

## BACKHOE BUCKETS

| D125 GENERAL PURPOSE |                                |                      |
|----------------------|--------------------------------|----------------------|
| Bucket               | Struck                         | Heaped               |
| Width                | Capacity                       | Capacity             |
| 13.0" . . . . .      | 1.13 ft <sup>3</sup> . . . . . | 1.38 ft <sup>3</sup> |
| 18.0" . . . . .      | 1.62 ft <sup>3</sup> . . . . . | 2.08 ft <sup>3</sup> |
| 24.0" . . . . .      | 2.29 ft <sup>3</sup> . . . . . | 3.05 ft <sup>3</sup> |

## BACKHOE LIFT CAPACITIES

| HEIGHT ABOVE & BELOW GROUND LEVEL |        |
|-----------------------------------|--------|
| D125 BACKHOE                      |        |
| <b>BOOM LIFT</b>                  |        |
| +10 ft.....                       | 870 lb |
| +8 ft.....                        | 900 lb |
| +6 ft.....                        | 880 lb |
| +4 ft.....                        | 880 lb |
| +2 ft.....                        | 830 lb |
| Ground Level.....                 | 810 lb |
| -2 ft.....                        | 810 lb |
| -4 ft.....                        | 790 lb |

|                    |          |
|--------------------|----------|
| <b>DIPPER LIFT</b> |          |
| +10 ft.....        | 2,000 lb |
| +8 ft.....         | 1,840 lb |
| +6 ft.....         | 1,980 lb |

NOTE: Equipped with 24" general purpose trenching bucket.

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

## STANDARD FEATURES

67 hp (58 kW) Cummins turbo engine  
2 year/2000 hr. engine warranty  
4-wheel steering  
4-wheel drive  
4-speed ranges  
Ease of maintenance  
Unitized main frame  
Unobstructed/level operators platform  
Similar electrical, hydraulic and hydrostatic systems  
Control layout commonality  
Pivoting Operators seat

## OPTIONS

Dual batteries  
Engine block heater  
Electric controlled ether start kit  
Attachments for underground applications (see page 3)  
Flexible extended warranty plans  
Auxiliary hydraulics-Rear  
Electric accessories power kit  
4-Post FOPS  
Front counterweight packages  
Digging teeth

- Cup cutters
- Conical bits and brackets
- Terminator-sharks teeth
- Combination teeth

Digging chain

- Standard
- Anti-backflex
- Heavy Duty anti-backflex

IMPORTANT: Astec Underground reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Astec Underground does not warrant the safety or reliability of attachments from other manufacturers.

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# RT660 Trencher

## ENGINE

Model ..... Cummins  
Type..... 4-stroke, naturally aspirated  
Cylinders..... 4  
Bore/Stroke ..... 4.02" x 4.72"  
(102 x 120 mm)  
Displacement ..... 239 in<sup>3</sup> (3.9 L)  
Fuel injection..... Direct  
Fuel..... Diesel  
Fuel filter ..... Spin-on cartridge  
Air intake ..... Cross-flow  
Cooling ..... Liquid  
Horsepower  
Gross..... 67 (50 kW) @ 2200 rpm  
Net ..... 63 (47 kW) @ 2200 rpm  
Maximum torque  
Gross..... 188 lb-ft (255 N·m)  
@ 1200 rpm  
Net ..... 185 lb-ft (251 N·m)  
@ 1200 rpm

## ENGINE COOLING

Radiator  
Core type ..... Square wave  
Core size area..... 397 in<sup>2</sup> (0.39 m<sup>2</sup>)  
Rows of tubes ..... 4  
Fan w/standard transmission  
Style ..... 7 blade suction  
Diameter ..... 17.8" (452 mm)  
Ratio ..... 1.1:1  
Water pump  
Style ..... Integral  
Engine oil  
Pump..... Deep sump, plate cooler  
with pressurized  
nozzles under-piston  
Pump operating angle ratings  
Side-to-side..... Rated 45°  
Fore and aft ..... Rated 45°  
Oil filtration..... Spin-on,  
full-flow cartridge

## POWERTRAIN

Transmission..... Hydrostatic 4WD  
with 4-wheel steering. Limited-slip  
differential and outboard planetaries  
on both front and rear axles.  
Modular powertrain components.  
Drive .....Hydrostatic  
variable displacement  
axial-piston pump  
0 – 36 gpm (0-137 L/min)  
U-joints ..... Constant velocity  
Axle ratio ..... 11.6:1  
Planetaries ..... 6:1 – Outboard  
Differentials ..... Limited slip  
Steering ..... 2W, 4W and crab  
Axle oscillation ..... 20°  
Service brakes ..... Hydrostatic  
Parking brake..... Foot applied disc  
Travel speeds (m.p.h.)  
Tires 1st 2nd 3rd 4th  
31 x 15.5-15 ....1.4 .....1.9 .....5.1 .....7.4  
35 x 19-16.1 ....1.4 .....1.9 .....5.1 .....7.4  
NOTE: Rated speeds in forward and reverse.

