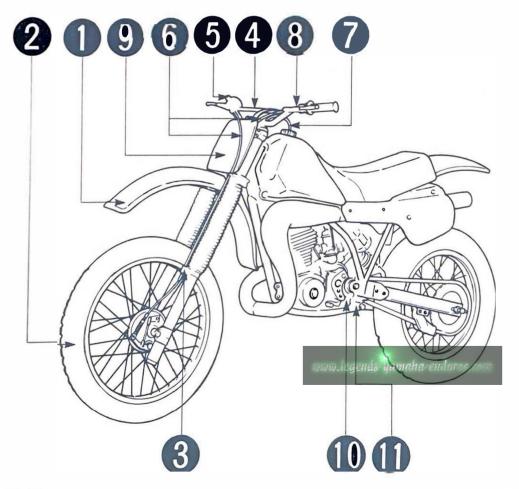


YZ490K Supplementary Assembly Manual



23X-28107-10

FOREWORD

This Supplementary assembly manual has been prepared to introduce the setup procedures and predelivery service for the YZ490K.

For complete information, it is necessary to use the YZ/IT series Basic assembly manual (LIT-11666-03-31) together with this Supplementary assembly manual.

NOTICE

The service specifications given in this Supplementary assembly manual are based on the model as manufactured. Modifications and significant changes in specifications and/or procedures will be forwarded to Authorized Yamaha Dealers. The procedures below are described in the order that the procedures are carried out correctly and completely. Failure to do so can result in poor performance and possible harm to the machine and/or rider.

CONCERNING CRATE DAMAGE: ____

Follow the instructions in the Dealer warranty handbook, Procedure section.

Particularly important information is distinguished in this manual by the following notations:

- **NOTE:** A NOTE provides key information to make procedure easier or clearer.
- CAUTION:
 - A CAUTION indicates special procedures that must be followed to avoid damage to the machine.
- WARNING: A WARNING indicates special procedures that must be followed to avoid injury to a machine operator or person inspecting or repairing the machine.

SERVICE DEPT. INTERNATIONAL DIVISION YAMAHA MOTOR CO., LTD.

YZ490K SUPPLEMENTARY ASSEMBLY MANUAL © 1982 by Yamaha Motor Corporation, U.S.A. 1st edition, SEPTEMBER 1982 All rights reserved. Any reprinting or unauthorized use without the written permission of Yamaha Motor Corporation, U.S.A. is expressly prohibited. Printed in U.S.A. LIT-11666-03-75

GLOSSARY

(Symbols most commonly used)

- C: The "C" marked parts are contained in the small carton box.
- S: The "S" marked parts are contained in the styrofoam tray (Upper or Lower).-
- V: The "V" marked parts are contained in the vinyl bag.
- *: The asterisked (*) parts are temporarily fitted on the machine.

SETUP PROCEDURES

NOTE: _____

Please read the following chapters in the Basic assembly manual before proceeding to the setup.

- **CHAPTER 1: INTRODUCTION**
- CHAPTER 2: SETUP AND PREDELIVERY CHECK
- CHAPTER 3: TOOLS AND TORQUE SPECIFICATIONS
- CHAPTER 4: CRATES
- CHAPTER 5: INSTALLATION PROCEDURES

