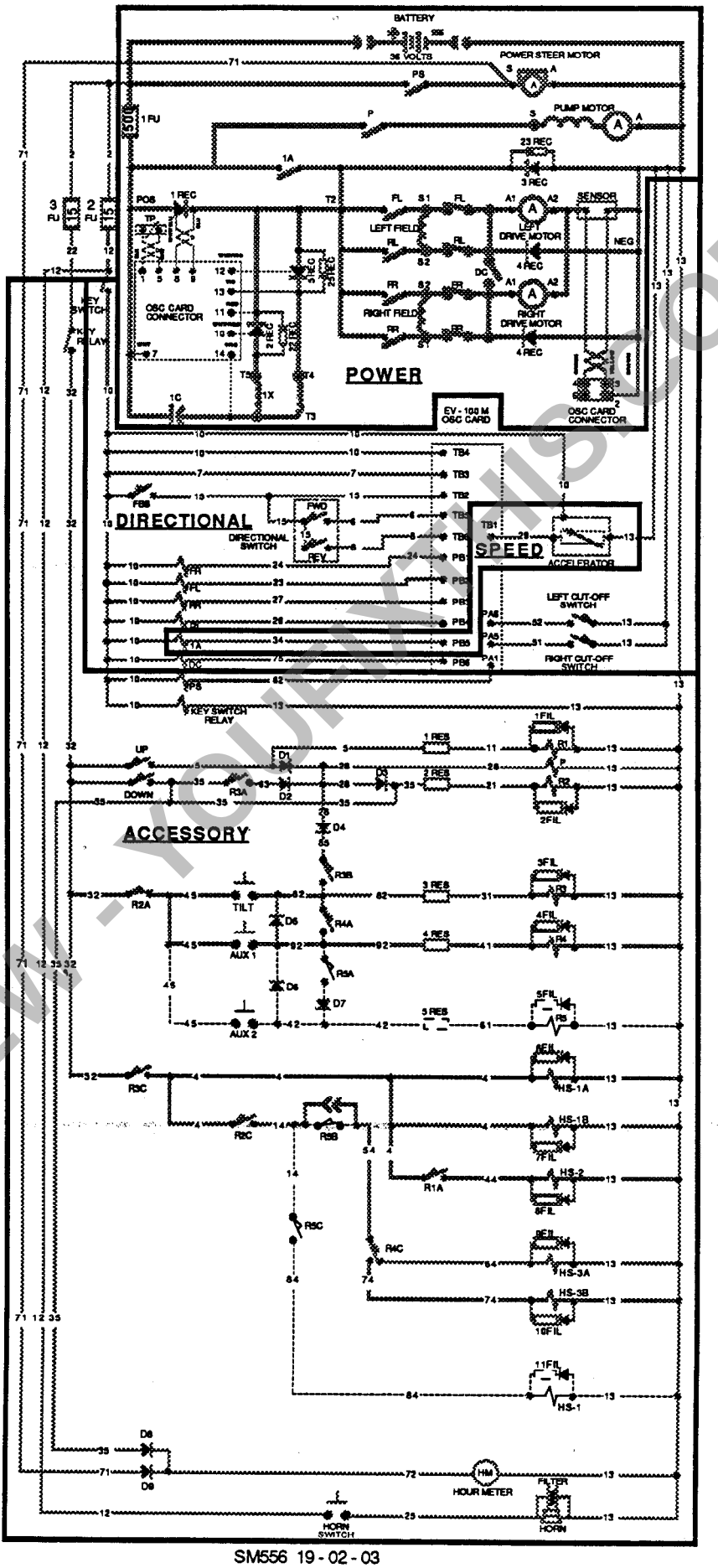
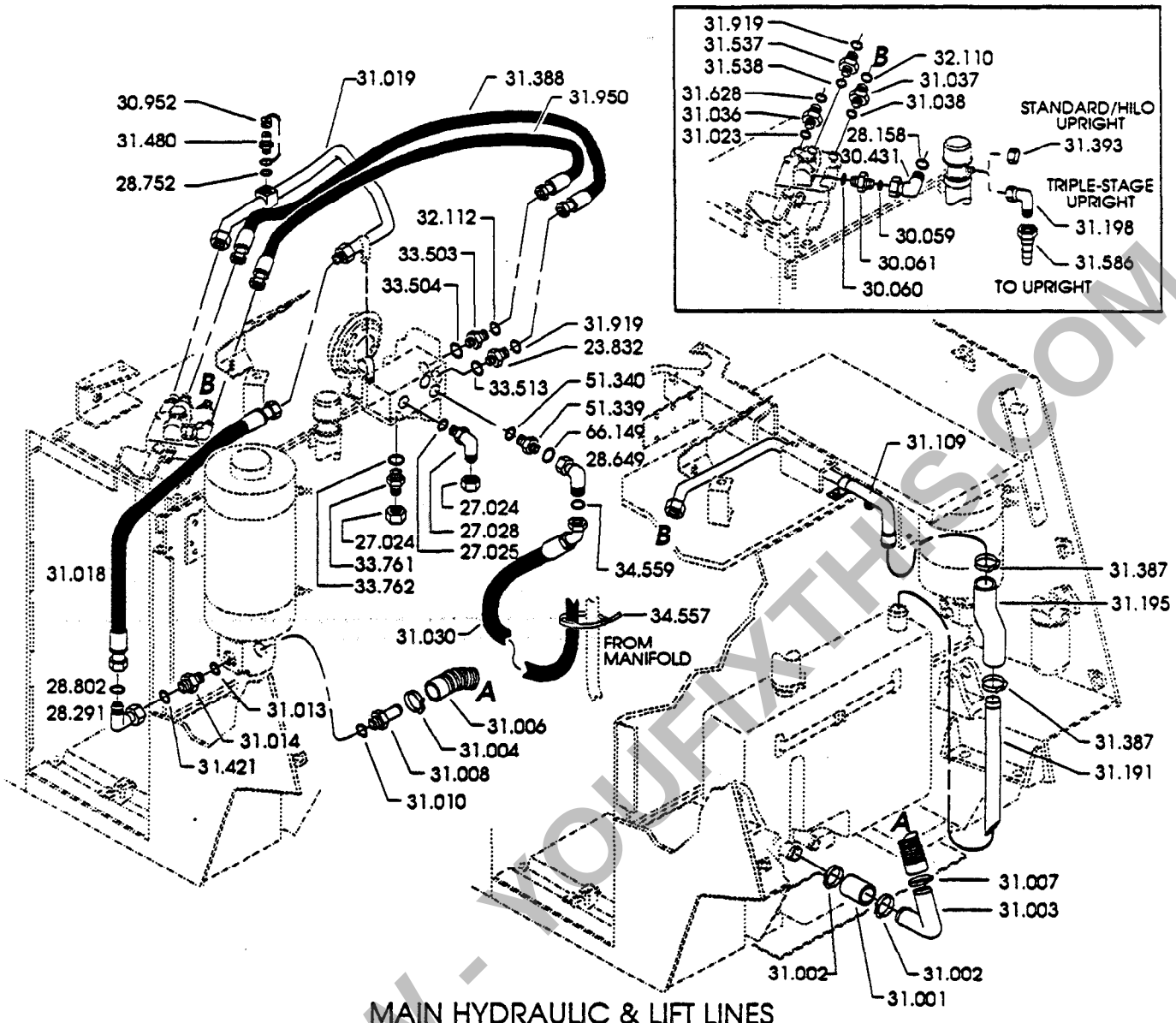


