	2
Spacer (lift handle guide)	48963	4
Support Cleat (side seat)	46547	1
Support Cleat (side seat & control panel)	98400	1
Support Cleat (control panel - front)	98401	1
Side Seat Board	68186	1
Control Panel	98404	1
Spacer Tube 3/8 x 1-3/16"	M31455	2
Spacer 3/16 x 1 x 3/4" (flat)	48963	4
Cover (inner hood)	98410	1
Spring (cover tension)	85450	1
Lever Stop (fabreeka)	98409	1
Engine Hood	98419	1
Splash Plate (rear wheel guards)	F8305	2
REMOVABLE SEAT BOARD (assembled)	98416	1
Spacer Washer	M30839	4
Fastener Plate	54319	4
Rubber Pad (shift lever openings)	99440	1
Instruction Plate (shifting)	98418	1
Extension Lift Handle (aluminum - one piece)	98929	2

## CONTROLS

Throttle Lever	98405	1
Spring (throttle lever)	TF-68F	1
THROTTLE ROD WITH BALL JOINTS	103826	1
Ball Joint (throttle lever end)	F9552	1
Ball Joint (engine end)	F17068	1
Hex Nut 1/4"-28	F2632	3
Hex Nut 10-32	F10825	1
Support Hanger (throttle rod)	98408	1
Grommet	F8708	1
Choke Control	F3558	1
Support Clip (choke control)	F16349	1

## ACCESSORIES

The following standard accessories may be applied to MT19 series A cars. When ordering for field installations, be sure to give factory car and engine serial numbers. Also shown are some tools that will simplify maintenance work.

## WIDE WINDOW WINDSHIELD 69724

Adequate bad weather protection. Deflects wind away from operator. Windows allow full vision. Easily applied in field.

Curtain with Windows	69725
Window (specify 8-3/4 x 25")	F4899
Window (specify 14-3/8 x 17-1/2)	F4899
Top Cross Bar	69700
Top Socket	M16415
Vertical Post	69726
Bottom Cross Bar	69701

## WIDE PLAIN WINDSHIELD 69698

Full width of car protects riders at minimum cost. Easily applied in field. Strong materials withstands wintry gales. Same as above except no windows.

Curtain only	69699
Top Cross Bar	69700
Top Socket	M16415
Vertical Post	69702
Bottom Cross Bar	69701

## ADJUSTABLE WINDGUARD 69727

Curtain only	69728
Cross Angle	69729
Upright Pipe (upper)	69738
Cross Pipe	69739
Tie Rod	69740
Side Frame Pipe (right)	69734
Side Frame Pipe (left)	69736
Side Curtain (right)	69731
Side Curtain (left)	69732
Side Strap (upper)	69741
Side Strap (lower)	M32357
Side Strap (vertical)	69733
Adjusting Link	31982
Wheel Guard Band	69743

## RIGHT SIDE SEAT 100490

Seat Support R. F.	45065
Seat Support R. R.	45065
Seat Support R. Outside	45067
Seat Angle	46588
Side Seat (folding back)	F8422
Cushion Only	F13212
Back Only	F9085

## LEFT SIDE SEAT 46592

Seat Support L. F.	45069
Seat Support L. R.	45069
Seat Support L. Outside	45071
Seat Angle	46590
Side Seat (folding back)	F8422

## SEAT CUSHION F7350

Fits driver's cross seat, or can be used on any corner. Rubber coated curled hair, covered with durable water proof material.

## ALUMINUM WINDSHIELD 76178

Replaces windshield 69612. Easily applied in the field. All bolts, nuts and lock washers are CADMIUM plated to resist rusting.

Windshield (with windows) .....	76941
Window 18-7/16 x 27-13/16" .....	75951
Rubber Moulding .....	75952
Seal (ft. panel to windshield) .....	76989
Side Gusset - (right) .....	76990
Side Gusset - (left) .....	76992
Clip (side gusset) .....	76991
Cap Screw 5/16 x 3/4" hx.hd. ....	F9827
Hex Lock Nut 5/16" .....	F9550
Brkt. (guard rail - outside) .....	58613
Brkt. (guard rail - inside) .....	69636
Guard Rail .....	58612
Groove Pin 1/4 x 1-3/4" .....	F9905
Cap Screw 5/16 x 1" .....	F12193
Hex Nut 5/16" .....	F9547

## MOTOR CAR TOP 76179

Combination of 76179 top and 76178 aluminum windshield gives durable all weather protection to motor car operator and passengers. Aluminum top bolted to top of windshield and a rear support which clamps to rear safety rail.

