

INSTALLATION MANUAL

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SUBJECT: INSTALLATION MANUAL OF ENGINE SHUT OFF DEVICE ON
WA800/900-3

PURPOSE: To introduce an optional auxiliary engine shut off device and its installation procedure

APPLICATION: WA800-3 Wheel Loaders, Serial Nos. 50001 and up
WA900-3 Wheel Loaders, Serial Nos. 50001 and up

FAILURE CODE: ZZ1099

DESCRIPTION:

1. Introduction

This field installation manual explains how to install the auxiliary engine shut off device (that is optionally available) for engines for use in such a case when the engine does not stop due to a failure in the electrical circuit provided to stop the engine.

This device is structured to stop the engine directly with a mechanical cable and can be operated from the operator's seat as well as from outside the machine.

<https://thespareparts.com/>

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2. List of parts

Part No.	Part Name	Q'ty	Remarks
427-43-11710	Lever	1	
04250-50639	Rod end	1	
04254-00623	Spacer	2	
01010-80625	Bolt	1	
427-43-11720	Lever	1	
01643-30623	Washer	1	
04050-11612	Pin, cotter	1	
427-43-11730	Bracket	1	
01435-01020	Bolt	2	
427-43-11640	Cable	1	
424-06-12730	Clip	5	
01435-01016	Bolt	2	
04256-40618	Ball joint	1	
01643-30623	Washer	1	
01596-00606	Nut	1	
427-43-11590	Bracket	1	
01010-81025	Bolt	2	
421-40-12420	Washer	2	
418-43-18240	Spring	1	
427-43-11550	Lever	1	
06120-02016	Bearing	2	
06122-02004	Seal	2	
07020-00900	Fitting	1	
427-43-11560	Lever	1	
06120-02016	Bearing	2	
06122-02004	Seal	2	
07020-00900	Fitting	1	
427-43-11540	Lever	1	
06120-02016	Bearing	2	
06122-02004	Seal	2	

Part No.	Part Name	Q'ty	Remarks
07020-00000	Fitting	1	
417-43-18160	Pin	1	
01435-00655	Bolt	1	
01580-10605	Nut	1	
427-43-11630	Support	1	
01010-81030	Bolt	4	
01643-31032	Washer	4	
427-43-11650	Cable	1	
07283-32236	Clip	1	
07283-52232	Seat	1	
01643-31032	Washer	2	
01597-01009	Nut	2	
112-860-1360	Grommet	1	
04256-40618	Ball joint	1	
01643-30623	Washer	1	
01596-00606	Nut	1	
427-Z17-2160	Bracket	1	
01010-81025	Bolt	2	
01643-51032	Washer	4	
01580-11008	Nut	2	
427-43-11530	Plate	1	
01220-40110	Screw	2	
427-Z17-11210	Plate	1	
427-43-11660	Cable	1	
04256-40618	Ball joint	1	
01643-30623	Washer	1	
01596-00606	Nut	1	
427-43-11580	Bracket	1	
01010-81025	Bolt	2	
01643-31032	Washer	2	
427-43-11370	Bracket	1	

Part No.	Part Name	Q'ty	Remarks
01435-01016	Bolt	2	
427-43-11510	Plate	1	
01435-01016	Bolt	2	
424-06-12730	Clip	3	
01435-01016	Bolt	3	
427-43-11520	Plate	1	
01010-81020	Bolt	2	
421-40-12420	Washer	2	
427-Z17-1010	Plate	1	
424-54-11270	Seat	2	
01571-01016	Seat	4	Rear frame rework
01573-20205	Seat	1	
427-Z17-2170	Plate	1	Floor rework
427-Z17-2150	Bracket	1	Floor support rework

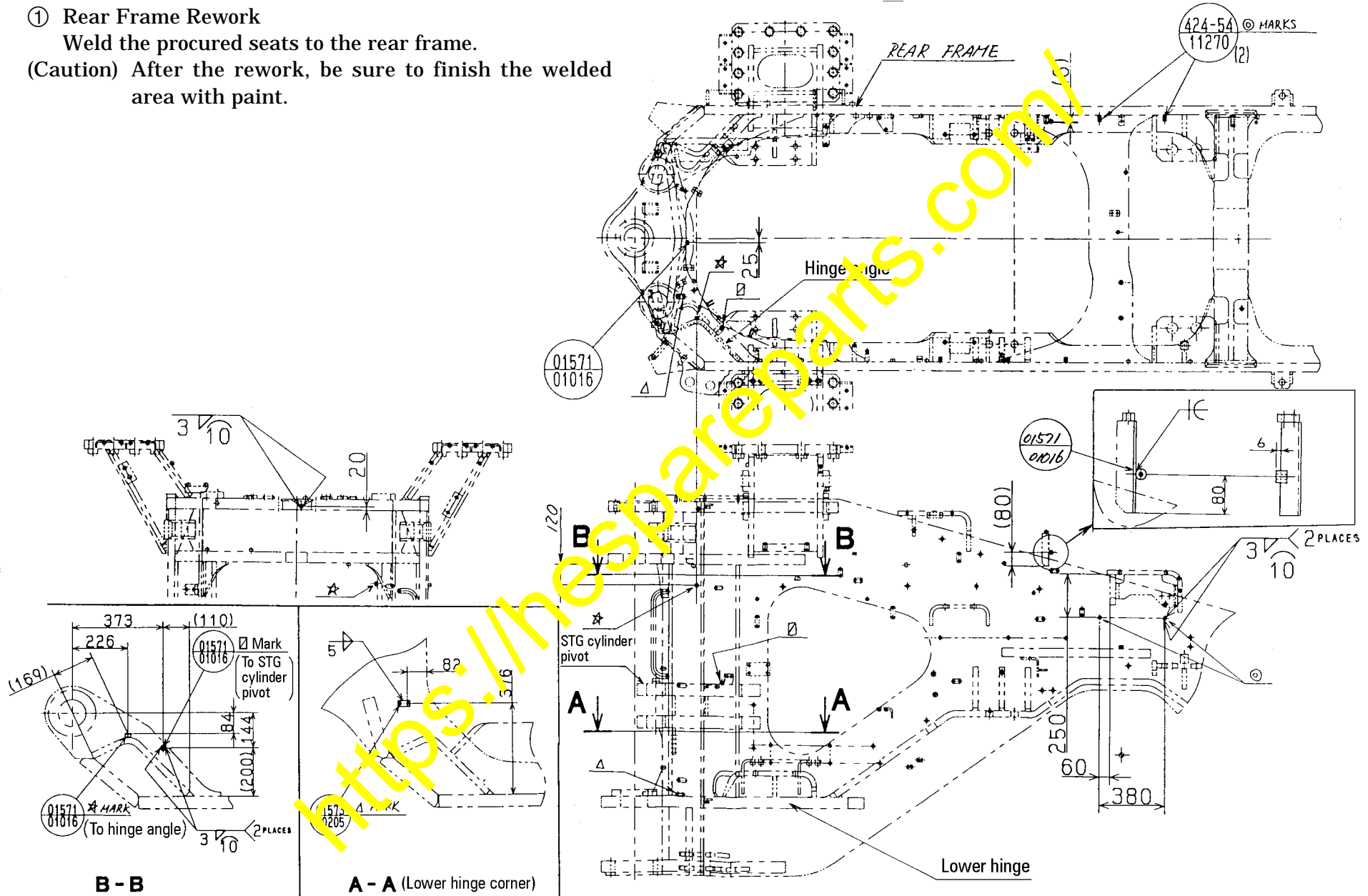
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3. Rework Procedure

① Rear Frame Rework

Weld the procured seats to the rear frame.

