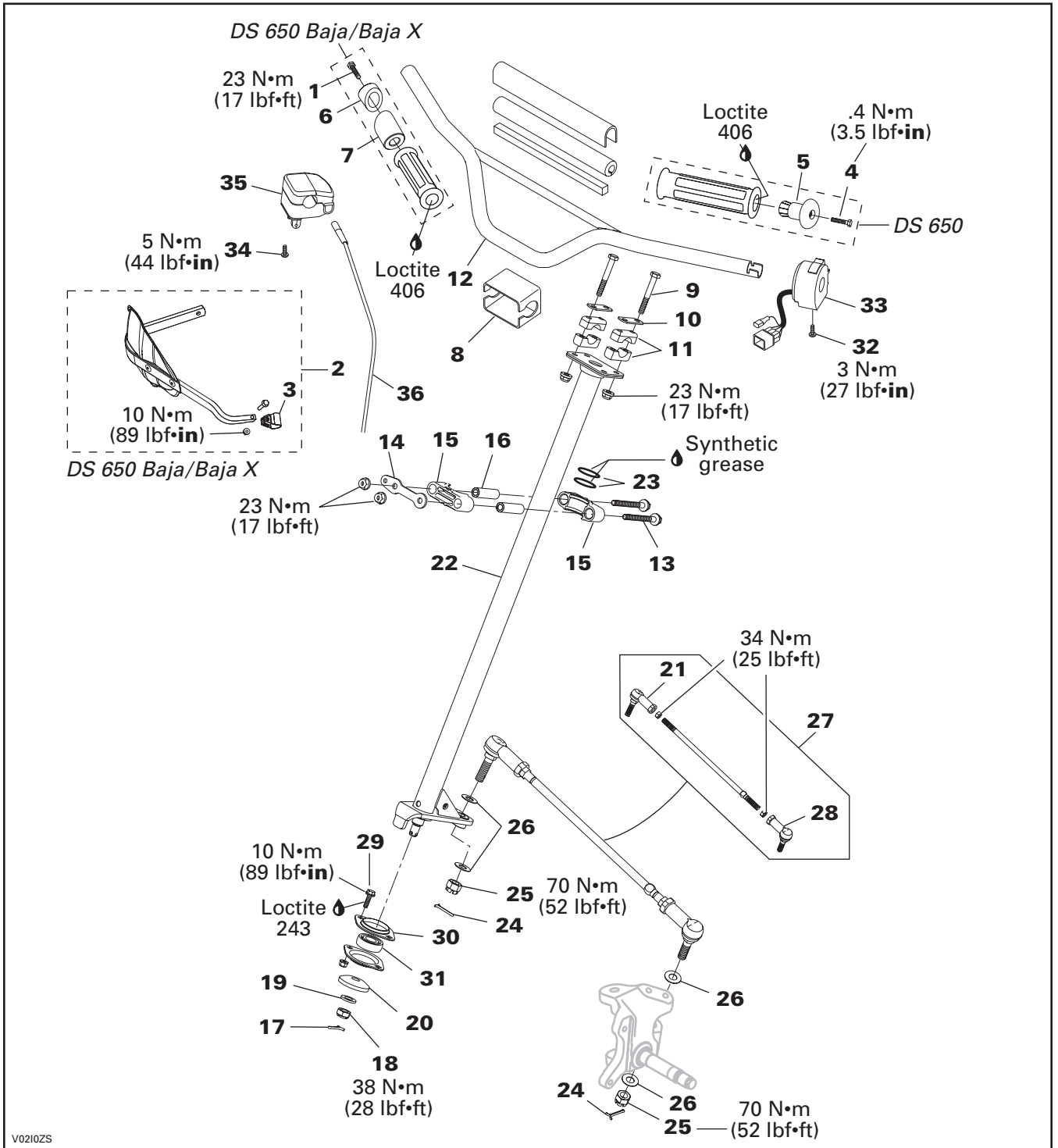


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# STEERING SYSTEM



V02102S

## Section 07 STEERING SYSTEM

### Subsection 02 (STEERING SYSTEM)

## GENERAL

For installation, use the torque values and Loctite products from the exploded views. Clean threads before using Loctite when installing the screws.

### **⚠ WARNING**

Torque wrench tightening specifications must strictly be adhered to.

Locking devices (ex.: locking tabs, elastic stop nuts, self-locking fasteners, etc.) must be installed or replaced with new ones where specified. If the efficiency of a locking device is impaired, it must be renewed.