Roof Unit .....	75965
Support Pipe .....	75961
Saddle .....	64709
U-Bolt .....	64708
Lock Washer 5/16" .....	F9546
Hex Nut 5/16" .....	F11487
Rubber Insulator (windshield to roof) ..	F11486
Cap Nut 5/16" .....	F13206

## REAR CURTAIN WITH WINDOW 76182

Rear Curtain .....	76010
Bolting Strip (rear curtain) .....	76011
Brkt. (support post - upper) .....	78480
Brkt. (support post - lower R) .....	80404
Brkt. (support post - lower L) .....	80408
Support Post (right rear) .....	76002
Support Post (left rear) .....	76001
Spring .....	M1245
Stud (lift dot fastener) .....	F13207
Eyelet (lift dot fastener) .....	F7746
Clinch Plate (lift dot fast.) .....	F7747
Curtain Bar .....	76012

## SIDE CURTAINS &amp; REAR CURTAIN 76183

Made up of groups 76181 & 76182 with only one set of corner support posts.

## SIDE CURTAINS (PR.) 76181

Bracket (slide rod) .....	65319
Slide Rod (side curtain) .....	75993
Brkt. (support post - upper) .....	78480
Brkt. (support post - lower R) .....	80404
Brkt. (support post - lower L) .....	80408
Support Post (right rear) .....	76002
Support Post (left rear) .....	76001
Spring .....	M1245
Lock Bolt .....	69057
Curtain Ring .....	43901
Web Strap 18" .....	F3394
SIDE CURTAIN (right) .....	78629
SIDE CURTAIN (left) .....	78631
Curtain Bar R.F. & L.R. ....	76005
Curtain Bar L.F. & R.R. ....	76007
Handle .....	F9998

## ALUMINUM CAB 98339

Axle Bearing Spring (heavy) .....	M33650
Housing Support Angle - R.F. ....	99081
Housing Support Angle - L.F. ....	99080
Spacer (cab front) .....	99091
CAB ASSEMBLY .....	98340
Cab Front (less windows) .....	58592
Cab Side (R.-Less windows) .....	58614
Cab Side (L.-Less windows) .....	58616
Side Frame Support - L.) .....	58618
Side Frame Support - R.) .....	58619
Spring .....	TF-68F
Seal (corner - cab front to sides) ..	58620
Window Glass 20 x 26" .....	51405
Window Glass 8 x 20" .....	58622
Rubber Moulding 88-9/16" .....	51406
Rubber Moulding 52-1/4" .....	58623
Ventilator Cover .....	54022
Guard Rail .....	58612
Mounting Brkt. (guard rail) .....	58613
Roof Unit Complete .....	58624
Seal (cab front to roof- 56-9/16") ..	56345
Seal (cab side to roof - 19-15/16") ..	58627
Seal (corner to roof - 5") .....	56221
Brace .....	52435
Support Pipe (rear) .....	58628
Inner Hood .....	98341
Seal (inner hood - 42-5/8") .....	58631
Spacer Box .....	58632
Tool Box .....	58634
Spacer (tool box) .....	M23738
Seal (inner hood - 5-1/8") .....	61489
Corner Filler (inner hood-lower R.) ...	58635
Corner Filler (inner hood-lower L.) ...	58636
Spacer (lower front) .....	48963
Seal (wheel guard - 14-3/16") .....	58637
Seal (wheel guard - 6") .....	58638
Clamp Bar .....	51431
Clamp Strap .....	51434
Washer .....	M27675
REAR SUPPORT .....	51435
Support Casting .....	51436
Rubber Mounting .....	F9695
Spacer .....	51437
Retaining Ring .....	F9696

**SIDE CURTAINS AND REAR  
WINDOW WITH CURTAIN 59750**

Made up of groups 59748 and 62076 but has only one set of corner support posts.