(Caution) After the rework, be sure to finish the welded area with paint.

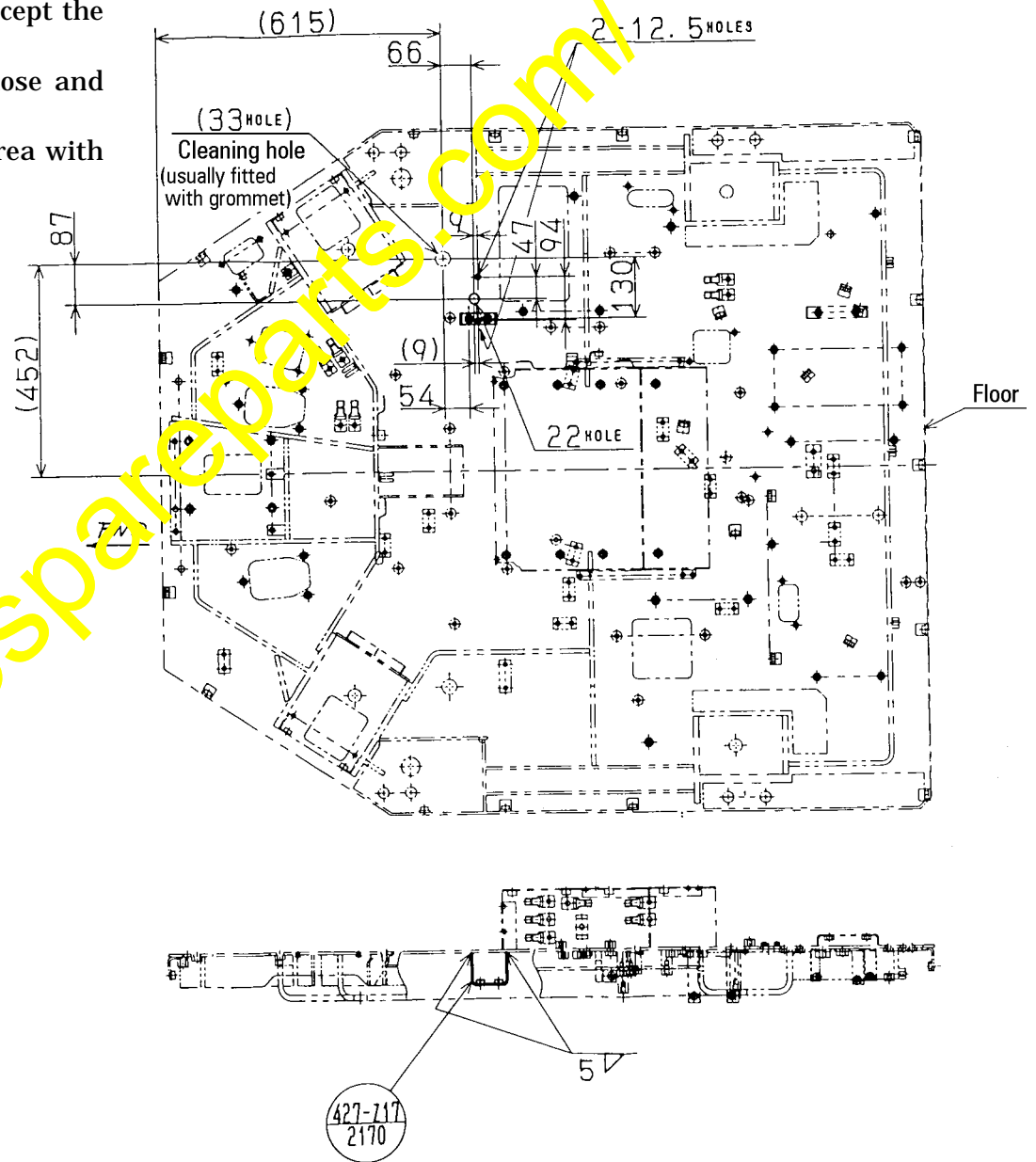
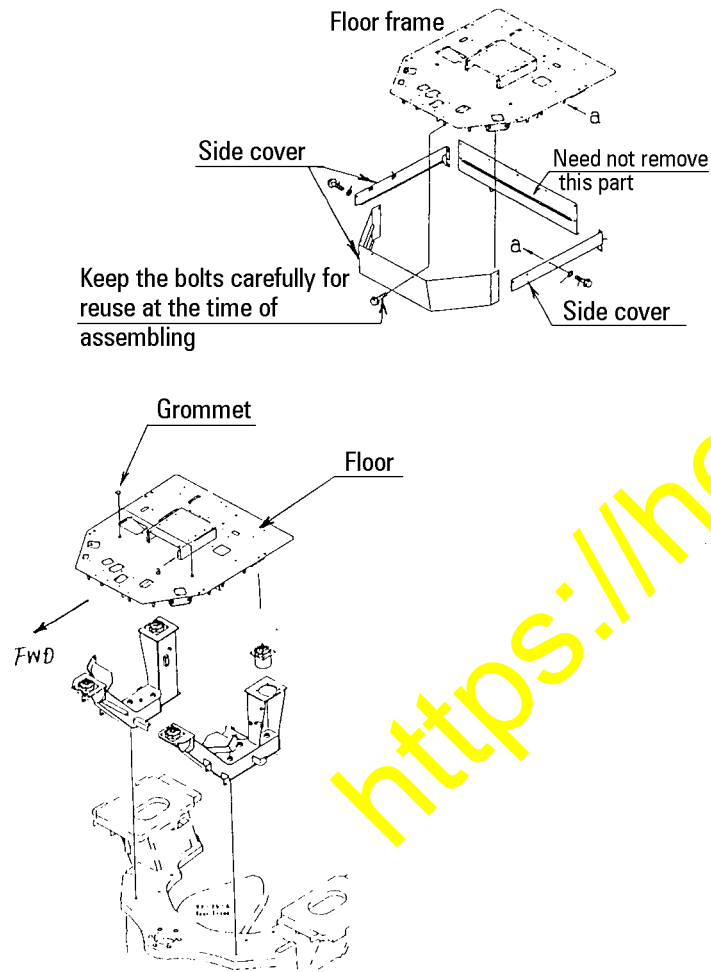


② Floor Rework

Add the plate (427-Z17-2170) and drilled holes to the floor.

Remove the side covers that are assembled to the floor (except the one on the cab rear side).

