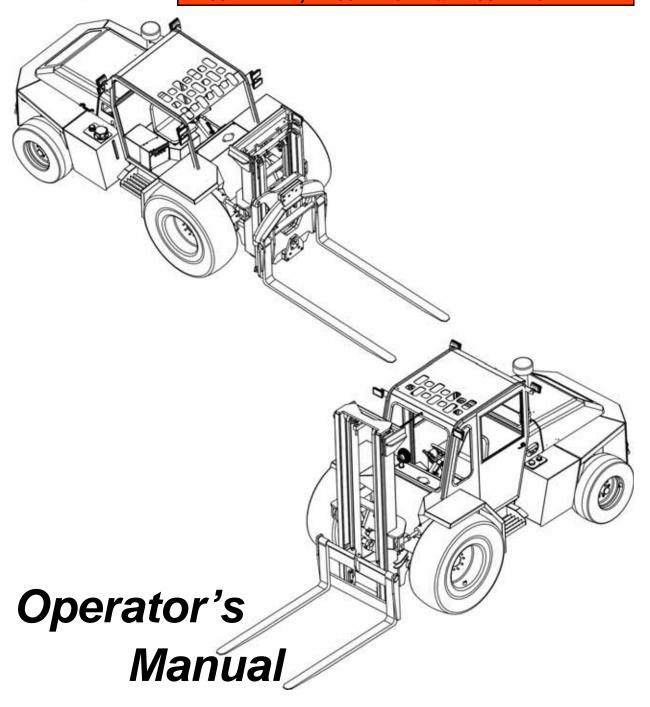


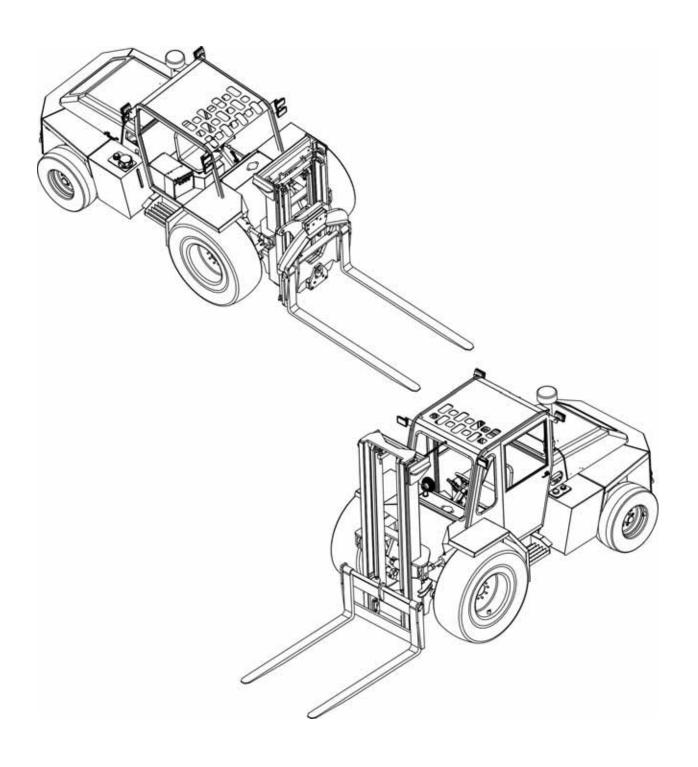
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study
to Be Knowledgeable
study
to Be Safe
study
for your Safety &
study
for the Safety of others



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### **IMPORTANT! PRECAUTIONS & DANGERS**

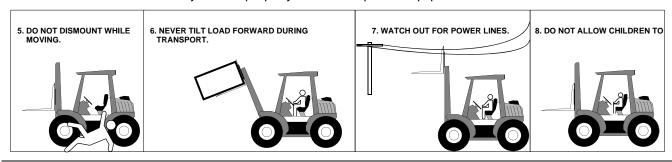
THE FOLLOWING PRECAUTIONS ARE SUGGESTED TO HELP PREVENT ACCIDENTS. A CAREFUL OPERATOR IS THE BEST OPERATOR. MOST ACCIDENTS CAN BE AVOIDED BY OBSERVING CERTAIN PRECAUTIONS. READ AND TAKE THE FOLLOWING PRECAUTIONS BEFORE OPERATING THIS FORKIFT. EQUIPMENT SHOULD BE OPERATED ONLY BY THOSE WHO ARE RESPONSIBLE AND INSTRUCTED TO DO SO.



FAILING TO FOLLOW SAFETY WARNINGS AND INSTRUCTIONS CAN RESULT IN SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND/OR OTHERS, IN THE AREA.

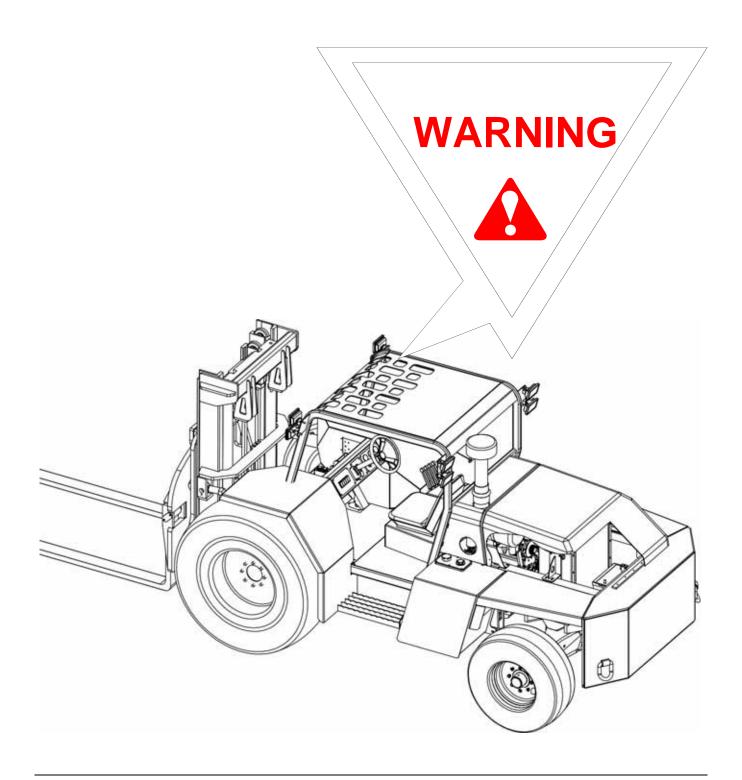


- 1. Study the Operator's Manual thoroughly, and be completely knowledgeable about operation of equipment.
- 2. Please pay close attention to Safety Warnings posted in various areas of the Operation Section.
- 3. Be careful of other persons in vicinity. ALLOW NO RIDERS.
- 4. DO NOT stand on or under the forks for any reason.
- 5. Hydraulic fluid is under pressure. DO NOT use hand to check for leaks. Use a piece of cardboard or paper. If fluid is injected into skin, obtain medical attention immediately.
- 6. Always start engine while sitting in operator's seat. Shut *off* equipment before dismounting from machine. TURN THE MAIN SWITH OFF before performing any service or maintenance.
- 7. Never tilt forks forward while transporting load. This could cause machine to tip over. Keep load tilted backward and as close to the ground as possible.
- 8. Watch for low clearances such as power lines when operating equipment. Electrocution could occur as a result of contact.
- NEVER allow children or anyone not properly trained to operate equipment.





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The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



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Responsibility



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## **Rough Terrain Forklift Truck General Safety Standards**

#### STUDY THE OPERATOR MANUAL

The information in this manual provides general instructions for the safe operation and basic maintenance of your forklift truck. This information is vital and must be clearly understood by the operator and serviceman. Study this manual and the John Deere Diesel Engine Manual thoroughly and carefully before operating or servicing your forklift. Contact your dealer or Bright Coop Inc. if you have any questions concerning your forklift, its operation, service or parts. Keep both manuals in the literature box on the forklift available for reference. If either manual becomes illegible or is missing, contact your dealer for replacements immediately. This manual cannot cover every situation that might result in an accident. It is the responsibility of the operator to always remain alert for potential hazards and be prepared to avoid them!

### **ADDITIONAL IMPORTANT LITERATURE**

ANSI / ASME B56.6 is the national consensus standard for rough terrain forklift trucks. It contains rules about forklift safety, maintenance, safe operation, training, and supervision. Forklift owners MUST learn this standard and make it available for their operators, service personnel, and supervisors. This standard can be obtained from the American Society of Mechanical Engineers (ASME), 345 East 47th St., United Engineering Center, New York, NY 10017. The following references are examples from the standard, addressing forklift operators:

#### A.) OPERATOR TRAINING QUALIFICATIONS

- 1. The Owner shall ensure that operators understand that safe operation is the operator's responsibility. The owner shall ensure that operators are knowledgeable of, and observe, all safety rules and practices.
- 2. Create an effective operator training program centered around user company's policies, operating conditions, and rough terrain forklift trucks. The program should be presented completely to all new operators and not be condensed for those claiming previous experience.
- **3.** Information on operator training is available from several sources, including rough terrain forklift truck manufacturers, users, government agencies, etc.
- **4.** An operator training program should consist of the following:
  - a. careful selection of the operator, considering physical qualifications, job attitude, and aptitude;
  - b. emphasis on safety of stock, equipment, operator, and other personnel;
  - c. citing of rules and why they were formulated;
  - d. basic fundamentals of rough terrain forklift truck and component design as related to safety, e.g., ft.-lb (N-m) loading, mechanical limitations, center of gravity, stability, etc.;
  - e. introduction to equipment, control locations, and functions. Explain how they work when used properly and problems when used improperly.
  - f. supervise practice on operating course remote from normal activity and designed to simulate actual operations, e.g., lumber stacking, elevating shingles to the roof, etc.;
  - g. oral, written, and operational performance tests and evaluations during and at completion of the course;
  - h. refresher courses, which may be condensed versions of the primary course, and periodic "on job" operator evaluation:
  - i. understanding of nameplate data, operator instructions and warning information appearing on the rough terrain forklift truck.



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## Rough Terrain Forklift Truck General Safety Standards (cont.)

#### **B.) GENERAL SAFETY PRACTICES**

- 1. Rough terrain forklift trucks can cause injury if improperly used or maintained.
- 2. Only authorized operators trained to adhere strictly to all operating instructions shall be permitted to operate rough terrain forklift trucks. Unusual operating conditions may require additional safety precautions, training, and special operating instructions.
- **3.** Modifications and additions which affect capacity or safe operation shall not be preformed without the manufacturer's prior written approval. Where such authorization is granted, capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.
- **4.** If the rough terrain forklift truck is equipped with front end attachment(s) or optional forks, the user shall see that the truck is marked to identify the forks or attachment(s), show the approximate weight of the truck and fork or attachment combination, and show the capacity of the truck with forks or attachment(s) at maximum elevation with load laterally centered.
- 5. The user shall see that all nameplates, caution and instruction markings are in place and legible.
- 6. The user shall consider that changes in load dimension may affect rough terrain forklift truck capacity.
- 7. Where steering can be accomplished with either hand and the steering mechanism is of a type that prevents road reactions from causing the hand wheel to spin (power steering or equivalent), steering knobs may be used. When used, steering knobs shall be of a type that can be engaged by the operator's hand from the top and shall be within the periphery of the steering hand wheel.
- **8.** Experience has shown that rough terrain forklift trucks, which comply with stability requirements, are stable when properly operated. However, improper operation, faulty maintenance, or poor housekeeping may contribute to a condition of instability and defeat the purpose of the requirements.
- 9. Users shall give consideration to special operating conditions. The amount of forward and rearward tilt to be used is governed by the application. Although the use of maximum rearward tilt is allowable under certain conditions, such as traveling with the load lowered, the stability of a rough terrain forklift truck as determined by standardized tests does not encompass consideration for excessive tilt at high elevations or the operation of trucks with excessive off-center loads.
- **10.** Some of the conditions which may affect stability are ground and floor conditions, grade, speed, loading (rough terrain forklift trucks equipped with attachments behave as partially loaded trucks even when operated without a load on the attachment), dynamic and static forces, improper tire inflation, and the judgment exercised by the operator.

