

WORK DESCRIPTION FOR FIELD MEASURE

Code: 21P4396101

Version: 2.2

Bring brake system at front axle to current series production configuration

Model 190 with M032

- i** • Code M032 corresponds to the BLACK SERIES VERSION.

Work procedure

1. Remove both wheel and tire assemblies at front axle.
i For basic data, see AR40.10-P-1100RQ.
2. Remove lower engine compartment lining (bow wave).
i For basic data, see AR61.20-P-1105RG.
i All screws ***must be replaced!***
3. Remove front and rear fender liners in front fender.
i For basic data, see AR88.10-P-1300RGB.
i Left and right front fender liners are ***no longer*** needed (will be replaced)!
4. Remove front bumper.
i For basic data, see AR88.20-P-2000RG.
i All screws ***must be replaced!***
5. Remove radiator protection grille.
i For basic data, see AR61.20-P-1206RG.
i All screws ***must be replaced!***
6. Remove air ducting (A, Figure 1).
i All screws ***must be replaced!***
i The air ducting is ***no longer*** needed (will be replaced)!

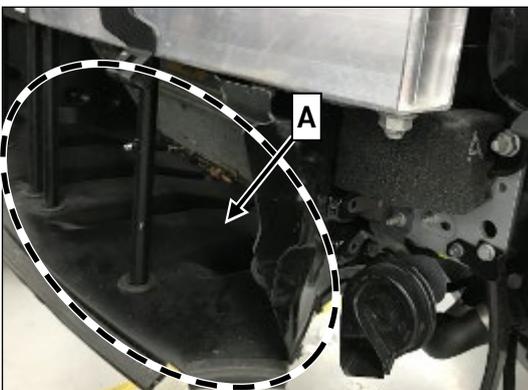


Figure 1

7. Remove all 3 holders with the associated struts.

i For basic data, see AR61.20-P-1206RG.

i The holders are marked with the number 6 in the picture in the AR document!

i All screws **must be replaced!**

8. Remove left and right impact foam pieces (B, Figure 2).

i All expansion rivets **must be replaced!**

i The adhesive strip on the back serves only as an assembly aid during initial assembly at the plant.

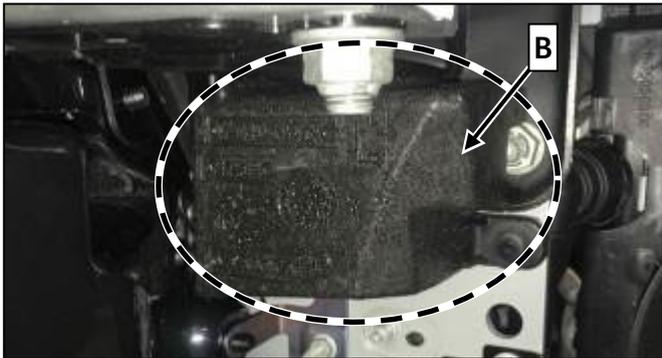


Figure 2

9. Extend left low-temperature water hose (C, Figure 3) with adapter A 190 501 67 00 (Figure 5).

i Clamp off water hose (D, Figure 4).

i Pay attention to position of color marking (white line) (E, Figure 6)!

i Subsequently check low-temperature circuit for leaks (AR09.41-P-1011MNB)!