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MAIN HYDRAULIC & LIFT LINES

23.832	FITTING, SELECTOR VALVE OUTLET
27.024	PLUG, DEV. SEL. SOL. VALVE OUTLET PORT
27.025	SEAL, DEV. SEL. SOL. VALVE C5 PORT
27.028	FITTING, DEV. SEL. SOL. VALVE C5 PORT
28.158	SEAL, HIGH PRESSURE CARRY OVER LINE
28.291	FITTING, PUMP OUTLET
28.649	FITTING, VALVE LIFT PRESSURE LINE
28.752	SEAL, PRESS. GAUGE PORT FITTING
28.802	SEAL, HYD. PUMP OUTLET LINE
30.059	SEAL, CARRY OVER FITTING INNER
30.060	SEAL, CARRY OVER FITTING OUTER
30.061	FITTING, HIGH PRESSURE CARRY OVER
30.431	FITTING, HIGH PRESSURE CARRY OVER
30.952	DUST CAP, PRESSURE GAUGE PORT FITTING
31.001	LINE, SUMP OUTLET
31.002	CLAMP, SUMP OUTLET LINE
31.003	LINE, PUMP INLET
31.004	CLAMP, PUMP INLET LINE
31.006	LINE, PUMP INLET
31.007	CLAMP, PUMP INLET LINE
31.008	FITTING, PUMP INLET
31.010	SEAL, PUMP INLET FITTING
31.013	SEAL, PUMP OUTLET FITTING
31.014	FITTING, PUMP OUTLET
31.018	LINE, PUMP OUTLET
31.019	LINE, VALVE INLET
31.023	SEAL, VALVE INLET FITTING
31.030	LINE, VALVE TO LIFT CYL.
31.036	FITTING, MAIN VALVE INLET PORT
31.037	FITTING, VALVE DISCHARGE PORT
31.038	SEAL, VALVE DISCHARGE PORT FITTING
31.109	LINE, MAIN VALVE DISCHARGE
31.191	LINE, VALVE TO SUMP RETURN
31.195	LINE, VALVE TO SUMP RETURN
31.198	FITTING, LIFT CYL. RETURN SUMP INLET
31.387	CLAMP, VALVE TO SUMP RETURN LINE
31.388	LINE, VALVE SUMP RETURN
31.393	CAP, VALVE TO SUMP RETURN LINE
31.421	SEAL, PUMP OUTLET PORT FITTING
31.480	FITTING, PRESSURE GAUGE PORT
31.537	FITTING, VALVE SECONDARY INLET PORT
31.538	SEAL, VALVE SECONDARY INLET PORT FITTING
31.586	FITTING, LIFT CYL. VENT LINE
31.628	SEAL, VALVE INLET PORT LINE
31.919	SEAL, VALVE SUMP RETURN LINE
31.950	LINE, HIGH PRESSURE CARRY OVER
32.110	SEAL, MAIN VALVE OUTLET LINE
32.112	SEAL, VALVE SUMP RETURN LINE
33.503	FITTING, SOLENOID VALVE INLET
33.504	SEAL, SOLENOID VALVE INLET FITTING
33.513	SEAL, SELECTOR VALVE OUTLET FITTING
33.761	FITTING, DEV. SEL. SOL. VALVE C4 PORT
33.762	SEAL, DEV. SEL. SOL. VALVE C4 PORT FITTING
34.557	STRAP, LIFT CYL. PRESSURE LINE
34.559	SEAL, VALVE TO LIFT CYL. LINE
51.339	FITTING, SELECTOR VALVE C1 PORT
51.340	SEAL, SELECTOR VALVE C1 PORT FITTING
66.149	SEAL, LIFT CYL. LINE FITTING

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40 TORQUE CHART

Critical Fastener Torque Specifications: Tightening Torque, Dry

Group		lbf•in / lbf•ft	N•m
16	Steer Motor Mounting Nuts	71 - 88 lbf•in.	(8 - 10)
19	Motor Cable Connections	90 - 100 lbf•in.	(10 - 12)
	Control Panel Cable Connections	100 - 120 lbf•in	(11 - 14)
20	Drive Axle to Frame Mounting Bolts	301 - 339 lbf•ft	(408 - 469)
	Drive Motor Mounting Bolts	52 - 59 lbf•ft	(72 - 80)
23	Drive Wheel Mounting Bolts	188 - 203 lbf•ft	(255 - 275)
26	Steer Wheel Axle Shaft Bolt	30 - 33 lbf•ft	(40 - 45)
	Steering Tiller Arm Retaining Nut	35 - 40 lbf•ft	(47 - 54)
29	Main Hydraulic Valve Mounting Bolts	177 - 221 lbf•in.	(20 - 25)
32	Tilt Cylinder Yoke Clamp Bolts	125 - 140 lbf•ft.	(170 - 190)
	Tilt Cylinder Pin Retainer Bolts	177 - 221 lbf•in.	(20 - 25)
34	Upright Mounting Pivot Pin Bolts	177 - 221 lbf•in.	(20 - 25)
	Upright Cylinder Retaining Bolts	50 - 55 lbf•ft	(68 - 75)
	Load Backrest Extension Mounting Bolts	177 - 199 lbf•ft	(240 - 270)
38	Counterweight Mounting Nut (left hand)	30 - 33 lbf•ft	(40 - 45)
	Counterweight Mounting Nuts (right hand)	170 - 191 lbf•in.	(19 - 21.5)
	Counterweight Mounting Bolt	52 - 59 lbf•ft	(70 - 80)
39	Overhead Guard Mounting Nut - Rear (0.5 inch diameter bolt)	86 - 97 lbf•ft	(117 - 131)
	Overhead Guard Mounting Nut - Front (10 mm diameter bolt)	30 - 33 lbf•ft	(40 - 45)

NOTE: When checking tightness of major fasteners on new trucks, the values may be less than the recommended specification due to metal deformation and fastener stretch. This is a normal occurrence and does not indicate that the fasteners were not correctly tightened during assembly. Tighten to recommended specifications.

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STATUS CODE	DESCRIPTION	MEMORY RECALL	No
BLANK DISPLAY	No display on Dash Display or Handset.	CIRCUIT	Traction and Pump

SYMPTOM

Display screen on dash display or handset is blank.

POSSIBLE CAUSE

Positive or negative control volts missing.

- Insure that with key switch on, voltage is present be tween PZ7 and PZ3 (NEG), and voltage is present between TB4 and PZ3 (NEG).

Open circuit between logic card plug "Y" and Dash Display or Handset.

- Check for open circuit or loose connections between each wire going between logic card plug "Y" and Dash Display / Handset.

Defective Dash Display/Handset

- Replace Dash Display/Handset.

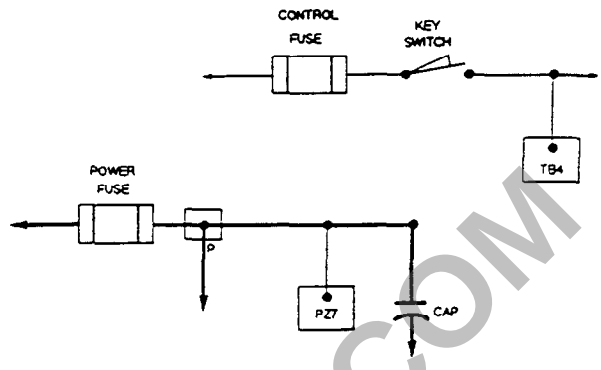


Figure 1.

STATUS INDICATION CRITERIA

This indicates a lack of input voltage to the logic card and/ or display unit.

STATUS CODE	DESCRIPTION	MEMORY RECALL	No
-01	No seat switch input.	CIRCUIT	Traction

SYMPTOM

Forward or reverse contactor will not pick up.

POSSIBLE CAUSE

Mis-adjusted or defective seat switch.

- Check seat switch to insure proper closure.

Open circuit between battery postive TB3.

- Check for loose connections or broken wire between seat switch and TB3 and between key switch and positive side of the seat switch and seat switch to TB4.

- On vehicles without seat switch, check for loose connections or broken wire from TB4 to TB3.

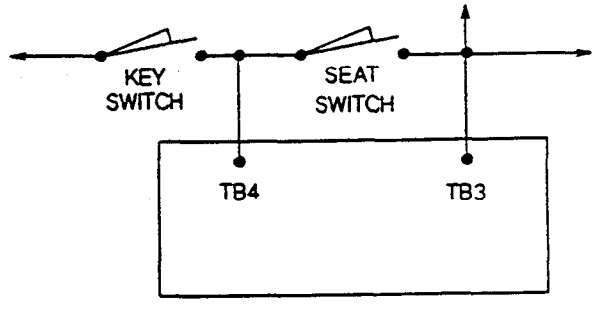


Figure 1.

STATUS INDICATION CRITERIA

This status code will be displayed when TB3 is less than 50% battery volts.