#### ! WARNING!

NEVER USE THIS FORKLIFT TRUCK IF IT IS EQUIPPED WITH A ROTATOR TO ELEVATE PERSONNEL, EVEN IF YOU ARE USING A PERSONNEL PLATFORM.

IT IS PROHIBITED TO EVLEVATE PERSONNEL WITH A FORKLIFT THAT IS EQUIPPED WITH A ROTATOR.



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### Rough Terrain Forklift Truck General Safety Standards (cont.)

#### C.) OPERATING SAFETY RULES AND PRACTICES

- 1. Safe operation is the responsibility of the operator.
- 2. This equipment can be dangerous if not used properly. The operator shall develop safe working habits and also be aware of hazardous conditions in order to protect himself, other personnel, the rough terrain forklift truck, and other material.
- 3. The operator shall be familiar with the operation and function of all controls and instruments before undertaking the operation of the rough terrain forklift truck.
- **4.** Before operating any rough terrain forklift truck, truck operators shall have read and be familiar with the operator's manual for the particular truck being operated.
- **5.** Before starting to operate the rough terrain forklift truck:
  - a. be in operating position and fasten seat belt;
- b. place directional control in neutral;

c. apply Parking brake;

- d. start engine.
- **6.** Do not start or operate the rough terrain forklift truck from any place other than the designated operator's position.
- 7. Keep hands and feet inside the operator's designated area or compartment. Do not put any part of the body outside the operator compartment of the rough terrain forklift truck.
- 8. Never put any part of the body into the mast structure or between the mast and the rough terrain forklift truck.
- **9.** Never put any part of the body within the reach mechanism of the rough terrain forklift truck or other attachments.
- **10.** Understand rough terrain forklift limitations and operate the truck in a safe manner so as not to cause injury to personnel.
- **11.** Do not allow anyone to stand or pass under the elevated portion of any rough terrain forklift truck, whether empty or loaded.
- **12.** Do not permit passengers to ride on rough terrain forklift trucks.
- 13. Check clearance carefully before driving under electrical lines, bridges, etc.
- **14.** A rough terrain forklift truck is attended when the operator is less than 25 ft. (7.6m) from the truck, which remains in his view.
- **15.** A rough terrain forklift truck is unattended when the operator is 25 ft (7.6m) or more from the truck, which remains in his view, or whenever the operator leaves the truck and it is not in his view.
- **16.** Before leaving the operator's position:
  - a. bring rough terrain forklift truck to a complete stop;
  - b. place directional control in neutral;
  - c. apply the parking brake;
  - d. lower load-engaging means fully;
  - e. stop the engine;
  - f. if the rough terrain forklift truck must be left on an incline, block the wheels;
- 17. Maintain a safe distance from the edge of ramps, platforms, and other similar working surfaces.
- **18.** Do not move railroad cars or trailers with a rough terrain forklift truck.
- 19. Do not use a rough terrain forklift truck for opening or closing railroad car doors.
- 20. In areas classified as hazardous, use only rough terrain forklift trucks approved for use in those areas.



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### Rough Terrain Forklift Truck General Safety Standards (cont.)

#### C.) OPERATING SAFETY RULES AND PRACTICES (cont.)

- 21. Report all accidents involving personnel, building structures, and equipment to the supervisor or as directed.
- **22.** Do not add to, or modify, the rough terrain forklift truck.
- 23. Do not block access to fire aisles, stairways, and fire equipment.
- **24.** For rough terrain forklift trucks equipped with a differential lock, the lock should not be engaged when driving on the road or at high speeds or when turning. If the lock is engaged when turning, there could be loss of steering control.
- **25.** Observe all traffic regulations including authorized speed limits. Under normal traffic conditions, keep to the right, maintain a safe distance, based on speed of travel, from the truck ahead; and keep the truck under control at all times.
- 26. Yield the right-of-way to pedestrians and emergency vehicles such as ambulances and fire trucks.
- **27.** Do not pass another truck traveling in the same direction at intersections, blind spots, or at other dangerous locations.
- 28. Slow down and sound the audible warning device(s) at cross-aisles and other locations where vision is obstructed.
- **29.** Cross railroad tracks at an angle wherever possible. Do not park closer than 6 ft. (1.8m) to the nearest rail of a railroad track.
- **30.** Keep a clear view of the path of travel and observe other traffic, personnel, and safe clearances.
- 31. If the load being carried obstructs forward view, travel with the load trailing.
- 32. Ascend or descend grades slowly and with caution.
  - **a.** When ascending or descending grades in excess of 5%, loaded rough terrain forklift trucks should be driven with the load upgrade.
  - **b.** Unloaded rough terrain forklift trucks should be operated on all grades with the load-engaging means downgrade.
  - **c.** On all grades, the load and load-engaging means shall be tilted back, if applicable, and raised only as far as necessary to clear the road surface.
  - **d.** Avoid turning, if possible, and use extreme caution on grades, ramps, or inclines; normally travel straight up or down. Under all travel conditions, operate the rough terrain forklift truck at a speed that will permit it to be brought to a stop in a safe manner.
- **33.** Travel with load-engaging means or load low and, where possible, tilted back. Do not elevate the load except during stacking.
- **34.** Make starts, stops, turns, or direction reversals in a smooth manner so as not to shift load and/or overturn the rough terrain forklift truck.
- 35. Do not indulge in stunt driving or horseplay.
- **36.** Slow down for wet and slippery surfaces.
- **37.** Before driving over a dock board or bridge plate, be sure that it is properly secured. Drive carefully and slowly across the dock board or bridge plate, and never exceed its rated capacity.
- 38. Do not drive rough terrain forklift trucks onto any elevator unless specifically authorized to do so. Approach elevators slowly, and then enter squarely after the elevator car is properly leveled. Once on the elevator, neutralize the controls, shut off engine, and set the parking brake. It is advisable that all other personnel leave the elevator before truck is allowed to enter or leave.
- **39.** Avoid running over loose objects on the roadway surface.



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## Rough Terrain Forklift Truck General Safety Standards (cont.)

#### C.) OPERATING SAFETY RULES AND PRACTICES (cont.)

- **40.** When negotiating turns, reduce speed to a safe level, and turn steering hand wheel in a smooth sweeping motion. Except when maneuvering at a very low speed, turn the steering hand rail at a moderate, even rate.
- 41. Use special care when traveling without load, as the risk of lateral overturning is greater.
- **42.** Improper use of stabilizer controls (if so equipped) could cause rough terrain forklift truck upset. Always lower the carriage before operating stabilizer controls.
- **43.** For rough terrain forklift trucks equipped with lateral leveling:
  - a. Always level the frame before raising the boom or mast, with or without a load.
  - b. Lateral leveling should not be used to position an elevated load; instead, lower the load and reposition the rough terrain forklift truck.
- **44.** Handle only stable or safely arranged loads.
  - a. When handling off-center loads which cannot be centered, operate with extra caution.
  - **b.** Handle only loads within the capacity of the rough terrain forklift truck.
  - **c.** Handle loads exceeding the dimensions used to establish rough terrain forklift truck capacity with extra caution. Stability and maneuverability may be adversely affected.
- **45.** When attachments are used, extra care shall be taken in securing, manipulating, positioning, and transporting the load. Operate rough terrain forklift trucks equipped with attachments as partially loaded trucks when not handling a load.
  - a. When handling off-center loads which cannot be centered, operate with extra caution.
  - b. Handle only loads within the capacity of the rough terrain forklift truck.
  - **c.** Handle loads exceeding the dimensions used to establish rough terrain forklift truck capacity with extra caution. Stability and maneuverability may be adversely affected.
- **46.** When attachments are used, extra care shall be taken in securing, manipulating, positioning, and transporting the load. Operate rough terrain forklift trucks equipped with attachments as partially loaded trucks when not handling a load.
- **47.** Completely engage the load with the load-engaging means. Fork length should be at least two-thirds of load length. Where tilt is provided, carefully tilt the load backward to stabilize the load. Caution should be used in tilting backward with high or segmented loads.
- **48.** Use extreme care when tilting load forward or backward, particularly when high tiering. Do not tilt forward with load-engaging means elevated except to pick up or deposit a load over a rack or stack. When stacking or tiering, use only enough backward tilt to stabilize the load.
- **49.** The handling of suspended loads by means of a crane arm (boom) or other device can introduce dynamic forces affecting the stability of a rough terrain forklift truck. Grades and sudden starts, stops, and turns can cause the load to swing and create a hazard if not externally stabilized. When handling suspended loads:
  - a. do not exceed the truck manufacturer's capacity of the rough terrain forklift truck as equipped for handling suspended loads.
  - **b.** only lift the load vertically and never drag it horizontally;
  - c. transport the load with the bottom of the load and the mast as low as possible;
  - **d.** with load elevated, maneuver the rough terrain forklift truck slowly and cautiously, and only to the extent necessary to permit lowering to the transport position;
  - e. use tag lines to restrain load swing whenever possible.



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### Rough Terrain Forklift Truck General Safety Standards (cont.)

#### C.) OPERATING SAFETY RULES AND PRACTICES (cont.)

- **50.** At the beginning of each shift and before operating the rough terrain forklift truck, check its condition, giving special attention to:
  - a. tires and their inflation pressure
  - b. warning devices
  - c. lights
  - d. lift and tilt systems, load-engaging means and chains
  - e. brakes
  - f. steering mechanism
  - g. fuel system(s)
- **51.** If the rough terrain forklift truck is found to be in need of repair or in any way unsafe, or if it contributes to an unsafe condition, the matter shall be reported immediately to the user's designated authority, and the truck shall not be operated until it has been restored to safe operating condition.
- **52.** If during operation the rough terrain forklift truck becomes unsafe in any way, the matter shall be reported immediately to the user's designated authority, and the truck shall not be operated until it has been restored to safe operating condition.
- **53.** Do not make repairs or adjustments unless specifically authorized to do so.
- **54.** When refueling, smoking in the area shall not be permitted, the engine shall be stopped, and the operator shall not be on the rough terrain forklift truck.
- **55.** Spillage of oil or fuel shall be carefully and completely absorbed or evaporated and fuel tank cap replaced before restarting engine.
- **56.** Do not use open flames when checking electrolyte level in storage batteries, liquid level in fuel tanks, or the condition of LPG fuel lines and connectors.

#### ! WARNING!

NEVER USE THIS FORKLIFT TRUCK IF EQUIPPED WITH A ROTATOR TO ELEVATE PERSONNEL, EVEN IF YOU ARE USING A PERSONNEL PLATFORM.

IT IS PROHIBITED TO EVLEVATE PERSONNEL WITH A FORKLIFT THAT IS EQUIPPED WITH A ROTATOR.

#### **CONCLUSION:**

#### 1.) ATTEND OPERATOR TRAINING CLASSES

The forklift operator must clearly understand all instructions concerning the safe operation of the forklift and all safety rules and regulations of the work site. They must have successfully completed a training course in accordance with the Powered Industrial Truck Standard (29 CFR 1910.178) as described by the Occupational Safety and Health Administration (OSHA). They must be qualified as to their visual, hearing, physical, and mental ability to operate the equipment safely. NEVER use drugs or alcohol while operating a forklift! NEVER operate or allow anyone to operate a forklift when mental alertness or coordination is impaired! An operator on prescription or over-the-counter drugs must consult a medical professional regarding any side effects of the medication that may impair their ability to safely operate the forklift.

#### 2.) CREATE A MAINTENANCE PROGRAM

OSHA recommends a maintenance log, listing repairs requested and completed, for each forklift. Also, "lock out tag procedures" should be utilized. If the forklift malfunctions; park it safely, remove the key, tag "Do Not Use", and report the problem to the proper authority or authorized service personnel immediately. For the best forklift performance and operation, a maintenance program is required.



