



CHAPTER 32

LANDING GEAR

EFFECTIVITY: ALL

32-00-00
PART I



NONDESTRUCTIVE INSPECTION MANUAL

SMRD Task Number: 32-10-00-210-801-L00

Task Description: Externally inspect the MAIN LANDING GEAR components:

- Trailing arm - MLG (SSI 32-10-03).

A. Job Set-Up

- (1) Install the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

WARNING: BE CAREFUL WHEN USING SOLVENTS BECAUSE THEY ARE A HEALTH AND FIRE HAZARD. USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN HANDLING THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

- (2) Before the inspection, if necessary, wipe the surface clean with Methyl Ethyl Ketone (ASTM-D-740), or similar product.

B. Procedure

- (1) Use a flashlight and mirror, if necessary, to examine the trailing arm of the Main Landing Gear ([Figure 1](#)). Make sure it shows no signs of:
 - Damage from impact (nicks, scratches, gouges, dents);
 - Damage from stress (cracks, creases, bends);
 - Damage to sealants;
 - Abrasion or structural deformation;
 - Paint in damaged condition;
 - Loose or missing items.

C. Indication Evaluation

- (1) Record the location of the damage indications.

D. Acceptance and Rejection Criteria

- (1) If there are signs of damage, tell the Embraer Technical Support Department.
- (2) If there is corrosion level 2 or 3, tell the Embraer Technical Support Department.

E. Job Close-Up

- (1) Remove all tools, equipment and unwanted materials from the work area.
- (2) Remove the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

Access Panels:

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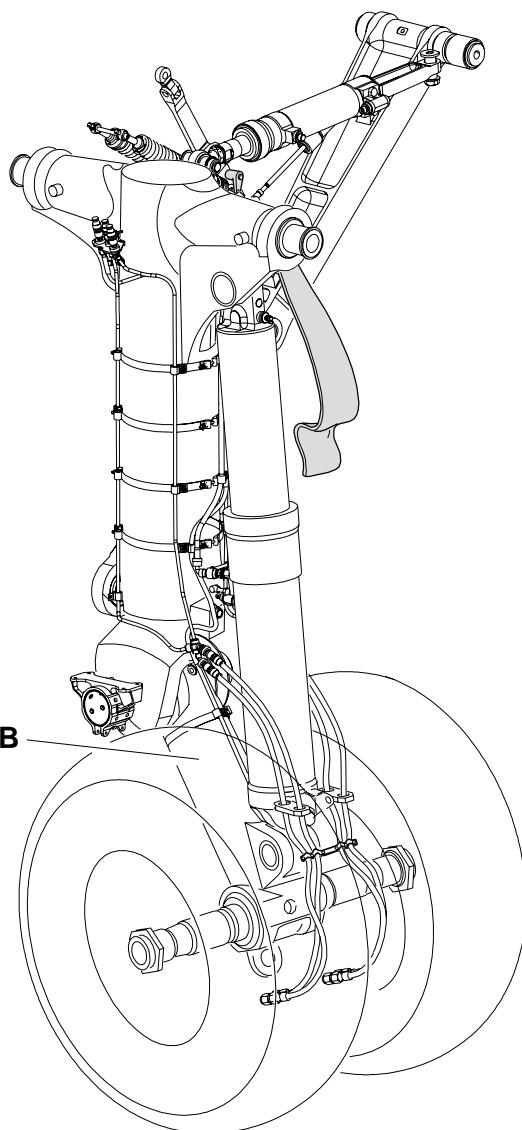
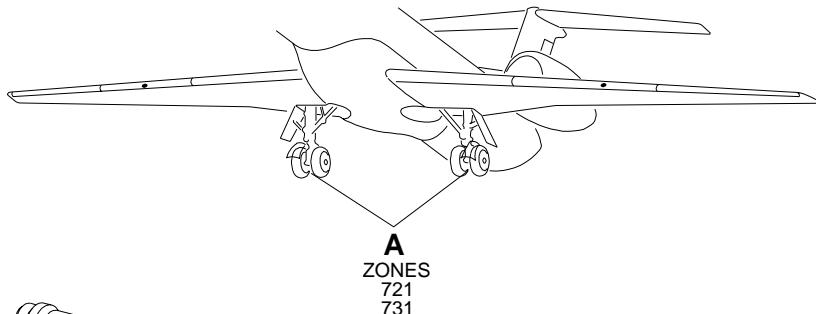
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Access Panels: Not applicable

