

Competition Support Wrench Report

DATE 6/10/81

NO. 18

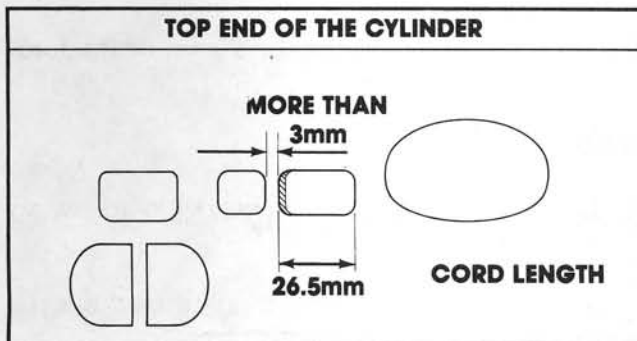
IT175G/H PERFORMANCE MODIFICATIONS

The purpose of this Wrench Report is to provide you with tuning modifications aimed at increasing low-end performance of the IT175H.

These performance modifications are a continuation of Wrench Report No. 8, IT175G Performance Information, so it is vital that all the modifications covered in Wrench Report No. 8 be completed before attempting these modifications.

CYLINDER MODIFICATIONS

Using a hand grinder, grind off the shaded area as shown in the figure below to increase the width of the main transfer ports according to specifications.



NOTE: The surfaces ground must be smooth and continuous.

CYLINDER HEAD

Mill head 0.2mm (0.008 in.).

CAUTION:

Upon performing this modification, it will be necessary to use premium gasoline with an octane rating of 90+. If gas of 90+ octane is unattainable in your area, omit this portion from modification.

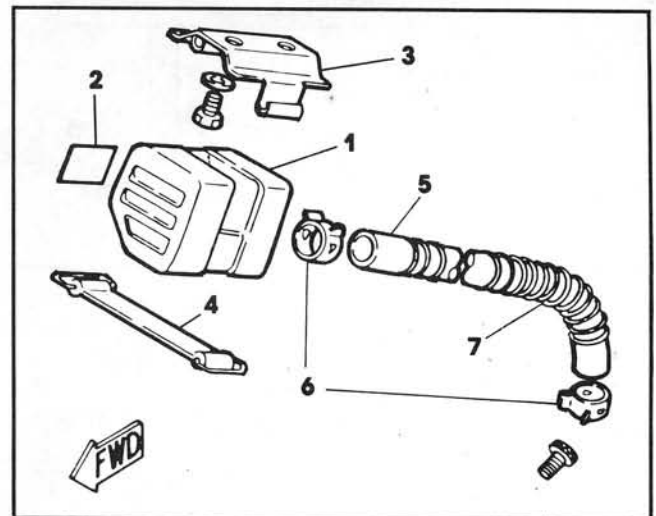
REED VALVE

Use standard IT175H reeds.

YEIS COMPONENTS

Use standard components off the YZ250H. The following components are needed:

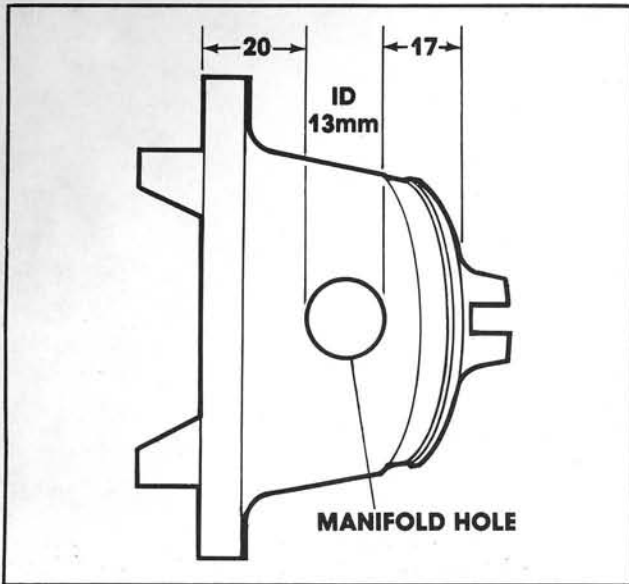
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4V3-13581-00-00	Chamber, Air	1
2	4V3-1441K-00-00	Emblem	1
3	4V3-14493-00-00	Stay 1	1
4	1E6-82131-00-00	Band, Battery	1
5	90445-21562-00	Hose	1
6	90467-20050-00	Clip	2
7	90501-14633-00	Spring, Compression	1



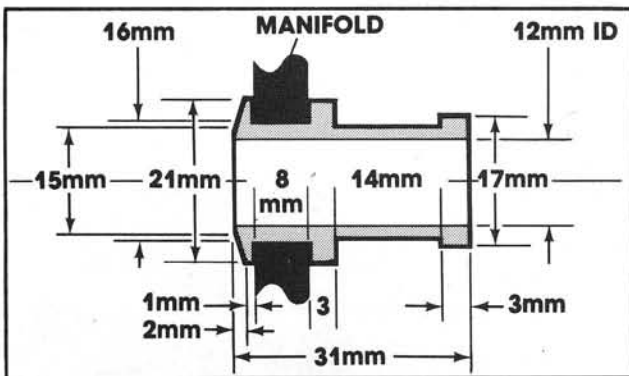
STEP 1

INTAKE MANIFOLD

As per the illustration, drill a hole in the standard IT175 (G/H) intake manifold (13mm ID) to accept the machined hose pipe.

