

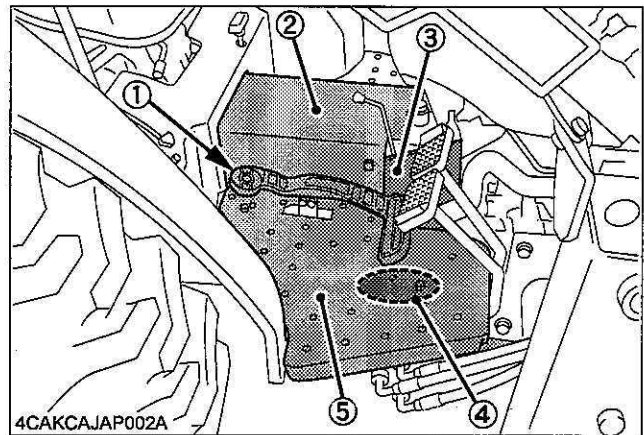
## INSTRUCTION MANUAL CRUISE CONTROL KIT (TC420-98301) for KUBOTA TRACTOR L3200 / L3800 / L2501 / L3301 / L3901

### ■ Preparation

1. Park the tractor on a level surface and apply the parking brake.
2. Remove the key and disconnect the negative (-) battery cable.
3. Shift the range gear shift lever to "L" position.
4. Apply chocks at the front wheels and a front axle rocking restrictor to at the front axle.

### ■ Disassembly Procedure

1. Remove the rear tire LH.
2. Remove the fender LH.
3. Remove the speed control pedal.
4. Remove the center cover.
5. Remove the neutral holder cover.
6. Remove the brake pedal return springs (RH and LH).
7. Remove the step RH.

