SERVICE REPAIR

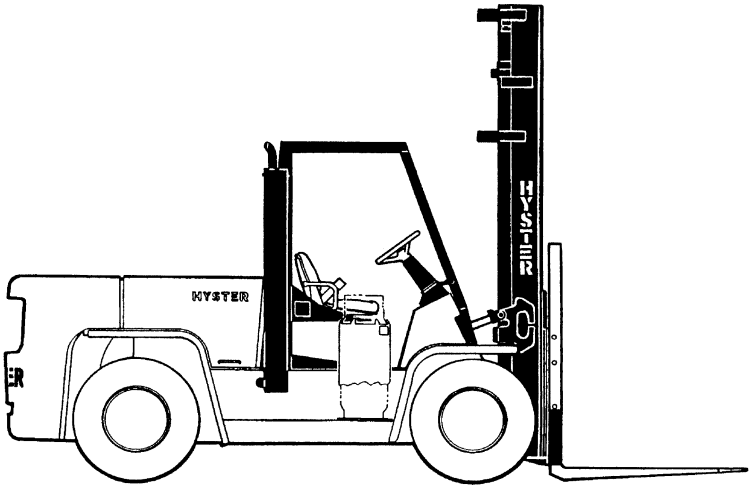
MANUAL

Hyster F006 (H135XL H155XL) Forklift

HYSTER

FRAME

H6.00-7.00XL (H135-155XL) [F006, G006]



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HYSTER

SAFETY PRECAUTIONS
MAINTENANCE AND REPAIR

- When lifting parts or assemblies, make sure all slings, chains, or cables are correctly fastened, and that the load being lifted is balanced. Make sure the crane, cables, and chains have the capacity to support the weight of the load.
- Do not lift heavy parts by hand, use a lifting mechanism.
- Wear safety glasses.
- DISCONNECT THE BATTERY CONNECTOR before doing any maintenance or repair on electric lift trucks.
- Disconnect the battery ground cable on internal combustion lift trucks.
- Always use correct blocks to prevent the unit from rolling or falling. See HOW TO PUT THE LIFT TRUCK ON BLOCKS in the **Operating Manual** or the **Periodic Maintenance** section.
- Keep the unit clean and the working area clean and orderly.
- Use the correct tools for the job.
- Keep the tools clean and in good condition.
- Always use **HYSTER APPROVED** parts when making repairs. Replacement parts must meet or exceed the specifications of the original equipment manufacturer.
- Make sure all nuts, bolts, snap rings, and other fastening devices are removed before using force to remove parts.
- Always fasten a DO NOT OPERATE tag to the controls of the unit when making repairs, or if the unit needs repairs.
- Be sure to follow the **WARNING** and **CAUTION** notes in the instructions.
- Gasoline, Liquid Petroleum Gas (LPG), Compressed Natural Gas (CNG), and Diesel fuel are flammable. Be sure to follow the necessary safety precautions when handling these fuels and when working on these fuel systems.
- Batteries generate flammable gas when they are being charged. Keep fire and sparks away from the area. Make sure the area is well ventilated.

NOTE: The following symbols and words indicate safety information in this manual:

WARNING

Indicates a condition that can cause immediate death or injury!

CAUTION

Indicates a condition that can cause property damage!

TABLE OF CONTENTS

This section is for the following models:

H6.00-7.00XL (H135-155XL) [F006, G006]

"THE
QUALITY
KEEPERS"

HYSTER
APPROVED
PARTS

General

This section has the description of the frame and some connected parts. See Figure 1. Procedures for the removal and installation of the counterweight, hood, overhead guard, and engine are under Counterweight Repair, Hood Repair, Overhead Guard Repair, and Engine Repair. Checks for the operator restraint system and procedures for the repair of tanks and replacement of safety labels are included.

