



# Shop Manual

# XR190L

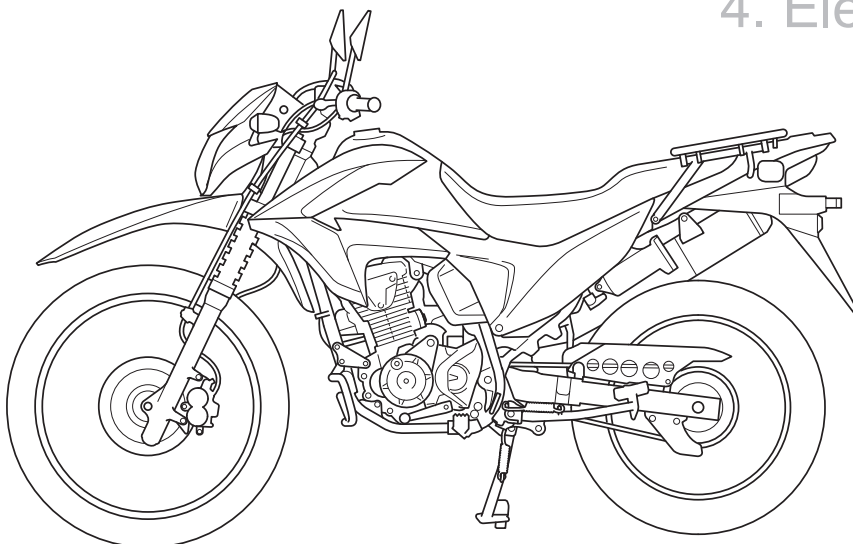
1. General Information

2. Fuel & Engine

3. Frame & Chassis

4. Electrical System

5. XR190CT



This book is Specific Shop Manual.  
Refer to "Basic Shop Manual" for basic and  
common maintenance instructions.



XR190L-H (2017)  
XR190CT-H (2017)

# 5. XR190CT-H ADDENDUM

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# A Few Words About Safety

## Service Information

The service and repair information contained in this manual is intended for use by qualified, professional technicians.

Attempting service or repairs without the proper training, tools, and equipment could cause injury to you or others. It could also damage the vehicle or create an unsafe condition.

This manual describes the proper methods and procedures for performing service, maintenance and repairs. Some procedures require the use of specially designed tools and dedicated equipment. Any person who intends to use a replacement part, service procedure or a tool that is not recommended by Honda, must determine the risks to their personal safety and the safe operation of the vehicle.

If you need to replace a part, use genuine Honda parts with the correct part number or an equivalent part. We strongly recommend that you do not use replacement parts of inferior quality.

## For Your Customer's Safety

Proper service and maintenance are essential to the customer's safety and the reliability of the vehicle. Any error or oversight while servicing a vehicle can result in faulty operation, damage to the vehicle, or injury to others.

### **⚠ WARNING**

Improper service or repairs can create an unsafe condition that can cause your customer to be seriously hurt or killed.

Follow the procedures and precautions in this manual and other service materials carefully.

## For Your Safety

Because this manual is intended for the professional service technician, we do not provide warnings about many basic shop safety practices (e.g., Hot parts—wear gloves). If you have not received shop safety training or do not feel confident about your knowledge of safe servicing practice, we recommended that you do not attempt to perform the procedures described in this manual.

Some of the most important general service safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing service and repair procedures. Only you can decide whether or not you should perform a given task.

### **⚠ WARNING**

Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

## Important Safety Precautions

Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and using safety equipment. When performing any service task, be especially careful of the following:

- Read all of the instructions before you begin, and make sure you have the tools, the replacement or repair parts, and the skills required to perform the tasks safely and completely.
- Protect your eyes by using proper safety glasses, goggles or face shields any time you hammer, drill, grind, pry or work around pressurized air or liquids, and springs or other stored-energy components. If there is any doubt, put on eye protection.
- Use other protective wear when necessary, for example gloves or safety shoes. Handling hot or sharp parts can cause severe burns or cuts. Before you grab something that looks like it can hurt you, stop and put on gloves.
- Protect yourself and others whenever you have the vehicle up in the air. Any time you lift the vehicle, either with a hoist or a jack, make sure that it is always securely supported. Use jack stands.

Make sure the engine is off before you begin any servicing procedures, unless the instruction tells you to do otherwise. This will help eliminate several potential hazards:

- Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation whenever you run the engine
- Burns from hot parts or coolant. Let the engine and exhaust system cool before working in those areas.
- Injury from moving parts. If the instruction tells you to run the engine, be sure your hands, fingers and clothing are out of the way.

Gasoline vapors and hydrogen gases from batteries are explosive. To reduce the possibility of a fire or explosion, be careful when working around gasoline or batteries.

- Use only a nonflammable solvent, not gasoline, to clean parts.
- Never drain or store gasoline in an open container.
- Keep all cigarettes, sparks and flames away from the battery and all fuel-related parts.

## How To Use This Manual


This manual describes the service procedures for the XR190CT-H.

Refer to XR190L-H SHOP MANUAL (No.62K79B0) for service procedures and data not included in this addendum.

Your safety, and the safety of others, is very important. To help you make informed decisions we have provided safety messages and other information throughout this manual. Of course, it is not practical or possible to warn you about all the hazards associated with servicing this vehicle.

You must use your own good judgement.

You will find important safety information in a variety of forms including:

- Safety Labels – on the vehicle
- Safety Messages – preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

**▲ DANGER** You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

**▲ WARNING** You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

**▲ CAUTION** You CAN be HURT if you don't follow instructions.

- Instructions – how to service this vehicle correctly and safely.

As you read this manual, you will find information that is preceded by a **NOTICE** symbol. The purpose of this message is to help prevent damage to your vehicle, other property, or the environment.

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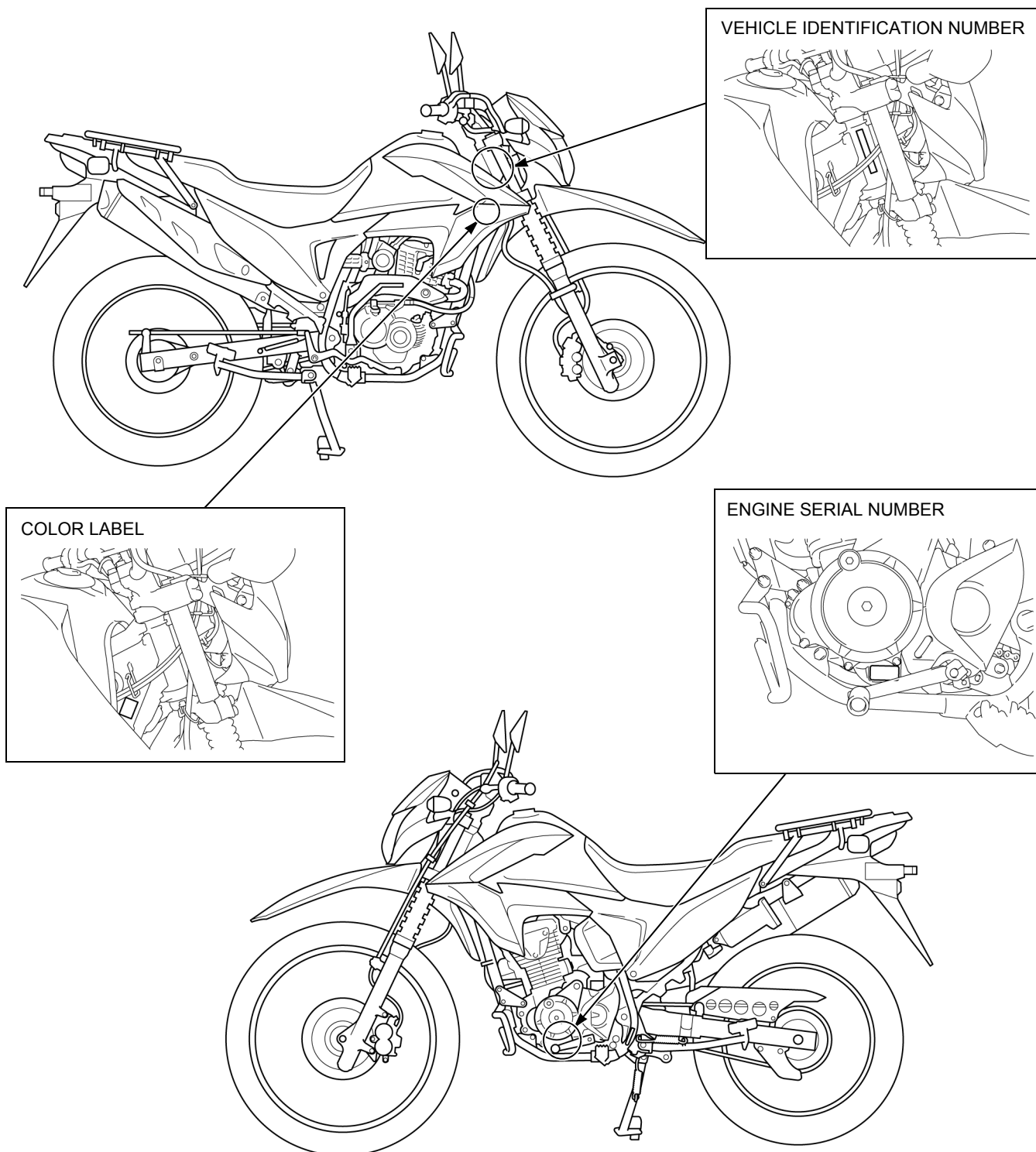
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SERVICE PUBLICATION OFFICE

Date of Issue: November, 2016

## MODEL IDENTIFICATION

- Model name: XR190CT-H

Code/Type	Destination
LA	Latin America
U	Australia, New zealand, South Africa



# SPECIFICATIONS

## GENERAL SPECIFICATIONS

ITEM		SPECIFICATION
DIMENSIONS	Overall length	2,103 mm
	Overall width	842 mm
	Overall height	1,127 mm
	Wheelbase	1,369 mm
	Seat height	827 mm
	Footpeg height	292 mm
	Ground clearance	237 mm
	Curb weight	137 kg
	Maximum weight capacity	95 kg
FRAME	Frame type	Semi double cradle type
	Front suspension	Telescopic fork
	Front wheel travel	160 mm
	Rear suspension	Pro-Link
	Rear wheel travel	151 mm
	Front tire size	2.75 - 21 45M
	Rear tire size	90/100 - 18M/C 54M
	Front tire brand	CM-725 (CHENG SHIN)
	Rear tire brand	CM-726 (CHENG SHIN)
	Front brake	Hydraulic single disc
	Rear brake	Mechanical leading trailing
	Caster angle	27° 10'
	Trail length	101 mm
	Fuel tank capacity	12.0 liter
	Fuel tank reserve capacity	3.9 liter
ENGINE	Cylinder arrangement	Single cylinder inclined 15° from vertical
	Bore and stroke	61.000 x 63.096 mm
	Displacement	184.43 cm <sup>3</sup>
	Compression ratio	9.5 : 1
	Valve train	Chain driven OHC with rocker arm
	Intake valve	opens 0° BTDC at 1 mm lift
		closes 25° ABDC at 1 mm lift
	Exhaust valve	opens 30° BBDC at 1 mm lift
		closes -5° ATDC at 1 mm lift
	Lubrication system	Forced pressure and wet sump
	Oil pump type	Trochoid
	Cooling system	Air cooled
	Air filtration	Viscous paper filter
	Engine dry weight	29.6 kg
FUEL SYSTEM	Emission control system	Crankcase emission control system Three-way catalytic converter
	Type	PGM-FI (Programmed Fuel Injection)
	Throttle bore	30 mm

ITEM		SPECIFICATION
DRIVE TRAIN	Clutch system	Multi-plate, wet
	Clutch operation system	Cable operating
	Transmission	5 speeds
	Primary reduction	3.136 (69/22)
	Final reduction	3.467 (52/15)
	Gear ratio	1st 2.785 (39/14)
		2nd 1.789 (34/19)
		3rd 1.368 (26/19)
		4th 1.090 (24/22)
		5th 0.928 (26/28)
	Gearshift pattern	Left foot operated return system 1 - N - 2 - 3 - 4 - 5
ELECTRICAL	Ignition system	Full transistorized
	Starting system	Electric starter motor and kickstarter
	Charging system	Single phase output alternator
	Regulator/rectifier	SCR opened, single phase half-wave rectification
	Lighting system	Alternator

## FUEL & ENGINE SPECIFICATIONS

### CYLINDER HEAD

Unit: mm

ITEM			STANDARD	LIMIT
Camshaft	Cam lobe height	IN	33.977 – 34.217	33.947
		EX	33.807 – 34.047	33.777

## FRAME & CHASSIS SPECIFICATIONS

### FRONT WHEEL/SUSPENSION/STEERING

Unit: mm

ITEM		STANDARD	LIMIT
Fork	Recommended fork fluid	CN10 #	–
	Fluid level	140 mm	–
	Fluid capacity	420 cm <sup>3</sup>	–

### REAR WHEEL/BRAKE/SUSPENSION

Unit: mm

ITEM	STANDARD	LIMIT
Drive chain size/link	428HO/132LE	–

## TORQUE VALUE

- Each fastener should be tightened to the standard torque value except the fasteners specified torque value.
- Q'TY: Quantity, DIA: Thread diameter (mm), TRQ: Tightening torque (N·m)

### STANDARD TIGHTENING TORQUE

FASTENER TYPE	TRQ	FASTENER TYPE	TRQ
5 mm hex bolt and nut	5.2	5 mm screw	4.2
6 mm hex bolt and nut	10	6 mm screw	9.0
8 mm hex bolt and nut	22	6 mm flange bolt	12
10 mm hex bolt and nut	34	8 mm flange bolt and nut	27
12 mm hex bolt and nut	54	10 mm flange bolt and nut	39

### SIDESTAND

ITEM	Q'TY	DIA	TRQ	REMARKS
Sidestand pivot bolt	1	10	10	→5-18
Sidestand pivot nut	1	10	39	Self lock nut →5-18

### FRONT WHEEL

ITEM	Q'TY	DIA	TRQ	REMARKS
Front axle bolt	1	12	59	
Front brake disc bolt	5	6	20	Pre-coated (ALOC) bolt, replace with a new one.