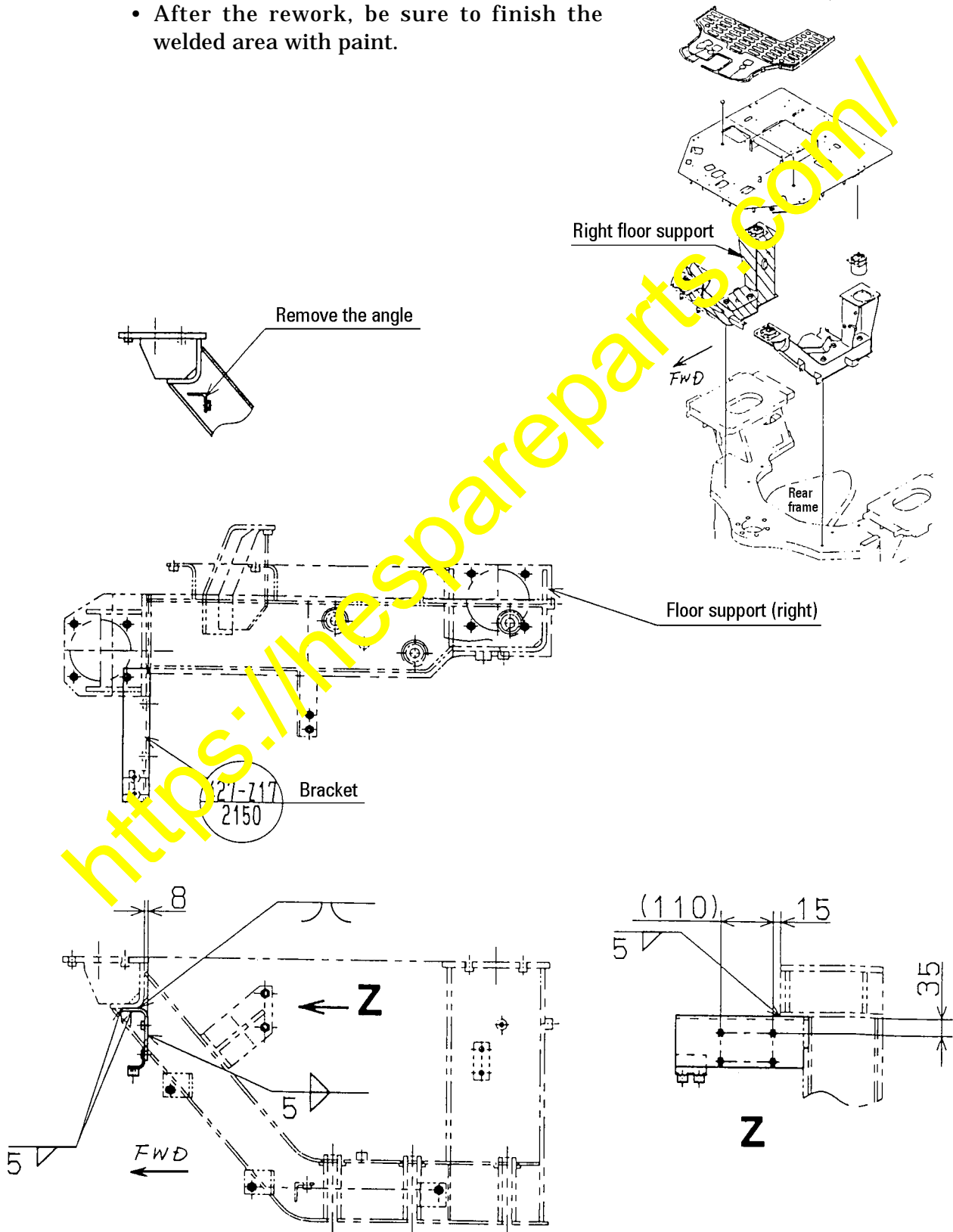
- (Caution) • At the time of rework, protect the hydraulic hose and harness from spatter in welding.
• After the rework, be sure to finish the welded area with paint.



③ Floor Support R.H. Rework

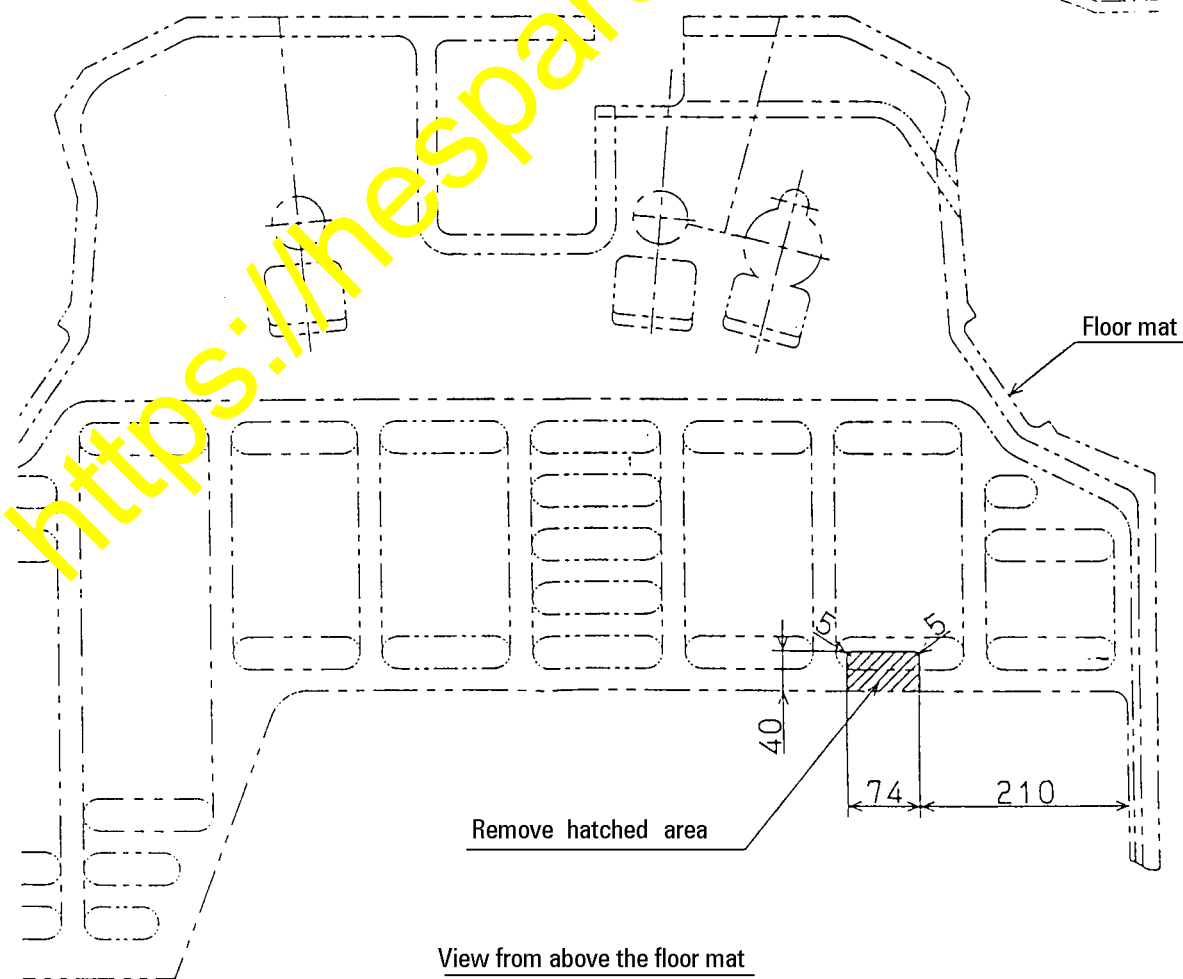
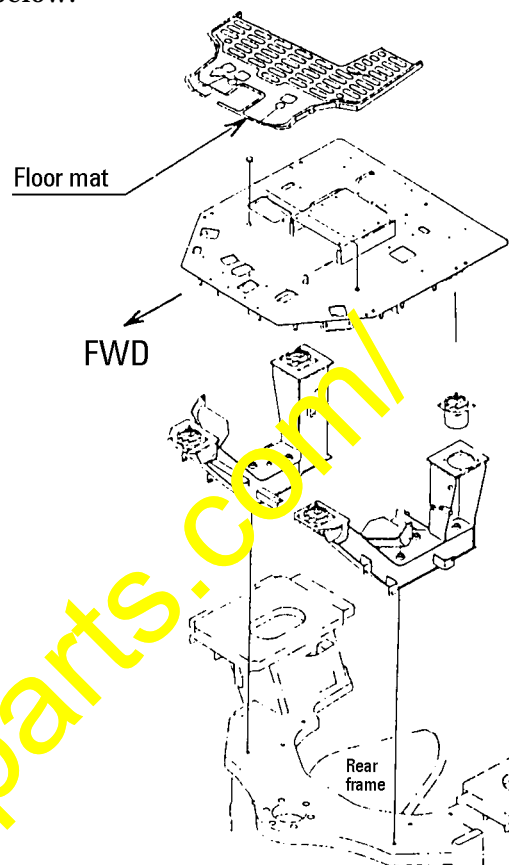
- (a) Remove the angle that is welded to the right floor support. Also, remove the steering pipe that is assembled to the angle. After assembling the shut off lever mentioned on Page 10, fix the pipe. (See Page 16.)
- (b) Add the prouered bracket (427-Z17-2150) to the floor support.

