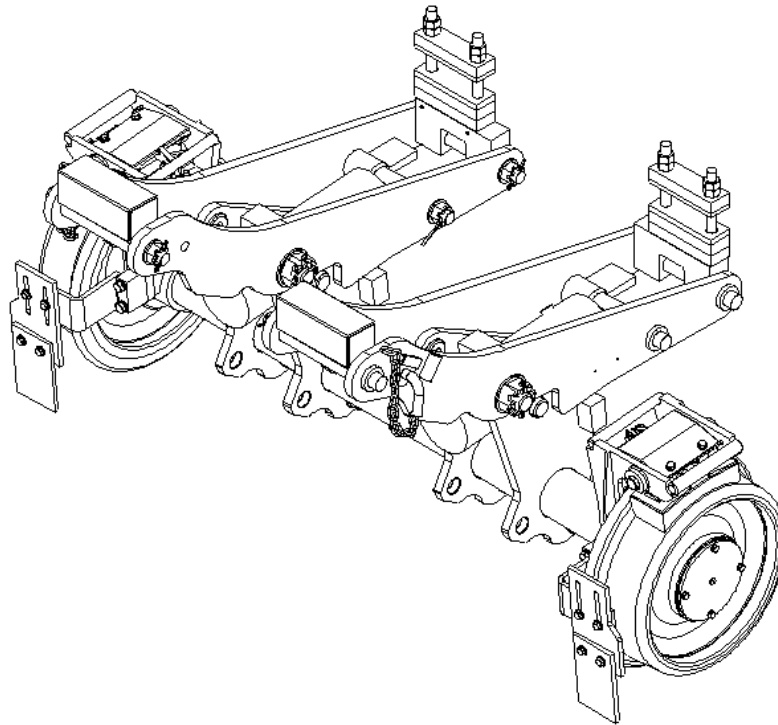


TECHNICAL SERVICE BULLETIN	
ISSUE DATE: 02/22/21	TSB NUMBER: TSB-203
HAZARD / URGENCY RATING	
X	DANGER - Physical harm is possible if TSB is not observed or followed
X	WARNING - Equipment damage is possible if TSB is not observed or followed
X	CAUTION - Essential issue affecting operation, service, parts or installation
X	INFORMATIONAL - Advisory which may be of interest

APPLICABLE EQUIPMENT:

ALL ROAD VEHICLES USING RAFNA RAIL GEAR WITH A R-1100/1110/1130/1150 UNIT INSTALLED WITH RAIL GEAR BRAKES FRONT AND/OR REAR



SUMMARY:

THE UNDERSTANDING OF PROPER INSPECTION AND OPERATION OF THE BRAKES IS CRUCIAL IN PREVENTING FAILURE WITH THE GEAR OR PREMATURE REPLACEMENT OF PARTS.

IMPACT:

IMPROPER ADJUSTMENT OF BRAKES CAN LEAD TO EXCESS/NOT ENOUGH PRESSURE ON THE RAIL WHEELS RESULTING IN WHEEL DRAGGING/FLAT SPOTS OR WORSE CASE THE BRAKES HAVING NO AFFECT AT ALL.

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: 1-570-752-5901 Fax: (570) 752-6397

ACTION:

OPERATOR OF VEHICLE TO OBSERVE AND ENSURE RAIL GEAR BRAKES ARE ADJUSTED PROPERLY AND NO EXCESSIVE WEAR IS VISABLE ON WHEEL OR BRAKE SHOE. IF THE CONDITION OF THE BRAKES ARE UNABLE TO BE DETERMINED OR YOU FEEL YOU ARE UNSURE, PLEASE SEE STEPS BELOW AND VISUAL AIDS TO COMPARE AND CORRECT.

THE AIR BRAKE KIT MUST BE SERVICED REGULARLY TO AVOID DAMAGE TO THE EQUIPMENT. TABLE 1 BELOW PROVIDES THE RECOMMENDED SERVICE SCHEDULE AND THE DETAILED SERVICE PROCEDURES TO FOLLOW.

DO NOT TORQUE THE ½” FASTENERS WHICH PASS THROUGH THE BRAKE LINKAGE. THESE FASTENERS MUST REMAIN SLIGHTLY LOOSE TO ALLOW THE AIR BRAKES TO FUNCTION FREELY. TABLE 2 PROVIDES ALL OTHER STANDARD FASTENER TORQUE VALUES.

