

DIRECT DRIVE CONCRETE TROWELS

F30, F36, & F46

PARTS MANUAL

MASTER EQUIPMENT



MASTER

MASTER EQUIPMENT

850 State Hwy 55 • Brooten MN 56316
www.master.equipment • 612-414-8081

GENERAL

For your convenience, distributors have been established throughout the country. These distributors carry a supply of parts and all requests for parts should be placed with them. If some particular part is not available the distributor can obtain it promptly from the factory.

When ordering parts, it is absolutely necessary that the following information be furnished:

- A. The model number, and serial numbers found on the unit nameplate (not engine nameplate).
- B. Quantity.
- C. Part name and number. (Use part numbers from the parts listings. Do Not refer to the key numbers.)

The Illustrated Parts List contains a complete listing of replaceable parts for the models covered in this manual.

ILLUSTRATED PARTS LIST

The Illustrated Parts List contains a breakdown of the equipment into its assemblies, subassemblies and detail parts. Each assembly is followed by its component parts, indented to show their relationship to the assembly.

SERVICE AND REPLACEMENT PARTS

For normal servicing of your Direct Drive Concrete Trowels contact your dealer. Replacement parts are generally available from your dealer.

Where local service is not available, replacement parts may be obtained directly from the factory. Please specify the part number, description, and model number as shown in the Illustrated Parts Section. Include the serial number of your compactor. Do not use key numbers.

Where factory service is required, please send inquiries on service and parts to:

MASTER EQUIPMENT

**850 STATE HWY 55
BROOTEN, MN. 56316**

phone: 612-414-8081

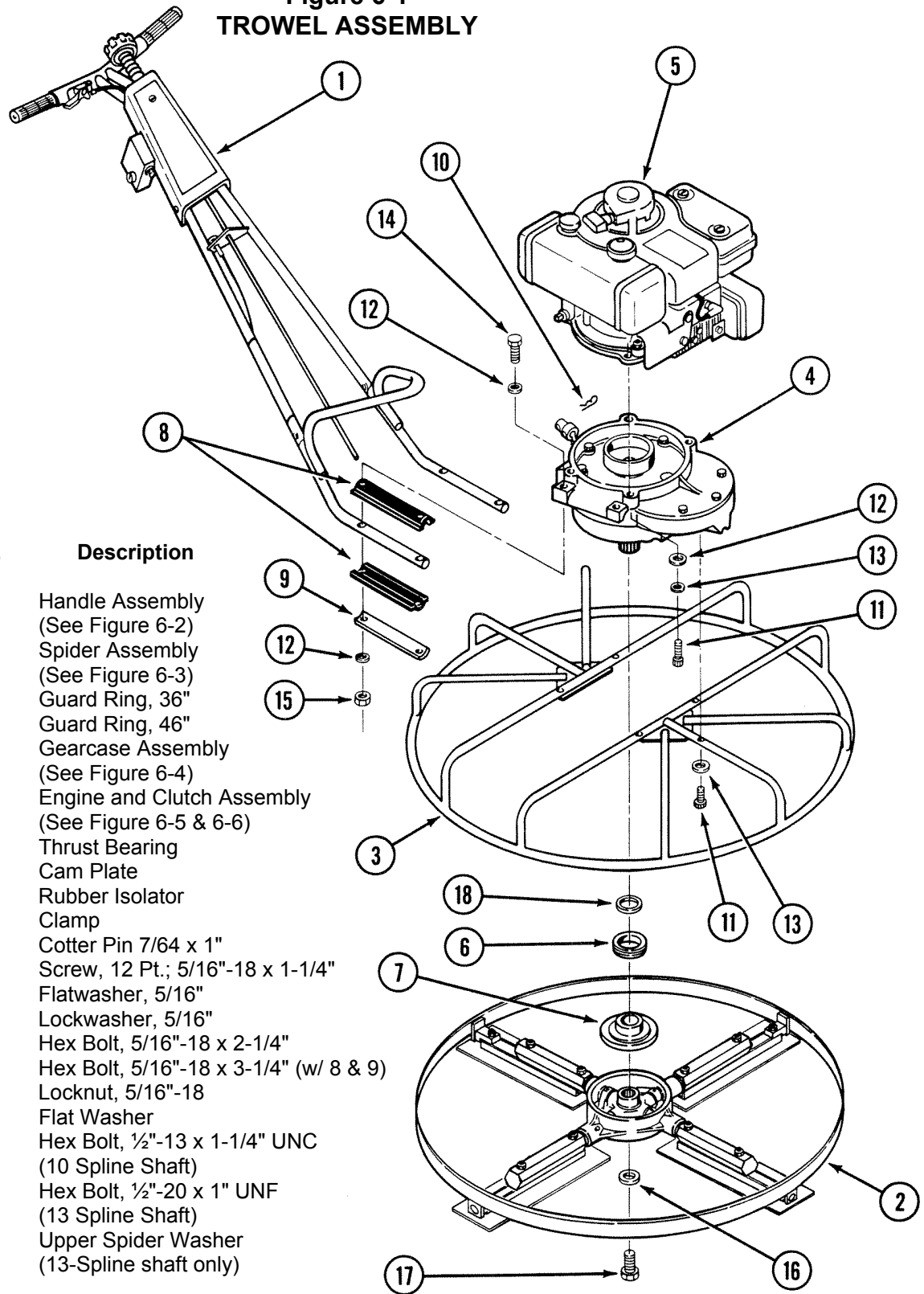
e-mail: sales@master.equipment

website: www.master.equipment

DO NOT USE KEY NUMBERS WHEN ORDERING SERVICE PARTS. ALWAYS ORDER COMPONENTS BY PART NUMBER AND DESCRIPTION. INCLUDE MODEL AND SERIAL NUMBER.