## HANDLEBAR GUARD

### Removal

#### **Baja and Baja X Models**

Remove:

- handle grip screw no. 1 at the end of handlebar guard no. 2

**NOTE:** Discard the handlebar grip screw.

- handlebar guard arm bracket no. 3.

### Installation

The installation is the reverse of removal procedure.

**NOTE:** Install a new handlebar grip screw.

## HANDLEBAR GRIP

### Removal

#### **DS 650 Models**

Remove:

- throttle lever and/or multi-function switch from handlebar
- screw no. 4
- end cap no. 5.

#### **Baja and Baja X Models**

Remove:

- handlebar guard no. 2
- adjusting sleeve no. 6
- tightening sleeve no. 7.

### **All Models**

**NOTE:** If handlebar grip needs to be replaced, the grip can be cut with a knife for removal.

Insert the open side of a 23 mm (7/8 in) wrench against the inner end of grip.

Using a plastic hammer, tap on the side of the wrench end to make the grip sliding out.

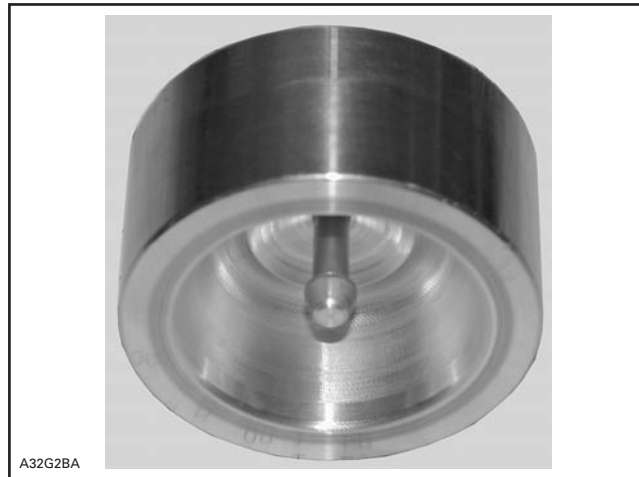
### Installation

Clean handlebar ends and inside of handlebar grip with pulley flange cleaner (P/N 413 711 809). Let dry before installation.

### **⚠ WARNING**

Handlebar end and inside of handlebar grip must be clean and dry before installing handlebar grip to ensure proper installation.

Use the insertion tool (P/N 529 035 897) to properly install handlebar grip.



A32G2BA

**CAUTION:** Installing handlebar grip without the special tool is likely to damage it.

Position the insertion tool at the outside end of grip.

Using a plastic hammer, tap on tool to push grip on. Continue to tap until grip bottoms.

Install all other removed parts.

## HANDLEBAR

### Removal

Remove:

- steering cover **no. 8**
- steering clamp mounting bolts **no. 9**, reinforcements **no. 10** and steering clamps **no. 11**
- handlebar **no. 12**.

**NOTE:** Remove throttle lever, multi-function switch and handlebar guards from the handlebar if it is replaced with a new one.

### Inspection

Inspect the handlebar for damage, cracks or bending, replace if any problem is detected.

### Installation

For the installation, reverse the removal procedure.

## STEERING COLUMN

### Removal

#### Top Side

Remove:

- front facia and dashboard (refer to BODY)
- handlebar
- fuel tank (refer to FUEL CIRCUIT)

**NOTE:** Do not remove fuel tank completely, separate fuel tank from frame only. Do not remove fuel lines.

- headlamp (refer to ACCESSORIES)
- oil tank (refer to REMOVAL AND INSTALLATION)
- half housing bolts **no. 13**
- stopper plates **no. 14**
- half housings **no. 15**
- housing bushings **no. 16**.

#### Bottom Side

Remove:

- cotter pin **no. 17** (discard)
- castellated nut **no. 18**
- flat washer **no. 19**
- washer **no. 20**
- tie-rod ends **no. 21** from the steering column **no. 22**. Refer to TIE-ROD section.

Pull steering column.

### Inspection

Inspect steering column for cracks, bending or other damages. Replace if any problem is detected.

Check if the O-rings **no. 23** are brittle, hard or otherwise damaged. Replace if necessary.

Check steering column bearing for excessive play and smooth operation. Replace if necessary. See further in this section for the proper procedure.

### Installation

For the installation, reverse the removal procedure.

**NOTE:** Install new cotter pin. Both ends of cotter pin must be folded.

## TIE-ROD

### Removal

Place the vehicle on jack stands and remove front wheel(s).

Remove front fender with fender support. Refer to BODY.