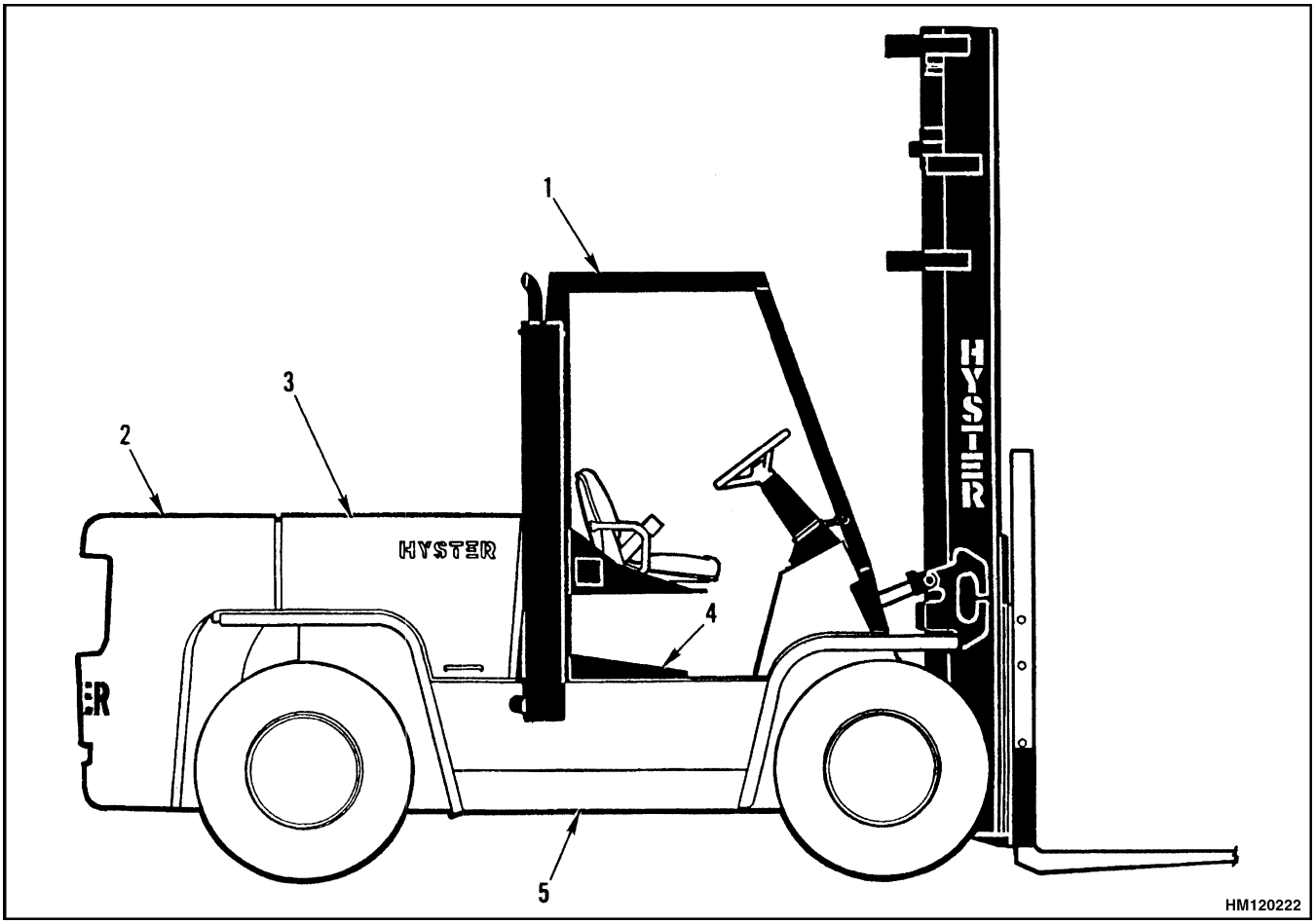
Description

The frame is one weldment and includes the hydraulic tank and the fuel tank for gasoline and diesel fuel.

There is a counterweight for each capacity of lift truck. The counterweights are similar, but are different weights.

An overhead guard is fastened to the frame of the lift truck. The overhead guard has the mounts for the seat plate and the hood.

The hood is connected at mounts on the cowl and the frame.



1. OVERHEAD GUARD
2. COUNTERWEIGHT
3. HOOD
4. FLOOR PLATE
5. FRAME

Figure 1. Frame and Connected Parts

Counterweight Repair

REMOVE

WARNING

The lift truck must be put on blocks for some types of maintenance and repair. The removal of the following assemblies will cause large changes in the center of gravity: upright, drive axle, engine and transmission, and counterweight. When the lift truck is put on blocks, put additional blocks in the following positions to maintain stability:

a. Before removing the upright and drive axle, put blocks under the counterweight so the lift truck cannot fall backward.

b. Before removing the counterweight, put blocks under the upright assembly so the lift truck cannot fall forward.

The surface must be solid, even, and level when the lift truck is put on blocks. Make sure that any blocks used to support the lift truck are solid, one-piece units.

WARNING

Do not operate the lift truck if the capscrew for the counterweight is not installed. When the capscrew is removed, the counterweight can fall from the lift truck.

1. Remove the grille and the cover for the hydraulic pump.

2. Remove the bracket for the rear hood mount from the frame. Put a block between the hood and the radiator.

WARNING

Make sure any lifting devices have the correct capacity for the parts being removed.

3. Put a lifting strap through the hole in the counterweight. Connect a lifting device to the strap. Remove the bolt that holds the counterweight to the frame. See Figure 2.

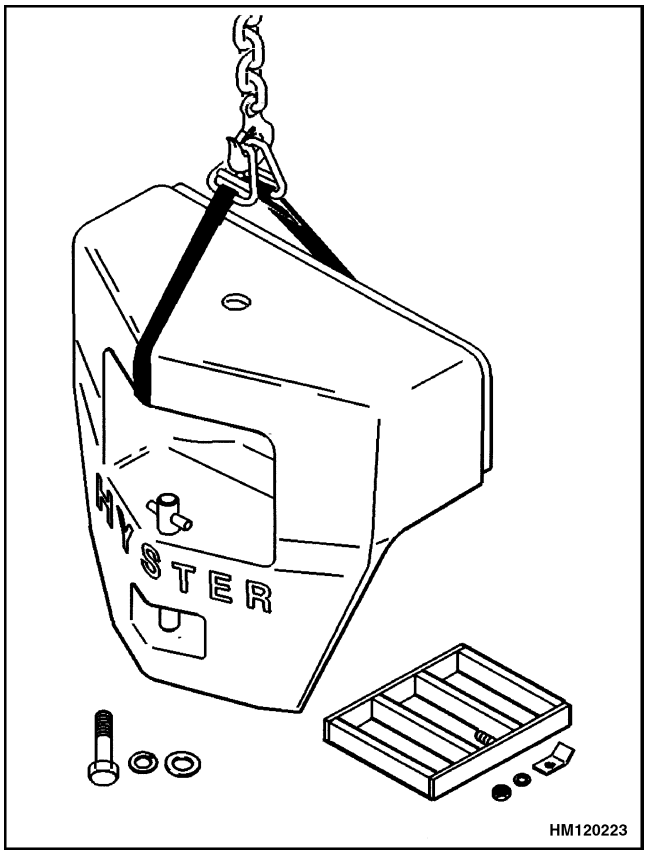
4. Lift the counterweight from the frame. Put the counterweight in a position so it has stability.

INSTALL

1. Connect a strap and lifting device to the counterweight. Lift the counterweight into position on the frame. Make sure the counterweight is in position on the mounts.