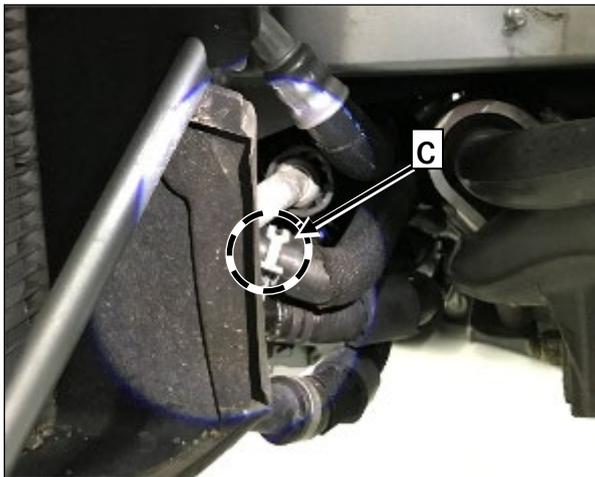


Figure 3

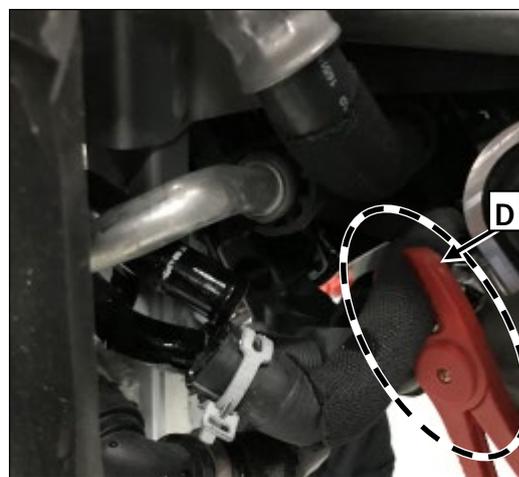


Figure 4



Figure 5

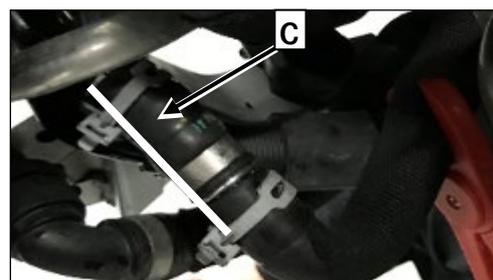


Figure 6

10. Install air hoses A 190 428 31 00 (flexible hose) on left and right (F, Figures 7 and 8).

- i** Front view (Figure 7) and wheel well view (Figure 8).
- i** When inserting the water hose on the right-hand side, it can be rotated counterclockwise by 15°.
- i** The color marking of the hose must be positioned such that the marking is flush with the body-in-white (G, Figure 9).

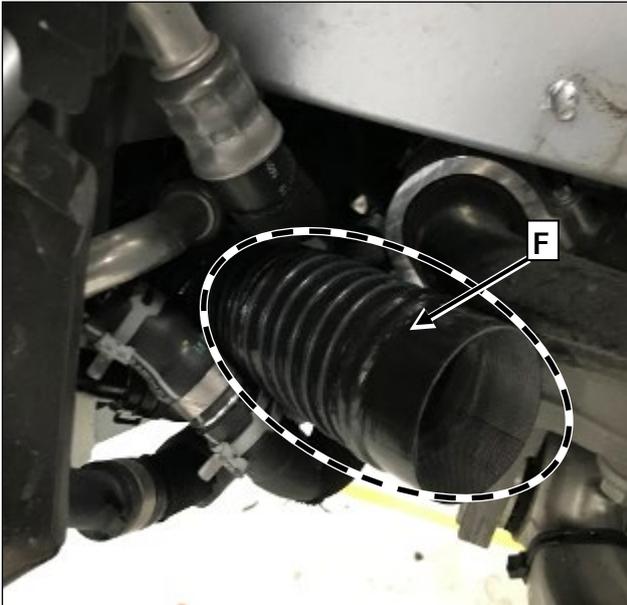


Figure 7



Figure 8

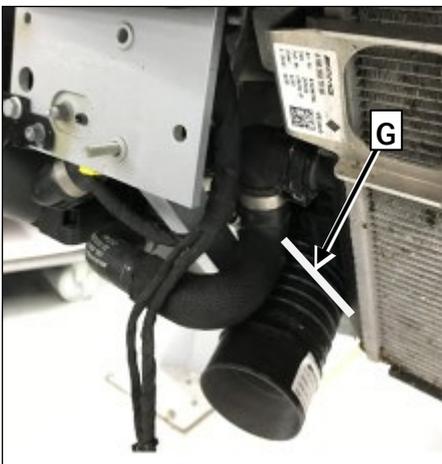


Figure 9

11. Remove holders for horns on left and right.

i The right holder is **no longer** needed (H, Figure 10).

i The right horn must be attached to the **new** holder A 190 501 66 00 (I, Figure 10).