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GROUP 20 SECTION 01
DRIVE AXLE

CONTENT	NO.
GENERAL DESCRIPTION	20-01-01
SERVICE NOTES	20-01-02
DRIVE AXLE MAINTENANCE	20-01-03
DRIVE AXLE REMOVAL	20-01-04
DRIVE AXLE DISASSEMBLY	20-01-05
DRIVE AXLE ASSEMBLY	20-01-06
DRIVE AXLE INSTALLATION	20-01-07

20-01-01 GENERAL DESCRIPTION

The drive axle consists of right hand and left hand axle end assmblies. The two axle ends are fastened together to form the drive axle assembly. Each axle end half contains a ring gear and pinion and final drive gearing. The drive motors are mounted directly to the axle ends.

20-01-02 SERVICE NOTES

The drive axle contains metric fasteners . Use only metric tools to service unit.
Service instructions refer to one axle end, unless othewise noted.

20-01-03 DRIVE AXLE MAINTENANCE

When troubleshooting a drive axle problem, it should be kept in mind that the drive axle is only a central unit in a group of related powertrain components.

Proper operation of drive axle depends on condition and correct function of other components of group. It is necessary to consider transmission fluid, drive motors and connections to properly diagnose and repair a problem.

FLUID LEVEL CHECK

Check fluid level. It must be at correct level.

Check fluid level by removing dipstick on the right hand axle end. Wipe dipstick clean and reinstall. Remove dipstick and examine. Fluid level should be between the two marks on dipstick. If fluid level is low, add enough fluid to bring level up to full mark on dipstick. DO NOT OVERFILL.

Refer to Specifications group, for recommended transmission fluid specification.

FLUID CHANGE PROCEDURE

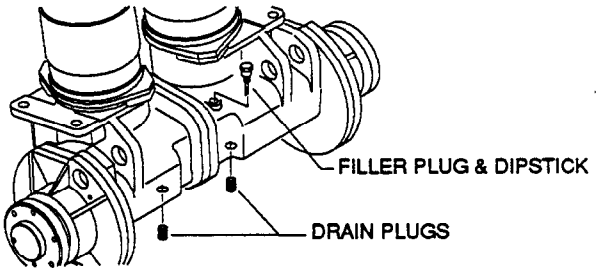
IMPORTANT
DRAIN DRIVE AXLE WHEN FLUID IS AT OPERATING TEMPERATURE

Raise upright carriage only to height that will permit access to plugs on axle. Block carriage.

⚠ WARNING
MAKE SURE BLOCKS ARE SECURELY INSTALLED UNDER CARRIAGE SO THAT CARRIAGE CAN NOT FALL.

Turn key switch OFF. Disconnect battery.

Place a low flat drain pan under drive axle. Pan should have a capacity of more than [6,5L] 6.8 quarts .



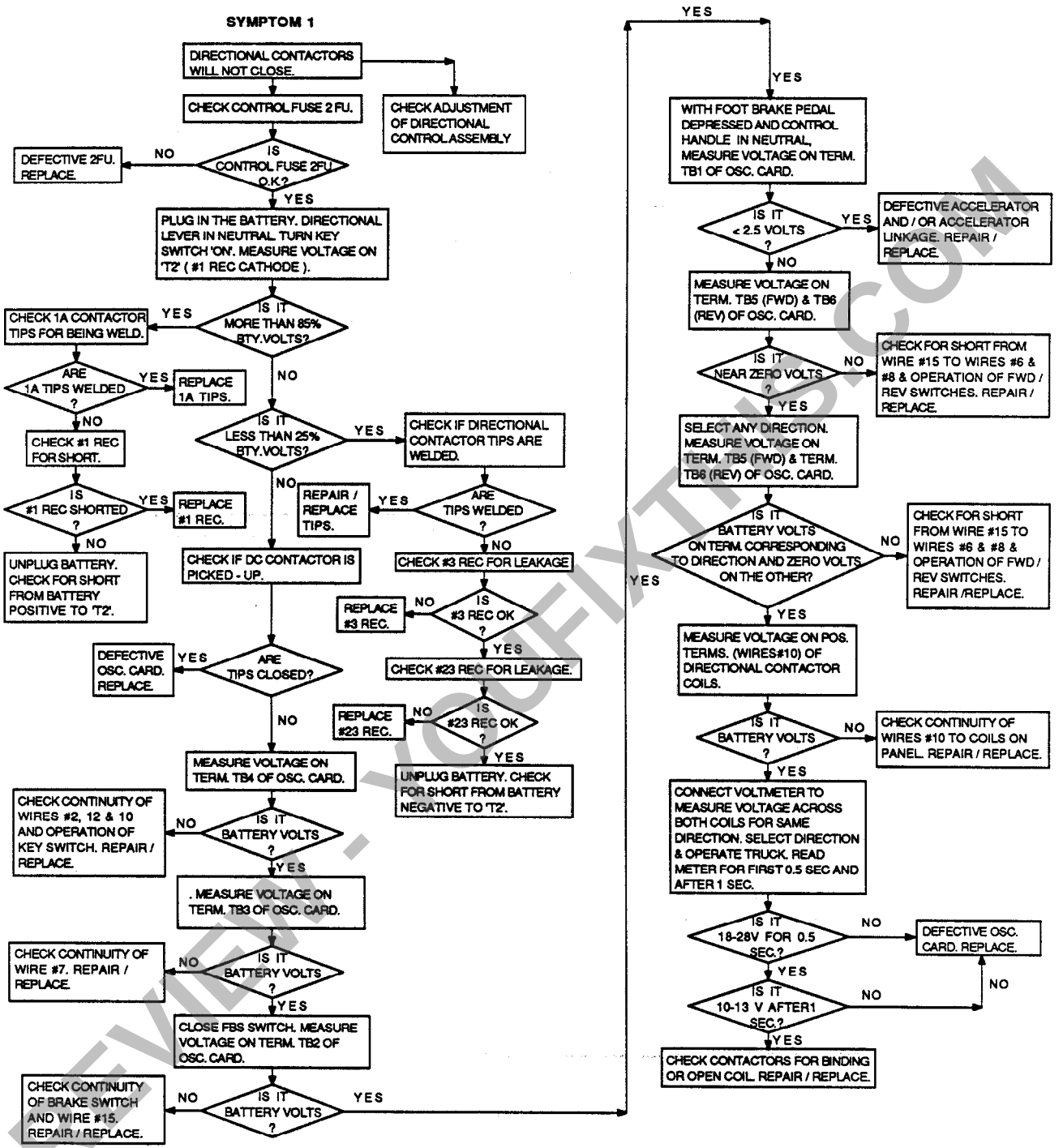
Remove dipstick cap. Remove drain plug from each axle end and allow fluid to drain. While fluid is draining, check condition of vent in dipstick cap. Replace dipstick cap if vent is damaged or plugged.

Reinstall drain plugs.

Fill drive axle to proper level with specified fluid through dipstick hole. DO NOT OVERFILL.

Re-connect battery, remove blocking and lower carriage.

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NOTE: ALL TESTING SHOULD BE DONE WITH DRIVE WHEELS RAISED OFF FLOOR. BATTERY SHOULD BE UNPLUGGED FOR CONNECTING OR DISCONNECTING ANY WIRES AND/OR COMPONENTS.

