

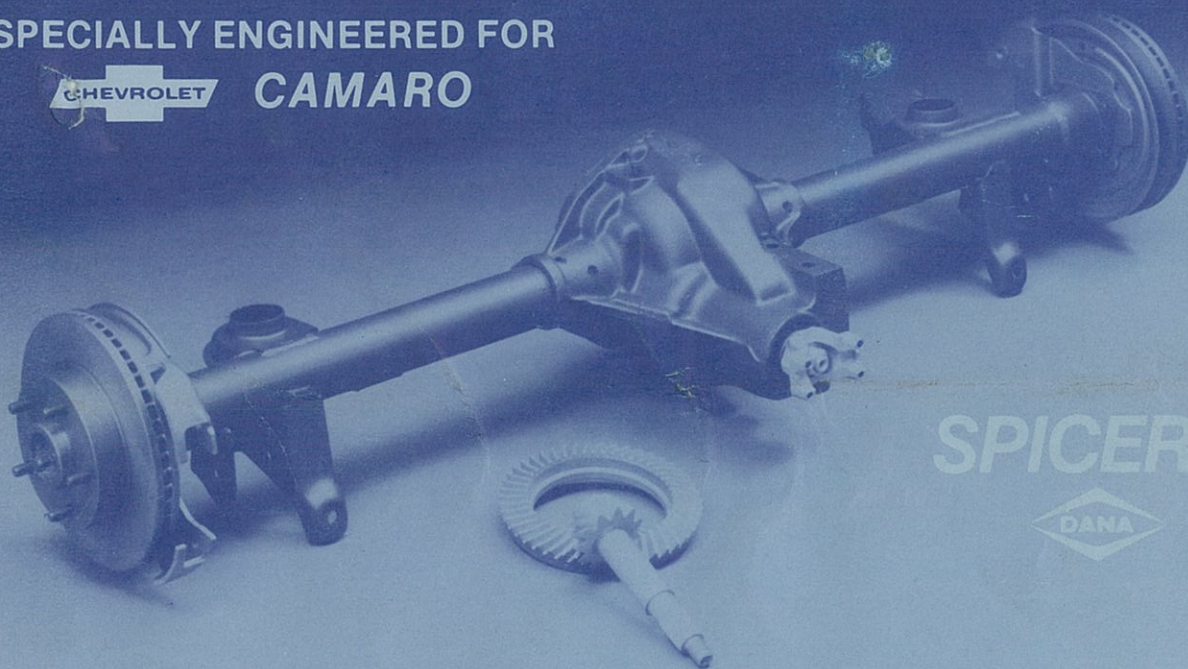


# INSTALLATION OF DANA MODEL 44 AXLE ASSEMBLY

ESPECIALLY ENGINEERED FOR



**CAMARO**



**SPICER**<sup>®</sup>  
DANA

SPICER AXLE DIVISION



DANA CORPORATION

## **IMPORTANT SAFETY NOTICE**

Should an axle assembly require component parts replacement, it is recommended that "Original Equipment" replacement parts be used. They may be obtained through your local service dealer or other original equipment manufacturer parts supplier. **CAUTION: THE USE OF NON-ORIGINAL EQUIPMENT REPLACEMENT PARTS IS NOT RECOMMENDED AS THEIR USE MAY CAUSE UNIT FAILURE AND/OR AFFECT VEHICLE SAFETY.**

Proper service and repair is important to the safe, reliable operation of all motor vehicles or driving axles whether they be front or rear. The service procedures recommended and described in this service manual are effective methods for performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tool should be used when and as recommended.

It is impossible to know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way.

Accordingly, anyone who uses a service procedure or tool which is not recommended must first satisfy himself thoroughly that neither his safety or vehicle safety will be jeopardized by the service methods he selects.

# INSTALLATION BULLETIN

## INSTALLING DANA MODEL 44 AXLE ASSEMBLY INTO CHEVROLET CAMARO

### IMPORTANT

REFER TO YOUR VEHICLE SHOP MANUAL FOR TORQUE SPECIFICATIONS AND FOR OTHER INFORMATION NOT CONTAINED HEREIN FOR INSTALLATION PROCEDURES. General Motors Corporation provided two different types of axle assemblies for the Camaro. One type is equipped with drum brakes; the other with disc brakes. Refer to the instructions below that pertain to your vehicle.

