
Planned Maintenance & Adjustment Procedures



TM/EM 10 thru 15S

SERIES TM/EM 127

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2nd Rev.
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15. Remove the capacity load and test the emergency battery disconnect. Pulling up on the handle will disconnect the battery cable, disconnecting power from the truck. Release the handle and turn key off.

N O T E

This should ONLY be used in an EMERGENCY and not to disconnect the battery under normal conditions.



Fig. 20292

UPRIGHT AND CARRIAGE:

1. Check the forks for cracks, fractures, and excessive wear. The height of the fork tips should not differ more than [6.5 mm] or 1/4 of an inch.
2. The locking tabs on the forks should move freely but lock the forks securely in place on the carriage. The forks should move in either direction without binding.
3. Inspect load backrest and carriage for cracks, unusual wear, and stress areas. Also check tightness of mounting bolts of backrest to fork bars.

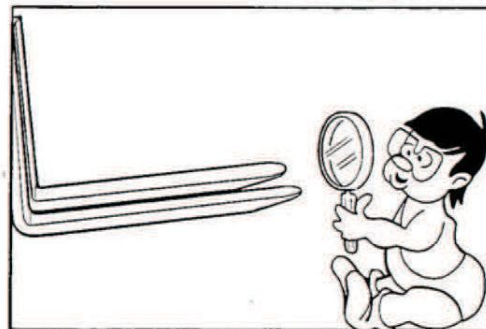


Fig. 17796

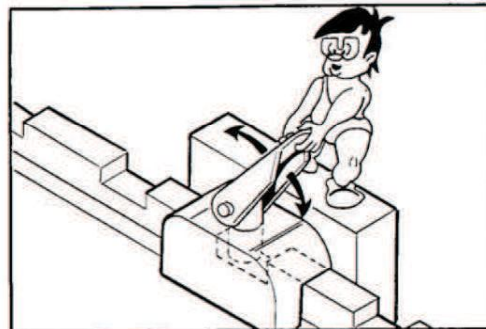


Fig. 17795

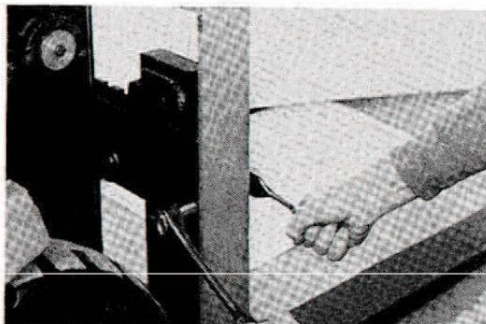


Fig. 20282

4. Check fork stop pins for security of mounting.

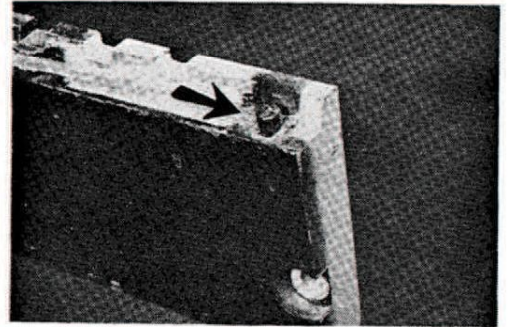


Fig. 19507

5. Check lift cylinder piston rods for nicks and scoring or any unusual wear. Also check cylinder packings for any excessive leaks.

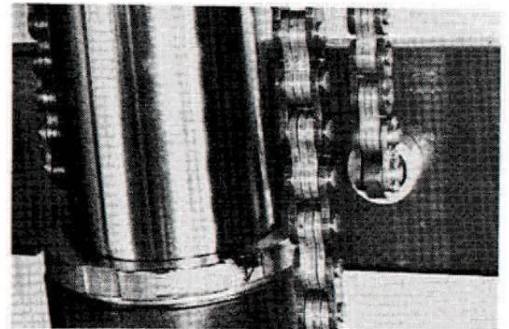


Fig. 19493

6. Check the lift chains for equal and proper tension. Do so by pulling on chains with light and equal pressure. Also check condition of chains, if pins and links seem to be excessively loose the lift chains must be replaced.