2. Install the bolt for the counterweight. Install the cover for the hydraulic pump. Install the grille.

3. Install the bracket for the hood mount. Install the capscrews for the hood mount. Adjust the hood as described in the procedures for the hood.



Weight of Counterweights	
H6.00XL (H135XL)	**H7.00XL (H155XL)**
2594 to 2654 kg (5720 to 5852 lb)	3092 to 3162 kg (6818 to 6972 lb)

Figure 2. Counterweight

Hood Repair

REMOVE

Remove the hood (both sides) as an assembly. Remove the capscrews that hold the hood mount bracket to the frame. Remove the capscrews that hold the hood to the bracket on the overhead guard. Lift the hood from the frame.

INSTALL

Install the hood assembly on the frame. Install the capscrews that hold the brackets to the frame and bracket on the overhead guard. If necessary, adjust the hood as follows:

1. Loosen the capscrews at the mounts for the hood assembly. Put the hood assembly in a position so the center of the hood is in the center of the counterweight and overhead guard. Tighten the capscrews.
2. Adjust the mount (on the frame) and the hood stops at the rear of the hood so the top of the hood aligns with the counterweight. Make sure the hood does not touch the counterweight.
3. Adjust the other hood stops so they just touch the sides of the hood when they are closed.

Overhead Guard Repair

REMOVE

WARNING

The lift truck must be put on blocks for some types of maintenance and repair. The removal of the following assemblies will cause large changes in the center of gravity: upright, drive axle, engine and transmission, and counterweight. When the lift truck is put on blocks, put additional blocks in the following positions to maintain stability:

a. Before removing the upright and drive axle, put blocks under the counterweight so the lift truck cannot fall backward.
b. Before removing the counterweight, put blocks under the upright assembly so the lift truck cannot fall forward.

The surface must be solid, even, and level when the lift truck is put on blocks. Make sure that any blocks used to support the lift truck are solid, one-piece units.

WARNING

Do not operate the lift truck without the overhead guard correctly fastened to the lift truck.

Changes that are made by welding or by drilling holes that are too big in the wrong location can reduce the strength of the overhead guard. See the instructions for Changes to the Overhead Guard in the Periodic Maintenance section included with this lift truck.

1. Remove the hood as an assembly. Disconnect the hose to the air cleaner. Disconnect the exhaust system from the overhead guard leg. Remove the capscrews that hold the brake reservoir to the overhead guard. If a cab is installed, disconnect the wiring harness for the cab. Lift the doors from the cab. See Figure 3.
2. Connect a lifting device to the top of the overhead guard. Remove the capscrews (in the engine compartment) that hold the overhead guard to the frame. Remove the capscrews that hold the overhead guard to the cowl. Lift the overhead guard from the lift truck.

INSTALL

1. Connect a lifting device to the top of the overhead guard. Put the overhead guard in position on the lift truck. See Figure 3.
2. Make sure the rubber bushings are in the mount holes at the rear of the overhead guard. Install the capscrews at the rear of the overhead guard. Install the capscrews that hold the overhead guard to the cowl and tighten them to 285 N•m (210 lbf ft). Connect the wiring harness for the cab. Install the doors for the cab.
3. Connect the hose for the air cleaner. Connect the exhaust system. Install the brake fluid reservoir.

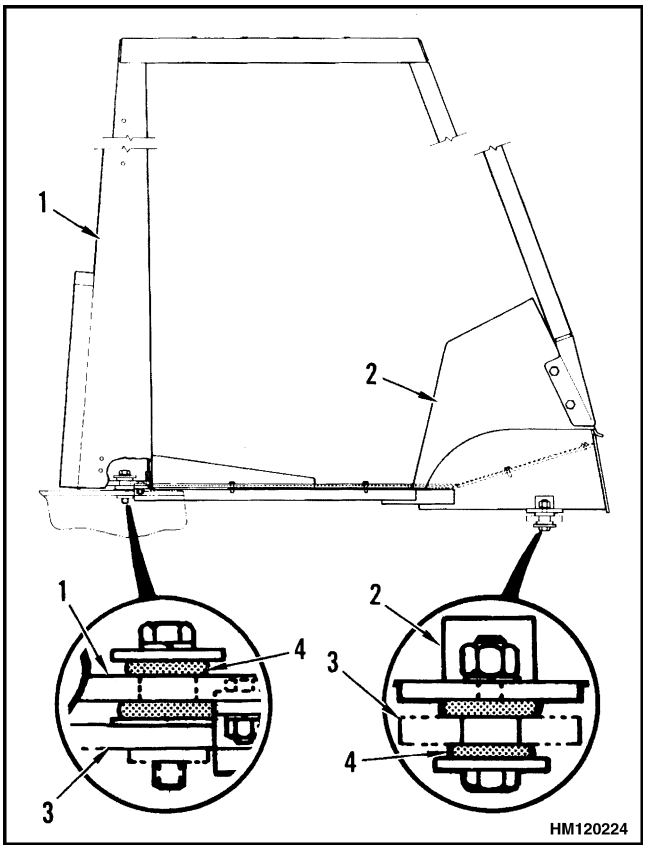


Figure 3. Overhead Guard and Cab Mounting

Legend for Figure 3

1. OVERHEAD GUARD
2. COWL
3. FRAME
4. RUBBER BUSHING

Operator Restraint System Repair

The seat belt, hip restraint brackets, seat, and mounting are all part of the operator restraint system. Each item must be checked to make sure it is attached securely, functions correctly, and is in good condition.

The end of the seat belt must fasten correctly in the latch. Make sure the seat belt pulls from the retractor assembly and retracts smoothly. The seat belt must be in good condition. A seat belt that is damaged or worn will not give protection when it is needed.