TABLE 1: RECOMMENDED SERVICE SCHEDULE

Service Required	Initial 100 km (62 Miles) of road and/or rail use	Daily	Weekly	Monthly
Inspect air brake kit fasteners (re-torque if required)		✓	✓	✓
Check air brake kit for air leaks (repair if required)		✓	✓	✓
Check / adjust brake shoe to rail wheel clearance (see procedure)				✓
Check brake shoe wear (see procedure)				✓

TABLE 2: STANDARD FASTENER TORQUE VALUES

Fastener Size	Fastener Torque Value (ft-lbs) Dry
1" UNC Gr. 8 Fasteners	250
¾" UNC Gr. 8 Fasteners	175
⅝" UNC Gr. 8 Fasteners	150
½" UNC Gr. 8 Fasteners	100
⅜" UNC Gr. 8 Fasteners	40
¼" UNC Gr. 8 Fasteners	12

PROCEDURE:

1. CONFIRM RAIL GEAR IS RAFNA RAIL GEAR. THIS CAN BE DONE BY LOCATING THE SERIAL NUMBER ON EITHER THE FRONT ARM ASSEMBLY OR REAR MOUNTING BRACKET. SEE PHOTOS FOR LOCATIONS. IF UNSURE OF RAIL GEAR MODEL, G&B SPECIALTIES CAN BE CONTACTED WITH THE SERIAL NUMBER AND WE WILL BE HAPPY TO ASSIST.
2. ONCE CONFIRMED, LOCATE THE BRAKE ASSEMBLY ON THE FRONT/REAR RAIL GEAR.

NOTE: FRONT AND REAR BRAKES ARE SETUP AND ADJUSTED THE SAME. THESE STEPS WILL APPLY TO BOTH FRONT AND REAR BRAKES.

3. INSPECT THE BRAKE SHOE FOR EXCESS WEAR. THERE IS ONLY SO MUCH ADJUSTMENT THE CLEVIS WILL PROVIDE BEFORE THE SHOE WILL NEED TO BE REPLACED. IF THE CLEVIS HAS BEEN ADJUSTED TO THE POINT THE THREADED ROD NO LONGER PROTRUDES THROUGH, THE BRAKE SHOE NEEDS TO BE REPLACED.
4. INSPECT THE CLEARANCE BETWEEN THE BRAKE SHOE AND RAIL WHEEL. THERE SHOULD BE 1/16" TO 1/8" GAP BETWEEN THEM. IF THIS IS NOT THE CASE, ADJUST BRAKE SHOE AS FOLLOWS:
 - A.) LOCATE THE JAM NUT AND CLEVIS ON THE THREADED ROD ATTACHED TO THE AIR BRAKE CHAMBER
 - B.) LOOSEN JAM NUT
 - C.) REMOVE PIN FROM CLEVIS CONNECTING IT TO THE BRAKE ACTUATOR ARM
 - D.) TURN CLEVIS OFF THREADED ROD TO DECREASE GAP BETWEEN BRAKE SHOE AND RAIL WHEEL OR TURN CLEVIS ONTO THREADED ROD TO INCREASE GAP
 - E.) ONCE THE PROPER GAP IS ACHIEVED, RE-INSTALL THE PIN BACK THROUGH THE CLEVIS AND BRAKE ACTUATOR ARM USING A NEW 1/8" X 1" COTTER PIN
 - F.) TIGHTEN JAM NUT AGAINST CLEVIS

5. REPEAT PROCESS FOR REMAINDER OF RAIL GEAR BRAKE ASSEMBLIES.
6. OPERATE THE VEHICLE ON A TEST TRACK. WITH THE AIR TOGGLE VALVE IN THE “ON” POSITION, CHECK THAT:
 - A.) WHEN THE VEHICLE’S BRAKE PEDAL IS DEPRESSED, ENSURE THE RAIL GEAR BRAKE CLAMPS THE RAIL WHEEL ENOUGH TO SLOW ITS ROTATION BUT NOT ENOUGH TO STOP IT.
 - B.) RAIL GEAR BRAKES RELEASE WHEN VEHICLE’S BRAKE PEDAL IS RELEASED
7. IF WHEEL IS OBSERVED LOCKING UP DURING THE TEST, THE DISTANCE BETWEEN THE BRAKE SHOE AND RAIL WHEEL NEEDS TO BE INCREASED; REPEAT STEP 3 AND TEST AGAIN. IF ANY OTHER ISSUES ARE OBSERVED DURING TESTING OF THE BRAKES, PLEASE CONTACT JAKE SANUTE AT 570-441-6988 FOR FURTHER ASSISTANCE.