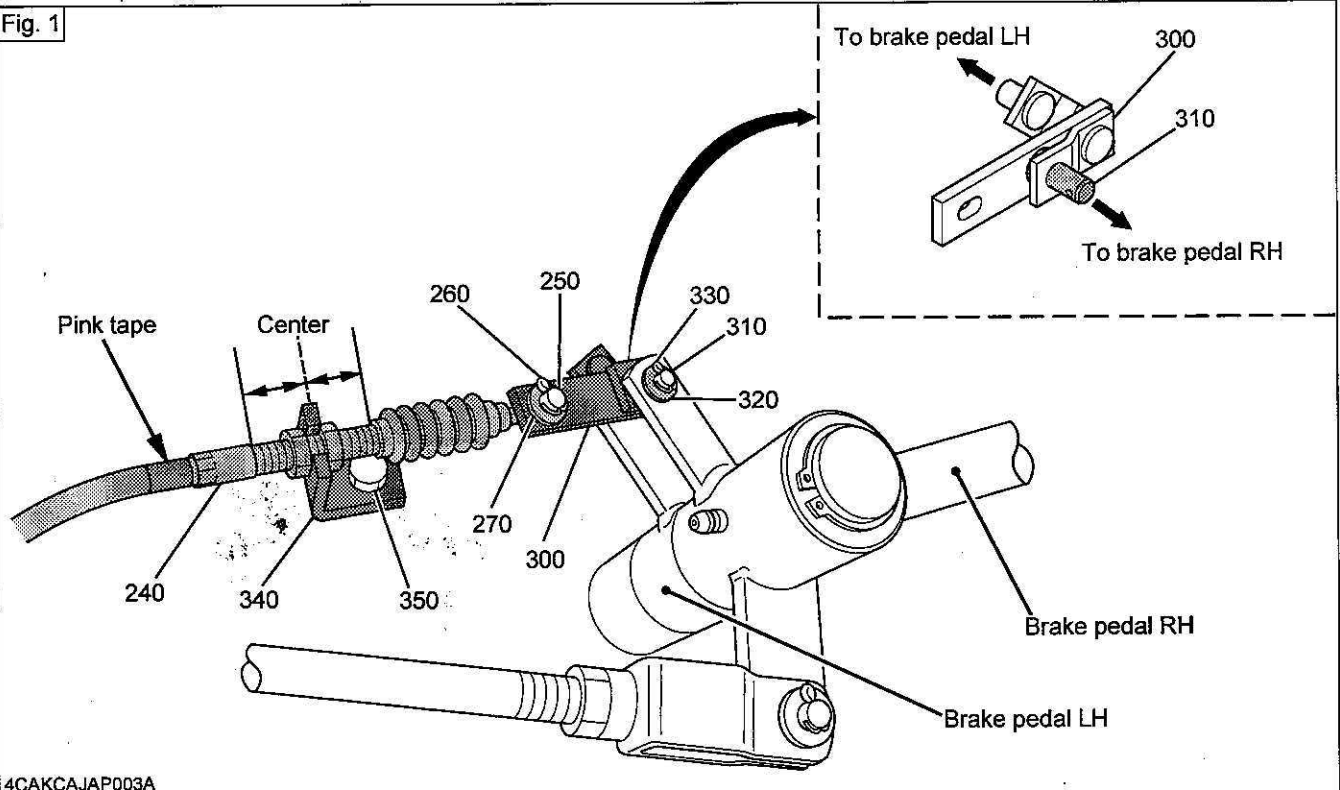


- (1) Speed control pedal
- (2) Center cover
- (3) Neutral holder cover
- (4) Brake pedal return springs (RH and LH)
- (5) Step RH

## ■ Assembly Procedure

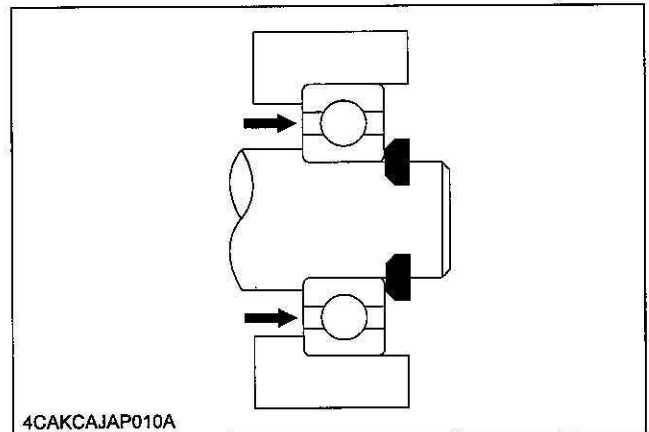
1. Remove the nut from the brake case and attach the cruise control boss (040) and spring holder (180) in position.  
(See "Parts List" and "Tightening Torque" section.)  
\*For the tightening torque of cruise control boss (040), see the torque of M12 nut in "Tightening Torque" section.
2. Attach the speed set bracket (190) with the M8 bolts (200).  
(See "Parts List" and "Tightening Torque" section.)
3. Attach the cable bracket (340) with the M8 bolt (350).  
(See Fig. 1 and "Parts List", "Tightening Torque" section.)

Fig. 1



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4. Attach the holder assembly (cruise) (080) in position with the M10 bolt (060) and M12 bolts (050 and 070).  
(See "Parts List" and "Tightening Torque" section.)  
\*For the tightening torque of bolts (050, 060 and 070), see "Tightening Torque" section.
5. Attaching the cruise lever  
(See "Parts List" and "Tightening Torque" section.)
  - (1) Replace the range gear shift lever fulcrum bolt with the new one (010).  
\*For the tightening torque of bolt (010), see the torque of M12 bolt in "Tightening Torque" section.
  - (2) Assemble the cruise lever (120) with the M18 plain washer (030) and external cir-clip (020).



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**NOTE :**

- The edge part of the external cir-clip must be facing the outside.

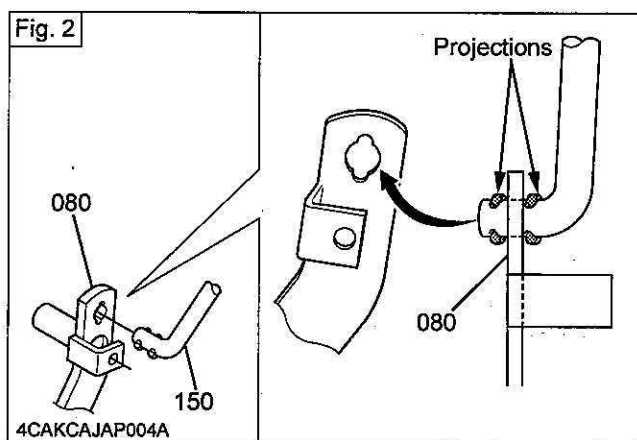
(3) Attach the cushion (140) and grip (130) in position. (See "Parts List" section.)

6. Assemble the link (See "Parts List" section.)

- (1) Fit the rod assembly (090) in position with the M10 plain washer (110) and split pin (100) (bend both side).
- (2) Connect the speed set rod (150) with the snap pin (160).