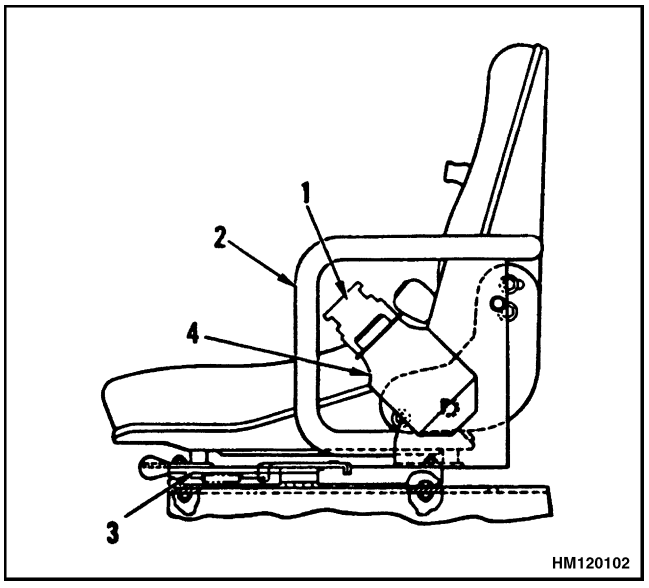


Figure 4. Seat Check

Legend for Figure 4

1. SEAT BELT
2. HIP RESTRAINT
3. SEAT RAIL
4. SEAT BELT RETRACTOR

Make sure the seat rails are not loose. See Figure 4. The seat rails must lock securely in position, but move freely when unlocked. The seat rails must be securely attached to the mounting surface.

Hydraulic Tank Repair

REMOVE

WARNING

The lift truck must be put on blocks for some types of maintenance and repair. The removal of the following assemblies will cause large changes in the center of gravity: mast, drive axle, engine and transmission, and the counterweight. When the lift truck is put on blocks, put additional blocks in the following positions to maintain stability:

a. Before removing the mast and drive axle, put blocks under the counterweight so the lift truck cannot fall backward.

b. Before removing the counterweight, put blocks under the mast assembly so the lift truck cannot fall forward.

The surface must be solid, even, and level when the lift truck is put on blocks. Make sure that any blocks used to support the lift truck are solid, one piece units.

1. Remove the engine and transmission. See Engine Repair.
2. Remove the drain plug and drain the oil from the tank. Disconnect the hydraulic lines at the tank and put caps on the open lines.
3. Remove the hooks that hold the tank to the frame. Remove the hydraulic tank.

INSPECT

Make a visual inspection of all sides of the tank. Inspect the welds for cracks and leakage. Check for wet areas, accumulation of dirt, and loose or missing paint caused by leakage. Areas of the tank that are not easily seen can be checked with an inspection mirror and a light that is approved for locations with flammable vapors.

SMALL LEAKS REPAIR

Use the following procedure to repair small leaks:

1. Use steam to clean the area around the leak. Remove all paint and dirt around the leak.

WARNING

Do not use tools that can make sparks, heat, or static electricity. The vapors in the tank can cause an explosion.

2. Apply Loctite® 290 to the leak. Follow the instructions of the manufacturer.

LARGE LEAKS REPAIR

1. Use one of the procedures described under Clean to clean and prepare the tank for repairs.
2. Use acceptable welding practices to repair the tank. See the American National Standards *Safety In Welding and Cutting* AWS Z 49.1 - 1999.

CLEAN

WARNING

Special procedures must be followed when large leaks or other repairs need welding or cutting. All work must be done by authorized personnel. If the tank is cleaned inside of a building, make sure there is enough ventilation. See the following manuals for additional information:

- **"Safe Practices for Welding and Cutting Containers that have Held Combustibles" by the American Welding Society, F4.1 - 1999.**
- **"Safety in Welding and Cutting," American National Standard, AWS Z 49.1 - 1999.**

When cleaning the tank, do not use solutions that make dangerous gases at normal temperatures or when heated. Wear eye and face protection. Protect the body from burns.

When cleaning with steam, use a hose with a minimum diameter of 19 mm (0.75 in.). Control the pressure of the steam by a valve installed at the nozzle of

the hose. If a metal nozzle is used, it must be made of a material that does not make sparks. Make an electrical connection between the nozzle and the tank. Connect a ground wire to the tank to prevent static electricity.

Steam Method

Use the following procedure to clean the tank with steam:

1. Remove all the parts from the tank. Install the drain plug.
2. Fill the tank 1/4 full with a solution of water and sodium bicarbonate or sodium carbonate. Mix 0.5 kg (1 lb) per 4 liter (1 gal) of water.
3. Mix the solution in the tank using air pressure. Make sure all the surfaces on the inside of the tank are flushed with the solution. Drain the tank.
4. Put steam into the tank until the tank does not have odors and the metal is hot. Steam vapors must come out of all openings.
5. Flush the inside of the tank with boiling water. Make sure all loose material is removed from the inside of the tank.
6. Make an inspection of the inside of the tank. If it is not clean, repeat Step 4 and Step 5 and make another inspection. When making inspections, use a light that is approved for locations with flammable vapors.
7. Put plugs in all the openings in the tank. Wait 15 minutes, then remove the inlet and outlet plugs. Test a sample of the vapor with a special indicator for gas vapors. If the amount of flammable vapors is above the lower flammable limit, repeat the cleaning procedures.

Chemical Solution Method

If the tank cannot be cleaned with steam, use the following procedure:

1. Mix a solution of water and trisodium phosphate or a cleaning compound with an alkali base. Follow the instructions given by the manufacturer.

WARNING

Compressed air can move particles so that they cause injury to the user or to other personnel. Make sure that the path of the compressed air is away from all personnel. Wear protective goggles or a face shield to prevent injury to the eyes.

