

STEERING SYSTEM

SECTION **ST**

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Refer to section MA for:

CHECKING WHEEL ALIGNMENT

- Toe-in
- Front wheel turning angle

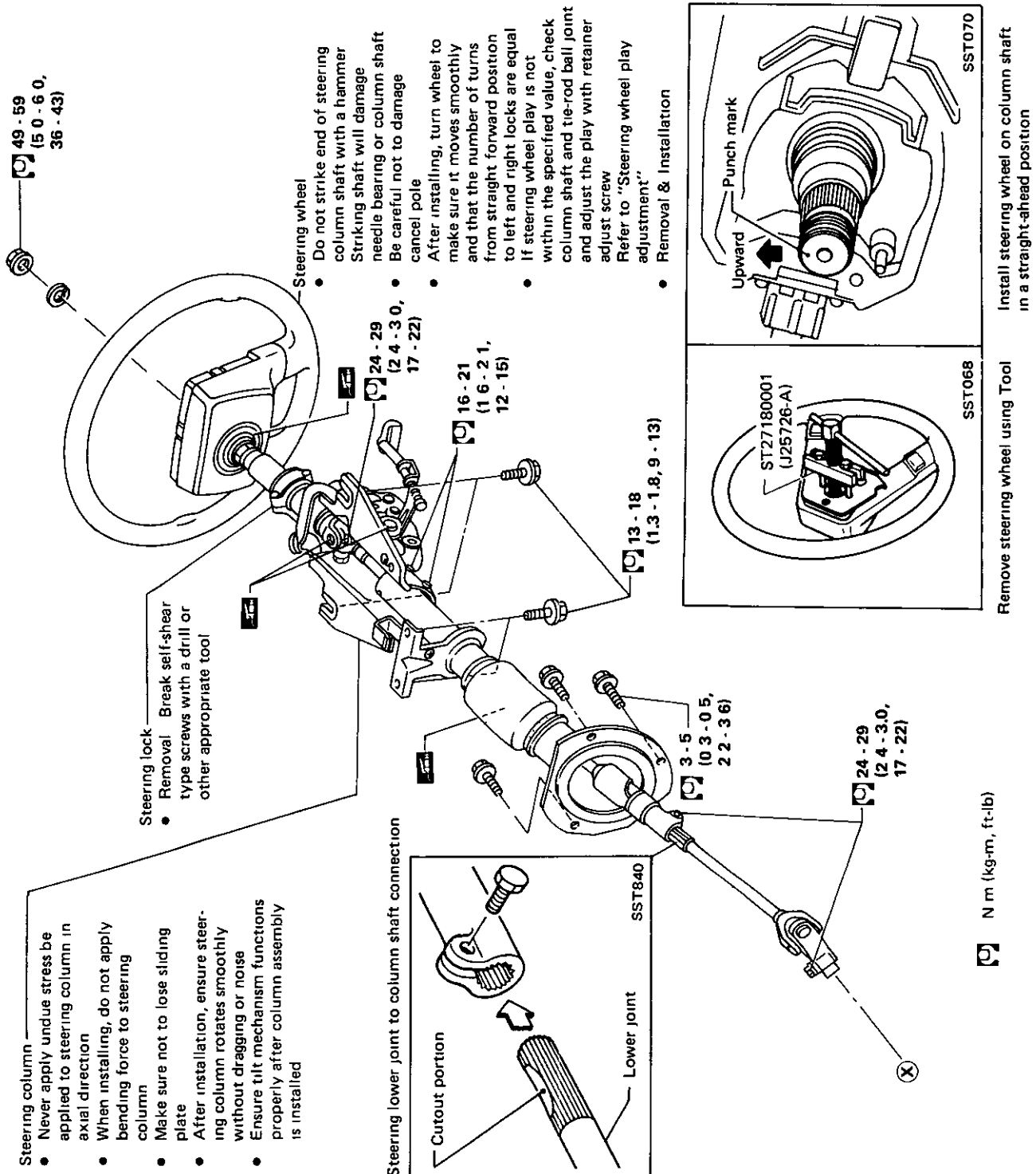
BASIC MECHANICAL SYSTEM

- Checking drive belts

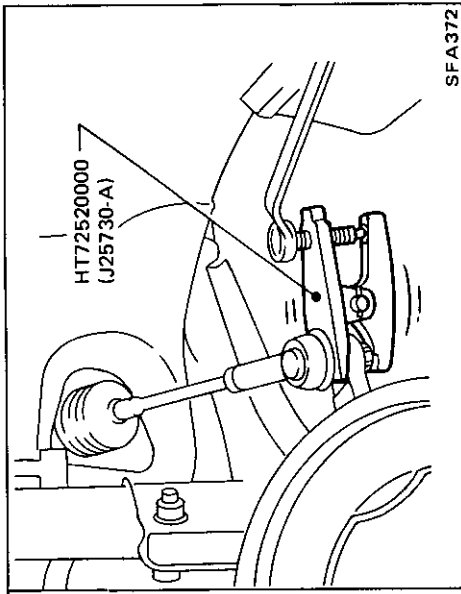
ST

STEERING SYSTEM

- Fully turn steering wheel to the right and disconnect whole hydraulic line to steering gear assembly, then remove steering gear.
- Whenever disconnecting hydraulic lines, cover openings to prevent foreign material from entering
- Be careful not to damage hydraulic line connection
- Do not reuse O-ring in hydraulic system
- When connecting hydraulic line, apply a coat of oil (Automatic transmission fluid "Dexron Type") to O-rings
- If disconnecting hydraulic line, always perform leak test and bleed air from line after filling it with oil.
- After properly installing steering gear and linkage, check wheel alignment Refer to section MA



STEERING SYSTEM



SFA372

- Detach tie-rod ball-studs from knuckle arms with Tool

54 - 98
(55 - 100, 40 - 72)

Cylinder tube flare nut

20 - 26
(20 - 27, 14 - 20)

39 - 49
(40 - 50, 29 - 36)

78 - 98
(80 - 100, 58 - 72)

20 - 26
(20 - 27, 14 - 20)

27 - 39
(28 - 40, 20 - 29) *

A

High-pressure pipe to steering gear

15 - 25 (15 - 25, 11 - 18) *

Toe-in adjustment

- When adjusting toe-in, be careful not to twist boots
- Toe-in Refer to MA section

Retainer adjusting screw

Steering gear (PR24S)

Cylinder tube flare nut

78 - 98
(80 - 100, 58 - 72)

Oil pressure switch
(Non turbocharged model)

16 - 24
(16 - 24, 12 - 17) *

When hydraulic line pressure is above 1,961 - 2,550 kPa (20 - 26 kg/cm², 284 - 370 psi), switch is conductive

49 - 69
(50 - 70, 36 - 51)

N m (kg-m, ft-lb)
Grease-up points
Do not reuse
O-ring type connector

SST203A

STEERING COLUMN

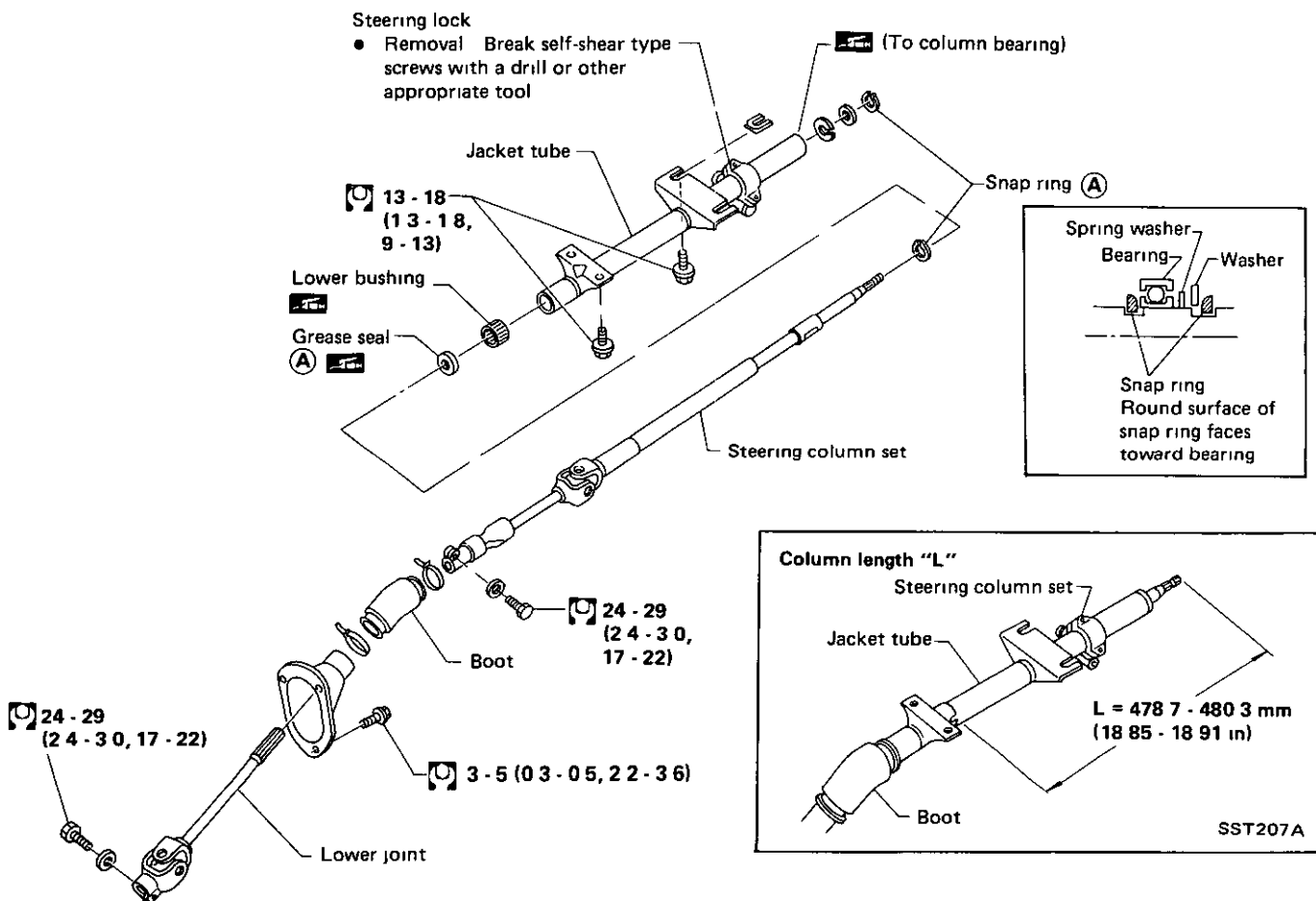
- Never in any case should undue stress be applied to steering column in axial direction
- When installing, do not apply bending force to steering column
- Be careful not to lose sliding plate.
- When the vehicle comes into light collision, check dimension "L", between steering column upper end and jacket tube crashable area

Column length "L" = 478.7 mm - 480.3 mm (18.85 - 18.91 in)

(Measure "L" at neutral position of steering column if equipped with tilt mechanism)

- Check steering column for smooth rotation without binding and noise If it does not rotate smoothly, check as follows.

