

LIONEL®

CAUTION—ELECTRICALLY OPERATED PRODUCT:

Not recommended for children under six years of age. As with all electric products, caution should be observed during handling and use to prevent electric shock. Parents should periodically inspect transformer for potential hazards and have repaired if necessary. See Lionel Service Station Listing for information and address of nearest authorized Service Station.

OPERATING INSTRUCTIONS FOR SETS

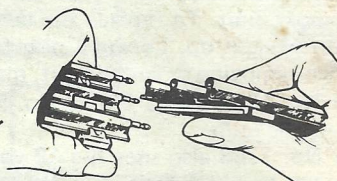
1381 — 1382 — 1383 — 1384
1385 — 1386 — 1387 — 1388

50 WATT TRANSFORMER: 50 WATTS, 120 VOLTS, AC, 60HZ

25 WATT TRANSFORMER: 25 WATTS, 120 VOLTS, AC, 60HZ

ASSEMBLE TRACK

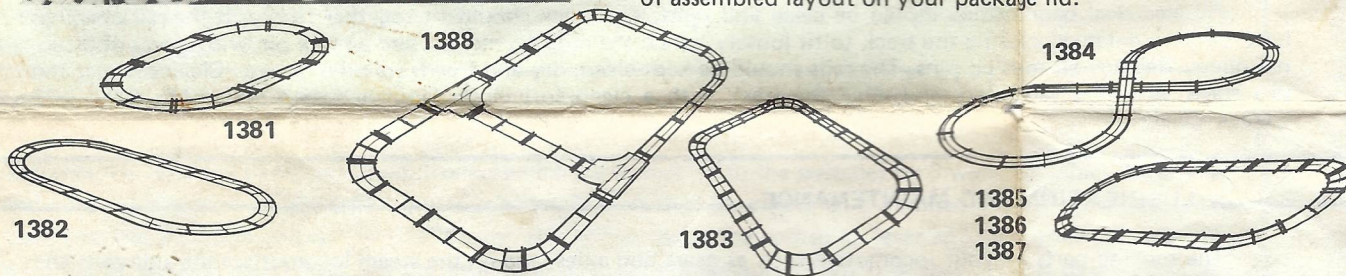
1



NOTE: Track sections can be broken-in for easier fit. Just insert and withdraw one rail at a time before attempting to join all three.

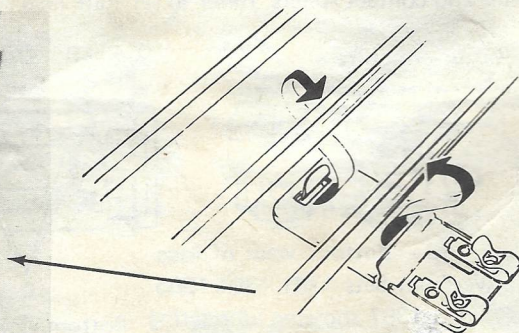
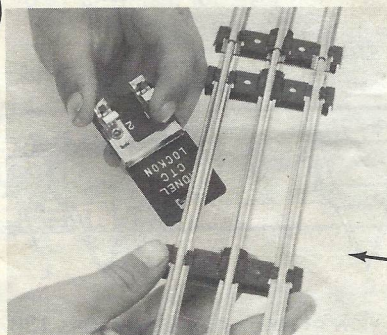
Join track sections together by inserting pins of each track section into the rail openings of another section, as illustrated in photo at left. Pins must be fully inserted and track joints tight for good electrical contact.

Your completed track layout will match one of those illustrated below. Identify yours by stock number or see photo of assembled layout on your package lid.



INSTALL THE LOCKON

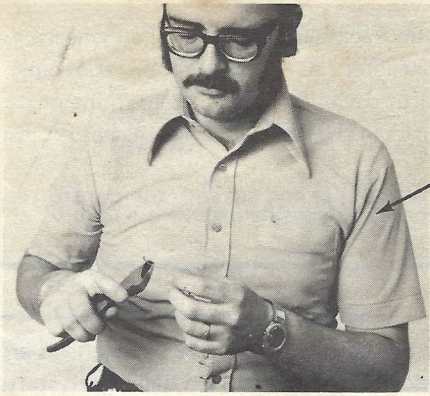
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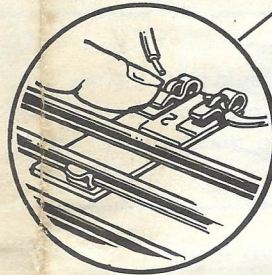
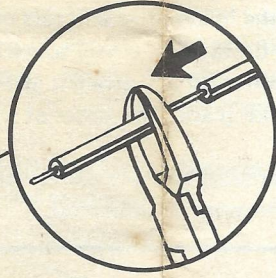
Place the Lockon under any straight section of track so the flange of one of the outside rails fits into the wide V-shaped notch on the Lockon. Then press the Lockon upwards so the spring contact snaps on to the center rail.