2. Fill the tank with the cleaning solution. Use compressed air to mix the solution in the tank.
3. Drain the tank. Flush the inside of the tank with boiling water. Make sure all the cleaning compound is removed.
4. Make an inspection of the inside of the tank. If the tank is not clean, repeat Step 1 to Step 3. Make another inspection of the tank. When making inspections, use a light that is approved for locations with flammable vapors.
5. Check the tank for flammable vapors using a special indicator for gas vapors. If the amount of flammable vapors is not below the lower flammable limit, repeat the cleaning procedures.

OTHER METHODS OF PREPARATION FOR REPAIR

If nitrogen gas or carbon dioxide gas is available, prepare the tank for welding using these gases. See the manual *Safe Practices For Welding and Cutting Containers That Have Held Combustibles* by the American Welding Society, F4.1 - 1999. If these gases are not available, another method using water can be used as follows:

1. Fill the tank with water to just below the point where the work will be done. Make sure the space above the level of the water has a vent.
2. Use acceptable welding practices to repair the tank. See the American National Standard "Safety In Welding And Cutting" AWS Z 49.1 - 1999.

INSTALL

1. Put the tank in position in the frame and install the hooks.
2. Connect the hydraulic lines to the fittings on the tank.
3. Install the engine and transmission. Fill the tank with the correct hydraulic oil. Operate the system and check for leaks and correct operation.

Fuel Tank Repair

REMOVE

WARNING

The lift truck must be put on blocks for some types of maintenance and repair. The removal of the following assemblies will cause large changes in the center of gravity: mast, drive axle, engine and transmission, and the counterweight. When the lift truck is put on blocks, put additional blocks in the following positions to maintain stability:

a. Before removing the mast and drive axle, put blocks under the counterweight so the lift truck cannot fall backward.

b. Before removing the counterweight, put blocks under the mast assembly so the lift truck cannot fall forward.

The surface must be solid, even, and level when the lift truck is put on blocks. Make sure that any blocks used to support the lift truck are solid, one piece units.

1. Remove the engine and transmission. See Engine Repair.

WARNING

Do not use tools that can make sparks, heat, or static electricity. The vapors in the tank can cause an explosion. Clean all fuel spills. Make sure the fuel from the tank is put in a closed container.

2. Remove the drain plug and drain the fuel from the tank. Disconnect the fuel lines at the tank and put caps on the openings.

3. Remove the filler neck from the fuel tank. Remove the hooks that hold the tank to the frame. Remove the fuel tank.

REPAIR

Repair the fuel tank as described in the repair procedures for the hydraulic tank.

INSTALL

1. Put the tank in position in the frame. Install the filler neck and the hooks.

2. Install the engine and transmission. Connect the fuel lines to the tank.

Radiator Repair

REMOVE

1. Remove the hood as an assembly.

2. Drain the coolant from the radiator. Disconnect the radiator hoses. If equipped, disconnect the lines from the powershift transmission. Put caps on the open lines.

3. Remove the screws that hold the fan shroud to the radiator. Remove the nuts that hold the radiator to the frame.

4. Remove the radiator.

INSTALL

1. Put the fan shroud in position over the fan. Install the radiator to the mounts on the frame. Install the fan shroud on the radiator.

2. Connect the radiator hoses and lines for the powershift transmission.

3. Install the hood. Fill the radiator with coolant, then operate the engine and check for leaks.

Engine Repair

REMOVE

WARNING

The lift truck must be put on blocks for some types of maintenance and repair. The removal of the following assemblies will cause large changes in the center of gravity: mast, drive axle, engine and transmission, and the counterweight. When the lift truck is put on blocks, put additional blocks in the following positions to maintain stability:

a. Before removing the mast and drive axle, put blocks under the counterweight so the lift truck cannot fall backward.

b. Before removing the counterweight, put blocks under the mast assembly so the lift truck cannot fall forward.

The surface must be solid, even, and level when the lift truck is put on blocks. Make sure that any blocks used to support the lift truck are solid, one-piece units.

1. Disconnect the cables at the battery.

2. Remove the hood. Remove the air cleaner assembly. Disconnect the brake fluid reservoir from the bracket. If necessary, remove the overhead guard. See Overhead Guard Repair.

3. Drain the coolant from the cooling system. Remove the radiator. See Radiator Repair.

4. Disconnect the drive shaft for the hydraulic pump at the crankshaft pulley.

5. Disconnect the exhaust system.

6. Disconnect the hydraulic lines at the steering pump. Put caps on the open lines.

7. Disconnect fuel lines and the throttle linkage.

8. Disconnect wires and wiring harnesses at the engine.

9. Connect a lifting device to the engine. Make sure the lifting device has a capacity of at least 450 kg (1000 lb) (engine only).

10. On units with a powershift transmission, remove the capscrews that hold the torque converter to the flywheel. Put blocks under the output end of the transmission. Remove the capscrews that connect the engine to the flywheel housing.

11. Remove the capscrews that hold the mount at the fan end of the engine to the frame.

12. Carefully lift the engine from the frame. Make sure all the connections have been removed. Make sure the torque converter stays with the transmission and does not fall.

INSTALL

1. Connect a lifting device to the engine. Make sure the lifting device has a capacity of 450 kg (1000 lb).

2. Make sure the drive plate is installed on the torque converter. Lubricate the pilot bushing in the flywheel with multipurpose grease. Install the engine in the frame. Make sure the torque converter stays in the transmission. Fit the flywheel on the pilot of the torque converter. Install the capscrews that hold the flywheel housing to the engine. Tighten the capscrews to 31 N•m (23 lbf ft).