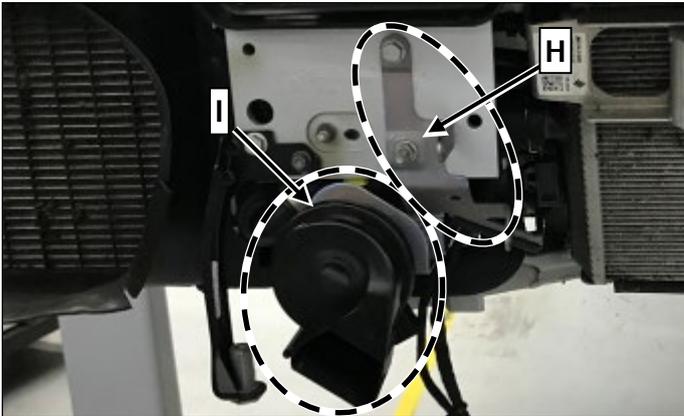


Figure 10

12. Mount supplied edge guard on new right holder (J, Figure 11).

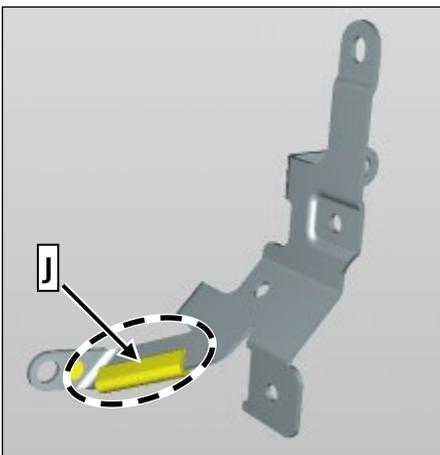


Figure 11

13. Install new right holder and left holder with horns on **new** air ducting A 190 505 36 00 (K, Figure 12).

i Now install expansion rivets **working from the outside to the inside** – change connection angle (L, Figure 13).

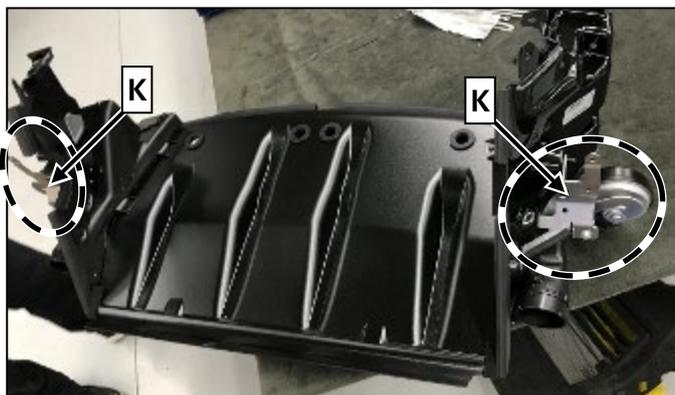


Figure 12

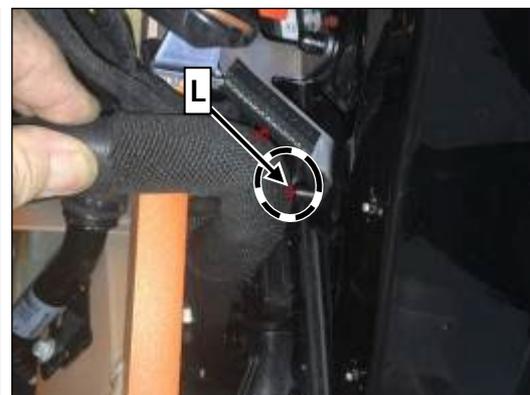


Figure 13

14. Install new air ducting A 190 505 36 00 with the attached holders and connect air ducting with air hoses (M, Figure 14).

i Ensure correct position of holes and fasten with expansion rivets (N, Figure 15).