**SIDE CURTAINS (PR.) 59748**

Bracket (slide rod) .....	53350
Slide Rod (curtain) .....	59749
Support Angle Bracket (upper) .....	51521
Support Bracket (lower) .....	61435
Support Post (right rear) .....	61427
Support Post (left rear) .....	61429
Spring .....	M1245
Curtain Ring .....	43901
SIDE CURTAIN (right) .....	53357
SIDE CURTAIN (left) .....	53361
Lock Bolt .....	51515
Handle (curtain bar) .....	F9701
Curtain Bar (front) .....	53359
Curtain Bar (rear) .....	53360
Web Strap with Buckle .....	F3394
Grommet .....	F3792

**REAR WINDOW AND CURTAIN 62076**

REAR WINDOW .....	53363
Window Glass 8 x 26" .....	51507
Rubber Moulding 64-5/16" .....	51508
Seal (rear window to roof- 59-13/16") ..	56241
Support Bracket (lower) .....	61435
Support Post (right rear) .....	61427
Support Post (left rear) .....	61429
Spring .....	M1245
Rear Curtain .....	53368
Curtain Strip .....	53369
Self Tapping Screw #12 x 1/2" .....	F9265
Stud (lift dot fastener) .....	F7748
Eyelet (lift dot fastener) .....	F7746
Clinch Plate (lift dot fast.) .....	F7747
Speed Nut #10-32 .....	F9955
Curtain Bar .....	M23341



**HAND OPERATED WIPER 69781**

Windshield Wiper (11" blade) .....	F12323
Blade only - 11" .....	TRI 874-41-L
Arm - 9-3/8" .....	TRI 77890-89JL
Bearing .....	57005

**ELECTRIC HORN 97425**

Horn (low note) .....	F15470
Horn (high note) .....	F15471
Nut (horn) .....	F15462
Relay (horn) .....	F15472
Horn Button .....	F6311

**CANVAS COVER M7951**

Cars that are kept out of doors need this protection. Brown No. 10 duck, 7 x 9 feet, treated with "Preservo" for fire proofing. Eye-lets for tying.



**HAND GONG - 6 INCH 69692**

Meets minimum requirements. Safe mounting.

Gong only - 6" .....	F3444
Pull Wire .....	M16419
Guide - pull wire .....	69695
Reinforcing Strip .....	45002

**HEADLIGHT & 2 RED TAILLIGHTS 97424**

Mounting Angle (taillights) .....	98338
Mounting Bracket (headlight) .....	41000
Mounting Bracket (headlight) .....	41001
Clamp Bracket .....	66404
U-Bolt .....	M16715
Headlight - 12 V. ....	F13445
Taillight - 12 V. ....	F13552
Switch (light) .....	F7611

**DOUBLE ELECTRIC WIPER 78377**

Windshield Wiper (12" blade) .....	F13551
Blade only - 12" .....	F12983
Arm (inside mounted wiper) .....	F13200
Wire 16 Ga. (spec. lgth. req.) .....	F2958
Snap Terminal (small) .....	F10201
Connector (two wire) .....	F10200
Terminal .....	F4320
Loom (spec. lgth. req.) .....	1446

**FRONT END SKID 98335**



Aids in setting off and rerailing car between set-offs.

**HAND GONG - 10 INCH 114581**

Loud, durable warning signal Mounted away from tools. Operated by pull wire

Gong only - 10" .....	1337
Support Strap .....	45003
Reinforcing Plate .....	89640
Pull Wire .....	M16419
Lever Pin .....	89641
Arm (inside) .....	111737
Guide (pull rod) .....	69695
Lever Bar and Pivot (outside) .....	53141

**FOOT GONG - 8 INCH M29408**

Loud warning signal operated by foot leaves both hands free. Mounted out of way of tools, etc.

Gong only - 8" .....	F3626
Mounting Board .....	M25628

## RAIL SWEEPS 55447 BLADE TYPE

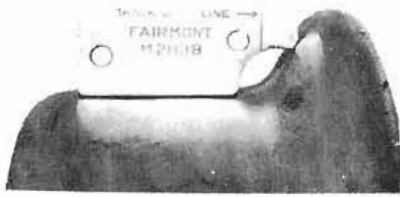
Heavy duty type, hinged. All parts are steel except blade proper. Adjustable for rail clearance. Gives full protection due to blade width. Long lived. Blade easily renewed.