3. Install the capscrews and washers for the engine mount at the fan end of the engine. Install the capscrews and adjust the mounts at the flywheel end of the engine. Tighten the capscrews to the correct torque values as shown on Figure 5.

4. Install the capscrews that hold the drive plate for the torque converter to the flywheel. Tighten the capscrews to 44 N•m (32 lbf ft) on all units. Remove the lifting device.

5. Connect the wiring harness and wires at the engine.

6. Connect the throttle linkage and fuel lines at the engine.

7. Connect the pipe for the exhaust system.

8. Connect the drive shaft for the hydraulic pump.

9. See Radiator Repair, and install the radiator. Connect radiator hoses and cooling line for the powershift transmission.

10. See Overhead Guard Repair, and install the overhead guard. Install the brake fluid reservoir on the bracket. Install the hood. Connect the cables at the battery.

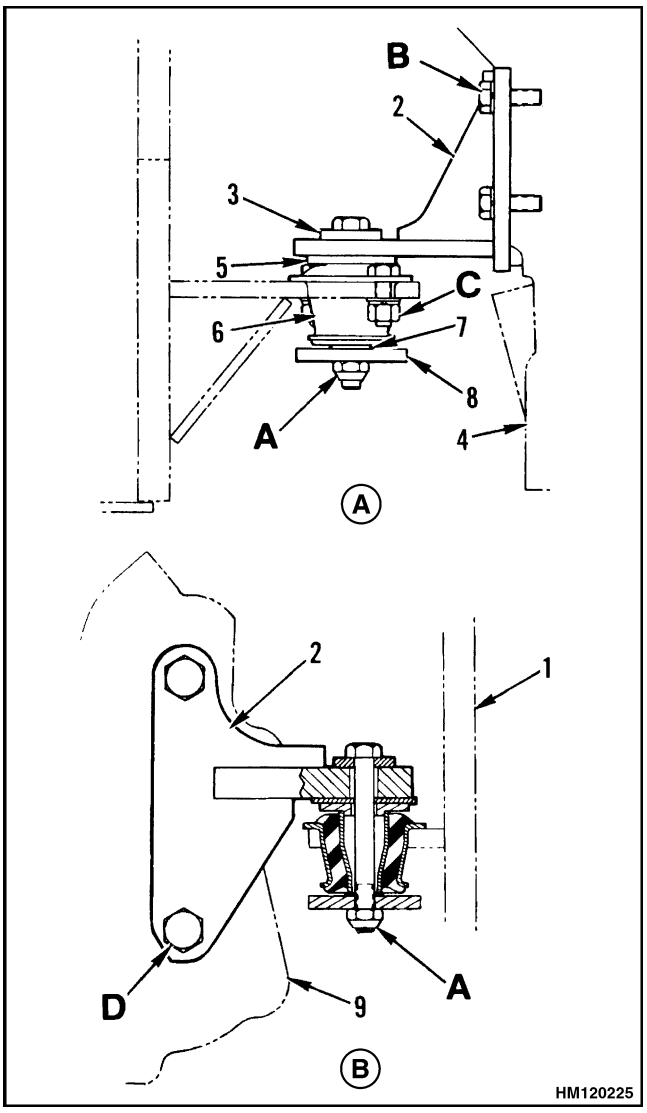


Figure 5. Engine Mounts

Legend for Figure 5

NOTE: A = 40 N•m (30 lbf ft) TORQUE
B = 56 N•m (41 lbf ft) TORQUE
C = 50 N•m (37 lbf ft) TORQUE
D = 165 N•m (122 lbf ft) TORQUE.

A. FAN END OF ENGINE (DIESEL SHOWN)
B. FLYWHEEL END OF ENGINE

1. FRAME
2. MOUNT BRACKET
3. WASHER
4. ENGINE
5. OVERLOAD WASHER
6. ENGINE MOUNT
7. WASHER*
8. REBOUND WASHER
9. TORQUE CONVERTER OR CLUTCH HOUSING

*USE AS NECESSARY TO ALIGN U-JOINT TO WITHIN 0.5 to 1.5 mm (0.02 to 0.06 in.) OF TRUE VERTICAL ALIGNMENT

Safety Labels

WARNING

Safety labels are installed on the lift truck to give information about operation and possible hazards. It is important that all safety labels are installed on the lift truck and can be read.

DO NOT add to or modify the lift truck. Any change to the lift truck, the tires, or its equipment can change the lifting capacity. The lift truck must be rated as equipped and the nameplate must show the new capacity rating. Contact your dealer for Hyster lift trucks for a replacement nameplate.

Cleaning solvents can be flammable and toxic and cause skin irritation. When using cleaning solvents, always follow the recommendations of the manufacturer.

If a label must be replaced, use the following procedure to install a new label:

1. Make sure the surface is dry and has no oil or grease. Do not use solvent on new paint. Clean the surface of old paint with a cleaning solvent.
2. Remove the paper from the back of the label. Do not touch the adhesive surface.
3. Carefully hold the decal in the correct position above the surface. See Figure 6. The label cannot be moved after it touches the surface. Put the label on the surface. Make sure all air is removed from under the label and the corners and edges are tight.