Remove cotter pins **no. 24** (discard), castellated nuts **no. 25** and hardened washers **no. 26**.

Remove tie-rod **no. 27**.

**CAUTION:** Never tap the knuckle with a hammer.

### Inspection

Inspect tie-rod ends **no. 21** and **no. 28** for wear or looseness, if excessive, replace.

Check for cracks on rubber boot.

### Installation

For the installation, reverse the removal procedure. Pay attention to the following details.

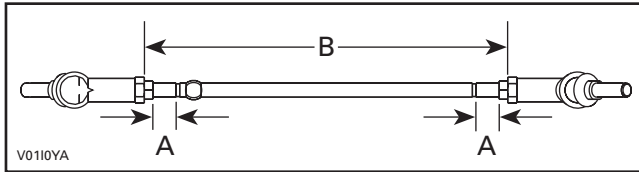
At the time of the reinstallation or the new tie-rod(s) installation, screw threaded end of tie-rod into ball joint.

**NOTE:** Match the corresponding left or right threads of tie rod end with ball joint.

## Section 07 STEERING SYSTEM

### Subsection 02 (STEERING SYSTEM)

The maximum length for tie-rod groove to ball joint end must be the value **A** in the following chart:



MODEL		A	B
DS	mm	20 ± 5	311 ± 1
	in	25/32 ± .197	12-1/4 ± .039

Before installing tie-rods, ensure that both heads of tie-rod ends are aligned. If the heads are not aligned, the tie-rod end play and its durability will be greatly reduced.

Install new cotter pin. Both ends of cotter pin must be folded.

Perform the toe-out adjustment.

### Toe Adjustment

Place vehicle on level surface.

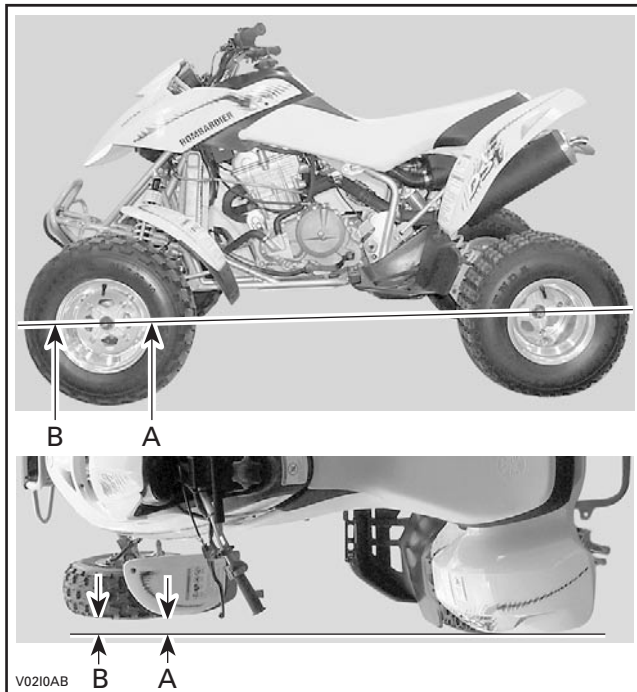
Check that handlebar is straight.

Use a long rule and check if the rear and front wheels are aligned.

Adjust alignment with tie-rod.

Adjust toe-out to  $0.5 \pm 0.5$  mm ( $.0197 \pm .0197$  in) on each side.

**NOTE:** Take measure on the rim.



A - B =  $0.5 \pm 0.5$  mm ( $.0197 \pm .0197$  in) on each side

## STEERING COLUMN BEARING

### Removal

Place vehicle on jack stands and remove front wheels.

Remove steering column.

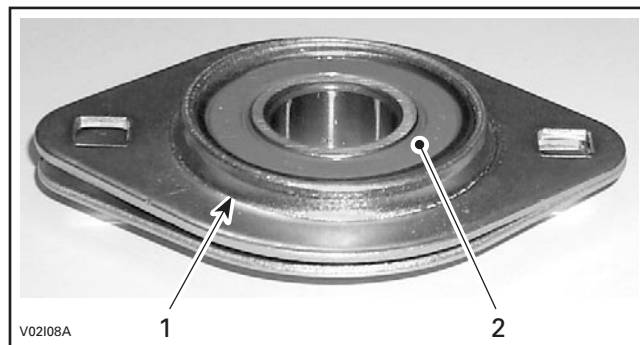
Remove bolts no. 29 and first bearing flange no. 30.

Remove bearing no. 31.

