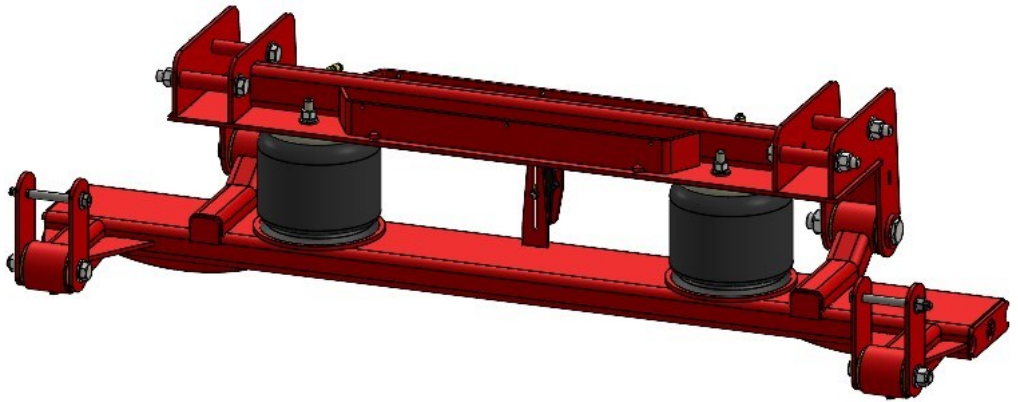


INSTALL INSTRUCTIONS

**2015+ MERCEDES-BENZ/
FRIEGHTLINER SPINTER
VAN 2500 SRW - 170"WB
2-STAGE REAR**



KIT # 10029639

kelderman



KELDERMAN MANUFACTURING

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KIT NUMBERS

- THIS INSTALLATION MANUAL COVERS THE FOLLOWING AIR RIDE KITS.

KIT NUMBER	DESCRIPTION
10029639	2015+ MERCEDES-BENZ/FRIEGHTLINER SPINTER VAN 2500 SRW - 170"WB



Mercedes-Benz Sprinter 2500 SRW



Freightliner Sprinter 2500 SRW

INTRODUCTION

IMPORTANT

- ♦ IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH INSTALLATION.
- ♦ IF YOUR KIT WAS ORDERED RAW, OPEN EVERY BOX AND LOCATE ALL PARTS. THERE ARE SEVERAL SMALLER BUSHING PIECES AND BOLTS THAT ARE PACKAGED SEPARATELY INSIDE THE MAIN BOX.

PRODUCT INSTALLER RESPONSIBILITIES

- ♦ INSTALLER IS RESPONSIBLE FOR INSTALLING THIS PRODUCT IN ACCORDANCE WITH KELDERMAN MFG. INC. SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
- ♦ INSTALLER IS RESPONSIBLE FOR PROVIDING PROPER INSTALLATION OF VEHICLE COMPONENTS AND ATTACHMENTS AS WELL AS REQUIRED OR NECESSARY CLEARANCE FOR SUSPENSION COMPONENTS, AXLES, WHEELS, TIRES, AND OTHER VEHICLE COMPONENTS TO ENSURE A SAFE AND SOUND INSTALLATION AND OPERATION OF THIS PRODUCT.

DEFINITION OF TERMS

- ♦ **WARNING:** INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.
- ♦ **CAUTION:** A POTENTIAL HAZARDOUS SITUATION MAY RESULT IN PROPERTY DAMAGE.
- ♦ **NOTE:** PROVIDE INFORMATION OR SUGGESTIONS THAT HELP CORRECTLY PERFORM A TASK.
- ♦ **TORQUE:** WHEN ITALICIZED "TORQUE" ALERTS THE INSTALLER TO TIGHTEN FASTENERS TO A SPECIFIED VALUE.

BOLT TORQUE CHART

BOLT SIZE	GRADE 5 TORQUE	GRADE 8 TORQUE
1/4"-20	8 FT-LB	12 FT-LB
3/8"-16	31 FT-LB	44 FT-LB
3/8"-24	35 FT-LB	49 FT-LB
M12-1.75	50 FT-LB	80 FT-LB
1/2"-13	75 FT-LB	106 FT-LB
1/2"-20	85FT-LB	120 FT-LB
9/16"-18	121 FT-LB	171 FT-LB
5/8"-11	150 FT-LB	212 FT-LB
5/8"-18	170 FT-LB	240 FT-LB
3/4"-16	297 FT-LB	420 FT-LB
7/8"-14	474 FT-LB	669 FT-LB

SAFETY

YOUR SAFETY AND THE SAFETY OF OTHERS IS VERY IMPORTANT.

- ◆ READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND INSTRUCTIONS BEFORE INSTALLING THIS PRODUCT.

CAUTION: TRUCKS EQUIPPED WITH PARKING SENSORS OR OTHER LIKE DEVICES.