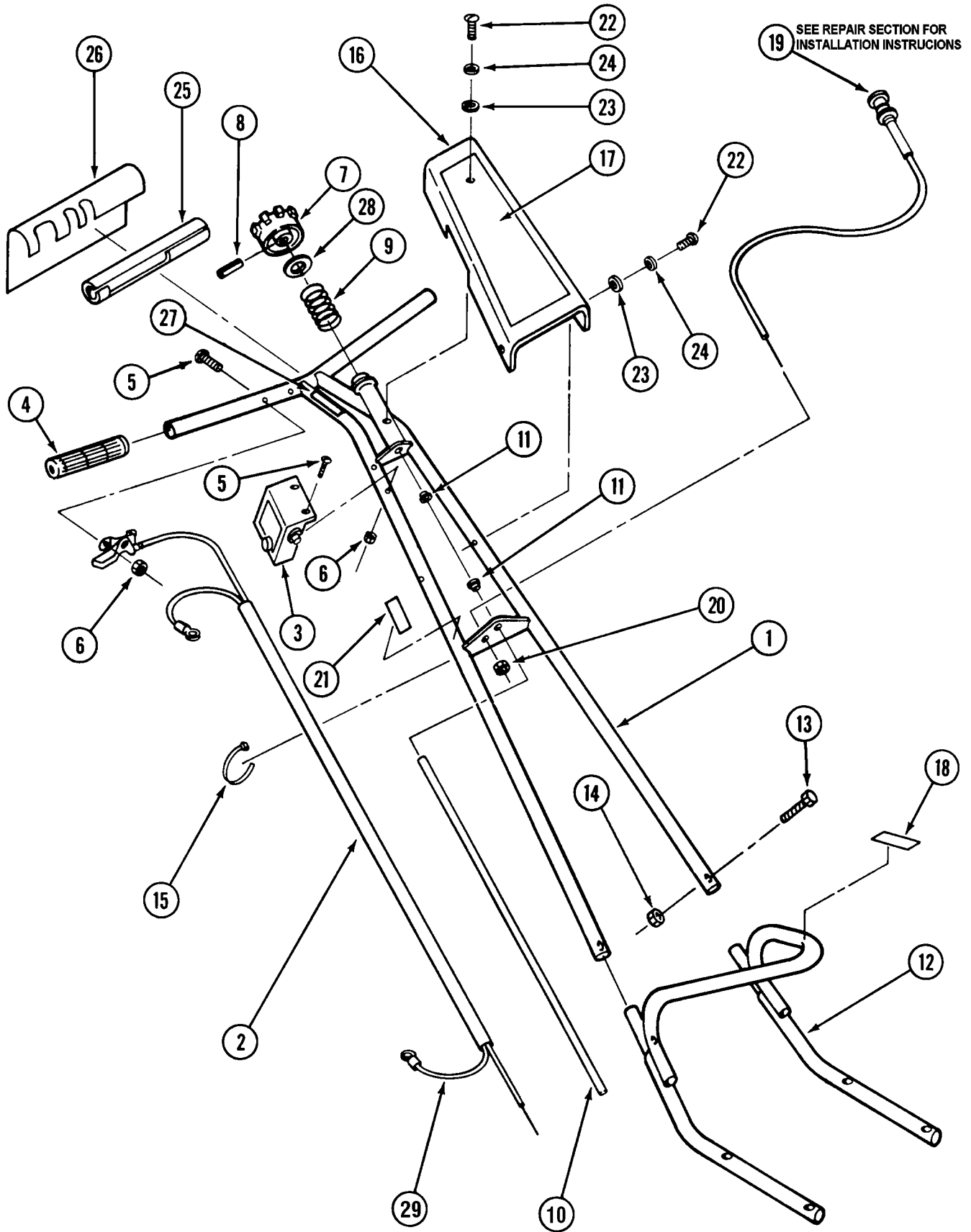
Parts

**Figure 6-1
TROWEL ASSEMBLY**



Key No.	Part No.	Qty.	Description
1	M46257	1	Handle Assembly (See Figure 6-2)
2	.....	1	Spider Assembly (See Figure 6-3)
3	M8820-1	1	Guard Ring, 36"
	M8820-2	1	Guard Ring, 46"
4	.....	1	Gearcase Assembly (See Figure 6-4)
5	.....	1	Engine and Clutch Assembly (See Figure 6-5 & 6-6)
6	M8142	1	Thrust Bearing
7	M32627	1	Cam Plate
8	M31979	4	Rubber Isolator
9	M32098	2	Clamp
10	C35-8C	1	Cotter Pin 7/64 x 1"
11	M27733-12	9	Screw, 12 Pt.; 5/16"-18 x 1-1/4"
12	WP-5C	12	Flatwasher, 5/16"
13	WLM-5C	9	Lockwasher, 5/16"
14	H5C5-18C	4	Hex Bolt, 5/16"-18 x 2-1/4"
	H5C5-26C	4	Hex Bolt, 5/16"-18 x 3-1/4" (w/ 8 & 9)
15	NTC-5C	4	Locknut, 5/16"-18
16	103614	2	Flat Washer
17	H5C8-10C	1	Hex Bolt, 1/2"-13 x 1-1/4" UNC (10 Spline Shaft)
	H5F8-8C	1	Hex Bolt, 1/2"-20 x 1" UNF (13 Spline Shaft)
18	M46839	1	Upper Spider Washer (13-Spline shaft only)