### FORK

ITEM	Q'TY	DIA	TRQ	REMARKS
Top bridge pinch bolt	4	8	20	
Bottom bridge pinch bolt	4	8	32	
Brake hose clamped bolt	2	6	12	
Fork bolt	2	27	22	
Fork socket bolt	2	8	20	Apply locking agent.

### REAR SUSPENSION

ITEM	Q'TY	DIA	TRQ	REMARKS
Shock link nut (frame side)	1	10	44	Self lock nut
Shock link nut (shock arm side)	1	10	44	Self lock nut
Shock arm nut (swingarm side)	1	10	44	Self lock nut
Shock absorber upper bolt	1	10	44	
Shock absorber lower nut	1	10	44	Self lock nut
Swingarm pivot nut	1	14	88	Self lock nut
Drive chain slider screw	1	5	6.0	

### FRONT BRAKE

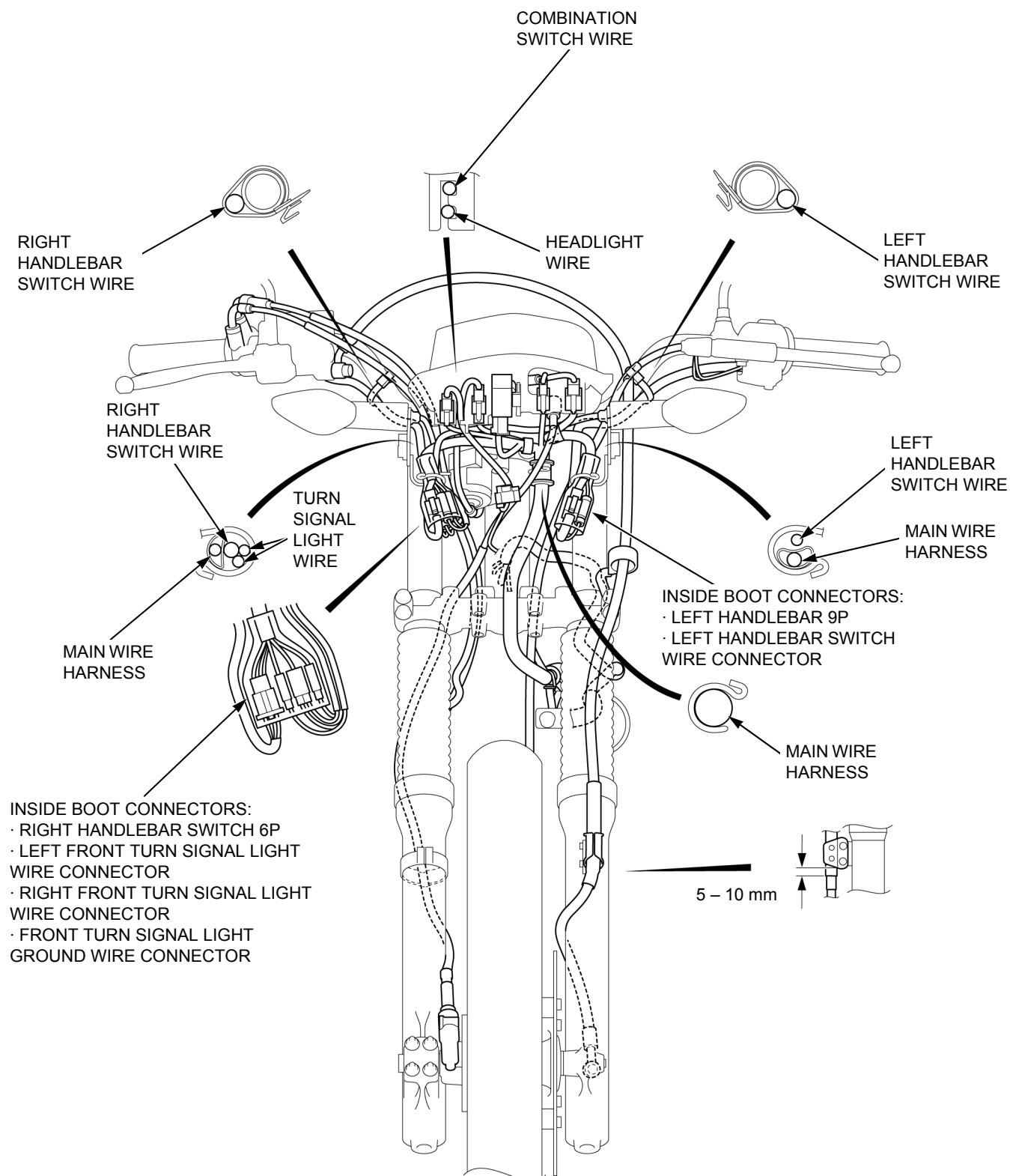
ITEM	Q'TY	DIA	TRQ	REMARKS
Brake lever pivot bolt	1	6	1.0	
Brake lever pivot nut	1	6	5.9	
Front brake light switch screw	1	4	1.2	