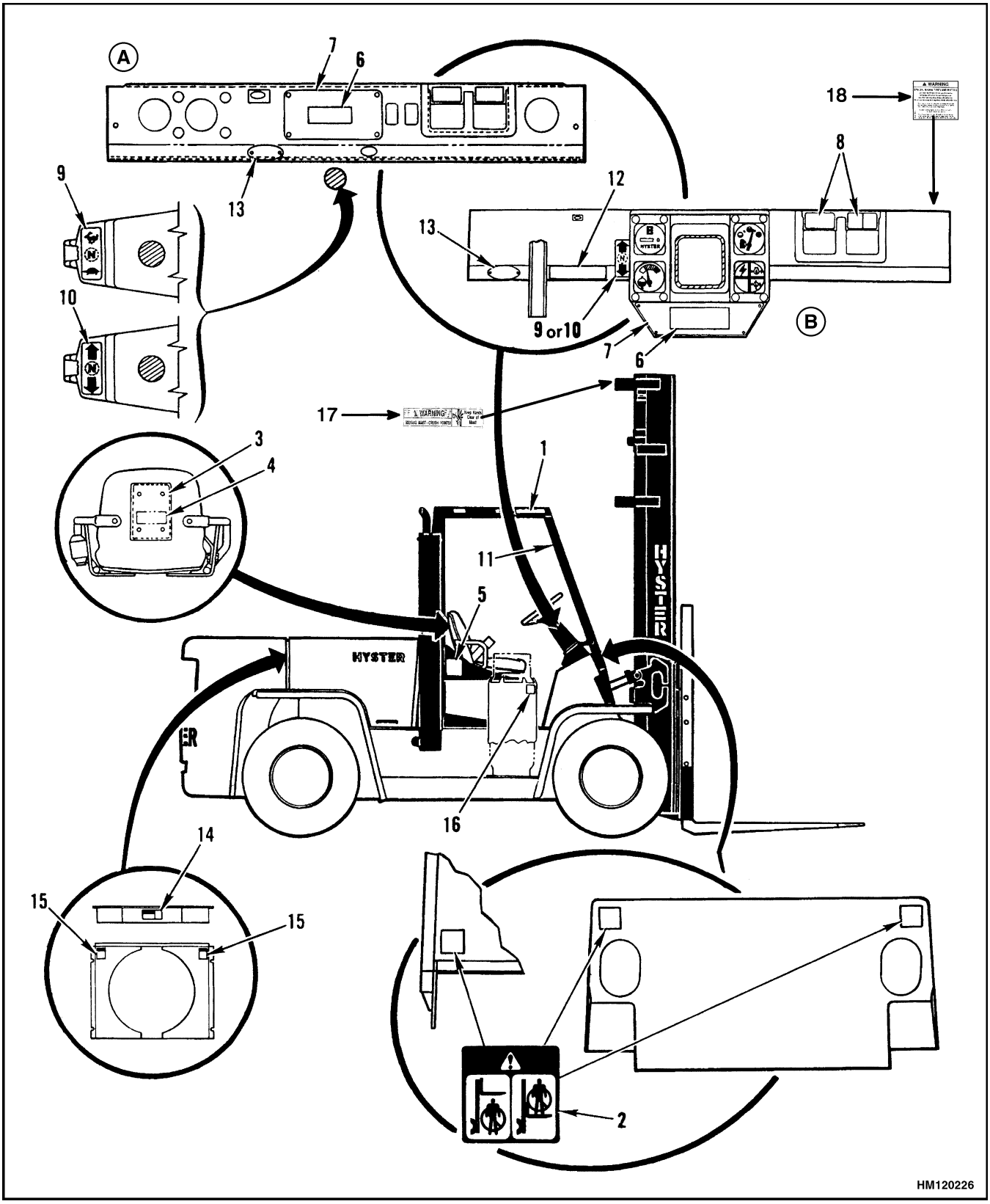


Figure 6. Label Positions

Legend for Figure 6

A. EARLY MODELS

1. WARNING FOR SAFETY
2. MAST SAFETY (2)
3. CASE FOR OPERATING MANUAL
4. REPLACE OPERATING MANUAL (NOT FOR ENGLISH SPEAKING COUNTRIES)
5. NO RIDERS (2)
6. DEALER WARNING LABEL
7. NAMEPLATE
8. LABEL FOR CONTROL LEVERS
9. LABEL FOR RANGE LEVER (POWERSHIFT TRANSMISSION)

B. LATE MODELS

10. LABEL FOR DIRECTION CONTROL LEVER
11. OPERATOR RESTRAINT (FOR EQUIPPED UNITS) OR TIPOVER WARNING (FOR OTHER UNITS)
12. PARKING BRAKE WARNING
13. INSPECTION PLATE, UL
14. FAN WARNING
15. FAN WARNING
16. FLAMMABLE LP GAS
17. MAST WARNING LABEL
18. RADIAL TIRE WARNING LABEL

Cab Repair

Some lift trucks are equipped with a cab. See Figure 7. The cab has an overhead guard with doors and windows. The cab has front and rear windshield wipers and a heater with a fan. The heater is on a mount on the instrument panel.

CAB, REPLACE

NOTE: Disconnect all electric wires. Remove any other parts between the cab and the lift truck. Remove the cab assembly. Use a crane to lift the cab.

Each leg of the cab assembly is attached to the lift truck frame with a bolt, washers, and rubber pads. See Figure 3. If necessary, the cab can be replaced as a complete unit.

WINDOW, REPLACE

The front, rear, and side windows and window frames are replaced as single units. A window and frame are not available as separate units. The top window has no frame.

WARNING

All windows installed in the cab are made of special material, not regular glass. New windows must meet the material and thickness specifications of the original windows. See Table 1 for the correct window materials.