- ◆ RELOCATION OF THESE DEVICES WILL ALTER THE FIELD OF VIEW. IT IS THE RESPONSIBILITY OF THE OWNER TO UNDERSTAND HOW THESE CHANGES AFFECT THE OPERATION OF THESE SYSTEMS.

WARNING: COMPONENTS UNDER PRESSURE.

- ◆ BLEED ALL PRESSURE FROM THE AIR SYSTEM BEFORE PERFORMING ANY MAINTENANCE OR SERVICE. SERIOUS INJURY COULD OCCUR IF COMPONENTS ARE REMOVED WHILE SYSTEM IS PRESSURIZED.

WARNING: CARELESS INSTALLATION CAN RESULT IN SERIOUS INJURY OR PROPERTY DAMAGE

- ◆ WEAR EYE PROTECTION.
- ◆ DISCONNECT THE BATTERY BEFORE DOING ANY WORK ON THE VEHICLE.
- ◆ WORK ON FLAT LEVEL GROUND.
- ◆ ENSURE TRUCK IS PROPERLY SUPPORTED BY JACK STANDS. NEVER WORK UNDER A VEHICLE SUPPORTED ONLY BY HYDRAULIC JACKS.
- ◆ TAKE PRECAUTIONS WHEN LIFTING PRODUCT. DUE TO THE SIZE AND WEIGHT OF THIS PRODUCT TWO PEOPLE ARE RECOMMENDED FOR INSTALLATION.
- ◆ NEVER WORK DIRECTLY UNDER THE PRODUCT UNTIL IT HAS BEEN SECURELY FASTENED TO THE VEHICLE.
- ◆ AVOID SHARP, HOT, AND MOVING COMPONENTS WHEN ROUTING ELECTRICAL CABLES AND AIR LINES.
- ◆ IF DRILLING, INSPECT BOTH SIDES OF THE SURFACE AND REMOVE/RELOCATE ANY OBJECTS LOCATED IN THE WAY.
- ◆ ENSURE ALL BOLTS ARE PROPERLY TIGHTENED BEFORE DRIVING.

PRODUCT OWNER RESPONSIBILITIES

- ◆ PRODUCT OWNER IS SOLELY RESPONSIBLE FOR PRE-OPERATION INSPECTION, PERIODIC INSPECTIONS, MAINTENANCE, AND USE OF THE PRODUCT AS SPECIFIED BY KELDERMAN MFG. INC. OF PARTICULAR IMPORTANCE IS THE RE-TORQUE OF FASTENERS.
- ◆ THIS RE-TORQUE MUST BE PERFORMED WITHIN 2500 MILES OF THIS PRODUCT BEING PUT INTO SERVICE.
- ◆ THE KELDERMAN AIR SUSPENSION IS FULLY AUTOMATIC IN CONTROLLING THE HEIGHT OF THE CHASSIS WHEN PROPERLY INSTALLED.
- ◆ NO MANUAL INTERVENTION TO CONTROL AIR PRESSURE OR RIDE HEIGHT IS NEEDING DURING THE COURSE OF NORMAL OPERATION.
- ◆ PRODUCT OWNER IS RESPONSIBLE FOR “*DOWN TIME*” EXPENSES, CARGO DAMAGE, AND ALL BUSINESS COSTS AND LOSSES RESULTING FROM A WARRANTABLE FAILURE.

SERVICE INTERVALS

FIRST 2,500 MILES

- ◆ CHECK RIDE HEIGHT $\pm 1/4$ ”
- ◆ CHECK FOR AIR LEAKS AROUND FITTINGS.
- ◆ CHECK FOR ANY LOOSE OR RUBBING HOSES AND WIRES.
- ◆ RE-TORQUE ALL HARDWARE.

EVERY 30,000 MILES

- ◆ CHECK RIDE HEIGHT $\pm 1/4$ ”
- ◆ CHECK FOR AIR LEAKS AROUND FITTINGS.

DISASSEMBLY

1. PLACE THE VEHICLE ON A SMOOTH SURFACE TO PERFORM THE INSTALLATION (IF NOT USING A LIFT).
2. CUT THE EXHAUST OFF IN FRONT OF AXLE 6"DOWN FROM THE BEND ABOVE THE AXLE. ALL VANS MUST BE SIDE DUMP EXHAUST.
3. REMOVE THE REAR SHACKLES OFF THE LEAF SPRINGS. THE SHACKLES WILL NOT BE REUSED.
4. SOME UNDERCOATING MAY NEED TO BE REMOVED IF SOME SPOTS ARE THICKER.

