PREFACE

This manual covers the construction, function and servicing procedure of the Honda BF35A•45A outboard motors. Careful observance of these instructions will result in better, safer service work.
Illustrations in this manual are based primarily on the BF45A LRT.

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT INCURRING ANY OBLIGATION WHATEVER. NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

HONDA MOTOR CO., LTD.
SERVICE PUBLICATIONS OFFICE

CONTENTS

SPECIFICATIONS	1
SERVICE INFORMATION	2
MAINTENANCE	3
ENGINE COVER/THROTTLE/CHOKE	4
FUEL SYSTEM	5
FLYWHEEL/TIMING BELT	6
ENGINE REMOVAL/INSTALLATION	7
WATER JACKET COVER/THERMOSTAT/ THERMO SWITCH	8
CYLINDER HEAD/VALVE/OIL PUMP	9
CRANKCASE/CYLINDER BLOCK/ CRANKSHAFT/PISTON	10
PROPELLER/GEAR CASE/ EXTENSION CASE	11
OIL PAN/PRIMARY GEAR CASE/ SWIVEL CASE	12
GAS ASSIST/POWER TILT	13
STEERING ROD/REMOTE CONTROL BOX (REMOTE CONTROL TYPE ONLY)	14
THROTTLE BRACKET/SHIFT LEVER/ HANDLEBAR (TILLER HANDLE TYPE ONLY)	15
ELECTRICAL EQUIPMENT	16
OPERATION	17
BF35 - BF45 SUPPLEMENT	
BF40 - BF50 SUPPLEMENT	

Date of Issue Oct. 1990
© HONDA MOTOR CO., LTD.

SPECIFICATIONS

SPECIFICATIONS 1-2
DIMENSIONAL DRAWINGS 1-4
WIRING DIAGRAM 1-6

APERÇU — Engine Manual — fichier complet disponible après achat

SPECIFICATIONS

DIMENSIONS AND WEIGHTS

Unit: mm (in)

Model	BF35A					BF45A		
Description code	BSAG (Short type), BLAG (Long type)					BSAF (Short type), BLAF (Long type)		
Type	SH	LH	LR	LRT	SR	SR	LR	LRT
Overall length	*1: 725 (28.5) *2: 1,059 (41.7)	685 (27.0)						
Overall width	370 (14.6)							
Overall height	1,255 (49.4)	1,360 (53.5)			1,255 (49.4)	1,360 (53.5)		
Dry weight	89 kg (196.2 lb)	91 kg (200.7 lb)	90 kg (198.5 lb)	92 kg (202.9 lb)	88 kg (194.0 lb)	90 kg (198.5 lb)	92 kg (202.9 lb)	
Operating weight (incld. oil)	91.5 kg (201.8 lb)	93.5 kg (206.1 lb)	92.5 kg (204.0 lb)	94.5 kg (208.4 lb)	90.5 kg (200.0 lb)	92.5 kg (204.0 lb)	94.5 kg (208.4 lb)	

*1: With handlebar raised
*2: With handlebar extended

FRAME

Model	BF35A					BF45A		
Type	SH	LH	LR	LRT	SR	SR	LR	LRT
Transom height	416 mm (16.4 in)	521 mm (20.5 in)			416 mm (16.4 in)	521 mm (20.5 in)		
Transom angle	5 stage adjustment (11.5°, 15.5°, 19.5°, 23.5°, 27.5°)							
Tilting angle	73°							
Swivel angle	37.5° right and left							
Trim angle	—			0—20°	—			0—20°

Model	BF35A					BF45A		
Type	SH	LH	LR	LRT	SR	SR	LR	LRT
Shaft Length	S	L	L	L	S	S	L	L
Tiller Handle	H	H						
Remote Control			R	R	R	R	R	R
Gas Assisted Tilt	GAT	GAT	GAT		GAT	GAT	GAT	
Power Tilt/Trim				T				T
Tachometer				*				*
Trim meter				*				*

*: Standard Equipment
- According to Shaft Length
  S: Short Shaft
  L: Long Shaft
- According to Control System
  H: Tiller Handle Control
  R: Remote Control
- According to tilt system
  GAT: Gas-assisted Tilt (with gas damper assist function)
  T: Power trim & tilt (with hydraulic assist function)