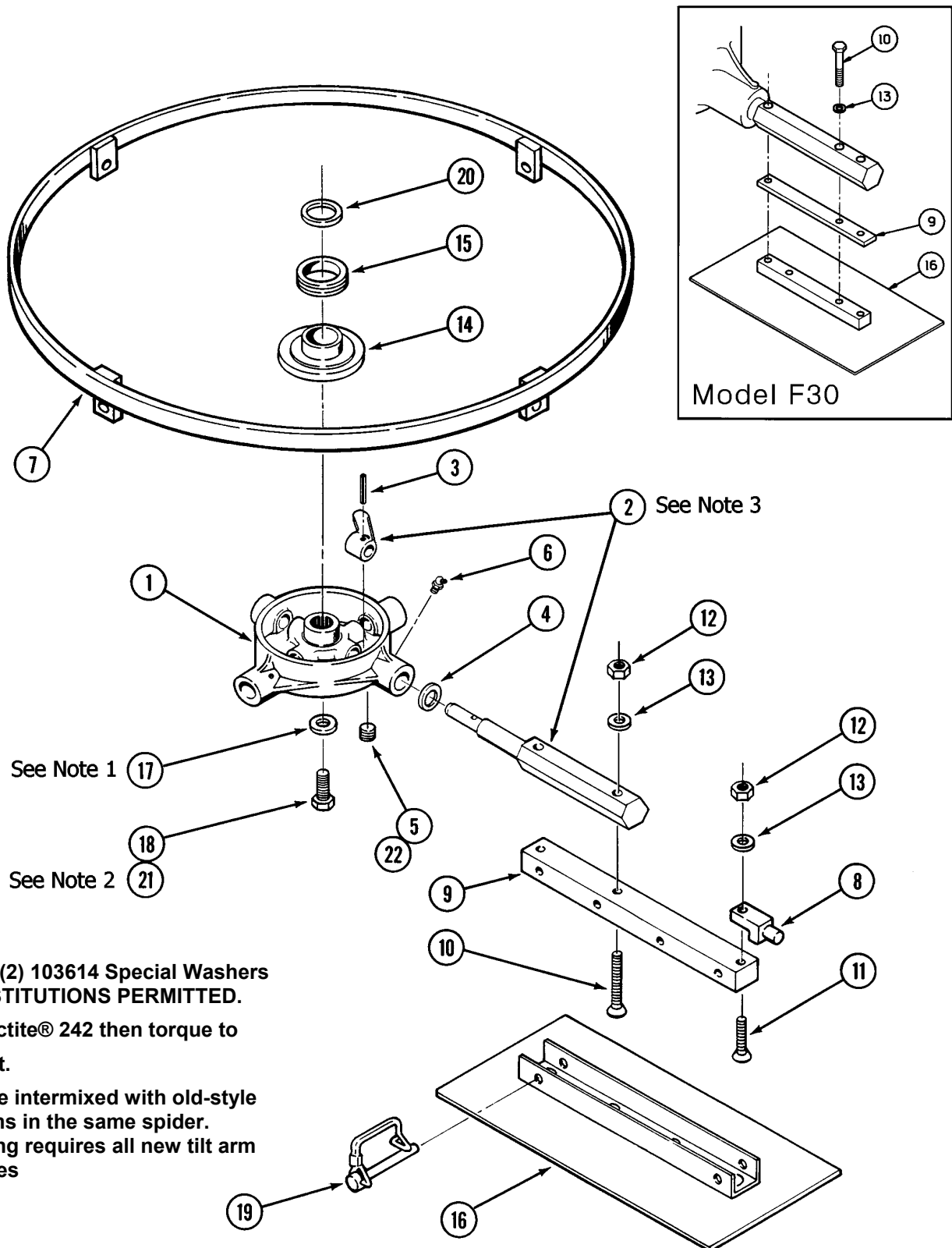
Figure 6-2
HANDLE ASSEMBLY
(M46257 Ref.)



**Figure 6-2
HANDLE ASSEMBLY
(M46257 Ref.)**

Key No.	Part No.	Qty.	Description
1	M48786	1	Handle Sub-Assembly (Includes Items 13 & 14)
2	M46367-01	1	Control Harness Assembly
	56741W	1	Throttle Control Lever only
	1000416-39	1	Throttle Wire, 66" only
	1000416-41	1	Throttle Wire Casing, 61" only
3	59866	1	Deadman (Safety) Switch Assembly
	59833	1	Knob w/ set screws
4	M32706	2	Handle Grip
5	RC3-12C	4	Rd. Hd. Screw, #10-24 x 1-1/2"
6	NEC3C	4	Hex Nut, #10-24
7	M8805	1	Control Knob
8	ROP8-12	1	Roll Pin, 1/8" Dia. X 3/4"
9	M10260	1	Spring
10	M29135	1	Control Shaft
11	M6975	1	Bearing
12			
13	H5C5-20C	2	Hex Hd. Screw, 5/16"-18 x 2-1/2"
14	NTC-5C	2	Torque Nut, 5/16"-18
15	M40909	3	Wire Tie
16	M46121	1	Control Sheath
17	.....	1	Decal, "Model No."
18	M28469	1	Decal, "Lift Here"
19	M26944-05	1	Choke Cable, 46-1/2"
	M26944-06	1	Choke Cable, 80" (Robin & Kawasaki)
20	NTF-6	1	Locknut, 3/8"-24
21	M31474	1	Decal, "Choke"
22	RF3-3C	3	Rd. Hd. Screw, #10-32 x 3/8"
23	WP-3C	3	Flatwasher, #10
24	WLM-3C	3	Lockwasher, Split; #10
25	M48133	1	Handle Bar Pad
26	M48136	1	Cover, Handle Bar Pad
27	76946	1	Decal, "Throttle"
28	WP-20Z	1	Flatwasher, SAE; 1-1/4"
29	59989	1	Wire 66" Deadman

**Figure 6-3
SPIDER ASSEMBLY - 4 BLADE**



Notes:

1. Use only (2) 103614 Special Washers
NO SUBSTITUTIONS PERMITTED.
2. Apply Loctite® 242 then torque to
75-85 lb-ft.
3. Cannot be intermixed with old-style
blade arms in the same spider.
Retrofitting requires all new tilt arm
assemblies