**NOTE :**

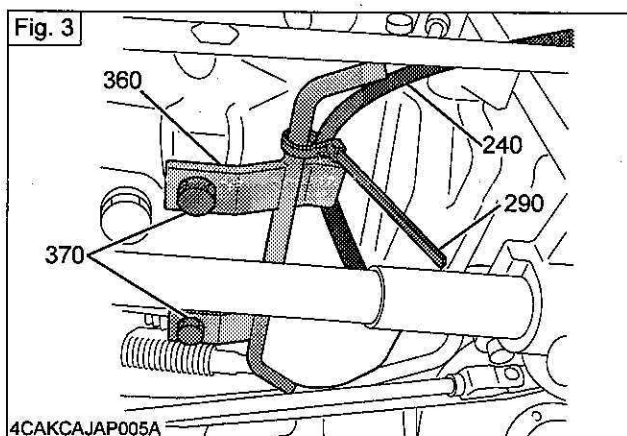
- Align the rod's projections with the holder assembly's opening and set the holder assembly (080) between the rod's projections. (See Fig. 2.)



- (3) Hook up the cruise spring (170) to the spring holder (180) and holder assembly (cruise) (080).

7. Connecting the cruise release cable

- (1) Point the link complete (300) in the specified direction as shown in Fig. 1 and connect it to the brake pedals LH and RH. (See Fig. 1.)
- (2) Connect the link complete (300) to the brake pedal RH with the joint pin (310), plain washer (320) and split pin (330) (bend both side). (See Fig. 1.)
- (3) Fix the cruise wire guide (360) with the M12 bolts (370). (See Fig. 3 and "Parts List" section.)
- (4) Connect the pink-taped end of cruise cable (240) to the link complete (300) with the pin (250), M6 plain washer (270) and split pin (260) (bend both side). At the same time, couple the cable (240) to the holder assy (cruise) (080) at the transmission case side. (See Fig. 1.)
- (5) Using the adjusting nuts, place the center of the threads of cruise cable (240) in the cable bracket (340). (See Fig. 1.)
- (6) Pass the cruise cable (240) between the guide (360) and transmission case, and secure it to the guide (360) with the cord band (290). (See Fig. 3.)



- (7) Connect the cruise cable (240) to the holder assembly (cruise) (080) with the snap pin (280). Using the adjusting nuts, finally position the center of the cable's threads to the speed set bracket (190). (See "Parts List" section.)

## ■ Adjustment Procedure

### 1. Adjusting the cruise lever stroke

- (1) Temporarily assemble the speed control pedal.
- (2) Shift the cruise lever all the way to the forward position and make sure that the speed control pedal comes fully to the maximum forward position.
- (3) Set the cruise lever to the "OFF" position and the speed control pedal fully to the maximum reverse position, and make sure that there is clearance between the control lever and speed set lever. (See Fig. 4.)
- (4) To make adjustment, if required, use the turnbuckle of rod assembly (090). (Reference rod length: 315 mm (12.4 in.)) (See Fig. 4.)