APERÇU — Engine Manual — fichier complet disponible après achat

ENGINE

Model	BF35A	BF45A
Type	4-stroke, O.H.C, 3-cylinder	
Displacement	808 cm³ (49.4 cu in)	
Bore x stroke	70 x 70 mm (2.8 x 2.8 in)	
Rated power *1	35 HP (26.1 kw)/4,600—5,600 min⁻¹ (r.p.m.)	45 HP (33.6 kw)/5,000—6,000 min⁻¹ (r.p.m.)
Maximum torque	6.0 kg-m (43.4 ft-lb) 3,500 min⁻¹ (r.p.m.)	6.05 kg-m (43.8 ft-lb) 4,500 min⁻¹ (r.p.m.)
Compression ratio	9.2 : 1	
Fuel consumption ratio [g/PS·hr]	210	
Cooling system	Forced water circulation by impeller pump with thermostat	
Ignition system	CDI	
Ignition timing	5—32° B.T.D.C.	
Spark plug	DR7EA (NGK), X22ESR-U (NIPPONDENSO)	
Carburetor	Horizontal type, butterfly valve (3 carburetor)	
Lubrication system	Pressure lubrication by trochoid pump	
Lubrication capacity	2.4 ℓ (2.54 US qt, 2.11 Imp qt)	
Starter system	Electric starter	
Stopping system	Grounding of primary circuit	
Fuel	Regular automotive gasoline (86 pump octane; unleaded preferred)	
Fuel tank capacity	25 ℓ (6.6 US gal, 5.5 Imp gal)	
Fuel pump	Mechanical plunger type	
Exhaust system	Underwater type	
Recommended oil	SAE 10 W—30/40	

*1: Full throttle r.p.m. range.

LOWER UNIT

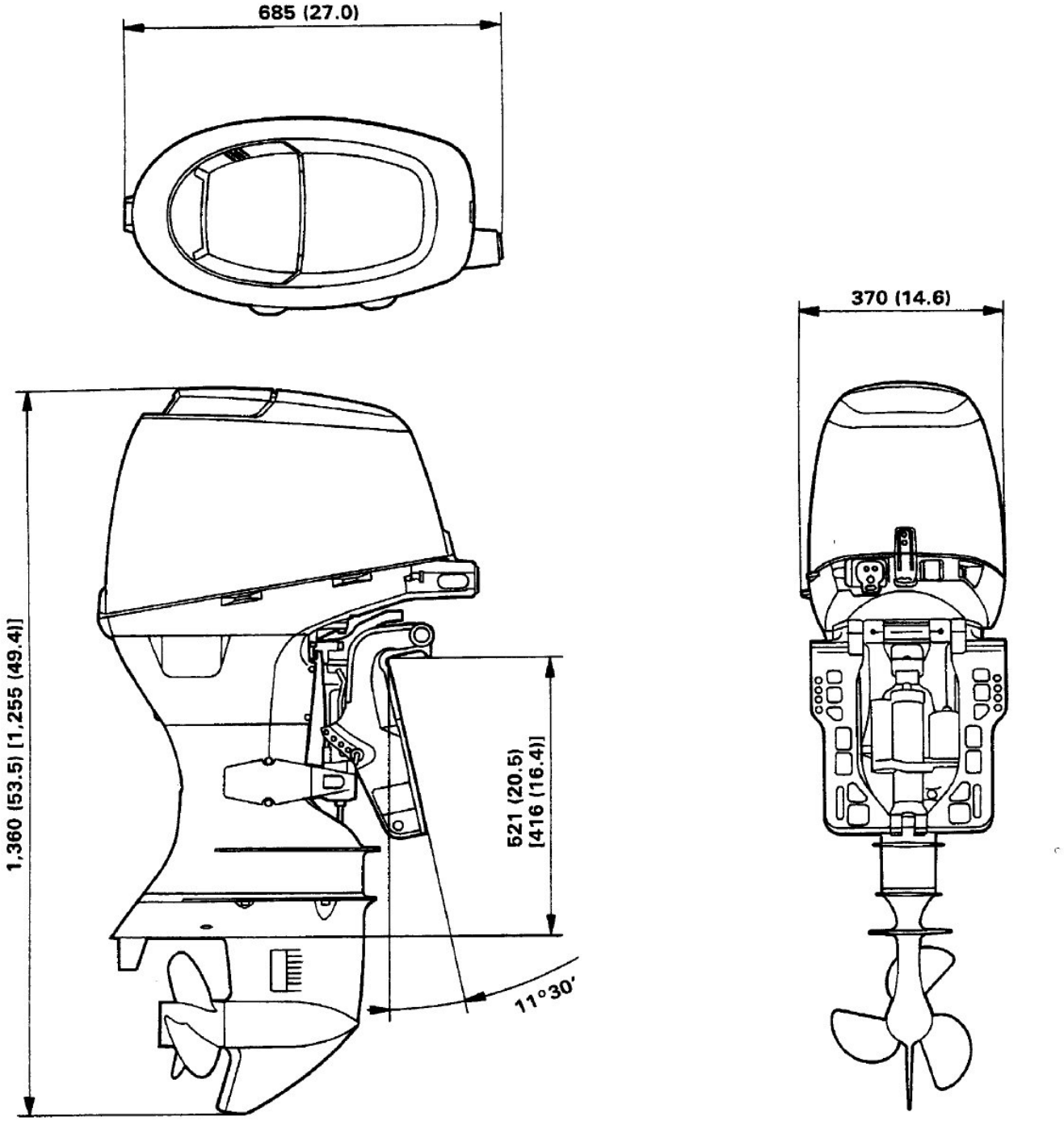
Clutch	Dog clutch (Forward—Neutral—Reverse)
Gear ratio	0.48 (26/33 x 14/23)
Reduction	Spiral bevel
Gear case oil capacity	0.52 ℓ (0.550 US qt, 0.458 Imp qt)
Propeller No. of blades-Dia. x Pitch	3-286 x 330 mm (11-1/4 x 13.0 in)
Propeller rotating direction	Clockwise (viewed from rear)
Propeller driving system	Spline