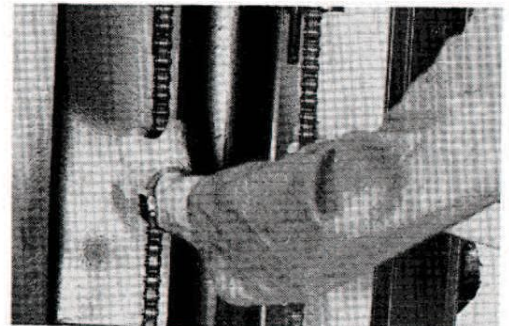


Fig. 19484

7. Inspect the lift cylinder chain anchors. Each anchor must be retained by two nuts and there must be a split pin on the ends.

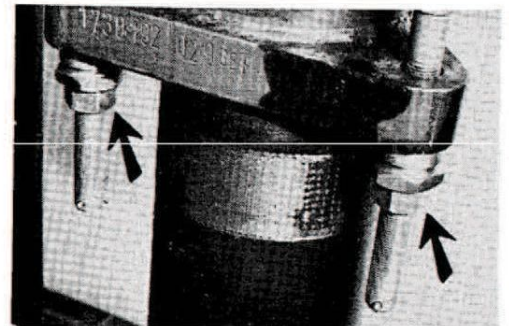


Fig. 19482

8. Check the anchor bolts on carriage. Make sure all split pins are present and undamaged.

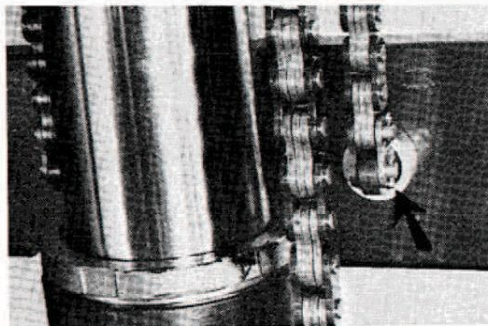


Fig. 19493

9. Inspect the rear chain for equal and correct adjustment, on the Hi-Lo and Triple Stage uprights.

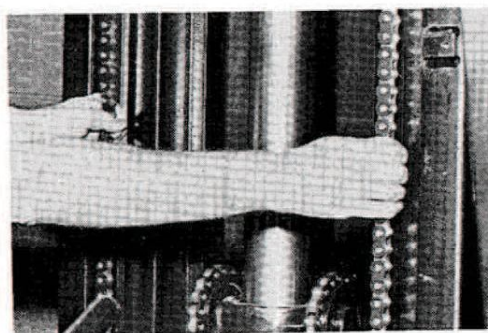


Fig. 19486

10. Adjustment of upright chains is correct if the inner rail is slightly higher than the outer rail when upright is in the fully lowered position.

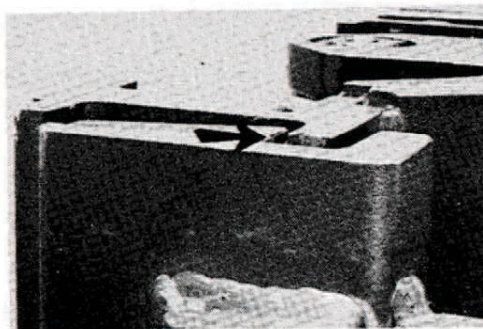


Fig. 19487

11. With upright fully lowered, check upright latch for freedom of movement.

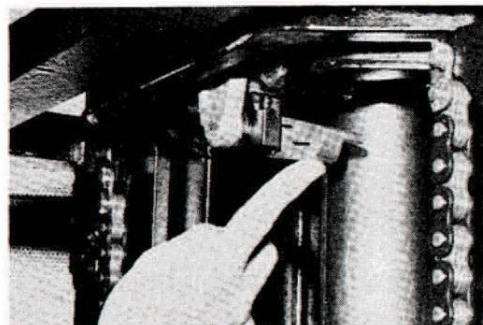


Fig. 19488

12. Check the fabreeka stop pads for damage and wear. With upright fully lowered, both pads should be contacting top tie bar, on standard upright only.