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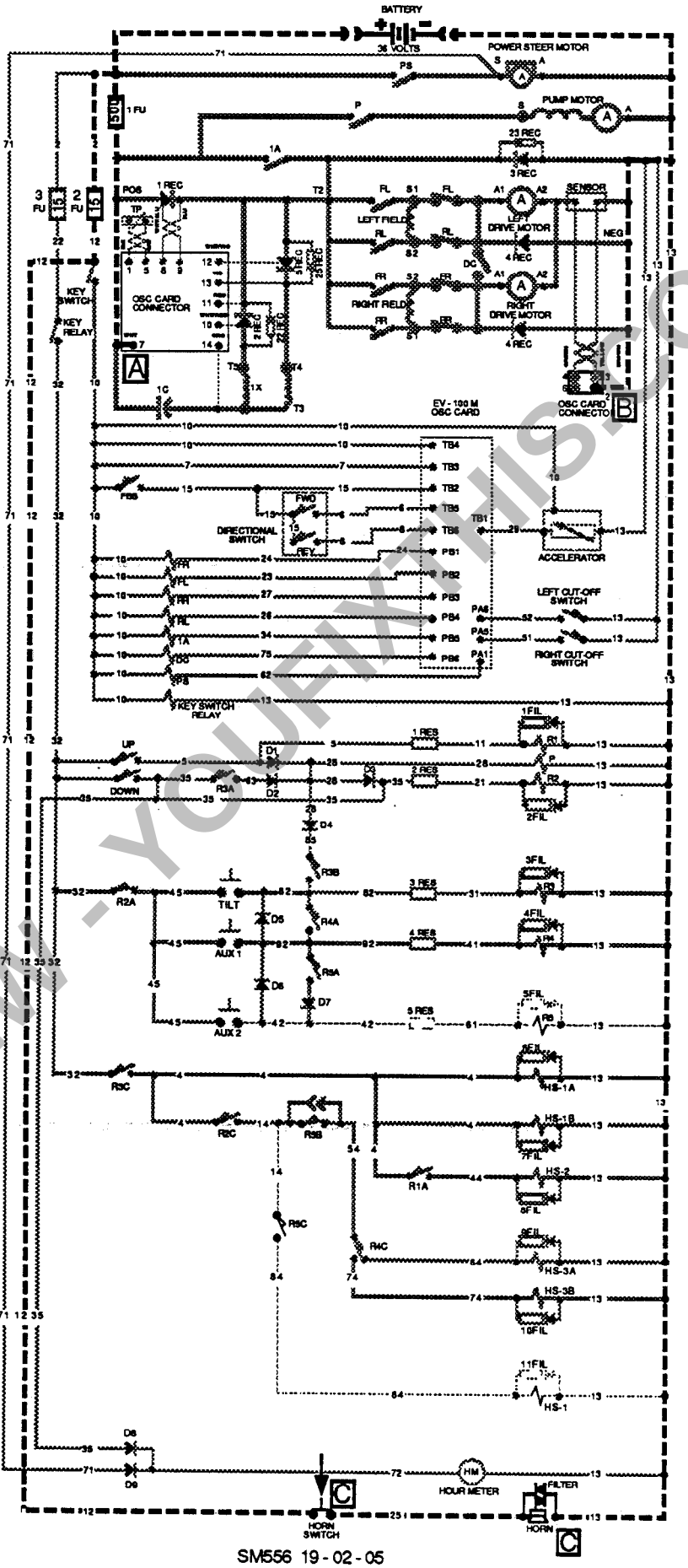
RECOMMENDED PLANNED MAINTENANCE and LUBRICATION SCHEDULE

Recommended Planned Maintenance Interval
A = 8-10 hours daily
B = 50-250 hours or every month
C = 450-500 hours or every 3 months
D = 900-1000 hours or every 6 months
E = 2000 hours or every year

PLANNED MAINTENANCE / LUBRICATION	A	B	C	D	E
Check truck visually and inspect components.		•			
Test drive truck - Check functional performance.		•			
Air clean truck.		•			
Check torque on critical fasteners.		•			
Lubricate truck.		•			
Clean / check battery terminals, electrolyte level.		•			
Check battery.		•			
Perform battery load test.		•			
Check drive motor brushes.		•			
Check lift motor brushes.		•			
Check steer motor brushes.		•			
Test ground.		•			
Clean drive motor air vent.		•			
Check drive axle fluid level.		•			
Drain and replace drive axle fluid.					•
Check brake adjustment and wear.		•			
Check drive axle mounting and fasteners.		•			
Check / lubricate steer axle wheel bearings.					•
Replace hydraulic sump fluid and filter.					•
Clean / replace hydraulic sump breather.				•	
Lubricate tilt cylinder rod ends.		•			
Lubricate upright fitting.		•			
Check lift chains adjustment and wear.		•			
Lubricate lift chains.		•			
Lubricate upright rollers.		•			

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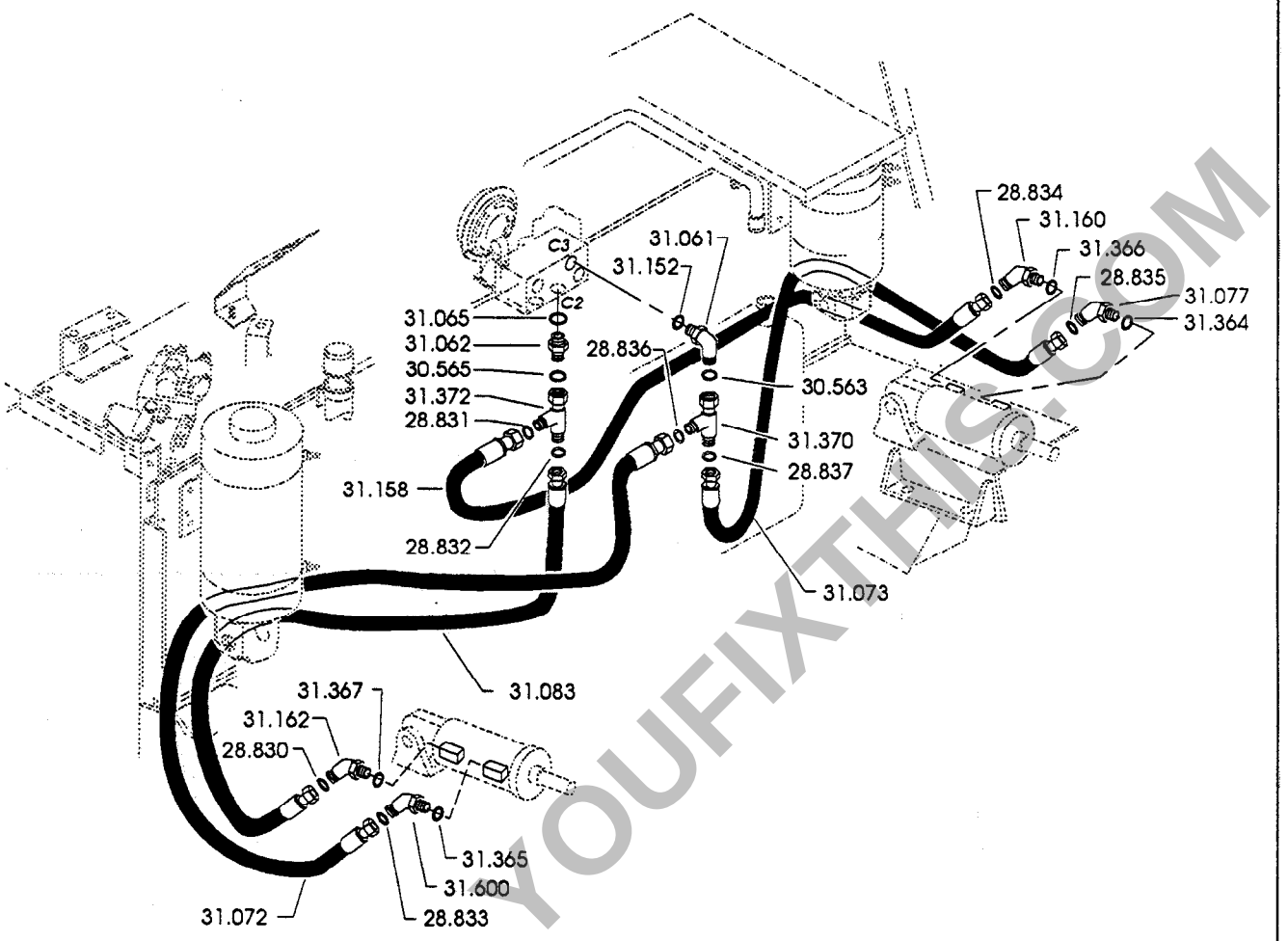
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HYDRAULIC TILT LINES