### VEHICLE ORIGINALLY EQUIPPED WITH DISC BRAKES:

#### STEPS:

1. Obtain the following parts in addition to the axle assembly:

#### Quantity

1	*U-joint kit	Dana Spicer 5-436X
1	*U-bolt kit	Dana Spicer 2-94-28X
1	Vehicle shop manual (See information below concerning vehicle shop manual.)	
	New brake line (New brake line may be obtained from your G.M. dealer. See step 5 below for determining the required length.)	

\*May be purchased from an independent original equipment manufacturer parts supplier.

### NOTE

A class 8.8, M8 × 1.25 × 25 mm long screw is provided with the axle assembly for attaching the hose assembly to the weld nut on the Dana Spicer Axle. **DO NOT USE THE ORIGINAL SCREW FROM YOUR G.M. AXLE.**

2. Remove original axle assembly from vehicle, following procedures outlined in vehicle shop manual.
3. Remove right-hand and left-hand brake calipers from original axle and assemble on new axle assembly. Torque bolts to proper specification as described in vehicle shop manual.
4. Remove hose assembly from original axle assembly and assemble to new axle assembly by attaching to the weld nut (left-hand tube; see figure 1) with new screw provided. Torque screw 20-34 N·m (15-25 lb-ft).

### NOTE

If hose assembly is damaged or needs to be replaced, one may be obtained from your General Motors dealer (G.M. part 17980325).

5. Fabricate and assemble new brake pipe to new axle assembly, following procedures as described in your vehicle shop manual for "brake pipe replacement." New pipe will require additional length and revised bending configuration to match the new axle assembly. **DO NOT USE OLD BRAKE PIPE FOR LENGTHS AND BENDING CONFIGURATION.** See figures 1, 2, 3, 4 and 5 for component identification, approximate location, and specifications. Brake pipe must be secured in place with clips provided on axle assembly tubes. See Figure 3.

6. Remove retainer, hose assembly, screw, and bracket from old axle assembly and assemble to new axle assembly. Torque screw to specification. If hose assembly is damaged, replace with a new one which may be obtained from your General Motors dealer. Refer to figure 3 for location of bracket and hose assembly (view D) and figure 5 for assembly details and specifications.
7. Remove prop shaft from vehicle and assemble new U-joint kit. Follow procedures for U-joint replacement as described in vehicle shop manual.
8. Install prop shaft into vehicle. Follow procedures as described in vehicle shop manual.
9. Install new axle assembly into vehicle, following procedures outlined in vehicle shop manual. Torque all fasteners to specification.
10. Complete all remaining details such as bleeding brakes, reconnecting parking brakes, etc. Refer to vehicle shop manual. See figure 6 for placement of parking brake cables.
11. Fill unit with proper lube. (See additional information on lubrication contained herein.)

### VEHICLE ORIGINALLY EQUIPPED WITH DRUM BRAKES:

#### NOTE

All vehicles equipped with drum brakes will have to be revised to accept disc brakes.

#### STEPS:

1. Obtain the following parts in addition to the axle assembly:

New brake line (New brake line may be obtained from your G.M. dealer. See step 5 below for determining the required length.)

#### Quantity

1	Left-hand caliper	G.M. 18010376
1	Right-hand caliper	G.M. 18010376
1	Parking brake lever assembly	G.M. 14065768
1	Right-hand brake hose	G.M. 17980326
1	Parking brake cable R.H.	G.M. 14073080
1	Parking brake cable L.H.	G.M. 14077717
1	Master brake cylinder	G.M. 18010574
1	Proportioning valve	G.M. 25517739
1	Brake hose assembly	G.M. 17980325
1	Hose assembly	G.M. 17980428
1	Bracket	G.M. 10026870
1	Retainer	G.M. 334961
1	*U-joint kit	Dana Spicer 5-436X
1	*U-bolt kit	Dana Spicer 2-94-28X
1	Vehicle shop manual (See information below concerning vehicle shop manual.)	

