WHAT IS CLAIMED IS:

~~1. A tool (100) for inspecting an annular section of an engine, the tool (100) comprising:~~

~~a first segment (102A) extending along a first lengthwise direction (118A) between a forward end (120) and an aft end (122);~~

~~a second segment (102B) extending along a second lengthwise direction (118B) between a forward end (120) and an aft end (122), the forward end (120) of the first segment (102A) pivotably coupled to the aft end (122) of the second segment (102B) and the first segment (102A) moveable relative to the second segment (102B) between a bent position and a coupled position, the first lengthwise direction (118A) defining a coupled angle (134A) with the second lengthwise direction (118B) when the first segment (102A) is in the coupled position relative to the second segment (102B); and~~

~~an adjustment member (138) operable with the first segment (102A), the second segment (102B), or both to adjust the coupled angle (134A) defined by the first lengthwise direction (118A) with the second lengthwise direction (118B).~~

~~2. The tool (100) of claim 1, wherein the first segment (102A) defines an outer side (126) and an inner side (128), wherein the second segment (102B) defines an outer side (126) and an inner side (128), and wherein the forward end (120) of the first segment (102A) is pivotably coupled to the aft end (122) of the second segment (102B) at their respective outer sides (126), and wherein the adjustment member (138) is operable with the inner side (128) of the first segment (102A), the inner side (128) of the second segment (102B), or both.~~

~~3. The tool (100) of claim 1, wherein the first segment (102A) defines a first indentation (140) at the forward end (120) and a second indentation (142) at the forward end (120), and wherein the adjustment member (138) is positioned at least partially within the first indentation (140) or the second indentation (142) to adjust the coupled angle (134A).~~

4. The tool (100) of claim 3, wherein the first indentation (140) defines a first depth (144), wherein the second indentation (142) defines a second depth (146), and wherein the first depth (144) is not equal to the second depth (146).

5. The tool (100) of claim 3, wherein the adjustment member (138) is a bar coupled to the first segment (102A) and positioned at least partially within the first indentation (140) or the second indentation (142) of the first segment (102A).

6. The tool (100) of claim 1, wherein the adjustment member (138) is a rotatably extendable member coupled to the forward end (120) of the first segment (102A).

7. The tool (100) of claim 1, wherein the coupled angle (134A) defined by the first lengthwise direction (118A) with the second lengthwise direction (118B) is less than 180 degrees, and wherein the first lengthwise direction (118A) further defines a bent angle (136A) with the second lengthwise direction (118B) greater than 180 degrees when the first segment (102A) is in the bent position relative to the second segment (102B).

8. The tool (100) of claim 1, further comprising:

a biasing member operable with the first segment (102A) and the second segment (102B) to bias the first segment (102A) towards the coupled position relative to the second segment (102B).

9. The tool (100) of claim 1, further comprising:

an insertion tube (104) defining a substantially 90 degree bend, wherein the first segment (102A) and the second segment (102B) are moveable through the insertion tube (104), and wherein the first segment (102A) is positioned in the bent position relative to the second segment (102B) when moved through the substantially 90 degree bend of the insertion tube (104).

10. The tool (100) of claim 1, further comprising:

a third segment (102C) extending along a third lengthwise direction (118C) between a forward end (120) and an aft end (122), the forward end (120) of the second segment (102B) pivotably coupled to the aft end (122) of the third segment (102C), the second segment (102B) moveable relative to the third segment (102C) between a bent position and a coupled position, the second lengthwise direction (118B) defining a coupled angle (134B) with the third lengthwise direction (118C) when the first segment (102A) is in the coupled position relative to the second segment (102B).

11. The tool (100) of claim 10, wherein the adjustment member (138) is a first adjustment member (138), and wherein the tool (100) further comprises:

a second adjustment member (138) operable with the second segment (102B), the third segment (102C), or both to adjust the coupled angle (134B) defined by the second lengthwise direction (118B) with the third lengthwise direction (118C).

12. The tool (100) of claim 11, wherein the coupled angle (134A) defined by the first lengthwise direction (118A) with the second lengthwise direction (118B) is not equal to the coupled angle (134B) defined by the second lengthwise direction (118B) with the third lengthwise direction (118C).

13. A method (200) for inspecting an annular section of an engine using a tool (100) comprising a plurality of segments (102) and an adjustment member (138), the plurality of segments (102) including a first segment (102A) and a second segment (102B) and the adjustment member (138) operable with the first segment (102A), the second segment (102B), or both, the method (200) comprising:

determining (202) a control radius of the annular section of the engine; and

setting (206) the adjustment member (138) of the tool (100) to adjust a coupled angle (134A) defined by the first segment (102A) relative to the second segment (102B) based on the determined control radius of the annular section of the engine.