- (Caution)
- At the time of rework, protect the hydraulic hose and harness from spatter in welding.
 - After the rework, be sure to finish the welded area with paint.



④ Floor Mat Rework

Cut off the hatched area as shown in the figure below:

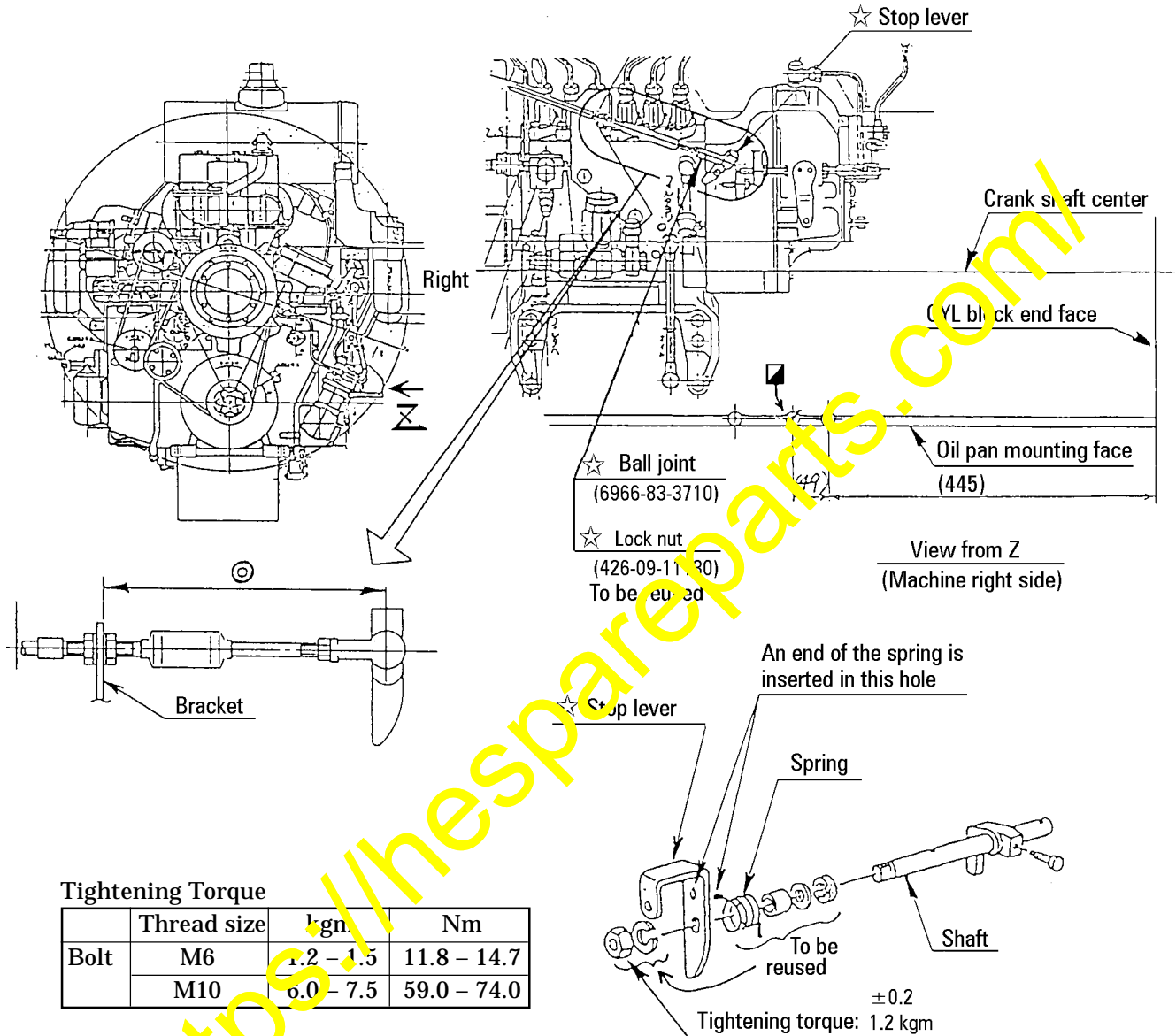


View from above the floor mat

4. Assembly Procedure

① Injection Pump Re-assembly

(a) Remove the parts marked ☆ in the figure below:



Loosen the nut (M8) and slide the stop lever towards you to remove it.