Non-tilt Type Column

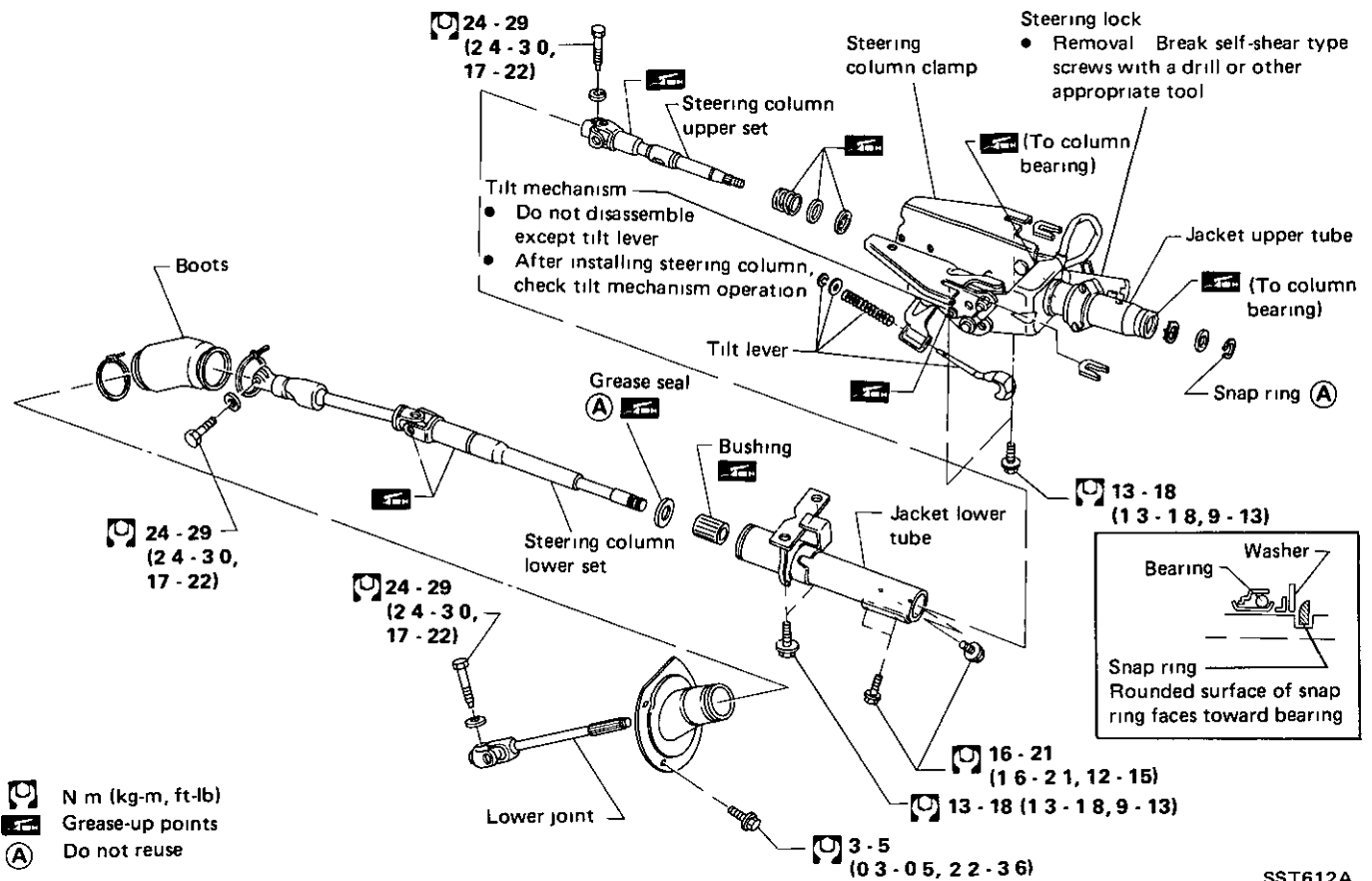


- N m (kg-m, ft-lb)
- Grease-up points
- Do not reuse

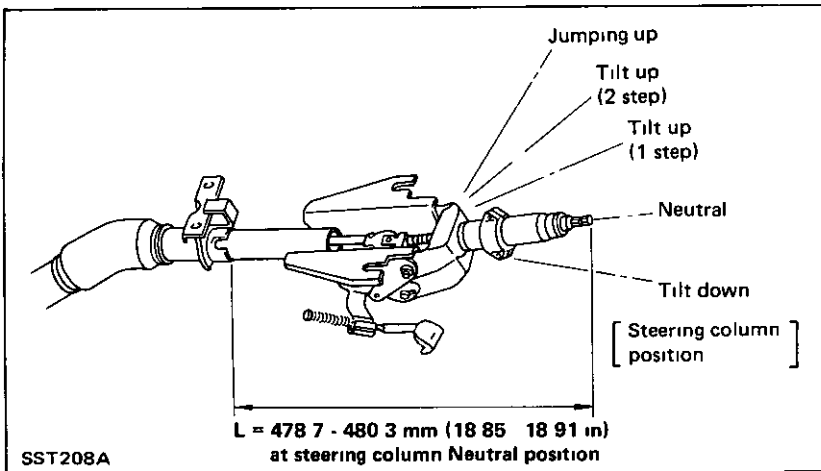
SST205A

STEERING COLUMN

Tilt Type Column



SST612A



SST208A

POWER STEERING SYSTEM —Checking

Fluid Level Check

Check the fluid level when the fluid is cold.
Refer to MA section

Power Steering Pump Belt Tension

Refer to MA section

Fluid Leakage Check

- 1 Run engine at idle speed or 1,000 rpm
Make sure temperature of fluid in tank rises to 60 to 80°C (140 to 176°F).
- 2 Turn steering wheel right-to-left several times.
- 3 Hold steering wheel at each "lock" position for five seconds and carefully check for fluid leakage

CAUTION:

- Do not hold steering wheel at "lock" position for more than 15 seconds at a time.
- If fluid leaks at connectors, replace O-ring (if equipped) Do not overtighten connector as this can damage O-ring and connector.

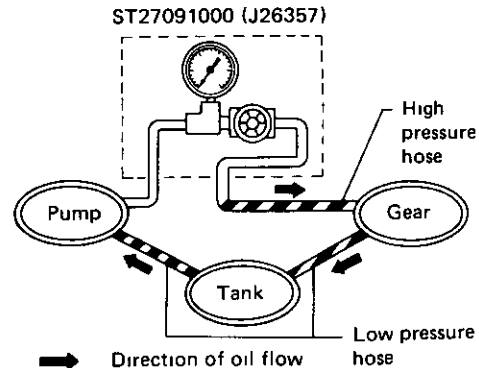
Bleeding Hydraulic System

1. Raise front end of vehicle until wheels clear ground
- 2 While adding fluid, quickly turn steering wheel fully to right and left and lightly touch steering stoppers
Repeat steering wheel operation until fluid level no longer decreases.
3. Start engine
Repeat step 2 above.

Hydraulic System Check

Before starting, check belt tension, driving pulley and tire pressure (Refer to MA section)

- 1 Set Tool. Open shut off valve. Then bleed air (See "Bleeding Hydraulic System")



SST834

- 2 Run engine.

Make sure temperature of fluid in tank rises to 60 to 80°C (140 to 176°F).

3. Check pressure with steering wheel fully turned to left and right position.

CAUTION:

Do not hold steering wheel at lock position for more than fifteen seconds.

Oil pump maximum pressure:

6,669 - 7,257 kPa

(68 - 74 kg/cm², 967 - 1,052 psi) at idling

- 4 If oil pressure is below the standard, slowly close shut-off valve and check pressure
 - If pressure raises to standard, gear is damaged
 - If pressure remains below standard, pump is damagedGear may be damaged
5. If oil pressure is above the standard, pump may be damaged.

CAUTION:

Do not close shut-off valve for more than fifteen seconds.

- 6 After checking hydraulic system, remove Tool and add fluid as necessary, then completely bleed air out of system.

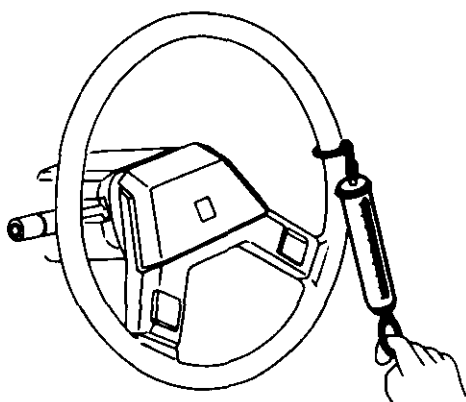
POWER STEERING SYSTEM —Checking

Turning Force Check

- 1 Park vehicle on a level, dry surface and set parking brake
- 2 Bring power steering fluid up to adequate operating temperature [Make sure temperature of fluid is approximately 60 to 80°C (140 to 176°F)]
- Tires must be inflated to normal pressure.
- 3 Check steering wheel turning force when steering wheel has been turned 360° from neutral position

Steering wheel turning force:

39.2 N (4.0 kg, 8.8 lb) or less



SST474

Steering Wheel Play Adjustment

Steering wheel axial play:

0 mm (0 in)

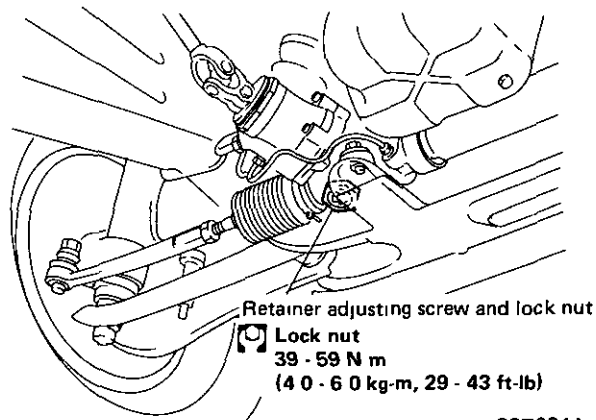
Steering wheel play:

35 mm (1.38 in) or less

If steering wheel play is not within specifications, check condition of column shaft and tie-rod ball points. If they are in good order, adjust rack retainer.

