TRUCK OPERATIONS

Engineer review
ENGINEER TEST 2013:

• SEPT. 18,19,20 – WRITTEN AND DRIVING
• SEPT. 25,26,27 – TRUCK AND ENGINE
• E64 – PUMPING, T81 – TRUCK PRACTICAL,
• E62 – DRIVING, STA 1 WRITTEN, BEACON - REHAB

RANK ORDER TEST TAKERS MUST BE THERE SEPT. 18 AND 25

B/C WOZNY MUST HAVE YOUR INTENTIONS TO TAKE THE TEST IN WRITING BY SEPT. 6 @1700HRS, IF YOU NOT ALREADY HAVE DONE SO.
Apparatus Spotting

1. When to take address

2. Why do we want to set up on corners
   - Catch 2 sides
   - Scrub area
   - Collapse zone = building height
   - Corners are safer in a collapse

Don’t commit too soon on larger structures
What is the objective

- Rescue, venting, master stream?
- Set up as close to vent area as possible
- Portable standpipe not recommended
Obstructions

- Trees
- Power lines
- Set-backs
- Manholes
- Sewers

- Uneven ground.
- Excessive grades.
- Soft ground.
- Cars.
- Etc.............
General Guidelines

• Work off rear whenever possible
  – Most stable
  – High outrigger loads when working off sides
  – Maximizes ladder reach
General Guidelines (cont.)

- Stay on pavement whenever possible
- Evaluate ground conditions if off road
  - Time of year
  - Weather conditions
  - Sewer lines
  - Etc……..
  - Nothing says you CAN’T go off road
  - Evaluate the situation and make the call!
  - Risk vs Gain
GRADES
TRK 84R

• Up to 6% (6 foot rise per 100 foot) full capacity
• 6% to 14%, reduce capacity by ½

• Do not set up if grade is > 14%
  – 14 foot rise per 100 feet
GRADES
TRK 81

• Side to side
• Up to 10 deg. Ground slope full capacity
• 10 to 13 deg. Reduce capacity by $\frac{1}{2}$
• Over 13 deg. Do not use
  • Front to back
• Up to 7 deg. Ground slope full capacity
• 7 to 10 deg. Reduce capacity by $\frac{1}{2}$
• Over 10 deg. Do not use
SLOPE/GRADE

• Don’t get hung up on the numbers
• If it’s in the RED, don’t go
• Ball is towards low side – indicator is not true level.
TRUCK 81

Pierce 100 foot
Aerial Platform
# Load Chart

## 100 FT AERIAL PLATFORM

### BASKET LOAD WATERWAY DRY 50 MPH WIND CONDITIONS

<table>
<thead>
<tr>
<th>DEGREE OF ELEVATION</th>
<th>BASKET</th>
<th>FLY Tip</th>
<th>MID Tip</th>
<th>BASE Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>100°</td>
<td>1000#</td>
<td>600#</td>
<td>600#</td>
<td>250#</td>
</tr>
<tr>
<td>90°</td>
<td>1000#</td>
<td>600#</td>
<td>600#</td>
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<tr>
<td>60°</td>
<td>1000#</td>
<td>600#</td>
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<td>250#</td>
</tr>
</tbody>
</table>

### BASKET LOAD WATERWAY CHARGED 50 MPH WIND CONDITIONS

<table>
<thead>
<tr>
<th>DEGREE OF ELEVATION</th>
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<th>FLY Tip</th>
<th>MID Tip</th>
<th>BASE Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>100°</td>
<td>500#</td>
<td>600#</td>
<td>600#</td>
<td>250#</td>
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</tbody>
</table>

Reduced loads in the basket can be redistributed in 250 lb increments to the fly or base as needed.

1. Capacities are based on the following conditions:
   - Apparatus is set up according to the operator's manual and leveled to within safe operating limits.
   - The platform is fully extended and unsupported, 360° continuous rotation
   - For icing refer to load charts in operator's manual

### RATED

<table>
<thead>
<tr>
<th>VERTICAL HEIGHT 100 FT</th>
<th>93 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORIZONTAL REACH 6°</td>
<td>150 ft</td>
</tr>
<tr>
<td></td>
<td>75°</td>
</tr>
</tbody>
</table>

### MONITOR NOZZLE POSITIONS

<table>
<thead>
<tr>
<th>AERIAL ELEV</th>
<th>QPM</th>
<th>HORIZONTAL VERTICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5° to 75°</td>
<td>0°</td>
<td>1500-2500 DC</td>
</tr>
</tbody>
</table>

**DANGER**

Do not exceed load limits as shown. Do not attempt to operate the apparatus unless you have had proper training and read and understand the operator's manual. Serious injury or death may occur.
TRK 81 SET-UP

• Spot apparatus
  Have officer/FF assist with spotting turntable
• Set brake
  • Maxi brake
  • Front wheel lock
• Engage aerial master & PTO switches
  Which lights are activated?
TRK 81 CONT.