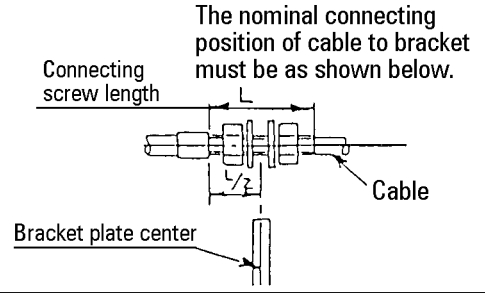
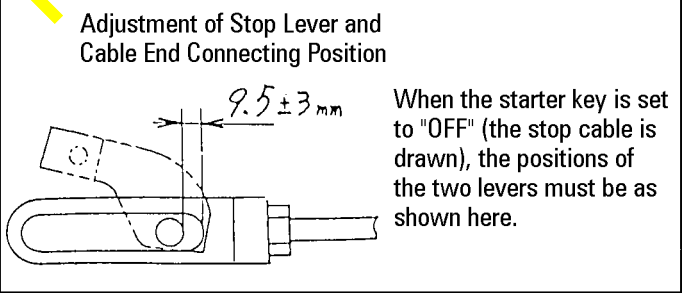
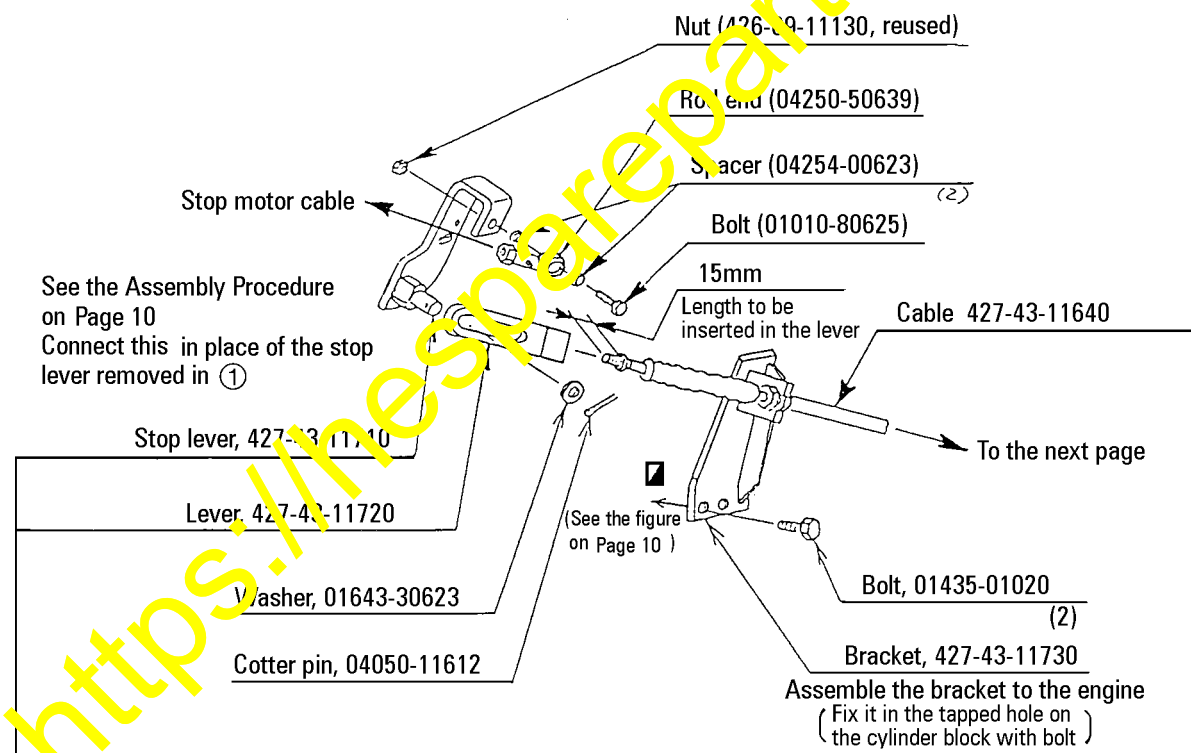
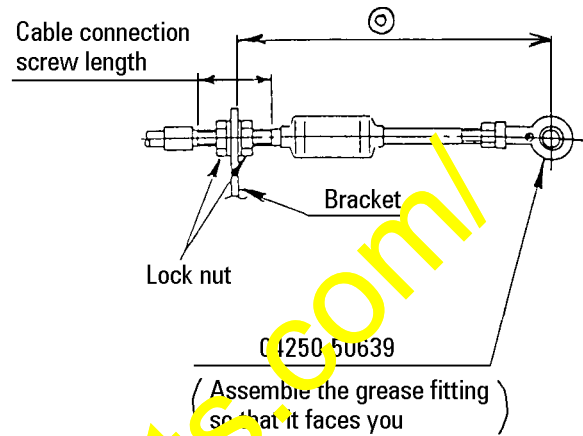
(Caution) When removing the lever,

- remove it carefully without applying abnormal force to it.
- remove it carefully so that the spring does not jump away.
- After the assembling, idle the engine at a low speed and pull the stop cable, that is assembled according to this manual, to check the performance.

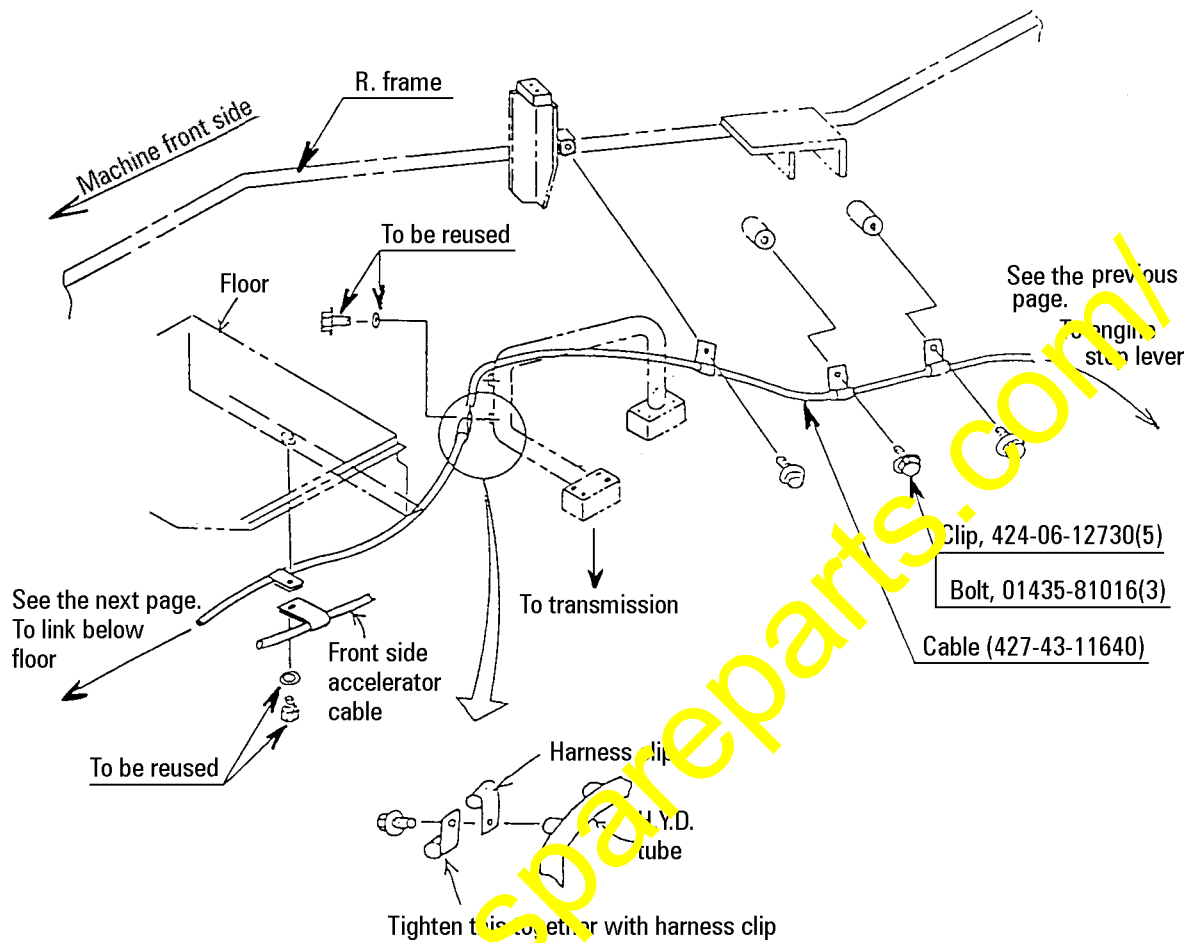
(b) Assemble the parts as illustrated.