Rack retainer adjustment:

- a) Adjust only when steering wheel play is outside specifications
- b) Prior to adjustment, completely loosen adjustment screw, clean old locking sealer and apply new locking sealer. Tighten the screw to approximately 3 N·m (0.3 kg-m, 2.2 ft-lb) and back off by 20° to 25°. Measure steering wheel play to make sure it is within specifications. Then tighten lock nut.



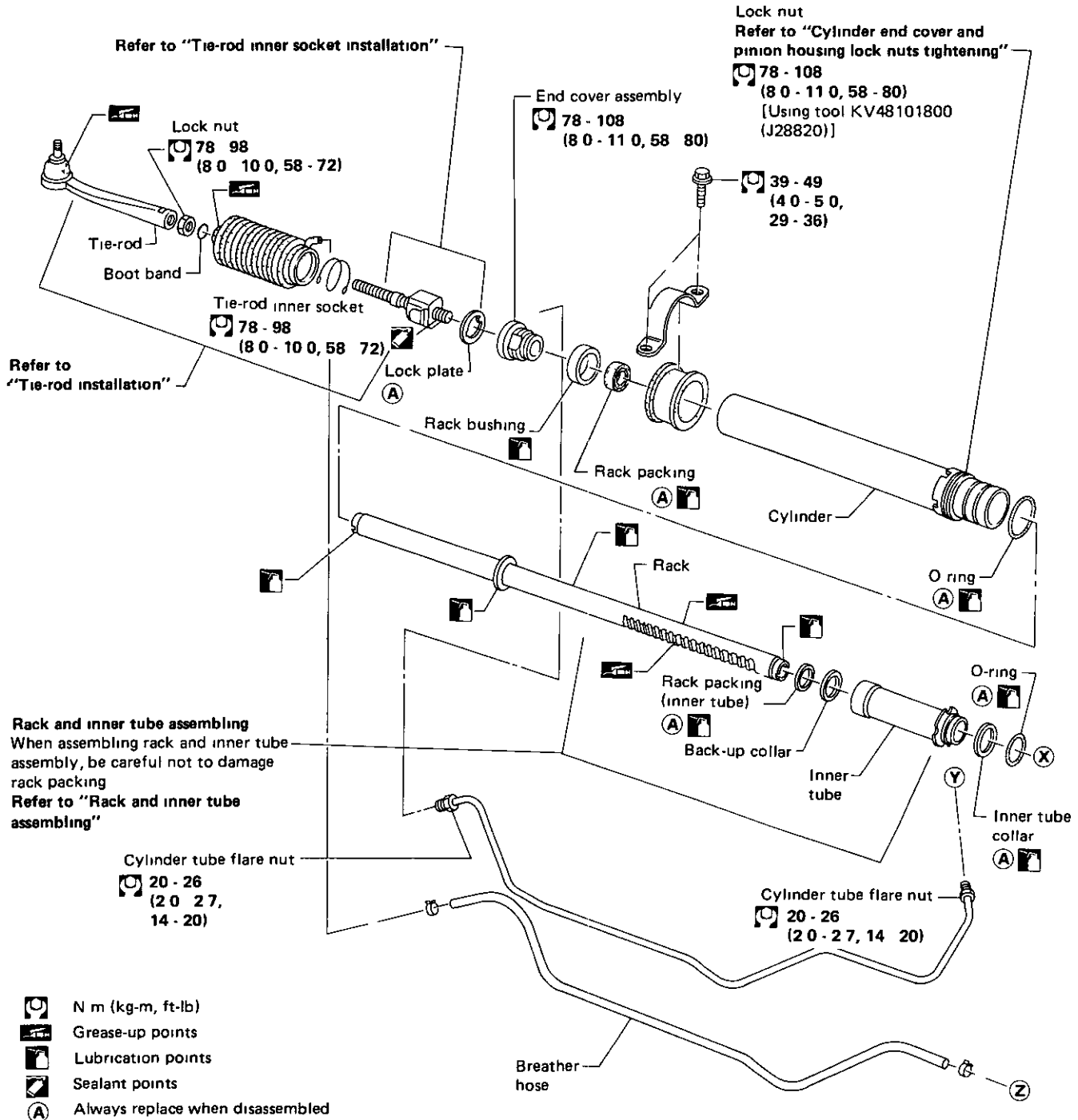
SST204A

- c) After adjustment, drive vehicle at low speeds to check for proper operation of steering system.

POWER STEERING GEAR AND LINKAGE

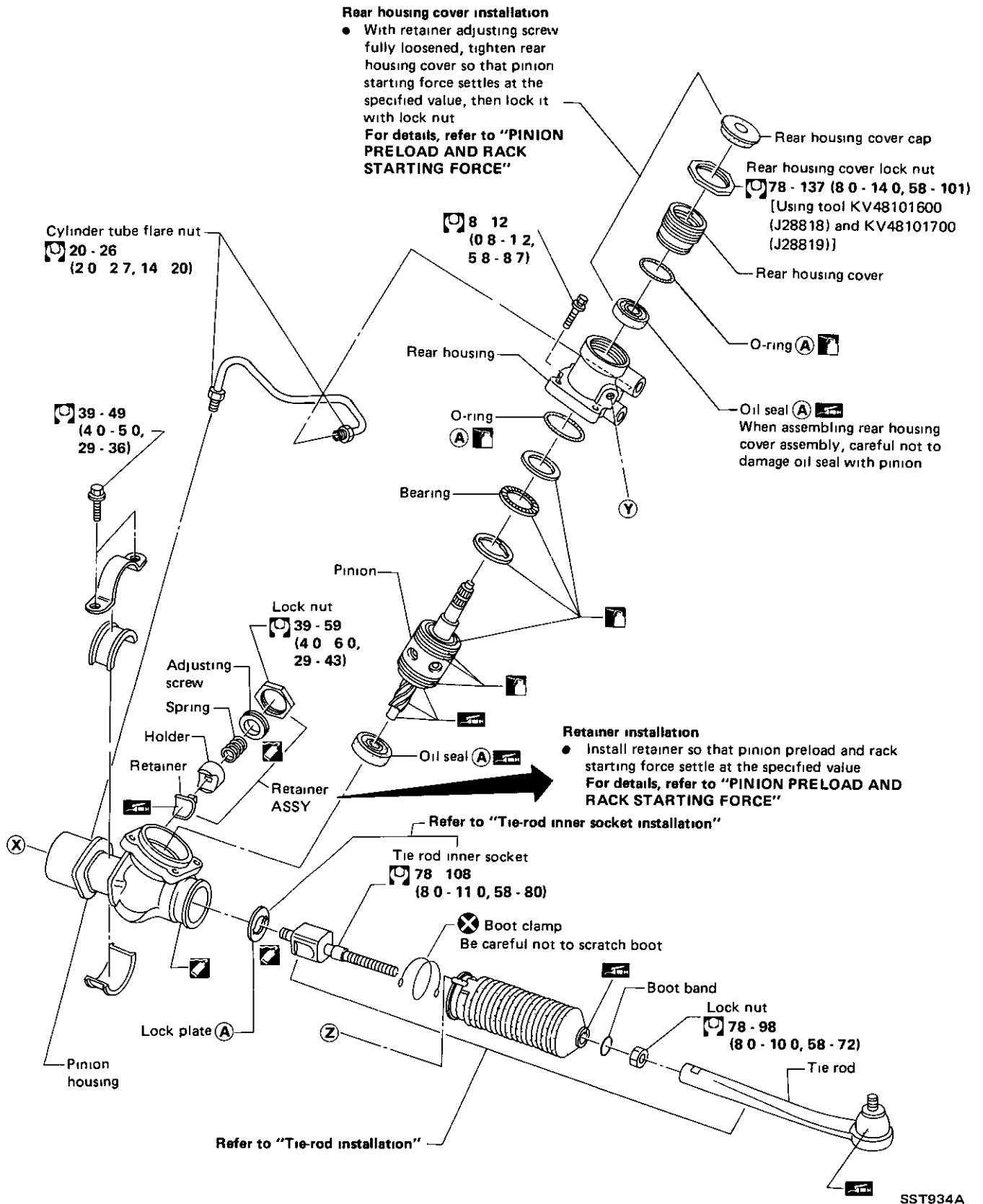
Disassembly and Assembly

- Do not disassemble unless repairing to stop oil leak, replacing tie-rod and tie-rod inner socket ball joint, or for various adjustments.
- Do not reuse O-rings or oil seals.
- When assembling, apply a coat of oil to mating surfaces of O-rings and oil seals
- When assembling, be careful not to damage oil seals
- Before starting work, thoroughly clean all parts in cleaning solvent or automatic transmission fluid "Dexron Type" and blow dry with compressed air, if available
- After assembling tie-rod inner socket to rack & housing assembly, check rack stroke (refer to "Rack stroke")



POWER STEERING GEAR AND LINKAGE

Disassembly and Assembly (Cont'd)



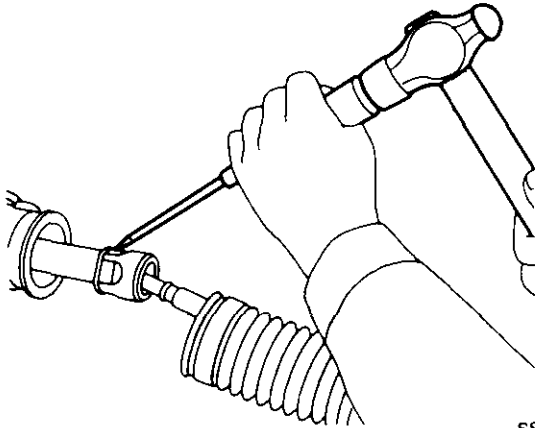
POWER STEERING GEAR AND LINKAGE

Disassembly

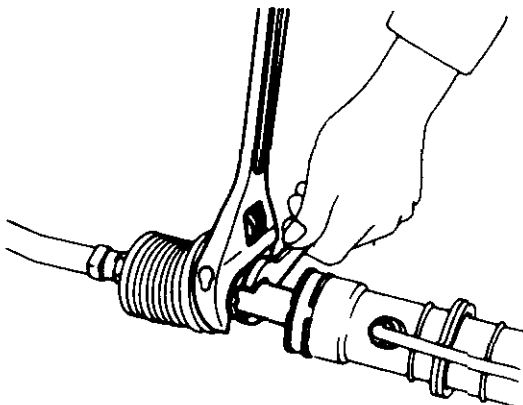
CAUTION.