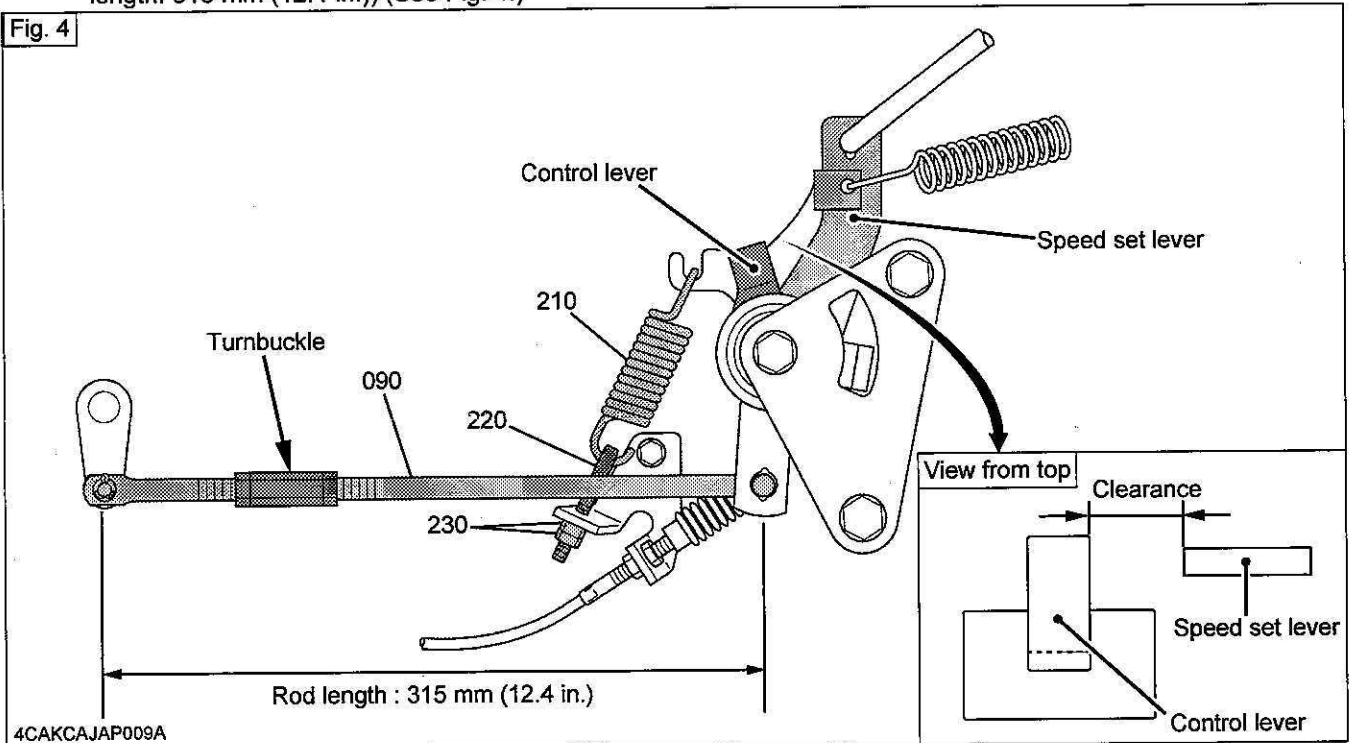
### 2. Adjusting the cruise lever operating force (See Fig. 4.)

- (1) Temporarily hook the speed set spring (210) with the adjusting rod (220) and M6 nuts (230).
- (2) Step the speed control pedal fully down and adjust the nuts (230) until the cruise lever operating force becomes 78.5 N (8 kgf, 17.6 lbf). Finally fix the adjusting rod (220) with the double nut.

#### NOTE :

- Make sure the speed control pedal is held tilted in response to the cruise lever shift.

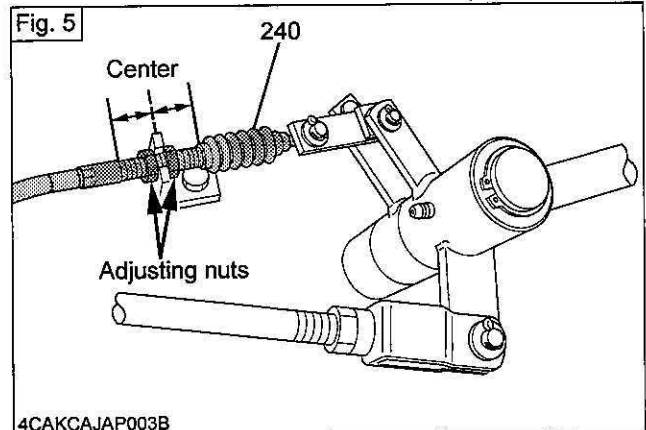
Fig. 4



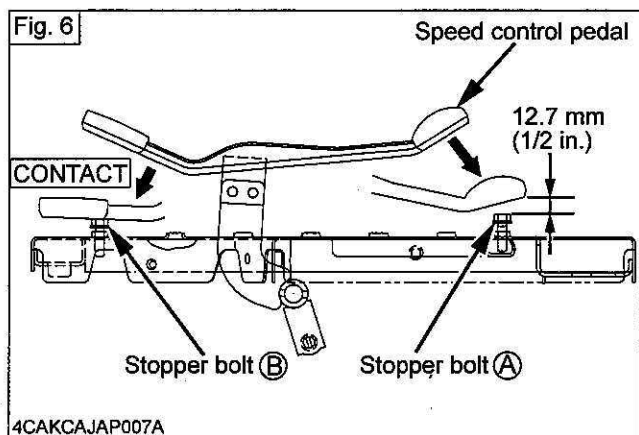
### 3. Adjusting the cruise lever disengagement

- (1) Interlock the both of brake pedals LH and RH with the brake pedal lock.
- (2) With the brake pedal return springs (LH and RH) unhooked, adjust the cable length until there is no play with the cruise cable (240). (Be sure that the cable is tight enough.) (See Fig. 5.)

