Turning Performance Analysis

Configuration: 19889 100' HAL Quint Arrow XT Chassis
Number: 19889  Ver:  105
Representative: Kimber, Linda
Organization: Clarey Safety Equipment, Inc
Department: Rapid City, City of

Inside Cramp Angle: 45°
Axle Track: 85.34°
Wheel Offset: 4.68°
Loaded Tire Width: 17.70°
Chassis Overhang: 68.99°
Additional Bumper Depth: 19.00°
Front Overhang: 87.99°
Wheelbase: 245.50°

Calculated Turning Radii:
Inside Turn: 231.97°
Curb to Curb: 425.51°
Wall to Wall: 479.38°

Comments:
Aerial Application

Components
Option # | Description
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Front Axle | 0018453 Axle, Suspension, Front, Oshkosh TAK-4, Non-Drive, 22,800 lb
Front Wheels | 0111380 Aluminum, Alcoa, 22.50 x 12.25
Front Tires | 0111370 Michelin, 245/65R22.5, 20 Ply, XTE2
Chassis | 0104769 Arrow-XT® Chassis
Front Bumper | 0107610 Tray, Bumper, Passenger Side, Standard, 19" W x 14.5" L x 13" D
Aerial Device | 0117822 Aerial, 100' HAL, 750lb Tip Load

Notes:
Actual Inside Cramp Angle may be less due to highly specialized options.
Curb to Curb turning radius calculated for a 9.00 inch curb.

Definitions:
- **Inside Cramp Angle**: Maximum turning angle of the front inside tire.
- **Axle Track**: King-pin to king-pin distance of the front axle.
- **Wheel Offset**: Offset from the center-line of the wheel to the king-pin.
- **Tread Width**: Width of the tire tread.
- **Chassis Overhang**: Distance from the center-line of the front axle to the front edge of the cab. This does not include the bumper depth.
- **Additional Bumper Depth**: Depth that the bumper assembly adds to the front overhang.
- **Wheelbase**: Distance between the center lines of the vehicle’s front and rear axles.
- **Inside Turning Radius**: Radius of the smallest circle around which the vehicle can turn.
- **Curb to Curb Turning Radius**: Radius of the smallest circle inside of which the vehicle’s tires can turn. This measurement assumes a curb height of 9 inches.
- **Wall to Wall Turning Radius**: Radius of the smallest circle inside of which the entire vehicle can turn. This measurement takes into account any front overhang due to the chassis, bumper extensions and/or aerial devices.