ASSEMBLY

1. INSTALL TOP FRAME WELDMENT (#10029771) TO THE FRAME RAILS OF THE VAN AND INSTALL THE CRUSH BUSHINGS TO THE FACTORY HOLE LOCATIONS. (IF YOU HAVE A 2ND GENERATION FREIGHTLINER, YOU WILL HAVE TO DRILL THE HOLE CLOSEST TO THE FRONT OF THE VEHICLE. USE THE DRILL JIG PLATE (#10030149) TO MARK THE HOLE NEEDED TO DRILL.

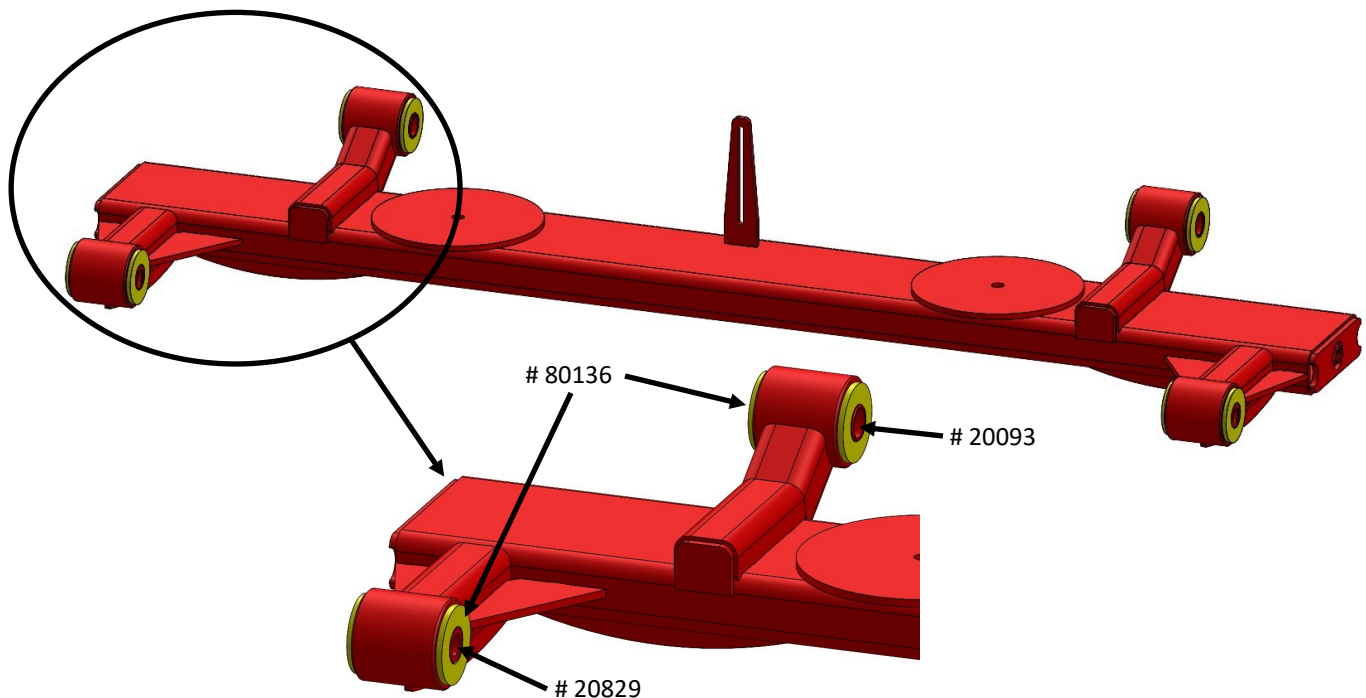


ASSEMBLY (CONT.)

2. INSTALL 5/8"-18 X 5" BOLTS, WASHERS AND LOCK NUTS FROM OUTSIDE TO IN WITH WASHERS ON BOTH SIDES. DON'T TIGHTEN DOWN BOLTS YET.