• Engage stabilizer power switch & remove stabilizer control.
• Stabilizer control will not work if E-stop activated
• Establish your space first!! Extend all outriggers & place pads.
  • Verifies no grade hazards.
  • Verifies working side can be fully extended.
TRK 81 CONT.

- Lower front & rear outriggers on high side until they just touch the ground, than lower both at the same time until you have lifted the weight off the suspension.
- Follow same for low side except lift until the rig is level.
- Check for level from front to back & adjust as needed.
TRK 81 CONT.

• Pin outriggers
  – Visually check
  – Physically check (rock)
  – Recheck during operations
• Set wheel chocks, usually front wheels
• Put outrigger control box back in cabinet
TRUCK 84R

LTI 100 Foot
Aerial Platform
"WE NEED A NEW TRUCK, STAT!!"
TRK 84R SET-UP

- Spot apparatus
- have officer/FF assist
- Set brake
- Switch on ladder power
- Engage PTO
- Switch on high idle in outrigger control compartment
• Establish your space first!! Extend all outriggers & place pads.
  • Verifies no grade hazards.
  • Verifies working side can be fully extended.
TRK 84R CONT.

• Lower front & rear outriggers on high side until they just touch the ground, than lower both at the same time until you have lifted the weight off the suspension.

• Follow same for low side except lift until the rig is level.

• Check for level from front to back & adjust as needed.
TRK 84R CONT.

• Pin outriggers
  – Visually check
  – Physically check (rock)
  – Recheck during operations
Short-jacking

• Get the outriggers extended as far as possible
• Get THREE out if possible, 2 on working side
• Do not operate off the short jacked side, T81 /83 won’t allow
• Extend both rear outriggers whenever possible
Additional Items

• Do not support ladder against structure
• Do not pull sideways with ladder
• Do not extend/retract without opening water system valve
• Do not operate in excessive winds
  – 81-50 mph, 84R-30 mph, T83–50mph
• Icing (1/4” to 1/2” of ice on ladder)
  – Keep ladder above 55 deg. If extended
  – If ladder below 55 deg., Fully retract ladder
LOADS

• Basket loads.
  – 81: 1000 lbs.
  – 84R: 1000 lbs.
  – T83 – 1000 lbs

Always try to center loads.

REDUCE BY $\frac{1}{2}$ when flowing H2O.
Pump Operations

- Spot rig
- Set brake
- Trans in neutral
- Switch on pump PTO
- Shift trans into drive
  - As per DPFD SOP
Bedding the Ladder

- TRK 81 / TRK 83
- Make sure speed switch is in fast position
- Make sure drain is open
- Retract all aerial sections
- Rotate ladder until lined up with cradle
- Lower ladder into cradle and keep lever pressed until the high idle lowers itself
- Stow outriggers in reverse order as set-up
Bedding the Ladder

• TRK 84R
• Make sure drain is open
• Retract all aerial sections
• Rotate ladder until lined up with cradle
• Lower ladder into cradle
  – After contact with cradle look for couple inch movement of piston ends
  – Use enough pressure to hold ladder into cradle
• Stow outriggers in reverse order as set-up
Emergency Operations

• TRK 81 and T83
• When using back-up systems some or all of the safety systems may not work
  – Automatic cradle alignment
  – Automatic stowing operation
• Loss of PTO or main engine
  – Use EPU switch and normal control for ladder and outriggers
Emergency Operations

• TRK 81 and 83 cont.
• Loss of electrical system.
  – Use hydraulic controls under step of ladder (for ladder operations) or officers side rear steps (for outrigger operations)
• The EPU can be run up to 30 mins. With 30 mins. cool down time.
Aerial Hydraulics – T81/83
Emergency Operations

• Loss of electrical and motor
  – Use hydraulic controls and EPU switch located inside officers side rear step
Outrigger override T81/T83
Emergency Operations

• If basket emergency stop button is activated
  – Use hydraulic controls under step and “EMERG.STOP PTO BYPASS SWITCH”
Emergency Operations
Emergency Operations

- TRK 84R

- Loss of PTO or main engine
  - Use EPU switch and normal control levers

- Loss of electrical system
  - Use hydraulic controls under step of ladder or drivers side rear steps

- Loss of motor & electrical
  - Use hydraulic controls and EPU switch
Outrigger Controls
Emergency Operations

• TRK 84R cont.
• The EPU can be run up to 7 mins. with 7 mins. Cool down time.
Back-up ladder controls

• Under cover at ladder base
• TRK 84R (only)
  – Open petcock and use levers to perform ladder functions
Ladder Controls  TRK 84R
Back-up outrigger controls

• TRK 84R
  • Behind driver side rear ladder step
    • TRK 81 and TRK 83
  • Behind officers side rear ladder step

• Detailed explanation at rig…….
DON'T FORGET:

ONLY USE THE MIDDLE TRUCK BAY AT THREE

12'4"
A Good Set-Up
Truck 81
Short jacked to avoid sewer
Working off fully extended side
Would you climb this ladder?
Does this look safe?

- What other possibilities can you think of?