Pipeline Television Inspection Trailer

This sewer television system is delivered complete, ready for operation. The system includes a pan/tilt/zoom camera and transporter with inspection capacity from 6" to 36" lines. A lateral inspection system for launching up to 120ft into laterals from 6" to 12" mainlines is also included.

REF Quote Line 1 – System and Outfitting

1   Tandem Axle Trailer, 7'x14' body, 10000 GVWR. See REF section for full vehicle specifications, to which Aries will include:
   1   Spare tire storage area
   2   Adjustable LED floodlights, mounted above rear doors
   1   Vehicle exterior lighting package, including
       1   LED traffic advisor, mounted rear facing, with cab mounted controller
       2   Amber LED strobe lights, 1ea mounted front and rear of roof
           1   Strobe control switch in traffic advisor controller

1   7,000W, gas powered, commercial grade generator, 120V, 60 Hz, with electric local and remote start/stop control to include:
   1   OEM generator enclosure, tongue mounted, with 14-gallon EVAP-certified fuel tank
   1   Vented cover with lock mechanism
   1   Exhaust system with internal muffler
   1   Auxiliary battery, 12V DC and case, mounted on tongue frame
   1   DC converter, 45A
   1   Electric distribution panel and circuit breaker box, 16-space
   1   Electric supply transfer system, house power or generator system, automatic, 50A
   1   35' cord and house power receptacle with integrated cover, mounted front of trailer
   1   System engineering panel to include:
       1   Generator Voltage and frequency meter, digital
       1   Generator start/stop switch
       1   Generator hour meter

1   Trailer control room interior including:
   1   Lonplate non-skid floor covering
   1   White Kemlite laminated surface wall and ceiling covering
   1   Bulkhead wall with Plexiglas window and swing passage door to equipment room
   1   Low profile roof mounted air conditioner, 11000 BTU
   1   Wall mounted 1500-watt heater with wall mounted on/off switch
   1   Modular control center, 19" rack mounted above bulkhead window
   1   Ergonomically contoured and finished control desk
   1   Under-desktop storage drawer
   1   LED lighting system with dimmer switch
   1   Standard electrical upfitting package
   1   Operator chair, post mounted, supplied by 502 Equipment
   1   Padded bench seat with storage underneath

 1   Closet/cabinet/storage space, 74"H, minimum 4 removable shelves
   1   Printer shelf
 1   Netted storage, 8x12, shipped loose for customer install
 1   Dry erase board, mounted above desktop
 1   Bulletin board, mounted to front wall

1   Trailer equipment room interior including:
 1   Lonplate non-skid floor covering
 1   White Kemlite laminated surface wall and ceiling covering
 1   Standard electrical upfitting package
 1   LED lighting system
 1   Fire extinguisher, 10lb, 4A60 B:C rating, OSHA/DOT-approved
 1   Wall mounted 1500-watt heater
 1   5-drawer tool chest, Craftsman Griplatch, mounted in bulkhead wall
 1   Storage shelf/cubby, mounted in bulkhead wall, with interior white Kemlite laminate
 1   Storage shelving unit, 2-shelf, street side wall, 37x12
 1   Workbench with Lonplate worktop, curb side wall
   1   Storage cabinet underneath bench, for washdown components, with interior aluminum laminate
   1   Storage cabinet above workbench, with latched swing doors, with light underneath and interior aluminum laminate
   1   5in vise mounted to workbench
   1   Sanitizer and dispenser, shipped loose for customer install
   1   Paper towel holder, shipped loose for customer install
 1   Pit Pal wall organizer
 1   Set of tie down brackets for floor, shipped loose
 1   Slat wall storage system (items shipped loose for sales to configure)
   1   Hook set, 20-piece
   1   Cord/Hose holder, 2-piece
   1   Shelf and paper towel holder
   1   Storage bin kit, 18ct
   1   Large storage bin kit, 2ct
   1   Tool holder kit, magnetic, 2ct

1   Water wash down system for equipment clean-up including:
 1   Water storage tank, 19-gallon
   1   120V tank heater blanket with switch
 1   Set of fill, vent and drain connections
 1   Water tank demand pump
 1   25' retractable wash down hose with spring-loaded hand nozzle

1   Equipment hoist, 500lb. rating, with swing boom storage
 1   Mounting kit for top of PR2200 reel

1   22" LCD flat panel monitor, TV/PC viewing, mounted above control room desktop
1   22" LCD flat panel monitor, TV/PC viewing, mounted above control room desktop
1   5" LCD flat panel monitor, dedicated lateral viewing, mounted above desktop
1   24" LCD flat panel monitor, TV viewing, mounted rear facing in the equipment room

