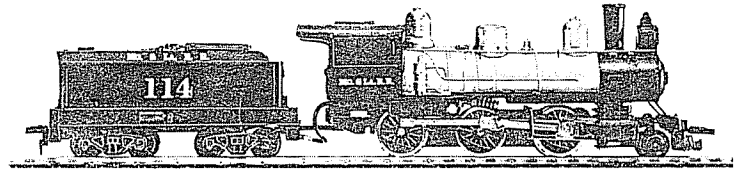


MANTUA



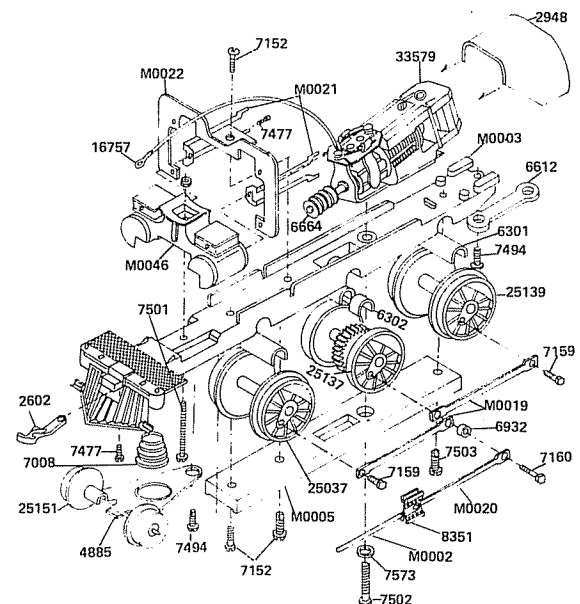
2-6-0 MOGUL

MECHANISM ASSEMBLY

1. Check all parts with Replacement Parts List. Study drawings to identify the parts. Read instructions through before starting and avoid disappointing and expensive errors. Smooth edges of all castings with a knife or fine file to remove all flash and burrs.
2. Assemble two No.6301 Long Axle Bearings and two No. 6302 Short Axle Bearings in No.M0003 Frame, making certain they are located on pins and properly seated in bearing slots of frame.
3. Place No.25037 Driving Wheels in front slot and No.25139 (with traction ring) in rear slots. Place No.25137 Wheels with gear and blind rims in center slot. ALL INSULATED WHEELS must be on left side. (See drawing) Insulated wheels are identified by a white ring between the wheel casting and the rim. Apply a few drops of light oil.
4. Place No.M0005 Retainer Plate in position with three No. 7152 (#2-56x3/16" thread cutting) screws as shown.
5. Make sure each pair of wheels revolves freely in its bearing.
6. No.M0002 Crosshead and Piston Rod is attached to No. M0020 Main Rod by riveting with No.8351 Rivet. Assemble left and right sides in the same manner. Assemble No.M0019 Side Rods and No.M0020 Main Rod to drive wheels using No.6932 Spacer and No.7160 Long Side Rod Screw on center set. Short No.7159 screws on other wheels. The rivet heads on crossheads will face out. Both sides are the same procedure. Use No.5511 Wrench. DO NOT USE PLIERS.
7. Assemble No.M0021 Crosshead Guide to No.M0046 Cylinder with No.7477 (#0x7/32"S.T.) Screw. Do this for right and left sides. Attach No.M0022 Crosshead Guide Hanger to frame with No.7152 (#2-56x3/16" S.T.) Screw. With crosshead and piston rod fitted in guides, set cylinder in place and put ends of guides into holes in hanger. Use No.7501 Screw and Nut to temporarily hold cylinder on while work proceeds.
8. Check rotation of coupled drivers. Tight spots in side rods may be freed by reaming slightly with a needle point file. DO NOT ream any more than absolutely necessary. Assembled mechanism should now roll freely.
9. Fasten No.33578 Motor Assembly to No.M0003 Frame with No.7502 (#2-56x7/16" R.H.) Screw, used with No. 7573 Lock Washer. When screw is tightened the worm and gear should mesh without binding, but have a minimum backlash. Should adjustment be necessary, remove metal from pad surface as follows: To bring worm and gear closer remove from front pad, and for wider setting remove from rear pad. Remove VERY LITTLE at a time and try frequently as a good fit will be made.
10. To connect No.16757 Motor Lead and Lug Assembly to No.32578 Motor use a drop of solder on front brush spring