- The parts which can be disassembled are strictly limited, and never disassemble parts other than the specified ones
- Disassembly should be performed in a place as clean as possible
- Hands should be cleaned before disassembly
- Do not use a rag. Be sure to use nylon or paper cloth
- When disassembling and reassembling, do not allow any foreign matter to enter or contact any parts of steering gear

- 1 Remove tie-rod assembly
- Flatten lock plate

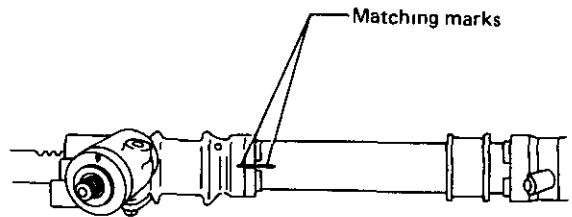


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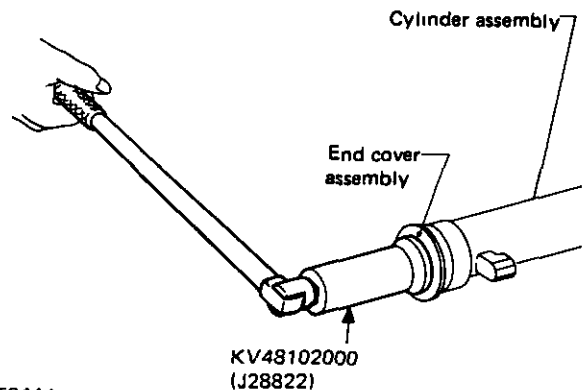
SST409

- 2 Remove retainer.
- 3 Remove pinion assembly
- 4 Apply matching marks as shown below



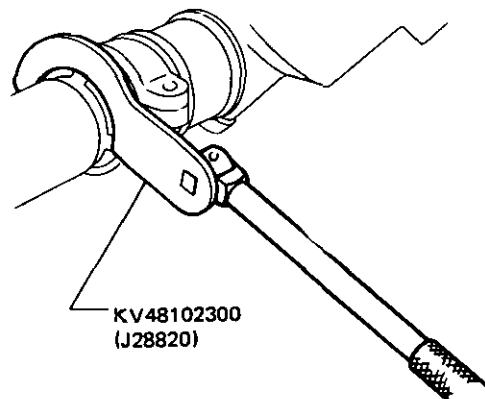
SST850A

- 5 Remove end cover assembly with Tool



SST844A

- 6 Disconnect cylinder lock nut using Tool and separate cylinder from pinion housing
7. Draw out rack assembly



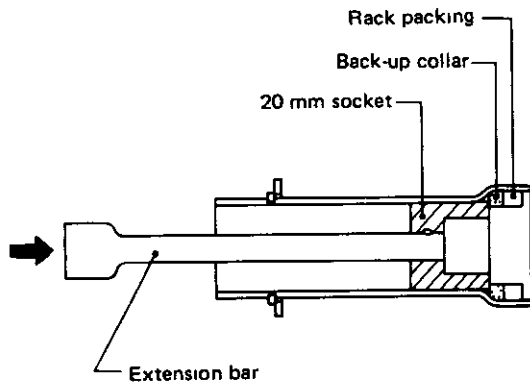
SST845A

POWER STEERING GEAR AND LINKAGE

Disassembly (Cont'd)

8. Remove rack packing and back-up collar with 20 mm socket and extension bar

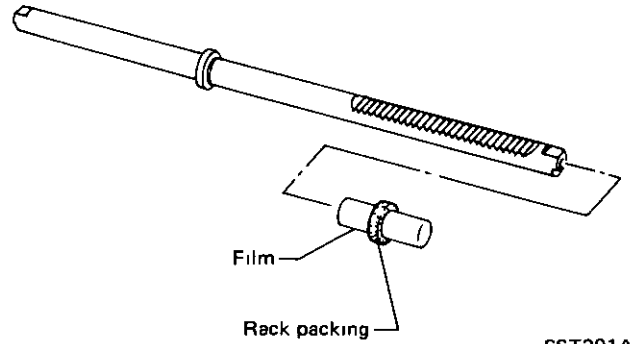
Do not scratch inner surfaces of cylinder.



SST761A

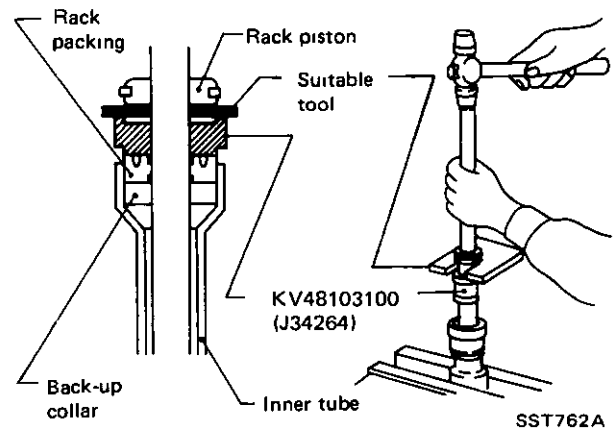
Assembly

- 1 Insert rack packing
 - Place plastic film on inner side of rack packing to prevent damage by rack teeth
 - Always remove plastic film after rack packing is positioned properly



SST201A

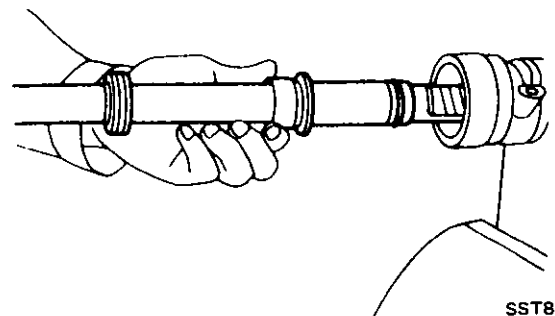
- 2 Attach back-up collar to inner tube
- 3 Insert rack assembly into inner tube
- 4 Press rack packing into inner tube



SST762A

- 5 Insert rack assembly and set inner tube assembly to pinion housing

Coat rack teeth with multi-purpose grease.



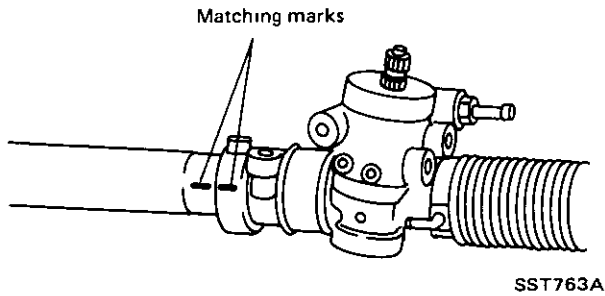
SST894

POWER STEERING GEAR AND LINKAGE

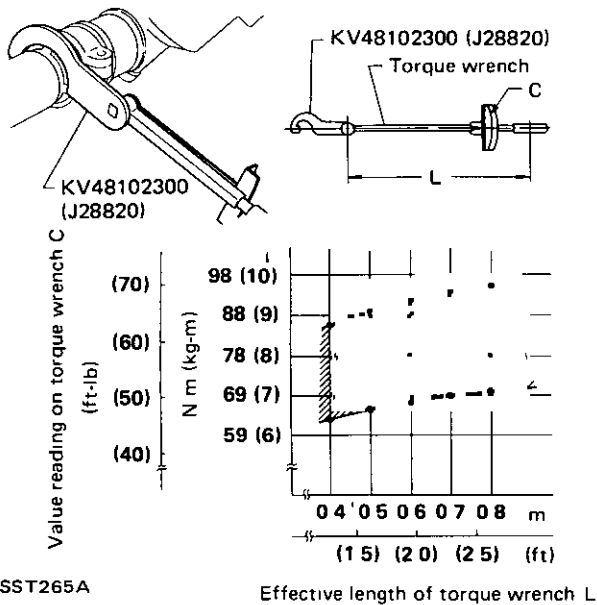
Assembly (Cont'd)

- 6 Position cylinder assembly on pinion housing by aligning matching marks

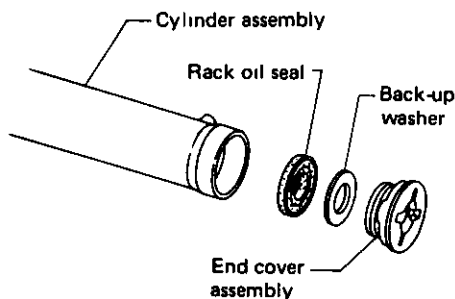
Be careful not to damage piston teflon ring.



- 7 Tighten cylinder lock nut with Tool.

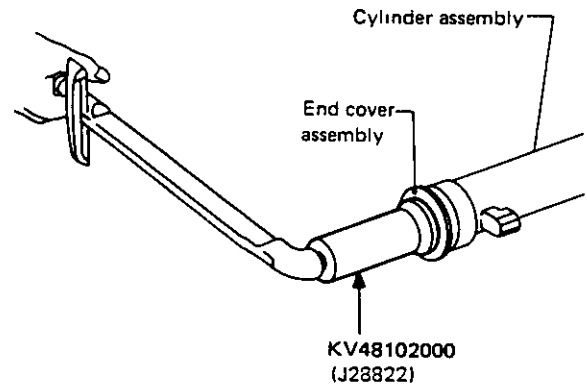


8. Install back-up washer and rack oil seal to cylinder assembly



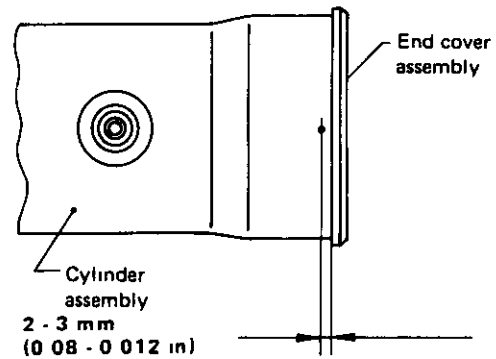
SST765A

- 9 Tighten end cover assembly with Tool.