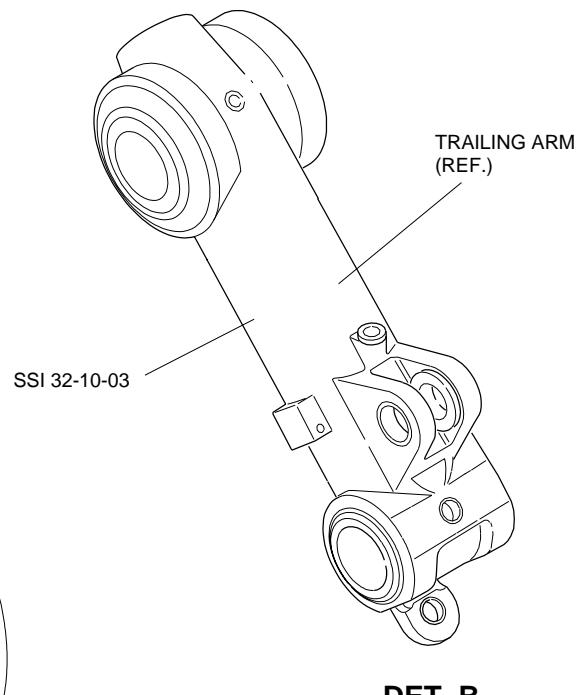
Zones: 721, 731



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DET. A



DET. B

145NDI320006.MCE A

Trailing Arm - External Inspection
Figure 1

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SMRD Task Number: 32-10-00-220-801-L00

Task Description: Externally inspect the MAIN LANDING GEAR components:

- Wheel axle - MLG (SSI 32-10-04).

A. Job Set-Up

- (1) Install the landing gear safety pins (AMM TASK 32-00-01-910-801-A).
- (2) Remove the main wheel assembly and the brake assembly (AMM TASK 32-49-02-000-801-A and AMM TASK 32-49-03-000-801-A).

WARNING: BE CAREFUL WHEN USING SOLVENTS BECAUSE THEY ARE A HEALTH AND FIRE HAZARD. USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN HANDLING THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

- (3) Before the inspection, if necessary, wipe the surface clean with Methyl Ethyl Ketone (ASTM-D-740), or similar product.

B. Procedure

- (1) Use a flashlight and mirror, if necessary, to examine the wheel axle of the Main Landing Gear ([Figure 1](#)). Make sure it shows no signs of:
 - Damage from impact (nicks, scratches, gouges, dents);
 - Damage from stress (cracks, creases, bends);
 - Damage to sealants;
 - Abrasion or structural deformation;
 - Paint in damaged condition;
 - Loose or missing items.

C. Indication Evaluation

- (1) Record the location of the damage indications.

D. Acceptance and Rejection Criteria

- (1) If there are signs of damage, tell the Embraer Technical Support Department.
- (2) If there is corrosion level 2 or 3, tell the Embraer Technical Support Department.

