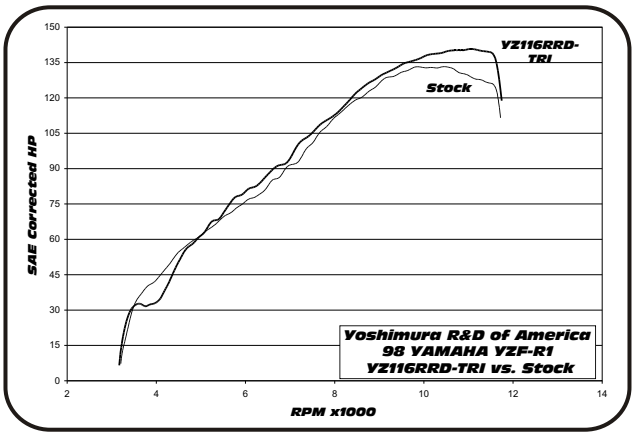
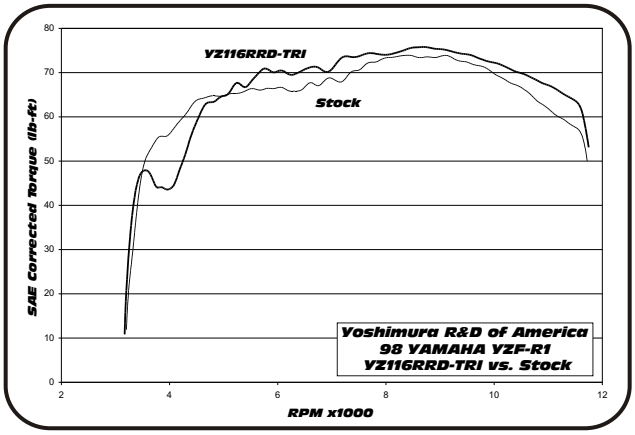
YOSHIMURA
RESEARCH&DEVELOPMENT OF AMERICA, INC.
5420 DANIELS STREET STE A, CHINO CA., 91786 · (800)634-9166 · (909)628-4722 · FACSIMILE (909)591-2198
www.yoshimura-rd.com

TRI-OVAL PERFORMANCE EXHAUST SYSTEM

YAMAHA '98-01 YZF-R1

YZ116RRDS-TRI	STAINLESS STEEL DUPLEX RACE ONLY HIGH PIPE SYSTEM
YZ117RRD-TRI	TITANIUM DUPLEX RACE ONLY HIGH PIPE SYSTEM





Note: Dyno graphs are for comparison use only. Actual results may vary depending on operating and motorcycle condition.

NOTE: IN THE STATE OF CALIFORNIA, IT IS ILLEGAL TO MODIFY THE EMISSION CONTROL SYSTEM. WHICH INCLUDES THE CARBURETORS OF ANY VEHICLE.

Caution: Exhaust system can be extremely hot. Let motorcycle cool down before beginning installation.

Note: Read through all instructions before beginning installation.

Tools Needed:

10mm, 12mm and 14mm sockets
3/8" ratchet and extension
Phillips screwdriver
Torque wrench
14mm wrench
Soft face mallet

Installation Steps:

1 Remove left and right lower cowlings together. (See Fig. 1 & 2 for fastener locations.)

2 Remove lower radiator mount bolt and tilt radiator forward slightly. (Fig. 3).

3 Disconnect and remove EXUP cables. (See Yamaha service manual for proper procedures)

4 Remove stock exhaust system and exhaust port gaskets.

5 Install new exhaust port gaskets. (not supplied - Yamaha part no. 4FM146130000)

6 Install manifolds and flanges into exhaust ports using stock header nuts. Torque nuts to .8 kg-m (6 lb-ft). (Refer to Fig. 4 for proper flange orientation.)

