

OPERATOR'S MANUAL FOR MORSE 201B and 201BVS SERIES

A. IMPORTANT:

1. Review the Material Safety Data Sheet(s) for the material(s) in the drum(s) and take all necessary precautions. Safety shoes, work gloves, hard hat and other personal protective devices are recommended.
2. Please read all instructions *thoroughly* before attempting to operate your new MORSE portable drum rotator.
3. The model 201B drum speed of 10, 20, or 30 RPM was set at the factory according to customer's order specification. The drum speed is based on a 22" (56 cm) diameter fibre drum. The maximum liquid load capacity rating is 300 Lb. (136 kg). Dry load capacity varies with speed of drum rotation. 300 Lb. (136 kg) at 10 or 20 RPM, and 250 Lb. (113 kg) at 30 RPM. The model 201BVS has variable speed from 10 to 24 RPM. The capacities are the same as the 201B except the 250 Lb. dry load capacity applies at 24 RPM. The rotator will accept fibre drums 16" to 23" (41 to 59 cm) in diameter and up to 35" (89 cm) long.

WARNING - DO NOT exceed these ratings. **Exceeding these ratings or handling drums other than those mentioned above is unsafe and could result in equipment damage, excessive wear, motor overload and shortened service life of transmission components.**

4. When loading, unloading, operating, or maintaining your MORSE portable drum rotator, always use care and good judgment. Maintain secure footing and a firm hold. Keep hands and loose clothing away from all moving parts. Never allow anyone to be near a rotating drum. Read operating instructions and review the pictures in the sales brochure before operation.

Morse rotators do not comply with OSHA unless they are installed in accordance with OSHA subpart O, 1910.212 - "General requirements for all machines."

B. ASSEMBLY AND INSTALLATION INSTRUCTIONS:

1. Remove cotter pin (item 18) from hole in end of tipping lever (item 15). Slide lever through hole in back plate of rotator. Replace cotter pin in hole in end of tipping lever and spread its ends.
2. Drive and idler pulleys (item 34) may be adjusted for different length drums. Pulleys should remain equidistant from each end of drum. To adjust pulleys, loosen collar set screws with provided 5/32" Allen wrench. Slide collar/pulley assembly to desired location and tighten collar set screws.
Note: Be careful not to lose key (item 44) on drive pulleys.
3. Do *not* put into service without proper motor protection and controls. The ½ horse power, single phase 115V unit is supplied with a switch, cord and plug. The motor can be plugged into the wall power supply and started with the switch. When starting the unit be careful to stand clear of the rotator as the drum will begin to rotate.

Units ordered with a three phase or an explosion proof motor are not supplied with switch, cord, or plug. Customer should provide the proper controls and consult an electrician to complete the wiring.

Rotators equipped with an air motor require 40 psi, 22 scfm. *Operating the air motor at higher pressures will reduce the life of the air motor and power transmission components.*

DANGER - Stay Clear of Rotating Drum
NEVER allow anyone to be near any part of the rotating drum.
Operator should remain clear of the rotator.

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C. OPERATING INSTRUCTIONS:

1. Position rotator in front of drum to be rotated. Tip rotator forward towards drum until almost vertical. Lower kickstand so unit stands by itself. Tilt drum up slightly in order to slide nose piece of rotator underneath drum.
2. With tipping lever (item 15) fully extended for maximum leverage, attach hook lever (item 22) across top of drum on to the rim. Flip kickstand out of the way. Place foot on axle for added leverage and pull back on tipping lever until drum is broken over, remove foot and continue lowering until rotator and drum are horizontal. Remove hook lever from drum.
3. Slide drum positioner (item 54) through collars attached to frame. Place wear pad against drum to prevent lateral movement. Tighten collar set screws. Drum positioner can be adjusted for lengths up to 35" (89 cm).
4. Drum is now ready to be rotated or moved to desired location.
5. The speed on the 201BVS is preset to 10 RPM and can be adjusted by turning the crank located in the bottom right corner of the back plate. Turn the crank counterclockwise to increase the speed.

D. MAINTENANCE:

1. Pillow block bearings are equipped with grease fitting and should be lubricated periodically. High pressure grease guns are not recommended, as their force may damage seals.
2. Grease roller chain periodically with any sufficient grade of anti-sling grease (e.g. Whitmore lubes "surtac 2000").
3. Motors have permanently lubricated ball bearings.
4. Periodically inspect all moving parts, framework, and contact areas for signs of wear or loosening. Tighten, adjust, or replace parts as necessary to prevent failure and maintain proper function.