ATTACH WIRING TO LOCKON

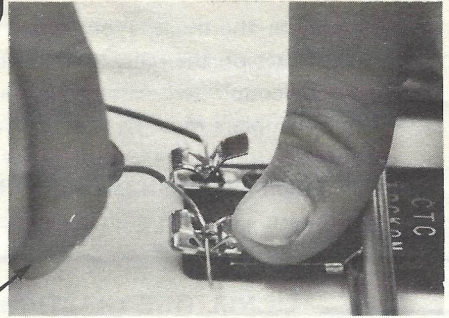
3



Have Dad strip the insulation from both ends of each wire.



4



Now insert one end of the wires into the spring terminals on the Lockon by pushing down the upper half of the terminal until the metal loop on the lower part projects through the top. Then insert one end of the bare wire through the loop and release the upper half. The spring tension will hold the wire in place. Do this for both wires.

LOCKON WIRING TO TRANSFORMER

5

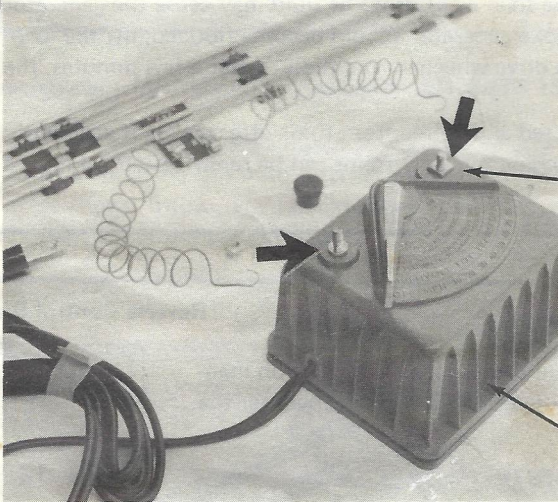
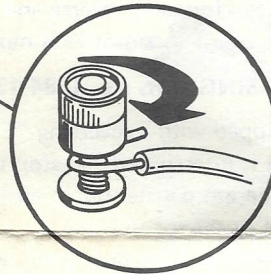
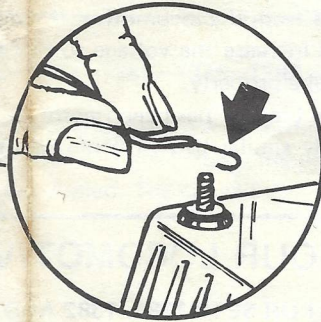


Photo above illustrates wiring set up for Lionel sets 1381-1382-1383-1384-1385-1386. Other sets are covered later in this sheet.



Now attach wires from Lockon to terminal posts of transformer. See photo at left. First, make a loop with the bare ends of each wire. Place loops over terminal posts as illustrated in top left drawing. Then secure wires by tightening thumb nuts as illustrated in drawing at left.

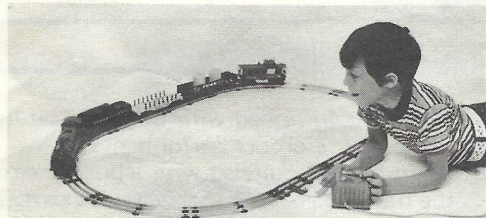
DAD PLUGS IN TRANSFORMER

6



ADULT SUPERVISION

Ask Dad to plug in your transformer for you. Any 110 volt AC household outlet will operate your train. Before you attempt to operate the set read this complete instruction sheet. There are important instructions on train operation and directions on avoiding damage to your set through misuse.

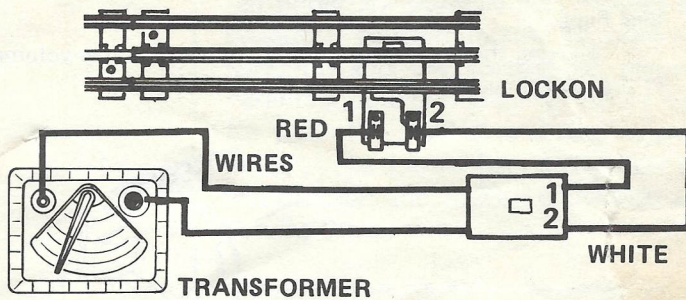


1387 SET, WHISTLE AND SOUND OF STEAM

The whistle sound is produced by an electronic circuit contained in the tender and is activated by a track side control button. This control must be connected between the transformer and the track exactly as shown, at right.