SST759A

- 10 Fasten end cover assembly to cylinder assembly by staking



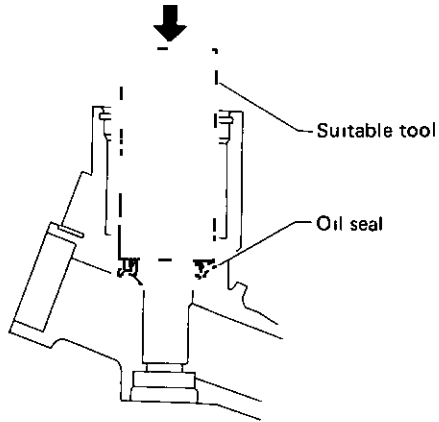
SST827A

- 11 Set rack gear in neutral position

POWER STEERING GEAR AND LINKAGE

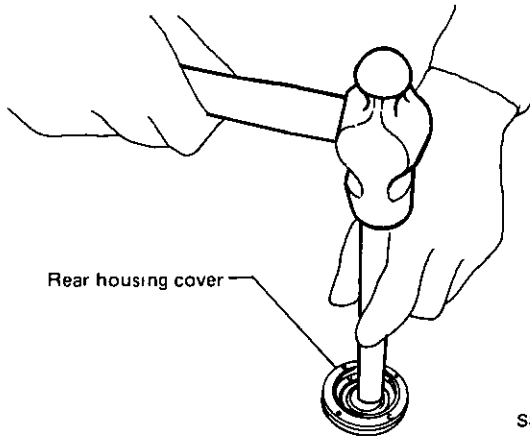
Assembly (Cont'd)

- 12 Coat seal lip of oil seal with multi-purpose grease and install new pinion oil seal to pinion housing with suitable tool



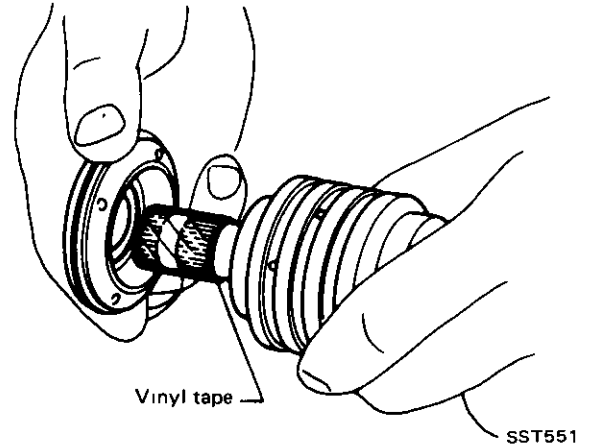
SST381A

- 13 Install rear oil seal using suitable tool

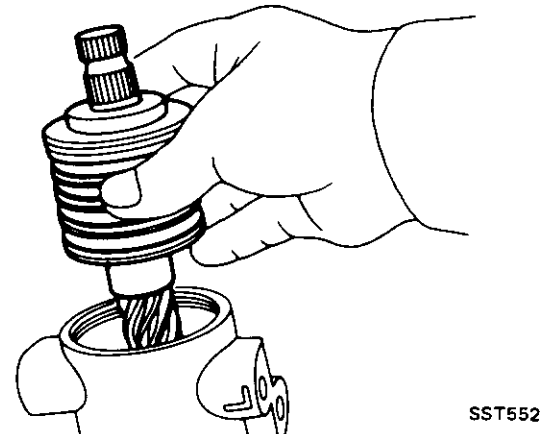


SST268A

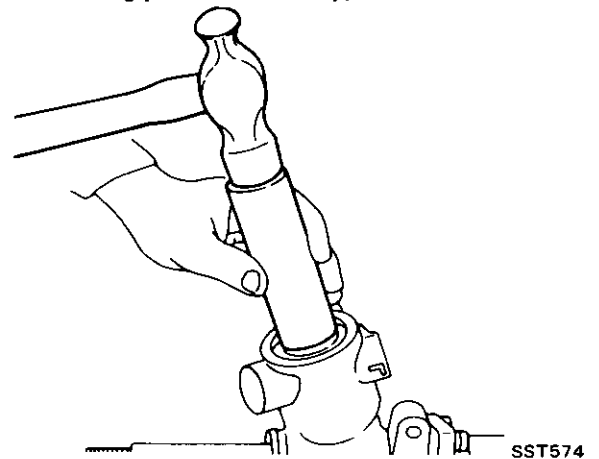
14. Install rear housing cover assembly to pinion
Wrap vinyl tape around pinion serrations to prevent oil seal from being damaged.



- 15 Install pinion assembly to pinion housing
Be careful not to damage pinion teflon ring.



When installing pinion assembly, use suitable tool.

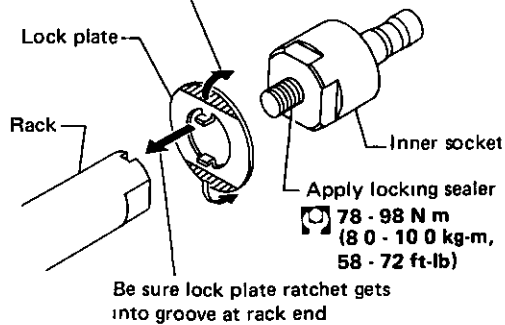


POWER STEERING GEAR AND LINKAGE

Assembly (Cont'd)

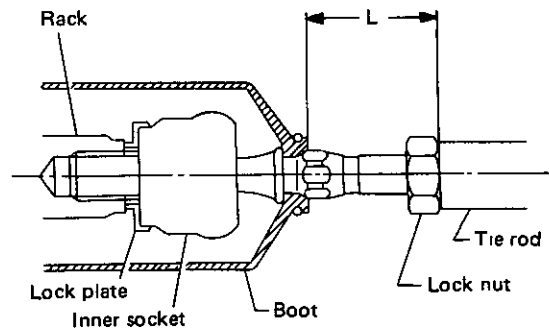
16 Install tie-rod inner socket

After tightening inner socket, bend lock plate securely and remove burrs



SST213A

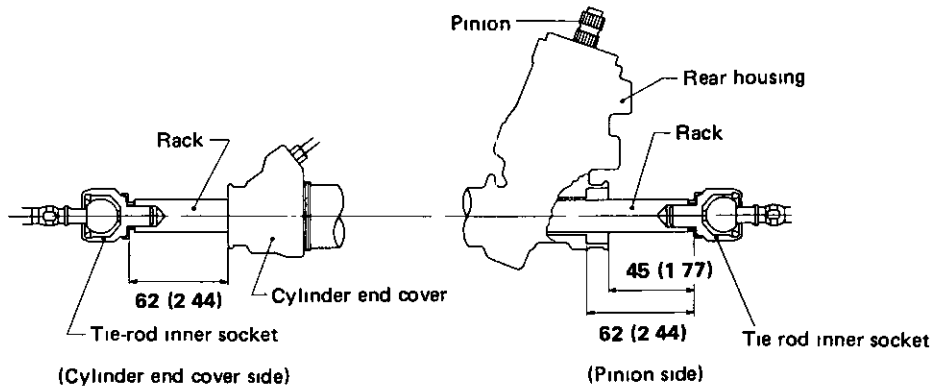
17. Install tie-rod



- Standard dimension $L = 42.9 \text{ mm}$ (1.689 in)
- When installing tie-rod or adjusting toe-in, be careful not to twist boots
- Toe-in Refer to MA section

SST936A

18 Measure rack stroke



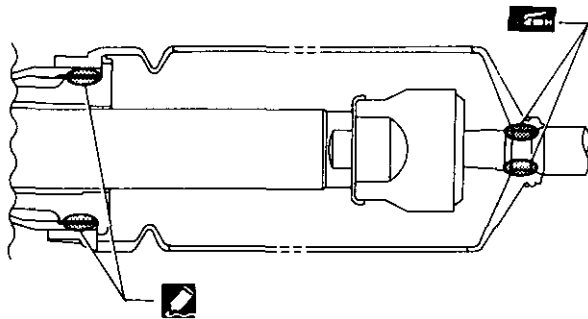
Unit mm (in)

SST215A

POWER STEERING GEAR AND LINKAGE

Assembly (Cont'd)

- 19 Apply a coat of sealant to contact surfaces between boot and cylinder before installing boot



SST477A

20 Install boot clamps

- To install, wrap boot clamp around boot groove twice. Tighten clamp by twisting rings at both ends four or four and a half turns with screwdriver while pulling with a force of approx 98 N (10 kg, 22 lb)

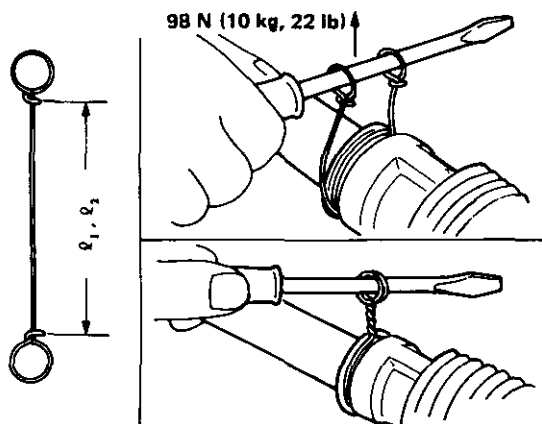
Boot clamp length: ℓ_1, ℓ_2

$\ell_1 = 390 \text{ mm (15.35 in)}$

... at pinion gear side

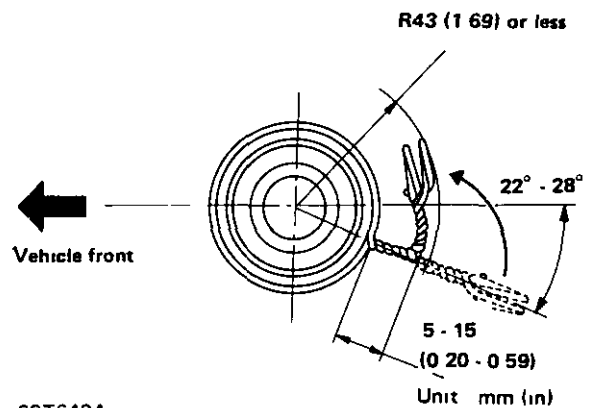
$\ell_2 = 430 \text{ mm (16.93 in)}$

... at opposite pinion gear side



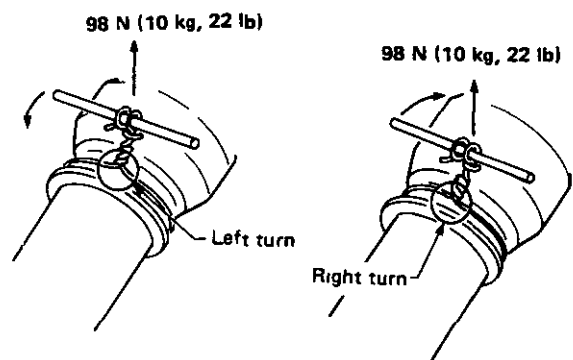
SST438A

- Install boot clamp so that it is to the rear of the vehicle when gear housing is attached to the body. (This will avoid interference with other parts.)