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### Rough Terrain Forklift Truck General Safety Standards (cont.)

#### **CONCLUSION: (cont.)**

Use the hour meter on the instrument panel to keep maintenance properly scheduled. For repairs on major components (engine, transmission, etc.), contact your nearest dealer for a Repair Manual. Do not operate a forklift that is damaged or does not function properly. Only authorized personnel may make repairs or adjustments to the lift truck. After repairs, the lift truck must be tested for safe operation before returning to service.

#### 3.) FORKLIFT KNOWLEDGE

Forklift trucks can cause serious injury if improperly used or maintained. Study all of the manuals provided for your forklift model. Learn the locations and meanings of all safety decals. If any decals are illegible or missing, have them replaced immediately. Make sure all safety features provided by the original manufacturer are in place and function properly. Do not operate a forklift with damaged, missing or unsafe components. Have it repaired by authorized service personnel. Learn the functions of all controls, gauges, indicator lights, etc. on the forklift. Know the speed/gear ranges, braking and steering capabilities, load ratings and clearances. When referring to the location of forklift components, the terms "left", "right", "front", and "rear" are related to the operator seated normally, facing forward in the operator's seat. If you have any questions about the forklift, consult your supervisor. Failure to fully understand or obey safety warnings can result in serious injury or death!

#### 4.) WORK SITE KNOWLEDGE

Before operating on a work site, learn the rules for movement of people, forklifts and all other traffic. Check the size, weight, and condition of the loads you will be expected to handle. Verify that they are properly secured and safe to transport. Learn where the loads are to be placed, planning your route for a safe approach, watching for hazardous conditions. Will a signalman be required to help place the load? Remove any debris, which may cause tire damage or rupture. Plan your route around problem areas or have them corrected. Inform the supervisor of any unsafe conditions observed at the site. Examples of hazards: power lines, cables, low clearance structures, garage doors, telephone pole guide lines, fencing, loose lumber, building materials, drop-offs, trenches, rough/soft spots, oil spills, deep mud, steep inclines, railroad tracks, curbs, etc. NEVER approach power lines, gas lines or other utilities with the forklift! Always verify that local, state/provincial and federal regulations have been met. Report any accidents involving personnel, building structures, and equipment to the supervisor immediately. Always remain alert - conditions are constantly changing at the work site!

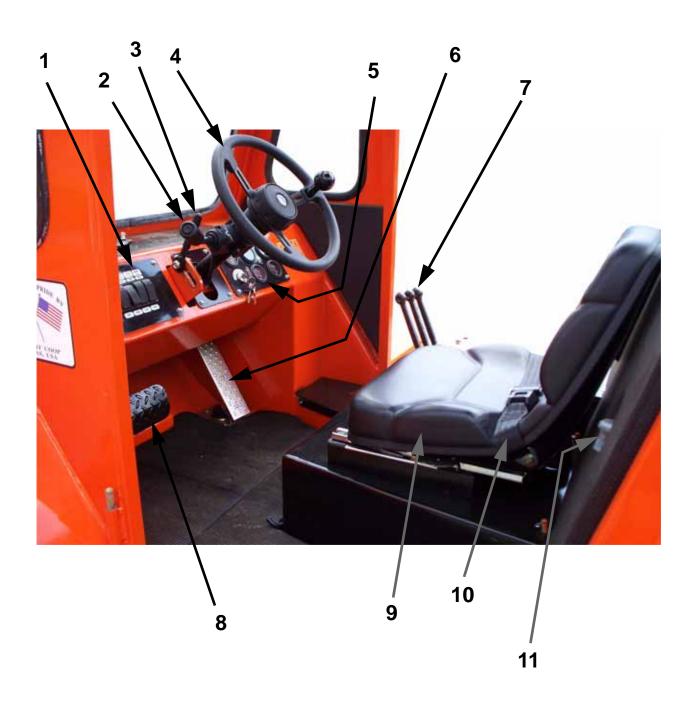
#### TECHNICAL SUPPORT

All data provided in this manual is subject to production changes, addition of new models, and improved product designs. If a question arises regarding your forklift, please consult your dealer or Bright Coop Inc. for the latest information. When ordering service parts or requesting technical information, quote the applicable Model/Serial Number.



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# INSTRUMENTS AND CONTROLS Image A





B260-H-F77B; B260-H-F81B & B260-H-D91B

### **INSTRUMENTS AND CONTROLS**

### **Image A**

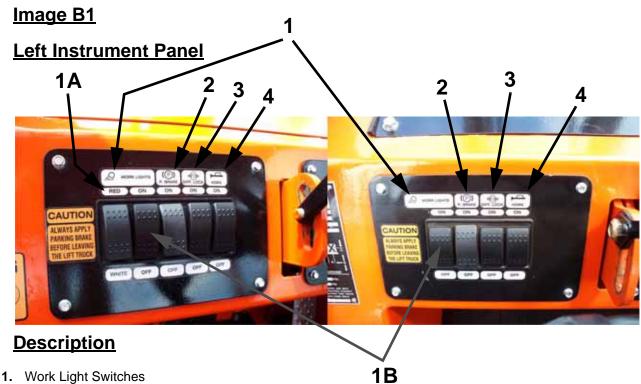
### **Controls Description**

- 1. Switches Left Instrument Panel (See next page for Details)
- 2. Directional Control Shifter (Forward Neutral Reverse)
- 3. Tilt Steering locking lever
- 4. Steering wheel
- 5. Right Instruments Panel (See next page for Details)
- Throttle Pedal
- 7. Hydraulic Mast Control Levers (See page 21 for Details)
- 8. Brake Pedal
- 9. Operator's seat
- 10. Seat belt
- 11. Main Switch (Battery Cut-Off Switch)



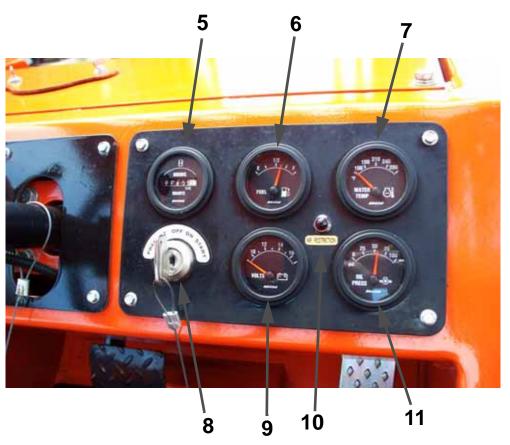
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## **INSTRUMENTS PANELS**



- 1A. -Red / White Lights
- 1B. -On / Off Switch
- 2. Parking Brake
- 3. Diff Lock
- 4. Horn
- 5. Hour Meter
- 6. Fuel gauge
- 7. Temperature gauge
- 8. Ignition Switch
- 9. Alternator / Volt gauge
- 10. Air Restriction lamp
- 11. Oil Pressure Gauge

### **Image B2** Right Instrument **Panel**



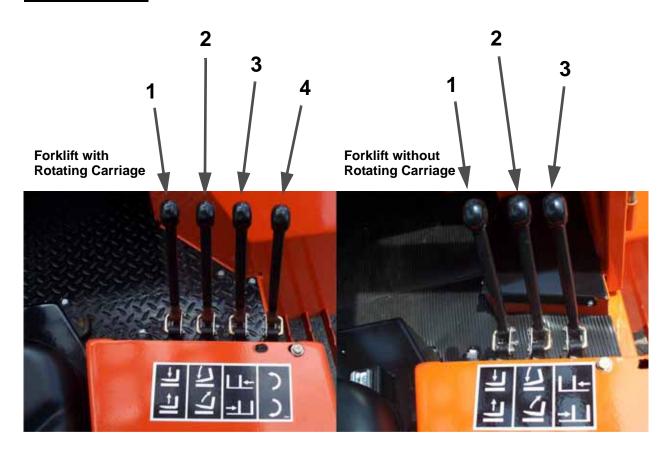


B260-H-F77B; B260-H-F81B & B260-H-D91B

## **MAST CONTROLS**

### Image C

### **Mast Controls**



### **Description**

- 1. Lowering / raising lever Lift (Pull to Raise / Push to Lower)
- 2. Tilt forward / backward lever Tilt (Pull to Tilt Backward / Push to Tilt Forward)
- 3. Side shift left / right lever **Side shift** (Pull to Side shift Left / Push to Side shift Right)
- 4. Rotate ccw / cw lever Rotator (Pull to Rotate Clockwise / Push to Rotate Counter Clockwise)



B260-H-F77B: B260-H-F81B & B260-H-D91B

### **GENERAL OPERATION INSTRUCTIONS**

#### **Drivers operating instructions**

- 1. Wear clothes suited for driving the lift truck. Avoid loose fitting clothes.
- 2. Never operate the vehicle when hands or feet are wet or soiled with greasy substances.
- **3.** When mounting the forklift, do not use the steering wheel as a pull handle; use the step provided when mounting or dismounting the forklift.
- **4.** For increased comfort adjust the driver's seat as required.
- **5.** The operator must always be seated normally when in the driver's seat. It is prohibited to have arms, legs or any part of the body, extended from the cab of the forklift.
- 6. Always remember to fasten your seat belt and adjust it properly before operating the forklift.
- 7. Never allow a passenger to travel on the lift truck or in the cab.

### Before starting the forklift

- 1. Check the condition of the tires and tire pressures.
- 2. Check all fluid levels engine oil, hydraulic reservoir oil, and cooling system.
- 3. Check for possible leaks: oil, fuel, or other fluids.
- **4.** Check the latches on the hood and engine compartments.
- 5. It is advised that the operator be familiarized with the location and operation of all the instruments and controls before operating the forklift

### Starting the forklift

### ! WARNING!

Do not operate the forklift unless properly seated, with seat belt fastened

#### **IMPORTANT**

Never try to start the forklift by pushing or towing it.

Pushing or towing the forklift can cause severe damage to the transmission

### **Starting instructions**

- **1.** Verify that the parking brake is engaged.
- 2. Make sure that the directional control (shifter) is in neutral position.
- 3. In cold condition turn the ignition key to position "Preheat" to preheat for 15 seconds.
- **4.** Press the accelerator pedal slightly and turn the ignition key to position "start", the engine should then start. Release the ignition key and let the engine run at idle.
- **5.** Check all control instruments immediately after starting up, when the engine is warm and at regular intervals during use, so as to detect any faults and to be able to correct them without any delay.
- **6.** If an instrument does not show the correct display, stop the engine and immediately carry out the necessary operations.

#### **IMPORTANT**

Do not engage the starter motor for more than 15 seconds at a time. Wait 2 minutes between starting attempts, allowing starter to cool down. Engage the pre-heater for 10 seconds between attempts.



### B260-H-F77B; B260-H-F81B & B260-H-D91B

#### **Driving the forklift**

- 1. Always drive the forklift with the forks or attachment at approximately 12 inches (300 mm.) from the ground.
- 2. Familiarize yourself with the forklift on the terrain where it will be used.
- 3. Ensure that the Service brake, Emergency brake and the sound alarm are working properly.
- 4. Drive at an appropriate speed for the conditions and the state of the terrain
- **5.** Slow down before executing a turn.
- 6. In all circumstances make sure you are in control of your speed.
- 7. On damp, slippery, or uneven terrain, drive slowly.
- **8.** Brake gently never abruptly.
- **9.** Do not drive with the parking brake on.
- **10.** Always remember that hydrostatic type steering is extremely sensitive to movement of the steering wheel, so turn it gently and not erratic.
- 11. Never leave the forklift unattended while the engine is running.
- 12. Look in the direction of travel and always ensure you have good visibility of the route ahead.
- 13. When working at night ensure that your forklift is fitted with full beam lights.
- 14. Drive around obstacles.
- **15.** Never move onto a foot bridge, floor or freight lift without being certain that they are prescribed for the weight and size of the forklift to be loaded.
- **16.** The loaded forklift must not travel at speeds in excess of 7 m.p.h. (12 km/h)
- **17.** Never move onto a loading platform without having first checked:
  - a. That it is suitably positioned and made fast.
  - **b.** That the unit to which it is connected will not shift.
  - **c.** That this platform is prescribed for the total weight or the forklift to be loaded.
  - **d.** That this platform is prescribed for the width of the truck.