- Assemble the rod end (04250-50639) to the tip of the stop motor cable. (Insert the cable 10mm in the rod end.)
- Adjust the lock nut position to make the size \odot the same as the one measured when the old ball joint was fitted.

After the assembling, apply grease to the area through the grease fitting.



② Fixing of Cable between Engine and below Floor
 Connect the cable as shown below:



(Note) Tightening Torque

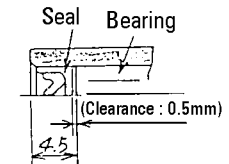
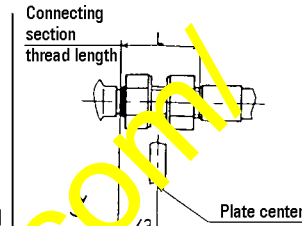
	Thread size	kgm	Nm
Bolt	M10	6.0 - 7.5	59.0 - 74.0

③ Assembly of Linkage below Floor

- (Caution) (a) Insert the cable (427-43-11650) fully before assembling it.
 (b) For the bolt tightening torque, see the figure on the right side.

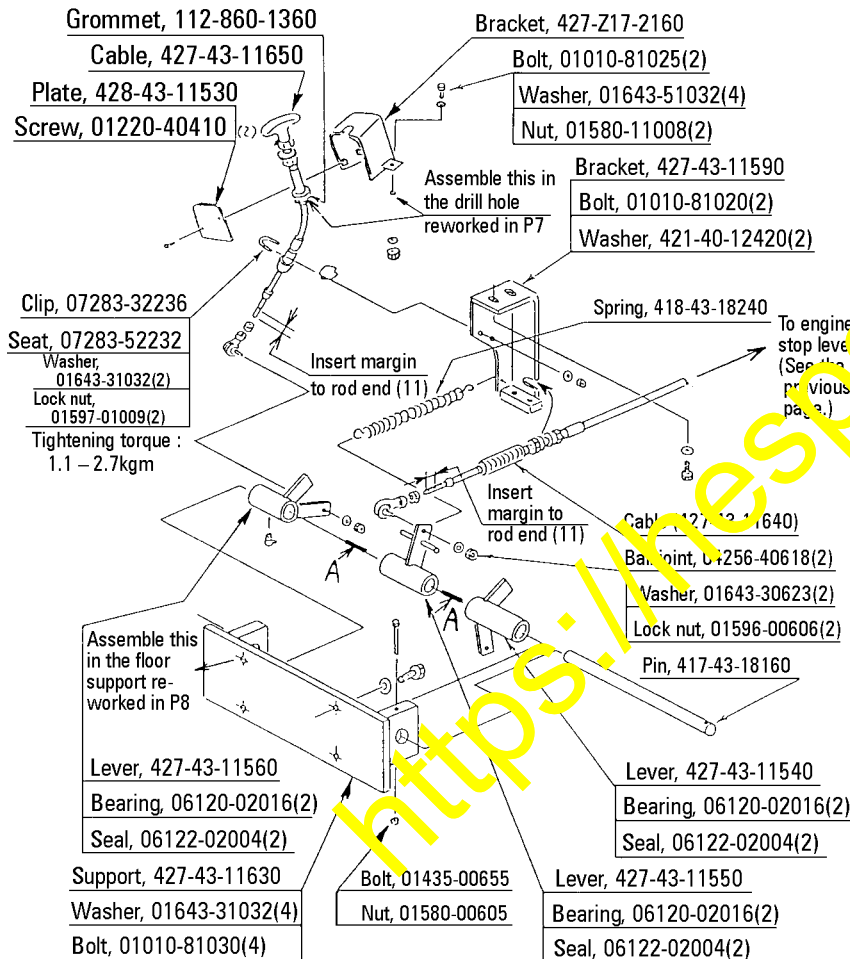
Tightening Torque

	Thread size	kgm	Nm
Bolt	M6	1.2 – 1.5	11.8 – 14.7
	M10	6.0 – 7.5	59.0 – 74.0

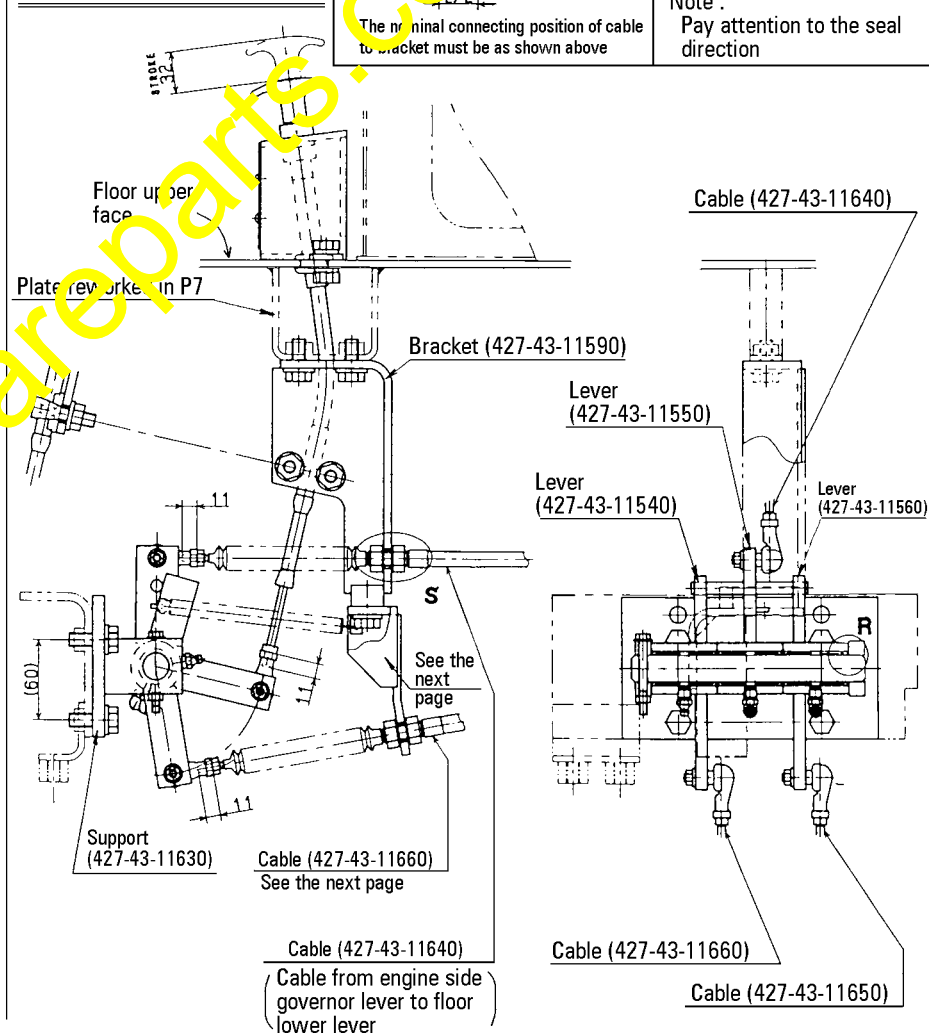


A – A (6 places)