Mounting Bracket (right) .....	55448
Mounting Bracket (left) .....	55451
Body (right) .....	55455
Body (left) .....	55457
Blade only .....	M23956
Clamping Plate .....	M23957
Hinge Bolt .....	42113
Spring .....	QB-61C
Spring Seat .....	M30435A
Slotted Nut .....	F2545



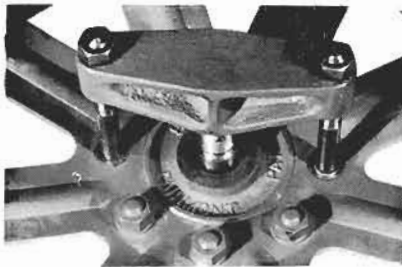
## FLANGE BRAKES 69744K

Brake Shaft Arm Right .....	M32839
Brake Shaft Arm Left .....	M32840
Toggle Arm Link .....	81565
Toggle Arm Pin .....	M29207
Brake Pivot Stud .....	M32739
BRAKE SHOE COMPLETE .....	M32842
Brake Shoe .....	M32843
Liner .....	M32844
Stud 5/16" x 2 1/16" .....	69521
Stud 5/16" x 2 5/16" .....	57852
BRAKE TOGGLE ARM ADJ. ....	81568
Brake Toggle Arm .....	81566
Hex Half Nut 1/2"-12 .....	F2702
Yoke .....	F7106
BRAKE TOGGLE ARM ADJ. ....	81569
Brake Toggle Arm .....	81566
Hex Half Nut 1/2"-12 .....	F2702
Rod End .....	M28351
Toggle Arm Pin .....	M28761
Brake Shoe Pin .....	M32753
Spring .....	M33094



TAPER HAND REAMER

Wheel reamers save time and provide an accurate means of bringing wheel and axle assemblies to gauge, and in removing burrs, paint, or rust from the bores. Listed at the right under the illustration are four reamers with the axle size each is to be used with. Check axle size before ordering.



WHEEL PULLER MI9509

POCKET WHEEL GAUGE M21138

This gauge provides a dependable method of checking motor car and trailer wheel gauges. Locate line of one wheel, hold tape or other accurate measure in position, then shift gauge to other wheel.

WHEEL PULLER MI9509

Very effective, yet light weight and easy to use, this puller makes it a simple matter to remove demountable wheels or hubs with complete safety. Consists of a cross bar and two long bolts with nuts and washers. Draw nuts evenly, and when tight, a hammer blow on center of cross bar frees the wheel.

Low reading ammeter is desirable when checking ignition systems to determine coil draw. Scale reads from 0 to 3 amps.

AMMETER F7838



Used to check condition of dry cell batteries. Good ignition means easy starting.

AMMETER 1230

## PARTS USED ON SPECIAL CARS ONLY

Listed on this and following pages in numerical order according to car designation, are spare parts used only on MT19 Series A cars with figures in the space on the name plate marked "Special".

The symbols at left side of page are for standard car parts as listed on pages 9 through 21, and symbols for corresponding parts as used on the special cars are shown at the right hand side of page. When selecting material for special cars, first locate items in standard parts section pages 9 through 21 and note symbol number. Then under the part of this section covering the car for which parts are being ordered, determine whether or not the symbol is changed for such cars. Items for which there are no corresponding parts in the standard parts section are shown as additional items under the car designation to which they apply.