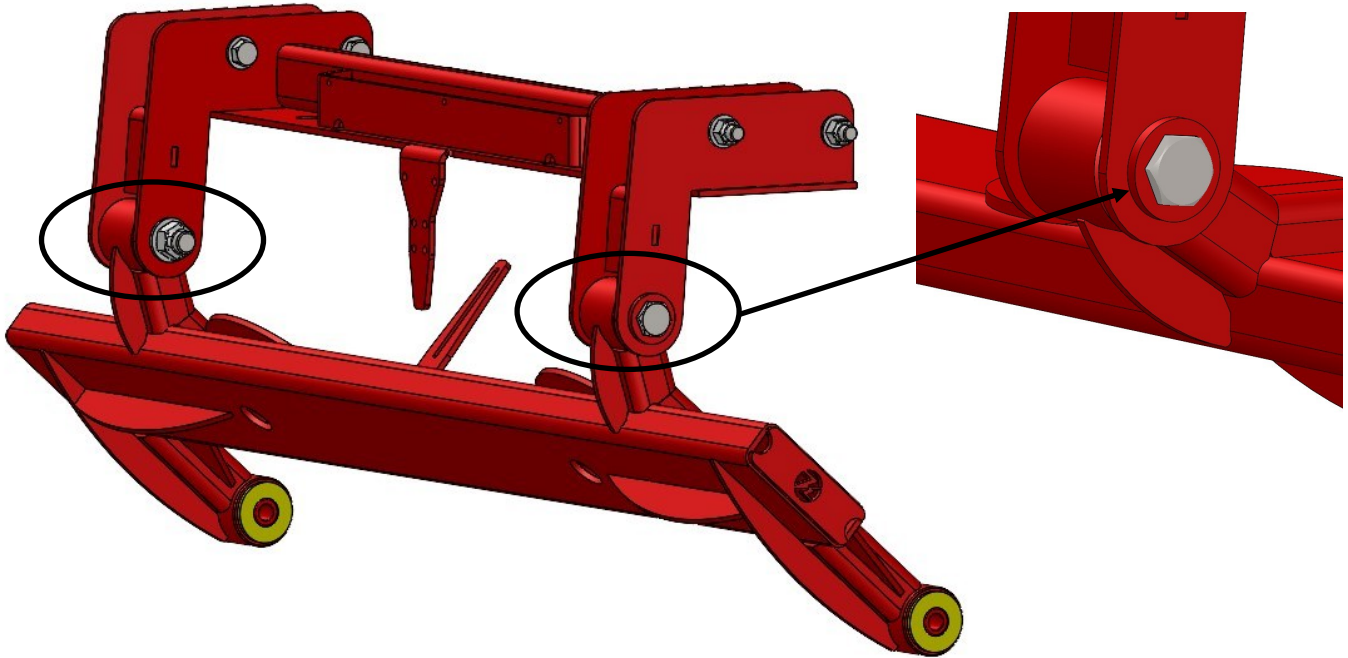


3. MAKE SURE THAT THE LOWER SWING ARM (#10029748) HAS THE POLY HAT BUSHINGS (#80136) AND SLEEVES (#20093) & (#20829) INSTALLED BEFORE ATTACHING TO TOP FRAME.

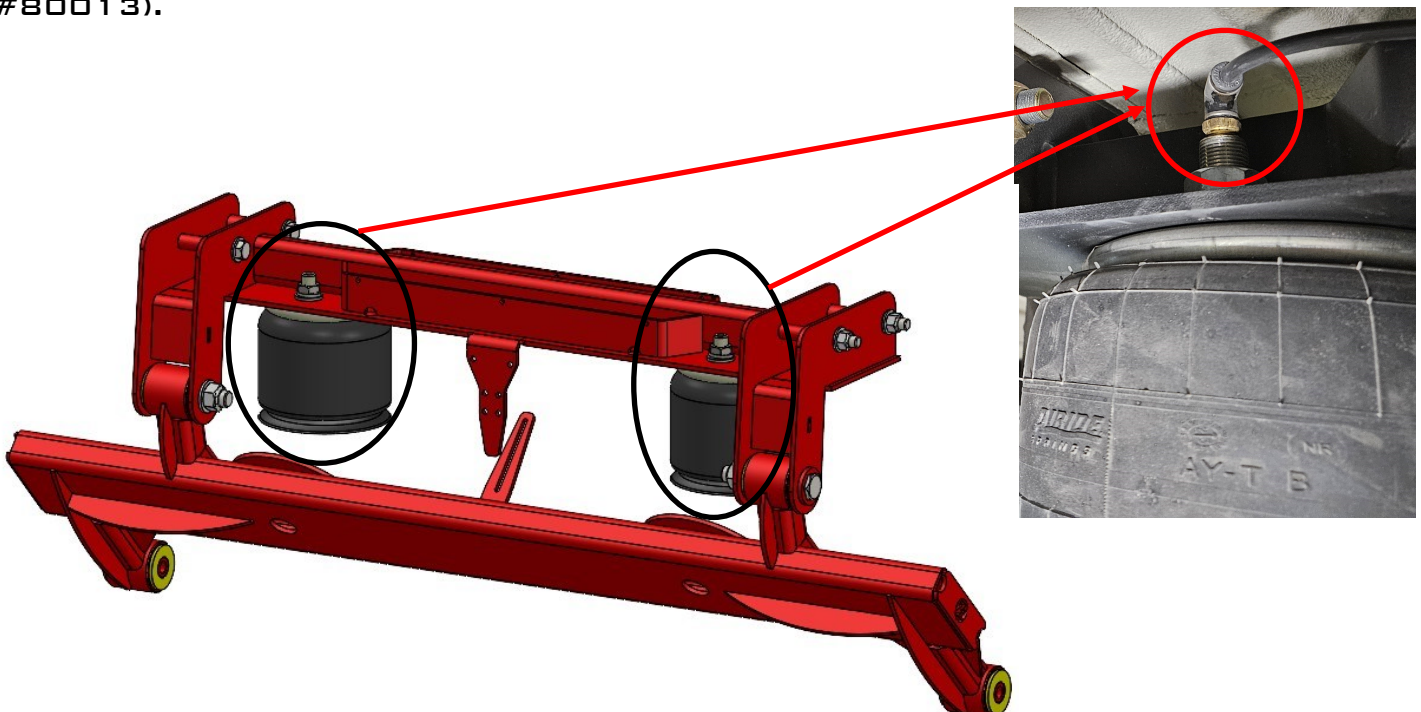


ASSEMBLY (CONT.)