PARTS LIST FOR MORSE 201B and 201BVS SERIES

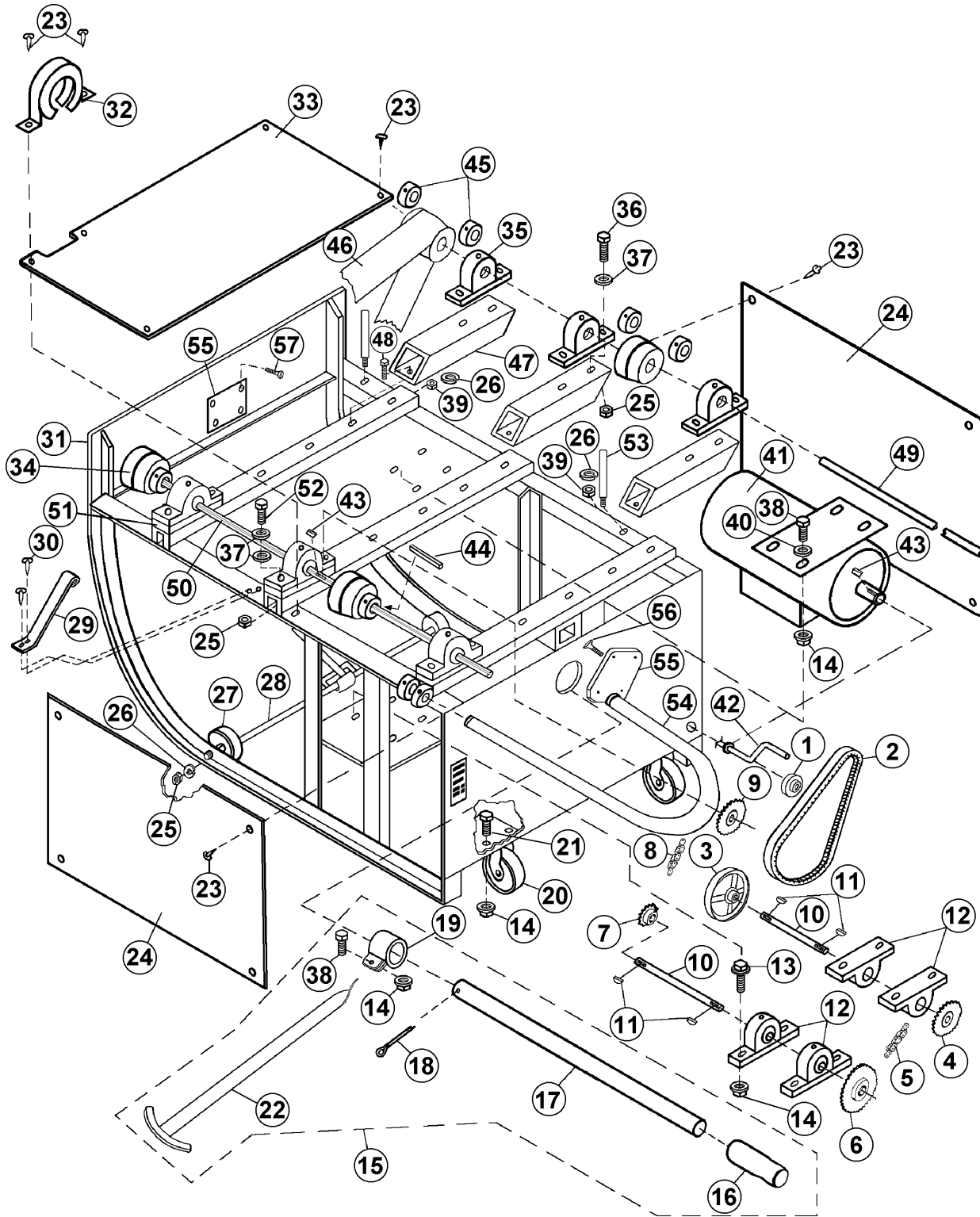
ITEM	MODEL **	MODEL SUFFIX	QTY	PART #	DESCRIPTION
10			2	194-P	JACK SHAFT, 201, 305 SERIES
11			4	735-P	KEY, WOODRUFF, SIZE 9, ASA606
12			4	186-P	BEARING, 5/8", PILLOW BLOCK
13			8	1635-P	5/16 - 18 X 1-1/4 WHIZ SCREW
14			21	1634-P	5/16 - 18 WHIZ - LOCK NUT
15			1	328-P	TIPPING LEVER CPT, 201B
16			1	83-P	HANDLE GRIP, 1-1/4 X 4-1/2
17			1	2873-P	HANDLE TUBE W/ HOLE, 201, 31
18			1	163-P	COTTER PIN, 3/16" X 2"
19			1	2694-P	HOOK SLIDE WELDMENT, 201B
20			2	198-P	CASTER 3" 14, 34, 201
21			8	1317-P	1/4 - 20 X 1/2" CARRIAGE BOLT
22			1	2696-P	HOOK LEVER WELDMENT, 201B
23			14	193-P	SCREW, TEK, 12-14 X 3/4" 3 PT
24			2	190-P	SIDE PLATE, 201 SERIES
25			14	1169-P	3/8 - 16 REV HEX LOC NUT
26			10	1474-P	WASHER, 3/8 SPLIT LOCK
27			2	210-P	WHEEL, MORTUF, 3" 1/2" BORE
28			1	199-P	AXLE- KICK STAND WELDMENT, 201
29			1	217-P	GROUNDING STRAP, 5154, 201
30			2	213-P	DRIVE SCREW, #7 X 5/16"
31			1	1848-P	FRAME WELDMENT, 201B SERIES
32			1	188-P	CHAIN GUARD WELDMENT, 201
33			1	190T-P	TOP PLATE, 201 SERIES
34			4	308-P	PULLEY, CROWNED, 2 HALVES