\*May be purchased from an independent original equipment manufacturer parts supplier.

#### NOTE

A class 8.8, M8 × 1.25 × 25 mm long screw is provided with the axle assembly for attaching the hose assembly to the weld nut on the Dana Spicer axle. **DO NOT USE THE ORIGINAL SCREW FROM YOUR G.M. AXLE.**

2. Remove original axle assembly from vehicle, following procedures outlined in vehicle shop manual.
3. Assemble new brake calipers to axle assembly. Torque bolts to proper specification as described in vehicle shop manual.
4. Assemble hose assembly to axle assembly by attaching to the weld nut (left-hand tube; see figure 1) with new screw provided. Torque screw 20-34 N·m (15-25 lb-ft).
5. Fabricate and assemble new brake pipe to new axle assembly, following procedures as described in your vehicle shop manual for "brake pipe replacement." New pipe will require additional length and revised bending configuration to match the new axle assembly. **DO NOT USE OLD BRAKE PIPE FOR LENGTH AND BENDING CONFIGURATION.** See figures 1, 2, 3, 4 and 5 for component identification, approximate location and specifications. Brake pipe must be secured in place with clips provided on axle assembly tubes. See figure 3.
6. Assemble new bracket, hose assembly and retainer to new axle assembly using screw from old axle assembly. Torque screw to specification. If new screw is required, one may be obtained from your G.M. dealer; part number 11500985. Refer to figure 3 for location of bracket and hose assembly (view D) and figure 5 for assembly details and specifications.
7. Remove prop shaft from vehicle and assemble new U-joint kit. Follow procedures for U-joint replacement as described in vehicle shop manual.
8. Install prop shaft into vehicle. Follow procedures as described in vehicle shop manual.
9. Install new axle assembly into vehicle, following procedures outlined in vehicle shop manual. Torque all fasteners to specifications.
10. Install new master cylinder and proportioning valve. Refer to your vehicle shop manual for all specifications.
11. Install new parking brake lever, following procedures described in the vehicle shop manual.
12. Complete all remaining details such as bleeding brakes, installing new parking brake cables, etc. Refer to vehicle shop manual. See figure 6 for placement of parking brake cables.
13. Fill unit with proper lube. (See additional information on lubrication contained herein.)

## **LUBRICATION**

The Dana Spicer axle assembly has a limited slip differential. Limited slip differentials require special lubricants or a lubricant additive. Follow the procedures as described in your vehicle shop manual "maintenance lubrication" section for service and lube requirements for rear axles with limited slip differentials.

### **IMPORTANT**

For proper road speed indication and mileage recording on the odometer, it will be necessary to obtain and install the correct drive gear in the transmission. Contact your local G.M. dealer for the correct components for your application.

## **VEHICLE SHOP MANUALS**

When ordering shop manual, be sure to state the make, model, and year of your vehicle.

Manuals may be ordered from the following:

Helm, Inc.  
P. O. Box 07130  
Detroit, MI 48203

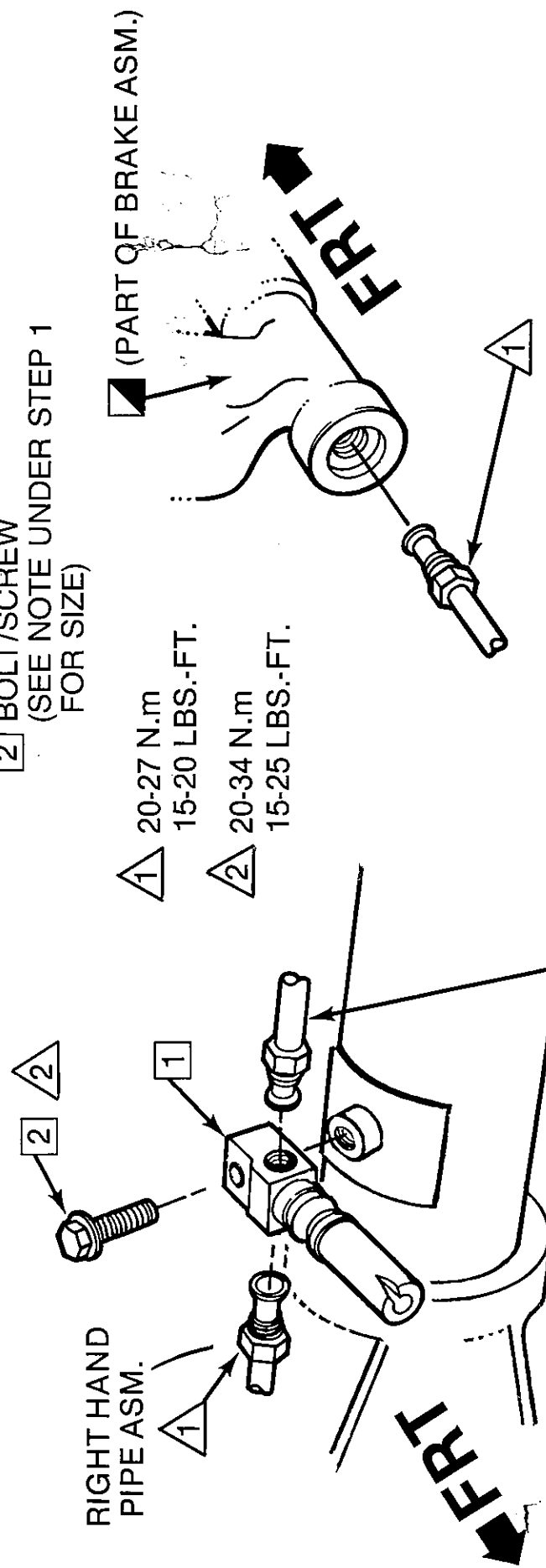
ITEM REFERENCE     TORQUE     EXISTING AS PART OF

17980325  1 HOSE ASSEMBLY

2 BOLT/SCREW  
 (SEE NOTE UNDER STEP 1  
 FOR SIZE)

1 20-27 N.m  
 15-20 LBS.-FT.

2 20-34 N.m  
 15-25 LBS.-FT.



VIEW B  
(LEFT HAND SIDE)

VIEW C  
LEFT HAND  
PIPE ASM.