4. INSTALL SWING ARM WELDMENT (#10029748) INTO THE TOP FRAME WELDMENT WITH 7/8"-14 X 5" BOLTS. MAKE SURE THE BOLT HEADS ARE ON THE OUTSIDE OF THE WELDMENT AS THEY SEED INTO THE BOLT RETAINER.

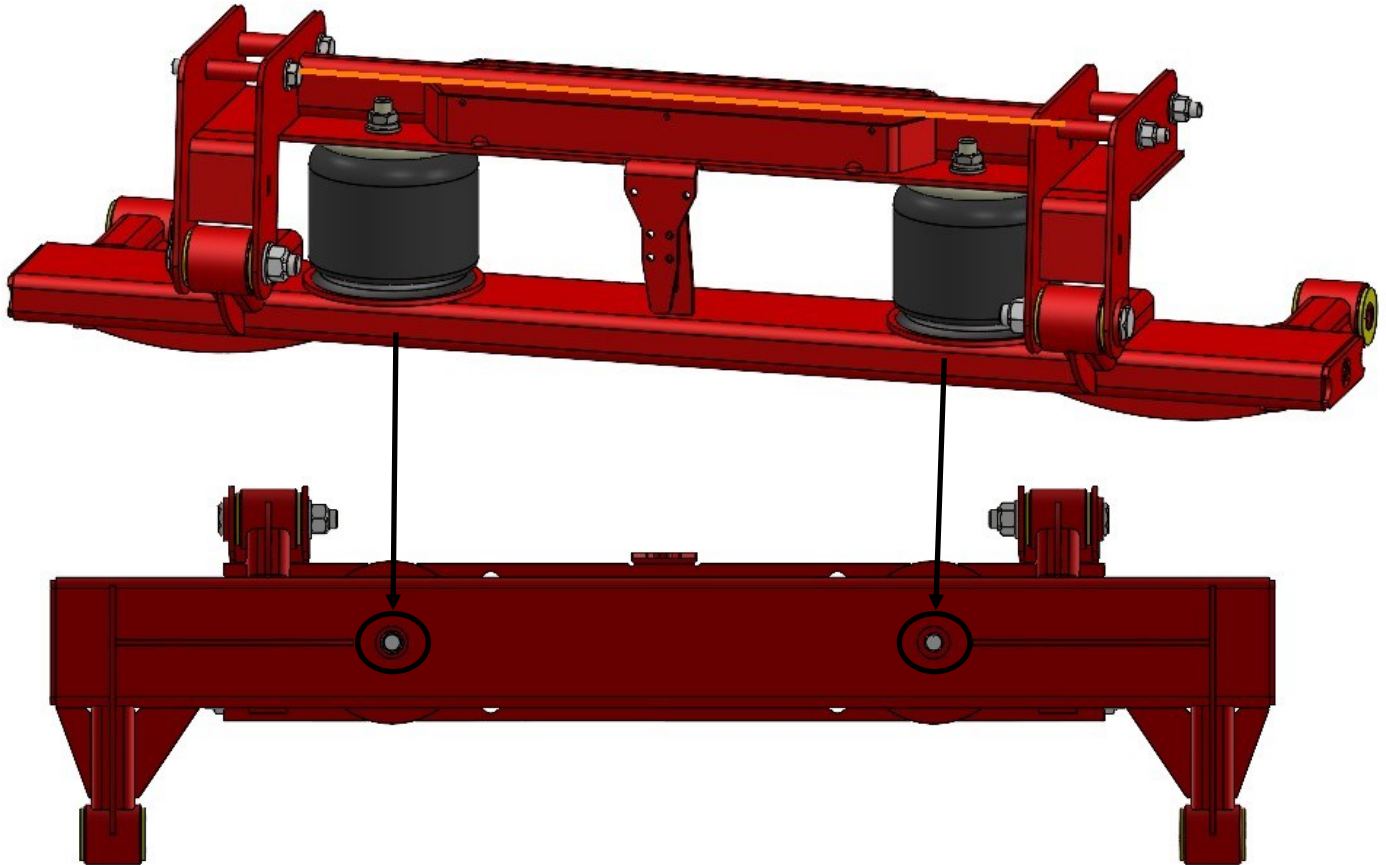


5. INSTALL AIR BAGS (#80012-2119) TO THE TOP FRAME WITH AIR BAG HARDWARE. INSTALL 90° ELBOW 1/4" TUBE PUSH-TO-CONNECT X 1/4"-18 MNPT AIR FITTINGS (#80013).