E. Job Close-Up

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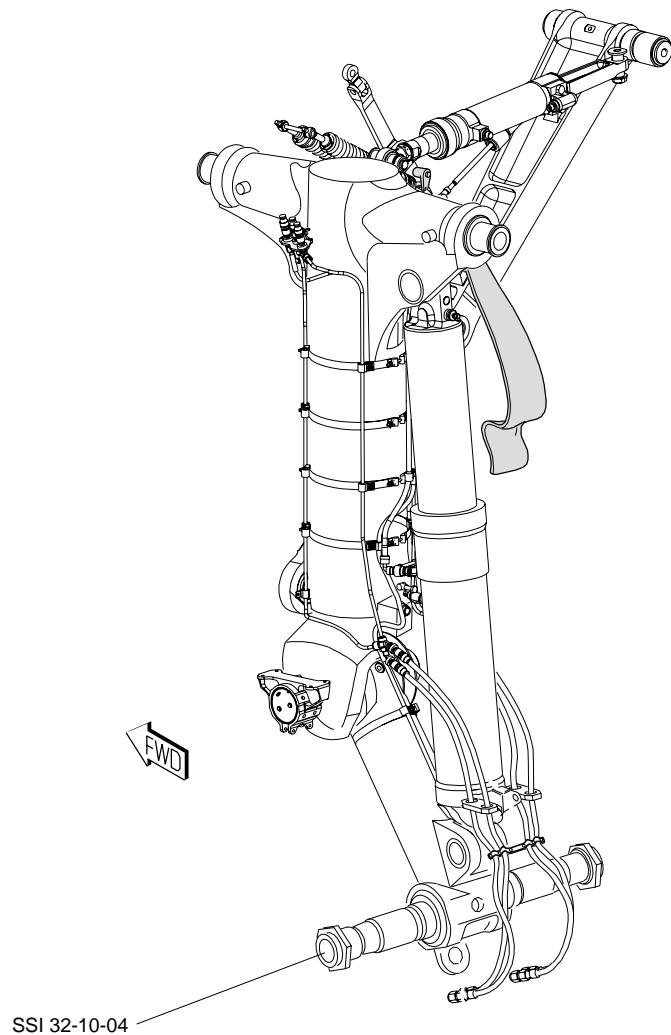
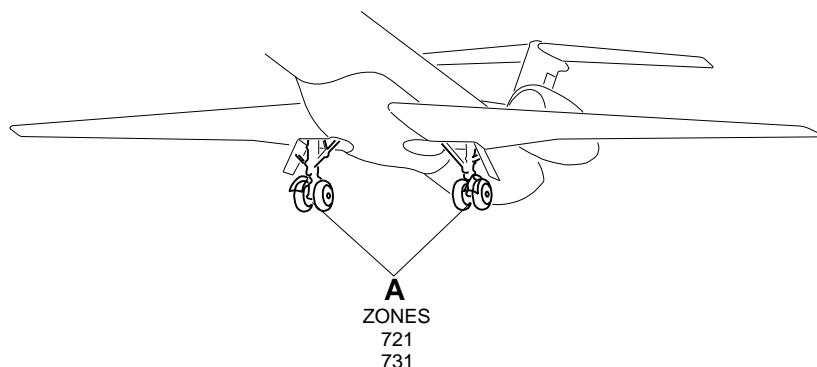
- (1) Install the brake assembly and the main wheel assembly (AMM TASK 32-49-03-400-801-A and AMM TASK 32-49-02-400-801-A).
- (2) Remove all tools, equipment and unwanted materials from the work area.
- (3) Remove the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

Access Panels: Not applicable

Zones: 721, 731



NONDESTRUCTIVE INSPECTION MANUAL



DET. A

145NDI320015.MCE

Wheel Axle - External Inspection
Figure 1

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NONDESTRUCTIVE INSPECTION MANUAL

SMRD Task Number: 32-20-00-210-801-L00

Task Description: Externally inspect the NOSE LANDING GEAR components:

- Strut (main fitting) - NLG (SSI 32-20-12).
- Lower locking strut (SSI 32-20-16).
- Upper drag stay - NLG (SSI 32-20-13).
- Upper locking stay - NLG (SSI 32-20-15).
- Torque links - NLG (SSI 32-20-17).

A. Job Set-Up

- (1) Install the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

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- (2) Before the inspection, if necessary, wipe the surface clean with Methyl Ethyl Ketone (ASTM-D-740), or similar product.

B. Procedure

- (1) Use a flashlight and mirror, if necessary, to examine these components of the Nose Landing Gear ([Figure 1](#)):

- Strut (main fitting) ([Figure 1](#) - DET. B);
- Lower locking strut ([Figure 1](#) - DET. C);
- Upper drag stay ([Figure 1](#) - DET. D);
- Upper locking stay ([Figure 1](#) - DET. C);
- Torque links ([Figure 1](#) - DET. E).

- (2) Make sure that the components show no signs of:

- Damage from impact (nicks, scratches, gouges, dents);
- Damage from stress (cracks, creases, bends);
- Damage to sealants;
- Abrasion or structural deformation;
- Paint in damaged condition;
- Loose or missing items.

C. Indication Evaluation

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- (1) Record the location of the damage indications.

D. Acceptance and Rejection Criteria

- (1) If there are signs of damage, tell the Embraer Technical Support Department.
- (2) If there is corrosion level 2 or 3, tell the Embraer Technical Support Department.