### Installation

For installation, reverse the removal procedure. Pay attention to the following detail.

Place flanged collar toward outside.



1. Flanged collar
2. Bearing

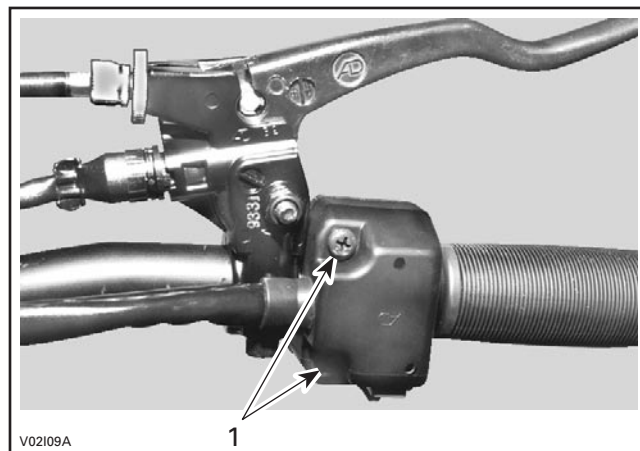
## MULTI-FUNCTION SWITCH

### Test

Refer to ACCESSORIES.

### Removal

Remove screws no. 32 under multi-function switch no. 33.



TYPICAL

1. Remove the screws

Separate multi-function switch from handlebar.  
Remove front fascia. Refer to BODY.  
Unplug multi-function switch connector.

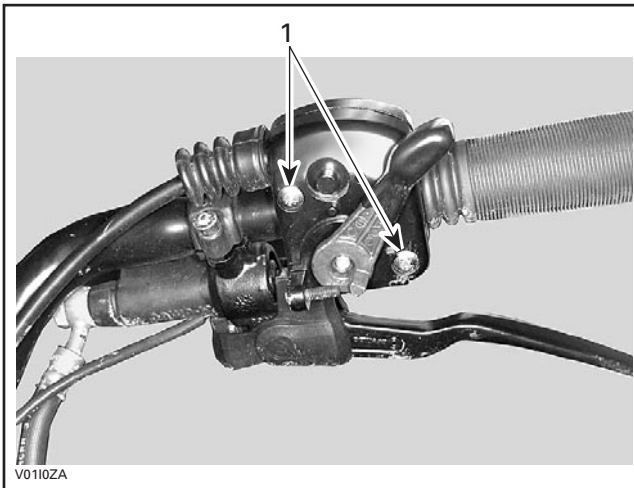
### Installation

For installation, reverse the removal procedure.

## THROTTLE HANDLE

### Removal

Remove screws **no. 34** under throttle handle  
**no. 35**.

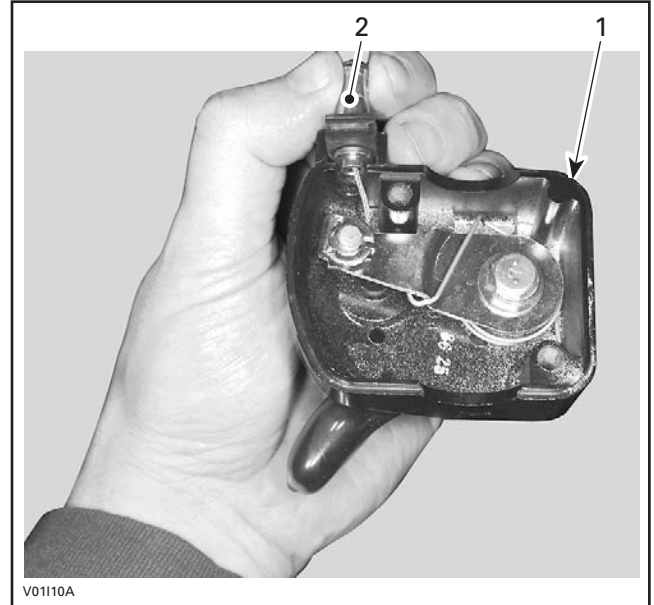


#### TYPICAL

1. Remove screws

Separate throttle handle from handlebar.

Unscrew the locking nut of the cable adjuster then  
screw the adjuster to release the cable tension.  
Remove throttle cable **no. 36** from housing.



#### TYPICAL

1. Throttle handle housing
2. Throttle cable

Slide cable in clip slot and remove the end of the  
cable from clip.

### Installation

For installation, reverse the removal procedure.

Refer to CARBURETOR AND AIR INTAKE SILENCER  
for adjustment procedure.