PHOTO 1: GENERAL LOCATION OF FRONT RAIL GEAR SERIAL NUMBER



PHOTO 2: GENERAL LOCATION OF REAR RAIL GEAR SERIAL NUMBER

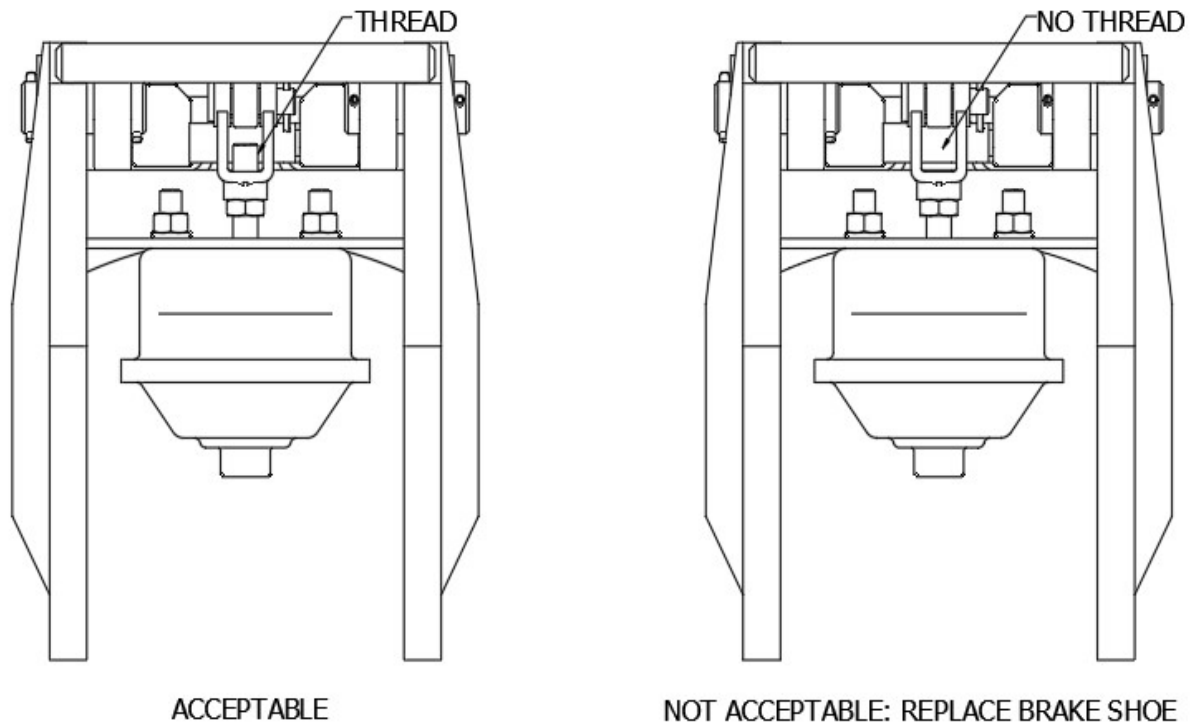


PHOTO 3: PROPERLY ADJUSTED CLEVIS

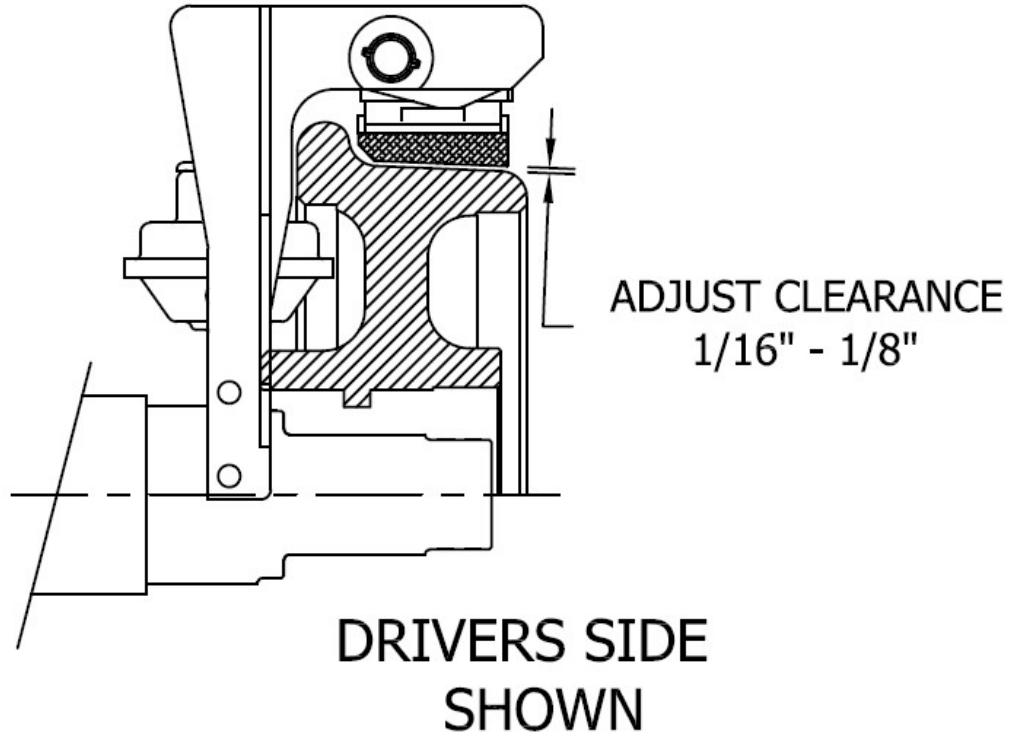


PHOTO 4: PROPER BRAKE SHOE TO WHEEL CLEARANCE



PHOTO 5: CLEVIS AND JAM NUT



PHOTO 6: CLEVIS PIN IN BRAKE ACTUATOR ARM