E. Job Close-Up

- (1) Remove all tools, equipment and unwanted materials from the work area.
- (2) Remove the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

Access Panels: Not applicable

Zones: 711

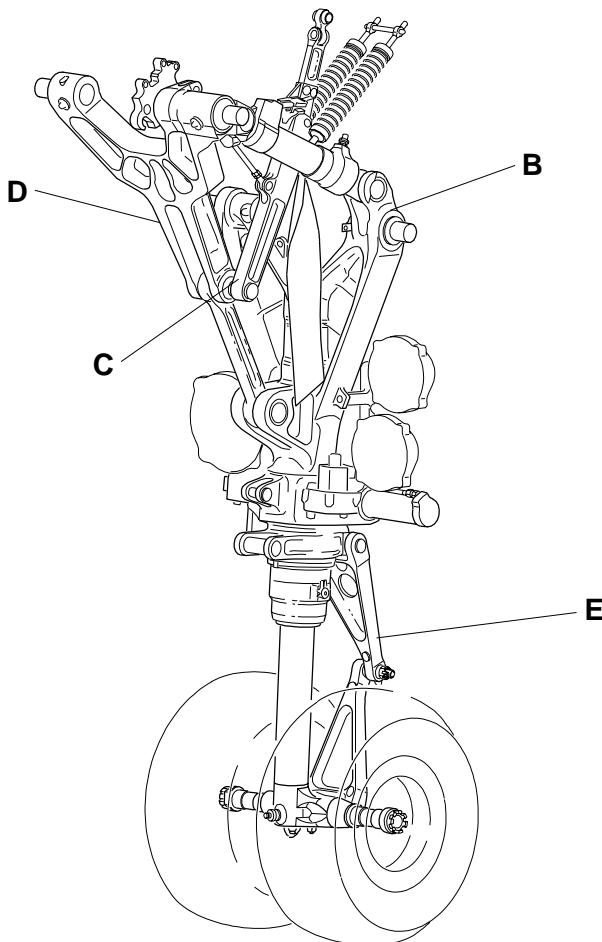
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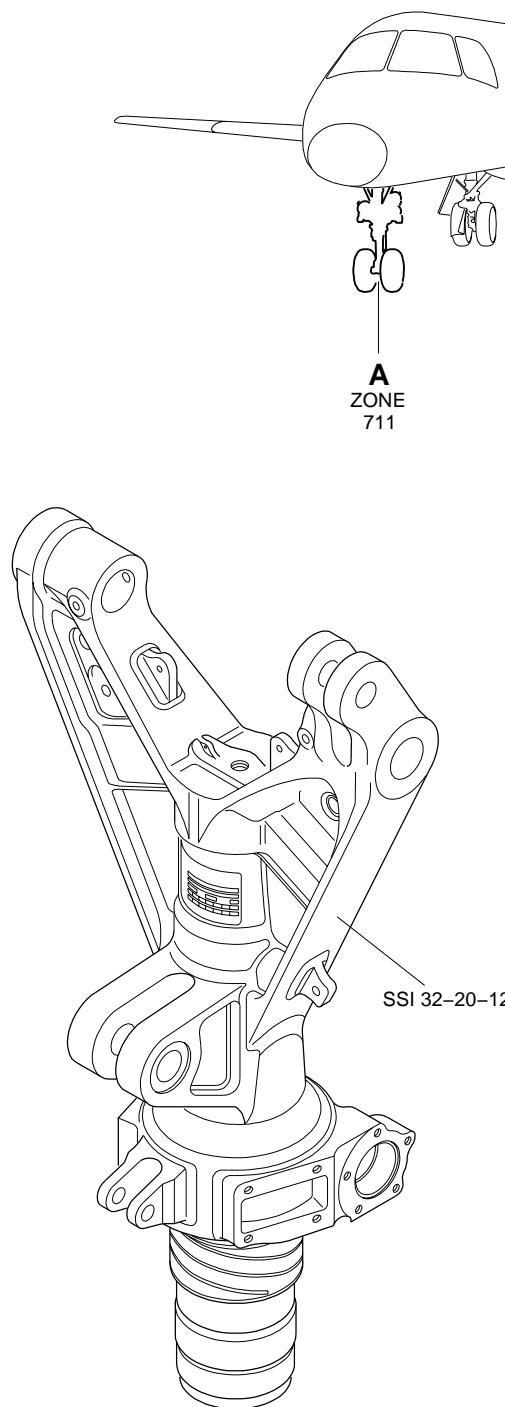
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DET. A