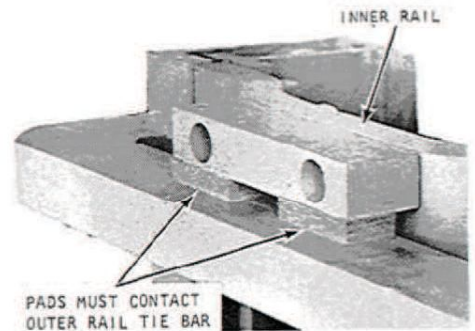


Fig. 10910

13. Lift upright above its free lift to actuate the latch. Use a wooden stick to test the lever, it should still be free to move.

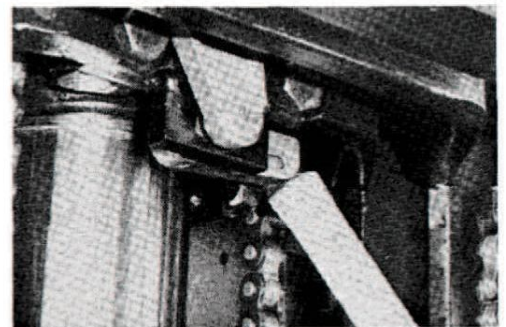


Fig. 19489

14. Check the free play adjustment of the upright rollers with upright off floor [152.4-202.2 mm] or 6-8 inches. Place a block of wood underneath forks to prevent them from lowering.



Fig. 19440

15. Using a pry bar, pry bottom of inner rail to one side to check the free play. Do the same on the other side and also at the top of the upright. This free play should not exceed [3.2 mm] or 1/8 of an inch.

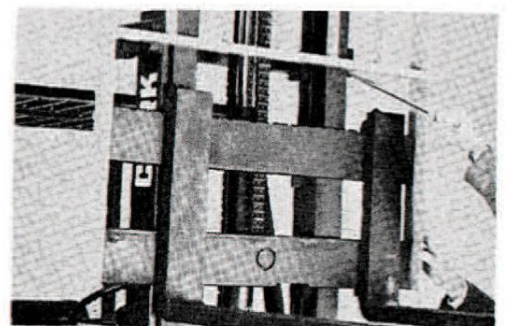


Fig. 19558

16. Raise inner rail to 1/2 of its full lift position. Secure the upright by placing a chain around the inner rail tie bar and the outer rail tie bar. Perform the steps as described above. Record number of shims needed.

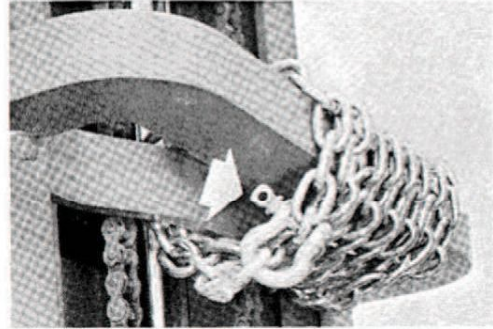


Fig. 17686

17. Remove chain securing rails and raise inner rail to its full lift position. Secure the inner rail around the tie bars as before. Make the free play checks again as described earlier. Record shims needed. This procedure also checks the upright rails for straightness. If adjustment is needed, refer to GROUP 34, Section 2.

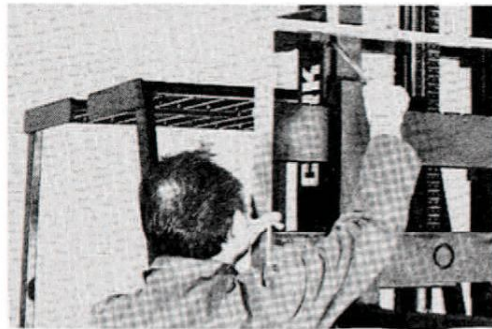


Fig. 19560

18. Check the roller pattern at the inner rail, which runs down the back flange. The roller should not drop any lower than [12.7 mm] or 1/2 inch from end of rail. If it does, the lift chains need adjustment. Refer to GROUP 34, Section 1.