28.830	Seal, RH Tilt Cyl. Anchor Port Line Fitting
28.831	Seal, LH Tilt Cyl. Rod Port Line Fitting
28.832	Seal, RH Tilt Cyl Anchor Port Line Fitting
28.833	Seal, RH Tilt Cyl. Rod Port Line Fitting
28.834	Seal, LH Tilt Cyl. Anchor Port Line Fitting
28.835	Seal, LH Tilt Cyl. Rod Port Line Fitting
28.836	Seal, Tilt Cyl. Rod Port Line Fitting
28.837	Seal, Tilt Cyl. Rod Port Line Fitting
30.563	Seal, Valve Port (C3) Fitting
30.565	Seal, Valve Port (C2) Fitting
31.061	Fitting, Hyd. Valve Tilt Port (C3)
31.062	Fitting, Hyd. Valve Tilt Port (C2)
31.065	Seal, Hyd. Valve Tilt Port (C2)
31.072	Line, RH Tilt Cyl. Rod Port
31.073	Line, LH Tilt Cyl. Rod Port
31.077	Fitting, LH Tilt Cyl. Rod Port
31.083	Line, RH Tilt Cyl. Anchor Port
31.152	Seal, Hyd. Valve Tilt Cyl. Anchor Port
31.158	Line, LH Tilt Cyl. Anchor Port
31.160	Fitting, LH Tilt Cyl. Anchor Port
31.162	Fitting, RH Tilt Cyl. Anchor Port
31.364	Seal, LH Tilt Cyl. Rod Port
31.365	Seal, RH Tilt Cyl. Rod Port
31.366	Seal, LH Tilt Cyl. Anchor Port
31.367	Seal, RH Tilt Cyl. Anchor Port
31.370	Fitting, Tilt Cyl. Rod Port Line
31.372	Fitting, Tilt Cyl. Anchor Port Line
31.600	Fitting, RH Tilt Cyl. Rod Port

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STATUS CODE	DESCRIPTION	MEMORY RECALL	No
-02	Forward directional switch is closed on initial power up.	CIRCUIT	Traction

SYMPTOM

Forward contactor will not pick up static return to off (SRO) lock out.

POSSIBLE CAUSE

Forward directional switch closed on initial power up (closure of battery plug, key switch or seat switch).

- Return directional switch lever to neutral and then select a direction.

Forward directional switch is welded closed or mis-adjusted to be held closed.

- Replace or adjust directional switch to insure that it opens when directional switch is returned to neutral.

Short circuit between TB2 and TB5.

- Disconnect wire from TB5 and check for short circuit between TB2 and wire.

Defective card

- Disconnect wire at TB5; Measure voltage at TB5, should be less than 60% of battery volts.

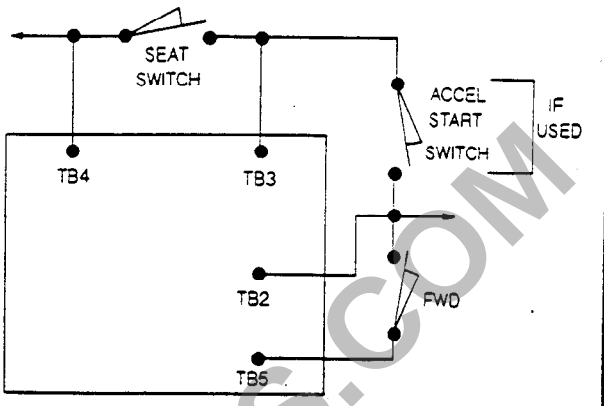


Figure 1.

STATUS INDICATION CRITERIA

This status code will be displayed when TB5 is greater than 60% battery volts at initial power up.

STATUS CODE	DESCRIPTION	MEMORY RECALL	No
-03	Reverse directional switch is closed on initial power up.	CIRCUIT	Traction

SYMPTOM

Reverse contactor will not pick up static return to off (SRO) lock out.

POSSIBLE CAUSE

Reverse directional switch closed on initial power up (closure of battery plug, key switch or seat switch).

- Return directional switch lever to neutral and then select a direction.

Reverse directional switch is welded closed or misaligned to be held closed.

- Replace or adjust directional switch to insure that it opens when directional switch is returned to neutral.

Short circuit between TB2 and TB6.

- Disconnect wire from TB6 and check for short circuit between TB2 and wire.

Defective card

- Disconnect wire at TB6; Measure voltage at TB6, should be less than 60% of battery volts.

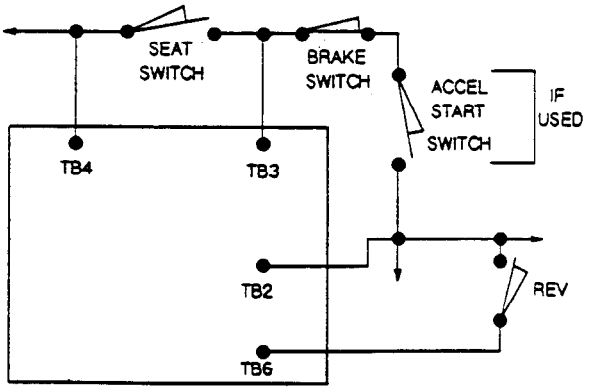


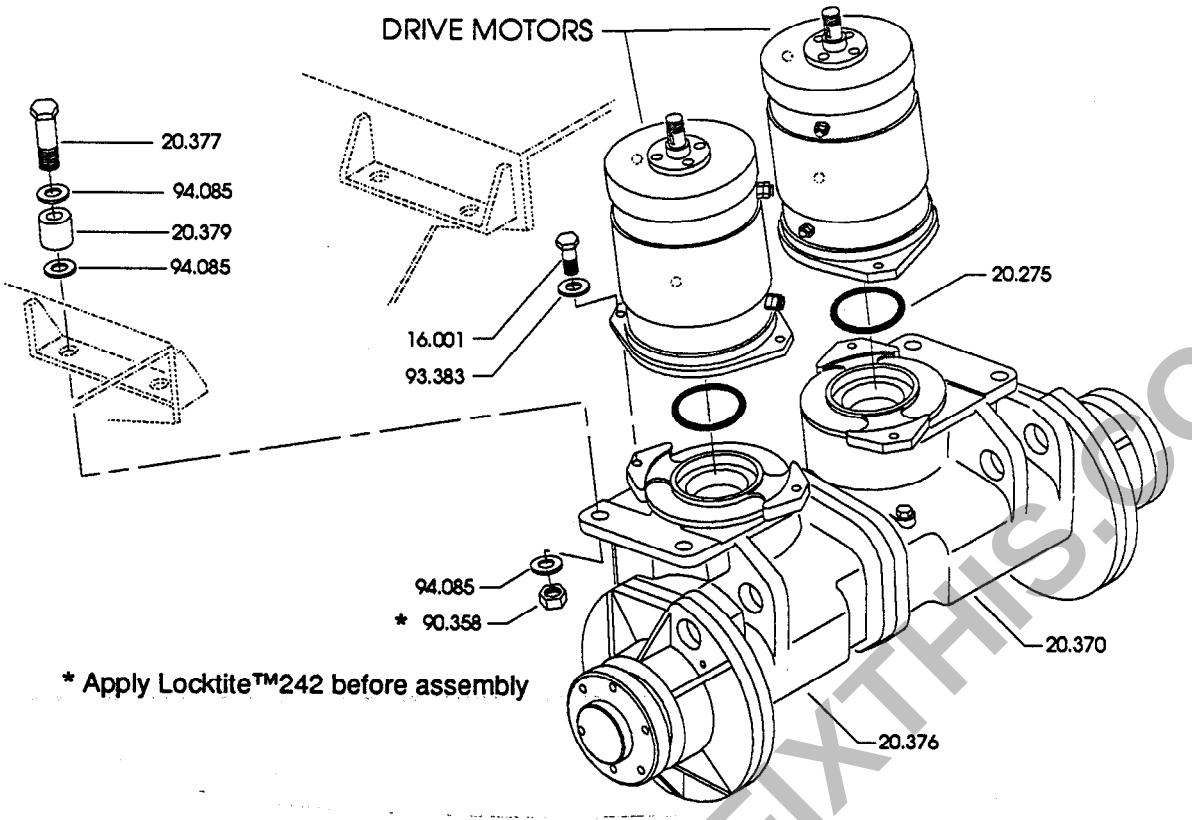
Figure 1.

STATUS INDICATION CRITERIA

This status code will be displayed when TB6 is greater than 60% battery volts at initial power up.