APERÇU — Engine Manual — fichier complet disponible après achat

DIMENSIONAL DRAWINGS

Unit: mm (in)

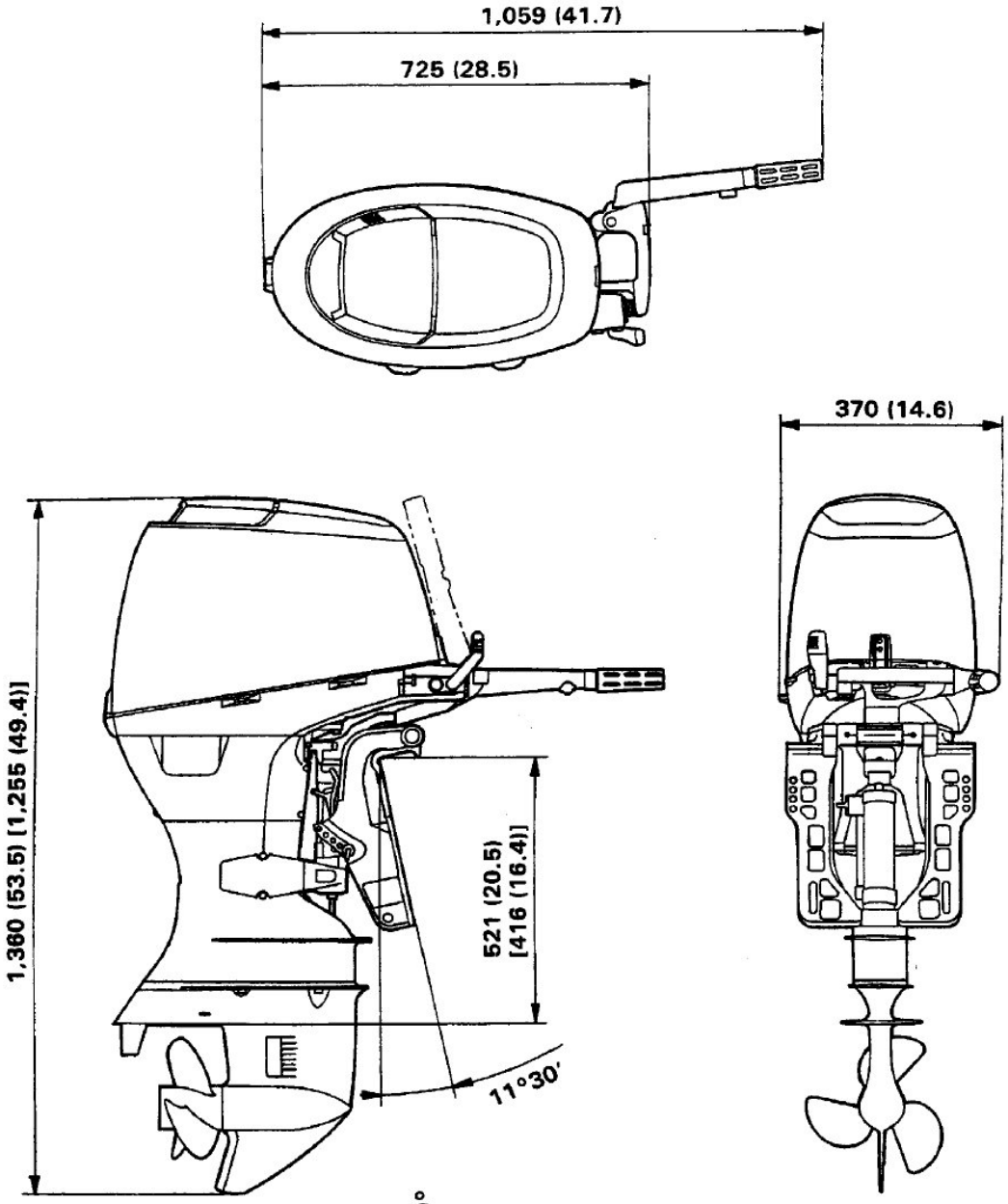
Remote control type
[ ]: Short shaft type