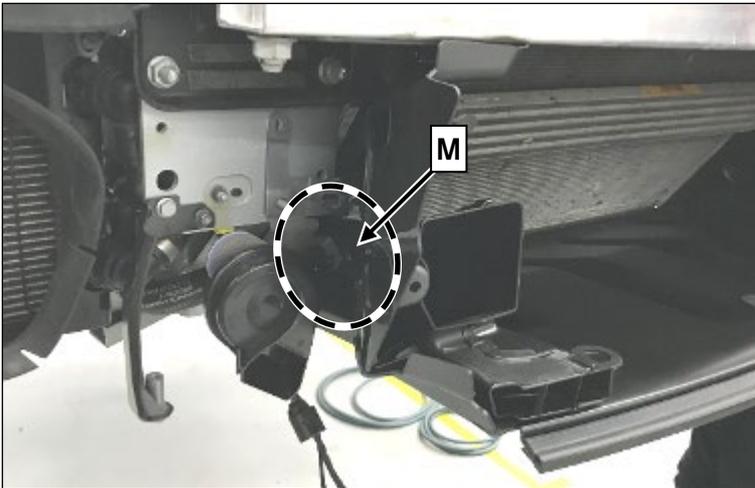


Figure 14

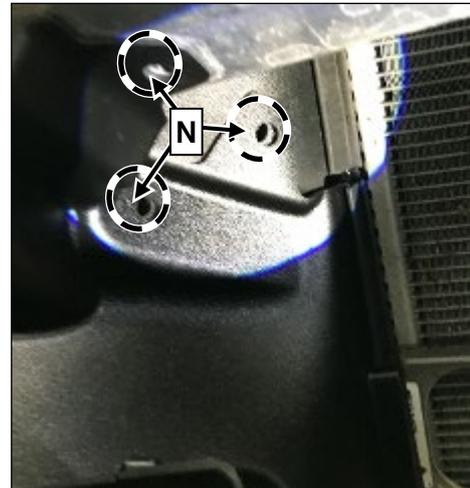


Figure 15

15. Install 3 holders with the associated struts and the radiator protection grille.

i For basic data, see AR61.20-P-1206RG.

16. Reattach impact foam on left and right (O, Figure 16).

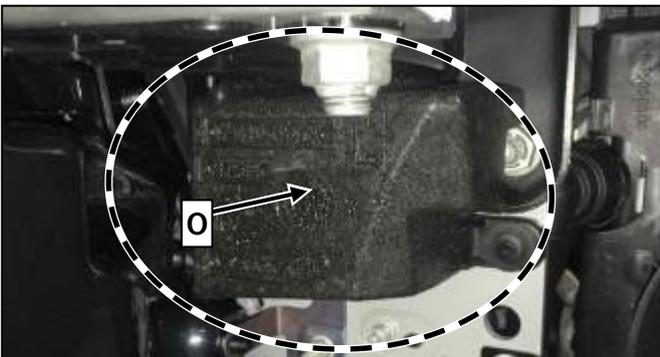


Figure 16

17. Remove brake caliper and fix in place with special tool.

i For basic data, see AR42.10-P-0070RGA.

i **Do not** open hydraulically!

18. Remove brake disk.

i For basic data, see AR42.10-P-0230RG.