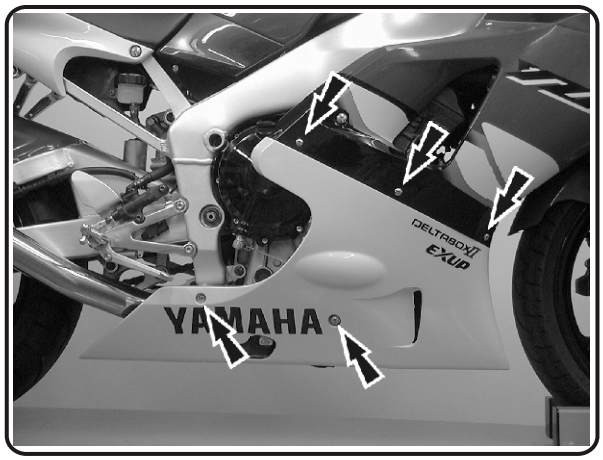


Fig. 1

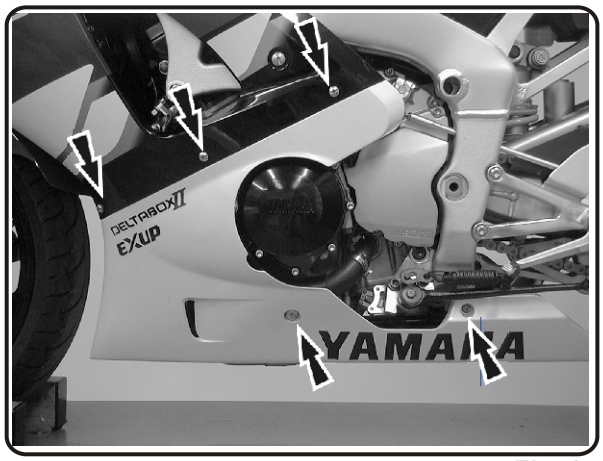


Fig. 2

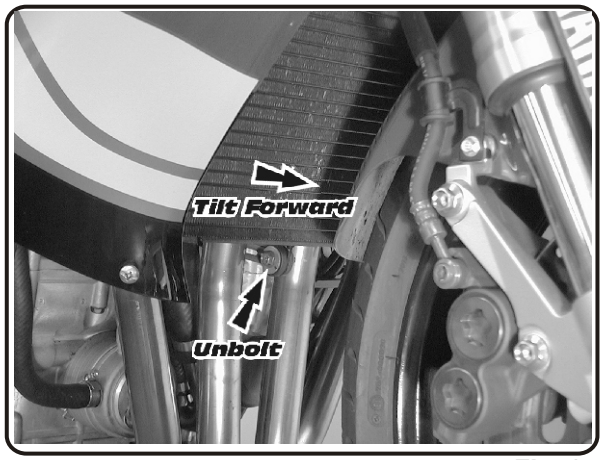


Fig. 3

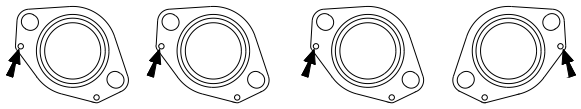

Flange Orientation
And Spring Locations

Fig. 4

7 Remove chassis mount from original location and reinstall to new location with supplied bolt, washer and nut. (Fig. 5) Do not tighten bolt at this point.

8 Install Yoshimura header onto exhaust manifolds. (Install header from one end of the engine to the other. Slip one tube at a time into manifold.)

9 Install 2.5" exhaust springs at drilled header flange. (Hook one end of the spring through drilled hole on header bolt and pull the other end with spring puller tool onto header's spring hook. See Fig.4 on previous page for proper spring location.)

10 With a soft face mallet, tap on header to fully seat tubes into manifolds.

11 Bolt header to chassis mount with supplied bolt, washer and nut.

12 Torque chassis bolts to 2.5 kg-m (18 lb-ft).

13 Remove stock muffler bracket and install Yoshimura aluminum bracket with stock bolts.
Torque bolts to 2.3 kg-m (16.5 lb-ft).

