What is claimed is:

1. An inspection system for inspecting an object, the system comprising:

   a. a conveyance capable of on-road travel characterized by an axis along a direction of road travel;

   b. a source of penetrating radiation disposed on a deployable member coupled to the conveyance for providing a beam swept substantially transverse to the axis of road travel in a substantially vertical direction alongside the conveyance such that a vehicle carrying the inspected object and personnel may be driven past the conveyance under its own power and may be inspected without requiring a driver to alight;

   c. a detector, mechanically coupled to the conveyance, for detecting penetrating radiation from the source after interaction of the object with the transversely swept beam of vertically directed penetrating radiation and for generation of a detector signal corresponding to detected radiation; and

   d. a controller for creating an image of contents of the object based at least on the detector signal.

2. The inspection system as set forth in claim 1, wherein the deployable member is a boom.

3. The inspection system as set forth in claim 2, wherein the boom is capable of extension outward at approximately 90° to the central axis of the conveyance during the course of inspection.

4. The inspection system as set forth in claim 1, wherein the conveyance is self-propelled.

5. The inspection system as set forth in claim 1, wherein the conveyance includes a trailer.

6. The inspection system as set forth in claim 1, wherein the detector mechanically coupled to the conveyance is deployed from the conveyance prior to inspection operation.

7. The inspection system set forth in claim 4, wherein the detector is mechanically supported by an underlying surface during self-propelled passage thereover by an inspected vehicle.

8. The inspection system set forth in claim 4, further comprising at least one ramp coupled to the detector for facilitating passage thereover by an inspected vehicle.

9. The inspection system as set forth in claim 1, wherein the first source of penetrating radiation includes a collimator for shaping the beam of penetrating radiation.

10. The inspection system set forth in claim 1, wherein the first source of penetrating radiation includes a collimator for shaping the beam of penetrating radiation into a fan beam.

11. The inspection system set forth in claim 1, wherein the first source of penetrating radiation includes a beam scanning mechanism.

12. The inspection system as set forth in claim 10, wherein the beam scanning mechanism is a rotating chopper wheel.

13. The inspection system as set forth in claim 1, further comprising at least one scatter detector for detecting penetrating radiation scattered by contents of the object and for generating a scatter signal.

14. The inspection system as set forth in claim 1, further comprising a display for displaying an image of material disposed within the object based at least on the transmission signal.

15. The inspection system set forth in claim 1, wherein the detector is disposed on a module deployed from the conveyance for inspection operation.

16. The inspection system set forth in claim 1, wherein the source is disposed beneath the object of inspection.

What is claimed is:

1. An inspection system for inspecting an object, the system comprising:

a. a conveyance capable of on-road travel characterized by an axis along a direction of road travel;

b. a source of penetrating radiation disposed on a deployable member coupled to the conveyance for providing a beam swept, by means of a chopper wheel, substantially transverse to the axis of road travel in a substantially vertical direction alongside the conveyance such that an inspected vehicle carrying the inspected object and personnel may be driven past the conveyance under its own power and may be inspected without requiring a driver to alight;

c. a detector, mechanically coupled to the conveyance allowing the inspected vehicle to pass thereover, for detecting penetrating radiation from the source after interaction of the object with the transversely swept beam of vertically directed penetrating radiation and for generation of a detector signal corresponding to detected radiation; and

d. a controller for creating an image of contents of the object based at least on the detector signal.

2. The inspection system as set forth in claim 1, wherein the deployable member is a boom.

3. The inspection system as set forth in claim 2, wherein the boom is capable of extension outward at approximately 90° to the central axis of the conveyance during the course of inspection.

4. The inspection system as set forth in claim 1, wherein the conveyance is self-propelled.

5. The inspection system as set forth in claim 1, wherein the conveyance

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includes a trailer.

6. The inspection system as set forth in claim 1, wherein the detector mechanically coupled to the conveyance is deployed from the conveyance prior to inspection operation.

7. The inspection system set forth in claim 4, wherein the detector is mechanically supported by an underlying surface during self-propelled passage thereover by the inspected vehicle.

8. The inspection system set forth in claim 4, further comprising at least one ramp coupled to the detector for facilitating passage thereover by the inspected vehicle.

9. The inspection system as set forth in claim 1, wherein the source of penetrating radiation includes a collimator for shaping the beam of penetrating radiation.

10. The inspection system set forth in claim 1, wherein the source of penetrating radiation includes a collimator for shaping the beam of penetrating radiation into a fan beam.

11. The inspection system set forth in claim 1, wherein the source of penetrating radiation includes a beam scanning mechanism.

12. The inspection system as set forth in claim 10, wherein the beam scanning mechanism is a rotating chopper wheel.

13. The inspection system as set forth in claim 1, further comprising at least one scatter detector for detecting penetrating radiation scattered by contents of the object and for generating a scatter signal.

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14. The inspection system as set forth in claim 1, further comprising a display for displaying an image of material disposed within the object based at least on the transmission signal.

15. The inspection system set forth in claim 1, wherein the detector is disposed on a module deployed from the conveyance for inspection operation.

16. The inspection system set forth in claim 1, wherein the source is disposed beneath the object of inspection.