Figure 6-3
SPIDER ASSEMBLY - 4 BLADE

Key No.	Part No.	Qty.	Description
1	M10340A	1	Spider, 4 Blade 10-Spline Hub (Includes Item 5)
	M48070A	1	Spider, 4 Blade 13-Spline Hub (Includes Item 5)
2	M45688-2	1	Tilt Arm Assembly (Includes Item 3)
3	M32364-2	4	Drive-Lock Pin (See Note 3)
4	M8200-2	4	Vibration Washer
5	M46393-01	4	Pipe Plug
6	56981	4	Grease Fitting
7	M32739-02	1	Stabilizer Ring, 4/ 36" Diameter
	M32739-04	1	Stabilizer Ring, 4/ 46" Diameter
8	M29262-1	4	Pivot Block
9	M46717	4	Spacer for F30
	M10576	4	Blade Bar, F36
	M10577	4	Blade Bar, F46
10	FSC5-18Z	8	Flat Hd. Screw, 5/16"-18 x 2-1/4" (F36/F46)
	H5C5-16C	8	Hex Hd. Screw, 5/16"-18 x 2" (F30)
11	FSC5-12C	4	Flat Hd. Screw, 5/16"-18 x 1-1/2"
12	NTC-5C	12	Nut, 5/16"-18
13	WLM-5C	12	Lockwasher, 5/16" (F36/F46) 8 req'd (F30)
14	M32627	1	Cam Plate
15	M8142	1	Thrust Bearing
16	.....	4	Blade (See Figure 6-8)
17	103614	2	Flat Washer
18	H5F8-10C	1	Bolt, Hex Hd.; 1/2"-13 x 1-1/4" UNC (10-Spline Hub)
	H5F8-8C	1	Bolt, Hex Hd.; 1/2"-20 x 1" UNF (13-Spline Hub)
19	M27514	8	Lock Pin
20	M46839	1	Upper Spider Washer (13-spline only)
21	M15219-2	A/R	Loctite® #242
22	M48148	A/R	Anti-Seize Compound

4-Blade Spider Assemblies
(Blades and Lock Pins not included)

M10950-6	10-Spline Spider Assy (items 1-6, 14, 15)
M29236-02	4/ 36 10-Spline Spider Assy w/ ring (items 1 - 15)
M29236-04	4/ 46 10-Spline Spider Assy w/ ring (items 1 - 15)
M48119-2	13-Spline Spider Assy (items 1-6, 14, 15)
M48120-2	4/ 36 13-Spline Spider Assy w/ ring (items 1 - 15)
M48120-6	4/ 46 13-Spline Spider Assy w/ ring (items 1 - 15)

Figure 6-4
GEARCASE ASSEMBLY
(13 Tooth Spline Shaft, 12 Tooth Pinion - M48323 Ref.)

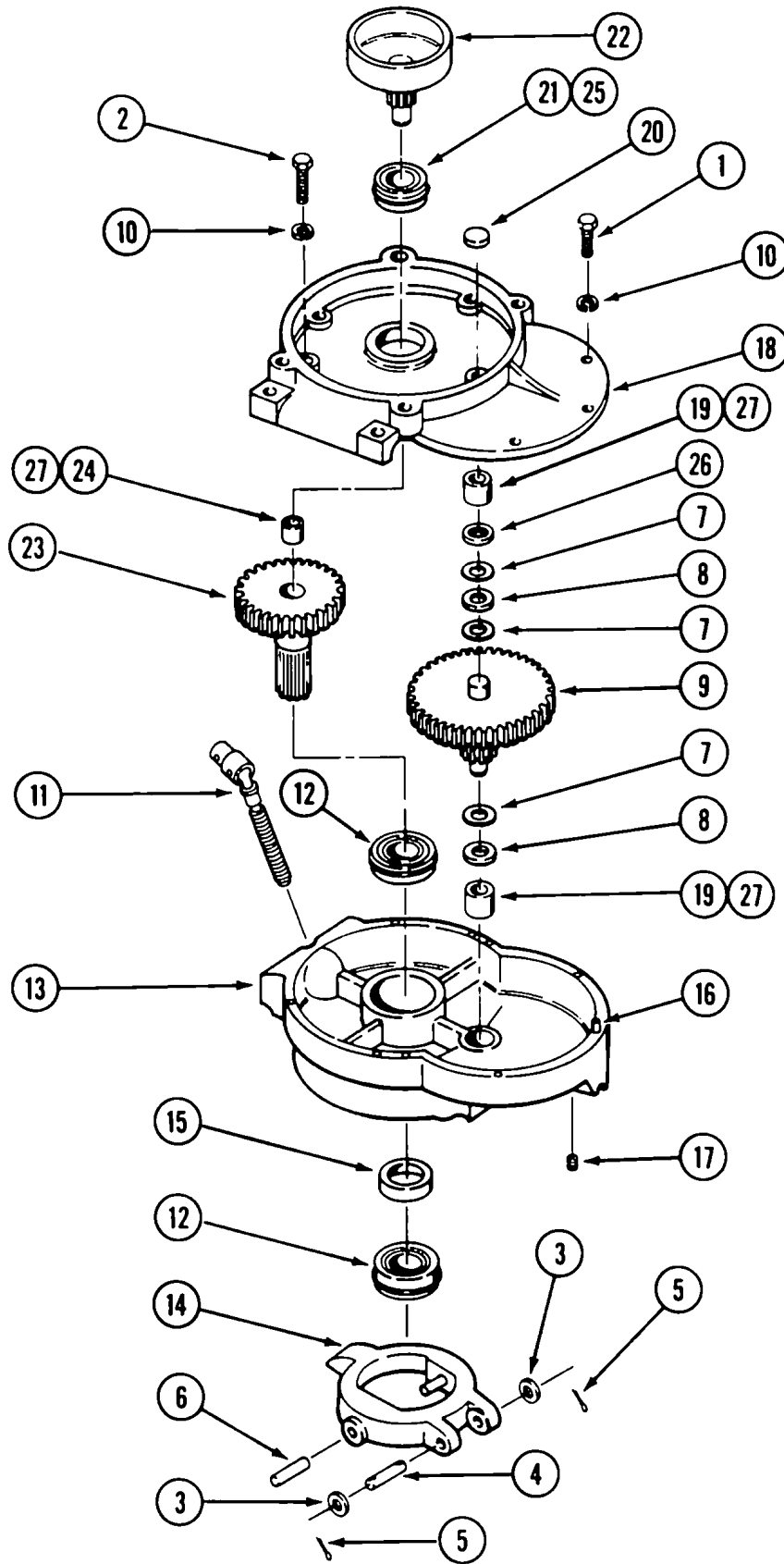


Figure 6-4
GEARCASE ASSEMBLY
(13 Tooth Spline Shaft, 12 Tooth Pinion - M48323 Ref.)

