What is claimed is:

1. A method to assess a first component, the method comprising:

accessing the first component;

inspecting the first component to provide inspection results that include a plurality of potential wear indications;

inputting the inspection results to a first machine learning model that is trained using a training corpus that includes inspection results for previously inspected components that are at least similar to the first component by being at least a same categorical type and serving a same operational purpose as the first component, and wherein the first machine learning model outputs assessment information that identifies some of the potential wear indications as being relevant and some of the potential wear indications as not being relevant; and

determining whether to return the first component to active service as a function, at least in part, of the assessment information;

wherein the inspection results include images, the first machine learning model comprises a convolutional neural network-based model, the inspection results for previously inspected components comprise, at least in part, images that include bounding boxes to identify wear indications, and the assessment information output by the first machine learning model comprises, at least in part, images having bounding boxes to identify relevant potential wear indications.

2. The method of claim 1, wherein the first component comprises a gas-turbine engine spool.

3. The method of claim 1, wherein inspecting the first component to provide inspection results comprises, at least in part, employing fluorescent penetrant inspection to inspect the first component.

4. The method of claim 1, further comprising, prior to inspecting the first component:

physically processing the first component.

5. The method of claim 4, wherein physically processing the first component comprises machining the first component.

6. A method to assess a first component, the method comprising:

accessing the first component;

prior to inspecting the first component, physically processing the first component;

inspecting the first component to provide inspection results that include a plurality of potential wear indications;

inputting the inspection results to a first machine learning model that is trained using a training corpus that includes inspection results for previously inspected components that are at least similar to the first component by being at least a same categorical type and serving a same operational purpose as the first component, and wherein the first machine learning model outputs assessment information that identifies some of the potential wear indications as being relevant and some of the potential wear indications as not being relevant; and

determining whether to return the first component to active service as a function, at least in part, of the assessment information;

wherein when determining whether to return the first component to active service as a function, at least in part, of the assessment information yields an inconclusive determination:

inputting at least some of the assessment information as output by the first machine learning model to a second machine learning model that is trained using a training corpus that includes historical results from previous inspections of the first component; and

outputting from the second machine learning model prediction information regarding whether a repeated physical processing of the first component will yield a particular result.

7. The method of claim 6, wherein the second machine learning model is trained using image-based annotation.

8. The method of claim 7, wherein the image-based annotation comprises, at least in part, a characterization that represents whether the first component can likely be returned to active service following a repeated physical processing of the first component.

9. The method of claim 7, wherein the second machine learning model is trained using training images having image-based annotations where at least some of the training images have a label indicating that a corresponding item of content of the training image is one of inconclusive, non-serviceable, or serviceable.

10. An apparatus to assess a first component, the apparatus comprising:

a memory having stored therein inspection results from an inspection of the first component, where the inspection results include a plurality of potential wear indications; and

a control circuit operably coupled to the memory and configured to:

access the inspection results; and

input the inspection results to a first machine learning model that is trained using a training corpus that includes inspection results for previously inspected components that are at least similar to the first component and wherein the first machine learning model outputs assessment information that identifies some of the potential wear indications as being relevant and some of the potential wear indications as not being relevant, and

wherein the assessment information informs a determination regarding whether to return the first component to active service;

input at least some of the assessment information as output by the first machine learning model to a second machine learning model that is trained using a training corpus that includes historical results from previous inspections of the first component; and

output from the second machine learning model prediction information regarding whether a repeated physical processing of the first component will yield a particular result.

11. The apparatus of claim 10, wherein the first component comprises a gas-turbine engine spool.

12. The apparatus of claim 10, wherein the inspection results comprise, at least in part, fluorescent penetrant inspection results.

13. The apparatus of claim 10, wherein the first component comprises a component that has been used in real-world ordinary course and wherein inspecting the first component was preceded by physical processing of the first component.

14. The apparatus of claim 13, wherein the physical processing of the first component comprises machining the first component.

15. The apparatus of claim 10, wherein the inspection results include images, the first machine learning model comprises a convolutional neural network-based model, the inspection results for previously inspected components comprise, at least in part, images that include bounding boxes to identify wear indications, and the assessment information output by the first machine learning model comprises, at least in part, images having bounding boxes to identify relevant potential wear indications.

16. The apparatus of claim 10, wherein the second machine learning model is trained using image-based annotation.

17. The apparatus of claim 16, wherein the image-based annotation comprises, at least in part, a characterization that represents whether the first component can likely be returned to active service following a repeated physical processing of the first component.

18. The apparatus of claim 17, wherein the second machine learning model has been trained using training images having image-based annotations where at least some of the training images have a label indicating that a corresponding item of content of the training image is one of inconclusive, non-serviceable, or serviceable.