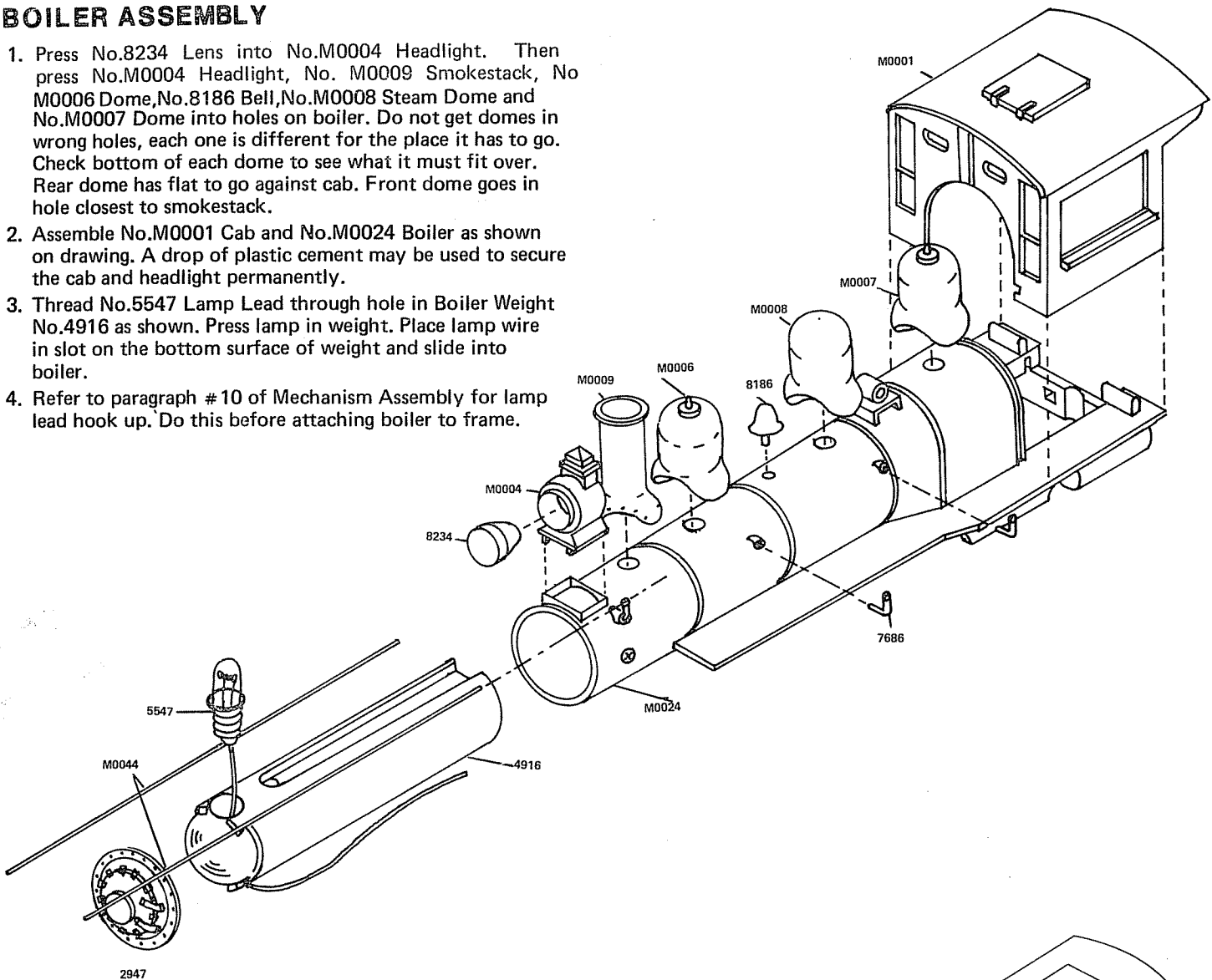
post as shown in drawing, or it may be connected under brush spring loop. To remove brush assembly, rotate the spring so loop is free from fibre plate. Place stripped end of lead in loop of spring. Rotate spring back to original position and replace brush assembly. CAUTION! Make sure lead is locked between loop of spring and fibre plate. Head-light lead is also connected later in the same manner.