Key No.	Part No.	Qty.	Description
1	H5C5-7C	2	Screw, Hex Hd.; 5/16-18 x 7/8"
2	H5C5-8C	6	Screw, Hex Hd.; 5/16-18 x 1"
3	M24094	A/R	Shim, .020
4	M27736	1	Straight Pin
5	C3-5C	2	Cotter Pin
6	ROP16-18	2	Roll Pin, 1/4" x 1-1/8"
7	M2710	A/R	Shim
8	M6119	2	Thrust Washer
9	M32195	1	Primary and Secondary Gear, 96-tooth
	---	1	Primary and Secondary Gear, 128-tooth (discontinued)
10	WLM-5C	8	Lockwasher, 5/16"
11	M29931	1	Tilt Screw Assy
12	M6855-07	2	Ball Bearing
13	M6822-1	1	Gearcase
14	M6862-1	1	Tilt Yoke Assy
15	M46830	1	Bearing Spacer
16	D8-6	1	Dowel Pin
17	M17279	5	Insert, Heli-coil; 5/16-18
18	M6838	1	Gearcase Cover
19	M6857-108	2	Needle Bearing
20	WEP-14	1	Welch Plug
21	M25696	1	Bearing
22	M48351	1	Drum and 12-tooth Pinion w/ Bearing (See Figures 6-5, 6-6)
	---		Drum and 16-tooth Pinion w/ Bearing (discontinued)
23	M48069	1	13-Spline Output Shaft
	---		10-Spline Output Shaft (discontinued)
24	M6857-88	1	Needle Bearing
25	M25694	1	O-Ring
26	M48980	1	Oil Seal
27	M48571Q	A/R	Grease, Aeroshell 22

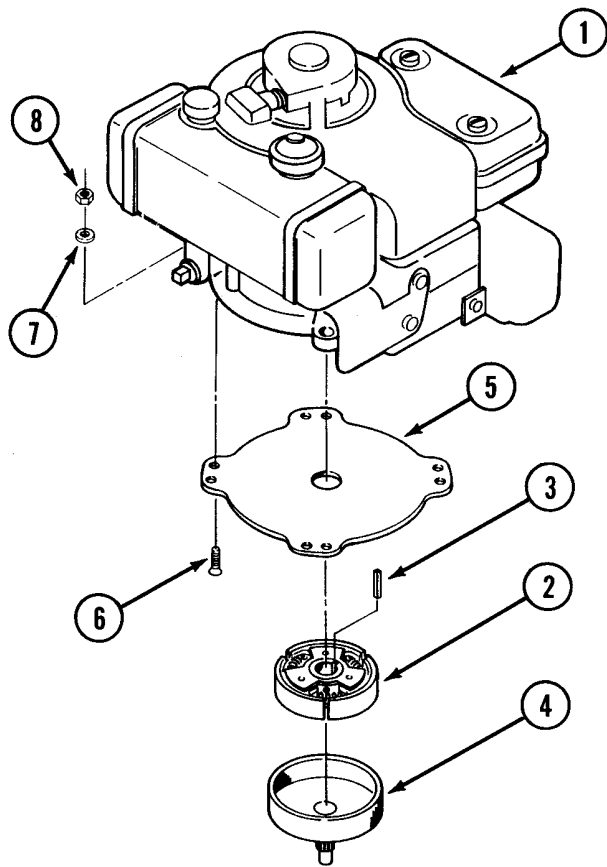


Figure 6-5
ENGINE AND CLUTCH ASSEMBLY
Except 5-1/2 hp Honda

Key No.	Part No.	Qty.	Description
1	---	1	Engine
2	M46056	1	Clutch Assy, 3-1/2", Steel Shoes
	M48277	1	Clutch Assy, 4-1/4", Steel Shoes
	M48280	1	Clutch Assy, 4-1/2", Fiber Shoes
	M46713	3	Black Spring (Honda 11 hp Only)
	M46903	3	White Spring
	M48129	3	Clutch Shoe
3	K4-8	1	Key, 1/4"
4	M48351	1	Drum and Pinion w/ Brg., 4-1/2", 12-tooth
	---	1	Drum and Pinion, 3-1/2", 16-tooth (Disct'd)
	---	1	Drum and Pinion, 4-1/4", 16-tooth (Disct'd)
	---	1	Drum and Pinion, 4-1/2", 16-tooth (Disct'd)
5	M46291	1	Engine Mounting Plate
6	FSC5-14	4	Flat Hd. Screw, 5/16-18 x 1-3/4"
7	WP-5C	4	Flat Washer, 5/16"
8	NTC-5C	4	Locknut, 5/16-18

Note: Refer to Maintenance Section for clutch installation and alignment.