## MT19-A-1-1

## PAGE 19 under BATTERY IGNITION EQUIPMENT

F16350 Battery ..... Omit

## PAGE 21 under HOUSING - LIFT HANDLES

98938 Guide (lift handle - center) ..... Should read ..... 98397  
98929 Extension Lift Handle ..... Should read 4 ..... 98939

## MT19-A-1-2

## PAGE 11 under WHEELS - INSULATION

M20879D 16 x 1/4 x 4-1/2" DEM. WHEEL ..... Should read 16 x 5/16 x 4-1/2" .. 41634D  
M11405 16 x 1/4 x 4-1/2" Demountable Wheel ..... " " 16 x 5/16 x 4-1/2" .. M11404

## PAGE 13 under FRAME AND DECK

69552 Deck (right) ..... Should read ..... 71897  
98352 Deck (left) ..... " " ..... 100544  
46517 Deck End Block (rear) ..... " " ..... 46610  
46518 Strap (rear deck end block) ..... " " ..... 46611

## PAGE 21 under HOUSING - LIFT HANDLES

46537 Safety Rail (rear) ..... Should read ..... 48662

## MT19-A-1-3

## PAGE 11 under BRAKES

M16784 BRAKE SHOW WITH LINER ..... Should read ..... M17193  
M16411 Liner ..... " " ..... M16397

## PAGE 11 under WHEELS - INSULATION

F6001 Insulating Washer ..... Omit

## PAGE 13 under FRAME AND DECK

46514 Side Sill only (right) ..... Should read ..... 71899  
46516 Side Sill only (left) ..... " " ..... 71900  
69552 Deck (right) ..... " " ..... 71897  
98352 Deck (left) ..... " " ..... 100544  
46517 Deck End Block (rear) ..... " " ..... 71901  
46518 Strap (rear deck end block) ..... " " ..... 71902  
Add: 1 Strap (rear deck end block - 1/8 x 1 x 11-5/16) ..... 71903  
2 Corner Lift Handle (rear) ..... M24348  
1 Anchor (corner lift handle - R.F.) ..... 71904  
1 Anchor (corner lift handle - L.F.) ..... 71907  
4 Spacer 3/16 x 1-1/4 x 1-1/4" ..... M19127  
2 Corner Lift Handle (front) ..... 71917

(continued on next page)

## PAGE 21 under HOUSING - LIFT HANDLES

69584	Support (front with panels) .....	Should read .....	71909
Add:	1 Mounting Bracket (fusee box - right) .....		71912
	1 Mounting Bracket (fusee box - left) .....		71915
	1 Fusee Box .....		F4715

## MT19-A-1-4

## PAGE 11 under WHEELS - INSULATION

M20879D	16 x 1/4 x 4-1/2 DEM WHEEL .....	Should read 16 x 5/16 x 4-1/2 ....	41634D
M11405	16 x 1/4 x 4-1/2 Demountable Tire .....	16 x 5/16 x 4-1/2 ....	M11404

## MT19-A-1-5

## PAGE 21 under HOUSING - LIFT HANDLES

98938	Guide (lift handle - center) .....	Should read 4 ..	98397
98929	Extension Lift Handle .....	4 ..	98939

## MT19-A-1-6

## PAGE 13 under FRAME AND DECK

69552	Deck (right) .....	Should read .....	71897
98352	Deck (left) .....	" .....	100544
46517	Deck End Block (rear) .....	" .....	46610
46518	Strap (rear deck end block) .....	" .....	46611

## PAGE 21 under HOUSING - LIFT HANDLES

46537	Safety Rail (rear) .....	Should read .....	48662
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## MT19-A-1-7

## PAGE 11 under WHEELS - INSULATION

M20879D	DEMOUNTABLE WHEEL .....	Should read .....	M21757D
M6001	insulating Washer .....	Omit .....	
M6880	Insulating Sleeve .....	Omit .....	

## MT19-A-1-8

## PAGE 13 under FRAME AND DECK

69552	Deck (right) .....	Should read .....	71897
98352	Deck (left) .....	" .....	100544
46514	Side Sill (right) .....	" .....	71899
46516	Side Sill (left) .....	" .....	71900
46517	Deck End Block (rear) .....	" .....	71901
46518	Strap (rear deck end block) .....	" .....	71902
Add:	1 Rail Sweep Group .....		63465
	1 Strap (deck end) .....		71903
	2 Corner Lift Handle - front .....		71917
	2 Corner Lift Handle - rear .....		M24348
	1 Anchor (corner lift handle - R F) .....		71904
	1 Anchor (corner lift handle - L F) .....		71907
	4 Filers .....		M19127

## PAGE 11 under WHEELS - INSULATION

M6001	Insulating Washer .....	Omit .....	
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## PAGE 11 under BRAKE