FIGURE 2

FIGURE 1

□ ITEM REFERENCE

△ TORQUE

▣ EXISTING AS PART OF

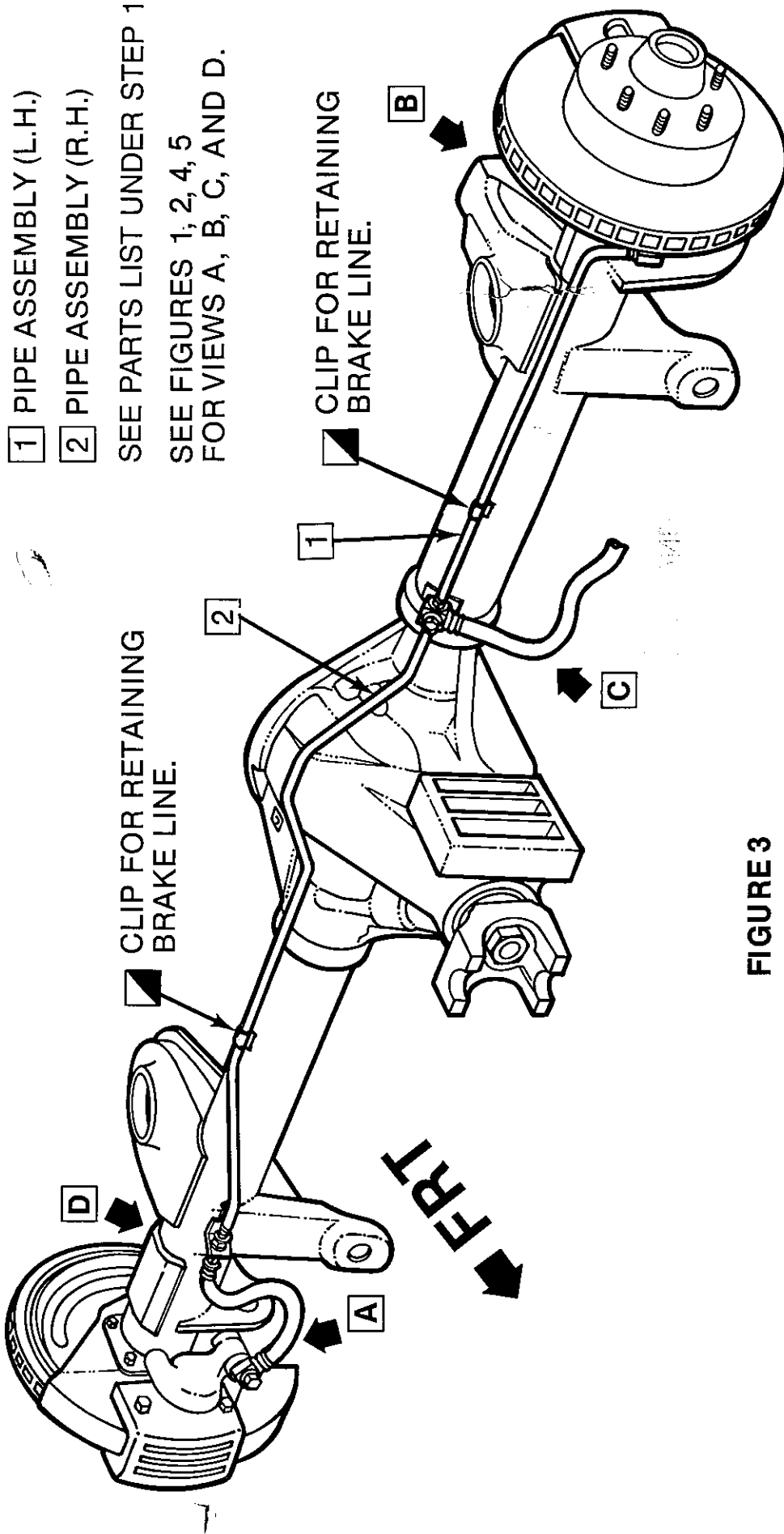


FIGURE 3

ITEM REFERENCE     TORQUE     EXISTING AS PART OF

- 14000172  1 WASHER
- 17980326  2 HOSE ASM.
- 14000404  3 BOLT/SCREW

(PART OF BRAKE ASM.)