14 Install tailpipe assembly with muffler onto header.

15 Install 2.5" exhaust spring between header and tailpipe.

16 Apply heat resistant tape to inside of muffler clamp and slide clamp onto muffler.
(Note direction of clamp in Fig. 6)

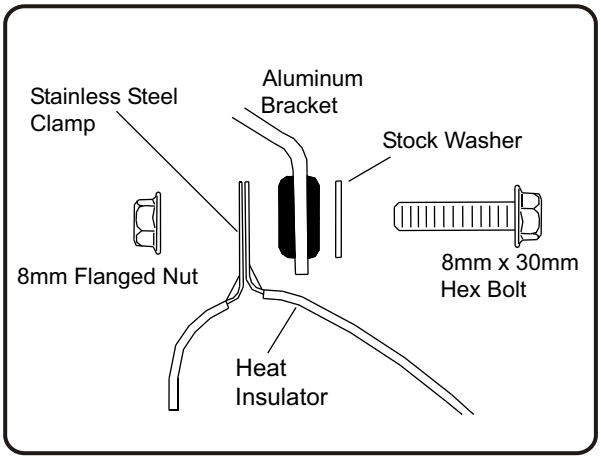


Fig. 5

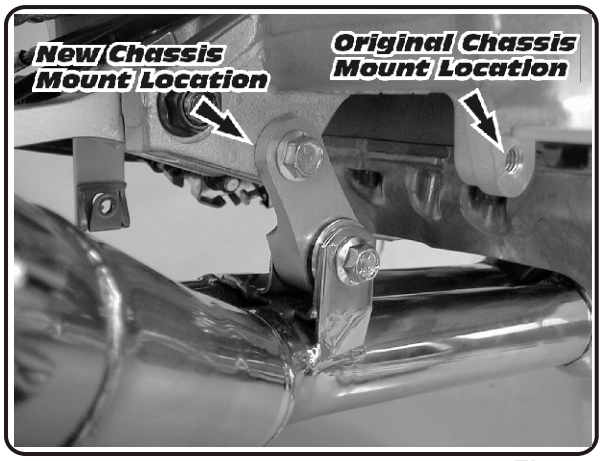


Fig. 5

17 Mount clamp to aluminum muffler bracket using supplied bolt, nut and stock washer (see Fig. 6) Do not tighten clamp at this point.

18 Tighten muffler clamp bolt to 2.5 kg-m (18 lb-ft).

19 It is recommended that the muffler and tailpipe be wiped down with rubbing alcohol to remove oil and fingerprints. This will help prevent tarnishing of the finish after the exhaust is heated up.

20 Reinstall lower radiator mount bolt.

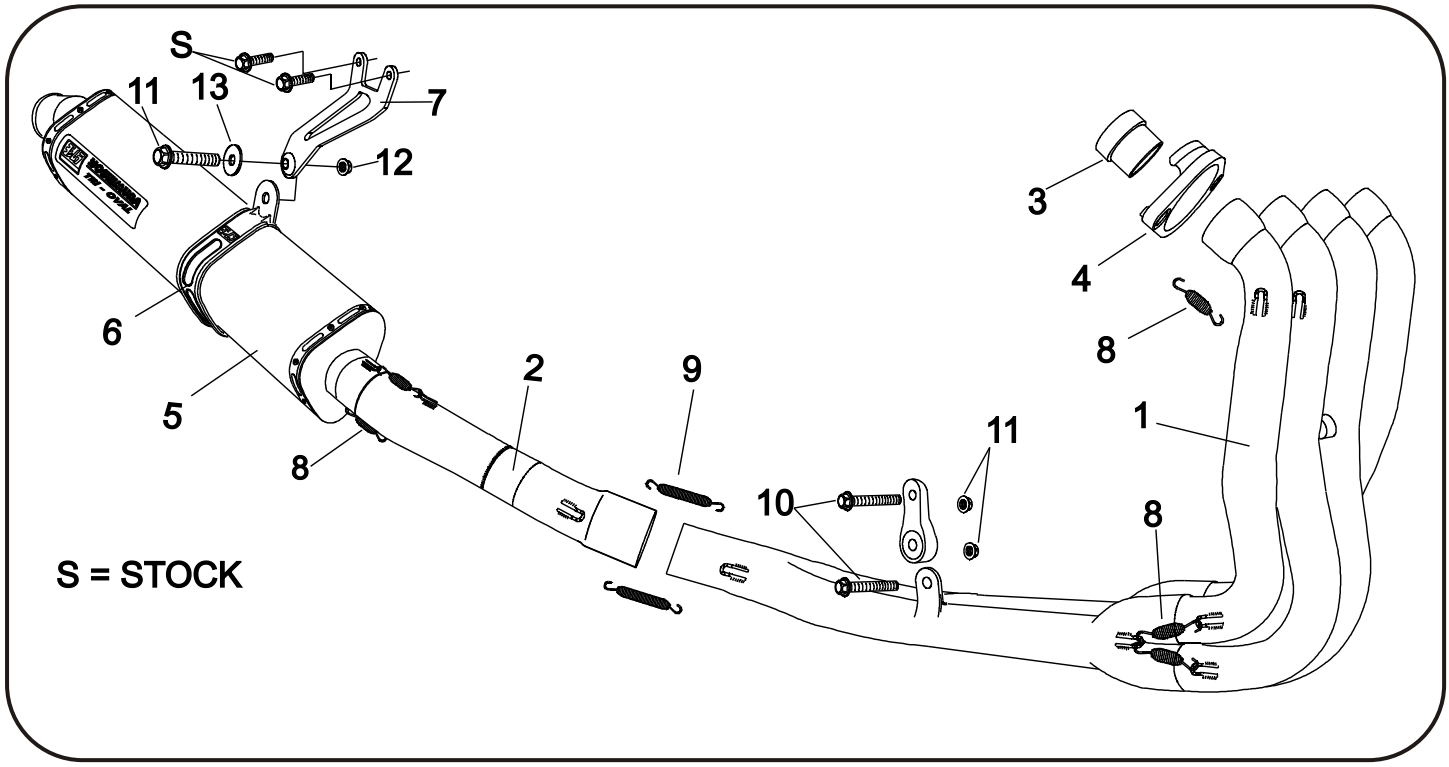
21 Reinstall cowlings.