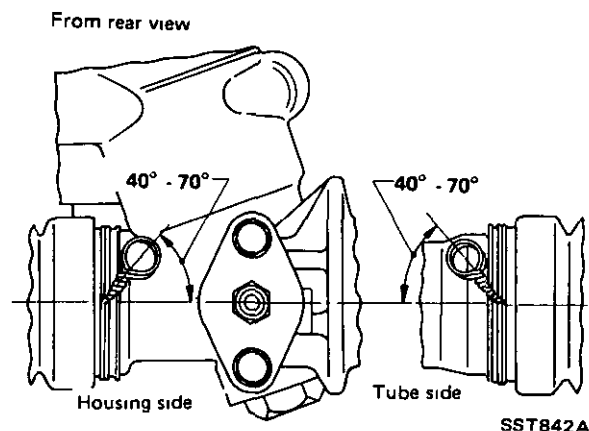
SST642A

- Twist boot clamp in the direction shown in figure at left



SST440A

- After twisting boot clamp four or four and a half turns, bend twisted end diagonally so it does not contact boot



SST842A

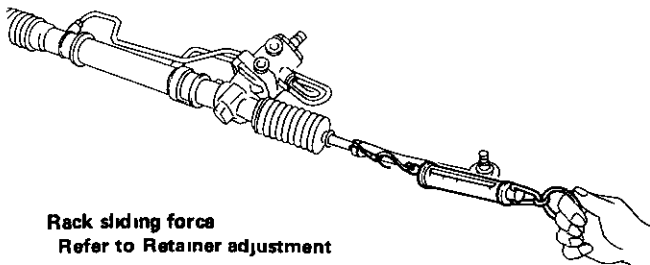
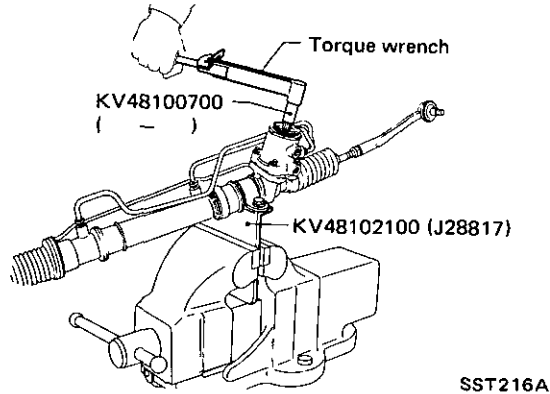
POWER STEERING GEAR AND LINKAGE

Inspection and Adjustment

PINION PRELOAD AND RACK STARTING FORCE

- After disconnecting hydraulic line and draining fluid, measure them

Pinion rotating torque
1.9 N·m (19 kg-cm, 16 in-lb) or less



Rack sliding force
Refer to Retainer adjustment

- If they are not within specifications, adjust retainer adjusting screw
- If retainer adjustment cannot be made properly, fully loosen retainer adjusting screw, and then adjust pinion preload
Then readjust retainer adjusting screw
- If pinion preload adjustment cannot be made properly, replace steering gear assembly

Retainer adjustment (VG30E engine model)

- Remove retainer adjusting screw and clean old locking sealer off the threads
- Apply new locking sealer to the threads
Tighten the screw to approximately 3 N·m (0.3 kg-m, 2.2 ft-lb) and back it off by 20° to 25°

- If pinion and rack preloads are within specified ranges, tighten lock nut securely (Check rack for smooth movement over its entire stroke)

Pinion rotating torque

1.9 N·m (19 kg-cm, 16 in-lb) or less

Rack sliding force:

245 N (25 kg, 55 lb) or less
in neutral position

- ☑ : Retainer adjusting screw lock nut:
39 - 59 N·m
(4.0 - 6.0 kg-m, 29 - 43 ft-lb)

Retainer adjustment (VG30ET engine model)

- Remove retainer adjusting screw and clean old locking sealer off the threads
- Apply new locking sealer to the threads.
Tighten the screw to approximately 3 N·m (0.3 kg-m, 2.2 ft-lb) and back it off by 20° to 25°
- If pinion and rack preloads are within specified ranges, tighten lock nut securely. (Check rack for smooth movement over its entire stroke)

Pinion rotating torque

1.9 N·m (19 kg-cm, 16 in-lb) or less

Rack sliding force (F_1):

245 N (25 kg, 55 lb) or less
in neutral position

- ☑ : Retainer adjusting screw lock nut
39 - 59 N·m
(4.0 - 6.0 kg-m, 29 - 43 ft-lb)

- Check rack sliding force (F_2), when installing steering gear assembly on vehicle and starting engine.

Rack sliding force (F_2):

245 N (25 kg, 55 lb) or more

- After checking rack sliding force (F_2), make sure that the handle returns smoothly when driving

POWER STEERING GEAR AND LINKAGE

Inspection and Adjustment (Cont'd)

CAUTION:

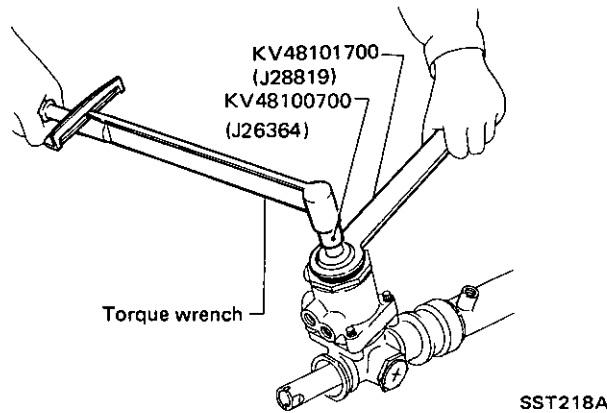
When changing retainer spring, use the same part number retainer spring as the former retainer spring.

Part number	Set load N (kg, lb)	Identification (Color)
48237-F6100	127 (13, 29)	Brown
48237-F6101	157 (16, 35)	Pink
48237-W1000	186 (19, 42)	Unpainted
48237-F6102	216 (22, 49)	Green
48237-F6103	245 (25, 55)	Purple

Pinion preload adjustment

Before making pinion preload adjustment, make sure retainer adjusting screw is loosened completely

- 1 Screw in rear housing cover completely and back it off by 180° to 360° Then turn pinion a few rotations and then measure pinion starting torque



Pinion starting torque T_1 :

0.7 N·m (7 kg-cm, 6.1 in-lb) or less

Free play should not be allowed for pinion

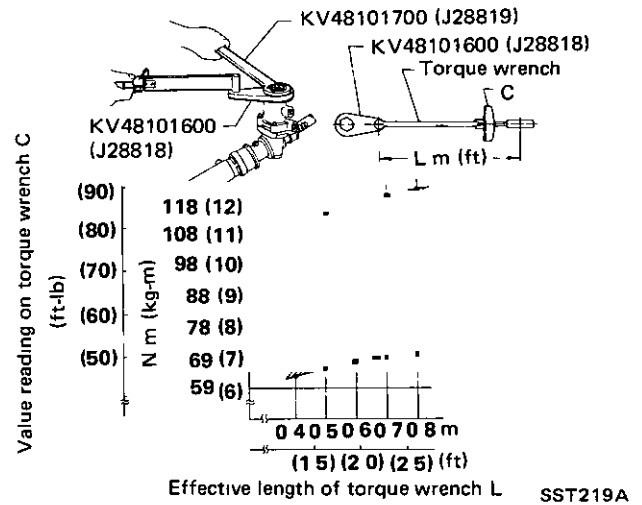
2. Screw in rear housing cover until pinion starting torque reaches " T_2 ", then tighten lock nut

$$T_2 = T_1 + 0.5 \text{ N·m (5 kg-cm, 4.3 in-lb)}$$

Lock nut

78 - 137 N·m

(8.0 - 14.0 kg-m, 58 - 101 ft-lb)



3. Measure pinion starting torque T_3 to make sure it is within specified range

T_3 :

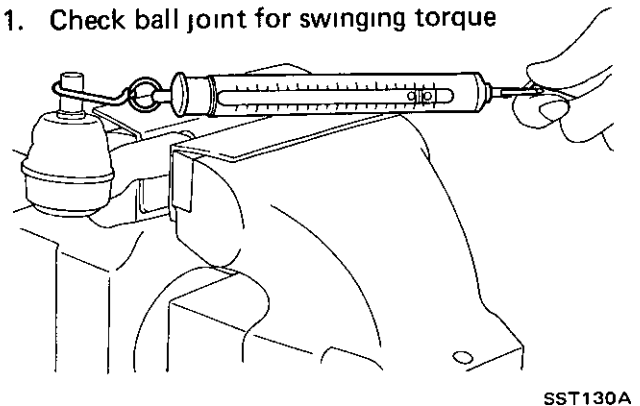
0.8 N·m (8 kg-cm, 6.9 in-lb) or less and

$T_1 + [0.10 - 0.25 \text{ N·m (1.0 - 2.5 kg-cm, 0.87 - 2.17 in-lb)}]$

4. If T_3 does not meet the above two values, repeat step 2 and re-adjust pinion preload

TIE-ROD OUTER SOCKET

1. Check ball joint for swinging torque



POWER STEERING GEAR AND LINKAGE

—Inspection and Adjustment (Cont'd)—

Tie-rod outer socket:

Swinging torque

0.15 - 2.94 N·m

(1.5 - 30 kg-cm, 1.3 - 26.0 in-lb)

- 2 Check condition of dust cover. If it is cracked excessively, replace

TIE-ROD INNER SOCKET

Check inner socket for swinging torque and axial play. If ball stud is worn and play in axial direction is excessive or joint is hard to swing, replace as a complete unit

Tie-rod inner socket:

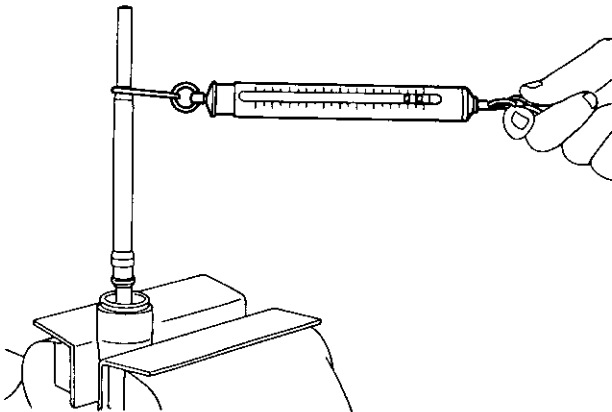
Swinging torque

0.1 - 7.8 N·m

(1 - 80 kg-cm, 0.9 - 69.4 in-lb)

Axial play

0 mm (0 in)