To activate the whistle, press the button firmly. Do not activate the whistle if a short circuit exists on your layout. If you do not press firmly, the train will slow down and damage may occur to the controller.

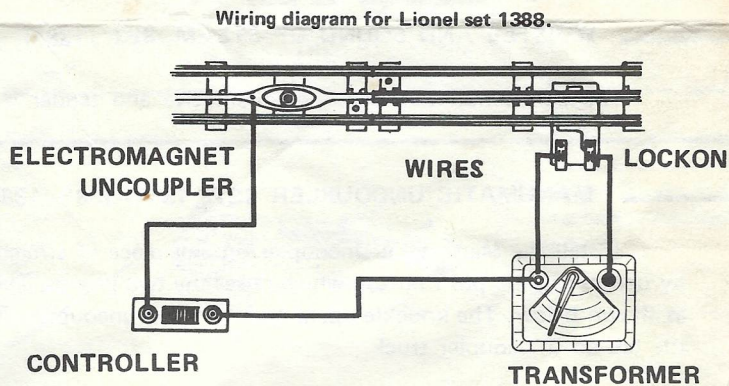
The new Lionel whistle was not designed for use with the whistle controllers built into older Lionel Transformers. However, the new controller is designed to activate the older Lionel motor driven whistle.



Wiring diagram for Lionel set 1387.

REMOTE CONTROL UNCOUPLER

Install the remote control uncoupling track according to diagram. Energize the uncoupler by depressing the controller pushbutton. The electromagnet in the track then pulls the plunger on the operating coupler truck. The knuckle opens and the car is uncoupled. The car can also be uncoupled by manually depressing the tab on the coupler truck. Important: do not hold the controller button down longer than necessary as you will over heat the electromagnet coil and possibly damage it.



Wiring diagram for Lionel set 1388.

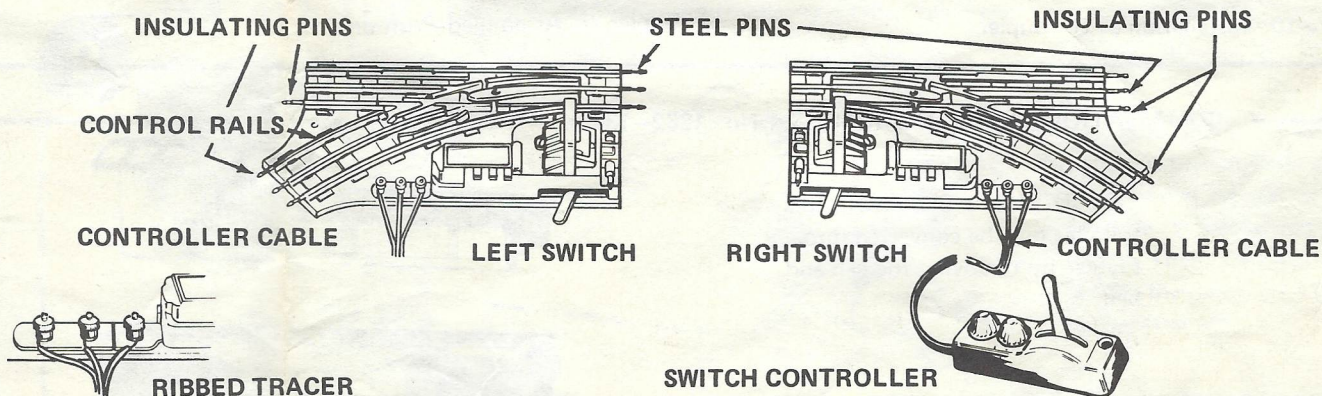
REMOTE CONTROL SWITCHES

Lionel remote control switches have a non-derailing feature.

Note that the two inner rails of the switch end with insulating track pins. These are the non-derailing control rails. As a locomotive approaches an 'open' switch along either one of the branches of the switch, its wheels bridge the control rail to the outside rail. This action completes the electrical circuit to the coil which operates the switch mechanism and throws the swivel rails of the switch to the correct position for the train to pass through. For good operation be sure to keep the control rails and the locomotive wheels clean and free of rust or grease.