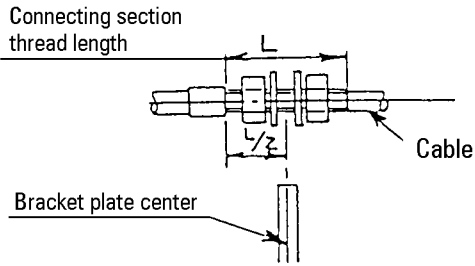
Note : Pay attention to the seal direction



Lever Shape after Assembling



The nominal connecting position of cable to bracket must be as shown below:



Tightening Torque

	Thread size	kgm	Nm
Bolt	M10	6.0 – 7.5	59.0 – 74.0

- (427-43-11590)
- Bracket, 427-43-11580
- Washer, 01643-31032(2)
- Bolt, 01010-81025(2)

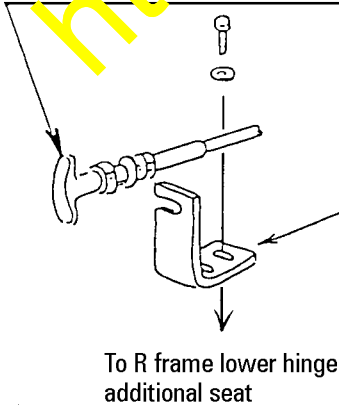
Note :
Apply grease after connecting the grease fitting.

- Grease fitting, 07020-00900(2)
- Grease fitting, 07020-00000

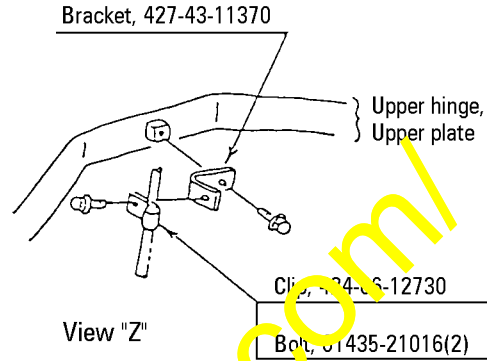
Connect the all fittings so that they face the machine rear side.

- Ball joint, 04256-40618
- Washer, 01643-30623
- Lock nut 01396-00606

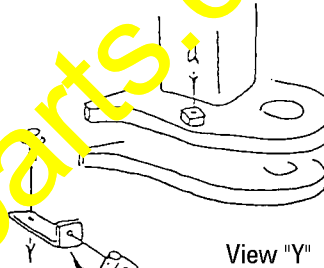
(Connect the cable by inserting it fully.)



- Plate, 427-43-11520
- Washer, 421-40-12420(2)
- Bolt, 01010-81020(2)

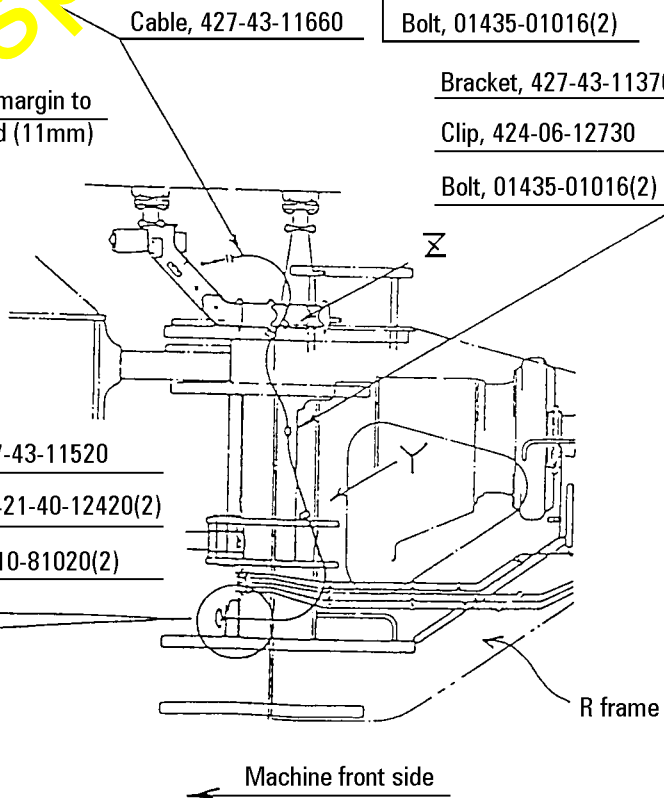


View "Z"



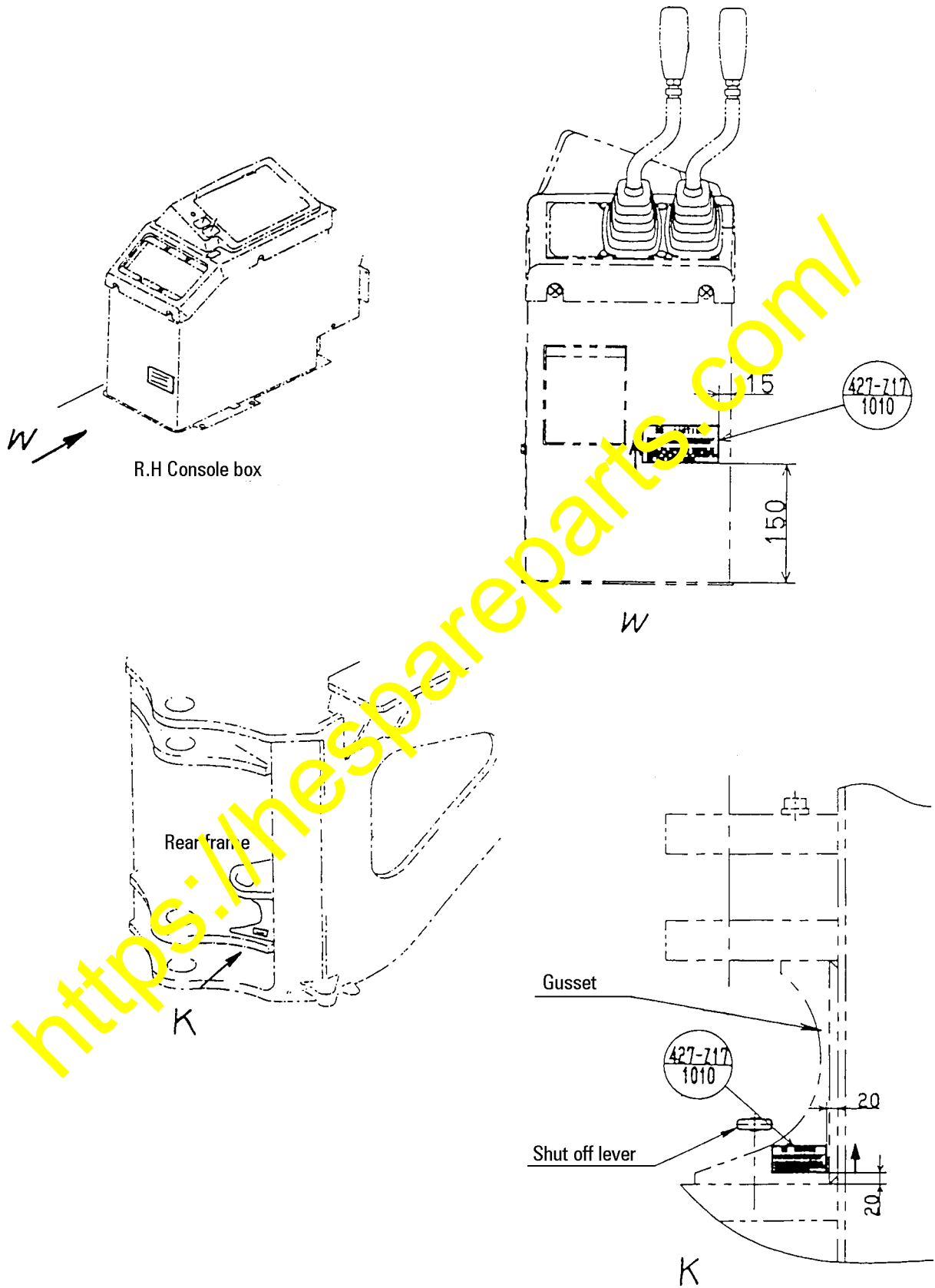
- Plate, 427-43-11510
- Clip, 424-06-12730
- Bolt, 01435-01016(2)