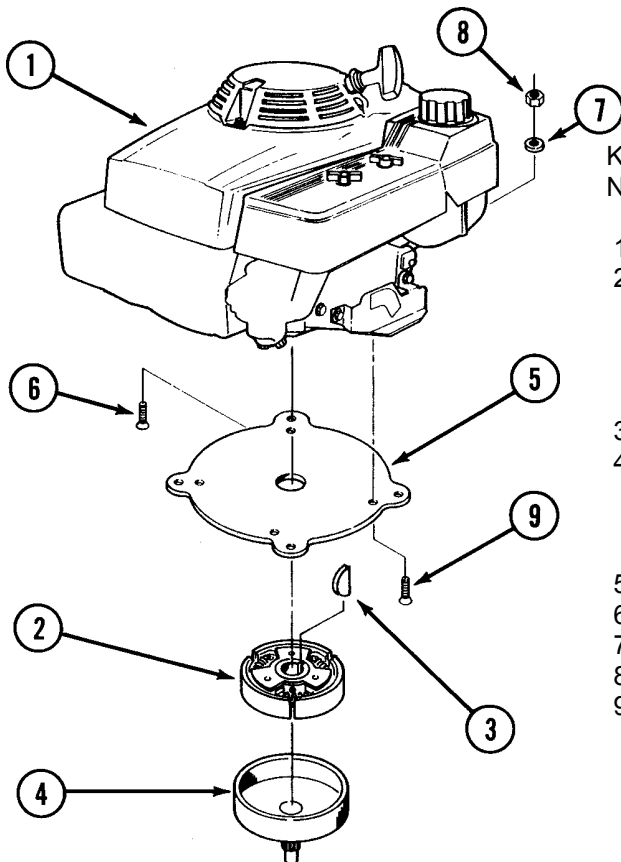


Figure 6-6
ENGINE AND CLUTCH ASSEMBLY
Honda 5-1/2 hp Engine

Key No.	Part No.	Qty.	Description
1	M45194	1	Engine, Honda 5-1/2 hp
2	M46233	1	Clutch Assy, 3-1/2", Steel Shoes
	M46698	1	Clutch Assy, 4-1/4", Steel Shoes
	M48131	1	Clutch Assy, 4-1/2", Fiber Shoes
	M46903	3	White Spring
	M48129	3	Clutch Shoe
3	KW-6H	1	Woodruff Key, 3/16"
4	M48351	1	Drum and Pinion w/ Brg., 4-1/2", 12-tooth
	---	1	Drum and Pinion, 3-1/2", 16-tooth (Disct'd)
	---	1	Drum and Pinion, 4-1/4", 16-tooth (Disct'd)
	---	1	Drum and Pinion, 4-1/2", 16-tooth (Disct'd)
5	M45136	1	Engine Mounting Plate
6	FSC5-14	4	Flat Hd. Screw, 5/16-18 x 1-3/4"
7	WP-5C	4	Flat Washer, 5/16"
8	NTC-5C	4	Locknut, 5/16-18
9	FF5-6C	3	Flat Hd. Screw, 5/16-18 x 3/4"

Note: Refer to Maintenance Section for clutch installation and alignment.

Figure 6-7
CHOKE CABLE INSTALLATION
 Honda 5-1/2 HP

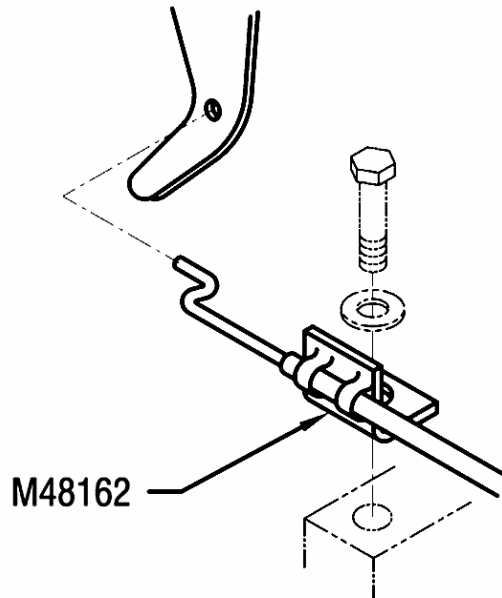
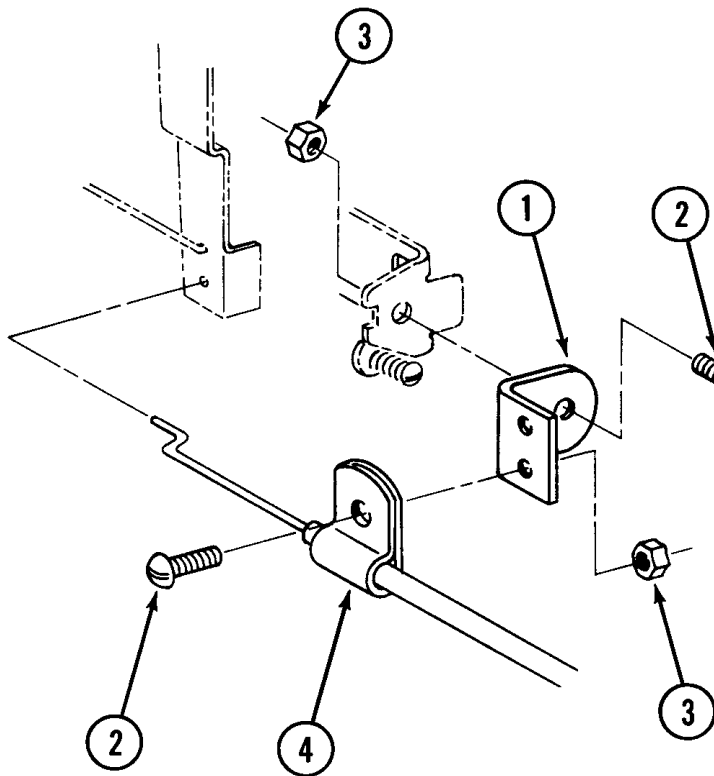