**STEP 2****HOSE PIPE**

From aluminum, machine a new hose pipe according to below specifications.

**STEP 3****INTAKE MANIFOLD**

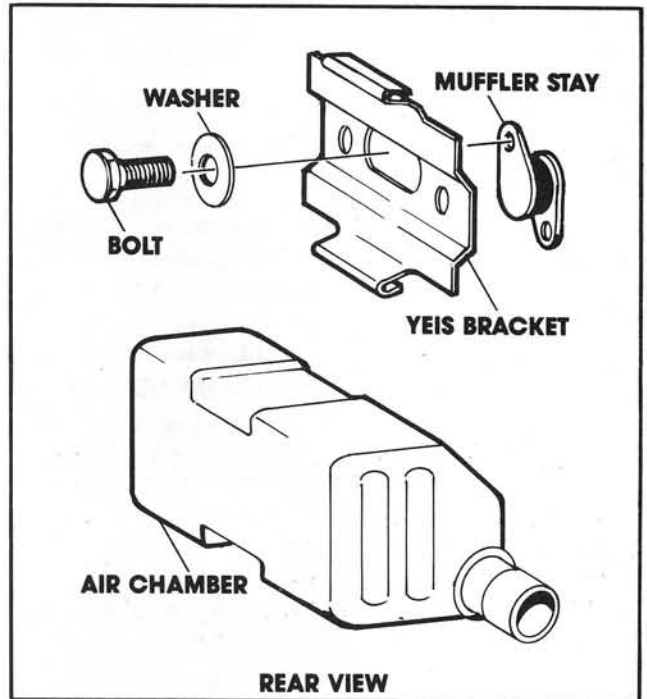
Apply a liberal amount of contact cement to the 13mm hole in the intake manifold. Insert the hose pipe and let it dry.

NOTE: Make sure flanges are seated properly.

MOUNTING AIR CHAMBER

Using a 6 x 20mm bolt with flat washer, bolt the air chamber stay bracket to the exhaust pipe stay mount. Secure the air chamber to the stay bracket with the battery band as illustrated below.

NOTE: The air chamber outlet must be in the illustrated position.

**AIR CHAMBER HOSE**

It will be necessary to shorten 20mm off the total hose length.

CARBURETION

1. Use standard carburetor with the following changes:

Jet needle clip position: fourth from the top
 Main jet: 220 ~ 230 (std. 210)
 Pilot jet: 50 (std. 60)
 Power jet: 85 (std. 82.5) P/N 3G2-14231-17
 Needle Jet: P-8 (std.)
 Air screw: 1-1/2 turns out

CAUTION:

These carburetor settings are only a starting point and may vary depending on local conditions.

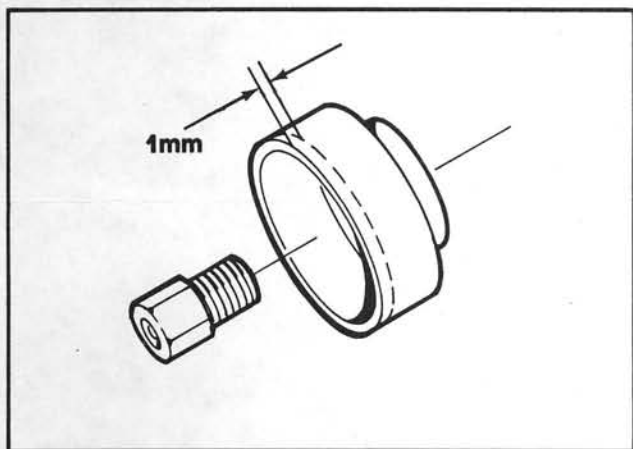
2. The carburetion can go momentarily lean after a series of extremely rough bumps. This condition is caused by the brass baffle ring (P/N 537-14153-00) between the main jet and main nozzle.

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3. Trim 1mm off the lower edge as illustrated below.



IGNITION TIMING

Standard 2.6mm BTDC (static).

OIL

Yamalube R mixing ratio 24:1

GEARING

Change rear sprocket to 46 tooth, and in enduro type riding use a 48 tooth, with standard counter-shaft sprocket.

PART NUMBER	DESCRIPTION
3R6-25446-10-33	Sprocket, Driven (46T)
3R4-25448-00-XX	Sprocket, Driven (48T)

TIRE SIZE

Use a standard size 4.10 x 18 low-profile type rear tire for best performance.