1   Aries VL5000 video data display including:
   1   Data display control module, panel mounted
   1   Alpha/numeric full QWERTY keyboard for video titling and report data input for VL5000 display
   1   Set of interconnect cables

1   Rack-mounted computer and video overlay system, including:
   1   Industrial hardened case with air filtering, shock mounts for hard drive and CPU fan, peripheral cards support bar, 19" rack, 3U high
        2.1GHz Intel 12th Gen Core i7 processor, 16MB cache
        16GB of RAM, DDR4
        960B solid state hard drive, storage
        240GB solid state hard drive, boot
        (2) RJ45 ethernet ports
        (10) USB ports, 4x USB3.0 + 6x USB2.0, 2x USB3.0 located on front of PC
        Serial port on rear of chassis, DB9
        Wireless network adapter
   1   Wireless keyboard and optical mouse
   1   Windows 10 operating system, 64-bit
   1   1TB USB-connection external hard drive

1   UPS back-up battery system, rack mount
1   Video capture device for post-delivery transfer of Phoenix software

1   Aries PC5100 Master Controller system, multi-conductor, including:
   1   System power supply and control unit, 19" rack mount
   1   Pegasus system control software, loaded on USB flash drive
   2   Wireless Xbox One X style handheld controller
        1   Wire for direct hook up / charging of Xbox One X style controller
1   Wall mounted USB port for controller

1   Aries PE3530 Pathfinder series zoom, pan & tilt camera w/ high-intensity LED lighting and integrated self-cleaning lens wiper system, including:
        Pathfinder zoom pan and tilt camera w/ multi-axis infinite rotation
        Integrated on-demand self-cleaning lens wiper system
        120X zoom (10X optical & 12X digital)
        High-resolution 480(V) x 720(H) output
        Auto-focus with manual override
        Auto-iris with manual override
        Maintenance-free forward-facing white LED lighting located in the camera forks
        Maintenance-free directional white LED lighting that follows the camera's field of view
        White balance optimization with (4) selectable settings
        High-sensitivity camera sensor for low-light applications
        "Starlite" low-light level amplification feature with (4) user selectable amplification steps
        Automatic home feature with forks at side of camera head
        Robust, environmentally sealed camera for use in live pipe, including:
            Scratch-resistant sapphire lens window
            Camera recessed behind forks for frontal impact protection
            Camera housing with hardened metal finishes and non-corrosive metals
            Recessed fasteners & no camera protrusions

    Proportionately slowed camera movements when zooming
    Fast-check internal pressure monitoring system
    On-screen camera diagnostics functions including:
        Camera internal pressure, temperature, operating hours, internal power regulated
        voltage value, camera model, serial number, firmware revision, control error
        recognition, LED current value.

- 1   Camera storage and transport case
- 1   Camera nitrogen recharge kit

1   Aries TR3320 Pathfinder steerable self-propelled transporter for 6" to 36" lines, including:

- 1   Tractor assembly with continuous duty drive motors
- 6   Rubber wheels, 3" diameter
- 4   Rubber wheels, 4" diameter
- 4   Extended hub rubber wheels, 4" diameter
- 4   Extended hub rubber wheels, 5" diameter
- 1   Remotely-operated electric camera lifting mechanism
- 1   Fast-check pressure monitoring system
- 1   Rear viewing camera with LED lighting
- 1   512 Hz internal locating beacon
- 1   Integrated inclinometer system
- 1   Storage and transport case
- 1   Set maintenance parts

4   Double wide "dually" extended hub wheels for larger lines, 5" diameter

2   Carbide impregnated high traction wheels, 3" diameter
2   Carbide impregnated high traction wheels, 4" diameter
2   Extended hub carbide impregnated high traction wheels, 4" diameter
2   Extended hub carbide impregnated high traction wheels, 5" diameter

1   Large diameter pipe kit with geared side rails and 8" diameter rubber tires for operation up to 36" lines
1   Auxiliary detachable light head

