

**SAE** International®

**SURFACE  
VEHICLE  
STANDARD**

**SAE**

**J621 OCT2012**

Issued 1956-11  
Stabilized 2012-10

Superseding J621 MAR1995

Industrial Power Take-Offs With Driving Ring-Type Overcenter Clutches

RATIONALE

The technical report covers technology, products, or processes which are mature and not likely to change in the foreseeable future.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE IC Powertrain Steering Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAENORM.COM : Click to view the full PDF of J621-201210

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2012 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

**TO PLACE A DOCUMENT ORDER:** Tel: 877-606-7323 (inside USA and Canada)  
Tel: +1 724-776-4970 (outside USA)  
Fax: 724-776-0790  
Email: [CustomerService@sae.org](mailto:CustomerService@sae.org)  
http://www.sae.org

SAE WEB ADDRESS:

**SAE values your input. To provide feedback  
on this Technical Report, please visit  
[http://www.sae.org/technical/standards/J621\\_201210](http://www.sae.org/technical/standards/J621_201210)**

1. **Scope**—This SAE Standard defines installation dimensions of industrial power take-offs with driving ring-type overcenter clutches.

Table 1 and Figure 1 give dimensions for power take-offs. For dimensions and tolerances of power take-off flanges and flywheels, see SAE J617 and J620, respectively.

2. **References**

- 2.1 **Applicable Publications**—The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply.

- 2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J617—Engine Flywheel Housing and Mating Transmission Housing Flanges

SAE J620—Flywheels for Industrial Engines Used with Industrial Power Take-Offs Equipped with Driving Ring Type Overcenter Clutches and Engine-Mounted Marine Gears and Single Bearing Engine-Mounted Power Generators

SAENORM.COM : Click to view the full PDF of J621 - 2012-10

**TABLE 1A—DIMENSIONS FOR INDUSTRIAL POWER TAKE-OFFS WITH DRIVING RING-TYPE  
OVERCENTER CLUTCHES mm (in)**

B	B1	C <sup>(1)</sup>	D	E	F		G	H	J
					+0.000 -0.025	+(0.0000) -(0.0010)			
165 (6-1/2)	1	71.4 (2.81)	141.2 ( 5.56)	88.9 ( 3.50)	36.512 (1.4375)		(3/8 x 3/16)	22.4 (0.88)	114.3 ( 4.50)
190 (7-1/2)	1	71.4 (2.81)	141.2 ( 5.56)	88.9 ( 3.50)	36.512 (1.4375)		(3/8 x 3/16)	22.4 (0.88)	114.3 ( 4.50)
200 (8)	1	100.1 (3.94)	179.3 ( 7.06)	152.4 ( 6.00)	44.450 (1.7500)		(1/2 x 1/4)	58.7 (2.31)	127.0 ( 5.00)
255 (10)	1	100.1 (3.94)	218.9 ( 8.62)	139.7 ( 5.50)	57.150 (2.2500)		(5/8 x 5/16)	95.2 (3.75)	146.0 ( 5.75)
290 (11-1/2)	1	100.1 (3.94)	235.0 ( 9.25)	165.1 ( 6.50)	57.150 (2.2500)		(5/8 x 5/16)	95.2 (3.75)	146.0 ( 5.75)
290 (11-1/2)	2	100.1 (3.94)	244.3 ( 9.62)	165.1 ( 6.50)	63.500 (2.5000)		(5/8 x 5/16)	76.2 (3.00)	152.4 ( 6.00)
355 (14)	1	100.1 (3.94)	307.8 (12.12)	215.9 ( 8.50)	76.200 (3.0000)		(3/4 x 3/8)	95.2 (3.75)	168.1 ( 6.62)
355 (14)	2	100.1 (3.94)	349.2 (13.75)	254.0 (10.00)	88.900 (3.5000)		(7/8 x 7/16)	73.2 (2.88)	190.5 ( 7.50)
355 (14)	3	100.1 (3.94)	368.3 (14.50)	254.0 (10.00)	100.012 (3.9375)		(1 x 1/2)	73.2 (2.88)	190.5 ( 7.50)
405 (16)	2	100.1 (3.94)	374.6 (14.75)	254.0 (10.00)	100.012 (3.9375)		(1 x 1/2)	73.2 (2.88)	190.5 ( 7.50)
405 (16)	3	100.1 (3.94)	423.9 (16.69)	254.0 (10.00)	100.012 (3.9375)		(1 x 1/2)	73.2 (2.88)	190.5 ( 7.50)
460 (18)	1	100.1 (3.94)	374.6 (14.75)	254.0 (10.00)	100.012 (3.9375)		(1 x 1/2)	73.2 (2.88)	190.5 ( 7.50)
460 (18)	2	100.1 (3.94)	423.9 (16.69)	254.0 (10.00)	100.012 (3.9375)		(1 x 1/2)	73.2 (2.88)	190.5 ( 7.50)
460 (18)	3	100.1 (3.94)	463.6 (18.25)	254.0 (10.00)	114.300 (4.5000)		(1 x 1/2)	47.8 (1.88)	254.0 (10.00)
530 (21)	1	100.1 (3.94)	419.1 (16.50)	254.0 (10.00)	114.300 (4.5000)		(1 x 1/2)	73.2 (2.88)	241.3 ( 9.50)
530 (21)	2	100.1 (3.94)	457.2 (18.00)	254.0 (10.00)	120.650 (4.7500)		(1-1/4 x 5/8)	79.2 (3.12)	254.0 (10.00)
530 (21)	3	100.1 (3.94)	505.0 (19.88)	254.0 (10.00)	120.650 (4.7500)		(1-1/4 x 5/8)	69.8 (2.75)	279.4 (11.00)
610 (24)	1	100.1 (3.94)	501.6 (19.75)	254.0 (10.00)	114.300 (4.5000)		(1 x 1/2)	73.2 (2.88)	241.3 ( 9.50)
610 (24)	2	100.1 (3.94) <sup>(2)</sup>	515.9 (20.31)	254.0 (10.00)	120.650 (4.7500)		(1-1/4 x 5/8)	79.2 (3.12)	254.0 (10.00)