11. Place No.25151 Wheel Assembly in bearing slot of No. 4885 Lead Truck Frame. Bend tab to hold wheels in position, allowing axle to turn freely. Sand points off axle after assembly. This assembly will go on after boiler is attached.
12. Check with 12 volts D.C. power in both forward and reverse motion. Do not run without lubrication of worm and gear.
13. Attach No.6612 Drawbar to rear of frame with No.7494 (#2-56x3/16" W.H.) screw.
14. Lubricate worm and gear with Lubriplate or any good light grease. Apply a drop of light oil to all other moving parts. Turn mechanism upside down and in this position run-in mechanism for not less than 30 minutes with 12 volt, D.C. power. Forward and reverse.
15. Attach No.2602 Coupler with a No.7477 (#0-80 7/32") Screw. Position coupler so hook is over center line and will couple with other cars easily.



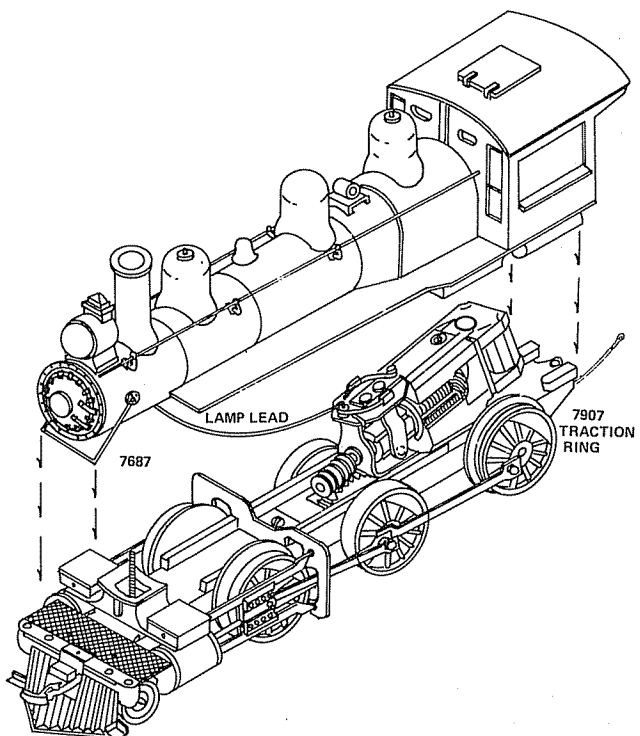
BOILER ASSEMBLY

1. Press No.8234 Lens into No.M0004 Headlight. Then press No.M0004 Headlight, No. M0009 Smokestack, No M0006 Dome,No.8186 Bell,No.M0008 Steam Dome and No.M0007 Dome into holes on boiler. Do not get domes in wrong holes, each one is different for the place it has to go. Check bottom of each dome to see what it must fit over. Rear dome has flat to go against cab. Front dome goes in hole closest to smokestack.
2. Assemble No.M0001 Cab and No.M0024 Boiler as shown on drawing. A drop of plastic cement may be used to secure the cab and headlight permanently.
3. Thread No.5547 Lamp Lead through hole in Boiler Weight No.4916 as shown. Press lamp in weight. Place lamp wire in slot on the bottom surface of weight and slide into boiler.
4. Refer to paragraph # 10 of Mechanism Assembly for lamp lead hook up. Do this before attaching boiler to frame.