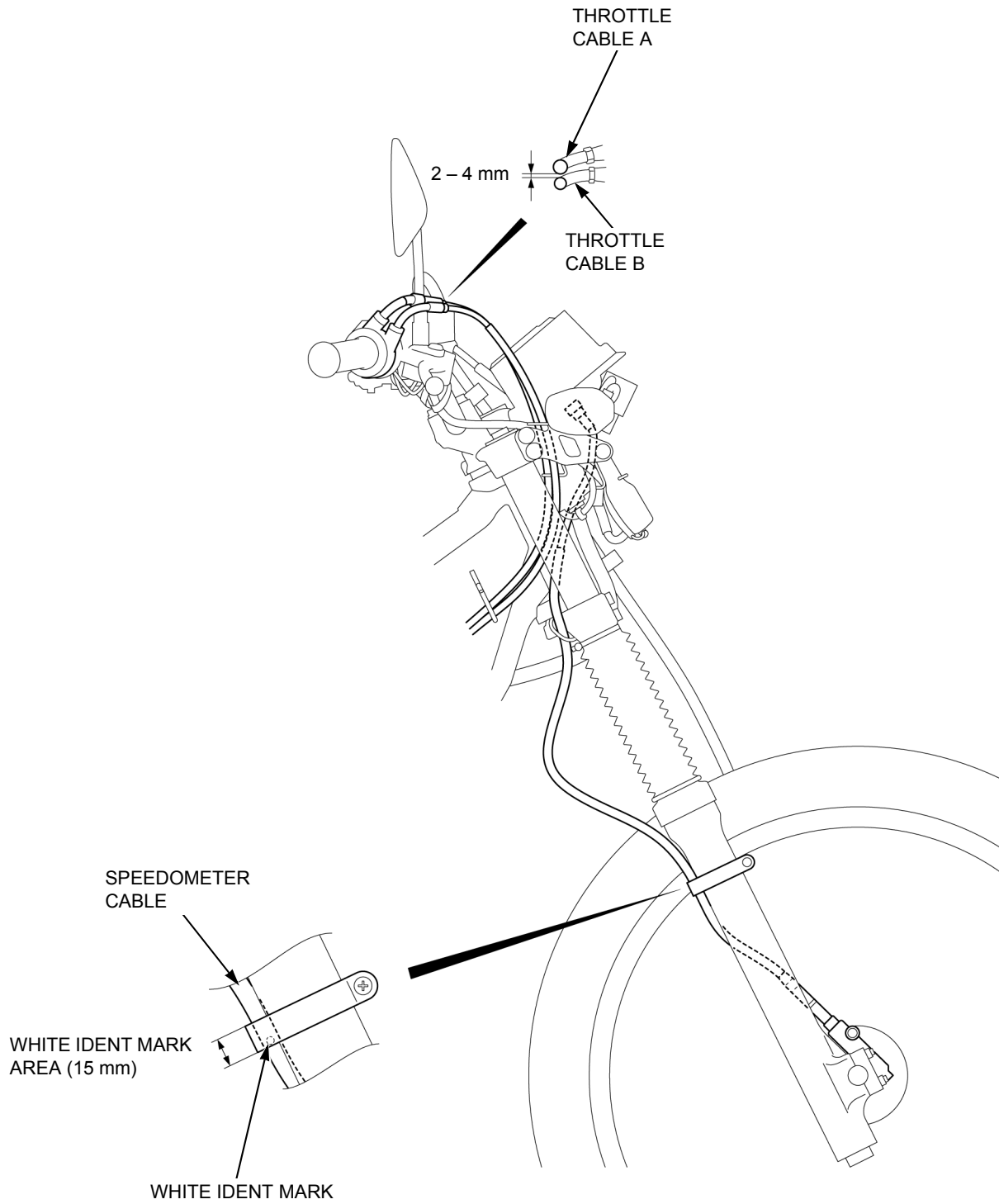


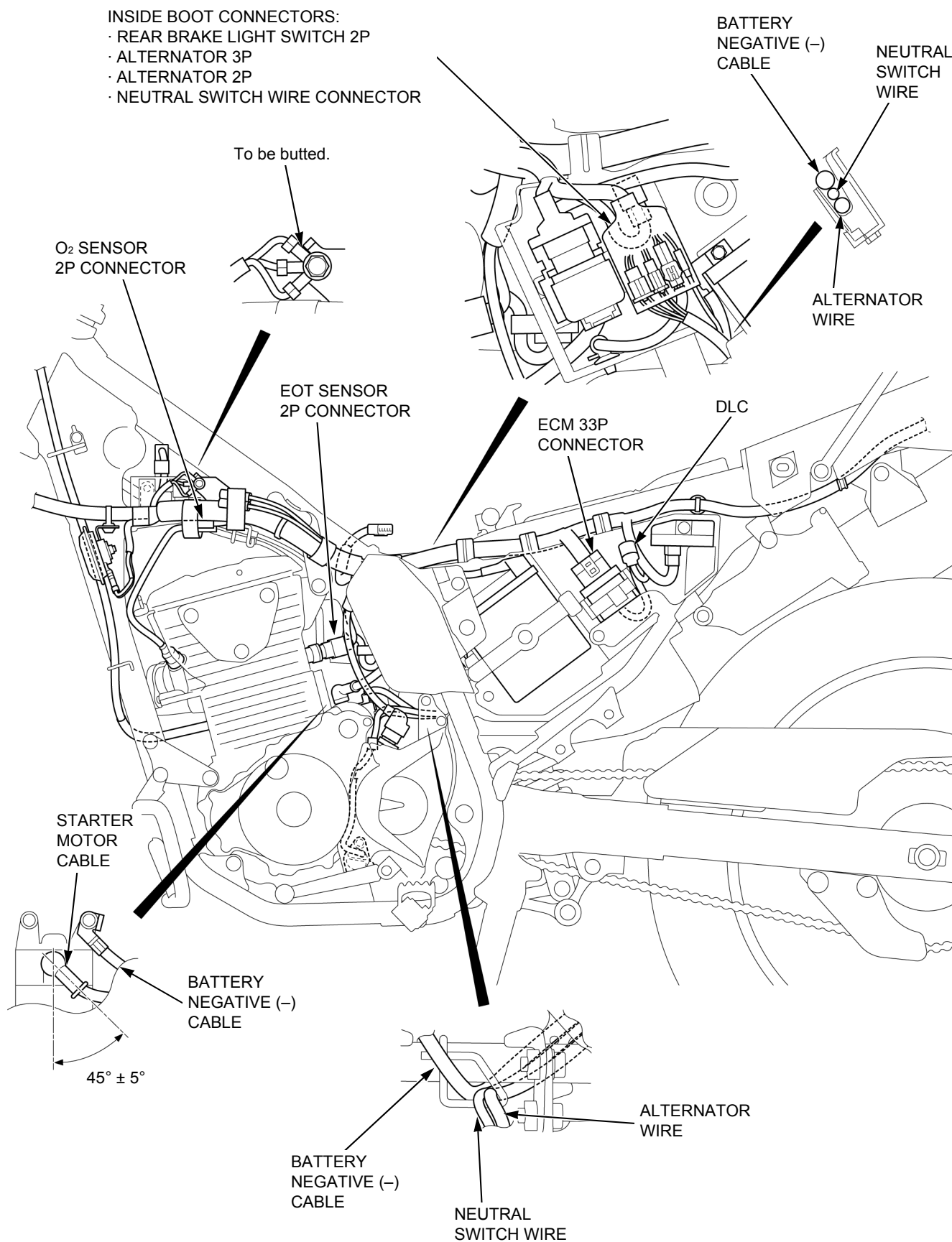
## SPECIAL TOOL LIST

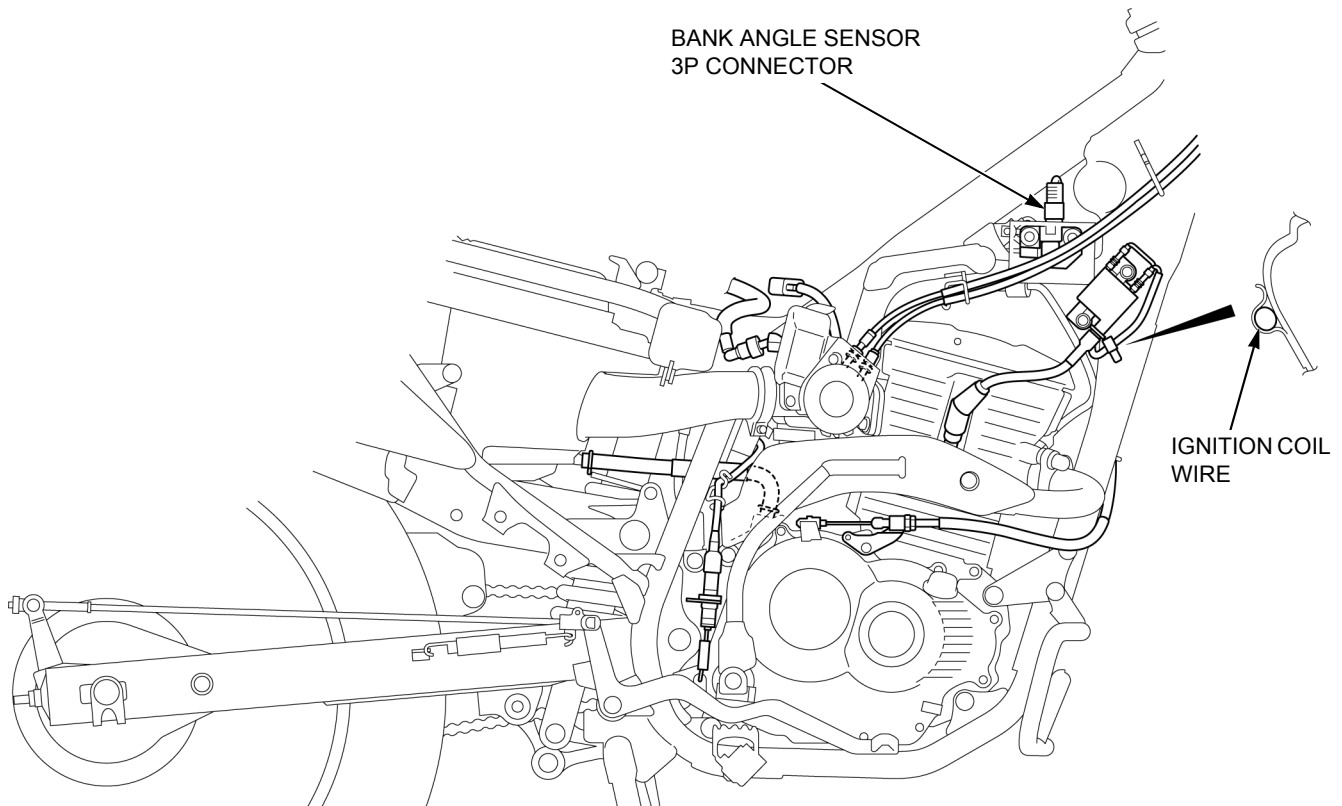
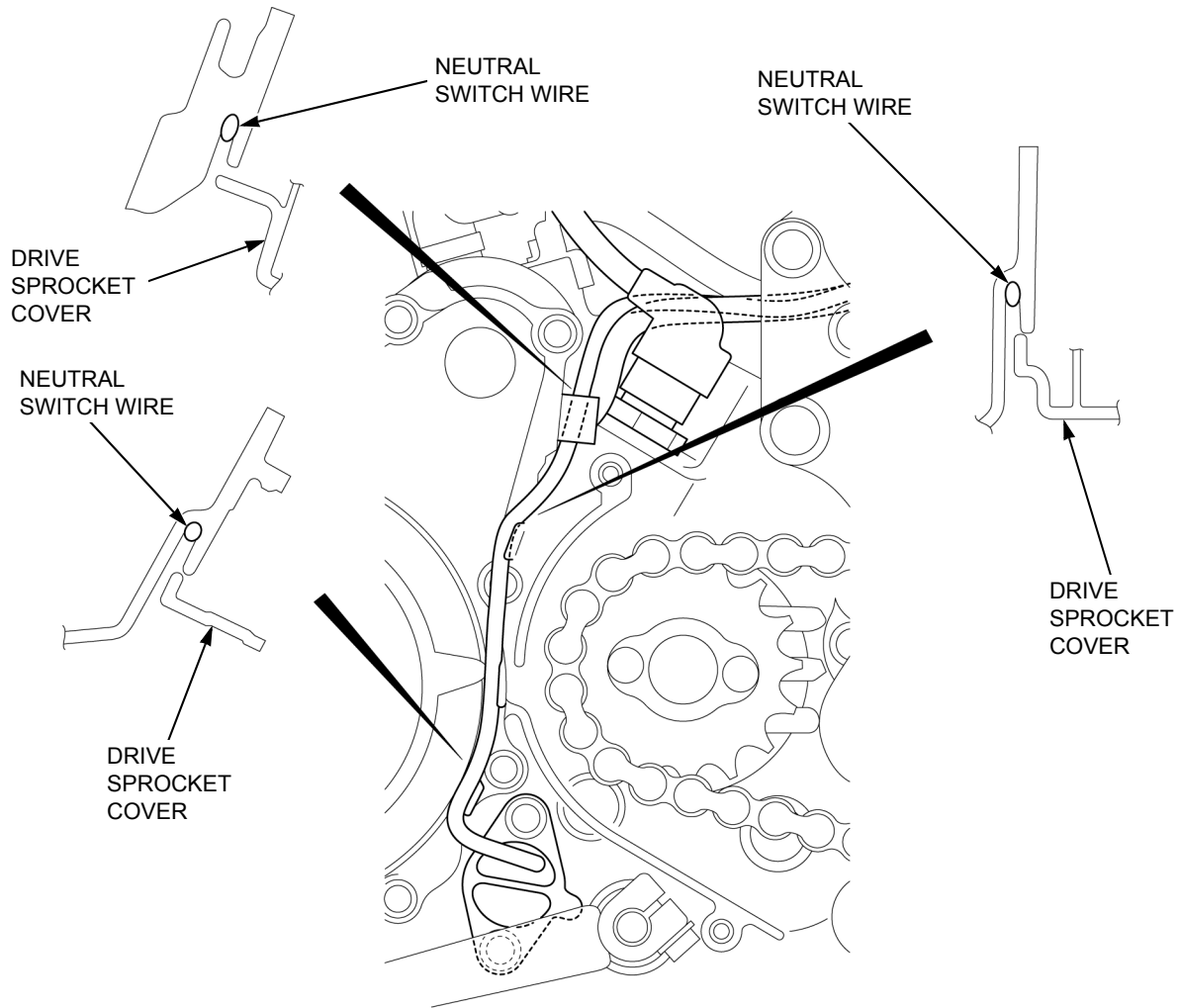
TITLE	TOOL No.	TOOL NAME
Fuel & Engine	07406-0040004	Fuel pressure gauge
	070MJ-K260100	Fuel pressure gauge attachment
	070MF-KVS0300	Fuel pump case remover
	070PZ-ZY30100	SCS short connector
	07708-0030200	Locknut wrench, 10 x 12 mm
	07908-KE90000	Tappet adjusting wrench, 3 x 4 mm
	070MG-0010100	Tensioner stopper
	07757-0010000	Valve spring compressor
	07984-MA60001	Valve guide reamer, 5.0 mm
	07942-MA60000	Valve guide driver, 4.8 mm
	07724-0010200	Gear holder
	07GMB-KT70101	Clutch center holder
	07725-0040001	Flywheel holder
	07933-KM10001	Flywheel puller
Frame & Chassis	07746-0050400	Bearing remover head, 15 mm
	07746-0050100	Bearing remover shaft
	07746-0010200	Attachment, 37 x 40 mm
	07746-0010100	Attachment, 32 x 35 mm
	07746-0040300	Pilot, 15 mm
	07749-0010000	Driver
	07748-0010001	Oil seal remover
	07747-0010100	Fork seal driver weight
	07747-0010300	Fork seal driver attachment
	07747-0010600	Fork seal driver attachment
	07916-KA50100	Lock nut wrench
	07746-0050500	Bearing remover head, 17 mm
	07746-0040400	Pilot, 17 mm
	07953-MJ10000	Ball race remover set
	07746-0010300	Attachment 42 x 47 mm
	07914-SA50001	Snap ring pliers

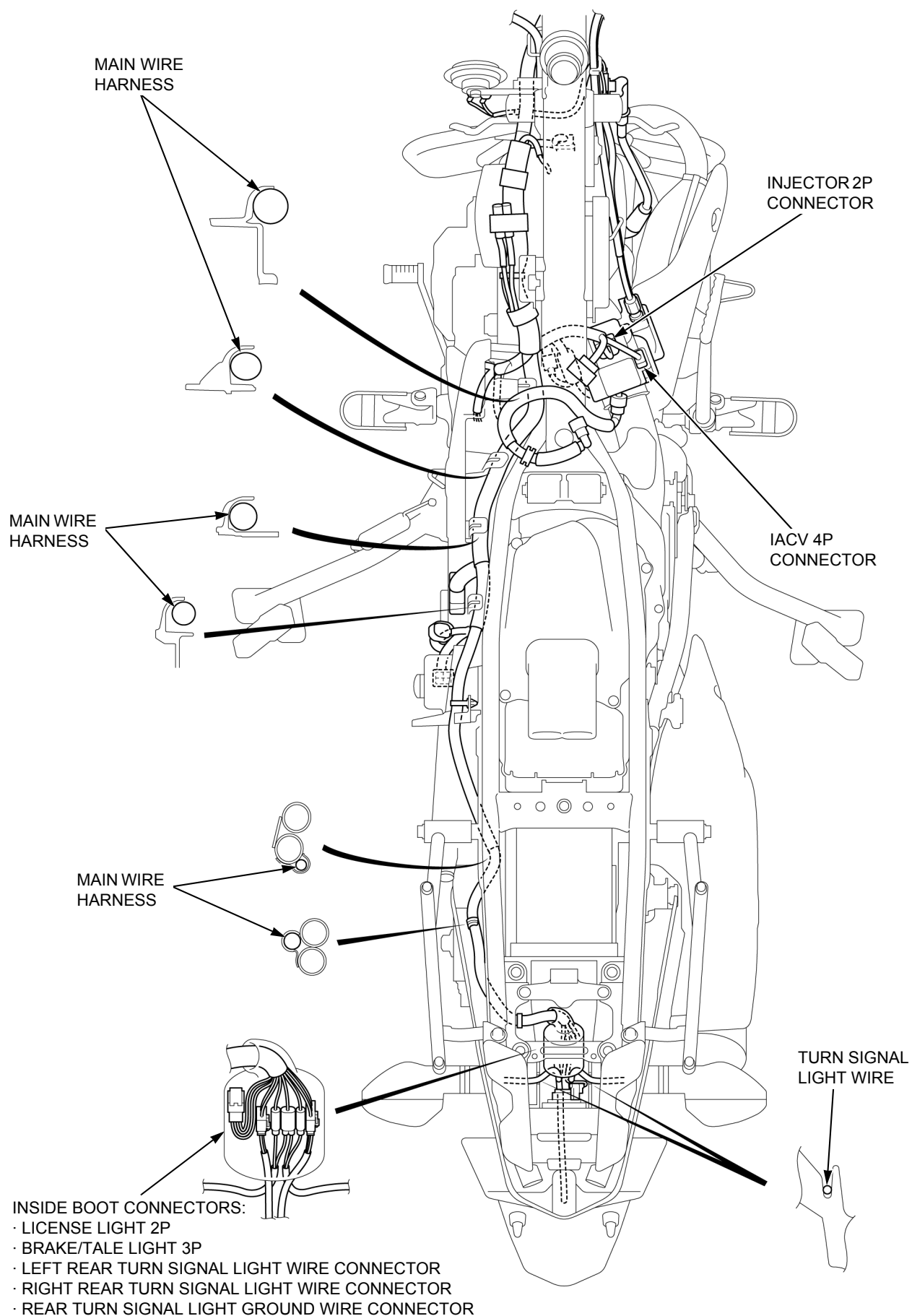
# CABLE & HARNESS ROUTING













## MAINTENANCE SCHEDULE (LA type)

- Perform the Pre-ride inspection in the Owner's Manual at each scheduled maintenance period.
- I: Inspect and Clean, Adjust, Lubricate or Replace if necessary. C: Clean. R: Replace. A: Adjust. L: Lubricate.
- The following items require some mechanical knowledge. Certain items (particularly those marked \* and \*\*) may require more technical information and tools. Consult a dealer.