#### ! WARNING!

Take extreme care when operating around platforms, trenches, recently dug and back filled terrain

### Stopping the forklift

- 1. Before stopping the forklift after a long working period leave the engine idling for a few moments to allow the coolant liquid and oil to lower the temperature of the engine and transmission.
- 2. Never leave the ignition key in the forklift when it is unattended.
- 3. When the forklift is stationary place forks on the ground, and apply the parking brake.
- **4.** Make sure the forklift is not stopped in any position that will interfere with the traffic flow and at least 6 ft. (1.8m) away from track of a railway.
- **5.** Park the forklift on flat ground or on an incline lower then 15%.
- **6.** Release the accelerator pedal and stop the lift truck.
- **7.** Apply the parking brake.
- 8. Retract entirely the mast.
- **9.** Lower the forks to rest on the ground.
- **10.** Stop the engine with the ignition switch.
- 11. Remove the pressure in the hydraulic circuits by using the hydraulic controls.
- 12. Remove the kev.
- **13.** If required to park on an incline park the forklift at a right angle to the slope, set parking brake, & chock the wheels.

### Operating forklift on public highways

#### ! WARNING!

You must observe all highway codes when operating your forklift Mount type forklifts are **not** allowed to drive on public highways.



B260-H-F77B; B260-H-F81B & B260-H-D91B

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### LOAD HANDLING INSTRUCTIONS

#### **General**

- 1. Do not attempt to perform any operation which exceeds the capacities of your lift truck or attachment.
- 2. Before lifting a load: check the size, weight, and condition of the load.
- 3. If the load is not properly marked, check with your supervisor for verification of weight. Divide the load into smaller unit if necessary.
- **4.** Note the center of gravity of the load area where to place the forks for stable transport.
- 5. Verify that the load is properly wrapped or banded and safe to transport. Check the condition of the pallet or skid. Does it need to be replaced? If the load is of loose materials or is poorly wrapped, it must be made secure.
- **6.** Secure the load so that it will not shift or fall during transport.
- 7. It is prohibited to increase the counterweight value in any way.
- **8.** It is strictly prohibited to carry or to lift personnel with the forklift.
- **9.** Never lift a load with a single fork.
- **10.** Never lift a sling load with a single fork or with the carriage.

#### **Attachments**

- 1. Ensure your lift truck's attachments function correctly.
- 2. Ensure that the attachment is correctly fitted and locked to its frame.
- 3. Adhere to the limits on the load chart for the lift truck and/or attachments.
- 4. Ensure that quick fit hydraulic connections on the attachment system are clean and protected.

#### ! WARNING!

You must consult your local electrical agency You could be seriously injured if you operate near power cables

#### **Environment**

- 1. Take care when raising a load that no object or person is in the way of mast or forklift movement.
- 2. In the case of work near aerial lines, ensure that the safety distance is sufficient between the working area of the lift truck and the aerial line.
- 3. Do not allow personnel to come near the working area of the lift truck or pass beneath an elevated load.
- 4. When using the lift truck on a slope, before raising the forks ensure that the forklift is level and stable
- **5.** Ensure that the loading platform or pile is capable of bearing the weight.
- **6.** Ensure the stability and solidity of the ground before depositing the load.
- 7. When traveling on a longitudinal slope drive and brake gently. Move with load/forks facing uphill.

### <u>Handling</u>

- 1. Always consider safety. Only transport balanced and correctly secured loads to avoid any risk of tipping.
- 2. Fully engage forks under the load and transport in the low position approximately 12" (300mm) from the ground, with the mast retracted to the maximum and sloping backwards.
- 3. Do not maneuver the forklift with the mast in the raised position except under exceptional circumstances and then only with extreme caution, at very low speed and using gentle braking. Ensure that visibility is adequate and get another person to guide you along if necessary.
- **4.** Never shift the position of the load while the lift truck is in motion.
- **5.** The simultaneous use of two forklifts to handle heavy or bulky loads is a dangerous maneuver, requiring specific precautions to be taken. This should only be done in exceptional circumstances and in the presence of a handling manager.
- **6.** Never drive too fast or brake abruptly when carrying a load.
- 7. Check the load, particularly when turning corners and if it is very bulky.



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### LOAD HANDLING INSTRUCTIONS

- 1. Secure unstable loads.
- 2. Handle loads with caution at low speed, and without sudden jerks when moving them at significant heights and mast extension.
- 3. Do not change direction sharply and at high speed.
- 4. Apply the parking brake when lifting or depositing a difficult load or when on an incline.
- 5. Do not stop the forklift with the load in an elevated position.
- 6. Do not leave a laden forklift with the parking brake applied on an incline, which exceeds 15%.
- 7. High winds jeopardize the stability of the forklift.

#### ! WARNING!

In the event of the forklift overturning, do not try to leave the cabin during the incident. YOUR BEST PROTECTION IS TO STAY FASTENED IN THE CABIN.

#### **Visibility**

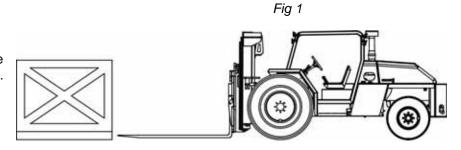
1. If the visibility in forward motion is not sufficient because of the bulkiness of the load, drive in reverse motion. Ensure you have good visibility.

#### Check the placement area

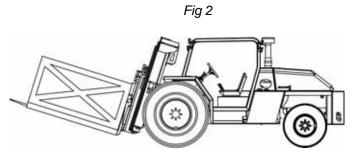
Before lifting or placing a load, check the area to be sure it will support the forklift and load? Insure the terrain will properly support the forklift.

### Lifting a load from ground level

1. Approach the load slowly, with mast Level, aligning the forklift and forks with the load. Stop the forklift before engaging the load. Using the control levers, align the forks to the correct height and angle. Fig 1



2. Move forward slowly, until the forks are fully engaged and the load is against the backrest. Raise the forks to lift the load. Tilt the mast back, placing the load against the backrest. Raise or lower the forks to transport position, side shift the mast to center the load as needed. Fig 2.



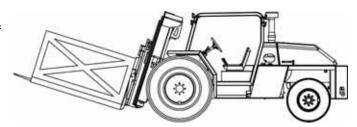


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### LOAD HANDLING INSTRUCTIONS

Fig 3

**3.** Check traffic and drive or back away slowly; watch your direction of travel and the stability of the load. Travel with caution at all times. *Fig 3*.



### Placing the load on ground level

Approach the receiving area slowly; stop the forklift to raise or lower or side shift the load as needed. Lower the forks and tilt the mast forward to place the load.

Before backing, insure the forks have properly disengaged the load, and that the load is stable. Check traffic and back away cautiously, assuring the forks remain clear of the load upon exit. When the forks have cleared the load; stop the forklift, raise/lower the forks and side shift the mast to center. Check traffic; proceed with caution at all times.

#### ! WARNING!

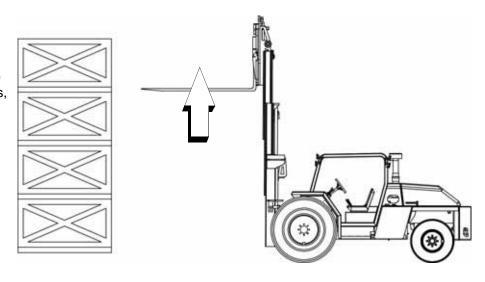
Never lift a load from a scaffold or deposit a load on one. Never side shift an elevated load. Never travel with an elevated load

### Lifting an elevated load

An elevated load requires special handling, be extra cautious. Before unloading a truck or trailer, make sure its wheels have been chocked to prevent movement during operations.

Fig 4

1. Approach the loading area slowly with forks lowered, aligning the forklift with the load. Stop the forklift; raise the forks to the height of the load. Using the control levers, align the forks to the correct height and angle. Fig 4

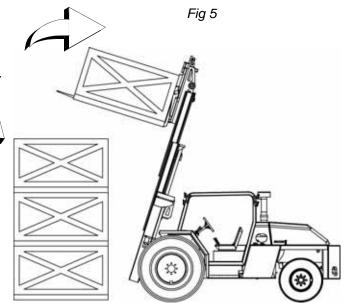




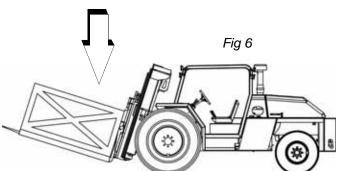
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### LOAD HANDLING INSTRUCTIONS

2. Move forward slowly, making adjustment as needed, until the forks are fully engaged and the load is against the backrest. Apply the park brake. Raise the forks just enough to lift the load. Tilt the mast back slightly with the heaviest part of the load against the backrest. Fig 5



- 3. Remove park brake place the forklift in reverse and back up slowly from the stack. Proceed with caution because an elevated load requires special handling. Apply service brake and Lower the load to transport position. Side shift the mast to center the load as needed.
- 4. Check traffic, release the park brake, place the forklift in reverse and cautiously back the forklift. Watch your direction of travel and the stability of your load. Fig 6



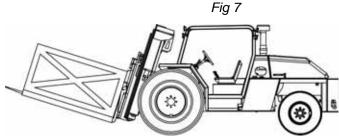


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# LOAD HANDLING INSTRUCTIONS <u>Placing an elevated load</u>

An elevated load requires special handling, be extra cautious. Before loading a truck or trailer, make sure its wheels have been chocked to prevent movement during operations.

1. Approach the loading area slowly, aligning the forklift and the load. When the load is properly aligned set the service brake. Fig 7



- 2. Raise the load high enough to clear the stack or platform. Align the forks to the correct angle and height for load placement. Release the brakes and move forward slowly making adjustments as needed, until the load is properly aligned. Lower the load into a stable position. Fig 8
- 3. Make required adjustments to the forks to properly clear the load. Check traffic release the brakes, place the forklift into reverse, and back out slowly.
- After clearing the load, lower the forks and side shift the mast to center as needed.
- Fig 8
- 5. Check traffic; back away slowly. Travel with caution at all times.



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### LOAD HANDLING INSTRUCTIONS

#### Double fork a load

The forklift capacity is reduced when the forks do not fully engage a load. On occasion it may be necessary to move or reposition a load before the forks can be fully engaged; this is called "DOUBLE FORKING". With the forklift properly positioned, raise the load slightly; bring the load backward by backing up. Lower the load into a stable position; move forward to fully engage the load. Never attempt to lift or "double fork" an unstable load.

### <u>Traction control operation</u> (Diff. Lock Switch)

Under normal operating conditions the forklift utilizes independent 2 wheel drive. However, in some slippery conditions (such as mud, loose gravel or wet concrete incline) one wheel may slip or spin free, causing loss of traction. To maintain traction, the traction control can be engaged, causing both wheels to turn at the same speed. Before engaging; while the forklift is stopped, after the rear steer wheel has been aligned with the front wheels. Press and hold the Diff. Lock control switch for continuous use, release the switch to disengage the traction control. Improper use of the traction control on non-slippery surfaces causes excessive tire wear and may break the power train.

#### ! WARNING!

Ensure the forklift is in a straight line and not moving before engaging the traction control.