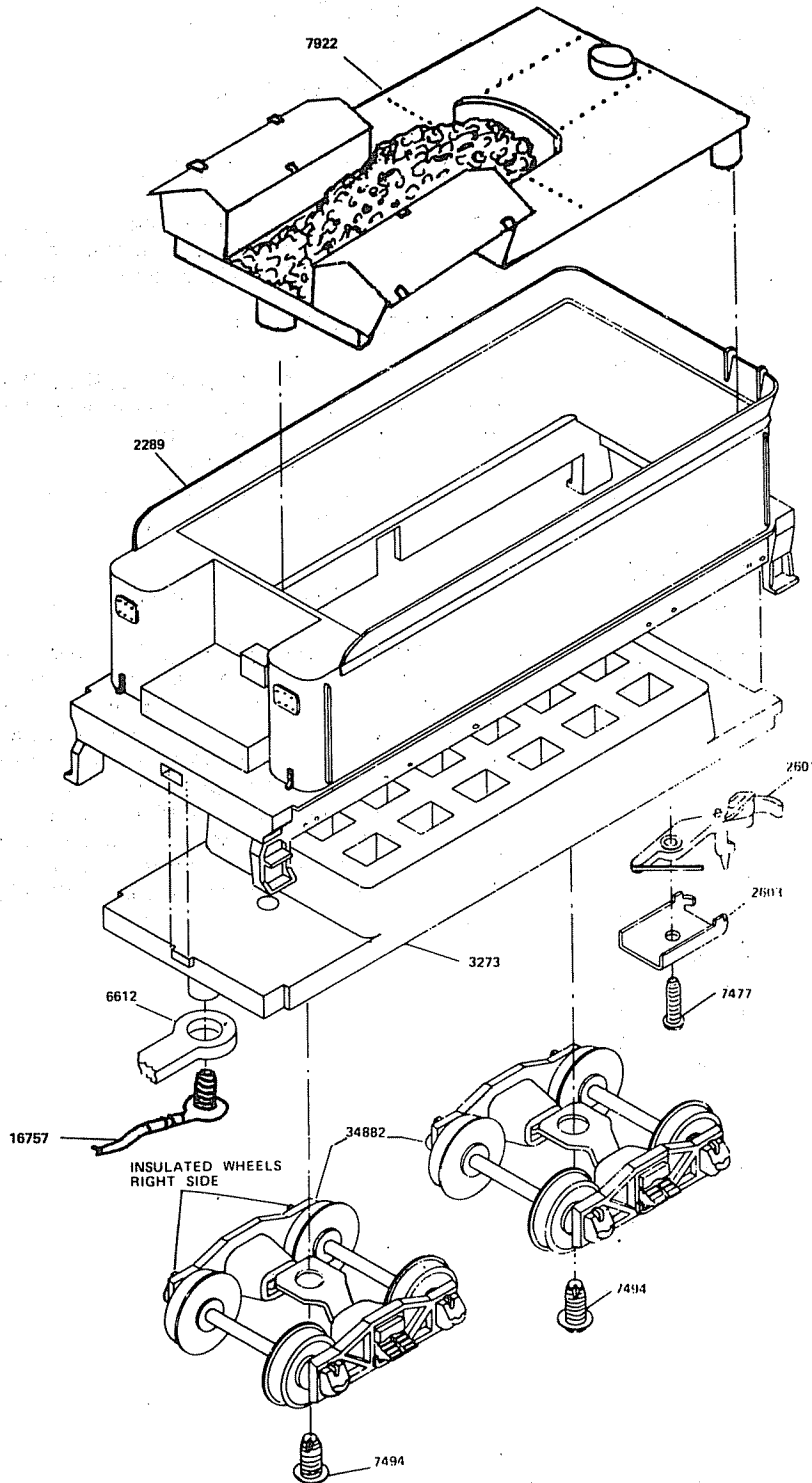
BOILER AND MECHANISM ASSEMBLY

1. Remove screw and nut holding cylinder on frame. Be careful to hold cylinder in place when screw is removed. Place rear lugs on No.M0003 Frame into holes provided at the rear of boiler assembly. Screw No.7501 up through frame, cylinder and into boiler weight. Place No.7687 Smoke Box support as shown and locate bottom behind sill on frame.
2. Press No.2947 Boiler Front on boiler.
3. Press No.7686 Handrail Posts in holes on boiler as shown. Thread No.M0044 Handrail Wires through posts and before pressing into holes in cab, flatten the ends so the wires will have tight press fit in the cab holes.
4. Position motor lead as shown on drawing and insert No. 2948 Motor Housing through rear of cab and press onto back of motor.
5. Place large end of No.7008 Spring over boss on No.4885 Truck Frame, then place truck frame on boss on No. M0003 Main Frame and secure with No.7494 (#2-56x3/16 W.H.) Screw.



TENDER ASSEMBLY

1. Check all parts with replacement parts list.
2. Assemble No.2289 Tender Body to No.3273 Frame. Insert two rear lugs on frame into openings on body and press front lug into slot on body.
3. Place No.2601 Coupler in No.2603 Coupler Pocket and insert No.7477 Screw (#0x7/32" Lg. S.T.R.H.) as shown on drawing. Screw into hole provided on tender under frame No.3273. Be sure coupler is under spring tension and moves freely.
4. Install No.34882 Trucks with insulated wheels on right hand side (opposite side to loco insulated wheels). Screw into place with two No.7494 screws (#2-56x3616" Lg. washer head thread cutting).
5. Place No.6612 Draw Bar over Boss at front end of tender frame. Over this place motor lead wire terminal. Secure with a No.7494 screw. The other end of draw bar slips over boss at the rear of loco frame. A No.7494 screw is also used to secure this end.
6. Place No.7922 Coal Pile in position as shown. For permanent assembly, a drop of plastic cement may be used.