M16411	Brake Liner .....	Should read .....	M16397
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## PAGE 21 under HOUSING - LIFT HANDLES

69584	Support (front with panels) .....	Should read .....	71909
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## MT19-A-1-9

## PAGE 11 under WHEELS - INSULATION

M20879D 16 x 1/4 x 4 1/2 Dem. Wheel ..... Should read 16 x 5/16 x 4-1/2 41634D

## PAGE 21 under HOUSING - LIFT HANDLES

98397 Guide lift handle front & rear quantity Should read 8  
 98929 Extension Lift Handle ..... 4 98939  
 98938 Guide lift handle center ..... Omit

## MT19-A-1-10

## PAGE 11 under WHEELS - INSULATION

M20879D 16 x 1/4 x 4 1/2 Dem. Wheel ..... quantity Should read 2  
 M11406 16 x 1/4 x 4-1/2 Dem. Tire only ..... 2  
 Add: 2 16 x 5/16 x 4 1/2 Demountable Wheel ..... 41634D  
 2 16 x 5/16 x 4 1/2 Demountable Tire only ..... 73828

## PAGE 11 under BRAKE

M28761 Pin toggle link ..... quantity Should read 2  
 M30124 End Arm brake shaft ..... Omit  
 M16734 Brake Shoe with Liner .....  
 M18457 Pivot Stud 3/4 threaded end .....  
 Add: 1 Brake Shaft Arm Right ..... M32839  
 1 Brake Shaft Arm Left ..... M32840  
 4 Toggle Arm Link 1 3/4 ..... 81565  
 2 Toggle Arm Pin ..... M29207  
 4 Brake Pivot Stud ..... M32739  
 4 Brake Shoe complete ..... M32842  
 2 Brake Toggle Arm (adjustable - short) ..... 81568  
 2 Brake Toggle Arm (adjustable - long) ..... 81569  
 2 Toggle Arm Pin ..... M28761  
 4 Brake Shoe Pin ..... M32753  
 4 Spring ..... M33094

## PAGE 13 under FRAME AND DECK

38822A Rail Skid (right) ..... Should read 53708  
 38824A Rail Skid (left) ..... 53706

## PAGE 21 under HOUSING - LIFT HANDLES

98938 Guide lift handle center ..... quantity Should read 4 98397  
 98929 Extension Lift Handle ..... 4 98939

## MT19-A-1-11

## PAGE 11 under BRAKES

M16734 BRAKE SHOE WITH LINER ..... Should read M17193  
 M16411 Liner ..... M16397

## PAGE 11 under WHEELS - INSULATION

F6001 Insulating Washer ..... Omit

## PAGE 13 under FRAME AND DECK

46514 Side Sill only (right) ..... Should read 71899  
 46516 Side Sill only (left) ..... 71900  
 69552 Deck (right) ..... 71897  
 98352 Deck (left) ..... 100544  
 46517 Deck End Block (rear) ..... 71901  
 46518 Strap (rear deck end block) ..... 71902  
 Add: 1 Strap (rear deck end block 1/8 x 1 x 11-5/16) ..... 71903  
 2 Corner Lift Handle (rear) ..... M24348  
 1 Anchor corner lift handle R.F. ..... 71904  
 1 Anchor corner lift handle L.F. ..... 71907  
 2 Corner Lift Handle (front) ..... 71917  
 4 Spacer 3/16 x 1 1/4 x 1-1/4 ..... M19127

## PAGE 21 under HOUSING - LIFT HANDLES

69584 Support (front with panels) ..... Should read 71909

## MT19-A-2

The following are the principle changes from MT19-A-1 and MT19-A-2.

- The Onan engine changes from a model CCKB-1455H to model CCKB-2746J.