Do not engage the traction control while turning corners



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### MAINTENANCE INSTRUCTION FOR THE BRIGHT'S BULLET

#### **General maintenance**

- 1. Read the operator's manual carefully and ensure you understand it.
- 2. Stop the engine, when an intervention is necessary.
- **3.** Wear clothes suitable for the maintenance of the forklift; avoid wearing jewelry and loose clothes. Tie and protect your hair, if necessary.
- **4.** Ensure the area is sufficiently ventilated if you need to run the forklift for test.
- **5.** Carry out all repairs immediately, even if the repairs concerned are minor.
- **6.** Repair all leaks immediately even if the leaks concerned are minor.
- 7. Do not attempt to loosen unions, hoses or any hydraulic component with the circuit under pressure.
- 8. Do not smoke or approach the forklift with a flame, when the fuel tank is open or is being filled.
- **9.** Take care not to burn yourself from the exhaust, radiator, engine, etc.
- 10. Turn the main switch off.
- 11. Do not drop metallic items on the battery.
- **12.** When carrying out electric welding work on the forklift, connect the negative cable from the equipment directly to the part being welded; so as to avoid high-tension current passing thought the bearings.

### **Maintenance**

- 1. The maintenance and the keeping in compliance of the forklift are compulsory.
- 2. Carry out daily maintenance.
- 3. Do not run the engine without air filter or with oil, water, or fuel leaks.
- **4.** Change the filter cartridges: air, fuel, oil and hydraulic as required.

#### **Levels**

- 1. Use the recommended lubricants.
- 2. Do not fill the fuel tank when engine is running.
- 3. Only fill up the fuel tank in areas specified for this purpose.
- **4.** Do not fill the fuel tank to the maximum level.

### **Washing**

- 1. Clean the forklift or at least the concerned area before any intervention.
- 2. During washing avoid the articulations electrical components and connections.
- 3. Clean the forklift of any fuel, oil, or excess grease.
- 4. Protect all components susceptible to be damaged from water steam or cleaning agents.

Note: make sure that the disposal of process materials and of spare parts is carried out in total safety and in an ecological way.

## **Maintenance Schedule**



# Bright Bullet Forklift

## B260-H-F77B; B260-H-F81B & B260-H-D91B

### **SERVICING SCHEDULE**

INTERVAL	ITEM						OPERATION
			4	/_		/,&	DIJS
		نا ا	xecx co	4R/.	8k/2,	HAM	
			76	<b>'/                                    </b>		7 8	<u> </u>
DAILY	Air filter (Drain Water)	Х					
	Engine Oil Level	Х					
OR	Radiator Coolant Level	Х					
EVED.	Hydraulic Fluid Level	Х				X	Add ISO-46
EVERY	Radiator (Air Flow)	Х	Р				
10	Oil Coolers	X	Р				
10	Fuel Filters (Drain Water)	X					
HOURS	Steer Wheel Spindles	X					
HOOKS	King Pins	X		Р			
	Lift Pivot			X			
	Lift Mast Rollers	Х	Х				
	Lift Mast Chains	Х		X			
50	Air Filter		X				
	Battery	Х				Х	Add electrolyte As Required
Hours	Steer Axle Pivots			Х			
	Brake Pedal Pivots			X			
	Steer Cylinder Ends			Х			
	Hydraulic System Oil Level	Х					Add As Required
	Drive Axle Oil Level	Х					Add As Required
	Hoses and Connections	Х					
	Tire Pressure	Х					
150	Mast Chains						
Hours	Charge Pressure Hydraulic System Filter						
	Fan Belts						
250	Engine Oil *				Х		
	Engine Filter*				Х		
Hours	Fuel Filter*				Х		
	Air Cleaner (Dry)*		Х		Р		
500	Charge Pressure Filter				Х		
	Hydraulic Return Filter				Х		Replace Every 500 Hrs.
Hours	Diesel Fuel Injectors	Х					
	Wheel Bearings	Х	Х	Х			



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### **SERVICING SCHEDULE**

INTERVAL	ITEM	ď	KCY C	EAN 1	Bt. C	HANGE	OPERATION
1000 Hours	Mast Chains	Х			Х	Х	Replace As Required
1200 Hours	Drive Axle Fluid				X		
	Hydraulic System Fluid and Filter				Х		
Seasonal	Radiator Coolant- Pure Water				Х		Change Every 6 Months And Use Rust Inhibitor
	Regular Antifreeze				Х		Change Every 6 Months Or After Every Winter
	Permanent Antifreeze				Х		Change Every 24 Months
*	* = Perform at 100 hours if subject to harsh conditions (Dusty environment)						
Р	P = Perform if required						

## FUEL AND LUBRICANTS FUEL

The quality of fuel is an important factor in obtaining dependable performance. Satisfactory engine suitable fuels must be clean, completely distilled, well refined, and noncorrosive to fuel system parts. Be sure to use fuel of known quality.

### **DIESEL FUEL SPECIFICATIONS**

Use grade No. 2-0 fuel, as defined by ASTH designation 0975 for diesel fuels. The grade No. 2-0 fuel is heavier and produces more work per gallon.
Use fuel having less than 0.5% sulfur, preferably less than 0.05%
For maximum filter life, sediment and water should not exceed 0.10 percent.

### **STORING FUEL**

The importance of proper fuel storage cannot be stressed too highly. To keep the fuel system in its most efficient condition, keep all dirt and other foreign matter out of the fuel. Avoid storing fuel for a long period of time Fill the tank at the end of each day's operation to prevent moisture from collecting and freezing in the fuel system.

### <u>LUBRICANTS</u>

Effective use of lubricating oils and greases is perhaps the most important step towards low upkeep cost, long forklift life, and satisfactory service. Use only lubricants specified in this section; apply them at intervals and according to the instructions in the lubrication and periodic service section.

### MIXING OF LUBRICANTS

In general avoid mixing different brands or type of oil or grease. Oil and grease manufacturers blend additives in their oils to meet certain specifications and performance requirements. Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.



B260-H-F77B; B260-H-F81B & B260-H-D91B

Where to Check Fluid levels
Check Engine Oil level









B260-H-F77B; B260-H-F81B & B260-H-D91B

Where to Check fluid levels (Cont.)
Check coolant level



## ! WARNING!

NEVER OPEN IF THE COOLLANT IS HOT CHECK WHEN COOLANT IS COLD



## B260-H-F77B; B260-H-F81B & B260-H-D91B FLUID CAPICITY

	CAPACITY	EI IIID IICED
		FLUID USED
Crankcase	14 Quarts	* John Deere TORQ-
		GARD SUPREME
	15 Quarts	* John Deere UNI-GARD
	with filter	* API Service
		Classification CG-4
		* API Service
		Classification CF-4
		* ACEA Specification E3
		* ACEA Specification E2
		* CCHC Specification D5
		* CCHC Specification D4
Hydraulic Oil	38 Gallons	Chevron ISO-46
Fuel Tank	38 Gallons	Grade No. 1-0 or No. 2-0
		fuel, as defined by
		ASTH Designation 0975
		for diesel fuels.
New Holland	20 Quarts	Specification ESN-
Drive Axle		M2C134-C
Dana Drive Axle	As Requred	Chevron Ls 80w90 Gear
	•	Lub.
Cooling System	4 Gallons	2 Gallons Clean Water &
		2 Gallons Antifreeze



B260-H-F77B; B260-H-F81B & B260-H-D91B

### **BRIGHT PART NUMBERS FOR FILTERS**

	PART			MODEL OR
ITEM	NUMBER	DESCRIPTION	QTY	SERIAL #
1	098-01695	PRIMARY FILTER (OUTER)	1	
2	098-01696	SAFETY FILTER (INNER)	1	
3	099-00281	ENGINE OIL FILTER	1	
4	098-01761	ENGINE FUEL FILTER	1	
5	098-01256	IN-LINE FUEL STRAINER	1	
6	230-00045	PRESSURE FILTER FOR HYDROSTATIC PUMP	1	
7	098-01530	HYDRAULIC RETURN FILTER ELEMENT	1	





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### **BRIGHT COOP, INC.**

803 West Seale Street Nacogdoches, Texas 75964 Phone: (936) 564-8378 • Fax: (936) 564-3281 e-mail info@brightcoop,com



#### BRIGHT BULLET FORKLIFT WARRANTY AND LIMITATIONS OF LIABILITY

#### **COVERAGE PROVIDED**

Bright Coop, Inc. (BCI) warrants every part of the forklift manufactured by BCI to be free under normal use and service from defects in material and workmanship. This warranty extends to the original purchaser only and shall continue for a period of 1 year (or 2000 hours) whichever occurs first on all components from the date of sale of the original purchaser or date of original use, whichever is earlier. In addition John Deere warrants it's engine for a period of 1 year unlimited hours of use. Any such parts proving to be defective within the warranty period may be, at the option of BCI, either repaired or replaced, provided that such defective parts are returned freight prepaid to the BCI factory in Nacogdoches, Texas, and provided further that written notice of such defective parts shall be given to BCI at the address shown above within 10 days of discovery of such defects.

The obligation of BCI to the purchaser under this warranty is limited to the repair or replacement of defective parts, which will cover charges for both parts and labor, using BCI service parts. Repair or replacement in accordance with this warranty shall constitute fulfillment of all liabilities of

Repairs or replacements will be performed by a qualified BCI technician or may be repaired or replaced by the original purchaser's mechanic as long as the work or replacement is done in accordance with BCI recommendations. If the repair(s) or replacement(s) are done by the original purchaser's mechanic, BCI will reimburse the original purchaser for a reasonable amount of labor involved at the rate of \$30.00 U.S. currency per hour if the original purchaser or authorized employee of the original purchaser mails or faxes a copy of this form which includes the date of original sale, the serial and model number of the unit to be repaired, a description of failure, causal part, the nature of the defect and obtain a Repair Authorization from BCI.

#### ITEMS NOT COVERED BY THIS WARRANTY

- Parts not manufactured by BCI are not covered by this warranty and any warranty on such parts is limited to that extended by the original equipment manufacturer of such parts.
- BCI makes no warranty whatsoever with respect to tires, tubes and batteries.
- This warranty shall not apply:

  - If the forklift has been subject to misapplication, abuse, misuse, negligence, fire or other accident;
    If parts not made or supplied by BCI have been used in connection with the forklift, if in the sole judgment of BCI such use affects its performance or reliability;
  - If the forklift has been altered or repaired in a manner which, in the sole judgment of BCI, affects its performance or reliability;
  - To incidental charges such as wrecker service, travel time, delivery charges, hydraulic oil, lubricants, fuel or anti-freeze;
  - To normal maintenance services (such as tune-ups, fuel system cleaning), to normal replacement of service items (such as filters), or to normal deterioration due to use or exposure (such as belts and exterior finish);
  - Unless all safety devices and guards provided with the equipment are properly installed and used in this operation and unless there is compliance with all operating procedures and maintenance instructions as set forth in the instructional and operating manuals furnished by BCI;
  - To any forklift if its serial number has been altered, defaced or removed, or if payment for the forklift is in default.

#### DISCLAIMER OF IMPLIED WARRANTIES AND CONSEQUENTIAL DAMAGES

THERE ARE NO EXPRESSED WARRANTIES COVERING THE FORKLIFT MANUFACTURED BY BCI OTHER THAN AS SET FORTH ABOVE, AND THE WRITTEN WARRANTY IS IN LIEU OF ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANT OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event shall BCI be liable for special, incidental or consequential damages or claims therefore, including (but not limited to) damages or claims due to lost profits, lost time, transportation, personal injury, property damage or other expenses whether or not resulting directly or indirectly from claimed defects covered by the above written warranty. No person is authorized to make on behalf of BCI any representations beyond those expressed herein.



B260-H-F77B; B260-H-F81B & B260-H-D91B

#### RIGHT TO MAKE DESIGN CHANGES

Bright Coop, Inc. reserves the right to make changes in the design and other changes in its products at any time and from time to time without notice and without incurring any obligation with respect to any product previously ordered from it, sold or shipped by it.

#### GENERAL PROVISIONS

All notices, demands, claims or other communications with respect to this written warranty must be addressed to Bright Coop, Inc., 803 W. Seale, Nacogdoches, Texas, 75964.

This warranty shall be interpreted and governed by the laws of the State of Texas.

I acknowledge that I have read and I accept this warranty and limitation of liability and that I have been instructed in safe operation of the Bright BC3-5000 and furnished with an operating manual related to the Bright BC3-5000 I have purchased.