DET. B

145NDI320019.MCE

Nose Landing Gear Components - External Inspection

Figure 1

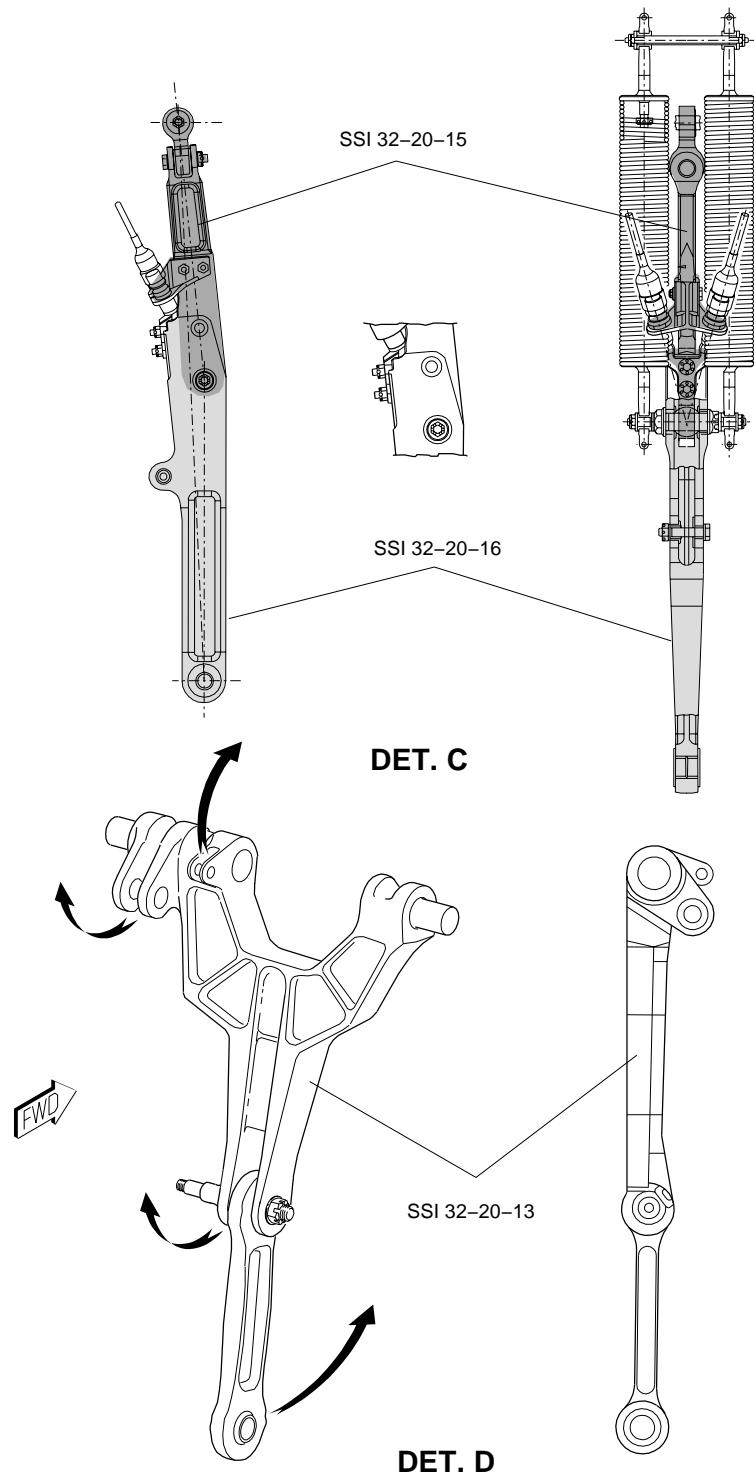
Sheet 1

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Nose Landing Gear Components - External Inspection