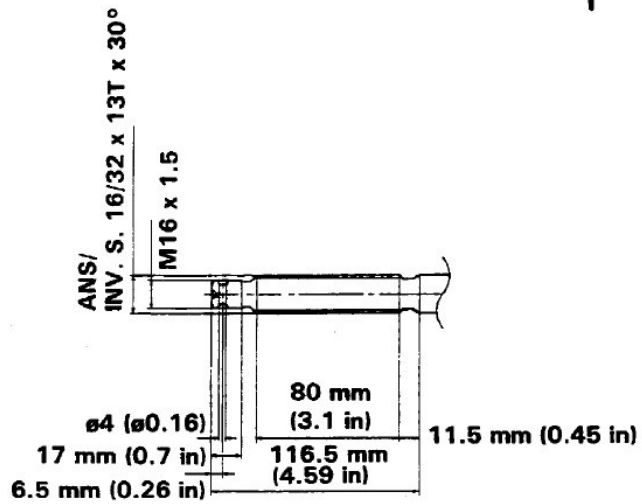
APERÇU — Engine Manual — fichier complet disponible après achat

Tiller handle type
[ ]: Short shaft type

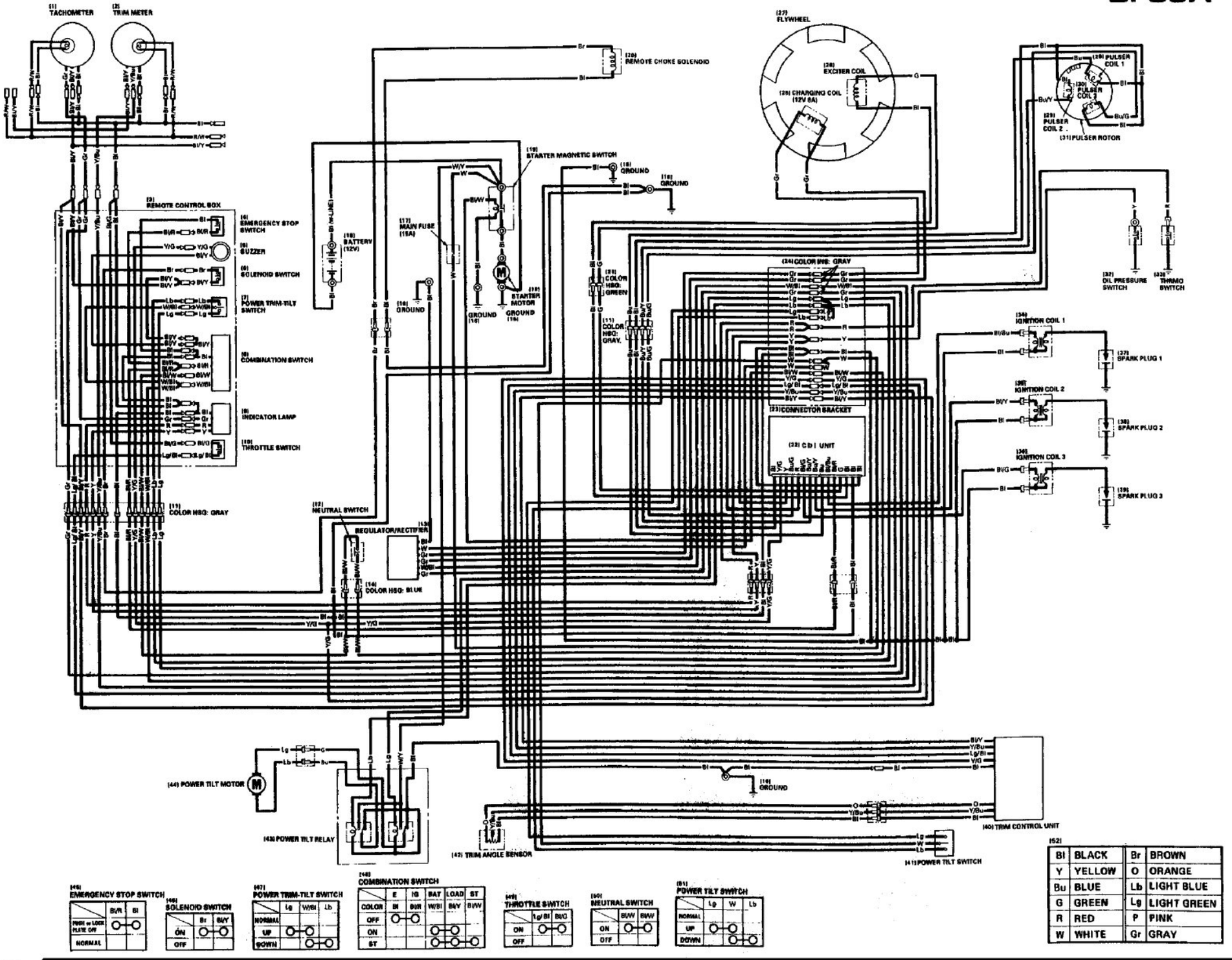
Unit: mm (in)