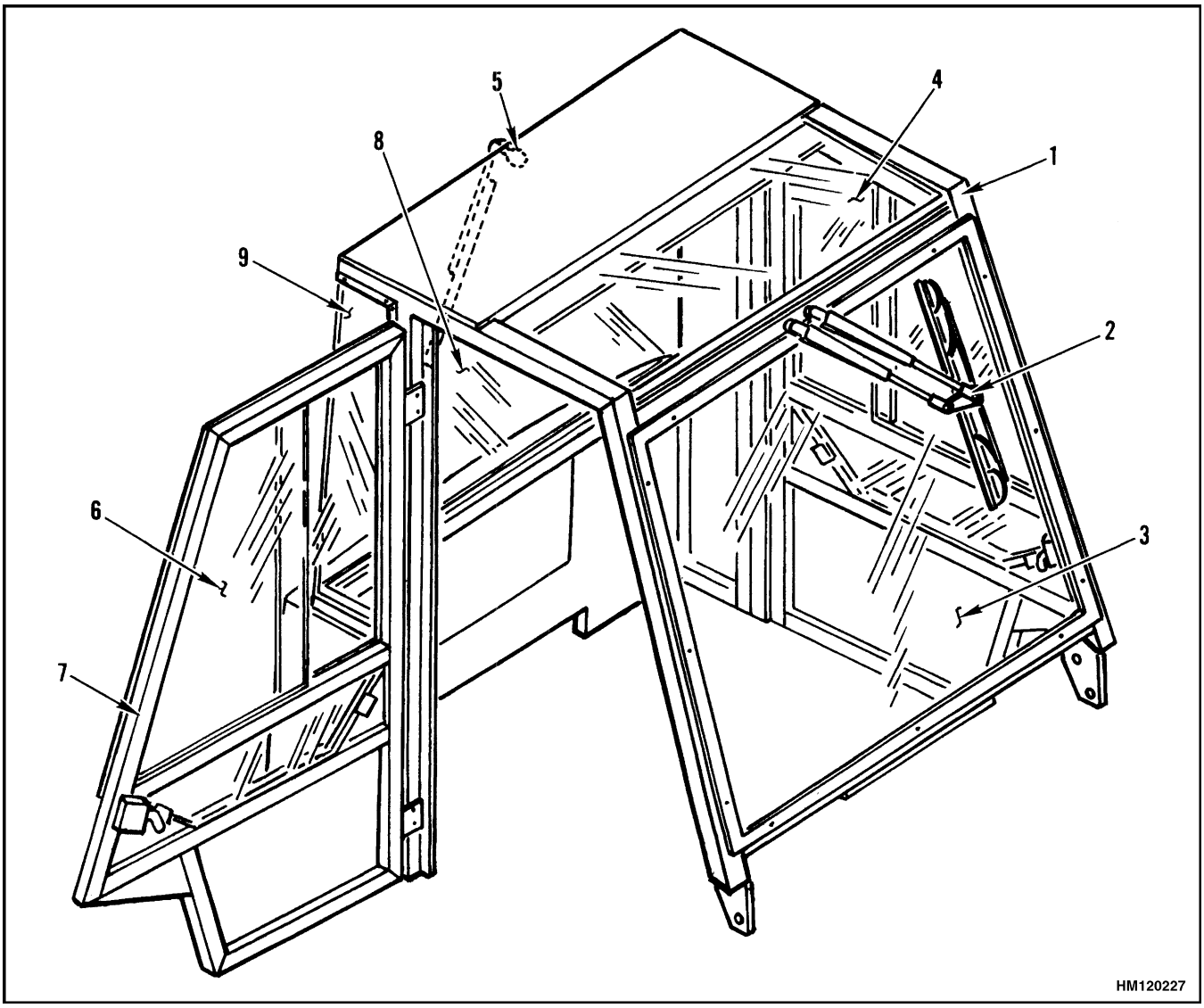
1. Remove the rivets or screws that hold the window frames to the cab assembly. Use a chisel and a punch if necessary to completely remove the rivets.
2. Have a dealer for Hyster lift trucks or a qualified supplier of glass, replace any damaged window or frame parts. Make sure the material and the thickness of the window parts are according to the specifications in Table 1.
3. Install the new window in the position on the cab. Align the window frame with the opening in the cab frame or door frame. Use a drill to make new holes for the fasteners if new window frames are used. Some windows are installed with an adhesive/sealant (Hyster part no. 318352). Before applying the adhesive/sealant, clean the area with window weld primer (Hyster part no. 365337).

WINDSHIELD WIPERS AND HEATER

WARNING

When the heater hoses must be replaced in the cab, make sure to use heater hoses of the correct material and size. All hoses must conform to SAE Specification 20R3 Class C or 20R3 Class D-2.

Observe the previous **WARNING** when replacing heater hoses in the cab.



1. CAB FRAME ASSEMBLY
2. WIPER ASSEMBLY (FRONT)
3. WINDSHIELD
4. TOP WINDOW
5. WIPER ASSEMBLY (REAR)
6. DOOR WINDOW (RH)
7. DOOR ASSEMBLY (RH)
8. REAR WINDOW
9. SIDE WINDOW

Figure 7. Cab

Table 1. Material Specifications for Cab Windows

Location of Window	Hyster Part No.	Material Specification	Thickness	
			mm	in.
Front	1375978	Clear Laminated Safety Glass per ANSI Z26.1 AS1	5.9 to 7.5	0.23 to 0.30
Rear	1319365	Clear Laminated Tempered Safety Glass per ANSI Z26.1 AS2	5.6 to 6.8	0.22 to 0.27
Side	1319364	Clear Laminated Tempered Safety Glass per ANSI Z26.1 AS2	5.6 to 6.8	0.22 to 0.27
Doors				
RH	1375982	Clear Tempered Safety Glass per ANSI Z26.1 AS2	5.6 to 6.2	0.22 to 0.24
LH	1375981	Clear Tempered Safety Glass per ANSI Z26.1 AS2	5.6 to 6.2	0.22 to 0.24
Top	1321868	Clear Lexan MR 5004 or Equivalent	6.0	0.24

HYSTER TECHNICAL PUBLICATIONS

100 SRM 322 11/03 (3/97)(4/90)(5/86) Printed in U.S.A.