

BE YOUR OWN INSPECTOR ...

# THE D7E TRACTOR

DO YOUR OWN  
PM THING WITH THE  
D7E TRACTOR.  
SET UP YOUR INSPECTION  
LIKE YOU MEAN BUSINESS...  
YOUR BUSINESS!



The serious faults are indicated by **BOLD ORANGE TYPE**—serious enough to deadline the tractor: Get 'em fixed-but quick!

Where do you start? Armed with your DA Form 2404, walk up to the front of your tractor, natural-like and go to it.

If you have any questions, shoot 'em to your unit mechanic. He'll be glad to give you straight answers. He's the fixer.

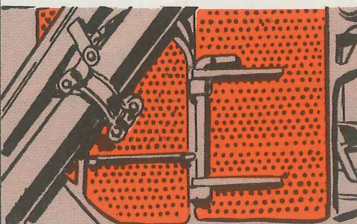
BASIC ISSUE ITEMS—All on hand? Listing is in TM 5-2410-214-12 (Jun 68).

PUBLICATIONS—Missing, torn, unreadable, not up-to-date. Check in DA Pamphlet 310-4.

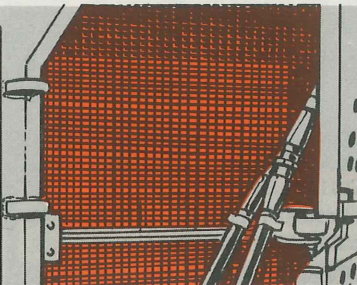
HEADLIGHT AND FLOODLIGHT—Glass cracked, broken, clouded. Wires broken. Lens loose, burned out. Mountings loose.

RADIATOR GRILL—Bent in, **mud-caked**, cracked. Broken hinges, pins missing.

SIDE ENGINE GUARDS—(When installed) Broken, cracked, bent, missing. (Don't forget 'em when you're checking the other side.)



RADIATOR—(From the front) Fins bent, **clogged with mud or foliage**. **Leaks**. (Check water level. Coolant should be within 1 inch of the filler neck.)



UNIT MARKINGS—Missing, wrong, not readable.

OVERALL—Mud caked, rust, body damage, welds broken, oil, fuel or water leaks.

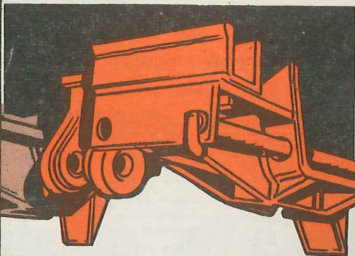


## BLADE ASSEMBLY

MOLDBOARD—Broken, loose, cracked welds.

MOUNTING PINS—Worn, loose. **Safety pin missing.**

SCARIFIER—Broken, cracked. Hinge pin missing, stuck, bent.



CUTTING EDGE—Worn, chewed up, **bolts missing** or loose.

END BITS—Worn, chewed up, **bolts missing**, or loose.

TILT CYLINDER—Leaks; bolts loose. **Piston rod badly scored, dry.**

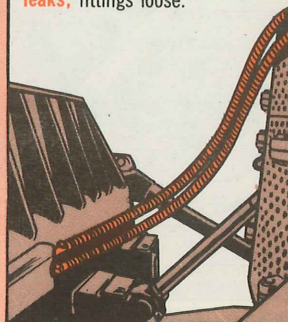
## TREEDOZER (ROME PLOW)

CLEARING BLADE POINT—Dull. (Keep a well-shaped fillet—too sharp a corner will promote cracks.)

WEB—**Dull**, out of shape, **curled.**

CUTTING EDGE—**Dull**, cracked, **curled.** (Check with template, see page 23, TM 5-3830-236-12 (Oct 69).)

HYDRAULIC LINES—Kinked, **badly chafed**, **leaks**, fittings loose.



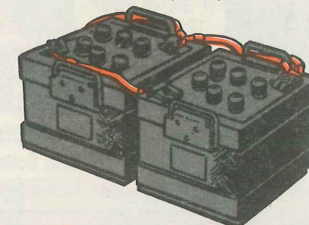
PUSH ARM—**Broken, cracked**, mountings loose.

## LEFT SIDE

TAKE A NOTE. SLIGHT CHAFFING ON HYDRAULIC LINES, TRUNNION BOLTS LOOSE AND ELECTROLYTE  $\frac{1}{16}$  INCH OVER THE PLATE.

LIFT CYLINDER—Leaks; bolts loose. **Piston rod dry, badly scored.**

BATTERIES—**Cracked, leak.** Terminals corroded, loose. **Caps missing.** Holddown loose, **missing.** Electrolyte low (must be at least  $\frac{3}{8}$  inch over plates).



BATTERY BOX—Cover missing, hinges broken, not lubed. Latches broken.