Machine Model No:			
Machine S/N			
Date of Sale			
Purchaser's Name		_	
Purchaser's Business			
Purchaser's Business Address			
City	State	Zip Code	
Purchaser or Authorized Agent's Sign	ature of acceptance		
DESCRIPTION OF FAILURE,	CAUSAL PART.	AND	
DEGGRATION OF THE GREE,			
NATURE OF REPAIR OR REP	PLACEMENT SUP	MMARY	
			<del>-</del>



B260-H-F77B; B260-H-F81B & B260-H-D91B

BRIGHT COOP INC.
BULLET FORKLIFT
WARRANTY INFORMATION SHEET

#### FORKLIFT WARRANTY

The forklift is warranted for 1 year or 2000 hours whichever comes first. A PDI (Pre-Delivery Inspection) Form must be turned in to activate the warranty. This form will be provided in the warranty information packet which is delivered with the forklift. It is also located in the front of the Forklift Owners Manual on the back of the warranty page. For more specific information you may contact our Service Department or you may refer to the warranty page in the front of your Forklift Owners Manual.

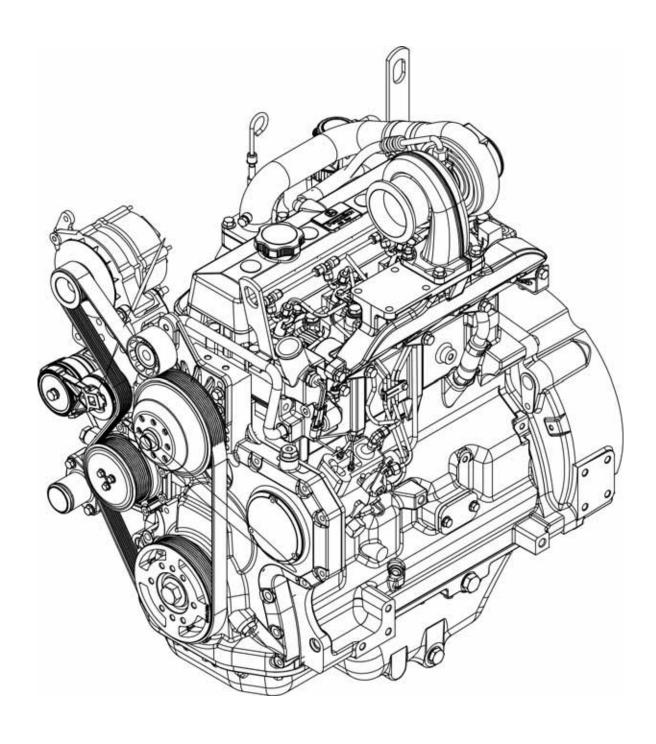
#### **ENGINE WARRANTY**

The engine is covered under John Deere's warranty. The warranty period on the engine is 1 year unlimited hours. This is covered directly with John Deere. Any local Industrial John Deere Dealer should be able to supply parts and service for the engine. If there is no local Industrial dealer near you, contact our Service Department and we will help you.



B260-H-F77B; B260-H-F81B & B260-H-D91B

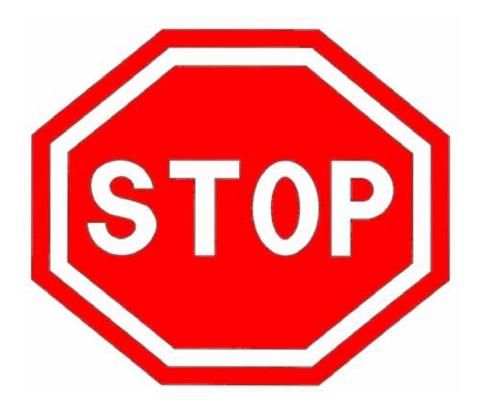
### JOHN DEERE DIESEL ENGINE WARRANTY INFORMATION





B260-H-F77B; B260-H-F81B & B260-H-D91B

### JOHN DEERE DIESEL ENGINE WARRANTY INFORMATION



### IMPORTANT READ THIS PAGE

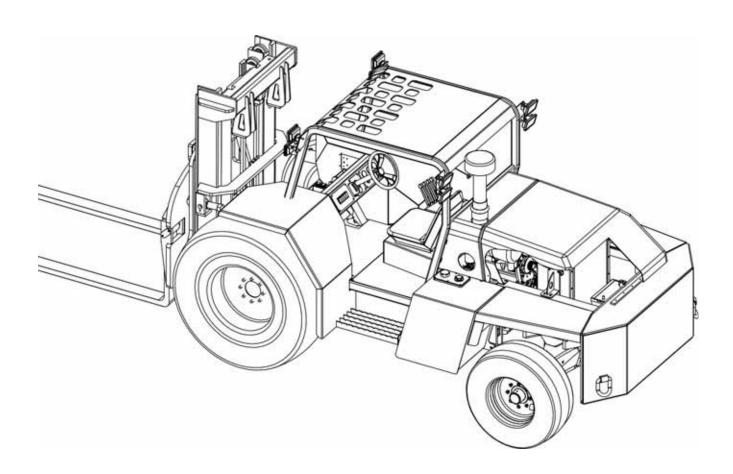
Your JOHN DEERE Engine is Warranty directly by JOHN DEERE ENGINE AMERICA CORPORATION. In order to obtain Warranty repairs, you must deliver the product, together with <u>proof of purchase</u>, to an Authorized JOHN DEERE Industrial Engine Distributor or Dealer At your Expense.

For all operation, service and maintenance information about the JOHN DEERE Engine, please refer to JOHN DEERE Diesel Engine Operator's Manual.



B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Troubleshooting**





B260-H-F77B; B260-H-F81B & B260-H-D91B

### **Engine Troubleshooting**

This following pages list difficulties that might possibly be encountered and their possible remedies. If, after properly performing the listed remedies, the difficulty still exists, see your dealer. He has been trained and possesses the latest technical literature and equipment to put your forklift back in operating condition.

#### **ENGINE HARD TO START, WILL NOT START**

Possible Cause	Possible Remedy			
No fuel	Fill tank with proper fuel.			
Fuel transfer pump primer lever left up	Move lever to lowest point of stroke.			
Low battery output	Check electrolyte level and specific gravity of each cell.  Recharge if necessary.			
Excessive resistance in starting circuit	<ul> <li> Clean and tighten all connections on battery and starter.</li> </ul>			
	Drain and fill crankcase with oil of proper viscosity.			
Improper fuel	Consult fuel specifications and use proper type of fuel for operating conditions.			
Water, dirt, or air in fuel system	· · · · · · · · · · · · · · · · · · ·			
Clogged fuel filter	·			
• ,	<ul> <li> Turn off lights and starter switches for one minute.</li> <li>(Circuit breaker will reset itself.).</li> </ul>			
Dirty or faulty injector nozzles				
Dirty or clogged fuel line filter	Drain tank and remove fuel shut-off valve and clean filter.			
<u>ENGIN</u>	NE KNOCKS			
Possible Cause	Possible Remedy			
Insufficient crankcase oil	Add proper oil.			
Dirt picked up by air intake system	Check air cleaner for clogging			
Injection pump out of time	•			
Stuck fuel injector nozzle	See your dealer.			
ENGINE RUNS IRREGULARY OR STALLS FREQUENTLY				
Possible Cause	Possible Remedy			
Clogged fuel filter	Drain, flush, and refill. Bleed system.			
Possible Cause	Possible Remedy			
Defective thermostat	Replace with new thermostat.			
Defective temperature gauge				



**Possible Cause** 

**Possible Cause** 

## Bright Bullet Forklift

B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Troubleshooting**

#### **LACK OF ENGINE POWER**

Possible Cause	-Possible Remedy
Engine overload	<ul> <li>-Drain and fill crankcase with oil of proper viscosity.</li> <li>-Clean air cleaner.</li> <li>-Replace filter element and bleed system.</li> <li>-Engines loose horsepower with increased altitude. Use</li> </ul>
Overheated engine	
Dirty or faulty injector nozzles	-See your dealer.
Obstruction in fuel system	The state of the s

#### **ENGINE OVERHEATS**

Possible Remedy

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Low coolant level	-Fill radiator with coolant to the proper level. Check hoses and radiator for leaks or loose connections.
Dirty radiator core or grille screen	-Remove all foreign matter from exterior of radiator core and grille screen.
Loose or defective alternator belt	-Adjust belt tension. Replace worn belt.
Cooling system limed up	-Drain and flush cooling system. Check water with thermometer.
Defective temperature gauge	-Have serviceman replace gauge if defective. (If overheating, an engine must use water. Check water level.)
Defective radiator pressure cap	-Replace cap.

#### **HIGH OIL COMSUMPTION**

**Possible Remedy** 

Too low viscosity crankcase oil	-Drain and fill crankcase with oil of proper viscosity.
Oil leaks	-Check for leaks in lines and around gaskets and drain
	plugs.
Engine overheating	-Reduce load or shift to lower gear



B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Troubleshooting**

### **LOW ENGINE OIL PRESSURE**

Possible Cause	Possible Remedy
Low crankcase oil level	-Check crankcase oil level on dipstick and add oil if needed.
Improper type of crankcase oil	-Drain and fill crankcase with oil of proper viscosity.
Partially plugged oil filter	-Check pressure with a master gauge. Replace filter.
HIGH FUEL CO	Possible Remedy
r ossible Gause	rossible Kellieuy
Improper type of fuel	-Consult fuel specifications and use proper type of fuel for operating conditions
Engine overload	<del>-</del>
Clogged or dirty air cleaner	
Dirty or faulty injector nozzles	•
Engine out of time	<ul> <li>-Make sure injector pump is timed properly. See your dealer for this service.</li> </ul>



**Possible Cause** 

## Bright Bullet Forklift

B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Troubleshooting**

#### DIESEL ENGINE EMITS BLACK OR GREY EXHAUST SMOKE

Possible Cause	Possible Remedy
Improper type of fuel	Consult fuel specifications and use proper type of fuel for operating conditions
Engine overload	Reduce load or shift to lower gear.
Clogged or dirty air cleaner	Clean air cleaner.
Dirty or faulty injector nozzles	See your dealer.
Engine out of time	<ul> <li>- Make sure injector pump is timed proper. See your dealer for this service.</li> </ul>
Defective muffler	Check muffler for possible damage, which might create back pressure.

#### **DIESEL ENGINE EMITS WHITE SMOKE**

Possible Cause	Possible Remedy
Dirty air cleaner	-Clean air cleaner.
Improper type of fuel	-Low octane fuel will cause misfiring. Use only fuel which has recommended octane number.
Cold engine	-Warm up engine to normal operating temperature.
Defective thermostat	-Remove and check thermostat.
Engine out of time	-Make sure injector pump is timed proper. See your dealer for this service.

#### **BATTERY WILL NOT CHARGE**

Possible Remedy

	•
Loose or corroded connections	-Clean and tighten battery connections.
Sulfated or worn-out battery	-Check specific gravity and electrolyte level of battery.
Loose or defective alternator belt	-Adjust belt. Replace if worn.