22 Check for proper clearance between new exhaust system and cowling.

23 Before starting motorcycle, check for proper clearance between new exhaust system and swing arm. If any problem is found, please carefully follow through the installation steps again. If problem still persists, please call Yoshimura tech. Dept. at (800)634-9166 / in CA (909) 628-4722

Note: After starting motorcycle, it is normal for new exhaust system to smoke until oil residue burns off.

#YZ116RRDS-TRI/YZ117RRD-TRI

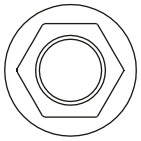


Parts Diagram

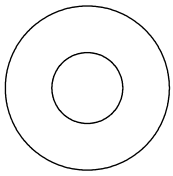
NO.	DESCRIPTION	QTY	PART #
1	Yoshimura Header	1	
	Stainless Steel Duplex Race Only		YZ116RRHD
	Titanium Duplex Race Only		YZ117RRD
2	Yoshimura Tailpipe	1	
	Stainless Steel High Pipe		YZ116RHT
	Titanium High Pipe		YZ117RHT
3	Stainless Steel Exhaust Manifold	4	YZ117SDM
4	Stainless Steel Exhaust Flange	4	YZ117SDR
5	Tri-Oval Muffler Assembly	1	**
6	Stainless Steel Muffler Clamp	1	
	Titanium Sleeve uses		CTS081X
	Carbon Fiber Sleeve uses		CTS081

NO.	DESCRIPTION	QTY	PART #
7	Aluminum Muffler Bracket	1	YZ116AB
8	2.5" Exhaust Spring	8	RACE-SPS
9	3.5" Exhaust Spring	2	RACE-SPL
10	8mm x 40mm Flange Bolt	2	M8X40H
11	8mm x 30mm Flange Bolt	1	M8X30H
12	8mm Flange Nut	3	8MMNUT
13	Large Flat Washer	1	WASHERL
**	Muffler Clamp Heat Insulator	1	HT SHLDTRS
**	Spring Puller Tool	1	ST-100
**	Duplex Sticker	2	DLABEL
**	Yoshimura Vinyl Sticker	2	17028

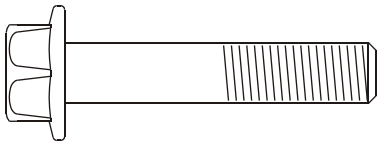
Nuts and Bolts Guide (Actual Size):



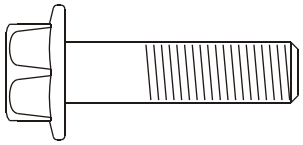
8mm Flange Nut



8mm Large Flat Washer



8mm x 40mm
Flange Hex Bolt



8mm x 30mm
Flange Hex Bolt