- Refer to "Basic" Service Manual for each maintenance instruction except the instructions described in this manual.

ITEMS		NOTE	FREQUENCY (NOTE 1)								ANNUAL CHECK	REGULAR REPLACE	REFER TO PAGE	
			X1,000 km X1,000 mi	1 0.6	6 4	12 8	18 12	24 16	30 20	36 24				
*	FUEL LINE				I	I	I	I	I	I	I			
*	THROTTLE OPERATION				I	I	I	I	I	I	I			
*	AIR CLEANER	NOTE2					R			R			➔2-7	
	CRANKCASE BREATHER	NOTE3			C	C	C	C	C	C				
	SPARK PLUG				I	R	I	R	I	R			➔4-22	
*	VALVE CLEARANCE				I	I	I	I	I	I			➔2-14	
	ENGINE OIL			R	R	R	R	R	R	R	R		➔2-13	
**	ENGINE OIL STRAINER SCREEN					C		C		C			➔2-13	
**	ENGINE OIL CENTRIFUGAL FILTER					C		C		C			➔2-21	
*	ENGINE IDLE SPEED			I	I	I	I	I	I	I	I			
	DRIVE CHAIN	NOTE4	Every 1000 Km (600 mi) I, L											
	DRIVE CHAIN SLIDER				I	I	I	I	I	I				
	BRAKE FLUID	NOTE5			I	I	I	I	I	I	I	2 years		
	BRAKE SHOES/PADS WEAR				I	I	I	I	I	I	I			
	BRAKE SYSTEM			I	I	I	I	I	I	I	I			
	BRAKE LIGHT SWITCH				I	I	I	I	I	I	I			
	HEADLIGHT AIM				I	I	I	I	I	I	I		➔4-33	
	CLUTCH SYSTEM			I	I	I	I	I	I	I	I			
	SIDESTAND				I	I	I	I	I	I	I			
*	SUSPENSION				I	I	I	I	I	I	I			
*	NUTS, BOLTS, FASTENERS	NOTE4		I		I		I		I	I			
**	WHEELS/TIRES	NOTE4			I	I	I	I	I	I	I			
**	STEERING HEAD BEARINGS					I		I		I	I			

- \* Should be serviced by a dealer, unless the owner has proper tools and service data and is mechanically qualified.
- \*\* In the interest of safety, we recommend these items be serviced only by a dealer.
- Honda recommends that a dealer should road test the vehicle after each periodic maintenance is carried out.

### NOTES:

1. At higher odometer readings, repeat at the frequency interval established here.
2. Service more frequently when riding in unusually wet or dusty areas.
3. Service more frequently when riding in rain or at full throttle.
4. Service more frequently when riding OFF-ROAD.
5. Replacement requires mechanical skill.

## MAINTENANCE SCHEDULE (U type)

- Perform the Pre-ride inspection in the Owner's Manual at each scheduled maintenance period.
- I: Inspect and Clean, Adjust, Lubricate or Replace if necessary. C: Clean. R: Replace. A: Adjust. L: Lubricate.
- The following items require some mechanical knowledge. Certain items (particularly those marked \* and \*\*) may require more technical information and tools. Consult a dealer.



- Refer to "Basic" Service Manual for each maintenance instruction except the instructions described in this manual.

ITEMS	NOTE	FREQUENCY (NOTE 1)								ANNUAL CHECK	REGULAR REPLACE	REFER TO PAGE
		X1,000 km X1,000 mi	1 0.6	6 4	12 8	18 12	24 16	30 20	36 24			
* FUEL LINE				I	I	I	I	I	I	I		
* THROTTLE OPERATION				I	I	I	I	I	I	I		
* AIR CLEANER	NOTE2					R			R			→2-7
CRANKCASE BREATHER	NOTE3			C	C	C	C	C	C			
SPARK PLUG				I	R	I	R	I	R			→4-22
* VALVE CLEARANCE				I	I	I	I	I	I			→2-14
ENGINE OIL			R	R	R	R	R	R	R	R		→2-13
** ENGINE OIL STRAINER SCREEN					C		C		C			→2-13
** ENGINE OIL CENTRIFUGAL FILTER					C		C		C			→2-21
* ENGINE IDLE SPEED			I	I	I	I	I	I	I	I		
DRIVE CHAIN	NOTE4	Every 1000 Km (600 mi) I, L										
DRIVE CHAIN SLIDER				I	I	I	I	I	I			
BRAKE FLUID	NOTE5			I	I	I	I	I	I	I	2 years	
BRAKE SHOES/PADS WEAR				I	I	I	I	I	I	I		
BRAKE SYSTEM				I	I	I	I	I	I	I		
BRAKE LIGHT SWITCH				I	I	I	I	I	I	I		
HEADLIGHT AIM				I	I	I	I	I	I	I		→4-33
CLUTCH SYSTEM				I	I	I	I	I	I	I		
SIDESTAND				I	I	I	I	I	I	I		
* SUSPENSION				I	I	I	I	I	I	I		
* NUTS, BOLTS, FASTENERS	NOTE4				I		I		I	I		
** WHEELS/TIRES	NOTE4			I	I	I	I	I	I	I		
** STEERING HEAD BEARINGS					I		I		I	I		

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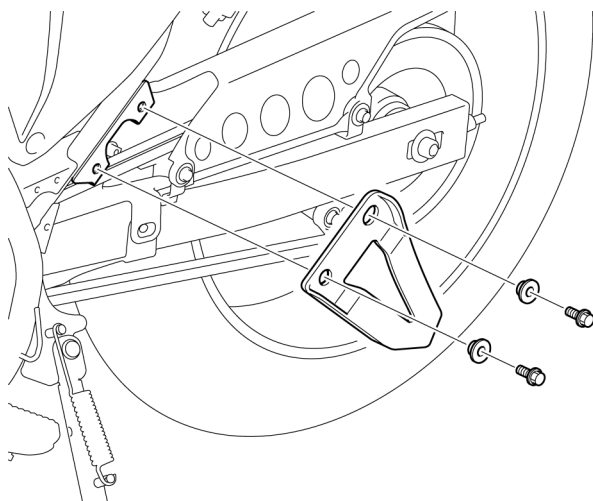
### NOTES:

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4. Service more frequently when riding OFF-ROAD.
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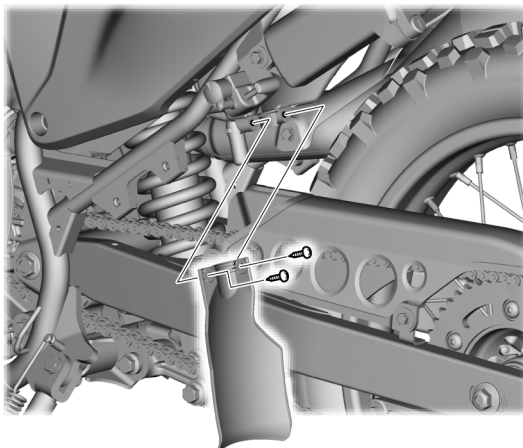


## BODY PANELS

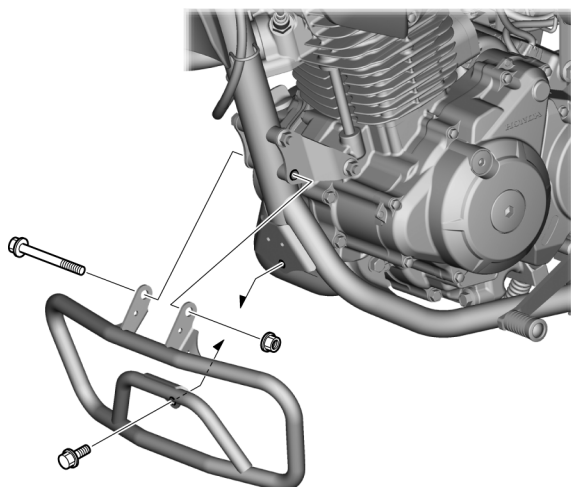
### DRIVE CHAIN COVER (U type only)