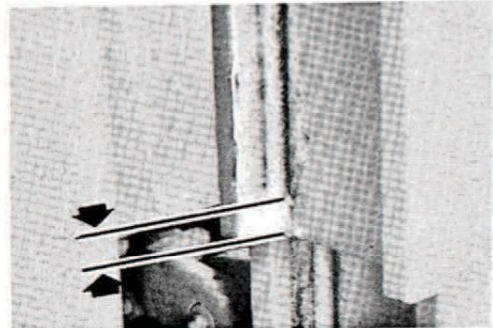


Fig. 17643

19. While the upright is chained, check the securing bolt at the bottom of upright cylinder for tightness. Also check the hydraulic hoses for any leaks and tightness of fittings.

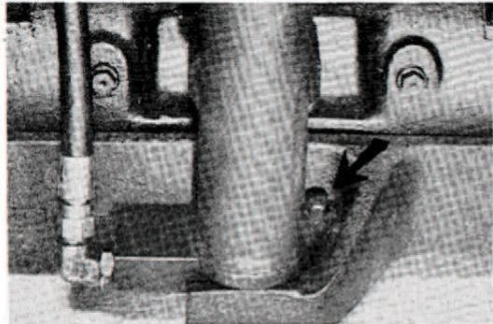


Fig. 19492

20. Check the fluid level in both drive units while the upright is secured. Do so by removing the fill plug. If fluid is needed, add to drive axle with tool shown. Refer to GROUP 40, Section 4 for specified fluid.

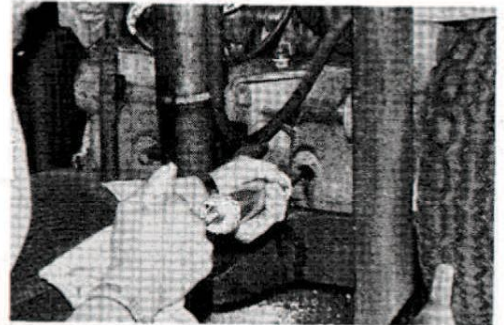


Fig. 19546

21. Check tightness of the drive axle mounting bolts. Torque should be [460-500 N·m] or 339-368 lb. ft. Also check upright pin bolts for [20-25 N·m] or 14-18 lb. ft. torque.



Fig. 19441

22. Inspect all tires for any damage. Make a note of any excessive wear. Check tire pressure, if equipped with pneumatic tires. Also, torque drive wheel and steer wheel lug nuts to [255-275 N·m] or 188-202 lb. ft.

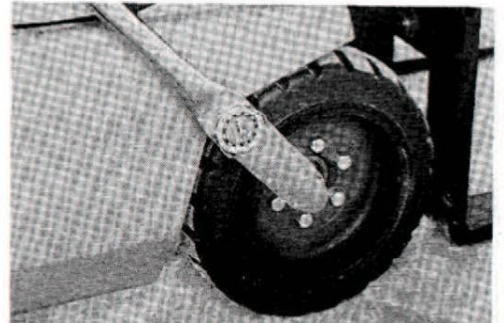


Fig. 20279

23. Check tilt cylinder for proper operation. Check the cylinder rod for any scratches or nicks that may cause cylinder packings to leak. Make sure piston spacer stays on end of piston rod.