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20-01-04 DRIVE AXLE REMOVAL

1. Park truck on hard, level surface.

2. Lower upright.

3. Remove forks.

4. Turn key switch OFF and disconnect battery.

5. Remove battery.

6. Put blocks on each side of steer wheels.

7. Lift truck with a jack and put blocks under each side of frame just behind drive wheels. Refer to truck jacking group for details.

⚠ WARNING
MAKE SURE BLOCKS ARE SECURE AND PLACED SO THAT THERE IS CLEARANCE TO REMOVE AXLE WITHOUT INTERFERING WITH BLOCKING OR TRUCK.

8. Remove two front and top compartment covers.

9. Remove drive wheels.

10. Put a drip pan under drive axle to catch any fluid.

11. Disconnect and cap hydraulic lift cylinder line.

12. Disconnect tilt cylinders at upright. Refer to tilt cylinder group for details.

13. Remove upright. Refer to upright group for details.

14. Disconnect hydraulic brake lines.

15. Identify and disconnect motor power cables. Tie cables out of way to avoid damage.

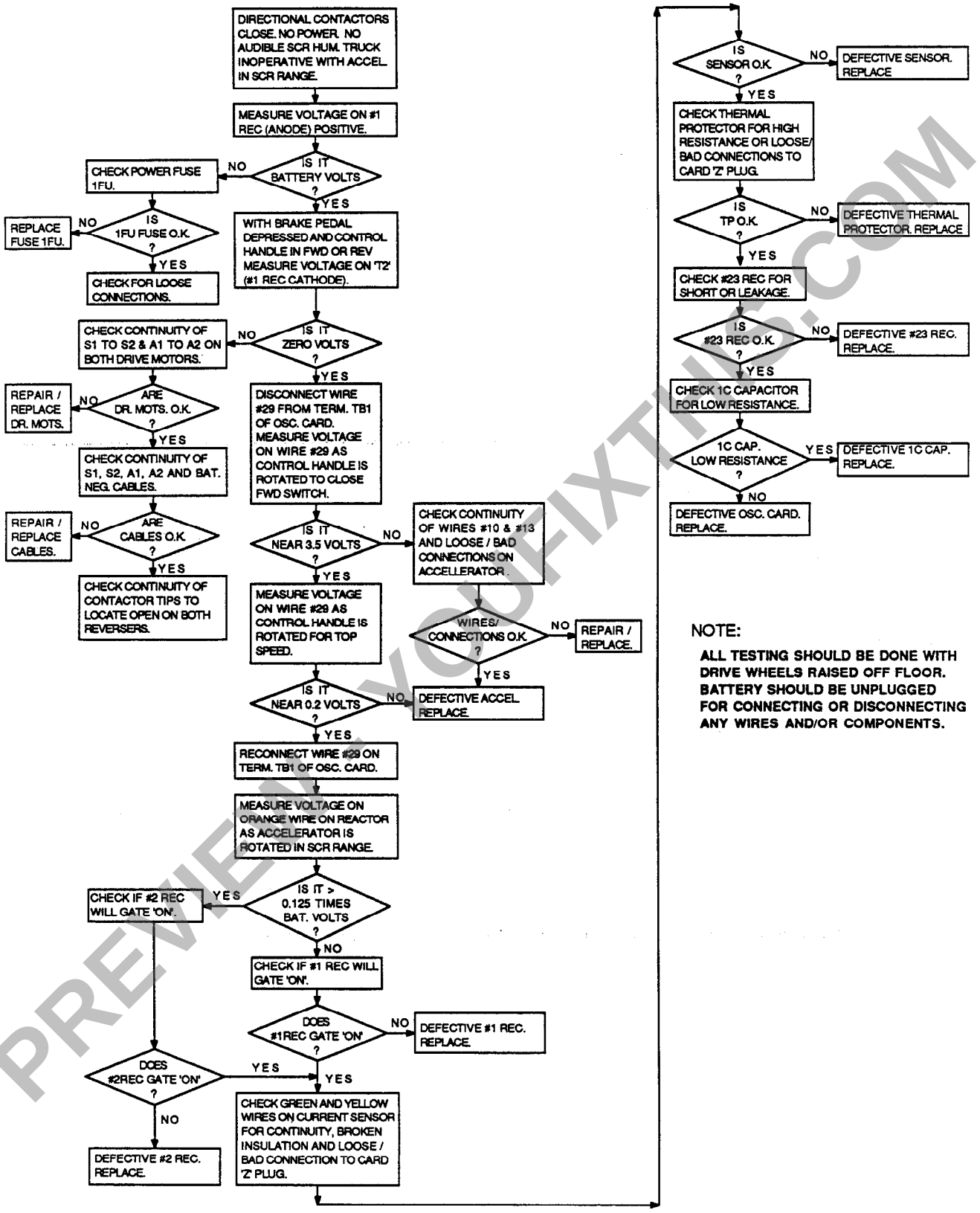
⚠ WARNING
USE ONLY APPROVED HOIST, CHAINS, AND STRAPS TO LIFT THE DRIVE AXLE AND MOTORS. BE SURE HOIST AND ACCESSORIES HAVE CORRECT CAPACITY TO SAFELY SUPPORT THE LOAD

16. Put lift straps on drive motors and hook straps to chain hoist. Remove slack from hoist chain to stablize drive axle assembly.

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SYMPTOM 2



NOTE:

ALL TESTING SHOULD BE DONE WITH DRIVE WHEELS RAISED OFF FLOOR. BATTERY SHOULD BE UNPLUGGED FOR CONNECTING OR DISCONNECTING ANY WIRES AND/OR COMPONENTS.

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PM - PLANNED MAINTENANCE PROGRAM

A planned maintenance program of regular, routine inspections and lubrication is important for long life and trouble-free operation of your lift truck. Make and keep records of your inspections. Use these records to help establish the correct PM intervals for your application and to indicate maintenance required to prevent major problems from occurring during operation.

PM REPORT FORM

As an aid in performing and documenting your PM inspections, Clark has prepared an "ELECTRIC TRUCK PLANNED MAINTENANCE REPORT" form. Copies of this form may be obtained from your authorized CLARK dealer. We recommend that you use this form as a checklist and to make a record of your inspection and truck condition.

The periodic maintenance procedures outlined in this manual are intended to be used with the PM report form. They are arranged in groupings of maintenance work that are done in a logical and efficient sequence.

A check mark or entry is made on the PM Report Form when the PM is performed. Please note the special coding system for indicating the importance of needed repairs and/or adjustments.

When you have finished the PM inspections, be sure to give a copy of the report to the designated authority or the person responsible for lift truck maintenance.

Do not make repairs or adjustments unless authorized to do so. For safety, it is good practice to:

- Remove all jewelry (watch, rings, bracelets, etc.) before working on the truck.
- Disconnect battery from truck receptacle before working on electrical components.
- Always wear safety glasses. Wear a safety (hard) hat in industrial plants and in special work areas where protection is necessary or required.

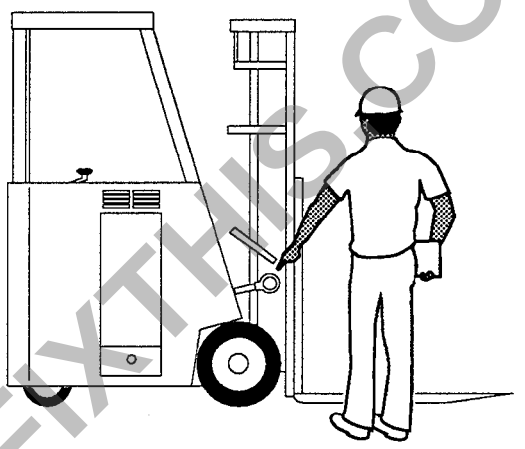
IMPORTANT

The ESM brakes are not self adjusting, but need to be periodically inspected and adjusted accordingly. If adjustments are not made as required, the slave cylinder can run out of stroke, and the springs will not apply the brakes. This condition will not be a sudden event, but will result in a gradual loss of braking capability. If the brakes begin to get "soft", this is an indication that the slave cylinder may be "bottoming out" and the brakes have not been adjusted as needed. Checking the brake adjustment setting in addition to the driving test must be part of the Planned Maintenance program. When the covers are removed for air cleaning the travel controls, the brake arm positioning and lining wear must be inspected, recorded and corrected as necessary.