B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Troubleshooting**

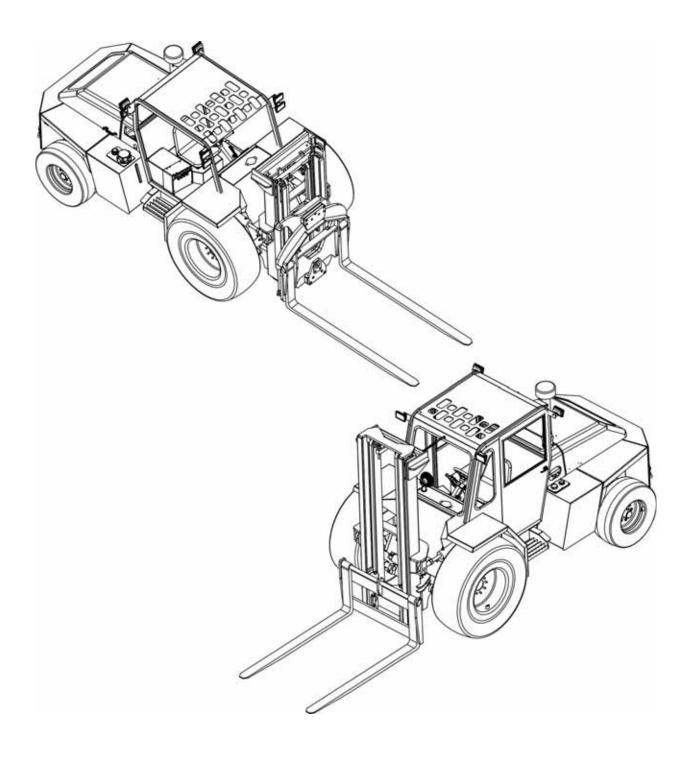
### **STARTER INOPERATIVE**

Possible Cause	Possible Remedy		
Loose or corroded connections Low battery output			
STARTER CRANKS SLOWLY			
Possible Cause	Possible Remedy		
Loose or corroded connections	Check specific gravity and electrolyte level of battery.		
ENTIRE HYDRAULIC SYSTEM FAILS TO FUNCTION			
Possible Cause	Possible Remedy		
Low oil supply			
HYDRAULIC OIL OVERHEATS			
Possible Cause	Possible Remedy		
Low oil supply			



B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Mast Troubleshooting Guide**





B260-H-F77B: B260-H-F81B & B260-H-D91B

### **Mast Troubleshooting Guide**

The Trouble Shooting Guide found on the following pages addresses problems sometimes encountered during mast operations. It also lists the probable causes and recommended corrective actions to restore the mast to its proper operating condition. Before repairing a faulty mast, read all safety precautions!



- 1. IF A MAST RAIL OR CARRIAGE BECOMES JAMMED OR HUNG-UP; REMOVE THE MAST FROM SERVICE, MAKING NECCESSARY REPAIRS IMMEDIATELY!
- 2. USE ONLY THE APPOROPRIATE TOOLS AND APPOVED HOST/HARNESS DURING MAST REPAIR OR ADJUSTMENTS!
- 3. NEVER PLACE ANY PART OF YOUR BODY INSIDE THE WORKING AREA OF A JAMMED MAST!
- 4. DO NOT OPERATE THE MAST WITH A DAMAGED HYDRAULIC SYSTEM.

#### **MAST SAFETY PRECAUTIONS**

**IMPORTANT:** BEFORE YOU OPERATE THE MAST MAKE SURE YOU HAVE READ AND FULLY UNDERSTAND THE MANUFACTURER'S MANUALS FOR YOUR FORKLIFT IF THE MANUALS ARE MISSING, GET A REPLACEMENT MANUAL FROM YOUR EMPLOYER, DEALER OR FORKLIFT MANUFACTURER. KEEP SAFETY MANUALS ON THE FORKLIFT AT ALL TIMES.

#### **SAFETY IS YOUR RESPONSIBILITY!**

- -ONLY YOU CAN PREVENT SERIOUS INJURY OR DEATH FROM UNSAFE PRACTICES! PRACTICE ALL USUAL AND CUSTOMARY SAFE WORKING PRECAUTIONS, INCLUDING THE FOLLOWING:
- 1. NEVER CARRY PASSENGERS ON THE MAST OR FORKS!
- 2. Never use the mast or forks as battering rams.
- 3. Make daily inspections of the mast's performance, components, hydraulics and hose connections.
- 4. Avoid entanglement hazard, keep yourself and others away from the mast's moving parts.
- 5. DO NOT climb on the mast.
- 6. If the mast does not operate properly, have it inspected and repaired immediately.
- 7. Do not operate the Mast without a legible load chart (do not over-load the mast).
- 8. Replace forks (in pairs) that are cracked or damaged, NEVER use forks repaired by welding.
- 9. Check that the forks are secure (unable to change position while carrying loads).
- 10. Plan ahead, know how and where you will travel, turn and pickup, lift and place loads.
- 11.Use a signal person when placing high loads.
- 12. Operate the mast smoothly, (raising, lowering, and tilting of mast and forks), do not allow the lift cylinders to hit the end of their stroke abruptly.
- 13.Lower the forks to the ground when the Forklift is not in use.



B260-H-F77B; B260-H-F81B & B260-H-D91B

## **Mast Troubleshooting Guide**

PROBLEM:	PROBLEM CAUSE:	CORRECTIVE ACTIONS:
Mast jerks or has spongy movement.	1. Air in the hydraulic system.	1. Check hydraulic oil level in the tank, check for vacuum leaks in the hydraulic system. Bleed the lift cylinders.
	Bent or damaged cylinder rod (piston).	2. Repair or replace as necessary.
	3. Defective relief valve.	4. Remove and inspect the relief valve, repair or replace as necessary. If damaged by contaminated oil: flush the system, replace the oil filters and add fresh oil.
	4. Rollers defective or shimmed too tight.	5. Re-shim or repair as needed.
Mast drifts down slowly on its own.	Damaged or defective seals.	Replace the seals. Failure     caused by oil contamination     requires the system be flushed, filters be replaced and fresh oil installed.
Mast lowers too slowly, partially or not at all. Notice! See WARNING at the beginning of the Trouble Shooting Guide.	Damaged lift cylinder(s).	1. Inspect, repair or replace.
	2. Rollers defective or shimmed too tight.	2. Re-shim or repair as needed.
Carriage drifts up when load is removed, then stops.	1. Air in cylinder(s).	1. Bleed the Cylinder(s).
Cylinders leak oil.	1. Faulty seals or "O" rings.	1. Replace seals or "O" rings.
Mast does not fully extend.	Hydraulic oil tank low.	1. Fill tank to proper level.



B260-H-F77B; B260-H-F81B & B260-H-D91B

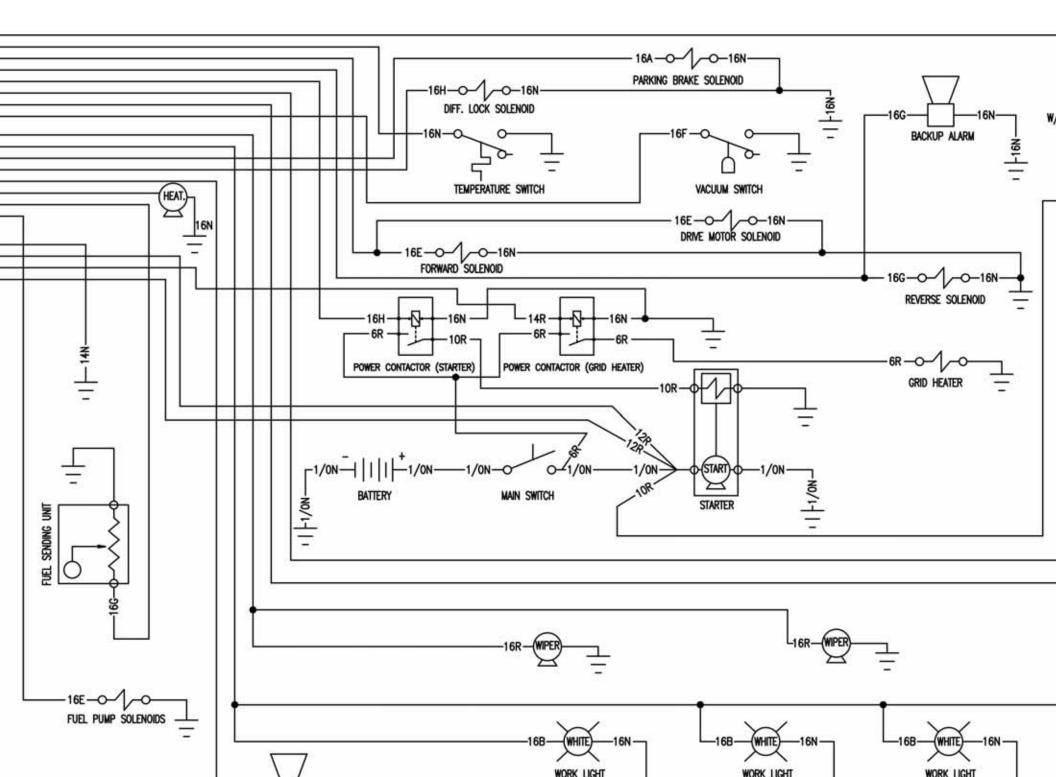
## **Mast Troubleshooting Guide**

PROBLEM:	PROBLEM CAUSE:	CORRECTIVE ACTIONS:
Excessive side movement in rails.	Rollers need adjustment or repair.	Shim or replaced rollers as required.
Excessive side movement in Carraiage.	Side rollers need adjustment or repair.	1. Adjust the side play.
Carriage or rails hang-up or bind during operation. Notice! See WARNING at the beginning of the Trouble Shooting Guide.	Rollers need adjustment or repair.	<ol> <li>Shim or replaced rollers as required.</li> <li>Adjust the carriage side play.</li> </ol>
Carriage is hitting or scraping the rails.	Carriage rollers improperly shimmed or worn excessively.	Adjust or replace the carriage rollers.
Mast out of sequence on ascent, rails move before the carriage.	Carriage travel is obstructed.	Remove obstruction.
	Carriage thrust rollers damaged or need adjustment.	2. Adjust or replace the thrust rollers.
	Carriage rail rollers damaged or need adjustment.	3. Adjust or replace the rail rollers.
	4. Load excessively off center.	4. Center the load on the carriage.
Mast out of sequence on descent, the carriage lowers before the rails retract.	Rails are shimmed too tight.	1. Re-shim the rails as required.
	Center rail shimmed too tight in the outer rail.	2. Re-shim the rails as required.
	3. Obstruction or debris.	Remove any obstruction or debris.
	4. Broken roller.	4. Replace roller.
	5. Defective flow regulator in the lift cylinder(s).	5. Replace the regulator.
Excessive wear on one inner rail only.	Carriage roller on opposite side is broken.	Replace the roller, clean and lubricate the rail.



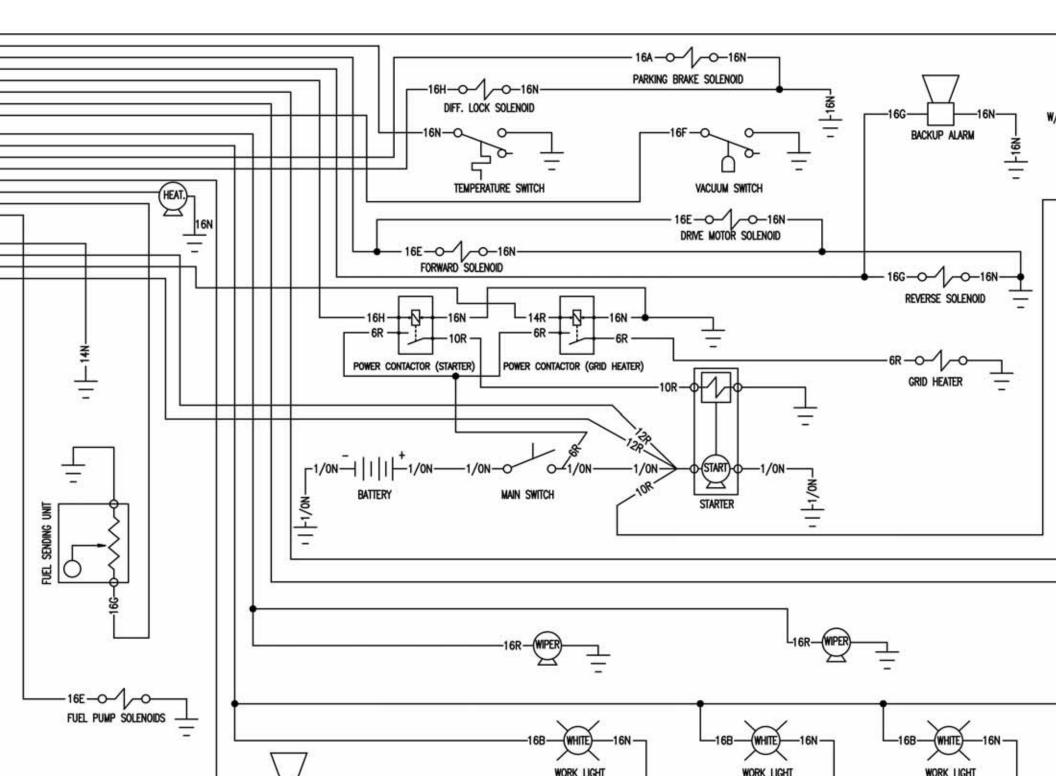
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### **ELECTRICAL SCHEMATIC TRUCK 77" & 81" FIELD LOADER**