## TIRES

31 x 15.5 - 15, 8 PR  
35 x 19 - 16.1, 12 PR (heavy-duty)

## SERVICE CAPACITIES

Fuel tank..... 17 gal (64.4 L)  
Cooling system..... 18 qt (17 L)  
Engine with oil filter.... 11.6 qt (11 L)  
Pump drive .....1.4 pt (0.65 L)  
Hydraulic reservoir ..... 14 gal (53 L)  
Total hydraulic ..... 20 gal (75.8 L)  
Transmission..... 1.8 qt (1.7 L)  
Axle center (each) ..... 4 qt (3.8 L)  
Planetaries (each) ..... 0.65 qt (0.6 L)  
Trencher planetary  
drive ..... 1.5 qt (1.4 L)  
Hydra-Borer System ..... 1.0 qt (0.9 L)

## HYDRAULICS

Attachment drive pump..... 36 gpm  
(137 L/min)  
Steering pump .... 8.6 gpm (32 L/min)  
Accessory pump .....8.6 gpm  
(32 L/min)

Filtration:  
Full-flow spin-on cartridges  
Accessory return.....2 micron  
Charge pump flow (2).....2 micron  
NOTE: Pump capacity rated @ 2200 engine rpm.

## ELECTRICAL SYSTEM

Voltage..... 12 volts, negative ground  
Alternator ..... 65 amp  
Starter ..... 2.5 kW (3.35 HP)  
Battery ..... 685 cold-cranking amps

## OPERATOR ENVIRONMENT

ROPS  
Left and right entry/exit  
Unobstructed operator platform  
Swivel seat w/seat belt  
Key start  
Hand and foot travel controls  
Adjustable and rotating seat position

## INSTRUMENTATION

Engine coolant temperature gauge  
Hydraulic oil temperature gauge  
Fuel level indicator  
Voltage meter  
Engine oil pressure indicator  
Tachometer/hourmeter  
Hydraulic charge filter indicator  
Hydraulic filter indicator  
Air filter restriction indicator  
Neutral indicator  
Alternator light  
Park brake light

# ASTEC

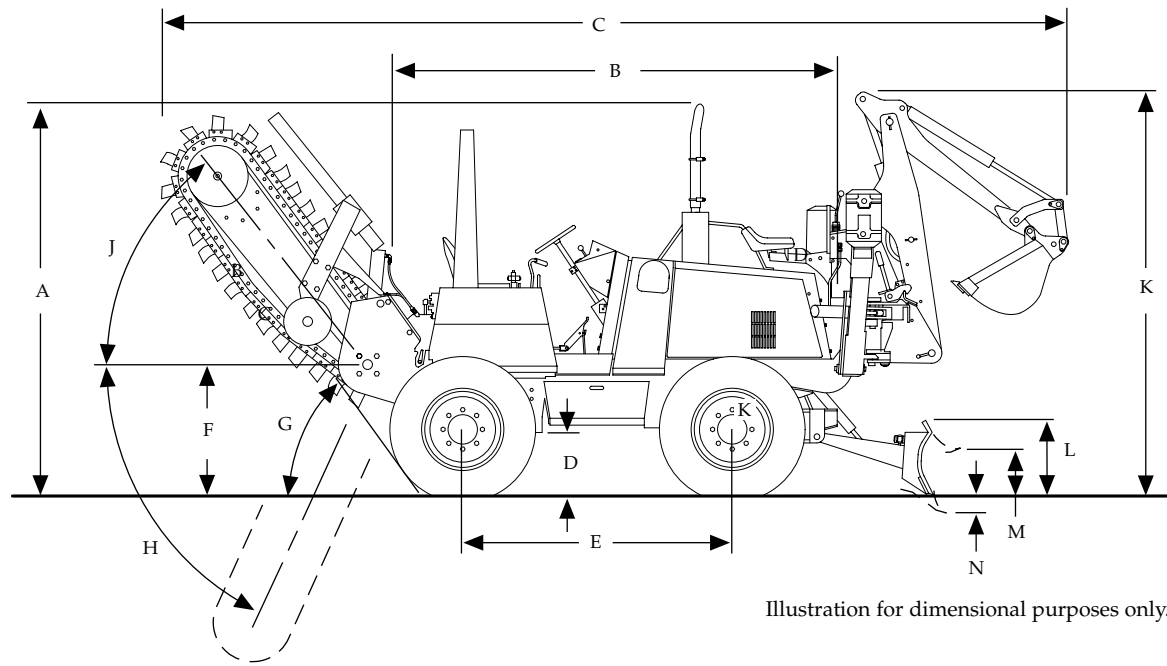


Illustration for dimensional purposes only.