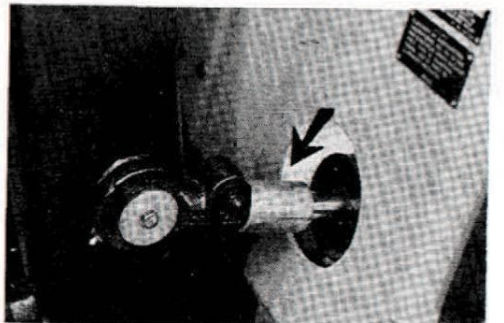


Fig. 20280

24. Check rod end screw for tightness, then tighten rod end mounting bolt to [20-25 N·m] or 14-18 lb. ft. torque.

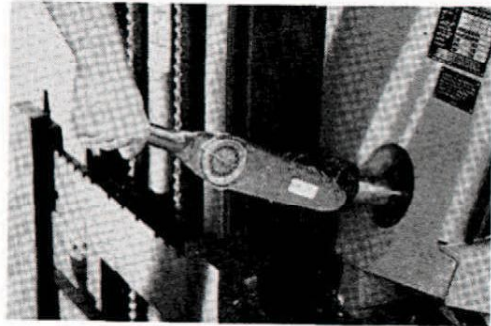


Fig. 20281

25. Remove cotter key and pin from safety clevis. Remove chain from upright tie bars and lower carriage.

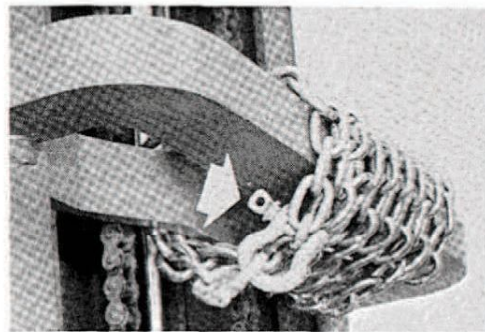


Fig. 17686

26. Raise capacity load about [30.5 cm] or one foot. Mark inner and outer rails as shown. The marks should not separate more than the specified distance listed in GROUP 40, Section 5 under Drift Tests.

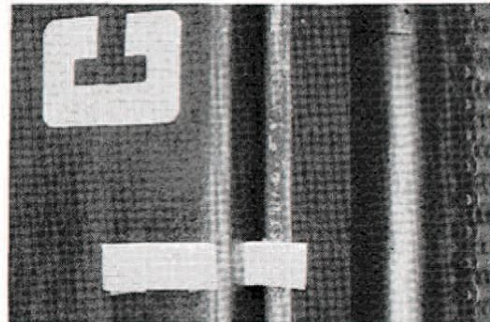


Fig. 19556

27. At the same time, measure the distance from the cylinder barrel end to the gland end. Record measurement. After five minutes, check the distance again. The difference between readings will be the drift results. The piston rod should not drift more than the specified distance listed in GROUP 40, Section 5 under Drift Tests.

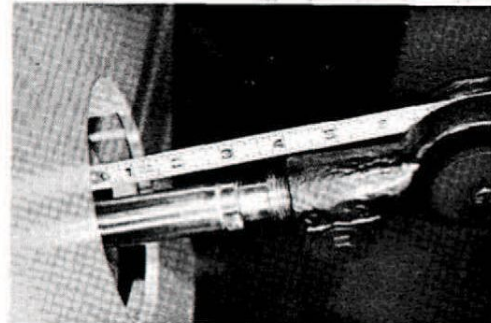


Fig. 19442

28. Check the tightness of the support leg mounting bolts. They should be torqued to [80 N·m] or 59 lb. ft.



Fig. 20309

29. Also, check the tightness of the overhead guard-to-leg mounting bolts. Torque should be [80 N·m] or 59 lb. ft.

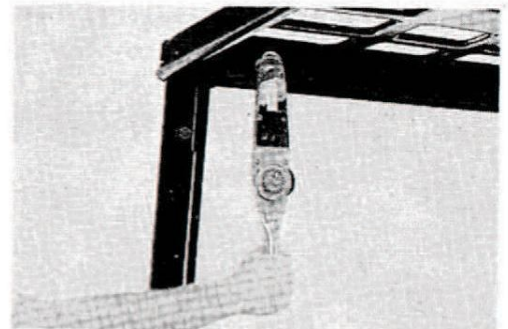


Fig. 20310

STEERING COLUMN:

1. Check pylon release lever. Pylon should spring up freely and also pull back and latch into driving position without binding. Oil hinge when necessary. Refer to GROUP 25, Section 5 for release lever adjustment.



CAUTION

NEVER DRIVE TRUCK WITH PYLON IN THE FORWARD OR UNLATCHED POSITION.