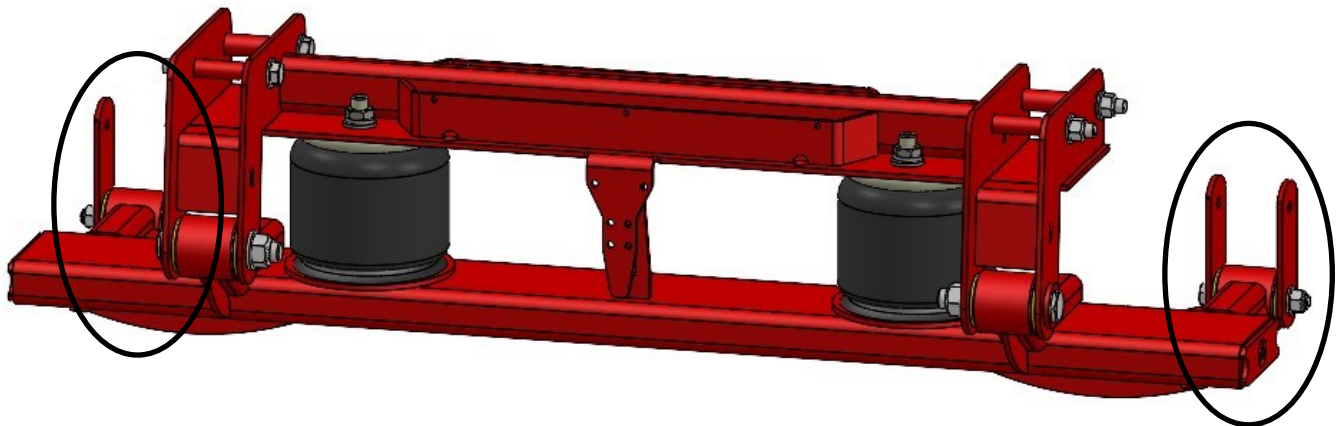


ASSEMBLY (CONT.)

6. SWING THE SWING ARM WELDMENT UP AND BOLT THE SWING ARM TO THE BOTTOM OF THE AIR BAGS WITH 12"-13 X 1-12" BOLTS, SPLIT LOCK AND FLAT WASHERS.

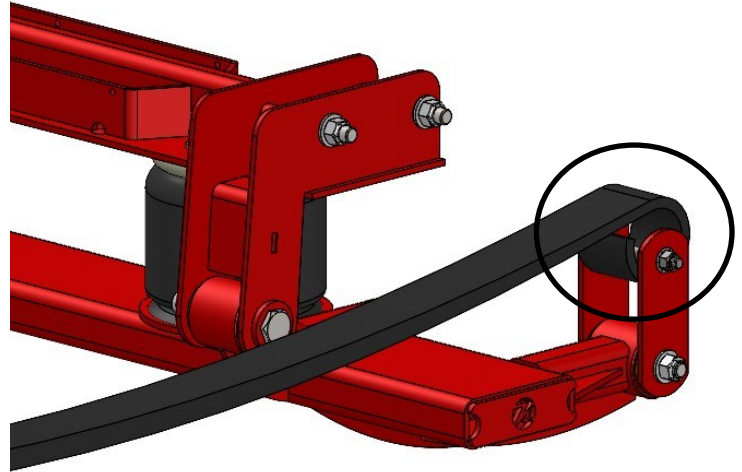


7. INSTALL LEAF SPRING SHACKLE PLATES (#10029808) TO THE SWING ARM BUSHING WITH 58"-18 X 4-1/2" BOLTS, WASHERS AND LOCK NUTS. EACH BUSHING HAS A SHACKLE ON EITHER SIDE.

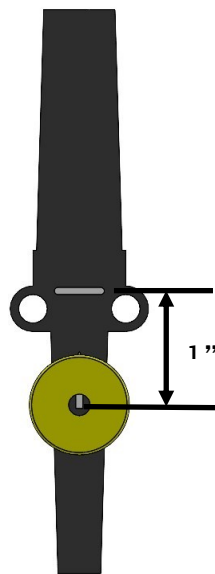


ASSEMBLY (CONT.)