BODY NUTS AND BOLTS—Loose, missing (Don't forget 'em all around).

TRUNNION—**Loose, bolts missing.**

FRAME—**Bent, cracked.** (Don't operate unless support has deferred maintenance and said it's safe to do so.)



## TRACK AND ROLLER FRAME

I DON'T CARE WHAT IT SAYS, YOUR TRACKS ARE STILL TOO LOOSE!

$Y = RV + R_x$   
MINUS 1/2 OFF  
RELATING FACTOR  
PLUS RELATIVE  
HUMIDITY... HUMMM...  
IT COMES OUT  
HAM 'N' CHEESE  
ON RYE!

TRACKS—Too loose or too tight (Adjust for 1 to 1 1/2-in sag), worn, cracked. Bolts missing, loose. Shoes cracked, broken.

MINI COMPUTER

GUARDS—Loose, missing. Bolts, nuts loose. Cracks, breaks.

IDLERS—Loose mounting, worn spacers missing, oil leaks.

ROLLERS—Loose; seals leak.

DRIVE SPROCKETS—Excessive wear. Loose, missing mounting bolts. Broken or cracked sprocket teeth.

FINAL DRIVE—Loose mounting, leaks. Bolts loose or missing, over 1,000 hours since last bearing adjustment.

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THIS IS GREAT, WHEN IT'S BROKE DOWN INTO SECTIONS.

## REAR

REAR FLOOD LIGHTS—Glass broken, clouded. Wires broken, frayed. Mounting loose. Burned out.

SCRAPER MANIFOLD—Lines worn, loose. Flange bolts missing ... leaks.

FUEL TANK—Crushed, mounting bolts loose. Leaking. Rusty. Water in tank. Cap missing; loose (Does it seat right?). Strainer broken, missing.

WINCH—Damaged housing, cracked, mounting loose. Cables kinked, broken strands, rusty, not oiled. Coupling damaged. Oil level low (Check every 50 hours).

RIPPER—Shanks out of adjustment) job layout determines placement). Hydraulic Hoses: Breaks, worn, cracks, kinks. Hydraulic cylinders: Bent, piston rod dry, badly scored, leaks. Frame: Cracked, bent. Pins: Wear, missing, peening. Mounting Bracket: Stud nuts missing, loose (stud nuts must be torqued to 1500 ft-lbs).

TOW HITCH—Pin missing, cracked, broken.

## RIGHT SIDE

TOOL BOX—Lid catches broken. Rusty, broken, stuffed with oily rags, junked up.

DON'T SLACK OFF NOW. BE SURE TO CHECK ALL THE ITEMS YOU CHECKED ON THE LEFT SIDE.

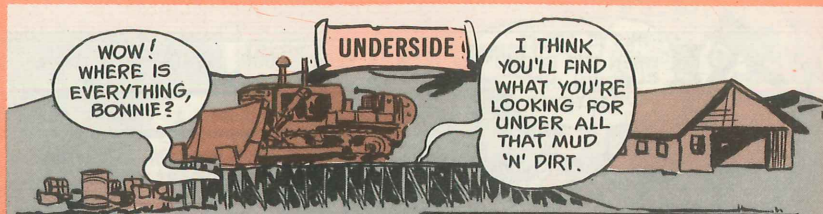
DOZER HYDRAULIC TANK—Filler screen broken, gasket missing, deteriorated; cap missing, oil low. Filter cover assembly: Cracked, screws, bolts missing.

EXHAUST—Loose. Not covered when tractor is stored outdoors. Flutter valve sticks. (Water down the exhaust pipe may cause hydrostatic lock and engine damage.)

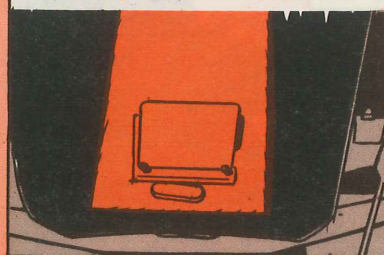
TILT BRACE—Bent, loose.

23



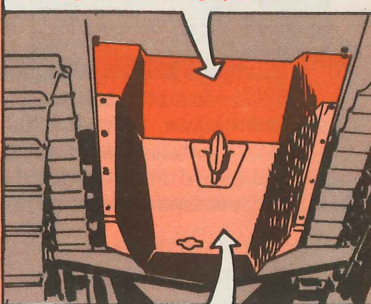


REAR CRANKCASE GUARD—Cracks, breaks, **bolts missing**. Access cover broken, **missing**, loose, **dirt or foliage packed**.



TRACK FRAMES—**Cracked**, loose or **missing bolts**; broken parts; **mud packed**.

RADIATOR GUARDS—Cracks, breaks, **bolts missing**. **Dirt or foliage packed**.