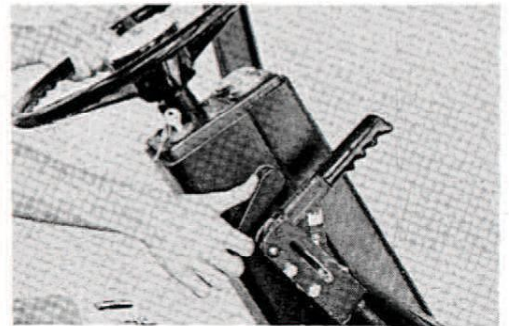


Fig. 20294

2. Check parking brake lever for free movement. If binding, lubricate linkage at pivot areas. For adjustment refer to GROUP 23, Section 4.

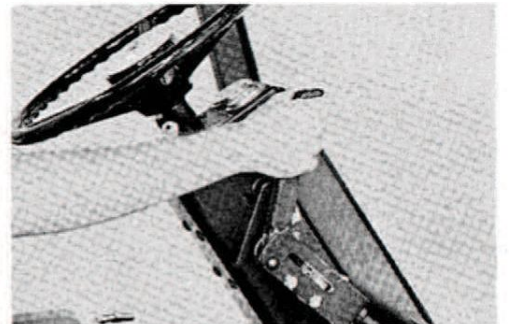


Fig. 19936

3. Remove pylon cover from the front of the pylon.

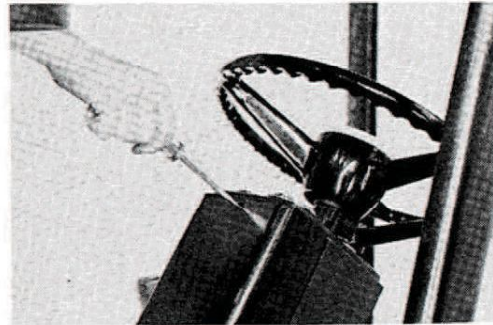


Fig. 20283

4. Check brake reservoir for proper amount of fluid by holding reservoir level. Full level is at the top mark of reservoir. Refer to GROUP 40, Section 4 for specified fluid.

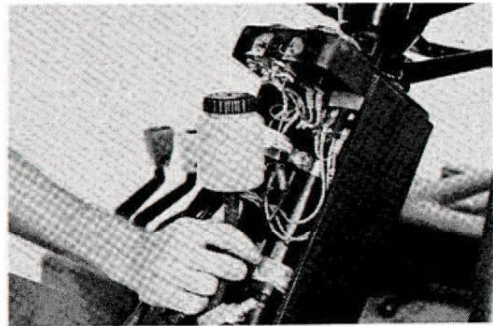


Fig. 20284

5. Check all wire connections for being properly positioned and for firm contact. Also check all wire leads for any damage or cracked insulation.

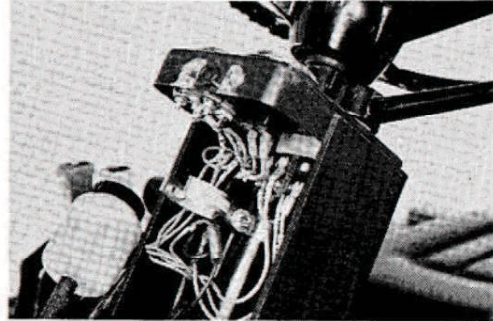


Fig. 20285

6. Inspect all hydraulic lines for cuts, leaks and all fittings for tightness.

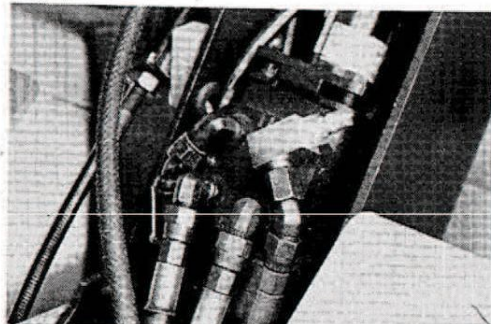


Fig. 20286