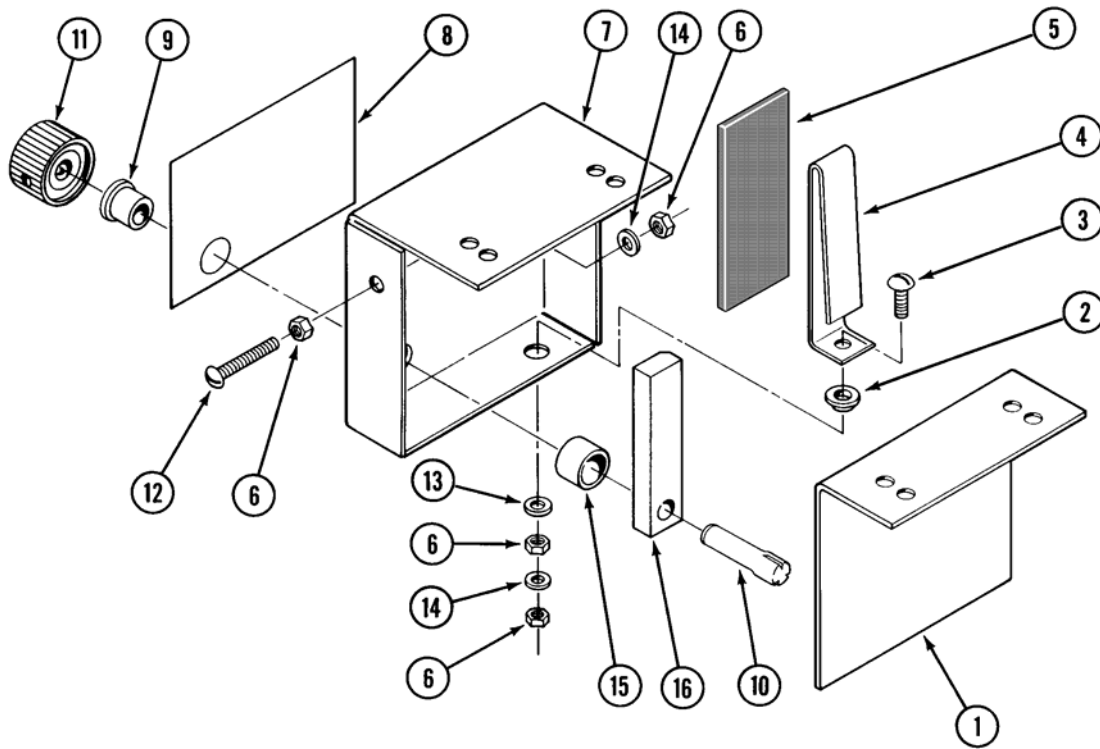
Figure 6-8
CHOKE CABLE INSTALLATION
 Honda 11 HP



Key No.	Part No.	Qty.	Description
1	M48162	1	Choke Bracket
2	RC2-4C	2	Rd. Hd. Screw, #8-32 x 1/2"
3	NEC-2C	2	Locknut, #8-32
4	M17919	1	Cable Clamp

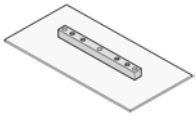
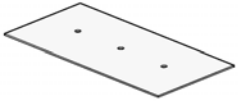
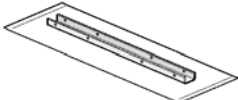
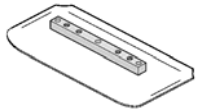
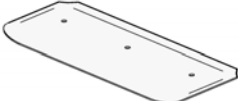

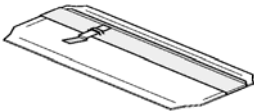
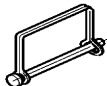
Note: See Repair Section for Installation Instructions.

**Figure 6-9
DEADMAN SWITCH ASSY
(59866 REF.)**



Key No.	Part No.	Qty.	Description
1	59869	1	Cover, Housing
2	59863	1	Washer, Shoulder
3	RC3-4C	1	Screw, Rd. Hd. ; #10-24 x 1/2"
4	59864	1	Strip, Contact
5	M48927	1	Strip, Insulator
6	NPC-3C	4	Nut, Hex; #10-24
7	59831	1	Housing
8	59870	1	Decal, Switch
9	59858	1	Bearing, Shoulder
10	59834	1	Groove Pin
11	59833	1	Knob w/ Set Screw
12	RC3-12C	1	Screw #10-24 x 1-1/2"
13	59862	1	Flat Washer, Insulating
14	WL1-3C	2	Washer, Internal Lock; #10
15	75077	1	Spacer, Switch Arm
16	59832	1	Arm, Contact

**Figure 6-10
TROWEL BLADES & ACCESSORIES**

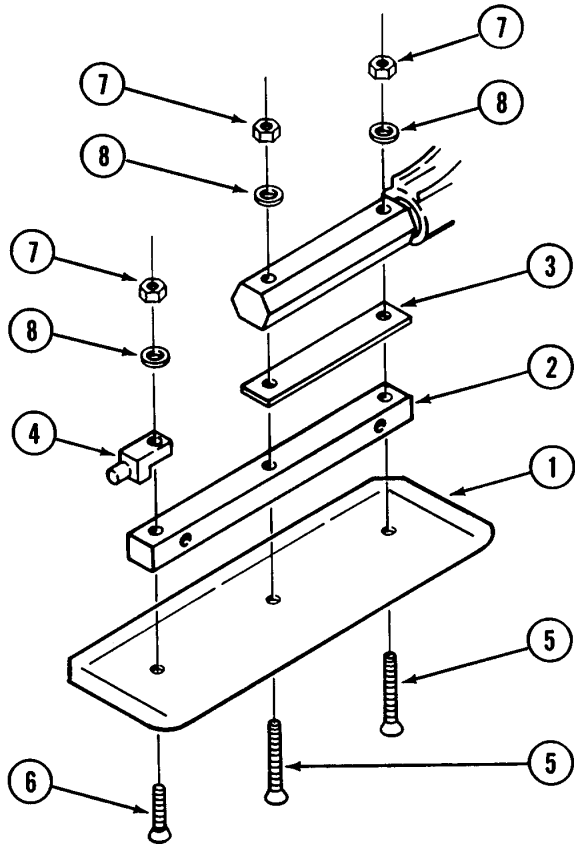
Blade Number	Blade Size	Trowel Diameter	Blade Type	
59409	6" x 11"	30"	FINISHING BLADE Bar Mounted (Refer to Figure 6-20)	
FT36 FT46	6" x 13-1/4" 6" x 18"	36" 46"	FINISHING BLADE Screw Mounted (Refer to Figure 6-5)	
RT36 RT46	6" x 13-1/4" 6" x 18"	36" 46"	FINISHING BLADE Channel Mounted (Refer to Figure 6-20)	
75036	8" x 11"	30"	COMBINATION BLADE Bar Mounted (Refer to Figure 6-5)	
FC36 FC46	8" x 14" 8" x 18"	36" 46"	COMBINATION BLADE Screw Mounted (Refer to Figure 6-5)	
RC36 RC46	8" x 14" 8" x 18"	36" 46"	COMBINATION BLADE Channel Mounted (Refer to Figure 6-5)	
T631233 FF36 FF46	10" x 11-1/4" 10" x 13-1/4" 10" x 18-1/8"	30" 36" 46"	FLOAT BLADE ASSEMBLY Clip-On Mount	
24TP	Set of 24		Lock Pin for mounting channel blades (replaces bolts). Two Lock Pins per blade.	