CONNECTING SWITCH CONTROLLER

The switches are operated by means of controllers which are connected to the switches by 3-wire flat cables. Straighten the cable and connect the wires to the switch posts in order. Be sure that the wire with the ribbed "tracer" is connected to the metal base terminal as shown below. To "throw" the switch, move the controller lever and the swivel rails will snap over. If the action of the two levers does not correspond reverse the connections of the two wires leading to the two posts farthest from the switch box.



SOUND OF STEAM 1385-1386

Some Lionel steam locomotives contain an electronic circuit which produces a realistic choo-choo sound while the train is running. This circuit receives power directly from the rails so that no batteries are required.

In order for the Sound of Steam to operate, the wire coming from the cab of the locomotive must be connected to the wire coming from the tender. The connection is made by a push-in plug attachment at the end of each wire (See Figure 9).

Starting the locomotive slowly will cause a low-volume hissing to be produced which is rhythmically changed to the loud chugging sound as the speed is increased.

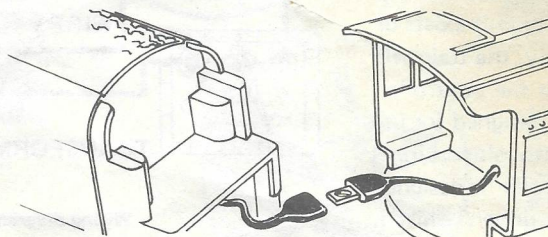


Figure 9 - Sound of Steam Connection

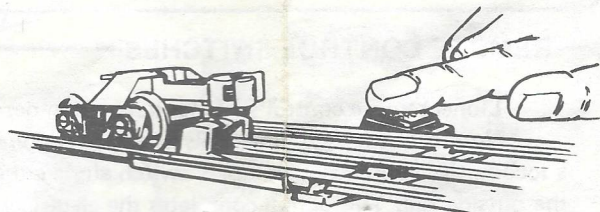
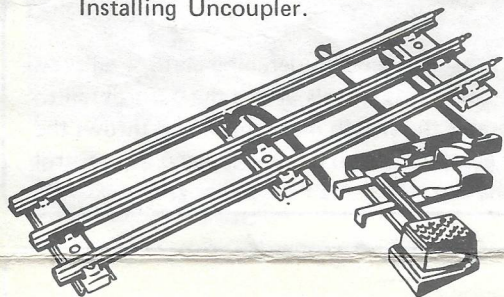
WHISTLE AND SOUND OF STEAM SET' (1387)

The connection between the locomotive and tender is made as described above for the Sound of Steam.

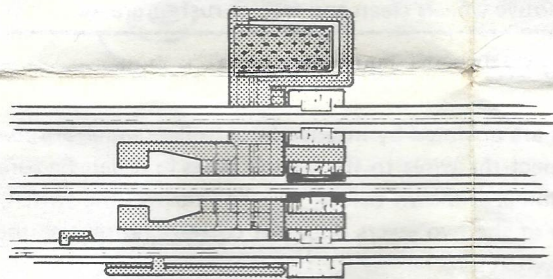
MANUMATIC UNCOUPLER SETS 1382-1383-1384-1385-1386

Install the Manumatic Uncoupler on any piece of straight track according to Figure 10. The uncoupler works by depressing the push button which raises the two prongs. These engage the plunger on the operating coupler truck as shown below. The knuckle opens and the car is uncoupled. The car can also be uncoupled by manually depressing the tab on the coupler truck.

Installing Uncoupler.



Push Button To Operate.



Uncoupler In Assembled Position.

Figure 10 - Installation of Uncoupler

COMBINATION WORK CABOOSE (Set No. 1382-1383)

The Work Caboose in this train set may be converted into a Flatcar by removing the cab and bed.

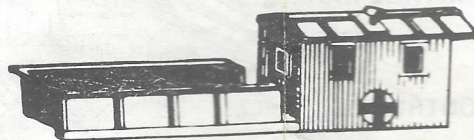


Figure 11 - Combination Work Caboose

HOW TO OPERATE THE TRAIN

After the track layout is assembled, place the locomotive and cars on the track making sure that all wheels are properly set on the rails. If any of the wheels are derailed they may touch the center rail and cause a "short circuit".

To couple two cars simply push them together on any straight stretch of track. Of course, at least one of the mating couplers must be open for coupling to take place. The order of the cars in the train does not matter but the caboose is usually the last car in the train.