~~14. The method (200) of claim 13, wherein determining (202) the control radius of the annular section of the engine comprises determining (203) an inspection radius (114) of the annular section of the engine.~~

~~15. The method (200) of claim 14, wherein setting (206) the adjustment member (138) of the tool (100) comprises setting (207) the adjustment member (138) of the tool (100) such that an average arc shape (112) of the plurality of segments (102) defines a radius of curvature (116) substantially equal to the inspection radius (114) of the annular section of the engine.~~

1. A tool for inspecting an annular section of an engine, the tool comprising:

a first segment extending along a first lengthwise direction between a forward end and an aft end and wherein the first segment defines an outer side and an inner side;

a second segment extending along a second lengthwise direction between a forward end and an aft end and wherein the second segment defines an outer side and an inner side, the forward end of the first segment pivotably coupled to the aft end of the second segment at a pivot axis at the respective outer sides of the first segment and the second segment, and the first segment moveable relative to the second segment between a bent position and a coupled position, the first lengthwise direction defining a coupled angle with the second lengthwise direction when the first segment is in the coupled position relative to the second segment; and

an adjustment member operable with the first segment, the second segment, or both to adjust the coupled angle defined by the first lengthwise direction with the second lengthwise direction and wherein the adjustment member is coupled to the inner side of the first segment, the inner side of the second segment, or both, wherein the adjustment member is a rotatably extendable member coupled to the forward end of the first segment.

2. The tool of claim 1, wherein the adjustment member is a bar coupled to the first segment and positioned at least partially within the first indentation or the second indentation of the first segment.

3. The tool of claim 1, wherein the coupled angle defined by the first lengthwise direction with the second lengthwise direction is less than 180 degrees, and wherein the first lengthwise direction further defines a bent angle with the second lengthwise direction greater than 180 degrees when the first segment is in the bent position relative to the second segment.

4. The tool of claim 1, further comprising:

a biasing member operable with the first segment and the second segment to bias the first segment towards the coupled position relative to the second segment.

5. The tool of claim 1, further comprising:

an insertion tube defining a substantially 90 degree bend, wherein the first segment and the second segment are moveable through the insertion tube, and wherein the first segment is positioned in the bent position relative to the second segment when moved through the substantially 90 degree bend of the insertion tube.

6. A tool for inspecting an annular section of an engine, the tool comprising:

a first segment extending along a first lengthwise direction between a forward end and an aft end and wherein the first segment defines an outer side and an inner side;

a second segment extending along a second lengthwise direction between a forward end and an aft end and wherein the second segment defines an outer side and an inner side, the forward end of the first segment pivotably coupled to the aft end of the second segment at a pivot axis at the respective outer sides of the first segment and the second segment, and the first segment moveable relative to the second segment between a bent position and a coupled position, the first lengthwise direction defining a coupled angle with the second lengthwise direction when the first segment is in the coupled position relative to the second segment;

an adjustment member operable with the first segment, the second segment, or both to adjust the coupled angle defined by the first lengthwise direction with the second lengthwise direction and wherein the adjustment member is coupled to the inner side of the first segment, the inner side of the second segment, or both; and

a third segment extending along a third lengthwise direction between a forward end and an aft end, the forward end of the second segment pivotably coupled to the aft end of the third segment, the second segment moveable relative to the third segment between a bent position and a coupled position, the second lengthwise direction defining a coupled angle with the third lengthwise direction when the first segment is in the coupled position relative to the second segment.

7. The tool of claim 6, wherein the adjustment member is a first adjustment member, and wherein the tool further comprises:

a second adjustment member operable with the second segment, the third segment, or both to adjust the coupled angle defined by the second lengthwise direction with the third lengthwise direction.

8. The tool of claim 7, wherein the coupled angle defined by the first lengthwise direction with the second lengthwise direction is not equal to the coupled angle defined by the second lengthwise direction with the third lengthwise direction.

9. A method for inspecting an annular section of an engine using a tool comprising a plurality of segments and an adjustment member, the plurality of segments including a first segment and a second segment, wherein the first segment and second segment each respectively define an outer side and an inner side, the first segment and second being coupled at a pivot axis at the respective outer sides of the first segment and the second segment, and the adjustment member coupled to the inner side of the first segment, the inner side of the second segment, or both, the method comprising:

determining a control radius of the annular section of the engine; and

setting the adjustment member of the tool to adjust a coupled angle defined by the first segment relative to the second segment based on the determined control radius of the annular section of the engine.