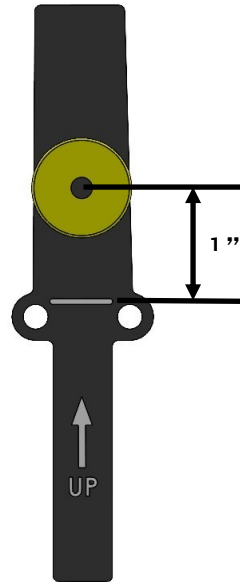
8. LOWER THE TRUCK AND ATTACH THE LEAF SPRING TO THE UPPER HOLE OF THE SHACKLES WITH M12-1.75 X 110MM FLANGE BOLTS AND FLANGE NUTS.



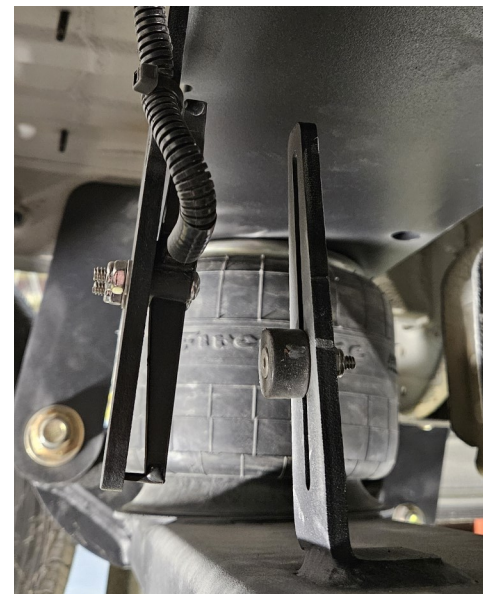
9. INSTALL MAGNET SENSOR & MAGNET TO THE TOP FRAME AND SWING ARM BRACKETS. DEPENDING ON THE SENSOR YOU WILL HAVE TO SET THE SENSOR A DIFFERENT HEIGHTS FROM THE CENTER OF THE SENSOR.



TOYOTA
SENSOR



KELDERMAN
SENSOR



ASSEMBLY (CONT.)

10. FOLLOW WIRING DIAGRAM TO INSTALL THE REST OF THE AIR CONTROLS FOR THE MAGNET SENSOR. MAKE SURE ALL HARDWARE HAS BEEN TIGHTENED DOWN PROPERLY AND THAT THERE IS NO LEAKS IN THE AIR LINE AND FITTINGS. WHEN AIRING UP THE BAGS, MAKE SURE THE AIR BAGS MEASURE 6-1/2" BETWEEN LOWER BAG PLATE AND THE BOTTOM OF THE TOP FRAME.



KIT DRAWINGS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
PARTS			
2	10029808	Plate - Shockle Link - 4.25"	4
3	10029791	Tube - Bushing .945"OD x .6406"ID x 3.625" L	2
4	10029790	Tube - Bushing .789"OD x .6406"ID x 3.625" L	2
5	10029771	Weldment - Top Frame	1
6	10029748	Weldment - Swing Arm	1
7	80136	Purchased Parts - Bushing - OD 1.79" ID - 1.1/8" Length - 1.7/16"	8
8	80045	Toyota Sensor - AMK Control - ECU-SMART 2 CONTROLLER	1
9	80012-2119	Freestone 2119	2
10	80013	90° Air Fitting 1/4"NPT to 1/4" Tube (SMC)	2
11	80011-10966	Magnet - Supplied in 80011	1
12	20829	Bushing - L 3" ID 5/8" OD 1-1/8"	2
13	20093	Bushing - 1-1/8"OD x 7/8"ID x 3" L	2
HARDWARE			
15	14097	Hex Nut: #10-24 - GR5 - Z	1
16	14062	Flat Washer - SAE - #10 - 18.8 SS	1
17	14048	Machine Screw - #10 - 24 X 1.25" - Allen-Countersunk	1
18	13208	Jam Nut RH - 3/4"-16 - GR5 - Z	2
19	13164	Hex Nut - 1/2"-20 - GR8 - YZ	2
20	13130	Top Distorted Thread Lock Nut - 7/8"-14 - GR8 - YZ	2
21	13126	Top Distorted Thread Lock Nut - 5/8"-18 - GR8 - YZ	6
22	13056	Split Lock Washer - 3/4" - GR8 - YZ	2
23	13050	Split Lock Washer - 1/2" - GR5 - Z	4
24	13030	Flat Washer SAE - 7/8" - GR8 - YZ	2
25	13028	Flat Washer SAE - 3/4" - GR8 - YZ	2
26	13026	Flat Washer SAE - 5/8" - GR8 - YZ	12
27	13024	Flat Washer SAE - 1/2" - GR8 - YZ	4
28	12629	Hex Bolt - 7/8" x 5" - GR8 - YZ	2
29	12435	Hex Bolt - 5/8"-18 x 5" - GR8 - YZ	2
30	12006	Hex Bolt - 1/2"-13 x 1-1/2" - GR5 - Z	4
31	12431	Hex Bolt - 5/8"-18 x 4-1/2" - GR8 - YZ	2
32	14105	Flange Bolt - M12-1.75mm x 110mm - Class 10.9 - Plain	2
33	14107	Flange Nut - M12-1.75mm - Class 10 - YZ	2