Mounting Hardware is not included with these Blades.

ACCESSORIES

Part Number	Description
M11624-1	Grinding Head Hardware Kit, (1 Kit for 4 Blades) - Walk-behind units only, See Figure 6-21
56982	Coarse stone, 1" x 2" x 3", (3 per Blade Required) - Walk-behind units only, See Figure 6-21
57295	Fine Stone, 1" x 2" x 3", (3 per Blade Required) - Walk-behind units only, See Figure 6-21

Figure 6-11
SCREW MOUNTED BLADE
INSTALLATION F36/F46



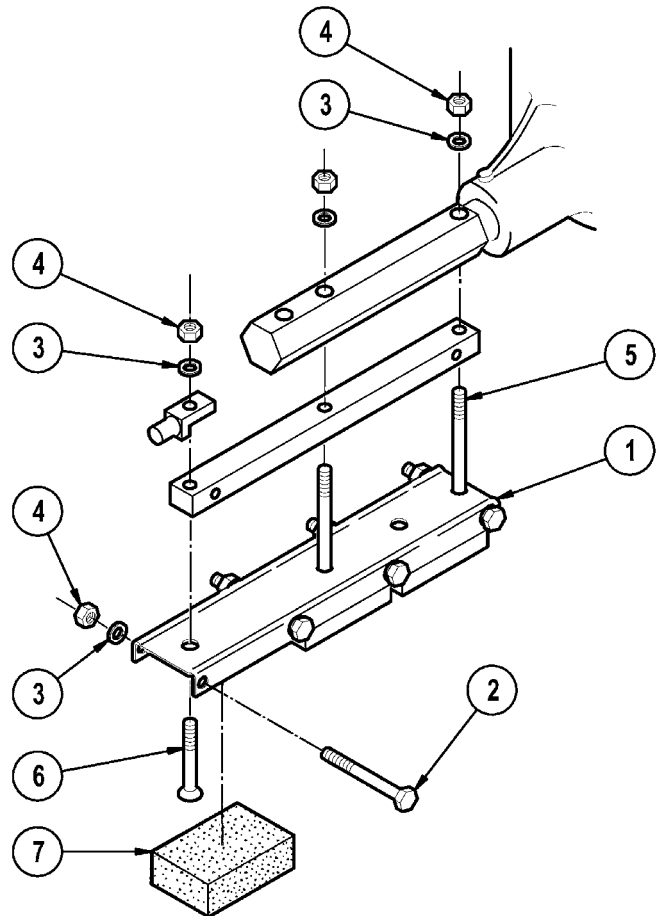
Key No.	Part No.	Qty.	Description
1	---	1	Blade, Screw Mounted (See figure 6-19)
2	M10576	1	Blade Bar, 36" Diameter
	M10577	1	Blade Bar, 46" Diameter
3	M46717	1	Blade Bar Spacer, F30 only
4	M29262-1	1	Pivot Block
5	M12372-4	2	Flat Hd Screw, 5/16-18 x 2-1/2"
6	FSC5-12C	1	Flat Hd Screw, 5/16-18 x 1-1/2"
7	NPC-5C	3	Hex Nut, 5/16-18
8	WLM-5C	3	Lockwasher, 5/16"
9	FH12	--	Hardware Kit (Includes Items 5 - 8)

Note: Quantities given are per blade.

Figure 6-12
GRINDING STONE INSTALLATION
F36/F46

Key No.	Part No.	Qty.	Description
1	M11086	1	Stone Clip
2	H5C5-22C	4	Hex Hd Screw, 5/16-18 x 2-3/4"
3	WLM-5C	7	Split Lockwasher, 5/16"
4	NPC-5C	7	Hex Nut, 5/16-18
5	FSC5-18C	2	Flat Hd Screw, 5/16-18 x 2-1/4"
6	FSC5-12C	1	Flat Hd Screw, 5/16-18 x 1-1/2"
7	56982	3	Course Stone
	57295	3	Fine Stone

Note: Quantities given are per blade.



DECAL LIST

Key No.	Part No.	Description
1	59870	Decal - Deadman Switch
2	76946	Decal - Throttle Speed
3	M5621	Plate - Serial Number
4	M28469	Decal - Caution-Lift Here Only
5	M29938	Decal - Read Instructions
6	M32063	Decal - Caution-Hot Muffler
7	M32117	Decal - Caution-Refuel
8	M32118	Decal - Caution-Moving Blades
9	M32684	Decal - Rotation
10	M45010	Decal - Arrow-Master
11	M46461	Decal - Hearing Protection
12	M48918	Decal - Model F30
	M48387	Decal - Model F36
	M48388	Decal - Model F46

**Complete F-Trowel Decal Kits
(Includes Items 1-12)**

Model F30	Model F36	Model F46
M48924	M48345	M46347