19. Remove top left and right heat shields (P, Figure 17).

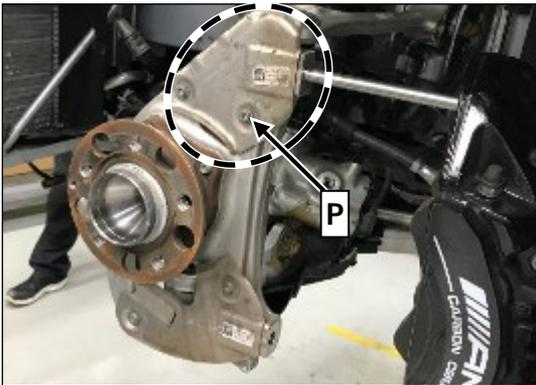


Figure 17

20. Remove left and right front axle rotational speed sensors from steering knuckle.

i For basic data, see AR42.40-P-9801RG.

i All screws **must be replaced**.

21. Wrap heat protection A 004 997 08 51 around removed left and right front axle rotational speed sensors and attach heat protection with 3 cable ties A 000 995 97 06 each.

i Cut heat protection to a length of 150 mm each (Figure 18).

i Do not wrap heat protection around too tightly – leave a small air gap for optimized insulation.

22. Reinstall left and right front axle rotational speed sensors on steering knuckle with heat protection (Figure 19).



Figure 18



Figure 19

23. Install new brake cover plates A 190 421 47 01/ A 190 421 48 01 (Q, Figure 20) and screening plates A 190 421 67 01/ A 190 421 68 01 (R, Figure 21) at left and right.

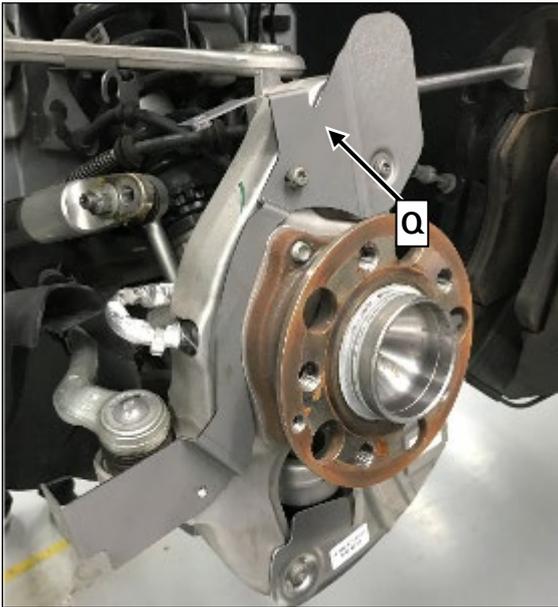


Figure 20



Figure 21

24. Replace front guide vanes at left and right of front axle A 190 421 43 01/ A 190 421 44 01.

i For basic data, see AR42.10-P-0101RG.

25. Install rear guide vanes at left and right of front axle A 190 421 51 01/ A 190 421 52 01/ A 190 421 45 01/ A 190 421 46 01.

i For basic data, see AR42.10-P-0102RG.

26. Install front bumper.

i For basic data, see AR88.20-P-2000RG.

27. Install new front fender liners A 190 690 01 02/ A 190 690 02 02 and old ones at rear in front fender.

i For basic data, see AR88.10-P-1300RGB.

i Pay attention to cutout for air hoses (S, Figure 22)!