NO. IN KIT	DESCRIPTION	PART NO.	UNIT
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MECHANISM PARTS

1	Main Frame	M0003	
2	Axle Bearing, Long	6301	
2	Axle Bearing, Short	6302	
1	6 1/2" Wheel, Axle worm & gear assembly	25137	
1	6 1/2" Wheel & Axle assembly with traction	25139	
1	6 1/2" Wheel & Axle assembly	25037	
1	Retainer Plate	M0005	
1	Coupler	2602	
1	Screw (#0x7/32" S.T.)	7477	
4	Side Rods	M0019	
2	Spacer - Main Rod	6932	
2	Screw, Long Side Rod	7160	
4	Screw, Short Side Rod	7159	
2	Main Rod	M0020	
2	Crosshead and Piston Rod	M0002	
2	Rivet	8351	
2	Crosshead Guide	M0021	
2	Screw (#0x7/32" S.T.)	7477	
1	Hanger, Crosshead Guide	M0022	
4	Screw (#2-56x3/16" S.T.)	7152	
1	Lead Truck Frame	4885	
1	Wheel & Axle assembly (30")	25151	
1	Spring, conical	7008	
1	Screw (#2-56x3/16" W.H.S.T.)	7494	
1	Screw (#2-56x13/16" S.T.)	7501	
1	Wrench	5511	
1	Cylinder	M0046	
1	Motor and worm assembly	33578	
1	Motor PM-1	33579	
1	Worm 56 Pitch	6664	
1	Lead & Lug	16757	
1	Screw (#2-56x7/16")	7502	
1	Lock Washer	7573	
1	#2-56 Hex Nut	7427	

BOILER PARTS

1	Boiler	M0024	
1	Cab	M0001	
1	Lamp & Lead assembly	5547	
1	Smoke Box Support	7687	
1	Boiler Front	2947	
2	Handrail	M0044	
6	Handrail Posts	7686	
1	Headlight Holder	M0004	
1	Lens, headlight	8234	
1	Smokestack	M0009	
1	Dome, Sand Front	M0006	
1	Dome, Sand Rear	M0007	
1	Dome, Steam	M0008	
1	Bell	8186	
1	Motor Housing	2948	
1	Weight	4916	

NO. IN KIT	DESCRIPTION	PART NO.	UNIT PRICE
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TENDER PARTS

1	Tender Body		2289
1	Tender Frame		3273
2	Truck, tender (pair)		34882
1	Coupler		2601
1	Coupler Pocket		2603
1	Screw (#0x7/32" S.T.)		7477
1	Coal Pile		7922
1	Draw Bar		6612
4	Screw (#2-56x3/16" W.H.)		7494

REPLACEMENT PARTS

See your Hobby Dealer. If he cannot supply them you may order from the factory. Please send check or money order for parts required, plus \$1.00 for postage and handling.

DEFECTIVE PARTS

RETURN PARTS ONLY - NOT COMPLETE MODEL. Any defective part will be replaced at no charge. If complete or partially completed model is returned only the defective part will be replaced, not installed.

Please enclose check or money order for \$1.00 to cover the cost of postage and handling.

MANTUA FULL ONE YEAR WARRANTY

All Mantua Products are thoroughly inspected and tested prior to shipment and are guaranteed to operate satisfactorily and be free from factory defects. If within one (1) year from the date of purchase this product fails due to defect in material or workmanship Mantua will repair or replace it free of charge. This guarantee does not apply to (a) electric bulbs, (b) damage caused by accident, abuse or mishandling, dropping and (c) units which have been subjected to unauthorized repair. To prevent damage in transit please pack securely and return to: Mantua Service, Grandview Avenue, Woodbury Heights, N. J. 08097.

MANTUA

MANTUA METAL PRODUCTS CO., INC.
GRANDVIEW AVENUE, WOODBURY HEIGHTS, NEW JERSEY 08097

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