Parts list

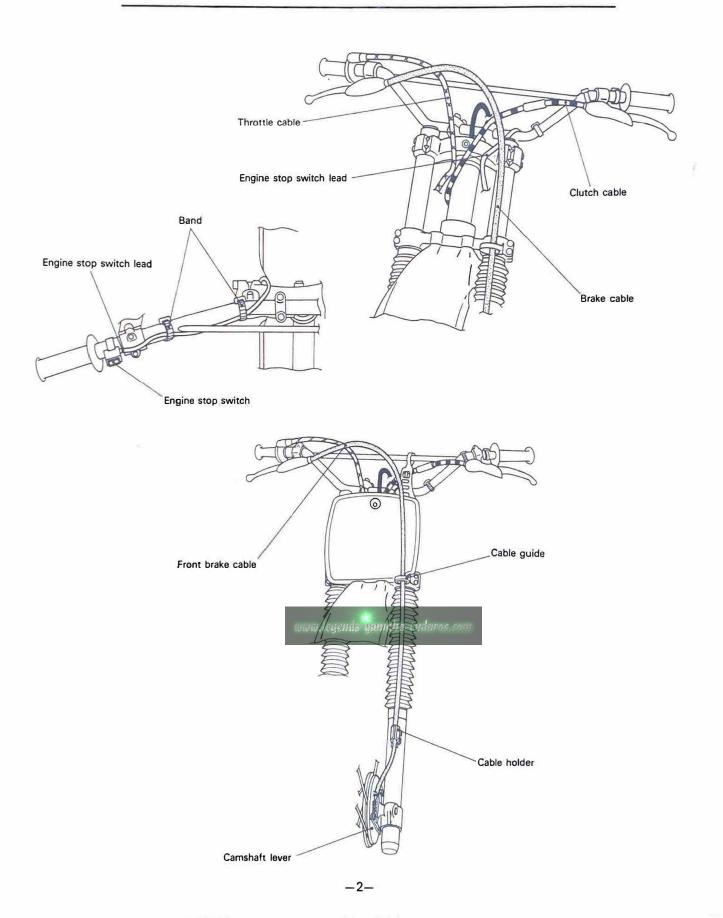
| 0 | . Part name | Q'ty | Locating mark | Remarks |
|----------------------------|--|---|------------------|---|
| | 1. Front fend | ler | | F.F-A |
| 1 | Front fender | 1 | S | |
| 2 | Hexagon bolt with spring washer | 4 | v | d = 6mm (0.24 in), l = 20 mm (0.79 in) |
| 3 | Plain washer | 4 | V | d = 6 mm (0.24 in) |
| 4 | Special washer | 4 | v | d = 6 mm (0.24 in), D = 18 mm (0.71 in) |
| | 2. Front whe | el | | [F.W-E] |
| 1 | Front wheel | 1 | S | |
| 2 | Front wheel axle | 1 | + | d = 15 mm (0.59 in) |
| 3 | Wheel axle collar | 1 | V | d = 15 mm (0.59 in) |
| 4 | Brake shoe plate assembly | 1 | S | |
| 5 | Hexagon bolt | 2 | * | d = 8 mm (0.32 in), L = 30 mm (1.18 in) |
| 6 | Spring washer | 2 | * | d = 8 mm (0.32 in) |
| - | | - | | |
| | 3. Cable hold | | * | [<u>C.H-E</u>] |
| 1 | 3. Cable hold | er | | |
| 2 | 3. Cable hold Cable holder Panhead screw with spring washer | er | | (C.H-E) d = 6 mm (0.24 in), |
| 2 | 3. Cable holder Cable holder Panhead screw with spring washer and plain washer | er | | C.H-E d = 6 mm (0.24 in), l = 15 mm (0.59 in) |
| 2 | 3. Cable holder Cable holder Panhead screw with spring washer and plain washer 4. Handlebar | er 2 2 | * | C.H-E d = 6 mm (0.24 in), l = 15 mm (0.59 in) |
| 2 | 3. Cable holder Cable holder Panhead screw with spring washer and plain washer 4. Handlebar Handlebar | er 2 2 1 | * * S | C.H-E d = 6 mm (0.24 in), l = 15 mm (0.59 in) H.B-B d = 8 mm (0.32 in), |
| 1 2 4 1 2 3 | Cable holder Panhead screw with spring washer and plain washer . Handlebar Handlebar Flange bolt Handlebar upper | 2 2 1 4 2 | * * S V | $\begin{bmatrix} C.H-E \\ d = 6 \text{ mm } (0.24 \text{ in}), \\ l = 15 \text{ mm } (0.59 \text{ in}) \\ \\ \hline H.B-B \\ d = 8 \text{ mm } (0.32 \text{ in}), \\ l = 35 \text{ mm } (1.38 \text{ in}) \\ \end{bmatrix}$ |
| 1 2 4 1 2 3 | 3. Cable hold Cable holder Panhead screw with spring washer and plain washer 3. Handlebar Handlebar Flange bolt Handlebar upper holder | 2 2 1 4 2 | * * S V | C.H-E d = 6 mm (0.24 in), l = 15 mm (0.59 in) H.B-B d = 8 mm (0.32 in), l = 35 mm (1.38 in) www.legends-yan |