## DIMENSIONS

|                                                                          |                                                   |
|--------------------------------------------------------------------------|---------------------------------------------------|
| A. Overall height – prime mover (to top of muffler)                      | 91.5" (2.32 m)                                    |
| B. Overall length – prime mover                                          | 98.8" (2.51 m)                                    |
| C. Overall transport length w/backhoe<br>and trencher w/4' (1.22 m) boom | 232.3" (5.9 m)                                    |
| Angle of approach – prime mover                                          | 80°                                               |
| Angle of departure – prime mover                                         | 90°                                               |
| D. Minimum ground clearance – (axle to ground)                           | 9.8" (249 mm)                                     |
| Minimum ground clearance w/backfill blade                                | 7.4" (188 mm)                                     |
| E. Wheelbase                                                             | 65.0" (1.65 m)                                    |
| F. Height to centerline of trencher headshaft                            | 26.3" (668 mm)                                    |
| G. Angle of departure with trencher attachment                           | 34°                                               |
| H. Trencher boom angle down from horizontal                              | 65°                                               |
| J. Trencher boom angle up from horizontal                                | 50°                                               |
| K. Backhoe transport height                                              | 108.8" (2.76 m)                                   |
| L. Backfill blade height                                                 | 14.3" (363 mm)                                    |
| M. Backfill blade lift height                                            | 15.4" (391 mm)                                    |
| N. Backfill blade depth of cut below grade                               | 5.9" (150 mm)                                     |
| Transport height, plow frame base tractor                                | 91.5" (2.32 m)                                    |
| Center of rear wheel to rear of plow with chute in ground                | 112.2" (2.85 m)                                   |
| Plow swing angle                                                         | 25° from center                                   |
| Plow offset from centerline                                              | 32" (813 mm)                                      |
| Angle of departure base tractor/plow attachment raised:                  |                                                   |
| w/30" (762 mm) mounted blade                                             | 26°                                               |
| w/o mounted blade                                                        | 27°                                               |
| Plow blade tip ground clearance base tractor:                            |                                                   |
| w/30" (762 mm) mounted blade                                             | 24.9" (632 mm)                                    |
| Overall width base tractor                                               | 70.0" (1.78 m)                                    |
| Overall width w/optional tires                                           | 78.0" (1.98 m)                                    |
| Tread width (centerlines) base tractor                                   | 55.0" (1.4 m)                                     |
| Turning radius (outside) base tractor – 4-wheel steer                    | Left – 119.5" (3.03 m)<br>Right – 119.5" (3.03 m) |
| Operating weight                                                         | 10,304 lb (4673 kg)*                              |

NOTE: Equipped with 31 x 15.5 - 15 tires.

\*Operating weight of RT660 — Equipped with direct-drive trencher, 4' (1.22 m) 110K rock boom, 110K chain and standard teeth, backfill blade, D125 backhoe with 18" (457 mm) bucket, 5 gal fuel and no operator.

## ATTACHMENTS

### TRENCHER

|                            |                                                    |
|----------------------------|----------------------------------------------------|
| Dig depth                  | to 72.0" (1.83 m)                                  |
| Digging width              | 6.0" to 16.0"<br>(152.4 to 406.4 mm)               |
| Chain line speed           | 620 ft/min<br>(189 m/min)                          |
| Chain tensile strength:    | 50,000 lb<br>75,000 lb<br>110,000 lb<br>165,000 lb |
| Drive                      | Hydrostatic/Reversible                             |
| Boom angle from horizontal | Up 50°<br>Down 65°                                 |
| Angle of departure         | 34°                                                |

### 6-WAY BACKFILL BLADE

|                        |                  |
|------------------------|------------------|
| Width                  | 72.0" (1.83 m)   |
| Height                 | 14.3" (363.2 mm) |
| Lift clearance         | 15.4" (391.2 mm) |
| Angle of approach      | 20°              |
| Ground clearance       | 7.4" (188 mm)    |
| Depth of cut           | 5.9" (149.9 mm)  |
| Offset outside of tire | 10.4" (264.2 mm) |
| Angle left or right    | 40°              |
| Tilt each direction    | 8°               |