FRONT CRANKCASE GUARD—Cracks, breaks, **bolts missing**. Pull hook broken, **mounting loose**. **Dirt or foliage packed**.

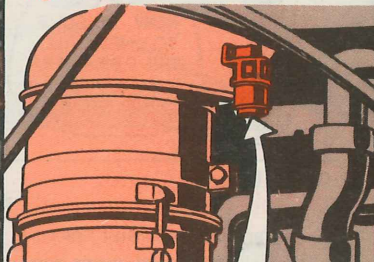
### ENGINE COMPARTMENT

OVERALL I WOULD SAY IT'S DIRTY 'N' OIL CAKED.

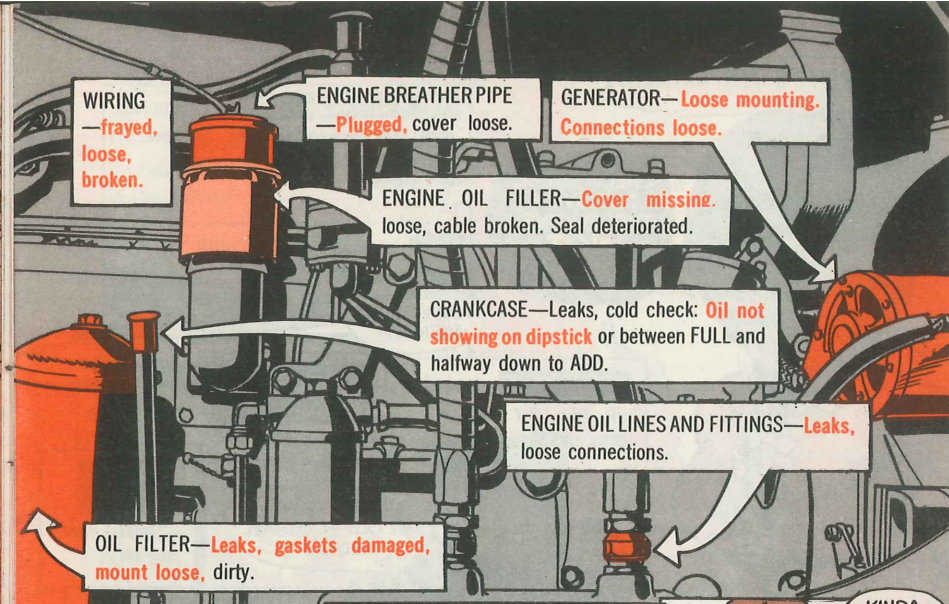


FUEL FILTER—**Leaks**, not drained every 50 hours, **mount loose**.

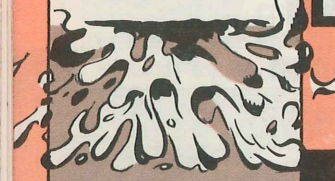
AIR CLEANER—**Loose mounting**. **Seals and gaskets damaged**. Holes, intake stack loose, cap missing. **Dust cup loose, clamps broken**. Line to indicator, **leaking**, crushed.



AIR CLEANER INDICATOR—**Glass broken or painted over**. **Reset button stuck**.



WATER PUMP—**Leaks**.

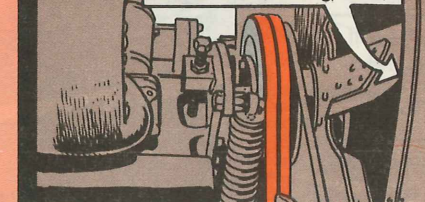


NOZZLES, INJECTOR PUMP—**Leaks**.

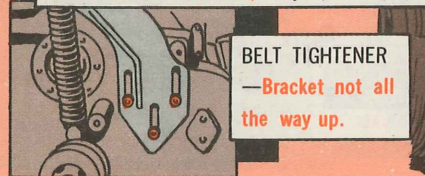
RADIATOR—(From the engine side) **Leaking**, fins **plugged**, crushed. **Hose leaks**, spongy.



FAN GUARD—**Missing**, loose.

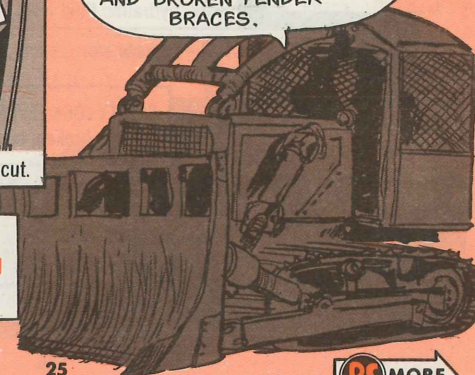


V-BELTS—**Not matched**, frayed, worn, cut.



BELT TIGHTENER—**Bracket not all the way up**.