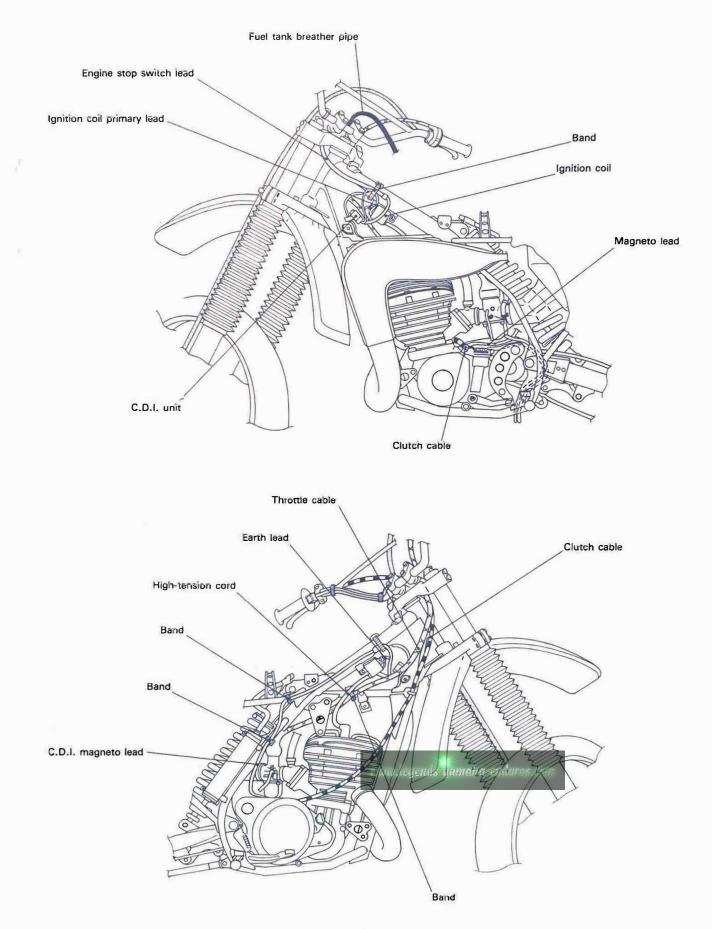
Parts list

| No. | Part name | Q'ty | Locating mark | Remarks |
|-----------------------------|---|----------------------------|-----------------------|--|
| | 6. Clutch and | l bra | ake ca | ble B.C-A |
| | 7. Fuel tank l | orea | ther p | ipe F.B-F |
| 1 | Fuel tank breather pipe | 1 | S | Rubber |
| 1 | 8. Engine sto | p sv | witch | E.S-C |
| 1 | Engine stop switch | 1 | * | |
| 2 | Panhead screw | 1 | V | d = 3 mm (0.12 in) |
| 3 | Spring washer | 1 | V | d = 3 mm (0.12 in) |
| 4 | Engine stop switch holder | 2 | V | |
| 5 | Handlebar band | 2 | S | Plastic |
| 1 | 9. Number plate | ate | S | N.P-A |
| | | | | |
| 2 | Panhead screw | 1 | V | d = 6 mm (0.24 in), l = 16 mm (0.64 in) |
| 2 3 | Panhead screw Plain washer | 1 | v v | |
| 3 | | | | $l = 16 \mathrm{mm} (0.64 \mathrm{in})$ |
| 3 | Plain washer | | | <i>l</i> = 16 mm (0.64 in) d = 6 mm (0.24 in) |
| - 3 1(| Plain washer D. Footrest | 1 | v | <i>l</i> = 16 mm (0.64 in) d = 6 mm (0.24 in) |
| - 3 1(| Plain washer D. Footrest Footrest | 1 | V | <i>l</i> = 16 mm (0.64 in) d = 6 mm (0.24 in) F.R-A |
| - 3 1(1 2 | Plain washer D. Footrest Footrest Clevis pin | 1 | V S V | <i>l</i> = 16 mm (0.64 in) d = 6 mm (0.24 in) F.R-A |
| 3 11 1 2 3 | Plain washer D. Footrest Footrest Clevis pin Return spring | 1 1 1 1 | v v s v v | <i>l</i> = 16 mm (0.64 in) d = 6 mm (0.24 in) F.R-A d = 10 mm (0.39 in) d = 10 mm (0.39 in), |
| 3 11 2 3 4 5 | Plain washer D. Footrest Footrest Clevis pin Return spring Plain washer | 1 1 1 1 1 1 | v s v v v | l = 16 mm (0.64 in) $d = 6 mm (0.24 in)$ $F.R-A$ $d = 10 mm (0.39 in)$ $d = 10 mm (0.39 in),$ $D = 16 mm (0.64 in)$ $d = 2 mm (0.08 in),$ |