When the train is ready, plug the transformer cord into any convenient wall outlet and advance the transformer control arm until the train begins to move either forward or backward.

LIONEL TIRE-TRACTION

Your locomotive is equipped with "Tire Traction". This means one or two of the locomotive drive wheels are fitted with rubber tires to permit increased pulling power. For this reason sudden stops and sudden high speed starts in either direction should be avoided to prevent cars from de-railing and also to promote realistic operation. Lionel locomotives with "Tire Traction" grip the track and enable the locomotives to pull heavy loads and climb steep grades.

LIONEL SMOKE GENERATOR (Sets No. 1385-1386-1387)

Locomotives equipped with the latest type smoke generators are designed for use with the new Lionel MPC No. 2909 smoke-producing fluid furnished in squeeze bottles. Place four to eight drops of smoke fluid in the smoke generator through the locomotive stack. Smoke will be produced after track power is applied for several seconds. The locomotive will puff only when the wheels are turning. More than eight drops of fluid may cause the generator to overflow and the fluid to spill from the locomotive. If the smoke generator should become flooded, lift the locomotive slightly off the track and increase the voltage so that the drive wheels turn rapidly. After a few minutes, the locomotive will begin to puff smoke properly.

The new No. 2909 "Smoke Liquid" has been rigorously tested and is free from toxic effects even if accidentally swallowed. The fluid is chemically similar to petroleum-base machine oil. Any stains can be removed with standard cleaning fluids.

REVERSING YOUR LOCOMOTIVE

MANUAL REVERSING FOR SETS 1381, 1382 AND 1383

The locomotives in sets No. 1381-1382 and 1383 are equipped with a three position manual unit which alternates between forward, reverse and neutral. Direction will change whenever the manual switch arm, on the top of the locomotive is moved.

AUTOMATIC REVERSING (Sets No. 1384-1385-1386-1387)

Your locomotive is equipped with a reversing "E-Unit" which operates automatically. The train will change direction every time the current is interrupted. To stop the train, simply move the transformer control to "OFF". The locomotive can be made to operate constantly in either forward or reverse if the "E-Unit" lever is turned "OFF". This lever is located on the top of the locomotive.

The transformer has a reverse control button which when pressed and released will cause the locomotive to change direction of travel when the "E-Unit" is on. (See Figure-12)

AUTOMATIC REVERSING (Set No. 1388 - 1384 - 1385

Refer to separate instruction sheet for the engine in this set.

Reverse Control Button



Figure-12

IMPORTANT POINTS (Sets No. 1381-1382-1383)

Sets No. 1381-1382-1383-1384 and 1385 are equipped with plastic wheels. This will minimize short circuits caused by derailments. However, accessory No. 6-2154, Operating Highway Flasher will not operate with these sets. Other train operated accessories 6-2152, 6-2162 and 6-2140 depend on train weight for operation. Additional weights may be placed in the rolling stock when necessary.

TRANSFORMER

The transformer furnished with this train set has been listed by the Underwriters Laboratories and has been carefully tested to assure proper performance.

This transformer is equipped with a built-in circuit breaker which will alternately cut out and restore the flow of power to the track whenever a short circuit exists. The circuit breaker is incorporated into the transformer to protect the transformer from possible "burn out". It is not intended to protect the locomotive or electrically operated accessories.

If a short circuit exists the transformer will supply power for short instances and "cut out", alternately. Whenever such conditions are noticed, the transformer must be unplugged from the wall socket and the short circuit must be corrected.

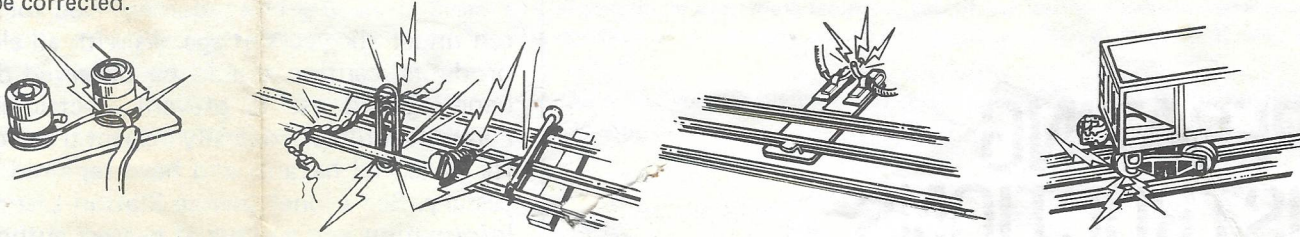


Figure 13—Some causes of "Short Circuits"

A short circuit is caused by a direct connection between the center rail and one of the outside rails or by a direct connection between the transformer binding posts. A derailed car or locomotive is the most frequent cause of short circuits so make sure that all the wheels are properly set on the rails. Some other causes of short circuits might be tinsel or some metallic object lying across the rails, two bare wires touching each other, etc.