Fig. 5



4. Assembling and adjusting the speed control pedal
  - (1) Remove the temporarily assembled speed control pedal. Now install the step RH.
  - (2) Shift the cruise lever all the way to the front position.
  - (3) Fit the speed control pedal in place, ensuring a clearance of 12.7 mm (1/2 in.) between the speed control pedal and stopper bolt (A). If not, adjust the stopper bolt (A). (See Fig. 6.)
  - (4) Set the cruise lever to the "OFF" position and the speed control pedal fully to the maximum reverse position, and make sure that the speed control pedal is in contact with the stopper bolt (B). If not, adjust the stopper bolt (B). (See Fig. 6.)



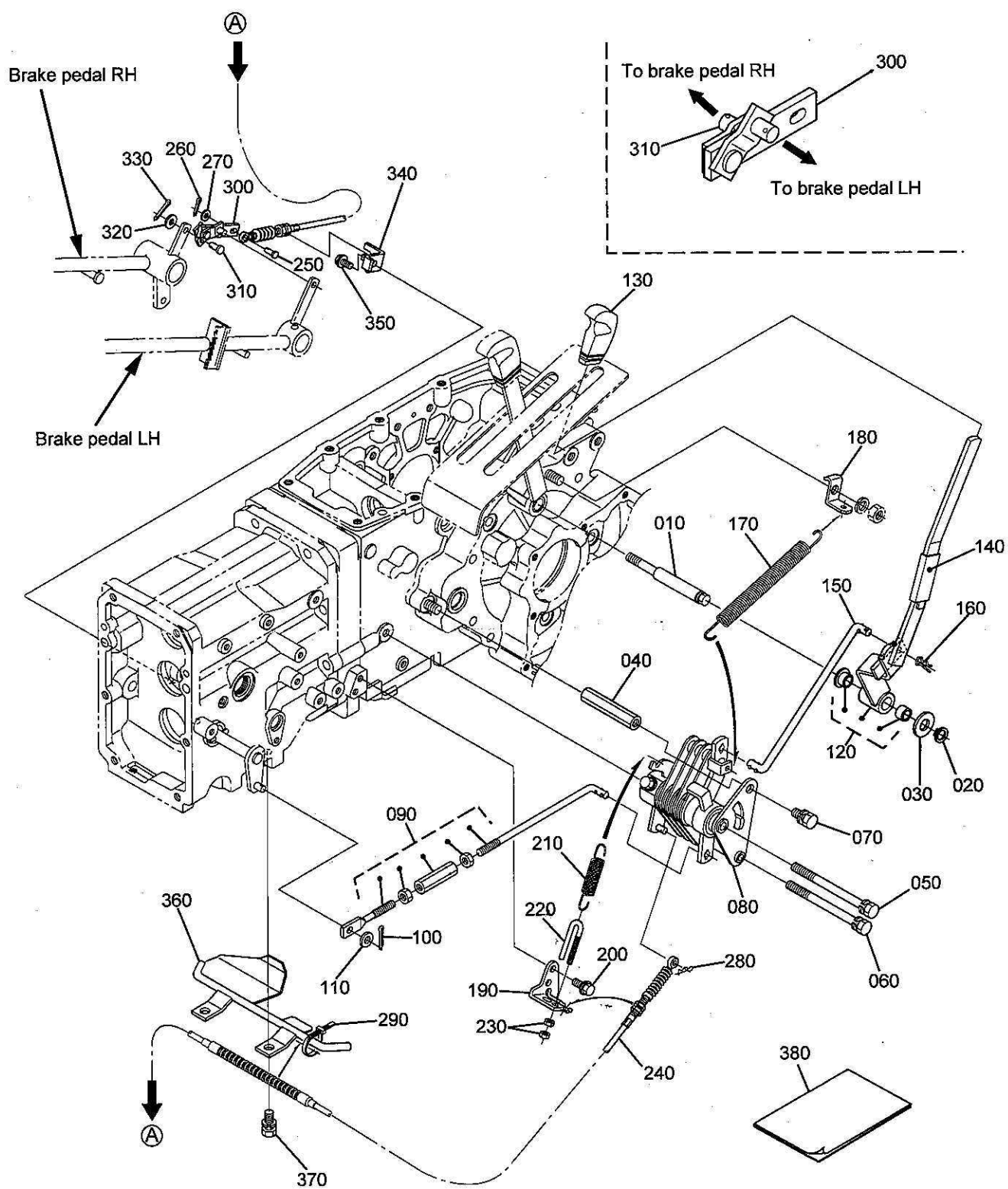
## ■ Reassembly Procedure

Attach the fender LH, rear tire LH, brake pedal return springs (LH and RH) and other removed parts back into position.

## ■ Checking Performance

1. Shift the cruise lever all the way to the front position and check to see if the cruise lever is held at the front position. If not, readjust the **cruise lever operating force**.
2. Hold down both the brake pedals with the cruise control on. Make sure the cruise lever returns to the "OFF" position. (Brake pedals LH and RH being interlocked) If the cruise control fails to disengage, readjust the **cruise lever disengagement**.
3. With the cruise control on, step on one of the brake pedals. Make sure the cruise control does not disengage in this case. If the cruise control disengages, double-check to see if the **link complete (300)** is installed as specified.

# Parts List



REF. No.	PART No.	PART NAME	Q'TY	REMARKS