35			6	185-P	BEARING, 3/4", PILLOW BLOCK
36			6	1464-P	3/8 - 16 X 1-1/4 HHCS GR 2 STL
37			18	1166-P	WASHER, 3/8 USS
38			5	35-P	5/16 - 18 X 1 HHCS GR 2
39			8	149-P	3/8 - 16 FIN HEX NUT STL
40			4	1570-P	WASHER, 5/16 USS
41		-1	1	228-1-P	MOTOR, 1/2HP, RB, 1PH, TEFC
41		-3	1	228-3-P	MOTOR, 1/2HP, RB, 3PH, TEFC
41		-E1	1	228-E1-P	MOTOR, 1/2HP, RB, 1PH, EXP
41		-E3	1	228-E3-P	MOTOR, 1/2HP, RB, 3PH, EXP
41		-A	1	228-A-P	MOTOR, AIR, RB, 201, 305
42	201BVS		1	2532-P	SPEED ADJUSTER ASSEMBLY, 201VS
43			2	1326-P	KEY, SQUARE, 3/16 X 1"
44			2	581-P	KEY, SQUARE, 3/16 X 3-1/2 201B
45			8	15-P	COLLAR, 3/4" ID
46 *			2	246-P	BELT, ENDLESS, 2-1/2", 201B
47			3	184A-P	SPACER TUBE, IDLER BRG 201B
48			6	1572-P	3/8 - 16 X 1" HHCS GR 2 STL
49			1	197B-P	IDLER SHAFT 3/4" X 30" 201B
50			1	197BD-P	DRIVE SHAFT 3/4" X 30" 201B
51			3	1851-P	BEARING SHIM, 201B SERIES
52			6	155-P	3/8 - 16 X 2-1/2 HHCS GR 2 STL
53			2	1856-P	GUIDE, BELT POST, 201B
54			1	309-P	DRUM POSITIONER, REAR CPT 201B
55			2	327-P	WEAR PAD, UHMW, TIVAR, 201B
56			4	248-P	10 - 24 FHMS X 3/8"
57			4	4170-P	FHMS, SLOTTED, 10-24 X 1/4