WARNING

Failure to perform these checks and adjustments will cause a loss of brakes and may result in property damage, and/or severe or fatal bodily injury.

HOW TO PERFORM THE PM PERIODIC INSPECTIONS AND MAINTENANCE



VISUAL INSPECTION

First, perform a visual inspection of the lift truck and its components. Walk around the truck and take note of any obvious damage and maintenance problems. Check for loose fasteners and fittings.

Check to be sure all capacity, safety, and warning plates or decals are attached and legible.

IMPORTANT

NAMEPLATES & DECALS

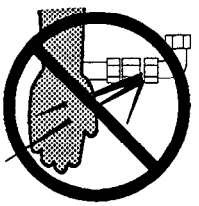
Do not operate a lift truck with damaged or missing decals and nameplates. Replace them immediately. They contain important information.

Inspect the truck for signs of external leakage of transmission fluid, etc. Check for hydraulic oil leaks and loose fittings. DO NOT USE BARE HANDS TO CHECK OIL. Oil may be hot or under pressure.

WARNING

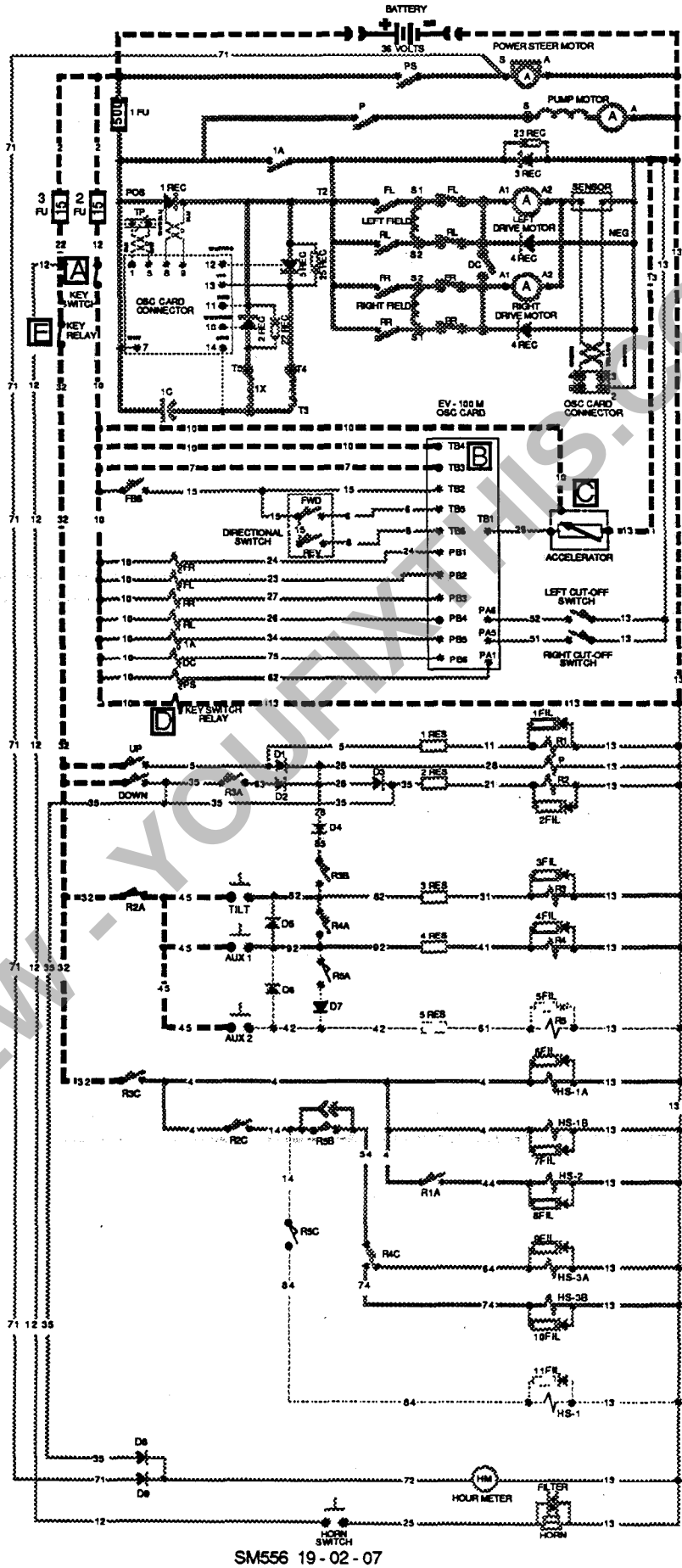
HYDRAULIC FLUID PRESSURE

Do not use your hands to check for hydraulic leakage. Fluid under pressure can penetrate your skin and cause serious injury.



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STEER CYLINDER

CROSSOVER RELIEF BLOCK

STEER CONTROL VALVE

OUTLET

INLET

STEER PUMP

RETURN FILTER

SUMP TANK

HIVIS STANDARD LIFT CYLINDERS

FLOW CONTROL

LOAD LOWERING VALVE

MANUALLY CONTROLLED SPOOL VALVE

LIFT PUMP

BREATHER CAP

TILT CYLINDERS

AUXILIARY FUNCTION

IN-22231

AUXILIARY FUNCTION

NOTE:
PLUG PORTS C6 & C7 FOR 2 HOSE & CABLE ADAPTATION

PLUG PORTS A & B FOR 4 HOSE ADAPTATION

PLUGS AND O RINGS INCLUDED WITH AUX VALVE PACKAGE.

C1 C2 C3 MAIN SELECTOR VALVE C4 C5

OPTIONAL AUX VALVE C6 C7

A

B

1A

1B

2

3A

3B

3C

4

6

FC2 FC3 RV1 RV2 FC4 FC5 FC6 FC7

EC.9480

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A	RELEASED	F870830	08FEB89	JH /RKH	
REV	DESCRIPTION	CHG NOTICE	DATE	APPROVAL	

DRN	HANSELL	08FEB89
CHK	HEITMAN	08FEB89
APL	F870830	08FEB89

HYDRAULIC DIAGRAM

CLARK | DWG NO IN-22231

ESM 12/25

D 1 : 1 | WT | SHEET 1 OF 1

COMPUTER PRINT

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STATUS CODE	DESCRIPTION	MEMORY RECALL	Yes
-04	Start switch input low after initial start up	CIRCUIT	Traction

SYMPTOM

Forward or reverse contactor will not pick-up.

POSSIBLE CAUSE

Forward or reverse directional switch closed on initial start up.

- Depress accelerator to close start switch. Status code will change to 03 if reverse directional switch or to 02 if forward directional switch is closed. If either of these codes appear, return directional switch to neutral and then select the desired direction.

Excessive leakage from TB2 to battery negative.

- Check voltage at TB2 with key and seat switches closed and directional switch in neutral. Voltage should be greater than 60% of battery voltage.
- If less than 60% battery voltage. Remove wire and measure ohmic value from wire to SCR negative. Value should be less than 22k ohms.

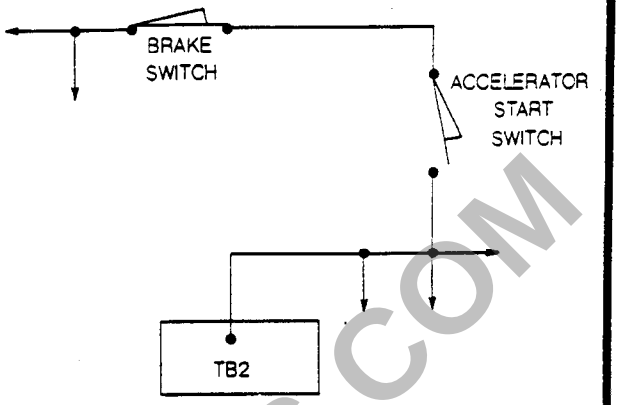


Figure 1.

STATUS INDICATION CRITERIA

This status code is displayed when TB2 voltage is less than 60% of battery volts at initial start-up (seat switch closure).

STATUS CODE	DESCRIPTION	MEMORY RECALL	No
-05	Start switch or brake switch fails to close.	CIRCUIT	Traction

SYMPTOM

Forward or reverse contactor will not pick up.