### VIBRATORY PLOW

#### P95 VIBRATORY PLOW

|                                   |                          |
|-----------------------------------|--------------------------|
| Vibration                         | Counter-rotating weights |
| Frequency                         | 0-2,000 vpm              |
| Drive                             | Hydrostatic              |
| Blade steer angle                 | 30°                      |
| Minimum turning<br>radius @ blade | 18.0" (457 mm)           |
| Angle of depression               | 14°                      |
| Weight – no blade                 | 2,006 lb (909 kg)        |

### REEL CARRIER

|                                                              |                   |
|--------------------------------------------------------------|-------------------|
| Maximum reel width                                           | 42.1" (1.07 m)    |
| Maximum reel diameter<br>w/backfill blade                    | 48.0" (1.22 m)    |
| w/o backfill blade                                           | 60.0" (1.52 m)    |
| Angle of approach w/o backfill blade<br>w/48" (1219 mm) reel | 27°               |
| w/60" (1524 mm) reel                                         | 20°               |
| Center of reel – hydraulic lift<br>Pickup height             | 11.9" (302 mm)    |
| Maximum height                                               | 59.5" (1511 mm)   |
| Reelshaft diameter                                           | 1.9" (48.26 mm)   |
| Capacity                                                     | 1,500 lb (680 kg) |

### HYDRA-BORER SYSTEM

|                    |                     |
|--------------------|---------------------|
| Drive              | Hydraulic           |
| Torque             | 423 lb-ft (574 N·m) |
| Rotation           | Bi-directional      |
| Rod length         | 10'0" (2.54 m)      |
| Drive shaft height | 33.7" (856 mm)      |
| Maximum rpm        | 307                 |

### QUAD ATTACHMENT

|                                                    |                                     |
|----------------------------------------------------|-------------------------------------|
| Trencher Dig depth                                 | to 48.0" (1.22 m)                   |
| Trencher Digging width                             | 6.0" to 8.0"<br>(152.4 to 203.2 mm) |
| Offset from centerline of machine to<br>center of: |                                     |
| Plow left                                          | 11.4" (289.6 mm)                    |
| Trencher right                                     | 25.3" (642.6 mm)                    |
| Weight                                             | 11,219 lb (5088 kg)                 |
| <b>P85 VIBRATORY PLOW (QUAD ATTACH)</b>            |                                     |
| Vibration                                          | Counter-rotating weights            |
| Frequency                                          | 0-2,000 vpm                         |
| Drive                                              | Hydrostatic                         |
| Angle of depression                                | 14°                                 |

NOTE: RT660 equipped with quad-attachment, P85 plow, planetary-drive trencher, 4' (1.22 m) rock boom, 75K (34 014 kg) chain, large cup teeth, restraint bar, D125 backhoe and 18" (457 mm) bucket.

### ROCKWHEEL

|                          |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| Cutting depth and weight |                                                                   |
| Up to 24.0"              | 2,600 lb (1179 kg)                                                |
| Up to 30.0"              | 3,300 lb (1497 kg)                                                |
| Cutting widths           | 3.0" (76 mm),<br>4.0" (102 mm), 5.0" (127 mm)<br>or 6.0" (152 mm) |
| Teeth                    | Replaceable carbide tips                                          |
| Drive                    | Hydrostatic                                                       |
| Lift                     | Hydraulic                                                         |

## D125 BACKHOE OPERATIONAL DATA

|                                          |                       |
|------------------------------------------|-----------------------|
| A. Digging depth – maximum               | 89.3" (2.27 m)        |
| Digging depth – 2' (610 mm) flat bottom  | 86.8" (2.2 m)         |
| Digging depth – 8' (2438 mm) flat bottom | 81.8" (2.07 m)        |
| Bucket digging force                     | *6,670 lbf (3025 kgf) |
| Dipper digging force                     | *3,230 lbf (1465 kgf) |
| Loading height                           | 89.3" (2.27 m)        |
| B. Reach from swing pivot                | 135.6" (3.44 m)       |
| Bucket rotation                          | *174°                 |
| Swing arc                                | 175°                  |
| C. Operating height – fully raised       | 166.2" (4.22 m)       |
| Transport height                         | 108.8" (2.76 m)       |
| Stabilizer spread                        |                       |
| Working                                  | 90.0" (2.29 m)        |
| Transport                                | 64.3" (1.63 m)        |
| Leveling angle                           | 4°                    |
| Backhoe weight w/o bucket                | 1,604 lb (727 kg)     |