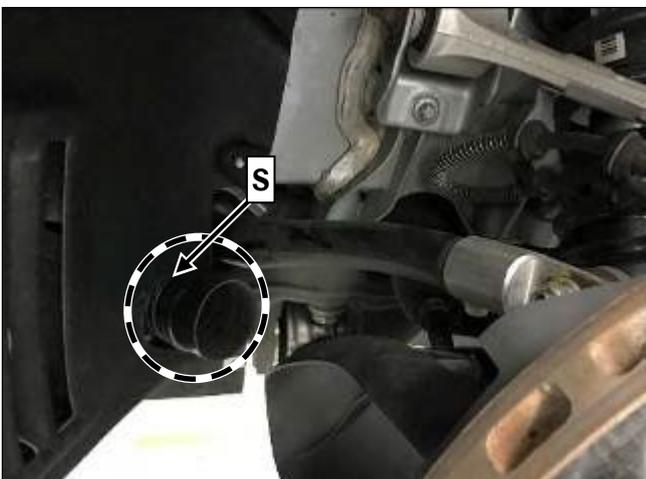


Figure 22

28. Install new connection fittings A190 885 65 04/A 190 885 66 04 at left and right of wheel well liner (T, Figure 23).

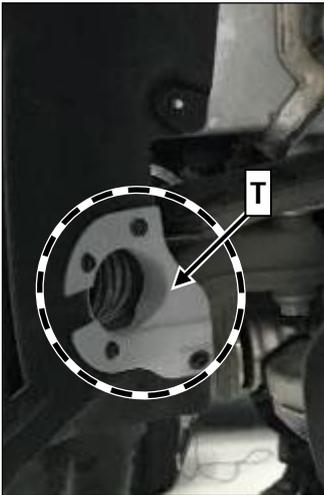


Figure 23

29. Install lower engine compartment lining (bow wave).

i For basic data, see AR61.20-P-1105RG.

30. Fill up low-temperature circuit coolant and bleed with diagnostic system.

i For basic data, see AR20.00-P-1144MNJ.

i Mixing ratio 40:60

31. Assemble in reverse order.
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Parts

Quantity	Designation	Part no.
21	Fillister head screw M6x20	A 010 990 26 04
6	Bolt and washer assembly M6x55	N 304017 006028
4	Screw	A 010 990 17 04
4	Fillister head screw	N 000000 001476
4	Sheet metal screw 4.8x19	N 000000 000925
8	Hexagon head bolt M6	N 910143 006002
4	Expansion rivet	A 201 990 02 92 9051
2	Plastic nut	A 000 990 28 62
1	Left bracing	A 190 620 45 02
1	Right bracing	A 190 620 46 02
2	Expansion rivet	A 000 991 41 40
1	Air ducting	A 190 505 36 00
1	Right holder	A 190 501 66 00
2	Nut	N 910112 006002
1	Hose line	A 190 501 67 00
1	Left front wheel well liner	A 190 690 01 02
1	Right front wheel well liner	A 190 690 02 02
6	Bolt and washer assembly	A 163 990 01 36
6	Plastic nut	A 000 990 35 62
6	Expansion rivet	A 000 990 54 92 9051
12	Spring lock nut	A 004 994 17 45
2	Flexible hose	A 190 428 31 00
1	Left connection fitting	A 190 885 65 04
1	Right connection fitting	A 190 885 66 04
6	Expansion rivet	A 000 990 90 92
2	Sheet metal screw	N 000000 000815
2	Spring lock nut	A 003 994 85 45
4	Cap bolt	A 003 990 79 05
2	Safety screw	A 220 421 01 71
2	Screw, M6x20	N 000000 005050
6	Safety screw	A 000 421 13 71
1	Left cover panel	A 190 421 47 01
1	Right cover panel	A 190 421 48 01
1	Left screening plate	A 190 421 67 01
1	Right screening plate	A 190 421 68 01
4	Screw, M6x12	N 000000 007932
1	Heat protection (2x 150 mm)	A 004 997 08 51
6	Cable tie	A 000 995 97 06
1	Left air scoop	A 190 421 43 01
1	Right air scoop	A 190 421 44 01
6	Hexalobular bolt M6	N 000000 006341
1	Left upper transverse control arm air scoop	A 190 421 51 01
1	Right upper transverse control arm air scoop	A 190 421 52 01
2	Cable tie	A 203 997 04 90
1	Left lower transverse control arm air scoop	A 190 421 45 01
1	Right lower transverse control arm air scoop	A 190 421 46 01
8	Sheet metal screw 4.8x16	N 000000 000548
8	Clip-on nut	A 003 994 87 45



Operation text and flat rate

Operation no.	Operation text	Flat rate	Accounting no./ damage code
02-0682	Bring brake system at front axle to current series production configuration	Time prescribed by foreperson	43 961 01

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