1   Aries PR3320 Pathfinder cable and reel assembly, including:

- 1   1000' of lightweight low friction multi-conductor cable
- 1   Heavy-duty frame, drum and motor assembly with clutch and cable level wind assembly
- 1   Front control box with distance display and electrical controls, weather resistant
- 1   Emergency hand crank arm
- 1   Spare cable termination kit
- 1   Sealed continuous contact collector assembly, 12 slip rings minimum
- 1   Telescoping swivel cable guide roller assembly
- 1   Pathfinder system test cable
- 1   Reel controller with desktop mounting devices
- 1   Interconnect cable to TV system electronics
- 1   Drip pan with drain

1   Mounting kit for top of PR2200 reel

1 PR2200 combined TV and LETS cable reel, clutched electric motor drive, to include:
   1 Heavy duty aluminum frame
   1 Footage meter on TV reel level wind assembly with local footage readout and encoder for footage signal to remote video data display system
   1 Sealed continuous contact collector assembly, 12 slip rings minimum
   1 Slide out cable guide assembly
   1 Removable drip pan
   1 Local reel mount electrical controls with emergency stop
   1 Remote desktop electrical controls

1 Mainline combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' Red Maxx, to include:
   1 Cable terminal connector, 12-pin molded
   1 Dummy plug, 12-pin
   1 Tow/tag line bridle set, multi-conductor cable
   1 Clam-shell style strain relief
   1 Cable termination repair kit

1 Lateral combination TV transmission and push cable assembly, including:
   1 1000' multi-conductor cable
      1 Field termination kit for cable
   2 Push cable assemblies (.52"), 120', for 3", 4" and 6" laterals

1 24-pin switchover and test cable system, for Master Controller setup

1 Aries LE3270 Lateral Evaluation Televising System (LETS) with fixed locating camera, including:
   1 Tractor/launcher assembly with
        Front viewing camera
        Rear viewing camera
        Tip-up connector
        Lateral launcher with rotation and insertion angle positioners, and push cable drive
        Lateral footage encoder
   6 Each of 3", 4" and 5" diameter rubber wheels for 6" to 12" sewer lines
   6 3" diameter carbide high traction wheels
   1 Launch chute for use in 6" and 6" relined pipe
   1 Launch chute for use in 8"-12" sewer lines
   1 Maintenance tool kit
   1 Set of test cables
   1 "Tigertail" downhole guide tube
   1 Set of video A/B switching equipment for PIP operation

1 ST930 push camera, color, self-leveling, with lighthead, 512Hz beacon, spring neck, skid, and case

1 Aries PE3601 pan and tilt camera w/ high intensity LED light ring, including:
   1 Pan and tilt camera w/ infinite axial and pan/tilt rotation
   1 Maintenance-free true color warm white directional LED directional lighting system with internal regulators for inspecting up to 6" pipelines
   1 Remote focus (continuous)
   1 Internal beacon electronics (On/off control)
   1 "Smart Upright Home" circuitry (electronic gravity sensor)

   1   Lens/light wiper to clear obstructions
   1   Camera storage and transport case
   1   Spare parts / camera recharge kit

1 Long steering probe, PE3601

1 Cable manhole guide system including:
   1   Manhole top roller assembly
   1   Insertion and extractor pole assembly and tractor adapter
      3 Quick lock extension poles
   1   Manhole bottom roller assembly and adapter hook
   5   Quick lock extension poles
   1   Tiger tail bottom cable guide
   1   Downhole pole storage brackets, RR trailer door

2 Operation / maintenance and spare parts manuals
1 Maintenance tool kit
1 Delivery of system
1 One year warranty, TV system

<u>REF Quote Line 2 – Onsite</u>

2 Days of training

<u>REF – Customer-Supplied Trailer</u>

Trailer, 7'x14' Tandem Axle, 10,000 lb. GVWR
<u>Standard Construction</u>
Interior dimensions: 80" wide x 83" high x 168" long
Gross Vehicle Weight Rating: 10,000 lbs
Dexter independent torsion suspension axles
Trailer-rated radial tires
Modular-styled wheels w/E-coat prime & powder coat finish
All-wheel electric brakes w/12V breakaway switch, battery included
Welded in place safety chains
Automotive style weather stripping
Formed steel rear header with recessed clearance lights
12" on-center Floor Members
.030 exterior aluminum with 16" on-center wall posts
Aluminum fenders
Aluminum roof with 24" on-center bows
ABS molded license plate holder with light

<u>Additional Construction</u>
Extended triple tube tongue with 2-5/16" ball hitch and switchable pintle hoop
ATP stone guard on front of trailer
Stabilizer jacks at corners
32" curbside door with bar lock
Double swing full opening rear doors with semi-style cam locks