After your transformer has been operating for a while you will find it warm to the touch. It is the nature of all electrical power equipment to become warm when in use. If your transformer is loaded to capacity it's a good idea to let it cool down after an hour or two of continuous use. Pull out the wall plug when the transformer is not in use.

HEADLAMP REPLACEMENT (Sets No. 1382-1383-1384-1385-1386-1387-1388)

Locomotives in sets No. 1384-1385-1386-1387 use a 12 volt wedge base lamp, behind the boiler front. The lamp socket is part of the smoke unit. To replace the lamp, remove the screws holding the boiler assembly, lift out the motor, and pull the lamp straight up. Locate a new Lionel No. 161-300 lamp in the socket, and push straight down. Twisting the lamp when removing or installing it, may break the bulb.

The locomotive in set No. 1382 uses a Lionel No. 8010-24 lamp. To replace it, remove the screw holding the cab to the chassis and unscrew the bulb.

The locomotive in set No. 1383 also uses the 12 volt wedge base lamp, No. 161-300. To replace the lamp, remove the screw holding the cab to the chassis, and lift off the motor. Remove and replace the lamp following the procedure described for the wedge base bulb. Replacement lamps can be obtained from you local Lionel dealer or the Factory Service Dept.

HEADLAMP REPLACEMENT (Set No. 1388)

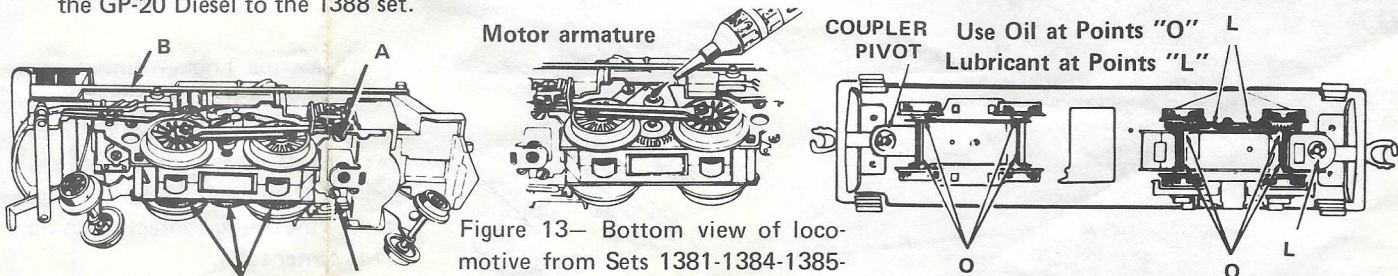
Refer to separate instruction sheet for the engine in this set.

CARING FOR YOUR EQUIPMENT

All electrical connections should be clean and tight. The track should fit together firmly. If the rail openings have become enlarged causing the track to fit loosely, pinch the rail together around a track pin with a pair of diagonal pliers. Replace all missing pins. The rails should be kept clean, dry and free from oil or grease. Clean off rust and dirt spots with fine sandpaper and wipe the track with a clean soft cloth dampened with Lionel No. 6-2927-75 "Track Clean".

LUBRICATION AND MAINTENANCE

The moving parts of your locomotive such as gears and axles, and on the steam locomotives the side rods and motor armature shaft, require periodic lubrication. When operating the train regularly, inspect these parts frequently to make sure they are not dry. Remove accumulations of dust and dirt. Also clean and lubricate the locomotive after storage. Use only small quantities of lubricant with each application. **DO NOT OVER LUBRICATE.** Keep lubricant off motor brushes, wheel rims, track rails, and contact rollers. Refer to separate instruction sheet for maintenance of the GP-20 Diesel to the 1388 set.



LUBRICATE GEARS

Figure 13— Bottom view of locomotive from Sets 1381-1384-1385-1386 and 1387 showing lubricating points. Screws at points A & B hold motor.

Bottom view of locomotives from sets 1382 and 1383 showing lubricating points.