## MT19-A-2-1

## PAGE 11 under WHEEL-INSULATION

M20879D	16 x 1/4 x 4 1/2" DEM. WHEEL	Should read	16 x 5/16 x 4-1/2"	41634D
M11405	16 x 1/4 x 4 1/2" Demountable Wheel	"	"	M11404

## PAGE 19 under BATTERY IGNITION EQUIPMENT

F16352	Starter Switch	Should read		116711
F7611	Ignition Switch	Should read		F17451
M14579	Wire 51 1/2" (ignition switch to coil)	Should read		M15621
116644	Wire 56" (starter solenoid to starter switch)	Should read		109805
103781	Wire 5" (starter switch to ignition switch)	Omit		

## MT19-A-2-2

## PAGE 11 under WHEELS - INSULATION

M20879D	16 x 1/4 x 4 1/2" DEM. WHEEL	quantity Should read	2	
M11405	16 x 1/4 x 4 1/2" Dem. Tire only	"	"	2
Add	2	16 x 5/16 x 4 1/2" Demountable Wheel		41634D
	2	16 x 5/16 x 4 1/2" Demountable Tire only		73828

## PAGE 11 under BRAKE

M28761	Pin (toggle link)	quantity Should read	2	
M30124	End Arm (brake shaft)	Omit		
M16734	Brake Shoe with Liner	"	"	
M18457	Pivot Stud (3/4" threaded end)	"	"	
Add	1	Brake Shaft Arm - Right		M32839
	1	Brake Shaft Arm - Left		M32840
	4	Toggle Arm Link 1-3/4"		81565
	2	Toggle Arm Pin		M29207
	4	Brake Pivot Stud		M32739
	4	Brake Shoe complete		M32842
	2	Brake Toggle Arm (adjustable - short)		81568
	2	Brake Toggle Arm (adjustable - long)		81569
	2	Toggle Arm Pin		M28761
	4	Brake Shoe Pin		M32753
	4	Spring		M33094

## PAGE 13 under FRAME AND DECK

38822A	Rail Skid (right)	Should read		53708
38824A	Rail Skid (left)	"	"	53706

## PAGE 21 under HOUSING - LIFT HANDLES

98938	Guide (lift handle - center)	quantity Should read	4	98397
98929	Extension Lift Handle	"	"	4

## MT19-A-2-3

## PAGE 11 under BRAKES

M16734	BRAKE SHOE WITH LINER	Should read		M17193
M16411	Liner	"	"	M16397

## PAGE 11 under WHEELS - INSULATION

F6001	Insulating Washer	Omit		
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## PAGE 13 under FRAME AND DECK

46514	Side Sill only (right)	Should read		71899
46516	Side Sill only (left)	"	"	71900
69552	Deck (right)	"	"	71897
98352	Deck (left)	"	"	100544
46517	Deck End Block (rear)	"	"	71901
46518	Strap (rear deck end block)	"	"	71902
Add	1	Strap (rear deck end block - 1/8 x 1 x 11-5/16)		71903
	2	Corner Lift Handle (rear)		M24348
	1	Anchor (corner lift handle - R.F.)		71904
	1	Anchor (corner lift handle - L.F.)		71907
	4	Spacer 8/16 x 1-1/4 x 1-1/4"		M19127
	2	Corner Lift Handle (front)		71917

## PAGE 21 under HOUSING - LIFT HANDLES

69584	Support (front with panels)	.....	71909
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## MT19-A-2-4

## PAGE 13 under FRAME AND DECK

69552	Deck (right)	..... Should read	71897
98352	Deck (left)	..... " " .....	100544
46517	Deck End Block (rear)	..... " " .....	46610
46518	Strap (rear deck end block)	..... " " .....	46611

## PAGE 11 under WHEEL - INSULATION

M20879D	16 x 1/4 x 4-1/2" DEM. WHEEL	..... Should read 16 x 5/16 x 4-1/2"	41634D
M11405	16 x 1/4 x 4 1/2" Demountable Wheel	..... Should read 16 x 5/16 x 4-1/2"	M11404

## PAGE 21 under HOUSING - LIFT HANDLES

46537	Safety Rail (rear)	..... Should read	48662
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## MT19-A-2-5

## PAGE 11 under WHEELS - INSULATION

M20879D	16 x 1/4 x 4-1/2" DEM. WHEEL	..... quantity Should read 2	
M11405	16 x 1/4 x 4-1/2" Dem. Tire only	..... " " 2	
Add:	2	16 x 5/16 x 4 1/2" Demountable Wheel	41634D
	2	16 x 5/16 x 4-1/2" Demountable Tire only	73828