CHECK THE CAB GUARD OVER GOOD, LIKE FOR MISSING PINS, CRACKED WELDS AND BROKEN FENDER BRACES.





## DRIVER'S COMPARTMENT

CHECK THESE  
OUT WITH  
THE ENGINE  
**NOT**  
RUNNING!

**FIRE EXTINGUISHER**—Loosely mounted,  
wire seal broken. Missing. (Replace if  
weight loss is 4 ounces or more.)

HMM  
YOU'VE LOST  
WEIGHT.

**COMPARTMENT**—Junked  
up with oily rags, oil  
cans and stuff.

**INSTRUMENT GAGES**—Glass broken.

**INSTRUMENT LIGHT**—Lamp missing,  
burned out.

**HEAT-START  
SWITCH**  
—Broken, won't  
operate.

**LIGHT SWITCHES**  
—Won't operate. Loose,  
broken.

**VEHICLE ID PLATES**—Missing, not legible.

**STEERING CLUTCHES**  
—Not greased, no  
quick response.

**STEERING CLUTCH BRAKE**—Fails to hold.  
Spongy. Needs adjustment.

**BOWL, APRON, EJECTOR**—Stiff, won't  
work, hydraulic fluid level low.

**SPEED SELECTOR**—Linkage loose, sticks,  
does not respond.

**SAFETY LOCK LEVER**  
—Latch broken, bent.

**WINCH CONTROLS**—Sluggish, don't work.  
Fluid level low.

**DISCONNECT  
SWITCH**  
—Broken.

**SEAT  
CUSHIONS**  
—Torn.

Warm up ... use your ears to tell you if  
the tractor's not running right. No back-  
fires, no strange noises, no misses and  
no black smoke. (Run at least 2 minutes  
at low RPM)

**AIR CLEANER INDICATOR**—Red target  
more than half-way up (Engine Compart-  
ment).

**ENGINE OIL PRESSURE GAGE**—**Not in  
normal.**

**ENGINE HEAT INDICATOR  
(WATER)**—**Not in  
normal.**

CHECK THESE  
WITH THE  
ENGINE  
RUNNING!

**AMMETER**  
—**Not in  
normal.**

**TORQUE  
CONVERTER**  
—**Not in  
normal.**

**BULLDOZER  
CONTROL  
LEVER**—Raising  
and lowering  
sluggish, fluid  
level low.

**TRANSMISSION OIL  
PRESSURE GAGE**—  
**Not in normal.**

**FUEL PRESSURE  
GAGE**—**Not in  
normal.**

**ENGINE CRANKCASE**  
—Hot check: **Oil level  
not between ADD  
and half-way up to FULL.**

**TRANSMISSION OIL  
LEVEL**—**Low.** (Check  
every 10 hours.)

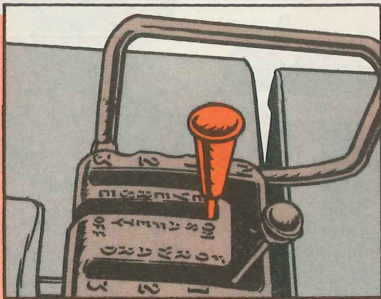
**BRAKE LOCK**  
—Doesn't hold.



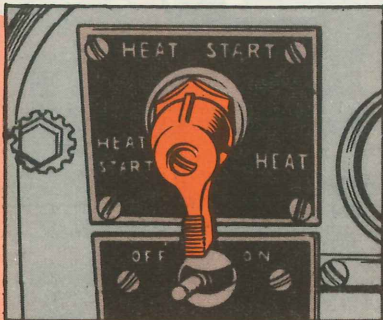
## OPERATING PRECAUTIONS

Never operate electric starter more than 30 seconds at a time. Allow 2 minutes for cooling before using starter again.

Safety lock must be ON when tractor is parked and engine's running.



Don't switch on HEAT-START when engine is warm and running.



Don't rev up too fast when starting. Let lube get to the turbocharger.



Keep your treedozer blade close to the ground when you work.

Don't use tractor in land clearing operation unless you've got the engine and cab guard protection kits mounted.

Take a break now and then to check over your tractor.



Shutting down, let engine idle 3-5 minutes to slow down turbocharger to avoid bearing burn-out.

Never turn OFF disconnect switch while engine is running.

Keep TM 5-2410-214-12 (Jun 68) handy.

Get your own copy of TB 385-5 (Mar 70), the safety manual on operating and maintaining the crawler tractor.



LO 5-2410-214-12-1 (Nov 70)

LO 5-2410-214-12-2 (Nov 70)

TM 5-2410-214-12 (Jun 68)  
and Ch I (Oct 70)

TM 5-2400-200-ESC (May 69)

TB 385-5 (Mar 70)—Operation and Safety

TM 5-3830-236-12 (Oct 69)—Treedozer