SST106A

BOOT

Check condition of boot. If it is cracked, replace boot

CYLINDER TUBES AND BREATHER HOSE

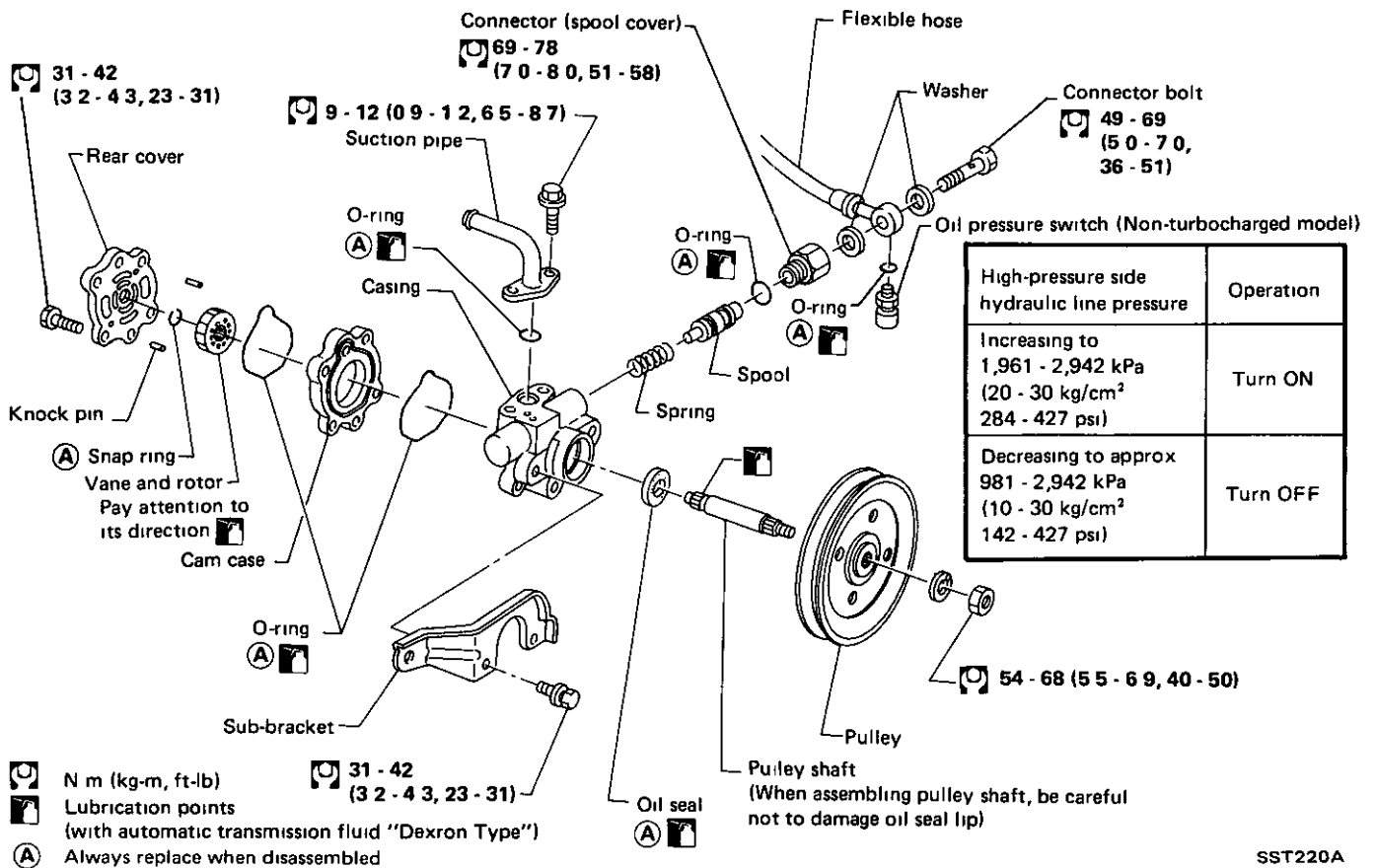
Check cylinder tubes and breather hose for scratches or other damage.

Replace if necessary

STEERING GEAR COMPONENT PARTS

Thoroughly examine steering gear component parts. If those parts are damaged, cracked or worn, replace steering gear as an assembly.

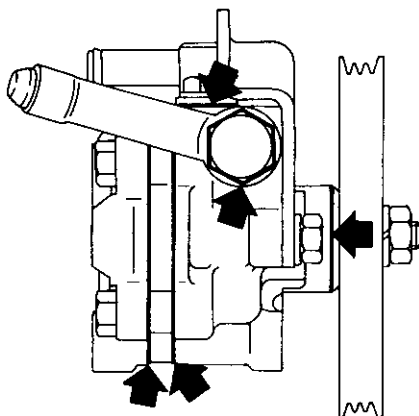
POWER STEERING OIL PUMP



Pre-disassembly Inspection

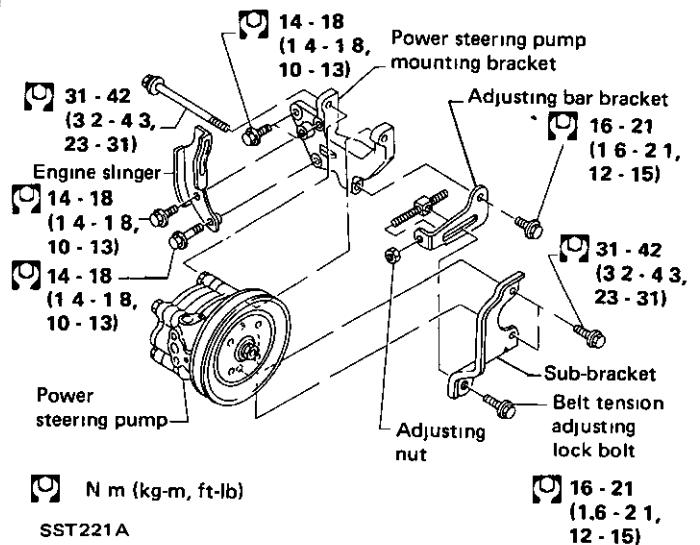
The power steering oil pump should be disassembled only if any of the following conditions are observed.

- Oil leak at the following points



- Deformed or damaged pulley

Oil Pump Installation



- After installing oil pump, adjust belt tension. Refer to MA section.

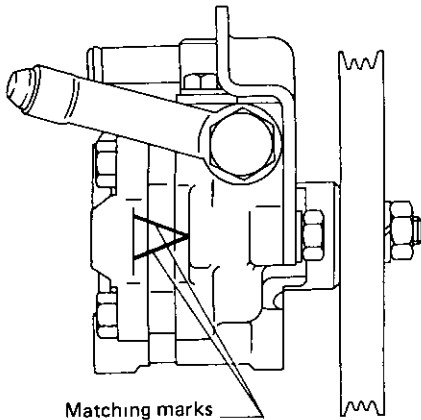
POWER STEERING OIL PUMP

Disassembly

CAUTION:

- The parts which can be disassembled are strictly limited. Never disassemble parts other than the specified ones.
- Disassembly should be performed in a place as clean as possible.
- Do not use a rag. Be sure to use nylon or paper cloth.
- When disassembling and reassembling, do not allow any foreign material to enter or contact any parts.

- 1 Inscribe matching marks as shown below

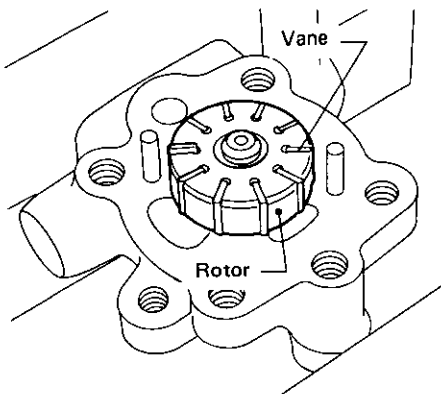


SST127A

2. Remove rear cover
- 3 Remove O-rings from cam case.

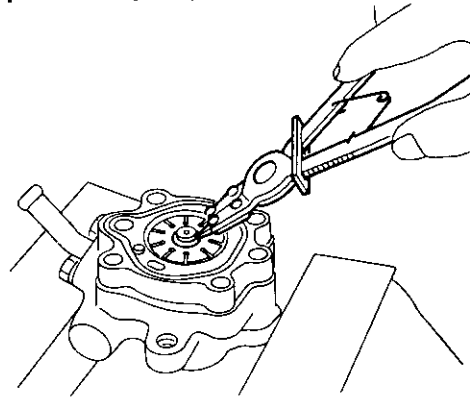
CAUTION:

When removing cam case, be sure that the vane does not come off the rotor.



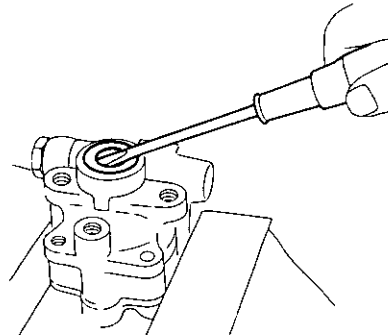
SST032A

- 4 Remove snap ring, then draw pulley shaft out.
- Be careful not to drop pulley shaft.
 - Be careful not to damage rotor. If damaged, replace as a pump assembly.



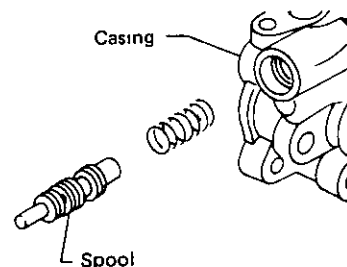
SST033A

5. Install cam case and rear cover, then remove oil seal.
- Be careful not to damage casing.



SST034A

6. Remove joint.
- Be careful not to drop spool.



SST036A

7. Remove suction pipe, then remove O-ring

POWER STEERING OIL PUMP

Inspection

Wash clean all disassembled parts (inside pump) in suitable cleaning solvent

INSIDE PARTS

If there are any cracks or flaws in the following parts, replace pump assembly

- Inside of cam case
- Matching surface of casing, rear cover and/or cam case
- Vane and rotor
- Pulley shaft

PULLEY AND PULLEY SHAFT

- If pulley is cracked or deformed, replace it
- If an oil leak is observed around pulley shaft oil seal, replace it.
- If serration of pulley or pulley shaft is deformed or worn, replace it

OIL PRESSURE SWITCH

(Non-turbocharged model)

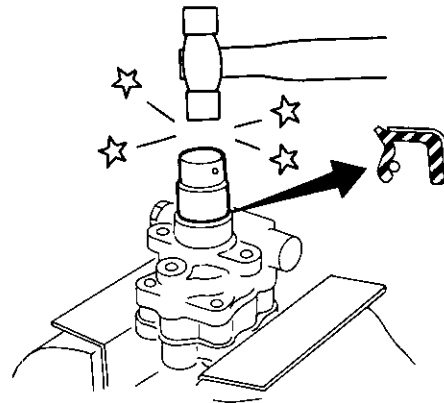
High-pressure side hydraulic line pressure kPa (kg/cm ² , psi)	Operation
Increasing to 1,961 - 2,942 (20- 30, 284 - 427)	Turn ON
Decreasing to Approx 981 - 2,942 (10 - 30, 142 - 427)	Turn OFF

Refer to "Hydraulic System Check" in "POWER STEERING SYSTEM – Checking"

Assembly

Assemble oil pump in the reverse order of disassembly, noting the following instructions