| 3 11 2 3 4 5 | Plain washer D. Footrest Footrest Clevis pin Return spring Plain washer Cotter pin | 1 1 1 1 1 1 | v s v v v | l = 16 mm (0.64 in) $d = 6 mm (0.24 in)$ $F.R-A$ $d = 10 mm (0.39 in)$ $d = 10 mm (0.39 in),$ $D = 16 mm (0.64 in)$ $d = 2 mm (0.08 in),$ $l = 18 mm (0.72 in)$ |



Proper cable and lead routing is essential to insure safe vehicle operation.





-3-

ADJUSTMENTS AND PREDELIVERY SERVICE

NOTE: _

Please read the following chapter in the Basic assembly manual before proceeding to the adjustments and predelivery service. **CHAPTER 6: APPENDICES**

- 1. Front brake adjustment F.B-A **Becommended** oil: Yamaluhe 4-cycle oil or SAE 10W30 Free play: type SE motor oil or GL gear oil 5 - 8 mm (0.20 - 0.32 in)Oil capacity (Total amount): 0.8 L (0.70 Imp qt, 0.85 US qt) 2. Rear brake adjustment R.B-A 8. Transmission oil replacement Free play: 20~30 mm (0.8~1.2 in) Drain plug torque: 20 Nm (2.0 m · kg, 14.0 ft · lb) 3. Rear brake pedal position adjustment Oil capacity (Periodic oil change): R.P-A 0.75 L (0.66 Imp qt, 0.80 US qt) 4. Clutch adjustment C.A-B 9. Drive chain tension check Free play: Chain deflection: 2~3 mm (0.08~0.12 in) 20 - 30 mm (0.8 - 1.2 in)
 - 10. Troubleshooting T.S-A

APPENDICES

SERVICE DATA

| Idling engine speed: | As desired | | | |
|-------------------------------------|---|----------------------------------|--|--|
| Spark plug: Type | N-86 (CHAMPION) | | | |
| Gap www.legends-yumaha-enduros.com | 0.5~0.6 mm (0.019- | -0.024 in) | | |
| Fuel: | | | | |
| Recommended fuel | Premium fuel with an octane rating of at least 90. (Mixing ratio, 24 : 1) | | | |
| Fuel tank capacity | 10.5 L (2.3 Imp gal, 2.8 US gal) | | | |
| Engine oil: | | | | |
| Recommended oil | Yamalube Racing 2-cycle oil | | | |
| | (See Owner's service | manual) | | |
| Tire pressure (Cold tire pressure): | Front | Rear | | |
| | 98 kPa | 98 kPa | | |
| | (1.0 kg/cm ² , 14 psi) | (1.0 kg/cm ² , 14 psi | | |