PROPELLER SHAFT

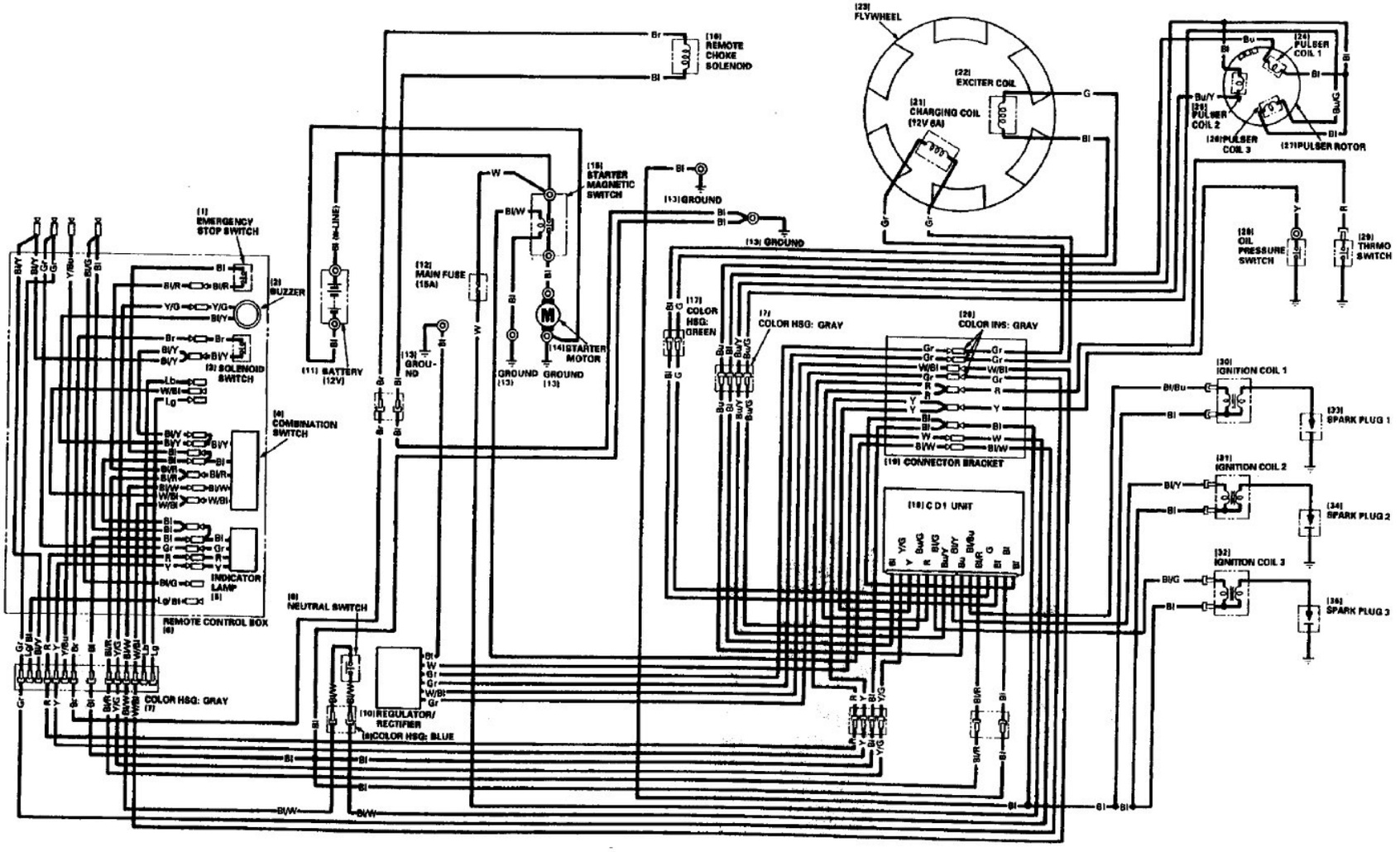


APERÇU — Engine Manual — fichier complet disponible après achat



APERÇU — Engine Manual — fichier complet disponible après achat

Remote control type



[36] EMERGENCY STOP SWITCH

	B/R	Bl
PUSH or LOCK PLATE OFF		
NORMAL		

[37] SOLENOID SWITCH

	Br	B/Y
ON		
OFF		

[38] COMBINATION SWITCH

	E	IG	BAT	LOAD	ST
COLOR	Bl	B/R	W/Bl	B/Y	B/W
OFF					
ON					
ST					

[39] NEUTRAL SWITCH

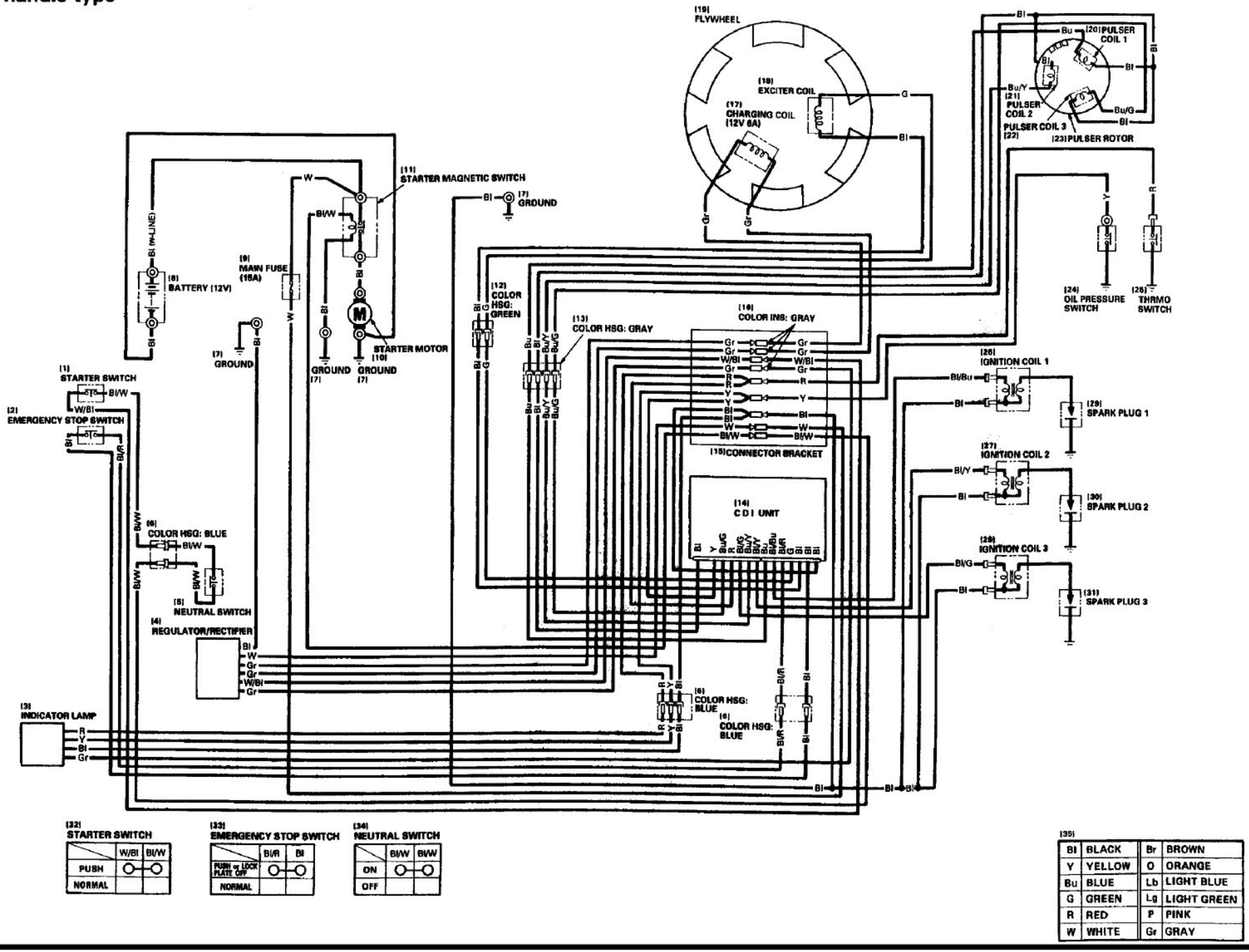
	B/W	B/W
ON		
OFF		

[40]

Bl	BLACK	Br	BROWN
Y	YELLOW	O	ORANGE
Bu	BLUE	Lb	LIGHT BLUE
G	GREEN	Lg	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

APERÇU — Engine Manual — fichier complet disponible après achat

Tiller handle type



[32] STARTER SWITCH

	W/Bl	Bl/W
PUSH		○—○
NORMAL		

[33] EMERGENCY STOP SWITCH

	Bl/R	Bl
PUSH or LOCK PLATE OFF	○—○	
NORMAL		

[34] NEUTRAL SWITCH

	Bl/W	Bl/W
ON	○—○	
OFF		

[35]

Bl	BLACK	Br	BROWN
Y	YELLOW	O	ORANGE
Bu	BLUE	Lb	LIGHT BLUE
G	GREEN	Lg	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

APERÇU — Engine Manual — fichier complet disponible après achat

2

SERVICE INFORMATION

GENERAL SAFETY 2-2
SERVICE RULES 2-2
SERIAL NUMBER LOCATION 2-2
MAINTENANCE STANDARDS 2-3
TORQUE VALUES 2-9
SPECIAL TOOLS 2-11
TROUBLESHOOTING 2-13
CABLE/HARNESS ROUTING 2-22
TUBE ROUTING 2-32
LUBRICATION 2-33
MAINTENANCE SCHEDULE 2-36

APERÇU — Engine Manual — fichier complet disponible après achat