10. The method of claim 9, wherein setting the adjustment member of the tool comprises setting a first adjustment member of the tool to adjust a first coupled angle defined by the first segment relative to the second segment, wherein the plurality of segments further includes a third segment and a fourth segment, and wherein setting the adjustment member of the tool comprises setting a plurality of adjustment members of the tool to further adjust a second coupled angle defined by the second segment relative to the third segment and a third coupled angle defined by the third segment relative to the fourth segment.

11. The method of claim 9, further comprising:

inserting the first and second segments into the annular section of the engine.

12. The method of claim 9, wherein determining the control radius of the annular section of the engine comprises determining an inspection radius of the annular section of the engine.

13. The method of claim 12, wherein setting the adjustment member of the tool comprises setting the adjustment member of the tool such that an average arc shape of the plurality of segments defines a radius of curvature substantially equal to the inspection radius of the annular section of the engine.

14. A tool for inspecting an annular section of an engine, the annular section of the engine defining an inspection radius, the tool comprising:

a plurality of segments moveably coupled to one another, wherein the plurality of segments each define an outer side and an inner side, the plurality of segments being coupled at a pivot axis at the respective outer sides of the segments, and an adjustment member coupled to the inner side of each of the plurality of segments, each segment moveable relative to an adjacent segment between a bent position and a coupled position, the plurality of segments defining an average arc shape when each segment is in its respective coupled position, the average arc shape defining a radius of curvature substantially equal to the inspection radius.

15. The tool of claim 14, further comprising:

an insertion tube defining a substantially 90 degrees bend, wherein the plurality of segments are moveable through the insertion tube, and wherein each segment is in the bent position when moved through the substantially 90 degree bend of the insertion tube.

16. The tool of claim 14, further comprising:

a biasing member operable with at least two segments of the plurality of segments, the biasing member configured to bias at least one segment of the at least two segments towards the coupled position.

17. A tool for inspecting an annular section of an engine, the tool comprising:

a first segment extending along a first lengthwise direction between a forward end and an aft end and wherein the first segment defines an outer side and an inner side;

a second segment extending along a second lengthwise direction between a forward end and an aft end and wherein the second segment defines an outer side and an inner side, the forward end of the first segment pivotably coupled to the aft end of the second segment at a pivot axis at the respective outer sides of the first segment and the second segment, and the first segment moveable relative to the second segment between a bent position and a coupled position, the first lengthwise direction defining a coupled angle with the second lengthwise direction when the first segment is in the coupled position relative to the second segment; and

an adjustment member operable with the first segment, the second segment, or both to adjust the coupled angle defined by the first lengthwise direction with the second lengthwise direction and wherein the adjustment member is coupled to the inner side of the first segment, the inner side of the second segment, or both, wherein

the first segment defines a first indentation at the forward end and a second indentation at the forward end, wherein the adjustment member is positioned at least partially within the first indentation or the second indentation to adjust the coupled angle, and wherein the first indentation defines a first depth, wherein the second indentation defines a second depth, and wherein the first depth is not equal to the second depth.

18. The tool of claim 17, further comprising:

a biasing member operable with the first segment and the second segment to bias the first segment towards the coupled position relative to the second segment.

19. The tool of claim 17, further comprising:

an insertion tube defining a substantially 90 degree bend, wherein the first segment and the second segment are moveable through the insertion tube, and wherein the first segment is positioned in the bent position relative to the second segment when moved through the substantially 90 degree bend of the insertion tube.

20. A tool for inspecting an annular section of an engine, the tool comprising:

a first segment extending along a first lengthwise direction between a forward end and an aft end and wherein the first segment defines an outer side and an inner side;

a second segment extending along a second lengthwise direction between a forward end and an aft end and wherein the second segment defines an outer side and an inner side, the forward end of the first segment pivotably coupled to the aft end of the second segment at a pivot axis at the respective outer sides of the first segment

and the second segment, and the first segment moveable relative to the second segment between a bent position and a coupled position, the first lengthwise direction defining a coupled angle with the second lengthwise direction when the first segment is in the coupled position relative to the second segment;

an adjustment member operable with the first segment, the second segment, or both to adjust the coupled angle defined by the first lengthwise direction with the second lengthwise direction and wherein the adjustment member is coupled to the inner side of the first segment, the inner side of the second segment, or both; and

an insertion tube defining a substantially 90 degree bend, wherein the first segment and the second segment are moveable through the insertion tube, and wherein the first segment is positioned in the bent position relative to the second segment when moved through the substantially 90 degree bend of the insertion tube.

21. The tool of claim 20, further comprising:

a biasing member operable with the first segment and the second segment to bias the first segment towards the coupled position relative to the second segment.