5. Throttle cable adjustment

3~5 mm (0.12~0.20 in)

7. Transmission oil level check

Free play:

6. Fuel draining

T.C-A

F.D-A

T.L-A

T.R-A

D.C-A

| | Dist | Tightening torque | | |
|---------------------------------------|---------------|-------------------|--------|-------|
| Parts to be tightened | Bolt/nut size | Nm | m · kg | ft∙lb |
| Engine: | | | | |
| Spark plug | M14 × 1.25 | 25 | 2.5 | 18.0 |
| Engine oil drain bolt | M12×1.5 | 20 | 2.0 | 14.0 |
| Change pedal | M 6×1.0 | 10 | 1.0 | 7.2 |
| Chassis: | | | | |
| Front fender (F.F-A #1) | M 6×1.0 | 5 | 0.5 | 3.6 |
| Front wheel (F.W-E #1) | M14×1.5 | 58 | 5.8 | 42.0 |
| Front wheel axle holder (F.W-E #2) | M 8×1.25 | 20 | 2.0 | 14.0 |
| Handlebar (H.B-A #1) | M 8×1.25 | 23 | 2.3 | 17.0 |
| Handle crown and inner tube | M 8×1.25 | 23 | 2.3 | 17.0 |
| Handle crown and steering shaft | M22 × 1.0 | 125 | 12.5 | 90.0 |
| Steering shaft and ring nut | M25 × 1.0 | 10 | 1.0 | 7.2 |
| Engine mounting | | | | |
| Engine stay (Front, upper) and frame | M 8×1.25 | 30 | 3.0 | 22.0 |
| Engine stay (Front, upper) and engine | M 8×1.25 | 30 | 3.0 | 22.0 |
| Lower | M 8×1.25 | 30 | 3.0 | 22.0 |
| Engine stay (Rear, upper) and frame | M 8×1.25 | 30 | 3.0 | 22.0 |
| Engine stay (Rear, upper) and engine | M10×1.25 | 64 | 6.4 | 46.0 |
| Rear wheel axle and nut | M18×1.5 | 105 | 10.5 | 75.0 |
| Sprocket wheel and hub | M 8×1.25 | 30 | 3.0 | 22.0 |
| Rear shock absorber and frame | M10×1.25 | 59 | 5.9 | 43.0 |
| Pivot shaft and frame | M16 × 1.5 | 85 | 8.5 | 61.0 |
| Camshaft lever and camshaft | | | | |
| Front brake | M 6×1.0 | 10 | 1.0 | 7.2 |
| Rear brake | M 6×1.0 | 10 | 1.0 | 7.2 |
| "L" shape arm and rear arm | M12 × 1.25 | 59 | 5.9 | 43.0 |
| "L" shape arm and rear shock absorber | M10×1.25 | 48 | 4.8 | 35.0 |
| "L" shape arm and "I" shape arm | M10×1.25 | 48 | 4.8 | 35.0 |
| Frame and "I" shape arm | M10 × 1.25 | 59 | 5.9 | 43.0 |

TORQUE SPECIFICATION CHART

nww.legends-yamaha-enduros.com

OWNER'S TOOL KIT

| No. | Part name | Q'ty |
|-----|-------------------------|------|
| 1 | Owner's tool bag | 1 |
| 2 | Spark plug wrench | 1 |
| 3 | Hexagon wrench (8) | 1 |
| 4 | Spork nipple wrench (9) | 1 |
| 5 | Special spanner | 1 |
| 6 | Air gauge | 1 |

www.legends-yamaha-enduros.com



PRINTED IN U.S.A.