- Bracket, 427-43-11370
- Clip, 424-06-12730
- Bolt, 01435-01016(2)



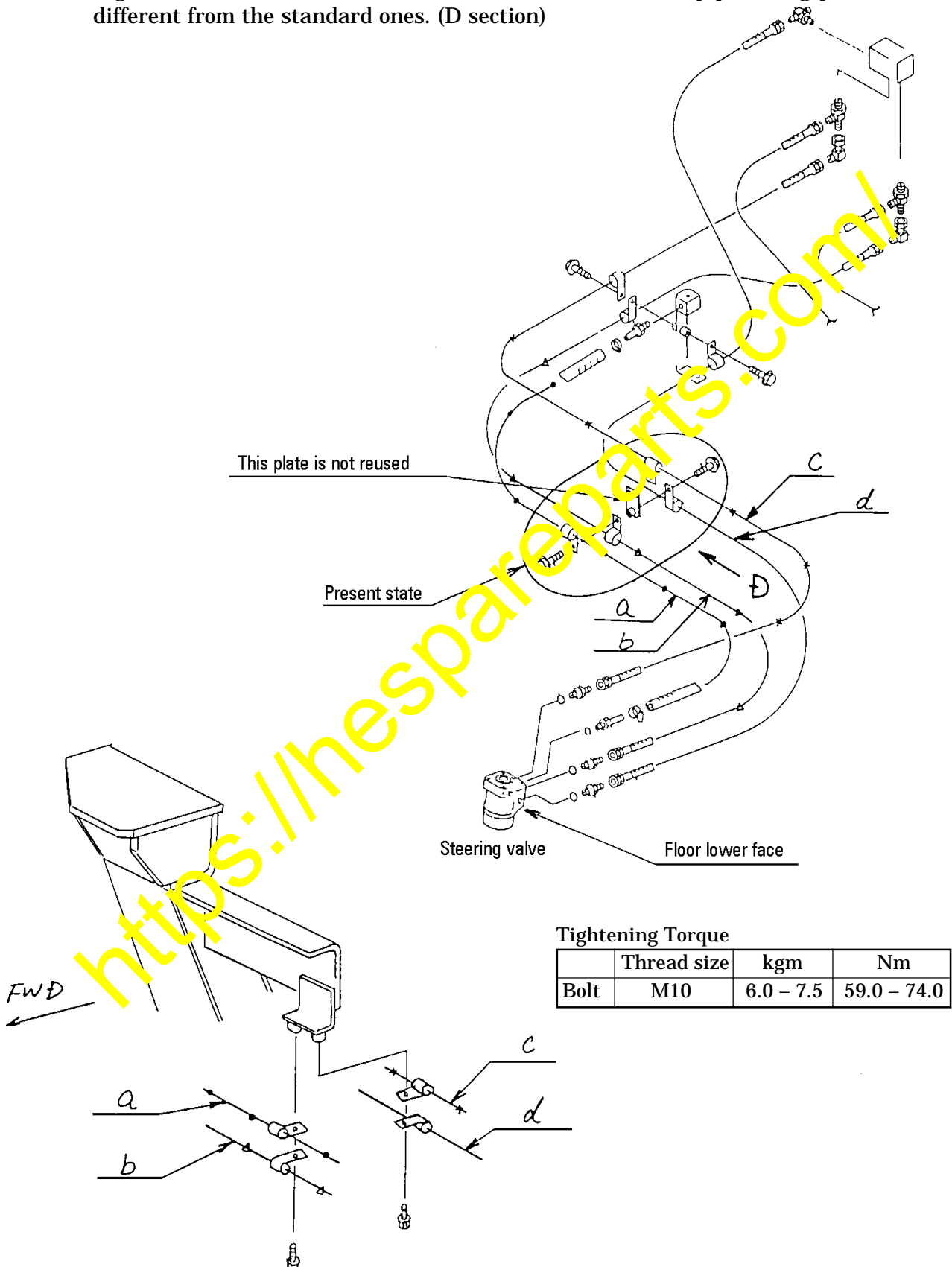
④ Sticking of Caution Decal

Stick the Caution Decals to the right console box and the rear frame as shown below:



⑤ Assembly of Steering Pipe (Pilot Hose)

- Assemble the pipes removed at the time of reworking the floor support (P8). (See Fig. 1.) Since the shut off lever has been assembled, the pipe fitting positions are different from the standard ones. (D section)



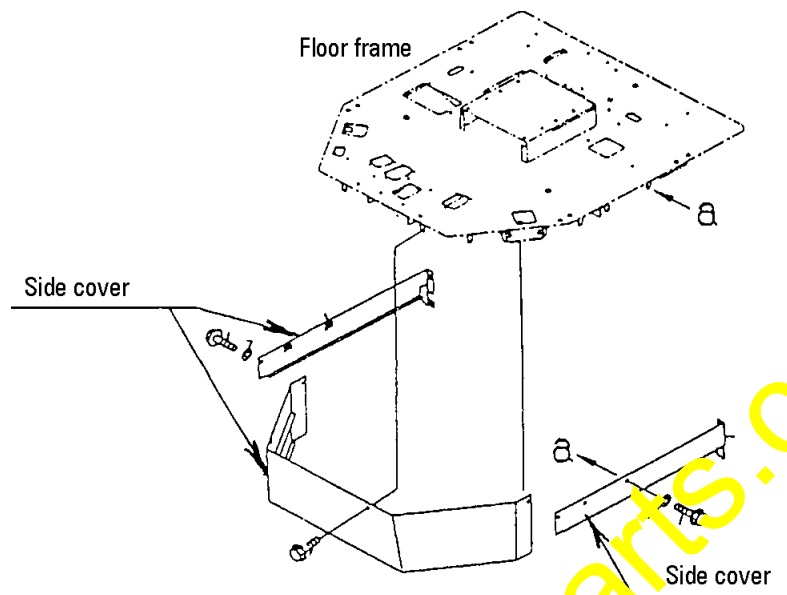
Tightening Torque

	Thread size	kgm	Nm
Bolt	M10	6.0 – 7.5	59.0 – 74.0

Fig. 1 (Reuse the clips and the bolts.)

⑥ Assembly of Floor Side Cover

- Assemble the side cover that was removed at the time of reworking the floor (P7).



Tightening Torque

	Thread size	kgm	Nm
Bolt	M12	10.0 – 12.5	98.0 – 123.0

5. Performance Check

Start the engine, pull the auxiliary stop levers above the floor and below the rear frame to make sure that the engine stops.