- Before installing O-rings and oil seal, apply a thin coat of power steering fluid to them
- Make certain that O-rings and oil seal are installed properly
- Always install new O-rings and an oil seal
- Be careful of oil seal direction



SST038A

- When assembling vanes to rotor, rounded surfaces of vanes must be facing cam case

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

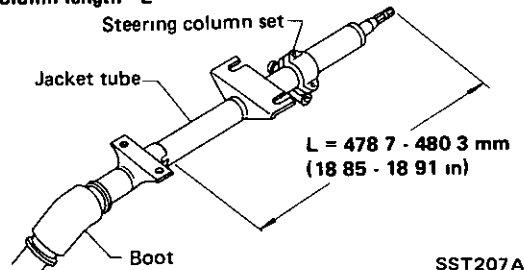
General Specifications

Steering gear type	PR24S [Power steering]
Steering column Type	Collapsible

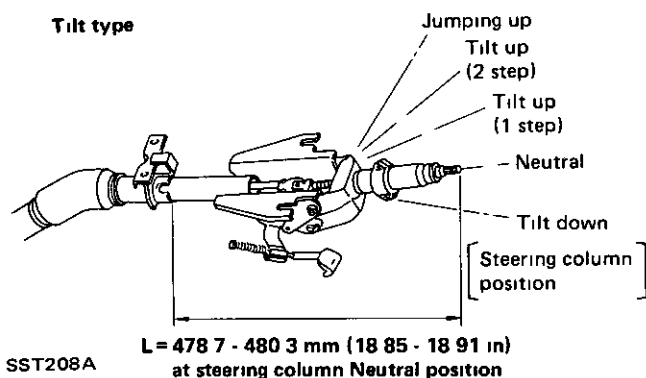
Column length L

Non-tilt type

Column length "L"



Tilt type



Turn of steering wheel (Lock to lock)	2.8
Steering overall gear ratio	15.3
Power steering fluid	
Type	Automatic transmission fluid "DEXRON type"
Capacity ℓ (US pt, Imp pt)	Approx. 0.9 (1-7/8, 1-5/8)
Normal operating temperature °C (°F)	60 - 80 (140 - 176)

Inspection and Adjustment

GENERAL

Steering wheel axial play	mm (in)	0 (0)
Steering wheel play	mm (in)	35 (1.38) or less
Power steering system Steering wheel turning force at 360° position from Neutral N (kg, lb)		39.2 (40.88) or less
Oil pump belt deflection (Measured when engine is cold) mm (in)/98 N (10 kg, 22 lb)		New 10 - 13 (0.39 - 0.51) Used 13 - 16 (0.51 - 0.63) Limit 21 (0.83) — Replace belt to new one
Oil pump maximum pressure kPa (kg/cm ² , psi)		6,669 - 7,257 (68 - 74, 967 - 1,052)

Oil pressure switch operation

Hydraulic line pressure kPa (kg/cm ² , psi)	Operation
Increasing to 1,961 - 2,942 (20 - 30, 284 - 427)	Turn ON
Decreasing to 981 - 2,942 (10 - 30, 142 - 427)	Turn OFF

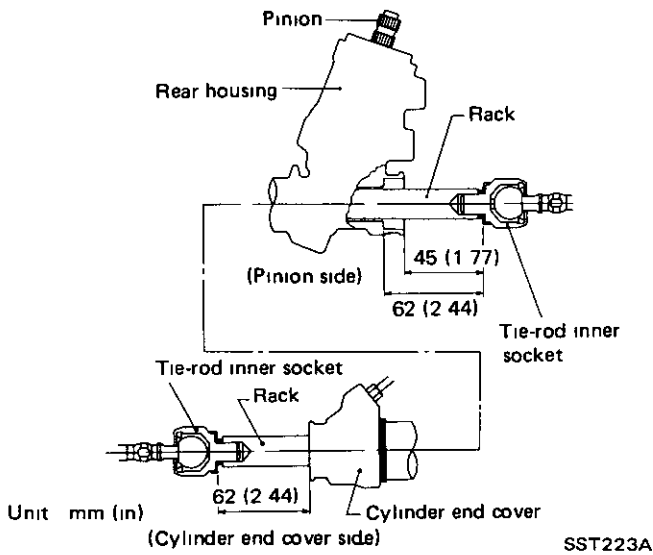
SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Inspection and Adjustment (Cont'd)

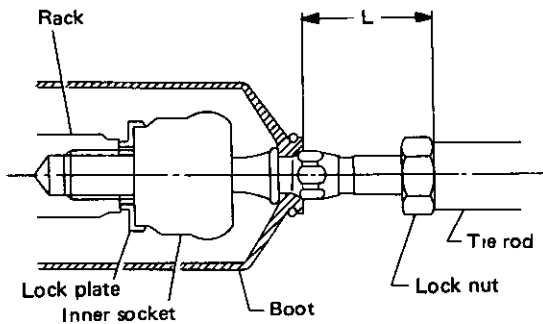
STEERING GEAR AND LINKAGE (PR24S)

Tie-rod outer ball joint Swinging torque N m (kg-cm, in-lb)	0 15 - 2 94 (1 5 - 30, 1 3 - 26 0)
Tie-rod inner ball joint Swinging torque N m (kg-cm, in-lb)	0 1 - 7 8 (1 - 80, 0 9 - 69 4)
Axial play mm (in)	0 (0)

Rack stroke



Tie-rod standard length mm (in)



- Standard dimension L = 429 mm (1 689 in)
- When installing tie rod or adjusting toe-in, be careful not to twist boots
- Toe-in Refer to MA section

SST936A

Pinion rotating torque (Pinion and rack gear assembly without fluid) N m (kg-cm, in-lb)	1 9 (19, 16) or less
Rack sliding force in neutral position (Pinion and rack gear assembly without fluid) N (kg, lb)	245 (25, 55) or less

Tightening Torque

STEERING COLUMN

Unit	N m	kg-m	ft-lb
Steering wheel nut	49 - 59	5 0 - 6 0	36 - 43
Steering column to body	13 - 18	1 3 - 1 8	9 - 13
Hole cover to dash panel	3 - 5	0 3 - 0 5	2 2 - 3 6
Column joint fixing bolt (Lower joint, column set)	24 - 29	2 4 - 3 0	17 - 22
Jacket lower tube to steering column clamp	16 - 21	1 6 - 2 1	12 - 15

STEERING GEAR & LINKAGE (PR24S)

Unit	N m	kg-m	ft-lb
Tie-rod lock nut	78 - 98	8 0 - 10 0	58 - 72
Tie-rod inner socket to rack (With sealant)	78 - 98	8 0 - 10 0	58 - 72
Cylinder end cover & pinion housing lock nut (Without Tool)	78 - 108	8 0 - 11 0	58 - 80
Rear housing cover lock nut	78 - 137	8 0 - 14 0	58 - 101
Retainer lock nut	39 - 59	4 0 - 6 0	29 - 43
Cylinder tube flare nut	20 - 26	2 0 - 2 7	14 - 20
Gear & linkage mounting	39 - 49	4 0 - 5 0	29 - 36
Tie-rod to knuckle arm	54 - 98	5 5 - 10 0	40 - 72

OIL PUMP

Unit	N m	kg-m	ft-lb
Mounting bracket to engine	14 - 18	1 4 - 1 8	10 - 13
Oil pump to mounting bracket (Through bolt)	31 - 42	3 2 - 4 3	23 - 31
Oil pump casing to sub bracket	31 - 42	3 2 - 4 3	23 - 31
Adjusting bar bracket to mounting bracket	16 - 21	1 6 - 2 1	12 - 15
Sub bracket to adjusting bar	16 - 21	1 6 - 2 1	12 - 15
Pulley lock nut	54 - 68	5 5 - 6 9	40 - 50
Rear cover fixing bolt	31 - 42	3 2 - 4 3	23 - 31
Connector (Spool cover)	69 - 78	7 0 - 8 0	51 - 58
Connector (to flexible hose)	49 - 69	5 0 - 7 0	36 - 51
Suction pipe to casing	9 - 12	0 9 - 1 2	6 5 - 8 7

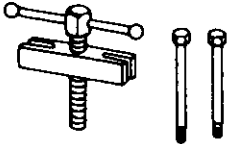
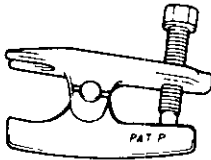
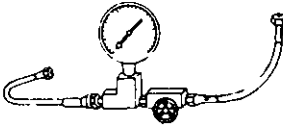
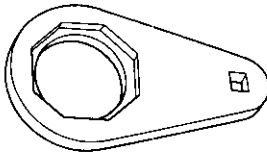
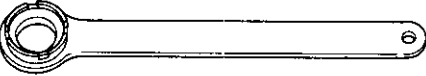
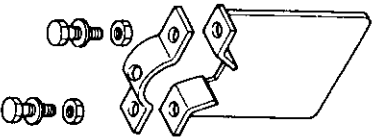
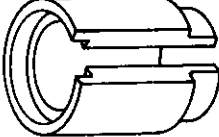
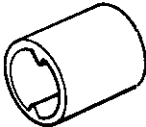
SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Tightening Torque (Cont'd)

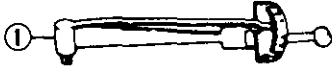
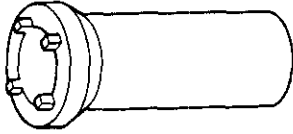
HYDRAULIC LINE AND OIL PRESSURE SWITCH

Unit	N m	kg-m	ft-lb
Low-pressure pipe to steering gear	27 - 39	2.8 - 4.0	20 - 29
High-pressure pipe to steering gear	15 - 25	1.5 - 2.5	11 - 18
High-pressure pipe connector bolt (At oil pump)	49 - 69	5.0 - 7.0	36 - 51
Oil pressure switch	16 - 24	1.6 - 2.4	12 - 17

SPECIAL SERVICE TOOLS

Tool number (Kent-Moore No)	Tool name
ST27180001 (J25726-A)	Steering wheel puller 
HT72520000 (J25730-A)	Ball joint remover 
ST27091000 (J26357)	Pressure gauge 
KV48101600 (J28818)	Rear housing lock nut wrench 
KV48101700 (J28819)	Rear cover wrench 
KV48102300 (J28820)	Cylinder lock nut wrench 
KV48102100 (J28817)	Power steering stand 
KV48103100 (J34264)	Rack packing installer 
KV48100700 (J26364)	Torque adapter 

SPECIAL SERVICE TOOLS

Tool number (Kent-Moore No)	Tool name
ST3127S000 (See J25765-A) ① GG91030000 (J25765-A) ② HT62940000 (-) ③ HT62900000 (-)	Preload gauge Torque wrench ①  Socket adapter ②  Socket adapter ③ 
KV48102000 (J28822)	End cover socket wrench 

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