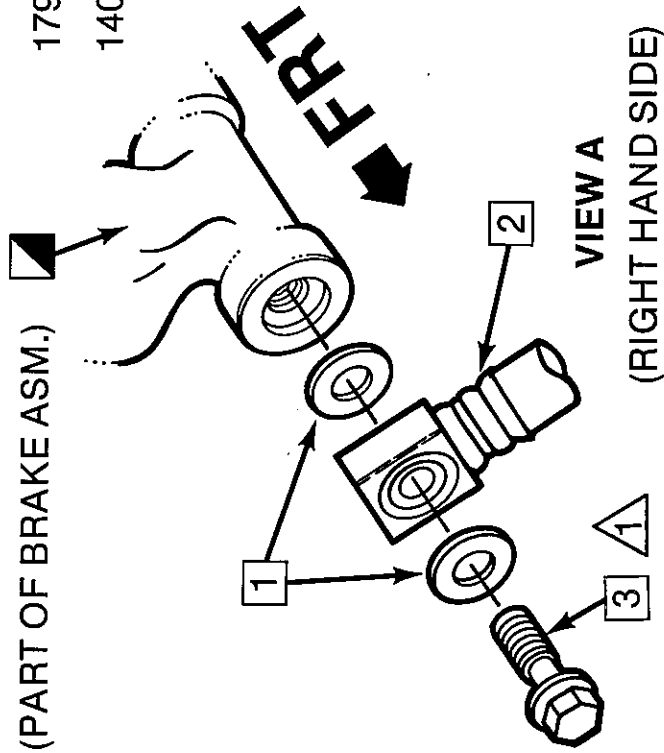


FIGURE 4

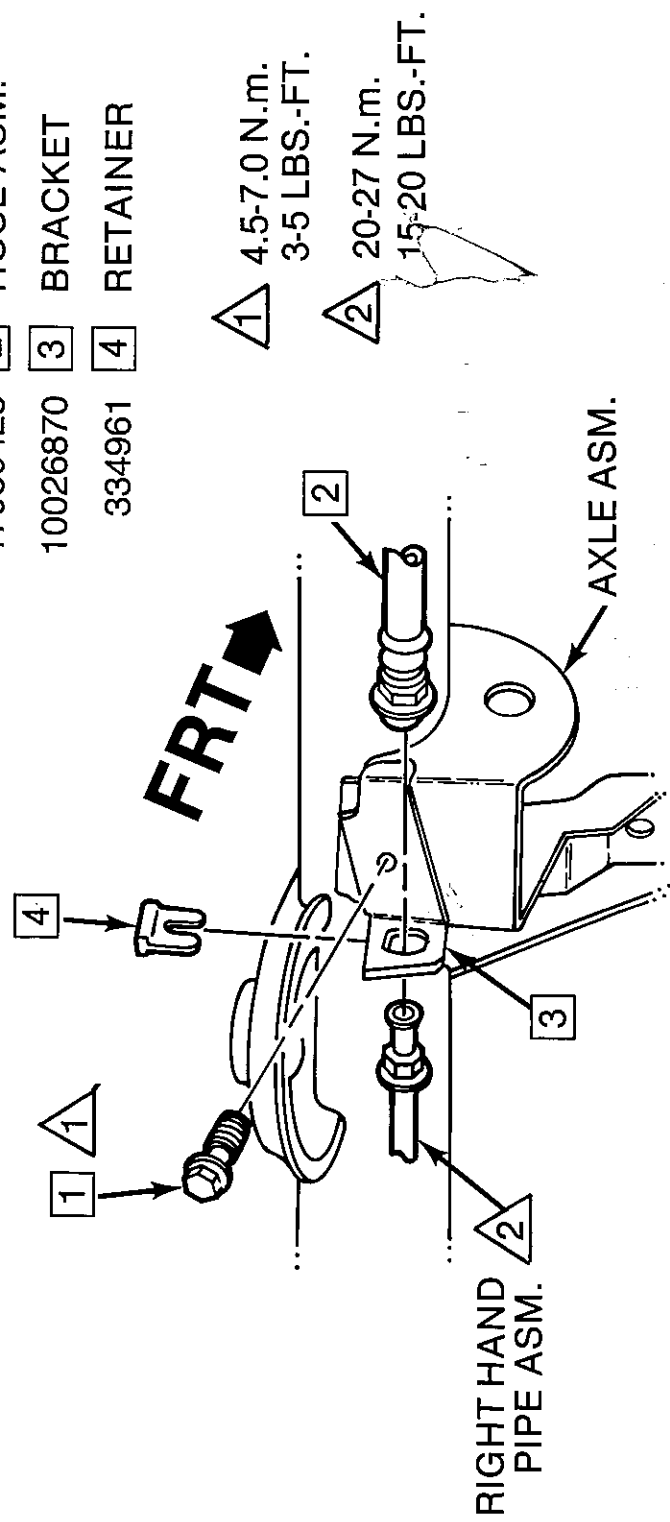


□ ITEM REFERENCE

△ TORQUE

▣ EXISTING AS PART OF

- 11500985 **1** BOLT/SCREW
- 17980428 **2** HOSE ASM.
- 10026870 **3** BRACKET
- 334961 **4** RETAINER



**VIEW D**  
(RIGHT HAND SIDE)

**FIGURE 5**

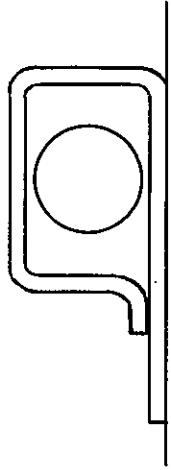