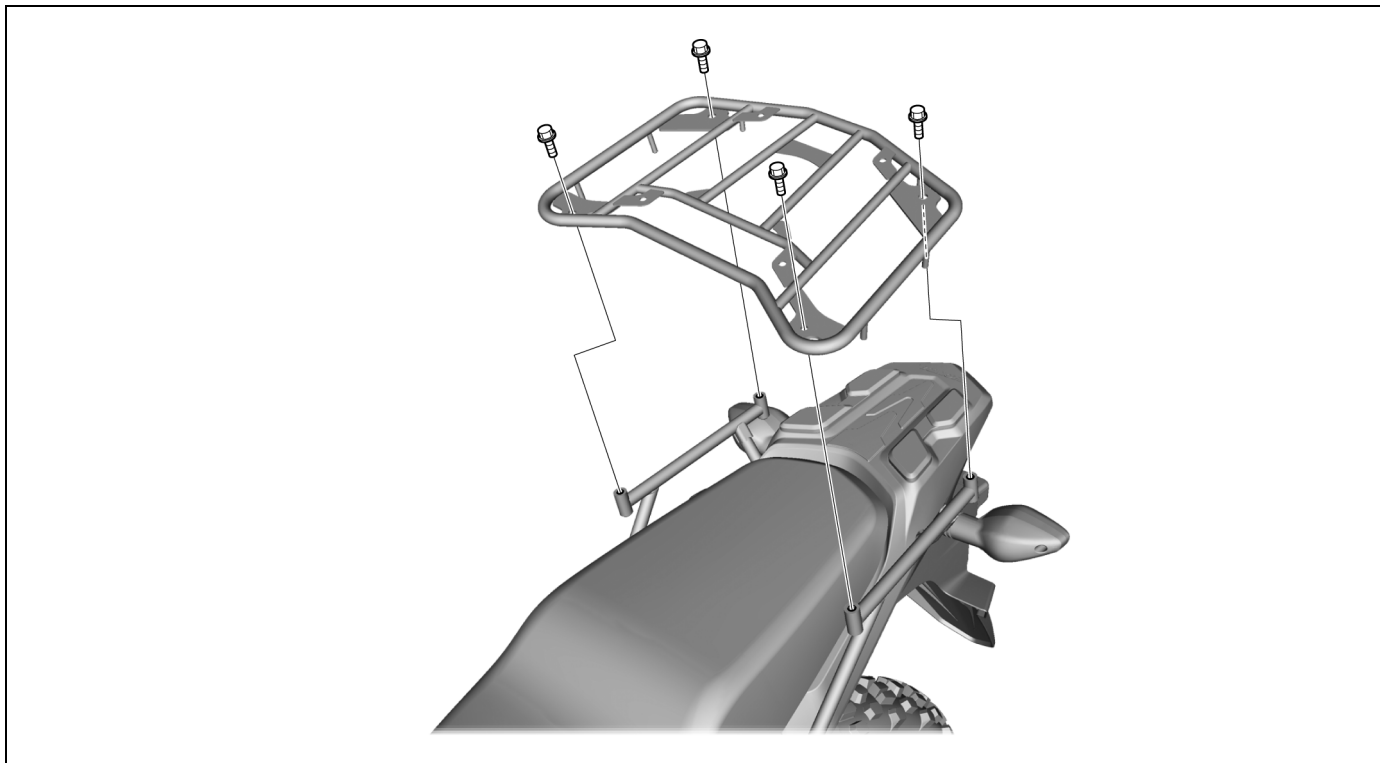
### MUD GUARD



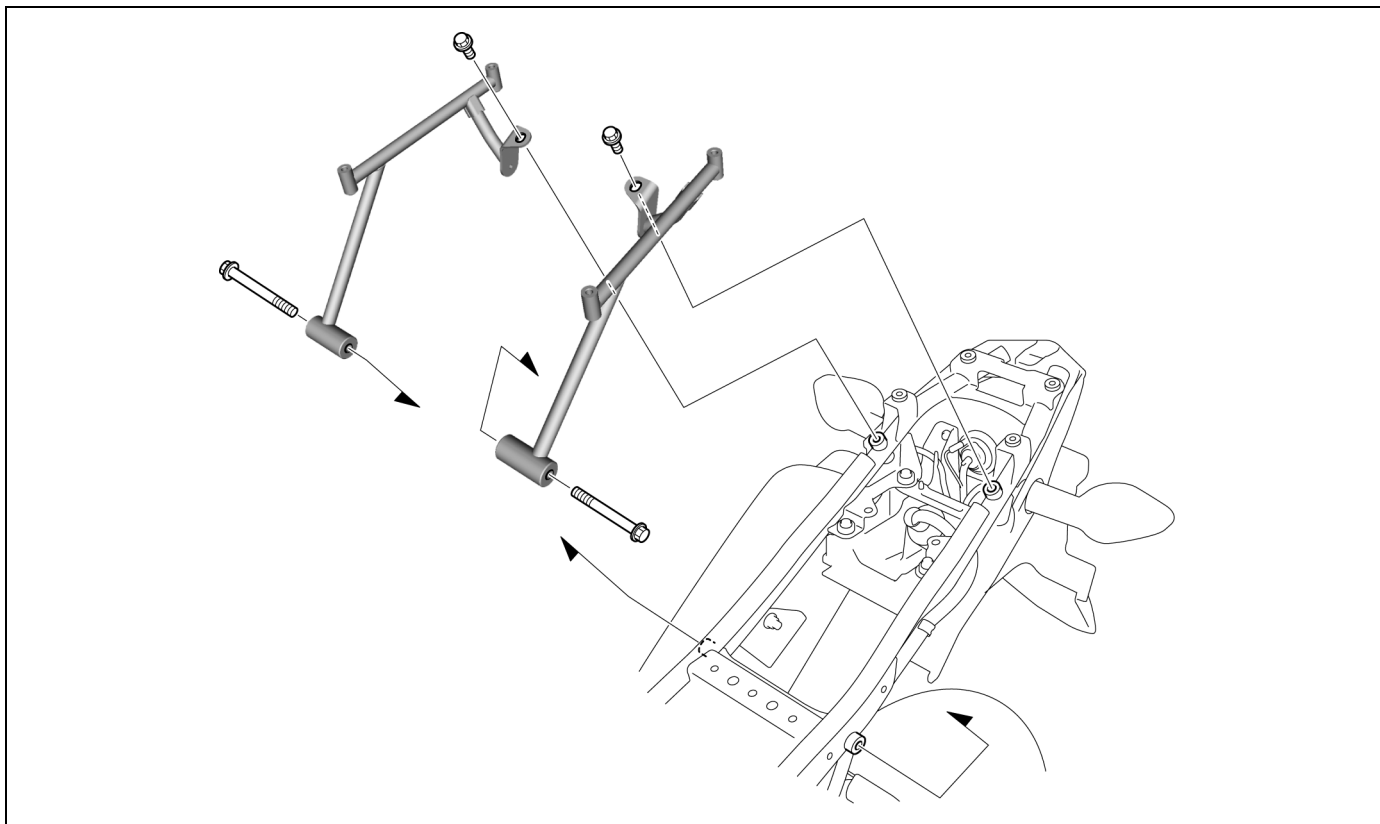
### ENGINE GUARD



## REAR CARRIER

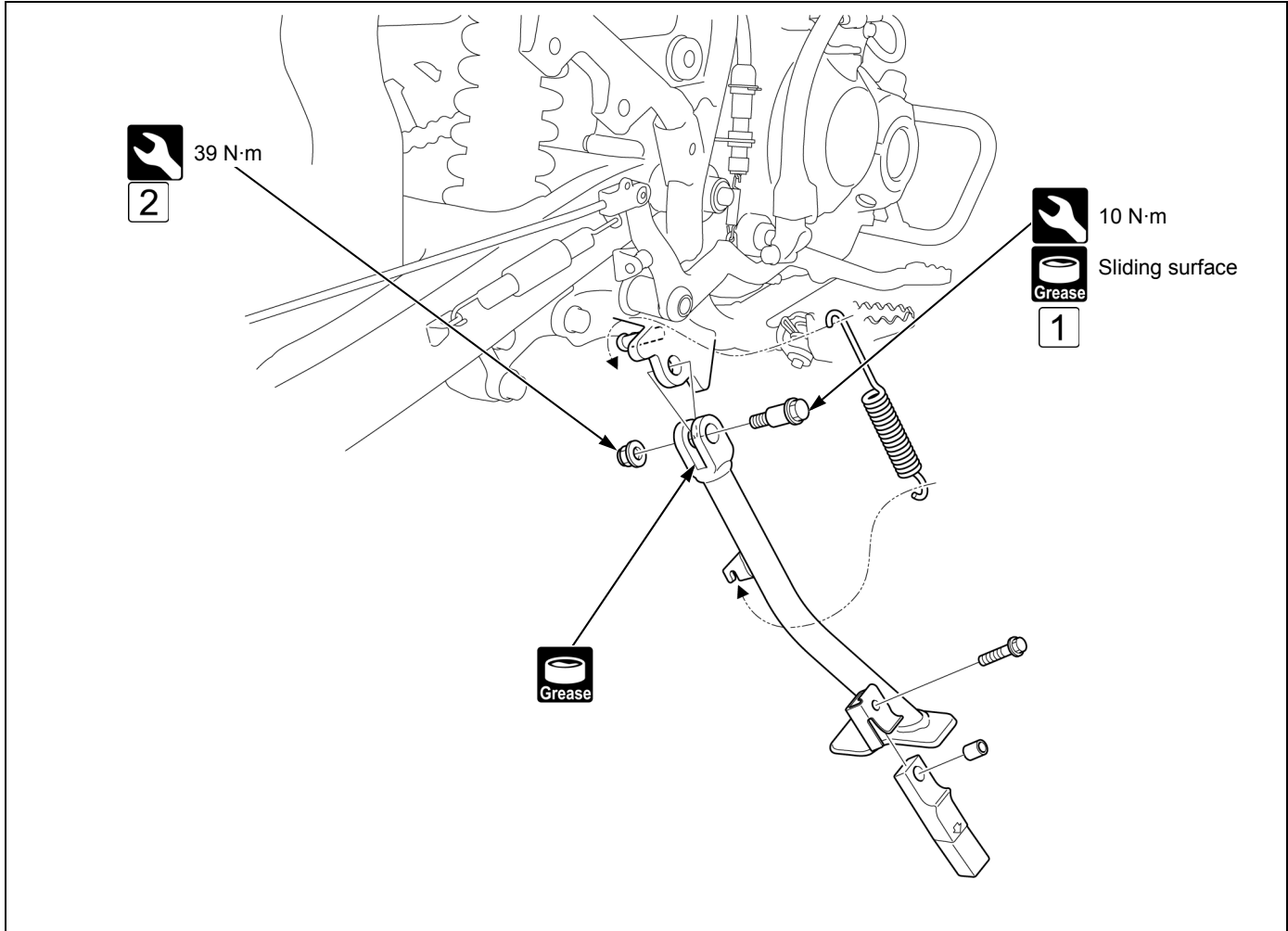


## REAR CARRIER BASE



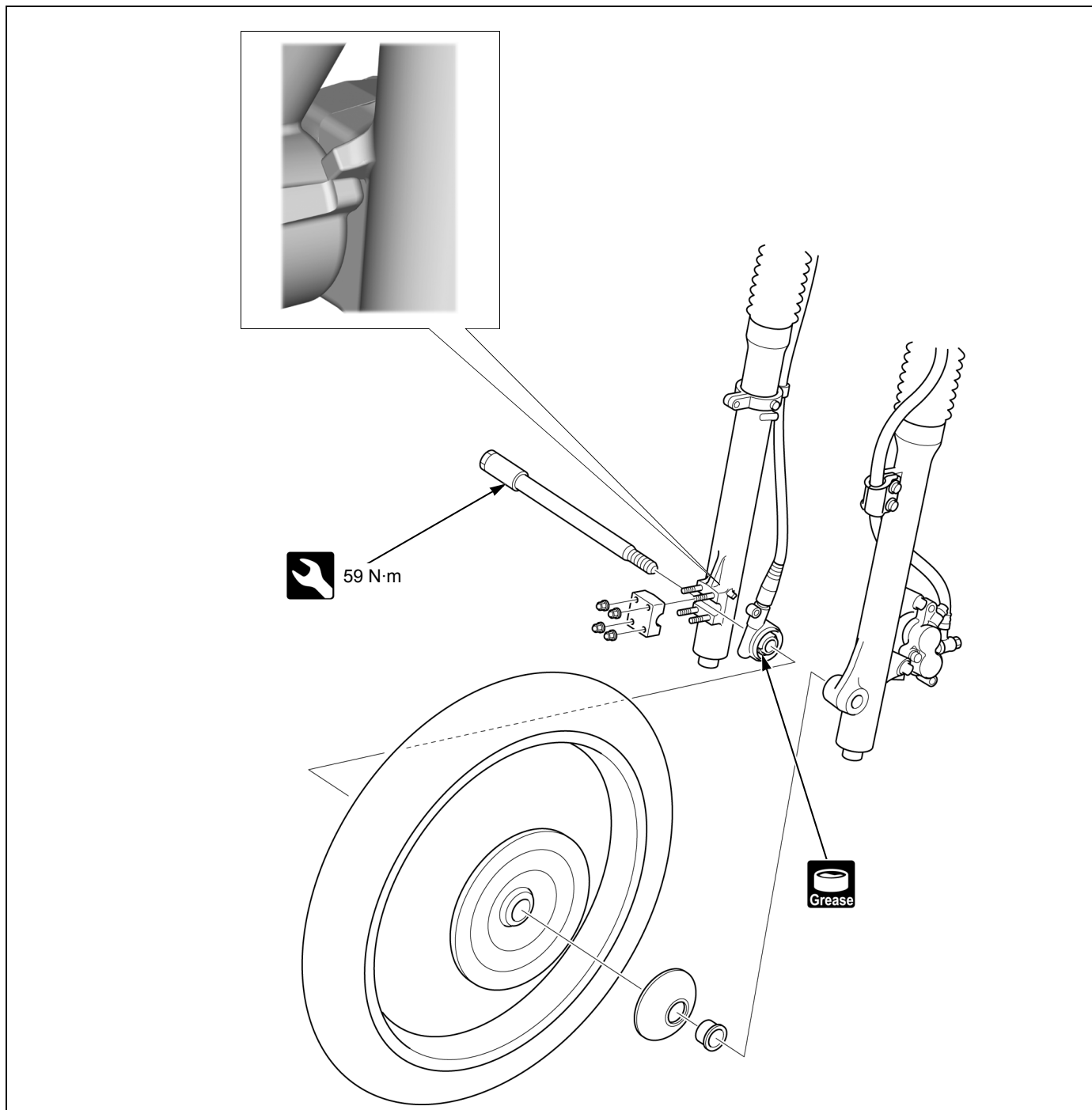
• Rear center cowl → 3-5

## RIGHT SIDESTAND

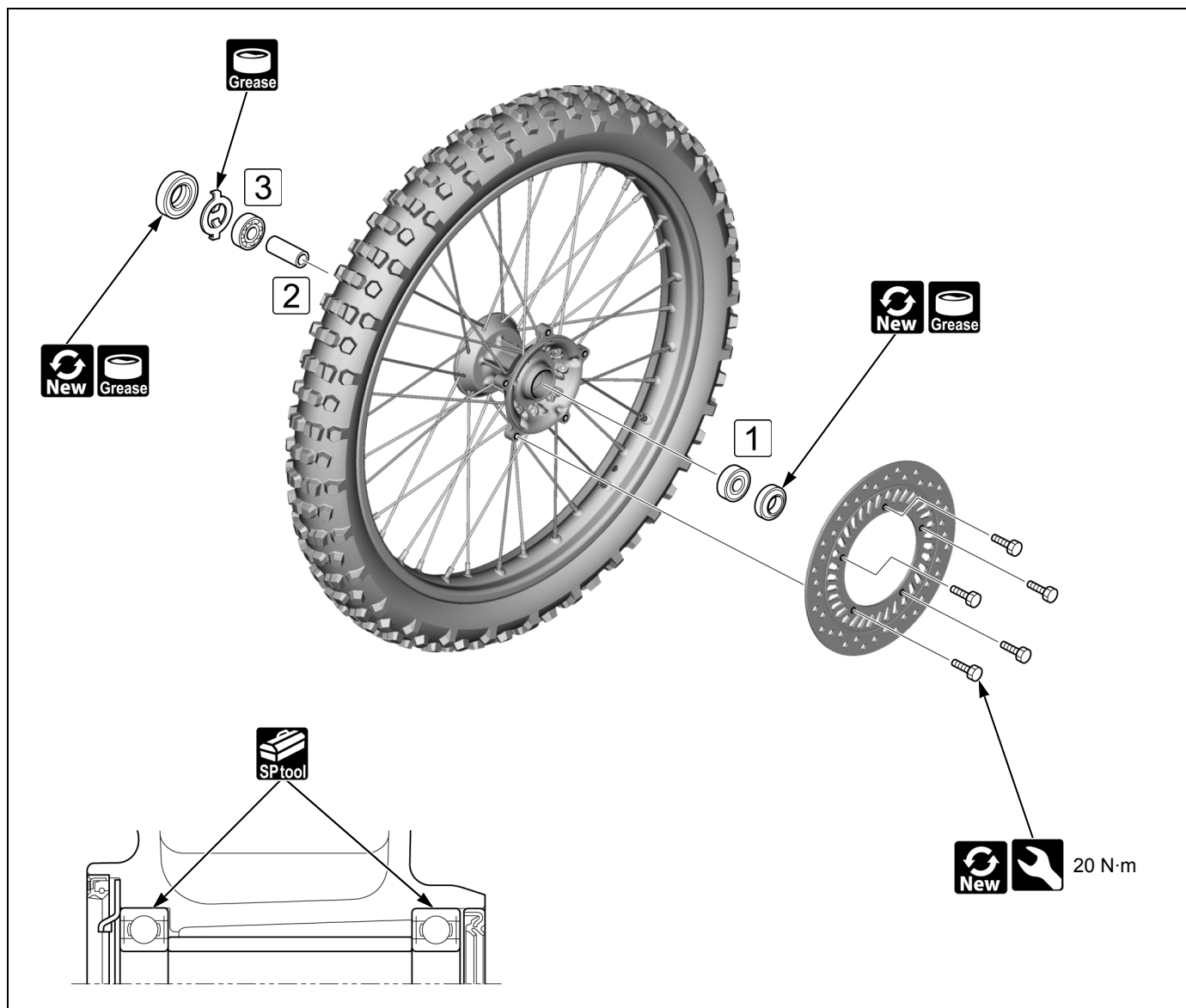


- **1** After tightening the pivot bolt to the specified torque, turn it 45 – 90 ° counterclockwise.
- **2** When tightening the pivot nut, hold the pivot bolt securely.

## FRONT WHEEL



• Wheel inspection



- Install the bearing remover head into the bearing. From the opposite side, install the bearing remover shaft and drive out the bearing from the wheel hub.