010	TC220-5534-0	BOLT	1	M12, 7T
020	04612-00180	CIR-CLIP, EXTERNAL	1	
030	04011-50180	WASHER, PLAIN	1	
040	TC220-5532-0	BOSS, CRUISE CONTROL	1	M12, 7T
050	T1170-2738-0	BOLT, REAR AXLE CASE LH	1	M12, 7T
060	TD060-5572-0	BOLT	1	M10, 7T
070	01133-51220	BOLT, SEMS	1	M12, 7T
080	TC320-9833-0	HOLDER, ASSY (CRUISE)	1	
090	TC220-5588-0	ASSY ROD	1	
100	05511-60318	PIN, SPLIT	1	
110	04013-50100	WASHER, PLAIN	1	
120	TC420-5592-0	ASSY LEVER, CRUISE	1	
130	TD060-2449-0	GRIP, LEVER	1	
140	6A100-1856-0	CUSHION	1	
150	TC220-5585-0	ROD, SPEED SET	1	
160	05515-61000	PIN, SNAP	1	
170	TD060-5526-0	SPRING, CRUISE	1	
180	TC220-5577-0	HOLDER, SPRING	1	
190	TC220-5518-0	BRACKET, SPEED SET	1	
200	01754-50816	BOLT, FLANGE	2	M8, 7T
210	TC220-5582-0	SPRING, SPEED SET	1	
220	TD060-5579-0	ROD, ADJUSTING	1	
230	02056-50060	HEX. NUT	2	6T
240	TC220-5570-3	CABLE, CRUISE	1	
250	05122-50616	PIN	1	
260	05511-51612	PIN, SPLIT	1	
270	04012-50060	WASHER, PLAIN	1	
280	50080-3411-0	PIN, SNAP	1	
290	53581-6415-0	BAND, CORD	1	
300	TC220-5732-2	COMP. LINK	1	
310	05122-50814	PIN, JOINT	1	
320	04013-60080	WASHER, PLAIN	1	
330	05511-50215	PIN, SPLIT	1	
340	TC220-5571-2	BRACKET, CABLE	1	
350	01754-50816	BOLT, FLANGE	1	M8, 7T
360	TC220-5572-2	GUIDE, CRUISE, WIRE	1	
370	01133-51225	BOLT, SEMS	2	M12, 7T
380	TC420-9832-0	MANUAL, INSTRUCTION	1	This paper

### ■ Tightening Torque

REF. No.	PART NAME	TORQUE
200, 350	M8 BOLT, NUT (7T)	23.5 to 27.5 N-m (2.4 to 2.8 kgf-m, 17.3 to 20.3 ft-lbs)
060	M10 BOLT, NUT (7T)	48.1 to 55.9 N-m (4.9 to 5.7 kgf-m, 35.5 to 41.2 ft-lbs)
010, 040, 050, 070, 370	M12 BOLT, NUT (7T)	77.5 to 90.2 N-m (7.9 to 9.2 kgf-m, 57.2 to 66.5 ft-lbs)