POSSIBLE CAUSE

Defective brake switch circuit.

- Check brake switch to insure closure with brake pedal released.
- Check for open circuit or loose connections in wiring from brake switch to seat switch and TB3, and from brake switch to start switch.

Defective start switch circuit.

- Check start switch to insure closure when accelerator is depressed.
- Check for open circuit or loose connections in wiring from brake switch to start switch and from TB2 to start switch.

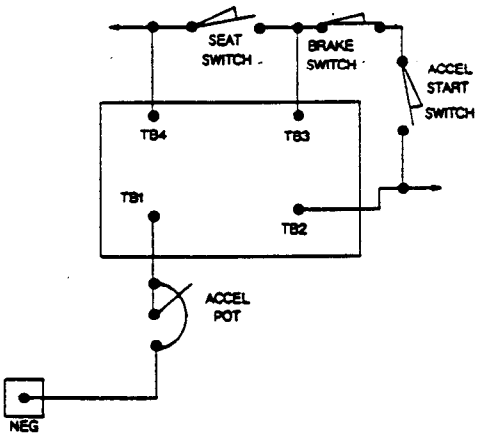


Figure 1.

STATUS INDICATION CRITERIA

This status code is when TB1 is less than 2.5 volts and TB2 is less than 60% battery volts.

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IMPORTANT
TO AVOID INJURY, REMOVE AXLE MOUNTING FASTENERS IN THE FOLLOWING ORDER

17. Remove axle **rear** mounting fasteners (items 90.358, 94.085, & 20.377) from each side of frame.

18. Remove axle **front** mounting fasteners (items 90.358, 94.085, & 20.377) from each side of frame.

19. Lower axle to floor and remove it from under truck. Store axle in a safe manner.

20. If drive motors are to be removed, refer to drive motor group for details.

20-01-05 DRIVE AXLE DISASSEMBLY

Disassemble drive axle only on a clean floor or on a work table strong enough to support the weight of the axle. Drain drive axle fluid, if has not been done previously.

1. Block axle to stablilize it on the work surface.

2. Remove drive motors, if they have not been removed previously. Refer to drive motor group for details.

3. Clean exterior of axle before beginning disassembly.

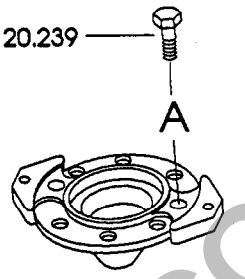
4. Examine entire assembly for damage. Note if there is any evidence of cracks or broken parts.

5. Remove housing flange capscrews (items 20.227 & 20.228).

6. With a drift pin and hammer, drive out housing flange roll pins (item 90.663).

7. Separate the two axle end assemblies. Note: Sealant was applied to the axle end housing flanges at assembly. Force may be required to separate the two housings.

8. Remove motor mounting flange capscrews (item 20.239).



9. Use 2 mounting flange capscrews (item 20.239) to remove motor mounting flange from axle housing. Thread capscrews into tapped holes "A" in motor mounting flange. Turn capscrews alternately into tapped holes until mounting flange is extracted from axle housing.

10. With special tool, remove pinion retaining nut (item 20.819). Note: In order to remove item 20.819, it will be necessary to fabricate a tool to keep the output shaft (item 20.586) from turning.

11. Use a soft hammer to drive the pinion from the motor mounting flange. The upper bearing cone (item 20.230) will come off the pinion shaft in the process. Clean and inspect bearing for wear or damage. Replace as required. Bearing cone and cup should be replaced as a set.

12. Remove backing washers (items 20.238 & 20.240) and adjusting sleeve (item 20.288). Press lower pinion bearing cone (item 20.252) from pinion (item 20.248).

13. Draw pinion bearing cups (items 20.316 & 20.649) from the motor mounting flange.

14. Loosen bevel gear nut (item 20.835), using fabricated tool to keep output shaft (item 20.586) from turning.

15. Remove locking capscrew (item 95.782).

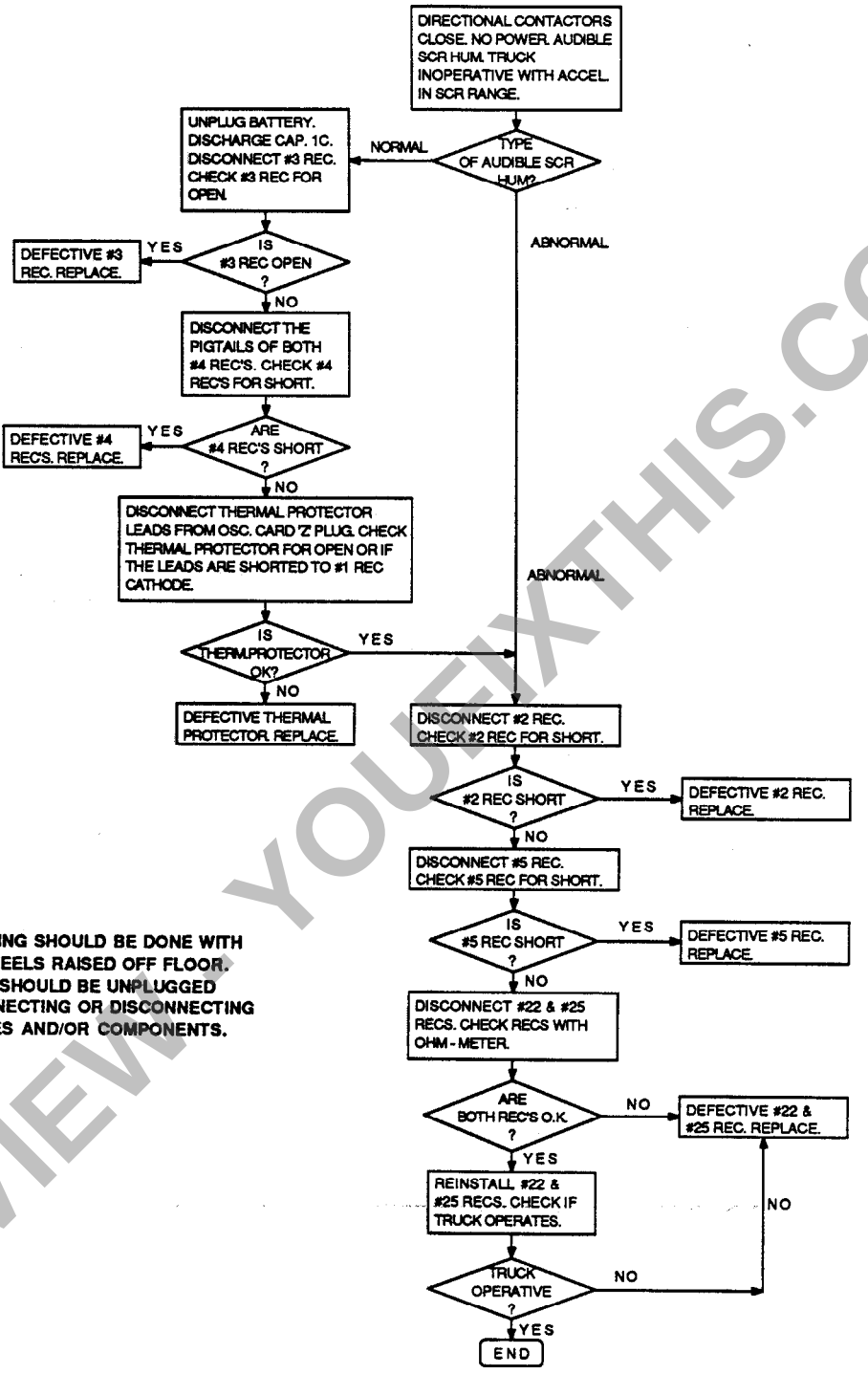
16. With special tool, remove output shaft nut (item 20.565). Use fabricated tool to keep output shaft (item 20.586) from turning.

17. Remove housing cover capscrews (item 20.546).

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SYMPTOM 3



NOTE:

ALL TESTING SHOULD BE DONE WITH DRIVE WHEELS RAISED OFF FLOOR. BATTERY SHOULD BE UNPLUGGED FOR CONNECTING OR DISCONNECTING ANY WIRES AND/OR COMPONENTS.

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