## PAGE 11 under BRAKE

M28761	Pin (toggle link)	..... quantity Should read 2	
M30124	End Arm brake shaft	..... Omit	
M16734	Brake Shoe with Liner	..... "	
M18457	Pivot Stud (3/4" threaded end)	..... "	
Add:	1	Brake Shaft Arm (Right)	M32839
	1	Brake Shaft Arm (Left)	M32840
	4	Toggle Arm Link 1-3/4"	81565
	2	Toggle Arm Pin	M29207
	4	Brake Pivot Stud	M32739
	4	Brake Shoe - complete	M32842
	2	Brake Toggle Arm (adjustable - short)	81568
	2	Brake Toggle Arm (adjustable - long)	81569
	2	Toggle Arm Pin	M28761
	4	Brake Shoe Pin	M32753
	4	Spring	M33094

## PAGE 13 under FRAME AND DECK

38822A	Rail Skid (right)	..... Should read	53708
38824A	Rail Skid (left)	..... " " .....	53706

## MT19-A-2-6

## PAGE 11 under WHEELS - INSULATION

M20879D	16 x 1/4 x 4-1/2" DEM. WHEEL	..... Should read 16 x 5/16 x 4 1/2"	41634D
M11405	16 x 1/4 x 4-1/2" Demountable Wheel	..... Should read 16 x 5/16 x 4-1/2"	M11404

## PAGE 21 under HOUSING - LIFT HANDLES

98938	Guide (lift handle center)	..... quantity Should read 4	98397
98929	Extension Lift Handle	..... quantity Should read 4	98939



MT19 - A - 2 - 7

PAGE 11 under WHEELS - INSULATION

M208790 16 x 1/4 x 4 1/2" DEM. Wheel ..... should read 16 x 5/16 x 4 1/2"..... 41634D

PAGE 13 under FRAME AND DECK

98350	Cross Angle (center)	..... should read .....	119807
69552	Deck (right)	..... should read .....	119808
75802	Spacer	..... should read .....	119811
98362	Clutch Pedal	..... should read .....	119809
Add.	1 Split Bearing	.....	119812
	1 Grease Fitting	.....	F4252
	1 Support (clutch pad)	.....	98411
	1 Pad (clutch pedal)	.....	F6015

MT19 - A - 2 - 8

Write for special list

MT19 - A - 2 - 9

Page 11 under WHEELS - INSULATION

M208790 16 x 1/4 x 4 1/2" DEM wheel ..... should read 16 x 5/16 x 4 1/2"..... 41634D

PAGE 13 under FRAME AND DECK

98354 Support Angle (left brake shaft bearing) .. should read ..... 120479

PAGE 19 under BATTERY IGNITION EQUIPMENT

F3998	Cable 13 5/8" (battery negative to ground)	should read 16 1/2" .....	F7744
	1 Battery Box	.....	120480
	1 Bracket (battery box)	.....	120485
	1 Switch (disconnect)	.....	F14685
	1 Cable 12" (starter)	.....	F5885
	1 Cover (battery box)	.....	120486
	1 Sensor Rotary Lock	.....	F11149

PAGE 21 under HOUSING - LIFT HANDLES

98938	Guide (lift handle - center)	..... omit .....	
98929	Extension Lift Handle	..... "	
Add	4 Extension Lift Handle	.....	98939
	4 Lift Handle Guide	.....	98397

MT19 - A - 2 - 10

PAGE 19 under TOOL BOX - TOOLS

M36398 Tool Kit (in bag) ..... omit .....

PAGE 21 under HOUSING - LIFT HANDLES

69594	Safety Rail (front)	..... omit .....	
69584	Support (front - with panels)	..... "	
68186	Slide Seat Board	..... "	
98416	Removable Seat Board (assembled)	..... "	

MT19 - A - 2 - 11

Same changes as MT19 - A - 2 - 10 and in addition:

PAGE 19 under BATTERY IGNITION EQUIPMENT

F16350	Battery	omit
100173	Clamp Bar (battery hold down)	"
100123	Stud 5/16 x 3 1/4"	"
TF-68F	Spring	"
100171	Rubber Base (battery)	"