Figure 1

Sheet 2

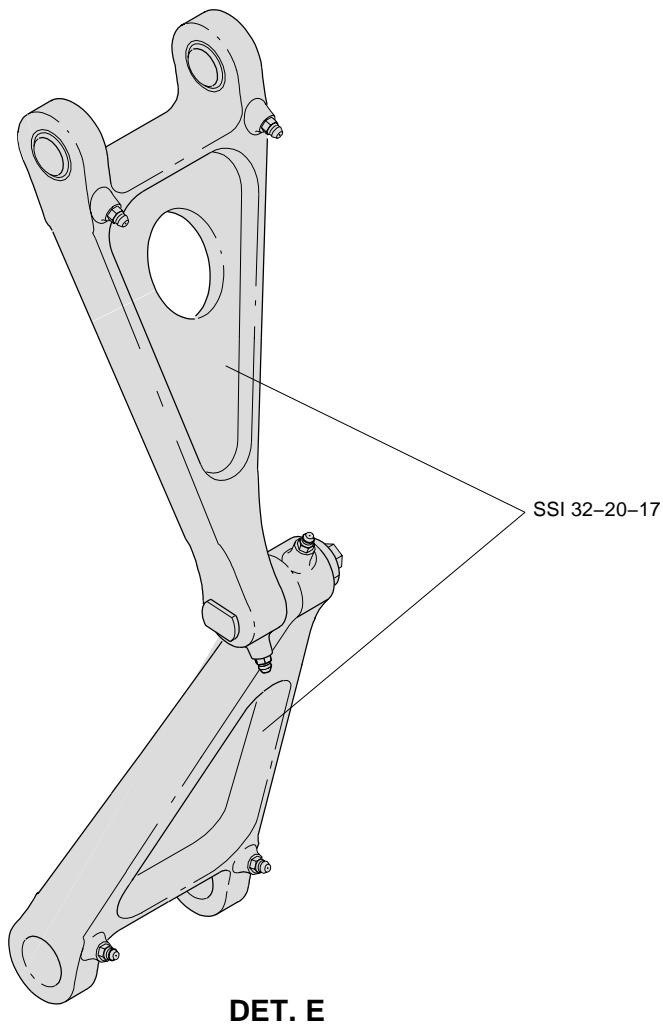
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Nose Landing Gear Components - External Inspection

Figure 1

Sheet 3

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NONDESTRUCTIVE INSPECTION MANUAL

SMRD Task Number: 32-20-00-210-802-L00

Task Description: Externally inspect the NOSE LANDING GEAR components:

- Sliding tube - NLG (SSI 32-20-18).

A. Job Set-Up

- (1) Install the landing gear safety pins (AMM TASK 32-00-01-910-801-A).
- (2) Do the partial aircraft jacking through the fuselage (NLG). Refer to (AMM TASK 07-10-00-500-807-A).

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- (3) Before the inspection, if necessary, clean the surface with methyl ethyl ketone (ASTM-D-740), or similar product.

B. Procedure

- (1) Use a flashlight and mirror, if necessary, to examine the sliding tube of the Nose Landing Gear ([Figure 1](#)). Make sure it shows no signs of:
 - Damage from impact (nicks, scratches, gouges, dents);
 - Damage from stress (cracks, creases, bends);
 - Damage to sealants;
 - Abrasion or structural deformation;
 - Paint in damaged condition;
 - Loose or missing items.

C. Indication Evaluation

- (1) Record the location of the damage indications.

D. Acceptance and Rejection Criteria

- (1) If you find any crack or other relevant discrepancy (e.g. corrosion, scratches, nicks), refer to the SRM recommended repair instructions to rework the damage area.
- (2) If the SRM does not contain the information related to inspection findings, please report to Embraer Technical Support for further repair instructions.
- (3) If you find corrosion areas of levels 2 or 3, please report to the Embraer Technical Support.