**Bearing remover head, 15 mm: 07746-0050400**

**Bearing remover shaft: 07746-0050100**



- **1** Drive in a new bearing squarely with its marked side facing outside until it is fully seated.

**Driver: 07749-0010000**

**Attachment, 32 x 35 mm: 07746-0010100**

**Pilot, 15 mm: 07746-0040300**

- **2** Install the distance collar.

- **3** Drive in a new bearing squarely with its marked side facing outside until it is seated on the distance collar.

**Driver: 07749-0010000**

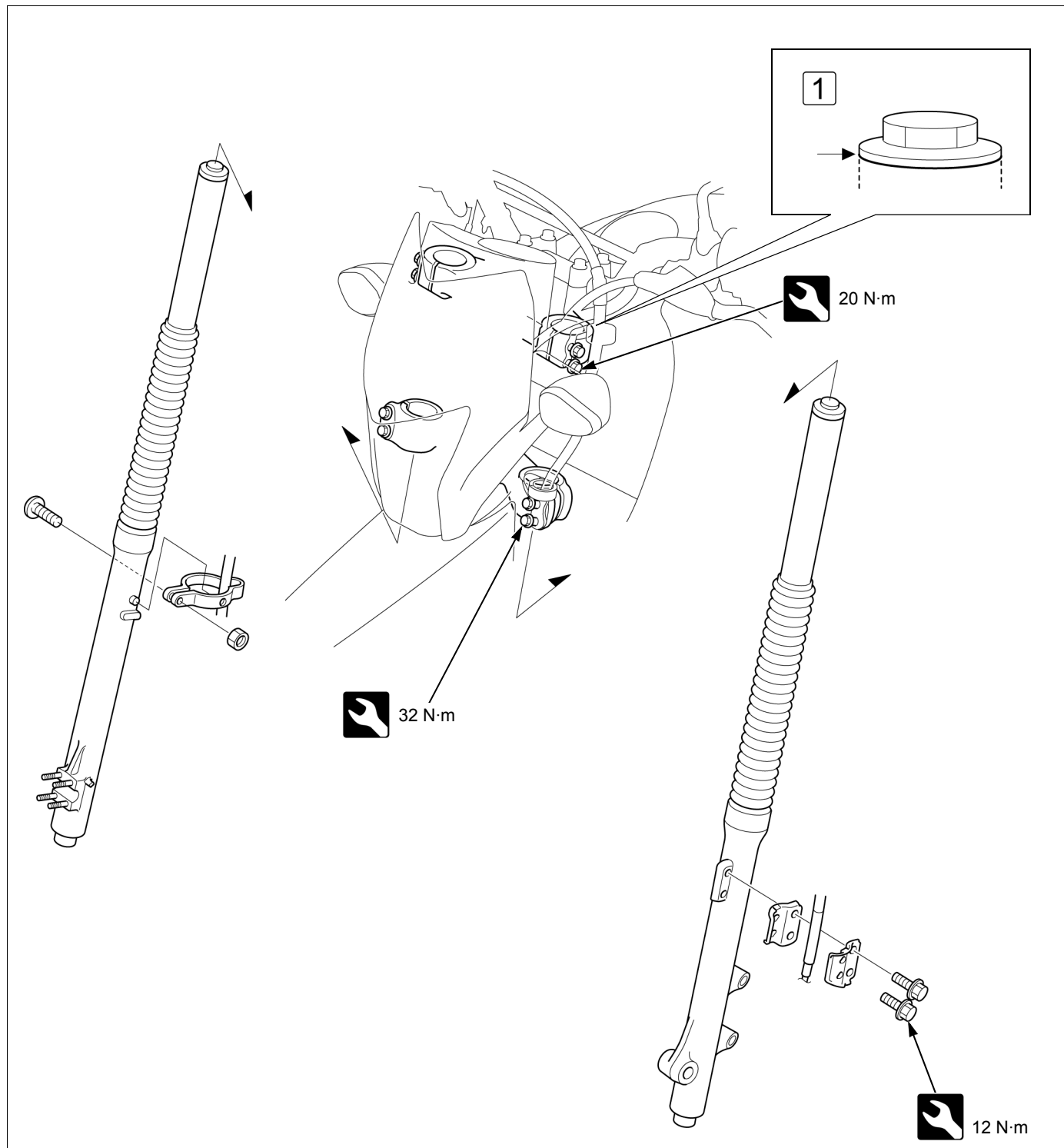
**Attachment, 32 x 35 mm: 07746-0010100**

**Pilot, 15 mm: 07746-0040300**



- Wheel disassembly and inspection

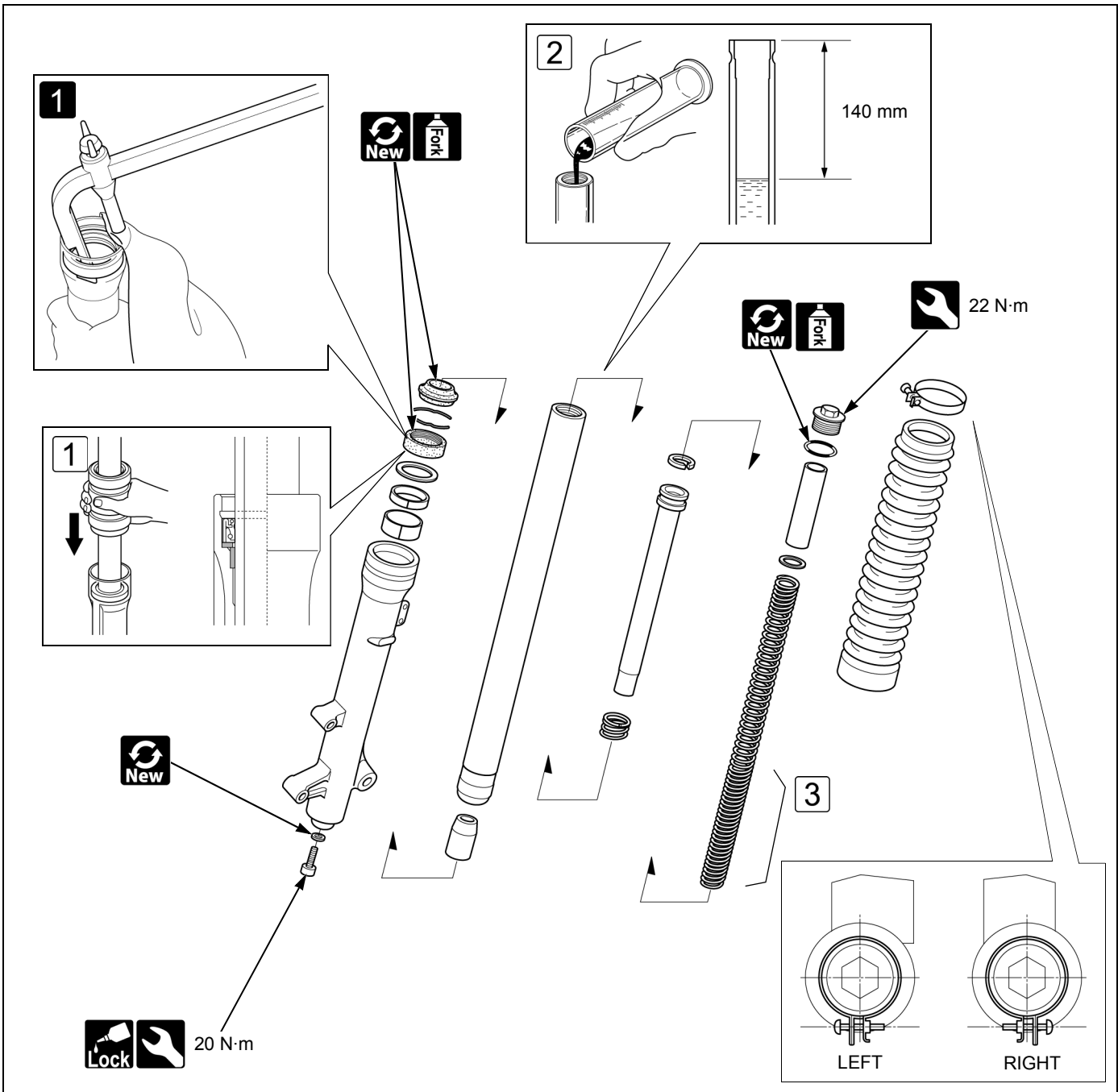
# FORK



- Front fender → 3-4
- Front wheel → 3-14
- Front brake caliper → 3-26



- 1 Align the mating surface with the top surface of the top bridge.