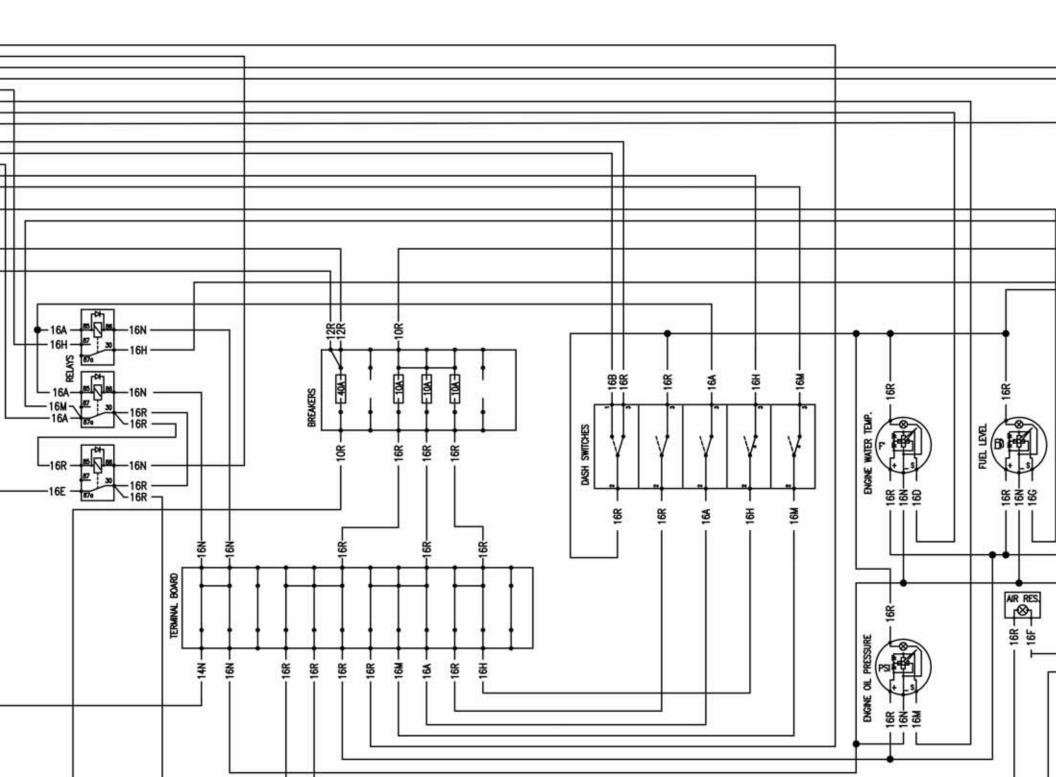


### **ELECTRICAL SCHEMATIC TRUCK 91" BACK DOCK**

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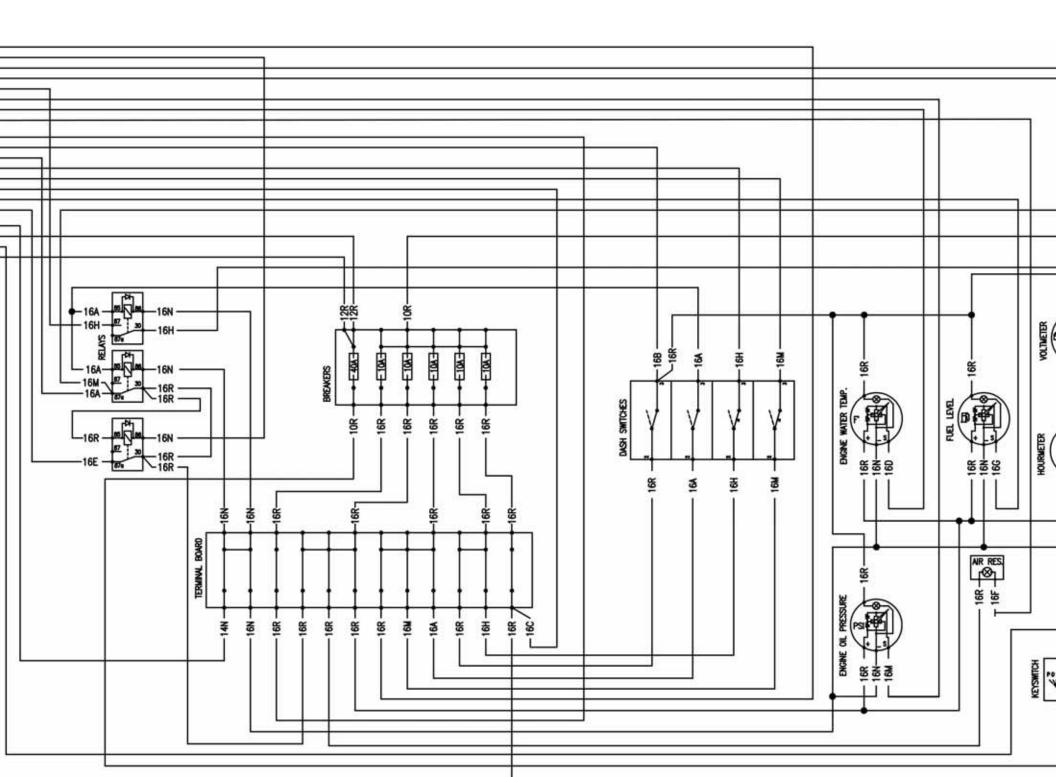


### **ELECTRICAL SCHEMATIC DASH 77" & 81" FIELD LOADER**



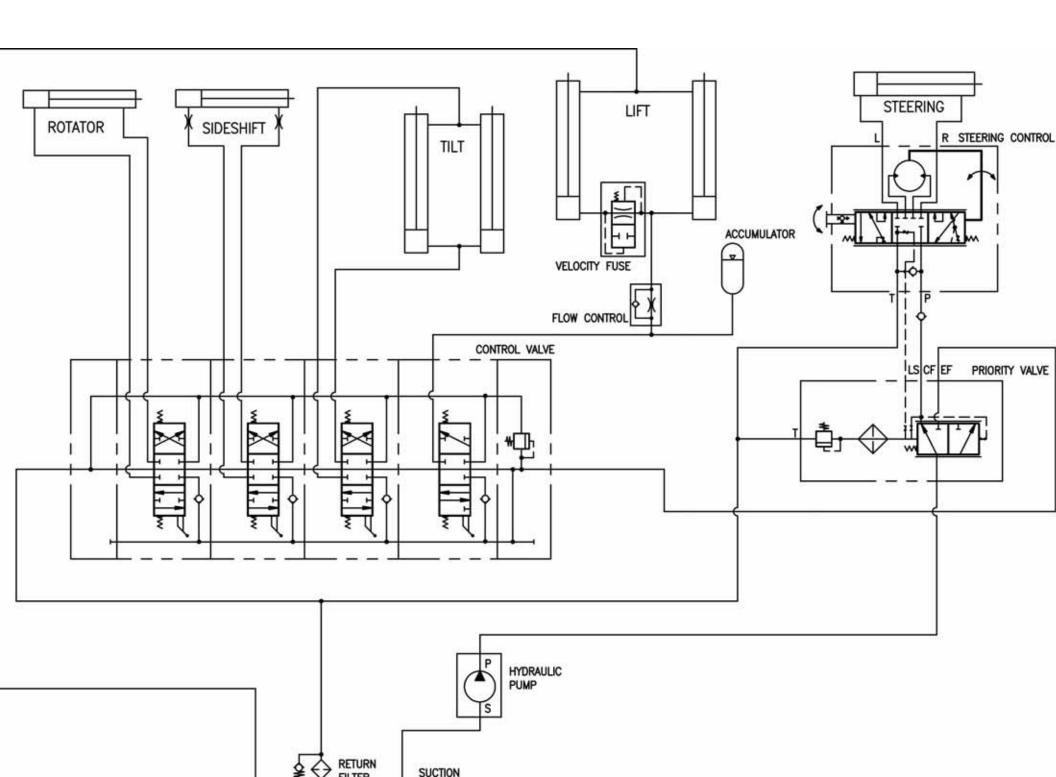
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### **ELECTRICAL SCHEMATIC DASH 91" BACK DOCK**



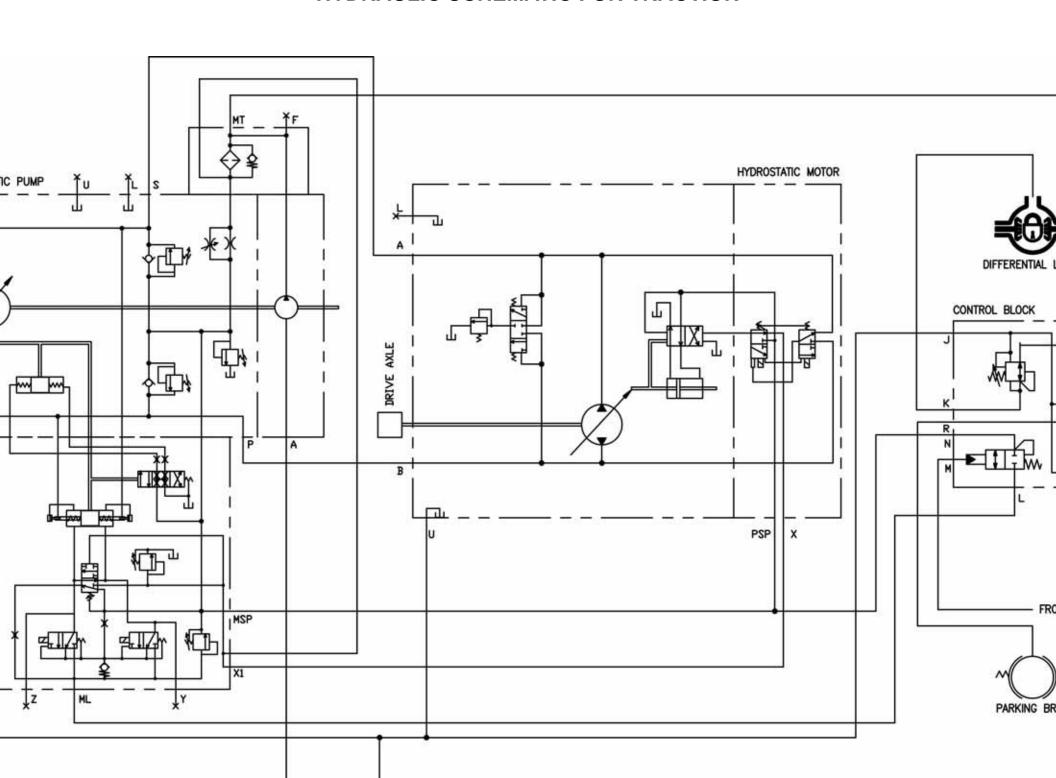
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### HYDRAULIC SCHEMATIC EXCLUDING TRACTION



ullet 6200-6-7776, 6200-6-7616 & 6200-6-0916

### **HYDRAULIC SCHEMATIC FOR TRACTION**



ullet 6200-6-7776, 6200-6-7616 & 6200-6-0916