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E. Job Close-Up

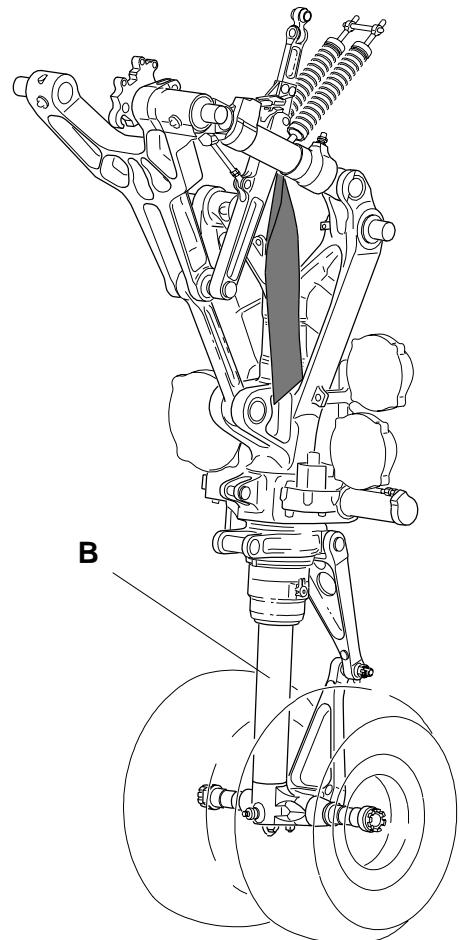
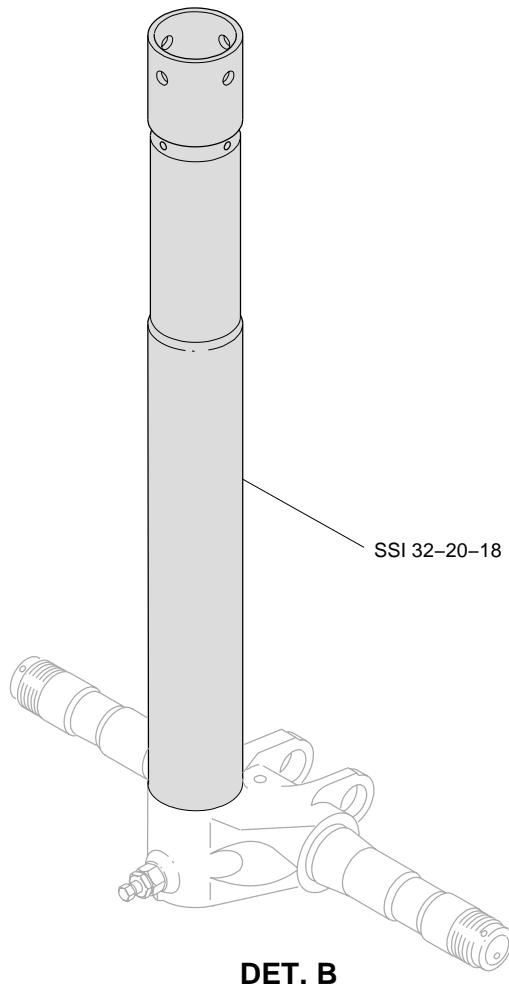
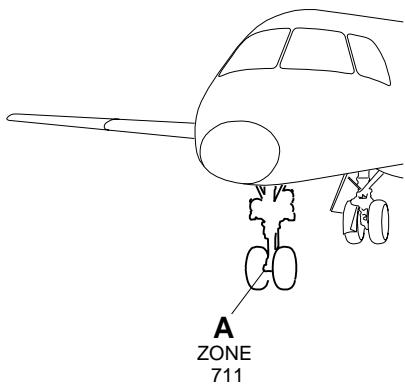
- (1) Remove all tools, equipment and unwanted materials from the work area.
- (2) Lower the aircraft and remove the jack (AMM TASK 07-10-00-500-808-A).
- (3) Remove the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

Access Panels: Not applicable

Zones: 711



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145NDI320012.MCE A

Sliding Tube - External Inspection
Figure 1

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SMRD Task Number: 32-20-00-220-801-L00

Task Description: Externally inspect the NOSE LANDING GEAR components:

- Wheel axle - NLG (SSI 32-20-19).

A. Job Set-Up

- (1) Install the landing gear safety pins (AMM TASK 32-00-01-910-801-A).
- (2) Remove the nose wheel assembly (AMM TASK 32-49-05-000-801-A).

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- (3) Before the inspection, if necessary, wipe the surface clean with Methyl Ethyl Ketone (ASTM-D-740), or similar product.

B. Procedure

- (1) Use a flashlight and mirror, if necessary, to examine the wheel axle of the Nose Landing Gear ([Figure 1](#)). Make sure it shows no signs of:
 - Damage from impact (nicks, scratches, gouges, dents);
 - Damage from stress (cracks, creases, bends);
 - Damage to sealants;
 - Abrasion or structural deformation;
 - Paint in damaged condition;
 - Loose or missing items.

C. Indication Evaluation

- (1) Record the location of the damage indications.

D. Acceptance and Rejection Criteria

- (1) If there are signs of damage, tell the Embraer Technical Support Department.
- (2) If there is corrosion level 2 or 3, tell the Embraer Technical Support Department.