- **1** Remove the oil seal.  
**Oil seal remover: 07748-0010001**



- **1** Drive in a new oil seal squarely with its marked side facing up until it is fully seated.  
**Fork seal driver weight: 07747-0010100**  
**Fork seal driver attachment: 07747-0010600**



- **2** Pour the specified amount of recommended fork fluid into the fork pipe.  
**RECOMMENDED FORK FLUID: CN10# or equivalent**  
**FORK FLUID CAPACITY: 390 cm<sup>3</sup>**

- Compress the fork leg fully and measure the fluid level from the top of the fork pipe.  
**FORK FLUID LEVEL: 140 mm**



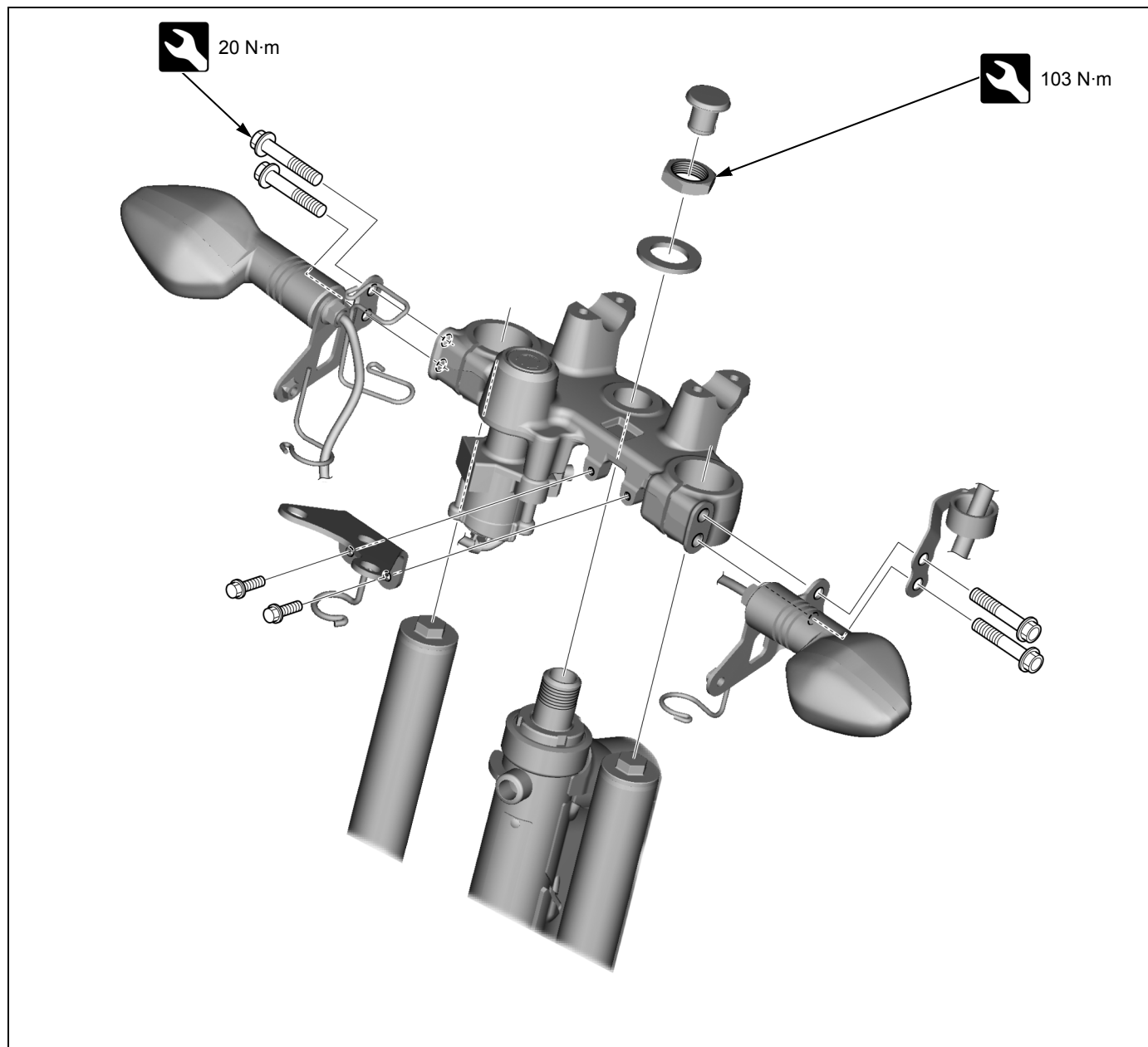
- **3** Pull the fork pipe up and install the fork spring with its tightly wound coil side facing down.