□ ITEM REFERENCE

△ TORQUE

▣ EXISTING AS PART OF

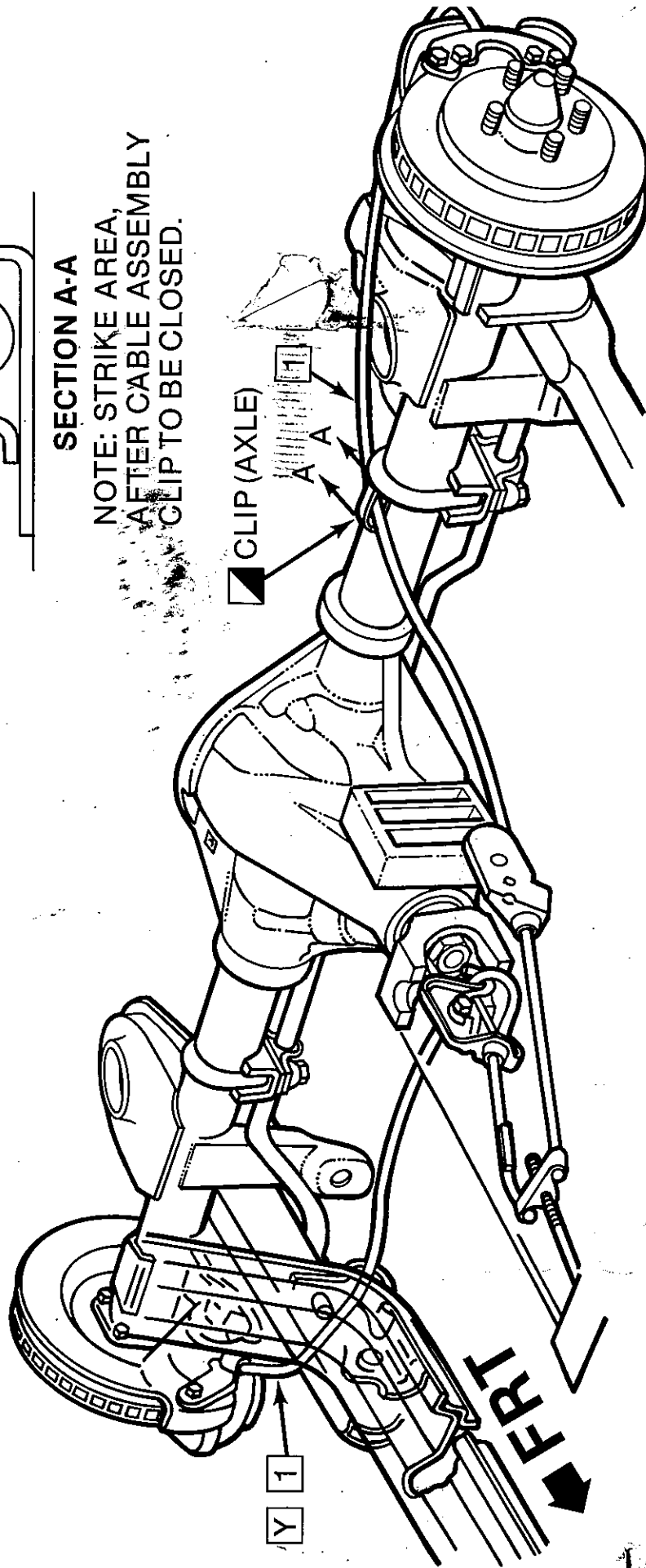
14077717 1 □ CABLE ASM. L.H.

14073080 1 □ CABLE ASM. R.H.



SECTION A-A

NOTE: STRIKE AREA,  
AFTER CABLE ASSEMBLY  
CLIP TO BE CLOSED.



Y □ FOR CABLE ADJUSTMENTS SEE  
PARKING BRAKE ADJUSTMENT PROCEDURES

FIGURE 6