E. Job Close-Up

- (1) Install the nose wheel assembly (AMM TASK 32-49-05-400-801-A).

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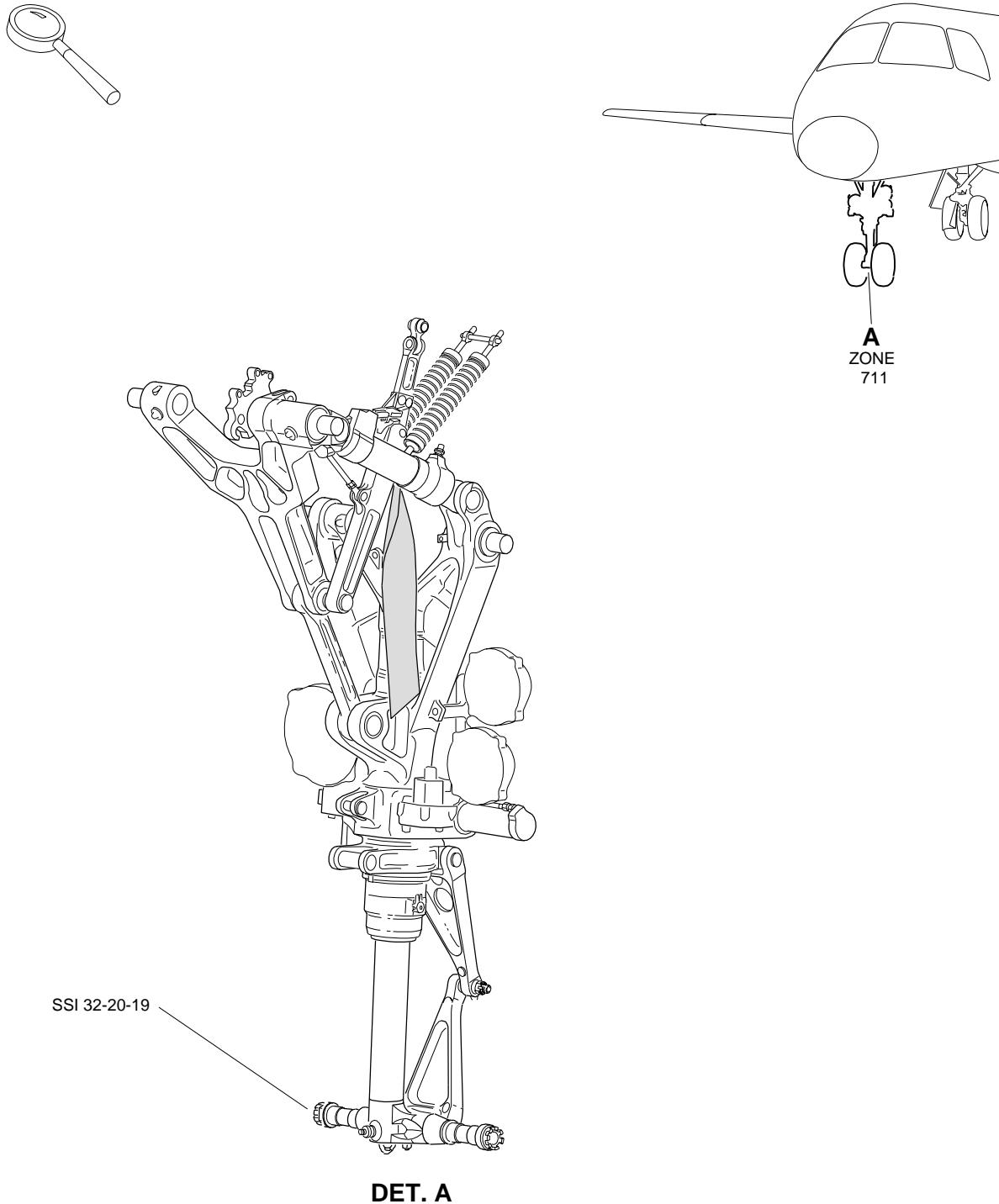
- (2) Remove all tools, equipment and unwanted materials from the work area.
- (3) Remove the landing gear safety pins (AMM TASK 32-00-01-910-801-A).

Access Panels: Not applicable

Zones: 711



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DET. A

145NDI320014.MCE A

Wheel Axle - External Inspection
Figure 1

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