- Fork disassembly and inspection

# STEERING STEM

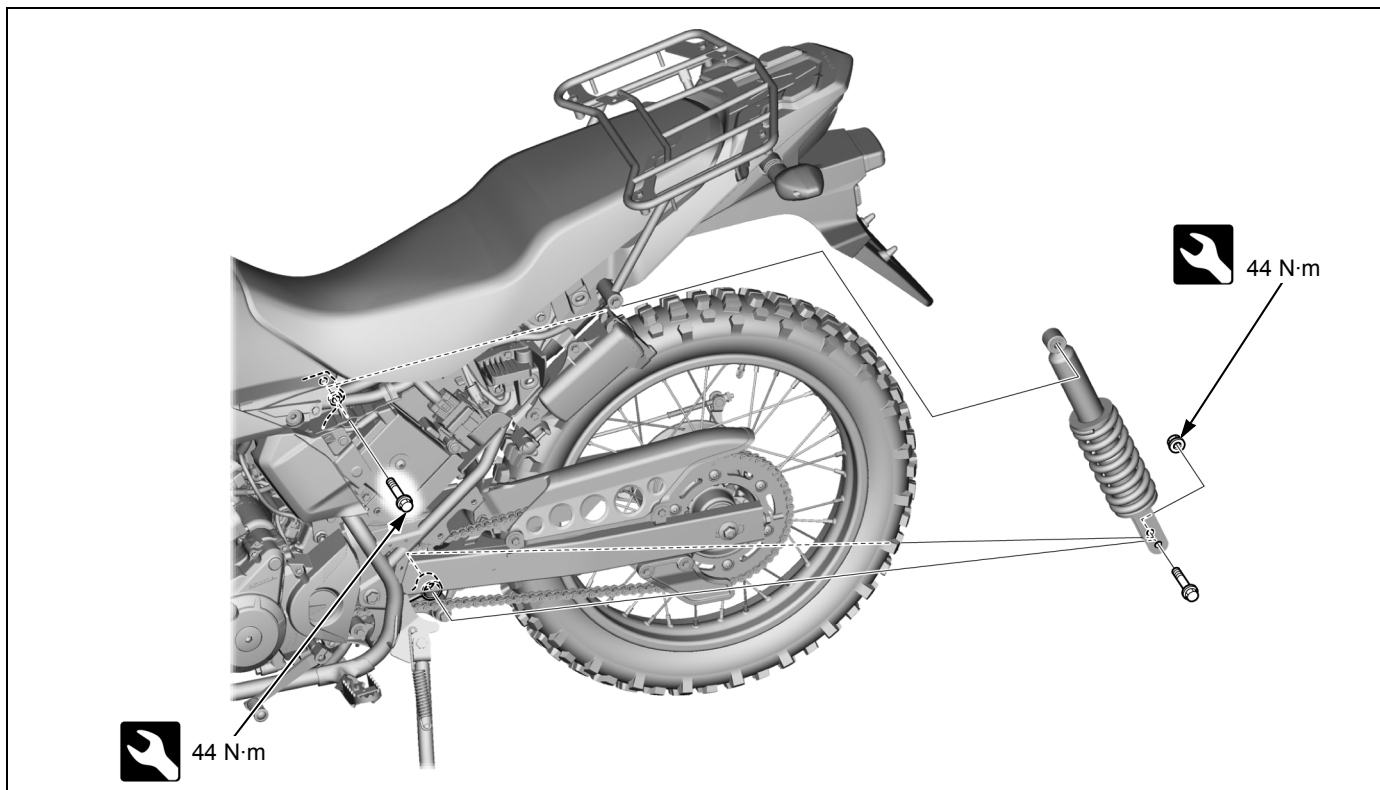
## TOP BRIDGE



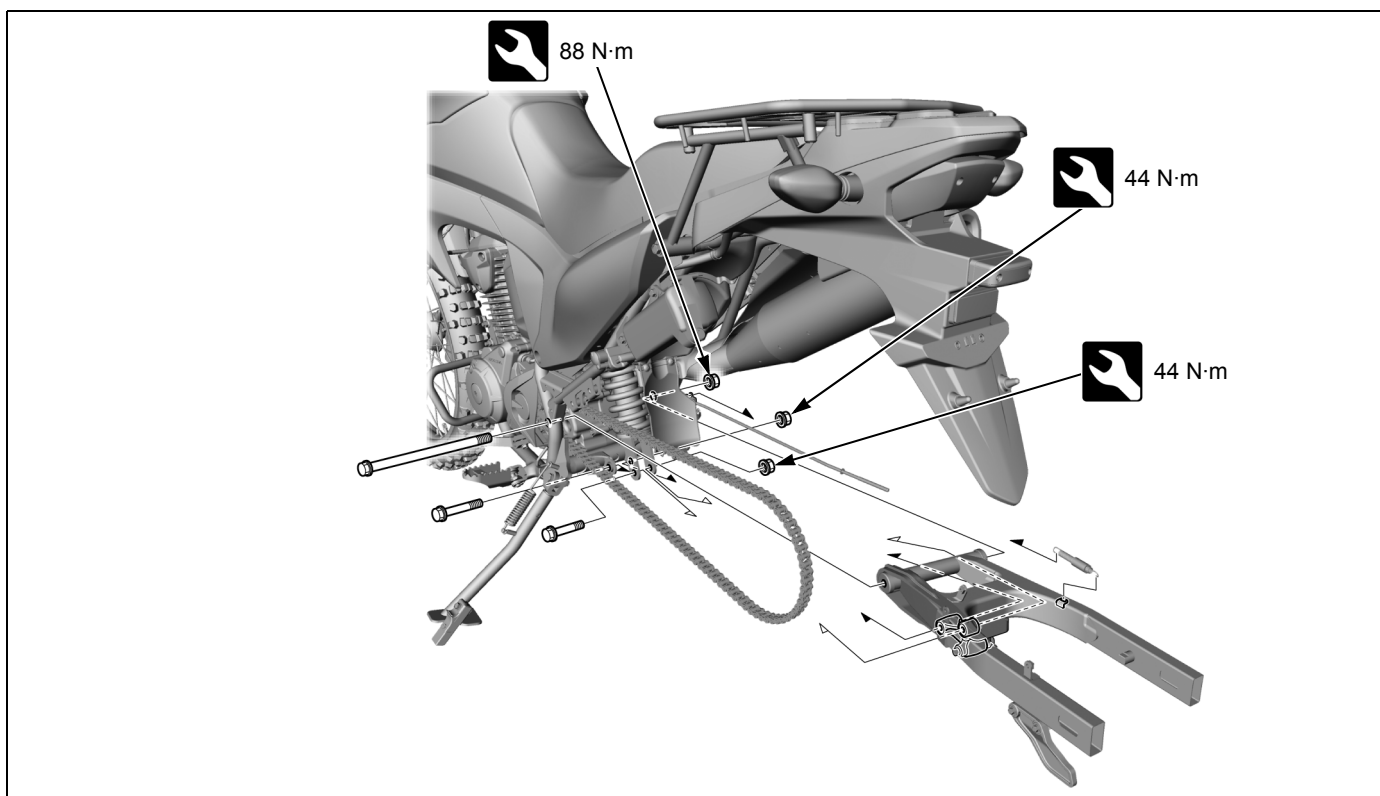
- Speedometer → 4-34
- Handlebar → 3-18



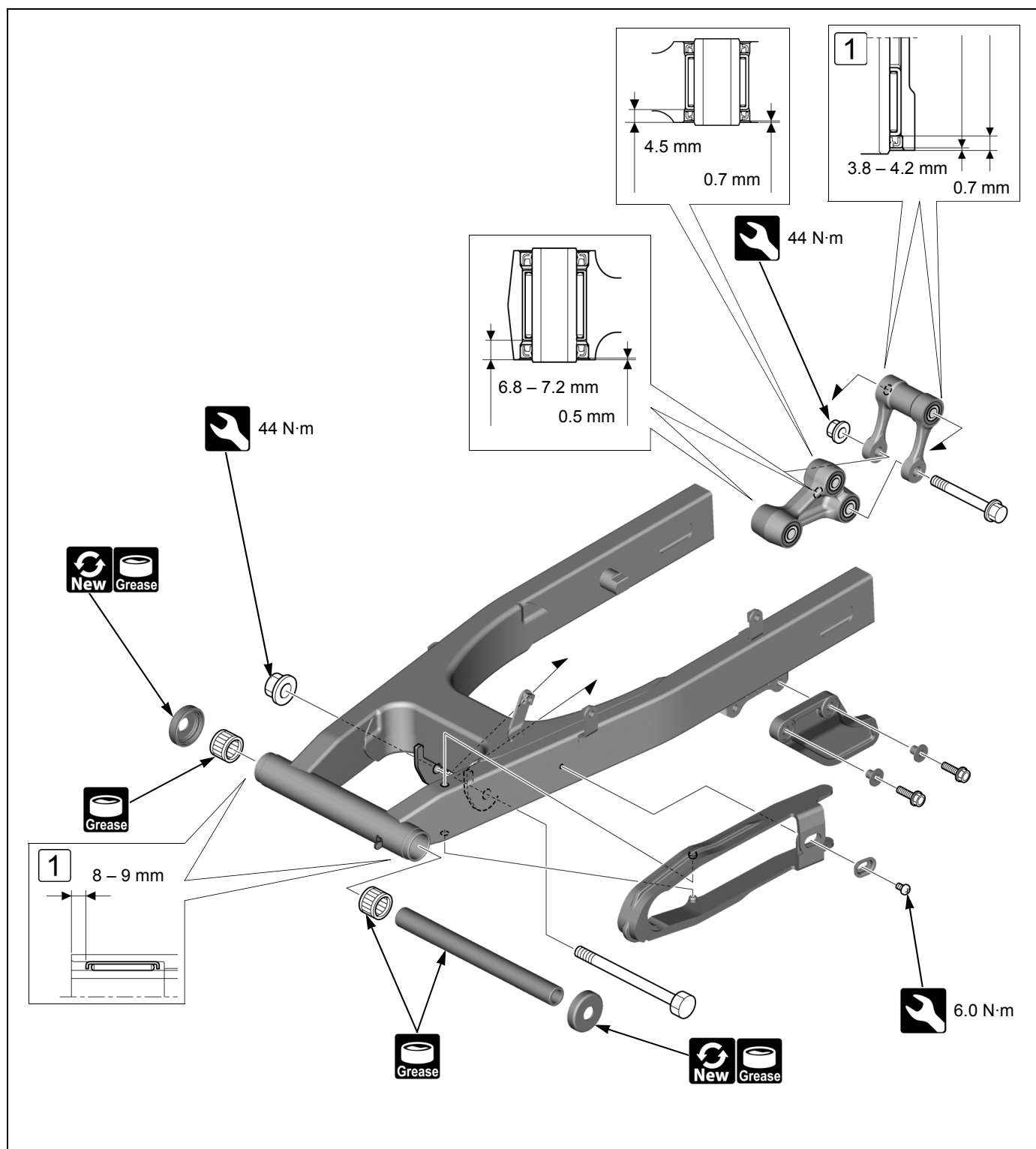
## REAR SUSPENSION



• Left side cover →3-7



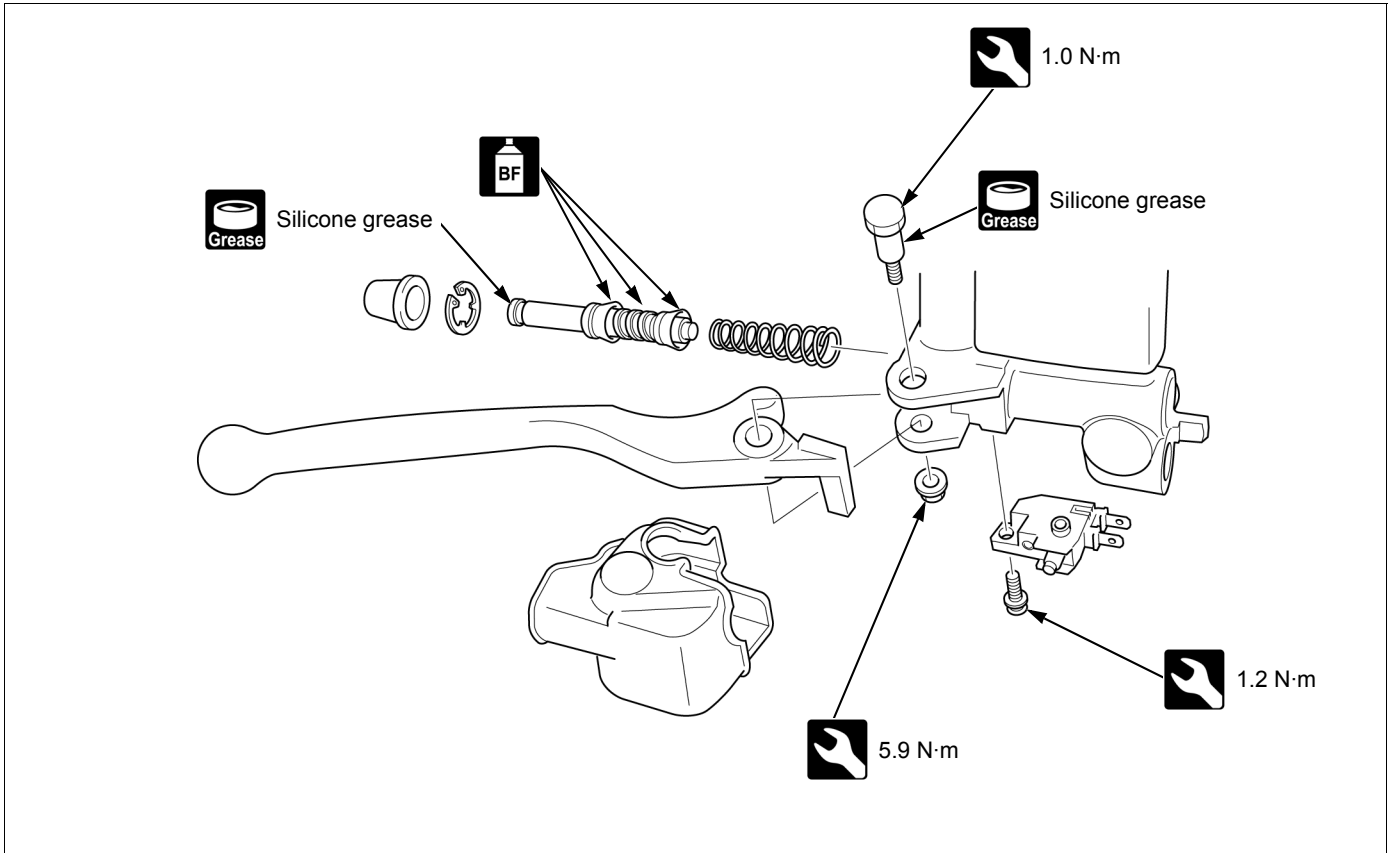
• Rear wheel →3-21  
• Drive chain case →3-7



- 1 Press the bearings with the marked side facing out.

# FRONT BRAKE

## BRAKE MASTER CYLINDER

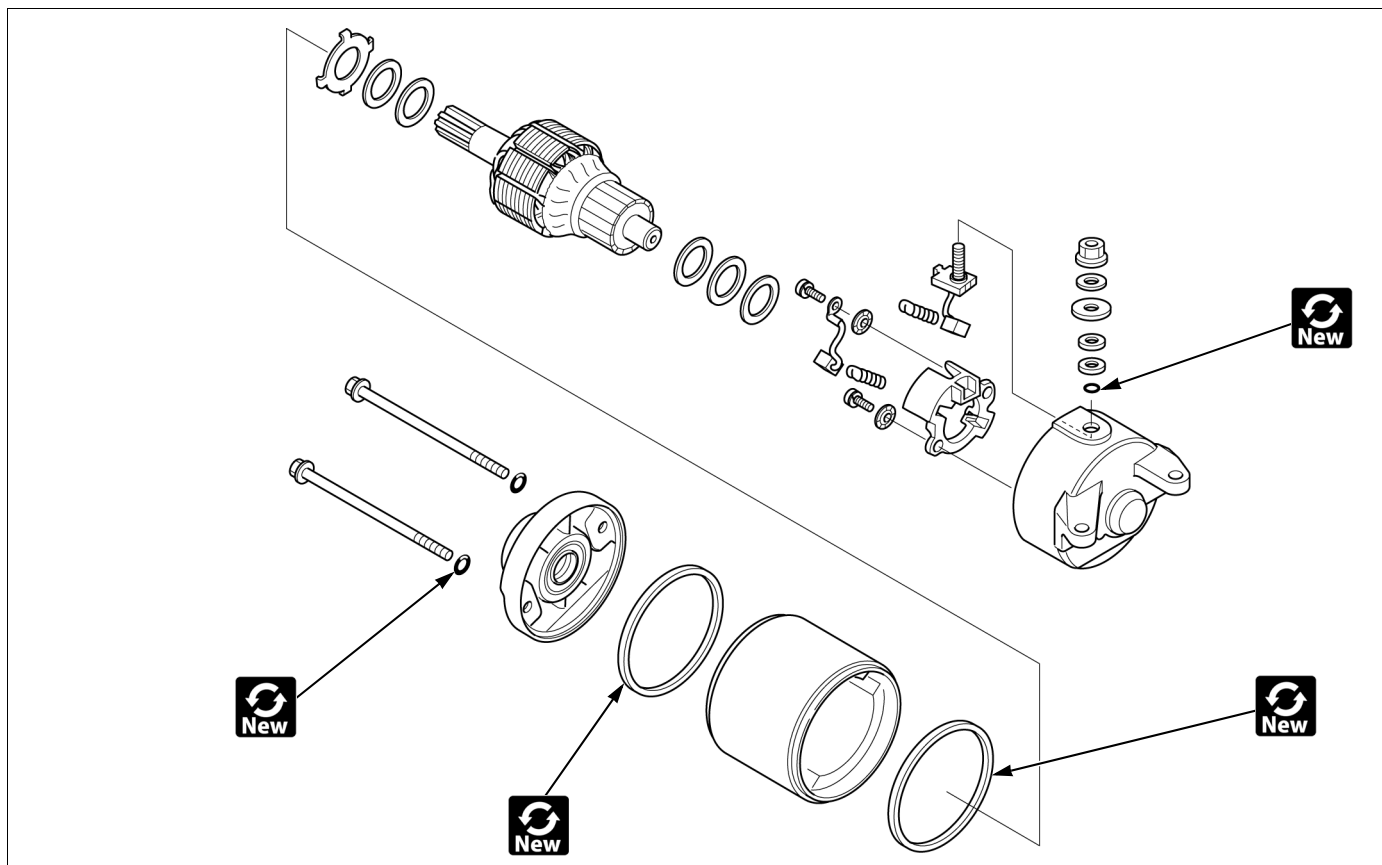


- Brake fluid → 3-24
- Remove the snap ring.  
**Snap ring pliers: 07914-SA50001**
- Master cylinder inspection



## ELECTRICAL STARTER

### STARTER MOTOR



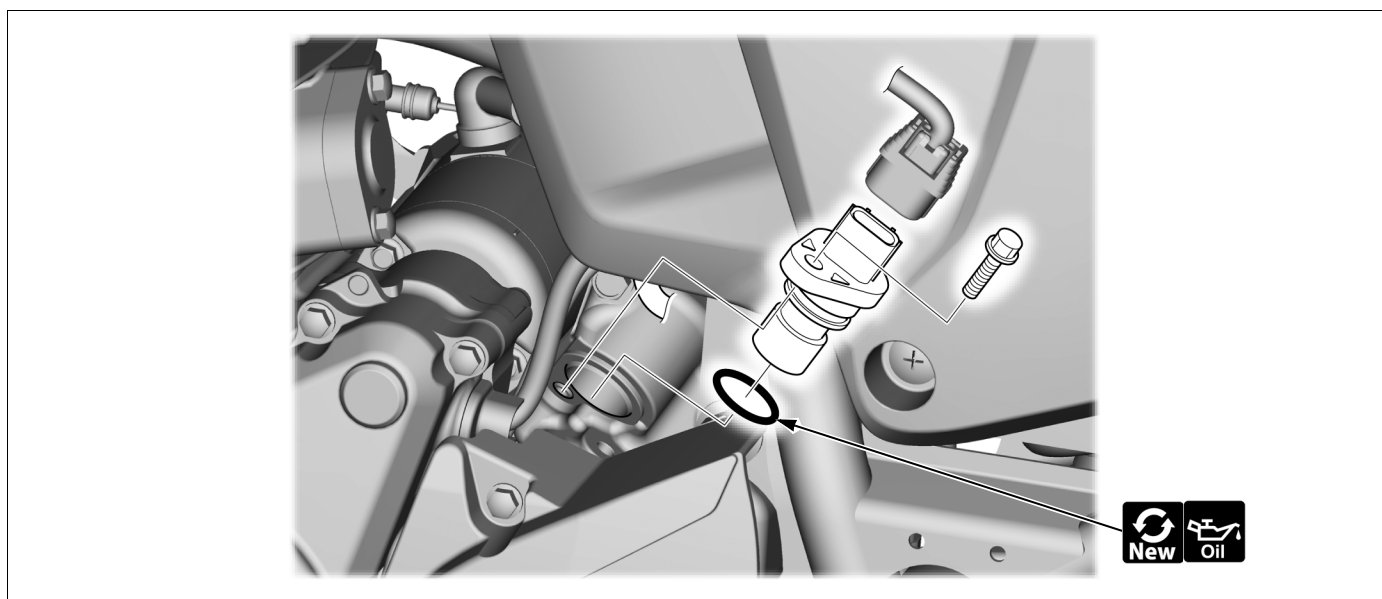
- Starter motor →4-25



- Electric starter inspection

## SPEEDOMETER

### VS SENSOR



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## MEMO

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## XR190CT-H (LA, U)