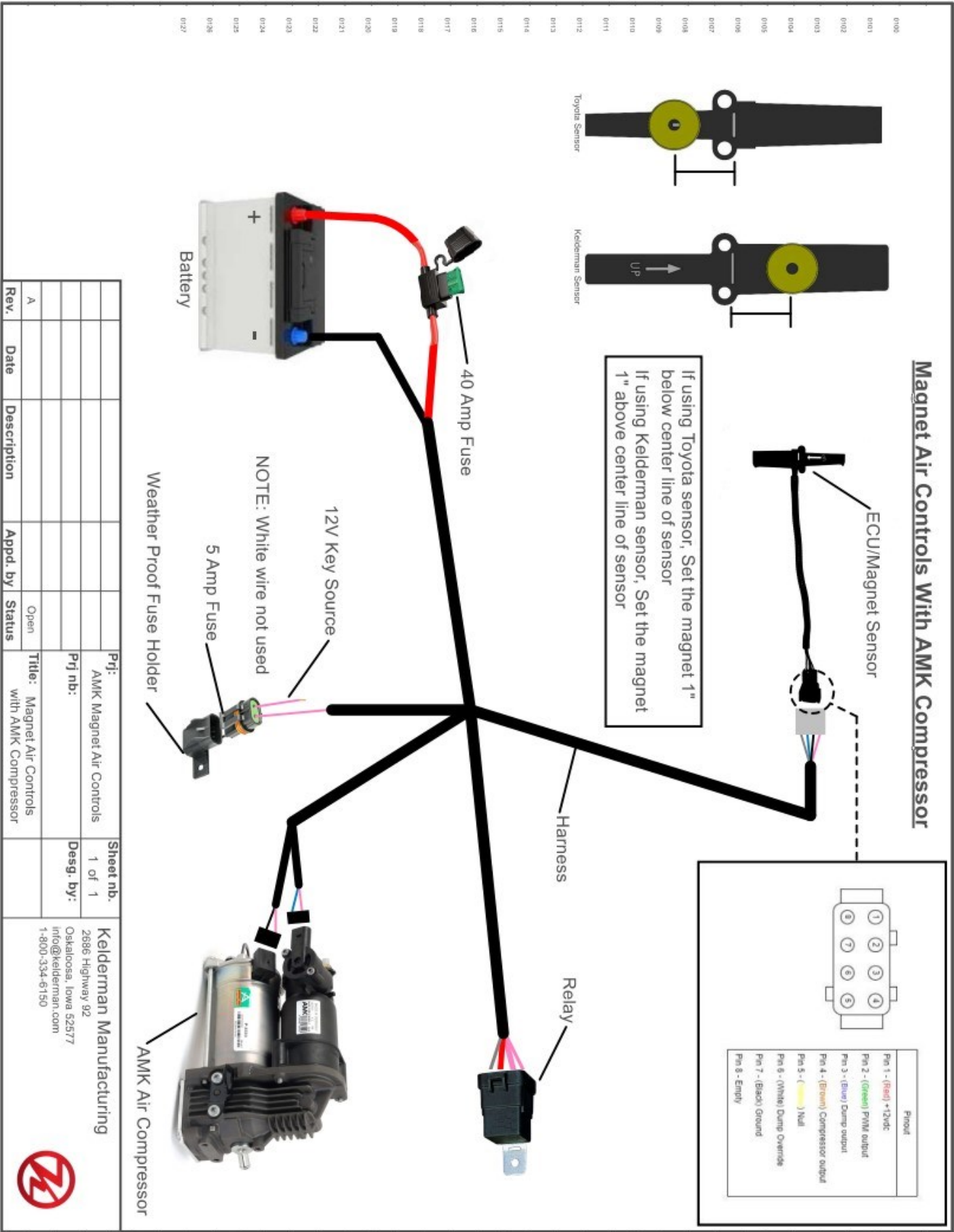
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PROJECT: 2019 Mercedes-Benz Sprinter Van 2500 SW - 170WB

DATE: 4/19/2024

SHEET 1 OF 1

KIT DRAWINGS



NOTES

CONTACT INFORMATION

KELDERMAN MANUFACTURING APPRECIATES YOUR BUSINESS. WE STRIVE TO MEET THE NEEDS OF OUR CUSTOMERS BY PROVIDING THE HIGHEST QUALITY PRODUCTS. IF YOU HAVE ANY QUESTIONS CONCERNING OUR PRODUCTS PLEASE CALL OR EMAIL US AT THE FOLLOWING:

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