1. °C is from face of flywheel housing to bottom of pilot bore in flywheel.

2. 133.4 (5.25) optional—this will decrease D by 33.3 (1.31).

**TABLE 1B—DIMENSIONS FOR INDUSTRIAL POWER TAKE-OFFS WITH DRIVING RING-TYPE  
OVERCENTER CLUTCHES mm (in) (CONTINUED)**

B	B1	N	O	T	U	SAE No., Flywheel Housing 6	SAE No., Flywheel Housing 5	SAE No., Flywheel Housing 4	SAE No., flywheel Housing 3	SAE No., Flywheel Housing 2	SAE No., Flywheel Housing 1	SAE No., Flywheel Housing 1/2	SAE No., Flywheel Housing 0	SAE No., Flywheel Housing 00
165 (6-1/2)	1	15.00 (0.591)	52.000 (2.0472)	1.5 (0.06)	25.4 (1.00)	.	.	. <sup>(1)</sup>	—	—	—	—	—	—
190 (7-1/2)	1	15.00 (0.591)	52.000 (2.0472)	1.5 (0.06)	25.4 (1.00)	.	.	. <sup>(1)</sup>	—	—	—	—	—	—
200 (8)	1	17.00 (0.669)	62.000 (2.4409)	1.5 (0.06)	25.4 (1.00)	—	. <sup>(2)</sup>	.	—	—	—	—	—	—
255 (10)	1	30.18 (1.188)	72.000 (2.8346)	1.5 (0.06)	25.4 (1.00)	—	—	.	.	.	.	—	—	—
290 (11-1/2)	1	30.18 (1.188)	72.000 (2.8346)	1.5 (0.06)	25.4 (1.00)	—	—	—	.	.	.	—	—	—
290 (11-1/2)	2	30.18 (1.188)	72.000 (2.8346)	1.5 (0.06)	25.4 (1.00)	—	—	—	—	.	.	—	.	—
355 (14)	1	34.92 (1.375)	80.000 (3.1496)	3.0 (0.12)	25.4 (1.00)	—	—	—	—	.	.	.	.	.
355 (14)	2	34.92 (1.375)	80.000 (3.1496)	3.0 (0.12)	25.4 (1.00)	—	—	—	—	.	.	.	.	.
355 (14)	3	39.67 (1.562) <sup>(3)</sup>	100.000 (3.9370) <sup>(3)</sup>	3.0 (0.12)	25.4 (1.00)	—	—	—	—	.	.	—	.	—
405 (16)	2	39.67 (1.562)	100.000 (3.9370)	3.0 (0.12)	25.4 (1.00)	—	—	—	—	—	—	—	.	—
405 (16)	3	39.67 (1.562)	100.000 (3.9370)	3.0 (0.12)	25.4 (1.00)	—	—	—	—	—	—	—	.	.
460 (18)	1	39.67 (1.562)	100.000 (3.9370)	3.0 (0.12)	25.4 (1.00)	—	—	—	—	—	.	.	.	.
460 (18)	2	39.67 (1.562)	100.000 (3.9370)	3.0 (0.12)	25.4 (1.00)	—	—	—	—	—	.	.	.	.
460 (18)	3	49.23 (1.938) <sup>(3)</sup>	120.000 (4.7244) <sup>(3)</sup>	3.0 (0.12)	31.8 (1.25)	—	—	—	—	—	—	—	.	.
530 (21)	1	53.98 (2.125)	130.000 (5.1181)	3.0 (0.12)	31.8 (1.25)	—	—	—	—	—	—	—	—	.
530 (21)	2	53.98 (2.125)	130.000 (5.1181)	3.0 (0.12)	31.8 (1.25)	—	—	—	—	—	—	—	—	.
530 (21)	3	53.98 (2.125)	130.000 (5.1181)	3.0 (0.12)	31.8 (1.25)	—	—	—	—	—	—	—	—	.
610 (24)	1	49.23 (1.938) <sup>(3)</sup>	120.000 (4.7244) <sup>(3)</sup>	3.0 (0.12)	31.8 (1.25)	—	—	—	—	—	—	—	—	.
610 (24)	2	53.98 (2.125)	130.000 (5.1181)	3.0 (0.12)	31.8 (1.25)	—	—	—	—	—	—	—	—	.

1. Requires a flywheel housing and flywheel to provide a 71.4 (2.81) E dimension per SAE J617.
2. Requires a flywheel housing and flywheel to provide a 100.1 (3.94) E dimension per SAE J617.
3. Sizes to match flywheels per SAE J620 are also available.

SAENORM.COM : Click to view the full PDF of J621 - 201210