* Recommended spare parts

** UNLESS OTHERWISE SPECIFIED , PARTS ARE FOR MODELS 201B, 201BVS.

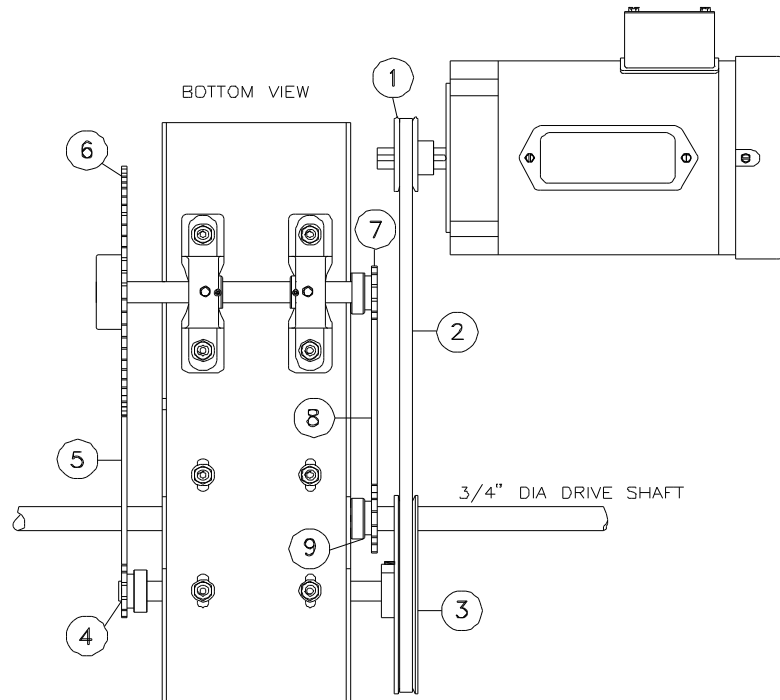
Website: www.MORSEmfgco.com

PARTS DIAGRAM FOR MORSE 201B and 201BVS SERIES



201 SERIES ROTATOR - SHEAVES & SPROCKETS				
ITEM	MOTOR	RPM	PART NUMBER	DESCRIPTION
1	AC	10, 20, 30	2937-P	SHEAVE, 2" X 5/8 BORE, 201
1	AC	VS	191-P	SHEAVE, 3-1/4 X 5/8, 201VS
1	AIR	10, 20, 30	2936-P	SHEAVE, 2" X 1/2 BORE, 201 AIR
1	AIR	VS	191-C-P	SHEAVE, 3-1/4 X 1/2, 201VS AIR
3	AC, AIR	10, 20, 30	2938-P	SHEAVE, 6" X 5/8 BORE, 201
3	AC, AIR	VS	191-A-P	SHEAVE, 6" X 5/8 BORE, 201VS
4	AC, AIR	10, VS	2543-P	SPROCKET #35 10T, 5/8" BORE
4	AC, AIR	20,30	2544-P	SPROCKET #35 12T, 5/8" BORE
6	AC, AIR	10, VS	2549-P	SPROCKET #35 60T, 5/8" BORE
6	AC, AIR	20	2547-P	SPROCKET #35 36T, 5/8" BORE
6	AC, AIR	30	2546-P	SPROCKET #35 24T, 5/8" BORE
7	AC, AIR	10, 20, 30	2544-P	SPROCKET #35 12T, 5/8" BORE
7	AC, AIR	VS	2543-P	SPROCKET #35 10T, 5/8" BORE
9	AC, AIR	10, 20, 30, VS	2550-P	SPROCKET #35 18T, 3/4" BORE

MOTOR



201 SERIES ROTATOR - BELTS & CHAINS				
ITEM	RPM	TAKES OFFSET LINK? (P/N 1846-P)	PART NUMBER	DESCRIPTION
2	10, 20, 30	N	2939-P	VEE BELT, COG, 201
2	VS	N	191B-P	VEE BELT, B SECTION, 201VS
5**	10, VS	N	2949-P	CHAIN, ROLLER, #35 78 PITCH
5**	20	N	2950-P	CHAIN, ROLLER, #35 66 PITCH
5**	30	Y	2951-P	CHAIN, ROLLER, #35 61 PITCH
8**	10, 20, 30	N	2948-P	CHAIN, ROLLER, #35 104 PITCH
8**	VS	N	2540-P	CHAIN, ROLLER, #35 70 PITCH

* Recommended spare parts

** ALL ROLLER CHAIN IS #35 (3/8 PITCH)

Note: DIAGRAM DEPICTS 10, 20 & 30 RPM CONFIGURATION (VS NOT SHOWN)